City of Greater Sudbury 2001 Urban Soil Survey

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Report No. SDB-008-3511-2003
July 2004

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Ontario

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Acknowledgments

This document represents the largest sampling program ever undertaken by the Ontario Ministry of the Environment (MOE) for any community in Ontario, with approximately 770 properties sampled, 7,000 samples collected, and approximately 150,000 laboratory analyses completed. This document could not have been produced without the hard work and dedication of the many people outlined below.

The Sudbury Soils Study was co-ordinated by the Northern Region of the MOE. This team included Brian McMahon as the supervisor, as well as, Maxine Kasper, Ron Paolin, Kathy McDonald, Suzanne Arsenault, Brian Cameron and Nicole Catojo. Sample collection, data management and report preparation was completed by Phytotoxicology Unit scientists of the Environmental Monitoring and Reporting Branch (EMRB) of the MOE.

Our field crew worked tirelessly, under sometimes adverse conditions, to complete all of the sampling in just one field season (5 months). A big thank you to an amazing sampling crew including Aden Takar, Taskin Shirazi, Claire Hanlon, Tim Lanthier and lead investigators Laura Fiore and Randall Jones of EMRB and from the Northern Region, Cindy Mann, Maureen Spinney, Jonathon Roy, Marc Donato, Derek McDonald, Shelly Wainio, Shelley Baggio, investigator John Negusanti and all others on short term contracts.

Once samples were collected, they were sent to the EMRB - Phytotoxicology processing lab in Toronto. Thank you to Debbie Terry, Danuta Roszak, and Jennifer Newman, as well as Aden, Taskin, Claire and Tim for all your hard work. Due to the large volume of samples collected, a large portion of our soil samples were processed externally at Agat Laboratories in Toronto under the direction of Jackie Takeuchi. Once samples were processed, soil samples were submitted to Lakefield Research Laboratory for analysis under the direction of Teresa Switzer. All produce samples and some soil samples were analyzed internally by the MOE Laboratory Services Branch (LSB) under the direction of Rusty Moody. A special thank you must go to Rusty for also performing quality control verification on all Lakefield data. Thank you as well to Bill Tobin of LSB for his assistance in laboratory quality control.

Once all of the samples had been analyzed and reported, the writing process began. With so much data being moved and manipulated electronically, manual verification was necessary once all of the tables had been made. Thank you to Leilani Bhatty of Standards Development Branch (SDB) for accomplishing the majority of this daunting task. Thanks also to David Singh of LSB for assistance in technical editing and proof reading. Thank you to Barry Zajdlik of Zajdlik & Associates for providing statistical analysis of the soil and produce data base.

Preparation of this report was a group effort by all four authors: Randall Jones, Laura Fiore, Kyle Davis and Catherine Eby. This document was thoroughly reviewed by the Northern Region Sudbury Soils Team, George Crawford, Ian Smith, Dave McLaughlin, Dale Henry, Mary Ellen Starodub and Paul Welsh of SDB & EMRB, Sudbury Medical Officer of Health Dr. Penny Sutcliffe, Sudbury Technical Committe (TC), Sudbury Public Advisory Committee (PAC)and the SARA Consultants group.

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1.0 INTRODUCTION

The Ontario Ministry of the Environment (Ministry or MOE) report entitled *City of Greater Sudbury 2001 Urban Soil Survey* is a comprehensive discussion of all soil and produce data that was collected by the Ministry in the City of Greater Sudbury during the period of July to November of 2001. Individual appendices have been prepared with full descriptions and results for sampling of residential property soil and vegetable gardens, schools and daycares, municipal parks, market gardens, commercial berry producers, and wild blueberry patches. All data presented in this report will contribute to the human health and ecological risk assessments that are currently underway in the City of Greater Sudbury.

1.1 Objectives of Study

1) To provide a screening level assessment of metal and arsenic concentrations in the upper 20 centimetres of soil within the City of Greater Sudbury;

2) To determine if localized areas of higher metals and arsenic concentrations exist in the upper 20 centimetres of soil within the City of Greater Sudbury;

3) To determine if metal and arsenic concentrations change with depth in the upper 20 centimetres of soil, in order to identify if element concentrations are related to aerial deposition from smelter emissions in the City of Greater Sudbury;

4) To determine the strength of relationships between metal and arsenic concentrations in the upper 20 centimetres of soil within the City of Greater Sudbury in order to identify if element concentrations are related to smelter emissions;

5) To identify metal and arsenic concentrations in produce grown within the City of Greater Sudbury, in order to support exposure estimates for the human health risk assessment;

6) To identify additional work that may be appropriate to support the Human Health Risk Assessment (HHRA) and the Environmental Risk Assessment (ERA) based upon this screening level study.

2.0 SCOPE OF STUDY

The scope of this study was to obtain soil chemical data to fill data gaps remaining following the review of the Ontario Ministry of Environment report *Metals in Soil and Vegetation in the Sudbury Area (Survey 2000 and Additional Historic Data) - September 2001.* Based on this report, it was determined that additional sampling and further action was warranted with regards to Sudbury residential and publically- accessible urban green spaces and communities adjacent to the three smelting centres of Copper Cliff, Coniston, and Falconbridge.

The purpose of this extensive sampling program was to fill the knowledge gaps with screening level information. The scope of the sampling program was not to exhaustively characterize the soil metal status of all possible sample sites, rather it was to collect soil data that was representative of each sampled property. The need for further and more intensive sampling will be decided by the consultants carrying out the human health and ecological risk assessments in consultation with the

Ministry. The sampling program is described in more detail in Section 5.0.

The soil sampling conducted by the Ministry was not the only sampling that was conducted to characterize the contaminant status within the City of Greater Sudbury in 2001. Over the summer and fall of 2001, Inco Limited and Falconbridge Limited collected surface soil samples in remote areas around the Sudbury basin in an attempt to 1) confirm the local background concentrations for the contaminants of concern, and 2) accurately determine the spatial extent of the metal and arsenic deposition associated with the mining and smelting activities, having defined local background. Over the same time period, the companies also characterized the soil contaminant status of their land holdings in areas adjacent to residential communities.

The soil information obtained from the 2001 sampling program, in conjunction with the data from *Metals in Soil and Vegetation in the Sudbury Area (Survey 2000 and Additional Historic Data)* (MOE 2001) and the extensive existing Sudbury environmental data base, form the essential building blocks upon which an ecological and human health risk assessment for impacted communities in the City of Greater Sudbury will be developed.

3.0 BACKGROUND

3.1 Ontario Ministry of the Environment Investigations

Between the years 1938 and 2001, various Ontario government departments and agencies have conducted numerous investigations to document the impact of Inco and Falconbridge's emissions on vegetation and soil in and around the Sudbury Basin (Balsillie, *et al* 1978, Dreisinger 1970, McIlveen, *et al* 1979, McIlveen, *et al* 1984, ODM 1964, MOE 1973, MOE 1975, MOE 1978, MOE 1979, MOE 1984, MOE 1985, MOE 1990, MOE 2001). During the early years, these investigations were mainly concerned with sulphur dioxide injury to crops and native vegetation, in particular white pine. In the early 1970's, the Ministry established two long term studies in the Sudbury region to look at the impacts of emissions from the Inco and Falconbridge operations on native vegetation and soil chemistry. All of the sampling locations for these studies were established in undeveloped rural locations. In 1998 the number of sampling locations was expanded to better determine the extent of the impact of emissions on surface soil chemistry. While many of the new sampling locations were in the urban part of the City of Greater Sudbury, they were all on undeveloped land. There were other smaller investigations conducted in the Sudbury area by the Ministry over this time period, but there was not any systematic soil sampling of the developed urban areas in Sudbury.

The Ministry investigations concluded that emissions from over half a century of processing nickel ores had resulted in elevated levels of metals and arsenic in soil in various locations throughout the Sudbury area. Nickel, copper and cobalt concentrations in surface soil (0 - 5 cm depth) were elevated in rural areas adjacent to the companies and for a considerable distance downwind (east-northeasterly) of the smelting operations to levels which could or did cause injury to vegetation (phytotoxicity). The observed severe vegetation impacts, mainly caused by sulphur dioxide fumigations, generally affected farm crops and white pine east of Inco. The MOE 2001 report, in which the bulk of the two long term study results were reported, identified the lack of urban soil chemistry data for the Sudbury region and recommended that a systematic sampling program be carried out to properly characterize the urban soil in Sudbury.

4.0 MOE SOIL GUIDELINES

Throughout this document the results of the soil chemical analysis are compared to the MOE *Guideline for Use at Contaminated Sites in Ontario* (MOE 1997) Table A and Table F soil criteria. A brief description of the Table A and F soil criteria is given below.

4.1 MOE Ontario Soil Background Criteria (Table F)

The numbers listed as being "Ontario Soil Background Criteria", or Table F, are derived from the MOE document *Ontario Typical Range (OTR) of Chemical Parameters in Soil, Vegetation, Moss Bags and Snow* (MOE 1993c). The actual OTR_{98} values are the 98th percentile of the concentrations of various chemical parameters detected in background soil in Ontario. These chemical data were derived from a province-wide soil sampling program conducted to determine the range of background chemical concentrations in surface soil in Ontario resulting from natural geological processes and human activity but remote from the influence of known point sources of pollution. Soils were analyzed for approximately 39 inorganic and 119 organic parameters. Complete details on the OTR background development process can be found in the MOE report *Ontario Typical Range of Chemical Parameters in Soil, Vegetation, Moss Bags and Snow* (MOE 1993c). The Table F background-based generic soil criteria in the *Guideline for Use at Contaminated Sites in Ontario* are derived from the OTR_{98} values. For most elements and chemicals, the Table F generic guideline is the OTR_{98} plus two Coefficients of Variation. The resulting Table F values tend to be higher than the OTR_{98} values, although there are exceptions. The exceptions occur when the generic effects-based Table A guideline is less than the OTR_{98} number, in which case both the Table A value and the Table F value are set at the OTR_{98} value. Details of the generic background-based Table F soil criteria development process can be found in the MOE report *Guideline for Use at Contaminated Sites in Ontario* (MOE 1997).

Soil concentrations above the Table F background levels are likely indicative of the impact of a local pollution source. Although, in some cases Table F exceedences may be the result of local geological deposits.

4.2 MOE Soil Remediation Criteria (Table A)

The MOE soil remediation criteria have been developed to provide guidance in assessing and triggering certain decisions for soils that have elevated soil concentrations. These criteria are not action levels, in that exceeding one or more of the criteria does not automatically mean that a clean-up must be conducted, but that further study of the potential human and/or ecological risks is warranted.

Consideration of the following factors is required when the criteria are exceeded:

- a demonstrated presence or likelihood of an adverse effect to human health and/or the natural environment;

- an understanding of the type of protection provided by the criteria gained through knowledge of the exposure pathways and receptors (i.e. humans, animals, plants) which were considered in the development of the criteria, and a thorough understanding of how that combination of pathways and receptors relate to those which could be found in the community;

- local environmental conditions that are known to modify chemicals availability and toxicity; and

- an understanding of the relationship between dose and health response for sensitive receptors from all exposure pathways, including the safety and uncertainty factors that have been used in the development of the criteria.

In each case, the decision-making process should consider all of these factors plus any additional factors specific to the community in question. When the decision is made that action is needed, it is generally accepted that a human health and/or ecological risk assessment(s) are required to assess the level of risk to the community, identify the major contributing factors to risk, and, if warranted, develop intervention levels for remediation.

The soil remediation criteria are effects-based concentrations set to protect the most sensitive receptor against the potential for adverse effects to human health, ecological health, and/or the natural environment. The most sensitive receptor is often a plant or soil dwelling animal. The assumption is that by protecting the most sensitive receptor and the most sensitive endpoint that the rest of the environment will be protected. There are different criteria for land use, soil texture, soil depth, and groundwater use. The criteria have also been established so that there will not be a potential for adverse effects from chemicals transferred from soil to indoor air, from groundwater or surface water through release of volatile gases, from leaching of chemicals in soil to ground water, or from groundwater discharge to surface water.

Currently there are criteria for approximately 25 inorganic elements and 90 organic compounds. Criteria were developed only if there were sufficient, defendable, effects-based data on the potential to cause an adverse effect. The development of Soil Remediation Criteria is a continuous program and criteria for more elements and compounds will be developed as additional environmental data become available. Similarly, new information could result in future modifications to the existing criteria.

For more information, please refer to the MOE report *Guideline for Use at Contaminated Sites in Ontario* (MOE 1997).

5.0 METHODS

This section has been organized into four sections: 5.1 Soil Sampling Methods; 5.2 Produce Sampling Methods; 5.3 Data Analysis Methods; and 5.4 Laboratory Processing and Analysis Methods

5.1 Soil Sampling Methods

In this document we define three main types of soil samples; Soil, Sand and Gravel.

The Soil sample type consisted of soil material (less than 2 millimetres (mm) in diameter), ranging in texture from sand to silty clays, on which grass, vegetables or berries were growing. This group was further subdivided into Urban Soil (developed, grassed areas), Urban Garden Soil (residential vegetable gardens), Agricultural Soil (commercial market garden and berry farms) and Undisturbed

Natural Soil (undeveloped, naturally vegetated areas).

The Sand sample type was subdivided into Play Sand and Beach Sand. Play Sand was the material used around play structures (i.e. swings, slides, etc.), in sand boxes, and in long jump pits found in schools, daycares, and parks. Generally, this material originated off-property and was brought in for landscaping purposes. Beach sand, on the other hand, tended to be naturally occurring and was collected from the parks that had beaches.

The Gravel sample type was subdivided into Crushed Stone and Playground Gravel. Crushed stone, usually limestone, was used extensively for baseball diamond infields. This was a white to grey material, generally no larger than 5 mm in diameter, and contained a large proportion of very fine material. Playground Gravel was used in a number of school playgrounds and consisted of stones approximately 10 - 12 mm in diameter underlaid by fine powder mixed with soil. In the case of playground gravel it was the fine powder mixed with soil that was sampled. Both crushed stone and playground gravel generally originated off-property and were brought in for landscaping purposes.

The sand and gravel sample types were collected in addition to the soil sample type as these materials were observed extensively throughout the City of Greater Sudbury at schools and parks and tended to be substantially different in physical structure than the adjacent urban soil. Sand and gravel, unlike grass covered urban soil, can come in direct contact with skin, thereby increasing the risk of exposure.

For all soil sample types, a hand-held soil corer was utilized to collect a minimum of fifteen soil cores along a grid, “W”, or “X” pattern that was applied to a designated sampling area representative of the property. Refer to Appendices A, B and C. The size of each designated sampling area varied between sampling locations due to the variation in property size. Each soil core was divided into three depth intervals (0 - 5 cm, 5 - 10 cm and 10 - 20 cm) and the fifteen core sections for each of the three sample depths (e.g., 0 - 5 cm) were placed in one labelled polyethylene bag. The fifteen core sections per bag per designated sampling area are referred to as a composite soil sample. A duplicate soil sample was collected by performing the soil sampling procedure a second time across the same designated sampling area. It should be noted that the third depth interval (10 - 20 cm) was double the sample volume of the other two depth intervals. This should be taken into consideration when interpreting the data.

Generally, soil samples (soil, sand or gravel) were not collected within one metre of driveways, walkways, building structures, fences and/or debris to reduce the likelihood of encountering local sources of elevated concentrations (e.g., driveway spills, eroded paint from painted surfaces). Prior to sampling, authorization was obtained from all property owners and landscaping information was requested. Residential yards were discrete sampling areas usually separated by physical structures such as driveways, fences, and buildings, while school and park play areas were indicated by goal posts and/or other physical structures.

5.1.1 Residential Properties and Gardens

During the months of September and October of 2001, Ministry representatives collected soil from front and back yards of 51 properties in Falconbridge, 75 properties in Coniston, and 74 properties in Copper Cliff. Soil samples were also collected from front or back yards from 239 properties throughout the City of Greater Sudbury. A front and back yard were usually identified and sampled separately at each property while on some properties a side yard was also included. All samples were collected in duplicate and at three depths, 0-5 cm, 5- 10 cm., and 10 - 20 cm, where possible according to Ministry protocols (MOE 1993).

5.1.2 Schools and Daycares

During the month of July 2001, MOE representatives collected soil, play sand, crushed stone, and gravel samples from each school and daycare within the City of Greater Sudbury. At each site, samples were collected in duplicate from child play areas and especially from areas where school children could come in direct contact with bare soil. Samples were collected in different ways from different locations as described below. The sampling location and pattern of sampling is indicated on each school map attached in Appendix B. The school maps are provided to indicate the sampling locations on the property and may not be spatially accurate.

Gravel playgrounds, containing slag in some instances, were prevalent at schools within the older urban areas of the City of Greater Sudbury. Since this was the only area for school children to play, duplicate samples were collected from the gravel playground by pushing aside the larger stones and, with a trowel, scraping the underlying fine gravel material. All samples were collected while walking in an “X” pattern across the gravel playground. For this type of sampling, the purpose was to collect the fine particles that would be airborne when school children run and/or slide on the gravel.

Sand samples were collected from sanded play areas including those with play structures and sand boxes. Due to the constant mixing of sand and the homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. In most cases, one sample was collected from the interior of the play area in an “X” pattern below the play structure, while the other sample was collected from the perimeter of the sanded play area adjacent to the pressure treated wood border and/or soil. This type of sampling should indicate if there is an effect from either the pressure treated wood border and/or surrounding soil to the interior of the play area. If there was no wooden border, both sand samples were collected from the interior of the sanded play area in an “X” pattern. In most cases, duplicate sand samples were collected; however, at some locations single sand samples were collected.

Soccer and football fields were sampled in duplicate with a hand held soil corer in an “X” pattern over the entire length of the field. Cores were separated into three depths, 0-5 cm, 5 - 10 cm, and 10 - 20 cm where possible. In addition, duplicate samples were taken in any worn area where bare soil was visible; most predominately at soccer goal posts and centre field. Due to the compacted nature of these areas, surface soil samples were taken with a trowel to represent the 0-5 cm depth.

Baseball diamond infields were in most cases crushed stone and very compacted. Therefore, duplicate surface samples were taken with a trowel. In most cases, one surface sample was collected while walking along the baseline, while the other was collected while walking an “X” pattern from

home base to 2nd base and from 1st to 3rd base. This type of sampling should indicate if there is an effect of the chalk lines applied to the baseline compared to the interior of the infield.

Baseball diamond outfields were sampled in duplicate with soil corers in an "X" or "W" pattern. Cores were separated into three depths, 0-5 cm, 5 - 10 cm, and 10 - 20 cm where possible. Where the infield was grassed, samples were collected with a soil corer either as a separate site or combined with the baseball diamond outfield.

Sand from long jump pit landing sites was sampled in duplicate in an "X" pattern. A hand trowel was used to sample the 0 - 15 cm layer due to the constant mixing of the sand in this location.

Samples were also taken from any grassed greenspace area where school children would play. Cores were separated into three depths, 0-5 cm, 5 - 10 cm, and 10 - 20 cm where possible.

Outdoor ice rinks were not sampled based on the premise that they would only be used when the soil was covered by ice. The remaining paved areas were not sampled.

5.1.3 Parks and Sports Complexes

During the months of September and October 2001, MOE representatives collected soil, and sand samples from major parks and sports complexes within the City of Greater Sudbury. At each site samples were collected in duplicate from play areas and especially from areas where young children could come in direct contact with bare soil. Samples were collected in different ways from different locations as described below. The sampling location and pattern of sampling is indicated on each park map in Appendix C, Section C4.

Sand samples were collected from beneath play structures and/or beach areas. Due to the constant mixing of sand and homogenous nature of the sanded areas, sand samples were collected with hand trowels or corers to represent the 0-15 cm depth. Duplicate samples were collected in a reproducible and representative manner of the sanded areas (i.e. "X" pattern)

Soccer and football fields were sampled in duplicate with a soil corer in an "X" pattern of the entire length of the field. Cores were separated into three depths, 0-5 cm, 5 - 10 cm, and 10 - 20 cm where possible. In addition, duplicate samples were taken in any worn area; most predominately at soccer goal posts and centre field. Due to the compacted nature of these areas, surface soil samples were taken with a trowel.

Baseball diamond infields were in most cases crushed stone and very compacted. Therefore, duplicate surface samples were taken with a trowel or corer while walking along the baseline. Baseball diamond outfields were sampled in duplicate with soil corers in an "X" or "M" pattern. Cores were separated into three depths, 0-5 cm, 5 - 10 cm, and 10 - 20 cm where possible. Where the infield was grassed, samples were collected with a soil corer either as a separate site or combined with the baseball diamond outfield.

Samples were also taken from any grassed area where school children would play. Cores were separated into three depths, 0-5 cm, 5 - 10 cm, and 10 - 20 cm where possible.

Outdoor ice rinks were not sampled based on the premise that they would only be used when the soil

was covered in ice. The remaining paved areas were not sampled.

5.2 Produce Sampling Methods

Produce sampling was conducted by Ministry staff from residential gardens, commercial market gardens, commercial berry farms and wild blueberry patches within the City of Greater Sudbury for preliminary screening purposes only. Sample types collected included root vegetables, fruit vegetables, leafy vegetables and berries. Duplicate samples were collected where available. All produce samples were kept on ice during transportation and shipping.

Interpretation of the produce results was based on comparisons with data from the following control locations: 2 control locations for raspberries, 1 control location for strawberries and blueberries, and 1 market garden control station. No control locations were available for residential gardens. Control sites were chosen based on current knowledge of the range and extent of elevated soil metal levels in the Sudbury area and were located approximately 125 km and 245 km west and 70 km northwest of the Copper Cliff superstack.

5.2.1 Residential Gardens

During the period of August and September of 2001, garden produce and soil samples were collected at a subset of the residential properties sampled in five of the local communities. Nine gardens were sampled in Falconbridge, 15 gardens in Coniston, 9 gardens in Copper Cliff, and 3 gardens each in Gatchell and Lively. Due to the small size of the residential gardens, only single samples of each vegetable were collected. Garden soil samples were collected in duplicate as a 0-15 cm core to represent the homogenous nature of the cultivated area.

5.2.2 Market Gardens, Commercial Berry, and Wild Blueberry Sampling

During the period of July and August of 2001, soil and produce samples were collected from 7 commercial berry farms, 3 wild blueberry patches, and 6 commercial market garden produce growers within the City of Greater Sudbury. At each site produce was collected in duplicate if enough produce was available and soil was collected from the vicinity in which the produce was grown. Soil was sampled in duplicate and since these areas are cultivated on a regular basis, soil cores of 0 - 15 cm were taken (MOE 1993). In areas with shallow bedrock, soil samples of 0 - 10 cm were taken. It should be noted that most berry samples, especially strawberries and raspberries, were collected late in the season and were therefore extremely ripe. In order to collect samples large enough for duplicate analysis it was necessary to sample from large areas of the farms, some of which had closed for the season.

5.3 Data Analysis Methods

Data analysis within this document was accomplished using various statistical methods including descriptive statistics, exceedences of applicable Ministry guidelines, spatial distribution of chemical concentrations, concentration depth profiles, and statistical correlations between elements. Chemical concentrations that were below analytical method detection limits (MDL) were tabulated as one half of the MDL for data analysis.

Descriptive statistics were generated to summarize the data and included: minimum, maximum,

mean, median, geometric mean, 10th and 95th percentiles, quartile concentrations, standard deviation, coefficient of variation, kurtosis, skewness, and upper and lower confidence intervals for the mean. Each data set included replicate sample results from each sampling location. The replicate sample results were not averaged for this analysis.

Percentiles were calculated by sorting the data from the highest to lowest concentration and then calculating the value of which *x*% of the data was below. For example, the median is the 50th percentile and therefore, half of the data would fall below the median value. The quartiles are the 25th, 50th and 75th percentiles. These values divide the data set into four equal sections. A mean or arithmetic mean is the arithmetic average of the non-transformed data set. The geometric mean is the back-transformed mean of the logarithmically transformed data set. This means that after the data set is logarithmically transformed, the mean of the log transformed data is calculated and then this mean is transformed back into the original scale. Generally, the geometric mean is less then the arithmetic mean.

Standard deviation is a measurement of the spread or variation in the data set. The more widely spread the data set, the larger the standard deviation. Coefficient of variation measures the spread of a data set as a proportion of the mean. It is defined as the standard deviation divided by the mean and is expressed as a percentage. Upper and lower confidence limits for the mean provide a range of values, with an associated level of probability, within which the actual population mean will be located.

Skewness and kurtosis are two measures of the deviation of the data distribution from normality. Skewness measures the symmetry of the distribution. The data distribution is said to be skewed when one tail of the curve is extended farther than the other. A skewness value of 0 indicates the data distribution is symmetrical and therefore normal while a skewness value different from 0 indicates that the distribution is asymmetrical and therefore non-normal. Kurtosis measures the "peakedness" or height of a data distribution curve. A kurtosis value for a normal distribution is 0 and if the kurtosis value deviates from 0, then the distribution is either more flat or more peaked than a normal distribution.

Concentrations for each community grouping were compared to the MOE Table F and A guidelines. Exceedences of these guidelines were highlighted and discussed. Each data set included replicate sample results from each sampling location. The replicate sample results were not averaged for this analysis. As discussed in Section 4.1, the Table F guidelines represent background soil concentrations obtained from a MOE province-wide parkland sampling program. As discussed in Section 4.2, the Table A soil guidelines are effects-based and were derived to protect both human health and the natural environment, whichever is potentially affected at the lowest concentration.

Spatial distribution of chemical concentrations in the urban soil data was assessed using concentration dot maps. The concentration dot maps include urban soil sampling locations only. All sample locations were rounded to the nearest 100 metres. The dots represent replicate soil sample results from each sampling location, and were not averaged. A dot represents a range of concentrations, with the dot size increasing as chemical concentrations increase. Dot colours were used to help differentiate between dot size. The MOE Table F and A concentrations were used as the upper limit of concentration ranges where possible in the concentration dot maps. Other concentration ranges were selected to help illustrate trends in the spatial distribution of chemical concentrations. Station location maps were also created and include all sand, gravel and soil (urban,

urban garden, agricultural and undisturbed natural soil) sampling locations.

Depth profiles were created to illustrate the change in chemical concentrations for each element between different depth intervals. With aerial deposition of metals and arsenic onto soil there is a pattern of decreasing concentration with increasing soil depth. Elements will migrate to lower depths at varying rates, depending on several factors including element chemistry and form, soil characteristics, climate, and period of exposure. Urban soil samples were collected at three depth intervals, 0 - 5 cm, 5 - 10 cm and 10 - 20 cm, where possible. For analysis purposes, the sample replicates at each sampling location were averaged at each depth for all elements. It should be noted that the third depth interval (10 - 20 cm) was double the sample volume of the other two depth intervals. This should be taken into consideration when interpreting the data.

A trend of decreasing concentration with increasing depth, typical of aerial deposition, was observed in communities in the City of Greater Sudbury, however, two other trends were also present. The second trend observed was maximum concentrations occurring at 5 - 10 cm, with lower concentrations at 0 - 5 cm and 10 - 20 cm. The third trend observed was increasing concentration with increasing depth. In both of these trends, elevated concentrations may be attributed to aerial deposition which has been buried by landscaping practices at individual properties. Landscaping practices may have included adding, grading, removing and/or mixing of urban soils. For discussion purposes, these three trends were labelled Group A through C. Sample locations in Group A exhibited a trend of decreasing concentrations with increasing soil depth, typical of aerial deposition. In Group B, maximum concentrations were observed at 5 - 10 cm while lower concentrations were observed at both 0 - 5 cm and 10 - 20 cm. In Group C, concentrations increased with increasing soil depth, and maximum concentrations were observed at 10 - 20 cm, the maximum depth of investigation.

The depth data was differentiated into Groups A, B and C within each community grouping using the following equations:

$$CriteriaA = Max\left(\frac{[Ni]_{5to10} \times (\log[Ni]_{0to5} - \log[Ni]_{5to10})}{[Ni]_{0to5}}, \frac{[Ni]_{10to20} \times (\log[Ni]_{0to5} - \log[Ni]_{10to20})}{[Ni]_{0to5}}\right)$$

$$CriteriaB = \frac{[Ni]_{5to10} \times (\log[Ni]_{0to5} - \log[Ni]_{5to10})}{[Ni]_{0to5}} - \frac{[Ni]_{10to20} \times (\log[Ni]_{0to5} - \log[Ni]_{10to20})}{[Ni]_{0to5}}$$

The procedure used to separate the three groups of data was based on the ratios and differences of nickel concentrations at each sampling location between depths. *Criteria A* was calculated for each sampling location and the sampling locations were ranked from lowest to highest based on *Criteria A*. All locations with a *Criteria A* value less than or equal to zero made up group A. *Criteria B* was calculated for the remaining locations and the sampling locations were ranked from lowest to highest based on *Criteria B*. All locations with a *Criteria B* value less than or equal to zero made up group B and the remainder made up Group C.

For each community grouping the data was first divided into Groups A, B, and C as described above.

The data for each group was then ranked from lowest to highest based on the nickel concentration at 0 - 5 cm for Group A, 5 - 10 cm for Group B and 10 - 20 cm for Group C. The ranked data was finally divided into sections (quarters, thirds or halves), depending on the sample size. This ranking was completed to differentiate between the strengths of trends within the Group A, B or C data. Typically, the highest concentrations of the data displayed the strongest respective trend (i.e. Group A, B or C) while the lowest concentrations of the data displayed the weakest respective trend. For graphing purposes, concentrations of each quarter, third or half were averaged and graphed at each depth interval for twelve elements.

Correlations between 20 elements in urban soil were analyzed using Pearson's and Spearman's Correlations, and scatter plots with linear regression lines were generated. Each data set included replicate sample results from each sampling location. The replicate sample results from each sampling location were not averaged for this analysis. The majority of the data is not normally distributed. As a result, the scatter plots are presented as non-transformed and log transformed. The non-transformed scatter plots are presented for simplicity, while the transformed plots are more statistically correct.

The Pearson's Product Moment Correlation Coefficient R measures the strength of the linear correlation between two elements. It assumes both variables are normally distributed and their joint distribution is bivariate normal. The Spearman's Ranked Correlation R_s is the non-parametric counterpart of Pearson's and measures the relationship of the ranks of the data. Spearman's does not assume that the distributions are normal. The differences between Pearson's R and Spearman's R_s are an indication of outliers or a highly skewed, non-normal distribution in the data. For the correlation analyses the non-transformed data was used. Due to the large sample size, R values for the correlations above 0.3 were statistically significant. For discussion purposes, R values greater than or equal to 0.75 were used for defining a strong significant correlation while R values less than 0.75 but greater than or equal to 0.7 were used for defining a moderate significant correlation.

Box and whisker plots describing analyte concentrations, for fifteen of the twenty analytes, by community group were discussed. As box and whisker plots may not be familiar to all readers a brief description is provided below.

A box and whisker plot simultaneously displays the central tendency of a data set (median), the degree of asymmetry (the relative sizes of the "boxes" around the median), and can indicate whether outliers are present in the data set. When box and whisker plots are placed side-by-side, the equality of medians and homogeneity of variance may also be visually assessed.

In the box and whisker graphics, the thin black line corresponds to the median and the thick red line corresponds to the mean. The two outer lines delineating the box represent the 25th and 75th percentiles of the sample. The lines or "whiskers" extend upward and downward from the box by 1.5 times the inter-quartile range. Observations beyond these points are plotted individually and may be considered as outliers

5.4 Laboratory Processing and Analytical Methods

Due to the large volume of samples collected, samples were processed and analyzed by both MOE and contract laboratories. However, overall data management and quality control for both sample processing and metals analysis was overseen and co-ordinated by MOE staff.

5.4.1 Soil Processing and Analytical Methods

Soil samples were delivered to the MOE Phytotoxicology laboratory where they were organized and shipped to Agat Laboratories for processing. Agat followed MOE Standard Operating Procedures which include air drying and sieving samples to obtain the 2 mm size fraction, and then further grinding the sample using a mortar and pestle to pass though a Number 45 mesh (0.355 mm) sieve (MOE 2000). Finally, the ground material was stored in glass jars. Trace amounts of non-soil material (i.e. grass, roots etc.) observed in the soil samples was removed during the sieving process.

Lakefield Research Laboratories (Lakefield) was selected and funded by local Sudbury industries (ie. Inco & Falconbridge) to analyze all Sudbury soil samples. Lakefield conducted analysis for the following elements: aluminum (Al), antimony (Sb), arsenic(As), barium (Ba), beryllium (Be), calcium (Ca), cadmium (Cd), cobalt (Co), copper (Cu), chromium (Cr), iron (Fe), magnesium (Mg), manganese (Mn), molybdenum (Mo), nickel (Ni), lead (Pb), selenium (Se), strontium (Sr), vanadium (V), and zinc (Zn). One in ten samples were also analyzed for pH, electrical conductivity (EC) and total organic content (TOC).

At Lakefield, all samples were prepared prior to analysis by Lakefield Method 9-2-37 and analyzed using quantitative analysis by Inductively Coupled Plasma- Optical Emissions Spectrometry (ICP-OES) (Method 9-4-2) or by hydride generation and Atomic Absorption Spectroscopy (AAS) (Method 9-8-1). Depending on sample characteristics, Lakefield Method 9-25-4, Determination of Multi Elements in Low Mineralized Samples by Aqua Regia - Microwave Digest by Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS), was also used for the determination of various elements in low mineralized samples. MOE data management and quality control procedures for both soil sample processing and metals analysis carried out by contract laboratories is outlined in Appendix F.

At the end of the study, a comparison of twenty (20) high metal concentration samples uncovered a bias between MOE Laboratory Services Branch data and Lakefield data with respect to arsenic and cobalt. MOE results were approximately 20% higher than Lakefield's. The arsenic differences were not seen in the pre-project inter-comparison since most of the samples analysed in ths early inter-comparison had relatively low concentrations.

MOE took many steps to quantify the laboratory differences, with full co-operation from Lakefield Research. Following sample re-analysis using EPA methods, comparison of results with certified reference material and regression analysis of the data, it was concluded that for any health risk assessments, arsenic results provided by Lakefield Research should be corrected upwards by 10% to bring their results more in line with accepted values for certified reference materials. Cobalt results provided by Lakefield Research have been accepted as will all other results. More detailed information is available in Appendix F.

Laboratory analytical method detection limits for soil, used by Lakefield, are presented in Table 5.4.1.1.

Table 5.4.1.1: Lakefield Research Limited Soil Method Detection Limits (MDL*)

Element	MDL	Element	MDL	Element	MDL	Element	MDL
Al	2.5	Cd	0.8	Fe	5	Ni	1
Sb	0.8	Ca	10	Pb	1	Se	1
As	5	Cr	5	Mg	1	Sr	10
Ba	0.5	Co	1	Mn	2	V	2
Be	0.5	Cu	1	Mo	1.5	Zn	2.5

* - MDLs are all in µg/g

5.4.2 Produce Processing and Analytical Methods

Produce samples were delivered to the MOE Phytotoxicology laboratory for processing (MOE 2000b). The protocol for vegetation processing includes washing the produce with tap water as would be done in the home prior to consumption. All produce samples were treated in this fashion with the exception of the berries. Berry samples could not be washed due to their over ripeness (i.e. some had become almost liquified during shipping). Instead, the berry samples were poured into beakers, were oven dried, and ground in a Wiley™ mill. The chopped washed vegetables were oven dried and ground in the same fashion. The ground material was then stored in glass jars until submitted for analysis.

All produce samples were forwarded to Laboratory Services Branch, MOE, for chemical analysis including: aluminum (Al), antimony (Sb), arsenic(As), barium (Ba), beryllium (Be), calcium (Ca), cadmium (Cd), cobalt (Co), copper (Cu), chromium (Cr), iron (Fe), magnesium (Mg), manganese (Mn), molybdenum (Mo), nickel (Ni), lead (Pb), selenium (Se), strontium (Sr), vanadium (V), and zinc (Zn). In addition, the vegetation analytical suite included sulphur (S), boron (B), chlorine (Cl), and potassium (K).

All produce samples were analyzed using quantitative analysis by Inductively Coupled Plasma-Optical Emissions Spectrometry (Method MET3065) or by Hydride Generation Flameless Atomic Absorption Spectrophotometry (Method HYD3245). MOE data management and quality control procedures for both produce sample processing and metals analysis is outlined in Appendix G.

Laboratory analytical method detection limits for produce, used by the MOE, are presented in Table 5.4.2.1.

Table 5.4.2.1: MOE Laboratory Produce Method Detection Limits (MDL*)

Element	MDL	Element	MDL	Element	MDL	Element	MDL
Al	5	Cd	0.1	Pb	0.5	Sr	0.5
Sb	0.2	Ca	50	Mg	20	V	0.5
As	0.2	Cr	0.5	Mn	0.5	Zn	1
Ba	0.5	Co	0.2	Mo	0.2		
Be	0.2	Cu	0.5	Ni	0.5		
Bo	1	Fe	5	Se	0.2		

* - MDLs are all in µg/g

6.0 RESULTS

To determine the extent and concentration of soil metal and arsenic contamination in the City of Greater Sudbury, Ministry representatives collected soil samples from four land uses: residential, schools, parks and agricultural. In total, 6,734 soil samples were collected from 770 properties in the City of Greater Sudbury including: 16 commercial agriculture properties, 139 schools/daycares (104/35 respectively), 169 parks and 439 residential properties. Additionally, 245 produce samples were collected from 52 residential gardens and agricultural operations. Landscaping information was received from some property owners, however, this information was limited and unsubstantiated and was therefore not used for data interpretation.

6.1 Residential Data

All of the results for residential yard and garden sampling are presented in Appendix A. This appendix consists of four Sections. The first deals with sampling and analysis methods. Section 2 is the summary data organized by communities and consists of the number of exceedences of Table F and A and descriptive summary statistics. The communities are Coniston, Copper Cliff, Falconbridge, Sudbury Core and Inner Sudbury. Section 3 consists of the actual residential yard soil, garden soil and garden vegetable results. It consists of seven tables. The first five are the residential yard results organized by the same communities as in Section 2. Table 6 is the garden vegetable results and Table 7 is the garden soil results. All results for soil and vegetables are expressed in µg/g dry weight. Section 4 is the coordinates of the residential sampling locations in both latitude and longitude, and Universal Trans Mercator (UTM) which have been rounded off to the nearest 100 metres.

6.2 School and Daycare Data

All of the school and daycare sampling results are presented in Appendix B. This appendix consists of five Sections. The first deals with sampling and analysis methods. Section 2 consists of individual school results, descriptions and maps organized by school board. Section 3 is the summary data organized by the four School Boards and consists of the number of exceedences of Table F and A and descriptive summary statistics. Section 4 consists of the actual school and daycare soil results. It consists of two tables. The Table 4.1 are the school soil results organized alphabetically by school name. Table 4.2 are the daycare soil results organized alphabetically. All results are expressed in µg/g dry weight. Section 5 is the coordinates of the school and daycare sampling locations in both latitude and longitude, and Universal Trans Mercator (UTM).

6.3 Park Data

All of the park sampling results are presented in Appendix C. This appendix consists of six Sections. The first deals with sampling and analysis methods. Section 2 is the summary data organized by communities and consists of the number of exceedences of Table F and A and descriptive summary statistics. In Section 3, the results of three individual parks are discussed in the same manner as individual schools were discussed in Appendix B, Section 2. Section 4 consists of the actual park soil results organized by local community name. There are 24 tables, one for each local community, and the parks are listed alphabetically by name within each table. Some parks did not have proper names, in which case the name of street or intersection on which it was located was used. All results are expressed in µg/g dry weight. Sketch maps of each park showing the sampling locations are

located in Section 5. Section 6 is the coordinates of the park sampling locations in both latitude and longitude, and Universal Trans Mercator (UTM).

6.4 Commercial Produce and Wild Blueberry Soil and Vegetation Sampling Results

All of the results for market garden, berry producers and wild blueberry sampling are presented in Appendix D. This appendix consists of four Sections. The first deals with sampling and analysis methods. Section 2 is the summary data and consists of the number of exceedences of Table F and A and descriptive summary statistics. Section 3 consists of the actual soil, vegetable and berry results. It consists of three tables. The first is the soil results . The second table is the market garden vegetable results and the third is the berry results. All results for soil and vegetables are expressed in μg/g dry weight. Section 4 is the coordinates of the residential sampling locations in both latitude and longitude, and Universal Trans Mercator (UTM) which have been rounded off to the nearest 100 metres.

6.5 pH, Electrical Conductivity and Total Organic Carbon

In addition to the twenty inorganic chemical analyses conducted on each soil sample, one in ten soil samples were analyzed for pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC). Samples with sample numbers ending in “0" were selected to have these additional analysis carried out on them. In the initial sample submission to Lakefield, the laboratory mistakenly performed the three additional tests on all samples. This resulted in the quota for these analyses being used up before all samples had been analyzed. As a result only a portion of the Park soil samples were analyzed for pH, EC and TOC as the parks were sampled last. In total, 545 EC and pH analyses and 584 TOC analyses were completed. The results for the soil pH, Electrical Conductivity and Total Organic Carbon are given in Appendix E.

7.0 DISCUSSION

This section summarizes and provides limited interpretation of metal and arsenic concentrations measured in soil and produce collected in the City of Greater Sudbury in 2001. This is accomplished by summarizing and discussing trends and relationships in the metal and arsenic concentrations measured in soil and produce samples according to sample types and community / geographic locations. This discussion is not a thorough scientific or statistical analysis of this data nor does this discussion address potential ecological or human health effects of the observed metal and arsenic concentrations.

It should be noted that beryllium (Be) soil results were generally excluded from the descriptive statistics, spatial distribution, concentration depth profiles and statistical correlation analyses. This was because only ten samples in the data set had Be concentrations above the method detection limit of 0.5 µg/g. Concentrations ranged from 0.51 to 0.62 µg/g. Fifty-four additional samples had Be soil concentrations at the method detection limit of 0.5 µg/g while the Be soil concentrations for the remaining samples were below the analytical method detection limit.

During the 2001 sampling program, sample locations were organized by twenty four local communities or geographic groupings within the City of Greater Sudbury. The local communities included: Azilda, Blezard Valley, Capreol, Chelmsford, Coniston, Copper Cliff, Dowling, Falconbridge, Garson, Hanmer, Levack, Lively, Naughton, Onaping Falls, Skead, Val Caron, Val Therese, Wahnapitae, Wanup and Whitefish while the geographic groupings included Sudbury Core, Sudbury East, Sudbury South and Sudbury New. The geographic groupings were created by MOE staff for the purposes of organizing the 2001 sampling program data. The local communities are urban areas that were amalgamated with Sudbury to create the City of Greater Sudbury in 2001. For discussion purposes, these local communities and geographic groupings were ranked from highest to lowest using the 95th percentile nickel concentrations at the 0 - 5 cm soil depth. Six major groupings of communities were identified based on similar 10th, median and 95th percentiles of the nickel, copper, cobalt, arsenic, selenium, lead, cadmium, chromium, iron, zinc, and barium concentrations. The six community groupings were Outer Sudbury Communities, Inner Sudbury Communities, Sudbury Core, Coniston, Falconbridge and Copper Cliff.

The Outer Sudbury Communities grouping consisted of fourteen local communities including Blezard Valley, Capreol, Chelmsford, Dowling, Hanmer, Levack, Naughton, Onaping Falls, Skead, Val Caron, Val Therese, Wahnapitae, Wanup and Whitefish.

The Inner Sudbury Communities grouping consisted of three local communities and three geographic groupings including Azilda, Garson, Lively, Sudbury East, Sudbury New and Sudbury South. Sudbury East is defined as north of Ramsey Lake, east of Paris St. and south of the Kingsway and included the neighbourhoods of Minnow Lake, Adamsdale, and Moonlight Beach. Sudbury New is defined as north of the Kingsway, east of Notre Dame and included the neighbourhoods of Barry Downe, New Sudbury, Nickeldale and San Francisco. Sudbury South is defined as south of Ramsey Lake, south of Lorne and York Streets and included the neighbourhoods of Robinson, Lockerby, Laurentian, and Lo-Ellen.

The Sudbury Core community grouping is defined as being west of Notre Dame and north of Lorne and York Streets and included the neighbourhoods of Flour Mill, Gatchell, Little Britain and Northern Heights. The local communities of Coniston, Copper Cliff and Falconbridge made up their

own individual community groupings. Figure 7.0.1 shows the locations of the local communities / geographic groupings and the community groupings. Table 7.0.1 and Table 7.0.2 show the 10th, median and 95th percentile data for each local community and geographic grouping and each community grouping for eleven elements. Each community grouping is identified by a separate colour in these tables. Recall that communities are ranked lowest to highest using the 95th percentile nickel concentrations. Section 10.1 depicts the soil sampling station maps for each community grouping, divided by land use.

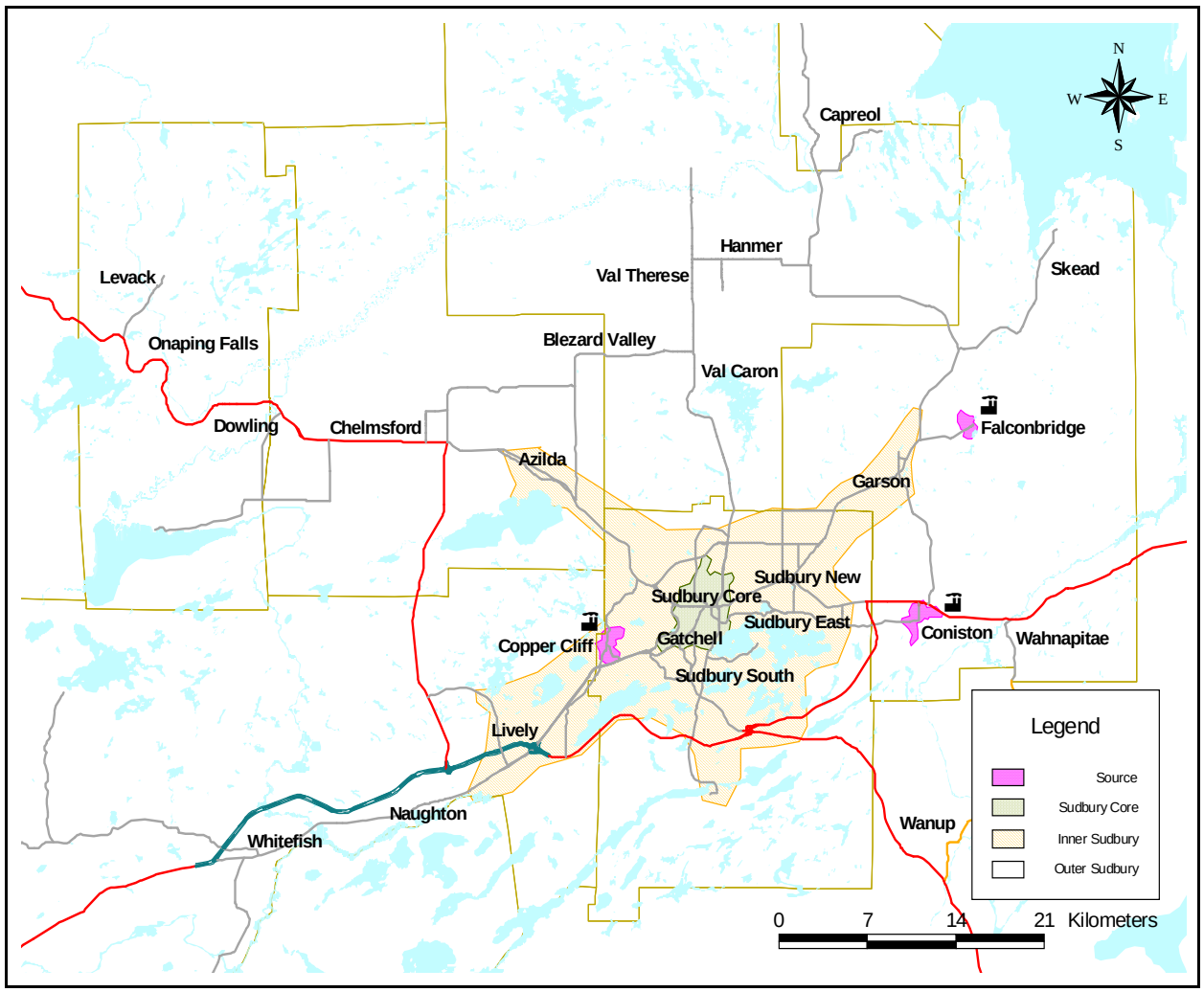


Figure 7.0.1 : Sudbury Community Groupings

Table 7.0.1: Summary and Ranking of the Concentrations of 11 Elements in the 0 - 5 cm Layer of Urban Surface Soils in the City of Greater Sudbury By Community.

Community	n	Ni			Cu			Co			As			Se			Pb		
		10th	median	95th	10th	median	95th	10th	median	95th	10th	median	95th	10th	median	95th	10th	median	95th
Onaping Falls	6	22	25	31	15	16	30	4	5	7	2.5	2.5	2.5	0.5	0.5	0.5	6	8	25
Dowling	36	36	42	49	24	26	34	5	7	12	2.5	2.5	2.5	0.5	0.5	0.5	12	14	41
Wahnapitae	11	39	48	54	25	34	43	9	9	11	2.5	2.5	4	0.5	0.5	1.0	6	11	14
Skead	10	26	45	58	15	35	56	4	5	8	2.5	2.5	6	0.5	0.5	0.6	6	10	36
Val Therese	16	33	46	59	22	35	51	4	5	8	2.5	2.5	6	0.5	0.5	0.5	7	10	14
Wanup	26	34	59	67	31	53	57	5	6	10	2.5	2.5	4	0.5	0.5	0.9	4	12	13
Hanmer	54	34	42	68	21	33	57	4	5	10	2.5	2.5	6	0.5	0.5	0.6	7	11	52
Naughton	6	36	53	72	27	36	52	5	6	7	2.5	2.5	2.5	0.5	0.5	0.5	6	10	27
Levack	32	34	42	73	22	34	47	5	7	9	2.5	2.5	4	0.5	0.5	0.8	10	13	19
Whitefish	40	31	52	76	24	42	58	5	11	15	3	3	14	0.5	0.5	0.5	10	14	34
Capreol	19	36	50	83	23	35	73	4	5	8	2.5	2.5	16	0.5	0.5	1.0	9	14	46
Chelmsford	12	32	47	88	19	28	47	4	6	16	2.5	2.5	7	0.5	0.5	0.5	8	11	23
Blezard Valley	7	51	77	88	41	51	63	4	5	6	2.5	2.5	6	0.5	0.5	0.5	12	14	16
Val Caron	10	38	51	111	27	40	77	4	5	10	2.5	2.5	5	0.5	0.5	1.0	8	11	25
Azilda	156	47	80	160	35	55	130	5	7	12	2.5	2.5	15	0.5	0.5	1.0	9	13	29
Sudbury (New)	74	56	90	194	39	74	160	6	8	14	2.5	2.5	9	0.5	0.5	1.0	9	16	40
Sudbury (East)	62	53	93	209	39	74	190	6	8	14	2.5	5	16	0.5	0.5	1.0	10	17	51
Garson	104	36	76	219	26	65	171	5	7	12	2.5	6	12	0.5	0.5	1.0	6	16	46
Lively	187	51	86	269	38	67	190	6	8	15	2.5	5	11	0.5	0.5	1.0	8	13	50
Sudbury (South)	92	41	75	318	27	63	340	5	7	15	2.5	2.5	8	0.5	0.5	1.2	6	12	120
Sudbury (Core)	324	69	200	909	56	190	829	6	12	35	2.5	6	20	0.5	1.0	4.0	9	30	140
Coniston	301	58	200	1200	49	150	800	6	12	45	2.5	7	33	0.5	0.5	3.0	12	32	150
Falconbridge	219	120	820	2110	71	780	1900	11	49	111	9	49	181	0.5	2.0	6.0	14	65	200
Copper Cliff	290	299	840	2455	360	1200	3300	12	27	79	6	14	45	2	6	16	25	69	220

Communities ranked from lowest to highest by the Nickel 95th percentile concentration. All results are in µg/g dry weight.

Table 7.0.2: Sudbury Communities as Grouped by Increasing Nickel Concentrations

Community	n	Ni			Cu			Co			As			Se			Pb		
		10th	median	95th	10th	median	95th	10th	median	95th	10th	median	95th	10th	median	95th	10th	median	95th
Outer Sudbury	284	32	48	79	21	35	59	4	5	12	3	3	7	0.5	0.5	1.0	7	11	35
Inner Sudbury	675	16	84	250	11	67	183	3	7	14	3	3	11	0.5	0.5	1.0	2	14	49
Sudbury (Core)	324	69	200	909	56	190	829	6	12	35	2.5	6	20	0.5	1.0	4.0	9	30	140
Coniston	301	58	200	1200	49	150	800	6	12	45	2.5	7	33	0.5	0.5	3.0	12	32	150
Falconbridge	219	120	820	2110	71	780	1900	11	49	111	9	49	181	0.5	2.0	6.0	14	65	200
Copper Cliff	290	299	840	2455	360	1200	3300	12	27	79	6	14	45	2.0	6.0	16.0	25	69	220

Groups ranked from lowest to highest by the Nickel 95th percentile concentration. All results are in µg/g dry weight.

Table 7.0.1: Summary and Ranking of the Concentrations of 11 Elements in the 0 - 5 cm Layer of Urban Surface Soils in the City of Greater Sudbury By Community (cont'd).

Community	n	Cd			Cr			Fe			Zn			Ba		
		10th	median	95th	10th	median	95th	10th	median	95th	10th	median	95th	10th	median	95th
Onaping Falls	6	0.4	0.4	0.4	26	30	32	11500	12500	14750	22	31	37	25	30	41
Dowling	36	0.4	0.4	3.2	24	43	53	13000	17000	20000	30	37	56	35	54	72
Wahnapitae	11	0.4	0.4	0.4	30	39	41	15500	18000	19000	25	33	35	35	45	50
Skead	10	0.4	0.4	0.4	21	24	42	11000	12500	16000	16	26	46	24	38	69
Val Therese	16	0.4	0.4	0.4	25	28	32	12000	13000	14750	18	23	34	27	33	40
Wanup	26	0.4	0.4	0.7	22	25	33	10560	13000	16000	22	24	33	29	33	49
Hanmer	54	0.4	0.4	0.4	24	26	38	11000	12000	17000	19	25	45	24	32	43
Naughton	6	0.4	0.4	0.4	19	25	33	10000	12000	14900	16	25	37	28	36	45
Levack	32	0.4	0.4	0.4	31	34	42	12000	15000	17100	26	37	54	32	45	56
Whitefish	40	0.4	0.4	0.4	23	38	64	13400	20000	28100	25	56	76	31	74	141
Capreol	19	0.4	0.4	0.6	23	26	36	11000	13000	16450	19	29	56	23	34	49
Chelmsford	12	0.4	0.4	0.4	21	27	38	10300	13000	17350	20	29	42	24	34	47
Blezard Valley	7	0.4	0.4	0.4	23	24	29	9960	11000	13000	22	26	31	28	31	40
Val Caron	10	0.4	0.4	0.4	23	27	57	10900	12000	20000	19	26	43	25	30	51
Azilda	156	0.4	0.4	0.4	25	35	51	11000	14500	19000	25	33	73	28	39	68
Sudbury (New)	74	0.4	0.4	0.4	25	31	43	11600	14000	18000	23	32	57	31	44	82
Sudbury (East)	62	0.4	0.4	0.4	23	31	43	11100	14000	19000	22	35	72	31	47	85
Garson	104	0.4	0.4	0.4	21	26	35	11000	12000	15000	21	32	70	24	36	52
Lively	187	0.4	0.4	0.9	24	32	47	12000	15000	21000	22	34	64	30	48	89
Sudbury (South)	92	0.4	0.4	0.9	24	32	47	11000	14000	18250	19	29	53	29	40	82
Sudbury (Core)	324	0.4	0.4	1.9	25	32	53	12000	15000	24850	24	47	159	31	50	119
Coniston	301	0.4	0.4	1.8	22	29	44	11000	15000	24000	27	51	140	33	52	90
Falconbridge	219	0.4	2.1	4.3	27	40	73	12800	21000	38000	29	66	150	31	50	69
Copper Cliff	290	0.4	1.4	3.4	29	38	60	14000	19000	33000	38	77	180	45	67	120

Communities ranked from lowest to highest by the Nickel 95th percentile concentration. All results are in µg/g dry weight.

Table 7.0.2: Sudbury Communities as Grouped by Increasing Nickel Concentrations

Community	n	Cd			Cr			Fe			Zn			Ba		
		10th	median	95th	10th	median	95th	10th	median	95th	10th	median	95th	10th	median	95th
Outer Sudbury	284	0.4	0.4	0.4	22	27	46	11000	13000	19850	19	27	56	25	35	68
Inner Sudbury	675	0.2	0.4	0.8	17	31	46	7500	14000	19000	12	32	64	15	43	82
Sudbury (Core)	324	0.4	0.4	1.9	25	32	53	12000	15000	24850	24	47	159	31	50	119
Coniston	301	0.4	0.4	1.8	22	29	44	11000	15000	24000	27	51	140	33	52	90
Falconbridge	219	0.4	2.1	4.3	27	40	73	12800	21000	38000	29	66	150	31	50	69
Copper Cliff	290	0.4	1.4	3.4	29	38	60	14000	19000	33000	38	77	180	45	67	120

Groups ranked from lowest to highest by the Nickel 95th percentile concentration. All results are in µg/g dry weight.

As discussed in Sections 5.1 and 5.2, we defined three main types of soil samples: Soil, Sand and Gravel and four types of produce samples: Root Vegetables, Fruit Vegetables, Leafy Vegetables and Berries. The Soil sample type made up 88% of the soil (soil, sand, gravel) samples collected. This group was further sub divided into Urban Soil (developed, grassed areas, 85% of the total number of soil samples), Urban Garden Soil (residential vegetable gardens, 1% of the soil samples), Agricultural Soil (commercial market garden and berry farms, 1% of the soil samples) and Undisturbed Natural Soil (undeveloped, naturally vegetated areas, 1% of the soil samples).

The Sand sample type comprised 9% of the total number of soil samples collected. The Sand sample type was subdivided into Play Sand (8% of the total number of soil samples) and Beach Sand (1 % of the total number of soil samples). The Gravel sample type comprised 4% of the total soil samples collected and was subdivided into Crushed Stone and Playground Gravel, each comprising 2% of the total number of soil samples collected.

The Root Vegetable sample type comprised 24% of all produce collected, the Fruit Vegetable sample type 39%, Leafy Vegetable sample type 19% and the Berries sample type 18% of the total number of produce samples collected.

This section is organized into the following subsections:

Section 7.1 discusses the metals and arsenic concentrations observed in urban soil

Section 7.2 discusses the metals and arsenic concentrations in sand and gravel and compares these results to urban soil

Section 7.3 discusses the metals and arsenic concentrations observed in undisturbed natural soil and compares these results to urban soil

Section 7.4 discusses the metals and arsenic concentrations in the commercial and residential fruit and vegetable produce and compares these results to the urban garden soil.

Section 7.5 summarizes Sections 7.1 through 7.4.

7.1 Urban Soil Data Trends

This discussion focuses on the urban soil samples collected by the Ministry in the City of Greater Sudbury in 2001. Urban soil samples were generally collected from grassed landscaped areas within the City of Greater Sudbury urban area at up to three depth intervals, 0 - 5 cm, 5 - 10 cm and 10 - 20 cm. Urban soil samples consisted of all material less than 2 millimetres in diameter, ranging in texture from sand to silty clays.

The urban soil samples, discussed in this section, were collected from three land uses: residential, schools and parks. The 2001 sampling program was the first large scale Ministry sampling of residential and institutional land use in the City of Greater Sudbury. This sampling was completed to assess metal and arsenic concentrations in urban soil, potentially attributed to aerial deposition from local industry. Previous sampling conducted by the Ministry in the Sudbury area was restricted mainly to undisturbed natural areas (MOE 2001). As a consequence, the chemical concentrations contained within this 2001 Urban Soil Survey may vary from previous Ministry soil data from the Sudbury area.

In most cases, urban soils have been altered during development of the area or property. These alterations may affect the chemical concentrations found in the soil. Soil may have been added, graded, removed, mixed and/or altered by anthropogenic activities and may have occurred repeatedly over time. As a consequence of these alterations, chemical concentrations in urban soil may vary between properties and evidence of aerial deposition may be inconsistent.

As discussed previously, the 24 local communities and geographic groupings in the City of Greater Sudbury were grouped according to observed metal and arsenic concentrations in the soil samples. The selection and delineation of these community groupings was determined by interpreting the trends in the metals and arsenic concentrations of urban soil using best professional judgement and / or statistical analysis. This grouping was completed to facilitate the interpretation and discussion of the soil data.

For urban soil, pH analysis was completed on 472 samples and pH ranged from 4.3 to 8.1. The Ministry *Guideline for Use at Contaminated Sites in Ontario* (MOE 1997) states that Table A soil criteria for inorganics apply only when the soil pH is between 5.0 and 9.0. No urban soil samples analyzed had a pH value that exceeded 9.0, however, three urban soil samples had pH values below 5.0. These three samples were located at one park in Falconbridge and two schools in the Outer Sudbury Communities. In these three samples, the pH ranged from 4.32 to 4.95. The pH values for all other urban soil samples analyzed were within the range of 5.0 to 9.0. Refer to Section 10.3 for descriptive statistics and box and whisker plots.

For each community grouping, descriptive statistics, exceedences of applicable Ministry guidelines, spatial distribution of chemical concentrations, concentration depth profiles, and statistical correlations between elements were discussed.

7.1.1 Outer Sudbury Communities

As discussed in 7.0, the Outer Sudbury Communities grouping consists of fourteen local communities including Blezard Valley, Capreol, Chelmsford, Dowling, Hanmer, Levack, Naughton, Onaping Falls, Skead, Val Caron, Val Therese, Wahnapitae, Wanup and Whitefish. This grouping was based on the concentrations of nickel, copper, cobalt, arsenic, selenium, lead, cadmium, chromium, iron, zinc, and barium in 0 - 5 cm surface soil layer. Concentrations of the eleven elements used in determining this grouping were relatively low at all three depths. Refer to Table 7.1.1.1 and Section 10.3.1.

Table 7.1.1.1: Summary Statistics for Metals and Arsenic in Urban Soil of the Outer Communities of the City of Greater Sudbury, 2001.

Summary Statistic	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in the Outer Communities, n = 284																			
Minimum	4600	0.4	2.5	19	0.4	1600	18	3	9	8600	2	1200	100	0.75	17	0.5	13	8	13
10th percentile	7130	0.4	2.5	25	0.4	2700	22	4	21	11000	7	1800	140	0.75	32	0.5	23	23	19
1st quartile	8500	0.4	2.5	29	0.4	3200	24	5	26	12000	9	2100	160	0.75	39	0.5	28	26	22
Median	9700	0.4	2.5	35	0.4	4200	27	5	35	13000	11	2400	190	0.75	48	0.5	35	28	27
3rd quartile	11000	0.4	2.5	43	0.4	5950	33	7	44	15000	14	3600	240	0.75	57	0.5	41	31	36
95th percentile	14000	0.4	7	68	0.4	11000	46	12	59	19850	35	5400	379	0.75	79	1.0	49	40	56
Maximum	27000	1.6	16	150	3.8	33000	67	22	97	33000	170	10000	650	1.7	151	1.2	76	78	78
Mean	9999	0.4	3.6	39	0.4	5133	30	6	36	13711	15	2943	210	0.76	50	0.5	35	29	31
CV (std. dev./mean)	28%	22%	70%	44%	57%	68%	28%	43%	38%	25%	95%	46%	40%	12%	35%	24%	27%	23%	39%
Skewness	2.4	9.6	3.2	3.1	12.1	12.1	3.8	1.8	2.3	1.1	2.2	6.0	2.0	2.3	8.5	1.7	3.8	0.4	2.2
5 to 10 cm Urban Soil in the Outer Communities, n = 228																			
Minimum	4900	0.4	2.5	17	0.4	1200	17	3	7	7700	4	1100	99	0.75	18	0.5	13	21	12
10th percentile	7170	0.4	3	24	0.4	2270	22	4	16	11000	6	1700	130	0.8	28	0.5	21	24	17
1st quartile	8400	0.4	2.5	28	0.4	2800	24	4	22	12000	8	1900	150	0.75	33	0.5	27	26	19
Median	9950	0.4	2.5	35	0.4	3700	27	5	29	13000	9	2200	180	0.75	40	0.5	34	28	25
3rd quartile	11000	0.4	2.5	43	0.4	5100	32	6	35	15000	12	3400	230	0.75	51	0.5	40	32	31
95th percentile	15000	0.4	7.6	74	0.4	9455	46	12	53	20000	22	5565	317	0.75	70	0.5	49	40	62
Maximum	37000	1.8	23	210	0.4	38000	77	19	71	36000	91	12000	590	1.7	134	2.0	58	74	97
Mean	10428	0.4	3.4	40	0.4	4505	29	6	30	13850	11	2809	202	0.76	43	0.5	34	30	28
CV (std. dev./mean)	36%	37%	86%	58%	0%	77%	31%	44%	39%	28%	80%	57%	39%	11%	37%	27%	29%	26%	49%
Skewness	3.5	6.2	4.2	3.9		5.4	2.6	2.5	0.8	2.6	5.2	2.8	2.3	10.8	1.9	6	0.0	2.8	2.3
10 to 20 cm Urban Soil in the Outer Communities, n = 213																			
Minimum	4900	0.4	2.5	14	0.4	1400	15	3	4	7000	3	1400	85	0.75	13	0.5	12	17	9
10th percentile	6520	0.4	3	22	0.4	2100	21	4	11	10000	5	1700	130	0.8	22	0.5	20	22	15
1st quartile	8200	0.4	2.5	28	0.4	2800	23	4	17	11000	6	1900	160	0.75	27	0.5	26	25	19
Median	9500	0.4	2.5	35	0.4	3500	27	5	25	13000	9	2200	190	0.75	38	0.5	33	28	24
3rd quartile	11000	0.4	2.5	43	0.4	4500	32	6	33	16000	11	3300	235	0.75	48	0.5	41	33	31
95th percentile	16400	0.4	7	76	0.4	8180	47	11	47	23000	21	5900	384	0.75	68	0.5	50	45	58
Maximum	31000	4.0	44	210	0.9	20000	78	29	100	35000	214	11000	600	2.7	124	1	68	66	230
Mean	10174	0.4	3.4	40	0.4	4185	29	6	27	13935	11	2836	206	0.77	40	0.5	33	30	27
CV (std. dev./mean)	36%	73%	112%	63%	9%	68%	33%	50%	54%	31%	144	59%	40%	21%	42%	17%	31%	28%	68%
Skewness	2.5	9.2	7.4	3.6	14.6	3.4	2.0	3.7	1.7	2.0	10	2.6	1.9	10.2	1.5	5.3	0.2	2	6.7

All results are in µg/g dry weight.

In the Outer Sudbury Communities, the concentrations of nickel, copper, cobalt, arsenic and lead were similar in the school, park and residential properties, with only marginal differences. Due to the low n-values for residential properties at all depths, comparisons with this group are very general. It should be noted that in the Outer Sudbury Communities all of the urban soil sampling sites were school or park properties except for 5 residential properties in Skead. Refer to Table 7.1.1.2.

Table 7.1.1.2: Summary Statistics for Metals and Arsenic in All 0-5 cm Soil Samples in the Outer Sudbury Communities by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm				n = 12															
Minimum	7500	0.4	2.5	24	0.4	1700	19	5	20	11000	7	1800	130	0.75	32	0.5	22	23	18
10th percentile	7910	0.4	2.5	26	0.4	1820	20	5	22	12000	7	1830	143	0.75	34	0.5	22	24	23
1st quartile	8200	0.4	2.5	34	0.4	2250	23	5	28	12000	8	2150	170	0.75	36	0.5	23	25	26
Median	8900	0.4	2.5	41	0.4	2850	23	6	39	13000	10	2300	200	0.75	45	0.5	29	28	27
3rd quartile	11500	0.4	5.0	61	0.4	3250	29	7	46	14500	33	2650	220	0.75	50	0.5	30	30	40
95th percentile	12000	0.4	6.5	69	0.4	3535	43	8	56	16000	37	2890	258	0.75	58	0.5	31	33	47
Maximum	12000	0.4	7.0	71	0.4	3700	47	8	57	16000	40	3000	280	0.75	59	0.5	33	35	49
Mean	9517	0.4	3.6	46	0.4	2758	27	6	38	13417	18	2342	197	0.75	44	0.5	27	28	31
CV (std. dev./mean)	18%	0%	47%	36%	0%	23%	31%	19%	32%	12%	75%	16%	21%	0%	20%	0%	14%	12%	32%
Skewness	0.6		1.1	0.4		-0.5	1.7	0.4	0.0	0.4	0.9	0.2	0.3		0.3		-0.4	0.7	0.8
Schools and Daycares 0 to 5 cm				n = 95															
Minimum	5100	0.4	2.5	19	0.4	1700	18	3	12	8600	2	1200	100	0.75	17	0.5	16	20	13
10th percentile	7740	0.4	2.5	27	0.4	2440	23	4	21	11000	6	1900	134	0.75	32	0.5	22	23	21
1st quartile	8600	0.4	2.5	30	0.4	3200	25	5	26	11000	10	2100	150	0.75	38	0.5	27	26	23
Median	9600	0.4	2.5	35	0.4	4200	28	5	38	13000	12	2600	200	0.75	50	0.5	33	28	27
3rd quartile	11000	0.4	5.5	44	0.4	6400	34	7	48	15000	16	3650	250	0.75	65	0.5	39	32	37
95th percentile	13000	0.4	7.0	54	0.4	14300	46	10	69	17600	52	5460	330	0.75	83	1.0	48	37	52
Maximum	17000	0.8	8.0	81	0.8	33000	66	12	97	33000	170	8200	440	1.50	120	1.2	76	78	62
Mean	9769	0.4	3.6	37	0.4	5828	31	6	40	13587	18	3043	208	0.77	52	0.6	34	29	30
CV (std. dev./mean)	19%	17%	49%	28%	17%	84%	28%	34%	42%	24%	119	42%	32%	17%	37%	29%	30%	23%	34%
Skewness	0.5	5.4	1.1	1.4	5.4	3.3	1.8	1.1	1.1	2.7	4.5	1.3	0.8	5.4	1.2	3.0	1.0	4.1	1.0
Parks 0 to 5 cm				n = 177															
Minimum	4600	0.4	2.5	19	0.4	1600	18	4	9	9300	4	1600	110	0.75	19	0.5	13	8	13
10th percentile	6960	0.4	2.5	25	0.4	2860	22	4	20	11000	8	1800	140	0.75	33	0.5	24	23	19
1st quartile	8500	0.4	2.5	28	0.4	3300	24	5	26	12000	9	2100	160	0.75	39	0.5	31	26	22
Median	9700	0.4	2.5	34	0.4	4300	27	5	33	13000	11	2400	180	0.75	47	0.5	36	28	27
3rd quartile	11000	0.4	2.5	43	0.4	5850	32	7	42	15000	14	3600	230	0.75	56	0.5	42	31	36
95th percentile	15200	0.4	9.4	71	0.4	9520	45	12	55	21000	27	5440	420	0.75	78	0.5	49	41	59
Maximum	27000	1.6	16	150	3.8	19000	67	22	74	29000	66	10000	650	1.70	151	1.0	61	55	78
Mean	10155	0.4	3.6	39	0.4	4921	29	6	34	13797	13	2931	212	0.76	50	0.5	36	29	31
CV (std. dev./mean)	32%	25%	80%	51%	70%	50%	28%	47%	34%	26%	57%	48%	44%	9%	35%	20%	24%	24%	42%
Skewness	2.3	9.7	3.3	3.1	9.9	2.4	1.9	2.4	0.6	1.9	3.2	2.2	2.4	13.3	2.0	4.4	0.0	1.3	1.6

All results are in µg/g dry weight.

At 0 - 5 cm the concentrations of nickel, copper and lead were marginally higher in school properties than park and residential properties, while the concentrations of cobalt and arsenic were marginally higher in parks. Concentrations in the schools were marginally higher than the residences from the 25th percentile for nickel, the 75th percentile for copper, and the 95th percentile for cobalt and lead. Generally, concentrations in the schools were marginally higher than the parks from the median to 95th percentile for nickel, copper and lead, and concentrations of cobalt and arsenic were lower from the 95th percentile.

In the parks, concentrations were marginally higher then residences from the 25th percentile for nickel, and from the 95th percentile for cobalt and arsenic. Concentrations in the residences were higher than the parks from the minimum value for copper, and from the 75th percentile for lead. The maximum concentrations for lead was approximately twice as high in school properties compared with park and residential properties, but still relatively low. The maximum concentrations for nickel, cobalt and arsenic were observed in park properties, and were approximately twice as high for cobalt and arsenic compared to school and residential properties but still relatively low.

At 5 - 10 cm and 10 - 20 cm, concentrations were marginally higher in the park properties then the school and residential properties. The concentration in the schools were marginally higher than the residences for nickel, and similar for copper, cobalt, arsenic and lead.

Table 7.1.1.3 summarizes the number of urban soil samples that exceed the Table F and Table A criteria at all depths in the Outer Sudbury Communities. Only nickel, arsenic and lead concentrations exceeded Table A at any depth in the Outer Sudbury Communities. Nickel only exceeded Table A in one surface soil sample replicate. When averaged with the second replicate, however, the average concentration for this sample location was below Table A. Lead also exceeded Table A in only one sample replicate, however, no second replicate was available. All four of the arsenic Table A exceedences occurred at station 5030910 in Whitefish. No other elements exceeded Table A at any depths in the Outer Sudbury Communities.

Table 7.1.1.3: Summary of MOE Table F and Table A Exceedences for All Depths of Urban Soil Samples in the Outer Sudbury Communities of the City of Greater Sudbury

Element	Table F			Table A		
	0 to 5 cm	5 to 10 cm	10 to 20 cm	0 to 5 cm	5 to 10 cm	10 to 20 cm
Antimony	1	5 (2%)	4 (2%)	0	0	0
Arsenic	0	2 (1%)	2 (1%)	0	2 (1%)	2 (1%)
Cadmium	2 (1%)	0	0	0	0	0
Chromium	0	3 (1%)	1	0	0	0
Cobalt	1	0	1	0	0	0
Copper	3 (1%)	0	2 (1%)	0	0	0
Lead	1	0	1	0	0	1
Molybdenum	0	0	1	0	0	0
Nickel	176 (62%)	94 (41%)	79 (37%)	1	0	0
Selenium	0	1	0	0	0	0
Zinc	0	0	1	0	0	0
No. of Samples	284	228	213	284	228	213

Eleven elements exceed Table F criteria in the Outer Sudbury Communities. With the exception of nickel, the numbers of Table F exceedences per element were small. At 0 - 5 cm, 62% of the urban soil samples exceeded Table F for nickel while at 10 - 20 cm, only 37% of the urban soil samples exceeded Table F for nickel.

Due to low concentrations, sampling and analytical error, and the inherent variability in urban soils, no concentration gradient with respect to the three main smelting locations for any of the elements in the Outer Sudbury Communities was observed. Figure 7.1.1.1 depicts the lack of concentration gradient in the Outer Sudbury Communities for nickel in the 0 - 5 cm soil. Refer to Sections 10.2.7 through 10.2.9 for concentration dot maps of nickel, copper, cobalt, arsenic and lead in the Outer Sudbury Communities. Due to the large area covered by the Outer Sudbury Communities the area is represented by three maps, Valley East, Valley West, and Sudbury West. The Valley East maps includes Capreol, Hanmer, Val Therese, Blezard Valley, Val Caron and Skead. The Valley West maps include Levack, Onaping Falls, Dowling, Chelmsford, and Azilda. The Sudbury West maps include Whitefish, Naughton and Lively.

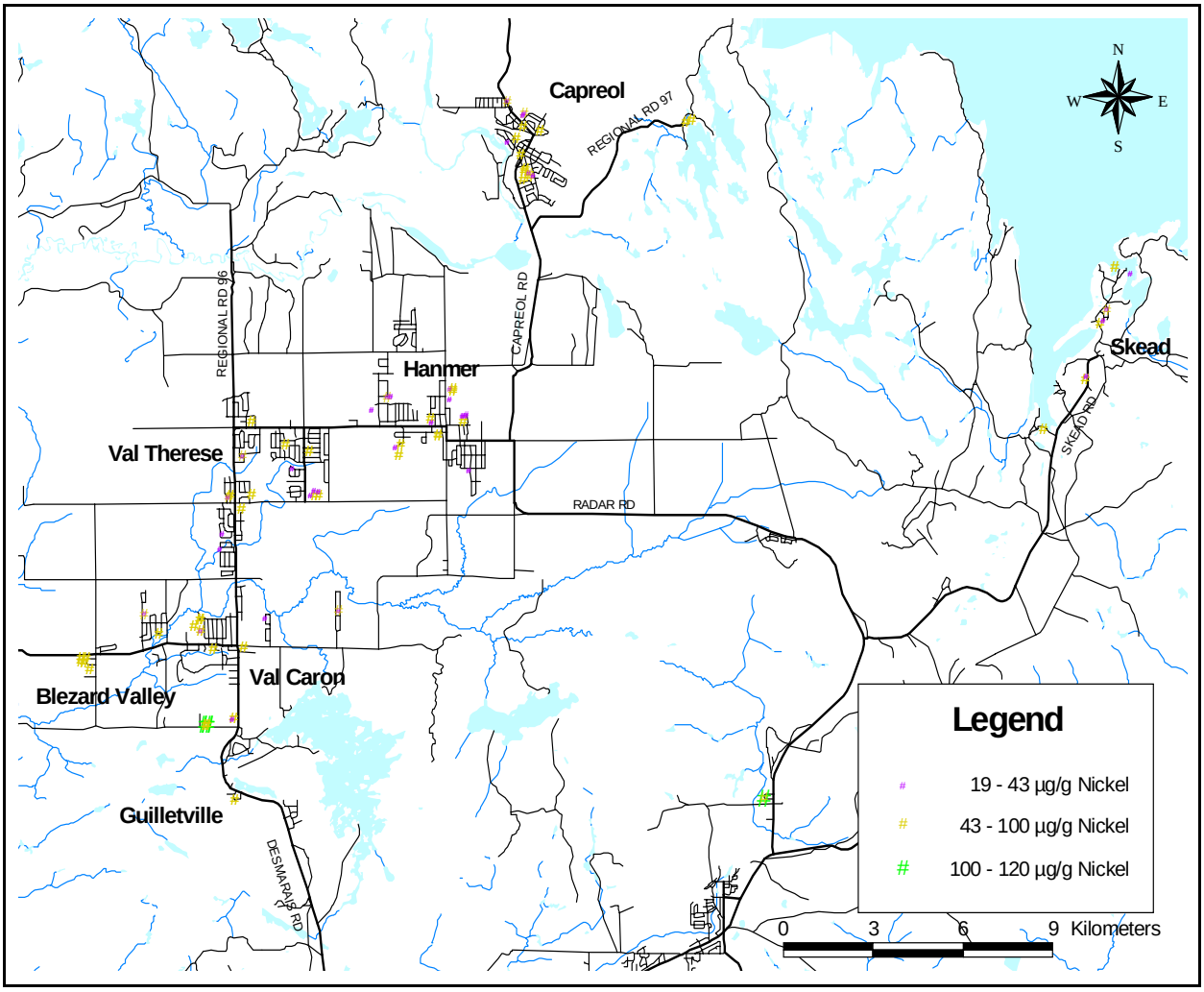


Figure 7.1.1.1: Ni concentrations in urban 0 - 5 cm soil in Valley East

As discussed in Section 5.3, the data was sorted by nickel concentrations to differentiate between the Group A, B and C trends. All three trends were observed in the Outer Sudbury Communities. In some cases, other elements did not show the same trend as nickel when the sorting was completed. This may be a reflection of average concentrations that are close or at the analytical method detection limit (MDL), as was the case for cadmium and selenium in the Outer Sudbury Communities. This may also be the result of poor correlation between other elements and nickel.

In the Outer Sudbury Communities, 49% of the sample locations exhibited a trend of decreasing concentrations with increasing depth, consistent with Group A. Nickel and copper concentrations, in Group A, showed a visual trend of decreasing concentration with depth in all quarters. Average concentrations at surface were 1.1 to 1.8 times the average concentrations at 10 - 20 cm for nickel and copper, for all quarters. Figure 7.1.1.2 depicts the depth profile of nickel in Group A for the Outer Sudbury communities.

Cobalt, lead, barium, iron and zinc showed a visual trend of aerial deposition in the third and fourth quarters. Average concentrations of these elements at surface were 1.1 to 1.4 times the average concentrations at 10 - 20 cm with the exception of lead. Average lead concentrations were 1.3 to

2.3 times at the surface than at 10 - 20 cm. A visual trend of aerial deposition was also observed in the first and second quarters for lead and zinc. Concentrations for selenium and cadmium in all quarters were at or near analytical MDLs, therefore no concentration trends were observed. The first through third quarters for arsenic in Group A were also at or near analytical MDLs, however, the average concentrations in the fourth quarter showed a slight increasing trend (1.1 times) with depth. This trend in the fourth quarter for arsenic may be an artifact of the sorting process.

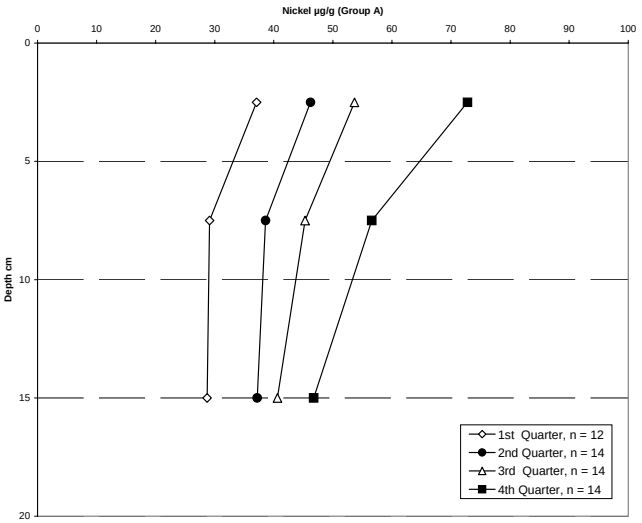


Figure 7.1.1.2: Outer Communities, Ni depth profiles, Group A.

Average aluminum, chromium and vanadium concentrations in Group A showed no observable change with depth in all four quarters. The wide range in concentrations between the quarters of these elements may indicate differences in soil type.

Refer to Section 10.5.1 for graphs of the depth profiles for the elements discussed above in the Outer Sudbury Communities.

In the Outer Sudbury Communities, 21% of the sample locations exhibited a trend of maximum concentrations at 5 - 10 cm, while lower concentrations were observed at both 0 - 5 and 10 - 20 cm. This trend is consistent with Group B. Nickel, copper, lead and zinc concentrations, in Group B, showed a strong, visual trend of maximum concentration occurring at 5 - 10 cm in the second half (1.5 to 1.8 times the average surface concentrations). This trend was weak in the first half for these elements (1.1 to 1.3 times). Figure 7.1.1.3 depicts the depth profile of nickel in Group B for the Outer Sudbury Communities.

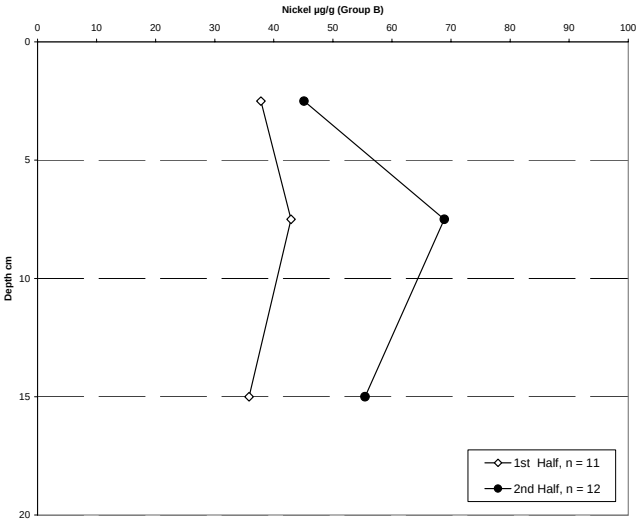


Figure 7.1.1.3: Outer Communities, Ni depth profiles, Group B.

Cobalt, aluminum, barium and chromium showed a weak Group B trend in the second half (1.1 to 1.2 times) and a weak or no observable change with depth in the first half. Concentrations for arsenic, selenium and cadmium in both halves were at or near analytical MDLs, therefore no concentration trends were observed. Average iron and vanadium concentrations in Group B showed no observable change with depth in both halves. Refer to Section 10.5.1 for graphs of the depth profiles for the elements discussed above.

In the Outer Sudbury Communities, 30% of the sample locations exhibited a trend of increasing concentration with increasing depth, consistent with Group C. Nickel and copper concentrations, in Group C, showed a weak, visual trend of increasing concentrations in the first and second thirds (1.2 to 1.3 times the surface concentrations) and a strong, visual trend in the last third (1.4 to 1.6 times). Figure 7.1.1.4 depicts the depth profile of nickel in Group C for the Outer Sudbury Communities.

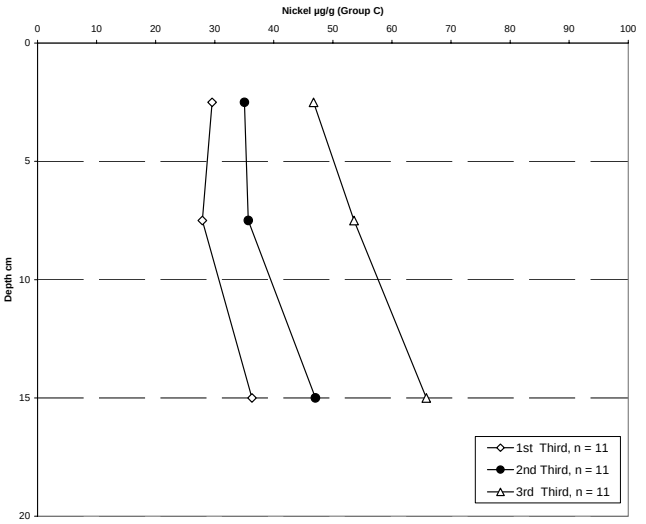


Figure 7.1.1.4: Outer Communities, Ni depth profiles, Group C.

Lead, aluminum and zinc showed a weak trend of increasing concentrations with depth in the last third (1.1 to 1.4 times). Lead also showed this weak trend in the second third (1.3 times). Aluminum and zinc showed a weak trend of decreasing concentration with depth in both the first and second thirds while lead showed this trend only in the first third. Barium showed no observable change in concentration with depth in the first and second thirds and showed a weak trend of decreasing concentration with depth in the last third.

Cobalt, chromium, iron and vanadium concentrations in Group C showed no observable change with depth for all thirds. Concentrations for arsenic, selenium and cadmium in all thirds were at or near analytical MDLs and generally no concentration trends were observed. Refer to Section 10.5.1 for graphs of the depth profiles for the elements discussed above.

Overall, nickel, copper, lead and zinc concentrations in 49% of the sample locations in the Outer Sudbury Communities showed an aerial deposition trend from surface (Group A). These sample locations appeared to be unaffected by landscaping practices. The remaining 51% of the sample locations appeared to be affected by some degree of landscaping practices as nickel, copper, lead and zinc concentrations showed strong to weak trends of maximum concentrations below surface (Groups B & C). These elevated concentrations may still be attributed to aerial deposition, however, have been buried by landscaping practices at individual properties over time. Addition, grading, removal and / or mixing of urban soils may alter the vertical distribution of chemical concentrations in the soil. Cobalt, barium and iron also showed a weak aerial deposition trend from surface in 49% of the sample locations.

There is some question as to whether the Table F upper limit for background concentrations should be used for the City of Greater Sudbury due to the local geology. The Outer Sudbury Communities appear to be minimally impacted by aerial deposition and could be used to determine an upper limit of local background. For most elements there is evidence of at least a small amount of aerial deposition or evidence that landscaping practices have buried elevated concentrations resulting from aerial deposition. Given these restrictions, the local background was determined using only the 10 - 20 cm soil results.

Table 7.1.1.4: Comparison of the 98th Percentiles*, MOE Table F Values, and Table F Site Exceedences for All Samples from the Outer Sudbury Communities

Element	98th Percentile (µg/g)	Table F Value (µg/g)	Table F Site Exceedences
Antimony	<0.8	1	0
Arsenic	14	17	1 (1%)
Barium	133	210	0
Beryllium	<0.5	1.2	0
Cadmium	<0.8	1	0
Chromium	55	71	1 (1%)
Cobalt	12	21	0
Copper	77	85	0
Lead	31	120	1 (1%)
Molybdenum	1.1	2.5	0
Nickel	83 / 57*	43	43 (39%)
Selenium	1	1.9	0
Vanadium	59	91	0
Zinc	70	160	1 (1%)

* 98th percentile calculated for Ni, using only 10 to 20 cm, Group A results

The 10 - 20 cm replicates for each sampling location were averaged and 98th percentile values determined for each of the elements where Table F values exist, similar to the procedure used to create the Table F values. These values were calculated using the entire Outer Sudbury Community data set. The data was not segregated by depth trends (i.e. Group A, B and C). For antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, molybdenum, selenium, vanadium and zinc the 98th percentile calculated for the Outer Sudbury Communities based on the 10 - 20 cm soil samples were all well below the Table F values. Using the Table F values for these elements is therefore justified. Refer to Table 7.1.1.4 for 98th percentiles calculated for the Outer Sudbury Communities, the corresponding Table F values and number of locations that exceeded Table F values for each element.

The 98th percentile calculated for nickel, using the entire Outer Sudbury Communities data set, was 83 µg/g which exceeded the Table F value of 43 µg/g. Forty three of the 110 sampling locations exceed the Table F value for nickel. The nickel concentrations in Group A decrease with depth and the 98th percentile of the 10 - 20 cm sample results in Group A was calculated to be 57 µg/g. Fifteen of 54 Group A sampling locations exceeded the Table F value for nickel. It should be noted that the Group A fourth quarter data for nickel did not appear to approach the background concentrations at 10 - 20 cm. If the data from this quarter was removed, the Group A 98th percentile value would likely be closer to the Table F nickel value of 43 µg/g. The 98th percentiles determined here will not be used in this report to replace the Table F for nickel because of the limited number of sampling points and the depths collected may not have been deep enough. Laurentian University was responsible for conducting extensive sampling in undisturbed areas in 2001 for the purpose of determining an accurate background concentration for the City of Greater Sudbury.

Table 7.1.1.5: Pearson's and Spearman's Correlations for 0 - 5 cm Urban Soil in the Outer Sudbury Communities

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*0.1*	*0.7*	*0.1*	*0.7*	*0.3*	*0.2*	*0.7*	*0.2*	*0.3*	*0.5*	*0.3*	*0.0*	*0.6*	*0.7*	*0.5*
As	0.1	1	*0.1*	*0.1*	*0.0*	*0.1*	*0.3*	*0.1*	*0.3*	*-0.1*	*0.0*	*0.2*	*0.1*	*-0.2*	*0.0*	*0.2*
Ba	**0.9**	0.1	1	*0.2*	*0.7*	*0.6*	*0.3*	*0.7*	*0.3*	*0.6*	***0.8***	*0.4*	*0.0*	*0.6*	*0.7*	*0.7*
Cd	0.2	0.0	0.2	1	*0.1*	*0.2*	*0.1*	*0.2*	*0.1*	*0.1*	*0.2*	*0.0*	*0.3*	*0.1*	*0.2*	*0.2*
Cr	0.7	0.0	0.7	0.2	1	*0.6*	*0.2*	***0.8***	*0.3*	*0.7*	*0.6*	*0.2*	*0.0*	*0.6*	***0.8***	*0.6*
Co	0.5	0.1	0.7	0.2	0.6	1	*0.3*	***0.8***	*0.3*	*0.7*	***0.8***	*0.4*	*0.0*	*0.3*	*0.7*	*0.6*
Cu	0.2	0.3	0.2	0.0	0.2	0.4	1	*0.3*	*0.6*	*0.1*	*0.3*	***0.9***	*0.1*	*0.0*	*0.2*	*0.4*
Fe	**0.8**	0.1	**0.8**	0.2	**0.8**	**0.8**	0.3	1	*0.2*	*0.7*	***0.8***	*0.2*	*0.0*	*0.4*	***0.9***	*0.7*
Pb	0.1	0.1	0.2	0.0	0.3	0.1	0.2	0.0	1	*0.1*	*0.2*	*0.5*	*0.1*	*0.0*	*0.2*	*0.6*
Mg	0.5	0.0	0.6	0.1	0.6	0.7	0.1	0.7	0.0	1	*0.7*	*0.1*	*0.0*	*0.4*	*0.6*	*0.5*
Mn	0.6	0.2	0.7	0.1	0.6	**0.8**	0.3	**0.8**	0.1	0.6	1	*0.3*	*0.0*	*0.4*	***0.8***	*0.7*
Ni	0.2	0.2	0.2	0.0	0.2	0.3	**0.8**	0.2	0.2	0.1	0.3	1	*0.1*	*0.2*	*0.2*	*0.4*
Se	0.0	0.1	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.2	1	*-0.1*	*0.0*	*0.1*
Sr	0.5	-0.1	0.4	0.1	0.5	0.3	0.0	0.4	0.0	0.4	0.4	0.1	0.0	1	*0.5*	*0.2*
V	0.7	0.1	0.7	0.1	**0.8**	0.7	0.2	**0.9**	0.0	0.6	0.7	0.2	0.0	0.4	1	*0.6*
Zn	0.6	0.3	0.7	0.2	0.6	0.7	0.5	0.7	0.3	0.5	**0.8**	0.4	0.1	0.2	0.6	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.

Pearson's and Spearman's statistical correlation analysis was performed on all of the elements except beryllium at each of the three depths. Refer to Table 7.1.1.5 for an abbreviated version of the results of the Pearson's and Spearman's analysis for the 0 - 5 cm depth and Tables 10.4.1.1 through 10.4.1.3 for the full results of the analysis at all three depths. In Table 7.1.1.5 the results have been rounded to one decimal place and values that were 0.75 or greater are considered strong and are indicated in bold type.

Of the major elements emitted by the mining and smelting processes in the Sudbury area only nickel and copper were strongly correlated with each other in the Outer Sudbury Communities at the 0 - 5 cm depth using Pearson's and Spearman's; 0.8 and 0.9, respectively. The correlation between nickel and copper remained strong and constant, with depth, using Spearman's and strong, although slightly decreasing with depth, using Pearson's. Arsenic did not correlate with any element at any depth using either Pearson's or Spearman's. Refer to Figures 7.1.1.5 and 7.1.1.6 for graphs of the

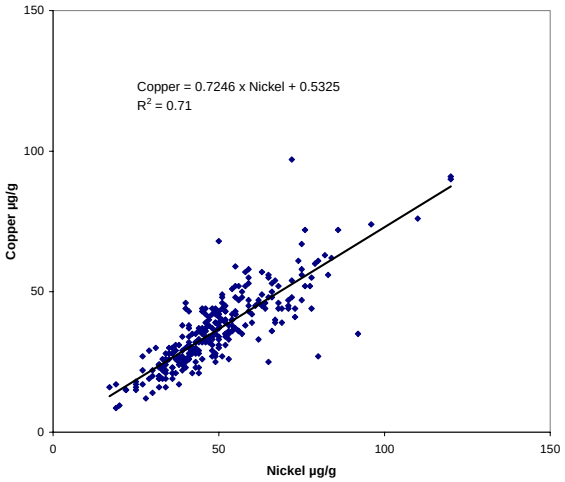


Figure 7.1.1.5: Cu vs. Ni, 0-5 cm, Outer Communities

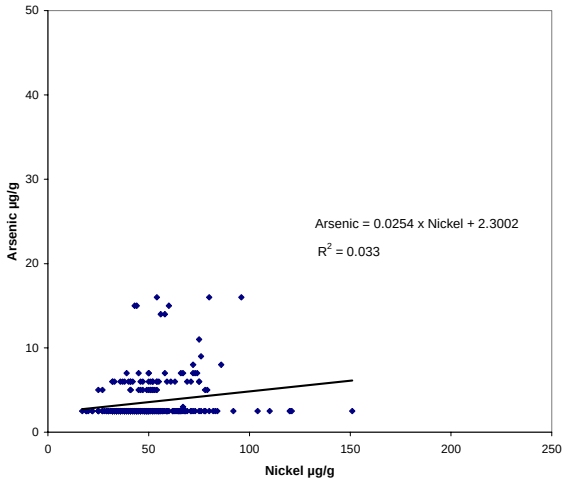


Figure 7.1.1.6: As vs Ni, 0-5 cm, Outer Communities

Ni/Cu and Ni/As correlations.

Using Pearson's and Spearman's, lead did not correlate with any elements at either the 0 - 5 or 5 - 10 cm depth intervals with the exception of a moderate correlation with zinc at 5 - 10 cm. At 10 - 20 cm, lead strongly correlated with cadmium and zinc in Pearson's but these correlations were largely driven by station 5030770 in McNicol Playground, Capreol. A moderate correlation between lead and copper was observed with Spearman's at this depth.

Strong or moderate correlations of cadmium with lead, molybdenum and/or zinc at 0 - 5 cm and 10 - 20 cm were largely driven by station 5030817, Douglas St playground in Dowling, at the 0 - 5 cm depth and by station 5030770 at the 10 - 20 cm depth. Cadmium was not detected above the analytical detection limit in any of the 5 - 10 cm samples and therefore did not correlate with any elements at this depth.

Pearson's and Spearman's showed both strong and moderate correlations between aluminum, barium, chromium, cobalt, iron, magnesium, manganese, vanadium and zinc at all depths. Overall the number and strength of these correlations generally increased with depth with little difference between Pearson's and Spearman's. Strontium and calcium became correlated to these elements in the 5 - 10 cm and 10 - 20 cm depths. Refer to Tables 10.4.1.1 through 10.4.1.3.

The correlations of aluminum, barium, iron, manganese, and vanadium are consistently strong in the Outer Sudbury Communities especially at depth. The increase in the number and strength of these correlations with depth is indicative of less disturbed soil at depth. Refer to Figures 7.1.1.7 and 7.1.1.8. This along with the soil profiles for these elements show that these elements appear to be indicative of the natural chemistry of the soil in the City of Greater Sudbury. Cobalt and chromium concentrations in the Outer Sudbury Communities tended to correlate with these naturally occurring elements indicating that cobalt and chromium concentrations also appear to be attributed to natural background concentrations rather than emissions from smelting activities. Cobalt and chromium concentrations in the Outer Sudbury Communities did not correlate with nickel and copper concentrations at any depth.

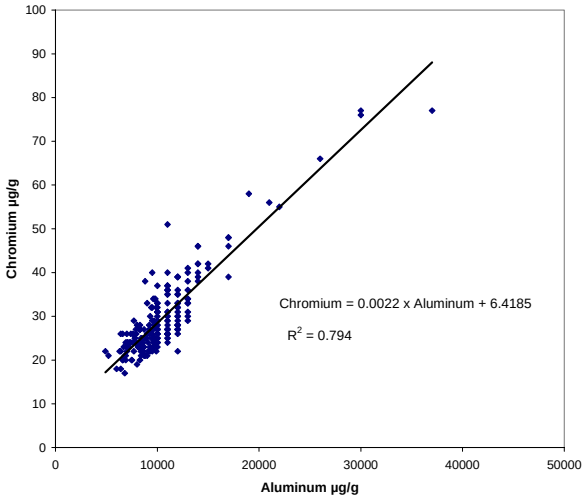


Fig. 7.1.1.7: Cr vs. Al, 5-10 cm, Outer Communities

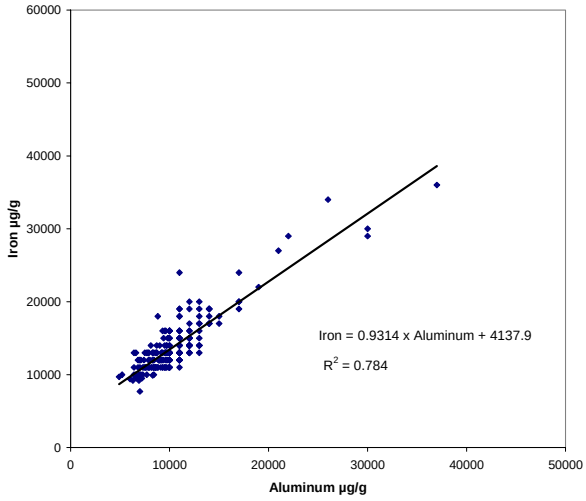


Fig. 7.1.1.8: Fe vs. Al, 5-10 cm, Outer Communities

Nickel and copper concentrations, in the Outer Sudbury Communities, strongly correlated only with each other and not with any other element at any depth. In the Ontario Typical Range (OTR) data that was used to create the Table F criteria, there were strong Spearman's correlations between cobalt and aluminum, barium, chromium, iron and nickel and a moderate correlation with vanadium. Nickel showed strong correlations with copper, cobalt, chromium and aluminum. The number and strength of the OTR correlations indicates that Ontario background concentrations of nickel, cobalt and copper generally correlate with elements such as aluminum, barium, chromium, iron and vanadium. Since, nickel and copper concentrations were not strongly correlated with any other elements in the Outer Sudbury Communities, nickel and copper appear to be slightly elevated due to emissions from the mining and smelting operations. OTR data was collected throughout Ontario including one third of the data from Northern Ontario. Refer to Figures 7.1.1.9 and 7.1.1.10. Refer to Figures 10.4.1.1 through 10.4.1.39 for a complete list of graphs showing selected element correlations at all three depths for the Outer Sudbury Communities.

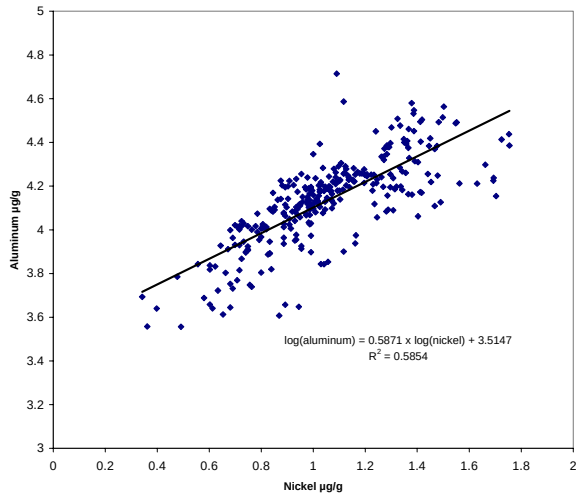


Figure 7.1.1.9: Ni vs Al in OTR rural data.

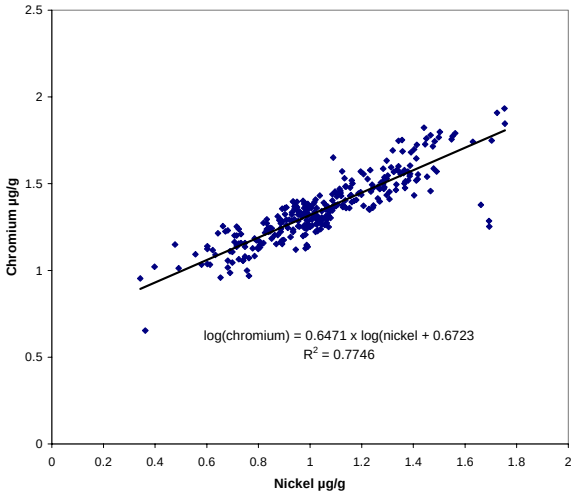


Figure 7.1.1.10: Ni vs Cr in OTR rural data.

In the Outer Sudbury Communities, only a small number of sample locations exceeded Table A for nickel, arsenic and lead at any depth. Eleven elements exceeded Table F criteria in the Outer Sudbury Communities. With the exception of nickel, the numbers of Table F exceedences per element were small. Nickel, copper, lead and zinc concentrations, in approximately half of the sample locations, showed a strong aerial deposition trend from surface. At the remaining sample locations, elevated concentrations of these elements occurred below surface. These elevated concentrations may still be attributed to aerial deposition, however, may have been buried by landscaping practices over time. Cobalt, barium and iron also showed a weak aerial deposition trend from surface in approximately half of the sample locations. Despite evidence of aerial deposition, no concentration gradient for nickel, copper, lead and zinc was observed in the Outer Sudbury Communities. No concentration gradients were observed for any elements.

Nickel and copper concentrations in the Outer Sudbury Communities only strongly correlated with each other and not with any other element at any depth. Aluminum, barium, iron, manganese, and vanadium appeared to be indicative of the natural chemistry of the soil in the City of Greater Sudbury. Cobalt and chromium concentrations in the Outer Sudbury Communities tended to correlate with these naturally occurring elements and not with nickel and copper. Using the data

from the Outer Sudbury Communities, local Sudbury background concentrations were calculated. Only the local nickel background concentration exceeded the Table F criteria. This indicates that with the exception of nickel, the Table F criteria appear to be appropriate for use in the City of Greater Sudbury.

7.1.2 Inner Sudbury Communities

As discussed in 7.0, the Inner Sudbury Communities grouping consisted of three local communities and three geographic groupings including Azilda, Garson, Lively, Sudbury East, Sudbury New and Sudbury South. The grouping was based on the concentrations of nickel, copper, cobalt, arsenic, selenium, lead, cadmium, chromium, iron, zinc, and barium in 0 - 5 cm surface soil. Concentrations of the eleven elements used in determining this grouping are relatively low but higher than the Outer Sudbury Communities. Refer to Table 7.1.2.1.

Table 7.1.2.1: Summary Statistics for Metals and Arsenic in Urban Soil of the Inner Sudbury Communities of the City of Greater Sudbury.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in the Inner Communities, n = 675																			
Minimum	4100	0.4	2.5	15	0.2	1800	17	3	11	7500	2	1300	90	0.75	16	0.5	10	17	12
10th percentile	7400	0.4	2.5	29	0.4	3200	24	5	35	11000	8	2200	150	0.75	47	0.5	24	24	21
1st quartile	8500	0.4	2.5	34	0.4	3900	27	6	47	13000	10	2500	170	0.75	62	0.5	30	26	26
Median	9800	0.4	2.5	43	0.4	5000	31	7	67	14000	14	3100	200	0.75	84	0.5	36	29	32
3rd quartile	11000	0.4	6.0	53	0.4	6400	36	9	100	16000	22	3700	240	0.75	125	0.5	42	32	40
95th percentile	15000	0.8	11	82	0.8	10300	46	14	183	19000	49	5200	310	0.75	250	1.0	50	37	64
Maximum	19000	4.4	30	130	2.0	27000	70	42	1400	27000	220	13000	510	6.40	1400	6.0	170	47	150
Mean	10100	0.5	4.9	46	0.4	5475	32	8	88	14329	21	3306	210	0.79	109	0.6	36	30	35
CV (std. dev./mean)	24%	66%	72%	36%	37%	46%	23%	47%	105%	19%	114	36%	26%	35%	93%	65%	30%	16%	45%
Skewness	0.7	7.5	2.5	1.3	5.8	2.5	1.0	4.2	7.9	1.1	4.6	2.5	1.3	13.8	7	7.3	3.2	0.5	2.6
5 to 10 cm Urban Soil in the Inner Communities, n = 531																			
Minimum	5100	0.4	2.5	15	0.4	1400	17	3	8	7500	1	1300	92	0.75	17	0.5	13	13	9
10th percentile	6900	0.4	2.5	26	0.4	2600	23	5	27	11000	6	2000	140	0.75	37	0.5	23	24	18
1st quartile	8400	0.4	2.5	33	0.4	3200	25	6	38	12000	8	2300	160	0.75	50	0.5	28	26	22
Median	9900	0.4	2.5	42	0.4	4100	30	7	54	14000	11	2900	190	0.75	68	0.5	34	30	27
3rd quartile	12000	0.4	7	53	0.4	5300	34	8	75	16000	14	3600	230	0.75	96	0.5	40	33	35
95th percentile	15000	0.4	11	86	0.4	9150	46	11	120	20000	27	5400	315	0.75	150	1.0	49	40	58
Maximum	22000	6.5	34	150	1.2	22000	75	29	880	26000	310	10000	440	3.20	880	5.0	65	50	160
Mean	10269	0.4	4.9	46	0.4	4672	31	7	64	14251	14	3120	201	0.78	80	0.6	34	30	31
CV (std. dev./mean)	27%	74%	81%	43%	18%	51%	25%	35%	90%	21%	162%	38%	30%	25%	75%	54%	26%	18%	50%
Skewness	0.8	14.6	3.2	1.7	7.3	2.6	1.3	2.7	9.2	0.9	9.8	1.8	1.0	7.4	7.3	6.2	0.2	0.6	3.1
10 to 20 cm Urban Soil in the Inner Communities, n = 492																			
Minimum	4900	0.4	2.5	16	0.4	1500	17	4	9	8000	2	1400	93	0.75	18	0.5	12	10	9
10th percentile	6200	0.4	2.5	24	0.4	2310	21	4	23	10000	5	2000	130	0.75	32	0.5	20	23	15
1st quartile	8000	0.4	2.5	33	0.4	3000	25	5	31	12000	6	2300	160	0.75	43	0.5	27	25	19
Median	9900	0.4	2.5	44	0.4	4000	29	7	46	14000	9	2900	200	0.75	58	0.5	34	29	25
3rd quartile	12000	0.4	6.0	62	0.4	5300	36	9	68	17000	13	3900	250	0.75	86	0.5	41	34	34
95th percentile	17000	0.4	11	100	0.4	9435	49	12	130	22000	28	6045	330	0.75	160	1.0	53	43	53
Maximum	23000	3.9	40	160	1.2	24000	69	21	340	30000	150	11000	430	21.00	360	2.0	60	62	110
Mean	10419	0.4	4.8	50	0.4	4561	31	7	56	14553	12	3269	205	0.81	71	0.6	34	30	29
CV (std. dev./mean)	34%	56%	82%	50%	17%	56%	30%	34%	71%	26%	105%	42%	31%	114%	63%	31%	30%	22%	49%
Skewness	1.0	10.5	3.8	1.4	8.8	2.6	1.2	1.3	2.7	1.0	5.6	1.7	0.7	21.5	2.4	2.9	0.2	0.8	2.0

All results are in µg/g dry weight.

In the 0 - 5 cm soil samples, nickel and copper concentrations were approximately double the concentrations found in the Outer Sudbury Communities (Table 7.1.1.1). Lead had a slight increase from the 70th percentile up. Arsenic, barium, cobalt and selenium had only a small increase from the 95th percentile up as compared to the Outer Sudbury Communities. Aluminum, iron, vanadium and zinc were only higher at the maximum concentrations. In the 10 - 20 cm soil samples, nickel and copper were approximately double the concentrations found in the Outer Sudbury Communities from the 80th percentile up. All other elements were essentially the same between the Inner and Outer Sudbury Communities at the 10 - 20 cm depth.

It should be noted that in the Outer Sudbury Communities all of the urban soil sampling sites were school or park properties except for 5 residential properties in Skead. In the Inner Sudbury Communities half of the urban soil samples were from residential properties, with the other half from either school or park properties. Two residential properties, stations 5037916 and 5037939, were atypical in that they were considerably higher in concentration for most elements. At station 5037939 the owner informed the Ministry representative that the yard in question had been filled in and he did not know the origin of the fill. At station 5037916, the concentrations of one sample replicate was approximately an order of magnitude higher for most elements. As a result, these two properties elevated the maximum and 95th percent concentrations observed in the Inner Sudbury Communities. For the purposes of depth profile and correlation analysis the results from these two stations were removed from the data set.

In the Inner Sudbury Communities, the concentrations of nickel, copper, cobalt, arsenic and lead varied between residential, school and park properties and with depth. The sample size for the school properties decreased substantially at 5 - 10 and 10 - 20 cm. This reduction in sample size may affect the validity of comparisons between the school properties and the other land uses. Refer to Table 7.1.2.2.

Table 7.1.2.2: Summary Statistics for Metals and Arsenic for All 0- 5 cm Urban Soil Samples from the Inner Sudbury Communities by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm				n = 314															
Minimum	5300	0.4	2.5	26	0.2	2000	17	4	20	7500	4	1800	120	0.75	30	0.5	14	17	15
10th percentile	7600	0.4	2.5	33	0.4	3500	26	6	41	12000	9	2200	150	0.75	53	0.5	27	25	24
1st quartile	8900	0.4	2.5	39	0.4	4000	28	6	56	13000	12	2500	180	0.75	70	0.5	32	27	29
Median	10000	0.4	5.0	49	0.4	4900	32	8	79	14000	17	3000	205	0.75	90	0.5	38	30	36
3rd quartile	12000	0.4	7.0	62	0.4	5900	38	10	120	16000	25	3600	240	0.75	140	0.5	42	33	47
95th percentile	15350	0.8	12	88	0.8	8135	47	15	217	20000	46	4700	310	1.50	270	1.0	50	38	71
Maximum	19000	2.5	30	130	2.0	18000	70	41	1400	27000	220	9200	450	6.40	1400	6.0	63	47	150
Mean	10687	0.5	5.5	53	0.4	5256	33	9	106	14803	23	3161	214	0.83	124	0.7	37	30	41
CV (std. dev./mean)	23%	56%	70%	35%	43%	39%	22%	49	116	20%	104%	31%	25%	49%	105%	75%	22%	16%	46%
Skewness	0.6	5.8	2.2	1.1	4.9	2.7	0.9	4.2	6.6	1.2	5.0	2.4	1.1	9.6	6.5	6.8	-0.1	0.5	2.4
Schools and Daycares 0 to 5 cm				n = 175															
Minimum	4100	0.4	2.5	15	0.4	2000	20	3	11	8500	2	1600	110	0.75	16	0.5	14	20	12
10th percentile	7340	0.4	2.5	28	0.4	2900	24	5	26	11000	6	2300	150	0.75	38	0.5	23	24	20
1st quartile	8200	0.4	2.5	32	0.4	3600	28	6	39	12500	9	2600	170	0.75	57	0.5	28	26	25
Median	9200	0.4	2.5	40	0.4	5100	31	7	56	14000	12	3100	200	0.75	73	0.5	33	29	29
3rd quartile	10300	0.4	6.0	45	0.4	6900	35	9	100	15000	21	4000	230	0.75	120	0.5	41	32	35
95th percentile	12000	0.5	8.0	53	0.5	11000	43	13	160	17300	113	5460	270	0.75	205	1.2	48	34	52
Maximum	14000	4.4	9.0	70	1.6	18000	67	42	370	24000	200	9200	380	1.60	630	4.0	170	39	75
Mean	9249	0.5	3.8	39	0.4	5584	32	8	73	13809	24	3426	202	0.75	95	0.6	35	29	31
CV (std. dev./mean)	18%	89%	51%	23%	36%	46%	22%	54	68%	17%	136%	35%	21%	9%	76%	64%	41%	12%	35%
Skewness	-0.3	7.0	1.0	0.4	5.3	1.3	1.6	4.9	2.3	1.1	3.0	1.7	0.5	13.2	3.5	5.1	5.2	0.0	1.6
Parks 0 to 5 cm				n = 186															
Minimum	4900	0.4	2.5	18	0.4	1800	17	4	13	9100	3	1300	90	0.75	25	0.5	10	17	13
10th percentile	6900	0.4	2.5	26	0.4	2900	22	5	32	11000	7	2200	140	0.75	45	0.5	23	22	19
1st quartile	8200	0.4	2.5	31	0.4	4000	24	6	45	12000	10	2400	160	0.75	62	0.5	29	25	25
Median	9600	0.4	2.5	40	0.4	5000	28	8	60	14000	13	3200	200	0.75	82	0.5	36	28	30
3rd quartile	11000	0.4	6.0	49	0.4	6600	34	9	79	15000	17	3800	240	0.75	110	0.5	44	32	36
95th percentile	15000	0.4	12	74	0.4	12000	45	14	168	19000	26	6250	318	0.75	247	1.0	56	37	51
Maximum	17000	2.6	27	95	1.0	27000	57	20	230	22000	50	13000	510	0.75	304	1.0	80	42	77
Mean	9911	0.4	4.7	42	0.4	5741	30	8	70	14018	14	3438	211	0.75	96	0.6	37	29	31
CV (std. dev./mean)	25%	51%	81%	36%	15%	54%	25%	35	58%	20%	50%	43%	32%	0%	59%	29%	30%	17%	34%
Skewness	0.7	7.4	2.4	1.1	9.6	2.8	1.1	1.0	1.7	0.7	2.0	2.6	1.5		1.8	2.4	0.6	0.5	1.4

All results are in µg/g dry weight.

Cobalt concentrations were generally similar in all three land uses at all depths. Concentrations of nickel and copper were generally higher in residential properties than in school and park properties, except at 10 - 20 cm where these elements were similar in both residential and park properties . Nickel and copper concentrations in the residential properties were higher than school and park properties from the 10th percentile to the median and onwards, dependant on the depth and element. Nickel concentrations between residential and park properties at 5 - 10 cm were very similar except for a higher maximum value for the residential properties. Arsenic concentrations were higher in the residential and park properties than in the schools at surface from the median to the 90th percentile and onwards and marginally higher in the 5 - 10 cm soi layer. At 10 - 20 cm, arsenic concentrations in the park properties were higher than in the residential and school properties from the 95th percentile and onwards. Except for the surface, lead concentrations were higher in the residential properties than in the park and school properties from the 30th to 80th percentiles and onwards, respectively. At the surface, lead concentrations were generally higher in the school properties, from the 80th to 90th percentile and onwards, with the exception of the maximum value which was highest in residential properties.

Selenium concentrations were marginally higher in the residential and school properties at the surface and in the residential properties at 5 - 10 cm. Selenium concentrations were similar at depth between all land uses. Zinc concentrations were higher in the residential properties at all depths. Chromium and iron concentrations were also generally higher in the residential and park properties below surface. This trend may be the result of the small number of samples for the school properties below surface. Cadmium concentrations were similar at all depths between all land uses.

Generally, concentrations of nickel, copper, and to a lesser extent cobalt, were substantially higher in school and park properties at the surface compared to the Outer Sudbury Communities. Concentrations remained higher than the Outer Sudbury Communities for nickel and copper with depth.

Table 7.1.2.3: Summary of MOE Table F and Table A Exceedences for Metals and Arsenic in All Urban Soil Samples from the Inner Communities of the City of Greater Sudbury

Element	Table F			Table A		
	0 to 5 cm	5 to 10 cm	10 to 20 cm	0 to 5 cm	5 to 10 cm	10 to 20 cm
Antimony	21 (3%)	5 (1%)	8 (2%)	0	0	0
Arsenic	7 (1%)	7 (1%)	6 (1%)	4 (1%)	7 (1%)	3 (1%)
Cadmium	7 (1%)	2	3 (1%)	0	0	0
Chromium	0	1	0	0	0	0
Cobalt	8 (1%)	2	0	2	0	0
Copper	240 (36%)	102 (19%)	74 (15%)	19 (3%)	3 (1%)	4 (1%)
Lead	16 (2%)	4 (1%)	1	1	4 (1%)	0
Molybdenum	2	1	1	0	0	0
Nickel	622 (92%)	442 (83%)	362 (74%)	115 (17%)	25 (5%)	28 (6%)
Selenium	12 (2%)	8 (2%)	1	0	0	0
No. of Samples	675	531	492	675	531	492

Table 7.1.2.3 summarizes the number of urban soil samples that exceed the Table F and Table A criteria in the Inner Sudbury Communities. Concentrations of nickel, copper, cobalt, arsenic and lead exceeded Table A at one or more depth intervals in the Inner Sudbury Communities. Only nickel,

copper and arsenic concentrations exceeded Table A at all depths. No other elements exceeded Table A at any depths in the Inner Sudbury Communities. Ten elements exceed Table F criteria in the Inner Sudbury Communities. With the exception of nickel and copper, the numbers of Table F exceedences per element were small. At 0 - 5 cm, 92% of the urban soil samples exceeded Table F for nickel, and 36% exceeded for copper. At 10 - 20 cm, only 74% of the urban soil samples exceeded Table F for nickel, and 15% exceeded for copper.

Concentration dot maps were created for nickel, copper, cobalt, arsenic and lead at the 0 - 5 cm soil depth for the Inner Sudbury Communities. Concentration gradient trends in this community group were observed for nickel and copper for the 0 - 5 cm soil. Nickel concentrations generally decreased slightly to the south and northwest with respect to Copper Cliff. The number of Table A exceedences decreased with increasing distance from the smelter. There was also a small trend of decreasing copper concentrations in all directions with respect to increasing distance from Copper Cliff. This trend continues into the Outer Sudbury Communities. For an example of the spacial distribution trend in the Inner Sudbury Communities for nickel in the 0 - 5 cm soil, refer to Figure 7.1.2.1.
No concentration gradient trend was observed for cobalt, arsenic or lead in the Inner Sudbury Communities. Refer to Sections 10.2.5 through 10.2.7 and 10.2.9 for concentration dot maps of

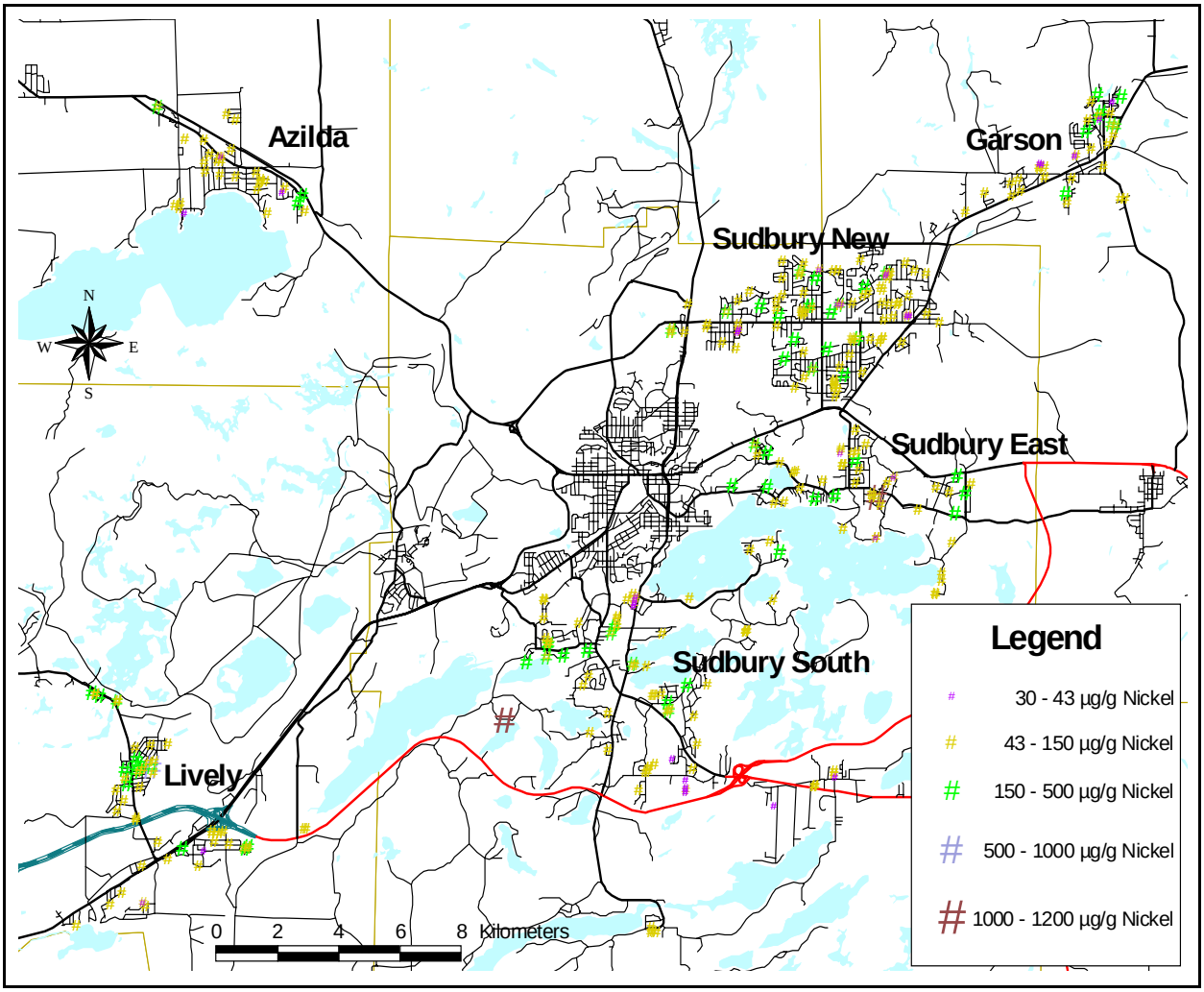


Figure 7.1.2.1: Nickel concentrations in 0 to 5 cm soil in the Inner Sudbury Communities

nickel, copper, cobalt, arsenic and lead at 0 - 5 cm in these communities. Due to the large area covered by the Inner Sudbury Communities, the area is represented by four maps: Sudbury New/East/Garson, Sudbury South, Valley West, and Sudbury West.

In the Inner Sudbury Communities, all three depth trends (Group A, B and C) were observed at varying numbers of sample locations. Seventy-eight percent of the sample locations exhibited a trend of decreasing concentrations with increasing depth, consistent with Group A. Nickel, copper, lead and zinc, and to a lesser extent cobalt, concentrations in Group A showed a visual trend of decreasing concentration with depth in all quarters. Average concentrations at the surface were 1.1 to 1.5 times the concentration at 10 - 20 cm for cobalt and zinc while average concentrations at the surface were 1.3 to 2.8 times those at depth for nickel, copper and lead. Figure 7.1.2.2 depicts the depth profile of lead in Group A for the Inner Sudbury Communities.

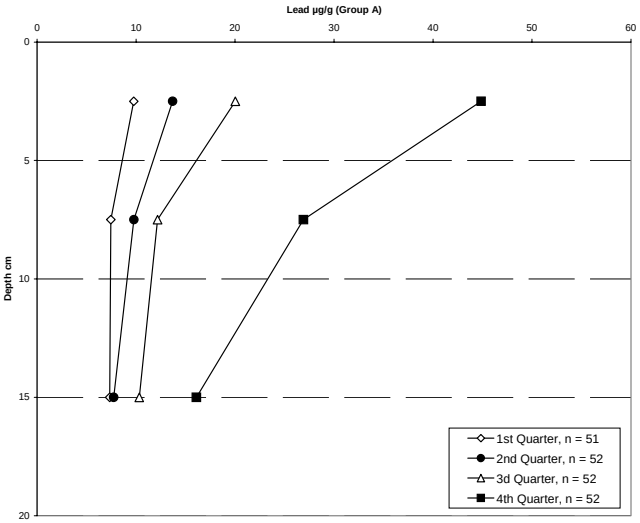


Figure 7.1.2.2: Inner Communities, Pb depth profiles, Group A.

Chromium also showed a visual trend of decreasing concentrations with depth in the second and fourth quarters (1.1 times). The average concentrations in the first and third quarters for chromium showed no observable change with depth.

Concentrations for both selenium and cadmium showed a visual trend of decreasing concentration with depth in the fourth quarter (1.3 to 1.4 times). In the third quarter for selenium, the maximum concentration was observed at the 5 - 10 cm depth. All quarters for both cadmium and selenium were at or near analytical MDLs, therefore these trends should be interpreted with caution. The first and second quarters for arsenic in Group A were also at or near analytical MDLs while the third and fourth quarters showed a visual trend of decreasing concentration with depth (1.4 times).

Average aluminum, iron and vanadium concentrations in Group A showed no observable change with depth in all four quarters. The wide range in concentrations between the quarters of these elements may indicate differences in soil type. Refer to Section 10.5.2 for graphs of the depth profiles for the elements discussed above.

In the Inner Sudbury Communities, 6% of the sample locations exhibited a trend of maximum concentrations at 5 - 10 cm, while lower concentrations were observed at both 0 - 5 and 10 - 20 cm. This trend is consistent with Group B. Nickel, cobalt and lead concentrations, in Group B, showed a strong, visual trend of maximum concentration occurring at 5 - 10 cm in the second half. Average concentrations at 5 - 10 cm were 1.2 to 1.7 times the average concentrations at surface for these elements. This trend was weak in the first half for these elements. Figure 7.1.2.3 depicts the depth profile of lead in Group B for the Inner Sudbury Communities.

Copper, in Group B, showed a strong, visual trend of maximum concentrations (1.6 times) at 5 - 10 cm in the second half and a weak trend of decreasing concentration with depth in the first half. Concentration trends of iron, chromium, zinc, aluminum and vanadium were similar to copper but weaker (1.1 to 1.2 times). Concentrations for selenium and cadmium in both halves, and arsenic concentrations in the first half, were at or near analytical MDLs, therefore no concentration trends were observed. Arsenic concentrations in the second half showed no observable change with depth.

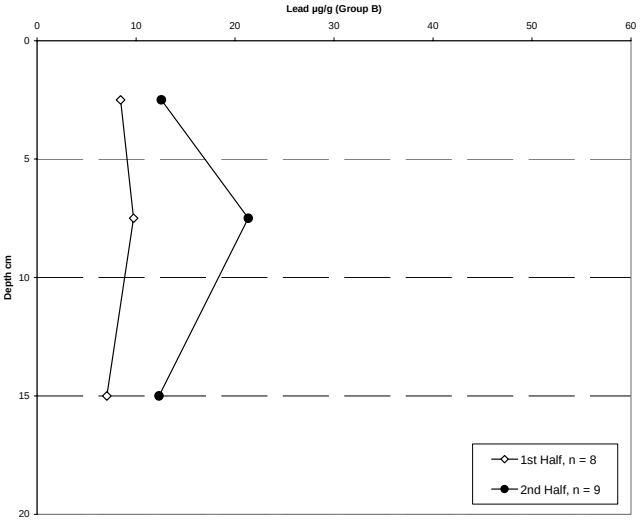


Figure 7.1.2.3: Inner Communities, Pb depth profiles, Group B.

In the Inner Sudbury Communities, 16% of the sample locations exhibited a trend of increasing concentration with increasing depth, consistent with Group C. Nickel, copper, cobalt and lead concentrations, in Group C, showed a strong to weak, visual trend of increasing concentrations with depth in all quarters. Average concentrations at 10 - 20 cm were 1.1 to 2.1 times the average concentrations at surface for these elements. Figure 7.1.2.4 depicts the depth profile of lead in Group C for the Inner Sudbury Communities.

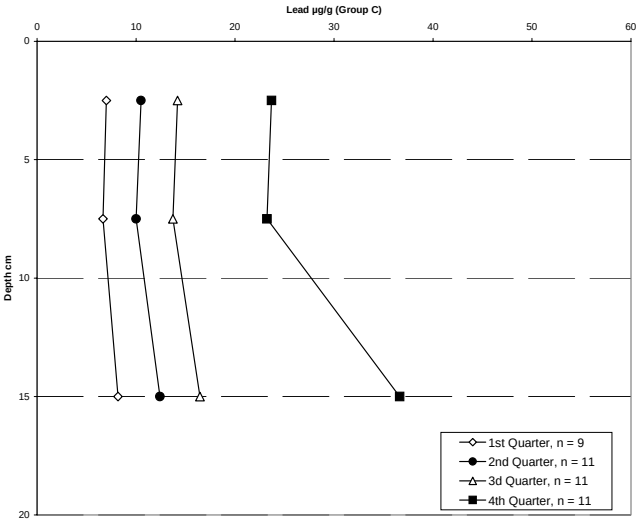


Figure 7.1.2.4: Inner Communities, Pb depth profiles, Group C.

Arsenic showed a similar trend in the second to fourth quarters (1.5 to 2.2 times), however, average concentrations were at or near the analytical MDL in the first quarter.
Chromium, iron, zinc, aluminum and vanadium showed no observable change in average concentrations with depth in the first and second quarter and a weak trend of increasing concentrations with depth in the third and fourth quarters (1.1 to 1.4 times). Concentrations for selenium and cadmium in all quarters were at or near analytical MDLs.

In the Inner Sudbury Communities, 78% of the sampling locations showed a pattern of aerial deposition from surface, compared with only 49% in the Outer Sudbury Communities. Generally, the trend of decreasing concentration with increasing depth was stronger for nickel, copper, lead, and to a lesser degree selenium, cadmium and chromium in the Inner Sudbury Communities. Only 22% of the sampling locations in the Inner Sudbury Communities showed a pattern of maximum concentration occurring below the surface, compared to over 50% of the locations in the Outer Sudbury Communities. This trend was stronger in the Outer Sudbury Communities for barium and zinc, and stronger in the Inner Sudbury Communities for cobalt and arsenic. Refer to Section 10.5.2 for graphs of the depth profiles for the elements discussed above.

Overall, concentrations of nickel, copper, lead, zinc, and to a lesser extent cobalt, in 78% of the sample locations in the Inner Sudbury Communities, showed a strong aerial deposition trend from surface. These sample locations appeared to be unaffected by landscaping practices. The remaining sample locations appeared to be affected by some degree of landscaping practices, although nickel, copper, cobalt and lead concentrations showed strong to weak trends of maximum concentrations below surface. These elevated concentrations may still be attributed to aerial deposition, however, have been buried by landscaping practices at individual properties over time. Addition, grading, removal and / or mixing of urban soils may alter the vertical distribution of chemical concentrations in the soil. Chromium also showed a weak aerial deposition trend from surface in 78% of the sample locations.

Pearson's and Spearman's statistical correlation analysis was performed on all of the elements except beryllium at each of the three depths. As discussed above, stations 5037916, a residential backyard in Sudbury East, and 5037939, a residential front yard in Sudbury South, were atypical in that they were higher in concentration for most elements than other properties in the Inner Sudbury Communities. They were therefore not included in the correlations analysis and discussion. Refer to Tables 7.1.2.4 to 7.1.2.6 below for an abbreviated version of the results of the Pearson's and Spearman's analysis for all three depths, and Tables 10.4.2.1 through 10.4.2.3 for the full results of the analysis. In Tables 7.1.2.4 to 7.1.2.6 the results have been rounded to one decimal place and values that were 0.75 or greater are considered strong and are indicated in bold type.

Table 7.1.2.4: Pearson's and Spearman's Correlations for 0 - 5 cm Soil in Inner Sudbury Communities

	Al	Ba	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Sr	V	Zn
Al	1	*0.7*	***0.8***	*0.3*	*0.2*	*0.7*	*0.1*	*0.5*	*0.6*	*0.2*	***0.8***	***0.8***	*0.4*
Ba	**0.8**	1	*0.7*	*0.6*	*0.5*	*0.7*	*0.4*	*0.5*	*0.7*	*0.5*	*0.6*	*0.7*	*0.7*
Cr	**0.8**	0.7	1	*0.5*	*0.3*	***0.8***	*0.3*	*0.6*	*0.7*	*0.4*	*0.6*	***0.8***	*0.5*
Co	0.3	0.5	0.4	1	***0.8***	*0.6*	*0.7*	*0.4*	*0.4*	***0.8***	*0.2*	*0.4*	*0.7*
Cu	0.2	0.5	0.3	**0.8**	1	*0.4*	***0.8***	*0.2*	*0.3*	***1.0***	*0.1*	*0.2*	*0.7*
Fe	0.7	0.7	0.7	0.7	0.5	1	*0.3*	*0.7*	*0.7*	*0.4*	*0.5*	***0.9***	*0.6*
Pb	0.1	0.2	0.4	0.4	0.5	0.2	1	*0.1*	*0.2*	***0.8***	*0.1*	*0.1*	*0.6*
Mg	0.4	0.3	0.4	0.3	0.1	0.5	0.0	1	*0.7*	*0.2*	*0.5*	*0.6*	*0.4*
Mn	0.6	0.6	0.6	0.3	0.2	0.7	0.1	0.5	1	*0.3*	*0.6*	*0.7*	*0.5*
Ni	0.2	0.5	0.4	**0.8**	**0.9**	0.5	0.4	0.2	0.2	1	*0.1*	*0.2*	*0.7*
Sr	0.6	0.5	0.5	0.1	0.1	0.4	0.0	0.6	0.4	0.1	1	*0.7*	*0.3*
V	**0.8**	0.7	**0.8**	0.4	0.2	**0.9**	0.1	0.5	0.7	0.3	0.5	1	*0.5*
Zn	0.4	0.7	0.5	0.6	0.6	0.6	0.4	0.3	0.5	0.6	0.2	0.5	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 7.1.2.5: Pearson's and Spearman's Correlations for 5 - 10 cm Soil in Inner Sudbury Communities

	Al	Ba	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Sr	V	Zn
Al	1	***0.8***	***0.8***	*0.5*	*0.4*	***0.8***	*0.3*	*0.6*	*0.7*	*0.3*	***0.8***	***0.9***	*0.5*
Ba	**0.9**	1	***0.8***	*0.7*	*0.6*	***0.8***	*0.5*	*0.6*	*0.7*	*0.6*	*0.7*	***0.8***	*0.7*
Cr	**0.9**	**0.8**	1	*0.6*	*0.3*	***0.9***	*0.3*	***0.8***	***0.8***	*0.4*	***0.8***	***0.9***	*0.6*
Co	0.6	0.7	0.7	1	*0.7*	*0.7*	*0.6*	*0.6*	*0.6*	*0.7*	*0.4*	*0.6*	*0.7*
Cu	0.5	0.6	0.5	0.7	1	*0.4*	***0.8***	*0.2*	*0.3*	***0.9***	*0.2*	*0.3*	*0.7*
Fe	**0.9**	**0.8**	**0.8**	0.7	0.5	1	*0.3*	*0.7*	***0.8***	*0.4*	*0.7*	***0.9***	*0.7*
Pb	0.1	0.2	0.2	0.2	0.3	0.1	1	*0.2*	*0.3*	***0.8***	*0.2*	*0.3*	*0.7*
Mg	0.5	0.5	0.7	0.5	0.2	0.6	0.1	1	***0.8***	*0.2*	*0.6*	*0.7*	*0.5*
Mn	0.7	0.7	**0.8**	0.6	0.4	**0.8**	0.1	0.6	1	*0.3*	*0.7*	***0.8***	*0.6*
Ni	0.4	0.6	0.4	**0.8**	**0.9**	0.5	0.3	0.2	0.4	1	*0.2*	*0.3*	*0.7*
Sr	**0.8**	0.6	0.7	0.4	0.2	0.6	0.0	0.5	0.7	0.3	1	***0.8***	*0.4*
V	**0.9**	**0.8**	**0.9**	0.6	0.4	**0.9**	0.1	0.6	**0.8**	0.4	0.7	1	*0.6*
Zn	0.5	0.7	0.6	0.6	0.6	0.6	0.3	0.4	0.6	0.6	0.4	0.5	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 7.1.2.6: Pearson's and Spearman's Correlations for 10 - 20 cm Soil in the Inner Communities

	Al	Ba	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Sr	V	Zn
Al	1	***0.9***	***0.9***	*0.7*	*0.5*	***0.9***	*0.5*	*0.6*	***0.8***	*0.5*	***0.8***	***0.9***	*0.7*
Ba	**0.9**	1	***0.9***	*0.7*	*0.6*	***0.9***	*0.5*	*0.7*	***0.8***	*0.6*	***0.8***	***0.8***	***0.8***
Cr	**0.9**	**0.9**	1	*0.7*	*0.4*	***0.9***	*0.4*	***0.8***	***0.9***	*0.4*	***0.8***	***0.9***	*0.7*
Co	0.6	0.7	0.6	1	*0.7*	***0.8***	*0.7*	*0.6*	*0.7*	*0.7*	*0.5*	*0.7*	***0.8***
Cu	0.4	0.5	0.4	**0.8**	1	*0.5*	***0.8***	*0.3*	*0.4*	***0.9***	*0.3*	*0.4*	***0.8***
Fe	**0.9**	**0.9**	**0.9**	0.7	0.5	1	*0.5*	***0.8***	***0.8***	*0.5*	*0.7*	***0.9***	***0.8***
Pb	0.2	0.3	0.2	0.4	0.5	0.2	1	*0.2*	*0.4*	***0.8***	*0.4*	*0.4*	***0.8***
Mg	0.7	0.6	**0.8**	0.5	0.2	**0.8**	0.1	1	***0.8***	*0.2*	*0.7*	***0.8***	*0.6*
Mn	**0.8**	**0.8**	**0.8**	0.6	0.3	**0.8**	0.2	**0.8**	1	*0.4*	***0.8***	***0.8***	*0.7*
Ni	0.4	0.5	0.3	**0.8**	**0.9**	0.4	0.4	0.2	0.3	1	*0.3*	*0.4*	*0.7*
Sr	**0.8**	0.7	**0.8**	0.4	0.3	0.7	0.2	0.7	**0.8**	0.3	1	***0.8***	*0.6*
V	**0.9**	**0.8**	**0.9**	0.6	0.3	**0.9**	0.2	0.7	**0.8**	0.3	**0.8**	1	*0.7*
Zn	0.6	0.7	0.6	0.7	0.6	0.7	0.5	0.5	0.7	0.6	0.5	0.6	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Of the major elements emitted by the mining and smelting processes in the Sudbury area, in the Inner Sudbury Communities, nickel, copper and cobalt were strongly correlated with each other at the 0 to 5 cm depth using Pearson's and Spearman's. An example of these correlations are presented in Figures 7.1.2.5 and 7.1.2.6 below. Refer to Section 10.4.2 for additional correlation figures. These elements were moderately correlated with zinc in Spearman's. The correlation between nickel, copper and cobalt remained similar at all depth intervals with minor fluctuations in the level of significance for cobalt in both Pearson's and Spearman's.

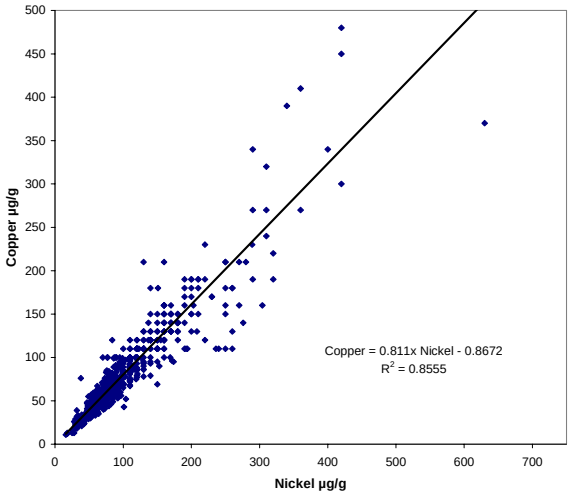


Figure 7.1.2.5: Cu vs. Ni in 0 to 5 cm soil.

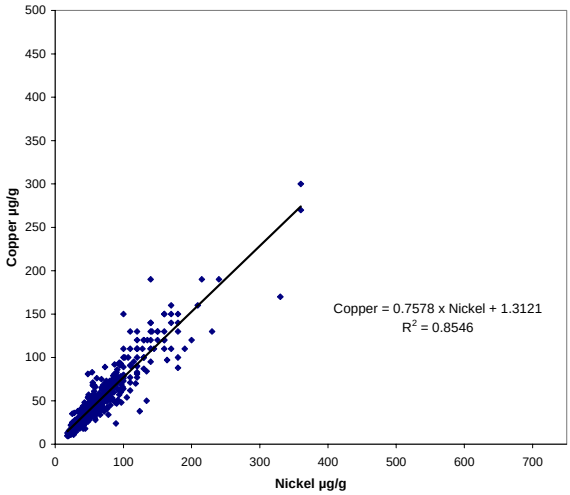


Figure 7.1.2.6: Cu vs Ni in 10 to 20 cm soil.

Unlike in the Outer Sudbury Communities, cobalt was not strongly correlated with the naturally occurring elements (i.e. aluminum, barium etc.) at the surface, while it was strongly correlated with nickel and copper. As the depth increased, the correlations between cobalt and aluminum, barium, chromium, iron, manganese, vanadium and zinc became stronger while the correlations between cobalt, nickel and copper decreased slightly. This indicates that elevated cobalt concentrations at surface in the Inner Sudbury Communities may be attributed to smelter emissions and not to background concentrations.

Lead did not correlate with any elements at any depth using Pearson's. Using Spearman's, however, lead was strongly correlated with nickel and copper, and to a lesser extent cobalt at 0 - 5 cm. The lead correlations with nickel and copper remained strong and constant at all depth intervals. At 5 - 10 cm, lead moderately correlated to zinc, and at 10 - 20 cm, was strongly correlated to zinc and moderately correlated to cobalt.

The difference between the Pearson's and Spearman's correlations can be illustrated using the lead/zinc relationship. As discussed in Section 7.2, Pearson's correlation is used as an indicator of the strength of a linear relationship between two variables. This relationship may be strongly affected by the presence of non normal data or outliers. Spearman's correlation is used as an indicator of the strength of non-linear relationships and reduces the effect of outliers on the relationship. Similar to Spearman's, log - log transformations also reduce the effect of outliers and highly skewed, non normal data on correlations.

At 5 - 10 cm, the presence of two outliers, with high lead concentrations at station 5037913 strongly affected the Pearson's correlation values (R = 0.3) with nickel, copper and zinc while it only marginally affected the Spearman's correlation values (R = 0.7 to 0.8). Arbitrarily removing these outliers would increase the Pearson's correlation value to R = 0.64 for lead and zinc. Refer to Table 7.1.2.5. As shown in Figure 7.1.2.7, the lead and zinc correlation at 5 - 10 cm in the Inner Sudbury Communities using Pearson's appeared to be unduly influenced by the two outliers. The R^2 value was low (R^2 = 0.09). Figure 7.1.2.8 depicts the same lead and zinc correlation using Pearson's, however, the data has been log - log transformed. The log - log transformation reduced the effect of the outliers, strengthening the correlation. This is indicated by the increased R^2 value of 0.5 and R value of 0.7.

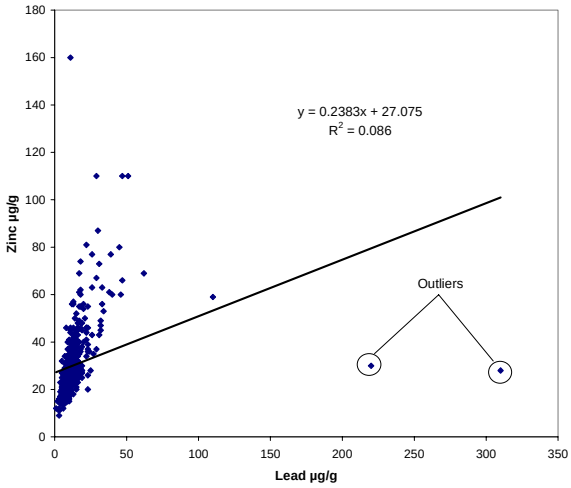


Figure 7.1.2.7: Zn vs Pb, 5 to 10 cm

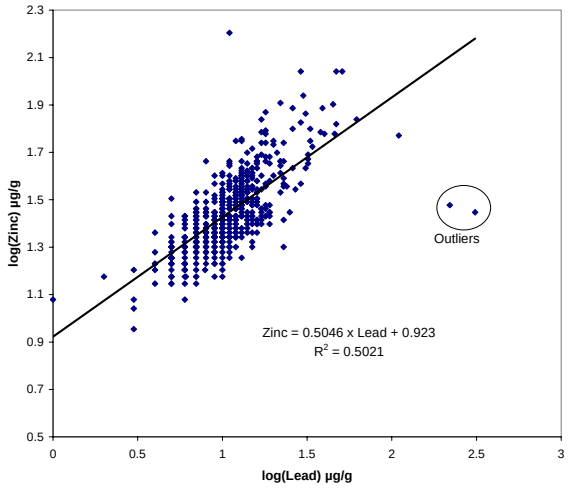


Figure 7.1.2.8: log[Zn] vs log[Pb], 5 to 10 cm

Arsenic was not correlated with any elements at the 0 - 5 or 5 - 10 cm depth intervals using Pearson's or at any depth using Spearman's. Arsenic was moderately correlated in Pearson's with copper and nickel at 10 - 20 cm. These correlations, however, were largely driven by station 5030636. Figures 7.1.2.9 and 7.1.2.10 clearly show the effect of this station on the arsenic and copper correlation.

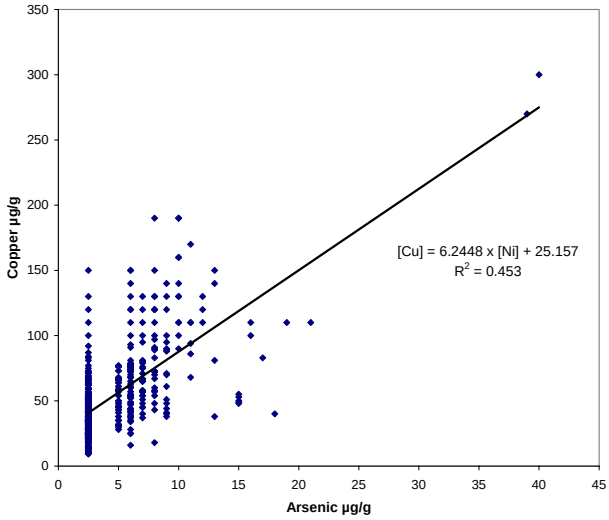


Fig. 7.1.2.9: Cu vs. As, 10-20 cm, Inner Communities

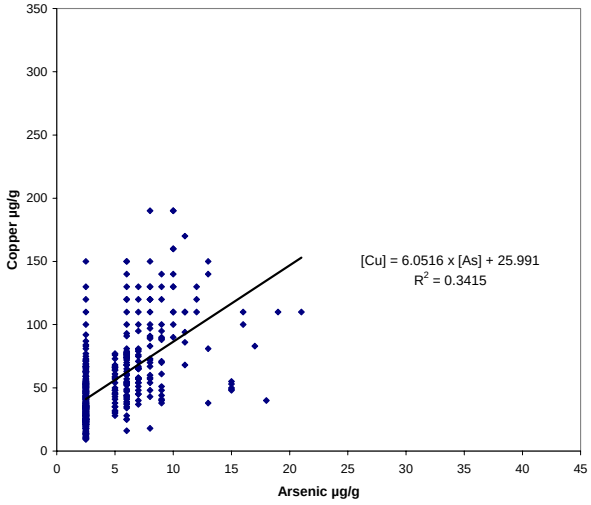


Fig. 7.1.2.10: Cu vs. As, 10-20 cm, Inner Communities without outliers.

Pearson's and Spearman's showed both strong and moderate correlations between aluminum, barium, chromium, iron, magnesium, manganese, strontium, vanadium and zinc at all depths. Overall the number and strength of these correlations increased with depth and were more prevalent using Spearman's. These elements are indicative of the naturally occurring geology in the City of Greater Sudbury and are expected to correlate with one another. The increase in the number and strength of these correlations with depth is indicative of less disturbed soil at depth. Correlations with the naturally occurring elements generally increased with Spearman's at depth and decreased with Pearson's, while the correlations with the elements associated with smelter emissions generally

stay constant with Pearson's at depth and decreased with Spearman's. Refer to Tables 7.1.2.4 to 7.1.2.6.

Of the major elements emitted by the mining and smelting processes in the Sudbury area only nickel and copper were strongly correlated at all depths in the Outer Sudbury Communities. Cobalt concentrations appeared to be naturally occurring and not related to the smelter emissions. In the Inner Sudbury Communities, at all depths, nickel, copper and cobalt remain strongly correlated while lead also becomes strongly correlated with nickel and copper. The correlations between cobalt with nickel and copper became weaker and the correlations between cobalt and the naturally occurring elements became stronger with depth. This indicates that although cobalt concentrations at the surface may be attributed to smelter emissions, concentrations at depth may be also attributed to natural background concentrations. Refer to Figures 10.4.2.1 through 10.4.2.42 for a complete list of graphs showing selected element correlations at all three depths for the Inner Sudbury Communities.

In summary, element concentrations were relatively low in the Inner Sudbury Communities, but higher than the Outer Sudbury Communities. At all depths, nickel and copper concentrations were approximately double the concentrations found in the Outer Sudbury Communities from the median to 80th percentile up. Cobalt, arsenic, lead, barium and selenium concentrations were only slightly higher. Concentrations of nickel, copper, cobalt, arsenic and lead exceeded Table A at one or more depth intervals in the Inner Sudbury Communities. Only nickel, copper and arsenic concentrations exceeded Table A at all depths. Ten elements exceed Table F criteria in the Inner Sudbury Communities.

In the Outer Sudbury Communities the majority of the urban soil sampling locations were school or park properties. In the Inner Sudbury Communities half of the urban soil samples were from residential properties and half were from school or park properties. A concentration gradient was observed for nickel and copper for the 0 - 5 cm soil. Nickel concentrations generally decreased to the south and northwest, and copper concentrations decrease in all directions with respect to Copper Cliff. This trend continues into the Outer Sudbury Communities.

Overall, concentrations of nickel, copper, lead, zinc, and to a lesser extent cobalt and chromium, showed a strong aerial deposition trend from surface in 78% of the sample locations in the Inner Sudbury Communities. The remaining sample locations appeared to be affected to some degree by landscaping practices, although nickel, copper, cobalt and lead concentrations showed strong to weak trends of maximum concentrations below surface. These elevated concentrations may still be attributed to aerial deposition, however, have been buried by landscaping practices at individual properties over time.

In the Inner Sudbury Communities, nickel, copper, and cobalt were strongly correlated with each other at all depths using Pearson's and Spearman's. These elements were moderately correlated with zinc at the surface, and strongly correlated with lead at all depths using Spearman's. Unlike in the Outer Sudbury Communities, cobalt was not strongly correlated with the naturally occurring elements (i.e. aluminum, barium etc.) at the surface, while it was strongly correlated with nickel and copper. With depth, the correlations between cobalt with nickel and copper became weaker and the correlations between cobalt and the naturally occurring elements became stronger. This indicates that although cobalt concentrations at the surface may be attributed to smelter emissions, concentrations at depth may also be due to natural background concentrations.

7.1.3 Sudbury Core

In the Sudbury Core, defined as being west of Notre Dame and north of Lorne and York Streets and included the neighbourhoods of Flour Mill, Gatchell, Little Britain and Northern Heights, the concentrations of the eleven elements, at 0 - 5 cm, used in determining this grouping were substantially higher than in both Outer and Inner Sudbury Communities, but were similar to Coniston. The similarities and differences between the Sudbury Core and Coniston will be discussed in the next section.

At 0 - 5 cm in the Sudbury Core, nickel, copper, cobalt, arsenic, barium, lead, cadmium, selenium, and zinc concentrations were substantially higher than in the Outer and Inner Sudbury Communities from the median to the 95th percentile. Chromium and iron were similar to marginally higher at the 75th percentile at 0 - 5 cm and 5 - 10 cm, and similar at 10 - 20 cm. Refer to Table 7.1.3.1.

Table 7.1.3.1: Summary Statistics for Metals and Arsenic in Urban Soil of the Sudbury Core of the City of Greater Sudbury.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in the Sudbury Core, n = 324																			
Minimum	4000	0.4	2.5	17	0.4	1500	19	4	17	9000	1	1500	110	0.75	20	0.5	13	20	13
10th percentile	7500	0.4	2.5	31	0.4	3230	25	6	56	12000	9	2200	150	0.75	69	0.5	23	24	24
1st quartile	8400	0.4	2.5	37	0.4	4000	28	8	99	13000	17	2600	170	0.75	111	0.5	29	26	33
Median	9900	0.4	6.0	49	0.4	5100	32	11	190	15000	29	3000	200	0.75	200	1.0	37	29	47
3rd quartile	12000	0.4	10	72	1.0	6950	39	17	365	18000	65	3600	230	0.75	350	2.0	43	32	86
95th percentile	14000	1.0	20	119	1.9	11000	53	35	84	24850	140	5285	300	0.75	935	4.0	51	37	159
Maximum	20000	2.7	34	210	4.1	16000	110	75	16	36000	320	9800	1200	3.2	2000	9.0	84	42	230
Mean	10095	0.5	8.0	58	0.7	5753	35	15	28	16240	47	3223	210	0.77	294	1.4	36	30	64
CV (std. dev./mean)	23%	52%	75%	49%	81%	44%	31%	70%	95	26%	99%	32%	40%	22%	99%	90%	28%	15%	67%
Skewness	0.5	5.1	1.9	1.5	2.3	1.2	2.5	2.3	2.1	1.5	2.2	2.1	7.0	11.6	2.5	2.3	0.4	0.4	1.3
5 to 10 cm Urban Soil in the Sudbury Core, n = 273																			
Minimum	4400	0.4	2.5	17	0.4	1500	17	3	12	9400	2	1400	110	0.75	18	0.5	10	20	12
10th percentile	7600	0.4	2.5	28	0.4	2600	23	6	45	12000	9	2020	140	0.75	58	0.5	22	24	21
1st quartile	8800	0.4	5.0	37	0.4	3300	27	7	75	13000	13	2300	160	0.75	90	0.5	28	27	29
Median	10000	0.4	7.0	54	0.4	4300	31	10	130	15000	21	2700	200	0.75	170	1.0	35	30	41
3rd quartile	12000	0.4	11	70	0.4	5800	37	13	245	18000	45	3250	230	0.75	280	1.0	42	34	74
95th percentile	15000	0.9	18	110	1.0	8490	50	19	425	21000	110	4345	300	0.75	480	2.0	49	40	120
Maximum	20000	1.5	24	160	1.5	14000	59	36	830	26000	310	7200	480	2.40	970	5.0	71	46	210
Mean	10587	0.4	8	58	0.5	4761	32	11	174	15633	37	2915	202	0.77	202	1.1	35	30	55
CV (std. dev./mean)	26%	41%	59%	48%	46%	45%	26%	45%	77%	20%	106	32%	27%	20%	75%	67%	28%	16%	68%
Skewness	0.9	3.9	0.9	1.2	3.1	1.5	0.9	1.5	1.7	0.6	2.7	1.7	1.2	8.2	1.7	1.7	0.2	0.6	1.6
10 to 20 cm Urban Soil in the Sudbury Core, n = 271																			
Minimum	4700	0.4	2.5	17	0.4	1400	18	3	11	9000	2	1300	110	0.75	15	0.5	11	19	10
10th percentile	6900	0.4	2.5	32	0.4	2300	21	6	42	12000	8	2000	140	0.75	57	0.5	20	24	21
1st quartile	8050	0.4	5	39	0.4	2900	25	7	58	13000	11	2300	160	0.75	77	0.5	27	26	28
Median	10000	0.4	6.0	51	0.4	3900	29	9	100	15000	21	2700	190	0.75	130	1.0	34	29	39
3rd quartile	12000	0.4	9.0	71	0.4	5500	36	11	170	17000	38	3400	230	0.75	210	1.0	42	33	61
95th percentile	17000	1.0	15	130	0.4	8500	50	16	350	22000	120	5700	320	0.75	405	2.0	52	41	125
Maximum	22000	2.8	22	240	1.3	13000	64	28	530	28000	470	8300	390	2.90	820	4.0	66	50	340
Mean	10465	0.5	7.1	61	0.4	4451	31	9	132	15397	34	3013	201	0.77	163	0.9	34	30	51
CV (std. dev./mean)	32%	53%	57%	57%	31%	48%	29%	40%	77%	23%	132	38%	29%	21%	75%	68%	31%	20%	75%
Skewness	1.2	5.4	1.3	1.9	4.6	1.4	1.2	1.6	1.8	1.0	4.7	1.9	1.1	10.3	2.2	2.4	0.2	1.0	2.9

All results are in µg/g dry weight.

At 10 - 20 cm, nickel, copper, lead and zinc concentrations remained higher in the Sudbury Core than in the Outer and Inner Sudbury Communities. Arsenic and barium concentrations were also higher in the Sudbury Core compared to the Outer Sudbury Communities, but only marginally

higher compared to the Inner Sudbury Communities. At this depth, cobalt and selenium concentrations were only marginally higher than both the Outer and Inner Sudbury Communities. Cadmium, chromium and iron concentrations were similar in all three communities at the 10 - 20 cm depth. All other elements in the Sudbury Core were essentially the same as the Outer and Inner Sudbury Communities at all depths.

In the Sudbury Core, concentrations of nickel, copper, cobalt, arsenic and lead were higher in the residential properties than in the park and school properties. Due to the low n-values for school properties at all depths, comparisons with this group are very general. The n-value for schools was 45 out of a total of 324 urban soil samples at 0 - 5 cm, and 11 out of 271 samples at depth. At all depth intervals, concentrations of nickel, copper and lead were generally two to three times higher in the residences from the minimum to 20th percentile. Cobalt and arsenic were up to twice as high in residential properties from the 20th to 90th percentile. Refer to Table 7.1.3.2.

Table 7.1.3.2: Summary Statistics for Metals and Arsenic in All 0 to 5 cm Urban Soil Samples from the Sudbury Core by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm				n = 184															
Minimum	5900	0.4	2.5	25	0.4	1500	20	4	28	11000	7	1500	120	0.75	33	0.5	15	20	17
10th percentile	7730	0.4	5.0	34	0.4	3330	26	8	113	13000	18	2200	150	0.75	123	0.5	23	24	34
1st quartile	8600	0.4	6.0	46	0.4	4000	29	11	200	14000	31	2500	170	0.75	195	1.0	28	27	46
Median	10000	0.4	9.0	60	0.9	5150	34	15	315	17000	50	2900	200	0.75	300	1.5	37	29	74
3rd quartile	12000	0.4	13	86	1.3	6750	42	21	475	19000	86	3500	230	0.75	465	2.0	43	33	110
95th percentile	14000	1.1	21	120	2.2	10850	56	44	920	27000	160	4400	300	0.75	1043	4.8	49	38	179
Maximum	17000	2.7	34	210	4.1	15000	110	75	1600	36000	320	6000	1200	3.20	2000	9.0	84	42	230
Mean	10316	0.5	10	68	1.0	5730	37	18	392	17386	67	3039	216	0.78	400	1.9	37	30	84
CV (std. dev./mean)	21%	60%	58%	44%	74%	42%	34%	63%	75%	26%	78%	25%	48%	28%	81%	76%	29%	15%	55%
Skewness	0.4	4.2	1.6	1.1	1.6	1.1	2.2	1.9	1.7	1.3	1.8	0.9	6.4	8.7	2.0	2.0	0.5	0.3	0.8
Schools and Daycares 0 to 5 cm					n = 45														
Minimum	5800	0.4	2.5	21	0.4	2400	21	4	19	9000	3	1900	110	0.75	20	0.5	20	21	17
10th percentile	7020	0.4	2.5	28	0.4	3080	25	5	27	11000	6	2100	150	0.75	38	0.5	23	25	18
1st quartile	7950	0.4	2.5	32	0.4	3500	26	7	50	12000	8	2300	170	0.75	63	0.5	27	27	22
Median	8700	0.4	2.5	37	0.4	4000	29	8	92	13000	16	3000	180	0.75	110	0.5	32	28	31
3rd quartile	9600	0.4	6.0	43	0.4	5650	32	9	150	14000	22	3400	200	0.75	160	0.5	35	29	39
95th percentile	11000	0.4	8.8	52	0.7	8720	39	21	496	18800	69	4480	228	0.75	376	3.0	41	33	91
Maximum	12000	0.4	14	53	1.3	11000	51	28	530	21000	75	5800	270	0.75	660	4.0	52	37	130
Mean	8691	0.4	4.5	37	0.4	4707	30	9	129	13373	20	3007	184	0.75	140	0.9	32	28	37
CV (std. dev./mean)	16%	0%	65%	20%	43%	41%	19%	55%	101%	18%	92%	29%	16%	0%	91%	97%	21%	10%	62%
Skewness	0.1		1.6	0.2	4.1	1.6	1.8	2.4	2.2	1.3	2.1	1.2	0.3		2.4	2.5	0.6	0.5	2.4
Parks 0 to 5 cm				n = 95															
Minimum	4000	0.4	2.5	17	0.4	2100	19	5	17	9900	1	2000	110	0.75	24	0.5	13	21	13
10th percentile	7580	0.4	2.5	27	0.4	3040	24	6	48	12000	8	2380	150	0.75	60	0.5	27	24	21
1st quartile	8600	0.4	2.5	35	0.4	4500	27	7	70	13000	12	2900	170	0.75	83	0.5	31	26	26
Median	10000	0.4	2.5	44	0.4	5600	31	10	110	15000	20	3200	210	0.75	130	0.5	37	29	37
3rd quartile	12000	0.4	6.0	55	0.4	7850	36	12	160	17000	26	3950	250	0.75	195	1.0	46	34	46
95th percentile	15000	0.4	8.0	74	0.9	11000	45	17	240	20000	41	6230	293	0.75	290	2.0	52	37	67
Maximum	20000	1.5	32	120	1.7	16000	50	55	950	30000	101	9800	310	0.75	1528	3.5	60	40	140
Mean	10334	0.4	4.7	46	0.5	6293	32	11	134	15378	21	3683	210	0.75	162	0.8	38	30	38
CV (std. dev./mean)	27%	35%	89%	39%	46%	44%	22%	60%	85%	20%	65%	38%	24%	0%	106%	70%	25%	15%	47%
Skewness	0.3	6.0	4.6	1.5	3.4	1.1	0.4	4.4	4.6	1.6	2.5	1.9	0.2		5.9	2.9	-0.2	0.3	2.4

All results are in µg/g dry weight.

Generally, the concentrations in the parks were similar for cobalt and arsenic, and only marginally higher for nickel, copper and lead compared to the schools starting from the 10th to 80th percentile at 0 - 5 cm and 5 - 10 cm. The maximum concentrations in the parks at 0 - 5 cm were approximately

twice the concentrations in the schools for all 5 elements. At 10 - 20 cm, concentrations in the parks were only marginally higher than the schools for nickel, cobalt, arsenic and lead from the 20th to 95th percentile.

Concentrations of barium, selenium and zinc in the residential properties at all depths were marginally higher than in the parks from the minimum to median percentile, and marginally higher for cadmium from the 60th to 95th percentile.

Generally, surface soil park concentrations for nickel, copper, cobalt, and lead were substantially to marginally higher in the Sudbury Core compared to the Inner Sudbury Communities, while arsenic concentrations were similar. With depth, however, park concentrations were marginally higher or lower for all 5 elements compared to the Inner Sudbury Communities. At surface, school concentrations for nickel and copper were marginally higher compared to the Inner Sudbury Communities, while cobalt and lead concentrations were generally similar with lower maximum values. With depth, nickel, copper and lead were marginally higher compared to the Inner Sudbury Communities.

There were considerably more exceedences of Table F and A in the Sudbury Core than the Outer and Inner Sudbury Communities. Table 7.1.3.3 summarizes the number of urban soil samples that exceed the Table F and Table A criteria in the Sudbury Core. Nickel, copper, arsenic and lead concentrations exceeded Table A at all depths. Cobalt concentrations exceeded Table A only at 0 - 5 cm. No other elements exceeded Table A at any depths in the Sudbury Core. At 0 - 5 cm, 43% of the urban soil samples exceeded Table A and 80% exceeded Table F for copper. At the same depth 63% of the samples exceeded Table A and 96% exceed Table F for nickel. Generally, the number of exceedences of Table F and A decreased with depth. The number of nickel, copper and selenium exceedences, however, did not decrease as quickly.

Table 7.1.3.3: Summary of MOE Table F and Table A Exceedences for Metals and Arsenic in Urban Soil Samples in the Sudbury Core of the City of Greater Sudbury.

Element	Table F			Table A		
	0 to 5 cm	5 to 10 cm	10 to 20 cm	0 to 5 cm	5 to 10 cm	10 to 20 cm
Antimony	13 (4%)	10 (4%)	10 (4%)	0	0	0
Arsenic	24 (7%)	16 (6%)	9 (3%)	12 (4%)	3 (1%)	3 (1%)
Barium	0	0	2 (1%)	0	0	0
Cadmium	71 (22%)	14 (5%)	3 (1%)	0	0	0
Chromium	4 (1%)	0	0	0	0	0
Cobalt	48 (15%)	9 (3%)	5 (2%)	14 (4%)	0	0
Copper	260 (80%)	189 (69%)	163 (60%)	139 (43%)	79 (29%)	37 (14%)
Lead	25 (8%)	15 (5%)	11 (4%)	4 (1%)	2 (1%)	4 (1%)
Molybdenum	1	0	1	0	0	0
Nickel	310 (96%)	258 (95%)	260 (96%)	205 (63%)	146 (53%)	112 (41%)
Selenium	102 (31%)	64 (23%)	33 (12%)	0	0	0
Zinc	12 (4%)	6 (2%)	6 (2%)	0	0	0
No. of Samples	324	273	271	324	273	271

Spatial distribution of the chemical concentrations in the Sudbury Core were assessed using concentration dot maps. Concentration dot maps were created for nickel, copper, cobalt, arsenic,

lead, cadmium, selenium, zinc, chromium and iron at the 0 - 5 cm and 10 - 20 cm soil depths. The highest concentrations of nickel, copper, cobalt, lead and arsenic in 0 - 5 cm urban soil occurred in the neighbourhoods of Gatchell and Little Britain and to a lesser degree at the northwest corner of Ramsey Lake. Gatchell and Little Britain are located directly east of the Inco slag disposal area. The concentrations of these elements generally decreased to the northeast and east. Concentrations of cadmium, selenium, zinc, chromium and iron were only slightly higher in Gatchell and / or Little Britain.

At 10 - 20 cm nickel and copper concentrations decreased but generally remained above Table A in Gatchell and Little Britain and to a lesser degree at the northwest corner of Ramsey Lake. The decrease in nickel and copper concentrations with depth was more pronounced in Little Britain than the other two areas. Concentrations of the other eight elements decreased with depth, however, maintained a spatial distribution similar to the surface, with the exception of cadmium which showed no concentration gradient at depth. For an example of the spatial distributions for nickel in the 0 - 5 and 10 - 20 cm soil depths, refer to Figures 7.1.3.1 and 7.1.3.2. Refer to Section 10.2.4 for concentration dot maps of these ten elements at 0 to 5 cm and 10 - 20 cm in the Sudbury Core.

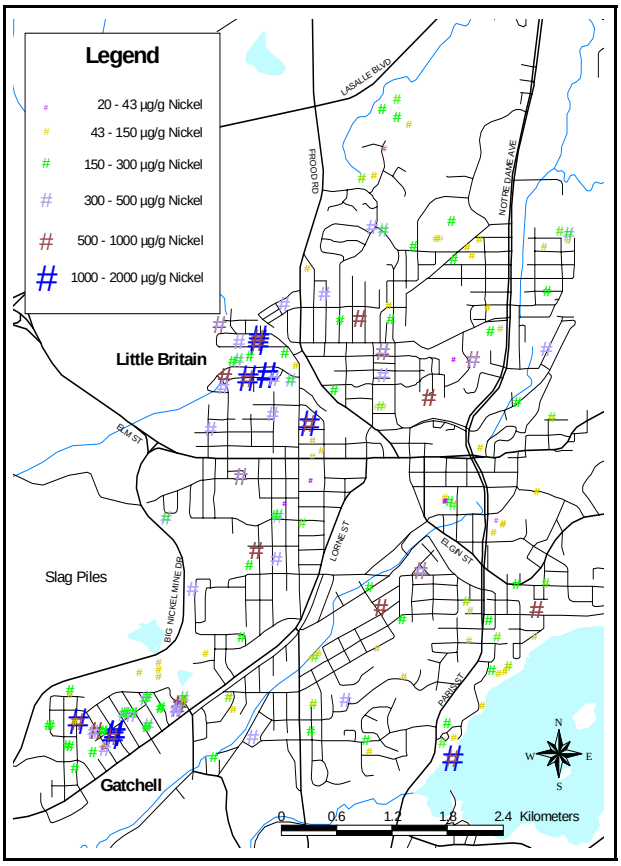


Figure 7.1.3.1: Ni concentrations in urban 0 - 5 cm soil in Sudbury Core

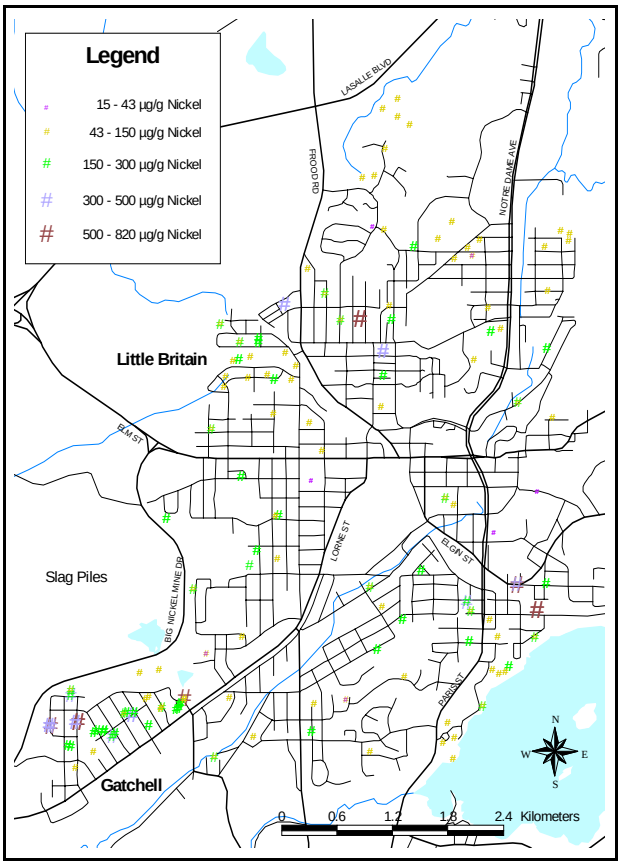


Figure 7.1.3.2: Ni concentrations in urban 10 - 20 cm soil in Sudbury Core

In the Sudbury Core, all three depth trends (Group A, B and C) were observed at varying numbers of sample locations. Seventy-two percent of the sample locations exhibited a trend of decreasing concentrations with increasing depth, consistent with Group A. Nickel, copper and cobalt concentrations, in Group A, showed a strong visual trend of decreasing concentration with depth in

the third and fourth quarters. These elements also showed a weaker visual trend in the first and second quarters. Average concentrations for these elements at the surface were 1.2 to 2.0 times greater than the concentrations at 10 - 20 cm in the first and second quarters, and 1.8 to 4.3 times greater in the third and fourth quarters. Concentrations of lead, chromium and zinc also showed a weak visual trend of decreasing concentrations with depth in all quarters (1.1 to 2.0 times). Generally the trends for these elements were weaker in the first quarters and strongest in the last. Figure 7.1.3.3 depicts the depth profile of cobalt in Group A for the Sudbury Core.

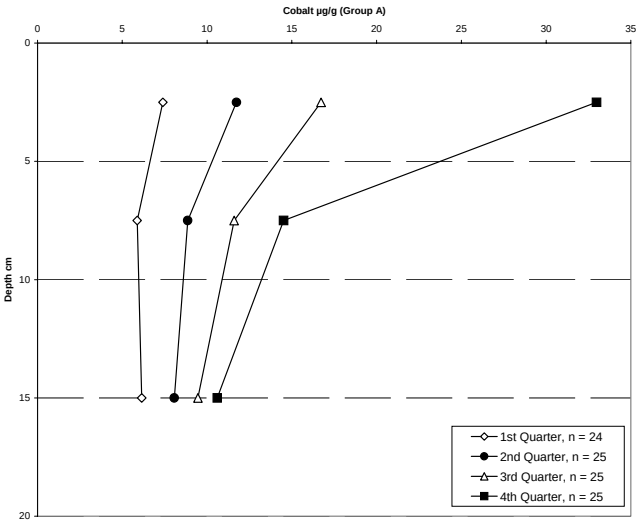


Figure 7.1.3.3: Sudbury Core, Co depth profiles, Group A

Arsenic and iron concentrations showed a weak visual trend of aerial deposition in the third and fourth quarters (1.1 to 1.9 times). The average concentrations of these elements in the first and second quarters showed no observable change with depth. Concentrations for both selenium and cadmium showed a visual trend of decreasing concentration with depth in the fourth quarters (2.5 to 3.8 times), and a weaker trend (1.9 to 2.2 times) in the third quarter. The concentrations in the first through third quarters for cadmium and selenium, and the first quarter for arsenic, were at or near analytical MDLs. As a result, the concentration trends observed in these quarters should be interpreted with caution.

Average aluminum and vanadium concentrations in Group A showed no observable change with depth in all four quarters. The wide range in concentrations between the quarters of these elements may indicate differences in soil type. Refer to Section 10.5.3 for graphs of the depth profiles for the elements discussed above.

In the Sudbury Core, 12% of the sample locations exhibited a trend of maximum concentrations at 5 - 10 cm, while lower concentrations were observed at both 0 - 5 and 10 - 20 cm. This trend is consistent with Group B. Nickel, copper, cobalt, lead, selenium, zinc, iron and vanadium concentrations, in Group B, showed a visual trend of maximum concentration occurring at 5 - 10 cm in the second half. Average concentrations at 5 - 10 cm were 1.1 to 1.3 times the average concentrations at surface for these elements. This trend was also observed in the first half for nickel and cobalt, but concentrations were only 1.1 times greater at 5 - 10 cm than the surface. Generally, a weak trend of decreasing concentration with depth was observed in the first half for copper, lead, selenium, zinc and iron. No observable change in concentration with depth was observed in the first half for vanadium. Selenium concentrations in the first half were at or near analytical MDLs, and should be interpreted with caution. Figure 7.1.3.4 depicts the depth profile of cobalt in Group B for the Sudbury Core.

Concentrations for cadmium in both halves, and arsenic concentrations in the first half, were at or near analytical MDLs, and no concentration trends were observed. Arsenic concentrations in the second half showed a pattern of maximum concentrations occurring at 5 - 10 cm with slightly lower concentrations at surface, and much lower concentrations at 10 - 20 cm. For chromium, in both halves, maximum concentrations were observed at 5 - 10 cm, with only slightly lower concentrations

at surface, but much lower concentrations at 10 - 20 cm. In both halves for aluminum, no concentration change with depth was observed.

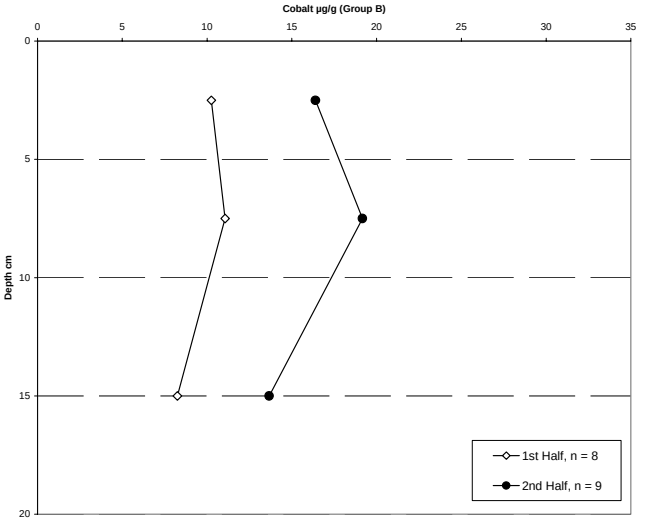


Figure 7.1.3.4: Sudbury Core, Co depth profiles, Group B

In the Sudbury Core, 16% of the sample locations exhibited a trend of increasing concentration with increasing depth, consistent with Group C. Concentrations of nickel, copper, cobalt, lead, and to a lesser degree iron showed a strong visual trend of increasing concentrations with depth in the second half, and a similar but weaker trend in the first half. Average concentrations of nickel, copper, cobalt and lead at the 10 - 20 cm soil depth were 1.5 to 2.0 times the average concentrations observed at surface in the second half, and only 1.2 to 1.3 times greater in the first half. Iron concentrations in both halves showed a similar but weak trend, and were 1.1 to 1.2 times greater at 10 - 20 cm than at surface. Figure 7.1.3.5 depicts the depth profile of cobalt in Group C for the Sudbury Core.

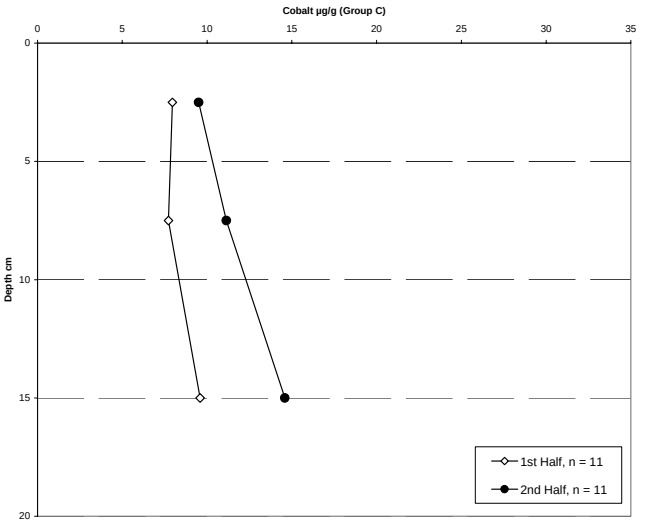


Figure 7.1.3.5: Sudbury Core, Co depth profiles, Group C

Chromium, zinc, aluminum and vanadium concentrations showed a weak pattern of decreasing concentration with increasing depth in the first half, typical of Group A. In the second half, however, these elements showed a trend of increasing concentration with increasing depth, consistent with Group C. The concentrations at 10 - 20 cm, in the second half for these elements was 1.1 to 1.5 times the concentration at the surface.

Concentrations for cadmium in both halves, and arsenic and selenium in the second halves only were at or near analytical MDLs, and there was no observable change with depth. In the second half, arsenic concentrations showed a pattern of increasing concentration with depth (1.2 times), and selenium showed no concentration change with depth. Refer to Section 10.5.3 for graphs of the depth profiles for the elements discussed above.

Overall, nickel, copper, cobalt, lead, chromium and zinc concentrations in 72% of the sample locations in the Sudbury Core showed a strong aerial deposition trend from the surface. Arsenic, selenium, cadmium and iron also showed a weaker aerial deposition trend from surface in these sample locations. These locations appeared to be unaffected by landscaping practices. The remaining sample locations appeared to be affected to some degree by landscaping practices, and nickel, copper, cobalt, lead, selenium, zinc, iron and vanadium concentrations showed strong to weak trends of maximum concentrations below surface. These elevated concentrations may still be attributed

to aerial deposition, however, have been buried by landscaping practices at individual properties over time. Addition, grading, removal and / or mixing of urban soils may alter the vertical distribution of chemical concentrations in the soil.

In the Outer and Inner Sudbury Communities, only nickel, copper, and lead showed a strong trend of aerial deposition in all quarters, while in the Sudbury Core a strong aerial deposition trend was observed for cobalt as well. Weak trends of aerial deposition were observed in the third and/or fourth quarters for zinc, iron, chromium, selenium and cadmium in the Outer and Inner Sudbury Communities. The trends for chromium, selenium and cadmium were approximately twice as strong in the Sudbury Core, and the trends for iron and zinc were only slightly stronger. In the Sudbury Core, arsenic concentrations also showed a weak to strong trend of aerial deposition in the third and fourth quarters.

Pearson's and Spearman's statistical correlation analysis was performed on all of the elements except beryllium at each of the three depths. Refer to Tables 7.1.3.4 to 7.1.3.6 below for an abbreviated version of the results of the Pearson's and Spearman's analysis for all three depths, and Tables 10.4.3.1 through 10.4.3.3 for the full results of the analysis. In Tables 7.1.3.4 to 7.1.3.6 the results have been rounded to one decimal place and values that were 0.75 or greater are considered strong and are indicated in bold type.

Table 7.1.3.4: Pearson's and Spearman's Correlations for 0 to 5 cm Urban Soil in the Sudbury Core

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*0.3*	*0.7*	*0.3*	*0.7*	*0.3*	*0.3*	*0.6*	*0.3*	*0.5*	*0.7*	*0.3*	*0.2*	***0.9***	***0.8***	*0.4*
As	0.3	1	*0.6*	*0.7*	*0.4*	***0.8***	***0.8***	*0.7*	***0.8***	*0.1*	*0.3*	***0.9***	*0.7*	*0.2*	*0.3*	***0.8***
Ba	0.6	0.6	1	*0.7*	***0.8***	*0.7*	*0.7*	***0.8***	***0.8***	*0.5*	*0.7*	*0.7*	*0.5*	*0.6*	*0.6*	***0.8***
Cd	0.3	**0.8**	0.7	1	*0.5*	***0.8***	*0.7*	*0.6*	*0.7*	*0.2*	*0.4*	***0.8***	*0.6*	*0.3*	*0.3*	*0.7*
Cr	0.5	0.5	0.6	0.6	1	*0.6*	*0.5*	***0.8***	*0.5*	*0.6*	*0.7*	*0.5*	*0.4*	*0.6*	*0.7*	*0.6*
Co	0.3	**0.9**	0.7	**0.9**	0.5	1	***0.9***	***0.8***	***0.9***	*0.3*	*0.4*	***1.0***	*0.7*	*0.2*	*0.3*	***0.8***
Cu	0.3	**0.8**	0.7	**0.8**	0.5	**0.9**	1	*0.7*	***0.9***	*0.1*	*0.3*	***1.0***	*0.7*	*0.1*	*0.2*	***0.8***
Fe	0.6	**0.8**	**0.8**	0.7	0.6	**0.9**	**0.8**	1	*0.7*	*0.5*	*0.6*	*0.7*	*0.5*	*0.5*	*0.7*	*0.7*
Pb	0.2	0.7	0.7	0.7	0.4	0.7	**0.8**	0.6	1	*0.1*	*0.3*	***0.9***	*0.7*	*0.2*	*0.2*	***0.9***
Mg	0.5	0.0	0.3	0.1	0.3	0.1	0.1	0.3	0.0	1	*0.6*	*0.2*	*0.0*	*0.6*	*0.6*	*0.3*
Mn	0.4	0.2	0.6	0.3	0.3	0.2	0.2	0.4	0.2	0.3	1	*0.3*	*0.2*	*0.7*	***0.8***	*0.4*
Ni	0.3	**0.9**	0.7	**0.9**	0.5	**1.0**	**1.0**	**0.8**	0.7	0.1	0.2	1	*0.7*	*0.2*	*0.2*	***0.8***
Se	0.2	0.6	0.5	0.6	0.4	0.6	0.7	0.6	0.6	0.0	0.1	0.6	1	*0.1*	*0.2*	*0.7*
Sr	**0.8**	0.2	0.6	0.2	0.4	0.2	0.1	0.4	0.2	0.5	0.6	0.2	0.1	1	***0.8***	*0.3*
V	**0.8**	0.3	0.6	0.3	0.5	0.3	0.3	0.6	0.2	0.5	0.5	0.3	0.2	0.7	1	*0.4*
Zn	0.3	0.6	**0.8**	0.7	0.5	0.7	0.7	0.6	**0.8**	0.1	0.4	0.7	0.6	0.3	0.3	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 7.1.3.5: Pearson's and Spearman's Correlations for 5 to 10 cm Urban Soil in the Sudbury Core

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*0.2*	*0.6*	*0.1*	***0.8***	*0.3*	*0.1*	*0.7*	*0.1*	*0.6*	*0.7*	*0.2*	*0.0*	***0.8***	***0.9***	*0.3*
As	0.2	1	*0.6*	*0.4*	*0.3*	***0.8***	***0.9***	*0.5*	***0.8***	*0.1*	*0.3*	***0.9***	*0.6*	*0.1*	*0.2*	***0.7***
Ba	0.6	0.6	1	*0.4*	*0.7*	***0.8***	*0.7*	***0.8***	*0.7*	*0.5*	*0.7*	*0.7*	*0.5*	*0.5*	*0.6*	***0.8***
Cd	0.1	0.5	0.4	1	*0.3*	*0.4*	*0.4*	*0.3*	*0.4*	*0.1*	*0.2*	*0.4*	*0.4*	*0.2*	*0.1*	*0.4*
Cr	0.7	0.3	0.6	0.3	1	*0.5*	*0.4*	***0.8***	*0.3*	***0.8***	***0.8***	*0.4*	*0.2*	*0.7*	***0.8***	*0.5*
Co	0.3	**0.8**	0.7	0.5	0.4	1	***0.9***	*0.7*	***0.8***	*0.5*	*0.5*	***0.9***	*0.5*	*0.2*	*0.4*	***0.8***
Cu	0.2	**0.8**	0.7	0.5	0.3	**0.9**	1	*0.6*	***0.8***	*0.2*	*0.3*	***1.0***	*0.6*	*0.1*	*0.2*	***0.8***
Fe	**0.8**	0.5	0.7	0.3	**0.8**	0.7	0.6	1	*0.5*	*0.7*	*0.7*	*0.6*	*0.4*	*0.6*	***0.8***	*0.6*
Pb	0.1	0.6	0.7	0.5	0.2	0.6	0.7	0.4	1	*0.2*	*0.3*	***0.8***	*0.6*	*0.1*	*0.1*	***0.9***
Mg	0.7	0.0	0.4	0.0	0.7	0.3	0.1	0.7	0.0	1	***0.8***	*0.2*	*0.0*	*0.6*	*0.7*	*0.3*
Mn	0.7	0.2	0.6	0.2	0.7	0.4	0.2	0.7	0.2	0.7	1	*0.3*	*0.2*	*0.7*	***0.8***	*0.5*
Ni	0.2	**0.8**	0.7	0.5	0.3	**0.9**	**1.0**	0.6	0.6	0.1	0.2	1	*0.6*	*0.1*	*0.2*	***0.8***
Se	0.1	0.7	0.5	0.5	0.3	0.6	0.7	0.4	0.6	0.0	0.2	0.7	1	*0.1*	*0.1*	*0.5*
Sr	**0.8**	0.1	0.6	0.2	0.7	0.2	0.1	0.6	0.2	0.6	0.7	0.2	0.1	1	***0.8***	*0.3*
V	**0.9**	0.2	0.5	0.1	**0.8**	0.3	0.1	**0.8**	0.0	0.7	0.7	0.2	0.1	**0.8**	1	*0.3*
Zn	0.2	0.7	**0.8**	0.5	0.3	0.7	0.7	0.5	**0.8**	0.1	0.4	0.7	0.5	0.3	0.2	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 7.1.3.6: Pearson's and Spearman's Correlations for 10 to 20 cm Urban Soil in the Sudbury Core

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*0.3*	*0.7*	*0.1*	***0.9***	*0.4*	*0.2*	***0.9***	*0.2*	*0.6*	***0.8***	*0.2*	*0.2*	***0.8***	***0.9***	*0.3*
As	0.2	1	*0.6*	*0.3*	*0.3*	*0.6*	***0.9***	*0.4*	*0.7*	*0.0*	*0.3*	***0.8***	*0.5*	*0.2*	*0.2*	***0.8***
Ba	0.6	0.6	1	*0.3*	*0.7*	*0.7*	*0.6*	***0.8***	*0.6*	*0.5*	*0.7*	*0.6*	*0.3*	*0.7*	*0.7*	*0.7*
Cd	0.1	0.4	0.4	1	*0.2*	*0.3*	*0.3*	*0.2*	*0.3*	*0.0*	*0.2*	*0.3*	*0.3*	*0.2*	*0.1*	*0.3*
Cr	**0.9**	0.3	0.6	0.2	1	*0.5*	*0.3*	***0.9***	*0.2*	***0.8***	***0.8***	*0.3*	*0.2*	***0.8***	***0.9***	*0.4*
Co	0.3	0.7	0.7	0.6	0.5	1	***0.8***	*0.7*	*0.7*	*0.5*	*0.6*	***0.8***	*0.3*	*0.4*	*0.5*	*0.7*
Cu	0.2	**0.8**	0.6	0.5	0.3	**0.8**	1	*0.5*	***0.8***	*0.1*	*0.4*	***1.0***	*0.4*	*0.2*	*0.2*	***0.9***
Fe	**0.9**	0.5	0.7	0.3	**0.9**	0.6	0.4	1	*0.3*	*0.7*	***0.8***	*0.4*	*0.3*	*0.7*	***0.9***	*0.5*
Pb	0.1	0.6	0.7	0.5	0.2	0.5	0.5	0.2	1	*0.0*	*0.3*	***0.8***	*0.3*	*0.2*	*0.1*	***0.9***
Mg	0.7	0.0	0.4	0.0	**0.8**	0.3	0.0	0.7	0.0	1	*0.7*	*0.1*	*0.1*	*0.6*	*0.7*	*0.2*
Mn	**0.8**	0.3	0.7	0.3	**0.9**	0.5	0.3	**0.8**	0.3	0.7	1	*0.4*	*0.2*	***0.8***	***0.8***	*0.5*
Ni	0.2	**0.8**	0.6	0.6	0.3	**0.9**	**1.0**	0.4	0.5	0.0	0.3	1	*0.4*	*0.2*	*0.2*	***0.8***
Se	0.2	0.6	0.3	0.4	0.2	0.5	0.7	0.4	0.4	0.1	0.2	0.6	1	*0.1*	*0.2*	*0.4*
Sr	**0.8**	0.2	0.7	0.2	**0.8**	0.4	0.2	0.7	0.3	0.6	0.7	0.3	0.1	1	***0.8***	*0.3*
V	**0.9**	0.2	0.6	0.1	**0.9**	0.4	0.2	**0.9**	0.1	**0.8**	**0.8**	0.2	0.2	**0.8**	1	*0.3*
Zn	0.2	0.7	**0.8**	0.6	0.3	0.6	0.7	0.3	**0.9**	0.0	0.4	0.7	0.4	0.4	0.2	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

In the Sudbury Core, at 0 - 5 cm, nickel, copper, cobalt, arsenic, cadmium and iron are strongly correlated with each other using Pearson's, and strongly or moderately using Spearman's. Lead and zinc moderately correlate with these elements using Pearson's, however, were strongly correlated with these elements using Spearman's. An example of the nickel vs arsenic and nickel vs cadmium correlations are presented in Figures 7.1.3.6 and 7.1.3.7 below. Refer to Section 10.4.3 for additional correlation figures.

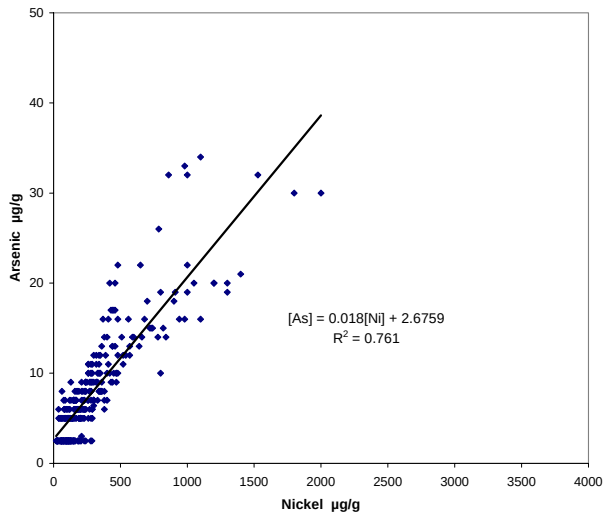


Fig 7.1.3.6: As vs. Ni, 0 - 5 cm, Sudbury Core

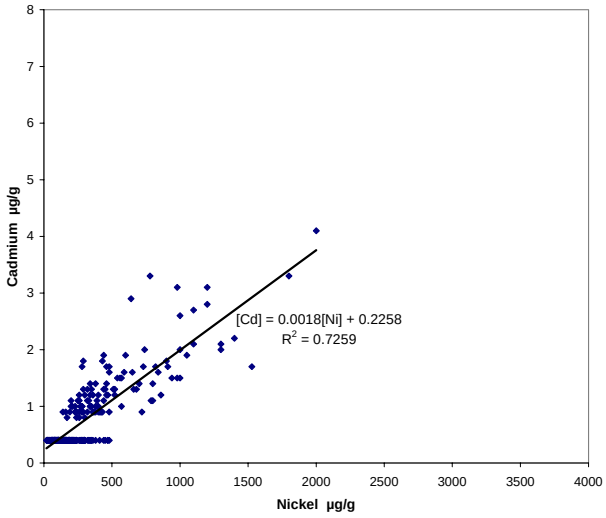


Fig 7.1.3.7: Cd vs. Ni, 0 - 5 cm, Sudbury Core

The correlation between nickel, copper, cobalt and arsenic remained similar at all depth intervals in Pearson's and Spearman's with minor fluctuations in the level of significance between cobalt and arsenic. Iron and cadmium, however, were not correlated with these elements below 0 - 5 cm. With depth, zinc remained moderately correlated with nickel, copper, cobalt and arsenic using Pearson's and strongly correlated using Spearman's. Using Spearman's, lead remained strongly correlated with all four elements at 5 - 10 cm and only strongly correlated with nickel and copper at 10 - 20 cm. The moderate correlations between lead and nickel, copper, cobalt and arsenic disappear with depth using Pearson's. A strong correlation between lead and zinc was also present, at all three depths, using Pearson's and Spearman's. As discussed in Section 7.1.2, the correlation between lead and zinc tended to be stronger using log transformation and/or Spearman's. Overall, the number of correlations occurring with nickel, copper, cobalt and arsenic decrease with depth.

The correlations of nickel, copper, cobalt, arsenic, lead and zinc at all depths indicate that concentrations of these elements in the Sudbury Core appear to be attributed to smelter emissions. The concentrations of cadmium and iron, at surface, also appear to be attributed to smelter emissions. Arsenic, cadmium and iron did not appear to be attributed to smelter emissions in either the Outer or Inner Sudbury Communities.

For the naturally occurring elements, the overall number of correlations increase with depth. This pattern was the inverse of the pattern observed for nickel, copper, cobalt and arsenic. Aluminum, strontium and vanadium were strongly correlated with each other at all depths using both Pearson's and Spearman's. Chromium, iron, magnesium, and manganese become strongly correlated with each other and with aluminum, strontium and vanadium as depth increased using both Pearson's and Spearman's. As these elements are indicative of the naturally occurring geology in the City of Greater Sudbury, the increase in the number and strength of these correlations was representative of less disturbed soil at depth. Unlike the Outer and Inner Sudbury Communities, only aluminum and vanadium were strongly correlated at all depths. As discussed previously in this section and Sections 7.1.1 and 7.1.2, aluminum and vanadium have consistently been present as indicators of the naturally occurring geology in the Outer and Inner Sudbury Communities and the Sudbury Core. Natural elements such as chromium and iron have shown evidence of aerial deposition in either the Outer or Inner Sudbury Communities.

As was also shown in the soil depth profiles, both chromium and iron showed evidence of aerial deposition in the Sudbury Core. Figures 7.1.3.8 and 7.1.3.9 illustrate the correlations between aluminum and iron at surface and at 10 - 20 cm. The increase in the strength of this correlation is evident and is indicative of aerial deposition of iron at the surface and less disturbed soil at depth. The correlations of barium to other elements fluctuates with depth and between Pearson's and Spearman's. Barium strongly and moderately correlates more with elements associated with smelter emissions such as nickel, copper, cobalt, lead, cadmium and zinc at 0 - 5 cm. The strength and

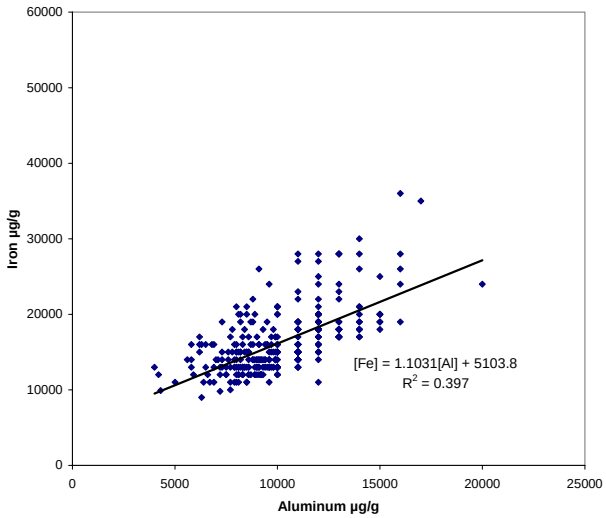


Fig 7.1.3.8: Fe vs. Al, 0 - 5 cm, Sudbury Core

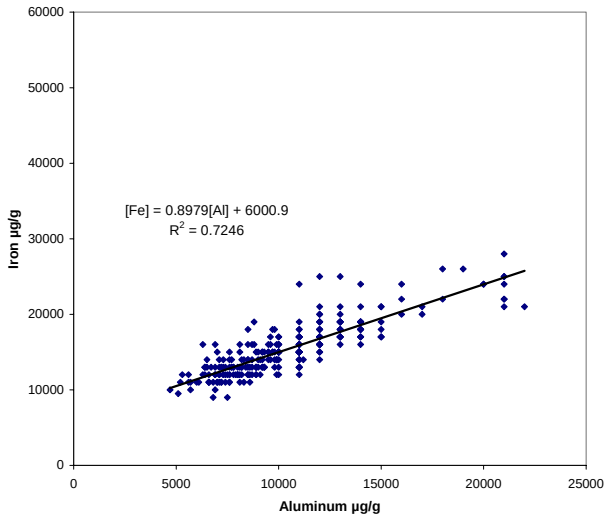


Fig 7.1.3.9: Fe vs. Al, 10 - 20 cm, Sudbury Core

number of these correlations, however, decrease with depth and correlations of barium with naturally occurring elements such as aluminum, manganese, strontium and vanadium increase. Barium was strongly correlated to iron at all depths, using Spearman's. The correlation of barium with aluminum, chromium and vanadium only occurred using Spearman's. The pattern and strength of barium correlations appear to be indicative of aerial deposition at the surface and natural background concentrations at depth. Refer to Section 10.4.3 for a complete list of graphs showing selected element correlations at all three depths for the Inner Sudbury Communities.

In summary, element concentrations in the Sudbury Core were considerably higher and had more exceedences of MOE criteria than in the Outer and Inner Sudbury Communities. A large number of nickel and copper concentrations and a smaller number of arsenic and lead concentrations exceeded Table A at all depths. A small number of cobalt concentrations exceeded Table A only at surface. No other elements exceeded Table A criteria in the Sudbury Core. Twelve elements, at varying depths, exceeded Table F including nickel, copper, cobalt, arsenic, lead, cadmium, selenium, chromium, zinc, antimony, barium and molybdenum. The number of exceedences for all elements decreased with depth.

Overall, concentrations of nickel, copper, cobalt, lead, chromium, zinc, and to a lesser extent arsenic, barium, selenium, cadmium and iron showed a strong aerial deposition trend from surface in the majority of the sample locations in the Sudbury Core. A spatial concentration gradient was observed for nickel, copper, cobalt, lead and arsenic, originating in the neighbourhoods of Gatchell and Little Britain, adjacent to Inco property and generally decreasing to the east and northeast. Concentrations of cadmium, selenium, zinc, chromium and iron were only slightly higher in Gatchell and / or Little Britain. Concentrations of these ten elements decreased with depth, however, maintained a spatial

distribution similar to the surface, with the exception of cadmium which showed no concentration gradient at depth.

In the Sudbury Core, approximately 30% of the sample locations appeared to be affected to some degree by landscaping practices, and nickel, copper, cobalt, lead, selenium, zinc, iron and vanadium concentrations at these locations showed trends of maximum concentrations below surface.

In the Outer and Inner Sudbury Communities, only nickel, copper, and lead showed a strong trend of aerial deposition, while in the Sudbury Core, a strong aerial deposition trend was observed for cobalt as well. Weak trends of aerial deposition were observed for zinc, iron, chromium, selenium and cadmium in the Outer and Inner Sudbury Communities. These trends were stronger in the Sudbury Core. In the Sudbury Core, arsenic concentrations also showed a weak to strong trend of aerial deposition.

The correlations of nickel, copper, cobalt, arsenic, lead and zinc at all depths indicate that concentrations of these elements in the Sudbury Core appear to be attributed to smelter emissions. The concentrations of cadmium, barium and iron, at surface, also appear to be attributed to smelter emissions. Arsenic, cadmium, barium and iron did not appear to be due to to smelter emissions in either the Outer or Inner Sudbury Communities.

7.1.4 Coniston

In Coniston, the surface soil concentrations of the eleven elements used in determining this grouping were considerably higher than the Outer and Inner Sudbury Communities, but were similar to the Sudbury Core. Refer to Table 7.1.4.1. At 0 - 5 cm in Coniston, nickel, copper, cobalt, arsenic, barium, lead, cadmium, selenium and zinc concentrations were considerably higher than in the Outer and Inner Sudbury Communities. Depending on the element the differences in concentrations started from the 25th to 75th percentile. Iron was marginally higher. At this depth, the only differences between Coniston and the Sudbury Core were that arsenic and cobalt were slightly higher in Coniston.

Table 7.1.4.1: Summary Statistics for Metals and Arsenic in Urban Soil in Coniston of the City of Greater Sudbury.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in Coniston, n = 301																			
Minimum	3900	0.4	2.5	20	0.4	1400	17	3	8	7400	2	1500	88	0.75	16	0.5	10	18	11
10th percentile	7000	0.4	2.5	33	0.4	2900	22	6	49	11000	12	2000	130	0.75	58	0.5	20	22	27
1st quartile	8050	0.4	2.5	42	0.4	3900	26	7	63	13000	17	2300	160	0.75	81	0.5	26	24	34
Median	9300	0.4	7.0	52	0.4	5400	29	12	150	15000	32	2700	180	0.75	200	0.5	33	27	51
3rd quartile	11000	0.4	13	67	0.9	7300	33	20	325	17000	62	3200	210	0.75	450	2.0	39	30	80
95th percentile	14000	1.0	33	90	1.8	11000	44	45	800	24000	150	4100	250	1.50	1200	3.0	47	35	140
Maximum	20000	3.0	47	180	2.7	33000	75	74	1200	33000	400	10000	320	2.90	1900	5.0	86	44	250
Mean	9622	0.5	10	55	0.7	6044	30	16	244	15379	50	2870	183	0.80	334	1.1	33	27	62
CV (std. dev./mean)	24%	63%	88%	38%	72%	57%	27%	82%	103%	25%	101%	32%	22%	26%	107%	84%	29%	16%	61%
Skewness	1.0	4.9	1.8	1.7	1.8	3.0	2.0	1.7	1.7	1.3	2.6	3.2	0.6	5.6	1.8	1.8	0.8	0.5	1.6
5 to 10 cm Urban Soil in Coniston, n = 297																			
Minimum	3900	0.4	2.5	20	0.4	1500	16	3	8	6500	2	1400	84	0.75	14	0.5	10	17	10
10th percentile	6960	0.4	2.5	31	0.4	2500	21	5	40	11000	9	1800	130	0.75	50	0.5	19	22	21
1st quartile	8100	0.4	2.5	37	0.4	3200	24	7	60	13000	13	2000	140	0.75	77	0.5	24	24	27
Median	9500	0.4	8.0	46	0.4	4000	27	10	120	14000	23	2300	170	0.75	170	0.5	32	27	39
3rd quartile	11000	0.4	15	64	0.4	5500	31	18	330	17000	49	2900	200	0.75	430	1.0	38	30	64
95th percentile	15000	1.2	29	96	0.9	7825	39	30	643	20250	133	3900	260	0.75	900	3.0	49	36	110
Maximum	21000	5.3	53	200	1.2	37000	57	46	920	23000	270	8100	310	2.10	1200	4.0	86	44	260
Mean	9777	0.5	11	53	0.5	4728	28	13	215	14827	41	2565	176	0.78	287	1.0	32	28	49
CV (std. dev./mean)	25%	80%	86%	45%	40%	67%	23%	64%	93%	21%	108	32%	25%	22%	94%	78%	33%	17%	65%
Skewness	0.9	6.5	1.5	2.0	2.6	5.6	1.2	1.4	1.3	0.2	2.2	2.4	0.7	5.1	1.3	1.6	0.8	0.5	2.2
10 to 20 cm Urban Soil in Coniston, n = 290																			
Minimum	4900	0.4	2.5	19	0.4	1400	16	4	17	8500	4	1200	79	0.75	22	0.5	10	17	10
10th percentile	6700	0.4	3	31	0.4	2400	20	6	41	11000	7	1700	120	0.8	54	0.5	18	22	19
1st quartile	7700	0	3	38	0	2800	23	7	77	12000	13	2000	140	1	96	1	24	24	26
Median	9150	0.4	8.0	49	0.4	3600	26	10	150	14000	28	2300	170	0.75	190	0.5	31	27	38
3rd quartile	11000	0.4	14	68	0.4	4900	31	16	330	16000	55	2900	200	0.75	390	1.0	39	30	58
95th percentile	15000	1.0	23	110	0.4	7855	39	22	506	20000	146	4200	276	0.75	651	3.0	50	37	120
Maximum	19000	2.7	55	200	1.0	30000	45	43	1100	28000	280	5300	360	1.60	1400	9.0	78	42	210
Mean	9557	0.5	10	57	0.4	4295	27	12	212	14606	43	2524	176	0.77	266	1.0	31	27	48
CV (std. dev./mean)	27%	65%	76%	51%	23%	70%	22%	54%	83%	23%	103%	31%	27%	17%	84%	93%	33%	17%	71%
Skewness	1.1	4.3	1.6	1.9	4.4	5.1	0.8	1.6	1.5	1	2.1	1.0	0.8	5.5	1.6	3.6	0.5	0.5	2.0

All results are in µg/g dry weight.

For 10 - 20 cm, nickel, copper, cobalt, arsenic, lead and zinc were substantially higher in Coniston compared to the Outer and Inner Sudbury Communities. Barium was also higher in Coniston compared to the Outer Sudbury Communities but was similar compared to the Inner Sudbury Communities. At this depth, selenium was marginally higher than both the Outer and Inner Sudbury Communities. Cadmium, chromium and iron concentrations were similar in all three communities at the 10 - 20 cm depth. All other elements in Coniston were essentially the same between the Outer

and Inner Sudbury Communities. Nickel, copper, cobalt, arsenic and lead concentrations were higher at this depth in Coniston than in the Sudbury Core. All other elements in Coniston were the same as in the Sudbury Core.

The major land use in Coniston was residential. The two school properties only had gravel playgrounds and there were only a small number of park properties. As a result, the sample size for the park properties was very small and may affect the validity of comparisons between the park properties and residential properties. The concentrations of nickel, copper, cobalt, arsenic, lead, selenium, chromium, iron and zinc were higher in the residential properties than in the park properties at all depths. The differences in concentrations for nickel, copper, cobalt, arsenic, lead and zinc started from the 10th percentile to the median and onwards, dependant on the element and depth. The concentrations of selenium, chromium and iron started from the 10th to 90th percentile, dependant on the element and depth. Cadmium was substantially higher in the residential properties at surface but only marginally higher below surface. The small sample size for the park properties may have exaggerated the differences between land uses. Refer to Table 7.1.4.2

Table 7.1.4.2: Summary Statistics for All 0-5 cm Urban Soil Samples from Coniston by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm				n = 287															
Minimum	5400	0.4	2.5	20	0.4	1400	18	3	14	8500	6	1500	88	0.75	25	0.5	10	18	17
10th percentile	7060	0.4	2.5	35	0.4	2900	22	6	50	1200	13	2000	130	0.75	60	0.5	20	22	28
1st quartile	8150	0.4	2.5	42	0.4	3900	26	7	65	1300	18	2300	160	0.75	82	0.5	26	25	35
Median	9400	0.4	7.0	53	0.4	5300	29	11	150	1500	32	2700	180	0.75	200	0.5	33	27	53
3rd quartile	1100	0.4	13	67	0.9	7300	34	20	320	1700	68	3200	210	0.75	450	2.0	39	30	83
95th percentile	1400	1.0	33	90	1.8	1100	44	45	807	2470	150	4070	250	1.50	1200	3.0	47	35	140
Maximum	2000	3.0	47	180	2.7	3300	75	74	1200	3300	400	6900	320	2.90	1900	5.0	86	44	250
Mean	9709	0.5	10	56	0.7	5999	31	16	246	1548	52	2833	183	0.80	336	1.2	33	27	64
CV (std. dev./mean)	24%	64%	88%	37%	72%	57%	27%	82%	103	25%	99%	26%	22%	27%	107	84%	29%	16%	60%
Skewness	1.0	4.8	1.7	1.7	1.8	3.2	2.0	1.8	1.7	1.3	2.6	1.4	0.5	5.4	1.8	1.7	0.8	0.5	1.5
Parks 0 to 5 cm				n = 14															
Minimum	3900	0.4	2.5	20	0.4	2000	17	4	8	7400	2	1600	110	0.75	16	0.5	18	18	11
10th percentile	5800	0.4	2.5	28	0.4	2490	20	5	14	1100	3	1960	119	0.75	23	0.5	22	22	15
1st quartile	6900	0.4	2.5	32	0.4	3000	23	6	26	1100	6	2200	140	0.75	40	0.5	26	24	16
Median	7650	0.4	6.5	37	0.4	6300	26	12	99	1350	11	2900	175	0.75	195	0.5	32	25	30
3rd quartile	9300	0.4	13	46	0.4	9400	28	24	450	1500	20	3400	200	0.75	610	1.0	35	27	41
95th percentile	1100	0.4	17	60	1.1	1540	35	40	614	1735	41	9220	297	0.75	888	1.4	45	30	52
Maximum	1100	0.4	19	81	1.3	1800	36	43	620	1800	42	1000	310	0.75	940	2.0	45	31	58
Mean	7836	0.4	7.9	40	0.5	6979	26	16	211	1324	16	3636	184	0.75	300	0.7	32	25	30
CV (std. dev./mean)	25%	0%	74%	36%	54%	65%	20%	83%	109	20%	84%	69%	35%	0%	108	60%	26%	13%	50%
Skewness	0.0		0.6	1.9	2.0	1.3	0.4	1.2	0.9	-0.3	1.1	2.1	0.9		1.0	2.4	0.1	-0.1	0.4

All results are in µg/g dry weight.

Generally, surface soil park concentrations for nickel, cobalt and arsenic were similar when compared to the Sudbury Core, however, had lower maximum values. Concentrations of copper were marginally lower from the minimum value, and also had lower maximum values. Lead concentrations in Coniston were lower starting from the 25th percentile compared to the Sudbury Core. At depth, however, concentrations of nickel, copper and arsenic were marginally higher in Coniston compared to the Sudbury Core.

There were substantially more exceedences of Table A and F in Coniston than the Outer and Inner Sudbury Communities. Table 7.1.4.3 summarizes the number of urban soil samples that exceeded the Table F and Table A criteria in Coniston. Nickel, copper, cobalt, arsenic and lead concentrations

exceeded Table A at all depths. No other elements exceeded Table A at any depths in Coniston. At 0 - 5 cm 39% of the urban soil samples exceeded Table A and 64% exceeded Table F for copper. At the same depth 55% exceeded Table A and 97% exceed Table F for nickel. Unlike the Sudbury Core, the number of Table A and F exceedences for nickel and copper remained constant with depth. The number of arsenic exceedences increased at 5 - 10 cm and then decreased at 10 - 20 cm.

Table 7.1.4.3: Summary of MOE Table F and Table A Exceedences for Metals and Arsenic in Urban Soil Samples from Coniston of the City of Greater Sudbury

Element	Table F			Table A		
	0 to 5 cm	5 to 10 cm	10 to 20 cm	0 to 5 cm	5 to 10 cm	10 to 20 cm
Antimony	14 (5%)	21 (7%)	11 (4%)	0	0	0
Arsenic	47 (16%)	61 (21%)	45 (16%)	35 (12%)	46 (15%)	22 (8%)
Cadmium	55 (18%)	6 (2%)	0	0	0	0
Chromium	2 (1%)	0	0	0	0	0
Cobalt	73 (24%)	46 (15%)	23 (8%)	23 (8%)	2 (1%)	2 (1%)
Copper	193 (64%)	186 (63%)	208 (72%)	116 (39%)	108 (36%)	110 (38%)
Lead	25 (8%)	20 (7%)	20 (7%)	6 (2%)	3 (1%)	3 (1%)
Molybdenum	1	0	0	0	0	0
Nickel	291 (97%)	279 (94%)	269 (93%)	166 (55%)	164 (55%)	167 (58%)
Selenium	83 (28%)	71 (24%)	56 (19%)	0	0	0
Zinc	4 (1%)	3 (1%)	5 (2%)	0	0	0
No. of Samples	301	297	290	301	297	290

Spatial distribution of the chemical concentrations in the Sudbury Core were assessed using concentration dot maps. Concentration dot maps were created for 10 elements at the 0 - 5 cm and 10 - 20 cm soil depths. Generally, the concentrations of nickel, copper, cobalt, arsenic and lead at 0 - 5 cm were elevated throughout Coniston. There was a trend of higher concentrations for these elements at 0 - 5 cm throughout the centre of the community with lower concentrations towards the east and west ends. The properties sampled in the east and west ends were generally newer than those sampled in the centre of town. At 0 - 5 cm, concentrations of cadmium, selenium, zinc, iron, and to a lesser extent chromium, were slightly higher in the centre of the community, but were relatively low.

In Coniston, the concentrations of nickel, copper, arsenic, and to a lesser extent lead and zinc, generally decrease slightly with depth, however, the spatial trend remains similar to the surface. Concentrations of cobalt, cadmium, selenium, chromium and iron also decreased with depth, but no concentration gradient was observed at 10 - 20 cm.

Concentrations in approximately half of the sample locations show the highest concentration at either 5 - 10 cm or 10 - 20 cm. This is different from the Sudbury Core where concentrations of these elements decreased rapidly with depth for the majority of sample locations. The largest increase in concentrations between surface and depth was observed for nickel, copper, cobalt, arsenic and iron at the south end of the community adjacent to the former smelter. For an example of the spatial distributions for nickel in the 0 - 5 and 10 - 20 cm soil depths, refer to Figures 7.1.4.1 and 7.1.4.2. Arrows have been inserted in Figure 7.1.4.2 highlighting the locations where concentrations increased with depth. Refer to Section 10.2.3 for concentration dot maps of these 10 elements at different depth intervals in Coniston.

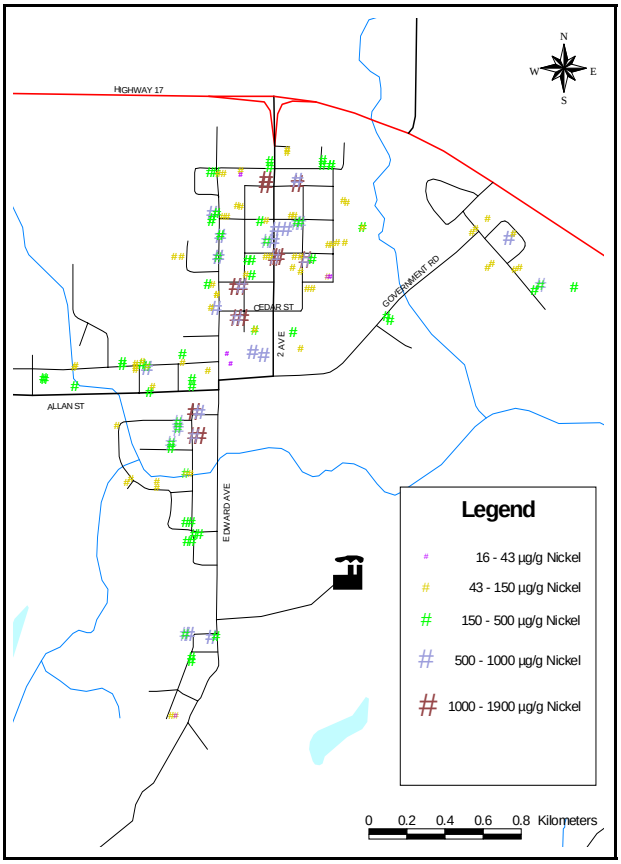


Figure 7.1.4.1: Ni concentrations in urban 0 - 5 cm soil in Coniston

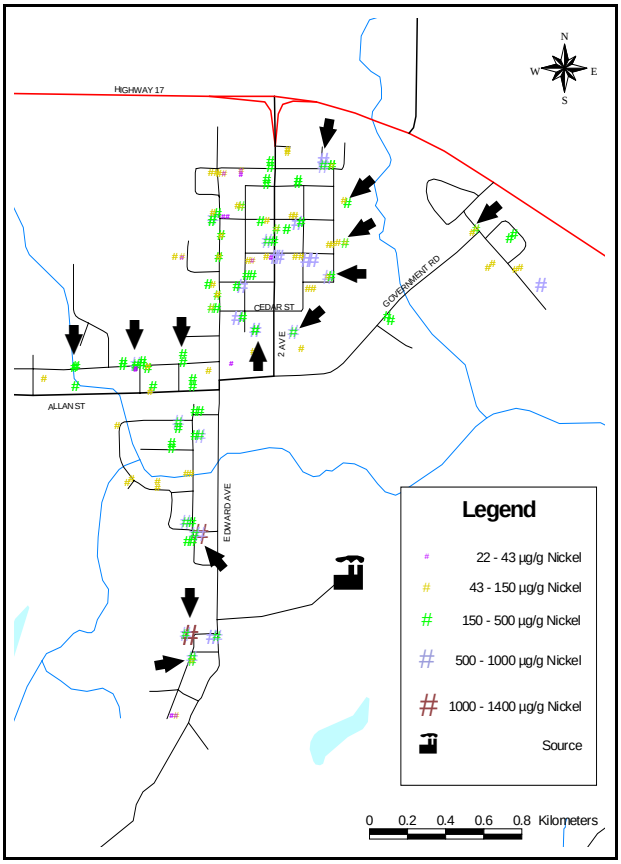


Figure 7.1.4.2: Ni concentrations in urban 10 - 20 cm soil in Coniston

In Coniston, all three depth trends (Group A, B and C) were observed at varying numbers of sample locations. Forty-four percent of the soil sampling locations showed a strong visual trend of decreasing concentration with depth for nickel, copper, cobalt, lead, iron and zinc in the second through fourth quarters, consistent with Group A. This trend was most pronounced between the 0 - 5 cm and the 5 - 10 cm depth. Average concentrations at surface for these elements were 1.1 to 3.0 times the average concentrations at the 10 - 20 cm depth, for the second through fourth quarters. Generally, the weakest trend was observed in the second quarters and the strongest was observed in the fourth.

Generally, the average concentrations for these elements decreased greatly between the surface and the 5 - 10 cm depth, but only marginally between the 5 - 10 cm and 10 - 20 cm depth. The exceptions were the fourth quarters for nickel, copper and cobalt which decreased in concentration at a relatively constant rate. Refer to Figure 7.1.4.3 for the depth profile of copper in Group A for Coniston.

Arsenic concentrations showed a weak visual trend of aerial deposition in the first and second quarters (1.1 to 1.4 times), and a stronger trend in the third and fourth quarters (1.5 to 2.0 times).

Selenium concentrations showed a weak to strong trend of aerial deposition in the third and fourth quarters (1.8 to 2.1 times). The first and second quarters for selenium showed no observable change in concentration with depth. Cadmium and chromium concentrations showed a similar trend of aerial deposition in the fourth quarter (3.0 times and 1.6 times respectively), while the first through

third quarters showed no observable change with depth. The average concentrations in all quarters for cadmium, the first through third quarters for selenium, and the first and second quarters for arsenic were at or near analytical MDLs. As a result, the concentration trends observed in these quarters should be interpreted with caution.

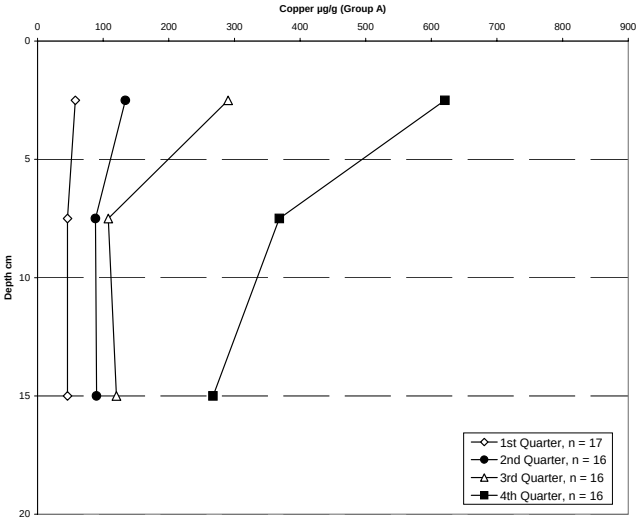


Figure 7.1.4.3: Coniston, Cu depth profile, Group A

A weak trend of aerial deposition was observed in the fourth quarters (1.1 to 1.3 times) for aluminum and vanadium. The depth trend observed for these two elements was likely an artifact of the sorting process. Aluminum and vanadium tend to be indicators of the naturally occurring geology of the City of Greater Sudbury and therefore would not be expected to show similar depth trends to nickel. The wide range in concentrations between the quarters of these elements may indicate differences in soil type. Refer to Section 10.5.4 for graphs of the depth profiles for the elements discussed above.

Only 44% of the sample locations in Coniston showed a strong trend of aerial deposition from surface, compared to approximately 75% of the locations in the Inner Sudbury Communities and the Sudbury Core, and 49% in the Outer Sudbury Communities. More than half of the sample locations in Coniston showed evidence of buried contamination, with maximum concentrations occurring at either 5 - 10 cm or 10 - 20 cm, the maximum depth of investigation. The smelter in Coniston ceased operation in 1972. The high occurrence of maximum concentrations below surface may be attributed to the absence of an ongoing emissions source in Coniston.

In Coniston, 28% of the sample locations exhibited a trend of maximum concentrations at 5 - 10 cm, while lower concentrations were observed at both 0 - 5 cm and 10 - 20 cm. This trend is consistent with Group B. Nickel, copper, cobalt, and to a lesser extent lead and zinc concentrations, showed a strong visual trend of maximum concentrations occurring at 5 - 10 cm in all quarters. For these elements, the average concentrations at 5 - 10 cm were 1.3 to 1.7 times the average concentrations at surface for the first through third quarters, and 1.7 to 3.4 times for the fourth quarters. Figure 7.1.4.4 depicts the depth profile of copper in Group B for Coniston.

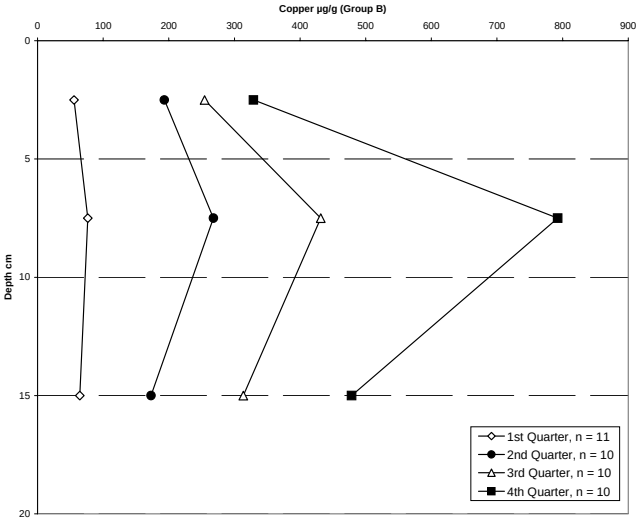


Figure 7.1.4.4: Coniston, Cu depth profile, Group B

A strong Group B trend (1.7 to 3.4 times) was observed in the fourth quarters for arsenic, cadmium and selenium. A similar but weaker trend was observed in the second and third quarters (1.2 to 1.5 times) for these elements, with the exception of the second quarter for cadmium which showed no change with depth. Arsenic and selenium concentrations in the first quarter, and cadmium concentrations in the first and second quarters were at or near analytical MDLs, and concentration trends in these quarters should be interpreted with caution. Chromium and iron concentrations showed a weak Group B trend (1.4 to 1.6 times) in the fourth quarters, and a very weak trend (1.1 to 1.2 times) in the second and third quarters.

A very weak Group B trend (1.1 to 1.2 times) was observed in the second through fourth quarters for aluminum, and third and fourth quarters for vanadium. The depth trend observed for these elements was likely an artifact of the sorting process. Aluminum and vanadium tend to be indicators of the naturally occurring geology of the City of Greater Sudbury and therefore would not be expected to show similar depth trends to nickel.

In Coniston, 29 % of the sample locations exhibited a trend of increasing concentration with increasing depth, consistent with Group C. Concentrations of nickel and copper showed a strong visual trend of increasing concentrations with depth in all quarters, while concentrations of cobalt and arsenic showed a strong visual trend in the second through fourth quarters. Average concentrations of nickel, copper, cobalt and arsenic at the 10 - 20 cm soil depth were 1.3 to 2.2 times the average concentrations observed at the surface in the second through fourth quarters. Figure 7.1.4.5 depicts the depth profile of copper in Group C for Coniston.

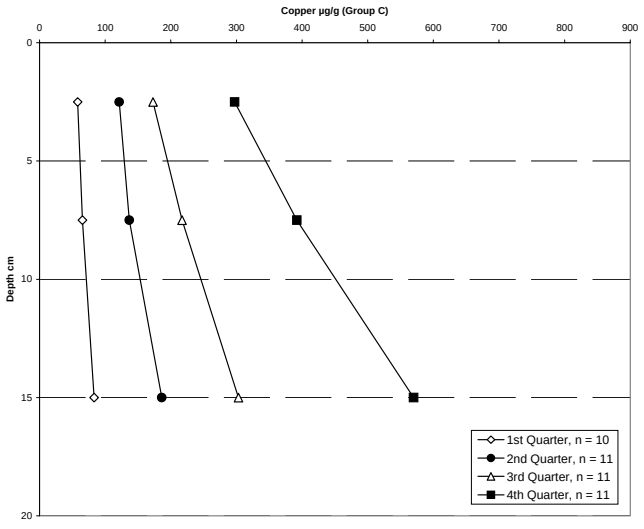


Figure 7.1.4.5: Coniston, Cu depth profile, Group C

Lead, selenium, zinc and to a lesser degree iron concentrations showed a strong pattern of decreasing concentration with increasing depth in the fourth quarters, consistent with Group C. Average concentrations observed at 10 - 20 cm, in the fourth quarter, was 1.2 to 1.8 times the concentrations observed at the surface. There was no observable concentration change with depth in the first through third quarters for these elements. Selenium concentrations in the first through third quarters were at or near analytical MDLs.

Aluminum, vanadium, cadmium and chromium showed a very weak to no change in concentration with depth. Average concentrations in all quarters for cadmium were at or near analytical MDLs and should be interpreted with caution. Refer to Section 10.5.4 for graphs of the depth profiles for the elements discussed above.

Overall, nickel, copper, cobalt, lead and zinc concentrations in 44% of the sample locations in Coniston showed a strong aerial deposition trend from surface. Arsenic, cadmium, selenium, chromium and iron also showed a weaker aerial deposition trend from surface in these sample locations. The remaining sample locations appeared to be affected by some degree of landscaping

practices, and had maximum concentrations occurring below 0 - 5 cm. The same 10 elements showed a strong to weak trend of maximum concentrations occurring at 5 - 10 cm below surface. The concentration trends of these elements dropped off slightly at the 10 - 20 cm depth, and disappeared completely for cadmium and chromium. These elevated concentrations may still be attributed to aerial deposition, however, have been buried by landscaping practices at individual properties over time. Addition, grading, removal and / or mixing of urban soils may alter the vertical distribution of chemical concentrations in the soil.

The concentration trends observed in Coniston were similar to those observed in the Sudbury Core and the Inner Sudbury Communities for Groups A, B and C. In these communities, nickel, copper, cobalt and lead showed a strong trend of aerial deposition in all quarters. Weak to strong trends of aerial deposition were observed in the third and/or fourth quarters for arsenic, cadmium, selenium, chromium, zinc and iron in the Sudbury Core and Inner Sudbury Communities. In Coniston, however, only 44% of the sample locations showed a strong trend of aerial deposition from surface, compared to approximately 75% of the locations in the Inner Sudbury Communities and the Sudbury Core, and 49% in the Outer Sudbury Communities. More than half of the sample locations in Coniston showed evidence of buried contamination, with maximum concentrations occurring at either 5 - 10 cm or 10 - 20 cm.

Pearson's and Spearman's statistical correlation analysis was performed on all of the elements except beryllium at each of the three depths. Refer to Tables 7.1.4.4 to 7.1.4.6 below for an abbreviated version of the results of the Pearson's and Spearman's analysis for all three depths, and Tables 10.4.4.1 through 10.4.4.3 for the full results of the analysis. In Tables 7.1.4.4 to 7.1.4.6 the results have been rounded to one decimal place and values that were 0.75 or greater are considered strong and are indicated in bold type. Values that were between 0.70 and 0.75 were considered moderately correlated.

Table 7.1.4.4: Pearson's and Spearman's Correlations for 0 to 5 cm Urban Soil in Coniston

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*-0.2*	*0.5*	*-0.1*	*0.6*	*-0.1*	*-0.2*	*0.4*	*-0.2*	*0.5*	*0.6*	*-0.2*	*-0.2*	***0.8***	***0.9***	*-0.1*
As	-0.1	1	*0.5*	*0.7*	*0.2*	***0.9***	***0.9***	*0.6*	***0.8***	*-0.1*	*0.1*	***0.9***	*0.6*	*0.0*	*-0.1*	***0.8***
Ba	0.5	0.4	1	*0.4*	*0.6*	*0.6*	*0.5*	*0.7*	*0.5*	*0.3*	*0.6*	*0.5*	*0.3*	*0.6*	*0.4*	*0.6*
Cd	-0.1	**0.8**	0.4	1	*0.3*	*0.7*	*0.7*	*0.6*	*0.7*	*0.0*	*0.1*	*0.7*	*0.6*	*0.0*	*-0.1*	*0.7*
Cr	0.4	0.3	0.5	0.5	1	*0.3*	*0.2*	*0.6*	*0.1*	*0.6*	*0.6*	*0.2*	*0.2*	*0.5*	*0.6*	*0.3*
Co	-0.1	**0.9**	0.4	**0.9**	0.3	1	***1.0***	*0.7*	***0.8***	*0.1*	*0.2*	***1.0***	*0.6*	*0.1*	*0.0*	***0.8***
Cu	-0.1	**0.9**	0.5	**0.8**	0.3	**1.0**	1	*0.6*	***0.9***	*-0.1*	*0.1*	***1.0***	*0.6*	*0.0*	*-0.2*	***0.8***
Fe	0.3	**0.8**	0.6	0.7	0.5	**0.8**	**0.8**	1	*0.5*	*0.3*	*0.5*	*0.7*	*0.5*	*0.4*	*0.5*	*0.6*
Pb	-0.2	**0.8**	0.5	0.7	0.2	0.7	0.7	0.6	1	*-0.1*	*0.0*	***0.8***	*0.6*	*-0.1*	*-0.2*	***0.8***
Mg	0.4	-0.2	0.2	0.0	0.3	0.0	-0.1	0.1	-0.1	1	*0.6*	*-0.1*	*-0.1*	*0.5*	*0.6*	*0.1*
Mn	0.6	0.1	0.6	0.1	0.4	0.1	0.1	0.3	0.0	0.6	1	*0.1*	*0.0*	*0.7*	*0.7*	*0.3*
Ni	-0.1	**0.9**	0.4	**0.8**	0.3	**1.0**	**1.0**	**0.8**	0.7	-0.1	0.1	1	*0.6*	*0.0*	*-0.1*	***0.8***
Se	0.0	0.7	0.4	0.7	0.3	0.7	0.7	0.7	0.6	-0.1	0.1	0.7	1	*0.0*	*-0.1*	*0.6*
Sr	0.7	0.0	0.5	0.0	0.4	0.0	0.0	0.3	0.0	0.5	0.7	0.0	0.0	1	***0.8***	*0.1*
V	**0.9**	-0.1	0.4	-0.1	0.5	-0.1	-0.1	0.4	-0.1	0.5	0.6	-0.1	0.0	0.7	1	*-0.1*
Zn	-0.1	0.7	0.7	0.7	0.4	0.7	0.7	0.6	**0.8**	0.0	0.2	0.7	0.5	0.2	-0.1	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 7.1.4.5: Pearson's and Spearman's Correlations for 5 to 10 cm Urban Soil in Coniston

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*0.0*	*0.5*	*0.0*	***0.8***	*0.0*	*-0.1*	*0.6*	*-0.2*	*0.6*	*0.7*	*-0.1*	*-0.1*	***0.8***	***0.9***	*0.0*
As	-0.1	1	*0.5*	*0.3*	*0.1*	***0.9***	***0.9***	*0.6*	*0.7*	*-0.3*	*0.1*	***0.9***	*0.7*	*0.1*	*-0.1*	*0.7*
Ba	0.4	0.5	1	*0.2*	*0.5*	*0.6*	*0.5*	*0.7*	*0.5*	*0.2*	*0.7*	*0.5*	*0.4*	*0.6*	*0.4*	*0.7*
Cd	-0.1	0.4	0.3	1	*0.2*	*0.4*	*0.4*	*0.3*	*0.4*	*-0.1*	*0.1*	*0.4*	*0.4*	*0.1*	*0.0*	*0.4*
Cr	0.7	0.0	0.4	0.3	1	*0.2*	*0.1*	*0.6*	*0.0*	*0.6*	*0.7*	*0.1*	*0.0*	*0.7*	***0.8***	*0.2*
Co	0.0	**0.9**	0.5	0.5	0.1	1	***0.9***	*0.7*	*0.7*	*-0.2*	*0.2*	***1.0***	*0.7*	*0.2*	*0.0*	***0.8***
Cu	-0.1	**0.9**	0.6	0.5	0.1	**1.0**	1	*0.5*	***0.8***	*-0.3*	*0.1*	***1.0***	*0.6*	*0.1*	*-0.1*	***0.8***
Fe	0.6	0.6	0.7	0.3	0.5	0.7	0.6	1	*0.4*	*0.3*	*0.6*	*0.5*	*0.4*	*0.5*	*0.6*	*0.5*
Pb	-0.1	0.7	0.7	0.4	0.0	0.7	**0.8**	0.5	1	*-0.3*	*0.0*	***0.8***	*0.5*	*0.0*	*-0.2*	***0.8***
Mg	0.5	-0.3	0.1	-0.1	0.5	-0.2	-0.3	0.3	-0.3	1	*0.6*	*-0.3*	*-0.2*	*0.5*	*0.7*	*-0.1*
Mn	0.6	0.1	0.6	0.1	0.6	0.1	0.1	0.5	0.0	0.5	1	*0.1*	*0.0*	*0.7*	*0.7*	*0.3*
Ni	-0.1	**0.9**	0.5	0.5	0.1	**1.0**	**1.0**	0.6	0.7	-0.3	0.0	1	*0.6*	*0.1*	*-0.1*	***0.8***
Se	-0.1	0.7	0.4	0.4	0.0	**0.8**	**0.8**	0.5	0.6	-0.2	0.0	0.7	1	*0.0*	*-0.1*	*0.5*
Sr	0.7	0.0	0.5	0.1	0.6	0.1	0.1	0.4	0.0	0.5	0.7	0.1	0.0	1	*0.7*	*0.2*
V	**0.9**	-0.1	0.3	-0.1	0.7	-0.1	-0.1	0.6	-0.2	0.6	0.7	-0.2	-0.1	0.7	1	*0.0*
Zn	0.0	0.6	0.7	0.5	0.1	0.7	0.7	0.5	**0.8**	-0.1	0.3	0.7	0.5	0.3	-0.1	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 7.1.4.6: Pearson's and Spearman's Correlations for 10 to 20 cm Urban Soil in Coniston

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*0.1*	*0.5*	*0.0*	***0.8***	*0.2*	*0.1*	*0.7*	*-0.1*	*0.6*	*0.6*	*0.1*	*0.0*	***0.8***	***0.9***	*0.2*
As	0.0	1	*0.6*	*0.1*	*0.0*	***0.9***	***0.9***	*0.5*	*0.7*	*-0.3*	*0.1*	***0.9***	*0.5*	*0.2*	*0.0*	*0.7*
Ba	0.4	0.6	1	*0.16*	*0.5*	*0.7*	*0.6*	*0.7*	*0.5*	*0.2*	*0.7*	*0.6*	*0.3*	*0.6*	*0.5*	***0.8***
Cd	0.0	0.3	0.4	1	*0.0*	*0.2*	*0.2*	*0.2*	*0.2*	*0.0*	*0.1*	*0.2*	*0.2*	*0.1*	*0.0*	*0.2*
Cr	**0.8**	0.0	0.4	0.0	1	*0.2*	*0.0*	*0.7*	*-0.2*	***0.8***	*0.7*	*0.0*	*-0.1*	*0.7*	***0.9***	*0.2*
Co	0.2	**0.8**	0.7	0.3	0.1	1	***0.9***	*0.6*	*0.7*	*-0.1*	*0.3*	***1.0***	*0.5*	*0.3*	*0.1*	***0.8***
Cu	0.1	**0.9**	0.7	0.3	0.0	**0.9**	1	*0.4*	***0.8***	*-0.3*	*0.1*	***1.0***	*0.6*	*0.2*	*0.0*	***0.8***
Fe	0.7	0.5	0.7	0.2	0.6	0.6	0.5	1	*0.3*	*0.5*	*0.7*	*0.4*	*0.2*	*0.6*	*0.7*	*0.5*
Pb	-0.1	0.7	0.7	0.3	-0.2	0.6	0.7	0.3	1	*-0.3*	*0.1*	*0.7*	*0.4*	*0.1*	*-0.1*	***0.8***
Mg	0.6	-0.3	0.1	0.0	0.7	-0.1	-0.3	0.5	-0.3	1	*0.6*	*-0.3*	*-0.3*	*0.4*	*0.6*	*-0.1*
Mn	0.7	0.2	0.6	0.2	0.7	0.4	0.2	0.7	0.1	0.6	1	*0.1*	*0.1*	*0.7*	*0.7*	*0.4*
Ni	0.1	**0.9**	0.7	0.4	0.0	**1.0**	**1.0**	0.5	0.7	-0.3	0.3	1	*0.6*	*0.2*	*0.0*	***0.8***
Se	0.0	0.4	0.3	0.1	0.0	0.4	0.5	0.3	0.3	-0.2	0.1	0.5	1	*0.1*	*-0.1*	*0.5*
Sr	**0.8**	0.2	0.5	0.1	0.7	0.3	0.2	0.6	0.1	0.5	0.7	0.2	0.1	1	*0.7*	*0.4*
V	**0.9**	0.0	0.4	0.0	**0.9**	0.1	0.0	0.7	-0.1	0.7	0.7	-0.1	0.0	0.7	1	*0.1*
Zn	0.1	0.7	**0.8**	0.4	0.1	**0.8**	**0.8**	0.4	0.7	-0.1	0.4	**0.8**	0.3	0.3	0.0	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

In Coniston, at 0 - 5 cm, nickel, copper, cobalt, arsenic, cadmium were strongly correlated with each other using Pearson's and Spearman's. Selenium, lead, zinc and iron moderately correlated with these elements using Pearson's. Using Spearman's, lead and zinc were strongly correlated with these elements. Lead and zinc, and lead and arsenic were also strongly correlated with each other at 0 - 5 cm using both Pearson's and Spearman's.

The correlation between nickel, copper, cobalt and arsenic remained similar at all depth intervals in Pearson's and Spearman's. Iron and selenium generally correlated with these elements at 5 - 10 cm but did not correlate with these elements at depth. Cadmium was not correlated with any elements below 0 - 5 cm. Generally with depth, zinc was strongly correlated with nickel, copper, cobalt and lead and moderately correlated with arsenic, using both Pearson's and Spearman's. Generally with depth, lead was strongly correlated with copper and zinc and moderately correlated with arsenic, cobalt and nickel using both Pearson's and Spearman's.

Overall, the number of correlations occurring with nickel, copper, cobalt, arsenic, lead and zinc decreased slightly with depth. The correlations of nickel, copper, cobalt, arsenic, lead and zinc at all depths were typically strong, indicating that concentrations of these elements in Coniston appear to be attributed to smelter emissions. Figures 7.1.4.6 and 7.1.4.7 show the correlations of nickel and cobalt at surface and at 10 - 20 cm in Coniston. Unlike in the Outer and Inner Sudbury Communities, cobalt remained strongly correlated to nickel with depth. The correlations of iron, cadmium and selenium at surface, also indicate that these concentrations may be due to smelter

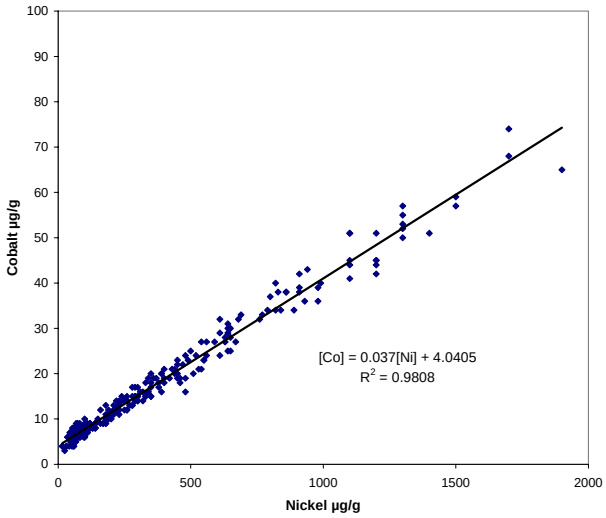


Fig 7.1.4.6: Co vs. Ni, 0 - 5 cm, Coniston

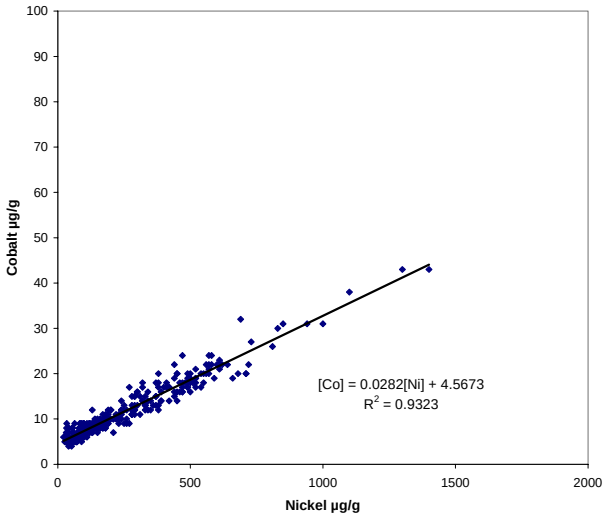


Fig 7.1.4.7: Co vs. Ni, 10 - 20 cm, Coniston

emissions. Refer to Section 10.4.4 for additional correlation figures.

For the naturally occurring elements, the overall number of correlations increase with depth. Aluminum, strontium and vanadium were correlated with each other at all depths using both Pearson's and Spearman's. With depth, aluminum, strontium and vanadium developed strong correlations with chromium and moderate correlations with iron, magnesium, and manganese, using both Pearson's and Spearman's. These elements are indicative of the naturally occurring geology in the City of Greater Sudbury, the increase in the number and strength of these correlations was representative of less disturbed soil at depth. Similar to the Sudbury Core, only aluminum and vanadium were strongly correlated at all depths.

As observed in Figures 7.1.4.8 and 7.1.4.9, chromium and vanadium correlations strengthened with depth. This trend was also shown by the increase in Pearson's and Spearman's R-values, which ranged from R = 0.5 at 0 - 5 cm, to R = 0.9 at 10 - 20 cm, (Refer to Tables 7.1.4.4 and 7.1.4.6). At 0 - 5 cm, two patterns of chromium concentrations were observed. The first pattern consisted of high

chromium concentrations while vanadium concentrations were relatively constant. Chromium and vanadium concentrations in the second pattern increased at a similar rate. The presence of two patterns suggested that there were two sources of chromium. The first pattern, which occurred at 0 - 5 cm, is indicative of aerial deposition, while the second pattern, which occurred at all depths, is indicative of the naturally occurring geology. Similar patterns were also observed with the aluminum/chromium and aluminum/iron correlations.

The number of correlations of barium to other elements increased with depth. At 0 - 5 cm, barium moderately correlated with zinc (using Pearson's) and iron (using Spearman's). At 5 - 10 cm, barium continued to be moderately correlated with zinc and iron using both Pearson's and

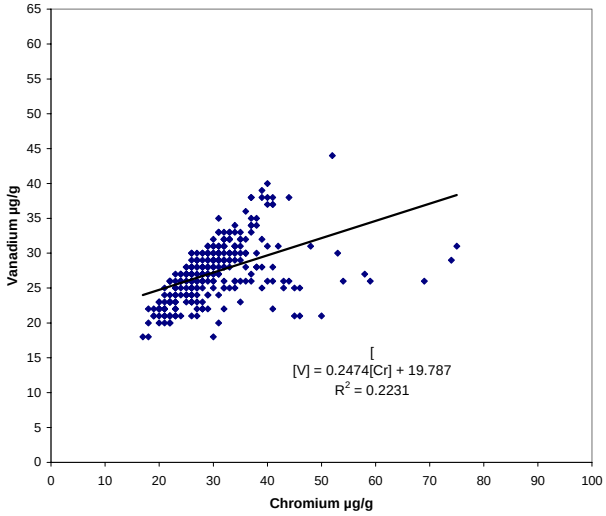


Fig 7.1.4.8: V vs. Cr, 0 - 5 cm, Coniston

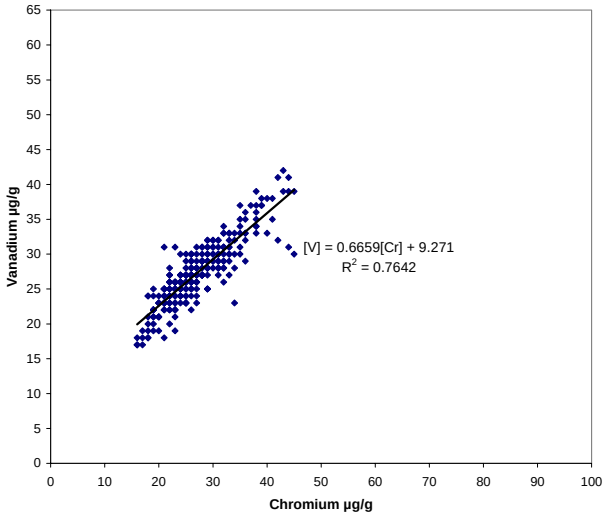


Fig 7.1.4.9: V vs. Cr, 10 - 20, Coniston

Spearman's. Moderate correlations with lead (using Pearson's) and manganese (using Spearman's) were also present at this depth. At 10 - 20 cm, both Pearson's and Spearman's showed strong correlations between barium and zinc, and moderate barium correlations with cobalt and iron. Moderate correlations with nickel, copper, lead and manganese using Pearson's or Spearman's were also present at this depth. Unlike in the Sudbury Core, the barium correlations in Coniston were generally moderate, and increased in number with depth. Barium did not clearly correlate with either natural or elements associated with smelter emissions.

Refer to Section 10.4.4 for a complete list of graphs showing selected element correlations at all three depths for Coniston.

In summary, the element concentrations in Coniston were considerably higher and had more exceedences of MOE criteria than in the Outer and Inner Sudbury Communities. Element concentrations in Coniston were similar to the Sudbury Core at the 0 - 5 cm depth, with the exception of higher arsenic and cadmium concentrations in Coniston. Concentrations of nickel, copper, cobalt, arsenic and lead remained higher with depth in Coniston, compared to the Sudbury Core where they decreased more rapidly with depth. In Coniston, concentrations of these elements exceeded Table A at all depths. There were substantially more Table F and A exceedences of arsenic and cobalt at all depths in Coniston compared to the Sudbury Core. The number of arsenic exceedences increased at 5 - 10 cm, then decreased at 10 - 20 cm.

At 0 - 5 cm, a spatial concentration gradient was observed for nickel, copper, cobalt, arsenic and lead with the higher concentrations starting in the centre of the community and lower concentrations towards the east and west ends. Concentrations of cadmium, selenium, zinc, iron, and to a lesser extent chromium, were slightly higher in the centre of the community, but were all relatively low.

At depth, concentrations of nickel, copper, arsenic, and to a lesser extent lead and zinc, generally decrease slightly while maintaining a similar spatial trend to the surface. Concentrations of cobalt, cadmium, selenium, chromium and iron also decreased with depth, but a concentration gradient was not observed at 10 - 20 cm. Concentrations in more than half of the sample locations show the highest concentrations of nickel, copper, arsenic and lead at either 5 - 10 cm or 10 - 20 cm. For Coniston, the largest increase in concentrations between surface and depth was observed at the south end of the community adjacent to the former smelter.

In 44% of the sample locations in Coniston, nickel, copper, cobalt, lead, zinc, and to a lesser extent arsenic, cadmium, selenium, chromium and iron, concentrations showed a strong aerial deposition trend from surface. The remaining sample locations had maximum concentrations occurring below surface. A strong to weak trend of maximum concentrations occurring at 5 - 10 cm was observed for the same 10 elements. The concentration trends of these elements dropped off slightly at the 10 - 20 cm depth and disappeared completely for cadmium and chromium. These elevated concentrations may still be attributed to aerial deposition, however, overtime have been buried by landscaping practices at individual properties.

In Coniston, at 0 - 5 cm nickel, copper, cobalt, arsenic, cadmium, and to a lesser extent lead and zinc, were strongly correlated with each other using Pearson's and Spearman's. Selenium and iron moderately correlated with these elements using Pearson's. Overall, the number of correlations occurring with nickel, copper, cobalt, arsenic, lead and zinc decreased slightly with depth. The correlations of these elements at all depths were typically strong, indicating that concentrations of these elements in Coniston appear to be attributed to smelter emissions. The correlations of iron, chromium, cadmium and selenium at surface also indicate that these concentrations may be due to smelter emissions. Correlations of naturally occurring elements increased in strength and number with depth, indicating the presence of less disturbed soil at depth. Similar to the Sudbury Core, only aluminum and vanadium were strongly correlated at all depths. Unlike the Sudbury Core, barium did not clearly correlate with either naturally occurring elements or those associated with smelter emissions.

7.1.5 Falconbridge

In Falconbridge, the concentrations of most of the eleven elements used in determining this grouping were considerably higher than in Coniston and the Sudbury Core at all depths. Refer to Table 7.1.5.1. At all three depth intervals in Falconbridge, nickel, copper, cobalt, arsenic, lead, selenium, cadmium, chromium and iron were generally higher than in both Coniston and the Sudbury Core. Differences in concentrations between the communities for these elements started from the 25th percentile, except for cadmium which started from the 25th to 75th percentile at all depths. At 10 - 20 cm, lead concentrations were marginally lower in Falconbridge than in Coniston from the 95th percentile.

Table 7.1.5.1: Summary Statistics for Metals and Arsenic in Urban Soil in Falconbridge of the City of Greater Sudbury

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in Falconbridge,				n = 220															
Minimum	4900	0.4	2.5	15	0.4	1600	11	5	31	9200	6	1500	69	0.75	37	0.5	11	10	15
10th percentile	7090	0.4	9	31	0.4	3690	27	11	72	12900	14	2100	140	0.75	120	0.5	21	24	29
1st quartile	7900	0.4	29	39	1.1	5500	33	28	390	16000	35	2400	160	0.75	445	1.0	27	26	50
Median	9000	0.4	49	50	2.1	7300	40	49	780	21000	66	2800	180	2.2	820	2	33	30	66
3rd quartile	10000	0.4	100	56	3.0	9550	52	74	1200	27000	120	3250	210	3.7	1300	3	38	34	99
95th percentile	12000	1.2	181	69	4.3	13000	73	111	1900	38000	200	4105	240	7.6	2105	6	45	39	150
Maximum	17000	3.8	300	86	6.7	40000	100	190	3000	49000	370	6900	310	14.0	3700	12	51	56	240
Mean	9080	0.5	69	48	2.2	7885	44	54	828	21886	83	2902	182	2.8	915	2.6	32	30	76
CV (std. dev./mean)	19%	83%	84%	27%	59%	55%	34%	64%	72%	37%	80%	26%	20%	82%	71%	71%	24%	18%	54%
Skewness	0.5	4.9	1.3	0.1	0.4	3.9	0.9	0.8	0.8	0.9	1.5	1.6	0.4	1.7	1	1.6	-0.3	0.8	1.3
5 to 10 cm Urban Soil in Falconbridge,				n = 217															
Minimum	4700	0.4	2.5	22	0.4	2500	17	5	10	10000	4	1500	110	0.75	22	0.5	13	19	14
10th percentile	7800	0.4	18	31	0.4	3200	25	11	132	12600	15	1900	130	0.75	136	0.5	22	25	26
1st quartile	8800	0.4	34	38	0.4	4400	29	22	310	15000	26	2100	150	0.75	430	1.0	26	27	39
Median	9800	0.4	76	48	1.1	6500	36	37	580	20000	55	2400	180	0.75	740	3.0	31	31	57
3rd quartile	11000	0.4	140	58	1.7	9100	46	57	1000	26500	120	2700	230	0.75	1100	4.0	38	35	87
95th percentile	13000	1.2	323	74	3.4	13000	75	113	2025	40000	220	3300	300	2.23	2225	6.0	44	41	140
Maximum	23000	8.1	570	89	4.8	33000	140	150	3000	100000	340	13700	480	8.80	3100	11.0	50	110	210
Mean	10027	0.6	109	48	1.3	7123	41	43	754	22857	77	2627	196	1.02	849	2.8	32	33	65
CV (std. dev./mean)	23%	125%	96%	29%	73%	51%	49%	70%	80%	55%	86%	51%	31%	73%	74%	69%	25%	33%	56%
Skewness	2.1	7.1	1.7	0.2	1.2	2.2	2.3	1.2	1.3	2.9	1.3	5.8	1.5	6.1	1.3	1.1	-0.1	3.9	1.1
10 to 20 cm Urban Soil in Falconbridge,				n = 217															
Minimum	5200	0.4	2.5	24	0.4	2000	17	5	13	10000	4	1400	97	0.75	25	0.5	12	17	14
10th percentile	7800	0.4	17	32	0.4	3100	23	9	93	12000	11	1800	130	0.75	140	0.5	21	25	22
1st quartile	8700	0.4	29	39	0.4	3900	27	13	160	14000	18	2100	150	0.75	240	1.0	25	27	31
Median	10000	0.4	57	47	0.4	5100	32	21	310	16000	32	2300	170	0.75	410	2.0	31	31	43
3rd quartile	11000	0.4	120	59	1.0	6700	40	31	530	21000	64	2600	220	0.75	605	3.0	36	35	61
95th percentile	14000	1.0	242	78	1.8	9760	76	56	1000	37000	142	4800	340	1.70	1200	6.0	43	56	93
Maximum	25000	1.4	620	110	3.4	30000	160	110	2000	110000	230	15500	540	6.00	2500	8.0	55	130	140
Mean	10370	0.5	88	49	0.8	5737	37	25	398	19825	48	2694	193	0.88	488	2.1	31	33	49
CV (std. dev./mean)	27%	43%	101%	30%	71%	53%	56%	71%	83%	70%	89%	70%	37%	66%	78%	79%	26%	41%	49%
Skewness	2.4	3.4	2.4	0.9	2.0	3.4	3.5	2.3	1.7	4.5	1.5	4.8	1.9	6.4	2.2	1.6	0.1	4.1	0.9

All results are in µg/g dry weight.

Zinc concentrations were generally similar in the Sudbury Core, Coniston and Falconbridge for all three depths. Zinc concentrations were marginally higher in both the Sudbury Core and Coniston compared to Falconbridge at 10 - 20 cm for the 95th percentile and maximum values.

Generally, aluminum concentrations in Falconbridge were slightly higher at all depths from the 25th to 75th percentile and slightly lower from the median to 95th percentile in Coniston and the Sudbury

Core. Barium, magnesium, manganese, strontium and vanadium concentrations were either similar or marginally lower in Falconbridge compared to Coniston and the Sudbury Core at all depths.

In Falconbridge, concentrations of nickel, copper, cobalt, arsenic and lead were higher in the residential properties than in the park properties. Refer to Table 7.1.5.2. Due to the extremely low n-values for school properties at all depths, comparisons with this group were very general. The n-value was 3 out of a total of 220 urban soil samples at 0 - 5 cm, and zero out of 217 samples at depth.

Table 7.1.5.2: Summary Statistics for All 0-5 cm Urban Soil Samples from Falconbridge by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm	n = 199																		
Minimum	4900	0.4	2.5	15	0.4	1600	11	5	31	9200	6	1500	69	0.75	37	0.5	11	10	15
10th percentile	7080	0.4	11	32	0.4	4380	28	11	87	13000	17	2100	140	0.75	140	0.5	21	24	33
1st quartile	7900	0.4	31	41	1.5	5900	33	32	460	16000	42	2400	160	0.75	550	1.0	27	26	56
Median	9000	0.4	52	51	2.2	7500	41	51	810	21000	71	2700	180	2.4	850	2.0	34	29	71
3rd quartile	10000	0.4	110	58	3.0	9600	52	75	1200	27000	130	3200	200	3.9	1300	4.0	39	33	100
95th percentile	12000	1.2	190	71	4.5	13000	73	111	1910	38000	200	4010	240	8.1	2110	6.0	45	38	151
Maximum	17000	3.8	300	86	6.7	40000	100	190	3000	49000	370	5700	290	14	3700	12	51	44	240
Mean	9059	0.5	74	50	2.3	8167	45	56	874	22025	88	2864	182	2.9	956	2.7	33	30	80
CV (std. dev./mean)	19%	85%	81%	26%	53%	53%	34%	60%	68%	36%	76%	24%	19%	79%	67%	69%	25%	17%	51%
Skewness	0.5	4.7	1.2	0.0	0.4	4.0	0.8	0.8	0.8	0.9	1.4	1.1	0.2	1.6	1.0	1.5	-0.3	0.1	1.3
Schools and Daycares 0 to 5 cm					n = 3														
Minimum	6100	0.4	2.5	26	0.4	2500	31	11	46	12000	11	3400	190	0.75	61	0.5	19	26	27
Median	8700	0.4	2.5	43	0.4	6300	31	12	58	13000	20	3400	210	1.5	110	0.5	38	30	35
Maximum	9800	0.4	2.5	46	1.0	7000	35	13	66	16000	21	4200	220	1.8	120	0.5	42	32	36
Mean	8200	0.4	2.5	38	0.6	5267	32	12	57	13667	17	3667	207	1.4	97	0.5	33	29	33
Parks 0 to 5 cm				n = 18															
Minimum	6500	0.4	2.5	22	0.4	3100	24	8	44	12000	6	1800	130	0.75	68	0.5	22	25	17
10th percentile	8050	0.4	5.0	28	0.4	3400	26	10	54	12000	10	1940	140	0.75	87	0.5	25	26	20
1st quartile	8800	0.4	12	29	0.4	3500	26	15	88	13000	14	2500	150	0.75	120	1.0	27	26	25
Median	9300	0.4	34	36	0.4	3550	37	22	325	20500	22	2850	170	0.75	385	1.5	32	31	31
3rd quartile	9800	0.4	49	43	0.9	7600	39	34	480	27000	33	3400	230	1.60	690	2.0	34	35	47
95th percentile	11450	0.5	73	44	3.1	10450	61	93	1375	41600	73	5455	268	2.29	1905	3.2	35	52	82
Maximum	14000	1.2	84	45	4.2	13000	73	130	1800	45000	110	6900	310	2.80	2500	4.0	35	56	96
Mean	9456	0.4	34	35	1.0	5206	38	34	456	21722	31	3189	187	1.17	601	1.7	31	33	39
CV (std. dev./mean)	16%	42%	70%	20%	116	57%	34%	97%	110%	46%	86%	42%	27%	56%	116%	63%	14%	26%	57%
Skewness	1.2	4.2	0.4	-0.2	1.9	1.6	1.5	2.0	1.6	1.1	2.0	1.6	1.2	1.3	1.7	0.7	-1.0	1.6	1.4

All results are in µg/g dry weight.

At 0 - 5 cm, concentrations of nickel, copper, cobalt, arsenic and lead were generally up to two times higher in the residential area starting from the 20th to 60th percentile. At 5 - 10 cm, concentrations of these elements were up to two times higher in the residential area starting from the 70th to 90th percentile. Concentrations of these elements at 10 - 20 cm, however, were higher in park properties from the 10th to 60th percentile and higher in the residential properties from the 70th percentile.

Concentrations of barium, cadmium, chromium, selenium and zinc in the residential properties at 0 - 5 cm were marginally higher than in the parks starting from the 10th to 30th percentile. Concentrations of barium, cadmium and zinc in the residential properties at the lower two depth intervals were marginally higher than in the parks starting from the 10th to 95th percentile. At these two depths, chromium and iron concentrations were marginally higher in park properties starting from the 30th to 70th percentile.

Generally, park concentrations for nickel, copper, cobalt, arsenic, and to a lesser extent lead, were considerably higher in Falconbridge compared to the Sudbury Core and Outer and Inner Sudbury Communities at all depths. School concentrations were lower compared to the Sudbury Core and Coniston but were similar to marginally lower compared to the Outer Sudbury Communities at the surface.

There were substantially more exceedences of Table A and F in Falconbridge than in Coniston and the Sudbury Core. Table 7.1.5.3 summarizes the number of urban soil samples that exceeded the Table F and Table A criteria in Falconbridge.

Table 7.1.5.3: Summary of Table F and Table A Exceedences for Urban Soil Samples in Falconbridge

Element	Table F			Table A		
	0 to 5 cm	5 to 10 cm	10 to 20 cm	0 to 5 cm	5 to 10 cm	10 to 20 cm
Antimony	14 (6%)	13 (6%)	8 (4%)	0	0	0
Arsenic	187 (85%)	195 (90%)	192 (88%)	184 (84%)	193 (89%)	186 (86%)
Cadmium	167 (76%)	113 (52%)	50 (23%)	0	0	0
Chromium	15 (7%)	21 (10%)	12 (6%)	0	0	0
Cobalt	179 (81%)	163 (75%)	100 (46%)	135 (61%)	93 (43%)	29 (13%)
Copper	191 (87%)	204 (94%)	199 (92%)	178 (81%)	183 (84%)	138 (64%)
Lead	51 (23%)	49 (23%)	17 (8%)	9 (4%)	12 (6%)	1
Molybdenum	89 (40%)	5 (2%)	4 (2%)	0	0	0
Nickel	219 (100%)	210 (97%)	212 (98%)	191 (87%)	194 (89%)	187 (86%)
Selenium	150 (68%)	151 (70%)	117 (54%)	1	1	0
Vanadium	0	2 (1%)	4 (2%)	0	0	0
Zinc	7 (3%)	5 (2%)	0	0	0	0
No. of Samples	220	217	217	220	217	217

Nickel, copper, cobalt arsenic and lead concentrations exceeded Table A at all depths. Selenium concentrations exceeded Table A only at 0 - 5 cm and 5 - 10 cm depth intervals. No other elements exceeded Table A at any depths in Falconbridge. It should be noted that molybdenum concentrations were considerably higher in Falconbridge and had more Table F exceedences than any other community.

At 0 - 5 cm, 61% of the urban soil samples exceeded Table A for cobalt, 81% for copper, 84% for arsenic and 87% for nickel. At the same depth 76% exceeded Table F for cadmium, 81% for cobalt, 85% for arsenic, 87% for copper and over 99% for nickel. Generally the number of exceedences of Table F decrease with depth for antimony, cadmium, cobalt, lead, molybdenum and zinc. The number of Table F exceedences for arsenic, chromium, copper, nickel, selenium and vanadium remained high at all depths, increased slightly at 5 - 10 cm, and then decreased slightly at 10 - 20 cm. The number of Table A exceedences generally decreased with depth for cobalt and selenium. The number of Table A nickel, copper, arsenic and lead exceedences remained high at all depths, increased slightly at 5 - 10 cm, and then decreased slightly at 10 - 20 cm.

Concentration dot maps were created to illustrate the spatial distribution of chemical concentrations for 10 elements. The highest concentrations of nickel, copper, cobalt, arsenic, lead, cadmium, chromium, iron, selenium and zinc in the 0 - 5 cm urban soil occurred in the centre and east side of the community between Edison Road and Lakeshore Drive, directly west of the smelter.

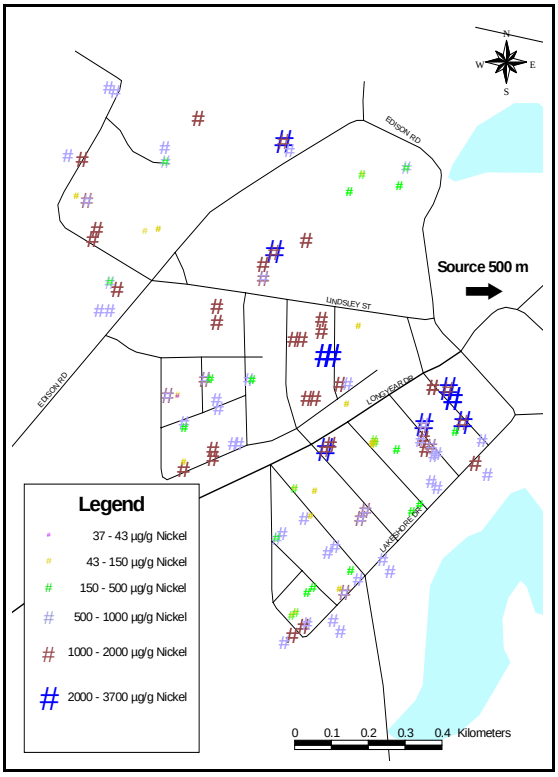


Figure 7.1.5.1: Ni concentrations in urban 0 - 5 cm soil in Falconbridge

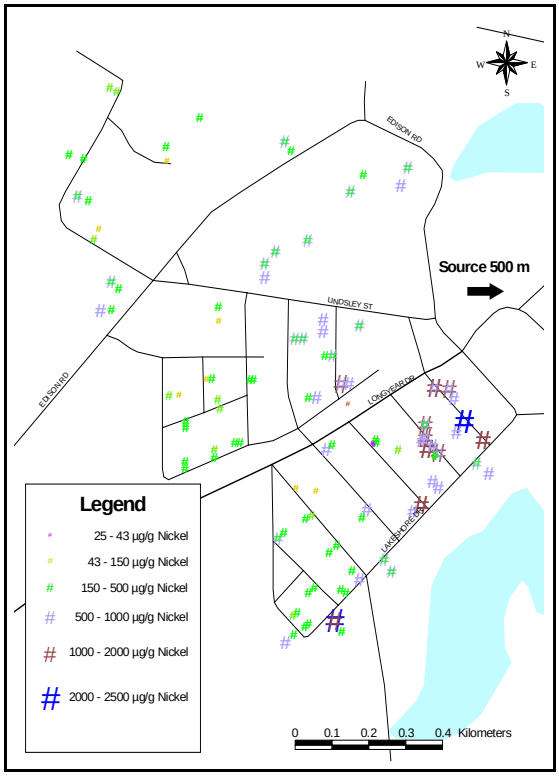


Figure 7.1.5.2: Ni concentrations in urban 10-20 cm soil in Falconbridge

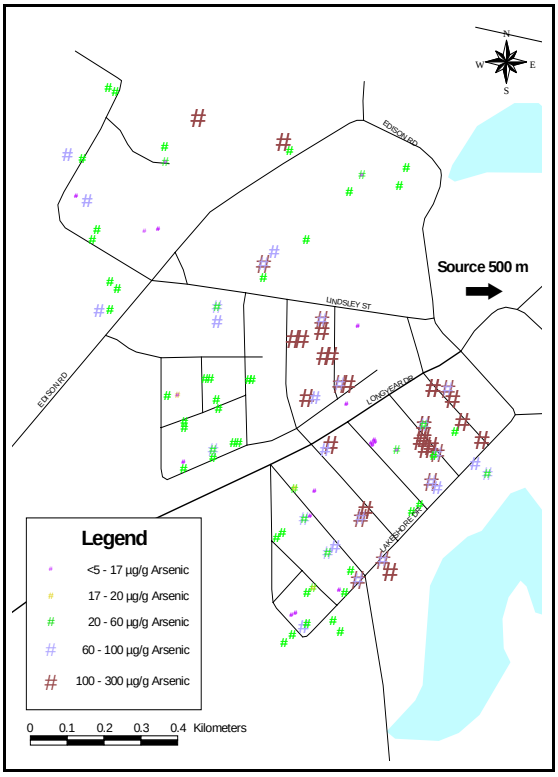


Figure 7.1.5.3: As concentrations in urban 0 - 5 cm soil in Falconbridge

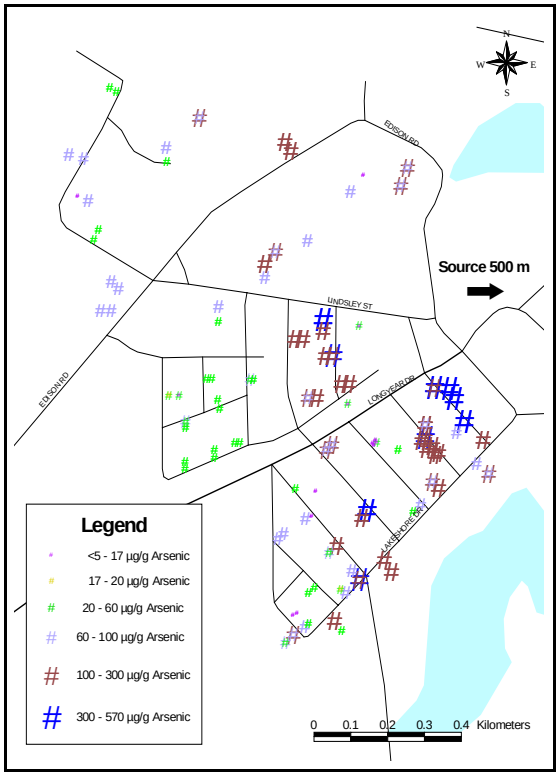


Figure 7.1.5.4: As concentrations in urban 5 - 10 cm soil in Falconbridge

At 10 - 20 cm, the concentrations of these elements appeared to decrease overall, although nickel, copper, cobalt and arsenic concentrations generally remained above Table A in this area. For an example of the spatial distributions for nickel in the 0 - 5 and 10 - 20 cm soil depths, refer to Figures 7.1.5.1 and 7.1.5.2.

Arsenic concentrations appeared to be the highest at 5 - 10 cm and were elevated in the centre and east side of the community from north of Edison Road to Lakeshore Drive. For an example of the spatial distributions for arsenic in the 0 - 5 and 5 - 10 cm soil depths, refer to Figure 7.1.5.3 and 7.1.5.4. While iron and chromium concentrations generally decreased with depth, the highest concentrations of these elements occurred at 10 - 20 cm in the ball diamonds in the northeast portion of the community. Refer to Section 10.2.2 for concentration dot maps of nickel, copper, cobalt, arsenic, lead, cadmium, chromium, iron, selenium and zinc at 0 - 5 and 10 - 20 cm in Falconbridge.

As discussed previously, the data was sorted by nickel concentrations to differentiate between the Group A, B and C depth trends. The assumption with this procedure was that the other elements shared similar proportions of sample locations exhibiting each depth trend as nickel. This assumption appeared to be accurate for the majority of the elements in Falconbridge. Arsenic, cadmium and chromium, however, had considerably different proportions of sample locations exhibiting each depth trend as compared to nickel. As a result, these three elements were sorted separately by their own concentrations to differentiate between depth trends.

In Falconbridge, all three depth trends (Groups A, B and C) were observed at varying numbers of sample locations. Nickel, copper, cobalt, lead and zinc concentrations, in 49% of the sample locations, showed a strong visual trend of decreasing concentration with depth (Group A) in all quarters. Average concentrations at surface were 1.6 to 4.4 times the average concentrations at 10 to 20 cm for these elements, for all quarters.

In 85% of the sample locations, cadmium exhibited a strong visual trend of decreasing concentrations with increasing depth (Group A) while chromium exhibited the same trend in 62% of sample locations. Both elements showed this trend in all quarters. The first quarter for cadmium showed a weaker Group A trend (1.8 times) than the other quarters. The average concentrations in the first quarter for cadmium were at or below the analytical method detection limit. Average surface cadmium concentrations were 3.0 to 3.8 times the average concentrations at 10 - 20 cm for the second through fourth quarters. Average concentrations for chromium were 1.3 to 1.8 times greater at surface than at 10 - 20 cm for all quarters. Figure 7.1.5.5 depicts the Group A depth profile for cadmium in Falconbridge.

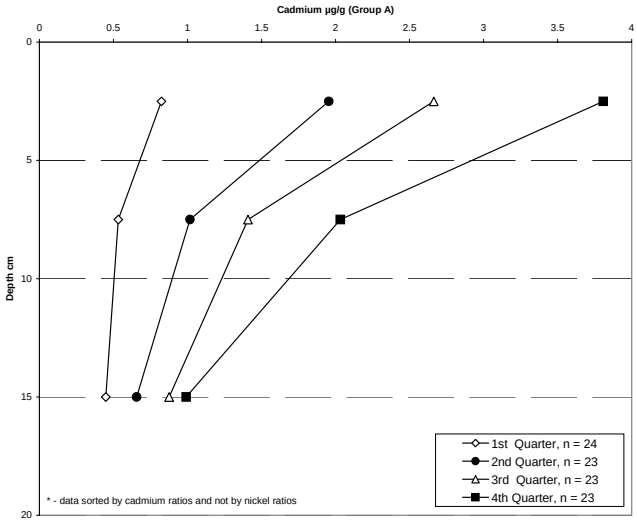


Figure 7.1.5.5: Falconbridge, Cd depth profiles, Group A.

Only 19% of the sample locations showed a Group A trend for arsenic. Arsenic showed a strong visual trend of decreasing concentrations with depth in both halves. The average concentrations at surface were 2.0 to

2.2 times the average concentrations at 10 - 20 cm in both halves. Figure 7.1.5.6 depicts the Group A depth profile for arsenic in Falconbridge.

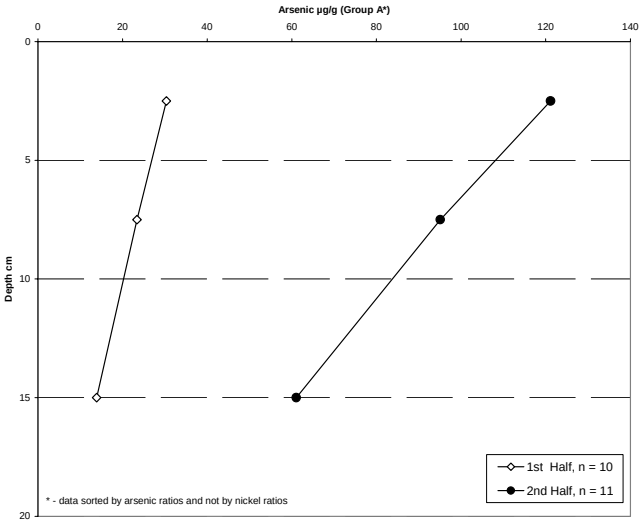


Figure 7.1.5.6: Falconbridge, As depth profiles, Group A.

In 49% of the sample locations, iron showed a strong visual trend of aerial deposition in the third and fourth quarters. A weak trend of aerial deposition was present in the first and second quarters. Average concentrations of iron at surface were 1.1 to 1.7 times the average concentrations at 10 - 20 cm. In the same percentage of sample locations, selenium had a strong visual trend of aerial deposition in the fourth quarter (2.3 times) and a weak trend in the second and third quarters (1.2 to 1.7 times). No observable change with depth was present in the first quarter for selenium.

Average aluminum and vanadium concentrations, in 49% of the sample locations, showed no observable change with depth or showed a visual trend of increasing concentration with depth (1.1 to 1.3 times). This trend was consistent with Group C rather than Group A. A weak trend of maximum concentration at 5 - 10 cm (Group B) was also observed in one quarter for vanadium (1.1 times). The multiple depth trends present for these elements was likely an artifact of the sorting process. Aluminum and vanadium tend to be indicators of the naturally occurring geology of the City of Greater Sudbury and therefore would not be expected to show similar depth trends to nickel. The wide range in concentrations between the quarters of these elements may indicate differences in soil type. Refer to Section 10.5.5 for graphs of the depth profiles for the elements discussed above.

In Falconbridge, nickel and copper concentrations in 39% of the sample locations showed a strong visual trend of maximum concentrations at 5 - 10 cm, while lower concentrations were observed at both 0 - 5 and 10 - 20 cm. This trend is consistent with Group B. Both elements showed this trend in all quarters. Average concentrations at 5 - 10 cm were 1.2 to 1.5 times the average concentrations at surface for these elements for all quarters.

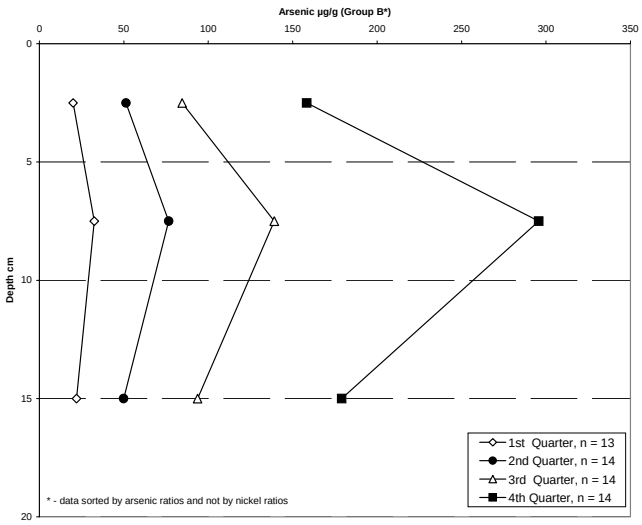


Figure 7.1.5.7: Falconbridge, As depth profiles, Group B.

In 52% of the sample locations, arsenic exhibited a strong visual trend of maximum concentrations at 5 - 10 cm (Group B) while chromium exhibited the same trend in 19% of sample locations. Both elements showed this trend in all quarters or halves. Average arsenic concentrations at 5 - 10 cm were 1.5 to 1.9 times the average concentrations at

surface for all quarters. Average concentrations for chromium were 1.1 to 1.2 times greater at 5 - 10 cm than at surface for both halves. Figure 7.1.5.7 depicts the Group B depth profile for arsenic in Falconbridge.

Only 10% of the sample locations showed a Group B trend for cadmium. Cadmium showed a strong visual trend of decreasing concentrations with depth. The average concentration at 5 - 10 cm was 1.2 times the average concentration at surface. Due to the small proportion of sample locations exhibiting a Group B trend for cadmium, the data was not divided into halves, thirds or quarters for graphing purposes. Refer to Figure 7.1.5.8.

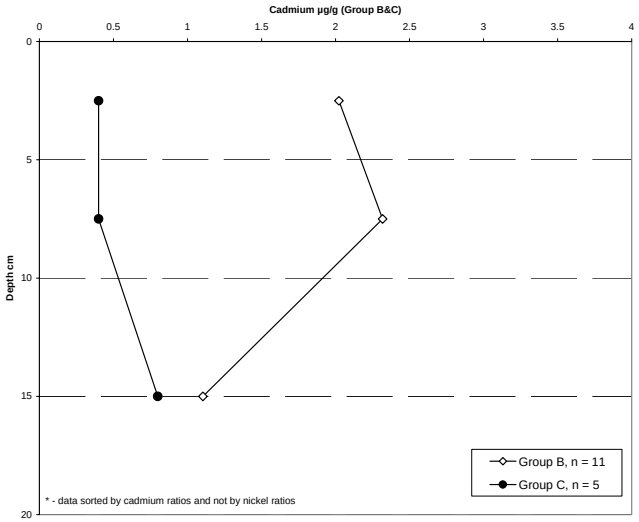


Figure 7.1.5.8: Falconbridge, Cd depth profiles, Group B & C.

In 39% of the sample locations, cobalt, lead, selenium and iron showed a strong visual Group B trend in the third and fourth quarters. Zinc exhibited a similar trend only in the fourth quarter. Lead also exhibited a strong visual Group B trend in the second quarter while selenium and iron showed a weak Group B trend in the second quarter. The remaining quarters for cobalt, lead, selenium, iron and zinc exhibited either no observable change with depth or a weak trend of decreasing concentration with depth, consistent with Group A. Average concentrations of cobalt, lead, selenium and iron at 5 - 10 cm were 1.1 to 1.7 times the average concentrations at surface in the third and fourth quarters. Average zinc concentrations were approximately 1.1 times greater at 5 - 10 cm than at surface in the fourth quarter.

Average aluminum and vanadium concentrations in 39% of the sample locations showed no observable change with depth in the first and second quarters. These elements showed a weak Group B trend (1.1 times) in the third quarter and a strong Group B trend in the fourth quarter (1.3 to 1.5 times).

In Falconbridge, nickel, copper, cobalt, lead and selenium concentrations in 13% of the sample locations showed a strong visual trend of increasing concentration with increasing depth, consistent with Group C. This trend was present in all halves for nickel, copper, cobalt and lead. This trend was also present in the second half for selenium with average concentrations in the first half showing no observable change with depth and concentrations were near the analytical MDL. Average concentrations at 10 - 20 cm were 1.5 to 1.9 times the average concentrations at surface for cobalt, lead and selenium while average concentrations were 2.0 to 2.7 times greater at 10 - 20 cm than surface for nickel and copper.

In 28% of the sample locations, arsenic exhibited a strong visual trend (2.0 to 2.5 times) of increasing concentration with increasing depth, consistent with Group C, while chromium exhibited a similar trend (2.2 times) in 18% of sample locations. Arsenic showed this trend in all thirds while chromium showed a weaker trend (1.2 times) in the first half. Figure 7.1.5.9 depicts the Group C depth profile for arsenic in Falconbridge.

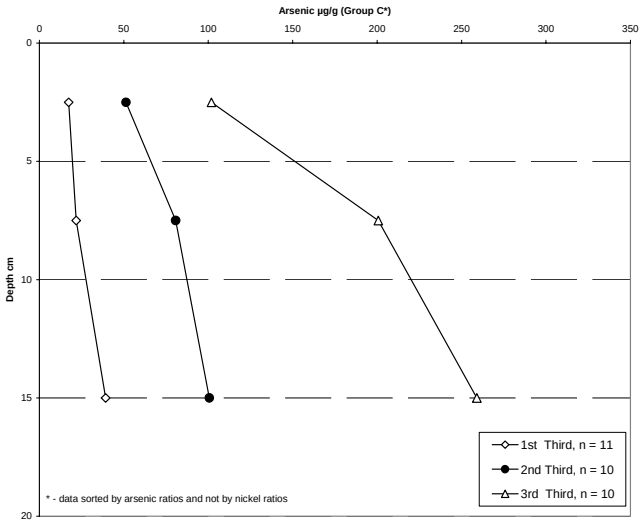


Figure 7.1.5.9: Falconbridge, As depth profiles, Group C.

Only 5% of the sample locations showed a Group C trend for cadmium. Cadmium showed a strong trend (2.0 times) of increasing concentrations with depth. However, the average concentrations were at or near the analytical MDL, with only 5% of the sample locations showing this trend, and the sample size was extremely small. Due to the small proportion of sample locations exhibiting a Group C trend for cadmium, the data was not divided into halves, thirds or quarters for graphing purposes.

In 13% of the sample locations, aluminum, vanadium, zinc and iron showed weak Group C trends (1.1 to 1.7 times). Zinc showed this trend in both halves while aluminum, vanadium and iron only showed this trend in the second half. The average concentrations in the first halves of aluminum, vanadium and iron showed no observable change with depth.

Overall, nickel, copper, cobalt, arsenic, lead, cadmium, selenium, iron, chromium and zinc exhibited a strong aerial deposition trend from surface. These sample locations appeared to be unaffected by landscaping practices. The percentage of sample locations that exhibited this trend, however, varied between elements. Only a small percentage of sample locations exhibited this trend for arsenic, while approximately 50% exhibited this trend for nickel, copper, cobalt, lead, selenium, iron and zinc, 62% for chromium and 85% for cadmium. These differences between elements may be attributed to numerous factors including element form, element mobility, smelter process changes and differing chemical composition of the ore over time. For example, cadmium may be a relatively recent emission while arsenic may have historically been emitted at greater volumes. A large number of sample locations (81%) for arsenic showed strong trends of maximum concentration below surface while only a small percentage of sample locations showed this trend for cadmium. Approximately 40 to 50% of sample locations showed this trend for the remaining elements. These elevated concentrations may still be attributed to aerial deposition, however, have also likely been buried by landscaping practices at individual properties over time. Addition, grading, removal and / or mixing of urban soils may alter the vertical distribution of chemical concentrations in the soil. As discussed above, other factors may also play a role in the distribution of the depth trends between elements.

In Falconbridge, ten elements including nickel, copper, cobalt, arsenic, lead, cadmium, selenium, chromium, iron and zinc, showed stronger indications of aerial deposition than in Coniston, the Sudbury Core or the Inner Sudbury Communities. In those communities, evidence of aerial deposition varied in strength, while in Falconbridge strong evidence was present for all ten elements.

Similar to Coniston, Falconbridge only had 49% of sample locations showing this trend for most elements. In Coniston, only 44% of the sample locations showed a strong trend of aerial deposition from surface, compared to approximately 75% of the locations in the Inner Sudbury Communities and the Sudbury Core. Unlike Coniston, chromium and cadmium in Falconbridge showed a strong trend of aerial deposition in 62% and 85% of sample locations, respectively. Similar to Coniston, more than half of the sample locations in Falconbridge showed evidence of buried contamination for most elements, with maximum concentrations occurring at either 5 - 10 cm or 10 - 20 cm. Arsenic showed evidence of buried contamination in approximately 80% of the sample locations.

Pearson's and Spearman's statistical correlation analysis was performed on all of the elements except beryllium at all three depths. It should be noted that 12 soil samples collected from baseball diamonds in the northeast portion of Falconbridge were removed from the data set and not included in the Pearson's and Spearman's statistical correlations. These baseball diamonds were built on slag material and had particularly high concentrations of iron and chromium below the surface. The samples were removed because they were outliers and were undoubtedly influencing the correlations. These samples were removed because they contained pieces of slag material at the 5 - 10 cm and 10 - 20 cm soil depth, and would have strongly influenced the correlations as outliers. Refer to Tables 7.1.5.4 to 7.1.5.6 below for an abbreviated version of the results of the Pearson's and Spearman's analysis for all three depths in Falconbridge, and Section 10.4.5 for the full results of the analysis. In Tables 7.1.5.4 to 7.1.5.6 the results have been rounded to one decimal place and values that were 0.75 or greater are considered strong and are indicated in bold type.

Table 7.1.5.4: Pearson's and Spearman's Correlations for 0 to 5 cm Urban Soil in Falconbridge

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*0.0*	*0.3*	*-0.2*	*0.2*	*-0.2*	*-0.2*	*0.0*	*-0.1*	*0.2*	*0.5*	*-0.2*	*-0.1*	***0.8***	*0.7*	*-0.1*
As	0.0	1	*0.7*	***0.8***	*0.7*	***0.8***	***0.9***	***0.9***	***0.9***	*0.3*	*0.1*	***0.8***	***0.8***	*0.0*	*0.3*	***0.8***
Ba	0.3	0.6	1	*0.7*	*0.7*	*0.7*	*0.7*	*0.7*	*0.7*	*0.5*	*0.5*	*0.7*	*0.6*	*0.5*	*0.6*	***0.8***
Cd	-0.2	0.7	0.7	1	*0.7*	***0.9***	***0.9***	***0.8***	***0.9***	*0.4*	*0.1*	***0.9***	*0.7*	*0.0*	*0.2*	***0.9***
Cr	0.2	0.7	0.7	0.7	1	*0.7*	*0.7*	***0.8***	***0.8***	*0.5*	*0.2*	*0.6*	*0.7*	*0.3*	*0.5*	*0.7*
Co	-0.2	**0.8**	0.7	**0.9**	0.7	1	***1.0***	***0.9***	***0.9***	*0.4*	*0.1*	***1.0***	*0.7*	*0.0*	*0.2*	***0.9***
Cu	-0.2	**0.8**	0.7	**0.8**	0.6	**1.0**	1	***0.9***	***0.9***	*0.3*	*0.1*	***1.0***	*0.7*	*0.0*	*0.2*	***0.9***
Fe	0.1	**0.9**	0.7	**0.8**	**0.8**	**0.9**	**0.9**	1	***0.9***	*0.5*	*0.2*	***0.9***	*0.7*	*0.1*	*0.5*	***0.8***
Pb	0.0	**0.8**	0.7	**0.8**	0.7	**0.8**	**0.8**	**0.8**	1	*0.3*	*0.1*	***0.8***	***0.8***	*0.0*	*0.3*	***0.9***
Mg	0.2	0.2	0.5	0.4	0.5	0.4	0.3	0.4	0.3	1	*0.4*	*0.4*	*0.3*	*0.4*	*0.4*	*0.4*
Mn	0.5	0.0	0.5	0.1	0.2	0.1	0.1	0.2	0.1	0.4	1	*0.1*	*0.1*	*0.6*	*0.7*	*0.2*
Ni	-0.2	0.7	0.7	**0.8**	0.6	**1.0**	**1.0**	**0.9**	0.7	0.3	0.1	1	*0.7*	*0.0*	*0.2*	***0.8***
Se	0.0	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.3	0.1	0.7	1	*0.1*	*0.3*	*0.7*
Sr	0.7	0.0	0.5	0.1	0.3	0.1	0.0	0.2	0.1	0.4	0.6	0.1	0.1	1	*0.6*	*0.1*
V	0.7	0.4	0.6	0.2	0.6	0.3	0.3	0.5	0.4	0.4	0.7	0.2	0.4	0.6	1	*0.3*
Zn	-0.1	**0.8**	0.7	**0.8**	0.6	**0.8**	**0.8**	**0.8**	**0.8**	0.3	0.1	**0.8**	0.7	0.1	0.3	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 7.1.5.5: Pearson's and Spearman's Correlations for 5 to 10 cm Urban Soil in Falconbridge

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*0.2*	*0.5*	*0.1*	*0.3*	*0.1*	*0.1*	*0.3*	*0.2*	*0.5*	*0.5*	*0.1*	*0.1*	*0.7*	*0.7*	*0.2*
As	0.1	1	*0.7*	***0.8***	*0.7*	***0.9***	***0.9***	***0.9***	***0.9***	*0.2*	*0.0*	***0.8***	***0.8***	*0.1*	*0.3*	***0.8***
Ba	0.5	0.6	1	*0.7*	*0.7*	*0.7*	*0.7*	***0.8***	***0.7***	*0.6*	*0.4*	*0.7*	*0.6*	*0.5*	*0.6*	***0.8***
Cd	0.1	0.7	0.7	1	***0.8***	***0.9***	***0.9***	***0.8***	***0.8***	*0.4*	*0.1*	***0.9***	***0.8***	*0.2*	*0.3*	***0.8***
Cr	0.2	0.7	0.6	**0.8**	1	***0.8***	***0.8***	***0.8***	***0.8***	*0.5*	*0.1*	***0.8***	*0.7*	*0.4*	*0.4*	***0.8***
Co	0.1	**0.8**	0.7	**0.9**	0.7	1	***1.0***	***0.9***	***0.9***	*0.4*	*0.2*	***1.0***	***0.8***	*0.2*	*0.4*	***0.9***
Cu	0.1	**0.9**	0.7	**0.9**	0.7	**1.0**	1	***0.9***	***0.9***	*0.4*	*0.1*	***1.0***	***0.8***	*0.1*	*0.4*	***0.9***
Fe	0.3	**0.9**	0.7	**0.8**	0.7	**0.9**	**1.0**	1	***0.9***	*0.5*	*0.2*	***0.9***	*0.7*	*0.3*	*0.5*	***0.8***
Pb	0.1	**0.9**	0.7	**0.8**	0.6	0.7	**0.8**	**0.8**	1	*0.3*	*0.0*	***0.8***	***0.8***	*0.1*	*0.3*	***0.9***
Mg	0.5	0.2	0.5	0.4	0.3	0.4	0.4	0.5	0.3	1	*0.5*	*0.4*	*0.3*	*0.6*	*0.6*	*0.4*
Mn	0.5	-0.1	0.4	0.0	0.0	0.1	0.0	0.1	-0.1	0.4	1	*0.2*	*0.0*	*0.5*	*0.7*	*0.2*
Ni	0.1	**0.8**	0.7	**0.9**	0.7	**1.0**	**0.9**	**0.9**	0.7	0.4	0.1	1	***0.8***	*0.2*	*0.4*	***0.9***
Se	0.1	**0.8**	0.6	0.7	0.7	**0.8**	**0.8**	**0.8**	0.7	0.3	0.0	**0.8**	1	*0.1*	*0.3*	***0.8***
Sr	0.7	0.0	0.5	0.2	0.3	0.2	0.1	0.2	0.0	0.6	0.5	0.2	0.1	1	*0.6*	*0.2*
V	0.7	0.3	0.6	0.3	0.3	0.4	0.4	0.5	0.3	0.5	0.7	0.4	0.3	0.6	1	*0.4*
Zn	0.2	**0.8**	0.7	**0.8**	0.7	**0.8**	**0.8**	**0.8**	**0.8**	0.3	0.1	**0.8**	0.7	0.3	0.3	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 7.1.5.6: Pearson's and Spearman's Correlations for 10 to 20 cm Urban Soil in Falconbridge

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*0.2*	*0.5*	*0.1*	*0.4*	*0.2*	*0.2*	*0.5*	*0.2*	*0.3*	*0.4*	*0.2*	*0.1*	***0.8***	*0.6*	*0.3*
As	0.0	1	*0.7*	*0.6*	*0.6*	***0.9***	***0.9***	***0.8***	***0.9***	*-0.2*	*-0.2*	***0.9***	*0.7*	*0.1*	*0.1*	***0.8***
Ba	0.6	0.6	1	*0.6*	***0.8***	*0.7*	*0.7*	*0.7*	*0.7*	*0.3*	*0.3*	*0.7*	*0.6*	*0.4*	*0.5*	***0.8***
Cd	0.1	0.6	0.5	1	*0.6*	*0.7*	*0.7*	*0.6*	*0.7*	*0.1*	*0.1*	*0.7*	*0.6*	*0.1*	*0.2*	*0.7*
Cr	0.4	0.5	0.6	0.7	1	***0.8***	*0.7*	*0.7*	*0.7*	*0.3*	*0.2*	***0.7***	*0.6*	*0.4*	*0.4*	***0.8***
Co	0.1	0.7	0.5	**0.8**	0.7	1	***1.0***	***0.8***	***0.9***	*0.0*	*0.0*	***1.0***	***0.8***	*0.2*	*0.2*	***0.9***
Cu	0.1	**0.8**	0.5	**0.8**	0.7	**0.9**	1	***0.8***	***1.0***	*0.0*	*-0.1*	***0.9***	***0.8***	*0.1*	*0.2*	***0.9***
Fe	0.4	0.7	0.6	0.7	**0.8**	**0.9**	**0.9**	1	***0.8***	*0.3*	*0.2*	*0.7*	*0.6*	*0.4*	*0.5*	*0.7*
Pb	0.1	**0.9**	0.6	0.7	0.6	**0.8**	**0.9**	**0.8**	1	*0.0*	*-0.1*	***0.9***	*0.7*	*0.1*	*0.1*	***0.9***
Mg	0.5	-0.1	0.4	0.2	0.5	0.1	0.1	0.4	0.0	1	*0.5*	*0.0*	*0.1*	*0.4*	*0.4*	*0.1*
Mn	0.5	-0.2	0.4	0.0	0.2	-0.1	-0.1	0.2	-0.1	0.5	1	*0.0*	*-0.1*	*0.6*	*0.7*	*0.2*
Ni	0.1	**0.8**	0.5	**0.8**	0.7	**1.0**	**0.9**	**0.8**	**0.8**	0.1	-0.1	1	***0.8***	*0.2*	*0.2*	***0.9***
Se	0.1	**0.9**	0.6	0.7	0.6	**0.8**	**0.8**	0.7	**0.8**	0.1	-0.1	**0.8**	1	*0.1*	*0.1*	*0.7*
Sr	**0.8**	-0.1	0.5	0.0	0.3	0.1	0.0	0.2	0.0	0.4	0.5	0.1	0.0	1	*0.6*	*0.2*
V	0.7	0.0	0.5	0.2	0.4	0.1	0.1	0.4	0.1	0.6	0.7	0.1	0.1	0.5	1	*0.3*
Zn	0.3	0.6	0.7	0.7	0.6	0.7	**0.8**	0.7	**0.8**	0.2	0.2	0.7	0.7	0.2	0.2	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

At 0 - 5 cm, using Pearson's and Spearman's, nickel, copper, cobalt, arsenic, lead, cadmium, iron and zinc concentrations were strongly correlated with each other. At this depth, barium, chromium and selenium were moderately correlated with each other and with all 8 of these elements using Pearson's and Spearman's. As an exception, chromium was not strongly or moderately correlated with nickel, copper or zinc, and barium was not strongly or moderately correlated with arsenic or selenium using Pearson's. At this depth, correlations were slightly stronger using Spearman's than Pearson's, especially for arsenic, lead and zinc. An example of the nickel vs arsenic and cadmium

vs nickel correlations are presented in Figures 7.1.5.10 and 7.1.5.11 below. Refer to Section 10.4.5 for additional correlation figures.

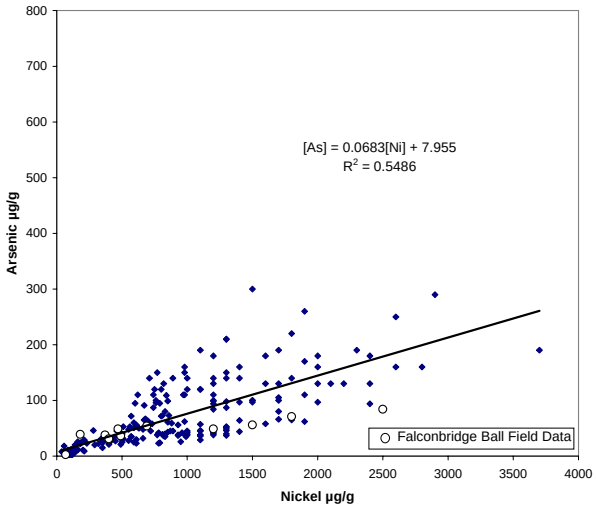


Fig 7.1.5.10: As vs. Ni, 0 - 5 cm, Falconbridge

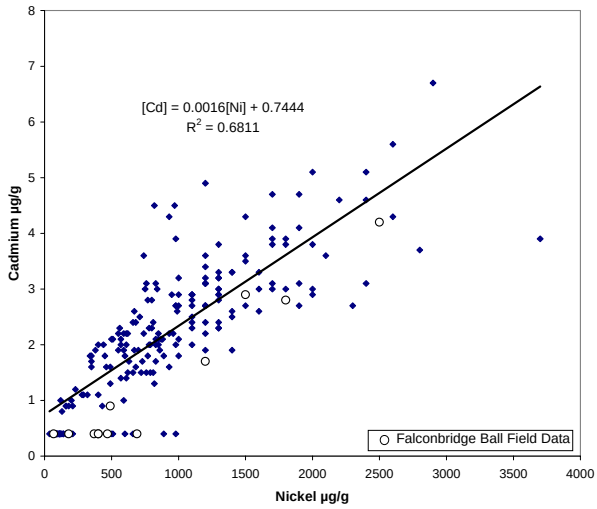


Fig 7.1.5.11: Cd vs. Ni, 0 - 5 cm, Falconbridge

Molybdenum concentrations were considerably higher in Falconbridge than in any other community at the surface. A moderate statistical correlation was observed between molybdenum and chromium (R= 0.7) at the 0 - 5 cm soil depth using Pearson's, and dropped off to R = 0.2 and R = 0.3 at 5 - 10 cm and 10 - 20 cm respectively. Refer to Section 10.4.5 for the full version of correlations in Falconbridge, which include molybdenum.

The correlation between nickel, copper, cobalt, arsenic and lead remained similar at all depth intervals in Pearson's and Spearman's with minor fluctuations in the level of significance with nickel, cobalt and arsenic using Pearson's.

Cadmium, iron and zinc concentrations remained strongly correlated with each other and with nickel, copper, cobalt, arsenic and lead using Pearson's and Spearman's at 5 - 10 cm. These three elements remained correlated with the 5 elements associated with smelter emissions at 10 - 20 cm, however, the level of significance varied between strong and moderate for both Pearson's and Spearman's. As an exception, cadmium was only moderately correlated with nickel, copper, cobalt, lead and zinc using Spearman's at this depth.

As mentioned earlier, 12 soil samples collected from baseball diamonds in the northeast portion of Falconbridge were removed from the data set and not included in the Pearson's and Spearman's correlations. These baseball diamonds were built on slag material and had particularly high concentrations of iron and chromium below the surface. Figure 7.1.5.12 illustrates the relatively high iron concentrations in the baseball diamond samples compared with the rest of Falconbridge.

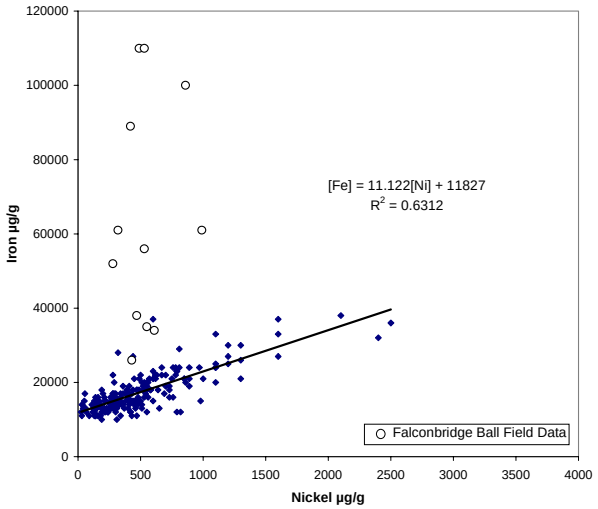


Fig 7.1.5.12: Fe vs. Ni, 10 - 20 cm, Falconbridge

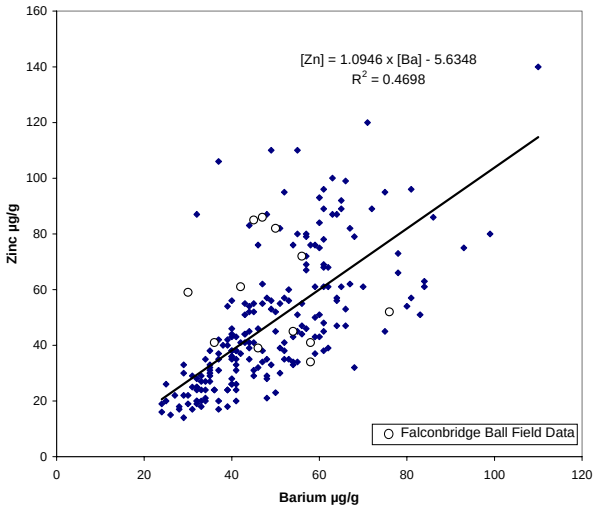


Fig 7.1.5.13: Zn vs. Ba, 10 - 20 cm, Falconbridge

Generally barium concentrations remained moderately correlated with nickel, copper, cobalt, arsenic, lead, cadmium, iron and zinc in 5 - 10 cm using Pearson's and Spearman's. At 10 - 20 cm, these correlations were strong and generally strong using Spearman's, however, dropped of to only one moderate correlation with zinc using Pearson's. Refer to Figure 7.1.5.13 for an example of the strong barium and zinc correlation at depth.

Chromium concentrations remained moderately correlated with nickel, copper, cobalt, arsenic, iron and zinc, became moderately correlated with selenium, and strongly correlated with cadmium using Pearson's at 5 - 10 cm. At this depth, chromium was strongly correlated with these 8 elements including lead using Spearman's, with the exception of arsenic and selenium which were only moderately correlated. The number of strong and moderate chromium correlations decreased at the 10 - 20 cm soil depth. Chromium was moderately correlated with nickel, copper, cobalt and cadmium, and became strongly correlated with iron using Pearson's. Chromium was also moderately correlated with nickel, copper, iron and lead, and strongly correlated with barium, cobalt and zinc using Spearman's. Refer to Figure 7.1.5.14 for an example of the strong nickel vs chromium correlation at 5 - 10 cm.

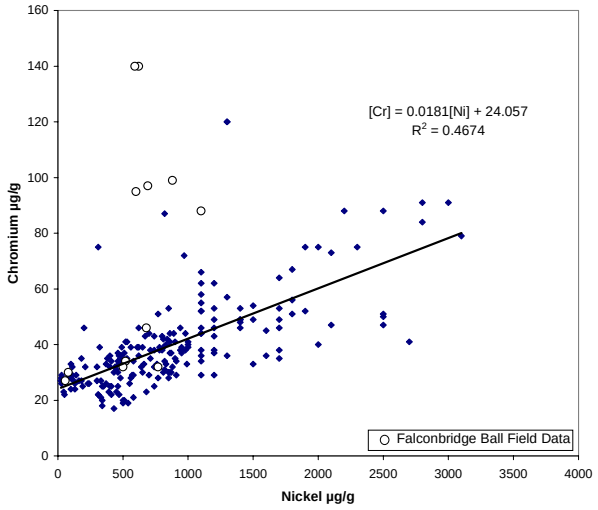


Fig 7.1.5.14: Cr vs. Ni, 5 - 10 cm, Falconbridge

Selenium correlations were the strongest below 0 - 5 cm. Selenium was generally strongly correlated with nickel, copper, cobalt, arsenic, lead, cadmium, iron and zinc, and moderately correlated with chromium at 5 - 10 cm using Pearson's and Spearman's. Selenium correlations varied between strong and moderate for these 9 elements at the 10 - 20 cm depth for Pearson's, however, dropped off for cadmium, chromium and iron using Spearman's. The selenium correlations with nickel, copper and cobalt were consistently strong using both Pearson's and Spearman's at 5 - 10 cm and 10 - 20 cm. A large number of selenium concentrations were at or near

the laboratory MDL. Selenium correlations would likely be stronger if more sensitive laboratory equipment had been used.

Aluminum and vanadium were moderately correlated with each other at all depths using Pearson's, and only at 0 - 5 cm and 5 - 10 cm using Spearman's. At 10 - 20 cm, aluminum and vanadium were not strongly or moderately correlated using Spearman's. Aluminum and strontium correlations varied between moderate and strong for all depths using Pearson's and Spearman's. Vanadium and manganese were moderately correlated with each other at all three depths using both Pearson's and Spearman's. This is different than other communities, including Coniston, where aluminum and vanadium correlations with other elements usually got stronger with depth.

The strong correlations of nickel, copper, cobalt, arsenic, lead, cadmium, iron and zinc at all depths indicate that concentrations of these elements in Falconbridge appear to be attributed to smelter emissions. The correlations of selenium, chromium and barium with each other and the elements associated with smelter emissions were moderate at surface and increased slightly with depth. The concentrations of these elements at all depths also appeared to be attributed to smelter emissions.

For the naturally occurring elements, correlations between aluminum, vanadium, strontium and manganese remained moderate and relatively constant with depth using Pearson's and Spearman's. Aluminum correlations with barium, chromium, iron and zinc started to develop with depth using Pearson's and Spearman's, (Al/Ba correlations increased from approximately R=0.3 at surface to R=0.6 at depth, Al/Cr increased from R=0.2 to R=0.4, Al/Fe increased from R= 0 to 0.5, and Al/Zn increased from R=0.1 to R=0.3). As discussed previously in this section and Sections 7.1.1 and 7.1.2, no evidence of aerial deposition was observed for aluminum or vanadium. These elements have been consistently present as indicators of the naturally occurring geology in the Outer and Inner Sudbury Communities, Coniston and the Sudbury Core.

Refer to Section 10.4.5 for a complete list of graphs showing selected element correlations at all three depths for the Inner Sudbury Communities.

In summary, the element concentrations at all depth intervals in Falconbridge were considerably higher and had more exceedences of MOE criteria than in Coniston, the Sudbury Core, and the Outer and Inner Sudbury Communities. Nickel, copper, cobalt arsenic and lead concentrations exceeded Table A at all depths. Selenium concentrations exceeded Table A only at the 0 - 5 cm and 5 - 10 cm depth intervals. No other elements exceeded Table A at any depth in Falconbridge. Molybdenum concentrations were higher in Falconbridge and had more Table F exceedences than in any other community. Generally the number of exceedences of Table F decreased with depth for antimony, cadmium, cobalt, lead, molybdenum and zinc. The number of exceedences for arsenic, chromium, copper, nickel, selenium and vanadium remained high at all depths. The number of Table A exceedences generally decreased with depth for cobalt and selenium. The number of nickel, copper, arsenic and lead exceedences remained high at all depths, increased slightly at 5 - 10 cm, and then decreased slightly at 10 - 20 cm.

Generally, the highest concentrations of nickel, copper, cobalt, arsenic, lead, cadmium, chromium, iron, selenium and zinc in the 0 - 5 cm urban soil occurred in the centre and east side of the community, directly west of the smelter. At 10 - 20 cm, the concentrations of these elements decreased overall. Arsenic concentrations were the highest at 5 - 10 cm and were elevated in the

centre and east side of the community. While iron and chromium concentrations generally decreased with depth, the highest concentrations of these elements occurred at 10 - 20 cm in the baseball diamonds in the northeast portion of the community.

In Falconbridge, ten elements including nickel, copper, cobalt, arsenic, lead, cadmium, selenium, chromium, iron and zinc showed a strong aerial deposition trend from surface. For most elements, however, only 49% of sample locations showed this trend while cadmium and chromium showed this trend in 62% and 85% of sample locations, respectively. In more than half of the sample locations, most elements also showed evidence of buried contamination with maximum concentrations occurring at either 5 - 10 cm or 10 - 20 cm. Arsenic showed evidence of buried contamination in approximately 80% of the sample locations.

The differing depth trends appeared to be the result of landscaping practices at individual properties over time. Addition, grading, removal and / or mixing of urban soils may alter the vertical distribution of chemical concentrations in the soil. The differences between elements in the percentage of sample locations showing these trends may be the result of numerous factors including: element form, element mobility, smelter process changes and differing chemical composition of the ore over time.

The strong correlations of nickel, copper, cobalt, arsenic, lead, cadmium, iron and zinc at all depths indicate that concentrations of these elements in Falconbridge appear to be attributed to smelter emissions. The correlations of selenium, chromium and barium with each other and the elements associated with smelter emissions were weak at the surface and increased slightly with depth. The concentrations of these elements at all depths also appeared to be attributed to smelter emissions. For the naturally occurring elements, correlations between aluminum, vanadium, strontium and manganese remained moderate and relatively constant with depth using Pearson's and Spearman's. Aluminum correlations with barium, chromium, iron and zinc started to increase with depth using Pearson's and Spearman's, however, did not become strongly or moderately correlated. This indicated that the soil at depth was still relatively disturbed as these correlations in other communities, at depth, strengthened, representing relatively undisturbed soil. This was further supported by the large number of Table A and F exceedances at depth as well as the large percentage of sample locations that exhibited maximum concentrations below surface. Based on this evidence, soil sampling in Falconbridge did not fully delineate the vertical extent of elevated concentrations related to smelter emissions.

7.1.6 Copper Cliff

In Copper Cliff, the surface soil concentrations of nickel, copper, cobalt, arsenic, lead, cadmium, selenium, chromium, iron, zinc and barium were considerably higher than in Coniston, the Sudbury Core and the Outer and Inner Sudbury Communities. Depending on the element, the differences in concentrations began from the minimum value or 25th percentile. Refer to Table 7.1.6.1.

Table 7.1.6.1: Summary Statistics for Metals and Arsenic in Urban Soil in Copper Cliff of the City of Greater Sudbury.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in Copper Cliff, n = 290																			
Minimum	6200	0.4	2.5	28	0.4	2600	20	6	65	11000	10	2000	98	0.75	71	0.5	16	16	23
10th percentile	8590	0.4	6	45	0.4	4300	29	12	360	14000	25	2600	160	0.75	299	2.0	23	25	38
1st quartile	9500	0.4	9.0	52	0.8	5600	32	17	660	15000	41	3200	180	0.75	500	3.0	32	28	54
Median	11000	0.4	14	67	1.4	7500	38	27	1200	19000	69	3800	210	0.75	840	6.0	39	31	76
3rd quartile	13000	0.4	24	90	2.2	11000	46	43	2000	24000	110	4400	230	1.60	1300	11.0	44	34	120
95th percentile	15000	1.0	45	120	3.4	21550	60	79	3300	33000	220	7910	270	2.40	2455	16.0	52	38	180
Maximum	19000	2.2	72	180	5.2	82000	93	100	5600	49000	410	17000	450	3.80	3649	49.0	71	51	250
Mean	11124	0.5	18	73	1.6	9599	40	33	1433	20507	87	4250	207	1.14	1022	7.6	38	31	92
CV (std. dev./mean)	19%	54%	69%	38%	63%	84%	28%	63%	72%	31%	79%	48%	20%	56%	69%	80%	26%	16%	53%
Skewness	0.5	3.5	1.3	1.2	0.7	5.3	1.4	1.1	1.3	1.1	2.0	3.2	0.7	1.7	1.1	2.3	0.0	-0.1	0.9
5 to 10 cm Urban Soil in Copper Cliff, n = 286																			
Minimum	6900	0.4	2.5	28	0.4	2100	20	5	26	8100	7	1700	84	0.75	40	0.5	11	20	18
10th percentile	9000	0.4	6	43	0.4	3700	27	9	200	14000	13	2500	160	0.75	170	1.0	23	26	32
1st quartile	10000	0.4	11	55	0.4	4400	31	14	440	16000	34	2900	180	0.75	370	2.0	30	29	45
Median	12000	0.4	17	76	0.4	6100	37	21	700	19000	54	3400	210	0.75	610	4.0	37	33	66
3rd quartile	15000	0.8	29	100	1.1	7900	45	31	1100	23000	99	3900	250	0.75	950	5.0	45	37	90
95th percentile	19000	1.6	50	140	2.0	12000	56	46	1700	28800	190	5580	318	1.58	1780	8.0	55	42	148
Maximum	25000	4.9	101	290	3.7	37000	90	70	2800	41000	330	12000	350	2.00	3100	14.0	90	46	210
Mean	12578	0.6	22	84	0.8	6750	39	23	785	19981	73	3583	217	0.81	726	3.9	37	33	72
CV (std. dev./mean)	25%	82%	77%	48%	68%	54%	26%	53%	61%	25%	80%	33%	23%	28%	71%	63%	31%	17%	51%
Skewness	0.7	3.6	1.7	1.8	1.5	3.1	0.9	0.9	0.9	0.8	1.5	2.9	0.4	3.9	1.3	1.1	0.6	0.1	1.0
10 to 20 cm Urban Soil in Copper Cliff, n = 286																			
Minimum	5400	0.4	2.5	17	0.4	1700	15	5	25	9400	6	2000	110	0.75	37	0.5	11	19	16
10th percentile	8650	0.4	7	48	0.4	3400	26	9	170	14000	13	2450	150	0.75	195	0.5	24	26	30
1st quartile	10000	0.4	11	60	0.4	4200	30	13	310	16000	29	2800	180	0.75	320	2.0	29	29	41
Median	12000	0.4	19	83	0.4	5500	36	19	560	19000	61	3300	210	0.75	545	3.0	37	33	59
3rd quartile	15000	1.1	32	120	0.9	6900	44	26	820	22000	120	3900	260	0.75	770	4.0	46	37	89
95th percentile	18000	1.9	56	168	1.3	9950	51	37	1300	27000	240	5500	320	1.58	1200	6.0	59	43	150
Maximum	23000	5.8	99	720	1.9	14000	85	46	2000	59000	610	8800	560	2.80	1900	11	95	54	310
Mean	12403	0.8	24	94	0.6	5784	37	20	596	19529	87	3487	222	0.83	588	2.8	38	33	72
CV (std. dev./mean)	26%	85%	70%	58%	55%	39%	25%	45%	60%	26%	97%	29%	27%	37%	58%	61%	32%	17%	63%
Skewness	0.5	3.0	1.3	5.6	1.4	1.1	0.5	0.6	0.8	2.3	2.2	1.7	1.0	4.1	0.9	1.0	0.8	0.2	2.1

All results are in µg/g dry weight.

At 10 - 20 cm, the same eleven elements were still considerably elevated compared to Coniston, the Sudbury Core, and the Outer and Inner Sudbury Communities and differences in concentrations were observed from the minimum value to the 25th percentile with the exception of cadmium. The difference between cadmium in Copper Cliff and the other communities was not observed until the 75th percentile.

At surface, the concentrations of copper, selenium and barium were higher in Copper Cliff than in Falconbridge while the concentrations of cobalt, arsenic and cadmium were higher in Falconbridge than in Copper Cliff. Depending on the element, the differences began from the minimum value to 25th percentile. At this depth, nickel, lead, iron, chromium and zinc concentrations were similar in

both communities. At 10 - 20 cm, however, concentrations of copper, lead, selenium, barium and zinc were higher in Copper Cliff than in Falconbridge starting from the minimum value to the 25th percentile. Concentrations of cobalt, arsenic, cadmium, iron and chromium were higher in Falconbridge than in Copper Cliff from the 25th percentile for arsenic and between the 75th percentile and maximum value for the other elements. At this depth, only nickel concentrations remained similar between Copper Cliff and Falconbridge. As discussed in Section 7.1.5, baseball diamonds in Falconbridge had high concentrations of iron and chromium that were atypical when compared to other sample locations in Falconbridge.

The major land use in Copper Cliff was residential, with only one school property present and a small number of park properties. As a result, the sample sizes for the school and park properties were very small and may affect the validity of comparisons between land uses.

At surface, the concentrations of nickel, copper, cobalt, arsenic and cadmium were similar between the residential properties and park properties. Concentrations of iron and chromium were also similar, however, the residential maximum concentrations were higher. Concentrations of lead, selenium and zinc were higher in the residential properties than in the park properties from the 10th

Table 7.1.6.2: Summary Statistics for Metals and Arsenic in All 0-5 cm Urban Soil Samples from Copper Cliff by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm				n = 266															
Minimum	6200	0.4	2.5	28	0.4	2600	20	6	65	11000	10	2000	110	0.7	71	0.5	16	17	23
10th percentile	8700	0.4	6.5	45	0.4	4450	29	13	395	14000	30	2600	160	0.8	320	2.0	23	25	44
1st quartile	9600	0.4	10	53	0.9	5700	33	18	690	16000	43	3200	180	0.8	530	4.0	31	28	56
Median	11000	0.4	15	68	1.4	7550	38	29	1200	19000	70	3800	210	0.8	885	6.0	39	31	80
3rd quartile	13000	0.4	23	91	2.2	11000	46	42	2000	23000	120	4400	230	1.6	1300	11	44	34	130
95th percentile	15000	1.0	44	128	3.4	21000	60	75	3075	32750	220	8000	270	2.4	2375	16	52	38	188
Maximum	19000	2.2	72	180	5.2	82000	93	100	5600	49000	410	17000	450	3.8	3200	49	71	51	250
Mean	11227	0.5	18	74	1.6	9629	40	33	1440	20515	91	4282	208	1.2	1017	7.8	38	31	95
CV (std. dev./mean)	19%	54%	67%	38%	61%	85%	28%	60%	69%	31%	77%	49%	20%	55%	65%	78%	26%	15%	51%
Skewness	0.5	3.6	1.3	1.2	0.7	5.5	1.5	1.1	1.3	1.1	2.0	3.1	0.8	1.6	1.0	2.4	0.0	0.1	0.9
Schools 0 to 5 cm				n = 6															
Minimum	7400	0.4	6	32	0.4	7000	20	11	250	13000	11	4100	98	0.8	250	1.0	20	16	26
Median	9550	0.4	26	79	2.6	11500	31	50	1800	24500	71	4750	180	0.8	1600	6.0	40	28	44
Maximum	11000	0.4	37	110	3.1	27000	54	80	2900	34000	100	5500	250	1.6	2500	12	60	33	110
Mean	9500	0.4	22	70	2.0	14167	35	47	1587	23167	60	4750	178	0.9	1452	5.7	41	25	60
CV (std. dev./mean)	15%	0%	60%	43%	63%	57%	39%	66%	70%	38%	69%	10%	33%	39%	70%	75%	39%	29%	66%
Skewness	-0.3		-0.5	-0.3	-0.8	0.9	0.6	-0.2	-0.3	-0.2	-0.4	0.3	-0.2	2.4	-0.3	0.3	0.1	-0.6	0.8
Parks 0 to 5 cm				n = 18															
Minimum	7300	0.4	2.5	34	0.4	2700	25	9	250	13000	13	2400	150	0.75	205	1.0	17	24	24
10th percentile	7960	0.4	6.0	38	0.4	4140	28	11	314	13000	16	2610	177	0.75	254	1.0	30	25	29
1st quartile	9100	0.4	7.0	40	0.4	4300	29	12	350	13000	17	3000	180	0.75	300	1.5	35	27	30
Median	9950	0.4	8.0	56	0.4	6050	37	17	610	17500	25	3600	195	0.75	455	2.5	39	30	43
3rd quartile	11000	0.4	14	70	1.4	8900	43	22	990	25000	37	4000	240	0.75	620	6.0	43	34	55
95th percentile	13000	1.0	55	81	3.7	18600	56	94	4260	31350	122	4625	265	2.4	3017	21	47	36	142
Maximum	13000	1.1	63	90	4.0	22000	64	100	4600	39000	130	5900	290	3.4	3649	22	49	36	150
Mean	10150	0.5	16	57	1.2	7622	38	32	1274	19500	45	3611	207	0.98	959	5.4	39	31	56
CV (std. dev./mean)	18%	48%	110%	29%	105	67%	27%	101	115%	39%	95%	24%	18%	71%	116%	121	20%	14%	69%
Skewness	0.2	2.0	2.1	0.3	1.4	1.9	0.9	1.5	1.5	1.2	1.4	0.8	0.7	3.1	1.6	1.9	-1.2	-0.1	1.6

All results are in µg/g dry weight.

percentile and onwards. Concentrations of nickel, copper, arsenic and selenium were higher in both the residential and park properties compared to the school property. Lead, iron, chromium and zinc concentrations were higher in the residential properties compared to the school property. Concentrations of these elements were similar between the school and park land uses. Cadmium and cobalt concentration were similar between all land uses. Refer to Table 7.1.6.2.

Generally, at 5 - 10 and 10 - 20 cm all elements were higher in the residential properties compared to the school and park properties. The differences in concentrations between residential and park properties started from the 10th percentile to the 70th percentile and onwards, dependant on the element and depth. The sample size for the school property was extremely small and therefore only general comparisons were made for this land use below surface. For arsenic, 5 - 10 cm concentrations at the school property were similar to the concentrations present in the residential properties. This was likely attributed to the small sample size present for the school properties. Additionally, the park properties were higher than the residential properties at the 95th percentile for arsenic at this depth. The residential properties, however, were higher from the 10th percentile to 90th percentile on and maximum values were similar between land uses. The small sample size present for the park properties may have exaggerated the differences between land uses.

Generally, park concentrations for nickel and copper were higher in Copper Cliff compared to Falconbridge, while concentrations of cobalt, arsenic and lead were similar to marginally lower compared to Falconbridge, at surface. With depth, park concentrations were higher in Falconbridge for all 5 elements. Generally, school concentrations for nickel, copper, cobalt and arsenic were higher in Copper Cliff compared to all other communities, at all depths.

There were substantially more exceedences of Table A and F in Copper Cliff than in the Sudbury Core or Coniston. Table 7.1.6.3 summarizes the number of urban soil samples that exceed the Table F and Table A criteria in Copper Cliff. Nickel, copper, cobalt, arsenic, lead and selenium concentrations exceeded Table A at all depths. No other elements exceeded Table A at any depth in Copper Cliff. In total, twelve elements exceeded Table F criteria in Copper Cliff and are listed in Table 7.1.6.3. At 0 - 5 cm, 97% of the urban soil samples exceeded Table A and 99 to 100% exceeded Table F for nickel and copper. Generally, the number of exceedences of Table F and A were constant or decreased slightly for nickel and copper with depth. For cobalt and selenium, the number of exceedances of Table A decreased rapidly while Table F exceedances decreased gradually with depth. The number of Table F and A exceedances for arsenic and lead increased with depth. The number of antimony Table F exceedances increased with depth, while Table F exceedances of cadmium, chromium and molybdenum decreased with depth. Table F exceedances for barium and zinc remained relatively constant with depth.

Table 7.1.6.3: Summary of MOE Table F and Table A Exceedences for Metals and Arsenic in Urban Soil Samples in Copper Cliff of the City of Greater Sudbury.

Element	Table F			Table A		
	0 to 5 cm	5 to 10 cm	10 to 20 cm	0 to 5 cm	5 to 10 cm	10 to 20 cm
Antimony	14 (5%)	41 (14%)	73 (26%)	0	0	0
Arsenic	123 (42%)	141 (49%)	151 (53%)	90 (31%)	123 (43%)	138 (48%)
Barium	0	6 (2%)	4 (1%)	0	0	0
Cadmium	188 (65%)	85 (30%)	37 (13%)	0	0	0
Chromium	4 (1%)	2 (1%)	1	0	0	0
Cobalt	190 (66%)	134 (47%)	113 (40%)	81 (28%)	33 (12%)	5 (2%)
Copper	288 (99%)	281 (98%)	281 (98%)	280 (97%)	253 (88%)	242 (85%)
Lead	58 (20%)	49 (17%)	65 (23%)	19 (7%)	10 (3%)	24 (8%)
Molybdenum	9 (3%)	0	1	0	0	0
Nickel	290 (100%)	285 (100%)	284 (99%)	280 (97%)	265 (93%)	266 (93%)
Selenium	266 (92%)	243 (85%)	226 (79%)	73 (25%)	5 (2%)	1
Zinc	26 (9%)	7 (2%)	14 (5%)	0	0	0
No. of Samples	290	286	286	290	286	286

High concentrations of nickel and copper were present uniformly throughout the 0 - 5 cm interval in Copper Cliff, although some of the highest concentrations were present immediately adjacent to the INCO smokestacks. Nickel and copper concentrations generally decreased towards the southern end of the community. Concentrations of these elements decreased with depth but remained elevated, with the spatial pattern at 10 - 20 cm similar to the surface. Figures 7.1.6.1 and 7.1.6.2 depict the copper concentrations at the surface and depth in Copper Cliff.

At 0-5 cm, cobalt, arsenic, cadmium, selenium and iron concentrations were elevated throughout the community and decreased gradually towards the south. High concentrations of selenium were present in the surface soil adjacent to the INCO smokestacks. Concentrations of cobalt, cadmium and selenium decreased with depth and maintained a similar spatial pattern to the surface. Iron concentrations remained constant and increased with depth at some sample locations. At 10 - 20 cm, the highest concentrations of iron were present in the southern portion of the community. Slag material was present at some of the properties with high iron concentrations. As shown in Figures 7.1.6.3 and 7.1.6.4, arsenic concentrations increased with depth and were uniformly elevated throughout the community.

High lead concentrations were randomly present throughout the community at surface. At depth, however, lead concentrations generally increased and high concentrations were clustered in the southern portion of the community. Lead concentrations were generally not elevated adjacent to the INCO smokestacks. Slag material was present at some properties with high lead concentrations.

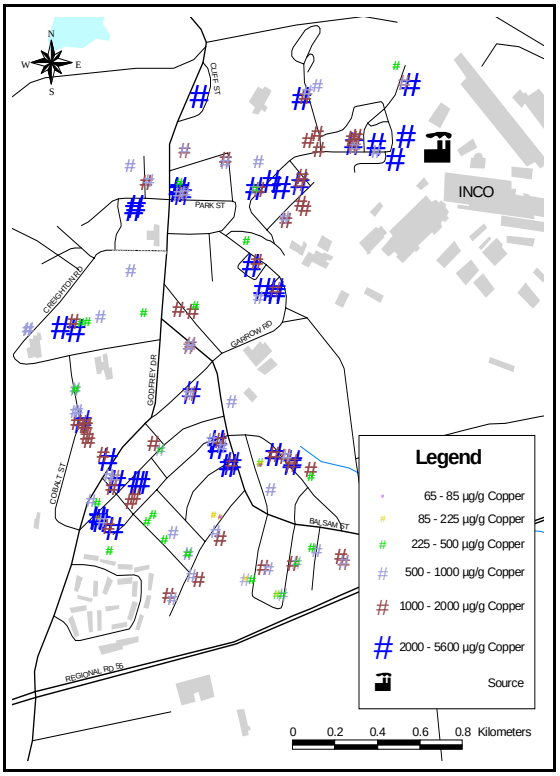


Figure 7.1.6.1: Cu concentrations in urban 0 - 5 cm soil in Copper Cliff

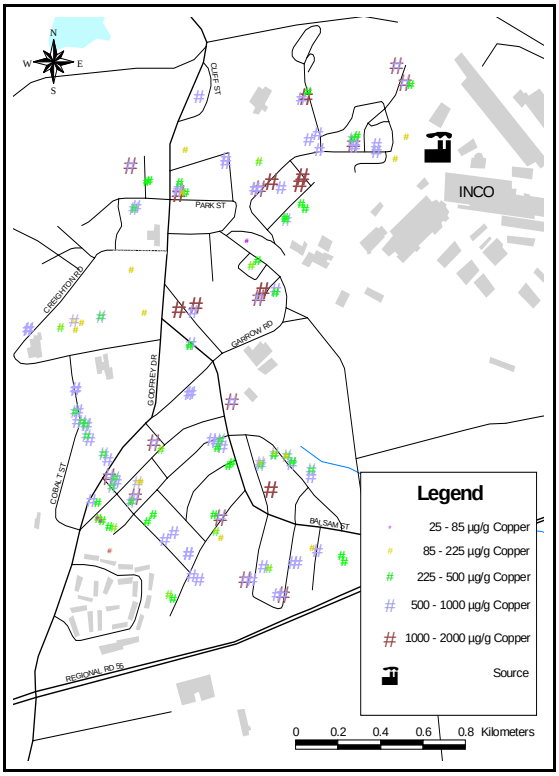


Figure 7.1.6.2: Cu concentrations in urban 10 - 20 cm soil in Copper Cliff

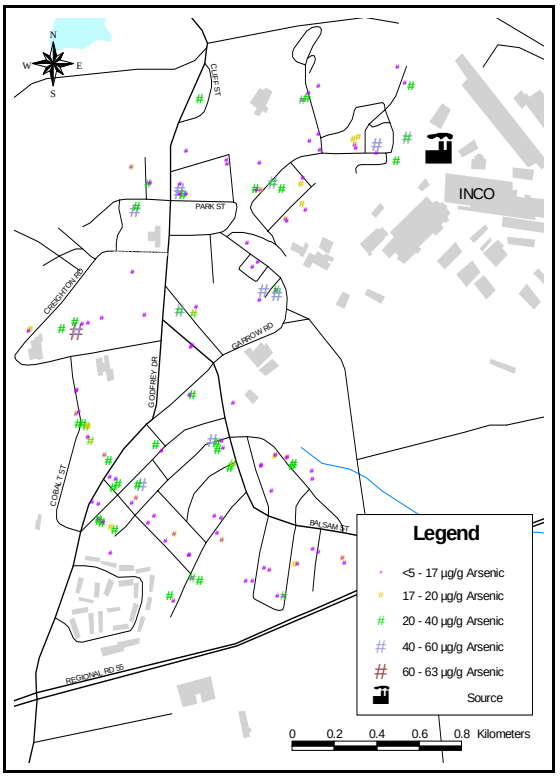


Figure 7.1.6.3: As concentrations in urban 0 - 5 cm soil in Copper Cliff

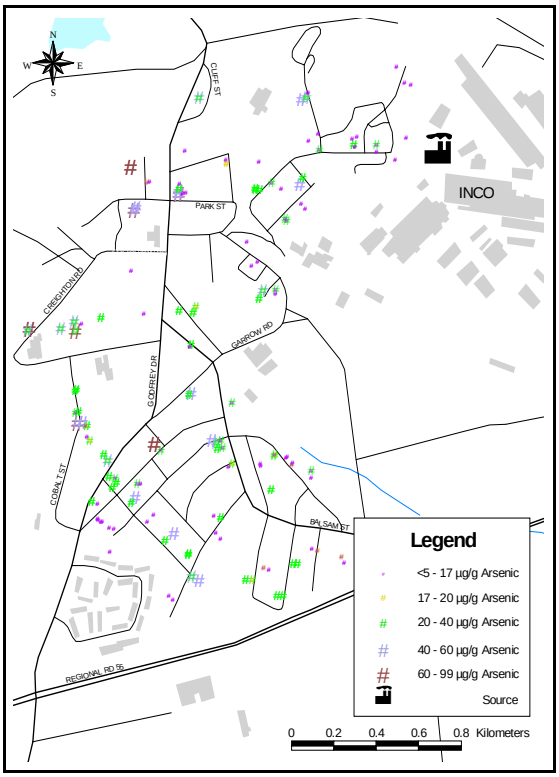


Figure 7.1.6.4: As concentrations in urban 10 - 20 cm soil in Copper Cliff

Chromium and zinc concentrations were rarely elevated above Table F background criteria in Copper Cliff. Elevated zinc concentrations were present in the southern portion of the community at surface, however, concentrations decreased and appeared to be randomly distributed at depth. No pattern of chromium concentrations was noted at surface or at depth in Copper Cliff. Refer to Section 10.2.1 for concentration dot maps of nickel, copper, cobalt, arsenic, lead, cadmium, selenium, zinc, chromium and iron at 0 - 5 and 10 - 20 cm in Copper Cliff.

As discussed previously, the data was sorted by nickel concentrations to differentiate between the Group A, B and C trends. The assumption with this procedure was that the other elements shared similar proportions of the sample locations exhibiting each depth trend as nickel. This assumption appeared to be accurate for the majority of the elements in Copper Cliff. Selenium, however, had substantially different proportions of sample locations exhibiting each depth trend as compared to nickel. As a result, the selenium was sorted separately to differentiate between depth trends for this element.

In Copper Cliff, all three depth trends (Group A, B and C) were observed at varying numbers of sample locations. Nickel, copper, cobalt, cadmium, and to a lesser extent lead and zinc concentrations in 62% of the sample locations, showed a strong visual trend of decreasing concentration with depth in all quarters (Group A). Average concentrations at surface for copper and cadmium were 1.7 to 5.8 times the average concentrations at 10 - 20 cm for all quarters. The average concentrations in the first quarter for cadmium, however, were at or below the analytical MDL. Average concentrations at surface for nickel and cobalt were 1.4 to 3.7 times the average concentrations at 10 - 20 cm for all quarters. For lead and zinc, average concentrations were 1.4 to 2.1 times greater at surface than at 10 - 20 cm for the second through fourth quarters. In 80% of the sample locations, selenium exhibited a strong visual trend of decreasing concentrations with increasing depth in all quarters (Group A). Average selenium concentrations at surface were 1.9 to 5.0 times the average concentrations at 10 - 20 cm for all quarters. Figure 7.1.6.5 depicts the Group A depth profile for selenium in Copper Cliff.

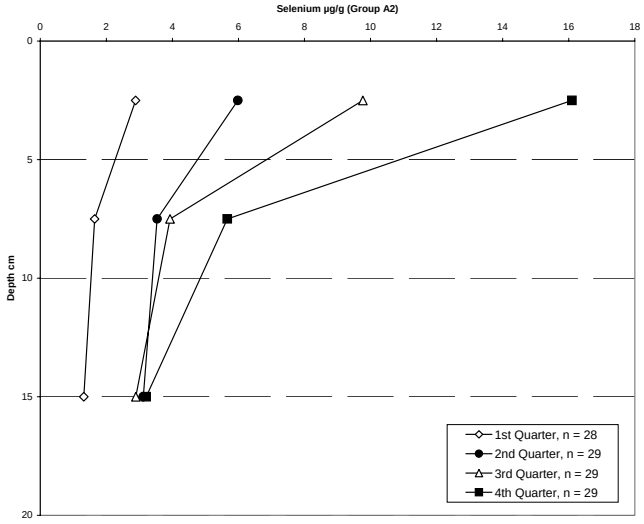


Figure 7.1.6.5: Copper Cliff, Se depth profiles, Group A.

In 62% of the sample locations, iron and chromium showed a strong visual trend of aerial deposition in the third and fourth quarters. No observable change in concentration with depth was noted in the second quarter for iron and in the first and second quarters for chromium. A weak trend of increasing concentration with depth, consistent with Group C (1.2 times), was noted in the first quarter for iron. Average concentrations of these elements at surface were 1.1 to 1.6 times the average concentrations at 10 - 20 cm in the third and fourth quarters.

Average arsenic, aluminum and vanadium concentrations, in 62% of the sample locations, showed no observable change with depth or showed a trend of increasing concentration with depth (1.1 to 1.3 times). This trend was consistent with Group B or C, rather than Group A. A weak visual

Group A trend (1.3 times) was observed for arsenic in the fourth quarter. The multiple depth trends present for aluminum and vanadium was likely an artifact of the sorting process. Aluminum and vanadium tended to be indicators of the naturally occurring geology of the City of Greater Sudbury and therefore were not expected to show similar depth trends to nickel. The wide range in concentrations between the quarters of these elements may indicate differences in soil type. Refer to Section 10.5.6 for graphs of the depth profiles for the elements discussed above.

In Copper Cliff, nickel, copper, cobalt, arsenic and iron concentrations, in 15% of the sample locations and selenium concentrations in 13% of the sample locations, showed a strong visual trend of maximum concentrations at 5 - 10 cm, while lower concentrations were observed at both 0 - 5 and 10 - 20 cm. This trend is consistent with Group B. All elements showed this trend in both halves. Average concentrations at 5 - 10 cm were 1.1 to 1.7 times the average concentrations at surface for these elements, for all quarters. Figure 7.1.6.6 depicts the Group B depth profile for selenium in Copper Cliff.

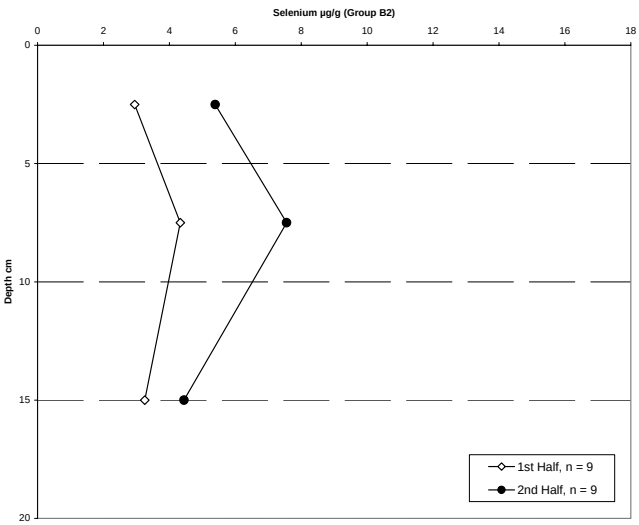


Figure 7.1.6.6: Copper Cliff, Se depth profiles, Group B.

In 15% of the sample locations, aluminum showed a strong visual Group B trend in the second half (1.2 times) and a weak Group B trend in the first half (1.1 times). Cadmium showed weak Group B trends in both halves (1.1 times) while chromium and vanadium showed no observable changes in the first half and a weak Group B trend in the second half (1.1 times). The average concentrations in the first half for cadmium were near the analytical MDL. Lead showed a strong Group B trend in the first half (1.2 times) and a weak Group C trend in the second half (1.1 times). Zinc showed a weak Group B trend in the first half (1.1 times) and a strong Group A trend in the second half (1.3 times). Refer to Section 10.5.6 for graphs of the depth profiles for the elements discussed above.

In Copper Cliff, nickel and arsenic concentrations in 22% of the sample locations showed a strong visual trend of increasing concentration with increasing depth (1.6 to 2.9 times) consistent with Group C. This trend was present in all thirds for these elements. Selenium concentrations in 8% of the sample locations showed a strong Group C trend. Average concentrations at depth were 2.1 times greater than those at surface for selenium. Cobalt, lead and zinc showed strong to weak trends of increasing concentration with depth (1.1 to 2.6 times) in all thirds. Copper, iron and aluminum also showed a strong Group C trend in the second and last third (1.2 to 1.5 times). Both copper and lead also showed weak Group A trends (1.3 times) from surface to 5 - 10 cm in the first third. No observable change or a weak Group C trend (1.2 to 1.3 times) was noted in average concentrations for chromium and vanadium in all thirds. No observable change was noted in average concentrations for cadmium in any third. Both the first and second thirds for cadmium were at or near the analytical MDL.

Figure 7.1.6.7 depicts the Group C depth profile for selenium in Copper Cliff. Refer to Section 10.5 for graphs of the depth profiles for the elements discussed above.

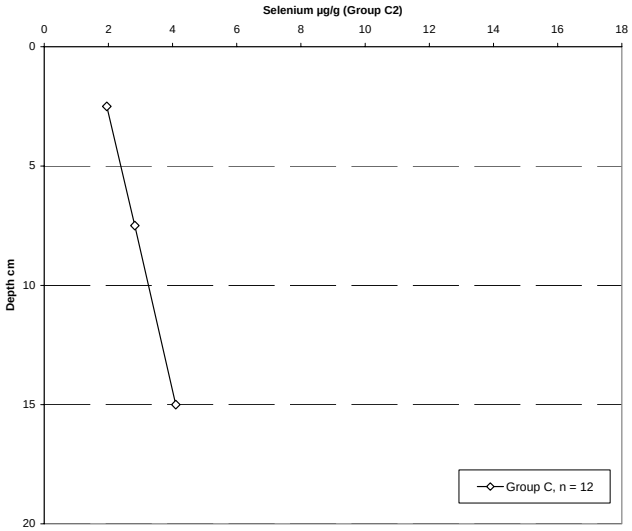


Figure 7.1.6.7: Copper Cliff, Se depth profiles, Group C.

Overall, nickel, copper, cobalt, lead, cadmium, selenium, iron, chromium and zinc exhibited a strong aerial deposition trend from surface. This trend was present in 80% of the sample locations for selenium and 62% of sample locations for the other elements. These sample locations appeared to be unaffected by landscaping practices. The remaining sample locations appeared to be affected to some degree by landscaping practices as nickel, copper, cobalt, arsenic, lead, selenium, iron, zinc and aluminum concentrations showed strong trends of maximum concentrations at 5 - 10 or 10 - 20 cm below surface. These elevated concentrations may still be attributed to aerial deposition, however, over time have been buried by landscaping practices at individual properties. Addition, grading, removal and / or mixing of urban soils may alter the vertical distribution of chemical concentrations in the soil.

In Copper Cliff, nine elements including nickel, copper, cobalt, lead, cadmium, selenium, chromium, iron and zinc showed strong indications of aerial deposition. The elements, with the exception of arsenic, were similar to Falconbridge although the trend was stronger in Copper Cliff for certain elements. Additionally, there was strong evidence of aerial deposition for arsenic in Falconbridge although at a limited number of sample locations this evidence was not present for arsenic in Copper Cliff. In Coniston, the Sudbury Core or the Inner Sudbury Communities, evidence of aerial deposition varied in strength, while in Copper Cliff strong evidence was present. Similar to the Inner Sudbury Communities and the Sudbury Core, Copper Cliff had 62% of sample locations that showed an aerial deposition trend for most elements. Selenium showed a strong trend of aerial deposition in 80% of the sample locations. Also similar to the Inner Sudbury Communities and the Sudbury Core, less than half of the sample locations for most elements in Copper Cliff showed evidence of buried contamination, with maximum concentrations occurring at either 5 - 10 cm or 10 - 20 cm. This is different from Falconbridge and Coniston where over half of the sample locations showed evidence of buried contamination.

Pearson's and Spearman's statistical correlation analysis was performed on all of the elements except beryllium at each of the three depths. Refer to Tables 7.1.6.4 to 7.1.6.6 below for an abbreviated version of the results of the Pearson's and Spearman's analysis for all three depths and Tables 10.4.6.1 through 10.4.6.3 for the full results of the analysis. In Tables 7.1.6.4 to 7.1.6.6 the results have been rounded to one decimal place and values that were 0.75 or greater are considered strong and are indicated in bold type. Values that were between 0.70 and 0.75 were considered moderately correlated.

Table 7.1.6.4: Pearson's and Spearman's Correlations for 0 to 5 cm Urban Soil in Copper Cliff

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*0.3*	*0.6*	*0.4*	*0.7*	*0.3*	*0.3*	*0.6*	*0.3*	*0.4*	*0.6*	*0.3*	*0.3*	*0.7*	***0.8***	*0.3*
As	0.3	1	*0.7*	***0.8***	*0.6*	***0.9***	***0.8***	***0.8***	***0.8***	*0.3*	*0.2*	***0.9***	*0.7*	*0.1*	*0.4*	***0.8***
Ba	0.6	0.7	1	*0.7*	***0.8***	*0.7*	*0.7*	***0.8***	*0.7*	*0.5*	*0.6*	*0.7*	*0.6*	*0.5*	*0.6*	***0.8***
Cd	0.4	0.7	0.7	1	*0.7*	***0.9***	***0.9***	***0.8***	***0.8***	*0.5*	*0.3*	***0.9***	***0.8***	*0.2*	*0.3*	***0.9***
Cr	0.6	0.6	0.7	0.7	1	*0.7*	*0.7*	***0.8***	*0.6*	*0.5*	*0.6*	*0.7*	*0.7*	*0.6*	***0.8***	*0.7*
Co	0.3	**0.8**	0.6	**0.9**	0.7	1	***1.0***	***0.8***	***0.8***	*0.5*	*0.3*	***1.0***	***0.9***	*0.2*	*0.4*	***0.9***
Cu	0.3	**0.8**	0.5	**0.9**	0.6	**0.9**	1	***0.8***	***0.8***	*0.4*	*0.2*	***1.0***	***0.9***	*0.2*	*0.3*	***0.8***
Fe	0.6	**0.8**	0.7	**0.8**	**0.8**	**0.9**	**0.8**	1	***0.8***	*0.5*	*0.5*	***0.8***	*0.7*	*0.4*	*0.6*	***0.8***
Pb	0.3	0.7	0.7	0.6	0.5	0.7	0.6	0.6	1	*0.3*	*0.3*	***0.8***	*0.7*	*0.2*	*0.4*	***0.9***
Mg	0.2	0.1	0.2	0.4	0.2	0.3	0.3	0.3	0.1	1	*0.5*	*0.4*	*0.4*	*0.4*	*0.4*	*0.5*
Mn	0.6	0.3	0.6	0.3	0.5	0.3	0.2	0.4	0.3	0.2	1	*0.3*	*0.2*	*0.7*	*0.7*	*0.4*
Ni	0.3	**0.9**	0.6	**0.9**	0.7	**1.0**	**0.9**	**0.9**	0.6	0.3	0.2	1	***0.9***	*0.2*	*0.3*	***0.8***
Se	0.3	0.7	0.4	0.7	0.6	**0.8**	**0.8**	0.6	0.5	0.2	0.1	**0.8**	1	*0.2*	*0.4*	*0.7*
Sr	0.7	0.2	0.5	0.3	0.5	0.2	0.2	0.3	0.2	0.2	0.7	0.2	0.2	1	*0.7*	*0.3*
V	**0.8**	0.4	0.6	0.3	0.7	0.4	0.3	0.6	0.3	0.1	0.7	0.3	0.3	0.7	1	*0.4*
Zn	0.4	0.7	**0.8**	**0.8**	0.6	**0.8**	0.7	0.7	**0.8**	0.4	0.4	**0.8**	0.5	0.3	0.4	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 7.1.6.5: Pearson's and Spearman's Correlations for 5 to 10 cm Urban Soil in Copper Cliff

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*0.4*	***0.8***	*0.4*	***0.8***	*0.5*	*0.4*	***0.8***	*0.3*	*0.7*	*0.7*	*0.4*	*0.3*	***0.8***	***0.9***	*0.5*
As	0.3	1	*0.7*	*0.7*	*0.6*	***0.9***	***0.8***	*0.7*	*0.7*	*0.2*	*0.4*	***0.9***	*0.6*	*0.3*	*0.4*	***0.8***
Ba	0.6	0.5	1	*0.6*	***0.8***	*0.7*	*0.6*	***0.9***	*0.7*	*0.6*	*0.7*	*0.7*	*0.5*	*0.6*	*0.7*	***0.8***
Cd	0.4	0.7	0.5	1	*0.6*	***0.8***	***0.8***	*0.7*	*0.6*	*0.3*	*0.4*	***0.8***	*0.6*	*0.3*	*0.4*	***0.8***
Cr	**0.8**	0.5	0.7	0.7	1	*0.6*	*0.5*	***0.9***	*0.5*	*0.7*	*0.7*	*0.6*	*0.5*	*0.7*	***0.9***	*0.7*
Co	0.4	**0.8**	0.6	**0.8**	0.6	1	***0.9***	***0.8***	*0.7*	*0.3*	*0.4*	***1.0***	*0.7*	*0.3*	*0.4*	***0.8***
Cu	0.3	0.7	0.5	**0.8**	0.5	**0.9**	1	*0.7*	*0.7*	*0.3*	*0.3*	***0.9***	***0.8***	*0.2*	*0.3*	***0.8***
Fe	0.7	0.6	0.7	0.6	**0.8**	0.7	0.7	1	*0.6*	*0.6*	*0.7*	*0.7*	*0.5*	*0.6*	***0.8***	***0.8***
Pb	0.2	0.5	0.6	0.5	0.4	0.6	0.6	0.5	1	*0.2*	*0.4*	*0.6*	*0.5*	*0.3*	*0.3*	***0.8***
Mg	0.5	0.0	0.4	0.2	0.5	0.1	0.1	0.5	0.0	1	*0.6*	*0.3*	*0.2*	*0.5*	*0.7*	*0.4*
Mn	0.6	0.3	0.6	0.3	0.7	0.4	0.3	0.6	0.4	0.5	1	*0.3*	*0.2*	*0.7*	***0.8***	*0.5*
Ni	0.4	**0.8**	0.5	**0.8**	0.6	**1.0**	**0.9**	0.7	0.5	0.1	0.3	1	*0.7*	*0.3*	*0.3*	***0.8***
Se	0.2	0.6	0.4	0.6	0.4	0.7	**0.8**	0.6	0.4	0.1	0.2	0.7	1	*0.1*	*0.3*	*0.6*
Sr	0.7	0.2	0.6	0.3	0.6	0.3	0.2	0.6	0.3	0.4	0.7	0.3	0.1	1	***0.8***	*0.4*
V	**0.9**	0.3	0.6	0.3	**0.8**	0.4	0.3	**0.8**	0.3	0.5	**0.8**	0.4	0.3	**0.8**	1	*0.5*
Zn	0.4	0.6	0.7	0.7	0.6	0.7	0.7	0.7	**0.8**	0.1	0.6	0.7	0.5	0.5	0.4	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 7.1.6.6: Pearson's and Spearman's Correlations for 10 to 20 cm Urban Soil in Copper Cliff

	Al	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Ni	Se	Sr	V	Zn
Al	1	*0.3*	*0.7*	*0.2*	***0.9***	*0.4*	*0.3*	***0.8***	*0.3*	*0.7*	*0.7*	*0.3*	*0.2*	***0.8***	***0.9***	*0.4*
As	0.2	1	*0.6*	*0.5*	*0.4*	***0.8***	*0.7*	*0.5*	*0.6*	*0.1*	*0.4*	*0.7*	*0.5*	*0.3*	*0.2*	*0.7*
Ba	0.5	0.4	1	*0.4*	***0.8***	*0.7*	*0.6*	***0.8***	*0.7*	*0.6*	***0.8***	*0.6*	*0.4*	*0.7*	*0.7*	***0.8***
Cd	0.2	0.4	0.4	1	*0.4*	*0.7*	*0.7*	*0.5*	*0.5*	*0.2*	*0.3*	*0.7*	*0.5*	*0.3*	*0.2*	*0.6*
Cr	**0.8**	0.3	0.6	0.3	1	*0.6*	*0.5*	***0.8***	*0.4*	***0.8***	***0.8***	*0.5*	*0.4*	***0.8***	***0.9***	*0.6*
Co	0.4	0.7	0.5	0.7	0.6	1	***0.9***	*0.7*	*0.7*	*0.3*	*0.5*	***0.9***	*0.7*	*0.4*	*0.4*	***0.8***
Cu	0.3	0.5	0.4	**0.8**	0.5	**0.9**	1	*0.6*	*0.7*	*0.2*	*0.4*	***0.9***	*0.7*	*0.3*	*0.3*	***0.8***
Fe	0.6	0.4	0.5	0.4	**0.8**	0.6	0.6	1	*0.6*	*0.7*	*0.7*	*0.6*	*0.4*	*0.7*	***0.8***	*0.7*
Pb	0.2	0.6	0.6	0.5	0.3	0.6	0.5	0.4	1	*0.2*	*0.5*	*0.6*	*0.5*	*0.4*	*0.3*	***0.8***
Mg	0.7	0.0	0.4	0.1	0.7	0.2	0.1	0.5	0.1	1	*0.7*	*0.1*	*0.1*	*0.6*	***0.8***	*0.3*
Mn	0.6	0.4	0.7	0.3	0.7	0.5	0.3	0.6	0.5	0.6	1	*0.4*	*0.2*	***0.8***	***0.8***	*0.6*
Ni	0.3	0.6	0.4	0.7	0.4	**0.9**	**0.9**	0.5	0.5	0.1	0.3	1	*0.7*	*0.3*	*0.3*	***0.8***
Se	0.2	0.4	0.3	0.6	0.4	0.7	0.7	0.4	0.4	0.0	0.1	0.6	1	*0.2*	*0.2*	*0.5*
Sr	0.7	0.3	0.6	0.4	0.7	0.4	0.3	0.5	0.3	0.6	**0.8**	0.3	0.2	1	***0.8***	*0.5*
V	**0.8**	0.2	0.5	0.2	**0.9**	0.4	0.3	0.7	0.2	0.7	0.7	0.3	0.2	**0.8**	1	*0.4*
Zn	0.3	0.6	0.7	0.7	0.4	0.7	0.6	0.5	**0.8**	0.2	0.6	0.6	0.4	0.4	0.3	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Generally, in Copper Cliff at 0 - 5 cm nickel, copper, cobalt, arsenic, cadmium, selenium, iron and zinc strongly or moderately correlated with each other using Pearson's and Spearman's. Using Spearman's, lead also strongly correlated with the above referenced elements while using Pearson's lead only strongly correlated with zinc. Barium and chromium are also strongly or moderately correlated with a number of these elements at this depth using Pearson's and Spearman's.

With depth, nickel, copper and cobalt remained strongly correlated with each other using both Pearson's or Spearman's. Cadmium and selenium was strongly or moderately correlated with nickel, copper and cobalt with depth using Pearson's and Spearman's. Cadmium and selenium correlations would likely be stronger if more sensitive laboratory equipment had been used. Arsenic was strongly or moderately correlated with nickel, copper, cobalt and zinc with depth using Spearman's. The number and strength of the arsenic correlations were fewer and weaker using Pearson's and decreased with depth. Lead was strongly correlated with zinc only using both Pearson's and Spearman's with increasing depth. Using Spearman's, lead also moderately correlated with arsenic, barium, copper and cobalt at 5 - 10 cm and only barium, copper and cobalt at 10 - 20 cm. Zinc remained strongly or moderately correlated with nickel, copper, cobalt, arsenic, lead, iron and barium using Spearman's with depth. At 5 - 10 cm, zinc also strongly correlated with cadmium and managanese using Spearman's. With depth, zinc correlations were fewer and weaker using Pearson's. Barium, iron and chromium correlations with elements associated with smelter emissions generally decreased with depth while correlations with naturally occurring elements increased with depth. There were generally more barium, iron and chromium correlations with Spearman's than Pearson's.

Overall, correlations were strong and numerous between nickel, copper, cobalt, arsenic, lead, cadmium, selenium, iron and zinc at surface in Copper Cliff. Generally, the number of correlations between these elements decreased with depth. Correlations of nickel, copper and cobalt, however, remained strong with each other and with arsenic, cadmium, selenium and zinc with depth. This

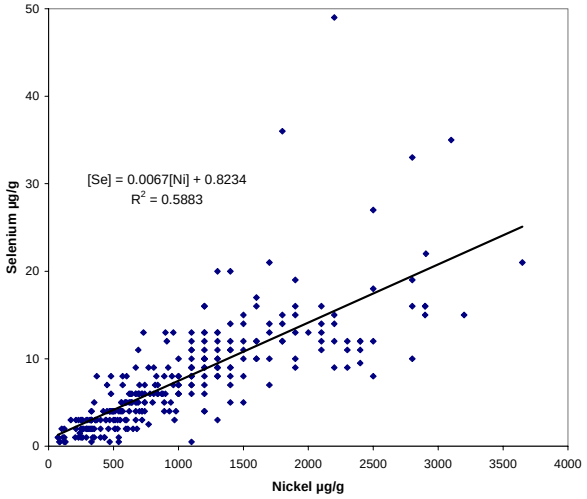


Fig 7.1.6.8: Se vs. Ni, 0 - 5 cm, Copper Cliff

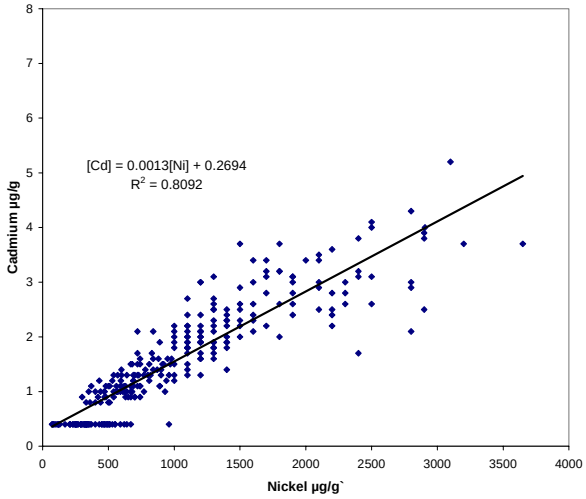


Fig 7.1.6.9: Cd vs. Ni, 0 - 5 cm, Copper Cliff

is an indication that concentrations, at all depths, of these elements in Copper Cliff appear to be attributed to smelter emissions. Figures 7.1.6.8 and 7.1.6.9 show the correlations of nickel and selenium and nickel and cadmium at surface in Copper Cliff.

The correlations of lead, barium, iron and chromium at surface also indicate that these concentrations may be due to smelter emissions. Generally, nickel concentrations were similar to or greater then copper concentrations at all depths throughout the City of Greater Sudbury. As a result, the ratio of nickel to copper remained relatively constant, ranging between 0.7 to 0.9 copper to nickel. The only exception was at the surface in Copper Cliff where concentrations of copper were approximately 1.4 times the concentrations of nickel (ratio of 1.4 copper to nickel).

For the naturally occurring elements, the overall number of correlations increased with depth. Aluminum, strontium and vanadium were correlated with each other at all depths using both Pearson's and Spearman's. With depth, aluminum, strontium and vanadium developed strong or moderate correlations with barium, chromium, iron, magnesium, and manganese, using both Pearson's and Spearman's. These correlations tended to be more numerous and stronger using Spearman's than Pearson's. These elements are indicative of the naturally occurring geology in the City of Greater Sudbury. The increase in the number and strength of these correlations are representative of less disturbed soil at depth. Similar to the Sudbury Core and Coniston, only aluminum and vanadium were strongly correlated at all depths.

Refer to Section 10.4.6 for a complete list of graphs showing selected element correlations at all three depths for Copper Cliff.

In summary, the element concentrations, at all depth intervals in Copper Cliff, were considerably higher and had more exceedences of MOE criteria than in Coniston, the Sudbury Core, and the Outer and Inner Sudbury Communities. Generally, the concentrations of copper, lead, selenium, zinc and barium were higher in Copper Cliff than in Falconbridge while the concentrations of cobalt, arsenic, cadmium, iron and chromium were higher in Falconbridge. Only nickel concentrations generally remained similar between Copper Cliff and Falconbridge. The differences, however, between Copper Cliff and Falconbridge varied with depth.

In Copper Cliff, nickel, copper, cobalt, arsenic, lead and selenium concentrations exceeded Table A at all depths. No other elements exceeded Table A at any depth in Copper Cliff. In total, twelve elements exceeded Table F criteria in Copper Cliff. Generally, the number of exceedences of Table F and A were constant or decreased slightly for nickel and copper with depth. For cobalt and selenium, the number of exceedances of Table A decreased rapidly while Table F exceedances decreased gradually with depth. The number of Table F and A exceedances for arsenic and lead increased with depth.

High concentrations of nickel and copper, cobalt, arsenic, cadmium, selenium and iron, at surface were present uniformly throughout Copper Cliff, although some of the highest nickel, copper and selenium concentrations were present immediately adjacent to the INCO smokestacks. Concentrations of these elements generally decreased towards the southern end of the community. Nickel and copper concentrations remained elevated with depth while concentrations of cobalt, cadmium and selenium decreased. Iron concentrations generally remained constant with depth, however, at some sample locations slag material was present and iron concentrations increased with depth. Arsenic concentrations increased with depth and no gradient was observable as concentrations were elevated and uniform throughout the community. High lead concentrations were randomly present throughout the community at surface, however, concentrations generally increased with depth and high concentrations were clustered in the southern portion of the community. Slag material was also present at some of the properties with high lead concentrations. Elevated zinc concentrations were present in the southern portion of the community at surface, however, concentrations decreased and appeared to be randomly distributed at depth. No pattern of chromium concentrations was noted at surface or at depth in Copper Cliff.

In Copper Cliff, nine elements including nickel, copper, cobalt, lead, cadmium, selenium, chromium, iron and zinc showed strong indications of aerial deposition. The elements, with the exception of arsenic, were similar to Falconbridge, although the trend was stronger in Copper Cliff with over 60% of sample locations showing this trend. Selenium, however, showed this trend in 80% of the sample locations. In less than half of the sample locations most elements also showed evidence of buried contamination, with maximum concentrations occurring at either 5 - 10 cm or 10 - 20 cm.

The differing depth trends appeared to be the result of landscaping practices at individual properties over time. Addition, grading, removal and / or mixing of urban soils may alter the vertical distribution of chemical concentrations in the soil. The differences between elements in the percentage of sample locations showing these trends may be the result of numerous factors including: element form, element mobility, smelter process changes and differing chemical composition of the ore over time.

Overall, correlations were strong and numerous between nickel, copper, cobalt, arsenic, lead, cadmium, selenium, iron and zinc at surface in Copper Cliff. Generally, the number of correlations between these elements decreased with depth. Correlations of nickel, copper and cobalt, however, remained strong with each other and with arsenic, cadmium, selenium and zinc with depth. This is an indication that concentrations of these elements in Copper Cliff, at all depths, appear to be attributed to smelter emissions. The correlations of lead, barium, iron and chromium at surface, also indicate that these concentrations may be due to smelter emissions. Concentrations of copper were approximately 1.4 times the concentrations of nickel in Copper Cliff. Generally, nickel concentrations were similar to or greater than copper concentrations at all depths throughout the City of Greater Sudbury.

For the naturally occurring elements, the overall number of correlations increased with depth. Aluminum, strontium and vanadium were correlated with each other at all depths. With depth, aluminum, strontium and vanadium developed strong or moderate correlations with barium, chromium, iron, magnesium, and manganese. These elements are indicative of the naturally occurring geology in the City of Greater Sudbury, with the increased number and strength of these correlations representative of less disturbed soil at depth.

7.2 Sand and Gravel

This section will discuss the analytical results of the sand and gravel sample types that were collected by the Ministry in the City of Greater Sudbury in 2001. The sand and gravel sample types were collected in addition to the soil sample type as these materials were observed extensively throughout the City of Greater Sudbury in the school and park land uses. Sand and gravel, unlike grass covered urban soil, can come into direct contact with skin, thereby increasing the risk of exposure. Sand samples were generally collected in 0 - 15 cm intervals while gravel samples were generally collected at surface only.

The sand sample type was subdivided into Play Sand and Beach Sand while the gravel sample type was subdivided into Crushed Stone and Playground Gravel. Play Sand, Crushed Stone and Playground Gravel generally originated off-property and were brought in for landscaping purposes while Beach Sand was naturally occurring. The sand and gravel results were discussed based on sample type (i.e. Play Sand, Beach Sand, Playground Gravel and Crushed Stone) across the City of Greater Sudbury rather than community groupings. Concentrations were compared between the different types of sand and gravel and the 0 - 5 cm soil results for all parks, schools and daycares. These soil results were used for comparison as they represent the soil adjacent to the sand and gravel sample locations. Descriptive statistics, exceedences of applicable Ministry guidelines, spatial distribution of chemical concentrations and statistical correlations between elements were discussed.

For sand, pH analysis was completed on 45 samples and pH ranged from 4.95 to 8.1. The Ministry *Guideline for Use at Contaminated Sites in Ontario* (MOE 1997) states that Table A soil criteria for inorganics apply only when the soil pH is between 5.0 and 9.0. No sand samples analyzed had a pH value that exceeded 9.0, however one sand sample had a pH value below 5.0. This sample had a pH value of 4.95 and was located at one school in the Outer Sudbury Communities. The pH values for all other sand samples analyzed were within the range of 5.0 to 9.0. Refer to Section 10.3.6 for descriptive statistics and box and whisker plots.

For gravel, pH analysis was completed on 18 samples and pH ranged from 4.7 to 7.9. The Ministry *Guideline for Use at Contaminated Sites in Ontario* (MOE 1997) states that Table A soil criteria for inorganics apply only when the soil pH is between 5.0 and 9.0. No gravel samples analyzed had a pH value that exceeded 9.0, however one gravel sample had a pH value below 5.0. This sample had a pH value of 4.7 and was located at one school in the Inner Sudbury Communities. The pH values for all other gravel samples analyzed were within the range of 5.0 to 9.0. Refer to Section 10.3.6 for descriptive statistics and box and whisker plots.

7.2.1 Play Sand

There were 550 Play Sand samples collected from 324 sampling locations. Sixty five percent of the samples were from parks and the remainder were from schools and daycares. Thirty four percent of the samples were from the Outer Sudbury Communities, 42% were from the Inner Sudbury Communities, 16% were from the Sudbury Core and the remainder were from Coniston, Copper Cliff and Falconbridge.

The concentrations of nickel, copper, cobalt, arsenic, selenium and lead in the Play Sand samples were relatively low and were generally lower than the 0 - 5 cm soil samples collected from the same

schools, daycares and parks. The concentrations of antimony, beryllium, chromium, iron, magnesium, manganese, molybdenum, strontium, vanadium and zinc in the play sand were similar to 0 - 5 cm soil from the schools and parks. Aluminum, barium and calcium were slightly lower in the play sand than the soil but this would be expected when comparing sand versus soil that ranges from sands to silty clays. Cadmium and selenium in the play sand were lower at the 95th percentile and the maximum values than the soil, but all the results were near the method detection limits.

The large differences between the play sand and soil results occurred with nickel, copper and cobalt, and to a lesser extent arsenic. The concentrations of these elements in the play sand were considerably lower that the concentrations in soil. At the 90th percentile the play sand nickel concentrations were one quarter the concentrations in soil and at the maximum the play sand was one sixth the soil concentrations. From the minimum to the 80th percentile the difference between the play sand concentrations and the soil were not as large. For arsenic the difference occurred only at the 90th, 95th percentile and maximum. Below the 90th percentile arsenic was generally at the detection limit for both sample types.

It was anticipated that the concentrations of nickel, copper, cobalt, arsenic and lead would be lower in the play sand than the surrounding soil as this material had been brought in and would only have accumulated recent aerial deposition of these elements. It should be noted that play sand samples were generally collected at 0 - 15 cm intervals while the soil samples were collected at 0 - 5 cm intervals. Play sand was collected at larger intervals because of the homogeneous nature of the sand and the mixing action that normally occurs in play areas. Due to these factors, the differences in sample volume between sample types should not affect the validity of the comparison.

Abbreviated summary statistics for the Play Sand results were given in Table 7.2.1.1 with the full summary statistics in Section 10.3.3.1. Table 7.2.1.2 gives the summary statistics for 0 - 5 cm soil samples from all of the schools, daycares and parks for comparison purposes.

Table 7.2.1.1: Summary Statistics for Metals and Arsenic in Play Sand in the City of Greater Sudbury.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	2700	0.4	2.5	10	0.4	1500	11	3	6	6200	2	1400	70	0.75	11	0.5	10	7	9
10th percentile	4600	0.4	2.5	17	0.4	2190	22	5	14	11000	2	2700	150	0.75	19	0.5	16	24	16
1st quartile	5300	0.4	2.5	20	0.4	2500	25	6	18	13000	3	3000	160	0.75	22	0.5	18	27	18
Median	6350	0.4	2.5	24	0.4	2900	28	8	26	15000	4	3700	180	0.75	27	0.5	23	32	23
3rd quartile	7700	0.4	2.5	31	0.4	3400	33	9	38	17000	6	4200	220	0.75	35	0.5	27	36	28
95th percentile	10000	0.4	6.0	43	0.4	4400	46	11	58	23000	8	5345	290	0.75	58	1.0	37	51	38
Maximum	13000	2.3	34	67	0.8	12000	59	22	210	27000	82	7200	370	4.10	680	2.0	47	62	110
Mean	6613	0.4	3.1	26	0.4	3003	30	8	32	15380	5	3693	194	0.77	36	0.5	23	33	24
CV (std. dev./mean)	26%	28%	86%	34%	4%	30%	26%	31%	78%	24%	91%	24%	24%	24%	123%	29%	29%	27%	37%
Skewness	0.7	12.7	7.9	1.2	23.5	3.5	1.1	1.4	3.7	0.6	10.0	0.7	1.0	13.4	8.8	4.8	0.8	0.8	2.8

All results are in µg/g dry weight. n = 550

Table 7.2.1.2: Summary Statistics for 0 to 5 cm Soil from All Parks, Schools, and Daycares in the City of Greater Sudbury

	Al	Sb	As	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	3900	0.4	2.5	0.3	0.4	1600	17	3	8	7400	1	1200	90	0.8	16	0.5	10	8	11
10th percentile	7100	0.4	2.5	0.3	0.4	2900	23	4	25	11000	7	2000	140	0.8	36	0.5	23	24	20
1st quartile	8300	0.4	2.5	0.3	0.4	3500	25	5	35	12000	10	2300	160	0.8	48	0.5	29	26	24
Median	9500	0.4	2.5	0.3	0.4	4800	29	7	52	13000	13	3000	200	0.8	69	0.5	35	28	30
3rd quartile	11000	0.4	6.0	0.3	0.4	6800	35	10	93	15000	20	3800	240	0.8	120	0.5	42	32	38
95th percentile	14000	0.4	14	0.3	0.8	11000	45	18	300	21000	51	5800	310	0.8	320	2.0	51	37	61
Maximum	27000	4.4	84	0.5	4.2	33000	73	130	4600	45000	200	13000	650	3.4	3649	22	170	78	150
Mean	9744	0.4	5.2	0.3	0.5	5661	31	9	118	14337	19	3299	206	0.8	134	0.8	36	29	33
CV (std. dev./mean)	25%	55%	138%	6%	79%	58%	26%	110%	284%	27%	112%	42%	32%	22%	217%	175%	31%	19%	47%
Skewness	1.5	10.2	5.9	16.6	6.8	2.9	1.5	6.7	9.1	2.8	4.1	2.0	2.1	9.6	7.6	11.0	2.7	1.8	2.9

All results are in µg/g dry weight. n = 833

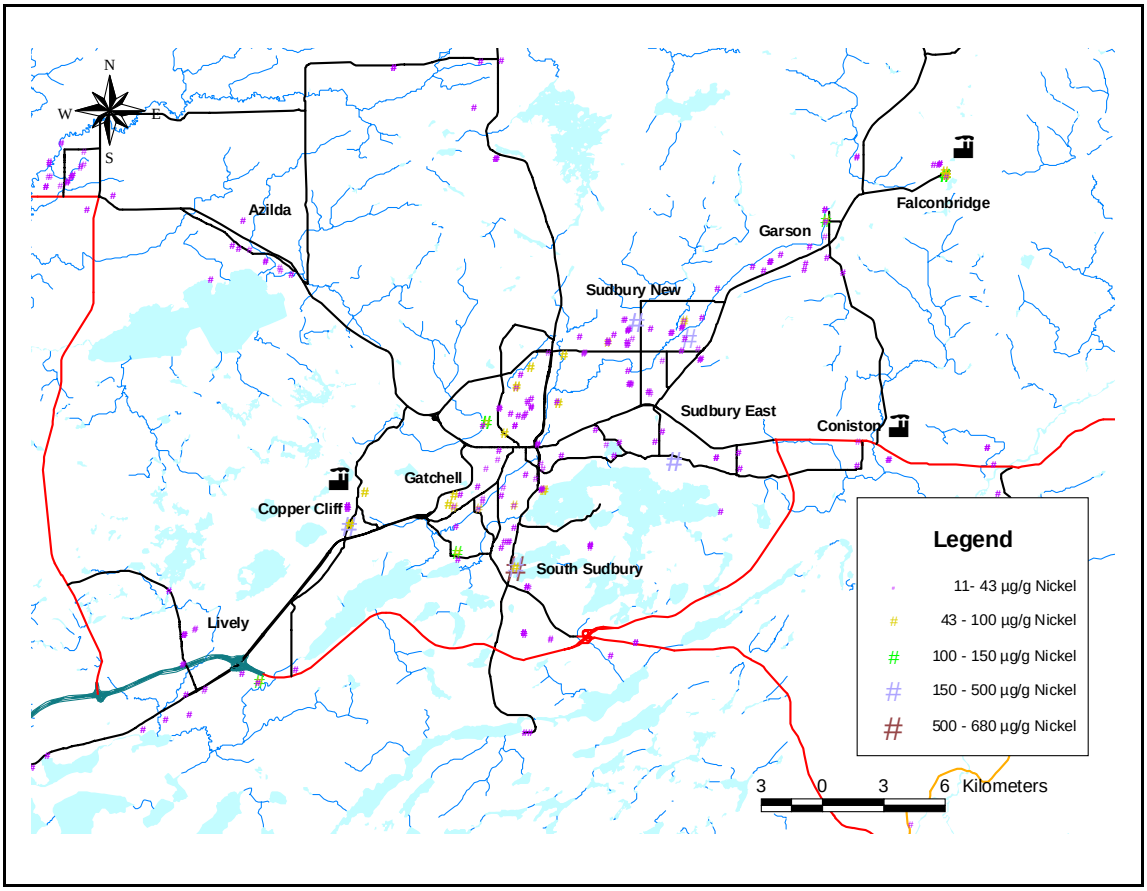


Figure 7.2.1.1: Nickel concentrations in play sand

There were only a few exceedences of the Ministry Table A guidelines in the Play Sand. There were nine exceedences of the nickel Table A value of 150 µg/g and one exceedence of the arsenic Table A value of 20 µg/g. Most of the Table F exceedences occurred for nickel and copper with 68 and 12 respectively. Arsenic exceeded Table F four times. Refer to Table 7.2.2.2 for a full listing of the Table A and F exceedences in Play Sand and Beach Sand. As was expected, two thirds of the Table F exceedences for nickel occurred in Copper Cliff , Falconbridge and the Sudbury Core. There were no Table F exceedences for nickel in Coniston but there has not been an active smelter there since the early 1970's. Most of the rest of the exceedences were in the Inner Sudbury Communities. There were four locations in the Inner Sudbury Communities with high nickel concentrations in Play Sand. In all four locations the nickel in the sand is as high or higher than the surrounding soil. The concentration of copper in these play sand locations was much lower than would normally be expected. There was no relationship between these locations and the three smelter communities. Refer to Figure 7.2.1.1 for a concentration dot map of nickel in Play Sand.

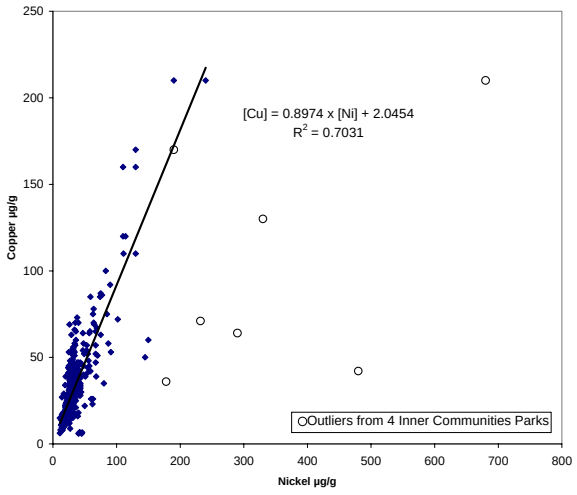


Fig. 7.2.1.2: Cu vs Ni, 0-5 cm, Play Sand

Nickel and copper were the only two elements related with smelter emissions that were strongly correlated with each other. The correlation was only moderate due to a number of high nickel outliers from the four locations mentioned above. The correlation was improved with the removal of these outliers from the data set. Refer to Figure 7.2.1.2 for the copper to nickel correlation in which the outliers were removed. All other strong correlations were related to the naturally occurring elements of aluminum, iron, magnesium and vanadium, refer to Section 10.4.7.

7.2.2 Beach Sand

There were only 42 beach sand samples from 22 beaches sampled in the City of Greater Sudbury. Fifteen of the beaches were located on Ramsey Lake with the rest scattered throughout the city. None of them were in the smelter communities of Coniston, Copper Cliff or Falconbridge.

While the maximum concentrations of nickel, copper, cobalt, arsenic and lead were higher in the play sand than the beach sand, generally the concentrations in the beach sand were similar to the play sand results up to the 95th percentile. Nickel and lead were marginally higher in the beach sand while copper, cobalt and arsenic were the same. Due to the small sample size and the concentration of the beach sites in one area more detailed comparisons will not be made. Refer to Table 7.2.2.1 for the abbreviated summary statistics and Section 10.3.3.1 for the detailed summary.

Table 7.2.2.1: Summary Statistics for Metals and Arsenic in Beach Sand in the City of Greater Sudbury.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4100	0.4	2.5	14	0.4	1300	18	4	7	1000	3	2200	140	0.75	14	0.5	10	18	10
10th percentile	4920	0.4	2.5	17	0.4	2210	23	7	21	1200	4	2720	170	0.75	29	0.5	17	23	16
1st quartile	5200	0.4	2.5	19	0.4	2600	24	8	23	1300	4	3100	180	0.75	32	0.5	19	28	18
Median	6050	0.4	2.5	24	0.4	3000	30	9	29	1500	5	3550	190	0.75	38	0.5	24	31	23
3rd quartile	7300	0.4	2.5	27	0.4	3600	32	9	36	1700	6	4000	210	0.75	63	0.5	29	34	26
95th percentile	8980	0.4	2.5	35	0.4	4255	35	9	31	1800	6	4185	250	0.75	40	1.0	38	40	29
Maximum	1200	2.2	10	74	0.4	4600	39	12	130	1900	21	4500	250	0.75	170	1.0	39	40	39
Mean	6674	0.4	3.1	27	0.4	3093	29	9	36	1504	6	3517	197	0.75	49	0.6	25	31	23
CV (std. dev./mean)	28%	63%	54%	51%	0%	23%	17%	21%	69%	16%	64%	17%	14%	0%	58%	31%	29%	16%	29%
Skewness	1.3	6.5	2.7	2.3		0.0	0.1	-1.0	2.4	-0.2	2.4	-0.4	0.3		2.1	2.1	0.2	-0.4	0.4

All results are in µg/g dry weight. n = 42

As shown in Table 7.2.2.2, there was only one exceedence of Table A and that was for nickel. There were eighteen nickel, two copper and one antimony exceedences of Table F in the beach sand. Proportionally this was similar to the play sand samples.

Table 7.2.2.2: Summary of MOE Table F and Table A Exceedences for Sand Samples in the City of Greater Sudbury

Element	Play Sand		Beach Sand	
	Table F	Table A	Table F	Table A
Antimony	3 (1%)	0	1 (2%)	0
Arsenic	4 (1%)	1	0	0
Cadmium	0	0	0	0
Chromium	0	0	0	0
Cobalt	2	0	0	0
Copper	16 (3%)	0	2 (5%)	0
Lead	0	0	0	0
Molybdenum	1	0	0	0
Nickel	68 (12%)	9 (2%)	18 (43%)	1 (2%)
Selenium	2	0	0	0
Vanadium	0	0	0	0
Zinc	0	0	0	0
No. of Samples	550		42	

There was a strong correlation of nickel to copper in the beach sand, refer to Figure 7.2.2.1. There was also a moderate correlation with nickel and copper to lead in the beach sand. All other strong correlations were related to the naturally occurring elements of aluminum, iron, magnesium and vanadium. Refer to Section 10.4.8.

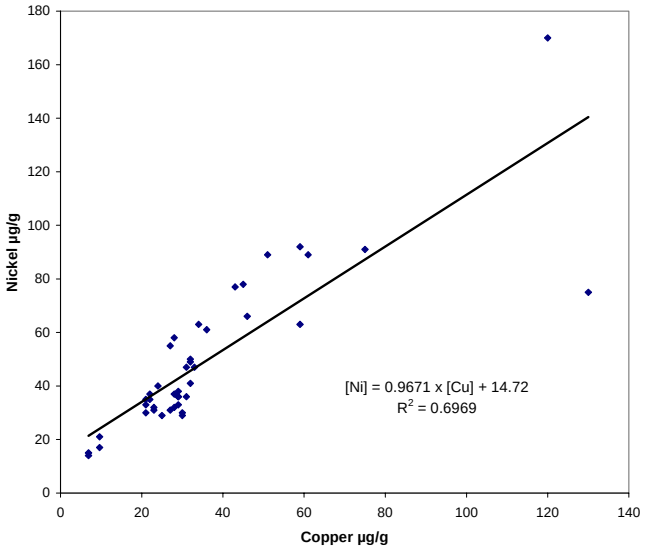


Figure 7.2.2.1: Cu vs Ni in Beach Sand

7.2.3 Playground Gravel

There were 107 playground gravel samples collected from 54 sampling locations. Ninety four percent of the samples were from schools and the remainder were from parks. Thirty two percent of the samples were from the Outer Sudbury Communities, 40% were from the Inner Sudbury Communities, 24% were from the Sudbury Core and the remaining 4% were from Coniston. Abbreviated summary statistics for the playground gravel results are given in Table 7.2.3.1 with the full summary statistics in Section 10.3.3.2.

Table 7.2.3.1: Summary Statistics for Metals and Arsenic in Playground Gravel in the City of Greater Sudbury.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4100	0.4	2.5	17	0.4	2000	17	3	11	8200	2	2100	120	0.75	17	0.5	10	11	10
10th percentile	5800	0.4	2.5	25	0.4	2700	22	5	17	11000	4	3200	160	0.75	25	0.5	20	23	17
1st quartile	6600	0.4	2.5	28	0.4	3400	25	6	26	13000	6	3800	170	0.75	34	0.5	26	26	22
Median	7800	0.4	2.5	34	0.4	4400	29	9	45	15000	8	4800	200	0.75	55	0.5	34	29	29
3rd quartile	9200	0.4	5.0	43	0.4	11000	34	12	83	18000	12	6100	230	0.75	93	0.5	69	33	37
95th percentile	12000	0.4	8.0	68	0.4	69000	43	22	197	23000	20	15000	280	1.97	190	1.0	240	42	58
Maximum	26000	1.5	17	200	1.0	250000	90	33	670	43000	32	26000	510	4.30	370	2.0	340	73	200
Mean	8171	0.4	3.7	39	0.4	14363	30	10	67	15688	10	6005	204	0.87	75	0.6	63	30	32
CV (std. dev./mean)	31%	33%	68%	52%	11%	231%	27%	55%	102	28%	54%	67%	24%	51%	82%	36%	106	27%	59%
Skewness	2.9	5.8	2.7	4.7	12.1	4.9	2.9	1.8	3.7	2.0	1.4	2.8	2.1	4.2	2.2	4.4	2.3	2.0	4.5

All results are in µg/g dry weight. n = 265

The concentration ranges of aluminum, chromium, iron, magnesium, manganese, vanadium and zinc in the playground gravel were similar to the concentration ranges found in the 0 - 5 cm parks, schools and daycare soil samples. Arsenic showed a similar pattern except for the maximum value in the soil being higher than the playground gravel. The concentrations ranges of barium, cadmium, selenium and strontium for the playground gravel were all lower. Most were below the detection limit for cadmium and selenium. Cobalt concentrations in the playground gravel were approximately two times higher than the soil from the minimum to the 95th percentile with the soil being higher above the 95th percentile. Nickel and copper concentrations in the playground gravel were slightly higher from the minimum to the median with the soil being slightly higher from the 75th percentile to the maximum concentrations. Generally, unlike the play and beach sand, there was little difference between the playground gravel and the park, school and daycare surface soil samples.

As with the play and beach sand the majority of the Table A and F exceedences occurred with nickel and copper, refer to Table 7.2.4.2. There were also a substantial number of cobalt Table F exceedences. There were 16 nickel and 3 copper Table A exceedences, and 93 nickel, 41 copper and

13 cobalt Table F exceedences out of 107 samples. There were no arsenic exceedences. The number of exceedences for playground gravel were higher than the play and beach sand and similar to the school soil samples.

The nickel and copper Table A and F exceedences in playground gravel were concentrated in the Sudbury Core, New and East Sudbury, and Coniston. Refer to Figure 7.2.3.1 for the nickel concentration dot map.

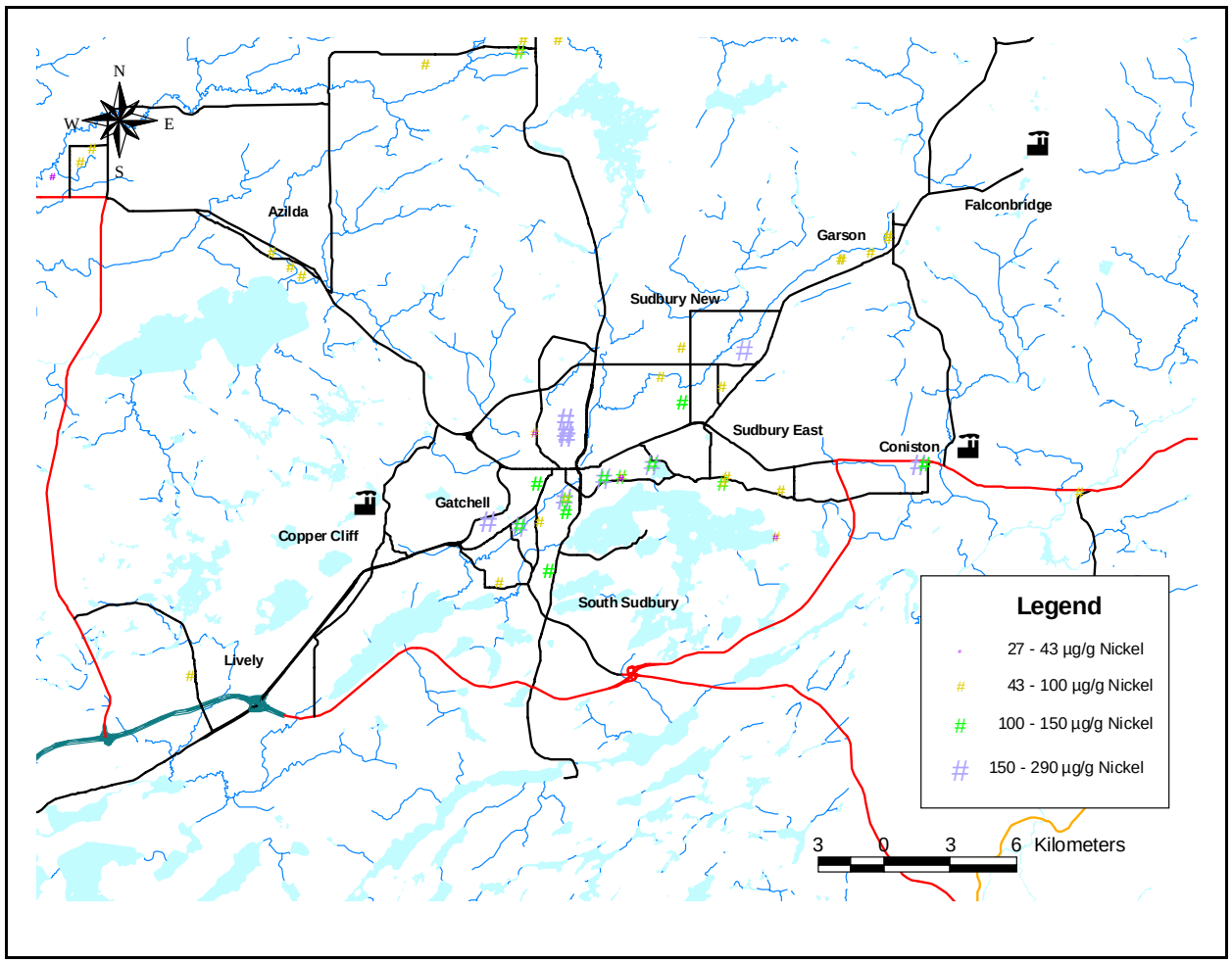


Figure 7.2.3.1: Nickel concentrations in playground gravel

As with the play sand, nickel and copper in playground gravel were the only two elements associated with smelter emissions that were strongly correlated with each other. All other strong correlations were related to the naturally occurring elements of aluminum, barium, chromium, iron, magnesium, manganese and vanadium. Refer to Section 10.4.10.

7.2.4 Crushed Stone

There were 158 ballfield crushed stone samples collected from 83 sampling locations. Seventy three percent of the samples were from parks and the remainder were from schools. Thirty one percent of the samples were from the Outer Sudbury Communities, 47% were from the Inner Sudbury Communities, 18% were from the Sudbury Core and the remaining 4% were from Coniston and Copper Cliff. Abbreviated summary statistics for the ballfield crushed stone results are given in Table 7.2.4.1 with the full summary statistics in Section 10.3.3.2.

Table 7.2.4.1: Summary Statistics for Metals and Arsenic in Baseball Infield Crushed Stone in the City of Greater Sudbury.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4100	0.4	2.5	17	0.4	2000	17	3	11	8200	2	2100	120	0.75	17	0.5	15	11	10
10th percentile	5770	0.4	2.5	25	0.4	3270	21	5	15	10000	4	3100	150	0.75	23	0.5	26	20	15
1st quartile	6800	0.4	2.5	29	0.4	4600	24	5	20	12000	5	3700	160	0.75	28	0.5	37	24	19
Median	8000	0.4	2.5	36	0.4	8700	27	6	28	13500	6	5400	190	0.75	38	0.5	56	27	25
3rd quartile	9400	0.4	2.5	47	0.4	15000	30	9	51	15000	9	7500	220	0.75	64	0.5	110	30	30
95th percentile	12000	0.4	8.0	68	0.4	131450	36	11	101	19000	13	18150	270	2.11	140	1.0	270	36	34
Maximum	26000	1.5	17	200	1.0	250000	43	20	300	27000	32	26000	510	3.20	370	2.0	340	68	200
Mean	8366	0.4	3.5	42	0.4	21618	28	7	48	13932	8	6861	199	0.92	59	0.6	88	27	28
CV (std. dev./mean)	32%	36%	78%	55%	12%	192%	20%	41%	111%	23%	59%	72%	25%	53%	97%	33%	87%	26%	73%
Skewness	2.9	4.9	3.3	4.4	12.6	3.8	0.6	1.5	3.0	1.1	2.3	2.1	2.6	2.85	3.1	4.4	1.6	2.0	5.6

All results are in µg/g dry weight. n = 157

The concentration ranges of calcium, magnesium and strontium are much higher in the ballfield crushed stone then in the park, school and daycare 0 - 5 cm soil results. This was expected as this crushed stone material is mostly limestone which is high in these elements. Aluminum, barium, iron, manganese, vanadium and zinc concentrations ranges were similar to the parks and school soil concentration ranges. The concentration range for chromium was slightly lower and arsenic, cadmium, cobalt, copper, lead and nickel were considerably lower for the crushed stone compared to the parks and school 0 - 5 cm soil. The difference was not as large as for the play sand but larger than the playground gravel.

There were fewer exceedences of the Ministry Table A and F criteria in the ballfield crushed stone than for the playground gravel. There were 9 nickel and 3 copper Table A exceedences and 63 nickel and 20 copper Table F exceedences out of 158 samples. There were no cobalt or arsenic exceedences. Refer to Table 7.2.4.2.

The largest number of exceedences of nickel and copper in the ballfield crushed stone occurred in Copper Cliff, Coniston and the Sudbury Core. There were still a number of exceedences in Lively, East Sudbury and New Sudbury but the concentrations were lower. Refer to Figure 7.2.4.1 for the concentrations of nickel in ballfield crushed stone.

Table 7.2.4.2: Summary of MOE Table F and Table A Exceedences for Gravel Samples in the City of Greater Sudbury

Element	Playground Gravel		Ballfield Crushed	
	Table F	Table A	Table F	Table A
Antimony	1 (1%)	0	4 (3%)	0
Arsenic	0	0	0	0
Cadmium	0	0	0	0
Chromium	2 (2%)	0	0	0
Cobalt	13 (12%)	0	0	0
Copper	41 (38%)	3 (3%)	20 (13%)	3 (2%)
Lead	0	0	0	0
Molybdenum	1 (1%)	0	3 (2%)	0
Nickel	93 (87%)	16 (15%)	63 (40%)	9 (6%)
Selenium	1 (1%)	0	1 (1%)	0
Vanadium	0	0	0	0
Zinc	0	0	1 (1%)	0
No. of Samples	107		158	

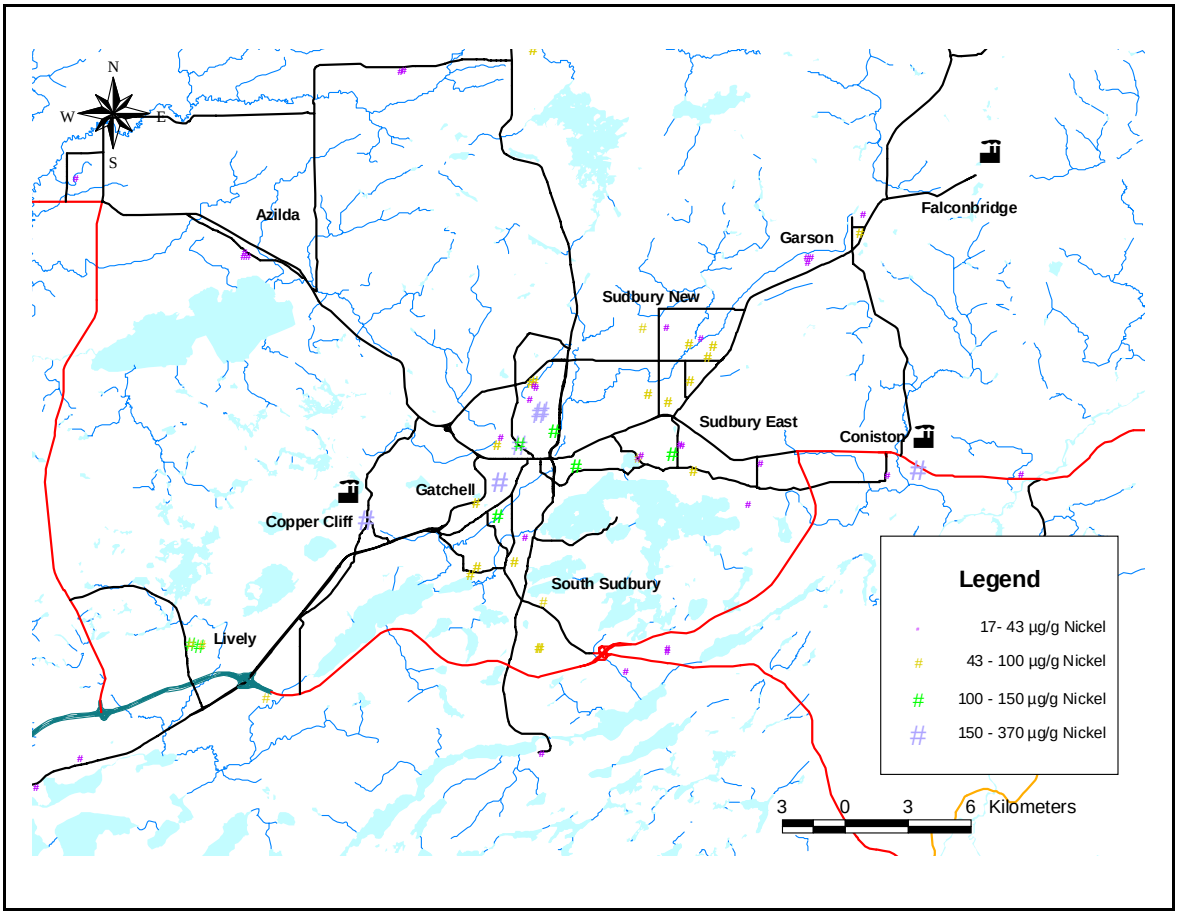


Figure 7.2.4.1: Nickel concentration in crushed stone.

Unlike play sand and playground gravel, nickel, copper, cobalt and lead were strongly correlated with each other in the ballfield crushed stone. Nickel and copper showed the strongest correlation, Refer to Figure 7.2.4.2. Also unlike the play sand and playground gravel there were fewer strong correlations between the naturally occurring elements. The strongest of these correlations were with calcium, magnesium and strontium as would be expected with crushed limestone. Refer to Section 10.4.9.

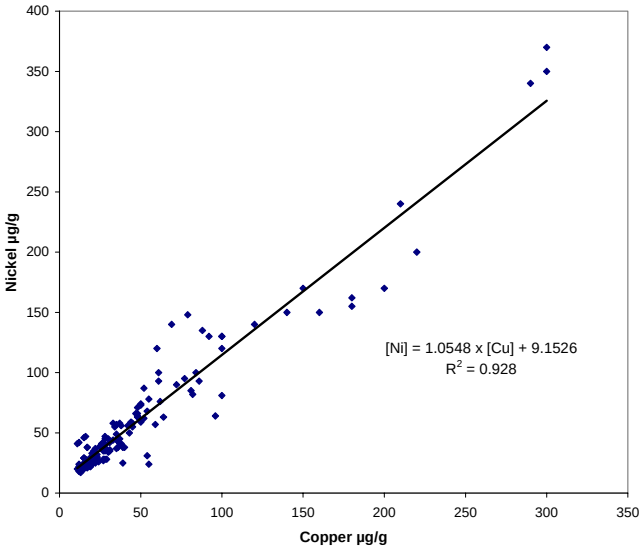


Figure 7.2.4.2: Cu vs Ni in Crushed Stone

7.2.5 Summary

In summary, the concentrations of elements associated with smelter emissions in the play and beach sand are quite low. Nickel and copper were the only elements that were consistently elevated in the sand type samples and occurred in the same ratios that have been observed in soil, see Section 7.2 for soil discussion. While nickel and copper were above Table F in many sand samples there were only a few above Table A criteria and all of the samples were below 1000 µg/g. There were four play sand samples from the park on Parkinson Street in Falconbridge that had substantially elevated arsenic but these were still well below the adjacent soil concentrations.

The playground gravel samples were essentially the same as the park, school and daycare 0 - 5 cm soil samples. They only differed at the high end where the park, school and daycare 0 - 5 cm soil samples were considerably higher than the playground gravel samples. The difference at the high end occurs because there were no gravel playgrounds in either Copper Cliff or Falconbridge where the highest soil levels are found. The ballfield crushed stone samples were in between the play sand and playground gravel concentrations. For play sand, beach sand, playground gravel and ballfield crushed stone the highest concentrations of nickel and copper were found in Copper Cliff, Coniston, Falconbridge and the Sudbury Core with the next highest concentrations in the Inner Sudbury Communities. The Outer Sudbury Communities had the lowest concentrations. The range of concentrations observed in the sand and gravel samples, for the elements associated with smelter emissions, was considerably less than the range of concentrations observed for urban soil.

7.3 Undisturbed Natural Soil

This discussion focuses on the undisturbed natural soil samples collected by the Ministry in the City of Greater Sudbury in 2001. Undisturbed natural soil samples were generally collected from undeveloped, naturally vegetated areas within the City of Greater Sudbury urban area. at up to three depth intervals, 0 - 5 cm, 5 - 10 cm and 10 - 20 cm. Vegetation cover was generally comprised of a naturally occurring mixture of woody shrubs and trees. Undisturbed natural soil samples consisted of all material less than 2 millimetres in diameter and ranged in texture from sand to silty clays.

There were 42 undisturbed natural soil samples collected from seven sampling locations in three parks in the City of Greater Sudbury: Bell Park, Moonlight Beach Park and Lake Laurentian Conservation Area. Bell Park was located in the community grouping of the Sudbury Core while the remaining two parks were located in the community grouping of Inner Sudbury Communities. The concentrations of the undisturbed soil samples were compared to urban soil collected from the Inner Sudbury Communities and the Sudbury Core. Due to the low sample size of the undisturbed natural soil, comparisons with urban soil are limited. Concentrations of the undisturbed natural soil samples were also compared to urban soil collected adjacent to the undisturbed natural soil sampling locations. Sample sizes of these groups of samples were similar.

In the undisturbed surface soil, concentrations of nickel, copper, cobalt, arsenic, lead, cadmium, selenium, and to a lesser extent zinc and iron, were substantially higher compared to the Inner Sudbury Communities and varied between higher and marginally higher than the Sudbury Core. Concentrations of nickel, copper, cobalt and arsenic were four to thirteen times higher starting from the minimum to median values compared to the Inner Sudbury Communities, while concentrations of lead, cadmium, and selenium were two to four times higher from the minimum to median values. Concentrations of iron and zinc were only marginally higher from the minimum value onwards.

At 10 - 20 cm, concentrations of zinc were marginally higher in the undisturbed soil from the minimum value with the exception of the maximum value. Concentrations of nickel, copper, arsenic and lead were similar until the 75th to 95th percentile where these elements were lower in the undisturbed soil. Concentrations of cobalt, selenium and iron were similar to the Inner Sudbury Communities. Concentrations of cadmium were below the analytical MDL in the undisturbed natural soil.

Compared to the Sudbury Core, surface concentrations of nickel, copper, cobalt and arsenic were two to four times higher starting from the minimum value, while concentrations of lead, cadmium, selenium and iron were only marginally higher from the minimum to median value, generally excluding the maximum values. At 10 - 20 cm, concentrations of nickel, copper, arsenic and lead were lower starting from the 25th percentile while cobalt, selenium and zinc were similar up until the 95th percentile and or maximum value where these elements were lower by half. Concentrations of iron were similar to the Sudbury Core while concentrations of cadmium were below the analytical MDL. Refer to Table 7.3.1.

Concentrations of nickel, copper, cobalt, arsenic, lead, selenium, cadmium, zinc and iron in the undisturbed natural soil were higher than urban soil samples collected from adjacent sampling locations. Concentrations of nickel, copper, cobalt, arsenic and lead were twice as high from the 25th percentile and up to five times higher from the 95th percentile. All other elements were marginally

higher from the 25th to 75th percentile on. At 10 - 20 cm, concentrations of these nine elements were either similar or lower than concentrations found in adjacent urban soil.

Table 7.3.1: Summary Statistics for Metals and Arsenic in Undisturbed Natural Soil in the City of Greater Sudbury

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Undisturbed Natural Soil,				n = 14															
Minimum	5200	0.4	6.0	67	0.4	1700	19	7	78	14000	8	1100	130	0.75	110	0.5	18	17	31
10th percentile	8160	0.4	7.2	70	0.4	2230	21	13	120	14600	17	1260	140	0.75	157	0.5	26	24	34
1st quartile	9100	0.4	21	71	0.4	2300	25	18	280	16000	30	1500	150	0.75	380	1.0	31	24	36
Median	11000	0.4	25	82	0.9	2850	33	26	545	19000	53	2350	265	0.75	638	1.8	33	31	56
3rd quartile	15000	1.1	41	100	1.4	7400	42	48	940	30000	94	3400	410	0.75	1215	2.0	47	34	64
95th percentile	15350	3.6	59	134	2.7	19200	50	100	1605	46000	147	3935	625	1.29	3249	4.5	50	36	134
Maximum	16000	4.3	60	140	3	27000	51	100	1800	46000	156	4000	690	2.30	3284	5.5	51	36	140
Mean	11407	1.1	29	89	1.1	5943	34	37	660	23286	63	2443	322	0.86	983	1.9	36	29	61
CV (std. dev./mean)	28%	114%	59%	26%	78%	119%	30%	82%	82%	47%	75%	40%	57%	48%	106%	74%	28%	19%	56%
Skewness	-0.2	2.2	0.5	1.2	1.3	2.5	0.3	1.5	1.0	1.4	0.9	0.3	0.9	3.7	1.7	1.5	0.3	-0.8	1.6
5 to 10 cm Undisturbed Natural Soil,				n = 14															
Minimum	6600	0.4	2.5	40	0.4	1200	20	5	41	10000	7	1500	110	0.75	68	0.5	16	20	21
10th percentile	8830	0.4	2.5	45	0.4	1830	24	7	61	13600	8	1690	123	0.75	76	0.5	26	24	31
1st quartile	13000	0.4	2.5	47	0.4	2100	28	8	64	15000	9	1900	160	0.75	81	0.5	28	28	38
Median	14500	0.4	7.0	79	0.4	2450	34	12	85	17000	12	2400	270	0.75	105	1.0	32	34	41
3rd quartile	17000	0.4	12	110	0.4	4400	48	15	240	19000	18	4100	340	0.75	145	1.0	49	40	48
95th percentile	21400	0.8	19	148	1.0	4835	59	27	484	23000	43	5255	504	0.75	588	2.0	56	43	96
Maximum	24000	1.6	23	180	1.0	4900	68	28	510	23000	47	6100	510	0.75	594	2.0	57	46	120
Mean	14750	0.5	8.9	85	0.5	2993	38	13	168	17286	18	3036	269	0.75	191	1.0	36	33	49
CV (std. dev./mean)	32%	66%	72%	49%	46%	41%	36%	53%	94%	21%	77%	47%	50%	0%	98%	52%	35%	23%	51%
Skewness	0.1	3.7	1.0	0.9	1.6	0.4	0.7	1.1	1.4	0.0	1.5	0.8	0.6		1.7	1.0	0.6	-0.2	2
10 to 20 cm Undisturbed Natural Soil,				n = 14															
Minimum	10000	0.4	2.5	46	0.4	1700	28	6	22	14000	5	2300	110	0.75	52	0.5	23	28	24
10th percentile	12300	0.4	2.5	47	0.4	1930	31	7	24	16000	6	2360	130	0.75	52	0.5	25	29	34
1st quartile	14000	0.4	2.5	49	0.4	2100	32	9	28	16000	7	2500	140	0.75	54	0.5	28	31	38
Median	17000	0.4	2.5	62	0.4	2650	40	10	52	18500	8	3150	190	0.75	61	0.5	34	36	43
3rd quartile	20000	0.4	2.5	110	0.4	4100	50	11	68	20000	8	5000	290	0.75	84	1.0	51	41	56
95th percentile	23700	1.1	7.1	134	0.4	4435	58	12	89	21700	10	5715	331	0.75	98	1.0	55	46	68
Maximum	25000	1.4	9.0	140	0.4	4500	61	13	110	23000	12	6300	370	0.75	104	1.0	56	49	71
Mean	17071	0.5	3.5	80	0.4	2993	42	10	52	18357	8	3750	218	0.75	69	0.7	37	36	47
CV (std. dev./mean)	25%	59%	59%	43%	0%	35%	25%	22%	48%	13%	21%	35%	39%	0%	27%	36%	32%	18%	29%
Skewness	0.3	2.6	2.1	0.6		0.3	0.5	-0.3	0.8	0.1	1.1	0.6	0.3		0.8	0.3	0.6	0.5	0.4

All results are in µg/g dry weight.

For undisturbed natural soil, pH analysis was completed on 3 samples and pH ranged from 4.47 to 5.1. The Ministry *Guideline for Use at Contaminated Sites in Ontario* (MOE 1997) states that Table A soil criteria for inorganics apply only when the soil pH is between 5.0 and 9.0. No undisturbed natural soil samples analyzed had a pH value that exceeded 9.0, however two undisturbed natural soil samples had pH values below 5.0. These two 0 - 5 cm samples had pH values of 4.47 and 4.86 and were located in Lake Laurentian Conservation Area and Bell Park, respectively. The third sample, collected at 10 - 20 cm, had a pH value of 5.1 and was located in Moonlight Beach Park. The pH values in all three undisturbed natural soil samples analyzed were lower than the pH values present in adjacent sand and urban soil samples. Refer to Section 10.3.6 for descriptive statistics and box and whisker plots.

Table 7.3.2 summarizes the number of undisturbed natural soil samples that exceed the Table F and Table A criteria. Nickel, copper and arsenic concentrations exceeded Table A at surface and 5 - 10 cm while cobalt exceeded Table A only at surface. No Table A exceedances for any element were

noted at 10 - 20 cm. No other elements exceeded Table A at any depth. In total, nine elements exceeded Table F criteria and are listed in Table 7.3.2. At 0 - 5 cm, 93% of the undisturbed natural soil samples exceeded Table A and 100% exceeded Table F for nickel. The number of exceedences of Table A decreased substantially with depth while the number of Table F exceedances stayed constant. At 0 - 5 cm, 79% of the undisturbed natural soil samples exceeded Table A and 79 to 90% exceeded Table F for copper and arsenic, respectively. Nickel, copper, cobalt, arsenic, lead, selenium and iron concentrations, at surface, were considerably higher at stations 5030455 and 5030456 located in Bell Park compared to all other undisturbed natural soil sampling locations. Cadmium and zinc concentrations were also higher at station 5030455 in Bell Park compared to all other undisturbed soil sampling locations.

Table 7.3.2: Summary of MOE Table F and Table A Exceedences for Undisturbed Natural Soil Samples

Element	Table F			Table A		
	0 to 5 cm	5 to 10 cm	10 to 20 cm	0 to 5 cm	5 to 10 cm	10 to 20 cm
Antimony	4 (29%)	1 (7%)	1 (7%)	0	0	0
Arsenic	11 (79%)	1 (7%)	0	11 (79%)	1 (7%)	0
Cadmium	5 (36%)	0	0	0	0	0
Cobalt	8 (57%)	2 (14%)	0	4 (29%)	0	0
Copper	13 (93%)	7 (50%)	1 (7%)	11 (79%)	4 (29%)	0
Lead	2 (14%)	0	0	0	0	0
Molybdenum	1 (7%)	0	0	0	0	0
Nickel	14 (100%)	14 (100%)	14 (100%)	13 (93%)	3 (21%)	0
Selenium	7 (50%)	2 (14%)	0	0	0	0
No. of Samples	14	14	14	14	14	14

In the undisturbed natural soil, nickel, copper, cobalt, arsenic, lead, selenium, cadmium and iron showed a strong visual trend of decreasing concentration with depth, consistent with aerial deposition. Average concentrations at surface for nickel and copper were 12.7 to 14.3 times the average concentrations at 10 - 20 cm. Average concentrations at surface for arsenic and lead were 8.2 to 8.4 times the average concentrations at 10 - 20 cm. For cobalt, selenium, cadmium and iron, average concentrations were 1.3 to 3.8 times greater at surface than at 10 - 20 cm. The average concentrations for selenium and cadmium below surface, however, were at or below the analytical MDL. Figure 7.3.1 depicts the depth profile for nickel in undisturbed natural soil.

Unlike the urban soil samples, trends of maximum concentrations occurring below surface, at either 5 - 10 cm or 10 - 20 cm, were not generally observed for the undisturbed natural soil. This may be the result of minimal disturbance occurring at the undisturbed natural soil sample locations or the small sample size. These sample locations were located in undeveloped, naturally vegetated areas of parks within the City of Greater Sudbury. Disturbance of the

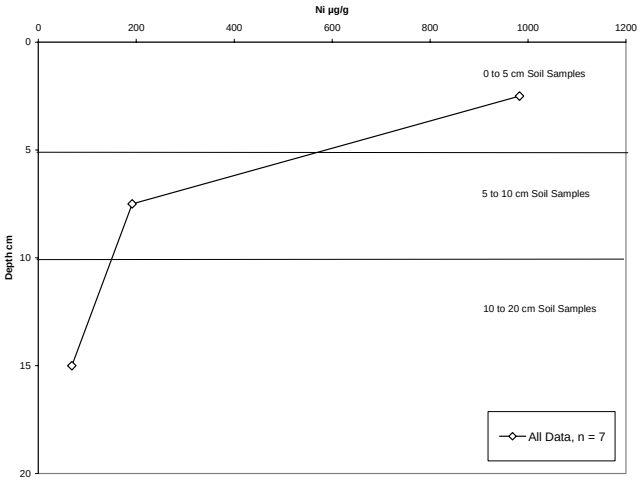


Figure 7.3.1: Undisturbed Natural Soil, Ni depth profiles, All Data

soil at these sample locations by anthropogenic activities, such as landscaping, is unlikely to have occurred. A lack of anthropogenic disturbance may have resulted in metals and arsenic accumulation at surface in the undisturbed natural soil. Additionally, high organic content is often observed at the surface in undeveloped, naturally vegetated soil. Metals and arsenic will often bind with organic content in soil, resulting in accumulation of these elements. Total organic content (TOC) was only analyzed for two surface, undisturbed natural soil samples. The TOC results from these two samples were the highest for undisturbed natural soil, however, the small amount of data available precludes any meaningful interpretation.

Average aluminum, and to a lesser extent chromium and vanadium concentrations, showed a visual trend of increasing concentration with depth (1.2 to 1.5 times). Average zinc concentrations showed no observable change with depth.

Refer to Section 10.5.7 for graphs of the depth profiles for the elements discussed above.

In summary, undisturbed natural soil samples were collected from seven sampling locations in the Inner Sudbury Communities and the Sudbury Core. Generally, surface concentrations of nickel, copper, cobalt, arsenic, lead, cadmium, selenium, iron and zinc were higher in the undisturbed natural soil than in urban soil collected from adjacent sampling locations. These elements, with the exception of zinc, were also higher in the undisturbed natural soil compared to urban soil collected throughout both the Inner Sudbury Communities and the Sudbury Core. At depth, concentrations of these elements in undisturbed natural soil were generally similar or lower than concentrations in adjacent urban soil or in urban soil collected throughout the Inner Sudbury Communities and the Sudbury Core. The pH in undisturbed natural soil was lower than the pH in adjacent sand and urban soil samples.

In the undisturbed natural soil samples, nickel, copper and arsenic concentrations exceeded Table A at surface and 5 - 10 cm while cobalt exceeded Table A only at surface. No Table A exceedances for any element were noted at 10 - 20 cm. No other elements exceeded Table A at any depth while nine elements exceeded Table F. A strong trend of aerial deposition from surface was observed in all undisturbed natural soil sampling locations. Unlike in the urban soil samples, trends of maximum concentrations occurring below surface, at either 5 - 10 cm or 10 - 20 cm, were not generally observed for the undisturbed natural soil. This may be the result of minimal disturbance occurring at the undisturbed natural soil sample locations resulting in metals and arsenic accumulation at surface or the small sample size. In the undisturbed natural soil, nickel, copper, cobalt, arsenic, lead, selenium, cadmium and iron showed a strong visual trend of decreasing concentration with depth, consistent with aerial deposition. Average concentrations at surface for nickel and copper were 12.7 to 14.3 times the average concentrations at 10 - 20 cm. Average aluminum, and to a lesser extent chromium and vanadium concentrations, showed a trend of increasing concentration with depth (1.2 to 1.5 times). Average zinc concentrations showed no observable change with depth.

7.4 Commercial and Residential Produce

The Ministry and other institutions have collected garden produce and wild berries in the Sudbury area on a number of occasions. In most of these cases the collections were limited to specific areas and did not look at the community as a whole. In the Ministry's case, the two largest studies had been conducted in the community of Gatchell in 1971 and 1993 (MOE 1976 and MOE 1993b). As part of the 2001 soil survey, a preliminary sampling of residential garden vegetables and soil in five local communities and in commercial market gardens, berry farms and wild blueberries across the City of Greater Sudbury was conducted in the month of August for screening purposes only.

There were a number of areas where the 2001 produce sampling program was deficient. First, all of the produce was collected over a very narrow time span. This meant that certain produce, such as strawberries, were well past the normal harvest period and others were not fully developed or ripe. Second, for the residential garden samples, the volume of sample available was very small resulting in only small single samples being collected. Additionally, there was a wide range of vegetables grown in the residential gardens with no one vegetable grown at all locations. Arrangements had not been made in the spring to have the property owners plant sufficient or similar produce to meet the needs of the study. This was not an issue for the market garden vegetables and commercial berries where large duplicate samples were collected. Thirdly, no residential control properties were sampled for comparison purposes. Lastly, the sampling program did not sample enough properties to ensure an adequate representation of residential gardens within the City of Greater Sudbury. For example, Gatchell, which has a large number of residential gardens, only had three properties sampled while the Sudbury Core, Outer and Inner Sudbury Communities had no residential gardens sampled.

In addition to these deficiencies in the sampling program design, there were two laboratory quality control issues with the produce data. These two issues are dealt with in detail in Appendix G (MOE 2003). The first and most serious issue was the contamination of a small number of the samples with nickel, copper and lead during the preparation of the samples. It was determined that a small percentage of the residential produce samples were processed with a small seldomly used grinder that could result in metal particles wearing off the grinder and entering the samples. Although, it was possible to determine which samples were most likely impacted by the use of this grinder, it is possible that some samples were not identified. None of the commercial produce were processed using this equipment and were therefore not affected.

The second laboratory quality control issue dealt with the presence of magnetic particles in the produce samples. Due to the possible presence of metal particles from the small grinder or from staples used to seal the sample containers, all produce samples were examined for magnetic particles. Magnetic particles were found to be present in the produce samples and removed as outlined in Appendix G (MOE 2003). Further analysis showed that while some of the magnetic particles did originate from the small grinder or the staples, the majority of the particles were from environmental sources such as mineral soil and / or resulting from a high temperature furnace. Therefore, the removal of all magnetic particles artificially lowered the concentrations of certain elements in the samples. Refer to Appendix G for further discussion.

The two laboratory quality control issues, in addition to the deficiencies in the sampling program design, resulted in the residential produce data having limited usefulness. The residential produce

data should only be used to indicate whether residential produce was accumulating metals and arsenic. It can not be used to determine the exposure risk for consumption of this produce or produce grown in the City of Greater Sudbury.

For commercial agricultural and urban garden soil, pH analysis was completed on 7 samples and pH ranged from 5.1 to 7.0. The Ministry *Guideline for Use at Contaminated Sites in Ontario* (MOE 1997) states that Table A soil criteria for inorganics apply only when the soil pH is between 5.0 and 9.0. The pH values for all commercial agricultural and urban garden soil analyzed were within this range. Refer to Section 10.3.6 for descriptive statistics and box and whisker plots.

7.4.1 Commercial Produce

7.4.1.1 Market Gardens

Nickel was the only element that was elevated above Ministry background criteria in just over half of the market garden soils collected. Nickel concentrations ranged from 27 to 62 µg/g, with a mean of 44 µg/g. The market garden control site had nickel concentrations ranging from 9 to 10 µg/g, with a mean of 9.5 µg/g. No other elements were elevated above background and the remaining elements were comparable to concentrations found at the control sites. Refer to Table 7.4.1.1.1 below for an abbreviated summary of the Market Garden soil results, and Section 10.3.2 and Appendix D for the detailed results.

Table 7.4.1.1.1: Summary Statistics for Metals and Arsenic in 0-15 cm Soil Samples from Market Gardens in the City of Greater Sudbury - 2001..

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5300	0.4	2.5	19	0.4	2600	16	3	26	8500	5	1700	100	0.75	27	0.5	13	18	19
10th percentile	6080	0.4	2.5	24	0.4	2690	17	4	28	9430	5	1700	110	0.75	35	0.5	16	20	20
1st quartile	6400	0.4	5.0	27	0.4	3000	19	4	31	10000	7	1800	120	0.75	38	0.5	17	22	22
Median	7750	0.4	6.0	29	0.4	3650	21	4	35	10000	8	1900	125	0.75	44	0.5	19	23	27
3rd quartile	9350	0.4	7.0	32	0.4	3950	23	4	42	11000	10	2100	150	0.75	50	0.5	28	25	30
95th percentile	11000	0.4	9.0	39	0.5	4820	25	5	44	12050	13	2310	201	0.75	59	0.5	34	28	34
Maximum	11000	0.4	9.0	44	1.9	5200	26	5	46	13000	17	2500	220	0.75	62	0.5	36	28	43
Mean	7830	0.4	5.7	29	0.5	3595	21	4	36	10390	9	1960	139	0.75	44	0.5	21	23	27
CV (std. dev./mean)	22%	0%	36%	20%	71%	20%	14%	11%	17%	10%	36%	12%	24%	0%	21%	0%	32%	11%	23%
Skewness	0.4		-0.2	0.6	4.5	0.5	0.0	0.0	0.1	0.7	1.1	0.8	1.4		0.2		0.9	0.1	0.9

There were 20 samples. Concentrations are in µg/g dry wt.

An abbreviated summary of the chemical analysis of the Market Garden produce collected in Sudbury are presented in Table 7.4.1.1.2 and are expressed as µg/g dry weight. Refer to Section 10.3.4 and Appendix D for the detailed results. Neither Provincial, Federal nor International guidelines are available for comparison. However, comparison can be made using the produce collected from the market garden control site located approximately 245 km west of Copper Cliff.

Table 7.4.1.1.2: Summary Statistics for All Market Garden Vegetables Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5.0	0.2	0.2	0.5	6.0	0.1	220	0.5	0.2	4.0	23	0.5	1100	3.7	0.2	0.5	0.2	0.5	0.5	12
10th percentile	5.0	0.2	0.2	0.6	7.6	0.1	319	0.5	0.2	6.1	36	0.5	1130	8.1	0.2	1.0	0.2	0.8	0.5	14
1st quartile	9.0	0.2	0.2	1.0	13	0.1	1050	0.5	0.2	7.8	58	0.5	1450	9.7	0.2	3.3	0.2	1.2	0.5	19
Median	40	0.2	0.2	4.8	16	0.2	2700	0.5	0.2	9.5	98	0.5	2550	22	0.3	6.0	0.2	6.8	0.5	30
3rd quartile	110	0.2	0.2	14	19	0.4	4650	0.7	0.5	11	185	0.5	3700	56	0.7	15	0.2	12	0.5	33
95th percentile	360	0.2	0.6	40	26	1.8	11000	1.1	1.1	16	378	0.9	6410	176	1.1	43	0.2	30	0.9	48
Maximum	1200	0.2	1.0	92	28	2.3	14000	3.4	1.1	17	1300	3.1	15000	230	2.6	45	0.2	43	2.9	61
Mean	112	0.2	0.3	12	16	0.4	3799	0.7	0.4	9.9	162	0.6	3107	45	0.5	11	0.2	9.0	0.6	28
CV (std. dev./mean)	192%	0%	63%	151%	36%	133%	98%	71%	75%	33%	138%	68%	86%	125%	104%	110%	0%	103%	70%	41%
Skewness	3.9		3.5	2.9	0.0	2.1	1.3	4.6	1.4	0.5	3.9	6.0	3.0	1.8	2.8	1.8		1.9	4.8	0.7

There were 44 samples collected from 6 market vegetable producers. Concentrations are in µg/g dry wt.

Unfortunately, control data is not available for all produce collected such as banana pepper, pumpkin, radish, yellow tomato, potato, and zucchini as these vegetables were not grown at the market garden control site.

The nickel content of vegetables collected from the City of Greater Sudbury was higher than what was determined from vegetables collected from the control sites. The nickel concentration for yellow beans grown in Sudbury ranged from 7.1 to 22 µg/g, with a mean of 14 µg/g, while the yellow bean control had a nickel concentration of 0.7 µg/g. The nickel range in carrots sampled in Sudbury was 3.2 to 43 µg/g, with a mean of 29 µg/g, while the carrot from the control area had a nickel concentration of 0.5 µg/g. Nickel concentration in lettuce ranged from 3.2 to 12 µg/g, for a mean of 8.0 µg/g, while the lettuce control had a nickel concentration of 3.7 µg/g. The nickel concentrations in tomatoes from the Sudbury area ranged from 0.5 to 45 µg/g, for a mean of 16 µg/g, while the tomato sampled in the control area had a nickel concentration of 1.1 µg/g. Nickel and copper content found in the control vegetables are within the international content ranges reported in plant foodstuffs of similar vegetable species from unpolluted regions (Kabata-Pendias 1994). Antimony (Sb), beryllium (Be), and selenium (Se) had values that were (0.2)<W, indicating they were less than the laboratory detection limit.

7.4.1.2 Commercial Berry Farms

Nickel and copper are the only elements that were found to be elevated above provincial background levels in soil at the commercial berry producer sites. Soil copper concentrations at the Sudbury sites ranged from 20 to 72 µg/g, for a mean of 31 µg/g, while the control site had soil copper concentrations of 1.0 to 5.0 µg/g, for a mean of 2.4 µg/g. Nickel concentrations at the Sudbury sites ranged from 29 to 52 µg/g, for a mean of 39 µg/g, while the control sites had nickel concentrations of 6 to 9 µg/g, for a mean of 7.2 µg/g. Refer to Table 7.4.1.2.1 for an abbreviated set of soil results and Section 10.3.2 and Appendix D for detailed results.

Table 7.4.1.2.1: Summary Statistics for Metals and Arsenic 0-15 cm Soil Samples from Commercial Berry Producers in the City of Greater Sudbury -

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5900	0.4	2.5	18	0.4	550	13	3	20	7100	7	790	35	0.75	29	0.5	10	14	11
10th percentile	6320	0.4	2.5	22	0.4	1420	14	3	22	7810	7	957	64	0.75	31	0.5	10	17	14
1st quartile	6650	0.4	2.5	24	0.4	1800	18	3	25	8400	7	1350	78	0.75	33	0.5	10	18	15
Median	7300	0.4	5.0	27	0.4	2100	19	4	29	9100	8	1600	110	0.75	39	0.5	10	19	18
3rd quartile	8200	0.4	7.0	33	0.4	2900	21	4	35	9950	10	1800	130	0.75	42	0.5	11	20	24
95th percentile	1280	0.4	9.5	36	0.4	4595	26	5	51	1570	17	2635	170	0.75	50	1	15	22	33
Maximum	1600	0.4	10	39	0.4	5800	27	5	72	2100	18	2900	180	0.75	52	1	17	23	39
Mean	7903	0.4	5.0	28	0.4	2411	19	4	31	9759	9	1660	106	0.75	39	0.5	11	19	20
CV (std. dev./mean)	28%	0%	49%	20%	0%	46%	19%	18%	36%	30%	35%	32%	35%	0%	17%	27%	17%	10%	34%
Skewness	2.7		0.4	0.1		1.3	0.6	0.3	2.4	3.0	1.8	0.7	0.1		0.5	2.9	2.1	-0.1	1.1

There were 32 samples. Concentrations are in µg/g dry wt.

An abbreviated summary of the chemical analysis of the Commercial Berry produce collected in Sudbury are presented in Table 7.4.1.2.2 and 7.4.1.2.3 and are expressed as µg/g dry weight. Refer to Section 10.3.4 and Appendix D for the detailed results. Currently, there are not any Provincial, Federal nor International human health guidelines available for comparison. However, comparison can be made using the berries collected from commercial berry control sites located approximately 125 and 245 km west of Copper Cliff.

Table 7.4.1.2.2: Summary Statistics for Metals and Arsenic for Commercial Raspberries Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1	5	0.1	930	0.5	0.2	4.1	23	0.5	900	11	0.2	4.6	0.2	0.9	0.5	9
10th percentile	5	0.2	0.2	1.4	6.0	0.1	1050	0.5	0.2	4.5	24	0.5	945	14	0.2	5.2	0.2	1.3	0.5	10
1st quartile	5	0.2	0.2	2.0	6.5	0.1	1250	0.5	0.2	4.6	28	0.5	970	15	0.2	5.7	0.2	1.8	0.5	11
Median	5	0.2	0.2	3.7	7.0	0.1	1500	0.5	0.2	5.1	32	0.5	1050	17	0.4	6.5	0.2	2.2	0.5	13
3rd quartile	6	0.2	0.2	5.7	9.0	0.1	1700	0.5	0.2	5.6	34	0.6	1450	37	0.5	7.7	0.2	2.9	0.5	13
95th percentile	11	0.2	0.2	7.9	11	0.3	1750	0.5	0.2	6.0	47	0.7	1525	65	1.0	9.1	0.2	6.1	0.5	18
Maximum	12	0.2	0.2	8.4	11	0.8	1900	0.5	0.3	6.2	68	1.1	1600	84	1.1	9.6	0.2	9.5	0.5	20
Mean	6	0.2	0.2	4.0	7.8	0.1	1452	0.5	0.2	5.1	33	0.6	1177	27	0.4	6.7	0.2	2.7	0.5	13
CV (std. dev./mean)	38%	0%	0%	61%	25%	122%	20%	0%	12%	11%	31%	27%	21%	79%	63%	22%	0%	75%	0%	21%
Skewness	1.8			0.4	0.6	4.0	-0.5		4.0	0.2	2.7	3.6	0.5	1.7	1.5	0.6		2.7		1.4

16 raspberry samples were collected. Concentrations are in µg/g dry wt.

Table 7.4.1.2.3: Summary Statistics for Metals and Arsenic for Commercial Strawberries Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	3.9	6	0.1	920	0.5	0.2	2	13	0.5	510	4.6	0.2	1.4	0.2	1	0.5	4
10th percentile	5	0.2	0.2	4.3	6.0	0.1	936	0.5	0.2	2.6	19.3	0.5	561	9.6	0.2	1.5	0.2	1.2	0.5	4.3
1st quartile	5	0.2	0.2	5.7	6.0	0.1	1000	0.5	0.2	2.8	23.0	0.5	630	13.0	0.2	1.5	0.2	1.8	0.5	5.0
Median	5	0.2	0.2	8.7	7.0	0.1	1300	0.5	0.2	3.9	26.0	0.5	850	16.5	0.3	1.9	0.2	2.8	0.5	6.0
3rd quartile	7	0.2	0.2	12.0	8.0	0.1	1700	0.5	0.2	4.5	35.0	0.5	1000	21.0	0.4	2.1	0.2	4.2	0.5	7.0
95th percentile	9	0.2	0.2	13.4	8.4	0.2	1970	0.5	0.3	6.2	97.0	0.5	1070	27.1	0.7	2.2	0.2	4.4	0.5	7.4
Maximum	11	0.2	0.2	14.0	9.0	0.2	2100	0.5	0.4	6.5	160.0	0.5	1200	29.0	0.7	2.2	0.2	4.7	0.5	8.0
Mean	6	0.2	0.2	8.6	7.2	0.1	1336	0.5	0.2	3.9	37.8	0.5	838	16.8	0.3	1.8	0.2	2.8	0.5	6.0
CV (std. dev./mean)	30%	0%	0%	40%	14%	32%	29%	0%	26%	33%	98%	0%	25%	40%	51%	16%	0%	45%	0%	21%
Skewness	1.9			0.1	0.1	2.3	0.8		2.8	0.5	3.2		-0.2	0.2	1.3	-0.1		0.1		-0.3

14 strawberries samples were collected. Concentrations are in µg/g dry wt.

When strawberry and raspberry results are compared to the control site, the nickel content is found to be higher for all samples collected in the Sudbury area in comparison to the control areas. The Sudbury strawberry samples had a nickel concentration range of 1.4 to 2.2 µg/g with a mean of 1.8 µg/g while the strawberry control range was 0.5 to 0.6 µg/g with a mean of 0.6 µg/g.

The range of nickel concentrations for the commercial raspberries was 4.6 to 9.6 µg/g with a mean of 6.7 µg/g, while the raspberry control site nickel range was 0.5 to 1.1 µg/g with a mean of 0.9 µg/g.

No other elements analyzed indicate a similar pattern. Arsenic (As), beryllium (Be), and antimony (Sb) results do not appear in the table as all values were 0.2<W, while all vanadium (V) results were 0.5<W, all of which were less than laboratory detection limits.

7.4.1.3 Wild Blueberries

Arsenic, copper, nickel, and selenium values in soil for both wild blueberry sites exceeded the Table F background guideline and in most cases, were above the Table A criteria. Arsenic concentrations at the Sudbury sites ranged from 33 to 39 µg/g, for a mean of 37 µg/g while the control sites had arsenic concentrations of 5 to 6 µg/g. Copper concentrations at the Sudbury sites ranged from 120 to 400 µg/g, for a mean of 242.5 µg/g, while the control sites had copper concentrations of 14 to 15 µg/g. Nickel concentrations at the Sudbury sites ranged from 77 to 270 µg/g, for a mean of 180 µg/g, while the control sites had nickel concentrations of 19 to 20 µg/g. Other than these 4 elements,

all other elements were comparable to the wild blueberry control site. Refer to Table 7.4.1.3.1 for an abbreviated set of wild blueberry soil results and Section 10.3.2 and Appendix D for the detailed results.

Table 7.4.1.3.1: Summary Statistics for Metals and Arsenic in 0-15 cm Soil Samples from Wild Blueberry Sites in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	6400	0.4	33	24	0.4	610	16	6	120	10000	17	1100	110	0.75	77	0.5	10	18	16
Median	9250	0.7	36	39	0.4	905	25	11	225	16500	23	2300	180	0.75	179	2.0	12	31	33
Maximum	13000	1.0	39	51	0.4	1200	33	15	400	25000	32	3600	230	0.75	290	3.0	14	43	49
Mean	9475	0.7	36	38	0.4	905	25	11	243	17000	24	2325	175	0.75	181	1.9	12	31	33
CV (std. dev./mean)	37%	49%	8%	36%	0%	32%	40%	44%	53%	48%	27%	61%	34%	0%	60%	70%	18%	45%	59%

There were 4 samples. Concentrations are in µg/g dry wt.

Abbreviated results for chemical analysis of wild blueberries collected from wild blueberry patches in Sudbury are presented in Table 7.4.1.3.2 and are expressed as µg/g dry weight. Refer to Section 10.3.4 and Appendix D for the complete results. Currently, there are not any Provincial, Federal or International human health-based guidelines available for evaluation of metal content. As a result, the wild blueberries from the Sudbury area were compared against blueberries collected from a remote blueberry patch located approximately 70 km northwest of Copper Cliff where soil contamination was not a concern.

Table 7.4.1.3.2: Summary Statistics for Metals and Arsenic in Wild Blueberries Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	8	0.2	0.2	4.3	5.0	0.1	640	0.5	0.2	3.7	15	0.5	260	66	0.2	4.3	0.2	0.9	0.5	2.0
1st quartile	9	0.2	0.2	5.3	6.0	0.1	700	0.5	0.2	3.9	16	0.5	260	73	0.2	4.7	0.2	1.6	0.5	2.0
Median	10	0.2	0.2	8.2	8.0	0.1	910	0.5	0.2	4.6	30	0.5	325	98	0.2	5.4	0.2	2.0	0.5	4.0
3rd quartile	24	0.2	0.2	9.4	9.0	0.1	1300	0.5	0.2	6.4	35	0.5	370	110	0.2	6.8	0.2	2.2	0.5	5.0
Maximum	24	0.2	0.2	10.0	9.0	0.1	1500	0.5	0.2	6.7	53	0.5	390	110	0.2	7.1	0.3	2.3	0.5	6.0
Mean	14	0.2	0.2	7.6	7.5	0.1	993	0.5	0.2	5.0	30	0.5	322	92	0.2	5.6	0.2	1.8	0.5	3.8
CV (std. dev./mean)	56%	0%	0%	30%	22%	0%	34%	0%	0%	26%	48%	0%	17%	20%	0%	21%	19%	29%	0%	42%
Skewness	0.9			-0.6	-0.8		0.7			0.6	0.7		-0.1	-0.7		0.3	2.4	-1.3		0

6 wild blueberries samples were collected. Concentrations are in µg/g dry wt.

Comparison of the nickel content of the wild blueberries from the Sudbury area with those from the control area indicates that nickel and copper accumulation is higher in the Sudbury blueberries. The range of nickel for the Sudbury blueberries was 4.3 to 7.1 µg/g with a mean of 5.6 µg/g. These results are consistent with those found for the Sudbury area in a previous study (Bagatto 1990) where the results were based on washed samples whereas the MOE samples were unwashed. The wild blueberry control site had a nickel concentration range of 0.7 to 0.9 µg/g with a mean of 0.8 µg/g. This difference in means indicates a ratio of 7:1. The mean copper concentration for the Sudbury and control blueberries was 5.0 µg/g and 2.6 µg/g, respectively. This indicates a 2 fold increase in the copper content in the Sudbury berries in comparison to the control. The copper content measured in the Sudbury and control unwashed blueberry samples were lower than the mean concentration of 7.8 µg/g Cu previously reported for washed wild blueberries across Canada (Sheppard 1991).

7.4.2 Commercial Produce Summary

Market garden produce and commercial and wild blueberries were collected from the City of Greater Sudbury in July and August of 2001. Berry samples were collected late in the season which resulted in picking berries that were not optimal for consumption and more specifically, picking berries that were extremely over ripe. The extreme ripeness of the berry samples prohibited proper washing as would be expected prior to consumption. It is expected that the metal levels would be higher in unwashed samples compared to those that are washed. MOE has demonstrated that washing of vegetation samples collected in the Sudbury area before processing substantially reduces the metal content (Balsillie 1978 and MOE 1993b). The market garden produce was thoroughly washed prior to processing; however, due to the lateness of the growing season, a control sample for each vegetable sampled within the City of Greater Sudbury was not collected. Banana peppers, pumpkin, radish, yellow tomato, potato, and zucchini were not available at the control site and therefore, there is no way to compare the metal values obtained for these vegetables from the Sudbury area with an appropriate control.

A higher nickel content in the produce grown in the Sudbury area in comparison to the control areas was observed. This increase in nickel was clearly evident in carrots, tomatoes, wild blueberries, raspberries, and to a lesser extent, strawberries. Neither Provincial, Federal nor International guidelines are available for comparison of berries or market garden produce with respect to human health.

Soil samples were taken in close proximity to where the produce and berries were grown. At two of the Sudbury wild blueberry sites soil levels of arsenic, copper, nickel, and selenium were found to be above both the MOE Table F Soil Background Guidelines and the MOE Table A criteria. Nickel concentrations were above MOE Table F background concentrations at approximately half of the commercial market garden sites and at less than 20 per cent of the commercial berry sites. Soil metal results reported herein are similar to those reported historically (MOE 1990 and MOE 2001) despite the fact that historically data was reported for 0-5 cm undisturbed soil, whereas, data presented here was 0 -15 cm or 0 - 10 cm tilled soil.

7.4.3 Residential Produce

Residential garden sampling was limited to the communities of Coniston, Copper Cliff, Falconbridge, Gatchell and North Lively. The majority of the sampling was done in the first three communities as these communities either currently have smelting operations located in them or had historically and therefore would be the most impacted. The majority of the sampling was done between August 14 to 16, 2001 with samples collected at three additional sites on September 5 and 6, 2001. No residential control gardens were collected and currently there are not any Provincial, Federal or International guidelines available for evaluation of metal content in produce. The results of residential garden sampling will be limited to comparisons with the Sudbury market garden results and the market garden controls. These comparisons are done in Section 7.4.4. For all of the discussion and summary tables in Sections 7.4.3.1 to 7.4.3.5 all sample data was used. The results of the 12 samples suspected of being contaminated during sample processing were not removed.

7.4.3.1 Coniston

The concentrations of nickel, copper, cobalt, lead and arsenic in the residential garden soils in Coniston where similar to or lower than the concentrations in the adjacent yards. In the case of aerial depositon, garden soils would normally be lower than the adjacent yard soil as the soil in a garden is either mixed with the deeper soil or better soil is brought in for the garden area. In either case the result is dilution of the elements. There were 4 out of 15 properties with exceedences of Table A for copper and 7 for nickel with the highest copper concentration of 400 µg/g and nickel of 570 µg/g. No other elements exceeded Table A criteria. There were 2 arsenic, 4 zinc, 1 cobalt, 1 lead, 1 selenium, 4 copper and 7 nickel exceedences of the Table F criteria. Refer to Table 7.4.3.1.1 for an abbreviated summary of the Coniston garden soil results and Section 10.3.2 and Appendix A for the detailed summaries and results.

Table 7.4.3.1.1: Summary Statistics for Metals and Arsenic in Residential Garden Soil from Coniston in the City of Greater Sudbury.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5500	0.4	2.5	33	0.4	2600	20	6	19	8900	4	1900	84	0.75	39	0.5	25	18	30
10th percentile	7400	0.4	2.5	53	0.4	6320	23	6	54	12000	11	2780	190	0.75	61	0.5	34	21	33
1st quartile	8700	0.4	2.5	56	0.4	7300	27	7	60	14000	13	3050	225	0.75	84	0.5	39	26	46
Median	11000	0.4	6.0	72	0.4	8900	31	9	100	15000	22	3700	250	0.75	130	0.5	42	30	64
3rd quartile	13000	0.4	12	88	0.4	12500	34	15	245	17000	36	4050	280	0.75	315	0.5	48	34	105
95th percentile	13000	0.4	18	110	0.4	19000	39	22	352	18000	108	5840	300	0.75	508	1.4	53	37	186
Maximum	14000	0.4	19	120	0.8	24000	40	24	400	20000	170	6600	320	0.75	570	2.0	54	38	210
Mean	10490	0.4	7.4	74	0.4	10134	30	11	142	15100	33	3693	244	0.75	190	0.6	42	29	83
CV (std. dev./mean)	21%	0%	70%	30%	18%	47%	18%	47%	77%	17%	111	28%	22%	0%	83%	64%	18%	18%	61%
Skewness	-0.4		0.8	0.3	5.4	1.2	-0.2	1.3	1.0	-0.7	2.9	1.2	-1.6		1.2	3.6	-0.5	-0.5	1.2

Number of samples n = 29 Concentrations are in µg/g dry wt.

There were 48 vegetable samples collected from 15 residential gardens in Coniston. Nickel concentrations ranged from less than the method detection limit (<MDL) to 49 µg/g with a mean of 8.8 µg/g. Copper ranged from 1.9 to 24 µg/g with a mean of 8.7 µg/g. Arsenic concentrations were <MDL for the majority of the samples with a maximum of 1.0 µg/g. The majority of the vegetable samples had lead concentrations <MDL with only two samples greater than 2 µg/g. Both of the samples with high lead are suspected of being contaminated during sample processing. Refer to Appendix G for details about lead contamination during sample processing. Refer to Table 7.4.3.1.2 for an abbreviated summary of the Coniston garden vegetable results and Section 10.3.4 and Appendix A for the complete summaries and detailed results.

Table 7.4.3.1.2: Summary of Metals and Arsenic in All Coniston Residential Garden Vegetables

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1	5	0.1	120	0.5	0.2	2	16	0.5	540	2	0.2	1	0.2	0.6	0.5	6
10th percentile	5	0	0.2	1	10	0.1	886	0.5	0.2	4	23	0.5	973	5	0.2	1	0.2	1.1	0.5	10
1st quartile	5	0.2	0.2	1	14	0.1	1400	0.5	0.2	5	35	0.5	1200	6	0.3	3	0.2	2.3	0.5	15
Median	14	0.2	0.2	3	18	0.1	2300	0.5	0.2	7	67	0.5	1800	11	0.5	7	0.2	7.2	0.5	22
3rd quartile	53	0.2	0.2	12	23	0.2	5450	0.7	0.3	11	110	0.5	3300	14	0.7	10	0.2	13	0.5	35
95th percentile	213	0.2	0.6	37	34	0.6	19000	1.3	0.4	19	287	1.8	7120	32	3.5	27	0.5	34	0.5	79
Maximum	1100	0.2	1.0	60	43	0.8	21000	3.8	1.4	24	1600	110	12000	59	17	49	1.2	41	2.8	300
Mean	63	0.2	0.3	9	19	0.2	5268	0.7	0.3	9	122	3.1	2573	13	1.3	9	0.2	10	0.6	33
CV (std. dev./mean)	262 %	0%	63 %	149 %	41 %	80 %	120%	73 %	82 %	63 %	194 %	515 %	86%	87 %	220 %	107 %	67 %	106 %	61 %	131 %
Skewness	5.6		2.9	2.5	1.0	2.0	1.5	4.9	4.2	1.3	5.6	6.9	2.4	2.5	4.4	2.5	4.7	1.5	6.5	5.2

Number of samples n = 48 Concentrations are in µg/g dry wt.

7.4.3.2 Copper Cliff

In general, the concentrations of nickel, copper, cobalt, lead and arsenic in the residential garden soils in Copper Cliff were substantially lower than the concentrations in the adjacent yards. There was one property where the garden soil concentrations were marginally higher than the yard concentrations and two properties where the garden soil lead concentrations were substantially higher than the yard soil. Out of the 9 properties sampled there were 8 copper and nickel, 3 arsenic, 1 lead and 1 selenium exceedences of the Table A criteria. There were 3 cobalt, 1 nickel, 1 copper, 1 arsenic, 1 lead and 7 selenium exceedences of the Table F criteria. Garden soil concentrations of nickel ranged from 130 to 800 µ/g, copper from 140 to 820 µg/g, lead from 16 to 640 µg/g and arsenic from <MDL to 38 µg/g. These were considerably higher than the garden soils in Coniston. At the property with the highest lead concentrations, pieces of what appeared to be slag were observed in the samples. Similar material was observed in the 10 to 20 cm back yard samples which also had the highest lead concentrations in the yard soil. Refer to Table 7.4.3.2.1 for an abbreviated summary of the Copper Cliff garden soil results, Section 10.3.2 for the full summary, and Appendix A for the individual results.

Table 7.4.3.2.1: Summary Statistics for Metals and Arsenic in Residential Garden Soil from Copper Cliff in the City of Greater Sudbury

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	7700	0.4	2.5	38	0.4	5000	19	7	140	8600	16	2400	120	0.75	130	0.5	35	16	32
10th percentile	9200	0.4	7.0	43	0.4	6300	26	8	230	12000	19	3000	160	0.75	200	1.0	37	22	40
1st quartile	10000	0.4	8.0	63	0.4	6800	27	11	280	13000	20	3200	180	0.75	275	1.5	39	25	43
Median	11000	0.4	16	77	0.4	8600	31	18	470	17000	69	3800	220	0.75	430	2.0	43	28	84
3rd quartile	12000	0.9	28	100	1.0	16000	35	21	700	19000	145	6000	240	0.75	615	3.0	48	31	130
95th percentile	13000	1.4	38	270	1.9	34000	43	23	820	2100	530	7100	670	1.70	800	12	130	35	330
Maximum	13000	1.5	58	330	3.8	38000	64	110	5100	3300	640	7100	780	3.7	3700	36	160	38	380
Mean	11024	0.7	19	97	0.9	12681	32	20	682	1687	125	4462	264	0.94	578	5	53	28	114
CV (std. dev./mean)	14%	53%	74%	75%	91%	70%	29%	104	151%	30%	136	35%	62%	71%	128%	171	60%	20%	81%
Skewness	-0.7	0.9	1.3	2.5	2.6	1.9	1.9	4.1	4.3	1.2	2.3	0.5	2.5	4.0	4.1	3.6	3.0	-0.7	1.9

Number of samples n = 21 Concentrations are in µg/g dry wt.

There were 49 vegetable samples collected from 9 residential gardens in Copper Cliff. Nickel concentrations ranged from 0.7 to 180 µg/g with a mean of 25 µg/g. Copper ranged from 2.3 to 230 µg/g with a mean of 27 µg/g. Arsenic concentrations were <MDL for the majority of the samples with a maximum of 9 µg/g. Half of the vegetable samples had lead concentrations <MDL . One of the samples with lead greater than 2 µg/g was a root vegetable suspected of being contaminated during sample processing. The other samples with lead higher than 2.0 µg/g also had high nickel, copper, selenium and arsenic concentrations. These sample were all leafy vegetables that also had high concentrations of aluminum and vanadium. The ratios of aluminum to lead in the vegetables were similar to the ratios in the garden soil. The higher concentrations of these elements in the leafy vegetables are attributed to soil particles remaining on the samples after washing. It is more difficult to wash leafy vegetables than root or fruit type vegetables. Refer to Appendix G for a more detailed discussion of this process. An abbreviated summary of the Copper Cliff garden vegetable results is given in Table 7.4.3.2.2, refer to Section 10.3.4 and Appendix A for the detailed summaries and results.

Table 7.4.3.2.2: Summary of Metals and Arsenic in All Copper Cliff Residential Garden Vegetables

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1	5	0.1	490	0.5	0.2	2	15	0.5	290	4	0.2	0.7	0.2	0.7	0.5	2
10th percentile	5	0.2	0.2	1	5	0.1	842	0.5	0.2	5	26	0.5	418	6	0.2	1.5	0.2	1.1	0.5	5
1st quartile	7	0.2	0.2	3	7	0.1	1400	0.5	0.2	6	36	0.5	1100	13	0.2	5.3	0.2	2.2	0.5	12
Median	19	0.2	0.2	6	12	0.2	2300	0.5	0.2	8	73	0.5	1500	20	0.4	15	0.5	5.3	0.5	24
3rd quartile	135	0.2	0.6	13	20	0.3	5050	0.8	0.4	29	190	1.4	3300	39	1.1	33	1.5	17	0.5	45
95th percentile	620	0.2	2.1	29	33	1.2	20600	2.5	2.2	109	1060	17	5860	120	6.3	75	8.1	43	1.6	91
Maximum	1900	0.4	9.0	58	45	2.0	31000	6.4	4.9	230	2400	38	6400	380	9.4	180	22	52	5.1	120
Mean	177	0.2	0.7	10	15	0.3	5573	1.0	0.6	27	264	2.9	2383	45	1.2	25	2.0	11	0.8	32
CV (std. dev./mean)	212 %	14 %	197 %	114 %	63 %	130 %	125%	124 %	159 %	160 %	194 %	249 %	75%	166 %	173 %	135 %	209 %	121 %	110 %	90 %
Skewness	3.4	7.0	5.4	2.4	1.1	3.0	1.9	3.7	3.4	3.0	3.3	3.8	0.8	3.7	3	2.8	3.7	1.6	4.1	1.4

Number of samples n = 49 Concentrations are in µg/g dry wt.

7.4.3.3 Falconbridge

The concentrations of nickel, copper, cobalt, lead and arsenic in the residential garden soils in Falconbridge were substantially lower than the concentrations in the adjacent yards. Out of the six properties sampled there were 6 arsenic, 7 nickel, 5 copper, 1 lead and 3 cobalt exceedences of the Table A criteria. There were 6 arsenic, 4 cadmium, 1 chromium, 9 nickel, 5 cobalt, 7 copper, 1 lead and 4 selenium exceedences of the Table F criteria. Garden soil concentrations of nickel ranged from 60 to 1400 µ/g, copper from 45 to 1700 µg/g, lead from 7 to 240 µg/g and arsenic from 6 to 400 µg/g. The nickel, copper and arsenic concentrations in the Falconbridge garden soil were higher than the garden soils in Copper Cliff while lead concentrations were lower than Copper Cliff. Refer to Table 7.4.3.3.1 for an abbreviated summary of the Falconbride garden soil results, Section 10.3.2 for the full summary, and Appendix A for the individual results.

Table 7.4.3.3.1: Summary Statistics for Residential Garden Soil from Falconbridge

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	7300	0.4	6	32	0.4	2200	21	8	45	8700	7	1600	96	0.75	60	0.5	18	20	23
1st quartile	7600	0.4	11	35	0.4	3400	23	11	98	11300	13	1850	115	0.75	136	0.5	23	23	32
Median	8000	0.4	26	48	0.4	5600	28	22	360	14000	34	2400	160	0.75	360	0.5	30	25	45
3rd quartile	9600	0.4	115	63	1.7	9950	46	49	895	22500	108	2950	190	0.75	1030	2.0	36	29	112
95th percentile	10440	1.0	288	79	2.4	17400	66	65	1460	32600	192	4280	206	2.42	1280	5.4	42	33	146
Maximum	11000	1.2	400	88	2.8	21000	77	73	1700	37000	240	4800	210	2.50	1400	7.0	45	35	150
Mean	8600	0.5	88	51	1.1	7544	36	31	551	17367	70	2567	155	1.12	581	1.8	30	26	69
CV (std. dev./mean)	15%	53%	142%	35%	82%	78%	50%	74%	101%	52%	110	39%	27%	65%	85%	117	29%	18%	69%
Skewness	0.9	2.1	2.3	1.0	0.9	1.7	1.6	0.8	1.2	1.5	1.6	1.6	-0.2	1.64	0.5	2.1	0.2	0.9	0.9

Number of samples n = 9 Concentrations are in µg/g dry wt.

There were far fewer residential vegetable gardens and they tended to be much smaller than those in Coniston, Copper Cliff and Gatchell. All but two of the vegetable gardens in Falconbridge were sampled. There were only 12 vegetable samples collected from 6 residential gardens in Falconbridge. Nickel concentrations ranged from 9 to 51 µg/g with a mean of 31 µg/g. Copper ranged from 6 to 25 µg/g with a mean of 10 µg/g. Arsenic concentrations were <MDL for the majority of the samples with a maximum of 1.9 µg/g. The majority of the vegetables sampled had lead concentrations <MDL. The two samples with lead greater than 2 µg/g were suspected of being contaminated during sample processing. There were no leafy vegetables sampled in the Falconbridge gardens. Refer to Appendix G for a more detailed discussion of the lead contamination during sample processing. The concentrations of nickel and copper in the Falconbridge garden vegetables were similar to the Coniston garden vegetables and lower than the Copper Cliff garden vegetables.

An abbreviated summary of the Falconbridge garden vegetable results is given in Table 7.4.3.3.2, refer to Section 10.3.4 and Appendix A for the detailed summaries and results.

Table 7.4.3.3.2: Summary of Metals and Arsenic in All Falconbridge Residential Garden Vegetables

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	6	0.1	290	0.5	0.4	6	35	0.5	1000	7	0.2	9	0.2	0.7	0.5	15
10th percentile	5	0.2	0.2	0.5	8	0.1	702	0.5	0.4	6	37	0.5	1110	8	0.3	17	0.2	1.0	0.5	17
1st quartile	5	0.2	0.2	0.8	11	0.2	1100	0.5	0.6	7	44	0.5	1200	9	0.4	19	0.2	1.6	0.5	20
Median	8	0.2	0.2	1.3	18	0.2	1900	0.5	1.1	8	65	0.5	2450	11	0.6	31	0.2	2.5	0.5	32
3rd quartile	20	0.2	0.6	5.4	19	0.3	3200	0.5	1.8	12	110	1.6	3200	20	0.7	44	0.2	9.1	0.5	48
95th percentile	69	0.2	1.5	14	21	0.5	5090	0.6	2.1	18	180	62	4005	23	0.9	49	0.2	14	0.5	72
Maximum	82	0.3	1.9	24	23	0.5	5200	0.8	2.2	25	180	130	4500	24	1.1	51	0.2	16	0.5	92
Mean	19	0.2	0.5	4.1	15	0.2	2339	0.5	1.2	10	85	12	2367	14	0.6	31	0.2	5.3	0.5	37
CV (std. dev./mean)	129%	14%	109%	162%	36%	54%	69%	16%	55%	55%	61%	311%	50%	45%	44%	44%	0%	100%	0%	60%
Skewness	2.0	3.5	2.1	2.9	-0.3	1.4	0.7	3.5	0.2	2.2	1.0	3.5	0.3	0.5	0.7	-0.1		1.2		1.5

Number of samples n = 12 Concentrations are in µg/g dry wt.

7.4.3.4 Gatchell

The concentrations of nickel, copper, cobalt, lead and arsenic in the residential garden soils in Gatchell were either similar or marginally lower than the concentrations in the adjacent yards. Out of the three properties sampled there were 2 nickel and copper exceedences of the Table A criteria and one 1 nickel and copper exceedence of the Table F criteria. Garden soil concentrations of nickel ranged from 120 to 390 µ/g, copper from 130 to 440 µg/g, lead from 21 to 120 µg/g and arsenic from 5 to 12 µg/g. The nickel, copper, lead and arsenic concentrations in the Gatchell garden soils were very similar to the garden soils in Coniston. Refer to Table 7.4.3.4.1 for an abbreviated summary of the Gatchell garden soil results, Section 10.3.2 for the full summary, and Appendix A for the individual results.

Table 7.4.3.4.1: Summary Statistics for Metals and Arsenic in Residential Garden Soil from Gatchell in the City of Greater Sudbury

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	7200	0.4	2.5	54	0.4	3500	28	8	130	14000	21	2700	170	0.8	120	0.5	22	25	58
1st quartile	8100	0.4	5.0	68	0.4	5100	28	9	140	14000	23	3600	260	0.8	120	0.5	29	25	65
Median	9050	0.4	6.0	78	0.4	6350	28	12	230	15000	69	3900	290	0.8	225	0.8	32	27	81
3rd quartile	10000	1.0	11	120	0.4	12000	35	12	260	16000	88	4300	400	0.8	270	1.0	52	28	170
95th percentile	10000	1.0	12	128	0.4	12750	51	14	395	16000	120	4375	415	0.8	293	1.0	52	28	178
Maximum	10000	1.0	12	130	0.4	13000	56	15	440	16000	130	4400	420	0.8	300	1.0	52	28	180
Mean	8900	0.6	7.1	88	0.4	7717	34	11	238	15000	67	3800	305	0.8	210	0.8	36	27	106
CV (std. dev./mean)	14%	52%	52%	35%	0%	50%	33%	22%	47%	7%	64%	16%	30%	0%	37%	37%	35%	6%	52%
Skewness	-0.3	1.0	0.4	0.6		0.6	2.1	0.3	1.3	0.0	0.4	-1.2	-0.1		-0.2	0.0	0.6	0.0	0.8

Number of samples n = 6 Concentrations are in µg/g dry wt.

While only the three smelter communities were supposed to have residential gardens sampled, the proximity of Gatchell to the Copper Cliff plants and the high number of large gardens in the community warranted some garden sampling. There were 21 vegetable samples collected from three residential gardens sampled in Gatchell. Nickel concentration ranged from 2 to 41 µg/g with a mean of 14 µg/g. Copper ranged from 3 to 64 µg/g with a mean of 20 µg/g. Arsenic concentrations were <MDL for the majority of the samples with a maximum of 2.3 µg/g. The majority of the vegetable samples had lead concentrations <MDL . None of the vegetable samples collected in Gatchell were suspected of being contaminated with lead during the sample processing. There were a number of samples with lead higher than 2.0 µg/g. These also had high nickel, copper, selenium and arsenic concentrations. These samples were all leafy vegetables that also had high concentrations of

aluminum and vanadium. The ratios of aluminum to lead in the vegetables were similar to the ratios in the garden soil. The higher concentrations of these elements in the leafy vegetables are attributed to soil particles remaining on the samples after washing. It is more difficult to wash leafy vegetables than root or fruit type vegetables. Refer to Appendix G for a more detailed discussion of this process. The concentrations of nickel and copper in the Gatchell garden vegetables were similar to the Coniston garden vegetables and lower than the Copper Cliff garden vegetables. An abbreviated summary of the Gatchell garden vegetable results is given in Table 7.4.3.4.2, refer to Section 10.3.4 and Appendix A for the detailed summaries and results.

Table 7.4.3.4.2: Summary Statistics for Metals and Arsenic in Gatchell Residential Garden Vegetables

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	190	0.5	0.2	2.6	24	0.5	730	4	0.2	2.3	0.2	0.5	0.5	8
10th percentile	5	0.2	0.2	1.0	10	0.1	1300	0.5	0.2	4.8	53	0.5	900	5	0.2	2.9	0.2	2.0	0.5	13
1st quartile	6	0.2	0.2	2.0	12	0.1	1850	0.5	0.2	6.6	60	0.5	1300	8	0.3	4.4	0.2	5.2	0.5	16
Median	63	0.2	0.2	4.3	20	0.1	5000	0.7	0.2	13	120	0.5	3200	14	0.7	13	0.3	12	0.5	39
3rd quartile	230	0.2	0.8	15	27	0.3	9000	1.2	0.4	26	335	2.1	3800	26	2.0	23	0.4	23	0.5	46
95th percentile	810	0.2	1.5	31	31	0.6	19000	3.2	0.9	57	1100	4.9	6200	47	3.0	27	1.0	43	2.3	59
Maximum	1300	0.2	2.3	37	33	1.0	30000	4.7	2.2	64	1800	11	8400	91	3.5	41	1.6	49	3.3	78
Mean	194	0.2	0.6	10	19	0.2	6790	1.1	0.4	20	298	1.8	3167	20	1.1	14	0.4	15	0.8	35
CV (std. dev./mean)	170%	0%	103%	110%	42%	94%	105%	94%	105%	89%	147%	139%	63%	100%	95%	72%	79%	89%	91%	52%
Skewness	2.4		1.7	1.3	-0.1	2.2	2.1	2.5	2.9	1.4	2.5	2.7	1.0	2.4	1.0	0.9	2.2	1.2	2.8	0.3

Number of samples n = 21 Concentrations are in µg/g dry wt.

Six residential vegetable gardens were sampled by the Ministry in the Gatchell community in 1993. A total of 23 samples were collected, 4 root vegetables, 1 fruit vegetable and 13 leafy vegetables. While there were differences in the number of properties sampled, number of samples collected and the types of vegetables collected between the 1993 and 2001 studies, the concentrations of nickel, copper, cobalt, arsenic and lead were similar. There was also a difference between the leafy vegetables and the root and fruit vegetables in the 1993 study with concentrations higher in the leafy vegetables for most elements across the whole concentration ranges. Refer to Table 7.4.3.4.2 for a summary of the results presented in the 1993 report (MOE 1993b).

Table 7.4.3.4.2: Summary Statistics for Gatchell Residential Garden Vegetables collected in 1993

	As	Co	Cu	Fe	Pb	Mg	Ni	Se	Zn
Minimum	0.2	0.2	9	84	0.5	490	7	0.3	32
1st quartile	0.2	0.2	20	150	0.6	3100	14	0.3	33
Median	0.6	0.5	25	200	1	4300	21	0.5	45
3rd quartile	0.7	0.6	25	270	1.2	4900	25	0.7	67
Maximum	1.7	0.9	48	820	2.2	13000	31	1.8	94
Mean	0.6	0.5	25	270	1.1	5600	21	0.6	52

- there were 13 vegetables collected in Gatchell. Concentrations are in µg/g dry wt.

7.4.3.5 North Lively

The gardens in North Lively were not originally planned to be sampled. They were added at the request from the local Ministry office to investigate the potential of dust blowing off of tailings beside these residential properties. The concentrations of nickel, copper, cobalt and arsenic in the residential garden soils in North Lively where either similar or marginally lower than the concentrations in the adjacent yards. On two properties the lead concentrations were higher in the garden soil than the adjacent yards.Out of the three properties sampled there were no Table A criteria exceedences and only 4 nickel and two copper exceedences of the Table F criteria. Garden

soil concentrations of nickel ranged from 73 to 150 µ/g, copper from 60 to 120 µg/g, lead from 28 to 110 µg/g and arsenic from 5 to 9 µg/g. The nickel, copper, lead and arsenic concentrations in the North Lively garden soils were the lowest of all the community garden soils sampled. The influence of dust blowing off of the tailings on the concentrations in the soil was smaller than the smelter emissions in the other four communities. Refer to Table 7.4.3.5.1 for an abbreviated summary of the North Lively garden soil results, Section 10.3.2 for the full summary, and Appendix A for the individual results.

Table 7.4.3.5.1: Summary Statistics for Metals and Arsenic in Residential Garden Soil from North Lively in the City of Greater Sudbury

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	11000	0.4	2.5	60	0.4	7700	28	8	60	17000	28	4200	270	0.75	73	0.5	28	33	76
1st quartile	13000	0.4	2.5	76	0.4	8850	29	8	70	19500	33	4950	285	0.75	77	0.5	43	36	95
Median	14500	0.4	4.8	92	0.4	9950	33	8	101	21000	45	5900	310	0.75	111	0.5	49	39	97
3rd quartile	19500	0.6	8.0	115	0.4	12000	43	10	115	22500	87	6650	330	0.75	135	0.5	57	42	105
95th percentile	21650	1.0	8.7	127	0.7	13950	50	11	120	24300	104	6895	347	1.24	147	0.5	70	45	110
Maximum	22000	1.1	9.0	130	0.8	15000	50	11	120	25000	110	7000	350	1.50	150	0.5	72	46	110
Mean	15875	0.5	5.3	94	0.5	10538	36	9	94	21000	58	5775	309	0.84	109	0.5	50	39	97
CV (std. dev./mean)	25%	50%	57%	26%	31%	22%	25%	13%	26%	12%	55%	18%	9%	31%	30%	0%	28%	11%	11%
Skewness	0.6	1.8	0.1	0.2	2.8	0.9	1.0	1.4	-0.4	0.0	0.7	-0.5	0.1	2.8	0.0		0.3	0.2	-1

Number of samples n = 8 Concentrations are in µg/g dry wt.

There were 18 vegetable samples collected from the three residential gardens sampled in North Lively. One property had two large separate gardens. Nickel concentrations ranged from 5 to 110 µg/g with a mean of 23 µg/g. Copper ranged from 4 to 98 µg/g with a mean of 21 µg/g. Arsenic concentrations were <MDL for the majority of the samples with a maximum of 1.1 µg/g. Seven of the 21 vegetable samples were suspected of being contaminated with lead and nickel during sample processing. In addition, there were two lettuce samples with lead higher than 2.0 µg/g. These samples also had high concentrations of aluminum and vanadium. As previously mentioned, the higher concentrations of lead in the leafy vegetables is attributed to soil particles remaining on the samples after washing. It is more difficult to wash leafy vegetables than root or fruit type vegetables. The concentrations of nickel and copper in the North Lively garden vegetables were similar to the Gatchell and Coniston garden vegetables and lower than the Copper Cliff garden vegetables. An abbreviated summary of the Gatchell garden vegetable results is given in Table 7.4.3.5.2, refer to Section 10.3.4 and Appendix A for the detailed summaries and results.

Table 7.4.3.5.2: Summary Statistics for Metals and Arsenic in Lively Residential Garden Vegetables

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1.3	10	0.1	680	0.5	0.2	3.6	23	0.5	990	5	0.2	2.1	0.2	2	0.5	10
10th percentile	5	0.2	0.2	1.9	16	0.1	1047	0.5	0.2	8.8	48	0.5	1347	6	0.2	3.0	0.2	3.3	0.5	19
1st quartile	11	0.2	0.2	2.7	20	0.1	1600	0.5	0.2	10	68	0.7	1800	10	0.2	4.5	0.2	6.7	0.5	27
Median	35	0.2	0.2	10	24	0.2	3050	0.5	0.2	15	90	2.4	2850	14	0.5	6.0	0.2	11	0.5	34
3rd quartile	150	0.2	0.2	25	27	0.2	7500	1.1	0.3	26	210	42	4000	19	1.5	19	0.2	24	0.5	41
95th percentile	1057	0.3	0.5	42	33	1.2	15450	2.8	1.0	44	1440	96	7560	56	4.7	83	0.2	49	2.7	110
Maximum	2000	0.3	1.1	50	37	1.6	18000	4.9	1.9	98	2800	260	13000	110	5.7	190	0.3	67	4.6	110
Mean	221	0.2	0.3	14	24	0.3	5554	1.0	0.4	21	335	32	3449	21	1.4	23	0.2	19	0.9	41
CV (std. dev./mean)	223 %	15 %	78 %	99 %	27 %	139 %	96%	108 %	114 %	100 %	202 %	193 %	80%	118 %	128 %	193%	11%	95%	120%	68%
Skewness	3.2	2.7	3.6	1.3	0.0	2.8	1.3	3.1	3.5	3.2	3.3	3.3	2.6	3.1	1.6	3.3	4.2	1.5	3.3	1.8

Number of samples n = 18 Concentrations are in µg/g dry wt.

7.4.4 Market Garden and Residential Produce Comparisons

With the exception of lead, the removal of the data for the 12 residential garden vegetables suspected of being contaminated during sample processing have very little effect on the overall results. Summary statistics for all the residential garden vegetables, including the 12 samples in question, are given in Table 7.4.4.1. Table 7.4.4.2 consists of the same data with the 12 samples in question removed. There is little difference between the two summaries except for lead where there was a decrease from the 75th percentile and higher in the second set of results. For the rest of the discussion comparing the root, fruit and leafy vegetables and for comparing residential garden vegetables to the commercial market garden vegetables the results with the 12 samples removed will be used.

Table 7.4.4.1: Summary Statistics for Metals and Arsenic in All Residential Garden Vegetables Collected

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	120	0.5	0.2	2	15	0.5	290	2	0.2	0.5	0.2	0.5	0.5	2
10th percentile	5	0.2	0.2	0.7	7.0	0.1	838	0.5	0.2	5	26	0.5	840	5	0.2	2.1	0.2	1.2	0.5	10
1st quartile	6	0.2	0.2	1.4	11	0.1	1400	0.5	0.2	6	40	0.5	1200	8	0.2	4.5	0.2	2.4	0.5	15
Median	18	0.2	0.2	5.1	18	0.2	2700	0.5	0.2	9	80	0.5	2150	13	0.5	8.8	0.2	7.4	0.5	27
3rd quartile	82	0.2	0.4	14	23	0.3	5450	0.8	0.4	18	145	1.5	3500	23	1.1	23	0.4	16	0.5	44
95th percentile	620	0.2	1.4	35	33	0.8	19000	2.4	1.9	64	1065	39	6265	88	4.4	54	3.0	43	1.6	89
Maximum	2000	0.4	9.0	60	45	2.0	31000	6.4	4.9	230	2800	260	13000	380	17.0	190	22	67	5.1	300
Mean	135	0.2	0.5	10	18	0.3	5382	0.9	0.5	18	217	7.1	2684	26	1.2	18	0.8	12	0.7	34
CV (std. dev./mean)	237 %	11 %	179 %	125 %	48 %	116 %	118%	107 %	135 %	157 %	201 %	383 %	77%	183 %	181 %	146 %	298 %	111 %	100%	95%
Skewness	3.9	7.1	7.8	2.1	0.6	3.4	1.9	4.0	3.7	4.6	3.9	6.9	2.0	5.8	4.5	3.9	6.5	1.7	4.5	4.3

Number of samples n = 148 Concentrations are in µg/g dry wt.

Table 7.4.4.2: Summary Statistics for Metals and Arsenic in All Garden Vegetables Collected minus Root and Shoot >2.5 µg/g Lead

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	120	0.5	0.2	2	15	0.5	290	2.2	0.2	0.5	0.2	0.5	0.5	2
10th percentile	5	0.2	0.2	0.6	7	0.1	830	0.5	0.2	4	26	0.5	815	5.1	0.2	2	0.2	1.2	0.5	9
1st quartile	6	0.2	0.2	1.4	11	0.1	1400	0.5	0.2	6	40	0.5	1200	7.5	0.2	4.5	0.2	2.3	0.5	15
Median	18	0.2	0.2	5.1	18	0.2	2500	0.5	0.2	8	74	0.5	2250	13	0.5	8.2	0.2	7.1	0.5	26
3rd quartile	82	0.2	0.4	12	23	0.3	6350	0.8	0.4	18	145	1.1	3600	25	1.1	22	0.4	16	0.5	44
95th percentile	668	0.2	1.4	38	33	0.9	19250	2.4	1.9	63	1100	5.4	6325	96	4.8	52	3.3	42	1.8	87
Maximum	2000	0.4	9.0	60	45	2	31000	6.4	4.9	230	2800	38	13000	380	17	180	22	67	5.1	300
Mean	143	0.2	0.5	9.9	18	0.3	5561	0.9	0.5	18	227	1.8	2726	27	1.3	17	0.9	12	0.7	34
CV (std. dev./mean)	233 %	9%	184 %	128 %	49 %	116 %	118%	109 %	137 %	161 %	200 %	269 %	78%	182 %	180 %	136 %	292 %	114 %	101 %	98 %
Skewness	3.8	11.7	7.8	2.2	0.6	3.3	1.8	3.8	3.7	4.7	3.8	5.5	1.9	5.6	4.3	3.9	6.2	1.7	4.3	4.3

Number of samples n = 136 Concentrations are in µg/g dry wt.

All of the residential garden vegetable data from the 5 communities was combined and then split into root, fruit (beans, tomatoes, etc.), and leafy vegetables in Tables 7.4.4.3 through 7.4.4.5. There was little difference between the root and fruit vegetables. Arsenic, cadmium, chromium, cobalt, copper, iron, lead, manganese and vanadium concentrations are the same over the whole concentration range. Magnesium, nickel, selenium and zinc are marginally higher in the fruit vegetables at the higher end of the concentration ranges.

There was a large difference between the root and fruit vegetables and the leafy vegetables. All elements in the leafy vegetables have substantially higher concentrations over the whole concentration range than the roots and fruits. For most elements it was only the minimum concentrations that were the same in all three types. While some of the differences can be due to the leafy parts of the plants taking up more metals then the reproducing fruit and root storage parts of the plants, a lot of it can be attributed to the difficulty in washing all of the soil off of leafy

vegetables. The higher concentrations of aluminum and vanadium in the leafy vegetables and the correlation of the ratios of these two elements in the leaves with their ratios in the soil are highly indicative of soil particles not being removed in normal household type washing of leafy vegetables.

Table 7.4.4.3: Summary Statistics for Metals and Arsenic in All Residential Root Vegetables Collected minus >2.5 µg/g Lead

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	120	0.5	0.2	2.6	21	0.5	290	3.4	0.2	0.8	0.2	0.5	0.5	2
10th percentile	8	0.2	0.2	0.7	5.0	0.1	270	0.5	0.2	4.4	29	0.5	870	4.9	0.2	1.7	0.2	0.8	0.5	10
1st quartile	13	0.2	0.2	2.4	8.0	0.1	1300	0.5	0.2	5.5	36	0.5	1150	5.9	0.2	2.5	0.2	1.8	0.5	14
Median	28	0.2	0.2	6.3	14	0.1	1700	0.5	0.2	6.8	69	0.5	1400	8.3	0.2	5.2	0.2	5.9	0.5	17
3rd quartile	59	0.2	0.2	17	18	0.2	2350	0.5	0.2	8.9	100	0.6	1750	17	0.4	8.2	0.2	9.3	0.5	28
95th percentile	87	0.2	0.5	32	23	0.3	3475	0.6	0.4	16	143	1.4	2700	110	0.6	18	0.5	12	0.5	42
Maximum	120	0.2	0.7	60	24	0.4	5600	0.9	0.5	27	160	1.6	3200	380	1.2	26	3.0	18	0.5	56
Mean	38	0.2	0.2	11	13	0.2	1788	0.5	0.2	8.0	73	0.7	1488	28	0.3	6.6	0.3	5.9	0.5	20
CV (std. dev./mean)	79%	0%	47%	121%	46%	51%	63%	13%	31%	57%	54%	48%	45%	236%	66%	85%	153%	72%	0%	58%
Skewness	0.9		3.6	2.3	0.1	1.3	1.0	5.1	3.1	2.4	0.5	2.1	0.6	4.7	2.8	1.9	5.8	0.6		1.3

Number of samples n = 36 Concentrations are in µg/g dry wt.

Table 7.4.4.4: Summary Statistics for Metals and Arsenic in All Residential Fruit Vegetables Collected minus >2.5 µg/g Lead

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	490	0.5	0.2	1.9	15	0.5	310	2.2	0.2	0.5	0.2	0.7	0.5	4
10th percentile	5	0.2	0.2	0.6	8	0.1	949	0.5	0.2	4.5	25	0.5	788	5.7	0.2	2.4	0.2	1.3	0.5	9
1st quartile	5	0.2	0.2	1.1	12	0.1	1500	0.5	0.2	5.6	40	0.5	1200	9.4	0.4	5.4	0.2	2.3	0.5	17
Median	12	0.2	0.2	4.9	19	0.2	4300	0.5	0.2	10	81	0.5	3050	15	0.7	11	0.2	8.0	0.5	32
3rd quartile	160	0.2	0.6	12	26	0.3	12000	1.1	0.6	23	235	1.4	4250	30	1.6	26	0.6	22	0.5	47
95th percentile	900	0.2	1.6	37	34	1.1	20050	3.2	2.0	65	1220	8.0	6675	69	6.1	53	4.8	43	2.4	96
Maximum	2000	0.4	9.0	59	45	2.0	31000	6.4	4.9	230	2800	38	13000	370	17	180	22	67	5.1	300
Mean	181	0.2	0.5	9.6	19	0.3	6920	1.0	0.6	21	282	2.2	3171	27	1.6	20	1.1	14	0.8	39
CV (std. dev./mean)	211%	10%	179%	132%	46%	115%	103%	107%	130%	154%	184%	253%	73%	157%	160%	125%	272%	107%	105%	95%
Skewness	3.1	10.0	6.8	2.1	0.5	2.8	1.3	3.2	3.2	4.1	3.1	4.7	1.6	6.1	3.7	3.4	5.4	1.3	3.6	3.9

Number of samples n = 100 Concentrations are in µg/g dry wt.

Table 7.4.4.5: Summary Statistics for Metals and Arsenic in All Residential Leafy Vegetables Collected

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	18	0.2	0.2	1.2	5	0.1	1200	0.5	0.2	6	41	0.5	1200	4	0.2	3.4	0.2	1.2	0.5	17
10th percentile	49	0.2	0.2	7.5	17	0.2	4540	0.6	0.2	14	120	0.5	2880	14	0.3	7.2	0.2	14	0.5	26
1st quartile	84	0.2	0.3	10	20	0.3	9650	0.7	0.3	20	170	0.7	3400	17	0.4	10	0.2	20	0.5	40
Median	270	0.2	0.6	16	26	0.4	14000	1.3	0.5	26	370	1.7	4400	31	0.9	23	0.6	27	0.6	46
3rd quartile	600	0.2	1.3	30	31	0.7	19000	2.4	1.2	58	885	4.1	6150	48	1.7	50	1.3	41	1.5	78
95th percentile	1660	0.2	2.3	52	39	1.6	24400	5.1	2.6	136	2400	24	9200	73	3.4	93	4.2	50	4.2	110
Maximum	2000	0.4	9.0	59	45	2.0	31000	6.4	4.9	230	2800	38	13000	110	6.5	180	5.3	67	5.1	300
Mean	462	0.2	1.0	21	26	0.6	14230	1.8	0.9	45	665	5.0	5084	36	1.3	33	1.0	29	1.3	61
CV (std. dev./mean)	112%	16%	142%	71%	32%	81%	48%	87%	109%	100%	106%	172%	48%	63%	100%	106%	127%	47%	95%	79%
Skewness	1.7	6.1	4.5	1.2	0.0	1.6	0.2	1.7	2.4	2.7	1.7	2.7	1.6	1.3	2.4	2.6	2.2	0.5	1.9	3.7

Number of samples n = 37 Concentrations are in µg/g dry wt.

While there were considerably fewer commercial market garden samples collected compared to the residential samples, a similar pattern was observed between the root, fruit and leafy market garden vegetables. Refer to Tables 7.4.4.6 through 7.4.4.8. Arsenic, cadmium, chromium, cobalt copper, iron, lead, manganese, selenium, vanadium and zinc concentrations over the whole concentration range were very similar in both the market garden root and fruit vegetables. The concentrations of nickel in the fruit vegetables were approximately twice the concentration in the root vegetables. In the leafy market garden vegetables the concentrations of every element except for nickel, selenium and zinc where higher than either the root or fruit vegetables. The difference was not as great for cadmium, chromium, copper or lead as was observed in the residential garden vegetables but this would be expected as the concentrations of these elements in the market garden soils were lower

than in the residential soils. The aluminum, barium, magnesium, manganese, and vanadium concentration ranges in the market garden leafy vegetables were similar to the residential leafy vegetable concentration ranges. This would be expected as these are not elements associated with smelter emissions and all the samples were washed the same way and therefore, all of the soil particles
would not have been removed.

Table 7.4.4.6: Summary Statistics for Metals and Arsenic in Market Garden Root Vegetables Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	15	0.2	0.2	0.5	6.0	0.1	220	0.5	0.2	5.9	26	0.5	1100	3.7	0.2	0.5	0.2	0.6	0.5	12
10th percentile	21	0.2	0.2	0.5	6.0	0.1	256	0.5	0.2	6.8	46	0.5	1100	4.8	0.2	0.6	0.2	0.6	0.5	13
1st quartile	35	0.2	0.2	0.6	7.0	0.2	310	0.5	0.2	7.8	55	0.5	1100	7.9	0.2	1.0	0.2	0.9	0.5	16
Median	96	0.2	0.2	1.1	9.0	0.3	540	0.5	0.2	8.3	130	0.5	1250	9.7	0.2	3.7	0.2	1.4	0.5	20
3rd quartile	150	0.2	0.2	25	19	0.8	2400	0.7	0.3	10	210	0.5	1900	23	0.2	11	0.2	11	0.5	31
95th percentile	1053	0.2	0.9	80	24	2.2	1365	2.9	1.0	17	1143	2.4	1395	213	1.0	17	0.2	39.2	2.6	38
Maximum	370	0.2	0.3	41	28	1.0	2800	1.2	1.1	16	390	0.8	3200	110	1.1	21	0.2	15	0.9	35
Mean	110	0.2	0.2	12	13	0.4	1156	0.6	0.3	9.2	147	0.5	1671	24	0.3	6.0	0.2	5.2	0.5	22
CV (std. dev./mean)	86%	0%	17%	123%	58%	80%	89%	33%	80%	30%	69%	17%	44%	130%	95%	101%	0%	108%	20%	37%
Skewness	1.6		2.3	0.9	0.8	1.0	0.6	2.1	2.8	1.5	1.0	2.5	1.3	2.2	2.2	1.4		0.8	3.7	0.3

14 of the 44 vegetables samples collected were root vegetables. Concentrations are in µg/g dry wt.

Table 7.4.4.7: Summary Statistics for Metals and Arsenic in Market Garden Fruit Vegetables Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5.0	0.2	0.2	0.5	11	0.1	380	0.5	0.2	4.0	23	0.5	1100	7.1	0.2	0.5	0.2	0.5	0.5	12
10th percentile	5.0	0.2	0.2	0.6	13	0.1	930	0.5	0.2	5.8	32	0.5	1410	9.0	0.2	1.6	0.2	1.0	0.5	14
1st quartile	5.0	0.2	0.2	1.5	14	0.1	1500	0.5	0.2	6.7	51	0.5	1700	13	0.3	3.3	0.2	3.6	0.5	19
Median	9.0	0.2	0.2	4.1	16	0.1	3150	0.5	0.2	8.8	67	0.5	2750	18	0.4	8.6	0.2	5.5	0.5	30
3rd quartile	35	0.2	0.2	7.4	19	0.1	4400	0.5	0.4	11	96	0.5	3400	25	0.7	18	0.2	9.2	0.5	40
95th percentile	58	0.2	0.2	14	26	0.4	4795	0.8	1.1	14	186	0.5	3795	85	2.2	45	0.2	13	0.5	56
Maximum	120	0.2	0.2	14	27	0.5	5100	0.8	1.1	14	200	0.5	3900	93	2.6	45	0.2	14	0.5	61
Mean	24	0.2	0.2	5.0	17	0.1	2912	0.6	0.4	8.9	78	0.5	2568	27	0.6	14	0.2	6.4	0.5	30
CV (std. dev./mean)	114%	0%	0%	83%	26%	73%	51%	19%	78%	30%	58%	0%	36%	91%	102%	107%	0%	67%	0%	46%
Skewness	2.2			0.9	0.9	2.7	-0.2	1.6	1.6	0.2	1.6		-0.1	1.9	2.5	1.2		0.2		0.7

22 of the 44 vegetable samples collected were fruit vegetables. Concentrations are in µg/g dry wt.

Table 7.4.4.8: Summary Statistics for Metals and Arsenic in Market Garden Leafy Vegetables Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	31	0.2	0.2	3.1	14	0.3	8300	0.5	0.2	11	92	0.5	3800	23	0.2	3.2	0.2	9.7	0.5	28
10th percentile	66	0.2	0.2	4.4	16	0.3	9280	0.5	0.2	11	119	0.5	4220	27	0.2	5.0	0.2	11	0.5	29
1st quartile	96	0.2	0.3	9.0	18	0.4	9800	0.6	0.3	12	155	0.5	4450	70	0.2	6.0	0.2	12	0.5	30
Median	170	0.2	0.4	19	19	1.6	1050	0.8	0.6	15	255	0.5	5300	150	0.2	8.6	0.2	22	0.5	33
3rd quartile	540	0.2	0.7	45	21	2.0	1200	1.4	0.9	16	580	1	9250	180	0.7	16	0.2	31	1.3	34
95th percentile	1053	0.2	0.9	80	24	2.2	1365	2.9	1.0	17	1143	2.4	1395	213	1.0	17	0.2	39	2.6	38
Maximum	1200	0.2	1.0	92	25	2.3	1400	3.4	1.1	17	1300	3.1	1500	230	1.1	17	0.2	43	2.9	40
Mean	355	0.2	0.5	30	19	1.3	1086	1.2	0.6	14	422	0.9	7100	132	0.4	10	0.2	23	1.0	33
CV (std. dev./mean)	117%	0%	59%	102%	17%	65%	17%	88%	56%	16%	101%	96%	58%	56%	82%	53%	0%	53%	91%	11%
Skewness	1.6		0.9	1.5	0.6	-0.3	0.6	2.0	0.3	-0.4	1.6	2.6	1.4	-0.6	1.4	0.3		0.5	1.8	1.1

8 of the 44 vegetable samples collected were leafy vegetables. Concentrations are in µg/g dry wt.

In general the concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and zinc in the Commercial Market garden vegetables, Table 7.4.1.1.2, were lower than the concentrations of these elements in the residential garden vegetables, Table 7.4.4.1. The main difference is at the high end of the concentration ranges. There is an overlap of about seventy five percent in the ranges for nickel

and copper between market gardens and residential gardens. Nickel in the market garden samples range from 0.5 to 45 μg/g while the residential vegetable range from 0.5 to 180 μ/g. At the 75th percentile the nickel concentration in residential vegetables is 22 μg/g which is lower than the maximum market garden concentration. Similar patterns are observed in the other elements. The maximum concentration for copper in the market garden vegetables is the same as the 75th percentile concentration in the residential garden samples.

7.4.5 Sudbury Produce Summary

The preliminary sampling of commercial and residential produce done in 2001 shows a pattern of elevated concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and selenium in produce with the produce concentrations increasing as the concentration of these elements increase in the soil. While the concentration of these elements are relatively low in the commercial market garden vegetables they are still higher than the market garden controls. Approximately 25% of the residential garden vegetable samples are higher than the commercial market garden vegetables for these elements.

Leafy vegetables have higher a concentration of all elements compared to root and fruit vegetables mainly due to the inadequate removal of all soil from these vegetables during normal household washing practices. This is not a concern for the commercial market gardens sampled in this study as the concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and selenium in their soil are low and the impact on vegetation is much less.

Generally, metals and arsenic concentrations in the commercial and wild blueberries were relatively low. However, concentrations of nickel in the commercial berry farm produce and concentrations of nickel and copper in the wild blueberry samples were elevated above the control samples.

The concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and selenium in residential garden soils in the communities sampled are elevated but in general they are lower than the highest concentrations found in the adjacent yards. The highest garden soil concentrations were found in Falconbridge followed by Copper Cliff, Coniston, Gatchell and then Lively. Market garden soils were lower than all of five community residential garden soils.

This study shows that concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and selenium are elevated in produce grown in the Sudbury area. Therefore a thorough sampling program needs to be carried out in the City of Greater Sudbury by the consultants doing the human health risk assessment. Sufficient samples, both number of samples and size of samples, need to be collected appropriately throughout the growing season from residential gardens, commercial market gardens, berry farms and wild blueberry patches to provide an accurate data base of information for inclusion in the human health risk assessment. The study should address the limitations of this study outlined above. The data collected in this preliminary study should not be used in the human health risk study due to the limitations outlined above.

7.5 Summary

In total, 6,734 soil samples were collected from 770 properties in the City of Greater Sudbury including: 16 commercial agriculture properties, 139 schools/daycares (104/35 respectively), 169 parks and 439 residential properties. Additionally, 245 produce samples were collected from 52 residential gardens and agricultural operations. Three main types of soil samples were collected: Soil, Sand and Gravel, and four types of produce samples: Root Vegetables, Fruit Vegetables, Leafy Vegetables and Berries.
For discussion purposes, sample locations were organized by local community or geographic location within the City of Greater Sudbury. Twenty four local communities or geographic groupings were ranked from highest to lowest using surface soil nickel concentrations. Six major groupings of communities were identified based on similar soil metal and arsenic concentrations. The six community groupings were Outer Sudbury Communities, Inner Sudbury Communities, Sudbury Core, Coniston, Falconbridge and Copper Cliff.

All laboratory analysis was completed at either Lakefield Research Laboratories or at Laboratory Services Branch of the MOE . Soil and produce samples were analyzed for the following elements: aluminum, antimony, arsenic, barium, beryllium, calcium, cadmium, cobalt, copper, chromium, iron, magnesium, manganese, molybdenum, nickel, lead, selenium, strontium, vanadium, and zinc. In addition, approximately 10% of the soil samples were analyzed for pH, electrical conductivity (EC) and total organic content (TOC). Produce samples were also analyzed for sulphur, boron, chlorine, and potassium.

Sample Type

The Soil sample type made up 88% of the soil (soil, sand, gravel) samples collected. This group was further subdivided into Urban Soil (developed, grassed areas, 85% of the total number of soil samples), Urban Garden Soil (residential vegetable gardens, 1% of the soil samples), Agricultural Soil (commercial market garden and berry farms, 1% of the soil samples) and Undisturbed Natural Soil (undeveloped, naturally vegetated areas, 1% of the soil samples).

The Sand sample type comprised 9% of the total number of soil samples collected and was subdivided into Play Sand (8% of the total number of soil samples) and Beach Sand (1 % of the total number of soil samples). The Gravel sample type comprised 4% of the total soil samples collected and was subdivided into Crushed Stone and Playground Gravel, each comprising 2% of the total number of soil samples collected.

Garden produce was sampled at residential properties and commercial operations. Residential gardens were sampled in Coniston, Falconbridge, Copper Cliff, Gatchell and Lively. Commercial operations sampled included commercial berry farms, wild blueberry patches and market garden produce growers. The Root Vegetable sample type comprised 24%, the Fruit Vegetable sample type 39%, Leafy Vegetable sample type 19% and the Berries sample type 18%, of the total number of produce samples collected.

Comparison to MOE Criteria

Soil results were compared to the MOE Table F and A criteria as referenced in the Ministry document *Guideline for Use at Contaminated Sites in Ontario* (MOE 1997). The Table F guidelines represent background soil concentrations obtained from a MOE province-wide parkland sampling program. The Table A soil guidelines are effects-based and were derived to protect both human health and the natural environment.

Overall, only nickel, copper, cobalt, arsenic, lead and selenium soil concentrations exceeded Table A in the City of Greater Sudbury. Concentrations of at least some of these elements were elevated above Table A in all community groupings, in all sample types, at all depths and in all land uses. The six elements noted above plus cadmium, chromium, iron, zinc, antimony, molybdenum, barium and vanadium also exceeded Table F in the City of Greater Sudbury. The number of Table A and F exceedances were highest in Falconbridge and Copper Cliff and decreased with increased distance from these communities. Ninety-nine percent of the soil, sand and gravel pH results were within the pH range prescribed in Table A.

Urban Soil

Generally in urban soil, metal and arsenic concentrations were higher in residential properties compared to park and school properties, at all depths. With one exception, this pattern was observed in Copper Cliff, Falconbridge, Coniston, the Sudbury Core and to a lesser extent, the Inner Sudbury Communities. In the Outer Sudbury Communities, concentrations were similar between all three land uses. The only exception was in Copper Cliff where concentrations were similar between residential and park properties at surface. Concentrations in all three land uses were highest in Falconbridge or Copper Cliff and decreased with distance from these communities. It should be noted that there were only a small number of school and park properties present within Coniston, Falconbridge and Copper Cliff and only a small number of residential properties sampled within the Outer Sudbury Communities. Comparisons, therefore, between land uses in these community groupings were limited.

Generally, metal and arsenic concentrations in urban soil were highest, at all depths, in Falconbridge or Copper Cliff. Copper, lead, selenium, zinc and barium concentrations were highest in Copper Cliff while cobalt, arsenic, cadmium, iron and chromium concentrations were highest in Falconbridge. Only nickel concentrations generally remained similar between these two communities. Elevated concentrations of cobalt, lead and zinc were also present in the Sudbury Core and / or Coniston. Urban soil metals and arsenic concentrations, at all depths, generally decreased towards the Outer Sudbury Communities Refer to Figures 7.5.1 through 7.5.4. Note that OC refers to Outer Communities, IC Inner Communities, SC Sudbury Core, CO Coniston, FA Falconbridge and CC Copper Cliff.

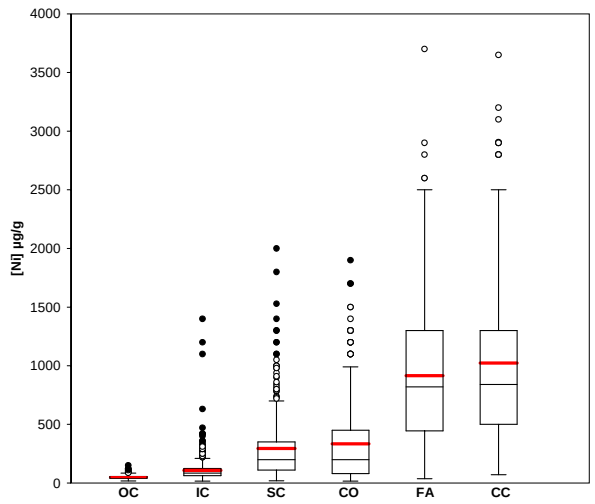


Figure 7.5.1 Nickel, 0 to 5 cm, in Urban Soil, by Communities

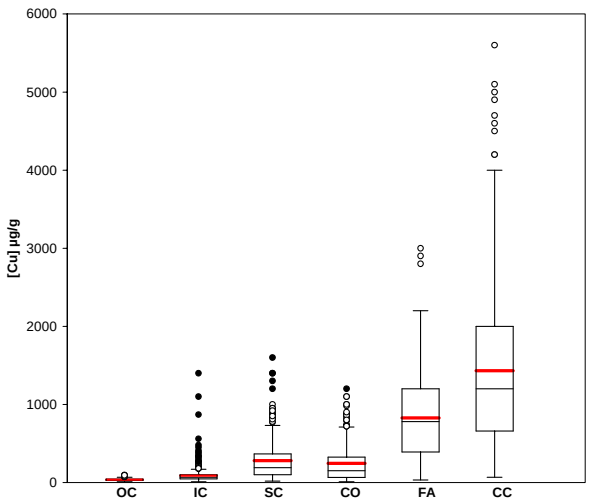


Figure 7.5.2: Copper, 0 to 5 cm, in Urban Soil, by Communities

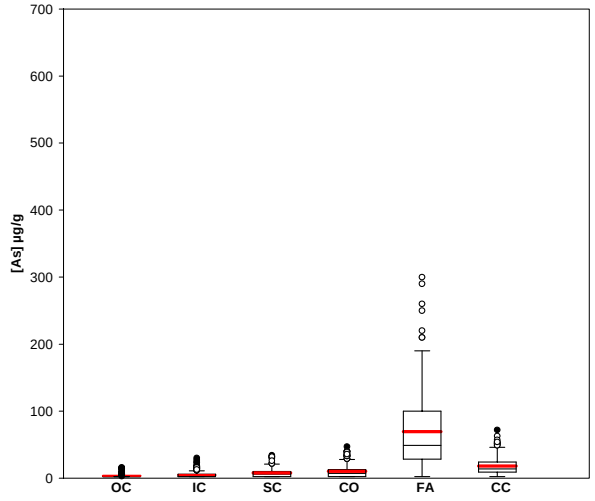


Figure 7.5.3: Arsenic, 0 to 5 cm, in Urban Soil, by Communities

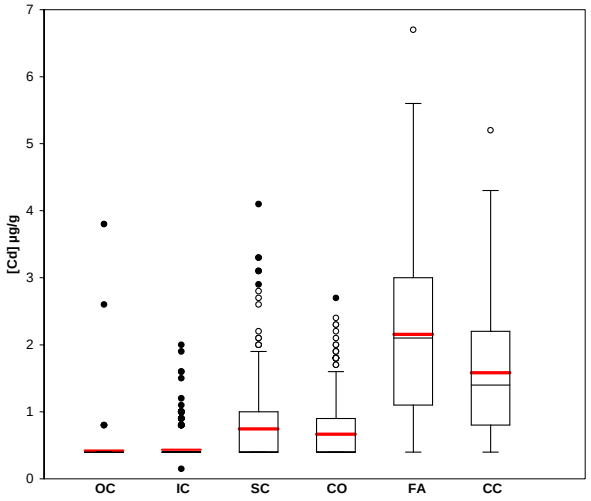


Figure 7.5.4: Cadmium, 0 to 5 cm, in Urban Soil, by Communities

With aerial deposition of metals and arsenic onto soil there should be a pattern of decreasing concentration with increasing soil depth. In urban soil, nickel, copper and lead showed strong trends of aerial deposition from surface in all community groupings but this trend weakened slightly with distance from Copper Cliff and Falconbridge. Aerial deposition trends for cobalt, arsenic, cadmium, selenium, chromium, iron and zinc were weak in the Outer and Inner Sudbury Communities, however, became stronger closer to Falconbridge and Copper Cliff. The percentage of sample locations that showed a trend of aerial deposition varied between community groupings from approximately fifty percent in the Outer Sudbury Communities, Coniston and Falconbridge to 62% in Copper Cliff and between 70 to 80% in the Sudbury Core and the Inner Sudbury Communities. In Falconbridge, only a small percentage of sample locations exhibited this trend for arsenic while 62% and 85% of sample locations exhibited this trend for chromium and cadmium, respectively. In Copper Cliff, 80% of sample locations exhibited this trend for selenium while arsenic did not show this trend at all. These differences between elements may be attributed to numerous factors including element form, element mobility, smelter process changes and differing chemical

composition of the ore over time. The high percentage of elevated cadmium concentrations in Falconbridge and selenium concentrations in Copper Cliff, at surface, may be the result of a recent change in process or source of ore.

Depending on the community grouping, in the remaining 20 to 50% of the sample locations the maximum element concentrations were present below surface in urban soil. Elevated concentrations, at these sample locations, may still be attributed to aerial deposition, however, the aerial deposition may have been buried by landscaping practices at individual properties over time. Similar to aerial deposition from surface, trends of buried contamination were stronger closer to Falconbridge and Copper Cliff. More than half of the sample locations in the Outer Sudbury Communities, Coniston and Falconbridge showed evidence of buried contamination while smaller percentages of sample locations showed this trend in the Inner Sudbury Communities, the Sudbury Core or Copper Cliff. For arsenic in Falconbridge, 80% of the sample locations showed evidence of buried contamination. The high concentrations of arsenic below the surface in Falconbridge may be the result of high element mobility, differences in soil type, and/or higher historic arsenic emissions. In addition to the effect of landscaping practices in Coniston, a majority of sample locations may show evidence of buried contamination due to the absence of an ongoing emissions source. The smelter in Coniston ceased operation in 1972 while the smelters are still active in Falconbridge and Copper Cliff.

In urban soil, statistical correlations between nickel, copper, cobalt, arsenic, lead, cadmium, selenium, iron, chromium, zinc and barium were strongest and most numerous in Coniston, Falconbridge and Copper Cliff. The strength and number of these correlations decreased in all directions from the smelter communities. Generally, the strength and number of these correlations, with the exception of Falconbridge, decreased with depth. In the Outer Sudbury Communities, nickel and copper concentrations only correlated strongly with each other while in Coniston, Falconbridge and Copper Cliff, correlations were strong and numerous between the ten to eleven elements listed above. In contrast, Ontario background concentrations of nickel, cobalt and copper generally correlate with elements such as aluminum, barium, chromium, iron and vanadium. Since, nickel and copper concentrations were not strongly correlated with aluminum and vanadium in any of the community groupings and the overall strength and number of the correlations increased with proximity to the smelter operations, nickel, copper, cobalt, arsenic, lead, cadmium, selenium, iron, chromium, zinc and barium appear to be elevated due to emissions from the mining and smelting operations.

Aluminum, barium, iron, manganese, and vanadium appeared to be indicative of the natural chemistry of the soil in the City of Greater Sudbury. In all of the community groupings, except Falconbridge, correlations of naturally occurring elements increased in strength and number with depth indicating the presence of less disturbed soil. In Falconbridge, correlations of the naturally occurring elements remained moderate but relatively constant with depth. These correlations, along with the high element concentrations and large number of Table A and F exceedences, indicated that the soil at depth was still relatively disturbed in Falconbridge. Based on this evidence, urban soil sampling in Falconbridge did not fully delineate the vertical extent of elevated concentrations related to smelter emissions.

Figures 7.5.5 and 7.5.6 show the distribution of aluminum and vanadium concentrations at surface in all communities. Unlike other elements, the range of concentrations, mean and median for

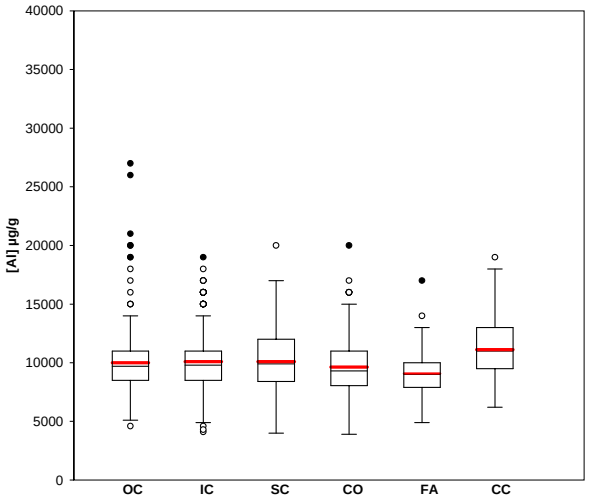


Figure 7.5.5: Aluminum, 0 to 5 cm, in Urban Soil, by Communities

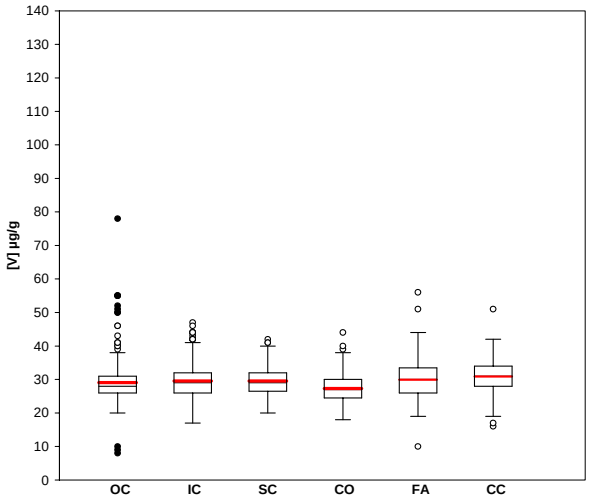


Figure 7.5.6: Vanadium, 0 to 5 cm, in Urban Soil, by Communities

aluminum and vanadium tended to be similar between community groupings. These concentration distributions further indicate that these elements do not appear to be associated with smelter emissions and are likely indicators of the natural chemistry of the soil in the City of Greater Sudbury. Refer to Section 10.3.5 for a complete set of box and whisker graphs comparing element concentrations between community groupings in urban soil.

Sand and Gravel

Generally, the concentrations of metals and arsenic in play and beach sand were quite low. Nickel and copper were the only elements that showed a consistent pattern of elevation in the sand sample type. Both nickel and copper were above Table F in many sand samples, however, only nickel concentrations exceeded Table A and in only a small number of samples. Nickel and copper concentrations in all sand samples were below 1000 µg/g. Arsenic was the only other element in the sand samples that exceeded Table A. Only one play sand sample in Falconbridge exceeded Table A, although three other play sand samples in Falconbridge had elevated arsenic concentrations. Arsenic concentrations in all of these play sand samples were below the adjacent soil concentrations.

Generally, the concentrations of metals and arsenic in the gravel sample type (fine particles only) were quite low. Only nickel and copper exceeded Table A for the gravel sample type. The concentrations of metals and arsenic in the playground gravel samples were essentially the same as the park, school and daycare 0 - 5 cm soil samples. Park, school and daycare 0 - 5 cm soil samples were higher than the playground gravel samples at high concentrations only because there were no gravel playgrounds in either Copper Cliff or Falconbridge where the highest soil levels were found. The metals and arsenic concentrations of the ballfield crushed stone samples were in between the play sand and playground gravel concentrations.

Overall, for play sand, beach sand, playground gravel and ballfield crushed stone the highest concentrations of nickel and copper were found in Copper Cliff, Coniston, Falconbridge and the Sudbury Core with the next highest concentrations in the Inner Sudbury Communities. The Outer Sudbury Communities had the lowest concentrations. The range of metals and arsenic concentrations in the sand and gravel samples was considerably less than that observed in urban soil. This is likely

the result of sand and gravel being imported for landscaping purposes. Exposure to aerial deposition of metals and arsenic, therefore, was over a shorter period of time compared to adjacent soil.

Undisturbed Natural Soil

Undisturbed natural soil samples were collected from seven sampling locations in the Inner Sudbury Communities and the Sudbury Core. Surface soil concentrations of nickel, copper, cobalt, arsenic, lead, cadmium, selenium, iron and zinc were higher in the undisturbed natural soil than in urban soil collected from adjacent sampling locations. These elements, with the exception of zinc, were also higher in the undisturbed natural soil compared to urban soil collected throughout both the Inner Sudbury Communities and the Sudbury Core. At depth, concentrations of these elements in undisturbed natural soil were generally similar to or lower than concentrations in adjacent urban soil or in urban soil collected throughout the Inner Sudbury Communities and the Sudbury Core. The pH in undisturbed natural soil was lower than the pH in adjacent sand and urban soil samples.

In the undisturbed natural soil samples, nickel, copper, cobalt and arsenic concentrations exceeded Table A at surface and / or 5 - 10 cm. No Table A exceedences for any element were noted at 10 - 20 cm. No other elements exceeded Table A at any depth while nine elements exceeded Table F. Nickel, copper, cobalt, arsenic, lead, selenium, cadmium and iron showed a strong visual trend of decreasing concentration with depth consistent with aerial deposition. Unlike in the urban soil samples, trends of maximum concentrations occurring at either 5 - 10 cm or 10 - 20 cm were not generally observed for the undisturbed natural soil. This may be the result of minimal disturbances occurring at the undisturbed natural soil sample locations resulting in metals and arsenic accumulation at surface or due to the small sample size. Average aluminum, and to a lesser extent chromium and vanadium concentrations, showed a trend of increasing concentration with depth consistent with less disturbed soil at depth. Average zinc concentrations showed no observable change with depth.

Produce

The preliminary sampling of commercial and residential produce done in 2001 shows a pattern of elevated concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and selenium in produce in the City of Greater Sudbury. The concentrations in produce increased with increasing concentrations of these elements in the surrounding garden soil. In the commercial market garden produce, the concentrations of these elements were relatively low, but were still higher than the market garden controls. Concentrations of these elements were higher in approximately 25% of the residential garden produce samples compared to the commercial market garden produce samples.

Leafy vegetables had higher concentrations of all elements compared to root and fruit vegetables mainly due to the inadequate removal of all soil from these vegetables during normal household washing practices. This is not an issue for the commercial market gardens sampled in this study as the concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and selenium in soil were low and therefore the impact would be expected to be much less.

Generally, metals and arsenic concentrations in the commercial and wild blueberries were relatively low. However, concentrations of nickel in the commercial berry farm produce and concentrations of nickel and copper in the wild blueberry samples were elevated above the control samples.

The concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and selenium in residential garden soils in the communities sampled were elevated but in general were lower than the highest concentrations found in the adjacent yards. The highest garden soil concentrations were found in Falconbridge followed by Copper Cliff, Coniston, Gatchell and then Lively. Nickel, copper, cobalt, arsenic, lead and selenium all exceeded Table A in garden soil in at least one community. No Table A exceedances were present in Lively while at minimum nickel and copper exceeded Table A in the rest of the communities. Market garden soils were lower than all of the five community residential garden soils and did not exceed Table A. Only nickel in market garden soil exceeded Table F. Soil at the wild blueberry patches exceeded both Table A and F while soil at the commercial berry farms only exceeded Table F.

8.0 CONCLUSIONS & RECOMMENDATIONS

Based on a review of historical sampling programs in the Sudbury area, the Ministry determined that additional sampling was warranted with regards to residential and publically- accessible urban green spaces within the City of Greater Sudbury. Soil and produce samples were collected by Ministry representatives during the period of July to November 2001 throughout the City of Greater Sudbury.

The scope of the soil study was not to exhaustively characterize the metal and arsenic concentrations at all possible sample locations within each property, rather it was to collect soil data that was representative of each sampled property. The need for further and more intensive sampling will be decided by the consultants and Technical Committee carrying out and overseeing the human health and ecological risk assessments currently underway in the City of Greater Sudbury. Ministry recommendations on potential areas requiring further investigation have been provided in Section 8.2.

8.1 Conclusions

The following conclusions can be drawn in response to the six study objectives listed below.

Objective #1 *To provide a screening level assessment of metal and arsenic concentrations in the upper 20 centimetres of soil within the City of Greater Sudbury;*

- This objective was met as sufficient data in the upper 20 centimetres of soil was collected to provide a screening level assessment of the spatial distribution of metals and arsenic concentrations across the City of Greater Sudbury.

In total, 6,734 soil samples were collected from 770 properties in the City of Greater Sudbury in four land uses (residential, schools, parks and agricultural). Three main types of soil samples were collected (soil, sand and gravel) to a maximum depth of 20 centimetres. Representative soil samples were collected from 24 local communities or geographic groupings within the City of Greater Sudbury.

Objective #2 *To determine if localized areas of higher metals and arsenic concentrations exist in the upper 20 centimetres of soil within the City of Greater Sudbury;*

- This objective was also met as substantial differences were noted in metals and arsenic concentrations between geographic areas, soil sample types and land uses.

Nickel, copper, cobalt, arsenic, lead and selenium soil concentrations exceeded the Ministry Table F background guideline and Table A effects based guidelines within the City of Greater Sudbury. In addition, cadmium, chromium, iron, zinc, antimony, molybdenum, barium and vanadium also exceeded Ministry Table F background criteria within the City of Greater Sudbury.

In all soil sample types , generally metal and arsenic concentrations were highest in Falconbridge, Copper Cliff, slightly lower in Coniston and decreased towards the Outer Sudbury Communities.

Concentrations in urban soil were highest in both Falconbridge and Copper Cliff, however, concentrations of copper, lead, selenium, zinc and barium were higher in Copper Cliff than in Falconbridge while the concentrations of cobalt, arsenic, cadmium, iron and chromium were higher in Falconbridge. Only nickel concentrations generally remained similar between Copper Cliff and Falconbridge. Concentrations of these elements were highest in urban soil compared to the other soil, sand or gravel sample types.

Undisturbed natural soil was only collected in the Inner Sudbury Communities and the Sudbury Core. Concentrations of nickel, copper, cobalt, arsenic, lead, cadmium, selenium, iron and zinc were higher in the undisturbed natural soil than in adjacent urban soil.

The highest residential garden soil concentrations were found in Falconbridge followed by Copper Cliff, Coniston, Gatchell and then Lively. Concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and selenium in residential garden soils were elevated but generally lower than urban soil.

Commercial agricultural operations were generally located in the Outer Sudbury Communities, and therefore had soil concentrations that were lower than urban and residential garden soil.

The highest sand and gravel concentrations were found in Copper Cliff, Coniston, Falconbridge and the Sudbury Core. Generally, the concentrations of metals and arsenic in sand and gravel were lower than other sample types. Nickel and copper were the only elements that showed a consistent pattern of elevation.

Generally, soil metal and arsenic concentrations in all sample types were highest in residential properties compared to park and school properties.

Objective #3 *To determine if metal and arsenic concentrations change with depth in the upper 20 centimetres of soil, in order to identify if element concentrations are related to aerial deposition from smelter emissions in the City of Greater Sudbury;*

- This objective was met, however, additional sampling is required to delineate the trends. A distinct trend of decreasing concentrations with depth for nickel, copper, cobalt, arsenic, lead, cadmium, selenium, chromium, iron and zinc was observed in the upper 20 centimetres of soil throughout the City of Greater Sudbury. Concentrations of these ten elements appear to be elevated due to aerial deposition from local smelting operations.

Samples from multiple depth intervals were collected from urban soil and undisturbed natural soil within the City of Greater Sudbury. Generally, concentrations of nickel, copper, cobalt, arsenic, lead, cadmium, selenium, chromium, iron and zinc decreased with depth in 50% to 85% of the urban soil sample locations throughout the City of Greater Sudbury. This pattern of decreasing concentrations with depth is consistent with aerial deposition from a continuous long term emission source. The major exception was arsenic in Falconbridge where concentrations in 80% of the sample locations increased with depth. This trend of maximum element concentrations below the surface was present to some extent in all community groupings for most elements. This trend indicates that sampling may not have vertically delineated all element concentrations within the City of Greater Sudbury, especially arsenic concentrations in Falconbridge. The maximum arsenic concentrations in the City of Greater Sudbury were present below the surface in Falconbridge.

In all of the undisturbed natural soil sample locations, concentrations of nickel, copper, cobalt, arsenic, lead, selenium, cadmium and iron decreased with depth, consistent with aerial deposition. The trend of maximum element concentrations below surface was not observed for this sample type.

Objective #4 *To determine the strength of relationships between metal and arsenic concentrations in the upper 20 centimetres of soil within the City of Greater Sudbury in order to identify if element concentrations are related to smelter emissions;*

- This objective was met. Strong, statistically significant correlations were present between nickel, copper, cobalt, arsenic, lead, cadmium, selenium, iron, chromium, zinc and barium in Coniston, Falconbridge and Copper Cliff. The number and strength of these correlations decreased with increased distance from the smelter communities and were strongest at surface. Concentrations of these eleven elements appear to be elevated due to aerial deposition from local smelting operations.

Concentrations and correlations of aluminum and vanadium were generally constant with depth throughout the City of Greater Sudbury. These element concentrations appeared to be indicative of the natural chemistry of the soil in the City of Greater Sudbury. Ontario background concentrations of aluminum and vanadium generally correlate with elements such as nickel, cobalt and copper. Throughout the City of Greater Sudbury, however, nickel and copper concentrations did not correlate with aluminum and vanadium but did correlate with cobalt, arsenic, lead, cadmium, selenium, iron, chromium, zinc and barium. The overall strength and number of these correlations increased with proximity to the smelter operations and were strongest at surface. The number, strength and spatial distribution of these correlations indicate that concentrations of these eleven elements are elevated due to aerial deposition from local smelting operations.

Objective #5 *To identify metal and arsenic concentrations in produce grown within the City of Greater Sudbury, in order to support exposure estimates for the human health risk assessment;*

- This objective was not met although elevated concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and selenium were observed in produce within the City of Greater Sudbury. The concentrations in produce increased with increasing concentrations of these elements in the adjacent soil.

In total, 245 produce samples were collected from 52 residential gardens, commercial market gardens, berry farms or wild blueberry patches. Four types of produce samples were collected: Root Vegetables, Fruit Vegetables, Leafy Vegetables and Berries.

Concentrations of nickel, copper, cobalt, arsenic, lead, cadmium and selenium were highest in produce from residential gardens. Leafy vegetables in residential gardens had higher concentrations of all elements compared to root and fruit vegetables. Generally, metals and arsenic concentrations in the commercial produce and wild blueberries were relatively low. However, concentrations of nickel in the commercial market garden and berry farm produce and concentrations of nickel and copper in the wild blueberry samples were elevated above the control samples.

This objective was not met due to the deficiencies in the produce sampling program design and laboratory quality control issues.

Objective #6 *To identify additional work that may be appropriate to support the Human Health Risk Assessment (HHRA) and the Environmental Risk Assessment (ERA) based upon this screening level study.*

- This objective has been met. Potential areas requiring further study or investigation are discussed in Section 8.2.

8.2 Data Gaps and Recommendations

As discussed previously, the 2001 sampling program for the City of Greater Sudbury was meant to fill identified knowledge gaps with screening level information only. As a result, intensive characterization of the soil metal and arsenic concentrations was not completed for the study area. Further sampling and / or analysis will be required to support the community based human health and ecological risk assessment currently underway in the City of Greater Sudbury. Ministry recommendations on potential areas requiring further investigation have been provided below.

1. Further soil sampling is required below 20 centimetres to fully delineate the vertical extent of elevated metals and arsenic concentrations within Falconbridge.

2. Bioaccessibility analysis should be completed for metals and arsenic from representative soil samples from different soil types in each community grouping. This analysis should be completed for samples with concentrations at the 10th, 50th and 95th percentile, at all depth intervals.

3. All soil analysis from this study was recorded as total metal concentrations in soil. Prior to analysis, all soil material that passed through the 2 mm sieve was ground to pass through a 355 micron sieve. Soil analysis for human health studies focuses on the fine fraction of the soil material. The fine fraction is defined as all soil material that passes through the 355 micron sieve without grinding. For the purposes of the human health risk assessment, element concentrations in the fine fraction of the soil material should be determined for metals and arsenic on samples with concentrations at the 10th, 50th and 95th percentile in all community groupings.

4. Laboratory soil texture analysis was not completed for any soil samples from this study. Soil texture data was solely based on field observations. Laboratory characterization of soil texture may be useful for bioaccessibility analysis and metals transport modelling during the community based risk assessment and therefore should be completed.

5. TOC, pH and conductivity were only measured for 10% of the soil samples. These parameters, especially pH, should be measured for a large percent of the soil samples to aid in data interpretation. The apparent difference between the pH of undisturbed natural soil and adjacent urban soil should be further investigated.

6. Statistical analysis should be conducted on replicate samples collected from each property within the City of Greater Sudbury to determine within-site and between-site sampling and analytical variability.

7. Soil metal and arsenic concentration profiles varied between elements and geographic locations. Further study to determine accumulation and transport mechanisms responsible for the differences in these profiles is required to properly assess current and potential risk. This study may examine biologically mediated soil mixing, element specific movement (a function of soil pH, redox, moisture content etc) and / or historical changes in smelter process / ore source.

8. A comprehensive garden and commercial produce sampling program should be completed for the purposes of the human health risk assessment. The program should include: multiple sampling events over the year, collection of replicate samples, variation of produce types and varieties (i.e. root, leafy etc.), consistent produce varieties between properties, statistically significant sample size for each community grouping and garden type, proper control sample locations, soil sampling from each produce sampling location (soil analysis should include the same analytical suite as produce samples plus soil type) and analysis of correlations between produce and soil concentrations.

9. Property owners should be informed that better washing of leafy vegetables would be recommended where elevated soil concentrations are found.

10. The results of this study should be compared with previous research (MOE and other) including historical soil and vegetation quality assessments and regional and local soil and geological surveys. This comparison should be completed to fully assess short and long term data trends.

9.0 REFERENCES

1. **Bagatto J.** and **J.D. Shorthouse**. 1990. Accumulation of Copper and Nickel in Plant Tissues and Insect Gall of Lowbush Blueberry, Vaccinium Angustifolium, near an Ore Smelter at Sudbury, Ontario, Canada. Can. J. Bot. 69:1483-1490.

2. **Balsillie, D., P.C. McGovern** and **W.D. McIlveen**. 1978. Reductions in acute SO_2 vegetation injury as a result of improved air quality in the proximity of nickel smelters in Sudbury. Poster presented at 3rd International Congress of Plant Pathology, Munich, West Germany. August 16-23, 1978.

3. **Dreisinger, B.R.** 1970. Monitoring atmospheric sulphur dioxide and correlating its effects on crops and forests in the Sudbury area. In Proc. Conference on Impact of Air Pollution on vegetation. 23

4. **Kabata-Pendias, A.** and **H. Pendias.** 1984. Trace Elements in Soils and Plants. CRC Press. Boca Raton, Florida. 315 pp.

5. **McIlveen, W.D.** and **D. Balsillie**. 1979. Injury to vegetation caused by metallic particulate. Proc. Can. Phytopathol. Soc. 46: 64.

6. **McIlveen, W.D.** and **J.J. Negusanti**. 1984. Response of white birch trees to repeated SO_2 fumigations in Northeastern Ontario. Can. J. Plant Pathol. 6: 264-265.

7. **Ontario Department of Mines (ODM)**. 1964. Sulphur dioxide levels in the Sudbury area and some effects of the gas on vegetation in 1963. Sudbury, Ontario. 33 pp.

8. **Ontario Ministry of the Environment (MOE).** 1973. Sulphur dioxide (1972) and heavy metal (1971) levels and vegetation effects in the Sudbury area. Sudbury, Ontario. 50 pp.

9. **MOE**. 1975. Effects of sulphur dioxide and heavy metals on vegetation in the Sudbury area. Sudbury, Ontario. 33 pp.

10. **MOE**. 1976. Chemical Element Concentrations Measured in Fruits and Vegetables in the Sudbury Area (1970 - 1975).

11. **MOE.** 1978. Air quality assessment studies in the Sudbury area. Volume 2. Effects of sulphur dioxide and heavy metals on vegetation and soil, 1970-1977. Sudbury. 105 pp.

12. **MOE**. 1979. Early roasting and smelting operations in the Sudbury area. An historical outline. Experience '79 Program Report. 77 pp.

13. **MOE.** 1984. Marginal chlorosis of white birch in the Sudbury area 1978-1983: Progress Report No. 1. Sudbury, Canada. 70 pp.

14. **MOE.** 1985. Studies of the terrestrial environment in the Sudbury area, 1970-1982. Sudbury, Ontario.

15. **MOE.** 1990. Studies in the Terrestrial Environment in the Sudbury Area, 1978-1987. Sudbury, Ontario. 149 pp.

16. **MOE.** 1993. Field Investigation Manual Part 1: General Methodology. Phytotoxicology Section, Hazardous Contaminants Branch, Report Number HCB-014-3511-93.

17. **MOE**. 1993b. Gatchell Garden Study, Sudbury, Ontario.

18. **MOE**. 1993c. Ontario Typical Range of Chemical Parameters in Soil, Vegetation, Moss Bags and Snow. Phytotoxicology Section, Standards Development Branch, Report Number HCB-151-3512-93.

19. **MOE.** 1997. Guideline for use at contaminated sites in Ontario. Ontario Ministry of the Environment and Energy. 158 pp.

20. **MOE**. 2000. Standard Operating Procedure for Processing of Soil Samples Prior to Analysis VS002. 5 pp.

21. **MOE.** 2000b. Standard Operating Procedure for Processing of Vegetation Samples Prior to Analysis VS001.

22. **MOE.** 2001. Metals in Soil and Vegetation in the Sudbury Area (Survey 2000 and Additional Historic Data). Ecological Standards and Toxicology Section, Standards Development Branch, Ontario Ministry of the Environment, Toronto, Ontario. Report Number SDB-045-3511-2001

23. **MOE.** 2003. Phytotoxicity Laboratory Incident Report. Ecological Standards and Toxicology Section, Standards Development Branch, Ontario Ministry of the Environment, Toronto, Ontario. Report Number SDB-002-3511-2003.

24. **Sheppard, S.C.** 1991. A Field and Literature Survey, with Interpretation, of Elemental Concentrations in Blueberry, Vaccinium Angustifolium. Can. J. Bot. 69: 63-77.

10.0 DISCUSSION APPENDICES

The following descriptions detail the software programs used for data analysis and manipulation in this document.

Community station maps and concentration dot maps were completed using ArcView GIS version 3.2.

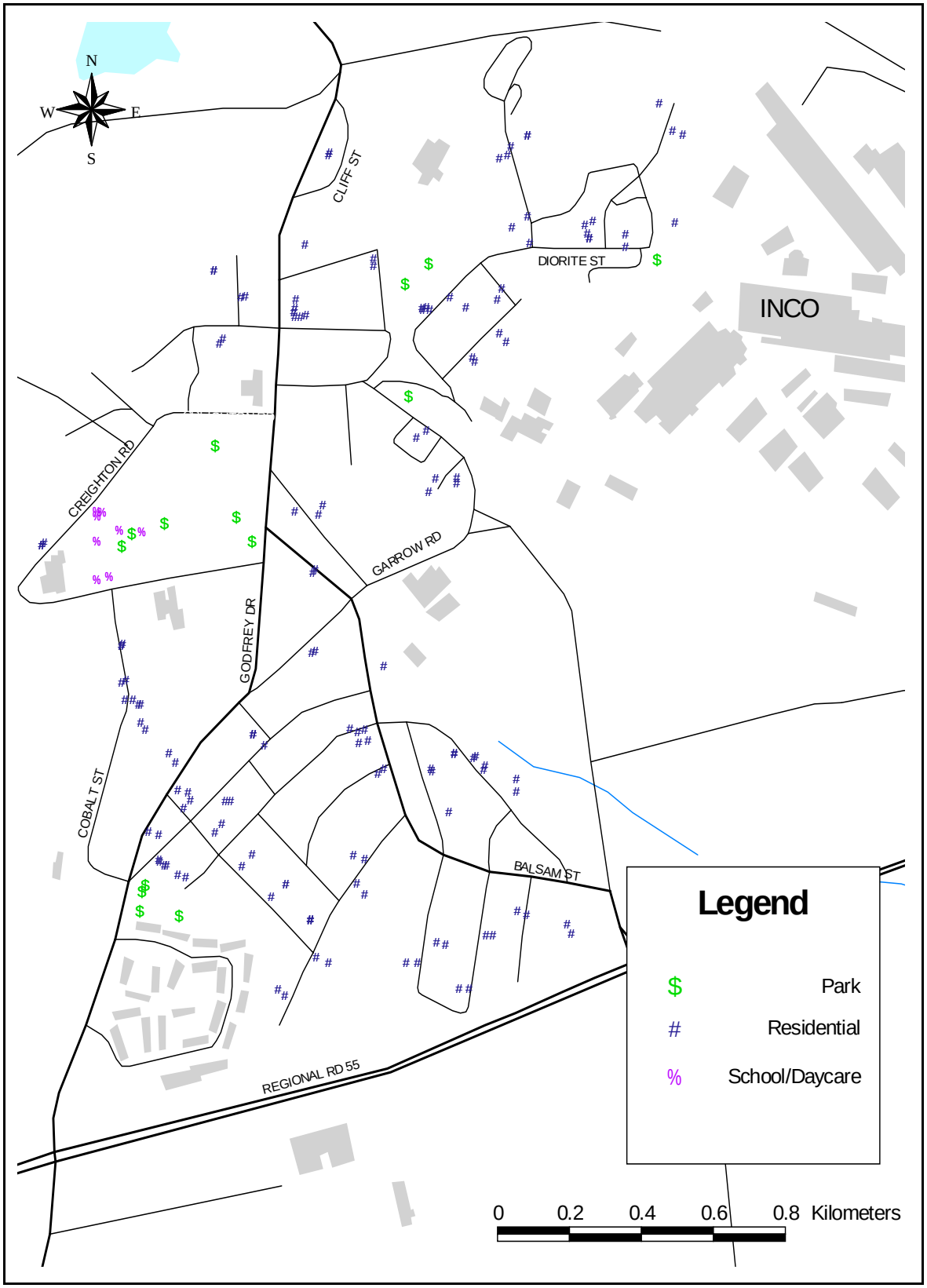
Data formatting was completed using Microsoft Excel 97, SR-2 (I), Microsoft Corporation. This version of Microsoft Excel was also used for selected data analysis including:

- creation of depth profile graphs and calculation of percent difference between depth intervals;
- creation of scatter plots with linear regression lines, line equations and R^2 values; and
- log transformation of the data for use in scatter plots.

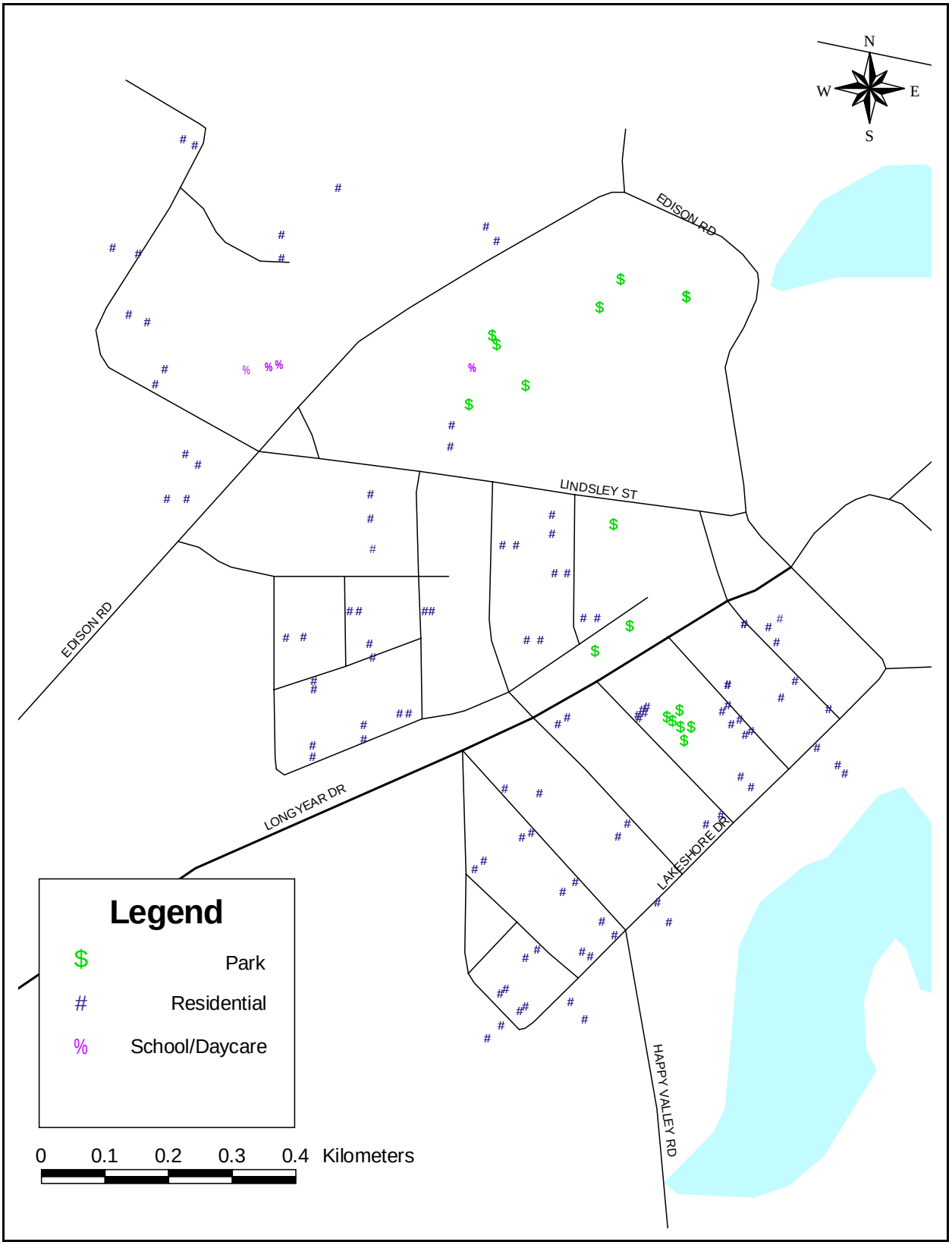
Additional data analysis was completed using XLSTAT version 6.0, Addinsoft, 2002. This version of XLSTAT was used for the following data analysis:

- the generation of descriptive statistics including: minimum, maximum, mean, median, geometric mean, 10th and 95th percentile and quartile concentrations and standard deviation, coefficient of variation, kurtosis, skewness and upper and lower confidence intervals for the mean;
- creation of box and whisker plots; and
- calculation of Pearson's Product Moment Correlation Coefficient *R* and Spearman's Ranked Correlation R_s.

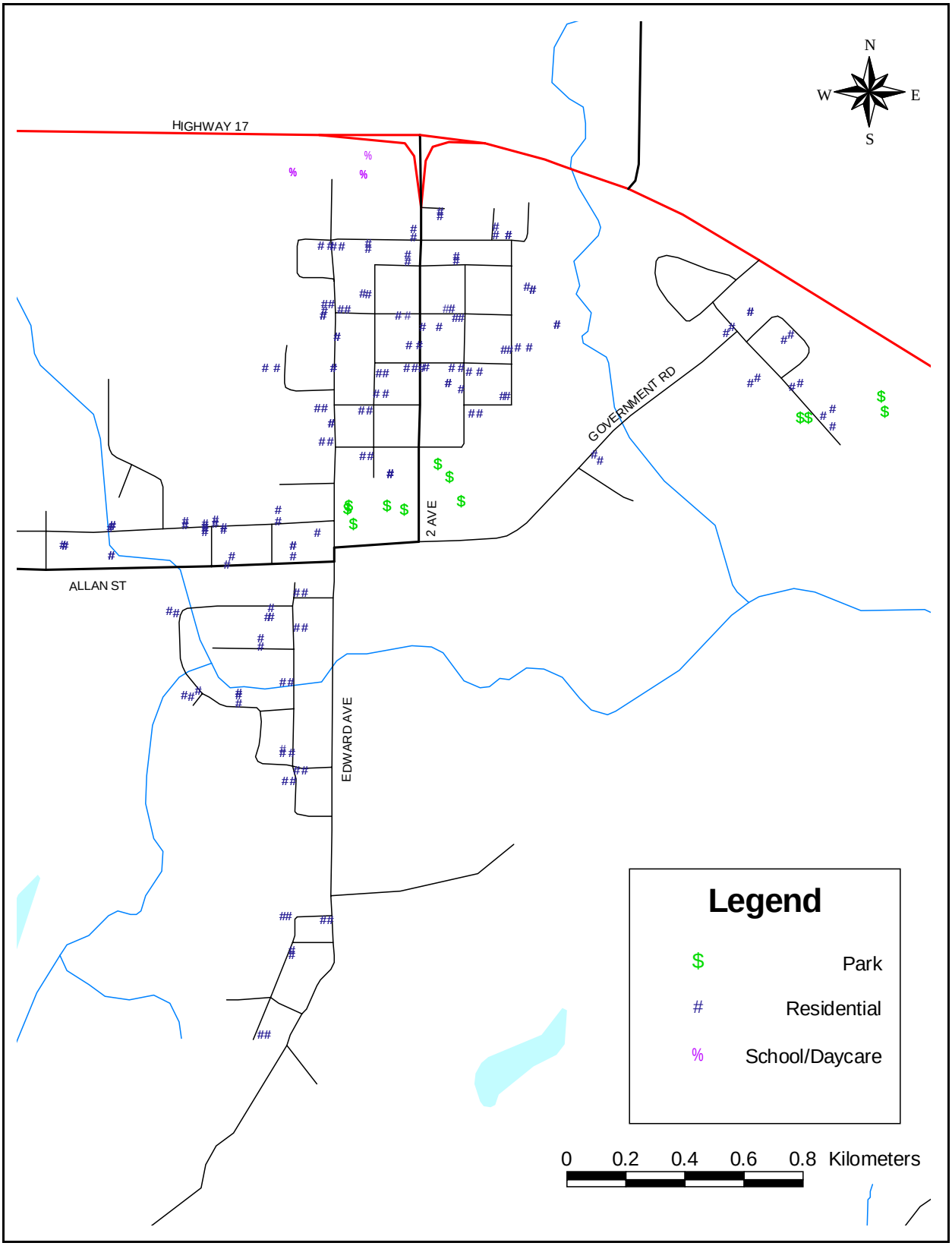
10.1 Soil Sampling Station Maps for the City of Greater Sudbury by Community



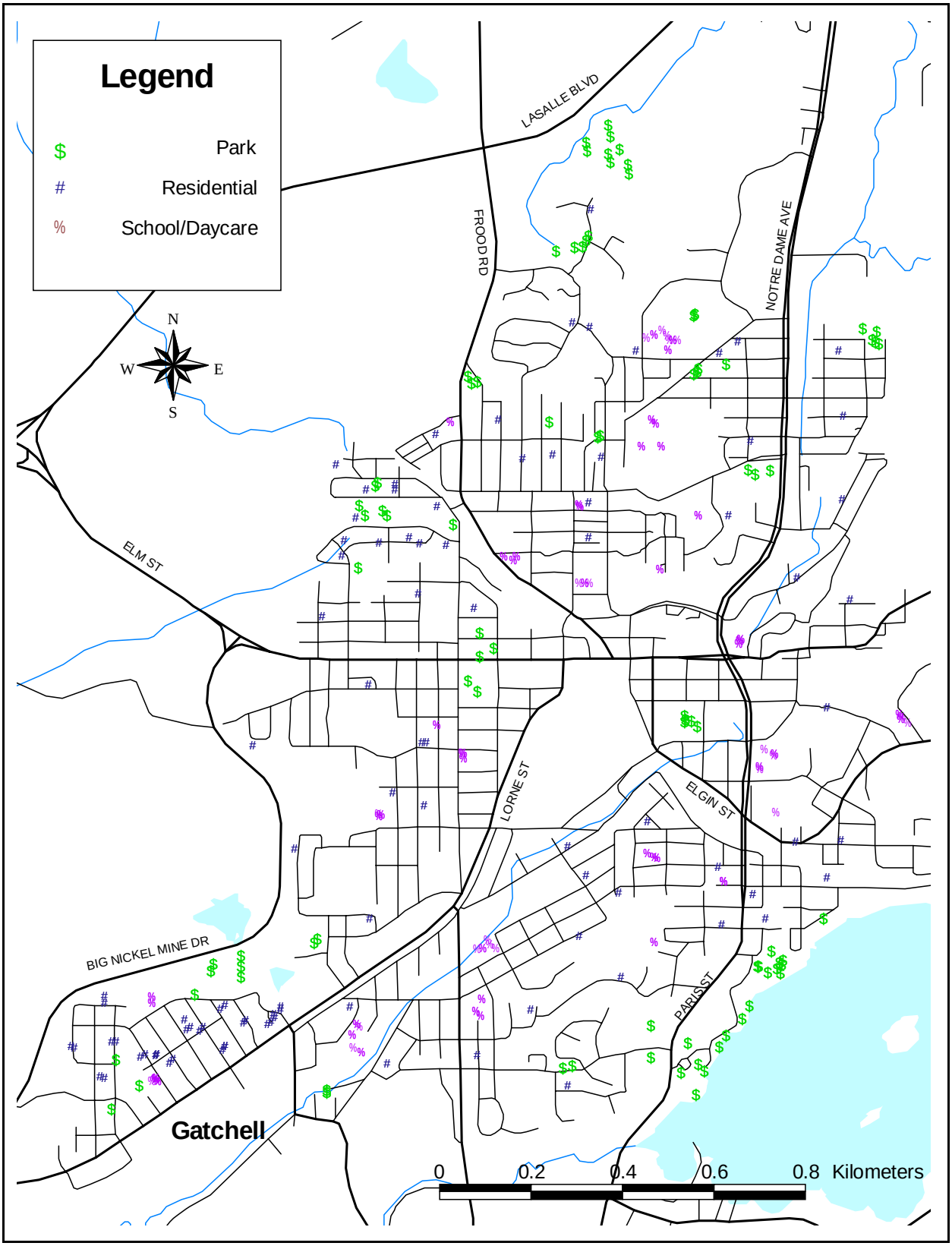
Map 10.1.1: Station map for Copper Cliff



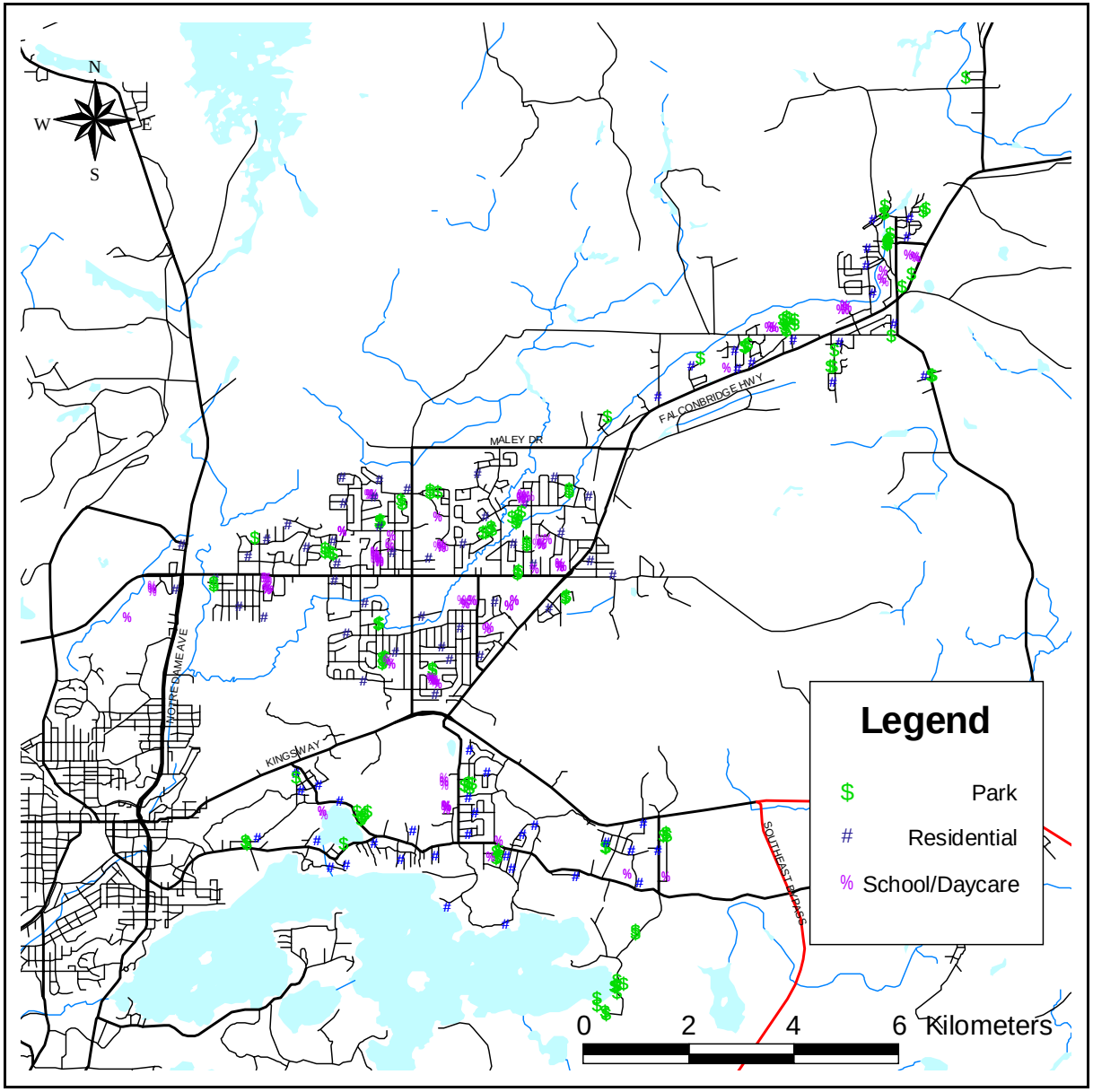
Map 10.1.2: Station map for Falconbridge



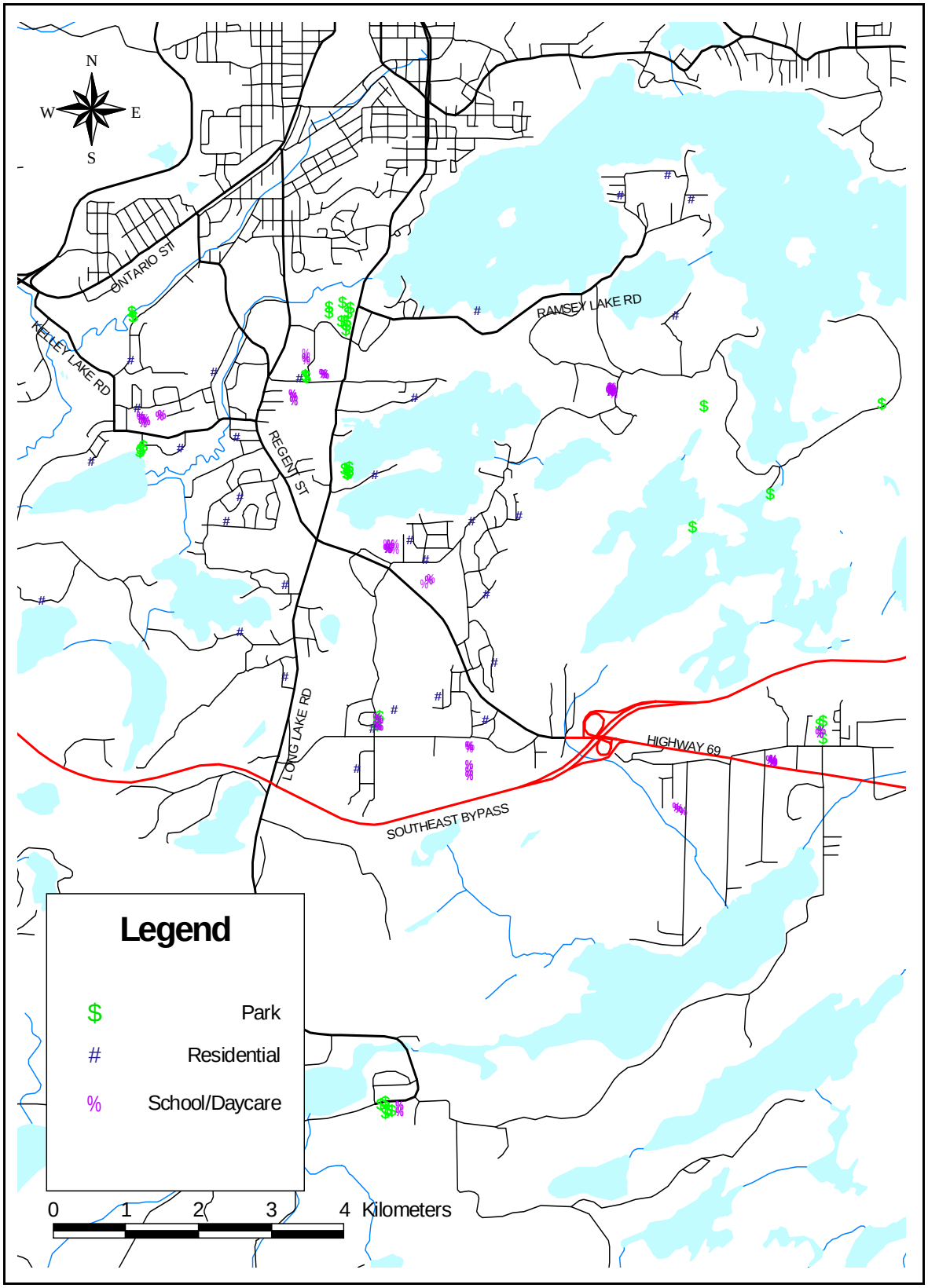
Map 10.1.3: Station map for Coniston



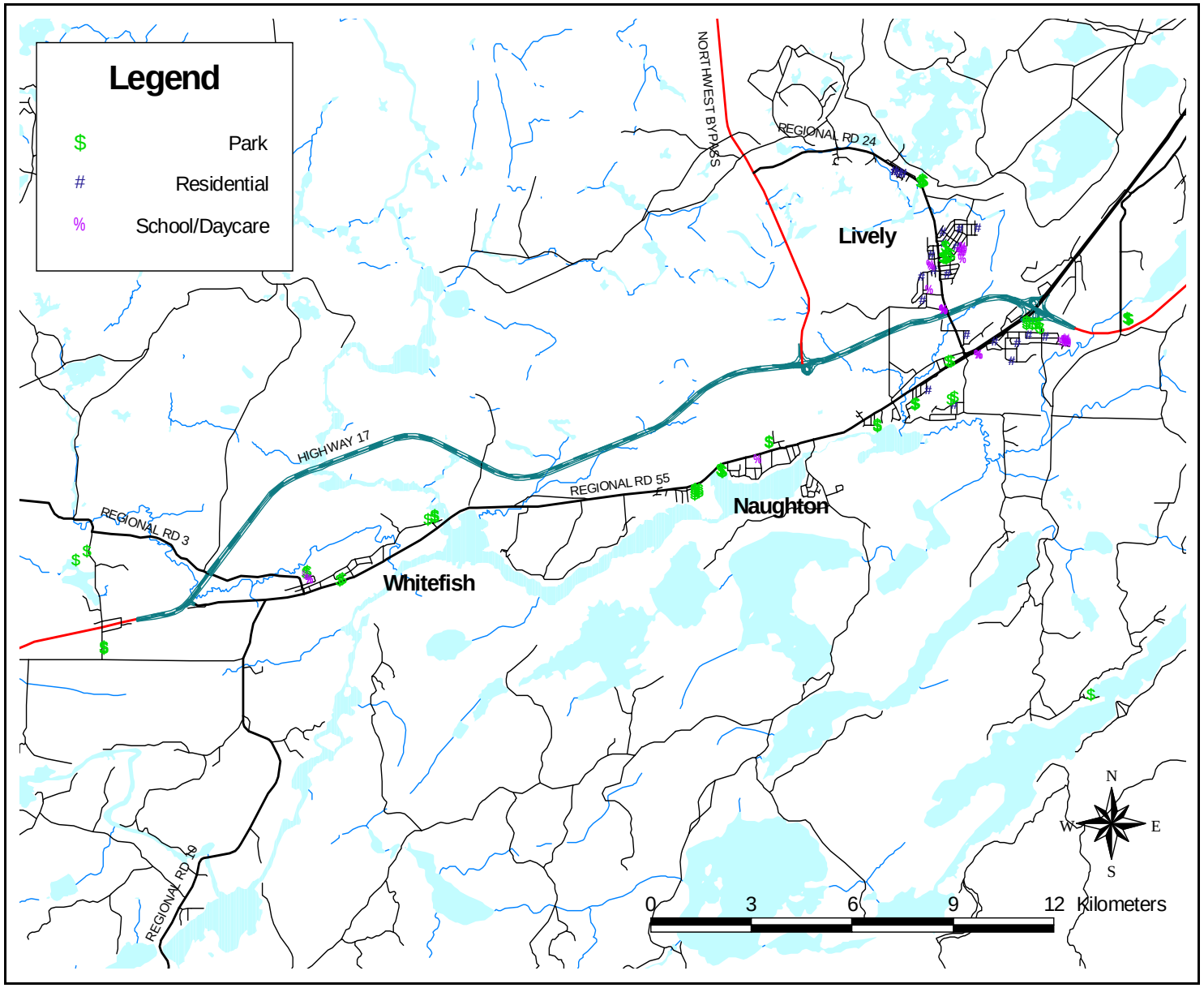
Map 10.1.4: Station map for Sudbury Core



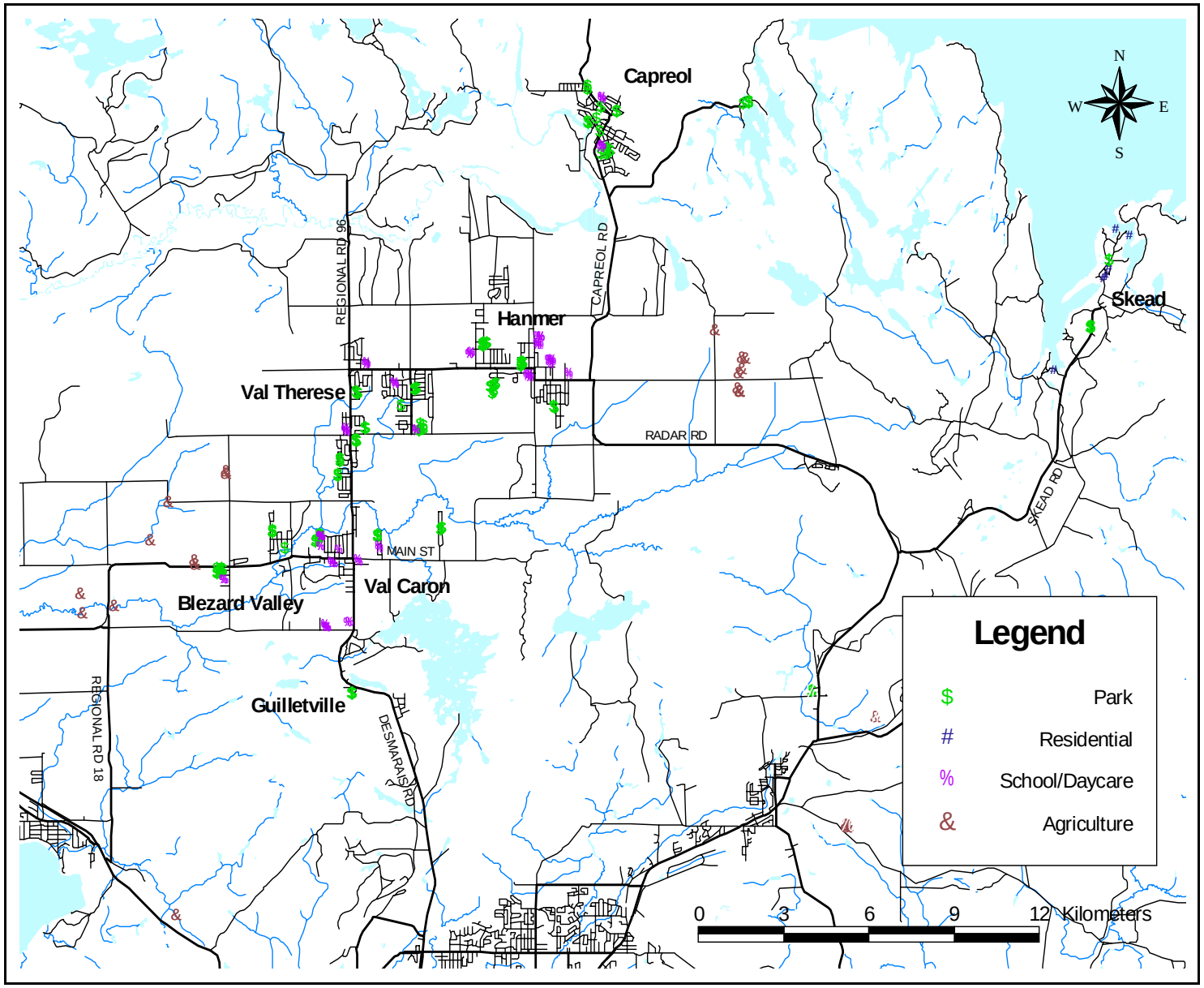
Map 10.1.5: Station map for Sudbury East, Sudbury New and Garson



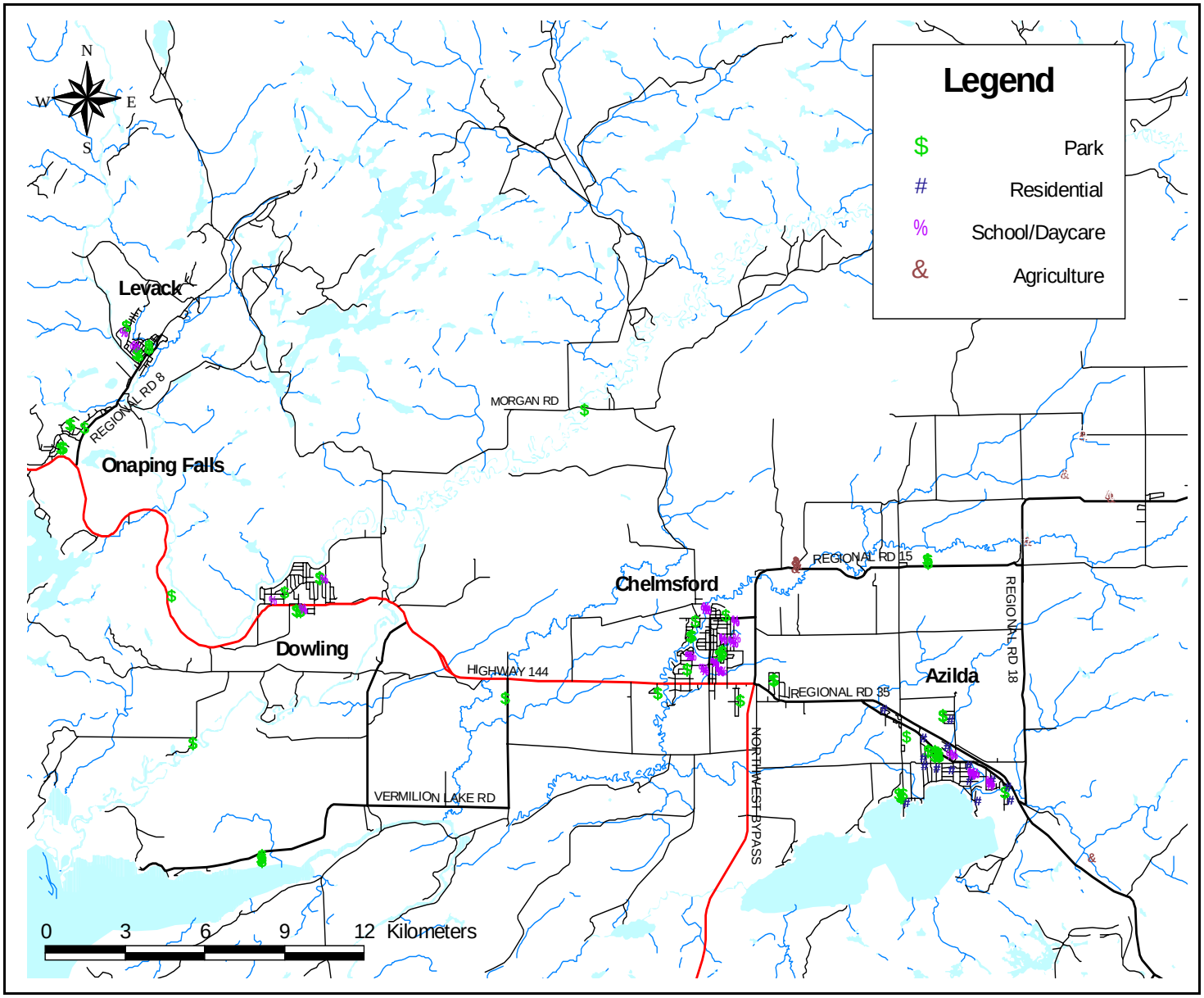
Map 10.1.6: Station map for Sudbury South



Map 10.1.7: Station Map for Sudbury West



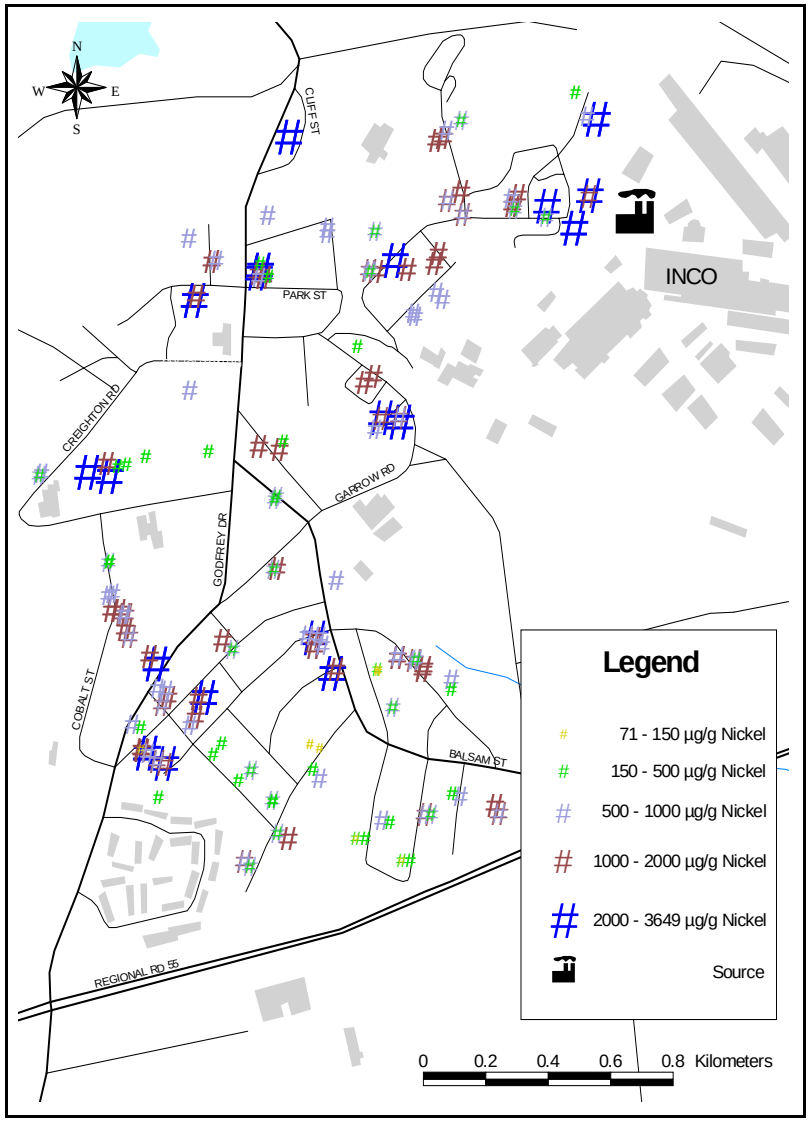
Map 10.1.8: Station map for Valley East



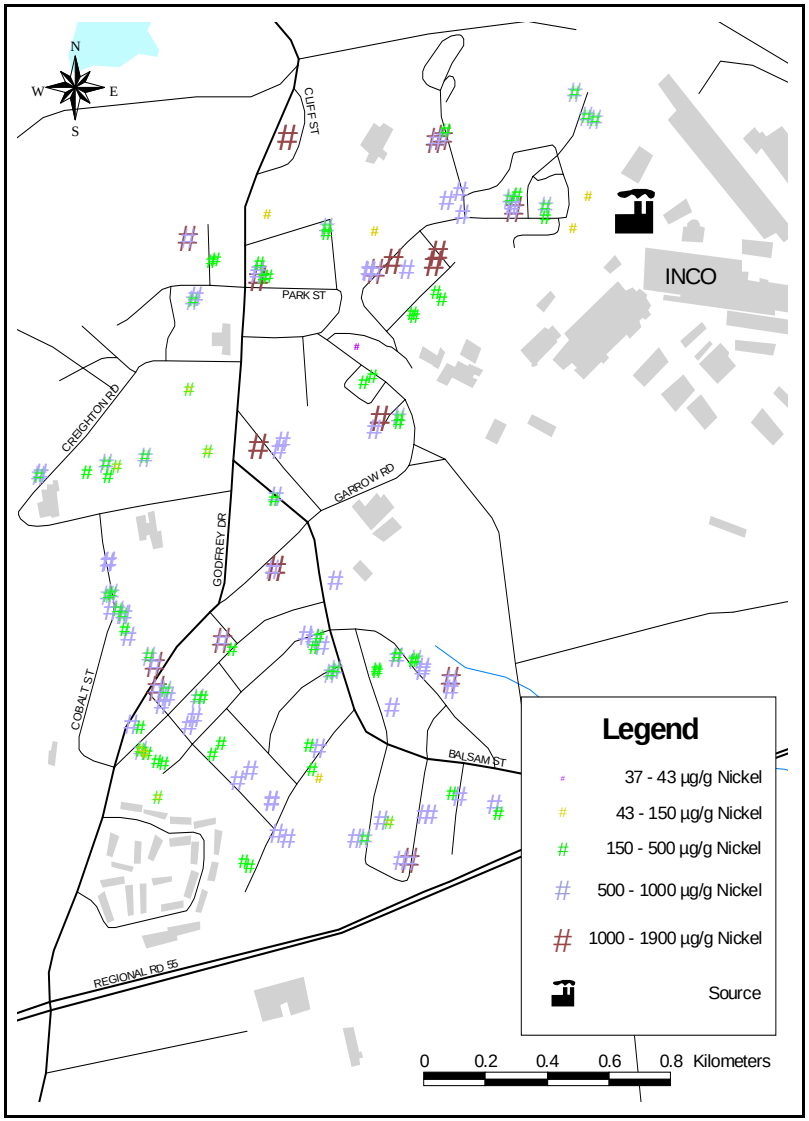
Map 10.1.9: Station map for Valley West

10.2 Concentration Gradient Maps for Selected Metals and Arsenic in Urban Soils of the City of Greater Sudbury

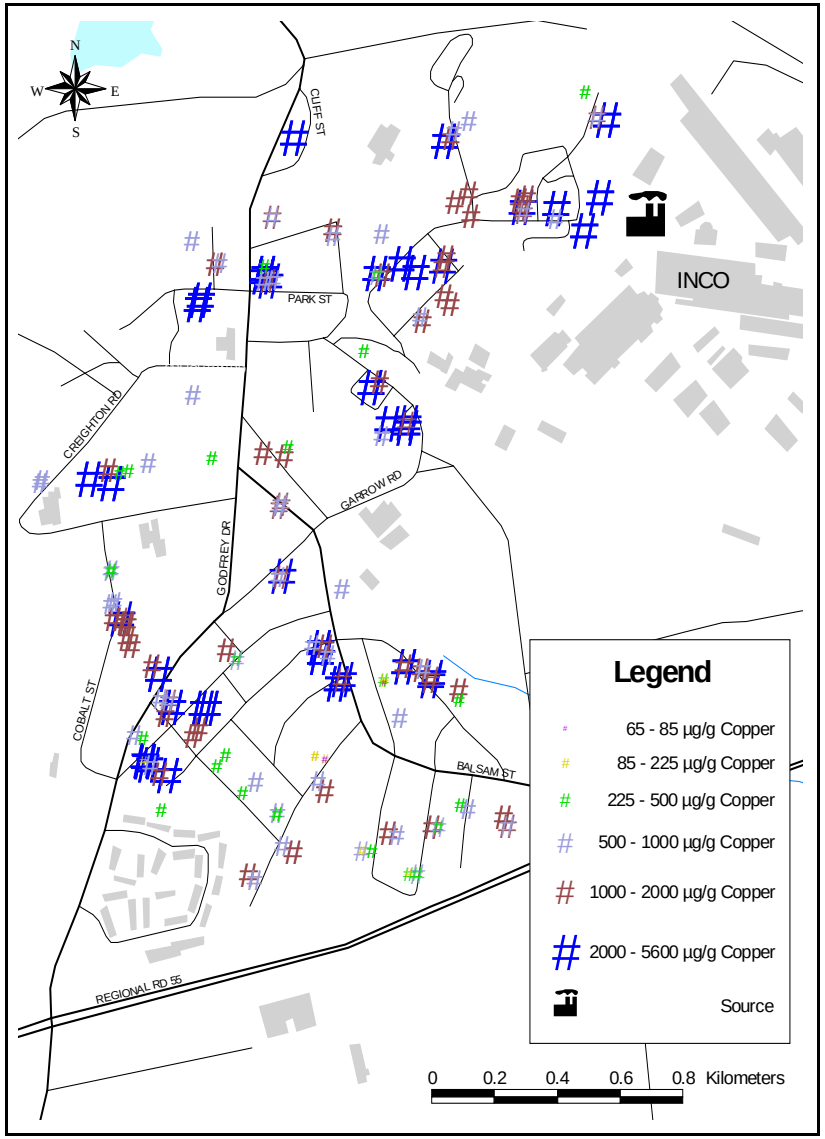
10.2.1 Copper Cliff



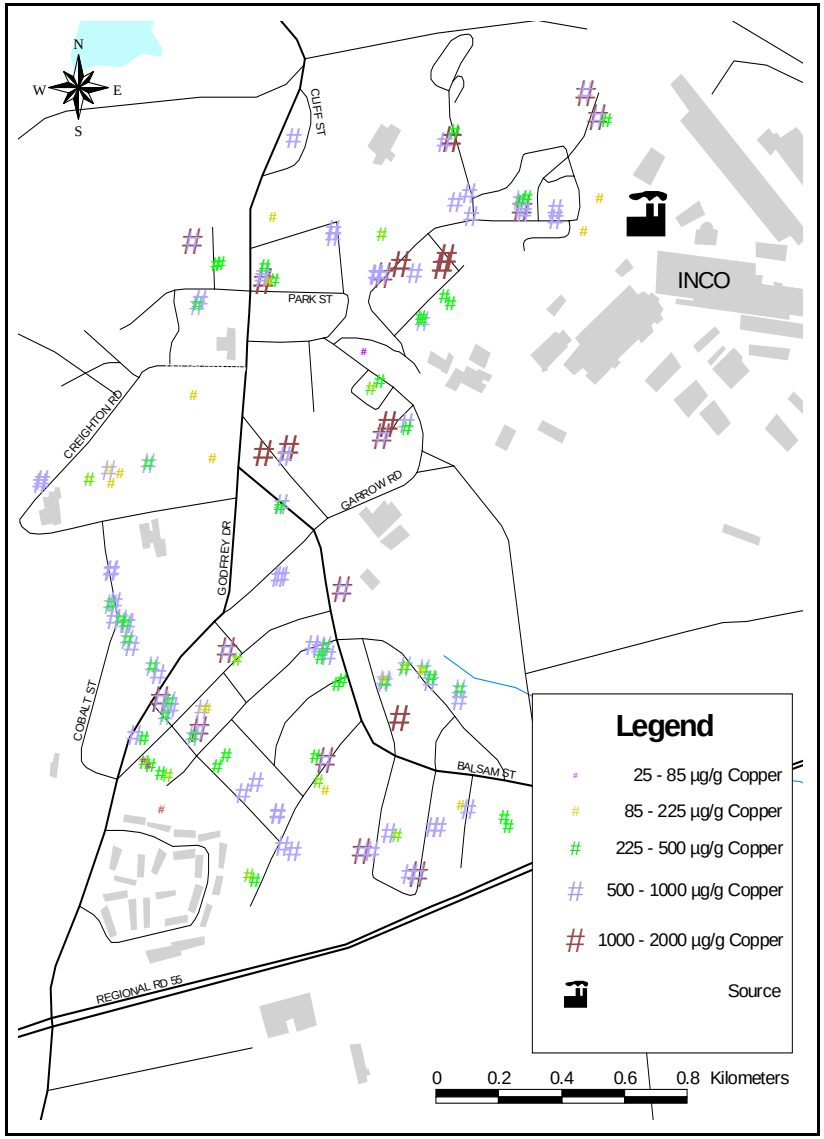
Map 10.2.1.1: Ni concentrations in urban 0 - 5 cm soil in Copper Cliff



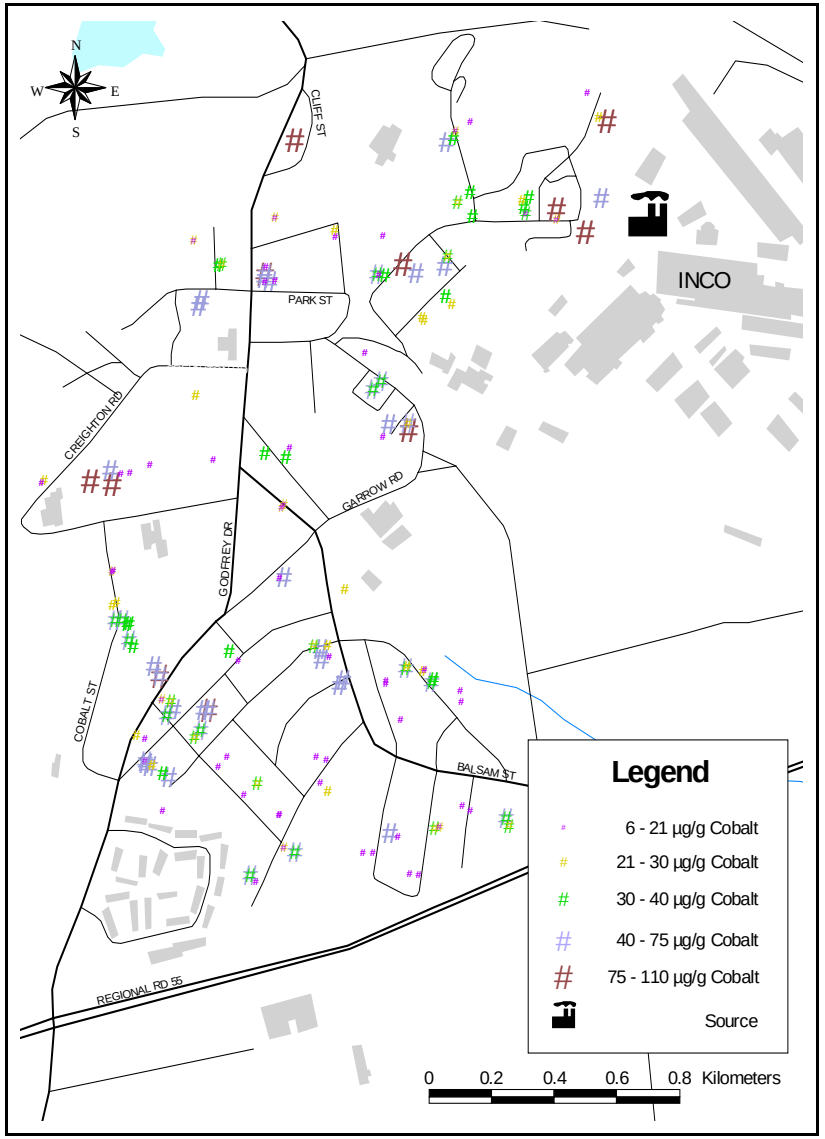
Map 10.2.1.2: Ni concentrations in urban 10 - 20 cm soil in Copper Cliff



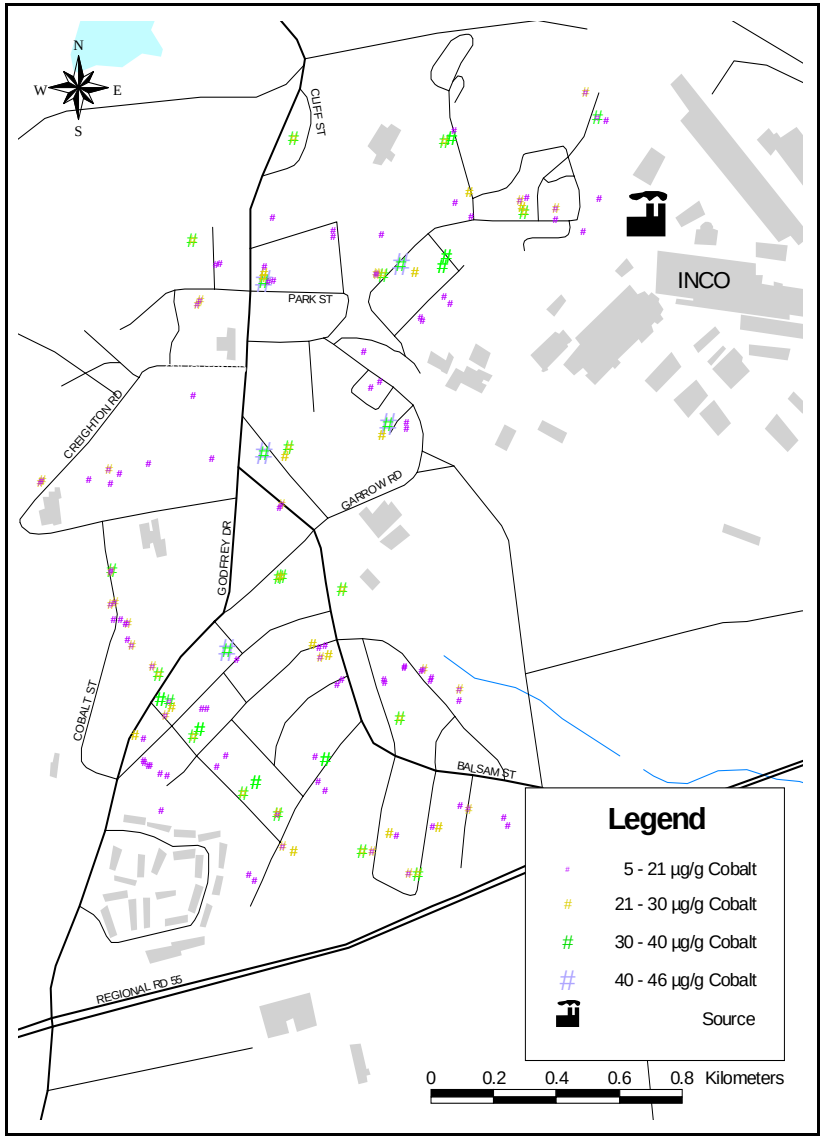
Map 10.2.1.3: Cu concentrations in urban 0 - 5 cm soil in Copper Cliff



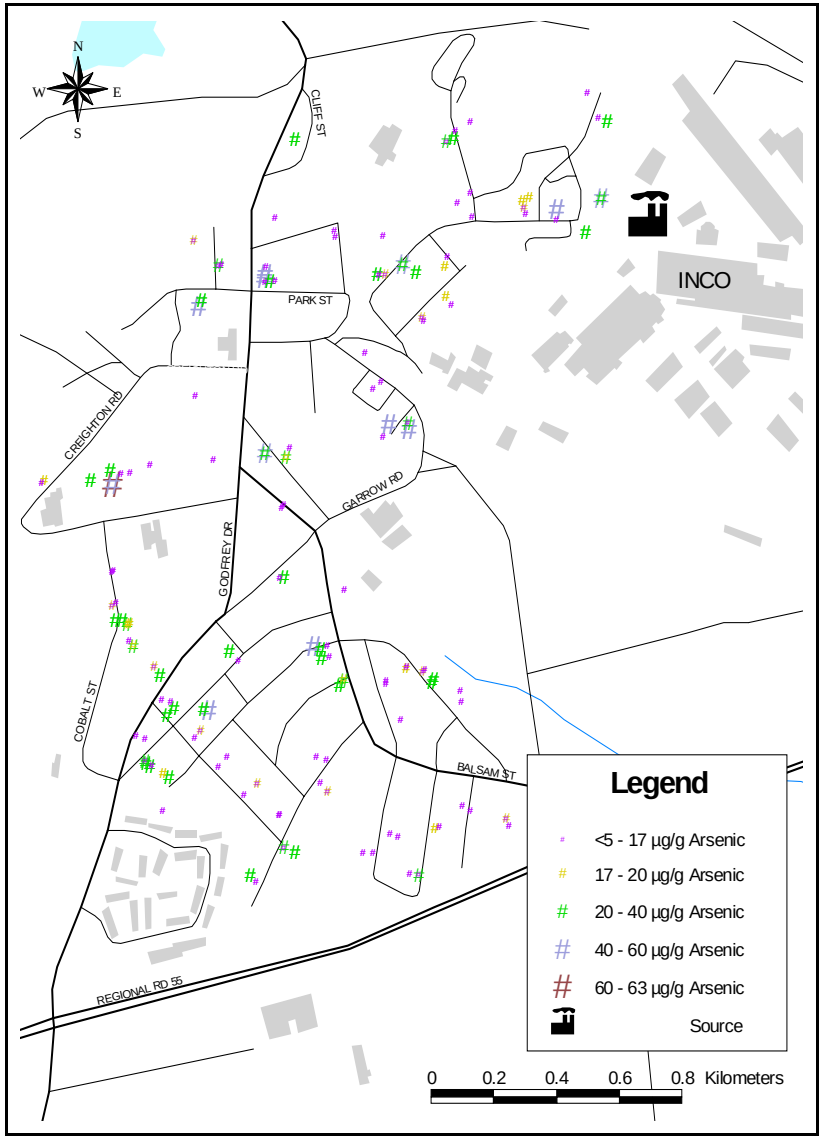
Map 10.2.1.4: Cu concentrations in urban 10 - 20 cm soil in Copper Cliff



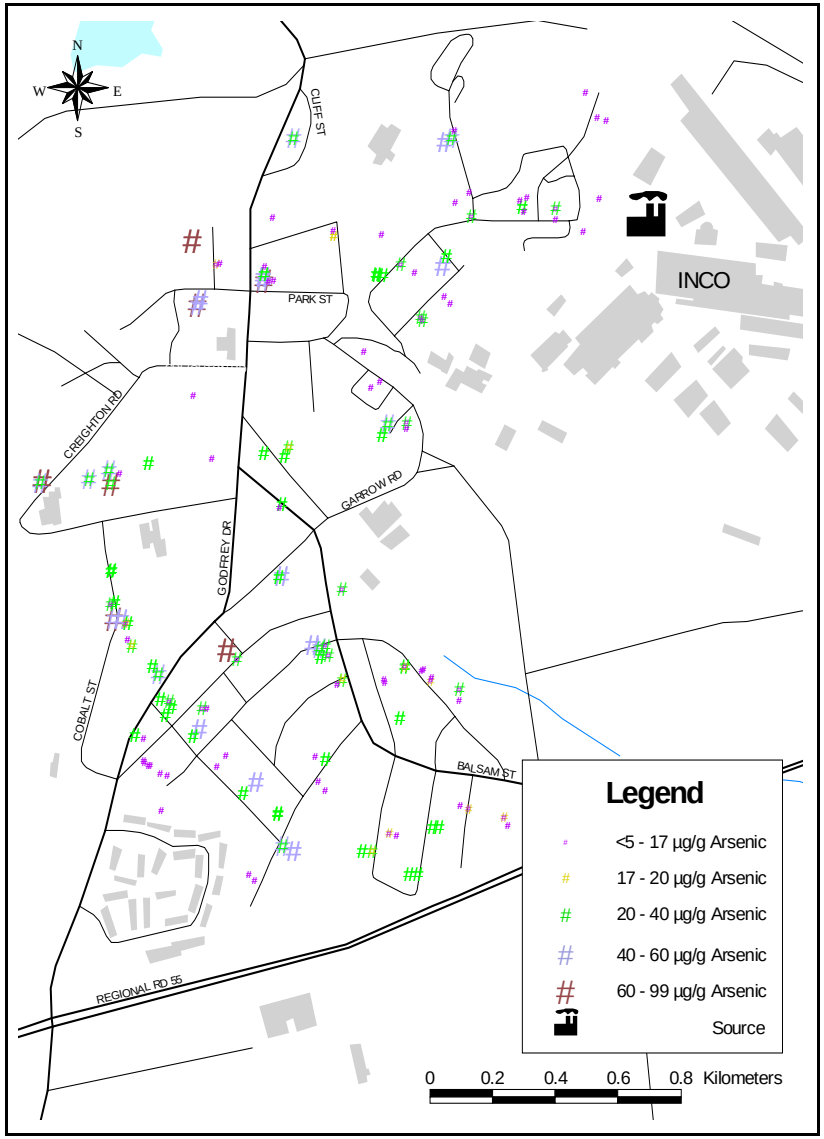
Map 10.2.1.5: Co concentrations in urban 0 - 5 cm soil in Copper Cliff



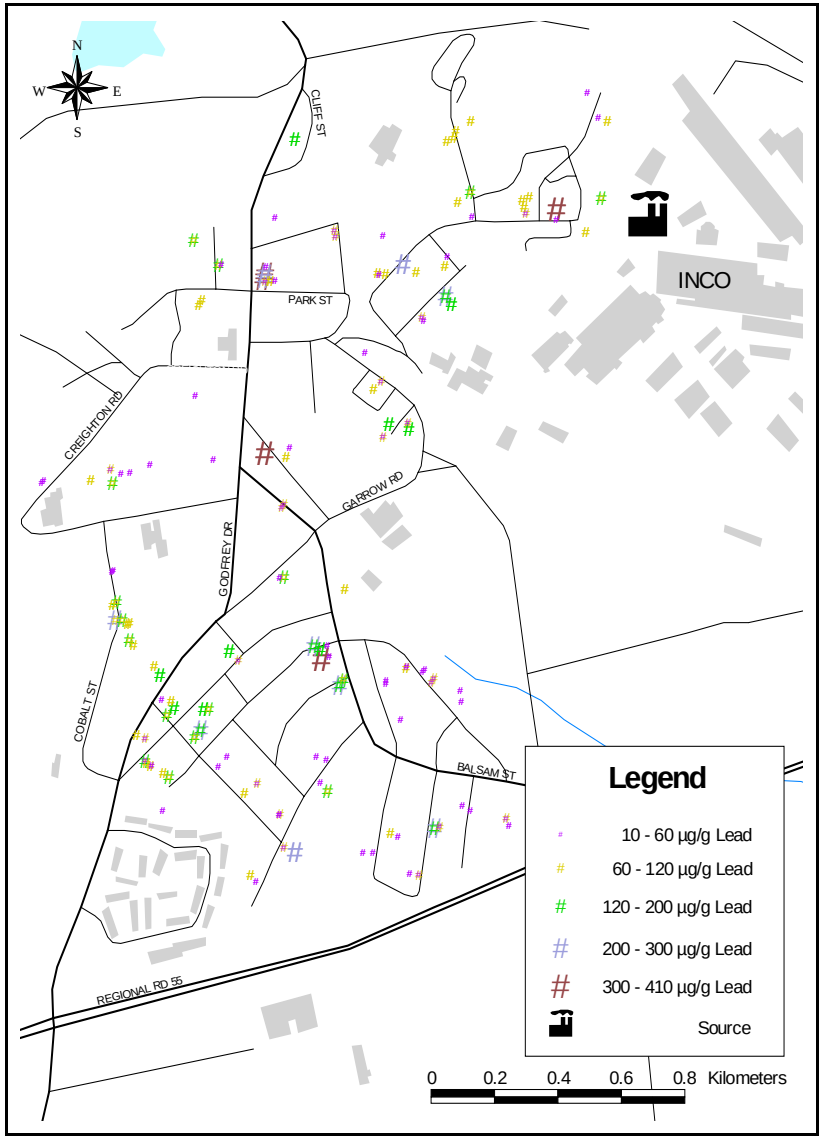
Map 10.2.1.6: Co concentrations in urban 10 - 20 cm soil in Copper Cliff



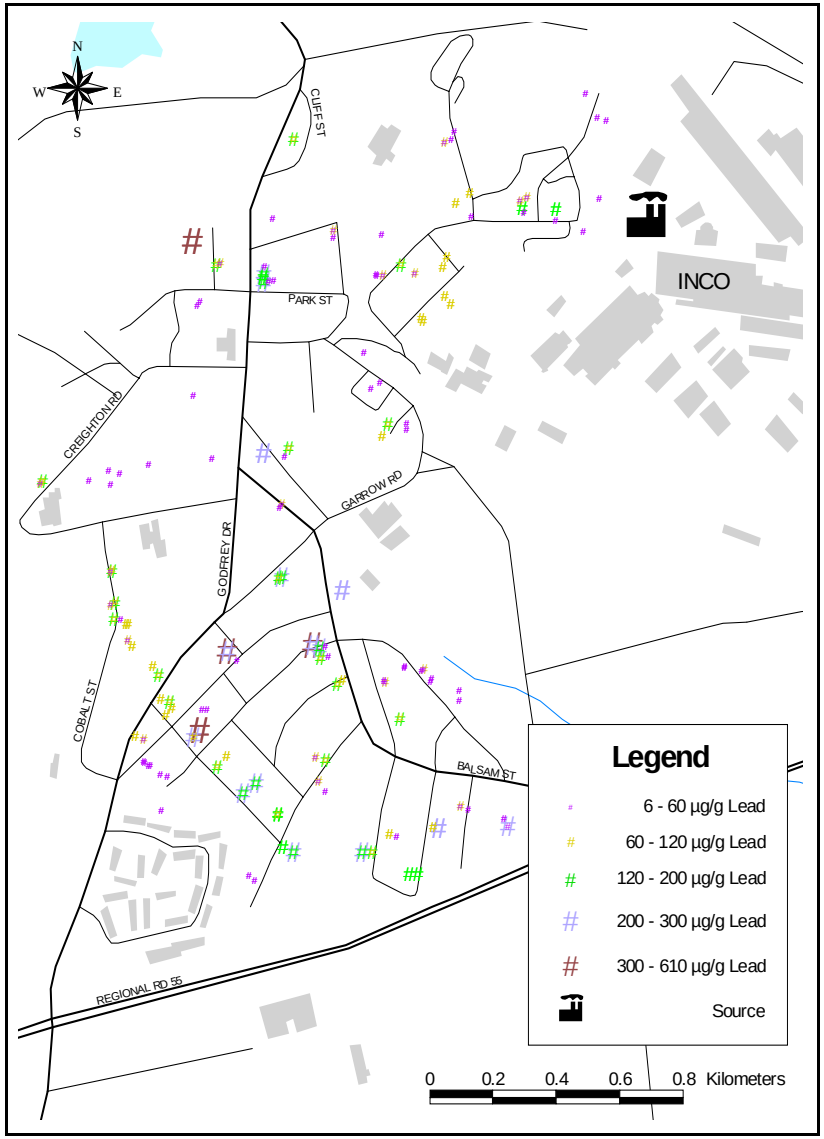
Map 10.2.1.7: As concentrations in urban 0 - 5 cm soil in Copper Cliff



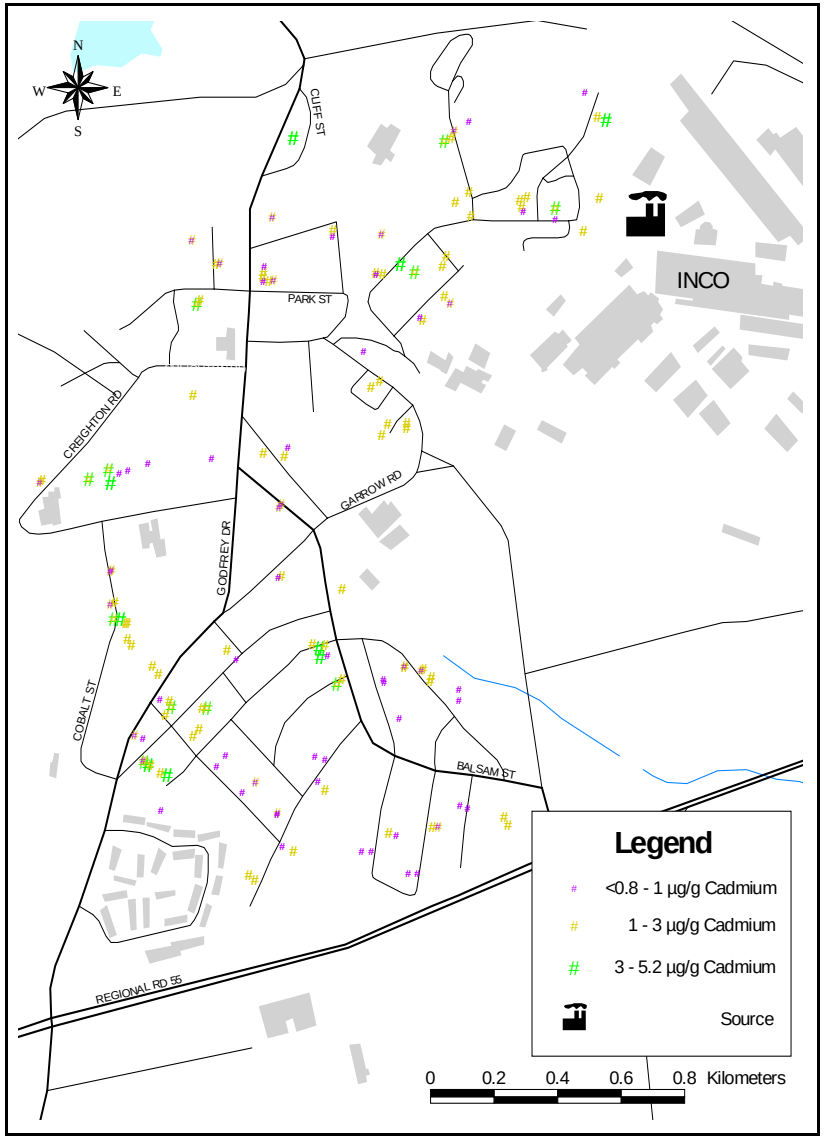
Map 10.2.1.8: As concentrations in urban 10 - 20 cm soil in Copper Cliff



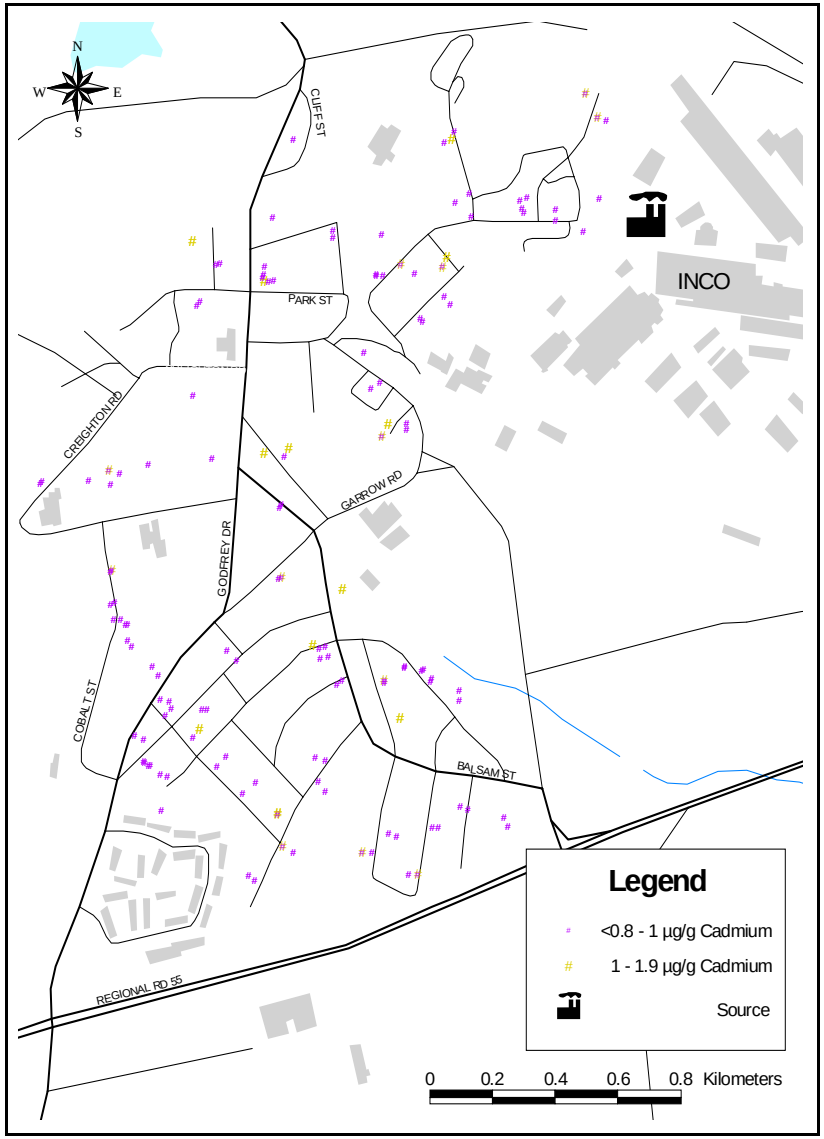
Map 10.2.1.9: Pb concentrations in urban 0 - 5 cm soil in Copper Cliff



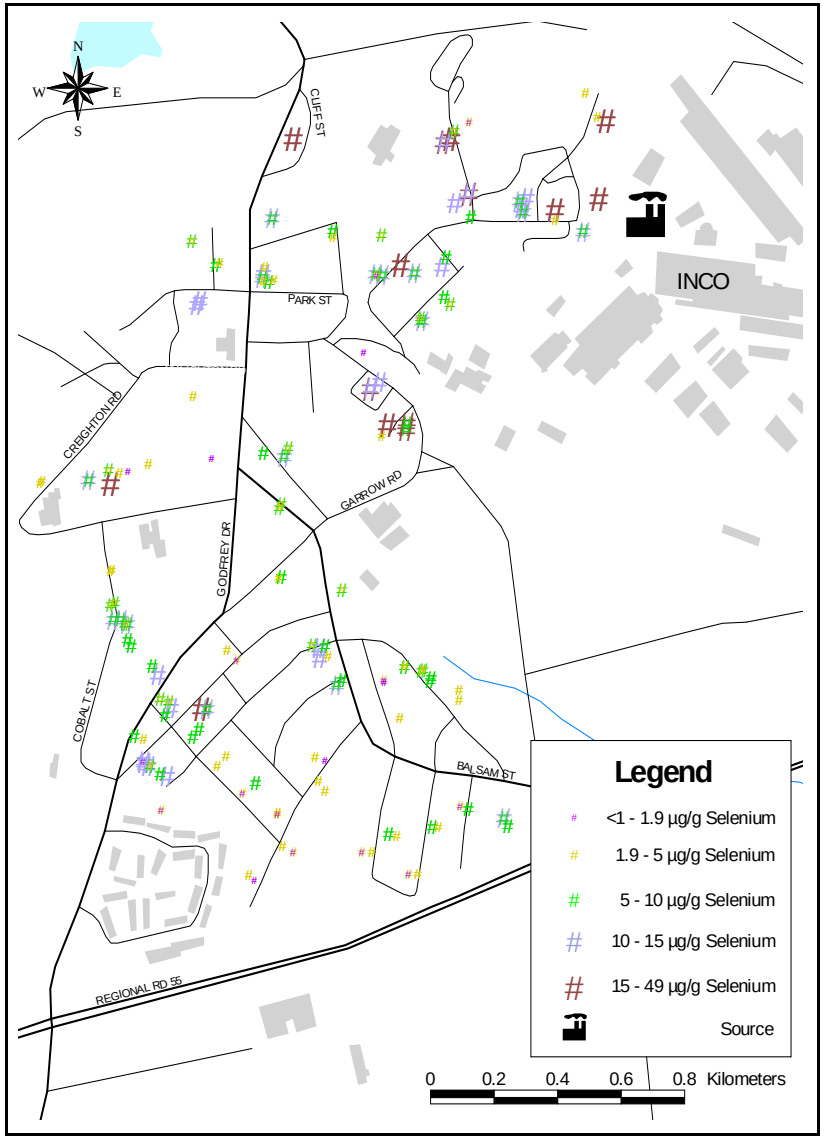
Map 10.2.1.10: Pb concentrations in urban 10 - 20 cm soil in Copper Cliff



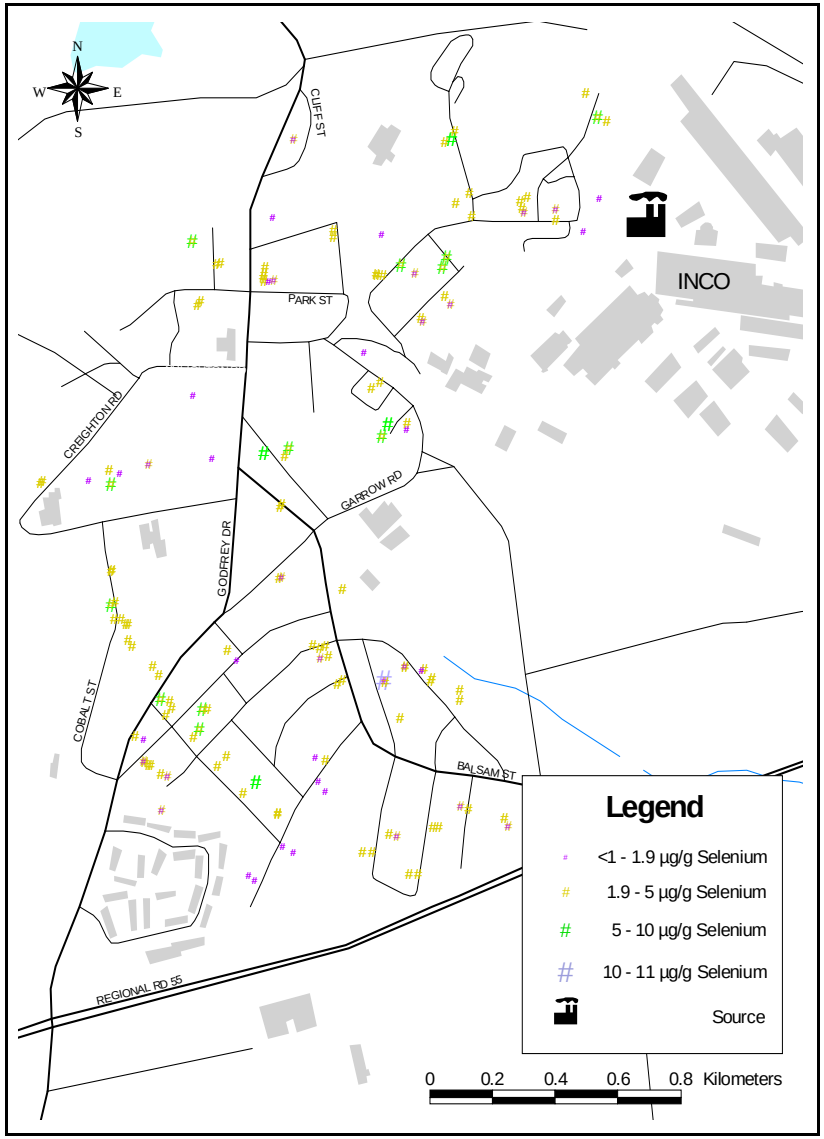
Map 10.2.1.11: Cd concentrations in urban 0 - 5 cm soil in Copper Cliff



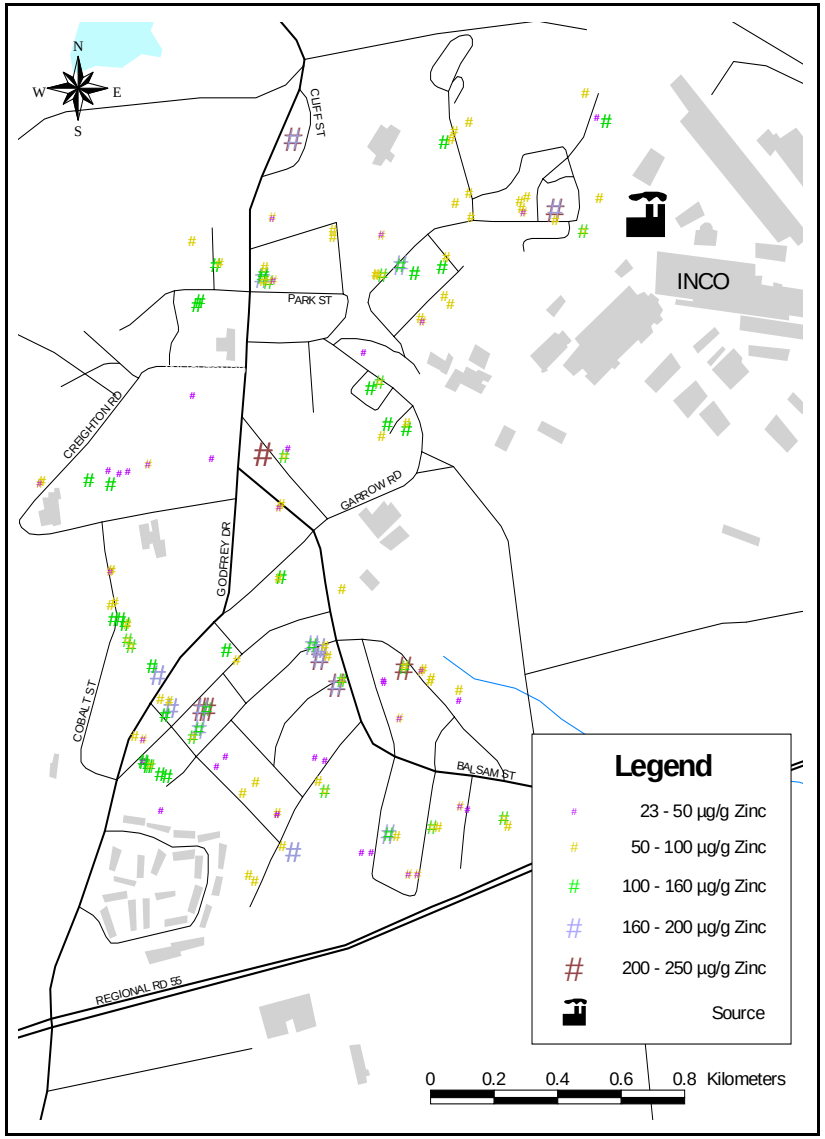
Map 10.2.1.12: Cd concentrations in urban 10 - 20 cm soil in Copper Cliff



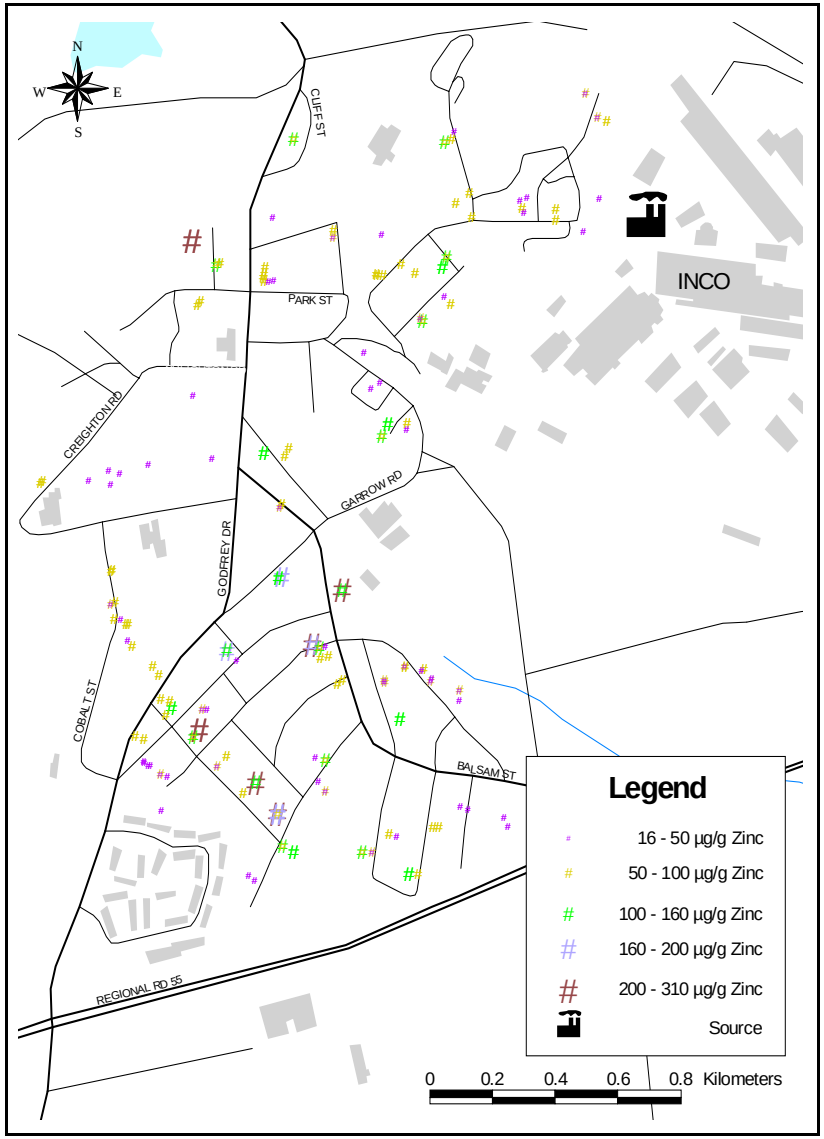
Map 10.2.1.13: Se concentrations in urban 0 - 5 cm soil in Copper Cliff



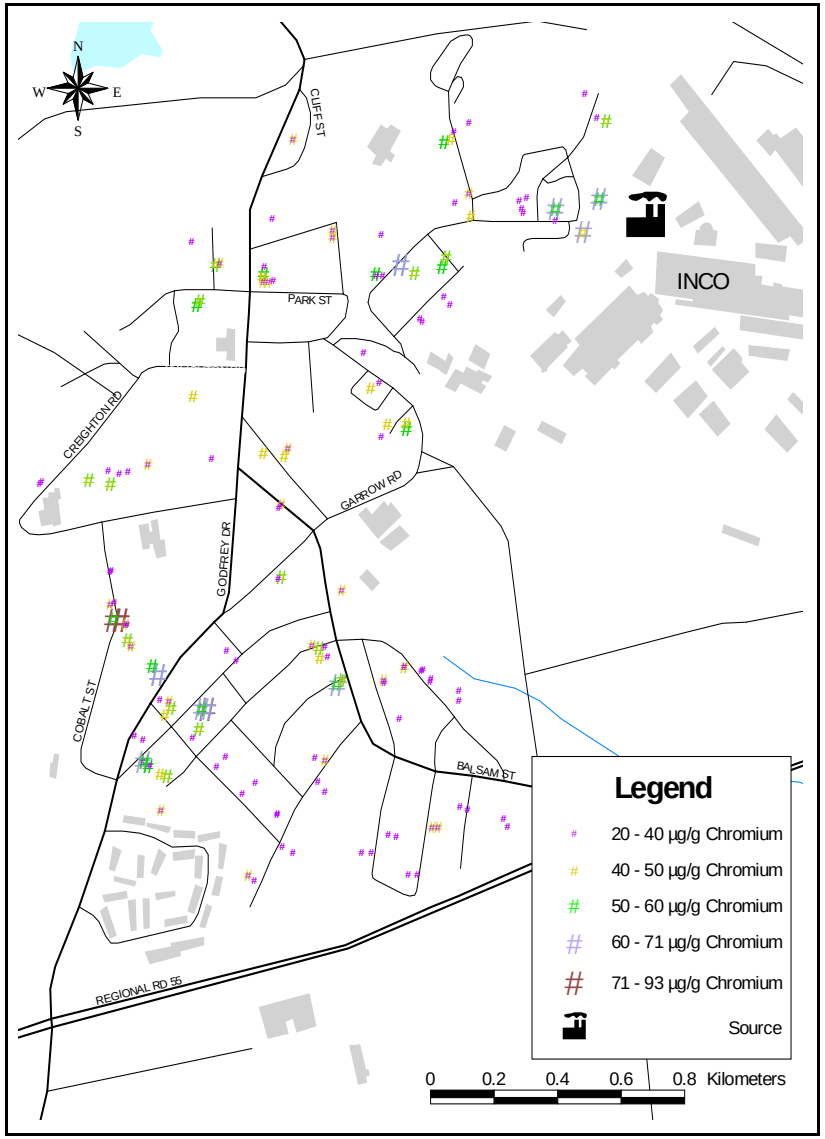
Map 10.2.1.14: Se concentrations in urban 10 - 20 cm soil in Copper Cliff



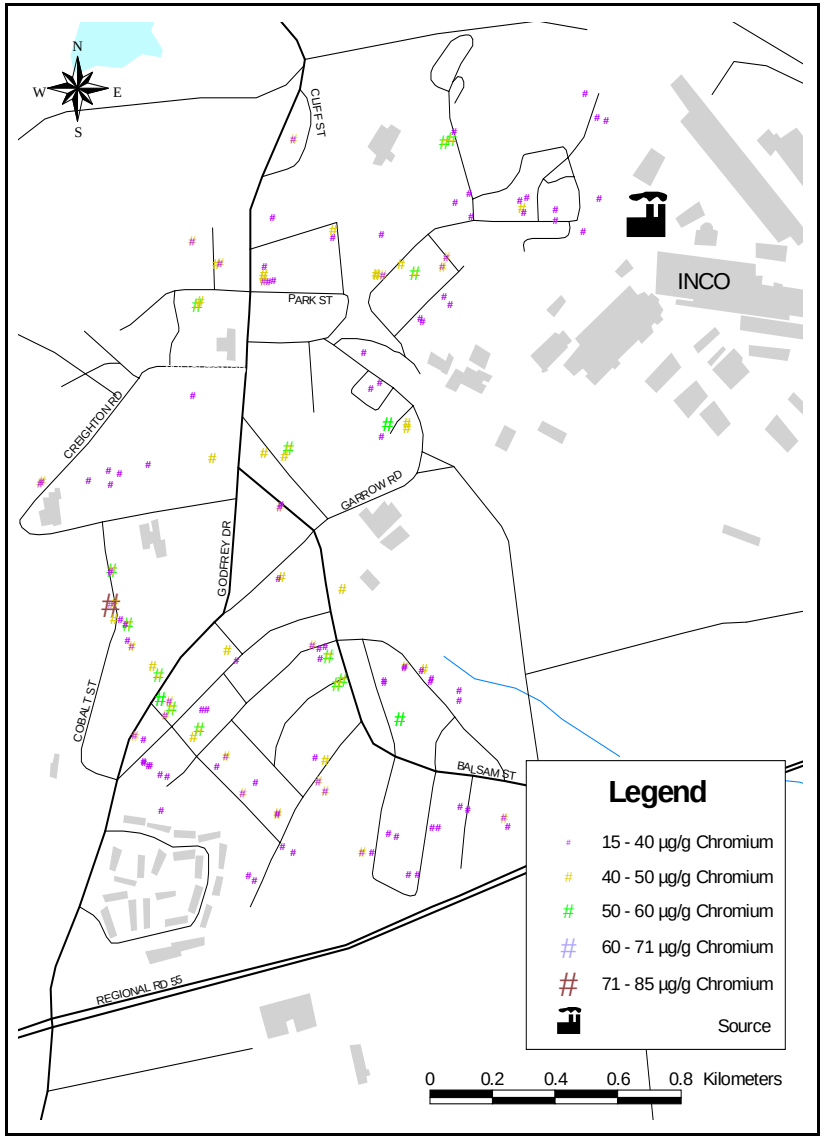
Map 10.2.1.15: Zn concentrations in urban 0 - 5 cm soil in Copper Cliff



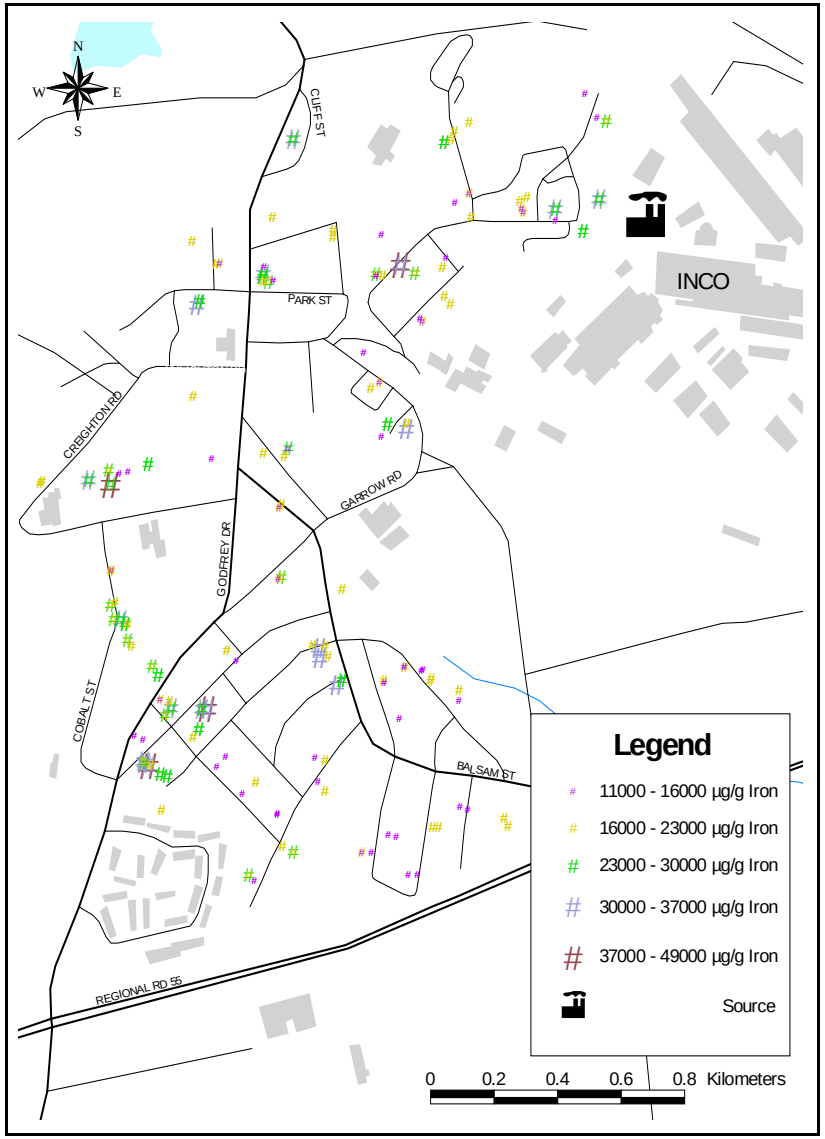
Map 10.2.1.16: Zn concentrations in urban 10 - 20 cm soil in Copper Cliff



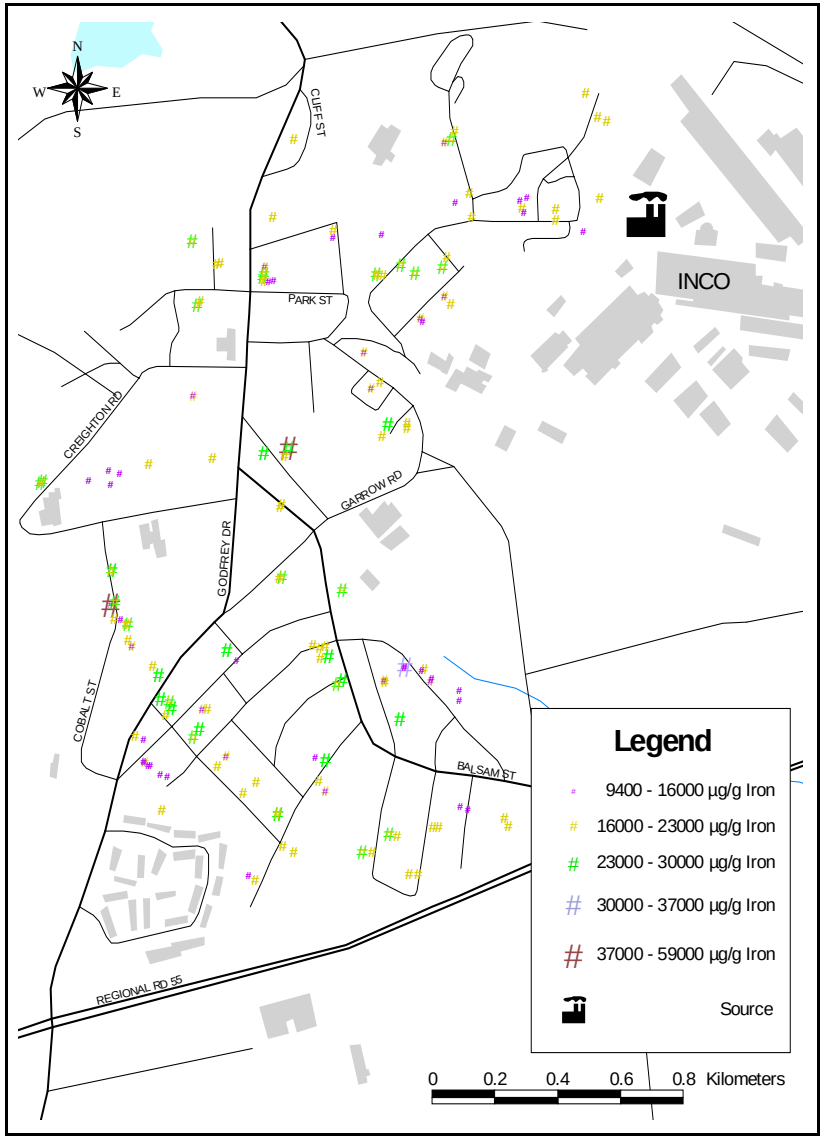
Map 10.2.1.17: Cr concentrations in urban 0 - 5 cm soil in Copper Cliff



Map 10.2.1.18: Cr concentrations in urban 10 - 20 cm soil in Copper Cliff

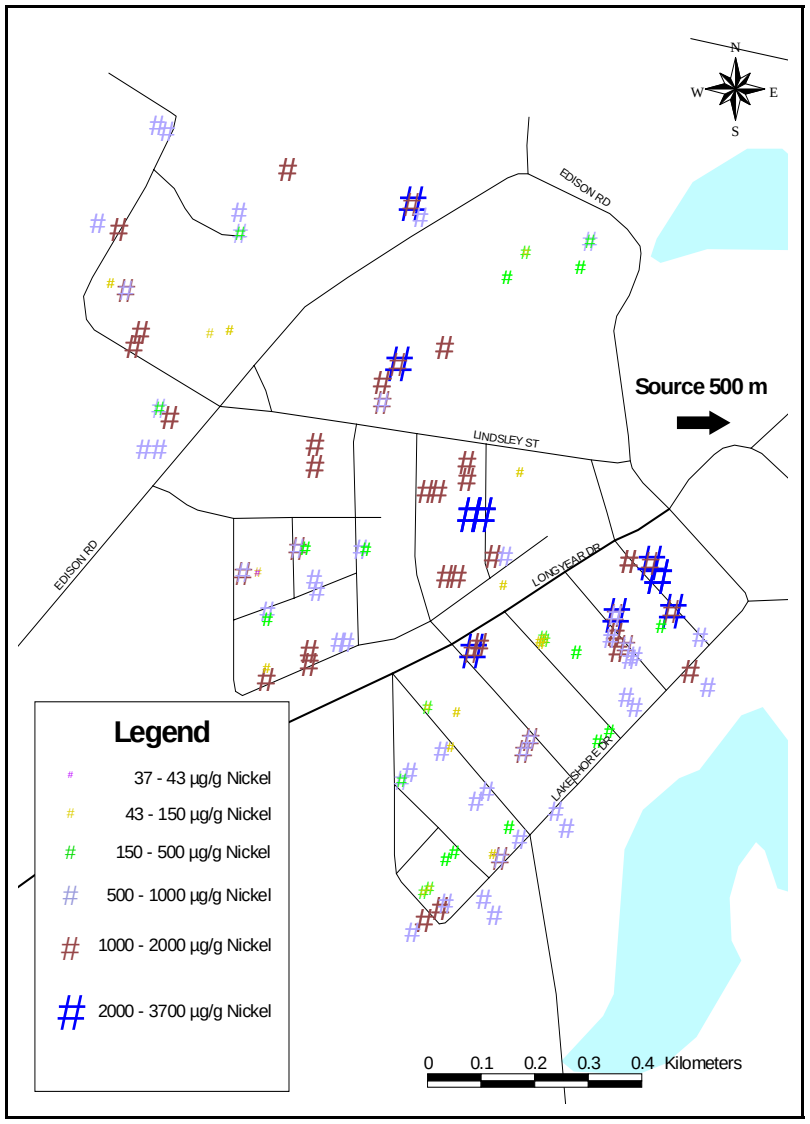


Map 10.2.1.19: Fe concentrations in urban 0 - 5 cm soil in Copper Cliff

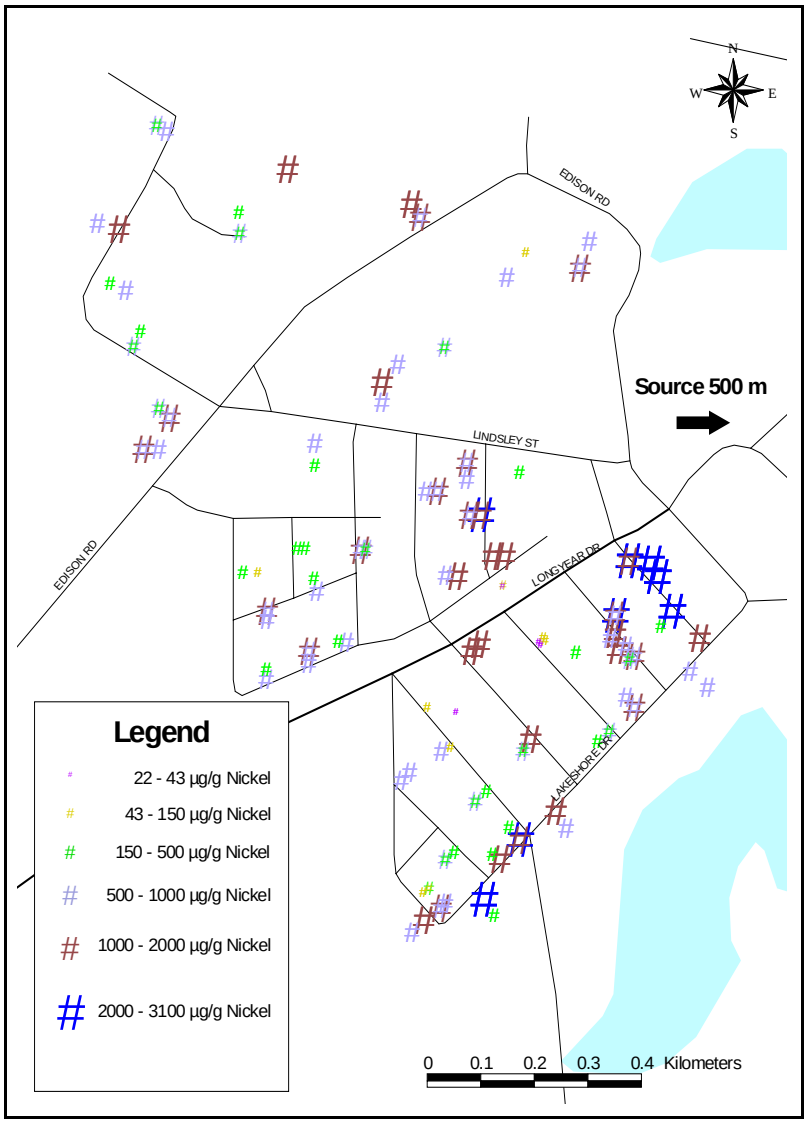


Map 10.2.1.20: Fe concentrations in urban 10 - 20 cm soil in Copper Cliff

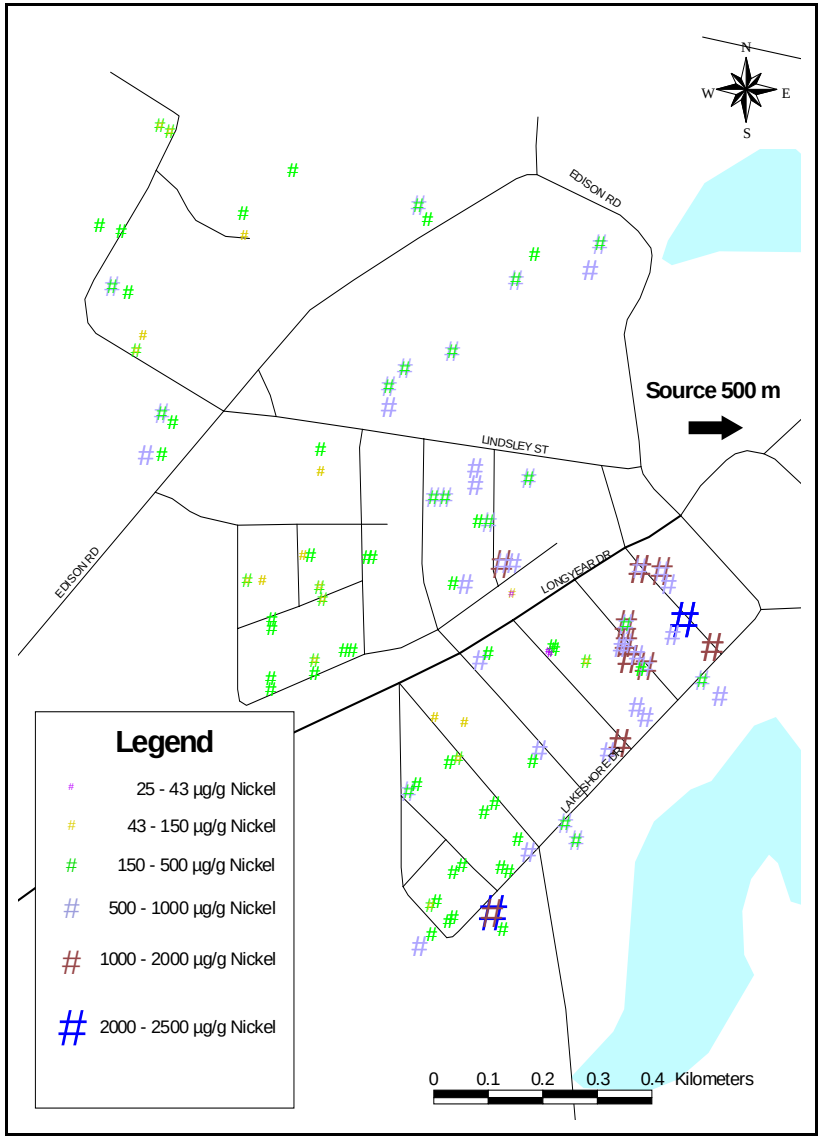
10.2.2 Falconbridge



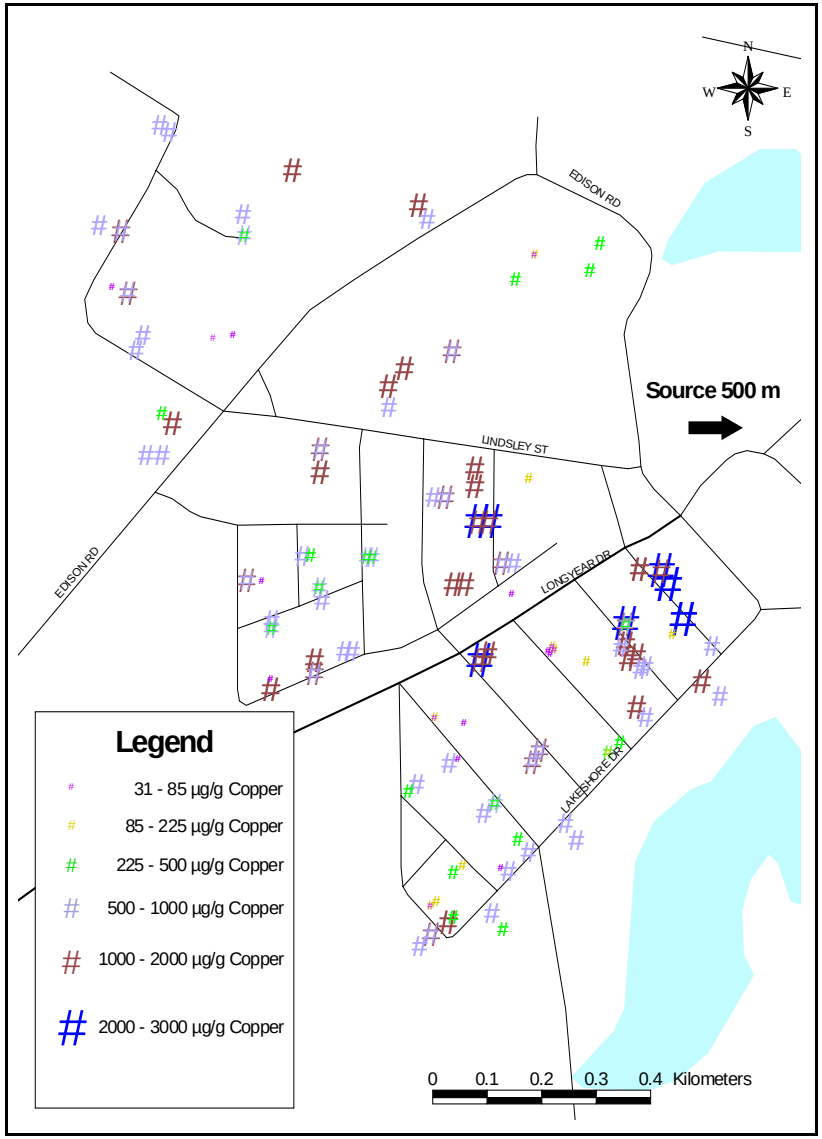
Map 10.2.2.1: Ni concentrations in urban 0 - 5 cm soil in Falconbridge



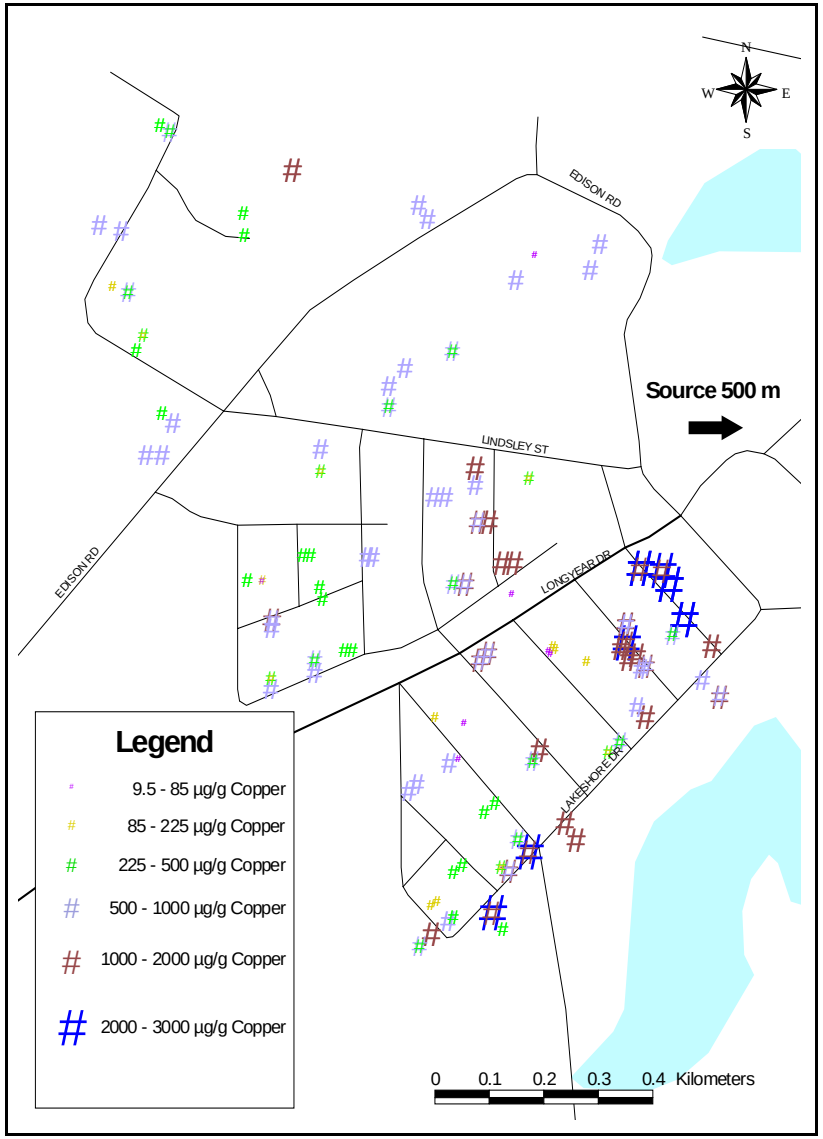
Map 10.2.2.2: Ni concentrations in urban 5 - 10 cm soil in Falconbridge



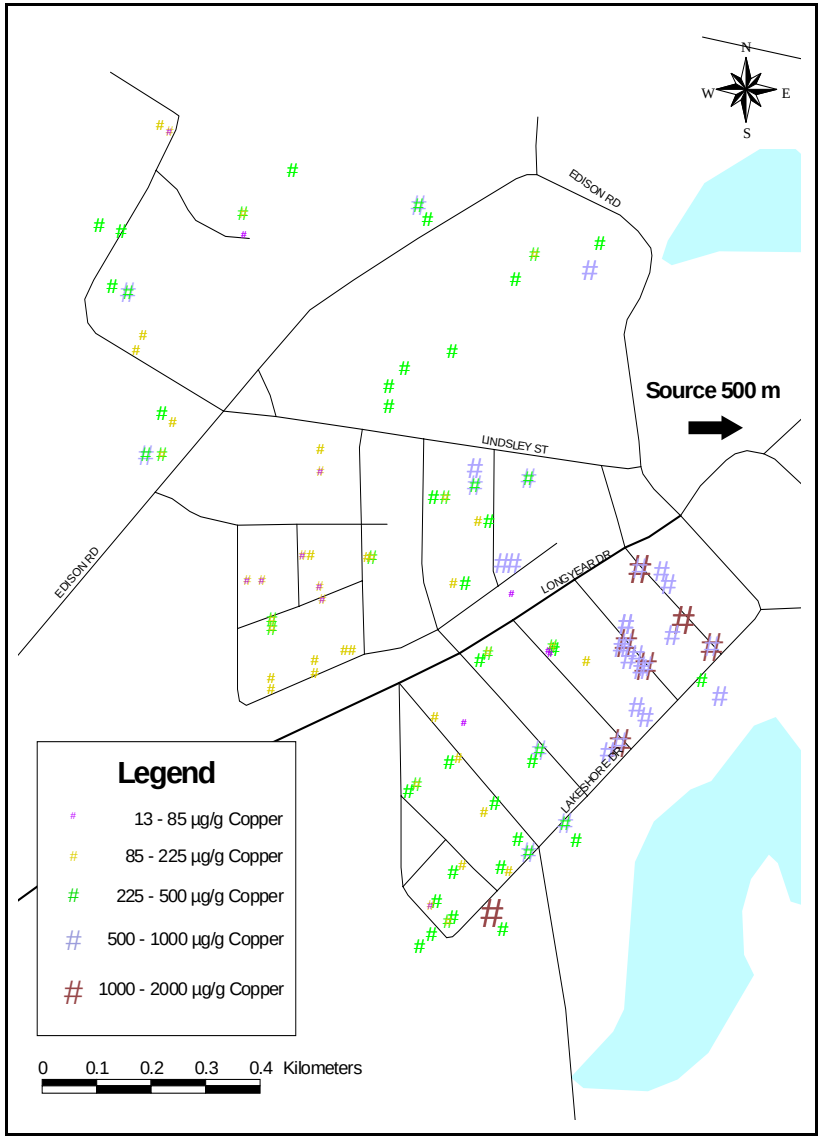
Map 10.2.2.3: Ni concentrations in urban 10 - 20 cm soil in Falconbridge



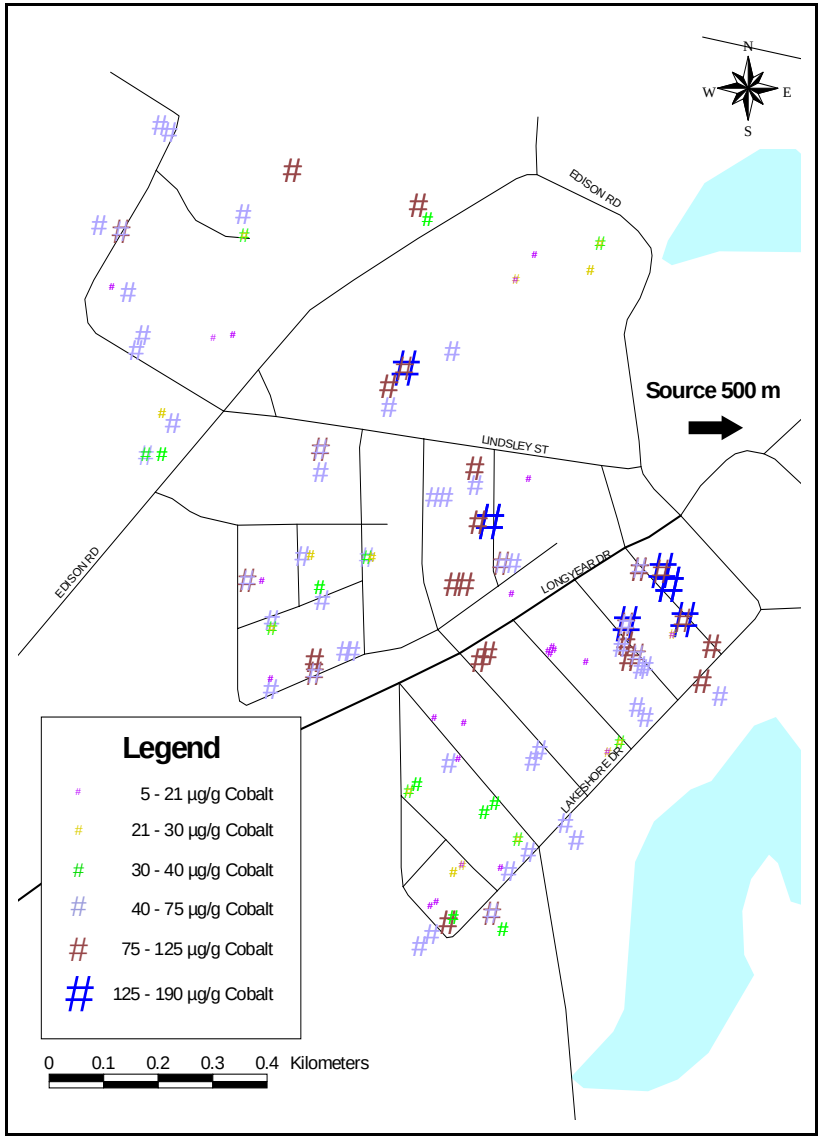
Map 10.2.2.4: Cu concentrations in urban 0 - 5 cm soil in Falconbridge



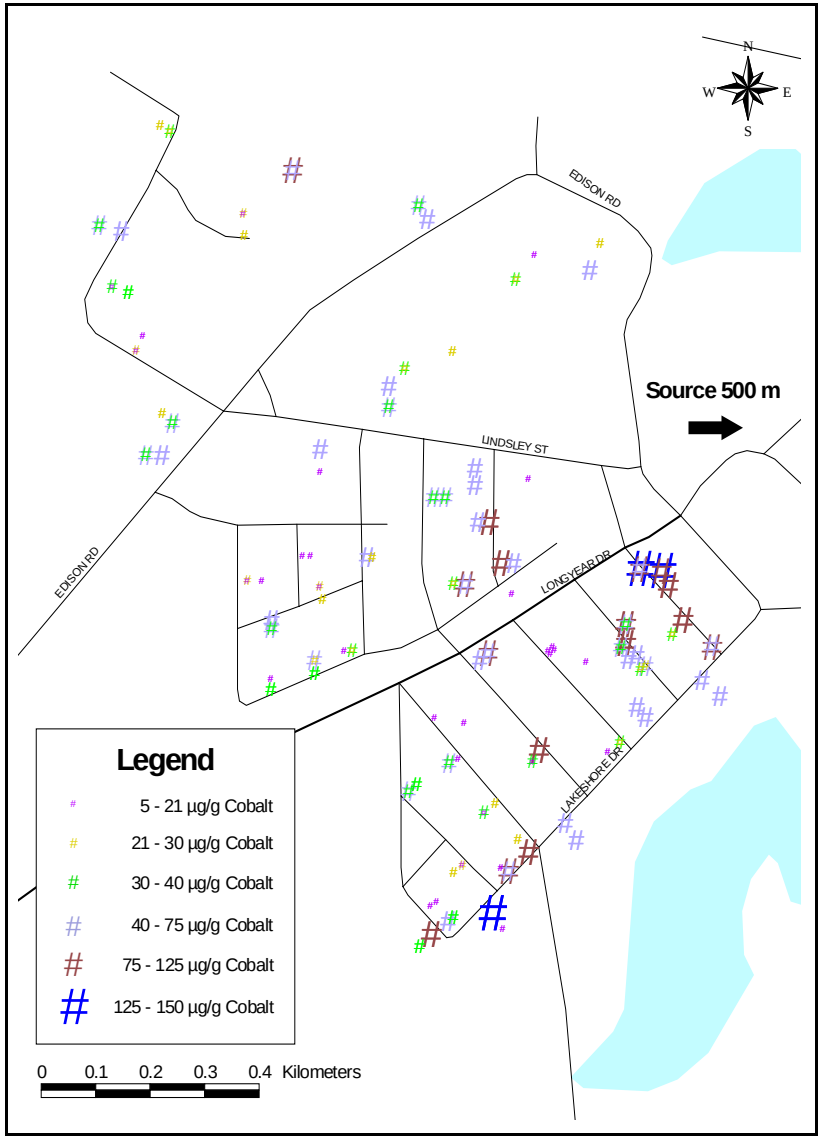
Map 10.2.2.5: Cu concentrations in urban 5 - 10 cm soil in Falconbridge



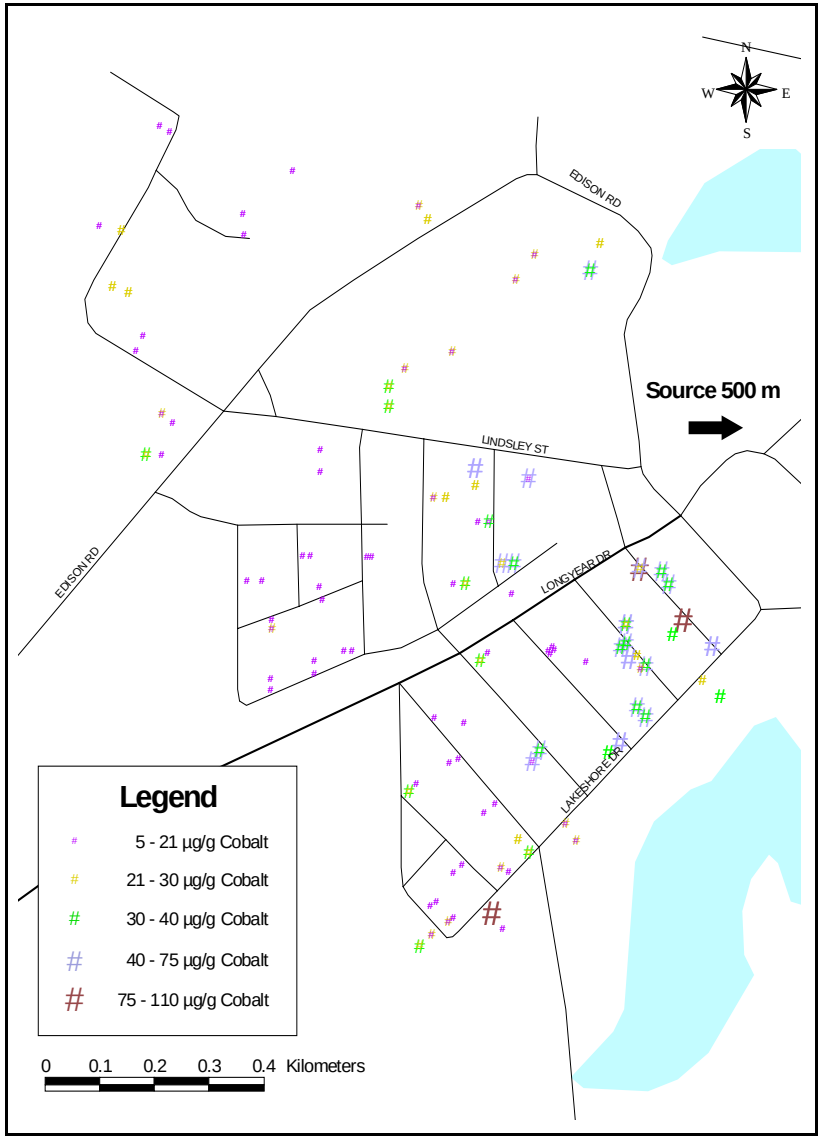
Map 10.2.2.6: Cu concentrations in urban 10 - 20 cm soil in Falconbridge



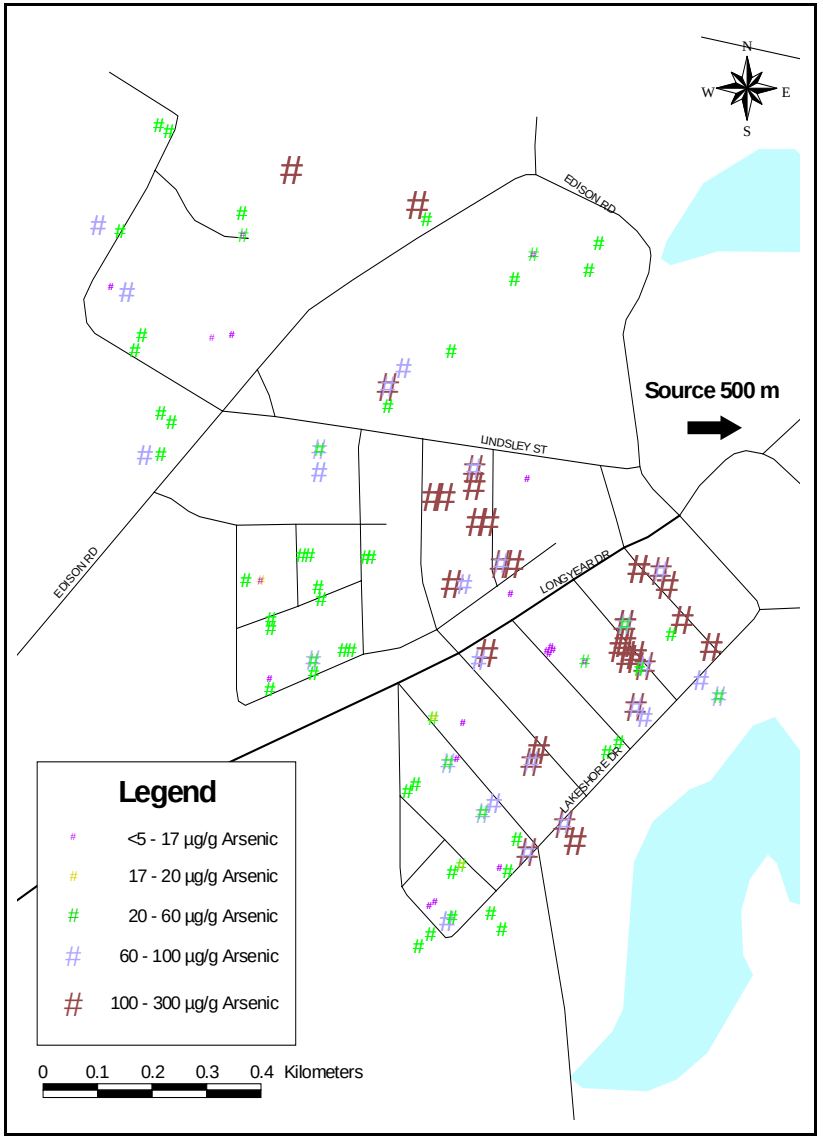
Map 10.2.2.7: Co concentrations in urban 0 - 5 cm soil in Falconbridge



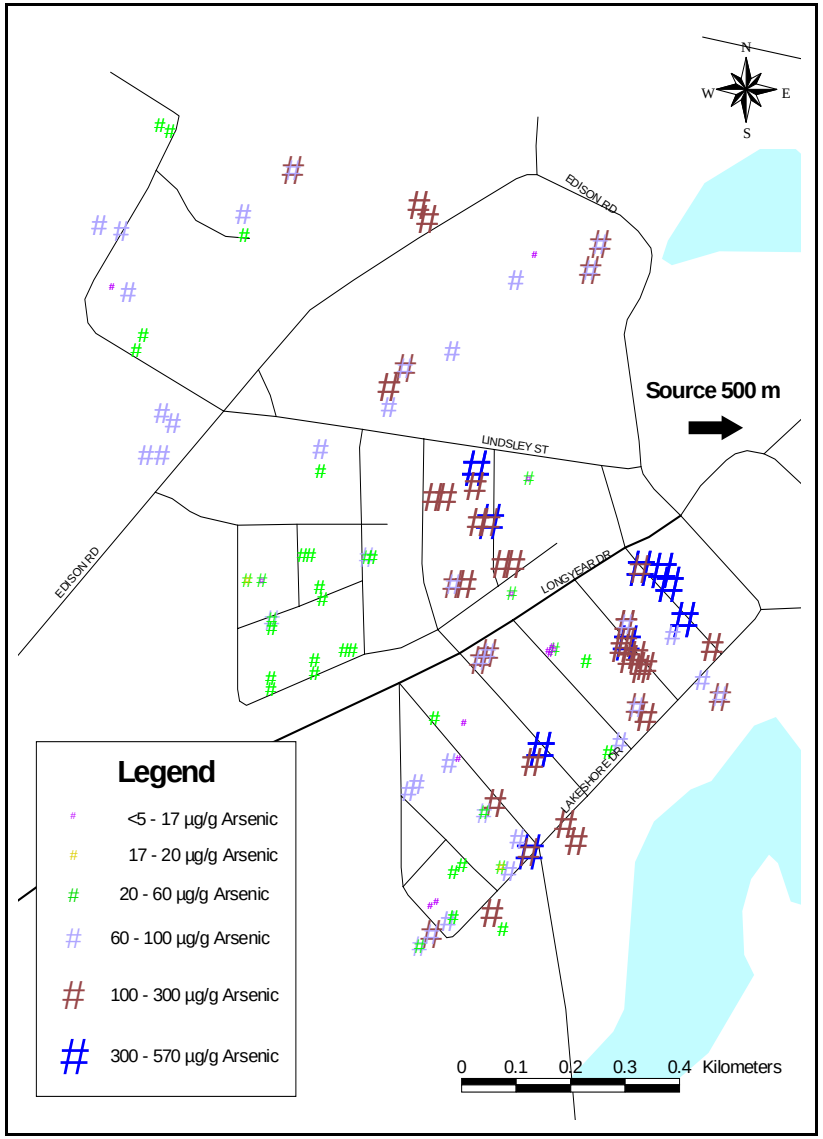
Map 10.2.2.8: Co concentrations in urban 5 - 10 cm soil in Falconbridge



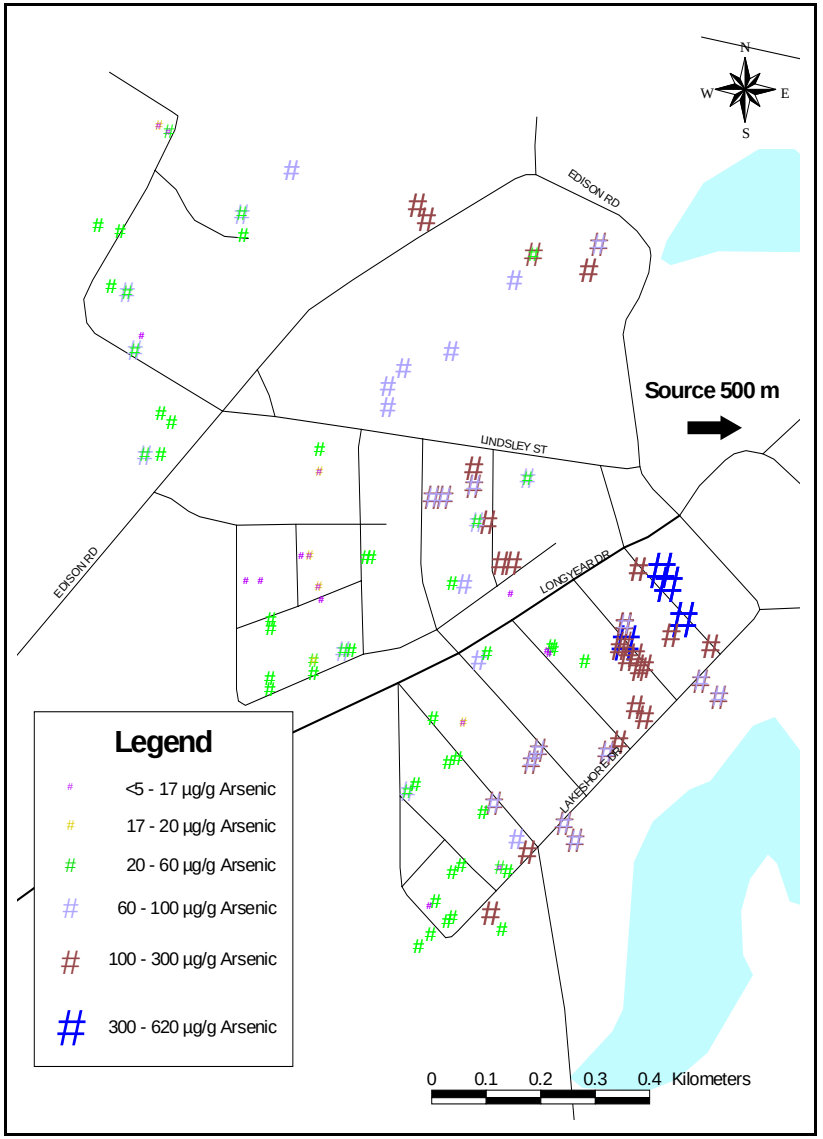
Map 10.2.2.9: Co concentrations in urban 10 - 20 cm soil in Falconbridge



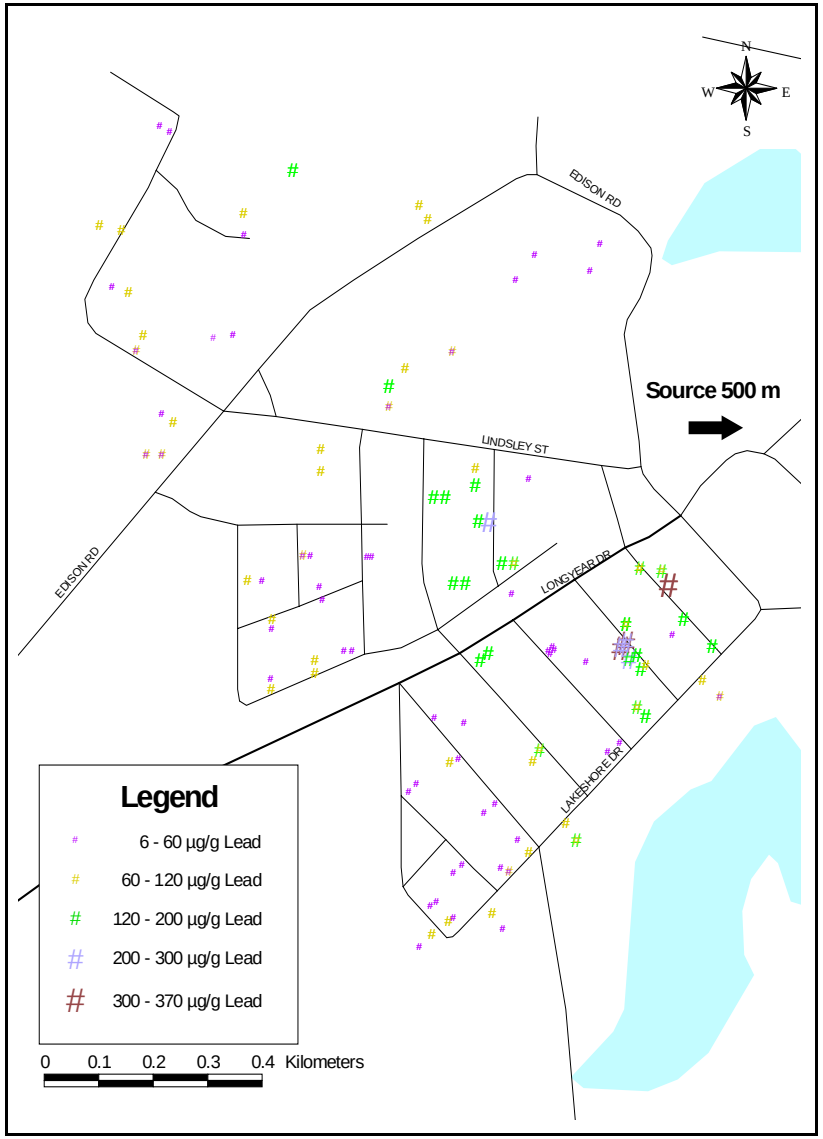
Map 10.2.2.10: As concentrations in urban 0 - 5 cm soil in Falconbridge



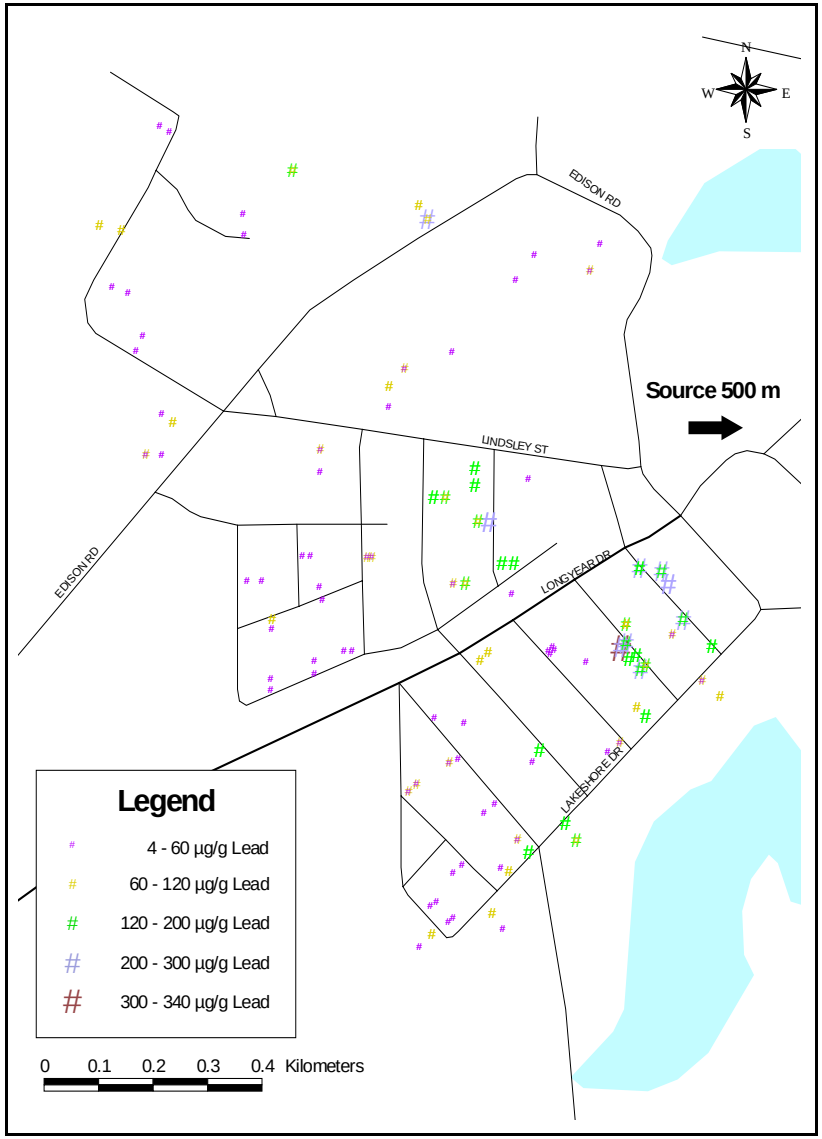
Map 10.2.2.11: As concentrations in urban 5 - 10 cm soil in Falconbridge



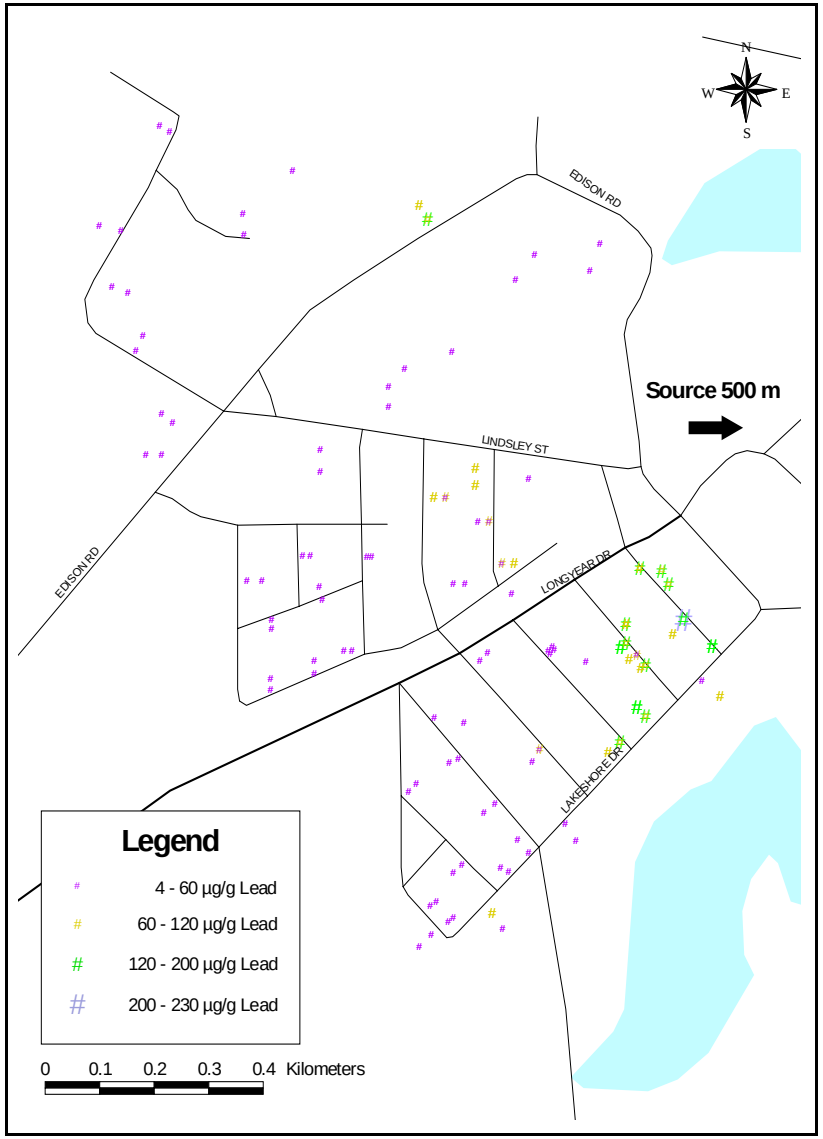
Map 10.2.2.12: As concentrations in urban 10 - 20 cm soil in Falconbridge



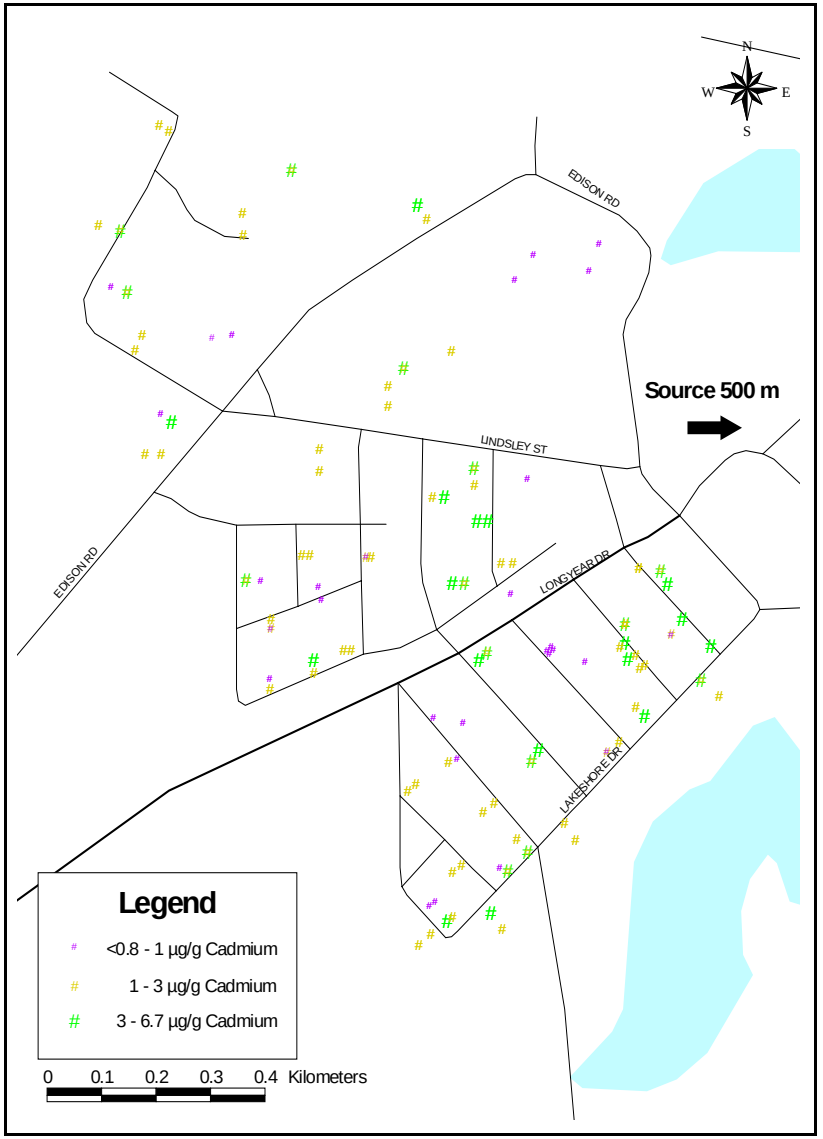
Map 10.2.2.13: Pb concentrations in urban 0 - 5 cm soil in Falconbridge



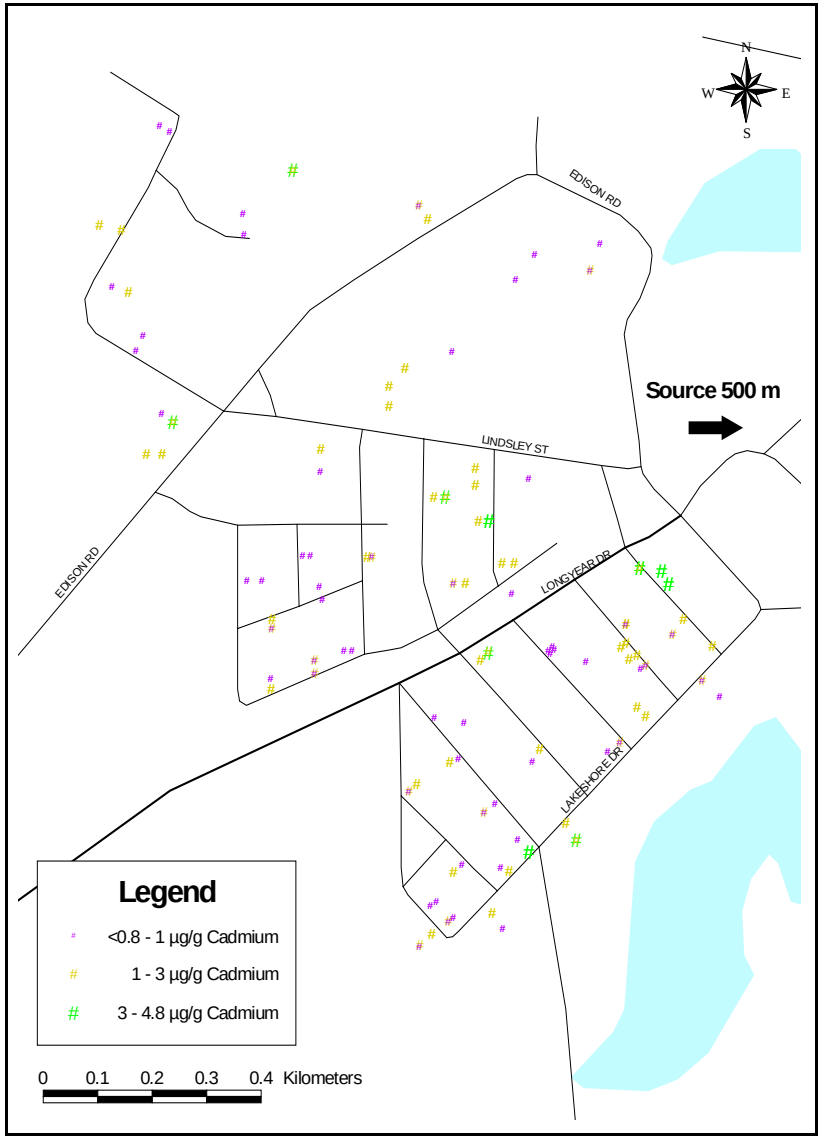
Map 10.2.2.14: Pb concentrations in urban 5 - 10 cm soil in Falconbridge



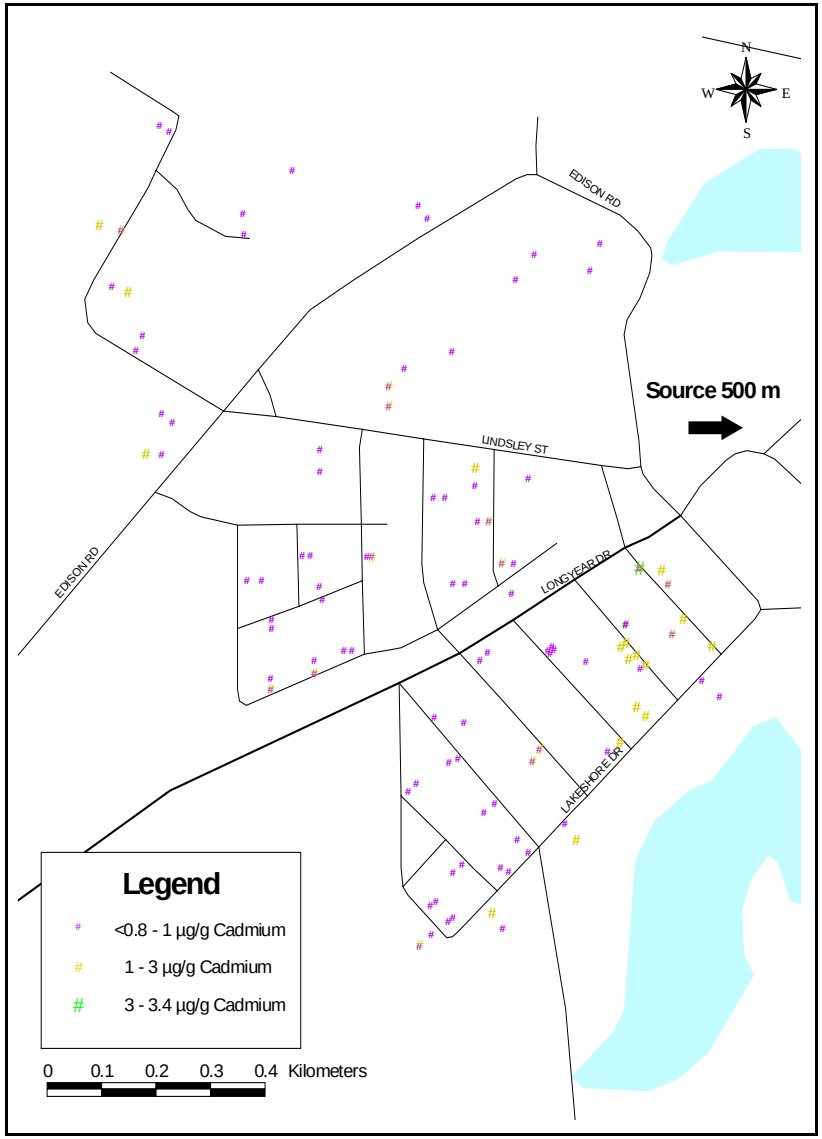
Map 10.2.2.15: Pb concentrations in urban 10 - 20 cm soil in Falconbridge



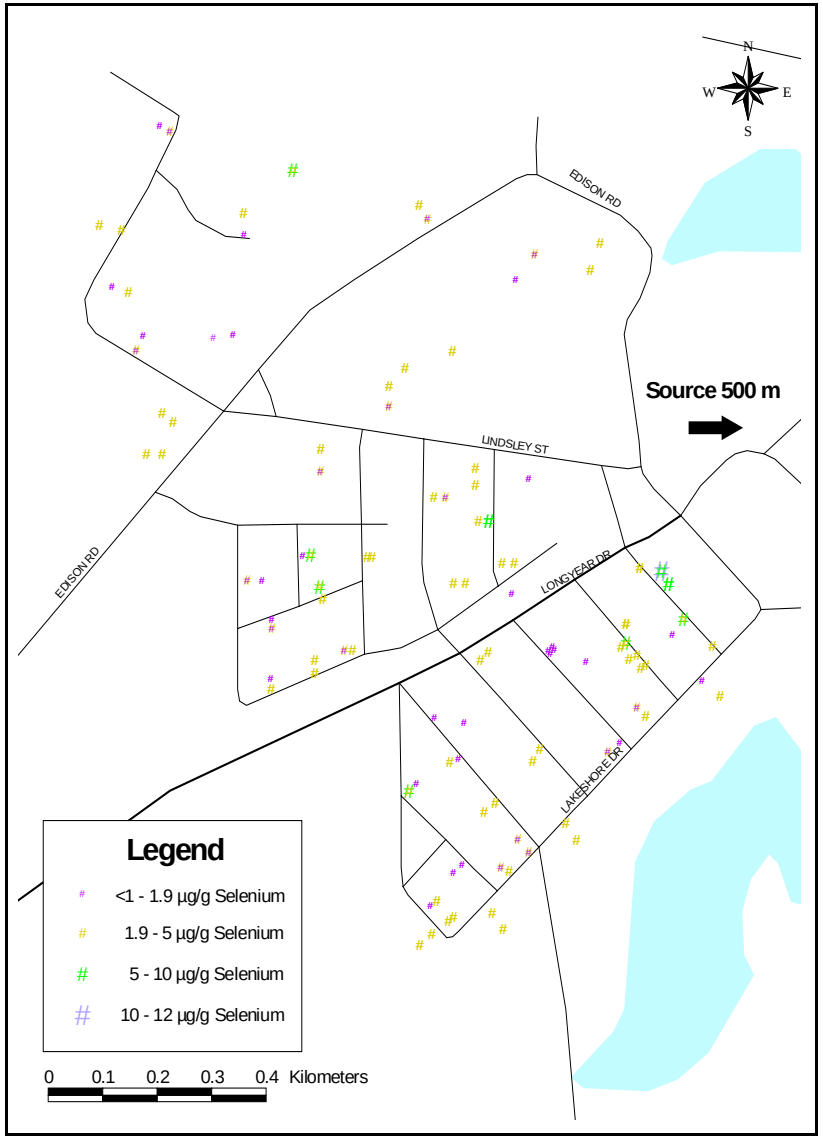
Map 10.2.2.16: Cd concentrations in urban 0 - 5 cm soil in Falconbridge



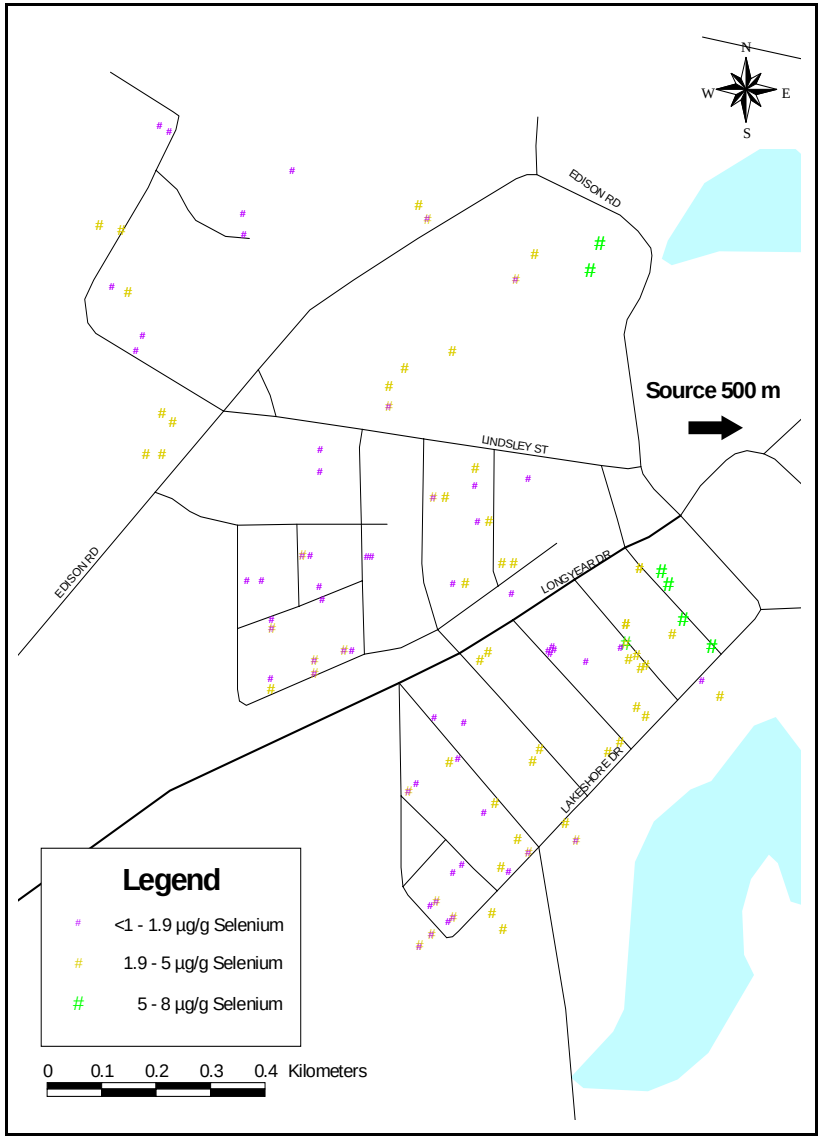
Map 10.2.2.17: Cd concentrations in urban 5 - 10 cm soil in Falconbridge



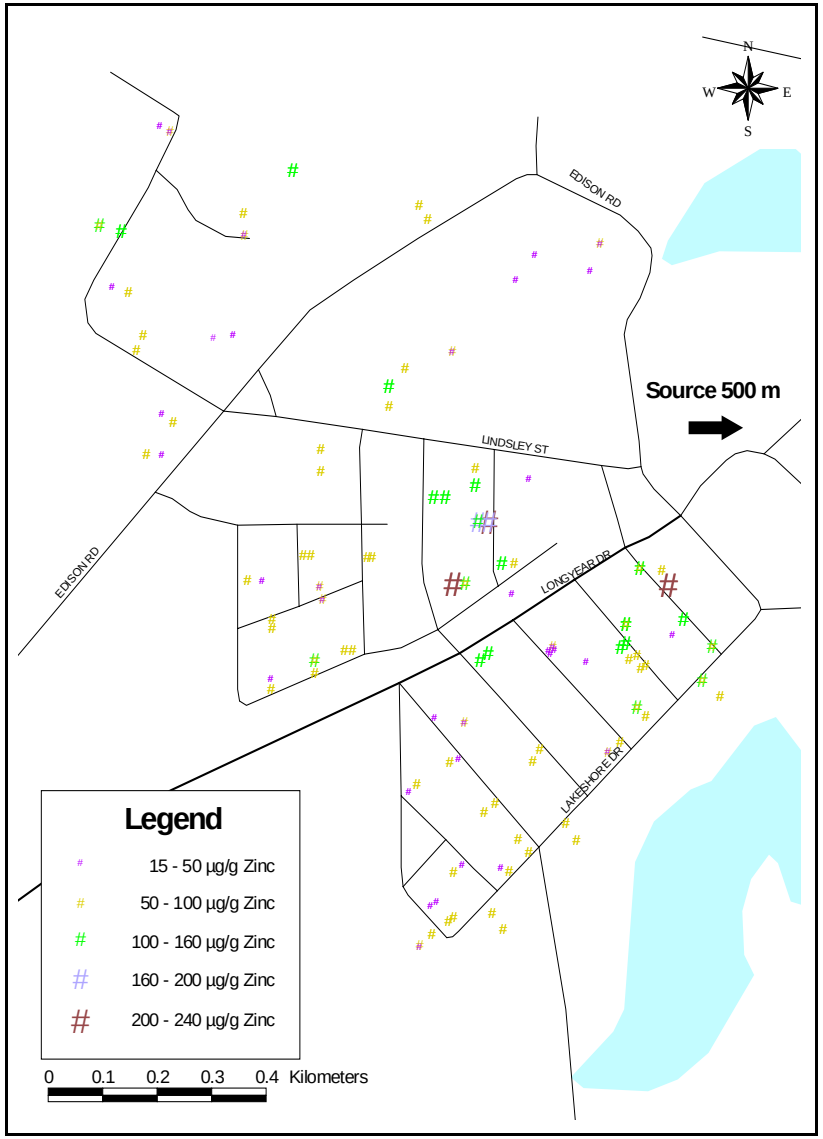
Map 10.2.2.18: Cd concentrations in urban 10 - 20 cm soil in Falconbridge



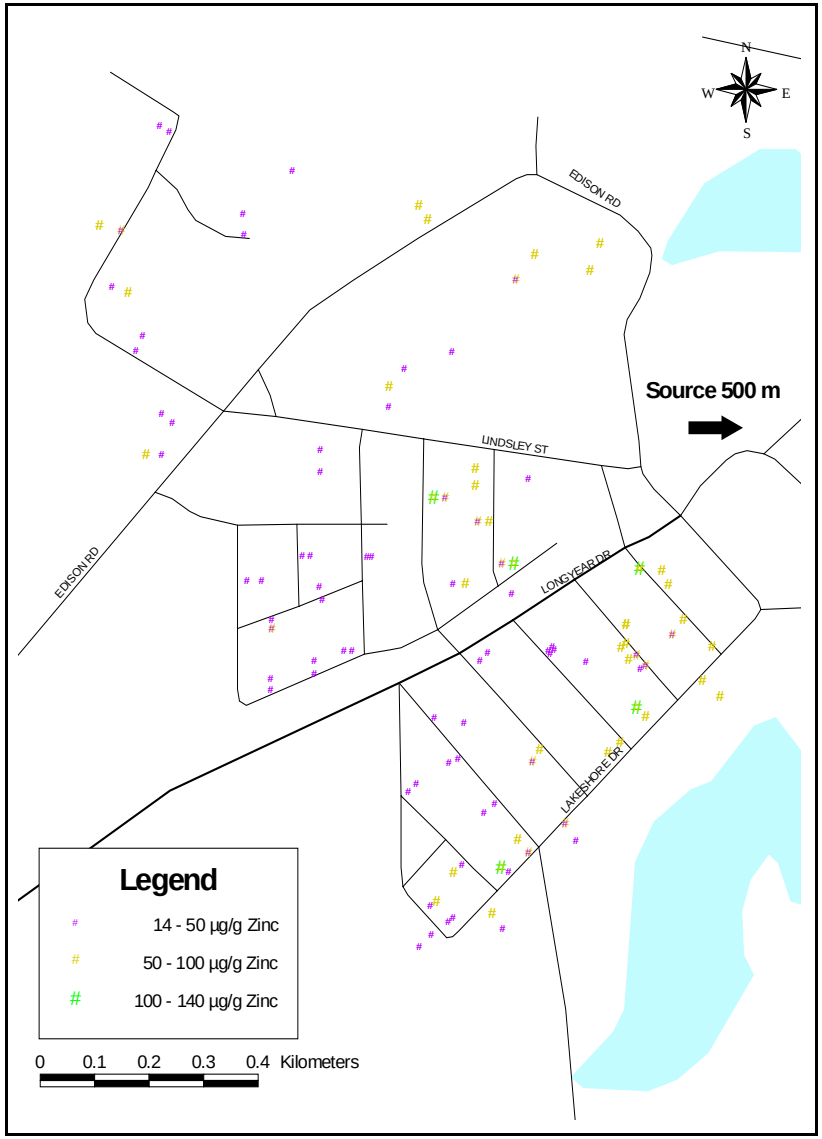
Map 10.2.2.19: Se concentrations in urban 0 - 5 cm soil in Falconbridge



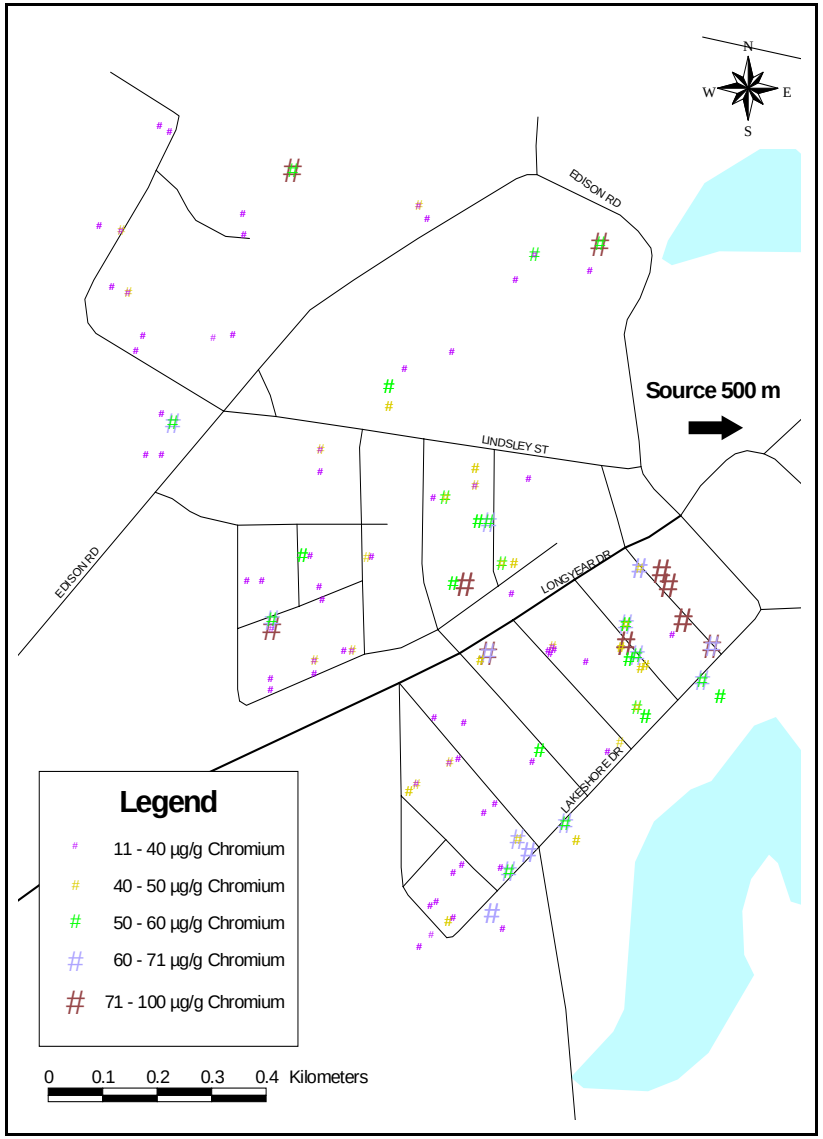
Map 10.2.2.20: Se concentrations in urban 10 - 20 cm soil in Falconbridge



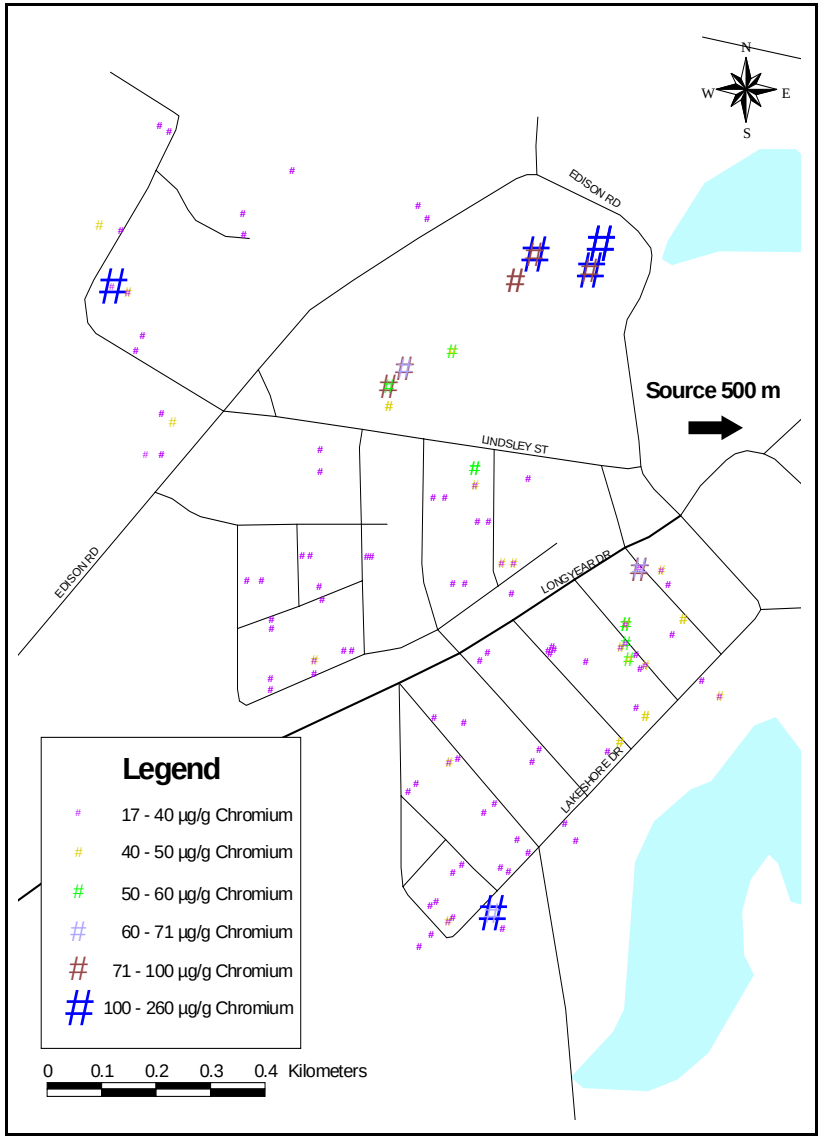
Map 10.2.2.21: Zn concentrations in urban 0 - 5 cm soil in Falconbridge



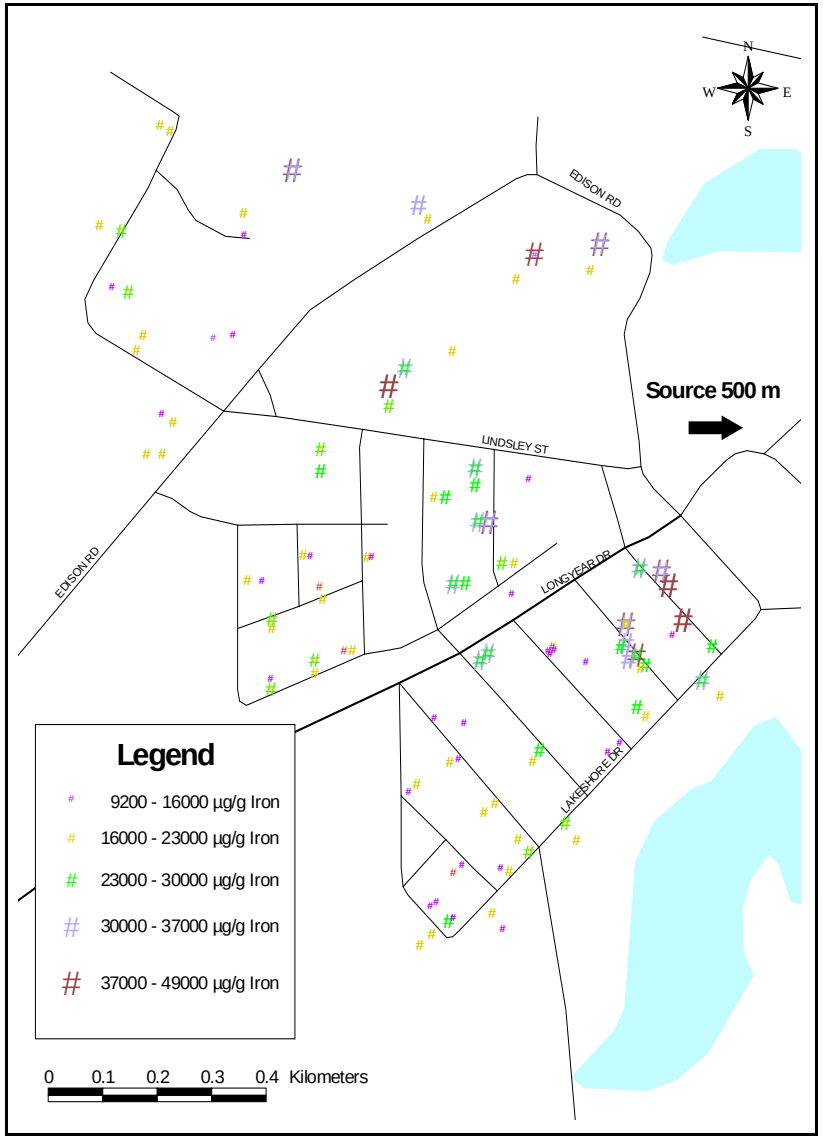
Map 10.2.2.22: Zn concentrations in urban 0 - 5 cm soil in Falconbridge



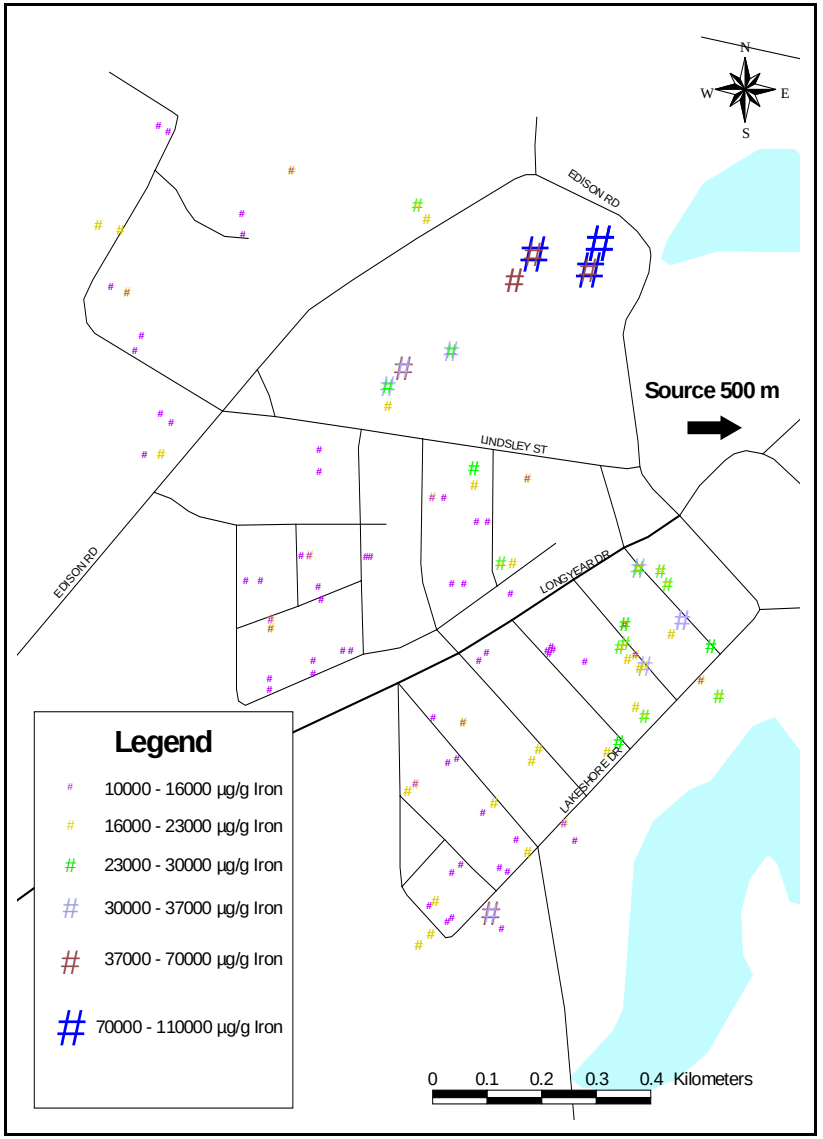
Map 10.2.2.23: Cr concentrations in urban 0 - 5 cm soil in Falconbridge



Map 10.2.2.24: Cr concentrations in urban 10 - 20 cm soil in Falconbridge

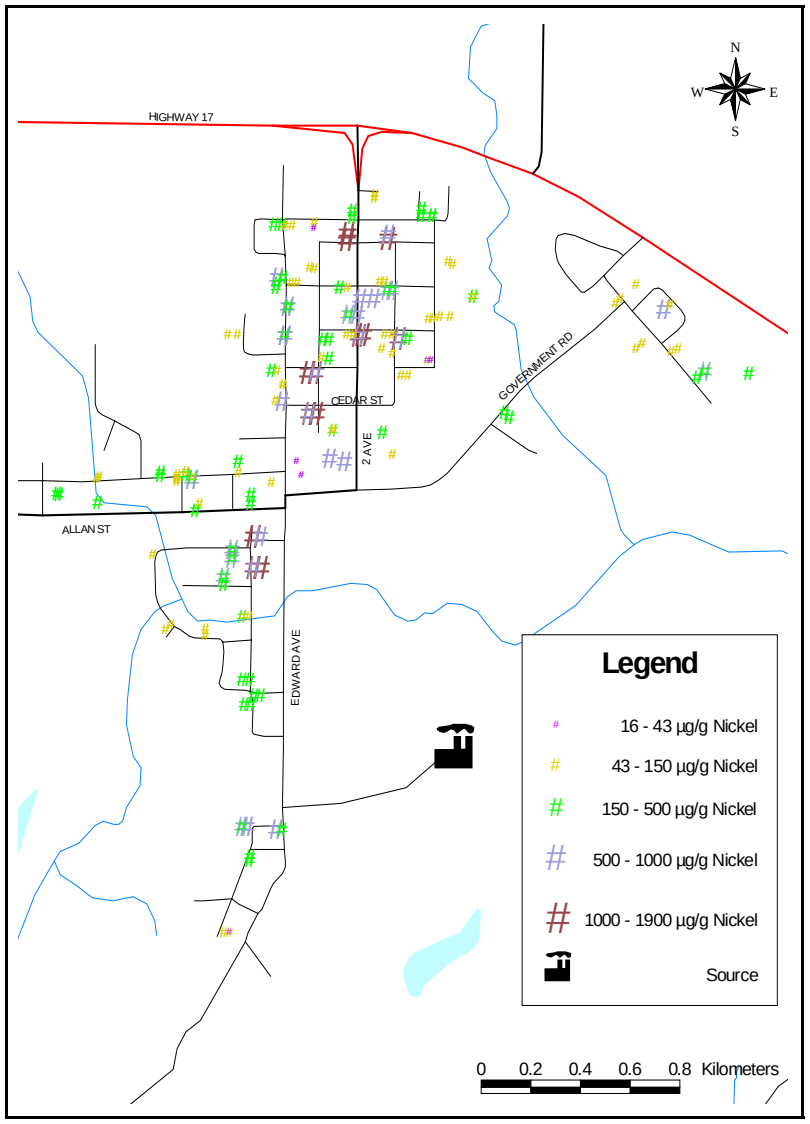


Map 10.2.2.25: Fe concentrations in urban 0 - 5 cm soil in Falconbridge

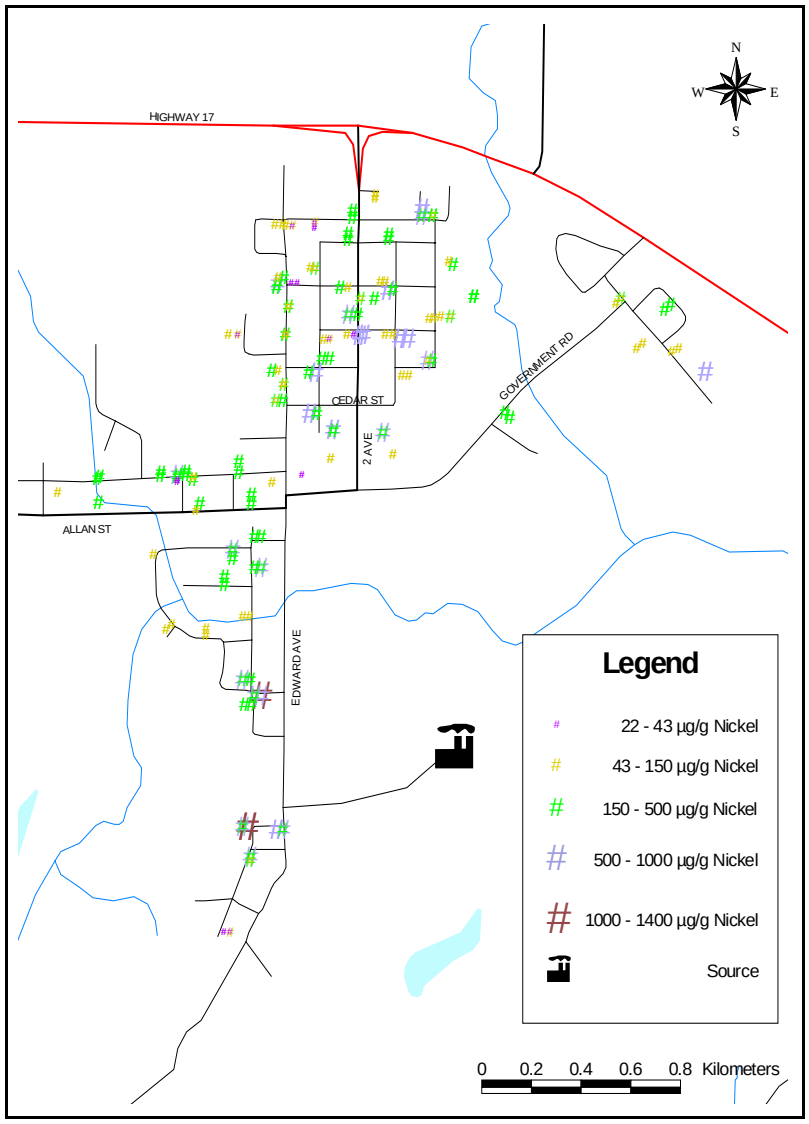


Map 10.2.2.26: Fe concentrations in urban 10 - 20 cm soil in Falconbridge

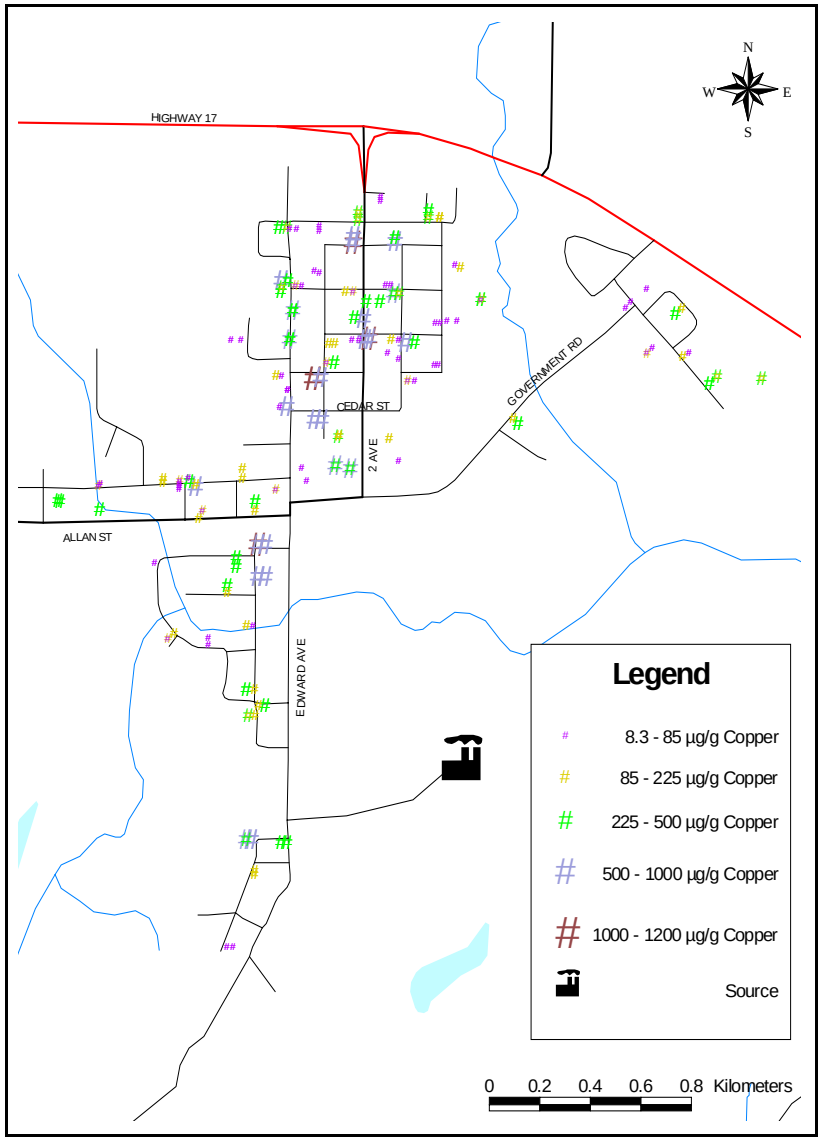
10.2.3 Coniston



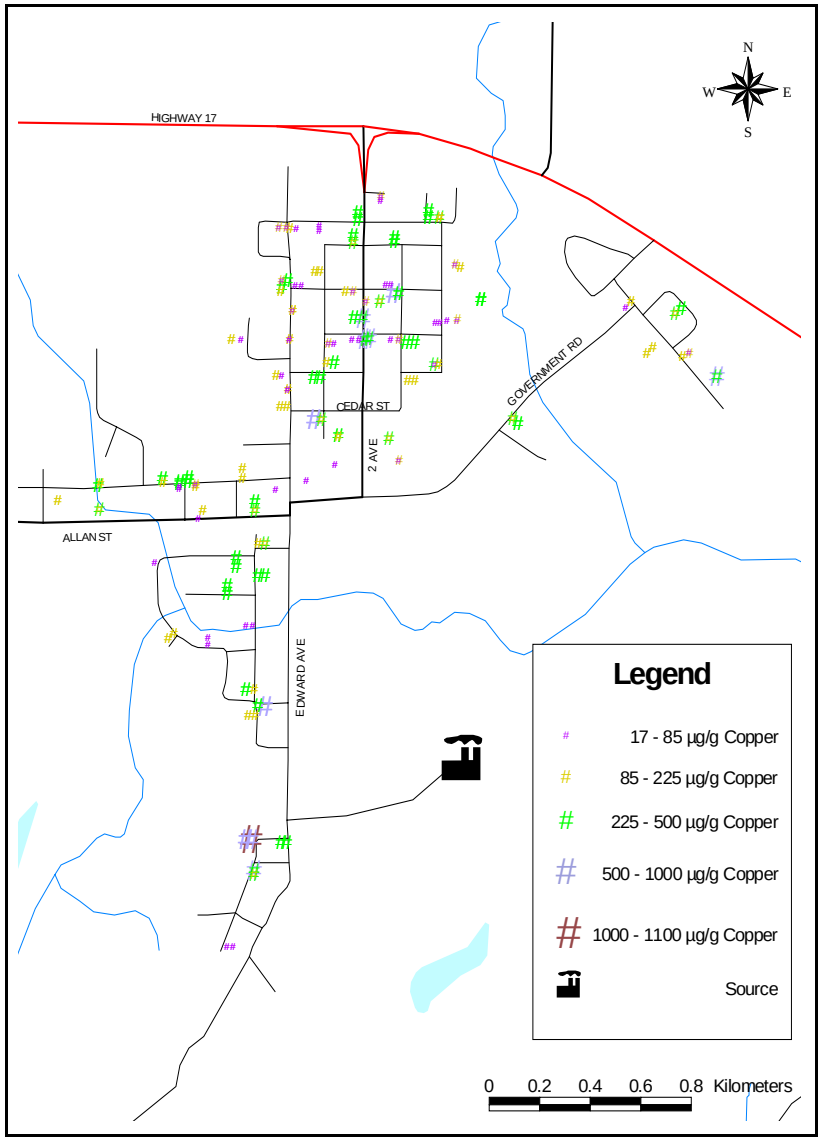
Map 10.2.3.1: Ni concentrations in urban 0 - 5 cm soil in Coniston



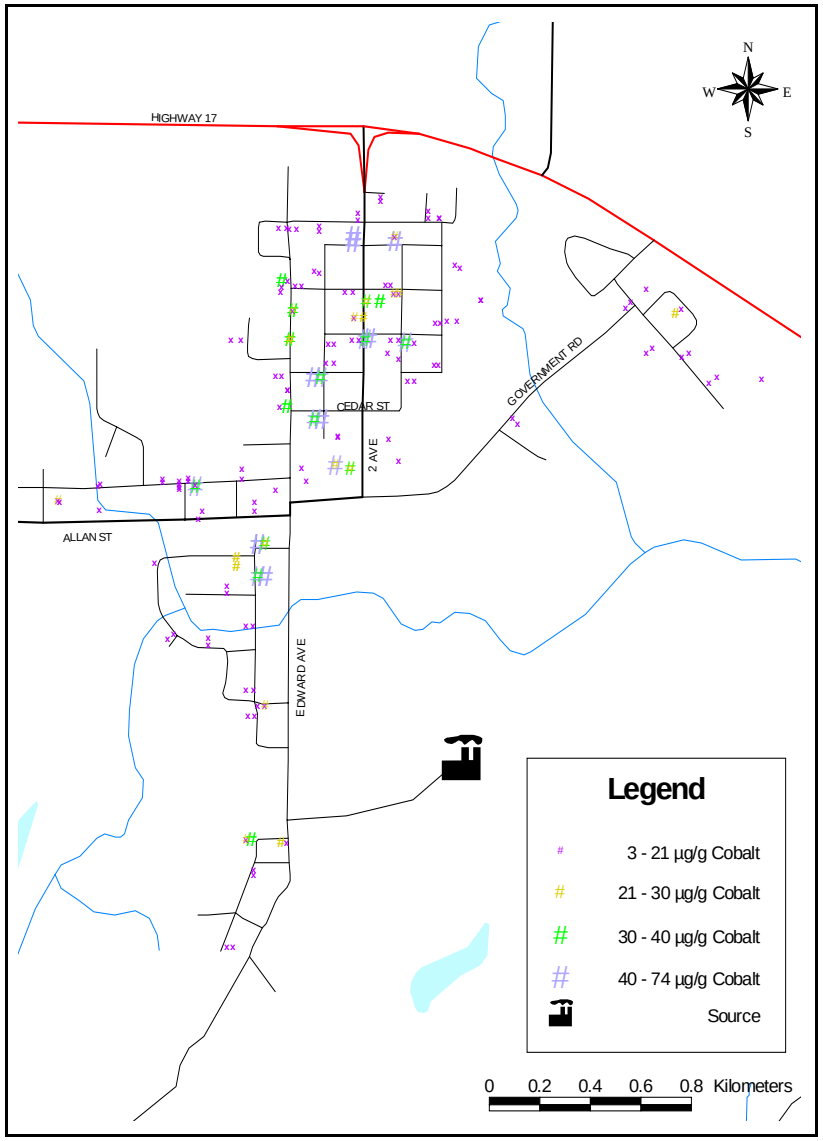
Map 10.2.3.2: Ni concentrations in urban 10 - 20 cm soil in Coniston



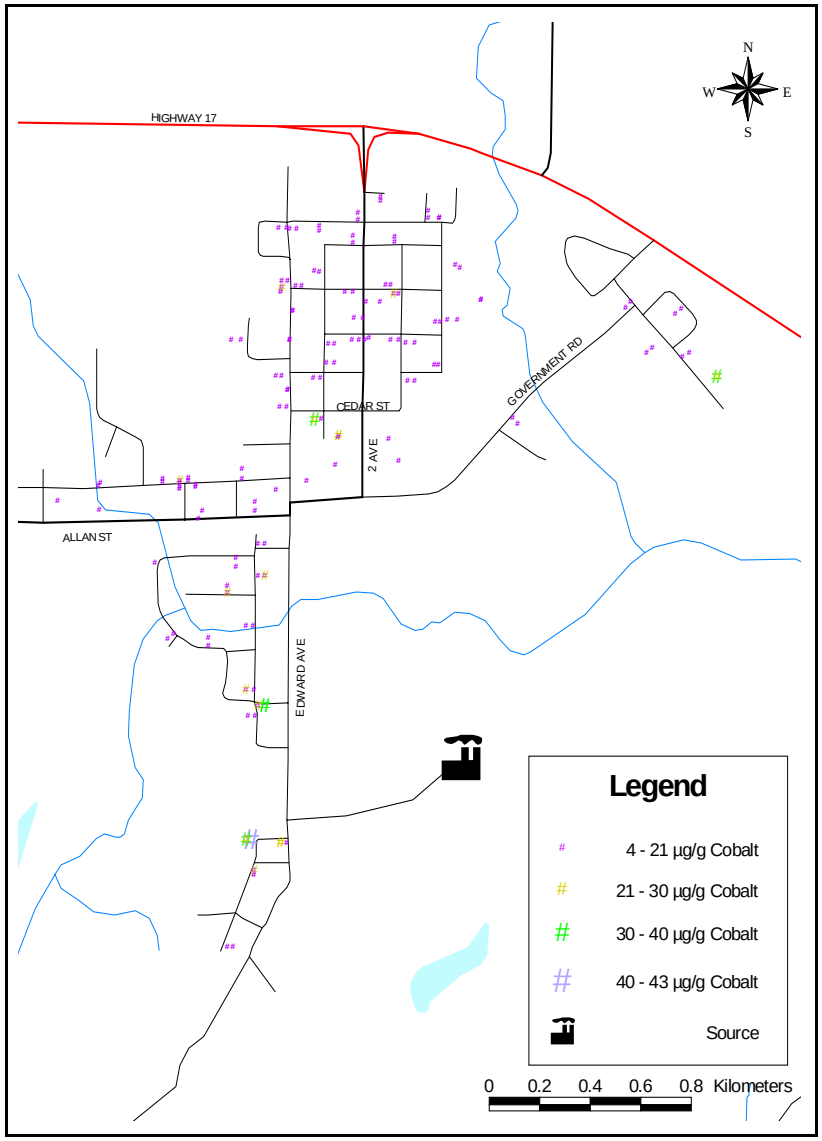
Map 10.2.3.3: Cu concentrations in urban 0 - 5 cm soil in Coniston



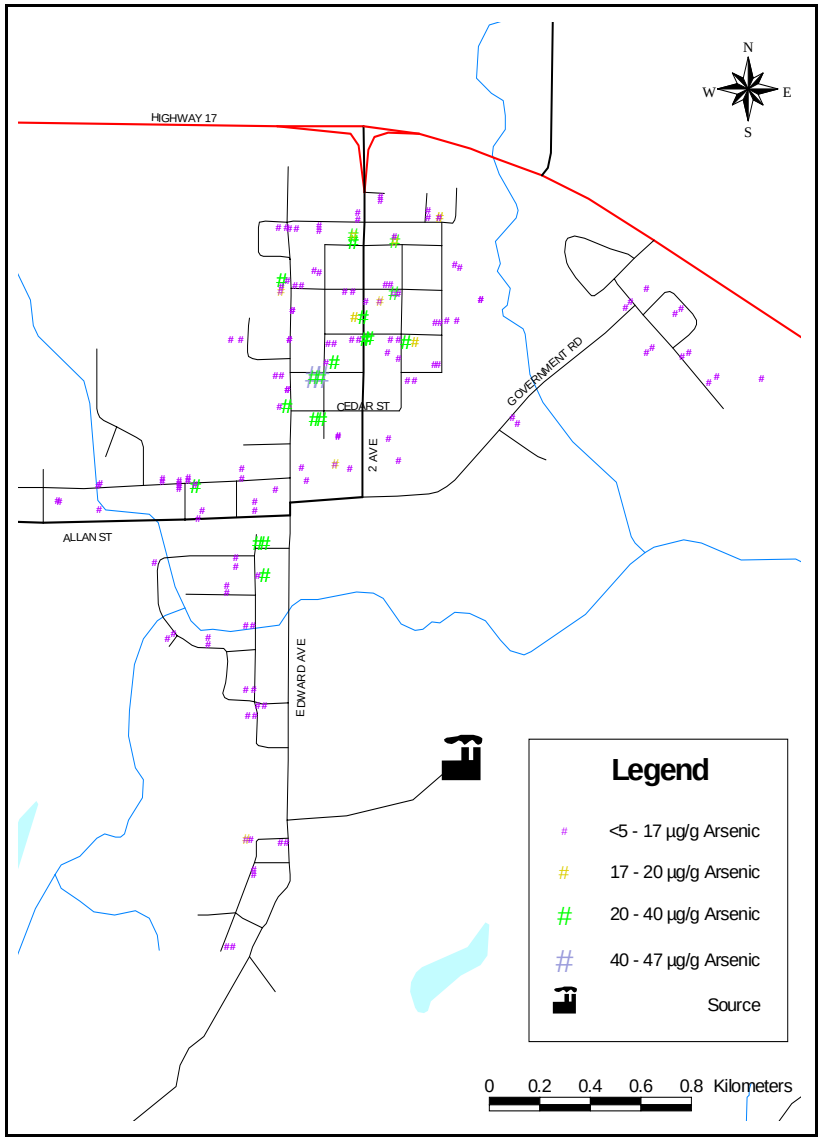
Map 10.2.3.4: Cu concentrations in urban 10 - 20 cm soil in Coniston



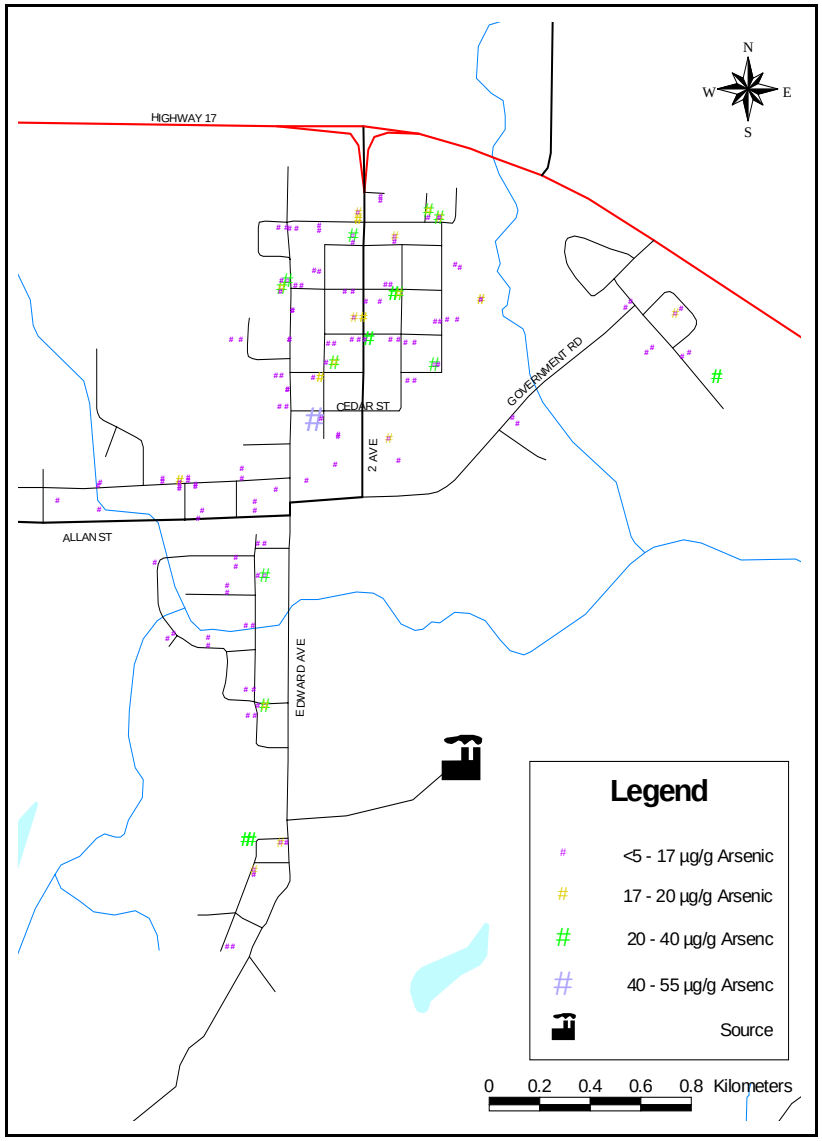
Map 10.2.3.5: Co concentrations in urban 0 - 5 cm soil in Coniston



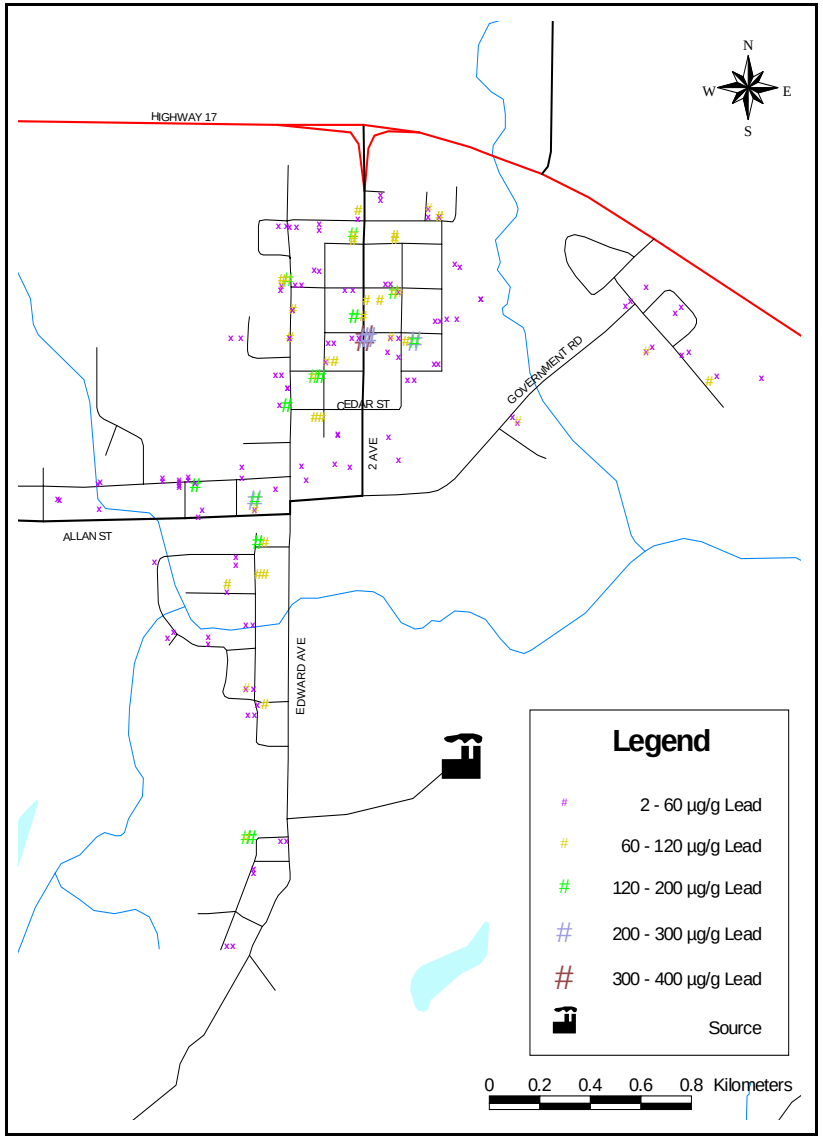
Map 10.2.3.6: Co concentrations in urban 10 - 20 cm soil in Coniston



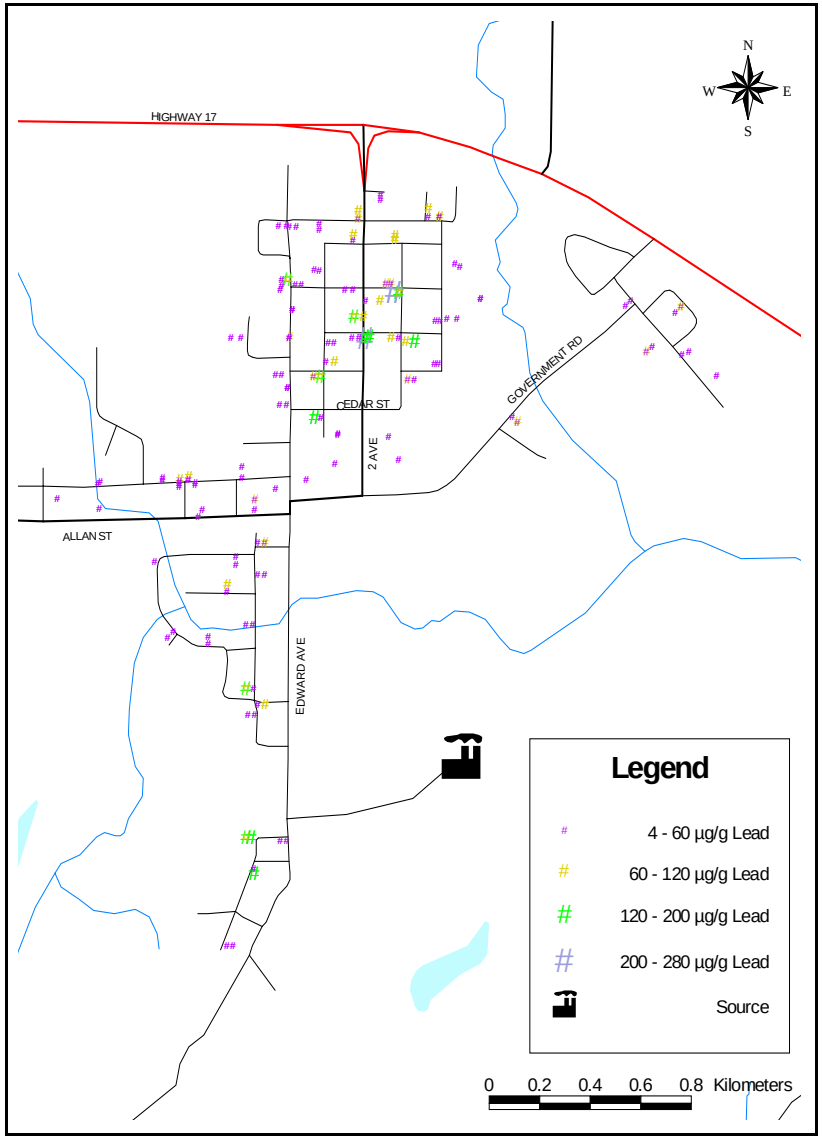
Map 10.2.3.7: As concentrations in urban 0 - 5 cm soil in Coniston



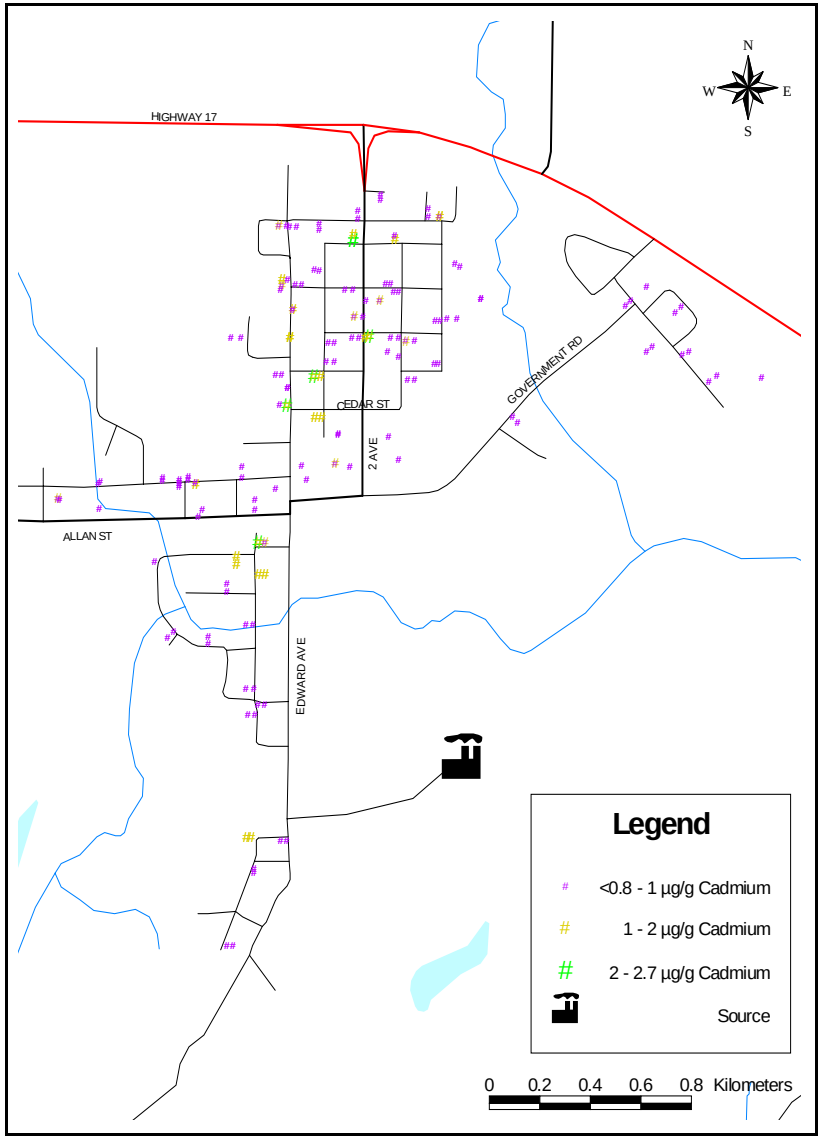
Map 10.2.3.8: As concentrations in urban 10 - 20 cm soil in Coniston



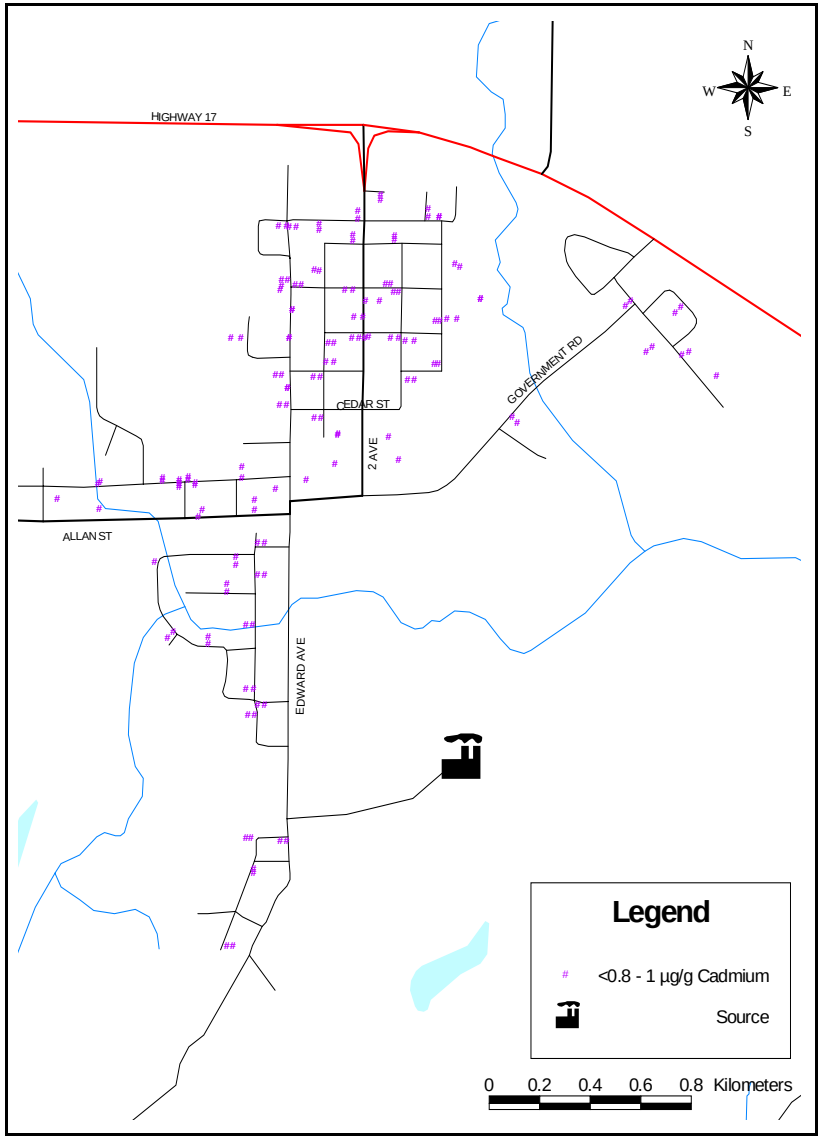
Map 10.2.3.9: Pb concentrations in urban 0 - 5 cm soil in Coniston



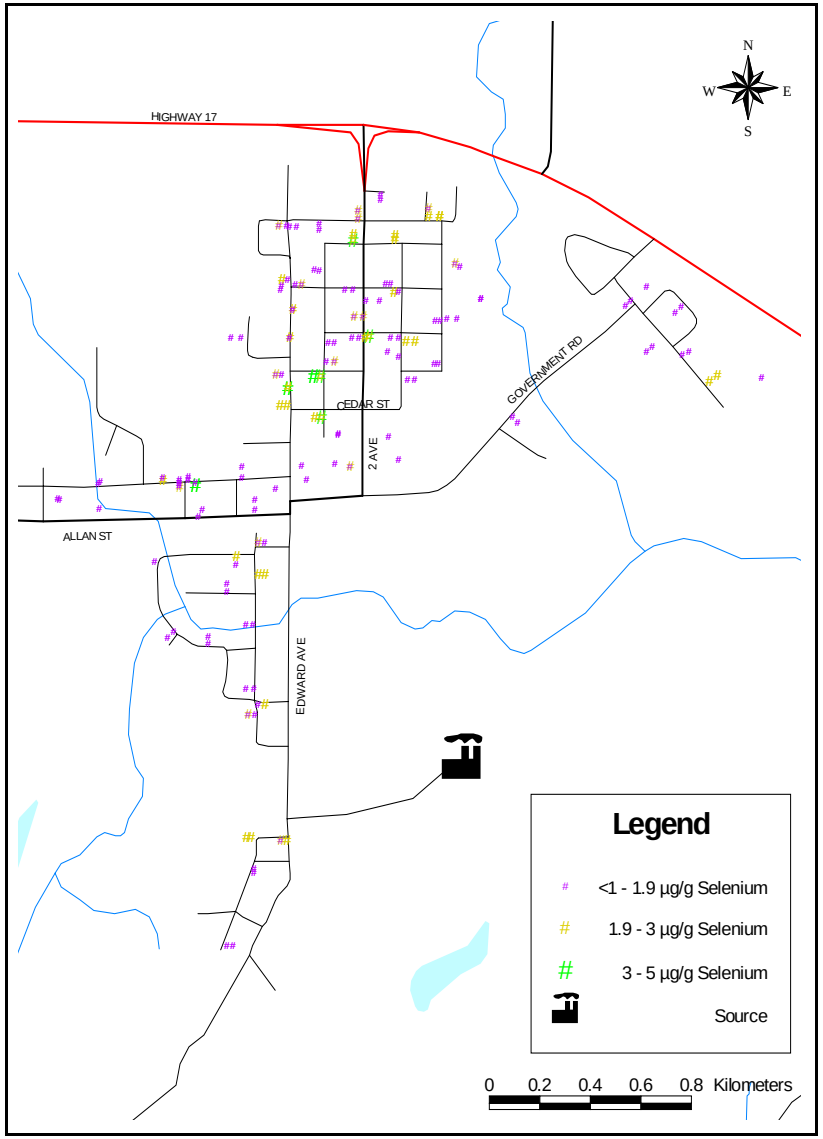
Map 10.2.3.10: Pb concentrations in urban 10 - 20 cm soil in Coniston



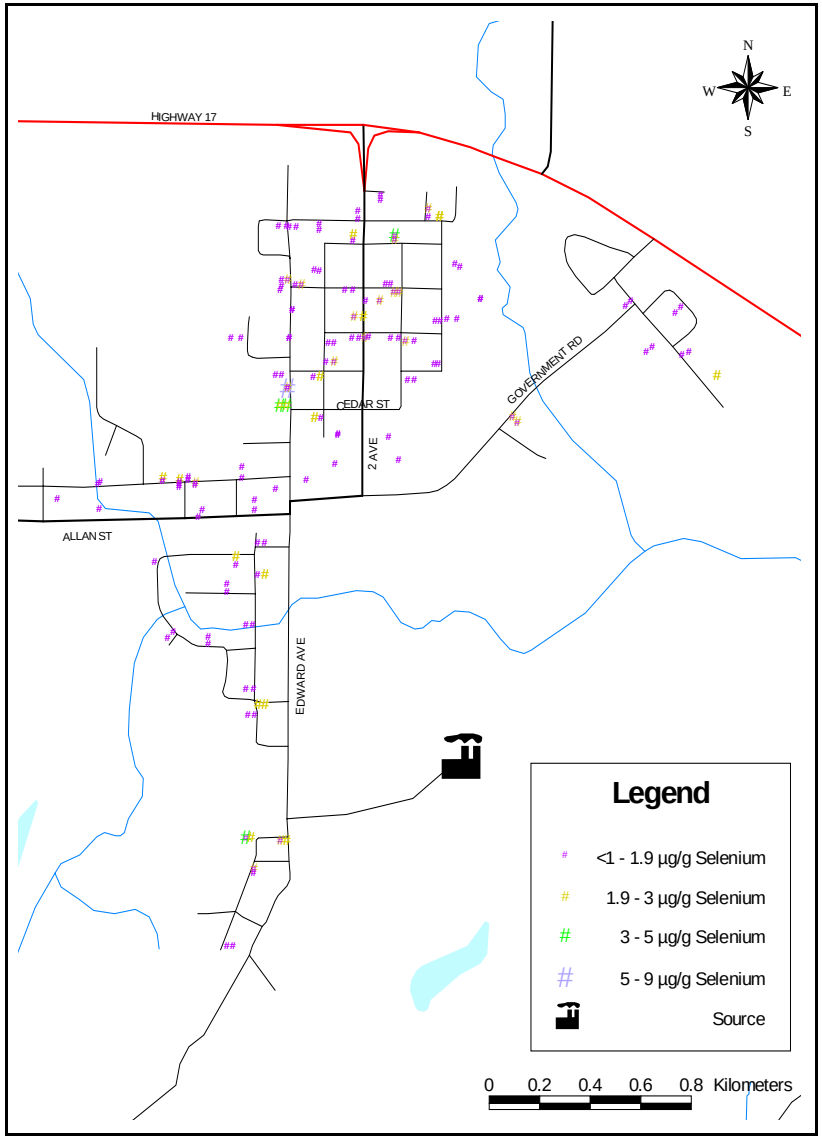
Map 10.2.3.11: Cd concentrations in urban 0 - 5 cm soil in Coniston



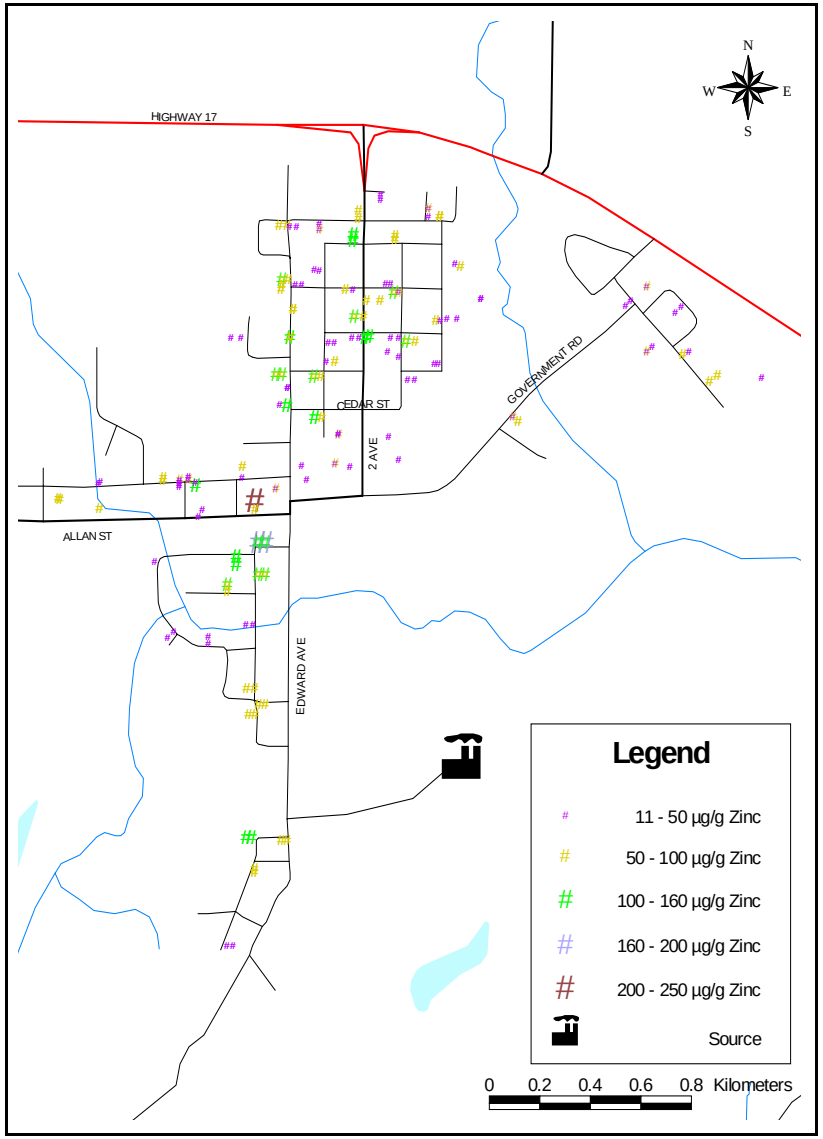
Map 10.2.3.12: Cd concentrations in urban 10 - 20 cm soil in Coniston



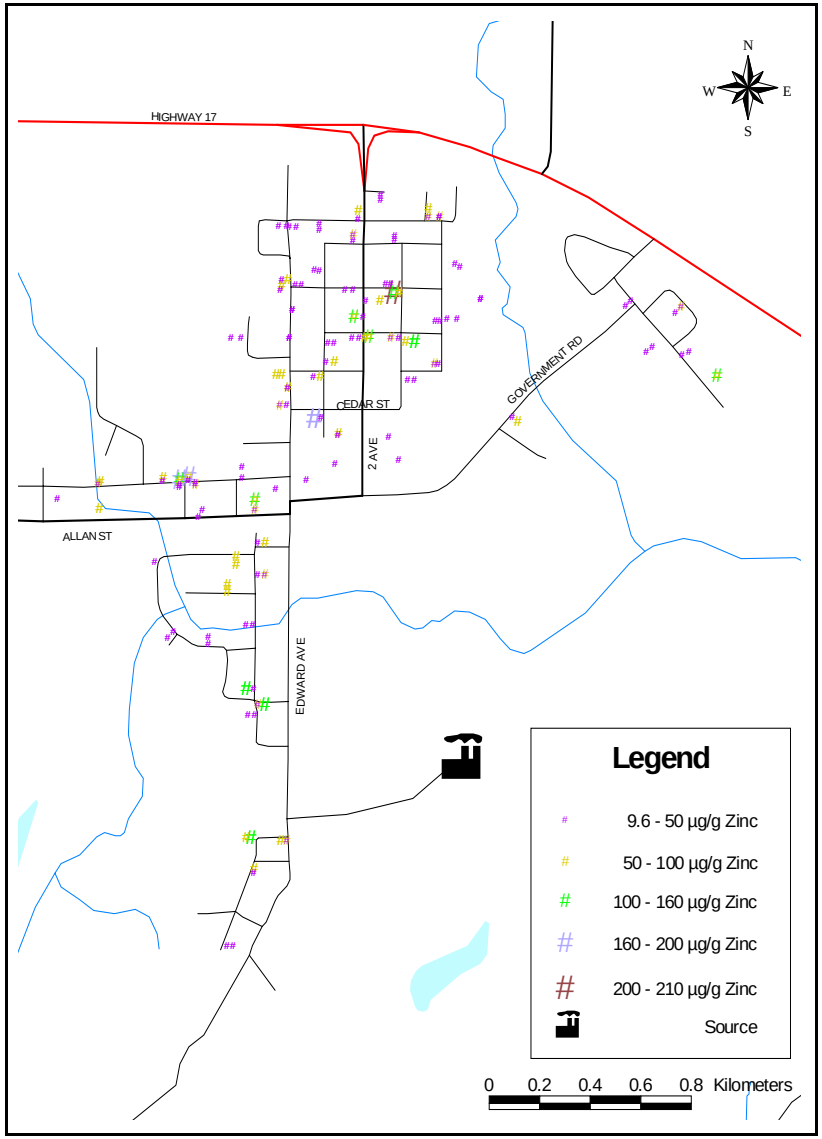
Map 10.2.3.13: Se concentrations in urban 0 - 5 cm soil in Coniston



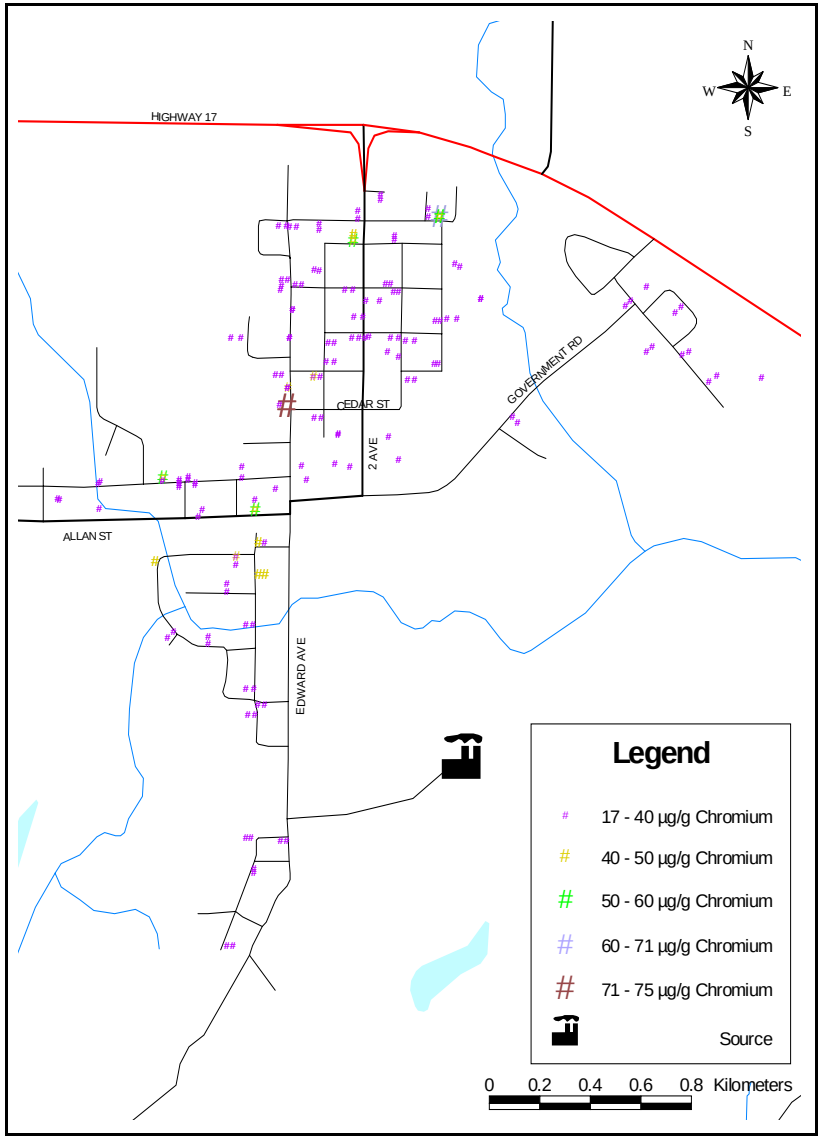
Map 10.2.3.14: Se concentrations in urban 10 - 20 cm soil in Coniston



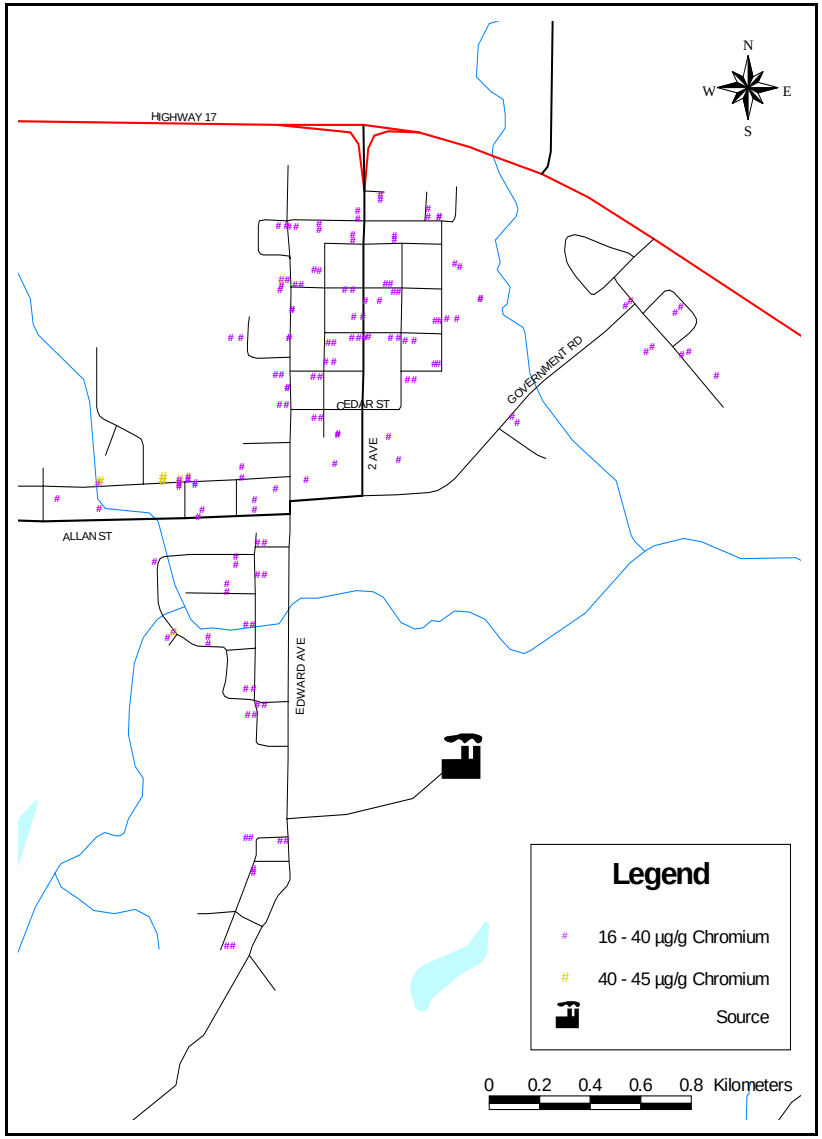
Map 10.2.3.15: Zn concentrations in urban 0 - 5 cm soil in Coniston



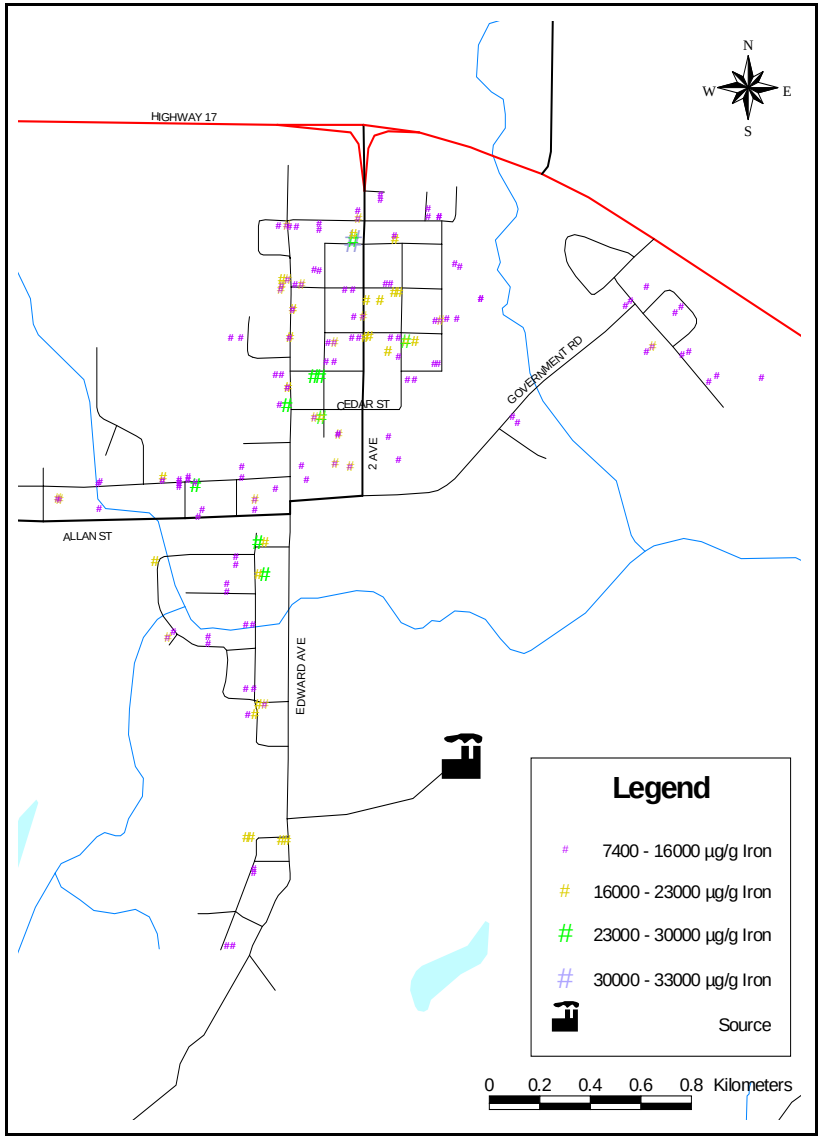
Map 10.2.3.16: Zn concentrations in urban 10 - 20 cm soil in Coniston



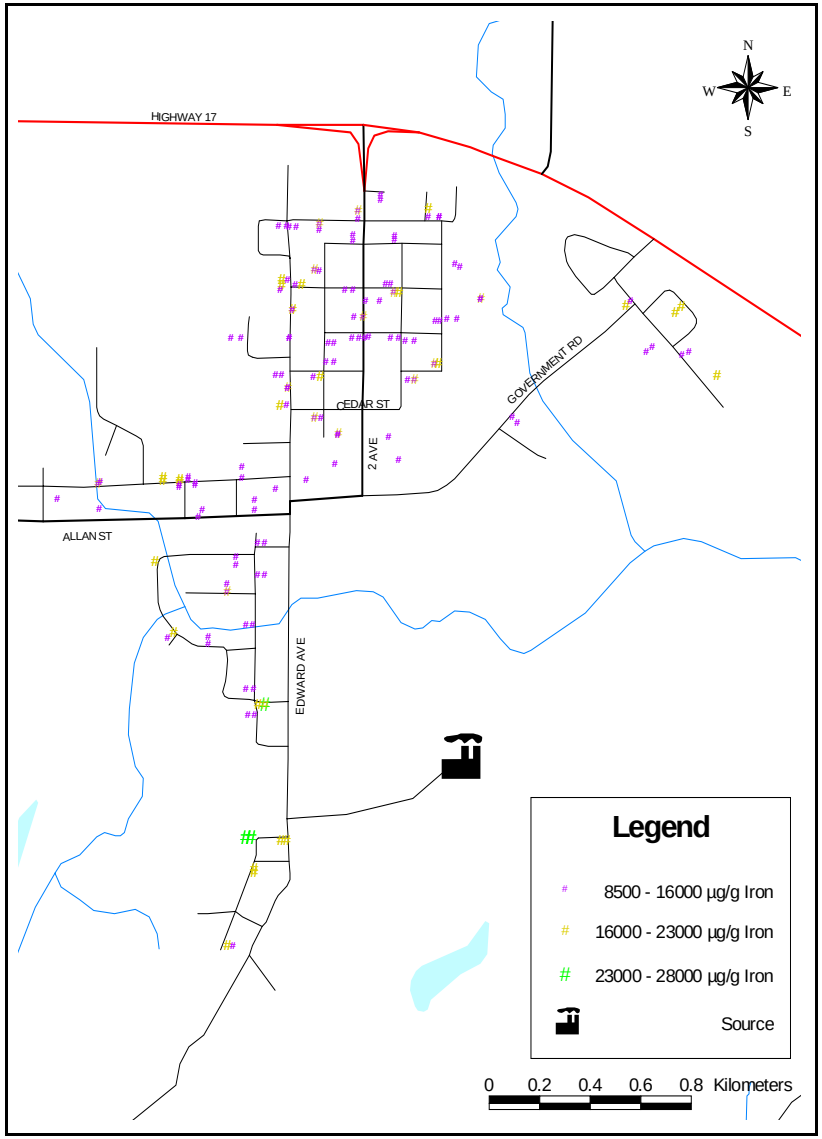
Map 10.2.3.17: Cr concentrations in urban 0 - 5 cm soil in Coniston



Map 10.2.3.18: Cr concentrations in urban 10 - 20 cm soil in Coniston

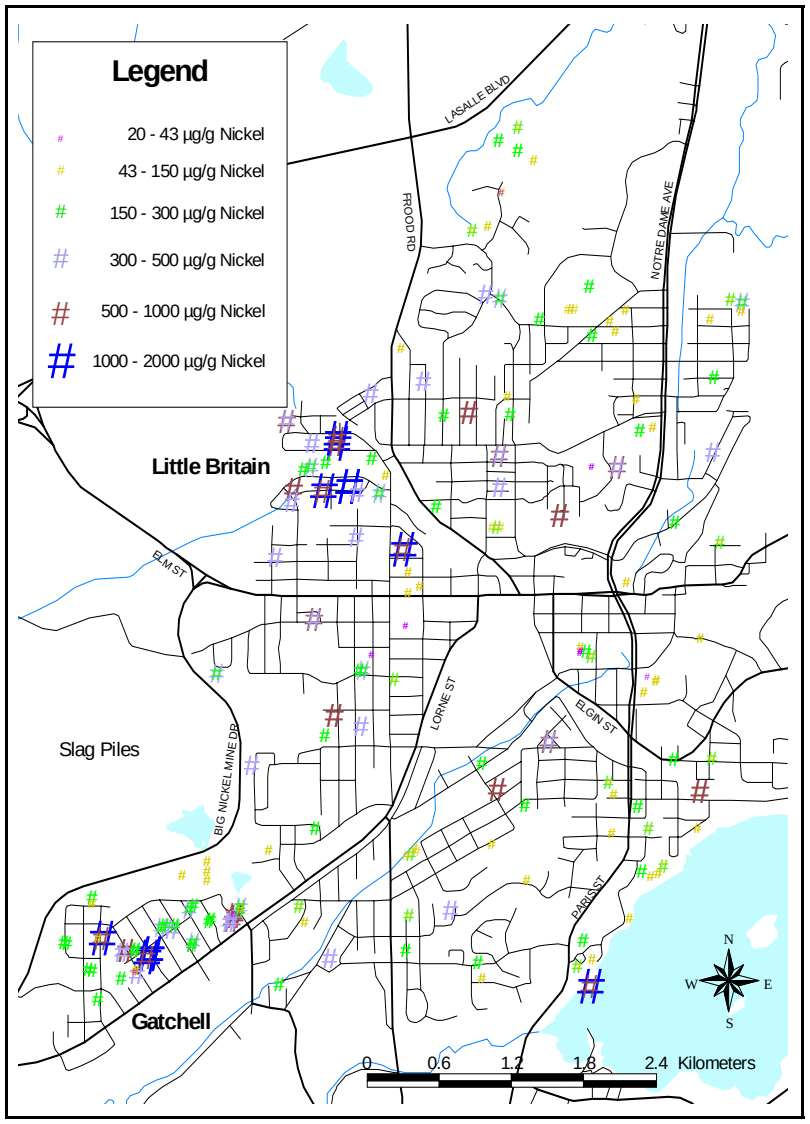


Map 10.2.3.19: Fe concentrations in urban 0 - 5 cm soil in Coniston

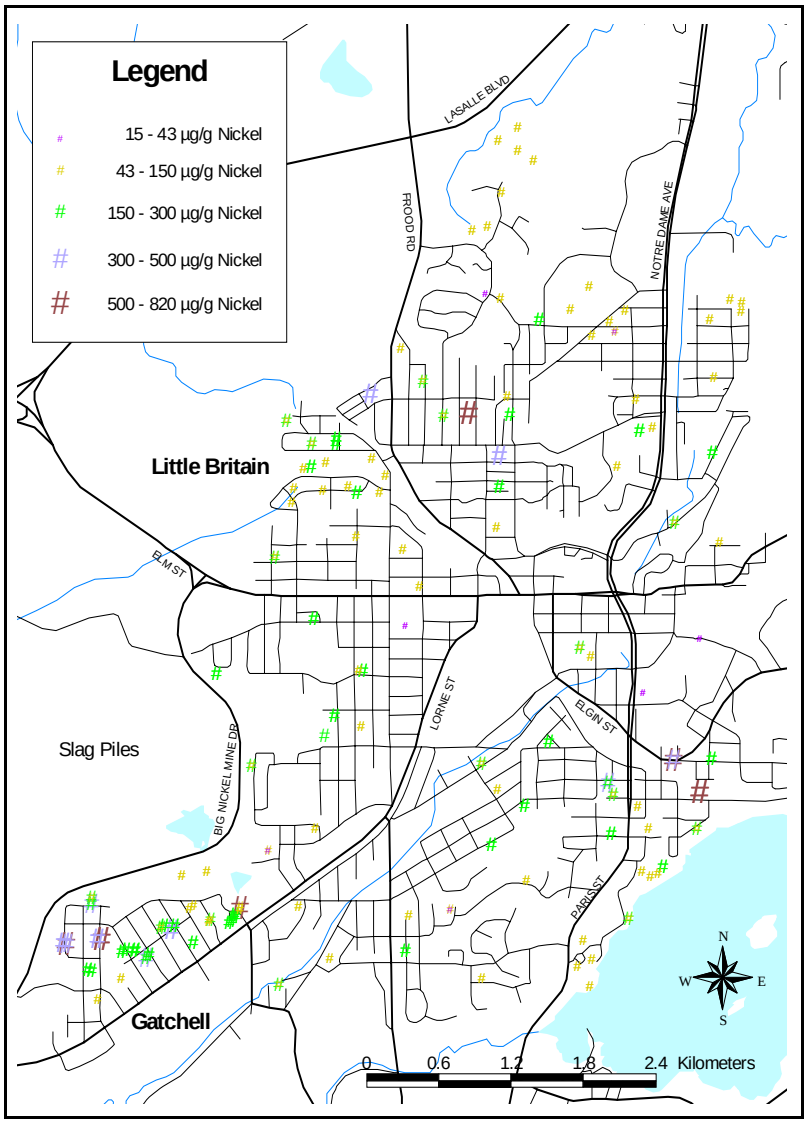


Map 10.2.3.20: Fe concentrations in urban 10 - 20 cm soil in Coniston

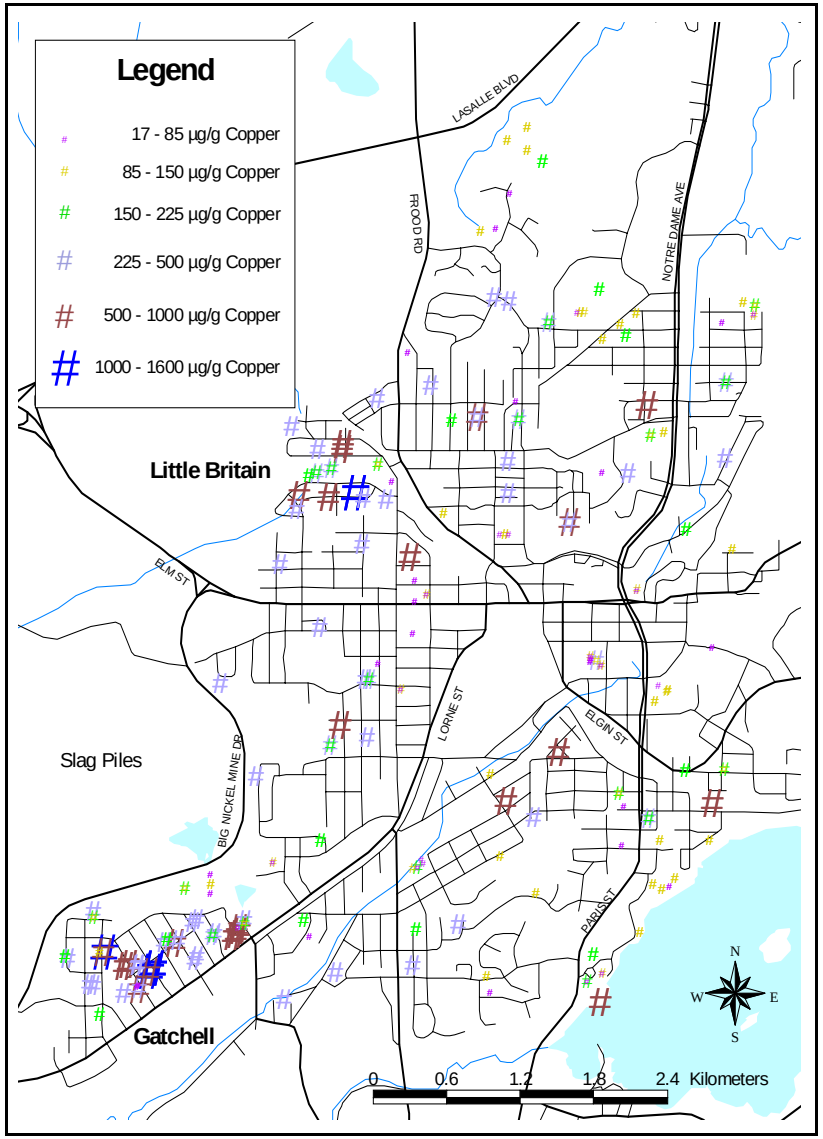
10.2.4 Sudbury Core



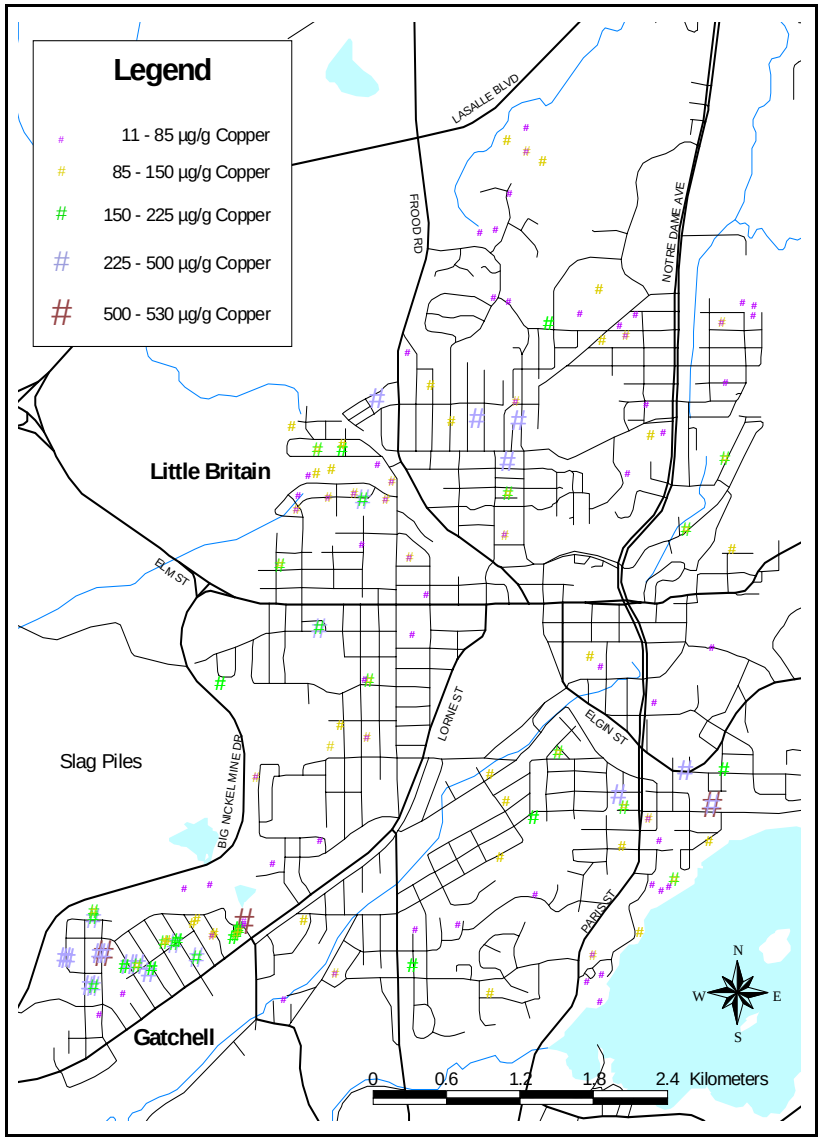
Map 10.2.4.1: Ni concentrations in urban 0 - 5 cm soil in Sudbury Core



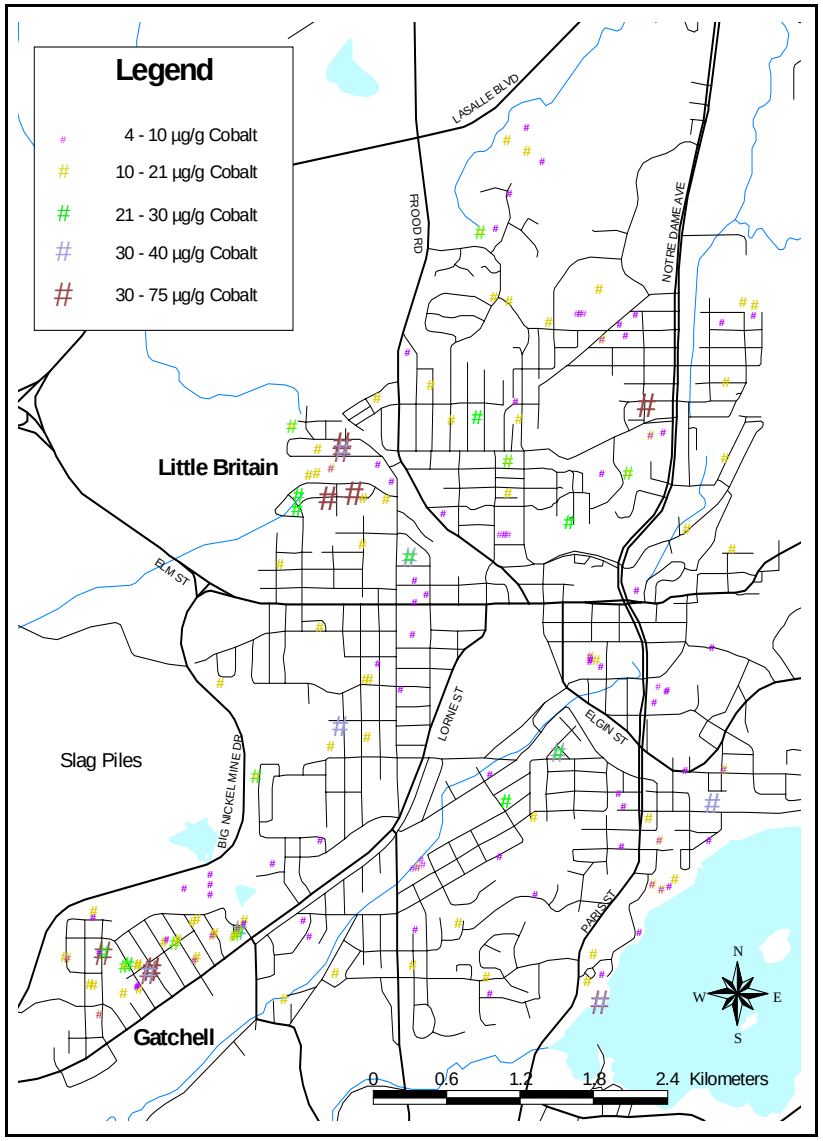
Map 10.2.4.2: Ni concentrations in urban 10 - 20 cm soil in Sudbury Core



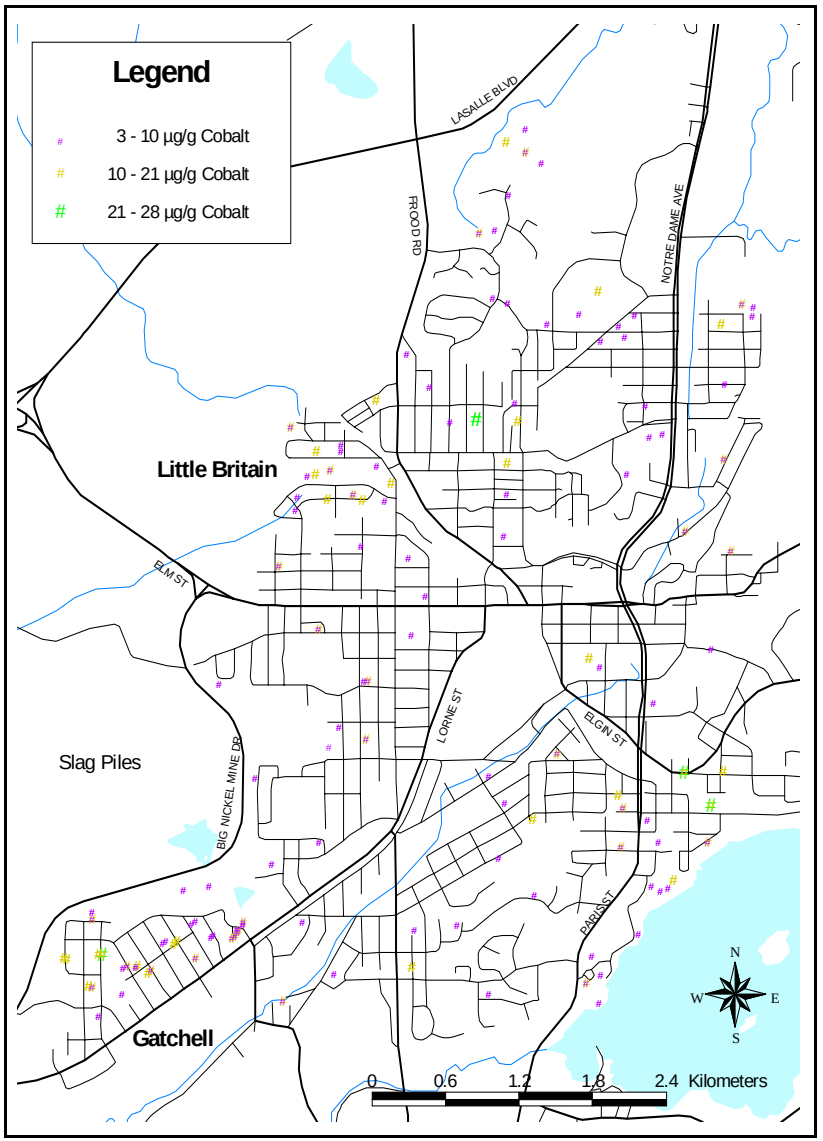
Map 10.2.4.3: Cu concentrations in urban 0 - 5 cm soil in Sudbury Core



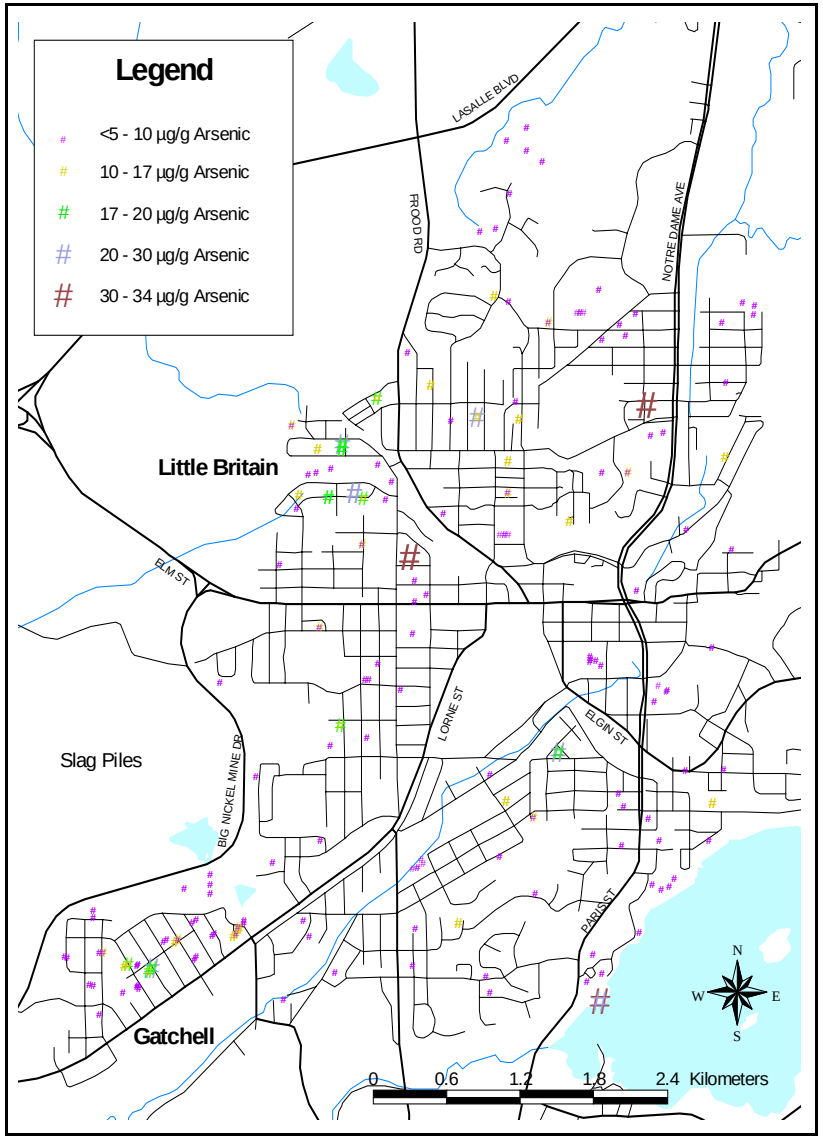
Map 10.2.4.4: Cu concentrations in urban 10 - 20 cm soil in Sudbury Core



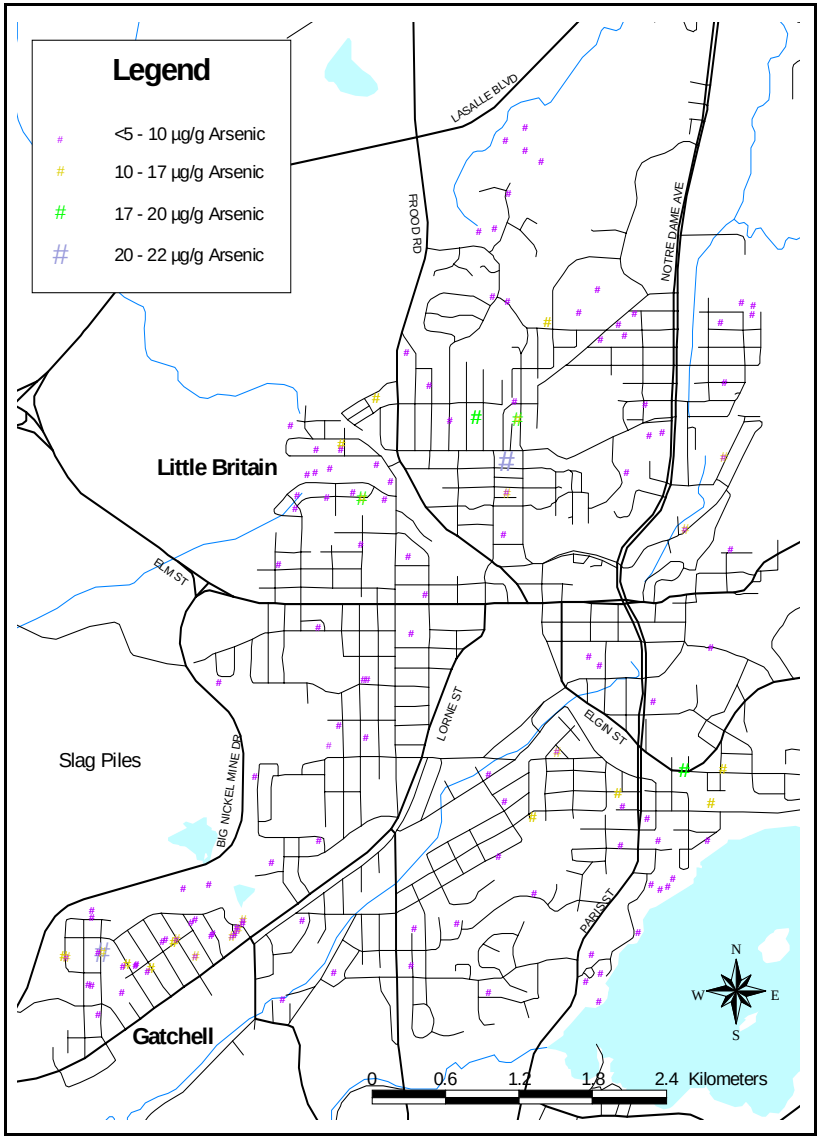
Map 10.2.4.5: Co concentrations in urban 0 - 5 cm soil in Sudbury Core



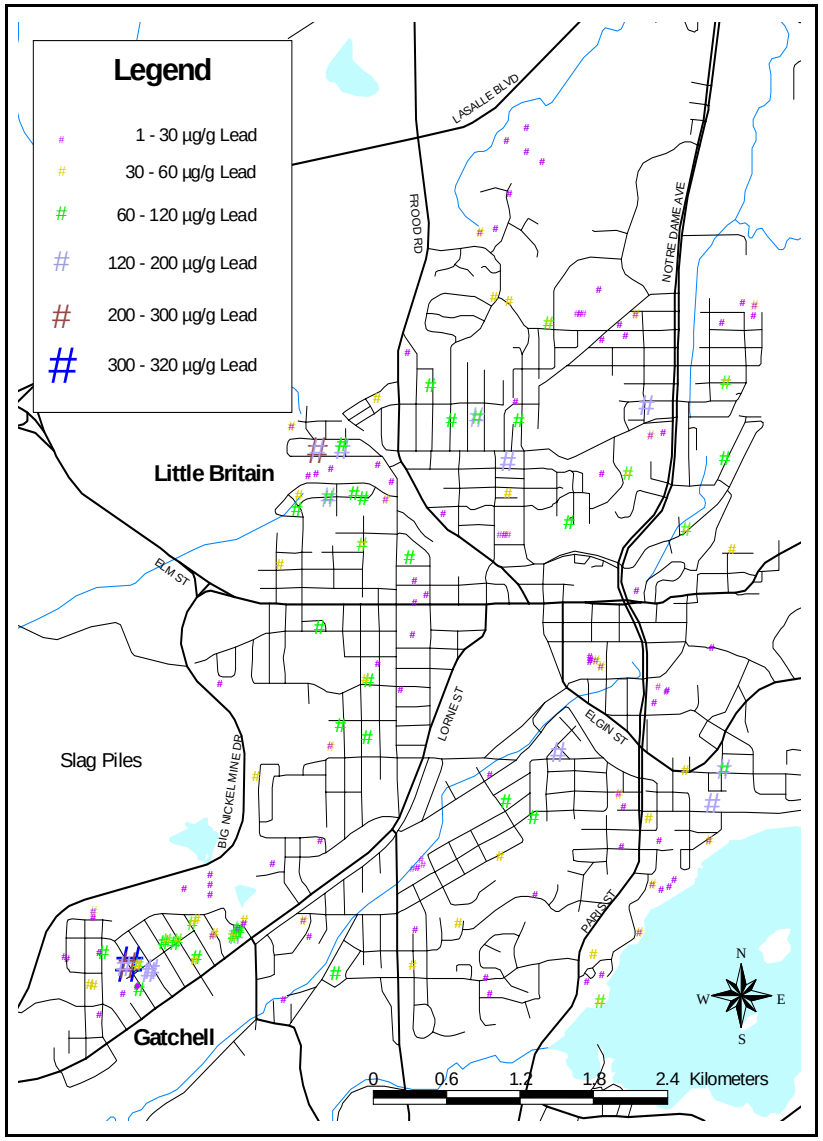
Map 10.2.4.6: Co concentrations in urban 10 - 20 cm in Sudbury Core



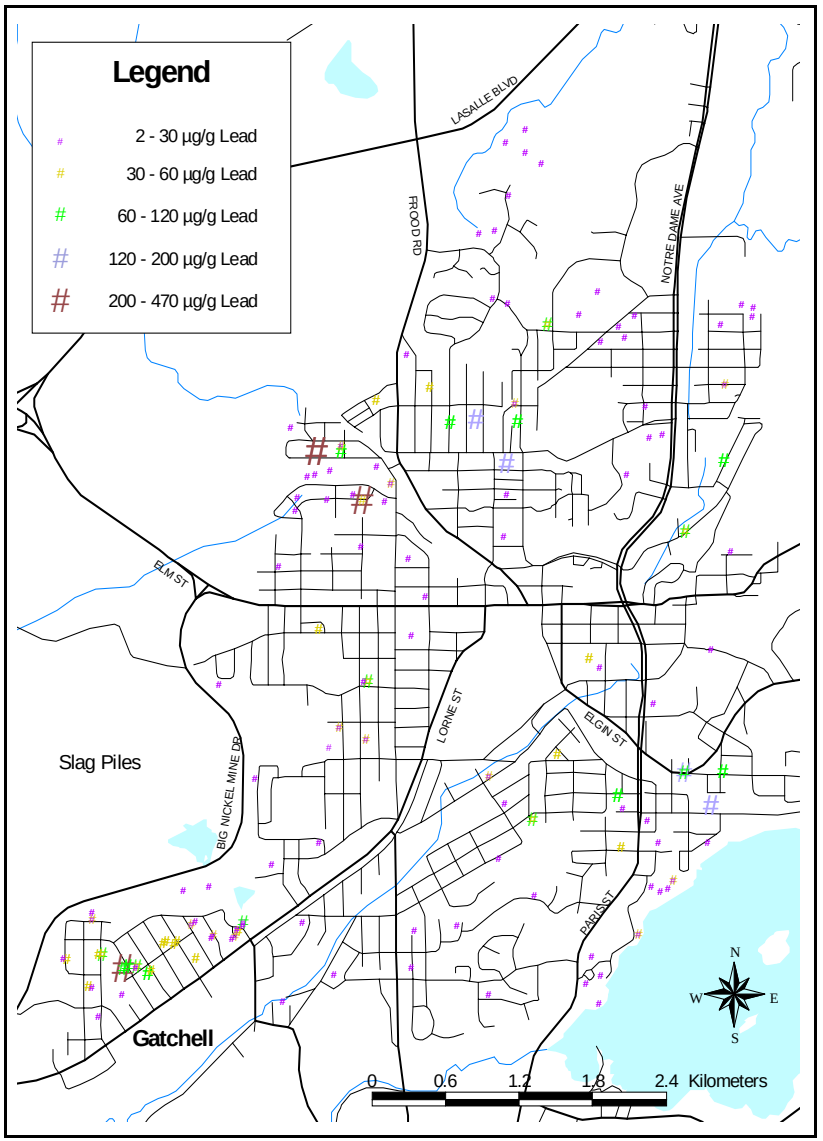
Map 10.2.4.7: As concentrations in urban 0 - 5 cm soil in Sudbury Core



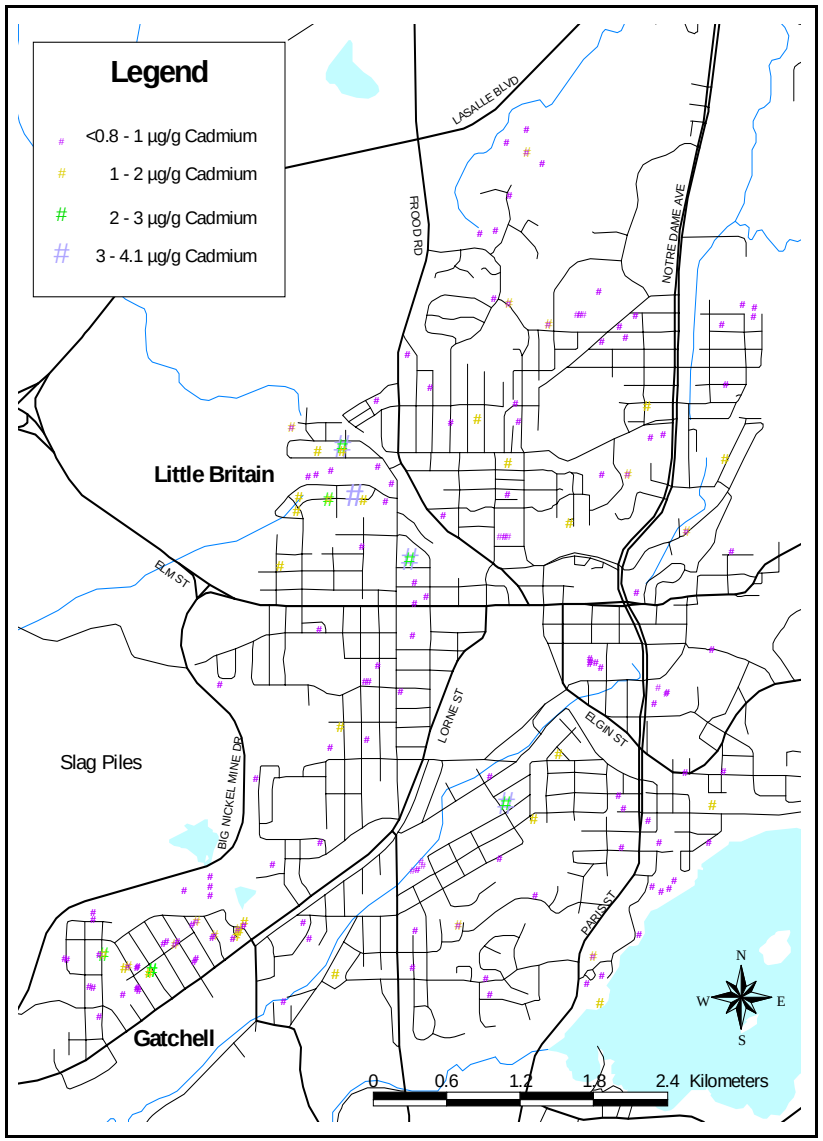
Map 10.2.4.8: As concentrations in urban 10 - 20 cm soil in Sudbury Core



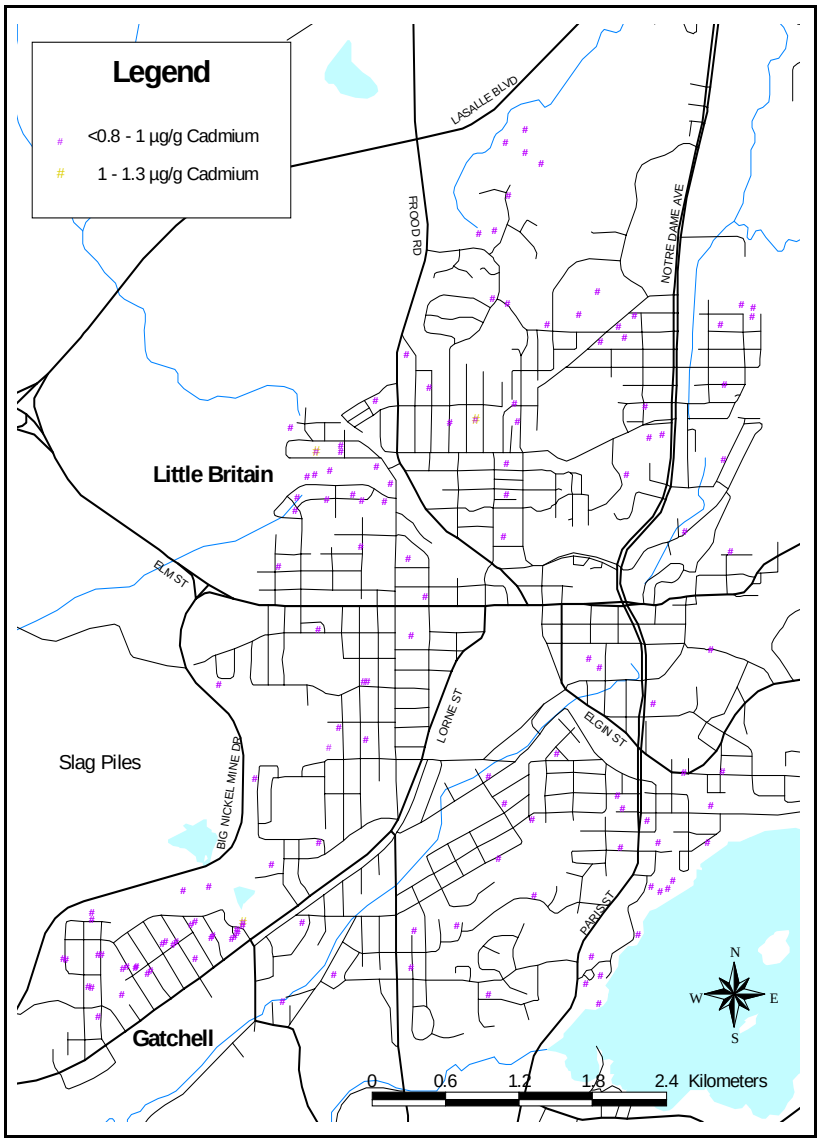
Map 10.2.4.9: Pb concentrations in urban 0 - 5 cm soil in Sudbury Core



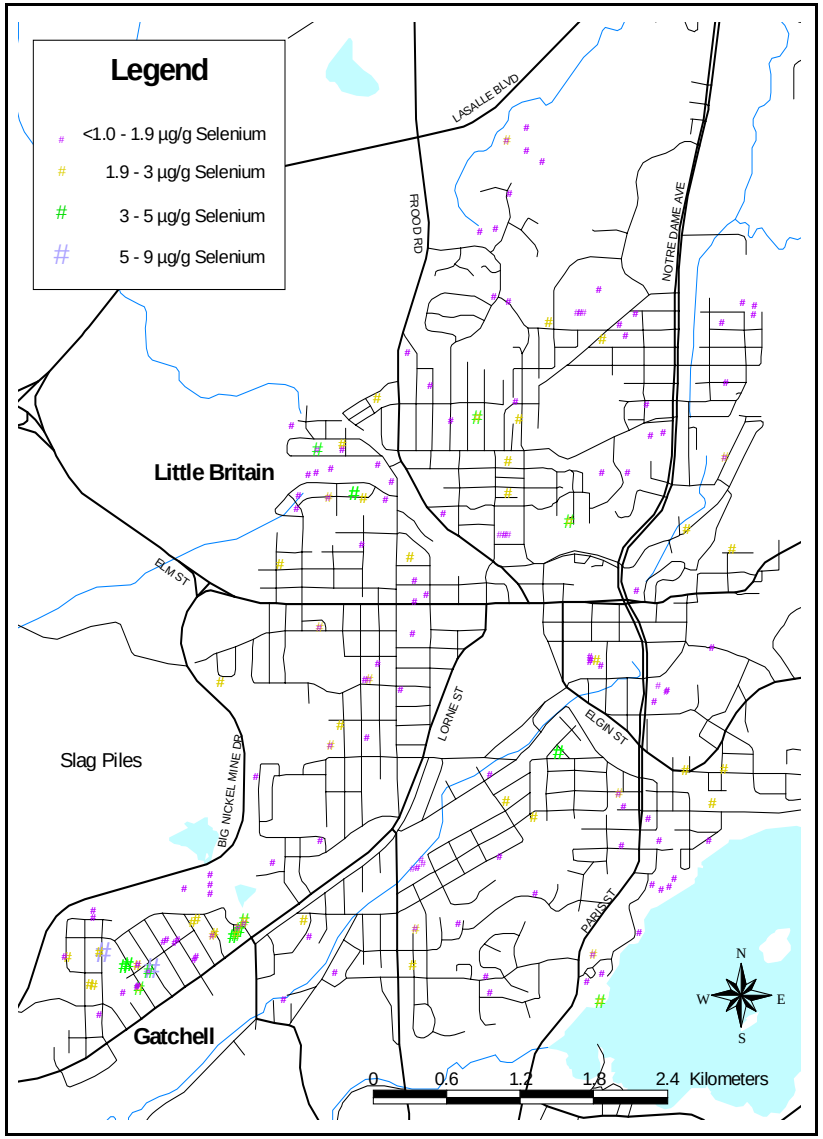
Map 10.2.4.10: Pb concentrations in urban 10 - 20 cm soil in Sudbury Core



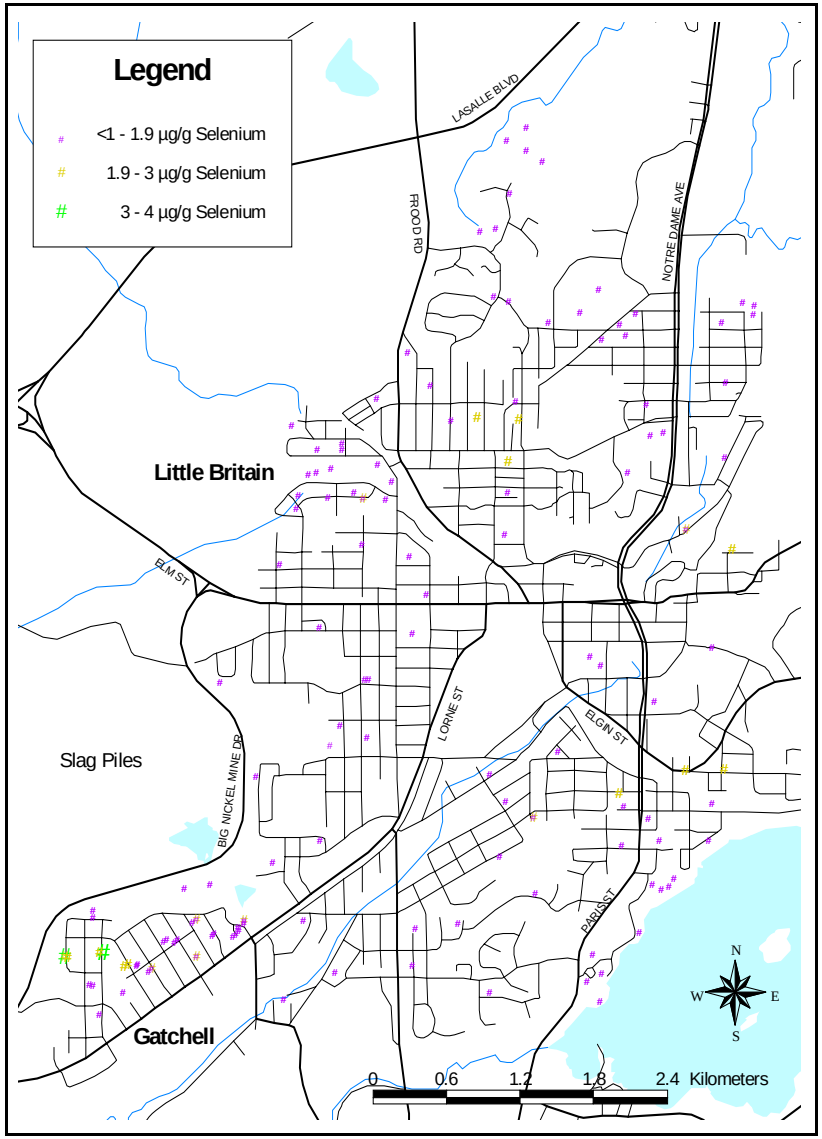
Map 10.2.4.11: Cd concentrations in urban 0 - 5 cm soil in Sudbury Core



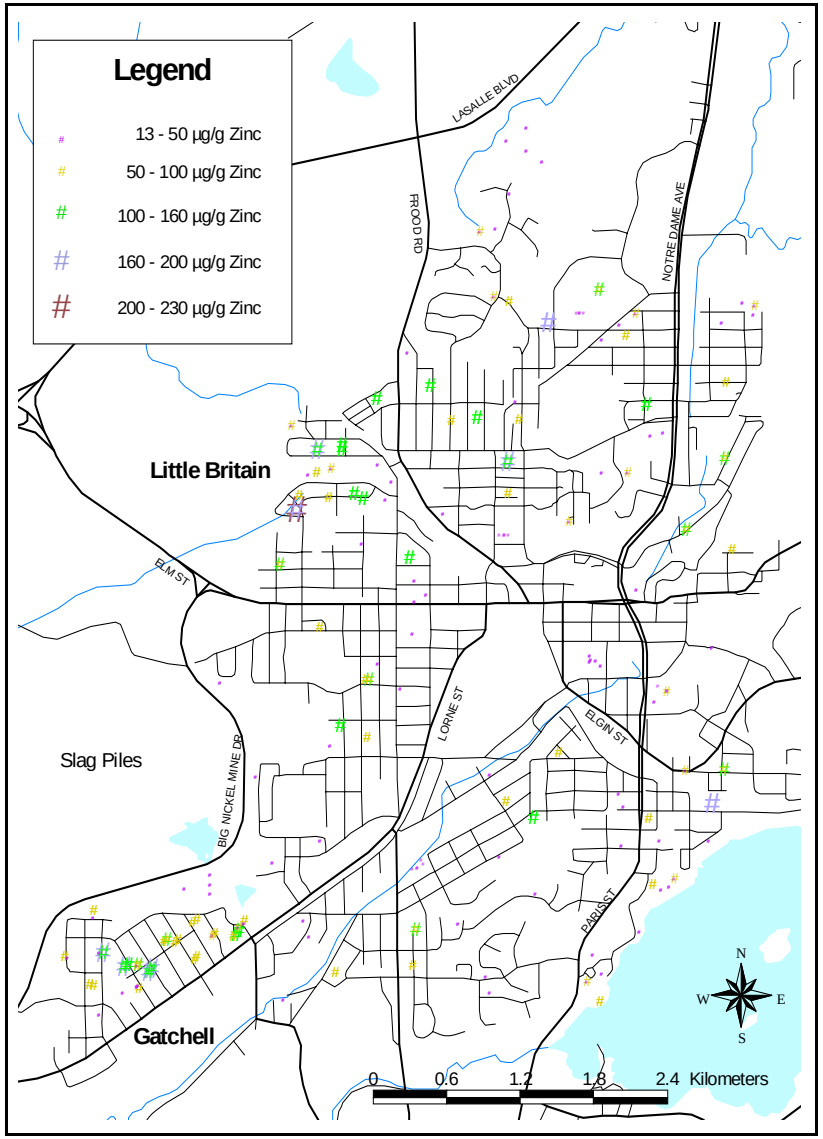
Map 10.2.4.12: Cd concentrations in urban10 - 20 cm soil in Sudbury Core



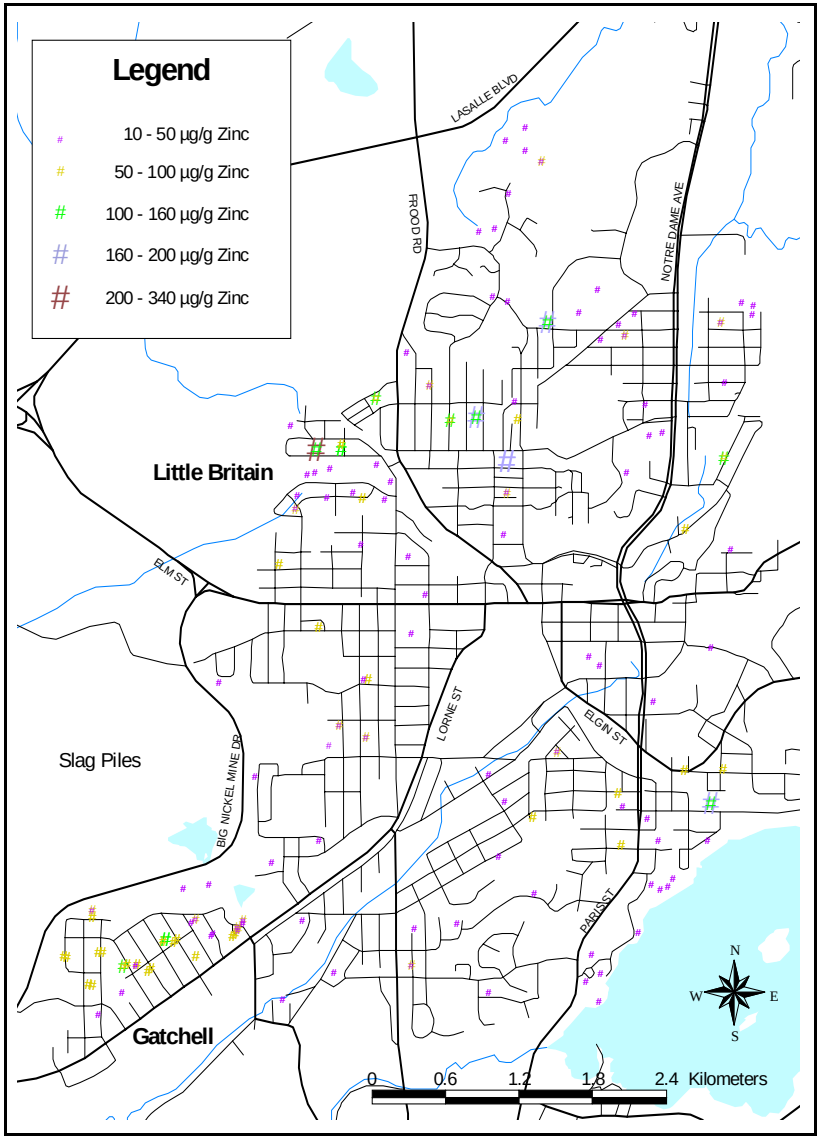
Map 10.2.4.13: Se concentrations in urban 0 - 5 cm soil in Sudbury Core



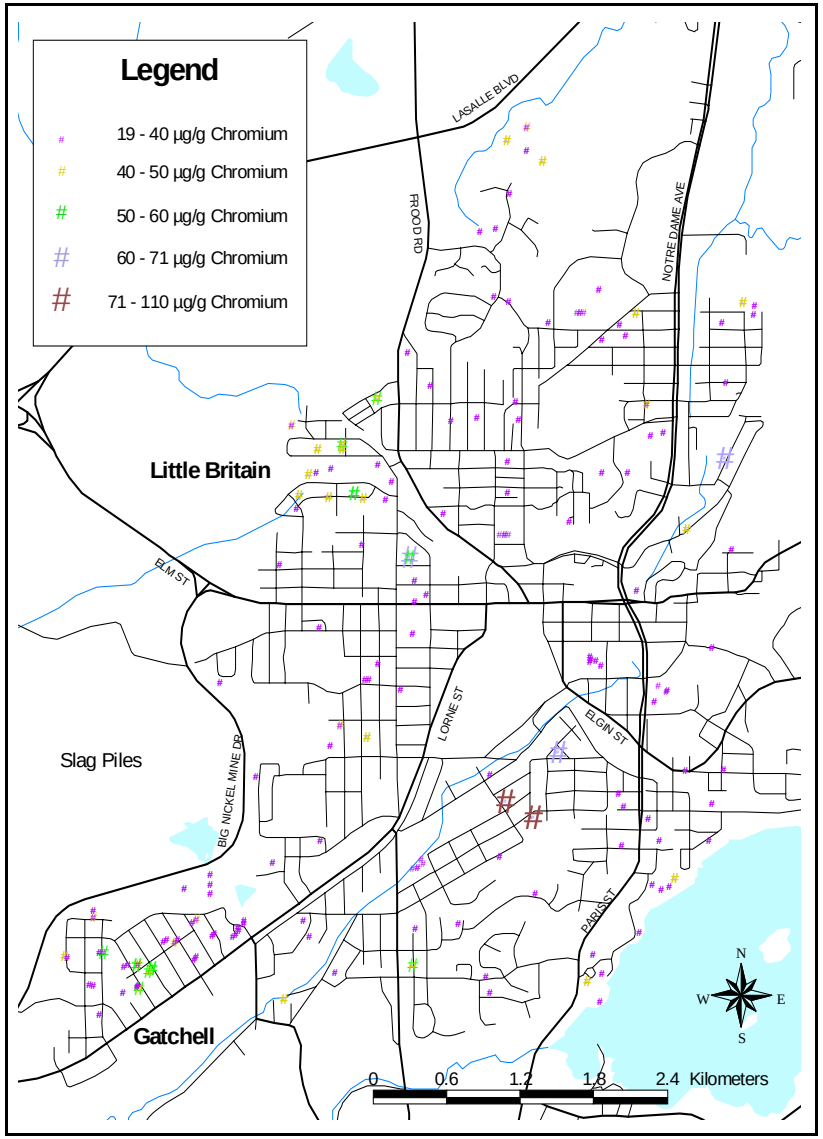
Map 10.2.4.14: Se concentrations in urban 10 - 20 cm soil in Sudbury Core



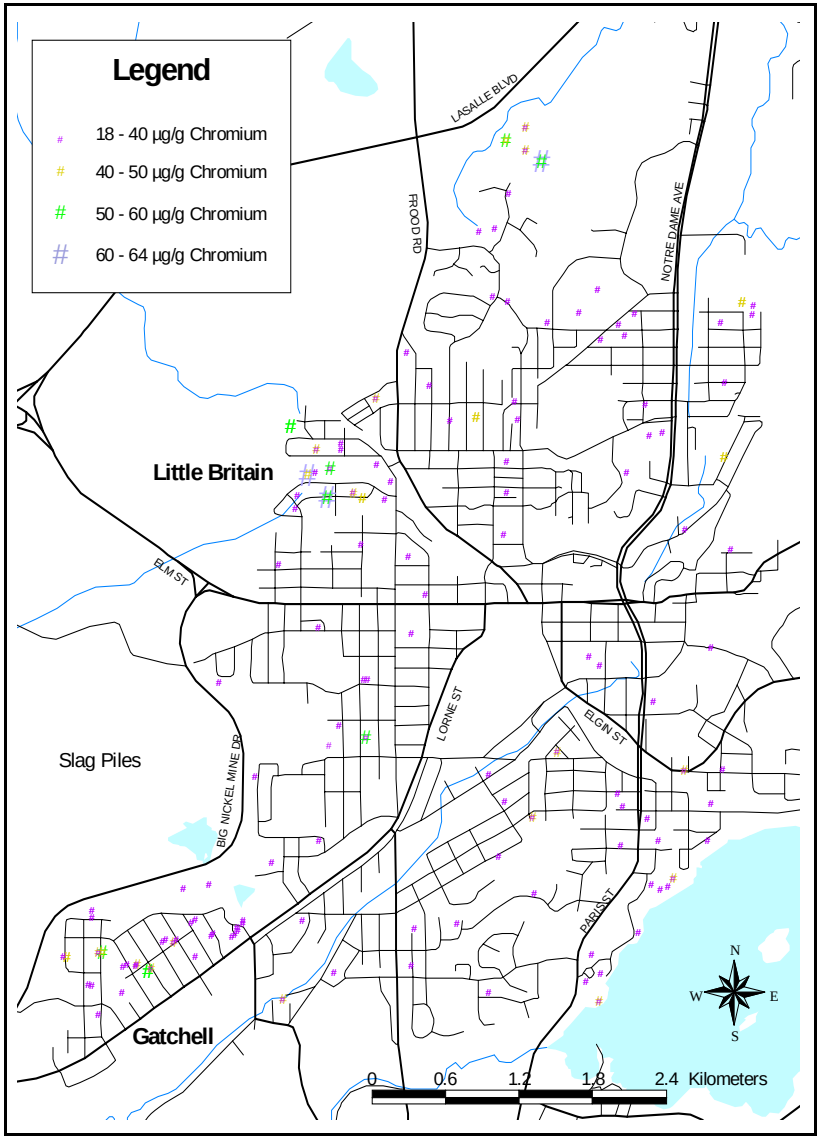
Map 10.2.4.15: Zn concentrations in urban 0 - 5 cm soil in Sudbury Core



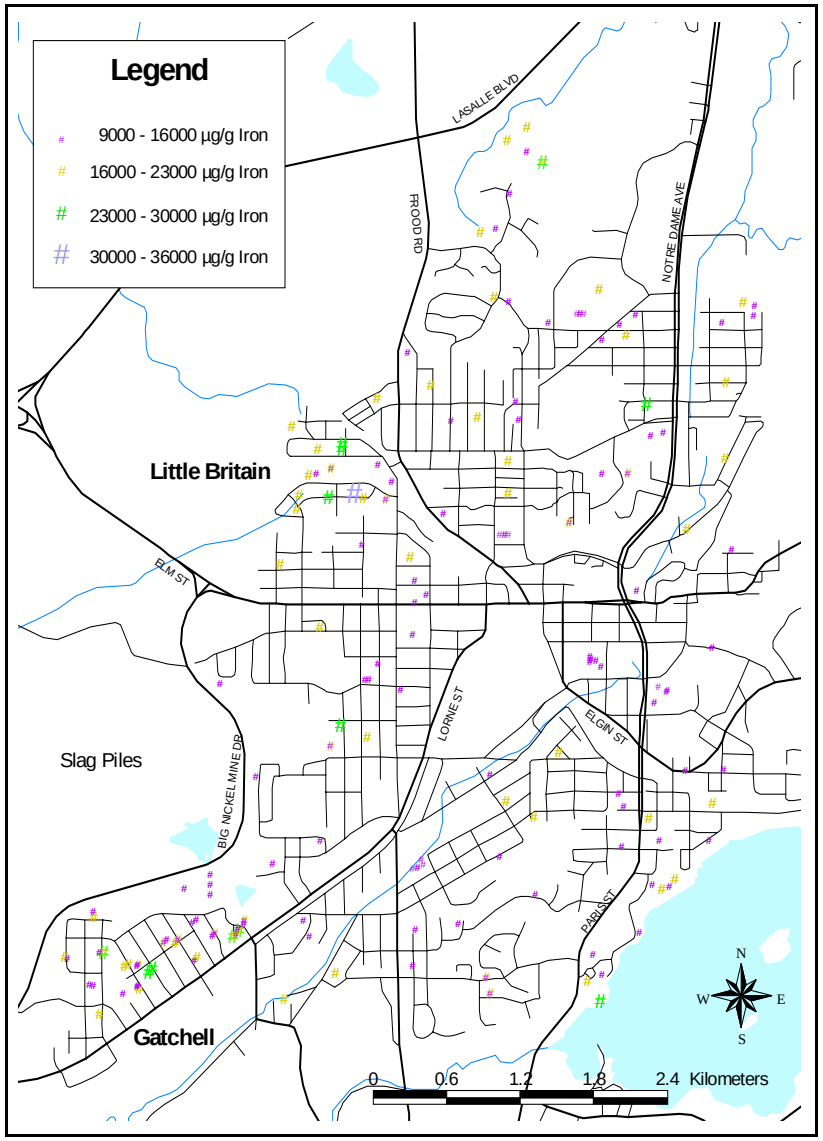
Map 10.2.4.16: Zn concentrations in urban 10 - 20 cm soil in Sudbury Core



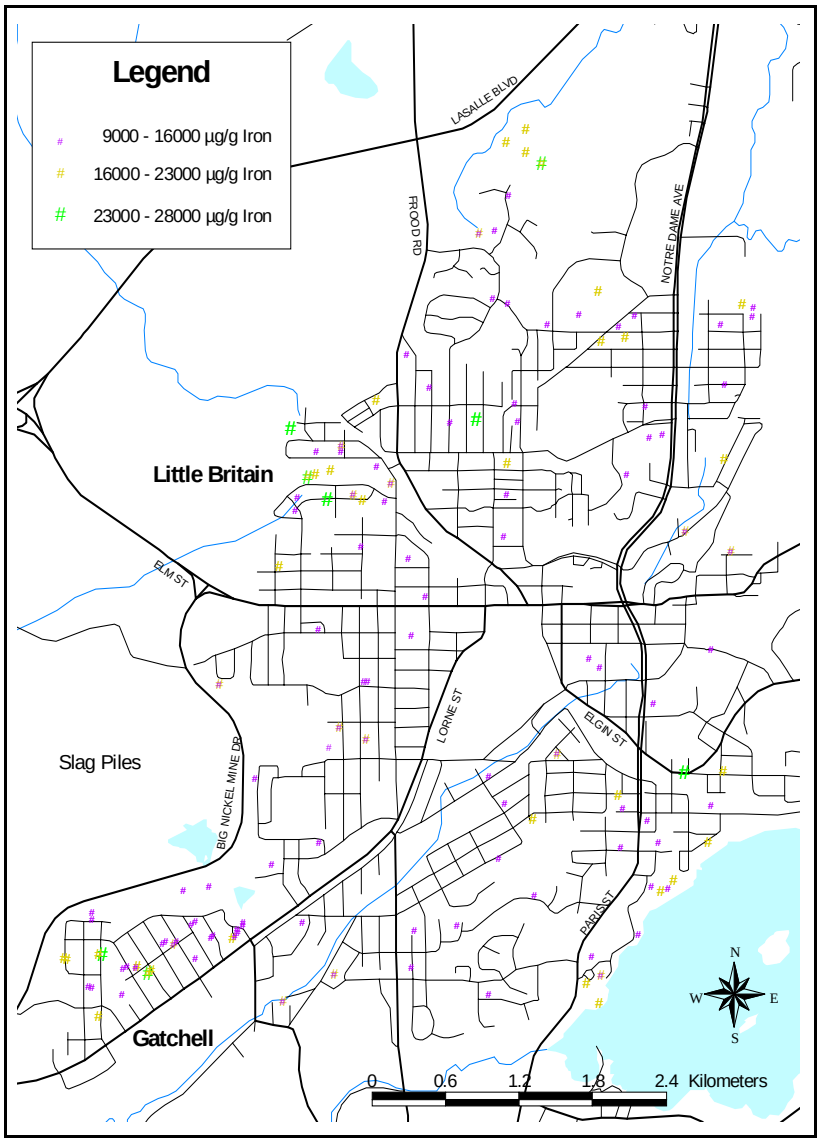
Map 10.2.4.17: Cr concentrations in urban 0 - 5 cm soil in Sudbury Core



Map 10.2.4.18: Cr concentrations in urban 10 - 20 cm in Sudbury Core

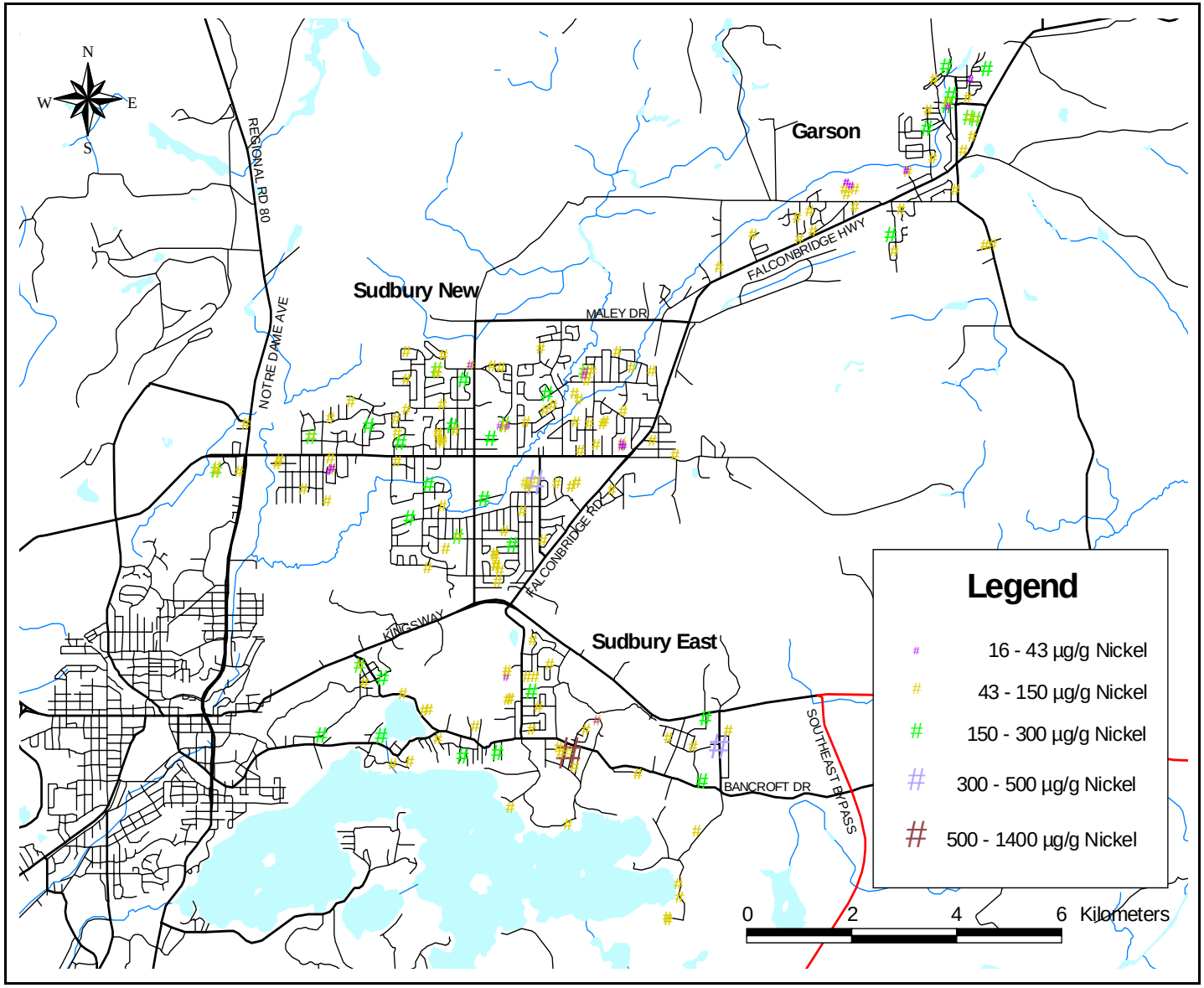


Map 10.2.4.19: Fe concentrations in urban 0 - 5 cm soil in Sudbury Core

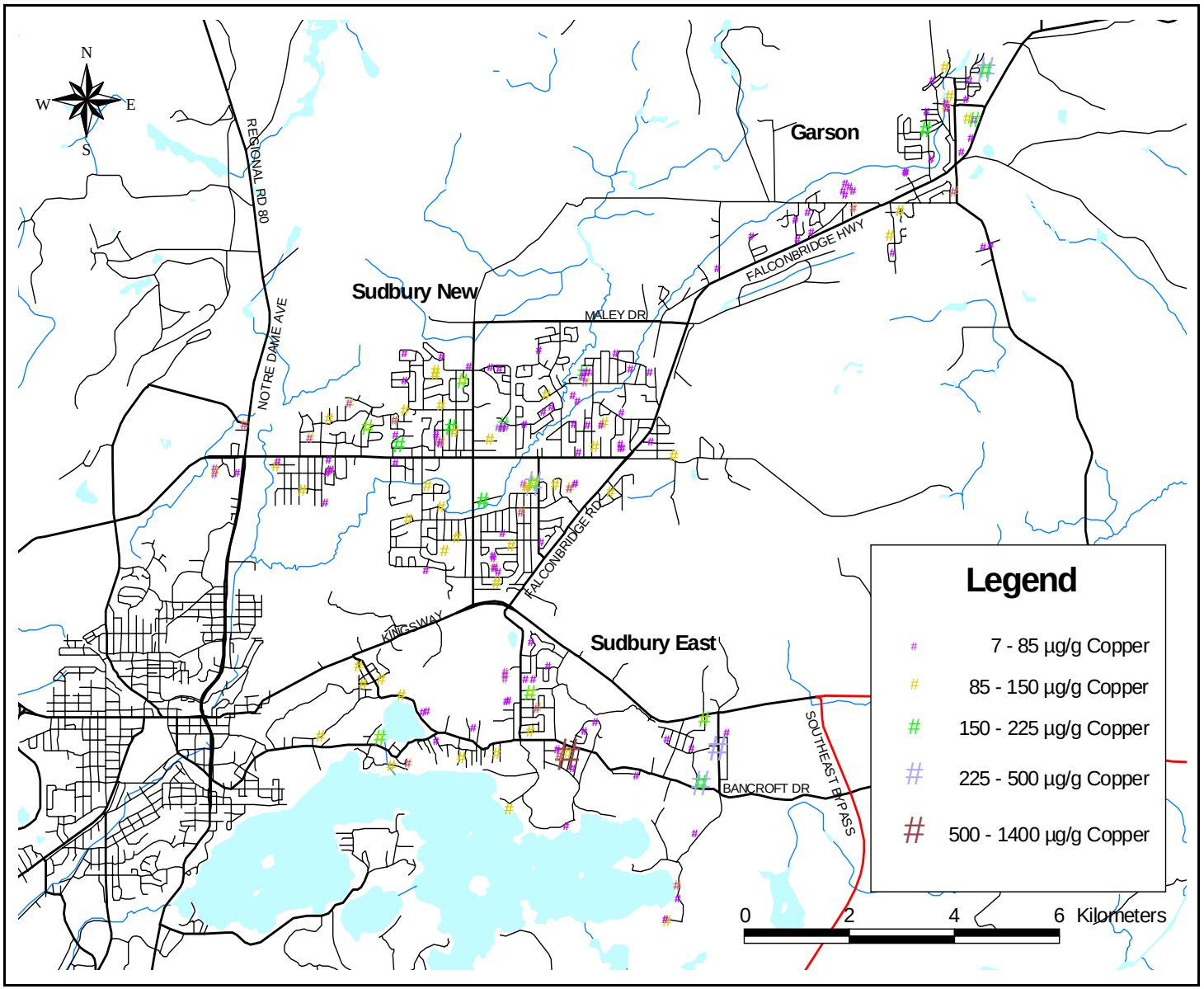


Map 10.2.4.20: Fe concentrations in urban 10 - 20 cm soil in Sudbury Core

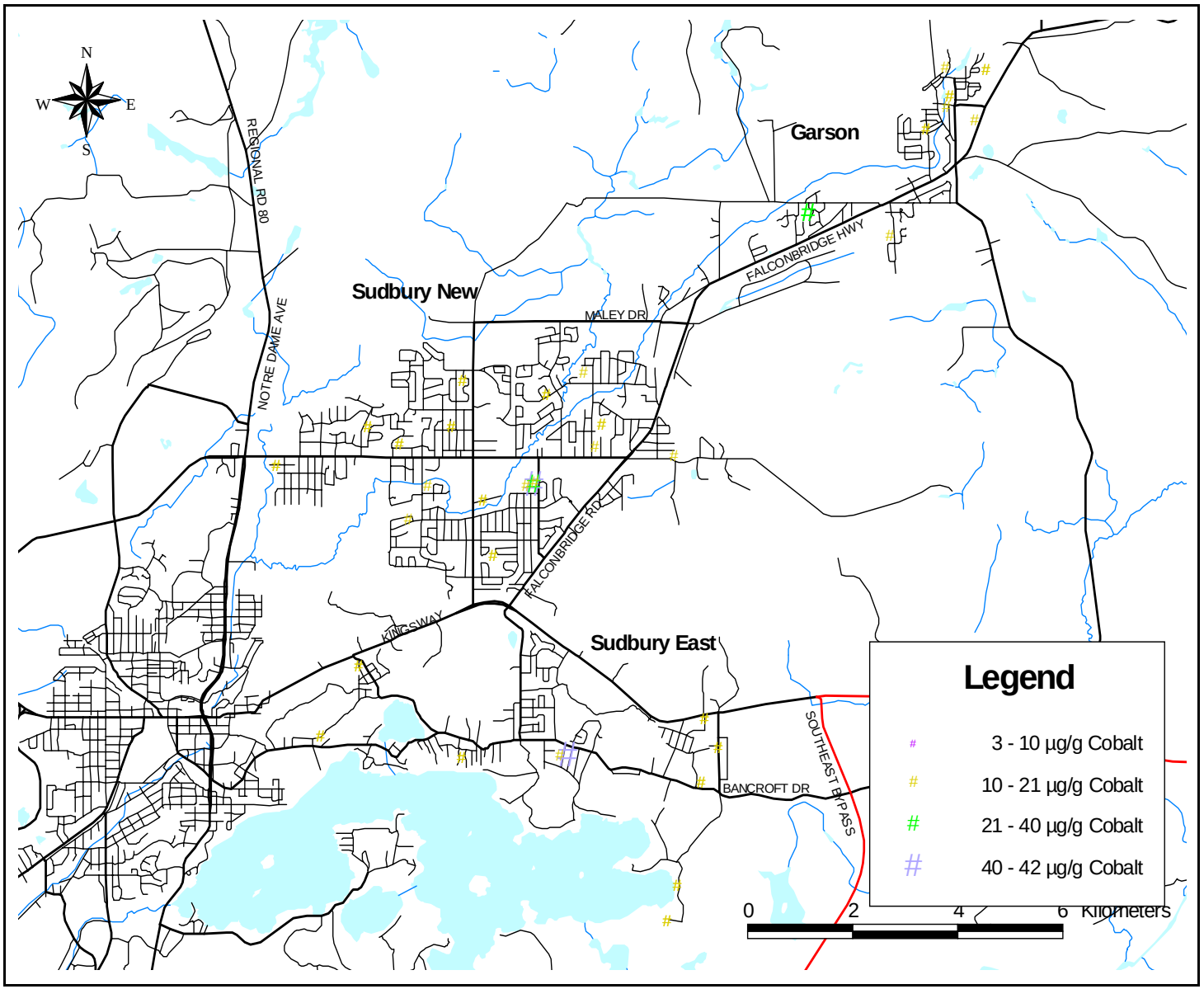
10.2.5 Sudbury New and East, and Garson



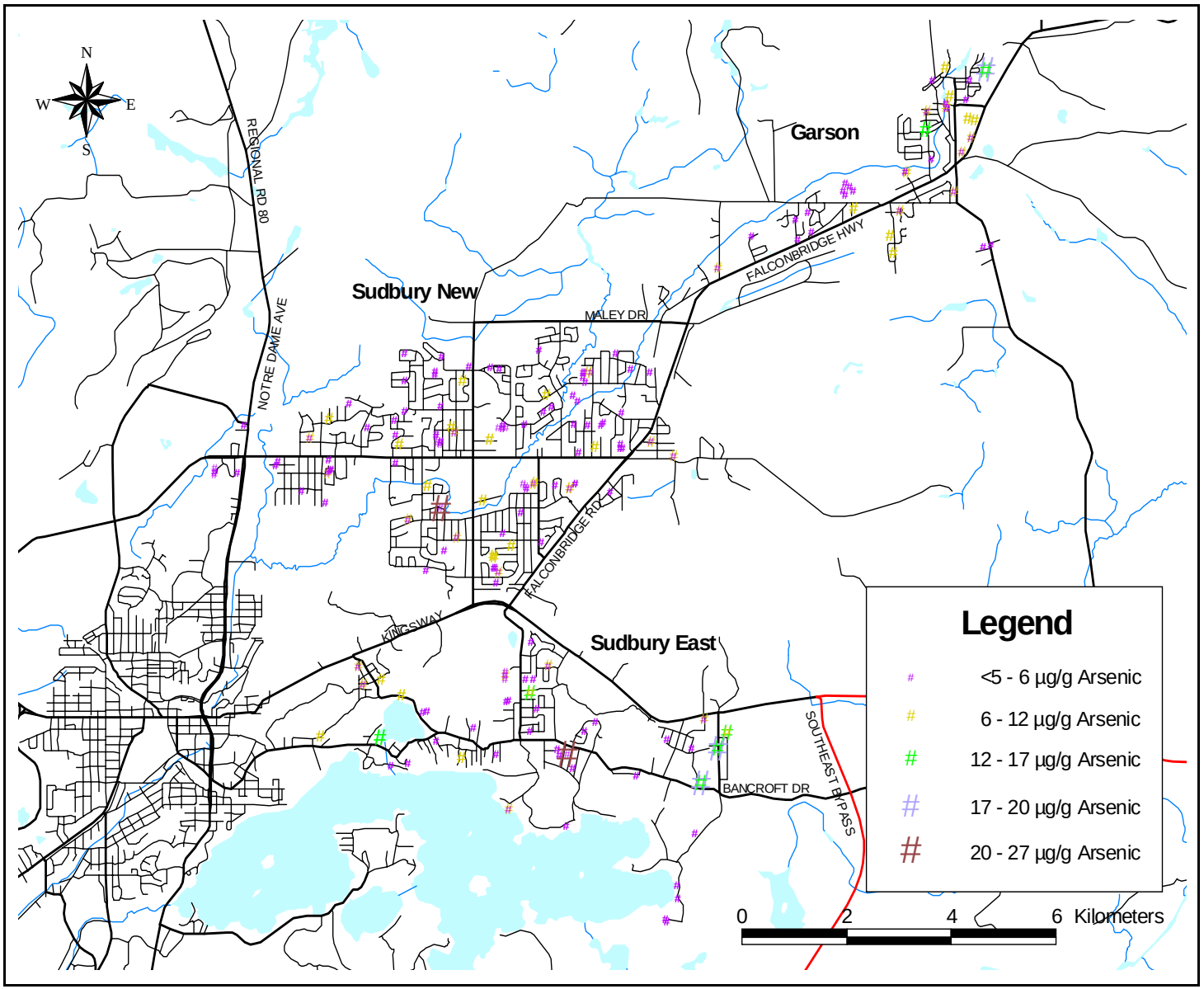
Map 10.2.5.1: Ni concentrations in urban 0 - 5 cm soil in Sudbury New and East, and Garson



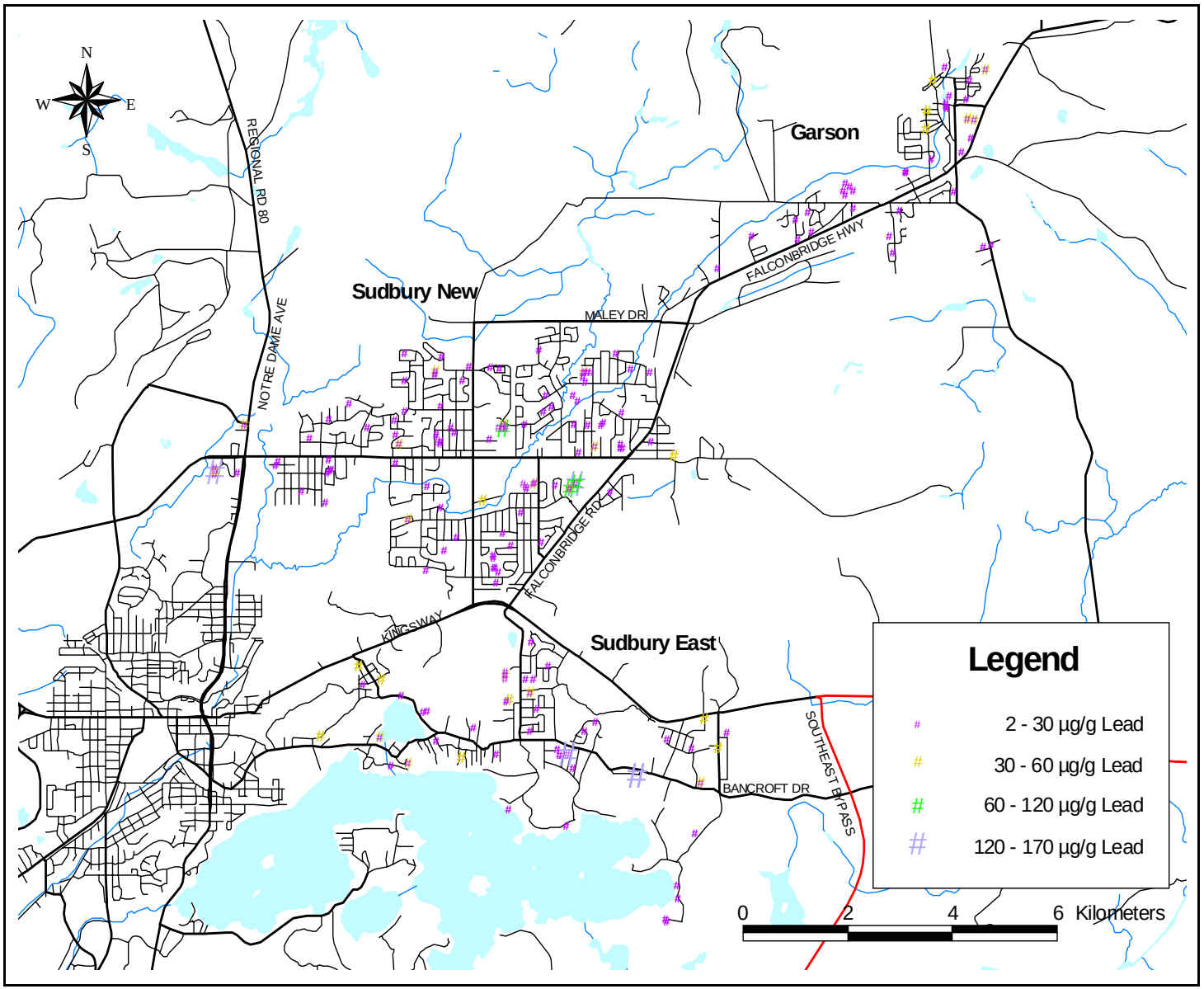
Map 10.2.5.2: Cu concentrations in urban 0 - 5 cm soil in Sudbury New and East, and Garson



Map 10.2.5.3: Co concentrations in urban 0 - 5 cm soil in Sudbury New and East, and Garson

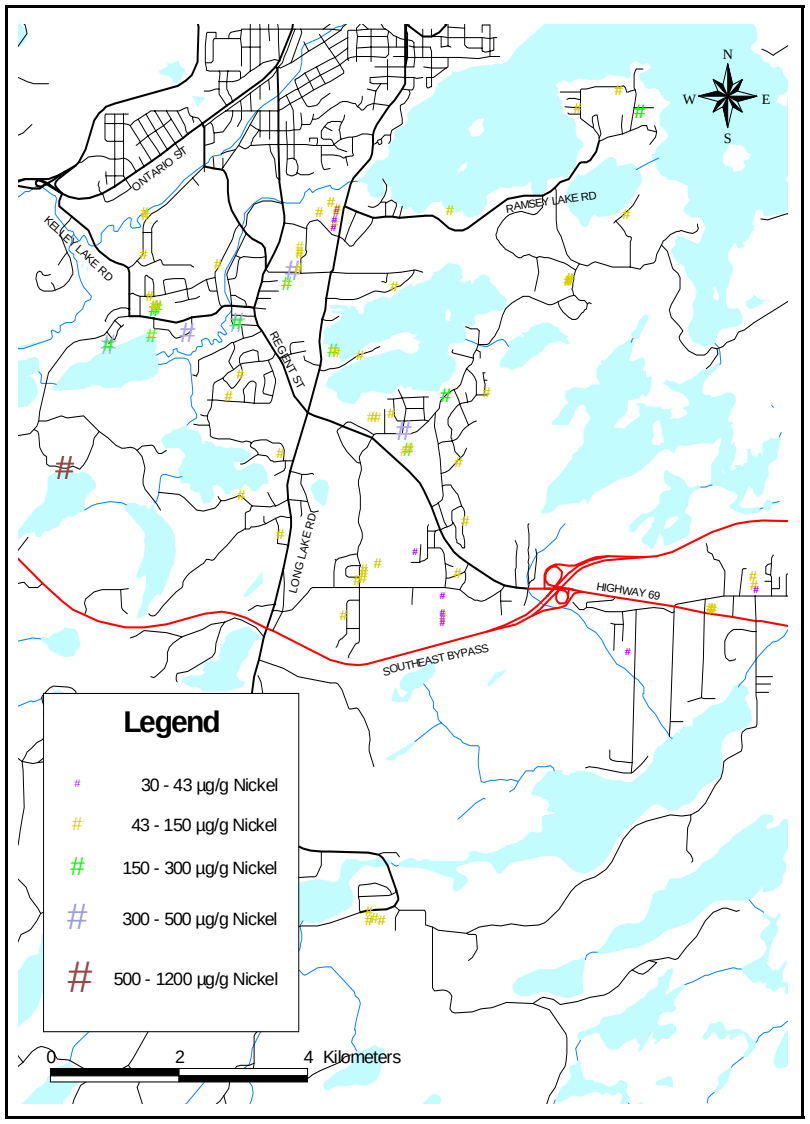


Map 10.2.5.4: As concentrations in urban 0 - 5 cm soil in Sudbury New and East, and Garson

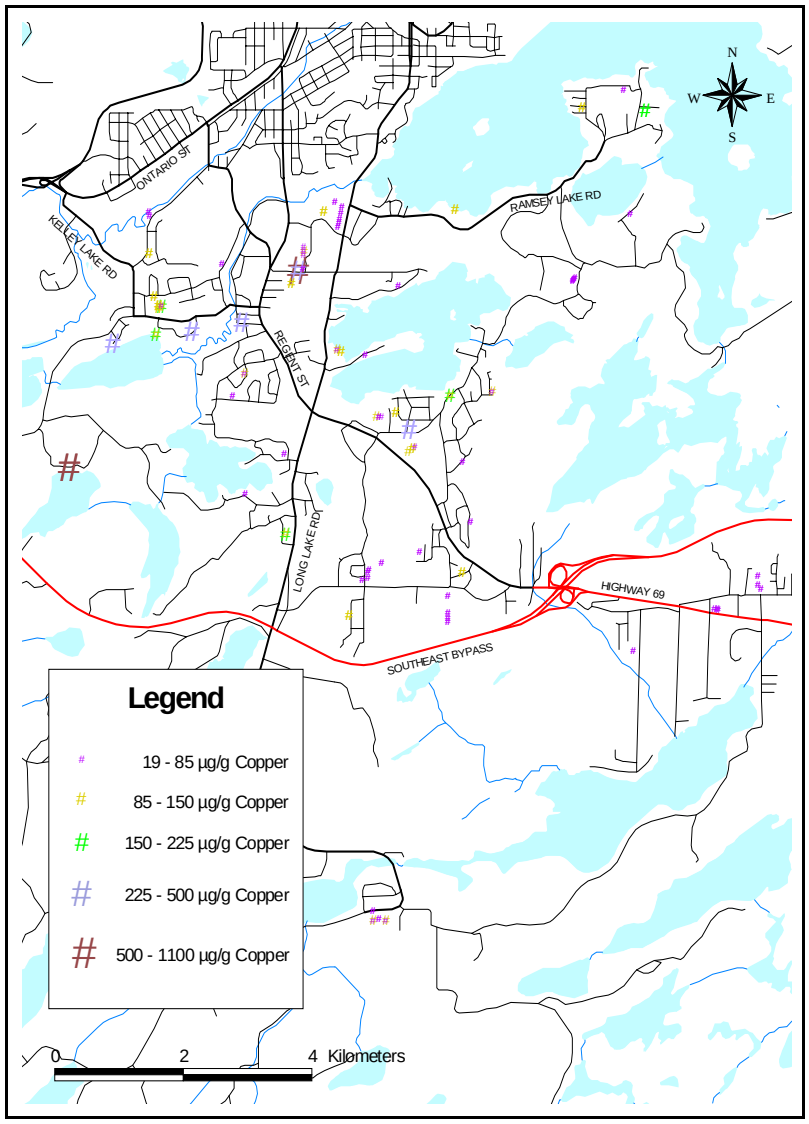


Map 10.2.5.5: Pb oncentrations in urban 0 - 5 cm soil in Sudbury New and East, and Garson

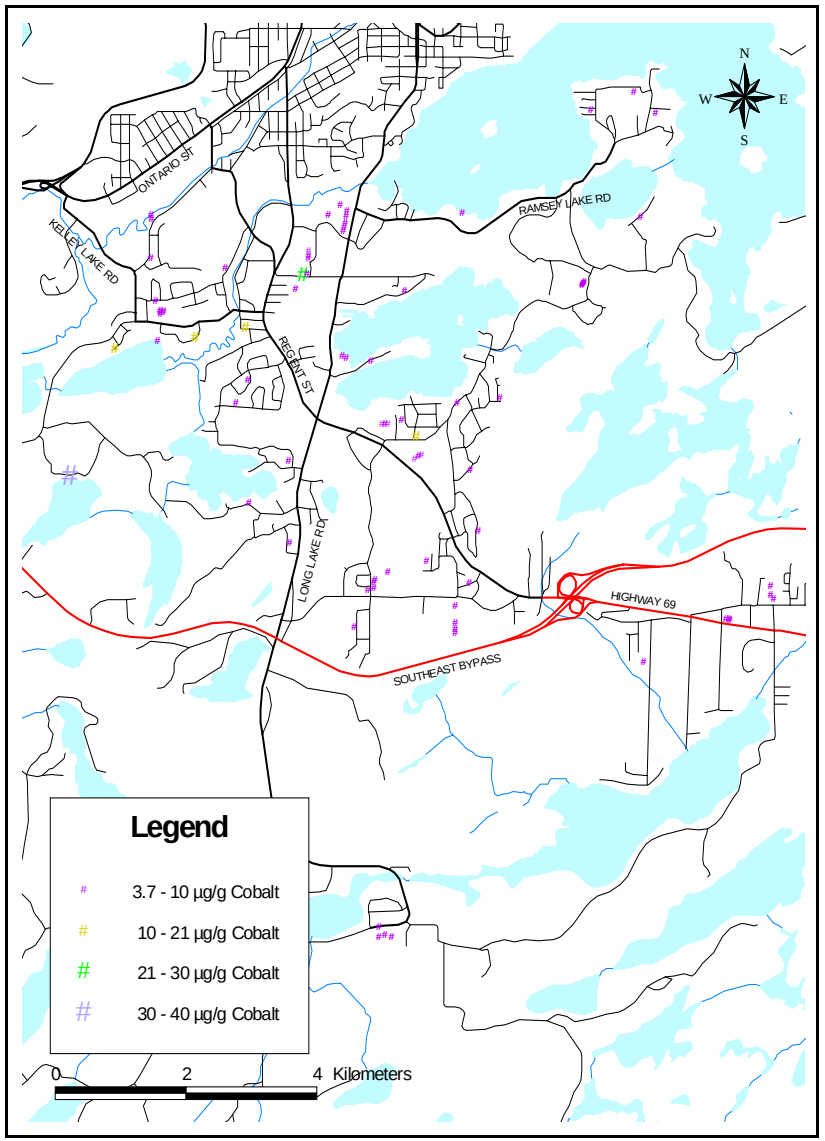
10.2.6 Sudbury South



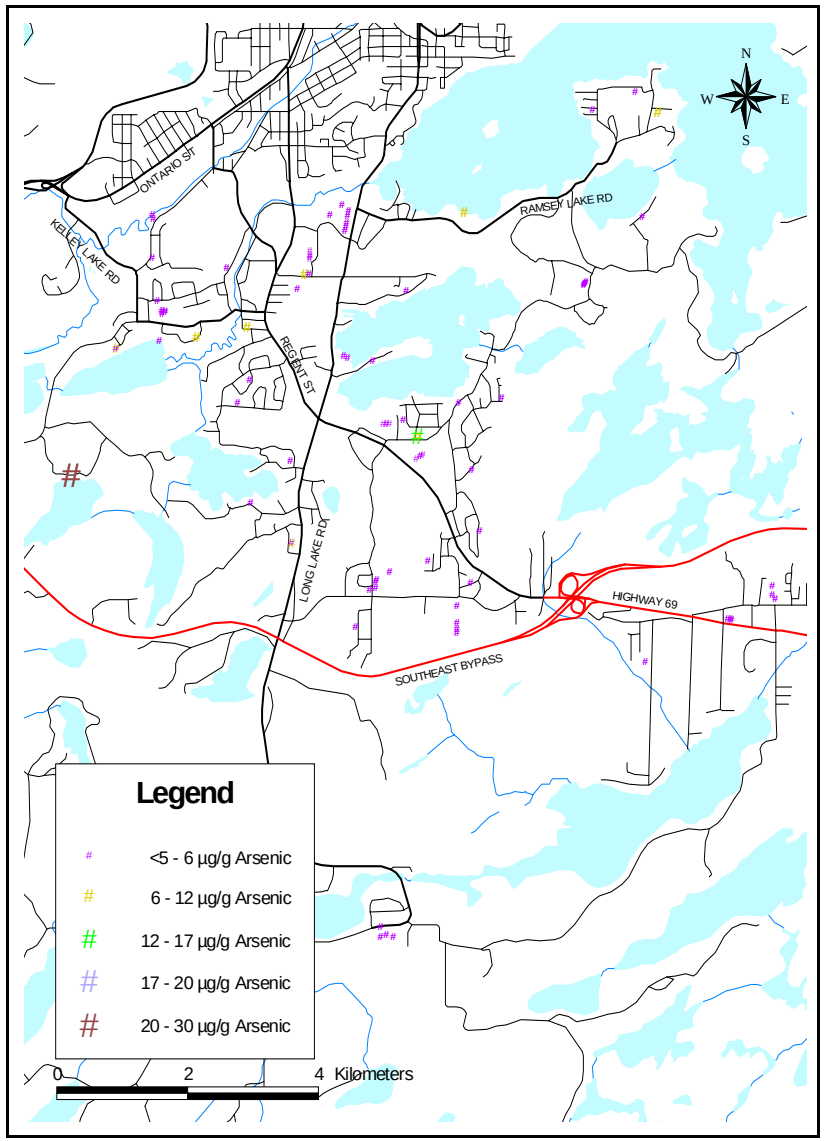
Map 10.2.6.1: Ni concentrations in urban 0 - 5 cm soil in Sudbury South



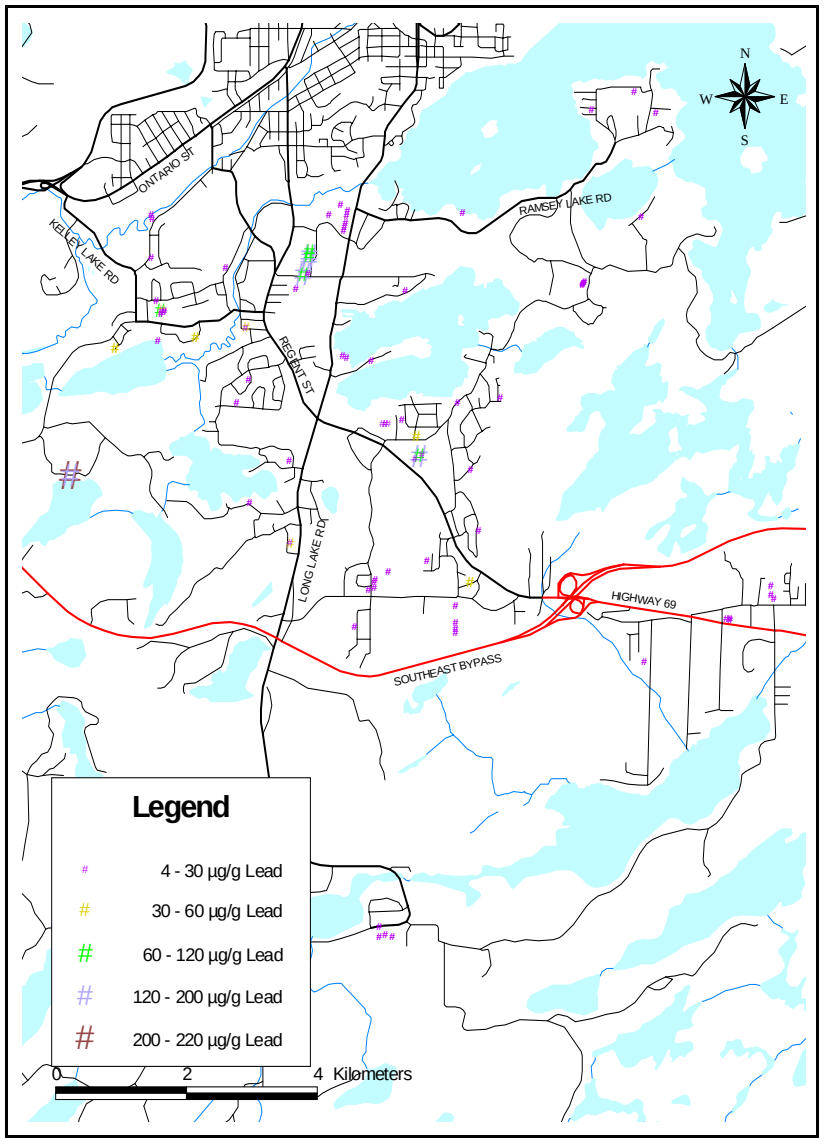
Map 10.2.6.2: Cu concentrations in urban 0 - 5 cm soil in Sudbury South



Map 10.2.6.3: Co concentrations in urban 0 - 5 cm soil in Sudbury South

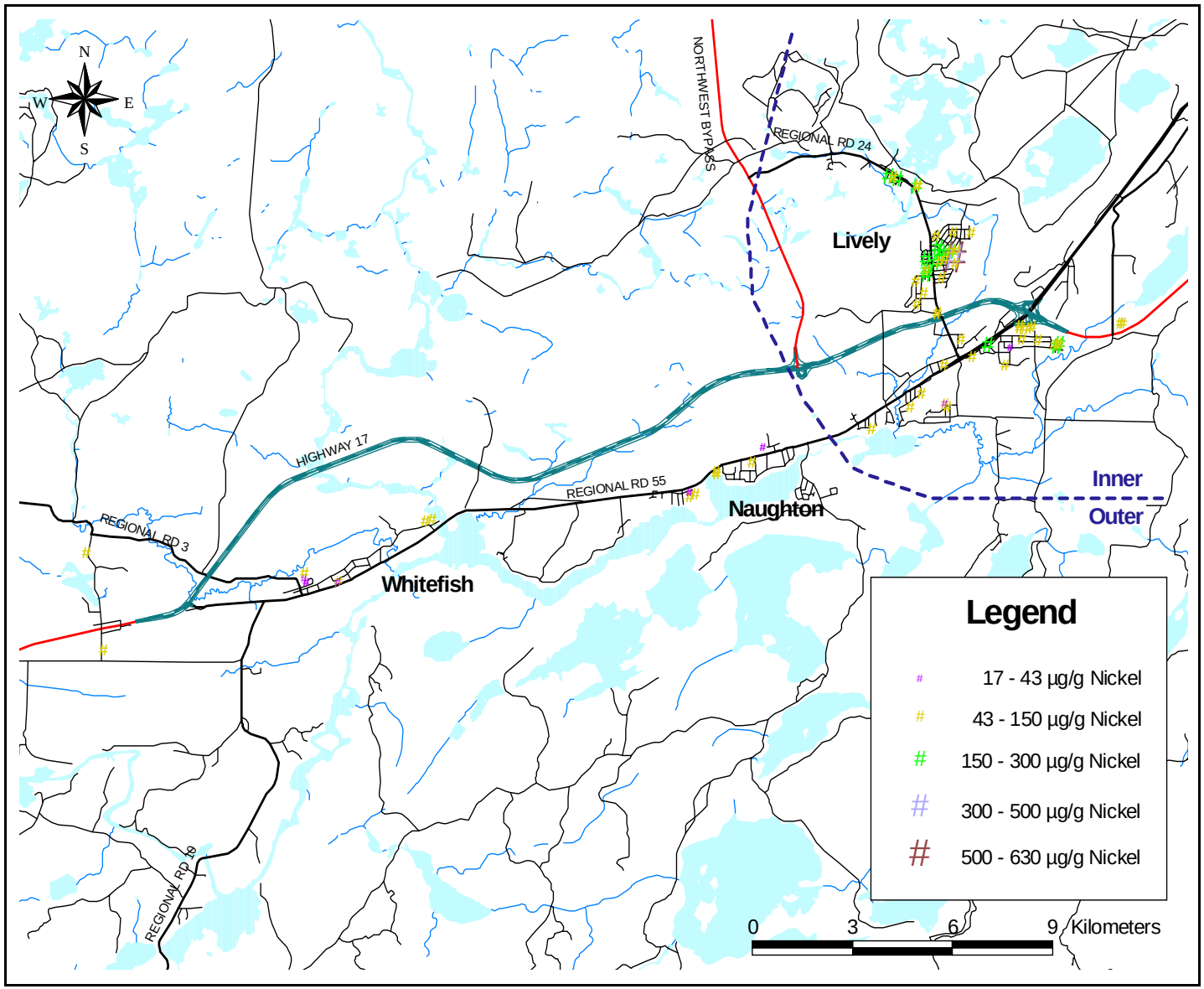


Map 10.2.6.4: As concentrations in urban 0 - 5 cm soil in Sudbury South

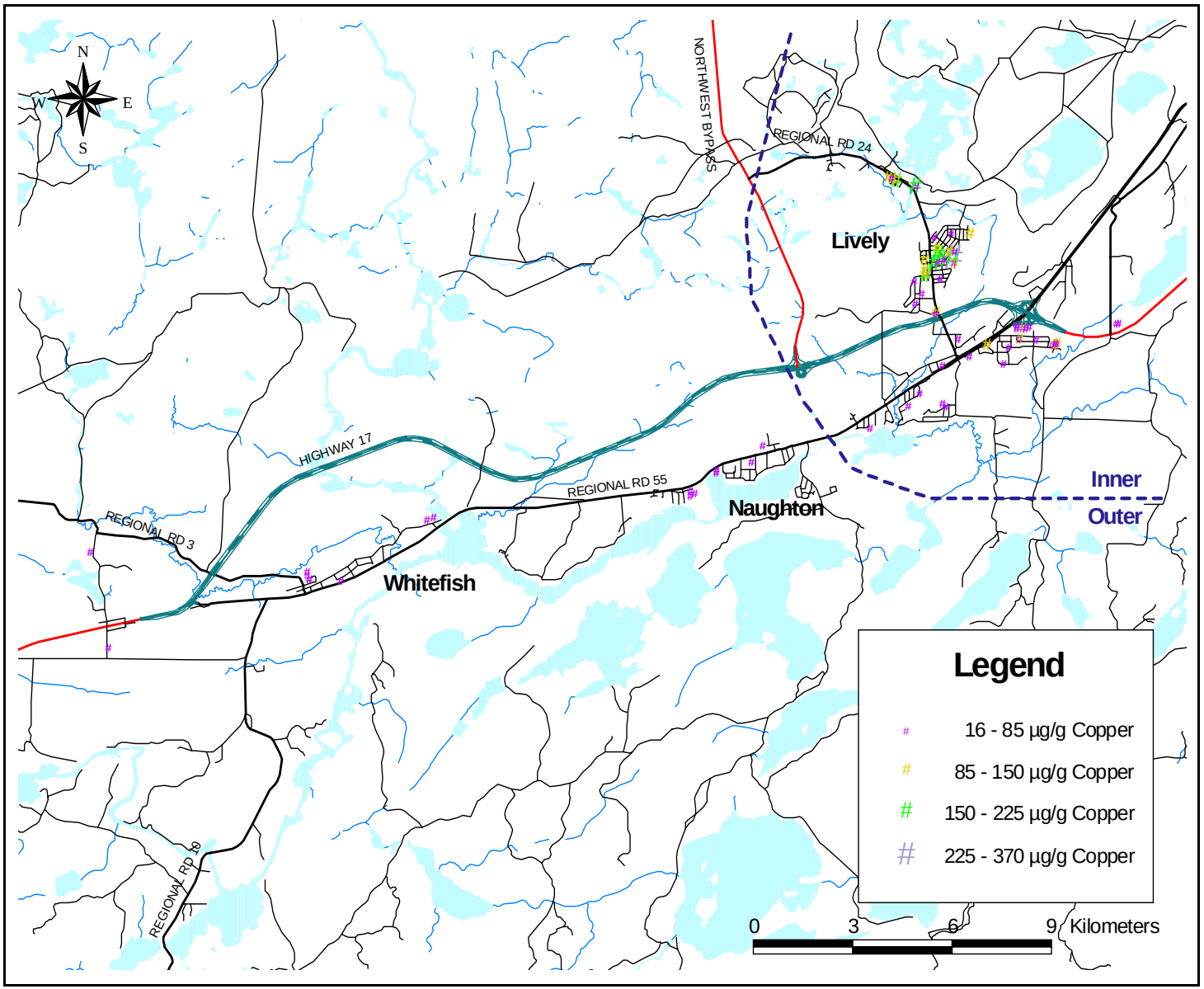


Map 10.2.6.5: Pb concentrations in urban 0 - 5 cm soil in Sudbury South

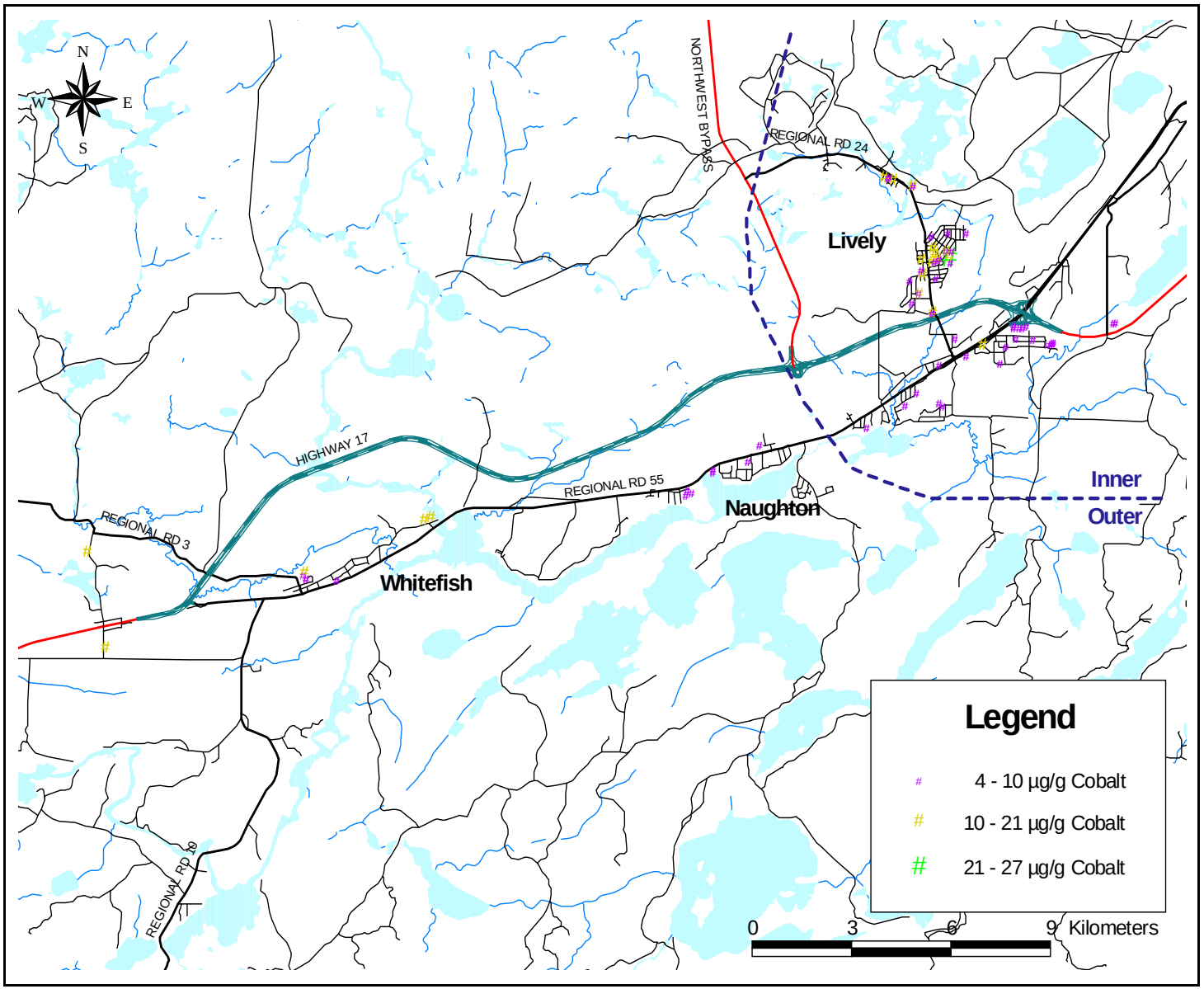
10.2.7 Sudbury West



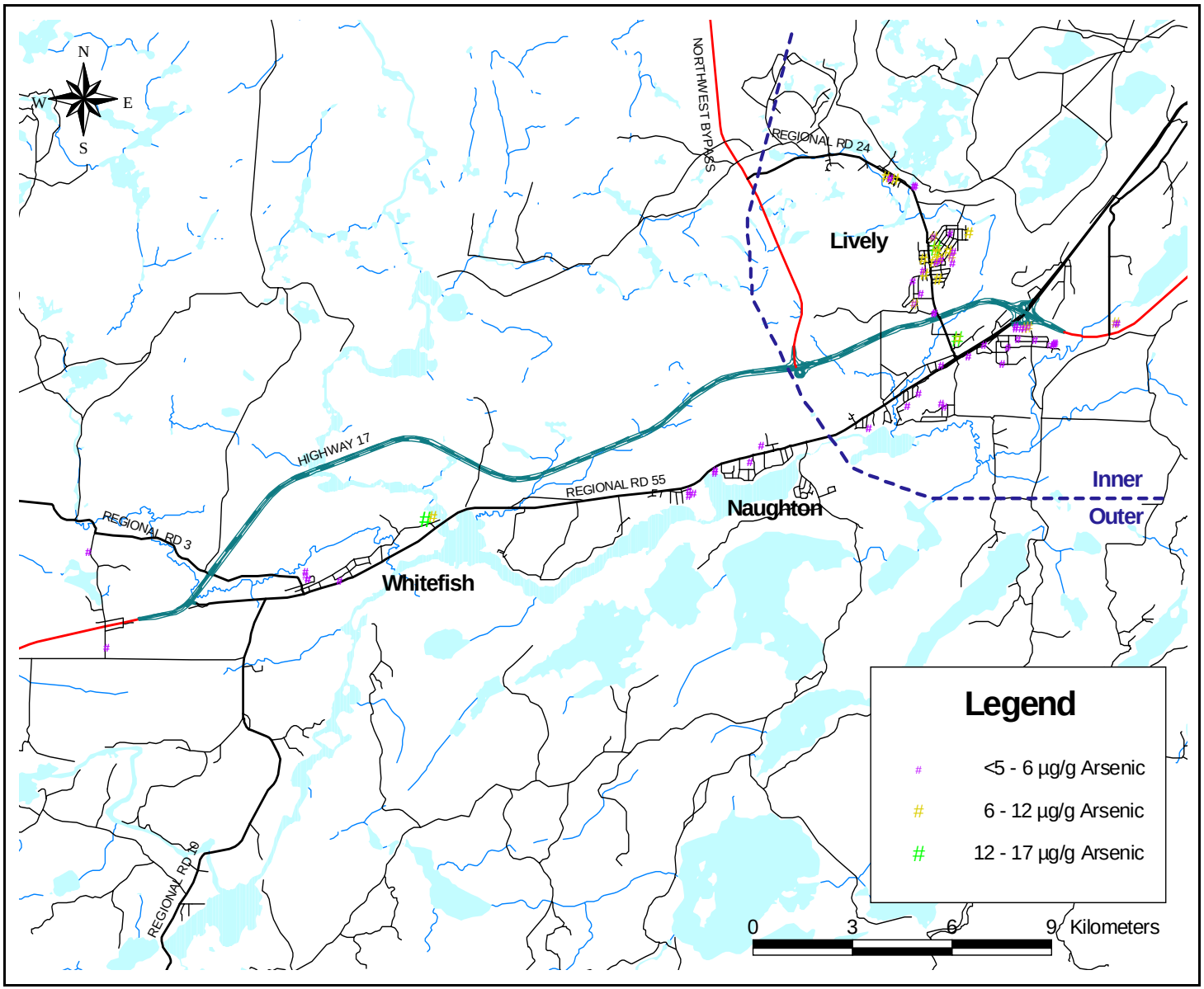
Map 10.2.7.1: Ni concentrations in urban 0 - 5 cm soil in Sudbury West



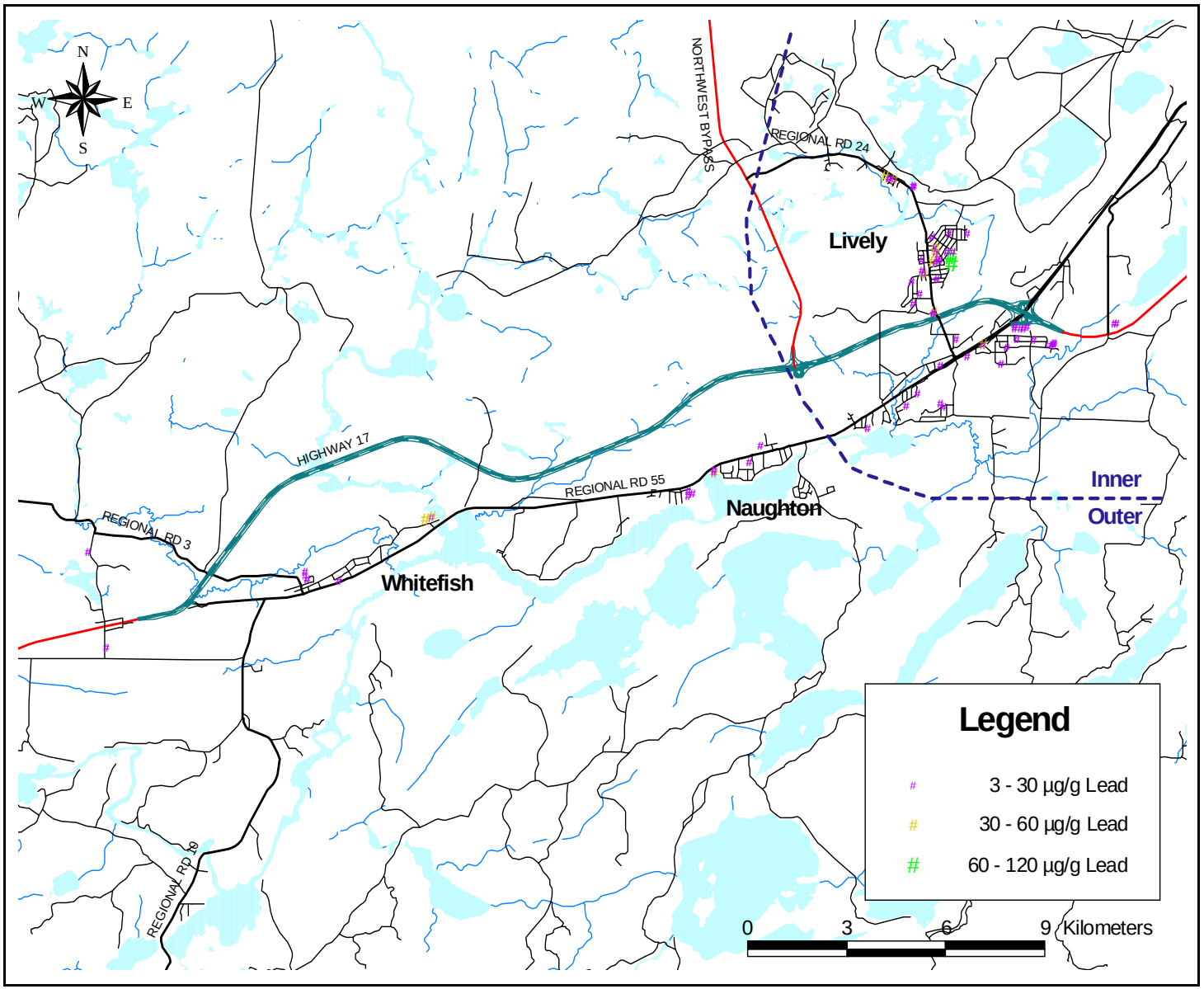
Map 10.2.7.2: Cu concentrations in urban 0 - 5 cm soil in Sudbury West



Map 10.2.7.3: Co concentrations in urban 0 - 5 cm soil in Sudbury West

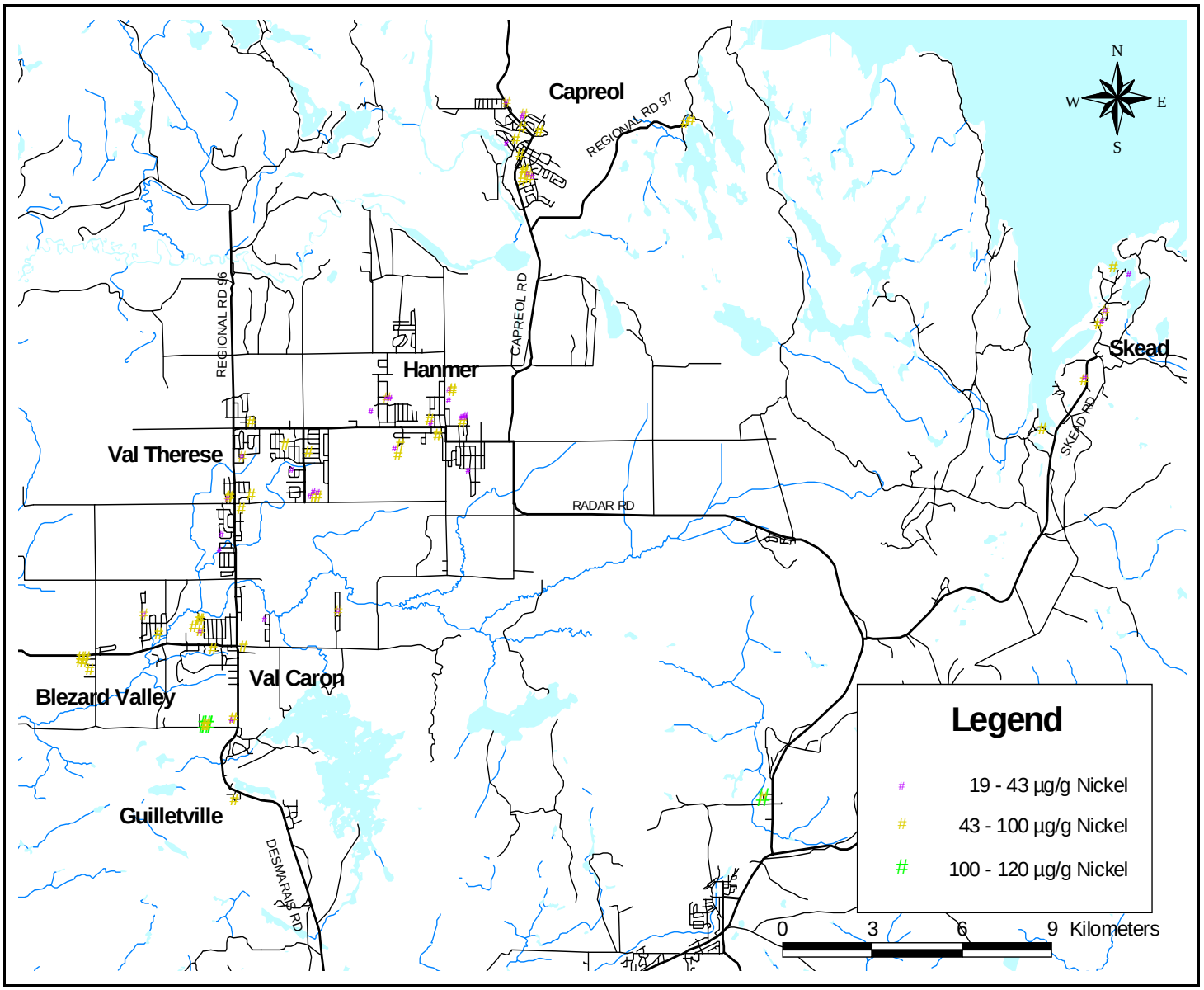


Map 10.2.7.4: As concentrations in urban 0 - 5 cm soil in Sudbury West

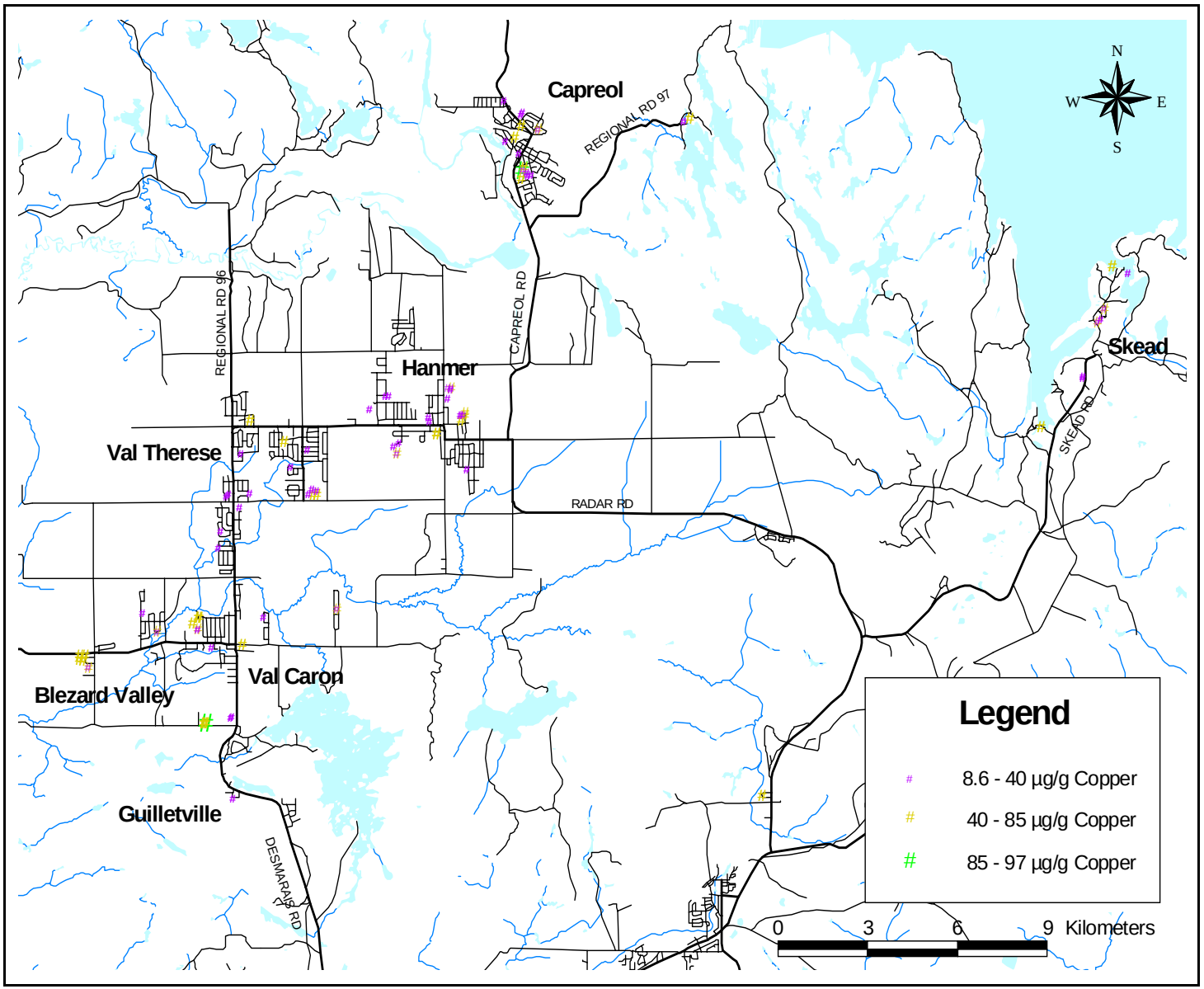


Map 10.2.7.5: Pb concentrations in urban 0 - 5 cm soil in Sudbury West

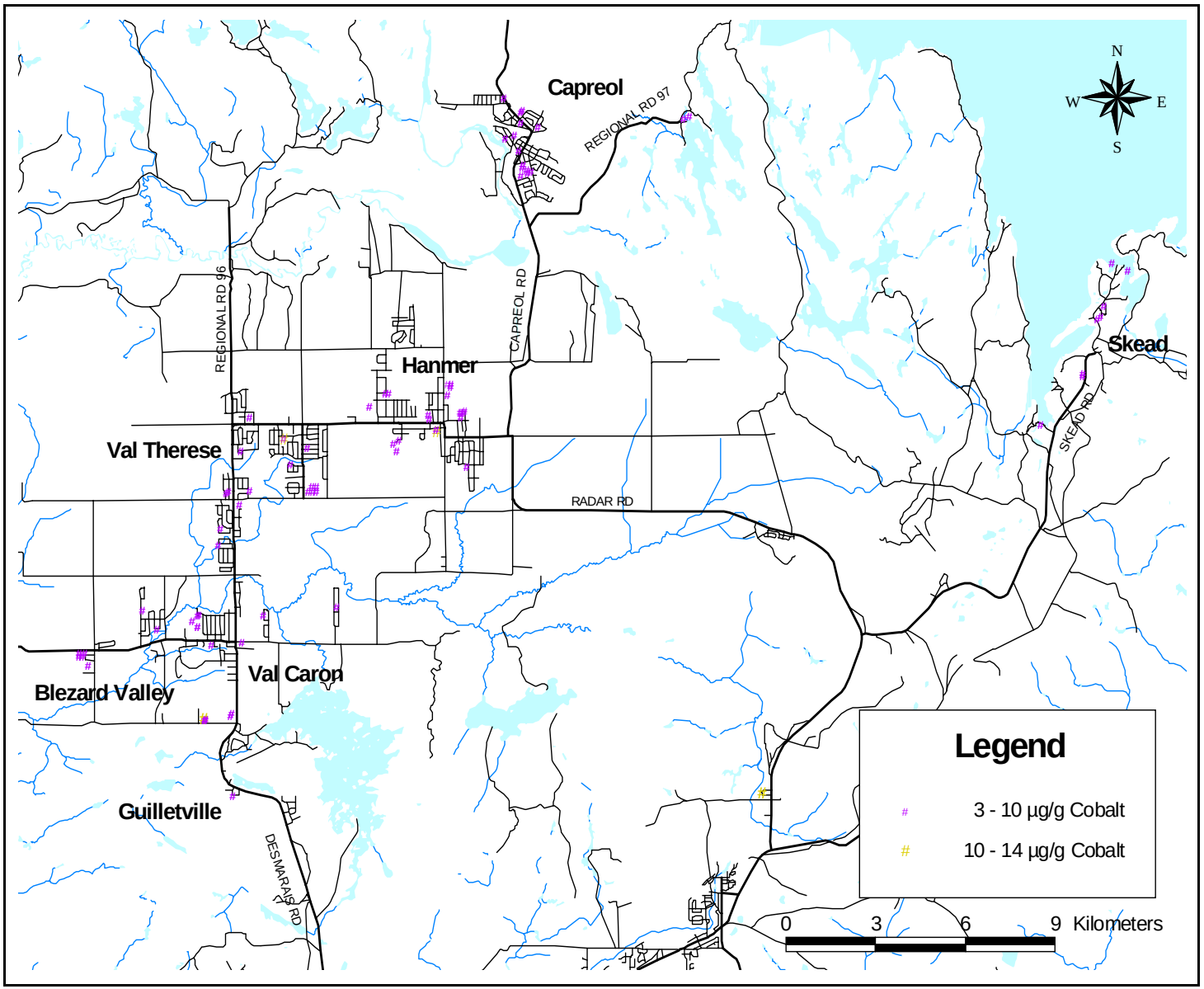
10.2.8 Valley East



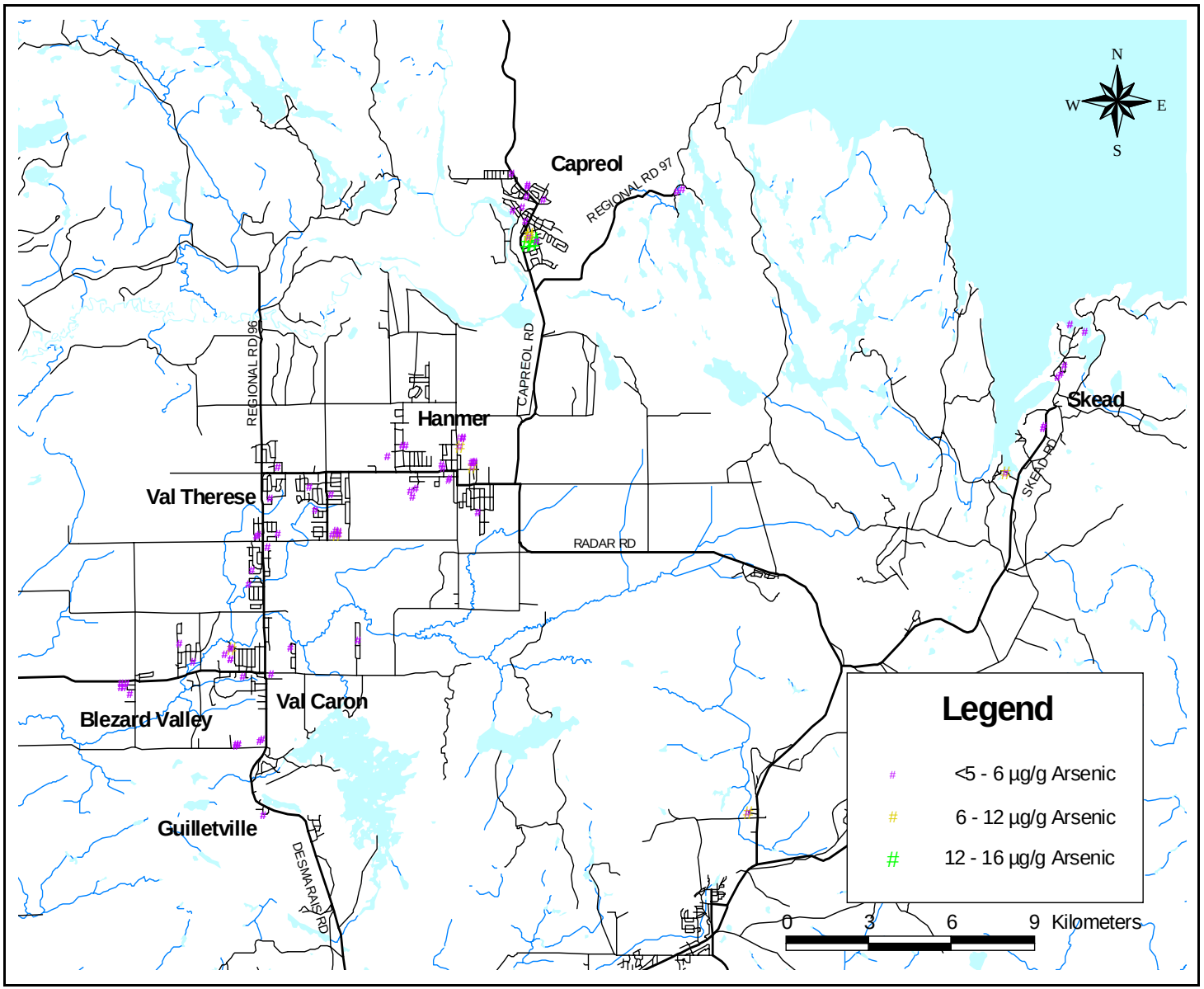
Map 10.2.8.1: Ni concentrations in urban 0 - 5 cm soil in Valley East



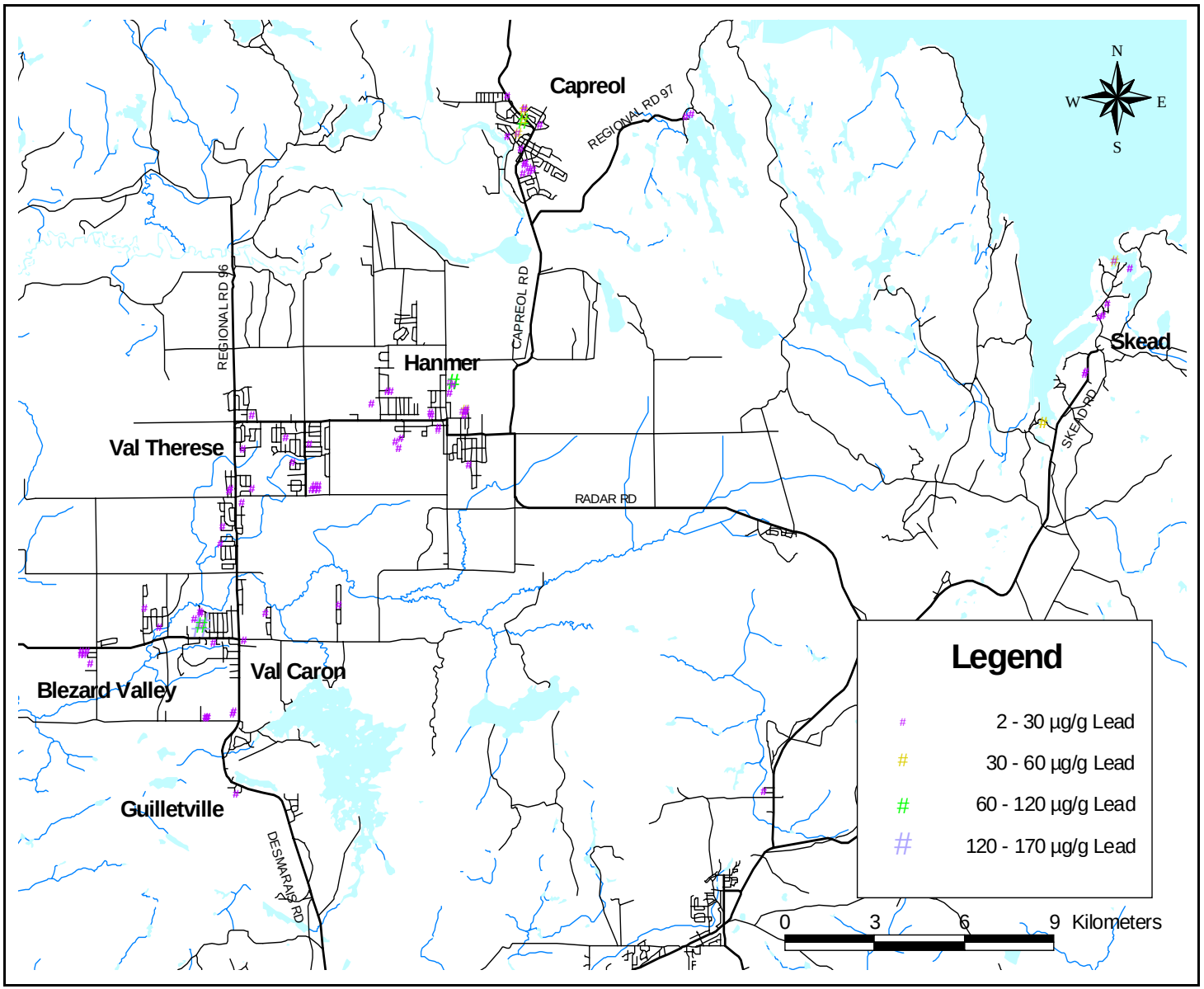
Map 10.2.8.2: Cu concentrations in urban 0 - 5 cm soil in Valley East



Map 10.2.8.3: Co concentrations in urban 0 - 5 cm soil in Valley East

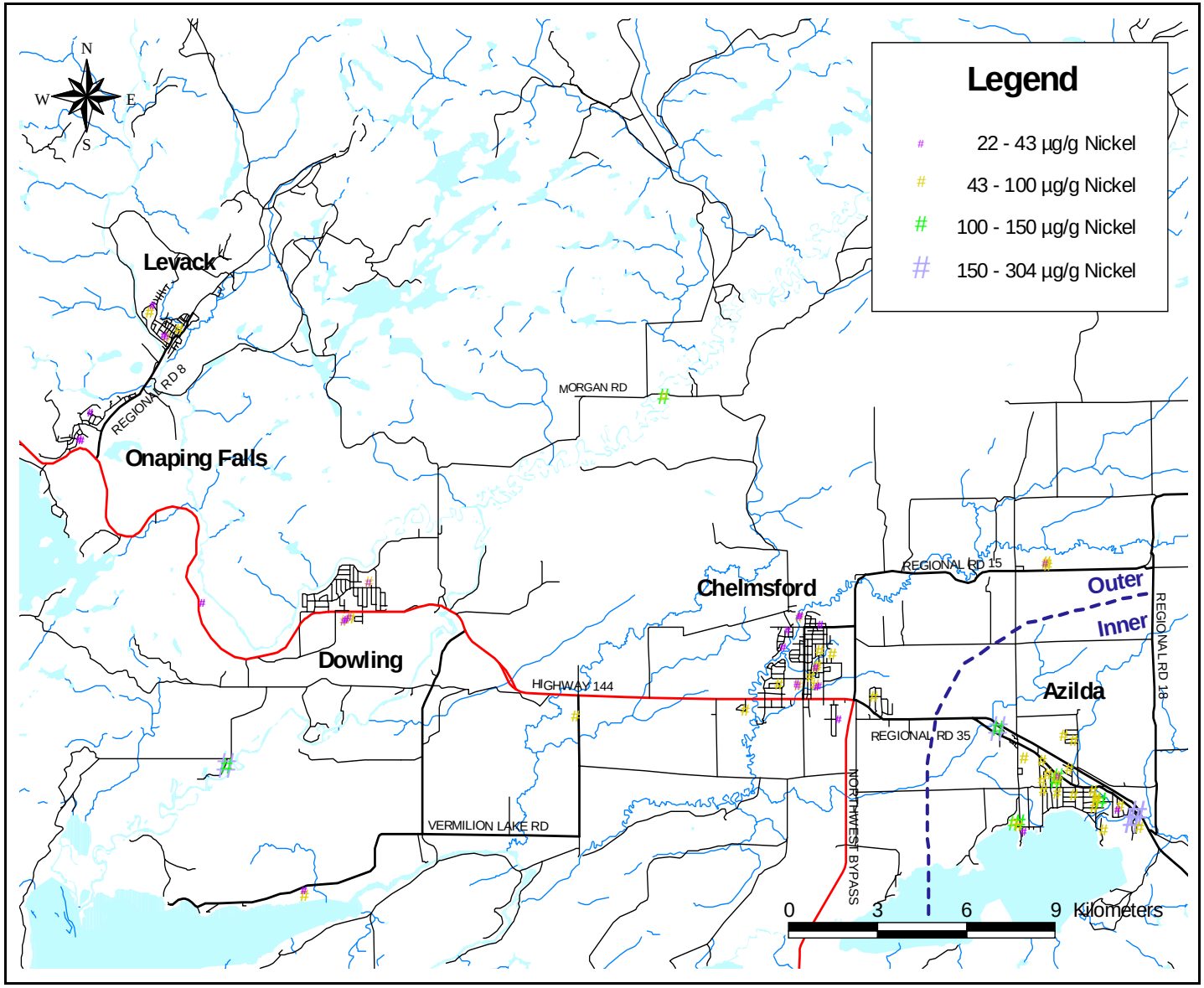


Map 10.2.8.4: As concentrations in urban 0 - 5 cm soil in Valley East

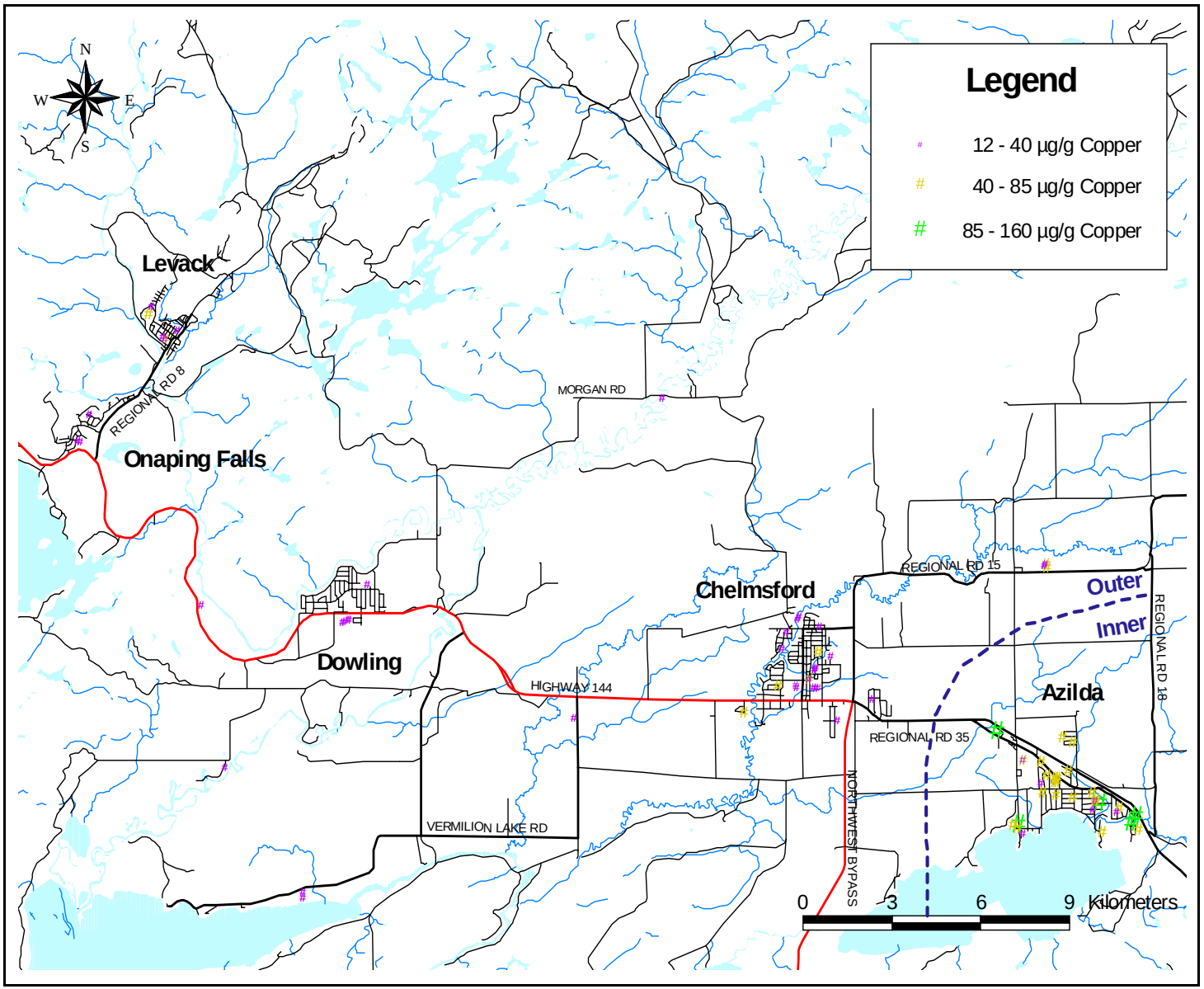


Map 10.2.8.5: Pb concentrations in urban 0 - 5 cm soil in Valley East

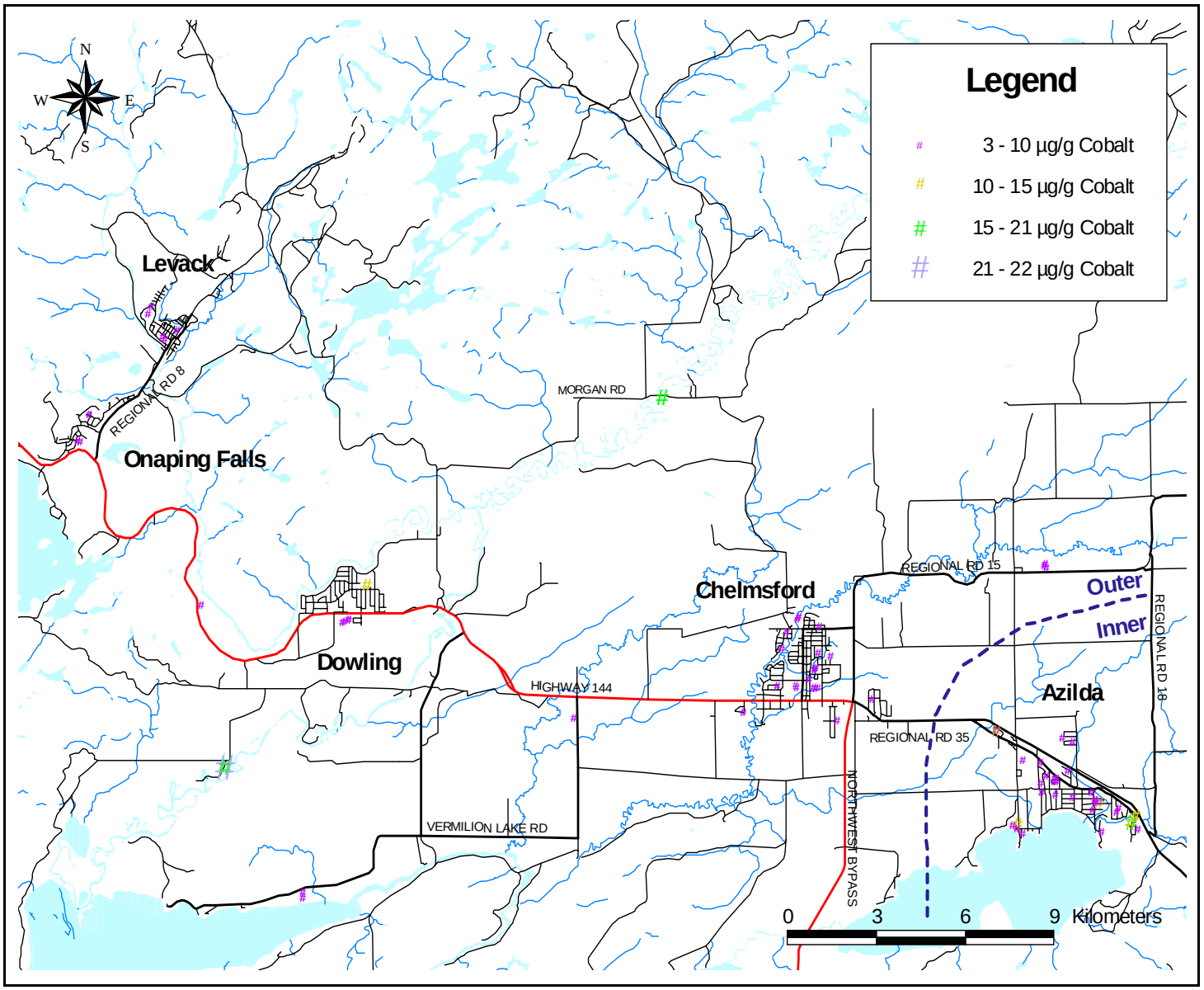
10.2.9 Valley West



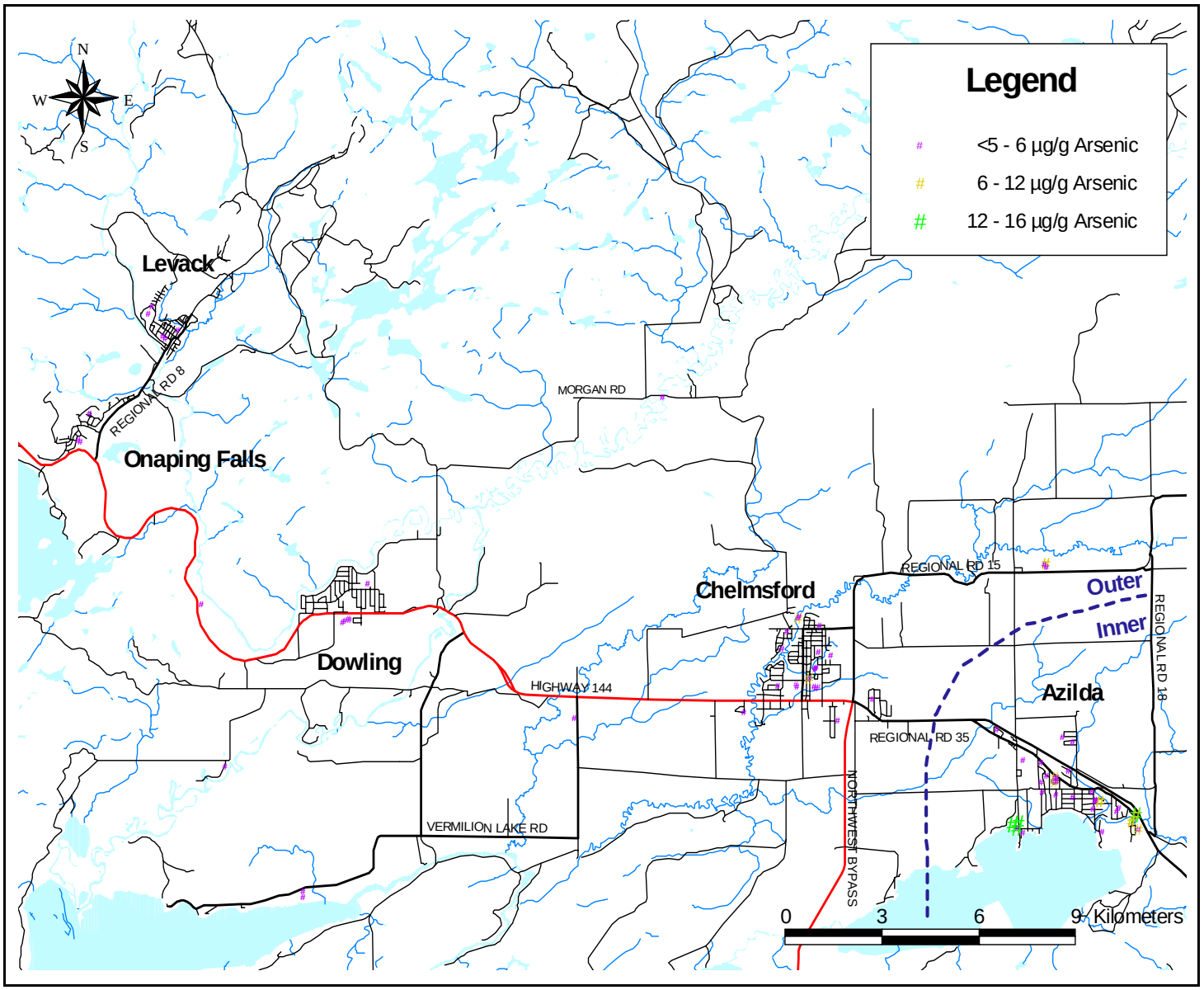
Map 10.2.9.1: Ni concentrations in urban 0 - 5 cm soil in Valley West



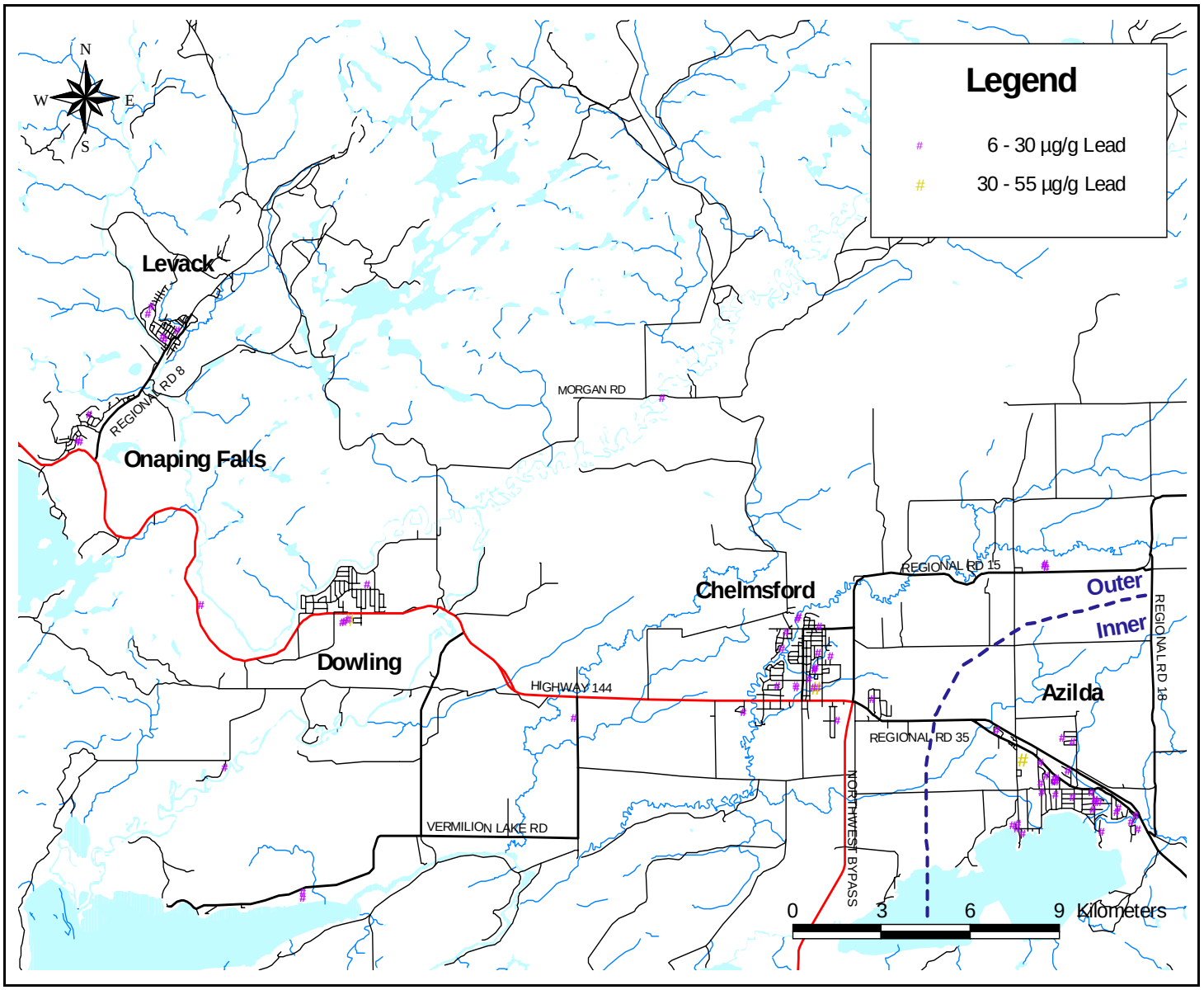
Map 10.2.9.2: Cu concentrations in urban 0 - 5 cm soil in Valley West



Map 10.2.9.3: Co concentrations in urban 0 - 5 cm soil in Valley West



Map 10.2.9.4: As concentrations in urban 0 - 5 cm soil in Valley West



Map 10.2.9.5: Pb concentrations in urban 0 - 5 cm soil in Valley West

10.3 Data Summary Statistics for all Communities within the City of Greater Sudbury
10.3.1 Urban Soil Summaries of Elements at All Three Depths
10.3.1.1 Outer Sudbury Communities

Table 10.3.1.1.1: Summary Statistics for Urban Soil Samples from All Sampling Locations in the Outer Sudbury Communities.

Summary Statistic	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in the Outer Communities, n = 284																			
Minimum	4600	0.4	2.5	19	0.4	1600	18	3	9	8600	2	1200	100	0.75	17	0.5	13	8	13
10th percentile	7130	0.4	2.5	25	0.4	2700	22	4	21	11000	7	1800	140	0.75	32	0.5	23	23	19
1st quartile	8500	0.4	2.5	29	0.4	3200	24	5	26	12000	9	2100	160	0.75	39	0.5	28	26	22
Median	9700	0.4	2.5	35	0.4	4200	27	5	35	13000	11	2400	190	0.75	48	0.5	35	28	27
3rd quartile	11000	0.4	2.5	43	0.4	5950	33	7	44	15000	14	3600	240	0.75	57	0.5	41	31	36
95th percentile	14000	0.4	7.0	68	0.4	11000	46	12	59	19850	35	5400	379	0.75	79	1.0	49	40	56
Maximum	27000	1.6	16	150	3.8	33000	67	22	97	33000	170	10000	650	1.70	151	1.2	76	78	78
Mean	9999	0.4	3.6	39	0.4	5133	30	6	36	13711	15	2943	210	0.76	50	0.5	35	29	31
Geometric mean	9689	0.4	3.1	36	0.4	4476	29	6	33	13378	12	2718	198	0.76	48	0.5	34	28	29
Sample std. dev.	2771	0.1	2.5	17	0.2	3473	8	3	14	3377	14	1342	83	0.09	18	0.1	9	7	12
CV (std. dev./mean)	28%	22%	70%	44%	57%	68%	28%	43%	38%	25%	95%	46%	40%	12%	35%	24%	27%	23%	39%
Lower CI of the mean	9675	0.4	3.3	37	0.4	4727	29	6	34	13316	13	2786	200	0.75	48	0.5	34	28	29
Upper CI of the mean	10324	0.4	3.9	41	0.5	5539	31	7	38	14106	17	3100	219	0.77	52	0.5	36	30	32
Kurtosis	10.1	108.0	11.4	13.6	154	154.6	22.1	4.3	7.6	2.3	6.9	53.3	5.1	7.1	71.0	5.3	13.4	0.9	11.9
Skewness	2.4	9.6	3.2	3.1	12.1	12.1	3.8	1.8	2.3	1.1	2.2	6.0	2.0	2.3	8.5	1.7	3.8	0.4	2.2
5 to 10 cm Urban Soil in the Outer Communities, n = 228																			
Minimum	4900	0.4	2.5	17	0.4	1200	17	3	7	7700	4	1100	99	0.75	18	0.5	13	21	12
10th percentile	7170	0.4	3	24	0.4	2270	22	4	16	11000	6	1700	130	0.8	28	0.5	21	24	17
1st quartile	8400	0.4	2.5	28	0.4	2800	24	4	22	12000	8	1900	150	0.75	33	0.5	27	26	19
Median	9950	0.4	2.5	35	0.4	3700	27	5	29	13000	9	2200	180	0.75	40	0.5	34	28	25
3rd quartile	11000	0.4	2.5	43	0.4	5100	32	6	35	15000	12	3400	230	0.75	51	0.5	40	32	31
95th percentile	15000	0.4	7.6	74	0.4	9455	46	12	53	20000	22	5565	317	0.75	70	0.5	49	40	62
Maximum	37000	1.8	23	210	0.4	38000	77	19	71	36000	91	12000	590	1.70	134	2.0	58	74	97
Mean	10428	0.4	3.4	40	0.4	4505	29	6	30	13850	11	2809	202	0.76	43	0.5	34	30	28
Geometric mean	9983	0.4	3.0	36	0.4	3905	28	6	28	13438	10	2538	190	0.75	41	0.5	33	29	26
Sample std. dev.	3714	0.2	3.0	23	0.0	3446	9	3	12	3906	9	1586	79	0.08	16	0.1	10	8	14
CV (std. dev./mean)	36%	37%	86%	58%	0%	77%	31%	44%	39%	28%	80%	57%	39%	11%	37%	27%	29%	26%	49%
Lower CI of the mean	9942	0.4	3.1	37	0.4	4055	28	6	28	13339	10	2602	191	0.75	41	0.5	33	29	26
Upper CI of the mean	10324	0.4	3.9	41	0.25	5539	31	7	38	14106	17	3100	219	0.77	52	0.5	36	30	32
Kurtosis	18.3	40.9	19.8	19.4		42.9	9.2	7.4	0.8	9.6	35.4	9.8	6.8	118	7.4	54.9	-0.5	10.5	6.4
Skewness	3.5	6.2	4.2	3.9		5.4	2.6	2.5	0.8	2.6	5.2	2.8	2.3	10.8	1.9	6.6	0.0	2.8	2.3
10 to 20 cm Urban Soil in the Outer Communities, n = 213																			
Minimum	4900	0.4	2.5	14	0.4	1400	15	3	4	7000	3	1400	85	0.75	13	0.5	12	17	9
10th percentile	6520	0.4	3	22	0.4	2100	21	4	11	10000	5	1700	130	0.8	22	0.5	20	22	15
1st quartile	8200	0.4	2.5	28	0.4	2800	23	4	17	11000	6	1900	160	0.75	27	0.5	26	25	19
Median	9500	0.4	2.5	35	0.4	3500	27	5	25	13000	9	2200	190	0.75	38	0.5	33	28	24
3rd quartile	11000	0.4	2.5	43	0.4	4500	32	6	33	16000	11	3300	235	0.75	48	0.5	41	33	31
95th percentile	16400	0.4	7.0	76	0.4	8180	47	11	47	23000	21	5900	384	0.75	68	0.5	50	45	58
Maximum	31000	4.0	44	210	0.9	20000	78	29	100	35000	214	11000	600	2.70	124	1.0	68	66	230
Mean	10174	0.4	3.4	40	0.4	4185	29	6	27	13935	11	2836	206	0.77	40	0.5	33	30	27
Geometric mean	9686	0.4	2.9	36	0.4	3665	28	5	23	13406	9	2539	193	0.76	37	0.5	32	29	25
Sample std. dev.	3636	0.3	3.8	25	0.0	2828	10	3	14	4329	16	1668	82	0.16	17	0.1	10	8	19
CV (std. dev./mean)	36%	73%	112%	63%	9%	68%	33%	50%	54%	31%	144	59%	40%	21%	42%	17%	31%	28%	68%
Lower CI of the mean	9681	0.4	2.9	37	0.4	3803	28	6	25	13349	9	2610	195	0.75	38	0.5	32	29	25
Upper CI of the mean	10666	0.5	4.0	43	0.4	4568	31	6	29	14521	13	3062	217	0.79	42	0.5	35	31	30
Kurtosis	10.1	91.3	66.5	16.1	213	14.1	5.7	21.7	5.4	5.3	116	7.6	4.6	112	4.2	26.1	-0.2	5.3	67.0
Skewness	2.5	9.2	7.4	3.6	14.6	3.4	2.0	3.7	1.7	2.0	10	2.6	1.9	10.2	1.5	5.3	0.2	2.0	6.7

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.1.2: Summary Statistics for All 0 - 5 cm Urban Soil Samples in the Outer Sudbury Communities by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm	n = 12																		
Minimum	7500	0.4	2.5	24	0.4	1700	19	5	20	11000	7	1800	130	0.75	32	0.5	22	23	18
10th percentile	7910	0.4	2.5	26	0.4	1820	20	5	22	12000	7	1830	143	0.75	34	0.5	22	24	23
1st quartile	8200	0.4	2.5	34	0.4	2250	23	5	28	12000	8	2150	170	0.75	36	0.5	23	25	26
Median	8900	0.4	2.5	41	0.4	2850	23	6	39	13000	10	2300	200	0.75	45	0.5	29	28	27
3rd quartile	11500	0.4	5.0	61	0.4	3250	29	7	46	14500	33	2650	220	0.75	50	0.5	30	30	40
95th percentile	12000	0.4	6.5	69	0.4	3535	43	8	56	16000	37	2890	258	0.75	58	0.5	31	33	47
Maximum	12000	0.4	7.0	71	0.4	3700	47	8	57	16000	40	3000	280	0.75	59	0.5	33	35	49
Mean	9517	0.4	3.6	46	0.4	2758	27	6	38	13417	18	2342	197	0.75	44	0.5	27	28	31
Geometric mean	9380	0.4	3.3	43	0.4	2681	26	6	36	13328	14	2314	192	0.75	43	0.5	27	27	30
Sample std. dev.	1654	0.0	1.6	16	0.0	620	8	1	12	1552	13	357	40	0.00	9	0.0	4	3	9
CV (std. dev./mean)	18%	0%	47%	36%	0%	23%	31%	19%	32%	12%	75%	16%	21%	0%	20%	0%	14%	12%	32%
Lower CI of the mean	8419	0.4	2.5	35	0.4	2347	21	5	30	12387	9	2105	170	0.8	38	0.5	25	25	25
Upper CI of the mean	10614	0.4	4.6	56	0.4	3170	32	7	46	14447	26	2579	224	0.8	50	0.5	30	30	38
Kurtosis	-1.4		-0.3	-1.2		-0.9	2.3	-1.4	-1.1	-0.8	-1.3	-0.5	0.1		-0.8		-1.1	0.7	-0.7
Skewness	0.6		1.1	0.4		-0.5	1.7	0.4	0.0	0.4	0.9	0.2	0.3		0.3		-0.4	0.7	0.8
Schools and Daycares 0 to 5 cm				n = 95															
Minimum	5100	0.4	2.5	19	0.4	1700	18	3	12	8600	2	1200	100	0.75	17	0.5	16	20	13
10th percentile	7740	0.4	2.5	27	0.4	2440	23	4	21	11000	6	1900	134	0.75	32	0.5	22	23	21
1st quartile	8600	0.4	2.5	30	0.4	3200	25	5	26	11000	10	2100	150	0.75	38	0.5	27	26	23
Median	9600	0.4	2.5	35	0.4	4200	28	5	38	13000	12	2600	200	0.75	50	0.5	33	28	27
3rd quartile	11000	0.4	5.5	44	0.4	6400	34	7	48	15000	16	3650	250	0.75	65	0.5	39	32	37
95th percentile	13000	0.4	7.0	54	0.4	14300	46	10	69	17600	52	5460	330	0.75	83	1.0	48	37	52
Maximum	17000	0.8	8.0	81	0.8	33000	66	12	97	33000	170	8200	440	1.50	120	1.2	76	78	62
Mean	9769	0.4	3.6	37	0.4	5828	31	6	40	13587	18	3043	208	0.77	52	0.6	34	29	30
Geometric mean	9595	0.4	3.3	36	0.4	4770	30	6	36	13291	13	2821	198	0.77	49	0.5	32	29	29
Sample std. dev.	1844	0.1	1.7	10	0.1	4844	8	2	17	3177	22	1259	66	0.13	19	0.2	10	7	10
CV (std. dev./mean)	19%	17%	49%	28%	17%	84%	28%	34%	42%	24%	119	42%	32%	17%	37%	29%	30%	23%	34%
Lower CI of the mean	9392	0.4	3.2	35	0.4	4836	29	6	36	12937	14	2785	195	0.75	48	0.5	32	28	28
Upper CI of the mean	10147	0.4	4.0	40	0.4	6820	32	6	43	14238	23	3301	221	0.80	56	0.6	36	31	33
Kurtosis	1.6	28.2	-0.5	3.1	28.2	13.9	4.6	0.7	1.8	13.6	26.6	1.9	0.6	28.2	2.2	7.3	2.5	26.8	0.6
Skewness	0.5	5.4	1.1	1.4	5.4	3.3	1.8	1.1	1.1	2.7	4.5	1.3	0.8	5.4	1.2	3.0	1.0	4.1	1.0
Parks 0 to 5 cm	n = 177																		
Minimum	4600	0.4	2.5	19	0.4	1600	18	4	9	9300	4	1600	110	0.75	19	0.5	13	8	13
10th percentile	6960	0.4	2.5	25	0.4	2860	22	4	20	11000	8	1800	140	0.75	33	0.5	24	23	19
1st quartile	8500	0.4	2.5	28	0.4	3300	24	5	26	12000	9	2100	160	0.75	39	0.5	31	26	22
Median	9700	0.4	2.5	34	0.4	4300	27	5	33	13000	11	2400	180	0.75	47	0.5	36	28	27
3rd quartile	11000	0.4	2.5	43	0.4	5850	32	7	42	15000	14	3600	230	0.75	56	0.5	42	31	36
95th percentile	15200	0.4	9.4	71	0.4	9520	45	12	55	21000	27	5440	420	0.75	78	0.5	49	41	59
Maximum	27000	1.6	16	150	3.8	19000	67	22	74	29000	66	10000	650	1.70	151	1.0	61	55	78
Mean	10155	0.4	3.6	39	0.4	4921	29	6	34	13797	13	2931	212	0.76	50	0.5	36	29	31
Geometric mean	9762	0.4	3.1	36	0.4	4479	29	6	32	13428	12	2693	198	0.75	47	0.5	35	28	29
Sample std. dev.	3201	0.1	2.8	20	0.3	2460	8	3	12	3563	7	1414	93	0.07	17	0.1	9	7	13
CV (std. dev./mean)	32%	25%	80%	51%	70%	50%	28%	47%	34%	26%	57%	48%	44%	9%	35%	20%	24%	24%	42%
Lower CI of the mean	9679	0.4	3.1	36	0.4	4555	28	6	32	13267	12	2720	198	0.74	47	0.5	35	28	29
Upper CI of the mean	10632	0.4	4.0	42	0.5	5287	31	7	36	14327	14	3141	225	0.77	52	0.5	38	30	33
Kurtosis	8.2	101.6	10.4	11.6	101.	9.0	4.6	6.7	0.6	4.4	16.0	5.9	6.8	177.0	7.8	17.7	0.1	4.4	2.7
Skewness	2.3	9.7	3.3	3.1	9.9	2.4	1.9	2.4	0.6	1.9	3.2	2.2	2.4	13.3	2.0	4.4	0.0	1.3	1.6

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.1.3: Summary Statistics for All 5 - 10 cm Urban Soil Samples in the Outer Sudbury Communities by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 5 to 10 cm				n = 12															
Minimum	6800	0.4	2.5	29	0.4	1200	17	5	11	1100	4	2100	120	0.8	23	0.5	13	21	18
10th percentile	6960	0.4	2.5	30	0.4	1640	19	5	13	1110	4	2100	133	0.8	24	0.5	18	22	19
1st quartile	7750	0.4	2.5	36	0.4	2000	21	5	20	1250	6	2100	160	0.8	27	0.5	20	24	20
Median	8950	0.4	2.5	45	0.4	2100	22	5	27	1300	8	2300	170	0.8	34	0.5	23	27	26
3rd quartile	9950	0.4	2.5	48	0.4	2500	26	6	35	1350	14	2450	215	0.8	39	0.5	27	29	31
95th percentile	10900	0.4	2.5	63	0.4	2890	29	6	40	1545	25	2845	229	0.8	42	0.5	30	32	38
Maximum	12000	0.4	2.5	74	0.4	3000	30	7	42	1600	29	2900	240	0.8	43	0.5	31	34	43
Mean	8917	0.4	2.5	44	0.4	2175	23	5	27	1308	11	2342	179	0.8	33	0.5	23	27	26
Geometric mean	8803	0.4	2.5	43	0.4	2119	23	5	25	1301	9	2328	176	0.8	32	0.5	23	27	26
Sample std. dev.	1430	0.0	0.0	12	0.0	469	4	1	10	1382	8	260	36	0.0	7	0.0	5	4	7
CV (std. dev./mean)	17%	0%	0%	28%	0%	23%	17%	12%	37%	11%	74%	12%	21%	0%	21%	0%	22%	14%	28%
Lower CI of the mean	7968	0.4	2.5	37	0.4	1864	20	5	21	1216	6	2169	155	0.8	28	0.5	20	24	22
Upper CI of the mean	9866	0.4	2.5	52	0.4	2486	25	6	33	1400	16	2514	203	0.8	37	0.5	26	29	31
Kurtosis	0.3			2.2		0.5	-0.4	1.4	-0.9	0.5	1.1	0.5	-0.9		-1.3		0.0	0	0.7
Skewness	0.4			1.0		-0.2	0.6	1.5	-0.1	0.5	1.4	1.2	0.1		-0.1		-0.3	0.1	1
Schools and Daycares	5 to 10 cm						n = 40												
Minimum	6900	0.4	2.5	20	0.4	1600	20	3	11	7700	5	1100	100	0.8	21	0.5	14	21	15
10th percentile	7470	0.4	2.5	25	0.4	2000	22	4	18	10000	7	1700	128	0.8	29	0.5	16	22	18
1st quartile	8800	0.4	2.5	29	0.4	2200	24	4	21	11000	7	1800	140	0.8	32	0.5	21	24	19
Median	9950	0.4	2.5	33	0.4	4100	26	5	29	12000	8	2000	175	0.8	41	0.5	33	27	24
3rd quartile	11000	0.4	2.5	41	0.4	5700	34	6	38	14500	9	3400	230	0.8	52	0.5	40	32	27
95th percentile	12050	0.4	6.0	46	0.4	10400	38	7	49	16100	15	5125	271	0.8	58	0.5	48	36	41
Maximum	13000	0.4	6.0	49	0.4	38000	51	7	54	24000	44	5700	290	0.8	64	1.0	52	65	43
Mean	9928	0.4	3.2	34	0.4	5380	28	5	30	12810	10	2605	184	0.8	42	0.5	31	29	25
Geometric mean	9778	0.4	3.0	33	0.4	4050	28	5	28	12541	9	2401	176	0.8	41	0.5	29	28	24
Sample std. dev.	1691	0.0	1.3	8	0.0	6052	7	1	11	2803	6	1134	52	0.0	11	0.1	11	8	7
CV (std. dev./mean)	17%	0%	41%	23%	0%	114%	23%	23%	36%	22%	63%	44%	29%	0%	26%	15%	36%	27%	27%
Lower CI of the mean	9380	0.4	2.8	32	0.4	3420	26	4	26	11902	8	2238	167	0.8	39	0.5	28	26	23
Upper CI of the mean	10475	0.4	3.6	37	0.4	7340	31	5	33	13718	12	2972	200	0.8	46	0.5	35	31	27
Kurtosis	-0.8		0.4	-0.8		21.4	1.8	-0.5	-0.3	5.1	28.9	1.0	-0.9		-1.0	40.0	-1.2	12.3	1.3
Skewness	-0.1		1.5	0.3		4.3	1.2	0.7	0.5	1.6	5.1	1.3	0.4		0.0	6.3	-0.1	2.9	1.2
Parks 5 to 10 cm		n = 176																	
Minimum	4900	0.4	2.5	17	0.4	1700	18	3	7	9200	4	1400	99	0.8	18	0.5	14	21	12
10th percentile	7200	0.4	2.5	24	0.4	2500	22	4	16	11000	6	1700	130	0.8	28	0.5	23	24	16
1st quartile	8400	0.4	2.5	28	0.4	3050	24	4	22	12000	8	1900	150	0.8	34	0.5	30	26	20
Median	10000	0.4	2.5	35	0.4	3800	27	5	29	13000	10	2300	180	0.8	41	0.5	36	28	25
3rd quartile	11500	0.4	2.5	43	0.4	5100	32	7	35	15000	13	3450	235	0.8	52	0.5	42	32	33
95th percentile	17000	0.4	9.0	87	0.4	8625	47	12	54	20000	22	6600	413	0.8	73	1.0	49	40	64
Maximum	37000	1.8	23	210	0.4	22000	77	19	71	36000	91	12000	590	1.7	134	2.0	58	74	97
Mean	10644	0.4	3.6	41	0.4	4465	30	6	30	14139	12	2888	207	0.8	44	0.5	36	30	29
Geometric mean	10116	0.4	3.0	37	0.4	4037	29	6	28	13681	10	2585	195	0.8	41	0.5	34	30	26
Sample std. dev.	4101	0.2	3.3	26	0.0	2549	10	3	12	4180	10	1711	85	0.1	17	0.2	9	8	15
CV (std. dev./mean)	39%	41%	93%	63%	0%	57%	33%	47%	40%	30%	82%	59%	41%	12%	39%	29%	26%	26%	52%
Lower CI of the mean	10033	0.4	3.1	37	0.4	4085	29	6	28	13515	10	2632	195	0.7	42	0.5	34	29	27
Upper CI of the mean	11256	0.5	4.1	45	0.4	4846	32	7	32	14762	13	3143	220	0.8	47	0.6	37	31	31
Kurtosis	14.9	30.7	15.6	16		17.7	8.6	5.4	0.9	8.5	34	8.6	5.7	90.4	6.8	46	0	10	4.9
Skewness	3.3	5.4	3.8	3.6		3.5	2.6	2.2	0.8	2.5	5.2	2.7	2.2	9.5	1.9	6.1	0.0	2.8	2.1

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.1.4: Summary Statistics for All 10 - 20 cm Urban Soil Samples in the Outer Sudbury Communities by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 10 to 20 cm		n = 10																	
Minimum	6000	0.4	2.5	27	0.4	1400	15	4	6	9400	3	2200	110	0.8	16	0.5	15	17	13
1st quartile	6300	0.4	2.5	28	0.4	1600	17	5	11	10000	3	2200	140	0.8	19	0.5	18	19	14
Median	8700	0.4	2.5	42	0.4	1900	23	5	17	13500	4	2450	170	0.8	24	0.5	22	27	27
3rd quartile	10000	0.4	5.0	49	0.4	2400	26	6	28	15000	20	2800	180	0.8	33	0.5	25	30	33
95th percentile	11000	0.4	6.1	67	0.4	2665	28	8	45	16000	25	3185	253	0.8	47	0.5	31	34	43
Maximum	11000	0.4	7.0	70	0.4	2800	28	8	47	16000	26	3500	280	0.8	49	0.5	32	35	50
Mean	8540	0.4	3.5	44	0.4	1990	22	6	21	13040	11	2530	173	0.8	28	0.5	22	26	27
Geometric mean	8349	0.4	3.2	41	0.4	1940	22	5	17	12816	7	2503	168	0.8	26	0.5	22	25	24
Sample std. dev.	1770	0.0	1.5	14	0.0	453	5	1	14	2344	9	393	46	0.0	11	0.0	5	6	11
CV (std. dev./mean)	22%	0%	47%	34%	0%	24%	22%	23%	69%	19%	91%	16%	28%	0%	41%	0%	25%	23%	44%
Lower CI of the mean	7205	0.4	2.3	33	0.4	1649	19	5	11	11272	4	2234	139	0.8	20	0.5	18	22	18
Upper CI of the mean	9875	0.4	4.6	54	0.4	2331	25	6	32	14808	17	2826	207	0.8	36	0.5	26	30	35
Kurtosis	-1.3		1.2	-0.4		-1.2	-1	0.3	-0.6	-1.3	-1.6	2.7	2.0		-0.2		-1	-1.1	0.4
Skewness	-0.1		1.5	0.6		0.4	0	0.8	0.8	-0.4	0.7	1.6	1.2		1.0		0.5	0	0.6
Schools and Daycares 10 to 20 cm							n = 32												
Minimum	7100	0.4	2.5	18	0.4	1400	19	3	4	7000	4	1500	85	0.8	13	0.5	12	18	12
10th percentile	7430	0.4	2.5	23	0.4	1810	20	3	12	9910	4	1700	101	0.8	22	0.5	15	21	14
1st quartile	8400	0.4	2.5	27	0.4	2100	23	4	14	10500	5	1800	135	0.8	24	0.5	18	23	18
Median	9500	0.4	2.5	33	0.4	3250	25	4	23	11500	7	1950	170	0.8	36	0.5	32	26	22
3rd quartile	11000	0.4	2.5	38	0.4	5100	30	5	31	13500	8	2800	205	0.8	47	0.5	41	31	26
95th percentile	12000	0.4	2.5	47	0.4	8080	44	6	43	20500	12	4610	303	0.8	56	0.5	47	47	37
Maximum	12000	0.4	2.5	50	0.4	12000	56	7	51	27000	17	5900	340	0.8	57	0.5	49	63	39
Mean	9647	0.4	2.5	33	0.4	3838	28	5	24	12559	7	2428	178	0.8	36	0.5	30	28	22
Geometric mean	9512	0.4	2.5	32	0.4	3338	27	4	21	12077	7	2265	168	0.8	34	0.5	27	27	21
Sample std. dev.	1613	0.0	0.0	8	0.0	2248	8	1	11	4073	3	1055	62	0.0	13	0.0	12	10	7
CV (std. dev./mean)	17%	0%	0%	24%	0%	60%	31%	23%	48%	33%	40%	44%	36%	0%	36%	0%	40%	35%	32%
Lower CI of the mean	9056	0.4	2.5	30	0.4	3014	24	4	19	11067	6	2042	155	0.8	31	0.5	26	25	20
Upper CI of the mean	10238	0.4	2.5	36	0.4	4661	31	5	28	14051	8	2815	201	0.8	41	0.5	34	32	25
Kurtosis	-1.2			-0.3		4.3	5.3	-0.4	-0.2	7.1	4.0	4.3	0.8		-1.1		-1.3	7.8	0.4
Skewness	0.2			0.3		1.8	2.2	0.6	0.5	2.5	1.7	2.1	0.9		0.0		-0.1	2.7	0.8
Parks 10 to 20 cm		n = 176																	
Minimum	4900	0.4	2.5	17	0.4	1700	18	3	7	9200	4	1400	99	0.8	18	0.5	14	21	12
10th percentile	7200	0.4	2.5	24	0.4	2500	22	4	16	11000	6	1700	130	0.8	28	0.5	23	24	16
1st quartile	8400	0.4	2.5	28	0.4	3050	24	4	22	12000	8	1900	150	0.8	34	0.5	30	26	20
Median	10000	0.4	2.5	35	0.4	3800	27	5	29	13000	10	2300	180	0.8	41	0.5	36	28	25
3rd quartile	11500	0.4	2.5	43	0.4	5100	32	7	35	15000	13	3450	235	0.8	52	0.5	42	32	33
95th percentile	17000	0.4	9.0	87	0.4	8625	47	12	54	20000	22	6600	413	0.8	73	1.0	49	40	64
Maximum	37000	1.8	23	210	0.4	22000	77	19	71	36000	91	12000	590	1.7	134	2.0	58	74	97
Mean	10644	0.4	3.6	41	0.4	4465	30	6	30	14139	12	2888	207	0.8	44	0.5	36	30	29
Geometric mean	10116	0.4	3.0	37	0.4	4037	29	6	28	13681	10	2585	195	0.8	41	0.5	34	30	26
Sample std. dev.	4101	0.2	3.3	26	0.0	2549	10	3	12	4180	10	1711	85	0.1	17	0.2	9	8	15
CV (std. dev./mean)	39%	41%	93%	63%	0%	57%	33%	47%	40%	30%	82%	59%	41%	12%	39%	29%	26%	26%	52%
Lower CI of the mean	10033	0.4	3.1	37	0.4	4085	29	6	28	13515	10	2632	195	0.7	42	0.5	34	29	27
Upper CI of the mean	11256	0.5	4.1	45	0.4	4846	32	7	32	14762	13	3143	220	0.8	47	0.6	37	31	31
Kurtosis	14.9	30.7	15.6	15.6		17.7	8.6	5.4	0.9	8.5	33.7	8.6	5.7	90.4	6.8	46.4	-0.3	10.1	4.9
Skewness	3.3	5.4	3.8	3.6		3.5	2.6	2.2	0.8	2.5	5.2	2.7	2.2	9.5	1.9	6.1	0.0	2.8	2.1

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.1.2 Inner Sudbury Communities

Table 10.3.1.2.1: Summary Statistics for Urban Soil Samples from All Sampling Locations in the Inner Sudbury Communities.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in the Inner Communities, n = 675																			
Minimum	4100	0.4	2.5	15	0.2	1800	17	3	11	7500	2	1300	90	0.75	16	0.5	10	17	12
10th percentile	7400	0.4	2.5	29	0.4	3200	24	5	35	11000	8	2200	150	0.75	47	0.5	24	24	21
1st quartile	8500	0.4	2.5	34	0.4	3900	27	6	47	13000	10	2500	170	0.75	62	0.5	30	26	26
Median	9800	0.4	2.5	43	0.4	5000	31	7	67	14000	14	3100	200	0.75	84	0.5	36	29	32
3rd quartile	11000	0.4	6.0	53	0.4	6400	36	9	100	16000	22	3700	240	0.75	125	0.5	42	32	40
95th percentile	15000	0.8	11	82	0.8	10300	46	14	183	19000	49	5200	310	0.75	250	1.0	50	37	64
Maximum	19000	4.4	30	130	2.0	27000	70	42	1400	27000	220	13000	510	6.40	1400	6.0	170	47	150
Mean	10100	0.5	4.9	46	0.4	5475	32	8	88	14329	21	3306	210	0.79	109	0.6	36	30	35
Geometric mean	9828	0.4	4.0	44	0.4	5046	31	8	70	14080	16	3143	203	0.77	90	0.6	35	29	33
Sample std. dev.	2382	0.3	3.5	17	0.2	2516	7	4	92	2783	24	1191	55	0.28	101	0.4	10.8	4.7	15.8
CV (std. dev./mean)	24%	66%	72%	36%	37%	46%	23%	47%	105%	19%	114	36%	26%	35%	93%	65%	30%	16%	45%
Lower CI of the mean	9920	0.4	4.6	45	0.4	5285	31	8	81	14118	19	3216	206	0.77	101	0.6	35.7	29.2	34.2
Upper CI of the mean	10280	0.5	5.1	48	0.4	5665	32	9	95	14539	22	3396	214	0.81	116	0.7	37.3	29.9	36.6
Kurtosis	0.7	69.7	9.4	2.3	39.9	12.0	2.1	27.6	91.4	2.5	25.1	11.1	3.9	251.6	73.2	73.3	35.1	0.6	11.5
Skewness	0.7	7.5	2.5	1.3	5.8	2.5	1.0	4.2	7.9	1.1	4.6	2.5	1.3	13.8	7	7.3	3.2	0.5	2.6
5 to 10 cm Urban Soil in the Inner Communities, n = 531																			
Minimum	5100	0.4	2.5	15	0.4	1400	17	3	8	7500	1	1300	92	0.75	17	0.5	13	13	9
10th percentile	6900	0.4	2.5	26	0.4	2600	23	5	27	11000	6	2000	140	0.75	37	0.5	23	24	18
1st quartile	8400	0.4	2.5	33	0.4	3200	25	6	38	12000	8	2300	160	0.75	50	0.5	28	26	22
Median	9900	0.4	2.5	42	0.4	4100	30	7	54	14000	11	2900	190	0.75	68	0.5	34	30	27
3rd quartile	12000	0.4	7	53	0.4	5300	34	8	75	16000	14	3600	230	0.75	96	0.5	40	33	35
95th percentile	15000	0.4	11	86	0.4	9150	46	11	120	20000	27	5400	315	0.75	150	1.0	49	40	58
Maximum	22000	6.5	34	150	1.2	22000	75	29	880	26000	310	10000	440	3.20	880	5.0	65	50	160
Mean	10269	0.4	4.9	46	0.4	4672	31	7	64	14251	14	3120	201	0.78	80	0.6	34	30	31
Geometric mean	9923	0.4	4	43	0.4	4243	30	7	54	13951	11	2940	193	0.77	70	0.6	33	29	28
Sample std. dev.	2745	0.3	4.0	20	0.1	2398	8	3	57	3031	23	1181	59	0.20	60	0.3	9	6	15
CV (std. dev./mean)	27%	74%	81%	43%	18%	51%	25%	35%	90%	21%	162%	38%	30%	25%	75%	54%	26%	18%	50%
Lower CI of the mean	10035	0.4	4.6	44	0.4	4467	30	7	59	13992	12	3019	196	0.76	75	0.6	34	29	29
Upper CI of the mean	10504	0.5	5.2	48	0.4	4876	32	7	69	14509	16	3221	206	0.8	85	0.7	35	30	32
Kurtosis	0.7	248.2	15.8	4.3	56.1	10.9	2.9	15.6	119.5	1.3	107.0	5.2	1.2	65.1	84.7	62.4	-0.1	0.7	16.4
Skewness	0.8	14.6	3.2	1.7	7.3	2.6	1.3	2.7	9.2	0.9	9.8	1.8	1.0	7.4	7.3	6.2	0.2	0.6	3.1
10 to 20 cm Urban Soil in the Inner Communities, n = 492																			
Minimum	4900	0.4	2.5	16	0.4	1500	17	4	9	8000	2	1400	93	0.75	18	0.5	12	10	9
10th percentile	6200	0.4	2.5	24	0.4	2310	21	4	23	10000	5	2000	130	0.75	32	0.5	20	23	15
1st quartile	8000	0.4	2.5	33	0.4	3000	25	5	31	12000	6	2300	160	0.75	43	0.5	27	25	19
Median	9900	0.4	2.5	44	0.4	4000	29	7	46	14000	9	2900	200	0.75	58	0.5	34	29	25
3rd quartile	12000	0.4	6.0	62	0.4	5300	36	9	68	17000	13	3900	250	0.75	86	0.5	41	34	34
95th percentile	17000	0.4	11	100	0.4	9435	49	12	130	22000	28	6045	330	0.75	160	1.0	53	43	53
Maximum	23000	3.9	40	160	1.2	24000	69	21	340	30000	150	11000	430	21.00	360	2.0	60	62	110
Mean	10419	0.4	4.8	50	0.4	4561	31	7	56	14553	12	3269	205	0.81	71	0.6	34	30	29
Geometric mean	9858	0.4	3.9	45	0.4	4067	30	7	46	14110	9	3037	195	0.77	62	0.5	33	30	26
Sample std. dev.	3571	0.2	3.9	25	0.1	2564	9	2	40	3751	12	1379	64	0.92	45	0.2	10	7	14
CV (std. dev./mean)	34%	56%	82%	50%	17%	56%	30%	34%	71%	26%	105%	42%	31%	114%	63%	31%	30%	22%	49%
Lower CI of the mean	10102	0.4	4.4	48	0.4	4334	30	7	53	14220	11	3147	199	0.73	67	0.5	33	30	27
Upper CI of the mean	10736	0.5	5.1	53	0.4	4789	32	7	60	14885	13	3391	211	0.89	75	0.6	35	31	30
Kurtosis	0.9	124.4	25.4	2.4	81.5	11.0	1.6	3.3	12.0	1.4	44.6	3.8	0.3	471.4	9.6	10.4	-0.6	1.3	5.9
Skewness	1.0	10.5	3.8	1.4	8.8	2.6	1.2	1.3	2.7	1.0	5.6	1.7	0.7	21.5	2.4	2.9	0.2	0.8	2

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.2.2: Summary Statistics for All 0 - 5 cm Urban Soil Samples in the Inner Sudbury Communities by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm		n = 314																	
Minimum	5300	0.4	2.5	26	0.2	2000	17	4	20	7500	4	1800	120	0.75	30	0.5	14	17	15
10th percentile	7600	0.4	2.5	33	0.4	3500	26	6	41	12000	9	2200	150	0.75	53	0.5	27	25	24
1st quartile	8900	0.4	2.5	39	0.4	4000	28	6	56	13000	12	2500	180	0.75	70	0.5	32	27	29
Median	10000	0.4	5.0	49	0.4	4900	32	8	79	14000	17	3000	205	0.75	90	0.5	38	30	36
3rd quartile	12000	0.4	7.0	62	0.4	5900	38	10	120	16000	25	3600	240	0.75	140	0.5	42	33	47
95th percentile	15350	0.8	12	88	0.8	8135	47	15	217	20000	46	4700	310	1.50	270	1.0	50	38	71
Maximum	19000	2.5	30	130	2.0	18000	70	41	1400	27000	220	9200	450	6.40	1400	6.0	63	47	150
Mean	10687	0.5	5.5	53	0.4	5256	33	9	106	14803	23	3161	214	0.83	124	0.7	37	30	41
Geometric mean	10401	0.4	4.6	50	0.4	4962	32	8	83	14531	18	3044	207	0.79	100	0.6	36	30	37
Sample std. dev.	2505	0.3	3.9	19	0.2	2060	7	4	123	2979	23	971	53	0.40	129	0.5	8	5	19
CV (std. dev./mean)	23%	56%	70%	35%	43%	39%	22%	49	116	20%	104%	31%	25%	49%	105%	75%	22%	16%	46%
Lower CI of the mean	10408	0.4	5.1	51	0.4	5027	32	8	93	14472	20	3053	208	0.78	109	0.6	36	30	38
Upper CI of the mean	10966	0.5	6.0	55	0.5	5485	34	9	120	15134	25	3269	219	0.87	138	0.7	38	31	43
Kurtosis	0.3	36.3	8.0	1.2	28.8	11.3	1.8	25.	56.3	2.7	31.3	10.4	2.1	120.3	54.1	59.5	0.1	0.8	8.8
Skewness	0.6	5.8	2.2	1.1	4.9	2.7	0.9	4.2	6.6	1.2	5.0	2.4	1.1	9.6	6.5	6.8	-0.1	0.5	2.4
Schools and Daycares 0 to 5 cm				n = 175															
Minimum	4100	0.4	2.5	15	0.4	2000	20	3	11	8500	2	1600	110	0.75	16	0.5	14	20	12
10th percentile	7340	0.4	2.5	28	0.4	2900	24	5	26	11000	6	2300	150	0.75	38	0.5	23	24	20
1st quartile	8200	0.4	2.5	32	0.4	3600	28	6	39	12500	9	2600	170	0.75	57	0.5	28	26	25
Median	9200	0.4	2.5	40	0.4	5100	31	7	56	14000	12	3100	200	0.75	73	0.5	33	29	29
3rd quartile	10300	0.4	6.0	45	0.4	6900	35	9	100	15000	21	4000	230	0.75	120	0.5	41	32	35
95th percentile	12000	0.5	8.0	53	0.5	11000	43	13	160	17300	113	5460	270	0.75	205	1.2	48	34	52
Maximum	14000	4.4	9.0	70	1.6	18000	67	42	370	24000	200	9200	380	1.60	630	4.0	170	39	75
Mean	9249	0.5	3.8	39	0.4	5584	32	8	73	13809	24	3426	202	0.75	95	0.6	35	29	31
Geometric mean	9089	0.4	3.5	38	0.4	5083	31	7	60	1363	15	3255	198	0.75	78	0.6	33	29	29
Sample std. dev.	1640	0.4	1.9	9	0.2	2541	7	4	50	2296	33	1196	42	0.06	72	0.4	14	4	11
CV (std. dev./mean)	18%	89%	51%	23%	36%	46%	22%	54	68%	17%	136%	35%	21%	9%	76%	64%	41%	12%	35%
Lower CI of the mean	9003	0.4	3.6	38	0.4	5204	31	7	65	1346	19	3247	196	0.75	84	0.6	33	28	29
Upper CI of the mean	9494	0.5	4.1	41	0.5	5964	33	9	80	14153	29	3605	208	0.76	105	0.7	37	29	33
Kurtosis	0.5	53.9	-0.3	1.1	31.1	2.9	4.9	31.	8.7	3.3	8.9	4.7	0.8	175	19.6	34.5	45.0	-0.5	3.6
Skewness	-0.3	7.0	1.0	0.4	5.3	1.3	1.6	4.9	2.3	1.1	3.0	1.7	0.5	13.2	3.5	5.1	5.2	0	1.6
Parks 0 to 5 cm	n = 186																		
Minimum	4900	0.4	2.5	18	0.4	1800	17	4	13	9100	3	1300	90	0.75	25	0.5	10	17	13
10th percentile	6900	0.4	2.5	26	0.4	2900	22	5	32	11000	7	2200	140	0.75	45	0.5	23	22	19
1st quartile	8200	0.4	2.5	31	0.4	4000	24	6	45	12000	10	2400	160	0.75	62	0.5	29	25	25
Median	9600	0.4	2.5	40	0.4	5000	28	8	60	14000	13	3200	200	0.75	82	0.5	36	28	30
3rd quartile	11000	0.4	6.0	49	0.4	6600	34	9	79	15000	17	3800	240	0.75	110	0.5	44	32	36
95th percentile	15000	0.4	12	74	0.4	12000	45	14	168	19000	26	6250	318	0.75	247	1.0	56	37	51
Maximum	17000	2.6	27	95	1.0	27000	57	20	230	22000	50	13000	510	0.75	304	1.0	80	42	77
Mean	9911	0.4	4.7	42	0.4	5741	30	8	70	14018	14	3438	211	0.75	96	0.6	37	29	31
Geometric mean	9612	0.4	3.8	39	0.4	5154	29	8	61	13765	13	3211	202	0.75	84	0.5	35	28	29
Sample std. dev.	2485	0.2	3.8	15	0.1	3093	7	3	41	2727	7	1465	67	0.00	57	0.2	11	5	11
CV (std. dev./mean)	25%	51%	81%	36%	15%	54%	25%	35	58%	20%	50%	43%	32%	0%	59%	29%	30%	17%	34%
Lower CI of the mean	9551	0.4	4.1	40	0.4	5293	29	8	64	13622	13	3226	201	0.75	88	0.5	35	28	29
Upper CI of the mean	10272	0.5	5.2	44	0.4	6190	31	9	76	14413	15	3651	221	0.75	105	0.6	38	29	32
Kurtosis	0.3	60.4	7.7	1.3	90.5	13.1	1.3	1.3	3.2	0.3	6.2	11.2	4.3		3.1	3.7	1.1	0.1	3.3
Skewness	0.7	7.4	2.4	1.1	9.6	2.8	1.1	1.0	1.7	0.7	2.0	2.6	1.5		1.8	2.4	0.6	0.5	1.4

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.2.3: Summary Statistics for All 5 - 10 cm Urban Soil Samples in the Inner Sudbury Communities by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 5 to 10 cm				n = 310															
Minimum	5200	0.4	2.5	17	0.4	1800	17	4	8	7500	3	1600	110	0.8	17	0.5	13	17	9
10th percentile	6900	0.4	2.5	29	0.4	2800	23	5	31	11000	6	2100	150	0.8	40	0.5	24	24	19
1st quartile	8400	0.4	2.5	36	0.4	3300	26	6	43	12000	9	2300	160	0.8	53	0.5	29	26	23
Median	10000	0.4	2.5	45	0.4	4200	31	7	60	14000	12	2900	190	0.8	70	0.5	35	30	28
3rd quartile	13000	0.4	7.0	59	0.4	5200	36	8	87	16000	16	3600	230	0.8	110	1.0	41	33	36
95th percentile	16000	0.4	11	92	0.4	8200	46	11	140	20550	33	5355	320	1.2	160	1.0	49	42	63
Maximum	22000	6.5	34	150	1.0	22000	75	29	880	26000	310	10000	400	3.2	880	5.0	64	50	120
Mean	10590	0.5	5.1	51	0.4	4630	32	7	73	14583	17	3128	205	0.8	86	0.7	35	31	33
Geometric mean	10197	0.4	4.2	47	0.4	4292	31	7	60	14254	13	2971	198	0.8	74	0.7	34	30	30
Sample std. dev.	2950	0.4	4.0	22	0.1	2211	8	3	70	3214	29	1127	57	0.3	71	0.4	9	6	16
CV (std. dev./mean)	28%	91%	78%	43%	19%	48%	25%	37%	97%	22%	171	36%	28%	32%	82%	59%	25%	19%	49%
Lower CI of the mean	10259	0.4	4.7	48	0.4	4383	31	7	65	14223	14	3002	199	0.8	78	0.7	34	30	31
Upper CI of the mean	10920	0.5	5.5	53	0.4	4877	33	8	80	14942	21	3254	211	0.8	94	0.8	36	31	35
Kurtosis	0.4	160.9	18.0	3.4	31.6	20.7	3.8	19.8	85.2	1.4	63.2	7.8	0.7	36.5	73.0	42	0	0.7	7.7
Skewness	0.7	12.0	3.3	1.6	5.6	3.6	1.4	3.4	8.1	1.0	7.6	2.2	1.0	5.6	7.3	5.2	0.2	0.6	2.4
Schools and Daycares 5 to 10 cm						n = 40													
Minimum	5400	0.4	2.5	20	0.4	1600	20	4	14	9800	2	1500	110	0.8	23	0.5	13	20	15
10th percentile	7200	0.4	2.5	25	0.4	2270	24	5	28	11000	5	1800	140	0.8	42	0.5	19	25	18
1st quartile	8600	0.4	2.5	29	0.4	2700	25	5	34	12000	7	2300	150	0.8	49	0.5	24	26	21
Median	9400	0.4	2.5	34	0.4	3450	28	6	47	13000	9	2650	170	0.8	61	0.5	30	30	23
3rd quartile	10000	0.4	6.0	39	0.4	4600	32	7	66	14000	11	3350	195	0.8	79	0.5	35	32	33
95th percentile	11240	0.4	8.1	45	0.4	9440	38	8	89	16050	14	5285	291	0.8	111	0.5	40	36	41
Maximum	12000	0.4	15	53	0.4	17000	47	10	100	17000	16	8500	310	0.8	130	0.5	41	37	50
Mean	9200	0.4	4.4	34	0.4	4355	29	6	51	13320	9	3073	182	0.8	65	0.5	29	29	26
Geometric mean	9053	0.4	3.7	34	0.4	3744	29	6	46	13211	8	2851	177	0.8	61	0.5	28	29	25
Sample std. dev.	1556	0.0	2.7	7	0.0	3023	6	1	22	1704	3	1366	47	0.0	25	0.0	7	4	9
CV (std. dev./mean)	17%	0%	63%	21%	0%	70%	20%	21%	43%	13%	35%	45%	26%	0%	39%	0%	24%	13%	34%
Lower CI of the mean	8696	0.4	3.5	32	0.4	3376	27	6	44	12768	8	2630	167	0.8	57	0.5	27	28	24
Upper CI of the mean	9704	0.4	5.2	37	0.4	5334	31	7	58	13872	10	3515	197	0.8	74	0.5	32	30	29
Kurtosis	0.5		4.4	0.1		8.7	2.3	-0.2	-0.6	-0.1	0.0	6.1	1.2		0.5		-0.5	0.2	0.2
Skewness	-0.6		1.8	0.3		2.8	1.3	0.4	0.5	0.2	0.2	2.2	1.3		0.8		-0.3	-0.1	1
Parks 5 to 10 cm		n = 181																	
Minimum	5100	0.4	2.5	15	0.4	1400	17	3	10	9300	1	1300	92	0.8	20	0.5	13	13	12
10th percentile	6800	0.4	2.5	23	0.4	2500	21	5	25	11000	6	1900	130	0.8	34	0.5	22	23	17
1st quartile	8200	0.4	2.5	31	0.4	2950	24	5	33	12000	7	2100	150	0.8	45	0.5	27	25	20
Median	9700	0.4	2.5	38	0.4	4000	28	7	46	13000	10	2800	200	0.8	64	0.5	34	29	25
3rd quartile	11000	0.4	6.0	49	0.4	5800	34	9	66	16000	12	3700	230	0.8	89	0.5	41	32	31
95th percentile	15000	0.4	15	68	0.4	10000	45	12	100	19000	17	5400	310	0.8	140	1.0	50	39	46
Maximum	18000	1.6	32	100	1.2	14000	53	18	180	22000	22	8100	440	0.8	300	1.0	65	44	160
Mean	9957	0.4	4.7	41	0.4	4813	30	7	52	13888	10	3116	199	0.8	73	0.5	34	29	28
Geometric mean	9663	0.4	3.7	38	0.4	4277	29	7	46	13611	9	2908	190	0.8	64	0.5	33	28	26
Sample std. dev.	2477	0.1	4.2	15	0.1	2537	8	2	27	2845	4	1227	64	0	42	0.1	9	5	14
CV (std. dev./mean)	25%	31%	90%	38%	19%	53%	25%	34%	52%	21%	36%	39%	32%	0%	57%	22%	28%	18%	51%
Lower CI of the mean	9593	0.4	4.1	39	0.4	4440	29	7	48	13469	9	2935	190	0.8	67	0.5	33	28	26
Upper CI of the mean	10322	0.4	5.3	43	0.4	5186	31	8	56	14306	11	3297	209	0.8	80	0.5	36	30	30
Kurtosis	0.5	79.0	12.5	2.4	89.6	2.1	0.8	2.0	3.1	0.0	0.5	1.8	1.6		7.0	14	0	0.3	44.1
Skewness	0.7	8.8	3.1	1.3	9.5	1.5	1.0	1.1	1.4	0.7	0.6	1.3	1.0		2.1	3.9	0.2	0.3	5.2

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.2.4: Summary Statistics for All 10 -20 cm Urban Soil Samples in the Inner Sudbury Communities by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 10 to 20 cm		n = 306																	
Minimum	4900	0.4	2.5	16	0.4	1500	17	4	9	8000	3	1500	100	0.8	18	0.5	13	17	9
10th percentile	6200	0.4	2.5	25	0.4	2500	22	4	24	10000	5	2100	130	0.8	33	0.5	22	23	16
1st quartile	7900	0.4	2.5	35	0.4	3200	25	5	34	12000	7	2300	160	0.8	43	0.5	28	26	20
Median	10000	0.4	2.5	48	0.4	4100	29	7	50	14000	9	3000	200	0.8	59	0.5	34	30	26
3rd quartile	13000	0.4	6.0	67	0.4	5300	37	9	73	17000	14	3900	250	0.8	86	0.5	41	35	35
95th percentile	18000	0.4	10	110	0.4	8675	51	12	130	22000	32	6475	330	0.8	168	1.0	53	44	60
Maximum	23000	3.9	21	160	0.8	24000	65	16	340	30000	150	11000	430	21	330	2.0	60	62	110
Mean	10623	0.4	4.7	54	0.4	4627	32	7	59	14777	13	3352	209	0.8	72	0.6	35	31	30
Geometric mean	9999	0.4	4.0	48	0.4	4187	31	7	49	14314	10	3115	200	0.8	62	0.6	33	30	27
Sample std. dev.	3787	0.3	3.2	27	0.1	2493	9	2	40	3866	15	1438	64	1.2	44	0.2	10	7	16
CV (std. dev./mean)	36%	61%	67%	50%	12%	54%	29%	33%	67%	26%	113	43%	31%	138%	61%	34%	28%	22%	52%
Lower CI of the mean	10197	0.4	4.4	51	0.4	4346	31	7	55	14341	11	3190	202	0.7	67	0.6	34	30	28
Upper CI of the mean	11050	0.5	5.1	57	0.4	4908	33	7	64	15213	15	3514	216	1.0	77	0.6	36	32	32
Kurtosis	0.6	109.6	4.5	1.8	57.2	17.1	1.5	1.1	11.4	1.6	33.2	4.7	0.3	293.3	5.0	8.2	-0.4	1.5	4.7
Skewness	0.9	9.8	1.8	1.3	7.7	3.2	1.1	0.9	2.5	1.0	5.0	1.9	0.8	17.0	1.9	2.5	0.2	0.9	1.9
Schools and Day Cares 10 to 20 cm							n = 28												
Minimum	5200	0.4	2.5	21	0.4	1900	19	4	16	9100	4	1700	110	0.8	26	0.5	17	22	12
10th percentile	6150	0.4	2.5	25	0.4	2340	21	4	23	9850	5	1900	120	0.8	38	0.5	19	24	16
1st quartile	7350	0.4	2.5	29	0.4	2550	23	5	28	11000	6	2050	140	0.8	41	0.5	22	25	18
Median	8400	0.4	3.8	32	0.4	2750	26	5	36	12000	7	2300	160	0.8	49	0.5	26	26	22
3rd quartile	9450	0.4	6.0	37	0.4	3650	28	7	47	13000	9	3000	175	0.8	68	0.5	29	30	24
95th percentile	10720	0.4	8.0	41	0.4	9195	33	8	70	14650	12	4985	220	0.8	94	0.5	38	31	28
Maximum	11000	0.4	9.0	43	0.4	13000	34	11	92	15000	14	6500	230	0.8	100	0.5	39	34	45
Mean	8354	0.4	4.4	32	0.4	3704	26	6	39	12039	7	2721	161	0.8	56	0.5	26	27	22
Geometric mean	8207	0.4	3.9	32	0.4	3250	25	6	36	1192	7	2560	158	0.8	53	0.5	25	27	21
Sample std. dev.	1512	0.0	2.1	6	0.0	2476	4	2	17	1624	2	1099	30	0.0	20	0.0	6	3	6
CV (std. dev./mean)	18%	0%	48%	18%	0%	68%	15%	28%	44%	14%	33%	41%	19%	0%	35%	0%	24%	11%	28%
Lower CI of the mean	7757	0.4	3.6	30	0.4	2726	24	5	32	11398	7	2287	149	0.8	48	0.5	24	26	19
Upper CI of the mean	8951	0.4	5.2	35	0.4	4681	27	6	46	12681	8	3156	173	0.8	64	0.5	29	28	24
Kurtosis	-0.4		-0.9	-0.5		7.3	-0.4	3.1	2.3	-0.8	0.4	4.4	0.1		-0.3		0	-0.7	7.5
Skewness	-0.3		0.6	-0.1		2.7	0.4	1.5	1.3	0.0	0.8	2.1	0.5		0.8		0.6	0.4	2
Parks 10 to 20 cm		n = 158																	
Minimum	5100	0.4	2.5	20	0.4	1500	17	4	13	8300	2	1400	93	0.8	23	0.5	12	10	11
10th percentile	6470	0.4	2.5	24	0.4	2100	21	5	21	10000	5	1800	120	0.8	32	0.5	20	22	15
1st quartile	8100	0.4	2.5	32	0.4	2900	24	6	27	12000	6	2200	150	0.8	41	0.5	26	25	19
Median	9800	0.4	2.5	40	0.4	3900	28	7	41	14000	9	2900	200	0.8	60	0.5	34	29	25
3rd quartile	13000	0.4	6.0	57	0.4	5300	37	9	60	17000	12	3900	250	0.8	89	0.5	42	34	32
95th percentile	16150	0.4	15.00	87	0.4	10300	48	12	122	22000	19	5900	322	0.8	142	1.0	53	42	45
Maximum	23000	2.8	40.00	120	1.2	15000	69	21	300	27000	64	7100	410	0.8	360	1.0	59	51	86
Mean	10389	0.4	5.0	46	0.4	4585	31	7	53	14563	10	3206	205	0.8	73	0.5	34	30	27
Geometric mean	9907	0.4	3.8	42	0.4	4002	30	7	43	1413	9	2980	195	0.8	62	0.5	33	29	25
Sample std. dev.	3270	0.2	5.2	20	0.1	2684	9	3	41	3629	7	1278	67	0.0	49	0.1	11	7	11
CV (std. dev./mean)	32%	48%	106%	44%	24%	59%	30%	35%	78%	25%	68%	40%	33%	0%	67%	25%	31%	23%	42%
Lower CI of the mean	9874	0.4	4.1	43	0.4	4162	30	7	46	13991	9	3004	195	0.8	65	0.5	33	29	25
Upper CI of the mean	10905	0.5	5.8	49	0.4	5009	32	8	59	1513	11	3407	216	0.8	80	0.6	36	31	29
Kurtosis	0.8	122.9	22.9	1.4	50.2	3.2	1.4	6.1	12.7	0.5	26.9	0.2	0.1		14.3	8.6	-1	0.4	6.1
Skewness	0.8	10.8	4.1	1.2	7.2	1.8	1.1	1.7	3.0	0.8	4.2	1.0	0.6		3.1	3.2	0.1	0.5	1.8

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.1.3 Sudbury Core

Table 10.3.1.3.1: Summary Statistics for Urban Soil Samples from All Sampling Locations in the Sudbury Core.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in the Sudbury Core, n = 324																			
Minimum	4000	0.4	2.5	17	0.4	1500	19	4	17	9000	1	1500	110	0.75	20	0.5	13	20	13
10th percentile	7500	0.4	2.5	31	0.4	3230	25	6	56	12000	9	2200	150	0.75	69	0.5	23	24	24
1st quartile	8400	0.4	2.5	37	0.4	4000	28	8	99	13000	17	2600	170	0.75	111	0.5	29	26	33
Median	9900	0.4	6.0	49	0.4	5100	32	11	190	15000	29	3000	200	0.75	200	1.0	37	29	47
3rd quartile	12000	0.4	10	72	1.0	6950	39	17	365	18000	65	3600	230	0.75	350	2.0	43	32	86
95th percentile	14000	1.0	20	119	1.9	11000	53	35	84	24850	140	5285	300	0.75	935	4.0	51	37	159
Maximum	20000	2.7	34	210	4.1	16000	110	75	16	36000	320	9800	1200	3.2	2000	9.0	84	42	230
Mean	10095	0.5	8.0	58	0.7	5753	35	15	28	16240	47	3223	210	0.77	294	1.4	36	30	64
Geometric mean	9817	0.4	6.3	52	0.6	5274	33	12	18	15783	31	3091	201	0.76	203	1.0	35	29	52
Sample std. dev.	2368	0.2	6.0	28	0.6	2504	11	10	267	4146	47	1033	84	0.17	290	1.3	10	4	43
CV (std. dev./mean)	23%	52%	75%	49%	81%	44%	31%	70%	95	26%	99%	32%	40%	22%	99%	90%	28%	15%	67%
Lower CI of the mean	9836	0.4	7.3	55	0.7	5479	34	13	251	15786	42	3110	201	0.75	262	1.3	35	29	59
Upper CI of the mean	10355	0.5	8.6	61	0.8	6027	36	16	30	16694	52	3337	219	0.79	326	1.5	37	30	69
Kurtosis	0.7	32.3	4.3	3.0	6.2	1.5	10.6	7.1	5.6	3.1	6.9	7.8	71.6	151.1	7.9	7.6	1.2	-0.3	1.2
Skewness	0.5	5.1	1.9	1.5	2.3	1.2	2.5	2.3	2.1	1.5	2.2	2.1	7.0	11.6	2.5	2.3	0.4	0.4	1.3
5 to 10 cm Urban Soil in the Sudbury Core, n = 273																			
Minimum	4400	0.4	2.5	17	0.4	1500	17	3	12	9400	2	1400	110	0.75	18	0.5	10	20	12
10th percentile	7600	0.4	2.5	28	0.4	2600	23	6	45	12000	9	2020	140	0.75	58	0.5	22	24	21
1st quartile	8800	0.4	5.0	37	0.4	3300	27	7	75	13000	13	2300	160	0.75	90	0.5	28	27	29
Median	10000	0.4	7.0	54	0.4	4300	31	10	130	15000	21	2700	200	0.75	170	1.0	35	30	41
3rd quartile	12000	0.4	11	70	0.4	5800	37	13	245	18000	45	3250	230	0.75	280	1.0	42	34	74
95th percentile	15000	0.9	18	110	1.0	8490	50	19	425	21000	110	4345	300	0.75	480	2.0	49	40	120
Maximum	20000	1.5	24	160	1.5	14000	59	36	830	26000	310	7200	480	2.40	970	5.0	71	46	210
Mean	10587	0.4	8	58	0.5	4761	32	11	174	15633	37	2915	202	0.77	202	1.1	35	30	55
Geometric mean	10260	0.4	6.7	52	0.4	4360	31	10	131	15343	24	2793	195	0.76	154	0.9	34	30	45
Sample std. dev.	2715	0.2	4.8	28	0.2	2135	8	5	133	3064	39	933	55	0.16	151	0.7	10	5	37
CV (std. dev./mean)	26%	41%	59%	48%	46%	45%	26%	45%	77%	20%	106	32%	27%	20%	75%	67%	28%	16%	68%
Lower CI of the mean	10263	0.4	7.5	54	0.4	4506	31	10	159	15267	32	2804	195	0.75	184	1.0	34	30	50
Upper CI of the mean	10911	0.5	8.6	61	0.5	5016	33	11	190	15999	41	3027	209	0.79	220	1.2	37	31	59
Kurtosis	1.3	14.1	0.1	1.6	8.5	2.9	0.8	4.2	4.3	-0.1	10.7	4.3	2.7	70.8	4.3	3.6	-0.1	0.3	2.8
Skewness	0.9	3.9	0.9	1.2	3.1	1.5	0.9	1.5	1.7	0.6	2.7	1.7	1.2	8.2	1.7	1.7	0.2	0.6	1.6
10 to 20 cm Urban Soil in the Sudbury Core, n = 271																			
Minimum	4700	0.4	2.5	17	0.4	1400	18	3	11	9000	2	1300	110	0.75	15	0.5	11	19	10
10th percentile	6900	0.4	2.5	32	0.4	2300	21	6	42	12000	8	2000	140	0.75	57	0.5	20	24	21
1st quartile	8050	0.4	5	39	0.4	2900	25	7	58	13000	11	2300	160	0.75	77	0.5	27	26	28
Median	10000	0.4	6.0	51	0.4	3900	29	9	100	15000	21	2700	190	0.75	130	1.0	34	29	39
3rd quartile	12000	0.4	9.0	71	0.4	5500	36	11	170	17000	38	3400	230	0.75	210	1.0	42	33	61
95th percentile	17000	1.0	15	130	0.4	8500	50	16	350	22000	120	5700	320	0.75	405	2.0	52	41	125
Maximum	22000	2.8	22	240	1.3	13000	64	28	530	28000	470	8300	390	2.90	820	4.0	66	50	340
Mean	10465	0.5	7.1	61	0.4	4451	31	9	132	15397	34	3013	201	0.77	163	0.9	34	30	51
Geometric mean	9993	0.4	6	54	0.4	4032	30	9	102	15026	22	2845	194	0.76	130	0.8	33	29	42
Sample std. dev.	3337	0.2	4.0	35	0.1	2125	9	4	101	3520	45	1151	58	0.16	122	0.6	11	6	38
CV (std. dev./mean)	32%	53%	57%	57%	31%	48%	29%	40%	77%	23%	132	38%	29%	21%	75%	68%	31%	20%	75%
Lower CI of the mean	10065	0.4	6.6	57	0.4	4196	30	9	119	14975	29	2875	194	0.75	148	0.9	33	29	47
Upper CI of the mean	10864	0.5	7.6	66	0.4	4705	32	10	144	15818	40	3151	208	0.79	177	1	36	31	56
Kurtosis	1.8	38.2	1.9	5.0	20.2	2.3	1.5	3.9	3.4	0.9	34.5	4	0.9	117.5	6.8	7.1	-0.4	1.0	13.7
Skewness	1.2	5.4	1.3	1.9	4.6	1.4	1.2	1.6	1.8	1.0	4.7	1.9	1.1	10.3	2.2	2.4	0.2	1.0	2.9

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.3.2: Summary Statistics for All 0 - 5 cm Urban Soil Samples in the Sudbury Core by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm		n = 184																	
Minimum	5900	0.4	2.5	25	0.4	1500	20	4	28	11000	7	1500	120	0.75	33	0.5	15	20	17
10th percentile	7730	0.4	5.0	34	0.4	3330	26	8	113	13000	18	2200	150	0.75	123	0.5	23	24	34
1st quartile	8600	0.4	6.0	46	0.4	4000	29	11	200	14000	31	2500	170	0.75	195	1.0	28	27	46
Median	10000	0.4	9.0	60	0.9	5150	34	15	315	17000	50	2900	200	0.75	300	1.5	37	29	74
3rd quartile	12000	0.4	13	86	1.3	6750	42	21	475	19000	86	3500	230	0.75	465	2.0	43	33	110
95th percentile	14000	1.1	21	120	2.2	10850	56	44	920	27000	160	4400	300	0.75	1043	4.8	49	38	179
Maximum	17000	2.7	34	210	4.1	15000	110	75	1600	36000	320	6000	1200	3.20	2000	9.0	84	42	230
Mean	10316	0.5	10	68	1.0	5730	37	18	392	17386	67	3039	216	0.78	400	1.9	37	30	84
Geometric mean	10084	0.5	9.1	62	0.8	5283	36	15	301	16876	51	2953	205	0.77	306	1.5	35	30	72
Sample std. dev.	2201	0.3	6.1	30	0.7	2395	13	11	292	4488	52	747	104	0.22	321	1.4	11	5	46
CV (std. dev./mean)	21%	60%	58%	44%	74%	42%	34%	63%	75%	26%	78%	25%	48%	28%	81%	76%	29%	15%	55%
Lower CI of the mean	9995	0.4	10	64	0.9	5381	35	16	349	16731	60	2930	201	0.75	353	1.7	35	29	77
Upper CI of the mean	10637	0.5	11	73	1.1	6079	39	20	434	18040	75	3148	232	0.81	446	2.1	38	31	91
Kurtosis	-0.1	21.3	3.1	1.9	3.0	1.1	7.9	4.7	3.7	2.3	4.4	1.3	52.9	84.8	5.2	5.5	1.8	-0.4	0
Skewness	0.4	4.2	1.6	1.1	1.6	1.1	2.2	1.9	1.7	1.3	1.8	0.9	6.4	8.7	2	2.0	0.5	0.3	0.8
Schools and Daycares 0 to 5 cm						n = 45													
Minimum	5800	0.4	2.5	21	0.4	2400	21	4	19	9000	3	1900	110	0.75	20	0.5	20	21	17
10th percentile	7020	0.4	2.5	28	0.4	3080	25	5	27	11000	6	2100	150	0.75	38	0.5	23	25	18
1st quartile	7950	0.4	2.5	32	0.4	3500	26	7	50	12000	8	2300	170	0.75	63	0.5	27	27	22
Median	8700	0.4	2.5	37	0.4	4000	29	8	92	13000	16	3000	180	0.75	110	0.5	32	28	31
3rd quartile	9600	0.4	6.0	43	0.4	5650	32	9	150	1400	22	3400	200	0.75	160	0.5	35	29	39
95th percentile	11000	0.4	8.8	52	0.7	8720	39	21	496	1880	69	4480	228	0.75	376	3.0	41	33	91
Maximum	12000	0.4	14	53	1.3	11000	51	28	530	21000	75	5800	270	0.75	660	4.0	52	37	130
Mean	8691	0.4	4.5	37	0.4	4707	30	9	129	13373	20	3007	184	0.75	140	0.9	32	28	37
Geometric mean	8586	0.4	3.8	37	0.4	4407	30	8	90	13177	14	2896	182	0.75	104	0.7	31	28	33
Sample std. dev.	1340	0.0	2.9	8	0.2	1899	6	5	129	2413	18	868	28	0	126	0.8	7	3	23
CV (std. dev./mean)	16%	0%	65%	20%	43%	41%	19%	55%	101%	18%	92%	29%	16%	0%	91%	97%	21%	10%	62%
Lower CI of the mean	8284	0.4	3.6	35	0.4	4130	28	7	90	12640	14	2743	175	0.75	101	0.6	30	27	30
Upper CI of the mean	9098	0.4	5.4	40	0.5	5284	32	10	168	14106	25	3270	193	0.75	178	1.1	34	29	44
Kurtosis	0.0		2.8	-0.3	16.0	2.6	4.6	5.6	4.3	2.4	3.8	2.0	1.4		6.6	5.3	1	1.7	6.6
Skewness	0.1		1.6	0.2	4.1	1.6	1.8	2.4	2.2	1.3	2.1	1.2	0.3		2.4	2.5	0.6	0.5	2.4
Parks 0 to 5 cm	n = 95																		
Minimum	4000	0.4	2.5	17	0.4	2100	19	5	17	9900	1	2000	110	0.75	24	0.5	13	21	13
10th percentile	7580	0.4	2.5	27	0.4	3040	24	6	48	12000	8	2380	150	0.75	60	0.5	27	24	21
1st quartile	8600	0.4	2.5	35	0.4	4500	27	7	70	13000	12	2900	170	0.75	83	0.5	31	26	26
Median	10000	0.4	2.5	44	0.4	5600	31	10	110	15000	20	3200	210	0.75	130	0.5	37	29	37
3rd quartile	12000	0.4	6.0	55	0.4	7850	36	12	160	17000	26	3950	250	0.75	195	1.0	46	34	46
95th percentile	15000	0.4	8.0	74	0.9	11000	45	17	240	20000	41	6230	293	0.75	290	2.0	52	37	67
Maximum	20000	1.5	32	120	1.7	16000	50	55	950	30000	101	9800	310	0.75	1528	3.5	60	40	140
Mean	10334	0.4	4.7	46	0.5	6293	32	11	134	15378	21	3683	210	0.75	162	0.8	38	30	38
Geometric mean	9932	0.4	3.9	43	0.4	5724	31	10	108	15102	17	3484	204	0.75	127	0.7	37	29	35
Sample std. dev.	2795	0.2	4.1	18	0.2	2785	7	6	114	3111	14	1379	51	0.00	171	0.5	10	4	18
CV (std. dev./mean)	27%	35%	89%	39%	46%	44%	22%	60%	85%	20%	65%	38%	24%	0%	106%	70%	25%	15%	47%
Lower CI of the mean	9761	0.4	3.8	43	0.4	5722	31	9	111	14741	18	3401	200	0.75	127	0.7	36	29	35
Upper CI of the mean	10906	0.5	5.5	50	0.5	6863	33	12	157	16015	24	3966	221	0.75	197	0.9	40	31	42
Kurtosis	0.8	36.0	26.6	4.1	12.7	1.6	-0.4	27.7	29.3	4.5	12.3	4.7	-0.9		44.0	9.4	-0.1	-0.7	10.3
Skewness	0.3	6.0	4.6	1.5	3.4	1.1	0.4	4.4	4.6	1.6	2.5	1.9	0.2		5.9	2.9	-0.2	0.3	2.4

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.3.3: Summary Statistics for All 5 - 10 cm Urban Soil Samples in the Sudbury Core by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 5 to 10 cm				n = 182															
Minimum	5100	0.4	2.5	18	0.4	1500	18	4	17	9400	5	1400	110	0.8	23	0.5	10	20	16
10th percentile	7500	0.4	5.0	30	0.4	2600	23	6	68	12000	10	2000	140	0.8	79	0.5	21	24	24
1st quartile	8300	0.4	5.0	41	0.4	3200	27	8	120	14000	17	2300	160	0.8	120	1.0	27	26	30
Median	10000	0.4	9.0	60	0.4	4000	31	11	200	15000	34	2700	190	0.8	227	1.0	34	30	61
3rd quartile	12000	0.4	13	78	0.4	5400	37	14	290	18000	64	3100	230	0.8	330	2.0	41	33	84
95th percentile	14000	1.0	18	120	1.1	8990	50	20	449	21000	140	3900	300	0.8	519	3.0	51	39	150
Maximum	20000	1.4	24	160	1.5	14000	59	36	830	26000	310	6600	480	2.1	970	5.0	71	46	210
Mean	10234	0.5	9.7	63	0.5	4647	32	12	219	15711	48	2773	201	0.8	248	1.3	34	30	66
Geometric mean	9946	0.4	8.6	57	0.5	4220	31	11	176	15437	33	2684	194	0.8	199	1.1	33	29	55
Sample std. dev.	2514	0.2	4.6	29	0.3	2270	8	5	139	2978	44	759	55	0.1	160	0.8	10	5	41
CV (std. dev./mean)	25%	45%	48%	46%	52%	49%	26%	44%	64%	19%	92%	27%	27%	19%	65%	59%	29%	15%	62%
Lower CI of the mean	9865	0.4	9.0	59	0.5	4314	31	11	199	15274	41	2661	193	0.8	225	1.2	33	29	60
Upper CI of the mean	10602	0.5	10	67	0.5	4980	33	12	240	16148	54	2884	209	0.8	272	1.4	36	30	72
Kurtosis	1.9	8.1	-0.3	0.9	4.2	3.7	0.8	3.4	3.5	-0.1	7.6	5.9	4.3	52.2	3.4	2.4	0.4	0.6	1.3
Skewness	1.0	3.1	0.6	1.0	2.3	1.8	0.9	1.4	1.4	0.5	2.2	1.8	1.5	7.1	1.4	1.3	0.3	0.6	1.1
Schools and Daycares 5 to 10 cm						n = 12													
Minimum	6900	0.4	2.5	29	0.4	2300	18	4	41	1100	8	1700	110	0.8	49	0.5	17	23	23
10th percentile	7590	0.4	2.5	30	0.4	2360	24	5	43	11000	8	1710	122	0.8	55	0.5	22	25	25
1st quartile	9050	0.4	2.5	31	0.4	2950	25	5	50	11500	9	1800	145	0.8	62	0.5	27	26	26
Median	9950	0.4	4.3	34	0.4	3350	26	7	64	12000	12	2250	195	0.8	72	0.5	30	27	28
3rd quartile	11000	0.4	7.0	38	0.4	4750	30	7	83	13500	16	2750	220	0.8	96	0.5	35	30	34
95th percentile	11450	0.4	8.9	47	0.4	5690	35	10	191	14900	24	3090	240	0.8	255	1.0	43	33	40
Maximum	12000	0.4	10	56	0.4	5800	38	13	240	16000	30	3200	240	0.8	370	1.0	45	33	42
Mean	9775	0.4	4.9	36	0.4	3725	27	7	83	12583	13	2317	183	0.8	103	0.6	31	28	30
Geometric mean	9660	0.4	4.2	35	0.4	3548	26	6	72	12505	12	2264	178	0.8	85	0.6	30	28	29
Sample std. dev.	1441	0.0	2.6	7	0.0	1195	5	2	55	1441	6	500	44	0.0	85	0.2	7	3	6
CV (std. dev./mean)	15%	0%	55%	20%	0%	34%	19%	35%	69%	12%	48%	23%	25%	0%	86%	33%	25%	11%	20%
Lower CI of the mean	8819	0.4	3.2	31	0.4	2932	24	5	47	11627	9	1985	154	0.8	47	0.5	26	26	26
Upper CI of the mean	10731	0.4	6.6	40	0.4	4518	30	8	120	13540	17	2648	213	0.8	160	0.7	36	30	34
Kurtosis	0.0		-1.1	6.0		-0.8	1.6	5.3	5.1	1.0	3.9	-1.1	-1.4		8.7	2.6	0.3	-0.4	-0.1
Skewness	-0.7		0.5	2.2		0.8	0.7	2.0	2.2	1.1	1.9	0.4	-0.3		2.9	2.1	0.2	0.7	1
Parks 5 to 10 cm		n = 79																	
Minimum	4400	0.4	2.5	17	0.4	1900	17	3	12	9400	2	1600	110	0.8	18	0.5	18	21	12
10th percentile	8600	0.4	2.5	26	0.4	2960	24	5	39	12000	8	2200	140	0.8	41	0.5	26	25	19
1st quartile	9300	0.4	2.5	37	0.4	3850	28	6	50	14000	10	2400	160	0.8	67	0.5	31	28	27
Median	11000	0.4	2.5	44	0.4	5100	33	9	78	16000	13	3000	200	0.8	100	0.5	39	31	34
3rd quartile	13000	0.4	6.0	56	0.4	6500	39	11	110	18000	19	3800	250	0.8	142	1.0	45	36	39
95th percentile	18000	0.4	8.0	77	0.4	8310	52	13	143	23000	33	5930	292	0.8	210	1.0	53	42	50
Maximum	19000	1.5	20	130	0.4	1000	58	20	360	24000	59	7200	360	2.4	423	2.0	57	46	74
Mean	11524	0.4	4.7	48	0.4	5181	34	9	85	15916	16	3335	208	0.8	110	0.6	38	32	33
Geometric mean	11122	0.4	4.0	44	0.4	4847	33	8	72	15604	13	3161	201	0.8	95	0.6	37	31	31
Sample std. dev.	3053	0.1	3.0	21	0.0	1814	9	3	50	3192	9	1168	56	0.2	63	0.3	9	6	11
CV (std. dev./mean)	27%	30%	64%	43%	0%	35%	26%	33%	59%	20%	59%	35%	27%	24%	57%	41%	25%	18%	32%
Lower CI of the mean	10836	0.4	4.0	43	0.4	4772	32	8	74	15197	13	3072	195	0.7	96	0.6	36	31	31
Upper CI of the mean	12212	0.4	5.4	53	0.4	5590	36	9	96	16636	18	3599	221	0.8	124	0.7	41	33	36
Kurtosis	0.3	79.0	9.2	5.2		-0.4	0.9	1.4	10.4	0.0	6.0	1.5	-0.2	79.0	6.9	7.5	-1	-0.3	1.5
Skewness	0.6	8.9	2.4	1.8		0.3	0.8	0.7	2.3	0.5	1.9	1.3	0.5	8.9	1.9	2.3	-0.1	0.3	0.5

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.3.4: Summary Statistics for All 10 - 20 cm Urban Soil Samples in the Sudbury Core by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 10 to 20 cm		n = 182																	
Minimum	4700	0.4	2.5	17	0.4	1400	18	5	17	9000	4	1300	110	0.8	30	0.5	11	19	10
10th percentile	6800	0.4	5.0	32	0.4	2200	20	6	51	11000	8	2000	140	0.8	67	0.5	19	23	21
1st quartile	7600	0.4	5.0	40	0.4	2800	24	7	83	12000	15	2200	150	0.8	110	0.5	25	25	31
Median	9500	0.4	8.0	56	0.4	3650	29	9	140	15000	27	2600	180	0.8	170	1.0	32	28	52
3rd quartile	12000	0.4	10	83	0.4	4700	34	12	200	17000	53	3000	230	0.8	240	1.0	42	33	78
95th percentile	16000	1.0	17	140	0.9	8785	50	18	410	24000	130	5295	330	0.8	489	2.0	52	41	159
Maximum	21000	2.0	22	240	1.3	13000	62	28	530	28000	470	8300	390	2.9	820	4.0	66	50	340
Mean	10117	0.5	8.4	67	0.4	4252	31	10	161	15212	44	2875	200	0.8	196	1.1	33	29	61
Geometric mean	9638	0.4	7.6	59	0.4	3821	29	9	129	14789	28	2714	191	0.8	160	0.9	32	29	49
Sample std. dev.	3330	0.2	4.0	39	0.2	2202	9	4	110	3783	52	1133	62	0.2	133	0.7	11	6	44
CV (std. dev./mean)	33%	49%	48%	58%	36%	52%	31%	41%	68%	25%	119	40%	31%	25%	68%	66%	33%	21%	72%
Lower CI of the mean	9629	0.4	7.8	62	0.4	3929	29	9	145	14657	36	2709	190	0.7	176	1.0	32	28	54
Upper CI of the mean	10605	0.5	9.0	73	0.5	4575	32	11	177	15766	52	3041	209	0.8	215	1.2	35	30	67
Kurtosis	1.7	13.3	1.5	3.3	12.1	3.3	1.4	3.1	1.8	0.9	25.3	5.7	0.8	94.8	4.9	4.5	-0.3	1.3	9.8
Skewness	1.2	3.5	1.3	1.6	3.6	1.8	1.2	1.5	1.4	1.1	4.1	2.2	1.1	9.4	1.9	2.0	0.3	1.1	2.4
Schools and Daycares 10 to 20 cm						n = 11													
Minimum	6600	0.4	2.5	24	0.4	2200	22	4	25	1200	7	1800	140	0.8	35	0.5	15	22	22
10th percentile	8100	0.4	2.5	29	0.4	2200	24	4	25	12000	7	2000	150	0.8	37	0.5	20	25	23
1st quartile	8100	0.4	2.5	32	0.4	2800	24	5	36	12000	7	2100	160	0.8	54	0.5	21	26	23
Median	11000	0.4	2.5	37	0.4	3100	28	6	49	13000	10	2200	190	0.8	74	0.5	28	27	27
3rd quartile	11000	0.4	5.0	41	0.4	4000	29	8	94	14000	20	2900	220	0.8	110	0.5	34	31	31
95th percentile	11100	0.4	6.5	42	0.4	5400	33	10	140	15000	25	2950	225	0.8	165	0.5	44	33	35
Maximum	11200	0.4	7.0	42	0.4	5500	33	11	160	15000	27	3000	230	0.8	170	0.5	45	33	37
Mean	9827	0.4	3.7	36	0.4	3391	27	7	70	13273	13	2418	188	0.8	87	0.5	29	28	28
Geometric mean	9694	0.4	3.4	36	0.4	3246	27	6	59	13232	11	2384	186	0.8	77	0.5	28	28	27
Sample std. dev.	1529	0.0	1.6	5	0.0	1059	3	2	41	1052	7	409	29	0.0	44	0.0	9	3	5
CV (std. dev./mean)	16%	0%	47%	16%	0%	33%	13%	31%	62%	8%	55%	18%	16%	0%	52%	0%	32%	12%	17%
Lower CI of the mean	8750	0.4	2.5	32	0.4	2645	25	5	41	12531	8	2130	168	0.8	56	0.5	23	26	24
Upper CI of the mean	10904	0.4	4.8	40	0.4	4137	30	8	99	14014	18	2706	209	0.8	118	0.5	35	31	31
Kurtosis	-0.3		-0.6	0.3		0.4	-0.6	0.7	0.2	-0.9	-0.6	-1.6	-1.3		-0.3		-0.6	-1	-0.2
Skewness	-1.0		1.0	-1.0		1.1	0.2	0.7	0.9	0.4	0.9	0.2	-0.2		0.8		0.3	-0.3	0.7
Parks 10 to 20 cm		n = 78																	
Minimum	5200	0.4	2.5	19	0.4	2000	18	3	11	11000	2	1800	120	0.8	15	0.5	22	22	13
10th percentile	8100	0.4	2.5	31	0.4	2570	25	6	36	13000	8	2270	150	0.8	53	0.5	26	25	20
1st quartile	9200	0.4	2.5	38	0.4	3600	28	7	46	14000	10	2600	170	0.8	62	0.5	30	28	27
Median	11000	0.4	2.5	48	0.4	4900	32	8	65	16000	12	3250	190	0.8	84	0.5	38	31	32
3rd quartile	13000	0.4	6.0	59	0.4	6300	37	10	96	18000	19	3800	230	0.8	129	1.0	44	35	38
95th percentile	18450	0.4	8.1	84	0.4	8415	50	13	140	21000	34	5915	302	0.8	187	1.0	52	40	46
Maximum	22000	2.8	10	130	0.4	11000	64	16	160	25000	43	7400	340	1.6	220	1.5	62	48	55
Mean	11365	0.4	4.4	51	0.4	5064	33	9	72	16128	15	3418	206	0.8	97	0.7	38	31	32
Geometric mean	10918	0.4	3.9	48	0.4	4713	33	8	64	15878	13	3255	201	0.8	86	0.6	36	31	31
Sample std. dev.	3367	0.3	2.3	20	0.0	1894	8	3	34	2875	9	1151	49	0.1	47	0.2	9	5	9
CV (std. dev./mean)	30%	65%	52%	40%	0%	38%	25%	31%	47%	18%	57%	34%	24%	13%	48%	38%	23%	17%	28%
Lower CI of the mean	10601	0.4	3.9	46	0.4	4634	32	8	64	15476	13	3157	195	0.7	86	0.6	36	30	30
Upper CI of the mean	12130	0.5	4.9	56	0.4	5494	35	9	80	16781	17	3679	217	0.8	108	0.7	39	33	34
Kurtosis	2.0	63.2	-0.6	4.2		0.3	2.1	-0.1	-0.3	0.1	1.5	2.0	0.2	78.0	0	-0.2	-0.4	0.5	-0.2
Skewness	1.2	7.8	0.8	1.7		0.6	1.1	0.3	0.6	0.5	1.3	1.4	0.8	8.8	0.8	1	0.2	0.7	0.2

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.1.4 Coniston

Table 10.3.1.4.1: Summary Statistics for Urban Soil Samples from All Sampling Locations in Coniston.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in Coniston,				n = 301															
Minimum	3900	0.4	2.5	20	0.4	1400	17	3	8	7400	2	1500	88	0.75	16	0.5	10	18	11
10th percentile	7000	0.4	2.5	33	0.4	2900	22	6	49	11000	12	2000	130	0.75	58	0.5	20	22	27
1st quartile	8050	0.4	2.5	42	0.4	3900	26	7	63	13000	17	2300	160	0.75	81	0.5	26	24	34
Median	9300	0.4	7.0	52	0.4	5400	29	12	150	15000	32	2700	180	0.75	200	0.5	33	27	51
3rd quartile	11000	0.4	13	67	0.9	7300	33	20	325	17000	62	3200	210	0.75	450	2.0	39	30	80
95th percentile	14000	1.0	33	90	1.8	11000	44	45	800	24000	150	4100	250	1.50	1200	3.0	47	35	140
Maximum	20000	3.0	47	180	2.7	33000	75	74	1200	33000	400	10000	320	2.90	1900	5.0	86	44	250
Mean	9622	0.5	10	55	0.7	6044	30	16	244	15379	50	2870	183	0.80	334	1.1	33	27	62
Geometric mean	9360	0.4	7.4	52	0.6	5343	29	13	150	14947	34	2764	178	0.78	199	0.9	32	27	53
Sample std. dev.	2326	0.3	9.0	21	0.5	3458	8	13	252	3870	51	907	41	0.21	358	1.0	10	4	38
CV (std. dev./mean)	63%	88%	38%	72%	57%	27%	82%	103	25%	101%	32%	22%	26%	107%	84%	29%	16%	61%	
Lower CI of the mean	9357	0.5	9.3	53	0.6	5651	29	15	216	14939	45	2767	178	0.77	294	1.0	32	27	58
Upper CI of the mean	9886	0.5	11	58	0.7	6437	31	18	273	15819	56	2973	187	0.82	375	1.2	34	28	66
Kurtosis	1.5	29.9	3.0	5.4	2.7	17.1	7.3	2.7	2.6	2.5	9.8	19.0	0.5	39.3	3.0	3.3	3.8	0.7	3.1
Skewness	1.0	4.9	1.8	1.7	1.8	3.0	2.0	1.7	1.7	1.3	2.6	3.2	0.6	5.6	1.8	1.8	0.8	0.5	1.6
5 to 10 cm Urban Soil in Coniston,				n = 297															
Minimum	3900	0.4	2.5	20	0.4	1500	16	3	8	6500	2	1400	84	0.75	14	0.5	10	17	10
10th percentile	6960	0.4	2.5	31	0.4	2500	21	5	40	11000	9	1800	130	0.75	50	0.5	19	22	21
1st quartile	8100	0.4	2.5	37	0.4	3200	24	7	60	13000	13	2000	140	0.75	77	0.5	24	24	27
Median	9500	0.4	8.0	46	0.4	4000	27	10	120	14000	23	2300	170	0.75	170	0.5	32	27	39
3rd quartile	11000	0.4	15	64	0.4	5500	31	18	330	17000	49	2900	200	0.75	430	1.0	38	30	64
95th percentile	15000	1.2	29	96	0.9	7825	39	30	643	20250	133	3900	260	0.75	900	3.0	49	36	110
Maximum	21000	5.3	53	200	1.2	37000	57	46	920	23000	270	8100	310	2.10	1200	4.0	86	44	260
Mean	9777	0.5	11	53	0.5	4728	28	13	215	14827	41	2565	176	0.78	287	1.0	32	28	49
Geometric mean	9486	0.5	7.5	49	0.4	4191	27	11	138	14487	26	2463	171	0.77	181	0.8	30	27	42
Sample std. dev.	2451	0.4	9.2	24	0.2	3185	6	8	200	3131	44	822	44	0.17	270	0.8	10	5	32
CV (std. dev./mean)	25%	80%	86%	45%	40%	67%	23%	64%	93%	21%	108	32%	25%	22%	94%	78%	33%	17%	65%
Lower CI of the mean	9496	0.5	10	50	0.4	4364	27	12	192	14469	36	2471	171	0.76	256	0.9	30	27	46
Upper CI of the mean	10057	0.6	12	56	0.5	5093	29	14	238	15185	46	2659	181	0.80	318	1.1	33	28	53
Kurtosis	1.7	59.4	2.3	6.5	5.6	48.1	2.9	1.5	1.0	0.0	5.9	10.2	0.1	26.0	1.1	2.0	2.7	0.4	8.3
Skewness	0.9	6.5	1.5	2.0	2.6	5.6	1.2	1.4	1.3	0.2	2.2	2.4	0.7	5.1	1.3	1.6	0.8	0.5	2.2
10 to 20 cm Urban Soil in Coniston,				n = 290															
Minimum	4900	0.4	2.5	19	0.4	1400	16	4	17	8500	4	1200	79	0.75	22	0.5	10	17	10
10th percentile	6700	0.4	3	31	0.4	2400	20	6	41	11000	7	1700	120	0.8	54	0.5	18	22	19
1st quartile	7700	0	3	38	0	2800	23	7	77	12000	13	2000	140	1	96	1	24	24	26
Median	9150	0.4	8.0	49	0.4	3600	26	10	150	14000	28	2300	170	0.75	190	0.5	31	27	38
3rd quartile	11000	0.4	14	68	0.4	4900	31	16	330	16000	55	2900	200	0.75	390	1.0	39	30	58
95th percentile	15000	1.0	23	110	0.4	7855	39	22	506	20000	146	4200	276	0.75	651	3.0	50	37	120
Maximum	19000	2.7	55	200	1.0	30000	45	43	1100	28000	280	5300	360	1.60	1400	9.0	78	42	210
Mean	9557	0.5	10	57	0.4	4295	27	12	212	14606	43	2524	176	0.77	266	1.0	31	27	48
Geometric mean	9239	0.5	7.4	51	0.4	3795	26	11	148	14253	28	2416	170	0.77	185	0.8	29	27	40
Sample std. dev.	2597	0.3	7.5	29	0.1	3016	6	7	177	3352	45	784	48	0.13	223	0.9	10	5	34
CV (std. dev./mean)	27%	65%	76%	51%	23%	70%	22%	54%	83%	23%	103%	31%	27%	17%	84%	93%	33%	17%	71%
Lower CI of the mean	9257	0.5	9.0	54	0.4	3946	26	11	192	14217	38	2434	171	0.76	240	0.9	30	27	44
Upper CI of the mean	9858	0.5	11	60	0.4	4644	28	13	233	14994	49	2615	182	0.79	292	1.1	32	28	52
Kurtosis	1.5	21.1	4.8	4.8	18.6	35.6	0.3	3.6	3.4	1.6	4.8	0.8	0.6	28.0	3.7	22.3	0.7	0.5	4.8
Skewness	1.1	4.3	1.6	1.9	4.4	5.1	0.8	1.6	1.5	1	2.1	1.0	0.8	5.5	1.6	3.6	0.5	0.5	2.0

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.4.2: Summary Statistics for All 0 - 5 cm Urban Soil Samples in Coniston by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm		n = 287																	
Minimum	5400	0.4	2.5	20	0.4	1400	18	3	14	8500	6	1500	88	0.75	25	0.5	10	18	17
10th percentile	7060	0.4	2.5	35	0.4	2900	22	6	50	1200	13	2000	130	0.75	60	0.5	20	22	28
1st quartile	8150	0.4	2.5	42	0.4	3900	26	7	65	1300	18	2300	160	0.75	82	0.5	26	25	35
Median	9400	0.4	7.0	53	0.4	5300	29	11	150	1500	32	2700	180	0.75	200	0.5	33	27	53
3rd quartile	1100	0.4	13	67	0.9	7300	34	20	320	1700	68	3200	210	0.75	450	2.0	39	30	83
95th percentile	1400	1.0	33	90	1.8	1100	44	45	807	2470	150	4070	250	1.50	1200	3.0	47	35	140
Maximum	2000	3.0	47	180	2.7	3300	75	74	1200	3300	400	6900	320	2.90	1900	5.0	86	44	250
Mean	9709	0.5	10	56	0.7	5999	31	16	246	1548	52	2833	183	0.80	336	1.2	33	27	64
Geometric mean	9457	0.5	7.5	53	0.6	5323	30	13	154	1505	36	2748	179	0.78	203	0.9	32	27	55
Sample std. dev.	2309	0.3	9.1	21	0.5	3400	8	13	253	3891	52	738	40	0.21	360	1.0	10	4	38
CV (std. dev./mean)	24%	64%	88%	37%	72%	57%	27%	82%	103	25%	99%	26%	22%	27%	107	84%	29%	16%	60%
Lower CI of the mean	9440	0.5	9.4	54	0.6	5603	30	15	217	1503	46	2747	178	0.77	294	1.0	32	27	59
Upper CI of the mean	9977	0.5	11	59	0.7	6394	32	18	275	1593	58	2919	187	0.82	378	1.3	34	28	68
Kurtosis	1.5	28.4	2.9	5.6	2.5	19.1	7.2	2.8	2.6	2.4	9.5	4.3	0.4	37.3	3.1	3.1	3.8	0.7	3.0
Skewness	1.0	4.8	1.7	1.7	1.8	3.2	2	1.8	1.7	1.3	2.6	1.4	0.5	5.4	1.8	1.7	0.8	0.5	1.5
Parks 0 to 5 cm	n = 14																		
Minimum	3900	0.4	2.5	20	0.4	2000	17	4	8	7400	2	1600	110	0.75	16	0.5	18	18	11
10th percentile	5800	0.4	2.5	28	0.4	2490	20	5	14	1100	3	1960	119	0.75	23	0.5	22	22	15
1st quartile	6900	0.4	2.5	32	0.4	3000	23	6	26	1100	6	2200	140	0.75	40	0.5	26	24	16
Median	7650	0.4	6.5	37	0.4	6300	26	12	99	1350	11	2900	175	0.75	195	0.5	32	25	30
3rd quartile	9300	0.4	13	46	0.4	9400	28	24	450	1500	20	3400	200	0.75	610	1.0	35	27	41
95th percentile	1100	0.4	17	60	1.1	1540	35	40	614	1735	41	9220	297	0.75	888	1.4	45	30	52
Maximum	1100	0.4	19	81	1.3	1800	36	43	620	1800	42	1000	310	0.75	940	2.0	45	31	58
Mean	7836	0.4	7.9	40	0.5	6979	26	16	211	1324	16	3636	184	0.75	300	0.7	32	25	30
Geometric mean	7583	0.4	5.9	38	0.5	5761	25	12	93	1296	11	3122	174	0.75	141	0.6	31	25	26
Sample std. dev.	1912	0.0	5.6	14	0.3	4386	5	12	221	2612	12	2433	62	0.00	313	0.4	8	3	14
CV (std. dev./mean)	25%	0%	74%	36%	54%	65%	20%	83%	109	20%	84%	69%	35%	0%	108	60%	26%	13%	50%
Lower CI of the mean	6690	0.4	4.5	31	0.4	4351	23	8	79	1167	8	2178	146	0.75	112	0.5	27	23	21
Upper CI of the mean	8981	0.4	11	48	0.7	9607	29	23	343	1480	23	5094	221	0.75	487	1	37	27	39
Kurtosis	0.1		-1.1	5.4	3.3	1.6	0.2	0.3	-0.8	0.6	0.4	3.4	-0.2		-0.3	6.5	-0.5	0.9	-1.1
Skewness	0.0		0.6	1.9	2.0	1.3	0.4	1.2	0.9	-0.3	1.1	2.1	0.9		1.0	2.4	0.1	-0.1	0.4

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.4.3: Summary Statistics for All 5 - 10 cm Urban Soil Samples in Coniston by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 5 to 10 cm				n = 285															
Minimum	5300	0.4	2.5	21	0.4	1500	16	3	17	6500	5	1400	84	0.8	26	0.5	10	18	16
10th percentile	7120	0.4	2.5	31	0.4	2500	21	5	42	11000	10	1800	130	0.8	51	0.5	19	22	22
1st quartile	8100	0.4	2.5	38	0.4	3200	24	7	62	13000	14	2000	140	0.8	79	0.5	24	24	29
Median	9500	0.4	8.0	47	0.4	4000	27	10	130	15000	25	2300	170	0.8	170	0.5	32	27	40
3rd quartile	11000	0.4	15	65	0.4	5500	31	18	330	17000	51	2800	200	0.8	440	1.5	38	30	64
95th percentile	14800	1.2	29	95	0.9	8300	39	31	640	20000	130	3900	260	0.8	900	3.0	49	36	110
Maximum	21000	5.3	53	200	1.2	37000	57	46	920	23000	270	6500	310	2.1	1200	4.0	86	44	260
Mean	9849	0.5	11	54	0.5	4700	28	13	221	14974	42	2534	177	0.8	293	1.0	32	28	51
Geometric mean	9574	0.5	7.7	49	0.4	4169	27	11	143	14653	28	2445	172	0.8	187	0.8	30	27	43
Sample std. dev.	2422	0.4	9.3	24	0.2	3188	6	8	202	3068	44	722	44	0.2	274	0.8	10	5	32
CV (std. dev./mean)	25%	81%	85%	45%	38%	68%	23%	64%	92%	21%	105	29%	25%	22%	94%	78%	33%	17%	64%
Lower CI of the mean	9566	0.5	10	51	0.4	4327	27	12	197	14616	37	2450	172	0.8	261	0.9	30	27	47
Upper CI of the mean	10132	0.6	12	56	0.5	5072	29	14	245	15332	48	2619	182	0.8	325	1.1	33	28	54
Kurtosis	1.8	57.0	2.2	6.4	5.2	50.1	3.1	1.3	0.9	0.0	5.7	3.4	0.1	24.7	1.0	1.8	2.8	0.4	8.3
Skewness	1.0	6.3	1.4	1.9	2.6	5.8	1.3	1.3	1.2	0.2	2.2	1.4	0.6	5.0	1.3	1.5	0.8	0.5	2.2
Parks 5 to 10 cm		n = 12																	
Minimum	3900	0.4	2.5	20	0.4	2600	17	4	8	7600	2	2000	110	0.8	14	0.5	15	17	10
10th percentile	4330	0.4	2.5	24	0.4	2820	18	4	11	7980	2	2010	111	0.8	18	0.5	19	18	11
1st quartile	6500	0.4	2.5	29	0.4	3150	22	5	25	9800	5	2100	125	0.8	35	0.5	25	23	15
Median	8100	0.4	2.5	35	0.4	4500	25	8	69	10500	6	2500	140	0.8	146	0.5	30	25	16
3rd quartile	10250	0.4	7.0	41	0.4	6200	27	10	120	14000	9	3250	150	0.8	215	1.0	36	29	26
95th percentile	11450	0.4	10	53	0.4	1135	37	14	180	15000	9	7440	260	0.8	277	1.0	46	32	28
Maximum	12000	0.4	12	54	0.4	13000	38	15	180	15000	10	8100	260	0.8	310	1.0	46	32	29
Mean	8067	0.4	4.9	36	0.4	5408	26	8	79	11333	6	3300	154	0.8	139	0.7	31	25	19
Geometric mean	7631	0.4	4.0	34	0.4	4749	25	7	53	11050	5	2920	148	0.8	90	0.6	29	25	18
Sample std. dev.	2495	0.0	3.2	10	0.0	3045	6	3	58	2524	3	1941	49	0.0	100	0	9	5	7
CV (std. dev./mean)	32%	0%	68%	29%	0%	59%	25%	43%	76%	23%	45%	61%	33%	0%	75%	37%	31%	19%	36%
Lower CI of the mean	6411	0.4	2.8	29	0.4	3388	21	6	41	9659	4	2012	121	0.8	72	0.5	25	22	15
Upper CI of the mean	9722	0.4	7.0	43	0.4	7429	30	10	118	13008	8	4588	187	0.8	205	0.8	37	28	24
Kurtosis	-0.8		0.2	-0.5		2.1	0.5	-0.2	-0.8	-1.3	-1.2	2.6	1.8		-1.6	-1.7	-0.4	-1	-2
Skewness	-0.2		1.1	0.3		1.6	0.9	0.7	0.6	0.2	-0.1	1.9	1.7		0.1	0.8	0.2	-0.2	0.2

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.4.4: Summary Statistics for All 10 - 20 cm Urban Soil Samples in Coniston by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 10 to 20 cm		n = 282																	
Minimum	4900	0.4	2.5	19	0.4	1400	16	4	17	8500	4	1200	79	0.8	22	0.5	10	17	10
10th percentile	6700	0.4	2.5	31	0.4	2400	20	6	42	11000	7	1700	120	0.8	54	0.5	18	22	19
1st quartile	7600	0.4	2.5	37	0.4	2800	23	8	78	12000	14	2000	140	0.8	97	0.5	24	24	26
Median	9200	0.4	8.0	50	0.4	3600	26	10	155	14000	29	2300	170	0.8	190	0.5	30	27	38
3rd quartile	11000	0.4	14	69	0.4	4900	31	16	330	16000	60	2900	200	0.8	390	1.0	39	30	59
95th percentile	15000	1.0	23	110	0.4	7895	39	22	510	20000	150	4200	280	0.8	659	3.0	50	37	120
Maximum	19000	2.7	55	200	1.0	30000	45	43	1100	28000	280	5300	360	1.6	1400	9.0	78	42	210
Mean	9569	0.5	10	57	0.4	4297	27	12	215	14651	44	2517	176	0.8	268	1.0	31	27	49
Geometric mean	9242	0.5	7.6	52	0.4	3786	26	11	150	14293	29	2407	170	0.8	188	0.8	29	27	40
Sample std. dev.	2632	0.3	7.5	29	0.1	3055	6	7	178	3377	45	790	48	0.1	224	0.9	11	5	34
CV (std. dev./mean)	28%	66%	75%	51%	24%	71%	23%	54%	83%	23%	101	31%	27%	17%	84%	93%	34%	17%	70%
Lower CI of the mean	9260	0.5	9.2	54	0.4	3938	26	11	194	14254	39	2424	171	0.8	242	0.9	30	27	45
Upper CI of the mean	9878	0.5	11	61	0.4	4656	28	13	236	15048	50	2610	182	0.8	295	1.1	32	28	53
Kurtosis	1.4	20.4	4.9	4.6	18.0	34.7	0.3	3.6	3.4	1.6	4.7	0.8	0.6	27.1	3.7	21.7	0.6	0.4	4.7
Skewness	1.1	4.3	1.6	1.9	4.4	5.0	0.8	1.6	1.5	1.0	2.0	1.1	0.8	5.4	1.6	3.6	0.5	0.5	2.0
Parks 10 to 20 cm		n = 8																	
Minimum	8400	0.4	2.5	38	0.4	3100	26	5	27	11000	5	2100	130	0.8	35	0.5	28	26	14
10th percentile	8750	0.4	2.5	39	0.4	3310	26	5	28	11000	5	2170	137	0.8	36	0.5	29	26	15
1st quartile	8900	0.4	2.5	41	0.4	3500	27	6	40	11500	5	2400	140	0.8	54	0.5	31	26	17
Median	9050	0.4	2.5	44	0.4	4100	27	6	75	13000	6	2800	150	0.8	100	0.5	35	27	21
3rd quartile	9450	0.4	6.3	46	0.4	4900	29	12	144	14500	9	3200	190	0.8	285	1.0	36	28	27
95th percentile	9830	0.4	17	51	0.4	5455	31	17	285	15000	11	3330	233	0.8	519	1.0	37	29	28
Maximum	9900	0.4	20	53	0.4	5700	32	18	330	15000	12	3400	240	0.8	550	1.0	37	30	28
Mean	9138	0.4	5.6	44	0.4	4225	28	9	109	13000	7	2788	166	0.8	183	0.7	33	27	21
Geometric mean	9127	0.4	3.9	44	0.4	4145	28	8	77	12903	7	2749	162	0.8	112	0.6	33	27	20
Sample std. dev.	444	0.0	6.0	4	0.0	829	2	5	98	1581	3	454	38	0.0	189	0.2	3	1	5
CV (std. dev./mean)	5%	0%	113%	11%	0%	21%	8%	59%	96%	13%	39%	17%	24%	0%	111%	38%	9%	5%	26%
Lower CI of the mean	8740	0.4	0.3	40	0.4	3484	26	4	22	11586	5	2381	132	0.8	14	0.5	31	26	17
Upper CI of the mean	9535	0.4	11.0	48	0.4	4966	30	13	197	14414	9	3194	200	0.8	352	0.9	36	28	26
Kurtosis	0.1		4.2	1.4		-0.8	1.0	0.1	2.4	-2.0	-0.1	-1.5	0.2		0.3	-2.2	-0.5	1.1	-2.1
Skewness	0.3		2.1	0.8		0.4	1.3	1.4	1.7	0.0	1.1	-0.3	1.3		1.4	0.6	-0.8	1.1	0.1

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.1.5 Falconbridge

Table 10.3.1.5.1: Summary Statistics for Urban Soil Samples from All Sampling Locations in Falconbridge.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in Falconbridge, n = 220																			
Minimum	4900	0.4	2.5	15	0.4	1600	11	5	31	9200	6	1500	69	0.75	37	0.5	11	10	15
10th percentile	7090	0.4	9	31	0.4	3690	27	11	72	12900	14	2100	140	0.75	120	0.5	21	24	29
1st quartile	7900	0.4	29	39	1.1	5500	33	28	390	16000	35	2400	160	0.75	445	1.0	27	26	50
Median	9000	0.4	49	50	2.1	7300	40	49	780	21000	66	2800	180	2.2	820	2	33	30	66
3rd quartile	10000	0.4	100	56	3.0	9550	52	74	1200	27000	120	3250	210	3.7	1300	3	38	34	99
95th percentile	12000	1.2	181	69	4.3	13000	73	111	1900	38000	200	4105	240	7.6	2105	6	45	39	150
Maximum	17000	3.8	300	86	6.7	40000	100	190	3000	49000	370	6900	310	14.0	3700	12	51	56	240
Mean	9080	0.5	69	48	2.2	7885	44	54	828	21886	83	2902	182	2.8	915	2.6	32	30	76
Geometric mean	8927	0.5	45	47	1.7	7097	41	42	550	20520	58	2817	179	2.0	645	2	31	29	66
Sample std. dev.	1677	0.4	58	13	1.3	4294	15	34	597	8075	66	753	35	2.27	650	1.8	8	5	41
CV (std. dev./mean)	19%	83%	84%	27%	59%	55%	34%	64%	72%	37%	80%	26%	20%	82%	71%	71%	24%	18%	54%
Lower CI of the mean	8857	0.5	62	47	2.0	7314	42	49	749	20811	74	2802	178	2.45	829	2.3	31	29	71
Upper CI of the mean	9303	0.6	77	50	2.3	8457	46	58	908	22961	92	3002	187	3.06	1002	2.8	34	31	81
Kurtosis	1.7	28.1	1.7	-0.2	0.0	25.1	0.5	0.8	0.8	0.8	2.9	4.6	0.6	3.5	1.3	4.3	-0.3	3.2	2.4
Skewness	0.5	4.9	1.3	0.1	0.4	3.9	0.9	0.8	0.8	0.9	1.5	1.6	0.4	1.7	1	1.6	-0.3	0.8	1.3
5 to 10 cm Urban Soil in Falconbridge, n = 217																			
Minimum	4700	0.4	2.5	22	0.4	2500	17	5	10	10000	4	1500	110	0.75	22	0.5	13	19	14
10th percentile	7800	0.4	18	31	0.4	3200	25	11	132	12600	15	1900	130	0.75	136	0.5	22	25	26
1st quartile	8800	0.4	34	38	0.4	4400	29	22	310	15000	26	2100	150	0.75	430	1.0	26	27	39
Median	9800	0.4	76	48	1.1	6500	36	37	580	20000	55	2400	180	0.75	740	3.0	31	31	57
3rd quartile	11000	0.4	140	58	1.7	9100	46	57	1000	26500	120	2700	230	0.75	1100	4.0	38	35	87
95th percentile	13000	1.2	323	74	3.4	13000	75	113	2025	40000	220	3300	300	2.23	2225	6.0	44	41	140
Maximum	23000	8.1	570	89	4.8	33000	140	150	3000	100000	340	13700	480	8.80	3100	11.0	50	110	210
Mean	10027	0.6	109	48	1.3	7123	41	43	754	22857	77	2627	196	1.02	849	2.8	32	33	65
Geometric mean	9807	0.5	67	46	1.0	6375	38	33	500	20610	51	2478	188	0.91	598	2.1	30	32	56
Sample std. dev.	2270	0.8	105	14	1.0	3609	20	30	605	12496	66	1344	61	0.74	626	1.9	8	11	36
CV (std. dev./mean)	23%	125%	96%	29%	73%	51%	49%	70%	80%	55%	86%	51%	31%	73%	74%	69%	25%	33%	56%
Lower CI of the mean	9723	0.5	95	46	1.2	6639	39	39	673	21181	68	2447	188	0.92	765	2.5	31	31	60
Upper CI of the mean	10332	0.7	123	50	1.4	7607	44	47	835	24533	86	2807	204	1.12	933	3	33	34	70
Kurtosis	8.9	57.7	3.2	-0.3	1.4	11.3	6.3	1.4	1.7	12.7	1.2	39.9	3.1	56.7	1.7	1.4	-0.6	21.2	1.5
Skewness	2.1	7.1	1.7	0.2	1.2	2.2	2.3	1.2	1.3	2.9	1.3	5.8	1.5	6.1	1.3	1.1	-0.1	3.9	1.1
10 to 20 cm Urban Soil in Falconbridge, n = 217																			
Minimum	5200	0.4	2.5	24	0.4	2000	17	5	13	10000	4	1400	97	0.75	25	0.5	12	17	14
10th percentile	7800	0.4	17	32	0.4	3100	23	9	93	12000	11	1800	130	0.75	140	0.5	21	25	22
1st quartile	8700	0.4	29	39	0.4	3900	27	13	160	14000	18	2100	150	0.75	240	1.0	25	27	31
Median	10000	0.4	57	47	0.4	5100	32	21	310	16000	32	2300	170	0.75	410	2.0	31	31	43
3rd quartile	11000	0.4	120	59	1.0	6700	40	31	530	21000	64	2600	220	0.75	605	3.0	36	35	61
95th percentile	14000	1.0	242	78	1.8	9760	76	56	1000	37000	142	4800	340	1.70	1200	6.0	43	56	93
Maximum	25000	1.4	620	110	3.4	30000	160	110	2000	110000	230	15500	540	6.00	2500	8.0	55	130	140
Mean	10370	0.5	88	49	0.8	5737	37	25	398	19825	48	2694	193	0.88	488	2.1	31	33	49
Geometric mean	10063	0.4	56	47	0.6	5199	34	21	283	17697	33	2435	183	0.81	370	1.6	30	32	43
Sample std. dev.	2836	0.2	89	15	0.5	3026	21	18	328	13817	43	1871	71	0.58	379	1.7	8	14	24
CV (std. dev./mean)	27%	43%	101%	30%	71%	53%	56%	71%	83%	70%	89%	70%	37%	66%	78%	79%	26%	41%	49%
Lower CI of the mean	9990	0.4	77	47	0.7	5331	35	23	354	17972	42	2444	184	0.80	437	1.9	30	32	45
Upper CI of the mean	10750	0.5	100	51	0.8	6143	40	27	442	21678	54	2945	203	0.96	539	2.3	32	35	52
Kurtosis	8.9	10.9	8.0	1.1	4.7	20.6	14.6	7.5	3.8	23.6	1.7	26.0	4.6	47.7	7.3	2.4	0.2	20.9	0.5
Skewness	2.4	3.4	2.4	0.9	2.0	3.4	3.5	2.3	1.7	4.5	1.5	4.8	1.9	6.4	2.2	1.6	0.1	4.1	0.9

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.5.2: Summary Statistics for All 0-5 cm Urban Soil Samples in Falconbridge by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm				n = 199															
Minimum	4900	0.4	2.5	15	0.4	1600	11	5	31	9200	6	1500	69	0.75	37	0.5	11	10	15
10th percentile	7080	0.4	11	32	0.4	4380	28	11	87	1300	17	2100	140	0.75	140	0.5	21	24	33
1st quartile	7900	0.4	31	41	1.5	5900	33	32	460	16000	42	2400	160	0.75	550	1.0	27	26	56
Median	9000	0.4	52	51	2.2	7500	41	51	810	21000	71	2700	180	2.4	850	2.0	34	29	71
3rd quartile	10000	0.4	110	58	3.0	9600	52	75	1200	27000	130	3200	200	3.9	1300	4.0	39	33	100
95th percentile	12000	1.2	190	71	4.5	13000	73	111	1910	38000	200	4010	240	8.1	2110	6.0	45	38	151
Maximum	17000	3.8	300	86	6.7	40000	100	190	3000	49000	370	5700	290	14	3700	12	51	44	240
Mean	9059	0.5	74	50	2.3	8167	45	56	874	22025	88	2864	182	2.9	956	2.7	33	30	80
Geometric mean	8904	0.5	50	48	1.9	7419	42	44	610	20709	65	2792	178	2.2	705	2.1	31	29	71
Sample std. dev.	1686	0.5	59	13	1.2	4330	15	33	590	7903	67	674	34	2.3	636	1.9	8	5	41
CV (std. dev./mean)	19%	85%	81%	26%	53%	53%	34%	60%	68%	36%	76%	24%	19%	79%	67%	69%	25%	17%	51%
Lower CI of the mean	8823	0.5	65	48	2.1	7561	42	51	791	20917	79	2770	177	2.6	867	2.4	31	29	74
Upper CI of the mean	9296	0.6	82	52	2.5	8774	47	61	956	23132	98	2959	186	3.2	1045	3.0	34	30	86
Kurtosis	1.7	25.9	1.5	0.0	0.2	25.9	0.5	1.0	0.9	0.9	2.7	2.5	0.3	3.1	1.6	4.1	-0.4	0.8	2.5
Skewness	0.5	4.7	1.2	0.0	0.4	4.0	0.8	0.8	0.8	0.9	1.4	1.1	0.2	1.6	1.0	1.5	-0.3	0.1	1.3
Schools and Day Cares 0 to 5 cm				n = 3															
Minimum	6100	0.4	2.5	26	0.4	2500	31	11	46	12000	11	3400	190	0.75	61	0.5	19	26	27
Median	8700	0.4	2.5	43	0.4	6300	31	12	58	13000	20	3400	210	1.5	110	0.5	38	30	35
Maximum	9800	0.4	2.5	46	1.0	7000	35	13	66	16000	21	4200	220	1.8	120	0.5	42	32	36
Mean	8200	0.4	2.5	38	0.6	5267	32	12	57	13667	17	3667	207	1.4	97	0.5	33	29	33
Parks 0 to 5 cm	n = 18																		
Minimum	6500	0.4	2.5	22	0.4	3100	24	8	44	12000	6	1800	130	0.75	68	0.5	22	25	17
10th percentile	8050	0.4	5.0	28	0.4	3400	26	10	54	1200	10	1940	140	0.75	87	0.5	25	26	20
1st quartile	8800	0.4	12	29	0.4	3500	26	15	88	13000	14	2500	150	0.75	120	1.0	27	26	25
Median	9300	0.4	34	36	0.4	3550	37	22	325	20500	22	2850	170	0.75	385	1.5	32	31	31
3rd quartile	9800	0.4	49	43	0.9	7600	39	34	480	27000	33	3400	230	1.60	690	2.0	34	35	47
95th percentile	11450	0.5	73	44	3.1	10450	61	93	1375	41600	73	5455	268	2.29	1905	3.2	35	52	82
Maximum	14000	1.2	84	45	4.2	13000	73	130	1800	45000	110	6900	310	2.80	2500	4.0	35	56	96
Mean	9456	0.4	34	35	1.0	5206	38	34	456	21722	31	3189	187	1.17	601	1.7	31	33	39
Geometric mean	9342	0.4	23	35	0.6	4635	36	24	255	19857	23	2978	181	1.03	335	1.3	30	32	35
Sample std. dev.	1510	0.2	23	7	1.1	2871	13	32	490	9717	26	1300	48	0.64	675	1.0	4	8	22
CV (std. dev./mean)	16%	42%	70%	20%	116	57%	34%	97%	110%	46%	86%	42%	27%	56%	116%	63%	14%	26%	57%
Lower CI of the mean	8683	0.4	22	32	0.4	3737	31	17	206	16750	17	2523	162	0.84	256	1.1	29	29	28
Upper CI of the mean	10228	0.5	46	39	1.6	6675	44	50	707	26695	44	3854	211	1.49	947	2.2	33	37	50
Kurtosis	4.0	18.0	-0.4	-1.2	2.9	1.5	2.4	3.7	1.9	0.5	4.1	2.5	0.6	0.6	2.2	-0.4	0.0	2.1	1.2
Skewness	1.2	4.2	0.4	-0.2	1.9	1.6	1.5	2.0	1.6	1.1	2.0	1.6	1.2	1.3	1.7	0.7	-1.0	1.6	1.4

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.5.3: Summary Statistics for All 5 - 10 cm Urban Soil Samples in Falconbridge by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 5 to 10 cm				n = 199															
Minimum	4700	0.4	2.5	22	0.4	2500	17	5	10	10000	4	1500	110	0.8	22	0.5	13	19	14
10th percentile	7800	0.4	21	31	0.4	3400	25	12	148	12800	16	1900	130	0.8	176	0.5	21	25	28
1st quartile	8800	0.4	37	38	0.4	4500	29	23	320	15000	27	2100	150	0.8	450	1.0	26	27	41
Median	9800	0.4	77	49	1.2	6600	36	38	600	20000	57	2400	180	0.8	780	3.0	31	31	59
3rd quartile	11000	0.4	160	58	1.8	9450	46	61	1100	26000	120	2700	220	0.8	1100	4.0	38	35	89
95th percentile	13000	1.2	321	74	3.4	13000	75	111	2010	40000	220	3300	300	2.2	2210	6.0	44	41	140
Maximum	15000	8.1	570	89	4.8	33000	120	150	3000	49000	340	3900	380	8.8	3100	11	50	56	210
Mean	9828	0.6	113	49	1.4	7326	40	44	785	21719	81	2430	192	1.0	885	2.8	32	31	68
Geometric mean	9685	0.5	70	47	1.1	6577	37	34	530	20154	55	2390	185	0.9	635	2.2	30	31	59
Sample std. dev.	1648	0.8	108	14	1.0	3654	17	30	617	8878	68	447	52	0.8	635	1.9	8	6	36
CV (std. dev./mean)	17%	136%	95%	28%	70%	50%	42%	68%	79%	41%	84%	18%	27%	74%	72%	67%	26%	19%	54%
Lower CI of the mean	9597	0.5	98	47	1.2	6814	38	40	698	20474	72	2367	185	0.9	796	2.5	30	31	62
Upper CI of the mean	10059	0.7	129	51	1.5	7838	42	49	871	22963	91	2493	199	1.1	974	3.1	33	32	73
Kurtosis	0.5	53.8	2.8	-0.4	1.2	11.3	5.1	1.1	1.4	0.8	0.9	0.8	0.7	52.4	1.5	1.7	-0.6	1.6	1.4
Skewness	0.1	6.8	1.6	0.2	1.2	2.2	2.0	1.2	1.3	1.1	1.2	0.6	1.0	5.9	1.2	1.1	-0.2	0.9	1.1
Parks 5 to 10 cm		n = 18																	
Minimum	5900	0.4	6	22	0.4	2700	22	6	32	11000	5	1800	130	0.8	43	0.5	22	23	14
10th percentile	7540	0.4	9	25	0.4	2970	24	7	46	12400	8	1870	130	0.8	54	0.5	23	24	17
1st quartile	8800	0.4	23	29	0.4	3100	27	13	160	15000	17	2200	140	0.8	190	0.5	25	26	22
Median	9700	0.4	71	43	0.4	4050	32	25	500	20000	35	2550	195	0.8	510	2.0	31	32	31
3rd quartile	16000	0.4	100	48	0.4	6300	95	30	580	56000	53	7600	330	0.8	680	4.0	36	74	53
95th percentile	22150	1.1	112	58	1.2	9000	140	48	891	99150	64	13105	463	0.8	913	7.2	45	100	78
Maximum	23000	1.5	120	62	1.4	9000	140	58	950	10000	137	0.8	1100	8.0	46	110	88		
Mean	12228	0.5	61	40	0.5	4878	57	24	411	35444	35	4806	239	0.8	451	2.6	31	47	40
Geometric mean	11259	0.5	41	39	0.5	4514	45	20	268	26396	27	3684	216	0.8	306	1.5	31	41	34
Sample std. dev.	5178	0.3	41	12	0.3	1988	40	14	284	28956	20	3794	112	0.0	308	2.4	7	27	22
CV (std. dev./mean)	44%	58%	69%	29%	60%	42%	72%	59%	71%	84%	59%	81%	48%	0%	70%	97%	24%	59%	57%
Lower CI of the mean	9578	0.4	40	35	0.4	3860	36	17	265	20627	25	2864	182	0.8	293	1.3	28	33	28
Upper CI of the mean	14877	0.6	82	46	0.7	5895	77	31	556	50262	45	6747	297	0.8	609	3.8	35	61	51
Kurtosis	-0.5	9.7	-1.8	-0.9	2.8	-0.3	-0.3	0.6	-1.0	0.4	-1.2	0.6	-0.4		-0.8	-0.1	-0.8	-0.1	-0.4
Skewness	0.9	3.1	-0.1	-0.1	2.1	0.9	1.1	0.7	0.2	1.2	0.0	1.3	0.9		0.3	1.0	0.5	1.1	0.9

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.5.4: Summary Statistics for All 10 - 20 cm Urban Soil Samples in Falconbridge by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 10 to 20 cm				n = 199															
Minimum	5200	0.4	2.5	24	0.4	2000	17	5	13	10000	4	1400	97	0.8	25	0.5	12	17	15
10th percentile	7800	0.4	17	32	0.4	3200	22	9	94	12000	11	1700	130	0.8	140	0.5	21	24	22
1st quartile	8700	0.4	28	39	0.4	3900	27	13	160	13000	18	2000	150	0.8	240	1.0	25	27	31
Median	9900	0.4	55	47	0.4	5300	32	20	310	16000	32	2200	170	0.8	410	2.0	31	30	43
3rd quartile	11000	0.4	130	60	1.1	6700	39	31	530	20000	71	2500	210	0.8	620	3.0	36	34	61
95th percentile	13000	1.0	252	78	1.9	10100	52	56	1010	28100	150	3030	301	1.7	1200	5.0	43	41	95
Maximum	20000	1.4	620	110	3.4	30000	110	110	2000	38000	230	7500	400	6.0	2500	8.0	55	73	140
Mean	9963	0.5	90	49	0.8	5819	34	25	401	17276	50	2329	185	0.9	493	2.1	31	31	49
Geometric mean	9782	0.4	56	47	0.7	5264	32	21	282	16562	34	2271	177	0.8	373	1.6	29	30	43
Sample std. dev.	1935	0.2	92	15	0.6	3106	11	18	338	5457	44	598	57	0.6	389	1.6	8	6	24
CV (std. dev./mean)	19%	45%	102%	31%	70%	54%	34%	72%	84%	32%	89%	26%	31%	68%	79%	77%	27%	20%	49%
Lower CI of the mean	9692	0.4	77	47	0.7	5383	32	23	354	16512	44	2245	177	0.8	438	1.8	30	30	45
Upper CI of the mean	10234	0.5	103	51	0.9	6254	35	28	449	18041	56	2412	193	1.0	547	2.3	32	32	52
Kurtosis	3.2	9.6	7.3	1.1	4.2	19.9	11.6	7.1	3.5	2.6	1.3	28.3	1.4	46.0	7.0	2.7	0.2	11.3	0.5
Skewness	0.9	3.2	2.3	0.9	1.9	3.4	2.5	2.3	1.7	1.5	1.4	3.8	1.3	6.3	2.2	1.6	0.1	2.1	1.0
Parks 10 to 20 cm		n = 18																	
Minimum	6400	0.4	5	29	0	2500	22	6	55	13000	8	1800	140	0.8	42	0.5	16	24	14
10th percentile	8550	0.4	18	31	0	2740	25	11	105	13000	12	2070	157	0.8	124	0.5	23	28	20
1st quartile	10000	0.4	32	36	0	3300	29	16	220	15000	18	2300	170	0.8	260	0.5	27	30	25
Median	14000	0.4	70	47	0	4700	72	23	345	36500	34	6500	265	0.8	450	2.0	31	58	43
3rd quartile	19000	0.4	100	54	0	6400	100	27	500	61000	43	9100	350	0.8	550	3.0	35	79	61
95th percentile	25000	0.4	122	61	0	7730	152	42	716	11000	150	1.0	880	7.2	43	113	85		
Maximum	25000	0.4	130	76	1	7900	160	42	750	11000	155	2.2	990	8.0	46	130	86		
Mean	14872	0.4	69	46	0	4833	76	23	356	48000	32	6739	287	0.8	432	2.7	31	61	47
Geometric mean	13765	0.4	53	45	0	4529	62	20	289	36837	28	5249	261	0.8	339	1.8	30	53	41
Sample std. dev.	5783	0.0	37	12	0	1702	46	10	196	33265	13	4516	125	0.3	245	2.4	7	32	23
CV (std. dev./mean)	40%	0%	55%	26%	28%	36%	62%	46%	57%	71%	44%	69%	45%	41%	58%	91%	25%	54%	50%
Lower CI of the mean	11913	0.4	50	40	0	3963	53	18	256	30978	25	4428	223	0.7	307	1.5	27	45	35
Upper CI of the mean	17831	0.4	87	52	0	5704	99	28	456	65022	39	9050	351	1.0	558	3.9	35	78	58
Kurtosis	-0.9		-1.0	0.7	18.0	-1.1	-1.0	-0.3	-0.4	-0.7	-1.2	-0.6	-0.7	18.0	0.2	0.1	-0.1	-0.6	-0.9
Skewness	0.5		-0.2	0.5	4.2	0.3	0.5	0.4	0.3	0.8	-0.4	0.7	0.7	4.2	0.4	1.2	0.1	0.7	0.4

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.1.6 Copper Cliff

Table 10.3.1.6.1: Summary Statistics for Urban Soil Samples from All Sampling Locations in Copper Cliff.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Urban Soil in Copper Cliff, n = 290																			
Minimum	6200	0.4	2.5	28	0.4	2600	20	6	65	11000	10	2000	98	0.75	71	0.5	16	16	23
10th percentile	8590	0.4	6	45	0.4	4300	29	12	360	14000	25	2600	160	0.75	299	2.0	23	25	38
1st quartile	9500	0.4	9.0	52	0.8	5600	32	17	660	15000	41	3200	180	0.75	500	3.0	32	28	54
Median	11000	0.4	14	67	1.4	7500	38	27	1200	19000	69	3800	210	0.75	840	6.0	39	31	76
3rd quartile	13000	0.4	24	90	2.2	11000	46	43	2000	24000	110	4400	230	1.60	1300	11.0	44	34	120
95th percentile	15000	1.0	45	120	3.4	21550	60	79	3300	33000	220	7910	270	2.40	2455	16.0	52	38	180
Maximum	19000	2.2	72	180	5.2	82000	93	100	5600	49000	410	17000	450	3.80	3649	49.0	71	51	250
Mean	11124	0.5	18	73	1.6	9599	40	33	1433	20507	87	4250	207	1.14	1022	7.6	38	31	92
Geometric mean	10924	0.5	14	68	1.2	8046	39	28	1079	19619	67	3943	203	1.01	792	5.5	36	31	80
Sample std. dev.	2129	0.3	13	28	1.0	8046	11	21	1028	6415	69	2038	41	0.64	701	6.1	10	5	49
CV (std. dev./mean)	19%	54%	69%	38%	63%	84%	28%	63%	72%	31%	79%	48%	20%	56%	69%	80%	26%	16%	53%
Lower CI of the mean	10878	0.5	17	70	1.5	8667	39	31	1314	19764	79	4014	203	1.06	941	6.9	37	30	86
Upper CI of the mean	11371	0.5	20	76	1.7	10530	41	36	1552	21250	95	4486	212	1.21	1103	8.3	39	31	97
Kurtosis	0.3	14.6	1.7	1.7	-0.1	41.9	3.6	0.8	1.9	1.1	5.3	13.4	3.8	2.5	0.9	10.0	0.2	1.0	0.2
Skewness	0.5	3.5	1.3	1.2	0.7	5.3	1.4	1.1	1.3	1.1	2.0	3.2	0.7	1.7	1.1	2.3	0.0	-0.1	0.9
5 to 10 cm Urban Soil in Copper Cliff, n = 286																			
Minimum	6900	0.4	2.5	28	0.4	2100	20	5	26	8100	7	1700	84	0.75	40	0.5	11	20	18
10th percentile	9000	0.4	6	43	0.4	3700	27	9	200	14000	13	2500	160	0.75	170	1.0	23	26	32
1st quartile	10000	0.4	11	55	0.4	4400	31	14	440	16000	34	2900	180	0.75	370	2.0	30	29	45
Median	12000	0.4	17	76	0.4	6100	37	21	700	19000	54	3400	210	0.75	610	4.0	37	33	66
3rd quartile	15000	0.8	29	100	1.1	7900	45	31	1100	23000	99	3900	250	0.75	950	5.0	45	37	90
95th percentile	19000	1.6	50	140	2.0	12000	56	46	1700	28800	190	5580	318	1.58	1780	8.0	55	42	148
Maximum	25000	4.9	101	290	3.7	37000	90	70	2800	41000	330	12000	350	2.00	3100	14.0	90	46	210
Mean	12578	0.6	22	84	0.8	6750	39	23	785	19981	73	3583	217	0.81	726	3.9	37	33	72
Geometric mean	12194	0.5	17	76	0.7	6093	37	20	623	19388	53	3443	211	0.79	556	3.1	36	33	64
Sample std. dev.	3194	0.5	17	40	0.6	3606	10	12	481	4974	58	1163	50	0.23	511	2.4	12	5	37
CV (std. dev./mean)	25%	82%	77%	48%	68%	54%	26%	53%	61%	25%	80%	33%	23%	28%	71%	63%	31%	17%	51%
Lower CI of the mean	12206	0.6	20	80	0.8	6330	38	22	729	19402	66	3448	211	0.78	666	3.6	36	32	68
Upper CI of the mean	12951	0.7	24	89	0.9	7170	40	25	841	20561	79	3719	223	0.83	786	4.2	39	34	77
Kurtosis	0.2	19.2	4.0	5.7	3.2	18.4	1.9	0.6	1.1	1.1	2.8	14.3	0.1	13.7	2.0	1.7	1.7	-0.7	0.9
Skewness	0.7	3.6	1.7	1.8	1.5	3.1	0.9	0.9	0.9	0.8	1.5	2.9	0.4	3.9	1.3	1.1	0.6	0.1	1.0
10 to 20 cm Urban Soil in Copper Cliff, n = 286																			
Minimum	5400	0.4	2.5	17	0.4	1700	15	5	25	9400	6	2000	110	0.75	37	0.5	11	19	16
10th percentile	8650	0.4	7	48	0.4	3400	26	9	170	14000	13	2450	150	0.75	195	0.5	24	26	30
1st quartile	10000	0.4	11	60	0.4	4200	30	13	310	16000	29	2800	180	0.75	320	2.0	29	29	41
Median	12000	0.4	19	83	0.4	5500	36	19	560	19000	61	3300	210	0.75	545	3.0	37	33	59
3rd quartile	15000	1.1	32	120	0.9	6900	44	26	820	22000	120	3900	260	0.75	770	4.0	46	37	89
95th percentile	18000	1.9	56	168	1.3	9950	51	37	1300	27000	240	5500	320	1.58	1200	6.0	59	43	150
Maximum	23000	5.8	99	720	1.9	14000	85	46	2000	59000	610	8800	560	2.80	1900	11	95	54	310
Mean	12403	0.8	24	94	0.6	5784	37	20	596	19529	87	3487	222	0.83	588	2.8	38	33	72
Geometric mean	11999	0.6	18	84	0.5	5387	36	18	479	18957	56	3364	215	0.80	480	2.3	36	33	61
Sample std. dev.	3180	0.7	17	55	0.3	2223	9	9	356	5124	84	1018	60	0.31	343	1.7	12	6	45
CV (std. dev./mean)	25%	85%	70%	58%	55%	39%	25%	45%	60%	26%	97%	29%	27%	37%	58%	61%	32%	17%	63%
Lower CI of the mean	12033	0.7	22	87	0.6	5524	36	19	555	18932	77	3369	215	0.79	548	2.6	37	33	66
Upper CI of the mean	12774	0.9	26	100	0.6	6043	38	21	638	20127	97	3606	229	0.87	628	3	40	34	77
Kurtosis	0.0	14.2	1.9	59.6	1.0	1.6	1.6	-0.4	0.7	14.8	7.5	4.7	3.0	17.1	0.9	2.1	1.9	-0.2	6.1
Skewness	0.5	3.0	1.3	5.6	1.4	1.1	0.5	0.6	0.8	2.3	2.2	1.7	1.0	4.1	0.9	1.0	0.8	0.2	2.1

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.6.2: Summary Statistics for All 0 - 5 cm Urban Soil Samples in Copper Cliff by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 0 to 5 cm		n = 266																	
Minimum	6200	0.4	2.5	28	0.4	2600	20	6	65	1100	10	2000	110	0.7	71	0.5	16	17	23
10th percentile	8700	0.4	6.5	45	0.4	4450	29	13	395	14000	30	2600	160	0.8	320	2.0	23	25	44
1st quartile	9600	0.4	10	53	0.9	5700	33	18	690	16000	43	3200	180	0.8	530	4.0	31	28	56
Median	11000	0.4	15	68	1.4	7550	38	29	1200	19000	70	3800	210	0.8	885	6.0	39	31	80
3rd quartile	13000	0.4	23	91	2.2	11000	46	42	2000	23000	120	4400	230	1.6	1300	11	44	34	130
95th percentile	15000	1.0	44	128	3.4	21000	60	75	3075	32750	220	8000	270	2.4	2375	16	52	38	188
Maximum	19000	2.2	72	180	5.2	82000	93	100	5600	49000	410	17000	450	3.8	3200	49	71	51	250
Mean	11227	0.5	18	74	1.6	9629	40	33	1440	2051	91	4282	208	1.2	1017	7.8	38	31	95
Geometric mean	11027	0.5	15	70	1.3	8083	39	28	1105	19667	71	3957	204	1.0	803	5.8	36	31	83
Sample std. dev.	2136	0.3	12	28	1.0	8183	11	20	994	6286	70	2108	41	0.6	658	6.1	10	5	48
CV (std. dev./mean)	19%	54%	67%	38%	61%	85%	28%	60%	69%	31%	77%	49%	20%	55%	65%	78%	26%	15%	51%
Lower CI of the mean	10968	0.5	17	71	1.5	8640	39	31	1320	19755	82	4027	203	1.1	937	7.1	36	30	89
Upper CI of the mean	11485	0.5	20	78	1.7	10619	42	36	1560	21275	99	4537	213	1.2	1096	8.5	39	32	101
Kurtosis	0.3	14.8	1.6	1.6	0.1	42.6	3.8	0.9	2.3	1.4	5.1	12.5	4.2	2.2	0.7	10.7	0.2	0.8	0.2
Skewness	0.5	3.6	1.3	1.2	0.7	5.5	1.5	1.1	1.3	1.1	2.0	3.1	0.8	1.6	1.0	2.4	0.0	0.1	0.9
Schools 0 to 5 cm		n = 6																	
Minimum	7400	0.4	6	32	0.4	7000	20	11	250	13000	11	4100	98	0.8	250	1.0	20	16	26
Median	9550	0.4	26	79	2.6	11500	31	50	1800	24500	71	4750	180	0.8	1600	6.0	40	28	44
Maximum	11000	0.4	37	110	3.1	27000	54	80	2900	34000	100	5500	250	1.6	2500	12	60	33	110
Mean	9500	0.4	22	70	2.0	14167	35	47	1587	23167	60	4750	178	0.9	1452	5.7	41	25	60
Geometric mean	9406	0.4	17	64	1.5	12418	33	35	1078	21654	42	4730	169	0.9	1006	3.9	38	24	50
Sample std. dev.	1311	0.0	12	27	1.2	7403	12	28	1021	7946	38	443	53	0.3	924	3.9	14	7	36
CV (std. dev./mean)	15%	0%	60%	43%	63%	57%	39%	66%	70%	38%	69%	10%	33%	39%	70%	75%	39%	29%	66%
Lower CI of the mean	7992	0.4	8	39	0.7	5655	21	14	413	14031	17	4241	117	0.5	389	1.2	24	17	19
Upper CI of the mean	11008	0.4	36	102	3.4	22678	49	79	2760	32302	103	5259	239	1.3	2514	10	57	32	102
Kurtosis	-1.2		-1.8	-1.2	-1.9	-0.6	-1.4	-1.9	-1.8	-1.7	-2.4	0.3	-1.3	6.0	-1.9	-0.8	-1.5	-1.7	-1.9
Skewness	-0.3		-0.5	-0.3	-0.8	0.9	0.6	-0.2	-0.3	-0.2	-0.4	0.3	-0.2	2.4	-0.3	0.3	0.1	-0.6	0.8
Parks 0 to 5 cm	n = 18																		
Minimum	7300	0.4	2.5	34	0.4	2700	25	9	250	1300	13	2400	150	0.75	205	1.0	17	24	24
10th percentile	7960	0.4	6	38	0.4	4140	28	11	314	13000	16	2610	177	0.75	254	1	30	25	29
1st quartile	9100	0.4	7.0	40	0.4	4300	29	12	350	13000	17	3000	180	0.75	300	1.5	35	27	30
Median	9950	0.4	8.0	56	0.4	6050	37	17	610	17500	25	3600	195	0.75	455	2.5	39	30	43
3rd quartile	11000	0.4	14	70	1.4	8900	43	22	990	25000	37	4000	240	0.75	620	6.0	43	34	55
95th percentile	13000	1.0	55	81	3.7	18600	56	94	4260	31350	122	4625	265	2.4	3017	21	47	36	142
Maximum	13000	1.1	63	90	4.0	22000	64	100	4600	39000	130	5900	290	3.4	3649	22	49	36	150
Mean	10150	0.5	16	57	1.2	7622	38	32	1274	19500	45	3611	207	0.98	959	5.4	39	31	56
Geometric mean	9998	0.5	11	55	0.8	6506	37	22	764	18312	32	3520	204	0.87	593	3.2	38	30	47
Sample std. dev.	1756	0.2	17	16	1.2	4938	10	31	1430	7396	42	833	36	0.67	1076	6.4	8	4	38
CV (std. dev./mean)	18%	48%	110%	29%	105	67%	27%	101	115%	39%	95%	24%	18%	71%	116%	121	20%	14%	69%
Lower CI of the mean	9251	0.4	7.1	49	0.6	5095	33	16	542	15716	24	3185	189	0.63	408	2.2	35	28	37
Upper CI of the mean	11049	0.6	24	66	1.8	10149	43	48	2006	23284	67	4037	225	1.32	1509	8.7	42	33	76
Kurtosis	-0.8	2.2	3.5	-1.0	0.6	3.4	0.6	0.3	0.7	0.8	0.0	1.7	-0.1	9.6	1	2.7	2.2	-2	1.4
Skewness	0.2	2.0	2.1	0.3	1.4	1.9	0.9	1.5	1.5	1.2	1.4	0.8	0.7	3.1	1.6	1.9	-1	0	1.6

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.6.3: Summary Statistics for All 5 - 10 cm Urban Soil Samples in Copper Cliff by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 5 to 10 cm				n = 268															
Minimum	6900	0.4	2.5	28	0.4	2100	20	5	58	8100	8	1700	84	0.8	54	0.5	11	20	21
10th percentile	9100	0.4	7	45	0.4	3700	28	12	287	15000	21	2500	160	0.8	257	2.0	22	26	37
1st quartile	10000	0.4	11	59	0.4	4400	31	15	510	16500	36	2900	180	0.8	400	2.0	30	29	48
Median	12000	0.4	18	79	0.8	6100	38	21	715	19000	57	3400	220	0.8	635	4.0	38	33	69
3rd quartile	15000	0.8	30	100	1.2	7950	46	32	1100	24000	100	3950	250	0.8	962	5.0	46	37	92
95th percentile	19000	1.6	52	140	2.0	13000	56	46	1700	28650	190	5565	317	1.6	1800	8.0	55	42	147
Maximum	25000	4.9	94	290	3.7	37000	90	70	2800	41000	330	12000	350	2.0	3100	14	90	46	210
Mean	12744	0.6	23	87	0.9	6815	39	24	821	20312	77	3591	219	0.8	757	4.1	38	33	75
Geometric mean	12360	0.5	18	79	0.7	6142	38	21	678	19738	58	3452	213	0.8	602	3.4	36	33	67
Sample std. dev.	3203	0.5	16	40	0.6	3675	10	12	472	4926	57	1165	50	0.2	505	2.3	12	5	36
CV (std. dev./mean)	25%	81%	70%	46%	67%	54%	25%	50%	58%	24%	75%	32%	23%	29%	67%	58%	31%	16%	48%
Lower CI of the mean	12358	0.6	21	82	0.8	6372	38	23	764	19719	70	3451	213	0.8	696	3.8	36	33	71
Upper CI of the mean	13130	0.7	25	92	0.9	7258	40	26	878	20906	84	3732	225	0.8	818	4.3	39	34	79
Kurtosis	0.1	21.5	3.1	5.8	2.9	18.0	1.9	0.7	1.2	1.2	2.7	15.2	0.1	12.6	2.1	1.6	1.6	-0.7	0.9
Skewness	0.7	3.8	1.5	1.9	1.5	3.1	0.9	1.0	1.0	0.7	1.5	3.0	0.4	3.7	1.3	1.1	0.6	0.1	1.0
Schools 5 to 10 cm		n = 4																	
Minimum	13000	1.4	65	76	1.1	8800	33	38	940	19000	33	3300	190	0.8	1100	4.0	41	31	51
Median	14000	1.6	72	82	1.5	13050	39	41	1040	19500	38	3350	205	0.8	1350	6.5	43	34	62
Maximum	15000	1.8	94	97	2.4	17000	45	46	1300	24000	55	3700	270	0.8	1900	9.0	44	34	68
Mean	14000	1.6	76	84	1.6	12975	39	41	1080	20500	41	3425	218	0.8	1425	6.5	43	33	61
Parks 5 to 10 cm		n = 18																	
Minimum	8100	0.4	2.5	30	0.4	3300	25	5	26	12000	7	2300	150	0.8	40	0.5	23	25	18
10th percentile	8410	0.4	2.5	32	0.4	3470	26	6	74	12000	9	2440	160	0.8	79	0.5	26	26	23
1st quartile	8600	0.4	2.5	36	0.4	4000	26	8	170	13000	10	2600	160	0.8	130	1.0	31	26	26
Median	9700	0.4	6	44	0.4	4900	31	9	190	15000	11	3100	175	0.8	157	1.0	35	29	28
3rd quartile	11000	0.4	7	59	0.4	7100	34	10	210	17000	11	3700	210	0.8	178	1.0	43	32	32
95th percentile	13150	1.9	92	66	0.9	9575	36	49	919	19150	45	5800	225	0.8	1221	2.8	47	34	56
Maximum	14000	2.6	101	69	1.1	10000	36	50	970	20000	50	5800	250	0.8	1339	13	50	34	56
Mean	10106	0.7	15	46	0.5	5778	30	13	250	15056	14	3461	185	0.8	266	1.6	36	29	31
Geometric mean	9977	0.5	6	44	0.4	5418	30	10	177	14864	12	3303	183	0.8	168	1.0	35	29	30
Sample std. dev.	1670	0.6	29	13	0.2	2134	4	13	251	2437	12	1129	28	0.0	358	2.8	8	3	10
CV (std. dev./mean)	17%	97%	191%	28%	42%	38%	14%	104	17%	84%	34%	15%	0%	138%	184%	22%	11%	33%	
Lower CI of the mean	9251	0.4	0.8	40	0.4	4686	28	6	122	13808	8	2883	171	0.8	83	0.1	32	28	26
Upper CI of the mean	10960	1.0	30	53	0.6	6870	32	20	379	16303	20	4039	199	0.8	449	3.0	40	31	36
Kurtosis	0.0	3.9	6.0	-1.1	7.3	-0.6	-1.8	5.7	5.1	-0.9	6.1	0.2	-0.3		5.9	17.8	-0.8	-1.4	3.1
Skewness	0.9	2.2	2.7	0.6	2.9	0.8	0.0	2.6	2.4	0.5	2.7	1.2	0.8		2.7	4.2	0.1	0.3	1.7

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.1.6.4: Summary Statistics for All 10 - 20 cm Urban Soil Samples in Copper Cliff by Land Use

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Residential 10 to 20 cm				n = 264															
Minimum	5800	0.4	2.5	30	0.4	1700	19	6	68	11000	6	2000	110	0.8	96	0.5	11	19	16
10th percentile	8900	0.4	8	51	0.4	3500	26	10	223	14000	20	2500	160	0.8	230	1.0	23	26	36
1st quartile	10000	0.4	12	64	0.4	4300	31	14	365	17000	34	2800	180	0.8	360	2.0	30	29	45
Median	12000	0.4	19	87	0.4	5600	37	20	590	19500	68	3300	215	0.8	570	3.0	38	34	63
3rd quartile	15000	1.1	33	120	0.9	7000	44	27	845	22000	120	3900	260	0.8	800	4.0	46	38	91
95th percentile	18000	2.0	56	170	1.3	10850	51	38	1300	27000	240	5500	320	1.5	1200	6.0	59	43	167
Maximum	23000	5.8	99	720	1.9	14000	85	46	2000	59000	610	8800	560	2.8	1900	11.0	95	54	310
Mean	12552	0.8	24	97	0.6	5904	38	21	630	19871	93	3522	225	0.8	619	3.0	39	34	75
Geometric mean	12164	0.6	19	87	0.6	5500	37	19	528	19319	65	3398	217	0.8	527	2.4	37	33	65
Sample std. dev.	3133	0.7	16	55	0.3	2251	9	9	348	5109	85	1026	61	0.3	335	1.7	13	6	45
CV (std. dev./mean)	25%	85%	67%	57%	55%	38%	24%	42%	55%	26%	91%	29%	27%	35%	54%	57%	33%	17%	60%
Lower CI of the mean	12172	0.7	22	90	0.6	5631	37	20	588	19251	83	3397	218	0.8	579	2.8	37	33	70
Upper CI of the mean	12933	0.9	26	104	0.7	6177	39	22	672	20491	104	3647	232	0.9	660	3.2	40	34	81
Kurtosis	0.1	13.3	2.2	60.1	0.7	1.4	1.8	-0.4	0.8	15.6	7.4	4.7	2.9	20.6	1.0	2.3	1.8	-0.1	6.0
Skewness	0.5	2.9	1.3	5.7	1.3	1.0	0.6	0.5	0.8	2.5	2.2	1.8	1.0	4.4	0.9	1.1	0.7	0.2	2.1
Schools 10 to 20 cm		n = 4																	
Minimum	9100	0.4	35	36	0.4	3300	15	11	190	12000	7	2100	130	0.8	250	1.0	27	22	19
Median	9900	1.0	40	50	0.4	4550	25	15	225	13500	11	2450	160	0.8	315	2.0	29	27	27
Maximum	11000	1.1	52	63	1.1	6800	28	23	540	16000	19	2700	170	0.8	710	4.0	33	28	30
Mean	9975	0.9	42	50	0.6	4800	23	16	295	13750	12	2425	155	0.8	398	2.3	30	26	26
Parks 10 to 20 cm		n = 18																	
Minimum	5400	0.4	2.5	17	0.4	2600	20	5	25	9400	6	2000	140	0.8	37	0.5	23	21	17
10th percentile	7480	0.4	2.5	33	0.4	2980	23	7	51	12000	7	2200	150	0.8	45	0.5	26	25	21
1st quartile	8100	0.4	2.5	40	0.4	3400	25	7	100	13000	8	2500	170	0.8	86	0.5	29	26	25
Median	10000	0.4	7	54	0.4	4100	32	9	135	15500	10	3150	195	0.8	141	0.5	33	31	27
3rd quartile	13000	0.4	13	72	0.4	5100	36	11	190	19000	13	3700	230	0.8	200	1.0	42	34	34
95th percentile	18150	0.5	37	100	0.4	5945	44	15	396	20150	28	4615	262	2.4	405	3.9	51	39	40
Maximum	19000	1.1	64	100	0.4	6200	45	18	540	21000	28	4700	270	2.4	600	6.0	52	42	42
Mean	10761	0.4	12	56	0.4	4239	31	10	167	15800	12	3217	199	1.0	171	1.3	35	30	29
Geometric mean	10238	0.4	7	51	0.4	4111	30	9	130	15441	11	3113	195	0.9	131	0.9	34	30	28
Sample std. dev.	3510	0.2	15	22	0.0	1040	7	3	121	3298	7	824	40	0.6	135	1.4	8	5	7
CV (std. dev./mean)	34%	38%	130%	40%	0%	25%	24%	33%	75%	21%	56%	26%	21%	58%	82%	114	19%	24%	
Lower CI of the mean	8965	0.4	4.3	45	0.4	3707	28	8	105	14112	9	2795	179	0.7	101	0.5	31	28	26
Upper CI of the mean	12557	0.5	20	67	0.4	4771	35	11	229	17488	16	3638	219	1.3	240	2.0	40	33	33
Kurtosis	0.7	18.0	6.4	0.1		-0.8	-0.8	1.3	4.1	-1.0	1.8	-0.8	-1.0	2.8	4.7	7.3	-0.5	-0.5	-0.7
Skewness	1.0	4.2	2.4	0.5		0.3	0.2	1.1	1.8	-0.1	1.6	0.4	0.3	2.1	2.0	2.6	0.6	0.4	0.3

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.2 Residential Garden Soil Summaries

Table 10.3.2.1: Summary Statistics for All 0 - 15 cm Residential Garden Soil from North Lively

n = 8	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	11000	0.4	2.5	60	0.4	7700	28	8	60	17000	28	4200	270	0.75	73	0.5	28	33	76
1st quartile	13000	0.4	2.5	76	0.4	8850	29	8	70	19500	33	4950	285	0.75	77	0.5	43	36	95
Median	14500	0.4	4.8	92	0.4	9950	33	8	101	21000	45	5900	310	0.75	111	0.5	49	39	97
3rd quartile	19500	0.6	8.0	115	0.4	12000	43	10	115	22500	87	6650	330	0.75	135	0.5	57	42	105
95th percentile	21650	1.0	8.7	127	0.7	13950	50	11	120	24300	104	6895	347	1.24	147	0.5	70	45	110
Maximum	22000	1.1	9.0	130	0.8	15000	50	11	120	25000	110	7000	350	1.50	150	0.5	72	46	110
Mean	15875	0.5	5.3	94	0.5	10538	36	9	94	21000	58	5775	309	0.84	109	0.5	50	39	97
Geometric mean	15450	0.5	4.5	92	0.4	10321	35	9	91	2086	51	5686	308	0.82	104	0.5	48	39	97
Sample std. dev.	3756	0.2	2.8	23	0.1	2205	8	1	23	2345	30	981	26	0.25	30	0.0	13	4	10
CV (std. dev./mean)	25%	50%	57%	26%	31%	22%	25%	13%	26%	12%	55%	18%	9%	31%	30%	0%	28%	11%	11%
Lower CI of the mean	12516	0.3	2.8	74	0.3	8566	28	8	73	18903	32	4898	285	0.62	82	0.5	38	35	88
Upper CI of the mean	19234	0.8	7.7	115	0.6	12509	43	10	115	23097	85	6652	332	1.07	135	0.5	61	43	106
Kurtosis	-1.2	2.3	-2.5	-1.1	8.0	0.6	-0.6	0.6	-1.7	-0.1	-1	-1.2	-1.0	8.0	-2.3		0.3	-1.1	1.9
Skewness	0.6	1.8	0.1	0.2	2.8	0.9	1.0	1.4	-0.4	0.0	0.7	-0.5	0.1	2.8	0.0		0.3	0.2	-1

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.2.2: Summary Statistics for All 0 - 15 cm Residential Garden Soil from Gatchell

n = 6	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	7200	0.4	2.5	54	0.4	3500	28	8	130	14000	21	2700	170	0.8	120	0.5	22	25	58
1st quartile	8100	0.4	5.0	68	0.4	5100	28	9	140	14000	23	3600	260	0.8	120	0.5	29	25	65
Median	9050	0.4	6.0	78	0.4	6350	28	12	230	15000	69	3900	290	0.8	225	0.8	32	27	81
3rd quartile	10000	1.0	11	120	0.4	12000	35	12	260	16000	88	4300	400	0.8	270	1.0	52	28	170
95th percentile	10000	1.0	12	128	0.4	12750	51	14	395	16000	120	4375	415	0.8	293	1.0	52	28	178
Maximum	10000	1.0	12	130	0.4	13000	56	15	440	16000	130	4400	420	0.8	300	1.0	52	28	180
Mean	8900	0.6	7.1	88	0.4	7717	34	11	238	15000	67	3800	305	0.8	210	0.8	36	27	106
Geometric mean	8828	0.5	6.2	84	0.4	6937	33	11	219	14967	54	3752	292	0.8	197	0.7	35	26	95
Sample std. dev.	1114	0.3	3.3	28	0.0	3541	10	2	103	1000	39	572	85	0.0	72	0.3	12	2	50
CV (std. dev./mean)	14%	52%	52%	35%	0%	50%	33%	22%	47%	7%	64%	16%	30%	0%	37%	37%	35%	6%	52%
Lower CI of the mean	7620	0.3	3.2	56	0.4	3646	22	9	120	13850	22	3143	208	0.8	128	0.5	23	25	49
Upper CI of the mean	10180	0.9	10.9	120	0.4	11788	46	14	357	16150	111	4457	402	0.8	292	1.0	50	28	163
Kurtosis	-2.2	-1.9	-1.3	-1.6		-1.6	4.6	0.0	1.9	-3.3	-1.0	1.3	-0.7		-2.3	-3.3	-1.7	-3.3	-1.8
Skewness	-0.3	1.0	0.4	0.6		0.6	2.1	0.3	1.3	0.0	0.4	-1.2	-0.1		-0.2	0.0	0.6	0.0	0.8

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.2.3: Summary Statistics for All 0 - 15 cm Residential Garden Soil from Coniston

n = 29	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5500	0.4	2.5	33	0.4	2600	20	6	19	8900	4	1900	84	0.75	39	0.5	25	18	30
10th percentile	7400	0.4	2.5	53	0.4	6320	23	6	54	12000	11	2780	190	0.75	61	0.5	34	21	33
1st quartile	8700	0.4	2.5	56	0.4	7300	27	7	60	14000	13	3050	225	0.75	84	0.5	39	26	46
Median	11000	0.4	6.0	72	0.4	8900	31	9	100	15000	22	3700	250	0.75	130	0.5	42	30	64
3rd quartile	13000	0.4	12	88	0.4	12500	34	15	245	17000	36	4050	280	0.75	315	0.5	48	34	105
95th percentile	13000	0.4	18	110	0.4	19000	39	22	352	18000	108	5840	300	0.75	508	1.4	53	37	186
Maximum	14000	0.4	19	120	0.8	24000	40	24	400	20000	170	6600	320	0.75	570	2.0	54	38	210
Mean	10490	0.4	7.4	74	0.4	10134	30	11	142	15100	33	3693	244	0.75	190	0.6	42	29	83
Geometric mean	10232	0.4	5.7	70	0.4	9114	30	10	106	14853	23	3560	235	0.75	140	0.6	41	29	71
Sample std. dev.	2214	0.0	5.1	22	0.1	4651	5	5	107	2573	36	1030	54	0.00	155	0.4	7	5	49
CV (std. dev./mean)	21%	0%	70%	30%	18%	47%	18%	47%	77%	17%	111	28%	22%	0%	83%	64%	18%	18%	61%
Lower CI of the mean	9633	0.4	5.4	65	0.4	8334	28	9	101	14104	19	3295	223	0.75	131	0.5	39	27	64
Upper CI of the mean	11347	0.4	9.3	82	0.4	11935	32	13	184	16096	47	4092	265	0.75	250	0.8	45	31	102
Kurtosis	-0.7		-0.3	-0.4	29.0	2.0	-0.3	0.8	-0.1	0.5	8.5	2.8	3.2		0.3	12	0.2	-0.4	0.8
Skewness	-0.4		0.8	0.3	5.4	1.2	-0.2	1.3	1.0	-0.7	2.9	1.2	-1.6		1.2	3.6	-0.5	-0.5	1.2

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.2.4: Summary Statistics for All 0 - 15 cm Residential Garden Soil from Falconbridge

n = 9	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	7300	0.4	6	32	0.4	2200	21	8	45	8700	7	1600	96	0.75	60	0.5	18	20	23
1st quartile	7600	0.4	11	35	0.4	3400	23	11	98	11300	13	1850	115	0.75	136	0.5	23	23	32
Median	8000	0.4	26	48	0.4	5600	28	22	360	14000	34	2400	160	0.75	360	0.5	30	25	45
3rd quartile	9600	0.4	115	63	1.7	9950	46	49	895	22500	108	2950	190	0.75	1030	2.0	36	29	112
95th percentile	10440	1.0	288	79	2.4	17400	66	65	1460	32600	192	4280	206	2.42	1280	5.4	42	33	146
Maximum	11000	1.2	400	88	2.8	21000	77	73	1700	37000	240	4800	210	2.50	1400	7.0	45	35	150
Mean	8600	0.5	88	51	1.1	7544	36	31	551	17367	70	2567	155	1.12	581	1.8	30	26	69
Geometric mean	8523	0.5	38	49	0.8	5939	33	23	302	15695	38	2422	150	0.97	355	1.1	29	26	56
Sample std. dev.	1179	0.3	118	17	0.8	5560	17	22	523	8495	72	949	39	0.69	468	2.0	8	4	45
CV (std. dev./mean)	15%	53%	142%	35%	82%	78%	50%	74%	101%	52%	110	39%	27%	65%	85%	117	29%	18%	69%
Lower CI of the mean	7638	0.3	-8	38	0.4	3011	22	13	125	10441	11	1793	123	0.56	200	0.2	23	22	33
Upper CI of the mean	9562	0.8	185	65	1.8	12078	50	48	977	24292	128	3340	187	1.68	963	3.5	37	30	106
Kurtosis	0.0	4.0	5.9	1.0	-0.5	3.2	2.6	-0.4	1.1	2.1	2.5	2.6	-1.3	0.87	-1.4	4.6	-0.2	0.4	-0.6
Skewness	0.9	2.1	2.3	1.0	0.9	1.7	1.6	0.8	1.2	1.5	1.6	1.6	-0.2	1.64	0.5	2.1	0.2	0.9	0.9

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.2.5: Summary Statistics for All 0 - 15 cm Residential Garden Soil from Copper Cliff

n = 21	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	7700	0.4	2.5	38	0.4	5000	19	7	140	8600	16	2400	120	0.75	130	0.5	35	16	32
10th percentile	9200	0.4	7.0	43	0.4	6300	26	8	230	12000	19	3000	160	0.75	200	1.0	37	22	40
1st quartile	10000	0.4	8.0	63	0.4	6800	27	11	280	13000	20	3200	180	0.75	275	1.5	39	25	43
Median	11000	0.4	16	77	0.4	8600	31	18	470	17000	69	3800	220	0.75	430	2.0	43	28	84
3rd quartile	12000	0.9	28	100	1.0	16000	35	21	700	19000	145	6000	240	0.75	615	3.0	48	31	130
95th percentile	13000	1.4	38	270	1.9	34000	43	23	820	2100	530	7100	670	1.70	800	12	130	35	330
Maximum	13000	1.5	58	330	3.8	38000	64	110	5100	3300	640	7100	780	3.7	3700	36	160	38	380
Mean	11024	0.7	19	97	0.9	12681	32	20	682	1687	125	4462	264	0.94	578	5	53	28	114
Geometric mean	10913	0.6	14	82	0.7	10661	31	16	461	1618	66	4212	234	0.84	416	2	48	27	89
Sample std. dev.	1503	0.4	14	71	0.8	8661	9	21	1008	4972	165	1519	159	0.65	723	7.6	31	5	90
CV (std. dev./mean)	14%	53%	74%	75%	91%	70%	29%	104	151%	30%	136	35%	62%	71%	128%	171	60%	20%	81%
Lower CI of the mean	10323	0.5	12	64	0.5	8641	28	11	212	14552	48	3754	190	0.63	241	1.0	38	25	72
Upper CI of the mean	11725	0.9	25	130	1.3	16721	37	30	1153	19190	202	5170	338	1.24	916	8.1	67	30	156
Kurtosis	0.1	-0.3	1.7	6.0	8.3	3.4	6.3	17.9	19.1	4.4	4.6	-1.3	6.0	16.6	17.8	14.4	8.2	0.6	3.5
Skewness	-0.7	0.9	1.3	2.5	2.6	1.9	1.9	4.1	4.3	1.2	2.3	0.5	2.5	4.0	4.1	3.6	3.0	-0.7	1.9

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.3 Sand, Gravel, and Undisturbed Natural Soil Summaries

10.3.3.1 Play and Beach Sand Summaries

Table 10.3.3.1.1: Summary Statistics for All 0 - 15 cm Play Sand Samples in the City of Greater Sudbury.

n = 550	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	2700	0.4	2.5	10	0.4	1500	11	3	6	6200	2	1400	70	0.75	11	0.5	10	7	9
10th percentile	4600	0.4	2.5	17	0.4	2190	22	5	14	11000	2	2700	150	0.75	19	0.5	16	24	16
1st quartile	5300	0.4	2.5	20	0.4	2500	25	6	18	13000	3	3000	160	0.75	22	0.5	18	27	18
Median	6350	0.4	2.5	24	0.4	2900	28	8	26	15000	4	3700	180	0.75	27	0.5	23	32	23
3rd quartile	7700	0.4	2.5	31	0.4	3400	33	9	38	17000	6	4200	220	0.75	35	0.5	27	36	28
95th percentile	10000	0.4	6.0	43	0.4	4400	46	11	58	23000	8	5345	290	0.75	58	1.0	37	51	38
Maximum	13000	2.3	34	67	0.8	12000	59	22	210	27000	82	7200	370	4.10	680	2.0	47	62	110
Mean	6613	0.4	3.1	26	0.4	3003	30	8	32	15380	5	3693	194	0.77	36	0.5	23	33	24
Geometric mean	6396	0.4	2.8	25	0.4	2900	29	7	27	14965	4	3588	189	0.76	30	0.5	22	32	23
Sample std. dev.	1735	0.1	2.7	9	0.0	910	8	2	25	3630	5	895	47	0.18	45	0.2	7	9	9
CV (std. dev./mean)	26%	28%	86%	34%	4%	30%	26%	31%	78%	24%	91%	24%	24%	24%	123%	29%	29%	27%	37%
Lower CI of the mean	6467	0.4	2.9	25	0.4	2927	29	8	30	15076	5	3618	190	0.75	32	0.5	23	32	23
Upper CI of the mean	6758	0.4	3.3	27	0.4	3080	31	8	34	15685	5	3768	198	0.78	40	0.6	24	34	25
Kurtosis	0.3	174.2	77.4	1.7	550	1.4	4.6	19.6	0.3	151.0	1.1	0.9	211	29.7	0.7	1.0	20.0		
Skewness	0.7	12.7	7.9	1.2	23.5	3.5	1.1	1.4	3.7	0.6	10.0	0.7	1.0	13.4	8.8	4.8	0.8	0.8	2.8

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.3.1.2: Summary Statistics for All 0 - 15 cm Beach Sand Samples in the City of Greater Sudbury

n = 42	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4100	0.4	2.5	14	0.4	1300	18	4	7	10000	3	2200	140	0.75	14	0.5	10	18	10
10th percentile	4920	0.4	2.5	17	0.4	2210	23	7	21	12000	4	2720	170	0.75	29	0.5	17	23	16
1st quartile	5200	0.4	2.5	19	0.4	2600	24	8	23	13000	4	3100	180	0.75	32	0.5	19	28	18
Median	6050	0.4	2.5	24	0.4	3000	30	9	29	15000	5	3550	190	0.75	38	0.5	24	31	23
3rd quartile	7300	0.4	2.5	27	0.4	3600	32	9	36	17000	6	4000	210	0.75	63	0.5	29	34	26
95th percentile	8980	0.4	2.5	35	0.4	4255	35	9	31	18000	6	4185	250	0.75	40	1.0	38	40	29
Maximum	1200	2.2	10	74	0.4	4600	39	12	130	19000	21	4500	250	0.75	170	1.0	39	40	39
Mean	6674	0.4	3.1	27	0.4	3093	29	9	36	15048	6	3517	197	0.75	49	0.6	25	31	23
Geometric mean	6454	0.4	2.9	24	0.4	3010	28	8	30	14841	5	3462	195	0.75	43	0.6	23	30	22
Sample std. dev.	1850	0.3	1.7	13	0	690	5	2	24	2430	4	600	28	0.0	28	0.2	7	5	6
CV (std. dev./mean)	28%	63%	54%	51%	0%	23%	17%	21%	69%	16%	64%	17%	14%	0%	58%	31%	29%	16%	29%
Lower CI of the mean	6090	0.4	2.6	22	0.4	2875	27	8	28	14281	5	3328	189	0.75	40	0.5	22	29	21
Upper CI of the mean	7257	0.5	3.7	31	0.4	3310	30	9	43	1581	7	3706	206	0.75	58	0.6	27	32	25
Kurtosis	1.6	42.0	7.1	5.3		0.0	-0.6	1.8	7.0	-0.7	5.7	-0.7	-0.3		6.5	2.6	-0.5	0.1	0.1
Skewness	1.3	6.5	2.7	2.3		0.0	0.1	-1.0	2.4	-0.2	2.4	-0.4	0.3		2.1	2.1	0.2	-0.4	0.4

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.3.2 Crushed Stone and Playground Gravel Summaries

Table 10.3.3.2.1: Summary Statistics for All 0 - 15 cm Playground Gravel Samples in the City of Greater Sudbury

n = 265	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4100	0.4	2.5	17	0.4	2000	17	3	11	8200	2	2100	120	0.75	17	0.5	10	11	10
10th percentile	5800	0.4	2.5	25	0.4	2700	22	5	17	11000	4	3200	160	0.75	25	0.5	20	23	17
1st quartile	6600	0.4	2.5	28	0.4	3400	25	6	26	13000	6	3800	170	0.75	34	0.5	26	26	22
Median	7800	0.4	2.5	34	0.4	4400	29	9	45	15000	8	4800	200	0.75	55	0.5	34	29	29
3rd quartile	9200	0.4	5.0	43	0.4	11000	34	12	83	18000	12	6100	230	0.75	93	0.5	69	33	37
95th percentile	12000	0.4	8.0	68	0.4	69000	43	22	197	23000	20	15000	280	1.97	190	1.0	240	42	58
Maximum	26000	1.5	17	200	1.0	250000	90	33	670	43000	32	26000	510	4.30	370	2.0	340	73	200
Mean	8171	0.4	3.7	39	0.4	14363	30	10	67	15688	10	6005	204	0.87	75	0.6	63	30	32
Geometric mean	7873	0.4	3.2	36	0.4	6551	29	9	48	15159	8	5227	200	0.82	58	0.5	44	29	29
Sample std. dev.	2559	0.1	2.5	20	0.0	33081	8	5	68	4430	5	4042	49	0.44	62	0.2	66	8	19
CV (std. dev./mean)	31%	33%	68%	52%	11%	231%	27%	55%	102	28%	54%	67%	24%	51%	82%	36%	106	27%	59%
Lower CI of the mean	7861	0.4	3.4	36	0.4	10354	29	9	59	15151	9	5515	198	0.82	67	0.5	55	29	30
Upper CI of the mean	8481	0.4	4.0	41	0.4	18371	31	11	75	16225	10	6495	210	0.93	82	0.6	71	31	34
Kurtosis	14.8	34.8	8.7	32.3	150.	26.8	17.3	3.7	24.0	9.0	2.4	8.4	8.5	20.5	5.9	24.0	4.7	8.7	30.2
Skewness	2.9	5.8	2.7	4.7	12.1	4.9	2.9	1.8	3.7	2.0	1.4	2.8	2.1	4.2	2.2	4.4	2.3	2.0	4.5

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.3.2.2: Summary Statistics for All 0 - 15 cm Baseball Infield Crushed Stone Samples in the City of Greater Sudbury

n = 157	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4100	0.4	2.5	17	0.4	2000	17	3	11	8200	2	2100	120	0.75	17	0.5	15	11	10
10th percentile	5770	0.4	2.5	25	0.4	3270	21	5	15	10000	4	3100	150	0.75	23	0.5	26	20	15
1st quartile	6800	0.4	2.5	29	0.4	4600	24	5	20	12000	5	3700	160	0.75	28	0.5	37	24	19
Median	8000	0.4	2.5	36	0.4	8700	27	6	28	13500	6	5400	190	0.75	38	0.5	56	27	25
3rd quartile	9400	0.4	2.5	47	0.4	15000	30	9	51	15000	9	7500	220	0.75	64	0.5	110	30	30
95th percentile	12000	0.4	8.0	68	0.4	131450	36	11	101	19000	13	18150	270	2.11	140	1.0	270	36	34
Maximum	26000	1.5	17	200	1.0	250000	43	20	300	27000	32	26000	510	3.20	370	2.0	340	68	200
Mean	8366	0.4	3.5	42	0.4	21618	28	7	48	13932	8	6861	199	0.92	59	0.6	88	27	28
Geometric mean	8038	0.4	3.1	38	0.4	10081	27	7	34	13588	7	5722	194	0.85	46	0.5	64	27	25
Sample std. dev.	2708	0.2	2.7	23	0.0	41273	5	3	53	3256	5	4894	50	0.48	58	0.2	76	7	20
CV (std. dev./mean)	32%	36%	78%	55%	12%	192%	20%	41%	111	23%	59%	72%	25%	53%	97%	33%	87%	26%	73%
Lower CI of the mean	7940	0.4	3.1	38	0.4	15112	27	7	39	13419	7	6089	191	0.85	50	0.5	76	26	25
Upper CI of the mean	8793	0.5	4.0	45	0.4	28124	28	8	56	14446	9	7632	207	1.00	69	0.6	100	29	31
Kurtosis	15.2	24.7	11.1	27.4	158.	14.9	0.0	2.5	9.7	1.9	7.3	4.2	12.2	7.54	12.0	25.7	1.6	10.6	39.7
Skewness	2.9	4.9	3.3	4.4	12.6	3.8	0.6	1.5	3.0	1.1	2.3	2.1	2.6	2.85	3.1	4.4	1.6	2.0	5.6

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.3.3 Undisturbed Natural Soil Summaries

Table 10.3.3.3.1: Summary Statistics for Undisturbed Natural Soil Samples from All Sampling Locations in the City of Greater Sudbury.

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
0 to 5 cm Undisturbed Natural Soil,				n = 14															
Minimum	5200	0.4	6.0	67	0.4	1700	19	7	78	14000	8	1100	130	0.75	110	0.5	18	17	31
10th percentile	8160	0.4	7.2	70	0.4	2230	21	13	120	14600	17	1260	140	0.75	157	0.5	26	24	34
1st quartile	9100	0.4	21	71	0.4	2300	25	18	280	16000	30	1500	150	0.75	380	1.0	31	24	36
Median	11000	0.4	25	82	0.9	2850	33	26	545	19000	53	2350	265	0.75	638	1.8	33	31	56
3rd quartile	15000	1.1	41	100	1.4	7400	42	48	940	30000	94	3400	410	0.75	1215	2.0	47	34	64
95th percentile	15350	3.6	59	134	2.7	19200	50	100	1605	46000	147	3935	625	1.29	3249	4.5	50	36	134
Maximum	16000	4.3	60	140	3	27000	51	100	1800	46000	156	4000	690	2.30	3284	5.5	51	36	140
Mean	11407	1.1	29	89	1.1	5943	34	37	660	23286	63	2443	322	0.86	983	1.9	36	29	61
Geometric mean	10951	0.7	23	87	0.8	3983	32	28	455	21406	47	2253	278	0.81	608	1.5	34	29	54
Sample std. dev.	3043	1.2	17	22	0.8	6803	10	29	519	10593	45	944	176	0.40	1004	1.4	10	5	33
CV (std. dev./mean)	28%	114%	59%	26%	78%	119%	30%	82%	82%	47%	75%	40%	57%	48%	106%	74%	28%	19%	56%
Lower CI of the mean	9584	0.4	19	76	0.6	1867	28	19	349	16939	36	1877	217	0.62	381	1.1	30	26	41
Upper CI of the mean	13230	1.7	39	103	1.6	10019	39	54	971	29633	90	3008	427	1.10	1584	2.7	41	32	80
Kurtosis	-0.5	4.2	-0.5	0.4	1.1	6.3	-0.8	1.3	0.1	0.9	-0.2	-1.1	-0.3	14	1.9	2.5	-0.7	0.3	2.0
Skewness	-0.2	2.2	0.5	1.2	1.3	2.5	0.3	1.5	1.0	1.4	0.9	0.3	0.9	3.7	1.7	1.5	0.3	-0.8	1.6
5 to 10 cm Undisturbed Natural Soil,				n = 14															
Minimum	6600	0.4	2.5	40	0.4	1200	20	5	41	10000	7	1500	110	0.75	68	0.5	16	20	21
10th percentile	8830	0.4	2.5	45	0.4	1830	24	7	61	13600	8	1690	123	0.75	76	0.5	26	24	31
1st quartile	13000	0.4	2.5	47	0.4	2100	28	8	64	15000	9	1900	160	0.75	81	0.5	28	28	38
Median	14500	0.4	7.0	79	0.4	2450	34	12	85	17000	12	2400	270	0.75	105	1.0	32	34	41
3rd quartile	17000	0.4	12	110	0.4	4400	48	15	240	19000	18	4100	340	0.75	145	1.0	49	40	48
95th percentile	21400	0.8	19	148	1.0	4835	59	27	484	23000	43	5255	504	0.75	588	2.0	56	43	96
Maximum	24000	1.6	23	180	1.0	4900	68	28	510	23000	47	6100	510	0.75	594	2.0	57	46	120
Mean	14750	0.5	8.9	85	0.5	2993	38	13	168	17286	18	3036	269	0.75	191	1.0	36	33	49
Geometric mean	13995	0.4	6.9	76	0.5	2758	36	12	119	16900	14	2750	238	0.75	139	0.9	34	33	45
Sample std. dev.	4521	0.3	6.1	40	0.2	1181	13	7	153	3554	13	1384	128	0.00	181	0.5	12	7	24
CV (std. dev./mean)	32%	66%	72%	49%	46%	41%	36%	53%	94%	21%	77%	47%	50%	0%	98%	52%	35%	23%	51%
Lower CI of the mean	12041	0.3	5.2	61	0.4	2285	30	9	77	15156	10	2207	192	0.75	83	0.7	28	29	34
Upper CI of the mean	17459	0.7	13	108	0.7	3701	46	17	260	19415	25	3865	345	0.75	300	1.3	43	38	63
Kurtosis	0.1	14.0	0.3	0.6	0.7	-1.3	-0.1	0.7	0.8	0.0	0.7	-0.4	-0.6		1.4	0.2	-0.6	-0.6	4.6
Skewness	0.1	3.7	1.0	0.9	1.6	0.4	0.7	1.1	1.4	0.0	1.5	0.8	0.6		1.7	1.0	0.6	-0.2	2
10 to 20 cm Undisturbed Natural Soil,				n = 14															
Minimum	10000	0.4	2.5	46	0.4	1700	28	6	22	14000	5	2300	110	0.75	52	0.5	23	28	24
10th percentile	12300	0.4	2.5	47	0.4	1930	31	7	24	16000	6	2360	130	0.75	52	0.5	25	29	34
1st quartile	14000	0.4	2.5	49	0.4	2100	32	9	28	16000	7	2500	140	0.75	54	0.5	28	31	38
Median	17000	0.4	2.5	62	0.4	2650	40	10	52	18500	8	3150	190	0.75	61	0.5	34	36	43
3rd quartile	20000	0.4	2.5	110	0.4	4100	50	11	68	20000	8	5000	290	0.75	84	1.0	51	41	56
95th percentile	23700	1.1	7.1	134	0.4	4435	58	12	89	21700	10	5715	331	0.75	98	1.0	55	46	68
Maximum	25000	1.4	9.0	140	0.4	4500	61	13	110	23000	12	6300	370	0.75	104	1.0	56	49	71
Mean	17071	0.5	3.5	80	0.4	2993	42	10	52	18357	8	3750	218	0.75	69	0.7	37	36	47
Geometric mean	16552	0.5	3.1	74	0.4	2830	41	9	47	18209	8	3543	203	0.75	66	0.7	36	36	45
Sample std. dev.	4183	0.3	2.0	33	0.0	996	10	2	24	2318	2	1277	81	0.00	18	0.2	11	6	13
CV (std. dev./mean)	25%	59%	59%	43%	0%	35%	25%	22%	48%	13%	21%	35%	39%	0%	27%	36%	32%	18%	29%
Lower CI of the mean	14565	0.3	2.3	60	0.4	2396	36	8	38	16968	7	2985	169	0.75	58	0.6	30	33	39
Upper CI of the mean	19578	0.7	4.6	100	0.4	3590	48	11	66	19746	9	4515	266	0.75	79	0.9	44	40	54
Kurtosis	-0.6	6.2	3.5	-1.4		-1.7	-0.8	-0.3	0.7	-0.2	3.1	-1.1	-1.3		-0.9	-2.2	-1.2	-0.8	-0.5
Skewness	0.3	2.6	2.1	0.6		0.3	0.5	-0.3	0.8	0.1	1.1	0.6	0.3		0.8	0.3	0.6	0.5	0.4

All concentrations in µg/g dry weight

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.4 Residential Vegetable Summaries

Table 10.3.4.1: Summary Statistics for All Residential Garden Vegetables Collected in the City of Greater Sudbury

n = 148	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	120	0.5	0.2	2	15	0.5	290	2	0.2	0.5	0.2	0.5	0.5	2
10th percentile	5	0.2	0.2	0.7	7.0	0.1	838	0.5	0.2	5	26	0.5	840	5	0.2	2.1	0.2	1.2	0.5	10
1st quartile	6	0.2	0.2	1.4	11	0.1	1400	0.5	0.2	6	40	0.5	1200	8	0.2	4.5	0.2	2.4	0.5	15
Median	18	0.2	0.2	5.1	18	0.2	2700	0.5	0.2	9	80	0.5	2150	13	0.5	8.8	0.2	7.4	0.5	27
3rd quartile	82	0.2	0.4	14	23	0.3	5450	0.8	0.4	18	145	1.5	3500	23	1.1	23	0.4	16	0.5	44
95th percentile	620	0.2	1.4	35	33	0.8	19000	2.4	1.9	64	1065	39	6265	88	4.4	54	3.0	43	1.6	89
Maximum	2000	0.4	9.0	60	45	2.0	31000	6.4	4.9	230	2800	260	13000	380	17.0	190	22	67	5.1	300
Mean	135	0.2	0.5	10	18	0.3	5382	0.9	0.5	18	217	7.1	2684	26	1.2	18	0.8	12	0.7	34
Geometric mean	28	0.2	0.3	4.5	16	0.2	2965	0.7	0.3	11	91	1.1	2061	15	0.6	9	0.3	6	0.6	25
Sample std. dev.	319	0.0	0.8	12	8.5	0.3	6309	0.9	0.6	28	435	27	2063	47	2.2	27	2.5	13	0.7	32
CV (std. dev./mean)	237%	11%	179%	125%	48%	116%	118%	107%	135%	157%	201%	383%	77%	183%	181%	146%	298%	111%	100%	95%
Lower CI of the mean	83	0.2	0.3	8	17	0.2	4354	0.7	0.4	13	146	3	2348	18	0.8	14	0.4	10	0.6	29
Upper CI of the mean	187	0.2	0.6	12	19	0.3	6411	1.0	0.6	23	288	11	3020	33	1.6	23	1.2	14	0.8	40
Kurtosis	17.1	54.6	76.3	4.9	0.1	13.7	3.1	17.3	17.7	26.8	17	56.3	6.1	40.1	24.4	20.3	47.1	2.5	21.7	30.2
Skewness	3.9	7.1	7.8	2.1	0.6	3.4	1.9	4.0	3.7	4.6	3.9	6.9	2	5.8	4.5	3.9	6.5	1.7	4.5	4.3

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.4.2: Summary Statistics for All Residential Garden Vegetables Collected in the City of Greater Sudbury, minus Root and Shoot >2.5 µg/g Lead

n = 136	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	120	0.5	0.2	2	15	0.5	290	2.2	0.2	0.5	0.2	0.5	0.5	2
10th percentile	5	0.2	0.2	0.6	7	0.1	830	0.5	0.2	4	26	0.5	815	5.1	0.2	2	0.2	1.2	0.5	9
1st quartile	6	0.2	0.2	1.4	11	0.1	1400	0.5	0.2	6	40	0.5	1200	7.5	0.2	4.5	0.2	2.3	0.5	15
Median	18	0.2	0.2	5.1	18	0.2	2500	0.5	0.2	8	74	0.5	2250	13	0.5	8.2	0.2	7.1	0.5	26
3rd quartile	82	0.2	0.4	12	23	0.3	6350	0.8	0.4	18	145	1.1	3600	25	1.1	22	0.4	16	0.5	44
95th percentile	668	0.2	1.4	38	33	0.9	19250	2.4	1.9	63	1100	5.4	6325	96	4.8	52	3.3	42	1.8	87
Maximum	2000	0.4	9.0	60	45	2	31000	6.4	4.9	230	2800	38	13000	380	17	180	22	67	5.1	300
Mean	143	0.2	0.5	9.9	18	0.3	5561	0.9	0.5	18	227	1.8	2726	27	1.3	17	0.9	12	0.7	34
Geometric mean	28	0.2	0.3	4.4	15	0.2	2972	0.7	0.3	10	91	0.8	2064	15	0.6	8.8	0.3	6.1	0.6	25
Sample std. dev.	332	0.0	0.9	13	9	0.3	6532	1.0	0.7	28	452	4.8	2129	49	2.2	23	2.6	13	0.7	33
CV (std. dev./mean)	233%	9%	184%	128%	49%	116%	118%	109%	137%	161%	200%	269%	78%	182%	180%	136%	292%	114%	101%	98%
Lower CI of the mean	87	0.2	0.3	7.8	16	0.2	4449	0.7	0.4	13	150	1.0	2363	19	0.9	13	0.5	9.4	0.6	29
Upper CI of the mean	199	0.2	0.6	12	19	0.3	6673	1.1	0.6	23	304	2.6	3088	35	1.6	21	1.3	14	0.8	40
Kurtosis	15.4	136.0	74.4	4.9	0.1	12.6	2.6	15.7	17.6	27.8	15.3	32.4	5.6	36.8	22.5	21.3	43.2	2.7	19.6	30
Skewness	3.8	11.7	7.8	2.2	0.6	3.3	1.8	3.8	3.7	4.7	3.8	5.5	1.9	5.6	4.3	3.9	6.2	1.7	4.3	4.3

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.4.3: Summary Statistics for All Residential Root Vegetables Collected in the City of Greater Sudbury, minus >2.5 µg/g Lead

n = 36	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	120	0.5	0.2	2.6	21	0.5	290	3.4	0.2	0.8	0.2	0.5	0.5	2
10th percentile	8	0.2	0.2	0.7	5.0	0.1	270	0.5	0.2	4.4	29	0.5	870	4.9	0.2	1.7	0.2	0.8	0.5	10
1st quartile	13	0.2	0.2	2.4	8.0	0.1	1300	0.5	0.2	5.5	36	0.5	1150	5.9	0.2	2.5	0.2	1.8	0.5	14
Median	28	0.2	0.2	6.3	14	0.1	1700	0.5	0.2	6.8	69	0.5	1400	8.3	0.2	5.2	0.2	5.9	0.5	17
3rd quartile	59	0.2	0.2	17	18	0.2	2350	0.5	0.2	8.9	100	0.6	1750	17	0.4	8.2	0.2	9.3	0.5	28
95th percentile	87	0.2	0.5	32	23	0.3	3475	0.6	0.4	16	143	1.4	2700	110	0.6	18	0.5	12	0.5	42
Maximum	120	0.2	0.7	60	24	0.4	5600	0.9	0.5	27	160	1.6	3200	380	1.2	26	3.0	18	0.5	56
Mean	38	0.2	0.2	11	13	0.2	1788	0.5	0.2	8.0	73	0.7	1488	28	0.3	6.6	0.3	5.9	0.5	20
Geometric mean	27	0.2	0.2	5.5	12	0.1	1339	0.5	0.2	7.1	62	0.6	1324	12	0.3	4.9	0.2	4.0	0.5	17
Sample std. dev.	30	0.0	0.1	13	6	0.1	1114	0.1	0.1	4.5	39	0.3	654	65	0.2	5.6	0.5	4.2	0.0	12
CV (std. dev./mean)	79%	0%	47%	121%	46%	51%	63%	13%	31%	57%	54%	48%	45%	236%	66%	85%	153%	72%	0%	58%
Lower CI of the mean	28	0.2	0.2	6.4	11	0.1	1406	0.5	0.2	6.4	60	0.5	1263	5.6	0.2	4.7	0.1	4.5	0.5	16
Upper CI of the mean	48	0.2	0.3	15	15	0.2	2170	0.5	0.2	10	86	0.8	1712	50	0.4	8.6	0.5	7.4	0.5	24
Kurtosis	0.1		12.3	6.2	-1.3	1.0	2.4	27.9	9.3	7.6	-0.7	3.1	0.5	24.7	10.0	3.9	33.9	0.0		1.8
Skewness	0.9		3.6	2.3	0.1	1.3	1.0	5.1	3.1	2.4	0.5	2.1	0.6	4.7	2.8	1.9	5.8	0.6		1.3

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.4.4: Summary Statistics for All Residential Fruit Vegetables Collected in the City of Greater Sudbury, minus >2.5 µg/g Lead

n = 100	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	490	0.5	0.2	1.9	15	0.5	310	2.2	0.2	0.5	0.2	0.7	0.5	4
10th percentile	5	0.2	0.2	0.6	8	0.1	949	0.5	0.2	4.5	25	0.5	788	5.7	0.2	2.4	0.2	1.3	0.5	9
1st quartile	5	0.2	0.2	1.1	12	0.1	1500	0.5	0.2	5.6	40	0.5	1200	9.4	0.4	5.4	0.2	2.3	0.5	17
Median	12	0.2	0.2	4.9	19	0.2	4300	0.5	0.2	10	81	0.5	3050	15	0.7	11	0.2	8.0	0.5	32
3rd quartile	160	0.2	0.6	12	26	0.3	12000	1.1	0.6	23	235	1.4	4250	30	1.6	26	0.6	22	0.5	47
95th percentile	900	0.2	1.6	37	34	1.1	20050	3.2	2.0	65	1220	8.0	6675	69	6.1	53	4.8	43	2.4	96
Maximum	2000	0.4	9.0	59	45	2.0	31000	6.4	4.9	230	2800	38	13000	370	17	180	22	67	5.1	300
Mean	181	0.2	0.5	9.6	19	0.3	6920	1.0	0.6	21	282	2.2	3171	27	1.6	20	1.1	14	0.8	39
Geometric mean	29	0.2	0.3	4.1	17	0.2	3960	0.8	0.4	12	105	0.9	2421	17	0.8	11	0.4	7.1	0.6	29
Sample std. dev.	379	0.0	1.0	13	9	0.3	7114	1.1	0.7	32	516	5.6	2294	42	2.5	25	3.0	15	0.8	37
CV (std. dev./mean)	211%	10%	179%	132%	46%	115%	103%	107%	130%	154%	184%	253%	73%	157%	160%	125%	272%	107%	105%	95%
Lower CI of the mean	105	0.2	0.4	7.1	18	0.2	5501	0.8	0.4	15	179	1.1	2714	18	1.1	15	0.5	11	0.6	32
Upper CI of the mean	256	0.2	0.7	12	21	0.4	8338	1.3	0.7	28	385	3.3	3629	35	2.1	26	1.7	17	1.0	47
Kurtosis	10.5	100.0	55.9	4.7	-0.1	8.8	1.1	10.9	12.6	20.4	10.4	23.0	4.2	46.7	16.6	16.5	31.7	1.2	13.5	24.3
Skewness	3.1	10.0	6.8	2.1	0.5	2.8	1.3	3.2	3.2	4.1	3.1	4.7	1.6	6.1	3.7	3.4	5.4	1.3	3.6	3.9

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.4.5: Summary Statistics for All Residential Leafy Vegetables Collected in the City of Greater Sudbury

n = 37	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	18	0.2	0.2	1.2	5	0.1	1200	0.5	0.2	6	41	0.5	1200	4	0.2	3.4	0.2	1.2	0.5	17
10th percentile	49	0.2	0.2	7.5	17	0.2	4540	0.6	0.2	14	120	0.5	2880	14	0.3	7.2	0.2	14	0.5	26
1st quartile	84	0.2	0.3	10	20	0.3	9650	0.7	0.3	20	170	0.7	3400	17	0.4	10	0.2	20	0.5	40
Median	270	0.2	0.6	16	26	0.4	14000	1.3	0.5	26	370	1.7	4400	31	0.9	23	0.6	27	0.6	46
3rd quartile	600	0.2	1.3	30	31	0.7	19000	2.4	1.2	58	885	4.1	6150	48	1.7	50	1.3	41	1.5	78
95th percentile	1660	0.2	2.3	52	39	1.6	24400	5.1	2.6	136	2400	24	9200	73	3.4	93	4.2	50	4.2	110
Maximum	2000	0.4	9.0	59	45	2.0	31000	6.4	4.9	230	2800	38	13000	110	6.5	180	5.3	67	5.1	300
Mean	462	0.2	1.0	21	26	0.6	14230	1.8	0.9	45	665	5	5084	36	1.3	33	1.0	29	1.3	61
Geometric mean	245	0.2	0.7	16	24	0.4	12034	1.3	0.6	33	403	2	4594	30	0.9	22	0.6	25	0.9	51
Sample std. dev.	510	0.0	1.5	14	8.3	0.5	6804	1.5	1.0	44	696	8.5	2421	22	1.2	35	1.3	14	1.2	47
CV (std. dev./mean)	112%	16%	142%	71%	32%	81%	48%	87%	109%	100%	106%	172%	48%	63%	100%	106%	127%	47%	95%	79%
Lower CI of the mean	289	0.2	0.6	16	23	0.4	11930	1.3	0.6	30	430	2.1	4265	29	0.8	21	0.6	25	0.9	45
Upper CI of the mean	634	0.2	1.5	26	29	0.7	16530	2.3	1.3	59	900	7.9	5902	44	1.7	45	1.5	34	1.7	76
Kurtosis	2.5	37.0	23.6	0.8	0.3	2.2	0.2	2.4	6.6	8.5	2.4	6.7	3.1	2.2	7.6	8.1	4.5	0.3	2.9	17.9
Skewness	1.7	6.1	4.5	1.2	0.0	1.6	0.2	1.7	2.4	2.7	1.7	2.7	1.6	1.3	2.4	2.6	2.2	0.5	1.9	3.7

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.4.6: Summary Statistics for Lively Residential Garden Vegetables

n = 18	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1.3	10	0.1	680	0.5	0.2	3.6	23	0.5	990	5	0.2	2.1	0.2	2	0.5	10
10th percentile	5	0.2	0.2	1.9	16	0.1	1047	0.5	0.2	8.8	48	0.5	1347	6	0.2	3.0	0.2	3.3	0.5	19
1st quartile	11	0.2	0.2	2.7	20	0.1	1600	0.5	0.2	10	68	0.7	1800	10	0.2	4.5	0.2	6.7	0.5	27
Median	35	0.2	0.2	10	24	0.2	3050	0.5	0.2	15	90	2.4	2850	14	0.5	6.0	0.2	11	0.5	34
3rd quartile	150	0.2	0.2	25	27	0.2	7500	1.1	0.3	26	210	42	4000	19	1.5	19	0.2	24	0.5	41
95th percentile	1057	0.3	0.5	42	33	1.2	15450	2.8	1.0	44	1440	96	7560	56	4.7	83	0.2	49	2.7	110
Maximum	2000	0.3	1.1	50	37	1.6	18000	4.9	1.9	98	2800	260	13000	110	5.7	190	0.3	67	4.6	110
Mean	221	0.2	0.3	14	24	0.3	5554	1.0	0.4	21	335	32	3449	21	1.4	23	0.2	19	0.9	41
Geometric mean	45	0.2	0.2	8.4	23	0.2	3535	0.8	0.3	16	129	6	2793	15	0.6	9.2	0.2	12	0.6	34
Sample std. dev.	479	0.0	0.2	14	6	0.4	5170	1.1	0.4	20	657	60	2697	24	1.7	44	0.0	17	1.0	27
CV (std. dev./mean)	223%	15%	78%	99%	27%	139%	96%	108%	114%	100%	202%	193%	80%	118%	128%	193%	11%	95%	120%	68%
Lower CI of the mean	-24	0.2	0.2	7.4	20	0.1	2909	0.5	0.2	11	-0.9	1.3	2069	8.8	0.5	0.9	0.2	10	0.3	27
Upper CI of the mean	466	0.2	0.4	22	27	0.5	8199	1.6	0.6	31	671	62	4829	33	2.2	46	0.2	28	1.4	55
Kurtosis	11.0	6.0	14.1	0.9	0.4	7.4	0.6	10.3	13.1	12.0	11.5	12.4	8.5	10.3	1.3	12.0	18.0	1.9	11.0	3.2
Skewness	3.2	2.7	3.6	1.3	0.0	2.8	1.3	3.1	3.5	3.2	3.3	3.3	2.6	3.1	1.6	3.3	4.2	1.5	3.3	1.8

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.4.7: Summary Statistics for Gatchell Residential Garden Vegetables

n = 21	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	190	0.5	0.2	2.6	24	0.5	730	4	0.2	2.3	0.2	0.5	0.5	8
10th percentile	5	0.2	0.2	1.0	10	0.1	1300	0.5	0.2	4.8	53	0.5	900	5	0.2	2.9	0.2	2.0	0.5	13
1st quartile	6	0.2	0.2	2.0	12	0.1	1850	0.5	0.2	6.6	60	0.5	1300	8	0.3	4.4	0.2	5.2	0.5	16
Median	63	0.2	0.2	4.3	20	0.1	5000	0.7	0.2	13	120	0.5	3200	14	0.7	13	0.3	12	0.5	39
3rd quartile	230	0.2	0.8	15	27	0.3	9000	1.2	0.4	26	335	2.1	3800	26	2.0	23	0.4	23	0.5	46
95th percentile	810	0.2	1.5	31	31	0.6	19000	3.2	0.9	57	1100	4.9	6200	47	3.0	27	1.0	43	2.3	59
Maximum	1300	0.2	2.3	37	33	1.0	30000	4.7	2.2	64	1800	11	8400	91	3.5	41	1.6	49	3.3	78
Mean	194	0.2	0.6	10	19	0.2	6790	1.1	0.4	20	298	1.8	3167	20	1.1	14	0.4	15	0.8	35
Geometric mean	42	0.2	0.4	5.1	17	0.2	4069	0.9	0.3	14	142	1.0	2562	14	0.7	11	0.4	9.4	0.6	30
Sample std. dev.	322	0.0	0.6	11	8	0.2	6970	1.0	0.5	17	429	2.5	1942	20	1.0	9.9	0.3	13	0.7	18
CV (std. dev./mean)	170%	0%	103%	110%	42%	94%	105%	94%	105%	89%	147%	139%	63%	100%	95%	72%	79%	89%	91%	52%
Lower CI of the mean	44	0.2	0.3	5.1	16	0.1	3539	0.6	0.2	12	98	0.7	2261	11	0.6	10	0.3	9.1	0.5	27
Upper CI of the mean	345	0.2	0.8	15	23	0.3	10041	1.6	0.7	27	499	3.0	4072	30	1.6	19	0.6	21	1.1	44
Kurtosis	6.0		2.4	0.6	-1.0	5.2	4.9	6.6	9.9	1.4	6.6	8.6	1.0	6.9	-0.4	0.7	5.7	0.9	7.6	-0.3
Skewness	2.4		1.7	1.3	-0.1	2.2	2.1	2.5	2.9	1.4	2.5	2.7	1.0	2.4	1.0	0.9	2.2	1.2	2.8	0.3

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.4.8: Summary Statistics for Coniston Residential Garden Vegetables

n = 48	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1	5	0.1	120	0.5	0.2	2	16	0.5	540	2	0.2	1	0.2	0.6	0.5	6
10th percentile	5	0	0.2	1	10	0.1	886	0.5	0.2	4	23	0.5	973	5	0.2	1	0.2	1.1	0.5	10
1st quartile	5	0.2	0.2	1	14	0.1	1400	0.5	0.2	5	35	0.5	1200	6	0.3	3	0.2	2.3	0.5	15
Median	14	0.2	0.2	3	18	0.1	2300	0.5	0.2	7	67	0.5	1800	11	0.5	7	0.2	7.2	0.5	22
3rd quartile	53	0.2	0.2	12	23	0.2	5450	0.7	0.3	11	110	0.5	3300	14	0.7	10	0.2	13	0.5	35
95th percentile	213	0.2	0.6	37	34	0.6	19000	1.3	0.4	19	287	1.8	7120	32	3.5	27	0.5	34	0.5	79
Maximum	1100	0.2	1.0	60	43	0.8	21000	3.8	1.4	24	1600	110	12000	59	17	49	1.2	41	2.8	300
Mean	63	0.2	0.3	9	19	0.2	5268	0.7	0.3	9	122	3.1	2573	13	1.3	9	0.2	10	0.6	33
Geometric mean	20	0.2	0.2	3	17	0.2	2692	0.6	0.2	7	69	0.7	1993	10	0.6	6	0.2	5.7	0.5	24
Sample std. dev.	164	0.0	0.2	14	8	0.2	6237	0.5	0.2	5	233	16	2195	11	2.9	9	0.2	11	0.3	43
CV (std. dev./mean)	262%	0%	63%	149%	41%	80%	120%	73%	82%	63%	194%	515%	86%	87%	220%	107%	67%	106%	61%	131%
Lower CI of the mean	15	0.2	0.2	5	17	0.2	3438	0.6	0.2	7	53	-1.5	1929	10	0.5	6	0.2	7.1	0.5	21
Upper CI of the mean	111	0.2	0.3	13	21	0.3	7098	0.9	0.3	10	190	7.7	3217	16	2.2	12	0.3	13	0.7	46
Kurtosis	34.2		8.5	6.6	1.4	3.4	0.8	28.1	18.2	0.8	34.5	47.3	7.1	6.9	20.6	7.0	24.9	1.5	44	30.9
Skewness	5.6		2.9	2.5	1.0	2.0	1.5	4.9	4.2	1.3	5.6	6.9	2.4	2.5	4.4	2.5	4.7	1.5	6.5	5.2

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.4.9: Summary Statistics for Falconbridge Residential Garden Vegetables

n = 12	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	6	0.1	290	0.5	0.4	6	35	0.5	1000	7	0.2	9	0.2	0.7	0.5	15
10th percentile	5	0.2	0.2	0.5	8	0.1	702	0.5	0.4	6	37	0.5	1110	8	0.3	17	0.2	1.0	0.5	17
1st quartile	5	0.2	0.2	0.8	11	0.2	1100	0.5	0.6	7	44	0.5	1200	9	0.4	19	0.2	1.6	0.5	20
Median	8	0.2	0.2	1.3	18	0.2	1900	0.5	1.1	8	65	0.5	2450	11	0.6	31	0.2	2.5	0.5	32
3rd quartile	20	0.2	0.6	5.4	19	0.3	3200	0.5	1.8	12	110	1.6	3200	20	0.7	44	0.2	9.1	0.5	48
95th percentile	69	0.2	1.5	14	21	0.5	5090	0.6	2.1	18	180	62	4005	23	0.9	49	0.2	14	0.5	72
Maximum	82	0.3	1.9	24	23	0.5	5200	0.8	2.2	25	180	130	4500	24	1.1	51	0.2	16	0.5	92
Mean	19	0.2	0.5	4.1	15	0.2	2339	0.5	1.2	10	85	12	2367	14	0.6	31	0.2	5.3	0.5	37
Geometric mean	11	0.2	0.3	1.9	14	0.2	1778	0.5	1.0	9	73	1.3	2086	13	0.5	28	0.2	3.3	0.5	32
Sample std. dev.	24	0.0	0.5	6.3	5	0.1	1538	0.1	0.6	5	50	36	1128	6	0.2	13	0.0	5.0	0.0	21
CV (std. dev./mean)	129%	14%	109%	162%	36%	54%	69%	16%	55%	55%	61%	311%	50%	45%	44%	44%	0%	100%	0%	60%
Lower CI of the mean	3	0.2	0.1	-0.1	11	0.2	1318	0.5	0.8	6	52	-12	1618	10	0.4	23	0.2	1.9	0.5	23
Upper CI of the mean	35	0.2	0.8	8.3	18	0.3	3360	0.6	1.6	13	118	36	3115	18	0.7	40	0.2	8.6	0.5	51
Kurtosis	3.4	12.0	4.5	9.1	-1.3	1.2	-0.5	12.0	-1.5	5.6	-0.1	11.9	-1.2	-1.5	1.0	-1.4		0.0		2.6
Skewness	2.0	3.5	2.1	2.9	-0.3	1.4	0.7	3.5	0.2	2.2	1.0	3.5	0.3	0.5	0.7	-0.1		1.2		1.5

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table 10.3.4.10: Summary Statistics for Copper Cliff Residential Garden Vegetables

n = 49	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1	5	0.1	490	0.5	0.2	2	15	0.5	290	4	0.2	0.7	0.2	0.7	0.5	2
10th percentile	5	0.2	0.2	1	5	0.1	842	0.5	0.2	5	26	0.5	418	6	0.2	1.5	0.2	1.1	0.5	5
1st quartile	7	0.2	0.2	3	7	0.1	1400	0.5	0.2	6	36	0.5	1100	13	0.2	5.3	0.2	2.2	0.5	12
Median	19	0.2	0.2	6	12	0.2	2300	0.5	0.2	8	73	0.5	1500	20	0.4	15	0.5	5.3	0.5	24
3rd quartile	135	0.2	0.6	13	20	0.3	5050	0.8	0.4	29	190	1.4	3300	39	1.1	33	1.5	17	0.5	45
95th percentile	620	0.2	2.1	29	33	1.2	20600	2.5	2.2	109	1060	17	5860	120	6.3	75	8.1	43	1.6	91
Maximum	1900	0.4	9.0	58	45	2.0	31000	6.4	4.9	230	2400	38	6400	380	9.4	180	22	52	5.1	120
Mean	177	0.2	0.7	10	15	0.3	5573	1.0	0.6	27	264	2.9	2383	45	1.2	25	2.0	11	0.8	32
Geometric mean	34	0.2	0.4	6	12	0.2	3024	0.7	0.3	13	93	1.0	1729	23	0.5	11	0.7	5.6	0.6	21
Sample std. dev.	372	0.0	1.3	12	9	0.4	6908	1.2	0.9	43	507	7.2	1758	75	2	33	4.1	14	0.8	28
CV (std. dev./mean)	212%	14%	197%	114%	63%	130%	125%	124%	159%	160%	194%	249%	75%	166%	173%	135%	209%	121%	110%	90%
Lower CI of the mean	69	0.2	0.3	7	12	0.2	3569	0.6	0.3	15	117	0.8	1873	24	0.6	15	0.8	7.5	0.5	24
Upper CI of the mean	285	0.2	1.1	14	18	0.4	7578	1.3	0.8	40	411	5.0	2894	67	1.8	34	3.2	15	1.0	40
Kurtosis	12.3	49.0	33.4	7.1	0.8	9.0	3.4	14.0	12.4	10.4	11.4	14.7	-0.5	14.2	8.5	10.0	14.3	1.5	17.7	1.4
Skewness	3.4	7.0	5.4	2.4	1.1	3.0	1.9	3.7	3.4	3.0	3.3	3.8	0.8	3.7	3	2.8	3.7	1.6	4.1	1.4

All concentrations in µg/g dry weight
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

10.3.5 Box and Whisker Plots of 15 Elements In Urban Soil by Community Groups in the City of Greater Sudbury

(OC - Outer Communities, IC - Inner Communities, SC - Sudbury Core, CO - Coniston, FA - Falconbridge, CC - Copper Cliff)

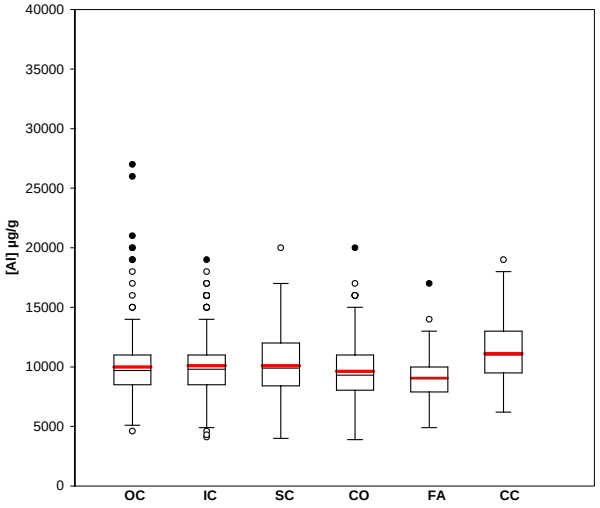


Figure 10.3.5.1: Aluminum, 0 to 5 cm, by Communities

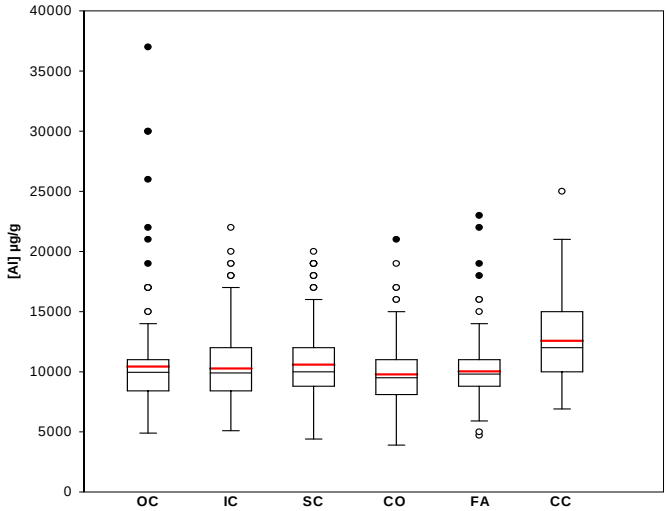


Figure 10.3.5.1b: Aluminum, 5 to 10 cm, by Communities

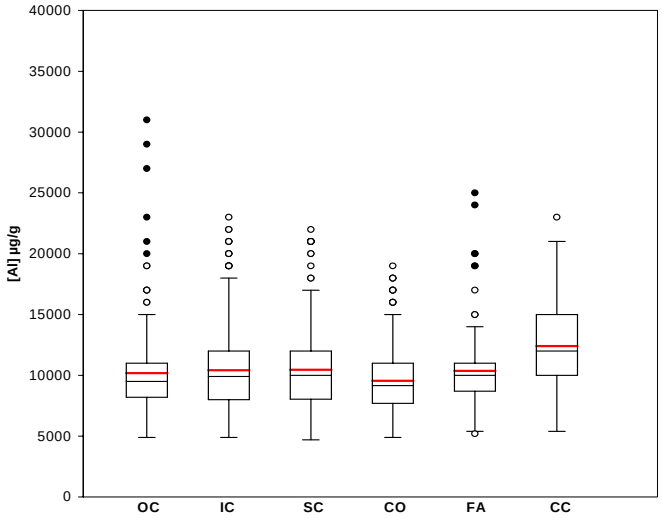


Figure 10.3.5.1c: Aluminum, 10 to 20 cm, by Communities

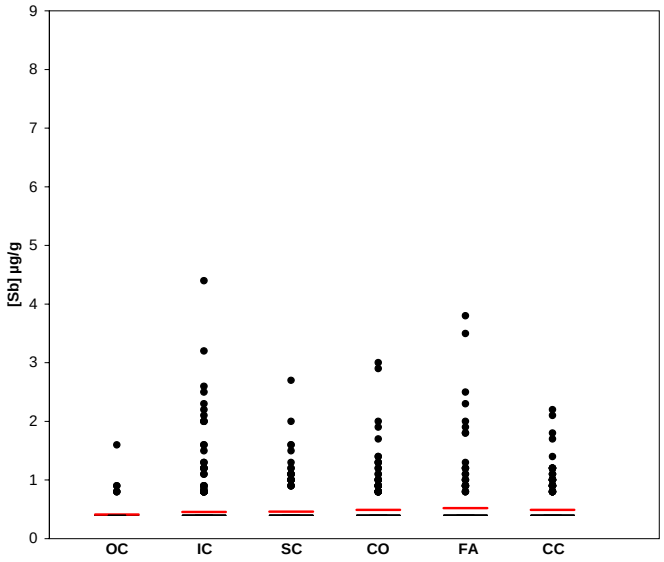


Figure 10.3.5.2: Antimony, 0 to 5 cm, by Communities

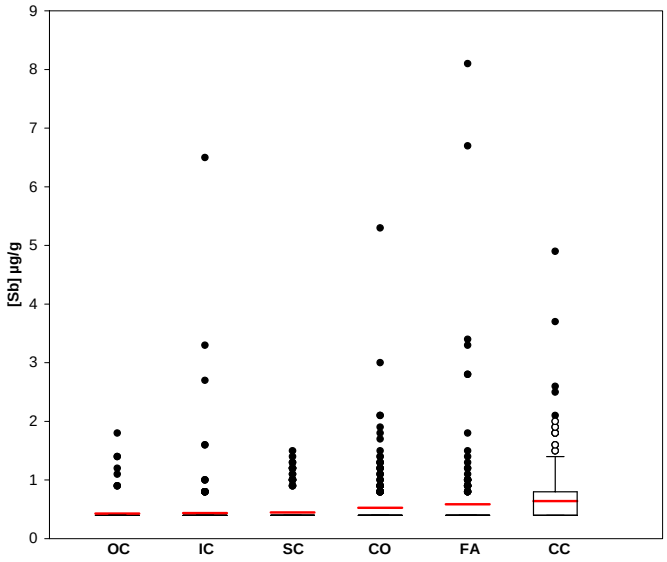


Figure 10.3.5.2b: Antimony, 5 to 10 cm, by Communities

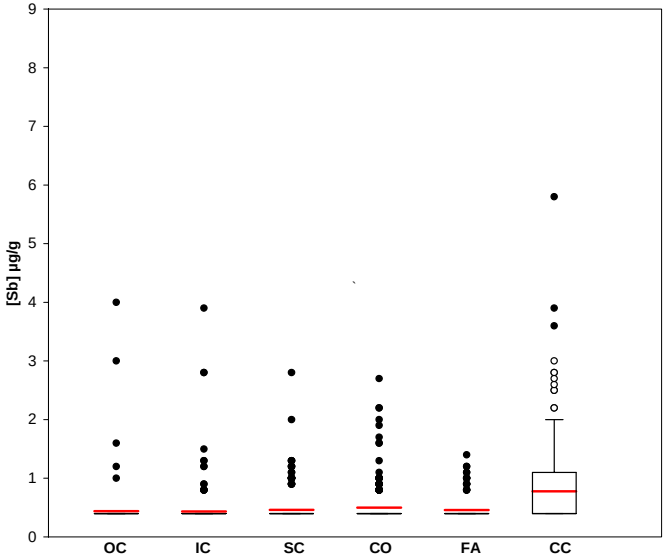


Figure 10.3.5.2c: Antimony, 10 to 20 cm, by Communities

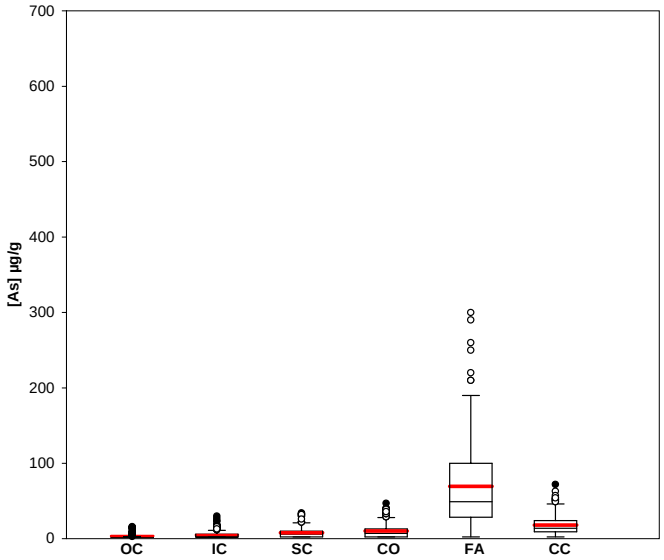


Figure 10.3.5.3: Arsenic, 0 to 5 cm, by Communities

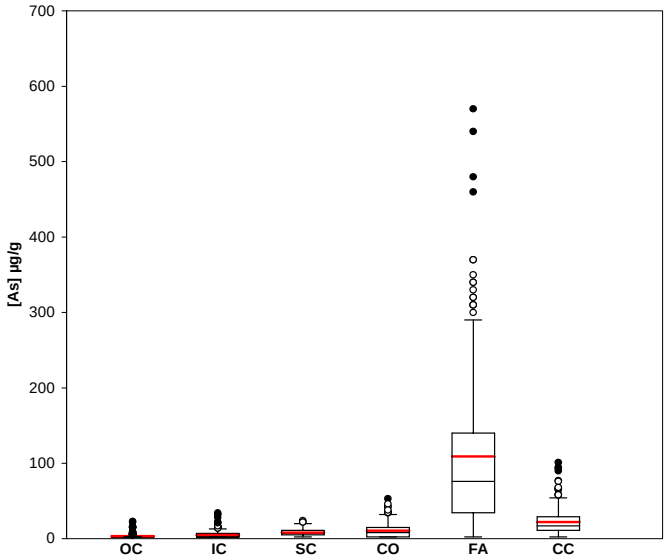


Figure 10.3.5.3b: Arsenic, 5 to 10 cm, by Communities

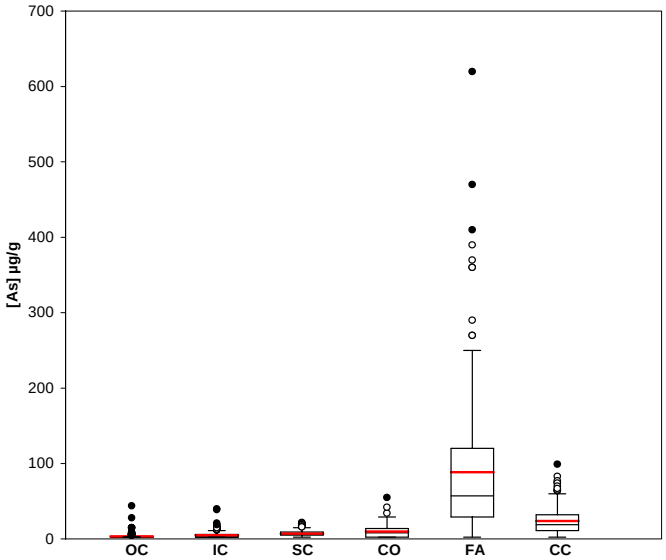


Figure 10.3.5.3c: Arsenic, 10 to 20 cm, by Communities

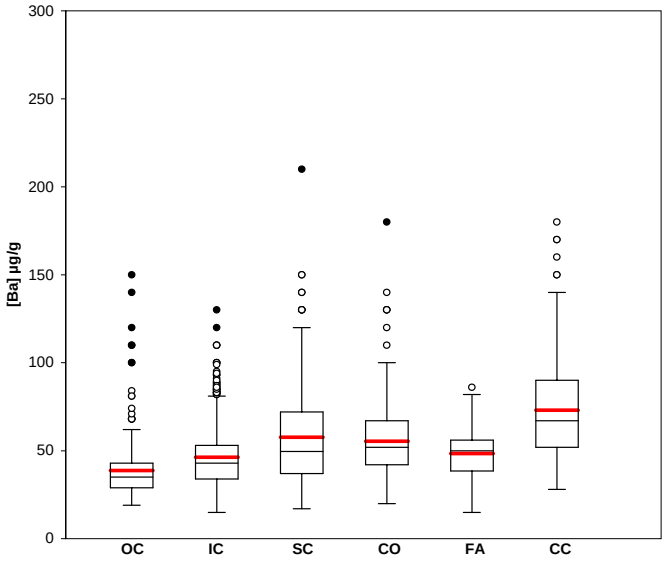


Figure 10.3.5.4: Barium, 0 to 5 cm, by Communities

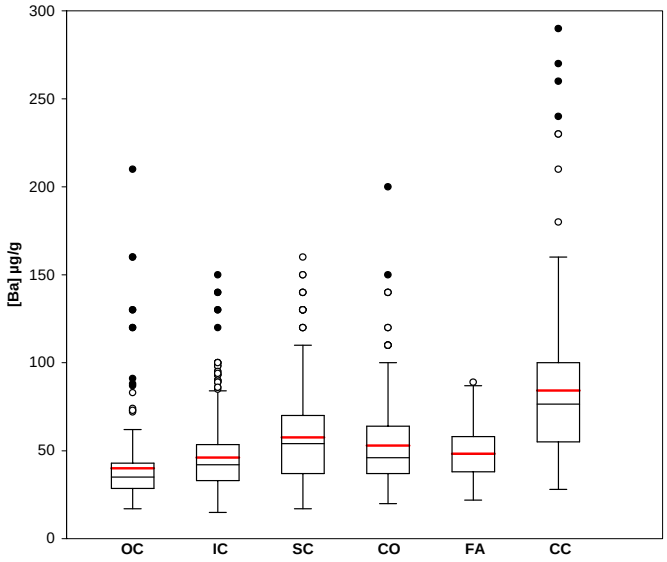


Figure 10.3.5.4b: Barium, 5 to 10 cm, by Communities

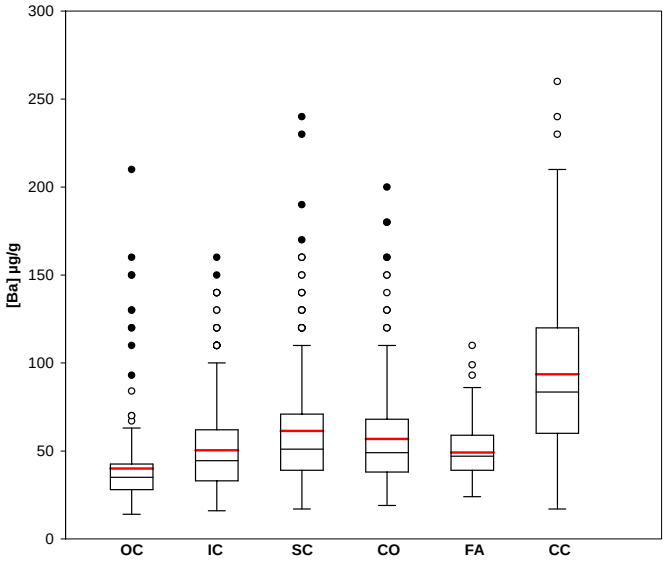


Figure 10.3.5.4c: Barium, 10 to 20 cm, by Communities

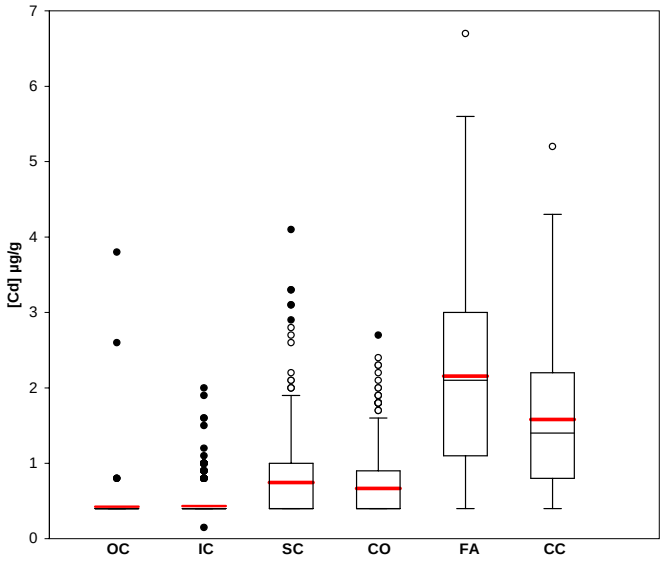


Figure 10.3.5.5: Cadmium, 0 to 5 cm, by Communities

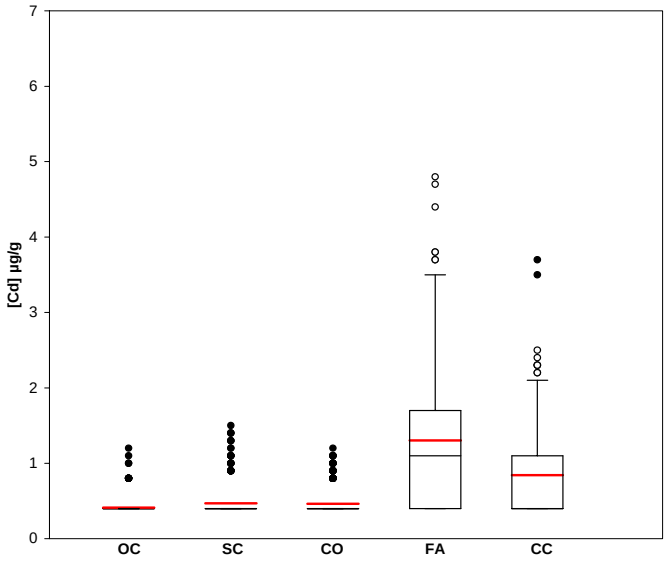


Figure 10.3.5.5b: Cadmium, 5 to 10 cm, by Communities

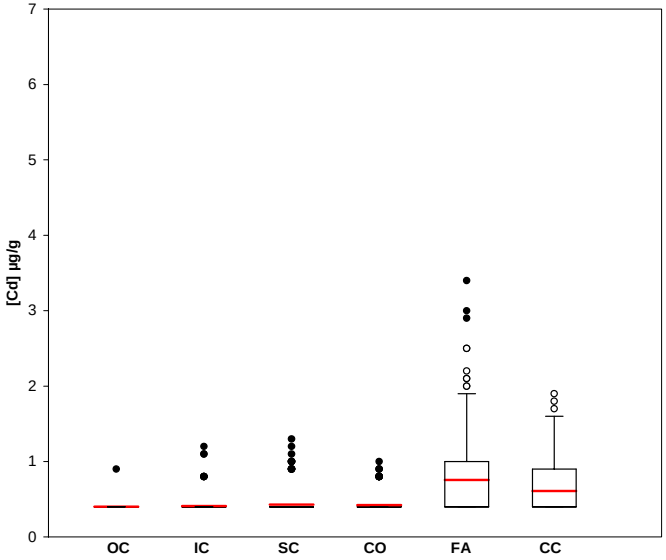


Figure 10.3.5.5c: Cadmium, 10 to 20 cm, by Communities

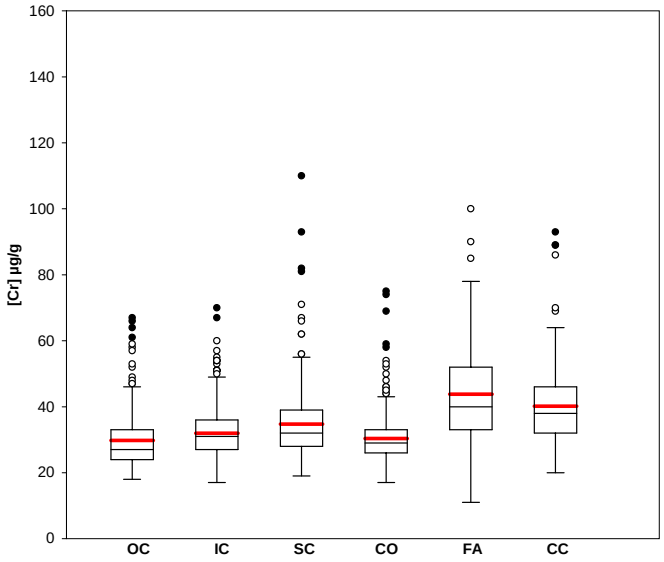


Figure 10.3.5.6: Chromium, 0 to 5 cm, by Communities

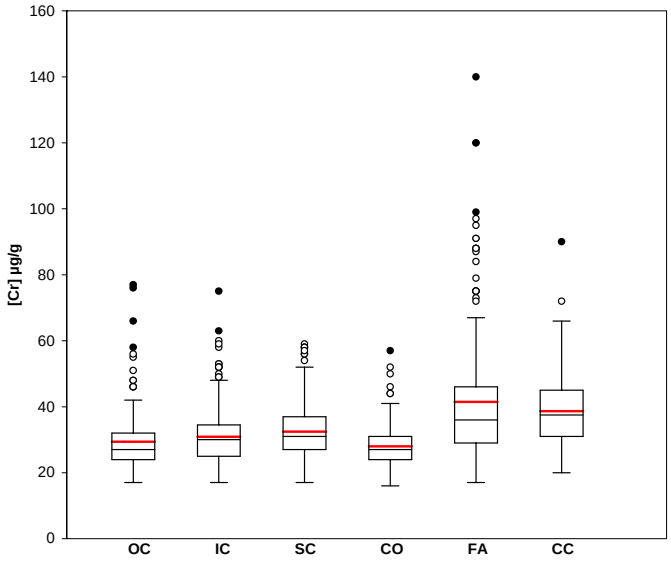


Figure 10.3.5.6b: Chromium, 5 to 10 cm, by Communities

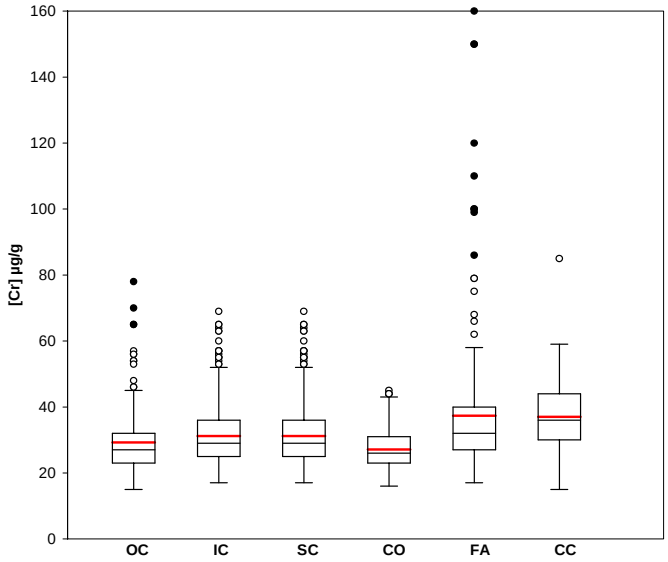


Figure 10.3.5.6c: Chromium, 10 to 20 cm, by Communities

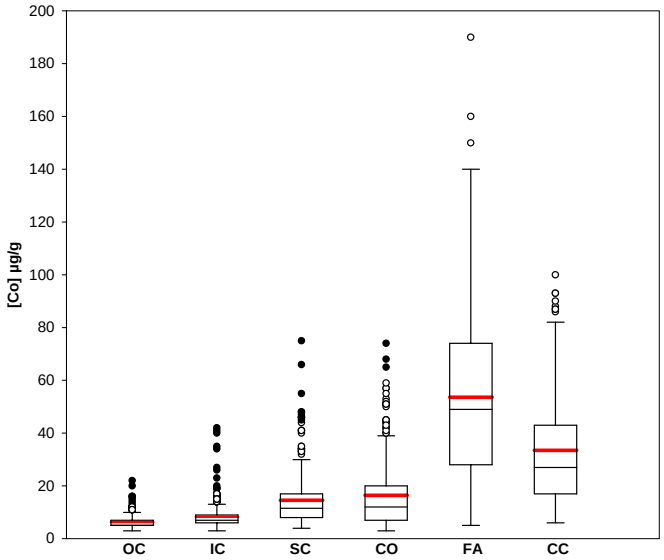


Figure 10.3.5.7: Cobalt, 0 to 5 cm, by Communities

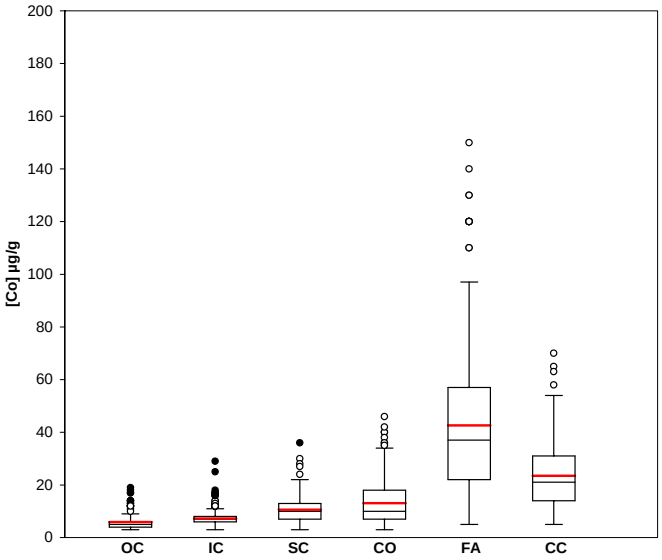


Figure 10.3.5.7b: Cobalt, 5 to 10 cm, by Communities

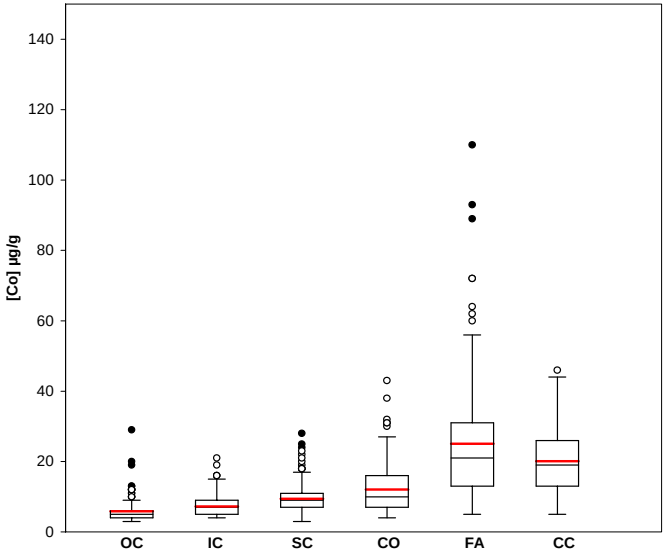


Figure 10.3.5.7c: Cobalt, 10 to 20 cm, by Communities

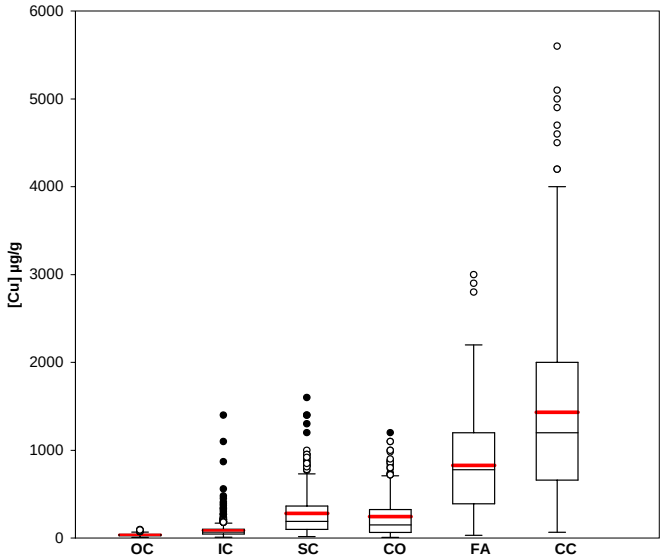


Figure 10.3.5.8: Copper, 0 to 5 cm, by Communities

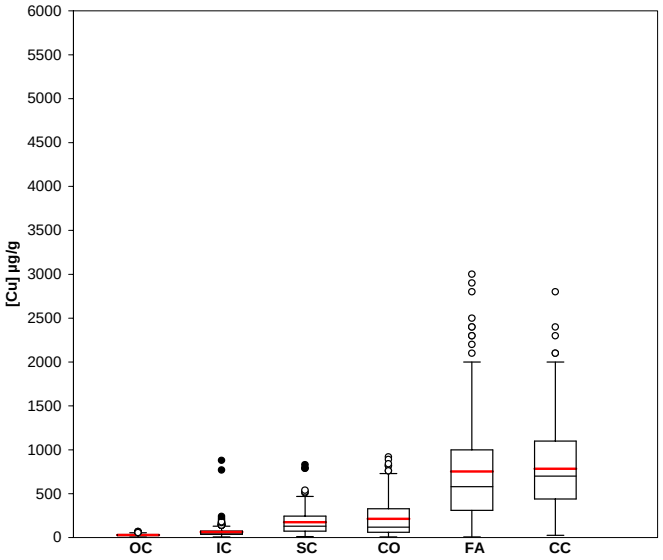


Figure 10.3.5.8b: Copper, 5 to 10 cm, by Communities

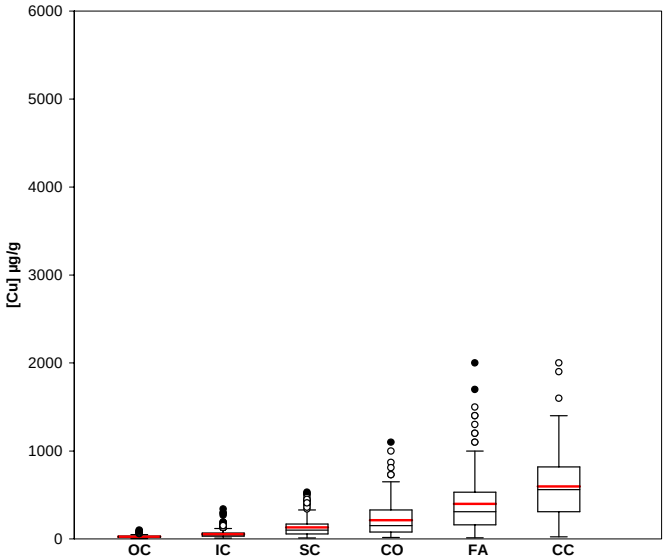


Figure 10.3.5.8c: Copper, 10 to 20 cm, by Communities

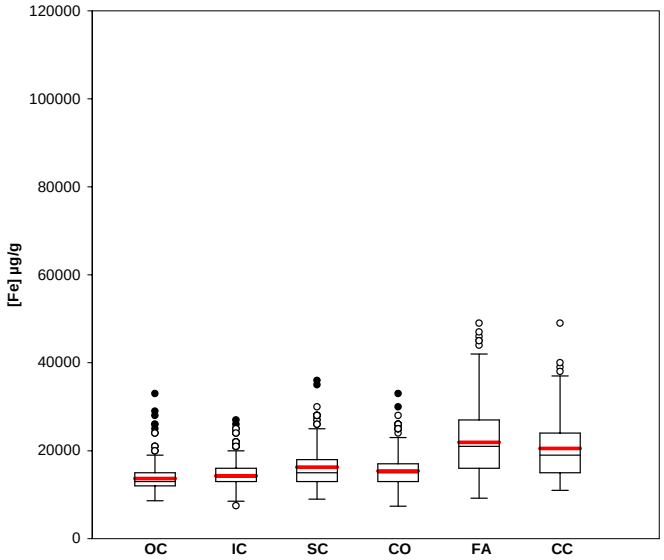


Figure 10.3.5.9: Iron, 0 to 5 cm, by Communities

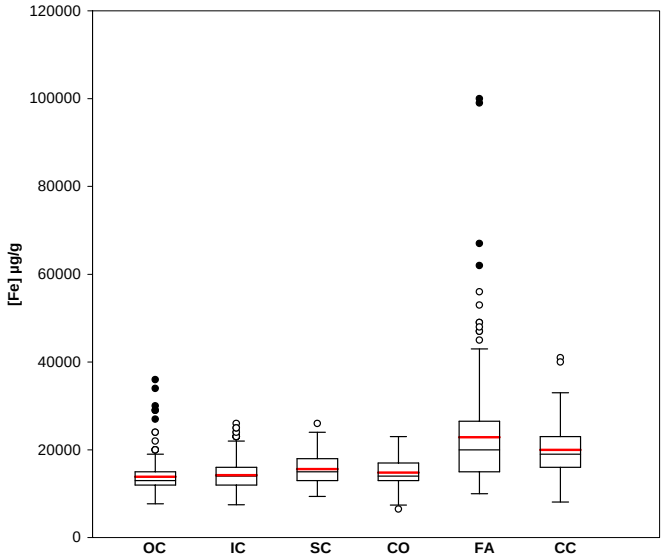


Figure 10.3.5.9b: Iron, 5 to 10 cm, by Communities

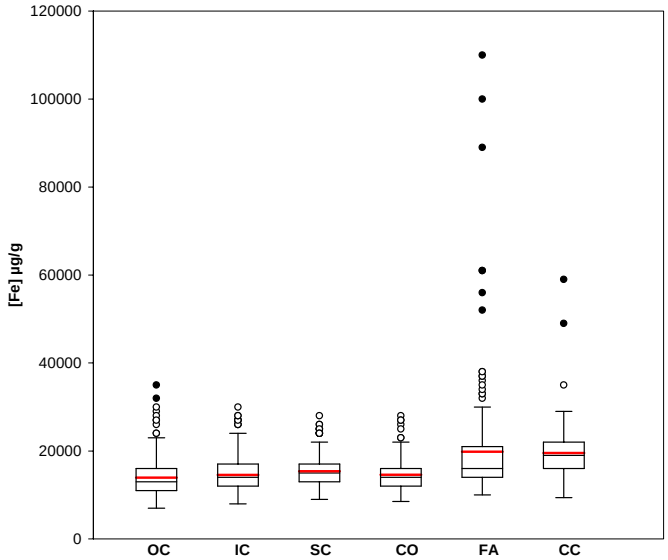


Figure 10.3.5.9c: Iron, 10 to 20 cm, by Communities

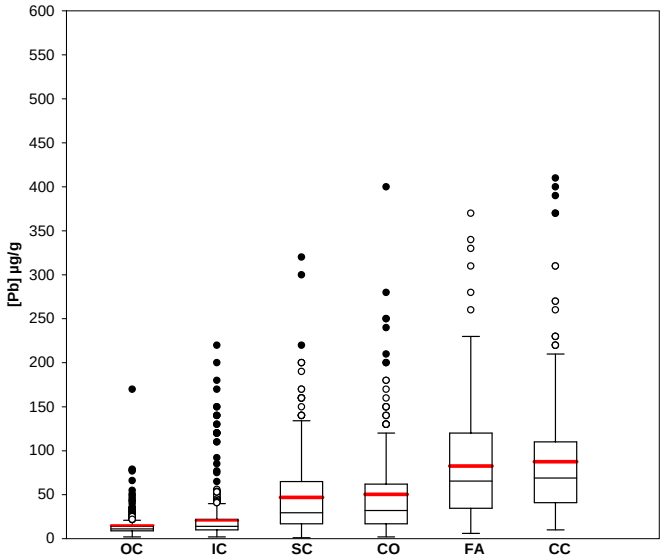


Figure 10.3.5.10: Lead, 0 to 5 cm, by Communities

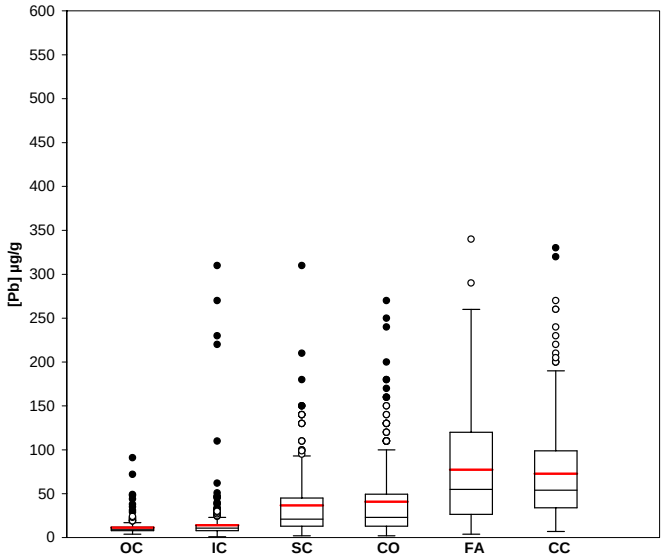


Figure 10.3.5.10b: Lead, 5 to 10 cm, by Communities

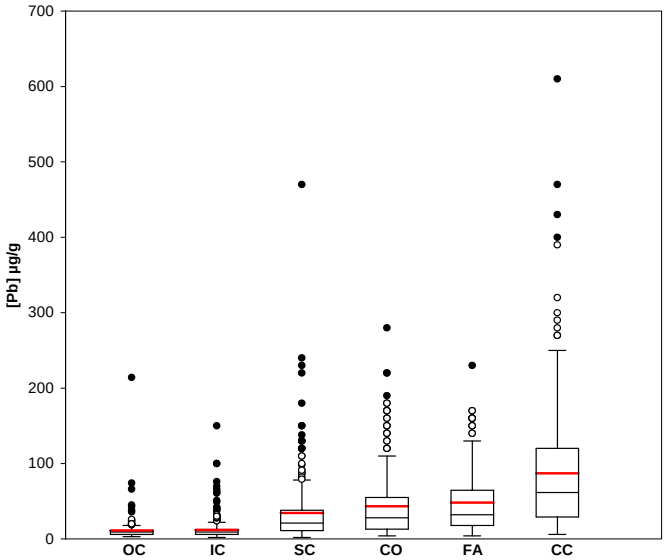


Figure 10.3.5.10c: Lead, 10 to 20 cm, by Communities

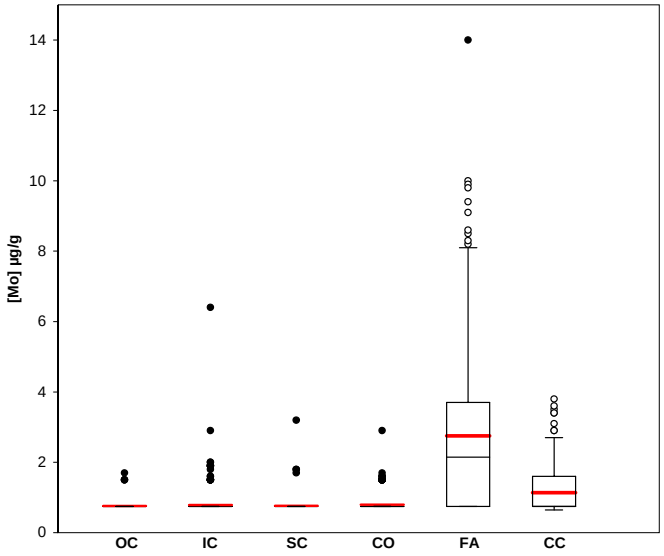


Figure 10.3.5.11: Molybdenum, 0 to 5 cm, by Communities

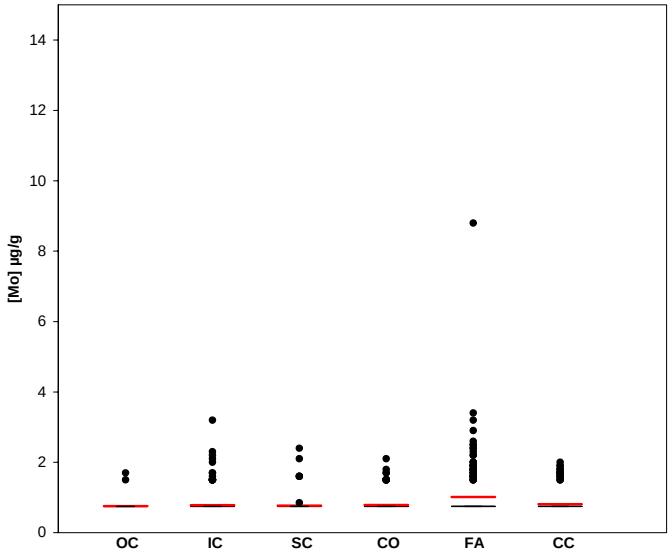


Figure 10.3.5.11b: Molybdenum, 5 to 10 cm, by Communities

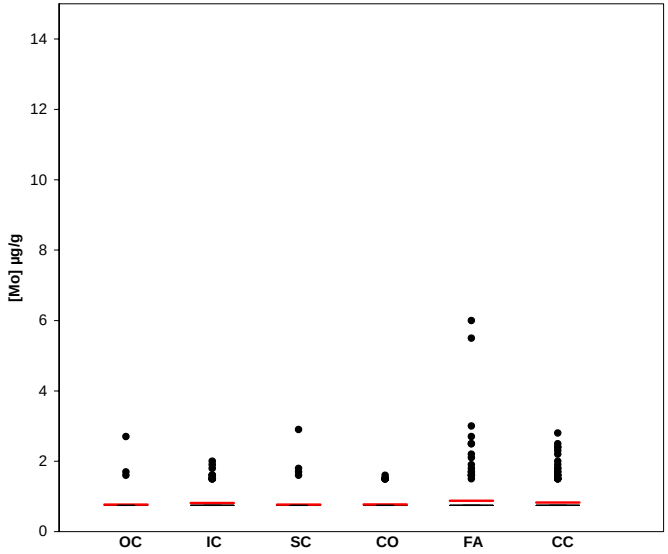


Figure 10.3.5.11c: Molybdenum, 10 to 20cm, by Communities

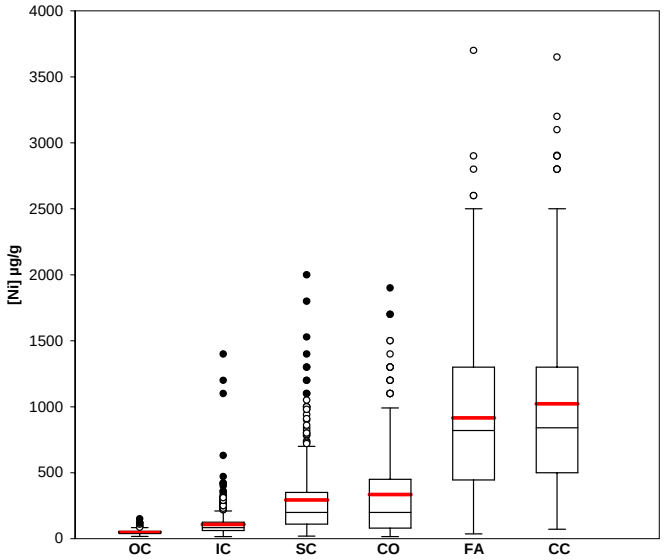


Figure 10.3.5.12: Nickel, 0 to 5 cm, by Communities

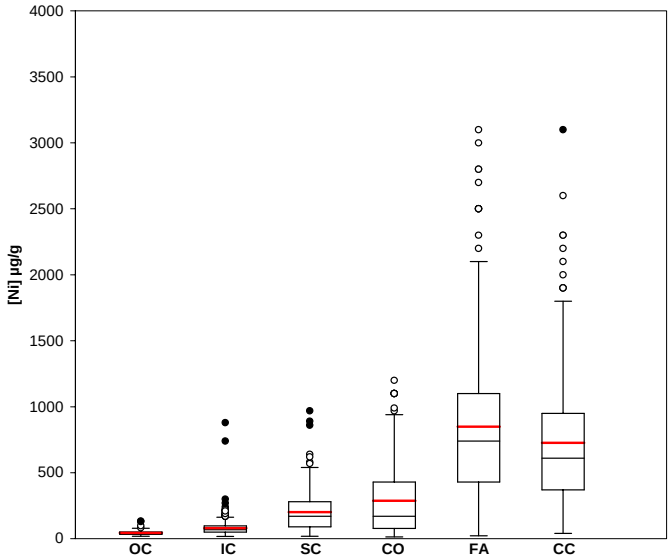


Figure 10.3.5.12b: Nickel, 5 to 10 cm, by Communities

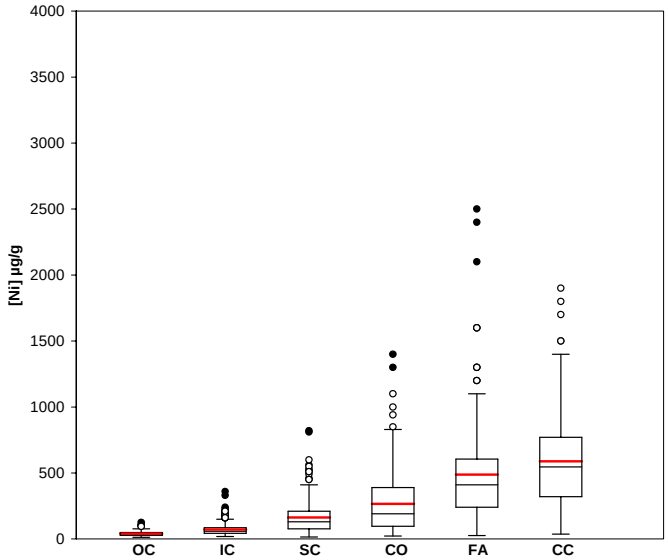


Figure 10.3.5.12c: Nickel, 10 to 20 cm, by Communities

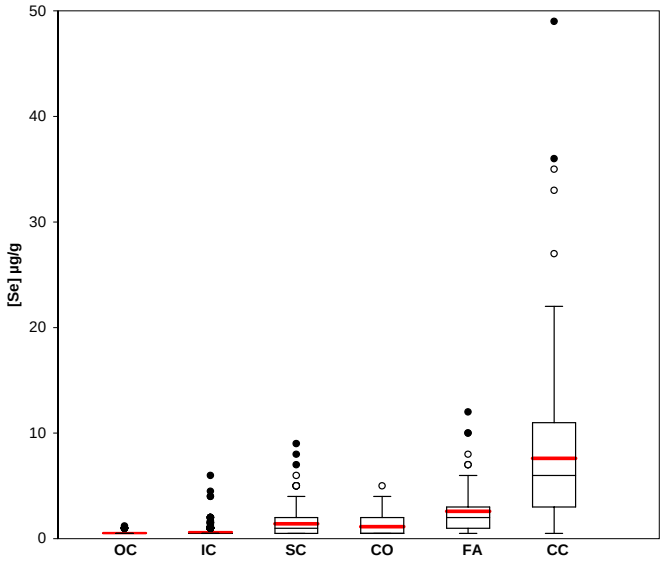


Figure 10.3.5.13: Selenium, 0 to 5 cm, by Communities

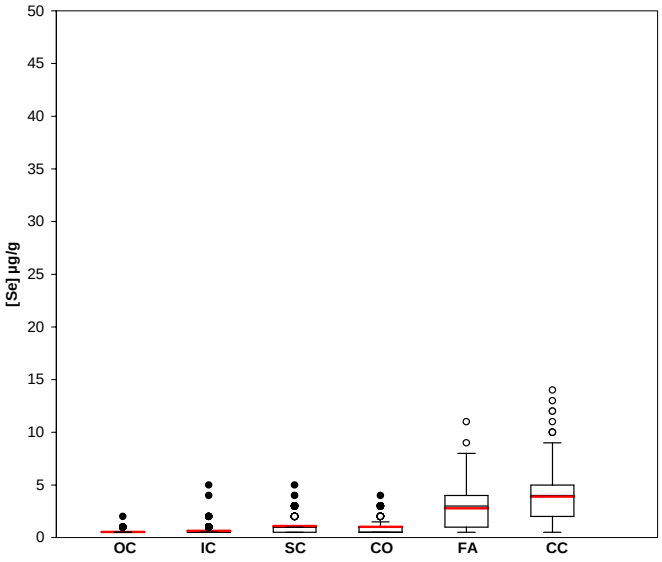


Figure 10.3.5.13b: Selenium, 5 to 10 cm, by Communities

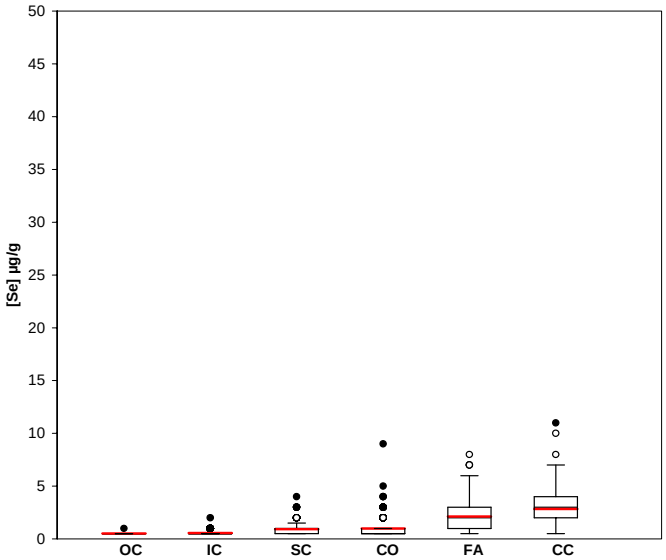


Figure 10.3.5.13c: Selenium, 10 to 20 cm, by Communities

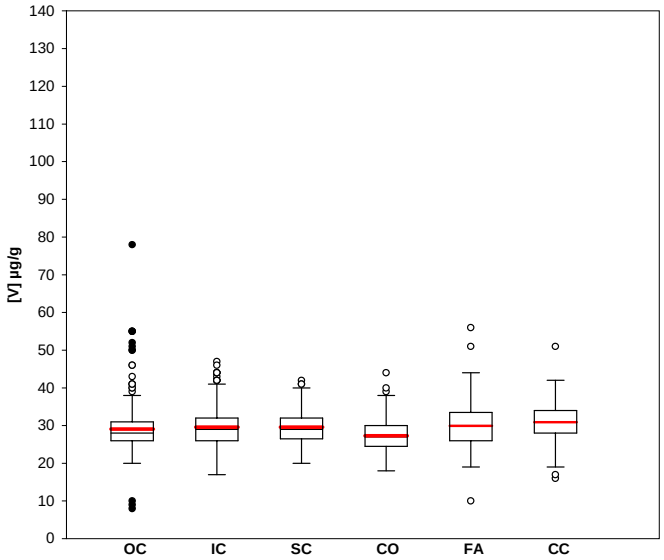


Figure 10.3.5.14: Vanadium, 0 to 5 cm, by Communities

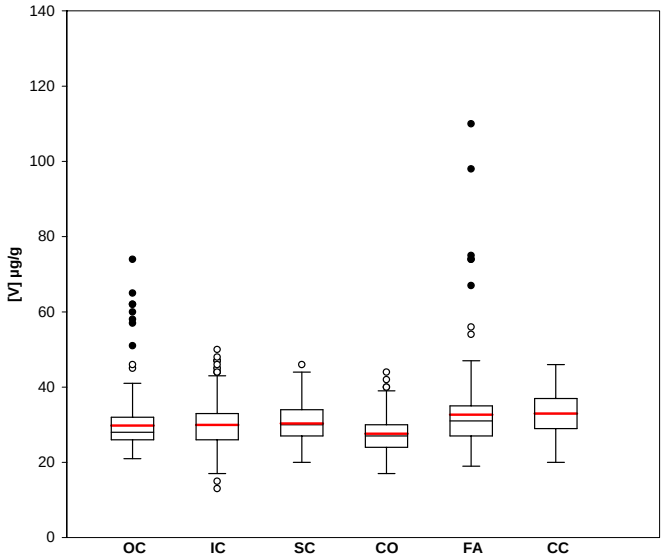


Figure 10.3.5.14b: Vanadium, 5 to 10 cm, by Communities

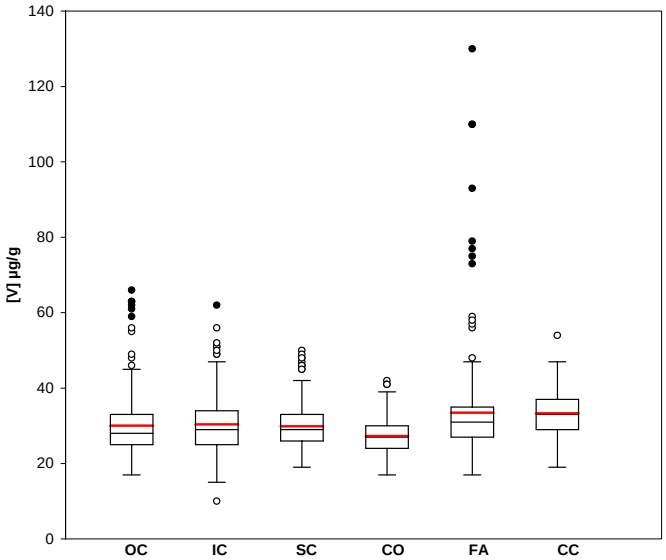


Figure 10.3.5.14c: Vanadium, 10 to 20 cm, by Communities

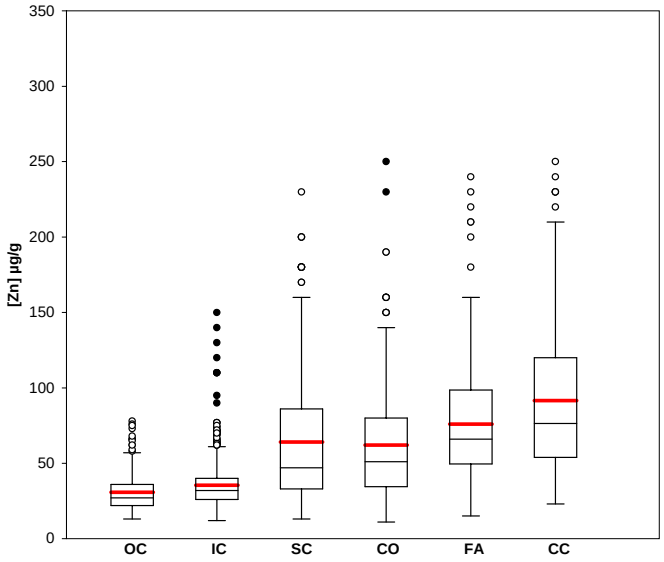


Figure 10.3.5.15: Zinc, 0 to 5 cm, by Communities

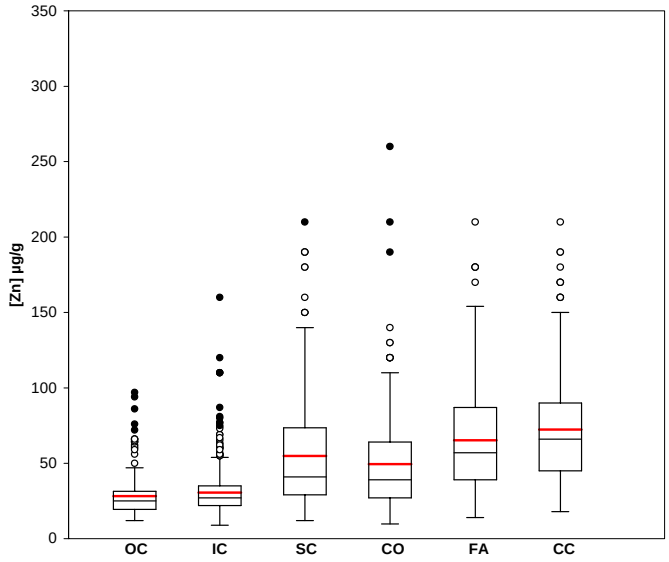


Figure 10.3.5.15b: Zinc, 5 to 10 cm, by Communities

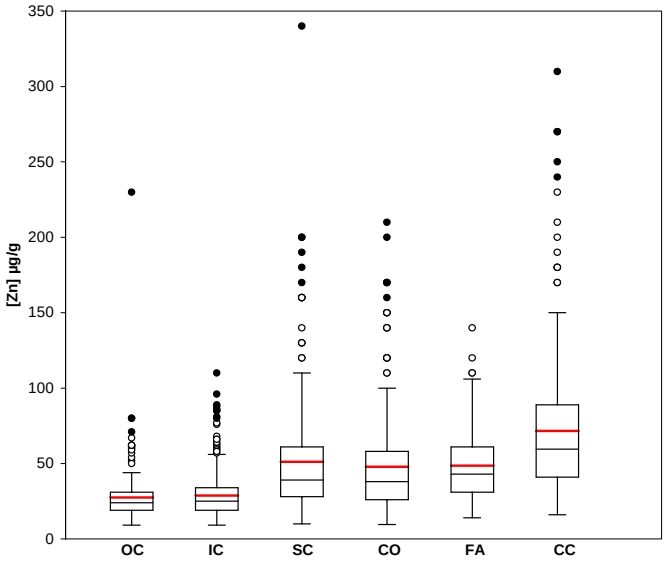


Figure 10.3.5.15c: Zinc, 10 to 20 cm, by Communities

10.3.6 pH, Electrical Conductivity and Total Organic Carbon Summaries

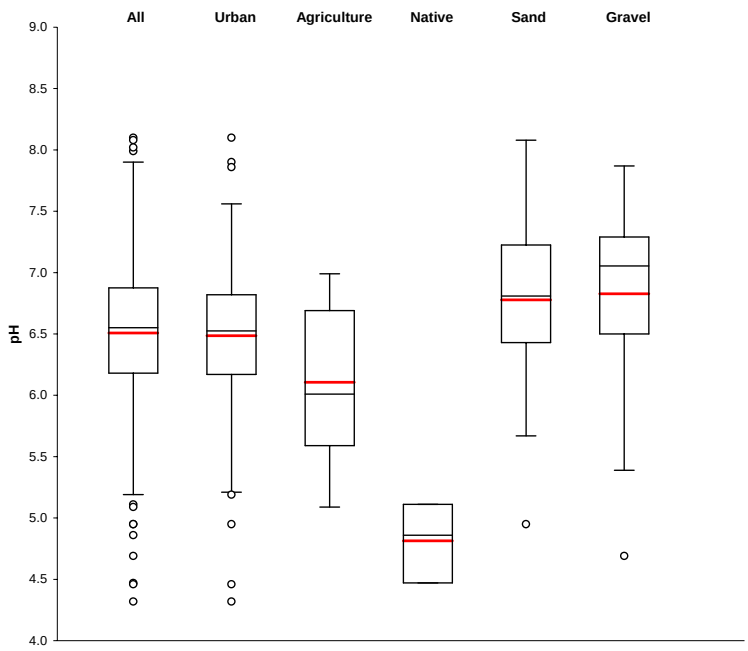


Figure 10.3.6.1: Box and Whisker Plots of Soil pH by sample type.

Table 10.3.6.1: Summary Statistics of pH in Soil by Sample Type

	All	Urban	Agriculture	Native	Sand	Gravel
Minimum	4.3	4.3	5.1	4.5	5.0	4.7
10th	5.7	5.7			5.9	5.9
1st quartile	6.2	6.2	5.6		6.4	6.5
Median	6.6	6.5	6.0	4.9	6.8	7.1
3rd quartile	6.9	6.8	6.7		7.2	7.3
95th	7.4	7.4			7.9	7.6
Maximum	8.1	8.1	7.0	5.1	8.1	7.9
Mean	6.5	6.5	6.1	4.8	6.8	6.8
Geometric mean	6.5	6.5	6.1		6.7	6.8
Sample std. dev.	0.6	0.5	0.6		0.7	0.8
CV (std. dev./mean)	9%	8%	11%		10%	12%
Lower CI of the mean	6.5	6.4	5.5		6.6	6.4
Upper CI of the mean	6.6	6.5	6.7		7.0	7.2
Kurtosis	0.7	0.6	-1.2		0.3	2.2
Skewness	-0.4	-0.4	-0.2		-0.2	-1.5
N	545	472	7	3	45	18

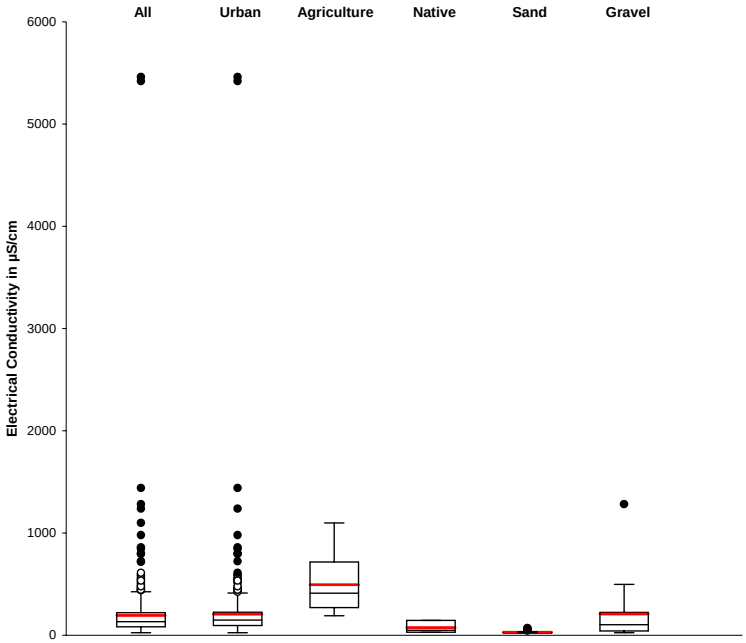


Figure 10.3.6.2: Box and Whisker Plots of Soil EC by Sample Type.

Table 10.3.6.2: Summary Statistics of Electrical Conductivity in Soil by Sample Type.

	All	Urban	Agriculture	Native	Sand	Gravel
Minimum	25	25	191	31	25	25
10th	41	63			25	25
1st quartile	83	96	270		25	42
Median	133	149	411	48	25	105
3rd quartile	221	225	717		29	224
95th	445	442			53	615
Maximum	5460	5460	1100	146	71	1282
Mean	196	207	493	75	30	209
Geometric mean	130	149	419		29	112
Sample std. dev.	358	373	295		11	288
CV (std. dev./mean)	183%	180%	65%		36%	142%
Lower CI of the mean	165	173	198		27	62
Upper CI of the mean	226	241	788		33	356
Kurtosis	169	163	1.4		7.1	11
Skewness	12	12	1.3		2.7	3.1
N	545	472	7	3	45	18

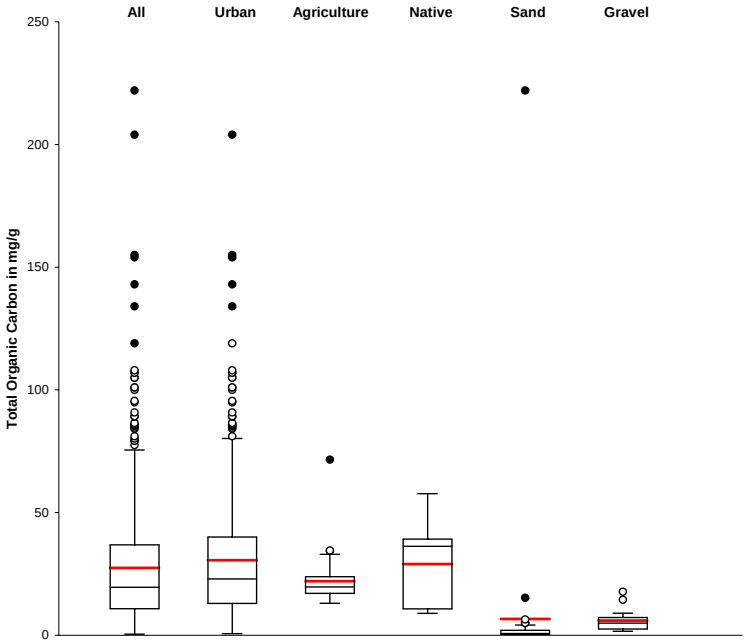


Figure 10.3.6.3: Box and Whisker Plots of Soil TOC by Sample Type.

Table 10.3.6.3: Summary Statistics of Total Organic Carbon in Soil by Sample Type.

	All	Urban	Agriculture	Native	Sand	Gravel
Minimum	0.5	0.6	13	9.0	0.5	1.6
10th	4.5	7.9			0.5	2.0
1st quartile	11	13	17		0.5	2.5
Median	20	23	20	36	0.7	5.0
3rd quartile	37	40	24		2.0	7.2
95th	79	84			6.1	15
Maximum	222	204	72	58	222	18
Mean	27	31	22	29	6.6	6.0
Geometric mean	17	22	21		1.2	4.8
Sample std. dev.	26	26	9.9		32.6	4.2
CV (std. dev./mean)	96%	85%	45%		497%	73%
Lower CI of the mean	25	28	19		-3.3	3.8
Upper CI of the mean	30	33	25		17	8.3
Kurtosis	10.8	7.2	16.3		44.5	2.5
Skewness	2.6	2.2	3.5		6.7	1.6
N	584	477	38	7	45	17

10.4 Correlation Graphs for Selected Metals and Arsenic in Soil in the City of Greater Sudbury

10.4.1 Outer Sudbury Communities (Outer Com.)

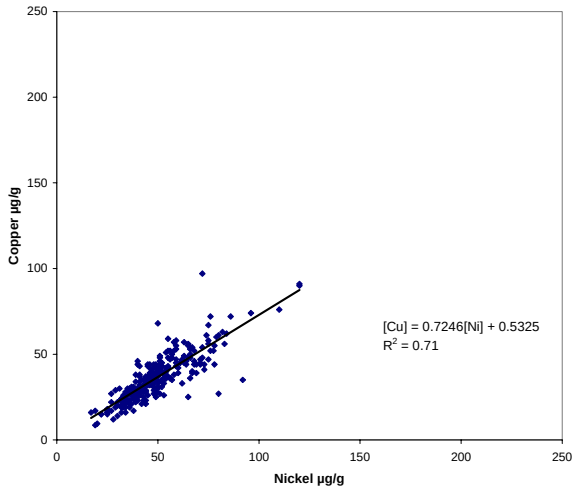


Fig. 10.4.1.1: Cu vs. Ni, 0-5 cm, Outer Com.

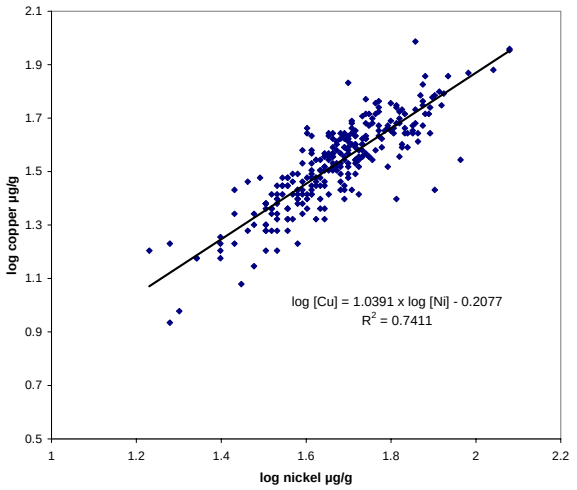


Fig. 10.4.1.1b: log Cu vs. log Ni, 0-5 cm, Outer Com.

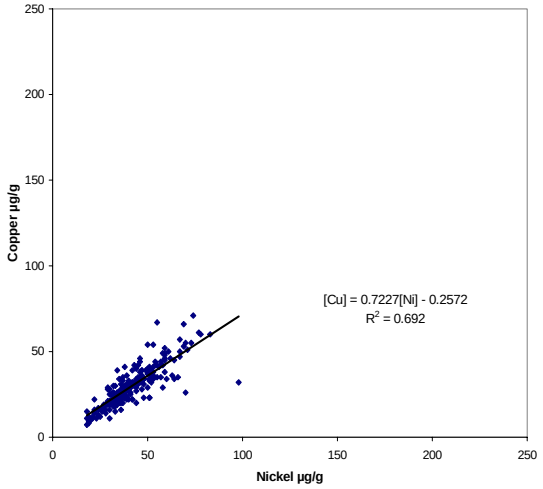


Fig. 10.4.1.2: Cu vs. Ni, 5-10 cm, Outer Com.

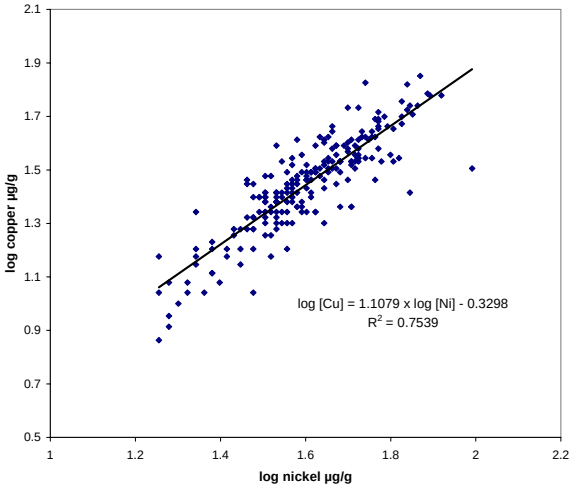


Fig. 10.4.1.2b: log Cu vs. log Ni, 5-10 cm, Outer Com.

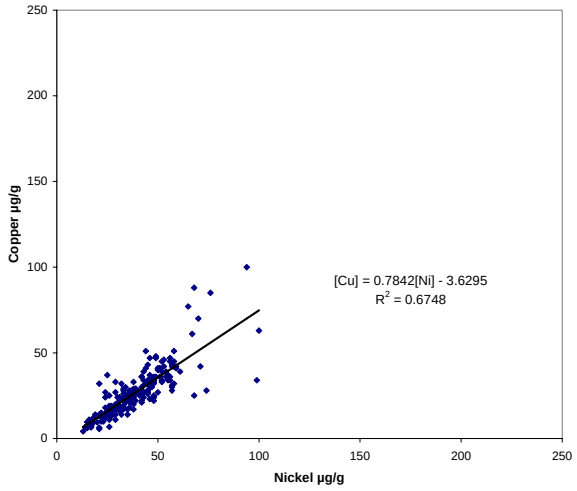


Fig. 10.4.1.3: Cu vs. Ni, 10-20 cm, Outer Com.

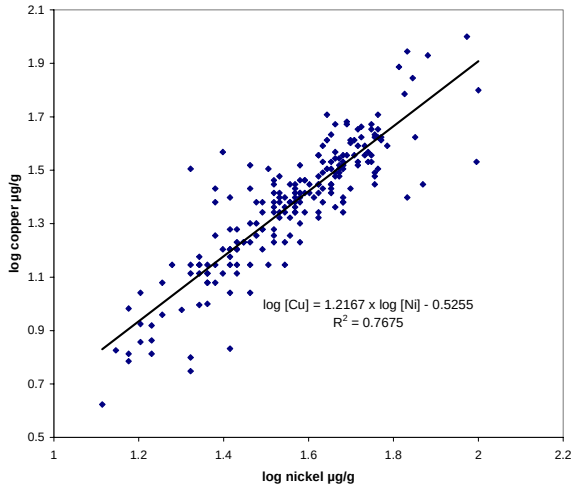


Fig. 10.4.1.3b: log Cu vs. log Ni, 10-20 cm, Outer Com.

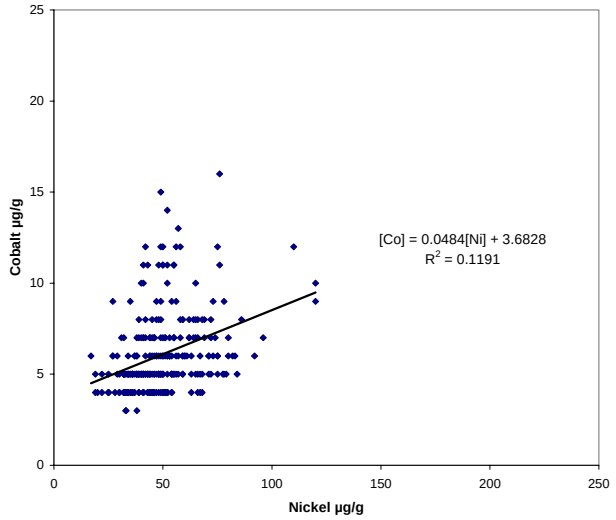


Fig 10.4.1.4: Co vs. Ni, 0-5 cm, Outer Com.

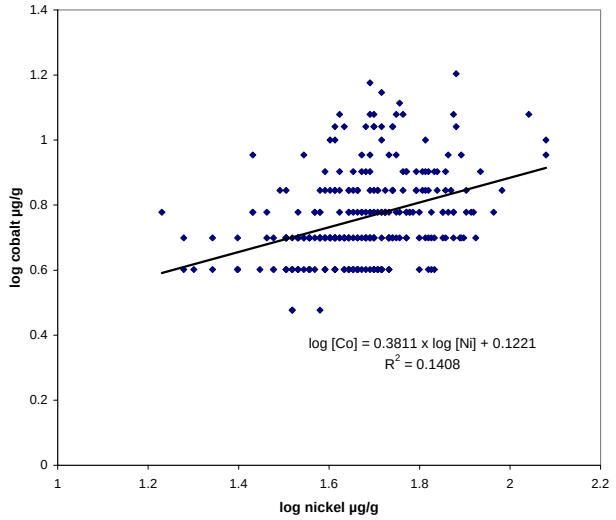


Fig. 10.4.1.4b: log Co vs. log Ni, 0-5 cm, Outer Com.

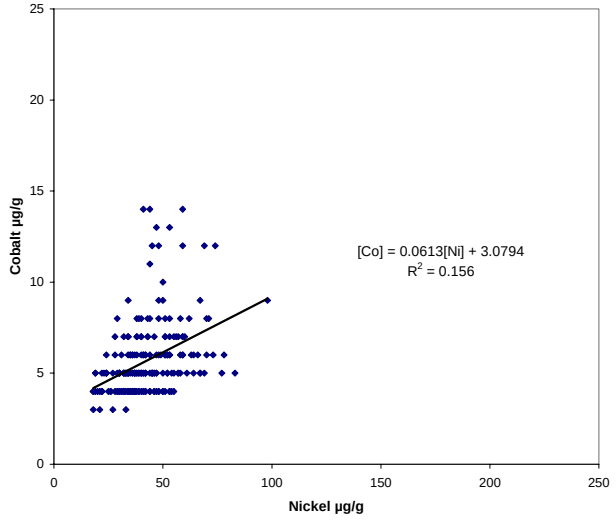


Fig 10.4.1.5: Co vs. Ni, 5-10 cm, Outer Com.

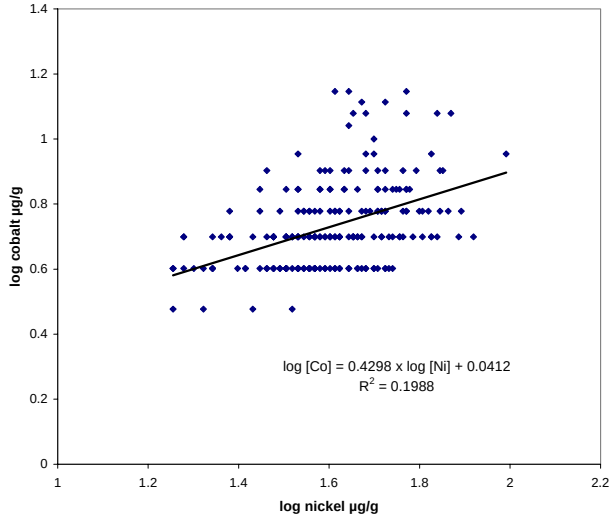


Fig. 10.4.1.5b: log Co vs. log Ni, 5-10 cm, Outer Com.

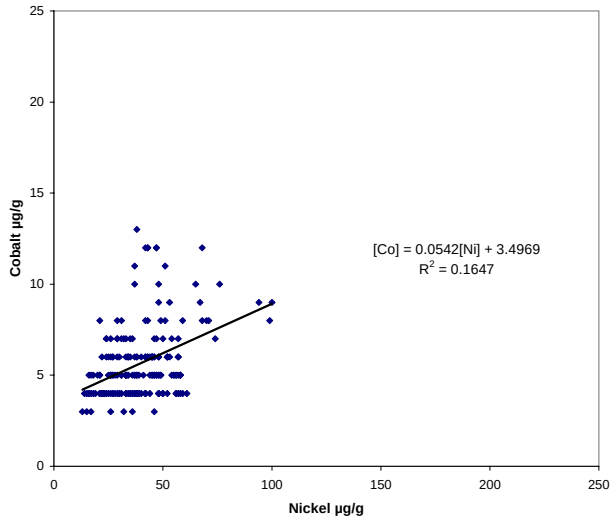


Fig. 10.4.1.6: Co vs. Ni, 10-20 cm, Outer Com.

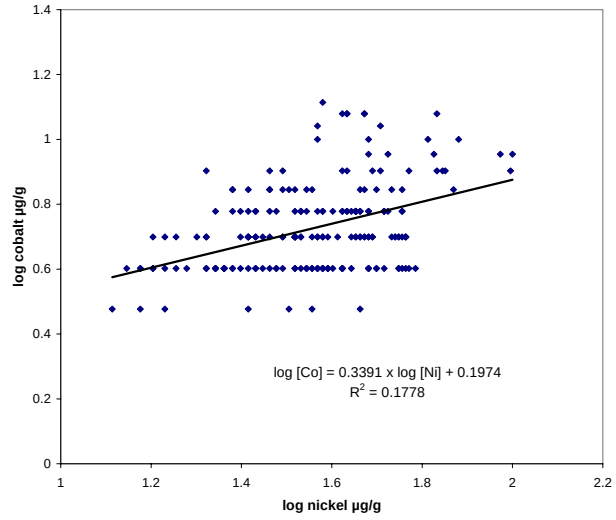


Fig. 10.4.1.6b: log Co vs. log Ni, 10-20 cm, Outer Com.

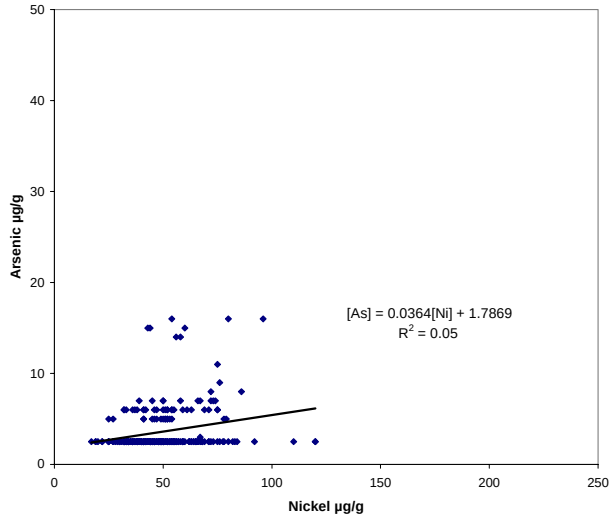


Fig. 10.4.1.7: As vs. Ni, 0-5 cm, Outer Com.

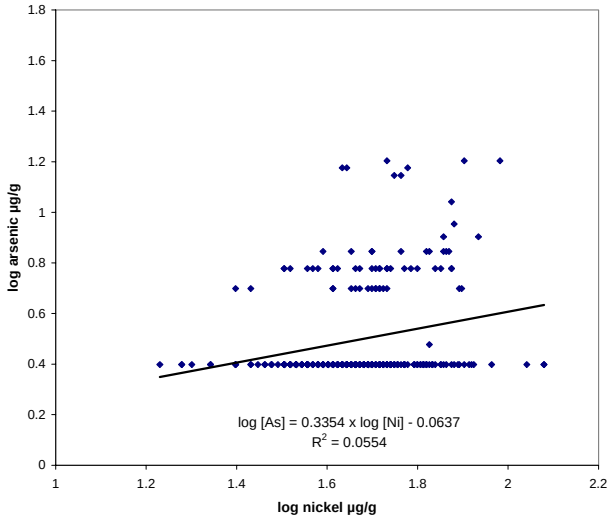


Fig. 10.4.1.7b: log As vs. log Ni, 0-5 cm, Outer Com.

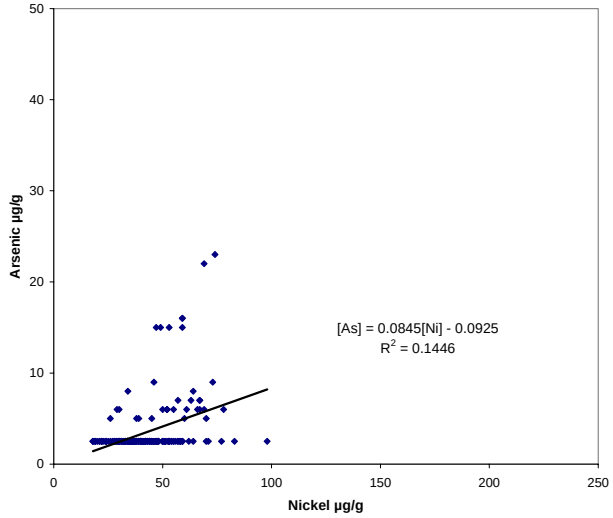


Fig. 10.4.1.8: As vs. Ni, 5-10 cm, Outer Com.

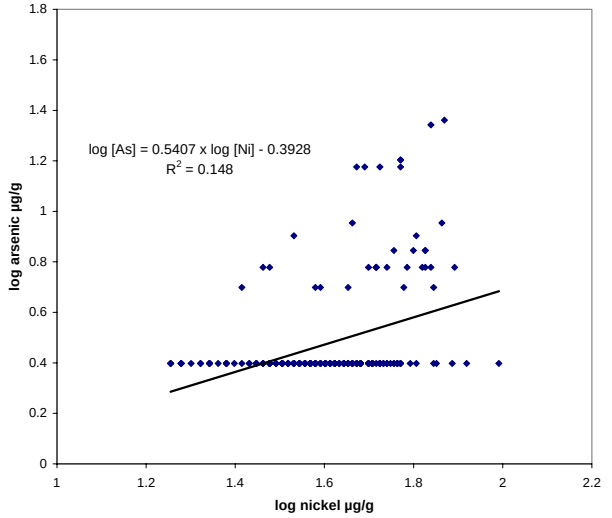


Fig 10.4.1.8b: log As vs. log Ni, 5-10 cm, Outer Com.

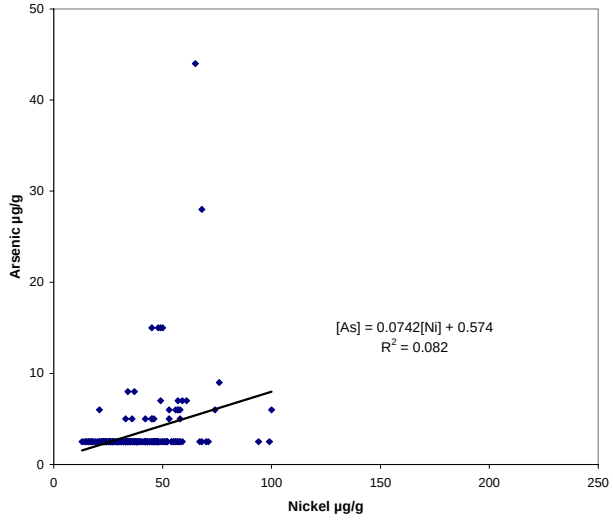


Fig. 10.4.1.9: As vs. Ni, 10-20 cm, Outer Com.

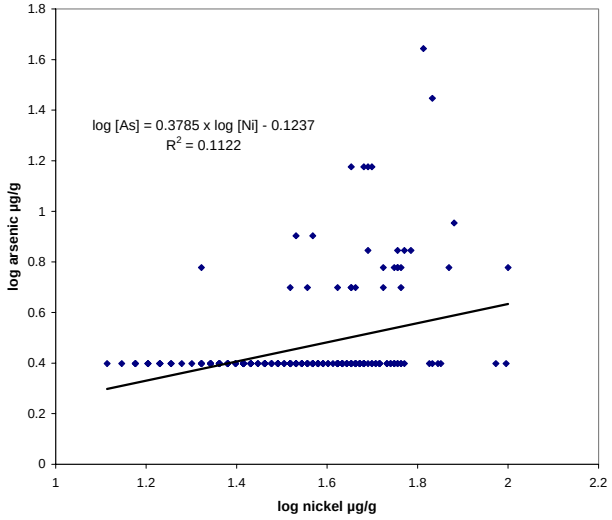


Fig. 10.4.1.9b: log As vs. log Ni, 10-20 cm, Outer Com.

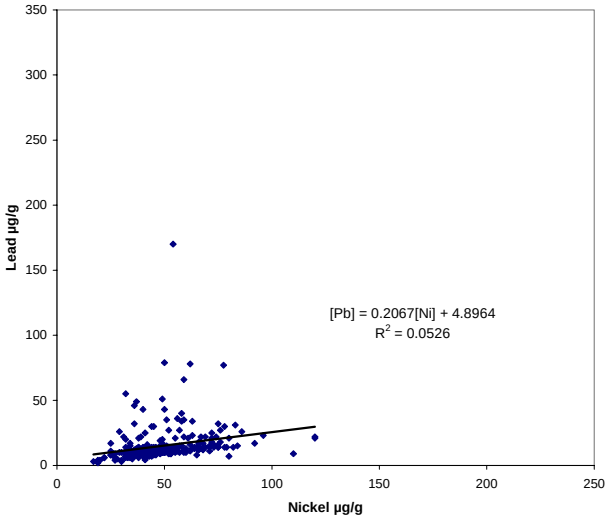


Fig. 10.4.1.10: Pb vs. Ni, 0-5 cm, Outer Com.

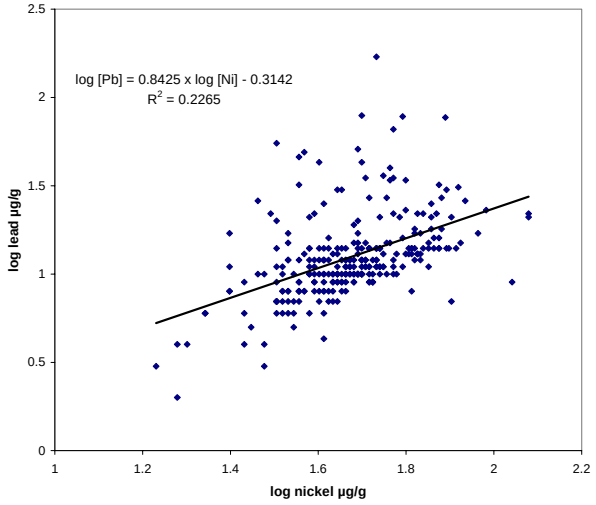


Fig. 10.4.1.10b: log Pb vs. log Ni, 0-5 cm, Outer Com.

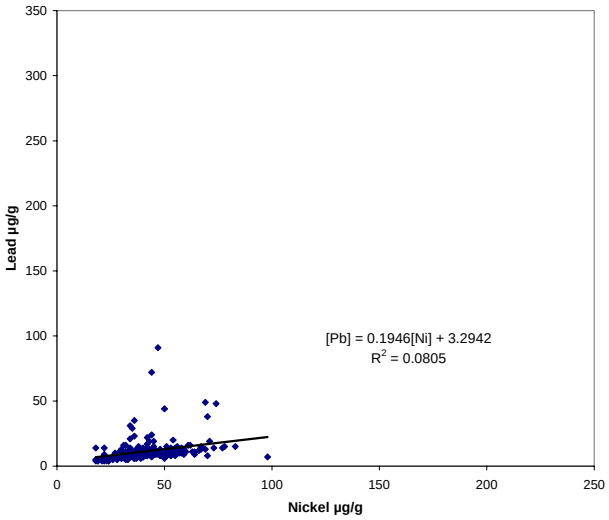


Fig. 10.4.1.11: Pb vs. Ni, 5-10 cm, Outer Com.

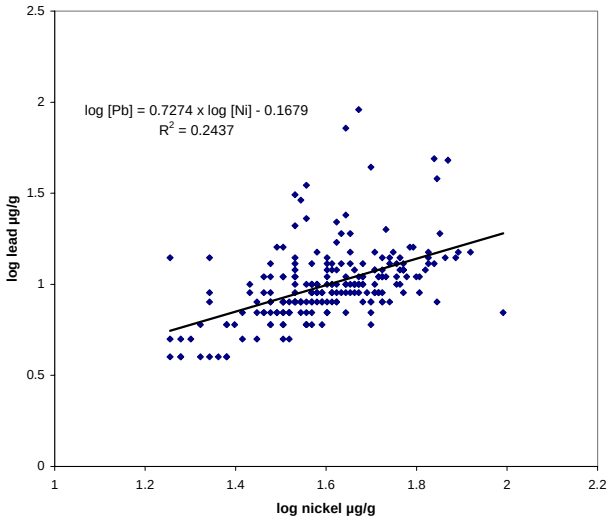


Fig. 10.4.1.11b: log Pb vs. log Ni, 5-10 cm, Outer Com.

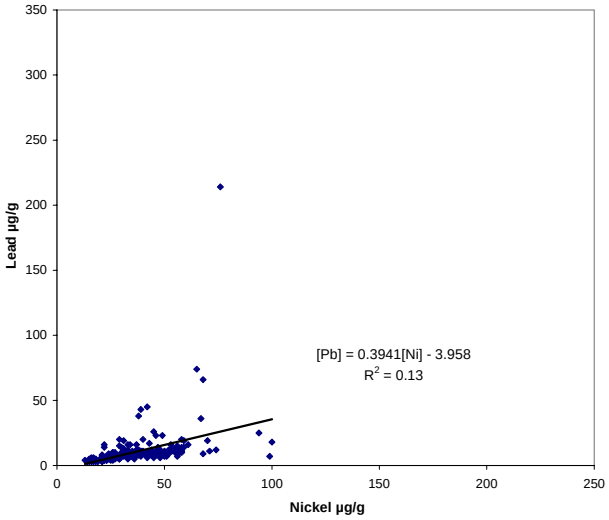


Fig. 10.4.1.12: Pb vs. Ni, 10-20 cm, Outer Com.

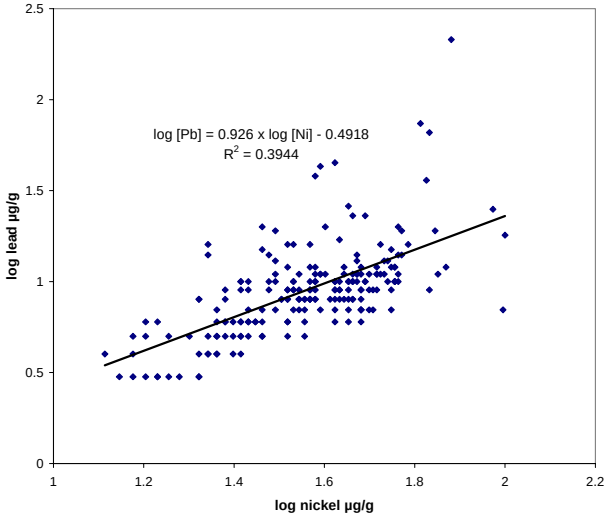


Fig. 10.4.1.12b: log Pb vs. log Ni, 10-20 cm, Outer Com.

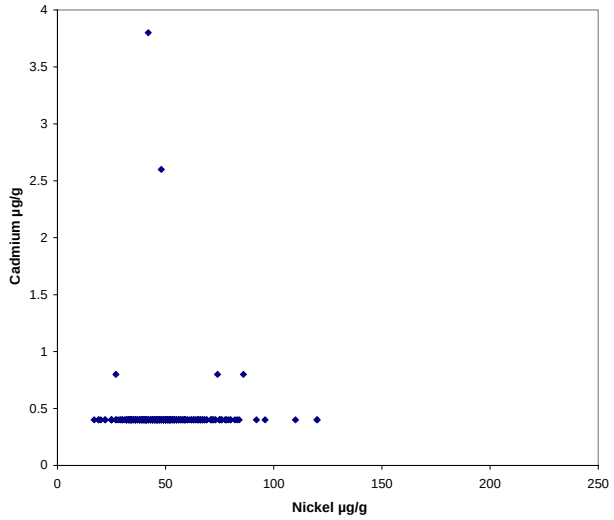


Fig. 10.4.1.13: Cd vs. Ni, 0-5 cm, Outer Com.

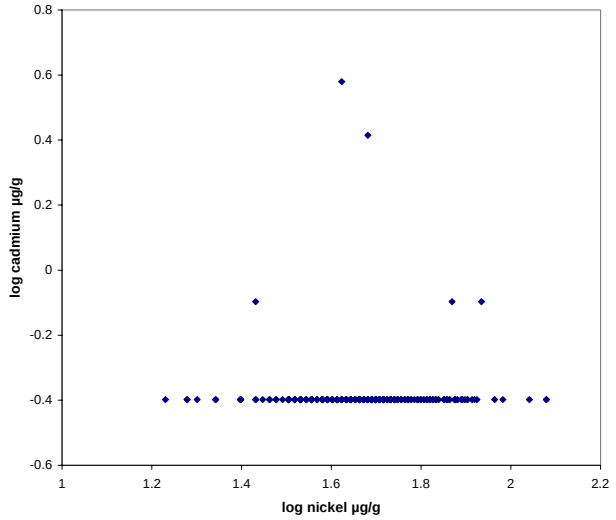


Fig. 10.4.1.13b: log Cd vs. log Ni, 0-5 cm, Outer Com.

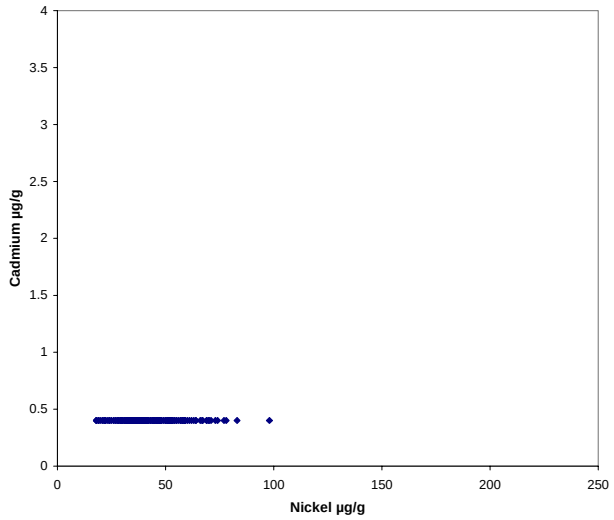


Fig. 10.4.1.14: Cd vs. Ni, 5-10 cm, Outer Com.

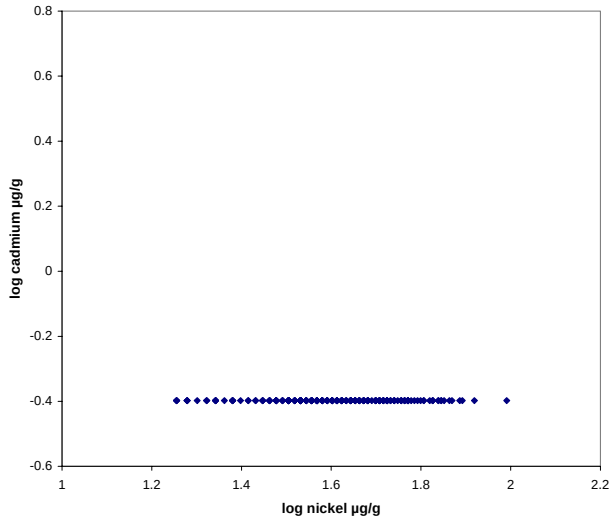


Fig. 10.4.1.14b: log Cd vs. log Ni, 5-10 cm, Outer Com.

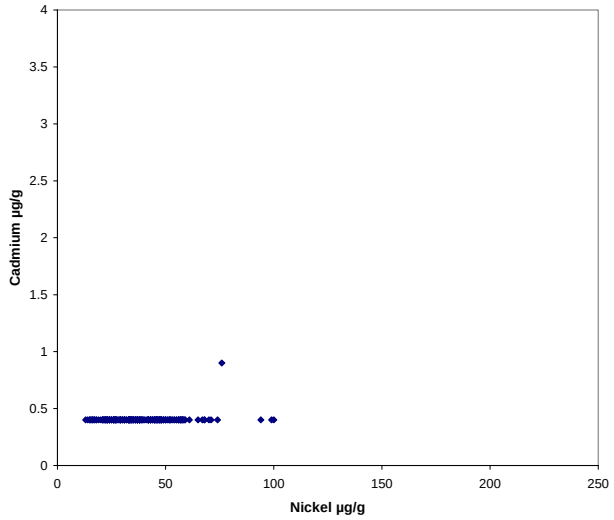


Fig. 10.4.1.15: Cd vs. Ni, 10-20 cm, Outer Com.

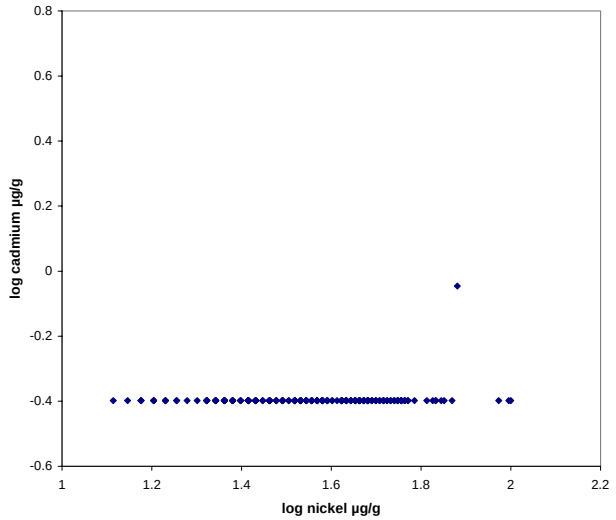


Fig. 10.4.1.15b: log Cd vs. log Ni, 10-20 cm, Outer Com.

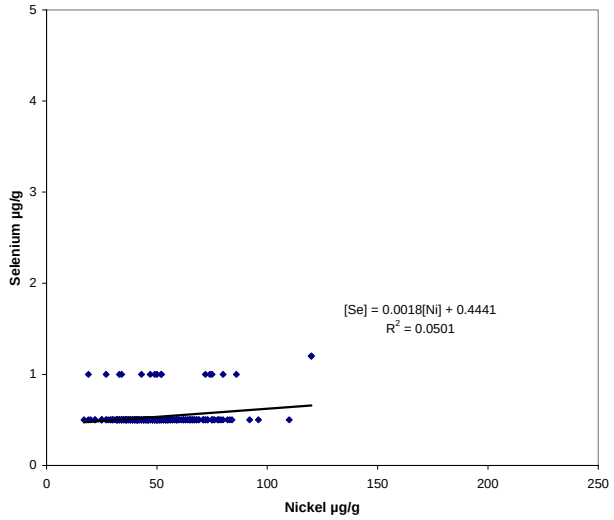


Fig. 10.4.1.16: Se vs. Ni, 0-5 cm, Outer Com.

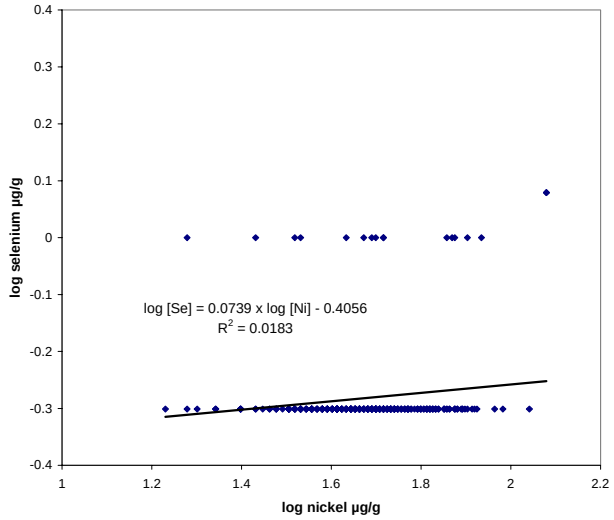


Fig. 10.4.1.16b: log Se vs. log Ni, 0-5 cm, Outer Com.

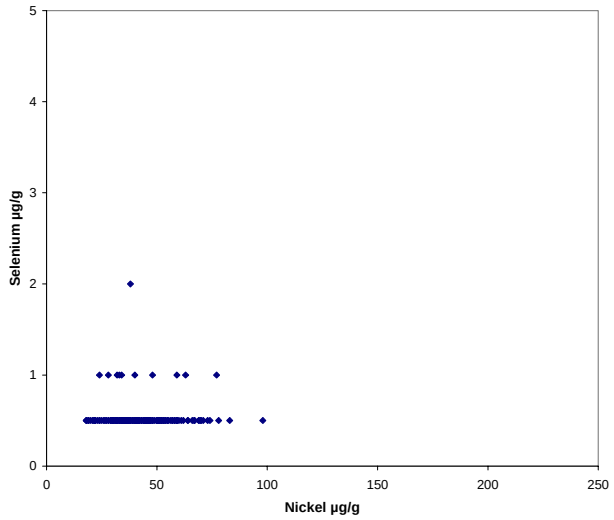


Fig. 10.4.1.17: Se vs. Ni, 5-10 cm, Outer Com.

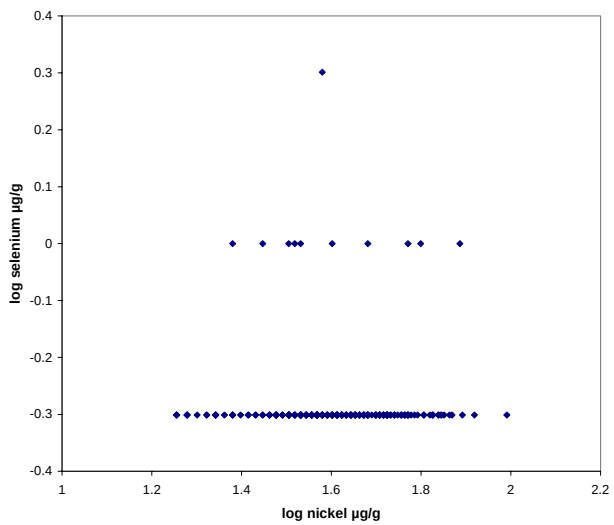


Fig 10.1.4.17b: log Se vs. log Ni, 5-10 cm, Outer Com.

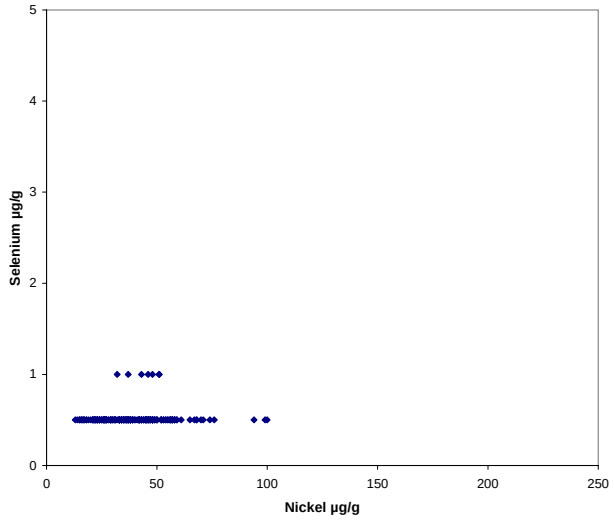


Fig. 10.4.1.18: Se vs. Ni, 10-20 cm, Outer Com.

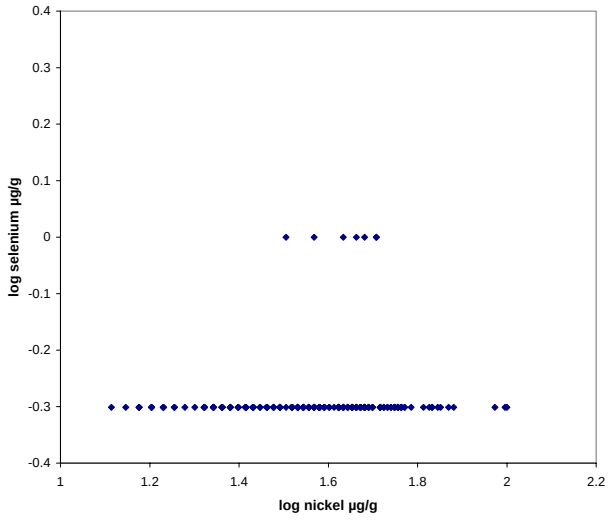


Fig. 10.4.1.18b: log Se vs. log Ni, 10-20 cm, Outer Com.

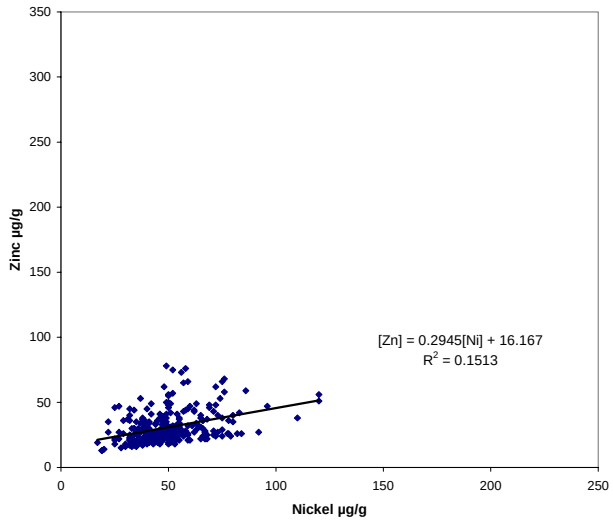


Fig. 10.4.1.19: Zn vs. Ni, 0-5 cm, Outer Com.

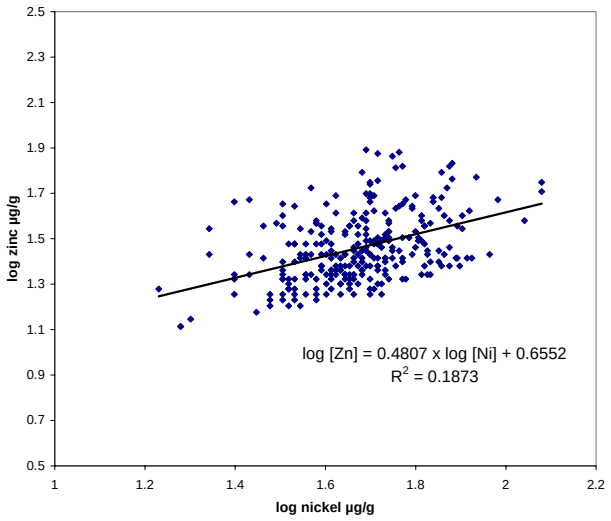


Fig. 10.4.1.19b: log Zn vs. log Ni, 0-5 cm, Outer Com.

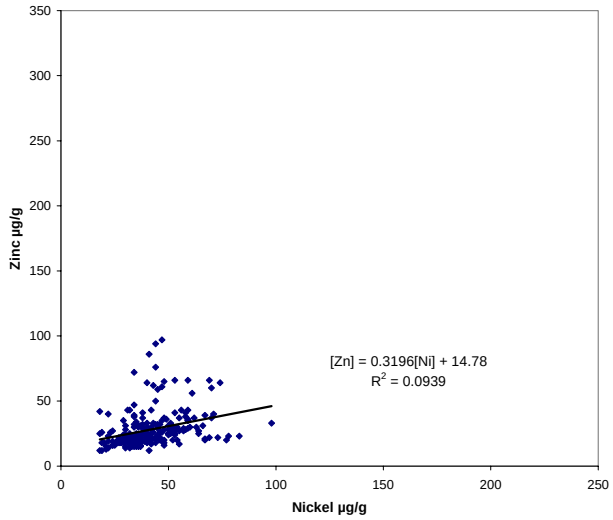


Fig. 10.4.1.20: Zn vs. Ni, 5-10 cm, Outer Com.

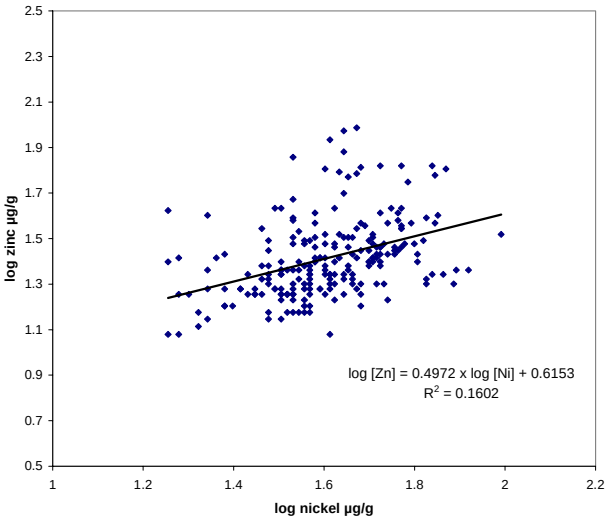


Fig. 10.4.1.20b: log Zn vs. log Ni, 5-10 cm, Outer Com.

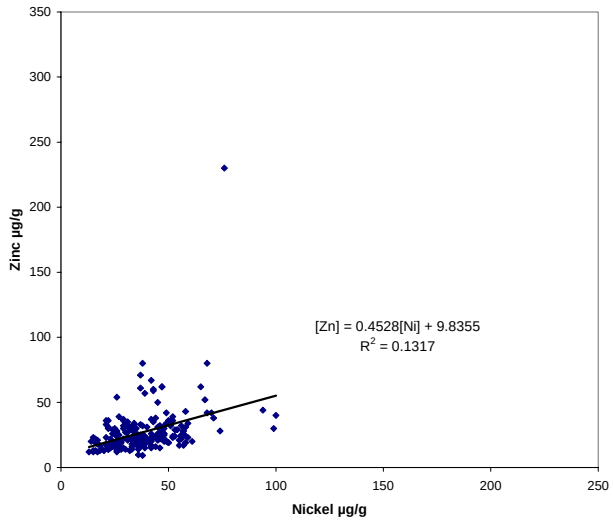


Fig. 10.4.1.21: Zn vs. Ni, 10-20 cm, Outer Com.

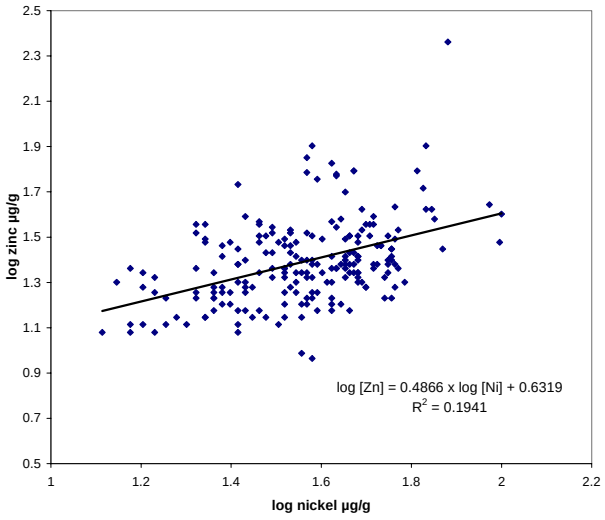


Fig. 10.4.1.21b: log Zn vs, log Ni, 10-20 cm, Outer com.

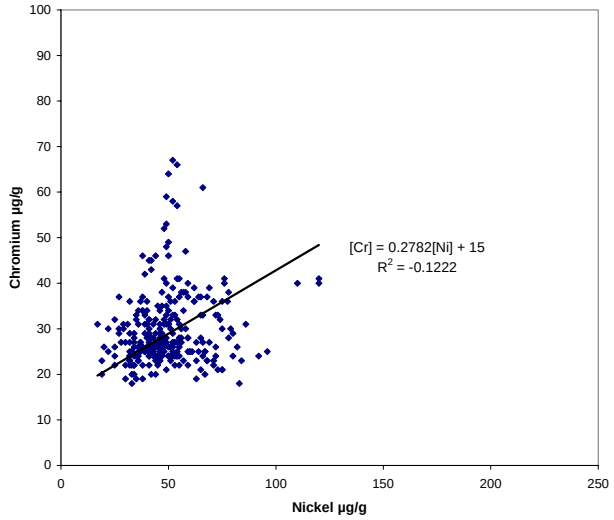


Fig. 10.4.1.22: Cr vs. Ni, 0-5 cm, Outer Com.

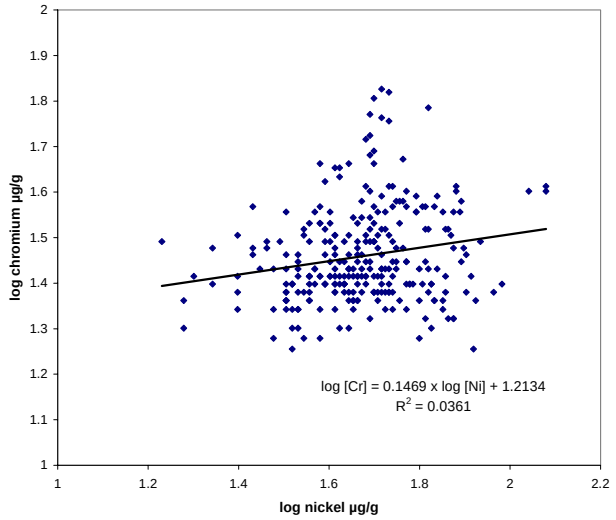


Fig. 10.4.1.22b: log Cr vs. log Ni, 0-5 cm, Outer Com.

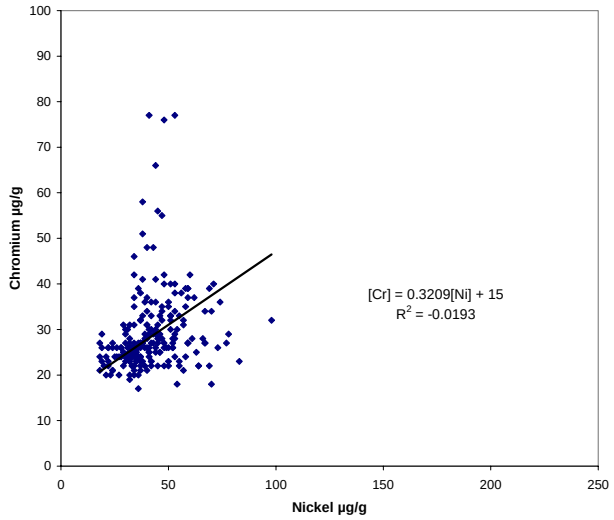


Fig. 10.4.1.23: Cr vs. Ni, 5-10 cm, Outer Com.

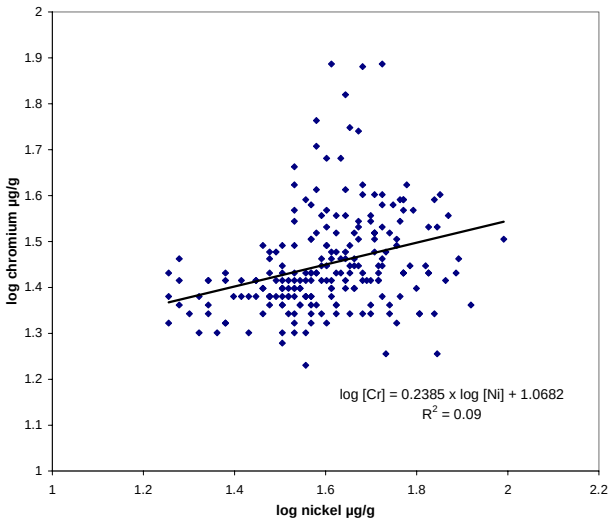


Fig. 10.4.1.23b: log Cr vs. log Ni, 5-10 cm, Outer Com.

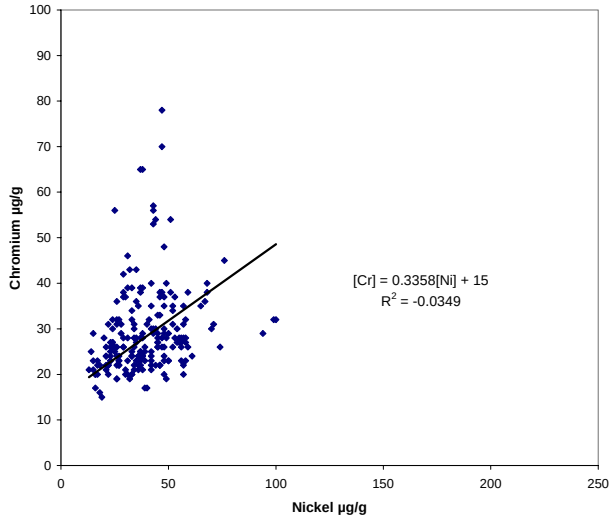


Fig. 10.4.1.24: Cr vs. Ni, 10-20 cm, Outer Com.

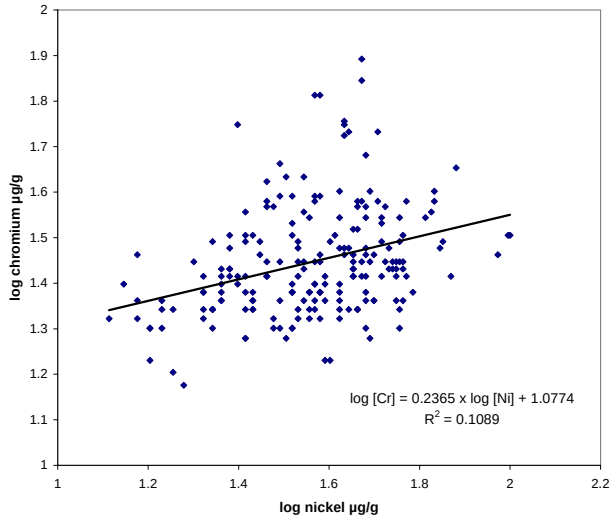


Fig. 10.4.1.24b: log Cr vs. log Ni, 10-20 cm, Outer Com.

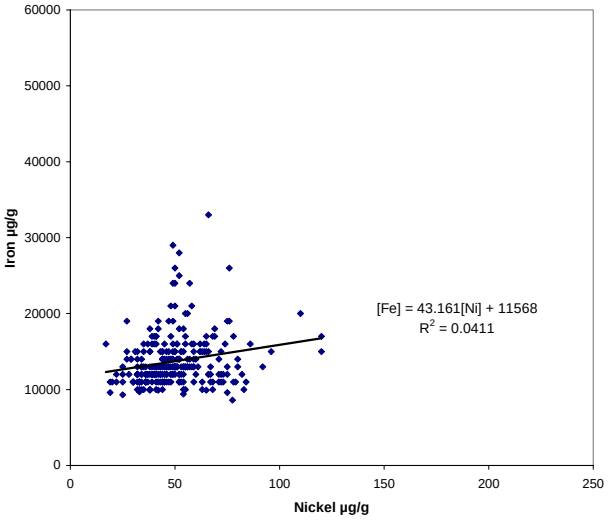


Fig. 10.4.1.25: Fe vs. Ni, 0-5 cm, Outer Com.

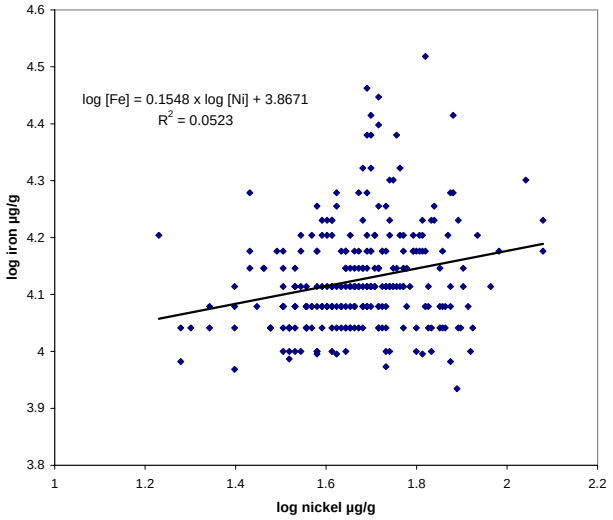


Fig. 10.4.1.25b: log Fe vs. log Ni, 0-5 cm, Outer Com.

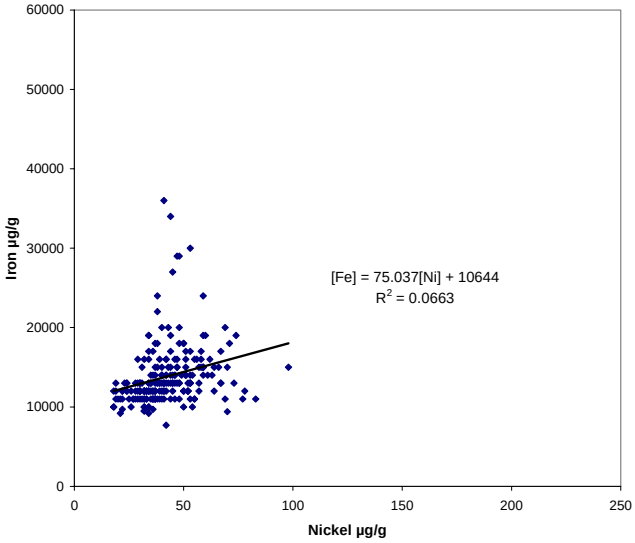


Fig. 10.4.1.26: Fe vs. Ni, 5-10 cm, Outer Com.

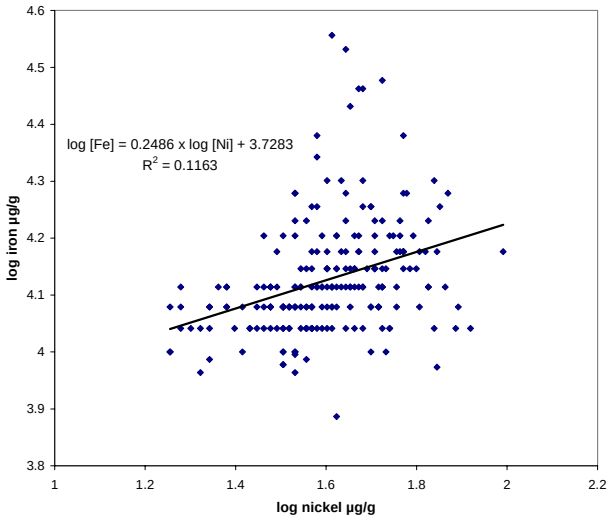


Fig. 10.4.1.26b: log Fe vs. log Ni, 5-10 cm, Outer Com.

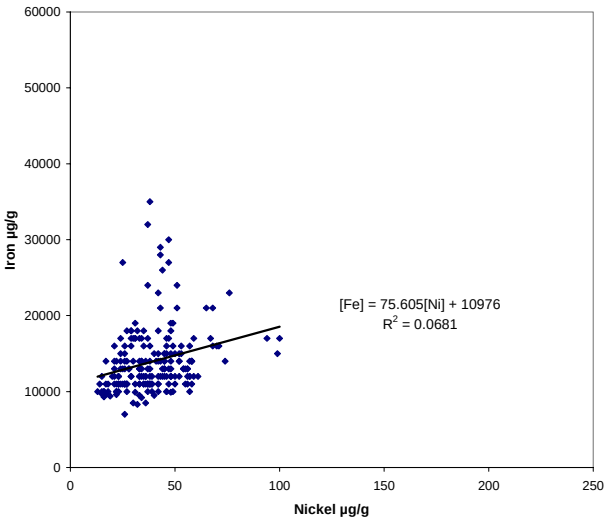


Fig. 10.4.1.27: Fe vs. Ni, 10-20 cm, Outer Com.

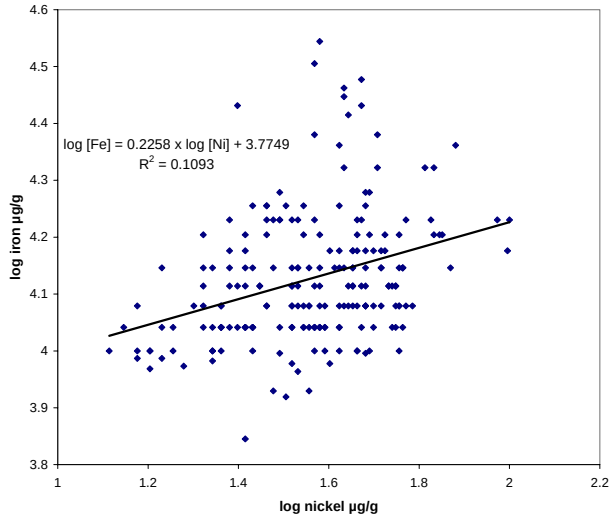


Fig. 10.4.1.27b: log Fe vs. log Ni, 10-20 cm, Outer Com.

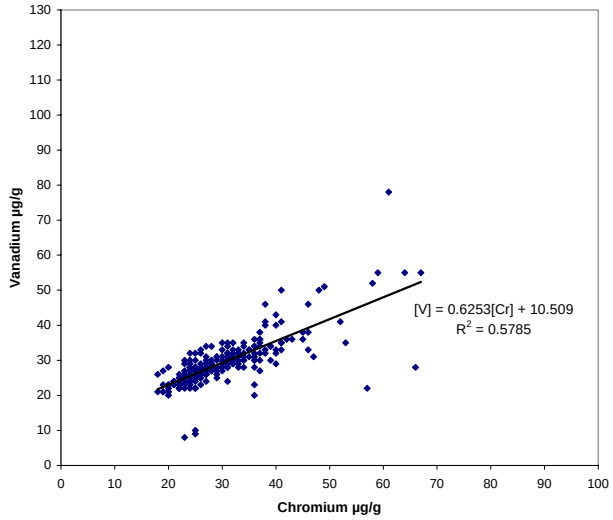


Fig. 10.4.1.28: V vs. Cr, 0-5 cm, Outer Com.

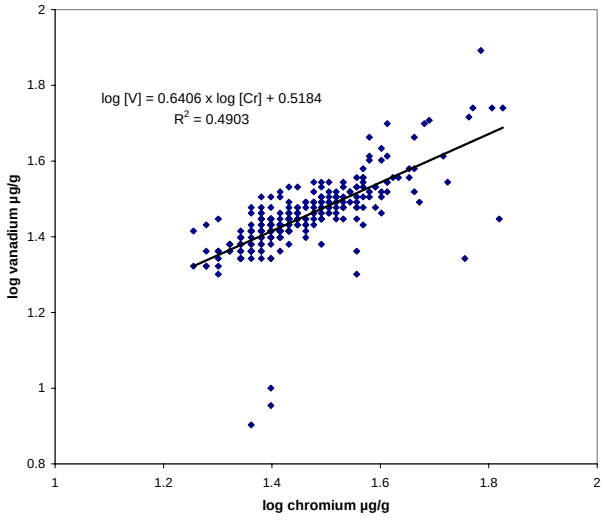


Fig. 10.4.1.28b: log V vs. Log Cr, 0-5 cm, Outer Com.

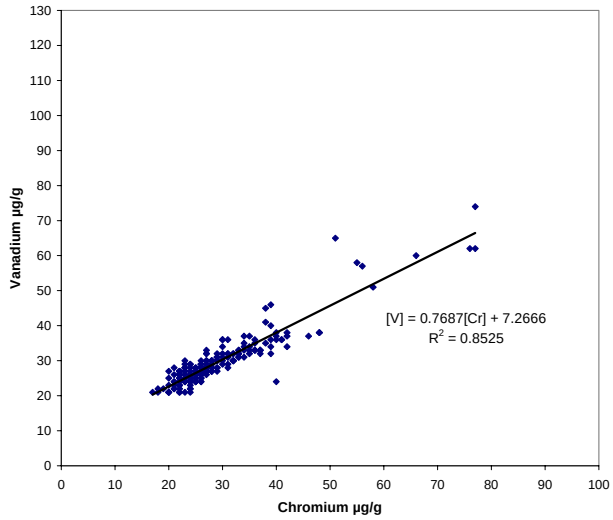


Fig. 10.4.1.29: V vs. Cr, 5-10 cm, Outer Com.

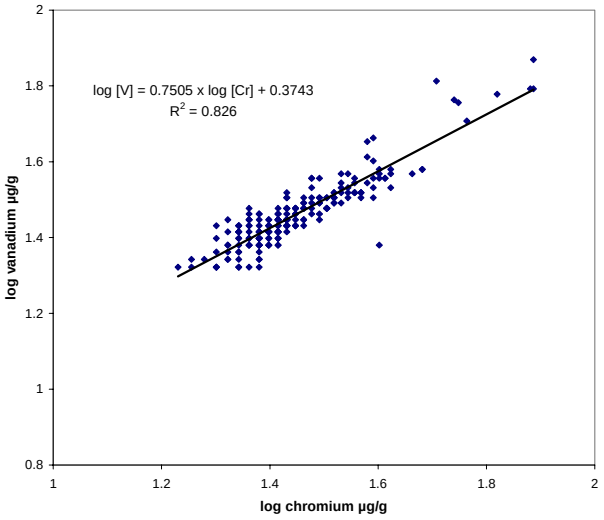


Fig. 10.4.1.29b: log V vs. log Cr, 5-10 cm, Outer Com.

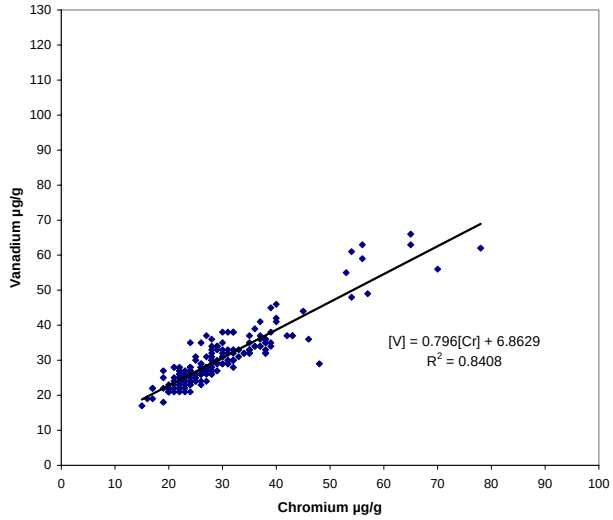


Fig. 10.4.1.30: V vs. Cr, 10-20 cm, Outer Com.

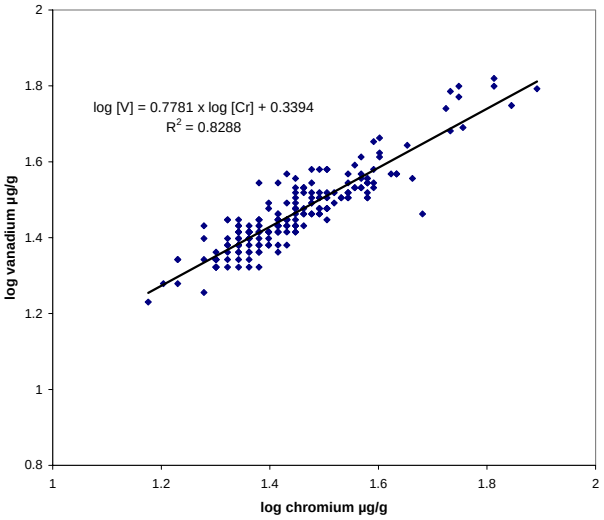


Fig. 10.4.1.30b: log V vs. log Cr, 10-20 cm, Outer Com.

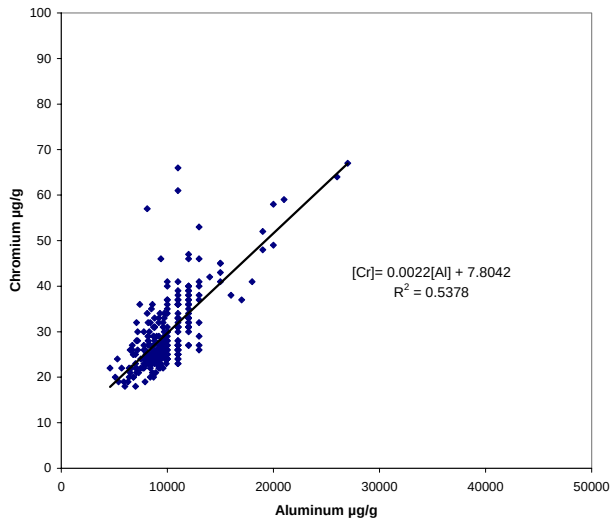


Fig. 10.4.1.31: Cr vs. Al, 0-5 cm, Outer Com.

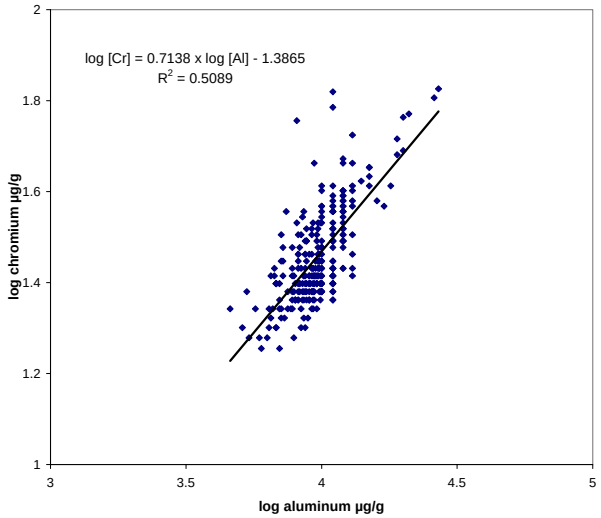


Fig. 10.4.1.31b: log Cr vs. log Al, 0-5 cm, Outer Com.

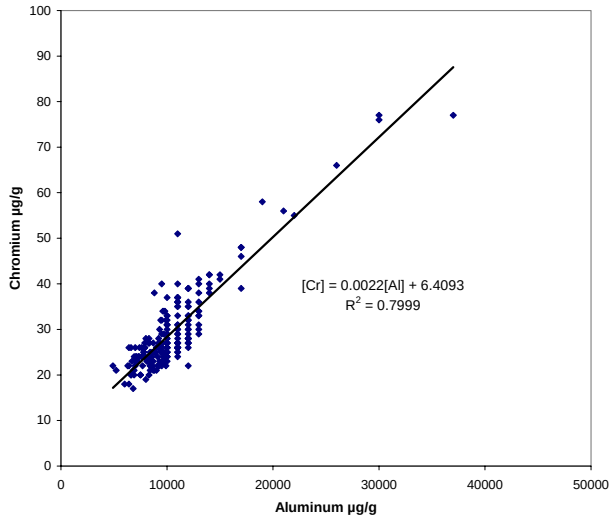


Fig. 10.4.1.32: Cr vs. Al, 5-10 cm, Outer Com.

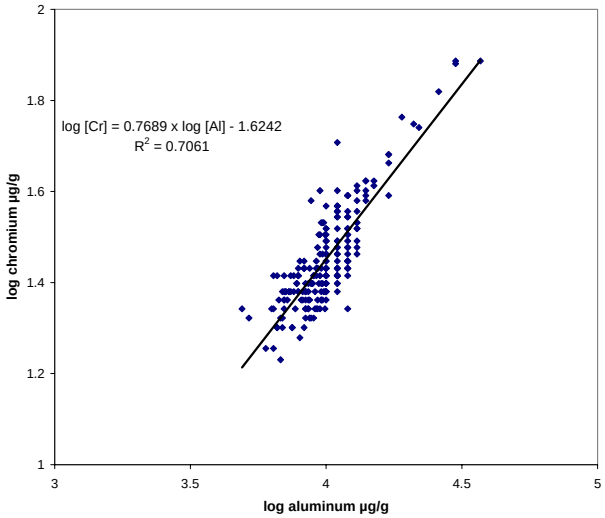


Fig. 10.4.1.32b: log Cr vs. log Al, 5-10 cm, Outer Com.

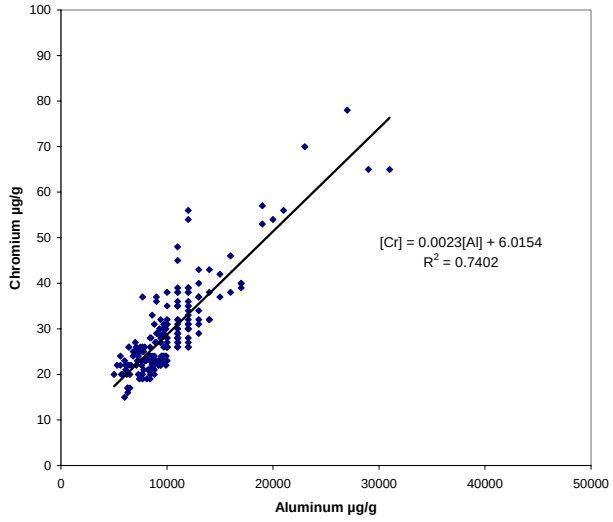


Fig. 10.4.1.33: Cr vs. Al, 10-20 cm, Outer Com.

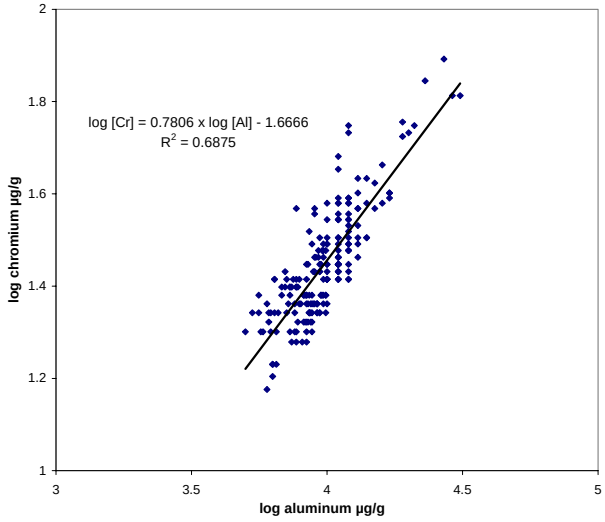


Fig. 10.4.1.33b: log Cr vs. log Al, 10-20 cm, Outer Com.

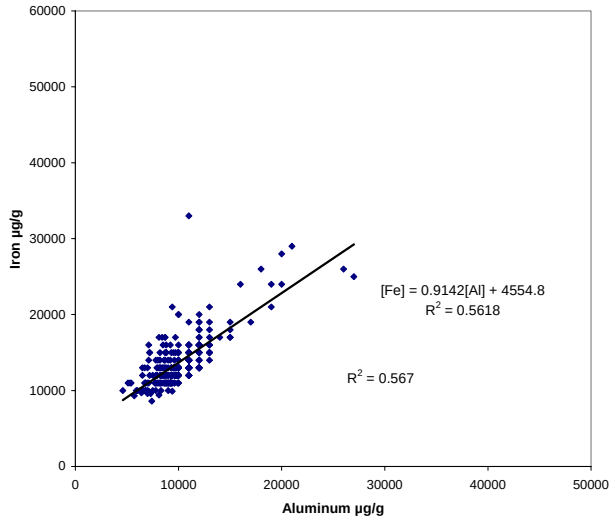


Fig. 10.4.1.34: Fe vs. Al, 0-5 cm, Outer Com.

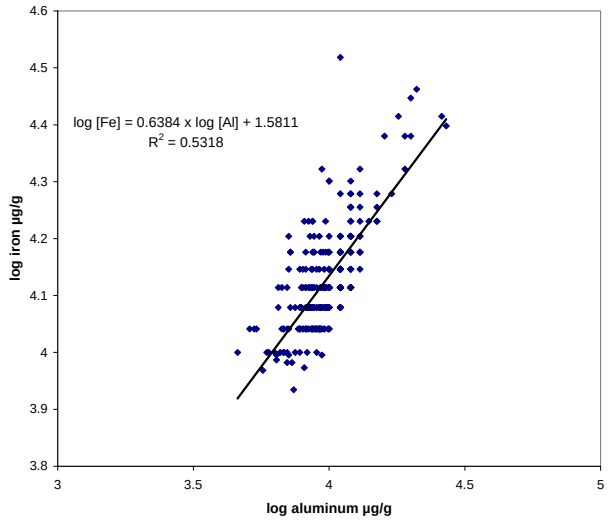


Fig. 10.4.1.34b: log Fe vs. log Al, 0-5 cm, Outer Com.

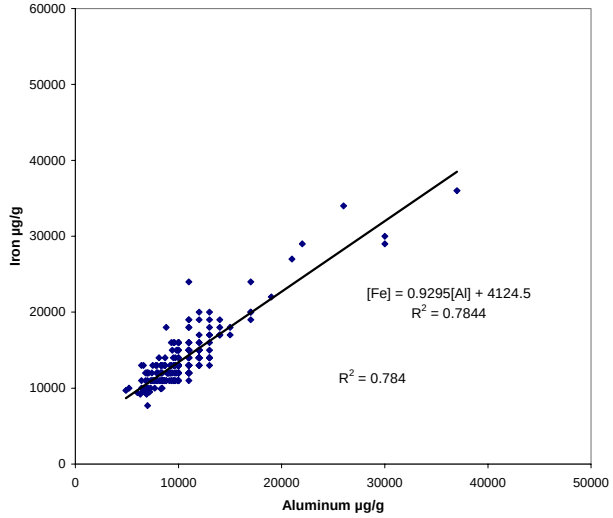


Fig. 10.4.1.35: Fe vs. Al, 5-10 cm, Outer Com.

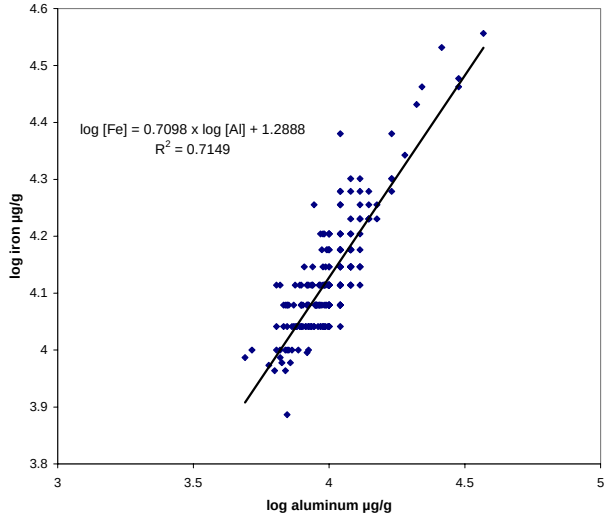


Fig. 10.4.1.35b: log Fe vs. log Al, 5-10 cm, Outer Com.

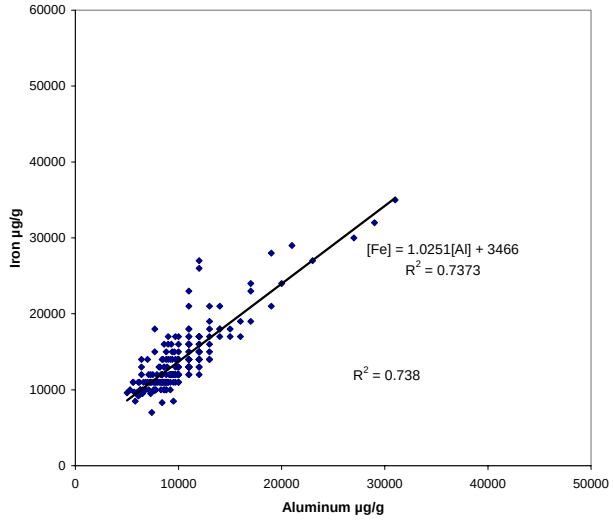


Fig. 10.4.1.36: Fe vs. Al, 10-20 cm, Outer Com.

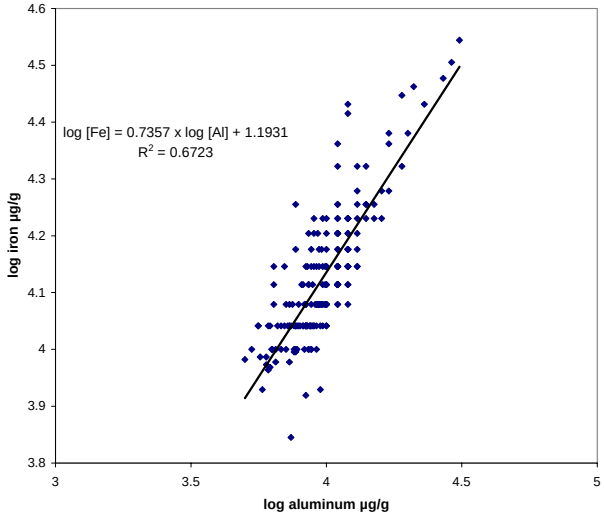


Fig. 10.4.1.36b: log Fe vs. log Al, 10-20 cm, Outer Com.

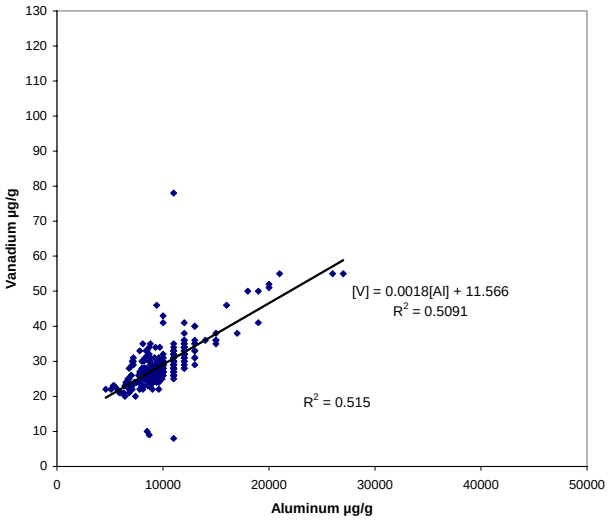


Fig. 10.4.1.37: V vs. Al, 0-5 cm, Outer Com.

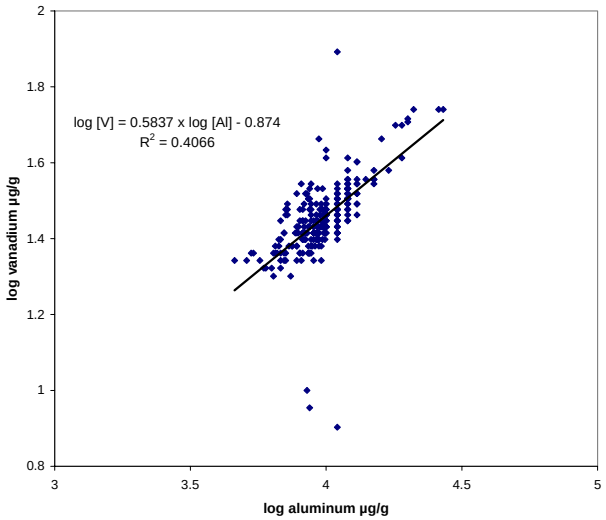


Fig. 10.4.1.37b: log V vs. log Al, 0-5 cm, Outer Com.

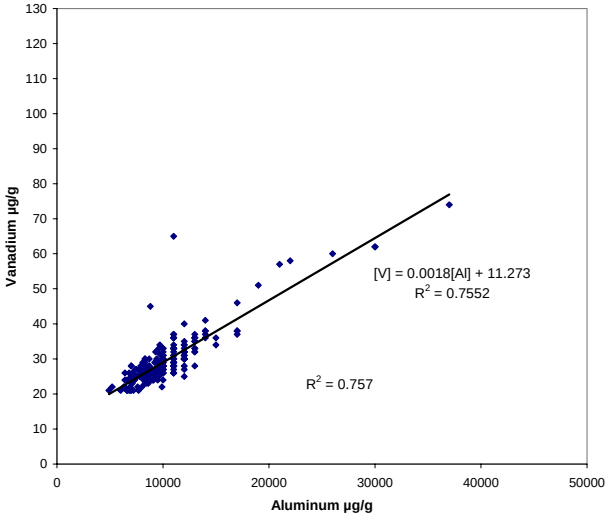


Fig. 10.4.1.38: V vs. Al, 5-10 cm, Outer Com.

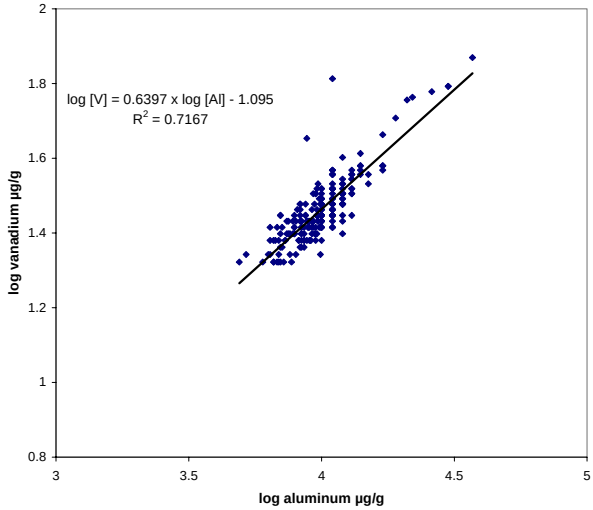


Fig. 10.4.1.38b: log V vs. log Al, 5-10 cm, Outer Com.

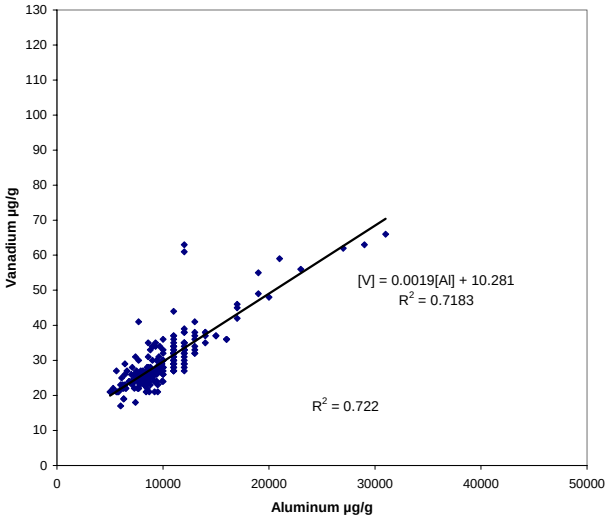


Fig. 10.4.1.39: V vs. Al, 10-20 cm, Outer Com.

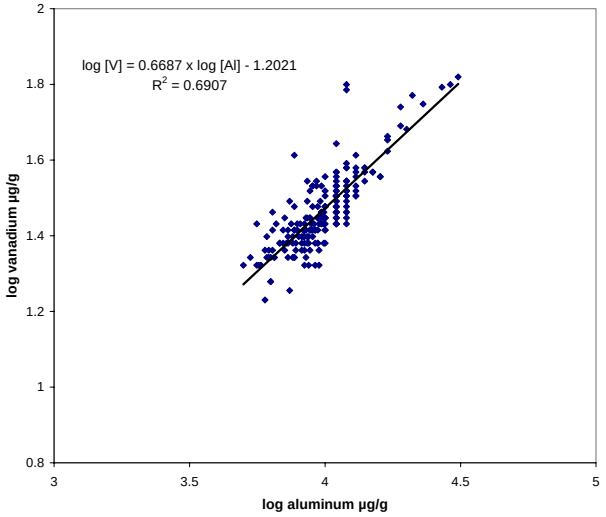


Fig. 10.4.1.39b: log V vs. log Al, 10-20 cm, Outer Com.

Table 10.4.1.1: Pearson's and Spearman's Correlations for 0 to 5 cm Urban Soil in the Outer Sudbury Communities

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	*0*	*0.14*	*0.71*	*0.11*	*0.35*	*0.67*	*0.34*	*0.21*	*0.67*	*0.24*	*0.32*	*0.51*	*0.00*	*0.25*	*0.04*	*0.56*	*0.70*	*0.49*
Sb	0.00	1	*0.16*	*0.04*	*0.53*	*0.08*	*0.02*	*0.07*	*0.08*	*0.09*	*0.03*	*-0.02*	*0.05*	*0.60*	*0.03*	*0.27*	*0.00*	*0.05*	*0.06*
As	0.09	0.05	1	*0.06*	*0.12*	*-0.10*	*-0.03*	*0.05*	*0.28*	*0.08*	*0.25*	*-0.10*	*0.00*	*0.15*	*0.24*	*0.11*	*-0.16*	*0.04*	*0.20*
Ba	**0.87**	0.01	0.05	1	*0.16*	*0.50*	*0.68*	*0.64*	*0.34*	*0.71*	*0.34*	*0.57*	***0.75***	*0.08*	*0.38*	*0.04*	*0.55*	*0.72*	*0.69*
Cd	0.19	0.06	-0.01	0.15	1	*0.11*	*0.13*	*0.18*	*0.05*	*0.17*	*0.09*	*0.10*	*0.16*	*0.66*	*0.03*	*0.30*	*0.08*	*0.17*	*0.17*
Ca	0.05	0.05	0.03	0.14	0.04	1	*0.52*	*0.43*	*0.05*	*0.39*	*0.06*	*0.72*	*0.53*	*0.04*	*0.21*	*0.02*	*0.67*	*0.41*	*0.29*
Cr	0.74	0.01	-0.04	0.72	0.18	0.28	1	*0.60*	*0.15*	***0.76***	*0.27*	*0.69*	*0.64*	*0.07*	*0.18*	*0.04*	*0.58*	***0.80***	*0.56*
Co	0.54	0.05	0.09	0.69	0.22	0.17	0.61	1	*0.34*	***0.75***	*0.28*	*0.74*	***0.80***	*0.13*	*0.39*	*0.03*	*0.28*	*0.66*	*0.61*
Cu	0.18	0.06	0.26	0.24	-0.01	0.08	0.15	0.38	1	*0.26*	*0.55*	*0.06*	*0.27*	*0.06*	***0.85***	*0.14*	*0.03*	*0.23*	*0.44*
Fe	**0.75**	0.03	0.07	**0.77**	0.16	0.06	**0.78**	**0.79**	0.25	1	*0.23*	*0.67*	***0.80***	*0.12*	*0.24*	*0.02*	*0.39*	***0.89***	*0.68*
Pb	0.06	0.00	0.11	0.15	0.01	0.28	0.33	0.09	0.23	0.04	1	*0.08*	*0.23*	*0.1*	*0.54*	*0.10*	*0.03*	*0.21*	*0.56*
Mg	0.45	0.01	0.00	0.59	0.13	0.50	0.62	0.73	0.08	0.69	0.04	1	*0.72*	*0*	*0.10*	*0.00*	*0.44*	*0.62*	*0.47*
Mn	0.61	0.01	0.22	0.73	0.09	0.20	0.60	**0.80**	0.31	**0.79**	0.09	0.64	1	*0.11*	*0.33*	*0.02*	*0.44*	***0.75***	*0.67*
Mo	-0.01	0.35	0.09	0.02	0.13	0.01	0.02	0.09	0.09	0.06	0.03	0.01	0.07	1	*0.00*	*0.34*	*0.00*	*0.14*	*0.12*
Ni	0.16	0.02	0.23	0.21	-0.01	0.18	0.16	0.34	**0.84**	0.20	0.23	0.07	0.31	0.03	1	*0.10*	*0.17*	*0.23*	*0.41*
Se	-0.01	0.15	0.10	0.00	0.04	0.02	0.02	0.05	0.25	0.01	0.00	-0.01	0.04	0.3	0.22	1	*-0.06*	*0.03*	*0.07*
Sr	0.47	0.03	-0.10	0.44	0.11	0.42	0.49	0.28	-0.02	0.36	-0.02	0.40	0.40	0.03	0.09	-0.03	1	*0.53*	*0.22*
V	0.72	0.02	0.05	0.72	0.13	0.04	**0.76**	0.67	0.22	**0.91**	0.02	0.60	0.71	0.08	0.18	0.00	0.40	1	*0.64*
Zn	0.59	0.07	0.28	0.72	0.18	0.09	0.58	0.69	0.46	0.71	0.30	0.46	**0.78**	0.13	0.39	0.11	0.22	0.63	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.1.2: Pearson's and Spearman's Correlations for 5 to 10 cm Urban Soil in the Outer Sudbury Communities

	Al	Sb	As	Ba	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	-0.01	0.14	**0.77**	0.52	**0.77**	0.52	0.42	**0.78**	0.36	0.42	0.61	0.00	0.48	0.07	0.69	**0.80**	0.49
Sb	-0.04	1	-0.08	0.02	-0.02	0.03	-0.02	-0.06	0.01	0.04	-0.04	0.02	-0.02	0.00	-0.04	0.06	0.00	-0.02
As	0.05	-0.06	1	0.16	0.05	0.00	0.16	0.37	0.06	0.27	-0.11	0.05	0.11	0.39	-0.04	-0.03	0.03	0.18
Ba	**0.90**	0.02	0.04	1	0.48	0.68	0.66	0.52	**0.77**	0.46	0.51	0.71	0.01	0.53	0.06	0.59	**0.76**	0.71
Ca	0.11	-0.04	0.01	0.13	1	0.71	0.54	0.29	0.59	0.23	0.70	0.63	0.08	0.42	0.01	**0.78**	0.64	0.42
Cr	**0.89**	-0.01	-0.01	**0.84**	0.28	1	0.68	0.27	**0.82**	0.28	**0.75**	**0.76**	0.08	0.37	0.05	0.74	**0.87**	0.56
Co	0.70	-0.03	0.20	0.74	0.24	**0.77**	1	0.33	**0.77**	0.34	**0.75**	**0.77**	0.07	0.46	0.06	0.42	0.67	0.64
Cu	0.23	-0.07	0.44	0.28	0.21	0.19	0.34	1	*0.36*	*0.61*	*0.08*	*0.25*	*0.05*	***0.85***	*0.05*	*0.30*	*0.37*	*0.47*
Fe	**0.89**	-0.02	0.08	**0.86**	0.18	**0.92**	**0.86**	0.25	1	0.34	0.73	**0.85**	0.05	0.42	0.03	0.59	**0.90**	0.68
Pb	0.09	0.22	0.28	0.30	-0.02	0.14	0.20	0.44	0.19	1	0.11	0.26	0.11	0.54	-0.08	0.28	0.36	0.60
Mg	0.59	-0.05	-0.05	0.61	0.59	0.73	0.70	0.08	0.74	0.03	1	**0.77**	0.09	0.14	0.00	0.49	0.70	0.57
Mn	0.73	-0.01	0.31	**0.77**	0.21	**0.79**	**0.86**	0.29	**0.87**	0.31	0.67	1	0.08	0.34	0.03	0.56	**0.79**	0.71
Mo	-0.02	-0.02	0.24	0.00	0.01	0.03	0.11	0.10	0.04	0.17	0.02	0.19	1	0.03	-0.02	0.07	0.06	0.07
Ni	0.25	-0.03	0.38	0.23	0.20	0.21	0.39	**0.83**	0.25	0.28	0.07	0.29	0.04	1	-0.01	0.39	0.43	0.46
Se	0.12	-0.04	-0.04	0.16	0.00	0.14	0.10	0.06	0.11	-0.05	0.06	0.07	-0.02	0	1	0.07	0.06	-0.02
Sr	0.62	0.02	-0.01	0.55	0.42	0.67	0.48	0.29	0.57	0.16	0.43	0.54	0.06	0.33	0.12	1	0.72	0.35
V	**0.87**	-0.02	0.06	**0.83**	0.15	**0.92**	**0.76**	0.24	**0.95**	0.16	0.68	**0.82**	0.04	0.23	0.14	0.63	1	0.64
Zn	0.59	0.09	0.22	**0.75**	0.12	0.63	0.66	0.38	0.70	0.65	0.47	0.73	0.09	0.3	0.01	0.39	0.66	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.1.3: Pearson's and Spearman's Correlations for 10 to 20 cm Urban Soil in the Outer Sudbury Communities

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	*0.1*	*0.18*	***0.83***	*0.05*	*0.53*	***0.80***	*0.58*	*0.42*	***0.79***	*0.30*	*0.43*	*0.64*	*-0.08*	*0.46*	*0.10*	***0.75***	***0.81***	*0.56*
Sb	0.03	1	*0.24*	*0.16*	*0.45*	*0.10*	*0.18*	*0.17*	*0.17*	*0.16*	*0.17*	*0.10*	*0.18*	*0.24*	*0.20*	*-0.03*	*0.12*	*0.14*	*0.16*
As	0.09	0.66	1	*0.21*	*0.19*	*-0.02*	*0.05*	*0.18*	*0.40*	*0.19*	*0.32*	*-0.07*	*0.19*	*-0.05*	*0.37*	*-0.08*	*0.06*	*0.16*	*0.25*
Ba	**0.81**	0.30	0.13	1	*0.12*	*0.51*	*0.70*	*0.65*	*0.46*	***0.78***	*0.42*	*0.51*	*0.70*	*-0.06*	*0.46*	*0.07*	*0.64*	***0.77***	***0.76***
Cd	0.02	0.55	0.10	0.47	1	*0.09*	*0.11*	*0.11*	*0.12*	*0.11*	*0.12*	*0.05*	*0.11*	*-0.01*	*0.12*	*-0.01*	*0.12*	*0.11*	*0.12*
Ca	0.14	0.02	0.01	0.13	0.03	1	*0.70*	*0.57*	*0.27*	*0.63*	*0.21*	*0.69*	*0.68*	*0.10*	*0.29*	*0.07*	***0.78***	*0.62*	*0.47*
Cr	**0.86**	0.13	0.07	**0.77**	0.11	0.27	1	***0.75***	*0.34*	***0.87***	*0.25*	***0.75***	***0.75***	*-0.05*	*0.35*	*0.07*	***0.78***	***0.89***	*0.60*
Co	0.69	0.23	0.25	0.72	0.15	0.33	**0.75**	1	*0.37*	***0.84***	*0.33*	***0.81***	***0.78***	*-0.02*	*0.38*	*0.07*	*0.49*	*0.74*	*0.69*
Cu	0.24	0.38	0.47	0.34	0.28	0.08	0.27	0.44	1	*0.40*	*0.68*	*0.14*	*0.33*	*-0.10*	***0.86***	*0.17*	*0.31*	*0.42*	*0.49*
Fe	**0.86**	0.18	0.17	**0.81**	0.15	0.26	**0.91**	**0.85**	0.35	1	*0.32*	***0.76***	***0.83***	*-0.03*	*0.34*	*0.05*	*0.66*	***0.92***	*0.73*
Pb	0.05	0.71	0.41	0.49	**0.86**	0.02	0.14	0.29	0.54	0.22	1	*0.09*	*0.25*	*-0.04*	*0.63*	*-0.05*	*0.24*	*0.32*	*0.55*
Mg	0.53	0.00	-0.02	0.52	0.00	0.71	0.67	0.66	0.09	0.69	0	1	*0.72*	*0.03*	*0.07*	*0.06*	*0.50*	*0.69*	*0.57*
Mn	0.72	0.35	0.42	0.74	0.19	0.25	**0.77**	**0.82**	0.42	**0.85**	0.35	0.58	1	*0.03*	*0.32*	*0.01*	*0.62*	***0.78***	*0.72*
Mo	-0.04	0.13	-0.03	-0.04	-0.01	0.11	0.07	-0.04	-0.06	-0.04	0	0.07	0	1	*-0.04*	*-0.02*	*-0.04*	*-0.07*	*-0.05*
Ni	0.28	0.22	0.29	0.28	0.17	0.10	0.24	0.41	**0.82**	0.26	0.36	0.03	0.34	-0.01	1	*0.10*	*0.35*	*0.35*	*0.42*
Se	0.14	-0.02	-0.05	0.16	-0.01	0.25	0.13	0.12	0.12	0.10	-0.04	0.12	-0.01	0	0.06	1	*0.09*	*0.09*	*0.02*
Sr	0.67	0.18	0.12	0.61	0.24	0.40	0.70	0.52	0.31	0.64	0.26	0.40	0.61	0	0.33	0.14	1	*0.74*	*0.44*
V	**0.85**	0.11	0.13	**0.78**	0.12	0.19	**0.92**	**0.75**	0.35	**0.96**	0.17	0.61	**0.82**	-0.05	0.25	0.1	0.68	1	*0.70*
Zn	0.46	0.54	0.30	**0.80**	**0.75**	0.11	0.52	0.63	0.51	0.62	**0.82**	0.33	0.69	-0.04	0.36	0	0.47	0.57	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

10.4.2 Inner Sudbury Communities (Inner Com.)

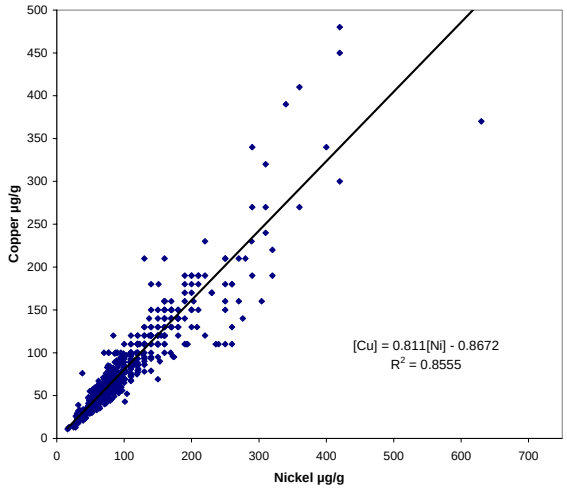


Fig. 10.4.2.1: Cu vs. Ni, 0-5 cm, Inner Com.

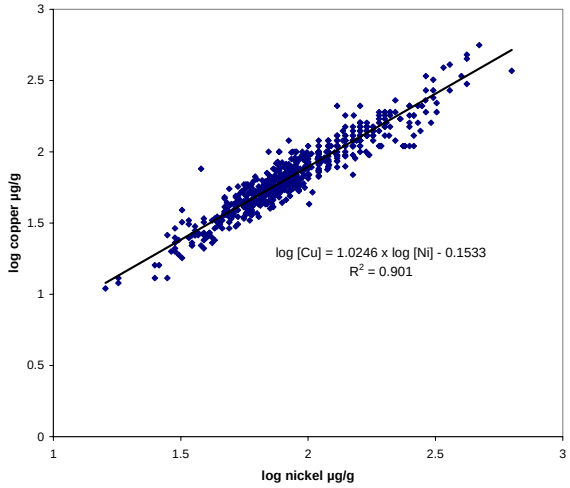


Fig. 10.4.2.1a: log Cu vs. log Ni, 0-5 cm, Inner Com.

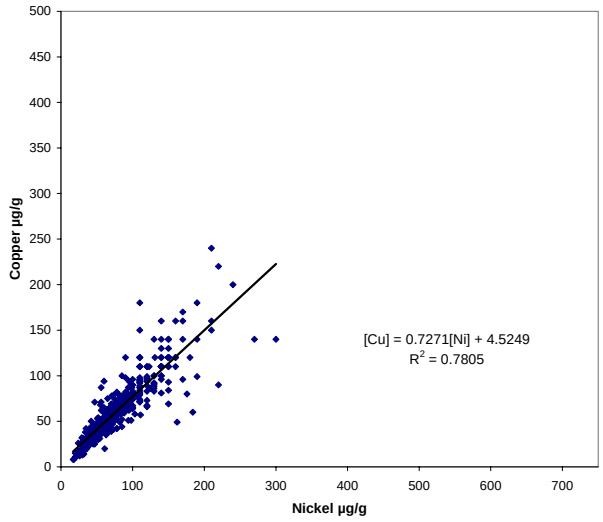


Fig. 10.4.2.2: Cu vs. Ni, 5-10 cm, Inner Com.

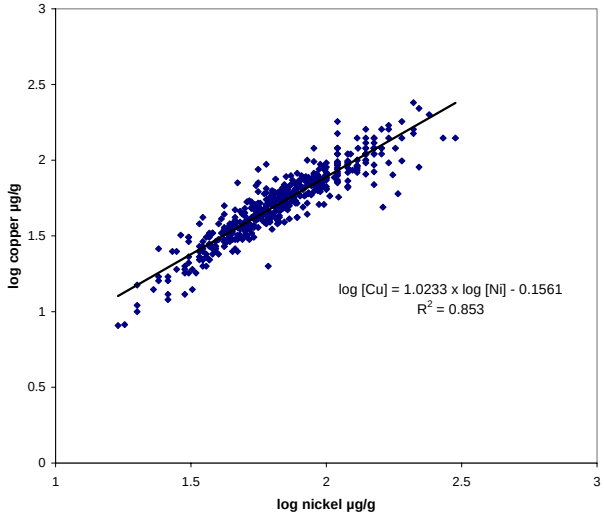


Fig. 10.4.2.2b: log Cu vs. log Ni, 5-10 cm, Inner Com.

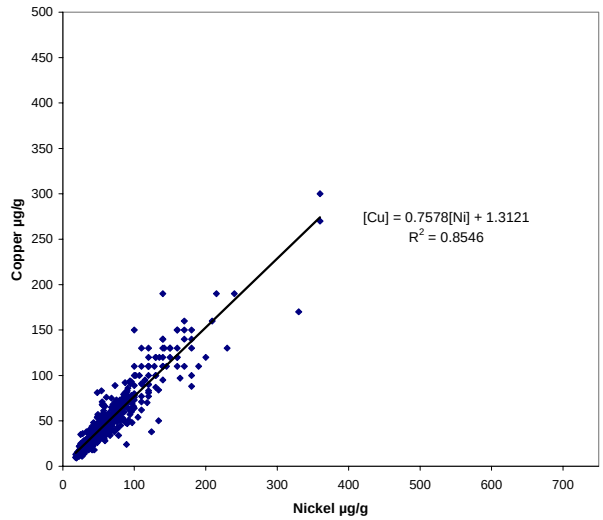


Fig. 10.4.2.3: Cu vs. Ni, 10-20 cm, Inner Com.

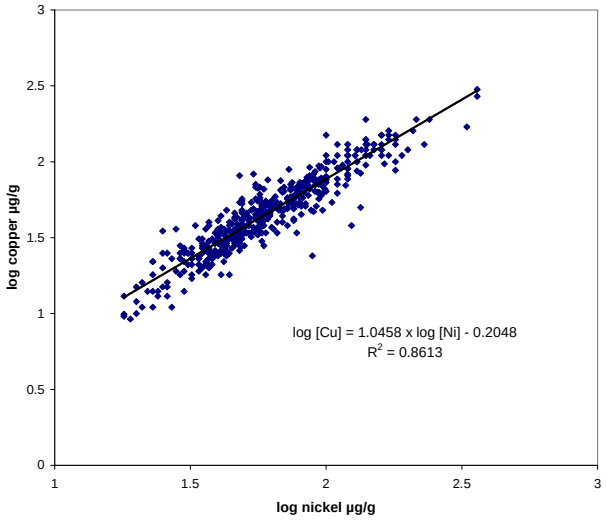


Fig. 10.4.2.3b: log Cu vs. log Ni, 10-20 cm, Inner Com.

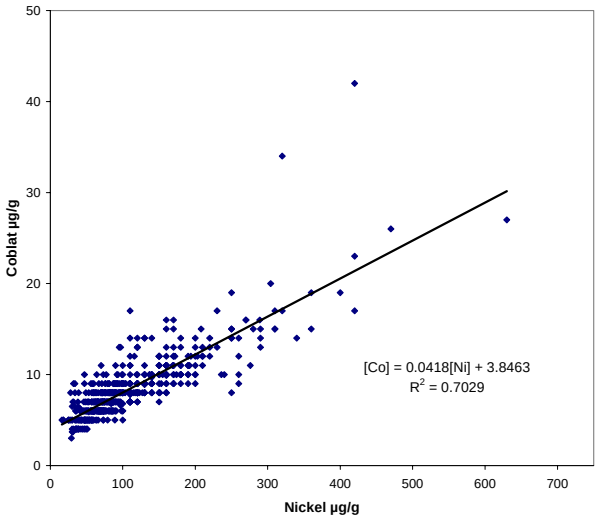


Fig. 10.4.2.4: Co vs. Ni, 0-5 cm, Inner Com.

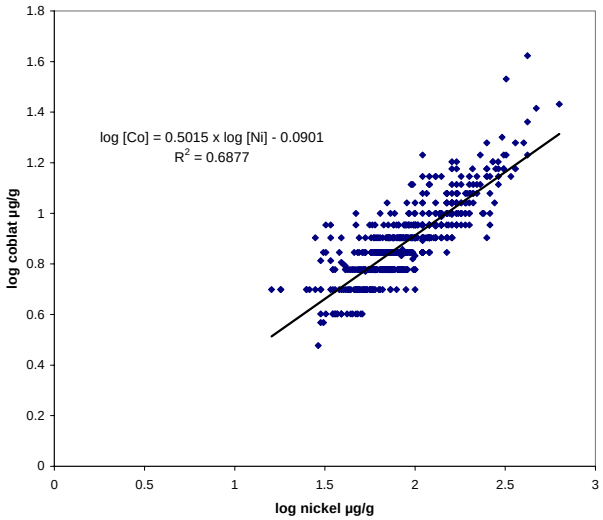


Fig. 10.4.2.4b: log Co vs. log Ni, 0-5 cm, Inner Com.

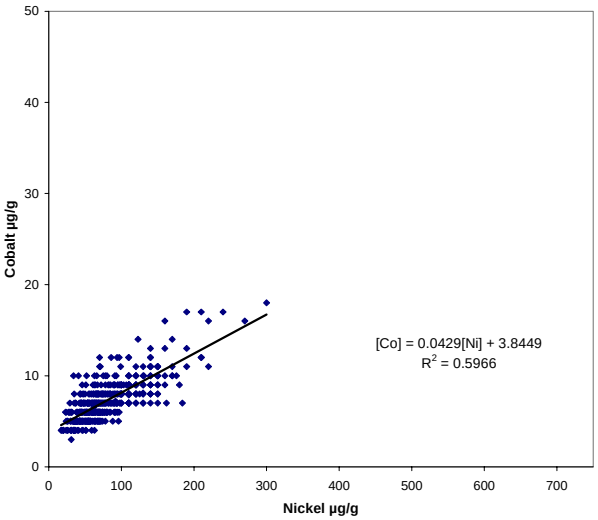


Fig. 10.4.2.5: Co vs. Ni, 5-10 cm, Inner Com.

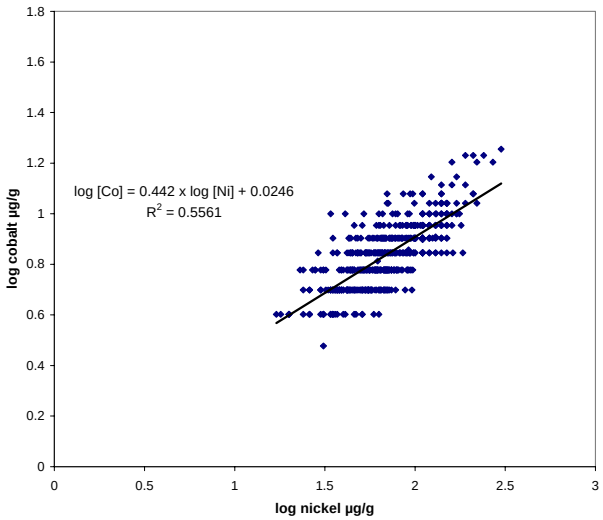


Fig. 10.4.2.5b: log Co vs. log Ni, 5-10 cm, Inner Com.

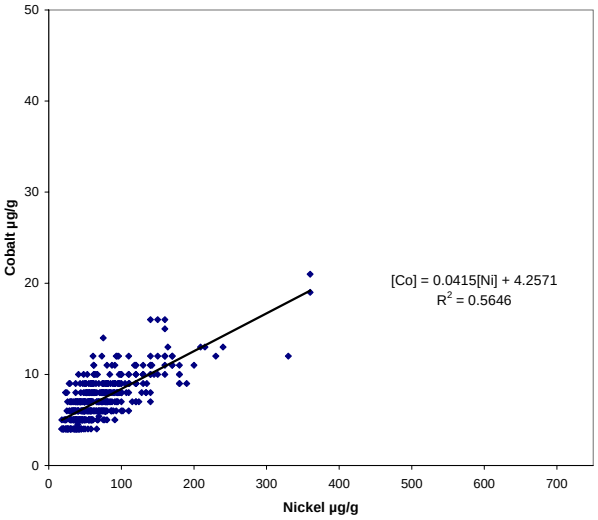


Fig. 10.4.2.6: Co vs. Ni, 10-20 cm, Inner Com.

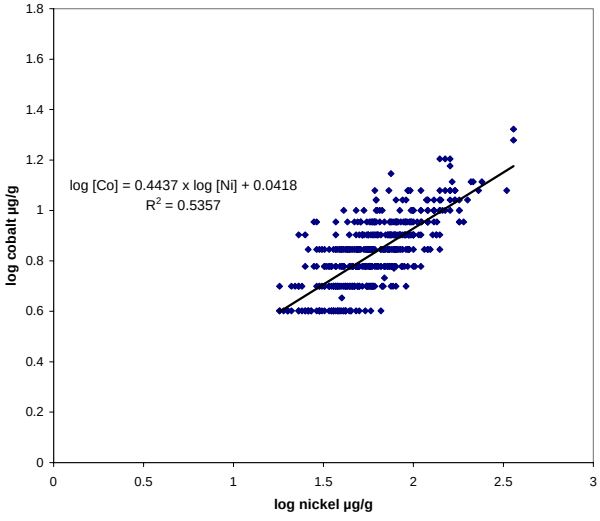


Fig. 10.4.2.6b: log Co vs. log Ni, 10-20 cm, Inner Com.

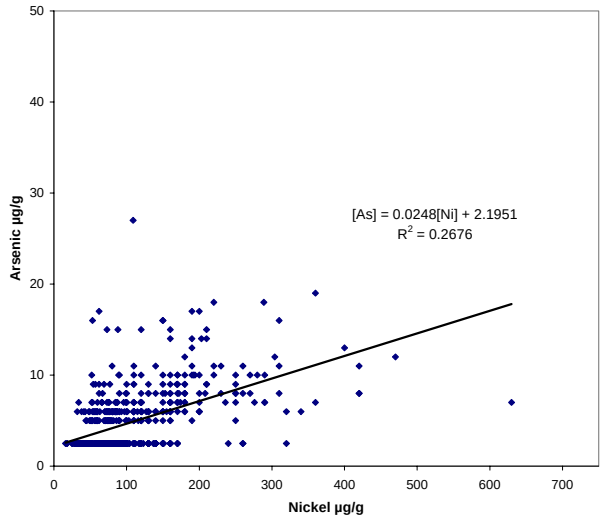


Fig. 10.4.2.7: As vs. Ni, 0-5 cm, Inner Com.

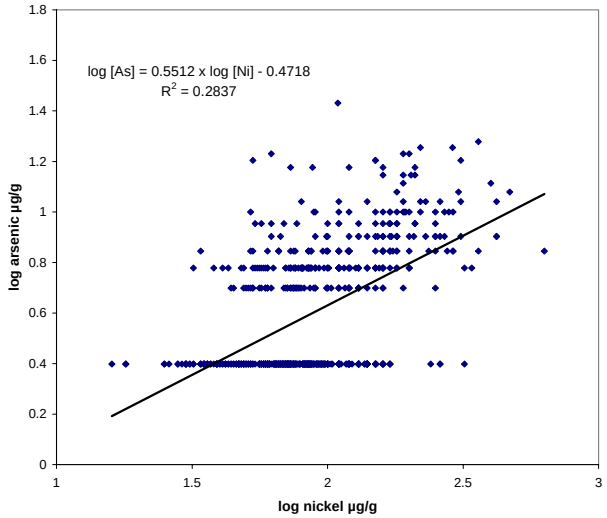


Fig. 10.4.2.7b: log As vs. log Ni, 0-5 cm, Inner Com.

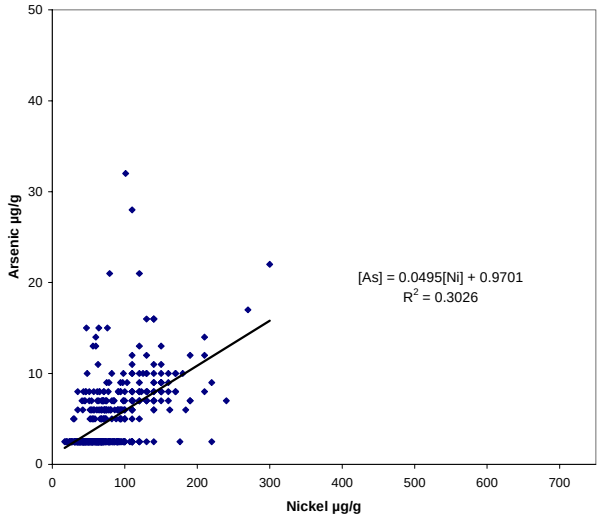


Fig. 10.4.2.8: As vs. Ni, 5-10 cm, Inner Com.

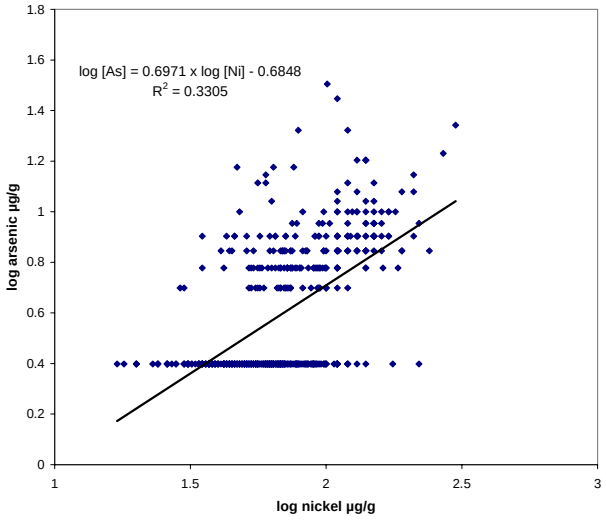


Fig. 10.4.2.8b: log As vs. log Ni, 5-10 cm, Inner Com.

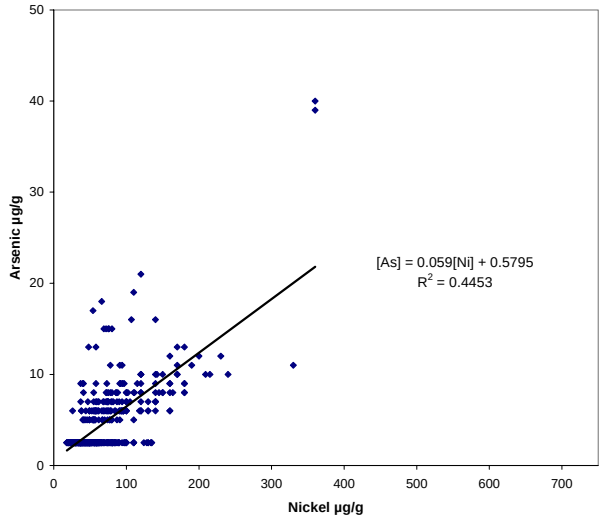


Fig. 10.4.2.9: As vs. Ni, 10-20 cm, Inner Com.

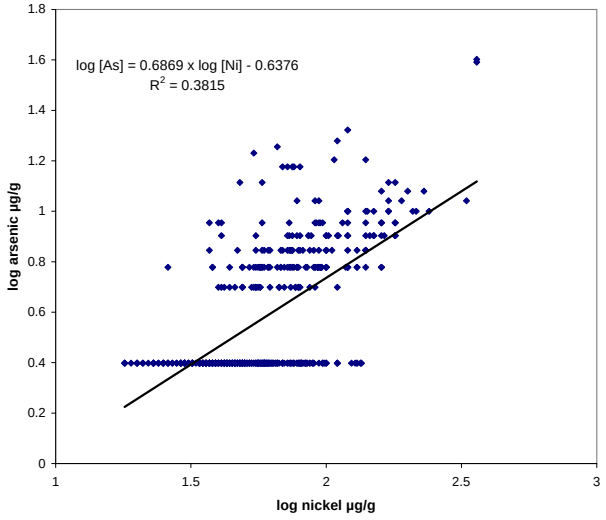


Fig. 10.4.2.9b: log As vs. log Ni, 10-20 cm, Inner Com.

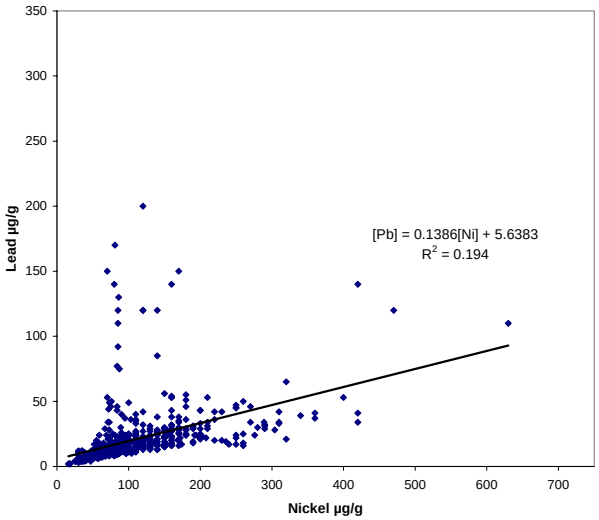


Fig. 10.4.2.10: Pb vs. Ni, 0-5 cm, Inner Com.

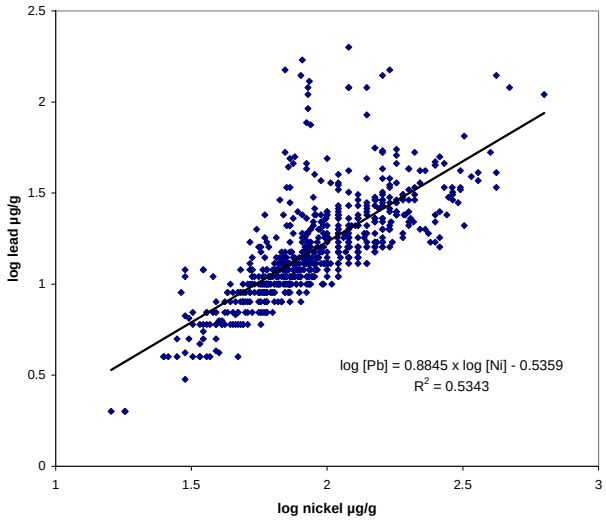


Fig. 10.4.2.10b: log Pb vs. log Ni, 0-5 cm, Inner Com.

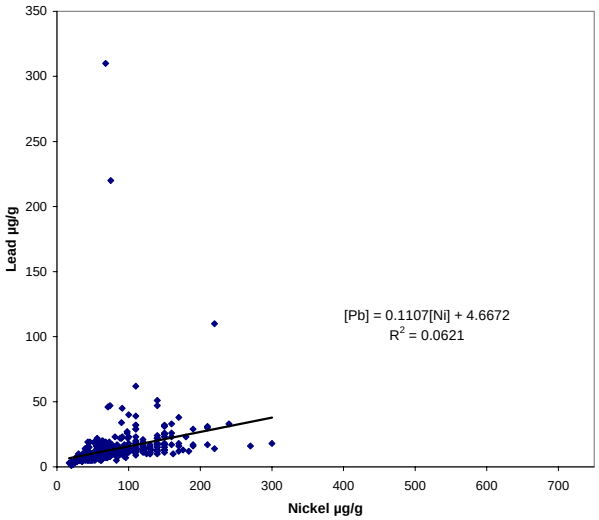


Fig. 10.4.2.11: Pb vs. Ni, 5-10 cm, Inner Com.

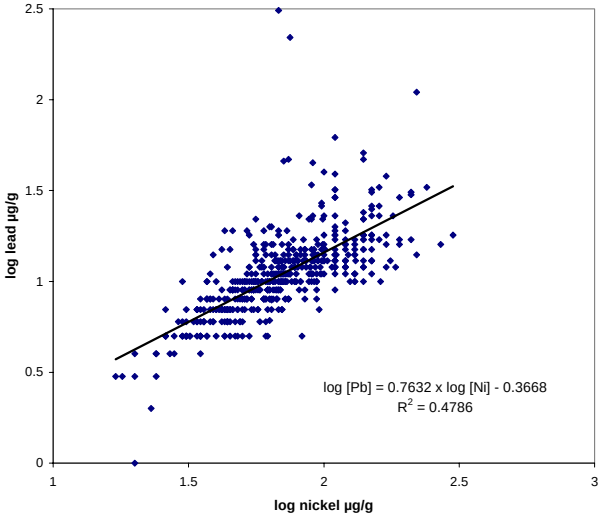


Fig. 10.4.2.11b: log Pb vs. log Ni, 5-10 cm, Inner Com.

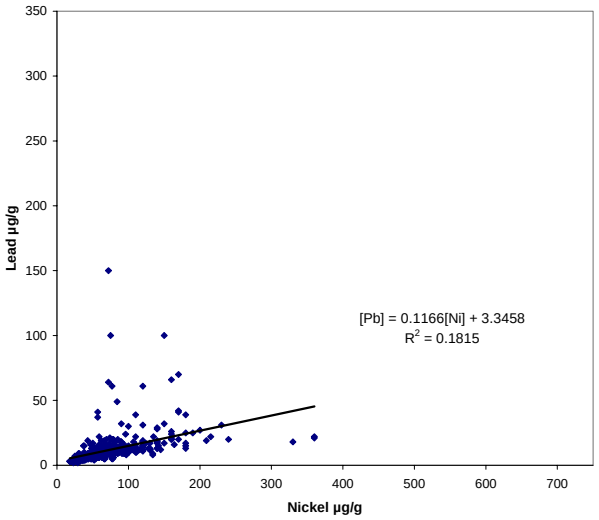


Fig. 10.4.2.12: Pb vs. Ni, 10-20 cm, Inner Com.

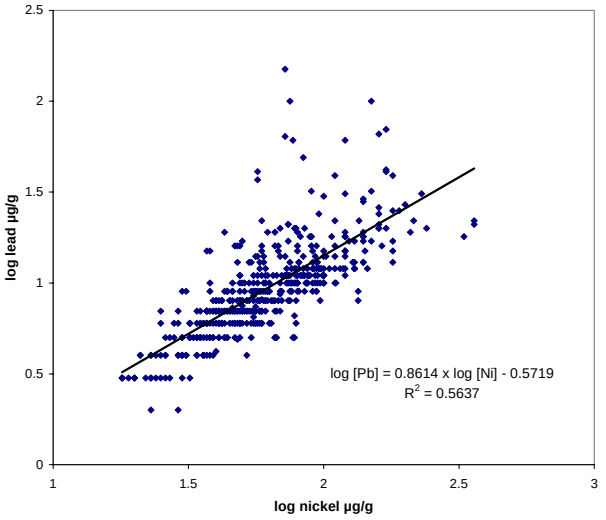


Fig. 10.4.2.12b: log Pb vs. log Ni, 10-20 cm, Inner Com.

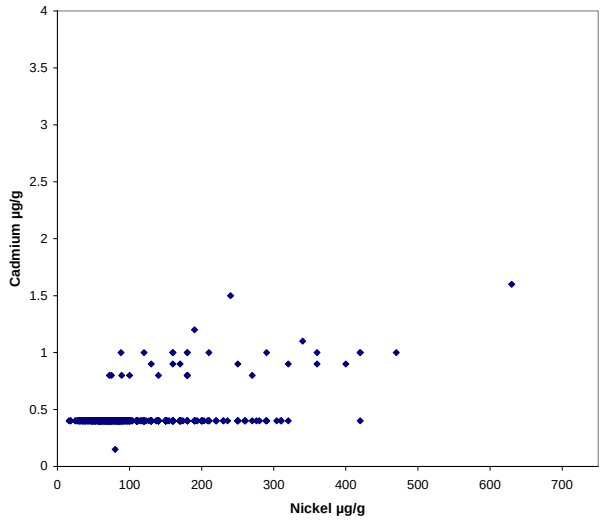


Fig. 10.4.2.13: Cd vs. Ni, 0-5 cm, Inner Com.

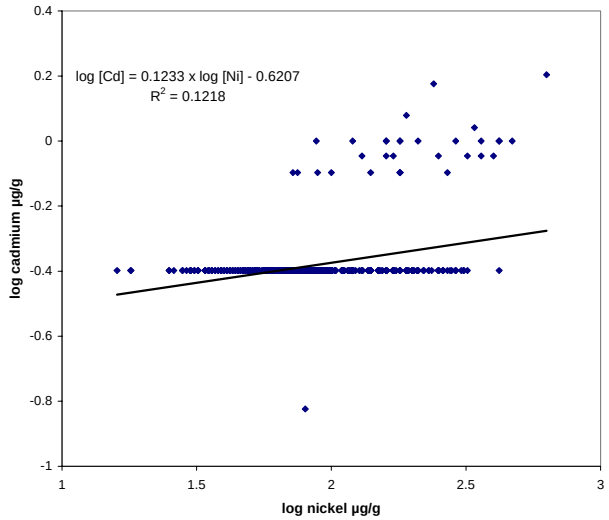


Fig. 10.4.2.13b: log Cd vs. log Ni, 0-5 cm, Inner Com.

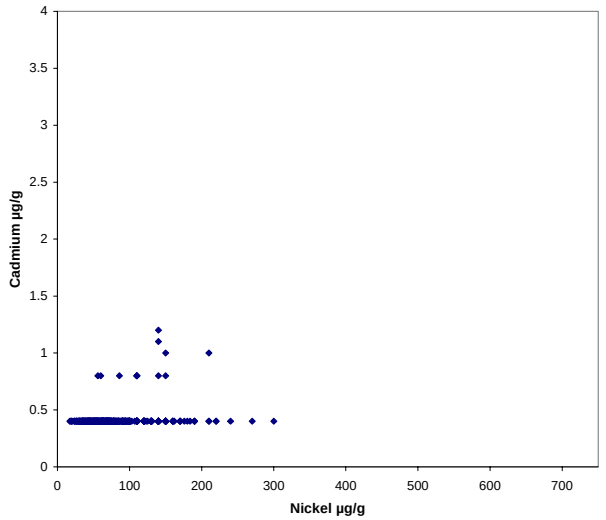


Fig. 10.4.2.14: Cd vs. Ni, 5-10 cm, Inner Com.

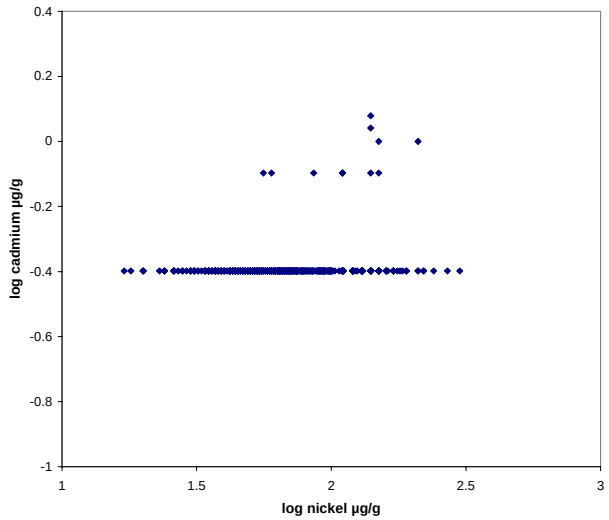


Fig. 10.4.2.14b: log Cd vs. log Ni, 5-10 cm, Inner Com.

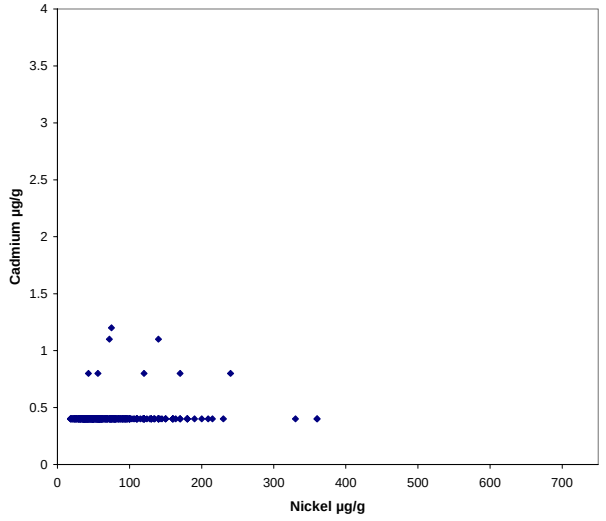


Fig. 10.4.2.15: Cd vs. Ni, 10-20 cm, Inner Com.

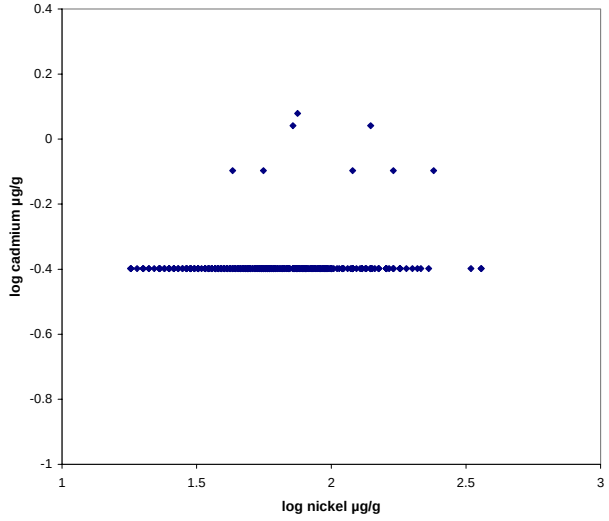


Fig. 10.4.2.15b: log Cd vs. log Ni, 10-20 cm, Inner Com.

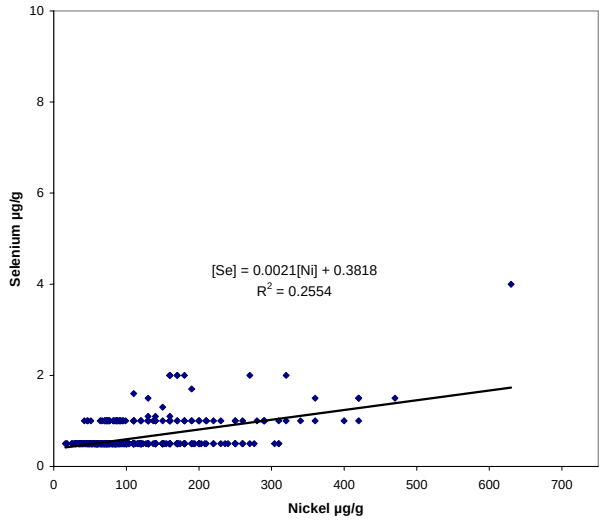


Fig. 10.4.2.16: Se vs. Ni, 0-5 cm, Inner Com.

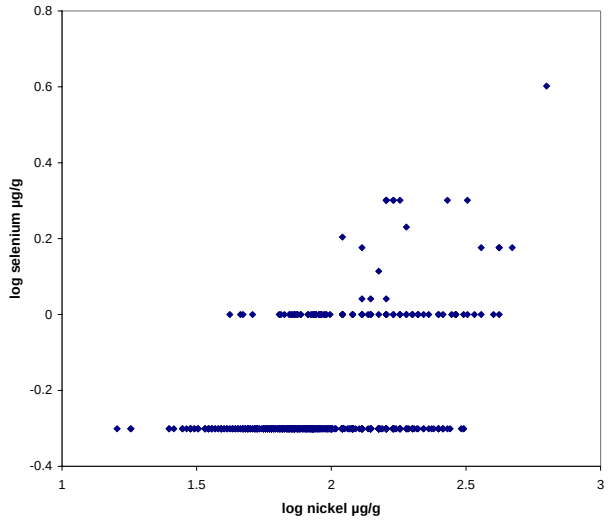


Fig. 10.4.2.16b: log Se vs. log Ni, 0-5 cm, Inner Com.

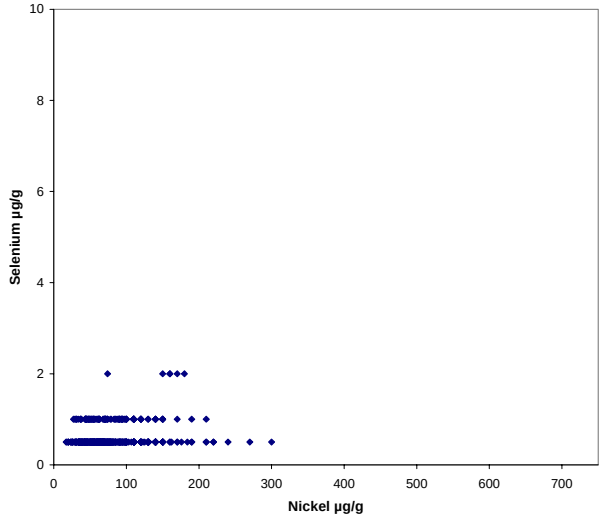


Fig. 10.4.2.17: Se vs. Ni, 5-10 cm, Inner Com.

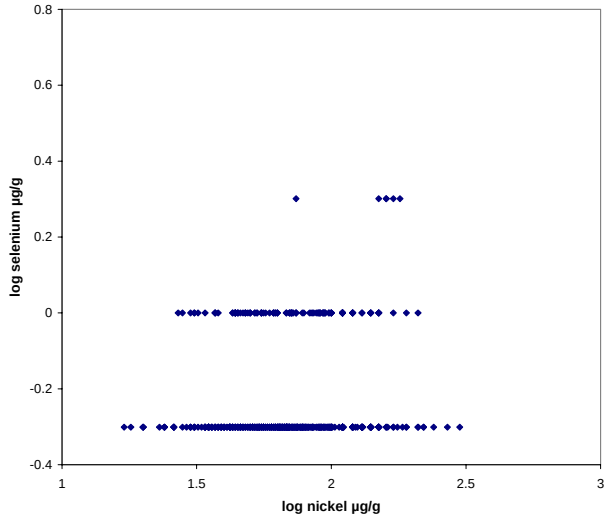


Fig. 10.4.2.17b: log Se vs. log Ni, 5-10 cm, Inner Com.

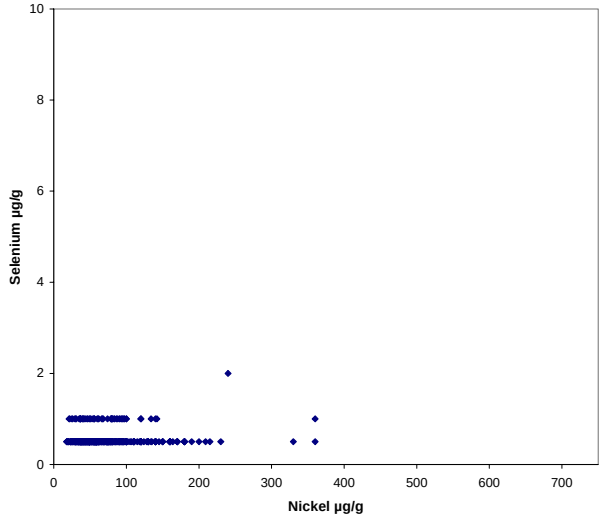


Fig. 10.4.2.18: Se vs. Ni, 10-20 cm, Inner Com.

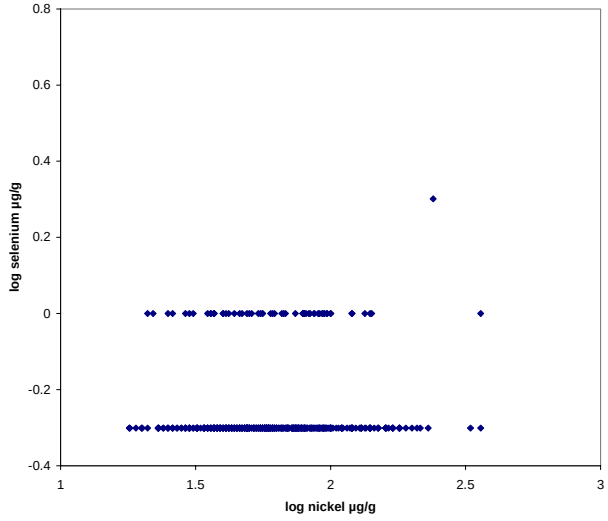


Fig. 10.4.2.18b: log Se vs. log Ni, 10-20 cm, Inner Com.

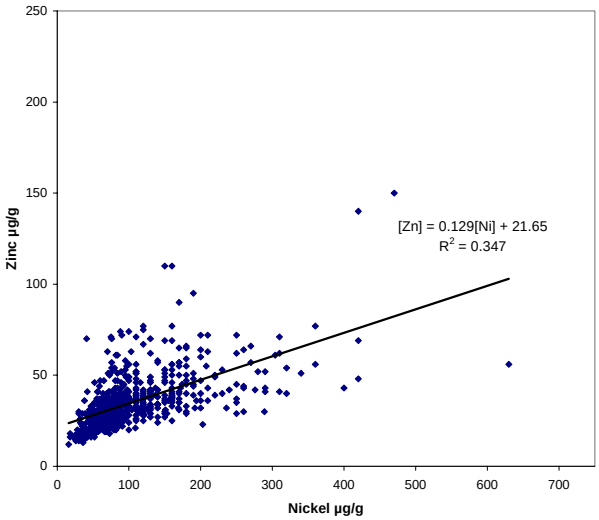


Fig. 10.4.2.19: Zn vs. Ni, 0-5 cm, Inner Com.

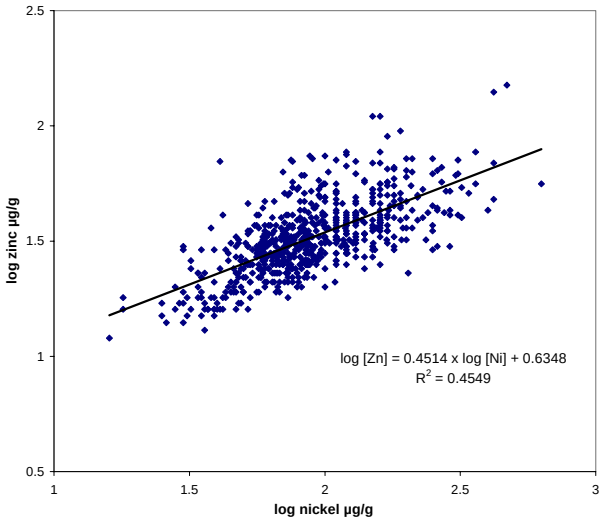


Fig. 10.4.2.19b: log Zn vs. log Ni, 0-5 cm, Inner Com.

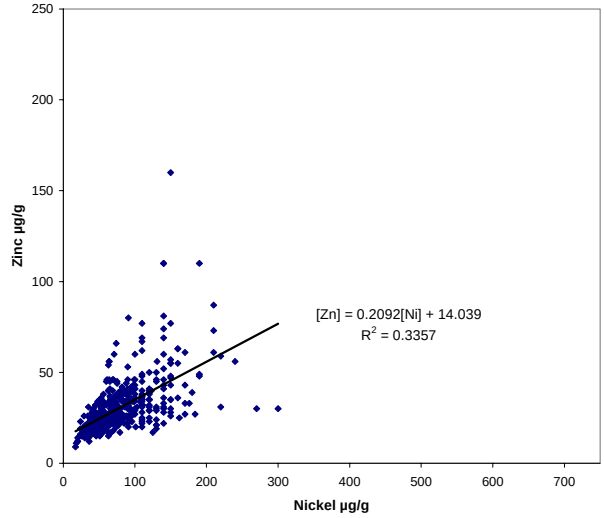


Fig. 10.4.2.20: Zn vs. Ni, 5-10 cm, Inner Com.

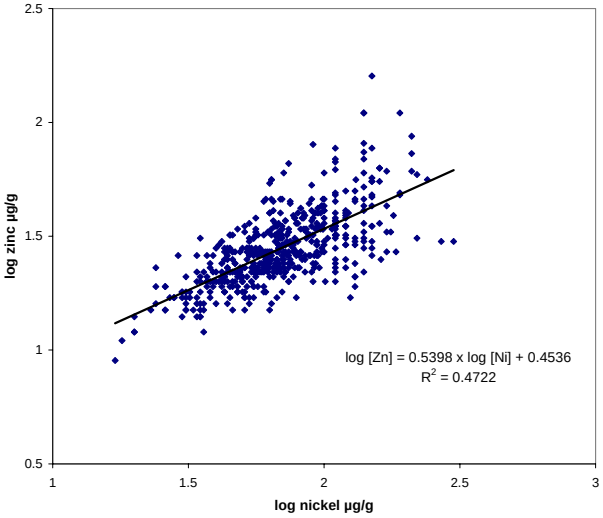


Fig. 10.4.2.20b: log Zn vs. log Ni, 5-10 cm, Inner Com.

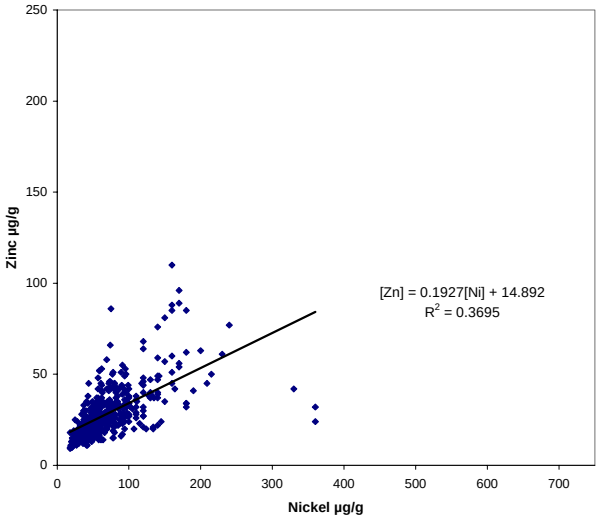


Fig. 10.4.2.21: Zn vs. Ni, 10-20 cm, Inner Com.

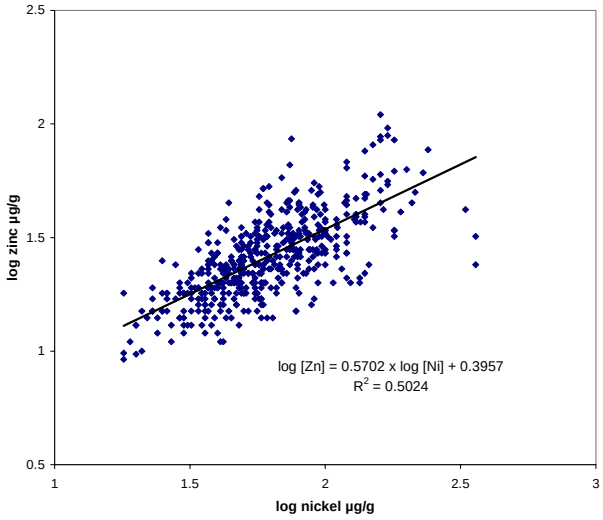


Fig. 10.4.2.21b: log Zn vs. log Ni, 10-20 cm, Inner Com.

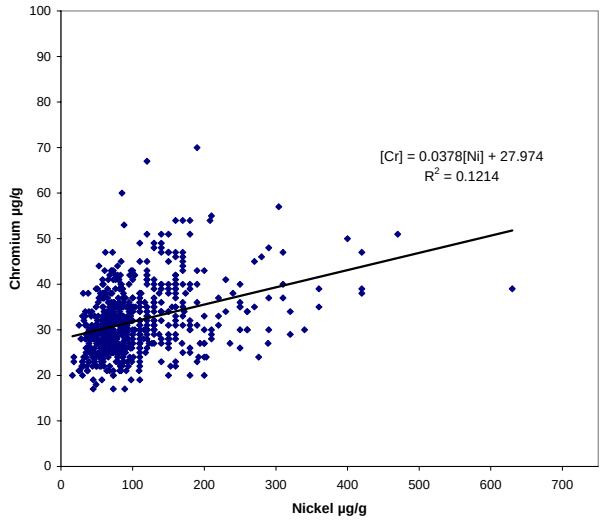


Fig. 10.4.2.22: Cr vs. Ni, 0-5 cm, Inner Com.

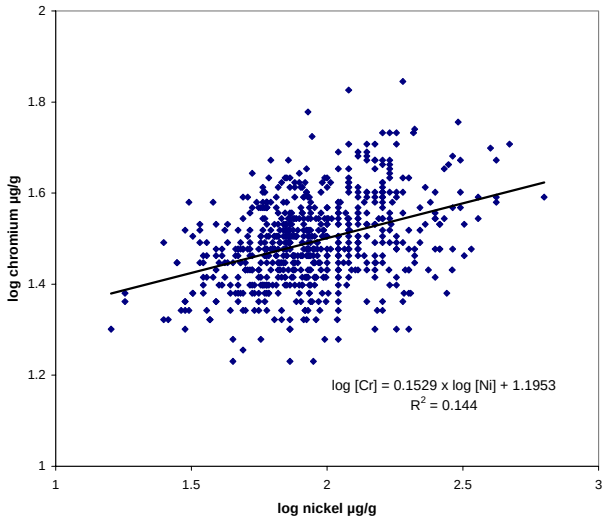


Fig. 10.4.2.22b: log Cr vs. log Ni, 0-5 cm, Inner Com.

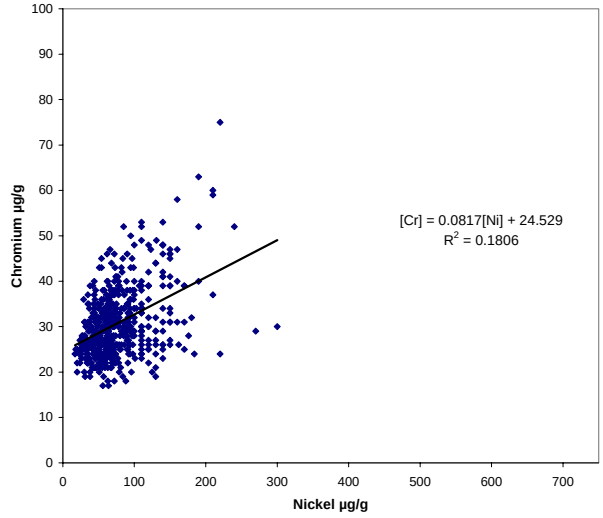


Fig. 10.4.2.23: Cr vs. Ni, 5-10 cm, Inner Com.

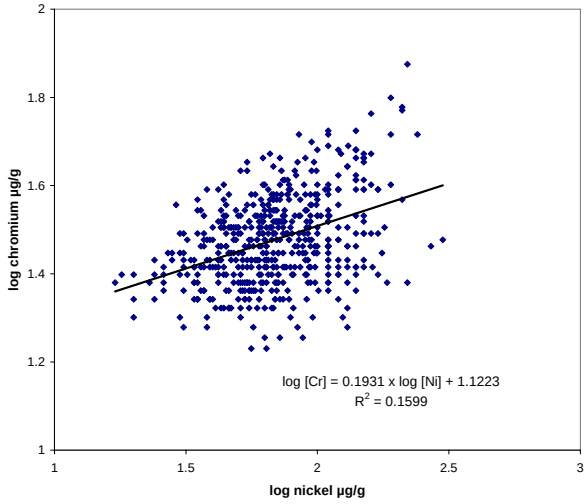


Fig. 10.4.2.23b: log Cr vs. log Ni, 5-10 cm, Inner Com.

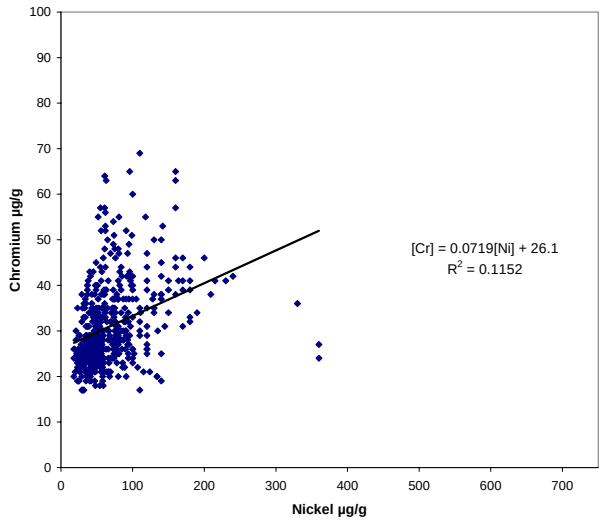


Fig. 10.4.2.24: Cr vs. Ni, 10-20 cm, Inner Com.

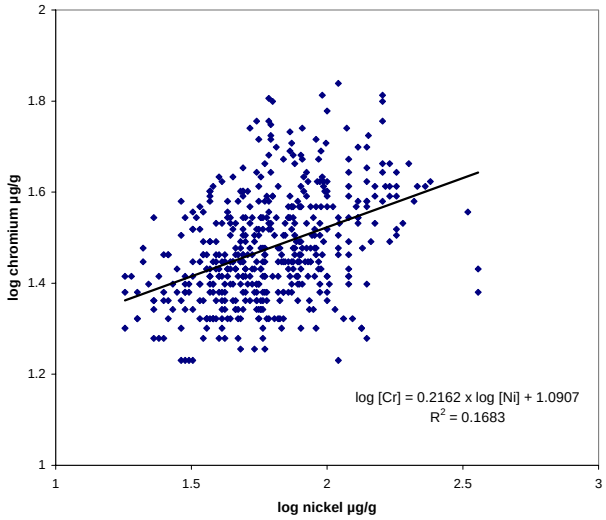


Fig. 10.4.2.24b: log Cr vs. log Ni, 10-20 cm, Inner Com.

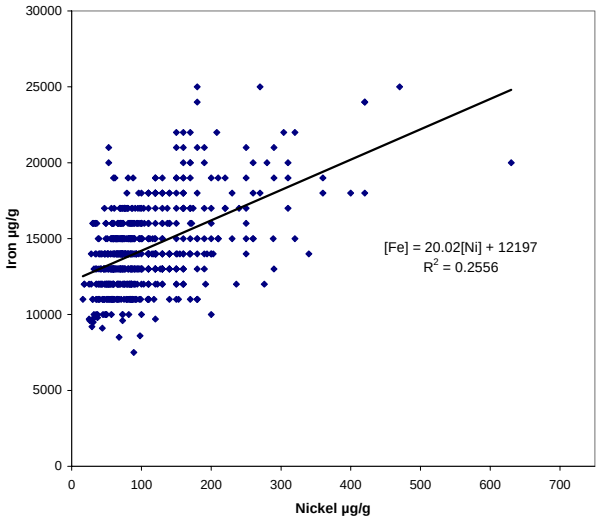


Fig. 10.4.2.25: Fe vs. Ni, 0-5 cm, Inner Com.

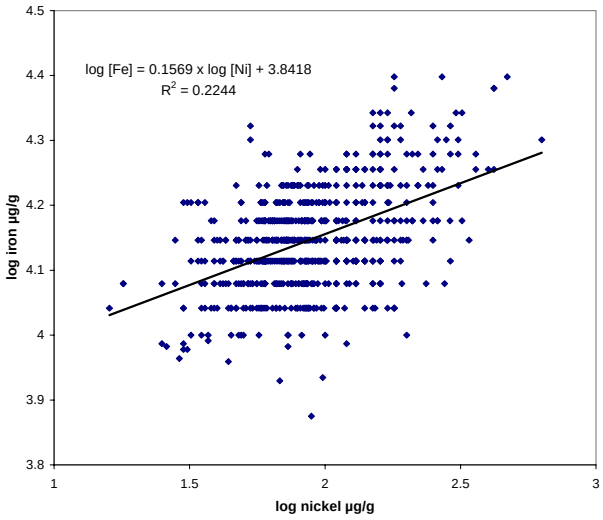


Fig. 10.4.2.25b: log Fe vs. log Ni, 0-5 cm, Inner Com.

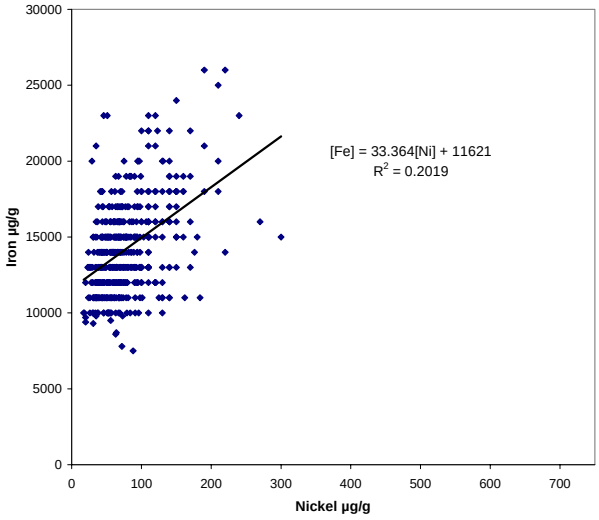


Fig. 10.4.2.26: Fe vs. Ni, 5-10 cm, Inner Com.

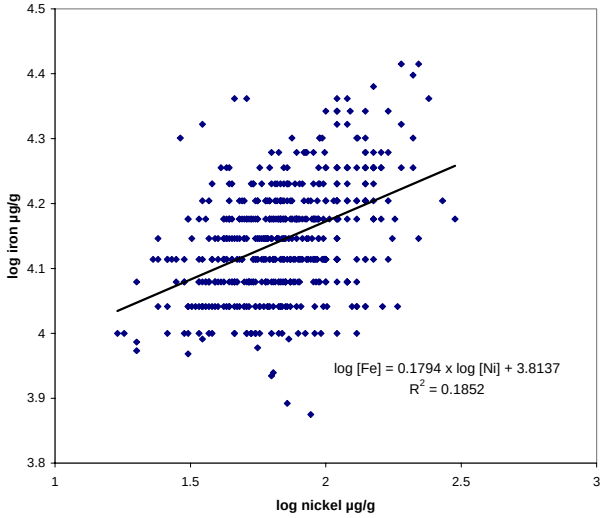


Fig. 10.4.2.26b: log Fe vs. log Ni, 5-10 cm, Inner Com.

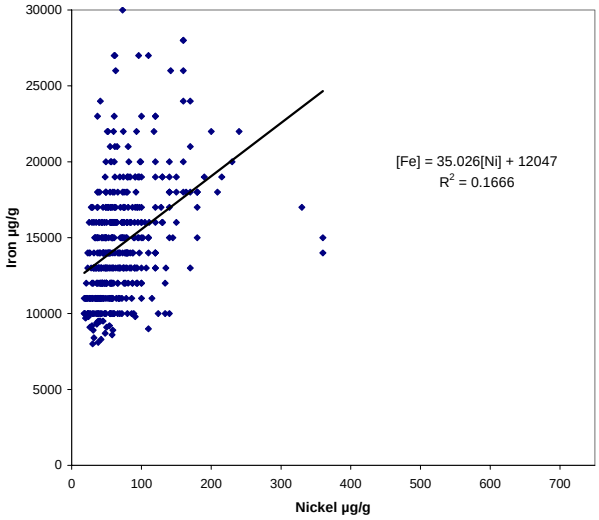


Fig. 10.4.2.27: Fe vs. Ni, 10-20 cm, Inner Com.

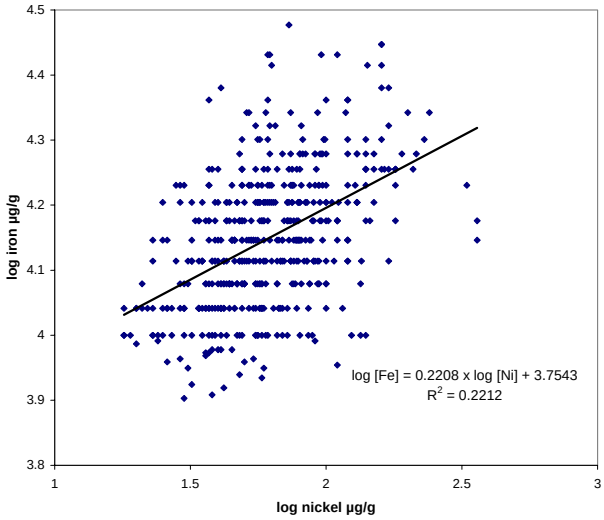


Fig. 10.4.2.27b: log Fe vs. log Ni, 10-20 cm, Inner Com.

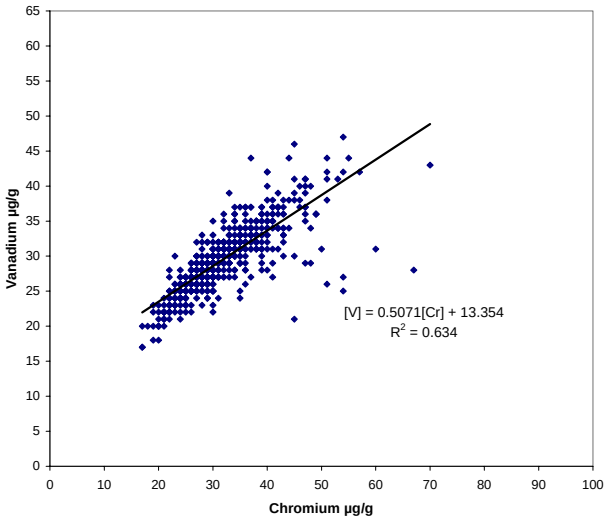


Fig. 10.4.2.28: V vs. Cr, 0-5 cm, Inner Com.

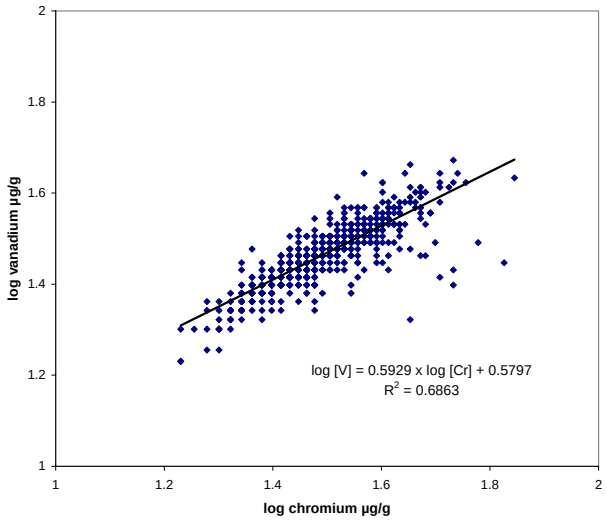


Fig. 10.4.2.28b: log V vs. log Cr, 0-5 cm, Inner Com.

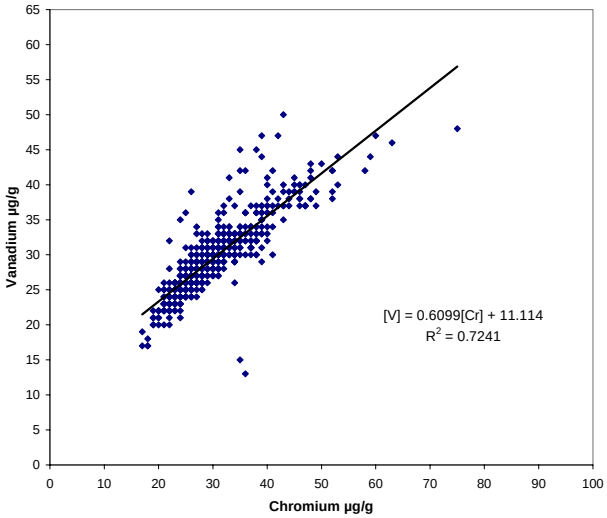


Fig. 10.4.2.29: V vs. Cr, 5-10 cm, Inner Com.

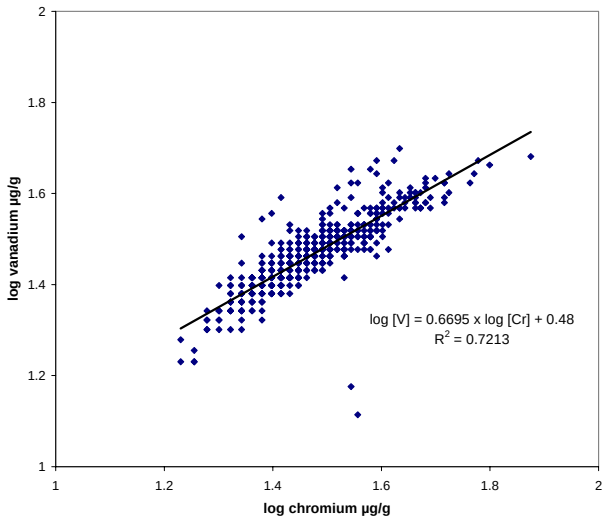


Fig. 10.4.2.29b: log V vs. log Cr, 5-10 cm, Inner Com.

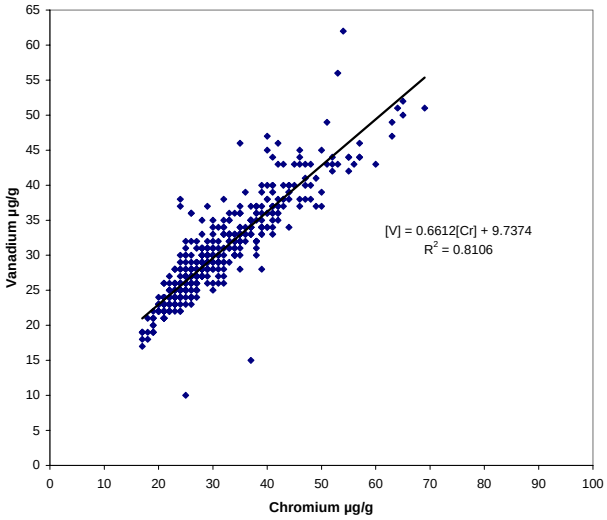


Fig. 10.4.2.30: V vs. Cr, 10-20 cm, Inner Com.

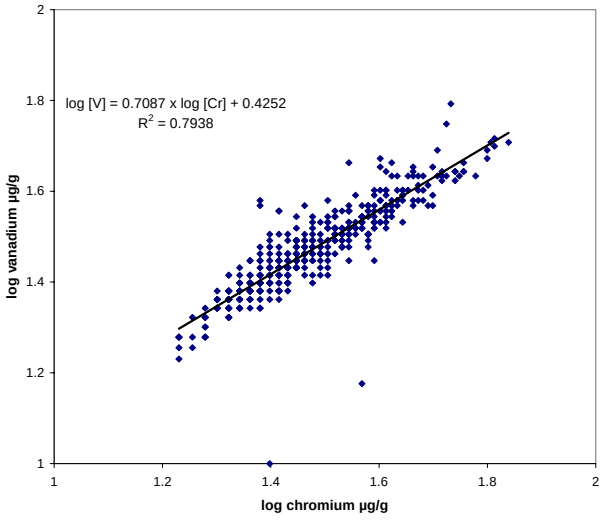


Fig. 10.4.2.30b: log V vs. log Cr, 10-20 cm, Inner Com.

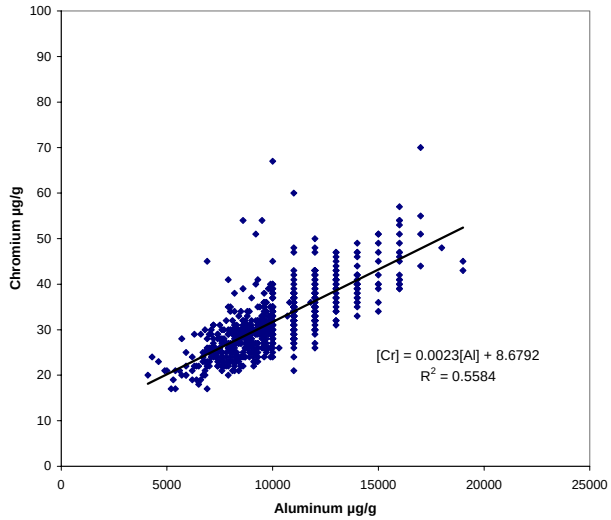


Fig. 10.4.2.31: Cr vs. Al, 0-5 cm, Inner Com.

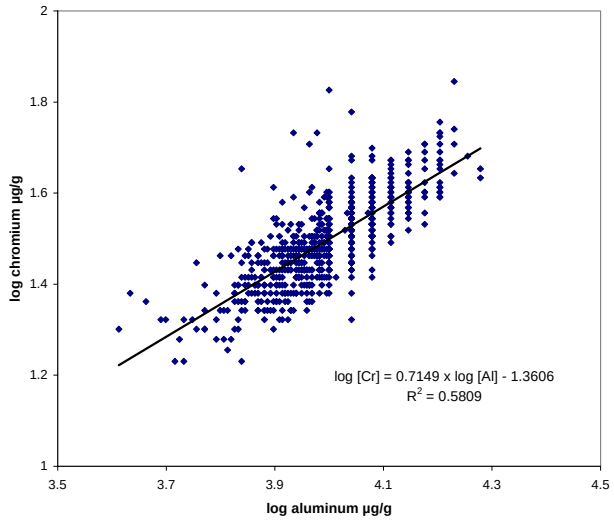


Fig. 10.4.2.31b: log Cr vs. log Al, 0-5 cm, Inner Com.

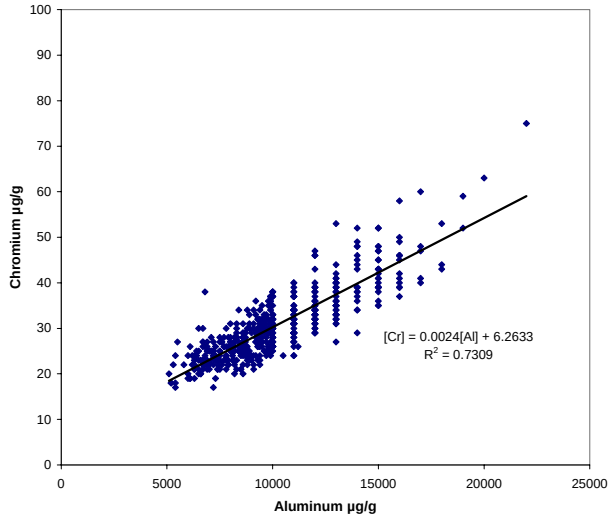


Fig. 10.4.2.32: Cr vs. Al, 5-10 cm, Inner Com.

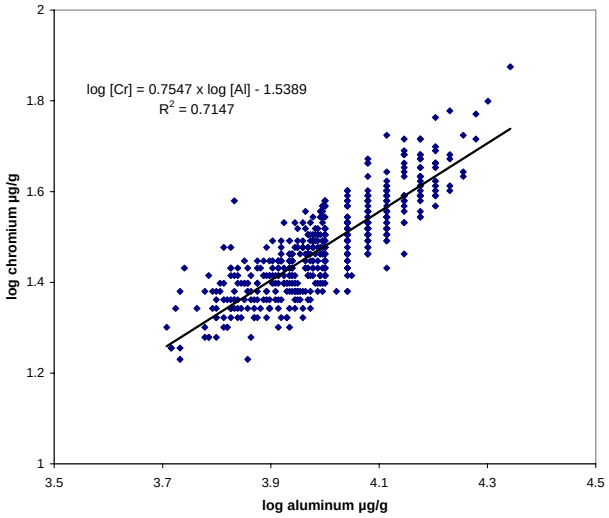


Fig. 10.4.2.32b: log Cr vs. log Al, 5-10 cm, Inner Com.

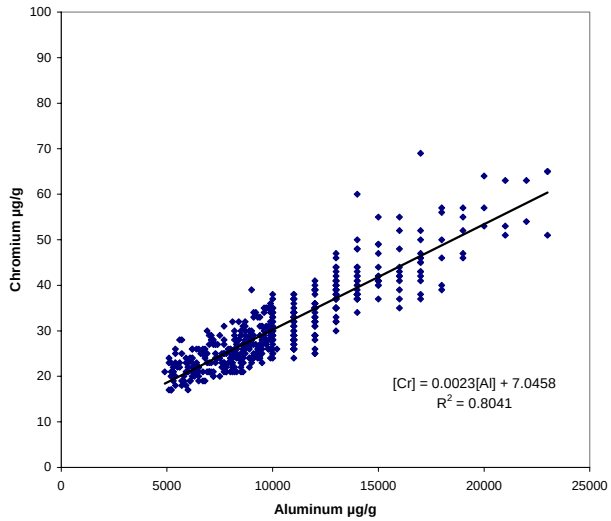


Fig. 10.4.2.33: Cr vs. Al, 10-20 cm, Inner Com.

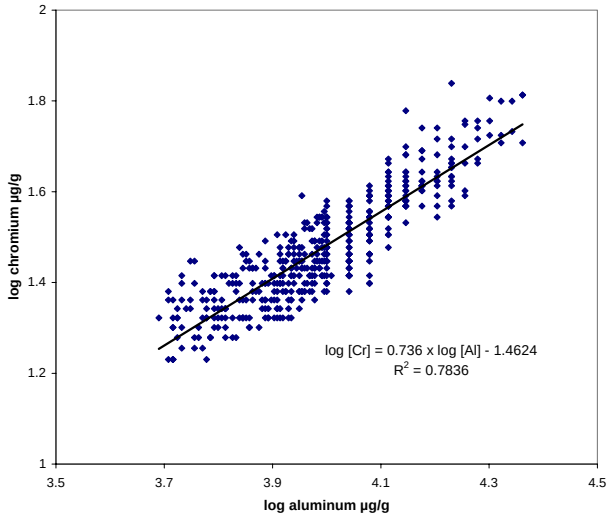


Fig. 10.4.2.33b: log Cr vs. log Al, 10-20 cm, Inner Com.

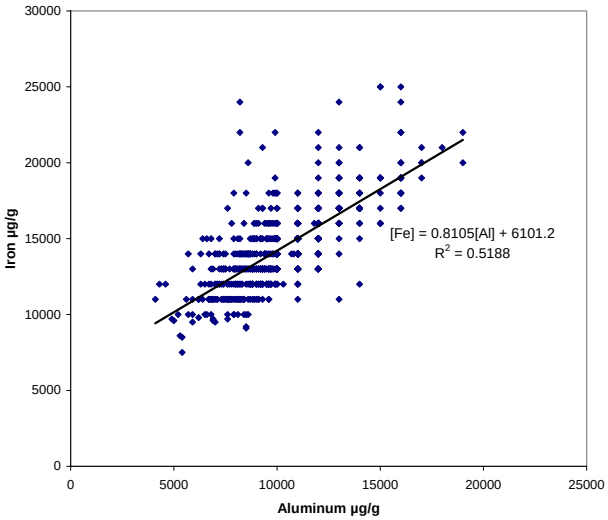


Fig. 10.4.2.34: Fe vs. Al, 0-5 cm, Inner Com.

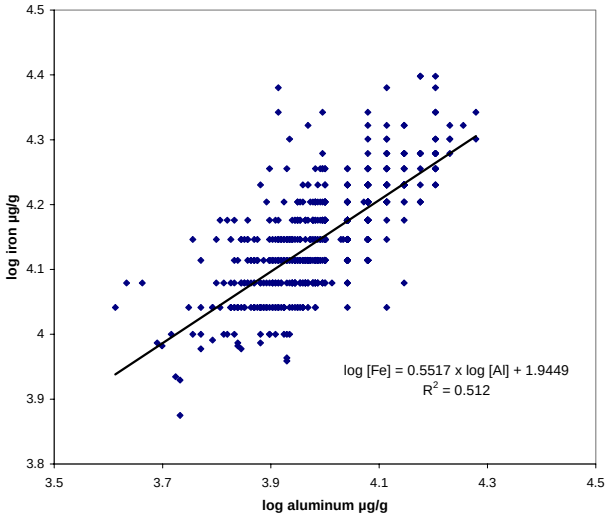


Fig. 10.4.2.34b: log Fe vs. log Al, 0-5 cm, Inner Com.

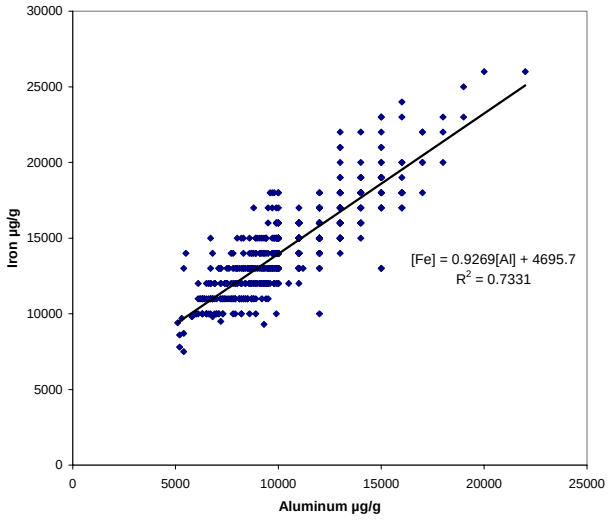


Fig. 10.4.2.35: Fe vs. Al, 5-10 cm, Inner Com.

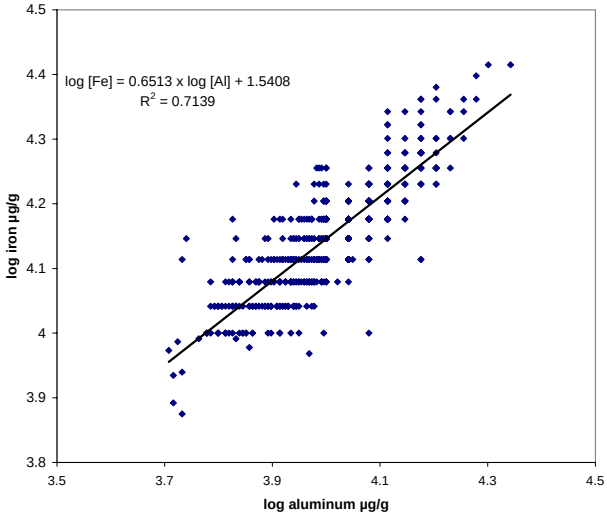


Fig. 10.4.2.35b: log Fe vs. log Al, 5-10 cm, Inner Com.

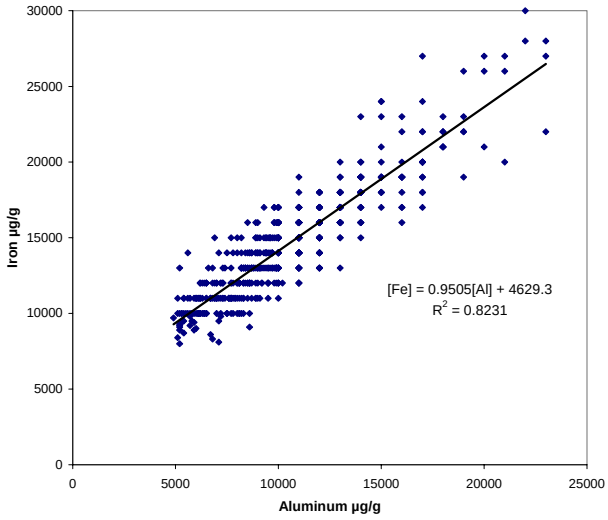


Fig. 10.4.2.36: Fe vs. Al, 10-20 cm, Inner Com.

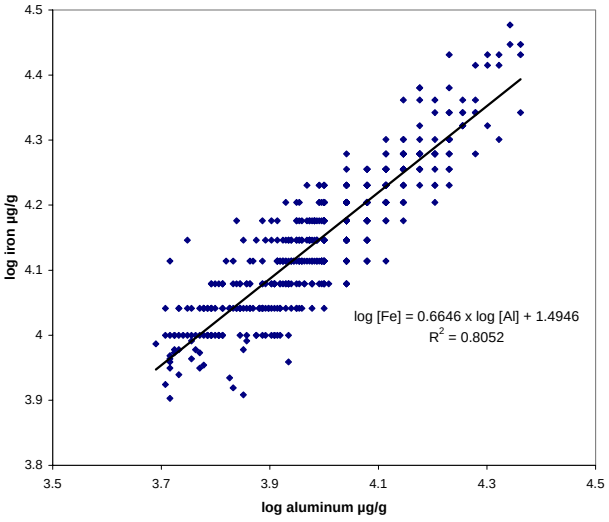


Fig. 10.4.2.36a: log Fe vs. log Al, 10-20 cm, Inner Com.

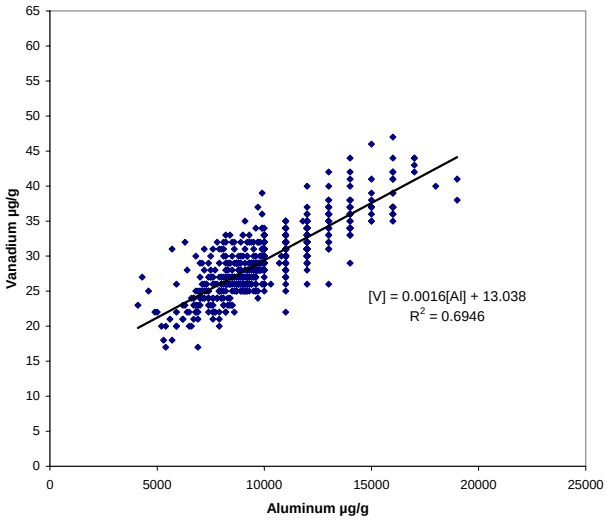


Fig. 10.4.2.37: V vs. Al, 0-5 cm, Inner Com.

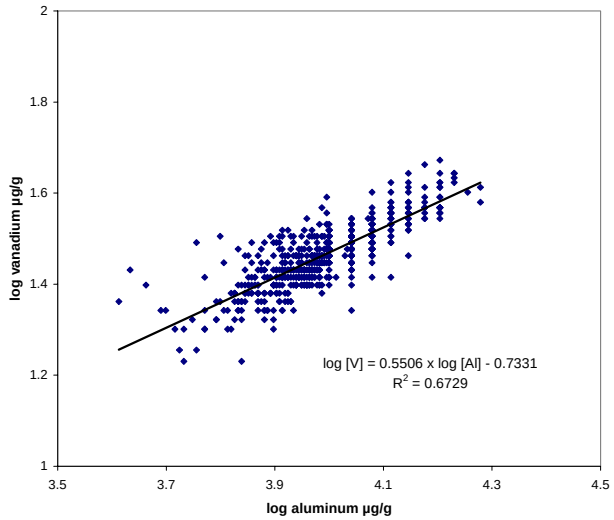


Fig. 10.4.2.37b: log V vs. log Al, 0-5 cm, Inner Com.

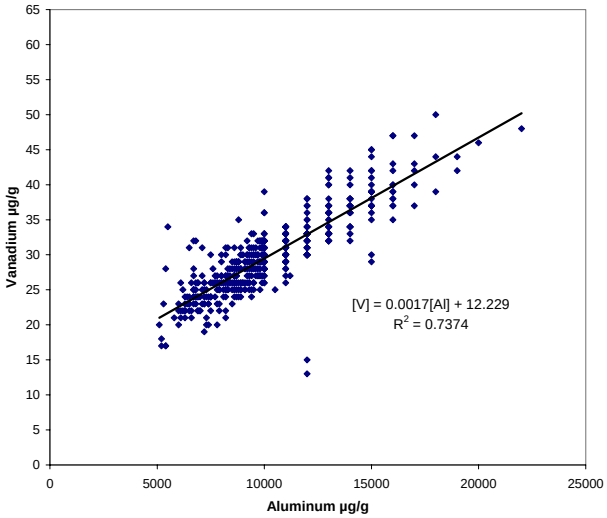


Fig. 10.4.2.38: V vs. Al, 5-10 cm, Inner Com.

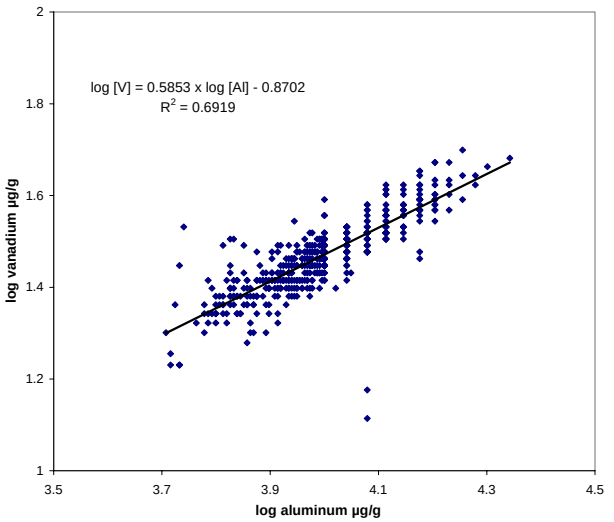


Fig. 10.4.2.38b: log V vs. log Al, 5-10 cm, Inner Com.

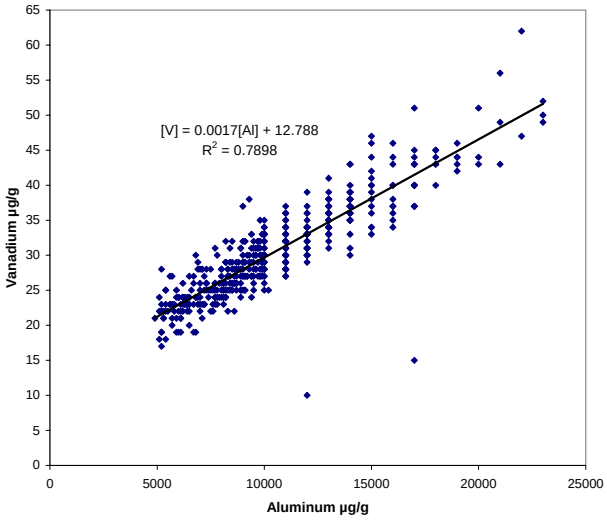


Fig. 10.4.2.39: V vs. Al, 10-20 cm, Inner Com.

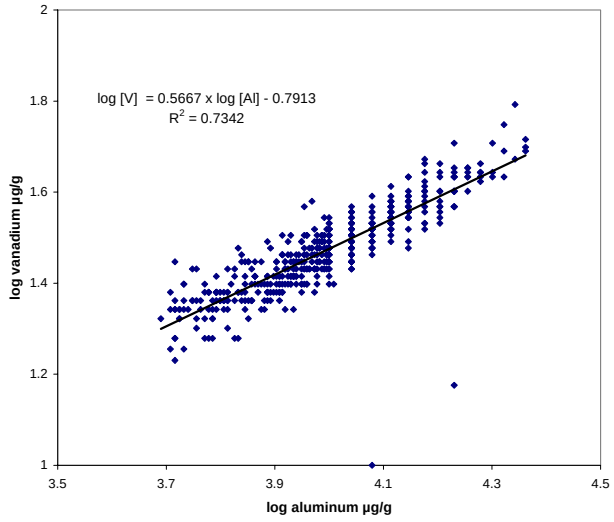


Fig. 10.4.2.39b: log V vs. log Al, 10-20 cm, Inner Com.

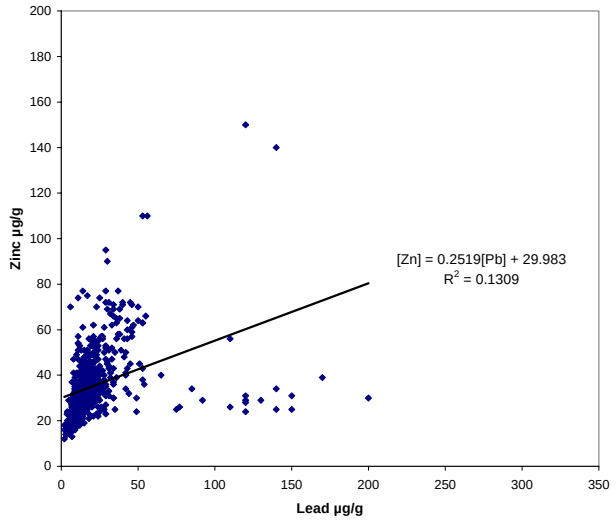


Fig. 10.4.2.40: Zn vs. Pb, 0-5 cm, Inner Com.

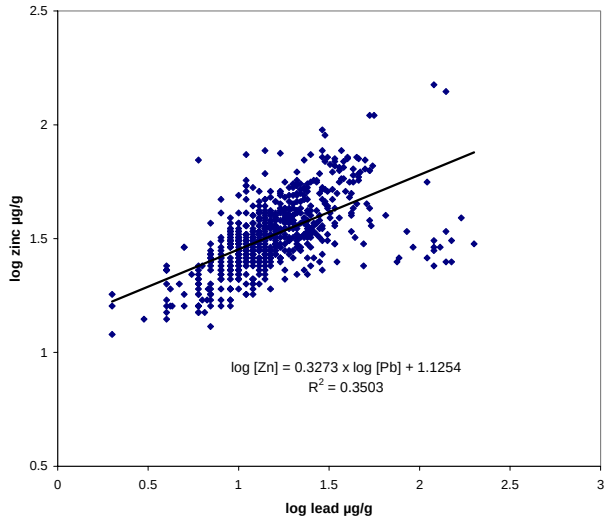


Fig. 10.4.2.40b: log Zn vs. log Pb, 0-5 cm, Inner Com.

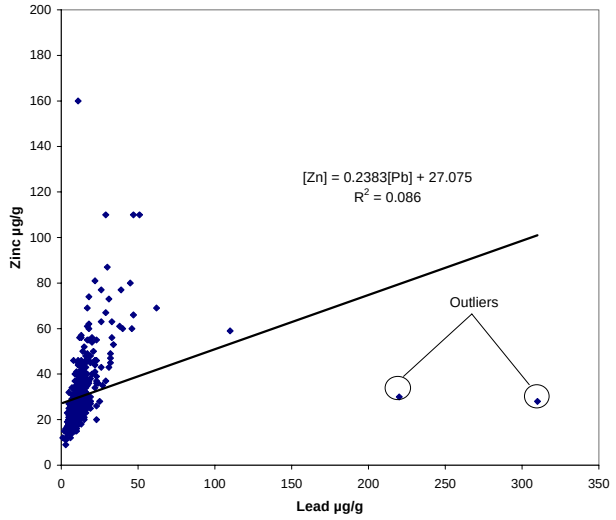


Fig. 10.4.2.41: Zn vs. Pb, 5-10 cm, Inner Com.

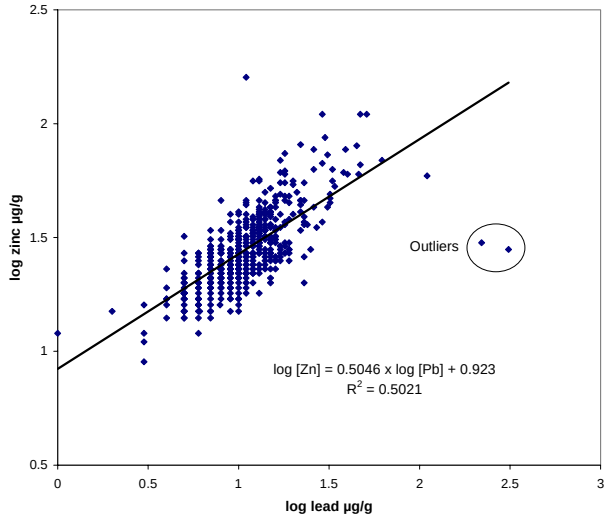


Fig. 10.4.2.41b: log Zn vs. log Pb, 5-10 cm, Inner Com.

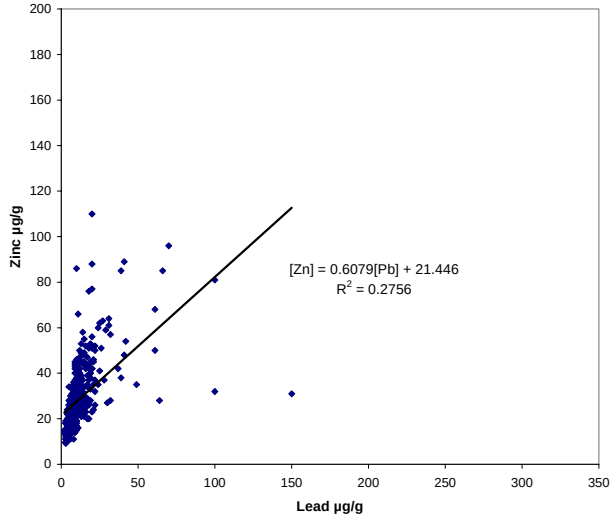


Fig. 10.4.2.42: Zn vs. Pb, 10-20 cm, Inner Com.

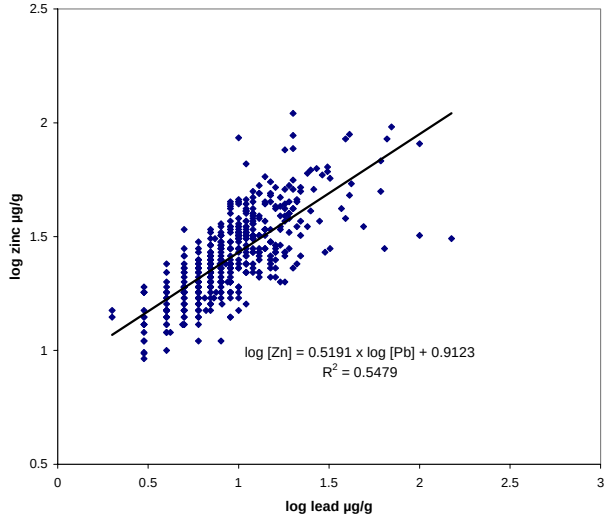


Fig. 10.4.2.42b: log Zn vs. log Pb, 10-20 cm, Inner Com.

Table 10.4.2.1: Pearson's and Spearman's Correlations for 0 to 5 cm Urban Soil in Inner Sudbury Communities

	Al	**Sb**	**As**	**Ba**	**Cd**	**Ca**	**Cr**	**Co**	**Cu**	**Fe**	**Pb**	**Mg**	**Mn**	**Mo**	**Ni**	**Se**	**Sr**	**V**	**Zn**
Al	1	*0.1*	*0.16*	*0.74*	*0.08*	*0.45*	*0.76*	*0.27*	*0.21*	*0.70*	*0.14*	*0.47*	*0.63*	*0.09*	*0.23*	*0.05*	*0.78*	*0.81*	*0.39*
Sb	0.04	1	*0.02*	*0.06*	*0.18*	*0.02*	*0.07*	*0.00*	*0.05*	*0.04*	*0.14*	*0.04*	*0.03*	*0.30*	*0.04*	*-0.05*	*0.02*	*0.04*	*0.02*
As	0.22	0.01	1	*0.35*	*0.17*	*0.00*	*0.19*	*0.47*	*0.52*	*0.30*	*0.47*	*0.01*	*0.15*	*0.02*	*0.51*	*0.22*	*0.03*	*0.19*	*0.44*
Ba	0.80	0.02	0.36	1	*0.21*	*0.41*	*0.73*	*0.59*	*0.53*	*0.72*	*0.43*	*0.50*	*0.66*	*0.10*	*0.54*	*0.18*	*0.59*	*0.72*	*0.68*
Cd	0.11	0.02	0.20	0.24	1	*0.13*	*0.20*	*0.27*	*0.27*	*0.20*	*0.26*	*0.14*	*0.15*	*0.35*	*0.27*	*0.29*	*0.08*	*0.14*	*0.28*
Ca	0.33	-0.01	0.01	0.25	0.11	1	*0.50*	*0.20*	*0.12*	*0.34*	*0.13*	*0.69*	*0.57*	*0.02*	*0.2*	*0.01*	*0.71*	*0.41*	*0.25*
Cr	0.75	0.06	0.22	0.71	0.27	0.36	1	*0.47*	*0.33*	*0.76*	*0.31*	*0.63*	*0.70*	*0.07*	*0.35*	*0.13*	*0.64*	*0.84*	*0.50*
Co	0.26	-0.02	0.45	0.49	0.36	0.07	0.40	1	*0.77*	*0.63*	*0.65*	*0.44*	*0.44*	*0.03*	*0.81*	*0.29*	*0.15*	*0.43*	*0.69*
Cu	0.24	0.00	0.50	0.47	0.49	0.07	0.34	0.78	1	*0.39*	*0.83*	*0.16*	*0.25*	*0.04*	*0.95*	*0.36*	*0.09*	*0.22*	*0.67*
Fe	0.72	0.02	0.36	0.73	0.27	0.24	0.72	0.66	0.49	1	*0.28*	*0.66*	*0.73*	*0.09*	*0.4*	*0.15*	*0.51*	*0.86*	*0.58*
Pb	0.10	0.44	0.22	0.22	0.28	0.04	0.39	0.35	0.46	0.18	1	*0.08*	*0.20*	*0.04*	*0.81*	*0.30*	*0.07*	*0.13*	*0.63*
Mg	0.37	-0.01	0.02	0.33	0.11	0.84	0.44	0.27	0.14	0.49	0.00	1	*0.68*	*0.06*	*0.21*	*0.02*	*0.53*	*0.62*	*0.36*
Mn	0.59	0.00	0.17	0.61	0.14	0.43	0.60	0.34	0.20	0.67	0.08	0.48	1	*0.08*	*0.31*	*0.06*	*0.61*	*0.73*	*0.52*
Mo	0.09	0.14	0.02	0.12	0.12	-0.01	0.11	0.01	0.01	0.08	-0.01	0.04	0.05	1	*0*	*0.04*	*0.04*	*0.11*	*0.10*
Ni	0.24	0.00	0.52	0.48	0.48	0.10	0.35	0.84	0.92	0.51	0.44	0.16	0.22	0.00	1	*0.35*	*0.13*	*0.23*	*0.67*
Se	0.07	-0.04	0.16	0.21	0.47	0.01	0.16	0.40	0.50	0.20	0.29	0.02	0.07	0.01	0.51	1	*0.01*	*0.07*	*0.24*
Sr	0.60	0.03	0.01	0.47	0.07	0.65	0.46	0.08	0.08	0.37	0.04	0.55	0.44	0.02	0.12	-0.01	1	*0.68*	*0.27*
V	0.83	0.04	0.23	0.74	0.18	0.30	0.80	0.37	0.24	0.86	0.07	0.46	0.68	0.11	0.25	0.08	0.51	1	*0.47*
Zn	0.43	-0.03	0.43	0.67	0.38	0.18	0.50	0.62	0.63	0.62	0.36	0.27	0.47	0.06	0.59	0.29	0.22	0.47	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.2.2: Pearson's and Spearman's Correlations for 5 to 10 cm Urban Soil in Inner Sudbury Communities

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	*0.03*	*0.18*	*0.82*	*0.10*	*0.46*	*0.84*	*0.51*	*0.36*	*0.84*	*0.28*	*0.56*	*0.65*	*0.1*	*0.34*	*0*	*0.80*	*0.86*	*0.53*
Sb	-0.01	1	*0.05*	*0.10*	*0.55*	*0.05*	*0.04*	*0.08*	*0.08*	*0.10*	*0.16*	*0.07*	*0.1*	*0.47*	*0.06*	*-0.02*	*0.00*	*0.07*	*0.14*
As	0.19	0.04	1	*0.32*	*0.13*	*0.06*	*0.13*	*0.42*	*0.58*	*0.26*	*0.47*	*0.07*	*0.2*	*0.05*	*0.58*	*0.02*	*0.07*	*0.21*	*0.39*
Ba	0.86	0.00	0.27	1	*0.16*	*0.47*	*0.81*	*0.70*	*0.59*	*0.81*	*0.51*	*0.59*	*0.68*	*0.11*	*0.56*	*0.11*	*0.67*	*0.77*	*0.74*
Cd	0.14	0.08	0.20	0.19	1	*0.12*	*0.12*	*0.17*	*0.18*	*0.17*	*0.20*	*0.15*	*0.18*	*0.55*	*0.16*	*0.00*	*0.08*	*0.15*	*0.21*
Ca	0.28	0.00	0.10	0.25	0.22	1	*0.62*	*0.34*	*0.15*	*0.48*	*0.21*	*0.75*	*0.66*	*0.03*	*0.24*	*-0.03*	*0.74*	*0.53*	*0.38*
Cr	0.85	0.00	0.13	0.84	0.19	0.43	1	*0.61*	*0.33*	*0.85*	*0.31*	*0.78*	*0.79*	*0.05*	*0.36*	*0.07*	*0.78*	*0.88*	*0.61*
Co	0.59	0.01	0.41	0.71	0.20	0.23	0.65	1	*0.68*	*0.71*	*0.59*	*0.56*	*0.57*	*0.09*	*0.72*	*0.06*	*0.37*	*0.60*	*0.74*
Cu	0.47	0.02	0.54	0.64	0.20	0.08	0.46	0.74	1	*0.43*	*0.79*	*0.18*	*0.27*	*0.11*	*0.93*	*0.14*	*0.19*	*0.32*	*0.71*
Fe	0.86	0.01	0.22	0.82	0.20	0.30	0.84	0.73	0.52	1	*0.34*	*0.73*	*0.78*	*0.12*	*0.40*	*0.04*	*0.67*	*0.90*	*0.66*
Pb	0.14	0.82	0.17	0.22	0.07	0.04	0.17	0.24	0.29	0.14	1	*0.17*	*0.31*	*0.12*	*0.76*	*0.13*	*0.17*	*0.25*	*0.74*
Mg	0.50	0.00	0.08	0.49	0.19	0.81	0.67	0.48	0.23	0.63	0.07	1	*0.76*	*0.09*	*0.24*	*-0.02*	*0.61*	*0.70*	*0.49*
Mn	0.67	0.01	0.21	0.68	0.28	0.47	0.77	0.61	0.37	0.80	0.14	0.64	1	*0.09*	*0.31*	*-0.04*	*0.69*	*0.75*	*0.61*
Mo	0.07	0.05	0.02	0.08	0.28	-0.02	0.03	0.06	0.06	0.13	0.01	0.05	0.09	1	*0.07*	*0.00*	*0.03*	*0.10*	*0.10*
Ni	0.43	0.00	0.55	0.58	0.19	0.15	0.42	0.77	0.88	0.45	0.25	0.23	0.37	0.04	1	*0.10*	*0.23*	*0.32*	*0.69*
Se	0.03	-0.04	0.03	0.09	-0.01	-0.05	0.04	0.11	0.21	0.04	0.05	-0.05	0	-0.01	0.15	1	*0.04*	*0.06*	*0.07*
Sr	0.77	-0.04	0.06	0.64	0.15	0.58	0.74	0.38	0.22	0.64	0.04	0.54	0.65	0.02	0.25	0.03	1	*0.76*	*0.40*
V	0.86	-0.01	0.20	0.79	0.21	0.35	0.85	0.61	0.40	0.91	0.11	0.58	0.75	0.12	0.36	0.05	0.74	1	*0.56*
Zn	0.50	0.05	0.31	0.67	0.27	0.24	0.58	0.64	0.62	0.56	0.29	0.38	0.56	0.03	0.58	0.07	0.35	0.48	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.2.3: Pearson's and Spearman's Correlations for 10 to 20 cm Urban Soil in Inner Sudbury Communities

	Al	**Sb**	**As**	**Ba**	**Cd**	**Ca**	**Cr**	**Co**	**Cu**	**Fe**	**Pb**	**Mg**	**Mn**	**Mo**	**Ni**	**Se**	**Sr**	**V**	**Zn**
Al	1	*0.04*	*0.30*	*0.89*	*0.08*	*0.54*	*0.88*	*0.68*	*0.51*	*0.89*	*0.46*	*0.64*	*0.75*	*0.09*	*0.49*	*0.04*	*0.83*	*0.89*	*0.70*
Sb	0.03	1	*0.07*	*0.05*	*0.43*	*0.02*	*0.01*	*0.02*	*0.07*	*0.05*	*0.14*	*0.02*	*0.04*	*0.42*	*0.02*	*0.01*	*0*	*0.06*	*0.06*
As	0.23	0.04	1	*0.34*	*0.15*	*0.15*	*0.22*	*0.44*	*0.63*	*0.32*	*0.55*	*0.12*	*0.24*	*0.09*	*0.60*	*-0.01*	*0.2*	*0.28*	*0.48*
Ba	0.91	0.03	0.23	1	*0.09*	*0.56*	*0.86*	*0.73*	*0.59*	*0.85*	*0.52*	*0.67*	*0.77*	*0.08*	*0.56*	*0.05*	*0.76*	*0.84*	*0.76*
Cd	0.07	0.08	0.21	0.05	1	*0.09*	*0.08*	*0.10*	*0.13*	*0.11*	*0.17*	*0.11*	*0.13*	*0.49*	*0.10*	*0.01*	*0.1*	*0.12*	*0.17*
Ca	0.36	0.00	0.18	0.31	0.19	1	*0.66*	*0.41*	*0.23*	*0.55*	*0.29*	*0.77*	*0.73*	*0.03*	*0.26*	*-0.04*	*0.76*	*0.59*	*0.47*
Cr	0.90	0.01	0.15	0.87	0.09	0.48	1	*0.72*	*0.42*	*0.90*	*0.40*	*0.84*	*0.86*	*0.07*	*0.42*	*0.06*	*0.81*	*0.91*	*0.70*
Co	0.64	0.00	0.52	0.67	0.08	0.24	0.64	1	*0.70*	*0.81*	*0.65*	*0.63*	*0.69*	*0.07*	*0.71*	*0.02*	*0.5*	*0.72*	*0.78*
Cu	0.44	0.02	0.67	0.48	0.12	0.10	0.36	0.76	1	*0.52*	*0.82*	*0.25*	*0.38*	*0.13*	*0.92*	*0.04*	*0.33*	*0.44*	*0.75*
Fe	0.91	0.04	0.23	0.86	0.10	0.37	0.91	0.73	0.46	1	*0.46*	*0.79*	*0.83*	*0.12*	*0.47*	*0.05*	*0.73*	*0.94*	*0.75*
Pb	0.19	0.55	0.33	0.26	0.16	0.10	0.18	0.39	0.45	0.21	1	*0.24*	*0.43*	*0.14*	*0.81*	*-0.04*	*0.35*	*0.38*	*0.77*
Mg	0.66	0.00	0.09	0.64	0.11	0.76	0.81	0.50	0.19	0.76	0.07	1	*0.80*	*0.08*	*0.24*	*0.03*	*0.65*	*0.77*	*0.55*
Mn	0.77	0.01	0.18	0.77	0.16	0.56	0.84	0.62	0.33	0.83	0.21	0.75	1	*0.07*	*0.38*	*0.00*	*0.76*	*0.82*	*0.72*
Mo	0.03	0.04	0.02	-0.01	0.04	-0.02	0.03	-0.01	0.04	0.03	0.03	-0.01	-0.03	1	*0.07*	*0.07*	*0*	*0.12*	*0.12*
Ni	0.41	0.01	0.67	0.45	0.11	0.15	0.34	0.75	0.92	0.41	0.43	0.18	0.32	0.00	1	*0.03*	*0.34*	*0.40*	*0.71*
Se	0.04	0.00	0.03	0.02	0.06	-0.03	0.04	0.06	0.08	0.05	-0.05	0.02	0.00	0.13	0.08	1	*0.1*	*0.06*	*-0.01*
Sr	0.81	0.00	0.17	0.72	0.10	0.64	0.78	0.44	0.26	0.71	0.15	0.65	0.76	-0.01	0.27	0.05	1	*0.80*	*0.57*
V	0.89	0.03	0.19	0.83	0.11	0.42	0.90	0.63	0.34	0.94	0.16	0.74	0.83	0.03	0.31	0.06	0.78	1	*0.69*
Zn	0.64	0.05	0.38	0.71	0.27	0.34	0.63	0.69	0.64	0.66	0.53	0.47	0.68	0.03	0.61	0.01	0.52	0.59	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

10.4.3 Sudbury Core

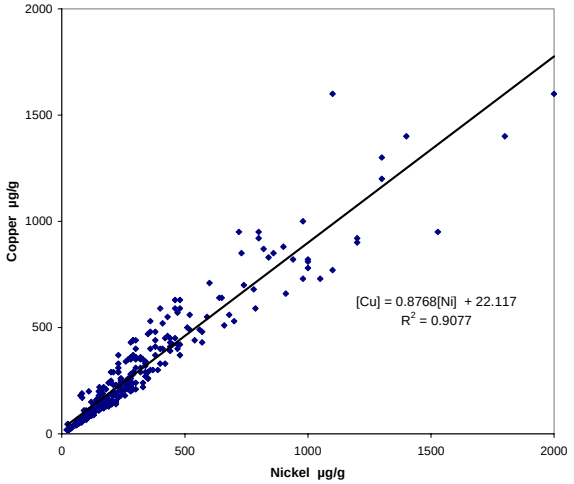


Fig. 10.4.3.1: Cu vs. Ni, 0-5 cm, Sudbury Core

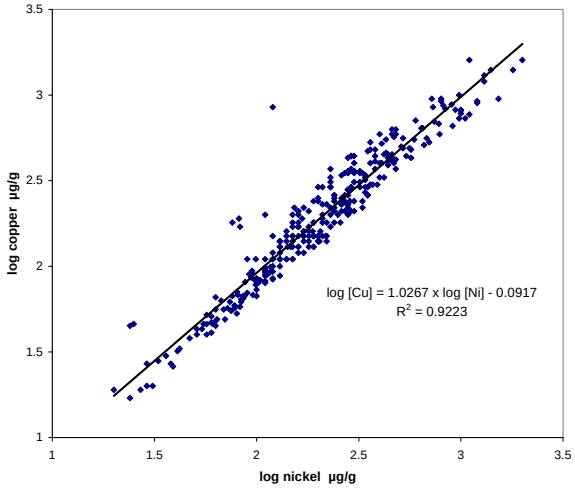


Fig. 10.4.3.1b: log Cu vs. log Ni, 0-5 cm, Sudbury Core

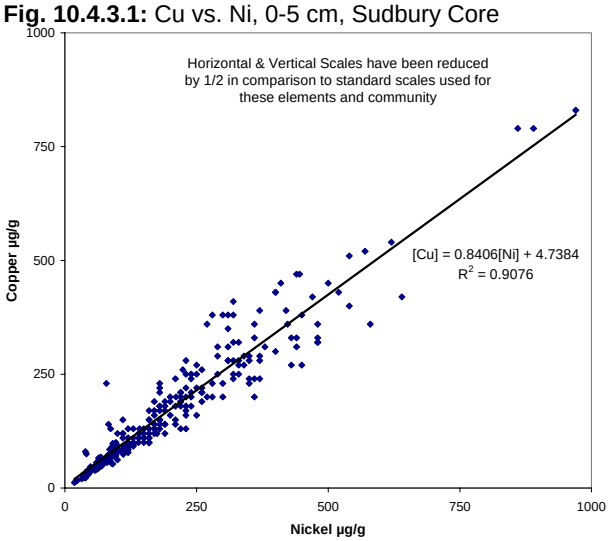


Fig. 10.4.3.2: Cu vs. Ni, 5-10 cm, Sudbury Core

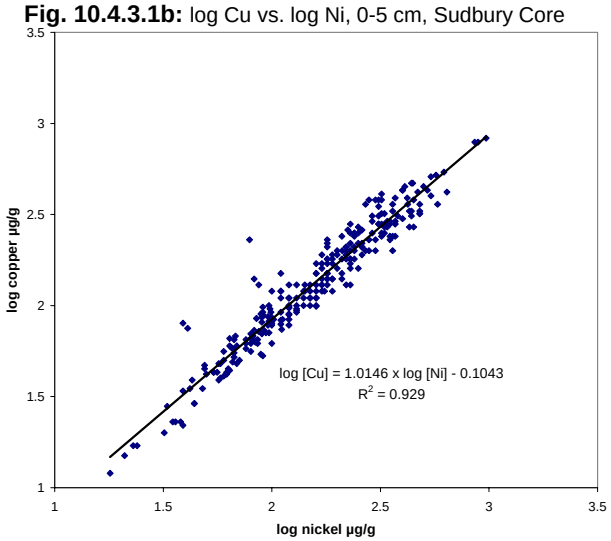


Fig. 10.4.3.2b: log Cu vs. log Ni, 5-10 cm, Sudbury Core

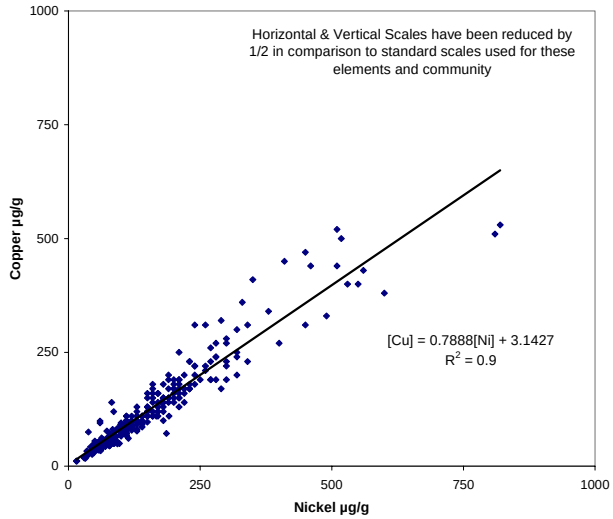


Fig. 10.4.3.3: Cu vs. Ni, 10-20 cm, Sudbury Core

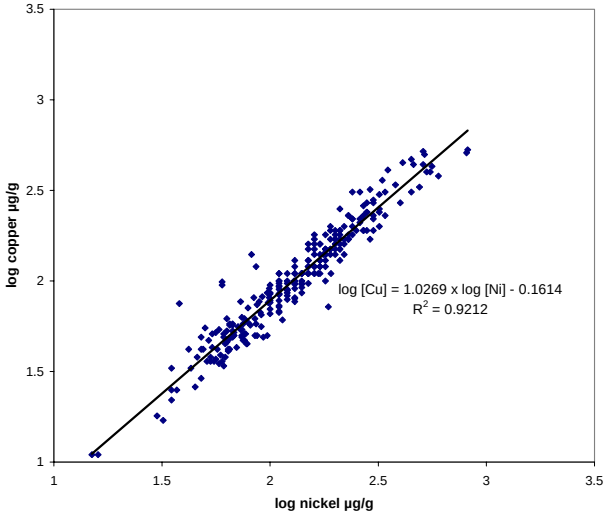


Fig. 10.4.3.3b: log Cu vs. log Ni, 10-20 cm, Sudbury Core

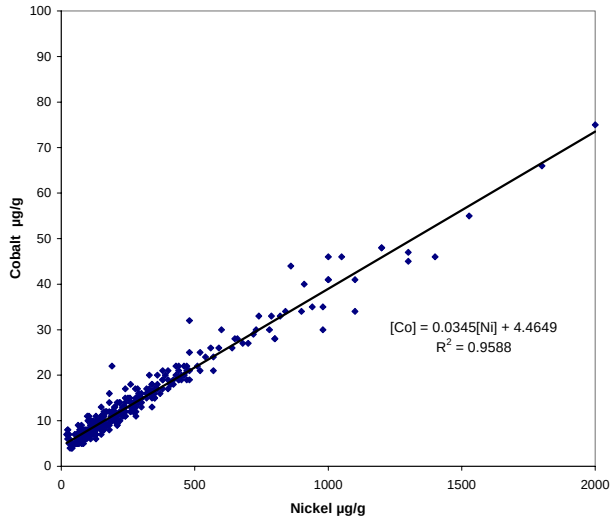


Fig. 10.4.3.4: Co vs. Ni, 0-5 cm, Sudbury Core

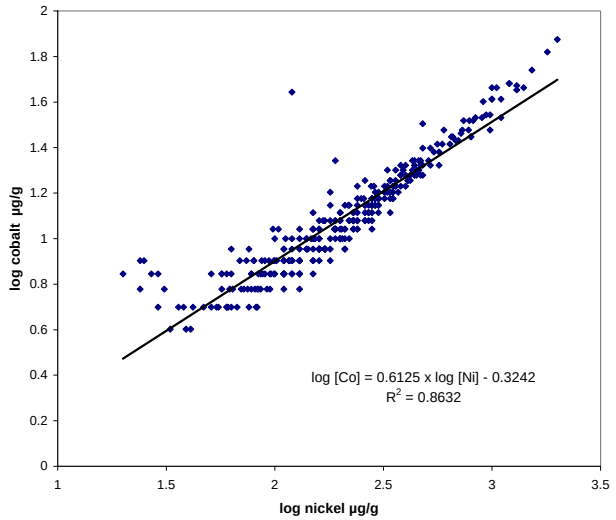


Fig. 10.4.3.4b: log Co vs. log Ni, 0-5 cm, Sudbury Core

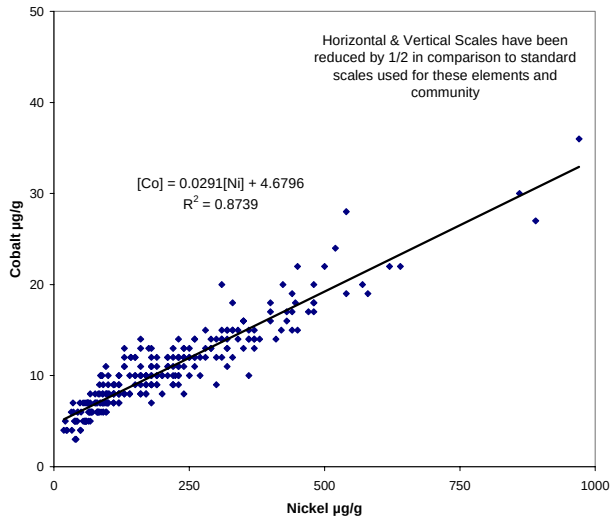


Fig. 10.4.3.5: Co vs. Ni, 5-10 cm, Sudbury Core

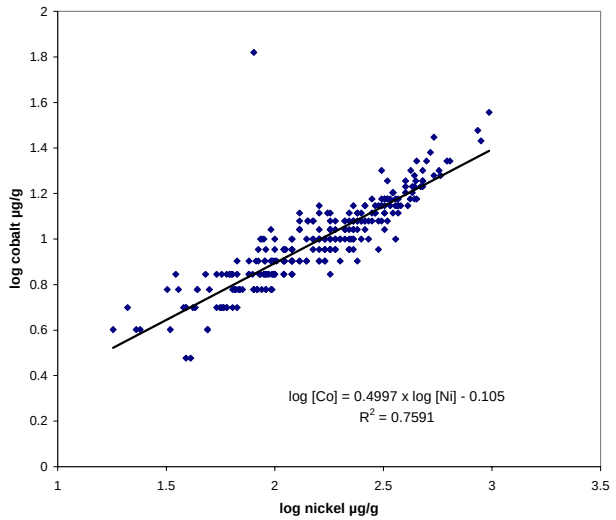


Fig. 10.4.3.5b: log Co vs. log Ni, 5-10 cm, Sudbury Core

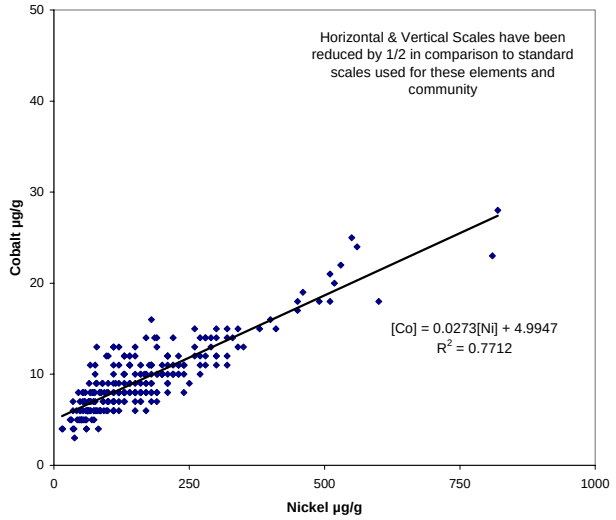


Fig. 10.4.3.6: Co vs. Ni, 10-20 cm, Sudbury Core

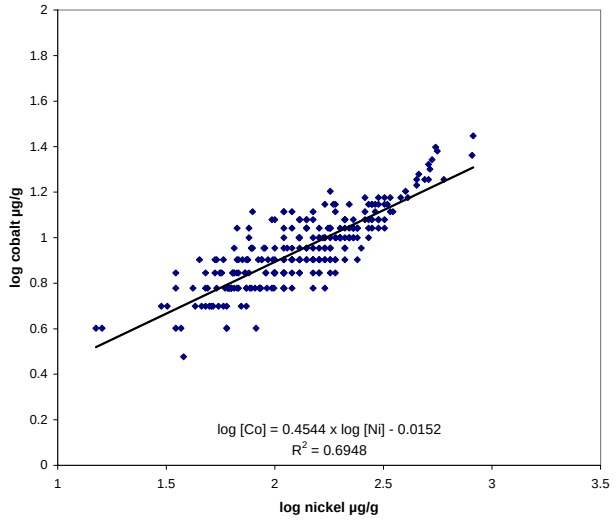


Fig. 10.4.3.6a: log Co vs. log Ni, 10-20 cm, Sudbury Core

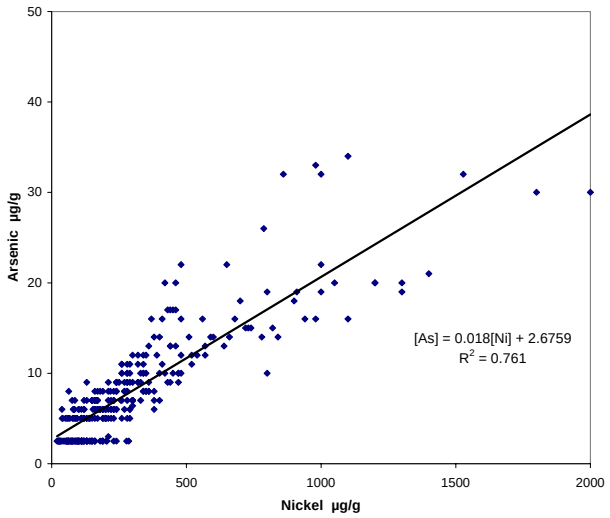


Fig. 10.4.3.7: As vs. Ni, 0-5 cm, Sudbury Core

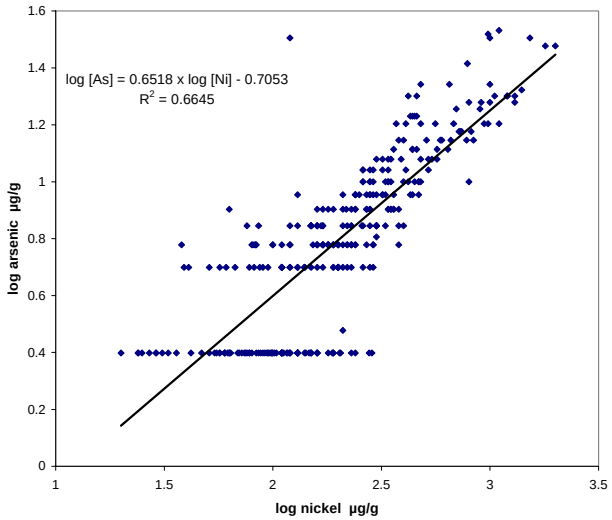


Fig. 10.4.3.7b: log As vs. log Ni, 0-5 cm, Sudbury Core

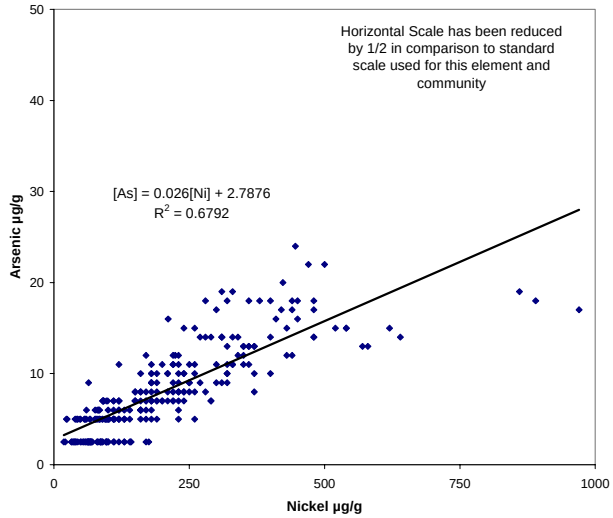


Fig. 10.4.3.8: As vs. Ni, 5-10 cm, Sudbury Core

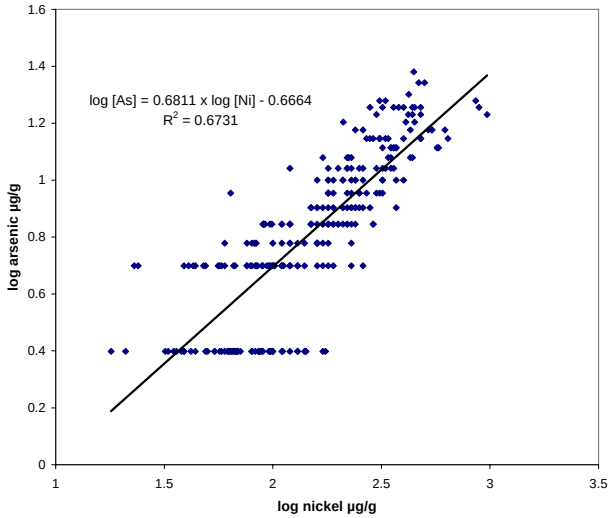


Fig. 10.4.3.8b: log As vs. log Ni, 5-10 cm, Sudbury Core

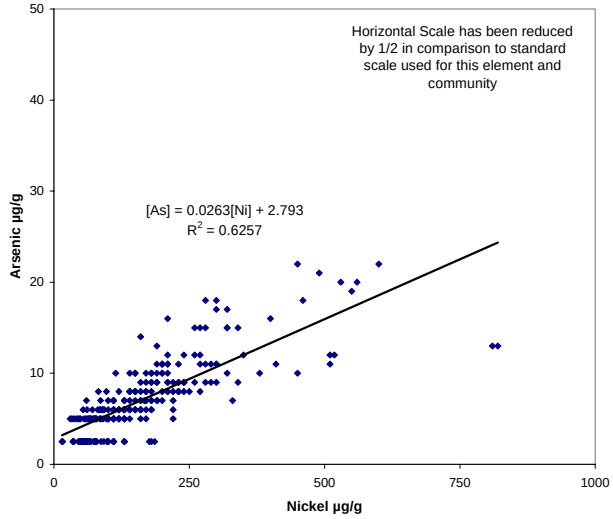


Fig. 10.4.3.9: As vs. Ni, 10-20 cm, Sudbury Core

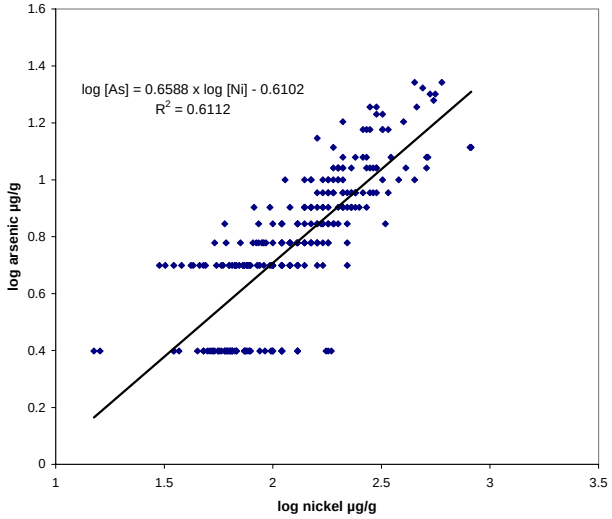


Fig. 10.4.3.9b: log As vs. log Ni, 10-20 cm, Sudbury Core

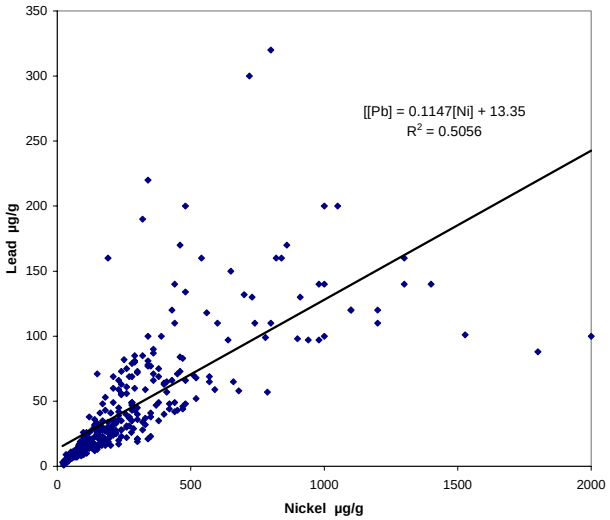


Fig. 10.4.3.10: Pb vs. Ni, 0-5 cm, Sudbury Core

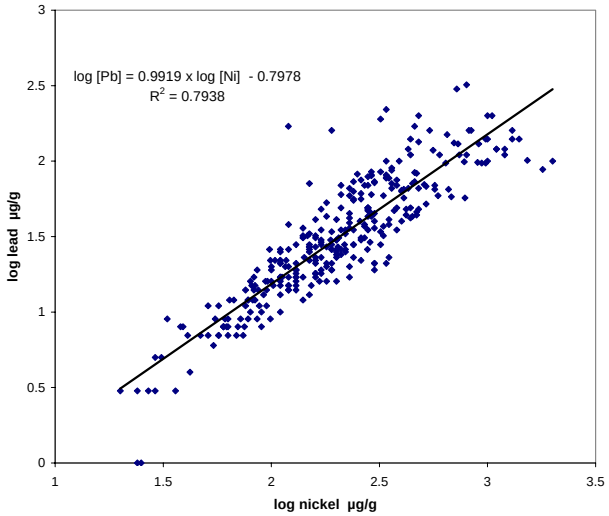


Fig. 10.4.3.10b: log Pb vs. log Ni, 0-5 cm, Sudbury Core

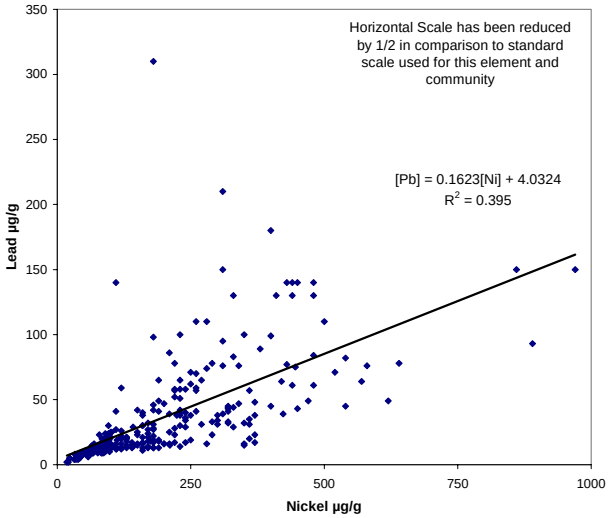


Fig. 10.4.3.11: Pb vs. Ni, 5-10 cm, Sudbury Core

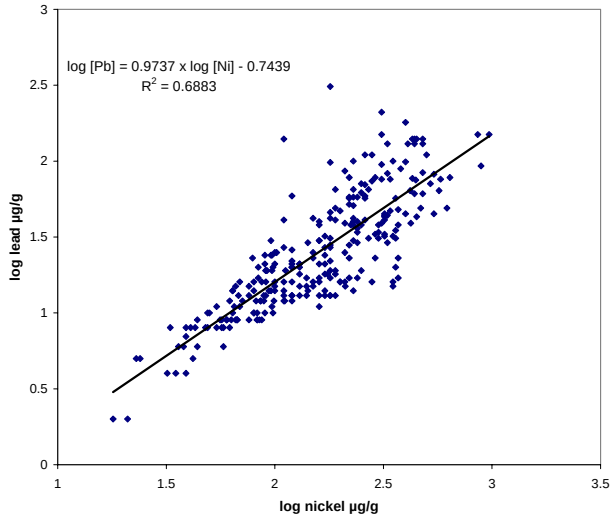


Fig. 10.4.3.11b: log Pb vs. log Ni, 5-10 cm, Sudbury Core

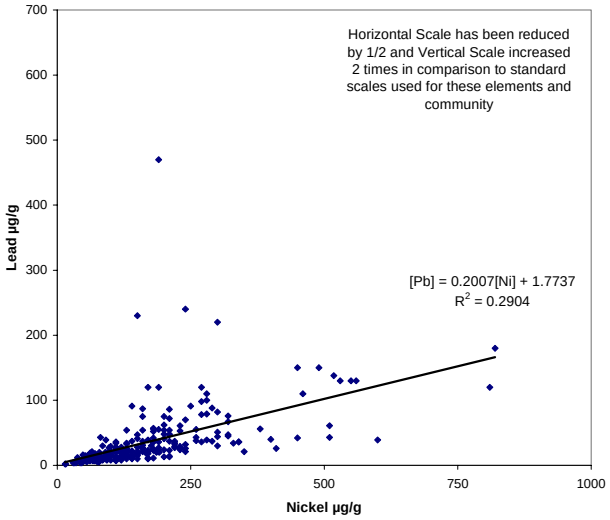


Fig. 10.4.3.12: Pb vs. Ni, 10-20 cm, Sudbury Core

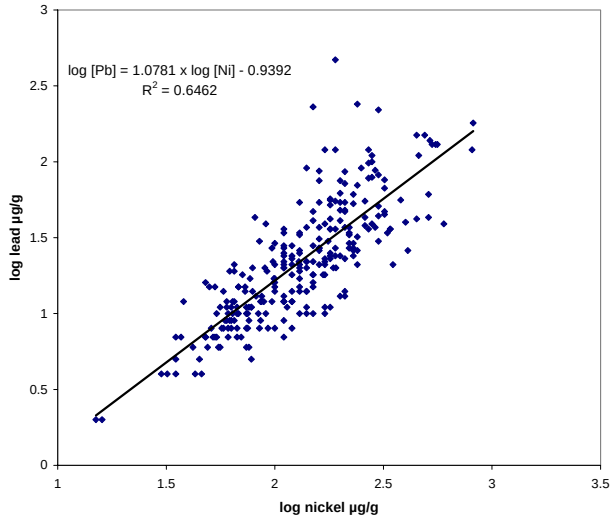


Fig. 10.4.3.12b: log Pb vs. log Ni,10-20 cm, Sudbury Core

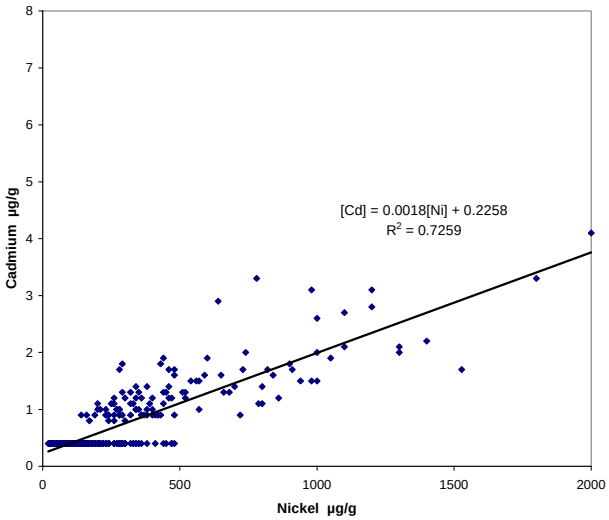


Fig. 10.4.3.13: Cd vs. Ni, 0-5 cm, Sudbury Core

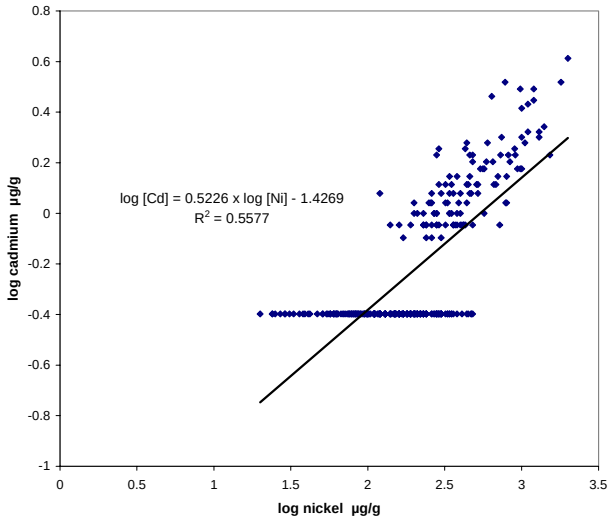


Fig. 10.4.3.13b:log Cd vs. log Ni, 0-5 cm, Sudbury Core

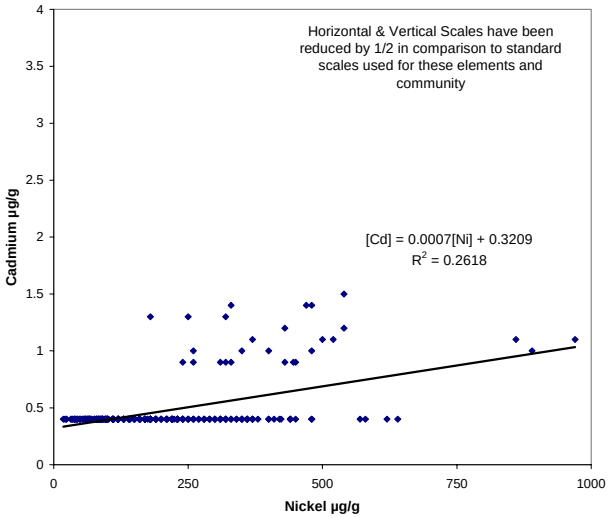


Fig. 10.4.3.14: Cd vs. Ni, 5-10 cm, Sudbury Core

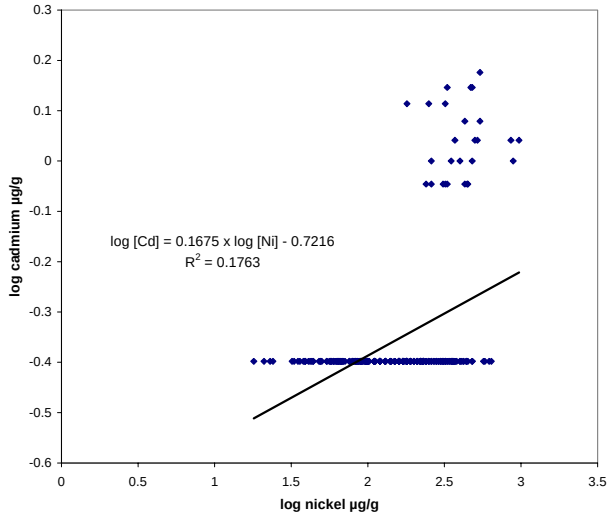


Fig. 10.4.3.14b: log Cd vs. log Ni, 5-10 cm, Sudbury Core

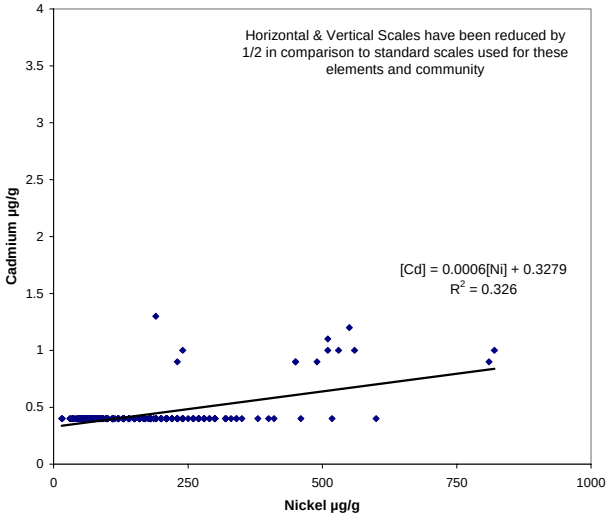


Fig. 10.4.3.15: Cd vs. Ni, 10-20 cm, Sudbury Core

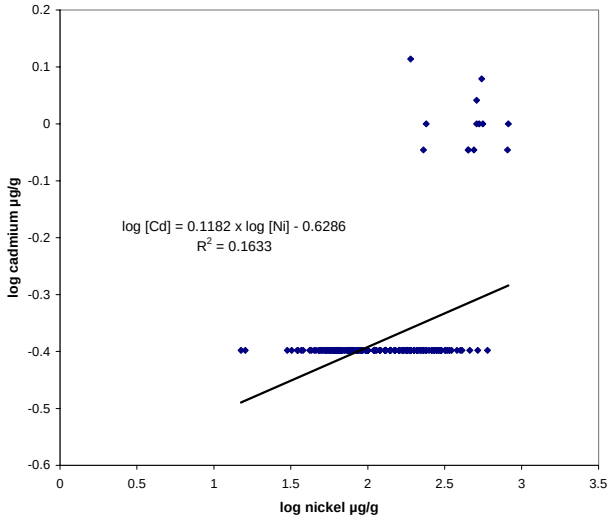


Fig. 10.4.3.15b: log Cd vs log Ni, 10-20 cm, Sudbury Core

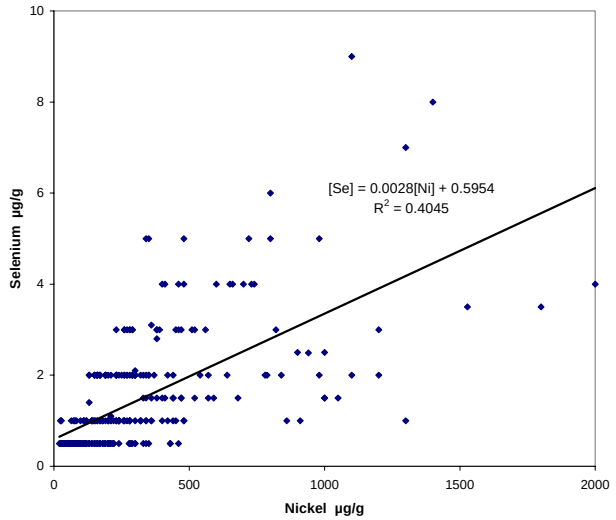


Fig. 10.4.3.16: Se vs. Ni, 0-5 cm, Sudbury Core

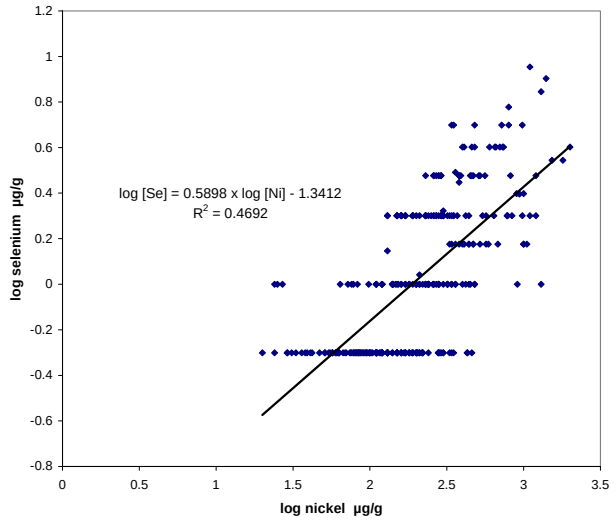


Fig. 10.4.3.16b: log Se vs. log Ni, 0-5 cm, Sudbury Core

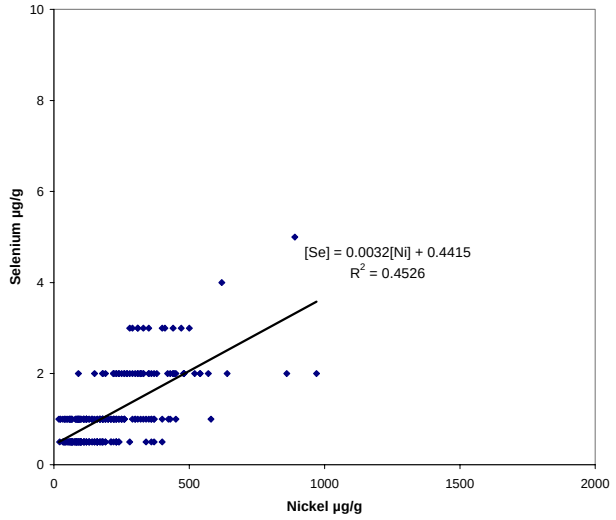


Fig. 10.4.3.17: Se vs. Ni, 5-10 cm, Sudbury Core

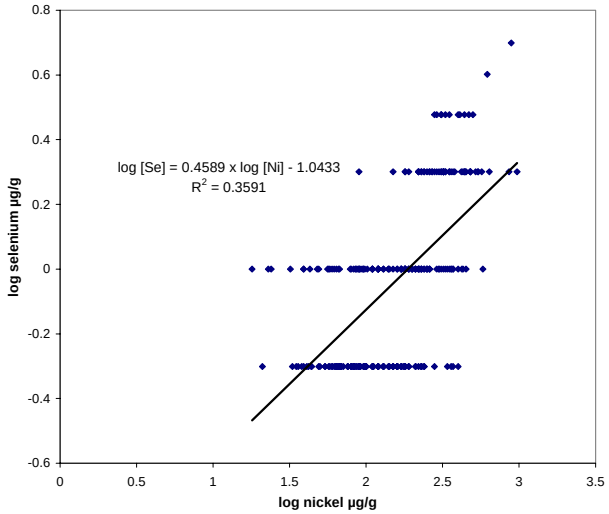


Fig. 10.4.3.17b: log Se vs. log Ni, 5-10 cm, Sudbury Core

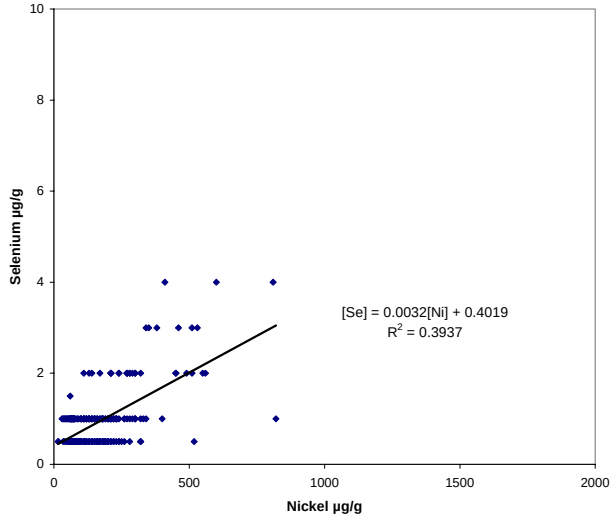


Fig. 10.4.3.18: Se vs. Ni, 10-20 cm, Sudbury Core

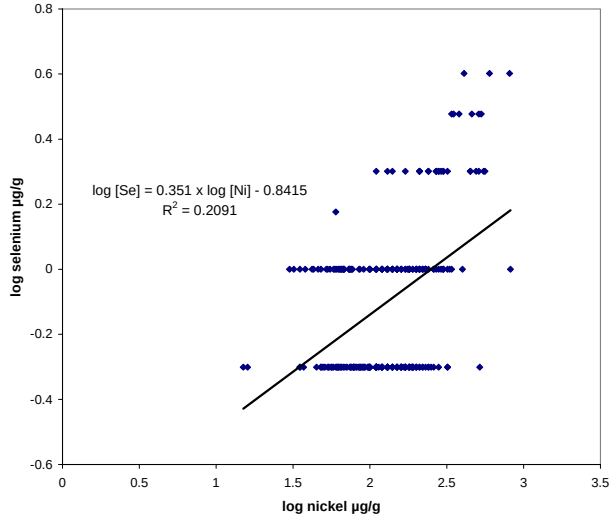


Fig. 10.4.3.18b: log Se vs log Ni, 10-20 cm, Sudbury Core

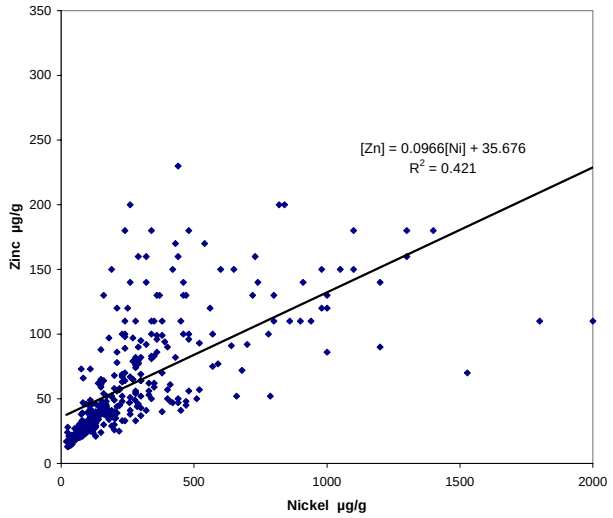


Fig. 10.4.3.19: Zn vs. Ni, 0-5 cm, Sudbury Core

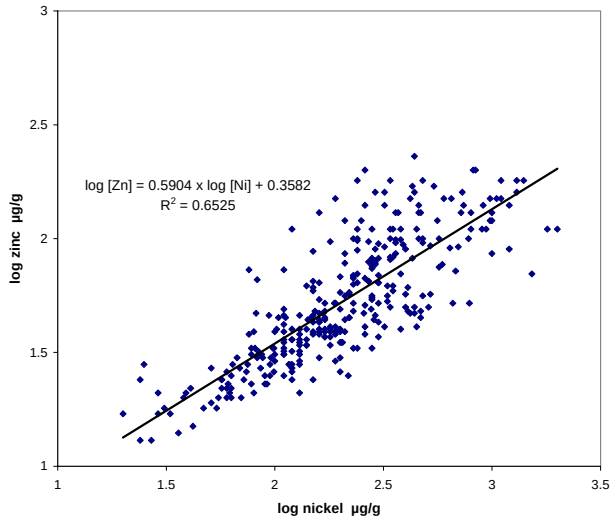


Fig. 10.4.3.19b: log Zn vs. log Ni, 0-5 cm, Sudbury Core

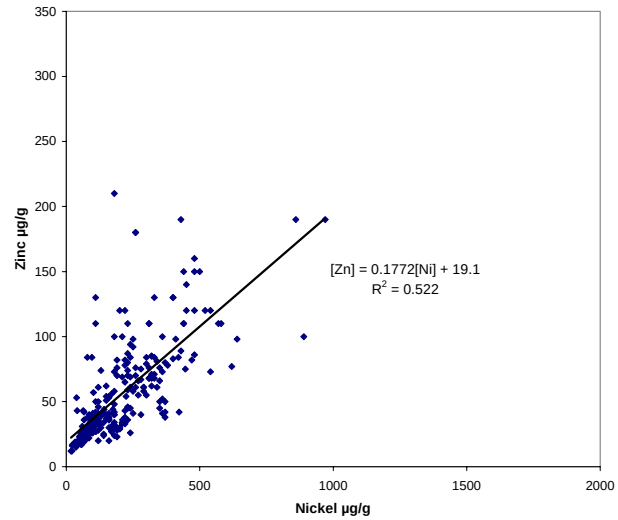


Fig. 10.4.3.20: Zn vs. Ni, 5-10 cm, Sudbury Core

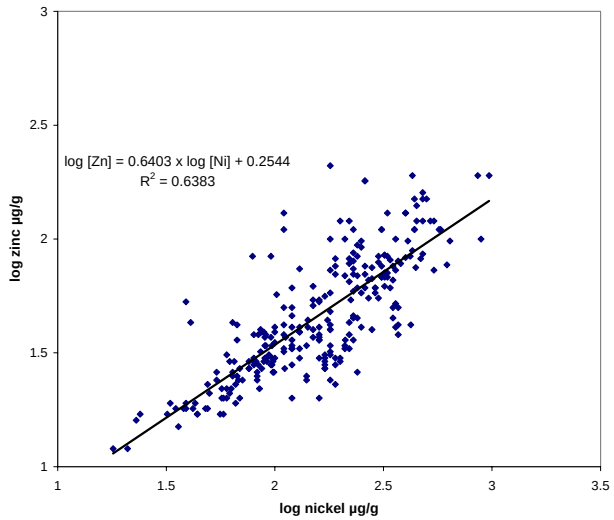


Fig. 10.4.3.20b: log Zn vs. log Ni, 5-10 cm, Sudbury Core

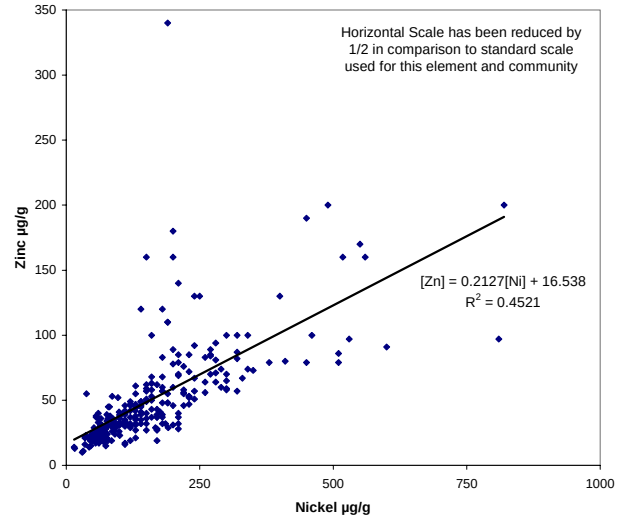


Fig. 10.4.3.21: Zn vs. Ni, 10-20 cm, Sudbury Core

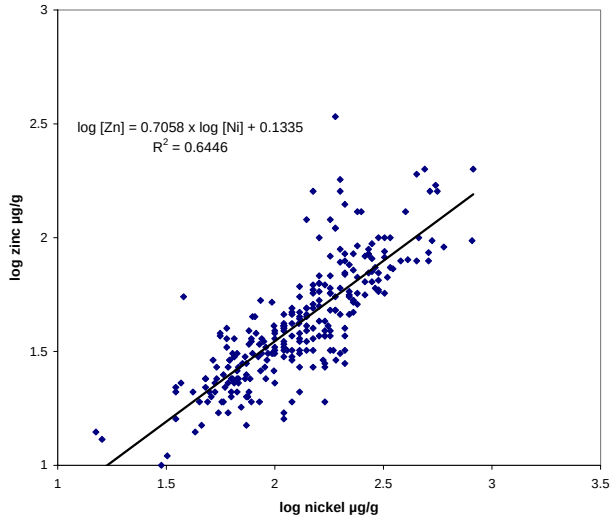


Fig. 10.4.3.21b: log Zn vs log Ni, 10-20 cm, Sudbury Core

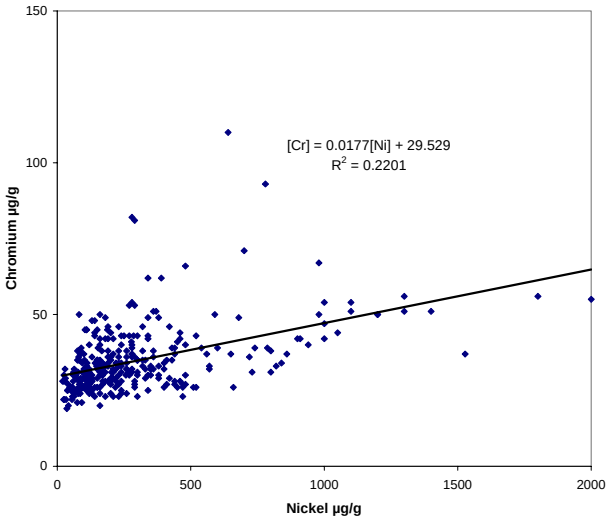


Fig. 10.4.3.22: Cr vs. Ni, 0-5 cm, Sudbury Core

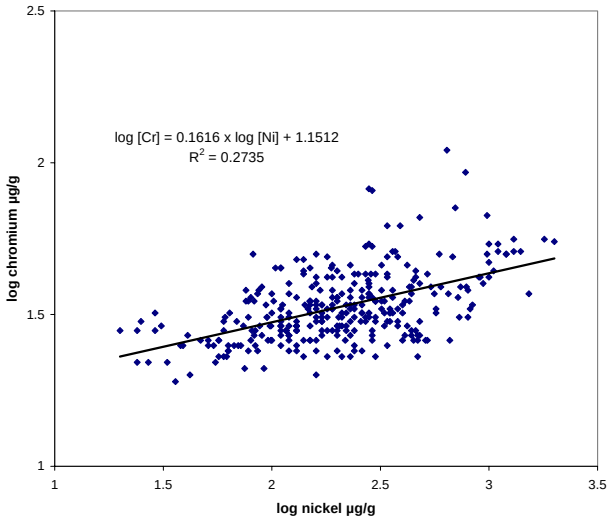


Fig. 10.4.3.22b: log Cr vs.log Ni, 0-5 cm, Sudbury Core

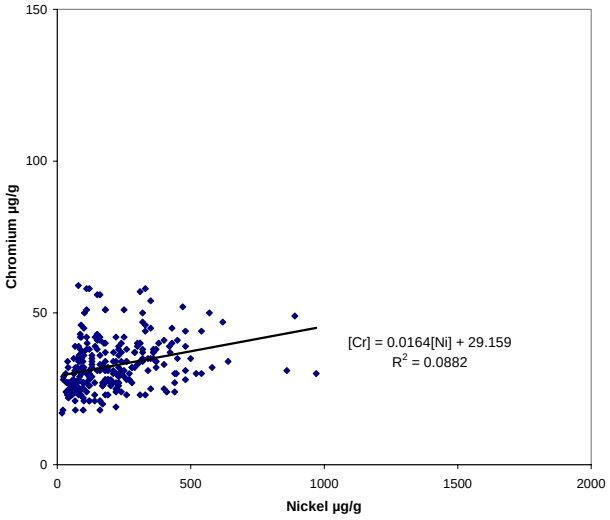


Fig. 10.4.3.23: Cr vs. Ni, 5-10 cm, Sudbury Core

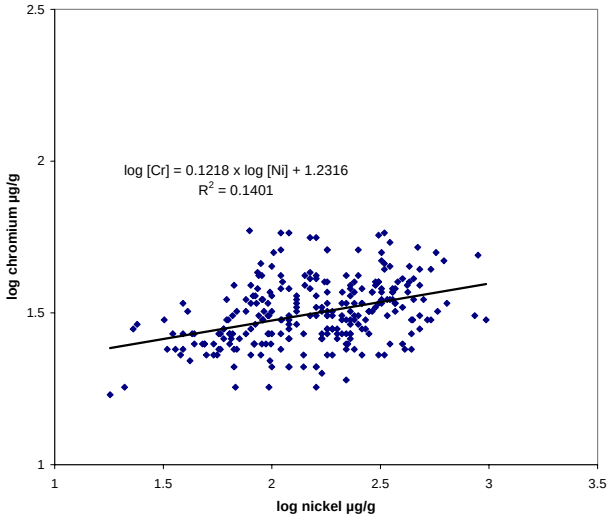


Fig. 10.4.3.23b: log Cr vs. log Ni, 5-10 cm, Sudbury Core

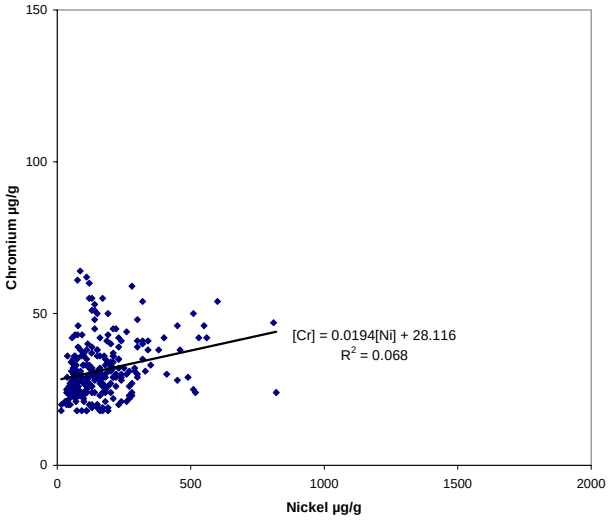


Fig. 10.4.3.24: Cr vs. Ni, 10-20 cm, Sudbury Core

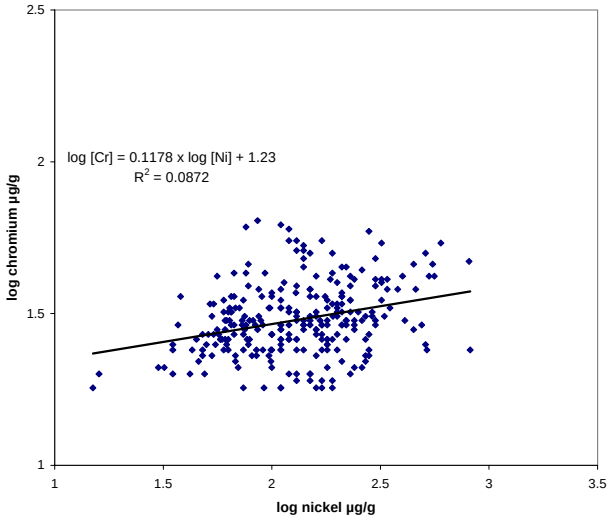


Fig. 10.4.3.24b: log Cr vs. log Ni, 10-20 cm, Sudbury Core

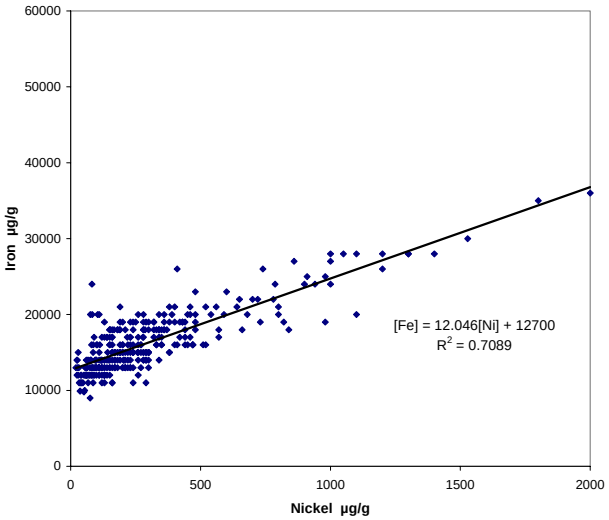


Fig. 10.4.3.25: Fe vs. Ni, 0-5 cm, Sudbury Core

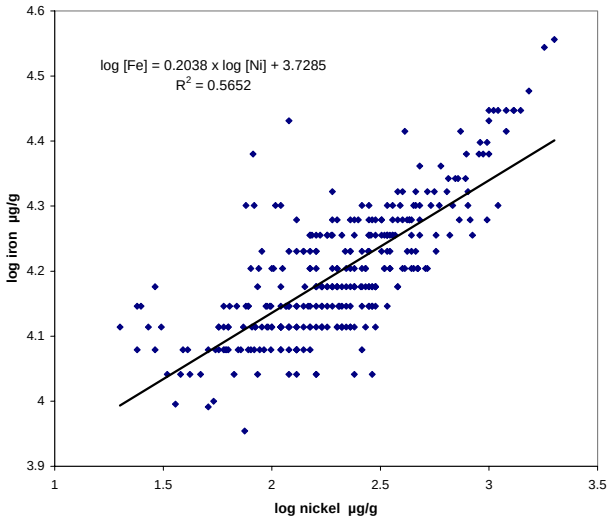


Fig. 10.4.3.25b: log Fe vs log Ni, 0-5 cm, Sudbury Core

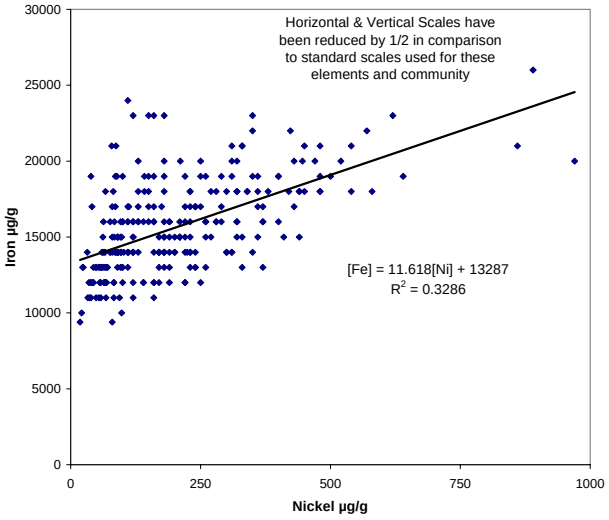


Fig. 10.4.3.26: Fe vs. Ni, 5-10 cm, Sudbury Core

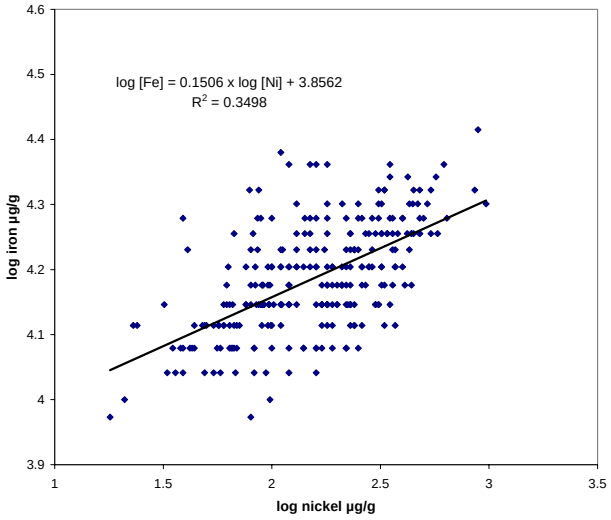


Fig. 10.4.3.26b: log Fe vs. log Ni, 5-10 cm, Sudbury Core

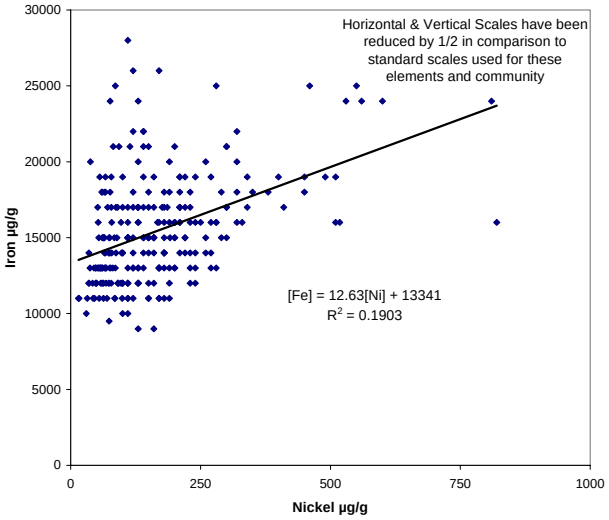


Fig. 10.4.3.27: Fe vs. Ni, 10-20 cm, Sudbury Core

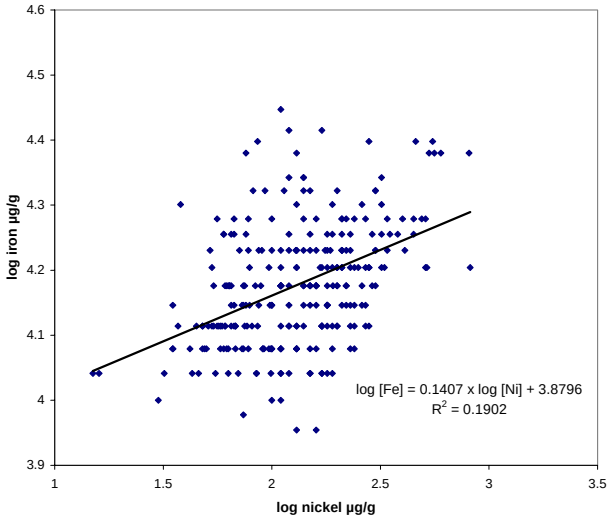


Fig. 10.4.3.27b:log Fe vs log Ni, 10-20 cm, Sudbury Core

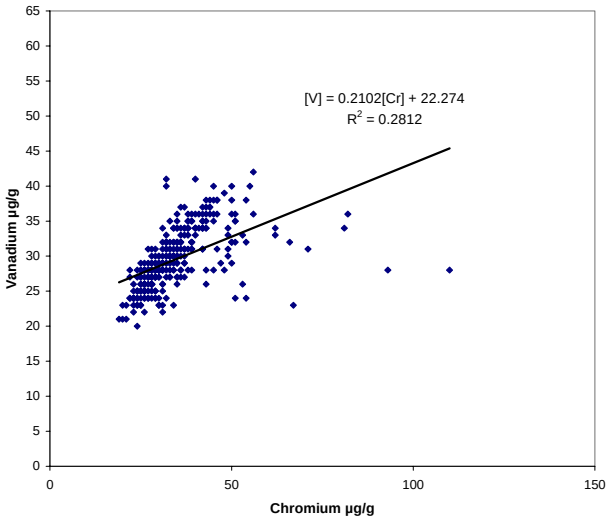


Fig. 10.4.3.28: V vs. Cr, 0-5 cm, Sudbury Core

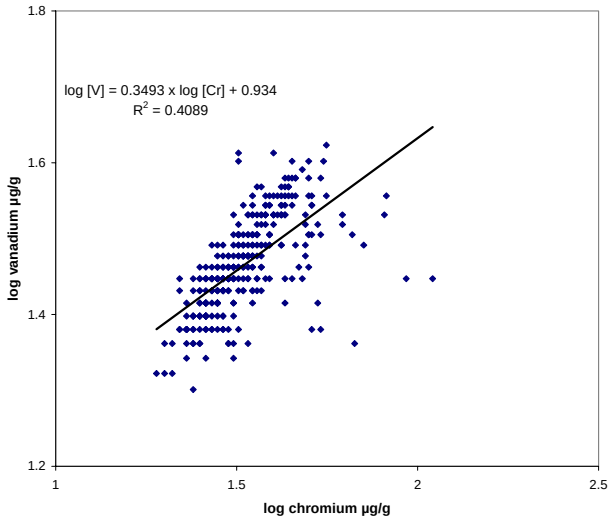


Fig. 10.4.3.28b: logV vs log Cr, 0-5 cm, Sudbury Core

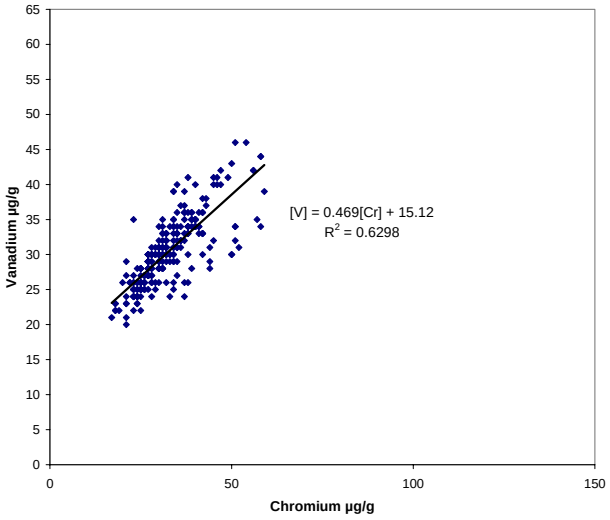


Fig. 10.4.3.29: V vs. Cr, 5-10 cm, Sudbury Core

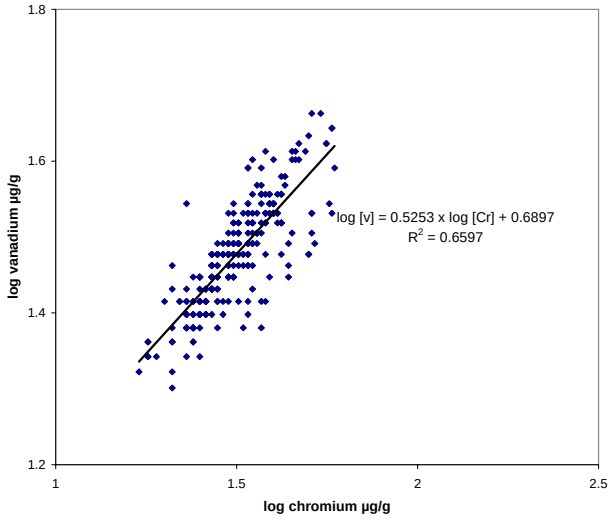


Fig. 10.4.3.29b: log V vs log Cr, 5-10 cm, Sudbury Core

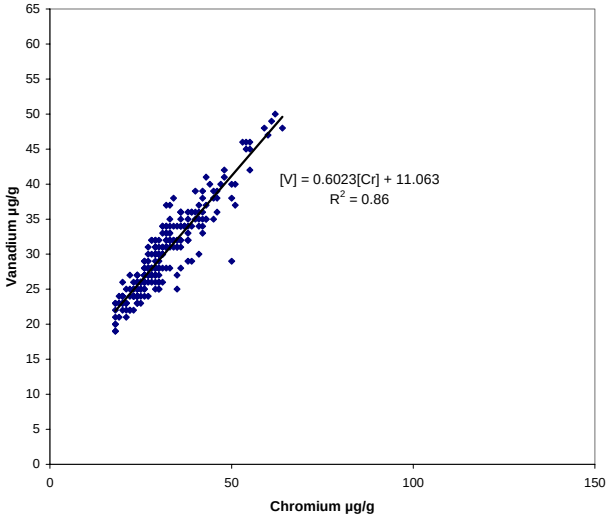


Fig. 10.4.3.30: V vs. Cr, 10-20 cm, Sudbury Core

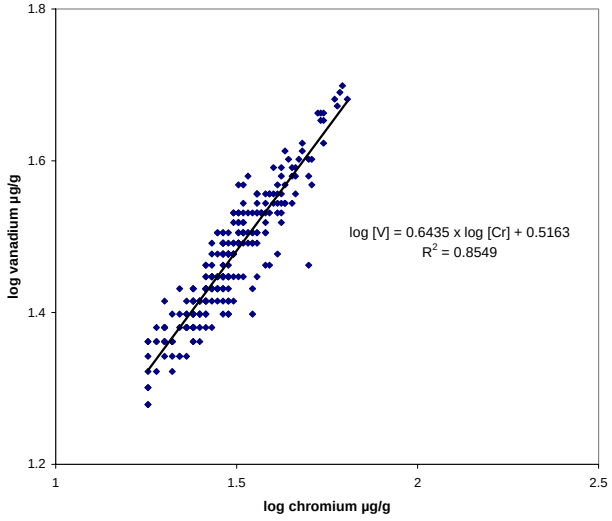


Fig. 10.4.3.30b: log V vs log Cr, 10-20 cm, Sudbury Core

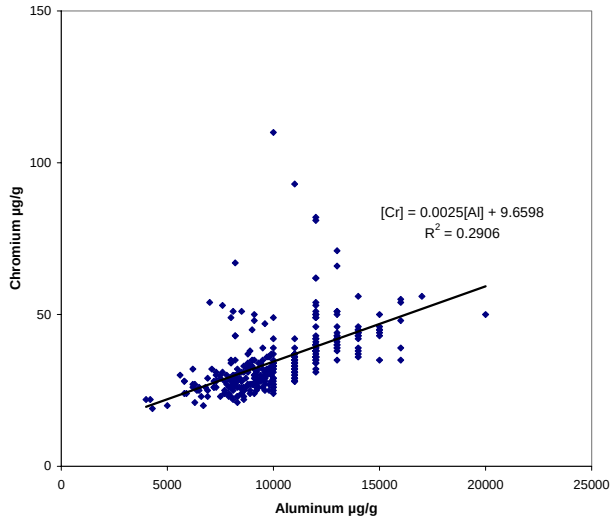


Fig. 10.4.3.31: Cr vs. Al, 0-5 cm, Sudbury Core

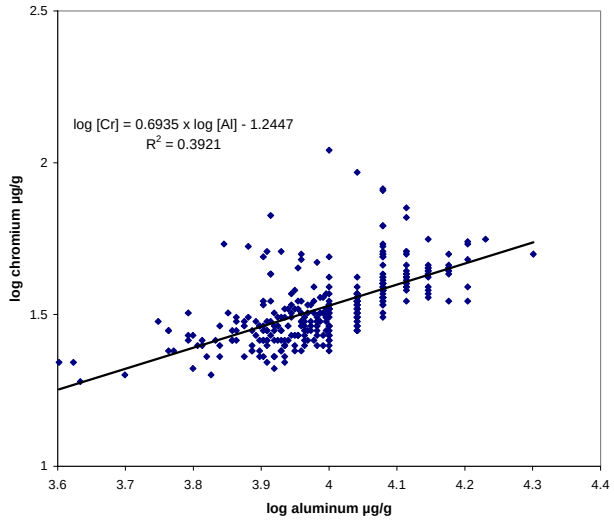


Fig. 10.4.3.31b: log Cr vs log Al, 0-5 cm, Sudbury Core

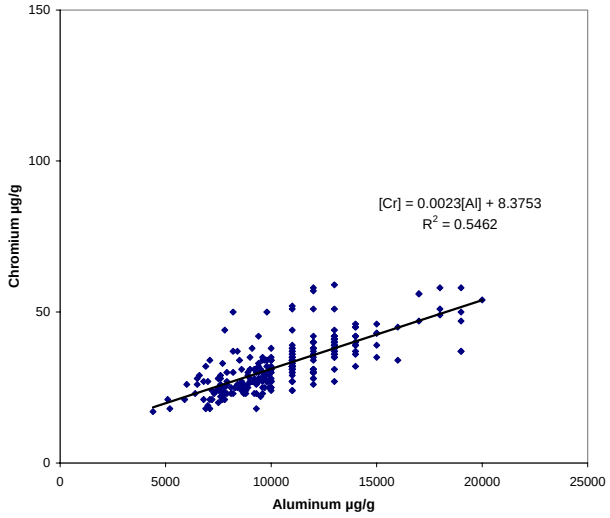


Fig. 10.4.3.32: Cr vs. Al, 5-10 cm, Sudbury Core

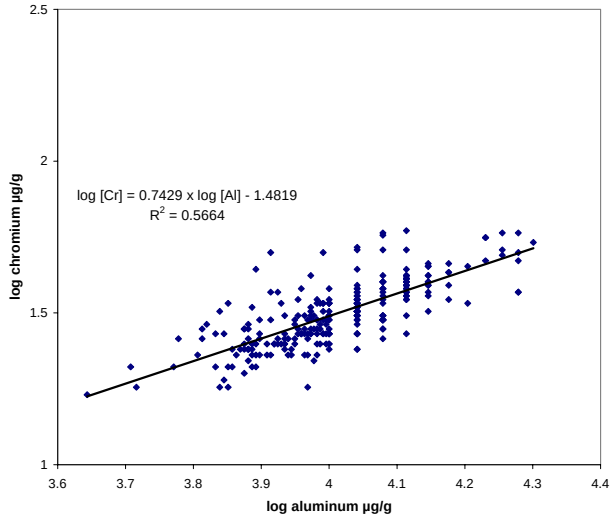


Fig. 10.4.3.32b: log Cr vs. log Al, 5-10 cm, Sudbury Core

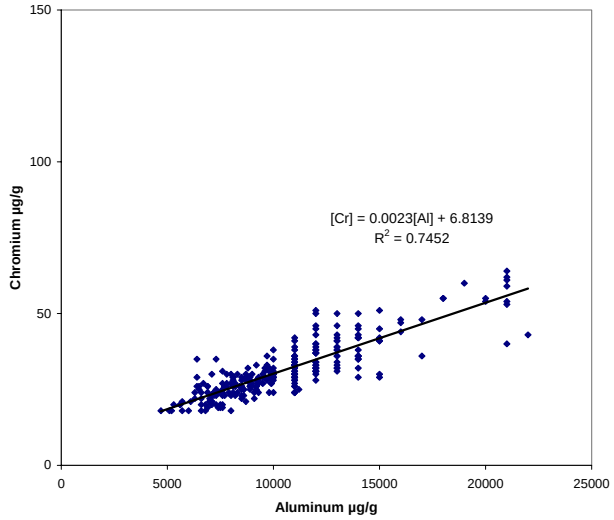


Fig. 10.4.3.33: Cr vs. Al, 10-20 cm, Sudbury Core

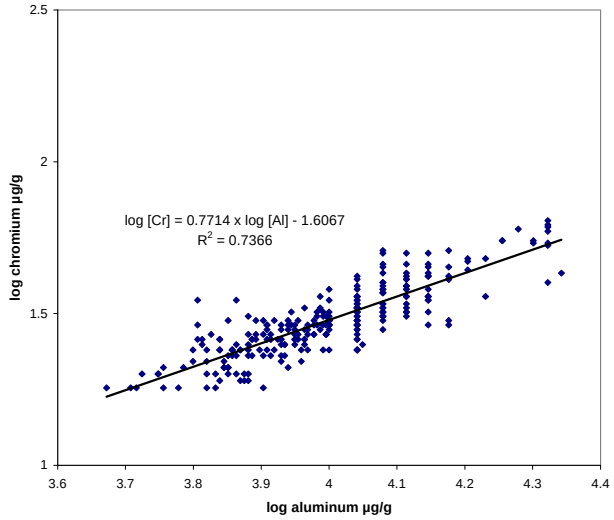


Fig. 10.4.3.33b: log Cr vs.log Al, 10-20 cm, Sudbury Core

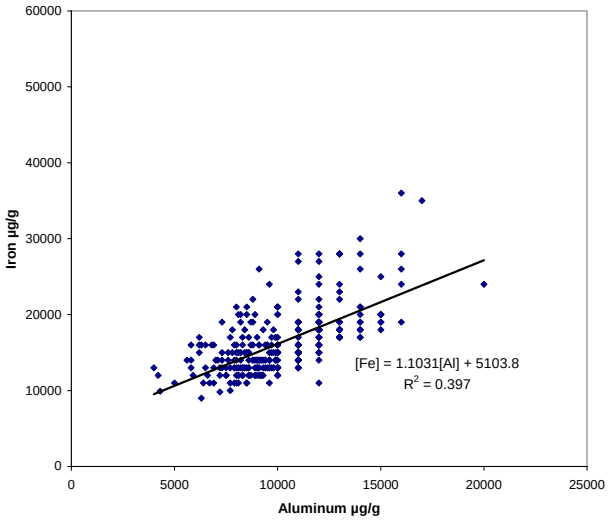


Fig. 10.4.3.34: Fe vs. Al, 0-5 cm, Sudbury Core

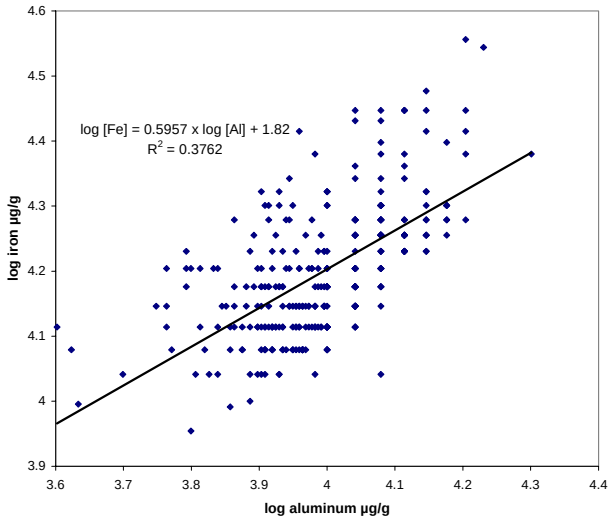


Fig. 10.4.3.34b: log Fe vs. log Al, 0-5 cm, Sudbury Core

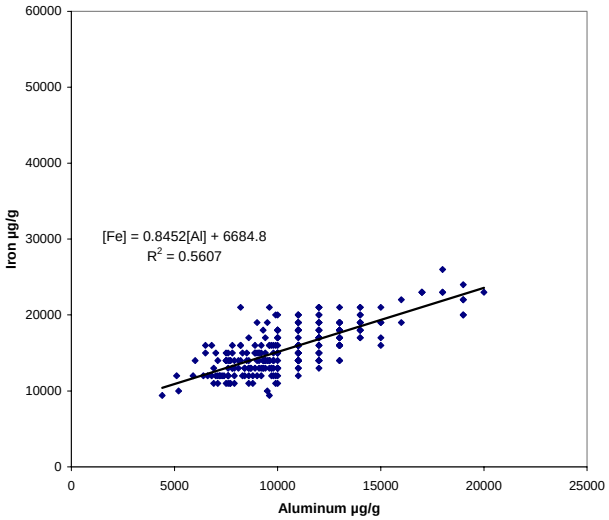


Fig. 10.4.3.35: Fe vs. Al, 5-10 cm, Sudbury Core

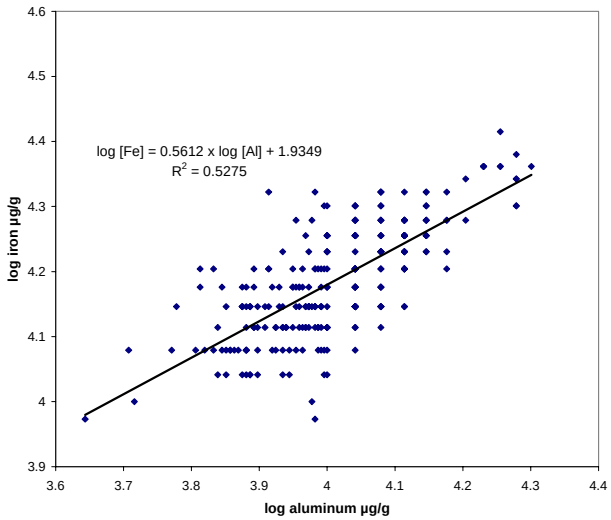


Fig. 10.4.3.35b: log Fe vs. log Al, 5-10 cm, Sudbury Core

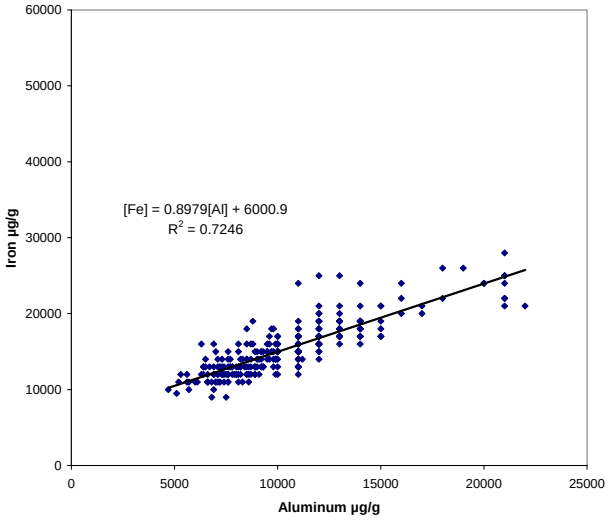


Fig. 10.4.3.36: Fe vs. Al, 10-20 cm, Sudbury Core

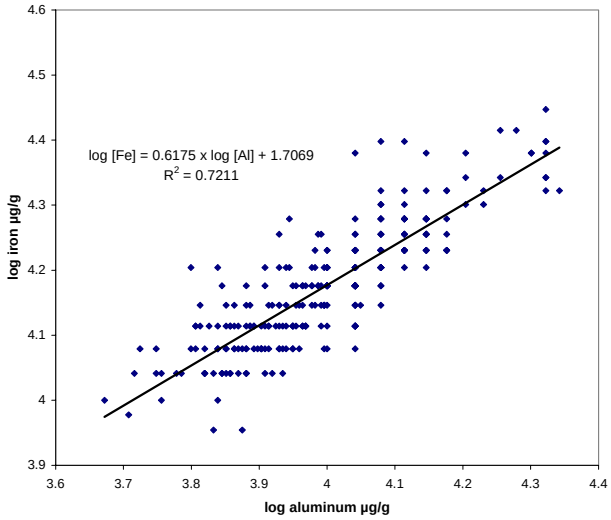


Fig. 10.4.3.36b: log Fe vs log Al, 10-20 cm, Sudbury Core

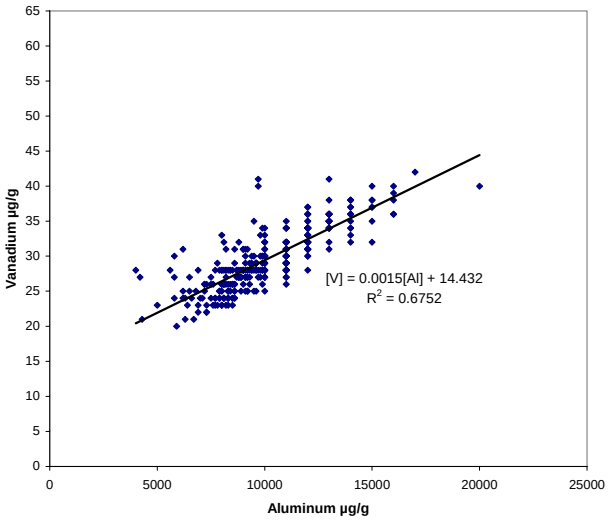


Fig. 10.4.3.37: V vs. Al, 10-20 cm, Sudbury Core

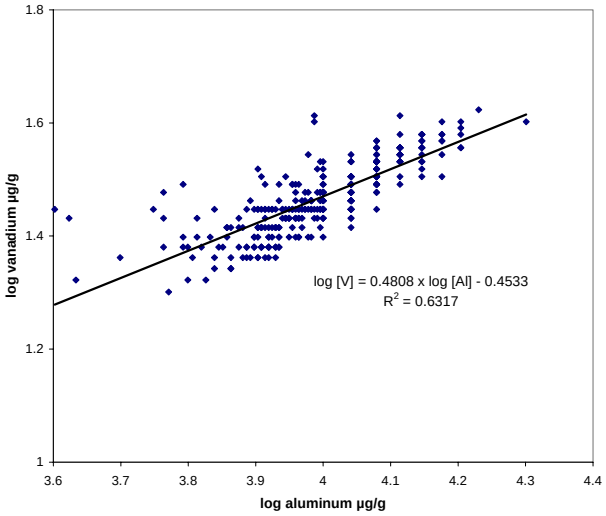


Fig. 10.4.3.37b:log V vs log Al, 10-20 cm, Sudbury Core

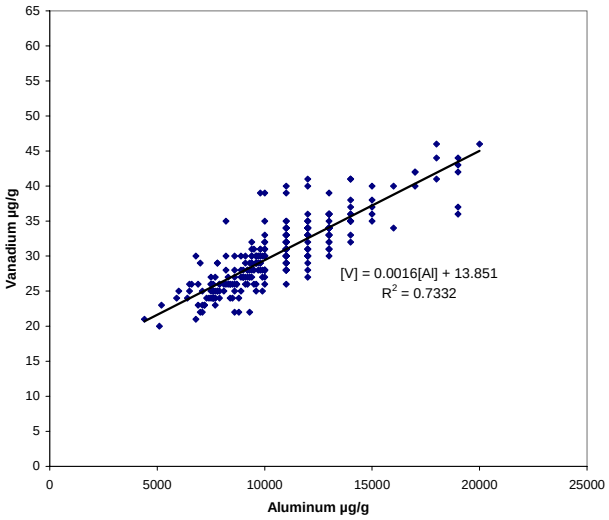


Fig. 10.4.3.38: V vs. Al, 5-10 cm, Sudbury Core

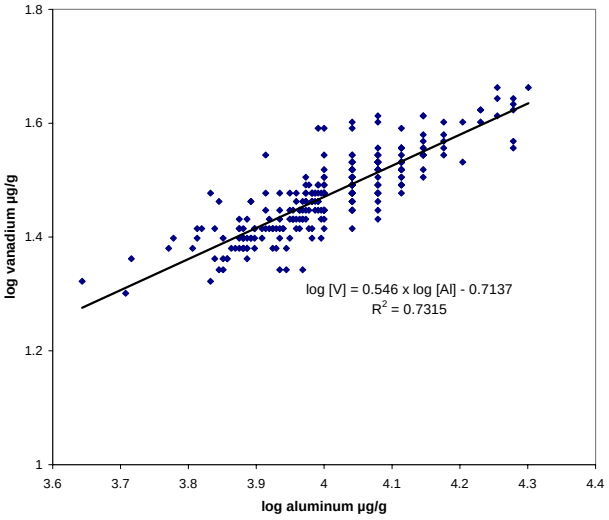


Fig. 10.4.3.38b: log V vs log Al, 5-10 cm, Sudbury Core

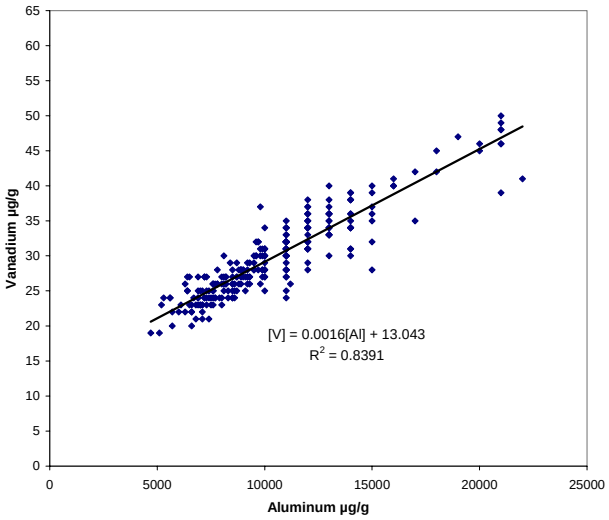


Fig. 10.4.3.39: V vs. Al, 10-20 cm, Sudbury Core

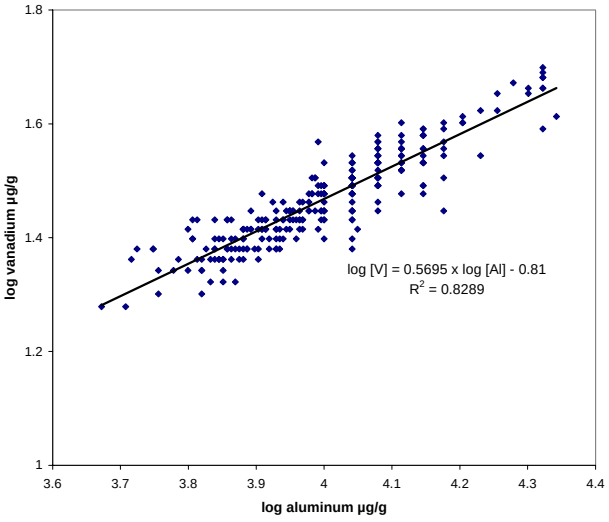


Fig. 10.4.3.39b: log V vs log Al, 10-20 cm, Sudbury Core

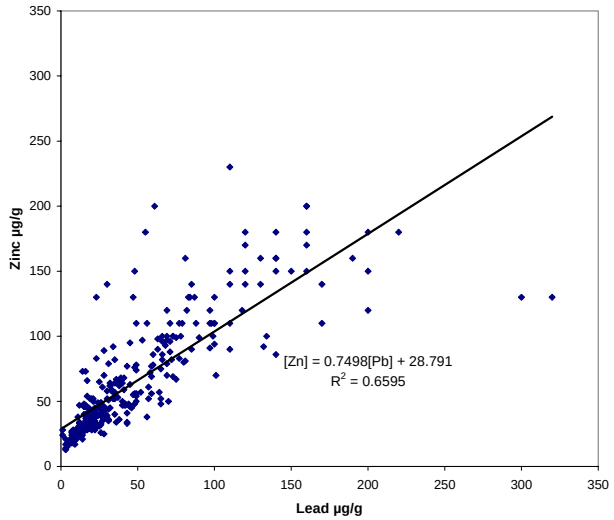


Fig. 10.4.3.40: Zn vs. Pb, 0-5 cm, Sudbury Core

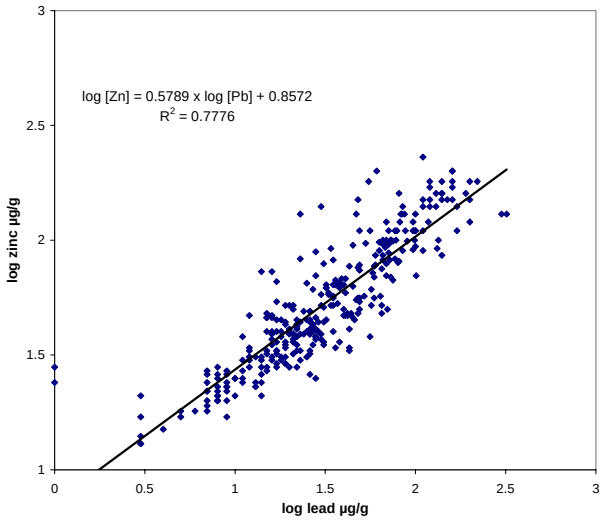


Fig. 10.4.3.40b: log Zn vs log Pb, 0-5 cm, Sudbury Core

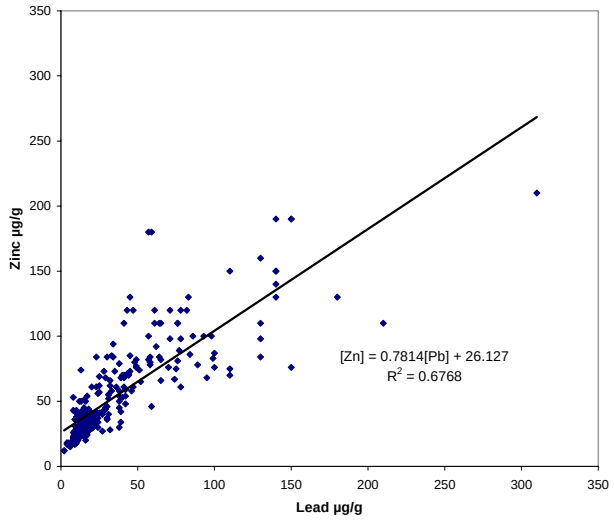


Fig. 10.4.3.41: Zn vs. Pb, 5-10 cm, Sudbury Core

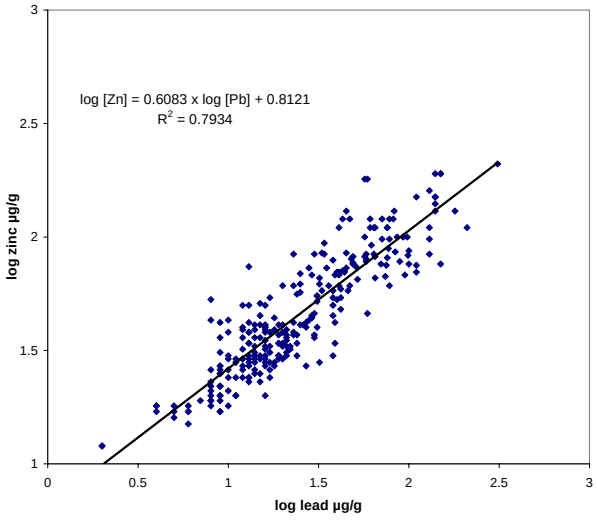


Fig. 10.4.3.41b: log Zn vs. log Pb, 5-10 cm, Sudbury Core

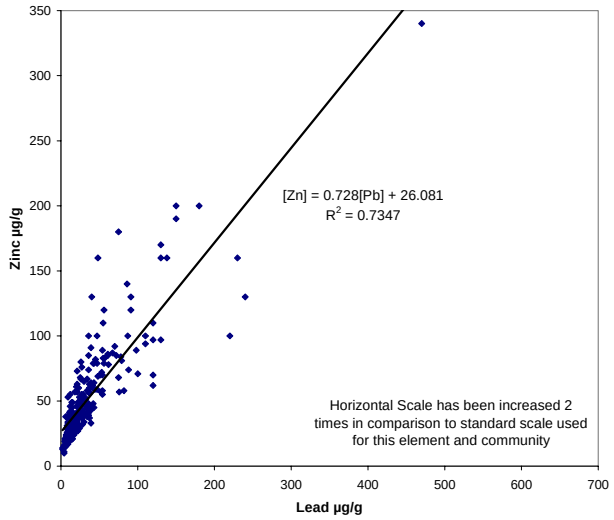


Fig. 10.4.3.42: Zn vs. Pb, 10-20 cm, Sudbury Core

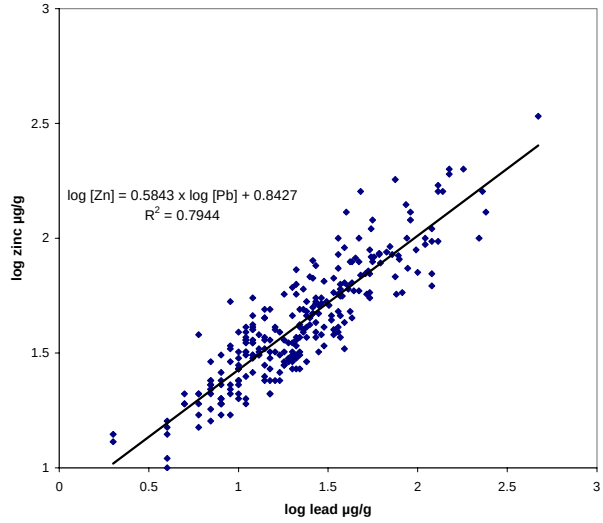


Fig. 10.4.3.42b: log Zn vs log Pb, 10-20cm, Sudbury Core

Table 10.4.3.1: Pearson's and Spearman's Correlations for 0 to 5 cm Urban Soil in the Sudbury Core

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	*0.14*	*0.27*	*0.67*	*0.29*	*0.66*	*0.70*	*0.29*	*0.26*	*0.61*	*0.26*	*0.53*	*0.74*	*-0.06*	*0.27*	*0.16*	***0.86***	***0.83***	*0.38*
Sb	0.08	1	*0.25*	*0.29*	*0.32*	*0.08*	*0.18*	*0.26*	*0.27*	*0.24*	*0.31*	*0.04*	*0.12*	*-0.03*	*0.27*	*0.21*	*0.13*	*0.08*	*0.30*
As	0.29	0.24	1	*0.64*	*0.70*	*0.22*	*0.43*	***0.80***	***0.83***	*0.69*	***0.83***	*0.06*	*0.28*	*0.11*	***0.85***	*0.65*	*0.19*	*0.29*	***0.77***
Ba	0.61	0.26	0.62	1	*0.65*	*0.56*	***0.75***	*0.71*	*0.68*	***0.79***	***0.75***	*0.46*	*0.66*	*0.02*	*0.70*	*0.54*	*0.59*	*0.61*	***0.81***
Cd	0.29	0.23	**0.76**	0.66	1	*0.35*	*0.50*	***0.75***	*0.73*	*0.64*	*0.74*	*0.17*	*0.35*	*0.12*	***0.75***	*0.63*	*0.26*	*0.29*	*0.70*
Ca	0.58	0.07	0.17	0.49	0.34	1	*0.63*	*0.28*	*0.23*	*0.47*	*0.27*	*0.71*	*0.66*	*0.05*	*0.27*	*0.12*	***0.77***	*0.60*	*0.37*
Cr	0.54	0.11	0.45	0.56	0.61	0.44	1	*0.56*	*0.49*	***0.77***	*0.49*	*0.63*	*0.69*	*0.06*	*0.49*	*0.35*	*0.64*	*0.74*	*0.59*
Co	0.34	0.26	**0.86**	0.69	**0.85**	0.24	0.49	1	***0.91***	***0.81***	***0.87***	*0.25*	*0.36*	*0.09*	***0.96***	*0.65*	*0.19*	*0.32*	***0.81***
Cu	0.31	0.27	**0.82**	0.68	**0.82**	0.23	0.46	**0.93**	1	*0.73*	***0.88***	*0.13*	*0.27*	*0.10*	***0.96***	*0.74*	*0.14*	*0.22*	***0.83***
Fe	0.63	0.19	**0.78**	**0.75**	0.73	0.39	0.63	**0.88**	**0.82**	1	*0.69*	*0.51*	*0.61*	*0.07*	*0.74*	*0.51*	*0.49*	*0.66*	*0.72*
Pb	0.22	0.32	0.72	0.70	0.66	0.21	0.40	0.72	0.75	0.64	1	*0.14*	*0.31*	*0.07*	***0.90***	*0.70*	*0.20*	*0.24*	***0.89***
Mg	0.53	-0.03	-0.03	0.27	0.05	**0.75**	0.33	0.09	0.06	0.34	0.00	1	*0.62*	*-0.09*	*0.15*	*0.00*	*0.56*	*0.60*	*0.26*
Mn	0.44	0.04	0.18	0.62	0.26	0.49	0.26	0.21	0.19	0.36	0.22	0.28	1	*-0.03*	*0.28*	*0.17*	*0.73*	***0.79***	*0.44*
Mo	-0.04	-0.03	0.10	-0.02	0.12	0.03	0.05	0.07	0.06	0.03	0.01	-0.07	0.00	1	*0.11*	*0.03*	*-0.03*	*-0.04*	*0.06*
Ni	0.32	0.27	**0.87**	0.67	**0.85**	0.25	0.47	**0.98**	**0.95**	**0.84**	0.71	0.06	0.18	0.09	1	*0.70*	*0.17*	*0.24*	*0.83*
Se	0.20	0.16	0.55	0.52	0.59	0.11	0.35	0.61	0.74	0.55	0.63	-0.04	0.13	-0.02	0.64	1	*0.07*	*0.15*	*0.66*
Sr	**0.77**	0.07	0.16	0.59	0.24	0.74	0.43	0.21	0.14	0.43	0.21	0.51	0.61	-0.01	0.19	0.06	1	***0.80***	*0.30*
V	**0.82**	0.01	0.26	0.55	0.26	0.49	0.53	0.31	0.25	0.62	0.17	0.49	0.46	-0.04	0.27	0.19	0.72	1	*0.37*
Zn	0.31	0.32	0.64	**0.82**	0.68	0.37	0.45	0.65	0.70	0.62	**0.81**	0.10	0.41	0.01	0.65	0.60	0.34	0.29	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.3.2: Pearson's and Spearman's Correlations for 5 to 10 cm Urban Soil in the Sudbury Core

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	*0.07*	*0.15*	*0.58*	*0.11*	*0.66*	***0.76***	*0.26*	*0.13*	*0.71*	*0.10*	*0.62*	*0.70*	*-0.03*	*0.15*	*0.04*	***0.84***	***0.86***	*0.29*
Sb	0.03	1	*0.27*	*0.30*	*0.30*	*0.03*	*0.07*	*0.26*	*0.26*	*0.22*	*0.35*	*0.01*	*0.10*	*0.06*	*0.26*	*0.23*	*0.14*	*0.05*	*0.31*
As	0.18	0.24	1	*0.64*	*0.41*	*0.16*	*0.33*	***0.76***	***0.85***	*0.52*	***0.76***	*0.11*	*0.27*	*0.08*	***0.87***	*0.64*	*0.12*	*0.19*	***0.72***
Ba	0.60	0.38	0.63	1	*0.35*	*0.50*	*0.66*	***0.75***	*0.72*	***0.78***	*0.71*	*0.53*	*0.67*	*0.04*	*0.72*	*0.47*	*0.54*	*0.58*	***0.83***
Cd	0.07	0.25	0.45	0.38	1	*0.23*	*0.27*	*0.43*	*0.41*	*0.34*	*0.41*	*0.08*	*0.21*	*0.03*	*0.43*	*0.43*	*0.17*	*0.11*	*0.41*
Ca	0.53	0.02	0.15	0.42	0.28	1	***0.75***	*0.33*	*0.16*	*0.61*	*0.21*	*0.72*	***0.75***	*0.02*	*0.21*	*0.17*	***0.82***	*0.74*	*0.37*
Cr	0.74	0.10	0.29	0.59	0.30	0.61	1	*0.52*	*0.35*	***0.80***	*0.30*	***0.76***	***0.76***	*0.05*	*0.38*	*0.23*	*0.74*	***0.82***	*0.45*
Co	0.26	0.30	**0.75**	0.72	0.52	0.29	0.40	1	***0.88***	*0.74*	***0.78***	*0.46*	*0.47*	*0.07*	***0.92***	*0.54*	*0.21*	*0.35*	***0.78***
Cu	0.16	0.26	**0.81**	0.67	0.48	0.16	0.27	**0.90**	1	*0.57*	***0.84***	*0.21*	*0.32*	*0.03*	***0.96***	*0.62*	*0.06*	*0.16*	*0.82*
Fe	**0.75**	0.19	0.53	0.74	0.32	0.53	0.78	0.70	0.55	1	*0.49*	*0.73*	*0.73*	*0.04*	*0.58*	*0.35*	*0.60*	***0.78***	*0.63*
Pb	0.05	0.46	0.62	0.66	0.47	0.17	0.21	0.63	0.66	0.37	1	*0.15*	*0.32*	*0.09*	***0.84***	*0.60*	*0.12*	*0.14*	***0.88***
Mg	0.66	-0.03	0.02	0.41	0.00	0.64	0.71	0.29	0.09	0.70	-0.01	1	***0.75***	*-0.01*	*0.24*	*0.03*	*0.58*	*0.73*	*0.32*
Mn	0.67	0.07	0.22	0.61	0.16	0.65	0.68	0.35	0.22	0.67	0.22	0.67	1	*-0.01*	*0.33*	*0.21*	*0.72*	***0.76***	*0.51*
Mo	-0.03	-0.02	0.04	0.02	0.00	0.00	0.09	0.00	-0.03	0.01	0.05	-0.02	0.01	1	*0.06*	*0.12*	*0.02*	*0.04*	*0.10*
Ni	0.20	0.27	**0.82**	0.69	0.51	0.21	0.30	**0.93**	**0.95**	0.57	0.63	0.12	0.23	-0.01	1	*0.61*	*0.10*	*0.19*	***0.80***
Se	0.10	0.19	0.66	0.48	0.46	0.17	0.25	0.61	0.72	0.41	0.57	0.02	0.17	0.04	0.67	1	*0.10*	*0.09*	*0.54*
Sr	**0.79**	0.18	0.13	0.59	0.18	0.73	0.69	0.23	0.09	0.61	0.16	0.56	0.68	0.04	0.15	0.07	1	***0.82***	*0.28*
V	**0.86**	0.02	0.16	0.54	0.07	0.61	**0.79**	0.28	0.12	**0.79**	0.04	0.73	0.73	0.03	0.16	0.12	**0.78**	1	*0.32*
Zn	0.18	0.42	0.66	**0.76**	0.51	0.36	0.30	0.71	0.72	0.48	**0.82**	0.12	0.39	0.03	0.72	0.51	0.31	0.18	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.3.3: Pearson's and Spearman's Correlations for 10 to 20 cm Urban Soil in Sudbury Core

	Al	**Sb**	**As**	**Ba**	**Cd**	**Ca**	**Cr**	**Co**	**Cu**	**Fe**	**Pb**	**Mg**	**Mn**	**Mo**	**Ni**	**Se**	**Sr**	**V**	**Zn**
Al	1	*0.07*	*0.26*	*0.67*	*0.08*	*0.63*	*0.85*	*0.40*	*0.23*	*0.85*	*0.15*	*0.60*	*0.76*	*0.00*	*0.23*	*0.19*	*0.82*	*0.90*	*0.34*
Sb	0.02	1	*0.22*	*0.27*	*0.38*	*0.13*	*0.09*	*0.20*	*0.23*	*0.11*	*0.31*	*-0.05*	*0.15*	*-0.04*	*0.21*	*0.12*	*0.21*	*0.05*	*0.32*
As	0.24	0.16	1	*0.58*	*0.32*	*0.10*	*0.25*	*0.62*	*0.85*	*0.42*	*0.70*	*0.03*	*0.30*	*0.00*	*0.83*	*0.48*	*0.19*	*0.23*	*0.75*
Ba	0.63	0.33	0.55	1	*0.25*	*0.50*	*0.68*	*0.67*	*0.63*	*0.76*	*0.59*	*0.49*	*0.69*	*-0.04*	*0.63*	*0.33*	*0.66*	*0.66*	*0.74*
Cd	0.05	0.34	0.41	0.40	1	*0.17*	*0.17*	*0.34*	*0.34*	*0.23*	*0.32*	*0.04*	*0.23*	*-0.03*	*0.34*	*0.32*	*0.18*	*0.08*	*0.32*
Ca	0.50	0.19	0.11	0.41	0.20	1	*0.74*	*0.38*	*0.15*	*0.64*	*0.10*	*0.73*	*0.73*	*-0.05*	*0.15*	*0.13*	*0.81*	*0.69*	*0.26*
Cr	0.86	0.07	0.26	0.62	0.20	0.62	1	*0.54*	*0.28*	*0.88*	*0.19*	*0.81*	*0.82*	*-0.02*	*0.28*	*0.24*	*0.80*	*0.92*	*0.36*
Co	0.32	0.18	0.68	0.66	0.57	0.31	0.45	1	*0.75*	*0.67*	*0.67*	*0.46*	*0.58*	*0.01*	*0.8*	*0.34*	*0.36*	*0.45*	*0.71*
Cu	0.20	0.15	0.77	0.58	0.53	0.14	0.25	0.83	1	*0.45*	*0.84*	*0.12*	*0.37*	*-0.01*	*0.96*	*0.42*	*0.17*	*0.21*	*0.86*
Fe	0.85	0.05	0.45	0.66	0.25	0.52	0.89	0.61	0.43	1	*0.34*	*0.72*	*0.81*	*0.00*	*0.43*	*0.30*	*0.72*	*0.87*	*0.51*
Pb	0.09	0.45	0.55	0.66	0.54	0.20	0.18	0.53	0.54	0.24	1	*0.02*	*0.31*	*-0.02*	*0.82*	*0.33*	*0.15*	*0.14*	*0.88*
Mg	0.67	-0.02	0.01	0.43	0.02	0.68	0.81	0.29	0.03	0.73	-0.03	1	*0.71*	*0.01*	*0.11*	*0.10*	*0.59*	*0.73*	*0.17*
Mn	0.75	0.13	0.31	0.69	0.25	0.63	0.85	0.52	0.33	0.81	0.33	0.73	1	*-0.03*	*0.35*	*0.23*	*0.76*	*0.79*	*0.47*
Mo	0.00	-0.03	0.00	-0.05	-0.02	-0.06	-0.03	0.01	-0.03	0.00	-0.04	-0.03	-0.04	1	*0.02*	*0.01*	*-0.05*	*0.00*	*-0.06*
Ni	0.22	0.17	0.79	0.62	0.57	0.17	0.26	0.88	0.95	0.44	0.54	0.04	0.34	-0.01	1	*0.37*	*0.18*	*0.21*	*0.82*
Se	0.18	0.09	0.60	0.32	0.39	0.11	0.24	0.54	0.65	0.37	0.37	0.08	0.22	0.06	0.63	1	*0.14*	*0.20*	*0.37*
Sr	0.78	0.21	0.23	0.69	0.23	0.71	0.75	0.38	0.23	0.70	0.28	0.55	0.74	-0.04	0.27	0.12	1	*0.82*	*0.32*
V	0.92	0.00	0.24	0.57	0.08	0.56	0.93	0.37	0.19	0.89	0.07	0.75	0.81	0	0.21	0.21	0.78	1	*0.31*
Zn	0.19	0.45	0.65	0.75	0.57	0.28	0.26	0.63	0.67	0.34	0.86	0.02	0.43	-0.1	0.67	0.36	0.40	0.16	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

10.4.4 Coniston

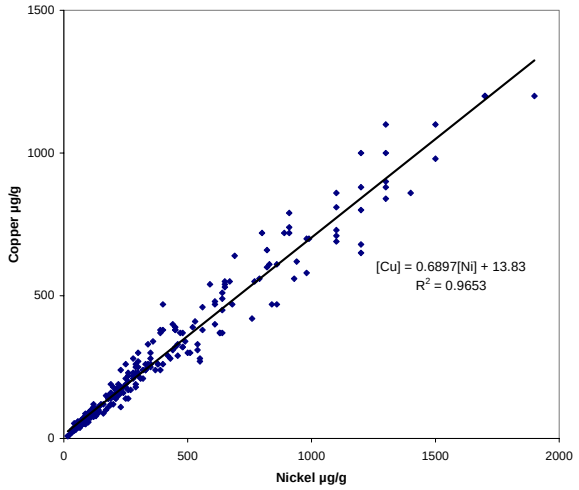


Fig. 10.4.4.1: Cu vs. Ni, 0-5 cm, Coniston

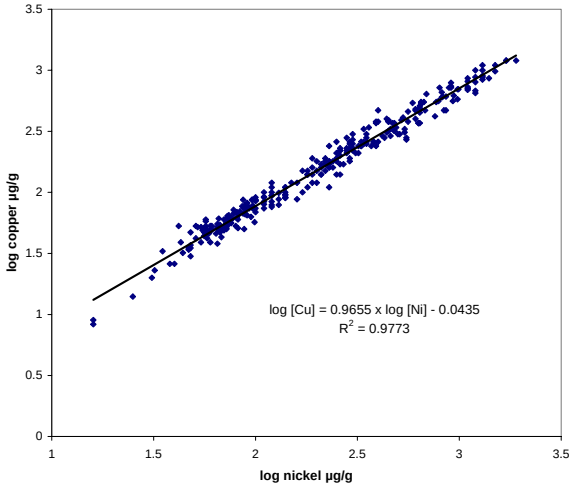


Fig. 10.4.4.1b: log Cu vs. log Ni, 0-5 cm, Coniston

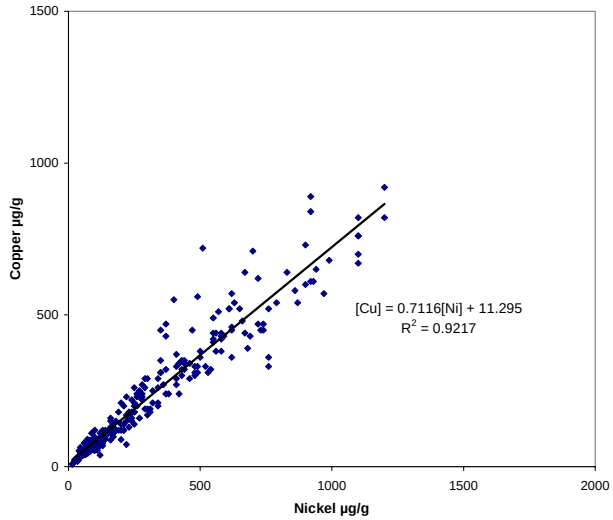


Fig. 10.4.4.2: Cu vs. Ni, 5-10 cm, Coniston

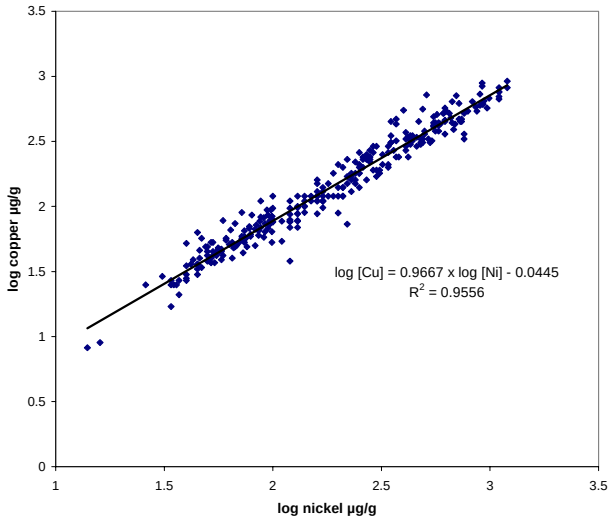


Fig. 10.4.4.2b: log Cu vs. log Ni, 5-10 cm, Coniston

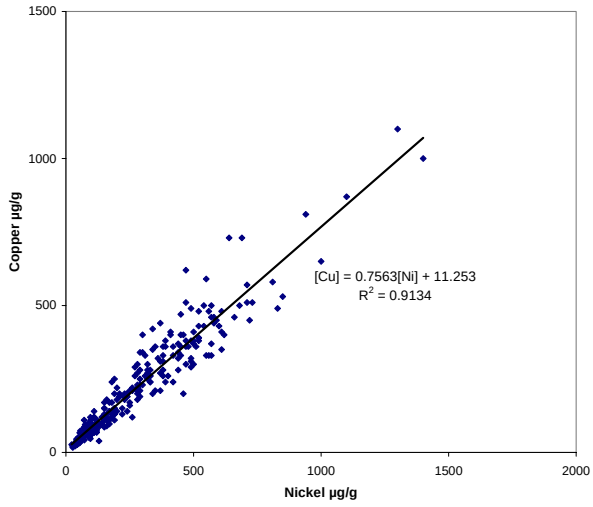


Fig. 10.4.4.3: Cu vs. Ni, 10-20 cm, Coniston

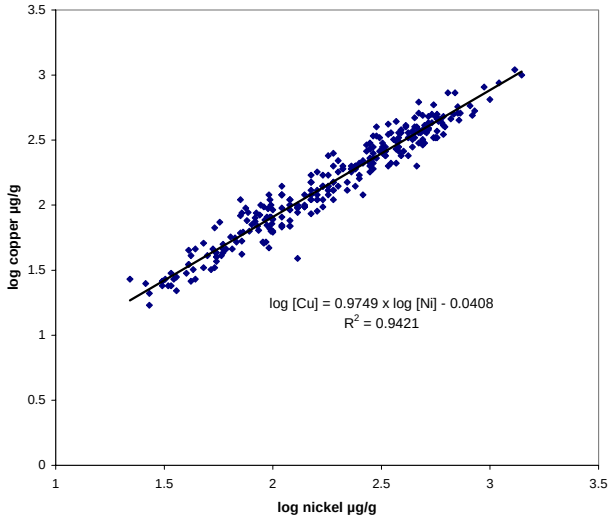


Fig. 10.4.4.3b: log Cu vs. log Ni, 10-20 cm, Coniston

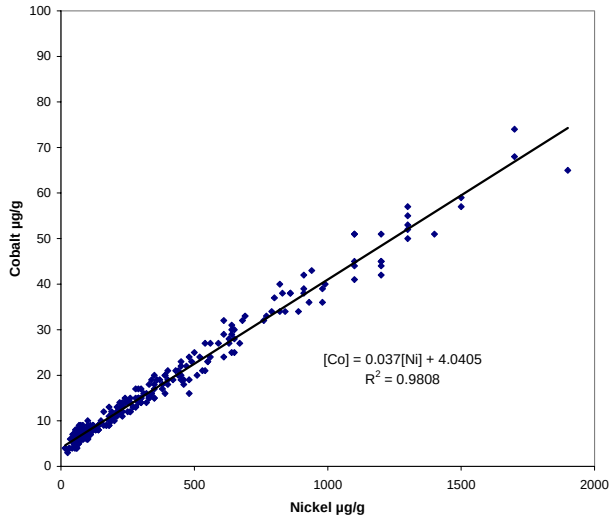


Fig. 10.4.4.4: Co vs. Ni, 0-5 cm, Coniston

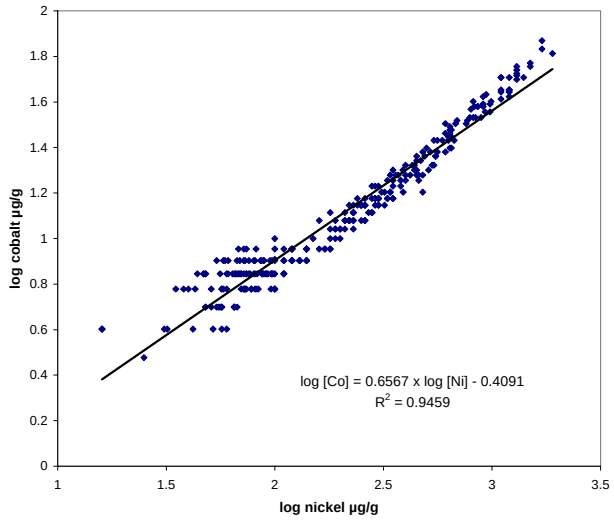


Fig. 10.4.4.4b: log Co vs. log Ni, 0-5 cm, Coniston

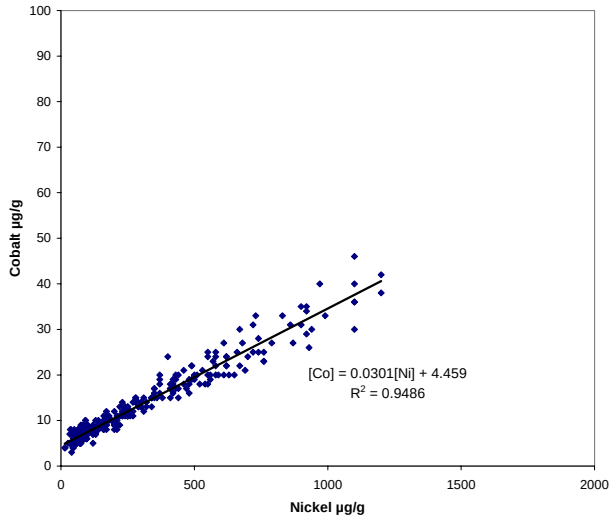


Fig. 10.4.4.5: Co vs. Ni, 5-10 cm, Coniston

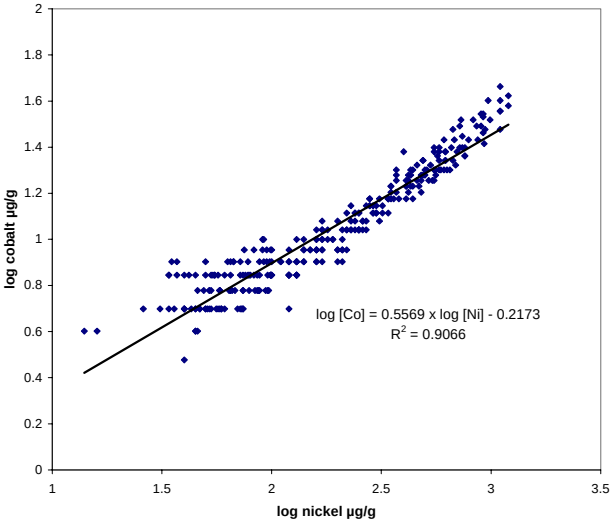


Fig. 10.4.4.5b: log Co vs. log Ni, 5-10 cm, Coniston

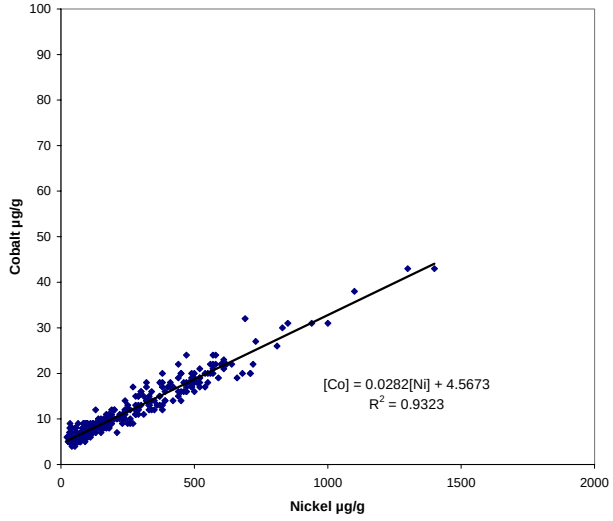


Fig. 10.4.4.6: Co vs. Ni, 10-20 cm, Coniston

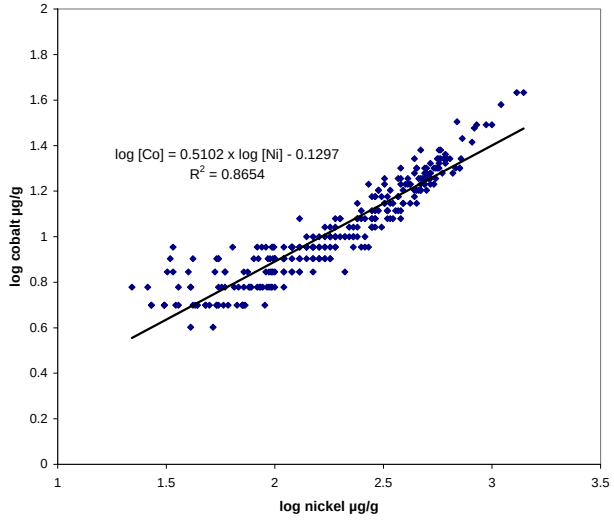


Fig. 10.4.4.6b: log Co vs. log Ni, 10-20 cm, Coniston

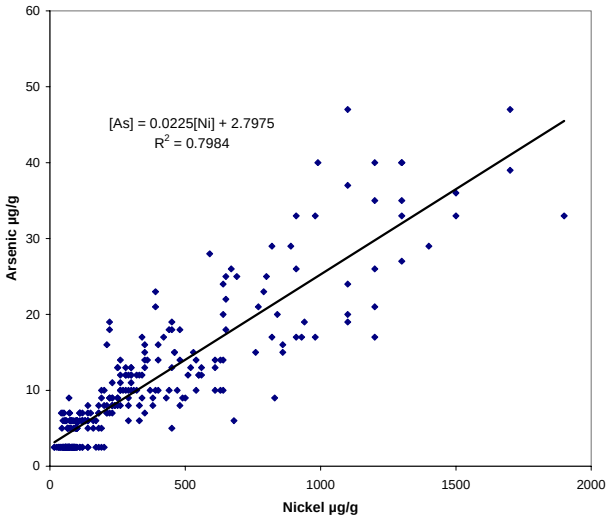


Fig. 10.4.4.7: As vs. Ni, 0-5 cm, Coniston

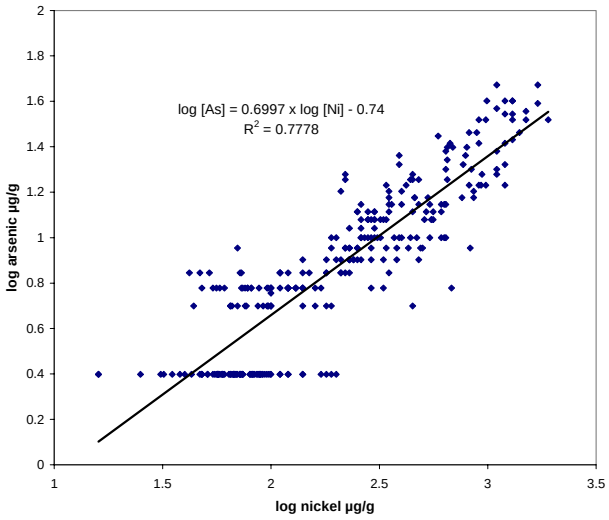


Fig. 10.4.4.7b: log As vs. log Ni, 0-5 cm, Coniston

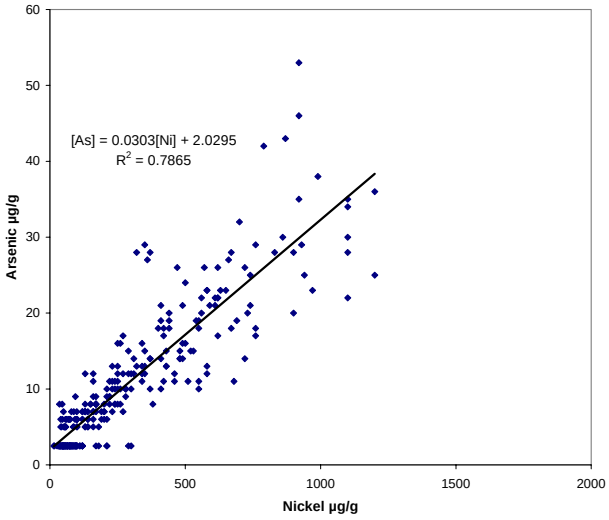


Fig. 10.4.4.8: As vs. Ni, 5-10 cm, Coniston

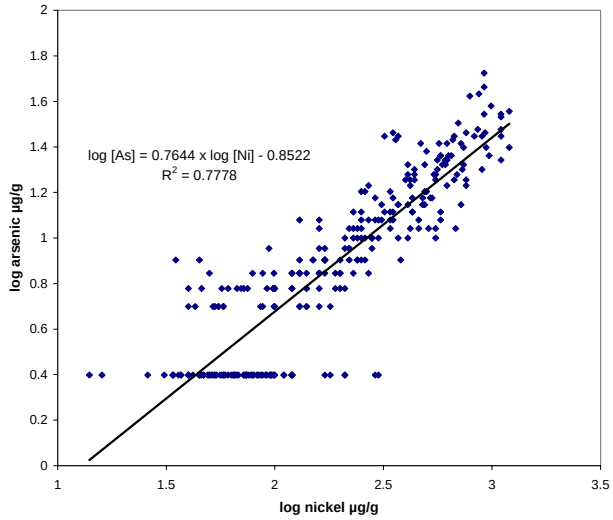


Fig. 10.4.4.8b: log As vs. log Ni, 5-10 cm, Coniston

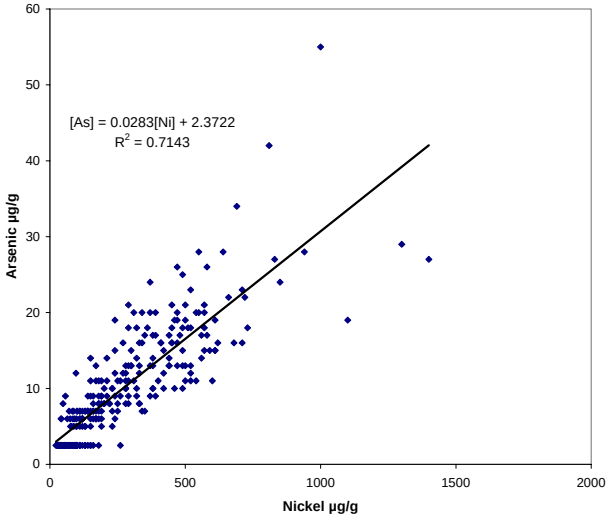


Fig. 10.4.4.9: As vs. Ni, 10-20 cm, Coniston

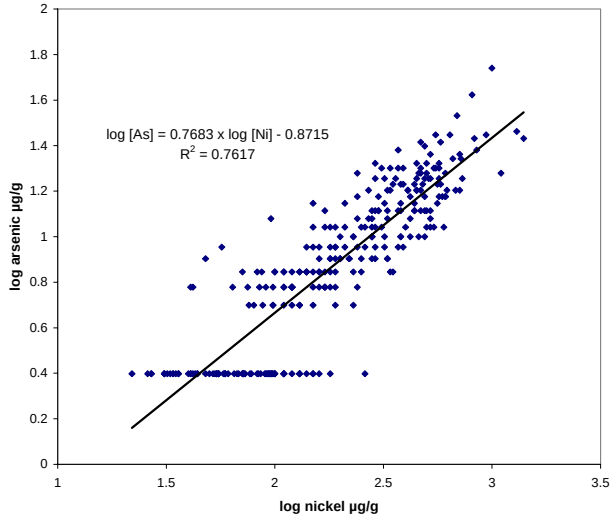


Fig. 10.4.4.9b: log As vs. log Ni, 10-20 cm, Coniston

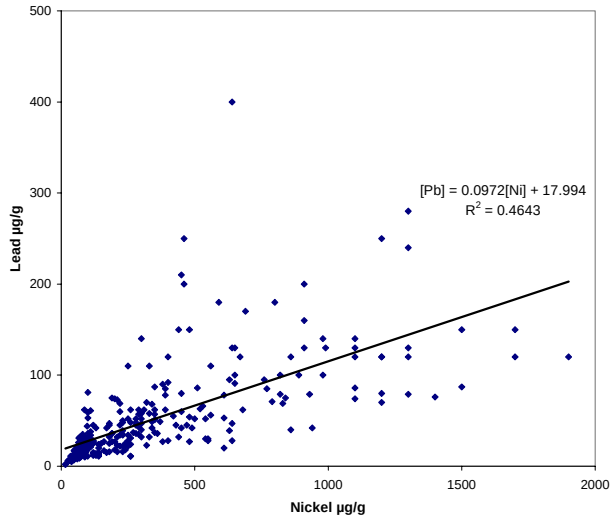


Fig. 10.4.4.10: Pb vs. Ni, 0-5 cm, Coniston

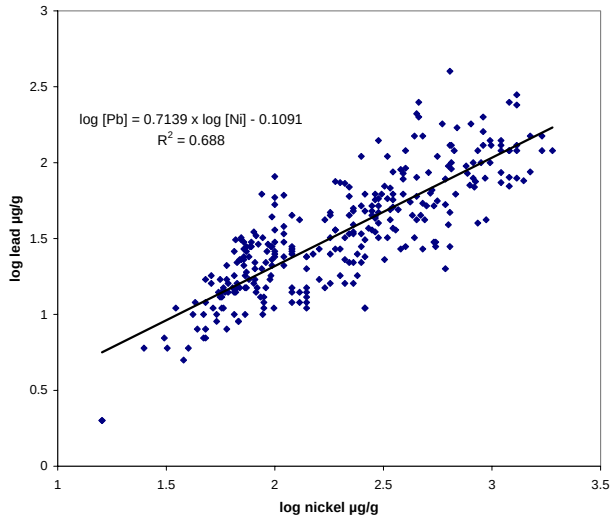


Fig. 10.4.4.10b: log Pb vs. log Ni, 0-5 cm, Coniston

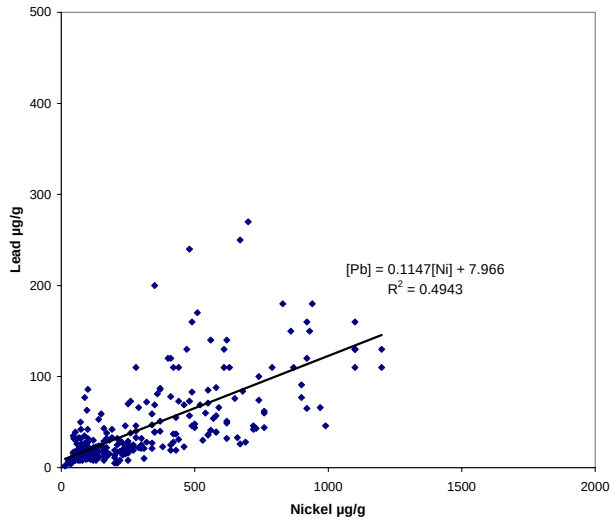


Fig. 10.4.4.11: Pb vs. Ni, 5-10 cm, Coniston

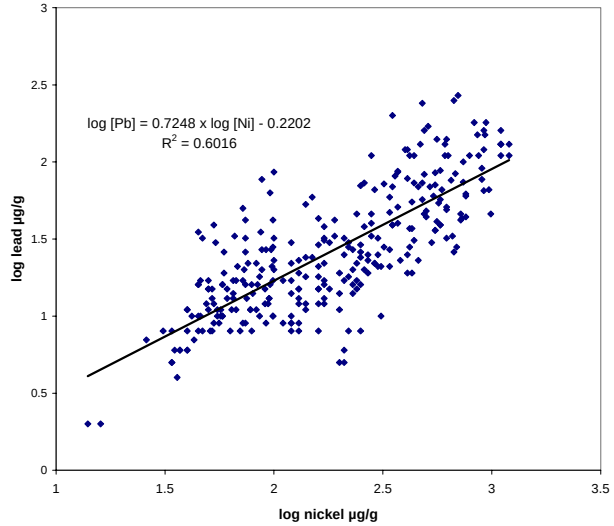


Fig. 10.4.4.11b: log Pb vs. log Ni, 5-10 cm, Coniston

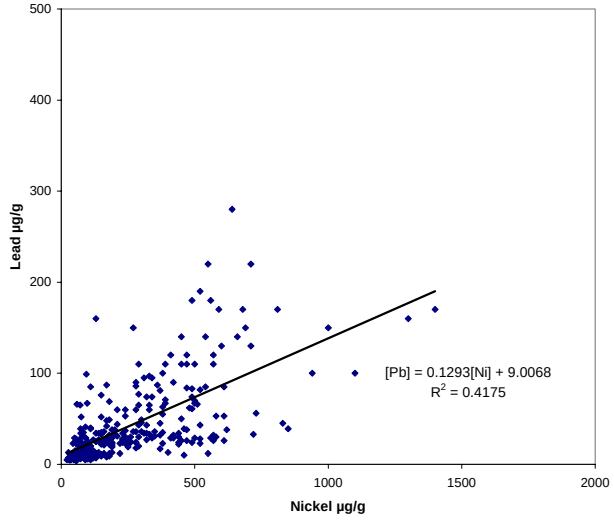


Fig. 10.4.4.12: Pb vs. Ni, 10-20 cm, Coniston

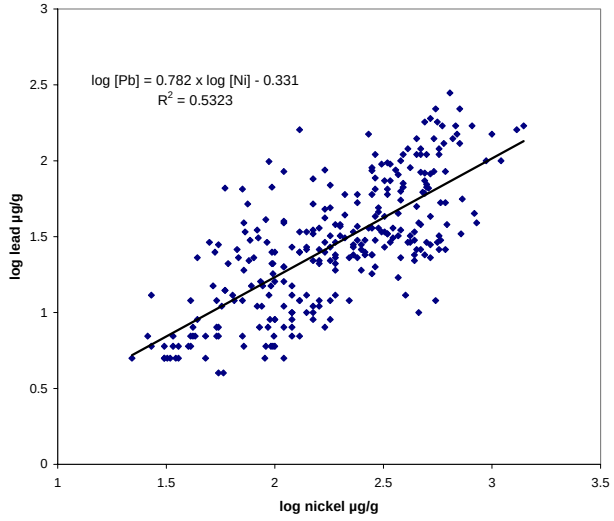


Fig. 10.4.4.12b: log Pb vs. log Ni, 10-20 cm, Coniston

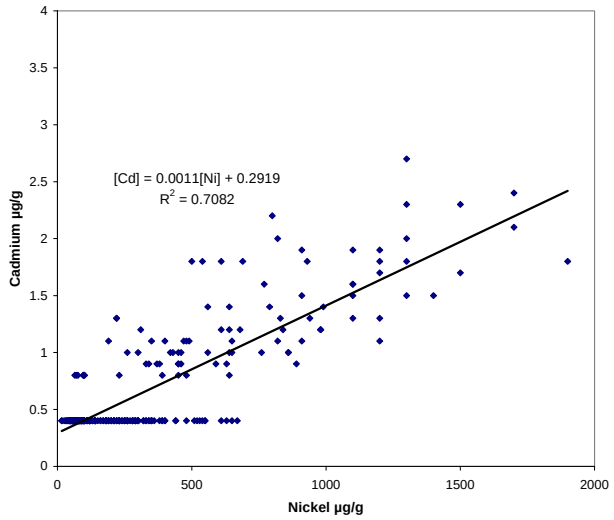


Fig. 10.4.4.13: Cd vs. Ni, 0-5 cm, Coniston

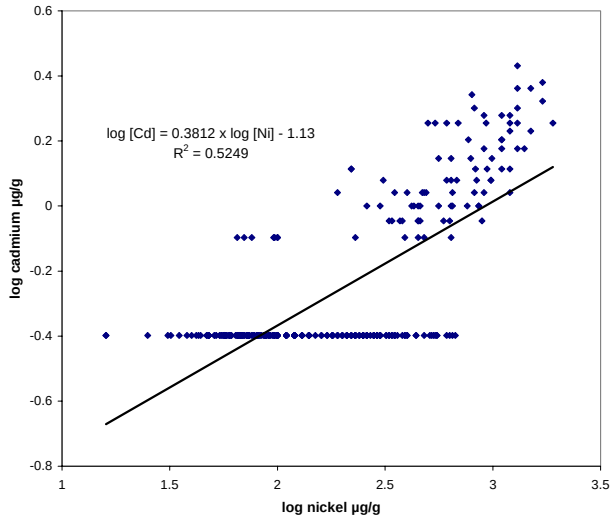


Fig. 10.4.4.13b: log Cd vs. log Ni, 0-5 cm, Coniston

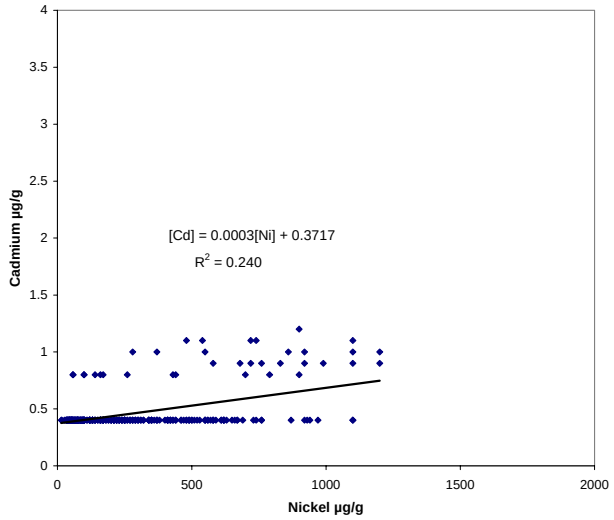


Fig. 10.4.4.14: Cd vs. Ni, 5-10 cm, Coniston

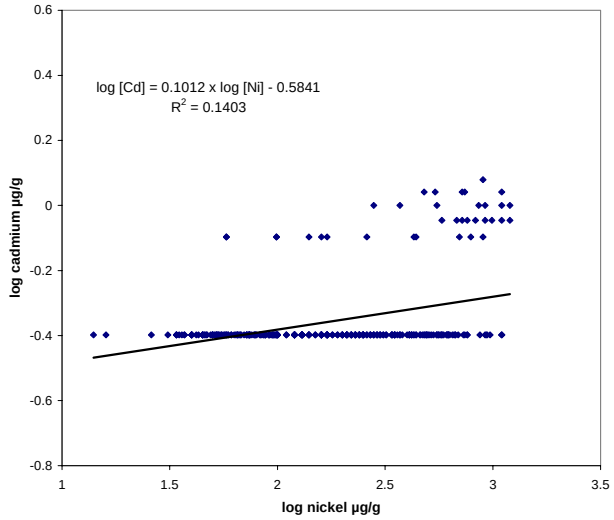


Fig. 10.4.4.14b: log Cd vs. log Ni, 5-10 cm, Coniston

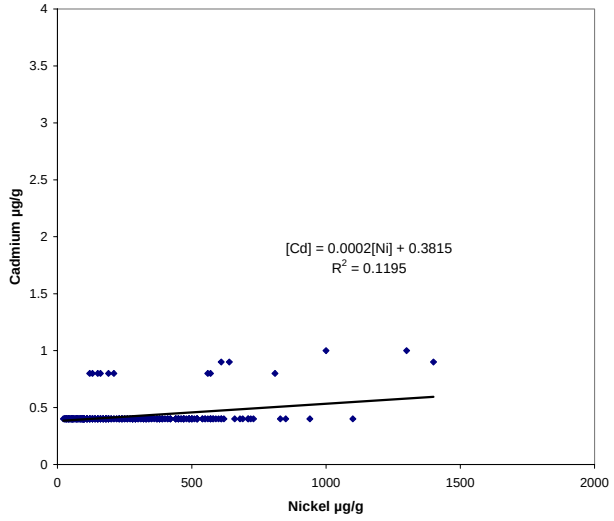


Fig. 10.4.4.15: Cd vs. Ni, 10-20 cm, Coniston

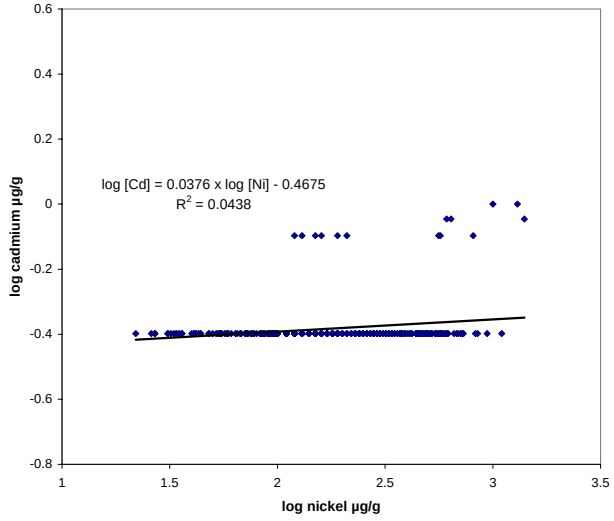


Fig. 10.4.4.15b: log Cd vs. log Ni, 10-20 cm, Coniston

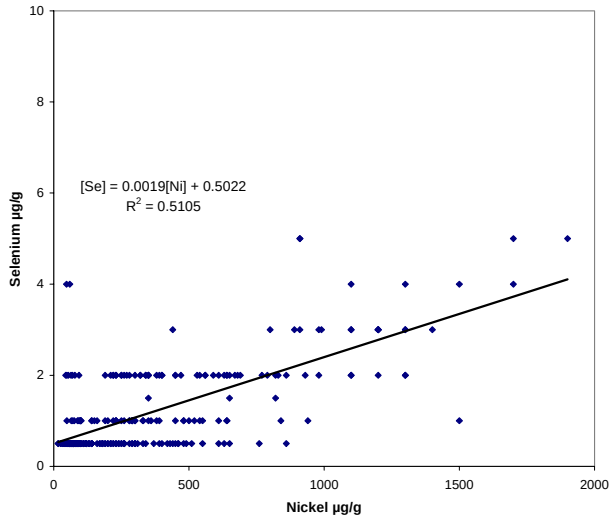


Fig. 10.4.4.16: Se vs. Ni, 0-5cm, Coniston

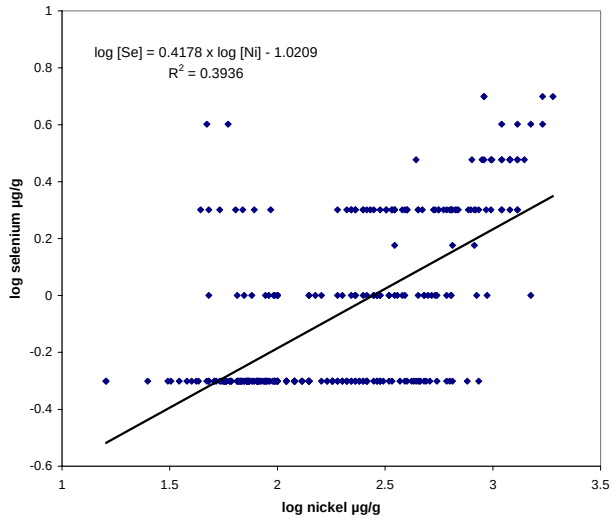


Fig. 10.4.4.16b: log Se vs. log Ni, 0-5cm, Coniston

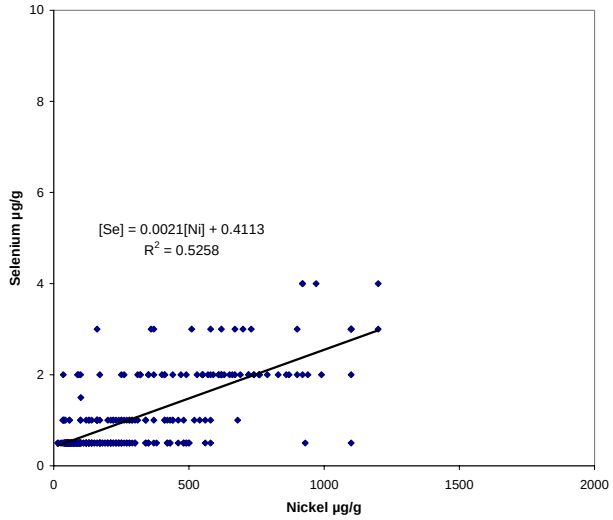


Fig. 10.4.4.17: Se vs. Ni, 5-10cm, Coniston

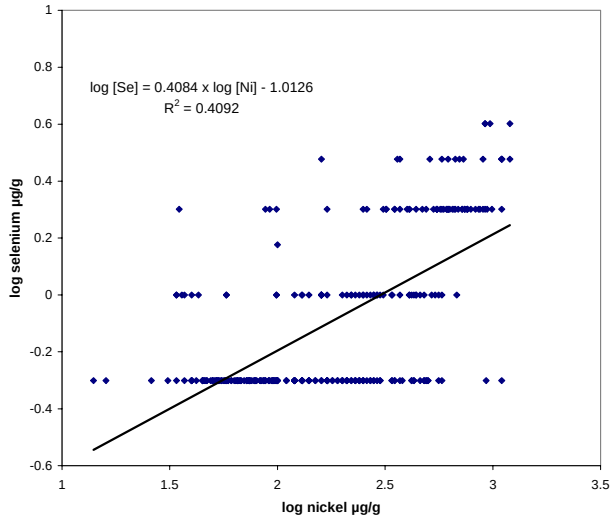


Fig. 10.4.4.17b: log Se vs. log Ni, 5-10cm, Coniston

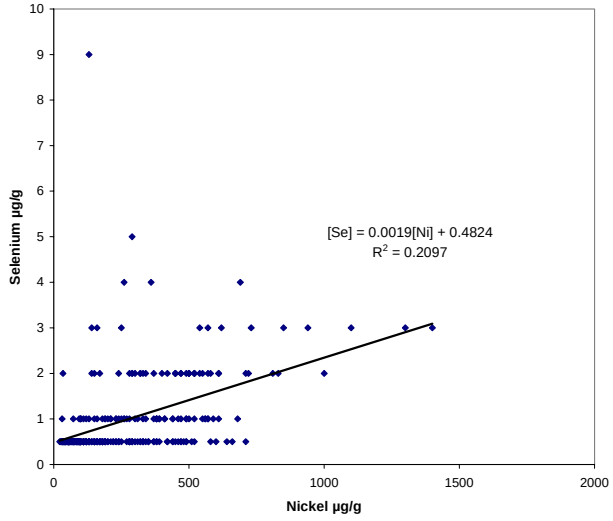


Fig. 10.4.4.18: Se vs. Ni, 10-20cm, Coniston

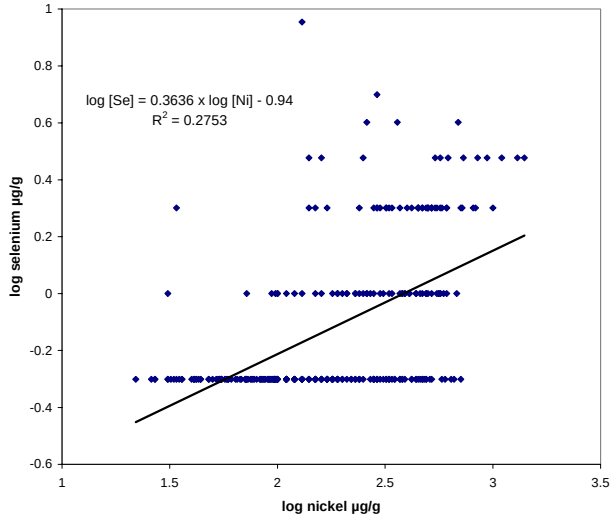


Fig. 10.4.4.18b: log Se vs. log Ni, 10-20cm, Coniston

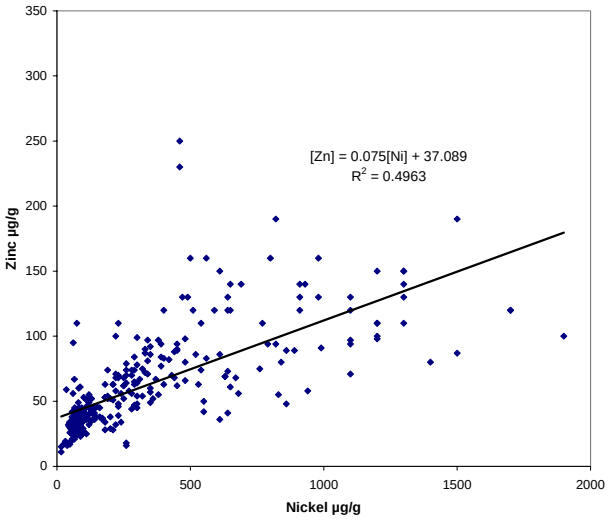


Fig. 10.4.4.19: Zn vs. Ni, 0-5cm, Coniston

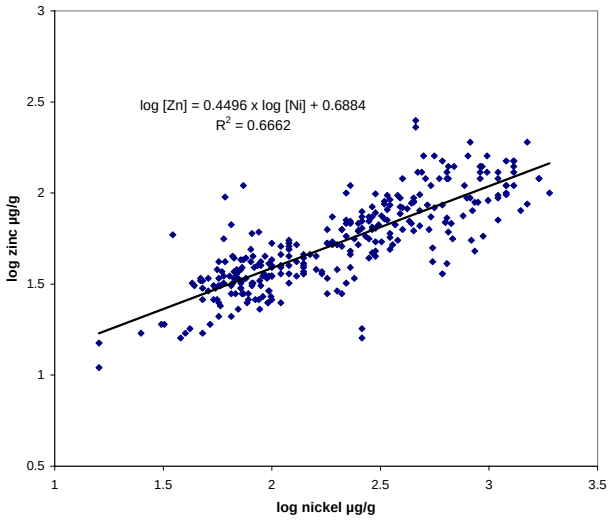


Fig. 10.4.4.19b: log Zn vs. log Ni, 0-5cm, Coniston

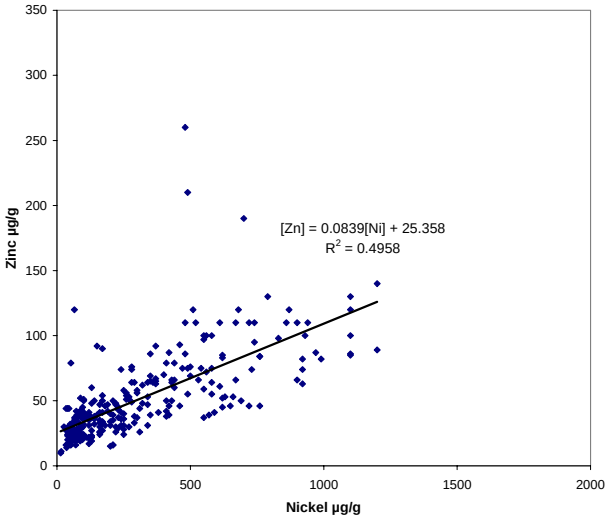


Fig. 10.4.4.20: Zn vs. Ni, 5-10cm, Coniston

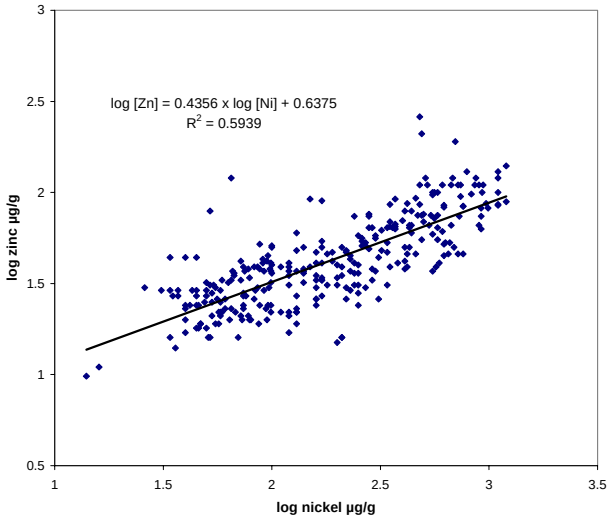


Fig. 10.4.4.20b: log Zn vs. log Ni, 5-10cm, Coniston

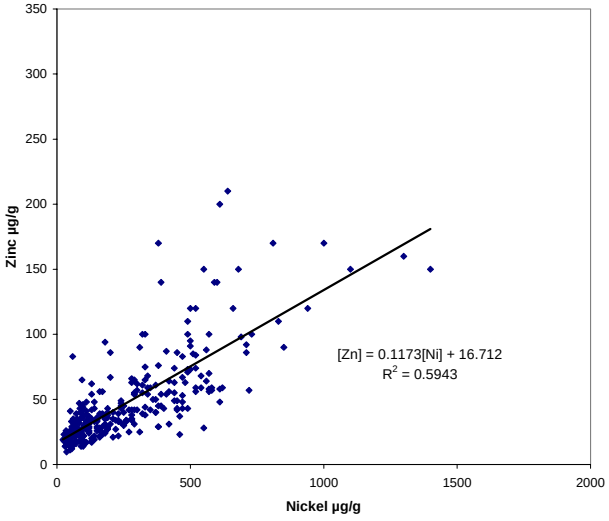


Fig. 10.4.4.21: Zn vs. Ni, 10-20cm, Coniston

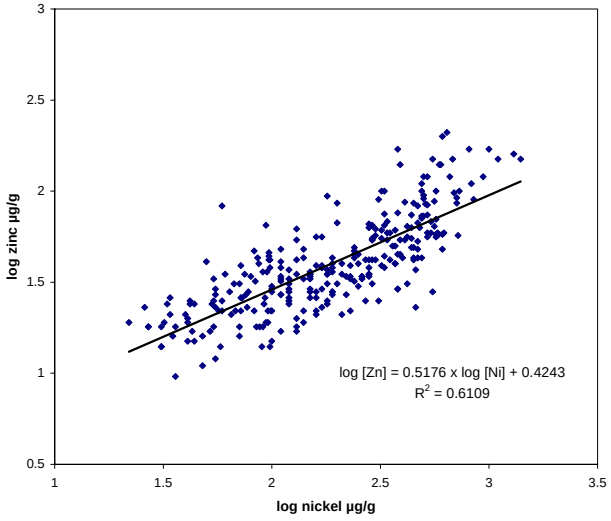


Fig. 10.4.4.21b: log Zn vs. log Ni, 10-20cm, Coniston

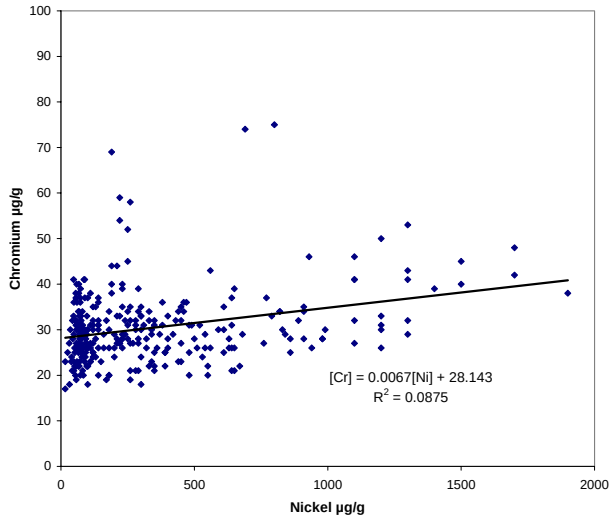


Fig. 10.4.4.22: Cr vs. Ni, 0-5cm, Coniston

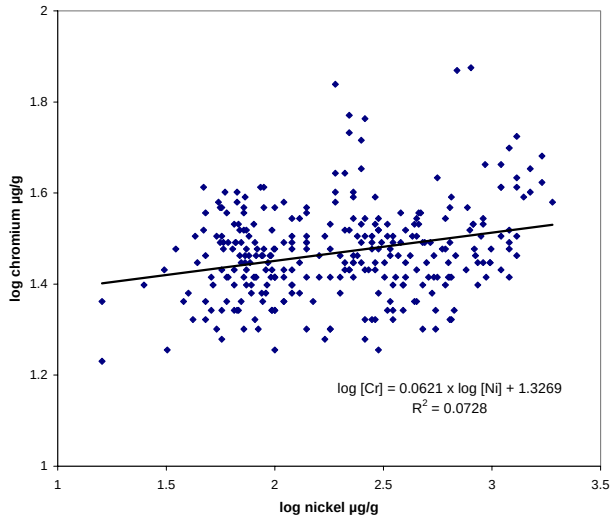


Fig. 10.4.4.22b: log Cr vs. log Ni, 0-5cm, Coniston

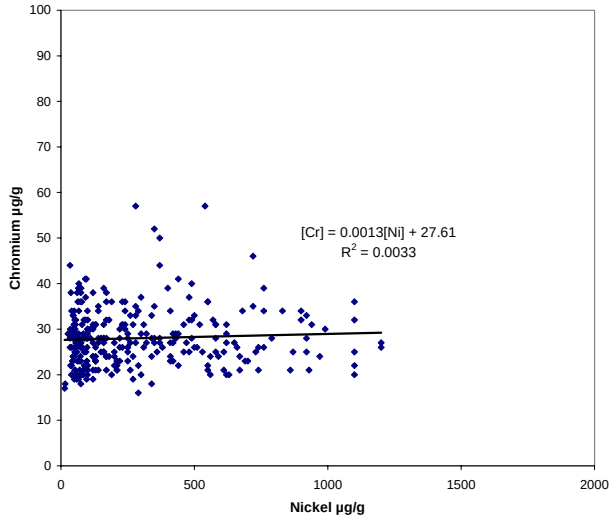


Fig. 10.4.4.23: Cr vs. Ni, 5-10cm, Coniston

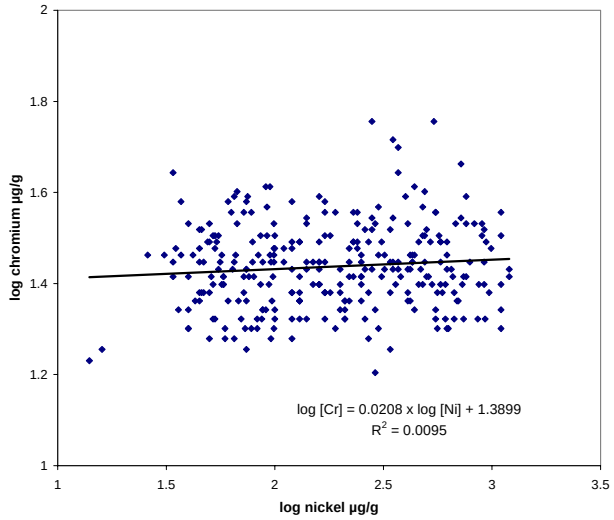


Fig. 10.4.4.23b: log Cr vs. log Ni, 5-10cm, Coniston

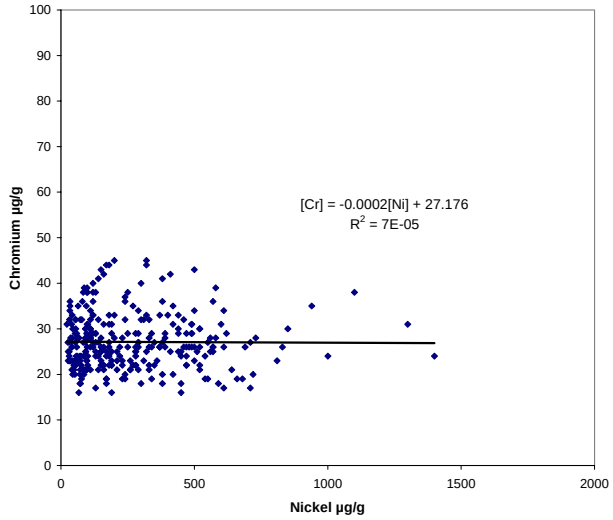


Fig. 10.4.4.24: Cr vs. Ni, 10-20cm, Coniston

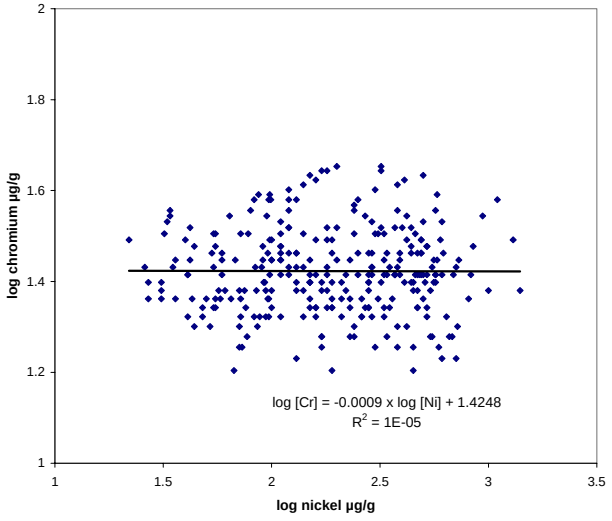


Fig. 10.4.4.24b: log Cr vs. log Ni, 10-20cm, Coniston

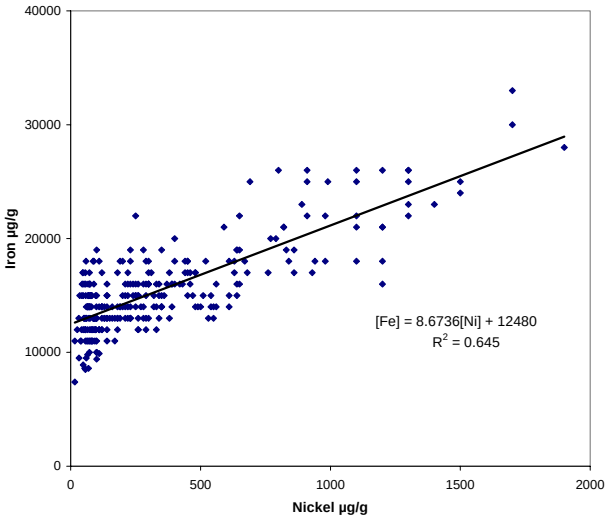


Fig. 10.4.4.25: Fe vs. Ni, 0-5cm, Coniston

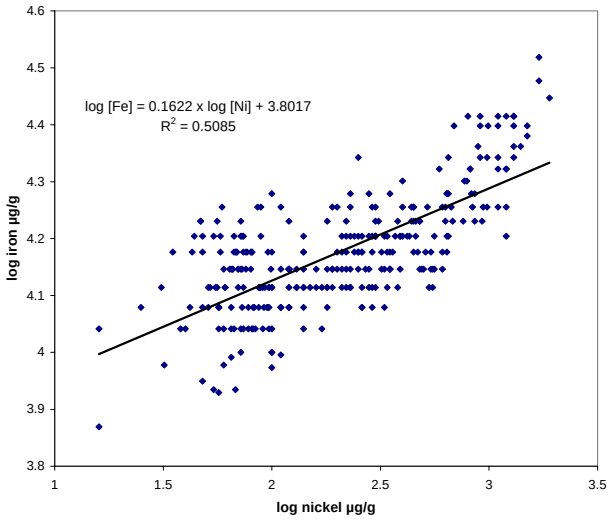


Fig. 10.4.4.25b: log Fe vs. log Ni, 0-5cm, Coniston

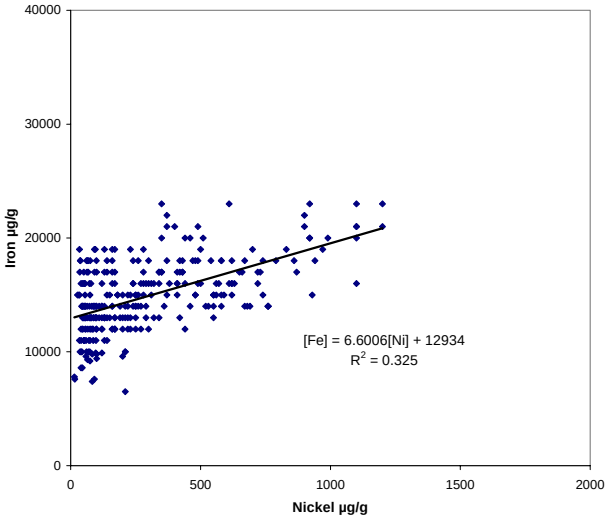


Fig. 10.4.4.26: Fe vs. Ni, 5-10cm, Coniston

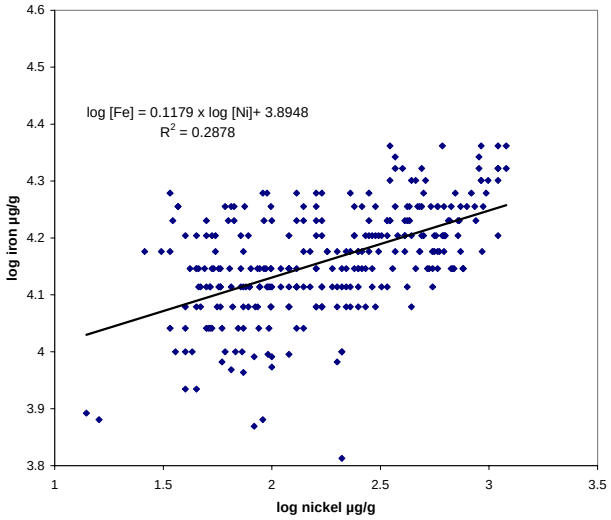


Fig. 10.4.4.26b: log Fe vs. log Ni, 5-10cm, Coniston

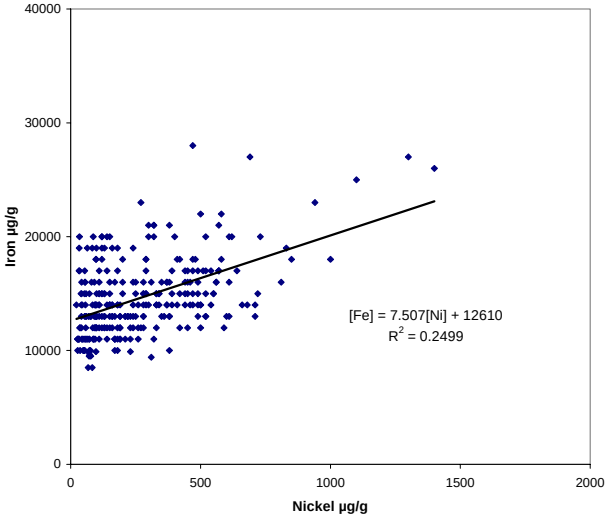


Fig. 10.4.4.27: Fe vs. Ni, 10-20cm, Coniston

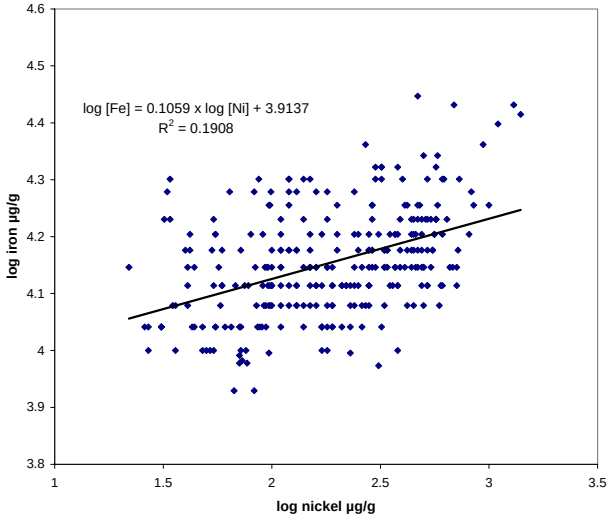


Fig. 10.4.4.27b: log Fe vs. log Ni, 10-20cm, Coniston

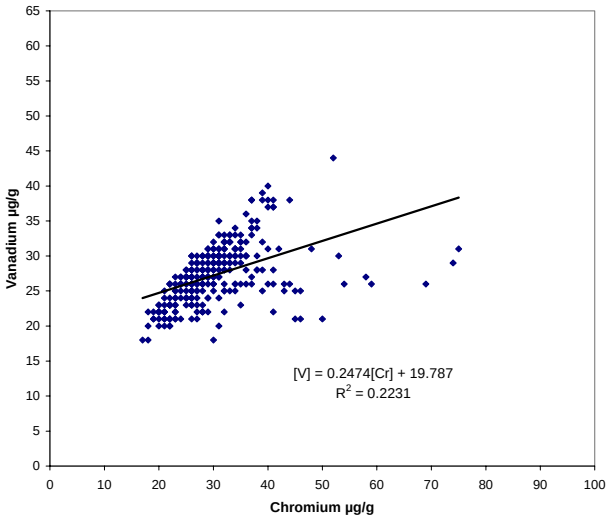


Fig. 10.4.4.28: V vs. Cr, 0-5 cm, Coniston

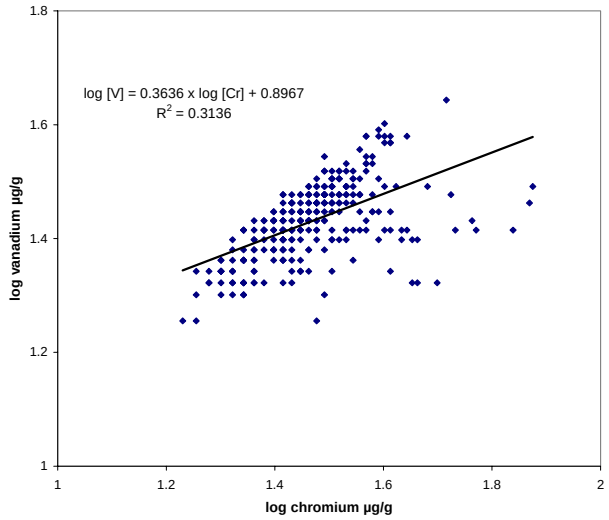


Fig. 10.4.4.28b: log V vs. log Cr, 0-5cm, Coniston

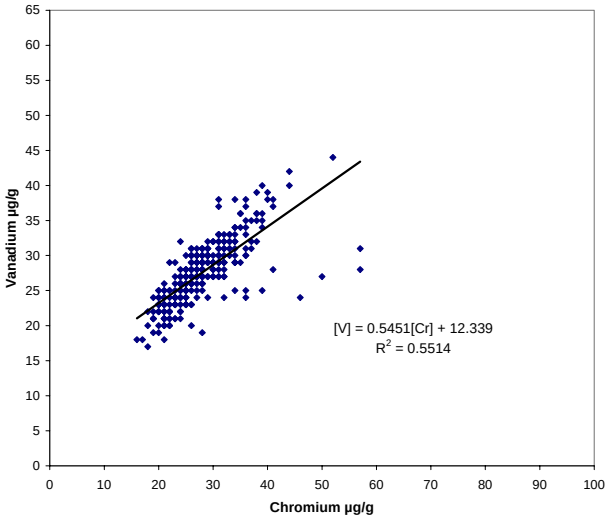


Fig. 10.4.4.29: V vs. Cr, 5-10cm, Coniston

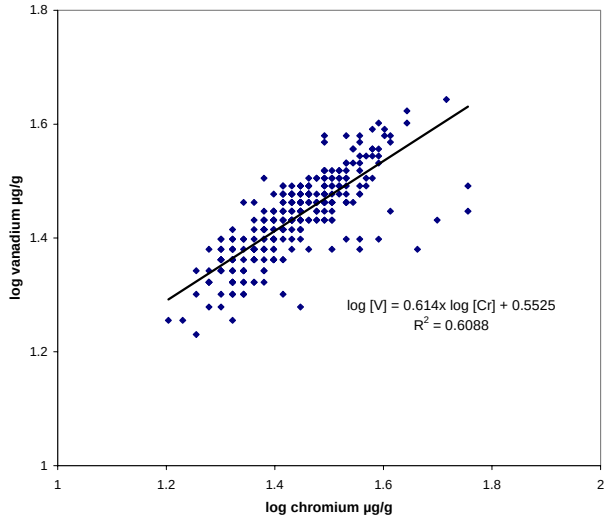


Fig. 10.4.4.29b: log V vs. log Cr, 5-10cm, Coniston

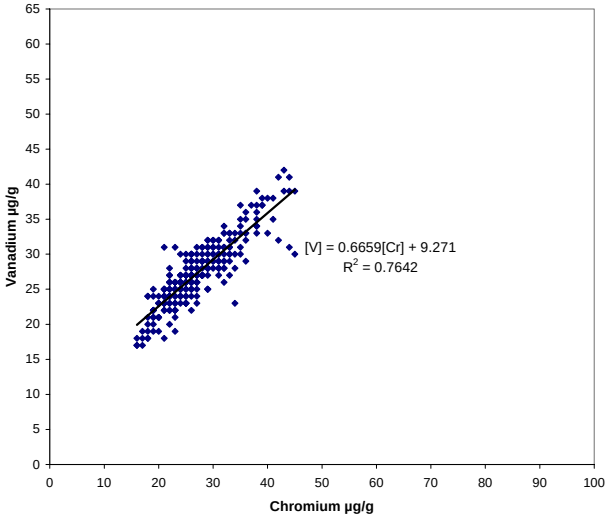


Fig. 10.4.4.30: V vs. Cr, 10-20cm, Coniston

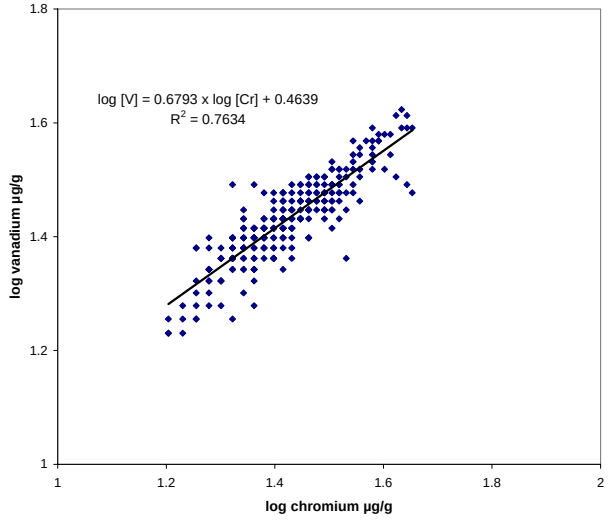


Fig. 10.4.4.30b: log V vs. log Cr, 10-20cm, Coniston

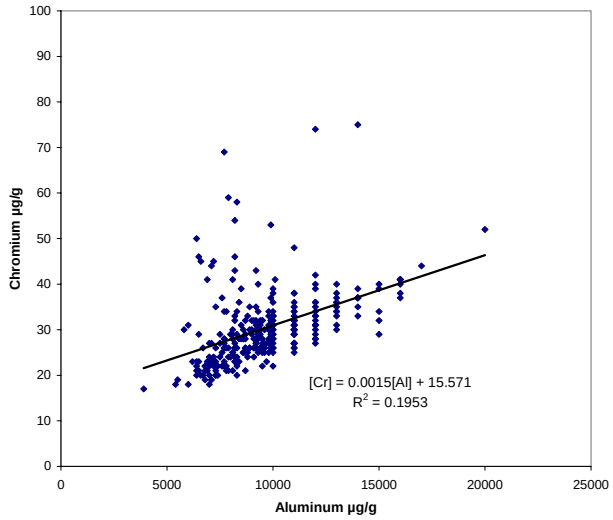


Fig. 10.4.4.31: Cr vs. Al, 0-5cm, Coniston

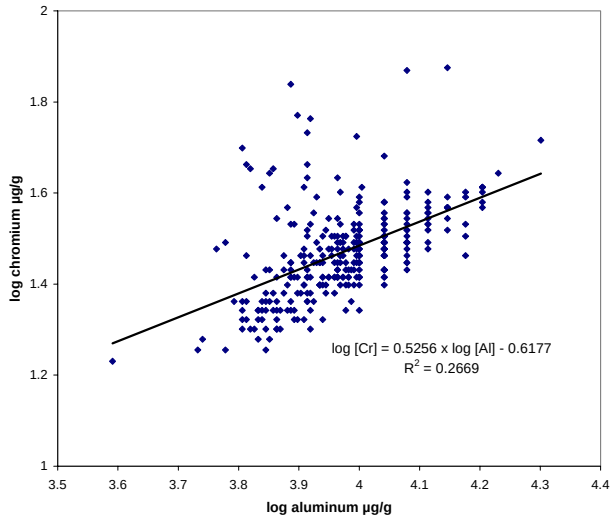


Fig. 10.4.4.31b: log Cr vs. log Al, 0-5cm, Coniston

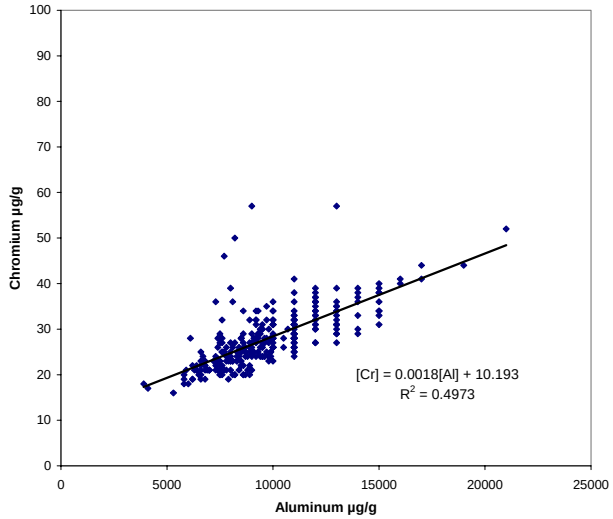


Fig. 10.4.4.32: Cr vs. Al, 5-10cm, Coniston

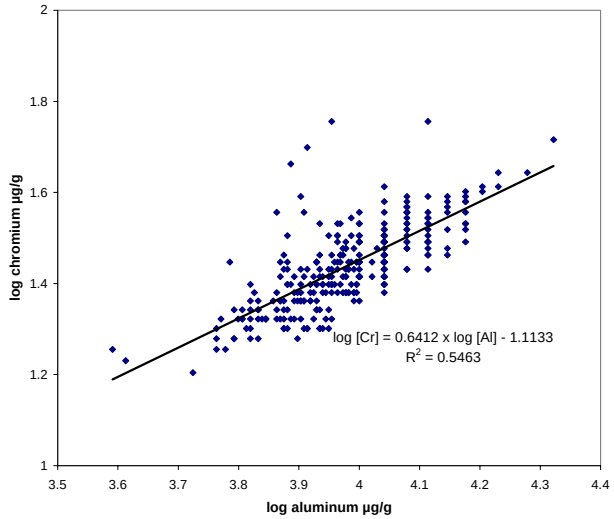


Fig. 10.4.4.32b: log Cr vs. log Al, 5-10cm, Coniston

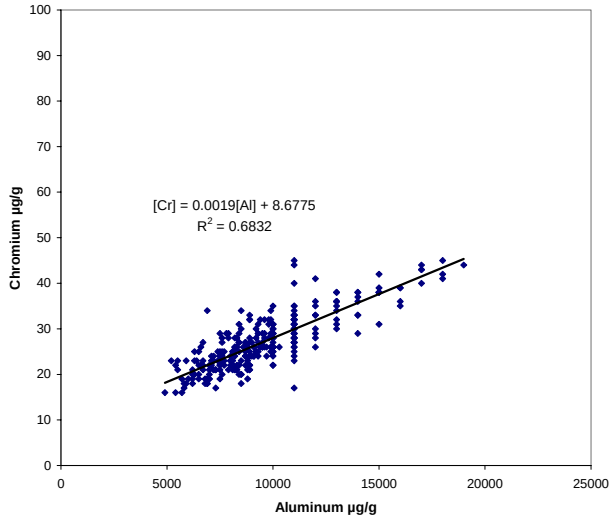


Fig. 10.4.4.33: Cr vs. Al, 10-20cm, Coniston

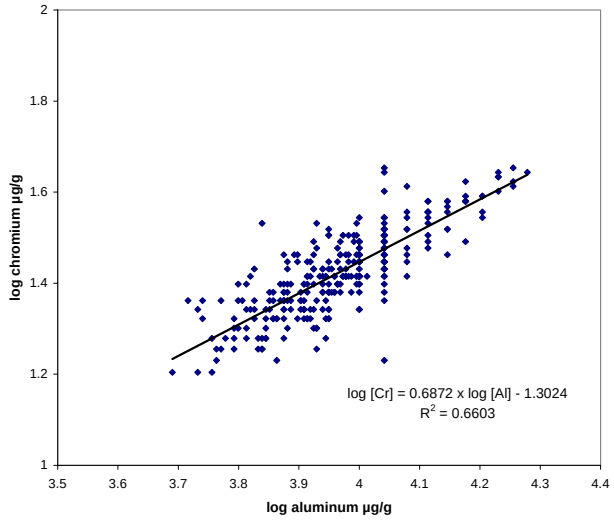


Fig. 10.4.4.33b: log Cr vs. log Al, 10-20cm, Coniston

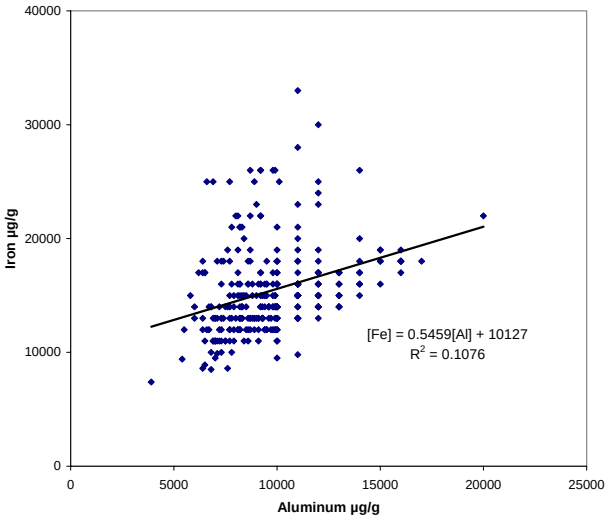


Fig. 10.4.4.34: Fe vs. Al, 0-5cm, Coniston

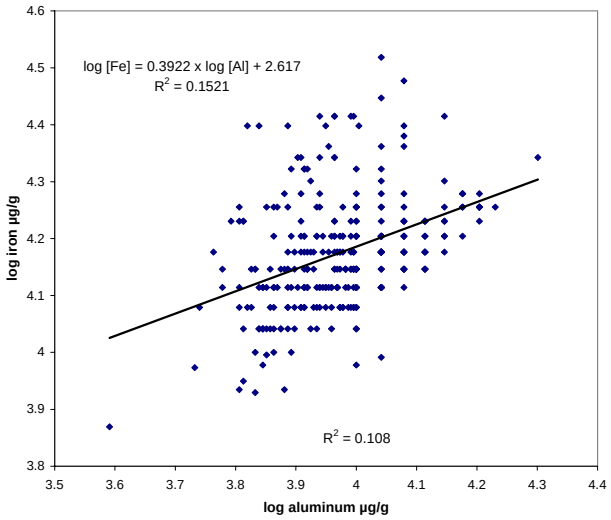


Fig. 10.4.4.34b: log Fe vs. log Al, 0-5cm, Coniston

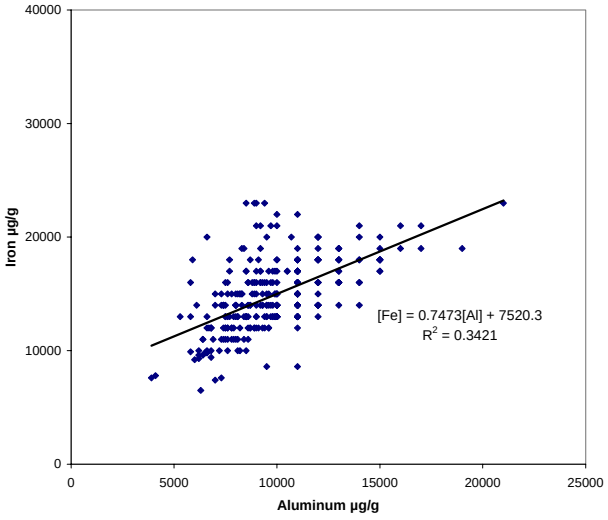


Fig. 10.4.4.35: Fe vs. Al, 5-10cm, Coniston

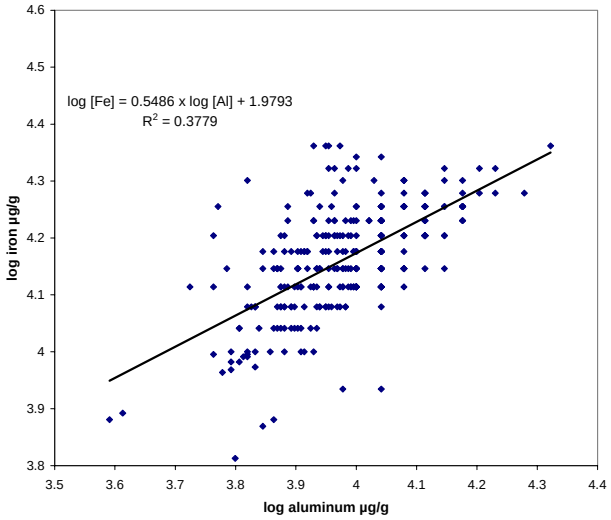


Fig. 10.4.4.35b: log Fe vs. log Al, 5-10cm, Coniston

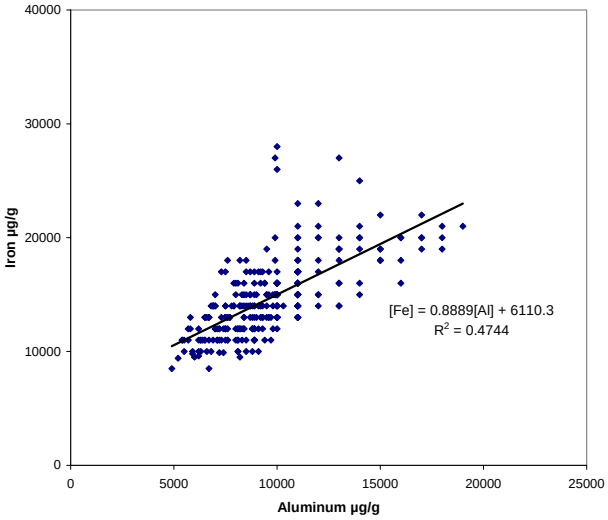


Fig. 10.4.4.36: Fe vs. Al, 10-20cm, Coniston

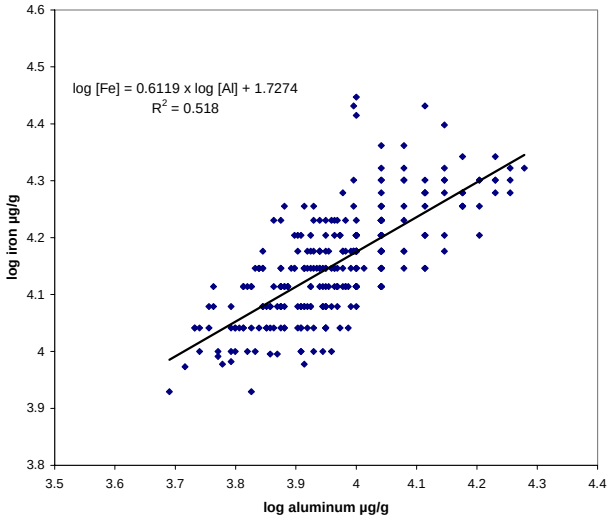


Fig. 10.4.4.36b: log Fe vs. log Al, 10-20cm, Coniston

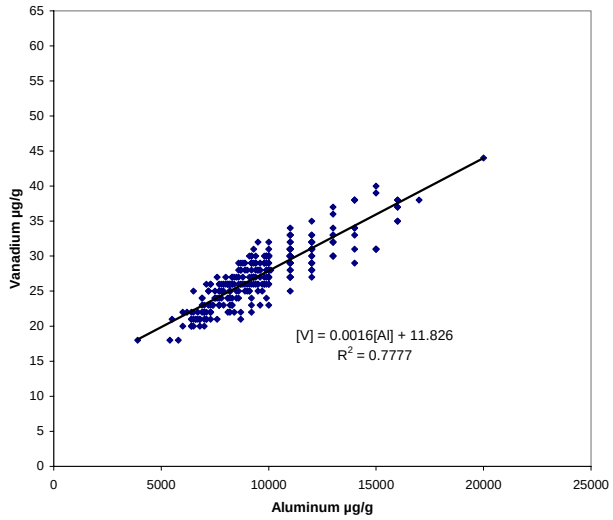


Fig. 10.4.4.37: V vs. Al, 0-5cm, Coniston

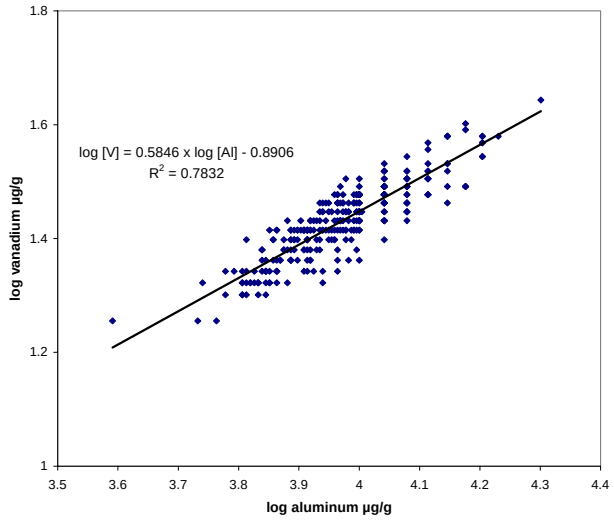


Fig. 10.4.4.37b: log V vs. log Al, 0-5cm, Coniston

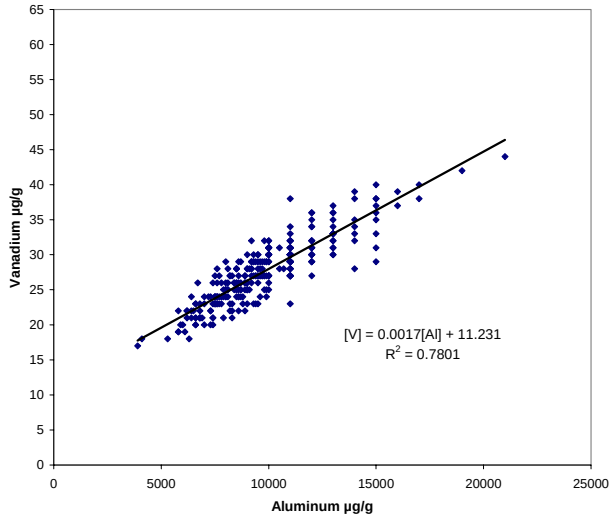


Fig. 10.4.4.38: V vs. Al, 5-10cm, Coniston

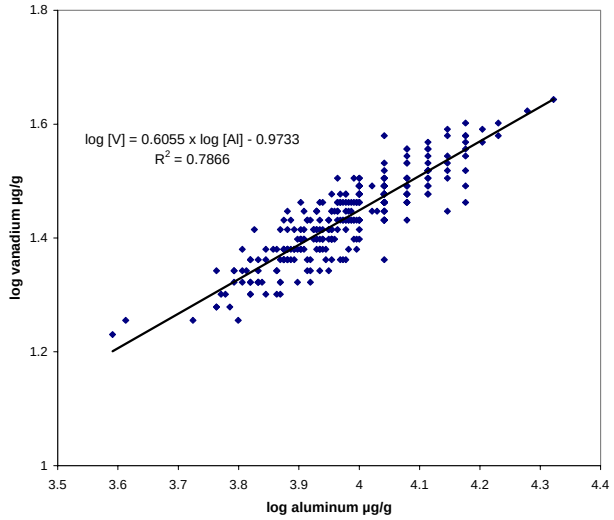


Fig. 10.4.4.38b: log V vs. log Al, 5-10cm, Coniston

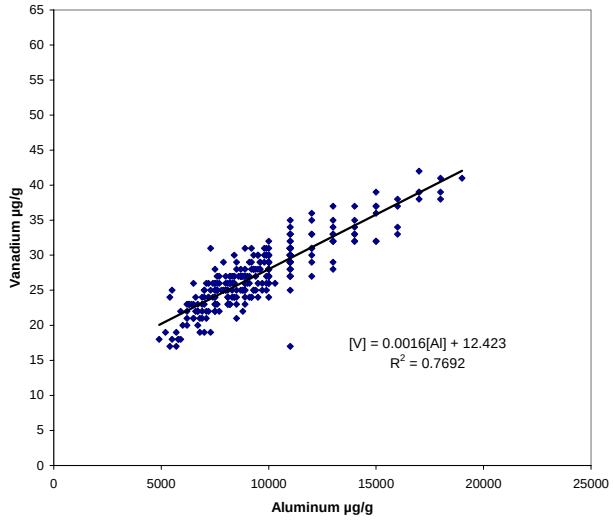


Fig. 10.4.4.39: V vs. Al, 10-20cm, Coniston

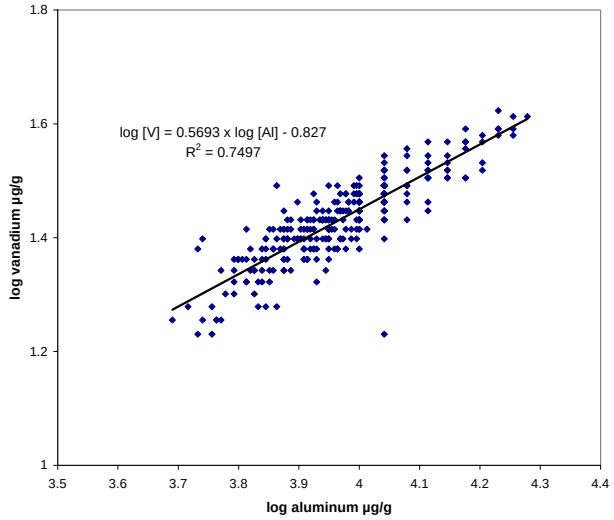


Fig. 10.4.4.39b: log V vs. log Al, 10-20cm, Coniston

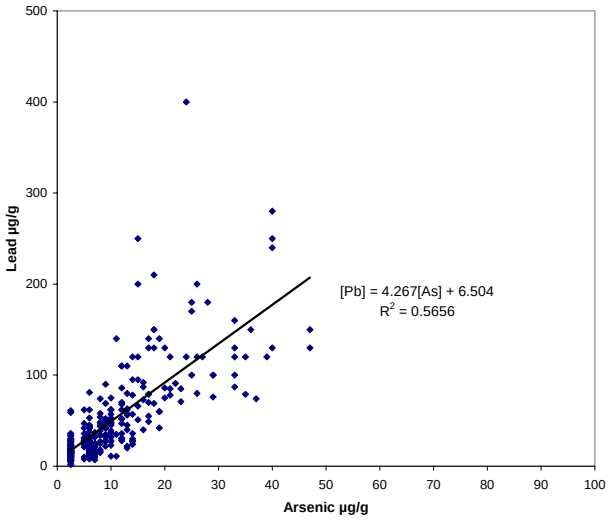


Fig. 10.4.4.40: Pb vs. As, 0-5cm, Coniston

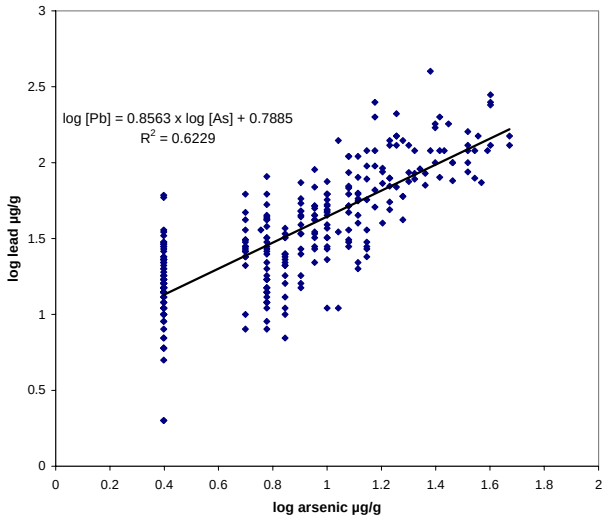


Fig. 10.4.4.40b: log Pb vs. log As, 0-5cm, Coniston

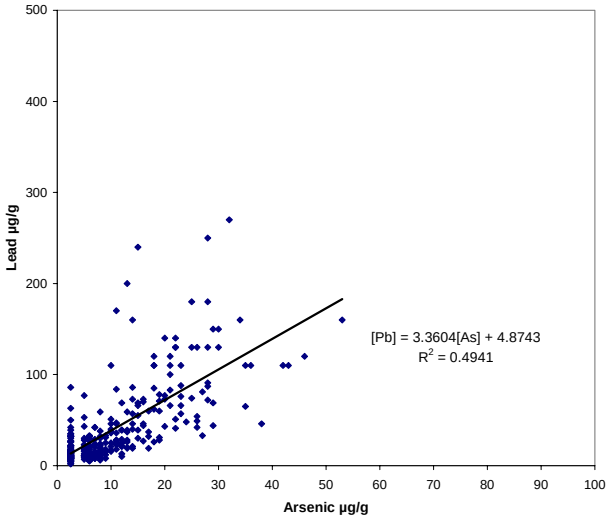


Fig. 10.4.4.41: Pb vs. As, 5-10cm, Coniston

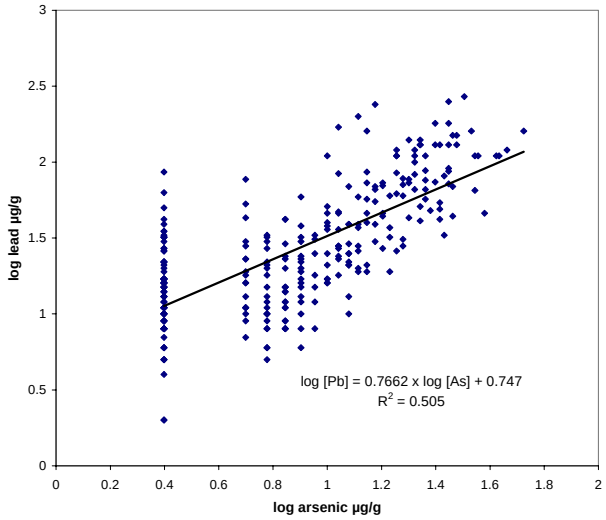


Fig. 10.4.4.41b: log Pb vs. log As, 5-10cm, Coniston

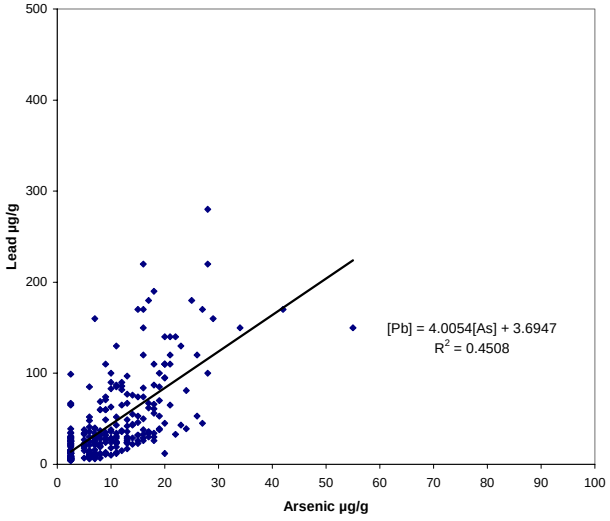


Fig. 10.4.4.42: Pb vs. As, 10-20cm, Coniston

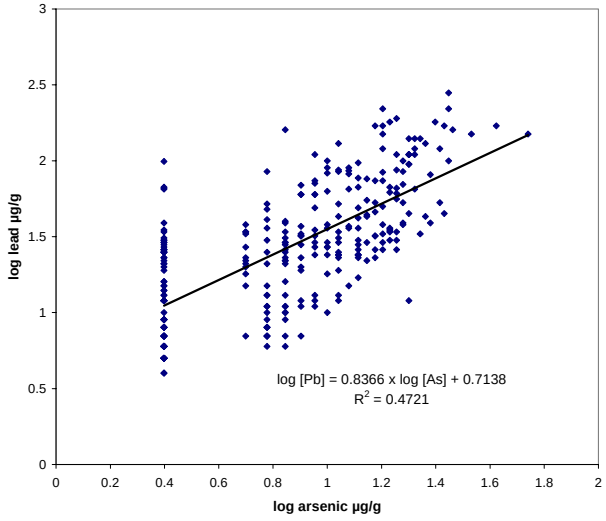


Fig. 10.4.4.42b: log Pb vs. log As, 10-20cm, Coniston

Table 10.4.4.1: Pearson's and Spearman's Correlations for 0 to 5 cm Urban Soil in Coniston

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	*-0.07*	*-0.15*	*0.47*	*-0.12*	*0.26*	*0.56*	*-0.07*	*-0.17*	*0.40*	*-0.23*	*0.52*	*0.62*	*-0.02*	*-0.15*	*-0.15*	***0.81***	***0.87***	*-0.07*
Sb	-0.07	1	*0.18*	*0.13*	*0.34*	*-0.06*	*0.00*	*0.16*	*0.18*	*0.18*	*0.23*	*0*	*0.01*	*0.25*	*0.17*	*0.31*	*-0.07*	*-0.11*	*0.20*
As	-0.11	0.11	1	*0.45*	*0.65*	*0.35*	*0.16*	***0.86***	***0.9***	*0.63*	***0.8***	*-0.1*	*0.05*	*0.05*	***0.89***	*0.64*	*0.00*	*-0.10*	***0.75***
Ba	0.45	0.19	0.42	1	*0.39*	*0.49*	*0.57*	*0.56*	*0.51*	*0.68*	*0.46*	*0.3*	*0.63*	*0.01*	*0.52*	*0.31*	*0.59*	*0.43*	*0.62*
Cd	-0.12	0.26	**0.75**	0.37	1	*0.41*	*0.34*	*0.69*	*0.69*	*0.57*	*0.66*	*0*	*0.12*	*0.21*	*0.69*	*0.60*	*0.03*	*-0.09*	*0.65*
Ca	0.15	-0.05	0.19	0.28	0.35	1	*0.41*	*0.51*	*0.43*	*0.44*	*0.31*	*0.55*	*0.54*	*-0.01*	*0.47*	*0.21*	*0.53*	*0.27*	*0.51*
Cr	0.44	0.09	0.28	0.45	0.47	0.24	1	*0.31*	*0.19*	*0.58*	*0.14*	*0.55*	*0.59*	*0.03*	*0.21*	*0.17*	*0.54*	*0.62*	*0.31*
Co	-0.10	0.15	**0.88**	0.44	**0.87**	0.35	0.34	1	***0.95***	*0.74*	***0.79***	*0.1*	*0.18*	*0.00*	***0.97***	*0.61*	*0.08*	*-0.03*	***0.84***
Cu	-0.12	0.17	**0.92**	0.46	**0.84**	0.28	0.30	**0.98**	1	*0.64*	***0.85***	*-0.1*	*0.05*	*0.01*	***0.99***	*0.62*	*0.00*	*-0.15*	***0.82***
Fe	0.33	0.17	**0.78**	0.61	0.72	0.28	0.53	**0.83**	**0.83**	1	*0.54*	*0.33*	*0.45*	*-0.01*	*0.65*	*0.51*	*0.40*	*0.45*	*0.60*
Pb	-0.16	0.21	**0.75**	0.51	0.65	0.14	0.24	0.68	0.73	0.61	1	*-0.1*	*0.00*	*0.04*	***0.83***	*0.58*	*-0.08*	*-0.19*	*0.83*
Mg	0.40	-0.07	-0.15	0.16	-0.03	0.60	0.29	-0.04	-0.12	0.13	-0.13	1	*0.64*	*0.03*	*-0.07*	*-0.06*	*0.47*	*0.61*	*0.07*
Mn	0.60	-0.02	0.05	0.56	0.11	0.47	0.43	0.11	0.05	0.33	0.03	0.56	1	*0.02*	*0.09*	*0.03*	*0.70*	*0.65*	*0.25*
Mo	-0.04	0.06	0.09	0.06	0.14	0.01	0.04	0.05	0.06	0.07	0.03	0	0.02	1	*0.02*	*0.19*	*-0.02*	*0.03*	*0.01*
Ni	-0.11	0.13	**0.89**	0.43	**0.84**	0.33	0.30	**0.99**	**0.98**	**0.8**	0.68	-0.09	0.08	0.05	1	*0.60*	*0.02*	*-0.12*	***0.82***
Se	-0.03	0.20	0.74	0.35	0.65	0.15	0.29	0.71	0.74	0.68	0.58	-0.06	0.08	0.22	0.71	1	*-0.03*	*-0.08*	*0.55*
Sr	0.70	-0.11	0.00	0.48	0.02	0.61	0.37	0.04	0.01	0.29	-0.02	0.49	0.72	-0.03	0.03	0.03	1	***0.75***	*0.11*
V	**0.88**	-0.13	-0.07	0.37	-0.10	0.15	0.47	-0.08	-0.12	0.35	-0.13	0.45	0.64	0.02	-0.11	0.01	0.67	1	*-0.07*
Zn	-0.10	0.24	0.69	0.65	0.71	0.39	0.35	0.71	0.73	0.61	**0.77**	0.00	0.23	0.05	0.70	0.49	0.15	-0.11	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.4.2: Pearson's and Spearman's Correlations for 5 to 10 cm Urban Soil in Coniston

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	*0.03*	*-0.02*	*0.46*	*-0.04*	*0.40*	*0.75*	*0.02*	*-0.08*	*0.59*	*-0.15*	*0.60*	*0.65*	*0.06*	*-0.09*	*-0.08*	*0.77*	*0.88*	*0.03*
Sb	0.03	1	*0.16*	*0.21*	*0.22*	*-0.01*	*-0.04*	*0.16*	*0.18*	*0.21*	*0.20*	*-0.05*	*0.1*	*0.30*	*0.15*	*0.18*	*0.05*	*-0.05*	*0.18*
As	-0.06	0.08	1	*0.49*	*0.32*	*0.29*	*0.05*	***0.87***	***0.9***	*0.55*	*0.71*	*-0.33*	*0.1*	*0.01*	***0.89***	*0.67*	*0.08*	*-0.07*	*0.71*
Ba	0.41	0.21	0.50	1	*0.24*	*0.54*	*0.53*	*0.60*	*0.54*	*0.70*	*0.50*	*0.23*	*0.65*	*0.03*	*0.53*	*0.36*	*0.61*	*0.40*	*0.67*
Cd	-0.05	0.06	0.40	0.31	1	*0.17*	*0.17*	*0.37*	*0.36*	*0.28*	*0.36*	*-0.09*	*0.1*	*0.37*	*0.36*	*0.36*	*0.08*	*-0.03*	*0.36*
Ca	0.20	0.01	0.07	0.21	0.09	1	*0.47*	*0.40*	*0.33*	*0.39*	*0.19*	*0.40*	*0.57*	*0.03*	*0.37*	*0.14*	*0.67*	*0.40*	*0.43*
Cr	0.71	-0.01	0.02	0.40	0.27	0.21	1	*0.20*	*0.05*	*0.60*	*-0.02*	*0.64*	*0.71*	*0.07*	*0.07*	*0.03*	*0.68*	***0.81***	*0.18*
Co	-0.03	0.08	**0.86**	0.54	0.52	0.18	0.13	1	***0.94***	*0.66*	*0.74*	*-0.15*	*0.19*	*0.01*	***0.96***	*0.65*	*0.15*	*0.01*	***0.81***
Cu	-0.07	0.12	**0.9**	0.59	0.48	0.12	0.05	**0.96**	1	*0.54*	***0.81***	*-0.33*	*0.1*	*0.00*	***0.98***	*0.64*	*0.08*	*-0.11*	***0.79***
Fe	0.58	0.14	0.56	0.67	0.32	0.16	0.54	0.65	0.62	1	*0.42*	*0.31*	*0.57*	*0.07*	*0.52*	*0.42*	*0.49*	*0.58*	*0.54*
Pb	-0.11	0.19	0.70	0.66	0.38	0.02	-0.03	0.69	**0.77**	0.45	1	*-0.33*	*0*	*0.07*	*0.77*	*0.54*	*0.03*	*-0.16*	***0.82***
Mg	0.51	-0.01	-0.29	0.10	-0.10	0.50	0.47	-0.19	-0.30	0.26	-0.30	1	*0.64*	*0.11*	*-0.31*	*-0.22*	*0.47*	*0.68*	*-0.11*
Mn	0.64	0.07	0.06	0.55	0.05	0.44	0.61	0.11	0.05	0.52	0.04	0.52	1	*0.02*	*0.06*	*0.03*	*0.71*	*0.70*	*0.28*
Mo	0.06	0.09	-0.03	0.06	0.28	0.02	0.09	-0.01	-0.02	0.09	0.05	0.06	0.01	1	*-0.01*	*0.16*	*0.05*	*0.07*	*0.04*
Ni	-0.08	0.07	**0.89**	0.52	0.49	0.15	0.06	**0.97**	**0.96**	0.57	0.70	-0.28	0.04	-0.04	1	*0.62*	*0.08*	*-0.12*	***0.78***
Se	-0.08	0.13	0.73	0.43	0.38	0.07	0.02	**0.75**	**0.76**	0.50	0.59	-0.18	0.04	0.05	0.73	1	*0.03*	*-0.09*	*0.54*
Sr	0.69	0.06	0.04	0.48	0.06	0.66	0.58	0.08	0.06	0.42	0.04	0.47	0.71	0.07	0.05	0.00	1	*0.72*	*0.23*
V	**0.88**	-0.03	-0.10	0.33	-0.05	0.18	0.74	-0.09	-0.14	0.57	-0.16	0.58	0.68	0.07	-0.15	-0.10	0.66	1	*-0.02*
Zn	-0.01	0.14	0.61	0.73	0.47	0.34	0.14	0.72	0.71	0.48	**0.81**	-0.09	0.27	0.02	0.70	0.50	0.26	-0.07	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.4.3: Pearson's and Spearman's Correlations for 10 to 20 cm Urban Soil in Coniston

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	*0.03*	*0.10*	*0.54*	*0.00*	*0.58*	***0.79***	*0.21*	*0.08*	*0.72*	*-0.05*	*0.55*	*0.64*	*0*	*0.08*	*-0.02*	***0.8***	***0.86***	*0.21*
Sb	0.02	1	*0.35*	*0.39*	*0.52*	*0.05*	*-0.02*	*0.41*	*0.38*	*0.24*	*0.44*	*-0.05*	*0.19*	*0.36*	*0.37*	*0.28*	*0.09*	*0.00*	*0.41*
As	0.04	0.39	1	*0.55*	*0.14*	*0.30*	*-0.01*	***0.87***	***0.91***	*0.48*	*0.70*	*-0.28*	*0.13*	*0*	***0.89***	*0.53*	*0.17*	*0.02*	*0.70*
Ba	0.43	0.50	0.63	1	*0.16*	*0.62*	*0.50*	*0.68*	*0.60*	*0.69*	*0.50*	*0.21*	*0.66*	*0*	*0.60*	*0.29*	*0.64*	*0.48*	***0.75***
Cd	-0.01	0.39	0.32	0.40	1	*0.10*	*-0.03*	*0.19*	*0.17*	*0.16*	*0.20*	*0.02*	*0.14*	*0.69*	*0.18*	*0.23*	*0.11*	*0.03*	*0.20*
Ca	0.32	0.02	0.17	0.26	0.10	1	*0.54*	*0.44*	*0.31*	*0.53*	*0.12*	*0.41*	*0.63*	*0*	*0.38*	*0.12*	*0.80*	*0.50*	*0.47*
Cr	**0.83**	0.02	-0.03	0.38	-0.04	0.23	1	*0.17*	*-0.03*	*0.66*	*-0.15*	***0.75***	*0.73*	*0*	*0.00*	*-0.06*	*0.69*	***0.86***	*0.16*
Co	0.16	0.43	**0.83**	0.72	0.34	0.28	0.13	1	***0.93***	*0.59*	*0.69*	*-0.05*	*0.31*	*0*	***0.95***	*0.51*	*0.28*	*0.12*	***0.82***
Cu	0.06	0.43	**0.87**	0.71	0.32	0.17	-0.02	**0.94**	1	*0.43*	***0.76***	*-0.31*	*0.11*	*0*	***0.97***	*0.56*	*0.17*	*-0.03*	***0.78***
Fe	0.69	0.35	0.50	0.66	0.22	0.27	0.63	0.64	0.53	1	*0.26*	*0.49*	*0.68*	*0*	*0.43*	*0.22*	*0.61*	*0.72*	*0.49*
Pb	-0.09	0.59	0.67	0.66	0.29	0.03	-0.16	0.62	0.73	0.28	1	*-0.34*	*0.07*	*0*	*0.71*	*0.42*	*0.07*	*-0.14*	***0.77***
Mg	0.61	-0.01	-0.27	0.14	-0.03	0.42	0.72	-0.09	-0.29	0.48	-0.31	1	*0.61*	*0.1*	*-0.26*	*-0.26*	*0.42*	*0.64*	*-0.05*
Mn	0.66	0.22	0.22	0.63	0.18	0.42	0.71	0.38	0.23	0.66	0.11	0.61	1	*0*	*0.14*	*0.05*	*0.72*	*0.72*	*0.38*
Mo	0.00	0.14	-0.06	-0.05	0.60	0.03	-0.03	-0.01	-0.04	0.01	-0.04	0.03	0.00	1	*0.02*	*0.12*	*0.02*	*0.03*	*0*
Ni	0.06	0.38	**0.85**	0.68	0.35	0.25	-0.01	**0.97**	**0.96**	0.50	0.65	-0.25	0.25	0	1	*0.56*	*0.21*	*-0.03*	*0.79*
Se	0.04	0.17	0.40	0.32	0.14	0.08	0.01	0.44	0.45	0.28	0.31	-0.15	0.11	0	0.46	1	*0.11*	*-0.05*	*0.46*
Sr	**0.75**	0.07	0.19	0.54	0.14	0.62	0.65	0.30	0.21	0.56	0.07	0.47	0.72	0.01	0.24	0.14	1	*0.73*	*0.36*
V	**0.88**	0.02	-0.01	0.39	0.01	0.21	**0.87**	0.07	-0.04	0.65	-0.14	0.66	0.71	0.01	-0.1	0.01	0.72	1	*0.12*
Zn	0.07	0.47	0.68	**0.81**	0.40	0.33	0.07	**0.77**	**0.76**	0.41	0.74	-0.10	0.43	0	**0.77**	0.34	0.33	0.03	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

10.4.5 Falconbridge

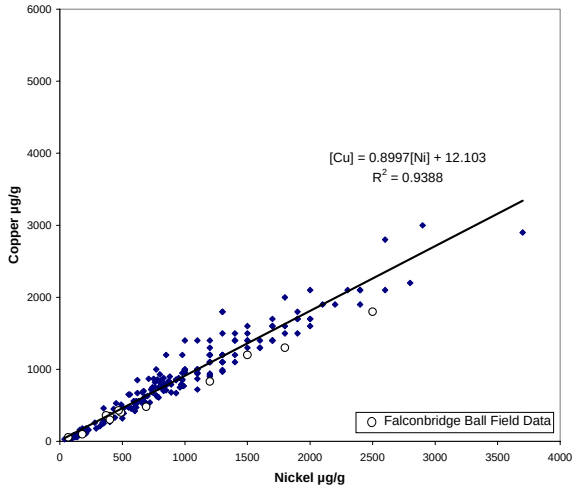


Fig. 10.4.5.1: Cu vs. Ni, 0-5cm, Falconbridge

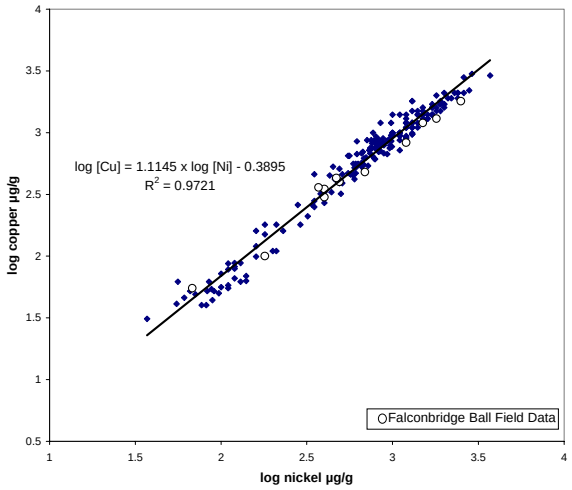


Fig. 10.4.5.1a: log Cu vs. log Ni, 0-5cm, Falconbridge

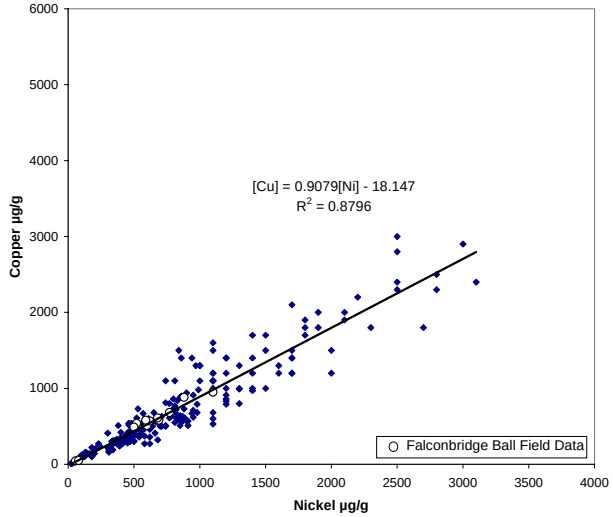


Fig. 10.4.5.2: Cu vs. Ni, 5-10cm, Falconbridge

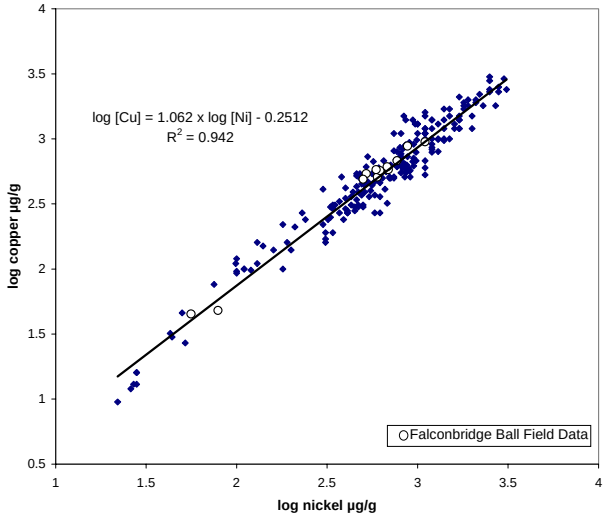


Fig. 10.4.5.2b: log Cu vs. log Ni, 5-10cm, Falconbridge

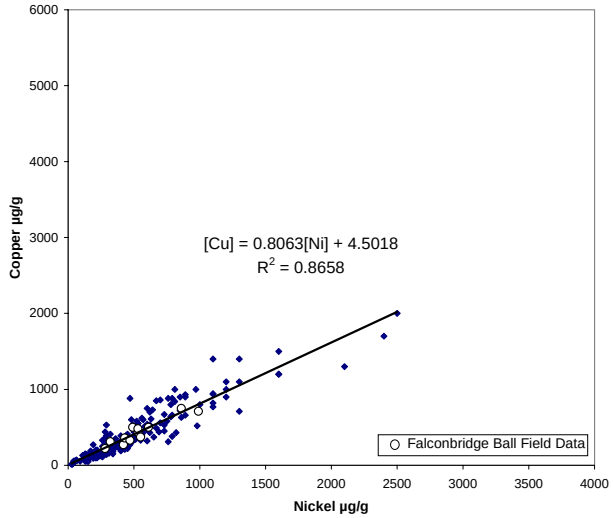


Fig. 10.4.5.3: Cu vs. Ni, 10-20cm, Falconbridge

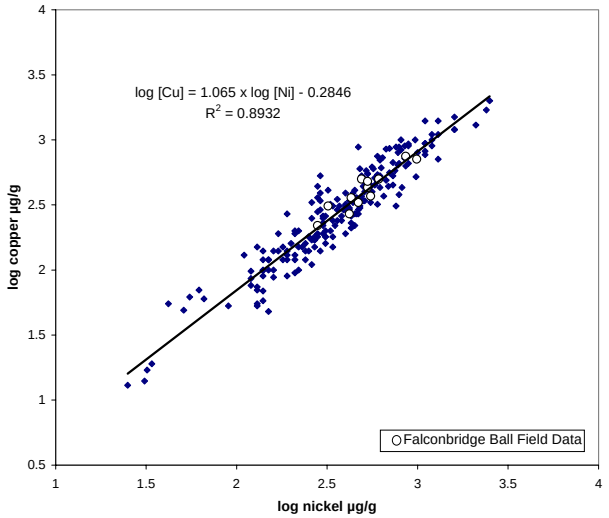


Fig. 10.4.5.3b: log Cu vs. log Ni, 10-20cm, Falconbridge

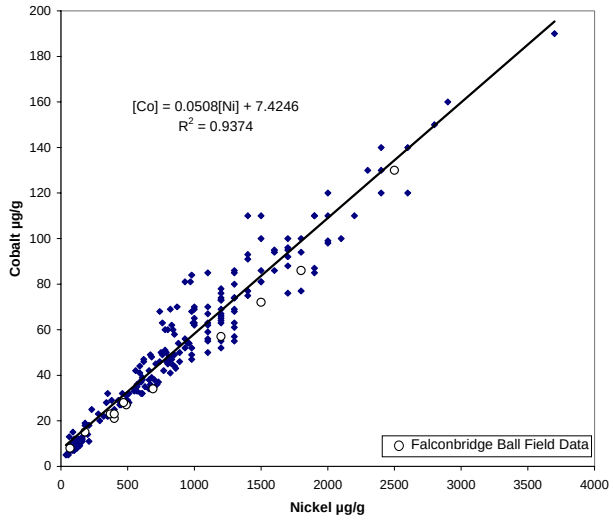


Fig. 10.4.5.4: Co vs. Ni, 0-5cm, Falconbridge

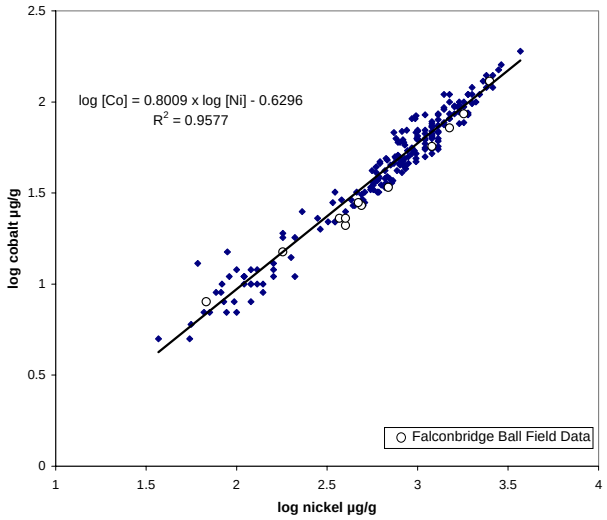


Fig. 10.4.5.4b: log Co vs. log Ni, 0-5cm, Falconbridge

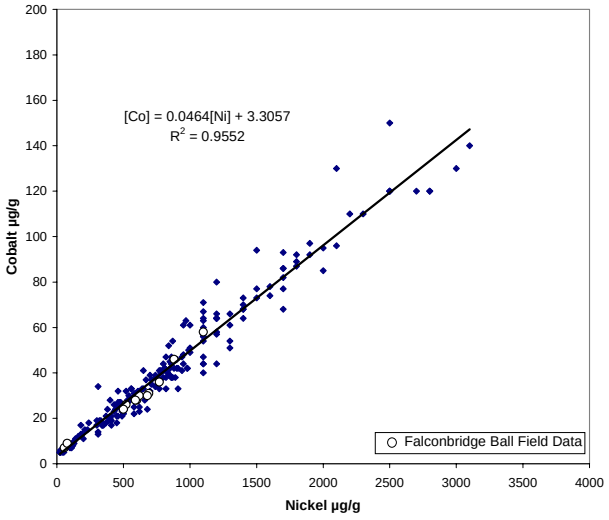


Fig. 10.4.5.5: Co vs. Ni, 5-10cm, Falconbridge

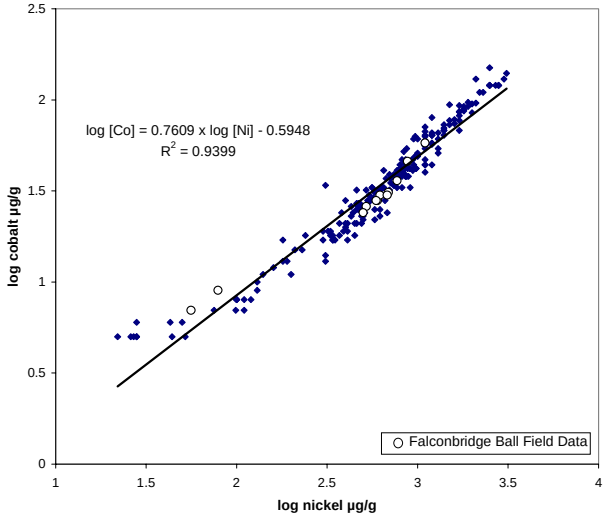


Fig. 10.4.5.5b: log Co vs. log Ni, 5-10cm, Falconbridge

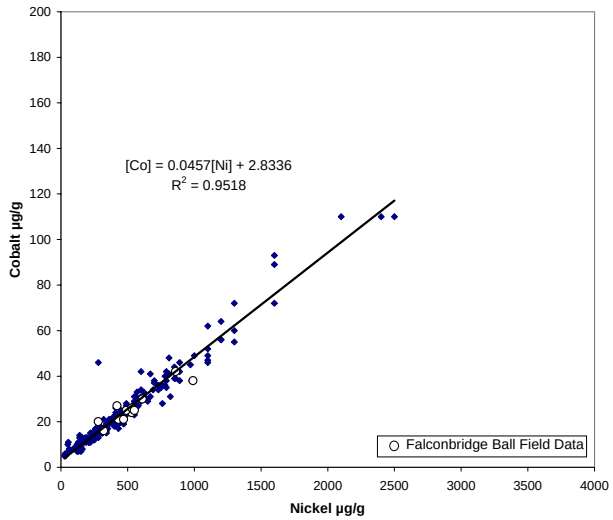


Fig. 10.4.5.6: Co vs. Ni, 10-20cm, Falconbridge

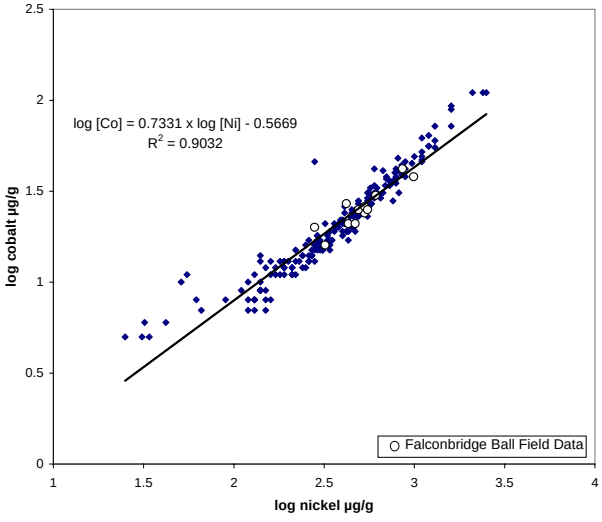


Fig. 10.4.5.6b: log Co vs. log Ni, 10-20cm, Falconbridge

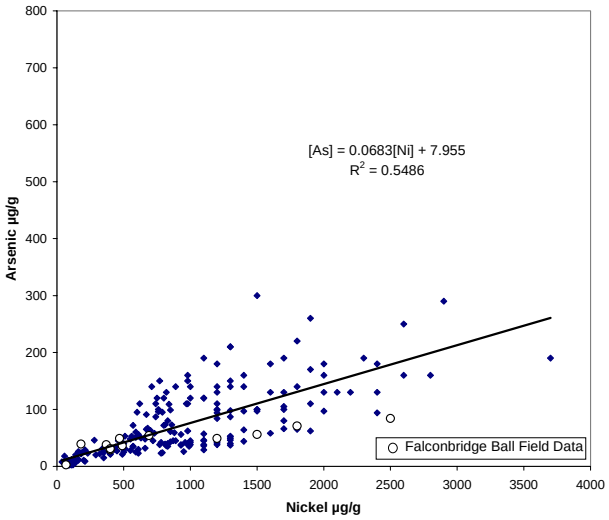


Fig. 10.4.5.7: As vs. Ni, 0-5cm, Falconbridge

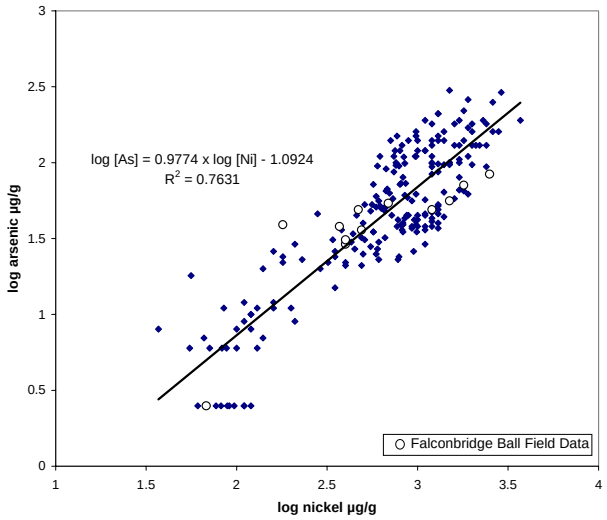


Fig. 10.4.5.7b: log As vs. log Ni, 0-5cm, Falconbridge

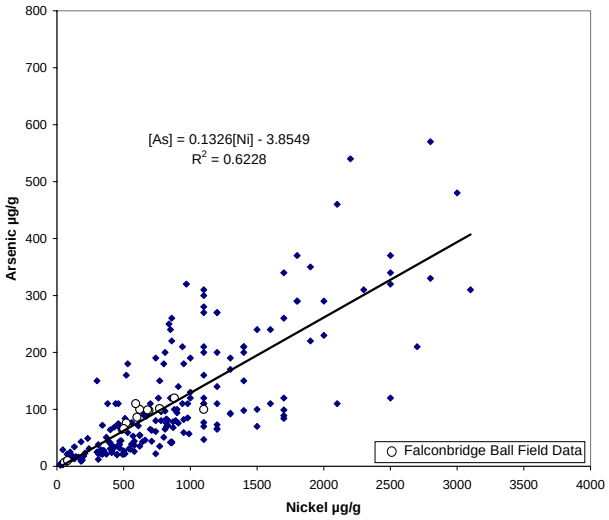


Fig. 10.4.5.8: As vs. Ni, 5-10cm, Falconbridge

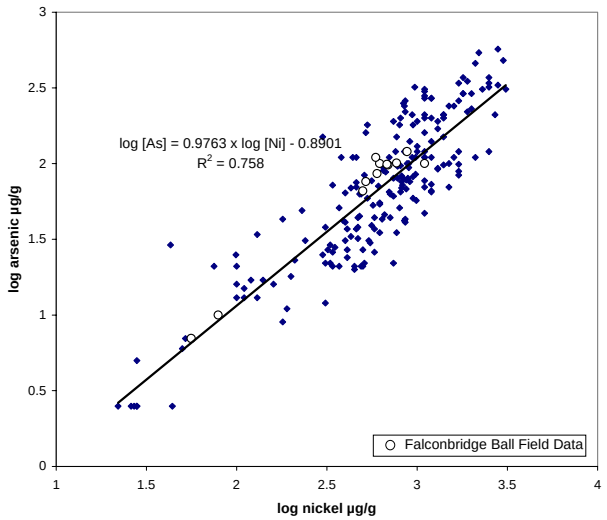


Fig. 10.4.5.8b: log As vs. log Ni, 5-10cm, Falconbridge

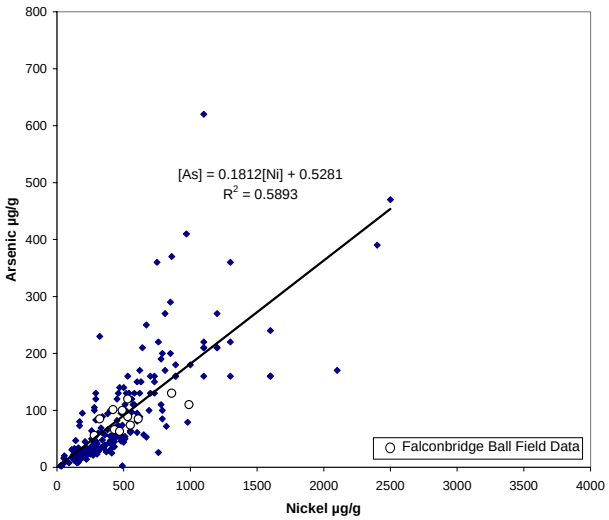


Fig. 10.4.5.9: As vs. Ni, 10-20cm, Falconbridge

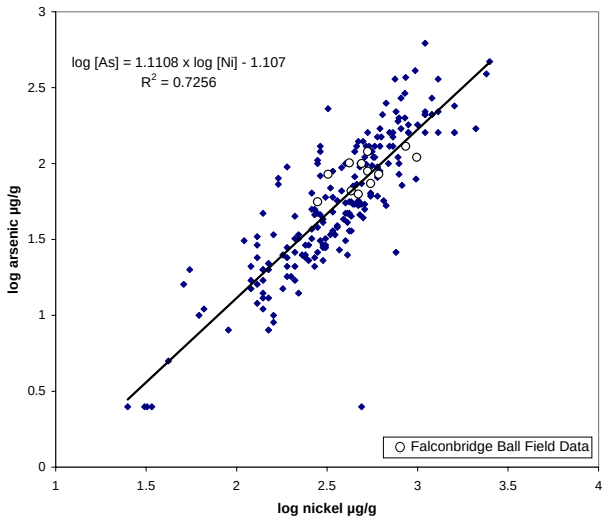


Fig. 10.4.5.9b: log As vs. log Ni, 10-20cm, Falconbridge

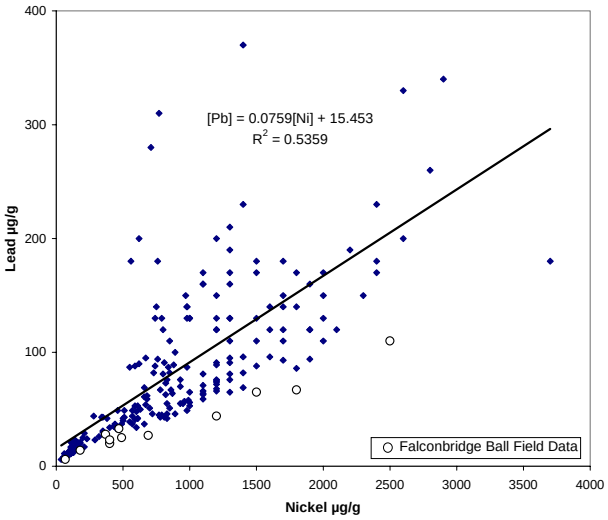


Fig. 10.4.5.10: Pb vs. Ni, 0-5cm, Falconbridge

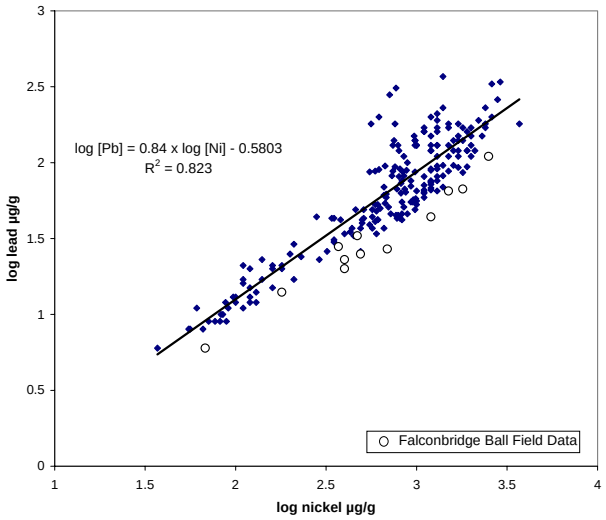


Fig. 10.4.5.10b: log Pb vs. log Ni, 0-5cm, Falconbridge

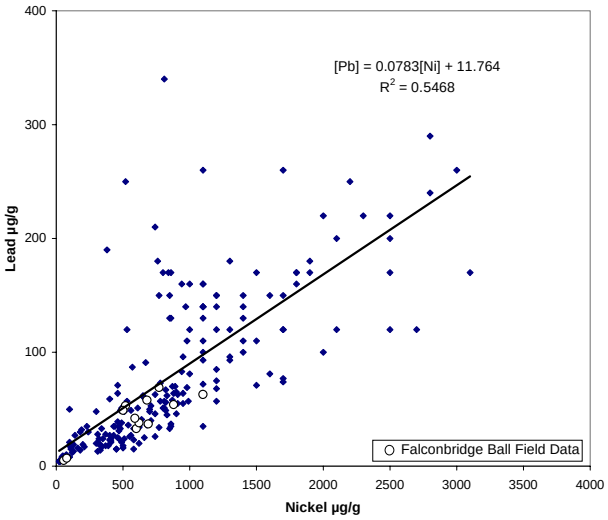


Fig. 10.4.5.11: Pb vs. Ni, 5-10cm, Falconbridge

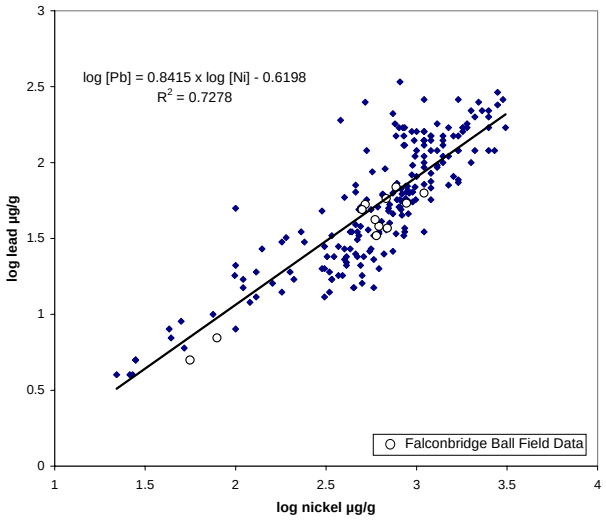


Fig. 10.4.5.11b: log Pb vs. log Ni, 5-10cm, Falconbridge

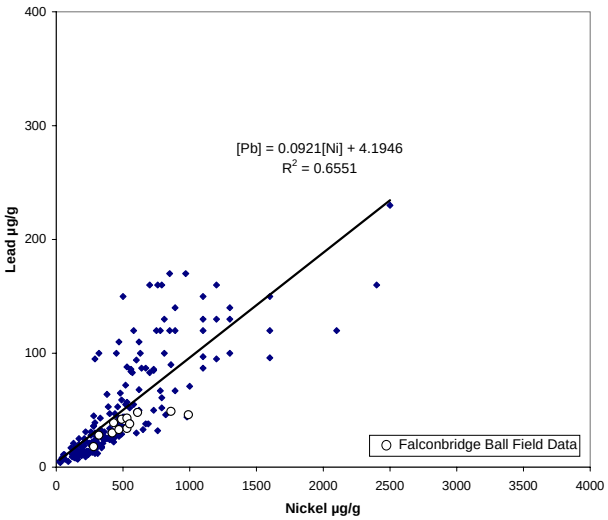


Fig. 10.4.5.12: Pb vs. Ni, 10-20cm, Falconbridge

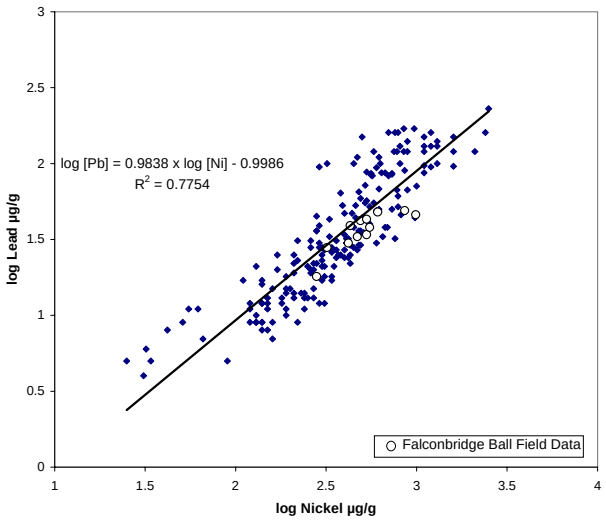


Fig. 10.4.5.12b: log Pb vs. log Ni, 10-20cm, Falconbridge

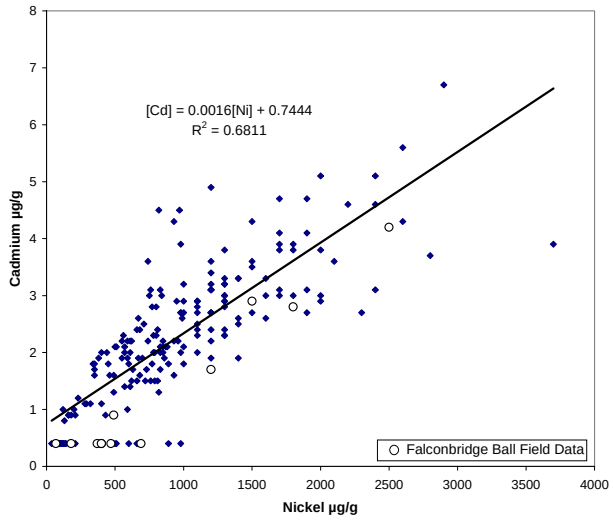


Fig. 10.4.5.13: Cd vs. Ni, 0-5cm, Falconbridge

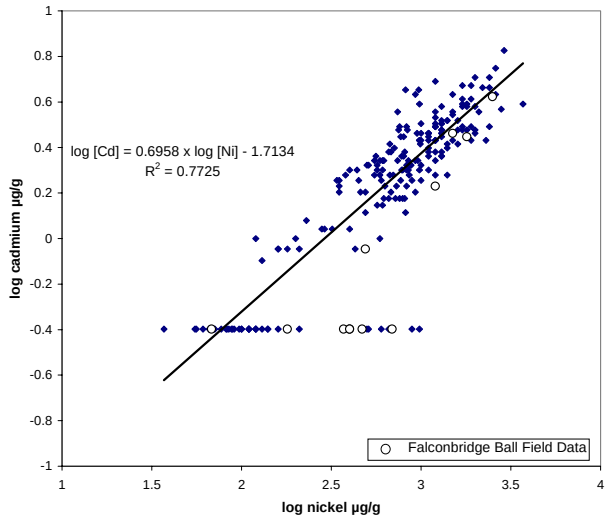


Fig. 10.4.5.13b: log Cd vs. log Ni, 0-5cm, Falconbridge

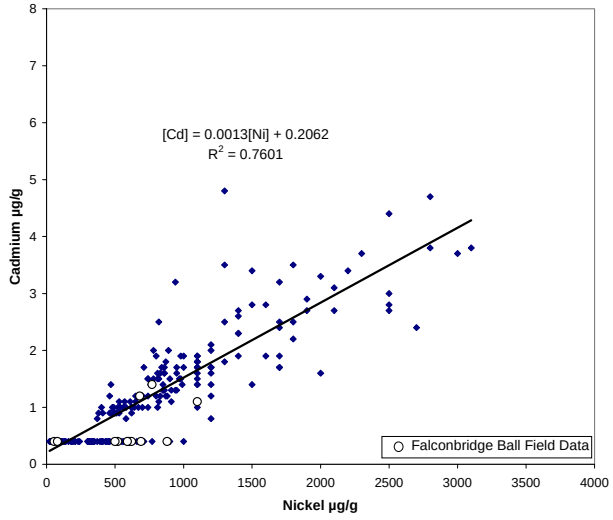


Fig. 10.4.5.14: Cd vs. Ni, 5-10cm, Falconbridge

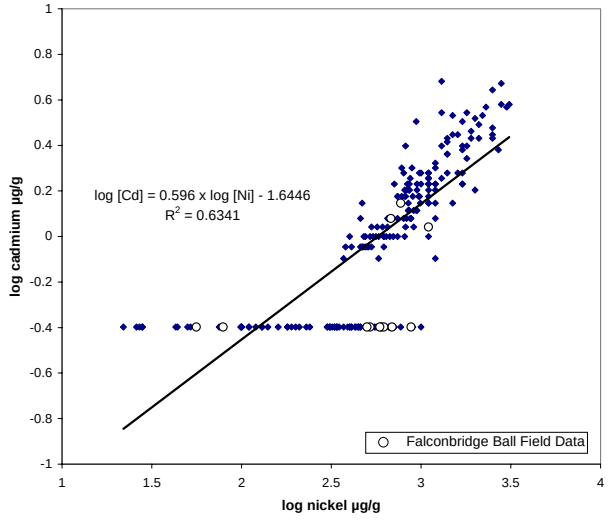


Fig. 10.4.5.14b: log Cd vs. log Ni, 5-10cm, Falconbridge

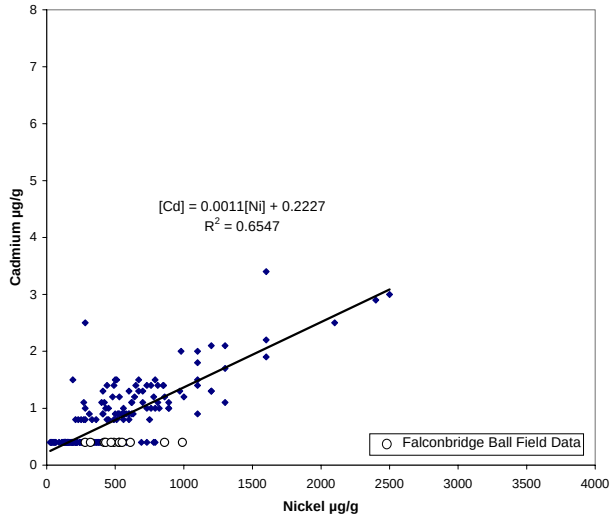


Fig. 10.4.5.15: Cd vs. Ni, 10-20cm, Falconbridge

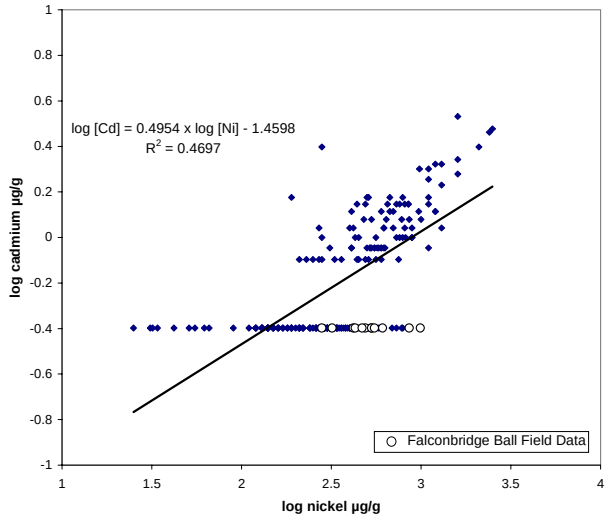


Fig. 10.4.5.15b: log Cd vs. log Ni, 10-20cm, Falconbridge

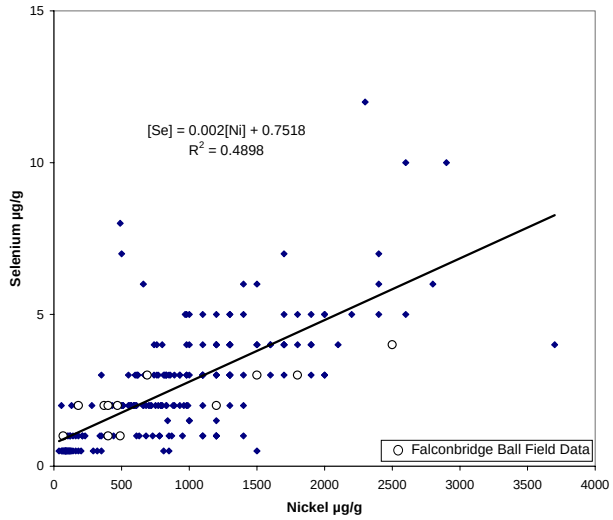


Fig. 10.4.5.16: Se vs. Ni, 0-5cm, Falconbridge

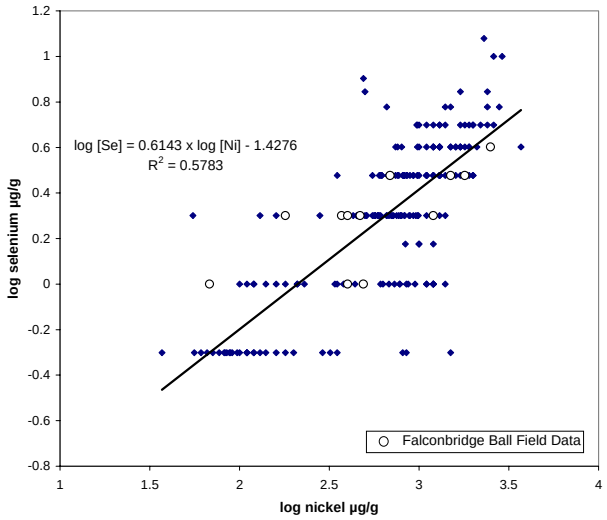


Fig. 10.4.5.16b: log Se vs. log Ni, 0-5cm, Falconbridge

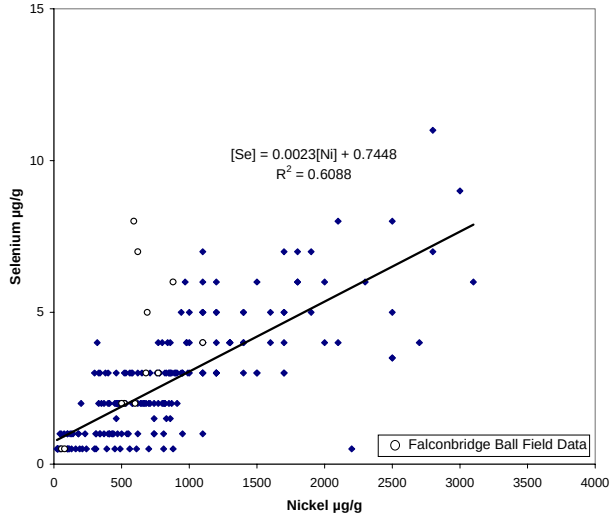


Fig. 10.4.5.17: Se vs. Ni, 5-10cm, Falconbridge

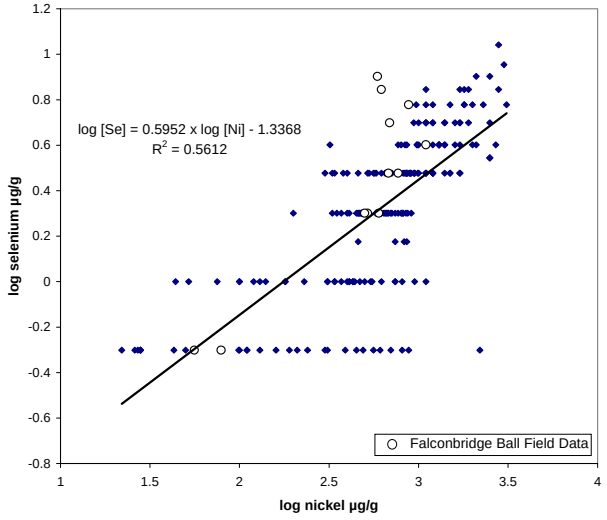


Fig. 10.4.5.17b: log Se vs. log Ni, 5-10cm, Falconbridge

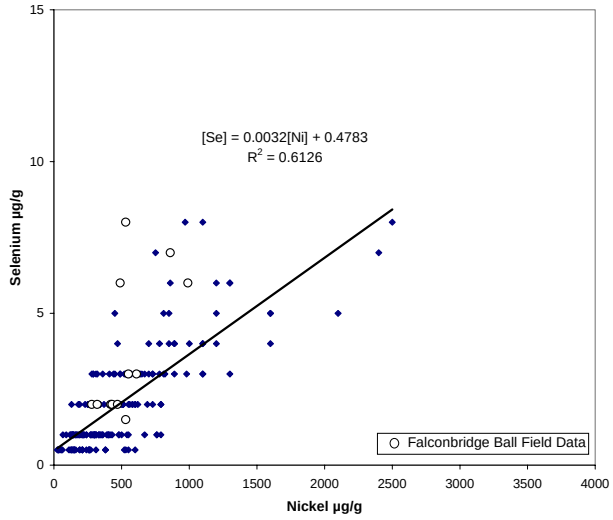


Fig. 10.4.5.18: Se vs. Ni, 10-20cm, Falconbridge

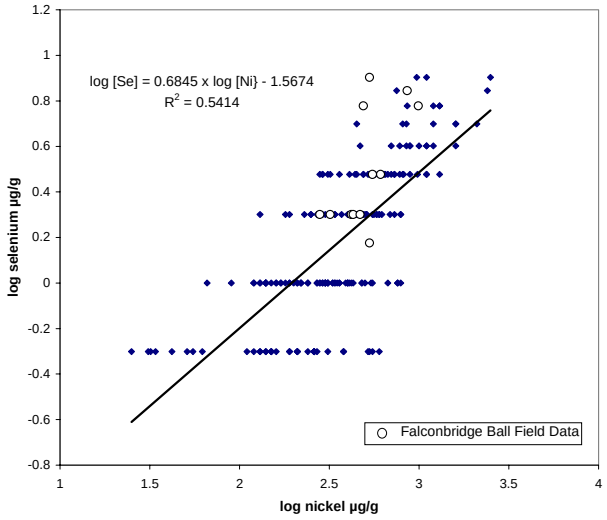


Fig. 10.4.5.18b: log Se vs. log Ni, 10-20cm, Falconbridge

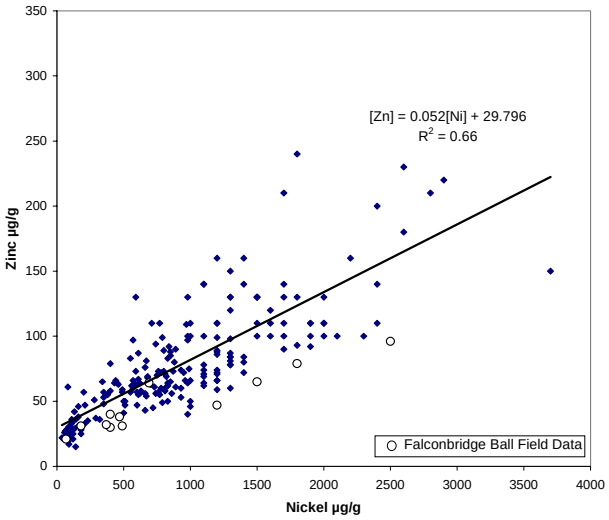


Fig. 10.4.5.19: Zn vs. Ni, 0-5cm, Falconbridge

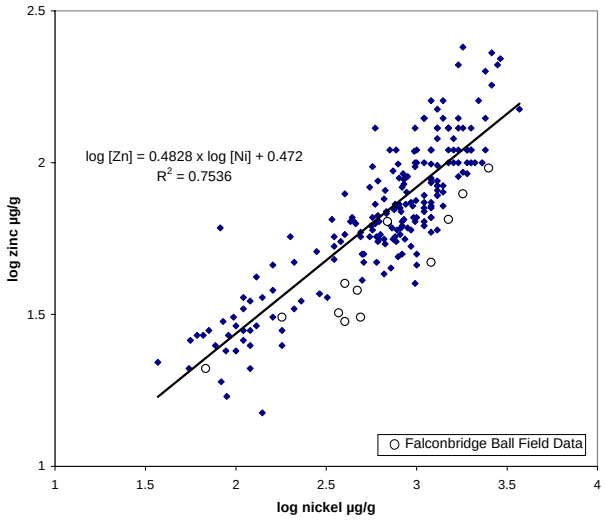


Fig. 10.4.5.19b: log Zn vs. log Ni, 0-5cm, Falconbridge

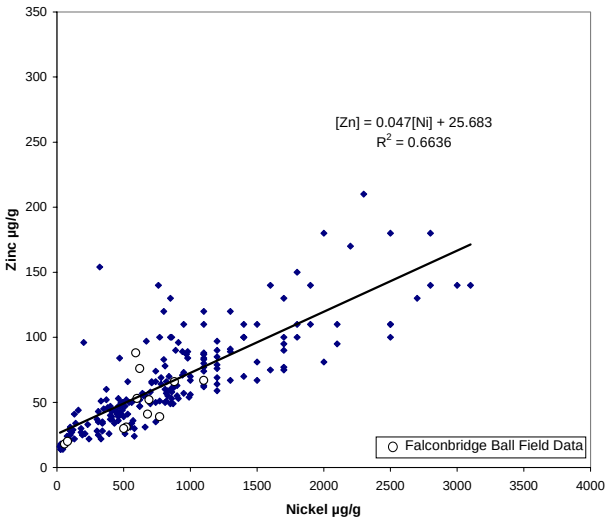


Fig. 10.4.5.20: Zn vs. Ni, 5-10cm, Falconbridge

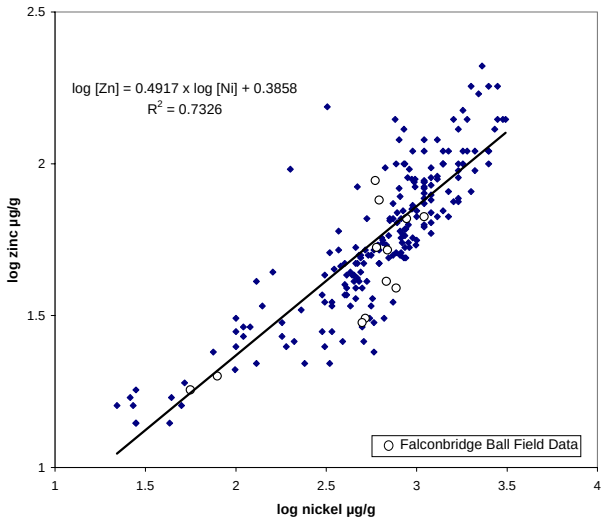


Fig. 10.4.5.20b: log Zn vs. log Ni, 5-10cm, Falconbridge

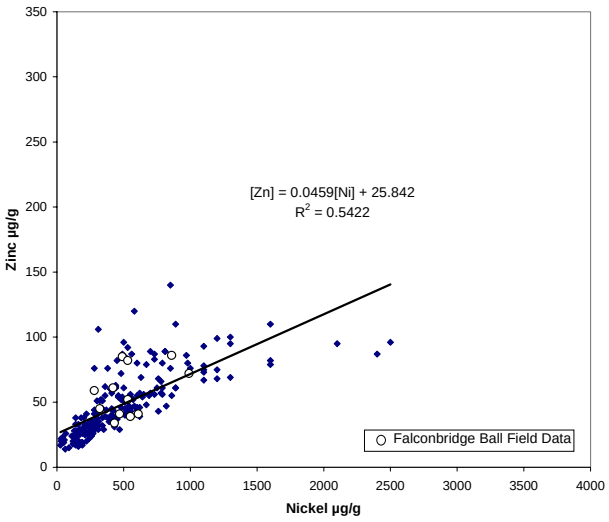


Fig. 10.4.5.21: Zn vs. Ni, 10-20cm, Falconbridge

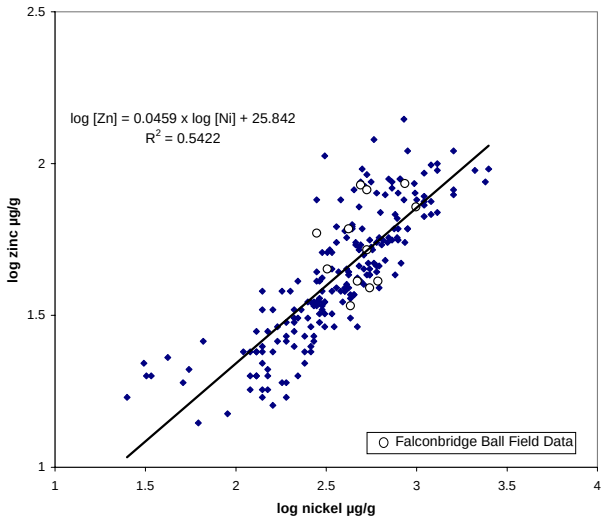


Fig. 10.4.5.21b: log Zn vs. log Ni, 10-20cm, Falconbridge

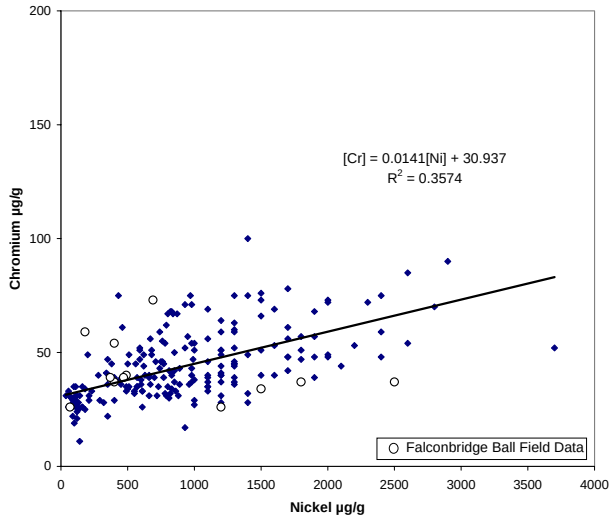


Fig. 10.4.5.22: Cr vs. Ni, 0-5cm, Falconbridge

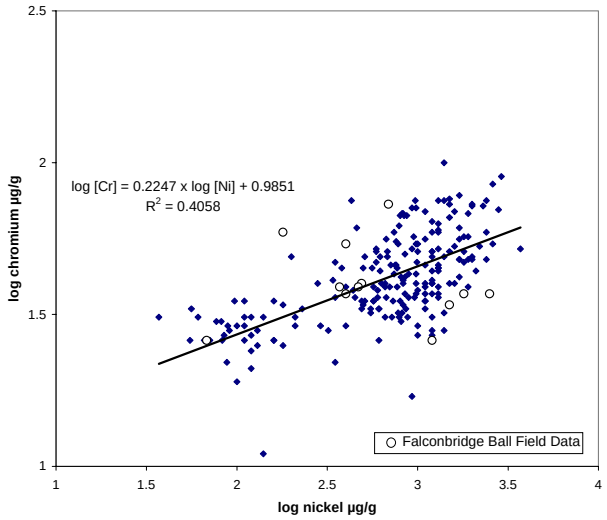


Fig. 10.4.5.22b: log Cr vs. log Ni, 0-5cm, Falconbridge

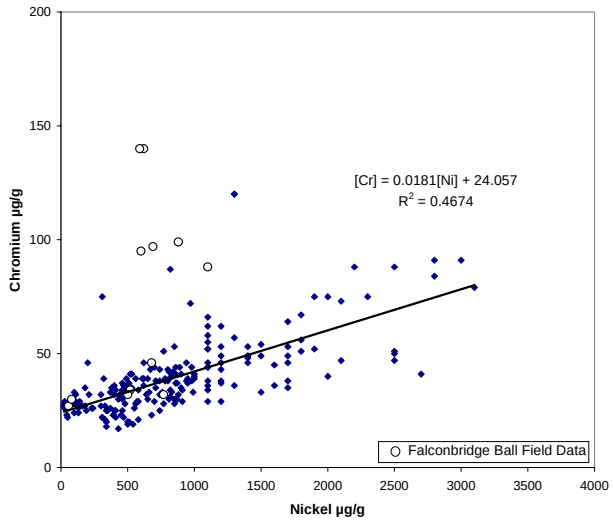


Fig. 10.4.5.23: Cr vs. Ni, 5-10cm, Falconbridge

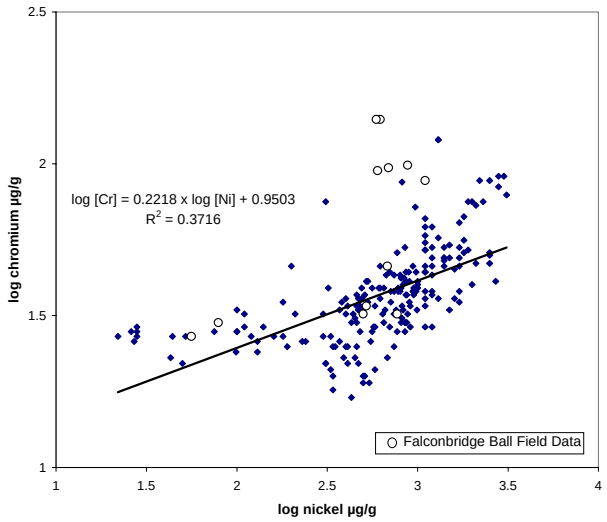


Fig. 10.4.5.23b: log Cr vs. log Ni, 5-10cm, Falconbridge

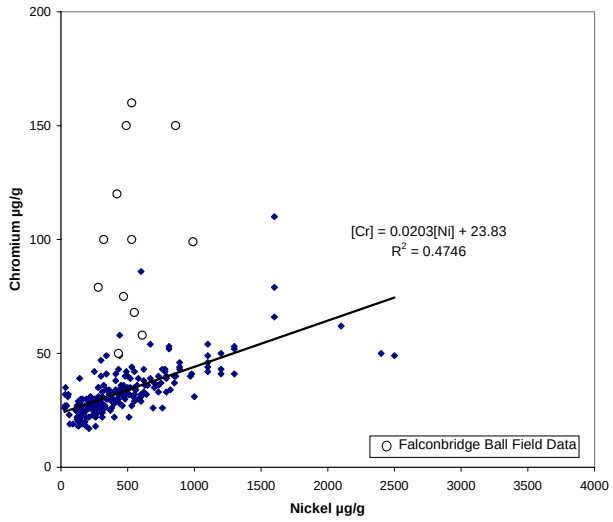


Fig. 10.4.5.24: Cr vs. Ni, 10-20cm, Falconbridge

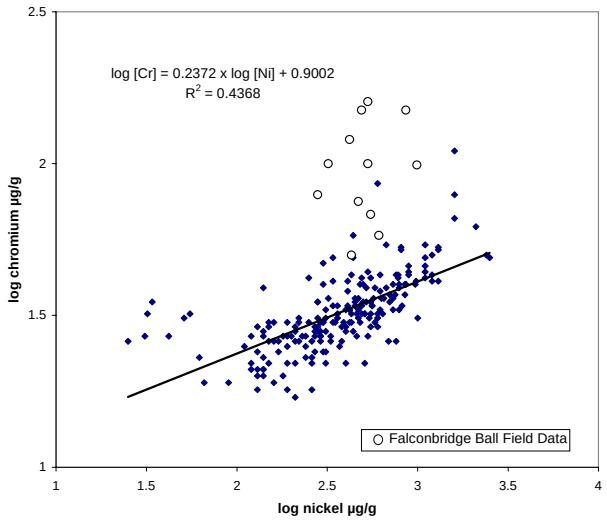


Fig. 10.4.5.24b: log Cr vs. log Ni, 10-20cm, Falconbridge

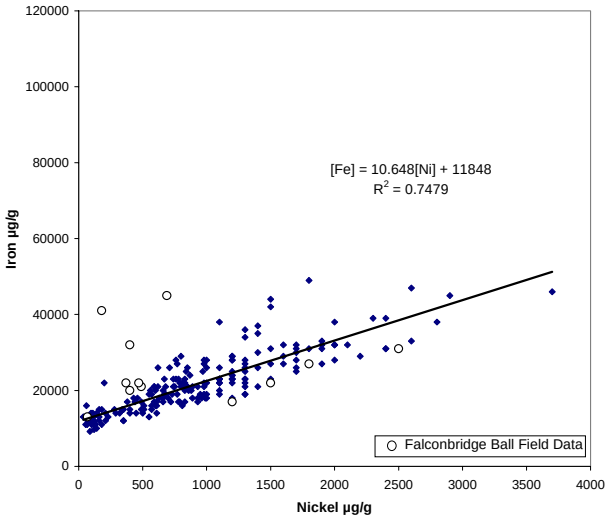


Fig. 10.4.5.25: Fe vs. Ni, 0-5cm, Falconbridge

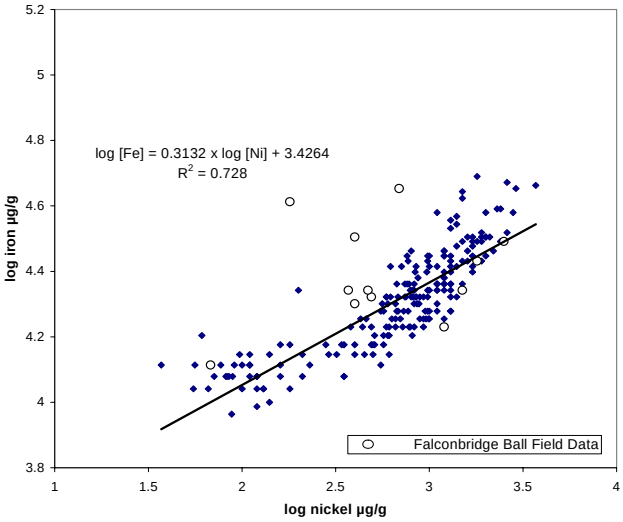


Fig. 10.4.5.25b: log Fe vs. log Ni, 0-5 cm, Falconbridge

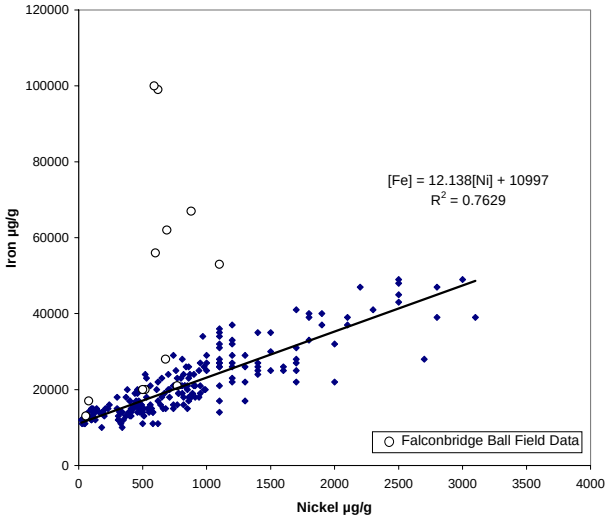


Fig. 10.4.5.26: Fe vs. Ni, 5-10cm, Falconbridge

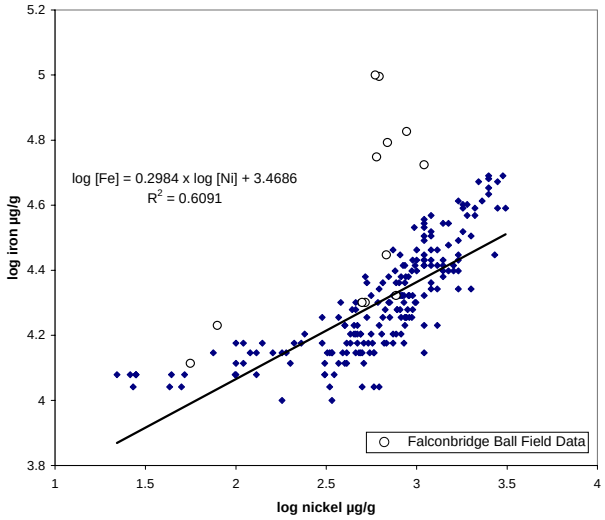


Fig. 10.4.5.26b: log Fe vs. log Ni, 5-10cm, Falconbridge

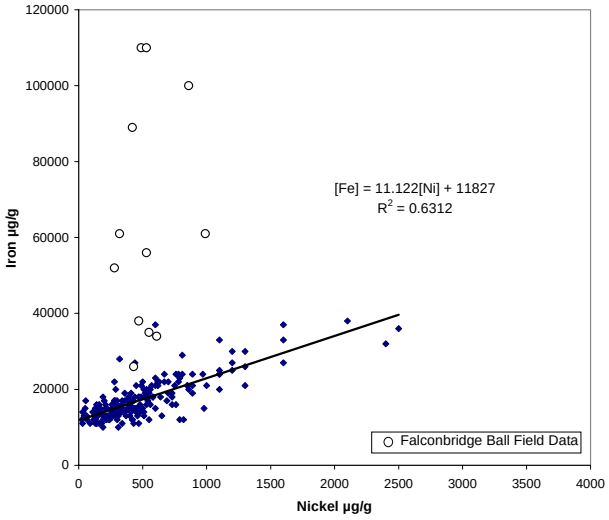


Fig. 10.4.5.27: Fe vs. Ni, 10-20cm, Falconbridge

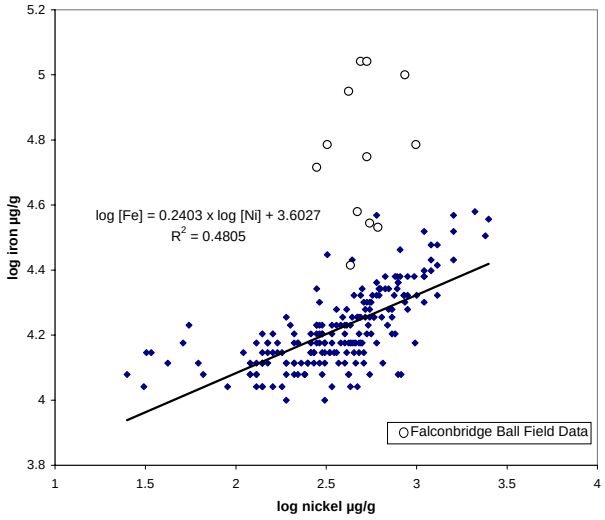


Fig. 10.4.5.27b: log Fe vs. log Ni, 10-20cm, Falconbridge

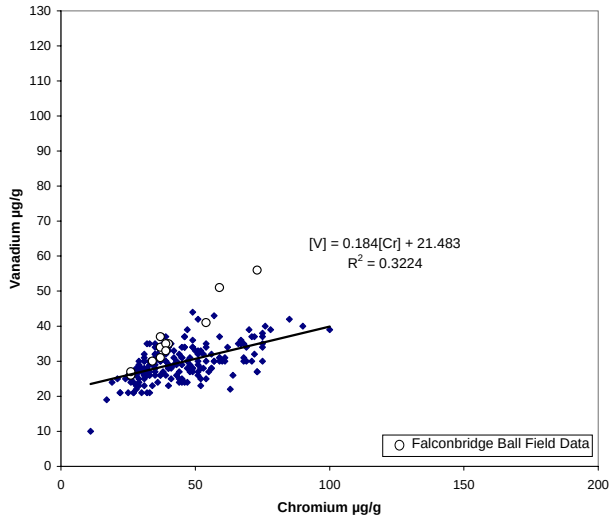


Fig. 10.4.5.28: V vs. Cr, 0-5cm, Falconbridge

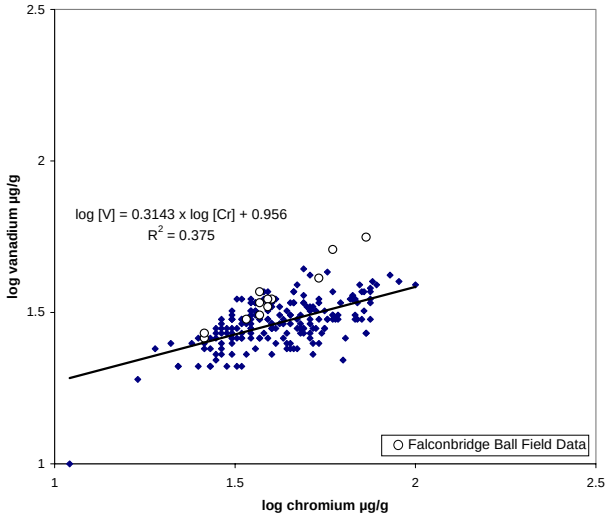


Fig. 10.4.5.28b: log V vs. log Cr, 0-5cm, Falconbridge

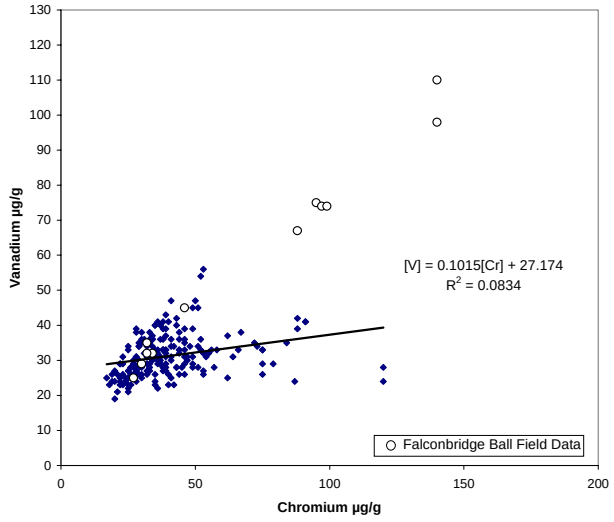


Fig. 10.4.5.29: V vs. Cr, 5-10cm, Falconbridge

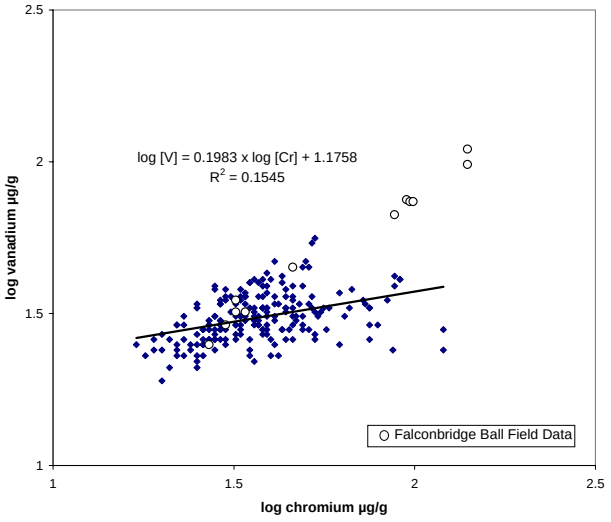


Fig. 10.4.5.29b: log V vs. log Cr, 5-10cm, Falconbridge

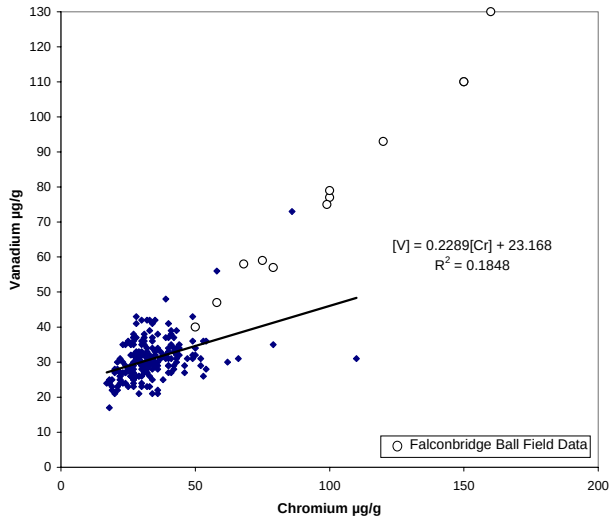


Fig. 10.4.5.30: V vs. Cr, 10-20cm, Falconbridge

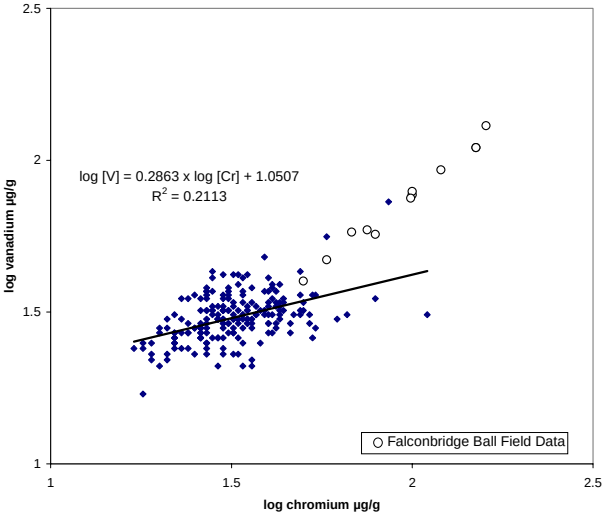


Fig. 10.4.5.30b: log V vs. log Cr, 10-20cm, Falconbridge

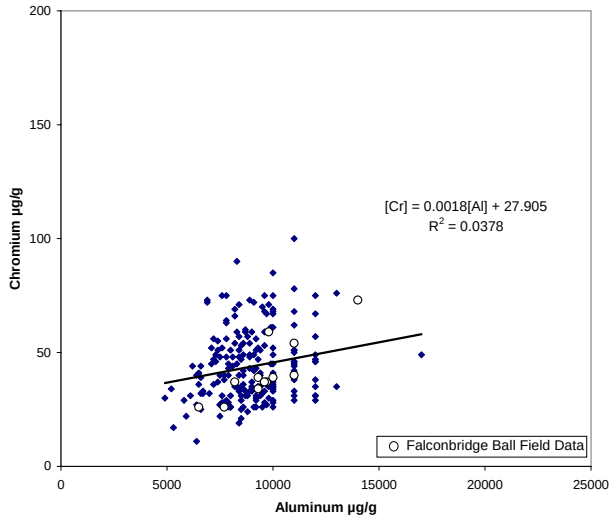


Fig. 10.4.5.31: Cr vs. Al, 0-5cm, Falconbridge

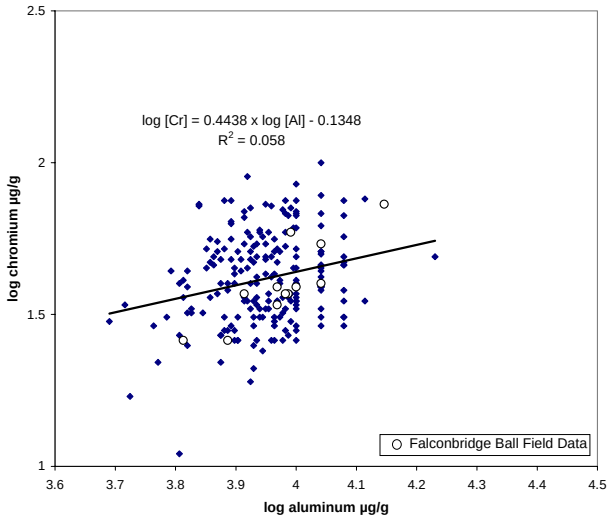


Fig. 10.4.5.31b:log Cr vs. log Al, 0-5cm, Falconbridge

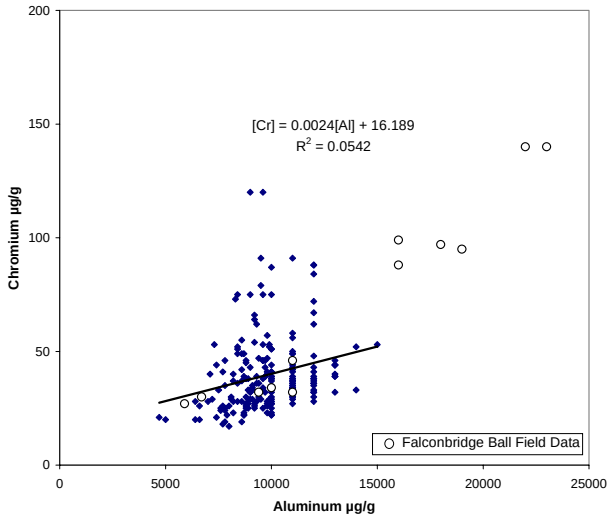


Fig. 10.4.5.32: Cr vs. Al, 5-10cm, Falconbridge

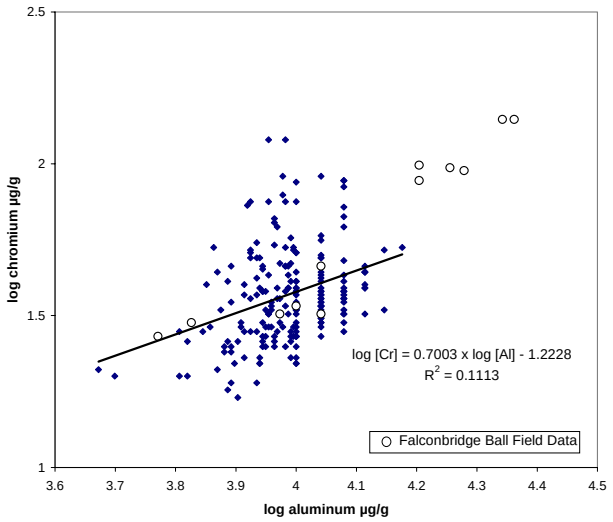


Fig. 10.4.5.32b: log Cr vs. log Al, 5-10cm, Falconbridge

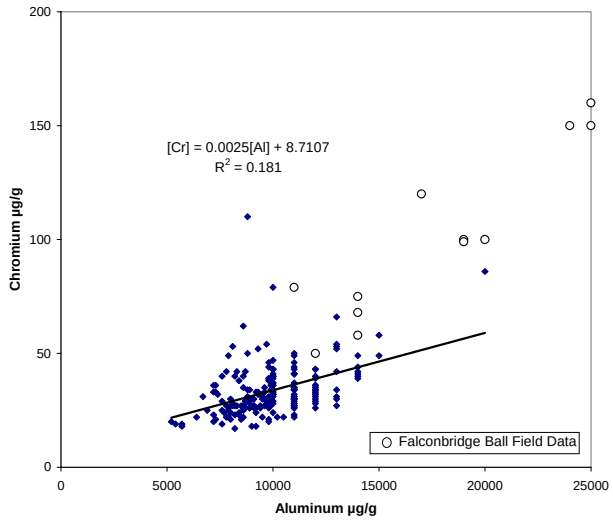


Fig. 10.4.5.33: Cr vs. Al, 10-20cm, Falconbridge

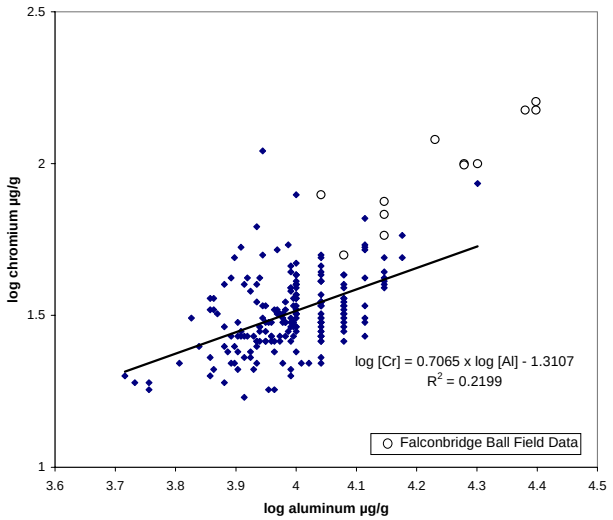


Fig. 10.4.5.33b: log Cr vs. log Al, 10-20cm, Falconbridge

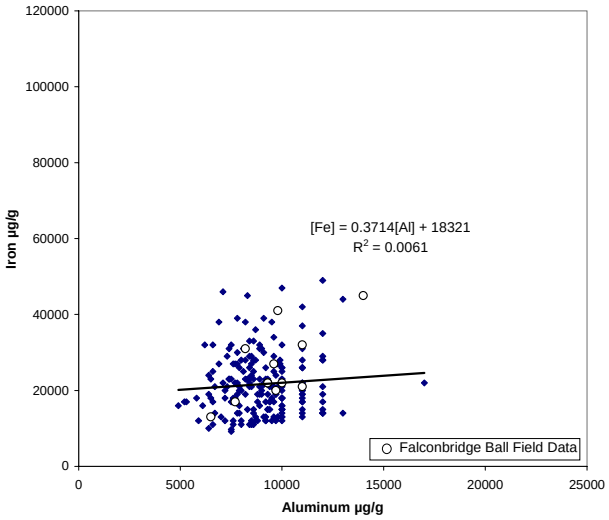


Fig. 10.4.5.34: Fe vs. Al, 0-5cm, Falconbridge

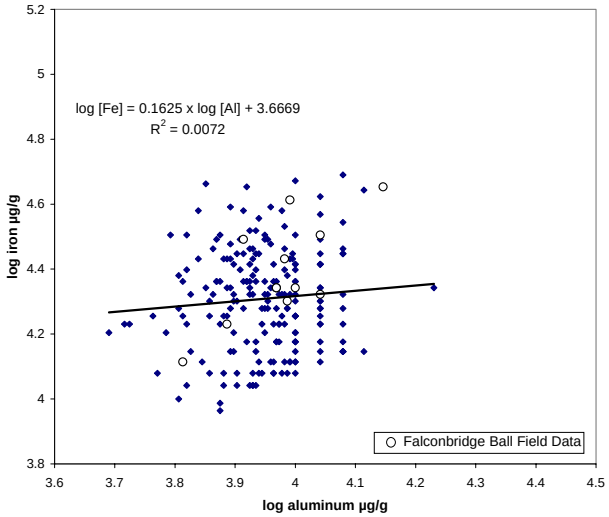


Fig. 10.4.5.34b: log Fe vs. log Al, 0-5cm, Falconbridge

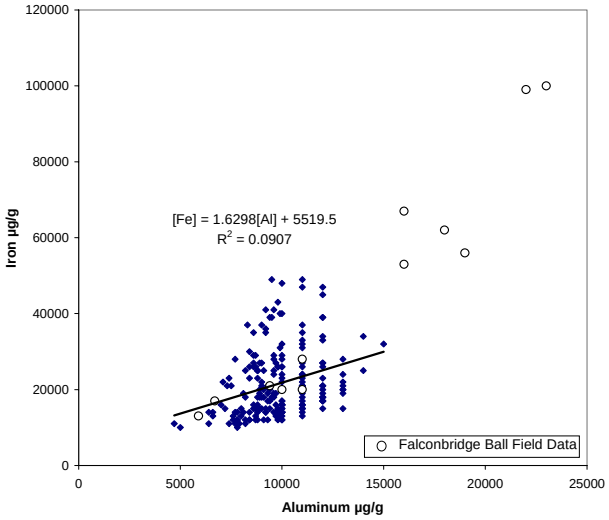


Fig. 10.4.5.35: Fe vs. Al, 5-10cm, Falconbridge

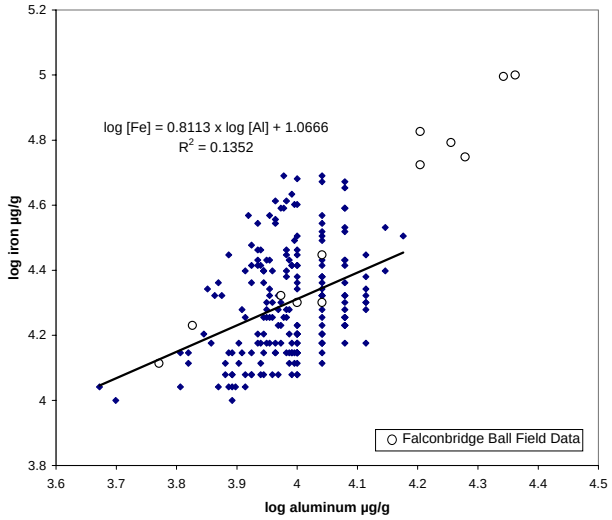


Fig. 10.4.5.35b: log Fe vs. log Al, 5-10cm, Falconbridge

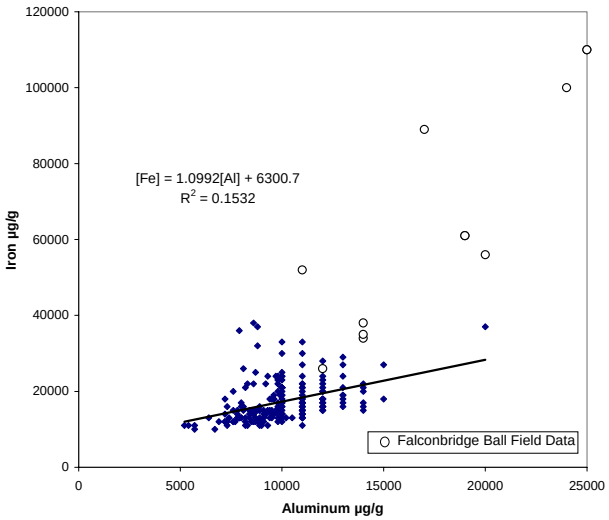


Fig. 10.4.5.36: Fe vs. Al, 10-20cm, Falconbridge

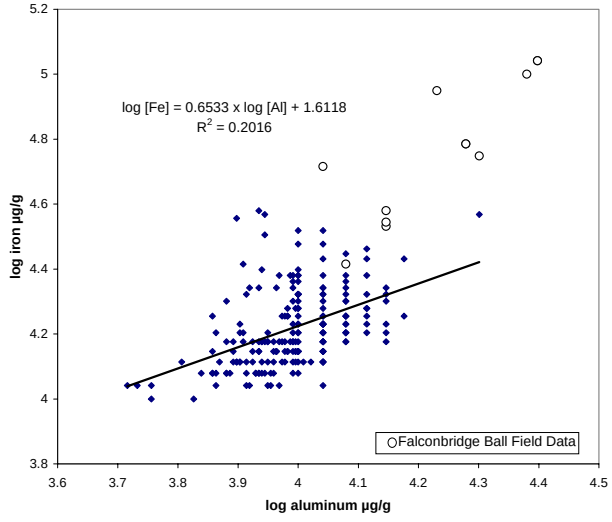


Fig. 10.4.5.36b: log Fe vs. log Al, 10-20cm, Falconbridge

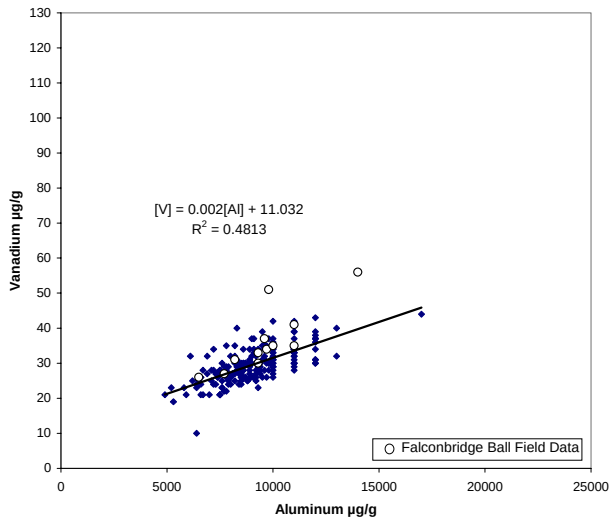


Fig. 10.4.5.37: V vs. Al, 0-5cm, Falconbridge

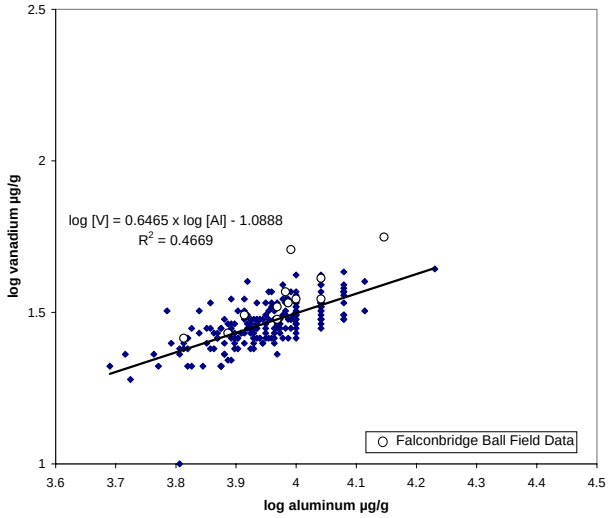


Fig. 10.4.5.37b: log V vs. log Al, 0-5cm, Falconbridge

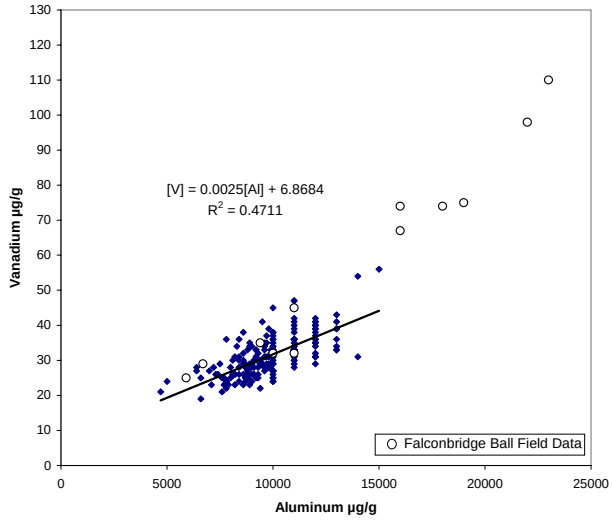


Fig. 10.4.5.38: V vs. Al, 5-10cm, Falconbridge

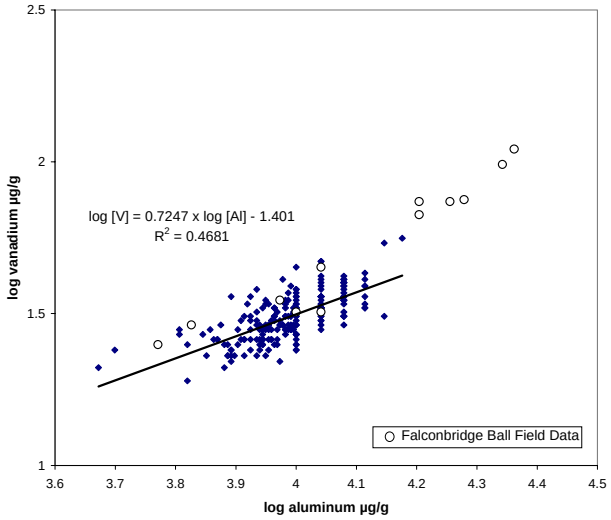


Fig. 10.4.5.38b: log V vs. log Al, 5-10cm, Falconbridge

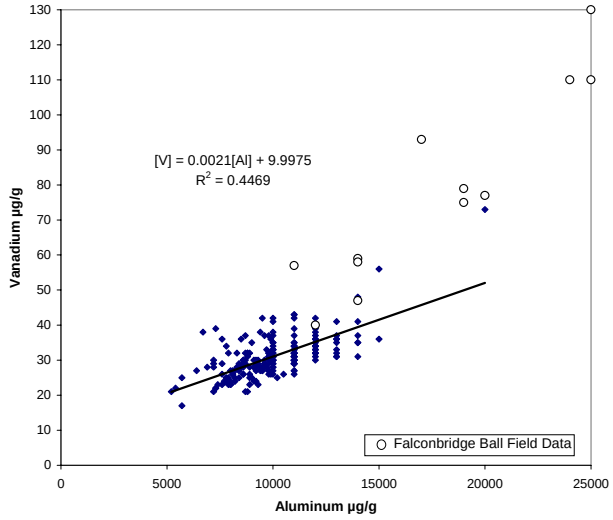


Fig. 10.4.5.39: V vs. Al, 10-20cm, Falconbridge

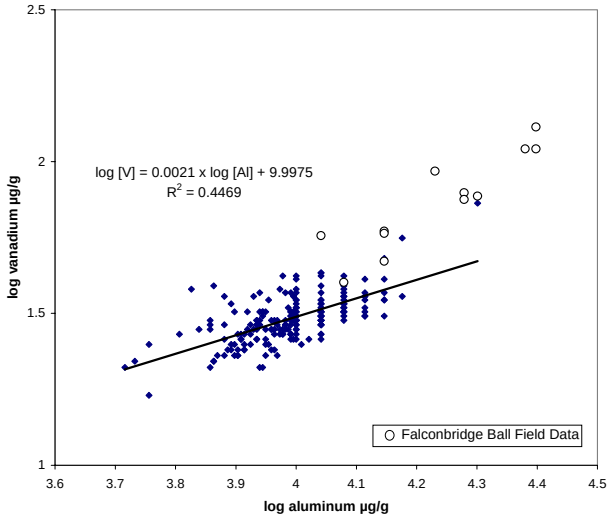


Fig. 10.4.5.39b: log V vs. log Al, 10-20cm, Falconbridge

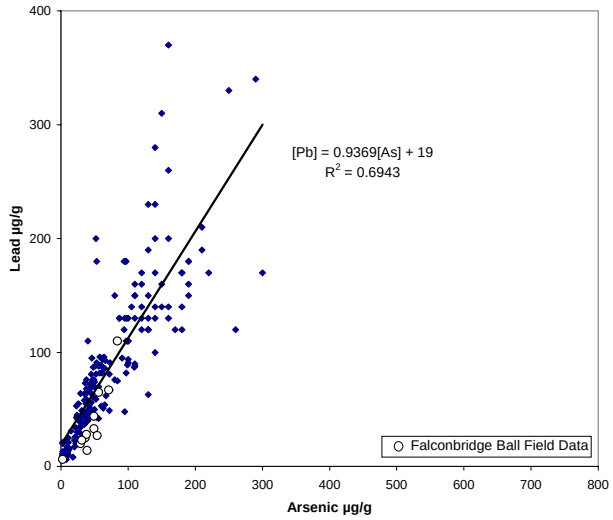


Fig. 10.4.5.40: Pb vs. As, 0-5cm, Falconbridge

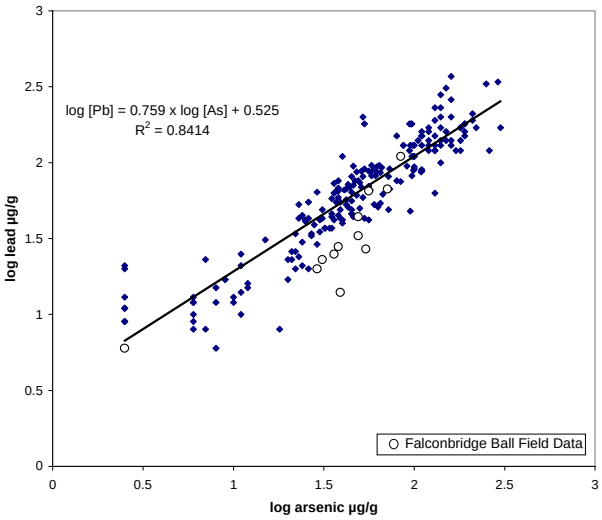


Fig. 10.4.5.40b: log Pb vs. log As, 0-5cm, Falconbridge

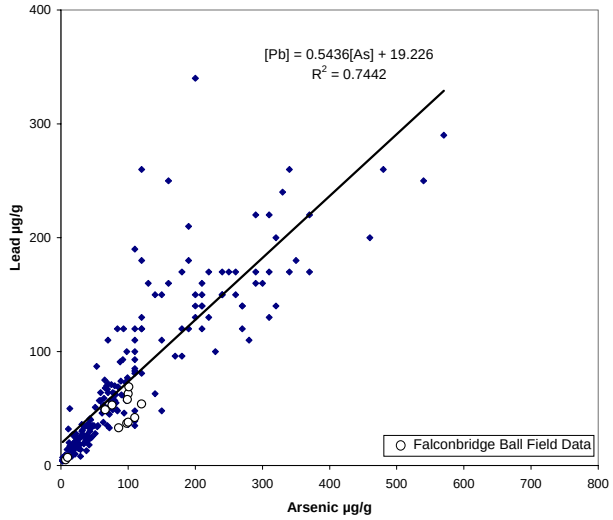


Fig. 10.4.5.41: Pb vs. As, 5-10cm, Falconbridge

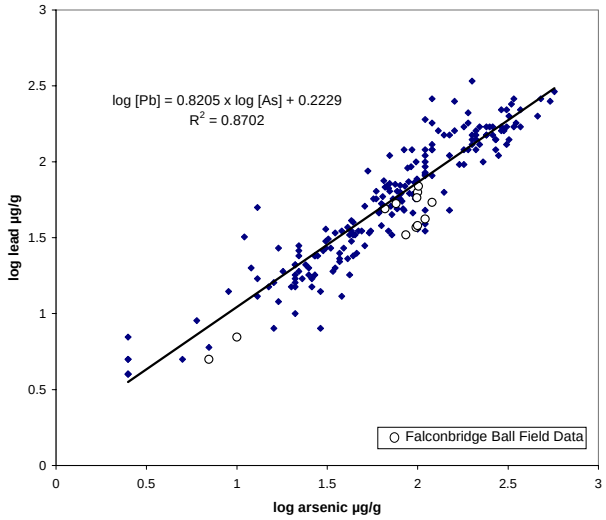


Fig. 10.4.5.41b: log Pb vs. log As, 5-10cm, Falconbridge

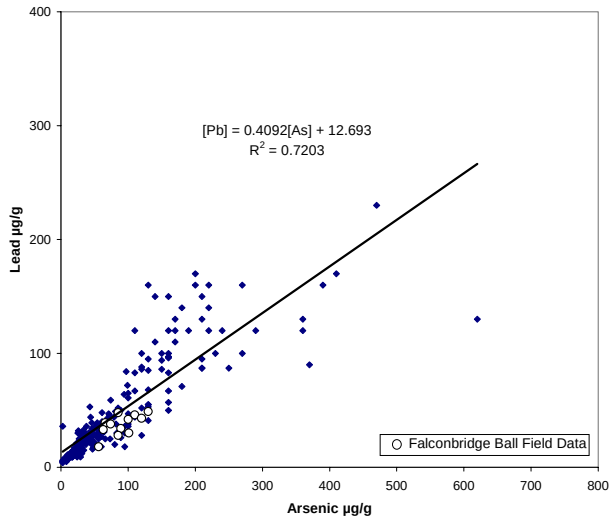


Fig. 10.4.5.42: Pb vs. As, 10-20cm, Falconbridge

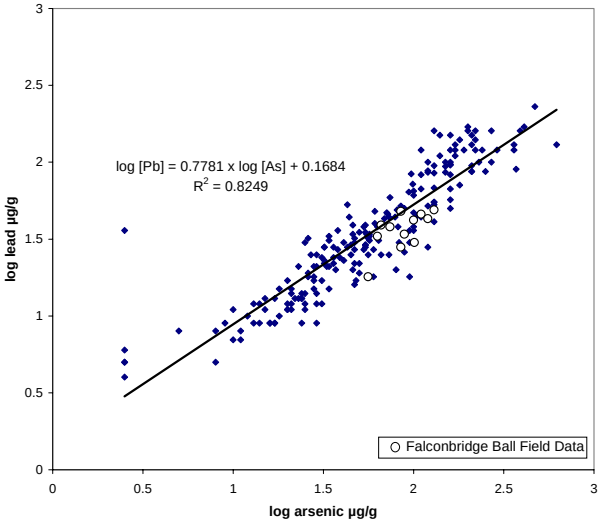


Fig. 10.4.5.42b: log Pb vs. log As, 10-20cm, Falconbridge

Table 10.4.5.1: Pearson's and Spearman's Correlations for 0 to 5 cm Urban Soil in Falconbridge

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	*0*	*-0.01*	*0.31*	*-0.22*	*0.14*	*0.17*	*-0.21*	*-0.20*	*0.03*	*-0.08*	*0.20*	*0.47*	*-0.09*	*-0.22*	*-0.05*	***0.76***	*0.69*	*-0.08*
Sb	-0.01	1	*0.28*	*0.22*	*0.22*	*0.08*	*0.20*	*0.22*	*0.25*	*0.25*	*0.34*	*0.14*	*0.02*	*0.12*	*0.23*	*0.25*	*0.03*	*0.10*	*0.25*
As	0.01	0.30	1	*0.66*	***0.75***	*0.34*	*0.70*	***0.81***	***0.86***	***0.90***	***0.92***	*0.26*	*0.07*	*0.45*	***0.80***	***0.76***	*0.00*	*0.34*	***0.82***
Ba	0.31	0.07	0.6	1	*0.66*	*0.69*	*0.70*	*0.66*	*0.67*	*0.73*	*0.71*	*0.49*	*0.49*	*0.35*	*0.67*	*0.61*	*0.45*	*0.58*	***0.78***
Cd	-0.19	0.15	0.67	0.67	1	*0.54*	*0.74*	***0.90***	***0.86***	***0.83***	***0.85***	*0.40*	*0.08*	*0.61*	***0.86***	*0.72*	*0.00*	*0.19*	***0.86***
Ca	0.07	-0.05	0.18	0.55	0.48	1	*0.50*	*0.59*	*0.53*	*0.49*	*0.41*	*0.68*	*0.49*	*0.25*	*0.62*	*0.44*	*0.45*	*0.35*	*0.56*
Cr	0.19	0.09	0.67	0.67	0.69	0.32	1	*0.73*	*0.66*	***0.79***	***0.75***	*0.52*	*0.20*	*0.69*	*0.64*	*0.65*	*0.32*	*0.54*	*0.72*
Co	-0.18	0.10	**0.75**	0.65	**0.87**	0.47	0.7	1	***0.96***	***0.92***	***0.87***	*0.43*	*0.14*	*0.57*	***0.97***	*0.74*	*0.03*	*0.24*	***0.85***
Cu	-0.17	0.16	**0.82**	0.67	**0.84**	0.43	0.64	**0.96**	1	***0.93***	***0.89***	*0.33*	*0.11*	*0.47*	***0.97***	*0.74*	*-0.02*	*0.22*	***0.85***
Fe	0.08	0.17	**0.87**	0.70	**0.77**	0.35	**0.75**	**0.90**	**0.92**	1	***0.91***	*0.45*	*0.22*	*0.53*	***0.89***	*0.74*	*0.14*	*0.45*	***0.84***
Pb	0.00	0.34	**0.83**	0.68	**0.75**	0.29	0.68	**0.77**	**0.80**	**0.82**	1	*0.33*	*0.10*	*0.54*	***0.84***	***0.77***	*0.02*	*0.28*	***0.88***
Mg	0.21	0.03	0.22	0.45	0.37	0.46	0.53	0.40	0.31	0.43	0.32	1	*0.43*	*0.36*	*0.36*	*0.28*	*0.44*	*0.44*	*0.38*
Mn	0.46	-0.13	-0.02	0.51	0.08	0.26	0.21	0.11	0.08	0.18	0.07	0.36	1	*0.05*	*0.13*	*0.07*	*0.56*	*0.65*	*0.16*
Mo	-0.06	0.01	0.43	0.35	0.60	0.13	0.74	0.58	0.46	0.54	0.53	0.41	0.02	1	*0.43*	*0.46*	*0.06*	*0.29*	*0.50*
Ni	-0.19	0.13	0.74	0.65	**0.83**	0.49	0.60	**0.97**	**0.97**	**0.87**	0.73	0.32	0.09	0.4	1	*0.73*	*0.00*	*0.18*	***0.84***
Se	-0.02	0.18	0.72	0.57	0.66	0.30	0.65	0.72	0.73	0.72	0.70	0.26	0.06	0.49	0.70	1	*0.05*	*0.28*	*0.69*
Sr	0.73	-0.08	0.01	0.49	0.06	0.46	0.33	0.07	0.04	0.16	0.07	0.39	0.57	0.05	0.06	0.10	1	*0.64*	*0.07*
V	0.69	-0.05	0.35	0.61	0.24	0.22	0.57	0.30	0.29	0.51	0.35	0.44	0.67	0.33	0.24	0.35	0.64	1	*0.31*
Zn	-0.05	0.30	**0.76**	0.74	**0.79**	0.42	0.63	**0.80**	**0.82**	**0.77**	**0.83**	0.32	0.13	0.39	**0.81**	0.66	0.13	0.34	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.5.2: Pearson's and Spearman's Correlations for 5 to 10 cm Urban Soil in Falconbridge

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	*0.15*	*0.16*	*0.49*	*0.13*	*0.33*	*0.31*	*0.14*	*0.13*	*0.34*	*0.16*	*0.47*	*0.54*	*0.11*	*0.13*	*0.06*	*0.74*	*0.69*	*0.20*
Sb	0.03	1	*0.34*	*0.29*	*0.28*	*0.13*	*0.26*	*0.25*	*0.30*	*0.33*	*0.41*	*0.24*	*0.04*	*0.09*	*0.23*	*0.22*	*0.09*	*0.17*	*0.33*
As	0.12	0.17	1	*0.71*	***0.78***	*0.27*	*0.73*	***0.85***	***0.90***	***0.89***	***0.93***	*0.22*	*0*	*0.32*	***0.84***	***0.79***	*0.06*	*0.33*	***0.82***
Ba	0.54	0.08	0.60	1	*0.71*	*0.61*	*0.74*	*0.73*	*0.74*	***0.78***	***0.74***	*0.55*	*0.42*	*0.33*	*0.74*	*0.63*	*0.46*	*0.56*	***0.78***
Cd	0.14	0.08	0.74	0.68	1	*0.50*	***0.80***	***0.90***	***0.88***	***0.82***	***0.84***	*0.37*	*0.1*	*0.39*	***0.90***	***0.76***	*0.15*	*0.32*	***0.84***
Ca	0.29	-0.04	0.11	0.51	0.46	1	*0.42*	*0.52*	*0.44*	*0.41*	*0.31*	*0.62*	*0.5*	*0.10*	*0.57*	*0.38*	*0.54*	*0.49*	*0.49*
Cr	0.23	0.05	0.68	0.63	**0.82**	0.32	1	***0.79***	***0.78***	***0.78***	***0.76***	*0.45*	*0.12*	*0.44*	***0.75***	*0.71*	*0.35*	*0.43*	***0.80***
Co	0.12	0.05	**0.77**	0.65	**0.86**	0.45	0.68	1	***0.97***	***0.91***	***0.87***	*0.38*	*0.16*	*0.39*	***0.98***	***0.79***	*0.17*	*0.40*	***0.86***
Cu	0.12	0.13	**0.86**	0.65	**0.85**	0.32	0.68	**0.95**	1	***0.93***	***0.93***	*0.35*	*0.1*	*0.38*	***0.95***	***0.81***	*0.12*	*0.38*	***0.86***
Fe	0.30	0.14	**0.87**	0.71	**0.81**	0.29	0.70	**0.91**	**0.95**	1	***0.90***	*0.48*	*0.23*	*0.39*	***0.87***	*0.73*	*0.26*	*0.52*	***0.83***
Pb	0.14	0.38	**0.86**	0.65	**0.75**	0.16	0.64	0.74	**0.83**	**0.84**	1	*0.30*	*0*	*0.38*	***0.84***	***0.78***	*0.08*	*0.31*	***0.85***
Mg	0.46	0.06	0.19	0.54	0.38	0.60	0.34	0.42	0.35	0.46	0.27	1	*0.50*	*0.35*	*0.36*	*0.25*	*0.55*	*0.55*	*0.37*
Mn	0.51	-0.06	-0.07	0.40	0.03	0.41	-0.02	0.08	0.02	0.13	-0.06	0.43	1	*0.11*	*0.17*	*0.03*	*0.50*	*0.72*	*0.17*
Mo	0.01	0.00	0.21	0.18	0.24	0.06	0.32	0.29	0.28	0.28	0.24	0.24	0	1	*0.33*	*0.32*	*0.13*	*0.25*	*0.38*
Ni	0.11	0.04	**0.79**	0.66	**0.87**	0.46	0.68	**0.98**	**0.94**	**0.87**	0.74	0.37	0.08	0.22	1	***0.80***	*0.17*	*0.40*	***0.86***
Se	0.06	0.07	**0.80**	0.59	0.74	0.28	0.65	**0.76**	**0.81**	**0.77**	0.74	0.25	0	0.21	**0.78**	1	*0.06*	*0.28*	***0.77***
Sr	0.74	-0.03	0.03	0.47	0.18	0.54	0.27	0.17	0.10	0.22	0.04	0.57	0.46	-0.01	0.15	0.06	1	*0.61*	*0.23*
V	0.69	0.03	0.31	0.55	0.28	0.37	0.29	0.35	0.36	0.50	0.26	0.49	0.67	0.11	0.35	0.27	0.57	1	*0.38*
Zn	0.23	0.08	**0.76**	0.73	**0.82**	0.40	0.72	**0.80**	**0.78**	**0.78**	**0.78**	0.34	0.09	0.21	**0.81**	0.72	0.25	0.32	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.5.3: Pearson's and Spearman's Correlations for 10 to 20 cm Urban Soil in Falconbridge

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	*0.02*	*0.17*	*0.52*	*0.09*	*0.36*	*0.44*	*0.21*	*0.20*	*0.49*	*0.18*	*0.26*	*0.43*	*0.03*	*0.23*	*0.10*	***0.79***	*0.61*	*0.28*
Sb	0.03	1	*0.20*	*0.09*	*0.19*	*0.02*	*0.21*	*0.20*	*0.23*	*0.17*	*0.26*	*-0.06*	*-0.03*	*0.02*	*0.20*	*0.17*	*-0.01*	*0.03*	*0.21*
As	0.03	0.21	1	*0.67*	*0.61*	*0.07*	*0.63*	***0.87***	***0.91***	***0.75***	***0.93***	*-0.15*	*-0.19*	*0.1*	***0.86***	*0.73*	*0.06*	*0.11*	***0.78***
Ba	0.56	0.09	0.58	1	*0.55*	*0.47*	*0.75*	*0.70*	*0.68*	*0.70*	*0.71*	*0.26*	*0.32*	*0.1*	*0.71*	*0.58*	*0.44*	*0.46*	***0.76***
Cd	0.08	0.12	0.62	0.45	1	*0.30*	*0.64*	*0.74*	*0.70*	*0.58*	*0.67*	*0.12*	*0.08*	*0.32*	*0.72*	*0.62*	*0.07*	*0.21*	*0.68*
Ca	0.37	-0.03	-0.02	0.40	0.33	1	*0.50*	*0.31*	*0.22*	*0.23*	*0.17*	*0.52*	*0.53*	*0.28*	*0.32*	*0.29*	*0.54*	*0.53*	*0.39*
Cr	0.43	0.15	0.49	0.59	0.65	0.37	1	***0.76***	*0.71*	*0.72*	*0.69*	*0.31*	*0.22*	*0.18*	***0.74***	*0.64*	*0.43*	*0.43*	***0.75***
Co	0.09	0.18	0.74	0.49	**0.84**	0.23	0.72	1	***0.96***	***0.78***	***0.93***	*0.03*	*-0.01*	*0.22*	***0.97***	***0.76***	*0.17*	*0.19*	***0.89***
Cu	0.10	0.22	**0.82**	0.51	**0.79**	0.13	0.68	**0.94**	1	***0.80***	***0.96***	*-0.02*	*-0.06*	*0.16*	***0.94***	***0.77***	*0.13*	*0.17*	***0.88***
Fe	0.39	0.19	0.70	0.61	0.69	0.22	**0.78**	**0.85**	**0.85**	1	***0.78***	*0.25*	*0.19*	*0.16*	*0.72*	*0.59*	*0.37*	*0.45*	*0.74*
Pb	0.08	0.31	**0.85**	0.61	0.69	0.05	0.57	**0.81**	**0.90**	**0.77**	1	*-0.04*	*-0.06*	*0.14*	***0.90***	*0.73*	*0.11*	*0.12*	***0.88***
Mg	0.45	0.01	-0.06	0.37	0.20	0.47	0.49	0.12	0.06	0.38	0.03	1	*0.52*	*0.28*	*-0.03*	*0.07*	*0.39*	*0.42*	*0.11*
Mn	0.48	-0.02	-0.18	0.42	0.04	0.55	0.19	-0.06	-0.09	0.18	-0.05	0.54	1	*0.1*	*-0.03*	*-0.07*	*0.56*	*0.67*	*0.16*
Mo	-0.03	-0.04	0.07	0.04	0.45	0.26	0.48	0.39	0.30	0.34	0.19	0.26	0.01	1	*0.17*	*0.15*	*0.02*	*0.09*	*0.19*
Ni	0.10	0.18	**0.77**	0.52	**0.81**	0.23	0.69	**0.98**	**0.93**	**0.79**	**0.81**	0.06	-0.08	0.29	1	***0.75***	*0.18*	*0.18*	***0.87***
Se	0.06	0.23	**0.85**	0.56	0.65	0.17	0.55	**0.77**	**0.80**	0.68	**0.76**	0.06	-0.07	0.15	0.78	1	*0.06*	*0.13*	*0.71*
Sr	**0.75**	-0.08	-0.06	0.45	0.04	0.57	0.32	0.06	0.02	0.24	0.01	0.38	0.53	0.02	0.06	0.01	1	*0.59*	*0.24*
V	0.67	0.03	0.04	0.45	0.17	0.37	0.43	0.13	0.12	0.44	0.08	0.59	0.69	0.05	0.12	0.08	0.53	1	*0.25*
Zn	0.26	0.19	0.64	0.69	0.67	0.25	0.63	0.74	**0.75**	0.68	**0.81**	0.17	0.16	0.22	0.74	0.65	0.19	0.20	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

10.4.6 Copper Cliff

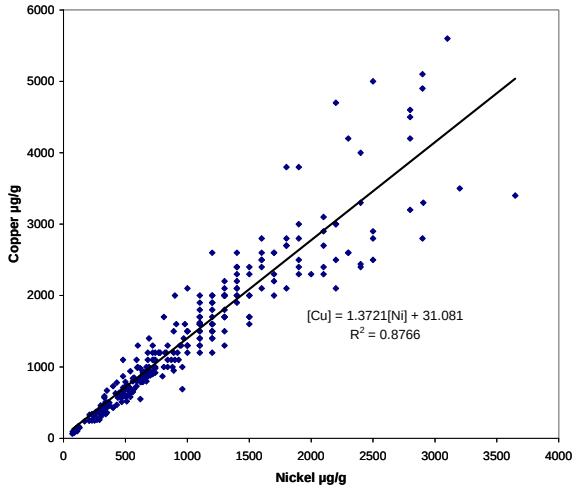


Fig. 10.4.6.1: Cu vs. Ni, 0-5cm, Copper Cliff

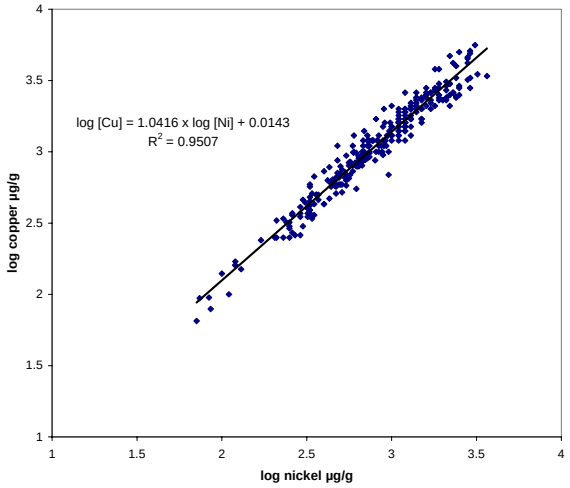


Fig. 10.4.6.1b: log Cu vs. log Ni, 0-5cm, Copper Cliff

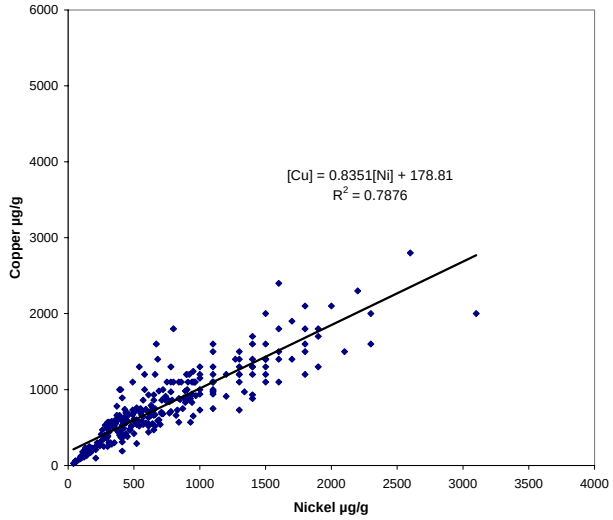


Fig. 10.4.6.2: Cu vs. Ni, 5-10cm, Copper Cliff

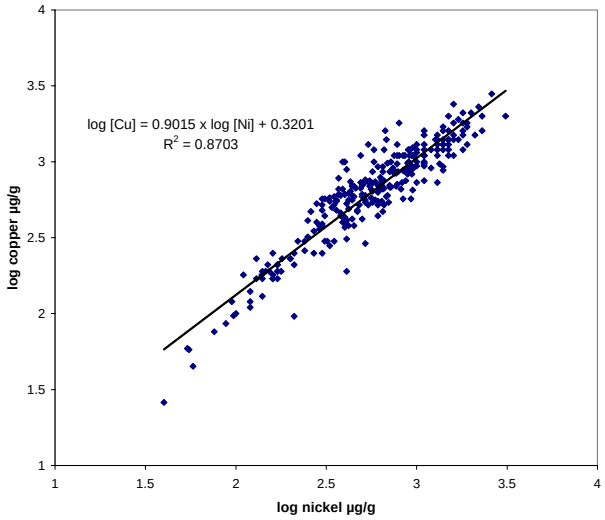


Fig. 10.4.6.2b: log Cu vs. log Ni, 5-10cm, Copper Cliff

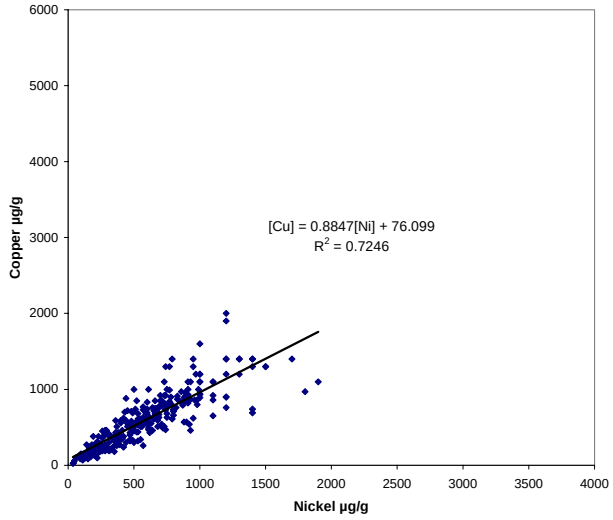


Fig. 10.4.6.3: Cu vs. Ni, 10-20cm, Copper Cliff

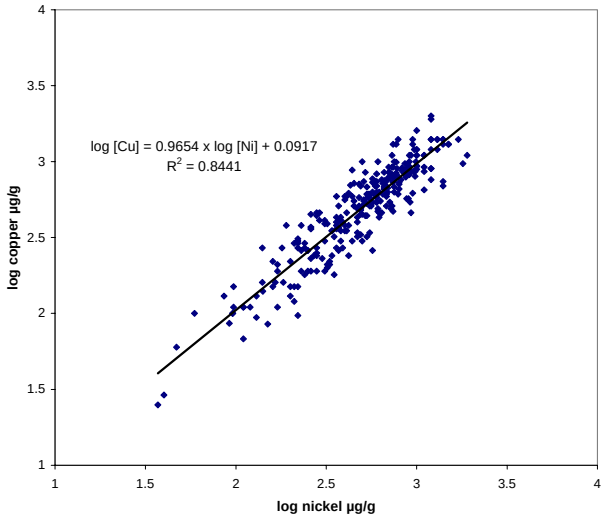


Fig. 10.4.6.3b: log Cu vs. log Ni, 10-20cm, Copper Cliff

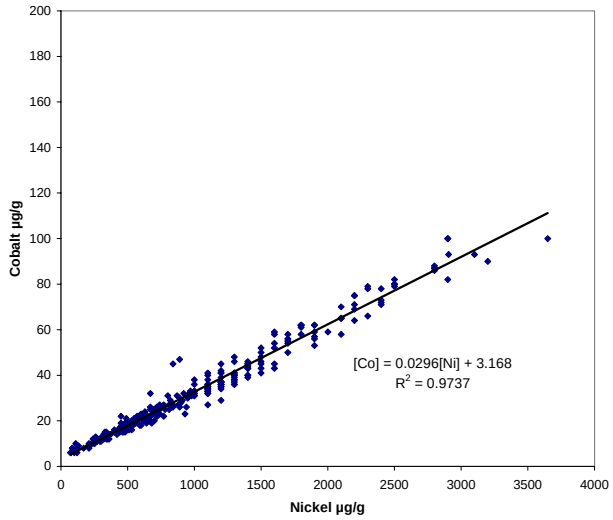


Fig. 10.4.6.4: Co vs. Ni, 0-5cm, Copper Cliff

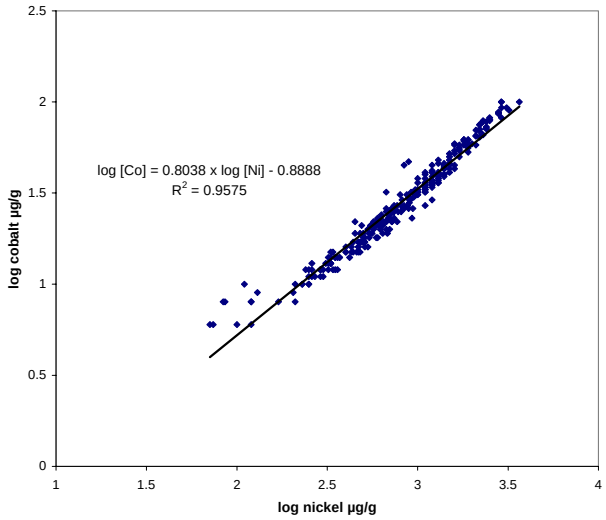


Fig. 10.4.6.4b: log Co vs. log Ni, 0-5cm, Copper Cliff

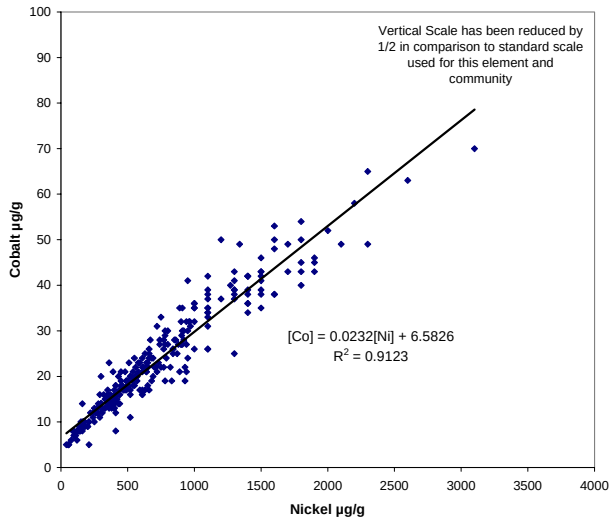


Fig. 10.4.6.5: Co vs. Ni, 5-10cm, Copper Cliff

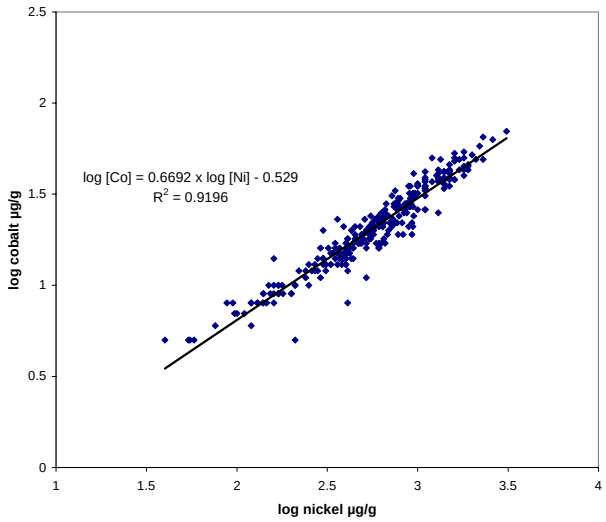


Fig. 10.4.6.5b: log Co vs. log Ni, 5-10cm, Copper Cliff

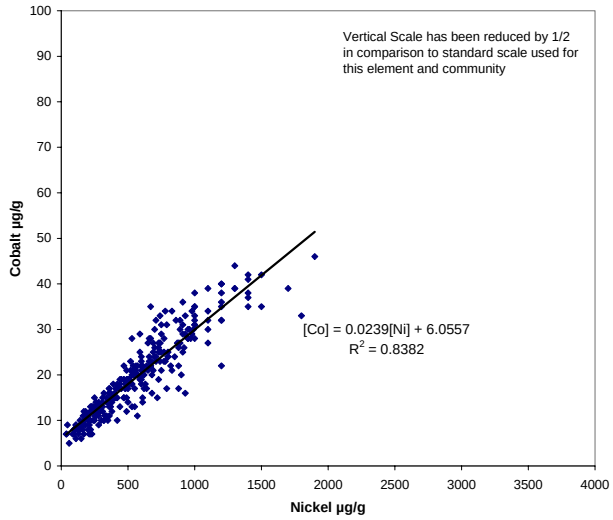


Fig. 10.4.6.6: Co vs. Ni, 10-20 cm, Copper Cliff

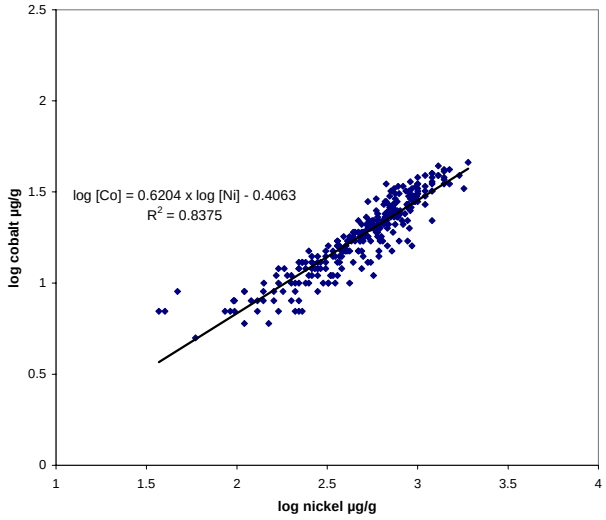


Fig. 10.4.6.6b: log Co vs. log Ni, 10-20cm, Copper Cliff

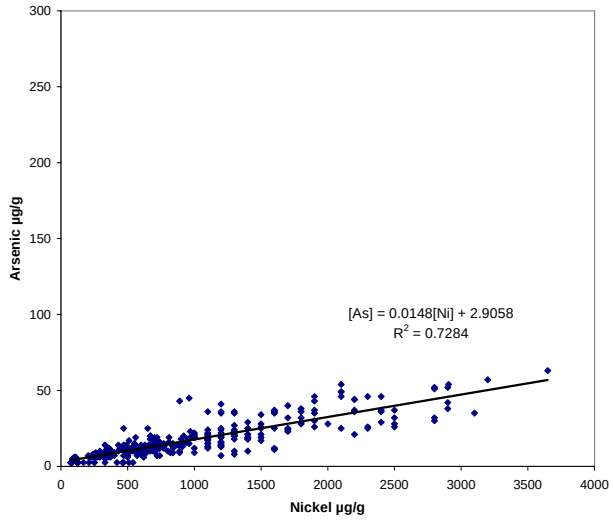


Fig. 10.4.6.7: As vs. Ni, 0-5cm, Copper Cliff

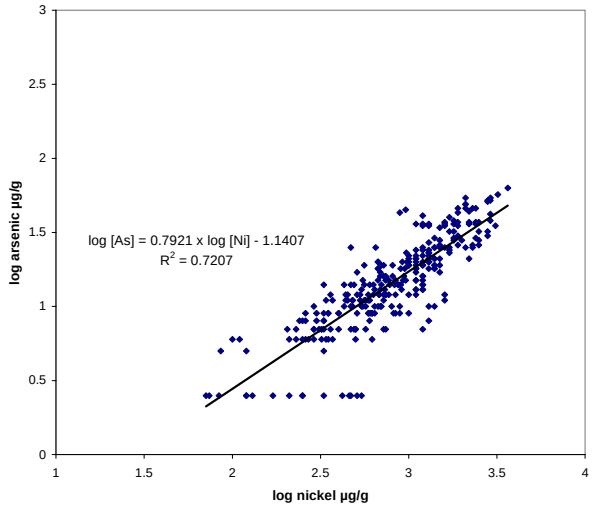


Fig. 10.4.6.7b: log As vs. log Ni, 0-5cm, Copper Cliff

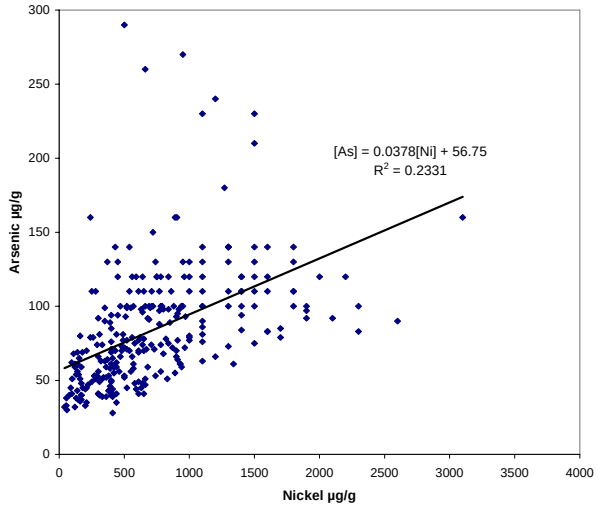


Fig. 10.4.6.8: As vs. Ni, 5-10cm, Copper Cliff

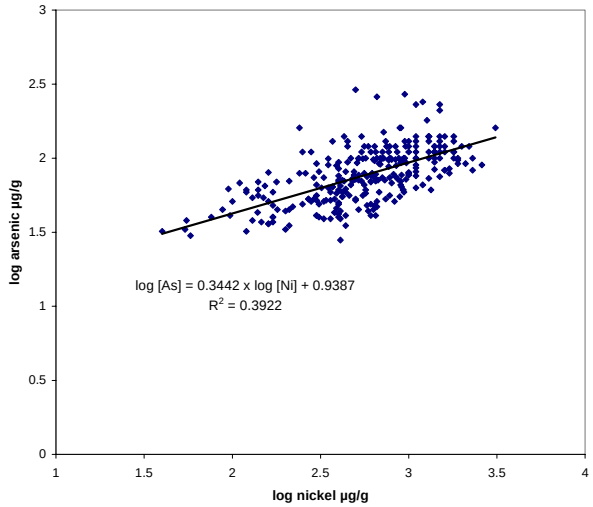


Fig. 10.4.6.8b: log As vs. log Ni, 5-10cm, Copper Cliff

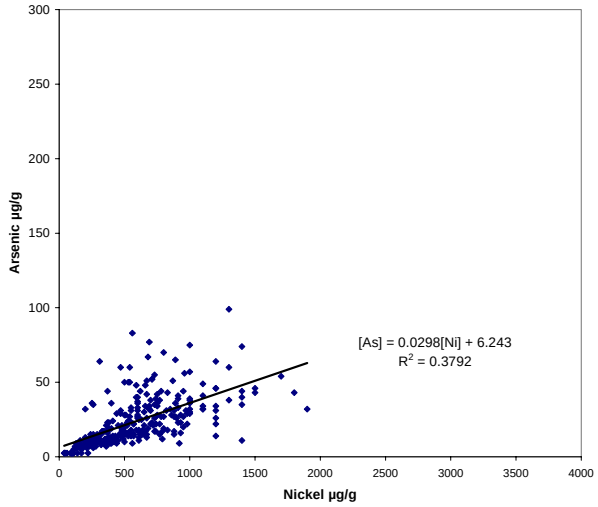


Fig. 10.4.6.9: As vs. Ni, 10-20cm, Copper Cliff

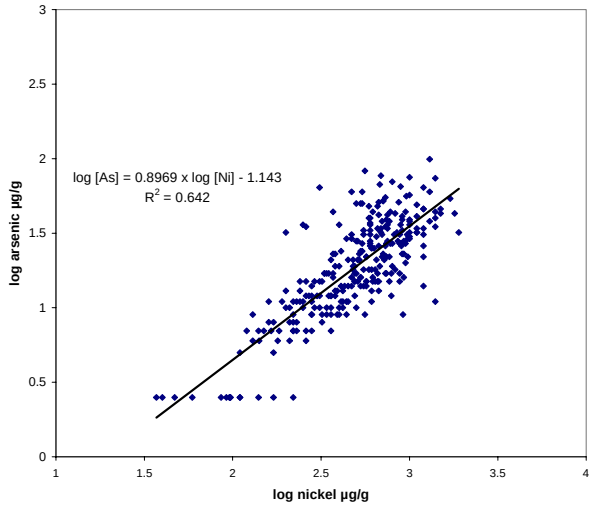


Fig. 10.4.6.9b: log As vs. log Ni, 10-20cm, Copper Cliff

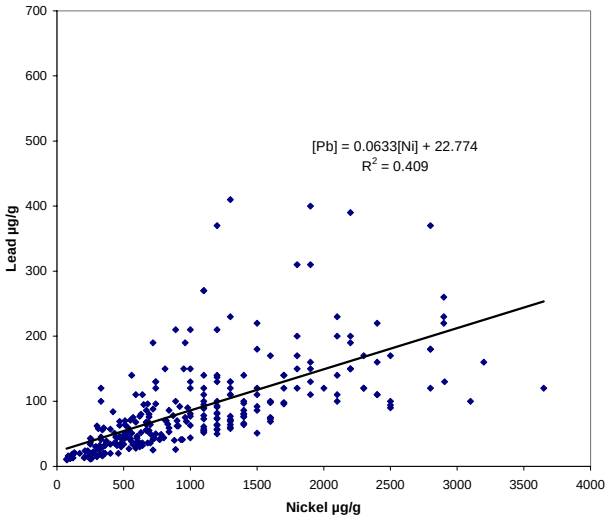


Fig. 10.4.6.10: Pb vs. Ni, 0-5cm, Copper Cliff

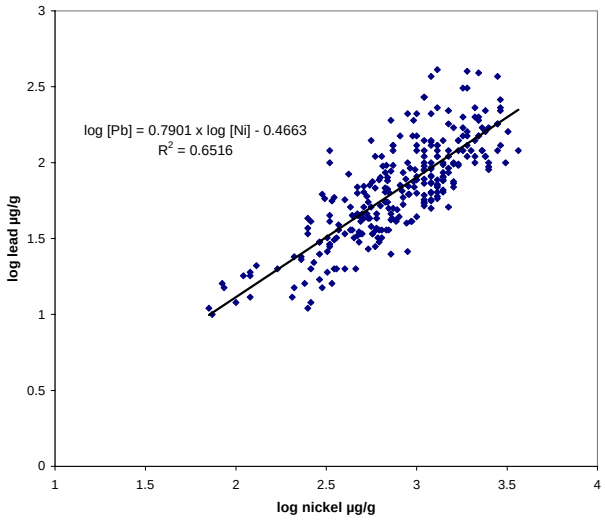


Fig. 10.4.6.10b: log Pb vs. log Ni, 0-5cm, Copper Cliff

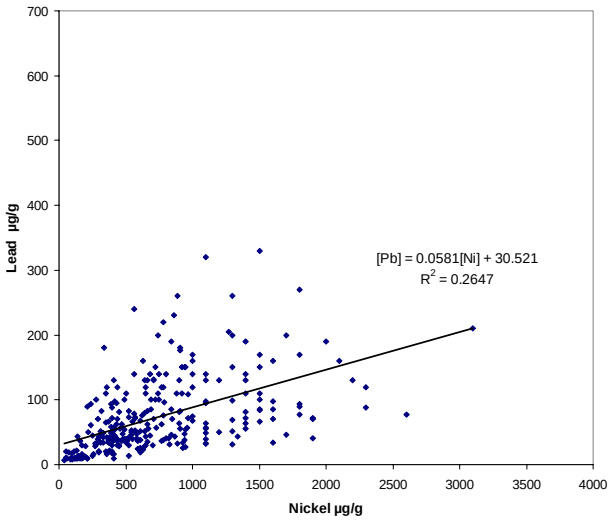


Fig. 10.4.6.11: Pb vs. Ni, 5-10cm, Copper Cliff

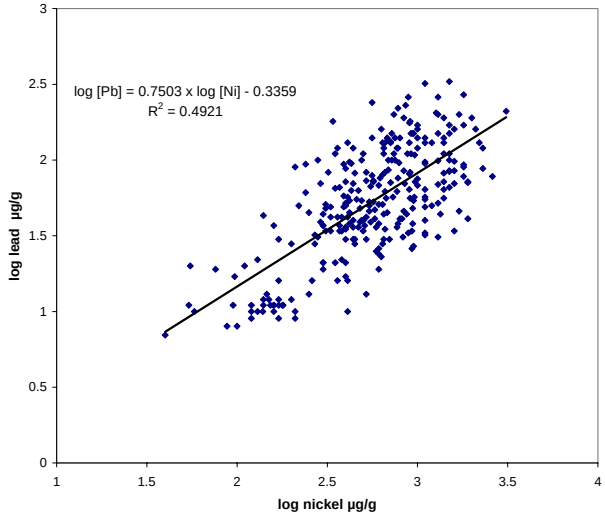


Fig. 10.4.6.11b: log Pb vs. log Ni, 5-10cm, Copper Cliff

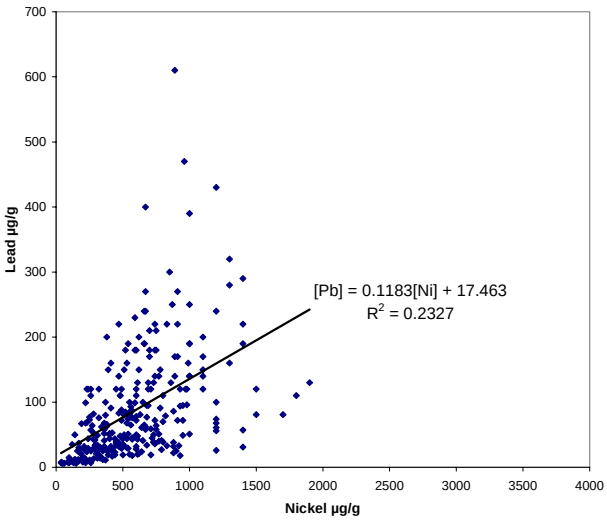


Fig. 10.4.6.12: Pb vs. Ni, 10-20cm, Copper Cliff

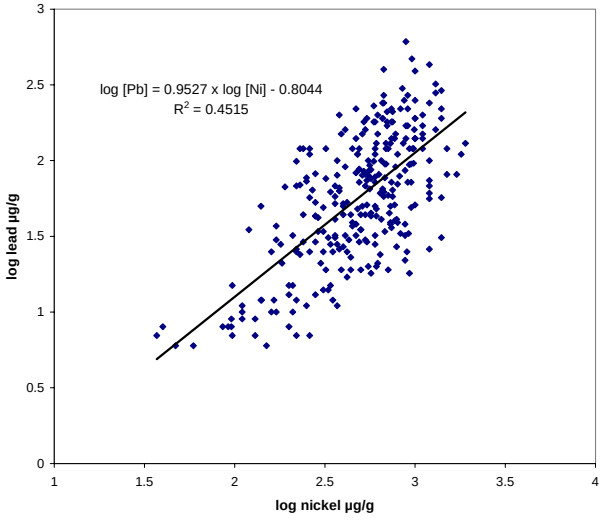


Fig. 10.4.6.12b: log Pb vs. log Ni, 10-20cm, Copper Cliff

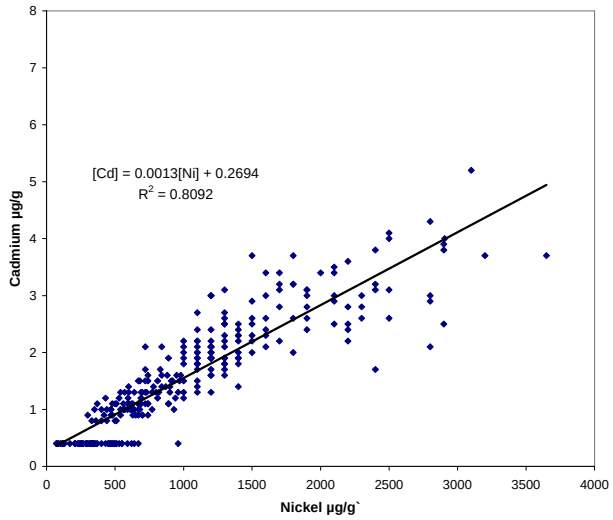


Fig. 10.4.6.13: Cd vs. Ni, 0-5cm, Copper Cliff

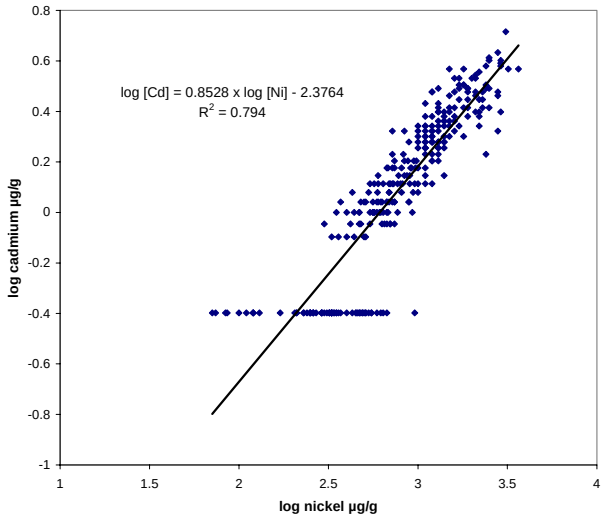


Fig. 10.4.6.13b: log Cd vs. log Ni, 0-5cm, Copper Cliff

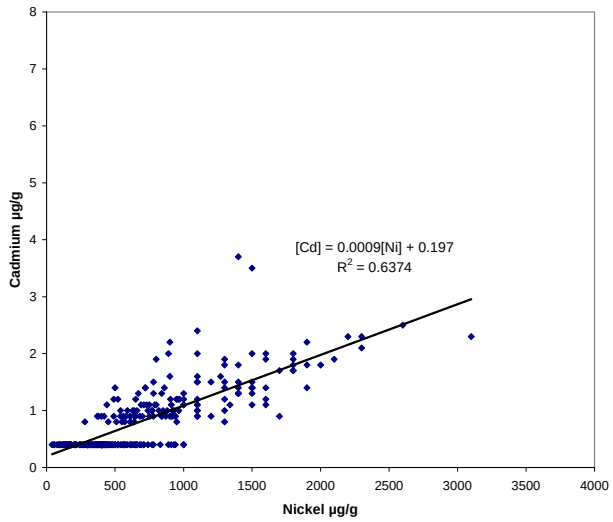


Fig. 10.4.6.14: Cd vs. Ni, 5-10cm, Copper Cliff

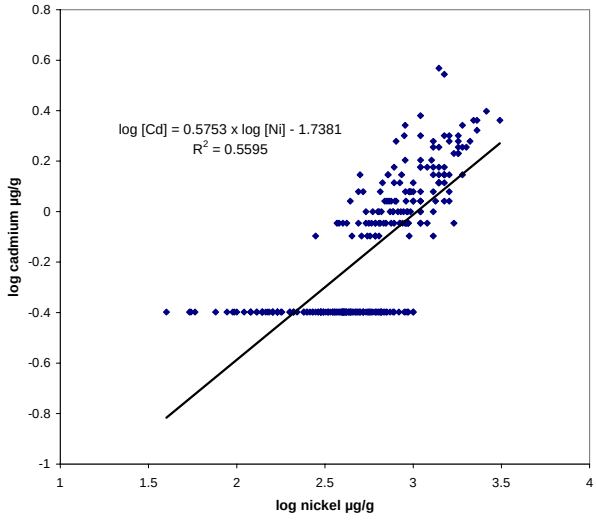


Fig. 10.4.6.14b: log Cd vs. log Ni, 5-10cm, Copper Cliff

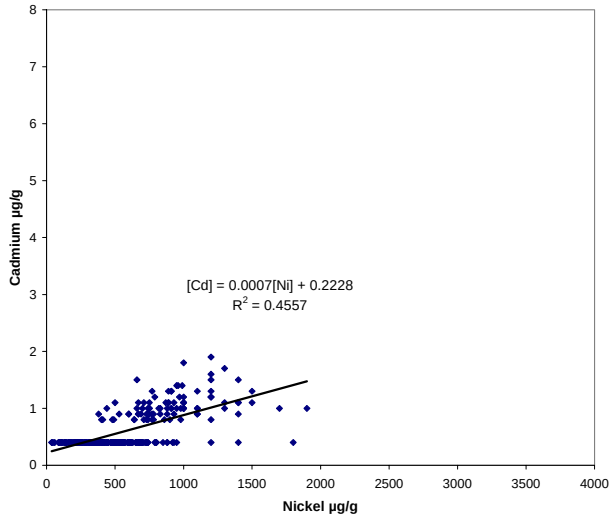


Fig. 10.4.6.15: Cd vs. Ni, 10-20cm, Copper Cliff

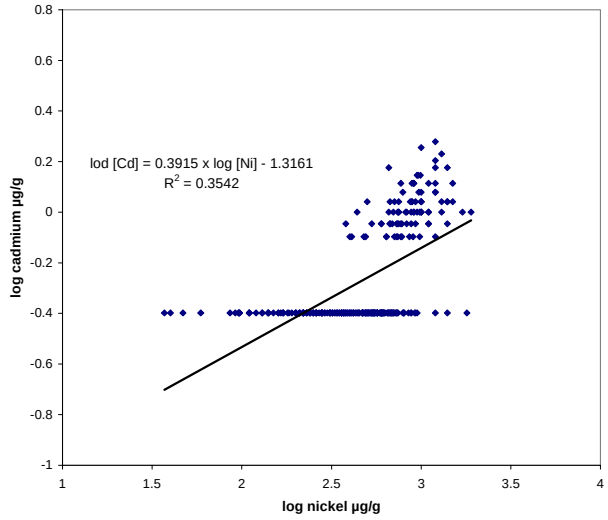


Fig. 10.4.6.15b: log Cd vs log Ni, 10-20cm, Copper Cliff

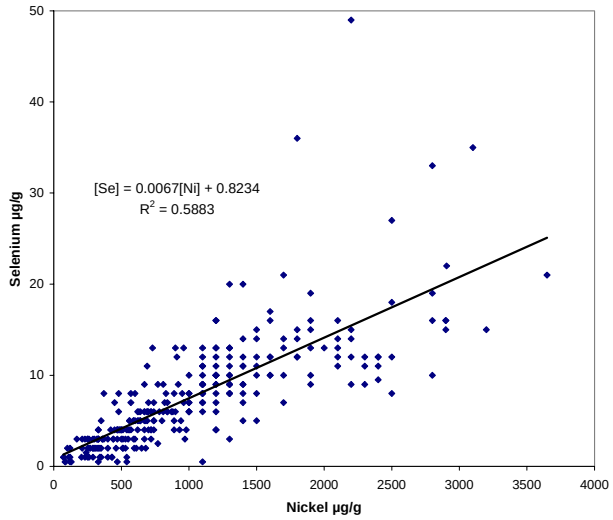


Fig. 10.4.6.16: Se vs. Ni, 0-5cm, Copper Cliff

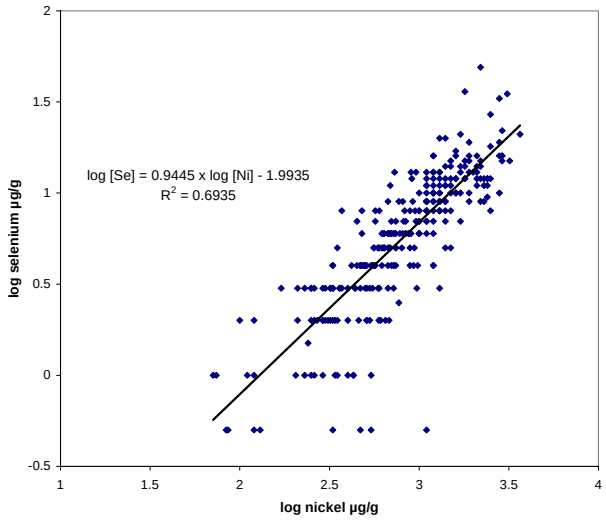


Fig. 10.4.6.16b: log Se vs. log Ni, 0-5cm, Copper Cliff

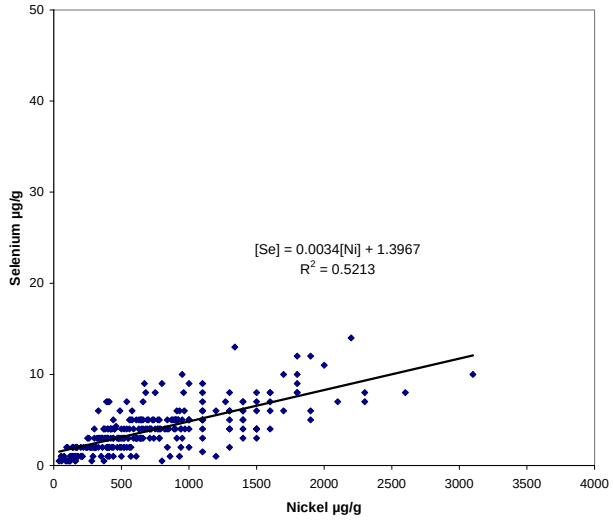


Fig. 10.4.6.17: Se vs. Ni, 5-10cm, Copper Cliff

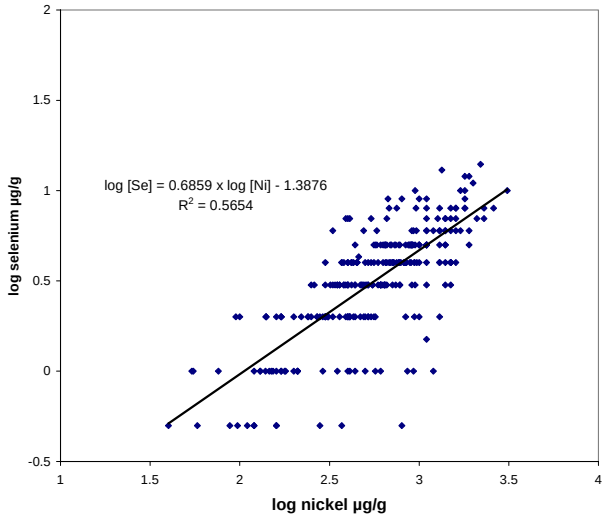


Fig. 10.4.6.17b: log Se vs. log Ni, 5-10cm, Copper Cliff

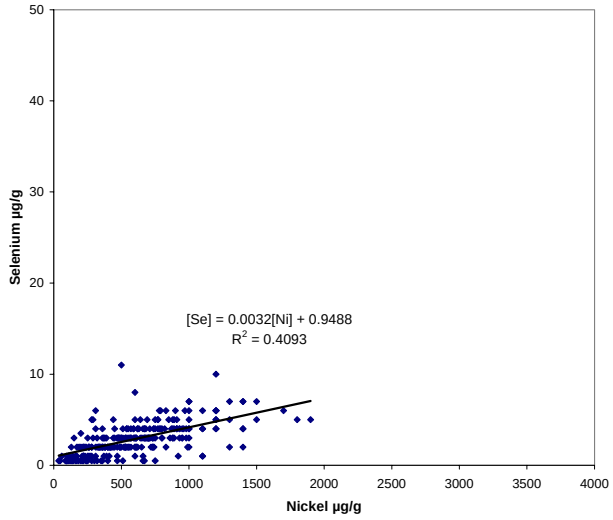


Fig. 10.4.6.18: Se vs. Ni, 10-20cm, Copper Cliff

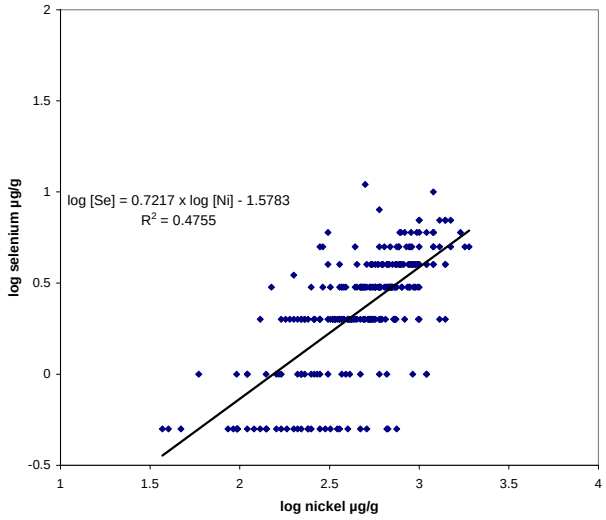


Fig. 10.4.6.18b: log Se vs. log Ni, 10-20cm, Copper Cliff

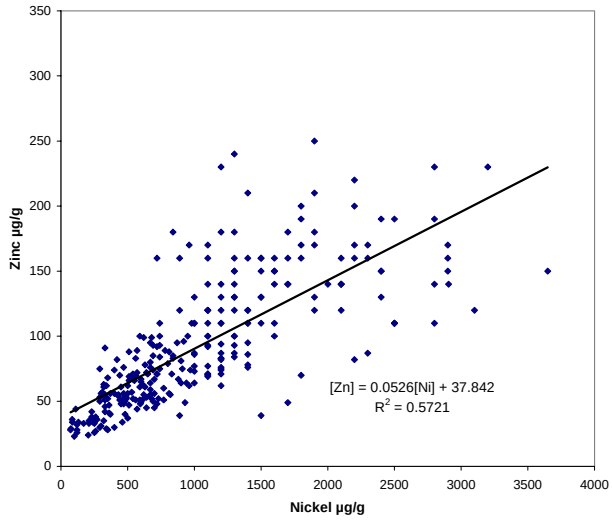


Fig. 10.4.6.19: Zn vs. Ni, 0-5cm, Copper Cliff

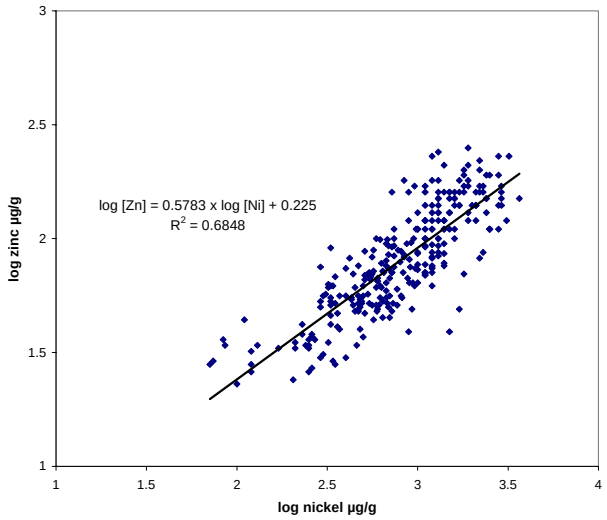


Fig. 10.4.6.19b: log Zn vs. log Ni, 0-5cm, Copper Cliff

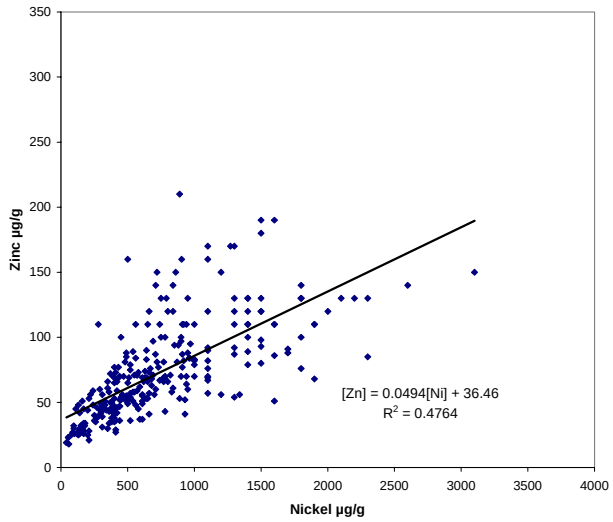


Fig. 10.4.6.20: Zn vs. Ni, 5-10cm, Copper Cliff

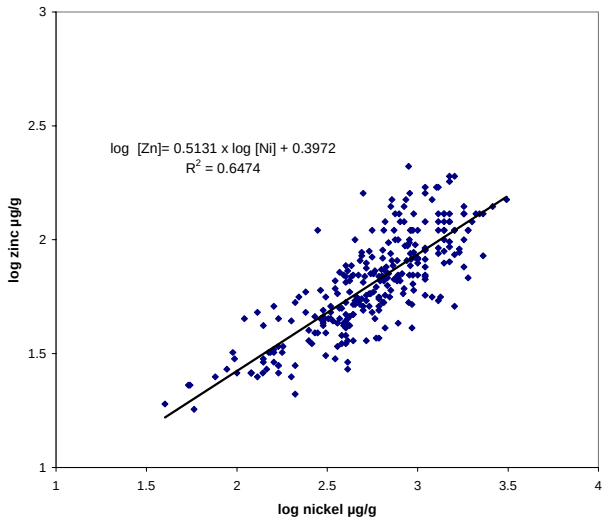


Fig. 10.4.6.20b: log Zn vs. log Ni, 5-10cm, Copper Cliff

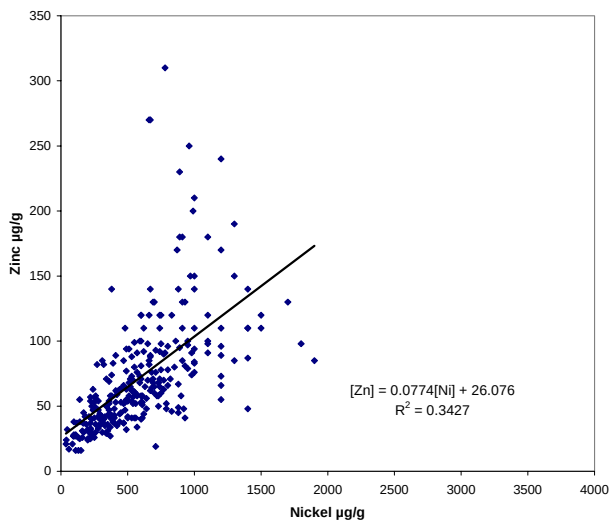


Fig. 10.4.6.21: Zn vs. Ni, 10-20cm, Copper Cliff

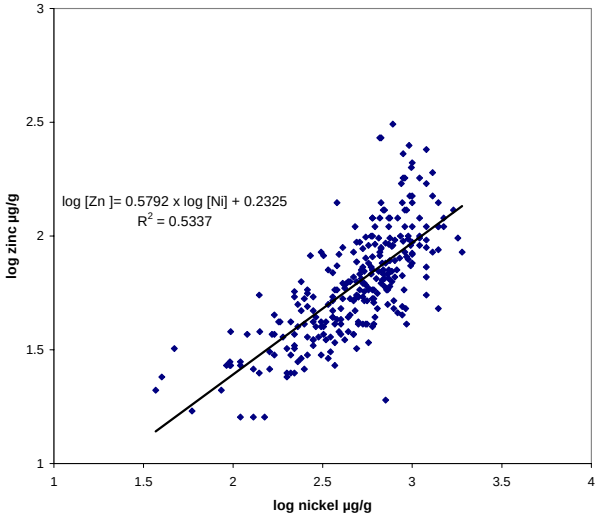


Fig. 10.4.6.21b: log Zn vs. log Ni, 10-20cm, Copper Cliff

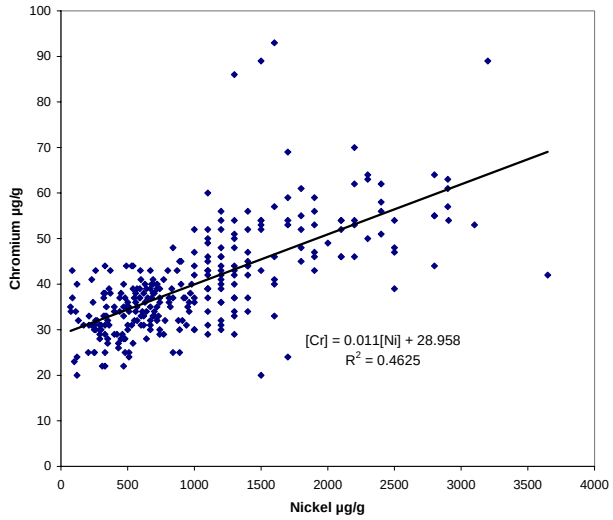


Fig. 10.4.6.22: Cr vs. Ni, 0-5cm, Copper Cliff

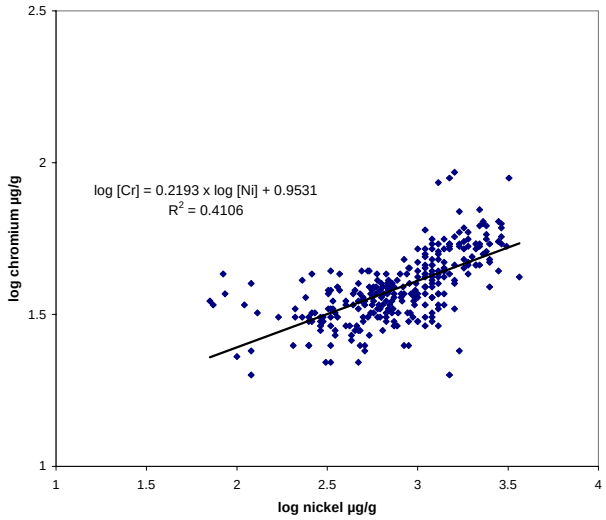


Fig. 10.4.6.22b: log Cr vs. log Ni, 0-5cm, Copper Cliff

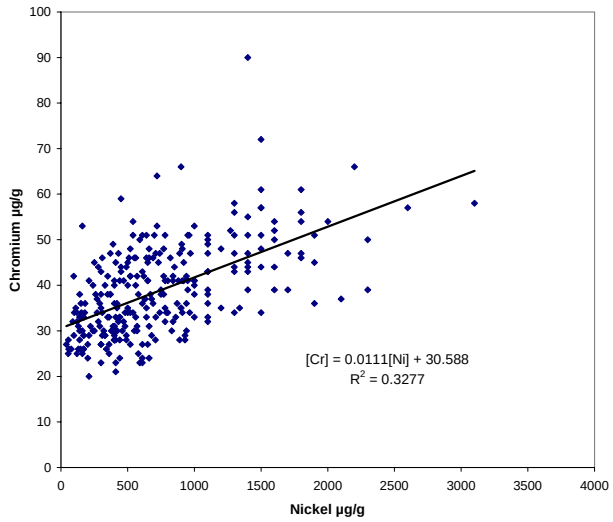


Fig. 10.4.6.23: Cr vs. Ni, 5-10cm, Copper Cliff

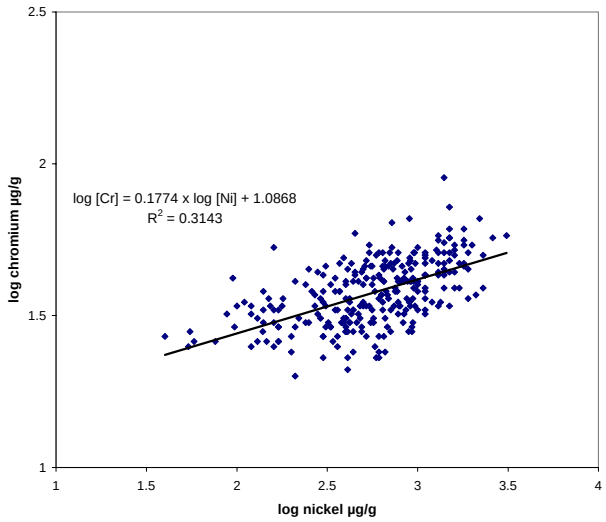


Fig. 10.4.6.23b: log Cr vs. log Ni, 5-10cm, Copper Cliff

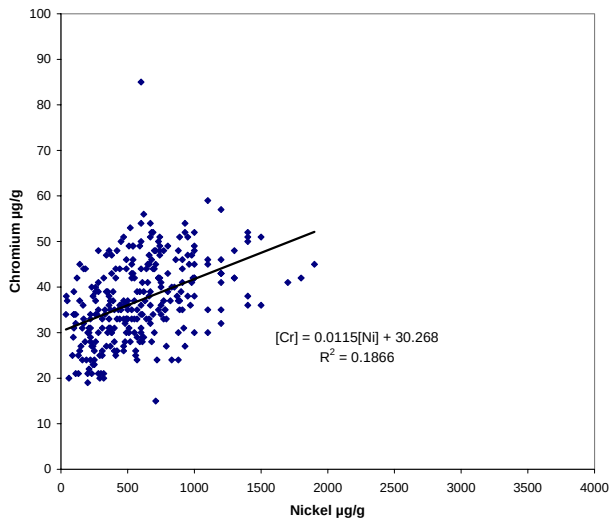


Fig. 10.4.6.24: Cr vs. Ni, 10-20cm, Copper Cliff

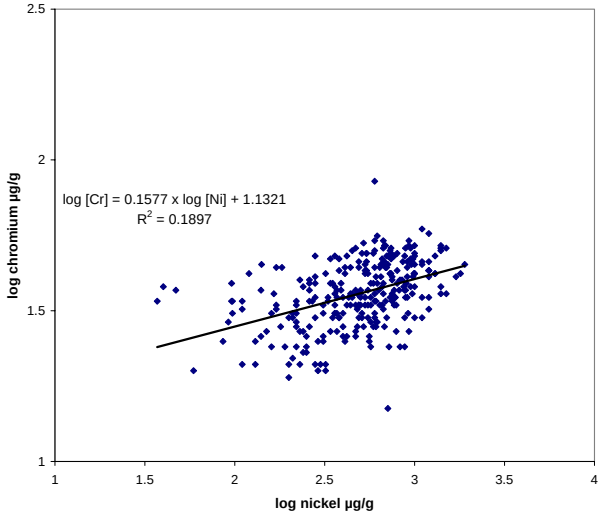


Fig. 10.4.6.24b: log Cr vs. log Ni, 10-20cm, Copper Cliff

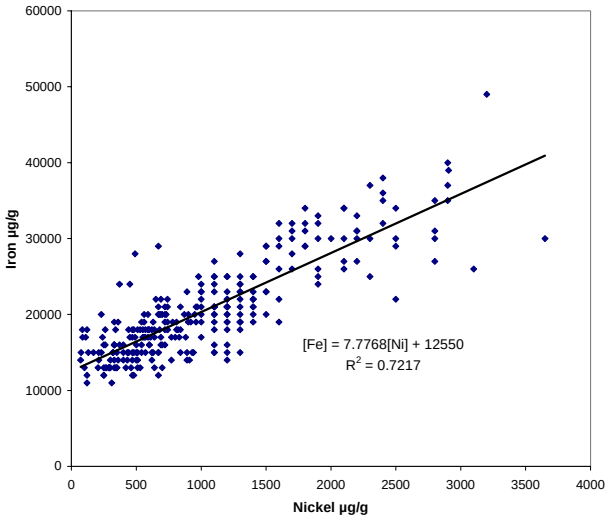


Fig. 10.4.6.25: Fe vs. Ni, 0-5cm, Copper Cliff

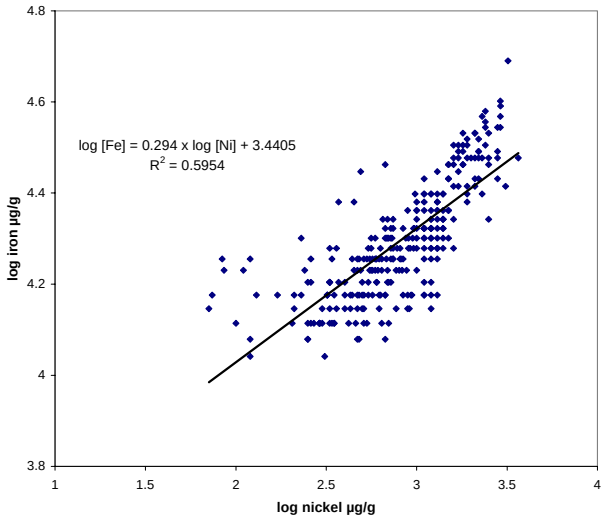


Fig. 10.4.6.25b: log Fe vs. log Ni, 0-5cm, Copper Cliff

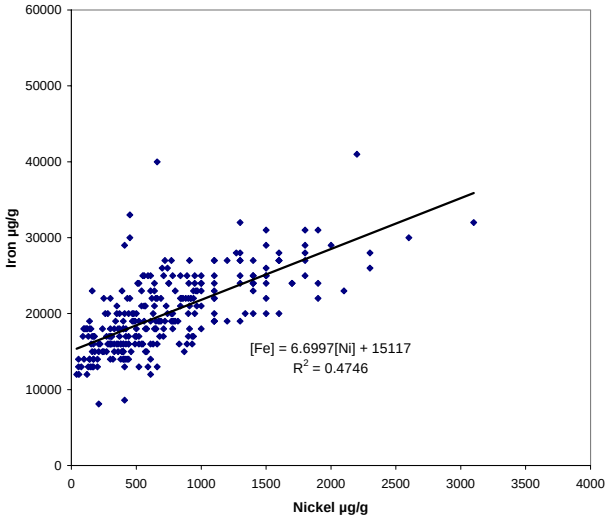


Fig. 10.4.6.26: Fe vs. Ni, 5-10cm, Copper Cliff

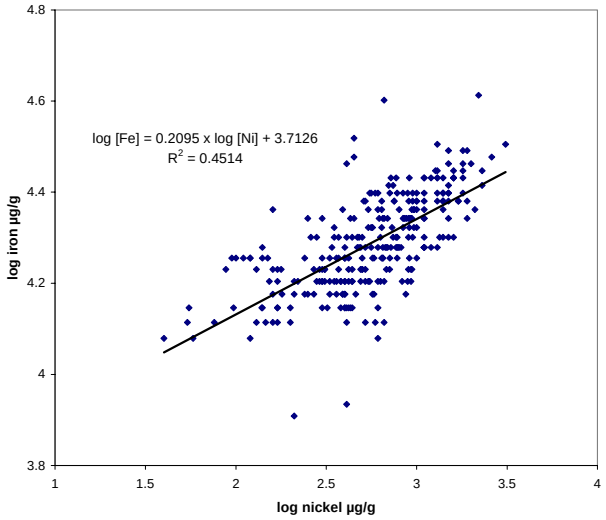


Fig. 10.4.6.26b: log Fe vs. log Ni, 5-10cm, Copper Cliff

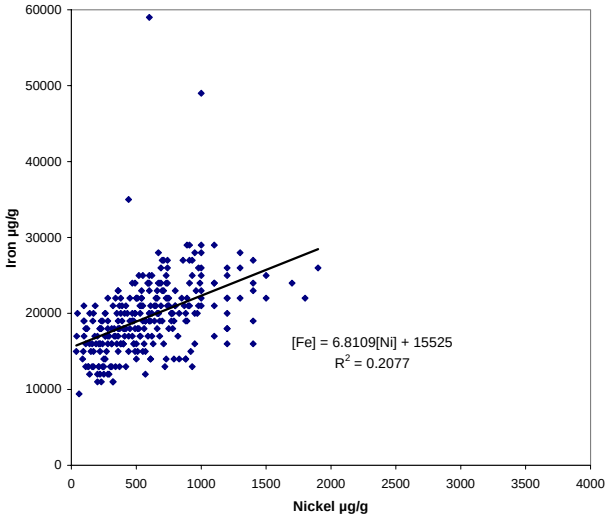


Fig. 10.4.6.27: Fe vs. Ni, 10-20cm, Copper Cliff

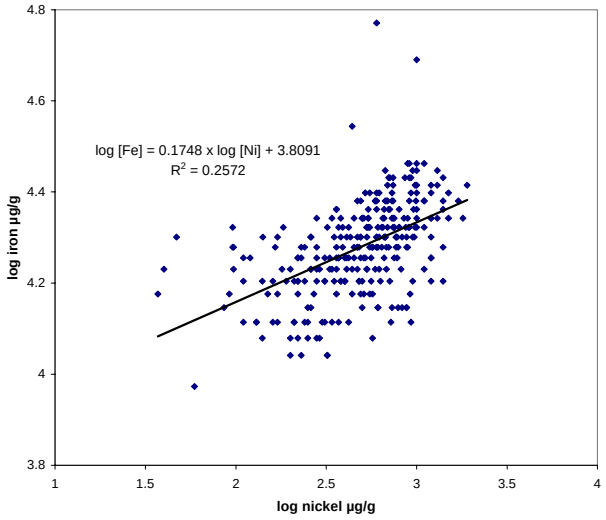


Fig. 10.4.6.27b: log Fe vs. log Ni, 10-20cm, Copper Cliff

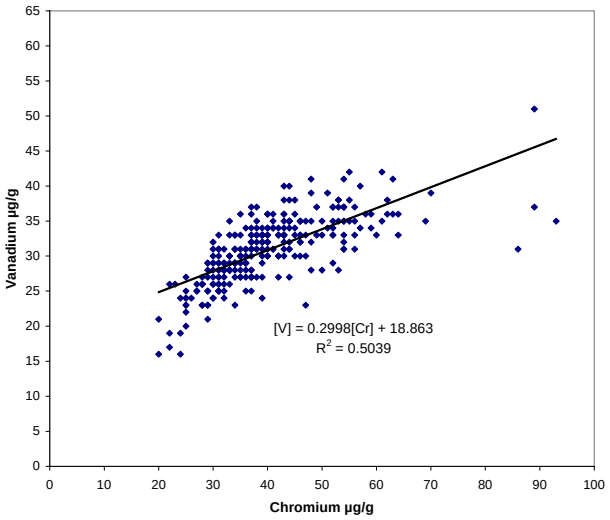


Fig. 10.4.6.28: V vs. Cr, 0-5cm, Copper Cliff

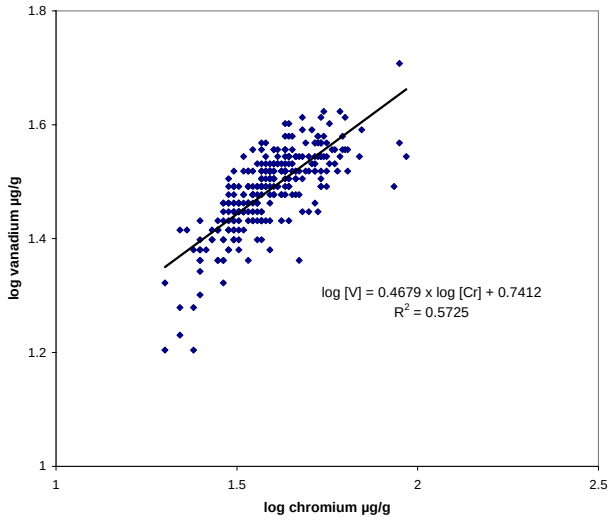


Fig. 10.4.6.28b: log V vs. log Cr, 0-5cm, Copper Cliff

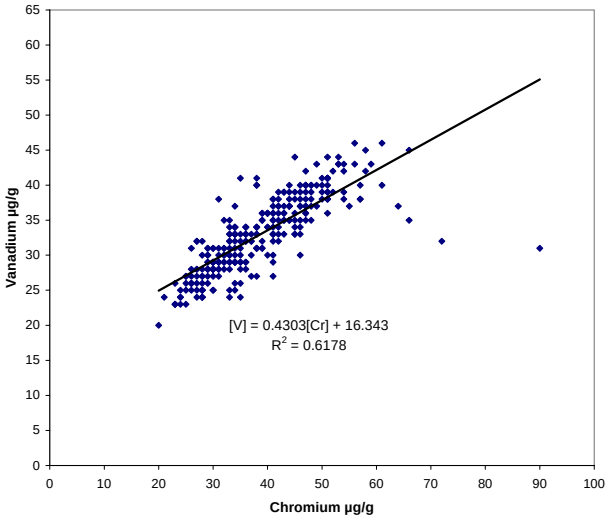


Fig. 10.4.6.29: V vs. Cr, 5-10cm, Copper Cliff

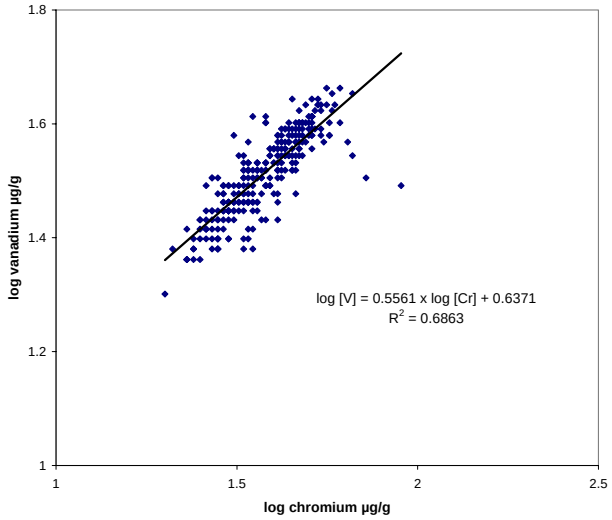


Fig. 10.4.6.29b:log V vs. log Cr, 5-10cm, Copper Cliff

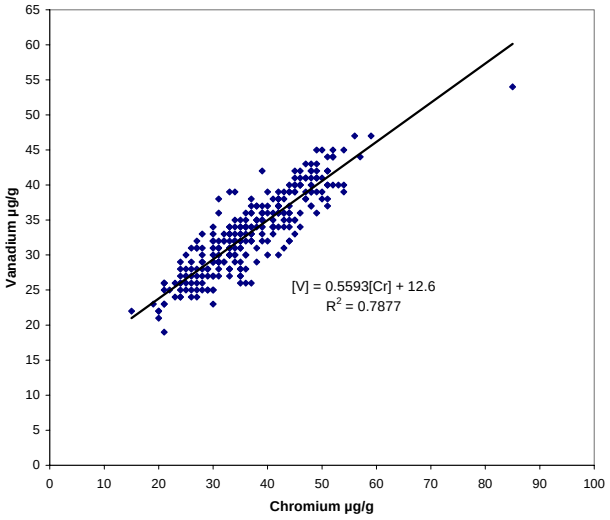


Fig. 10.4.6.30: V vs. Cr, 10-20cm, Copper Cliff

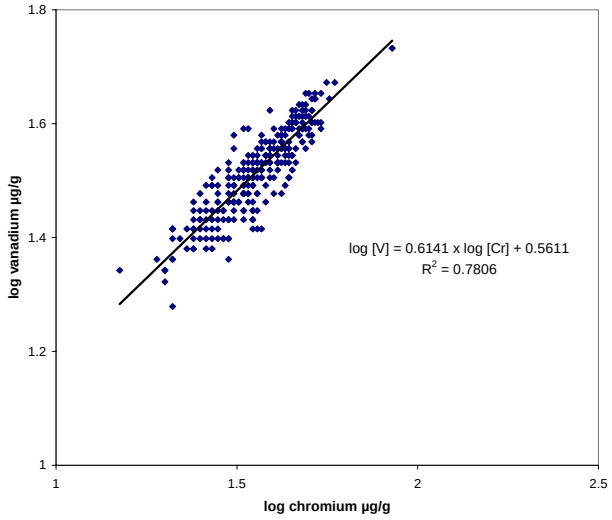


Fig. 10.4.6.30b: log V vs. log Cr, 10-20cm, Copper Cliff

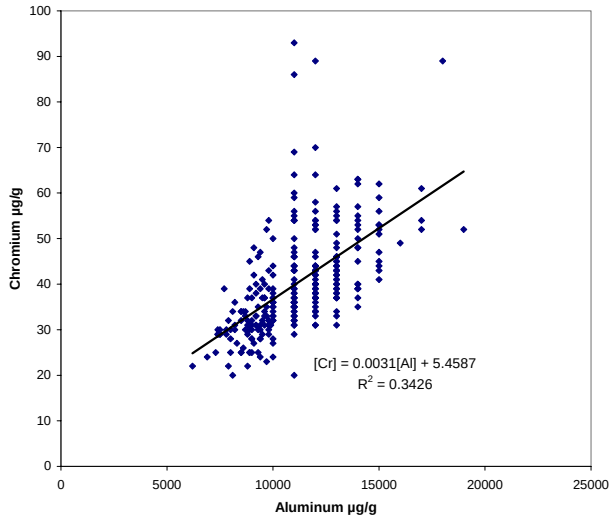


Fig. 10.4.6.31: Cr vs. Al, 0-5cm, Copper Cliff

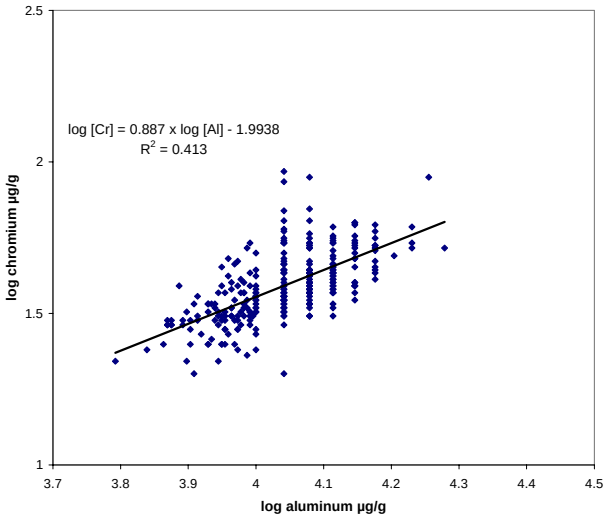


Fig. 10.4.6.31b: log Cr vs log Al, 0-5cm, Copper Cliff

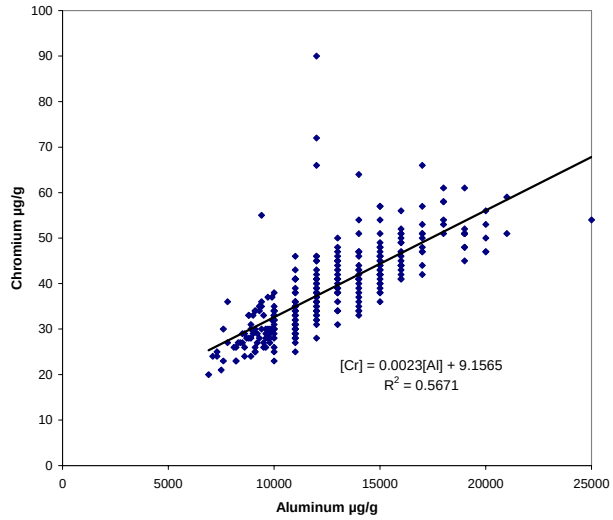


Fig. 10.4.6.32: Cr vs. Al, 5-10cm, Copper Cliff

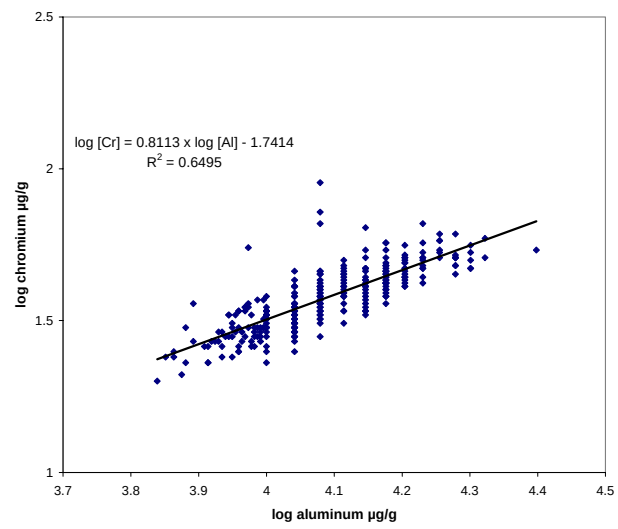


Fig. 10.4.6.32b: log Cr vs. log Al, 5-10cm, Copper Cliff

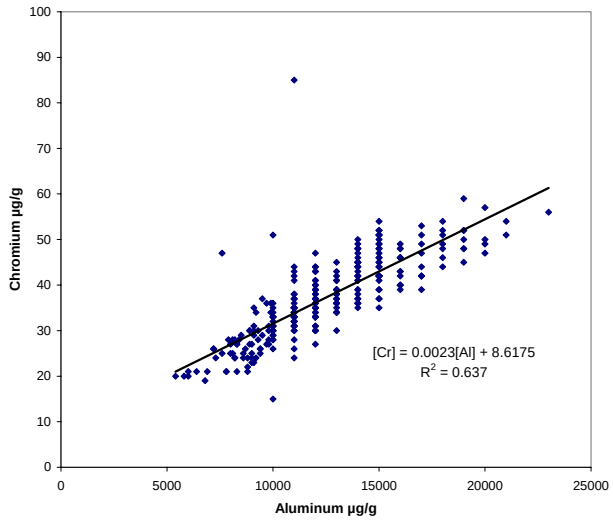


Fig. 10.4.6.33: Cr vs. Al, 10-20cm, Copper Cliff

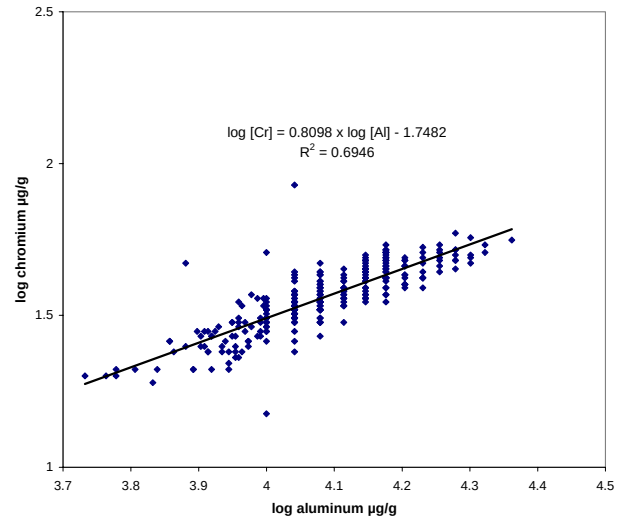


Fig. 10.4.6.33b: log Cr vs. log Al, 10-20cm, Copper Cliff

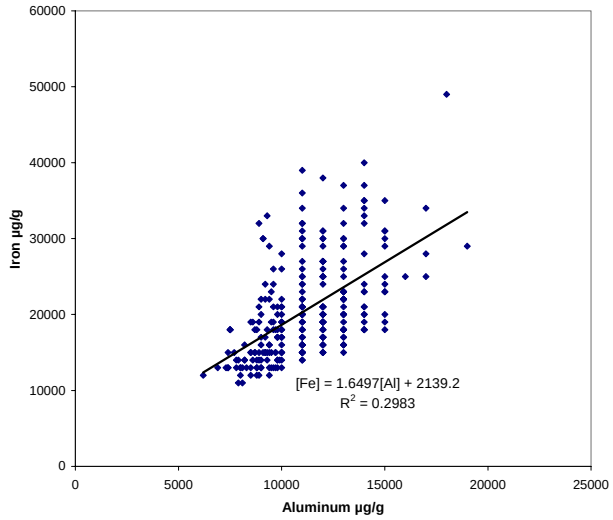


Fig. 10.4.6.34: Fe vs. Al, 0-5cm, Copper Cliff

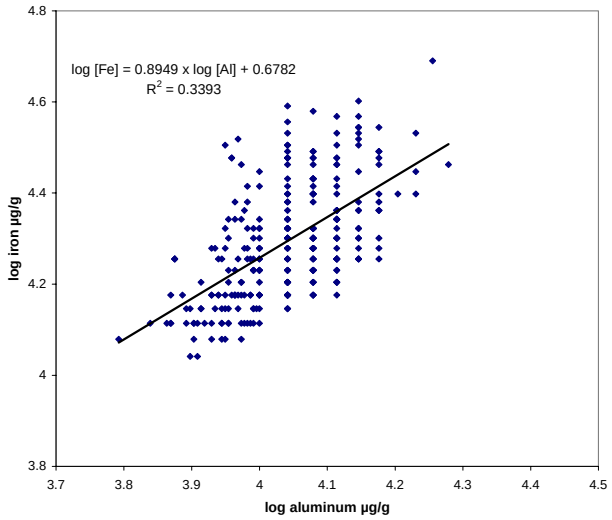


Fig. 10.4.6.34b: log Fe vs. log Al, 0-5cm, Copper Cliff

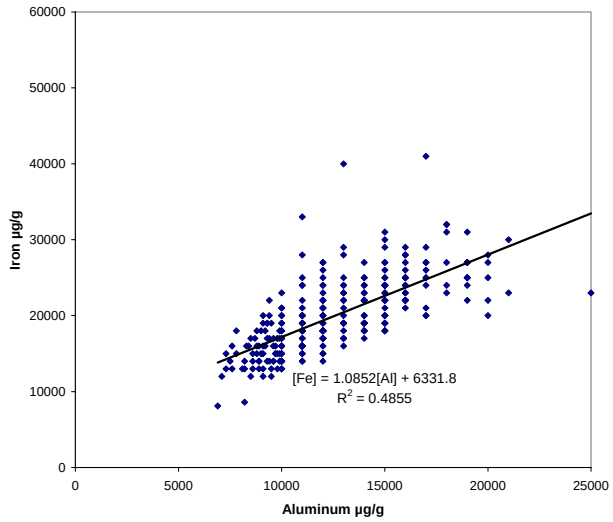


Fig. 10.4.6.35: Fe vs. Al, 5-10cm, Copper Cliff

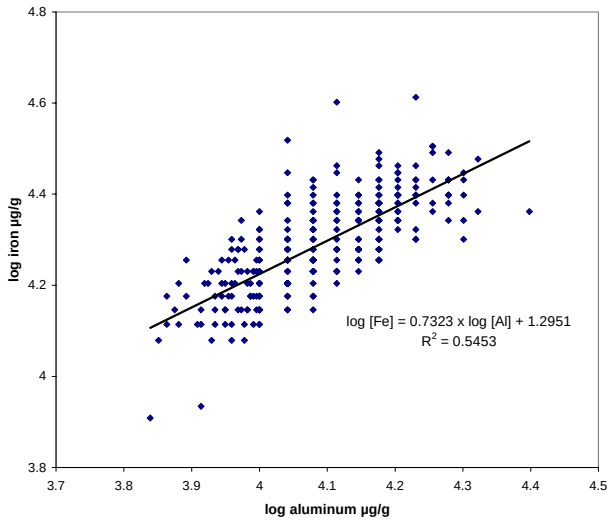


Fig. 10.4.6.35b: log Fe vs. log Al, 5-10cm, Copper Cliff

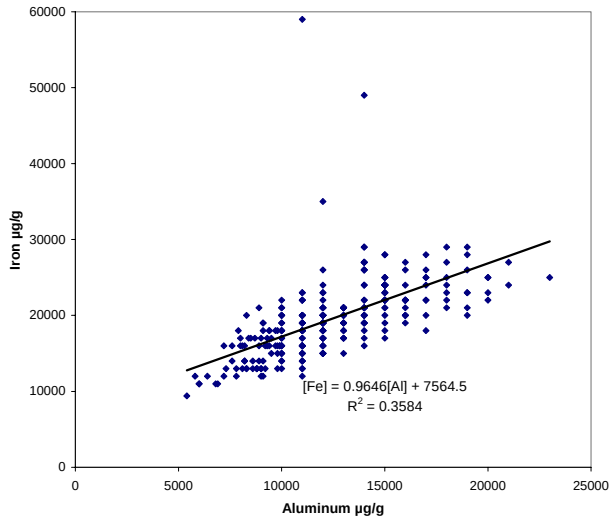


Fig. 10.4.6.36: Fe vs. Al, 10-20cm, Copper Cliff

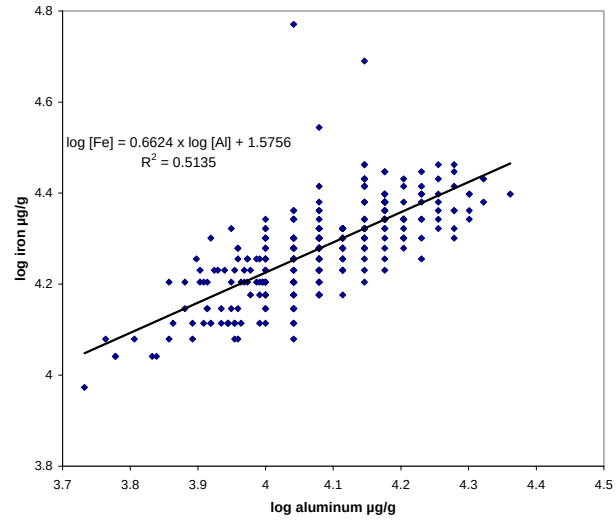


Fig. 10.4.6.36b: log Fe vs. log Al, 10-20cm, Copper Cliff

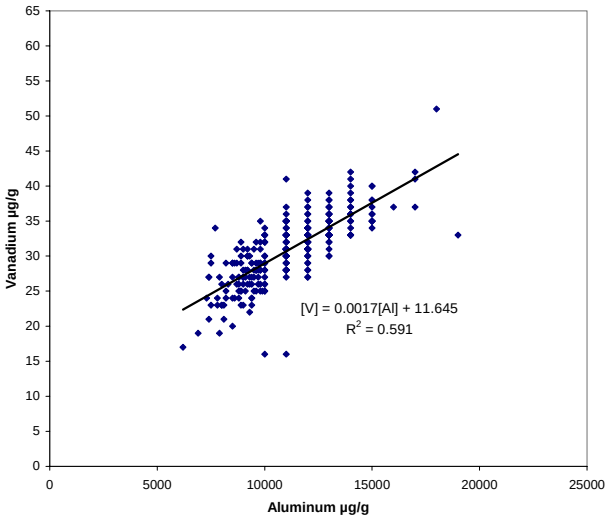


Fig. 10.4.6.37: V vs. Al, 0-5cm, Copper Cliff

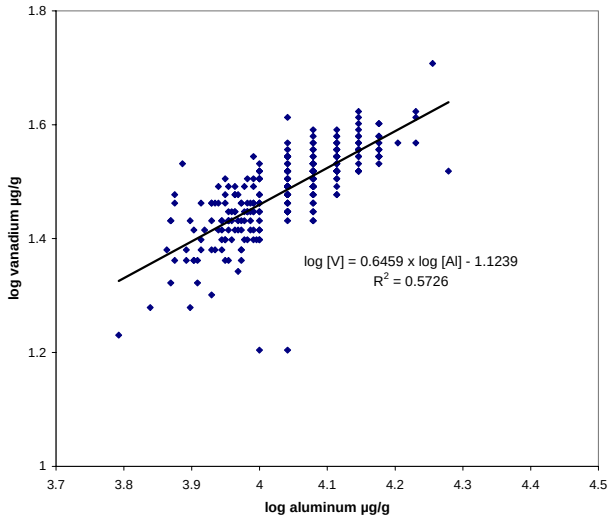


Fig. 10.4.6.37b: log V vs log Al, 0-5cm, Copper Cliff

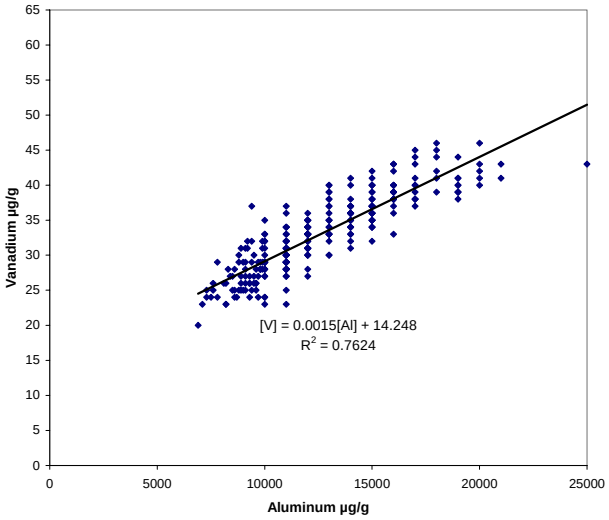


Fig. 10.4.6.38: V vs. Al, 5-10cm, Copper Cliff

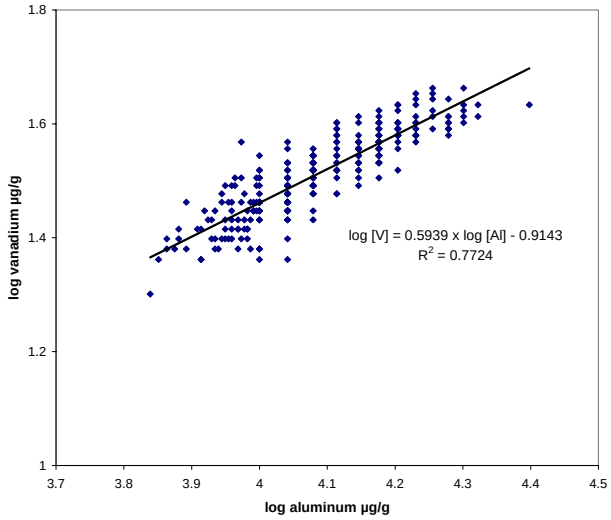


Fig. 10.4.6.38b: log V vs. log Al, 5-10cm, Copper Cliff

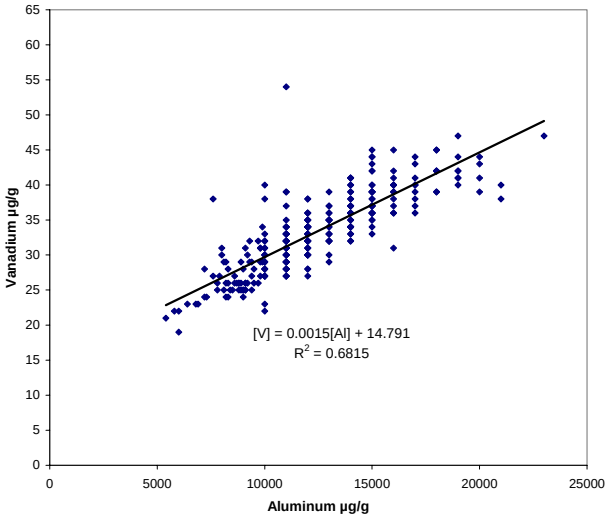


Fig. 10.4.6.39: V vs. Al, 10-20cm, Copper Cliff

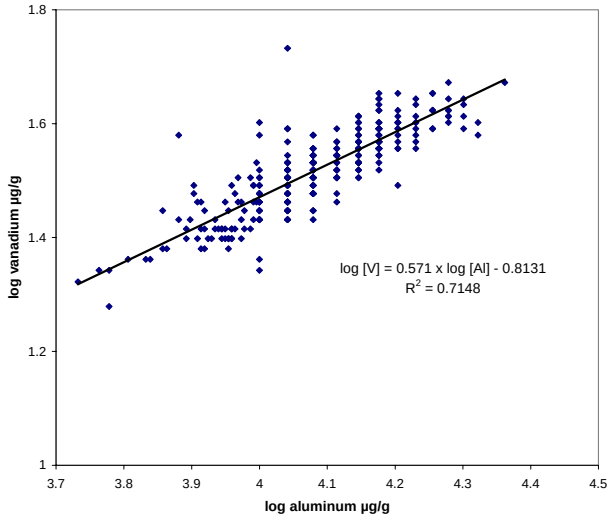


Fig. 10.4.6.39b: log V vs. log Al, 10-20cm, Copper Cliff

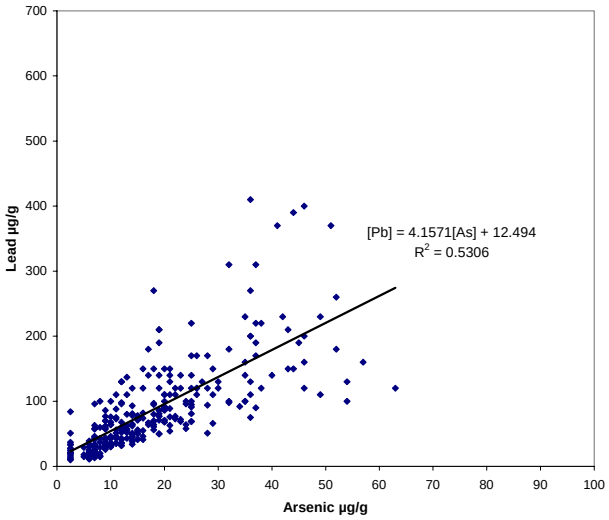


Fig. 10.4.6.40: Pb vs. As, 0-5cm, Copper Cliff

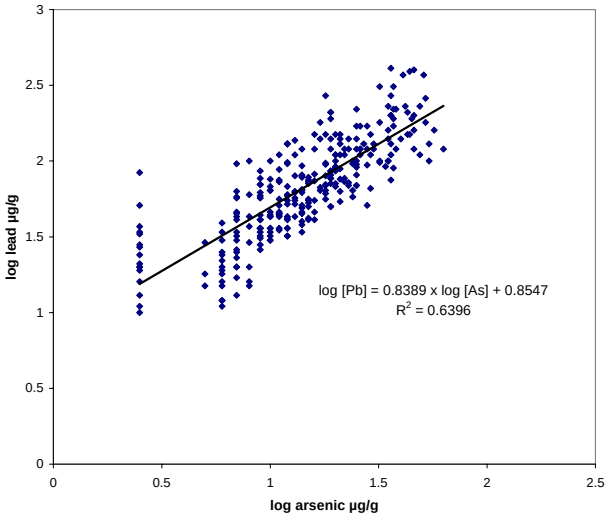


Fig. 10.4.6.40b: log Pb vs. log As, 0-5cm, Copper Cliff

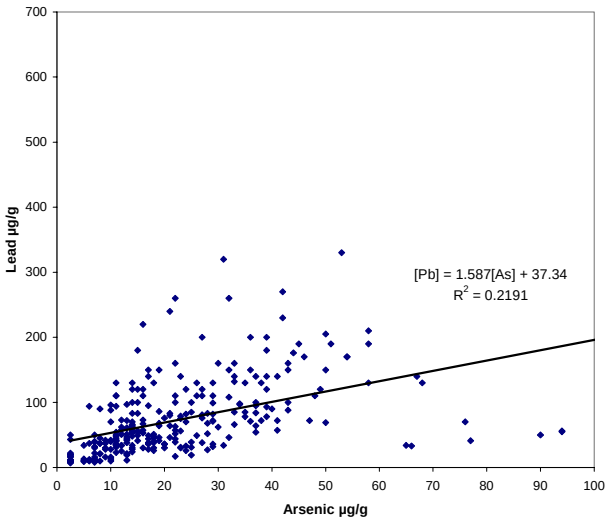


Fig. 10.4.6.41: Pb vs. As, 5-10cm, Copper Cliff

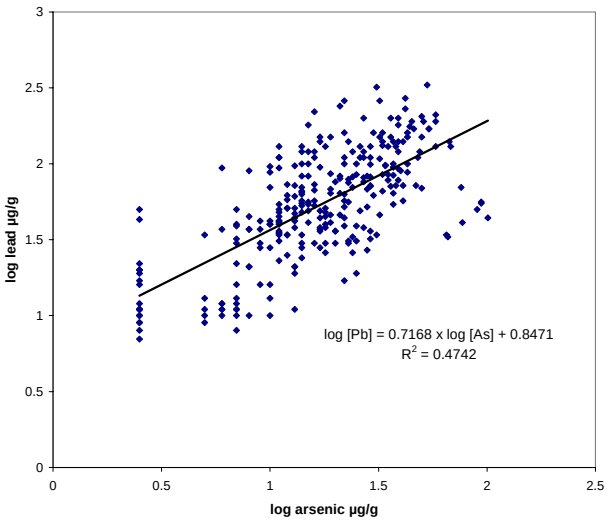


Fig. 10.4.6.41b: log Pb vs. log As, 5-10cm, Copper Cliff

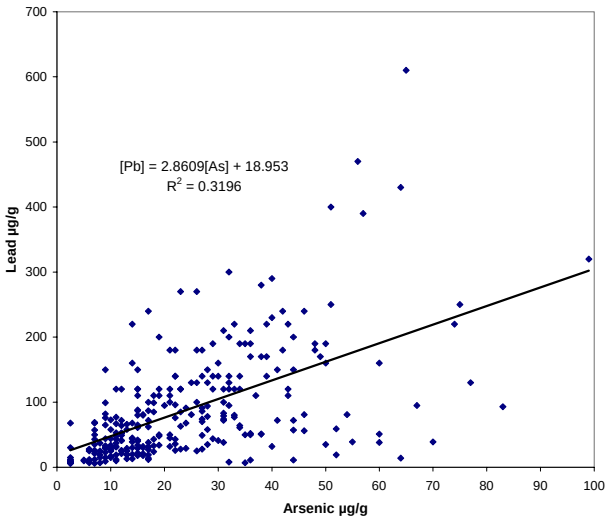


Fig. 10.4.6.42: Pb vs. As, 10-20cm, Copper Cliff

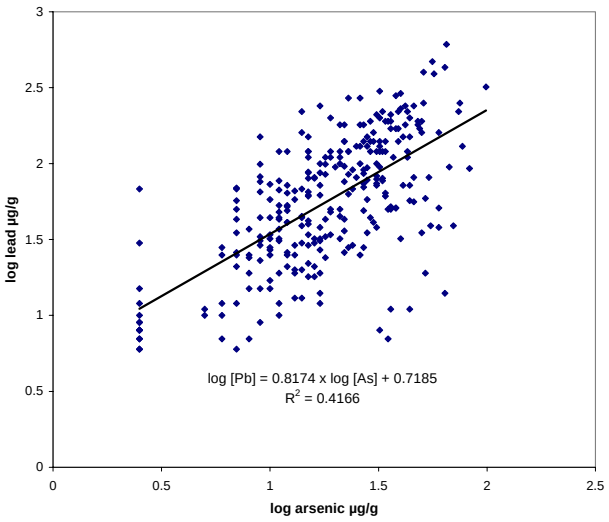


Fig. 10.4.6.42b: log Pb vs. log As, 10-20cm, Copper Cliff

Table 10.4.6.1: Pearson's and Spearman's Correlations for 0 to 5 cm Urban Soil in Copper Cliff

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	*0.19*	*0.30*	*0.61*	*0.35*	*0.34*	*0.68*	*0.32*	*0.30*	*0.58*	*0.28*	*0.36*	*0.60*	*0.21*	*0.30*	*0.29*	*0.69*	***0.80***	*0.34*
Sb	0.17	1	*0.38*	*0.40*	*0.31*	*0.13*	*0.25*	*0.32*	*0.30*	*0.36*	*0.45*	*0.14*	*0.28*	*0.14*	*0.31*	*0.21*	*0.16*	*0.23*	*0.41*
As	0.31	0.42	1	*0.70*	***0.79***	*0.34*	*0.62*	***0.87***	***0.84***	***0.82***	*0.82*	*0.29*	*0.23*	*0.47*	***0.86***	*0.72*	*0.11*	*0.35*	***0.75***
Ba	0.61	0.47	0.65	1	*0.72*	*0.48*	***0.78***	*0.70*	*0.66*	***0.80***	*0.73*	*0.46*	*0.57*	*0.44*	*0.68*	*0.58*	*0.49*	*0.60*	***0.81***
Cd	0.35	0.24	0.74	0.65	1	*0.60*	*0.70*	***0.93***	***0.93***	***0.78***	*0.77*	*0.47*	*0.32*	*0.60*	***0.93***	***0.82***	*0.22*	*0.33*	***0.86***
Ca	0.12	0.02	0.22	0.23	0.51	1	*0.49*	*0.53*	*0.47*	*0.49*	*0.33*	***0.75***	*0.42*	*0.33*	*0.52*	*0.44*	*0.48*	*0.25*	*0.54*
Cr	0.59	0.16	0.60	0.67	0.69	0.25	1	*0.71*	*0.67*	***0.82***	*0.59*	*0.46*	*0.62*	*0.53*	*0.70*	*0.66*	*0.56*	***0.77***	*0.67*
Co	0.32	0.28	**0.84**	0.59	**0.90**	0.43	0.69	1	***0.97***	***0.84***	*0.82*	*0.45*	*0.30*	*0.60*	***0.99***	***0.87***	*0.19*	*0.37*	***0.85***
Cu	0.30	0.24	**0.78**	0.52	**0.86**	0.32	0.64	**0.94**	1	***0.79***	*0.78*	*0.40*	*0.23*	*0.63*	***0.97***	***0.88***	*0.16*	*0.34*	***0.80***
Fe	0.55	0.29	**0.82**	0.70	**0.79**	0.34	**0.79**	**0.87**	**0.78**	1	*0.76*	*0.50*	*0.48*	*0.50*	***0.81***	*0.71*	*0.35*	*0.62*	***0.76***
Pb	0.26	0.51	0.73	0.71	0.61	0.19	0.49	0.65	0.58	0.63	1	*0.28*	*0.29*	*0.46*	***0.80***	*0.69*	*0.16*	*0.37*	***0.86***
Mg	0.18	0.00	0.14	0.20	0.36	0.58	0.21	0.29	0.25	0.26	0.10	1	*0.46*	*0.30*	*0.42*	*0.35*	*0.35*	*0.35*	*0.45*
Mn	0.56	0.27	0.27	0.57	0.28	0.16	0.51	0.26	0.18	0.41	0.27	0.19	1	*0.14*	*0.26*	*0.21*	*0.68*	*0.70*	*0.40*
Mo	0.23	0.06	0.44	0.34	0.58	0.23	0.53	0.60	0.68	0.50	0.35	0.23	0.14	1	*0.61*	*0.61*	*0.14*	*0.23*	*0.52*
Ni	0.30	0.28	**0.85**	0.58	**0.90**	0.42	0.68	**0.99**	**0.94**	**0.85**	0.64	0.27	0.24	0.59	1	***0.87***	*0.19*	*0.34*	***0.83***
Se	0.25	0.16	0.65	0.41	0.72	0.30	0.56	**0.77**	**0.83**	0.63	0.48	0.24	0.14	0.66	**0.77**	1	*0.18*	*0.35*	*0.71*
Sr	0.65	0.15	0.15	0.51	0.25	0.32	0.49	0.22	0.15	0.34	0.16	0.21	0.71	0.13	0.21	0.15	1	*0.66*	*0.25*
V	**0.77**	0.19	0.37	0.55	0.29	0.00	0.71	0.36	0.32	0.59	0.33	0.07	0.65	0.21	0.34	0.30	0.65	1	*0.37*
Zn	0.36	0.42	0.71	**0.79**	**0.81**	0.45	0.64	**0.76**	0.68	0.74	**0.78**	0.37	0.40	0.43	**0.76**	0.53	0.31	0.36	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.6.2: Pearson's and Spearman's Correlations for 5 to 10 cm Urban Soil in Copper Cliff

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	*0.18*	*0.41*	***0.76***	*0.44*	*0.61*	***0.84***	*0.45*	*0.35*	***0.76***	*0.28*	*0.65*	*0.69*	*0.10*	*0.39*	*0.26*	***0.79***	***0.89***	*0.46*
Sb	0.07	1	*0.54*	*0.45*	*0.52*	*0.26*	*0.32*	*0.50*	*0.46*	*0.41*	*0.52*	*0.13*	*0.28*	*0.06*	*0.47*	*0.34*	*0.23*	*0.21*	*0.52*
As	0.30	0.50	1	*0.68*	*0.70*	*0.41*	*0.57*	***0.88***	***0.79***	*0.73*	*0.67*	*0.21*	*0.35*	*0.21*	***0.90***	*0.63*	*0.27*	*0.38*	***0.77***
Ba	0.62	0.34	0.46	1	*0.63*	*0.54*	***0.84***	*0.70*	*0.60*	***0.85***	*0.65*	*0.60*	*0.70*	*0.15*	*0.65*	*0.46*	*0.61*	*0.73*	***0.81***
Cd	0.36	0.37	0.65	0.49	1	*0.60*	*0.61*	***0.82***	***0.82***	*0.66*	*0.55*	*0.33*	*0.39*	*0.17*	***0.81***	*0.64*	*0.34*	*0.36*	***0.76***
Ca	0.41	0.13	0.36	0.32	0.54	1	*0.63*	*0.56*	*0.46*	*0.61*	*0.22*	*0.61*	*0.52*	*0.13*	*0.53*	*0.38*	*0.60*	*0.52*	*0.45*
Cr	**0.75**	0.20	0.47	0.67	0.67	0.45	1	*0.64*	*0.54*	***0.86***	*0.46*	*0.72*	*0.74*	*0.13*	*0.58*	*0.46*	*0.70*	***0.85***	*0.67*
Co	0.39	0.39	**0.81**	0.55	**0.80**	0.57	0.60	1	***0.93***	***0.78***	*0.69*	*0.33*	*0.40*	*0.23*	***0.96***	*0.74*	*0.30*	*0.40*	***0.84***
Cu	0.33	0.30	0.67	0.48	**0.79**	0.46	0.53	**0.91**	1	*0.67*	*0.67*	*0.26*	*0.31*	*0.23*	***0.91***	***0.79***	*0.23*	*0.30*	***0.79***
Fe	0.70	0.27	0.59	0.73	0.60	0.49	**0.79**	0.74	0.66	1	*0.62*	*0.64*	*0.68*	*0.19*	*0.71*	*0.53*	*0.61*	***0.79***	***0.75***
Pb	0.19	0.48	0.47	0.57	0.50	0.18	0.39	0.59	0.55	0.54	1	*0.21*	*0.37*	*0.11*	*0.64*	*0.52*	*0.25*	*0.33*	***0.82***
Mg	0.52	-0.01	0.04	0.35	0.15	0.48	0.46	0.14	0.08	0.45	0.03	1	*0.63*	*0.07*	*0.26*	*0.18*	*0.53*	*0.70*	*0.36*
Mn	0.64	0.17	0.28	0.62	0.33	0.41	0.65	0.39	0.29	0.63	0.40	0.45	1	*0.08*	*0.33*	*0.20*	*0.71*	***0.77***	*0.53*
Mo	0.07	0.04	0.16	0.08	0.18	0.17	0.11	0.24	0.23	0.21	0.08	0.02	0.07	1	*0.26*	*0.24*	*0.04*	*0.13*	*0.18*
Ni	0.36	0.31	**0.77**	0.48	**0.80**	0.56	0.57	**0.96**	**0.89**	0.69	0.51	0.11	0.33	0.28	1	*0.74*	*0.25*	*0.34*	***0.80***
Se	0.22	0.29	0.60	0.39	0.63	0.34	0.44	0.74	**0.78**	0.55	0.44	0.08	0.16	0.31	0.72	1	*0.13*	*0.25*	*0.58*
Sr	0.71	0.14	0.22	0.63	0.32	0.42	0.62	0.30	0.23	0.61	0.26	0.37	0.71	0.01	0.26	0.14	1	***0.84***	*0.39*
V	**0.87**	0.11	0.29	0.63	0.33	0.35	**0.79**	0.40	0.31	**0.77**	0.29	0.52	**0.75**	0.12	0.36	0.26	**0.79**	1	*0.46*
Zn	0.41	0.41	0.55	0.74	0.72	0.39	0.60	0.74	0.73	0.69	**0.76**	0.14	0.55	0.14	0.69	0.51	0.47	0.44	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

Table 10.4.6.3: Pearson's and Spearman's Correlations for 10 to 20 cm Urban Soil in Copper Cliff

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	*0.20*	*0.28*	*0.72*	*0.23*	*0.63*	***0.85***	*0.42*	*0.34*	***0.76***	*0.31*	*0.70*	*0.68*	*0.03*	*0.32*	*0.23*	***0.77***	***0.85***	*0.40*
Sb	0.14	1	*0.67*	*0.55*	*0.38*	*0.25*	*0.30*	*0.51*	*0.43*	*0.42*	*0.59*	*0.11*	*0.40*	*-0.04*	*0.46*	*0.30*	*0.32*	*0.19*	*0.56*
As	0.23	0.55	1	*0.61*	*0.48*	*0.32*	*0.41*	***0.76***	*0.67*	*0.53*	*0.61*	*0.05*	*0.39*	*-0.03*	*0.74*	*0.54*	*0.29*	*0.24*	*0.68*
Ba	0.50	0.38	0.39	1	*0.44*	*0.57*	***0.82***	*0.66*	*0.57*	***0.82***	*0.68*	*0.59*	***0.79***	*-0.01*	*0.57*	*0.40*	*0.73*	*0.70*	***0.79***
Cd	0.20	0.34	0.42	0.43	1	*0.48*	*0.35*	*0.69*	*0.73*	*0.46*	*0.47*	*0.17*	*0.30*	*0.09*	*0.69*	*0.52*	*0.33*	*0.18*	*0.60*
Ca	0.58	0.16	0.24	0.40	0.44	1	*0.63*	*0.48*	*0.45*	*0.56*	*0.24*	*0.55*	*0.52*	*0.01*	*0.51*	*0.37*	*0.65*	*0.57*	*0.42*
Cr	**0.80**	0.21	0.33	0.57	0.32	0.54	1	*0.59*	*0.50*	***0.84***	*0.43*	***0.76***	***0.79***	*0.06*	*0.48*	*0.37*	***0.75***	***0.88***	*0.57*
Co	0.39	0.41	0.66	0.46	0.72	0.46	0.56	1	***0.93***	*0.72*	*0.72*	*0.25*	*0.49*	*-0.02*	***0.93***	*0.68*	*0.41*	*0.40*	***0.83***
Cu	0.30	0.31	0.52	0.36	**0.78**	0.45	0.46	**0.90**	1	*0.64*	*0.68*	*0.17*	*0.38*	*0.00*	***0.90***	*0.71*	*0.34*	*0.31*	***0.78***
Fe	0.60	0.29	0.40	0.52	0.39	0.45	**0.80**	0.61	0.56	1	*0.60*	*0.70*	*0.74*	*0.00*	*0.57*	*0.43*	*0.66*	***0.77***	*0.68*
Pb	0.21	0.58	0.57	0.55	0.53	0.15	0.31	0.61	0.52	0.43	1	*0.21*	*0.50*	*-0.06*	*0.61*	*0.46*	*0.37*	*0.32*	***0.84***
Mg	0.67	0.05	-0.01	0.41	0.08	0.55	0.67	0.18	0.09	0.50	0.08	1	*0.71*	*0.02*	*0.12*	*0.09*	*0.60*	***0.76***	*0.31*
Mn	0.62	0.35	0.39	0.66	0.31	0.50	0.69	0.45	0.30	0.55	0.47	0.62	1	*0.04*	*0.35*	*0.17*	***0.77***	***0.79***	*0.59*
Mo	0.03	-0.07	-0.05	0.06	0.11	-0.01	0.05	-0.03	0.03	-0.03	-0.03	0.07	0.03	1	*-0.02*	*0.01*	*0.05*	*0.05*	*-0.03*
Ni	0.29	0.33	0.62	0.37	0.68	0.47	0.43	**0.92**	**0.85**	0.46	0.48	0.05	0.32	-0.03	1	*0.69*	*0.32*	*0.29*	***0.76***
Se	0.19	0.25	0.39	0.25	0.57	0.35	0.38	0.65	0.72	0.44	0.36	0.03	0.13	0.03	0.64	1	*0.19*	*0.20*	*0.54*
Sr	0.70	0.26	0.25	0.57	0.35	0.61	0.66	0.39	0.32	0.53	0.32	0.55	**0.75**	0.07	0.31	0.20	1	***0.83***	*0.47*
V	**0.83**	0.14	0.20	0.47	0.17	0.51	**0.89**	0.40	0.29	0.72	0.23	0.71	0.72	0.03	0.28	0.23	**0.76**	1	*0.42*
Zn	0.28	0.52	0.56	0.69	0.66	0.31	0.42	0.68	0.59	0.48	**0.79**	0.16	0.55	0.00	0.59	0.40	0.44	0.30	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates strong correlations.

10.4.7 Play Sand

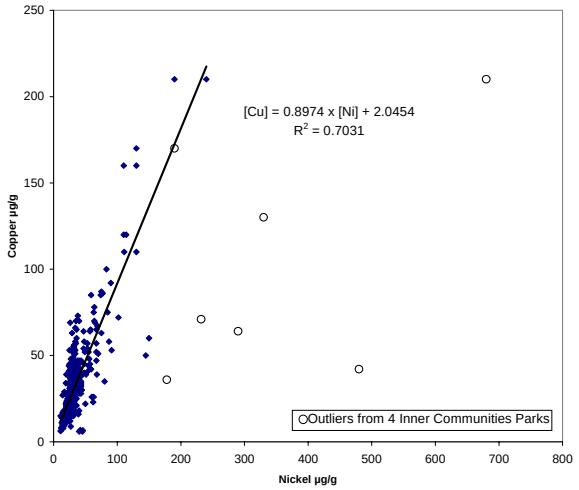


Fig. 10.4.7.1: Cu vs Ni, 0-5 cm, Play Sand

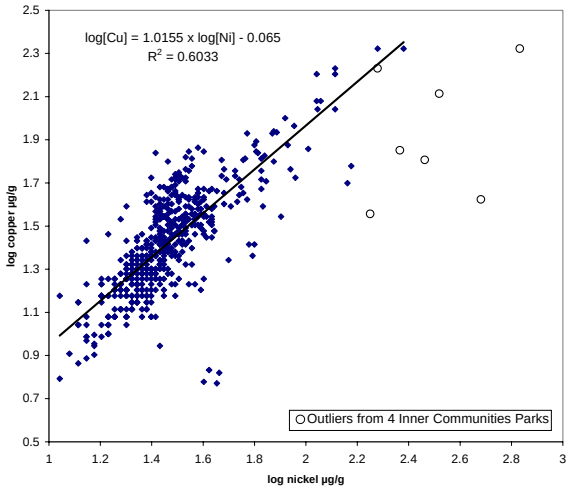


Fig. 10.4.7.1b: log Cu vs log Ni, 0-5 cm, Play Sand

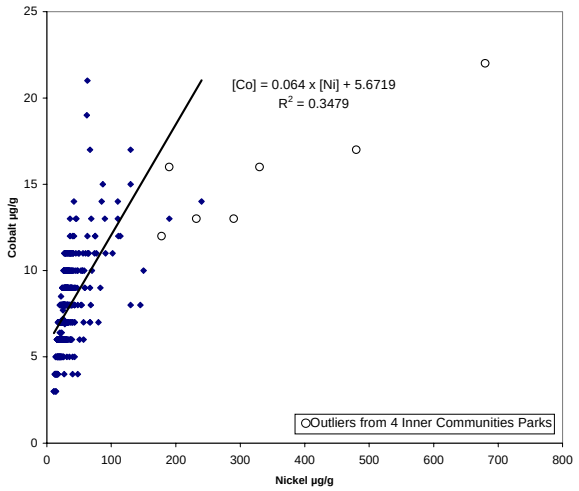


Fig. 10.4.7.2: Co vs Ni, 0-5 cm, Play Sand

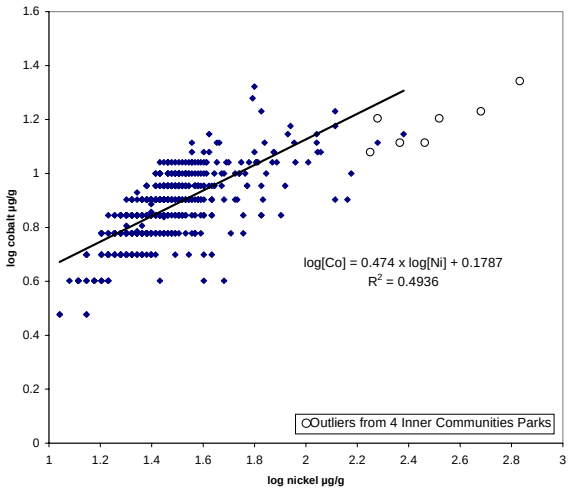


Fig. 10.4.7.2b: log Co vs log Ni, 0-5 cm, Play Sand

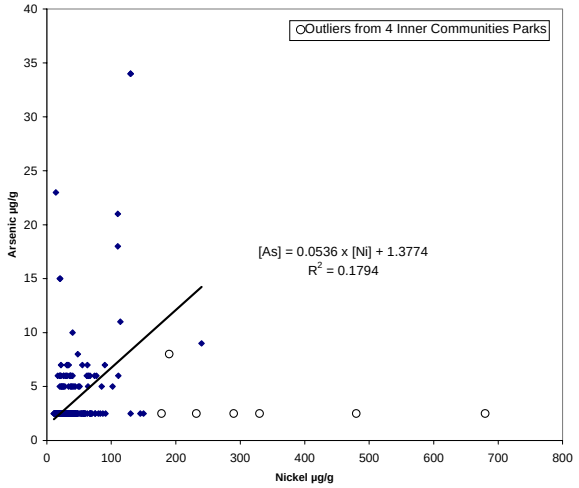


Fig. 10.4.7.3: As vs Ni, 0-5 cm, Play Sand

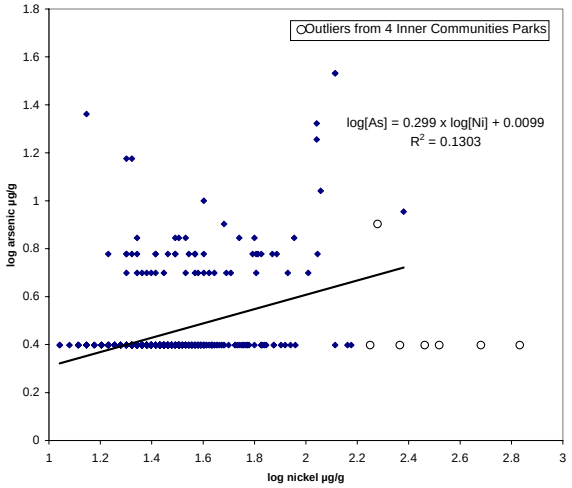


Fig. 10.4.7.3b: log As vs log Ni, 0-5 cm, Play Sand

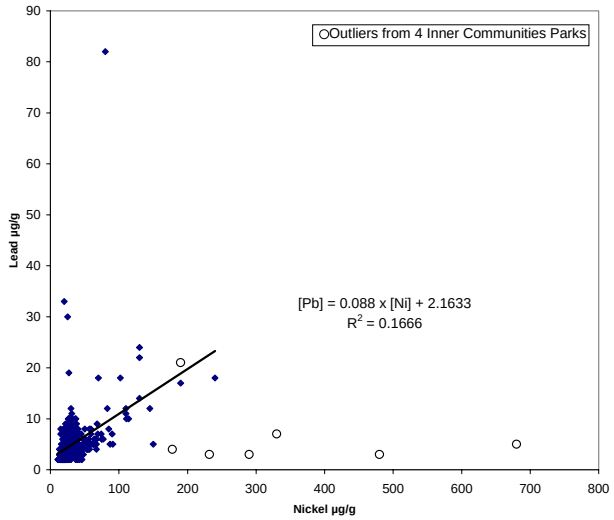


Fig. 10.4.7.4: Pb vs Ni, 0-5 cm, Play Sand

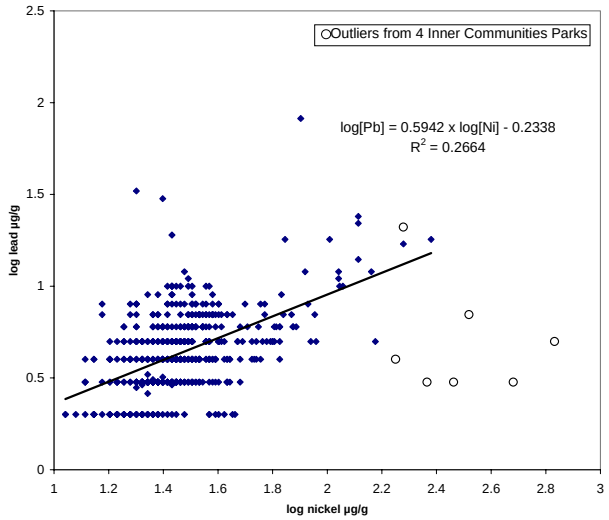


Fig. 10.4.7.4b: log Pb vs log Ni, 0-5 cm, Play Sand

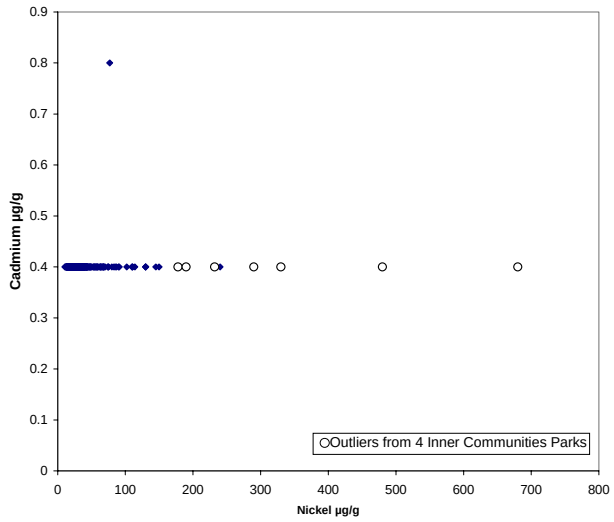


Fig. 10.4.7.5: Cd vs Ni, 0-5 cm, Play Sand

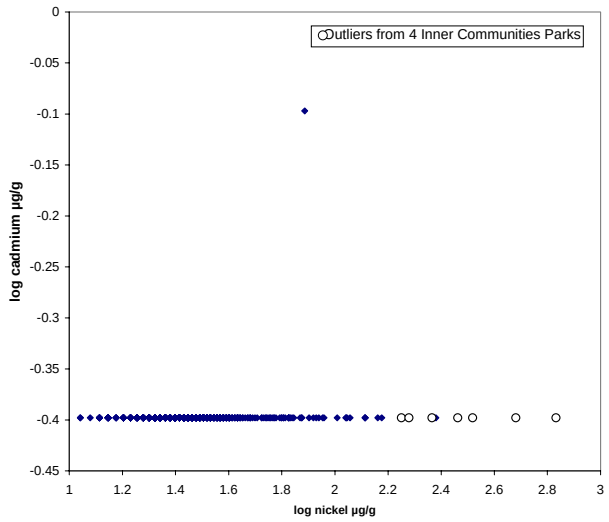


Fig. 10.4.7.5b: log Cd vs log Ni, 0-5 cm, Play Sand

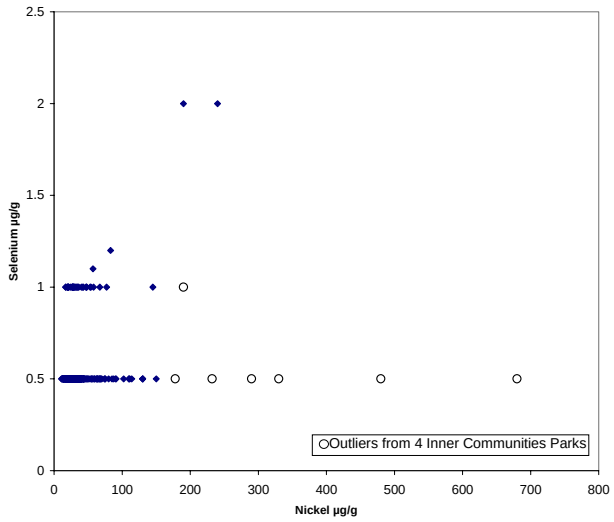


Fig. 10.4.7.6: Se vs Ni, 0-5 cm, Play Sand

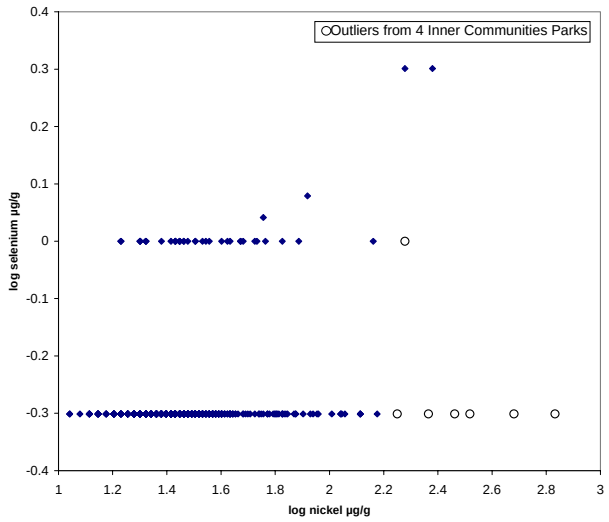


Fig. 10.4.7.6b: log Se vs log Ni, 0-5 cm, Play Sand

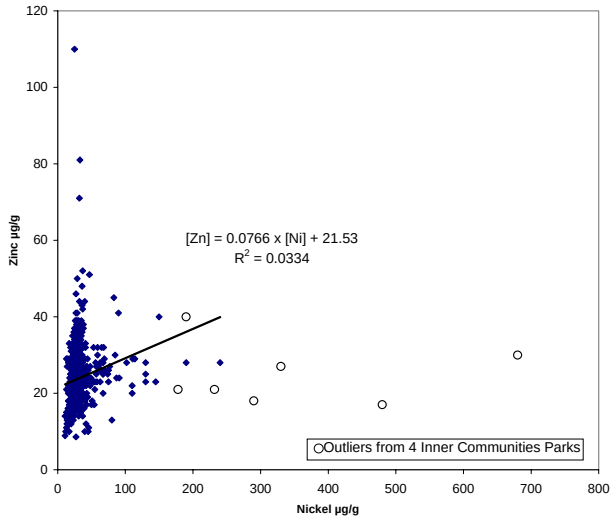


Fig. 10.4.7.7: Zn vs Ni, 0-5 cm, Play Sand

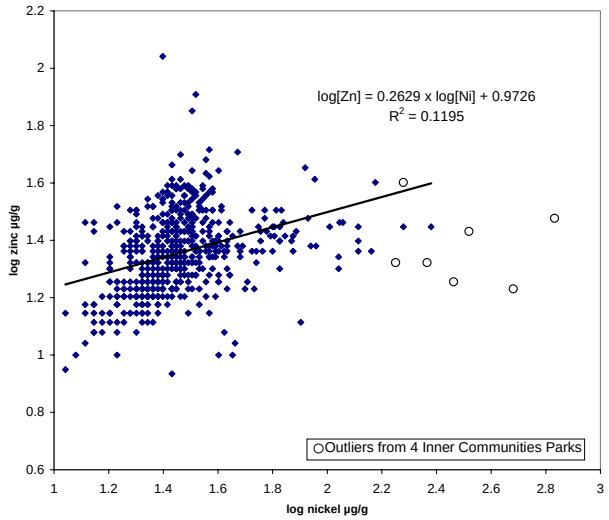


Fig. 10.4.7.7b: log Zn vs log Ni, 0-5 cm, Play Sand

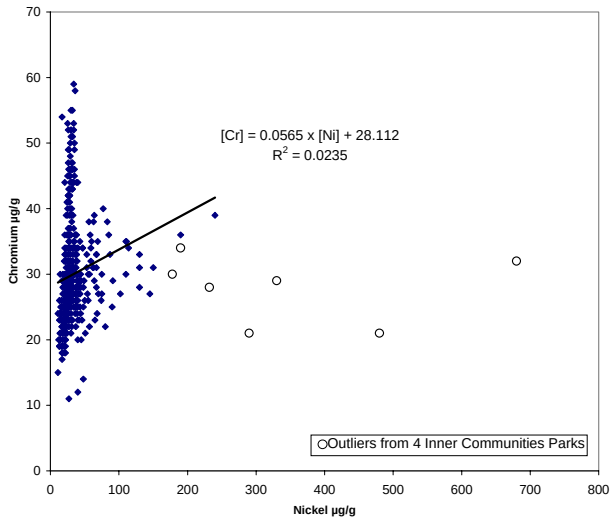


Fig. 10.4.7.8: Cr vs Ni, 0-5 cm, Play Sand

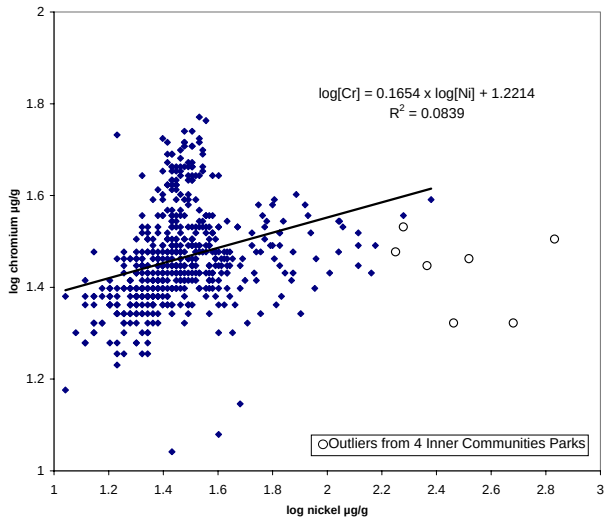


Fig. 10.4.7.8b: log Cr vs log Ni, 0-5 cm, Play Sand

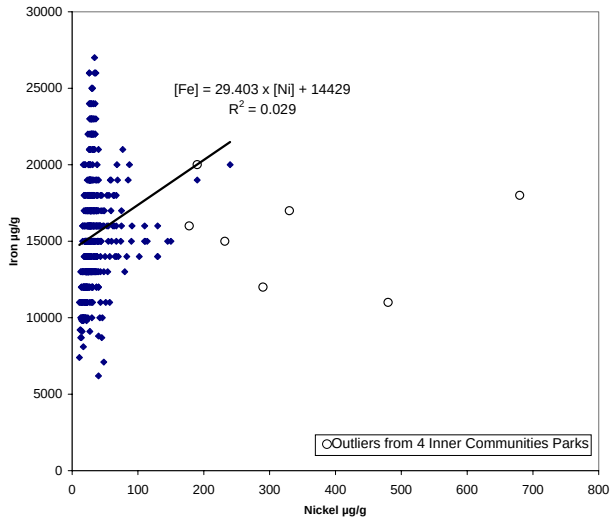


Fig. 10.4.7.9: Fe vs Ni, 0-5 cm, Play Sand

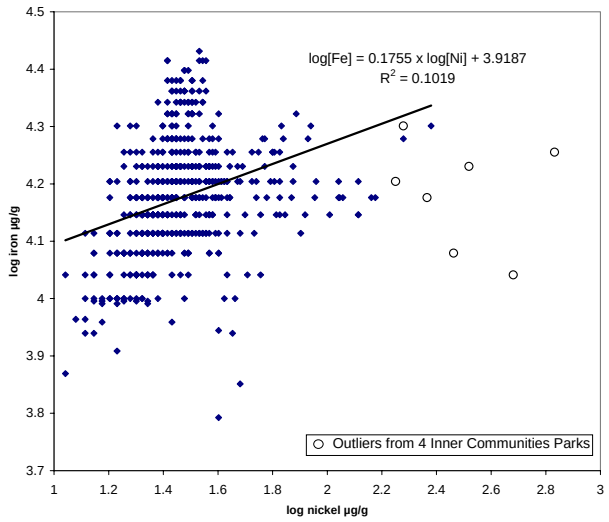


Fig. 10.4.7.9b: log Fe vs log Ni, 0-5 cm, Play Sand

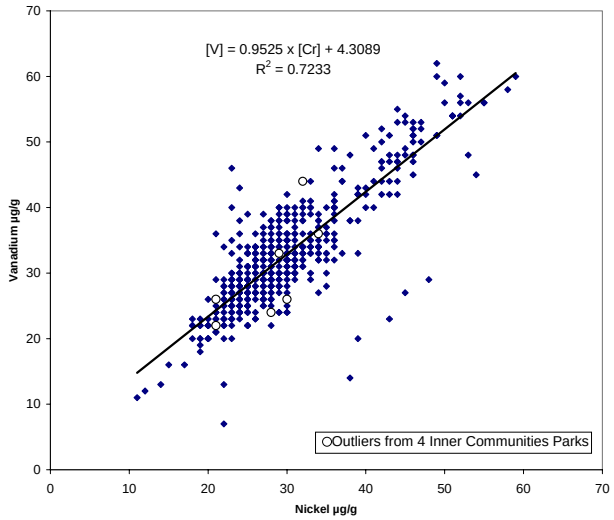


Fig. 10.4.7.10: V vs Cr, 0-5 cm, Play Sand

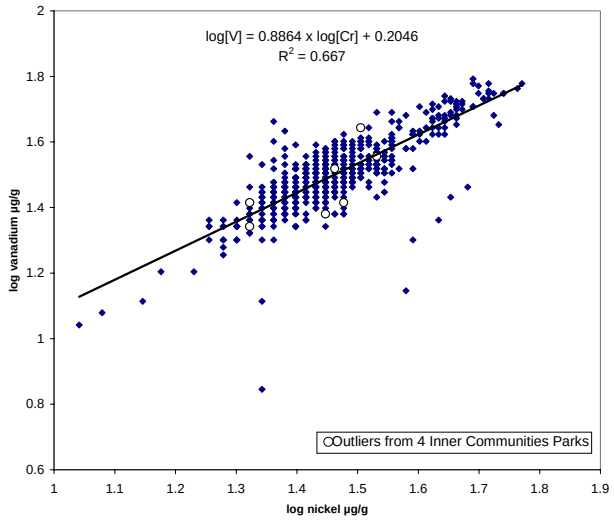


Fig. 10.4.7.10b: log V vs log Cr, 0-5 cm, Play Sand

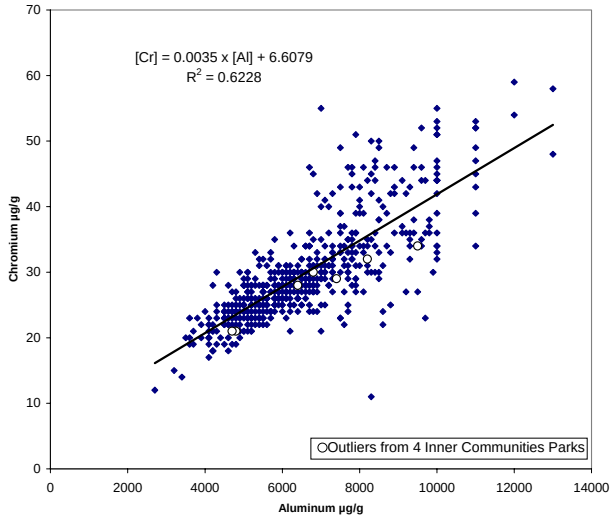


Fig. 10.4.7.11: Cr vs Al, 0-5 cm, Play Sand

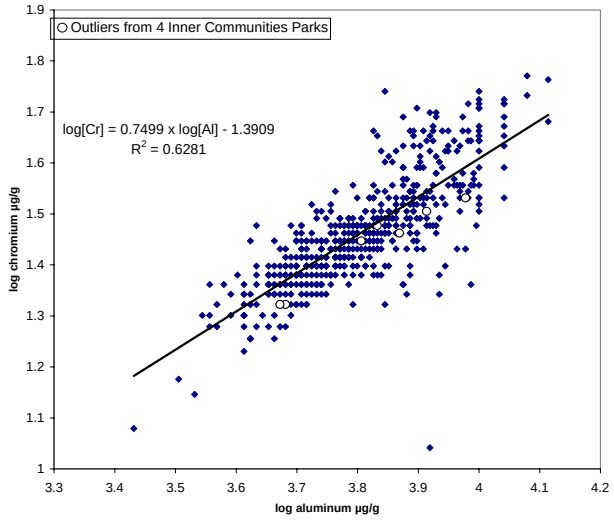


Fig. 10.4.7.11b: log Cr vs log Al, 0-5 cm, Play Sand

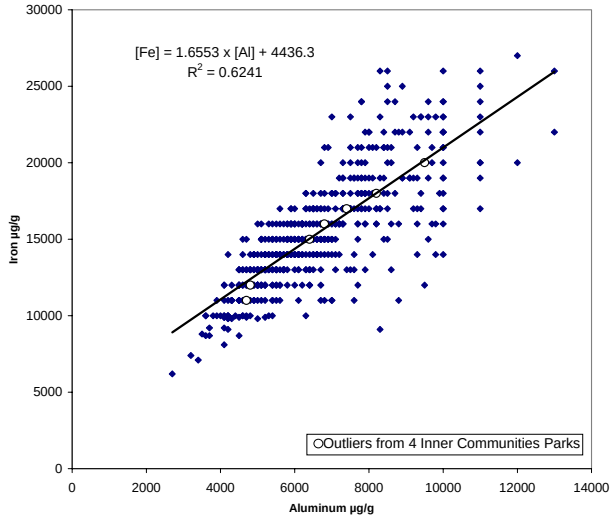


Fig. 10.4.7.12: Fe vs Al, 0-5 cm, Play Sand

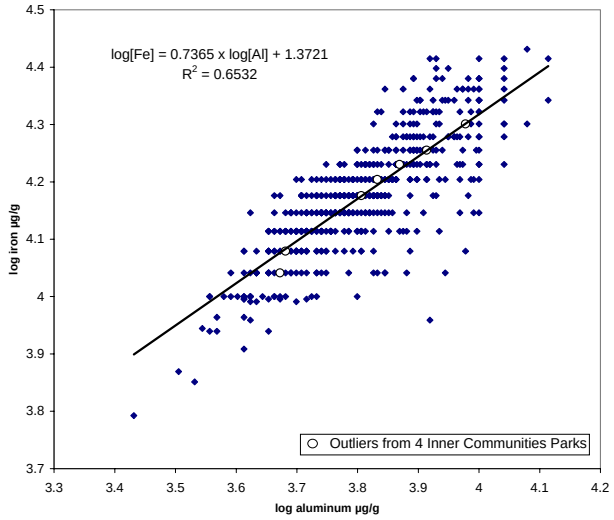


Fig. 10.4.7.12b: log Fe vs log Al, 0-5 cm, Play Sand

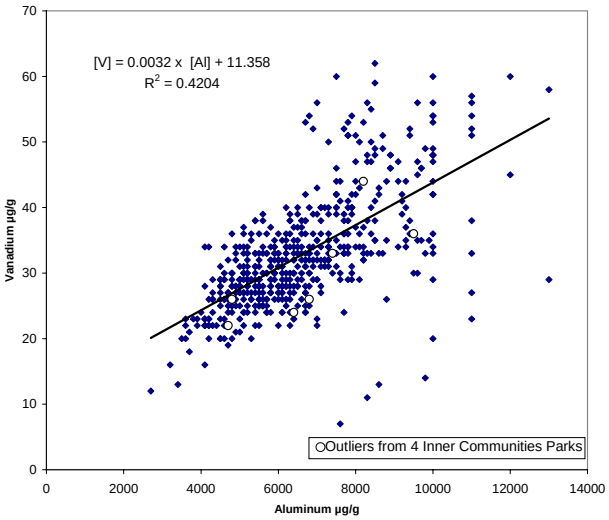


Fig. 10.4.7.13: V vs Al, 0-5 cm, Play Sand

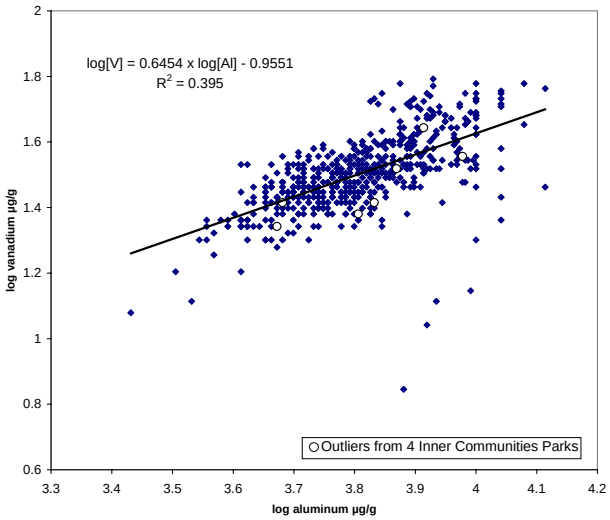


Fig. 10.4.7.13b: log V vs log Al, 0-5 cm, Play Sand

Table 10.4.7.1: Pearson's and Spearman's Correlations for Play Sand in the City of Greater Sudbury

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Al	1	*0.02*	*-0.01*	***0.80***	*0.05*	*0.63*	***0.80***	*0.54*	*0.64*	***0.80***	*0.54*	***0.75***	***0.85***	*0.02*	*0.43*	*0.03*	***0.80***	*0.67*	*0.62*
Sb	0.01	1	*0.02*	*0.00*	*0.40*	*0.00*	*0.00*	*0.00*	*-0.04*	*-0.01*	*-0.02*	*-0.01*	*0.01*	*0.14*	*-0.05*	*0.04*	*0.02*	*0.01*	*-0.03*
As	-0.06	-0.01	1	*0.09*	*0.12*	*-0.04*	*0.01*	*0.20*	*0.23*	*-0.02*	*0.22*	*-0.09*	*-0.03*	*0.30*	*0.23*	*0.07*	*0.01*	*-0.04*	*0.12*
Ba	**0.83**	0.01	0.00	1	*0.03*	*0.45*	*0.63*	*0.54*	*0.65*	*0.66*	*0.45*	*0.55*	*0.72*	*0.05*	*0.46*	*0.08*	*0.64*	*0.58*	*0.54*
Cd	0.05	0.14	0.05	0.01	1	*0.05*	*0.06*	*0.06*	*0.07*	*0.06*	*0.04*	*0.07*	*0.05*	*0.37*	*0.07*	*0.15*	*0.04*	*0.05*	*0.03*
Ca	0.55	0.02	-0.07	0.44	0.04	1	*0.45*	*0.22*	*0.30*	*0.52*	*0.33*	*0.56*	*0.56*	*-0.02*	*0.16*	*0.03*	***0.76***	*0.44*	*0.36*
Cr	**0.79**	-0.02	-0.02	0.66	0.06	0.32	1	*0.58*	*0.65*	***0.85***	*0.48*	***0.77***	***0.83***	*0.10*	*0.43*	*0.05*	*0.58*	***0.77***	*0.69*
Co	0.43	-0.01	0.28	0.40	0.06	0.12	0.43	1	***0.76***	*0.65*	*0.50*	*0.58*	*0.62*	*0.16*	*0.72*	*0.01*	*0.35*	*0.52*	*0.53*
Cu	0.44	-0.03	0.50	0.46	0.10	0.22	0.41	0.63	1	*0.70*	*0.66*	*0.61*	*0.67*	*0.16*	***0.77***	*0.12*	*0.41*	*0.55*	*0.68*
Fe	**0.79**	0.00	-0.05	0.64	0.07	0.37	**0.87**	0.52	0.44	1	*0.54*	***0.84***	***0.91***	*0.06*	*0.42*	*0.00*	*0.60*	***0.89***	*0.73*
Pb	0.28	-0.02	0.24	0.17	0.01	0.25	0.17	0.26	0.41	0.20	1	*0.42*	*0.58*	*0.18*	*0.47*	*0.06*	*0.40*	*0.44*	*0.71*
Mg	0.72	0.02	-0.14	0.56	0.11	0.49	0.73	0.46	0.38	**0.83**	0.16	1	***0.83***	*-0.03*	*0.31*	*-0.02*	*0.50*	*0.70*	*0.64*
Mn	**0.83**	0.01	-0.09	**0.76**	0.04	0.44	**0.86**	0.47	0.42	**0.90**	0.22	**0.80**	1	*-0.01*	*0.39*	*0.03*	*0.66*	***0.83***	*0.72*
Mo	0.06	0.02	0.44	0.00	0.17	-0.01	0.12	0.18	0.36	0.03	0.35	0.02	-0.02	1	*0.16*	*0.10*	*0.01*	*0.03*	*0.05*
Ni	0.22	-0.03	0.42	0.22	0.09	0.15	0.15	0.59	**0.84**	0.17	0.41	0.13	0.13	0.29	1	*0.13*	*0.29*	*0.31*	*0.42*
Se	0.09	0.00	0.06	0.14	0.13	0.09	0.05	0.06	0.35	0.01	0.09	-0.02	0.02	0.12	0.38	1	*0.05*	*0.02*	*0.04*
Sr	**0.80**	0.02	-0.03	0.66	0.03	0.67	0.55	0.27	0.28	0.58	0.19	0.48	0.63	0.01	0.16	0.08	1	*0.50*	*0.42*
V	0.65	0.00	-0.08	0.55	0.05	0.26	**0.85**	0.40	0.30	**0.91**	0.09	0.69	**0.83**	0.05	0.06	-0.02	0.47	1	*0.62*
Zn	0.56	-0.01	0.01	0.49	0.01	0.25	0.60	0.37	0.37	0.59	0.32	0.56	0.60	0.33	0.18	0.03	0.37	0.53	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates highly significant correlations.

10.4.8 Beach Sand

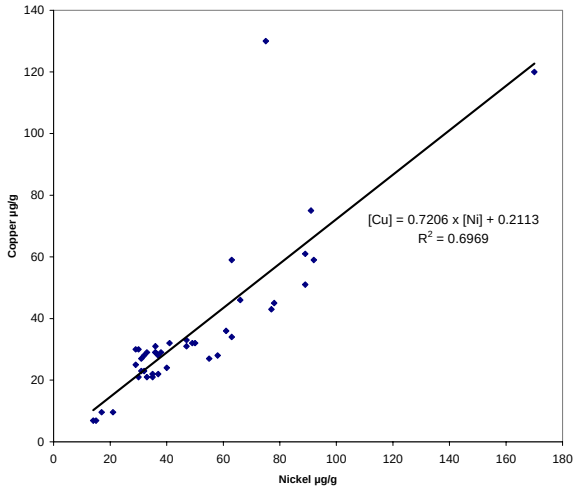


Fig. 10.4.8.1: Cu vs. Ni, 0-5 cm, Beach Sand

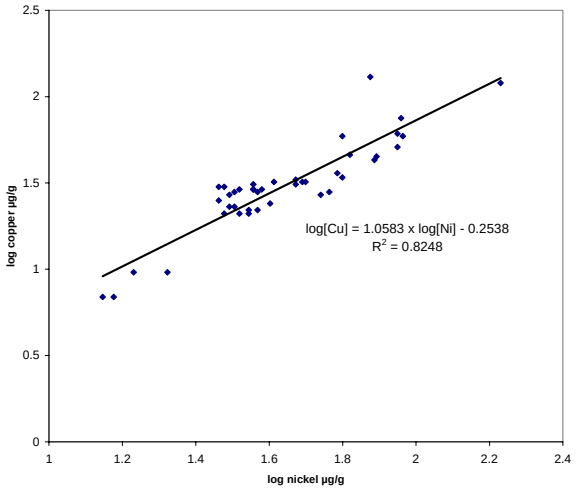


Fig. 10.4.8.1b: log Cu vs. log Ni, 0-5 cm, Beach Sand

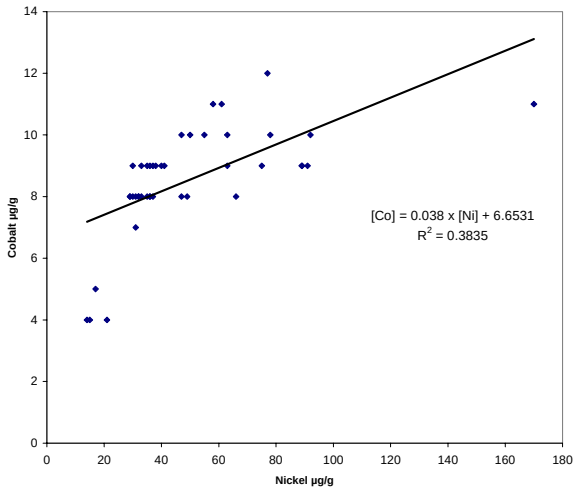


Fig. 10.4.8.2: Co vs. Ni, 0-5 cm, Beach Sand

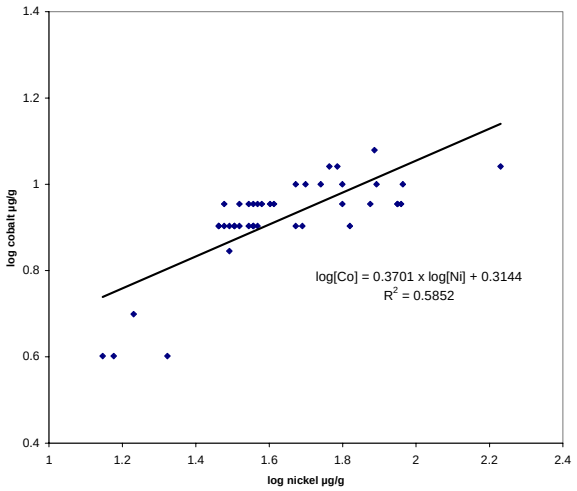


Fig. 10.4.8.2b: log Co vs. log Ni, 0-5 cm, Beach Sand

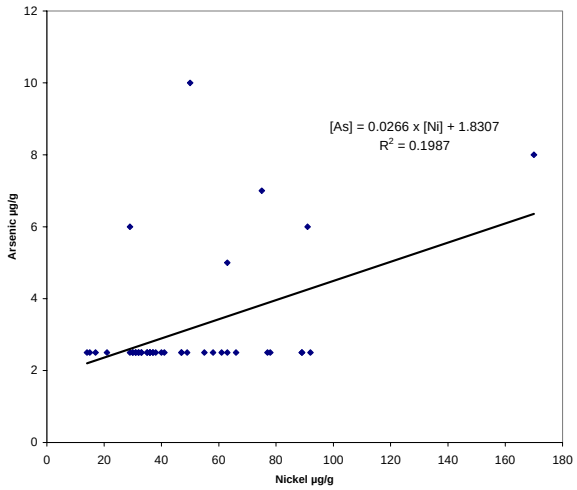


Fig. 10.4.8.3: As vs. Ni, 0-5 cm, Beach Sand

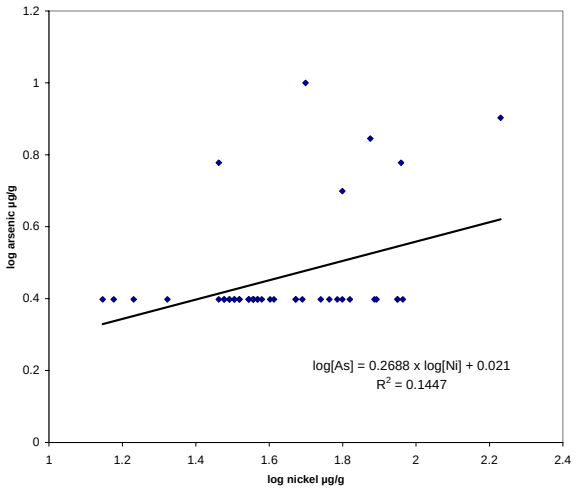


Fig. 10.4.8.3b: log As vs. log Ni, 0-5 cm, Beach Sand

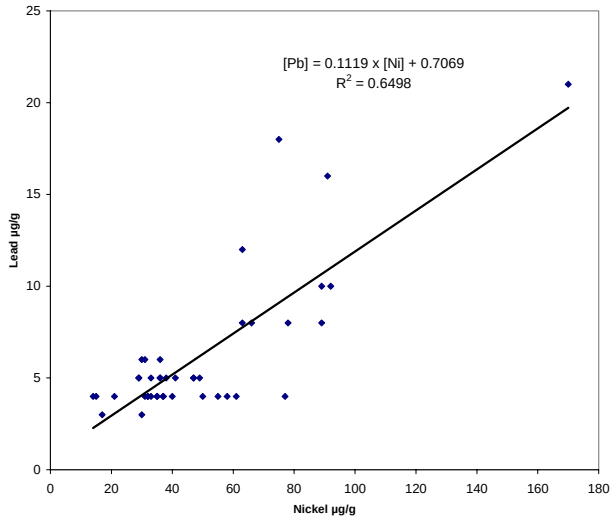


Fig. 10.4.8.4: Pb vs. Ni, 0-5 cm, Beach Sand

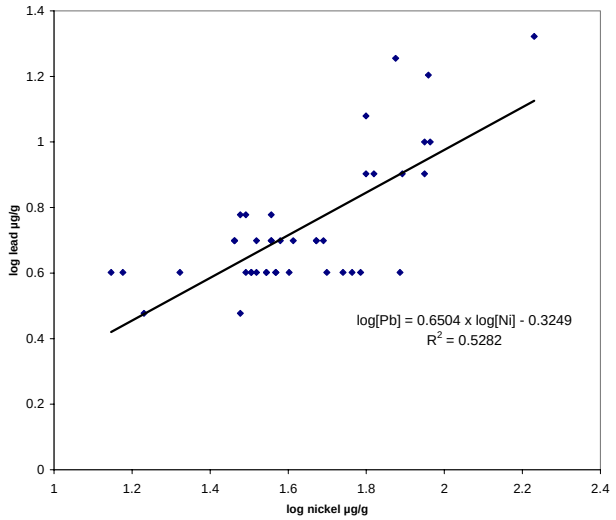


Fig. 10.4.8.4b: log Pb vs. log Ni, 0-5 cm, Beach Sand

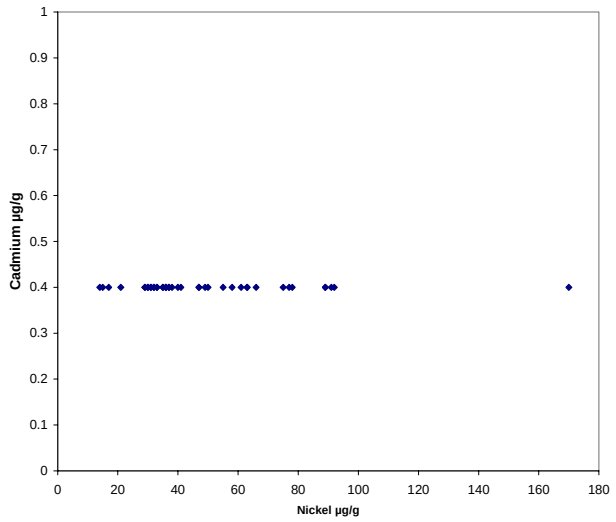


Fig. 10.4.8.5: Cd vs. Ni, 0-5 cm, Beach Sand

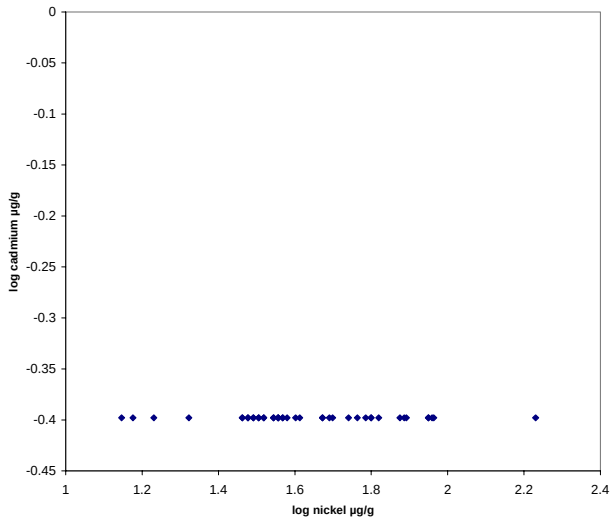


Fig. 10.4.8.5b: log Cd vs. log Ni, 0-5 cm, Beach Sand

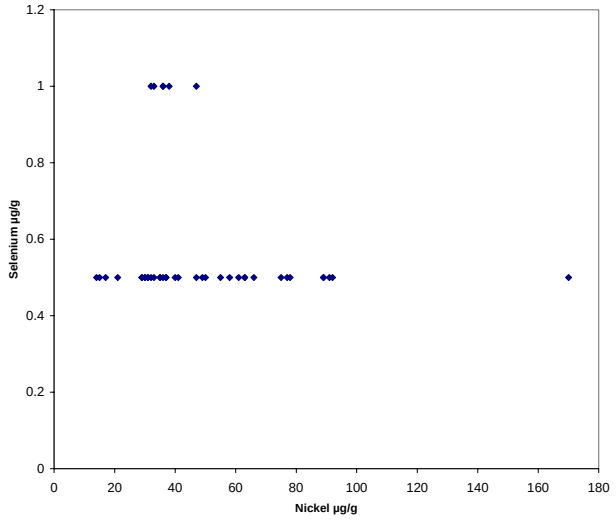


Fig. 10.4.8.6: Se vs. Ni, 0-5 cm, Beach Sand

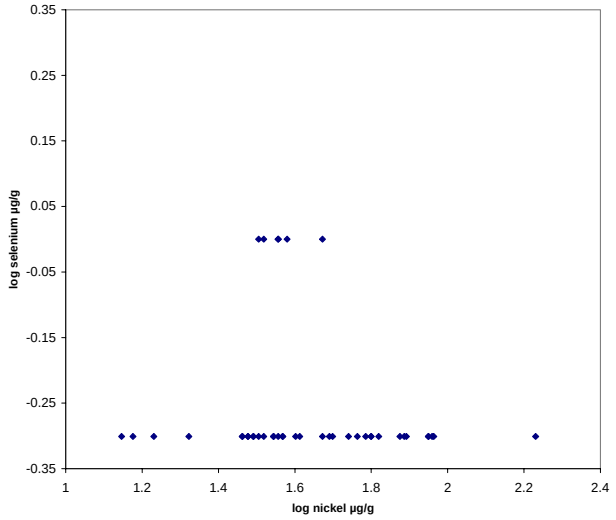


Fig. 10.4.8.6b: log Se vs. log Ni, 0-5 cm, Beach Sand

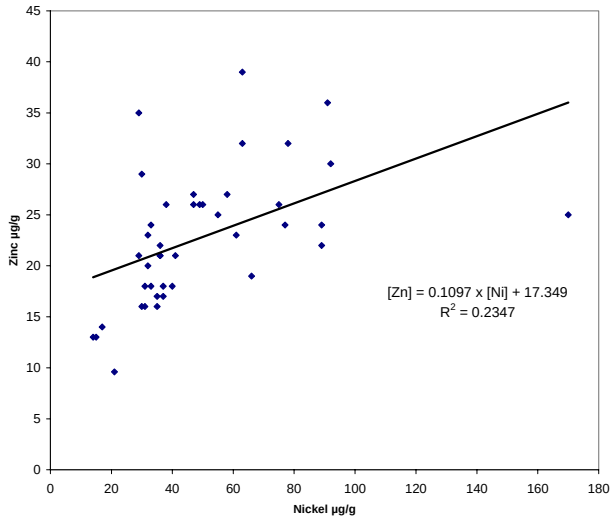


Fig. 10.4.8.7: Zn vs. Ni, 0-5 cm, Beach Sand

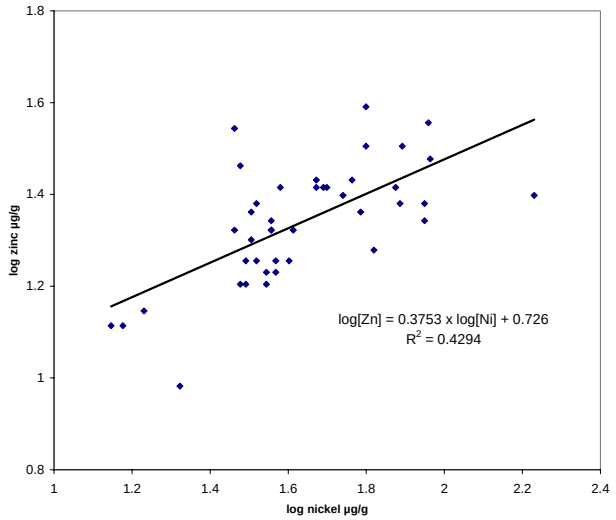


Fig. 10.4.8.7b: log Zn vs. log Ni, 0-5 cm, Beach Sand

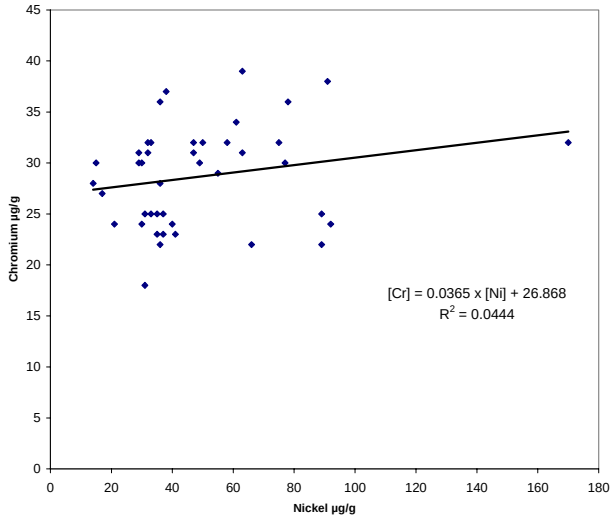


Fig. 10.4.8.8: Cr vs. Ni, 0-5 cm, Beach Sand

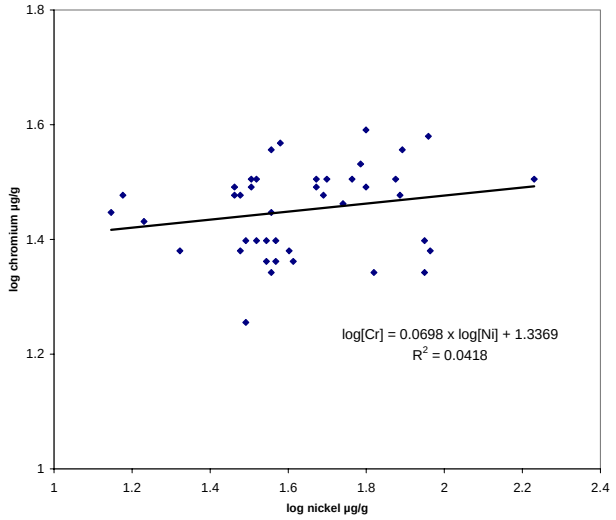


Fig. 10.4.8.8b: log Cr vs. log Ni, 0-5 cm, Beach Sand

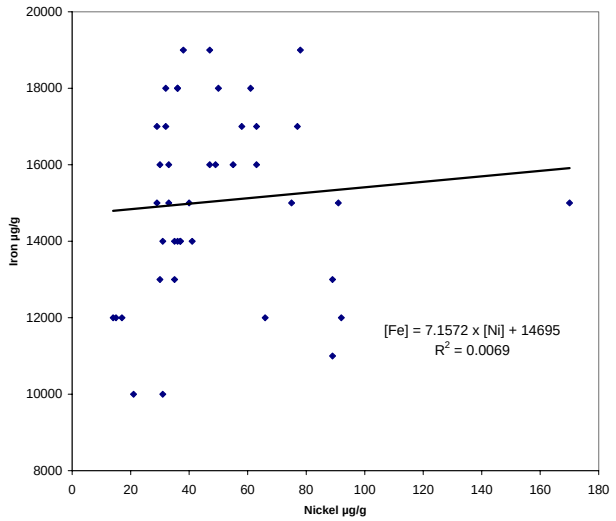


Fig. 10.4.8.9: Fe vs. Ni, 0-5 cm, Beach Sand

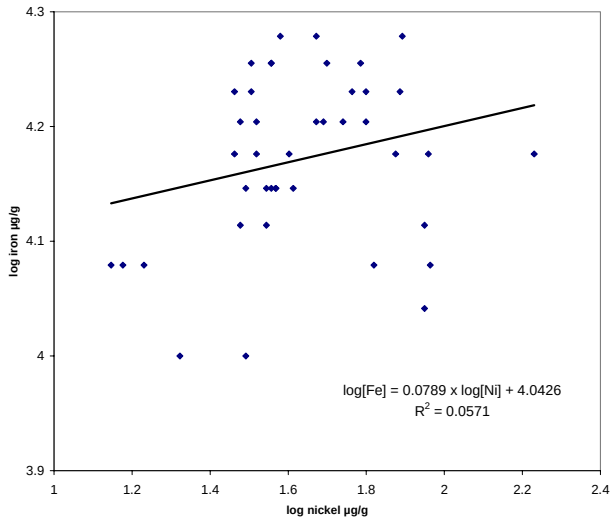


Fig. 10.4.8.9b: log Fe vs. log Ni, 0-5 cm, Beach Sand

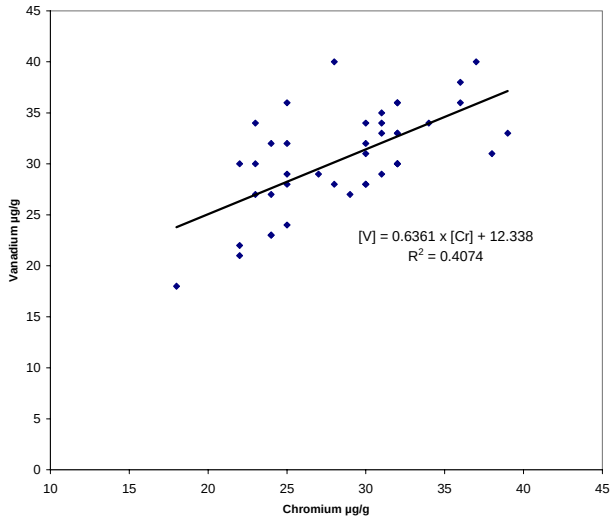


Fig. 10.4.8.10: V vs. Cr, 0-5 cm, Beach Sand

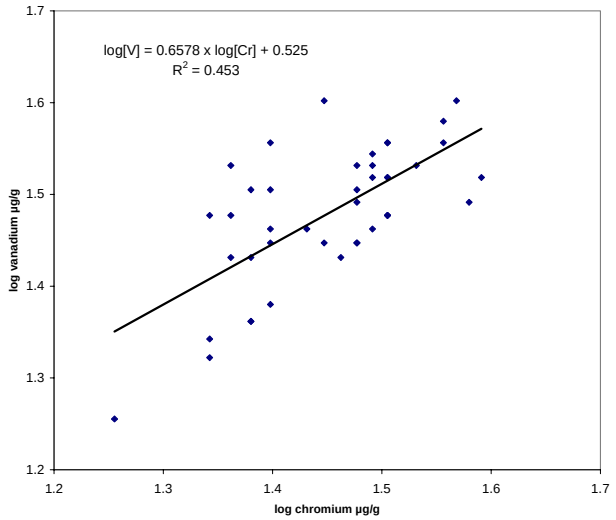


Fig. 10.4.8.10b: log V vs. log Cr, 0-5 cm, Beach Sand

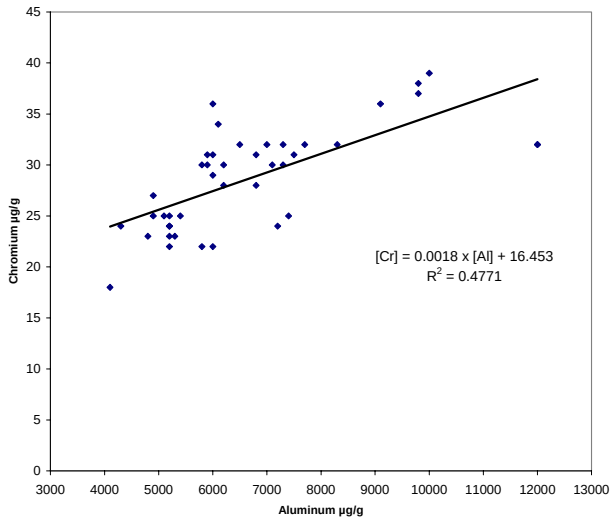


Fig. 10.4.8.11: Cr vs. Al, 0-5 cm, Beach Sand

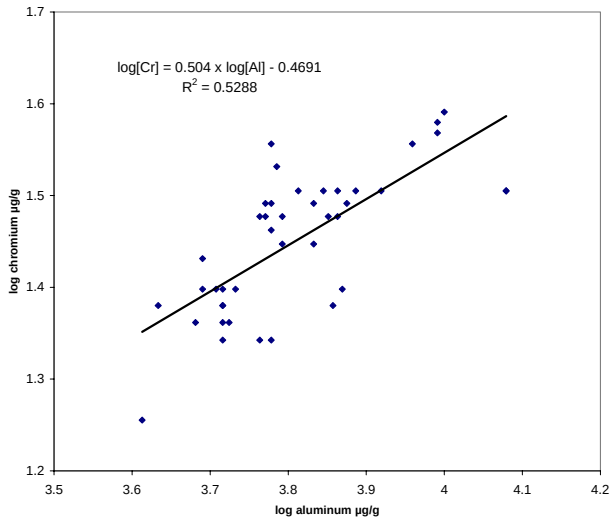


Fig. 10.4.8.11b: log Cr vs. log Al, 0-5 cm, Beach Sand

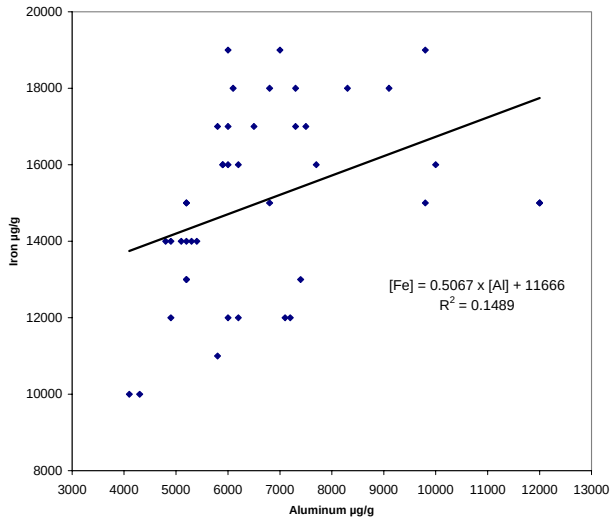


Fig. 10.4.8.12: Fe vs. Al, 0-5 cm, Beach Sand

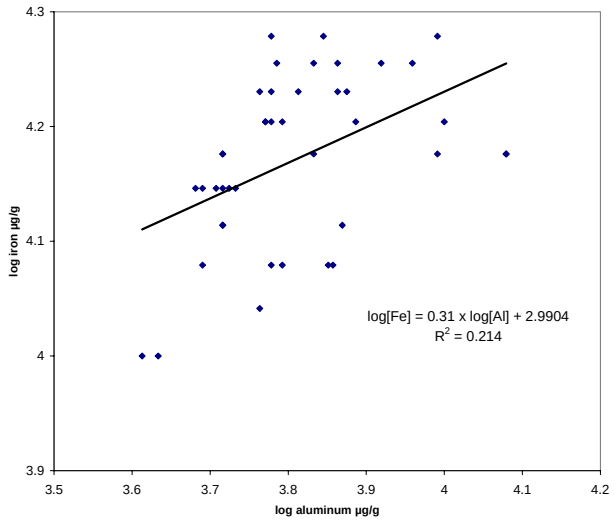


Fig. 10.4.8.12b: log Fe vs. log Al, 0-5 cm, Beach Sand

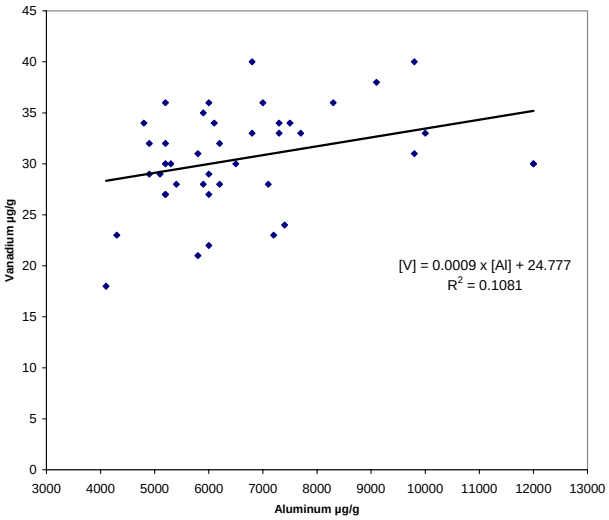


Fig. 10.4.8.13: V vs. Al, 0-5 cm, Beach Sand

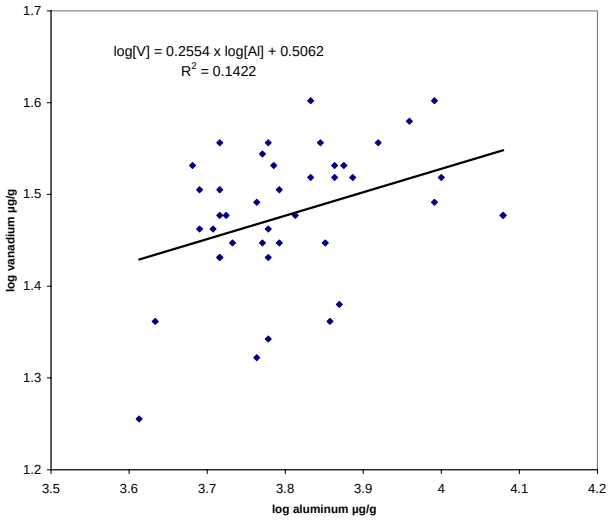


Fig. 10.4.8.13b: log V vs. log Al, 0-5 cm, Beach Sand

Table 10.4.8.1: Pearson's and Spearman's Correlations for Beach Sand in the City of Greater Sudbury

	Al	**Sb**	**As**	**Ba**	**Ca**	**Cr**	**Co**	**Cu**	**Fe**	**Pb**	**Mg**	**Mn**	**Ni**	**Se**	**Sr**	**V**	**Zn**
Al	1	*-0.03*	*0.51*	*0.49*	***0.75***	***0.75***	*0.31*	*0.53*	*0.50*	*0.50*	*0.39*	*-0.07*	*0.32*	*0.39*	***0.91***	*0.36*	*0.58*
Sb	-0.06	1	*-0.06*	*-0.26*	*-0.05*	*-0.02*	*0.19*	*-0.09*	*0.06*	*-0.14*	*0.25*	*0.05*	*0.10*	*-0.06*	*-0.06*	*-0.17*	*0.08*
As	0.59	-0.06	1	*0.39*	*0.22*	*0.45*	*0.23*	*0.46*	*0.10*	*0.39*	*0.06*	*-0.17*	*0.31*	*-0.17*	*0.40*	*0.09*	*0.45*
Ba	**0.84**	-0.15	0.60	1	*0.36*	*0.12*	*0.08*	*0.33*	*-0.09*	*0.43*	*-0.23*	*0.13*	*0.29*	*0.19*	*0.41*	*0.09*	*0.09*
Ca	0.61	-0.04	0.17	0.31	1	*0.59*	*0.14*	*0.23*	*0.42*	*0.26*	*0.33*	*0.15*	*0.10*	*0.46*	***0.87***	*0.38*	*0.40*
Cr	0.69	0.01	0.36	0.33	0.60	1	*0.38*	*0.37*	*0.76*	*0.21*	*0.60*	*-0.05*	*0.23*	*0.35*	*0.73*	*0.62*	*0.62*
Co	0.27	0.13	0.23	0.22	0.11	0.29	1	*0.62*	*0.49*	*0.26*	*0.40*	*0.19*	***0.75***	*-0.02*	*0.14*	*0.15*	*0.60*
Cu	0.74	-0.06	0.60	**0.87**	0.16	0.28	0.47	1	*0.28*	***0.80***	*0.18*	*-0.28*	***0.85***	*0.03*	*0.34*	*0.03*	***0.75***
Fe	0.39	0.06	0.14	-0.01	0.44	0.74	0.57	0.08	1	*0.07*	***0.83***	*0.21*	*0.22*	*0.48*	*0.42*	***0.80***	*0.57*
Pb	0.74	-0.09	0.58	**0.89**	0.17	0.29	0.29	**0.94**	-0.03	1	*0.01*	*-0.27*	*0.59*	*0.06*	*0.36*	*-0.03*	*0.63*
Mg	0.23	0.23	0.09	-0.14	0.32	0.58	0.61	-0.02	**0.84**	-0.13	1	*0.26*	*0.12*	*0.39*	*0.26*	*0.57*	*0.63*
Mn	-0.10	0.01	-0.11	-0.07	0.17	-0.06	0.20	-0.25	0.23	-0.28	0.22	1	*-0.09*	*0.22*	*-0.02*	*0.37*	*-0.02*
Ni	0.52	0.03	0.45	0.64	0.14	0.21	0.62	**0.83**	0.08	**0.81**	0.02	-0.18	1	*-0.12*	*0.16*	*-0.06*	*0.62*
Se	0.29	-0.06	-0.16	0.02	0.47	0.33	0.03	-0.10	0.47	-0.13	0.39	0.16	-0.18	1	*0.41*	*0.52*	*0.08*
Sr	**0.82**	-0.06	0.34	0.50	**0.87**	0.73	0.02	0.34	0.42	0.38	0.21	0.01	0.21	0.43	1	*0.36*	*0.43*
V	0.33	-0.11	0.08	0.03	0.43	0.64	0.23	-0.08	**0.83**	-0.13	0.59	0.40	-0.17	0.52	0.42	1	*0.30*
Zn	0.50	0.05	0.40	0.34	0.37	0.63	0.59	0.49	0.52	0.49	0.63	-0.05	0.48	0.04	0.35	0.27	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates highly significant correlations.

10.4.9 Crushed Stone

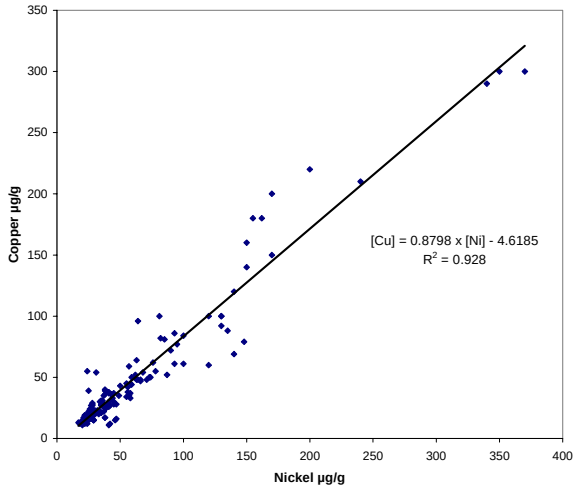


Fig. 10.4.9.1: Cu vs. Ni, 0-5 cm, Crushed Stone

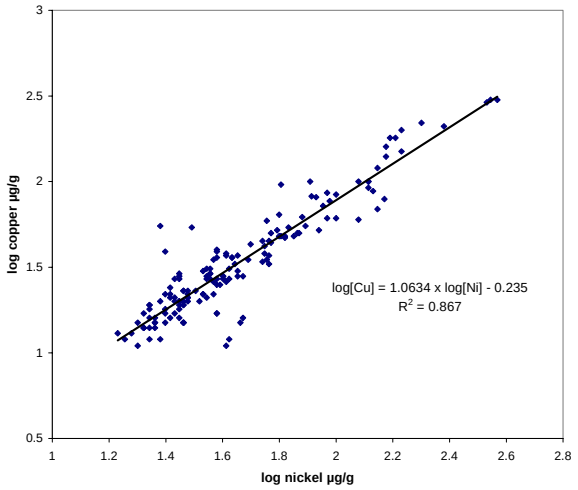


Fig. 10.4.9.1b: log Cu vs log Ni, 0-5 cm, Crushed Stone

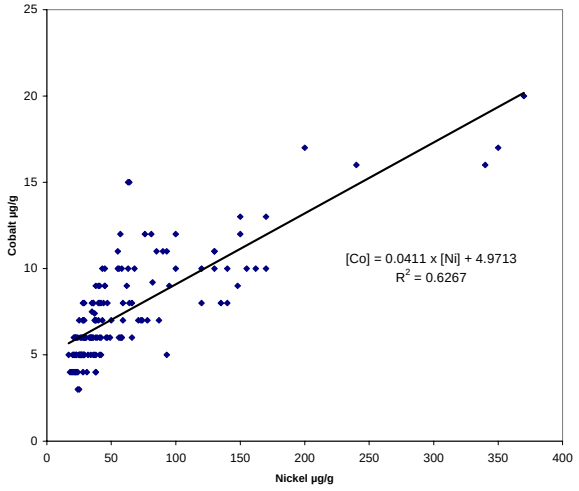


Fig. 10.4.9.2: Co vs. Ni, 0-5 cm, Crushed Stone

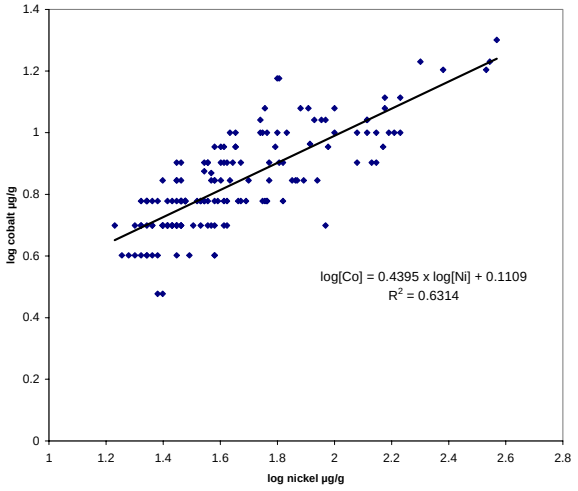


Fig. 10.4.9.2b: log Co vs log Ni, 0-5 cm, Crushed Stone

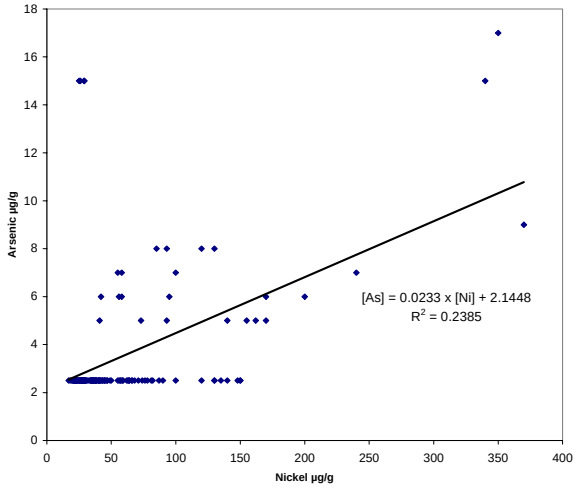


Fig. 10.4.9.3: As vs. Ni, 0-5 cm, Crushed Stone

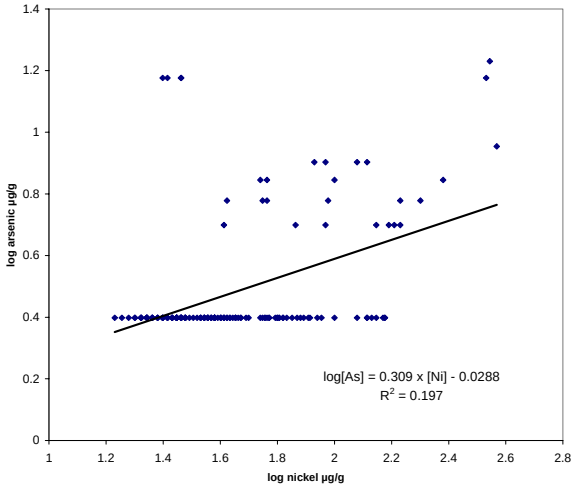


Fig. 10.4.9.3b: log As vs log Ni, 0-5 cm, Crushed Stone

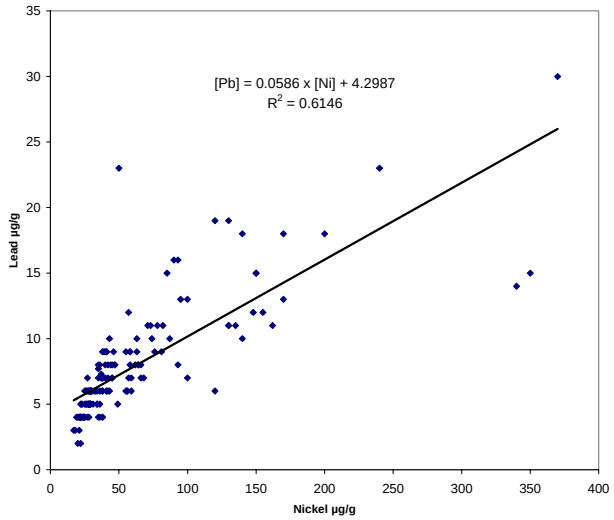


Fig. 10.4.9.4: Pb vs. Ni, 0-5 cm, Crushed Stone

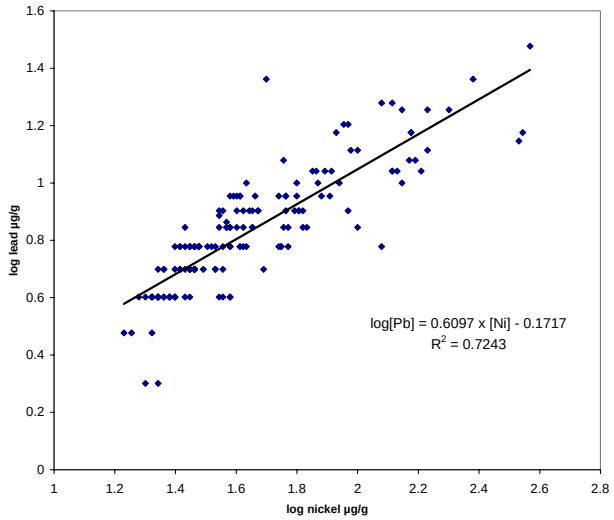


Fig. 10.4.9.4b: log Pb vs. log Ni, 0-5 cm, Crushed Stone

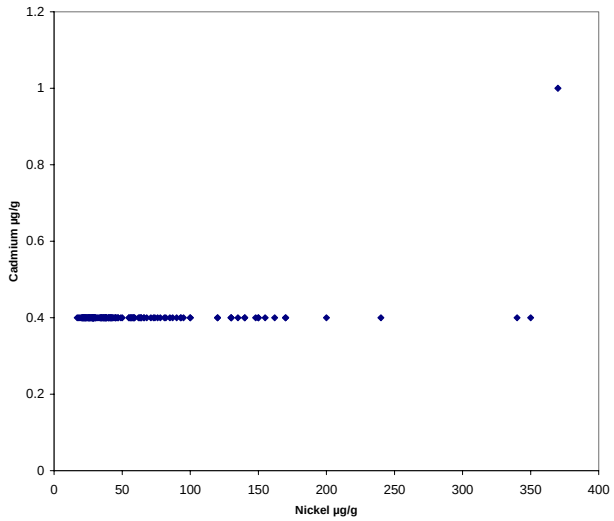


Fig. 10.4.9.5: Cd vs. Ni, 0-5 cm, Crushed Stone

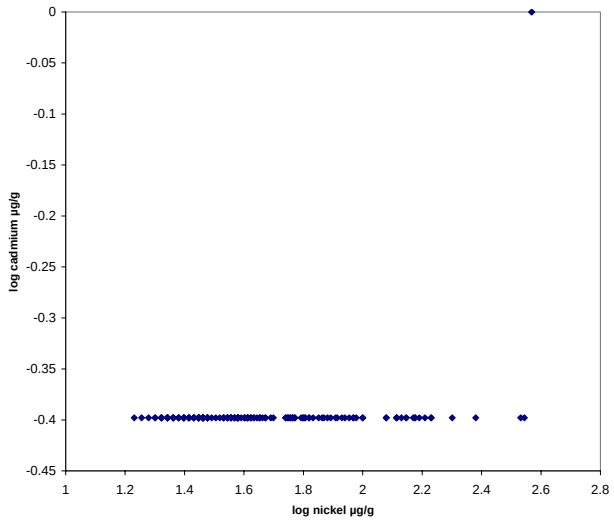


Fig. 10.4.9.5b: log Cd vs. log Ni, 0-5 cm, Crushed Stone

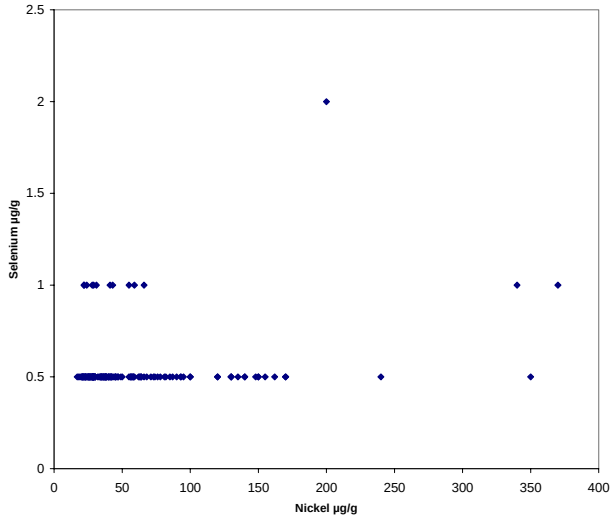


Fig. 10.4.9.6: Se vs. Ni, 0-5 cm, Crushed Stone

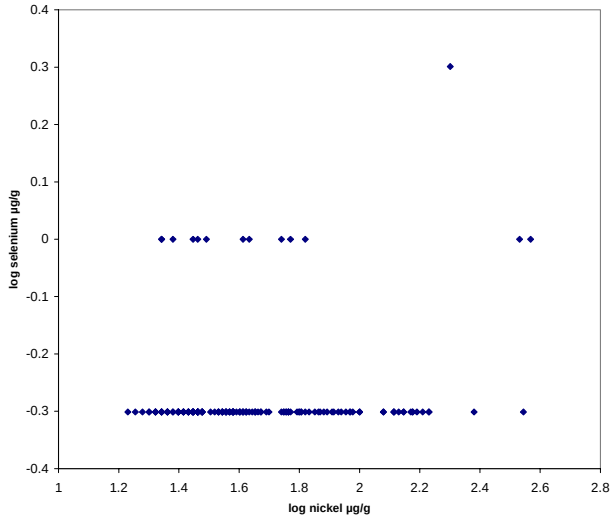


Fig. 10.4.9.6b: log Se vs. log Ni, 0-5 cm, Crushed Stone

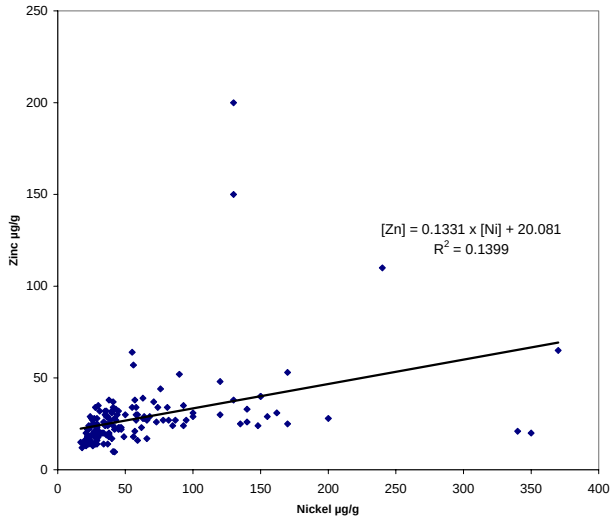


Fig. 10.4.9.7: Zn vs. Ni, 0-5 cm, Crushed Stone

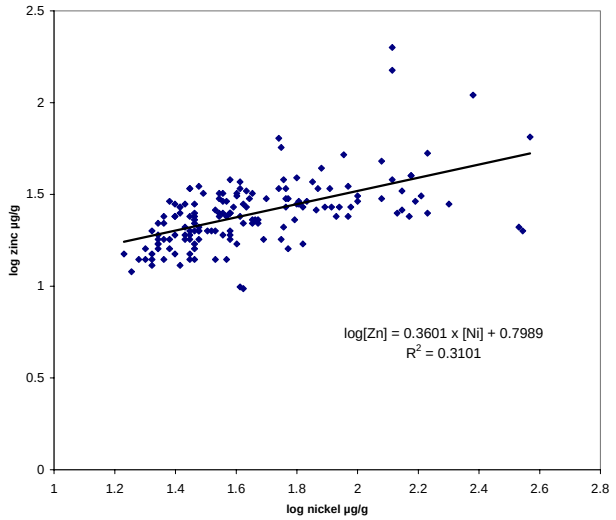


Fig. 10.4.9.7b: log Zn vs. log Ni, 0-5 cm, Crushed Stone

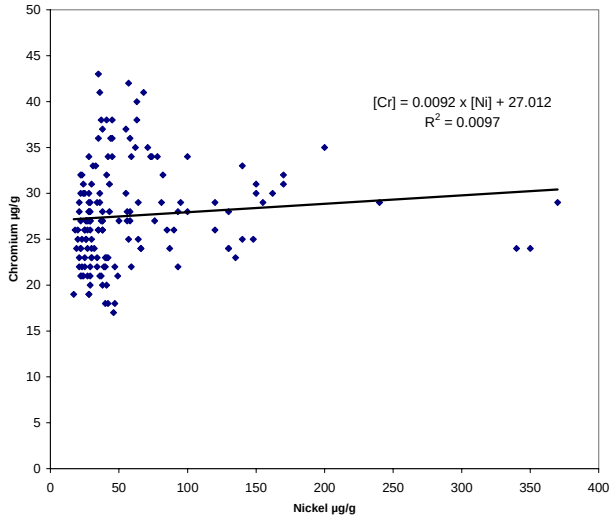


Fig. 10.4.9.8: Cr vs. Ni, 0-5 cm, Crushed Stone

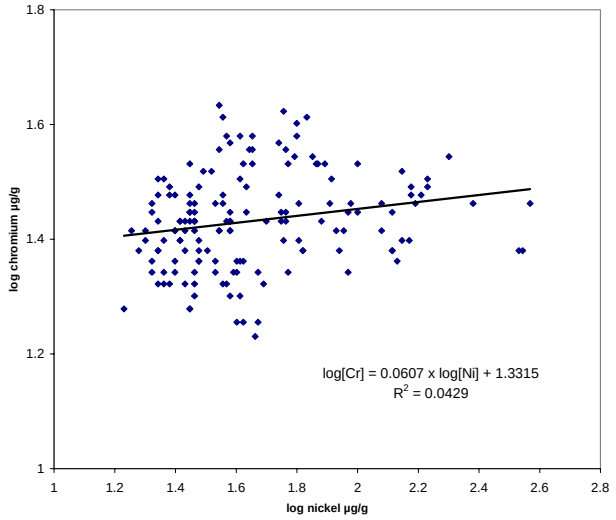


Fig. 10.4.9.8b: log Cr vs. log Ni, 0-5 cm, Crushed Stone

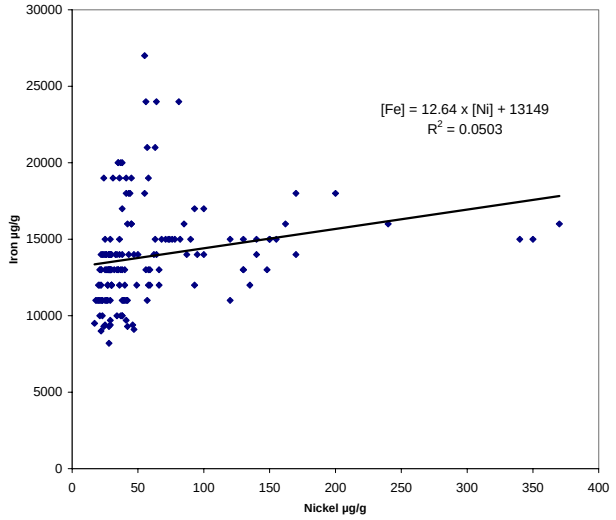


Fig. 10.4.9.9: Fe vs. Ni, 0-5 cm, Crushed Stone

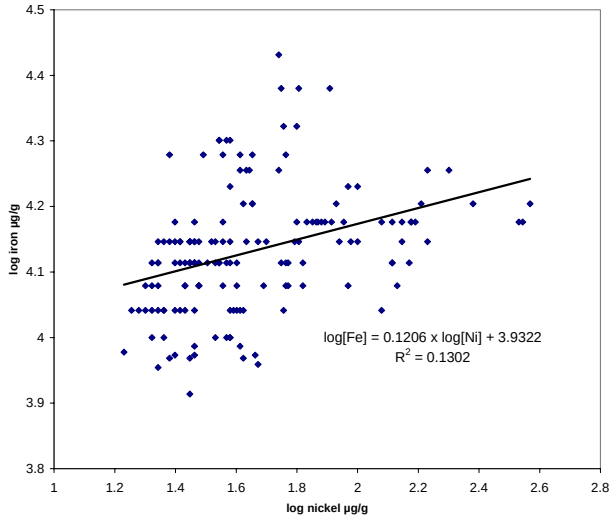


Fig. 10.4.9.9b: log Fe vs. og Ni, 0-5 cm, Crushed Stone

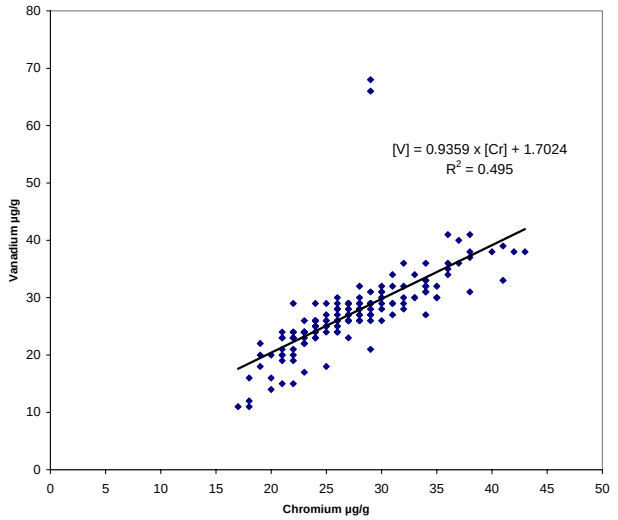


Fig. 10.4.9.10: V vs. Cr, 0-5 cm, Crushed Stone

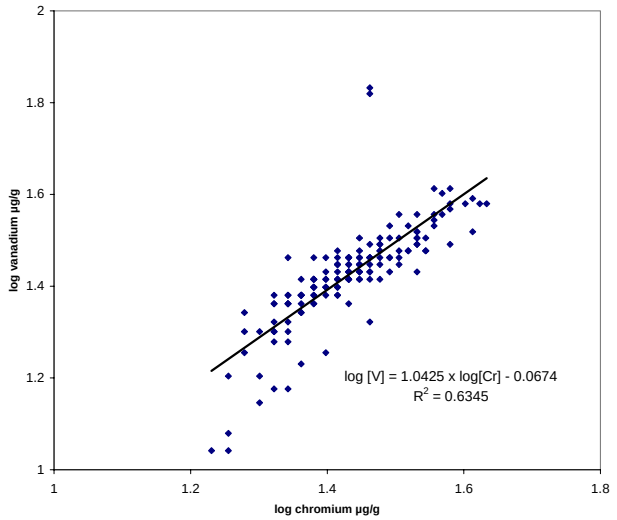


Fig. 10.4.9.10b: log V vs. log Cr, 0-5 cm, Crushed Stone

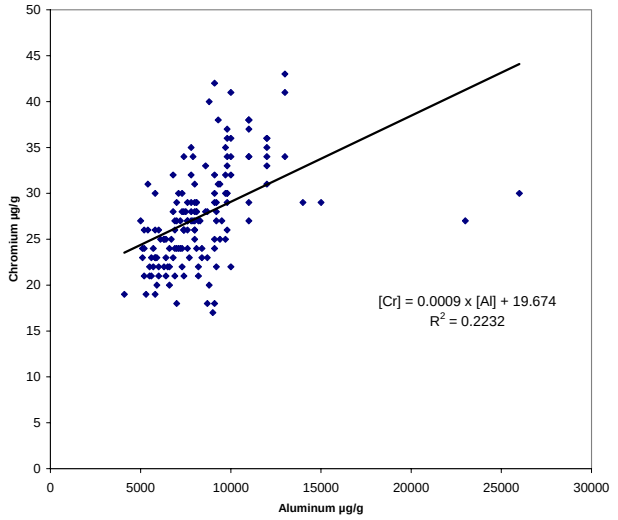


Fig. 10.4.9.11: Cr vs. Al, 0-5 cm, Crushed Stone

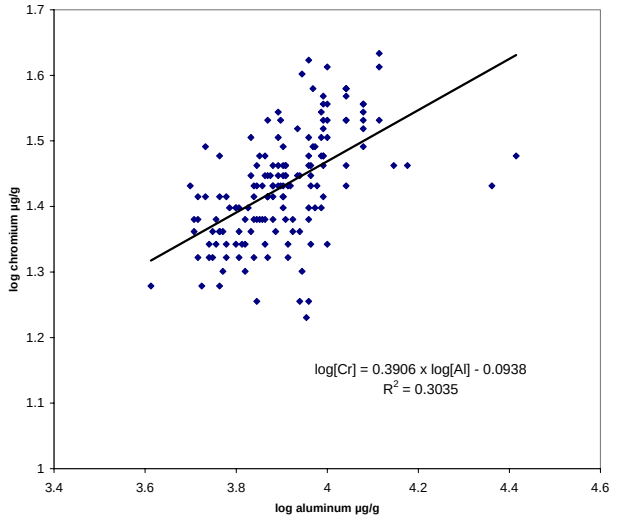


Fig. 10.4.9.11b: log Cr vs. log Al, 0-5 cm, Crushed Stone

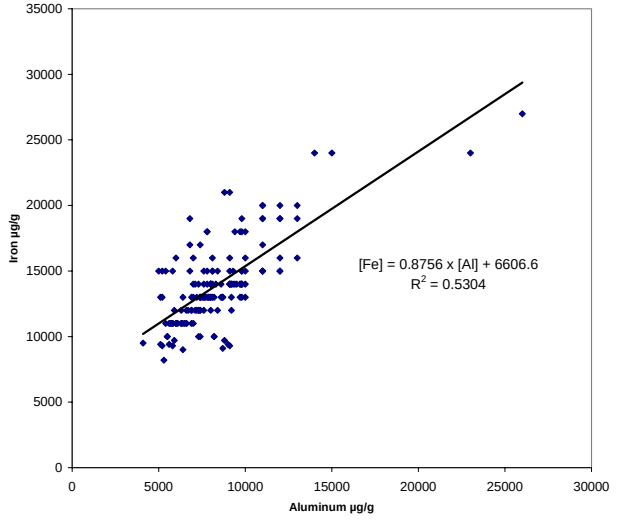


Fig. 10.4.9.12: Fe vs. Al, 0-5 cm, Crushed Stone

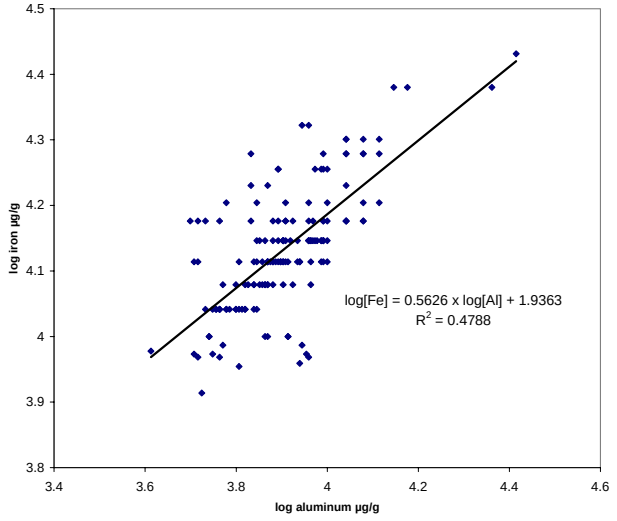


Fig. 10.4.9.12b: log Fe vs. log Al, 0-5 cm, Crushed Stone

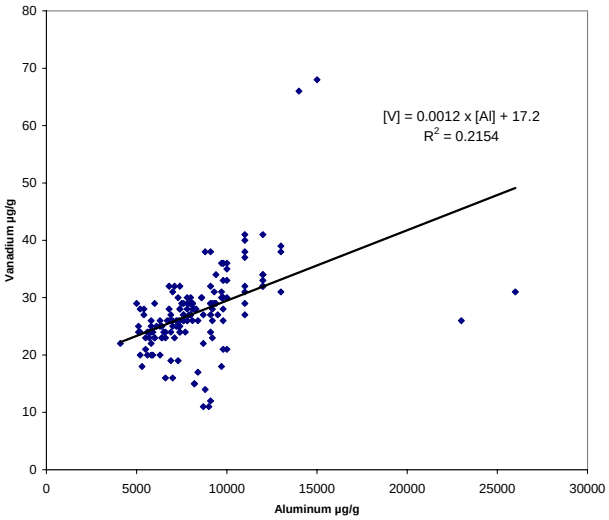


Fig. 10.4.9.13: V vs. Al, 0-5 cm, Crushed Stone

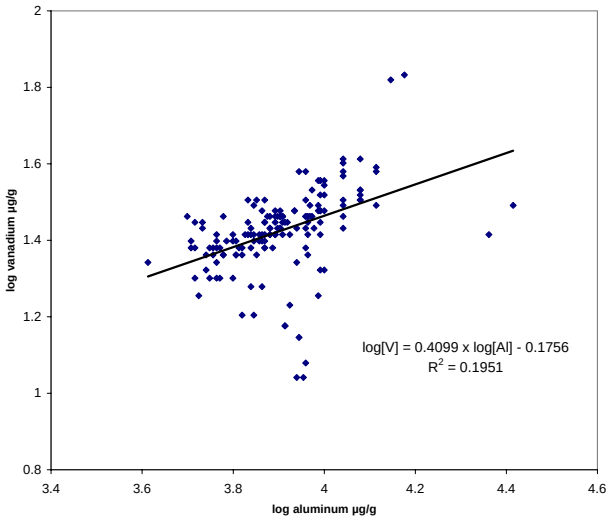


Fig. 10.4.9.13b: log V vs. log Al, 0-5 cm, Crushed Stone

Table 10.4.9.1: Pearson's and Spearman's Correlations for Crushed Stone in the City of Greater Sudbury

	Al	**Sb**	**As**	**Ba**	**Cd**	**Ca**	**Cr**	**Co**	**Cu**	**Fe**	**Pb**	**Mg**	**Mn**	**Mo**	**Ni**	**Se**	**Sr**	**V**	**Zn**
Al	1	*0.08*	*0.14*	*0.66*	*0.01*	*0.26*	*0.62*	*0.30*	*0.33*	*0.65*	*0.29*	*0.35*	*0.59*	*0.13*	*0.25*	*0.07*	*0.30*	*0.60*	*0.39*
Sb	0.05	1	*0.15*	*0.00*	*-0.02*	*0.01*	*0.03*	*0.05*	*0.04*	*-0.03*	*0.01*	*0.05*	*-0.12*	*0.21*	*0.11*	*0.04*	*0.00*	*-0.01*	*-0.04*
As	0.09	0.09	1	*-0.08*	*0.19*	*-0.29*	*0.09*	*0.35*	*0.35*	*0.21*	*0.36*	*-0.24*	*-0.04*	*0.00*	*0.40*	*0.04*	*-0.28*	*0.14*	*0.17*
Ba	**0.83**	0.03	0.01	1	*0.02*	*0.48*	*0.35*	*0.21*	*0.30*	*0.44*	*0.14*	*0.56*	*0.54*	*0.10*	*0.13*	*0.15*	*0.57*	*0.32*	*0.25*
Cd	-0.01	-0.02	0.16	-0.01	1	*0.01*	*0.05*	*0.14*	*0.14*	*0.09*	*0.14*	*0.07*	*0.05*	*-0.03*	*0.14*	*0.25*	*-0.08*	*0.05*	*0.13*
Ca	0.12	0.16	-0.07	0.08	-0.02	1	*-0.30*	*-0.32*	*-0.25*	*-0.19*	*-0.22*	***0.88***	*0.18*	*0.51*	*-0.20*	*0.04*	***0.94***	*-0.34*	*-0.24*
Cr	0.47	0.08	-0.02	0.22	0.02	-0.39	1	*0.50*	*0.43*	***0.81***	*0.33*	*-0.08*	*0.64*	*-0.33*	*0.26*	*0.12*	*-0.26*	***0.89***	*0.55*
Co	0.21	0.02	0.38	0.15	0.34	-0.15	0.40	1	***0.78***	*0.70*	***0.80***	*-0.03*	*0.21*	*-0.01*	***0.78***	*0.06*	*-0.34*	*0.50*	*0.67*
Cu	0.04	-0.03	0.48	0.01	0.38	-0.14	0.17	**0.81**	1	*0.66*	***0.80***	*0.01*	*0.22*	*-0.06*	***0.87***	*0.16*	*-0.23*	*0.45*	*0.70*
Fe	0.74	-0.05	0.10	0.55	0.05	-0.24	0.72	0.58	0.32	1	*0.53*	*0.09*	*0.61*	*-0.22*	*0.46*	*0.16*	*-0.17*	***0.82***	*0.69*
Pb	0.05	-0.03	0.33	-0.04	0.41	-0.05	0.24	0.76	**0.77**	0.32	1	*0.03*	*0.15*	*0.05*	***0.88***	*0.01*	*-0.26*	*0.35*	*0.67*
Mg	0.30	0.11	-0.16	0.37	0.01	**0.88**	-0.27	-0.13	-0.13	-0.02	-0.07	1	*0.25*	*0.52*	*0.02*	*0.08*	***0.84***	*-0.15*	*-0.03*
Mn	**0.77**	-0.10	-0.04	0.72	0.02	-0.15	0.53	0.16	-0.05	0.70	0.02	0.08	1	*-0.29*	*0.09*	*0.06*	*0.20*	*0.67*	*0.42*
Mo	0.12	0.28	-0.06	0.15	-0.03	**0.78**	-0.31	-0.06	-0.10	-0.17	-0.05	0.72	-0.15	1	*0.13*	*-0.12*	*0.49*	*-0.41*	*-0.19*
Ni	0.02	-0.02	0.49	-0.01	0.43	-0.06	0.10	**0.79**	**0.96**	0.22	**0.78**	-0.08	-0.07	-0.03	1	*0.04*	*-0.22*	*0.27*	*0.60*
Se	0.02	0.05	0.08	0.05	0.20	-0.06	0.14	0.23	0.30	0.15	0.16	0.02	0.02	-0.10	0.24	1	*0.03*	*0.09*	*0.09*
Sr	0.28	0.06	-0.18	0.43	-0.06	0.73	-0.31	-0.26	-0.21	-0.06	-0.21	**0.92**	0.10	0.65	-0.19	0.04	1	*-0.28*	*-0.28*
V	0.46	-0.05	0.01	0.22	0.02	-0.50	0.70	0.41	0.18	**0.78**	0.17	-0.37	0.45	-0.44	0.08	0.06	-0.35	1	*0.56*
Zn	0.10	-0.05	0.04	0.13	0.14	-0.14	0.15	0.45	0.35	0.29	0.42	-0.10	0.18	-0.11	0.37	0.01	-0.17	0.16	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates highly significant correlations.

10.4.10 Playground Gravel

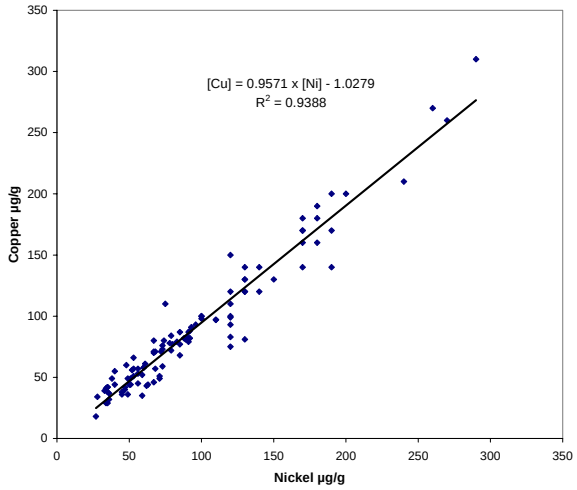


Fig. 10.4.10.1: Cu vs. Ni, 0-5 cm, Playground Gravel

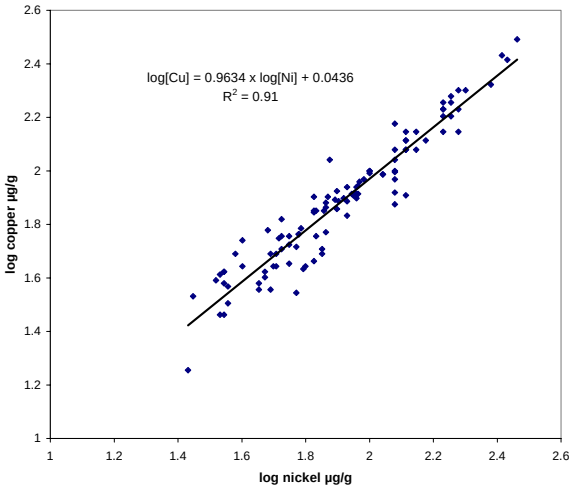


Fig. 10.4.10.1b: log Cu vs log Ni, 0-5 cm, Playground Gravel

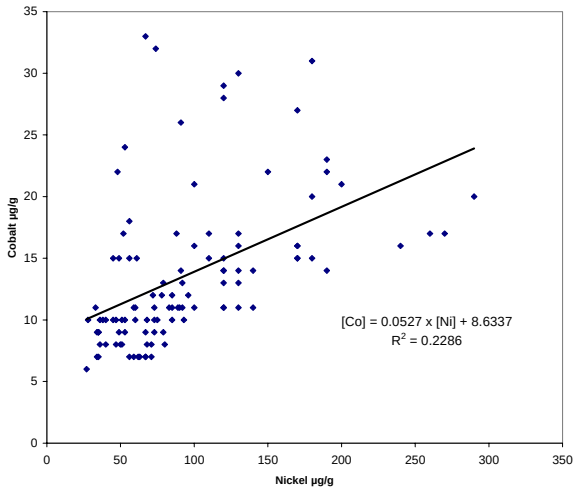


Fig. 10.4.10.2: Co vs. Ni, 0-5 cm, Playground Gravel

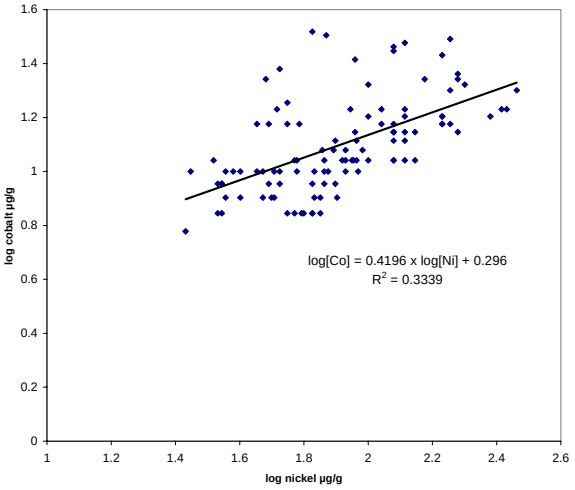


Fig. 10.4.10.2b: log Co vs. log Ni, 0-5 cm, Playground Gravel

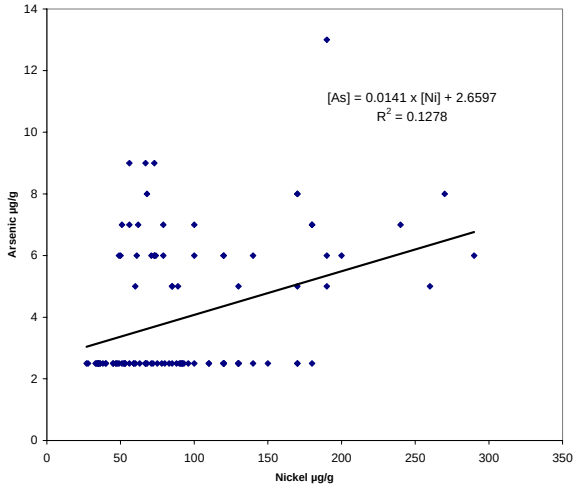


Fig. 10.4.10.3: As vs. Ni, 0-5 cm, Playground Gravel

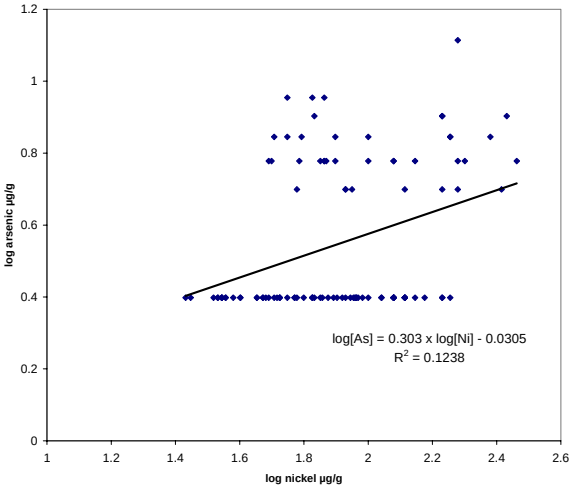


Fig. 10.4.10.3b: log As vs. log Ni, 0-5 cm, Playground Gravel

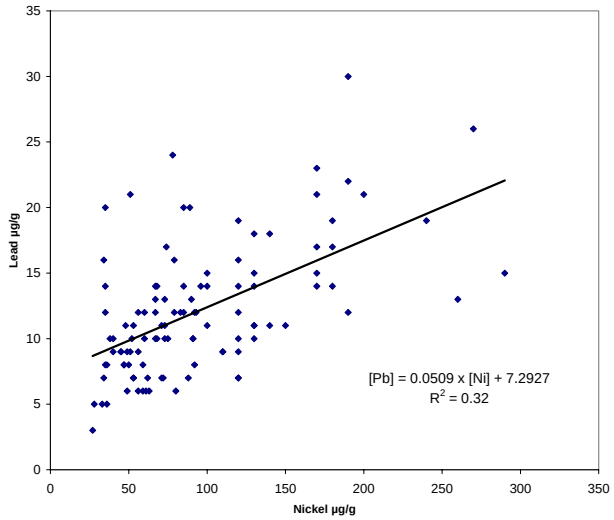


Fig. 10.4.10.4: Pb vs. Ni, 0-5 cm, Playground Gravel

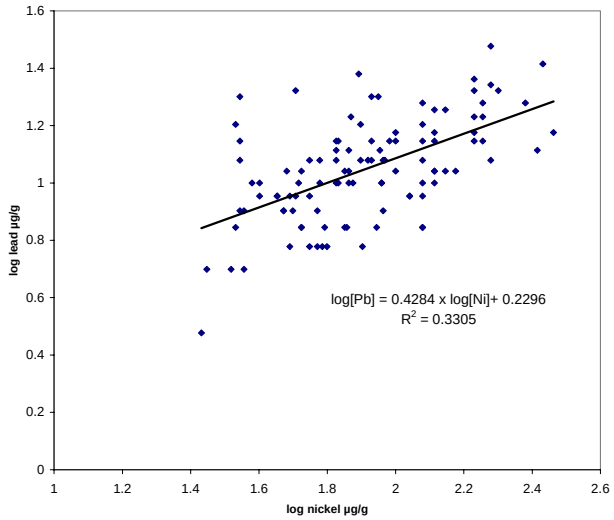


Fig. 10.4.10.4b: log Pb vs. log Ni, 0-5 cm, Playground Gravel

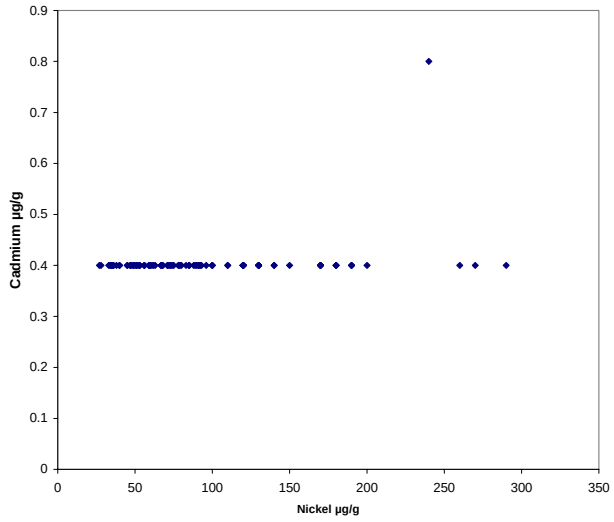


Fig. 10.4.10.5: Cd vs. Ni, 0-5 cm, Playground Gravel

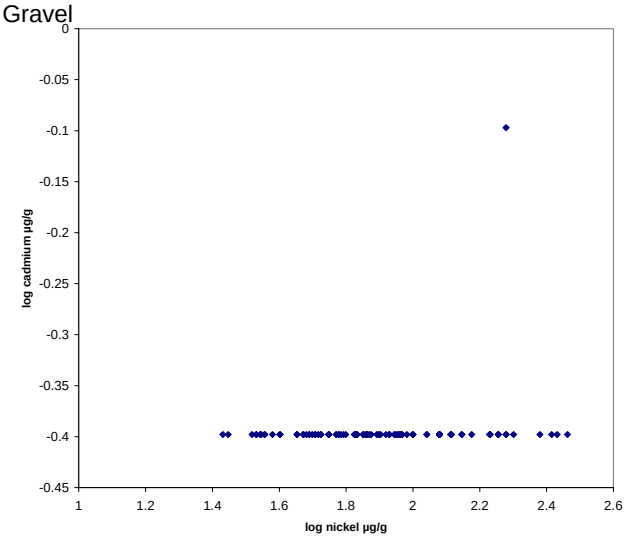


Fig. 10.4.10.5b: log Cd vs. log Ni, 0-5 cm, Playground Gravel

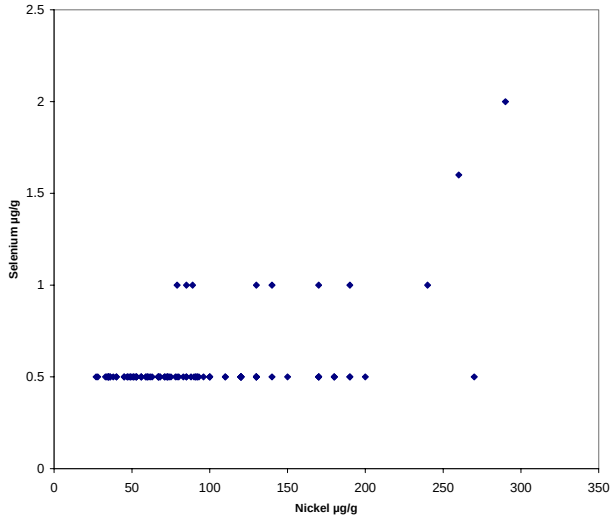


Fig. 10.4.10.6: Se vs. Ni, 0-5 cm, Playground Gravel

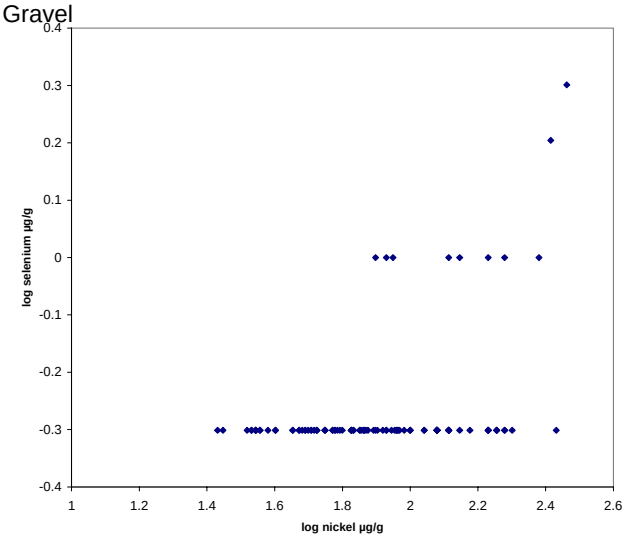


Fig. 10.4.10.6b: log Se vs. log Ni, 0-5 cm, Playground Gravel

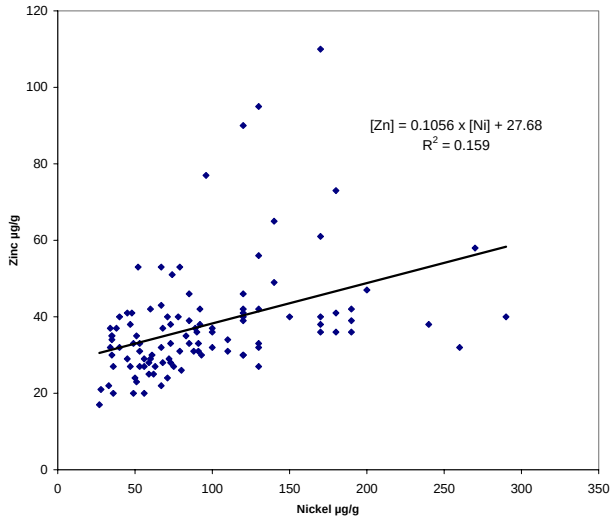


Fig. 10.4.10.7: Zn vs. Ni, 0-5 cm, Playground Gravel

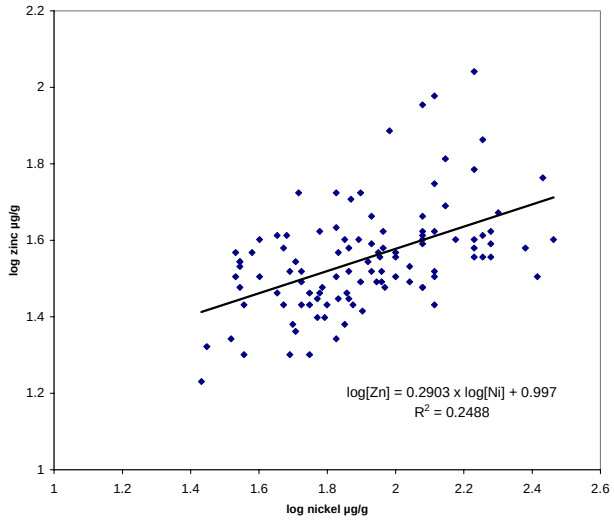


Fig. 10.4.10.7b: log Zn vs. log Ni, 0-5 cm, Playground Gravel

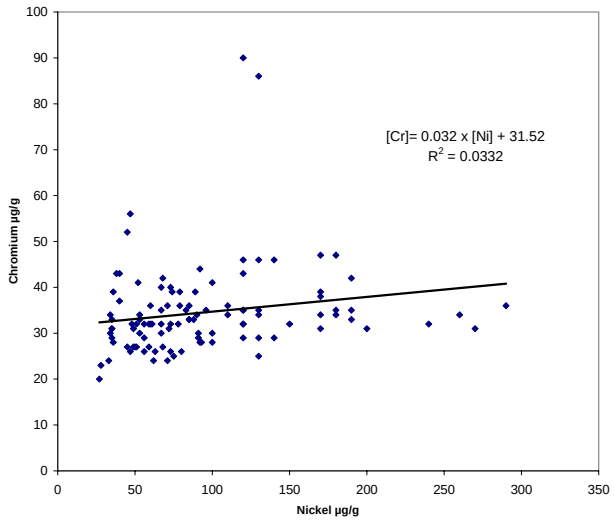


Fig. 10.4.10.8: Cr vs. Ni, 0-5 cm, Playground Gravel

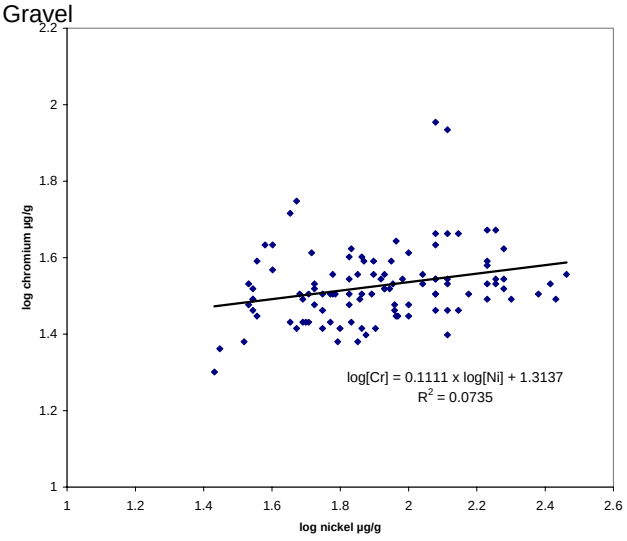


Fig. 10.4.10.8b: log Cr vs. log Ni, 0-5 cm, Playground Gravel

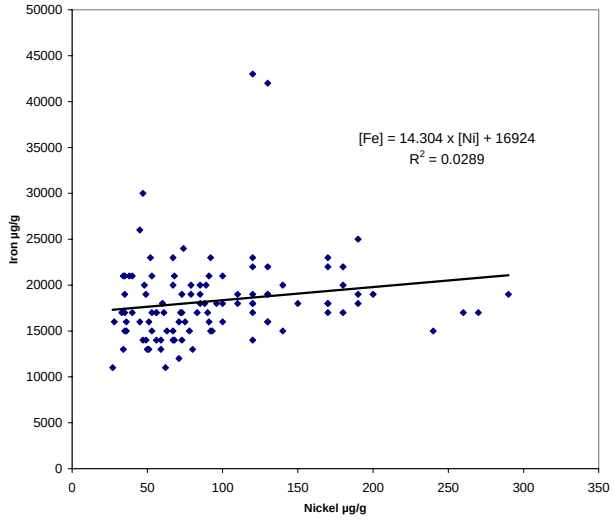


Fig. 10.4.10.9: Fe vs. Ni, 0-5 cm, Playground Gravel

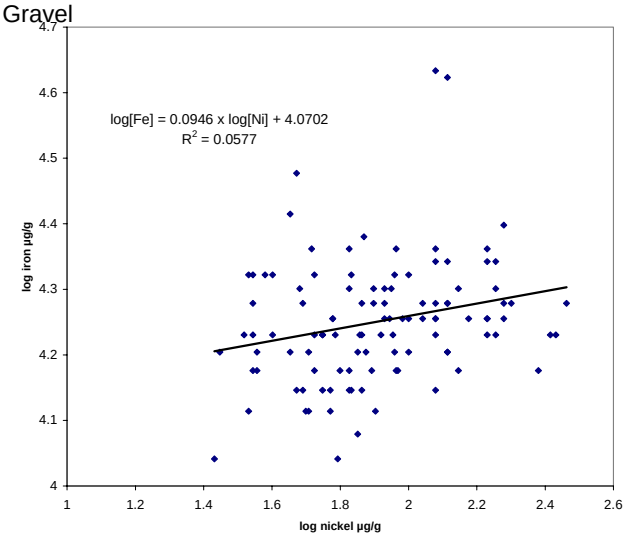


Fig. 10.4.10.9b: log Fe vs. log Ni, 0-5 cm, Playground Gravel

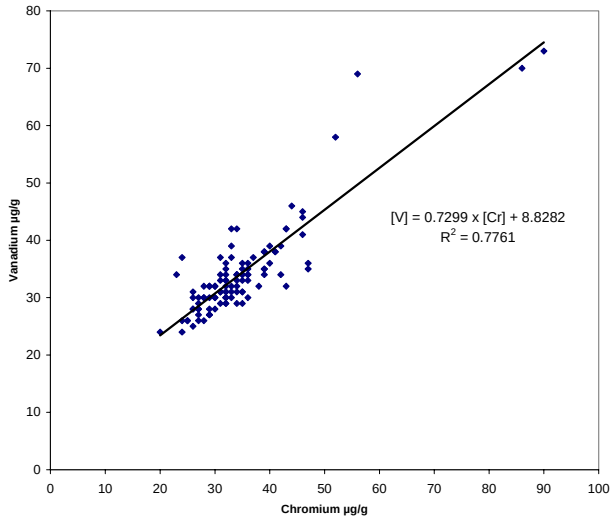


Fig. 10.4.10.10: V vs. Cr, 0-5 cm, Playground Gravel

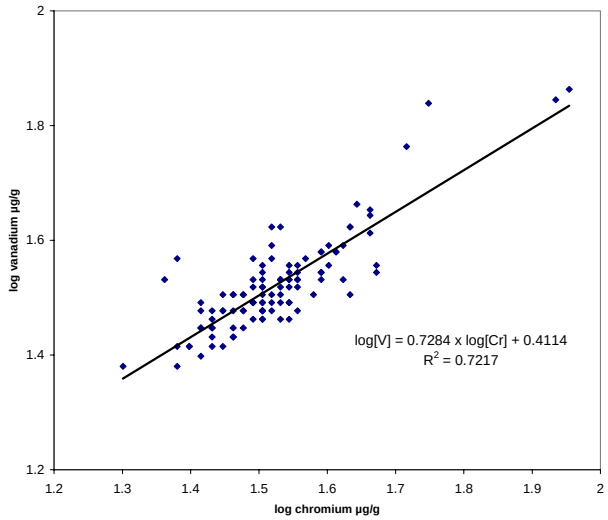


Fig. 10.4.10.10b: log V vs. log Cr, 0-5 cm, Playground Gravel

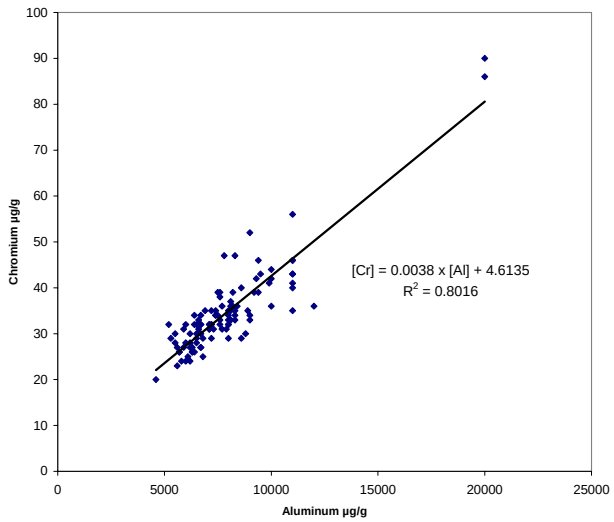


Fig. 10.4.10.11: Cr vs. Al, 0-5 cm, Playground Gravel

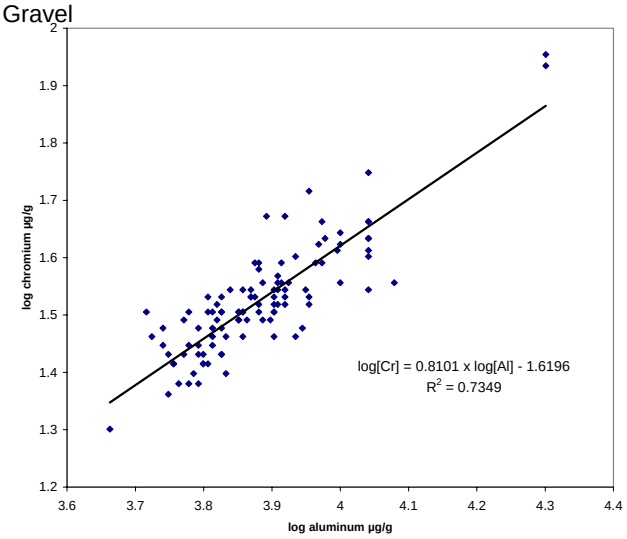


Fig. 10.4.10.11b: log Cr vs. log Al, 0-5 cm, Playground Gravel

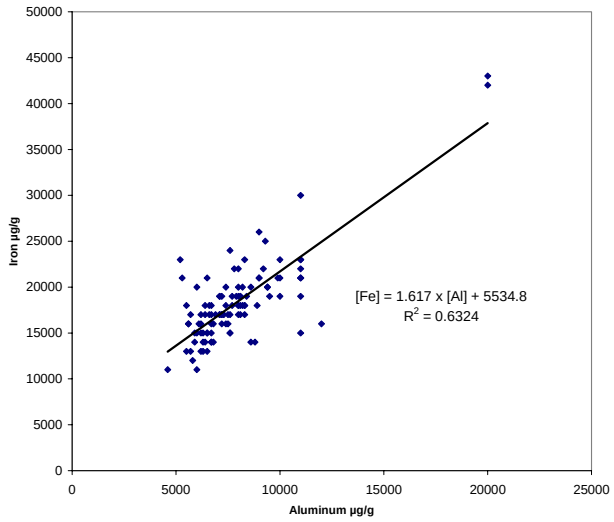


Fig. 10.4.10.12: Fe vs. Al, 0-5 cm, Playground Gravel

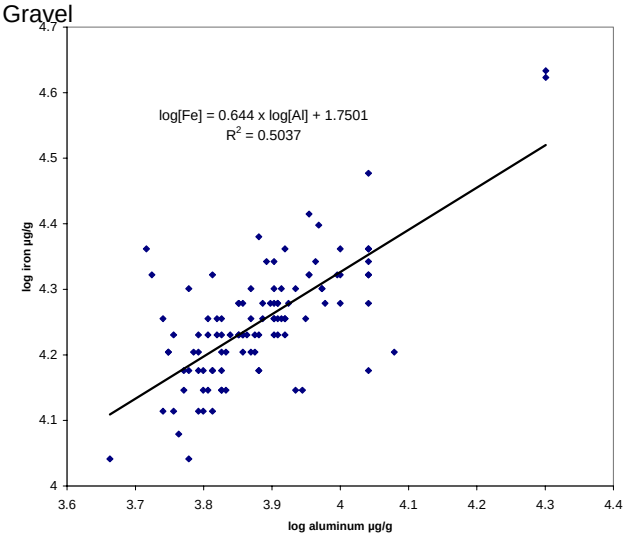


Fig. 10.4.10.12b: log Fe vs. log Al, 0-5 cm, Playground Gravel

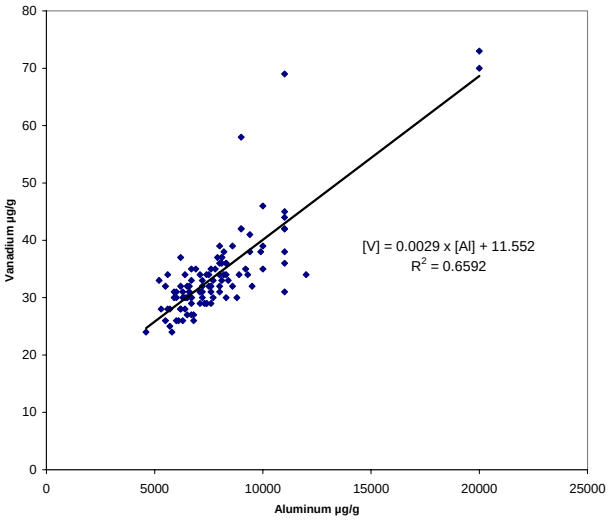


Fig. 10.4.10.13: V vs. Al, 0-5 cm, Playground Gravel

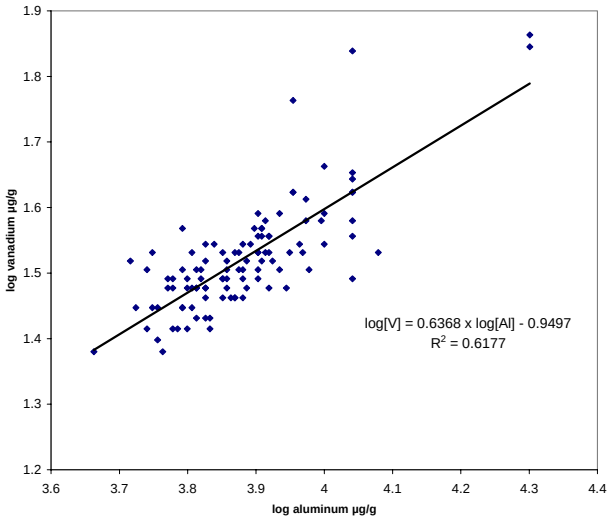


Fig. 10.4.10.13b: log V vs. log Al, 0-5 cm, Playground Gravel

Table 10.4.10.1: Pearson's and Spearman's Correlations for Playground Gravel in the City of Greater Sudbury

	Al	**Sb**	**As**	**Ba**	**Ca**	**Cr**	**Co**	**Cu**	**Fe**	**Pb**	**Mg**	**Mn**	**Ni**	**Se**	**Sr**	**V**	**Zn**
Al	1	*0.08*	*0.09*	***0.76***	*0.60*	***0.82***	*0.06*	*0.18*	*0.61*	*0.39*	***0.80***	***0.82***	*0.17*	*0.17*	*0.67*	*0.73*	*0.48*
Sb	0.05	1	*0.19*	*0.14*	*-0.06*	*0.11*	*0.10*	*0.22*	*0.09*	*0.15*	*-0.02*	*-0.07*	*0.22*	*0.44*	*0.05*	*0.02*	*0.04*
As	-0.01	0.38	1	*0.22*	*-0.06*	*0.00*	*0.10*	*0.29*	*-0.01*	*0.32*	*-0.09*	*-0.05*	*0.31*	*0.32*	*0.04*	*-0.03*	*-0.01*
Ba	**0.90**	0.07	0.05	1	*0.53*	*0.68*	*0.29*	*0.33*	*0.43*	*0.26*	*0.57*	*0.61*	*0.35*	*0.13*	*0.54*	*0.43*	*0.48*
Ca	0.28	-0.05	-0.11	0.10	1	*0.54*	*-0.03*	*0.08*	*0.23*	*0.07*	*0.60*	*0.61*	*0.15*	*0.03*	***0.78***	*0.38*	*0.40*
Cr	**0.90**	0.06	-0.07	**0.87**	0.10	1	*0.32*	*0.32*	*0.74*	*0.41*	***0.86***	***0.80***	*0.29*	*0.18*	*0.51*	***0.76***	*0.67*
Co	0.19	0.03	0.02	0.37	-0.17	0.40	1	*0.69*	*0.57*	*0.38*	*0.24*	*0.06*	*0.63*	*0.11*	*-0.16*	*0.10*	*0.52*
Cu	0.11	0.32	0.34	0.24	-0.02	0.21	0.50	1	*0.33*	*0.63*	*0.24*	*0.03*	***0.96***	*0.35*	*-0.04*	*-0.02*	*0.56*
Fe	**0.80**	0.12	-0.07	**0.77**	-0.05	**0.90**	0.57	0.22	1	*0.44*	*0.73*	*0.59*	*0.26*	*0.16*	*0.19*	*0.74*	*0.64*
Pb	0.25	0.32	0.41	0.22	-0.01	0.28	0.29	0.61	0.32	1	*0.35*	*0.26*	*0.56*	*0.40*	*0.08*	*0.31*	*0.58*
Mg	**0.91**	-0.03	-0.15	**0.88**	0.19	**0.91**	0.36	0.17	**0.85**	0.24	1	***0.84***	*0.23*	*0.14*	*0.45*	***0.76***	*0.67*
Mn	**0.86**	-0.08	-0.12	0.71	0.32	**0.85**	0.15	0.01	**0.75**	0.16	**0.82**	1	*0.04*	*0.11*	*0.56*	***0.84***	*0.51*
Ni	0.09	0.28	0.36	0.22	0.05	0.18	0.48	**0.97**	0.17	0.57	0.15	0.01	1	*0.34*	*0.01*	*-0.06*	*0.51*
Se	0.04	0.38	0.28	0.03	0.00	0.05	0.08	0.56	0.05	0.33	0.03	0.01	0.51	1	*0.09*	*0.14*	*0.14*
Sr	0.24	0.03	0.02	0.00	0.71	0.08	-0.35	-0.04	-0.09	0.02	0.01	0.37	0.03	0.08	1	*0.43*	*0.18*
V	**0.81**	-0.01	-0.13	0.70	0.05	**0.88**	0.20	-0.01	**0.87**	0.17	**0.80**	**0.88**	-0.04	0.01	0.15	1	*0.49*
Zn	0.52	0.01	-0.10	0.59	0.09	0.66	0.50	0.44	0.60	0.39	0.63	0.47	0.40	0.02	-0.05	0.47	1

Spearman's correlations in upper right in italics. Pearson's correlations in lower left in normal font.
Bold indicates highly significant correlations.

10.5 Soil Depth Profiles of Selected Metals and Arsenic in Community Groups of the City of Greater Sudbury

10.5.1 Outer Sudbury Communities

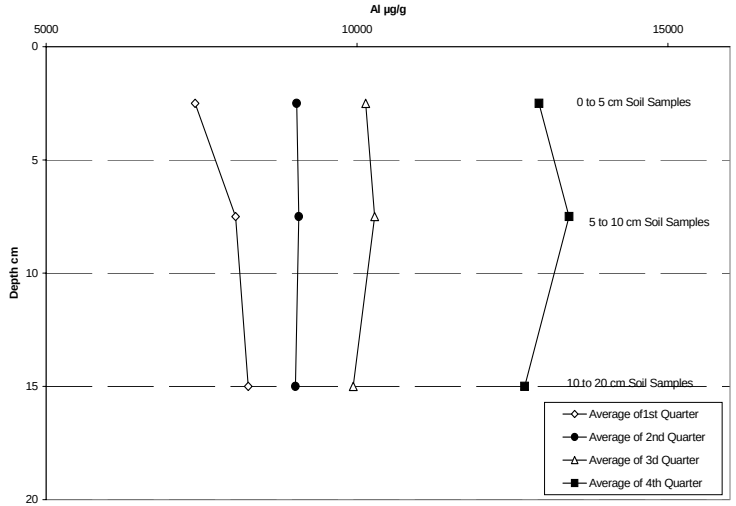


Figure 10.5.1.1: Outer Communities, Al depth profiles, all data.

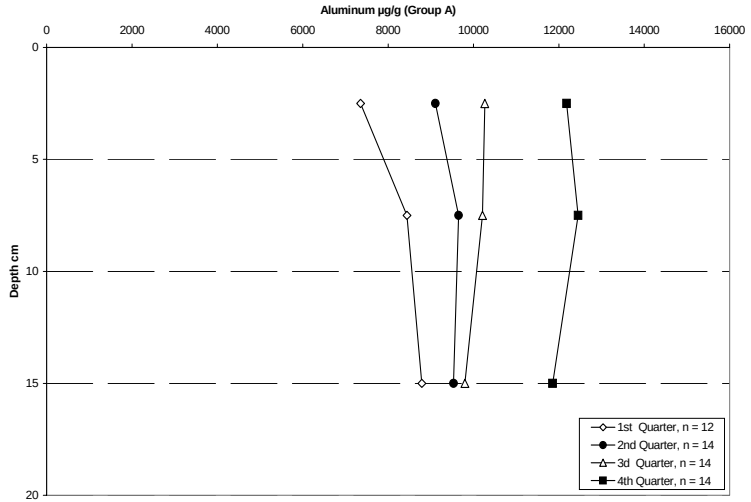


Figure 10.5.1.1a: Outer Communities, Al depth profiles, Group A data.

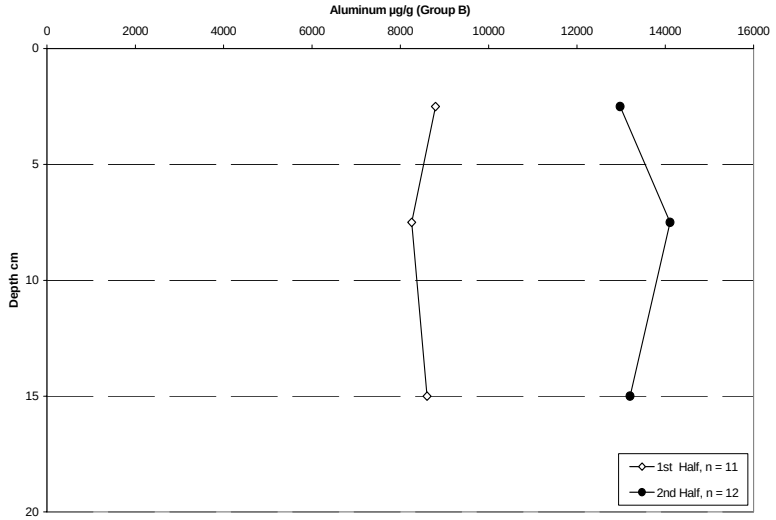


Figure 10.5.1.1b: Outer Communities, Al depth profiles, Group B data.

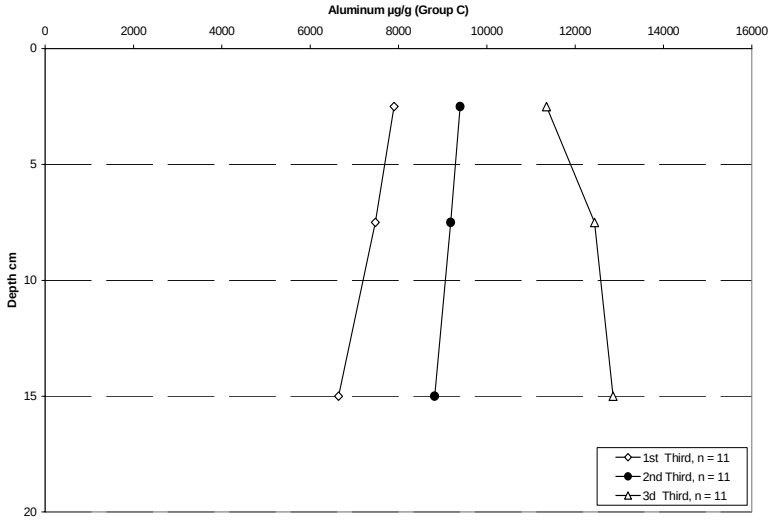


Figure 10.5.1.1c: Outer Communities, Al depth profiles, Group C data.

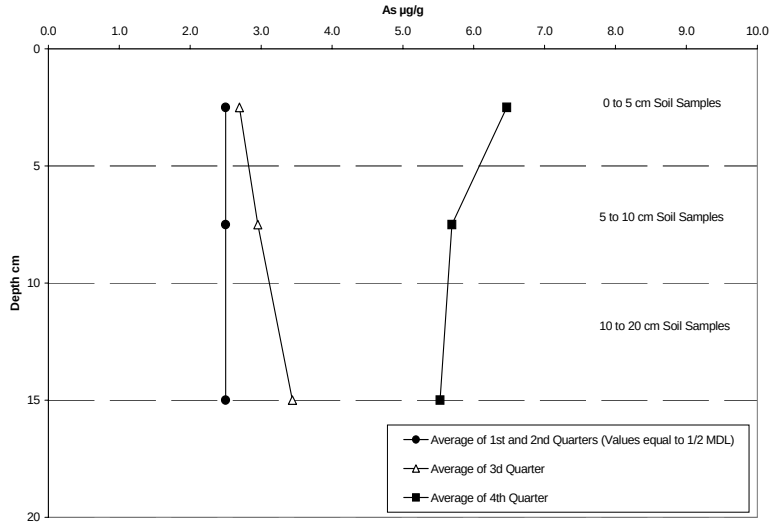


Figure 10.5.1.2: Outer Communities, As depth profiles, all data.

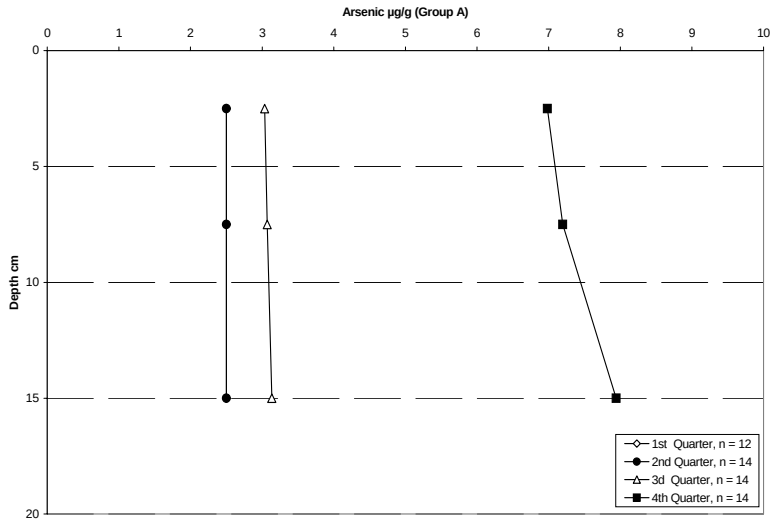


Figure 10.5.1.2a: Outer Communities, As depth profiles, Group A data.

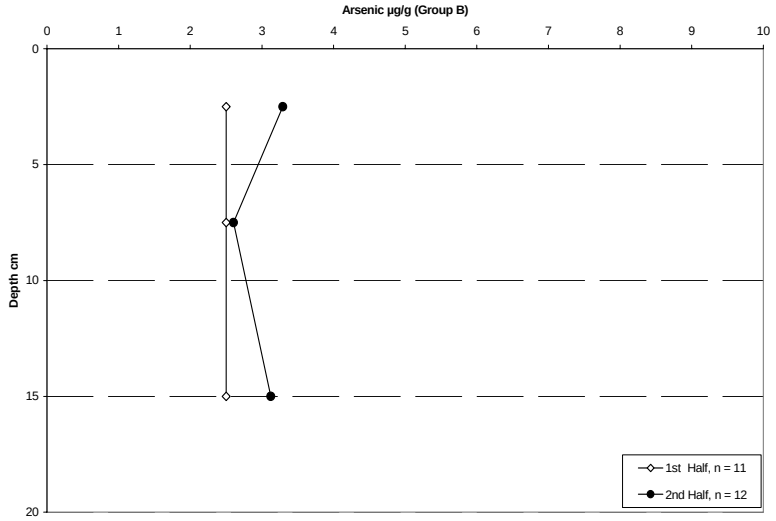


Figure 10.5.1.2b: Outer Communities, As depth profiles, Group B data.

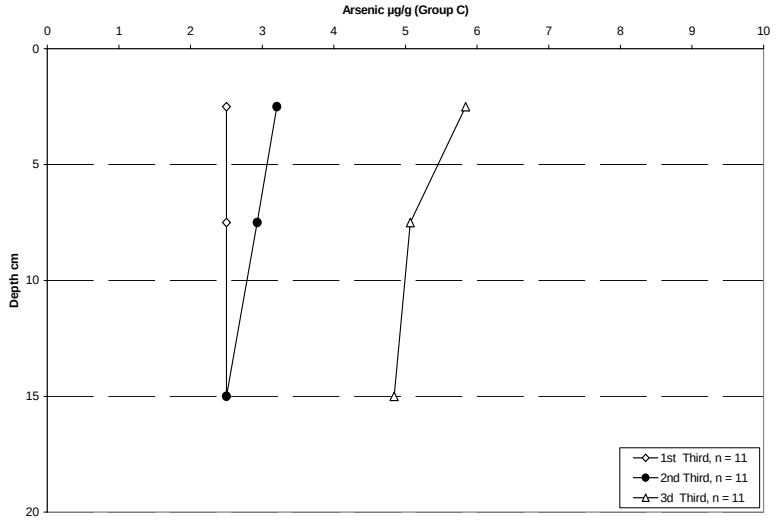


Figure 10.5.1.2c: Outer Communities, As depth profiles, Group C data.

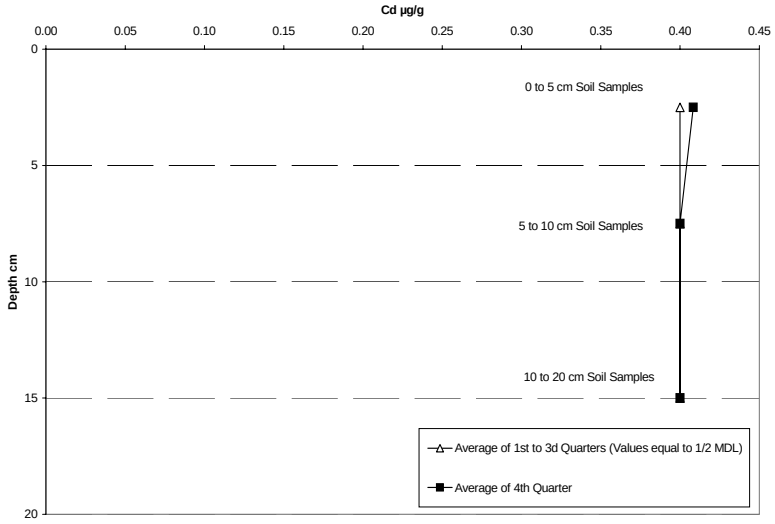


Figure 10.5.1.3: Outer Communities, Cd depth profiles, all data.

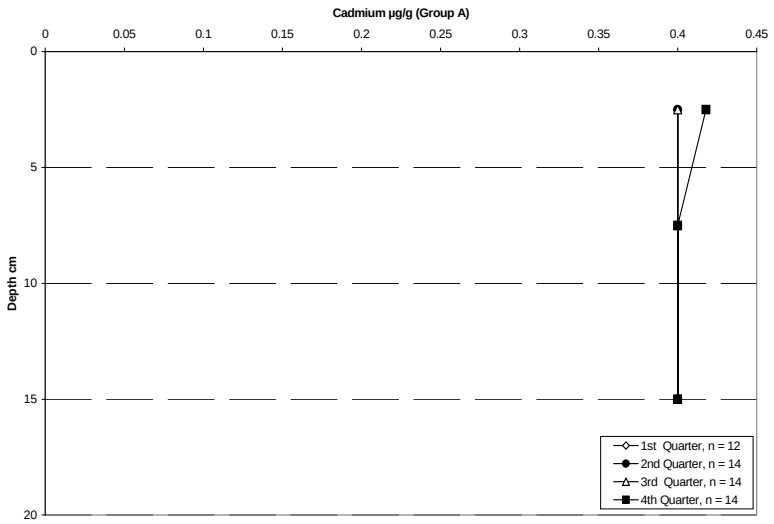


Figure 10.5.1.3a: Outer Communities, Cd depth profiles, Group A data.

Comment: Plots for Cd depth profiles for Group B & Group C equal 0.4 µg/g (½ MDL).

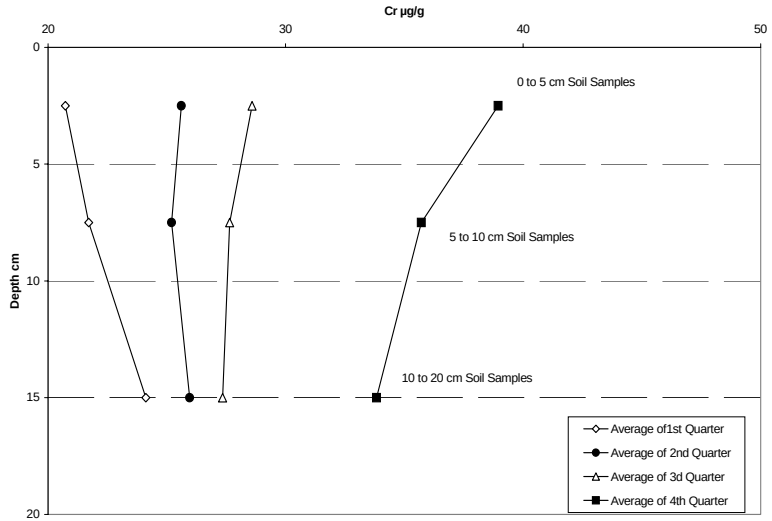


Figure 10.5.1.4: Outer Communities, Cr depth profiles, all data.

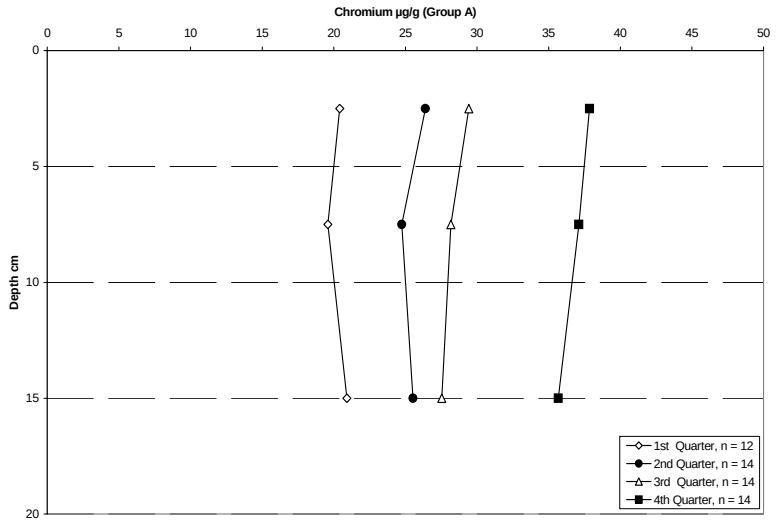


Figure 10.5.1.4a: Outer Communities, Cr depth profiles, Group A data.

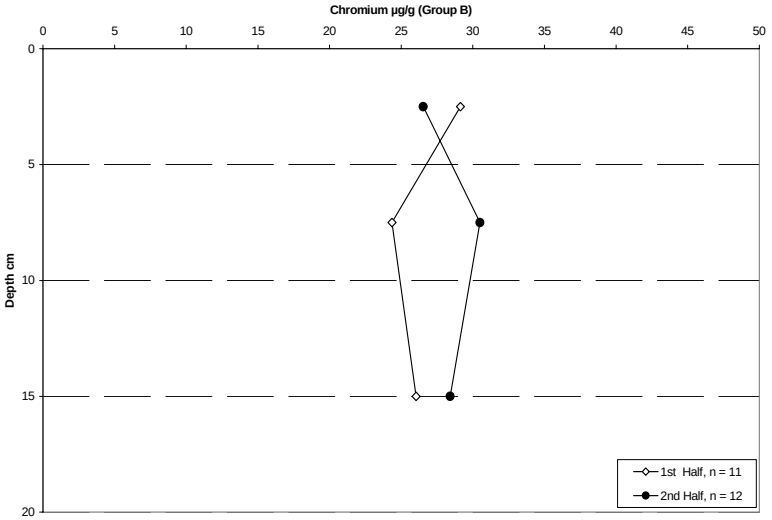


Figure 10.5.1.4b: Outer Communities, Cr depth profiles, Group B data.

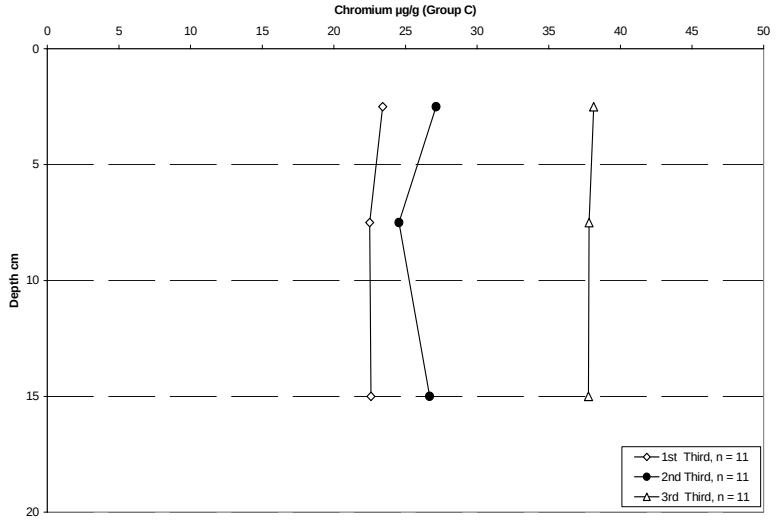


Figure 10.5.1.4c: Outer Communities, Cr depth profiles, Group C data.

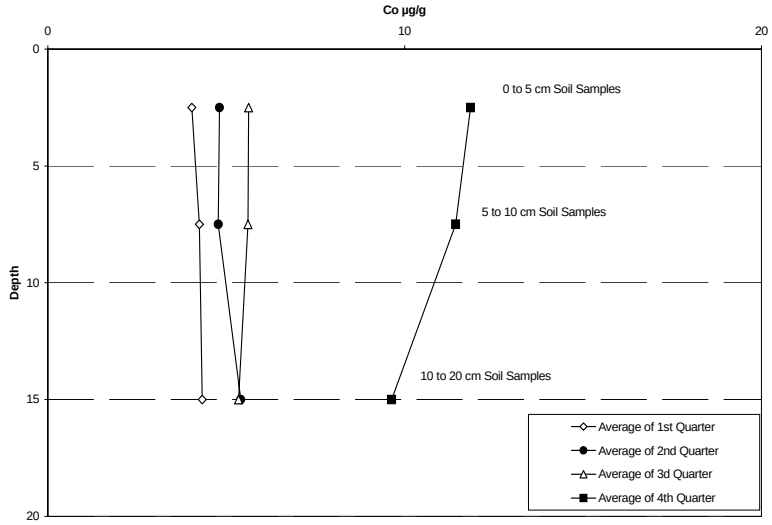


Figure 10.5.1.5: Outer Communities, Co depth profiles, all data.

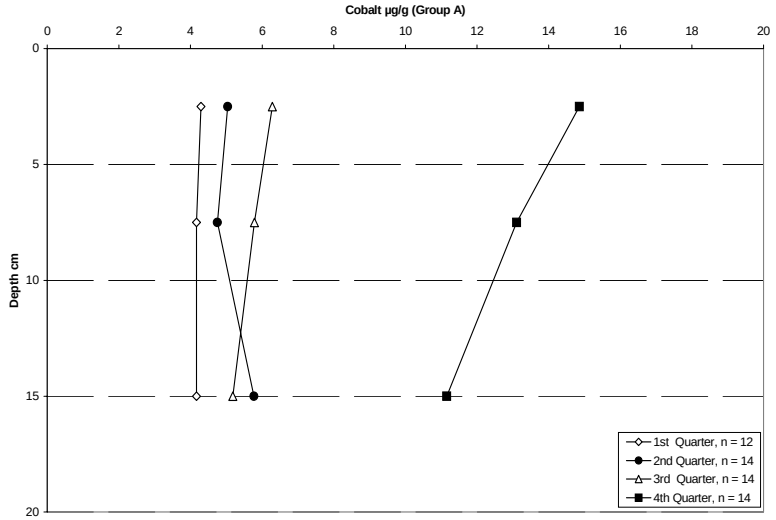


Figure 10.5.1.5a: Outer Communities, Co depth profiles, Group A data.

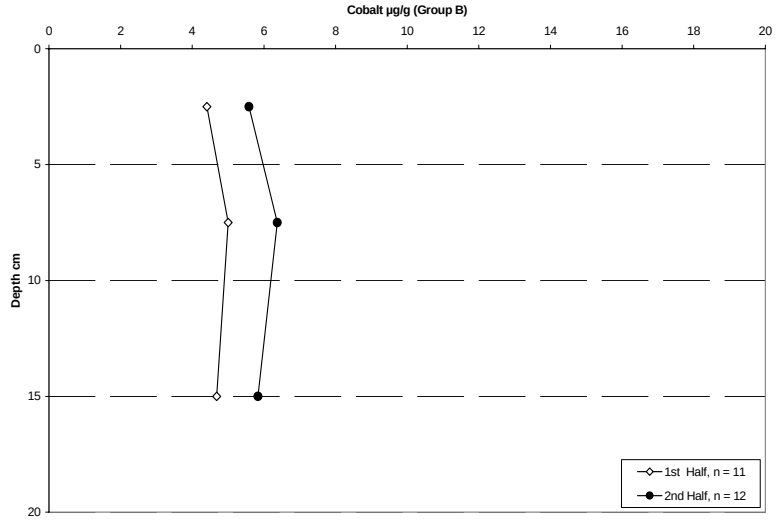


Figure 10.5.1.5b: Outer Communities, Co depth profiles, Group B data.

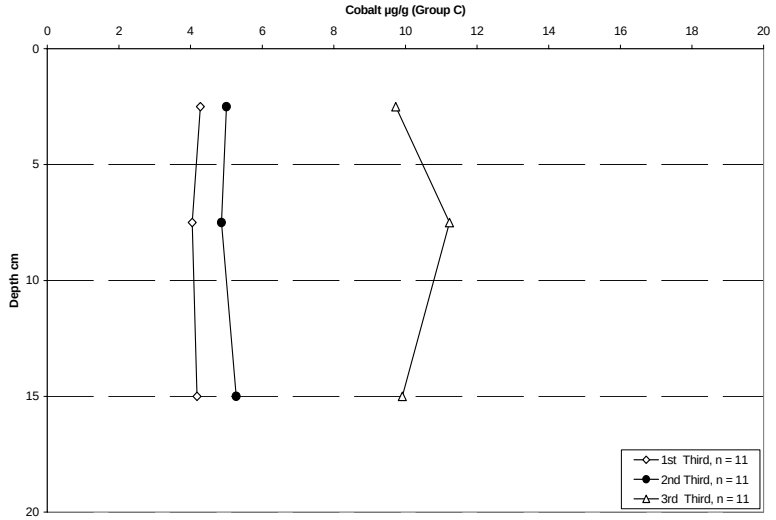


Figure 10.5.1.5c: Outer Communities, Co depth profiles, Group C data.

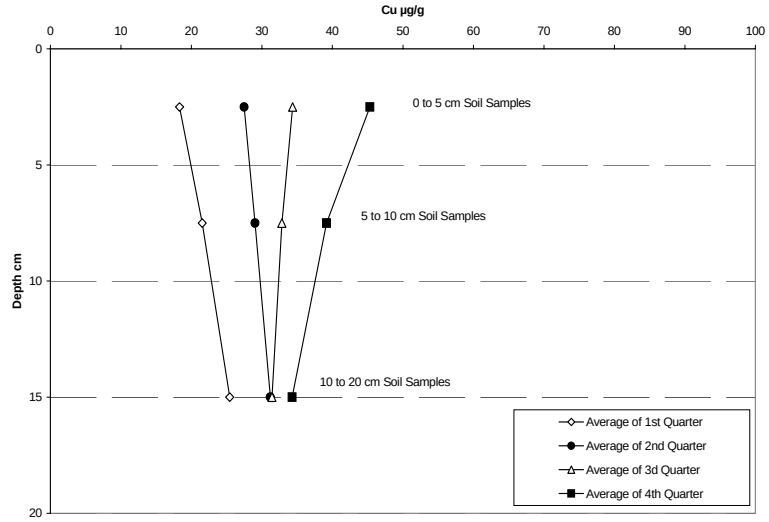


Figure 10.5.1.6: Outer Communities, Cu depth profiles, all data.

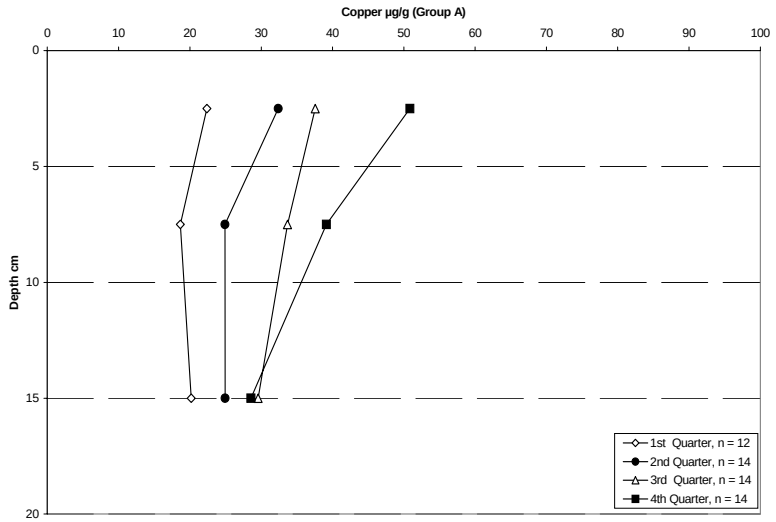


Figure 10.5.1.6a: Outer Communities, Cu depth profiles, Group A data.

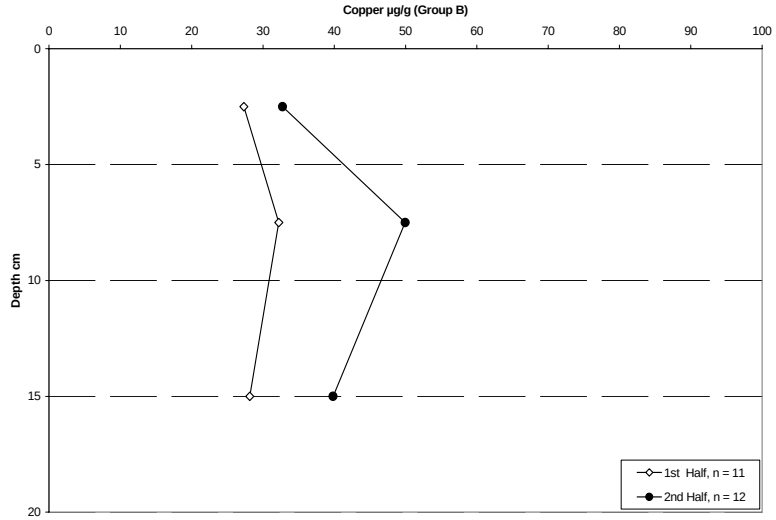


Figure 10.5.1.6b: Outer Communities, Cu depth profiles, Group B data.

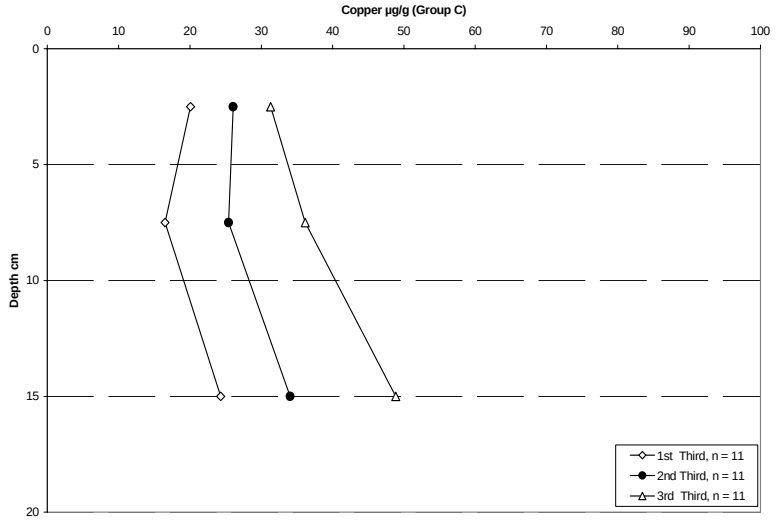


Figure 10.5.1.6c: Outer Communities, Cu depth profiles, Group C data.

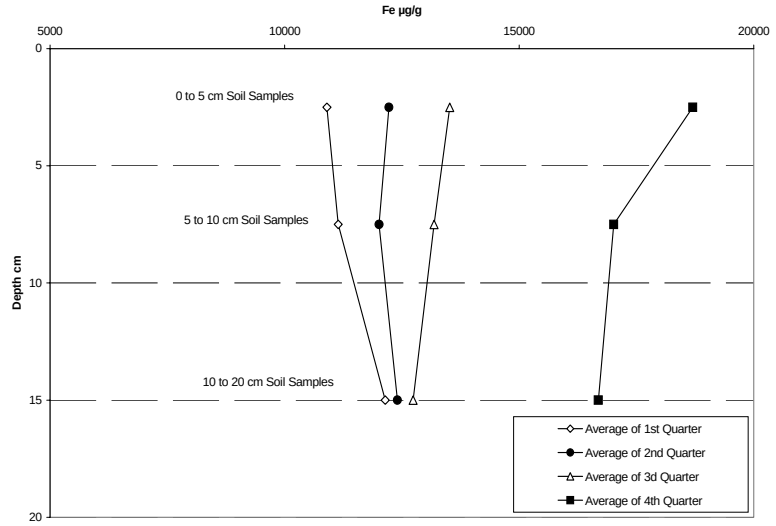


Figure 10.5.1.7: Outer Communities, Fe depth profiles, all data.

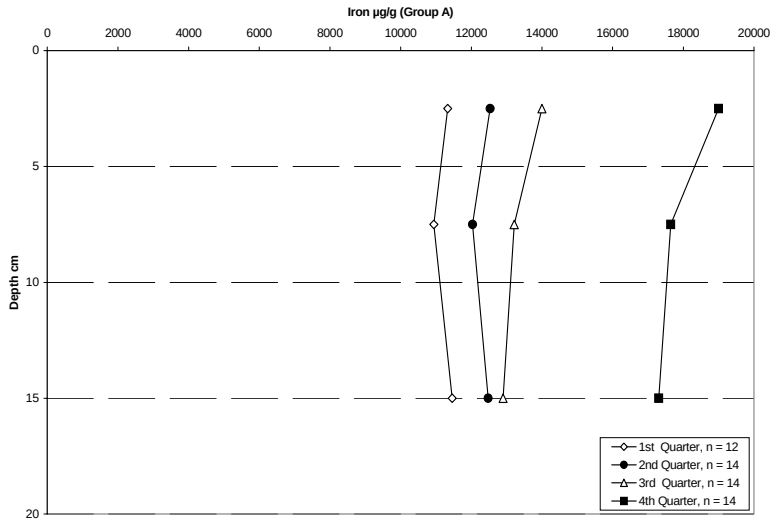


Figure 10.5.1.7a: Outer Communities, Fe depth profiles, Group A data.

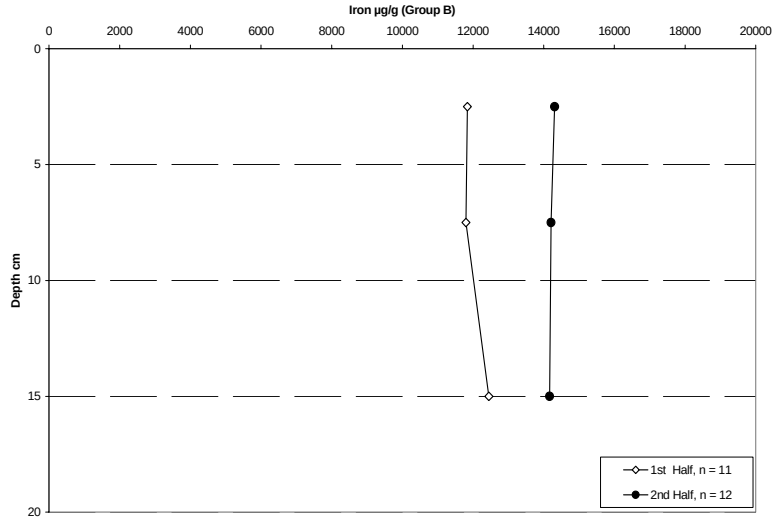


Figure 10.5.1.7b: Outer Communities, Fe depth profiles, Group B data.

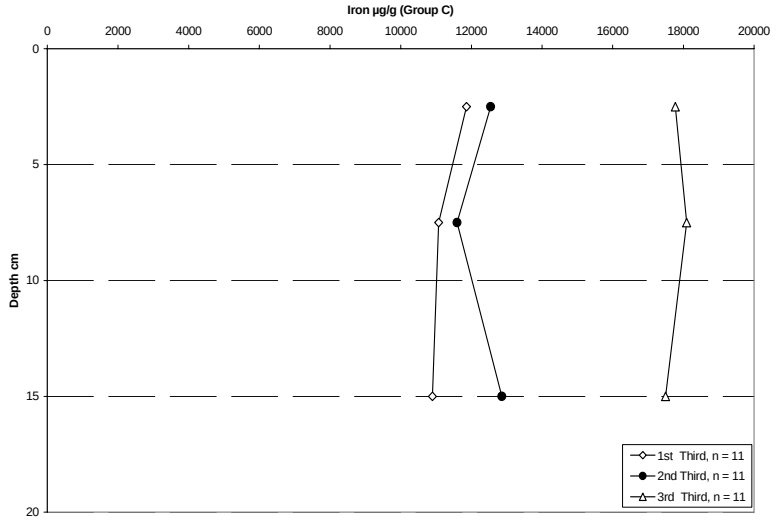


Figure 10.5.1.7c: Outer Communities, Fe depth profiles, Group C data.

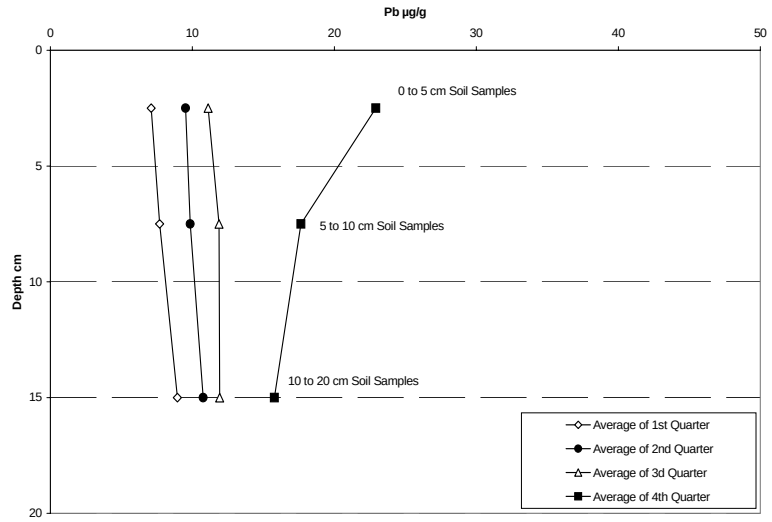


Figure 10.5.1.8: Outer Communities, Pb depth profiles, all data.

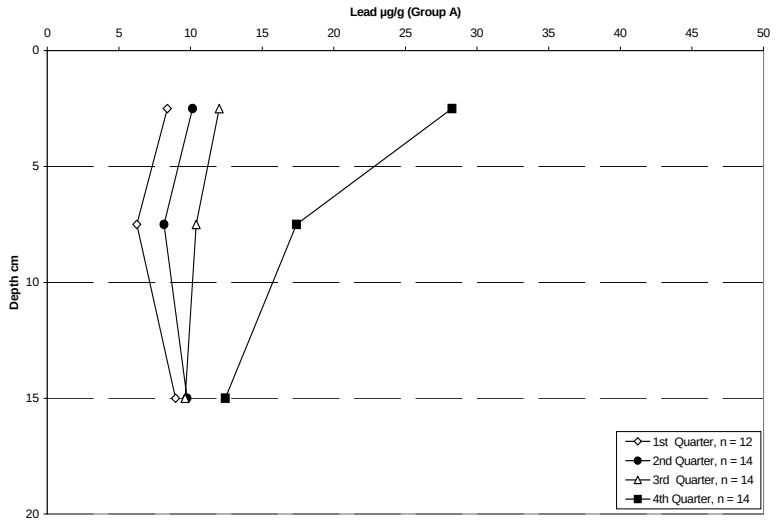


Figure 10.5.1.8a: Outer Communities, Pb depth profiles, Group A data.

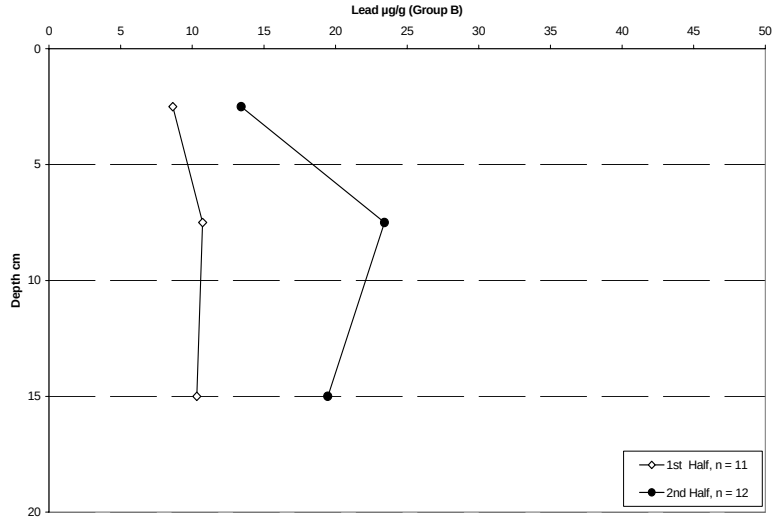


Figure 10.5.1.8b: Outer Communities, Pb depth profiles, Group B data.

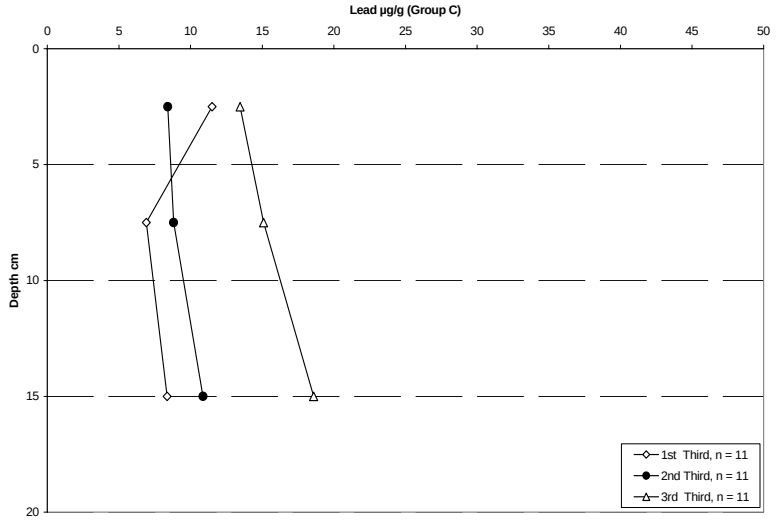


Figure 10.5.1.8c: Outer Communities, Pb depth profiles, Group C data.

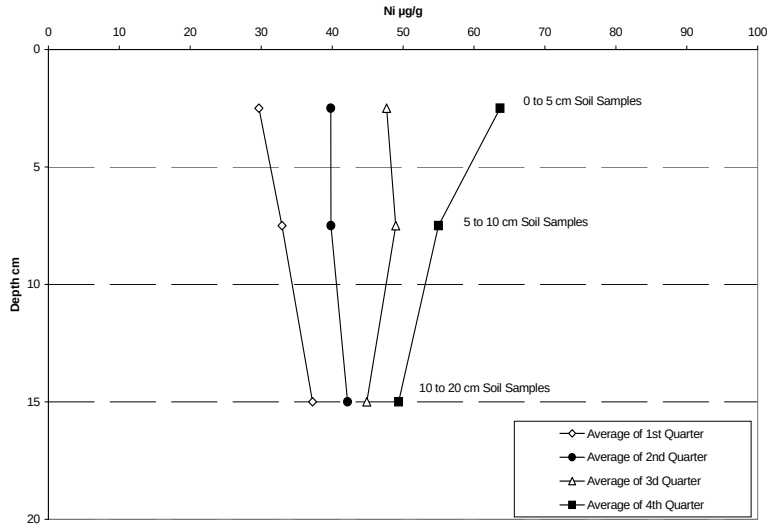


Figure 10.5.1.9: Outer Communities, Ni depth profiles, all data.

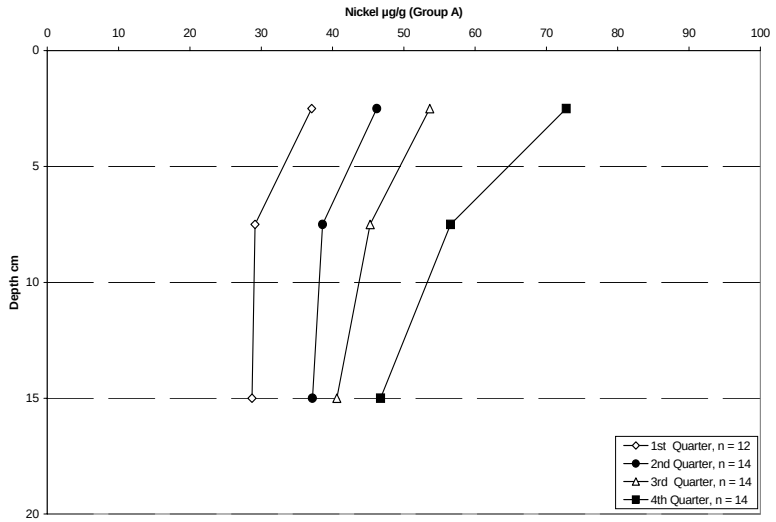


Figure 10.5.1.9a: Outer Communities, Ni depth profiles, Group A data.

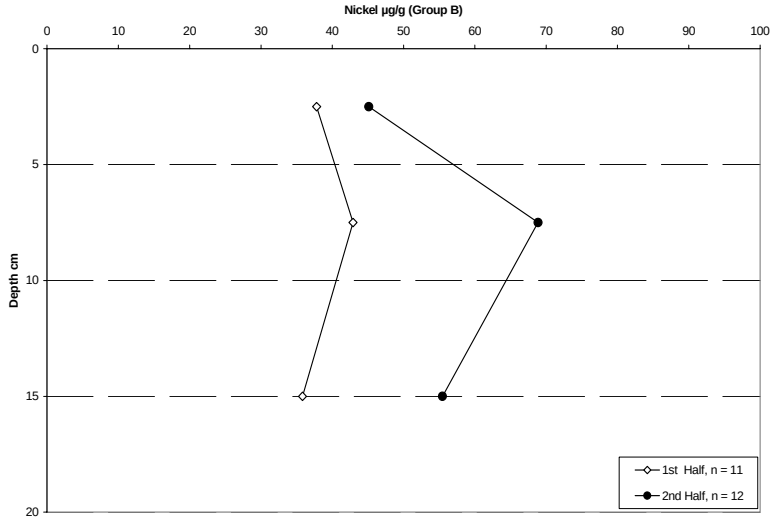


Figure 10.5.1.9b: Outer Communities, Ni depth profiles, Group B data.

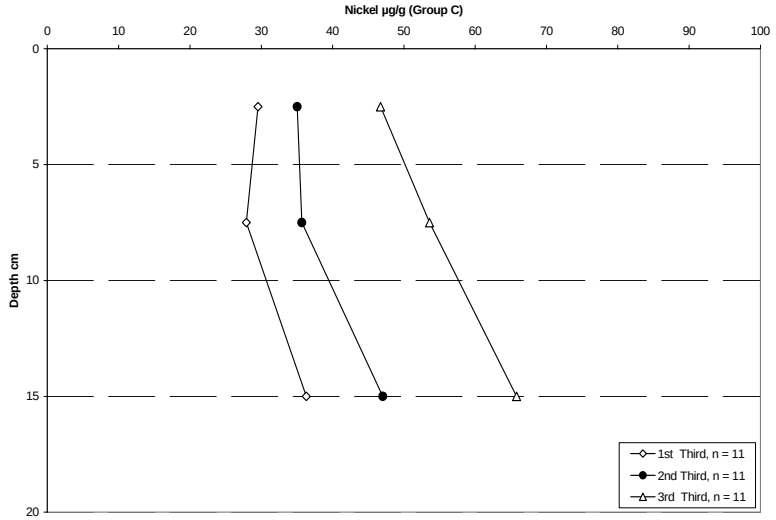


Figure 10.5.1.9c: Outer Communities, Ni depth profiles, Group C data.

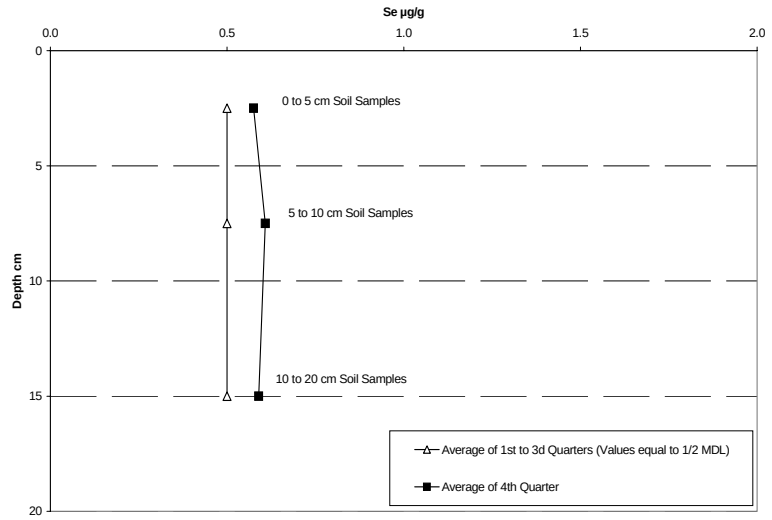


Figure 10.5.1.10: Outer Communities, Se depth profiles, all data.

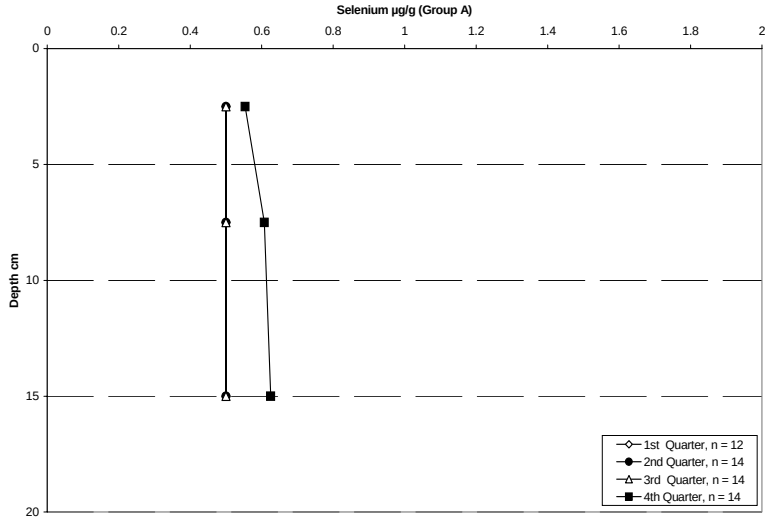


Figure 10.5.1.10a: Outer Communities, Se depth profiles, Group A data.

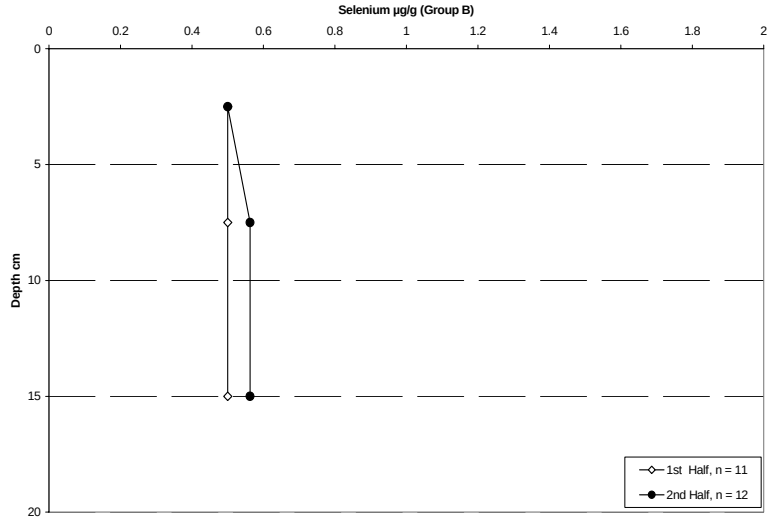


Figure 10.5.1.10b: Outer Communities, Se depth profiles, Group B data.

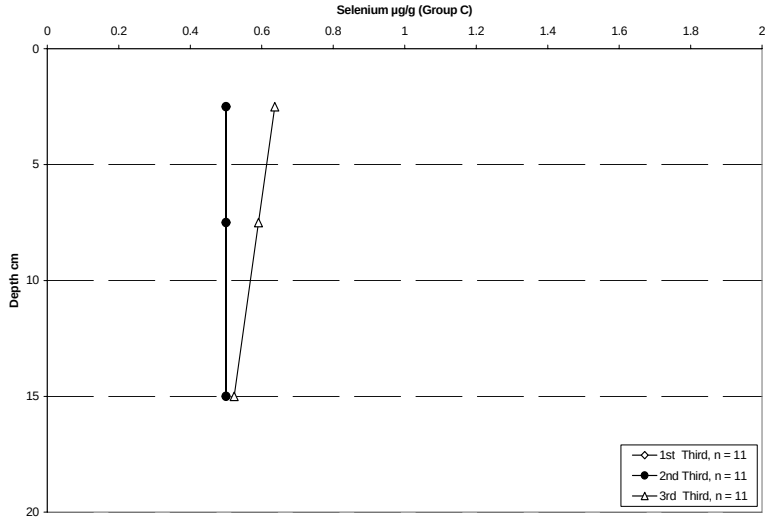


Figure 10.5.1.10c: Outer Communities, Se depth profiles, Group C data.

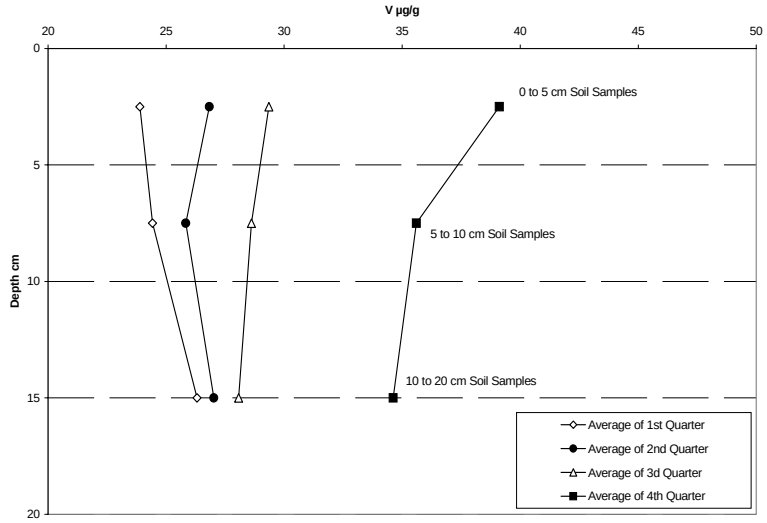


Figure 10.5.1.11: Outer Communities, V depth profiles, all data.

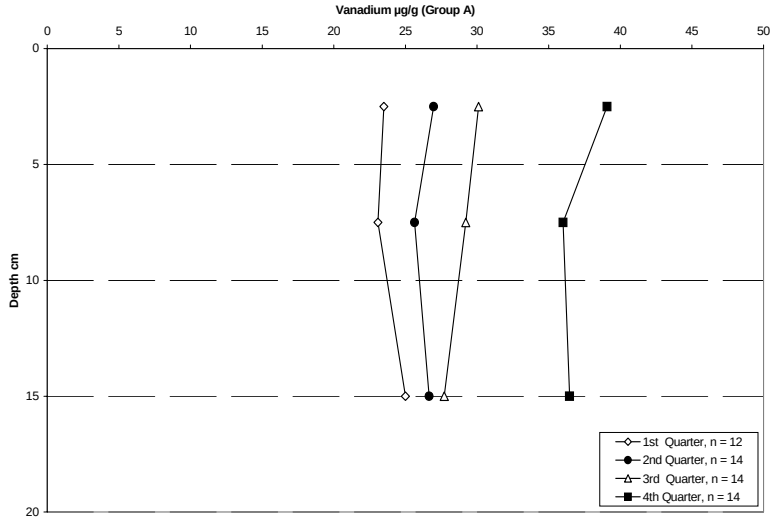


Figure 10.5.1.11a: Outer Communities, V depth profiles, Group A data.

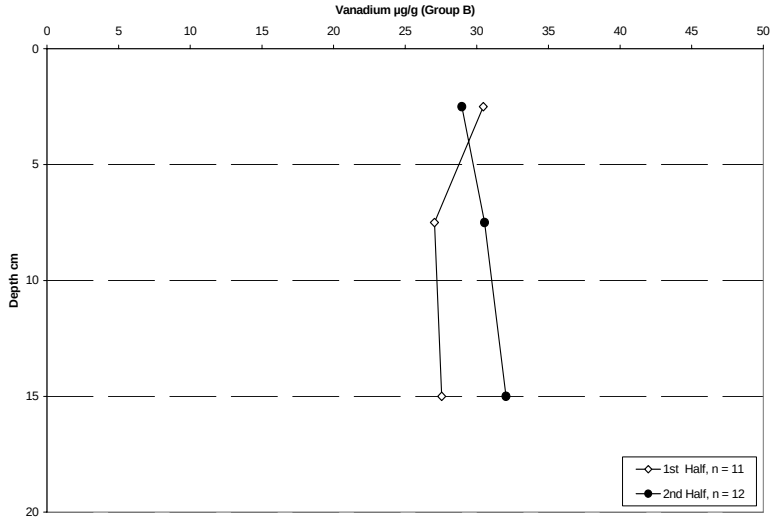


Figure 10.5.1.11b: Outer Communities, V depth profiles, Group B data.

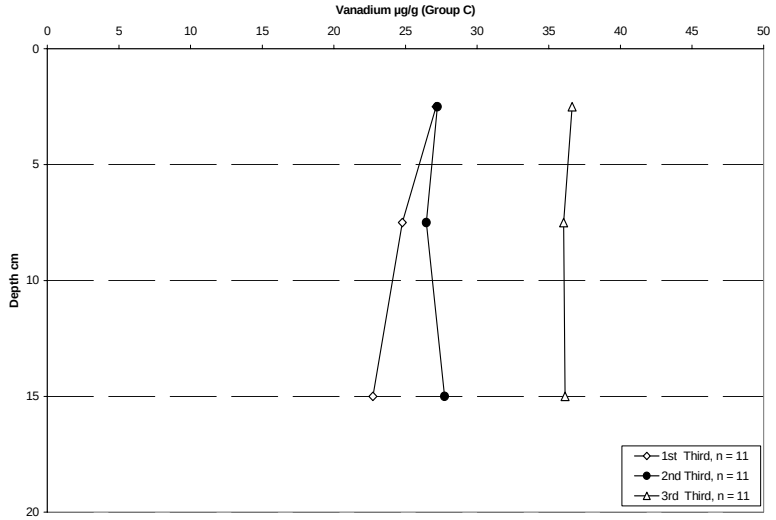


Figure 10.5.1.11c: Outer Communities, V depth profiles, Group C data.

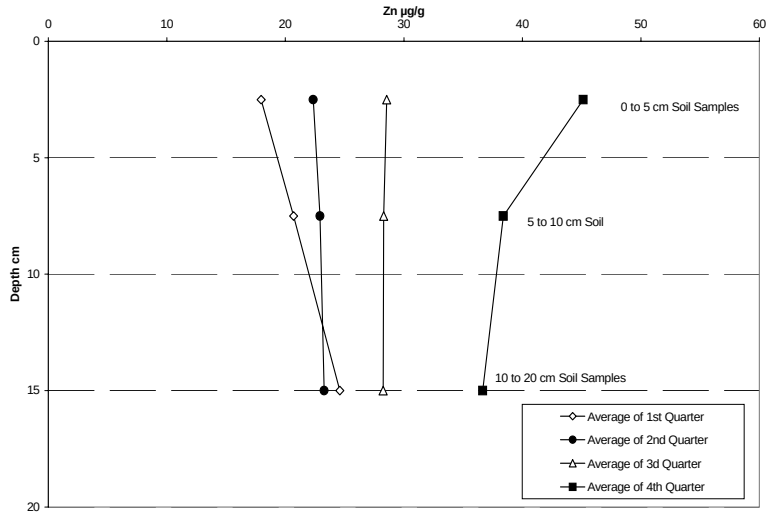


Figure 10.5.1.12: Outer Communities, Zn depth profiles, all data.

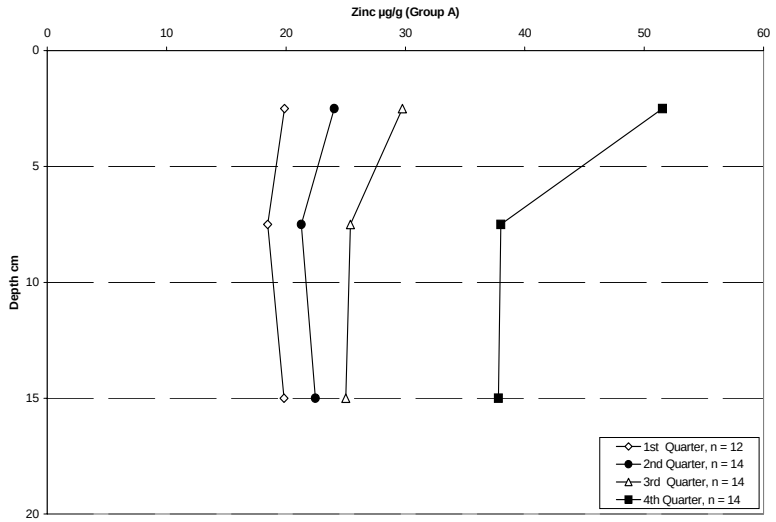


Figure 10.5.1.12a: Outer Communities, Zn depth profiles, Group A data.

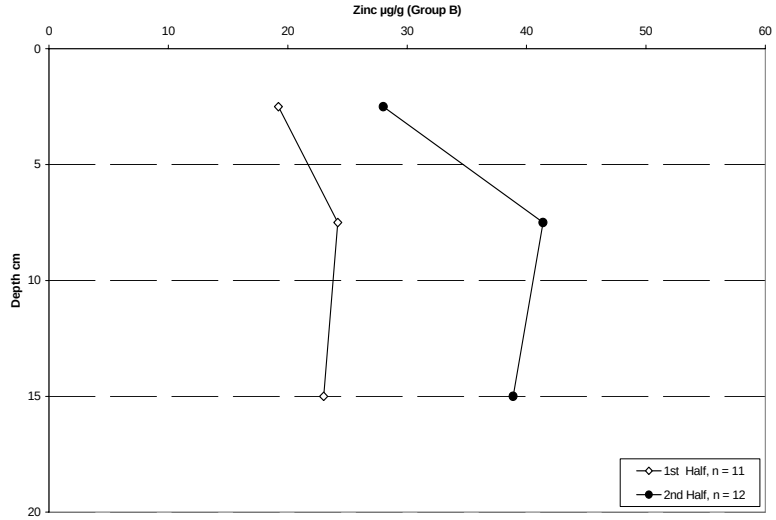


Figure 10.5.1.12b: Outer Communities, Zn depth profiles, Group B data.

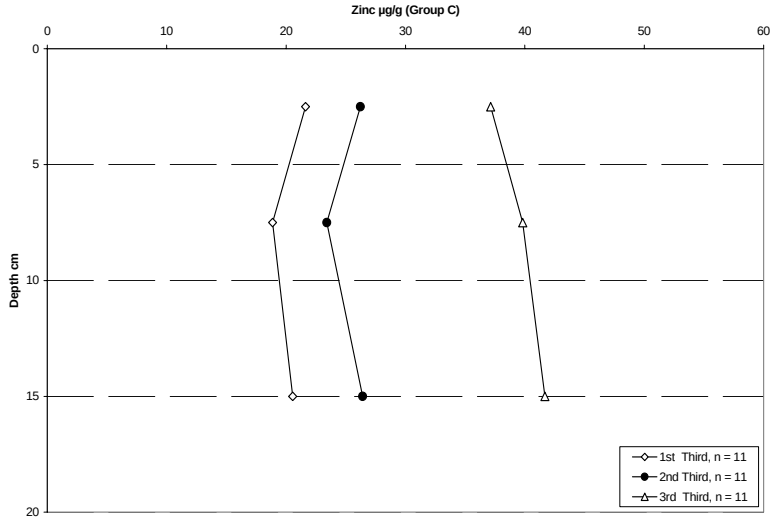


Figure 10.5.1.12c: Outer Communities, Zn depth profiles, Group C data.

10.5.2 Inner Sudbury Communities

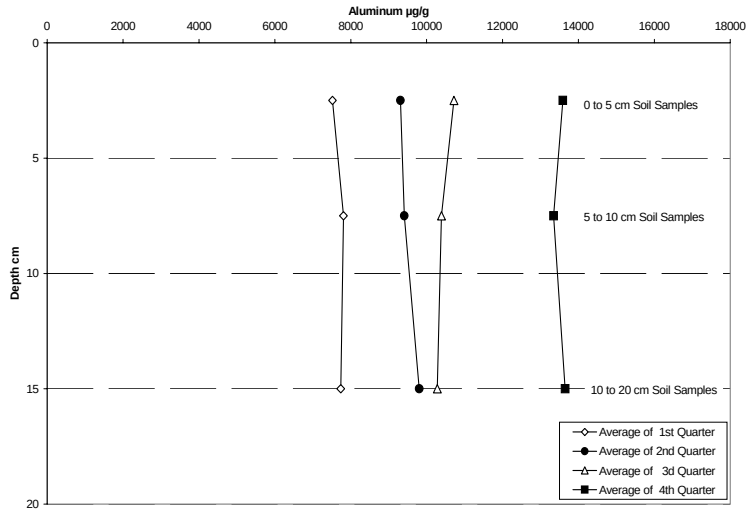


Figure 10.5.2.1: Inner Communities, Al depth profiles, all data.

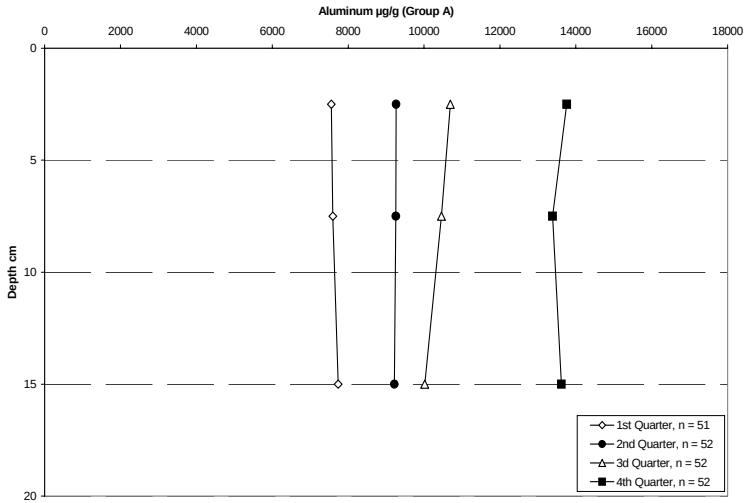


Figure 10.5.2.1a: Inner Communities, Al depth profiles, Group A data.

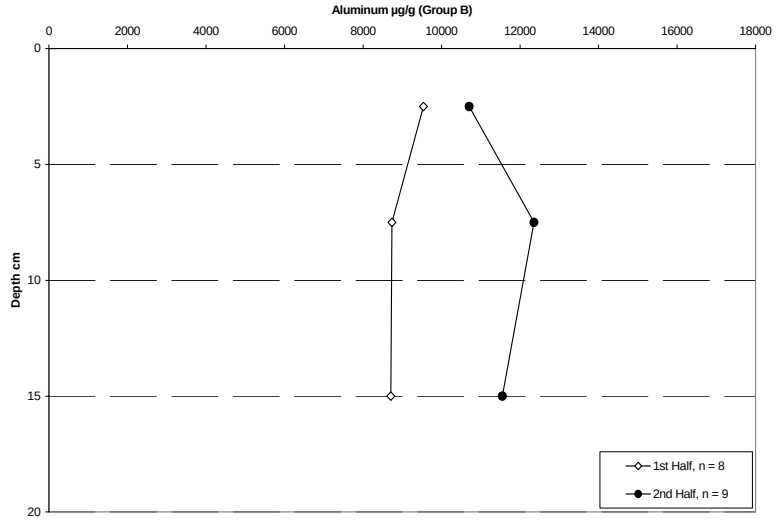


Figure 10.5.2.1b: Inner Communities, Al depth profiles, Group B data.

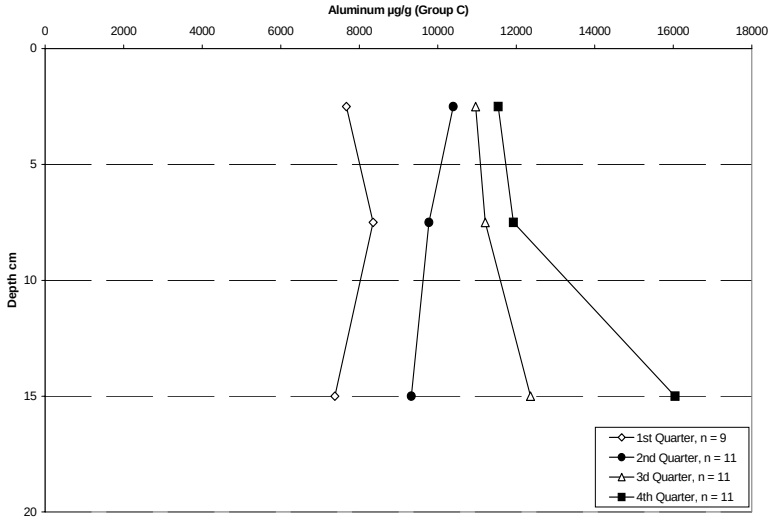


Figure 10.5.2.1c: Inner Communities, Al depth profiles, Group C data.

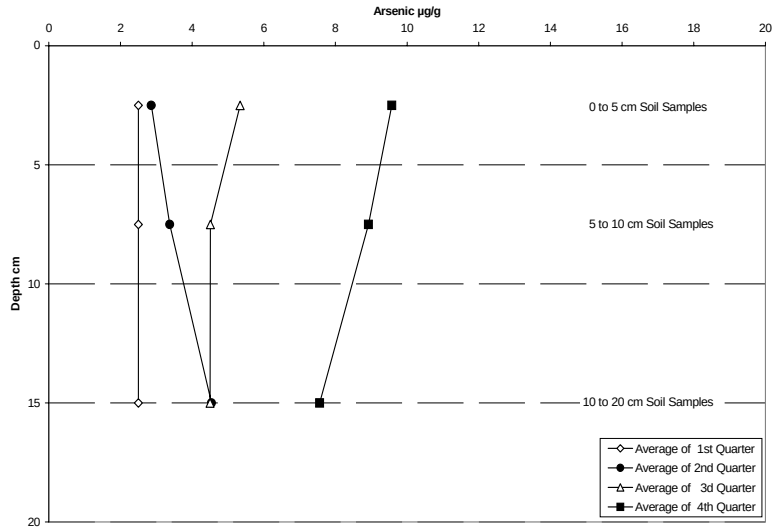


Figure 10.5.2.2: Inner Communities, As depth profiles, all data.

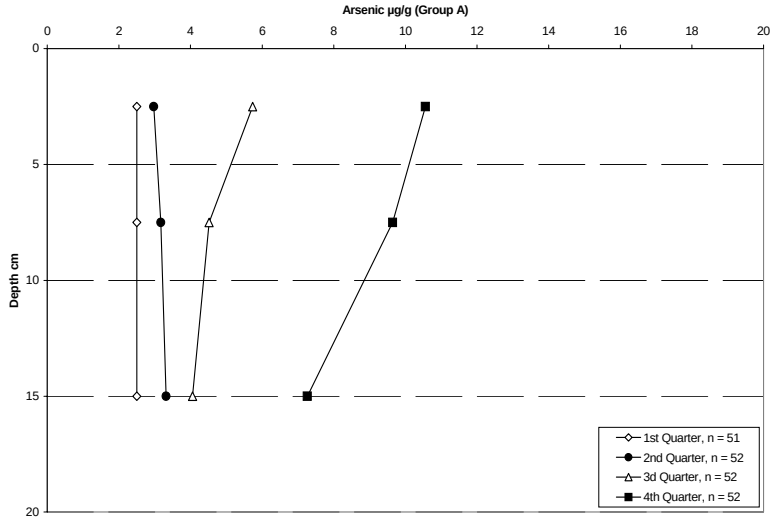


Figure 10.5.2.2a: Inner Communities, As depth profiles, Group A data.

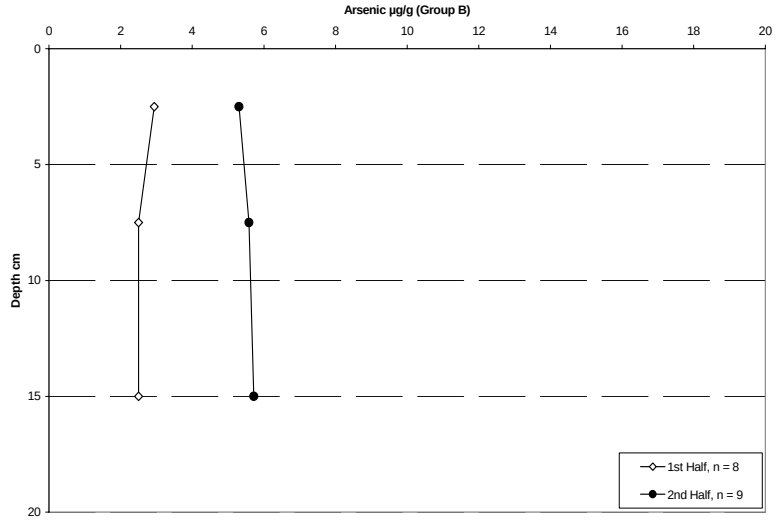


Figure 10.5.2.2b: Inner Communities, As depth profiles, Group B data.

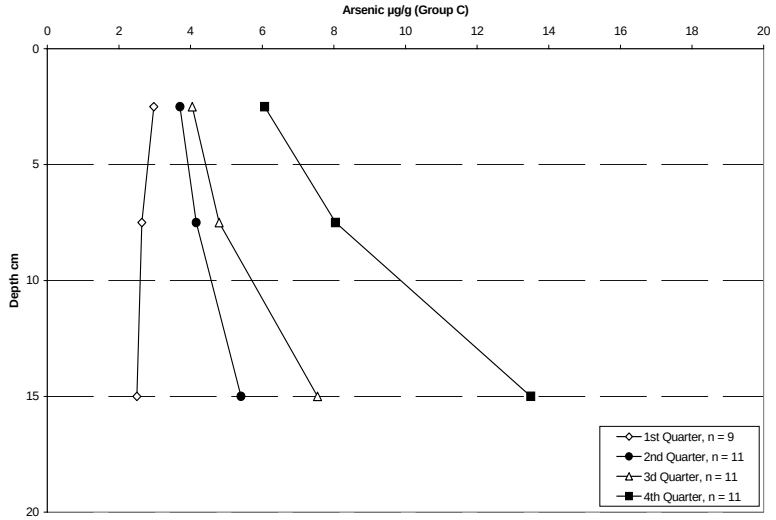


Figure 10.5.2.2c: Inner Communities, As depth profiles, Group C data.

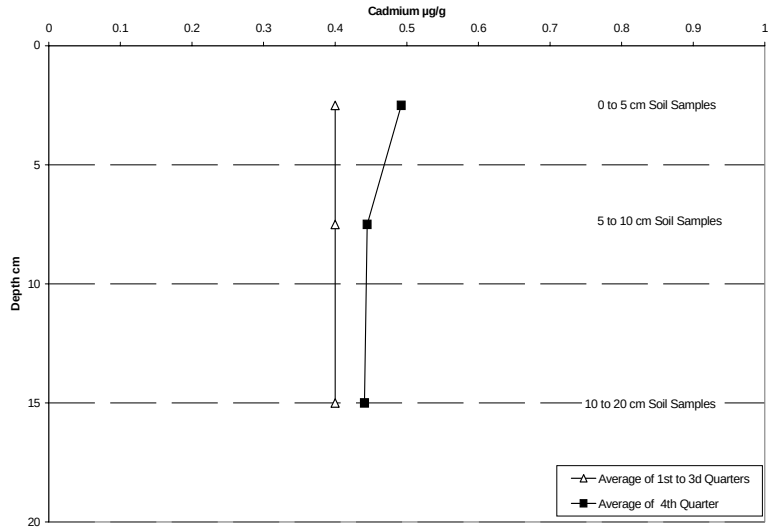


Figure 10.5.2.3: Inner Communities, Cd depth profiles, all data.

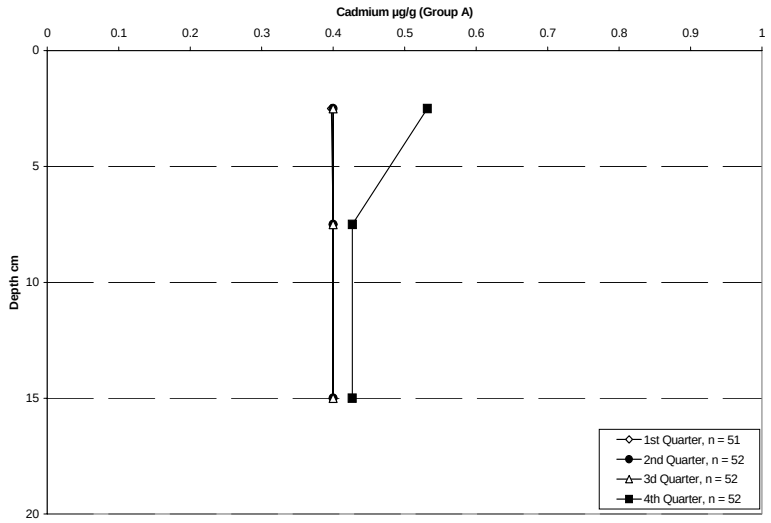


Figure 10.5.2.3a: Inner Communities, Cd depth profiles, Group A data.

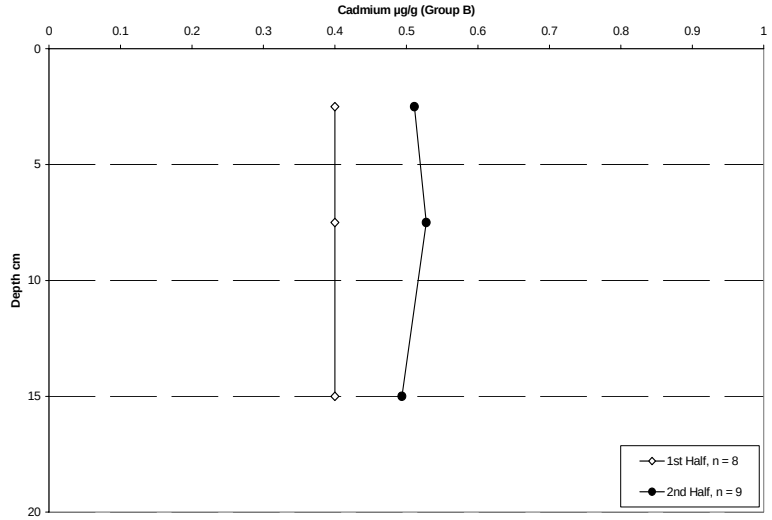


Figure 10.5.2.3b: Inner Communities, Cd depth profiles, Group B data.

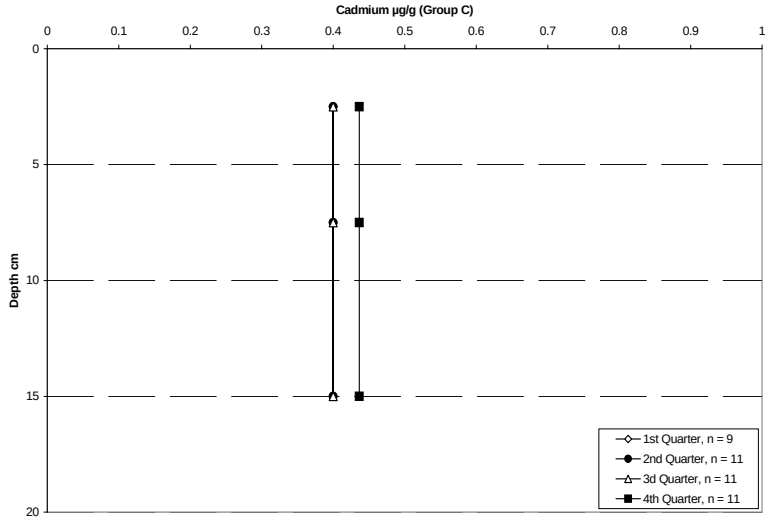


Figure 10.5.2.3c: Inner Communities, Cd depth profiles, Group C data.

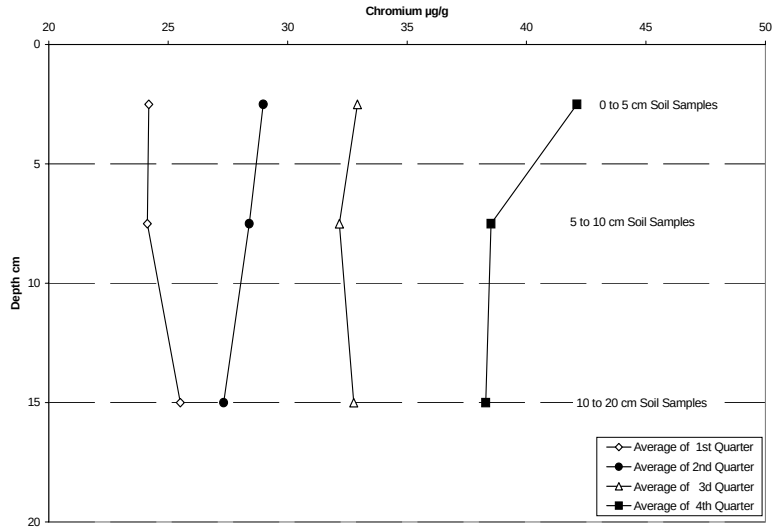


Figure 10.5.2.4: Inner Communities, Cr depth profiles, all data.

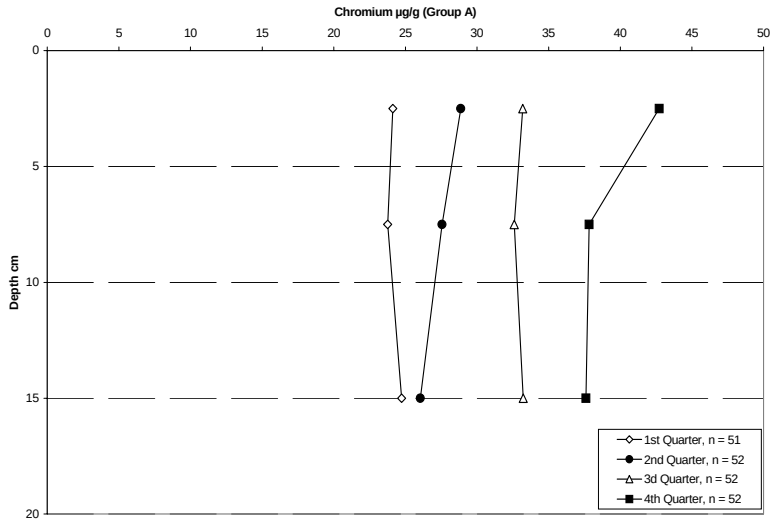


Figure 10.5.2.4a: Inner Communities, Cr depth profiles, Group A data.

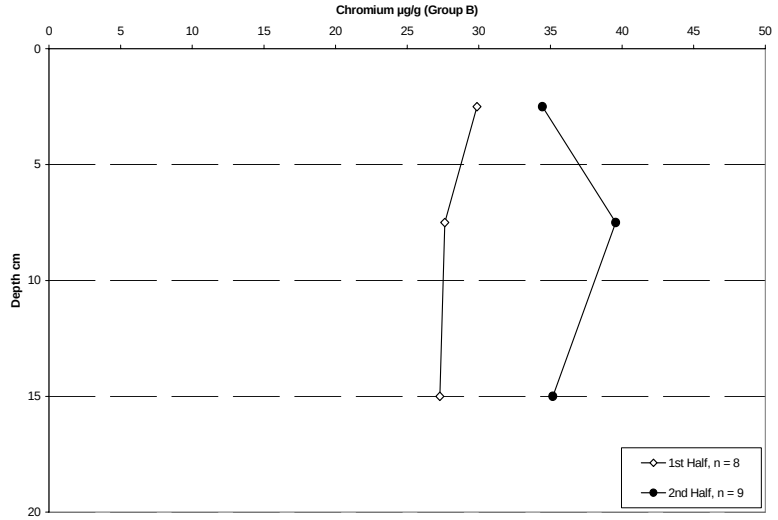


Figure 10.5.2.4b: Inner Communities, Cr depth profiles, Group B data.

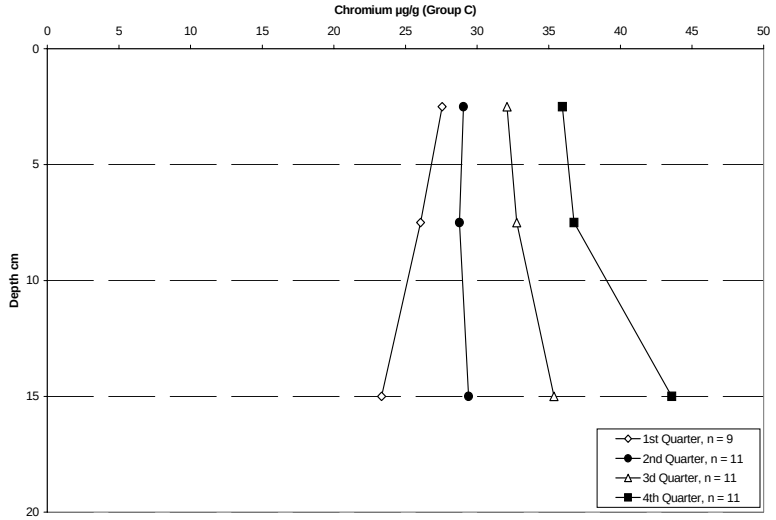


Figure 10.5.2.4c: Inner Communities, Cr depth profiles, Group C data.

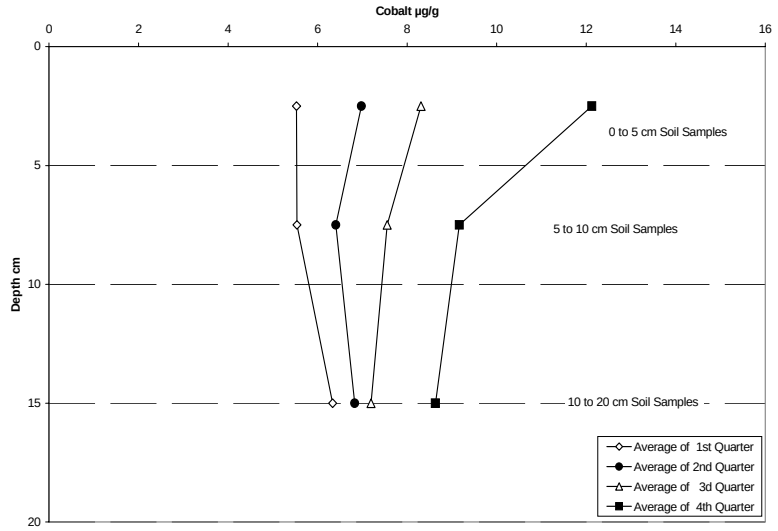


Figure 10.5.2.5: Inner Communities, Co depth profiles, all data.

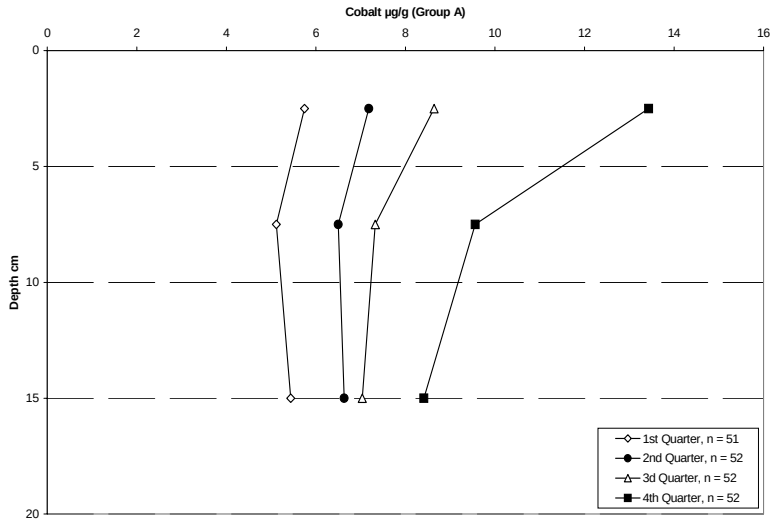


Figure 10.5.2.5a: Inner Communities, Co depth profiles, Group A data.

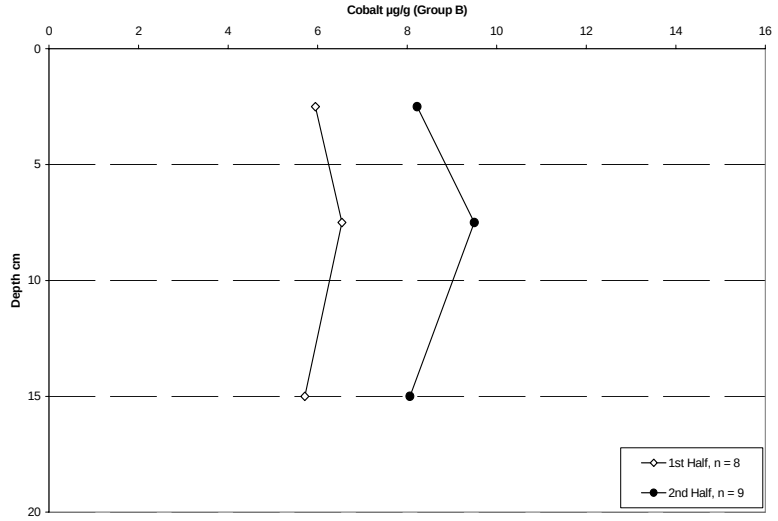


Figure 10.5.2.5b: Inner Communities, Co depth profiles, Group B data.

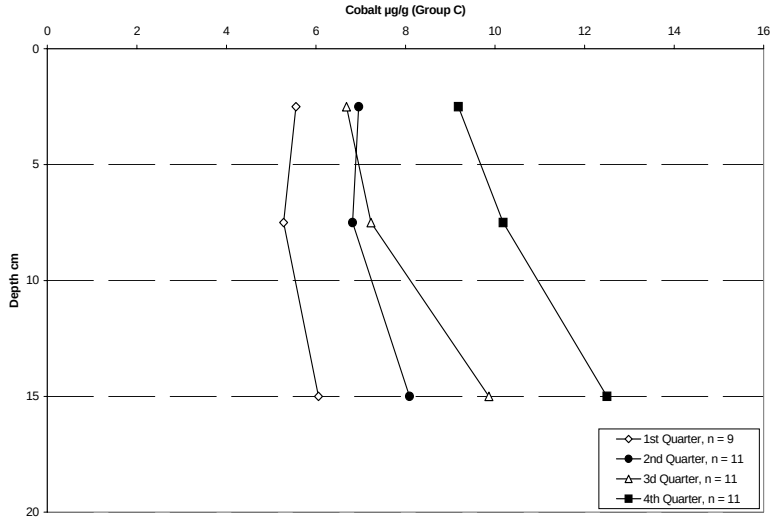


Figure 10.5.2.5c: Inner Communities, Co depth profiles, Group C data.

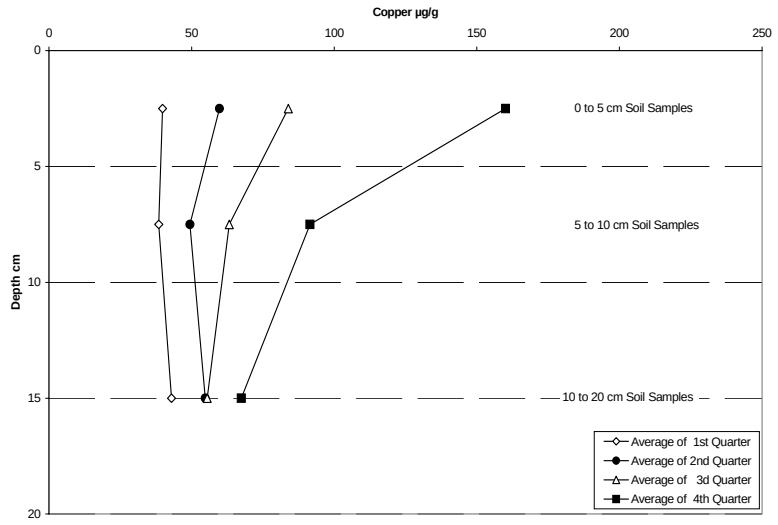


Figure 10.5.2.6: Inner Communities, Cu depth profiles, all data.

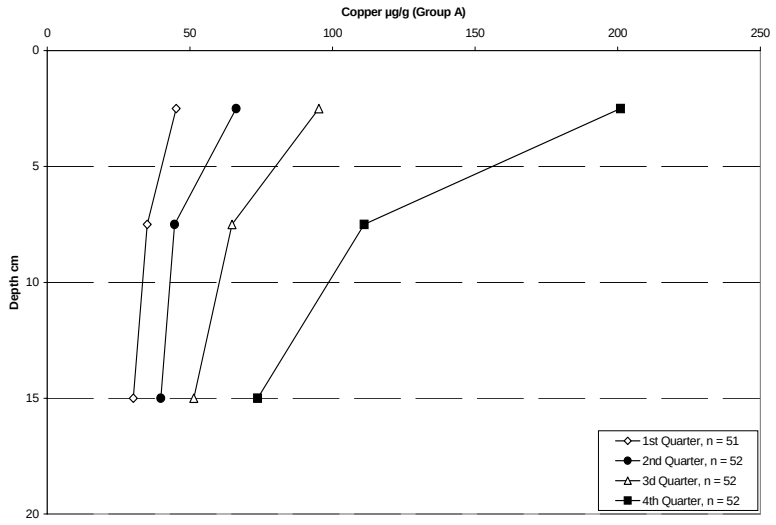


Figure 10.5.2.6a: Inner Communities, Cu depth profiles, Group A data.

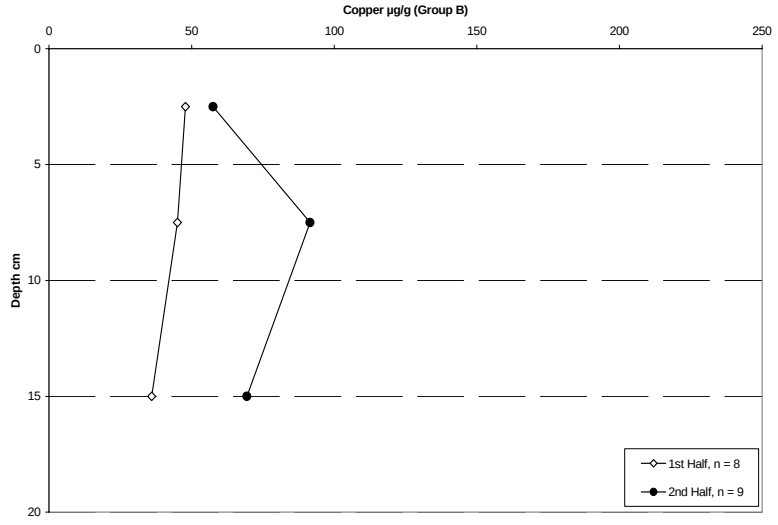


Figure 10.5.2.6b: Inner Communities, Cu depth profiles, Group B data.

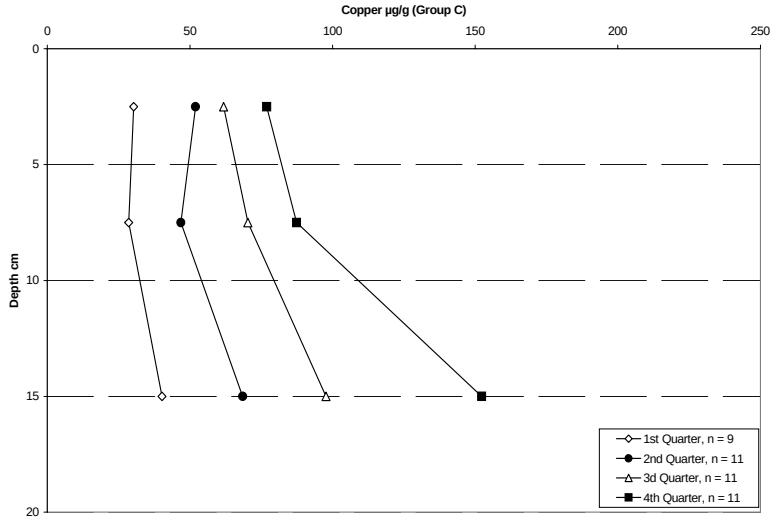


Figure 10.5.2.6c: Inner Communities, Cu depth profiles, Group C data.

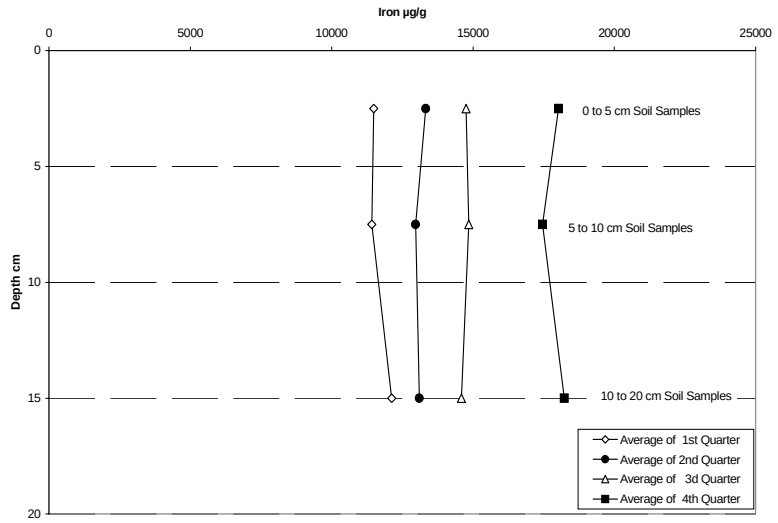


Figure 10.5.2.7: Inner Communities, Fe depth profiles, all data.

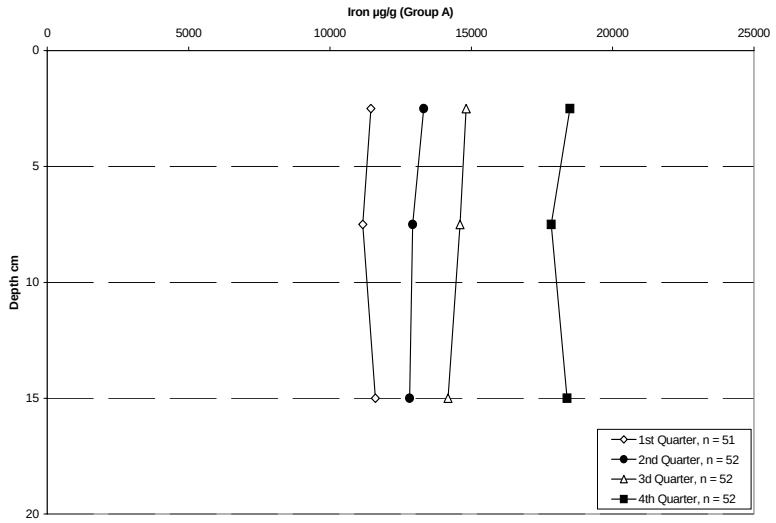


Figure 10.5.2.7a: Inner Communities, Fe depth profiles, Group A data.

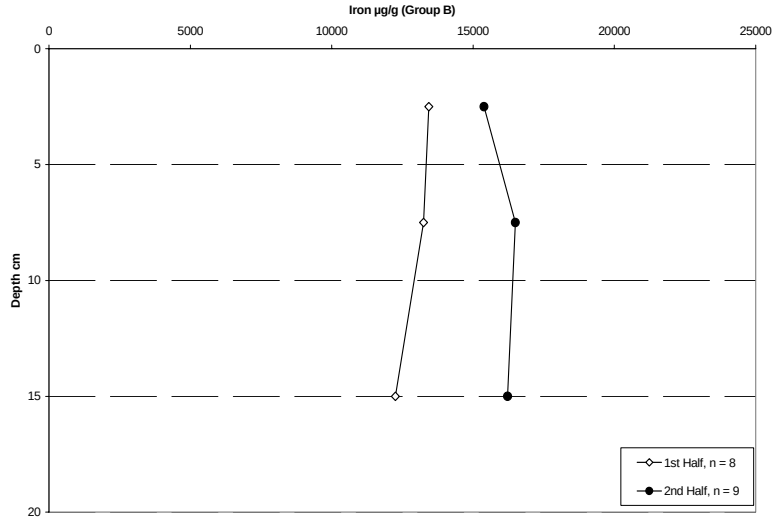


Figure 10.5.2.7b: Inner Communities, Fe depth profiles, Group B data.

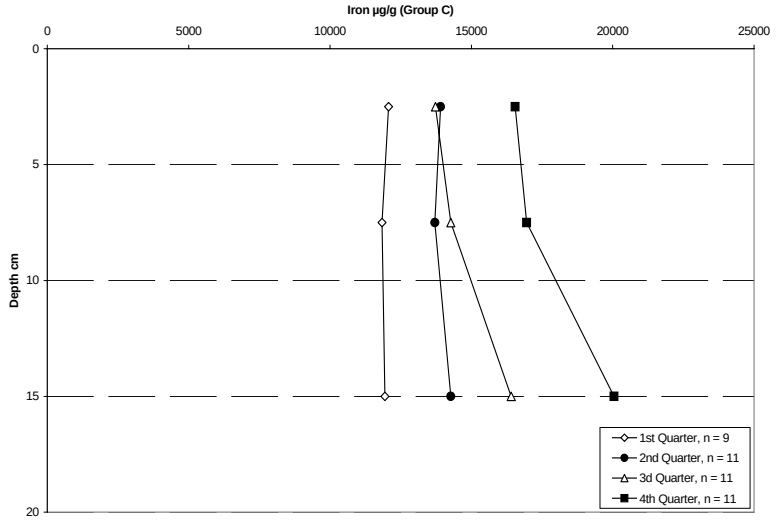


Figure 10.5.2.7c: Inner Communities, Fe depth profiles, Group C data.

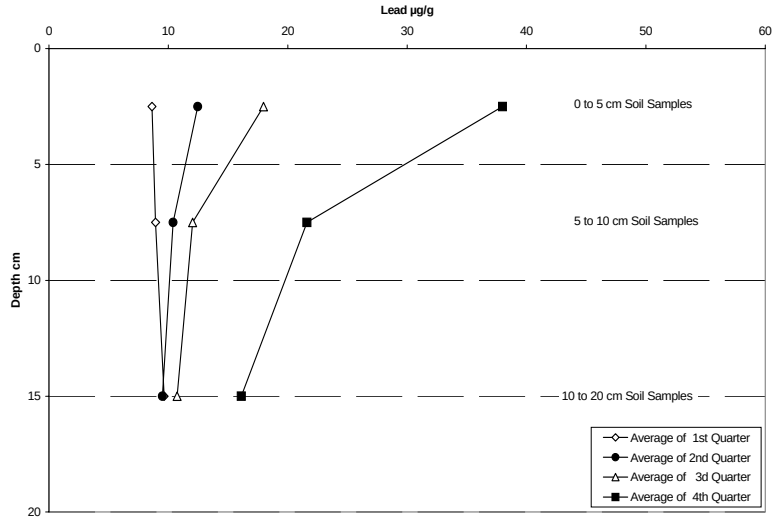


Figure 10.5.2.8: Inner Communities, Pb depth profiles, all data.

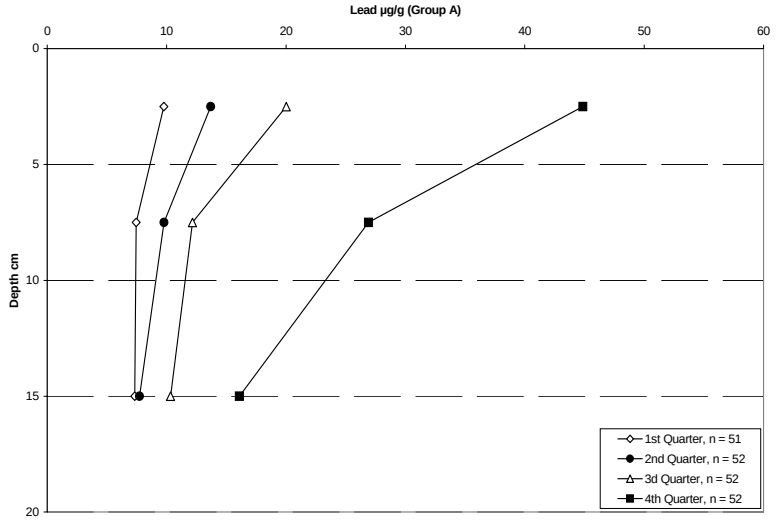


Figure 10.5.2.8a: Inner Communities, Pb depth profiles, Group A data.

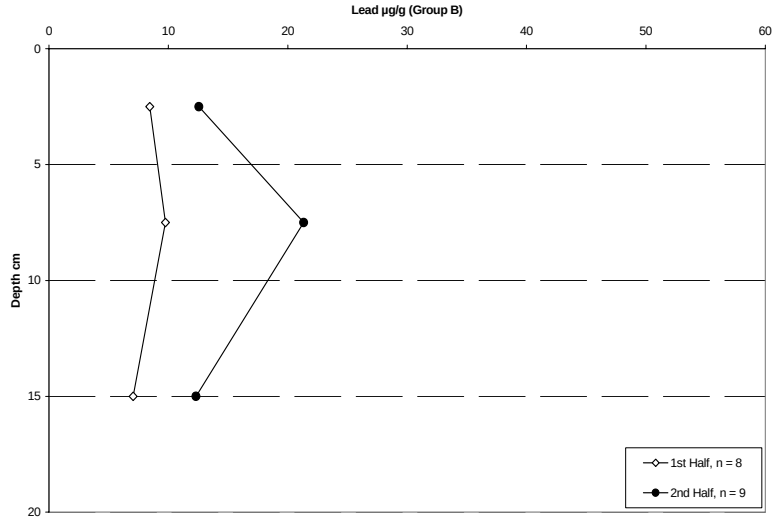


Figure 10.5.2.8b: Inner Communities, Pb depth profiles, Group B data.

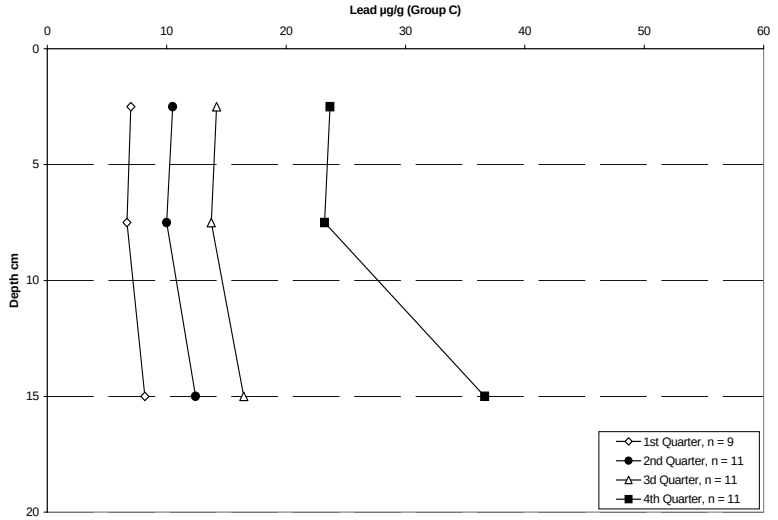


Figure 10.5.2.8c: Inner Communities, Pb depth profiles, Group C data.

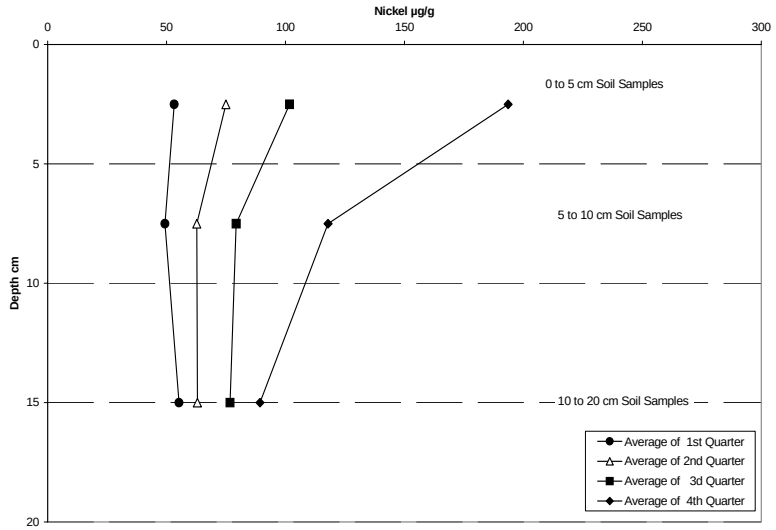


Figure 10.5.2.9: Inner Communities, Ni depth profiles, all data.

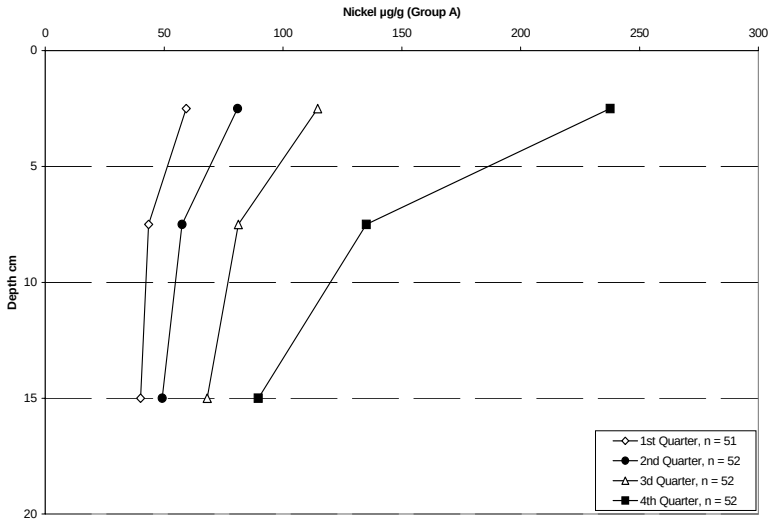


Figure 10.5.2.9a: Inner Communities, Ni depth profiles, Group A data.

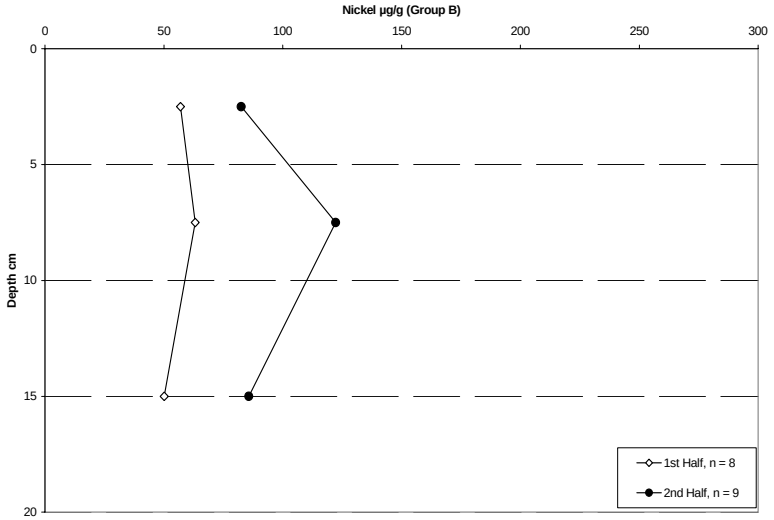


Figure 10.5.2.9b: Inner Communities, Ni depth profiles, Group B data.

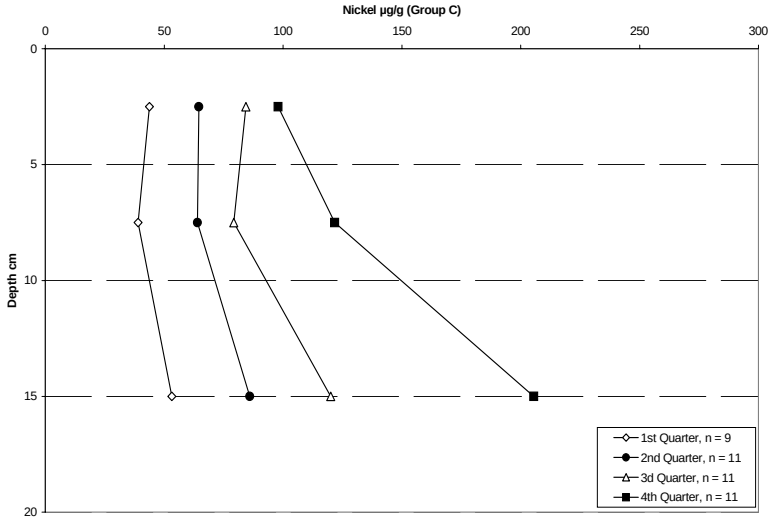


Figure 10.5.2.9c: Inner Communities, Ni depth profiles, Group C data.

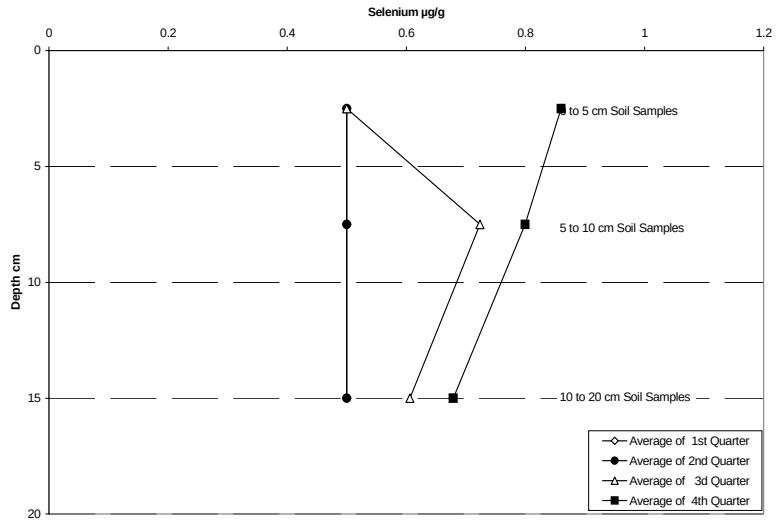


Figure 10.5.2.10: Inner Communities, Se depth profiles, all data.

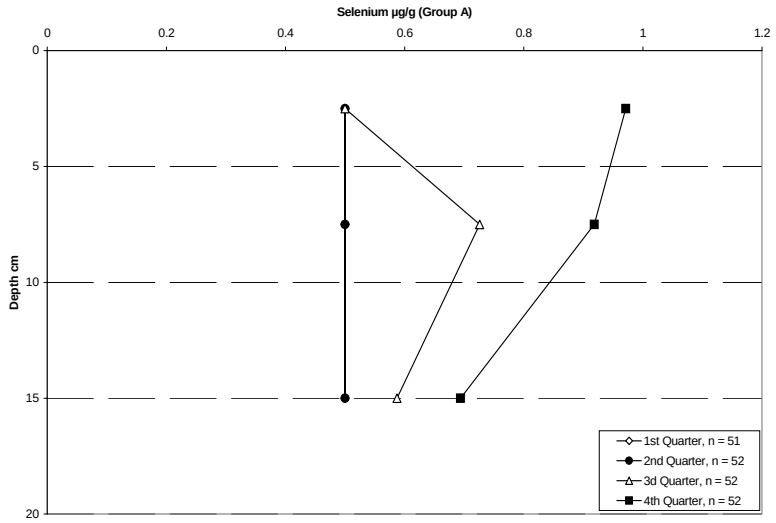


Figure 10.5.2.10a: Inner Communities, Se depth profiles, Group A data.

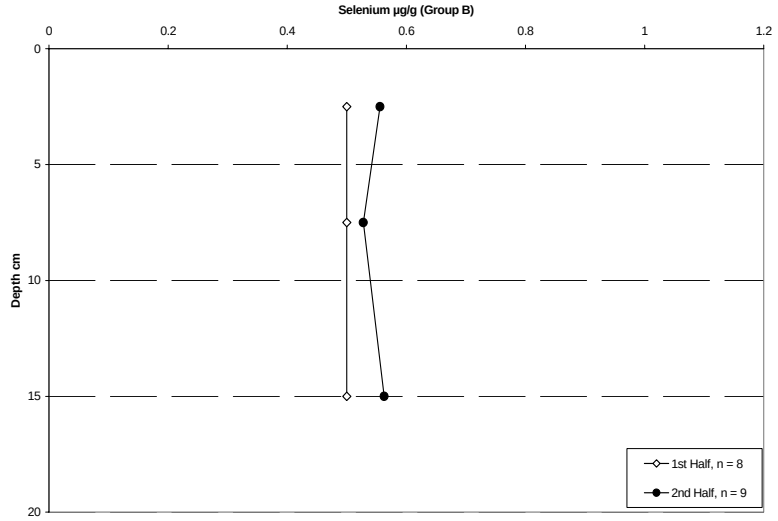


Figure 10.5.2.10b: Inner Communities, Se depth profiles, Group B data.

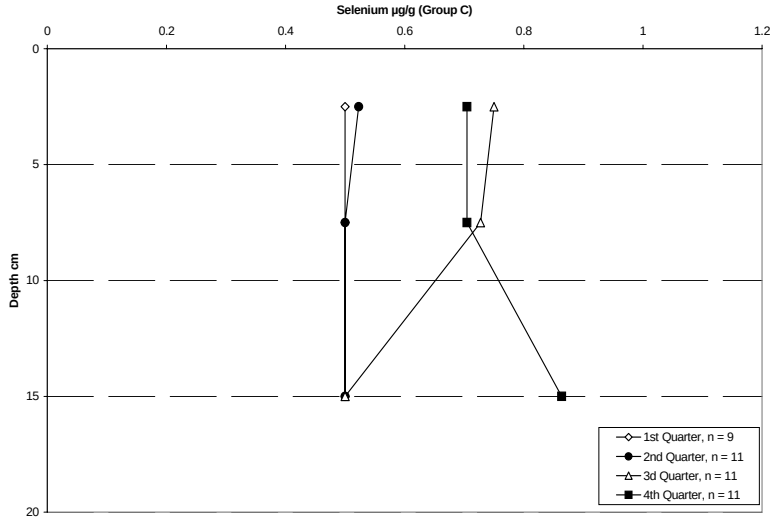


Figure 10.5.2.10c: Inner Communities, Se depth profiles, Group C data.

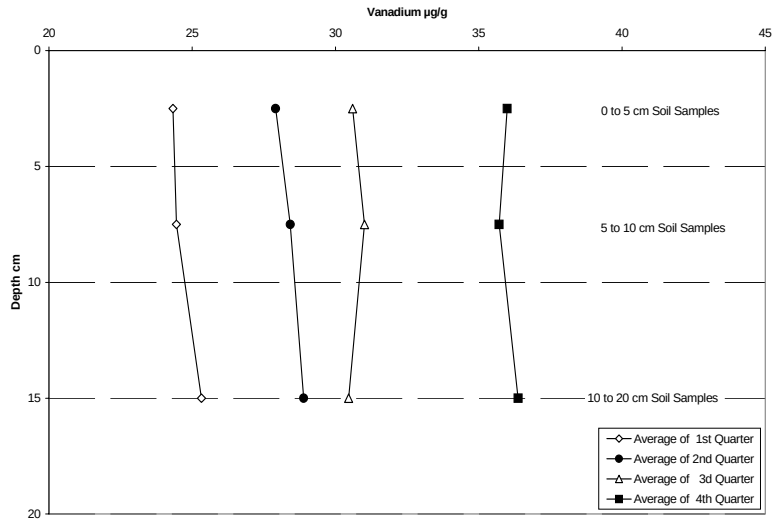


Figure 10.5.2.11: Inner Communities, V depth profiles, all data.

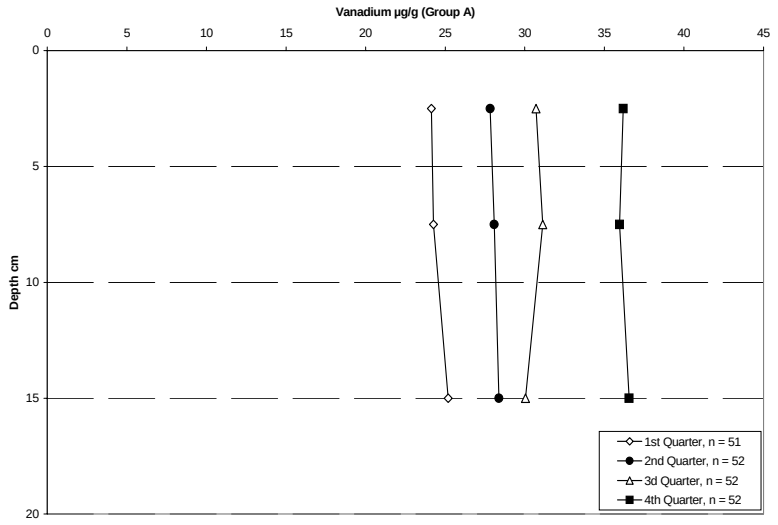


Figure 10.5.2.11a: Inner Communities, V depth profiles, Group A data.

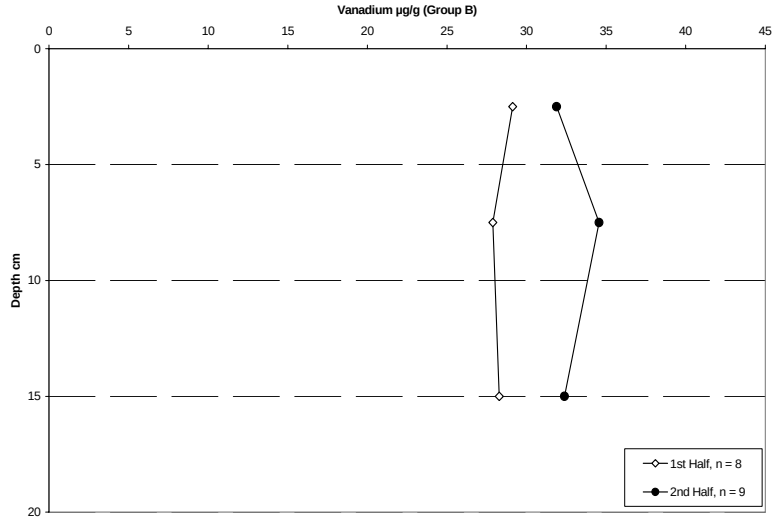


Figure 10.5.2.11b: Inner Communities, V depth profiles, Group B data.

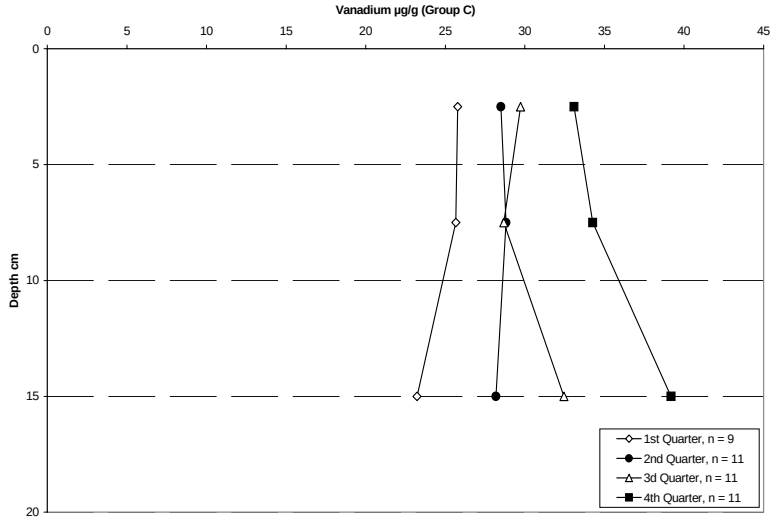


Figure 10.5.2.11c: Inner Communities, V depth profiles, Group C data.

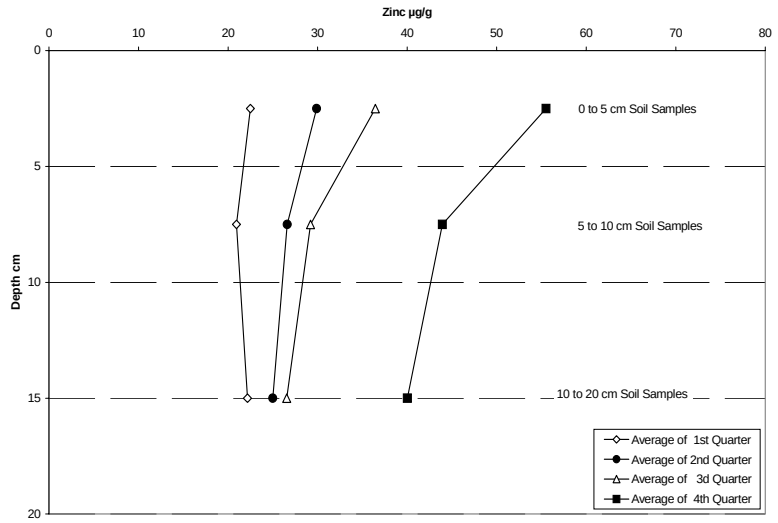


Figure 10.5.2.12: Inner Communities, Zn depth profiles, all data.

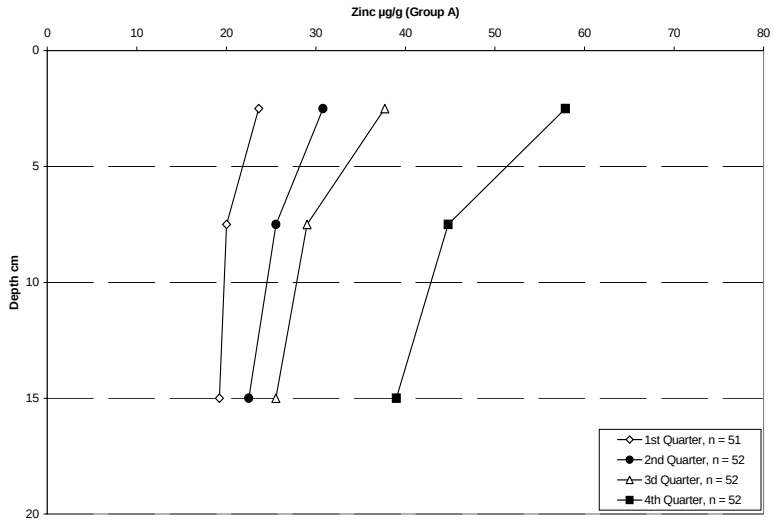


Figure 10.5.2.12a: Inner Communities, Zn depth profiles, Group A data.

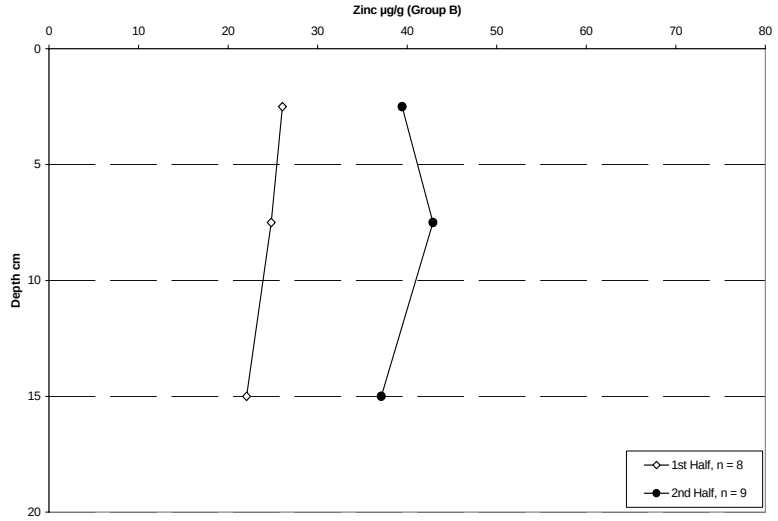


Figure 10.5.2.12b: Inner Communities, Zn depth profiles, Group B data.

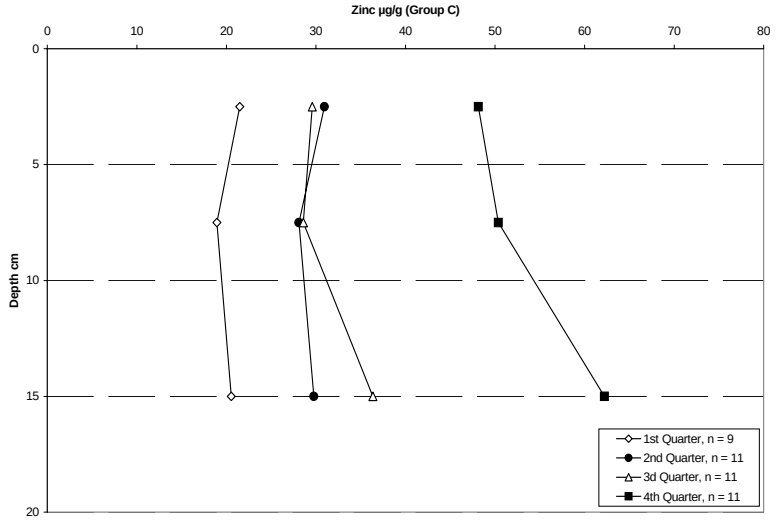


Figure 10.5.2.12c: Inner Communities, Zn depth profiles, Group C data.

10.5.3 Sudbury Core

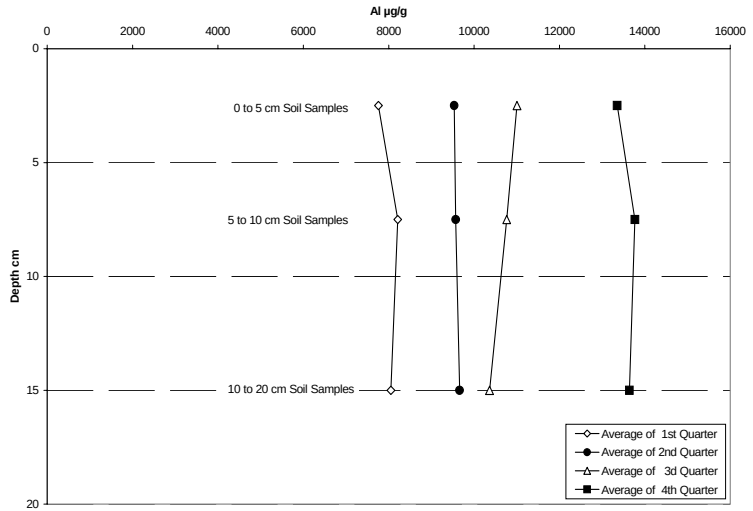


Figure 10.5.3.1: Sudbury Core, Al depth profiles, all data.

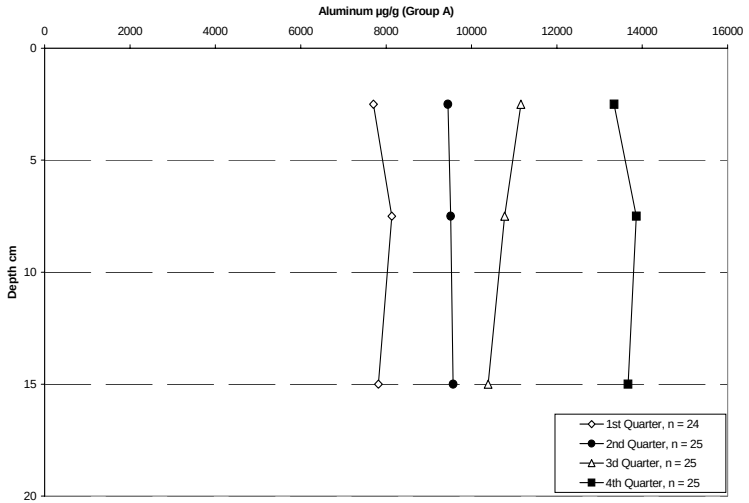


Figure 10.5.3.1a: Sudbury Core, Al depth profiles, Group A data.

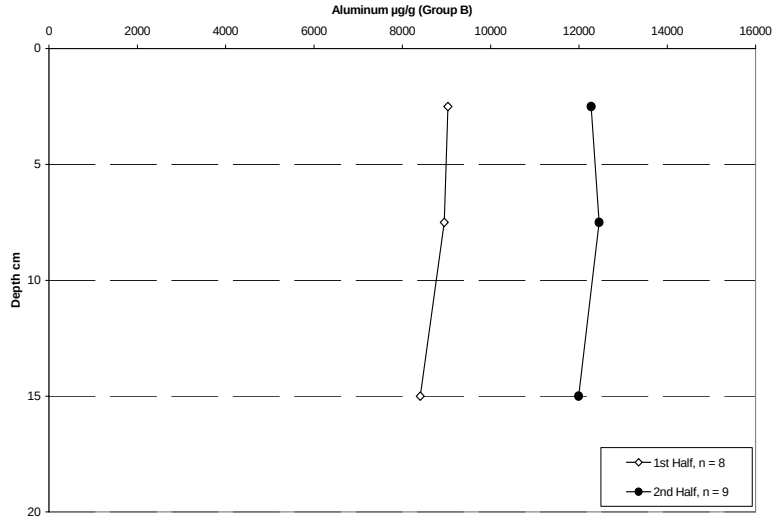


Figure 10.5.3.1b: Sudbury Core, Al depth profiles, Group B data.

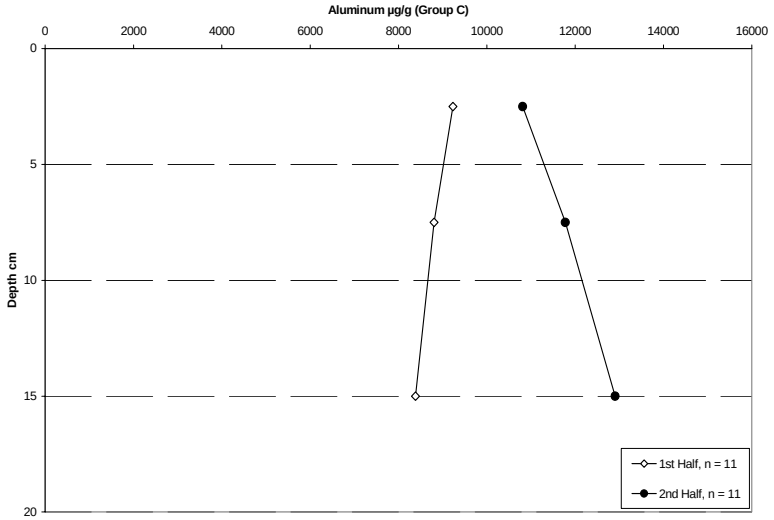


Figure 10.5.3.1c: Sudbury Core, Al depth profiles, Group C data.

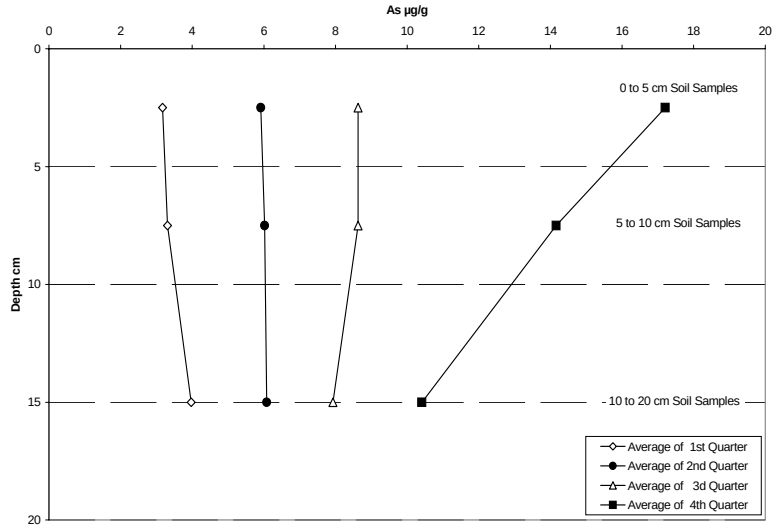


Figure 10.5.3.2: Sudbury Core, As depth profiles, all data.

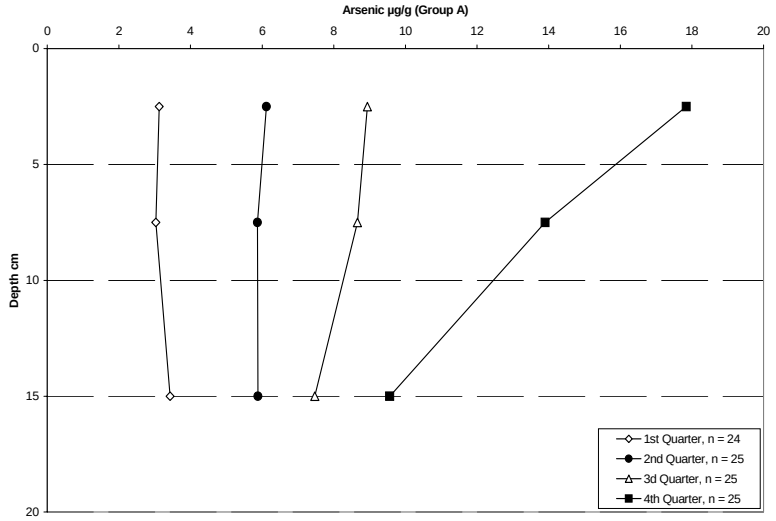


Figure 10.5.3.2a: Sudbury Core, As depth profiles, Group A data.

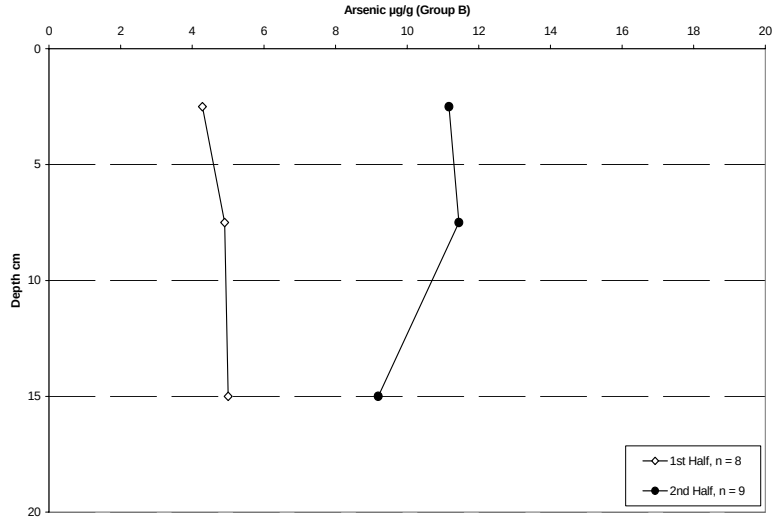


Figure 10.5.3.2b: Sudbury Core, As depth profiles, Group B data.

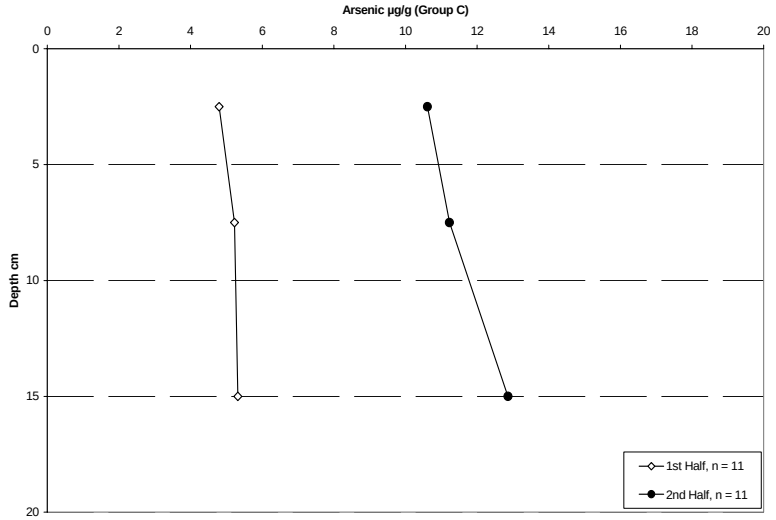


Figure 10.5.3.2c: Sudbury Core, As depth profiles, Group C data.

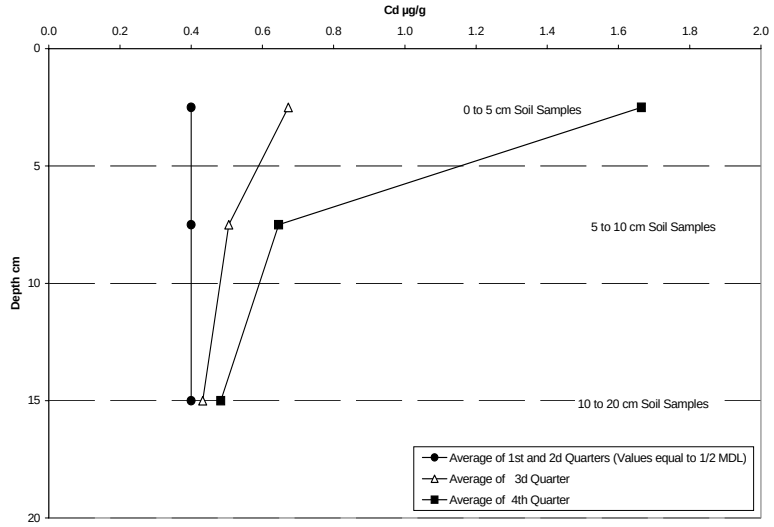


Figure 10.5.3.3: Sudbury Core, Cd depth profiles, all data.

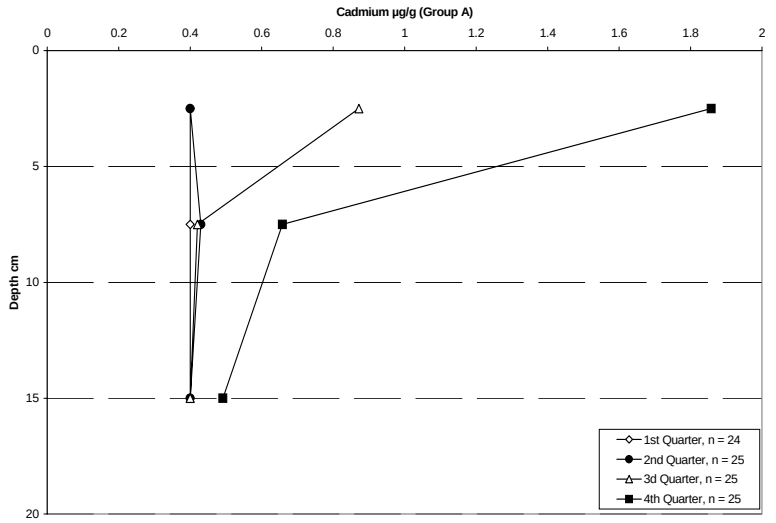


Figure 10.5.3.3a: Sudbury Core, Cd depth profiles, Group A data.

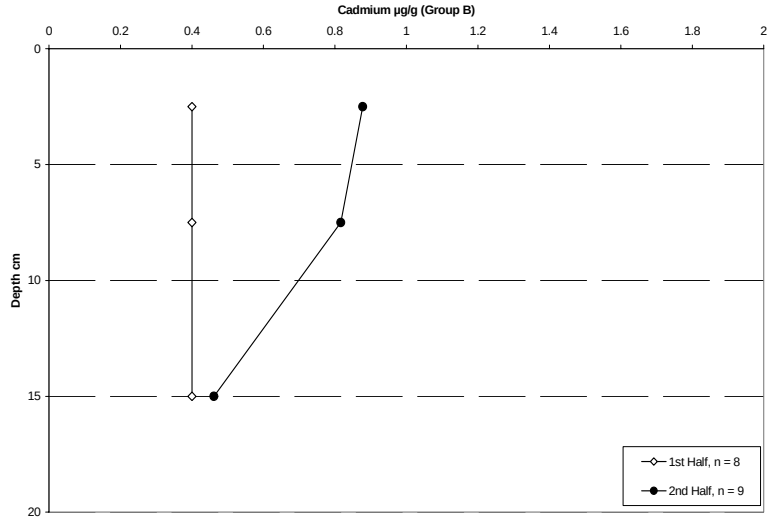


Figure 10.5.3.3b: Sudbury Core, Cd depth profiles, Group B data.

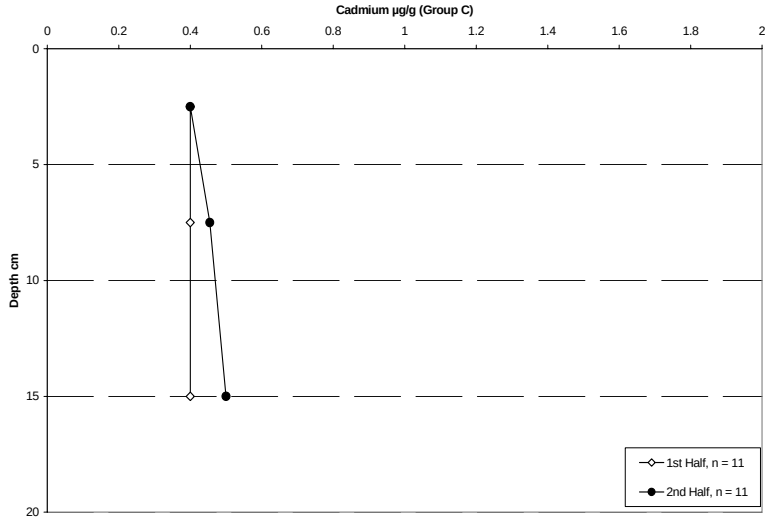


Figure 10.5.3.3c: Sudbury Core, Cd depth profiles, Group C data.

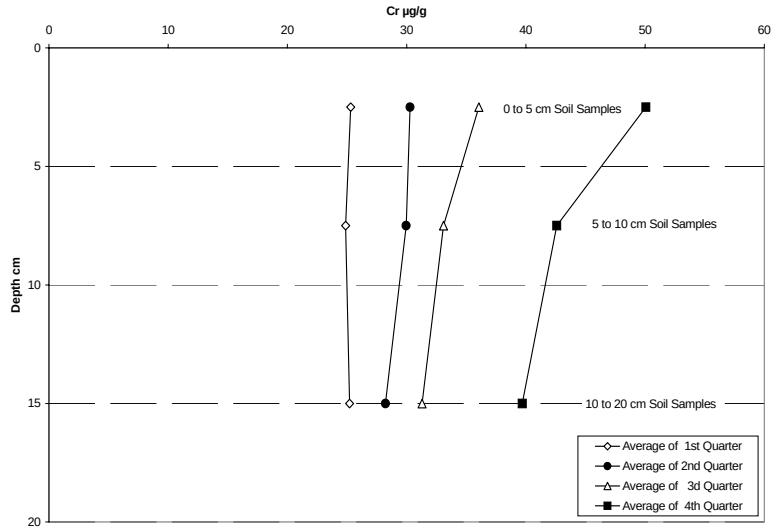


Figure 10.5.3.4: Sudbury Core, Cr depth profiles, all data.

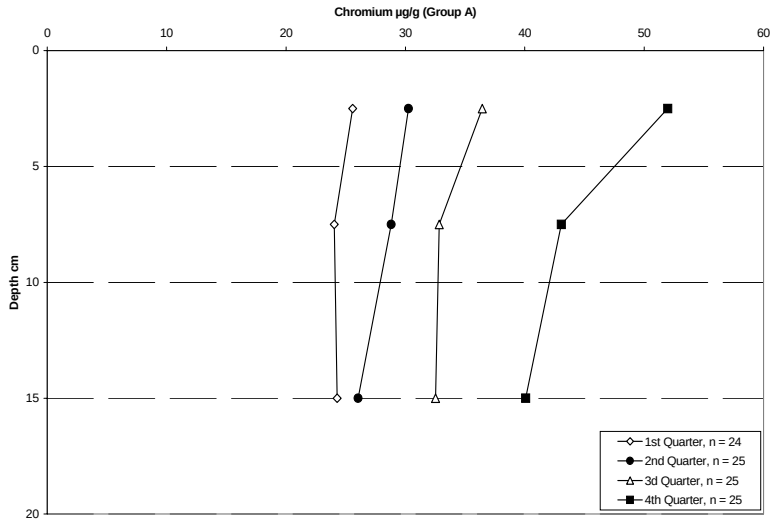


Figure 10.5.3.4a: Sudbury Core, Cr depth profiles, Group A data.

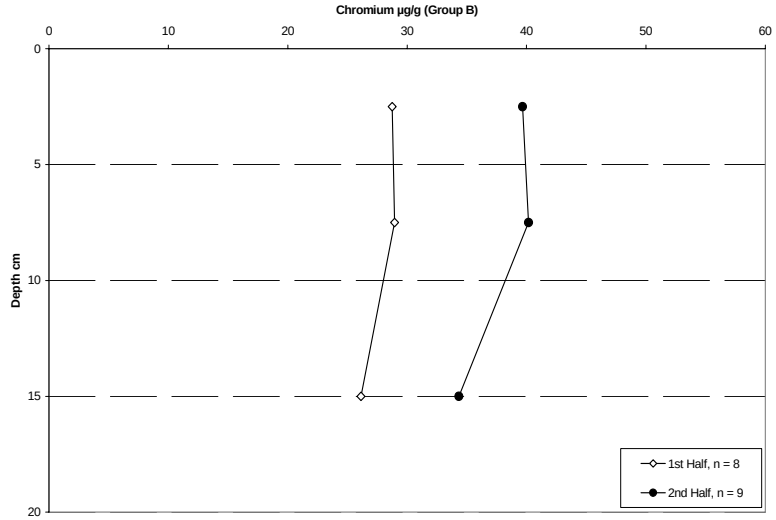


Figure 10.5.3.4b: Sudbury Core, Cr depth profiles, Group B data.

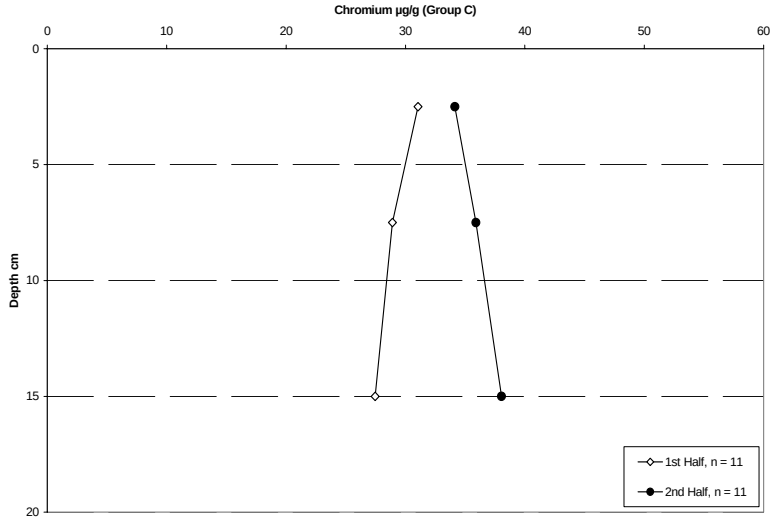


Figure 10.5.3.4c: Sudbury Core, Cr depth profiles, Group C data.

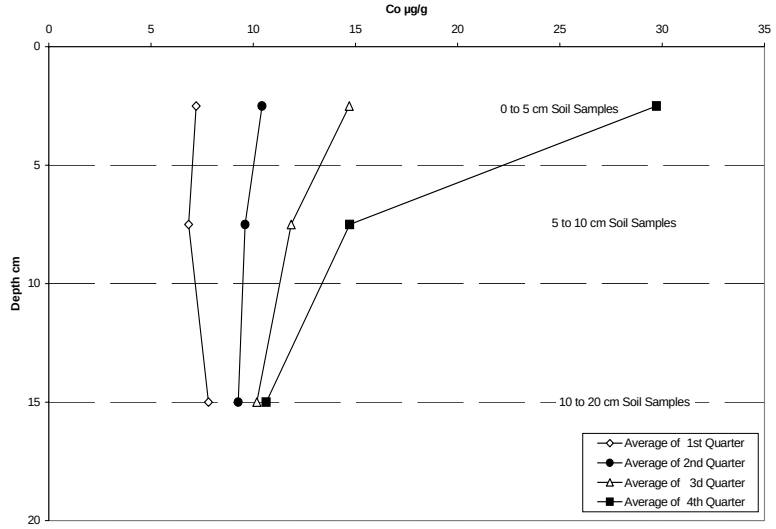


Figure 10.5.3.5: Sudbury Core, Co depth profiles, all data.

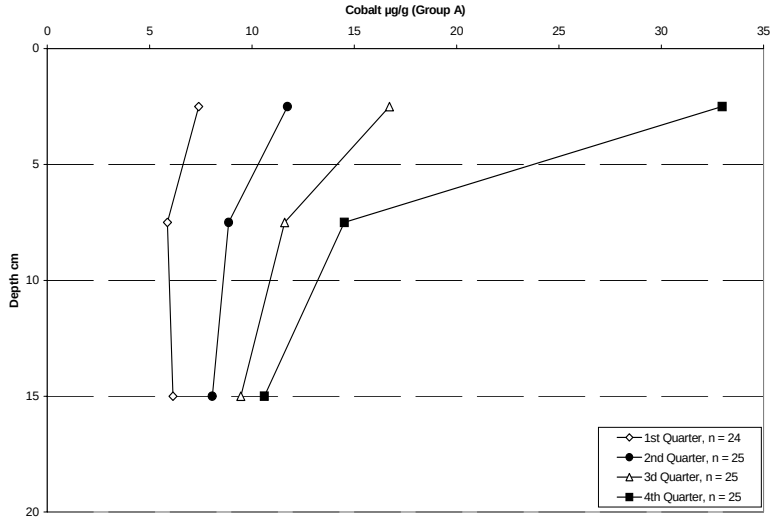


Figure 10.5.3.5a: Sudbury Core, Co depth profiles, Group A data.

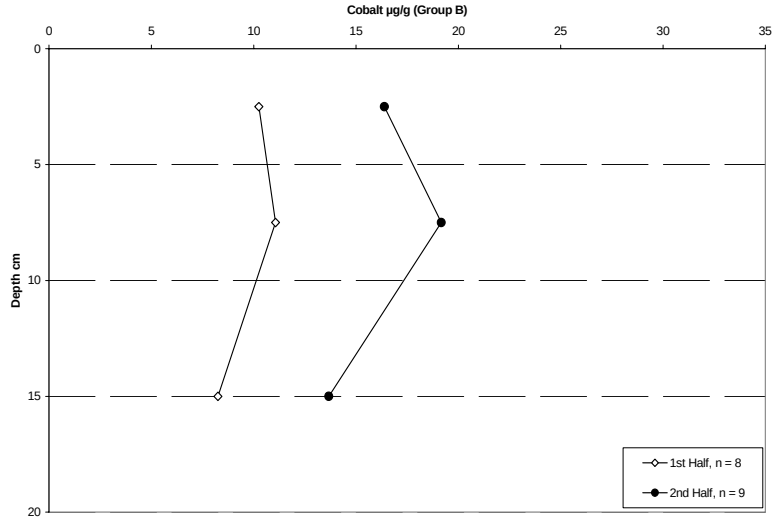


Figure 10.5.3.5b: Sudbury Core, Co depth profiles, Group B data.

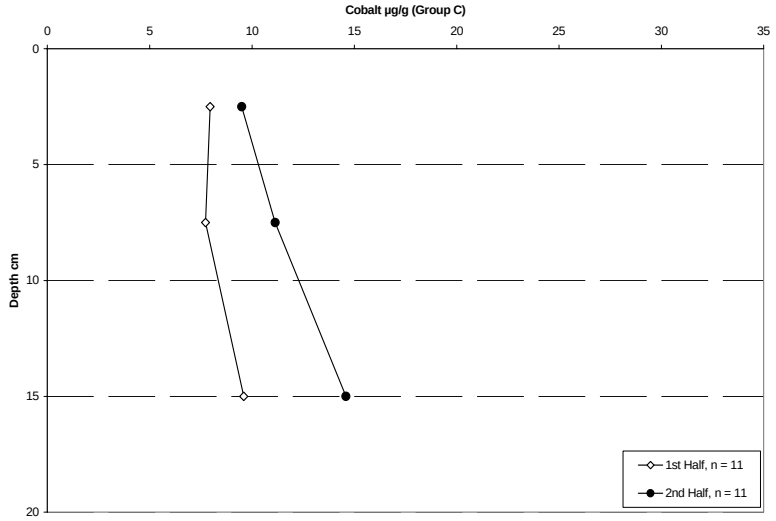


Figure 10.5.3.5c: Sudbury Core, Co depth profiles, Group C data.

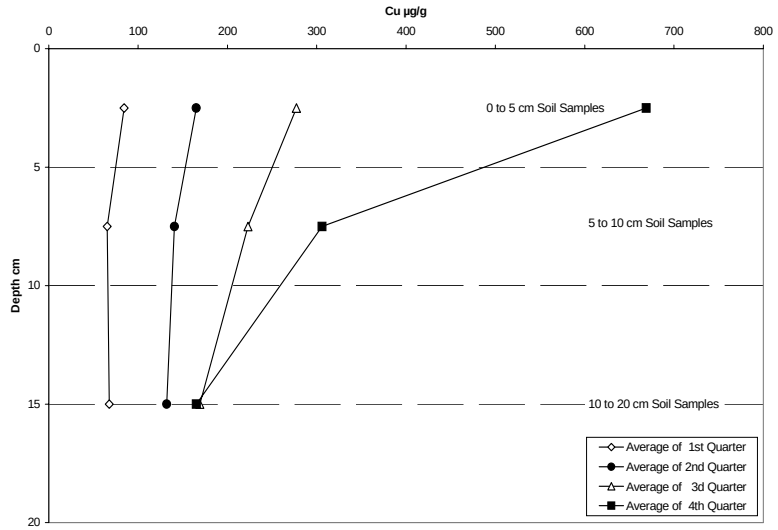


Figure 10.5.3.6: Sudbury Core, Cu depth profiles, all data.

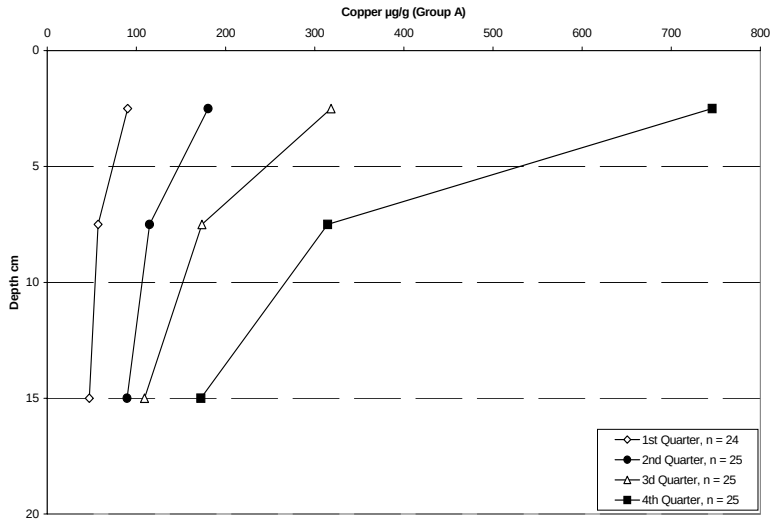


Figure 10.5.3.6a: Sudbury Core, Cu depth profiles, Group A data.

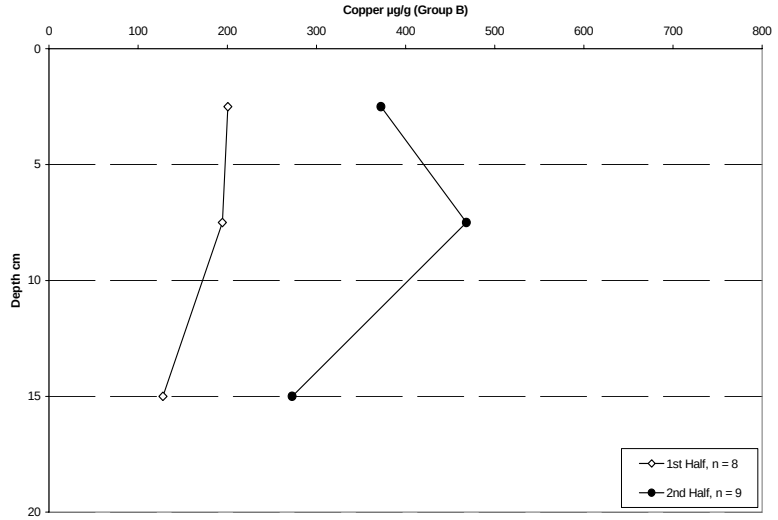


Figure 10.5.3.6b: Sudbury Core, Cu depth profiles, Group B data.

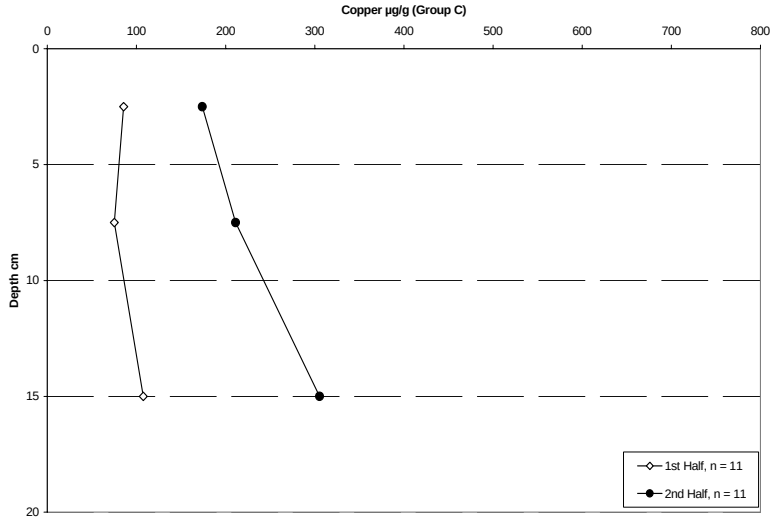


Figure 10.5.3.6c: Sudbury Core, Cu depth profiles, Group C data.

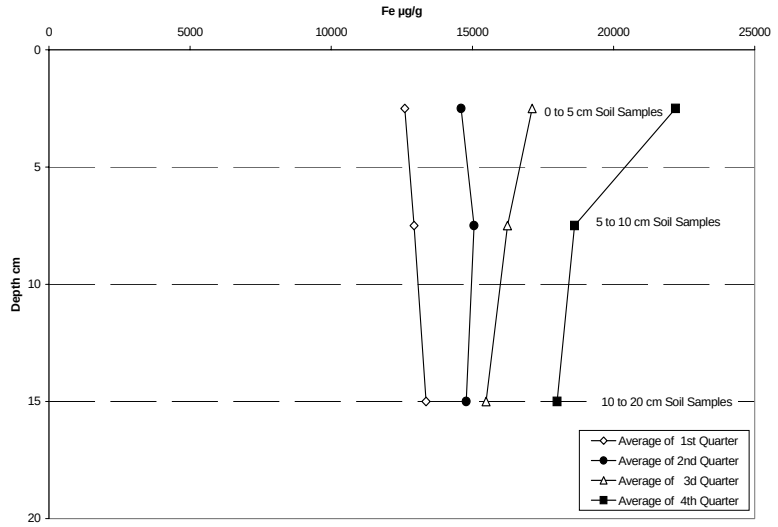


Figure 10.5.3.7: Sudbury Core, Fe depth profiles, all data.

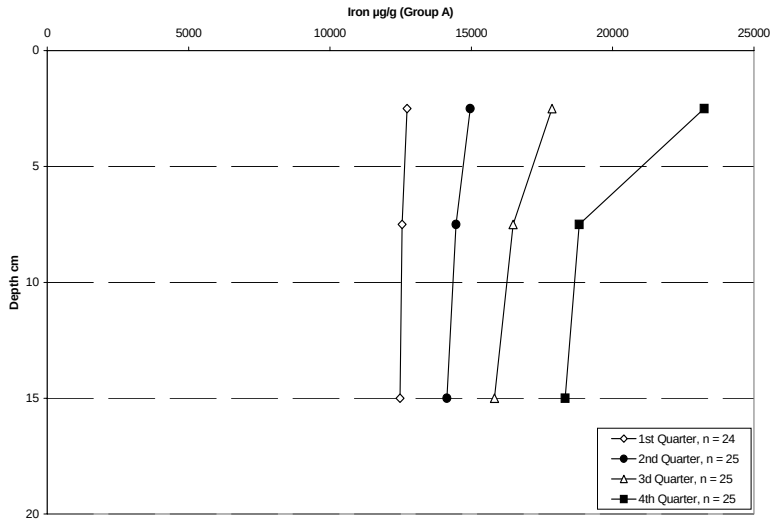


Figure 10.5.3.7a: Sudbury Core, Fe depth profiles, Group A data.

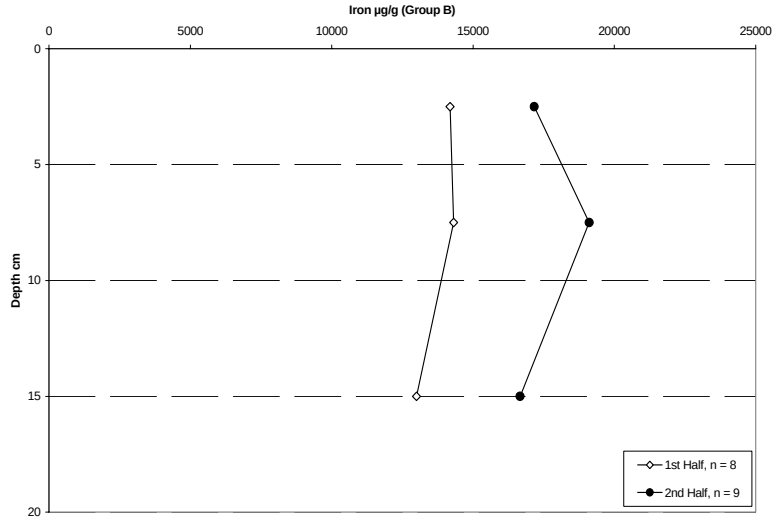


Figure 10.5.3.7b: Sudbury Core, Fe depth profiles, Group B data.

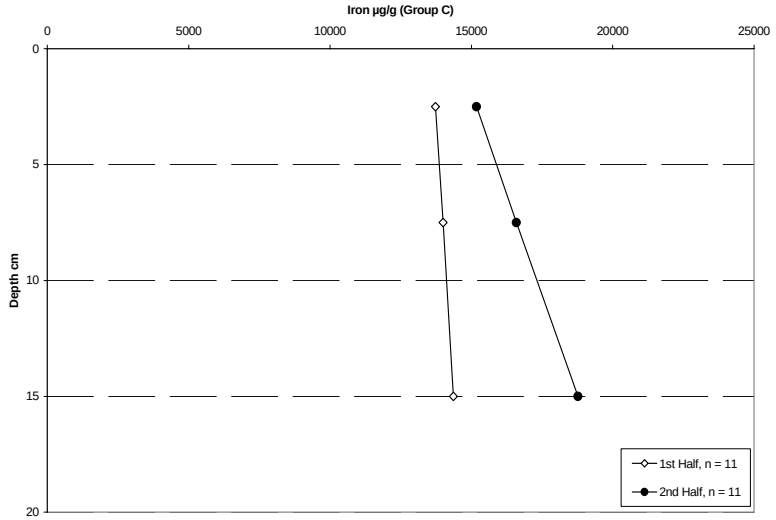


Figure 10.5.3.7c: Sudbury Core, Fe depth profiles, Group C data.

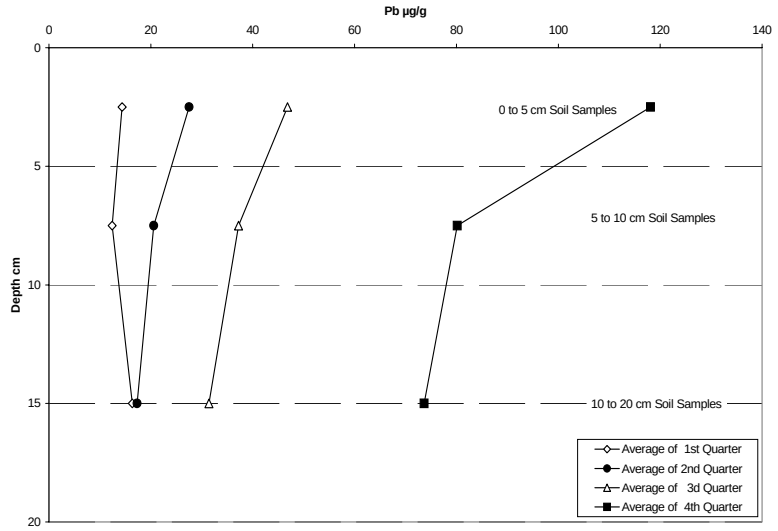


Figure 10.5.3.8: Sudbury Core, Pb depth profiles, all data.

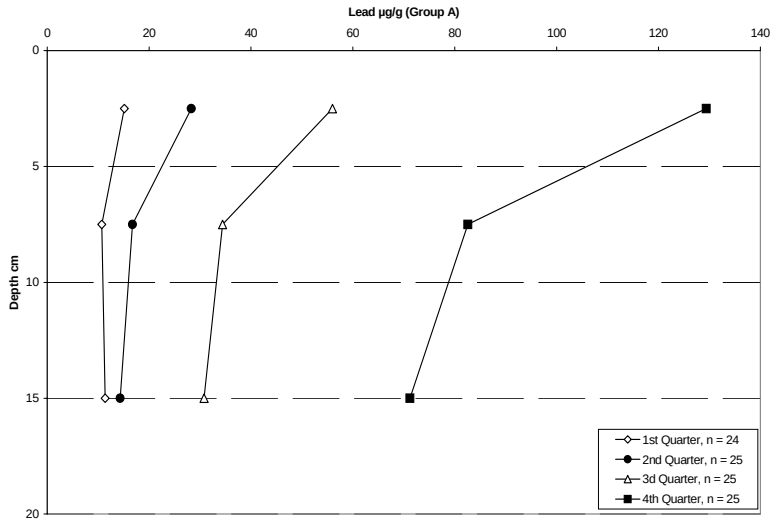


Figure 10.5.3.8a: Sudbury Core, Pb depth profiles, Group A data.

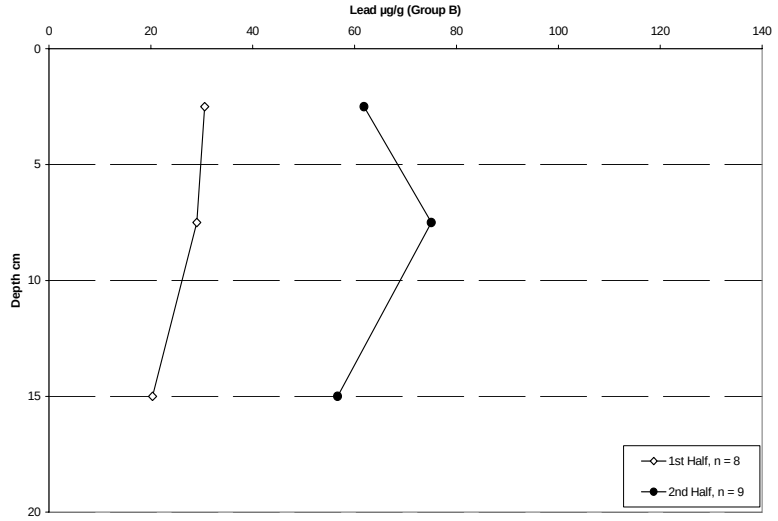


Figure 10.5.3.8b: Sudbury Core, Pb depth profiles, Group B data.

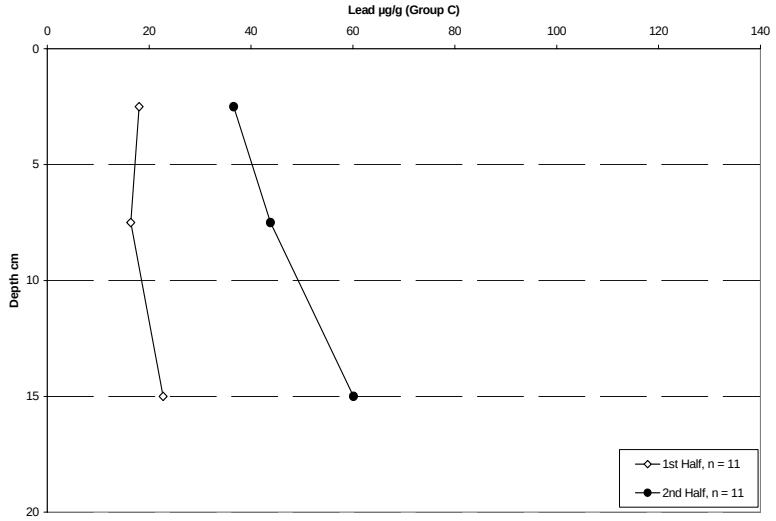


Figure 10.5.3.8c: Sudbury Core, Pb depth profiles, Group C data.

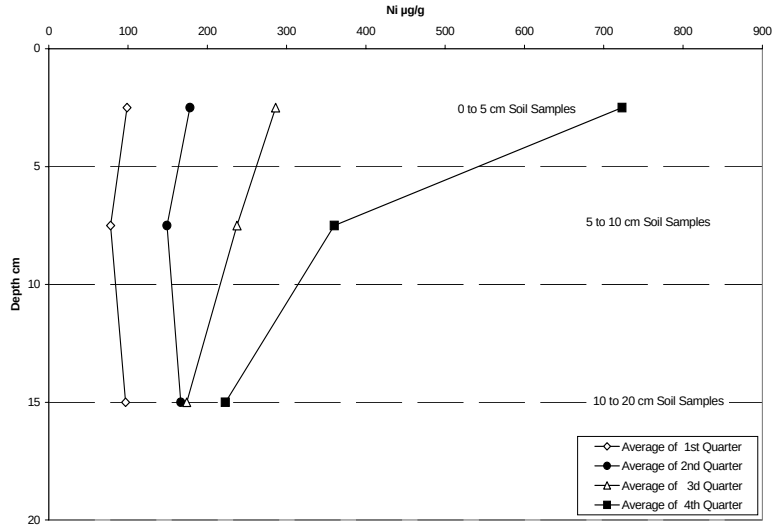


Figure 10.5.3.9: Sudbury Core, Ni depth profiles, all data.

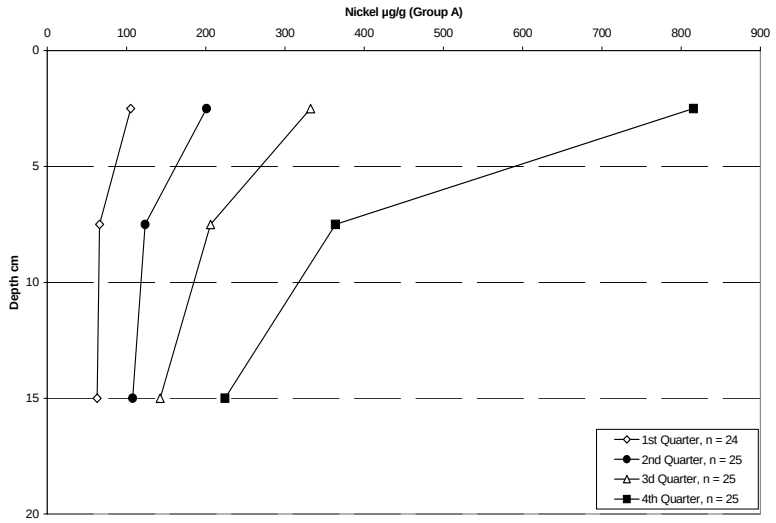


Figure 10.5.3.9a: Sudbury Core, Ni depth profiles, Group A data.

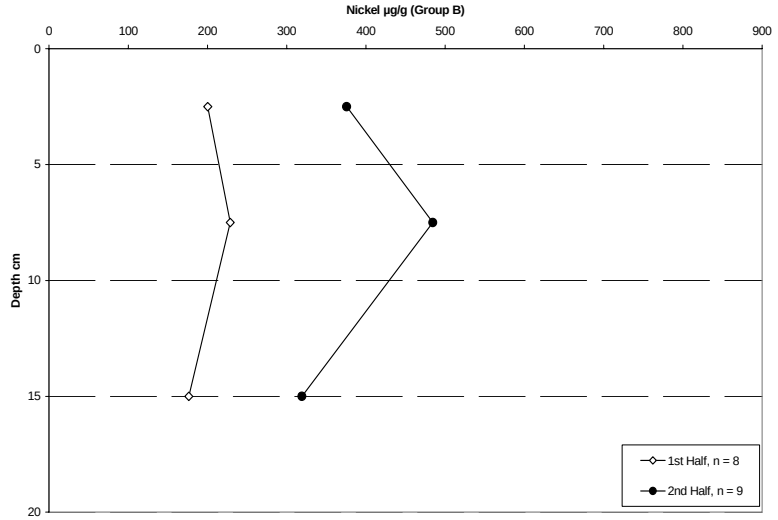


Figure 10.5.3.9b: Sudbury Core, Ni depth profiles, Group B data.

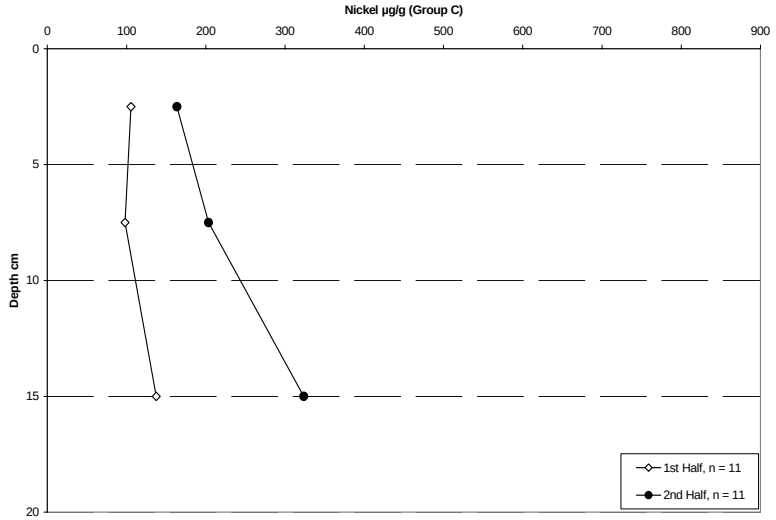


Figure 10.5.3.9c: Sudbury Core, Ni depth profiles, Group C data.

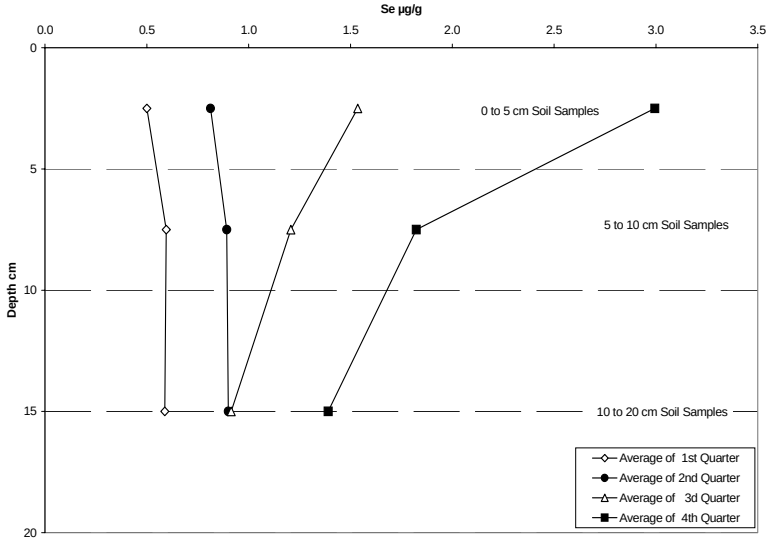


Figure 10.5.3.10: Sudbury Core, Se depth profiles, all data.

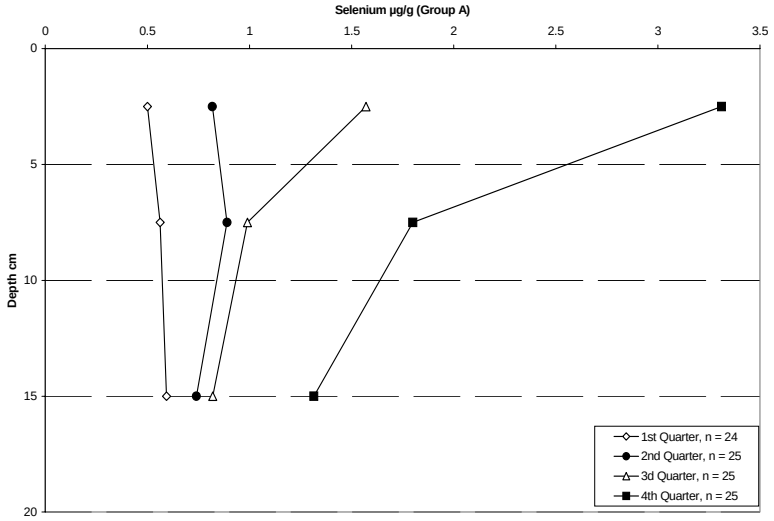


Figure 10.5.3.10a: Sudbury Core, Se depth profiles, Group A data.

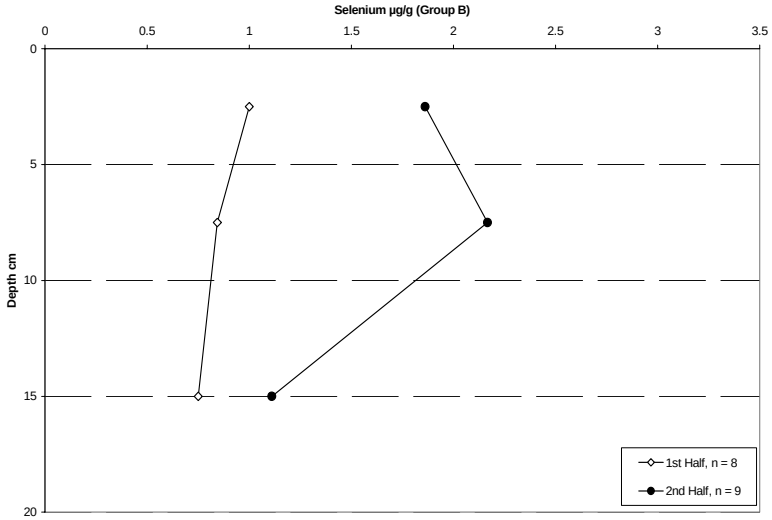


Figure 10.5.3.10b: Sudbury Core, Se depth profiles, Group B data.

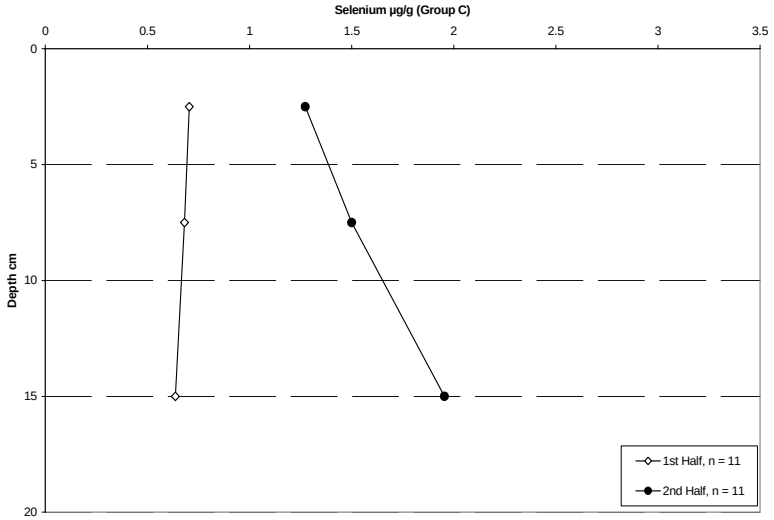


Figure 10.5.3.10c: Sudbury Core, Se depth profiles, Group C data.

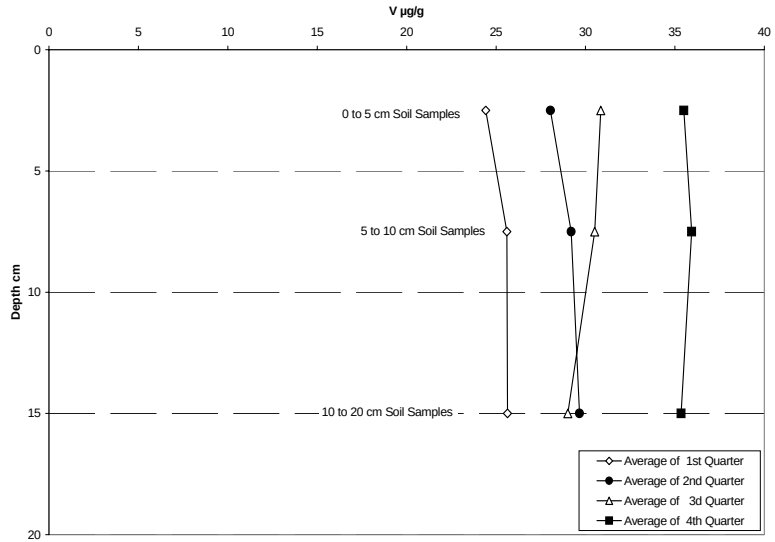


Figure 10.5.3.11: Sudbury Core, V depth profiles, all data.

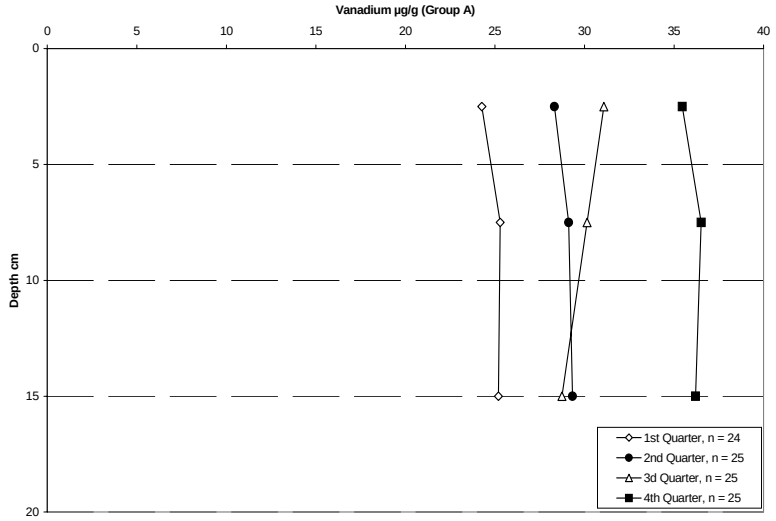


Figure 10.5.3.11a: Sudbury Core, V depth profiles, Group A data.

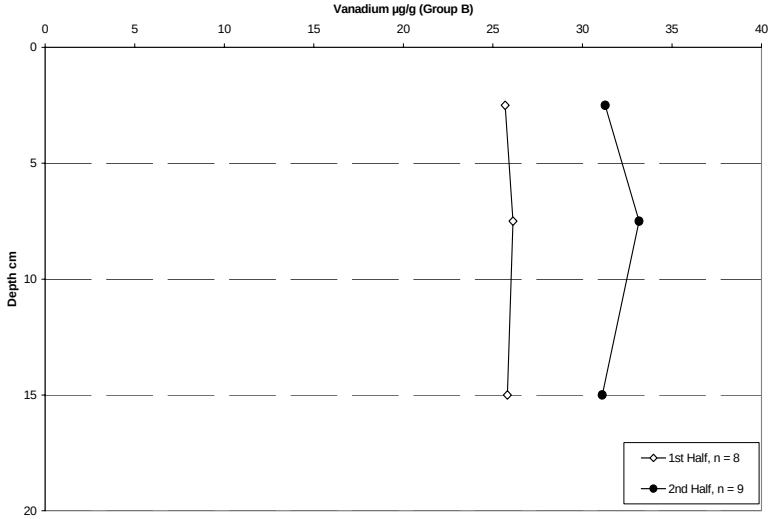


Figure 10.5.3.11b: Sudbury Core, V depth profiles, Group B data.

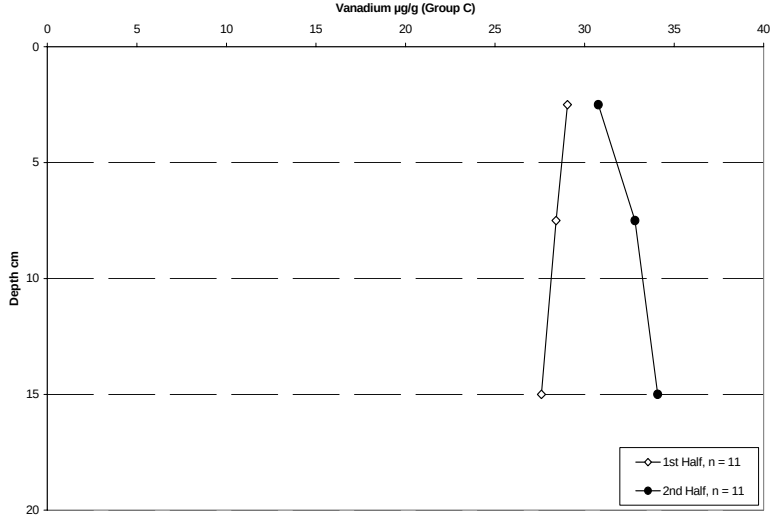


Figure 10.5.3.11c: Sudbury Core, V depth profiles, Group C data.

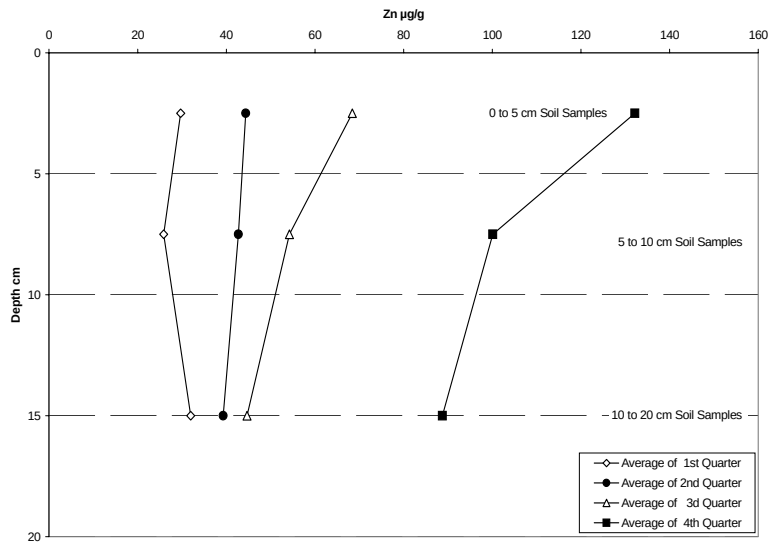


Figure 10.5.3.12: Sudbury Core, Zn depth profiles, all data.

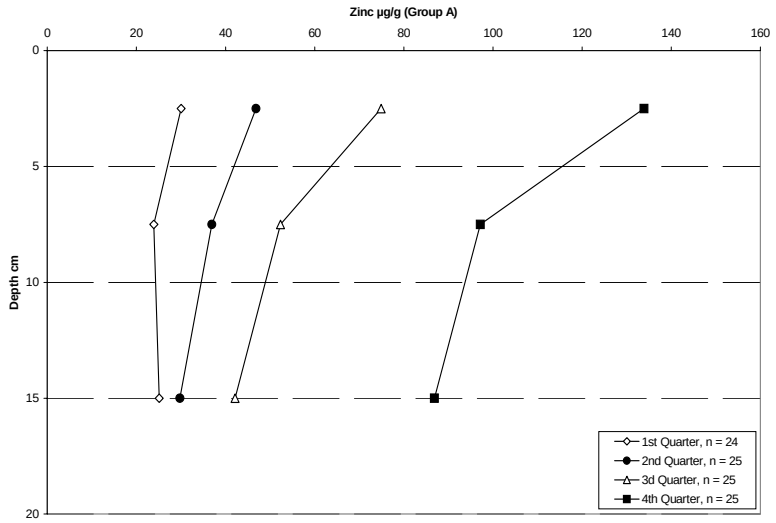


Figure 10.5.3.12a: Sudbury Core, Zn depth profiles, Group A data.

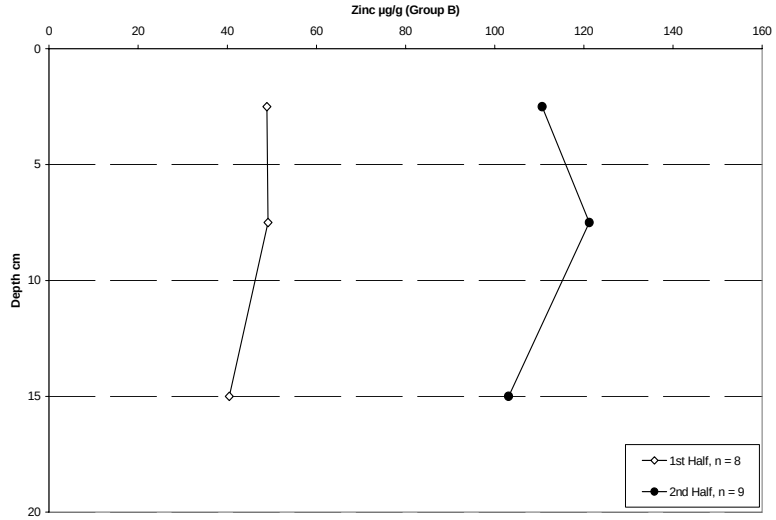


Figure 10.5.3.12b: Sudbury Core, Zn depth profiles, Group B data.

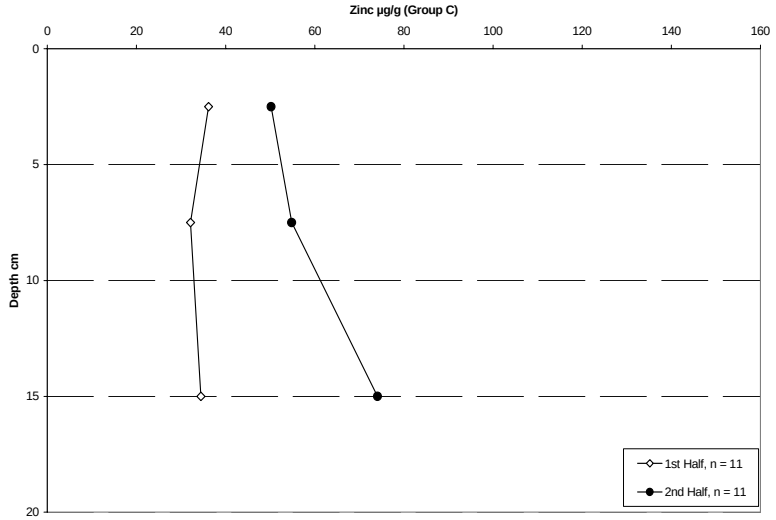


Figure 10.5.3.12c: Sudbury Core, Zn depth profiles, Group C data.

10.5.4 Coniston

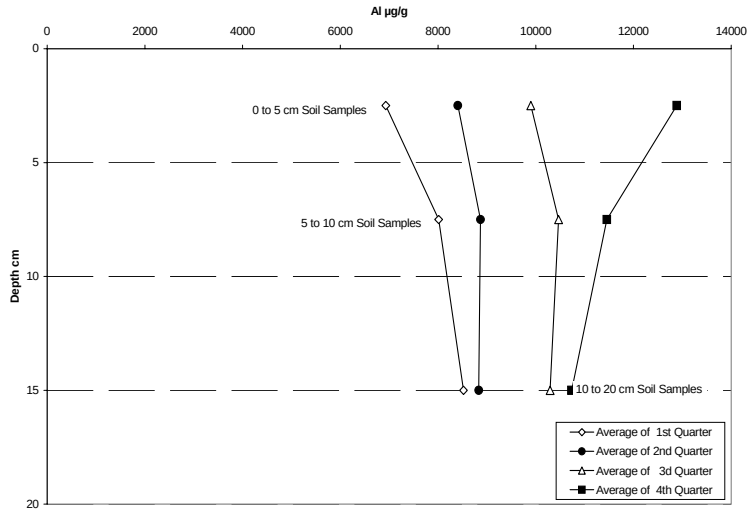


Figure 10.5.4.1: Coniston, Al depth profiles, all data.

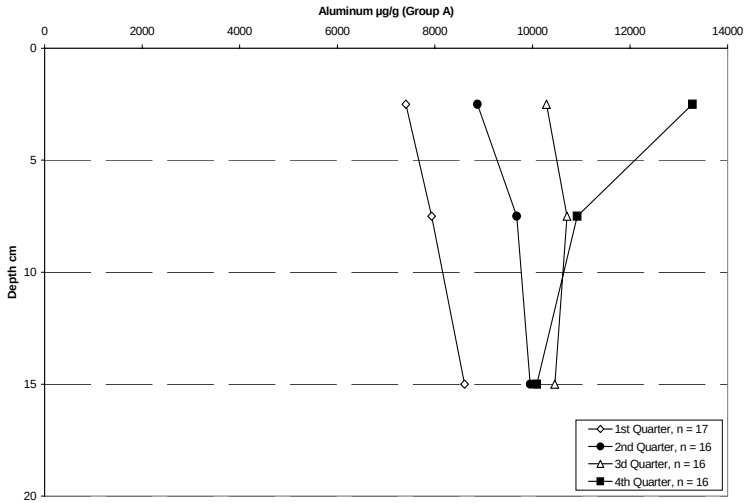


Figure 10.5.4.1a: Coniston, Al depth profiles, Group A data.

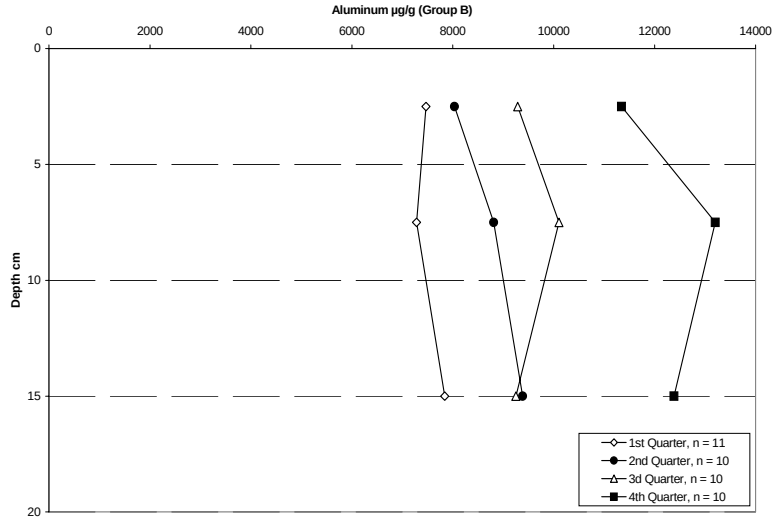


Figure 10.5.4.1b: Coniston, Al depth profiles, Group B data.

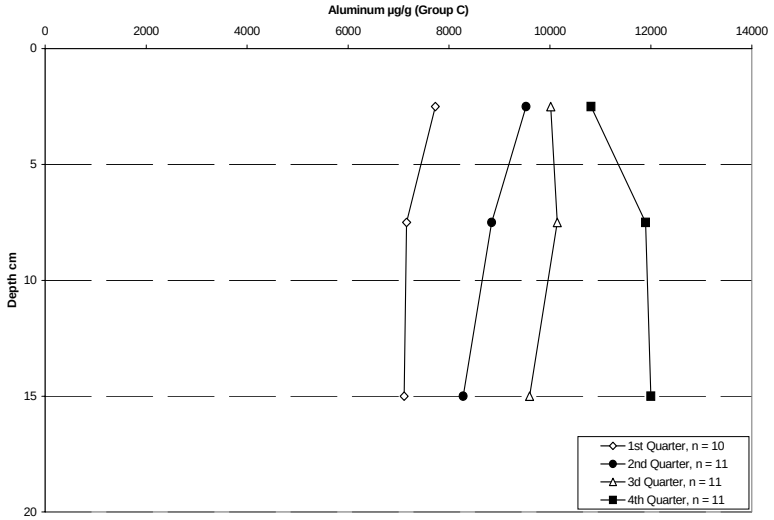


Figure 10.5.4.1c: Coniston, Al depth profiles, Group C data.

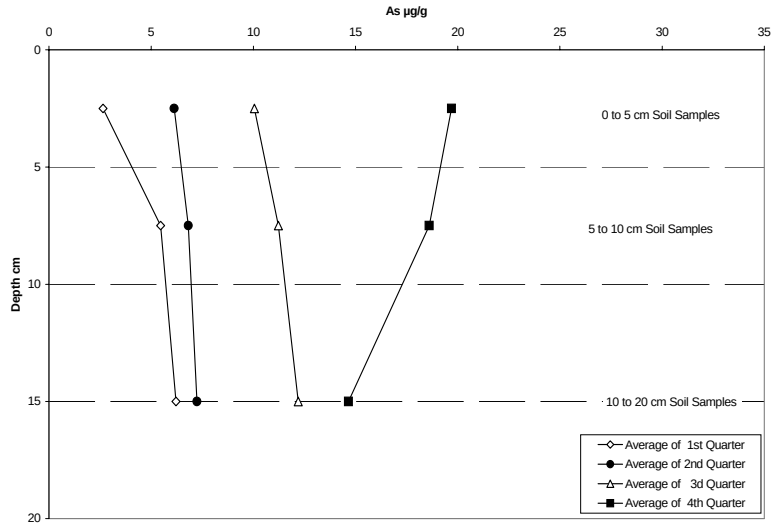


Figure 10.5.4.2: Coniston, As depth profiles, all data.

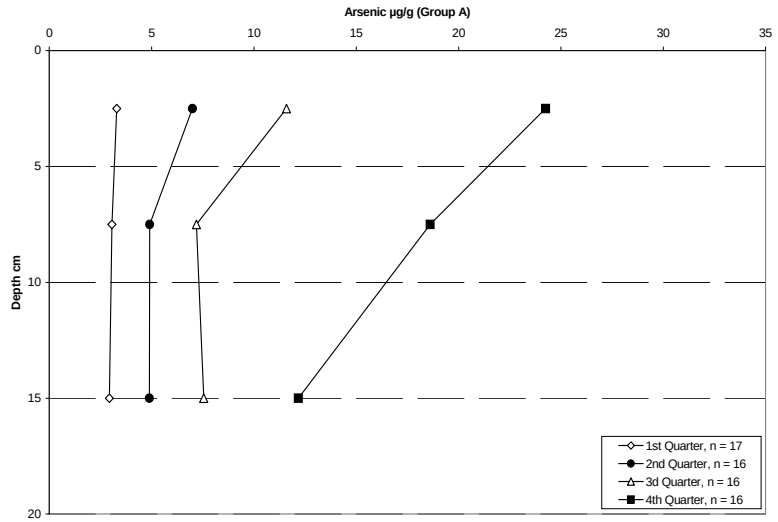


Figure 10.5.4.2a: Coniston, As depth profiles, Group A data.

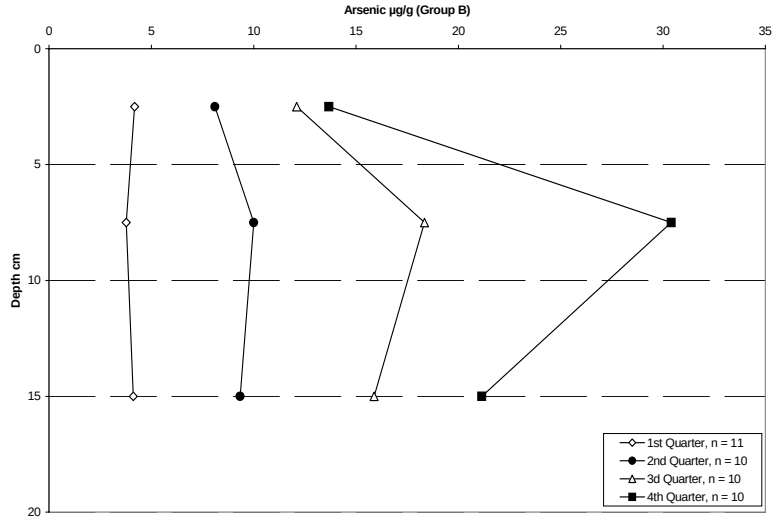


Figure 10.5.4.2b: Coniston, As depth profiles, Group B data.

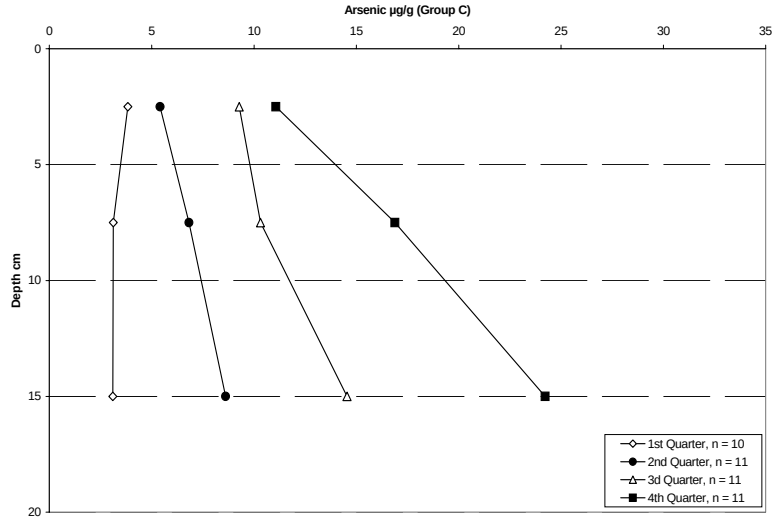


Figure 10.5.4.2c: Coniston, As depth profiles, Group C data.

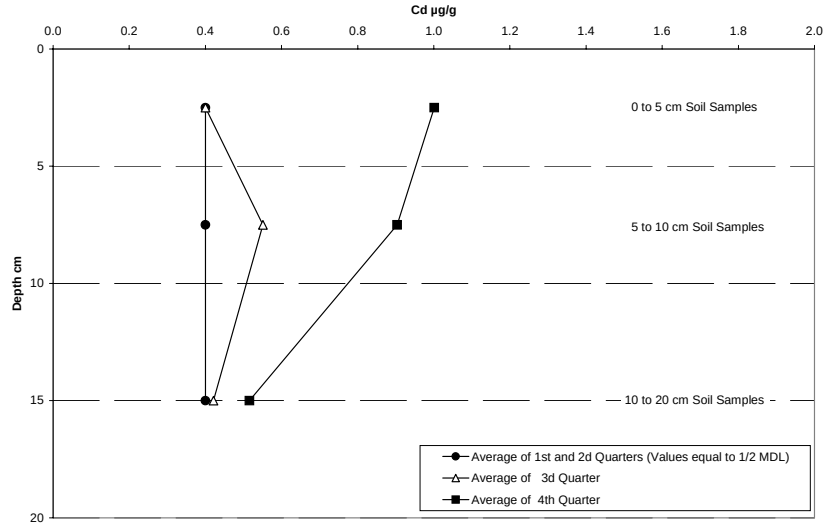


Fig. 10.5.4.3: Coniston, Cd depth profiles, all data.

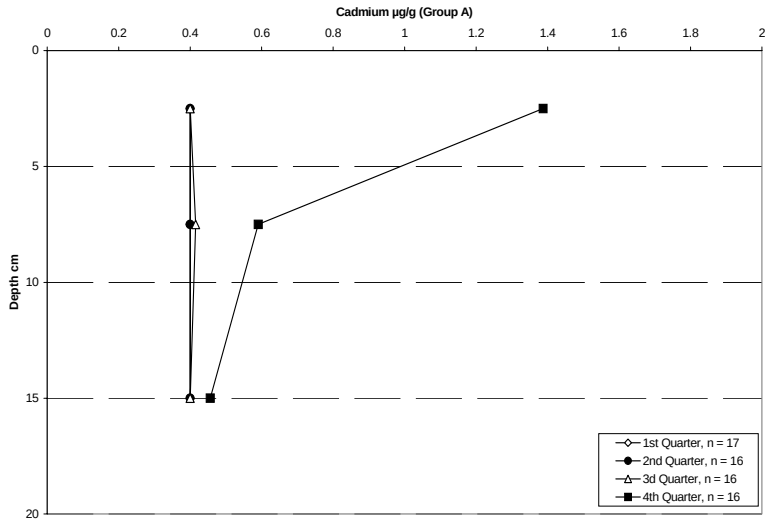


Figure 10.5.4.3a: Coniston, Cd depth profiles, Group A data.

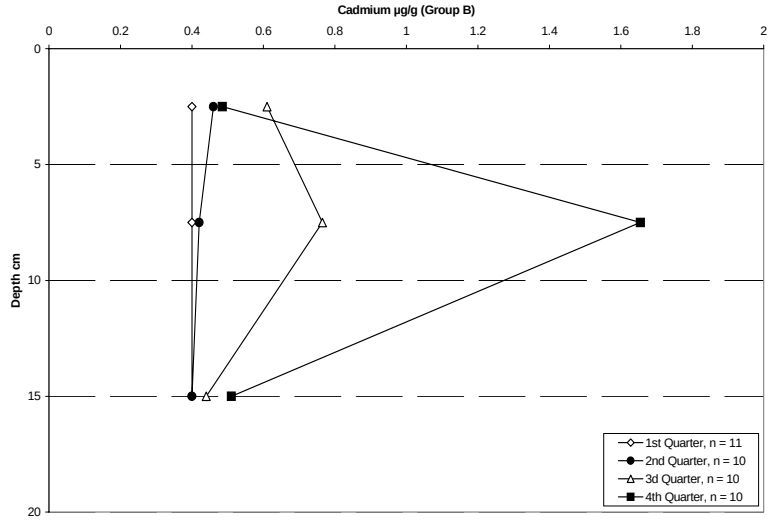


Figure 10.5.4.3b: Coniston, Cd depth profiles, Group B data.

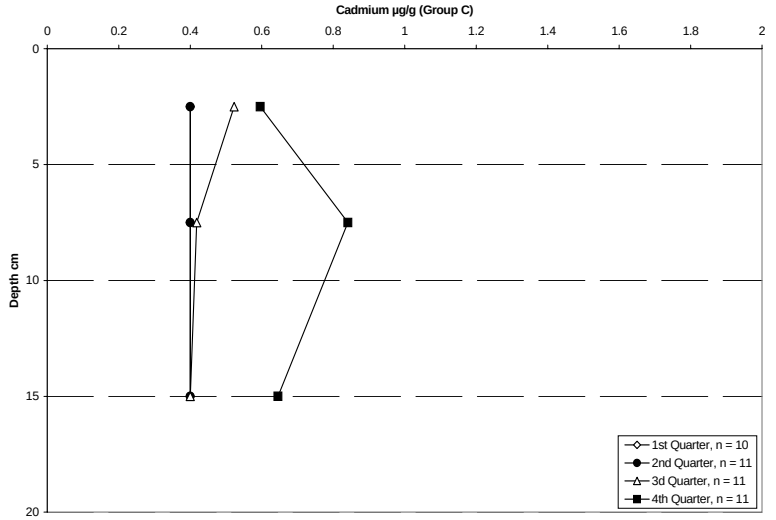


Figure 10.5.4.3c: Coniston, Cd depth profiles, Group C data.

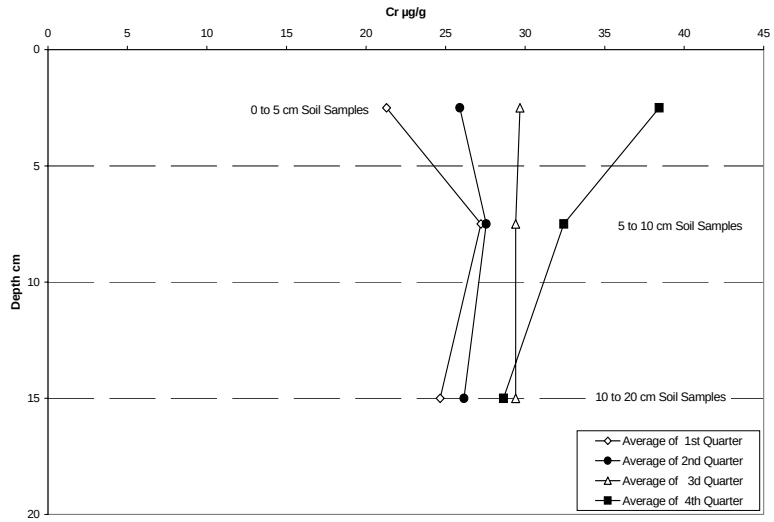


Figure 10.5.4.4: Coniston, Cr depth profiles, all data.

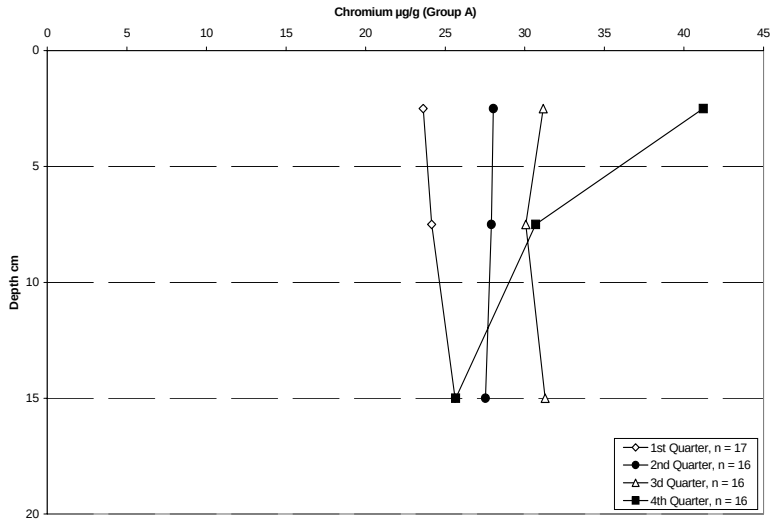


Figure 10.5.4.4a: Coniston, Cr depth profiles, Group A data.

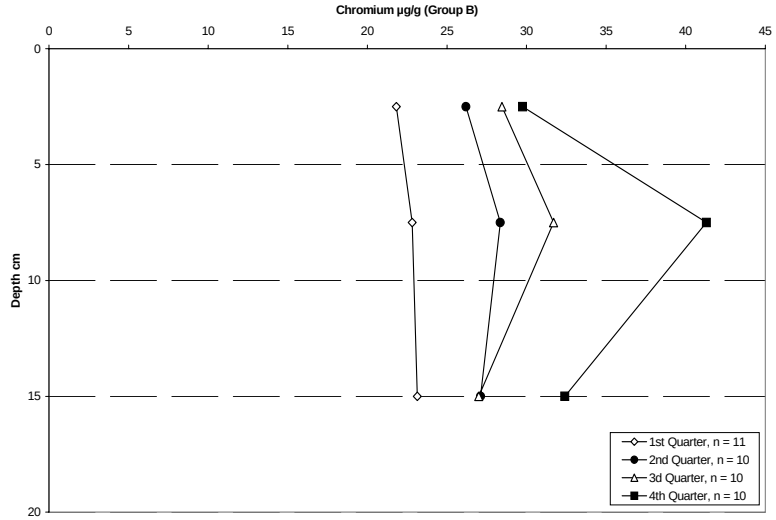


Figure 10.5.4.4b: Coniston, Cr depth profiles, Group B data.

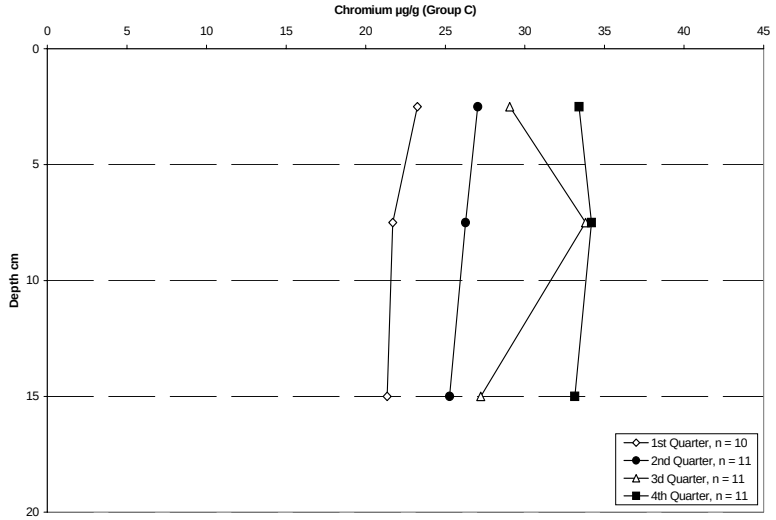


Figure 10.5.4.4c: Coniston, Cr depth profiles, Group C data.

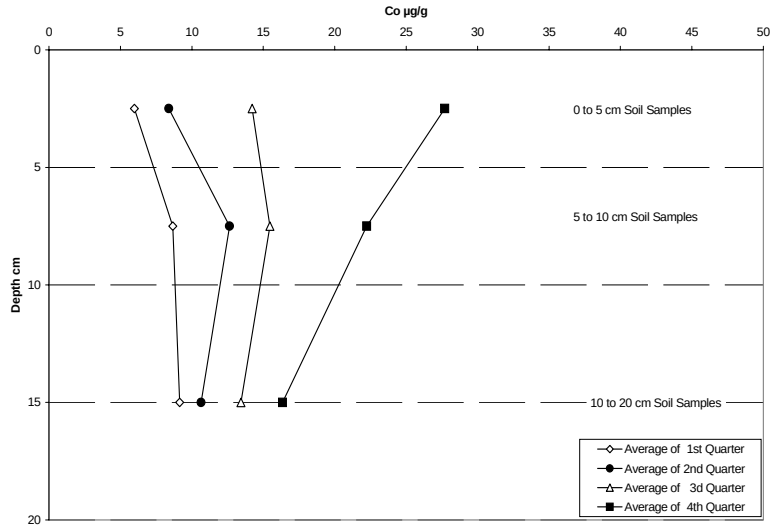


Figure 10.5.4.5: Coniston, Co depth profiles, all data.

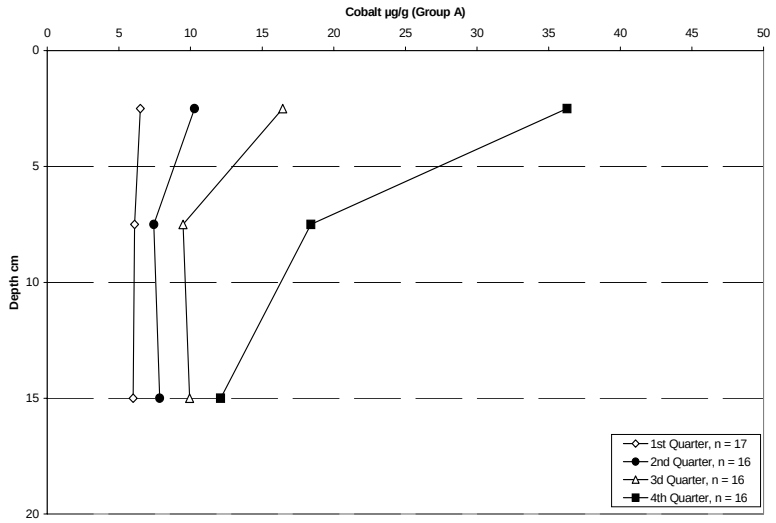


Figure 10.5.4.5a: Coniston, Co depth profiles, Group A data.

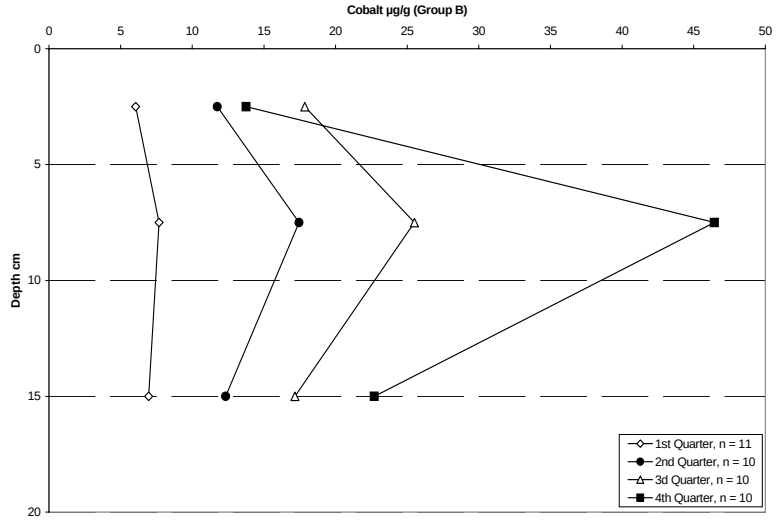


Figure 10.5.4.5b: Coniston, Co depth profiles, Group B data.

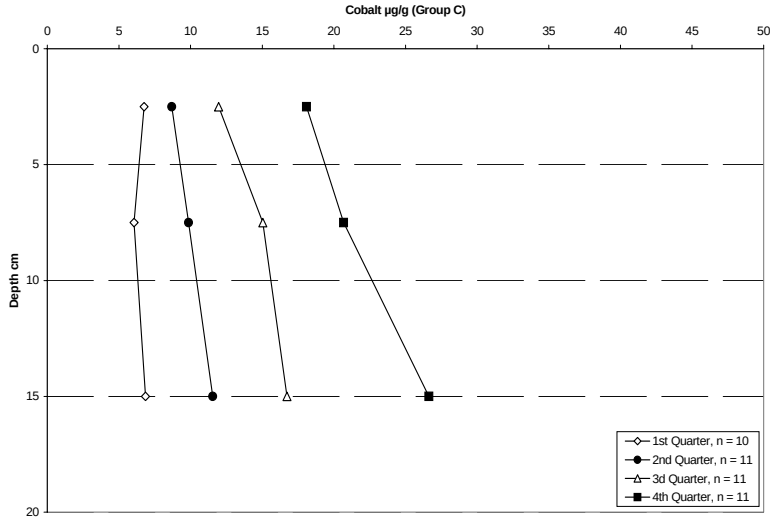


Figure 10.5.4.5c: Coniston, Co depth profiles, Group C data.

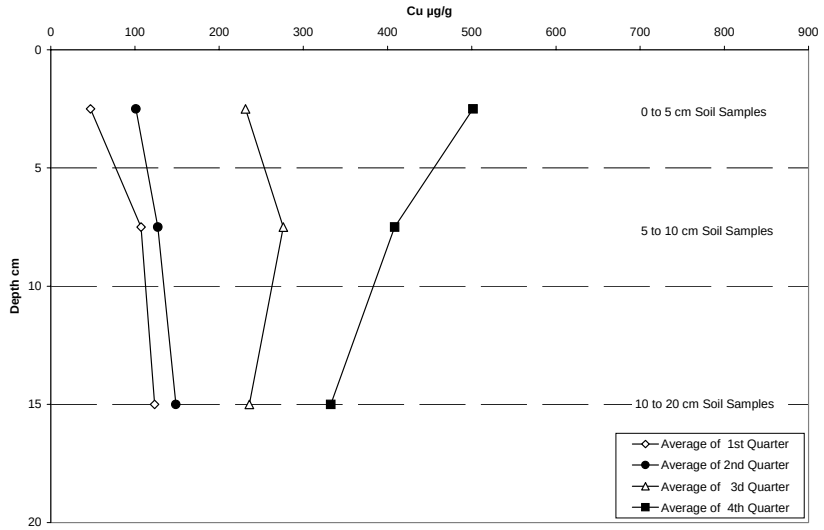


Figure 10.5.4.6: Coniston, Cu depth profiles, all data.

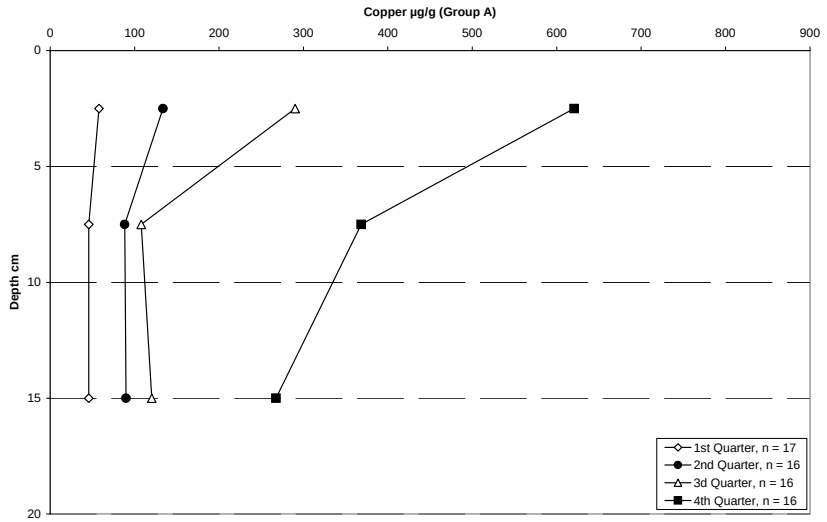


Figure 10.5.4.6a: Coniston, Cu depth profiles, Group A data.

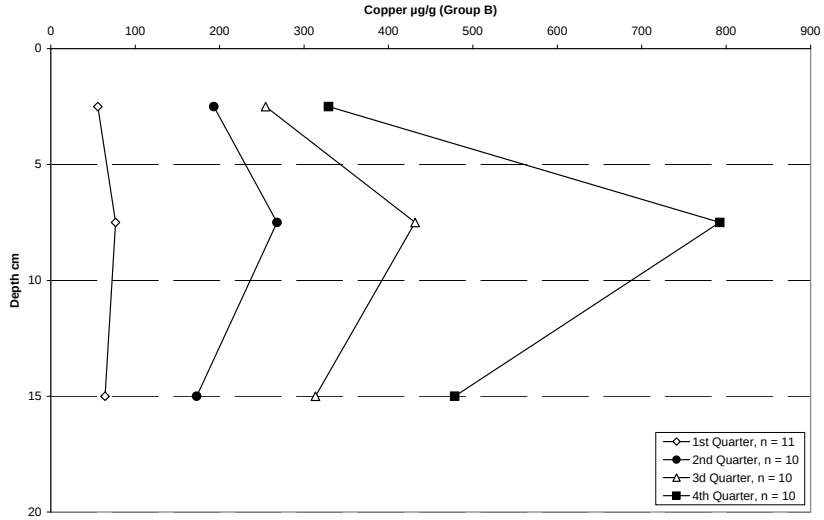


Figure 10.5.4.6b: Coniston, Cu depth profiles, Group B data.

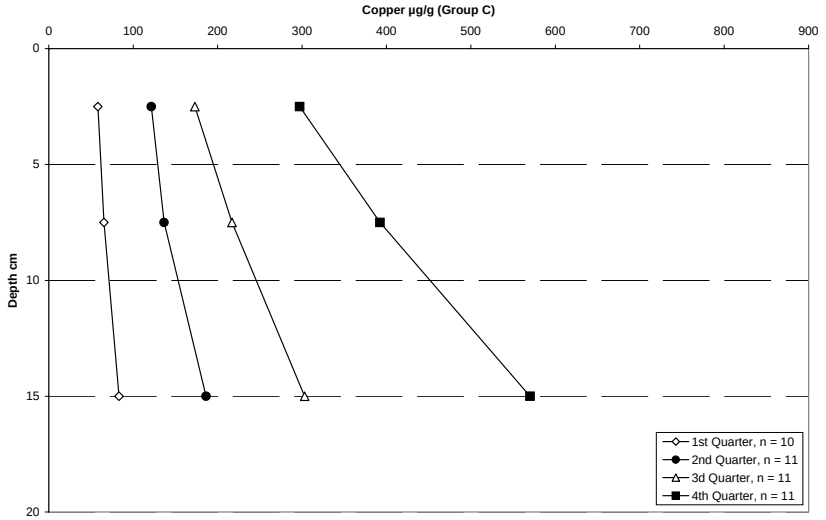


Figure 10.5.4.6c: Coniston, Cu depth profiles, Group C data.

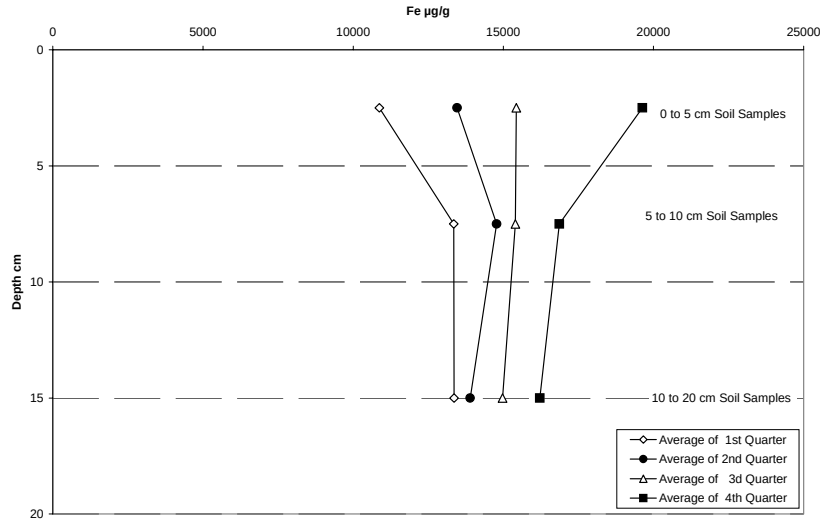


Figure 10.5.4.7: Coniston, Fe depth profiles, all data.

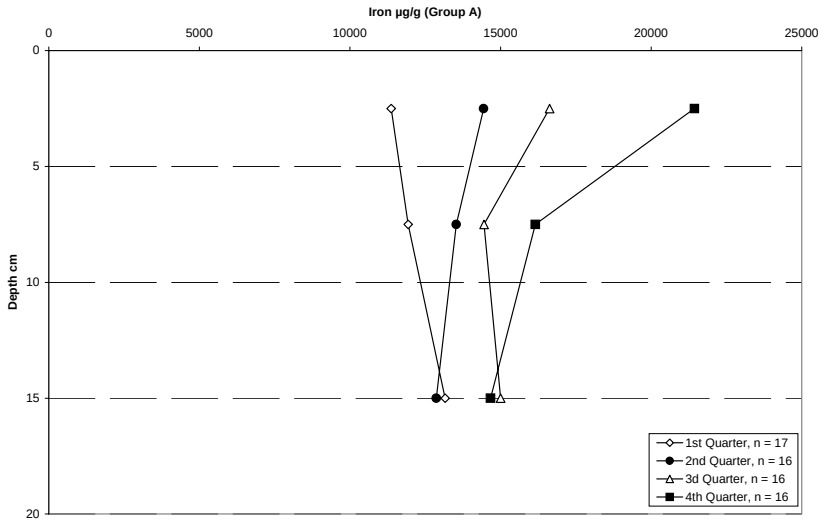


Figure 10.5.4.7a: Coniston, Fe depth profiles, Group A data.

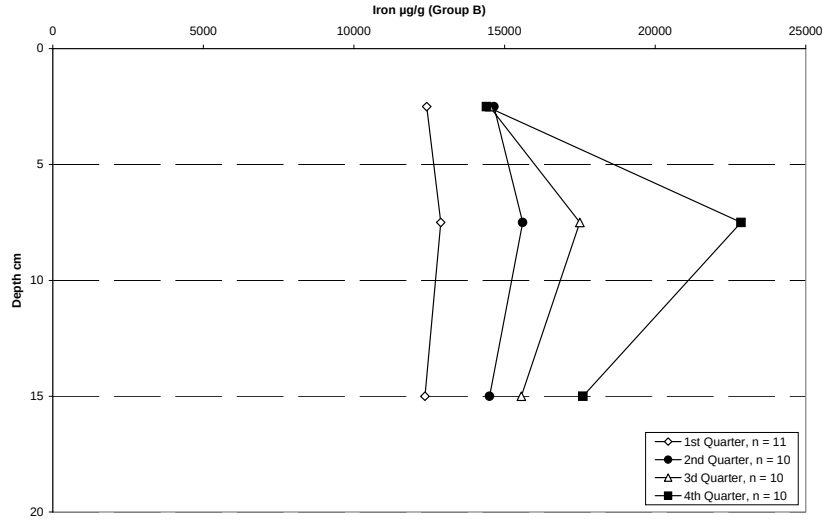


Figure 10.5.4.7b: Coniston, Fe depth profiles, Group B data.

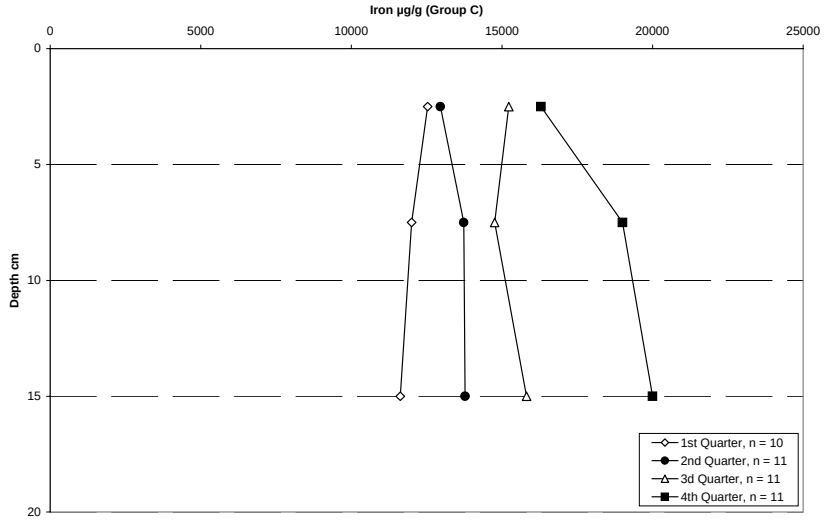


Figure 10.5.4.7c: Coniston, Fe depth profiles, Group C data.

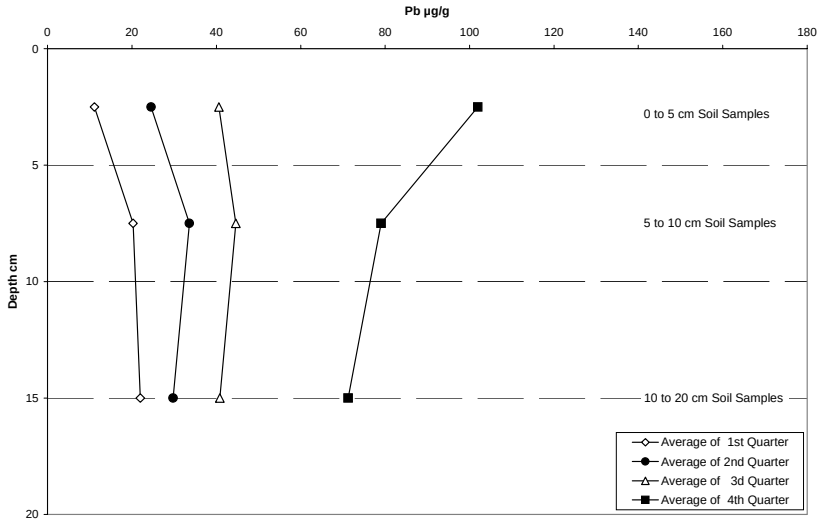


Figure 10.5.4.8: Coniston, Pb depth profiles, all data.

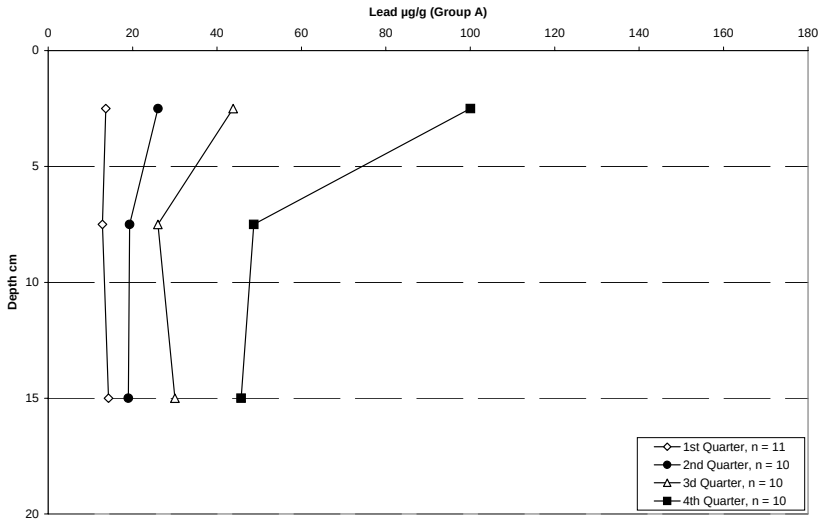


Figure 10.5.4.8a: Coniston, Pb depth profiles, Group A data.

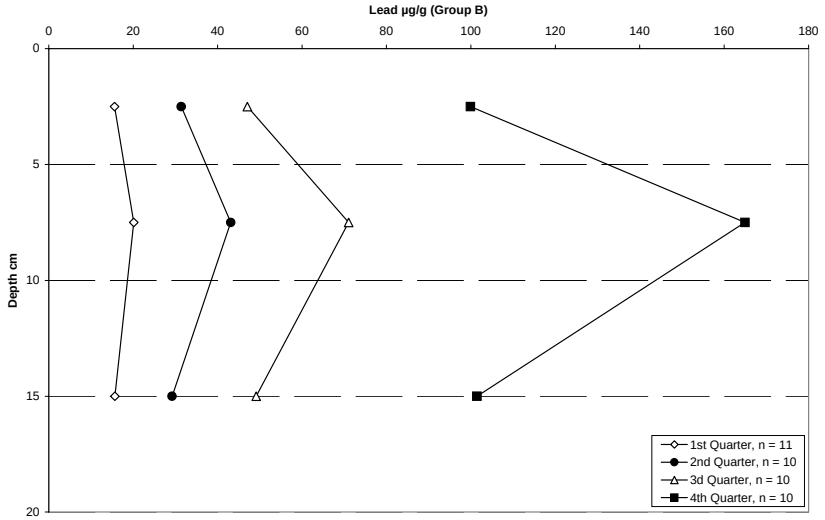


Figure 10.5.4.8b: Coniston, Pb depth profiles, Group B data.

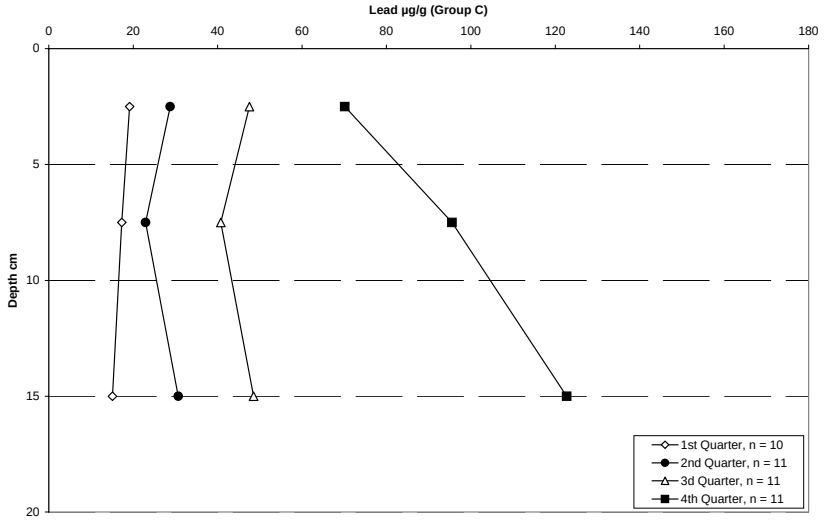


Figure 10.5.4.8c: Coniston, Pb depth profiles, Group C data.

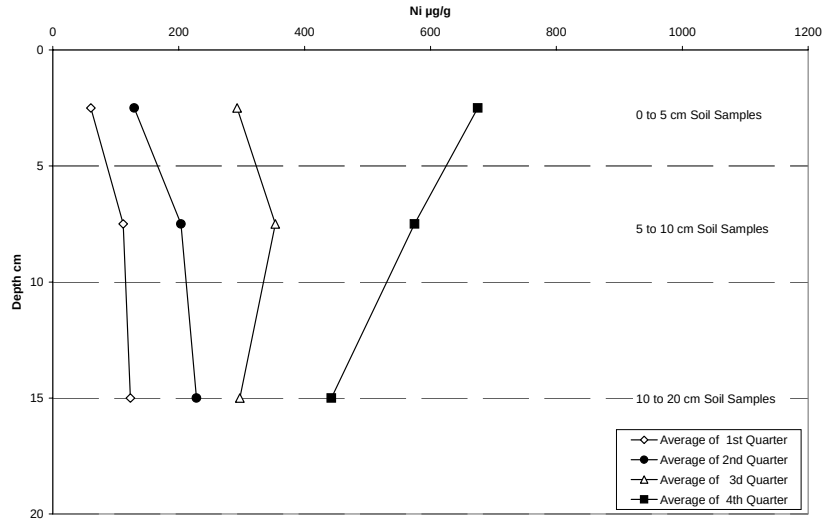


Figure 10.5.4.9: Coniston, Ni depth profiles, all data.

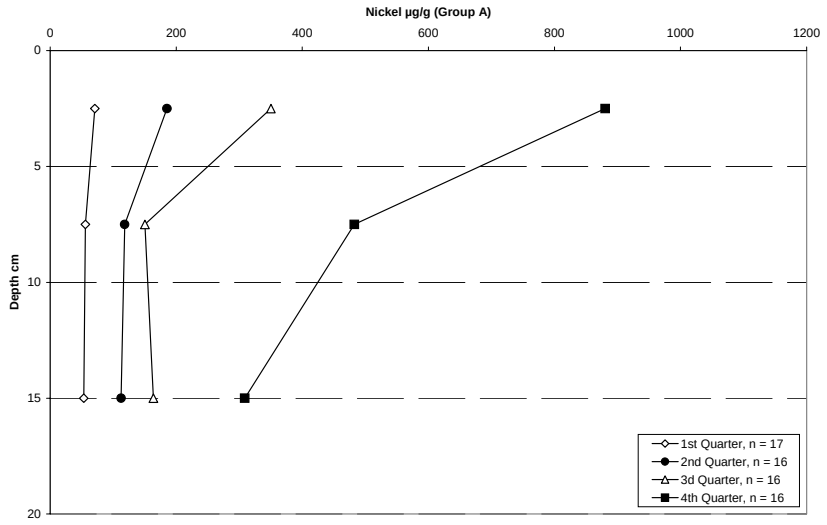


Figure 10.5.4.9a: Coniston, Ni depth profiles, Group A data.

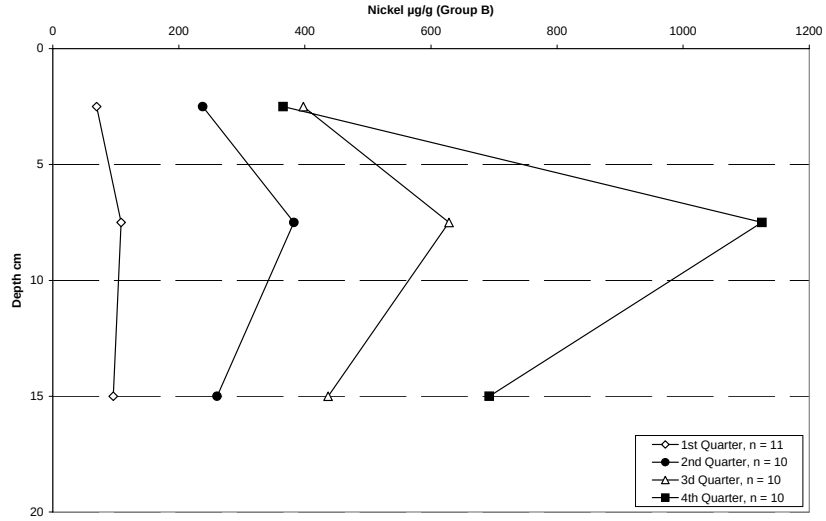


Figure 10.5.4.9b: Coniston, Ni depth profiles, Group B data.

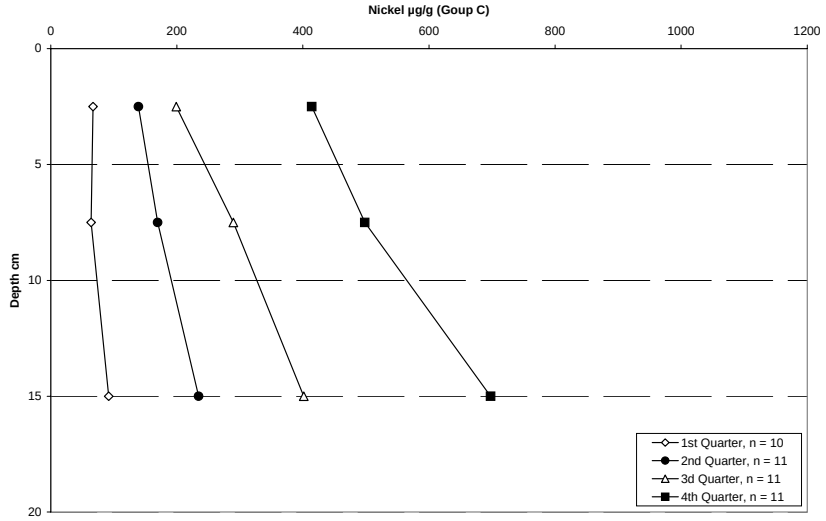


Figure 10.5.4.9c: Coniston, Ni depth profiles, Group C data.

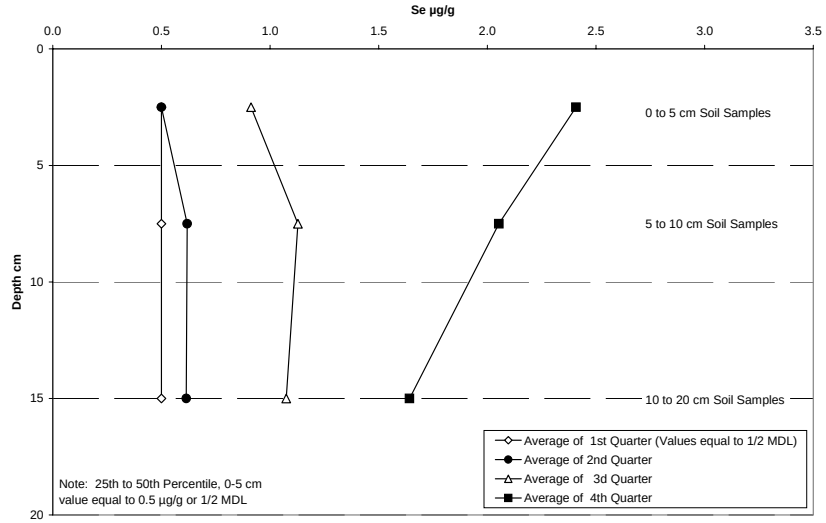


Figure 10.5.4.10: Coniston, Se depth profiles, all data.

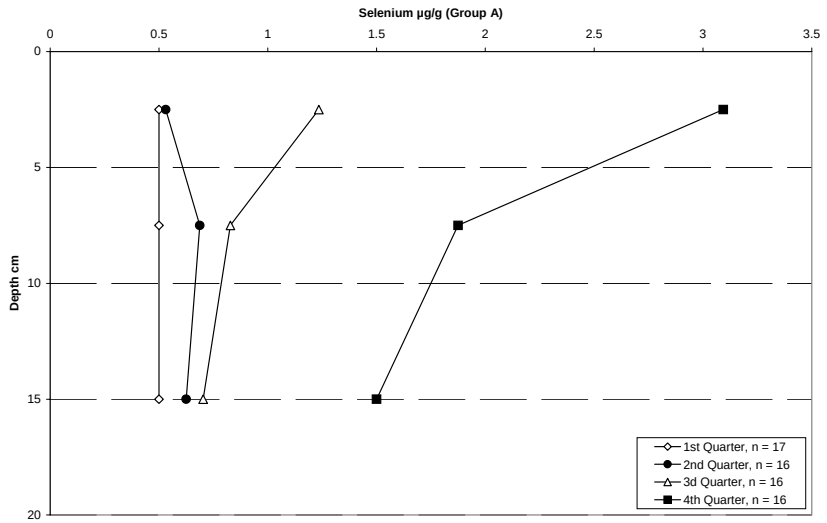


Figure 10.5.4.10a: Coniston, Se depth profiles, Group A data.

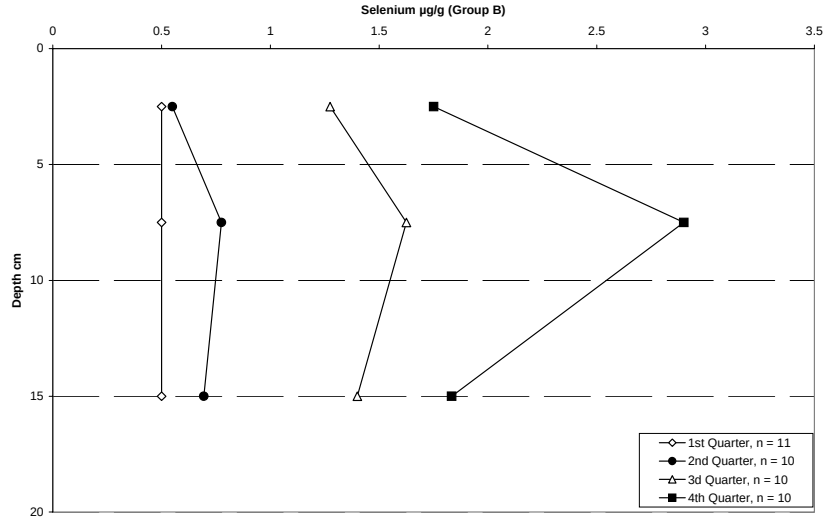


Figure 10.5.4.10b: Coniston, Se depth profiles, Group B data.

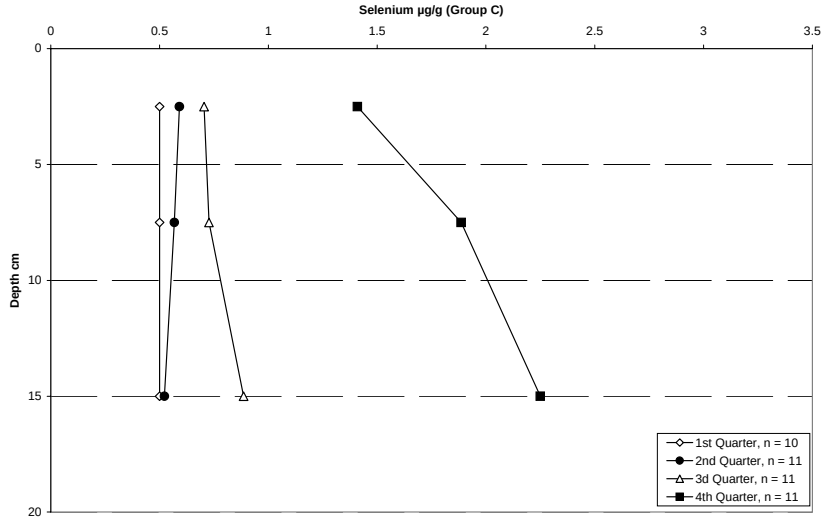


Figure 10.5.4.10c: Coniston, Se depth profiles, Group C data.

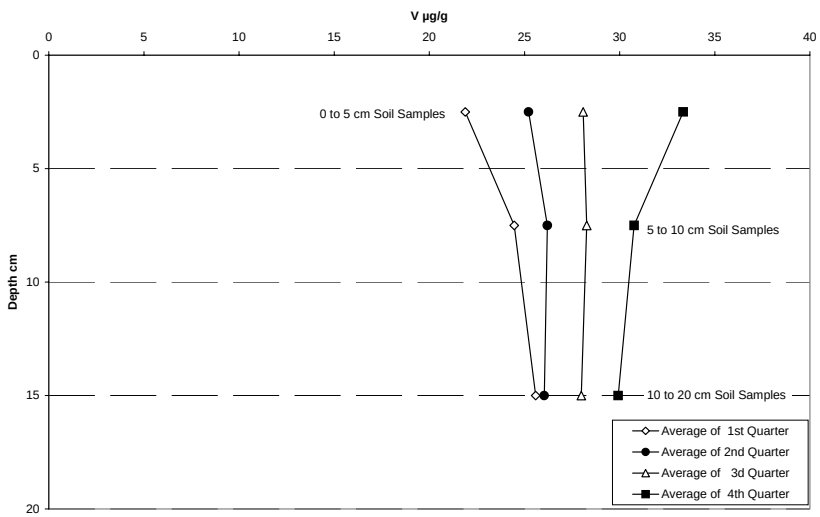


Figure 10.5.4.11: Coniston, V depth profiles, all data.

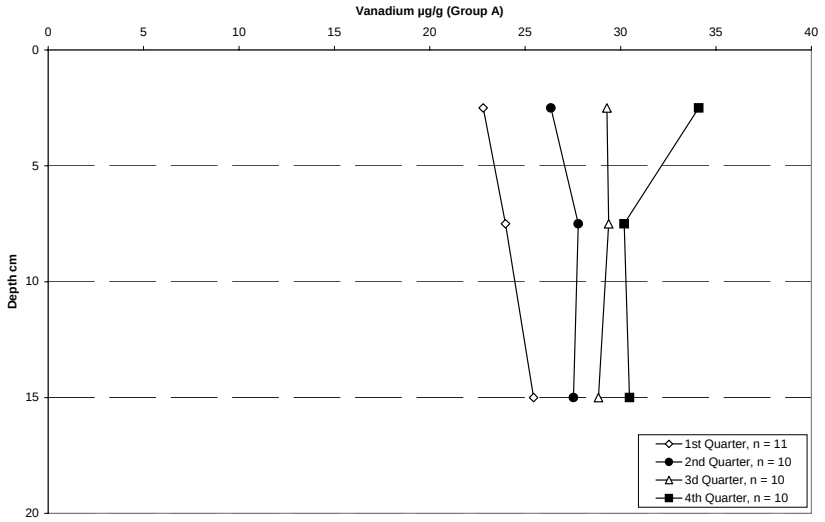


Figure 10.5.4.11a: Coniston, V depth profiles, Group A data.

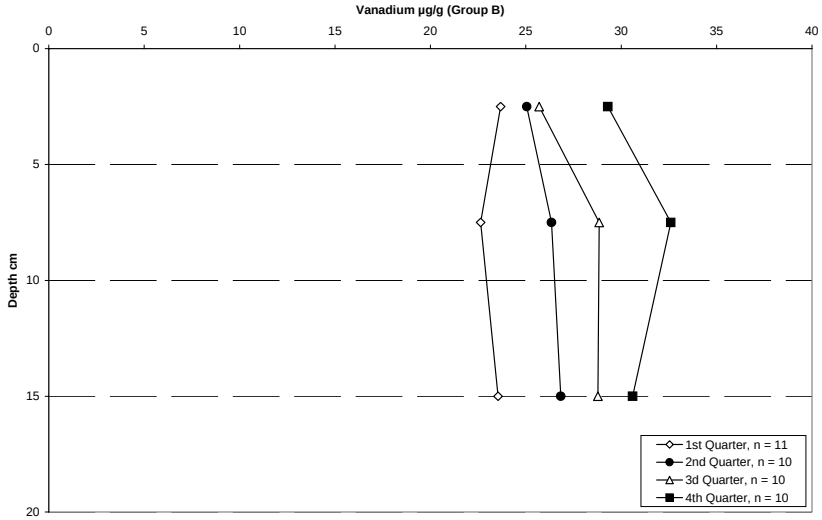


Figure 10.5.4.11b: Coniston, V depth profiles, Group B data.

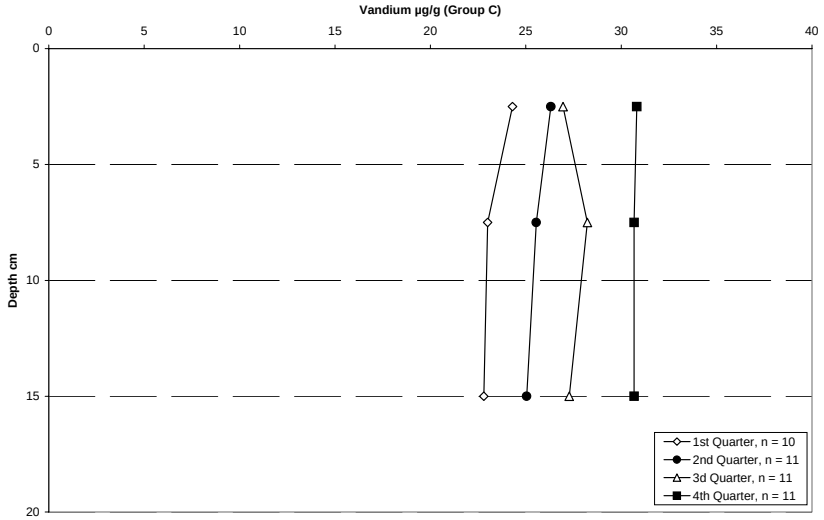


Figure 10.5.4.11c: Coniston, V depth profiles, Group C data.

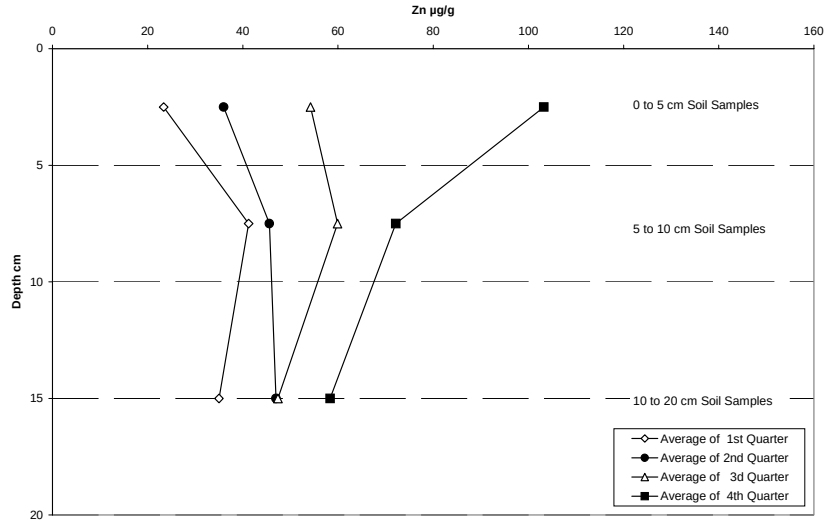


Figure 10.5.4.12: Coniston, Zn depth profiles, all data.

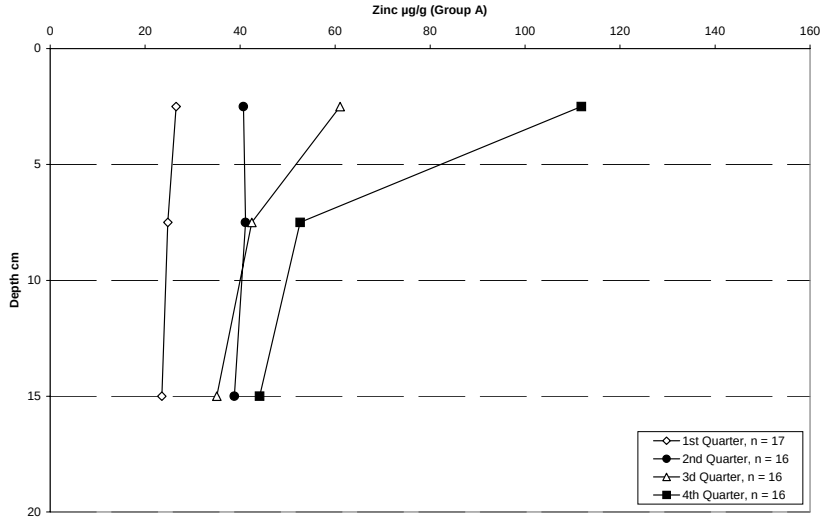


Figure 10.5.4.12a: Coniston, Zn depth profiles, Group A data.

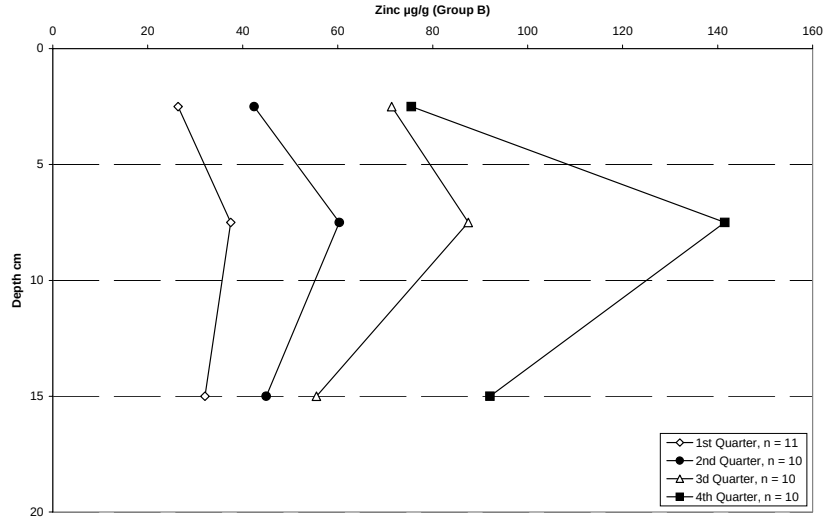


Figure 10.5.4.12b: Coniston, Zn depth profiles, Group B data.

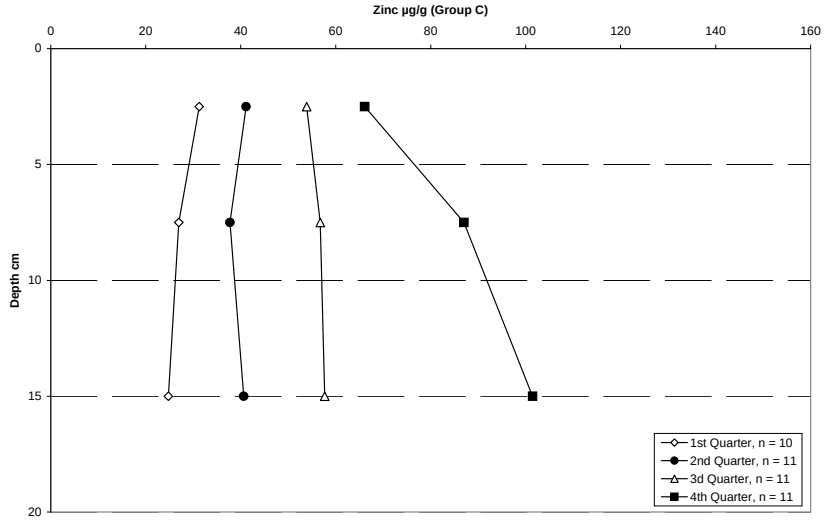


Figure 10.5.4.12c: Coniston, Zn depth profiles, Group C data.

10.5.5 Falconbridge

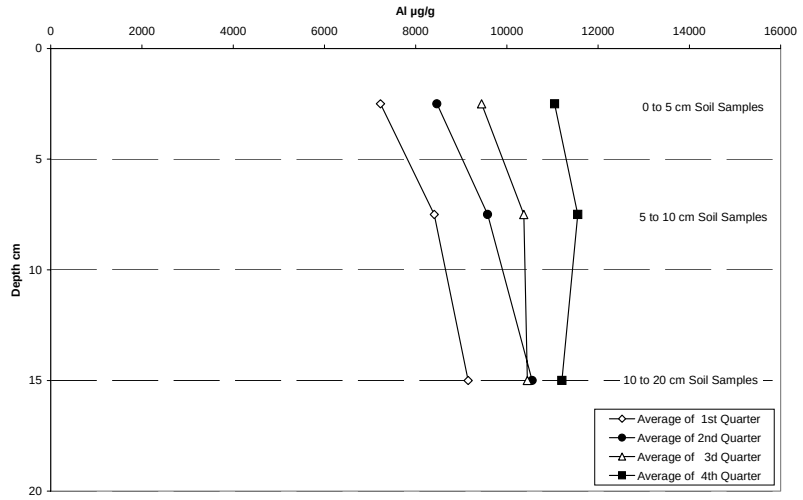


Figure 10.5.5.1: Falconbridge, Al depth profiles, all data.

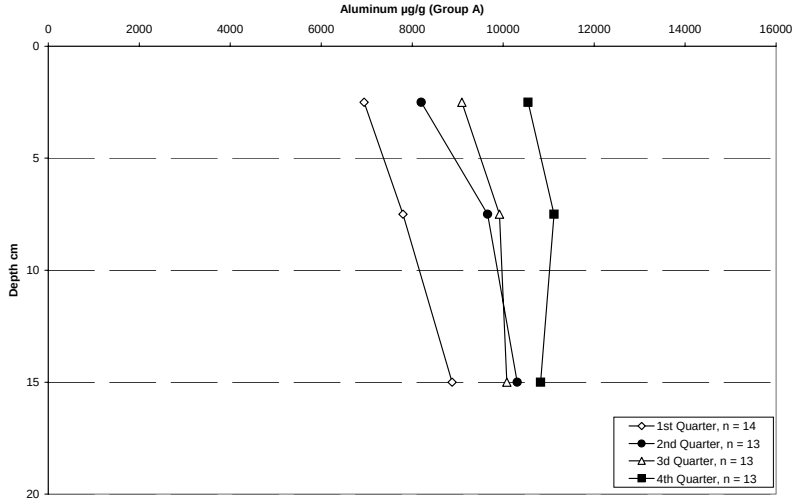


Figure 10.5.5.1a: Falconbridge, Al depth profiles, Group A data.

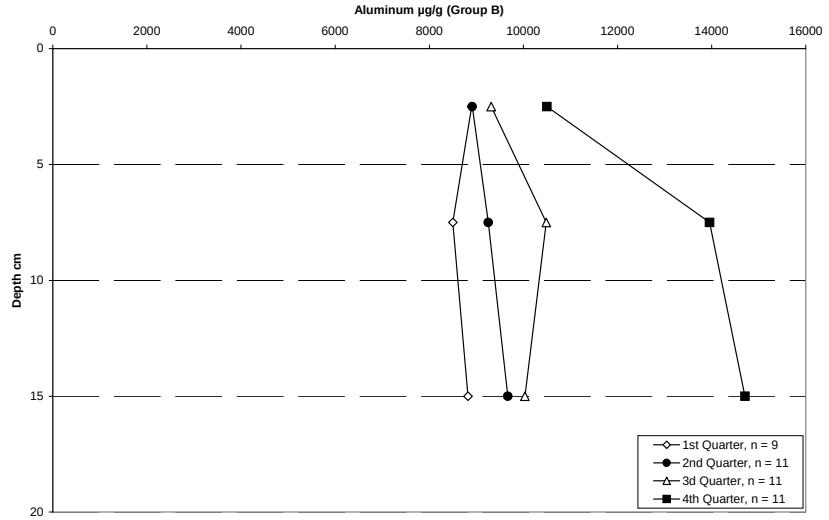


Figure 10.5.5.1b: Falconbridge, Al depth profiles, Group B data.

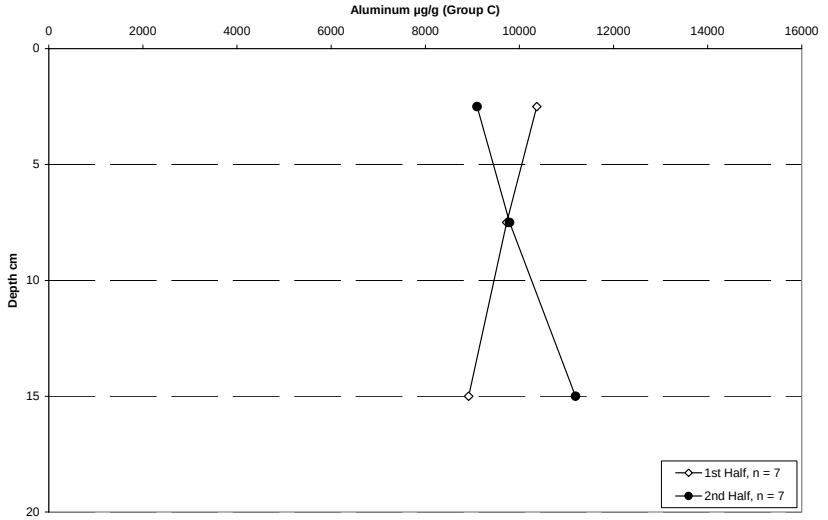


Figure 10.5.5.1c: Falconbridge, Al depth profiles, Group C data.

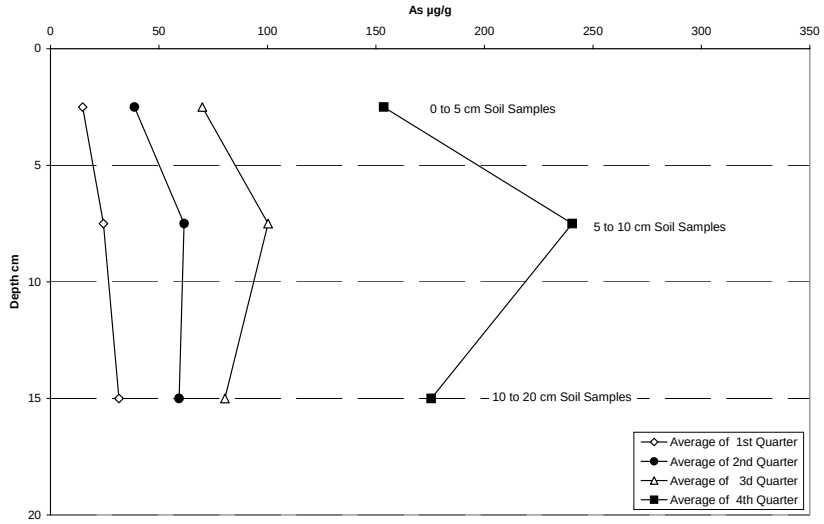


Figure 10.5.5.2: Falconbridge, As depth profiles, all data.

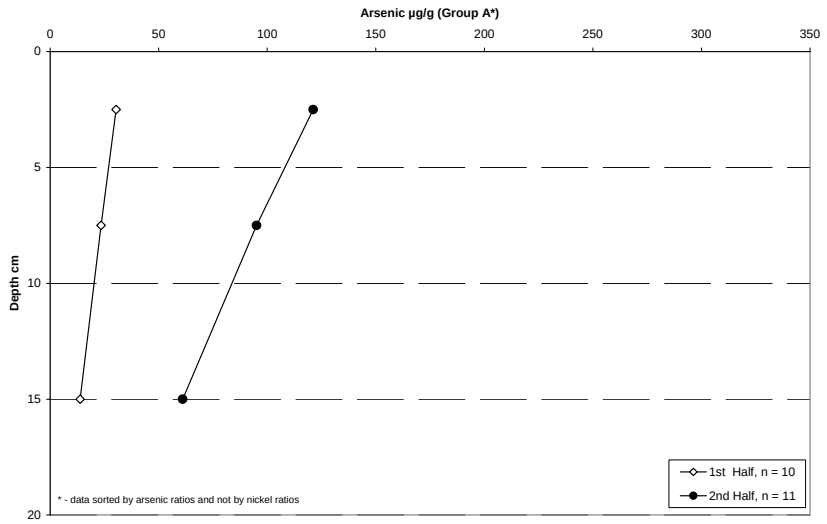


Figure 10.5.5.2a: Falconbridge, As depth profiles, Group A data.

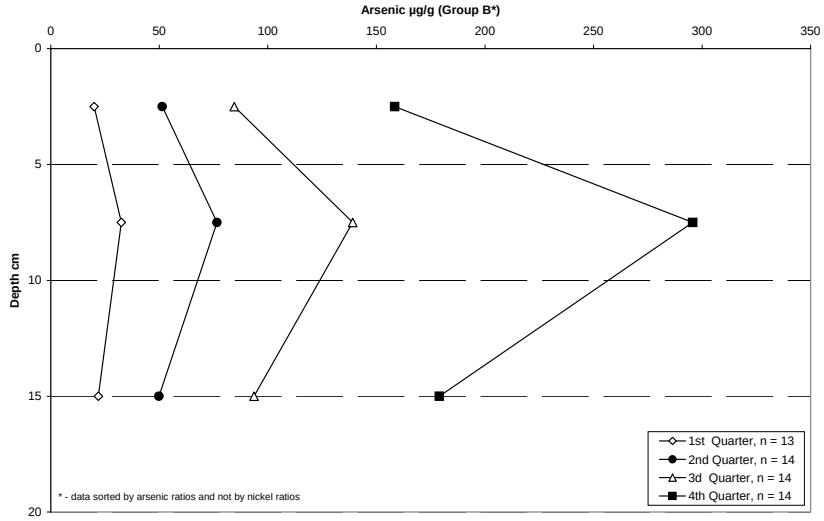


Figure 10.5.5.2b: Falconbridge, As depth profiles, Group B data.

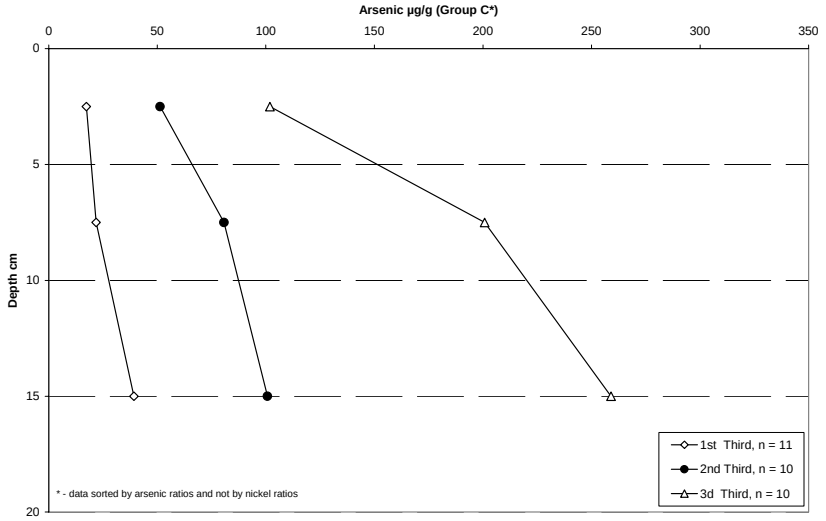


Figure 10.5.5.2c: Falconbridge, As depth profiles, Group C data.

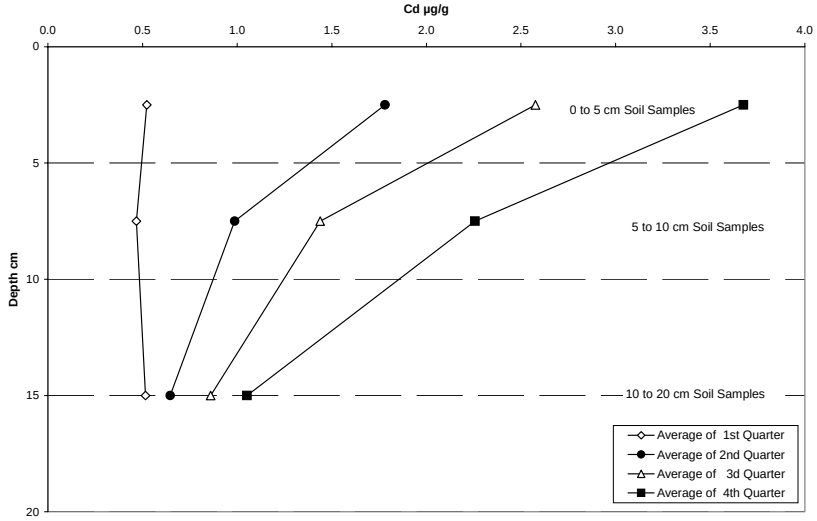


Figure 10.5.5.3: Falconbridge, Cd depth profiles, all data.

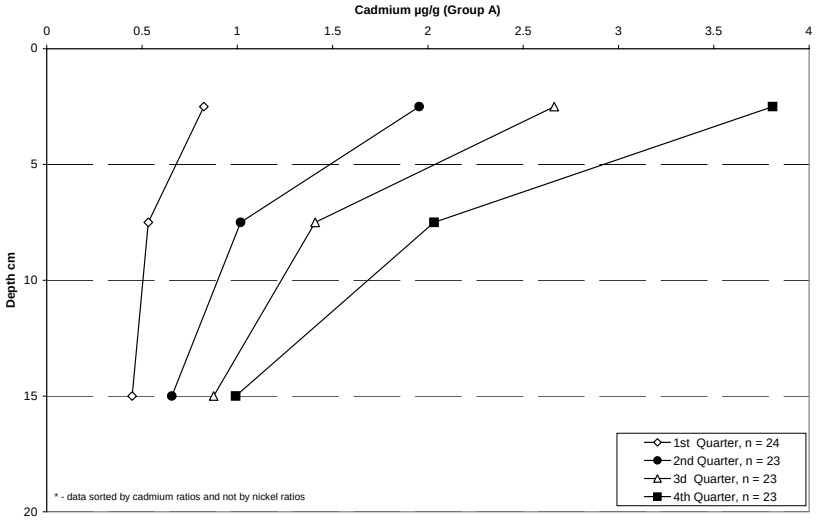


Fig. 10.5.5.3a: Falconbridge, Cd depth profiles, Group A data.

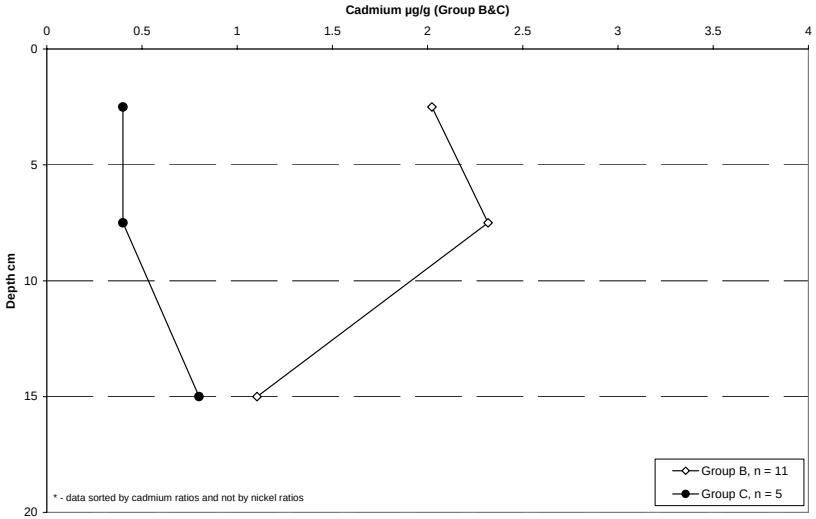


Figure 10.5.5.3b & 10.5.5.3c: Falconbridge, Cd depth profiles, Group B & C data.

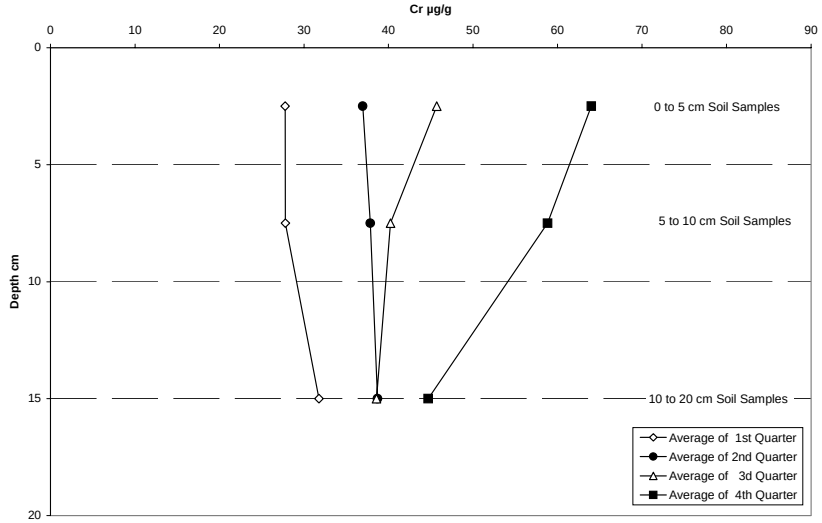


Figure 10.5.5.4: Falconbridge, Cr depth profiles, all data.

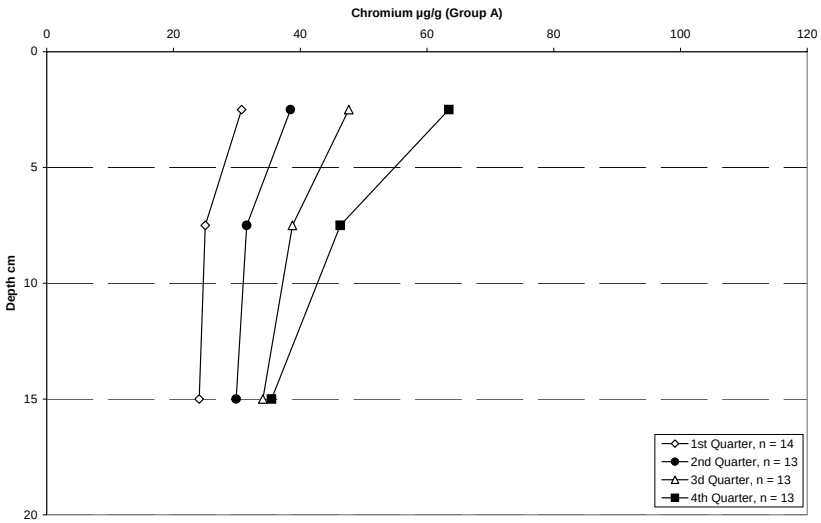


Fig. 10.5.5.4a: Falconbridge, Cr depth profiles, Group A data.

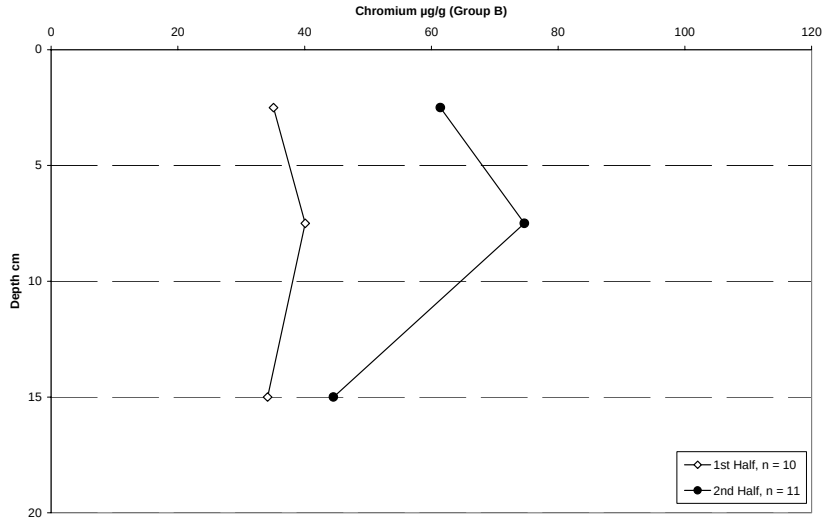


Fig. 10.5.5.4b: Falconbridge, Cr depth profiles, Group B data.

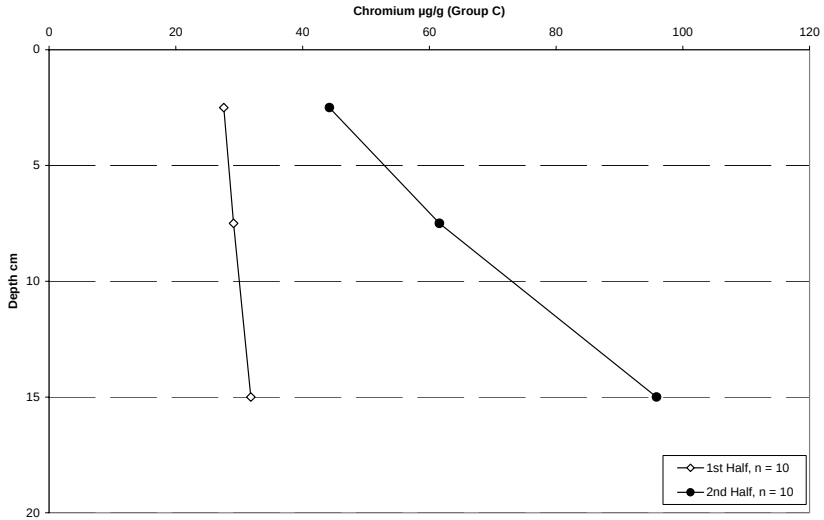


Fig. 10.5.5.4c: Falconbridge, Cr depth profiles, Group C data.

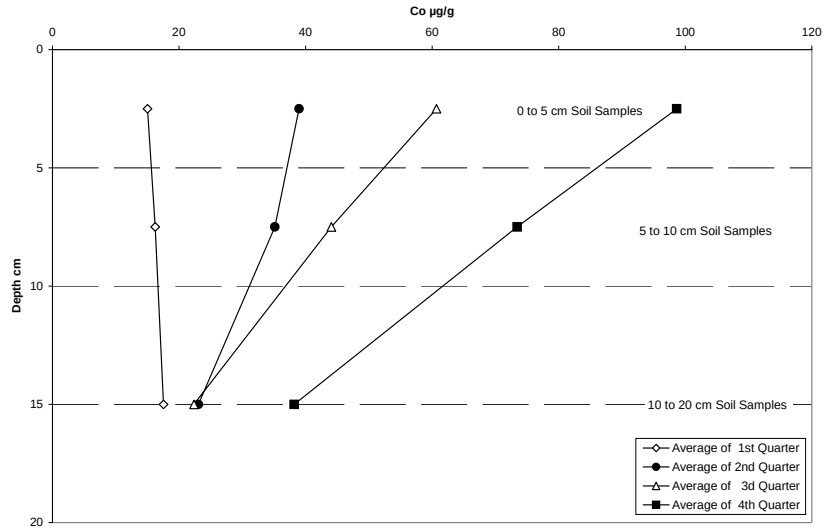


Figure 10.5.5.5: Falconbridge, Co depth profiles, all data.

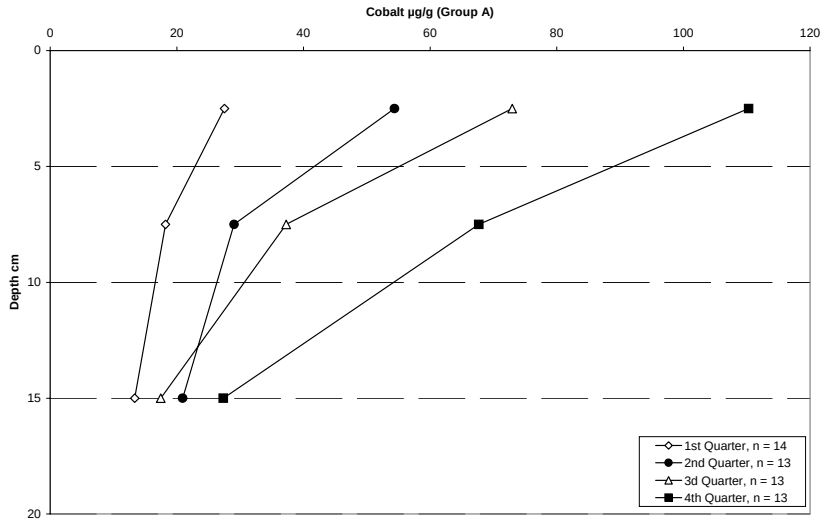


Figure 10.5.5.5a: Falconbridge, Co depth profiles, Group A data.

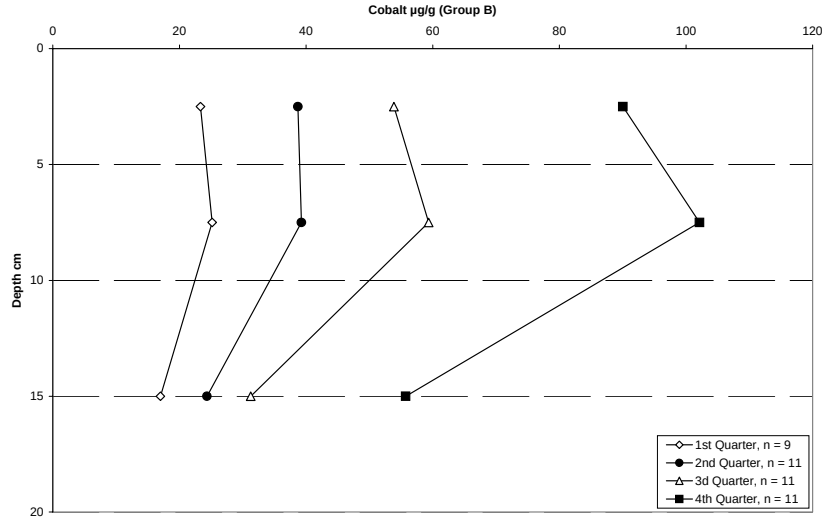


Figure 10.5.5.5b: Falconbridge, Co depth profiles, Group B data.

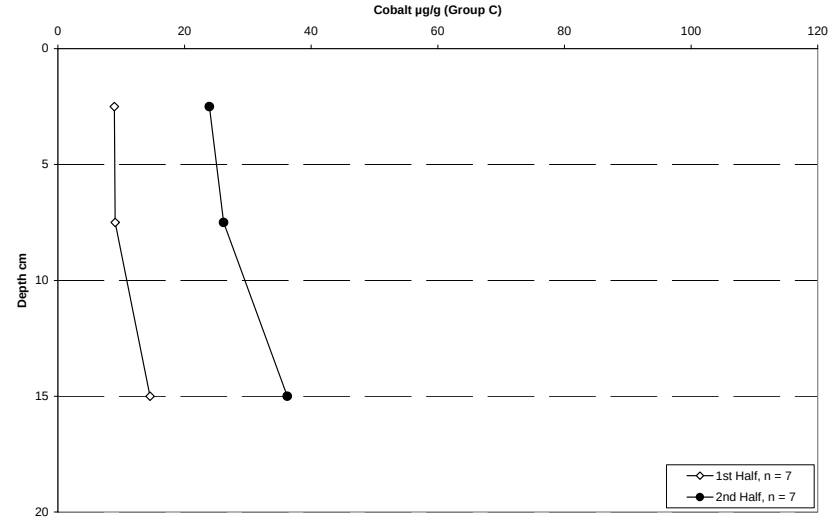


Figure 10.5.5.5c: Falconbridge, Co depth profiles, Group C data.

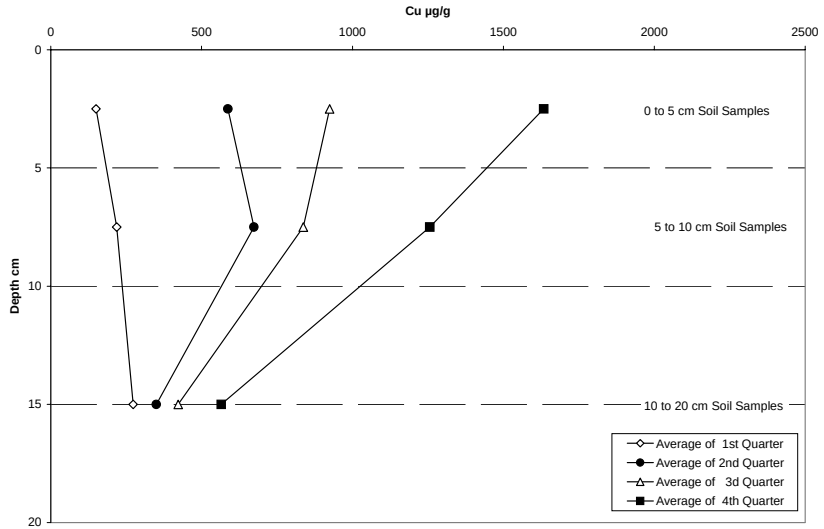


Figure 10.5.5.6: Falconbridge, Cu depth profiles, all data.

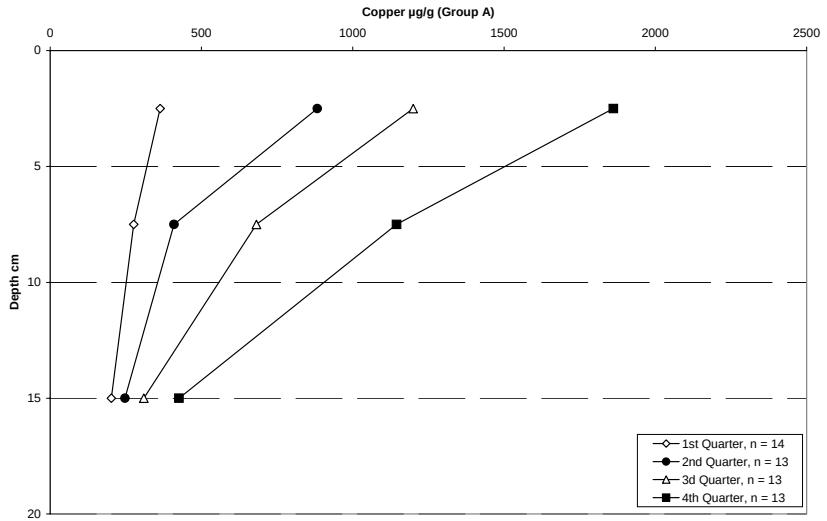


Figure 10.5.5.6a: Falconbridge, Cu depth profiles, Group A data.

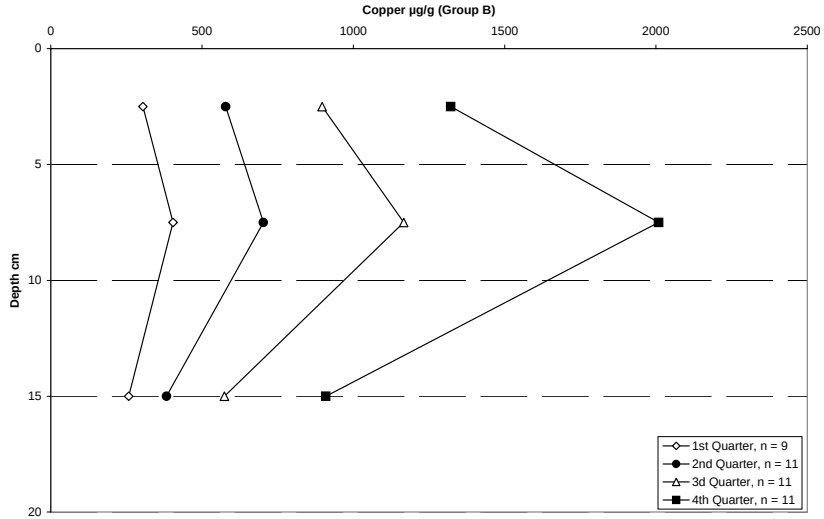


Figure 10.5.5.6b: Falconbridge, Cu depth profiles, Group B data.

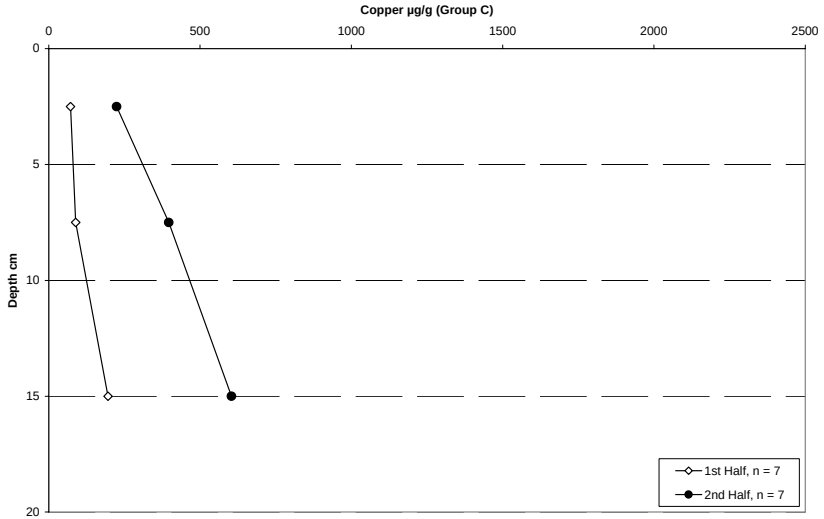


Figure 10.5.5.6c: Falconbridge, Cu depth profiles, Group C data.

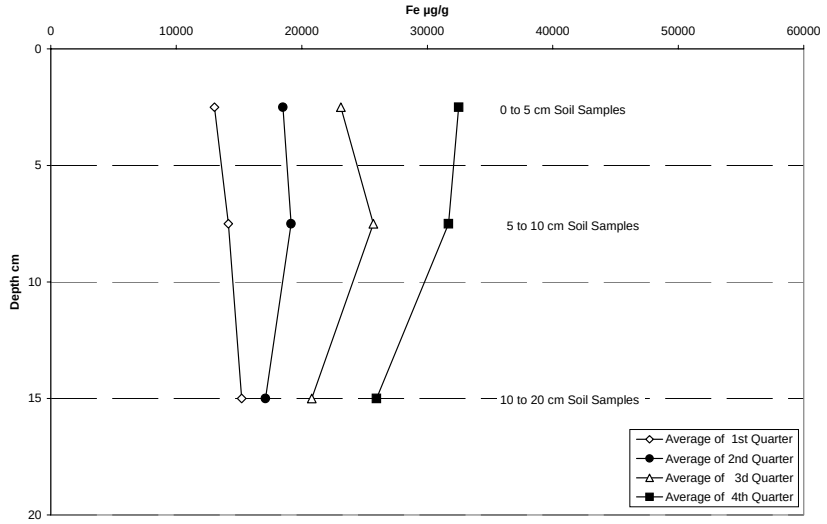


Figure 10.5.5.7: Falconbridge, Fe depth profiles, all data.

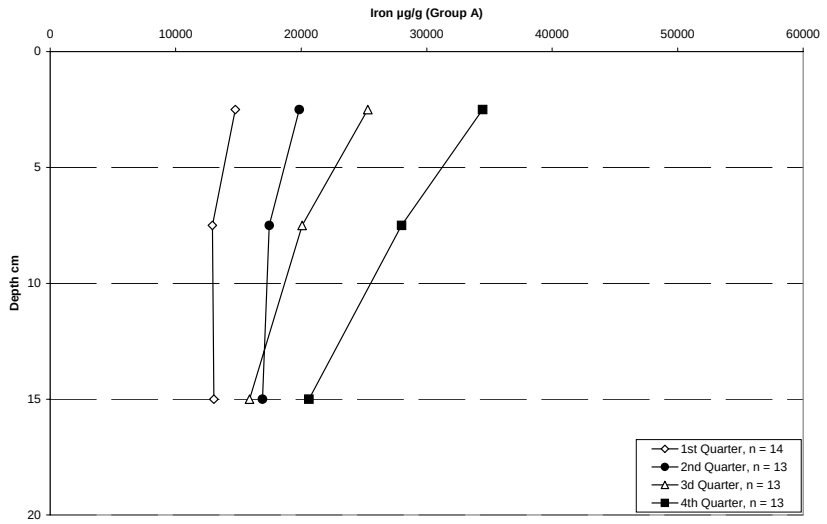


Figure 10.5.5.7a: Falconbridge, Fe depth profiles, Group A data.

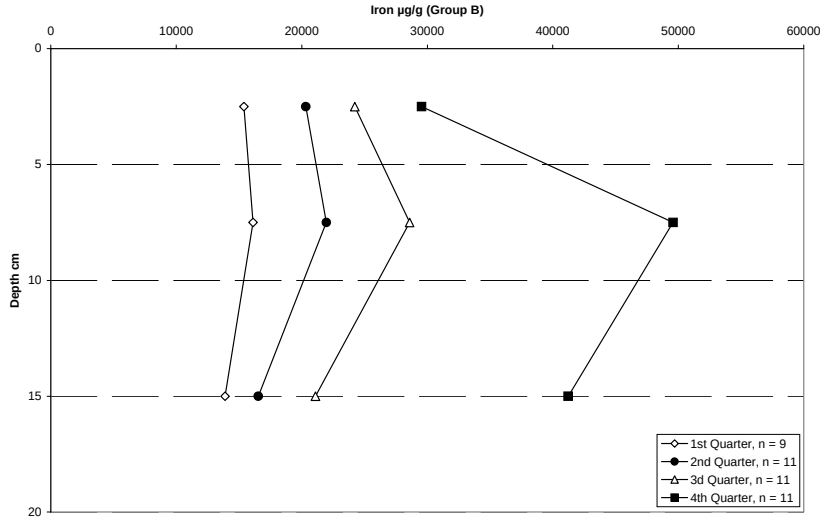


Figure 10.5.5.7b: Falconbridge, Fe depth profiles, Group B data.

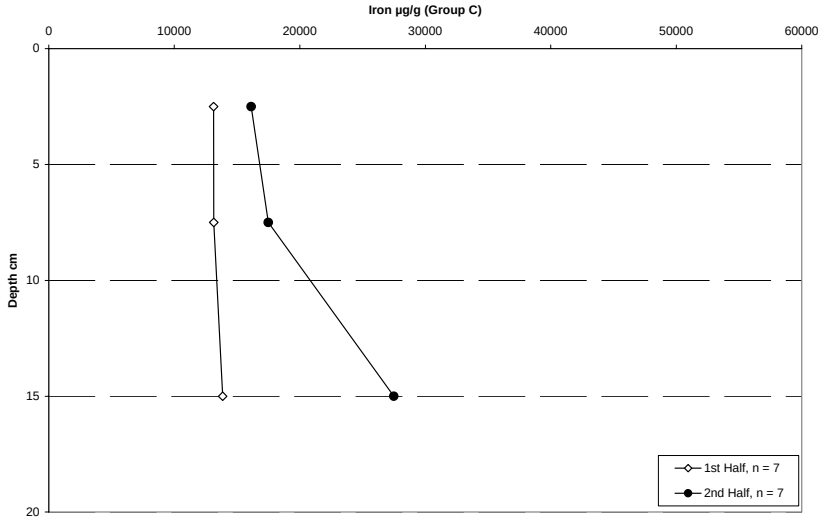


Figure 10.5.5.7c: Falconbridge, Fe depth profiles, Group C data.

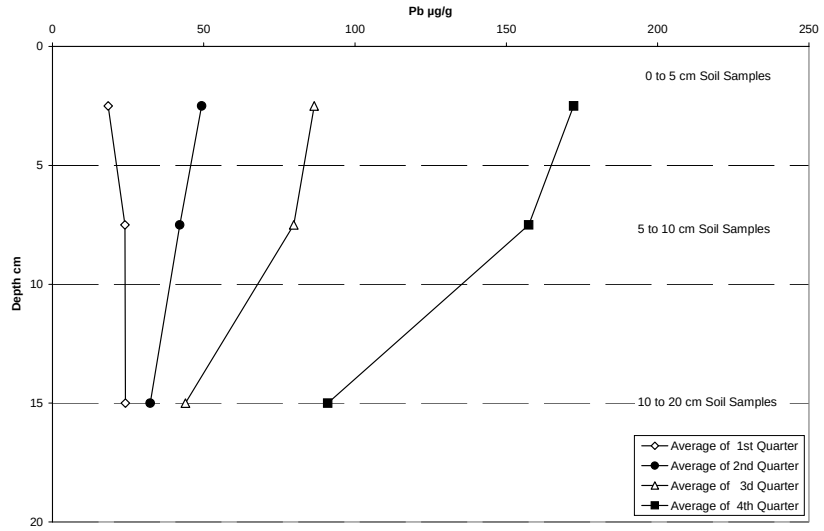


Figure 10.5.5.8: Falconbridge, Pb depth profiles, all data.

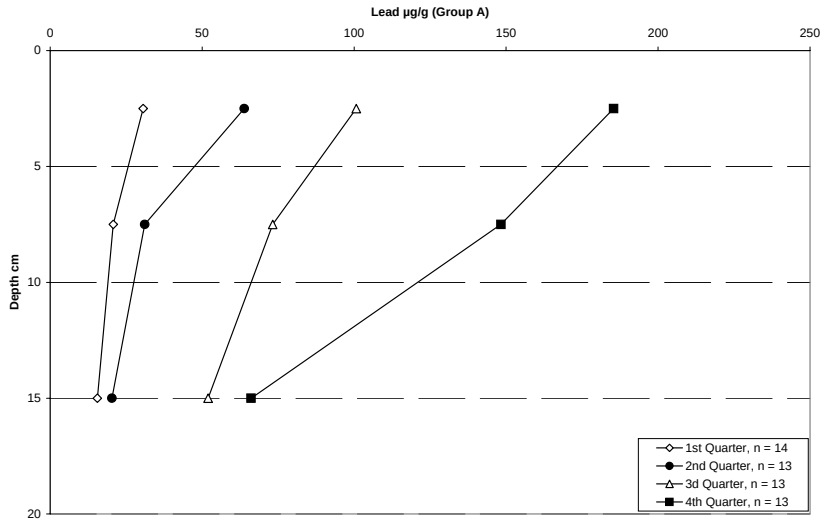


Figure 10.5.5.8a: Falconbridge, Pb depth profiles, Group A data.

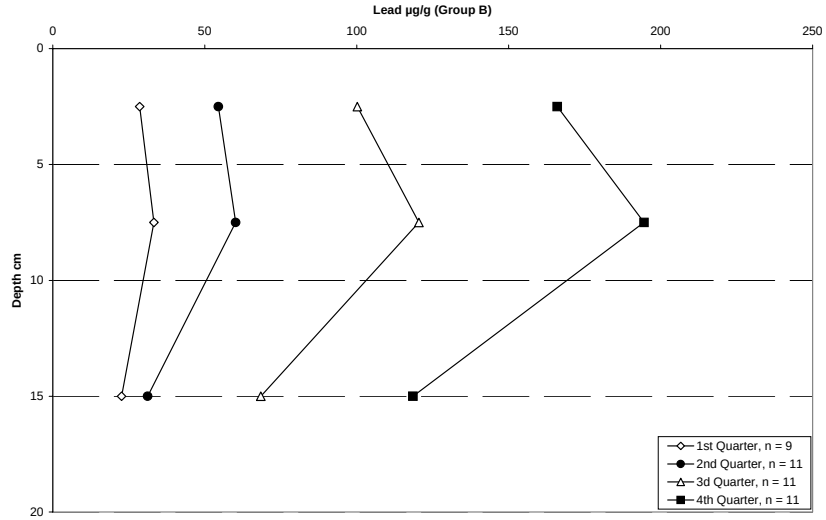


Figure 10.5.5.8b: Falconbridge, Pb depth profiles, Group B data.

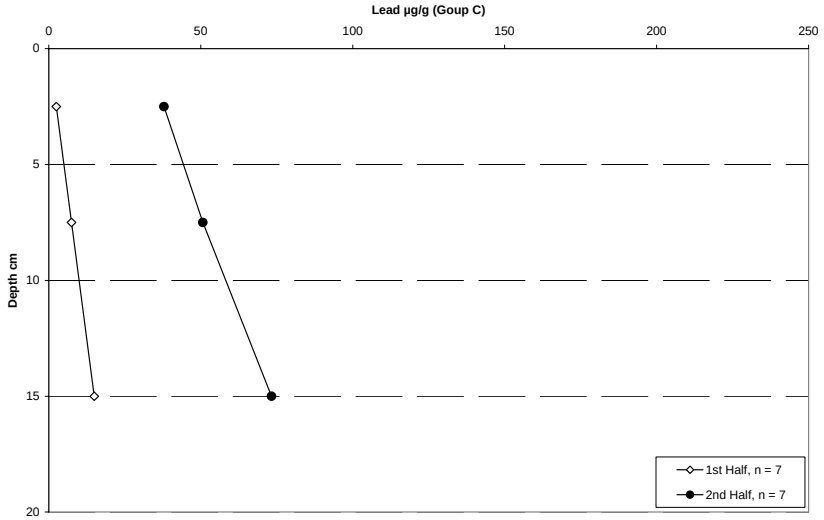


Figure 10.5.5.8c: Falconbridge, Pb depth profiles, Group C data.

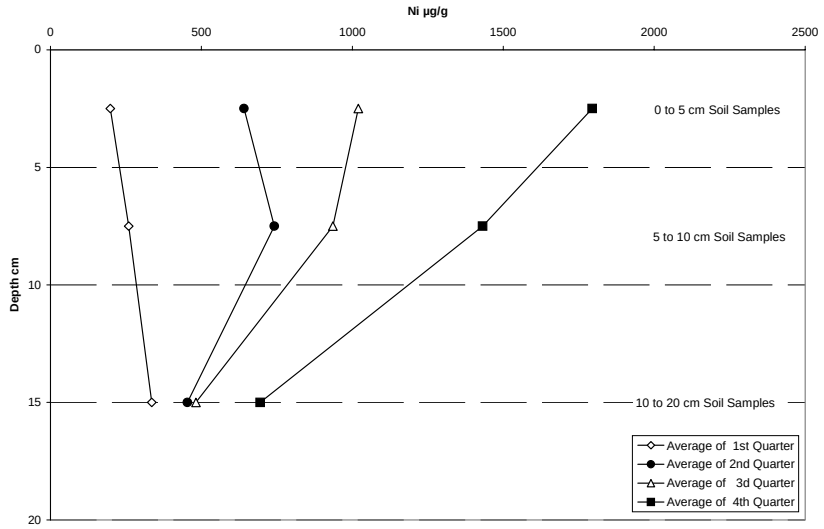


Figure 10.5.5.9: Falconbridge, Ni depth profiles, all data.

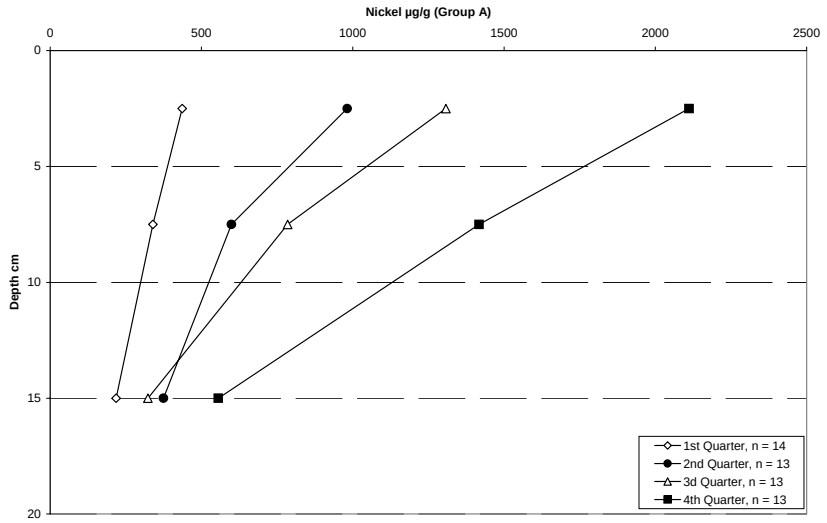


Figure 10.5.5.9a: Falconbridge, Ni depth profiles, Group A data.

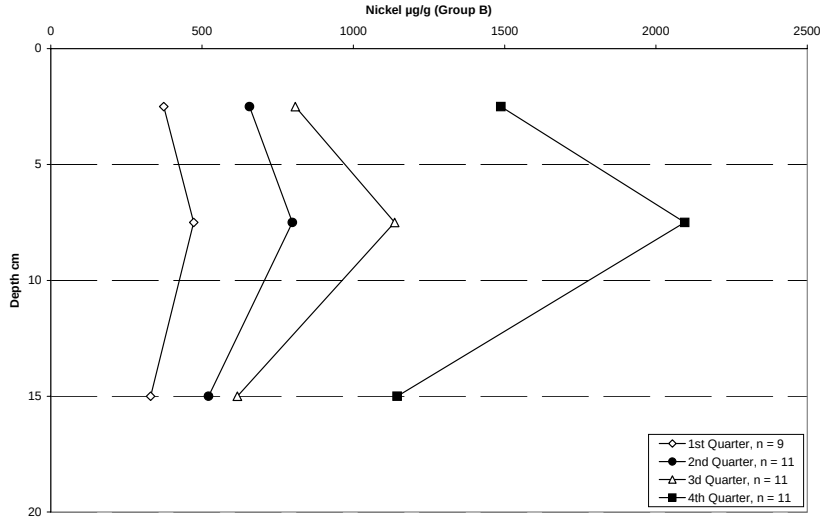


Figure 10.5.5.9b: Falconbridge, Ni depth profiles, Group B data.

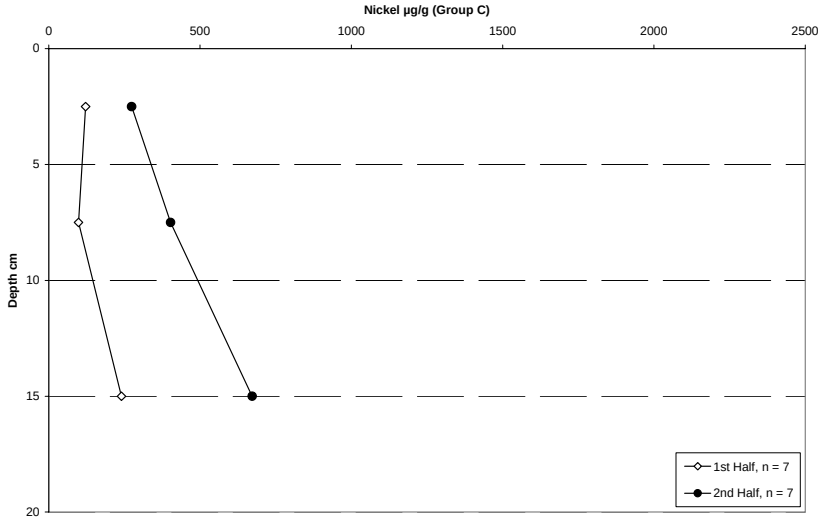


Figure 10.5.5.9c: Falconbridge, Ni depth profiles, Group C data.

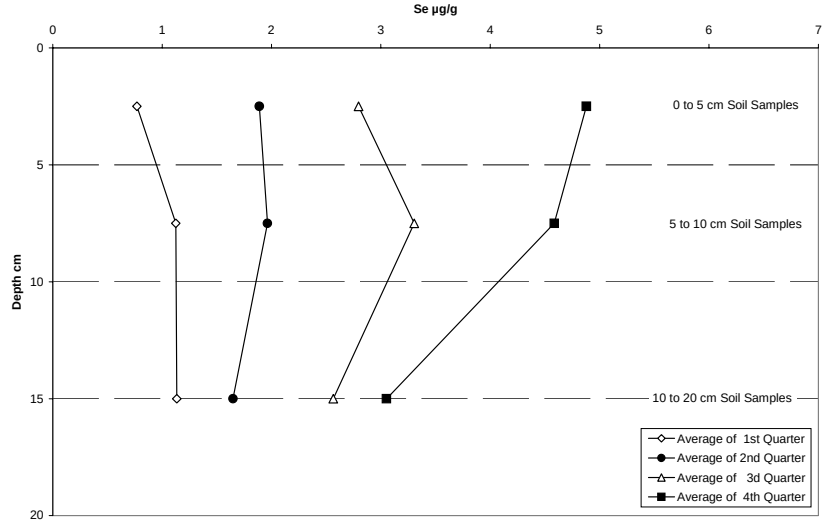


Figure 10.5.5.10: Falconbridge, Se depth profiles, all data.

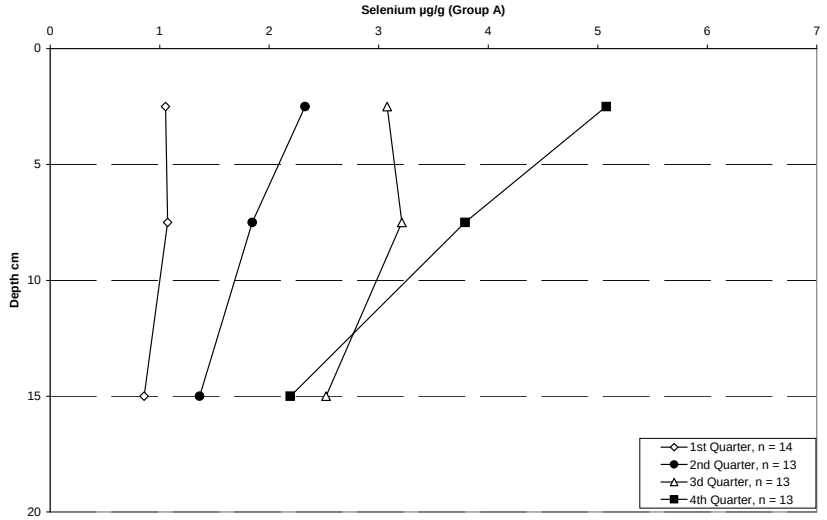


Figure 10.5.5.10a: Falconbridge, Se depth profiles, Group A data.

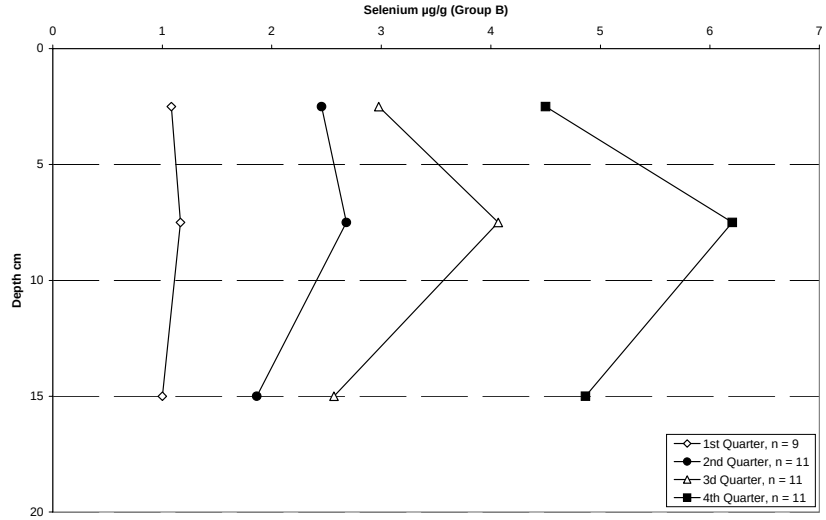


Figure 10.5.5.10b: Falconbridge, Se depth profiles, Group B data.

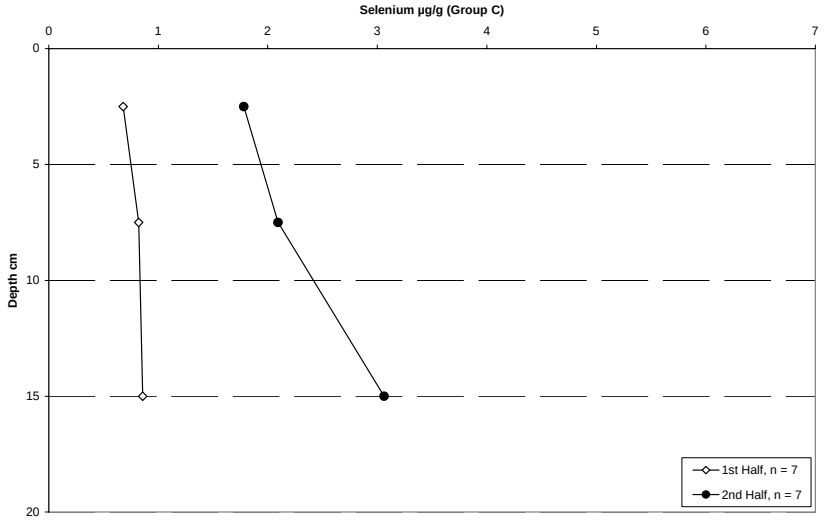


Figure 10.5.5.10c: Falconbridge, Se depth profiles, Group C data.

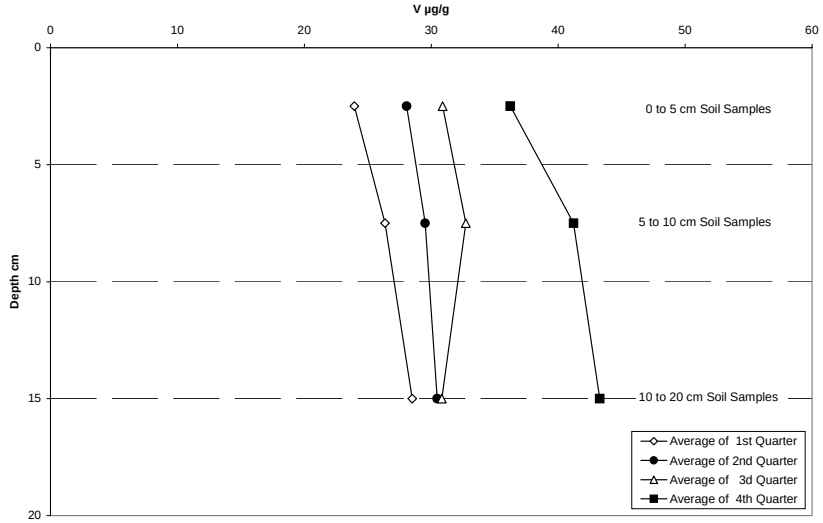


Figure 10.5.5.11: Falconbridge, V depth profiles, all data.

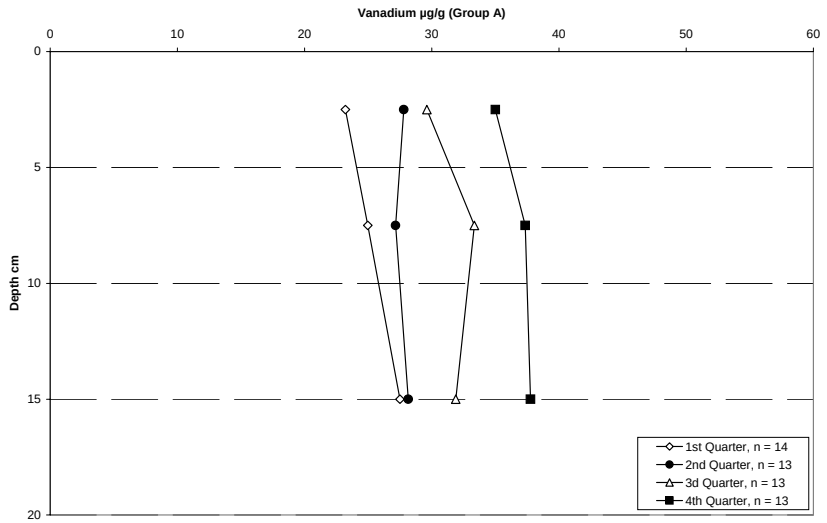


Figure 10.5.5.11a: Falconbridge, V depth profiles, Group A data.

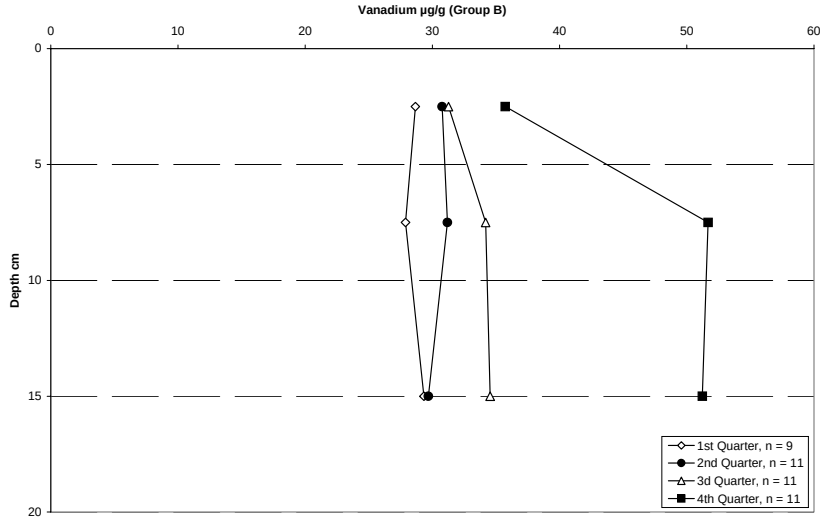


Figure 10.5.5.11b: Falconbridge, V depth profiles, Group B data.

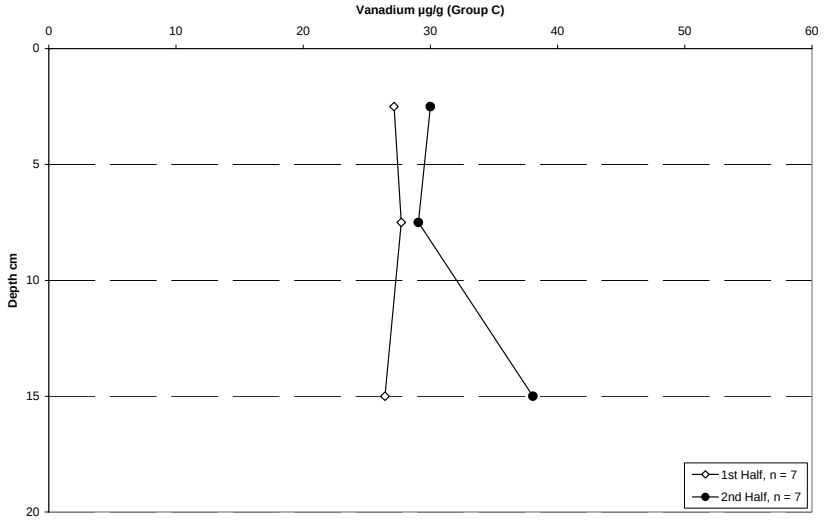


Figure 10.5.5.11c: Falconbridge, V depth profiles, Group C data.

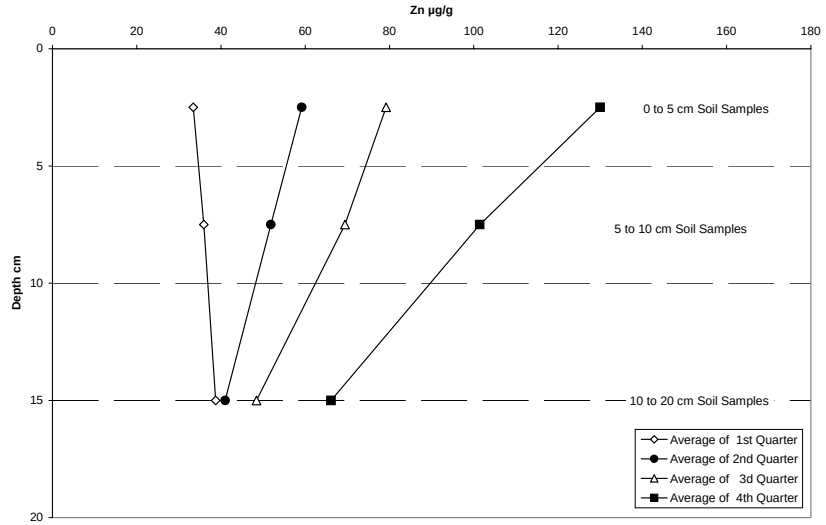


Figure 10.5.5.12: Falconbridge, Zn depth profiles, all data.

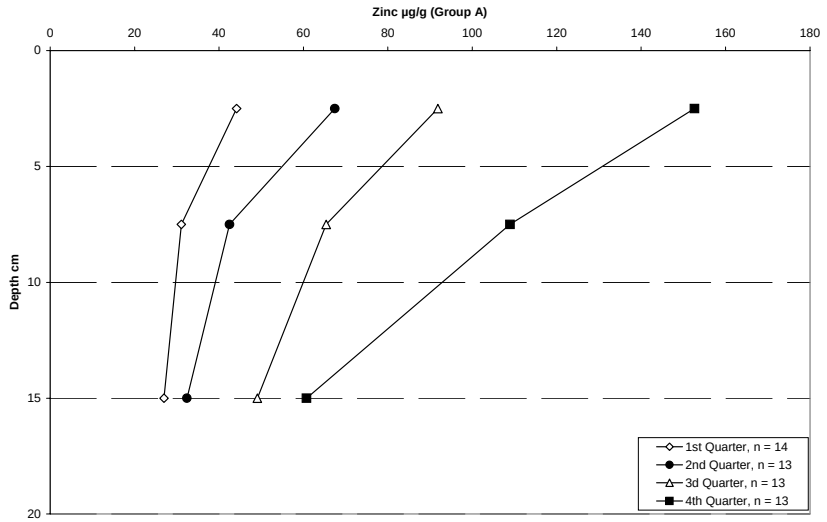


Figure 10.5.5.12a: Falconbridge, Zn depth profiles, Group A data.

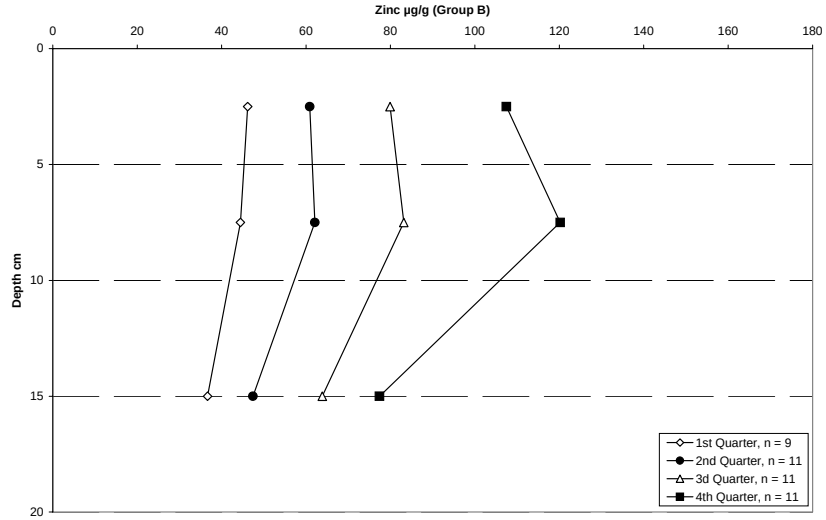


Figure 10.5.5.12b: Falconbridge, Zn depth profiles, Group B data.

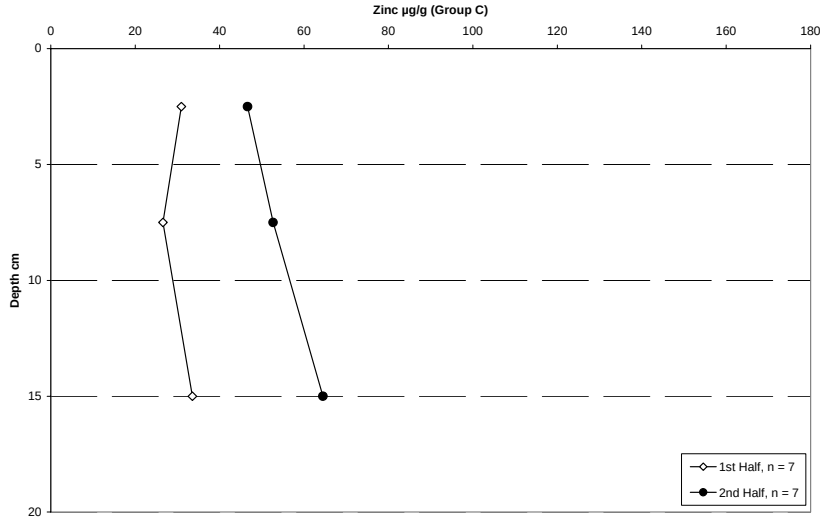


Figure 10.5.5.12c: Falconbridge, Zn depth profiles, Group C data.

10.5.6 Copper Cliff

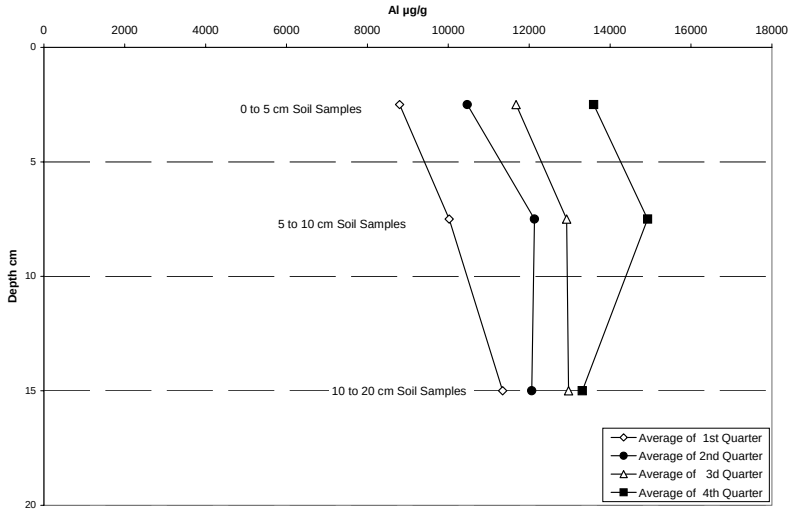


Figure 10.5.6.1: Copper Cliff, Al depth profiles, all data.

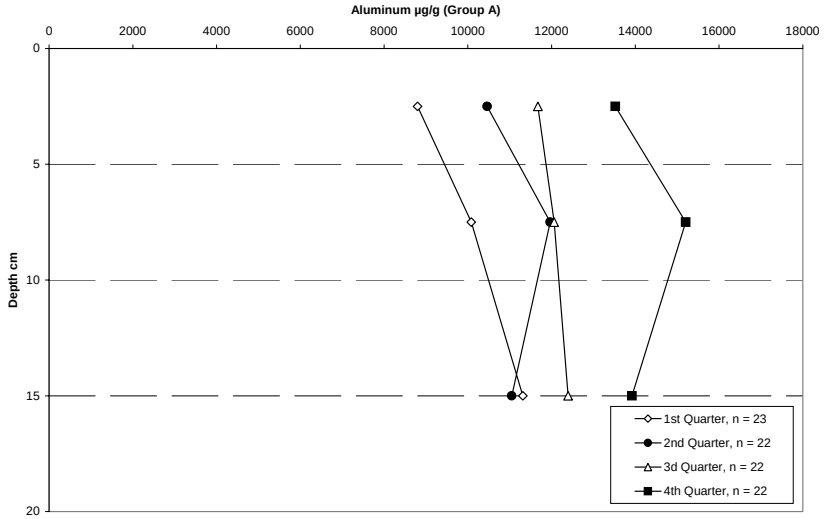


Fig. 10.5.6.1a: Copper Cliff, Al depth profiles, Group A data.

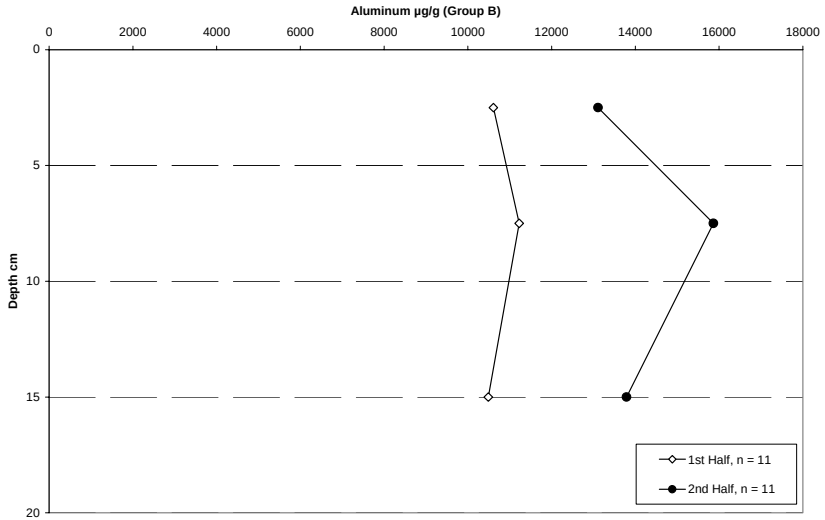


Fig. 10.5.6.1b: Copper Cliff, Al depth profiles, Group B data.

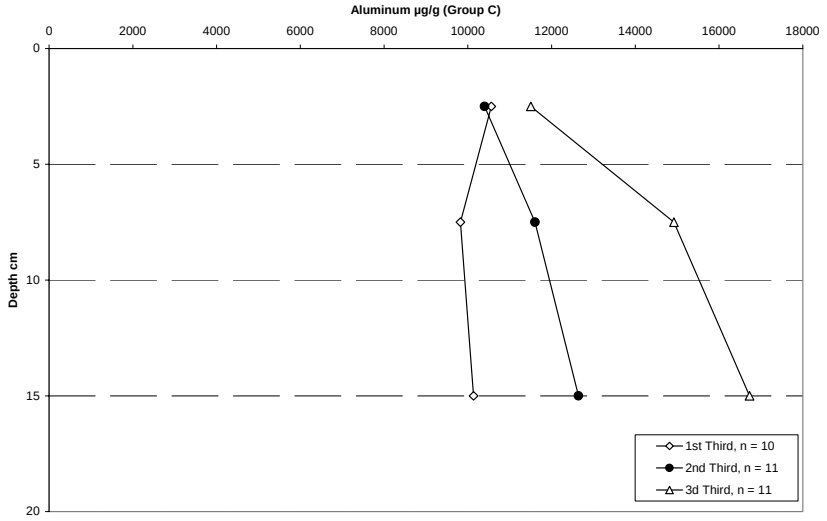


Fig. 10.5.6.1c: Copper Cliff, Al depth profiles, Group C data.

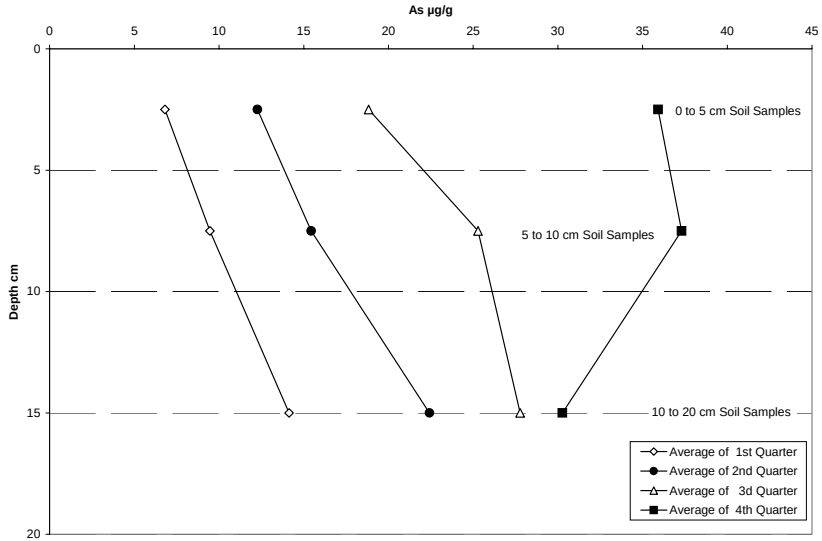


Figure 10.5.6.2: Copper Cliff, As depth profiles, all data.

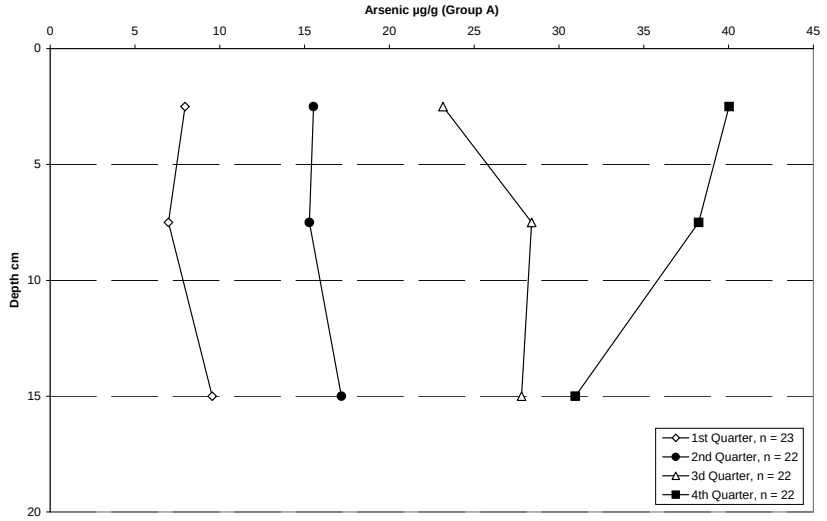


Figure 10.5.6.2a: Copper Cliff, As depth profiles, Group A data.

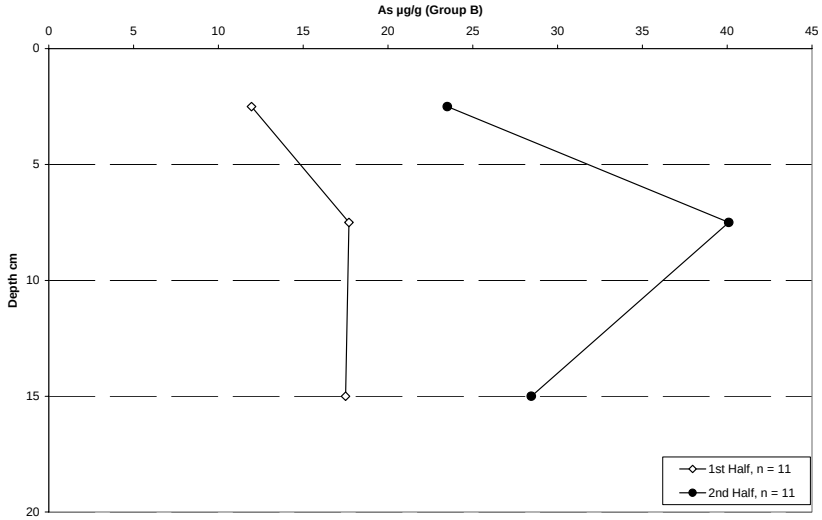


Figure 10.5.6.2b: Copper Cliff, As depth profiles, Group B data.

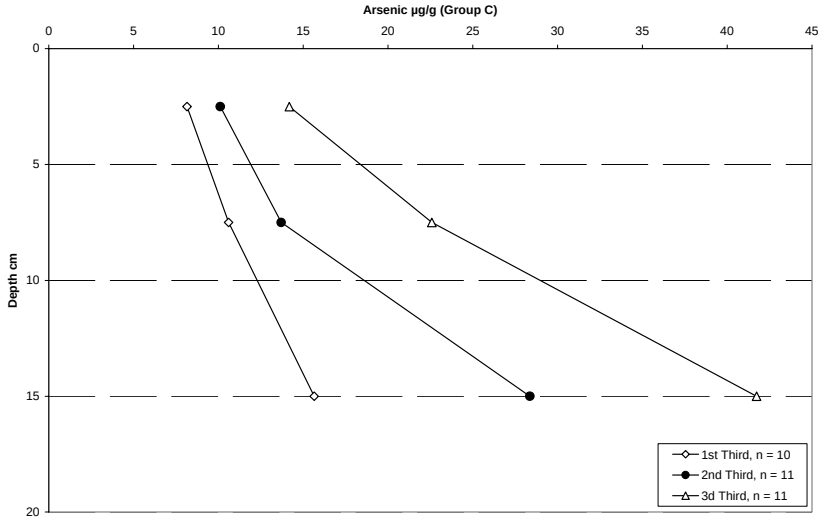


Figure 10.5.6.2c: Copper Cliff, As depth profiles, Group C data.

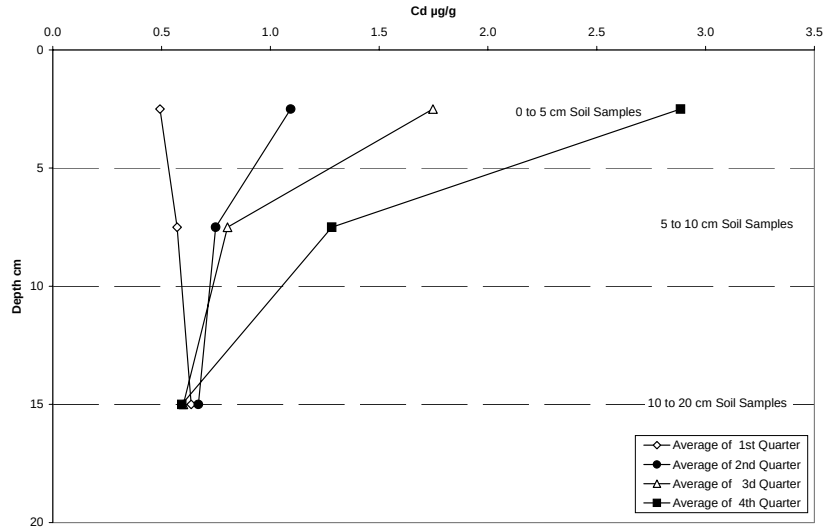


Figure 10.5.6.3: Copper Cliff, Cd depth profiles, all data.

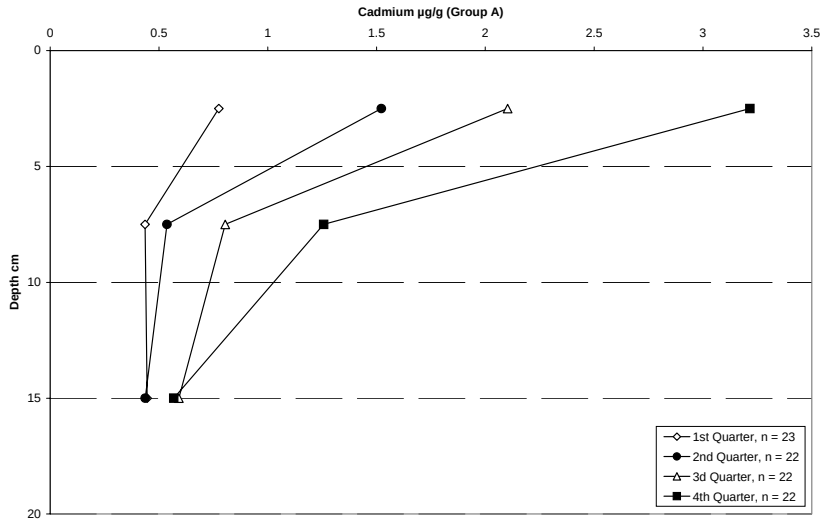


Figure 10.5.6.3a: Copper Cliff, Cd depth profiles, Group A data.

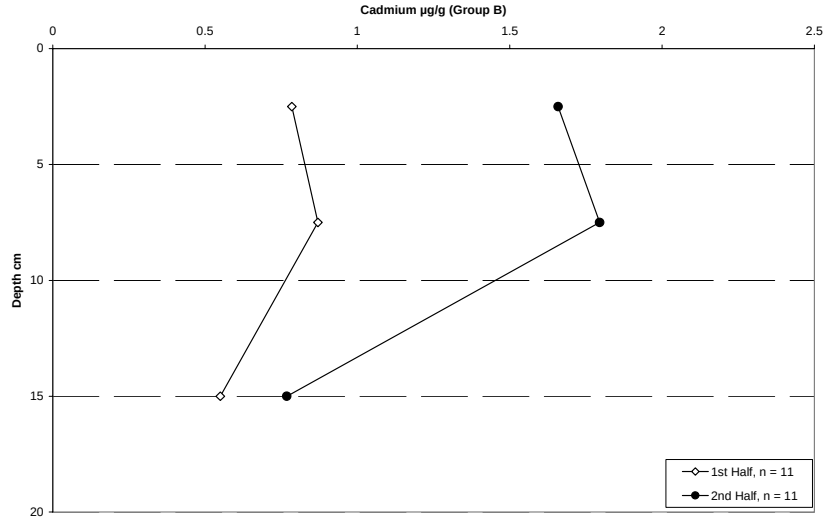


Figure 10.5.6.3b: Copper Cliff, Cd depth profiles, Group B data.

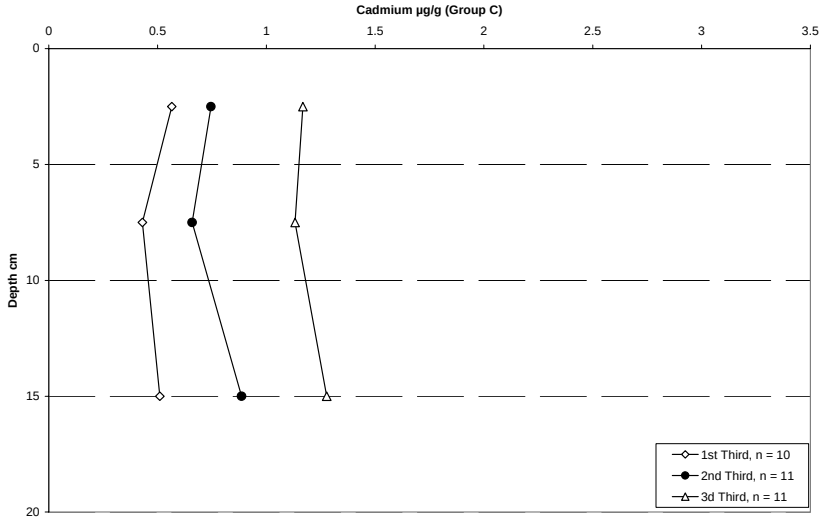


Figure 10.5.6.3c: Copper Cliff, Cd depth profiles, Group C data.

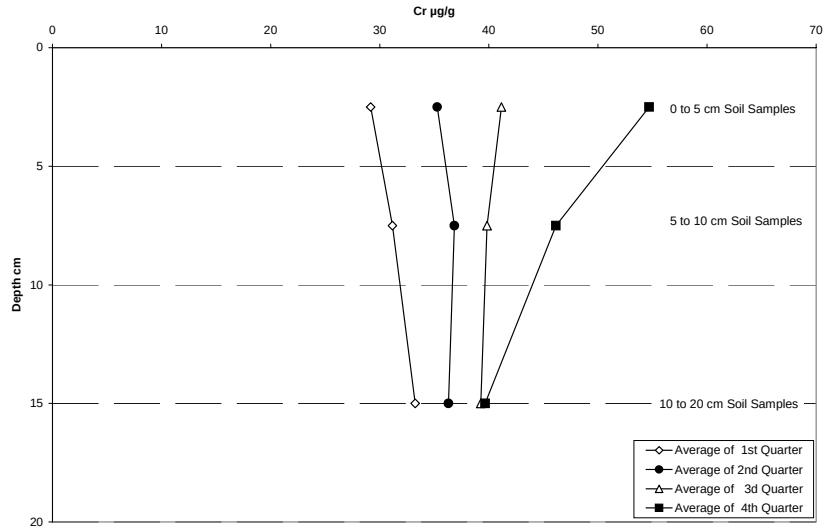


Figure 10.5.6.4: Copper Cliff, Cr depth profiles, all data.

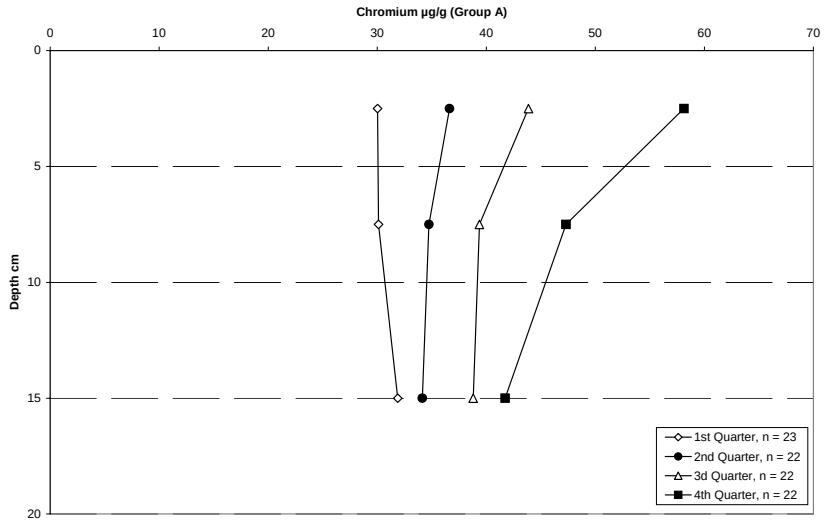


Figure 10.5.6.4a: Copper Cliff, Cr depth profiles, Group A data.

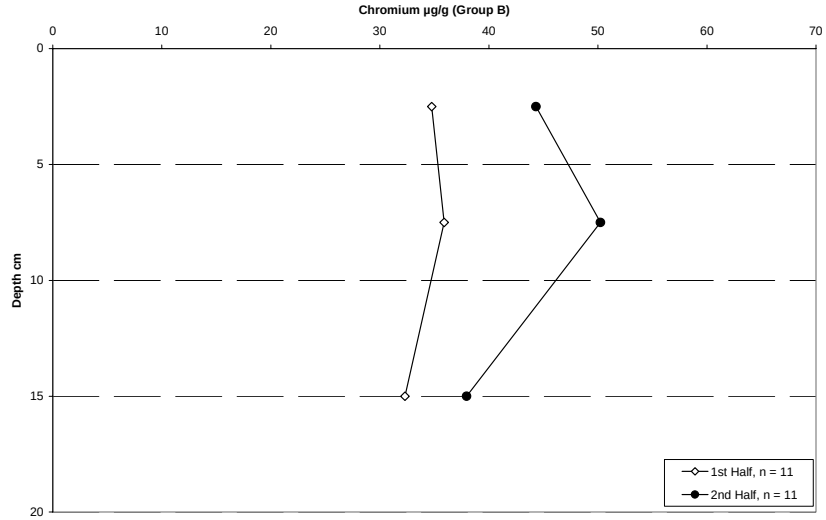


Figure 10.5.6.4b: Copper Cliff, Cr depth profiles, Group B data.

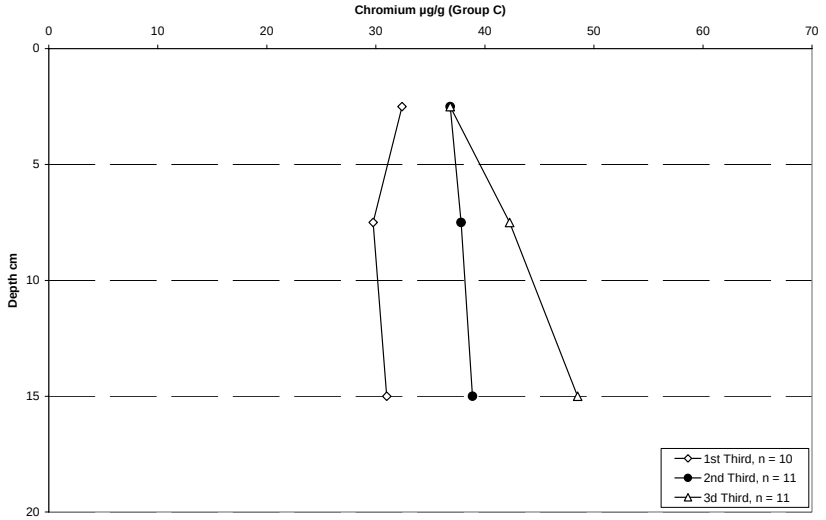


Figure 10.5.6.4c: Copper Cliff, Cr depth profiles, Group C data.

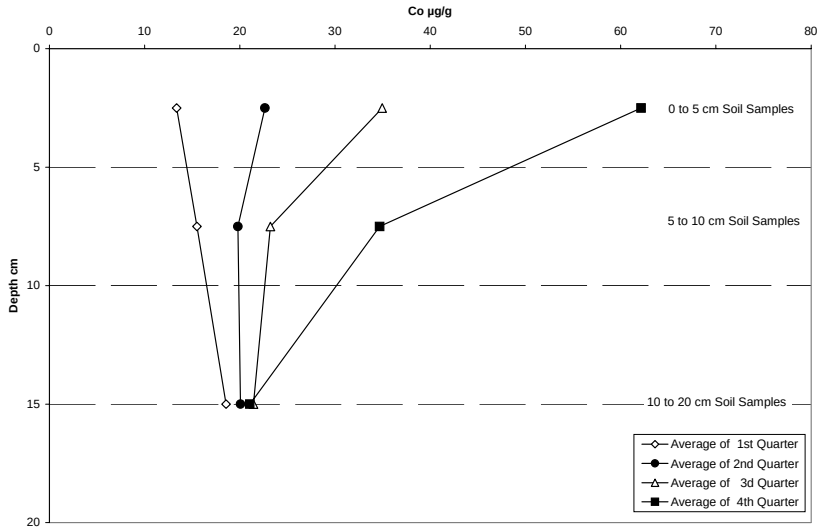


Figure 10.5.6.5: Copper Cliff, Co depth profiles, all data.

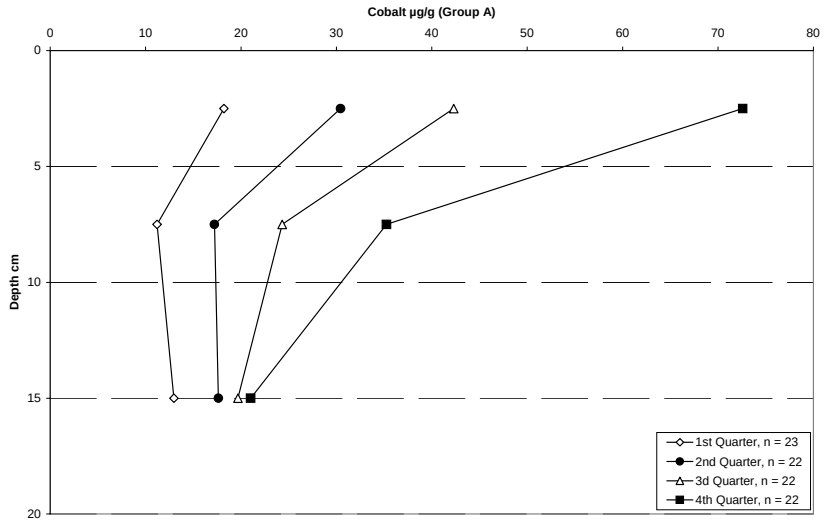


Figure 10.5.6.5a: Copper Cliff, Co depth profiles, Group A data.

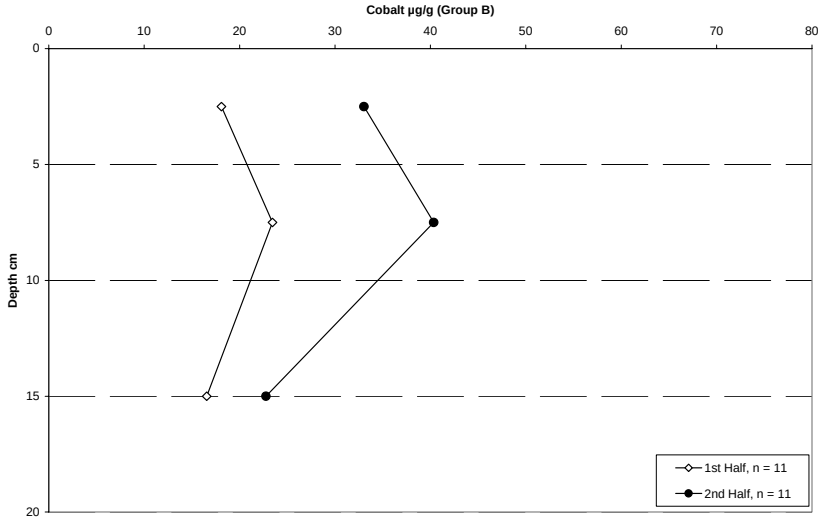


Figure 10.5.6.5b: Copper Cliff, Co depth profiles, Group B data.

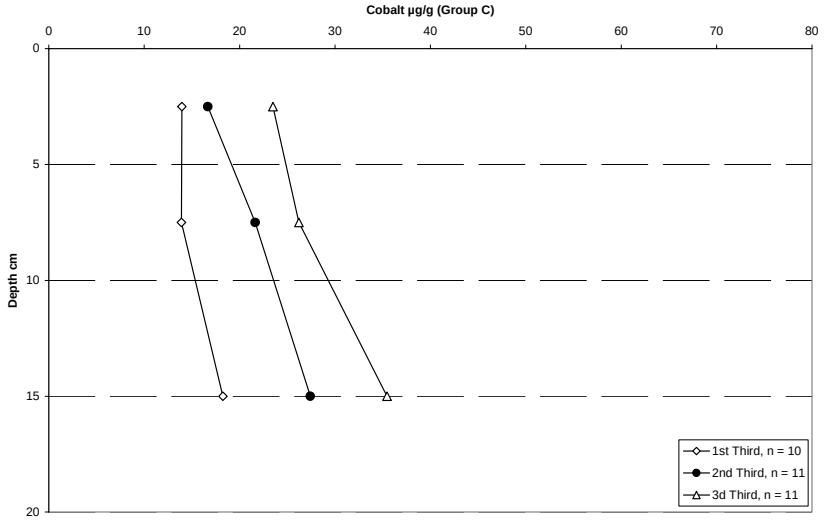


Figure 10.5.6.5c: Copper Cliff, Co depth profiles, Group C data.

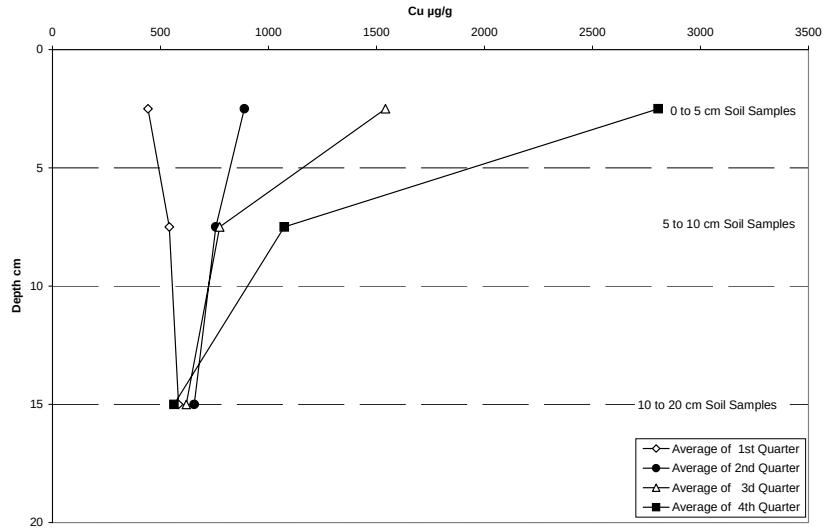


Figure 10.5.6.6: Copper Cliff, Cu depth profiles, all data.

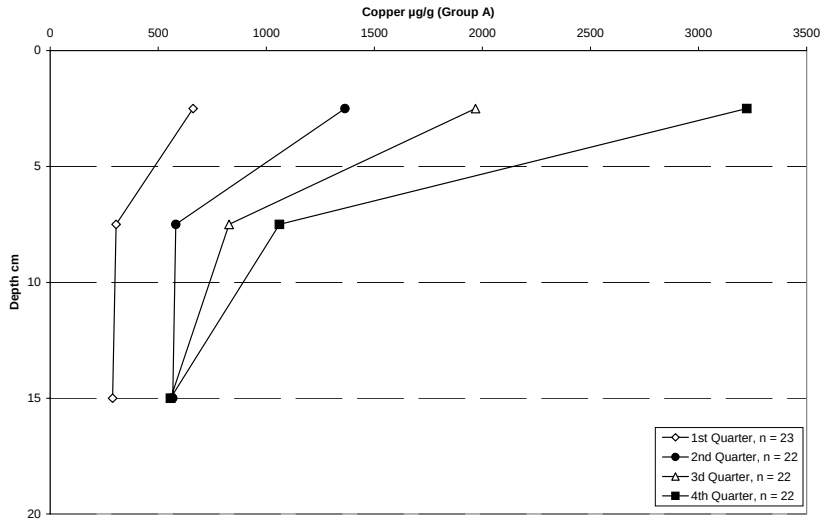


Figure 10.5.6.6a: Copper Cliff, Cu depth profiles, Group A data.

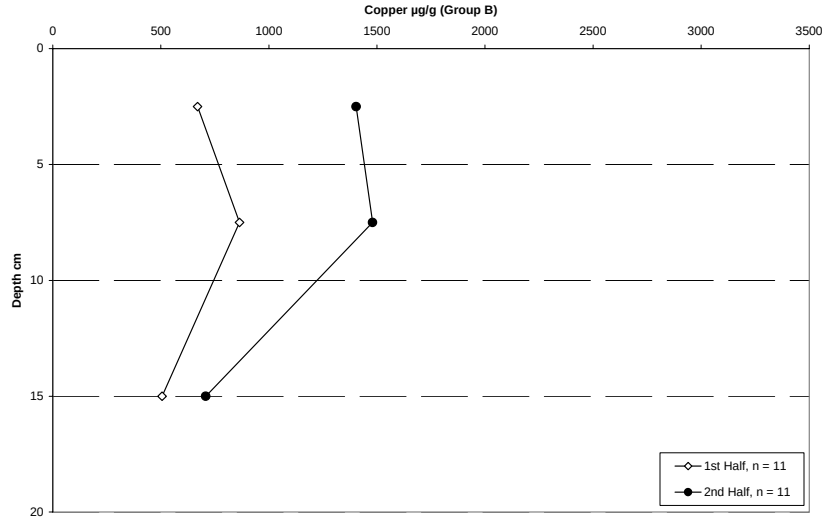


Figure 10.5.6.6b: Copper Cliff, Cu depth profiles, Group B data.

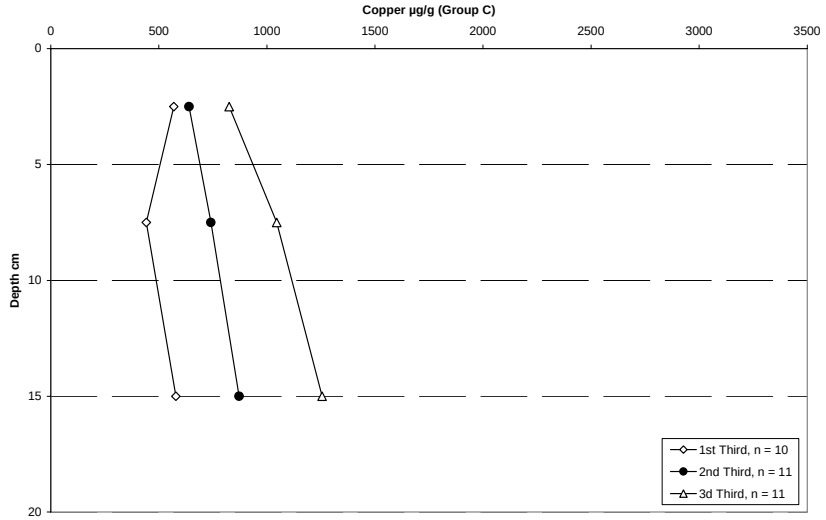


Figure 10.5.6.6c: Copper Cliff, Cu depth profiles, Group C data.

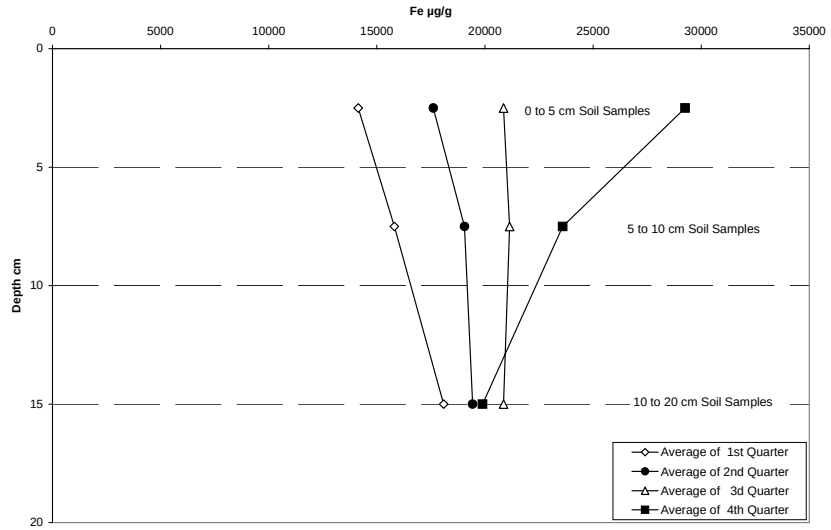


Figure 10.5.6.7: Copper Cliff, Fe depth profiles, all data.

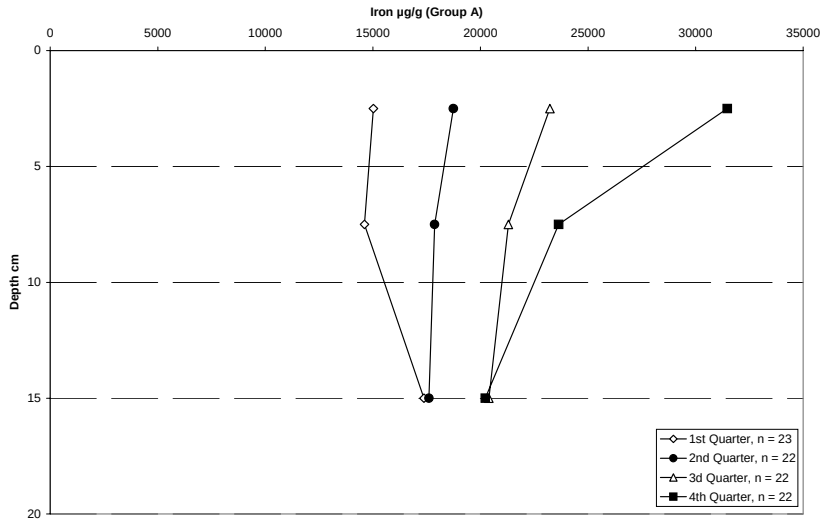
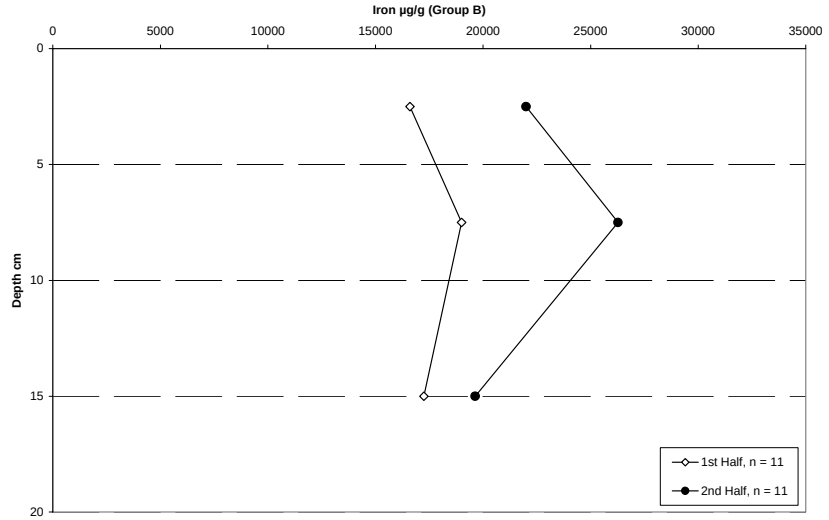


Figure 10.5.6.7a: Copper Cliff, Fe depth profiles, Group A data.



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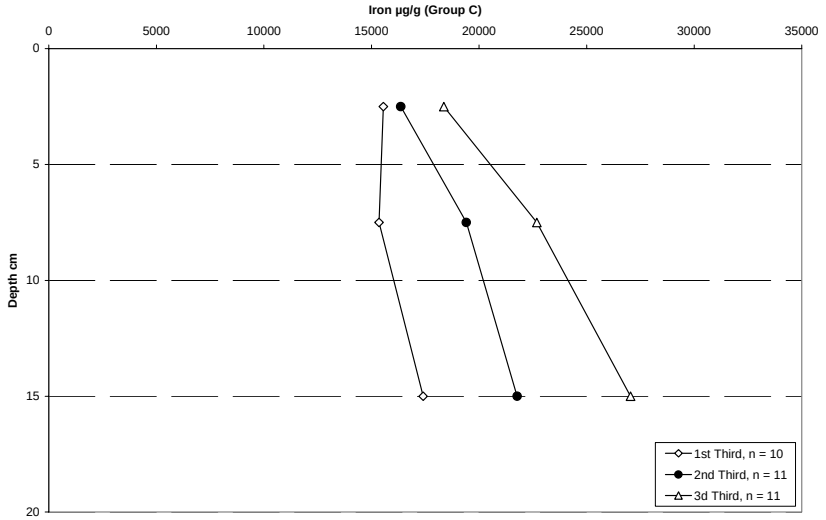
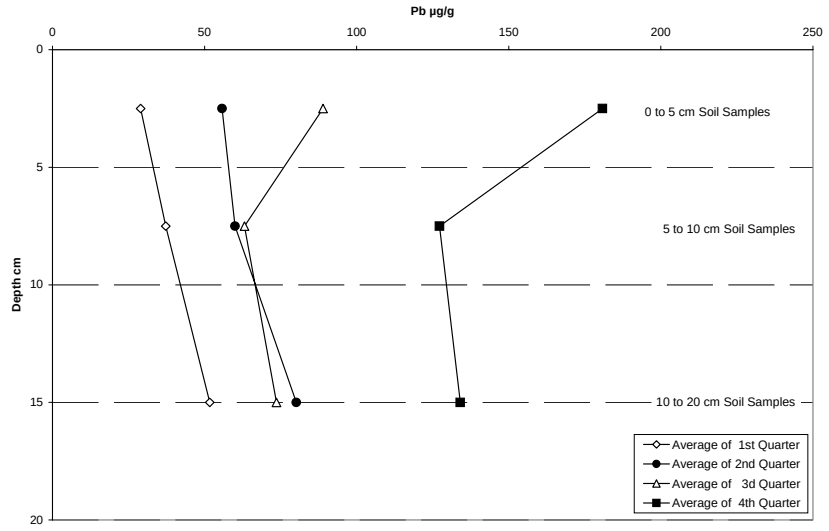


Figure 10.5.6.7c: Copper Cliff, Fe depth profiles, Group C data.



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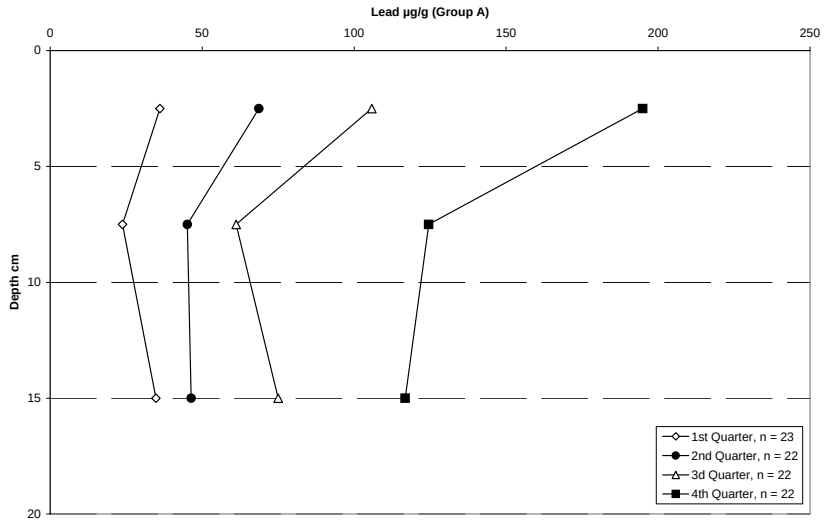
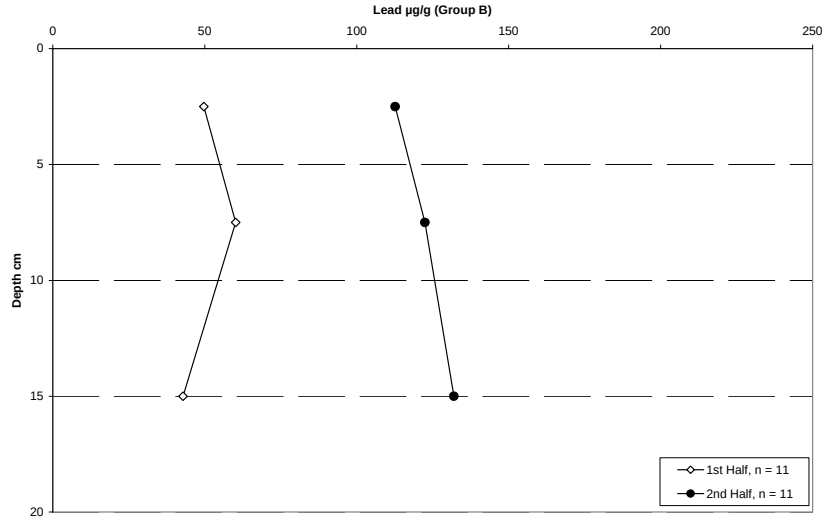


Figure 10.5.6.8a: Copper Cliff, Pb depth profiles, Group A data.



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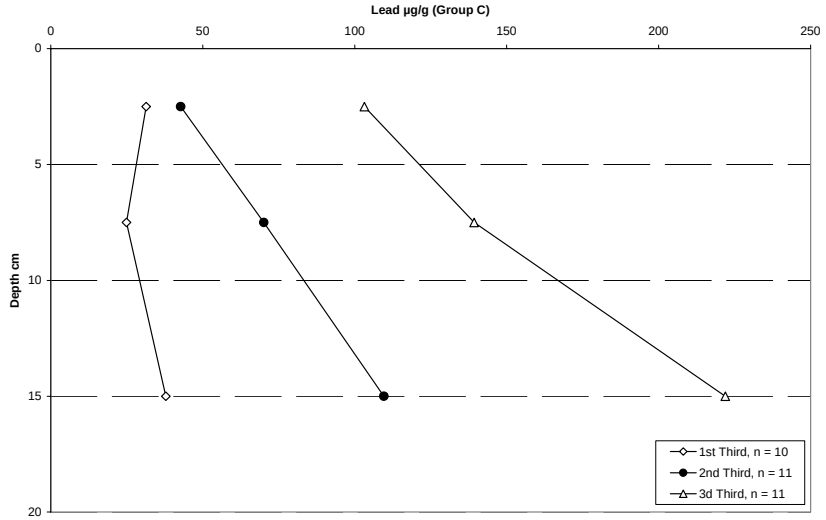


Figure 10.5.6.8c: Copper Cliff, Pb depth profiles, Group C data.

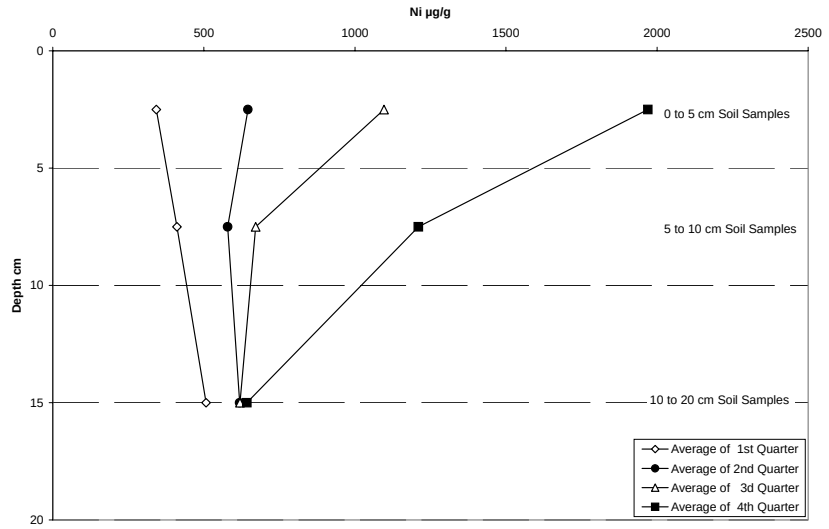


Figure 10.5.6.9: Copper Cliff, Ni depth profiles, all data.

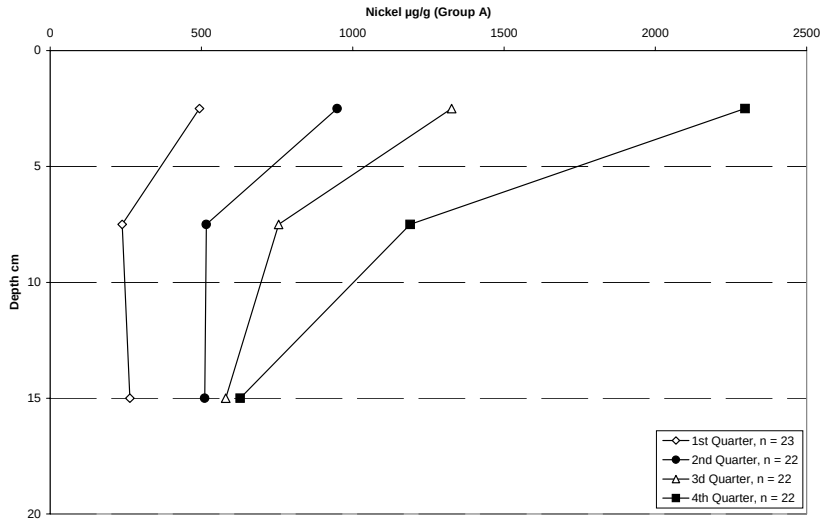
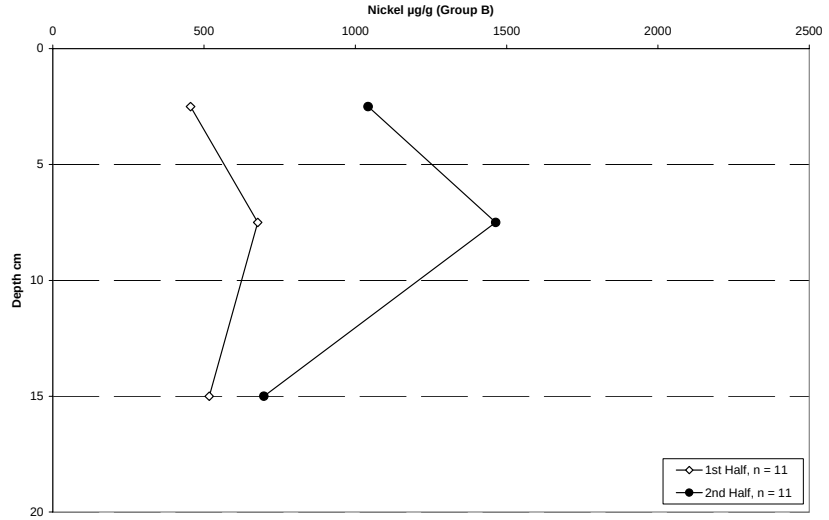


Figure 10.5.6.9a: Copper Cliff, Ni depth profiles, Group A data.



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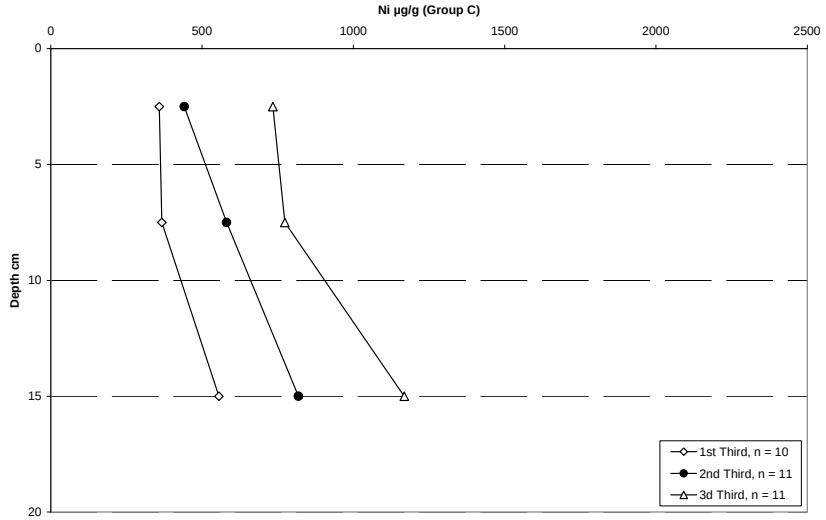

Figure 10.5.6.9c: Copper Cliff, Ni depth profiles, Group C data.

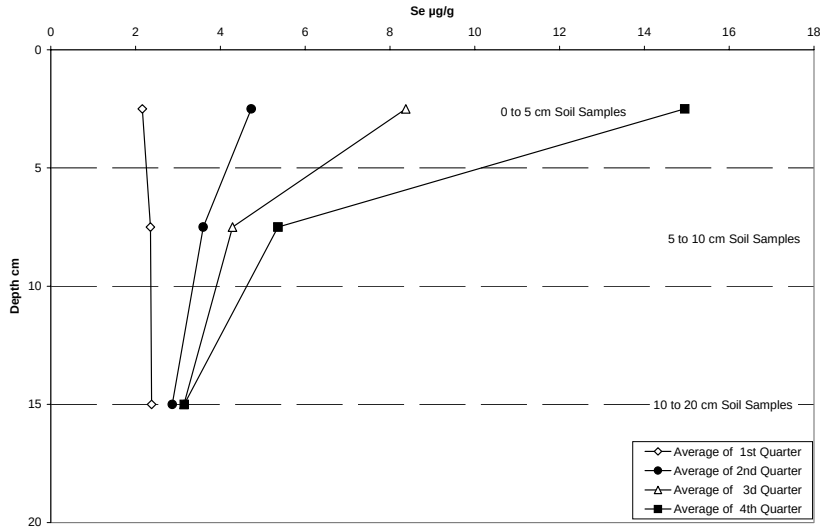

Figure 10.5.6.10: Copper Cliff, Se depth profiles, all data.

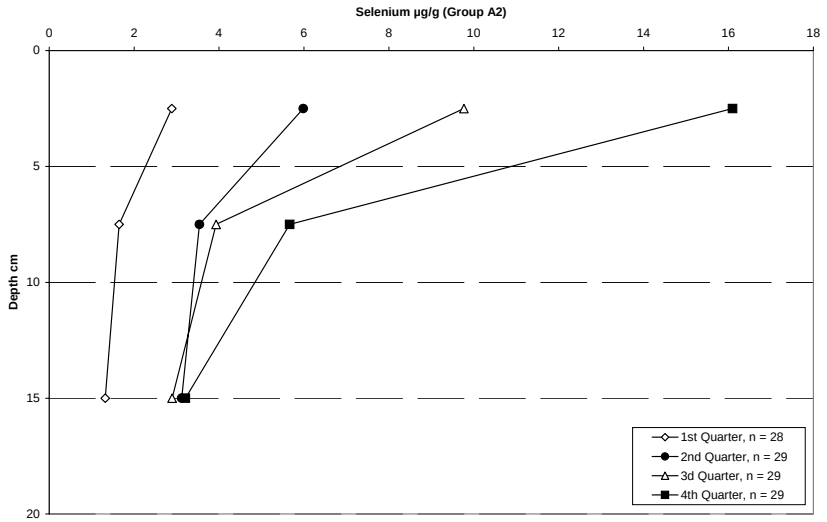

Figure 10.5.6.10a: Copper Cliff, Se depth profiles, Group A data.

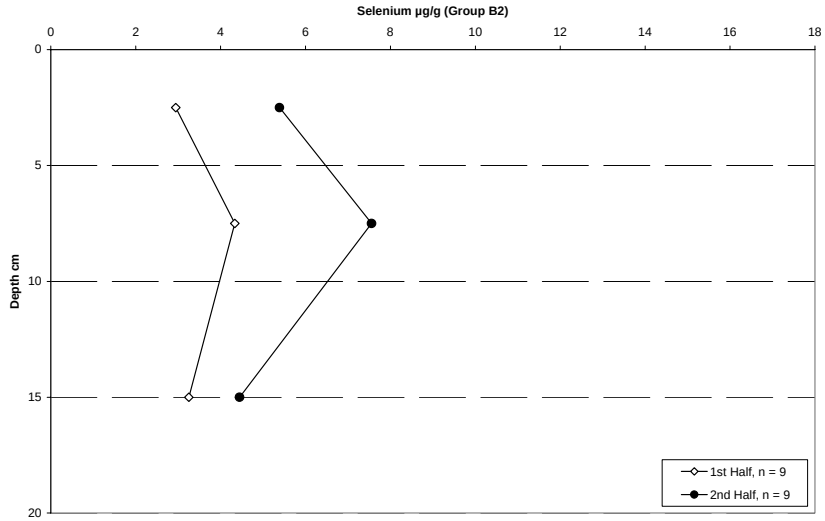

Figure 10.5.6.10b: Copper Cliff, Se depth profiles, Group B data.

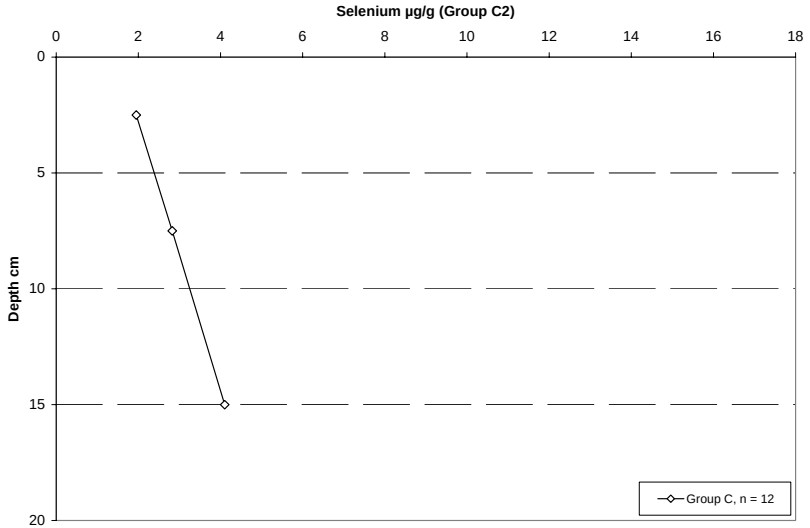

Figure 10.5.6.10c: Copper Cliff, Se depth profiles, Group C data.

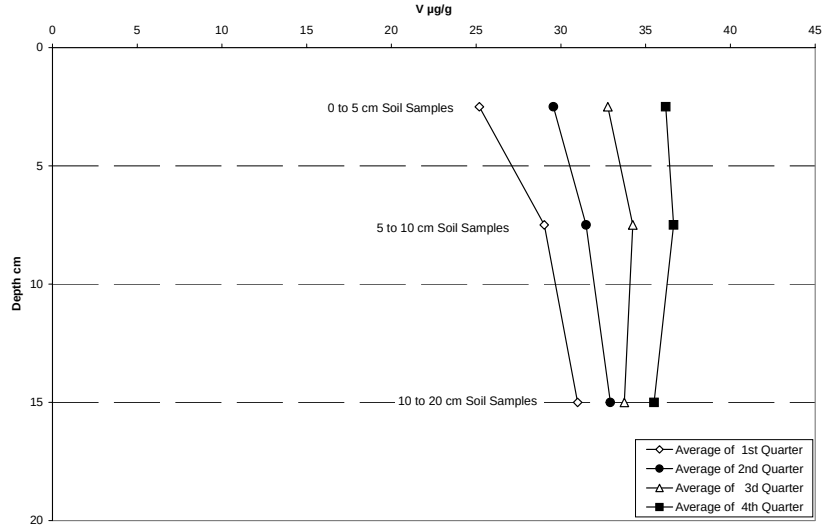

Figure 10.5.6.11: Copper Cliff, V depth profiles, all data.

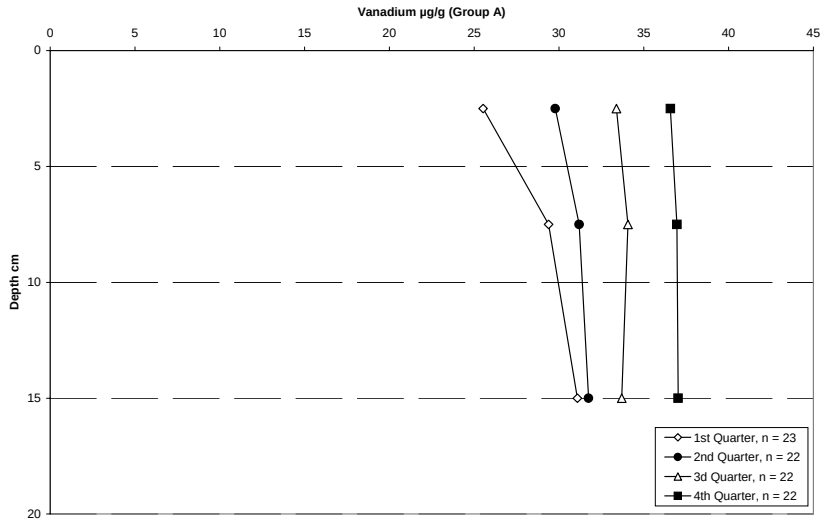

Figure 10.5.6.11a: Copper Cliff, V depth profiles, Group A data.

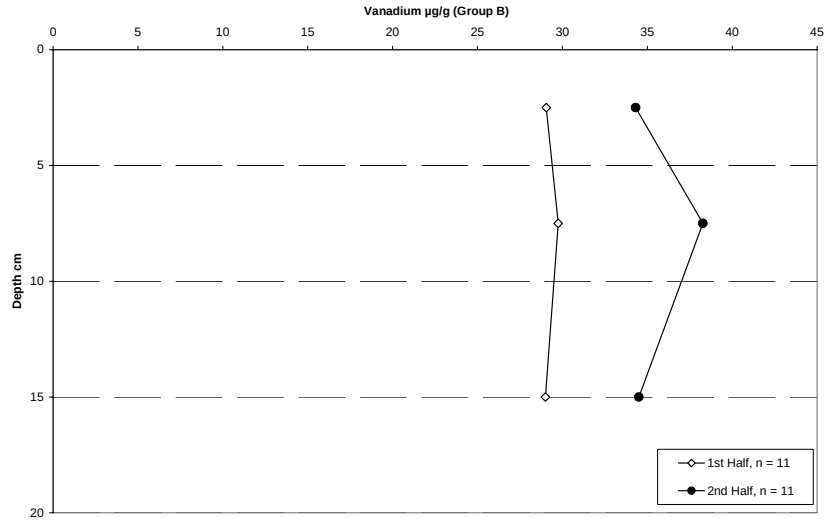

Fig. 10.5.6.11b: Copper Cliff, V depth profiles, Group B data.

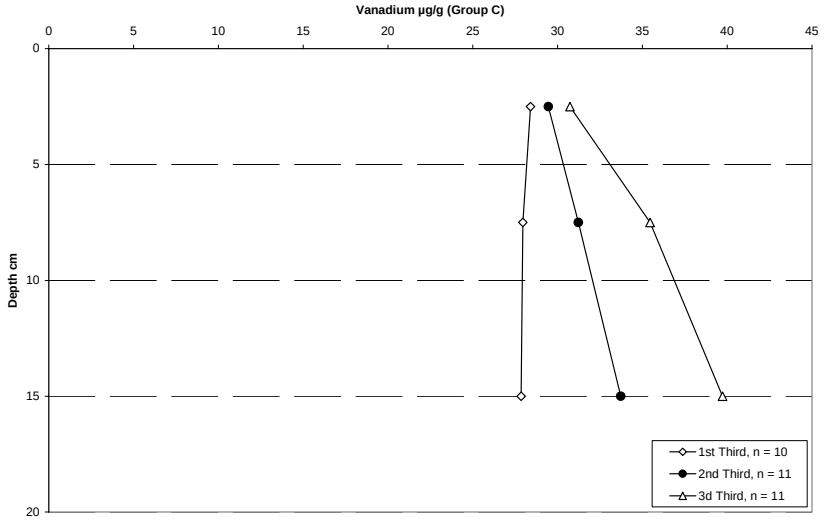

Figure 10.5.6.11c: Copper Cliff, V depth profiles, Group C data.

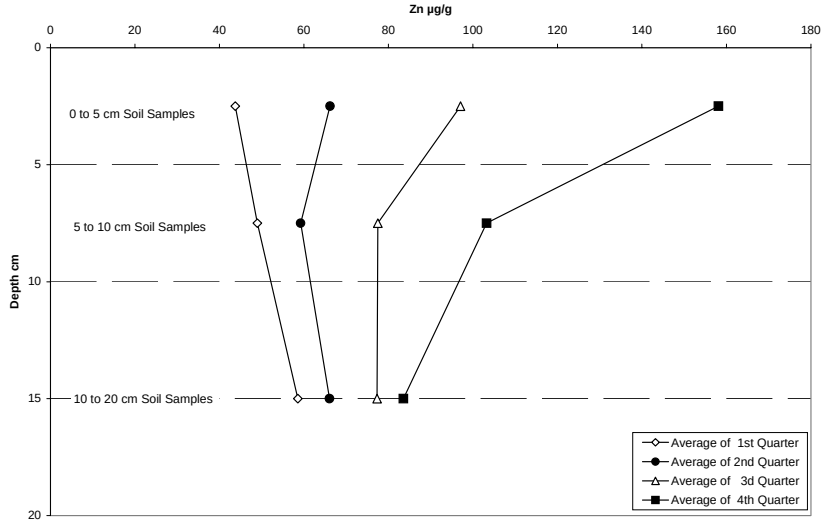

Figure 10.5.6.12: Copper Cliff, Zn depth profiles, all data.

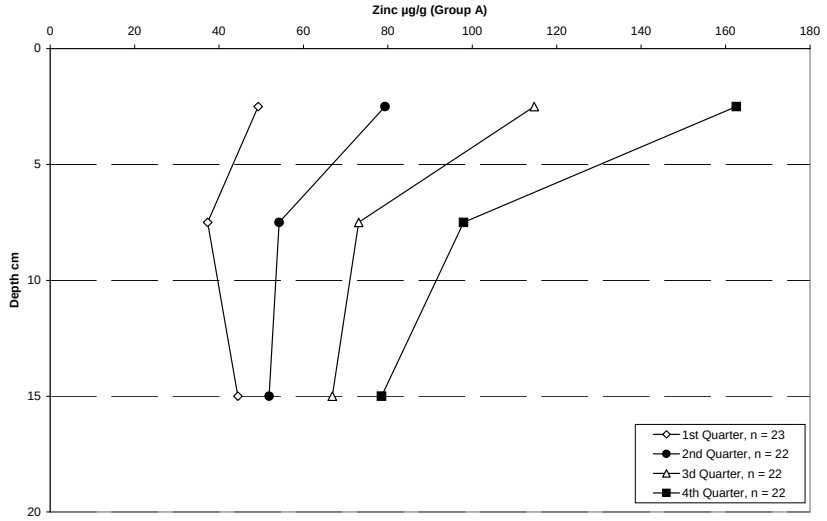

Figure 10.5.6.12a: Copper Cliff, Zn depth profiles, Group A data.

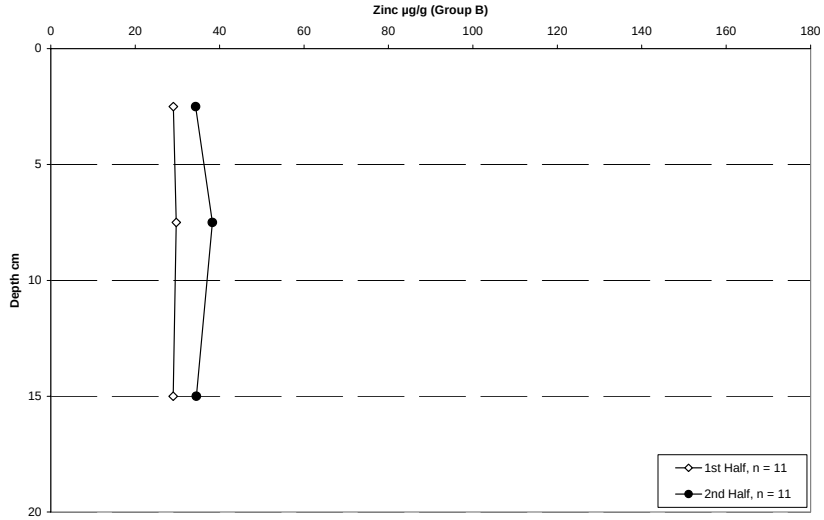

Figure 10.5.6.12b: Copper Cliff, Zn depth profiles, Group B data.

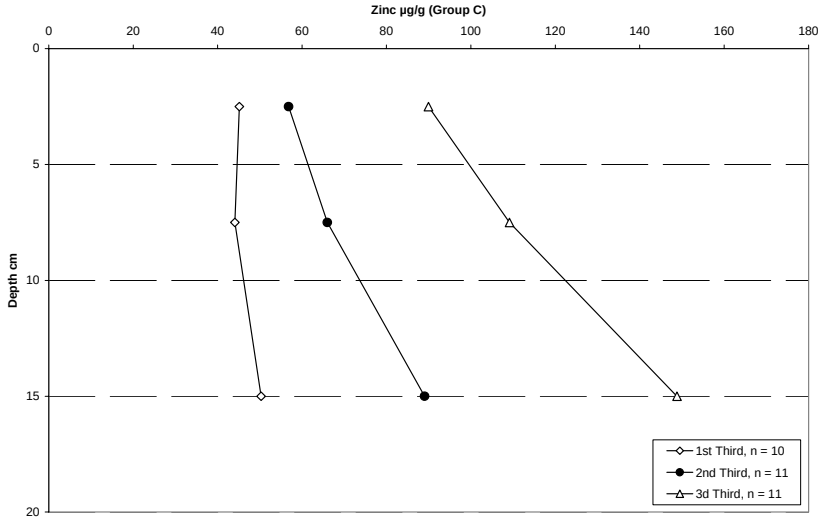

Figure 10.5.6.12c: Copper Cliff, Zn depth profiles, Group C data.

10.5.7 Undisturbed Natural Soil

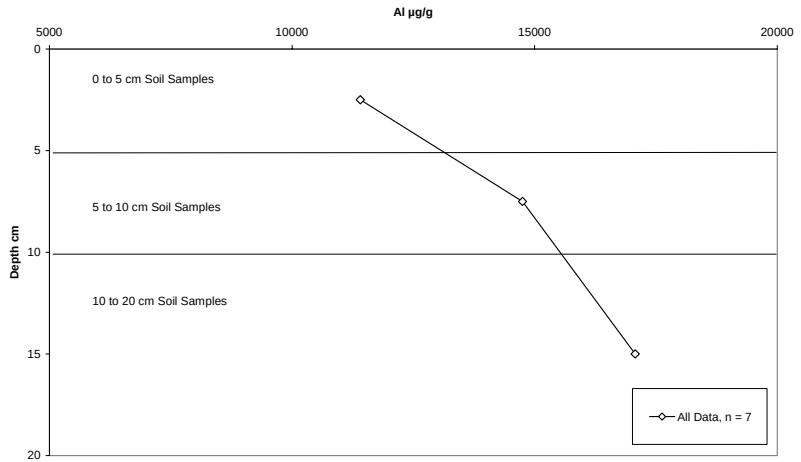

Figure 10.5.7.1: Undisturbed Natural Soil, Al depth profile, all data.

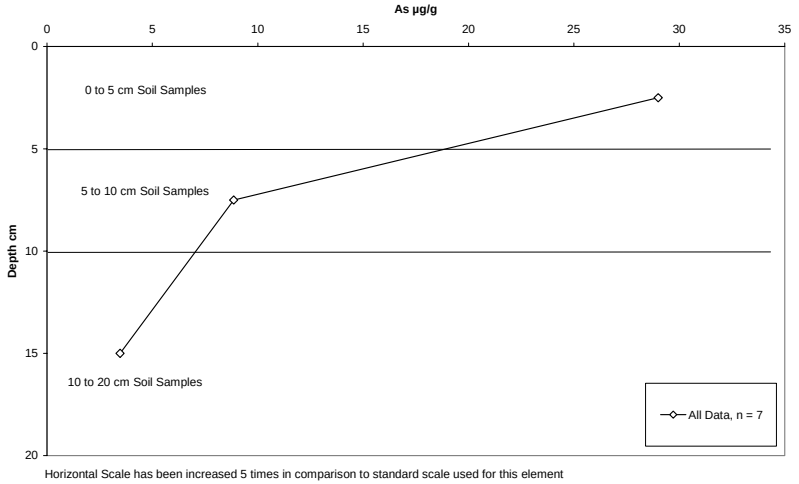

Figure 10.5.7.2: Undisturbed Natural Soil, As depth profile, all data.

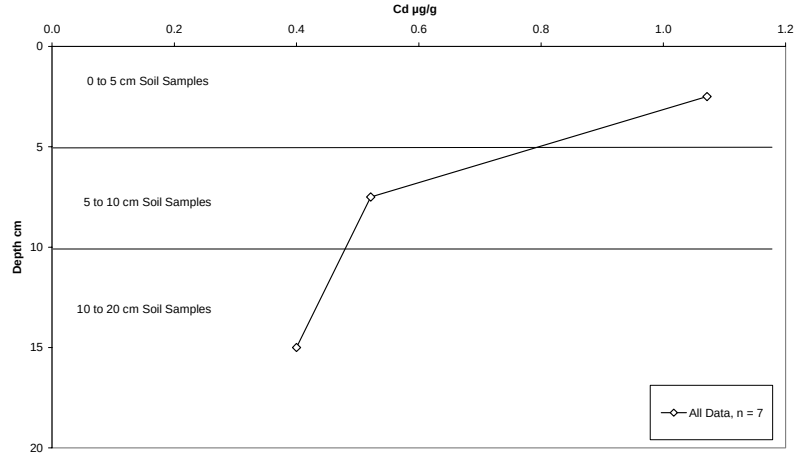

Figure 10.5.7.3: Undisturbed Natural Soil, Cd depth profile, all data.

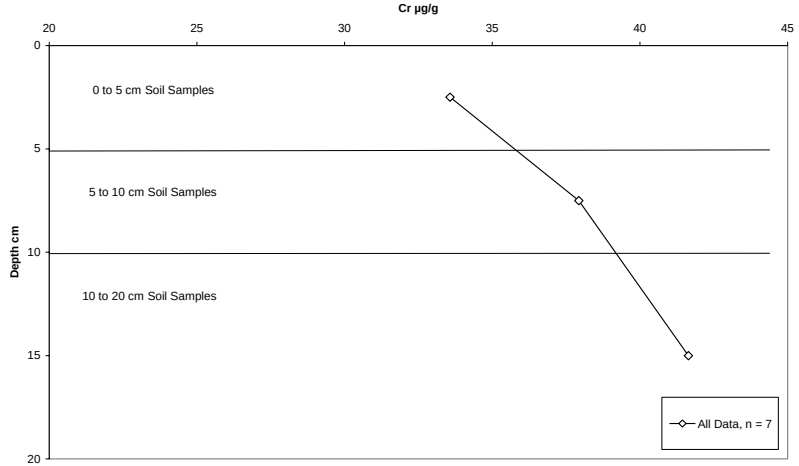

Figure 10.5.7.4: Undisturbed Natural Soil, Cr depth profile, all data.

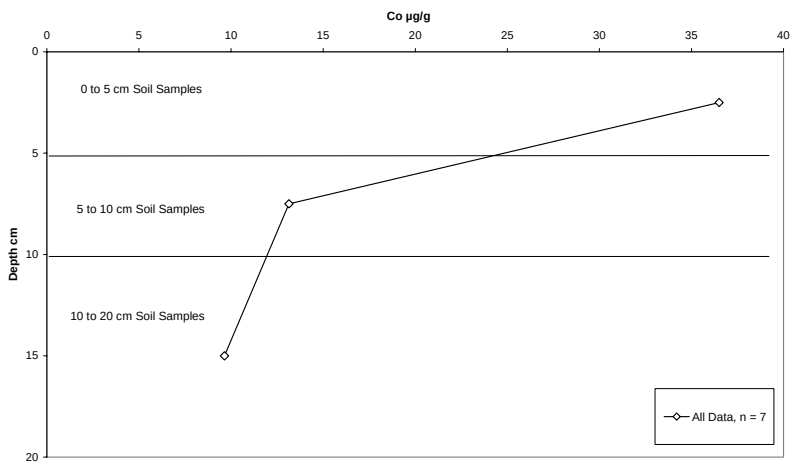

Figure 10.5.7.5: Undisturbed Natural Soil, Co depth profile, all data.

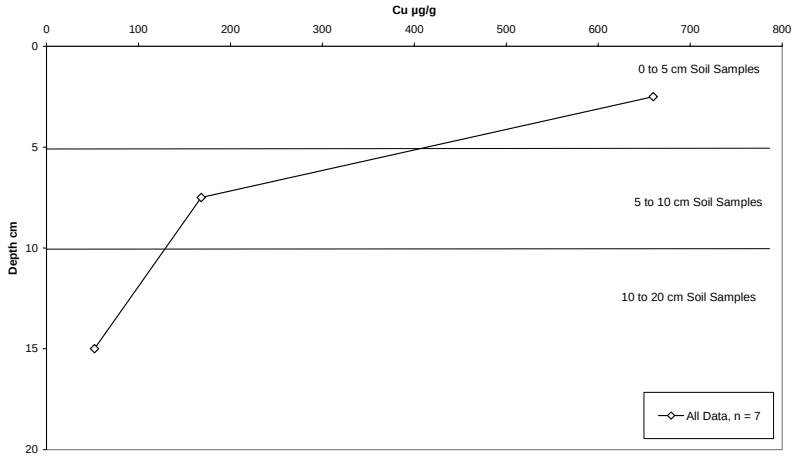

Figure 10.5.7.6: Undisturbed Natural Soil, Cu depth profile, all data.

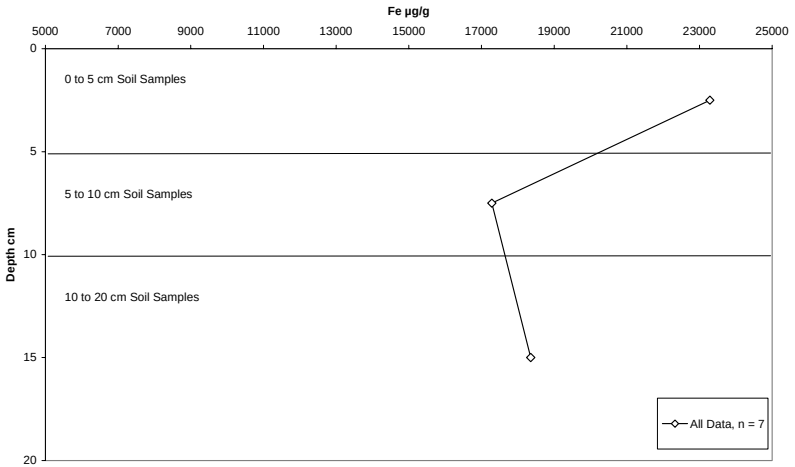

Figure 10.5.7.7: Undisturbed Natural Soil, Fe depth profile, all data.

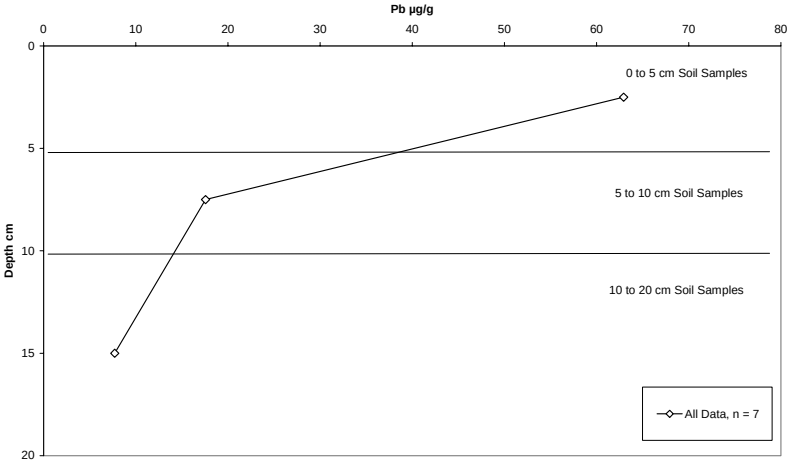

Figure 10.5.7.8: Undisturbed Natural Soil, Pb depth profile, all data.

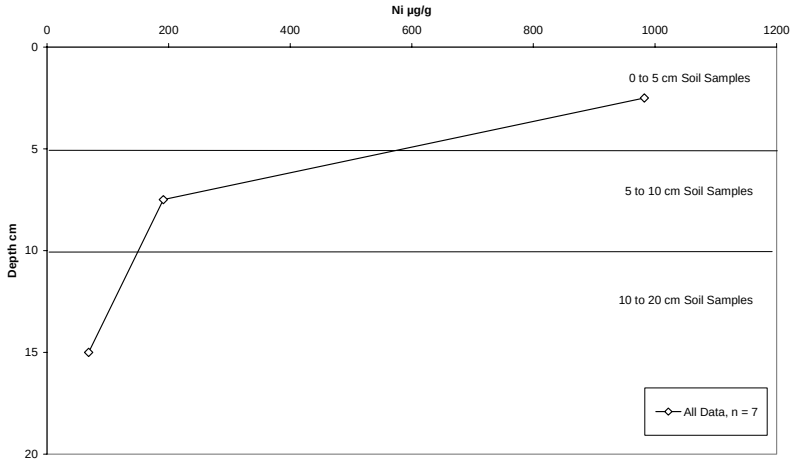

Figure 10.5.7.9: Undisturbed Natural Soil, Ni depth profile, all data.

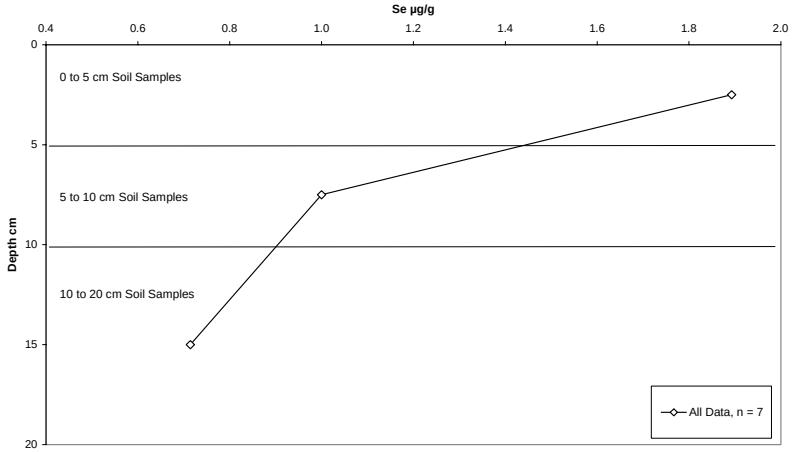

Figure 10.5.7.10: Undisturbed Natural Soil, Se depth profile, all data.

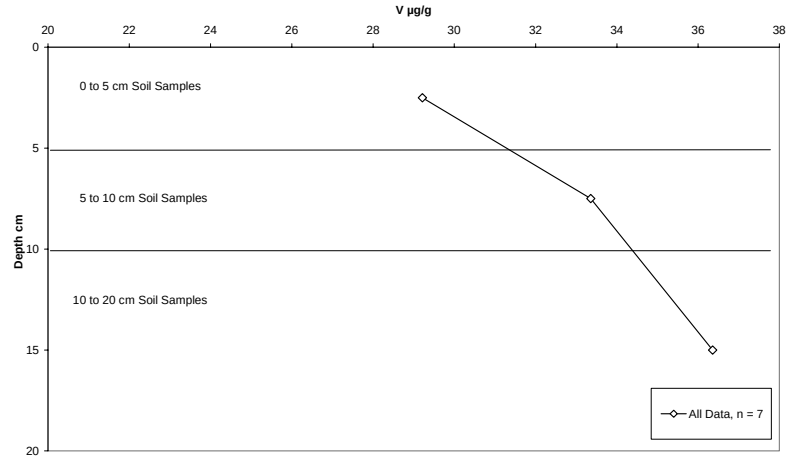

Figure 10.5.7.11: Undisturbed Natural Soil, V depth profile, all data.

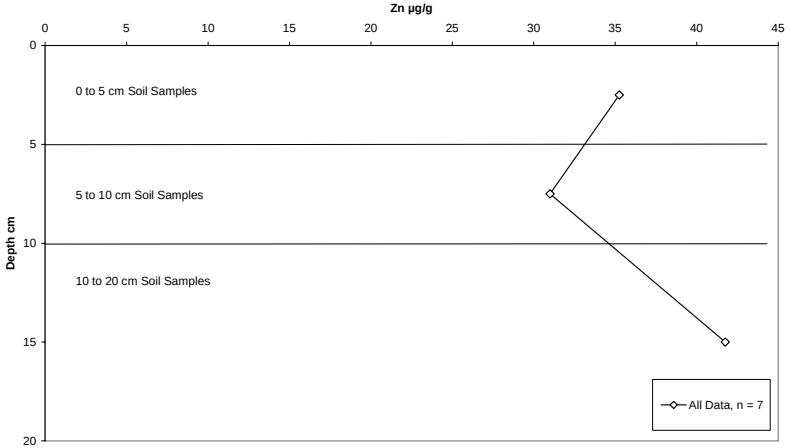

Figure 10.5.7.12: Undisturbed Natural Soil, Zn depth profile, all data.

City of Greater Sudbury 2001 Urban Soil Survey

Appendix A

Residential Yard and Vegetable Garden

Results

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1. METHODS

During the months of September and October of 2001, Ministry representatives collected soil from front and back yards of 51 properties in Falconbridge, 75 properties in Coniston, and 74 properties in Copper Cliff. Garden produce and soil was also sampled at a subset of the residential properties sampled in each community. Six gardens were sampled in Falconbridge, 15 gardens were sampled in Coniston, 9 gardens in Copper Cliff, and 3 gardens each in Gatchell and Lively. Soil samples were also collected from front or back yards from 239 properties throughout the City of Greater Sudbury. Duplicate samples at 0 to 5 cm, 5 to 10 cm and 10 to 20 cm depths where possible, were collected from each yard according to Ministry protocol (MOE 1993). Garden soil samples were collected in duplicate as a 0-15 cm core to represent the homogenous nature of the cultivated area. Produce was collected in duplicate where available but in most cases, there was only enough produce for a single sample.

Soil samples were delivered to the Ministry Phytotoxicology laboratory where they were organized and shipped to Agat Laboratories for processing (MOE 2000, Appendix F). Agat followed MOE Standard Operating Procedures which included air drying and sieving samples to obtain the 2 mm size fraction, and then further grinding the sample using a mortar and pestle to pass though a Number 45 mesh (0.355 mm) sieve. Finally, the ground material was stored in glass jars. All soil samples were sent to Lakefield Laboratory for the same parameter analyses as the vegetation, except for S, B, Cl, and K. MOE data management and quality control procedures for both sample processing and metals analysis carried out by contract laboratories is outlined in Appendix F.

Vegetation samples were delivered to the Ministry Phytotoxicology laboratory for processing (MOE 2000b). The protocol for vegetation processing includes washing the produce with tap water as would be done in the home prior to consumption. All produce samples were treated in this fashion. The chopped washed vegetables were oven dried and ground in a Wiley™ mill. The ground material was then stored in glass jars until submitted for analysis. All produce samples were forwarded to Laboratory Services Branch, MOE, for chemical analysis including: arsenic(As), aluminum (Al), barium (Ba), beryllium (Be), calcium (Ca), cadmium (Cd), cobalt (Co), copper (Cu), chromium (Cr), iron (Fe), magnesium (Mg), manganese (Mn), molybdenum (Mo), nickel (Ni), lead (Pb), selenium (Se), strontium (Sr), vanadium (V), and zinc (Zn). In addition, the vegetation analytical suite included sulphur (S), boron (B), chlorine (Cl), and potassium (K).

Interpretation of the produce results was based on comparisons with data from commercial market garden and commercial berry results from the City of Greater Sudbury (Appendix D). Soil data were compared with the Ministry Table F Soil Background Guidelines and Table A Soil Clean-up Guidelines (MOE 1997). All of the data presented within this report will be used to support the Human Health Risk Assessment that will be conducted for the City of Greater Sudbury.

2. RESULTS SUMMARY TABLES

The summary results and the full results in Section 3 are organized in the same manner. All of the results are organized by communities or groups of communities. The communities/groups are:

Coniston	
Copper Cliff	
Falconbridge	
Sudbury Core	(Flour Mill, Gatchell, Little Britain, Northern Heights)
Greater Sudbury Area consists of:	
Sudbury East	(Minnow Lake, Adamsdale, Moonlight Beach)
Sudbury New	(Barry Downe, New Sudbury, Nickeldale, San Francisco)
Sudbury South	(Robinson, Lockerby, Laurentian, Lo-Ellen)
Outer communities	(Azilda,Garson, Lively, Skead)

In each table the results are organized by community and then alphabetically by street name. The residential yard soil data for each community is given first. This is followed by the residential garden vegetables and garden soil result data. For all summary calculations the "<" results were used as reported in Section 3.

Table A2.1: Summary of the number of residential properties sampled in each community and the number of residential properties with at least one sample exceeding the Table F and Table A MOE Soil Criteria (MOE 1997) from the City of Greater Sudbury 2001 survey.

	Number of Properties	Number of Nickel Exceedences		Number of Copper Exceedences		Number of Cobalt Exceedences		Number of Arsenic Exceedences		Number of Lead Exceedences	
Community		**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**
Coniston	75 (15 gardens)	75	56	66	44	66	10	29	22	18	4
Copper Cliff	73 (9 gardens)	73	73	73	73	70	39	64	52	44	23
Falconbridge	50 (6 gardens)	50	50	49	49	46	45	49	49	23	8
Sudbury Core	78 (3 gardens)	78	70	60	59	20	7	15	9	13	3
Inner Sudbury Total:	**155**	**154**	**46**	**88**	**11**	**5**	**1**	**5**	**3**	**5**	**3**
New Sudbury	43	43	11	30	2	1	0	0	0	0	0
East Sudbury	29	29	11	19	3	1	1	4	2	2	1
South Sudbury	31	31	9	19	6	1	0	1	1	2	1
Lively	21 (3 gardens)	21	11	13	0	0	0	0	0	1	1
Azilda	15	14	2	2	0	0	0	0	0	0	0
Garson	16	16	2	6	0	0	0	0	0	0	0
Skead	6	4	0	1	0	0	0	0	0	0	0

2.1 Coniston Residential Yard Results Summary

Table A2.1.1: Number of Residential Properties in Coniston where at least one sample exceeded the MOE Table F or Table A soil criteria.

	Number of Properties	Number of Nickel Exceedences		Number of Copper Exceedences		Number of Cobalt Exceedences		Number of Arsenic Exceedences		Number of Lead Exceedences	
Community		**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**
Coniston	75 (15 gardens)	75	56	66	44	66	10	29	22	18	4

Table A2.1.2: Summary Statistics for 0-5 cm Soil Samples from Coniston Residential Yards, Excluding Garden Properties

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5400	0.4	2.5	20	0.3	0.4	1400	18	3.0	14	8500	6	1500	88	0.8	25	0.5	10	18	17
10th	7060	0.4	2.5	35	0.3	0.4	2900	22	6.0	50	12000	13	2000	130	0.8	60	0.5	20	22	28
1st quartile	8150	0.4	2.5	42	0.3	0.4	3900	26	7.0	65	13000	18	2300	160	0.8	82	0.5	26	25	35
Median	9400	0.4	7.0	53	0.3	0.4	5300	29	11	150	15000	32	2700	180	0.8	200	0.5	33	27	53
3rd quartile	11000	0.4	13	67	0.3	0.9	7300	34	20	320	17000	68	3200	210	0.8	450	2.0	39	30	83
95th	14000	1.0	33	90	0.3	1.8	11000	44	45	807	24700	150	4070	250	1.5	1200	3.0	47	35	140
Maximum	20000	3.0	47	180	0.5	2.7	33000	75	74	1200	33000	400	6900	320	2.9	1900	5.0	86	44	250
Mean	9709	0.5	10	56	0.3	0.7	5999	31	16	246	15483	52	2833	183	0.8	336	1.2	33	27	64
Geometric mean	9457	0.5	7.5	53	0.3	0.6	5323	30	13	154	15052	36	2748	179	0.8	203	0.9	32	27	55
Sample std. dev.	2309	0.3	9.1	21	0.0	0.5	3400	8	13	253	3891	52	738	40	0.2	360	1.0	10	4	38
CV (std. dev./mean)	24%	64%	88%	37%	17%	72%	57%	27%	82%	103%	25%	99%	26%	22%	27%	107%	84%	29%	16%	60%
Lower CI for the mean	9440	0.5	9	54	0.3	0.6	5603	30	15	217	15030	46	2747	178	0.8	294	1.0	32	27	59
Upper CI for the mean	9977	0.5	11	59	0.3	0.7	6394	32	18	275	15936	58	2919	187	0.8	378	1.3	34	28	68
Kurtosis	1.5	28.4	2.9	5.6	27.4	2.5	19.1	7.2	2.8	2.6	2.4	9.5	4.3	0.4	37.3	3.1	3.1	3.8	0.7	3.0
Skewness	1.0	4.8	1.7	1.7	5.4	1.8	3.2	2.0	1.8	1.7	1.3	2.6	1.4	0.5	5.4	1.8	1.7	0.8	0.5	1.5

n = 287 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.1.3: Summary Statistics for 5-10 cm Soil Samples from Coniston Residential Yards, Excluding Garden Properties

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5300	0.4	2.5	21	0.3	0.4	1500	16	3	17	6500	5	1400	84	0.8	26	0.5	10	18	16
10th	7120	0.4	2.5	31	0.3	0.4	2500	21	5	42	11000	10	1800	130	0.8	51	0.5	19	22	22
1st quartile	8100	0.4	2.5	38	0.3	0.4	3200	24	7	62	13000	14	2000	140	0.8	79	0.5	24	24	29
Median	9500	0.4	8	47	0.3	0.4	4000	27	10	130	15000	25	2300	170	0.8	170	0.5	32	27	40
3rd quartile	11000	0.4	15	65	0.3	0.4	5500	31	18	330	17000	51	2800	200	0.8	440	1.5	38	30	64
95th	14800	1.2	29	95	0.3	0.9	8300	39	31	640	20000	130	3900	260	0.8	900	3.0	49	36	110
Maximum	21000	5.3	53	200	0.5	1.2	37000	57	46	920	23000	270	6500	310	2.1	1200	4.0	86	44	260
Mean	9849	0.5	11	54	0.3	0.5	4700	28	13	221	14974	42	2534	177	0.8	293	1.0	32	28	51
Geometric mean	9574	0.5	8	49	0.3	0.4	4169	27	11	143	14653	28	2445	172	0.8	187	0.8	30	27	43
Sample std. dev.	2422	0.4	9	24	0.0	0.2	3188	6	8	202	3068	44	722	44	0.2	274	0.8	10	5	32
CV (std. dev./mean)	25%	81%	85%	45%	16%	38%	68%	23%	64%	92%	21%	105%	29%	25%	22%	94%	78%	33%	17%	64%
Lower CI for the mean	9566	0.5	10	51	0.3	0.4	4327	27	12	197	14616	37	2450	172	0.8	261	0.9	30	27	47
Upper CI for the mean	10132	0.6	12	56	0.3	0.5	5072	29	14	245	15332	48	2619	182	0.8	325	1.1	33	28	54
Kurtosis	1.8	57.0	2.2	6.4	31.2	5.2	50.1	3.1	1.3	0.9	0.0	5.7	3.4	0.1	24.7	1.0	1.8	2.8	0.4	8.3
Skewness	1.0	6.3	1.4	1.9	5.7	2.6	5.8	1.3	1.3	1.2	0.2	2.2	1.4	0.6	5.0	1.3	1.5	0.8	0.5	2.2

n = 257 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.1.4: Summary Statistics for 10-20 cm Soil Samples from Coniston Residential Yards, Excluding Garden Properties

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4900	0.4	2.5	19	0.3	0.4	1400	16	4	17	8500	4	1200	79	0.8	22	0.5	10	17	10
10th	6700	0.4	2.5	31	0.3	0.4	2400	20	6	42	11000	7	1700	120	0.8	54	0.5	18	22	19
1st quartile	7600	0.4	2.5	37	0.3	0.4	2800	23	8	78	12000	14	2000	140	0.8	97	0.5	24	24	26
Median	9200	0.4	8	50	0.3	0.4	3600	26	10	155	14000	29	2300	170	0.8	190	0.5	30	27	38
3rd quartile	11000	0.4	14	69	0.3	0.4	4900	31	16	330	16000	60	2900	200	0.8	390	1.0	39	30	59
95th	15000	1.0	23	110	0.3	0.4	7895	39	22	510	20000	150	4200	280	0.8	659	3	50	37	120
Maximum	19000	2.7	55	200	0.5	1.0	30000	45	43	1100	28000	280	5300	360	2	1400	9	78	42	210
Mean	9569	0.5	10	57	0.3	0.4	4297	27	12	215	14651	44	2517	176	0.8	268	1.0	31	27	49
Geometric mean	9242	0.5	8	52	0.3	0.4	3786	26	11	150	14293	29	2407	170	0.8	188	0.8	29	27	40
Sample std. dev.	2632	0.3	7	29	0.0	0.1	3055	6	7	178	3377	45	790	48	0.1	224	0.9	11	5	34
CV (std. dev./mean)	28%	66%	75%	51%	18%	24%	71%	23%	54%	83%	23%	101%	31%	27%	17%	84%	93%	34%	17%	70%
Lower CI for the mean	9260	0.5	9	54	0.3	0.4	3938	26	11	194	14254	39	2424	171	0.8	242	0.9	30	27	45
Upper CI for the mean	9878	0.5	11	61	0.3	0.4	4656	28	13	236	15048	50	2610	182	0.8	295	1.1	32	28	53
Kurtosis	1.4	20.4	4.9	4.6	23.7	18.0	34.7	0.3	3.6	3.4	1.6	4.7	0.8	0.6	27.1	3.7	21.7	0.6	0.4	4.7
Skewness	1.1	4.3	1.6	1.9	5.1	4.4	5.0	0.8	1.6	1.5	1.0	2.0	1.1	0.8	5.4	1.6	3.6	0.5	0.5	2.0

n = 282 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

2.2 Copper Cliff Residential Yard Results Summary

Table A2.2.1: Number of Residential Properties in Copper Cliff where at least one sample exceeded the MOE Table F or Table A soil criteria.

	Number of Properties	Number of Nickel Exceedences		Number of Copper Exceedences		Number of Cobalt Exceedences		Number of Arsenic Exceedences		Number of Lead Exceedences	
Community		**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**
Copper Cliff	73 (9 gardens)	73	73	73	73	70	39	64	52	44	23

Table A2.2.2: Summary Statistics for 0-5 cm Soil Samples from Copper Cliff Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	6200	0.4	2.5	28	0.3	0.4	2600	20	6	65	11000	10	2000	110	0.7	71	0.5	16	17	23
10th	8700	0.4	7	45	0.3	0.4	4450	29	13	395	14000	30	2600	160	0.8	320	2	23	25	44
1st quartile	9600	0.4	10	53	0.3	0.9	5700	33	18	690	16000	43	3200	180	0.8	530	4	31	28	56
Median	11000	0.4	15	68	0.3	1.4	7550	38	29	1200	19000	70	3800	210	0.8	885	6	39	31	80
3rd quartile	13000	0.4	23	91	0.3	2.2	11000	46	42	2000	23000	120	4400	230	1.6	1300	11	44	34	130
95th	15000	1.0	44	128	0.3	3.4	21000	60	75	3075	32750	220	8000	270	2.4	2375	16	52	38	188
Maximum	19000	2.2	72	180	0.3	5.2	82000	93	100	5600	49000	410	17000	450	3.8	3200	49	71	51	250
Mean	11227	0.5	18	74	0.3	1.6	9629	40	33	1440	20515	91	4282	208	1.2	1017	8	38	31	95
Geometric mean	11027	0.5	15	70	0.2	1.3	8083	39	28	1105	19667	71	3957	204	1.0	803	6	36	31	83
Sample std. dev.	2136	0.3	12	28	0.0	1.0	8183	11	20	994	6286	70	2108	41	0.6	658	6	10	5	48
CV (std. dev./mean)	19%	54%	67%	38%	0%	61%	85%	28%	60%	69%	31%	77%	49%	20%	55%	65%	78%	26%	15%	51%
Lower CI for the mean	10968	0.5	17	71	0.3	1.5	8640	39	31	1320	19755	82	4027	203	1.1	937	7	36	30	89
Upper CI for the mean	11485	0.5	20	78	0.3	1.7	10619	42	36	1560	21275	99	4537	213	1.2	1096	9	39	32	101
Kurtosis	0.3	14.8	1.6	1.6		0.1	42.6	3.8	0.9	2.3	1.4	5.1	12.5	4.2	2.2	0.7	10.7	0.2	0.8	0.2
Skewness	0.5	3.6	1.3	1.2		0.7	5.5	1.5	1.1	1.3	1.1	2.0	3.1	0.8	1.6	1.0	2.4	0.0	0.1	0.9

n = 266 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.2.3: Summary Statistics for 5-10 cm Soil Samples from Copper Cliff Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	6900	0.4	2.5	28	0.3	0.4	2100	20	5	58	8100	8	1700	84	0.8	54	0.5	11	20	21
10th	9100	0.4	7	45	0.3	0.4	3700	28	12	283	15000	21	2500	160	0.8	253	2	22	26	36
1st quartile	10000	0.4	11	59	0.3	0.4	4400	31	15	495	16000	36	2900	180	0.8	400	2	30	29	48
Median	12000	0.4	18	79	0.3	0.8	6050	38	21	705	19000	60	3400	220	0.8	625	4	37	33	69
3rd quartile	15000	0.8	29	105	0.3	1.2	7750	46	31	1100	24000	100	4000	250	0.8	950	5	46	38	94
95th	19000	1.5	50	140	0.3	2.0	12000	56	46	1700	28850	190	5585	319	1.6	1785	8	55	42	149
Maximum	25000	4.9	94	290	0.3	3.7	37000	90	70	2800	41000	330	12000	350	2.0	3100	14	90	46	210
Mean	12725	0.6	22	87	0.3	0.9	6722	39	24	817	20309	77	3594	219	0.8	747	4	37	33	75
Geometric mean	12337	0.5	17	79	0.2	0.7	6077	38	21	673	19728	59	3453	213	0.8	595	3	36	33	67
Sample std. dev.	3222	0.5	15	40	0.0	0.6	3589	10	12	474	4956	58	1173	50	0.2	501	2	12	6	36
CV (std. dev./mean)	25%	82%	66%	46%	0%	67%	53%	26%	50%	58%	24%	75%	33%	23%	29%	67%	58%	32%	17%	48%
Lower CI for the mean	12334	0.6	20	82	0.3	0.8	6286	38	22	760	19708	70	3451	213	0.8	686	4	36	33	71
Upper CI for the mean	13117	1	24	92	0.3	0.9	7158	40	25	875	20911	84	3736	225	0.8	808	4	39	34	80
Kurtosis	0.1	24.0	2.5	5.6		3.2	20.3	1.9	0.9	1.2	1.1	2.7	14.9	0.1	12.3	2.4	1.7	1.6	-0.8	0.8
Skewness	0.7	4.0	1.3	1.8		1.5	3.3	0.9	1.0	1.0	0.7	1.5	3.0	0.3	3.7	1.4	1.1	0.6	0.1	1.0

n = 264 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.2.4: Summary Statistics for 10-20 cm Soil Samples from Copper Cliff Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5800	0.4	3	30	0.3	0.4	1700	19	6	68	11000	6	2000	110	0.8	96	0.5	11	19	16
10th	8900	0.4	8	51	0.3	0.4	3500	26	10	223	14000	20	2500	160	0.8	230	1.0	23	26	36
1st quartile	10000	0.4	12	64	0.3	0.4	4300	31	14	365	17000	34	2800	180	0.8	360	2	30	29	45
Median	12000	0.4	19	87	0.3	0.4	5600	37	20	590	19500	68	3300	215	0.8	570	3	38	34	63
3rd quartile	15000	1.1	33	120	0.3	0.9	7000	44	27	845	22000	120	3900	260	0.8	800	4	46	38	91
95th	18000	2.0	56	170	0.3	1.3	10850	51	38	1300	27000	240	5500	320	2	1200	6	59	43	167
Maximum	23000	5.8	99	720	0.6	1.9	14000	85	46	2000	59000	610	8800	560	3	1900	11	95	54	310
Mean	12552	0.8	24	97	0.3	0.6	5904	38	21	630	19871	93	3522	225	0.8	619	3	39	34	75
Geometric mean	12164	0.6	19	87	0.3	0.6	5500	37	19	528	19319	65	3398	217	0.8	527	2	37	33	65
Sample std. dev.	3133	0.7	16	55	0.0	0.3	2251	9	9	348	5109	85	1026	61	0.3	335	2	13	6	45
CV (std. dev./mean)	25%	85%	67%	57%	10%	55%	38%	24%	42%	55%	26%	91%	29%	27%	35%	54%	57%	33%	17%	60%
Lower CI for the mean	12172	0.7	22	90	0.2	0.6	5631	37	20	588	19251	83	3397	218	0.8	579	3	37	33	70
Upper CI for the mean	12933	0.9	26	104	0.3	0.7	6177	39	22	672	20491	104	3647	232	0.9	660	3	40	34	81
Kurtosis	0.1	13.3	2.2	60.1	132.2	0.7	1.4	1.8	-0.4	0.8	15.6	7.4	4.7	2.9	20.6	1.0	2.3	1.8	-0.1	6.0
Skewness	0.5	2.9	1.3	5.7	11.5	1.3	1.0	0.6	0.5	0.8	2.5	2.2	1.8	1.0	4.4	0.9	1.1	0.7	0.2	2.1

n = 264 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

2.3 Falconbridge Residential Yard Results Summary

Table A2.3.1: Number of Residential Properties in Falconbridge where at least one sample exceeded the MOE Table F or Table A soil criteria.

	Number of Properties	Number of Nickel Exceedences		Number of Copper Exceedences		Number of Cobalt Exceedences		Number of Arsenic Exceedences		Number of Lead Exceedences	
Community		**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**
Falconbridge	50 (6 gardens)	50	50	49	49	46	45	49	49	23	8

Table A2.3.2: Summary Statistics for 0-5 cm Soil Samples for Falconbridge Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4900	0.4	2.5	15	0.3	0.4	1600	11	5	31	9200	6	1500	69	0.8	37	0.5	11	10	15
10th	7080	0.4	11	32	0.3	0.4	4380	28	11	87	13000	17	2100	140	0.8	140	0.5	21	24	33
1st quartile	7900	0.4	31	41	0.3	1.5	5900	33	32	460	16000	42	2400	160	0.8	550	1.0	27	26	56
Median	9000	0.4	52	51	0.3	2.2	7500	41	51	810	21000	71	2700	180	2.4	850	2	34	29	71
3rd quartile	10000	0.4	110	58	0.3	3.0	9600	52	75	1200	27000	130	3200	200	3.9	1300	4	39	33	100
95th	12000	1.2	190	71	0.3	4.5	13000	73	111	1910	38000	200	4010	240	8.1	2110	6	45	38	151
Maximum	17000	3.8	300	86	0.3	6.7	40000	100	190	3000	49000	370	5700	290	14	3700	12	51	44	240
Mean	9059	0.5	74	50	0.3	2.3	8167	45	56	874	22025	88	2864	182	2.9	956	3	33	30	80
Geometric mean	8904	0.5	50	48	0.2	1.9	7419	42	44	610	20709	65	2792	178	2.2	705	2	31	29	71
Sample std. dev.	1686	0	59	13	0.0	1.2	4330	15	33	590	7903	67	674	34	2.3	636	2	8	5	41
CV (std. dev./mean)	19%	85%	81%	26%	0%	53%	53%	34%	60%	68%	36%	76%	24%	19%	79%	67%	69%	25%	17%	51%
Lower CI for the mean	8823	0.5	65	48	0.3	2.1	7561	42	51	791	20917	79	2770	177	2.6	867	2	31	29	74
Upper CI for the mean	9296	1	82	52	0.3	2.5	8774	47	61	956	23132	98	2959	186	3.2	1045	3	34	30	86
Kurtosis	1.7	25.9	1.5	0.0		0.2	25.9	0.5	1.0	0.9	0.9	2.7	2.5	0.3	3.1	1.6	4.1	-0.4	0.8	2.5
Skewness	0.5	4.7	1.2	0.0		0.4	4.0	0.8	0.8	0.8	0.9	1.4	1.1	0.2	1.6	1.0	1.5	-0.3	0.1	1.3

n = 171 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.3.3: Summary Statistics for 5-10 cm Soil Samples for Falconbridge Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4700	0.4	2.5	22	0.3	0.4	2500	17	5	10	10000	4	1500	110	0.8	22	0.5	13	19	14
10th	7800	0.4	21	31	0.3	0.4	3400	25	12	148	12800	16	1900	130	0.8	176	0.5	21	25	28
1st quartile	8800	0.4	37	38	0.3	0.4	4500	29	23	320	15000	27	2100	150	0.8	450	1.0	26	27	41
Median	9800	0.4	77	49	0.3	1.2	6600	36	38	600	20000	57	2400	180	0.8	780	3	31	31	59
3rd quartile	11000	0.4	160	58	0.3	1.8	9450	46	61	1100	26000	120	2700	220	0.8	1100	4	38	35	89
95th	13000	1.2	321	74	0.3	3.4	13000	75	111	2010	40000	220	3300	300	2	2210	6	44	41	140
Maximum	15000	8.1	570	89	0.5	4.8	33000	120	150	3000	49000	340	3900	380	9	3100	11	50	56	210
Mean	9828	0.6	113	49	0.3	1.4	7326	40	44	785	21719	81	2430	192	1.0	885	3	32	31	68
Geometric mean	9685	0.5	70	47	0.3	1.1	6577	37	34	530	20154	55	2390	185	0.9	635	2	30	31	59
Sample std. dev.	1648	0.8	108	14	0.0	1.0	3654	17	30	617	8878	68	447	52	0.8	635	2	8	6	36
CV (std. dev./mean)	17%	136%	95%	28%	7%	70%	50%	42%	68%	79%	41%	84%	18%	27%	74%	72%	67%	26%	19%	54%
Lower CI for the mean	9597	0.5	98	47	0.2	1.2	6814	38	40	698	20474	72	2367	185	0.9	796	3	30	31	62
Upper CI for the mean	10059	0.7	129	51	0.3	1.5	7838	42	49	871	22963	91	2493	199	1.1	974	3	33	32	73
Kurtosis	0.5	53.8	2.8	-0.4	199	1.2	11.3	5.1	1.1	1.4	0.8	0.9	0.8	0.7	52.4	1.5	1.7	-0.6	1.6	1.4
Skewness	0.1	6.8	1.6	0.2	14.1	1.2	2.2	2.0	1.2	1.3	1.1	1.2	0.6	1.0	5.9	1.2	1.1	-0.2	0.9	1.1

n = 171 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.3.4: Summary Statistics for 10-20 cm Soil Samples for Falconbridge Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5200	0.4	2.5	24	0.3	0.4	2000	17	5	13	10000	4	1400	97	0.8	25	0.5	12	17	15
10th	7800	0.4	17	32	0.3	0.4	3200	22	9	94	12000	11	1700	130	0.8	140	0.5	21	24	22
1st quartile	8700	0.4	28	39	0.3	0.4	3900	27	13	160	13000	18	2000	150	0.8	240	1.0	25	27	31
Median	9900	0.4	55	47	0.3	0.4	5300	32	20	310	16000	32	2200	170	0.8	410	2	31	30	43
3rd quartile	11000	0.4	130	60	0.3	1.1	6700	39	31	530	20000	71	2500	210	0.8	620	3	36	34	61
95th	13000	1.0	252	78	0.3	1.9	10100	52	56	1010	28100	150	3030	301	2	1200	5	43	41	95
Maximum	20000	1.4	620	110	0.3	3.4	30000	110	110	2000	38000	230	7500	400	6	2500	8	55	73	140
Mean	9963	0.5	90	49	0.3	0.8	5819	34	25	401	17276	50	2329	185	0.9	493	2	31	31	49
Geometric mean	9782	0.4	56	47	0.2	0.7	5264	32	21	282	16562	34	2271	177	0.8	373	2	29	30	43
Sample std. dev.	1935	0.2	92	15	0.0	0.6	3106	11	18	338	5457	44	598	57	0.6	389	2	8	6	24
CV (std. dev./mean)	19%	45%	102%	31%	0%	70%	54%	34%	72%	84%	32%	89%	26%	31%	68%	79%	77%	27%	20%	49%
Lower CI for the mean	9692	0.4	77	47	0.3	0.7	5383	32	23	354	16512	44	2245	177	0.8	438	2	30	30	45
Upper CI for the mean	10234	0.5	103	51	0.3	0.9	6254	35	28	449	18041	56	2412	193	1.0	547	2	32	32	52
Kurtosis	3.2	9.6	7.3	1.1		4.2	19.9	11.6	7.1	3.5	2.6	1.3	28.3	1.4	46.0	7.0	2.7	0.2	11.3	0.5
Skewness	0.9	3.2	2.3	0.9		1.9	3.4	2.5	2.3	1.7	1.5	1.4	3.8	1.3	6.3	2.2	1.6	0.1	2.1	1.0

n = 199 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

2.4 Sudbury Core Residential Yard Results Summary

Table A2.4.1: Number of Residential Properties in Sudbury Core where at least one sample exceeded the MOE Table F or Table A soil criteria.

	Number of Properties	Number of Nickel Exceedences		Number of Copper Exceedences		Number of Cobalt Exceedences		Number of Arsenic Exceedences		Number of Lead Exceedences	
Community		**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**
Sudbury Core	78 (3 gardens)	78	70	60	59	20	7	15	9	13	3

Table A2.4.2: Summary Statistics for 0-5 cm Soil Samples for Sudbury Core Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5900	0.4	2.5	25	0.3	0.4	1500	20	4	28	11000	7	1500	120	0.8	33	0.5	15	20	17
10th	7730	0.4	5	34	0.3	0.4	3330	26	8	113	13000	18	2200	150	0.8	123	0.5	23	24	34
1st quartile	8600	0.4	6	46	0.3	0.4	4000	29	11	200	14000	31	2500	170	0.8	195	1.0	28	27	46
Median	10000	0.4	9	60	0.3	0.9	5150	34	15	315	17000	50	2900	200	0.8	300	2	37	29	74
3rd quartile	12000	0.4	13	86	0.3	1.3	6750	42	21	475	19000	86	3500	230	0.8	465	2	43	33	110
95th	14000	1.1	21	120	0.3	2.2	10850	56	44	920	27000	160	4400	300	0.8	1043	5	49	38	179
Maximum	17000	2.7	34	210	0.3	4.1	15000	110	75	1600	36000	320	6000	1200	3.2	2000	9	84	42	230
Mean	10316	0.5	10	68	0.3	1.0	5730	37	18	392	17386	67	3039	216	0.8	400	2	37	30	84
Geometric mean	10084	0.5	9	62	0.2	0.8	5283	36	15	301	16876	51	2953	205	0.8	306	1.5	35	30	72
Sample std. dev.	2201	0	6	30	0.0	0.7	2395	13	11	292	4488	52	747	104	0.2	321	1.4	11	5	46
CV (std. dev./mean)	21%	60%	58%	44%	0%	74%	42%	34%	63%	75%	26%	78%	25%	48%	28%	81%	76%	29%	15%	55%
Lower CI for the mean	9995	0.4	10	64	0.3	0.9	5381	35	16	349	16731	60	2930	201	0.7	353	2	35	29	77
Upper CI for the mean	10637	0.5	11	73	0.3	1.1	6079	39	20	434	18040	75	3148	232	0.8	446	2	38	31	91
Kurtosis	-0.1	21.3	3.1	1.9		3.0	1.1	7.9	4.7	3.7	2.3	4.4	1.3	52.9	84.8	5.2	5.5	1.8	-0.4	0.0
Skewness	0.4	4.2	1.6	1.1		1.6	1.1	2.2	1.9	1.7	1.3	1.8	0.9	6.4	8.7	2.0	2.0	0.5	0.3	0.8

n = 156 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.4.3: Summary Statistics for 5-10 cm Soil Samples for Sudbury Core Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5100	0.4	2.5	18	0.3	0.4	1500	18	4	17	9400	5	1400	110	0.8	23	0.5	10	20	16
10th	7500	0.4	5	30	0.3	0.4	2600	23	6	68	12000	10	2000	140	0.8	79	0.5	21	24	24
1st quartile	8300	0.4	5	41	0.3	0.4	3200	27	8	120	14000	17	2300	160	0.8	120	1.0	27	26	30
Median	10000	0.4	9	60	0.3	0.4	4000	31	11	200	15000	34	2700	190	0.8	227	1.0	34	30	61
3rd quartile	12000	0.4	13	78	0.3	0.4	5400	37	14	290	18000	64	3100	230	0.8	330	2	41	33	84
95th	14000	1.0	18	120	0.3	1.1	8990	50	20	449	21000	140	3900	300	0.8	519	3	51	39	150
Maximum	20000	1.4	24	160	0.3	1.5	14000	59	36	830	26000	310	6600	480	2	970	5	71	46	210
Mean	10234	0.5	10	63	0.3	0.5	4647	32	12	219	15711	48	2773	201	0.8	248	1.3	34	30	66
Geometric mean	9946	0.4	9	57	0.2	0.5	4220	31	11	176	15437	33	2684	194	0.8	199	1.1	33	29	55
Sample std. dev.	2514	0.2	5	29	0.0	0.3	2270	8	5	139	2978	44	759	55	0.1	160	0.8	10	5	41
CV (std. dev./mean)	25%	45%	48%	46%	0%	52%	49%	26%	44%	64%	19%	92%	27%	27%	19%	65%	59%	29%	15%	62%
Lower CI for the mean	9865	0.4	9	59	0.3	0.5	4314	31	11	199	15274	41	2661	193	0.8	225	1.2	33	29	60
Upper CI for the mean	10602	0.5	10	67	0.3	0.5	4980	33	12	240	16148	54	2884	209	0.8	272	1.4	36	30	72
Kurtosis	1.9	8.1	-0.3	0.9		4.2	3.7	0.8	3.4	3.5	-0.1	7.6	5.9	4.3	52.2	3.4	2.4	0.4	0.6	1.3
Skewness	1.0	3.1	0.6	1.0		2.3	1.8	0.9	1.4	1.4	0.5	2.2	1.8	1.5	7.1	1.4	1.3	0.3	0.6	1.1

n = 154 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.4.4: Summary Statistics for 10-20 cm Soil Samples for Sudbury Core Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4700	0.4	2.5	17	0.3	0.4	1400	18	5	17	9000	4	1300	110	0.8	30	0.5	11	19	10
10th	6800	0.4	5	32	0.3	0.4	2200	20	6	51	11000	8	2000	140	0.8	67	0.5	19	23	21
1st quartile	7600	0.4	5	40	0.3	0.4	2800	24	7	83	12000	15	2200	150	0.8	110	0.5	25	25	31
Median	9500	0.4	8	56	0.3	0.4	3650	29	9	140	15000	27	2600	180	0.8	170	1.0	32	28	52
3rd quartile	12000	0.4	10	83	0.3	0.4	4700	34	12	200	17000	53	3000	230	0.8	240	1.0	42	33	78
95th	16000	1.0	17	140	0.3	0.9	8785	50	18	410	24000	130	5295	330	0.8	489	2	52	41	159
Maximum	21000	2.0	22	240	0.3	1.3	13000	62	28	530	28000	470	8300	390	3	820	4	66	50	340
Mean	10117	0.5	8	67	0.3	0.4	4252	31	10	161	15212	44	2875	200	0.8	196	1.1	33	29	61
Geometric mean	9638	0.4	8	59	0.2	0.4	3821	29	9	129	14789	28	2714	191	0.8	160	0.9	32	29	49
Sample std. dev.	3330	0.2	4	39	0.0	0.2	2202	9	4	110	3783	52	1133	62	0.2	133	0.7	11	6	44
CV (std. dev./mean)	33%	49%	48%	58%	0%	36%	52%	31%	41%	68%	25%	119%	40%	31%	25%	68%	66%	33%	21%	72%
Lower CI for the mean	9629	0.4	8	62	0.3	0.4	3929	29	9	145	14657	36	2709	190	0.7	176	1.0	32	28	54
Upper CI for the mean	10605	0.5	9	73	0.3	0.5	4575	32	11	177	15766	52	3041	209	0.8	215	1.2	35	30	67
Kurtosis	1.7	13.3	1.5	3.3		12.1	3.3	1.4	3.1	1.8	0.9	25.3	5.7	0.8	94.8	4.9	4.5	-0.3	1.3	9.8
Skewness	1.2	3.5	1.3	1.6		3.6	1.8	1.2	1.5	1.4	1.1	4.1	2.2	1.1	9.4	1.9	2.0	0.3	1.1	2.4

n = 182 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

2.5 Inner Communities plus Skead Residential Yard Results Summary

Table A2.5.1: Number of Residential Properties in Inner Sudbury Communities where at least one sample exceeded the MOE Table F or Table A soil criteria.

	Number of Properties	Number of Nickel Exceedences		Number of Copper Exceedences		Number of Cobalt Exceedences		Number of Arsenic Exceedences		Number of Lead Exceedences	
Community		**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**	**Table F**	**Table A**
New Sudbury	43	43	11	30	2	1	0	0	0	0	0
East Sudbury	29	29	11	19	3	1	1	4	2	2	1
South Sudbury	31	31	9	19	6	1	0	1	1	2	1
Lively	21 (3 gardens)	21	11	13	0	0	0	0	0	1	1
Azilda	15	14	2	2	0	0	0	0	0	0	0
Garson	16	16	2	6	0	0	0	0	0	0	0
Inner Sudbury	**155**	**154**	**46**	**88**	**11**	**5**	**1**	**5**	**3**	**5**	**3**
Skead	6	4	0	1	0	0	0	0	0	0	0

Table A2.5.2: Summary Statistics for 0-5 cm Soil Samples for Inner Communities plus Skead Residential Yards

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5300	0.4	2.5	24	0.2	1700	17	4.0	20	7500	4	1800	120	0.8	30	0.5	14	17	15
10th	7600	0.4	2.5	33	0.4	3400	25	6.0	39	12000	9	2200	150	0.8	51	0.5	26	25	24
1st quartile	8800	0.4	2.5	39	0.4	3900	28	6.0	54	13000	12	2500	180	0.8	67	0.5	32	27	29
Median	10000	0.4	5.0	49	0.4	4800	31	8.0	78	14000	16	2900	200	0.8	87	0.5	37	30	35
3rd quartile	12000	0.4	7.0	62	0.4	5900	38	9.0	120	16000	25	3600	240	0.8	140	0.5	42	33	47
95th	15000	0.8	12	88	0.8	8075	47	15	210	20000	46	4700	310	1.5	265	1.0	50	38	71
Maximum	19000	2.5	30	130	2.0	18000	70	41	1400	27000	220	9200	450	6.4	1400	6.0	63	47	150
Mean	10644	0.5	5.4	53	0.4	5164	33	8.6	104	14752	22	3131	213	0.8	121	0.7	37	30	40
Geometric mean	10362	0.4	4.5	50	0.4	4851	32	8.0	81	14485	18	3014	207	0.8	97	0.6	36	30	37
Sample std. dev.	2488	0.2	3.8	19	0.2	2079	7	4.2	122	2951	23	968	53	0.4	128	0.5	8	5	19
CV (std. dev./mean)	23%	55%	70%	36%	42%	40%	22%	49%	117%	20%	104%	31%	25%	48%	106%	74%	22%	16%	46%
Lower CI for the mean	10372	0.4	5.0	51	0.4	4937	32	8.1	91	14430	20	3026	207	0.8	107	0.6	36	30	38
Upper CI for the mean	10915	0.5	5.9	55	0.5	5391	34	9.0	117	15074	25	3237	219	0.9	135	0.7	38	31	42
Kurtosis	0.3	37.8	8.2	1.2	30.1	10.8	1.6	25.8	57.7	2.8	31.9	10.4	2.1	124.9	55.2	61.7	0.0	0.8	8.9
Skewness	0.6	5.9	2.3	1.1	5.0	2.6	0.9	4.2	6.7	1.3	5.0	2.4	1.1	9.8	6.6	6.9	-0.1	0.5	2.4

n = 326 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.5.3: Summary Statistics for 5-10 cm Soil Samples for Inner Communities plus Skead Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5200	0.4	2.5	17	0.3	0.4	1200	17	4.0	8	7500	3	1600	110	0.8	17	0.5	13	17	9
10th	6900	0.4	2.5	29	0.3	0.4	2610	23	5.0	29	11000	6	2100	150	0.8	37	0.5	23	24	19
1st quartile	8400	0.4	2.5	36	0.3	0.4	3300	26	6.0	41	12000	9	2300	160	0.8	51	0.5	28	26	23
Median	10000	0.4	2.5	45	0.3	0.4	4200	30	7.0	59	14000	12	2850	190	0.8	69	0.5	34	30	28
3rd quartile	12000	0.4	7.0	59	0.3	0.4	5200	35	8.0	83	16000	16	3500	230	0.8	100	1.0	41	33	36
95th	16000	0.4	10	90	0.3	0.4	8170	46	11	140	20000	33	5295	320	0.8	160	1.0	49	42	63
Maximum	22000	6.5	34	150	0.5	1.0	22000	75	29	880	26000	310	10000	400	3.2	880	5.0	64	50	120
Mean	10527	0.5	5.0	50	0.3	0.4	4539	31	7.3	71	14527	17	3099	204	0.8	84	0.7	35	31	33
Geometric mean	10142	0.4	4.1	47	0.3	0.4	4181	31	7.0	58	14205	12	2944	197	0.8	72	0.7	33	30	30
Sample std. dev.	2925	0.4	3.9	21	0.0	0.1	2220	8	2.7	70	3178	29	1116	57	0.2	70	0.4	9	6	16
CV (std. dev./mean)	28%	90%	79%	42%	15%	19%	49%	25%	37%	98%	22%	171%	36%	28%	31%	83%	59%	25%	19%	48%
Lower CI for the mean	10206	0.4	4.6	48	0.3	0.4	4295	31	7.0	63	14178	14	2976	198	0.8	77	0.7	34	30	31
Upper CI for the mean	10849	0.5	5.4	53	0.3	0.4	4782	32	7.6	79	14876	20	3222	210	0.8	92	0.8	36	31	34
Kurtosis	0.4	167.1	18.4	3.6	35.8	33.0	20.0	3.7	20.0	86.5	1.5	65.4	8.0	0.8	38.0	73.5	43.5	-0.2	0.7	8.0
Skewness	0.7	12.2	3.3	1.6	6.1	5.8	3.5	1.4	3.4	8.2	1.0	7.7	2.2	1.0	5.7	7.2	5.2	0.2	0.7	2.4

n = 322 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.5.4: Summary Statistics for 10-20 cm Soil Samples for Inner Sudbury plus Skead Residential Yards

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4900	0.4	2.5	16	0.3	0.4	1400	15	4.0	6	8000	3	1500	100	0.8	16	0.5	13	17	9
10th	6200	0.4	2.5	25	0.3	0.4	2400	22	4.0	23	10000	4	2100	130	0.8	30	0.5	21	23	15
1st quartile	7850	0.4	2.5	35	0.3	0.4	3100	25	5.0	33	12000	6	2300	160	0.8	42	0.5	28	26	19
Median	10000	0.4	2.5	48	0.3	0.4	4000	29	7.0	48	14000	9	2900	200	0.8	57	0.5	34	30	26
3rd quartile	12000	0.4	6.0	67	0.3	0.4	5300	37	9.0	72	17000	14	3900	250	0.8	85	0.5	41	34	35
95th	18000	0.4	10	110	0.3	0.4	8625	50	12	130	22000	32	6425	330	0.8	163	1.0	53	44	59
Maximum	23000	3.9	21	160	0.5	0.8	24000	65	16	340	30000	150	11000	430	21	330	2.0	60	62	110
Mean	10557	0.4	4.7	54	0.3	0.4	4544	31	7.2	58	14722	13	3326	208	0.8	71	0.6	35	31	30
Geometric mean	9943	0.4	3.9	48	0.3	0.4	4086	30	6.8	48	14264	10	3093	199	0.8	60	0.6	33	30	27
Sample std. dev.	3757	0.3	3.2	27	0.0	0.0	2497	9	2.4	40	3840	15	1424	64	1.1	44	0.2	10	7	15
CV (std. dev./mean)	36%	60%	67%	50%	14%	12%	55%	30%	33%	68%	26%	113%	43%	31%	136%	62%	34%	29%	23%	52%
Lower CI for the mean	10141	0.4	4.3	51	0.3	0.4	4267	30	6.9	54	14297	11	3168	201	0.7	66	0.6	33	30	28
Upper CI for the mean	10974	0.5	5.0	57	0.3	0.4	4821	33	7.4	63	15148	15	3483	215	1.0	76	0.6	36	32	32
Kurtosis	0.7	113	4.6	1.9	48.7	59.2	16.7	1.5	1.1	11.3	1.6	33.5	4.9	0.3	302.9	5.0	8.6	-0.5	1.5	4.7
Skewness	0.9	9.9	1.9	1.3	7.1	7.8	3.1	1.1	0.9	2.5	1.0	5.0	1.9	0.8	17.2	1.9	2.6	0.2	0.9	1.9

n = 316 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

2.6 Residential Garden Results Summary

Table A2.6.1: Summary of All Coniston Residential Garden Vegetables

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1	5	0.1	120	0.5	0.2	2	16	0.5	540	2	0.2	1	0.2	0.6	0.5	6
10th	5	0.2	0.2	1	10	0.1	886	0.5	0.2	4	23	0.5	973	5	0.2	1	0.2	1.1	0.5	10
1st quartile	5	0.2	0.2	1	14	0.1	1400	0.5	0.2	5	35	0.5	1200	6	0.3	3	0.2	2.3	0.5	15
Median	14	0.2	0.2	3	18	0.1	2300	0.5	0.2	7	67	0.5	1800	11	0.5	7	0.2	7.2	0.5	22
3rd quartile	53	0.2	0.2	12	23	0.2	5450	0.7	0.3	11	110	0.5	3300	14	0.7	10	0.2	13	0.5	35
95th	213	0.2	0.6	37	34	0.6	19000	1.3	0.4	19	287	1.8	7120	32	3.5	27	0.5	34	0.5	79
Maximum	1100	0.2	1.0	60	43	0.8	21000	3.8	1.4	24	1600	110	12000	59	17	49	1.2	41	2.8	300
Mean	63	0.2	0.3	9	19	0.2	5268	0.7	0.3	9	122	3.1	2573	13	1.3	9	0.2	10	0.6	33
Geometric mean	20	0.2	0.2	3	17	0.2	2692	0.6	0.2	7	69	0.7	1993	10	0.6	6	0.2	5.7	0.5	24
Sample std. dev.	164	0.0	0.2	14	8	0.2	6237	0.5	0.2	5	233	16	2195	11	2.9	9	0.2	11	0.3	43
CV (std. dev./mean)	262%	0%	63%	149%	41%	80%	120%	73%	82%	63%	194%	515%	86%	87%	220%	107%	67%	106%	61%	131%
Lower CI for the mean	15	0.2	0.2	5	17	0.2	3438	0.6	0.2	7	53	-1.5	1929	10	0.5	6	0.2	7.1	0.5	21
Upper CI for the mean	111	0.2	0.3	13	21	0.3	7098	0.9	0.3	10	190	7.7	3217	16	2.2	12	0.3	13	0.7	46
Kurtosis	34.2		8.5	6.6	1.4	3.4	0.8	28.1	18.2	0.8	34.5	47.3	7.1	6.9	20.6	7.0	24.9	1.5	43.5	30.9
Skewness	5.6		2.9	2.5	1.0	2.0	1.5	4.9	4.2	1.3	5.6	6.9	2.4	2.5	4.4	2.5	4.7	1.5	6.5	5.2

n = 48 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.2: Summary Statistics for Residential Garden Soil from Coniston

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5500	0.4	2.5	33	0.4	2600	20	6	19	8900	4	1900	84	0.75	39	0.5	25	18	30
10th	7400	0.4	2.5	53	0.4	6320	23	6	54	1200	11	2780	190	0.75	61	0.5	34	21	33
1st quartile	8700	0.4	2.5	56	0.4	7300	27	7	60	1400	13	3050	225	0.75	84	0.5	39	26	46
Median	1100	0.4	6.0	72	0.4	8900	31	9	100	1500	22	3700	250	0.75	130	0.5	42	30	64
3rd quartile	1300	0.4	12	88	0.4	1250	34	15	245	1700	36	4050	280	0.75	315	0.5	48	34	105
95th	1300	0.4	18	110	0.4	1900	39	22	352	1800	108	5840	300	0.75	508	1.4	53	37	186
Maximum	1400	0.4	19	120	0.8	2400	40	24	400	2000	170	6600	320	0.75	570	2.0	54	38	210
Mean	1049	0.4	7.4	74	0.4	1013	30	11	142	1510	33	3693	244	0.75	190	0.6	42	29	83
Geometric mean	1023	0.4	5.7	70	0.4	9114	30	10	106	1485	23	3560	235	0.75	140	0.6	41	29	71
Sample std. dev.	2214	0.0	5.1	22	0.1	4651	5	5	107	2573	36	1030	54	0.00	155	0.4	7	5	49
CV (std. dev./mean)	21%	0%	70%	30%	18%	47%	18%	47%	77%	17%	111%	28%	22%	0%	83%	64%	18%	18%	61%
Lower CI for the mean	9633	0.4	5.4	65	0.4	8334	28	9	101	1410	19	3295	223	0.75	131	0.5	39	27	64
Upper CI for the mean	1134	0.4	9.3	82	0.4	1193	32	13	184	1609	47	4092	265	0.75	250	0.8	45	31	102
Kurtosis	-0.7		-0.3	-0.4	29.0	2.0	-0.3	0.8	-0.1	0.5	8.5	2.8	3.2		0.3	11.7	0.2	-0.4	0.8
Skewness	-0.4		0.8	0.3	5.4	1.2	-0.2	1.3	1.0	-0.7	2.9	1.2	-1.6		1.2	3.6	-0.5	-0.5	1.2

n = 29 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.3: Summary of All Copper Cliff Residential Garden Vegetables

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1	5	0.1	490	0.5	0.2	2	15	0.5	290	4	0.2	0.7	0.2	0.7	0.5	2
10th	5	0.2	0.2	1	5	0.1	842	0.5	0.2	5	26	0.5	418	6	0.2	1.5	0.2	1.1	0.5	5
1st quartile	7	0.2	0.2	3	7	0.1	1400	0.5	0.2	6	36	0.5	1100	13	0.2	5.3	0.2	2.2	0.5	12
Median	19	0.2	0.2	6	12	0.2	2300	0.5	0.2	8	73	0.5	1500	20	0.4	15	0.5	5.3	0.5	24
3rd quartile	135	0.2	0.6	13	20	0.3	5050	0.8	0.4	29	190	1.4	3300	39	1.1	33	1.5	17	0.5	45
95th	620	0.2	2.1	29	33	1.2	20600	2.5	2.2	109	1060	17	5860	120	6.3	75	8.1	43	1.6	91
Maximum	1900	0.4	9.0	58	45	2.0	31000	6.4	4.9	230	2400	38	6400	380	9.4	180	22	52	5.1	120
Mean	177	0.2	0.7	10	15	0.3	5573	1.0	0.6	27	264	2.9	2383	45	1.2	25	2.0	11	0.8	32
Geometric mean	34	0.2	0.4	6	12	0.2	3024	0.7	0.3	13	93	1.0	1729	23	0.5	11	0.7	5.6	0.6	21
Sample std. dev.	372	0.0	1.3	12	9	0.4	6908	1.2	0.9	43	507	7.2	1758	75	2.0	33	4.1	14	0.8	28
CV (std. dev./mean)	212%	14%	197%	114%	63%	130%	125%	124%	159%	160%	194%	249%	75%	166%	173%	135%	209%	121%	110%	90%
Lower CI for the mean	69	0.2	0.3	7	12	0.2	3569	0.6	0.3	15	117	0.8	1873	24	0.6	15	0.8	7.5	0.5	24
Upper CI for the mean	285	0.2	1.1	14	18	0.4	7578	1.3	0.8	40	411	5.0	2894	67	1.8	34	3.2	15	1.0	40
Kurtosis	12.3	49.0	33.4	7.1	0.8	9.0	3.4	14.0	12.4	10.4	11.4	14.7	-0.5	14.2	8.5	10.0	14.3	1.5	17.7	1.4
Skewness	3.4	7.0	5.4	2.4	1.1	3.0	1.9	3.7	3.4	3.0	3.3	3.8	0.8	3.7	3.0	2.8	3.7	1.6	4.1	1.4

n = 49 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.4: Summary Statistics for Residential Garden Soil from Copper Cliff

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	7700	0.4	2.5	38	0.4	5000	19	7	140	8600	16	2400	120	0.75	130	0.5	35	16	32
10th	9200	0.4	7.0	43	0.4	6300	26	8	230	12000	19	3000	160	0.75	200	1.0	37	22	40
1st quartile	10000	0.4	8.0	63	0.4	6800	27	11	280	13000	20	3200	180	0.75	275	1.5	39	25	43
Median	11000	0.4	16	77	0.4	8600	31	18	470	17000	69	3800	220	0.75	430	2.0	43	28	84
3rd quartile	12000	0.9	28	100	1.0	16000	35	21	700	19000	145	6000	240	0.75	615	3.0	48	31	130
95th	13000	1.4	38	270	1.9	34000	43	23	820	21000	530	7100	670	1.70	800	12	130	35	330
Maximum	13000	1.5	58	330	3.8	38000	64	110	5100	33000	640	7100	780	3.70	3700	36	160	38	380
Mean	11024	0.7	19	97	0.9	12681	32	20	682	16871	125	4462	264	0.94	578	5	53	28	114
Geometric mean	10913	0.6	14	82	0.7	10661	31	16	461	16181	66	4212	234	0.84	416	2	48	27	89
Sample std. dev.	1503	0.4	14	71	0.8	8661	9	21	1008	4972	165	1519	159	0.65	723	7.6	31	5	90
CV (std. dev./mean)	14%	53%	74%	75%	91%	70%	29%	104%	151%	30%	136%	35%	62%	71%	128%	171%	60%	20%	81%
Lower CI for the mean	10323	0.5	12	64	0.5	8641	28	11	212	14552	48	3754	190	0.63	241	1.0	38	25	72
Upper CI for the mean	11725	0.9	25	130	1.3	16721	37	30	1153	19190	202	5170	338	1.24	916	8.1	67	30	156
Kurtosis	0.1	-0.3	1.7	6.0	8.3	3.4	6.3	17.9	19.1	4.4	4.6	-1.3	6.0	16.6	17.8	14.4	8.2	0.6	3.5
Skewness	-0.7	0.9	1.3	2.5	2.6	1.9	1.9	4.1	4.3	1.2	2.3	0.5	2.5	4.0	4.1	3.6	3.0	-0.7	1.9

n = 21 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.5: Summary of All Falconbridge Residential Garden Vegetables

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	6	0.1	290	0.5	0.4	6	35	0.5	1000	7	0.2	9	0.2	0.7	0.5	15
10th	5	0.2	0.2	0.5	8	0.1	702	0.5	0.4	6	37	0.5	1110	8	0.3	17	0.2	1.0	0.5	17
1st quartile	5	0.2	0.2	0.8	11	0.2	1100	0.5	0.6	7	44	0.5	1200	9	0.4	19	0.2	1.6	0.5	20
Median	8	0.2	0.2	1.3	18	0.2	1900	0.5	1.1	8	65	0.5	2450	11	0.6	31	0.2	2.5	0.5	32
3rd quartile	20	0.2	0.6	5.4	19	0.3	3200	0.5	1.8	12	110	1.6	3200	20	0.7	44	0.2	9.1	0.5	48
95th	69	0.2	1.5	14	21	0.5	5090	0.6	2.1	18	180	62	4005	23	0.9	49	0.2	14	0.5	72
Maximum	82	0.3	1.9	24	23	0.5	5200	0.8	2.2	25	180	130	4500	24	1.1	51	0.2	16	0.5	92
Mean	19	0.2	0.5	4.1	15	0.2	2339	0.5	1.2	10	85	12	2367	14	0.6	31	0.2	5.3	0.5	37
Geometric mean	11	0.2	0.3	1.9	14	0.2	1778	0.5	1.0	9	73	1.3	2086	13	0.5	28	0.2	3.3	0.5	32
Sample std. dev.	24	0.0	0.5	6.3	5	0.1	1538	0.1	0.6	5	50	36	1128	6	0.2	13	0.0	5.0	0.0	21
CV (std. dev./mean)	129%	14%	109%	162%	36%	54%	69%	16%	55%	55%	61%	311%	50%	45%	44%	44%	0%	100%	0%	60%
Lower CI for the mean	3	0.2	0.1	-0.1	11	0.2	1318	0.5	0.8	6	52	-12	1618	10	0.4	23	0.2	1.9	0.5	23
Upper CI for the mean	35	0.2	0.8	8.3	18	0.3	3360	0.6	1.6	13	118	36	3115	18	0.7	40	0.2	8.6	0.5	51
Kurtosis	3.4	12.0	4.5	9.1	-1.3	1.2	-0.5	12.0	-1.5	5.6	-0.1	11.9	-1.2	-1.5	1.0	-1.4		0.0		2.6
Skewness	2.0	3.5	2.1	2.9	-0.3	1.4	0.7	3.5	0.2	2.2	1.0	3.5	0.3	0.5	0.7	-0.1		1.2		1.5

n = 12 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.6: Summary Statistics for Residential Garden Soil from Falconbridge

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	7300	0.4	6	32	0.4	2200	21	8	45	8700	7	1600	96	0.75	60	0.5	18	20	23
1st quartile	7600	0.4	11	35	0.4	3400	23	11	98	1130	13	1850	115	0.75	136	0.5	23	23	32
Median	8000	0.4	26	48	0.4	5600	28	22	360	1400	34	2400	160	0.75	360	0.5	30	25	45
3rd quartile	9600	0.4	115	63	1.7	9950	46	49	895	2250	108	2950	190	0.75	1030	2.0	36	29	112
95th	1044	1.0	288	79	2.4	1740	66	65	1460	3260	192	4280	206	2.42	1280	5.4	42	33	146
Maximum	1100	1.2	400	88	2.8	2100	77	73	1700	3700	240	4800	210	2.50	1400	7.0	45	35	150
Mean	8600	0.5	88	51	1.1	7544	36	31	551	1736	70	2567	155	1.12	581	1.8	30	26	69
Geometric mean	8523	0.5	38	49	0.8	5939	33	23	302	1569	38	2422	150	0.97	355	1.1	29	26	56
Sample std. dev.	1179	0.3	118	17	0.8	5560	17	22	523	8495	72	949	39	0.69	468	2.0	8	4	45
CV (std. dev./mean)	15%	53%	142%	35%	82%	78%	50%	74%	101%	52%	110%	39%	27%	65%	85%	117%	29%	18%	69%
Lower CI for the mean	7638	0.3	-8	38	0.4	3011	22	13	125	1044	11	1793	123	0.56	200	0.2	23	22	33
Upper CI for the mean	9562	0.8	185	65	1.8	1207	50	48	977	2429	128	3340	187	1.68	963	3.5	37	30	106
Kurtosis	0.0	4.0	5.9	1.0	-0.5	3.2	2.6	-0.4	1.1	2.1	2.5	2.6	-1.3	0.87	-1.4	4.6	-0.2	0.4	-0.6
Skewness	0.9	2.1	2.3	1.0	0.9	1.7	1.6	0.8	1.2	1.5	1.6	1.6	-0.2	1.64	0.5	2.1	0.2	0.9	0.9

Number of samples n = 9 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.7: Summary Statistics for Gatchell Residential Garden Vegetables

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5	0.1	190	0.5	0.2	2.6	24	0.5	730	4	0.2	2.3	0.2	0.5	0.5	8
10th	5	0.2	0.2	1.0	10	0.1	1300	0.5	0.2	4.8	53	0.5	900	5	0.2	2.9	0.2	2.0	0.5	13
1st quartile	6	0.2	0.2	2.0	12	0.1	1850	0.5	0.2	6.6	60	0.5	1300	8	0.3	4.4	0.2	5.2	0.5	16
Median	63	0.2	0.2	4.3	20	0.1	5000	0.7	0.2	13	120	0.5	3200	14	0.7	13	0.3	12	0.5	39
3rd quartile	230	0.2	0.8	15	27	0.3	9000	1.2	0.4	26	335	2.1	3800	26	2.0	23	0.4	23	0.5	46
95th	810	0.2	1.5	31	31	0.6	19000	3.2	0.9	57	1100	4.9	6200	47	3.0	27	1.0	43	2.3	59
Maximum	1300	0.2	2.3	37	33	1.0	30000	4.7	2.2	64	1800	11	8400	91	3.5	41	1.6	49	3.3	78
Mean	194	0.2	0.6	10	19	0.2	6790	1.1	0.4	20	298	1.8	3167	20	1.1	14	0.4	15	0.8	35
Geometric mean	42	0.2	0.4	5.1	17	0.2	4069	0.9	0.3	14	142	1.0	2562	14	0.7	11	0.4	9.4	0.6	30
Sample std. dev.	322	0.0	0.6	11	8	0.2	6970	1.0	0.5	17	429	2.5	1942	20	1.0	9.9	0.3	13	0.7	18
CV (std. dev./mean)	170%	0%	103%	110%	42%	94%	105%	94%	105%	89%	147%	139%	63%	100%	95%	72%	79%	89%	91%	52%
Lower CI for the mean	44	0.2	0.3	5.1	16	0.1	3539	0.6	0.2	12	98	0.7	2261	11	0.6	10	0.3	9.1	0.5	27
Upper CI for the mean	345	0.2	0.8	15	23	0.3	10041	1.6	0.7	27	499	3.0	4072	30	1.6	19	0.6	21	1.1	44
Kurtosis	6.0		2.4	0.6	-1.0	5.2	4.9	6.6	9.9	1.4	6.6	8.6	1.0	6.9	-0.4	0.7	5.7	0.9	7.6	-0.3
Skewness	2.4		1.7	1.3	-0.1	2.2	2.1	2.5	2.9	1.4	2.5	2.7	1.0	2.4	1.0	0.9	2.2	1.2	2.8	0.3

n = 21 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.8: Summary Statistics for Residential Garden Soil from Gatchell

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	7200	0.4	2.5	54	0.4	3500	28	8	130	14000	21	2700	170	0.8	120	0.5	22	25	58
1st quartile	8100	0.4	5.0	68	0.4	5100	28	9	140	14000	23	3600	260	0.8	120	0.5	29	25	65
Median	9050	0.4	6.0	78	0.4	6350	28	12	230	15000	69	3900	290	0.8	225	0.8	32	27	81
3rd quartile	1000	1.0	11	120	0.4	1200	35	12	260	16000	88	4300	400	0.8	270	1.0	52	28	170
95th	1000	1.0	12	128	0.4	1275	51	14	395	16000	120	4375	415	0.8	293	1.0	52	28	178
Maximum	1000	1.0	12	130	0.4	1300	56	15	440	16000	130	4400	420	0.8	300	1.0	52	28	180
Mean	8900	0.6	7.1	88	0.4	7717	34	11	238	15000	67	3800	305	0.8	210	0.8	36	27	106
Geometric mean	8828	0.5	6.2	84	0.4	6937	33	11	219	14967	54	3752	292	0.8	197	0.7	35	26	95
Sample std. dev.	1114	0.3	3.3	28	0.0	3541	10	2	103	1000	39	572	85	0.0	72	0.3	12	2	50
CV (std. dev./mean)	14%	52%	52%	35%	0%	50%	33%	22%	47%	7%	64	16%	30%	0%	37%	37%	35%	6%	52%
Lower CI for the mean	7620	0.3	3.2	56	0.4	3646	22	9	120	13850	22	3143	208	0.8	128	0.5	23	25	49
Upper CI for the mean	1018	0.9	10.9	120	0.4	1178	46	14	357	16150	111	4457	402	0.8	292	1.0	50	28	163
Kurtosis	-2.2	-1.9	-1.3	-1.6		-1.6	4.6	0.0	1.9	-3.3	-	1.3	-0.7		-2.3	-3.3	-1.7	-3.3	-1.8
Skewness	-0.3	1.0	0.4	0.6		0.6	2.1	0.3	1.3	0.0	0.4	-1.2	-0.1		-0.2	0.0	0.6	0.0	0.8

n = 6 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.9: Summary Statistics for Lively Residential Garden Vegetables

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1.3	10	0.1	680	0.5	0.2	3.6	23	0.5	990	5	0.2	2.1	0.2	2.0	0.5	10
10th	5	0.2	0.2	1.9	16	0.1	1047	0.5	0.2	8.8	48	0.5	1347	6	0.2	3.0	0.2	3.3	0.5	19
1st quartile	11	0.2	0.2	2.7	20	0.1	1600	0.5	0.2	10	68	0.7	1800	10	0.2	4.5	0.2	6.7	0.5	27
Median	35	0.2	0.2	10	24	0.2	3050	0.5	0.2	15	90	2.4	2850	14	0.5	6.0	0.2	11	0.5	34
3rd quartile	150	0.2	0.2	25	27	0.2	7500	1.1	0.3	26	210	42	4000	19	1.5	19	0.2	24	0.5	41
95th	1057	0.3	0.5	42	33	1.2	15450	2.8	1.0	44	1440	96	7560	56	4.7	83	0.2	49	2.7	110
Maximum	2000	0.3	1.1	50	37	1.6	18000	4.9	1.9	98	2800	260	13000	110	5.7	190	0.3	67	4.6	110
Mean	221	0.2	0.3	14	24	0.3	5554	1.0	0.4	21	335	32	3449	21	1.4	23	0.2	19	0.9	41
Geometric mean	45	0.2	0.2	8.4	23	0.2	3535	0.8	0.3	16	129	6	2793	15	0.6	9.2	0.2	12	0.6	34
Sample std. dev.	479	0.0	0.2	14	6	0.4	5170	1.1	0.4	20	657	60	2697	24	1.7	44	0.0	17	1.0	27
CV (std. dev./mean)	223%	15%	78%	99%	27%	139%	96%	108%	114%	100%	202%	193%	80%	118%	128%	193%	11%	95%	120%	68%
Lower CI for the mean	-24	0.2	0.2	7.4	20	0.1	2909	0.5	0.2	11	-0.9	1.3	2069	8.8	0.5	0.9	0.2	10	0.3	27
Upper CI for the mean	466	0.2	0.4	22	27	0.5	8199	1.6	0.6	31	671	62	4829	33	2.2	46	0.2	28	1.4	55
Kurtosis	11.0	6.0	14.1	0.9	0.4	7.4	0.6	10.3	13.1	12.0	11.5	12.4	8.5	10.3	1.3	12.0	18.0	1.9	11.0	3.2
Skewness	3.2	2.7	3.6	1.3	0.0	2.8	1.3	3.1	3.5	3.2	3.3	3.3	2.6	3.1	1.6	3.3	4.2	1.5	3.3	1.8

n = 18 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.10: Summary Statistics for Residential Garden Soil from North Lively

	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	11000	0.4	2.5	60	0.4	7700	28	8	60	17000	28	4200	270	0.75	73	0.5	28	33	76
1st quartile	13000	0.4	2.5	76	0.4	8850	29	8	70	19500	33	4950	285	0.75	77	0.5	43	36	95
Median	14500	0.4	4.8	92	0.4	9950	33	8	101	21000	45	5900	310	0.75	111	0.5	49	39	97
3rd quartile	19500	0.6	8.0	115	0.4	12000	43	10	115	22500	87	6650	330	0.75	135	0.5	57	42	105
95th	21650	1.0	8.7	127	0.7	13950	50	11	120	24300	104	6895	347	1.24	147	0.5	70	45	110
Maximum	22000	1.1	9.0	130	0.8	15000	50	11	120	25000	110	7000	350	1.50	150	0.5	72	46	110
Mean	15875	0.5	5.3	94	0.5	10538	36	9	94	21000	58	5775	309	0.84	109	0.5	50	39	97
Geometric mean	15450	0.5	4.5	92	0.4	10321	35	9	91	20868	51	5686	308	0.82	104	0.5	48	39	97
Sample std. dev.	3756	0.2	2.8	23	0.1	2205	8	1	23	2345	30	981	26	0.25	30	0.0	13	4	10
CV (std. dev./mean)	25%	50%	57%	26%	31%	22%	25%	13%	26%	12%	55%	18%	9%	31%	30%	0%	28%	11%	11%
Lower CI for the mean	12516	0.3	2.8	74	0.3	8566	28	8	73	18903	32	4898	285	0.62	82	0.5	38	35	88
Upper CI for the mean	19234	0.8	7.7	115	0.6	12509	43	10	115	23097	85	6652	332	1.07	135	0.5	61	43	106
Kurtosis	-1.2	2.3	-2.5	-1.1	8.0	0.6	-0.6	0.6	-1.7	-0.1	-1.3	-1.2	-1.0	8.0	-2.3		0.3	-1.1	1.9
Skewness	0.6	1.8	0.1	0.2	2.8	0.9	1.0	1.4	-0.4	0.0	0.7	-0.5	0.1	2.8	0.0		0.3	0.2	-0.9

Number of samples n = 8 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.11: Summary Statistics for All Residential Garden Vegetables Collected

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	5.0	0.1	120	0.5	0.2	2	15	0.5	290	2	0.2	0.5	0.2	0.5	0.5	2
10th percentile	5	0.2	0.2	0.7	7.0	0.1	838	0.5	0.2	5	26	0.5	840	5	0.2	2.1	0.2	1.2	0.5	10
1st quartile	6	0.2	0.2	1.4	11	0.1	1400	0.5	0.2	6	40	0.5	1200	8	0.2	4.5	0.2	2.4	0.5	15
Median	18	0.2	0.2	5.1	18	0.2	2700	0.5	0.2	9	80	0.5	2150	13	0.5	8.8	0.2	7.4	0.5	27
3rd quartile	82	0.2	0.4	14	23	0.3	5450	0.8	0.4	18	145	1.5	3500	23	1.1	23	0.4	16	0.5	44
95th percentile	620	0.2	1.4	35	33	0.8	19000	2.4	1.9	64	1065	39	6265	88	4.4	54	3.0	43	1.6	89
Maximum	2000	0.4	9.0	60	45	2.0	31000	6.4	4.9	230	2800	260	13000	380	17.0	190	22	67	5.1	300
Mean	135	0.2	0.5	10	18	0.3	5382	0.9	0.5	18	217	7.1	2684	26	1.2	18	0.8	12	0.7	34
Geometric mean	28	0.2	0.3	4.5	16	0.2	2965	0.7	0.3	11	91	1.1	2061	15	0.6	9	0.3	6	0.6	25
Sample std. dev.	319	0.0	0.8	12	8.5	0.3	6309	0.9	0.6	28	435	27	2063	47	2.2	27	2.5	13	0.7	32
CV (std. dev./mean)	237%	11%	179%	125%	48%	116%	118%	107%	135%	157%	201%	383%	77%	183%	181%	146%	298%	111%	100%	95%
Lower CI for the mean	83	0.2	0.3	8	17	0.2	4354	0.7	0.4	13	146	3	2348	18	0.8	14	0.4	10	0.6	29
Upper CI for the mean	187	0.2	0.6	12	19	0.3	6411	1.0	0.6	23	288	11	3020	33	1.6	23	1.2	14	0.8	40
Kurtosis	17.1	54.6	76.3	4.9	0.1	13.7	3.1	17.3	17.7	26.8	17.0	56.3	6.1	40.1	24.4	20.3	47.1	2.5	21.7	30.2
Skewness	3.9	7.1	7.8	2.1	0.6	3.4	1.9	4.0	3.7	4.6	3.9	6.9	2.0	5.8	4.5	3.9	6.5	1.7	4.5	4.3

n = 148 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.12: Summary Statistics for All Root Vegetables Collected

	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	0.2	5	0.1	120	0.5	0.2	2.6	21	0.5	290	3.4	0.2	0.8	0.2	0.5	0.5	2
10th percentile	9	0.2	0.2	0.8	0.2	5	0.1	296	0.5	0.2	4.6	31	0.5	902	5.0	0.2	1.9	0.2	0.9	0.5	11
1st quartile	14	0.2	0.2	2.8	0.2	8	0.1	1400	0.5	0.2	5.9	38	0.5	1200	6.0	0.2	2.6	0.2	2.0	0.5	14
Median	38	0.2	0.2	7.0	0.2	15	0.1	1700	0.5	0.2	7.2	84	0.5	1400	8.7	0.2	5.3	0.2	7.0	0.5	18
3rd quartile	64	0.2	0.2	17	0.2	19	0.2	2750	0.5	0.2	11	110	1.3	1850	18	0.4	10	0.2	10	0.5	29
95th percentile	100	0.2	0.7	26	0.2	24	0.3	3670	0.8	0.5	19	178	59	2700	107	0.6	26	0.5	22	0.5	50
Maximum	150	0.3	1.9	60	0.2	27	0.5	5600	0.9	1.8	27	210	130	3200	380	1.2	54	3.0	31	0.5	92
Mean	44	0.2	0.3	12	0.2	14	0.2	1969	0.5	0.3	9.0	83	8.7	1531	25	0.3	9.2	0.3	7.5	0.5	23
Geometric mean	31	0.2	0.2	6.2	0.2	13	0.1	1491	0.5	0.2	7.8	69	1.1	1373	12	0.3	5.8	0.2	4.8	0.5	19
Sample std. dev.	34	0.0	0.3	12	0.0	6	0.1	1172	0.1	0.3	5.2	47	24	655	60	0.2	11	0.4	6.5	0.0	16
CV (std. dev./mean)	78%	10%	104%	109%	0%	46%	56%	60%	17%	99%	59%	58%	283%	43%	238%	64%	120%	146%	88%	0%	69%
Lower CI for the mean	33	0.2	0.2	7.7	0.2	12	0.1	1604	0.5	0.2	7.4	68	1.1	1327	6.8	0.2	5.8	0.2	5.5	0.5	18
Upper CI for the mean	55	0.2	0.4	15	0.2	16	0.2	2334	0.6	0.4	11	97	16	1735	44	0.4	13	0.4	10	0.5	28
Kurtosis	0.8	18.8	20.6	5.7		-1.1	3.4	0.8	8.1	22.7	3.7	0.2	14.8	0.2	29.6	11.1	8.1	39.6	3.4		7.5
Skewness	1.0	4.5	4.3	2.1		0.1	1.7	0.6	3.0	4.6	1.8	0.8	3.7	0.6	5.2	2.9	2.7	6.2	1.6		2.3

n = 43 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.13: Summary Statistics for All Fruit (tomato, beans, zuccini, etc.) Vegetables Collected

	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	0.5	0.2	5	0.1	490	0.5	0.2	1.9	15	0.5	310	2	0.2	0.5	0.2	0.7	0.5	4
10th percentile	5	0.2	0.2	0.5	0.2	8	0.1	878	0.5	0.2	3.7	20	0.5	730	5	0.2	1.2	0.2	1.2	0.5	8
1st quartile	5	0.2	0.2	0.8	0.2	11	0.1	1300	0.5	0.2	4.9	33	0.5	1100	8	0.4	4.0	0.2	2.0	0.5	12
Median	6	0.2	0.2	1.6	0.2	16	0.1	1800	0.5	0.2	7.0	51	0.5	1800	12	0.7	8.0	0.2	3.2	0.5	24
3rd quartile	10	0.2	0.2	4.6	0.2	20	0.2	4400	0.6	0.3	10	77	0.5	3200	16	1.5	20	0.3	8.1	0.5	34
95th percentile	26	0.2	0.6	9.9	0.2	27	0.3	6210	1.1	1.5	20	120	17	4265	33	7.8	45	4.1	14	0.5	58
Maximum	300	0.3	0.8	12	0.2	34	0.5	7600	1.2	2.2	98	180	260	5000	370	17	190	22	44	0.5	120
Mean	15	0.2	0.3	3.0	0.2	16	0.1	2727	0.6	0.4	9.3	58	7.1	2108	20	1.7	16	1.1	5.5	0.5	27
Geometric mean	8	0.2	0.2	1.9	0.2	14	0.1	2137	0.6	0.3	7.2	49	0.8	1722	12	0.8	8	0.3	3.6	0.5	21
Sample std. dev.	40	0.0	0.1	2.9	0.0	7	0.1	1887	0.2	0.4	12	35	34	1222	47	2.9	25	3.5	6.2	0.0	20
CV (std. dev./mean)	267%	6%	53%	99%	0%	43%	50%	70%	32%	118%	128%	61%	481%	58%	230%	169%	158%	328%	113%	0%	75%
Lower CI for the mean	5	0.2	0.2	2.3	0.2	14	0.1	2267	0.5	0.3	6.4	50	-1	1810	9	1.0	10	0.2	4.0	0.5	22
Upper CI for the mean	25	0.2	0.3	3.7	0.2	17	0.2	3187	0.6	0.5	12	67	15	2406	32	2.5	22	1.9	7.0	0.5	32
Kurtosis	39.9	68.0	6.4	1.6		-0.2	6.4	-0.3	3.2	8.6	47.8	1.8	46.1	-1.0	46.6	12.6	32.2	24.7	21.4		6.2
Skewness	6.2	8.2	2.7	1.5		0.5	2.1	0.9	2.1	3.0	6.5	1.3	6.6	0.4	6.5	3.3	5.0	4.9	3.8		2.0

n = 68 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table A2.6.14: Summary Statistics for All Residential Leafy Vegetables Collected

	Al	Sb	As	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	18	0.2	0.2	1.2	5.0	0.1	1200	0.5	0.2	6	41	0.5	1200	4	0.2	3.4	0.2	1.2	0.5	17
10th percentile	49	0.2	0.2	7.5	17	0.2	4540	0.6	0.2	14	120	0.5	2880	14	0.3	7.2	0.2	14	0.5	26
1st quartile	84	0.2	0.3	10	20	0.3	9650	0.7	0.3	20	170	0.7	3400	17	0.4	10	0.2	20	0.5	40
Median	270	0.2	0.6	16	26	0.4	14000	1.3	0.5	26	370	1.7	4400	31	0.9	23	0.6	27	0.6	46
3rd quartile	600	0.2	1.3	30	31	0.7	19000	2.4	1.2	58	885	4.1	6150	48	1.7	50	1.3	41	1.5	78
95th percentile	1660	0.2	2.3	52	39	1.6	24400	5.1	2.6	136	2400	24	9200	73	3.4	93	4.2	50	4.2	110
Maximum	2000	0.4	9.0	59	45	2.0	31000	6.4	4.9	230	2800	38	13000	110	6.5	180	5.3	67	5.1	300
Mean	462	0.2	1.0	21	26	0.6	14230	1.8	0.9	45	665	5.0	5084	36	1.3	33	1.0	29	1.3	61
Geometric mean	245	0.2	0.7	16	24	0.4	12034	1.3	0.6	33	403	2.0	4594	30	0.9	22	0.6	25	0.9	51
Sample std. dev.	510	0.0	1.5	14	8.3	0.5	6804	1.5	1.0	44	696	8.5	2421	22	1.2	35	1.3	14	1.2	47
CV (std. dev./mean)	112%	16%	142%	71%	32%	81%	48%	87%	109%	100%	106%	172%	48%	63%	100%	106%	127%	47%	95%	79%
Lower CI for the mean	289	0.2	0.6	16	23	0.4	11930	1.3	0.6	30	430	2.1	4265	29	0.8	21	0.6	25	0.9	45
Upper CI for the mean	634	0.2	1.5	26	29	0.7	16530	2.3	1.3	59	900	7.9	5902	44	1.7	45	1.5	34	1.7	76
Kurtosis	2.5	37.0	23.6	0.8	0.3	2.2	0.2	2.4	6.6	8.5	2.4	6.7	3.1	2.2	7.6	8.1	4.5	0.3	2.9	17.9
Skewness	1.7	6.1	4.5	1.2	0.0	1.6	0.2	1.7	2.4	2.7	1.7	2.7	1.6	1.3	2.4	2.6	2.2	0.5	1.9	3.7

n = 37 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

3. RESIDENTIAL SOIL AND GARDEN VEGETABLE RESULTS

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037482 1st Ave. (front yard)	0-5 cm	15463	13000	< 0.8	< 5	66	< 0.5	< 0.8	4000	34	7	**92**	15000	27	2700	200	< 1.5	**110**	< 1	41	33	29
		15464	7200	< 0.8	5	35	< 0.5	< 0.8	1800	22	7	**87**	12000	28	2200	120	< 1.5	**97**	< 1	13	23	29
	5-10 cm	15465	9100	< 0.8	5	36	< 0.5	< 0.8	3600	25	6	47	12000	16	2600	150	< 1.5	**58**	< 1	28	25	29
		15466	10000	< 0.8	< 5	40	< 0.5	< 0.8	3900	26	6	46	13000	16	2600	160	< 1.5	**58**	< 1	32	27	25
	10-20 cm	15467	8600	< 0.8	6	51	< 0.5	< 0.8	3500	26	9	**130**	14000	36	2700	160	< 1.5	**160**	< 1	34	27	28
		15468	6700	< 0.8	9	69	< 0.5	< 0.8	2500	23	10	**200**	13000	60	2500	150	< 1.5	**210**	< 1	21	22	40
5037483 1st Ave. (back yard)	0-5 cm	15457	13000	< 0.8	< 5	59	< 0.5	< 0.8	4200	30	6	**91**	15000	26	3000	180	< 1.5	**100**	1	38	32	26
		15458	12000	< 0.8	< 5	53	< 0.5	< 0.8	4200	29	7	**87**	15000	28	2900	170	< 1.5	**96**	< 1	38	30	25
	5-10 cm	15459	13000	< 0.8	5	63	< 0.5	< 0.8	4000	34	9	84	18000	28	3700	220	< 1.5	**99**	< 1	38	33	32
		15460	14000	< 0.8	8	63	< 0.5	< 0.8	9400	33	12	**230**	18000	20	3300	230	< 1.5	**260**	< 1	49	33	56
	10-20 cm	15461	16000	< 0.8	< 5	89	< 0.5	< 0.8	4800	41	9	**100**	18000	37	3600	260	< 1.5	**120**	< 1	48	39	36
		15462	14000	< 0.8	< 5	83	< 0.5	< 0.8	4100	36	9	**130**	16000	52	2900	200	< 1.5	**160**	< 1	45	35	36
5037677 1st Ave. (front yard)	0-5 cm	16276	7700	< 0.8	< 5	27	< 0.5	< 0.8	2900	22	5	52	11000	26	2200	120	< 1.5	**65**	1	21	23	31
		16277	7800	< 0.8	5	28	< 0.5	< 0.8	2400	26	8	69	10000	36	2600	130	< 1.5	**100**	< 1	15	24	39
	5-10 cm	16278	7500	< 0.8	7	28	< 0.5	< 0.8	2100	20	7	84	12000	42	2300	120	< 1.5	**99**	1	17	23	37
		16279	6800	< 0.8	8	27	< 0.5	< 0.8	2000	21	9	**140**	12000	38	2200	120	< 1.5	**170**	1	13	22	33
	10-20 cm	16280	8700	< 0.8	< 5	35	< 0.5	< 0.8	3100	25	9	**110**	13000	33	2500	160	< 1.5	**150**	< 1	28	27	33
		16281	7500	< 0.8	< 5	35	< 0.5	< 0.8	2700	23	9	**130**	12000	38	2400	160	< 1.5	**190**	< 1	25	26	43
5037678 1st Ave. (back yard)	0-5 cm	16282	10000	< 0.8	< 5	38	< 0.5	< 0.8	3500	28	7	53	14000	31	2900	160	< 1.5	**70**	< 1	33	30	34
		16283	10000	< 0.8	< 5	38	< 0.5	< 0.8	3500	29	7	56	14000	24	2900	170	< 1.5	**76**	< 1	33	30	34
	5-10 cm	16284	10000	< 0.8	< 5	45	< 0.5	< 0.8	3400	28	10	**110**	15000	53	2800	180	< 1.5	**140**	< 1	33	31	50
		16285	12000	< 0.8	< 5	42	< 0.5	< 0.8	3500	27	10	**110**	18000	43	2800	170	< 1.5	**160**	< 1	33	30	47
	10-20 cm	16286	10000	< 0.8	< 5	46	< 0.5	< 0.8	3200	29	9	**96**	15000	34	2900	170	< 1.5	**130**	< 1	32	32	42
		16287	14000	< 0.8	< 5	46	< 0.5	< 0.8	3300	29	9	**100**	20000	27	2900	190	< 1.5	**120**	< 1	34	32	37

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037679 1st Ave. (front yard)	0-5 cm	16288	8700	< 0.8	7	46	< 0.5	< 0.8	4500	26	11	**140**	13000	25	2300	160	< 1.5	**180**	< 1	29	26	34
		16289	12000	< 0.8	7	49	< 0.5	< 0.8	5400	27	12	**150**	16000	22	2500	170	< 1.5	**220**	< 1	33	29	32
	5-10 cm	16290	10000	< 0.8	11	45	< 0.5	< 0.8	4700	26	11	**150**	15000	28	2400	180	< 1.5	**220**	< 1	33	31	30
		16291	11000	< 0.8	9	43	< 0.5	< 0.8	3800	25	6	**94**	14000	12	2000	160	< 1.5	**94**	< 1	33	30	23
	10-20 cm	16292	11000	< 0.8	12	45	< 0.5	< 0.8	3400	23	6	**120**	14000	15	1800	150	< 1.5	**96**	< 1	33	31	22
		16293	11000	< 0.8	9	45	< 0.5	< 0.8	3000	24	6	74	14000	11	2000	170	< 1.5	**57**	< 1	31	30	22
5037680 1st Ave. (back yard)	0-5 cm	16294	15000	< 0.8	< 5	59	< 0.5	< 0.8	8900	29	10	**120**	18000	18	2500	170	< 1.5	**200**	< 1	42	31	29
		16295	12000	< 0.8	< 5	54	< 0.5	< 0.8	6800	30	9	**110**	14000	16	2500	160	< 1.5	**180**	< 1	42	31	28
	5-10 cm	16296	10000	< 0.8	6	37	< 0.5	< 0.8	3300	26	5	59	13000	9	1800	140	< 1.5	**72**	< 1	32	30	21
		16297	8400	< 0.8	6	28	< 0.5	< 0.8	2700	21	5	53	11000	8	1700	100	< 1.5	**70**	< 1	21	25	16
	10-20 cm	16298	8300	< 0.8	8	32	< 0.5	< 0.8	2100	21	5	51	11000	7	1700	110	< 1.5	**48**	< 1	20	25	16
		16299	8800	< 0.8	6	34	< 0.5	< 0.8	2100	21	4	45	12000	7	1700	120	< 1.5	41	< 1	21	25	15
5037681 1st Ave. (front yard)	0-5 cm	16300	6900	< 0.8	6	42	< 0.5	< 0.8	3800	22	7	78	11000	44	1900	170	< 1.5	**97**	< 1	25	24	41
		16301	7000	< 0.8	6	43	< 0.5	< 0.8	3600	22	7	**87**	11000	81	2000	190	< 1.5	**100**	1	25	23	43
	5-10 cm	16302	6500	< 0.8	< 5	28	< 0.5	< 0.8	2500	20	7	67	9800	22	2100	160	< 1.5	**83**	< 1	20	22	26
		16303	6200	< 0.8	< 5	27	< 0.5	< 0.8	2200	19	6	40	9300	13	1900	160	< 1.5	**65**	< 1	19	22	23
	10-20 cm	16304	6500	< 0.8	9	34	< 0.5	< 0.8	2800	22	10	**150**	11000	29	1900	150	< 1.5	**190**	< 1	20	23	28
		16305	6200	< 0.8	6	33	< 0.5	< 0.8	2700	19	9	**110**	10000	25	1900	150	< 1.5	**170**	< 1	16	22	29
5037682 1st Ave. (side yard)	0-5 cm	16306	7800	< 0.8	**21**	67	< 0.5	< 0.8	6500	22	20	**380**	16000	78	1800	240	< 1.5	**390**	1	26	26	77
		16307	8600	< 0.8	**23**	72	< 0.5	0.8	7200	25	20	**370**	16000	85	2000	300	< 1.5	**390**	**2**	33	28	84
	5-10 cm	16308	11000	< 0.8	**28**	78	< 0.5	< 0.8	5500	27	19	**470**	18000	87	1900	250	< 1.5	**370**	**2**	39	30	65
		16309	10000	< 0.8	**29**	80	< 0.5	< 0.8	6200	27	17	**450**	17000	69	1600	310	< 1.5	**350**	< 1	39	30	69
	10-20 cm	16310	10000	1	**20**	75	< 0.5	< 0.8	4500	26	16	**420**	15000	95	1800	280	< 1.5	**340**	1	38	30	59
		16311	10000	< 0.8	**24**	86	< 0.5	< 0.8	5300	26	18	**440**	16000	81	1700	300	< 1.5	**370**	**2**	39	30	61

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037683 1st Ave. (front yard)	0-5 cm	16312	12000	< 0.8	**29**	68	< 0.5	**1.5**	9900	39	**51**	**860**	23000	76	2900	180	< 1.5	**1400**	**3**	39	32	80
		16313	12000	< 0.8	**33**	74	< 0.5	**1.7**	9600	40	**57**	**980**	24000	87	3100	180	< 1.5	**1500**	**4**	38	31	87
	5-10 cm	16314	9700	< 0.8	**26**	51	< 0.5	0.9	5400	35	**25**	**470**	16000	42	2200	160	< 1.5	**720**	**2**	33	29	46
		16315	8000	< 0.8	**29**	44	< 0.5	0.9	4700	39	**25**	**520**	14000	44	2000	140	< 1.5	**760**	**2**	27	25	46
	10-20 cm	16316	7400	< 0.8	7	35	< 0.5	< 0.8	2900	23	10	**190**	9900	28	1700	130	< 1.5	**230**	1	25	24	22
		16317	5200	< 0.8	11	39	< 0.5	< 0.8	2600	23	11	**330**	9400	34	1400	98	< 1.5	**310**	1	13	19	25
5037684 1st Ave. (back yard)	0-5 cm	16318	8200	0.8	**26**	67	< 0.5	**1.3**	7500	26	**42**	**680**	16000	80	2400	230	< 1.5	**1200**	**3**	40	25	110
		16319	8600	< 0.8	**33**	88	< 0.5	**1.2**	7300	28	**36**	**580**	18000	100	2400	250	< 1.5	**980**	**3**	39	27	130
	5-10 cm	16320	8500	< 0.8	**43**	110	< 0.5	< 0.8	5100	25	**27**	**540**	17000	110	2000	250	< 1.5	**870**	**2**	42	28	120
		16321	9100	0.8	**42**	120	< 0.5	0.8	6300	28	**27**	**540**	18000	110	2200	260	< 1.5	**790**	**2**	41	28	130
	10-20 cm	16322	7600	**1.1**	**55**	160	< 0.5	1	7600	24	**31**	**650**	18000	**150**	1800	300	< 1.5	**1000**	**2**	49	26	**170**
		16323	8000	1	**42**	160	< 0.5	0.8	7100	23	**26**	**580**	16000	**170**	1900	280	< 1.5	**810**	**2**	50	26	170
5037685 1st Ave. (front yard)	0-5 cm	16324	8900	< 0.8	**40**	68	< 0.5	**1.4**	4000	30	**40**	**700**	25000	**130**	2500	200	< 1.5	**990**	**3**	29	29	91
		16325	8700	< 0.8	**47**	68	< 0.5	**1.5**	4100	32	**45**	**860**	26000	**130**	2500	200	< 1.5	**1100**	**4**	30	29	97
	5-10 cm	16326	8500	0.8	**53**	96	< 0.5	1	2800	28	**35**	**890**	23000	**160**	2200	190	< 1.5	**920**	**4**	29	28	82
		16327	6600	< 0.8	**46**	76	< 0.5	0.9	2300	25	**34**	**840**	20000	**120**	2000	160	< 1.5	**920**	**4**	21	23	74
	10-20 cm	16328	8700	1	**20**	130	< 0.5	< 0.8	2400	24	20	**500**	17000	**140**	1900	200	< 1.5	**540**	**3**	31	27	68
		16329	9200	**1.3**	**20**	97	< 0.5	< 0.8	2400	25	21	**500**	17000	110	1800	190	< 1.5	**570**	**3**	32	29	58
5037686 1st Ave. (back yard)	0-5 cm	16330	12000	< 0.8	**47**	83	< 0.5	**2.1**	8400	42	**68**	**1200**	30000	**150**	3500	240	< 1.5	**1700**	**5**	38	31	120
		16331	11000	< 0.8	**33**	84	< 0.5	**1.8**	8100	38	**65**	**1200**	28000	**120**	2700	240	1.5	**1900**	**5**	38	30	100
	5-10 cm	16332	12000	< 0.8	**30**	76	< 0.5	1	6100	36	**36**	**700**	20000	**130**	2600	230	< 1.5	**1100**	**3**	35	30	85
		16333	12000	< 0.8	**35**	69	< 0.5	< 0.8	5000	33	**29**	**610**	20000	65	2500	210	< 1.5	**920**	**2**	34	30	63
	10-20 cm	16334	11000	< 0.8	17	64	< 0.5	< 0.8	3700	29	14	**360**	15000	67	2200	190	< 1.5	**390**	1	37	28	45
		16335	8900	< 0.8	10	44	< 0.5	< 0.8	3500	22	12	**300**	14000	36	2000	190	< 1.5	**280**	< 1	29	26	35

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037667 2nd Ave. (front yard)	0-5 cm	16216	13000	< 0.8	< 5	61	< 0.5	< 0.8	7700	40	7	52	16000	22	4300	280	< 1.5	**67**	< 1	55	37	37
		16217	12000	< 0.8	< 5	45	< 0.5	< 0.8	6800	33	7	50	15000	23	3700	240	< 1.5	**69**	< 1	47	33	36
	5-10 cm	16218	10000	< 0.8	< 5	44	< 0.5	< 0.8	5200	31	7	37	14000	30	3300	240	< 1.5	**54**	< 1	39	32	31
		16219	8100	< 0.8	< 5	36	< 0.5	< 0.8	4500	26	7	49	13000	22	3000	220	< 1.5	**76**	< 1	29	28	27
	10-20 cm	16220	6500	< 0.8	< 5	31	< 0.5	< 0.8	3700	25	5	17	11000	6	2800	200	< 1.5	27	< 1	26	26	18
		16221	5500	< 0.8	< 5	28	< 0.5	< 0.8	3300	23	5	21	10000	13	2600	190	< 1.5	27	< 1	25	25	18
5037668 2nd Ave. (back yard)	0-5 cm	16222	10000	< 0.8	< 5	46	< 0.5	< 0.8	8200	31	7	49	14000	23	3900	230	< 1.5	**70**	< 1	41	31	37
		16223	10000	< 0.8	< 5	46	< 0.5	< 0.8	7900	33	7	50	14000	24	4000	240	< 1.5	**72**	< 1	41	32	38
	5-10 cm	16224	8200	< 0.8	< 5	45	< 0.5	< 0.8	5200	27	6	53	12000	42	3100	170	< 1.5	**74**	< 1	30	27	39
		16225	9000	< 0.8	< 5	44	< 0.5	< 0.8	6600	29	6	48	12000	33	3500	200	< 1.5	**66**	< 1	38	30	37
	10-20 cm	16226	7200	< 0.8	< 5	35	< 0.5	< 0.8	4000	23	6	40	11000	28	2600	170	< 1.5	**55**	< 1	29	26	29
		16227	5900	< 0.8	< 5	38	< 0.5	< 0.8	3400	23	7	53	10000	39	2600	150	< 1.5	**72**	< 1	15	22	39
5037669 2nd Ave. (front yard)	0-5 cm	16228	7600	< 0.8	**24**	62	< 0.5	**1.4**	5800	37	**31**	**510**	19000	**400**	2900	180	< 1.5	**640**	**2**	34	27	130
		16229	8000	< 0.8	**40**	58	< 0.5	**1.5**	6700	29	**50**	**880**	22000	**240**	2500	170	< 1.5	**1300**	**3**	32	27	130
	5-10 cm	16230	9200	< 0.8	**28**	52	< 0.5	0.9	6100	34	**33**	**640**	19000	**180**	2400	170	< 1.5	**830**	**2**	35	29	98
		16231	12000	< 0.8	**25**	80	< 0.5	< 0.8	7500	31	**30**	**650**	18000	**180**	2100	170	< 1.5	**940**	**2**	39	29	110
	10-20 cm	16232	10000	< 0.8	17	67	< 0.5	< 0.8	6400	28	20	**480**	16000	**180**	2000	150	< 1.5	**560**	1	38	27	88
		16233	11000	< 0.8	16	86	< 0.5	< 0.8	7900	27	20	**570**	14000	**220**	1700	140	< 1.5	**710**	**2**	39	27	86
5037670 2nd Ave. (back yard)	0-5 cm	16234	10000	< 0.8	**40**	85	< 0.5	**1.7**	6500	30	**44**	**880**	21000	**250**	2000	160	< 1.5	**1200**	**3**	38	28	150
		16235	9000	0.9	**40**	69	< 0.5	**2.3**	8000	32	**53**	**1100**	23000	**280**	2300	170	< 1.5	**1300**	**4**	35	26	150
	5-10 cm	16236	8800	0.9	**29**	68	< 0.5	< 0.8	3700	21	**26**	**610**	15000	**150**	1400	120	< 1.5	**930**	< 1	25	23	100
		16237	8600	0.8	**34**	58	< 0.5	< 0.8	3400	20	**30**	**670**	16000	**160**	1400	120	< 1.5	**1100**	< 1	21	22	100
	10-20 cm	16238	8800	0.8	**22**	66	< 0.5	< 0.8	4300	19	19	**460**	14000	**140**	1300	120	< 1.5	**660**	< 1	24	22	120
		16239	7300	0.8	**23**	65	< 0.5	< 0.8	3500	17	20	**510**	13000	**130**	1200	100	< 1.5	**710**	< 1	15	19	92

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037671 2nd Ave. (front yard)	0-5 cm	16240	7300	< 0.8	**25**	39	< 0.5	< 0.8	2100	21	**25**	**550**	16000	100	1800	120	< 1.5	**650**	< 1	16	22	61
		16241	7400	< 0.8	**26**	42	< 0.5	< 0.8	2700	22	**27**	**550**	18000	120	1600	120	< 1.5	**670**	**2**	18	23	68
	5-10 cm	16242	8900	< 0.8	**23**	51	< 0.5	< 0.8	2700	20	20	**540**	16000	110	1600	120	< 1.5	**630**	**2**	23	25	53
		16243	9000	< 0.8	**22**	67	< 0.5	< 0.8	3000	21	20	**520**	16000	**130**	1700	130	< 1.5	**610**	**2**	24	26	61
	10-20 cm	16244	8500	< 0.8	**18**	60	< 0.5	< 0.8	2500	18	16	**400**	15000	110	1500	99	< 1.5	**450**	**2**	24	24	42
		16245	10000	< 0.8	**20**	70	< 0.5	< 0.8	3600	22	16	**510**	17000	110	1700	110	< 1.5	**470**	**2**	35	27	48
5037672 2nd Ave. (back yard)	0-5 cm	16246	8300	< 0.8	**18**	99	< 0.5	< 0.8	5700	20	16	**370**	14000	**150**	1700	170	< 1.5	**480**	1	28	23	98
		16247	8100	< 0.8	**20**	68	< 0.5	**1.2**	5900	21	**25**	**490**	16000	**130**	1900	150	< 1.5	**640**	**2**	29	22	120
	5-10 cm	16248	7800	< 0.8	**21**	65	< 0.5	**1.1**	5100	21	**28**	**450**	15000	100	2000	150	< 1.5	**740**	**2**	27	23	110
		16249	8200	< 0.8	**20**	89	< 0.5	< 0.8	4300	20	19	**440**	15000	**140**	1700	180	< 1.5	**560**	1	29	23	100
	10-20 cm	16250	8700	< 0.8	16	75	< 0.5	< 0.8	4400	22	16	**360**	15000	84	1900	170	< 1.5	**470**	1	29	25	83
		16251	8900	0.8	**18**	120	< 0.5	< 0.8	6500	22	19	**480**	15000	**190**	1800	200	< 1.5	**520**	**2**	39	25	120
5037675 2nd Ave. (front yard)	0-5 cm	16264	8700	< 0.8	15	56	< 0.5	1	11000	25	**38**	**470**	19000	120	4000	230	< 1.5	**860**	< 1	32	28	89
		16265	9200	< 0.8	14	47	< 0.5	< 0.8	8500	26	**27**	**370**	17000	95	3500	200	< 1.5	**630**	< 1	29	30	69
	5-10 cm	16266	9800	< 0.8	11	41	< 0.5	< 0.8	5200	24	13	**200**	16000	47	2100	180	< 1.5	**340**	< 1	28	32	31
		16267	10000	< 0.8	5	42	< 0.5	< 0.8	3500	23	7	69	14000	19	2100	180	< 1.5	**130**	< 1	26	29	27
	10-20 cm	16268	10000	< 0.8	7	41	< 0.5	< 0.8	3300	22	8	**120**	14000	21	1900	170	< 1.5	**160**	< 1	28	28	26
		16269	12000	< 0.8	6	47	< 0.5	< 0.8	3800	26	7	69	15000	15	2100	190	< 1.5	**120**	< 1	40	29	24
5037676 2nd Ave. (back yard)	0-5 cm	16270	11000	< 0.8	**20**	68	< 0.5	**1.2**	11000	29	**34**	**470**	18000	75	2900	230	< 1.5	**840**	1	40	30	80
		16271	11000	< 0.8	15	73	< 0.5	1	9700	27	**32**	**420**	17000	95	3100	230	< 1.5	**760**	< 1	40	29	75
	5-10 cm	16272	13000	< 0.8	10	59	< 0.5	< 0.8	7500	31	11	**150**	16000	17	2400	230	< 1.5	**240**	< 1	44	37	31
		16273	11000	< 0.8	10	45	< 0.5	< 0.8	6300	26	11	**140**	15000	16	2300	200	< 1.5	**250**	< 1	38	31	28
	10-20 cm	16274	11000	< 0.8	10	64	< 0.5	< 0.8	4600	25	12	**220**	16000	90	2100	190	< 1.5	**280**	< 1	38	28	66
		16275	7900	< 0.8	13	54	< 0.5	< 0.8	3600	21	12	**250**	14000	77	2000	170	< 1.5	**290**	**2**	23	25	54

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037479 3rd Ave. (front yard)	0-5 cm	15448	11000	< 0.8	6	48	< 0.5	< 0.8	5100	26	7	62	15000	22	3000	150	< 1.5	**81**	< 1	32	27	32
		15449	12000	< 0.8	5	54	< 0.5	< 0.8	4400	28	7	61	15000	28	3000	150	< 1.5	**77**	< 1	32	28	25
	5-10 cm	15450	13000	< 0.8	5	45	< 0.5	< 0.8	3100	27	7	45	16000	11	2500	150	< 1.5	**55**	< 1	31	30	19
	5-10 cm	15451	11000	< 0.8	6	40	< 0.5	< 0.8	2600	25	7	45	14000	10	2300	140	< 1.5	**57**	< 1	25	27	19
5037480 3rd Ave. (back yard)	0-5 cm	15446	16000	< 0.8	6	97	< 0.5	< 0.8	6100	37	10	74	19000	53	4300	240	< 1.5	**100**	< 1	40	35	35
	0-5 cm	15447	16000	< 0.8	7	100	< 0.5	< 0.8	6600	38	9	84	18000	21	4300	250	< 1.5	**110**	< 1	42	35	36
5037657 3rd Ave. (front yard)	0-5 cm	16156	15000	< 0.8	9	73	< 0.5	< 0.8	5300	34	15	**190**	18000	35	3200	180	< 1.5	**290**	< 1	40	31	47
		16157	12000	< 0.8	13	70	< 0.5	< 0.8	6800	31	**24**	**390**	18000	63	3000	200	< 1.5	**520**	1	41	29	86
	5-10 cm	16158	15000	< 0.8	**19**	89	< 0.5	< 0.8	4800	34	15	**330**	17000	78	2500	150	< 1.5	**410**	1	40	29	50
		16159	12000	< 0.8	**26**	85	< 0.5	< 0.8	4800	27	17	**450**	18000	**130**	2200	160	< 1.5	**470**	**2**	38	27	75
	10-20 cm	16160	11000	< 0.8	**20**	72	< 0.5	< 0.8	4000	28	16	**380**	17000	110	2200	150	< 1.5	**390**	1	34	27	54
		16161	11000	0.9	**25**	86	< 0.5	< 0.8	3700	26	20	**490**	17000	**180**	1900	150	< 1.5	**490**	**2**	34	25	73
5037658 3rd Ave. (back yard)	0-5 cm	16162	11000	**1.1**	**28**	130	< 0.5	0.9	4600	30	**27**	**540**	21000	**180**	2400	170	< 1.5	**590**	**2**	38	27	120
		16163	8700	< 0.8	16	67	< 0.5	< 0.8	2700	26	18	**380**	18000	92	2000	150	< 1.5	**400**	**2**	22	26	83
	5-10 cm	16164	8300	**1.9**	**32**	200	< 0.5	0.8	4300	23	**24**	**710**	19000	**270**	1400	160	< 1.5	**700**	**3**	32	23	**190**
		16165	9500	**1.1**	11	140	< 0.5	< 0.8	2900	26	20	**720**	20000	**170**	1500	170	< 1.5	**510**	**3**	34	26	120
	10-20 cm	16166	7000	**1.6**	**28**	150	< 0.5	< 0.8	2200	19	20	**590**	15000	**220**	1300	150	< 1.5	**550**	**2**	21	25	150
		16167	7300	**2.2**	**28**	180	< 0.5	0.9	3200	21	**22**	**730**	17000	**280**	1500	170	< 1.5	**640**	< 1	26	31	**210**

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037659 3rd Ave. (front yard)	0-5 cm	16168	9300	< 0.8	5	32	< 0.5	< 0.8	2900	31	7	61	14000	31	2400	190	< 1.5	**66**	< 1	26	27	32
		16169	8200	< 0.8	9	23	< 0.5	< 0.8	2000	23	6	60	13000	32	2100	150	< 1.5	**70**	< 1	18	24	23
	5-10 cm	16170	6900	< 0.8	< 5	22	< 0.5	< 0.8	1500	21	5	53	11000	39	1600	110	< 1.5	**53**	< 1	16	21	25
		16171	7800	< 0.8	< 5	24	< 0.5	< 0.8	1600	23	4	63	12000	35	1900	130	< 1.5	**45**	< 1	15	24	27
	10-20 cm	16172	6700	< 0.8	< 5	22	< 0.5	< 0.8	1500	21	6	80	8500	35	1600	110	< 1.5	**83**	< 1	15	22	22
		16173	8200	< 0.8	< 5	36	< 0.5	< 0.8	1900	24	5	83	9500	65	1900	140	< 1.5	**71**	< 1	23	26	31
5037660 3rd Ave. (back yard)	0-5 cm	16174	13000	< 0.8	5	53	< 0.5	< 0.8	3700	36	8	71	16000	23	2600	230	< 1.5	**80**	< 1	40	32	34
		16175	12000	< 0.8	7	50	< 0.5	< 0.8	3800	36	8	60	16000	21	2800	240	< 1.5	**72**	< 1	39	32	32
	5-10 cm	16176	13000	< 0.8	< 5	50	< 0.5	< 0.8	3100	34	7	45	16000	17	2900	220	< 1.5	**50**	< 1	37	32	27
		16177	13000	< 0.8	< 5	49	< 0.5	< 0.8	3300	33	7	36	16000	16	2700	210	< 1.5	**45**	< 1	39	33	24
	10-20 cm	16178	10000	< 0.8	< 5	38	< 0.5	< 0.8	2500	29	7	46	15000	25	2900	190	< 1.5	**53**	< 1	31	29	24
		16179	9600	< 0.8	< 5	34	< 0.5	< 0.8	2700	28	7	50	15000	66	3200	180	< 1.5	**59**	< 1	28	29	25
5037661 3rd Ave. (front yard)	0-5 cm	16180	7300	< 0.8	< 5	31	< 0.5	< 0.8	2900	20	6	51	10000	30	2000	130	< 1.5	**72**	< 1	25	22	30
		16181	7000	< 0.8	< 5	26	< 0.5	< 0.8	2700	20	6	70	11000	29	2000	130	< 1.5	**84**	< 1	22	22	26
	5-10 cm	16182	6200	< 0.8	< 5	22	< 0.5	< 0.8	2200	19	5	42	9600	26	1600	130	< 1.5	**59**	< 1	20	21	22
		16183	6000	< 0.8	< 5	23	< 0.5	< 0.8	1900	18	5	59	9200	32	1600	120	< 1.5	**74**	< 1	20	20	24
	10-20 cm	16184	6000	< 0.8	< 5	24	< 0.5	< 0.8	1600	19	6	**88**	9500	30	1400	120	< 1.5	**77**	< 1	18	20	23
		16185	6200	< 0.8	< 5	26	< 0.5	< 0.8	2000	18	5	62	9600	34	1600	110	< 1.5	**73**	< 1	19	20	26
5037662 3rd Ave. (back yard)	0-5 cm	16186	8200	< 0.8	< 5	52	< 0.5	< 0.8	2800	23	7	**92**	12000	61	2000	130	< 1.5	**110**	< 1	25	23	46
		16187	5400	**2.9**	< 5	32	< 0.5	< 0.8	1800	18	6	**86**	9400	59	1700	110	< 1.5	**100**	< 1	12	18	40
	5-10 cm	16188	6600	< 0.8	< 5	34	< 0.5	< 0.8	1900	19	6	72	9900	63	1700	120	< 1.5	**96**	< 1	18	21	45
		16189	6600	< 0.8	< 5	36	< 0.5	< 0.8	2200	21	7	76	9800	86	1800	130	< 1.5	**100**	< 1	20	21	50
	10-20 cm	16190	7200	< 0.8	< 5	39	< 0.5	< 0.8	2400	21	6	66	9900	67	1700	130	< 1.5	**97**	< 1	25	22	46
		16191	8900	< 0.8	< 5	53	< 0.5	< 0.8	2900	24	6	70	11000	99	1900	160	< 1.5	**94**	1	32	25	65

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037663 3rd Ave. (front yard)	0-5 cm	16192	9800	< 0.8	**35**	64	< 0.5	**1.1**	5500	31	**45**	**1000**	26000	120	2100	160	< 1.5	**1200**	**3**	39	29	110
		16193	11000	< 0.8	**29**	67	< 0.5	0.9	6200	32	**34**	**720**	23000	100	2200	170	< 1.5	**890**	**3**	38	29	89
	5-10 cm	16194	9000	**1.4**	**35**	68	< 0.5	< 0.8	3500	25	**36**	**760**	21000	110	1600	150	< 1.5	**1100**	**3**	35	25	86
		16195	9200	< 0.8	**36**	70	< 0.5	0.9	4700	27	**38**	**820**	21000	110	1800	170	< 1.5	**1200**	**3**	36	27	89
	10-20 cm	16196	8900	< 0.8	12	55	< 0.5	< 0.8	3000	21	17	**390**	13000	82	1400	160	< 1.5	**520**	1	28	24	59
		16197	6900	< 0.8	11	68	< 0.5	< 0.8	3100	19	17	**430**	14000	85	1300	150	< 1.5	**540**	**2**	28	22	59
5037664 3rd Ave. (back yard)	0-5 cm	16198	6400	1	**18**	61	< 0.5	< 0.8	2500	23	20	**400**	17000	**150**	1900	130	< 1.5	**440**	**3**	20	21	88
		16199	6200	1	**18**	64	< 0.5	0.8	2100	23	19	**390**	17000	**210**	1800	130	< 1.5	**450**	**2**	18	22	90
	5-10 cm	16200	5800	0.9	**22**	72	< 0.5	< 0.8	1900	20	**24**	**570**	16000	**140**	1500	150	< 1.5	**620**	**2**	15	19	85
		16201	5900	**1.2**	**28**	91	< 0.5	< 0.8	1900	21	**30**	**640**	18000	**250**	1600	170	< 1.5	**670**	**3**	19	20	110
	10-20 cm	16202	5800	1	15	98	< 0.5	< 0.8	1700	18	19	**450**	12000	**170**	1400	170	< 1.5	**590**	1	17	18	140
		16203	6800	1	16	130	< 0.5	< 0.8	2600	19	20	**500**	14000	**170**	1600	200	< 1.5	**680**	1	25	21	150
5037665 3rd Ave. (front yard)	0-5 cm	16204	7300	< 0.8	6	30	< 0.5	< 0.8	2900	23	7	75	13000	32	2700	140	< 1.5	**88**	< 1	17	26	33
		16205	8300	< 0.8	6	29	< 0.5	< 0.8	2500	24	8	**100**	14000	27	2300	120	< 1.5	**120**	< 1	19	27	32
	5-10 cm	16206	8600	< 0.8	7	25	< 0.5	< 0.8	1800	22	7	83	14000	20	2100	120	< 1.5	**88**	< 1	17	29	24
		16207	7500	0.9	6	24	< 0.5	< 0.8	1700	21	7	**97**	12000	22	2000	130	< 1.5	**120**	< 1	17	24	22
	10-20 cm	16208	8500	< 0.8	9	30	< 0.5	< 0.8	1800	23	9	**150**	14000	35	2100	150	< 1.5	**150**	< 1	20	25	29
		16209	7500	< 0.8	14	32	< 0.5	< 0.8	1800	22	10	**170**	14000	76	2200	150	< 1.5	**150**	< 1	17	24	28
5037666 3rd Ave. (back yard)	0-5 cm	16210	7000	< 0.8	< 5	27	< 0.5	< 0.8	2600	27	5	45	11000	13	2500	160	< 1.5	**57**	< 1	16	22	31
		16211	7700	< 0.8	7	31	< 0.5	< 0.8	3000	28	6	58	12000	18	2700	170	< 1.5	**73**	< 1	19	25	33
	5-10 cm	16212	8000	< 0.8	5	25	< 0.5	< 0.8	2100	21	5	53	11000	13	2200	130	< 1.5	**52**	< 1	20	25	31
		16213	13000	< 0.8	< 5	52	< 0.5	< 0.8	4300	31	6	49	14000	12	2800	190	< 1.5	**49**	< 1	42	33	25
	10-20 cm	16214	11000	< 0.8	7	40	< 0.5	< 0.8	3500	30	9	**120**	17000	40	3500	190	< 1.5	**110**	< 1	34	32	41
		16215	10000	< 0.8	7	42	< 0.5	< 0.8	3700	28	8	**120**	16000	39	3200	190	< 1.5	**110**	< 1	34	30	33

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037476 4th Ave. (front yard)	0-5 cm	15434	8100	< 0.8	6	30	< 0.5	< 0.8	6400	25	6	72	12000	30	2900	150	< 1.5	**78**	**2**	32	26	26
		15435	7200	< 0.8	6	27	< 0.5	< 0.8	5600	24	6	67	11000	28	2700	140	< 1.5	**78**	< 1	27	25	28
	5-10 cm	15436	6700	< 0.8	< 5	24	< 0.5	< 0.8	2900	24	5	57	12000	32	2100	150	< 1.5	**47**	< 1	22	26	19
		15437	6400	< 0.8	< 5	22	< 0.5	< 0.8	2700	21	6	77	11000	35	2000	130	< 1.5	**87**	< 1	19	24	19
	10-20 cm	15438	6300	< 0.8	< 5	24	< 0.5	< 0.8	2200	20	5	46	11000	23	1900	150	< 1.5	**44**	< 1	17	23	15
		15439	6200	< 0.8	< 5	25	< 0.5	< 0.8	2200	21	9	**98**	11000	26	2200	140	< 1.5	**140**	< 1	15	23	19
5037477 4th Ave. (back yard)	0-5 cm	15428	8000	< 0.8	6	40	< 0.5	< 0.8	7000	24	8	**99**	13000	42	3300	150	< 1.5	**130**	< 1	26	26	52
		15429	8600	< 0.8	6	44	< 0.5	< 0.8	9000	25	8	**94**	12000	45	4000	170	< 1.5	**120**	< 1	31	25	55
	5-10 cm	15430	9600	< 0.8	6	38	< 0.5	< 0.8	4400	27	8	**87**	14000	30	2800	160	< 1.5	**120**	< 1	29	29	39
		15431	9900	< 0.8	8	39	< 0.5	< 0.8	4700	28	9	**110**	15000	24	2800	160	< 1.5	**150**	< 1	31	29	39
	10-20 cm	15432	7600	< 0.8	14	38	< 0.5	< 0.8	3200	25	10	**190**	13000	44	2100	130	< 1.5	**210**	1	25	25	35
		15433	6500	< 0.8	5	36	< 0.5	< 0.8	2400	19	10	**190**	13000	34	2100	110	< 1.5	**230**	< 1	15	21	33
5037651 4th Ave. (front yard)	0-5 cm	16120	9800	< 0.8	< 5	23	< 0.5	< 0.8	3500	25	3	14	12000	6	1800	160	< 1.5	25	< 1	36	27	17
		16121	11000	< 0.8	< 5	28	< 0.5	< 0.8	4000	27	4	20	13000	7	2000	180	< 1.5	31	< 1	40	29	19
	5-10 cm	16122	11000	< 0.8	< 5	36	< 0.5	< 0.8	4000	27	6	65	13000	16	2300	179	< 1.5	**74**	< 1	38	29	23
		16123	11000	< 0.8	< 5	37	< 0.5	< 0.8	3800	29	5	47	13000	11	2000	190	< 1.5	**57**	< 1	42	30	22
	10-20 cm	16124	11000	< 0.8	9	53	< 0.5	< 0.8	4500	31	11	**170**	17000	49	3200	190	< 1.5	**180**	< 1	39	31	31
		16125	12000	< 0.8	10	62	< 0.5	< 0.8	4200	33	12	**220**	18000	38	2900	190	< 1.5	**200**	< 1	41	33	31
5037652 4th Ave. (back yard)	0-5 cm	16126	7900	0.9	6	27	< 0.5	< 0.8	2400	21	6	69	11000	17	1800	130	< 1.5	**81**	< 1	18	23	31
		16127	7000	< 0.8	< 5	20	< 0.5	< 0.8	1400	18	4	23	9500	6	1500	100	< 1.5	32	< 1	10	20	19
	5-10 cm	16128	7300	< 0.8	7	31	< 0.5	< 0.8	1900	21	9	**120**	11000	24	1900	130	< 1.5	**140**	< 1	13	22	36
		16129	7600	**1.3**	< 5	23	< 0.5	< 0.8	1800	20	5	28	11000	6	1700	130	< 1.5	40	< 1	14	23	23
	10-20 cm	16130	11000	< 0.8	**23**	55	< 0.5	< 0.8	4300	30	18	**380**	17000	43	2000	200	< 1.5	**520**	< 1	39	30	74
		16131	9500	< 0.8	< 5	31	< 0.5	< 0.8	3200	27	5	44	13000	7	2200	170	< 1.5	**54**	< 1	35	26	18

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037653 4th Ave. (front yard)	0-5 cm	16132	13000	< 0.8	< 5	53	< 0.5	< 0.8	5100	37	7	44	17000	17	3700	210	< 1.5	**56**	< 1	40	33	38
		16133	13000	< 0.8	< 5	54	< 0.5	< 0.8	4600	36	7	35	16000	17	3500	210	< 1.5	**48**	< 1	42	36	33
	5-10 cm	16134	12000	< 0.8	< 5	39	< 0.5	< 0.8	4000	34	7	27	16000	11	3600	200	< 1.5	40	< 1	38	34	24
		16135	12000	< 0.8	< 5	44	< 0.5	< 0.8	3600	33	6	40	14000	17	2800	190	< 1.5	**46**	< 1	38	32	24
	10-20 cm	16136	10000	< 0.8	< 5	40	< 0.5	< 0.8	3300	28	6	52	13000	23	2300	190	< 1.5	**68**	< 1	35	29	22
		16137	8400	< 0.8	< 5	34	< 0.5	< 0.8	3200	25	6	77	12000	29	2200	170	< 1.5	**92**	< 1	32	27	24
5037654 4th Ave. (back yard)	0-5 cm	16138	10000	< 0.8	< 5	68	< 0.5	< 0.8	6200	26	4	53	9500	21	2200	260	< 1.5	**60**	< 1	44	23	56
		16139	11000	< 0.8	< 5	78	< 0.5	< 0.8	7100	27	5	51	9800	18	2300	320	< 1.5	**65**	< 1	47	25	67
	5-10 cm	16140	9500	< 0.8	< 5	58	< 0.5	< 0.8	5800	24	4	36	8600	16	1800	270	< 1.5	**45**	< 1	44	23	44
		16141	11000	< 0.8	5	65	< 0.5	< 0.8	6500	26	3	30	8600	11	2200	300	< 1.5	40	< 1	47	23	44
	10-20 cm	16142	8000	< 0.8	< 5	41	< 0.5	< 0.8	3700	24	5	46	11000	21	1900	210	< 1.5	**61**	< 1	33	25	35
		16143	8800	< 0.8	< 5	52	< 0.5	< 0.8	5100	23	5	41	10000	29	2000	240	< 1.5	**50**	< 1	39	25	41
5037655 4th Ave. (front yard)	0-5 cm	16150	8600	< 0.8	< 5	42	< 0.5	< 0.8	4300	25	7	55	11000	28	2600	150	< 1.5	**74**	< 1	33	24	28
		16151	9100	< 0.8	< 5	45	< 0.5	< 0.8	4400	26	6	55	11000	27	2500	150	< 1.5	**72**	< 1	34	25	30
	5-10 cm	16152	8500	< 0.8	< 5	40	< 0.5	< 0.8	3400	23	6	50	10000	21	2200	130	< 1.5	**68**	< 1	33	24	22
		16153	8200	< 0.8	< 5	32	< 0.5	< 0.8	3400	20	5	44	10000	20	2100	120	< 1.5	**73**	< 1	33	22	20
	10-20 cm	16154	8500	< 0.8	< 5	31	< 0.5	< 0.8	3300	20	4	32	10000	15	2000	120	< 1.5	**52**	< 1	32	21	17
		16155	8900	< 0.8	< 5	36	< 0.5	< 0.8	3500	21	5	42	11000	19	2100	130	< 1.5	**72**	< 1	32	23	22
5037656 4th Ave. (back yard)	0-5 cm	16144	9100	< 0.8	< 5	42	< 0.5	< 0.8	4500	26	6	60	12000	33	2500	160	< 1.5	**82**	< 1	35	26	32
		16145	10000	< 0.8	6	55	< 0.5	< 0.8	5500	27	8	80	12000	38	2700	170	< 1.5	**110**	< 1	37	27	40
	5-10 cm	16146	7500	< 0.8	< 5	32	< 0.5	< 0.8	3100	23	5	56	11000	26	2000	140	< 1.5	**74**	< 1	29	24	27
		16147	7400	< 0.8	< 5	34	< 0.5	< 0.8	3300	23	6	78	11000	27	2000	140	< 1.5	**97**	< 1	28	23	30
	10-20 cm	16148	4900	< 0.8	< 5	23	< 0.5	< 0.8	2000	16	5	56	8500	26	1800	100	< 1.5	**67**	< 1	10	18	31
		16149	5700	< 0.8	13	42	< 0.5	< 0.8	2800	19	10	**170**	11000	42	2000	110	< 1.5	**<u>170</u>**	< 1	10	19	38

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037649 5th Ave. (front yard)	0-5 cm	16108	8200	< 0.8	6	36	< 0.5	< 0.8	3000	26	6	76	12000	18	2300	150	< 1.5	**96**	< 1	30	26	25
		16109	7300	< 0.8	7	29	< 0.5	< 0.8	3100	26	7	**91**	12000	24	2200	150	< 1.5	**110**	< 1	30	26	25
	5-10 cm	16110	9200	< 0.8	12	41	< 0.5	< 0.8	3200	28	11	**210**	14000	29	2200	160	< 1.5	**250**	< 1	33	28	31
		16111	8000	< 0.8	12	35	< 0.5	< 0.8	3300	24	12	**230**	14000	25	2100	150	< 1.5	**270**	< 1	32	26	30
	10-20 cm	16112	9400	< 0.8	**20**	49	< 0.5	< 0.8	3800	26	15	**310**	16000	45	2100	160	< 1.5	**370**	< 1	33	27	40
		16113	9900	< 0.8	16	48	< 0.5	< 0.8	3600	26	13	**260**	15000	33	2000	170	< 1.5	**330**	< 1	35	27	38
5037650 5th Ave. (back yard)	0-5 cm	16114	11000	< 0.8	13	63	< 0.5	< 0.8	5300	30	15	**230**	16000	40	2600	170	< 1.5	**300**	< 1	40	29	45
		16115	8800	< 0.8	12	57	< 0.5	< 0.8	4400	24	15	**300**	16000	47	2300	160	< 1.5	**300**	< 1	33	26	48
	5-10 cm	16116	11000	< 0.8	17	67	< 0.5	< 0.8	4100	29	16	**340**	18000	37	2200	190	< 1.5	**420**	< 1	43	30	39
		16117	11000	< 0.8	15	60	< 0.5	< 0.8	5100	28	15	**310**	17000	39	2300	190	< 1.5	**350**	< 1	43	31	39
	10-20 cm	16118	11000	< 0.8	17	63	< 0.5	< 0.8	3700	27	12	**360**	16000	36	1800	160	< 1.5	**350**	< 1	38	30	42
		16119	11000	< 0.8	**18**	66	< 0.5	< 0.8	4200	27	12	**340**	17000	30	2000	160	< 1.5	**290**	< 1	40	31	31
5037740 Albert St. (front yard)	0-5 cm	18757	6700	< 0.8	6	34	< 0.5	< 0.8	2600	20	9	**110**	12000	20	2300	130	< 1.5	**140**	< 1	18	22	44
		18758	7700	< 0.8	7	41	< 0.5	< 0.8	2900	23	10	**120**	13000	25	2400	140	< 1.5	**150**	< 1	24	24	46
	5-10 cm	18759	7000	< 0.8	10	42	< 0.5	< 0.8	2500	21	12	**240**	15000	38	2100	140	< 1.5	**260**	< 1	21	24	51
		18760	7000	< 0.8	9	38	< 0.5	< 0.8	2500	21	11	**200**	14000	25	2100	130	< 1.5	**210**	< 1	21	23	39
	10-15 cm	18761	8200	**2**	17	70	< 0.5	< 0.8	3400	26	18	**360**	18000	62	2500	190	< 1.5	**480**	1	29	27	63
		18762	7500	< 0.8	16	52	< 0.5	< 0.8	3800	24	20	**360**	17000	50	2800	160	< 1.5	**450**	1	24	25	49
5037741 Albert St. (back yard)	0-5 cm	18763	8300	< 0.8	12	33	< 0.5	< 0.8	5700	22	**23**	**270**	14000	28	2000	140	< 1.5	**550**	< 1	25	23	42
		18764	7300	< 0.8	12	33	< 0.5	< 0.8	6000	20	**23**	**280**	13000	30	1900	140	< 1.5	**550**	< 1	21	22	50
	5-10 cm	18765	9400	< 0.8	10	45	< 0.5	< 0.8	6100	29	14	**170**	16000	21	3300	210	< 1.5	**300**	< 1	23	29	37
		18766	7900	< 0.8	11	36	< 0.5	< 0.8	5400	23	18	**240**	13000	28	2200	150	< 1.5	**420**	< 1	23	25	46
	10-15 cm	18767	11000	< 0.8	**18**	57	< 0.5	< 0.8	6600	33	17	**280**	20000	34	3200	220	< 1.5	**320**	1	31	31	39
		18768	14000	< 0.8	12	72	< 0.5	< 0.8	4500	37	14	**190**	19000	37	3400	230	< 1.5	**240**	< 1	43	37	43

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037499 Allan St. (front yard)	0-5 cm	15631	8300	**1.7**	10	52	< 0.5	1	4400	58	14	**220**	15000	62	2300	180	< 1.5	**260**	< 1	33	27	74
		15632	7200	< 0.8	9	47	< 0.5	< 0.8	3900	45	14	**190**	14000	52	2200	160	< 1.5	**250**	< 1	28	25	68
	5-10 cm	15633	8200	< 0.8	10	49	< 0.5	1	4400	50	18	**240**	15000	51	2300	170	< 1.5	**370**	< 1	30	27	67
		15634	9000	< 0.8	10	52	< 0.5	1	4800	57	14	**240**	15000	40	2300	180	< 1.5	**280**	< 1	35	28	76
	10-20 cm	15635	10000	< 0.8	10	58	< 0.5	< 0.8	5900	35	17	**240**	15000	29	2200	210	< 1.5	**420**	< 1	43	30	56
		15636	8900	< 0.8	9	51	< 0.5	< 0.8	5300	33	15	**210**	14000	32	2400	190	< 1.5	**370**	< 1	39	27	50
5037500 Allan St. (back yard)	0-5 cm	15637	9800	< 0.8	15	140	< 0.5	0.9	9100	34	18	**290**	16000	**250**	3000	250	< 1.5	**460**	< 1	46	29	**250**
		15638	10000	< 0.8	15	120	< 0.5	1	9200	36	19	**330**	17000	**200**	3300	260	< 1.5	**460**	< 1	48	30	**230**
	5-10 cm	15639	12000	1	15	140	< 0.5	**1.1**	8300	37	19	**330**	18000	**240**	3100	280	< 1.5	**480**	< 1	49	31	**260**
		15640	9200	< 0.8	14	100	< 0.5	< 0.8	6300	32	19	**310**	16000	**160**	2600	220	< 1.5	**490**	< 1	42	28	**210**
	10-20 cm	15641	8200	< 0.8	9	79	< 0.5	< 0.8	5100	26	14	**240**	14000	71	2300	190	< 1.5	**390**	< 1	38	26	140
		15642	8300	< 0.8	8	76	< 0.5	< 0.8	4500	28	13	**240**	14000	60	2400	200	< 1.5	**330**	< 1	36	27	100
5037502 Allan St. (back yard)	0-5 cm	15648	7000	< 0.8	9	55	< 0.5	< 0.8	5900	23	16	**260**	13000	42	2900	140	< 1.5	**340**	< 1	22	22	97
		15649	6400	< 0.8	6	47	< 0.5	< 0.8	4600	22	15	**260**	12000	32	2400	130	< 1.5	**330**	1	19	20	72
	5-10 cm	15650	6800	< 0.8	7	36	< 0.5	< 0.8	4300	19	11	**250**	12000	23	2100	100	< 1.5	**270**	< 1	17	21	51
		15651	6600	< 0.8	< 5	40	< 0.5	< 0.8	4400	20	13	**290**	12000	32	2000	99	< 1.5	**300**	1	18	20	58
	10-20 cm	15652	7500	< 0.8	8	55	< 0.5	< 0.8	4400	22	15	**240**	14000	33	2400	160	< 1.5	**330**	< 1	18	22	65
		15653	6700	< 0.8	7	51	< 0.5	< 0.8	4600	22	14	**210**	13000	31	2700	150	< 1.5	**350**	< 1	15	20	59

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037713 Amanda (front yard)	0-5 cm	16492	7500	< 0.8	< 5	36	< 0.5	< 0.8	4700	27	7	65	11000	15	2500	150	< 1.5	**91**	< 1	26	25	35
		16493	9400	< 0.8	< 5	44	< 0.5	< 0.8	5300	29	8	63	12000	17	2700	180	< 1.5	**95**	< 1	40	29	34
	5-10 cm	16494	9300	< 0.8	< 5	40	< 0.5	< 0.8	5600	29	6	72	12000	16	2600	170	< 1.5	**84**	< 1	38	30	29
		16495	10000	< 0.8	< 5	47	< 0.5	< 0.8	6600	31	7	59	13000	16	3100	190	< 1.5	**79**	< 1	41	31	34
	10-20 cm	16496	9800	< 0.8	< 5	45	< 0.5	< 0.8	5100	28	7	**95**	12000	20	2500	160	< 1.5	**110**	< 1	39	29	32
		16497	11000	< 0.8	< 5	50	< 0.5	< 0.8	5300	32	6	63	13000	15	2700	170	< 1.5	**78**	< 1	40	31	28
5037714 Amanda (back yard)	0-5 cm	16498	11000	< 0.8	< 5	54	< 0.5	< 0.8	5400	34	8	53	15000	16	3300	200	< 1.5	**80**	< 1	41	34	49
		16499	9900	< 0.8	< 5	39	< 0.5	< 0.8	4600	31	7	49	14000	14	3100	190	< 1.5	**66**	< 1	28	30	45
	5-10 cm	16500	9800	< 0.8	< 5	31	< 0.5	< 0.8	3600	30	7	42	14000	12	3100	160	< 1.5	**53**	< 1	24	29	28
		16501	9300	< 0.8	< 5	31	< 0.5	< 0.8	2600	29	7	36	14000	10	3100	170	< 1.5	42	< 1	14	27	24
	10-20 cm	16502	8800	< 0.8	< 5	31	< 0.5	< 0.8	3300	26	6	43	13000	14	2700	150	< 1.5	**59**	< 1	24	27	22
		16503	7500	< 0.8	< 5	29	< 0.5	< 0.8	2900	23	6	46	11000	12	2400	120	< 1.5	**65**	< 1	19	24	21
5037719 Aubrey Ave. (front yard)	0-5 cm	16528	11000	< 0.8	< 5	39	< 0.5	< 0.8	3000	38	5	49	13000	14	2300	170	< 1.5	**55**	< 1	31	28	30
		16529	9900	< 0.8	< 5	39	< 0.5	< 0.8	2800	37	5	53	12000	14	2300	160	< 1.5	**57**	< 1	26	26	34
	5-10 cm	16530	14000	< 0.8	8	38	< 0.5	< 0.8	3400	30	5	33	14000	10	2600	160	< 1.5	**45**	< 1	28	28	29
		16531	12000	< 0.8	< 5	38	< 0.5	< 0.8	3100	31	5	38	14000	10	2200	180	< 1.5	**120**	< 1	33	29	37
	10-20 cm	16532	14000	< 0.8	< 5	50	< 0.5	< 0.8	4100	33	5	26	15000	8	2400	210	< 1.5	42	< 1	45	32	24
		16533	13000	< 0.8	< 5	47	< 0.5	< 0.8	3800	30	5	27	14000	9	2300	210	< 1.5	**44**	< 1	44	32	24
5037720 Aubrey Ave. (back yard)	0-5 cm	16534	14000	< 0.8	< 5	70	< 0.5	< 0.8	5500	37	8	73	16000	11	3300	210	< 1.5	**89**	< 1	40	38	42
		16535	15000	< 0.8	< 5	78	< 0.5	< 0.8	5200	39	8	64	16000	10	3400	200	< 1.5	**73**	< 1	41	39	39
	5-10 cm	16536	14000	< 0.8	< 5	65	< 0.5	< 0.8	5200	36	8	68	16000	11	3200	210	< 1.5	**78**	< 1	39	38	38
		16537	15000	< 0.8	< 5	70	< 0.5	< 0.8	3800	36	8	51	17000	8	3200	200	< 1.5	**63**	< 1	40	37	32
	10-20 cm	16538	13000	< 0.8	< 5	64	< 0.5	< 0.8	4300	35	8	**94**	14000	9	3000	210	< 1.5	**95**	< 1	37	37	36
		16539	11000	< 0.8	< 5	59	< 0.5	< 0.8	2900	33	9	**100**	13000	10	2900	190	< 1.5	**120**	< 1	26	30	29

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037715 Balsam St. (front yard)	0-5 cm	16504	7100	< 0.8	**20**	47	< 0.5	**1.3**	8600	27	**41**	**710**	18000	86	2500	130	< 1.5	**1100**	**3**	25	21	71
		16505	8200	0.9	**21**	58	< 0.5	**1.8**	11000	33	**51**	**800**	21000	120	3400	170	< 1.5	**1200**	**3**	30	25	100
	5-10 cm	16506	7400	0.8	**19**	46	< 0.5	< 0.8	3800	21	18	**440**	14000	71	1800	120	< 1.5	**550**	**2**	21	21	37
		16507	8300	< 0.8	**21**	50	< 0.5	< 0.8	3900	24	20	**430**	15000	66	2000	130	< 1.5	**590**	**2**	21	22	41
	10-20 cm	16508	6800	< 0.8	10	36	< 0.5	< 0.8	2800	18	13	**330**	10000	63	1400	93	< 1.5	**380**	1	17	19	29
		16509	7000	< 0.8	12	46	< 0.5	< 0.8	2800	20	14	**360**	12000	90	1600	110	< 1.5	**420**	**2**	16	19	31
5037716 Balsam St. (back yard)	0-5 cm	16510	6700	< 0.8	12	51	< 0.5	1	8400	26	**24**	**380**	14000	110	2500	140	< 1.5	**560**	**2**	24	21	83
		16511	7000	< 0.8	15	48	< 0.5	< 0.8	7100	24	21	**410**	13000	66	2300	130	< 1.5	**530**	**2**	25	21	63
	5-10 cm	16512	6600	< 0.8	**18**	47	< 0.5	< 0.8	6000	22	20	**410**	13000	85	2000	120	< 1.5	**550**	**2**	20	20	59
		16513	6800	< 0.8	**18**	77	< 0.5	< 0.8	4100	22	15	**340**	12000	110	1900	120	< 1.5	**440**	**2**	22	21	79
	10-20 cm	16514	7700	< 0.8	**18**	49	< 0.5	< 0.8	5500	23	13	**320**	13000	87	2000	130	< 1.5	**360**	**4**	26	22	50
		16515	9100	< 0.8	12	52	< 0.5	< 0.8	4400	24	11	**270**	12000	86	2000	150	< 1.5	**280**	< 1	37	24	35
5037717 Balsam St. (front yard)	0-5 cm	16516	11000	**1.3**	**39**	78	< 0.5	**2.4**	15000	48	**74**	**1200**	33000	120	2900	210	< 1.5	**1700**	**4**	46	31	120
		16517	9900	< 0.8	**27**	81	< 0.5	**2.7**	14000	53	**57**	**900**	26000	120	2900	210	< 1.5	**1300**	**3**	43	30	140
	5-10 cm	16518	9600	< 0.8	**23**	39	< 0.5	< 0.8	5600	27	20	**520**	17000	76	2100	140	< 1.5	**650**	**2**	34	28	46
		16519	10000	< 0.8	**28**	53	< 0.5	0.8	12000	32	**31**	**730**	21000	91	2300	150	< 1.5	**900**	**2**	37	29	66
	10-20 cm	16520	8100	< 0.8	11	25	< 0.5	< 0.8	2500	21	7	**190**	11000	31	1800	110	< 1.5	**210**	< 1	22	24	21
		16521	8300	< 0.8	12	25	< 0.5	< 0.8	2500	22	9	**260**	12000	36	1800	100	< 1.5	**270**	1	20	24	25
5037718 Balsam St. (back yard)	0-5 cm	16522	8200	**1.2**	**19**	77	< 0.5	**1.9**	15000	46	**51**	**690**	21000	**140**	3800	190	< 1.5	**1100**	**2**	34	25	130
		16523	8100	< 0.8	**24**	63	< 0.5	**1.6**	9700	41	**51**	**730**	22000	120	2600	180	< 1.5	**1100**	**2**	29	26	120
	5-10 cm	16524	9700	< 0.8	**28**	75	< 0.5	**1.1**	7900	32	**46**	**760**	21000	**130**	2100	200	< 1.5	**1100**	**3**	31	27	120
		16525	8000	< 0.8	**23**	59	< 0.5	< 0.8	4100	25	20	**420**	15000	88	1900	160	< 1.5	**580**	**2**	24	25	64
	10-20 cm	16526	7100	< 0.8	**21**	58	< 0.5	< 0.8	3400	23	16	**370**	12000	110	1800	160	< 1.5	**500**	**2**	16	21	73
		16527	8200	< 0.8	13	50	< 0.5	< 0.8	3100	21	12	**280**	12000	97	1600	140	< 1.5	**330**	**2**	22	23	44

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037742 Bryce St. (front yard)	0-5 cm	18769	9200	< 0.8	12	41	< 0.5	< 0.8	4800	27	14	**200**	15000	31	3200	160	< 1.5	**260**	< 1	31	29	79
		18770	9400	< 0.8	10	39	< 0.5	< 0.8	3800	26	11	**150**	15000	27	2700	170	< 1.5	**200**	< 1	34	29	38
	5-10 cm	18771	10500	< 0.8	16	47	< 0.5	< 0.8	3900	28	15	**260**	17000	27	2800	170	< 1.5	**340**	< 1	34	31	53
		18772	10000	< 0.8	11	46	< 0.5	< 0.8	4300	29	13	**180**	15000	24	2900	170	< 1.5	**250**	< 1	37	31	36
	10-20 cm	18773	8000	< 0.8	13	34	< 0.5	< 0.8	2800	22	13	**230**	15000	24	2200	120	< 1.5	**280**	**2**	24	27	34
		18774	7000	< 0.8	11	31	< 0.5	< 0.8	2300	21	12	**220**	14000	25	2200	120	< 1.5	**260**	1	17	25	34
5037743 Bryce St. (back yard)	0-5 cm	18775	6400	< 0.8	12	58	< 0.5	< 0.8	4400	21	14	**260**	13000	62	2500	190	< 1.5	**290**	1	24	22	74
		18776	6000	0.9	12	55	< 0.5	< 0.8	3600	18	14	**270**	13000	52	2000	180	< 1.5	**300**	1	20	22	78
	5-10 cm	18777	5300	< 0.8	15	67	< 0.5	< 0.8	3200	16	13	**290**	13000	66	2000	150	< 1.5	**290**	1	16	18	64
		18778	5800	< 0.8	13	50	< 0.5	< 0.8	3600	18	15	**290**	13000	59	2100	170	< 1.5	**340**	1	22	22	64
	10-20 cm	18779	7000	< 0.8	16	64	< 0.5	< 0.8	3600	19	14	**350**	14000	74	2000	190	< 1.5	**340**	**2**	26	24	68
		18780	6900	< 0.8	15	56	< 0.5	< 0.8	3600	18	13	**340**	14000	46	2000	170	< 1.5	**300**	1	26	24	57
5037504 Caruso St. (front yard)	0-5 cm	15659	9400	< 0.8	9	64	< 0.5	1	9000	32	21	**280**	16000	45	3600	190	< 1.5	**430**	< 1	35	28	70
		15660	9200	< 0.8	8	65	< 0.5	**1.1**	9400	31	**24**	**320**	17000	54	4000	200	< 1.5	**480**	< 1	34	28	80
	5-10 cm	15661	8400	< 0.8	7	45	< 0.5	< 0.8	5100	26	11	**130**	13000	14	2700	160	< 1.5	**230**	< 1	30	26	29
		15662	7600	< 0.8	7	42	< 0.5	< 0.8	4200	25	9	**120**	12000	11	2600	150	< 1.5	**200**	< 1	25	24	31
	10-20 cm	15663	7200	< 0.8	5	39	< 0.5	< 0.8	3100	24	7	**96**	12000	7	2500	140	< 1.5	**130**	< 1	23	24	20
		15664	7600	< 0.8	6	49	< 0.5	< 0.8	3300	27	7	**92**	12000	8	2800	150	< 1.5	**120**	< 1	23	25	26
5037505 Caruso St. (back yard)	0-5 cm	15665	10000	< 0.8	10	74	< 0.5	< 0.8	8000	34	21	**310**	18000	32	4100	200	< 1.5	**440**	< 1	33	30	68
		15666	10000	< 0.8	10	72	< 0.5	< 0.8	7700	33	19	**260**	16000	28	4000	190	< 1.5	**400**	< 1	34	29	63
	5-10 cm	15667	11000	< 0.8	12	67	< 0.5	< 0.8	7200	33	15	**210**	17000	21	3500	200	< 1.5	**340**	< 1	36	31	47
		15668	14000	< 0.8	12	86	< 0.5	< 0.8	7200	37	13	**190**	18000	25	4000	230	< 1.5	**300**	< 1	46	35	56

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037507 Caruso St. (front yard)	0-5 cm	15675	14000	< 0.8	8	73	< 0.5	< 0.8	6200	37	9	**96**	15000	15	3100	230	< 1.5	**140**	< 1	46	34	36
		15676	13000	< 0.8	6	73	< 0.5	< 0.8	6100	35	8	84	14000	14	3000	220	< 1.5	**120**	< 1	45	32	40
	5-10 cm	15677	12000	1	8	56	< 0.5	< 0.8	4700	34	13	**220**	16000	22	2600	200	< 1.5	**240**	< 1	42	31	41
		15678	11000	< 0.8	10	45	< 0.5	< 0.8	4100	31	12	**180**	15000	16	2300	190	< 1.5	**230**	< 1	32	29	37
	10-20 cm	15679	13000	< 0.8	13	67	< 0.5	< 0.8	3800	36	17	**360**	16000	23	2600	160	< 1.5	**380**	< 1	30	29	45
		15680	15000	0.9	16	83	< 0.5	< 0.8	4500	42	18	**400**	18000	29	2900	180	< 1.5	**410**	1	35	32	54
5037508 Caruso St. (back yard)	0-5 cm	15681	9400	< 0.8	< 5	48	< 0.5	< 0.8	4500	30	7	66	12000	15	2700	170	< 1.5	**83**	< 1	34	26	39
		15682	10000	< 0.8	< 5	51	< 0.5	< 0.8	4400	30	7	66	13000	13	2600	180	< 1.5	**89**	< 1	36	27	31
	5-10 cm	15683	10000	< 0.8	< 5	41	< 0.5	< 0.8	3200	32	7	65	14000	10	2800	150	< 1.5	**86**	< 1	30	30	30
		15684	9600	< 0.8	< 5	39	< 0.5	< 0.8	3100	28	5	48	12000	9	2500	130	< 1.5	**56**	< 1	29	27	26
	10-20 cm	15685	11000	< 0.8	8	72	< 0.5	< 0.8	3500	45	12	**180**	16000	37	3300	190	< 1.5	**200**	< 1	28	30	67
		15686	11000	< 0.8	7	65	< 0.5	< 0.8	3300	44	11	**140**	16000	29	3200	170	< 1.5	**170**	< 1	28	31	56
5037721 Caruso St. (back yard)	0-5 cm	16540	6800	< 0.8	< 5	31	< 0.5	< 0.8	1700	19	4	58	8500	14	1600	89	< 1.5	**57**	< 1	17	21	21
		16541	7100	< 0.8	7	39	< 0.5	< 0.8	3200	23	7	**100**	9900	34	2100	120	< 1.5	**110**	< 1	20	21	51
	5-10 cm	16542	6800	< 0.8	6	38	< 0.5	< 0.8	3300	22	7	**97**	9400	32	2100	120	< 1.5	**100**	< 1	20	21	51
		16543	8100	< 0.8	< 5	33	< 0.5	< 0.8	3000	23	5	57	10000	13	1800	100	< 1.5	**61**	< 1	24	24	23
	10-20 cm	16544	8100	< 0.8	< 5	30	< 0.5	< 0.8	2600	22	5	67	10000	12	1800	100	< 1.5	**54**	< 1	23	24	33
		16545	8100	< 0.8	5	39	< 0.5	< 0.8	2500	22	6	76	10000	22	1700	110	< 1.5	**76**	< 1	27	24	27

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037722 Caruso St. (front yard)	0-5 cm	16546	9000	< 0.8	< 5	40	< 0.5	< 0.8	3700	30	9	**91**	13000	24	2600	180	< 1.5	**140**	< 1	27	25	46
		16547	7700	< 0.8	< 5	40	< 0.5	< 0.8	3100	27	9	**94**	12000	28	2600	170	< 1.5	**120**	< 1	15	23	49
	5-10 cm	16548	7900	< 0.8	< 5	35	< 0.5	< 0.8	2700	24	10	**98**	12000	22	2300	140	< 1.5	**170**	< 1	15	21	34
		16549	7800	< 0.8	< 5	32	< 0.5	< 0.8	2800	24	8	69	12000	17	2200	160	< 1.5	**120**	< 1	19	24	31
	10-20 cm	16550	9300	< 0.8	6	41	< 0.5	< 0.8	3800	29	11	**110**	13000	21	2700	170	< 1.5	**190**	< 1	26	25	36
		16551	10000	< 0.8	7	48	< 0.5	< 0.8	3200	31	12	**130**	14000	23	3000	190	< 1.5	**190**	< 1	22	27	40
5037723 Caruso St. (back yard)	0-5 cm	16552	9300	< 0.8	< 5	52	< 0.5	< 0.8	4500	40	11	**120**	13000	36	2700	190	< 1.5	**190**	< 1	26	26	53
		16553	10000	< 0.8	5	56	< 0.5	< 0.8	5300	38	10	**140**	14000	36	2700	190	< 1.5	**190**	< 1	31	28	54
	5-10 cm	16554	12000	< 0.8	6	61	< 0.5	< 0.8	5700	36	10	**120**	14000	33	2800	200	< 1.5	**190**	< 1	42	30	47
		16555	12000	< 0.8	5	55	< 0.5	< 0.8	5900	32	10	**120**	15000	30	2600	190	< 1.5	**180**	< 1	39	31	46
	10-20 cm	16556	14000	< 0.8	7	71	< 0.5	< 0.8	5900	38	12	**160**	16000	26	2900	210	< 1.5	**250**	< 1	45	33	45
		16557	16000	< 0.8	6	76	< 0.5	< 0.8	6400	36	12	**140**	16000	30	3000	210	< 1.5	**240**	< 1	47	33	49
5037724 Caruso St. (front yard)	0-5 cm	16558	9600	< 0.8	5	43	< 0.5	< 0.8	5500	26	9	**120**	13000	27	2200	150	< 1.5	**160**	1	37	28	38
		16559	8900	< 0.8	5	42	< 0.5	< 0.8	5300	26	8	**110**	13000	24	2000	150	< 1.5	**140**	1	35	28	39
	5-10 cm	16560	9000	< 0.8	11	30	< 0.5	< 0.8	3400	25	9	**150**	14000	18	1900	130	< 1.5	**160**	1	29	28	24
		16561	8100	< 0.8	12	27	< 0.5	< 0.8	3200	23	8	**120**	13000	13	1800	120	< 1.5	**130**	1	23	26	22
	10-20 cm	16562	8100	< 0.8	< 5	30	< 0.5	< 0.8	2800	22	6	78	12000	9	1700	120	< 1.5	**100**	1	22	25	22
		16563	8900	< 0.8	7	33	< 0.5	< 0.8	2700	24	8	**100**	12000	10	1800	130	< 1.5	**140**	**2**	25	27	22
5037725 Caruso St. (back yard)	0-5 cm	16564	7700	< 0.8	**26**	90	< 0.5	**1.9**	5700	34	**39**	**740**	25000	**200**	3100	200	< 1.5	**910**	**5**	26	26	140
		16565	9200	< 0.8	**33**	93	< 0.5	**1.5**	5700	35	**42**	**790**	26000	**160**	3200	210	**2.9**	**910**	**5**	36	30	120
	5-10 cm	16566	10000	< 0.8	**20**	81	< 0.5	**1.2**	5100	34	**35**	**600**	22000	77	3200	230	< 1.5	**900**	**3**	36	32	110
		16567	10000	< 0.8	12	87	< 0.5	< 0.8	4700	31	**22**	**380**	18000	39	2800	230	< 1.5	**580**	1	36	31	75
	10-20 cm	16568	9500	< 0.8	7	67	< 0.5	< 0.8	4500	29	12	**200**	15000	29	2800	200	< 1.5	**340**	< 1	32	30	54
		16569	9500	< 0.8	8	55	< 0.5	< 0.8	4000	26	11	**190**	15000	20	2300	210	< 1.5	**290**	< 1	32	30	42

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037726 Caruso St. (front yard)	0-5 cm	16570	7800	< 0.8	12	33	< 0.5	< 0.8	4200	21	13	**280**	13000	52	1700	120	< 1.5	**280**	1	26	25	74
		16571	10000	< 0.8	9	41	< 0.5	< 0.8	4000	26	11	**240**	13000	22	1800	140	< 1.5	**230**	1	35	28	46
	5-10 cm	16572	9800	< 0.8	9	34	< 0.5	< 0.8	3800	23	9	**230**	13000	18	1700	130	< 1.5	**220**	1	32	27	47
		16573	11000	< 0.8	7	37	< 0.5	< 0.8	3400	24	9	**210**	13000	14	1700	130	< 1.5	**200**	1	33	28	34
	10-20 cm	16574	8400	< 0.8	8	32	< 0.5	< 0.8	3000	22	9	**250**	13000	19	1600	130	< 1.5	**190**	1	28	26	38
		16575	11000	< 0.8	7	50	< 0.5	< 0.8	3600	27	9	**240**	14000	22	2000	160	< 1.5	**180**	< 1	34	29	37
5037727 Caruso St. (back yard)	0-5 cm	16576	10000	< 0.8	< 5	51	< 0.5	< 0.8	3700	29	9	51	11000	14	2100	150	< 1.5	**82**	< 1	37	27	45
		16577	7600	< 0.8	< 5	49	< 0.5	< 0.8	3200	22	9	43	8600	9	2000	88	< 1.5	**68**	< 1	16	21	37
	5-10 cm	16578	7300	< 0.8	< 5	38	< 0.5	< 0.8	1600	22	10	58	7600	15	1600	87	< 1.5	**91**	< 1	14	20	43
		16579	7000	< 0.8	< 5	36	< 0.5	< 0.8	1600	21	9	50	7400	11	1600	84	< 1.5	**83**	< 1	13	20	39
	10-20 cm	16580	8100	0.8	9	68	< 0.5	< 0.8	2700	25	18	**250**	11000	74	2200	160	< 1.5	**320**	< 1	21	23	100
		16581	8400	**2.2**	10	110	< 0.5	< 0.8	3800	27	20	**310**	13000	100	2500	290	< 1.5	**380**	< 1	28	24	**170**
5037728 Caruso St. (front yard)	0-5 cm	16582	8100	< 0.8	5	45	< 0.5	< 0.8	2900	25	7	77	12000	26	2500	150	< 1.5	**92**	< 1	16	24	36
		16583	8200	< 0.8	5	47	< 0.5	< 0.8	3300	27	7	75	13000	21	2600	160	< 1.5	**97**	< 1	20	26	35
	5-10 cm	16584	10000	< 0.8	11	87	< 0.5	< 0.8	4800	36	13	**180**	18000	46	3600	280	< 1.5	**240**	< 1	28	31	74
		16585	8900	< 0.8	9	64	< 0.5	< 0.8	2800	32	11	**130**	16000	31	3200	230	< 1.5	**170**	< 1	18	27	50
	10-20 cm	16586	12000	< 0.8	14	100	< 0.5	< 0.8	5300	41	18	**280**	21000	55	4400	300	< 1.5	**380**	1	33	35	76
		16587	11000	< 0.8	13	92	< 0.5	< 0.8	4000	40	16	**230**	21000	49	4200	290	< 1.5	**300**	< 1	31	33	62
5037729 Caruso St. (back yard)	0-5 cm	16588	6800	< 0.8	5	42	< 0.5	< 0.8	3000	22	6	**86**	10000	30	2200	120	< 1.5	**100**	1	15	20	53
		16589	7300	< 0.8	< 5	33	< 0.5	< 0.8	2600	22	5	47	11000	16	2100	120	< 1.5	**67**	< 1	16	21	44
	5-10 cm	16590	7600	< 0.8	5	33	< 0.5	< 0.8	2500	25	6	60	12000	18	2100	140	< 1.5	**86**	< 1	16	23	39
		16591	8000	0.8	5	44	< 0.5	< 0.8	2600	23	8	**98**	13000	23	2200	150	< 1.5	**130**	< 1	19	24	48
	10-20 cm	16592	9900	< 0.8	**19**	130	< 0.5	0.9	5000	34	**23**	**480**	20000	85	2900	300	< 1.5	**610**	**2**	37	30	**200**
		16593	17000	0.9	**19**	150	< 0.5	< 0.8	7300	43	20	**410**	22000	70	3500	310	< 1.5	**500**	**2**	56	39	120

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037730 Caruso St. (front yard)	0-5 cm	16594	11000	< 0.8	6	45	< 0.5	< 0.8	4000	31	5	47	13000	13	2500	180	< 1.5	**56**	< 1	39	29	26
		16595	11000	< 0.8	6	43	< 0.5	< 0.8	4100	29	6	64	14000	15	2600	180	< 1.5	**73**	< 1	38	28	28
	5-10 cm	16596	11000	< 0.8	< 5	42	< 0.5	< 0.8	3900	28	5	30	14000	8	2600	160	< 1.5	**45**	< 1	41	30	18
		16597	11000	< 0.8	< 5	39	< 0.5	< 0.8	3600	28	5	34	13000	8	2500	170	< 1.5	**47**	< 1	38	29	19
	10-20 cm	16598	7100	< 0.8	< 5	26	< 0.5	< 0.8	2400	24	5	26	11000	5	2500	140	< 1.5	31	< 1	25	26	18
		16599	7600	< 0.8	< 5	29	< 0.5	< 0.8	2400	23	5	32	11000	7	2600	140	< 1.5	43	< 1	25	25	17
5037731 Caruso St. (back yard)	0-5 cm	16600	6500	< 0.8	6	42	< 0.5	< 0.8	9500	21	5	47	8900	8	2900	180	< 1.5	**48**	1	35	20	26
		16601	6400	< 0.8	6	48	< 0.5	< 0.8	9900	20	5	52	8600	9	2900	200	< 1.5	**54**	**2**	36	20	26
	5-10 cm	16602	6200	< 0.8	6	33	< 0.5	< 0.8	4900	22	5	35	10000	6	2600	140	< 1.5	40	1	26	22	17
		16603	6800	**5.3**	5	36	< 0.5	< 0.8	6900	23	5	39	10000	7	2800	170	< 1.5	43	1	31	23	29
	10-20 cm	16604	6300	< 0.8	< 5	24	< 0.5	< 0.8	2400	25	5	24	11000	5	2500	130	< 1.5	31	1	20	23	14
		16605	6400	< 0.8	< 5	23	< 0.5	< 0.8	2500	23	5	26	11000	6	2500	130	< 1.5	31	< 1	20	23	14
5037732 Caruso St. (front yard)	0-5 cm	16606	9500	< 0.8	14	65	< 0.5	< 0.8	6800	32	15	**140**	16000	24	3200	200	1.5	**260**	**2**	32	32	64
		16607	9300	< 0.8	13	69	< 0.5	< 0.8	6400	34	14	**140**	15000	22	3400	230	1.7	**250**	**2**	31	31	62
	5-10 cm	16608	9500	< 0.8	17	73	< 0.5	< 0.8	7700	31	14	**160**	16000	19	3100	190	1.7	**270**	1	33	30	53
		16609	13000	< 0.8	13	78	< 0.5	< 0.8	6200	36	14	**160**	19000	20	3900	220	1.8	**230**	1	36	34	45
	10-20 cm	16610	18000	< 0.8	9	91	< 0.5	< 0.8	5100	42	10	**110**	19000	12	4200	240	< 1.5	**160**	< 1	52	41	39
		16611	17000	< 0.8	11	96	< 0.5	< 0.8	4500	44	10	**140**	19000	12	4500	250	< 1.5	**180**	< 1	51	39	35
5037733 Caruso St. (back yard)	0-5 cm	16612	17000	< 0.8	9	94	< 0.5	< 0.8	6600	44	11	**190**	18000	27	4300	270	< 1.5	**190**	1	47	38	52
		16613	20000	< 0.8	8	130	< 0.5	< 0.8	7400	52	14	**210**	22000	34	5100	310	< 1.5	**250**	1	50	44	62
	5-10 cm	16614	17000	< 0.8	14	110	< 0.5	< 0.8	6400	44	16	**320**	21000	40	4300	260	< 1.5	**370**	1	49	40	63
		16615	21000	< 0.8	12	140	< 0.5	< 0.8	7000	52	16	**310**	23000	39	4900	300	< 1.5	**350**	**2**	51	44	65
	10-20 cm	16616	18000	< 0.8	14	120	< 0.5	< 0.8	6500	45	14	**300**	21000	43	3900	250	< 1.5	**320**	**2**	50	39	55
		16617	19000	< 0.8	10	120	< 0.5	< 0.8	7300	44	14	**270**	21000	27	3700	290	< 1.5	**320**	**2**	51	41	61

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037705 Concession St. Side	0-5 cm	16444	7700	< 0.8	10	46	< 0.5	**1.1**	7700	69	12	**160**	14000	75	4200	160	< 1.5	**190**	**2**	27	26	74
		16445	7100	< 0.8	16	39	< 0.5	< 0.8	5200	44	11	**170**	13000	73	2900	140	< 1.5	**210**	**2**	23	26	63
	5-10 cm	16446	7700	< 0.8	16	37	< 0.5	< 0.8	2700	25	11	**200**	13000	70	1900	150	< 1.5	**250**	**2**	24	27	58
		16447	8000	< 0.8	16	36	< 0.5	< 0.8	3300	27	11	**200**	14000	73	2100	150	< 1.5	**260**	**2**	26	29	54
	10-20 cm	16448	7400	< 0.8	11	33	< 0.5	< 0.8	2400	25	7	**130**	12000	52	1900	140	< 1.5	**150**	**2**	23	26	35
		16449	7700	< 0.8	11	36	< 0.5	< 0.8	2600	25	8	**140**	13000	87	1900	140	< 1.5	**170**	**2**	24	27	38
5037706 Concession St. Side	0-5 cm	16450	8200	< 0.8	**19**	50	< 0.5	**1.3**	7500	54	12	**170**	13000	60	3200	210	1.6	**220**	**2**	27	26	71
		16451	7900	< 0.8	**18**	49	< 0.5	**1.3**	7100	59	12	**190**	14000	69	3600	200	< 1.5	**220**	**2**	26	26	68
	5-10 cm	16452	7500	< 0.8	**28**	49	< 0.5	< 0.8	3200	27	14	**250**	13000	72	1900	190	< 1.5	**320**	**2**	22	27	62
		16453	8300	< 0.8	**27**	49	< 0.5	< 0.8	3400	25	15	**270**	14000	81	1900	180	< 1.5	**360**	**3**	26	27	64
	10-20 cm	16454	9800	< 0.8	**19**	58	< 0.5	< 0.8	4300	32	10	**190**	14000	53	2300	190	< 1.5	**240**	**2**	39	31	47
		16455	8700	< 0.8	**21**	46	< 0.5	< 0.8	3500	27	13	**230**	15000	65	2000	170	< 1.5	**290**	**2**	28	28	55
5037707 Concession St. (front yard)	0-5 cm	16456	9300	< 0.8	11	56	< 0.5	< 0.8	4700	29	12	**180**	13000	35	2200	170	< 1.5	**230**	**2**	36	27	48
		16457	9900	< 0.8	12	55	< 0.5	< 0.8	5300	30	13	**230**	14000	36	2400	180	< 1.5	**280**	**2**	37	28	44
	5-10 cm	16458	11000	< 0.8	**23**	63	< 0.5	< 0.8	5900	31	**24**	**430**	18000	57	2300	190	< 1.5	**580**	**3**	38	30	55
		16459	11000	0.9	**26**	66	< 0.5	< 0.8	6800	31	**22**	**460**	18000	49	2300	190	< 1.5	**620**	**3**	41	30	52
	10-20 cm	16460	5800	< 0.8	15	44	< 0.5	< 0.8	3100	17	21	**410**	13000	53	1800	110	< 1.5	**610**	1	14	18	58
		16461	6500	< 0.8	17	37	< 0.5	< 0.8	3000	20	12	**260**	13000	35	1800	110	< 1.5	**380**	1	16	21	29
5037708 Concession St. (back yard)	0-5 cm	16462	6800	< 0.8	16	52	< 0.5	< 0.8	3000	22	15	**260**	14000	87	1900	110	< 1.5	**350**	**2**	18	21	57
		16463	6800	< 0.8	14	50	< 0.5	< 0.8	2800	21	15	**260**	14000	57	1900	120	< 1.5	**350**	1	19	21	49
	5-10 cm	16464	7700	< 0.8	**30**	110	< 0.5	1	3900	21	**31**	**580**	18000	**150**	1900	160	< 1.5	**860**	**2**	26	23	110
		16465	8700	0.9	**25**	92	< 0.5	< 0.8	4100	26	**25**	**470**	18000	74	2000	170	< 1.5	**740**	**2**	35	29	95
	10-20 cm	16466	9100	< 0.8	**21**	110	< 0.5	< 0.8	5700	26	20	**370**	17000	120	1900	170	< 1.5	**570**	**2**	41	29	100
		16467	9300	< 0.8	**18**	110	< 0.5	< 0.8	4700	25	18	**360**	17000	66	1900	180	< 1.5	**510**	< 1	42	30	85

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037709 Concession (front yard)	0-5 cm	16468	9200	< 0.8	13	43	< 0.5	< 0.8	4000	32	15	**210**	16000	45	2500	170	< 1.5	**280**	< 1	33	29	56
		16469	9800	< 0.8	13	48	< 0.5	< 0.8	4300	33	15	**250**	17000	58	2500	170	< 1.5	**300**	**2**	35	30	54
	5-10 cm	16470	7600	< 0.8	**26**	41	< 0.5	< 0.8	3300	32	**23**	**510**	16000	54	1900	120	< 1.5	**570**	**2**	29	24	39
		16471	7500	< 0.8	**22**	44	< 0.5	< 0.8	3300	29	**22**	**450**	16000	51	1900	130	< 1.5	**620**	**2**	26	24	45
	10-20 cm	16472	8900	< 0.8	**19**	45	< 0.5	< 0.8	3500	32	18	**400**	16000	39	2300	130	< 1.5	**460**	< 1	28	26	37
		16473	8400	< 0.8	**18**	54	< 0.5	< 0.8	3100	29	18	**380**	16000	61	2100	150	< 1.5	**490**	< 1	27	27	43
5037710 Concession (back yard)	0-5 cm	16474	8200	< 0.8	8	61	< 0.5	< 0.8	2800	24	11	**180**	14000	74	2000	150	< 1.5	**200**	< 1	30	26	52
		16475	9100	< 0.8	13	73	< 0.5	< 0.8	3400	28	14	**260**	16000	110	2100	160	< 1.5	**250**	**2**	42	30	62
	5-10 cm	16476	11000	< 0.8	10	87	< 0.5	< 0.8	4000	33	14	**220**	16000	110	2300	160	< 1.5	**280**	< 1	45	32	74
		16477	12000	1	13	110	< 0.5	< 0.8	3900	35	17	**350**	20000	**200**	2300	180	2.1	**350**	**2**	53	34	86
	10-20 cm	16478	11000	< 0.8	**20**	90	< 0.5	< 0.8	5100	32	15	**260**	16000	95	2400	170	< 1.5	**310**	< 1	53	33	90
		16479	9900	< 0.8	9	89	< 0.5	< 0.8	3500	29	15	**280**	18000	110	2200	160	< 1.5	**290**	< 1	46	31	65
5037711 Concession (front yard)	0-5 cm	16480	13000	< 0.8	< 5	66	< 0.5	< 0.8	4900	38	8	54	15000	15	3300	200	< 1.5	**67**	< 1	44	34	34
		16481	10000	< 0.8	6	49	< 0.5	< 0.8	3600	31	7	50	13000	14	2900	170	< 1.5	**61**	< 1	32	30	42
	5-10 cm	16482	11000	< 0.8	6	56	< 0.5	< 0.8	3300	34	8	49	17000	11	3900	220	< 1.5	**67**	< 1	30	34	36
		16483	12000	< 0.8	6	70	< 0.5	< 0.8	3500	39	9	57	18000	13	4100	240	< 1.5	**75**	< 1	33	36	37
	10-20 cm	16484	7900	< 0.8	6	32	< 0.5	< 0.8	3300	28	8	41	16000	7	4000	190	< 1.5	42	< 1	23	29	25
		16485	11000	< 0.8	6	52	< 0.5	< 0.8	3600	35	9	57	19000	13	4600	230	< 1.5	**64**	< 1	30	35	28
5037712 Concession (back yard)	0-5 cm	16486	11000	< 0.8	< 5	57	< 0.5	< 0.8	3900	32	6	39	15000	12	3200	210	< 1.5	43	< 1	32	31	32
		16487	11000	< 0.8	< 5	58	< 0.5	< 0.8	3700	30	6	33	15000	11	3100	220	< 1.5	35	< 1	31	30	59
	5-10 cm	16488	11000	< 0.8	< 5	55	< 0.5	< 0.8	3500	29	5	29	15000	8	3100	200	< 1.5	31	< 1	30	30	29
		16489	11000	< 0.8	< 5	60	< 0.5	< 0.8	3900	29	5	25	15000	7	3200	220	< 1.5	26	< 1	32	30	30
	10-20 cm	16490	6700	< 0.8	< 5	45	< 0.5	< 0.8	2500	27	6	25	11000	7	3300	190	< 1.5	26	< 1	14	23	23
		16491	8400	< 0.8	< 5	50	< 0.5	< 0.8	3700	31	6	27	14000	5	3500	210	< 1.5	22	< 1	28	30	19

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037471 East St. (front yard)	0-5 cm	15400	8800	< 0.8	13	44	< 0.5	< 0.8	5500	25	18	**250**	15000	62	2500	160	< 1.5	**350**	**2**	34	27	60
		15401	8500	< 0.8	12	53	< 0.5	< 0.8	5700	28	16	**240**	15000	70	2500	170	< 1.5	**320**	**2**	33	27	75
	5-10 cm	15402	8400	< 0.8	**23**	41	< 0.5	< 0.8	8300	24	**40**	**570**	19000	66	2300	180	< 1.5	**970**	**4**	31	26	87
		15403	8500	< 0.8	**20**	36	< 0.5	< 0.8	5200	25	**33**	**450**	17000	43	2400	160	< 1.5	**730**	**3**	25	26	74
	10-20 cm	15404	8700	< 0.8	13	40	< 0.5	< 0.8	5700	24	18	**300**	14000	26	2200	160	< 1.5	**470**	**2**	29	27	43
		15405	10000	< 0.8	15	42	< 0.5	< 0.8	5700	26	**22**	**350**	16000	26	2300	180	< 1.5	**610**	**2**	36	30	48
5037472 East St. (back yard)	0-5 cm	15406	9600	< 0.8	10	49	< 0.5	< 0.8	7700	26	14	**210**	14000	23	2600	210	< 1.5	**320**	**2**	36	27	54
		15407	9400	1	14	54	< 0.5	< 0.8	9500	26	21	**330**	15000	30	2600	220	< 1.5	**540**	**2**	34	27	74
	5-10 cm	15408	8900	< 0.8	17	54	< 0.5	< 0.8	11000	27	**24**	**360**	15000	32	2700	220	< 1.5	**620**	**2**	34	26	83
		15409	8700	< 0.8	15	52	< 0.5	< 0.8	10000	25	21	**310**	14000	30	2600	190	< 1.5	**530**	**2**	31	25	66
	10-20 cm	15410	11000	0.9	**24**	77	< 0.5	< 0.8	19000	30	**31**	**530**	18000	39	2800	230	< 1.5	**850**	**3**	47	30	90
		15411	9500	< 0.8	**27**	64	< 0.5	< 0.8	16000	26	**30**	**490**	19000	45	2500	220	< 1.5	**830**	**2**	38	28	110
5037474 East St. (back yard)	0-5 cm	15416	9900	< 0.8	< 5	43	< 0.5	< 0.8	9400	31	8	62	15000	20	5300	200	< 1.5	**81**	< 1	32	29	60
		15417	11000	< 0.8	6	41	< 0.5	< 0.8	10000	32	8	60	15000	17	5400	190	< 1.5	**76**	< 1	37	32	44
	5-10 cm	15418	11000	< 0.8	5	36	< 0.5	< 0.8	5500	32	7	42	15000	10	4000	190	< 1.5	**55**	< 1	30	32	30
		15419	12000	< 0.8	< 5	46	< 0.5	< 0.8	6200	36	8	57	16000	17	3900	210	< 1.5	**72**	< 1	38	35	33
5037734 East St. (front yard)	0-5 cm	18721	10000	< 0.8	< 5	36	< 0.5	< 0.8	5600	22	6	50	12000	14	2900	160	< 1.5	**57**	< 1	31	26	42
		18722	9500	< 0.8	< 5	36	< 0.5	< 0.8	5400	22	6	42	12000	16	2800	160	< 1.5	**51**	< 1	31	26	29
	5-10 cm	18723	8700	< 0.8	< 5	30	< 0.5	< 0.8	3100	20	5	52	12000	8	2300	130	< 1.5	40	< 1	21	24	20
		18724	8600	< 0.8	< 5	28	< 0.5	< 0.8	3200	20	7	70	12000	11	2400	130	< 1.5	**78**	< 1	23	24	21
	10-20 cm	18725	8500	< 0.8	< 5	32	< 0.5	< 0.8	2900	20	5	**110**	11000	12	2200	120	< 1.5	**71**	< 1	22	23	18
		18726	8200	< 0.8	7	34	< 0.5	< 0.8	3100	21	9	**180**	12000	22	2200	120	< 1.5	**160**	< 1	18	23	22
5037735 East St. (back yard)	0-5 cm	18727	10000	< 0.8	< 5	40	< 0.5	< 0.8	4200	31	8	42	16000	11	3900	200	< 1.5	**58**	< 1	26	30	31
		18728	11000	< 0.8	< 5	43	< 0.5	< 0.8	4500	32	8	39	16000	10	4000	210	< 1.5	**54**	< 1	31	33	31
	5-10 cm	18729	15000	< 0.8	< 5	71	< 0.5	< 0.8	5200	40	8	74	18000	17	4100	230	< 1.5	**67**	< 1	43	38	35
		18730	15000	< 0.8	< 5	71	< 0.5	< 0.8	5200	39	8	53	18000	14	4200	240	< 1.5	**65**	< 1	45	40	33
	10-20 cm	18731	16000	< 0.8	5	85	< 0.5	< 0.8	5500	39	9	81	18000	21	4000	230	< 1.5	**98**	< 1	45	38	38
		18732	15000	< 0.8	< 5	80	< 0.5	< 0.8	5200	38	9	81	18000	21	4200	250	< 1.5	**97**	< 1	47	39	42

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037736 East St. (front yard)	0-5 cm	18733	14000	< 0.8	< 5	60	< 0.5	< 0.8	6800	37	9	57	17000	23	4100	230	< 1.5	**72**	< 1	44	38	43
		18734	11000	< 0.8	< 5	38	< 0.5	< 0.8	6100	30	9	65	16000	26	3800	190	< 1.5	**74**	< 1	35	31	43
	5-10 cm	18735	11000	< 0.8	< 5	28	< 0.5	< 0.8	3400	31	8	42	17000	15	3600	180	< 1.5	**50**	< 1	27	32	29
		18736	9300	< 0.8	< 5	21	< 0.5	< 0.8	2000	28	7	27	15000	8	3500	160	< 1.5	34	< 1	11	29	44
	10-20 cm	18737	9300	< 0.8	< 5	34	< 0.5	< 0.8	2700	27	8	**87**	14000	31	3100	160	< 1.5	**84**	< 1	21	28	32
		18738	10000	< 0.8	6	41	< 0.5	< 0.8	3100	30	9	**97**	16000	41	3200	180	< 1.5	**91**	< 1	28	31	36
5037737 East St. (back yard)	0-5 cm	18739	7900	< 0.8	5	47	< 0.5	< 0.8	6200	24	7	**87**	12000	62	2500	150	< 1.5	**87**	< 1	28	26	61
		18740	9200	< 0.8	< 5	45	< 0.5	< 0.8	4200	26	7	69	14000	35	2800	160	< 1.5	**80**	< 1	29	27	42
	5-10 cm	18741	8500	< 0.8	5	54	< 0.5	< 0.8	3500	22	6	**110**	13000	77	2300	130	< 1.5	**88**	< 1	27	25	52
		18742	8700	< 0.8	< 5	47	< 0.5	< 0.8	2900	24	7	**90**	14000	50	2600	140	< 1.5	**72**	< 1	23	26	42
	10-20 cm	18743	7500	< 0.8	6	54	< 0.5	< 0.8	2500	21	7	**140**	13000	85	2100	120	< 1.5	**110**	< 1	22	23	48
		18744	9000	< 0.8	6	48	< 0.5	< 0.8	2700	24	7	**95**	13000	52	2500	140	< 1.5	**75**	< 1	25	26	35
5037738 East St. (front yard)	0-5 cm	18745	9300	< 0.8	7	41	< 0.5	< 0.8	5900	25	9	**120**	13000	25	3200	160	< 1.5	**120**	< 1	30	27	51
		18746	12000	< 0.8	6	68	< 0.5	< 0.8	6700	32	9	**110**	14000	26	3500	180	< 1.5	**120**	< 1	40	32	53
	5-10 cm	18747	12000	< 0.8	6	68	< 0.5	< 0.8	4500	30	8	**120**	13000	20	2800	170	< 1.5	**100**	**3**	39	32	40
		18748	10000	< 0.8	6	48	< 0.5	< 0.8	4300	26	8	**94**	13000	21	2700	170	< 1.5	**98**	< 1	37	30	38
	10-20 cm	18749	12000	< 0.8	5	56	< 0.5	< 0.8	4200	29	8	**120**	14000	20	2900	180	< 1.5	**110**	< 1	38	31	34
		18750	11000	< 0.8	5	73	< 0.5	< 0.8	4500	31	8	**100**	13000	18	2900	180	< 1.5	**98**	< 1	40	32	42
5037739 East St. (back yard)	0-5 cm	18751	11000	< 0.8	< 5	47	< 0.5	< 0.8	4300	26	5	53	13000	18	2500	170	< 1.5	**51**	< 1	37	30	34
		18752	8400	< 0.8	< 5	35	< 0.5	< 0.8	3600	23	6	48	11000	17	2500	150	< 1.5	**60**	< 1	29	27	35
	5-10 cm	18753	8100	< 0.8	< 5	31	< 0.5	< 0.8	2700	20	5	78	11000	19	2300	130	< 1.5	**59**	< 1	23	25	33
		18754	7900	< 0.8	< 5	31	< 0.5	< 0.8	2600	19	5	38	11000	15	2300	130	< 1.5	**50**	< 1	21	24	32
	10-20 cm	18755	8000	< 0.8	< 5	38	< 0.5	< 0.8	2300	23	7	**110**	12000	25	2600	140	< 1.5	**97**	< 1	20	25	44
		18756	7600	< 0.8	< 5	39	< 0.5	< 0.8	2600	20	6	64	11000	16	2200	130	< 1.5	**86**	< 1	23	23	43

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037485 Edward St. (front yard)	0-5 cm	15480	12000	< 0.8	10	59	< 0.5	**1.2**	16000	31	16	**210**	17000	62	3200	180	< 1.5	**310**	< 1	45	33	67
		15481	11000	< 0.8	10	57	< 0.5	0.9	16000	29	19	**240**	16000	49	3100	180	< 1.5	**370**	< 1	44	31	67
	5-10 cm	15482	11000	< 0.8	16	47	< 0.5	< 0.8	8900	28	**22**	**330**	18000	46	2800	170	< 1.5	**490**	< 1	40	29	55
		15483	11000	< 0.8	15	45	< 0.5	< 0.8	7800	28	20	**300**	17000	55	2800	180	< 1.5	**430**	< 1	36	29	64
	10-20 cm	15484	11000	< 0.8	**26**	63	< 0.5	< 0.8	6000	28	**22**	**460**	18000	53	2400	190	< 1.5	**580**	< 1	38	29	59
		15485	11000	< 0.8	**19**	54	< 0.5	< 0.8	4900	29	17	**380**	18000	38	2500	180	< 1.5	**470**	< 1	35	29	53
5037486 Edward St. (back yard)	0-5 cm	15474	9500	< 0.8	**19**	51	< 0.5	1	5900	27	20	**320**	18000	60	2400	160	< 1.5	**450**	< 1	32	28	94
		15475	10000	< 0.8	17	53	< 0.5	1	5800	29	19	**290**	16000	55	2400	160	< 1.5	**420**	< 1	37	30	82
	5-10 cm	15476	10000	< 0.8	**24**	51	< 0.5	< 0.8	6000	26	19	**360**	16000	48	2300	170	< 1.5	**500**	< 1	32	26	69
		15477	8800	< 0.8	**22**	44	< 0.5	< 0.8	4200	24	20	**380**	16000	41	2100	150	< 1.5	**560**	< 1	25	24	72
	10-20 cm	15478	9700	< 0.8	8	38	< 0.5	< 0.8	4300	24	10	**130**	13000	23	2100	150	< 1.5	**220**	< 1	29	25	34
		15479	9200	< 0.8	11	39	< 0.5	< 0.8	3800	25	11	**180**	13000	24	2100	150	< 1.5	**280**	< 1	29	24	38
5037636 Edward St. (front yard)	0-5 cm	16036	13000	< 0.8	8	61	< 0.5	< 0.8	9800	31	18	**260**	17000	27	3100	200	< 1.5	**380**	**2**	48	30	55
		16037	15000	< 0.8	7	73	< 0.5	< 0.8	11000	32	17	**280**	19000	37	3600	200	< 1.5	**350**	**2**	48	31	92
	5-10 cm	16038	15000	**2.1**	11	64	< 0.5	< 0.8	8400	31	21	**340**	20000	23	3000	220	< 1.5	**460**	1	48	33	46
		16039	14000	< 0.8	**19**	59	< 0.5	< 0.8	7800	29	20	**350**	20000	31	3300	210	< 1.5	**440**	1	45	32	66
	10-20 cm	16040	14000	< 0.8	11	54	< 0.5	< 0.8	6800	33	17	**260**	20000	13	3300	220	< 1.5	**400**	**2**	41	33	43
		16041	12000	< 0.8	11	52	< 0.5	< 0.8	8700	30	21	**390**	20000	23	3100	210	< 1.5	**520**	**2**	40	31	56
5037637 Edward St. (back yard)	0-5 cm	16042	11000	< 0.8	10	56	< 0.5	1	7400	31	**30**	**370**	19000	47	3000	200	< 1.5	**640**	1	39	30	73
		16043	10000	< 0.8	10	52	< 0.5	0.9	7600	28	**28**	**370**	18000	39	2900	200	< 1.5	**630**	**2**	33	27	69
	5-10 cm	16044	8300	< 0.8	10	40	< 0.5	< 0.8	3300	23	17	**290**	15000	25	2300	170	< 1.5	**410**	**2**	14	21	42
		16045	11000	0.9	8	45	< 0.5	< 0.8	5000	26	15	**240**	16000	23	2500	190	< 1.5	**380**	< 1	34	27	41
	10-20 cm	16046	14000	< 0.8	**18**	62	< 0.5	< 0.8	5600	36	**24**	**460**	21000	26	2700	220	< 1.5	**570**	1	42	35	56
		16047	15000	< 0.8	17	79	< 0.5	< 0.8	6000	39	**24**	**440**	22000	30	2800	240	< 1.5	**580**	**2**	46	37	57

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037687 Edward St. (front yard)	0-5 cm	16336	10000	< 0.8	< 5	52	< 0.5	< 0.8	28000	26	8	53	13000	16	6100	270	< 1.5	**61**	< 1	86	26	95
		16337	9700	< 0.8	< 5	52	< 0.5	< 0.8	33000	27	7	62	13000	19	6900	270	< 1.5	**74**	< 1	80	26	110
	5-10 cm	16338	9900	< 0.8	< 5	44	< 0.5	< 0.8	30000	25	6	40	13000	15	5300	250	< 1.5	**52**	< 1	78	27	79
		16339	10000	< 0.8	< 5	50	< 0.5	< 0.8	37000	28	7	51	13000	17	6500	290	< 1.5	**65**	< 1	86	27	120
	10-20 cm	16340	10000	< 0.8	< 5	50	< 0.5	< 0.8	29000	29	7	46	13000	14	5100	270	< 1.5	**59**	< 1	78	29	83
		16341	11000	< 0.8	7	39	< 0.5	< 0.8	30000	17	9	39	15000	25	5300	170	< 1.5	**130**	< 1	44	17	62
5037688 Edward St. (back yard)	0-5 cm	16342	11000	< 0.8	9	74	< 0.5	< 0.8	14000	27	12	**170**	15000	45	3700	240	< 1.5	**220**	< 1	52	30	100
		16343	10000	< 0.8	8	79	< 0.5	0.8	12000	28	12	**160**	14000	48	3100	240	< 1.5	**230**	**2**	53	29	110
	5-10 cm	16344	9700	< 0.8	8	64	< 0.5	< 0.8	14000	25	9	**120**	13000	59	3100	240	< 1.5	**150**	< 1	51	28	92
		16345	9600	< 0.8	8	66	< 0.5	< 0.8	16000	24	9	**120**	12000	32	3300	230	< 1.5	**170**	**2**	54	27	90
	10-20 cm	16346	11000	< 0.8	8	63	< 0.5	< 0.8	15000	28	10	**140**	15000	32	3800	240	< 1.5	**200**	1	56	31	86
		16347	11000	< 0.8	8	62	< 0.5	< 0.8	15000	33	10	**130**	14000	32	3600	220	< 1.5	**180**	1	58	29	94
5037689 Edward St. (front yard)	0-5 cm	16348	7300	< 0.8	14	53	< 0.5	**1.8**	9900	35	**32**	**480**	18000	78	3200	160	< 1.5	**610**	**2**	26	23	86
		16349	7800	0.9	17	60	< 0.5	**2**	11000	34	**40**	**600**	21000	79	3000	200	< 1.5	**820**	**2**	29	25	94
	5-10 cm	16350	9900	< 0.8	13	30	< 0.5	0.8	5100	28	19	**350**	17000	19	2000	150	< 1.5	**430**	1	22	29	50
		16351	9200	< 0.8	14	30	< 0.5	< 0.8	3400	24	17	**270**	16000	19	1600	150	< 1.5	**410**	1	18	26	38
	10-20 cm	16352	7700	< 0.8	8	26	< 0.5	< 0.8	2400	22	8	**90**	13000	11	2100	150	< 1.5	**160**	< 1	16	26	21
		16353	7000	< 0.8	8	27	< 0.5	< 0.8	2100	22	8	**120**	12000	69	1900	150	< 1.5	**180**	< 1	15	23	24
5037690 Edward St. (back yard)	0-5 cm	16354	7700	**2**	9	48	< 0.5	**1.8**	8000	28	**25**	**300**	14000	52	2800	210	< 1.5	**500**	1	25	23	160
		16355	7500	**1.3**	10	48	< 0.5	**1.8**	7000	29	**27**	**310**	14000	52	2800	250	< 1.5	**540**	1	27	24	110
	5-10 cm	16356	6400	< 0.8	8	24	< 0.5	< 0.8	2100	21	7	**88**	11000	12	2000	130	< 1.5	**130**	< 1	13	21	23
		16357	5800	< 0.8	7	23	< 0.5	< 0.8	1700	19	7	77	9900	9	1700	130	< 1.5	**120**	< 1	10	19	21
	10-20 cm	16358	5400	< 0.8	< 5	19	< 0.5	< 0.8	1800	22	5	43	11000	4	2000	110	< 1.5	**55**	< 1	16	24	12
		16359	7500	< 0.8	< 5	27	< 0.5	< 0.8	2600	23	5	41	12000	4	2100	150	< 1.5	**58**	< 1	28	26	14

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037691 Edward St. (front yard)	0-5 cm	16360	12000	**1.4**	**25**	100	< 0.5	**1.8**	4500	**74**	**33**	**640**	25000	**170**	2600	210	< 1.5	**690**	**2**	40	29	140
		16361	14000	1	**25**	110	< 0.5	**2.2**	5900	**75**	**37**	**720**	26000	**180**	2800	230	< 1.5	**800**	**3**	43	31	160
	5-10 cm	16362	11000	< 0.8	**20**	54	< 0.5	0.8	3200	41	17	**320**	16000	73	1600	140	< 1.5	**440**	1	36	28	60
		16363	13000	< 0.8	**19**	69	< 0.5	**1.1**	4200	57	18	**320**	18000	60	1900	160	< 1.5	**540**	1	42	31	75
	10-20 cm	16364	9600	< 0.8	8	37	< 0.5	< 0.8	2400	29	9	**170**	13000	28	1600	120	< 1.5	**250**	**3**	29	28	40
		16365	8100	< 0.8	9	35	< 0.5	< 0.8	2100	23	9	**120**	12000	24	1400	110	< 1.5	**260**	**4**	24	26	33
5037692 Edward St. (back yard)	0-5 cm	16366	9000	< 0.8	< 5	36	< 0.5	< 0.8	2700	29	8	50	15000	15	3300	180	< 1.5	**69**	**2**	26	28	38
		16367	9300	1	< 5	31	< 0.5	< 0.8	2500	29	7	37	15000	12	3500	180	< 1.5	**48**	**2**	25	29	30
	5-10 cm	16368	9200	< 0.8	7	43	< 0.5	< 0.8	2700	31	11	**110**	17000	29	3500	190	< 1.5	**160**	**3**	28	29	41
		16369	9200	< 0.8	6	43	< 0.5	< 0.8	2600	32	10	74	17000	27	3800	200	< 1.5	**92**	**2**	28	32	37
	10-20 cm	16370	8500	0.9	11	48	< 0.5	< 0.8	2600	34	15	**210**	18000	43	3600	190	< 1.5	**290**	**5**	29	28	54
		16371	8900	< 0.8	7	43	< 0.5	< 0.8	3000	32	10	**97**	17000	34	3800	200	< 1.5	**140**	**3**	30	31	48
5037693 Edward St. (front yard)	0-5 cm	16372	9800	< 0.8	< 5	40	< 0.5	< 0.8	3000	30	7	46	14000	15	3200	190	< 1.5	**64**	**2**	28	29	35
		16373	8600	< 0.8	< 5	44	< 0.5	< 0.8	2300	28	7	74	13000	29	2700	170	< 1.5	**93**	**2**	23	26	45
	5-10 cm	16374	8500	< 0.8	< 5	44	< 0.5	< 0.8	2500	28	8	69	13000	27	2700	170	< 1.5	**88**	**2**	24	26	38
		16375	11000	< 0.8	< 5	47	< 0.5	< 0.8	3400	29	7	80	14000	17	2900	190	< 1.5	**99**	**2**	36	29	41
	10-20 cm	16376	11000	< 0.8	< 5	64	< 0.5	< 0.8	3800	31	8	**110**	13000	26	2400	180	< 1.5	**160**	**3**	43	30	56
		16377	10000	< 0.8	< 5	55	< 0.5	< 0.8	3100	27	7	**100**	13000	25	2100	170	< 1.5	**130**	**9**	40	28	54
5037694 Edward St. (back yard)	0-5 cm	16378	16000	**1.9**	< 5	71	< 0.5	< 0.8	4500	41	7	35	17000	10	4000	220	< 1.5	**47**	**4**	48	38	33
		16379	16000	< 0.8	< 5	67	< 0.5	< 0.8	4700	40	8	46	18000	14	4000	230	< 1.5	**59**	**4**	48	38	37
	5-10 cm	16380	19000	< 0.8	< 5	82	< 0.5	< 0.8	4000	44	7	17	19000	5	4200	230	< 1.5	34	1	49	42	29
		16381	15000	< 0.8	< 5	54	< 0.5	< 0.8	3300	38	8	21	18000	6	4000	230	< 1.5	37	1	41	36	29
	10-20 cm	16382	9600	< 0.8	< 5	39	< 0.5	< 0.8	2400	32	8	33	17000	8	3800	190	< 1.5	**54**	< 1	21	29	25
		16383	9400	< 0.8	< 5	36	< 0.5	< 0.8	2400	32	8	37	16000	7	3900	200	< 1.5	**55**	< 1	20	28	27

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037695 Edward St. (front yard)	0-5 cm	16384	6500	< 0.8	6	43	< 0.5	**1.2**	6200	29	**32**	**470**	17000	62	3200	160	< 1.5	**680**	**2**	16	22	56
		16385	8100	< 0.8	9	54	< 0.5	**1.3**	7700	30	**38**	**610**	19000	69	3100	180	< 1.5	**830**	**2**	27	26	55
	5-10 cm	16386	9300	< 0.8	< 5	56	< 0.5	< 0.8	4300	34	14	**190**	16000	22	3300	200	< 1.5	**290**	< 1	23	29	33
		16387	13000	< 0.8	6	74	< 0.5	< 0.8	4700	39	9	**88**	19000	8	4300	240	< 1.5	**160**	< 1	40	35	26
	10-20 cm	16388	13000	< 0.8	7	69	< 0.5	< 0.8	4000	36	9	**110**	18000	9	3700	220	< 1.5	**120**	< 1	37	33	28
		16389	13000	< 0.8	< 5	74	< 0.5	< 0.8	4000	38	9	72	19000	7	4100	230	< 1.5	**99**	< 1	40	35	22
5037696 Edward St. (back yard)	0-5 cm	16390	8200	< 0.8	5	55	< 0.5	0.9	4800	32	**23**	**380**	15000	42	2100	180	< 1.5	**450**	1	31	22	62
		16391	7700	< 0.8	14	47	< 0.5	< 0.8	4000	26	19	**340**	15000	36	2100	170	< 1.5	**360**	1	28	23	52
	5-10 cm	16392	8000	< 0.8	13	59	< 0.5	< 0.8	3800	23	13	**260**	14000	26	2200	240	< 1.5	**250**	1	33	24	40
		16393	7500	< 0.8	12	43	< 0.5	< 0.8	3600	22	13	**260**	14000	22	1900	180	< 1.5	**290**	1	23	23	38
	10-20 cm	16394	5400	< 0.8	11	36	< 0.5	< 0.8	2300	16	10	**200**	11000	24	1600	160	< 1.5	**190**	< 1	14	17	28
		16395	6200	< 0.8	15	38	< 0.5	< 0.8	3100	20	12	**200**	12000	23	1800	160	< 1.5	**240**	1	21	21	32
5037697 Edward St. (front yard)	0-5 cm	16396	8300	< 0.8	5	33	< 0.5	< 0.8	3500	26	9	85	13000	24	2700	150	< 1.5	**100**	< 1	25	24	35
		16397	8900	< 0.8	6	35	< 0.5	< 0.8	3800	26	8	**86**	13000	25	2700	170	< 1.5	**100**	< 1	31	25	35
	5-10 cm	16398	11000	< 0.8	< 5	36	< 0.5	< 0.8	3700	26	5	45	13000	10	2300	150	< 1.5	**58**	< 1	43	29	22
		16399	11000	< 0.8	< 5	33	< 0.5	< 0.8	3500	25	6	39	14000	10	2200	160	< 1.5	**58**	< 1	41	27	21
	10-20 cm	16400	9600	< 0.8	< 5	30	< 0.5	< 0.8	3200	26	6	35	13000	12	2700	160	< 1.5	41	< 1	35	28	20
		16401	10000	< 0.8	< 5	31	< 0.5	< 0.8	3100	26	6	35	14000	6	2700	160	< 1.5	41	< 1	35	27	19
5037698 Edward St. (back yard)	0-5 cm	16402	14000	< 0.8	7	47	< 0.5	< 0.8	3800	33	7	34	17000	7	3400	200	< 1.5	**47**	< 1	42	33	34
		16403	12000	< 0.8	5	37	< 0.5	< 0.8	3400	28	7	32	16000	8	3300	180	< 1.5	**44**	**2**	33	28	31
	5-10 cm	16404	13000	< 0.8	8	38	< 0.5	< 0.8	3000	30	8	25	17000	6	3500	190	< 1.5	35	**2**	33	32	27
		16405	13000	< 0.8	< 5	37	< 0.5	< 0.8	2900	29	7	27	18000	6	3300	190	< 1.5	37	< 1	33	31	27
	10-20 cm	16406	13000	< 0.8	< 5	52	< 0.5	< 0.8	3000	34	8	24	19000	5	4200	210	< 1.5	33	< 1	33	32	24
		16407	16000	< 0.8	< 5	57	< 0.5	< 0.8	3400	35	9	24	20000	6	4400	220	< 1.5	34	**2**	38	34	26

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037699 Edward St. (front yard)	0-5 cm	16408	10000	< 0.8	11	51	< 0.5	1	8600	33	17	**230**	18000	**140**	4400	200	< 1.5	**300**	1	33	28	99
		16409	9500	< 0.8	12	46	< 0.5	0.9	6800	32	18	**240**	16000	110	3300	180	< 1.5	**330**	1	33	25	87
	5-10 cm	16410	9000	< 0.8	**18**	54	< 0.5	< 0.8	4400	27	19	**340**	17000	110	2400	190	< 1.5	**420**	1	30	25	87
		16411	8600	**1.8**	**21**	54	< 0.5	< 0.8	3300	27	18	**370**	16000	**120**	2200	180	< 1.5	**410**	**2**	26	24	79
	10-20 cm	16412	8100	< 0.8	**21**	76	< 0.5	< 0.8	2900	25	20	**470**	16000	**140**	2100	200	< 1.5	**450**	**2**	22	23	86
		16413	8200	< 0.8	16	73	< 0.5	< 0.8	2700	25	17	**410**	14000	120	2000	200	< 1.5	**410**	1	24	23	87
5037700 Edward St. (back yard)	0-5 cm	16414	11000	< 0.8	**23**	60	< 0.5	**1.4**	9800	33	**34**	**560**	20000	71	3300	250	< 1.5	**790**	**2**	35	30	94
		16415	14000	< 0.8	**21**	80	< 0.5	**1.6**	10000	37	**33**	**550**	20000	85	3600	290	< 1.5	**770**	**2**	41	34	110
	5-10 cm	16416	13000	< 0.8	14	61	< 0.5	< 0.8	7100	31	12	**190**	16000	21	2600	270	< 1.5	**310**	**2**	41	33	44
		16417	11000	< 0.8	13	53	< 0.5	< 0.8	6700	29	13	**210**	16000	28	2500	250	< 1.5	**320**	**2**	35	31	48
	10-20 cm	16418	18000	< 0.8	7	99	< 0.5	< 0.8	5600	41	9	**97**	20000	13	4400	280	< 1.5	**140**	< 1	46	38	33
		16419	17000	< 0.8	6	98	< 0.5	< 0.8	5300	40	9	76	20000	13	4600	290	< 1.5	**120**	< 1	45	38	33
5037701 Edward St. (front yard)	0-5 cm	16420	12000	< 0.8	10	54	< 0.5	< 0.8	4800	31	17	**220**	19000	48	3100	170	< 1.5	**280**	1	38	30	70
		16421	9200	< 0.8	6	42	< 0.5	< 0.8	5300	27	17	**230**	16000	43	2800	150	< 1.5	**290**	1	28	24	65
	5-10 cm	16422	9800	< 0.8	9	33	< 0.5	< 0.8	3200	27	15	**230**	17000	33	3000	160	< 1.5	**280**	1	26	27	49
		16423	9600	< 0.8	< 5	27	< 0.5	< 0.8	2500	24	11	**150**	15000	15	2700	140	< 1.5	**180**	< 1	20	24	31
	10-20 cm	16424	9200	< 0.8	< 5	33	0.5	< 0.8	2300	25	9	**150**	14000	22	2600	130	< 1.5	**150**	< 1	22	24	35
		16425	10000	< 0.8	< 5	29	< 0.5	< 0.8	2000	25	8	52	14000	8	2700	130	< 1.5	**93**	< 1	19	26	26
5037702 Edward St. (back yard)	0-5 cm	16426	8100	< 0.8	17	44	< 0.5	0.9	3000	29	19	**330**	15000	49	2300	140	< 1.5	**340**	**2**	24	24	81
		16427	8500	< 0.8	15	45	< 0.5	**1.1**	3700	31	20	**300**	14000	51	2900	150	< 1.5	**350**	**2**	19	24	86
	5-10 cm	16428	8900	< 0.8	12	34	< 0.5	< 0.8	2300	25	9	**160**	12000	21	2100	120	< 1.5	**160**	1	25	26	33
		16429	8700	< 0.8	9	33	< 0.5	< 0.8	2300	25	8	**130**	12000	15	2000	130	< 1.5	**160**	1	25	25	30
	10-20 cm	16430	7500	< 0.8	7	30	< 0.5	< 0.8	1400	24	8	78	13000	16	2600	130	< 1.5	**100**	< 1	13	23	28
		16431	8700	< 0.8	9	40	0.5	< 0.8	2300	27	9	**120**	14000	27	2900	160	< 1.5	**140**	< 1	24	27	43

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037703 Edward St. (front yard)	0-5 cm	16432	8300	< 0.8	< 5	42	< 0.5	< 0.8	3200	29	8	67	13000	20	2800	190	< 1.5	**87**	< 1	25	26	26
		16433	8800	< 0.8	< 5	51	0.5	< 0.8	3700	33	8	74	13000	23	3000	210	< 1.5	**97**	< 1	30	29	29
	5-10 cm	16434	8600	< 0.8	< 5	43	< 0.5	< 0.8	3000	29	8	68	13000	13	2800	200	< 1.5	**95**	< 1	23	27	20
		16435	8500	< 0.8	< 5	45	< 0.5	< 0.8	3500	28	7	75	13000	16	2700	200	< 1.5	**96**	< 1	26	28	24
	10-20 cm	16436	7500	< 0.8	< 5	39	< 0.5	< 0.8	2900	25	8	**95**	12000	12	2300	180	< 1.5	**130**	< 1	25	25	17
		16437	9300	< 0.8	< 5	44	< 0.5	< 0.8	3900	29	8	**99**	13000	12	2400	190	1.6	**130**	< 1	36	28	18
5037704 Edward St. (back yard)	0-5 cm	16438	9900	< 0.8	< 5	50	< 0.5	< 0.8	3900	32	6	60	12000	11	2900	200	< 1.5	**57**	< 1	37	30	25
		16439	12000	< 0.8	< 5	63	< 0.5	< 0.8	4200	34	7	55	14000	14	3100	210	< 1.5	**65**	< 1	40	31	28
	5-10 cm	16440	7800	< 0.8	< 5	40	< 0.5	< 0.8	3200	26	5	38	11000	8	2600	180	< 1.5	**51**	< 1	31	26	16
		16441	11000	**1.1**	< 5	58	< 0.5	< 0.8	3700	32	6	37	13000	8	2900	210	< 1.5	**52**	< 1	38	31	16
	10-20 cm	16442	6600	< 0.8	< 5	36	< 0.5	< 0.8	2800	22	5	33	10000	5	2300	160	< 1.5	**48**	< 1	28	24	11
		16443	6300	< 0.8	< 5	32	< 0.5	< 0.8	2600	23	5	22	10000	6	2300	160	< 1.5	36	< 1	23	23	10
5037647 Nickel St. (front yard)	0-5 cm	16102	10000	**1.1**	7	58	< 0.5	< 0.8	6100	33	12	**140**	16000	32	3600	200	< 1.5	**210**	< 1	37	30	63
		16103	11000	< 0.8	8	67	< 0.5	< 0.8	7100	35	13	**160**	16000	34	3700	220	< 1.5	**230**	< 1	39	32	70
	5-10 cm	16104	11000	**1.3**	8	47	< 0.5	< 0.8	4600	36	11	**110**	17000	17	4000	220	< 1.5	**170**	< 1	35	33	41
		16105	12000	< 0.8	8	44	< 0.5	< 0.8	5100	38	12	**110**	19000	16	4500	230	< 1.5	**170**	< 1	33	36	54
	10-20 cm	16106	8500	< 0.8	17	56	< 0.5	< 0.8	4200	30	**22**	**370**	17000	34	3100	200	< 1.5	**440**	< 1	31	29	55
		16107	11000	< 0.8	13	73	< 0.5	< 0.8	5500	33	19	**340**	16000	30	3100	210	< 1.5	**440**	< 1	39	31	63
5037648 Nickel St. (back yard)	0-5 cm	16096	9600	< 0.8	10	71	< 0.5	< 0.8	6000	25	16	**240**	14000	62	2300	190	< 1.5	**390**	< 1	39	23	94
		16097	9900	< 0.8	12	79	< 0.5	< 0.8	6800	26	20	**300**	15000	86	2300	210	< 1.5	**510**	< 1	43	24	120
	5-10 cm	16098	9300	< 0.8	12	70	< 0.5	< 0.8	5700	25	18	**290**	14000	69	2100	200	< 1.5	**460**	< 1	40	23	93
		16099	9900	**1.2**	14	77	< 0.5	< 0.8	6400	25	18	**310**	15000	73	2100	230	< 1.5	**480**	< 1	44	24	110
	10-20 cm	16100	9500	< 0.8	13	70	< 0.5	< 0.8	5700	26	19	**300**	14000	67	2100	210	< 1.5	**500**	1	42	24	95
		16101	10000	< 0.8	15	83	< 0.5	< 0.8	7400	31	17	**310**	15000	74	2500	230	< 1.5	**490**	< 1	46	28	100

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037748 Nickel St. (front yard)	0-5 cm	18805	12000	< 0.8	6	56	< 0.5	< 0.8	4400	35	8	79	14000	12	2700	190	< 1.5	**130**	< 1	38	31	35
		18806	13000	< 0.8	7	57	< 0.5	< 0.8	4300	36	8	**95**	14000	13	3200	190	< 1.5	**140**	< 1	31	30	40
	5-10 cm	18807	10000	< 0.8	8	47	< 0.5	< 0.8	3400	28	10	**110**	13000	13	2600	170	< 1.5	**170**	< 1	23	27	33
		18808	12000	< 0.8	8	55	< 0.5	< 0.8	4100	30	12	**160**	14000	15	2800	190	< 1.5	**240**	**2**	28	29	36
	10-20 cm	18809	8900	< 0.8	6	32	< 0.5	< 0.8	3200	24	9	**97**	11000	8	2500	130	< 1.5	**170**	< 1	22	26	23
		18810	10000	< 0.8	8	41	< 0.5	< 0.8	4300	26	11	**150**	13000	12	2900	140	< 1.5	**220**	< 1	28	28	27
5037749 Nickel St. (back yard)	0-5 cm	18811	11000	< 0.8	8	61	< 0.5	< 0.8	5500	32	15	**160**	15000	18	2800	210	< 1.5	**240**	< 1	38	31	34
		18812	9800	< 0.8	8	49	< 0.5	< 0.8	3900	28	13	**140**	14000	16	2300	180	< 1.5	**210**	< 1	29	26	28
	5-10 cm	18813	9000	< 0.8	7	37	< 0.5	< 0.8	3200	24	7	76	13000	8	2200	150	< 1.5	**120**	< 1	27	26	17
		18814	9500	< 0.8	7	38	< 0.5	< 0.8	3200	24	7	78	13000	8	2200	160	< 1.5	**130**	< 1	28	27	19
	10-20 cm	18815	8800	< 0.8	6	40	< 0.5	< 0.8	3300	26	7	63	12000	6	2300	150	< 1.5	**98**	< 1	32	27	14
		18816	11000	< 0.8	7	54	< 0.5	< 0.8	3800	31	7	62	13000	6	2500	180	< 1.5	**100**	< 1	37	29	15
5037630 Oak St. (front yard)	0-5 cm	16000	11000	< 0.8	6	46	< 0.5	< 0.8	4000	30	6	49	15000	15	2800	180	< 1.5	**58**	< 1	39	30	24
		16001	13000	< 0.8	6	57	< 0.5	< 0.8	4300	33	6	62	15000	15	2500	180	< 1.5	**74**	< 1	42	32	28
	5-10 cm	16002	13000	< 0.8	5	54	< 0.5	< 0.8	4400	32	6	45	16000	9	3200	200	< 1.5	**53**	< 1	41	33	21
		16003	15000	**3**	6	67	< 0.5	< 0.8	5400	38	7	55	18000	15	3400	230	< 1.5	**61**	< 1	45	35	26
	10-20 cm	16004	11000	< 0.8	< 5	44	< 0.5	< 0.8	6600	32	7	27	17000	5	4700	220	< 1.5	32	< 1	39	34	19
		16005	12000	< 0.8	< 5	57	< 0.5	< 0.8	5600	36	7	30	17000	7	4700	240	< 1.5	34	< 1	43	36	21
5037631 Oak St. (back yard)	0-5 cm	16006	11000	< 0.8	7	36	< 0.5	< 0.8	3600	25	4	52	13000	11	2000	150	< 1.5	**52**	< 1	40	27	19
		16007	8700	< 0.8	7	27	< 0.5	< 0.8	1400	21	4	53	12000	10	1600	100	< 1.5	42	< 1	14	21	18
	5-10 cm	16008	9800	< 0.8	6	34	< 0.5	< 0.8	2000	24	4	46	13000	10	2200	130	< 1.5	**46**	< 1	21	25	18
		16009	9900	**1.4**	7	33	< 0.5	< 0.8	2100	24	5	49	13000	11	2100	140	< 1.5	**50**	< 1	23	25	18
	10-20 cm	16010	10000	< 0.8	< 5	36	< 0.5	< 0.8	2600	30	8	40	16000	8	3800	200	< 1.5	**55**	< 1	23	29	23
		16011	9800	< 0.8	< 5	39	< 0.5	< 0.8	2500	31	7	30	15000	6	3800	190	< 1.5	40	< 1	24	30	21

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037632 Oak St. (back yard)	0-5 cm	16012	9800	< 0.8	7	55	< 0.5	< 0.8	3800	27	12	**160**	15000	23	2900	210	< 1.5	**210**	< 1	28	26	51
		16013	11000	< 0.8	8	61	< 0.5	< 0.8	4400	29	14	**180**	16000	25	3200	240	< 1.5	**240**	< 1	32	27	56
	5-10 cm	16014	11000	< 0.8	5	57	< 0.5	< 0.8	3000	32	9	76	17000	23	3700	210	< 1.5	**100**	< 1	26	29	36
		16015	11000	< 0.8	7	53	< 0.5	< 0.8	3100	31	10	**100**	17000	15	3500	220	< 1.5	**130**	< 1	24	28	37
	10-20 cm	16016	11000	**2.7**	16	70	< 0.5	< 0.8	3400	35	17	**290**	23000	**150**	3700	210	< 1.5	**270**	< 1	32	31	42
		16017	13000	**2.7**	7	72	< 0.5	< 0.8	4200	38	12	**88**	19000	**160**	4400	280	< 1.5	**130**	< 1	39	34	35
5037633 Oak St. (back yard)	0-5 cm	16018	14000	< 0.8	10	83	< 0.5	< 0.8	6800	35	14	**220**	16000	32	2900	240	< 1.5	**300**	< 1	46	29	64
		16019	12000	< 0.8	9	66	< 0.5	< 0.8	6200	31	12	**180**	15000	28	2600	210	< 1.5	**250**	< 1	44	27	52
	5-10 cm	16020	15000	< 0.8	16	97	< 0.5	< 0.8	7000	33	20	**380**	19000	44	2800	260	< 1.5	**500**	< 1	50	31	76
		16021	13000	< 0.8	13	78	< 0.5	< 0.8	6200	29	17	**320**	18000	37	2600	230	< 1.5	**430**	< 1	48	30	66
	10-20 cm	16022	15000	< 0.8	15	89	< 0.5	< 0.8	6300	31	17	**330**	18000	32	2900	250	< 1.5	**420**	< 1	50	32	64
		16023	12000	< 0.8	**18**	110	< 0.5	< 0.8	6900	28	**27**	**510**	20000	56	2700	250	< 1.5	**730**	**3**	47	27	100
5037634 Oak St. (front yard)	0-5 cm	16030	9200	**1.4**	17	180	< 0.5	**1.2**	6200	28	**39**	**700**	22000	**140**	2400	200	< 1.5	**980**	**2**	37	22	160
		16031	8700	**1.3**	17	130	< 0.5	**1.1**	6300	28	**38**	**720**	22000	**130**	2400	180	< 1.5	**910**	**3**	31	22	130
	5-10 cm	16032	8900	**1.3**	**22**	120	< 0.5	0.9	5400	22	**40**	**820**	23000	**130**	2000	190	< 1.5	**1100**	**2**	33	22	130
		16033	9400	**1.3**	**25**	150	< 0.5	1	6100	26	**42**	**920**	23000	**130**	2100	210	< 1.5	**1200**	**4**	35	23	140
	10-20 cm	16034	10000	**1.7**	**27**	180	< 0.5	0.9	6100	24	**43**	**1000**	26000	**170**	2200	220	< 1.5	**1400**	**3**	42	24	150
		16035	13000	**1.6**	**29**	200	< 0.5	1	8100	31	**43**	**1100**	27000	**160**	2400	260	< 1.5	**1300**	**3**	58	28	160
5037635 Oak St. (back yard)	0-5 cm	16024	9200	**1.2**	**18**	90	< 0.5	**1.1**	3800	26	**30**	**540**	22000	**130**	2500	170	< 1.5	**650**	**2**	26	23	140
		16025	8400	**3**	14	84	< 0.5	**1.1**	3000	28	21	**470**	20000	120	2600	170	< 1.5	**400**	**2**	20	22	120
	5-10 cm	16026	9000	0.9	**21**	78	< 0.5	< 0.8	3200	25	**27**	**520**	23000	110	2200	150	< 1.5	**610**	**2**	25	23	110
		16027	11000	**1.5**	14	72	< 0.5	< 0.8	3200	28	20	**430**	22000	86	2900	170	< 1.5	**370**	**3**	28	27	92
	10-20 cm	16028	9900	**1.9**	**34**	110	< 0.5	< 0.8	4100	26	**32**	**730**	27000	**150**	2300	160	< 1.5	**690**	**4**	27	25	98
		16029	10000	1	**26**	83	< 0.5	< 0.8	2400	26	**24**	**620**	28000	120	2400	150	< 1.5	**470**	< 1	24	26	67

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037673 Spruce St. (front yard)	0-5 cm	16252	11000	< 0.8	< 5	54	< 0.5	< 0.8	9500	28	8	**92**	15000	25	4000	170	< 1.5	**100**	< 1	42	29	30
		16253	9100	< 0.8	< 5	39	< 0.5	< 0.8	7000	24	7	82	13000	22	3400	160	< 1.5	**91**	1	36	27	27
	5-10 cm	16254	10000	< 0.8	< 5	45	< 0.5	< 0.8	5200	26	7	**86**	14000	14	2600	170	< 1.5	**80**	< 1	41	30	20
		16255	11000	< 0.8	< 5	45	< 0.5	< 0.8	5200	27	6	66	14000	11	2800	170	< 1.5	**64**	< 1	39	31	20
	10-20 cm	16256	7300	< 0.8	5	35	< 0.5	< 0.8	3400	21	6	**100**	11000	15	2300	130	< 1.5	**88**	< 1	28	25	18
		16257	7200	< 0.8	< 5	34	< 0.5	< 0.8	3300	21	7	81	12000	13	2300	140	< 1.5	**94**	< 1	27	24	19
5037674 Spruce St. (back yard)	0-5 cm	16258	7400	< 0.8	8	40	< 0.5	< 0.8	5000	20	9	**150**	13000	45	2400	130	< 1.5	**180**	< 1	26	23	63
		16259	6600	< 0.8	5	38	< 0.5	< 0.8	3900	20	10	**140**	12000	47	2300	130	1.6	**180**	< 1	20	21	53
	5-10 cm	16260	7100	< 0.8	6	36	< 0.5	< 0.8	5000	19	9	**150**	11000	42	2300	120	< 1.5	**170**	< 1	22	22	36
		16261	7500	< 0.8	7	39	< 0.5	< 0.8	4500	20	10	**180**	13000	42	2300	130	< 1.5	**190**	< 1	24	23	42
	10-20 cm	16262	6900	< 0.8	6	39	< 0.5	< 0.8	4100	18	8	**140**	11000	48	2100	110	< 1.5	**170**	< 1	22	21	39
		16263	7500	< 0.8	9	49	< 0.5	< 0.8	3900	19	11	**200**	13000	60	2200	120	< 1.5	**240**	< 1	25	22	45
5037493 Walter Cres (front yard)	0-5 cm	15526	11000	< 0.8	6	56	< 0.5	< 0.8	5900	31	9	**90**	15000	12	3000	210	< 1.5	**140**	< 1	37	31	37
		15527	11000	< 0.8	6	58	< 0.5	< 0.8	6300	31	9	**91**	16000	11	3000	210	< 1.5	**140**	< 1	40	33	36
	5-10 cm	15528	14000	< 0.8	< 5	71	< 0.5	< 0.8	7000	38	7	**110**	16000	9	3500	250	< 1.5	**120**	< 1	50	39	41
		15529	13000	< 0.8	5	68	< 0.5	< 0.8	7100	35	9	**100**	17000	11	3600	240	< 1.5	**140**	< 1	48	36	38
	10-20 cm	15530	17000	< 0.8	< 5	95	< 0.5	< 0.8	8200	43	9	**120**	20000	9	4400	270	< 1.5	**150**	< 1	55	42	34
		15531	15000	< 0.8	6	78	< 0.5	< 0.8	7800	38	8	**110**	19000	7	4000	250	< 1.5	**120**	< 1	51	37	31
5037494 Walter Cres (back yard)	0-5 cm	15520	9900	< 0.8	6	45	< 0.5	< 0.8	6400	28	8	**88**	13000	14	2400	180	< 1.5	**130**	< 1	38	28	42
		15521	12000	< 0.8	6	54	< 0.5	< 0.8	8800	31	8	79	17000	12	2900	230	< 1.5	**120**	< 1	40	35	45
	5-10 cm	15522	9500	**1.2**	6	41	< 0.5	< 0.8	5800	27	8	**90**	13000	12	2200	160	< 1.5	**140**	< 1	38	27	32
		15523	11000	< 0.8	7	54	< 0.5	< 0.8	7500	31	8	**88**	19000	15	2800	230	< 1.5	**130**	< 1	42	38	60
	10-20 cm	15524	10000	< 0.8	7	43	< 0.5	< 0.8	4400	26	8	**110**	15000	10	2100	160	< 1.5	**150**	< 1	34	29	26
		15525	9200	< 0.8	6	43	< 0.5	< 0.8	4500	28	8	**86**	16000	11	2100	160	< 1.5	**150**	< 1	26	31	36

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037496 Walter Cres. (front yard)	0-5 cm	15543	8700	< 0.8	< 5	50	< 0.5	< 0.8	4000	29	7	50	13000	10	2800	180	< 1.5	**88**	1	33	28	23
		15544	9200	< 0.8	< 5	55	< 0.5	< 0.8	5100	30	7	57	14000	11	3200	190	< 1.5	**99**	< 1	34	29	27
	5-10 cm	15545	7600	< 0.8	< 5	47	< 0.5	< 0.8	3700	28	8	54	13000	9	2900	180	< 1.5	**110**	< 1	23	26	22
		15546	7400	< 0.8	< 5	45	< 0.5	< 0.8	4000	28	7	53	12000	10	3100	180	< 1.5	**99**	< 1	24	26	24
	10-20 cm	15547	7500	< 0.8	< 5	46	< 0.5	< 0.8	3600	29	7	47	13000	6	2900	170	< 1.5	**96**	< 1	25	28	19
		15548	7600	< 0.8	< 5	47	< 0.5	< 0.8	3300	28	7	51	13000	6	3000	170	< 1.5	**91**	< 1	24	27	18
5037497 Walter Cres. (back yard)	0-5 cm	15537	9600	< 0.8	< 5	59	< 0.5	< 0.8	5300	30	9	76	14000	15	3200	210	< 1.5	**120**	< 1	36	29	36
		15538	9400	< 0.8	< 5	63	< 0.5	< 0.8	5400	31	8	74	14000	30	3200	220	< 1.5	**110**	< 1	36	30	39
	5-10 cm	15539	9500	< 0.8	< 5	59	< 0.5	< 0.8	5400	30	9	79	14000	14	3300	200	< 1.5	**120**	< 1	35	30	35
		15540	9500	**1.1**	< 5	57	< 0.5	< 0.8	5700	30	8	77	14000	17	3300	230	< 1.5	**110**	< 1	34	29	39
	10-20 cm	15541	8200	< 0.8	< 5	53	< 0.5	< 0.8	5400	28	8	63	14000	9	3400	200	< 1.5	**100**	< 1	29	27	29
		15542	11000	< 0.8	< 5	73	< 0.5	< 0.8	6600	34	8	70	15000	16	3800	230	< 1.5	**110**	< 1	44	33	38
5037488 Walter St. (front yard)	0-5 cm	15497	8400	< 0.8	10	90	< 0.5	**1.1**	12000	36	**22**	**370**	15000	45	2700	230	1.6	**470**	**2**	44	26	130
		15498	8200	< 0.8	13	88	< 0.5	**1.4**	14000	43	**27**	**460**	16000	56	2700	220	1.5	**560**	**2**	44	25	160
	5-10 cm	15499	7700	< 0.8	14	69	< 0.5	**1.1**	10000	46	**31**	**620**	17000	46	2200	190	1.7	**720**	**2**	40	24	110
		15500	7300	< 0.8	10	60	< 0.5	1	8300	36	**25**	**490**	15000	36	2100	170	< 1.5	**550**	**2**	36	24	100
	10-20 cm	15501	6600	< 0.8	13	56	< 0.5	< 0.8	5400	26	19	**430**	13000	28	1800	160	< 1.5	**520**	**2**	31	22	84
		15502	6900	< 0.8	11	54	< 0.5	< 0.8	6800	34	18	**380**	14000	29	2100	170	< 1.5	**500**	**2**	32	23	91
5037489 Walter St. (back yard)	0-5 cm	15491	5800	< 0.8	10	67	< 0.5	**1.2**	8600	30	**29**	**400**	15000	53	2600	170	< 1.5	**610**	< 1	24	18	150
		15492	6000	< 0.8	9	61	< 0.5	**1.1**	8800	31	**23**	**340**	14000	42	2600	160	< 1.5	**490**	< 1	26	20	130
	5-10 cm	15493	6100	< 0.8	13	60	< 0.5	0.9	7600	28	**25**	**440**	14000	39	2300	150	< 1.5	**580**	< 1	27	19	100
		15494	8100	< 0.8	11	61	< 0.5	< 0.8	12000	36	**24**	**420**	15000	36	2200	190	< 1.5	**550**	**2**	38	25	97
	10-20 cm	15495	7900	< 0.8	13	56	< 0.5	< 0.8	7800	29	17	**290**	14000	24	2400	170	< 1.5	**490**	1	36	25	71
		15496	7800	< 0.8	13	55	< 0.5	< 0.8	7300	29	15	**280**	14000	24	2400	180	< 1.5	**440**	1	35	25	74

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037491 Walter St. (front yard)	0-5 cm	15510	16000	< 0.8	< 5	78	< 0.5	< 0.8	6700	41	8	77	18000	13	3900	270	< 1.5	**86**	< 1	48	37	40
		15511	16000	< 0.8	< 5	86	< 0.5	< 0.8	8200	41	8	79	18000	12	3900	270	< 1.5	**89**	< 1	50	37	40
	5-10 cm	15512	16000	**1.7**	< 5	78	< 0.5	< 0.8	7800	41	9	82	19000	12	3900	290	< 1.5	**91**	< 1	49	37	41
		15513	17000	< 0.8	< 5	86	< 0.5	< 0.8	7800	41	9	**86**	19000	13	3800	270	< 1.5	**95**	< 1	51	38	42
	10-20 cm	15514	15000	< 0.8	7	70	< 0.5	< 0.8	5400	38	9	75	19000	11	3900	260	< 1.5	**83**	< 1	42	36	47
		15515	16000	< 0.8	7	85	< 0.5	< 0.8	6800	39	9	84	20000	11	3900	270	< 1.5	**87**	< 1	46	37	40
5037642 William Ave. (front yard)	0-5 cm	16072	8900	< 0.8	8	58	< 0.5	< 0.8	6900	35	14	**170**	12000	48	3200	200	< 1.5	**260**	< 1	32	26	70
		16073	8500	< 0.8	8	49	< 0.5	< 0.8	8900	39	15	**180**	12000	44	3200	180	< 1.5	**290**	< 1	33	25	63
	5-10 cm	16074	9400	< 0.8	8	43	< 0.5	< 0.8	5500	30	11	**170**	12000	30	2600	170	< 1.5	**220**	< 1	35	27	48
		16075	11000	< 0.8	11	48	< 0.5	< 0.8	7500	31	11	**170**	12000	27	2600	170	< 1.5	**230**	< 1	38	27	43
	10-20 cm	16076	9400	< 0.8	< 5	43	< 0.5	< 0.8	5100	26	10	**140**	11000	27	2500	160	< 1.5	**180**	< 1	33	25	35
		16077	10000	< 0.8	10	46	< 0.5	< 0.8	5600	28	11	**200**	12000	27	2600	170	< 1.5	**230**	< 1	36	27	39
5037643 William Ave. (back yard)	0-5 cm	16078	13000	< 0.8	8	86	< 0.5	< 0.8	9000	34	15	**240**	14000	58	3600	220	< 1.5	**330**	< 1	45	30	90
		16079	12000	< 0.8	9	84	< 0.5	0.9	9000	36	17	**260**	13000	90	3500	210	< 1.5	**380**	1	43	28	97
	5-10 cm	16080	6300	< 0.8	< 5	51	< 0.5	< 0.8	4700	21	9	**140**	6500	32	1700	130	< 1.5	**210**	< 1	27	18	50
		16081	10000	< 0.8	11	83	< 0.5	0.9	9100	34	**27**	**390**	14000	84	3100	230	< 1.5	**680**	1	43	30	120
	10-20 cm	16082	10000	0.9	10	88	< 0.5	< 0.8	8000	31	19	**320**	13000	83	2900	240	< 1.5	**490**	1	42	29	110
		16083	9300	< 0.8	11	110	< 0.5	< 0.8	7900	31	**22**	**430**	13000	**130**	2900	240	< 1.5	**600**	< 1	41	28	140

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037638 William Ave. (front yard)	0-5 cm	16048	15000	< 0.8	8	94	< 0.5	< 0.8	4500	40	13	**170**	19000	39	3100	240	< 1.5	**230**	1	47	40	68
		16049	14000	< 0.8	9	85	< 0.5	< 0.8	4200	39	13	**180**	18000	50	2700	250	< 1.5	**230**	1	47	38	69
	5-10 cm	16050	15000	< 0.8	6	78	< 0.5	< 0.8	3400	34	8	**100**	18000	18	2300	230	< 1.5	**140**	< 1	46	38	37
		16051	13000	< 0.8	10	89	< 0.5	< 0.8	3500	35	15	**270**	19000	46	2400	260	< 1.5	**280**	1	45	36	64
	10-20 cm	16052	13000	< 0.8	13	76	< 0.5	< 0.8	2900	32	16	**400**	20000	36	2100	230	< 1.5	**300**	**2**	41	33	42
		16053	11000	< 0.8	16	73	< 0.5	< 0.8	2900	29	**22**	**400**	20000	38	2000	210	< 1.5	**620**	**3**	35	30	59
5037639 William Ave. (back yard)	0-5 cm	16054	11000	< 0.8	13	82	< 0.5	0.9	4800	35	**22**	**380**	18000	80	2600	240	< 1.5	**450**	**2**	45	33	89
		16055	8600	< 0.8	12	59	< 0.5	< 0.8	6600	30	16	**250**	16000	68	3000	200	< 1.5	**340**	**2**	32	29	71
	5-10 cm	16056	16000	< 0.8	**21**	110	< 0.5	< 0.8	5600	40	**22**	**560**	21000	83	3800	300	< 1.5	**490**	**2**	50	39	75
		16057	14000	**1.2**	**18**	90	< 0.5	< 0.8	5400	39	**24**	**550**	21000	120	3100	280	< 1.5	**400**	**2**	47	34	70
	10-20 cm	16058	14000	< 0.8	**19**	140	< 0.5	< 0.8	5600	38	**38**	**870**	25000	100	3100	360	< 1.5	**1100**	**3**	52	34	150
		16059	12000	0.9	**28**	110	< 0.5	< 0.8	5300	35	**31**	**810**	23000	100	3000	300	< 1.5	**940**	**3**	47	33	120
5037640 William Ave. (front yard)	0-5 cm	16060	13000	< 0.8	7	72	< 0.5	< 0.8	9000	34	13	**140**	17000	32	4800	220	< 1.5	**180**	< 1	45	33	53
		16061	12000	0.9	9	65	< 0.5	< 0.8	7800	33	14	**180**	17000	34	4100	220	< 1.5	**220**	1	42	32	58
	5-10 cm	16062	11000	< 0.8	7	44	< 0.5	< 0.8	4600	28	10	**120**	16000	15	3100	170	< 1.5	**160**	1	35	30	35
		16063	7600	< 0.8	8	43	< 0.5	< 0.8	4200	27	12	**140**	15000	19	2700	170	< 1.5	**200**	< 1	31	28	40
	10-20 cm	16064	8700	< 0.8	10	37	< 0.5	< 0.8	3200	26	15	**210**	15000	18	2700	160	< 1.5	**280**	1	26	27	42
		16065	8300	< 0.8	11	36	< 0.5	< 0.8	3200	26	13	**210**	15000	19	2700	160	< 1.5	**250**	1	25	26	30
5037641 William Ave. (back yard)	0-5 cm	16066	9500	< 0.8	10	53	< 0.5	< 0.8	6600	28	15	**250**	15000	57	3500	190	< 1.5	**290**	1	34	28	84
		16067	9600	< 0.8	10	45	< 0.5	< 0.8	4900	27	13	**170**	14000	37	2600	160	< 1.5	**270**	**2**	31	28	58
	5-10 cm	16068	8500	< 0.8	10	36	< 0.5	< 0.8	3400	22	10	**140**	13000	17	2000	130	< 1.5	**210**	1	25	25	35
		16069	9400	< 0.8	7	35	< 0.5	< 0.8	3000	24	8	**110**	13000	12	1900	130	< 1.5	**170**	< 1	29	27	27
	10-20 cm	16070	8900	< 0.8	9	40	< 0.5	< 0.8	2700	25	10	**150**	12000	13	2000	140	< 1.5	**190**	< 1	27	27	27
		16071	9100	< 0.8	6	37	< 0.5	< 0.8	2600	24	8	**130**	10000	9	1900	130	< 1.5	**180**	< 1	26	26	25

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037645 William Ave. (front yard)	0-5 cm	16090	9500	< 0.8	5	32	< 0.5	< 0.8	3300	25	5	38	12000	10	1800	140	< 1.5	**65**	< 1	32	26	21
		16091	9700	< 0.8	< 5	31	< 0.5	< 0.8	3100	23	5	30	12000	7	1800	140	< 1.5	**48**	< 1	30	25	17
	5-10 cm	16092	11000	< 0.8	6	39	< 0.5	< 0.8	3400	30	7	64	14000	10	2200	150	< 1.5	**99**	< 1	31	27	22
		16093	10000	< 0.8	7	37	< 0.5	< 0.8	2900	28	6	61	13000	8	2000	140	< 1.5	**79**	< 1	27	25	20
	10-20 cm	16094	11000	< 0.8	6	41	< 0.5	< 0.8	3800	32	8	68	15000	11	2300	160	< 1.5	**110**	< 1	34	28	27
		16095	12000	< 0.8	6	47	< 0.5	< 0.8	3900	33	9	69	15000	10	2500	190	< 1.5	**120**	< 1	36	30	25
5037646 William Ave. (back yard)	0-5 cm	16084	10000	< 0.8	< 5	49	< 0.5	< 0.8	6200	32	8	**100**	11000	14	3400	180	< 1.5	**140**	< 1	35	28	41
		16085	9100	< 0.8	< 5	44	< 0.5	< 0.8	5300	32	9	**100**	13000	15	2900	160	< 1.5	**170**	< 1	32	25	37
	5-10 cm	16086	9700	**2.1**	7	44	< 0.5	< 0.8	3800	28	8	**120**	14000	12	2600	150	< 1.5	**160**	< 1	31	27	26
		16087	9000	< 0.8	7	40	< 0.5	< 0.8	3400	26	7	77	13000	9	2500	140	< 1.5	**130**	< 1	30	25	22
	10-20 cm	16088	9300	< 0.8	6	37	< 0.5	< 0.8	2800	24	6	69	12000	8	2000	140	< 1.5	**85**	< 1	31	25	18
		16089	5900	< 0.8	7	22	< 0.5	< 0.8	1400	18	5	61	9800	7	1600	79	< 1.5	**71**	< 1	11	18	16
5037744 William Ave. (front yard)	0-5 cm	18781	6400	< 0.8	17	38	< 0.5	**1.9**	13000	50	**45**	**650**	18000	70	2400	130	< 1.5	**1200**	**2**	26	21	98
		18782	6500	< 0.8	17	46	< 0.5	**1.8**	9200	46	**36**	**560**	17000	79	2200	130	< 1.5	**930**	**2**	22	21	140
	5-10 cm	18783	7400	< 0.8	**19**	41	< 0.5	< 0.8	6700	23	21	**430**	14000	28	2000	130	< 1.5	**690**	**2**	19	21	50
		18784	7300	< 0.8	**18**	37	< 0.5	< 0.8	6000	24	**22**	**440**	14000	26	2000	130	< 1.5	**670**	**2**	20	22	66
	10-20 cm	18785	10300	< 0.8	13	48	< 0.5	< 0.8	4900	26	13	**270**	14000	17	2000	150	< 1.5	**370**	1	40	26	40
		18786	9900	< 0.8	14	47	< 0.5	< 0.8	4200	25	16	**320**	15000	22	2100	160	< 1.5	**440**	1	33	26	49
5037745 William Ave. (back yard)	0-5 cm	18787	9200	< 0.8	**35**	67	< 0.5	**1.8**	8200	43	**52**	**840**	26000	79	2900	160	< 1.5	**1300**	**2**	39	26	110
		18788	10100	< 0.8	**37**	71	< 0.5	**1.6**	8200	41	**44**	**810**	25000	74	2600	170	< 1.5	**1100**	**3**	41	28	94
	5-10 cm	18789	10700	< 0.8	**38**	63	< 0.5	0.9	5600	30	**33**	**680**	20000	46	2100	170	< 1.5	**990**	**2**	39	28	82
		18790	10500	< 0.8	**27**	55	< 0.5	< 0.8	3900	26	**25**	**480**	17000	33	2000	170	< 1.5	**660**	**2**	37	28	53
	10-20 cm	18791	8400	< 0.8	**22**	52	< 0.5	< 0.8	4300	20	**22**	**450**	15000	33	1800	140	< 1.5	**720**	**2**	26	24	57
		18792	5700	< 0.8	16	41	< 0.5	< 0.8	1800	16	14	**330**	12000	26	1400	90	< 1.5	**450**	**2**	10	17	43

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.1: Coniston residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037746 William Ave. (front yard)	0-5 cm	18793	6900	< 0.8	**33**	69	< 0.5	**2**	5200	41	**55**	**1000**	25000	**130**	2200	160	< 1.5	**1300**	**4**	22	22	150
		18794	6600	< 0.8	**36**	80	< 0.5	**2.3**	7300	45	**59**	**1100**	25000	**150**	2200	160	< 1.5	**1500**	**2**	22	21	**190**
	5-10 cm	18795	7400	< 0.8	17	57	< 0.5	< 0.8	5600	26	**23**	**360**	14000	60	1900	140	< 1.5	**760**	**2**	21	20	84
		18796	8600	< 0.8	**18**	60	< 0.5	< 0.8	5500	34	**23**	**330**	14000	62	2100	170	< 1.5	**760**	**2**	32	25	84
	10-20 cm	18797	5500	< 0.8	< 5	35	< 0.5	< 0.8	2700	21	10	**210**	11000	30	1600	100	< 1.5	**260**	< 1	12	18	34
		18798	7100	< 0.8	10	38	< 0.5	< 0.8	4000	22	9	**180**	11000	24	1800	120	< 1.5	**230**	< 1	25	22	34
5037747 William Ave. (back yard)	0-5 cm	18799	8300	0.9	**29**	68	< 0.5	**1.1**	4000	34	**34**	**660**	21000	100	2200	170	< 1.5	**820**	**3**	34	26	**190**
		18800	10000	< 0.8	**22**	75	< 0.5	1	4500	39	**28**	**530**	19000	91	2300	180	< 1.5	**650**	**3**	40	28	120
	5-10 cm	18801	10000	< 0.8	15	60	< 0.5	< 0.8	4000	31	18	**330**	14000	69	2200	160	< 1.5	**520**	**2**	39	27	110
		18802	11000	< 0.8	14	68	< 0.5	< 0.8	4200	32	16	**300**	15000	57	2200	180	< 1.5	**480**	**2**	41	29	86
	10-20 cm	18803	10000	1	8	64	< 0.5	< 0.8	3700	29	11	**200**	13000	60	2100	160	< 1.5	**280**	< 1	39	28	63
		18804	11000	< 0.8	12	71	< 0.5	< 0.8	4000	32	13	**260**	15000	65	2300	180	< 1.5	**330**	< 1	41	29	75

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037886 Balsam St. (front yard)	0-5 cm	17274	9000	< 0.8	7	42	< 0.5	< 0.8	11000	31	18	**590**	16000	43	3200	180	< 1.5	**500**	**4**	34	27	37
		17275	9300	< 0.8	9	52	< 0.5	**1.3**	13000	35	**29**	**1200**	18000	70	3300	180	< 1.5	**820**	**7**	35	27	55
	5-10 cm	17276	11000	< 0.8	8	63	< 0.5	< 0.8	5100	33	14	**300**	16000	21	3300	200	< 1.5	**350**	**3**	31	29	30
		17277	13000	< 0.8	12	72	< 0.5	< 0.8	5600	40	18	**420**	17000	34	4000	210	< 1.5	**500**	**2**	27	30	65
	10-20 cm	17278	12000	< 0.8	11	62	< 0.5	0.8	5600	44	17	**460**	18000	32	3900	190	< 1.5	**410**	**2**	32	32	53
		17279	13000	< 0.8	10	75	< 0.5	< 0.8	4900	39	14	**350**	17000	28	4100	190	< 1.5	**340**	**2**	31	32	50
5037887 Balsam St. (back yard)	0-5 cm	17268	11000	< 0.8	7	62	< 0.5	< 0.8	5600	35	17	**590**	17000	41	3500	190	< 1.5	**490**	**4**	40	30	53
		17269	13000	< 0.8	14	79	< 0.5	**1.4**	6800	45	**29**	**1100**	20000	62	3800	230	**2.9**	**900**	**6**	44	33	81
	5-10 cm	17270	12000	< 0.8	14	71	< 0.5	**1.1**	6100	45	**23**	**890**	21000	57	3700	210	< 1.5	**730**	**5**	41	33	77
		17271	15000	< 0.8	**28**	95	< 0.5	**1.1**	7400	48	**27**	**910**	21000	83	3900	240	< 1.5	**910**	**5**	45	35	87
	10-20 cm	17272	12000	< 0.8	**28**	94	< 0.5	1	6700	40	21	**630**	18000	58	3300	220	< 1.5	**750**	**4**	44	32	60
		17273	9500	1	**31**	94	< 0.5	1	5900	37	**22**	**760**	17000	79	3400	200	< 1.5	**820**	**4**	29	26	71
5037888 Balsam St. (back yard)	0-5 cm	17280	12000	< 0.8	11	92	< 0.5	**1.1**	5800	39	**22**	**800**	20000	110	4400	240	< 1.5	**590**	**5**	36	33	100
		17281	13000	< 0.8	10	84	< 0.5	**1.3**	6700	41	**24**	**1000**	20000	76	4600	250	< 1.5	**690**	**6**	41	34	93
	5-10 cm	17282	14000	0.9	16	110	< 0.5	**1.2**	6100	41	**22**	**860**	22000	120	4400	250	< 1.5	**650**	**4**	35	35	110
		17283	15000	**1.1**	11	**290**	< 0.5	**1.4**	7100	45	19	**700**	20000	110	4600	270	< 1.5	**500**	**4**	41	35	160
	10-20 cm	17284	14000	**1.7**	**23**	140	< 0.5	**1.3**	6000	44	**36**	**1100**	29000	**270**	4300	250	< 1.5	**910**	**5**	35	35	130
		17285	14000	**1.9**	17	**720**	< 0.5	**1.5**	7100	45	**22**	**750**	22000	**240**	4400	360	1.5	**660**	**3**	48	33	**270**

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037889 Balsam St. (front yard)	0-5 cm	17292	13000	< 0.8	**18**	63	< 0.5	**1.4**	12000	46	**41**	**1700**	25000	95	6600	220	1.6	**1100**	**7**	54	35	93
		17293	12000	< 0.8	**21**	74	< 0.5	**1.8**	10000	52	**45**	**2100**	25000	**140**	6000	210	2.5	**1400**	**7**	48	34	120
	5-10 cm	17294	14000	< 0.8	**20**	79	< 0.5	< 0.8	5100	42	**22**	**700**	22000	76	3700	210	< 1.5	**620**	**3**	40	37	66
		17295	14000	< 0.8	11	74	< 0.5	< 0.8	4700	40	13	**280**	18000	34	3700	210	< 1.5	**330**	**2**	39	36	48
	10-20 cm	17296	17000	< 0.8	**23**	130	< 0.5	< 0.8	6300	53	21	**440**	25000	85	5900	270	< 1.5	**520**	**2**	43	40	71
		17297	15000	**1.1**	**19**	110	< 0.5	< 0.8	6000	46	21	**480**	24000	120	4300	270	< 1.5	**490**	**2**	43	40	77
5037890 Balsam St. (back yard)	0-5 cm	17286	12000	1	**36**	120	< 0.5	**2.8**	15000	54	**64**	**3000**	31000	**200**	7800	200	2.4	**2200**	**9**	42	32	**220**
		17287	15000	< 0.8	**37**	110	< 0.5	**3.2**	17000	62	**71**	**3300**	35000	**220**	8500	230	1.9	**2400**	**11**	46	36	**190**
	5-10 cm	17288	25000	< 0.8	**19**	140	< 0.5	0.9	9300	54	18	**520**	23000	46	5700	260	< 1.5	**540**	**2**	56	43	89
		17289	21000	< 0.8	**18**	120	< 0.5	0.8	8800	51	**22**	**730**	23000	51	5800	250	< 1.5	**640**	**3**	53	41	83
	10-20 cm	17290	20000	< 0.8	13	130	< 0.5	< 0.8	13000	47	15	**350**	22000	66	8200	300	< 1.5	**380**	**2**	60	43	74
		17291	23000	0.9	15	170	0.5	< 0.8	12000	56	21	**460**	25000	**150**	8800	340	< 1.5	**620**	**2**	62	47	92
5037829 Bradley St. (front yard)	0-5 cm	17442	11000	< 0.8	**25**	66	< 0.5	**1.9**	4000	44	**43**	**2400**	20000	81	3200	250	1.8	**1400**	**20**	37	35	78
		17443	11000	< 0.8	15	64	< 0.5	**1.3**	4200	41	**27**	**1200**	17000	42	3200	240	< 1.5	**770**	**9**	42	36	60
	5-10 cm	17444	13000	< 0.8	17	78	< 0.5	< 0.8	4300	45	**22**	**660**	19000	44	3800	230	< 1.5	**650**	**5**	42	38	53
		17445	17000	< 0.8	16	110	< 0.5	< 0.8	5400	51	21	**740**	21000	53	4100	260	< 1.5	**540**	**4**	52	44	58
	10-20 cm	17446	15000	< 0.8	14	120	< 0.5	< 0.8	7800	50	19	**510**	22000	39	6300	310	2	**450**	**3**	54	45	53
		17447	16000	< 0.8	**21**	120	< 0.5	< 0.8	8500	49	19	**740**	22000	50	6100	280	< 1.5	**510**	**4**	57	45	58
5028093 Bradley St. (back yard)	0-5 cm	17906	14000	**1.2**	**52**	92	< 0.5	**2.1**	5100	55	**87**	**4500**	35000	**180**	3900	250	2.1	**2800**	**19**	42	42	140
		17907	13000	**1.2**	**46**	90	< 0.5	**1.7**	4700	51	**78**	**4000**	32000	**160**	3700	230	2	**2400**	**19**	40	39	130
	5-10 cm	17908	20000	< 0.8	**28**	140	< 0.5	1	6700	56	**38**	**1300**	28000	52	5700	320	< 1.5	**1300**	**4**	53	46	110
		17909	18000	< 0.8	**22**	140	< 0.5	0.9	7600	51	**33**	**970**	24000	57	5500	280	< 1.5	**1100**	**3**	54	41	92
	10-20 cm	17910	15000	**1.4**	9	130	< 0.5	< 0.8	9800	48	16	**360**	23000	31	7500	320	< 1.5	**360**	1	58	43	44
		17911	15000	< 0.8	9	120	< 0.5	< 0.8	8900	48	14	**240**	22000	29	6900	320	2.3	**280**	< 1	58	42	42

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037830 Bradley St. (front yard)	0-5 cm	17436	11000	0.9	**46**	95	< 0.5	**2.9**	10000	46	**58**	**2700**	26000	**200**	5000	210	1.8	**2100**	**16**	40	35	140
		17437	11000	0.9	**43**	85	< 0.5	**2.8**	9000	43	**56**	**2800**	24000	**150**	4700	210	1.7	**1900**	**19**	35	33	120
	5-10 cm	17438	15000	**1.9**	**58**	120	< 0.5	**1.8**	6800	54	**52**	**2100**	29000	**190**	4100	250	1.5	**2000**	**11**	41	42	120
		17439	16000	**1.4**	**54**	130	< 0.5	**2**	6100	56	**50**	**2100**	29000	**170**	4200	250	< 1.5	**1800**	**12**	42	43	130
	10-20 cm	17440	15000	**1.2**	**35**	120	< 0.5	**1.1**	5800	52	**35**	**1300**	24000	**190**	4300	280	< 1.5	**1400**	**7**	45	44	110
		17441	15000	0.9	**43**	120	< 0.5	**1.3**	5700	51	**42**	**1300**	25000	120	4200	290	< 1.5	**1500**	**7**	41	42	110
5037831 Bradley St. (back yard)	0-5 cm	17430	9600	< 0.8	11	59	< 0.5	**1.2**	8600	31	16	**660**	13000	46	3100	260	< 1.5	**530**	**2**	44	28	70
		17431	8800	0.8	10	94	< 0.5	**1.5**	13000	32	20	**800**	12000	68	3400	450	2.5	**670**	**3**	57	24	95
	5-10 cm	17432	12000	**1.3**	16	77	< 0.5	< 0.8	6600	34	16	**600**	16000	73	2800	280	< 1.5	**520**	**2**	48	33	79
		17433	10000	0.9	14	70	< 0.5	< 0.8	6800	32	14	**640**	14000	63	2900	260	< 1.5	**430**	**4**	40	29	69
	10-20 cm	17434	12000	1	**31**	100	< 0.5	**1.2**	7300	36	**28**	**1200**	20000	120	3200	280	1.8	**970**	**6**	46	36	150
		17435	11000	0.9	**27**	73	< 0.5	0.8	5800	35	**23**	**900**	18000	91	2900	220	< 1.5	**780**	**4**	40	34	91
5037784 Church St. (front yard)	0-5 cm	16822	8500	< 0.8	9	57	< 0.5	**2.1**	27000	25	**45**	**1300**	15000	86	14000	220	< 1.5	**840**	**7**	32	20	**180**
		16823	9300	< 0.8	10	58	< 0.5	**1.9**	20000	25	**47**	**1500**	15000	100	10000	230	< 1.5	**890**	**8**	33	22	120
	5-10 cm	16824	11000	< 0.8	10	52	< 0.5	< 0.8	6700	25	**23**	**560**	16000	42	2700	150	< 1.5	**360**	**2**	22	23	58
		16825	10000	< 0.8	8	41	< 0.5	< 0.8	7300	23	20	**480**	14000	37	2600	140	< 1.5	**300**	**2**	23	23	49
	10-20 cm	16826	12000	< 0.8	16	80	< 0.5	< 0.8	3600	33	**28**	**610**	21000	81	3100	180	< 1.5	**530**	**3**	24	28	62
		16827	17000	< 0.8	**18**	100	< 0.5	< 0.8	6500	39	**29**	**690**	24000	99	3700	220	< 1.5	**590**	**3**	42	36	68
5037785 Church St. (back yard)	0-5 cm	16828	13000	< 0.8	< 5	67	< 0.5	< 0.8	14000	33	13	**590**	16000	28	6600	210	< 1.5	**330**	**3**	45	35	91
		16829	12000	< 0.8	5	55	< 0.5	< 0.8	12000	31	13	**570**	16000	29	6200	200	< 1.5	**330**	**3**	41	33	62
	5-10 cm	16830	14000	< 0.8	< 5	68	< 0.5	< 0.8	6000	35	7	**180**	18000	20	3500	240	< 1.5	**110**	< 1	45	41	45
		16831	13000	< 0.8	< 5	54	< 0.5	< 0.8	6300	31	8	**230**	17000	22	3600	220	< 1.5	**130**	1	40	38	48
	10-20 cm	16832	12000	< 0.8	< 5	49	< 0.5	< 0.8	6000	31	7	**150**	17000	15	3600	190	< 1.5	**97**	< 1	33	36	38
		16833	10000	< 0.8	6	49	< 0.5	< 0.8	4600	28	9	**270**	17000	28	3200	170	< 1.5	**180**	**2**	23	33	42

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037786 Church St. (front yard)	0-5 cm	16834	9400	< 0.8	8	45	< 0.5	< 0.8	5600	31	12	**300**	16000	43	3800	200	< 1.5	**250**	**2**	25	29	36
		16835	9400	< 0.8	9	47	< 0.5	< 0.8	5300	30	13	**370**	16000	41	3700	200	< 1.5	**260**	**2**	25	29	38
	5-10 cm	16836	9500	< 0.8	17	66	< 0.5	< 0.8	5300	33	20	**660**	19000	**140**	3800	190	< 1.5	**560**	**4**	27	30	48
		16837	9900	< 0.8	13	55	< 0.5	< 0.8	4300	30	16	**620**	18000	97	3300	180	< 1.5	**420**	**4**	28	29	42
	10-20 cm	16838	10000	< 0.8	**22**	70	< 0.5	0.9	3400	33	**25**	**990**	20000	**140**	3000	210	< 1.5	**770**	**5**	27	30	70
		16839	11000	< 0.8	**18**	67	< 0.5	< 0.8	4000	32	17	**580**	19000	110	3300	200	< 1.5	**480**	**3**	35	32	47
5037787 Church St. (back yard)	0-5 cm	16840	9700	< 0.8	14	52	< 0.5	< 0.8	6100	33	17	**640**	18000	45	4100	210	< 1.5	**470**	**4**	24	28	48
		16841	9500	< 0.8	< 5	42	< 0.5	< 0.8	6500	32	9	**150**	15000	21	4300	210	< 1.5	**130**	< 1	26	28	34
	5-10 cm	16842	7600	< 0.8	**16**	56	< 0.5	< 0.8	4500	30	18	**750**	16000	**67**	3800	190	< 1.5	**550**	**3**	18	25	58
		16843	9400	< 0.8	**26**	70	< 0.5	0.9	5500	35	**27**	**1200**	22000	**130**	3900	200	< 1.5	**900**	**5**	30	29	70
	10-20 cm	16844	15000	< 0.8	**32**	110	< 0.5	**1.1**	6000	42	**32**	**1200**	25000	**140**	3700	250	< 1.5	**1000**	**5**	52	37	84
		16845	12000	**1.1**	**33**	110	< 0.5	1	5200	35	**25**	**930**	21000	**220**	3300	220	< 1.5	**910**	**4**	50	33	110
5037451 Cliff St. (back yard)	0-5 cm	15278	9400	< 0.8	**26**	76	< 0.5	**4.1**	82000	39	**82**	**2800**	29000	**170**	10000	170	1.8	**2500**	**18**	50	24	**190**
		15279	12000	< 0.8	**32**	96	< 0.5	**4.3**	80000	44	**86**	**3200**	31000	**180**	7100	210	1.6	**2800**	**16**	52	27	**230**
	5-10 cm	15280	12000	< 0.8	**43**	92	< 0.5	**1.9**	18000	37	**49**	**1500**	23000	**160**	3200	250	< 1.5	**2100**	**7**	32	30	130
		15281	12000	< 0.8	**39**	83	< 0.5	**2.3**	37000	39	**65**	**2000**	26000	120	3700	260	1.8	**2300**	**7**	40	31	130
	10-20 cm	15282	17000	< 0.8	**43**	110	< 0.5	< 0.8	12000	42	**33**	**970**	22000	110	2700	240	< 1.5	**1800**	**5**	43	37	98
		15283	12000	**1.1**	**34**	110	< 0.5	0.9	9500	35	**27**	**650**	17000	**140**	2700	300	< 1.5	**1100**	1	42	32	120

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037443 Cobalt St. (front yard)	0-5 cm	15225	12000	< 0.8	12	56	< 0.5	1	5100	37	17	**570**	18000	36	3200	170	< 1.5	**440**	**3**	32	28	51
		15226	12000	< 0.8	11	56	< 0.5	**1.1**	6500	38	14	**460**	16000	36	3300	230	< 1.5	**370**	**3**	42	33	56
	5-10 cm	15227	15000	< 0.8	**28**	77	< 0.5	0.9	6900	43	**24**	**700**	23000	68	3500	220	< 1.5	**610**	**3**	47	35	69
		15228	19000	< 0.8	**30**	110	< 0.5	1	6200	48	**26**	**840**	27000	62	4000	230	< 1.5	**770**	**4**	49	40	66
	10-20 cm	15229	17000	**1.1**	**33**	120	< 0.5	< 0.8	4400	42	21	**580**	25000	80	3400	220	< 1.5	**550**	**2**	58	38	61
		15230	18000	**1.1**	**36**	140	< 0.5	**1.1**	6000	51	**32**	**960**	29000	**170**	3800	260	< 1.5	**890**	**4**	60	42	95
5037444 Cobalt St. (back yard)	0-5 cm	15231	14000	< 0.8	12	62	< 0.5	0.8	5400	39	14	**500**	19000	32	3400	200	< 1.5	**360**	**3**	41	33	47
		15232	11000	< 0.8	16	66	< 0.5	**1.3**	7600	40	**26**	**900**	21000	46	4100	210	< 1.5	**720**	**4**	36	32	71
	5-10 cm	15233	10000	< 0.8	14	61	< 0.5	< 0.8	4200	31	15	**430**	18000	30	2900	170	< 1.5	**400**	**2**	26	29	53
		15234	11000	< 0.8	17	66	< 0.5	< 0.8	3600	32	17	**470**	20000	36	3200	170	< 1.5	**470**	**2**	21	28	54
	10-20 cm	15235	9100	< 0.8	**36**	78	< 0.5	< 0.8	3000	30	20	**690**	19000	50	2700	170	< 1.5	**600**	**2**	23	25	81
		15236	11000	< 0.8	**34**	100	< 0.5	0.9	4600	36	**25**	**680**	22000	64	3300	200	< 1.5	**750**	**3**	32	30	78
5037856 Cobalt St. (front yard)	0-5 cm	17094	13000	0.9	17	110	< 0.5	**2.2**	26000	54	**46**	**1700**	27000	**180**	4100	230	< 1.5	**1500**	**10**	50	37	150
		17095	13000	< 0.8	14	100	< 0.5	**1.6**	24000	46	**36**	**1500**	22000	81	3800	220	2.5	**1200**	**10**	50	35	94
	5-10 cm	17096	14000	< 0.8	**25**	100	< 0.5	< 0.8	5900	46	**20**	**600**	22000	**100**	3800	240	< 1.5	**690**	**5**	45	40	71
		17097	17000	< 0.8	**23**	130	< 0.5	< 0.8	7000	53	**26**	**730**	24000	75	4200	320	< 1.5	**1000**	**5**	51	43	79
	10-20 cm	17098	14000	< 0.8	11	76	< 0.5	< 0.8	5100	35	11	**250**	19000	43	3400	220	< 1.5	**280**	**2**	40	32	33
		17099	14000	1	17	94	< 0.5	< 0.8	7000	37	16	**510**	21000	100	3700	250	< 1.5	**370**	**3**	42	34	41
5037857 Cobalt St. (back yard)	0-5 cm	17088	9600	< 0.8	**20**	68	< 0.5	**1.5**	28000	37	**32**	**1200**	19000	92	3200	190	< 1.5	**920**	**9**	43	28	96
		17089	10000	< 0.8	**24**	85	< 0.5	**2.1**	17000	42	**38**	**1400**	21000	100	3100	200	1.8	**1100**	**9**	40	30	120
	5-10 cm	17090	11000	< 0.8	**22**	71	< 0.5	< 0.8	4000	36	14	**420**	16000	52	3000	230	< 1.5	**400**	**4**	32	32	69
		17091	12000	< 0.8	**18**	71	< 0.5	< 0.8	4100	36	16	**380**	17000	38	3200	230	< 1.5	**420**	**4**	34	33	66
	10-20 cm	17092	11000	< 0.8	**25**	82	< 0.5	< 0.8	5400	37	18	**550**	16000	81	3000	200	< 1.5	**630**	**4**	38	33	65
		17093	18000	0.8	**19**	130	< 0.5	< 0.8	7400	49	**24**	**710**	23000	110	3800	250	< 1.5	**800**	**4**	52	42	78

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037858 Cobalt St. (front yard)	0-5 cm	17106	13000	< 0.8	**19**	79	< 0.5	**2**	36000	39	**34**	**1600**	23000	120	4100	210	1.8	**1100**	**11**	53	31	100
		17107	11000	< 0.8	**19**	75	< 0.5	**1.5**	24000	36	**32**	**1300**	21000	77	3800	210	< 1.5	**1000**	**7**	42	28	87
	5-10 cm	17108	16000	< 0.8	**29**	110	< 0.5	< 0.8	8100	47	**22**	**680**	25000	71	4700	260	< 1.5	**710**	**4**	46	40	60
		17109	16000	< 0.8	13	92	< 0.5	< 0.8	6400	43	13	**250**	22000	19	4900	280	< 1.5	**300**	**2**	48	39	43
	10-20 cm	17110	18000	< 0.8	**33**	130	< 0.5	< 0.8	7500	52	**23**	**590**	24000	77	5300	280	< 1.5	**680**	**3**	51	45	70
		17111	17000	< 0.8	**27**	120	< 0.5	< 0.8	7200	49	20	**610**	22000	74	5100	260	< 1.5	**540**	**4**	49	43	52
5037859 Cobalt St. (back yard)	0-5 cm	17100	12000	< 0.8	**20**	92	< 0.5	**1.6**	14000	40	**31**	**1600**	25000	90	3800	220	2.5	**980**	**4**	43	31	110
		17101	12000	< 0.8	**22**	89	< 0.5	**1.8**	15000	43	**35**	**1500**	27000	110	3900	220	< 1.5	**1100**	**7**	46	34	120
	5-10 cm	17102	13000	**1.2**	**25**	120	< 0.5	0.9	6500	41	**26**	**880**	25000	85	3800	280	< 1.5	**840**	**5**	54	37	120
		17103	13000	< 0.8	**22**	120	< 0.5	**1.1**	6900	39	**22**	**840**	24000	100	3700	270	1.6	**750**	**4**	57	36	130
	10-20 cm	17104	10000	< 0.8	**18**	130	< 0.5	< 0.8	6600	33	17	**510**	19000	85	3300	280	< 1.5	**550**	**4**	60	31	99
		17105	11000	**1.1**	15	110	< 0.5	< 0.8	6200	33	15	**450**	20000	88	3500	250	< 1.5	**490**	**2**	61	34	94
5037860 Cobalt St. (front yard)	0-5 cm	17118	11000	< 0.8	**23**	91	< 0.5	**3.1**	15000	**86**	**40**	**1700**	25000	120	5400	210	2.4	**1300**	**9**	40	31	130
		17119	11000	< 0.8	**37**	110	< 0.5	**3.4**	13000	**93**	**52**	**2100**	32000	**170**	5700	250	2.2	**1600**	**12**	43	35	150
	5-10 cm	17120	12000	**1.2**	**58**	100	< 0.5	**3.7**	11000	**90**	**38**	**1400**	24000	**130**	3500	200	< 1.5	**1400**	**6**	38	31	130
		17121	12000	**1.3**	**48**	100	< 0.5	**3.5**	9800	**72**	**39**	**1300**	22000	110	3400	220	< 1.5	**1500**	**4**	42	32	120
	10-20 cm	17122	11000	**1.3**	**55**	73	< 0.5	0.9	9200	35	19	**510**	14000	39	2400	180	< 1.5	**730**	**2**	35	28	50
		17123	11000	**1.3**	**50**	76	< 0.5	< 0.8	5400	33	17	**450**	14000	35	2700	240	< 1.5	**500**	**2**	34	30	42
5037861 Cobalt St. (back yard)	0-5 cm	17112	11000	< 0.8	**21**	90	< 0.5	**2.7**	19000	60	**35**	**1300**	20000	89	4600	220	< 1.5	**1100**	**9**	47	33	120
		17113	12000	< 0.8	**25**	110	< 0.5	**3.7**	21000	**89**	**48**	**1700**	27000	**220**	4800	240	1.6	**1500**	**11**	49	37	160
	5-10 cm	17114	12000	1	**27**	93	< 0.5	**2.2**	8400	66	**27**	**880**	20000	81	3200	220	< 1.5	**900**	**5**	46	35	100
		17115	14000	0.9	**37**	100	< 0.5	**1.4**	6700	64	21	**680**	19000	100	3500	230	< 1.5	**720**	**4**	48	37	81
	10-20 cm	17116	14000	**1.5**	**67**	120	< 0.5	< 0.8	7800	46	20	**610**	19000	95	3600	250	< 1.5	**680**	**3**	42	34	76
		17117	13000	**1.4**	**50**	120	< 0.5	< 0.8	6900	45	18	**530**	21000	**160**	4100	260	< 1.5	**530**	**2**	44	35	88

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037862 Cobalt St. (front yard)	0-5 cm	17130	10000	< 0.8	16	70	< 0.5	**1.5**	7500	37	**27**	**1000**	19000	**150**	2900	200	< 1.5	**810**	**6**	36	32	88
		17131	9800	< 0.8	13	67	< 0.5	**1.3**	5900	39	**22**	**900**	17000	110	2900	190	< 1.5	**640**	**5**	36	32	72
	5-10 cm	17132	18000	0.9	**36**	210	< 0.5	**2**	15000	61	**42**	**1400**	31000	**150**	4500	280	< 1.5	**1500**	**4**	58	46	130
		17133	18000	**1.1**	**32**	140	< 0.5	**1.9**	12000	58	**39**	**1200**	32000	**150**	4300	260	< 1.5	**1300**	**4**	57	45	130
	10-20 cm	17134	13000	< 0.8	**21**	89	< 0.5	< 0.8	5500	36	17	**550**	18000	120	2600	220	< 1.5	**450**	**2**	38	35	63
		17135	17000	**1.3**	**27**	150	< 0.5	0.8	7400	47	**27**	**920**	26000	**180**	3400	280	< 1.5	**740**	**3**	62	41	92
5037863 Cobalt St. (back yard)	0-5 cm	17124	10000	< 0.8	17	83	< 0.5	**1.2**	6600	38	**25**	**920**	22000	67	3400	250	< 1.5	**690**	**5**	39	32	85
		17125	11000	< 0.8	**20**	93	< 0.5	1	7600	43	**26**	**950**	29000	68	3600	240	< 1.5	**670**	**6**	41	35	76
	5-10 cm	17126	11000	< 0.8	**24**	130	< 0.5	< 0.8	5100	43	18	**590**	33000	82	2900	260	< 1.5	**450**	**4**	46	37	100
		17127	13000	1	**29**	**260**	< 0.5	< 0.8	6300	48	**24**	**670**	40000	**130**	3400	240	< 1.5	**660**	**5**	90	40	120
	10-20 cm	17128	11000	0.8	**31**	140	< 0.5	< 0.8	5200	**85**	**24**	**740**	59000	72	3100	200	< 1.5	**600**	**8**	44	54	100
		17129	8300	< 0.8	9	47	< 0.5	< 0.8	3500	27	11	**240**	13000	15	2700	170	1.7	**340**	**2**	25	28	29
5037436 Collins St. (front yard)	0-5 cm	15191	10000	< 0.8	14	46	< 0.5	< 0.8	6900	27	15	**470**	15000	51	3400	160	< 1.5	**430**	1	34	25	55
		15192	8900	< 0.8	17	49	< 0.5	0.8	7200	25	18	**590**	14000	64	3500	150	< 1.5	**510**	**2**	29	23	66
	5-10 cm	15193	11000	< 0.8	**20**	41	< 0.5	< 0.8	5400	28	14	**420**	16000	36	2600	140	< 1.5	**440**	1	29	25	47
		15194	11000	< 0.8	**38**	58	< 0.5	< 0.8	5300	31	19	**540**	18000	72	3000	160	< 1.5	**570**	1	34	28	59
	10-20 cm	15195	9000	< 0.8	13	34	< 0.5	< 0.8	3600	23	10	**180**	13000	29	2300	140	< 1.5	**240**	< 1	28	24	29
		15196	9400	< 0.8	**36**	49	< 0.5	< 0.8	4100	26	16	**350**	16000	52	2600	160	< 1.5	**400**	< 1	25	25	41
5037437 Collins St. (back yard)	0-5 cm	15197	9800	1	**35**	85	< 0.5	**2**	11000	31	**37**	**1400**	21000	**140**	4700	210	< 1.5	**1200**	**4**	32	25	130
		15198	10000	< 0.8	**36**	85	< 0.5	**1.9**	11000	32	**37**	**1500**	21000	**130**	4300	200	< 1.5	**1200**	**4**	35	26	120
	5-10 cm	15199	15000	0.9	**43**	100	< 0.5	0.9	8300	36	**27**	**830**	23000	**150**	3400	240	< 1.5	**940**	**2**	48	34	110
		15200	15000	**2.1**	**54**	120	< 0.5	**1.1**	9500	40	**32**	**940**	24000	**170**	3500	260	< 1.5	**1000**	**2**	49	36	110
	10-20 cm	15201	16000	**2.2**	**75**	150	< 0.5	1	8400	42	**35**	**890**	26000	**250**	3600	290	< 1.5	**1000**	**2**	54	36	150
		15202	15000	**2.8**	**99**	180	< 0.5	1	7300	42	**44**	**1200**	28000	**320**	3700	310	< 1.5	**1300**	**2**	57	37	**190**

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037880 Collins Dr. (front yard)	0-5 cm	17238	11000	< 0.8	**30**	95	< 0.5	**2.6**	14000	59	**53**	**2400**	30000	**130**	5800	210	1.7	**1900**	**16**	39	34	**250**
		17239	11000	< 0.8	**40**	95	< 0.5	**2.8**	14000	69	56	2600	32000	**140**	6800	220	2	**1700**	**21**	41	35	**180**
	5-10 cm	17240	15000	< 0.8	**47**	100	< 0.5	**2.2**	11000	51	**45**	**1700**	31000	72	4200	200	1.7	**1900**	**12**	43	40	110
		17241	17000	**1.4**	**68**	120	< 0.5	**2.3**	8400	66	**58**	**2300**	41000	**130**	5800	220	1.7	**2200**	**14**	40	45	130
	10-20 cm	17242	9300	< 0.8	17	57	< 0.5	< 0.8	7100	30	10	**180**	16000	12	3600	190	< 1.5	**350**	**2**	43	32	31
		17243	13000	< 0.8	**26**	84	< 0.5	0.8	6500	39	20	**570**	21000	25	3400	180	< 1.5	**900**	**6**	40	35	58
5037881 Collins Dr. (back yard)	0-5 cm	17232	18000	< 0.8	**57**	140	< 0.5	**3.7**	14000	**89**	**90**	**3500**	49000	**160**	7400	310	1.6	**3200**	**15**	50	51	**230**
		17233	14000	< 0.8	**46**	120	< 0.5	**3**	11000	63	**66**	**2600**	37000	120	5800	300	< 1.5	**2300**	**9**	46	41	160
	5-10 cm	17234	15000	< 0.8	**29**	100	< 0.5	1	7900	43	**26**	**750**	22000	32	3500	330	1.7	**1100**	**3**	45	39	70
		17235	13000	< 0.8	**28**	100	< 0.5	0.8	6900	39	**24**	**650**	20000	27	3300	350	1.6	**950**	**3**	37	35	60
	10-20 cm	17236	11000	< 0.8	17	88	< 0.5	< 0.8	5900	34	11	**210**	17000	31	3100	250	< 1.5	**330**	**2**	39	33	42
		17237	11000	< 0.8	17	90	< 0.5	< 0.8	6100	35	11	**220**	18000	14	3200	310	< 1.5	**330**	**2**	32	33	35
5037882 Collins Dr. (front yard)	0-5 cm	17250	17000	0.8	**36**	110	< 0.5	**2.6**	11000	61	**62**	**2100**	34000	**200**	4700	250	1.7	**1800**	**12**	47	42	160
		17251	13000	< 0.8	6	75	< 0.5	< 0.8	8400	34	10	**100**	17000	18	4700	280	< 1.5	**110**	< 1	46	33	44
	5-10 cm	17252	15000	0.9	**29**	84	< 0.5	**1.3**	9900	44	**36**	**880**	24000	110	3700	200	< 1.5	**1400**	**5**	45	37	89
		17253	15000	< 0.8	**21**	75	< 0.5	0.9	7000	42	**25**	**570**	22000	46	3500	220	< 1.5	**840**	**4**	44	37	61
	10-20 cm	17254	8300	**2.7**	5	34	< 0.5	< 0.8	6500	21	6	68	13000	11	2400	140	< 1.5	**110**	1	31	26	16
		17255	8800	< 0.8	8	38	< 0.5	< 0.8	4000	22	9	**150**	13000	15	2400	150	< 1.5	**210**	**2**	25	25	25
5037883 Collins Dr. (back yard)	0-5 cm	17244	15000	< 0.8	**25**	120	< 0.5	**3.2**	9700	53	**55**	**2300**	31000	120	3900	200	1.8	**1700**	**13**	37	35	140
		17245	19000	< 0.8	**26**	150	< 0.5	**2.9**	9700	52	**50**	**2400**	29000	120	4000	200	**3.6**	**1500**	**14**	39	33	130
	5-10 cm	17246	19000	0.9	**40**	140	< 0.5	**1.7**	11000	61	**45**	**1500**	31000	90	4600	210	1.7	**1800**	**8**	42	40	100
		17247	17000	1	**35**	120	< 0.5	**1.4**	11000	57	**41**	**1200**	29000	85	4500	210	< 1.5	**1500**	**6**	40	38	93
	10-20 cm	17248	13000	0.8	15	80	< 0.5	< 0.8	7800	30	12	**330**	15000	29	2600	130	< 1.5	**490**	**2**	37	29	32
		17249	15000	< 0.8	16	91	< 0.5	< 0.8	8400	35	13	**320**	17000	30	3100	160	< 1.5	**530**	**2**	46	34	41

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037884 Collins Dr. (front yard)	0-5 cm	17262	11000	< 0.8	**29**	91	< 0.5	**3.8**	12000	56	**72**	**2400**	36000	110	4300	230	1.8	**2400**	**12**	35	33	150
		17263	12000	< 0.8	**36**	96	< 0.5	**3.1**	11000	58	**73**	**2440**	38000	110	4400	230	1.8	**2400**	**12**	35	36	150
	5-10 cm	17264	11000	< 0.8	**25**	73	< 0.5	0.8	11000	34	**25**	**730**	19000	31	2800	180	< 1.5	**1300**	**6**	34	30	54
		17265	9600	< 0.8	**24**	61	< 0.5	< 0.8	7900	29	19	**570**	16000	26	2700	150	< 1.5	**930**	**6**	24	26	41
	10-20 cm	17266	12000	< 0.8	7	59	< 0.5	< 0.8	6100	27	6	85	15000	6	2600	160	< 1.5	**150**	**3**	40	31	16
		17267	8800	< 0.8	6	38	< 0.5	< 0.8	4000	21	7	**94**	13000	7	2300	150	< 1.5	**130**	**2**	30	26	16
5037885 Collins Dr. (back yard)	0-5 cm	17256	10000	< 0.8	15	64	< 0.5	**1.5**	6600	36	**25**	**920**	19000	50	2900	200	< 1.5	**740**	**5**	30	27	110
		17257	9600	< 0.8	15	64	< 0.5	**1.4**	7200	37	**26**	**1000**	18000	53	2900	170	**2.7**	**840**	**6**	26	25	85
	5-10 cm	17258	11000	< 0.8	16	70	< 0.5	< 0.8	8000	41	18	**470**	18000	30	3200	210	< 1.5	**650**	**3**	31	29	67
		17259	12000	< 0.8	**19**	78	< 0.5	1	10000	46	**22**	**660**	19000	41	3200	230	< 1.5	**820**	**4**	36	30	71
	10-20 cm	17260	10000	< 0.8	17	62	< 0.5	< 0.8	9100	35	14	**300**	16000	19	2800	180	< 1.5	**500**	**3**	30	27	41
		17261	10000	< 0.8	11	57	< 0.5	< 0.8	8600	33	13	**300**	15000	19	2600	170	< 1.5	**440**	**3**	29	27	38
5037457 Craig St. (front yard)	0-5 cm	15312	11000	< 0.8	9	69	< 0.5	< 0.8	7300	38	**22**	**550**	18000	77	4400	270	< 1.5	**620**	**5**	48	37	99
		15313	10000	< 0.8	11	60	< 0.5	**1.3**	5800	35	21	**850**	18000	75	3400	260	< 1.5	**570**	**8**	38	33	72
	5-10 cm	15314	9200	< 0.8	11	39	< 0.5	< 0.8	5700	29	15	**580**	16000	42	3200	180	< 1.5	**330**	**6**	31	31	45
		15315	8300	0.8	13	41	< 0.5	< 0.8	4600	27	14	**520**	16000	44	2900	160	< 1.5	**300**	**4**	25	28	44
	10-20 cm	15316	9000	< 0.8	15	48	< 0.5	< 0.8	3300	25	13	**410**	17000	42	2700	160	< 1.5	**290**	**5**	23	28	44
		15317	9400	< 0.8	15	41	< 0.5	< 0.8	3100	26	14	**410**	18000	34	2700	150	< 1.5	**310**	**4**	24	29	42
5037458 Craig St. (back yard)	0-5 cm	15318	8700	< 0.8	9	47	< 0.5	< 0.8	4600	34	17	**520**	18000	70	3700	200	< 1.5	**510**	**2**	30	31	69
		15319	9200	< 0.8	7	55	< 0.5	0.9	5600	40	17	**510**	17000	63	3700	220	< 1.5	**470**	< 1	35	30	76

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037811 Craig St. (front yard)	0-5 cm	17322	11000	< 0.8	**23**	94	< 0.5	**1.9**	6300	43	**40**	**1700**	19000	72	4300	190	1.7	**1300**	**20**	34	30	100
		17323	12000	< 0.8	**24**	88	< 0.5	**1.9**	5800	42	**37**	**1600**	21000	64	3800	190	< 1.5	**1200**	**16**	33	30	82
	5-10 cm	17324	13000	< 0.8	**29**	97	< 0.5	< 0.8	4300	42	**28**	**850**	19000	36	3300	220	< 1.5	**770**	**4**	30	32	69
		17325	16000	< 0.8	**41**	120	< 0.5	**1.2**	6200	51	**32**	**1100**	23000	57	3800	270	< 1.5	**960**	**8**	39	38	84
	10-20 cm	17326	15000	< 0.8	**38**	120	< 0.5	**1.1**	5700	49	**35**	**1100**	23000	51	3400	240	< 1.5	**1000**	**7**	37	36	76
		17327	20000	< 0.8	**46**	150	< 0.5	**1.2**	7200	57	**38**	**1200**	25000	56	4100	270	< 1.5	**1200**	**6**	48	44	89
5028091 Craig St. (back yard)	0-5 cm	17900	13000	< 0.8	12	99	< 0.5	**3**	7900	57	**58**	**2600**	30000	98	4300	230	1.9	**1600**	**17**	49	34	150
		17901	15000	< 0.8	**32**	110	< 0.5	**3.4**	8500	59	**58**	**2600**	30000	98	4600	260	1.9	**1700**	**14**	51	36	140
	5-10 cm	17902	7800	< 0.8	**22**	72	< 0.5	0.9	4700	36	**25**	**750**	15000	44	3100	220	< 1.5	**870**	**5**	29	29	81
		17903	9400	0.9	**37**	110	< 0.5	**1.3**	6500	55	**39**	**930**	20000	64	3400	310	< 1.5	**1400**	**4**	43	37	110
	10-20 cm	17904	7600	1	**44**	100	< 0.5	< 0.8	5400	47	**28**	**620**	16000	72	3000	280	< 1.5	**950**	**4**	41	38	97
		17905	10000	**1.3**	**44**	130	< 0.5	0.9	7300	51	**38**	**740**	19000	57	3400	330	< 1.5	**1400**	**4**	54	40	110
5037809 Craig St. (front yard)	0-5 cm	17310	12000	< 0.8	9	68	< 0.5	**1.9**	10000	44	**32**	**1200**	17000	44	4300	270	< 1.5	**1000**	**8**	53	35	86
		17311	12000	< 0.8	7	73	< 0.5	**2.1**	10000	44	**34**	**1600**	19000	57	4300	250	1.8	**1200**	**10**	48	35	87
	5-10 cm	17312	10000	< 0.8	10	52	< 0.5	< 0.8	6300	34	18	**610**	18000	40	3300	250	< 1.5	**500**	**3**	38	33	49
		17313	10000	< 0.8	11	53	< 0.5	< 0.8	5900	35	18	**590**	17000	40	3400	260	< 1.5	**500**	< 1	38	32	51
	10-20 cm	17314	12000	< 0.8	14	69	< 0.5	< 0.8	4700	35	20	**730**	19000	45	3200	200	< 1.5	**570**	**3**	33	35	59
		17315	12000	< 0.8	**22**	63	< 0.5	< 0.8	5500	33	20	**770**	19000	43	3100	190	< 1.5	**570**	**3**	32	34	58
5028090 Craig St. (front yard)	0-5 cm	17894	11000	< 0.8	13	65	< 0.5	**2.1**	7000	48	**37**	**2000**	19000	**140**	2600	200	< 1.5	**1200**	**16**	52	41	71
		17895	7700	< 0.8	13	48	< 0.5	**1.9**	4400	39	**35**	**1700**	15000	63	2100	180	1.8	**1200**	**13**	31	34	74
	5-10 cm	17896	11000	< 0.8	12	40	< 0.5	< 0.8	2900	29	13	**570**	16000	34	2500	200	< 1.5	**310**	**2**	27	28	31
		17897	11000	< 0.8	13	43	< 0.5	< 0.8	3400	30	14	**600**	16000	42	2600	200	< 1.5	**380**	**3**	30	29	38
	10-20 cm	17898	12000	< 0.8	15	66	< 0.5	0.8	4100	33	**22**	**760**	19000	61	2900	240	< 1.5	**640**	**3**	36	32	56
		17899	14000	< 0.8	15	78	< 0.5	0.9	5400	36	**22**	**730**	20000	62	3100	250	< 1.5	**670**	**3**	46	34	62

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037810 Craig St. (back yard)	0-5 cm	17316	7900	< 0.8	13	47	< 0.5	**1.5**	6100	32	**29**	**1600**	14000	62	3000	160	1.5	**910**	**12**	26	27	75
		17317	8500	< 0.8	15	52	< 0.5	**1.8**	6800	34	**32**	**1620**	15000	73	3100	170	1.8	**1100**	**13**	33	29	77
	5-10 cm	17318	9100	< 0.8	12	61	< 0.5	< 0.8	4800	30	20	**640**	15000	73	2600	210	1.8	**570**	**5**	30	28	71
		17319	9900	< 0.8	11	55	< 0.5	< 0.8	3900	30	16	**490**	14000	54	2300	220	< 1.5	**420**	**4**	28	28	59
	10-20 cm	17320	9800	< 0.8	15	65	< 0.5	< 0.8	4500	30	18	**550**	15000	80	2400	210	< 1.5	**510**	**3**	34	29	68
		17321	9500	< 0.8	15	66	< 0.5	< 0.8	5900	29	20	**630**	15000	87	2600	210	< 1.5	**570**	**3**	34	28	76
5037446 Creighton Rd. (front yard)	0-5 cm	15245	11000	< 0.8	**19**	68	< 0.5	**1.3**	7300	38	**24**	**900**	20000	50	3900	180	< 1.5	**700**	**4**	22	27	67
		15246	11000	< 0.8	**18**	69	< 0.5	**1.1**	7600	39	**25**	**850**	20000	56	4100	190	< 1.5	**670**	**4**	34	30	64
	5-10 cm	15247	13000	1	**67**	110	< 0.5	**1.3**	5700	41	**36**	**1150**	23000	**140**	3100	260	< 1.5	**1000**	**5**	22	30	70
		15248	12000	0.8	**49**	120	< 0.5	**1.5**	5100	41	**30**	**970**	20000	120	3200	240	< 1.5	**780**	**4**	18	27	68
	10-20 cm	15249	9400	**1.6**	**83**	68	< 0.5	< 0.8	3200	25	21	**520**	18000	93	2500	230	< 1.5	**560**	**2**	19	27	52
		15250	15000	**1.6**	**77**	99	< 0.5	< 0.8	6300	44	**25**	**630**	24000	**130**	3300	280	< 1.5	**690**	**3**	42	39	68
5037447 Creighton Rd. (back yard)	0-5 cm	15251	12000	< 0.8	14	64	< 0.5	**1.1**	7700	38	21	**840**	19000	38	3300	200	< 1.5	**560**	**5**	41	31	51
		15252	12000	< 0.8	11	58	< 0.5	0.9	7000	37	19	**710**	18000	35	3200	190	< 1.5	**480**	**4**	43	31	50
	5-10 cm	15253	19000	< 0.8	**18**	99	< 0.5	< 0.8	9200	48	20	**540**	24000	30	4300	280	< 1.5	**520**	**3**	47	39	57
		15254	20000	< 0.8	**20**	120	< 0.5	1	9100	50	**23**	**740**	25000	36	4500	290	< 1.5	**590**	**4**	47	41	62
	10-20 cm	15255	18000	< 0.8	**41**	110	0.5	1	8600	46	**29**	**820**	27000	72	4100	320	< 1.5	**910**	**4**	45	42	85
		15256	15000	< 0.8	**28**	79	< 0.5	< 0.8	4800	37	19	**510**	22000	35	3300	260	< 1.5	**500**	**3**	32	36	54

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028092 Diorite St. (front yard)	0-5 cm	17888	13000	0.8	**38**	110	< 0.5	**3.9**	9900	61	**100**	**4900**	37000	**220**	4000	240	2.2	**2900**	**16**	43	35	160
		17889	14000	< 0.8	**42**	120	< 0.5	**3.8**	9800	63	**100**	**5100**	40000	**230**	4300	240	2.1	**2900**	**16**	43	36	**170**
	5-10 cm	17890	17000	< 0.8	**35**	120	< 0.5	1	6900	50	**34**	**1100**	27000	**130**	4700	340	< 1.5	**1100**	**5**	45	40	90
		17891	16000	< 0.8	**29**	100	< 0.5	**1.2**	14000	44	**37**	**1200**	27000	99	4300	310	< 1.5	**1300**	**5**	46	38	92
	10-20 cm	17892	14000	< 0.8	**32**	110	< 0.5	1	7200	45	**46**	**1100**	26000	**130**	3300	230	< 1.5	**1900**	**5**	52	41	85
		17893	11000	< 0.8	14	54	< 0.5	**1.9**	6700	43	**36**	**2000**	18000	68	2600	180	2.2	**1200**	**10**	84	39	66
5037816 Diorite St. (back yard)	0-5 cm	17352	13000	< 0.8	**26**	110	< 0.5	**3.1**	6400	56	**59**	**3800**	26000	110	4100	230	1.6	**1900**	**18**	39	35	130
		17353	11000	< 0.8	**25**	96	< 0.5	**2.3**	5500	47	**46**	**2600**	22000	100	3600	200	< 1.5	**1400**	**14**	28	30	110
	5-10 cm	17354	13000	< 0.8	**21**	100	< 0.5	< 0.8	4100	46	**25**	**750**	22000	83	4500	250	< 1.5	**660**	**4**	33	37	73
		17355	12000	< 0.8	17	98	< 0.5	1	4300	45	**30**	**1200**	22000	**150**	4400	240	< 1.5	**920**	**5**	30	33	110
	10-20 cm	17356	12000	< 0.8	15	100	< 0.5	< 0.8	4100	47	**23**	**680**	23000	65	5000	270	< 1.5	**660**	< 1	34	38	82
		17357	15000	< 0.8	13	120	< 0.5	< 0.8	4500	54	**22**	**680**	24000	58	5500	300	< 1.5	**670**	**3**	36	39	89
5037453 Diorite St. (back yard)	0-5 cm	15284	12000	< 0.8	15	62	< 0.5	**1.7**	5100	37	**35**	**1300**	19000	78	3000	190	< 1.5	**1100**	**6**	37	32	100
		15285	12000	< 0.8	**20**	69	< 0.5	**3**	6100	40	**39**	**1900**	21000	100	3100	210	< 1.5	**1200**	**13**	32	32	140
	5-10 cm	15286	11000	< 0.8	**23**	64	< 0.5	< 0.8	4300	34	**30**	**880**	18000	56	2800	190	< 1.5	**910**	**3**	31	31	77
		15287	12000	< 0.8	**19**	66	< 0.5	**1.6**	5100	35	**32**	**1200**	17000	64	2700	190	< 1.5	**900**	**4**	34	31	97
	10-20 cm	15288	12000	< 0.8	**34**	80	< 0.5	< 0.8	5600	41	**32**	**900**	18000	61	2900	210	< 1.5	**1200**	**5**	36	34	73
		15289	13000	< 0.8	**27**	83	< 0.5	1	8200	38	**28**	**1300**	20000	49	2900	200	< 1.5	**950**	**3**	40	34	79
5037455 Diorite St. (back yard)	0-5 cm	15306	9400	< 0.8	11	32	< 0.5	< 0.8	3000	28	17	**1100**	15000	45	2000	150	< 1.5	**480**	**8**	28	26	40
		15307	11000	< 0.8	15	49	< 0.5	< 0.8	5900	36	**32**	**690**	21000	75	4000	180	< 1.5	**960**	**13**	39	31	62
	5-10 cm	15308	8600	< 0.8	9	35	< 0.5	< 0.8	2200	24	16	**600**	14000	30	2200	150	< 1.5	**440**	**3**	16	24	36
		15309	7500	< 0.8	9	28	< 0.5	< 0.8	2100	21	15	**410**	14000	42	2100	140	< 1.5	**410**	1	15	24	29
	10-20 cm	15310	11000	< 0.8	9	52	< 0.5	< 0.8	3500	31	**26**	**540**	15000	33	2300	210	< 1.5	**920**	1	38	32	48
		15311	9900	< 0.8	11	57	< 0.5	< 0.8	4000	36	**37**	**690**	16000	31	2500	220	< 1.5	**1400**	**2**	39	34	48

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037814 Diorite St. (front yard) same property as 5037455 above	0-5 cm	17340	8200	< 0.8	14	61	< 0.5	**1.7**	6200	36	**36**	**2000**	16000	93	3100	160	1.6	**1200**	**11**	28	25	83
		17341	8800	< 0.8	**20**	68	< 0.5	**1.7**	7200	37	**37**	**2100**	18000	110	3500	170	1.8	**1300**	**13**	32	27	93
	5-10 cm	17342	11000	< 0.8	11	40	< 0.5	< 0.8	3900	31	14	**1000**	15000	50	2400	160	< 1.5	**400**	**7**	30	29	38
		17343	11000	**1.2**	15	46	< 0.5	< 0.8	3800	30	14	**1000**	15000	49	2400	160	< 1.5	**390**	**7**	29	28	43
	10-20 cm	17344	14000	< 0.8	**25**	75	< 0.5	< 0.8	5000	41	**22**	**1000**	21000	**130**	2900	220	< 1.5	**610**	**3**	46	36	58
		17345	15000	**3.9**	**26**	83	< 0.5	< 0.8	5400	42	**26**	**1100**	22000	**130**	3100	230	< 1.5	**730**	**3**	49	38	68
5037815 Diorite St. (back yard) same as 5037455 above	0-5 cm	17346	10000	< 0.8	**19**	45	< 0.5	**1.2**	4100	36	**25**	**1700**	18000	71	2300	170	1.8	**810**	**9**	37	30	56
		17347	12000	< 0.8	**18**	59	< 0.5	**1.3**	5100	40	**28**	**2000**	19000	70	2700	190	1.7	**900**	**13**	44	33	64
	5-10 cm	17348	12000	< 0.8	12	49	< 0.5	< 0.8	4300	34	13	**440**	17000	51	2500	210	< 1.5	**310**	**2**	42	32	39
		17349	11000	< 0.8	15	59	< 0.5	< 0.8	4400	33	17	**560**	20000	120	2600	210	< 1.5	**440**	**3**	41	33	47
	10-20 cm	17350	8100	< 0.8	9	42	< 0.5	< 0.8	3500	28	15	**380**	16000	44	2800	180	< 1.5	**400**	**2**	29	29	37
		17351	7200	< 0.8	9	39	< 0.5	< 0.8	4300	26	**22**	**510**	16000	65	3500	190	< 1.5	**560**	**3**	24	28	41
5037812 Diorite St. (back yard)	0-5 cm	17328	11000	0.8	**51**	90	< 0.5	**2.9**	5900	55	**87**	**4200**	30000	**370**	3600	190	2.4	**2800**	**33**	38	35	**190**
		17329	13000	0.8	**58**	140	< 0.5	**3.8**	7600	64	**110**	**5100**	33000	**320**	3800	220	**3.7**	**3700**	**36**	43	38	**220**
	5-10 cm	17330	11000	**1.8**	**33**	77	< 0.5	< 0.8	4100	38	**36**	**1200**	21000	**160**	2900	220	1.9	**1000**	**9**	39	34	82
		17331	11000	< 0.8	**39**	85	< 0.5	0.9	3800	39	**49**	**1400**	24000	**200**	3000	200	< 1.5	**1700**	**10**	37	36	88
	10-20 cm	17332	8000	< 0.8	14	62	< 0.5	< 0.8	3000	25	17	**590**	17000	**160**	2500	170	< 1.5	**410**	1	27	30	62
		17333	7900	0.9	**21**	59	< 0.5	< 0.8	2600	28	**23**	**850**	18000	**180**	2600	180	< 1.5	**520**	**2**	21	27	65
5037813 Diorite St. (front yard)	0-5 cm	17334	7800	< 0.8	7	45	< 0.5	0.8	5300	30	19	**790**	14000	46	3400	170	< 1.5	**500**	**3**	22	24	62
		17335	8700	< 0.8	9	51	< 0.5	1	4700	33	**23**	**980**	15000	36	3100	180	1.6	**620**	**4**	24	26	62
	5-10 cm	17336	10000	< 0.8	15	71	< 0.5	**1.3**	5100	38	**28**	**1600**	19000	56	3300	190	< 1.5	**670**	**9**	20	27	76
		17337	12000	< 0.8	13	75	< 0.5	0.9	4900	38	**23**	**1200**	18000	47	3400	210	< 1.5	**580**	**6**	31	31	73
	10-20 cm	17338	10000	< 0.8	13	64	< 0.5	< 0.8	4400	33	18	**620**	18000	25	3200	190	< 1.5	**420**	**2**	28	30	59
		17339	11000	< 0.8	14	72	< 0.5	< 0.8	4500	35	17	**700**	20000	30	3300	190	< 1.5	**430**	**2**	30	31	62

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037842 Diorite St. (front yard)	0-5 cm	17010	11000	< 0.8	7	73	< 0.5	< 0.8	8900	37	13	**350**	15000	26	5200	230	< 1.5	**320**	**2**	42	31	63
		17011	11000	< 0.8	< 5	51	< 0.5	1	9900	39	18	**630**	16000	27	5500	230	< 1.5	**540**	< 1	43	32	52
	5-10 cm	17012	9300	< 0.8	13	52	< 0.5	< 0.8	2900	35	14	**390**	17000	21	3100	180	< 1.5	**300**	**2**	15	26	42
		17013	13000	< 0.8	13	66	< 0.5	< 0.8	5800	38	14	**380**	18000	21	3700	220	< 1.5	**300**	**2**	36	34	46
	10-20 cm	17014	16000	< 0.8	**24**	92	< 0.5	< 0.8	5400	43	20	**590**	22000	29	3700	250	< 1.5	**540**	**2**	36	38	57
		17015	19000	0.8	**40**	110	< 0.5	< 0.8	6900	50	**22**	**630**	23000	32	3900	260	< 1.5	**600**	**3**	45	41	58
5037843 Diorite St. (back yard)	0-5 cm	17004	14000	< 0.8	**21**	83	< 0.5	**1.8**	5400	52	**38**	**2100**	23000	63	4100	250	< 1.5	**1000**	**10**	35	37	73
		17005	15000	< 0.8	**22**	90	< 0.5	**2.4**	5800	56	**45**	**2600**	25000	73	4000	260	1.8	**1200**	**12**	38	37	83
	5-10 cm	17006	15000	< 0.8	**22**	99	< 0.5	0.8	5000	46	**24**	**690**	25000	39	4100	240	1.8	**550**	**3**	33	38	71
		17007	15000	0.8	17	93	< 0.5	0.8	5100	46	**23**	**720**	24000	37	4100	240	< 1.5	**510**	**3**	34	37	69
	10-20 cm	17008	15000	< 0.8	**35**	110	< 0.5	< 0.8	5400	42	**25**	**820**	24000	50	3600	250	< 1.5	**730**	**3**	37	36	68
		17009	14000	< 0.8	**30**	88	< 0.5	< 0.8	5100	41	21	**720**	21000	41	3400	230	< 1.5	**650**	**2**	32	34	70
5037805 Domenico St. (front yard)	0-5 cm	16948	13000	< 0.8	7	51	< 0.5	**1.1**	8300	40	**22**	**950**	16000	25	4200	220	< 1.5	**720**	**4**	50	33	48
		16949	9300	< 0.8	9	38	< 0.5	**1.1**	8700	30	**26**	**1200**	14000	26	3600	160	1.5	**890**	**4**	37	26	39
	5-10 cm	16950	11000	< 0.8	11	47	< 0.5	1	9700	31	**26**	**1200**	16000	35	3300	170	< 1.5	**660**	**7**	32	27	41
		16951	9600	< 0.8	8	42	< 0.5	< 0.8	5700	28	15	**610**	14000	21	3200	160	< 1.5	**400**	**4**	26	25	35
	10-20 cm	16952	12000	< 0.8	11	68	< 0.5	< 0.8	6000	35	19	**720**	19000	37	4000	200	< 1.5	**450**	**4**	26	31	45
		16953	12000	< 0.8	12	66	< 0.5	**1.2**	12000	33	**31**	**1400**	19000	41	3600	170	< 1.5	**790**	**6**	29	28	52
5037806 Domenico St. (back yard)	0-5 cm	16954	12000	< 0.8	**35**	86	< 0.5	**5.2**	19000	53	**93**	**5600**	26000	100	3800	180	**3.1**	**3100**	**35**	30	28	120
		16955	9400	< 0.8	**28**	65	< 0.5	**4**	14000	47	**79**	**5000**	22000	94	3400	160	**3.4**	**2500**	**27**	20	23	110
	5-10 cm	16956	15000	< 0.8	**18**	100	< 0.5	0.9	8500	42	**32**	**1100**	22000	48	4500	220	< 1.5	**940**	**4**	32	34	70
		16957	15000	< 0.8	**18**	90	< 0.5	**1.2**	8600	39	**37**	**1300**	20000	40	4200	220	< 1.5	**1100**	**4**	32	32	76
	10-20 cm	16958	12000	< 0.8	10	86	< 0.5	< 0.8	4500	38	17	**400**	23000	58	4600	240	< 1.5	**360**	**2**	28	35	54
		16959	11000	< 0.8	11	77	< 0.5	< 0.8	5200	34	20	**470**	19000	48	4300	210	< 1.5	**610**	**2**	29	32	51

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037807 Domenico St. (back yard)	0-5 cm	16960	9000	< 0.8	9	42	< 0.5	< 0.8	5300	28	12	**360**	13000	31	2300	200	< 1.5	**350**	**2**	29	23	52
		16961	12000	< 0.8	9	54	< 0.5	0.8	7200	35	15	**430**	15000	34	2800	230	< 1.5	**400**	**2**	47	30	56
	5-10 cm	16962	14000	< 0.8	11	68	< 0.5	**1.9**	9100	41	**30**	**1800**	19000	41	3500	230	< 1.5	**800**	**9**	49	33	66
		16963	14000	< 0.8	13	69	< 0.5	0.9	8200	36	**22**	**930**	19000	51	3400	190	< 1.5	**610**	**3**	45	34	55
	10-20 cm	16964	12000	< 0.8	15	68	< 0.5	**1.3**	9000	37	**28**	**1300**	19000	40	3300	190	< 1.5	**770**	**5**	40	32	63
		16965	13000	< 0.8	9	55	< 0.5	1	8600	36	18	**880**	17000	23	3200	210	< 1.5	**440**	**5**	47	30	44
5037808 Domenico St. (back yard)	0-5 cm	16966	14000	< 0.8	**18**	83	< 0.5	**1.5**	5500	39	**36**	**2000**	21000	61	3300	180	< 1.5	**1100**	**12**	41	33	70
		16967	9500	< 0.8	**20**	72	< 0.5	**1.8**	4000	37	**40**	**2000**	19000	71	2900	150	1.6	**1300**	**11**	22	27	84
	5-10 cm	16968	7300	< 0.8	15	48	< 0.5	< 0.8	2800	25	21	**1000**	15000	41	2300	130	1.9	**580**	**5**	18	25	45
		16969	8500	< 0.8	**18**	59	< 0.5	0.9	3200	29	**24**	**1400**	17000	45	2600	140	< 1.5	**680**	**8**	19	27	63
	10-20 cm	16990	6400	< 0.8	9	33	< 0.5	< 0.8	2100	21	12	**460**	12000	82	2300	130	< 1.5	**280**	**2**	15	23	35
		16991	5800	< 0.8	10	31	< 0.5	< 0.8	1800	20	12	**460**	12000	34	2200	120	< 1.5	**290**	**3**	11	22	40
5037440 Evans Rd. (front yard)	0-5 cm	15214	11000	< 0.8	7	41	< 0.5	< 0.8	4500	31	10	**250**	15000	23	2900	200	< 1.5	**230**	1	40	31	38
		15215	11000	< 0.8	8	40	< 0.5	< 0.8	4400	29	13	**370**	16000	29	2600	180	< 1.5	**330**	**2**	36	29	42
	5-10 cm	15216	12000	0.8	**23**	79	< 0.5	< 0.8	5300	40	20	**580**	21000	79	3700	250	< 1.5	**560**	**2**	43	34	84
		15217	12000	0.9	**21**	74	< 0.5	0.9	5800	35	21	**700**	21000	80	3400	230	< 1.5	**640**	**3**	45	33	90
	10-20 cm	15218	12000	**1.7**	**31**	83	< 0.5	< 0.8	5900	37	20	**610**	21000	100	4200	240	< 1.5	**550**	**3**	44	34	80
		15219	12000	**1.9**	**39**	130	< 0.5	**1.3**	5600	41	**31**	**1000**	24000	**170**	3500	250	< 1.5	**910**	**4**	48	34	**180**
5037441 Evans Rd. (back yard)	0-5 cm	15208	9700	0.9	< 5	60	< 0.5	**1.1**	4700	35	17	**750**	15000	51	2400	190	< 1.5	**510**	**4**	35	27	88
		15209	7800	< 0.8	< 5	55	< 0.5	0.9	3200	29	14	**630**	13000	84	2100	150	< 1.5	**420**	**4**	21	23	82
	5-10 cm	15210	9300	**1.1**	10	100	< 0.5	**1.1**	4600	34	**24**	**860**	19000	96	2800	220	< 1.5	**790**	**4**	30	26	130
		15211	9000	0.9	14	100	< 0.5	**1.1**	4400	33	**22**	**860**	18000	**130**	2700	220	< 1.5	**710**	**3**	28	25	140
	10-20 cm	15212	9100	**1.4**	**27**	130	< 0.5	**1.3**	6200	35	**27**	**910**	19000	**140**	3200	260	< 1.5	**890**	**3**	40	26	**180**
		15213	14000	**1.3**	**30**	150	< 0.5	**1.4**	7000	42	**30**	**1000**	24000	**160**	3800	290	< 1.5	**990**	**2**	55	34	**200**

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037788 Evans Rd. (front yard)	0-5 cm	16846	13000	< 0.8	5	48	< 0.5	< 0.8	6500	37	8	79	17000	15	3600	270	< 1.5	**86**	< 1	49	36	34
		16847	15000	< 0.8	< 5	58	< 0.5	< 0.8	7500	43	8	**95**	18000	16	4100	290	< 1.5	**84**	< 1	51	40	36
	5-10 cm	16848	18000	< 0.8	6	80	< 0.5	< 0.8	8700	53	14	**250**	23000	37	5600	330	< 1.5	**160**	< 1	55	44	51
		16849	16000	< 0.8	11	89	< 0.5	< 0.8	7500	49	21	**660**	23000	94	5100	310	< 1.5	**390**	**2**	50	43	70
	10-20 cm	16850	14000	0.8	**22**	87	< 0.5	1	7000	49	**33**	**1300**	27000	**140**	4700	290	< 1.5	**740**	**4**	44	41	120
		16851	14000	< 0.8	**23**	100	< 0.5	< 0.8	5600	45	**32**	**850**	27000	120	5100	310	< 1.5	**710**	**3**	38	39	93
5037789 Evans Rd. (back yard)	0-5 cm	16852	9700	< 0.8	6	28	< 0.5	< 0.8	3300	23	6	**140**	13000	12	2300	160	< 1.5	**100**	**2**	22	26	23
		16853	9400	< 0.8	5	30	< 0.5	< 0.8	3200	24	6	**160**	12000	18	2400	150	< 1.5	**120**	**2**	19	24	26
	5-10 cm	16854	10000	< 0.8	5	33	< 0.5	< 0.8	2900	25	5	59	13000	11	2200	180	< 1.5	**54**	1	24	27	23
		16855	11000	< 0.8	< 5	41	< 0.5	< 0.8	3800	29	7	**97**	14000	17	2500	210	< 1.5	**97**	< 1	38	31	30
	10-20 cm	16856	10000	< 0.8	10	42	< 0.5	< 0.8	3900	26	10	**260**	14000	73	2300	190	< 1.5	**250**	< 1	35	31	41
		16857	12000	< 0.8	10	52	< 0.5	< 0.8	4400	30	10	**290**	16000	32	2600	200	< 1.5	**210**	< 1	41	34	42
5037790 Evans Rd. (front yard)	0-5 cm	16858	11000	< 0.8	9	47	< 0.5	1	7700	32	14	**670**	15000	59	4400	170	< 1.5	**350**	**5**	37	31	68
		16859	11000	**1.4**	9	51	< 0.5	1	7400	34	16	**730**	16000	57	4200	180	< 1.5	**400**	**3**	38	33	74
	5-10 cm	16860	17000	< 0.8	14	99	< 0.5	< 0.8	5100	42	16	**590**	20000	65	3600	190	< 1.5	**350**	1	46	38	61
		16861	20000	< 0.8	17	140	< 0.5	< 0.8	5600	47	20	**740**	22000	95	4100	210	< 1.5	**430**	**2**	48	40	77
	10-20 cm	16862	17000	< 0.8	8	100	< 0.5	< 0.8	5100	44	12	**210**	20000	37	4200	220	< 1.5	**170**	< 1	47	40	45
		16863	13000	< 0.8	15	91	< 0.5	< 0.8	4500	38	13	**270**	19000	120	3800	210	< 1.5	**240**	< 1	47	37	47
5037791 Evans Rd. (back yard)	0-5 cm	16864	14000	0.9	**19**	98	< 0.5	**2.1**	9200	39	**25**	**1300**	20000	**190**	6000	190	< 1.5	**720**	**3**	39	33	160
		16865	14000	< 0.8	12	96	< 0.5	**1.5**	8500	40	**25**	**1200**	20000	96	4900	210	< 1.5	**680**	**2**	43	36	99
	5-10 cm	16866	17000	< 0.8	14	110	< 0.5	0.8	4400	44	14	**400**	20000	100	4100	210	< 1.5	**280**	< 1	45	40	110
		16867	20000	< 0.8	14	130	< 0.5	< 0.8	6000	47	16	**610**	20000	66	4400	230	< 1.5	**370**	< 1	52	42	72
	10-20 cm	16868	14000	< 0.8	7	87	< 0.5	< 0.8	4400	37	9	**160**	16000	50	3500	190	< 1.5	**140**	< 1	49	36	55
		16869	17000	< 0.8	7	110	< 0.5	< 0.8	5000	42	8	**110**	18000	35	3900	210	< 1.5	**120**	< 1	54	39	37

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037792 Evans Rd. (front yard)	0-5 cm	16870	14000	< 0.8	11	69	< 0.5	< 0.8	5900	35	15	**510**	18000	56	3200	230	< 1.5	**340**	**2**	48	36	62
		16871	13000	< 0.8	**25**	70	< 0.5	0.9	6400	37	**22**	**850**	22000	95	3300	230	< 1.5	**650**	**2**	46	37	71
	5-10 cm	16872	12000	1	**51**	110	< 0.5	**1.4**	4800	39	**42**	**1700**	27000	**190**	3300	230	< 1.5	**1400**	**3**	49	35	120
		16873	10000	0.9	**41**	98	< 0.5	**1.1**	4500	34	**27**	**1100**	23000	**140**	3100	260	< 1.5	**800**	< 1	46	33	120
	10-20 cm	16874	10000	**1.1**	**42**	110	< 0.5	**1.1**	5100	34	**29**	**1000**	21000	**180**	3200	270	< 1.5	**750**	< 1	46	32	120
		16875	9100	< 0.8	**28**	81	< 0.5	< 0.8	3500	31	19	**560**	18000	**150**	3200	250	< 1.5	**510**	< 1	37	31	94
5037793 Evans Rd. (back yard)	0-5 cm	16876	8900	1	**36**	130	< 0.5	**2.2**	4900	31	**36**	**1800**	21000	**270**	3300	240	< 1.5	**1100**	< 1	28	25	**170**
		16877	9600	**1.1**	**35**	100	< 0.5	**2.6**	6600	33	**41**	**2000**	24000	**230**	3500	230	< 1.5	**1300**	**3**	35	28	**180**
	5-10 cm	16878	12000	**1.1**	**42**	110	< 0.5	**1.4**	6500	33	**28**	**1100**	22000	**230**	3100	290	< 1.5	**860**	1	42	32	150
		16879	10000	**1.2**	**45**	98	< 0.5	**1.3**	4400	32	**26**	**1100**	21000	**190**	2600	250	< 1.5	**840**	**2**	36	29	140
	10-20 cm	16880	11000	**1.2**	**48**	97	< 0.5	1	4700	33	**24**	**850**	20000	**190**	3000	270	< 1.5	**660**	< 1	35	30	120
		16881	10000	**2**	**42**	110	< 0.5	0.9	6600	32	**28**	**750**	20000	**240**	3100	290	< 1.5	**670**	< 1	33	29	140
5037794 Evans Rd. (front yard)	0-5 cm	16882	8600	< 0.8	10	55	< 0.5	**1.2**	7500	26	16	**780**	14000	36	4500	180	< 1.5	**430**	1	24	24	54
		16883	9100	< 0.8	10	60	< 0.5	**1.3**	8400	27	19	**940**	15000	43	4500	210	< 1.5	**540**	1	28	25	71
	5-10 cm	16884	12000	< 0.8	7	61	< 0.5	< 0.8	4600	32	8	**120**	18000	11	3700	190	< 1.5	**120**	< 1	44	35	26
		16885	12000	< 0.8	8	59	< 0.5	< 0.8	4400	34	8	**140**	18000	10	3600	190	< 1.5	**120**	< 1	41	34	26
	10-20 cm	16886	14000	< 0.8	12	77	< 0.5	< 0.8	8200	39	14	**320**	20000	25	3600	210	< 1.5	**350**	< 1	45	37	36
		16887	12000	0.8	16	66	< 0.5	< 0.8	5600	33	15	**430**	19000	32	3500	180	< 1.5	**470**	< 1	41	33	37
5037795 Evans Rd. (back yard)	0-5 cm	16888	13000	< 0.8	**23**	88	< 0.5	**1.5**	7800	38	**33**	**1400**	21000	69	3800	200	< 1.5	**970**	**3**	44	35	74
		16889	12000	< 0.8	**21**	87	< 0.5	**1.9**	8200	42	**45**	**1900**	25000	76	3900	190	< 1.5	**1400**	**5**	45	34	86
	5-10 cm	16890	12000	< 0.8	**27**	74	< 0.5	< 0.8	5400	32	19	**710**	18000	76	2700	160	< 1.5	**780**	**3**	41	31	43
		16891	9800	< 0.8	**31**	61	< 0.5	1	5100	28	**22**	**880**	17000	34	2400	130	< 1.5	**930**	1	31	28	52
	10-20 cm	16892	6800	**1.1**	10	34	< 0.5	< 0.8	2100	19	8	**150**	11000	15	2000	120	< 1.5	**200**	< 1	17	23	24
		16893	7800	< 0.8	12	42	< 0.5	< 0.8	2300	21	10	**230**	13000	21	2100	140	< 1.5	**300**	< 1	22	26	36

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037802 Finland St. (front yard)	0-5 cm	16930	12000	< 0.8	**25**	110	< 0.5	**3.5**	15000	52	**65**	**2400**	30000	**140**	6400	210	2	**2100**	**14**	40	33	160
		16931	13000	< 0.8	**28**	110	< 0.5	**3.4**	14000	49	**59**	**2300**	30000	120	6500	200	1.7	**2000**	**13**	39	33	140
	5-10 cm	16932	16000	< 0.8	**43**	100	< 0.5	**2.1**	11000	50	**49**	**1600**	28000	88	3800	200	< 1.5	**2300**	**8**	43	38	85
		16933	17000	< 0.8	**35**	110	< 0.5	**1.8**	10000	47	**40**	**1200**	27000	78	3500	200	1.7	**1800**	**10**	42	39	76
	10-20 cm	16934	11000	< 0.8	10	57	< 0.5	< 0.8	5600	26	10	**240**	13000	17	2800	130	< 1.5	**420**	**2**	23	27	35
		16935	11000	< 0.8	8	45	< 0.5	< 0.8	4600	24	7	**97**	12000	7	2800	150	< 1.5	**220**	1	28	28	25
5037803 Finland St. (back yard)	0-5 cm	16936	14000	< 0.8	**20**	110	< 0.5	**2**	12000	45	**34**	**1400**	24000	90	6600	200	1.9	**1100**	**9**	41	34	140
		16937	15000	< 0.8	**19**	110	< 0.5	**2.1**	11000	47	**31**	**1300**	24000	81	6000	200	1.5	**1000**	**7**	43	35	130
	5-10 cm	16938	17000	0.9	**29**	110	< 0.5	**1.8**	11000	47	**34**	**1300**	25000	82	5400	210	1.5	**1400**	**7**	49	38	100
		16939	18000	0.8	**33**	120	< 0.5	**2**	11000	54	**38**	**1500**	27000	85	5100	200	< 1.5	**1600**	**8**	47	39	110
	10-20 cm	16940	12000	< 0.8	12	63	< 0.5	< 0.8	5800	30	12	**300**	16000	26	3800	160	< 1.5	**380**	**2**	31	30	58
		16941	12000	< 0.8	12	68	< 0.5	< 0.8	6000	31	11	**270**	15000	41	3700	150	< 1.5	**360**	**2**	30	30	44
5037875 Finland St. (front yard)	0-5 cm	17208	11000	< 0.8	14	63	< 0.5	**1.4**	7200	32	**25**	**1200**	19000	49	3900	200	< 1.5	**780**	**6**	36	28	89
		17209	11000	< 0.8	12	72	< 0.5	**1.5**	8400	32	**22**	**1100**	18000	42	4200	220	< 1.5	**720**	**6**	40	28	71
	5-10 cm	17210	9600	< 0.8	9	40	< 0.5	< 0.8	4400	26	9	**210**	14000	16	3300	160	< 1.5	**170**	**2**	30	26	34
		17211	8900	< 0.8	6	33	< 0.5	< 0.8	6000	24	9	**230**	14000	12	4100	150	< 1.5	**200**	1	24	25	25
	10-20 cm	17212	11000	**5.8**	**21**	59	< 0.5	< 0.8	3800	31	16	**380**	18000	32	3400	190	< 1.5	**360**	**4**	31	29	47
		17213	10000	< 0.8	10	50	< 0.5	< 0.8	3900	31	15	**560**	18000	27	3100	170	< 1.5	**400**	**2**	29	29	43
5037876 Finland St. (back yard)	0-5 cm	17202	12000	< 0.8	9	64	< 0.5	1	8800	34	21	**930**	18000	36	4600	220	< 1.5	**640**	**5**	38	29	53
		17203	12000	< 0.8	9	63	< 0.5	1	7800	34	21	**840**	17000	32	4200	210	< 1.5	**610**	**2**	39	29	51
	5-10 cm	17204	16000	< 0.8	14	94	< 0.5	< 0.8	8600	44	19	**690**	22000	28	5300	240	< 1.5	**450**	**4**	49	37	54
		17205	19000	< 0.8	17	100	< 0.5	0.9	9400	51	**29**	**1100**	25000	38	5300	240	< 1.5	**780**	**3**	49	38	70
	10-20 cm	17206	20000	< 0.8	17	110	< 0.5	0.8	7500	50	**27**	**920**	25000	38	4500	220	< 1.5	**730**	**2**	50	39	58
		17207	21000	< 0.8	**22**	110	< 0.5	0.9	7800	51	**25**	**740**	24000	36	4400	220	1.7	**740**	**2**	47	38	65

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037877 Finland St. (front yard)	0-5 cm	17220	15000	0.9	**28**	130	< 0.5	**3.7**	23000	52	**58**	**2700**	31000	**170**	8300	310	2	**1800**	**12**	66	35	**190**
		17221	11000	**1.8**	**37**	120	< 0.5	**3.6**	18000	46	**69**	**3000**	31000	**190**	6000	260	1.9	**2200**	**15**	46	32	**200**
	5-10 cm	17222	10000	< 0.8	**32**	72	< 0.5	1	6500	34	**32**	**1100**	21000	110	3100	180	< 1.5	**965**	**6**	31	29	84
		17223	8700	0.9	**33**	74	< 0.5	< 0.8	3900	28	**22**	**700**	17000	**132**	2600	160	< 1.5	**708**	**4**	23	24	87
	10-20 cm	17224	8400	**1.4**	**40**	91	< 0.5	< 0.8	2900	28	19	**600**	17000	**230**	2500	200	< 1.5	**590**	**4**	25	25	100
		17225	8500	**1.5**	**44**	99	< 0.5	< 0.8	3200	29	20	**630**	17000	**200**	2400	190	< 1.5	**620**	**4**	26	25	110
5037878 Finland St. (back yard)	0-5 cm	17214	8900	< 0.8	**32**	98	< 0.5	**3.2**	13000	45	**62**	**2800**	32000	**310**	5600	200	2	**1800**	**15**	31	30	**200**
		17215	9300	< 0.8	**37**	90	< 0.5	**3.1**	11000	46	**62**	**3000**	33000	**310**	5900	200	**2.9**	**1900**	**15**	31	30	**210**
	5-10 cm	17216	12000	0.8	**39**	77	< 0.5	0.9	5900	41	**35**	**1100**	27000	**180**	3600	230	< 1.5	**910**	**6**	29	33	110
		17217	11000	< 0.8	**25**	73	< 0.5	< 0.8	3900	34	21	**520**	20000	39	3200	230	< 1.5	**480**	**3**	18	29	81
	10-20 cm	17218	8300	1	**31**	69	< 0.5	< 0.8	2100	27	**22**	**490**	20000	83	2500	160	< 1.5	**470**	1	14	24	66
		17219	8700	**1.2**	**29**	83	< 0.5	< 0.8	2400	26	19	**400**	17000	**140**	2500	190	< 1.5	**470**	**3**	23	26	85
5037879 Finland St. Side	0-5 cm	17226	8600	**1.2**	**45**	130	< 0.5	**1.3**	4800	34	**31**	**1000**	19000	**190**	3200	290	< 1.5	**960**	**7**	37	29	**170**
		17227	15000	**1.2**	**43**	150	< 0.5	**1.1**	6700	45	**30**	**950**	23000	**210**	3700	320	< 1.5	**890**	**5**	58	38	160
	5-10 cm	17228	16000	**1.1**	**44**	160	< 0.5	**1.2**	6300	49	**29**	**1000**	24000	**180**	3500	320	< 1.5	**904**	**5**	60	40	160
		17229	16000	**2**	**50**	180	< 0.5	**1.6**	7100	52	**40**	**1400**	28000	**210**	3800	350	< 1.5	**1270**	**7**	62	42	**170**
	10-20 cm	17230	15000	**2.2**	**56**	200	< 0.5	**1.4**	7300	45	**30**	**860**	23000	**470**	3300	410	< 1.5	**960**	**4**	69	39	**250**
		17231	13000	**2.8**	**51**	210	< 0.5	**1.1**	11000	38	**27**	**790**	21000	**250**	3400	560	< 1.5	**870**	**4**	80	35	**170**

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037821 Jones St. (front yard)	0-5 cm	17382	10000	< 0.8	14	62	< 0.5	**1.7**	8100	39	**26**	**1200**	17000	65	3600	220	< 1.5	**830**	**8**	39	32	71
		17383	14000	< 0.8	12	76	< 0.5	**1.6**	9700	48	**27**	**1100**	21000	59	4400	260	< 1.5	**840**	**6**	52	39	83
	5-10 cm	17384	12000	< 0.8	11	71	< 0.5	**1.2**	9200	42	20	**760**	17000	42	3100	220	< 1.5	**520**	**4**	46	35	54
		17385	12000	< 0.8	10	62	< 0.5	**1.1**	8200	41	17	**700**	17000	40	3000	230	< 1.5	**440**	**5**	48	35	52
	10-20 cm	17386	12000	< 0.8	14	78	< 0.5	0.9	6200	43	20	**680**	17000	44	3000	210	< 1.5	**530**	**3**	46	36	54
		17387	14000	< 0.8	12	81	< 0.5	0.8	6900	44	19	**690**	18000	72	2900	220	1.6	**490**	**3**	45	36	55
5037822 Jones St. (back yard)	0-5 cm	17388	13000	< 0.8	13	79	< 0.5	0.9	7000	44	19	**580**	19000	55	3800	240	< 1.5	**540**	**4**	48	38	67
		17389	9800	< 0.8	15	60	< 0.5	< 0.8	5300	32	21	**670**	18000	71	3400	210	< 1.5	**550**	**3**	35	29	66
	5-10 cm	17390	11000	< 0.8	11	59	< 0.5	0.9	5900	35	15	**560**	16000	45	3100	190	< 1.5	**420**	**3**	31	28	46
		17391	9400	< 0.8	14	53	< 0.5	0.9	5400	30	13	**460**	14000	34	2800	170	< 1.5	**380**	**4**	23	25	50
	10-20 cm	17392	9700	< 0.8	**19**	63	< 0.5	0.8	4800	36	18	**710**	16000	48	2900	160	**2.8**	**480**	**3**	25	26	53
		17393	11000	< 0.8	**19**	67	< 0.5	0.8	5100	35	16	**590**	16000	50	3100	190	< 1.5	**400**	**2**	28	28	48
5037823 Jones St. (back yard)	0-5 cm	17394	9800	< 0.8	10	48	< 0.5	1	16000	32	20	**850**	17000	34	11000	210	< 1.5	**570**	**7**	29	29	44
		17395	10000	< 0.8	13	52	< 0.5	**1.3**	11000	33	**25**	**1100**	20000	43	7700	230	< 1.5	**730**	**13**	32	33	52
	5-10 cm	17396	12000	< 0.8	6	56	< 0.5	< 0.8	13000	33	9	**170**	19000	12	9300	240	< 1.5	**140**	**2**	36	33	30
		17397	11000	< 0.8	6	51	< 0.5	< 0.8	18000	30	10	**170**	17000	11	12000	220	< 1.5	**160**	**2**	33	31	29
	10-20 cm	17398	11000	< 0.8	< 5	59	< 0.5	< 0.8	4100	34	8	**100**	19000	9	4200	240	< 1.5	**96**	1	35	34	27
		17399	11000	< 0.8	< 5	53	< 0.5	< 0.8	7000	32	9	**110**	18000	10	5800	220	< 1.5	**110**	1	31	32	28

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037850 Marconi St. (front yard)	0-5 cm	17058	9700	< 0.8	13	59	< 0.5	**1.9**	8500	52	**27**	**1200**	15000	52	2900	200	1.7	**1100**	**9**	46	29	71
		17059	10000	< 0.8	12	63	< 0.5	**1.9**	8300	50	**33**	**1500**	16000	55	2900	210	2.1	**1100**	**8**	41	28	71
	5-10 cm	17060	11000	< 0.8	**19**	79	< 0.5	**1.1**	12000	33	**35**	**1300**	18000	68	2900	190	< 1.5	**1000**	**5**	40	28	83
		17061	11000	< 0.8	**21**	86	< 0.5	**1.5**	12000	36	**38**	**1600**	19000	64	3000	180	< 1.5	**1100**	**6**	37	28	90
	10-20 cm	17062	12000	< 0.8	**31**	98	< 0.5	**1.3**	12000	35	**35**	**1400**	20000	74	2900	170	< 1.5	**1200**	**5**	33	27	96
		17063	16000	< 0.8	**26**	120	< 0.5	**1.5**	14000	43	**40**	**1900**	22000	100	3400	200	< 1.5	**1200**	**6**	39	31	110
5037851 Marconi St. (back yard)	0-5 cm	17052	12000	< 0.8	**19**	91	< 0.5	**2.5**	8900	54	**41**	**2000**	20000	86	3600	220	1.5	**1500**	**12**	43	31	160
		17053	12000	< 0.8	**18**	94	< 0.5	**2.3**	9500	56	**43**	**2200**	21000	80	3400	210	1.6	**1400**	**11**	44	31	160
	5-10 cm	17054	19000	< 0.8	**34**	140	< 0.5	**1.9**	16000	52	**50**	**2400**	27000	98	3800	260	< 1.5	**1600**	**8**	58	39	**190**
		17055	17000	< 0.8	**37**	130	< 0.5	**1.5**	14000	48	**43**	**2000**	25000	84	3600	240	< 1.5	**1500**	**7**	57	37	**190**
	10-20 cm	17056	12000	**1.1**	**46**	120	< 0.5	**1.1**	8700	36	**35**	**1300**	22000	81	2800	200	< 1.5	**1500**	**5**	52	34	120
		17057	15000	**1.3**	**54**	130	< 0.5	1	9000	41	**39**	**1400**	24000	81	3100	220	< 1.5	**1700**	**6**	58	38	130
5037824 Market St. (front yard)	0-5 cm	17418	12000	< 0.8	**22**	76	< 0.5	**1.9**	15000	44	**36**	**1500**	19000	77	8500	210	< 1.5	**1300**	**9**	38	32	100
		17419	11000	< 0.8	**18**	78	< 0.5	**2.4**	12000	44	**40**	**2000**	21000	97	6500	200	< 1.5	**1400**	**12**	36	31	110
	5-10 cm	17420	14000	0.9	**41**	94	< 0.5	**1.5**	7700	51	**36**	**1200**	23000	72	3900	270	< 1.5	**1400**	**6**	39	36	110
		17421	14000	0.8	**39**	100	< 0.5	**1.9**	8800	54	**43**	**1600**	25000	93	3900	270	< 1.5	**1800**	**9**	41	38	140
	10-20 cm	17422	16000	0.9	**31**	110	< 0.5	< 0.8	7400	48	**27**	**890**	20000	38	3700	280	< 1.5	**880**	**5**	45	39	67
		17423	16000	1	**38**	120	< 0.5	0.8	7200	48	**23**	**840**	20000	51	4000	320	< 1.5	**770**	**4**	48	40	90
5037825 Market St. (back yard)	0-5 cm	17424	12000	< 0.8	6	49	< 0.5	< 0.8	6200	38	12	**370**	15000	19	3100	250	< 1.5	**320**	**3**	49	34	35
		17425	12000	< 0.8	6	60	< 0.5	< 0.8	6800	43	14	**500**	24000	39	3300	250	< 1.5	**370**	**8**	50	38	40
	5-10 cm	17426	13000	< 0.8	16	71	< 0.5	< 0.8	6500	45	18	**890**	29000	57	3300	230	< 1.5	**410**	**7**	49	39	45
		17427	12000	< 0.8	8	64	< 0.5	< 0.8	6300	38	15	**660**	18000	37	3000	220	< 1.5	**370**	**4**	48	34	45
	10-20 cm	17428	14000	**1.4**	**39**	120	< 0.5	**1.2**	12000	45	**31**	**1600**	49000	**140**	4200	210	< 1.5	**1000**	**7**	46	40	94
		17429	15000	0.8	**20**	120	< 0.5	**1.4**	7900	51	**30**	**1400**	28000	95	4200	230	< 1.5	**950**	**3**	49	37	100

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037826 Market St. (front yard)	0-5 cm	17412	14000	**2.1**	**36**	180	< 0.5	**1.8**	7600	50	**39**	**1300**	23000	**410**	3600	280	< 1.5	**1300**	**8**	46	35	**240**
		17413	13000	**1.7**	**41**	180	< 0.5	**2**	7000	46	**36**	**1200**	22000	**370**	3400	260	< 1.5	**1200**	**8**	44	33	**230**
	5-10 cm	17414	13000	**1.5**	**32**	140	< 0.5	**1.8**	8500	47	**41**	**1500**	24000	**260**	3700	250	1.5	**1300**	**8**	44	35	**170**
		17415	13000	**1.8**	**31**	130	< 0.5	**2**	7800	43	**35**	**1500**	23000	**320**	3400	230	< 1.5	**1100**	**8**	43	33	160
	10-20 cm	17416	14000	**3.6**	**38**	130	< 0.5	**1.7**	7100	48	**39**	**1400**	26000	**280**	3600	240	< 1.5	**1300**	**7**	41	37	150
		17417	14000	**2.6**	**40**	130	< 0.5	**1.5**	6700	50	**41**	**1400**	27000	**290**	3800	250	< 1.5	**1400**	**7**	41	38	140
5037778 Mckeen St. (front yard)	0-5 cm	16786	10000	< 0.8	14	62	< 0.5	**1.6**	25000	32	**27**	**1000**	17000	40	15000	180	< 1.5	**880**	**6**	30	25	67
		16787	11000	< 0.8	15	73	< 0.5	**1.9**	20000	36	**35**	**1600**	18000	56	11000	200	< 1.5	**1200**	**9**	37	29	75
	5-10 cm	16788	21000	< 0.8	**20**	120	< 0.5	0.8	13000	59	21	**380**	30000	30	8200	280	< 1.5	**450**	**4**	44	43	52
		16789	19000	< 0.8	**18**	110	< 0.5	0.8	11000	51	21	**440**	25000	26	7000	240	< 1.5	**610**	1	43	39	51
	10-20 cm	16790	13000	< 0.8	13	77	< 0.5	< 0.8	6000	37	15	**270**	19000	19	3700	190	< 1.5	**390**	1	34	32	38
		16791	15000	0.9	14	80	< 0.5	< 0.8	5600	37	15	**320**	19000	**220**	3100	180	< 1.5	**470**	**3**	39	33	37
5037779 Mckeen St. (back yard)	0-5 cm	16792	13000	< 0.8	**18**	79	< 0.5	**2.7**	29000	40	**41**	**2000**	22000	69	16000	200	1.9	**1300**	**10**	43	30	150
		16793	12000	< 0.8	13	74	< 0.5	**2.2**	30000	39	**34**	**1600**	20000	57	17000	180	1.9	**1100**	**11**	36	27	92
	5-10 cm	16794	16000	< 0.8	**23**	99	< 0.5	0.9	9900	51	**22**	**540**	26000	30	6600	220	< 1.5	**700**	**5**	32	39	56
		16795	15000	< 0.8	17	96	< 0.5	1	17000	46	21	**550**	24000	28	10000	210	< 1.5	**640**	**5**	33	35	53
	10-20 cm	16796	12000	< 0.8	16	82	< 0.5	< 0.8	6200	39	17	**430**	20000	21	3700	160	< 1.5	**620**	**4**	27	34	44
		16797	14000	< 0.8	**18**	97	< 0.5	0.8	10000	44	17	**460**	21000	24	4900	170	< 1.5	**640**	**5**	32	36	48

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037776 Mcnevin St. (front yard)	0-5 cm	16774	8000	< 0.8	10	43	< 0.5	< 0.8	7500	28	19	**790**	13000	32	4100	120	< 1.5	**640**	**6**	23	23	45
		16775	8100	< 0.8	10	45	< 0.5	0.9	10000	34	20	**910**	13000	36	5800	130	< 1.5	**700**	**7**	26	23	45
	5-10 cm	16776	8200	< 0.8	14	41	< 0.5	< 0.8	3700	23	17	**630**	14000	24	2100	110	< 1.5	**610**	**5**	17	23	37
		16777	7600	< 0.8	12	44	< 0.5	< 0.8	4300	23	17	**560**	13000	25	2600	130	< 1.5	**590**	**3**	23	26	37
	10-20 cm	16778	8600	< 0.8	17	54	< 0.5	0.9	6000	24	**22**	**830**	14000	32	2200	130	< 1.5	**880**	**4**	26	27	45
		16779	8200	< 0.8	**18**	56	< 0.5	0.9	5800	24	21	**870**	14000	33	2500	120	< 1.5	**830**	**2**	20	24	46
5037777 Mcnevin St. (back yard)	0-5 cm	16780	9000	< 0.8	6	41	< 0.5	< 0.8	6800	32	11	**260**	13000	22	3700	210	< 1.5	**270**	**2**	31	28	36
		16781	8800	< 0.8	6	43	< 0.5	< 0.8	8200	31	12	**260**	13000	25	4000	200	< 1.5	**290**	1	28	27	75
	5-10 cm	16782	7100	< 0.8	13	70	< 0.5	< 0.8	6200	24	16	**520**	12000	38	4100	150	< 1.5	**610**	**3**	28	23	49
		16783	7300	< 0.8	12	51	< 0.5	< 0.8	7600	24	17	**520**	13000	62	3800	160	< 1.5	**660**	**3**	32	24	57
	10-20 cm	16784	6000	< 0.8	8	30	< 0.5	< 0.8	3200	20	10	**200**	11000	19	2400	120	< 1.5	**320**	< 1	20	22	40
		16785	6900	< 0.8	9	38	< 0.5	< 0.8	3800	21	10	**210**	11000	76	2600	140	< 1.5	**320**	**2**	23	23	37
5037864 Nickel St. (front yard)	0-5 cm	17142	9200	< 0.8	16	44	< 0.5	**1.2**	6400	31	**26**	**1300**	15000	41	3300	160	< 1.5	**940**	**5**	24	26	64
		17143	8800	< 0.8	12	41	< 0.5	1	5600	29	**22**	**1200**	14000	41	2900	150	< 1.5	**770**	**5**	23	25	51
	5-10 cm	17144	9500	< 0.8	10	45	< 0.5	< 0.8	3700	27	11	**290**	13000	13	2400	150	< 1.5	**520**	**2**	21	26	36
		17145	8900	< 0.8	10	44	< 0.5	< 0.8	3300	28	12	**310**	13000	16	2500	160	< 1.5	**410**	**2**	21	26	36
	10-20 cm	17146	12000	0.9	**29**	170	< 0.5	< 0.8	4100	44	19	**590**	35000	44	3400	210	< 1.5	**440**	**4**	47	34	63
		17147	6000	< 0.8	8	41	< 0.5	< 0.8	2000	21	7	**190**	11000	24	2300	120	< 1.5	**230**	< 1	11	19	28
5037865 Nickel St. (back yard)	0-5 cm	17136	13000	< 0.8	**19**	92	< 0.5	**2.2**	15000	45	**40**	**2300**	23000	86	6300	230	1.6	**1400**	**9**	47	36	120
		17137	11000	< 0.8	**19**	83	< 0.5	**2.5**	13000	44	**43**	**2400**	22000	77	5700	210	< 1.5	**1400**	**9**	40	31	**210**
	5-10 cm	17138	10000	1	**33**	75	< 0.5	**1.3**	5500	34	**35**	**1400**	20000	66	3000	160	< 1.5	**1500**	**4**	27	29	80
		17139	11000	< 0.8	**36**	92	< 0.5	**1.8**	7100	36	**43**	**1800**	22000	71	3200	170	< 1.5	**1900**	**5**	30	29	110
	10-20 cm	17140	7300	< 0.8	**21**	60	< 0.5	< 0.8	3400	24	15	**490**	13000	45	2300	120	< 1.5	**720**	**2**	22	24	58
		17141	8200	< 0.8	**18**	67	< 0.5	< 0.8	4200	28	14	**490**	14000	43	2700	150	< 1.5	**610**	**2**	25	26	53

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037866 Nickel St. (front yard)	0-5 cm	17154	11000	< 0.8	15	54	< 0.5	1	5700	37	**23**	**1100**	15000	41	2500	170	< 1.5	**930**	**4**	47	30	49
		17155	8200	< 0.8	**19**	48	< 0.5	**1.3**	4200	30	**29**	**1500**	14000	50	2200	130	< 1.5	**1200**	**6**	23	24	62
	5-10 cm	17156	8200	< 0.8	7	39	< 0.5	< 0.8	3000	23	8	**190**	8600	10	1700	100	< 1.5	**410**	**2**	22	23	27
		17157	6900	< 0.8	5	35	< 0.5	< 0.8	2300	20	5	**96**	8100	9	1700	84	< 1.5	**210**	1	11	20	21
	10-20 cm	17158	11000	< 0.8	5	58	< 0.5	< 0.8	4400	33	7	**110**	13000	10	3400	200	1.6	**170**	1	31	31	30
		17159	10000	< 0.8	6	60	< 0.5	< 0.8	4100	31	7	**120**	13000	10	3100	180	< 1.5	**210**	1	25	29	30
5037867 Nickel St. (back yard)	0-5 cm	17148	8000	< 0.8	10	42	< 0.5	**1.1**	4000	25	15	**870**	12000	30	2200	160	< 1.5	**480**	**6**	21	23	54
		17149	12000	< 0.8	11	62	< 0.5	**1.1**	6300	33	18	**1000**	16000	43	2700	200	< 1.5	**600**	**5**	42	30	67
	5-10 cm	17150	15000	< 0.8	13	94	< 0.5	< 0.8	5800	41	13	**420**	18000	72	3200	240	< 1.5	**400**	< 1	46	36	65
		17151	15000	< 0.8	15	100	< 0.5	< 0.8	6800	42	17	**560**	19000	83	3300	240	< 1.5	**520**	**3**	46	36	75
	10-20 cm	17152	18000	< 0.8	17	110	< 0.5	< 0.8	7400	48	**23**	**730**	22000	72	4000	270	< 1.5	**740**	**4**	49	39	71
		17153	19000	< 0.8	11	130	< 0.5	< 0.8	6800	48	15	**380**	21000	53	4500	280	< 1.5	**420**	**2**	53	41	61
5037868 Nickel St. (front yard)	0-5 cm	17166	7500	< 0.8	**21**	47	< 0.5	**1.3**	5300	29	**32**	**1900**	18000	54	2800	130	< 1.5	**1100**	**8**	16	23	69
		17167	9000	< 0.8	**29**	58	< 0.5	**1.4**	5300	37	**39**	**2100**	22000	66	3000	150	< 1.5	**1400**	**8**	22	27	76
	5-10 cm	17168	8800	< 0.8	**24**	55	< 0.5	< 0.8	3300	28	21	**980**	16000	33	2500	130	< 1.5	**890**	**4**	17	25	53
		17169	10000	< 0.8	**23**	51	< 0.5	< 0.8	3500	30	19	**730**	16000	31	2600	140	< 1.5	**830**	**4**	21	28	58
	10-20 cm	17170	9000	< 0.8	15	46	< 0.5	< 0.8	3000	24	11	**260**	12000	18	2200	110	< 1.5	**570**	**2**	19	25	34
		17171	12000	< 0.8	14	62	< 0.5	< 0.8	4200	30	13	**340**	15000	20	2800	150	< 1.5	**550**	**2**	33	31	41
5037869 Nickel St. (back yard)	0-5 cm	17160	9200	< 0.8	**25**	66	< 0.5	**2.1**	9900	33	**43**	**2800**	22000	69	3800	160	< 1.5	**1600**	**10**	26	28	100
		17161	9600	< 0.8	**24**	61	< 0.5	**1.6**	7300	34	**36**	**2000**	21000	58	2800	170	< 1.5	**1300**	**8**	27	29	87
	5-10 cm	17162	10000	< 0.8	**26**	63	< 0.5	0.9	4200	32	**26**	**1200**	19000	49	3100	170	< 1.5	**1100**	**6**	22	30	69
		17163	9600	< 0.8	**27**	59	< 0.5	< 0.8	6600	30	21	**940**	17000	38	2800	170	2	**940**	**4**	20	28	64
	10-20 cm	17164	8900	< 0.8	17	59	< 0.5	< 0.8	6900	27	17	**610**	14000	27	2700	140	< 1.5	**790**	**4**	21	26	48
		17165	9300	< 0.8	**19**	67	< 0.5	< 0.8	9000	28	16	**510**	17000	34	2800	170	< 1.5	**680**	**4**	23	29	64

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037870 Nickel St. (front yard)	0-5 cm	17178	11000	< 0.8	6	50	< 0.5	< 0.8	3100	33	8	**250**	14000	15	2800	140	< 1.5	**210**	**2**	24	28	33
		17179	9800	< 0.8	7	45	< 0.5	< 0.8	3300	31	12	**500**	14000	20	2500	140	< 1.5	**360**	**3**	19	26	41
	5-10 cm	17180	8800	< 0.8	7	39	< 0.5	< 0.8	3300	33	13	**480**	15000	16	3000	140	< 1.5	**360**	**3**	21	29	34
		17181	9700	< 0.8	11	45	< 0.5	1	5300	37	17	**790**	16000	23	2800	150	< 1.5	**630**	**4**	24	27	69
	10-20 cm	17182	9100	< 0.8	13	44	< 0.5	< 0.8	3700	29	15	**620**	14000	20	2400	130	< 1.5	**610**	**3**	19	25	41
		17183	10000	< 0.8	15	54	< 0.5	< 0.8	4600	30	17	**570**	14000	22	2300	130	< 1.5	**880**	**3**	18	23	49
5037871 Nickel St. (back yard)	0-5 cm	17172	13000	< 0.8	12	52	< 0.5	1	7400	37	19	**1100**	18000	36	2900	180	< 1.5	**680**	**5**	45	34	52
		17173	14000	< 0.8	9	55	< 0.5	1	6200	37	18	**1100**	18000	28	3000	180	< 1.5	**590**	**5**	44	33	51
	5-10 cm	17174	14000	< 0.8	**32**	79	< 0.5	**1.7**	8600	47	**43**	**1900**	24000	46	3000	200	< 1.5	**1700**	**6**	44	36	91
		17175	15000	< 0.8	**39**	90	< 0.5	**2.5**	11000	57	**63**	**2800**	30000	78	3400	220	< 1.5	**2600**	**8**	47	38	140
	10-20 cm	17176	11000	< 0.8	**22**	68	< 0.5	0.8	6500	32	**22**	**760**	16000	26	2600	160	< 1.5	**1200**	**4**	31	29	55
		17177	9000	< 0.8	16	60	< 0.5	< 0.8	5500	27	16	**460**	13000	18	2500	130	< 1.5	**930**	**3**	22	25	41
5037449 Oliver Cres. (back yard)	0-5 cm	15264	13000	< 0.8	16	120	< 0.5	**1.6**	4800	39	**27**	**1000**	22000	120	3700	240	< 1.5	**740**	**7**	37	33	100
		15265	12000	< 0.8	**19**	87	< 0.5	1	3700	36	21	**650**	20000	**140**	3000	210	< 1.5	**560**	**5**	38	31	83
	5-10 cm	15266	15000	< 0.8	**27**	130	< 0.5	1	4000	47	**28**	**890**	26000	**200**	3800	270	< 1.5	**740**	**5**	43	37	110
		15267	16000	< 0.8	**21**	120	< 0.5	0.9	4000	46	**22**	**710**	25000	**240**	4100	300	< 1.5	**560**	**5**	43	39	110
	10-20 cm	15268	12000	**2**	**64**	180	< 0.5	**1.6**	5700	43	**40**	**1400**	26000	**430**	3300	280	1.5	**1200**	**6**	45	34	**240**
		15269	11000	**1.9**	**65**	**230**	< 0.5	**1.1**	3500	37	**30**	**900**	22000	**610**	3000	290	< 1.5	**890**	**5**	46	32	**230**

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037854 Oliver St. (front yard)	0-5 cm	17076	15000	0.9	**21**	110	< 0.5	**2.3**	12000	51	**40**	**2000**	23000	**130**	5000	220	< 1.5	**1300**	**10**	45	34	130
		17077	13000	< 0.8	16	82	< 0.5	**2.1**	13000	43	**37**	**1900**	20000	74	4100	210	< 1.5	**1200**	**10**	42	32	110
	5-10 cm	17078	12000	< 0.8	14	81	< 0.5	< 0.8	4300	46	12	**300**	17000	48	3600	200	< 1.5	**310**	**2**	31	33	56
		17079	12000	< 0.8	13	79	< 0.5	< 0.8	4100	40	11	**300**	18000	61	3700	210	< 1.5	**240**	**2**	29	34	59
	10-20 cm	17080	13000	0.8	**19**	150	< 0.5	0.9	5000	43	15	**400**	20000	**200**	4000	260	< 1.5	**380**	**2**	37	36	140
		17081	15000	< 0.8	17	110	< 0.5	< 0.8	5800	47	15	**350**	22000	62	4500	270	< 1.5	**340**	**2**	37	39	71
5037855 Oliver St. (back yard)	0-5 cm	17082	8900	< 0.8	7	46	< 0.5	1	9500	39	**22**	**690**	15000	34	4200	200	< 1.5	**570**	**4**	32	29	89
		17083	9800	< 0.8	10	51	< 0.5	**1.3**	12000	43	**31**	**870**	17000	44	3900	220	< 1.5	**800**	**5**	40	31	79
	5-10 cm	17084	9900	< 0.8	7	53	< 0.5	< 0.8	5300	37	13	**350**	15000	32	3600	200	< 1.5	**270**	**2**	33	32	46
		17085	11000	< 0.8	8	70	< 0.5	< 0.8	5600	41	10	**210**	16000	90	3700	230	< 1.5	**210**	1	34	34	53
	10-20 cm	17086	11000	< 0.8	12	78	< 0.5	< 0.8	5200	41	13	**270**	17000	53	3900	240	< 1.5	**280**	**2**	35	35	54
		17087	12000	< 0.8	15	110	< 0.5	< 0.8	4200	39	12	**230**	17000	110	3700	230	< 1.5	**260**	**2**	34	34	56
5037796 Orford St. (front yard)	0-5 cm	16894	8800	< 0.8	14	40	< 0.5	< 0.8	2800	22	15	**480**	13000	120	2300	110	< 1.5	**330**	< 1	20	26	55
		16895	9000	< 0.8	8	41	< 0.5	< 0.8	3200	25	14	**450**	14000	100	2500	120	< 1.5	**330**	**4**	20	27	51
	5-10 cm	16896	12000	1	**22**	98	< 0.5	< 0.8	3900	37	**25**	**660**	20000	**160**	3100	220	< 1.5	**630**	**5**	32	33	74
		16897	10000	< 0.8	14	63	< 0.5	< 0.8	2900	30	16	**300**	14000	83	2600	160	< 1.5	**320**	**3**	24	29	45
	10-20 cm	16898	13000	**1.4**	**36**	130	< 0.5	1	4600	41	**31**	**780**	21000	**210**	3500	260	< 1.5	**750**	**5**	39	33	98
		16899	11000	**1.2**	**34**	120	< 0.5	< 0.8	3600	38	**28**	**660**	18000	**190**	3300	210	< 1.5	**660**	**4**	27	29	85
5037797 Orford St. (back yard)	0-5 cm	16900	9000	< 0.8	11	49	< 0.5	< 0.8	3700	28	**22**	**590**	17000	44	3000	120	1.6	**450**	**7**	21	26	61
		16901	11000	< 0.8	**20**	69	< 0.5	**1.1**	5800	35	**32**	**890**	21000	86	3400	150	< 1.5	**670**	**9**	32	31	80
	5-10 cm	16902	12000	**1.6**	**39**	120	< 0.5	0.9	3700	38	**33**	**1100**	24000	**140**	3300	150	< 1.5	**750**	**8**	31	31	100
		16903	11000	**2**	**50**	**270**	< 0.5	**1.2**	5100	41	**41**	**1240**	24000	**150**	3600	160	< 1.5	**950**	**10**	33	32	130
	10-20 cm	16904	12000	**1.9**	**43**	130	< 0.5	1	3900	40	**34**	**910**	20000	**220**	3100	180	< 1.5	**830**	**6**	34	30	120
		16905	11000	**1.6**	**44**	110	< 0.5	0.9	4200	35	**34**	**810**	20000	**150**	3100	160	< 1.5	**780**	**6**	37	29	**310**

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037798 Orford St. (front yard)	0-5 cm	16906	13000	< 0.8	< 5	45	< 0.5	< 0.8	5500	31	8	**240**	15000	20	2700	200	< 1.5	**170**	**3**	43	30	33
		16907	12000	< 0.8	< 5	50	< 0.5	< 0.8	5100	31	10	**330**	15000	24	2700	210	< 1.5	**210**	**3**	42	31	35
	5-10 cm	16908	12000	< 0.8	< 5	38	< 0.5	< 0.8	3800	28	5	58	14000	20	2200	200	< 1.5	**55**	1	41	30	23
		16909	10000	< 0.8	< 5	40	< 0.5	< 0.8	3600	26	6	76	13000	19	2400	180	< 1.5	**76**	1	34	28	25
	10-20 cm	16910	16000	< 0.8	7	92	< 0.5	< 0.8	5600	40	13	**260**	19000	69	3800	260	< 1.5	**230**	**2**	46	37	50
		16911	13000	< 0.8	9	93	< 0.5	< 0.8	5600	39	18	**400**	21000	**150**	4000	260	< 1.5	**390**	**3**	44	36	83
5037799 Orford St. (back yard)	0-5 cm	16912	8900	< 0.8	< 5	43	< 0.5	< 0.8	5100	25	10	**290**	12000	34	2400	150	< 1.5	**250**	**3**	27	25	33
		16913	8500	< 0.8	< 5	59	< 0.5	< 0.8	4600	25	10	**320**	12000	37	2400	150	< 1.5	**250**	**3**	24	24	34
	5-10 cm	16914	8900	< 0.8	< 5	61	< 0.5	< 0.8	4100	30	9	**190**	14000	43	3100	180	< 1.5	**140**	**2**	23	27	42
		16915	9700	< 0.8	6	160	< 0.5	< 0.8	4400	30	12	**260**	15000	94	3000	180	< 1.5	**240**	**2**	29	29	48
	10-20 cm	16916	9900	< 0.8	< 5	66	< 0.5	< 0.8	4000	34	13	**270**	16000	68	3900	210	< 1.5	**220**	**2**	27	29	57
		16917	13000	**1.1**	15	120	< 0.5	< 0.8	6200	42	16	**390**	21000	120	5200	260	< 1.5	**320**	**3**	41	37	82
5037800 Orford St. (front yard)	0-5 cm	16918	10000	< 0.8	11	78	< 0.5	**1.7**	5400	35	**26**	**1200**	19000	88	3400	190	1.7	**720**	**6**	28	29	92
		16919	11000	< 0.8	12	84	< 0.5	**2.2**	6700	37	**36**	**1300**	22000	**130**	3500	200	< 1.5	**1000**	**6**	32	31	110
	5-10 cm	16920	11000	**1.3**	**24**	80	< 0.5	**1.2**	5900	41	**35**	**1000**	25000	120	3700	210	< 1.5	**1000**	**4**	27	33	83
		16921	12000	**1.9**	**36**	110	< 0.5	**1.5**	6400	43	**43**	**1100**	25000	**200**	4000	250	< 1.5	**1300**	**4**	37	36	120
	10-20 cm	16922	14000	**1.8**	**22**	110	< 0.5	1	11000	47	**34**	**800**	26000	96	6300	290	< 1.5	**980**	**3**	44	41	74
		16923	15000	**2.5**	**39**	140	< 0.5	< 0.8	8300	42	**27**	**470**	21000	**220**	5100	290	< 1.5	**740**	**2**	54	37	110
5037801 Orford St. (back yard)	0-5 cm	16924	16000	1	17	130	< 0.5	**2.4**	11000	49	**40**	**1700**	25000	**140**	4100	250	< 1.5	**1100**	**8**	49	37	160
		16925	17000	**1.2**	**19**	160	< 0.5	**3**	11000	52	**42**	**1600**	25000	**210**	4100	270	1.6	**1200**	**10**	49	37	**180**
	5-10 cm	16926	16000	**2.5**	**22**	160	< 0.5	**2**	10000	47	**35**	**830**	25000	**260**	3900	320	< 1.5	**890**	**5**	64	40	**210**
		16927	20000	**1.4**	**19**	150	< 0.5	**1.4**	11000	53	**31**	**1000**	27000	**150**	4300	350	< 1.5	**720**	**4**	55	43	150
	10-20 cm	16928	17000	**2.5**	**51**	180	< 0.5	**1.1**	8000	51	**35**	**700**	28000	**400**	4100	340	< 1.5	**670**	**4**	61	44	**270**
		16929	14000	**1.9**	**57**	190	< 0.5	**1.8**	7600	48	**38**	**1100**	29000	**390**	3600	310	< 1.5	**1000**	**6**	51	39	**210**

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037838 Orford St. (front yard)	0-5 cm	17472	13000	< 0.8	**22**	98	< 0.5	**2**	8100	42	**33**	**1500**	23000	120	4100	240	< 1.5	**1000**	**8**	37	33	110
		17473	14000	0.9	**27**	110	< 0.5	**2.2**	10000	48	**48**	**1800**	28000	**130**	5500	240	1.8	**1300**	**9**	40	35	120
	5-10 cm	17474	13000	< 0.8	**24**	89	< 0.5	1	6500	44	**28**	**870**	22000	70	3500	250	< 1.5	**850**	**4**	35	35	94
		17475	14000	< 0.8	**34**	100	< 0.5	**1.1**	7100	43	**35**	**1100**	25000	97	3800	250	< 1.5	**1100**	**5**	35	35	120
	10-20 cm	17476	14000	< 0.8	**24**	83	< 0.5	< 0.8	7400	42	18	**440**	20000	68	3800	270	< 1.5	**530**	**2**	48	38	73
		17477	12000	1	**27**	84	< 0.5	< 0.8	7300	39	**24**	**660**	21000	70	4000	250	< 1.5	**800**	**3**	39	35	96
5037839 Orford St. (back yard)	0-5 cm	17478	14000	1	**35**	170	< 0.5	**3**	13000	53	**62**	**2500**	32000	**160**	5300	290	< 1.5	**1900**	**13**	71	38	**180**
		17479	13000	0.9	**29**	170	< 0.5	**3.2**	13000	48	**62**	**2700**	29000	**150**	4800	290	< 1.5	**1800**	**14**	70	32	**170**
	5-10 cm	17480	15000	**1.1**	**38**	**240**	< 0.5	**1.5**	12000	48	**37**	**1200**	27000	**130**	5400	340	< 1.5	**1200**	**6**	79	38	150
		17481	15000	**1.3**	**33**	**230**	< 0.5	**1.5**	12000	49	**34**	**1100**	27000	**140**	5600	350	< 1.5	**1100**	**5**	84	37	**170**
	10-20 cm	17482	15000	1	**33**	**240**	< 0.5	0.9	12000	44	**22**	**580**	24000	120	6100	360	< 1.5	**600**	**3**	84	37	120
		17483	19000	< 0.8	**32**	**260**	< 0.5	0.9	13000	52	**27**	**760**	26000	95	6200	370	< 1.5	**690**	**3**	95	44	130
5037819 Park St. (front yard)	0-5 cm	17370	13000	< 0.8	12	67	< 0.5	< 0.8	8000	44	20	**720**	18000	60	4300	240	< 1.5	**530**	**3**	49	35	57
		17371	10000	< 0.8	12	52	< 0.5	< 0.8	7600	37	21	**730**	17000	68	4100	220	< 1.5	**590**	**3**	40	33	61
	5-10 cm	17372	8800	< 0.8	**18**	48	< 0.5	< 0.8	5000	33	**23**	**760**	18000	**130**	3500	190	< 1.5	**640**	**3**	29	30	69
		17373	9100	< 0.8	**22**	53	< 0.5	< 0.8	5900	34	**27**	**910**	20000	110	3500	200	< 1.5	**740**	**3**	27	29	67
	10-20 cm	17374	11000	1	**60**	85	< 0.5	**1.1**	5000	42	**39**	**1400**	22000	**160**	3500	200	< 1.5	**1300**	**5**	28	30	85
		17375	11000	**1.1**	**74**	86	< 0.5	**1.1**	6300	38	**42**	**1400**	23000	**220**	3400	200	< 1.5	**1400**	**4**	27	31	87
5037820 Park St. (back yard)	0-5 cm	17376	8000	< 0.8	7	41	< 0.5	< 0.8	3800	30	12	**370**	13000	30	3100	170	< 1.5	**290**	**2**	18	26	53
		17377	9200	< 0.8	7	46	< 0.5	< 0.8	5400	33	14	**400**	15000	32	3400	200	< 1.5	**320**	**3**	30	30	61
	5-10 cm	17378	8900	< 0.8	< 5	47	< 0.5	< 0.8	3800	31	12	**300**	16000	50	3400	210	< 1.5	**220**	**2**	28	31	56
		17379	9400	< 0.8	10	53	< 0.5	< 0.8	4800	36	16	**380**	17000	70	3600	230	< 1.5	**290**	**2**	30	32	60
	10-20 cm	17380	11000	< 0.8	12	72	< 0.5	< 0.8	5700	33	17	**430**	19000	52	3700	260	< 1.5	**360**	**2**	47	39	69
		17381	8000	< 0.8	11	53	< 0.5	< 0.8	3800	27	12	**290**	16000	44	3300	210	< 1.5	**240**	**2**	28	31	63

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037846 Park St. (front yard)	0-5 cm	17034	12000	< 0.8	**44**	120	< 0.5	**2.2**	7200	53	**71**	**2500**	30000	**390**	3400	220	1.5	**2200**	**14**	40	37	160
		17035	14000	0.8	**52**	110	< 0.5	**2.5**	7700	57	**82**	**2800**	35000	**260**	3800	240	1.6	**2900**	**15**	43	40	150
	5-10 cm	17036	16000	< 0.8	**43**	110	< 0.5	**1.1**	7700	44	**38**	**1100**	24000	100	3400	260	1.6	**1500**	**6**	43	39	98
		17037	18000	0.9	**58**	160	< 0.5	**2.3**	12000	58	**70**	**2000**	32000	**210**	4100	330	< 1.5	**3100**	**10**	49	42	150
	10-20 cm	17038	11000	**1.1**	**38**	150	< 0.5	< 0.8	4900	44	**26**	**790**	23000	**170**	3100	250	< 1.5	**700**	**3**	34	32	60
		17039	14000	**1.1**	**31**	160	< 0.5	< 0.8	5600	48	**30**	**920**	27000	**210**	4000	290	< 1.5	**700**	**3**	38	37	65
5037847 Park St. (back yard)	0-5 cm	17028	11000	< 0.8	**49**	92	< 0.5	**2.5**	5700	46	**65**	**2300**	27000	**230**	3300	210	< 1.5	**2100**	**12**	33	33	140
		17029	12000	< 0.8	**46**	130	< 0.5	**2.4**	5800	47	**57**	**2300**	25000	**400**	3500	250	< 1.5	**1900**	**10**	35	33	**170**
	5-10 cm	17030	14000	< 0.8	**37**	110	< 0.5	**1.1**	6500	47	**31**	**1000**	22000	95	3900	260	< 1.5	**1100**	**5**	41	37	82
		17031	15000	**1.6**	**53**	**230**	< 0.5	**1.4**	6500	57	**46**	**1600**	25000	**330**	4300	310	< 1.5	**1500**	**8**	47	40	120
	10-20 cm	17032	15000	**1.1**	**48**	180	< 0.5	< 0.8	5200	49	**25**	**730**	24000	**180**	3500	290	< 1.5	**590**	**4**	46	39	73
		17033	15000	**1.4**	**50**	150	< 0.5	< 0.8	5100	46	**22**	**600**	21000	**190**	3200	280	< 1.5	**540**	**4**	44	36	62
5037848 Park St. (front yard)	0-5 cm	17046	9500	< 0.8	**25**	55	< 0.5	**1.6**	10000	41	**41**	**1800**	23000	91	5500	220	1.5	**1200**	**9**	34	31	76
		17047	9600	< 0.8	**36**	65	< 0.5	**2.3**	14000	40	**59**	**2500**	26000	75	7100	260	1.7	**1600**	**10**	37	32	140
	5-10 cm	17048	11000	< 0.8	**22**	49	< 0.5	< 0.8	3600	28	13	**430**	16000	17	2400	210	< 1.5	**400**	**2**	33	32	43
		17049	8400	< 0.8	**25**	49	< 0.5	0.8	3500	27	16	**550**	16000	19	2400	230	< 1.5	**610**	**3**	20	27	56
	10-20 cm	17050	9800	< 0.8	11	50	< 0.5	< 0.8	3200	28	8	**150**	16000	12	3000	190	< 1.5	**220**	1	33	31	32
		17051	11000	< 0.8	14	55	< 0.5	< 0.8	3700	30	9	**190**	16000	13	3000	190	1.6	**280**	1	37	33	35
5037849 Park St. (back yard)	0-5 cm	17040	11000	< 0.8	6	53	< 0.5	**1.1**	8700	36	17	**690**	15000	34	4200	220	< 1.5	**500**	**4**	39	29	56
		17041	11000	< 0.8	< 5	53	< 0.5	1	8100	35	16	**590**	15000	33	4000	220	< 1.5	**470**	**4**	41	30	49
	5-10 cm	17042	11000	< 0.8	7	74	< 0.5	< 0.8	4200	31	11	**360**	16000	39	2800	200	< 1.5	**290**	1	36	29	45
		17043	10000	< 0.8	8	49	< 0.5	< 0.8	4100	30	10	**320**	15000	45	2700	210	< 1.5	**250**	**2**	30	28	40
	10-20 cm	17044	10000	< 0.8	7	48	< 0.5	< 0.8	3300	29	10	**290**	15000	26	2400	180	< 1.5	**220**	< 1	30	27	37
		17045	11000	< 0.8	10	56	< 0.5	< 0.8	3800	31	12	**390**	16000	25	2600	200	< 1.5	**310**	**2**	34	29	40

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037852 Park St. (front yard)	0-5 cm	17064	13000	**1.1**	**49**	110	< 0.5	**3.4**	11000	54	**70**	**3100**	34000	110	4200	210	1.8	**2100**	**11**	34	37	140
		17065	14000	0.8	**54**	100	< 0.5	**3**	11000	54	**65**	**2900**	34000	100	4400	210	2	**2100**	**13**	34	37	120
	5-10 cm	17066	14000	**1.4**	**76**	110	< 0.5	**1.4**	7200	44	**48**	**1800**	27000	70	3600	220	< 1.5	**1600**	**7**	34	35	86
		17067	16000	**1.9**	**94**	120	< 0.5	**1.3**	7100	45	**42**	**1600**	25000	56	3500	240	< 1.5	**1400**	**7**	36	36	79
	10-20 cm	17068	14000	**1.3**	**70**	110	< 0.5	< 0.8	5500	43	**25**	**730**	21000	39	4000	250	< 1.5	**800**	**3**	31	35	66
		17069	15000	**1.4**	**60**	120	< 0.5	< 0.8	5300	51	19	**340**	24000	38	5400	310	1.5	**470**	**2**	37	40	52
5037853 Park St. (side yard)	0-5 cm	17070	12000	< 0.8	**35**	94	< 0.5	**2.4**	9000	46	**54**	**2500**	29000	100	4200	220	2.2	**1600**	**12**	30	32	110
		17071	15000	< 0.8	**34**	100	< 0.5	**2.3**	9500	53	**52**	**2300**	29000	92	4600	250	< 1.5	**1500**	**15**	45	38	110
	5-10 cm	17072	19000	0.9	**50**	130	< 0.5	**1.4**	8100	51	**39**	**1400**	27000	69	4300	260	< 1.5	**1300**	**6**	44	41	87
		17073	19000	< 0.8	**37**	130	< 0.5	**1.2**	7300	51	**30**	**1100**	25000	54	4200	270	< 1.5	**950**	**5**	48	41	88
	10-20 cm	17074	20000	**1.5**	**60**	140	< 0.5	< 0.8	6400	49	21	**580**	23000	51	4300	270	< 1.5	**540**	**3**	51	41	70
		17075	19000	**1.2**	**52**	140	< 0.5	0.8	6500	48	**24**	**780**	23000	59	4100	280	< 1.5	**710**	**3**	50	42	76
5037780 Peter St. (front yard)	0-5 cm	16798	11000	< 0.8	**18**	75	< 0.5	**1.6**	7300	35	**30**	**1300**	20000	**150**	2500	180	< 1.5	**950**	**8**	28	28	100
		16799	12000	< 0.8	**18**	89	< 0.5	**1.8**	6700	43	**33**	**1600**	21000	**270**	3000	210	1.8	**1100**	**10**	36	33	110
	5-10 cm	16800	14000	< 0.8	**23**	92	< 0.5	< 0.8	4800	37	19	**590**	19000	**140**	2700	170	< 1.5	**680**	**4**	31	32	68
		16801	14000	< 0.8	**27**	88	< 0.5	1	6200	38	**22**	**690**	20000	120	2700	190	< 1.5	**770**	**5**	33	33	81
	10-20 cm	16802	12000	0.9	**28**	83	< 0.5	< 0.8	4000	34	19	**580**	19000	78	2500	160	< 1.5	**600**	**5**	24	32	53
		16803	13000	**1.1**	**34**	84	< 0.5	< 0.8	4300	34	21	**670**	21000	120	2600	170	1.5	**690**	**5**	27	32	71
5037781 Peter St. (back yard)	0-5 cm	16804	12000	< 0.8	14	69	< 0.5	**1.1**	6500	40	**22**	**790**	19000	80	3400	240	< 1.5	**630**	**5**	38	34	78
		16805	15000	< 0.8	9	72	< 0.5	< 0.8	7800	44	14	**390**	19000	41	4000	280	< 1.5	**330**	**3**	52	40	53
	5-10 cm	16806	16000	< 0.8	**26**	98	< 0.5	0.9	6100	41	**28**	**870**	22000	110	3200	210	< 1.5	**920**	**5**	46	38	82
		16807	16000	< 0.8	**27**	100	< 0.5	1	6900	41	**27**	**890**	22000	110	3400	220	< 1.5	**880**	**5**	46	38	94
	10-20 cm	16808	16000	**3**	**32**	110	< 0.5	< 0.8	5700	40	**24**	**840**	22000	**300**	3000	200	< 1.5	**850**	**5**	45	36	80
		16809	15000	0.9	**26**	110	< 0.5	< 0.8	4800	39	**22**	**700**	20000	**270**	3100	210	1.8	**670**	**4**	45	36	88

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037782 Peter St. (front yard)	0-5 cm	16810	13000	< 0.8	7	61	< 0.5	0.8	7200	38	13	**420**	16000	45	3600	220	< 1.5	**330**	**4**	51	33	46
		16811	10000	< 0.8	**25**	43	< 0.5	1	6700	28	16	**570**	14000	69	3500	160	< 1.5	**470**	**4**	38	26	52
	5-10 cm	16812	7800	< 0.8	16	41	< 0.5	0.9	4100	27	**23**	**930**	18000	110	2800	130	< 1.5	**650**	**5**	21	24	66
		16813	9300	< 0.8	16	56	< 0.5	**1.3**	6300	35	**27**	**1300**	19000	**220**	3200	150	< 1.5	**780**	**5**	23	24	100
	10-20 cm	16814	8900	0.8	**29**	58	< 0.5	1	5400	30	**28**	**940**	21000	**190**	2800	160	< 1.5	**1000**	**3**	20	25	83
		16815	10000	< 0.8	**32**	68	< 0.5	**1.3**	5900	30	**32**	**1100**	21000	**200**	2900	170	< 1.5	**1100**	**4**	23	27	100
5037783 Peter St. (back yard)	0-5 cm	16816	7900	< 0.8	7	53	< 0.5	< 0.8	3900	22	13	**440**	11000	58	2300	130	< 1.5	**310**	**2**	17	19	57
		16817	8100	< 0.8	< 5	33	< 0.5	< 0.8	3200	20	8	**160**	11000	19	2100	130	< 1.5	**120**	< 1	20	21	28
	5-10 cm	16818	10000	< 0.8	15	81	< 0.5	0.9	6500	28	19	**670**	16000	100	2600	170	< 1.5	**490**	**2**	24	24	85
		16819	9700	**4.9**	10	76	< 0.5	0.9	4400	28	16	**610**	15000	88	2700	180	< 1.5	**400**	**3**	24	24	77
	10-20 cm	16820	11000	**1.1**	**22**	120	< 0.5	1	6600	30	**24**	**850**	19000	**180**	3000	210	< 1.5	**700**	**3**	32	27	130
		16821	10000	**1.1**	**26**	140	< 0.5	0.9	4800	31	21	**830**	20000	**180**	3100	210	< 1.5	**600**	**3**	34	28	120
5037832 Power St. (front yard)	0-5 cm	17448	12000	< 0.8	**21**	110	< 0.5	**2.5**	16000	70	**75**	**2100**	27000	**150**	5300	260	2	**2200**	**12**	53	39	**170**
		17449	11000	1	**25**	100	< 0.5	**2.8**	21000	64	**78**	**2600**	30000	**170**	4400	230	1.5	**2300**	**12**	45	33	**170**
	5-10 cm	17450	13000	1	**30**	83	< 0.5	**1.2**	22000	50	**53**	**1400**	28000	**160**	4100	330	< 1.5	**1600**	**6**	49	39	110
		17451	11000	**1.5**	**42**	110	< 0.5	**1.7**	19000	46	**54**	**1800**	28000	**270**	4100	300	< 1.5	**1800**	**8**	37	34	130
	10-20 cm	17452	18000	1	**37**	130	< 0.5	< 0.8	8400	54	**23**	**540**	25000	110	5500	400	< 1.5	**600**	**2**	50	45	71
		17453	14000	**1.6**	**41**	130	< 0.5	0.9	11000	45	**34**	**920**	24000	**150**	4100	360	< 1.5	**1100**	**4**	50	40	91
5037833 Power St. (back yard)	0-5 cm	17454	9800	< 0.8	16	81	< 0.5	**2.2**	15000	54	**41**	**1400**	20000	82	3900	220	< 1.5	**1200**	**7**	44	35	110
		17455	11000	< 0.8	**20**	86	< 0.5	**2.1**	17000	54	**46**	**1700**	24000	110	4600	230	< 1.5	**1300**	**8**	41	31	140
	5-10 cm	17456	14000	< 0.8	**29**	93	< 0.5	**1.2**	14000	47	**31**	**920**	23000	72	3700	240	< 1.5	**970**	**4**	50	36	95
		17457	14000	0.9	**22**	100	< 0.5	< 0.8	6600	41	17	**480**	19000	63	3400	220	< 1.5	**470**	**3**	47	36	70
	10-20 cm	17458	14000	0.9	**24**	150	< 0.5	< 0.8	6600	42	15	**350**	20000	91	3700	290	< 1.5	**410**	**2**	62	36	89
		17459	13000	**1.2**	**29**	95	< 0.5	0.8	12000	41	**29**	**860**	21000	120	3500	240	< 1.5	**980**	**4**	45	34	91

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037834 Power St. (front yard)	0-5 cm	17484	11000	< 0.8	14	72	< 0.5	0.9	6200	33	**23**	**880**	16000	64	2600	170	< 1.5	**700**	**6**	43	28	56
		17485	11000	< 0.8	13	70	< 0.5	**1.2**	6300	33	**23**	**940**	16000	80	2600	160	< 1.5	**690**	**6**	42	28	74
	5-10 cm	17486	12000	< 0.8	12	58	< 0.5	< 0.8	5100	31	15	**400**	15000	58	2300	160	< 1.5	**390**	**3**	41	28	42
		17487	11000	< 0.8	12	50	< 0.5	< 0.8	5000	28	15	**420**	14000	51	2300	150	< 1.5	**400**	**3**	39	27	41
	10-20 cm	17488	14000	< 0.8	**22**	85	< 0.5	< 0.8	5100	39	**22**	**540**	19000	76	2900	200	< 1.5	**570**	**4**	36	33	91
		17489	15000	< 0.8	**21**	93	< 0.5	< 0.8	5500	45	**27**	**610**	22000	100	3700	210	< 1.5	**650**	**3**	37	35	98
5037835 Power St. (back yard)	0-5 cm	17490	9400	< 0.8	10	49	< 0.5	< 0.8	4500	28	12	**410**	13000	30	2400	170	< 1.5	**290**	**3**	33	27	50
		17491	9800	< 0.8	9	50	< 0.5	0.9	5000	30	12	**460**	13000	62	2500	170	< 1.5	**300**	**3**	37	28	56
	5-10 cm	17492	10000	< 0.8	7	48	< 0.5	< 0.8	4000	29	9	**190**	14000	30	2400	180	< 1.5	**170**	**2**	36	29	45
		17493	9800	< 0.8	10	44	< 0.5	< 0.8	3600	27	9	**230**	13000	28	2100	160	< 1.5	**200**	**2**	32	28	44
	10-20 cm	17494	12000	< 0.8	12	76	< 0.5	< 0.8	4400	34	12	**240**	15000	64	2800	180	< 1.5	**270**	**2**	32	30	82
		17495	12000	< 0.8	12	68	< 0.5	< 0.8	4400	33	13	**300**	16000	49	2800	180	< 1.5	**310**	**2**	32	30	85
5037836 Power St. (front yard)	0-5 cm	17460	10000	< 0.8	12	58	< 0.5	0.9	8800	36	**24**	**850**	15000	52	4200	220	< 1.5	**630**	**6**	41	29	61
		17461	12000	< 0.8	10	56	< 0.5	< 0.8	8200	37	21	**670**	17000	43	3500	240	< 1.5	**550**	**4**	48	32	68
	5-10 cm	17462	15000	< 0.8	11	69	< 0.5	< 0.8	8100	40	17	**400**	19000	35	3300	260	< 1.5	**400**	**3**	47	36	47
		17463	13000	< 0.8	9	53	< 0.5	< 0.8	6100	34	12	**250**	17000	28	2800	250	< 1.5	**270**	**2**	43	33	39
	10-20 cm	17464	15000	< 0.8	**28**	120	< 0.5	0.9	9200	52	**33**	**870**	25000	94	4400	270	< 1.5	**930**	**4**	48	44	81
		17465	19000	0.9	**32**	140	< 0.5	1	13000	59	**39**	**1100**	29000	120	5500	290	< 1.5	**1100**	**6**	51	47	98
5037837 Power St. (back yard)	0-5 cm	17466	12000	< 0.8	14	78	< 0.5	**1.4**	8600	43	**31**	**1100**	20000	78	3300	230	< 1.5	**870**	**6**	47	33	95
		17467	12000	**1.2**	7	72	< 0.5	**1.1**	8300	37	**26**	**980**	21000	96	3800	220	< 1.5	**740**	**5**	41	31	93
	5-10 cm	17468	11000	< 0.8	11	85	< 0.5	< 0.8	4900	29	15	**370**	18000	36	3000	200	< 1.5	**400**	**2**	39	30	44
		17469	11000	< 0.8	11	70	< 0.5	< 0.8	7000	31	17	**520**	19000	48	3100	210	< 1.5	**480**	**3**	36	30	52
	10-20 cm	17470	16000	**1.2**	**28**	180	< 0.5	0.8	9000	46	**32**	**970**	27000	**130**	5100	300	< 1.5	**860**	**3**	55	40	100
		17471	12000	< 0.8	17	100	< 0.5	< 0.8	5300	33	18	**490**	20000	87	3500	210	< 1.5	**490**	**3**	41	33	63

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037840 Power St. (front yard)	0-5 cm	17304	13000	< 0.8	**21**	88	< 0.5	**2**	9700	43	**43**	**2000**	23000	110	3300	200	1.6	**1500**	**8**	42	33	130
		17305	17000	< 0.8	**23**	130	< 0.5	**2.2**	10000	54	**50**	**2200**	28000	**140**	3900	260	< 1.5	**1700**	**10**	53	41	160
	5-10 cm	17306	14000	1	**37**	120	< 0.5	**1.3**	6800	43	**42**	**1300**	24000	**140**	3500	310	< 1.5	**1400**	**5**	49	36	130
		17307	17000	**1.1**	**46**	140	< 0.5	**1.4**	7600	51	**43**	**1400**	26000	**170**	3700	300	< 1.5	**1500**	**4**	53	41	**180**
	10-20 cm	17308	16000	**1.2**	**46**	190	< 0.5	**1.2**	6900	46	**32**	**900**	22000	**240**	3500	360	< 1.5	**1200**	**4**	59	40	**170**
		17309	16000	**1.6**	**49**	160	< 0.5	1	7000	46	**30**	**860**	24000	**170**	3700	340	< 1.5	**1100**	**2**	59	41	**180**
5037841 Power St. (back yard)	0-5 cm	17298	11000	< 0.8	11	65	< 0.5	0.8	5400	34	15	**600**	15000	45	2700	200	1.7	**440**	**3**	40	31	70
		17299	12000	< 0.8	11	61	< 0.5	1	6100	34	19	**800**	17000	51	2900	210	< 1.5	**560**	**4**	39	31	70
	5-10 cm	17300	9800	< 0.8	15	72	< 0.5	< 0.8	4700	29	17	**730**	17000	54	2500	180	< 1.5	**490**	**3**	24	28	88
		17301	13000	< 0.8	**19**	91	< 0.5	**1.1**	7200	36	**24**	**980**	19000	86	2800	210	< 1.5	**690**	**4**	42	33	97
	10-20 cm	17302	13000	0.8	**27**	120	< 0.5	1	7000	37	**26**	**850**	19000	86	3100	240	< 1.5	**880**	**3**	41	33	140
		17303	14000	**1.4**	**36**	150	< 0.5	1	6700	38	**31**	**930**	22000	**190**	3000	260	< 1.5	**1000**	**4**	52	37	140
5037827 Serpentine St. (front yard)	0-5 cm	17400	7400	< 0.8	8	51	< 0.5	**2.5**	16000	29	**38**	**2000**	15000	60	8000	170	1.6	**1300**	**12**	27	21	160
		17401	8500	< 0.8	10	56	< 0.5	**2**	17000	34	**44**	**2000**	19000	64	8000	200	1.9	**1400**	**11**	37	27	95
	5-10 cm	17402	11000	< 0.8	< 5	40	< 0.5	< 0.8	4300	29	9	**170**	16000	12	2900	170	< 1.5	**170**	**2**	29	30	28
		17403	11000	< 0.8	7	43	< 0.5	< 0.8	6800	30	14	**440**	16000	22	3600	180	< 1.5	**380**	**3**	32	31	35
	10-20 cm	17404	12000	< 0.8	7	55	< 0.5	< 0.8	3900	33	12	**310**	18000	25	3200	190	< 1.5	**220**	**2**	31	33	33
		17405	16000	< 0.8	6	82	< 0.5	< 0.8	6400	40	13	**360**	20000	25	3600	240	< 1.5	**260**	**2**	46	39	36
5037828 Serpentine St. (back yard)	0-5 cm	17406	13000	< 0.8	10	76	< 0.5	**2.5**	19000	42	**38**	**2200**	20000	64	8500	240	1.8	**1300**	**13**	49	33	150
		17407	12000	< 0.8	11	69	< 0.5	**2.6**	25000	41	**45**	**2400**	19000	73	12000	220	2.1	**1600**	**16**	47	31	160
	5-10 cm	17408	14000	< 0.8	< 5	51	< 0.5	< 0.8	4800	34	7	**100**	18000	8	3100	190	< 1.5	**100**	**2**	42	37	26
		17409	15000	< 0.8	< 5	69	< 0.5	< 0.8	5600	38	8	**130**	18000	11	3300	210	< 1.5	**140**	**2**	47	41	29
	10-20 cm	17410	13000	< 0.8	7	65	< 0.5	< 0.8	4200	34	13	**370**	17000	57	3100	210	< 1.5	**260**	**2**	36	35	49
		17411	11000	< 0.8	< 5	52	< 0.5	< 0.8	3800	32	10	**190**	15000	30	3000	180	< 1.5	**170**	**2**	31	33	37

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037872 Succo St. (front yard)	0-5 cm	17190	15000	< 0.8	6	68	< 0.5	< 0.8	8600	41	10	**340**	20000	24	3900	250	< 1.5	**230**	**3**	51	35	42
		17191	14000	< 0.8	< 5	59	< 0.5	< 0.8	8600	40	8	**170**	18000	13	4300	260	< 1.5	**120**	**2**	53	36	32
	5-10 cm	17192	15000	< 0.8	< 5	62	< 0.5	< 0.8	8400	42	8	**120**	18000	11	4500	260	< 1.5	**95**	**2**	55	39	32
		17193	15000	< 0.8	7	77	< 0.5	**1.2**	9000	44	19	**1100**	19000	40	4400	260	< 1.5	**490**	**6**	53	37	55
	10-20 cm	17194	10000	< 0.8	10	56	< 0.5	**1.1**	7700	36	19	**1000**	22000	44	4400	200	< 1.5	**500**	**11**	32	28	54
		17195	11000	< 0.8	8	48	< 0.5	< 0.8	4300	31	8	**220**	16000	25	3400	210	< 1.5	**160**	< 1	25	27	31
5037873 Succo St. (back yard)	0-5 cm	17184	11000	< 0.8	< 5	46	< 0.5	< 0.8	5000	35	6	65	14000	11	3500	210	< 1.5	**71**	1	29	30	28
		17185	10000	< 0.8	< 5	45	< 0.5	< 0.8	5300	34	6	**94**	15000	10	3800	210	< 1.5	**74**	1	23	28	29
	5-10 cm	17186	9100	< 0.8	7	70	< 0.5	1	6500	34	19	**1300**	16000	50	4500	200	< 1.5	**540**	**7**	20	25	51
		17187	11000	< 0.8	5	64	< 0.5	0.9	7100	38	14	**780**	17000	34	4300	230	< 1.5	**370**	**4**	32	31	50
	10-20 cm	17188	14000	< 0.8	7	89	< 0.5	< 0.8	6000	36	13	**590**	17000	68	3800	200	< 1.5	**360**	**3**	43	32	52
		17189	15000	< 0.8	7	94	< 0.5	< 0.8	5500	39	12	**440**	18000	43	3900	240	< 1.5	**280**	**5**	42	35	47
5037874 Succo St. (back yard)	0-5 cm	17196	6200	< 0.8	10	43	< 0.5	< 0.8	3000	22	15	**660**	12000	46	2000	120	< 1.5	**470**	**3**	18	17	56
		17197	6900	< 0.8	12	48	< 0.5	< 0.8	4200	24	16	**720**	13000	43	2500	130	< 1.5	**510**	**3**	20	19	47
	5-10 cm	17198	10000	< 0.8	14	81	< 0.5	< 0.8	5100	33	16	**690**	16000	70	3600	180	< 1.5	**440**	**2**	22	24	70
		17199	16000	< 0.8	14	100	< 0.5	0.8	6600	42	**20**	**860**	21000	53	4500	220	< 1.5	**570**	**2**	42	33	71
	10-20 cm	17200	19000	< 0.8	**30**	150	< 0.5	**1.1**	8100	52	**33**	**1200**	28000	**140**	6100	310	< 1.5	**1000**	**4**	50	40	110
		17201	21000	< 0.8	**23**	160	< 0.5	**1.1**	7000	54	**29**	**1100**	27000	120	5500	290	2.5	**930**	**4**	48	40	130

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037817 Union St. (front yard)	0-5 cm	17358	9000	**2.2**	**19**	57	< 0.5	**1.3**	4100	30	**33**	**1500**	20000	**210**	3200	170	< 1.5	**1000**	**6**	20	31	77
		17359	8900	< 0.8	**20**	53	< 0.5	**1.2**	3500	30	**31**	**1500**	19000	**150**	3000	160	< 1.5	**1000**	**6**	22	32	64
	5-10 cm	17360	9100	**3.7**	15	52	< 0.5	< 0.8	3000	26	15	**500**	19000	**180**	2800	160	< 1.5	**340**	**3**	18	31	44
		17361	9200	< 0.8	14	59	< 0.5	< 0.8	2200	27	15	**550**	18000	120	2800	170	< 1.5	**360**	**3**	18	32	43
	10-20 cm	17362	9700	< 0.8	11	56	< 0.5	< 0.8	2200	27	13	**380**	18000	120	3000	170	< 1.5	**230**	**2**	18	32	40
		17363	8200	< 0.8	11	60	< 0.5	< 0.8	1700	24	11	**380**	16000	67	2600	170	< 1.5	**190**	**2**	16	29	36
5037818 Union St. (back yard)	0-5 cm	17364	7500	< 0.8	12	55	< 0.5	**1.1**	2600	30	**26**	**1200**	18000	**130**	3400	170	< 1.5	**740**	**4**	21	30	75
		17365	7500	< 0.8	12	46	< 0.5	0.9	2800	29	**23**	**1100**	18000	**130**	3400	170	< 1.5	**740**	**6**	22	29	84
	5-10 cm	17366	13000	< 0.8	11	90	< 0.5	< 0.8	5400	38	17	**520**	21000	110	4300	250	< 1.5	**350**	**3**	46	40	66
		17367	10000	< 0.8	11	65	< 0.5	< 0.8	4300	33	18	**530**	20000	**130**	4000	220	< 1.5	**410**	**2**	36	35	73
	10-20 cm	17368	12000	< 0.8	12	89	< 0.5	< 0.8	4100	37	14	**450**	20000	120	4300	230	< 1.5	**260**	**2**	41	38	58
		17369	10000	< 0.8	9	64	< 0.5	< 0.8	4400	31	12	**300**	18000	99	3800	220	< 1.5	**220**	1	42	38	54
5037844 Union St. (front yard)	0-5 cm	17022	8700	< 0.8	**18**	50	< 0.5	0.9	5600	30	**22**	**1000**	15000	64	3400	170	< 1.5	**670**	**6**	33	29	55
		17023	9200	< 0.8	15	53	< 0.5	< 0.8	5000	31	**22**	**860**	15000	55	3900	160	< 1.5	**670**	**5**	22	28	59
	5-10 cm	17024	9800	< 0.8	14	56	< 0.5	< 0.8	3400	30	18	**670**	15000	55	3000	180	< 1.5	**460**	**4**	22	29	56
		17025	9000	< 0.8	17	51	< 0.5	< 0.8	3300	29	13	**550**	15000	49	2500	160	< 1.5	**330**	**3**	30	29	51
	10-20 cm	17026	8900	< 0.8	**23**	55	< 0.5	< 0.8	3500	30	14	**430**	16000	63	2600	170	< 1.5	**380**	**3**	29	29	43
		17027	9800	< 0.8	16	67	< 0.5	< 0.8	3400	31	14	**410**	18000	80	2700	190	< 1.5	**370**	**3**	30	31	58
5037845 Union St. (back yard)	0-5 cm	17016	11000	< 0.8	14	56	< 0.5	**1.3**	7800	31	**23**	**1300**	16000	46	3800	210	< 1.5	**600**	**8**	45	31	65
		17017	12000	< 0.8	16	61	< 0.5	**1.1**	7800	40	**23**	**1400**	17000	55	4000	210	< 1.5	**690**	**11**	47	34	50
	5-10 cm	17018	11000	< 0.8	11	51	< 0.5	< 0.8	3700	32	12	**530**	16000	31	2400	190	< 1.5	**280**	**2**	34	30	39
		17019	11000	< 0.8	9	56	< 0.5	< 0.8	4000	27	14	**570**	16000	37	2500	200	< 1.5	**300**	**3**	36	32	45
	10-20 cm	17020	10000	0.9	**21**	140	< 0.5	< 0.8	3000	28	17	**510**	16000	110	2200	220	< 1.5	**480**	**3**	44	30	110
		17021	9200	< 0.8	11	68	< 0.5	< 0.8	2400	24	11	**260**	13000	77	2100	170	< 1.5	**250**	1	28	26	53

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.2: Copper Cliff residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037804 Venice St. (back yard)	0-5 cm	16942	13000	< 0.8	**38**	78	< 0.5	**2**	5700	55	**61**	**3800**	29000	120	5400	220	**3.5**	**1800**	**36**	41	38	70
		16943	14000	0.8	**44**	82	< 0.5	**2.4**	6500	62	**75**	**4700**	33000	**150**	5700	230	**3.8**	**2200**	**49**	42	38	82
	5-10 cm	16944	19000	< 0.8	5	110	< 0.5	< 0.8	6800	45	13	**410**	22000	13	6100	280	< 1.5	**250**	**3**	58	44	36
		16945	15000	< 0.8	< 5	79	< 0.5	< 0.8	6900	38	12	**470**	20000	16	6200	260	< 1.5	**260**	**3**	51	40	35
	10-20 cm	16946	13000	< 0.8	< 5	69	< 0.5	< 0.8	5600	34	8	**110**	19000	7	4800	240	< 1.5	**97**	< 1	51	39	27
		16947	16000	< 0.8	< 5	87	< 0.5	< 0.8	6100	39	8	**100**	21000	8	5300	260	< 1.5	**96**	< 1	57	42	28

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037524 Bennett St. (front yard)	0-5 cm	15742	8900	< 0.8	**31**	42	< 0.5	**2.1**	7600	49	**32**	**390**	16000	49	3100	170	**3**	**510**	**2**	35	28	50
		15743	7900	< 0.8	**25**	36	< 0.5	**2.1**	7000	45	**29**	**320**	14000	42	2300	140	2.4	**500**	**7**	27	24	41
	5-10 cm	15744	11000	< 0.8	**94**	48	< 0.5	**1.2**	6700	39	**41**	**680**	23000	61	2600	180	< 1.5	**650**	**3**	31	33	56
		15745	12000	< 0.8	**77**	51	< 0.5	1	6500	39	**33**	**540**	21000	49	2500	180	< 1.5	**560**	**3**	34	32	50
	10-20 cm	15746	12000	< 0.8	**63**	55	< 0.5	0.9	5300	35	**31**	**440**	20000	38	2600	190	< 1.5	**550**	**3**	34	32	45
		15747	11000	< 0.8	**43**	53	< 0.5	< 0.8	4000	30	**22**	**290**	18000	53	2500	170	< 1.5	**390**	1	31	30	35
5037525 Bennett St. (back yard)	0-5 cm	15736	10000	< 0.8	**50**	50	< 0.5	**1.7**	8900	40	**35**	**560**	18000	50	2800	190	< 1.5	**630**	1	37	33	58
		15737	12000	< 0.8	**52**	60	< 0.5	**2.4**	9500	49	**39**	**620**	19000	59	3000	200	1.9	**680**	1	41	34	69
	5-10 cm	15738	13000	< 0.8	**71**	58	< 0.5	**1.1**	7700	39	**32**	**600**	20000	51	2700	230	< 1.5	**610**	< 1	41	39	54
		15739	12000	1	**80**	59	< 0.5	**1.5**	9100	43	**38**	**810**	21000	63	2700	230	< 1.5	**740**	1	39	40	66
	10-20 cm	15740	10000	< 0.8	**32**	48	< 0.5	< 0.8	4000	29	12	**200**	16000	22	2400	160	< 1.5	**210**	< 1	33	30	28
		15741	11000	< 0.8	**43**	55	< 0.5	< 0.8	4600	30	17	**260**	17000	28	2500	170	< 1.5	**300**	1	34	32	34
5037576 Bennett St. (front yard)	0-5 cm	18480	10000	< 0.8	**22**	31	< 0.5	**1.1**	7400	28	**22**	**210**	14000	26	2700	160	< 1.5	**320**	1	32	26	36
		18481	11000	< 0.8	**20**	32	< 0.5	**1.1**	7600	29	20	**180**	14000	23	2700	170	1.6	**290**	< 1	35	28	37
	5-10 cm	18482	11000	< 0.8	**33**	27	< 0.5	< 0.8	5600	30	**26**	**310**	16000	27	2200	160	< 1.5	**430**	1	31	28	34
		18483	12000	< 0.8	**41**	32	< 0.5	< 0.8	6100	32	21	**290**	17000	23	2400	190	< 1.5	**400**	< 1	38	31	37
	10-20 cm	18484	12000	< 0.8	**28**	35	< 0.5	< 0.8	6100	28	15	**180**	15000	18	2300	180	< 1.5	**310**	< 1	42	31	32
		18485	13000	< 0.8	**28**	35	< 0.5	< 0.8	6000	30	16	**190**	16000	17	2400	200	< 1.5	**300**	< 1	44	32	33
5037577 Bennett St. (back yard)	0-5 cm	18486	11000	< 0.8	**22**	57	< 0.5	**2**	15000	39	**25**	**270**	15000	34	3500	210	2.5	**400**	1	46	37	79
		18487	12000	< 0.8	**34**	54	< 0.5	**2**	16000	38	**27**	**330**	17000	37	3500	210	2.2	**440**	1	48	37	66
	5-10 cm	18488	12000	< 0.8	**38**	56	< 0.5	**1.4**	15000	36	**26**	**390**	17000	35	2900	210	1.9	**470**	**2**	45	41	84
		18489	12000	**1.1**	**59**	51	< 0.5	**1.1**	16000	35	**27**	**470**	18000	57	3000	220	< 1.5	**530**	**2**	49	40	66
	10-20 cm	18490	10000	< 0.8	**38**	43	< 0.5	< 0.8	9700	32	21	**290**	14000	27	2400	180	1.6	**360**	1	31	33	55
		18491	14000	< 0.8	**29**	55	< 0.5	< 0.8	11000	40	16	**230**	16000	25	3000	230	< 1.5	**300**	1	51	41	51

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037542 Chesser St. (front yard)	0-5 cm	15844	7200	< 0.8	**29**	48	< 0.5	**2.9**	9800	56	**67**	**1000**	20000	64	3900	190	2.3	**1100**	1	29	28	74
		15845	8800	< 0.8	**26**	52	< 0.5	**2.9**	10000	57	**54**	**880**	19000	55	3700	220	2.3	**950**	1	39	30	72
	5-10 cm	15846	11000	< 0.8	**21**	32	< 0.5	< 0.8	6900	31	18	**280**	16000	15	2700	250	< 1.5	**450**	**2**	39	32	41
		15847	11000	< 0.8	**21**	38	< 0.5	1	8500	36	21	**370**	16000	21	2700	240	< 1.5	**490**	< 1	44	33	44
	10-20 cm	15848	9800	< 0.8	12	32	< 0.5	< 0.8	5100	29	8	70	15000	10	2800	210	< 1.5	**130**	**2**	30	31	28
		15849	11000	< 0.8	13	40	< 0.5	< 0.8	6900	30	9	**120**	15000	12	2600	200	< 1.5	**150**	< 1	40	32	28
5037543 Chesser St. (back yard)	0-5 cm	15838	8300	< 0.8	**21**	40	< 0.5	**1.3**	7400	35	**29**	**390**	15000	26	2900	160	1.7	**490**	**8**	27	28	57
		15839	7800	< 0.8	**21**	37	< 0.5	**1.1**	6500	29	**23**	**330**	14000	23	2600	140	< 1.5	**400**	**2**	25	27	58
	5-10 cm	15840	8000	< 0.8	**21**	37	< 0.5	< 0.8	7500	26	18	**270**	13000	18	2600	170	< 1.5	**370**	**2**	28	28	52
		15841	9200	**1.8**	**22**	41	< 0.5	< 0.8	7700	27	19	**250**	14000	19	2800	180	< 1.5	**330**	**2**	35	30	51
	10-20 cm	15842	9900	< 0.8	15	41	< 0.5	< 0.8	6400	27	11	**150**	14000	13	2600	170	< 1.5	**180**	1	36	32	38
		15843	11000	< 0.8	**18**	41	< 0.5	< 0.8	8900	27	13	**160**	17000	15	2500	180	< 1.5	**200**	1	33	29	38
5037544 Cobalt St. (front yard)	0-5 cm	15850	8900	< 0.8	**42**	60	< 0.5	**2.3**	8700	54	**60**	**860**	23000	67	3300	240	**3**	**780**	1	34	34	72
		15851	9700	< 0.8	**45**	62	< 0.5	**2.1**	9500	67	**70**	**840**	24000	64	3500	250	**5**	**870**	1	38	35	73
	5-10 cm	15852	10000	< 0.8	**70**	64	< 0.5	**1.7**	9600	38	**63**	**1100**	26000	72	3100	310	< 1.5	**1100**	1	36	36	80
		15853	9700	< 0.8	**59**	60	< 0.5	**1.6**	8600	39	**61**	**910**	27000	64	3200	300	< 1.5	**950**	1	34	37	73
	10-20 cm	15854	8700	< 0.8	**32**	37	< 0.5	< 0.8	6100	26	13	**150**	15000	23	2600	200	< 1.5	**220**	1	29	32	31
		15855	11000	< 0.8	**39**	51	< 0.5	< 0.8	7500	31	19	**240**	17000	24	2800	270	< 1.5	**360**	1	35	37	39
5037545 Cobalt St. (back yard)	0-5 cm	15856	9600	< 0.8	**32**	53	< 0.5	**1.6**	8800	33	**31**	**510**	17000	37	2700	260	< 1.5	**490**	1	35	35	59
		15857	10000	< 0.8	**30**	55	< 0.5	0.9	8200	**75**	**29**	**450**	18000	35	2600	270	1.8	**430**	**2**	39	37	64
	5-10 cm	15858	11000	< 0.8	**44**	57	< 0.5	< 0.8	8300	35	**37**	**630**	20000	40	2600	340	< 1.5	**710**	**2**	39	40	66
		15859	12000	< 0.8	**51**	65	< 0.5	**1.2**	7900	38	**44**	**860**	23000	51	2600	340	< 1.5	**800**	**2**	39	41	83
	10-20 cm	15860	11000	< 0.8	**26**	56	< 0.5	1	8500	35	15	**180**	16000	18	2600	340	< 1.5	**280**	1	39	42	44
		15861	10000	< 0.8	**31**	53	< 0.5	< 0.8	7700	33	**22**	**310**	17000	24	2300	350	< 1.5	**400**	**2**	35	42	60

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037546 Cobalt St. (front yard)	0-5 cm	15862	9700	< 0.8	**39**	46	< 0.5	< 0.8	10000	37	**47**	**770**	19000	49	2800	200	< 1.5	**980**	**2**	42	30	40
		15863	9500	< 0.8	**45**	47	< 0.5	< 0.8	9300	36	**46**	**680**	18000	46	3100	200	2.1	**890**	**2**	39	31	61
	5-10 cm	15864	10000	< 0.8	**46**	47	< 0.5	< 0.8	11000	33	**28**	**410**	15000	25	2600	250	< 1.5	**660**	**2**	41	38	31
		15865	10000	< 0.8	**37**	49	< 0.5	0.8	10000	34	**25**	**370**	14000	23	2600	260	< 1.5	**580**	**3**	41	37	30
	10-20 cm	15866	8300	< 0.8	11	37	< 0.5	< 0.8	6500	27	9	58	11000	8	2500	200	< 1.5	**140**	< 1	32	32	17
		15867	9000	< 0.8	14	41	< 0.5	< 0.8	8300	30	11	**100**	12000	9	2500	230	< 1.5	**220**	1	36	35	20
5037547 Cobalt St. (back yard)	0-5 cm	15868	10000	< 0.8	**27**	48	< 0.5	< 0.8	9200	36	**32**	**420**	16000	34	2900	220	< 1.5	**600**	**2**	41	32	47
		15869	11000	< 0.8	**32**	51	< 0.5	< 0.8	10000	39	**38**	**570**	18000	37	3100	230	< 1.5	**660**	**6**	44	32	56
	5-10 cm	15870	11000	< 0.8	**37**	46	< 0.5	< 0.8	9000	34	**21**	**270**	15000	22	2500	250	< 1.5	**410**	**2**	42	36	37
		15871	10000	< 0.8	**44**	43	< 0.5	0.9	8900	33	**25**	**300**	15000	24	2500	260	< 1.5	**470**	**2**	42	36	42
	10-20 cm	15872	8900	< 0.8	17	39	< 0.5	< 0.8	5400	28	9	69	13000	9	2500	190	< 1.5	**140**	< 1	33	32	24
		15873	9100	< 0.8	**18**	40	< 0.5	< 0.8	5900	30	11	**90**	13000	10	2600	200	< 1.5	**190**	< 1	34	30	26
5037556 Copper St. (front yard)	0-5 cm	15928	6700	< 0.8	**44**	45	< 0.5	**2.5**	7000	32	**77**	**1100**	21000	69	2400	150	2.5	**1400**	**2**	23	28	84
		15929	9000	< 0.8	**36**	49	< 0.5	**2.5**	9100	35	**59**	**720**	19000	63	2300	210	2.5	**1100**	**3**	31	32	69
	5-10 cm	15930	9800	< 0.8	**42**	48	< 0.5	**1.3**	10000	28	**39**	**510**	15000	33	1900	280	< 1.5	**850**	**2**	31	39	49
		15931	8600	< 0.8	**35**	46	< 0.5	< 0.8	9600	28	**33**	**610**	16000	34	2200	250	< 1.5	**770**	**2**	28	38	51
	10-20 cm	15932	7600	< 0.8	**28**	35	< 0.5	**1.5**	6400	25	12	**130**	12000	15	2100	200	< 1.5	**190**	1	23	36	27
		15933	9500	< 0.8	**23**	45	< 0.5	0.8	9300	30	12	**140**	13000	13	2300	260	< 1.5	**250**	**2**	33	42	31
5037557 Copper St. (back yard)	0-5 cm	15922	8600	< 0.8	**56**	58	< 0.5	**3.6**	7100	40	**81**	**1300**	23000	88	2500	160	2.4	**1500**	**3**	31	28	100
		15923	8600	< 0.8	**66**	56	< 0.5	**3.9**	7900	42	**88**	**1400**	25000	93	2400	170	2.3	**1700**	**4**	31	29	130
	5-10 cm	15924	8400	< 0.8	**47**	47	< 0.5	**1.8**	12000	52	**44**	**530**	14000	35	2200	150	< 1.5	**1100**	**4**	35	36	74
		15925	7800	< 0.8	**35**	41	< 0.5	1	11000	46	**25**	**270**	11000	20	2200	130	< 1.5	**620**	**3**	32	36	52
	10-20 cm	15926	7800	< 0.8	**29**	44	< 0.5	< 0.8	6100	42	16	**180**	13000	21	3000	170	< 1.5	**250**	**2**	22	34	35
		15927	9800	< 0.8	**20**	61	< 0.5	< 0.8	4300	39	13	**100**	16000	17	4000	240	< 1.5	**140**	1	24	37	38

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037598 Copper St. (front yard)	0-5 cm	18613	8200	< 0.8	**49**	56	< 0.5	**2.9**	10000	36	**74**	**1200**	23000	76	2700	210	**3.8**	**1300**	**3**	32	32	78
		18614	10000	0.9	**52**	58	< 0.5	**2.9**	10000	39	**74**	**1100**	26000	81	2900	230	**2.8**	**1300**	**3**	38	34	87
	5-10 cm	18615	10000	< 0.8	**43**	49	< 0.5	**1.7**	13000	30	**38**	**550**	17000	35	2400	290	< 1.5	**860**	**3**	36	38	53
		18616	12000	< 0.8	**41**	53	< 0.5	**1.6**	13000	37	**38**	**550**	18000	37	2700	300	< 1.5	**860**	**3**	39	40	58
	10-20 cm	18617	11000	0.8	**24**	48	< 0.5	**1.1**	13000	28	14	**170**	13000	13	2400	290	1.9	**270**	**2**	36	43	35
		18618	9400	< 0.8	**25**	41	< 0.5	0.8	9600	27	13	**150**	13000	14	2300	270	< 1.5	**230**	**2**	30	38	33
5037599 Copper St. (back yard)	0-5 cm	18619	8500	< 0.8	10	28	< 0.5	< 0.8	2700	21	8	82	11000	12	1500	150	< 1.5	**120**	< 1	17	25	25
		18620	8400	< 0.8	8	27	< 0.5	< 0.8	2500	19	7	72	11000	12	1500	150	< 1.5	**100**	1	16	24	24
	5-10 cm	18621	9600	< 0.8	**21**	42	< 0.5	< 0.8	5600	25	17	**190**	14000	17	1900	250	< 1.5	**340**	1	27	34	35
		18622	9200	< 0.8	**24**	42	< 0.5	0.9	6300	25	19	**270**	14000	21	1900	240	< 1.5	**410**	1	26	33	43
	10-20 cm	18623	10000	< 0.8	**21**	54	< 0.5	0.8	9100	28	12	**120**	15000	14	2300	330	< 1.5	**210**	1	35	41	33
		18624	9600	< 0.8	**21**	47	< 0.5	0.8	7600	27	14	**150**	14000	15	2100	270	< 1.5	**270**	1	32	37	34
5037538 Edison Rd. (front yard)	0-5 cm	15814	9300	1	**40**	74	< 0.5	**3.8**	11000	52	**57**	**1100**	19000	110	2400	150	2.5	**1300**	**4**	33	23	84
		15815	7800	< 0.8	**46**	63	< 0.5	**3.2**	9600	63	**61**	**1100**	19000	95	2400	130	2	**1300**	**4**	31	22	84
	5-10 cm	15816	9000	< 0.8	**93**	66	< 0.5	**3.5**	9400	**120**	**54**	**1000**	22000	120	2400	130	< 1.5	**1300**	**4**	35	24	91
		15817	10000	< 0.8	**69**	63	< 0.5	**2.5**	10000	**87**	**33**	**610**	16000	67	2500	130	< 1.5	**820**	**3**	35	24	66
	10-20 cm	15818	14000	< 0.8	**48**	75	< 0.5	< 0.8	6500	49	16	**150**	15000	17	2600	140	< 1.5	**340**	**2**	37	31	45
		15819	11000	< 0.8	**60**	68	< 0.5	< 0.8	6900	41	15	**180**	11000	18	2400	120	< 1.5	**340**	**2**	35	27	32
5037539 Edison Rd. (back yard)	0-5 cm	15820	10000	< 0.8	**53**	57	< 0.5	< 0.8	6600	35	**28**	**460**	15000	43	2200	170	< 1.5	**510**	**2**	35	28	47
		15821	10000	< 0.8	**40**	56	< 0.5	< 0.8	7200	34	**27**	**410**	15000	40	2400	180	< 1.5	**500**	**2**	36	29	50
	5-10 cm	15822	11000	< 0.8	**84**	61	< 0.5	< 0.8	7200	37	**24**	**440**	15000	48	2200	170	< 1.5	**510**	**2**	35	29	47
		15823	10000	< 0.8	**63**	58	< 0.5	< 0.8	7100	39	**23**	**380**	14000	38	2000	170	< 1.5	**490**	**2**	34	27	49
	10-20 cm	15824	10000	< 0.8	**56**	59	< 0.5	< 0.8	6500	33	19	**300**	12000	32	2000	150	< 1.5	**420**	**2**	31	26	43
		15825	10000	< 0.8	**54**	59	< 0.5	< 0.8	7700	32	**24**	**340**	13000	35	1900	180	< 1.5	**510**	**2**	34	27	50

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037540 Edison Rd. (front yard)	0-5 cm	15832	9200	< 0.8	**48**	44	< 0.5	**1.5**	6600	31	**34**	**530**	17000	61	2400	180	< 1.5	**660**	**2**	32	28	43
		15833	9400	< 0.8	**45**	49	< 0.5	**1.5**	7300	31	**36**	**540**	17000	46	2600	210	< 1.5	**720**	**2**	31	30	45
	5-10 cm	15834	11000	< 0.8	**82**	53	< 0.5	**1.3**	6800	37	**44**	**620**	21000	55	2300	250	< 1.5	**950**	**3**	31	36	57
		15835	11000	< 0.8	**76**	57	< 0.5	**1.1**	7200	34	**42**	**570**	21000	55	2200	250	< 1.5	**910**	**2**	35	36	53
	10-20 cm	15836	13000	< 0.8	**47**	52	< 0.5	< 0.8	5300	31	13	**190**	17000	22	2200	220	< 1.5	**280**	**2**	34	35	35
		15837	12000	< 0.8	**53**	52	< 0.5	< 0.8	5900	31	21	**290**	18000	27	2200	240	< 1.5	**470**	**2**	35	36	41
5037541 Edison Rd. (back yard)	0-5 cm	15826	9000	< 0.8	**73**	44	< 0.5	**1.9**	6300	33	**43**	**800**	20000	67	2500	190	< 1.5	**860**	**3**	32	30	56
		15827	9700	< 0.8	**65**	49	< 0.5	**1.9**	6800	36	**36**	**550**	19000	54	2600	240	< 1.5	**670**	**3**	34	34	54
	5-10 cm	15828	9300	< 0.8	**77**	46	< 0.5	**1.7**	7200	36	**44**	**600**	17000	64	2200	180	< 1.5	**1100**	**3**	34	32	62
		15829	8200	< 0.8	**78**	45	< 0.5	**1.8**	5800	37	**38**	**590**	18000	58	2300	170	< 1.5	**870**	**3**	20	31	61
	10-20 cm	15830	11000	< 0.8	**79**	55	< 0.5	**2**	9100	41	**38**	**520**	15000	44	2200	170	< 1.5	**980**	**3**	33	31	80
		15831	9900	< 0.8	**57**	49	< 0.5	**1.4**	6600	36	**29**	**370**	13000	33	2300	170	< 1.5	**650**	**3**	29	30	56
5037586 Edison Rd. (front yard)	0-5 cm	18541	8900	< 0.8	**48**	44	< 0.5	**1.9**	6300	33	**34**	**650**	19000	87	2700	190	1.8	**550**	**2**	26	26	57
		18542	8200	< 0.8	**58**	45	< 0.5	**1.7**	6200	35	**37**	**720**	19000	82	2800	180	< 1.5	**730**	**2**	27	27	61
	5-10 cm	18543	11000	**3.3**	**120**	53	< 0.5	**1.6**	7400	34	**47**	**980**	27000	**260**	2700	240	< 1.5	**1100**	**3**	28	36	88
		18544	12000	0.9	**110**	56	< 0.5	**1.5**	7300	38	**42**	**790**	26000	110	2800	270	< 1.5	**980**	**4**	28	39	89
	10-20 cm	18545	11000	< 0.8	**120**	67	< 0.5	0.8	4400	34	**24**	**410**	21000	100	2700	340	< 1.5	**450**	**3**	23	34	82
		18546	11000	< 0.8	**140**	81	< 0.5	0.9	4500	35	**26**	**440**	22000	**150**	2600	300	< 1.5	**500**	< 1	25	33	96
5037587 Edison Rd. (back yard)	0-5 cm	18547	6200	< 0.8	**130**	58	< 0.5	**3.6**	11000	44	**100**	**1900**	32000	120	2700	190	2.3	**2100**	**4**	26	25	100
		18548	6600	< 0.8	**170**	58	< 0.5	**3.1**	10000	39	**85**	**1700**	32000	120	2600	180	2.5	**1900**	**4**	25	26	92
	5-10 cm	18549	9000	< 0.8	**280**	64	< 0.5	1	6500	29	**40**	**680**	27000	110	2700	230	< 1.5	**1100**	**4**	24	34	63
		18550	8900	< 0.8	**270**	71	< 0.5	**1.2**	11000	29	**44**	**860**	27000	120	2500	230	< 1.5	**1200**	**5**	32	34	79
	10-20 cm	18551	12000	< 0.8	**230**	83	< 0.5	< 0.8	4600	36	**21**	**410**	28000	100	2900	250	< 1.5	**320**	**3**	37	38	51
		18552	9200	< 0.8	**130**	64	< 0.5	0.9	5100	33	**30**	**530**	22000	68	2500	210	< 1.5	**620**	**3**	29	30	57

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037548 Franklin St. (front yard)	0-5 cm	15892	7200	< 0.8	**35**	39	< 0.5	**2.6**	7700	47	**63**	**770**	18000	58	2500	180	**5.8**	**990**	**2**	29	24	75
		15893	6500	< 0.8	**42**	37	< 0.5	**2.2**	6900	36	**54**	**750**	18000	57	2500	160	**2.9**	**960**	**2**	24	24	66
	5-10 cm	15894	7000	< 0.8	**39**	31	< 0.5	< 0.8	5800	28	**33**	**440**	16000	27	2200	160	< 1.5	**560**	< 1	26	27	34
		15895	6600	< 0.8	**30**	28	< 0.5	< 0.8	5500	26	**28**	**400**	14000	26	2200	150	< 1.5	**550**	1	25	25	31
	10-20 cm	15896	7200	< 0.8	**24**	32	< 0.5	< 0.8	4700	23	14	**140**	12000	13	2100	150	< 1.5	**240**	1	21	30	24
		15897	6900	< 0.8	**29**	29	< 0.5	< 0.8	4600	25	14	**160**	12000	14	2200	160	< 1.5	**240**	< 1	24	28	22
5037549 Franklin St. (back yard)	0-5 cm	15886	4900	< 0.8	**39**	28	< 0.5	**1.5**	4200	30	**46**	**780**	16000	43	1900	130	2.1	**810**	< 1	19	21	58
		15887	5200	< 0.8	**40**	33	< 0.5	**1.7**	4300	34	**48**	**810**	17000	42	1900	130	**3.2**	**830**	**2**	20	23	64
	5-10 cm	15888	4700	< 0.8	**29**	22	< 0.5	< 0.8	3100	21	18	**300**	11000	14	1700	120	< 1.5	**330**	**3**	17	21	22
		15889	5000	< 0.8	**26**	27	< 0.5	< 0.8	3200	20	17	**290**	10000	17	1600	140	< 1.5	**340**	**3**	18	24	28
	10-20 cm	15890	5200	< 0.8	**25**	24	< 0.5	< 0.8	2900	20	13	**120**	11000	12	1900	140	< 1.5	**180**	**2**	17	21	19
		15891	8400	< 0.8	**80**	33	< 0.5	< 0.8	3300	24	11	**140**	15000	20	2100	140	< 1.5	**170**	1	25	29	29
5037550 Franklin St. (front yard)	0-5 cm	15874	12000	< 0.8	**25**	69	< 0.5	1	13000	47	**37**	**460**	21000	41	3100	290	1.9	**590**	**2**	45	39	63
		15875	10000	< 0.8	**39**	57	< 0.5	**2.1**	13000	41	**47**	**880**	22000	55	3600	250	< 1.5	**830**	**3**	38	35	62
	5-10 cm	15876	8800	< 0.8	**66**	45	< 0.5	**1.4**	11000	38	**64**	**1000**	23000	68	2700	190	< 1.5	**1200**	**3**	31	33	59
		15877	8900	< 0.8	**57**	43	< 0.5	**1.4**	9700	33	**50**	**980**	20000	57	2800	210	< 1.5	**990**	**3**	31	35	54
	10-20 cm	15878	8700	< 0.8	**31**	35	< 0.5	< 0.8	7500	28	15	**140**	13000	12	2900	220	< 1.5	**290**	1	26	37	30
		15879	8500	< 0.8	**25**	33	< 0.5	< 0.8	6200	27	12	**120**	12000	11	2900	210	< 1.5	**240**	1	26	36	27
5037551 Franklin St. (back yard)	0-5 cm	15880	7200	< 0.8	**24**	51	< 0.5	**1.6**	5900	36	**22**	**460**	12000	30	1800	200	1.8	**350**	**3**	27	34	53
		15881	8600	< 0.8	**27**	52	< 0.5	**1.8**	7000	36	**27**	**530**	14000	33	2000	190	2.4	**450**	**2**	28	34	64
	5-10 cm	15882	7200	< 0.8	**53**	33	< 0.5	**1.1**	5500	29	**29**	**670**	15000	87	1900	150	< 1.5	**570**	**3**	21	28	36
		15883	6400	< 0.8	**45**	36	< 0.5	1	4400	28	**26**	**540**	14000	33	1700	170	1.5	**480**	**2**	15	28	41
	10-20 cm	15884	7300	< 0.8	**36**	44	< 0.5	**1.1**	5400	33	19	**290**	12000	24	1800	260	< 1.5	**420**	1	27	39	39
		15885	6700	< 0.8	**29**	41	< 0.5	0.9	4500	31	15	**160**	10000	12	1700	240	< 1.5	**310**	1	23	38	35

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037513 Hardy St. (front yard)	0-5 cm	15570	11000	< 0.8	**260**	61	< 0.5	**2.7**	11000	68	**87**	**1700**	31000	120	2700	130	< 1.5	**1900**	**4**	31	30	110
		15571	12000	0.9	**150**	68	< 0.5	**2.3**	13000	46	**63**	**1200**	28000	**160**	3900	210	**2.8**	**1300**	**4**	51	37	130
	5-10 cm	15572	12000	0.8	**330**	75	< 0.5	**3.8**	12000	**84**	**120**	**2300**	39000	**240**	2800	150	< 1.5	**2800**	**7**	40	35	140
		15573	13000	0.9	**160**	74	< 0.5	**1.8**	13000	46	**56**	**1200**	28000	**160**	3800	210	1.6	**1100**	**4**	50	39	120
	10-20 cm	15574	12000	< 0.8	**150**	61	< 0.5	0.9	7900	36	**30**	**610**	22000	100	3000	180	< 1.5	**630**	**3**	41	34	69
		15575	13000	< 0.8	**240**	68	< 0.5	**2.2**	8700	66	**72**	**1200**	27000	120	2500	140	< 1.5	**1600**	**5**	36	31	79
5037514 Hardy St. (back yard)	0-5 cm	15565	10000	< 0.8	**130**	53	< 0.5	**3**	12000	69	**94**	**1300**	32000	120	3800	170	**5.2**	**1600**	**4**	35	34	100
	5-10 cm	15568	9500	< 0.8	**310**	59	< 0.5	**3.8**	12000	**79**	**140**	**2400**	39000	**170**	2700	130	< 1.5	**3100**	**6**	27	29	140
	10-20 cm	15569	10000	< 0.8	**160**	55	< 0.5	**3.4**	11000	**79**	**93**	**1500**	33000	**150**	4200	180	**6**	**1600**	**4**	33	35	110
5037534 Hardy St. (north front/side yard)	0-5 cm	15790	8300	**1.2**	**290**	82	< 0.5	**6.7**	11000	**90**	**160**	**3000**	45000	**340**	3200	210	**10**	**2900**	**10**	35	40	**220**
		15791	10000	**1.2**	**250**	86	< 0.5	**5.6**	11000	**85**	**140**	**2800**	47000	**330**	3300	200	**8.2**	**2600**	**10**	40	42	**230**
	5-10 cm	15792	11000	**1.4**	**570**	79	< 0.5	**4.7**	9100	**91**	**120**	**2500**	47000	**290**	2800	200	1.8	**2800**	**11**	39	41	**180**
		15793	12000	**1.2**	**540**	76	< 0.5	**3.4**	8300	**88**	**110**	**2200**	47000	**250**	2800	210	2	**2200**	< 1	40	42	**170**
	10-20 cm	15794	10000	0.8	**360**	84	< 0.5	0.8	4600	37	**35**	**580**	21000	120	2000	150	< 1.5	**750**	**7**	33	33	61
		15795	10000	**1.1**	**410**	86	< 0.5	**1.3**	5500	40	**45**	**1000**	24000	**170**	2200	170	< 1.5	**970**	**8**	35	33	86
5037533 Hardy St. (south front/side yard)	0-5 cm	15796	11000	0.8	**100**	61	< 0.5	**3.1**	8200	**78**	**100**	**1400**	32000	110	3300	200	**7.3**	**1700**	**7**	41	39	90
		15797	9100	< 0.8	**190**	53	< 0.5	**2.7**	8000	**72**	**130**	**2100**	39000	**150**	3100	170	**6.8**	**2300**	**12**	34	37	100
	5-10 cm	15798	9500	0.9	**480**	57	< 0.5	**3.7**	9100	**91**	**130**	**2900**	49000	**260**	2900	190	1.9	**3000**	**9**	32	41	140
		15799	8300	< 0.8	**460**	56	< 0.5	**3.1**	6100	**73**	**96**	**2000**	37000	**200**	2500	140	1.7	**2100**	**8**	26	34	110
	10-20 cm	15800	7600	< 0.8	**370**	56	< 0.5	**1.2**	4800	40	**39**	**630**	20000	90	2300	110	< 1.5	**860**	**6**	24	29	55
		15801	8700	< 0.8	**620**	93	< 0.5	**1.4**	4700	42	**47**	**770**	25000	**130**	2300	130	< 1.5	**1100**	**8**	31	29	75

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037606 Hardy St. (front yard)	0-5 cm	18661	7800	< 0.8	**180**	52	< 0.5	**5.1**	8800	**75**	**140**	**2100**	39000	**170**	3200	160	**9.9**	**2400**	**7**	26	35	110
		18662	6900	< 0.8	**180**	56	< 0.5	**5.1**	8600	**72**	**120**	**2100**	38000	**170**	3400	140	**9.8**	**2000**	**5**	24	32	110
	5-10 cm	18663	11000	< 0.8	**340**	58	< 0.5	**2.8**	9100	50	**120**	**2800**	49000	**170**	2500	220	2.4	**2500**	**7**	29	47	100
		18664	10000	< 0.8	**370**	55	< 0.5	**3**	9000	51	**120**	**3000**	48000	**220**	2500	210	2.3	**2500**	**8**	27	45	110
	10-20 cm	18665	8800	< 0.8	**390**	63	< 0.5	**2.9**	8600	50	**110**	**1700**	32000	**160**	2000	130	< 1.5	**2400**	**7**	23	32	87
		18666	7900	1	**470**	61	< 0.5	**3**	7300	49	**110**	**2000**	36000	**230**	2100	150	< 1.5	**2500**	**8**	20	32	96
5037607 Hardy St. (back yard)	0-5 cm	18667	6600	< 0.8	**22**	22	< 0.5	0.9	1600	25	19	**150**	11000	20	2000	96	2.4	**180**	< 1	11	21	28
		18668	8700	< 0.8	**23**	33	< 0.5	**1.2**	3000	33	**25**	**160**	13000	24	2400	140	**2.9**	**230**	1	28	26	35
	5-10 cm	18669	11000	< 0.8	**64**	44	< 0.5	1	3900	36	**28**	**420**	17000	59	2500	180	1.8	**400**	**3**	35	31	40
		18670	10000	< 0.8	**70**	46	< 0.5	**1.2**	4100	37	**32**	**520**	16000	64	2500	170	1.9	**460**	**2**	35	29	47
	10-20 cm	18671	10000	< 0.8	**150**	43	< 0.5	0.8	3200	29	**34**	**750**	21000	94	2100	160	< 1.5	**600**	**3**	34	30	44
		18672	11000	< 0.8	**160**	48	< 0.5	**1.1**	3800	35	**37**	**860**	22000	83	2300	150	< 1.5	**700**	**4**	38	30	57
5037594 Hillcrest Ave. (front yard)	0-5 cm	18589	5900	< 0.8	**15**	33	< 0.5	**1.7**	5800	22	**22**	**250**	12000	31	2600	140	1.7	**350**	1	19	21	48
		18590	7900	< 0.8	**23**	45	< 0.5	**2**	9500	26	**38**	**560**	16000	53	3400	200	< 1.5	**610**	**2**	33	25	67
	5-10 cm	18591	8600	< 0.8	**31**	36	< 0.5	1	6500	19	**30**	**360**	15000	36	2200	180	< 1.5	**540**	1	28	26	50
		18592	10000	< 0.8	**32**	57	< 0.5	0.9	6200	22	**27**	**310**	16000	31	2400	200	< 1.5	**470**	1	31	29	47
	10-20 cm	18593	9800	< 0.8	**29**	32	< 0.5	< 0.8	3400	20	8	55	12000	9	2000	140	< 1.5	**130**	< 1	27	27	20
		18594	9000	< 0.8	**24**	25	< 0.5	< 0.8	2900	18	8	53	11000	9	1800	130	< 1.5	**130**	< 1	23	25	20
5037595 Hillcrest Ave. (back yard)	0-5 cm	18595	8000	< 0.8	**59**	53	< 0.5	**2.1**	7800	31	**54**	**900**	20000	89	2800	220	< 1.5	**880**	**2**	33	26	80
		18596	5300	< 0.8	**56**	35	< 0.5	**1.6**	5000	17	**52**	**850**	17000	70	2100	130	1.6	**930**	**3**	14	19	60
	5-10 cm	18597	8000	< 0.8	**69**	34	< 0.5	< 0.8	3200	17	**23**	**360**	15000	35	1900	130	< 1.5	**430**	**2**	14	25	44
		18598	7700	< 0.8	**72**	32	< 0.5	< 0.8	2500	18	18	**310**	14000	33	1700	140	< 1.5	**340**	**2**	13	23	34
	10-20 cm	18599	8200	< 0.8	**45**	35	< 0.5	< 0.8	2000	17	11	**190**	12000	25	1600	170	< 1.5	**210**	**2**	13	24	31
		18600	9200	< 0.8	**64**	40	< 0.5	< 0.8	2500	18	14	**330**	14000	31	1600	150	< 1.5	**260**	1	15	24	35

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037526 Hodge St. (front yard)	0-5 cm	15754	12000	< 0.8	11	38	< 0.5	0.9	5400	35	13	**99**	15000	21	2400	170	1.6	**160**	1	42	31	38
		15755	12000	< 0.8	9	37	< 0.5	< 0.8	5200	31	10	78	14000	17	2200	160	< 1.5	**110**	< 1	43	30	33
	5-10 cm	15756	13000	< 0.8	15	45	< 0.5	< 0.8	4700	32	7	**100**	15000	15	2100	180	< 1.5	**110**	< 1	43	34	29
		15757	11000	< 0.8	17	39	< 0.5	< 0.8	4100	27	8	**98**	14000	12	1800	170	< 1.5	**120**	1	39	30	29
	10-20 cm	15758	11000	**1.4**	17	32	< 0.5	< 0.8	3700	26	11	**95**	13000	13	1800	150	< 1.5	**210**	< 1	33	26	25
		15759	11000	< 0.8	8	32	< 0.5	< 0.8	4000	26	7	48	13000	8	1900	150	< 1.5	**150**	< 1	36	27	20
5037527 Hodge St. (back yard)	0-5 cm	15748	8500	< 0.8	11	36	< 0.5	0.8	4500	25	10	**88**	11000	14	2000	170	1.7	**130**	**2**	37	26	42
		15749	9200	< 0.8	12	38	< 0.5	0.9	4500	26	12	**120**	13000	15	2100	180	1.5	**160**	**2**	28	26	46
	5-10 cm	15750	9900	< 0.8	16	38	< 0.5	< 0.8	5600	27	12	**140**	14000	16	2300	190	< 1.5	**160**	< 1	37	29	44
		15751	9800	< 0.8	13	38	0.5	< 0.8	5800	26	10	**110**	14000	13	2400	180	< 1.5	**130**	1	35	28	41
	10-20 cm	15752	13000	< 0.8	**57**	67	< 0.5	0.8	8700	34	20	**350**	19000	31	2600	270	< 1.5	**360**	**3**	44	41	62
		15753	12000	< 0.8	**36**	60	< 0.5	< 0.8	8600	34	19	**310**	17000	28	2500	240	< 1.5	**340**	1	42	37	51
5037574 Hodge St. (front yard)	0-5 cm	18468	7500	< 0.8	**46**	45	< 0.5	**2.9**	8400	40	**70**	**940**	23000	71	3000	190	**4.2**	**1100**	**4**	38	28	64
		18469	6500	< 0.8	**50**	42	< 0.5	**2.7**	6000	41	**73**	**1100**	23000	74	2500	150	**4.8**	**1200**	**4**	18	25	66
	5-10 cm	18470	9600	< 0.8	**89**	50	< 0.5	**1.9**	8500	46	**82**	**1200**	28000	74	2700	310	2.5	**1700**	**4**	25	35	75
		18471	8400	< 0.8	**110**	45	< 0.5	**1.9**	6700	36	**78**	**1200**	26000	81	2200	250	2.2	**1600**	**4**	18	30	75
	10-20 cm	18472	12000	< 0.8	**54**	44	< 0.5	< 0.8	6700	34	**23**	**340**	18000	29	2300	250	< 1.5	**490**	**2**	42	36	41
		18473	12000	< 0.8	**36**	40	< 0.5	< 0.8	6200	32	19	**230**	17000	22	2300	210	< 1.5	**430**	1	45	34	36
5037575 Hodge St. (back yard)	0-5 cm	18474	11000	< 0.8	**38**	53	< 0.5	**1.8**	8600	39	**42**	**640**	19000	45	3100	230	**2.8**	**770**	**2**	42	34	55
		18475	11000	< 0.8	**35**	56	< 0.5	**2**	8800	40	**45**	**720**	20000	46	3200	220	**3.1**	**830**	**3**	42	34	50
	5-10 cm	18476	13000	< 0.8	**55**	56	< 0.5	0.9	9500	39	**31**	**460**	22000	35	3200	260	1.8	**620**	**2**	45	43	47
		18477	13000	< 0.8	**72**	58	< 0.5	**1.2**	9600	40	**40**	**590**	21000	45	3100	290	< 1.5	**830**	**3**	45	41	55
	10-20 cm	18478	12000	< 0.8	**50**	50	< 0.5	0.8	8500	32	**26**	**400**	20000	35	2400	250	< 1.5	**510**	**2**	33	42	45
		18479	14000	< 0.8	**53**	61	< 0.5	**1.3**	10000	39	**31**	**490**	22000	38	2700	290	1.6	**670**	**2**	42	48	48

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037519 Lakeshore Rd. (front yard)	0-5 cm	15619	8200	< 0.8	**100**	53	< 0.5	**4.3**	8500	66	**100**	**1400**	31000	110	2600	190	**7.5**	**1500**	< 1	31	35	130
		15620	8000	< 0.8	**99**	45	< 0.5	**2.7**	6200	51	**76**	**1400**	28000	89	2400	170	**6.1**	**1200**	1	32	32	99
	5-10 cm	15621	8100	< 0.8	**97**	33	< 0.5	1	7300	30	**42**	**770**	19000	57	2000	140	< 1.5	**810**	< 1	31	26	60
		15622	9000	< 0.8	**100**	34	< 0.5	**1.2**	6000	32	**42**	**730**	18000	64	1800	150	< 1.5	**880**	< 1	33	26	65
	10-20 cm	15623	9500	< 0.8	**120**	40	< 0.5	< 0.8	5400	32	**28**	**450**	18000	52	1800	140	< 1.5	**550**	1	34	28	56
		15624	9600	< 0.8	**95**	45	< 0.5	< 0.8	4400	30	**24**	**340**	14000	36	1900	170	< 1.5	**480**	1	31	28	52
5037520 Lakeshore Rd. (back yard)	0-5 cm	15613	10000	< 0.8	**60**	49	< 0.5	**1.9**	7300	52	**44**	**560**	21000	53	2600	220	**4.8**	**590**	**2**	39	33	73
		15614	11000	< 0.8	**67**	54	< 0.5	**1.6**	9500	51	**48**	**550**	21000	62	3700	210	**4.3**	**680**	**2**	43	33	68
	5-10 cm	15615	12000	< 0.8	**120**	66	< 0.5	< 0.8	7800	41	**49**	**1100**	27000	81	2300	290	< 1.5	**1000**	**3**	40	36	70
		15616	11000	< 0.8	**100**	53	< 0.5	< 0.8	6100	35	**42**	**940**	24000	65	2100	230	< 1.5	**900**	**3**	37	33	63
	10-20 cm	15617	12000	< 0.8	**110**	78	< 0.5	< 0.8	7100	43	**36**	**640**	24000	67	2300	360	< 1.5	**780**	**3**	42	39	66
		15618	12000	< 0.8	**100**	64	< 0.5	< 0.8	6200	40	**35**	**660**	23000	61	2200	270	< 1.5	**790**	**2**	40	34	56
5037528 Lakeshore Rd. (front yard)	0-5 cm	15760	8500	0.9	**65**	63	< 0.5	**3.8**	13000	47	**94**	**1500**	27000	86	3200	200	**3.2**	**1800**	**3**	39	30	93
		15761	7800	< 0.8	**62**	59	< 0.5	**4.7**	13000	48	**110**	**1500**	27000	94	3400	200	**4**	**1900**	**3**	35	29	100
	5-10 cm	15762	11000	< 0.8	**94**	49	< 0.5	**1.5**	12000	41	**46**	**570**	21000	46	2000	350	< 1.5	**900**	**3**	45	47	55
		15763	11000	< 0.8	**73**	53	< 0.5	0.8	13000	43	**58**	**790**	22000	57	2600	300	< 1.5	**1200**	**3**	44	42	64
	10-20 cm	15764	10000	**1.4**	**41**	35	< 0.5	< 0.8	6300	47	16	**220**	14000	23	2000	180	< 1.5	**300**	1	36	31	38
		15765	10000	< 0.8	**54**	40	< 0.5	< 0.8	8400	40	**23**	**300**	16000	29	2200	230	< 1.5	**480**	1	40	37	46
5037529 Lakeshore Rd. (back yard)	0-5 cm	15766	9300	< 0.8	**35**	55	< 0.5	**2**	9900	35	**35**	**460**	15000	44	2400	240	2.4	**570**	**2**	36	34	97
		15767	10000	< 0.8	**35**	55	< 0.5	**1.4**	10000	35	**33**	**460**	16000	37	2500	250	1.5	**570**	**2**	40	35	60
	5-10 cm	15768	9700	< 0.8	**43**	48	< 0.5	1	10000	32	**33**	**500**	16000	41	2400	240	< 1.5	**640**	**2**	35	35	57
		15769	8100	< 0.8	**44**	46	< 0.5	1	10000	29	**31**	**470**	14000	33	2200	220	< 1.5	**580**	**2**	23	30	52
	10-20 cm	15770	9900	< 0.8	**47**	43	< 0.5	< 0.8	8600	30	21	**340**	15000	30	2200	210	< 1.5	**420**	**2**	35	36	44
		15771	9700	< 0.8	**47**	40	< 0.5	< 0.8	7900	28	21	**320**	15000	27	2100	200	< 1.5	**400**	1	33	33	38

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037530 Lakeshore Rd. (front yard)	0-5 cm	15772	7600	< 0.8	**37**	44	< 0.5	**2.2**	12000	52	**56**	**670**	18000	55	3800	160	**3.1**	**930**	**2**	35	25	53
		15773	7800	< 0.8	**47**	49	< 0.5	**3.2**	14000	64	**74**	**940**	22000	76	4400	170	**3.9**	**1200**	**3**	36	26	72
	5-10 cm	15774	9100	< 0.8	**100**	39	< 0.5	**1.4**	10000	33	**73**	**1000**	25000	71	2500	160	< 1.5	**1500**	**3**	37	28	67
		15775	8800	< 0.8	**99**	42	< 0.5	**1.7**	10000	38	**86**	**1200**	25000	77	2500	170	< 1.5	**1700**	**3**	35	27	77
	10-20 cm	15776	9900	< 0.8	**50**	34	< 0.5	< 0.8	4000	29	15	**180**	14000	22	2000	140	< 1.5	**270**	1	26	26	27
		15777	11000	< 0.8	**34**	35	< 0.5	< 0.8	5900	30	17	**220**	14000	21	2200	170	< 1.5	**350**	1	36	29	29
5037531 Lakeshore Rd. (back yard)	0-5 cm	15778	8000	1	7	25	< 0.5	< 0.8	5700	26	7	52	11000	8	3300	150	< 1.5	**66**	< 1	28	24	27
		15779	8600	< 0.8	6	24	< 0.5	< 0.8	4700	26	5	41	11000	8	2800	150	< 1.5	**55**	**2**	34	26	21
	5-10 cm	15780	9700	< 0.8	**27**	38	< 0.5	< 0.8	5700	39	19	**240**	14000	24	2500	200	< 1.5	**320**	**4**	40	31	150
		15781	9700	< 0.8	**18**	31	< 0.5	< 0.8	4500	46	11	**140**	13000	19	2400	180	2.5	**200**	**2**	38	29	96
	10-20 cm	15782	9300	**1.2**	< 5	32	< 0.5	0.8	4100	32	**27**	**370**	15000	36	2200	150	< 1.5	**490**	**3**	22	30	87
		15783	12000	< 0.8	**32**	37	< 0.5	< 0.8	5700	33	16	**260**	15000	28	2400	180	< 1.5	**310**	**3**	42	32	110
5037532 Lakeshore Rd. (front yard)	0-5 cm	15784	9600	< 0.8	**110**	65	< 0.5	**4.5**	11000	**75**	**81**	**790**	25000	**150**	4100	230	**8.1**	**970**	**5**	42	34	110
		15785	9800	< 0.8	**110**	62	< 0.5	**3.9**	10000	71	**84**	**850**	27000	**130**	4100	210	**6.5**	**980**	**5**	41	37	97
	5-10 cm	15786	11000	**1.3**	**200**	62	< 0.5	**1.5**	10000	44	**64**	**1200**	32000	**140**	3800	230	1.5	**1100**	**6**	42	38	77
		15787	11000	< 0.8	**200**	61	< 0.5	**1.6**	7900	49	**80**	**1400**	37000	**150**	3300	220	1.8	**1200**	**6**	39	39	76
	10-20 cm	15788	10000	0.9	**220**	57	< 0.5	**1.1**	6500	41	**72**	**1100**	30000	**140**	2600	240	< 1.5	**1300**	**6**	34	38	69
		15789	11000	1	**210**	61	< 0.5	**1.3**	6800	41	**64**	**1000**	30000	**130**	2700	240	< 1.5	**1200**	**6**	38	39	68

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037572 Lakeshore Rd. (front yard)	0-5 cm	18456	9600	< 0.8	**36**	52	< 0.5	**4.5**	8800	68	**69**	**730**	21000	73	3200	170	**9.4**	**820**	**3**	38	31	69
		18457	8400	< 0.8	**38**	53	< 0.5	**4.3**	9200	71	**81**	**860**	21000	76	3200	160	**8.5**	**930**	**3**	37	30	74
	5-10 cm	18458	9400	< 0.8	**110**	66	< 0.5	**2.7**	11000	47	**130**	**1900**	39000	120	3000	180	1.8	**2100**	**4**	40	30	95
		18459	9800	< 0.8	**120**	61	< 0.5	**2.7**	15000	47	**150**	**2300**	43000	120	3400	170	1.6	**2500**	**5**	43	31	110
	10-15 cm	18460	8800	< 0.8	**160**	51	< 0.5	**1.9**	9400	**110**	**89**	**1200**	37000	96	2800	150	**5.5**	**1600**	**5**	32	31	82
		18461	8600	0.8	**170**	52	< 0.5	**2.5**	12000	62	**110**	**1300**	38000	120	3000	150	1.6	**2100**	**5**	30	30	95
5037573 Lakeshore Rd. (back yard)	0-5 cm	18462	6700	< 0.8	**30**	40	< 0.5	**2.2**	7700	33	**39**	**470**	14000	42	2900	140	**4**	**610**	**3**	21	21	87
		18463	7000	< 0.8	**28**	41	< 0.5	**2.2**	7400	32	**33**	**470**	13000	39	2500	150	**3.4**	**550**	**3**	21	21	83
	5-10 cm	18464	7600	< 0.8	**31**	39	< 0.5	< 0.8	6300	25	20	**350**	13000	27	2100	130	< 1.5	**400**	**2**	20	21	47
		18465	7800	< 0.8	**28**	41	< 0.5	< 0.8	5800	25	17	**310**	12000	24	2100	130	< 1.5	**350**	**2**	21	22	45
	10-20 cm	18466	7900	< 0.8	**27**	40	< 0.5	< 0.8	5600	25	20	**310**	13000	25	2200	150	< 1.5	**370**	**2**	22	23	44
		18467	7700	< 0.8	**23**	37	< 0.5	< 0.8	5500	24	15	**250**	12000	21	2300	150	< 1.5	**300**	**2**	23	24	42
5037578 Lakeshore Rd. (front yard)	0-5 cm	18492	10000	< 0.8	**80**	53	< 0.5	**3.1**	9600	68	**62**	**700**	23000	76	4300	230	**5.2**	**830**	**2**	44	35	83
		18493	10000	< 0.8	**109**	61	< 0.5	**3**	9100	67	**60**	**790**	25000	87	4000	210	**6.1**	**840**	**3**	42	35	92
	5-10 cm	18494	12000	< 0.8	**320**	89	< 0.5	**4.4**	8900	**88**	**120**	**2400**	45000	**200**	3300	200	1.7	**2500**	**7**	44	39	**180**
		18495	12000	< 0.8	**290**	77	< 0.5	**3.5**	7200	67	**89**	**1800**	39000	**170**	2900	190	2	**1800**	**6**	39	38	150
	10-20 cm	18496	9600	< 0.8	**160**	53	< 0.5	1	4500	33	**34**	**530**	18000	50	2100	150	< 1.5	**730**	**2**	31	30	56
		18497	11000	< 0.8	**130**	64	< 0.5	< 0.8	4600	31	**25**	**440**	17000	41	2400	160	< 1.5	**540**	< 1	37	32	47
5037579 Lakeshore Rd. (back yard)	0-5 cm	18498	11000	< 0.8	**36**	59	< 0.5	**1.9**	9100	45	**29**	**320**	17000	42	3900	220	**3.1**	**380**	< 1	45	34	55
		18499	10000	< 0.8	**45**	56	< 0.5	**1.6**	8300	61	**32**	**420**	18000	49	3600	200	**5.8**	**460**	**2**	39	31	63
	5-10 cm	18500	11000	< 0.8	**63**	53	< 0.5	0.9	9500	34	**27**	**500**	20000	49	3500	220	< 1.5	**480**	**2**	38	34	50
		18501	9600	< 0.8	**75**	50	< 0.5	0.9	8300	34	**27**	**540**	19000	71	3400	190	< 1.5	**460**	**2**	34	31	53
	10-20 cm	18502	7800	< 0.8	**73**	47	< 0.5	< 0.8	5400	27	**23**	**360**	15000	44	2500	160	< 1.5	**460**	**2**	25	25	55
		18503	8100	< 0.8	**71**	47	< 0.5	< 0.8	5700	28	**23**	**370**	15000	47	2500	180	< 1.5	**440**	**2**	29	26	62

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037608 Lakeshore Rd. (front yard)	0-5 cm	18673	12000	< 0.8	**120**	63	< 0.5	**2.8**	6300	67	**60**	**930**	29000	120	2900	230	**3.9**	**800**	**4**	45	36	89
		18674	9200	< 0.8	**91**	46	< 0.5	**2.6**	4800	56	**49**	**700**	23000	95	2300	190	**4.6**	**670**	**3**	35	32	81
	5-10 cm	18675	9200	< 0.8	**300**	55	< 0.5	**1.9**	4200	66	**71**	**1600**	36000	**160**	2200	190	< 1.5	**1100**	**7**	31	33	87
		18676	8600	< 0.8	**270**	48	< 0.5	**1.8**	4200	55	**67**	**1500**	35000	**140**	2100	160	< 1.5	**1100**	**5**	28	32	87
	10-20 cm	18677	8100	< 0.8	**83**	34	< 0.5	< 0.8	2100	27	17	**390**	16000	30	1400	140	< 1.5	**290**	**2**	21	27	35
		18678	9600	< 0.8	**130**	43	< 0.5	0.9	3000	35	**26**	**580**	19000	55	1600	150	< 1.5	**520**	**3**	28	29	51
5037609 Lakeshore Rd. (back yard)	0-5 cm	18679	7900	< 0.8	**110**	39	< 0.5	**2.2**	4100	43	**46**	**750**	21000	88	2000	140	**3.5**	**740**	**3**	20	26	56
		18680	7300	< 0.8	**120**	43	< 0.5	**3**	3300	46	**50**	**870**	21000	**140**	1900	130	**4.4**	**750**	**4**	14	24	70
	5-10 cm	18681	8200	< 0.8	**190**	43	< 0.5	**1.9**	3900	40	**51**	**1300**	25000	120	1700	140	< 1.5	**1000**	**5**	22	26	56
		18682	8800	0.9	**210**	46	< 0.5	**3.2**	3400	46	**47**	**1400**	25000	**160**	1700	130	< 1.5	**940**	**5**	18	26	71
	10-20 cm	18683	7800	< 0.8	**110**	38	< 0.5	**1.5**	2500	22	**24**	**500**	14000	44	1400	110	< 1.5	**510**	**2**	17	24	40
		18684	7900	< 0.8	**100**	40	< 0.5	**1.1**	2700	22	18	**390**	13000	47	1500	110	< 1.5	**400**	< 1	17	25	38
5037610 Lakeshore Rd. (front yard)	0-5 cm	18685	7400	< 0.8	**96**	42	< 0.5	**3.1**	4900	55	**63**	**750**	23000	**180**	3000	140	**8.6**	**760**	**4**	18	27	73
		18686	8300	< 0.8	**87**	45	< 0.5	**3.6**	6200	59	**68**	**680**	23000	**130**	3400	170	**8.3**	**740**	**4**	27	31	94
	5-10 cm	18687	8600	< 0.8	**140**	43	< 0.5	**1.7**	4500	37	**66**	**1400**	29000	**150**	2400	150	1.6	**1200**	**4**	24	30	69
		18688	8700	< 0.8	**130**	46	< 0.5	**1.7**	4400	39	**61**	**1300**	29000	**160**	2500	150	2.2	**1000**	**4**	26	29	67
	10-20 cm	18689	8300	< 0.8	**190**	52	< 0.5	**1.2**	3400	42	**40**	**800**	22000	120	2200	130	< 1.5	**780**	**4**	21	28	57
		18690	11000	< 0.8	**180**	61	< 0.5	**1.1**	5600	44	**46**	**900**	24000	**140**	2400	180	< 1.5	**890**	**4**	36	34	61
5037611 Lakeshore Rd. (back yard)	0-5 cm	18691	11000	< 0.8	**120**	71	< 0.5	**2.9**	6600	54	**63**	**1400**	28000	**130**	2900	220	**4.6**	**1000**	**4**	40	35	110
		18692	11000	< 0.8	**99**	56	< 0.5	**2.2**	6000	50	**58**	**1200**	26000	110	2700	180	**4.1**	**850**	1	39	33	88
	5-10 cm	18693	11000	< 0.8	**110**	70	< 0.5	**1.3**	6100	38	**41**	**670**	18000	83	2300	230	1.5	**940**	**3**	42	33	89
		18694	11000	< 0.8	**96**	53	< 0.5	**1.5**	5700	38	**41**	**630**	19000	73	2200	210	1.9	**780**	**3**	39	33	69
	10-20 cm	18695	11000	1	**200**	110	< 0.5	**1.4**	5900	37	**44**	**720**	21000	**170**	2300	320	< 1.5	**850**	**4**	39	31	140
		18696	10000	< 0.8	**130**	65	< 0.5	**1.3**	5000	37	**38**	**560**	19000	**160**	2200	210	1.7	**700**	**3**	31	31	89

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037566 Lindsley St. (front yard)	0-5 cm	15982	9300	< 0.8	**45**	60	< 0.5	**2.7**	9000	35	**62**	**950**	23000	81	3500	180	< 1.5	**1100**	**2**	33	29	100
		15983	9100	< 0.8	**64**	59	< 0.5	**2.6**	9200	49	**91**	**1200**	30000	96	3800	190	**3.2**	**1400**	**3**	36	34	80
	5-10 cm	15984	11000	< 0.8	**76**	52	< 0.5	**1.1**	6300	31	**47**	**720**	24000	56	2200	180	< 1.5	**820**	**2**	32	36	51
		15985	11000	< 0.8	**68**	49	< 0.5	**1.2**	6600	30	**54**	**630**	24000	70	2400	190	< 1.5	**870**	**2**	31	35	49
	10-20 cm	15986	11000	< 0.8	**50**	39	< 0.5	< 0.8	3400	23	13	**170**	16000	19	1500	130	< 1.5	**260**	< 1	25	35	24
		15987	10000	< 0.8	**46**	41	< 0.5	< 0.8	3200	24	14	**170**	14000	20	1700	130	< 1.5	**270**	< 1	27	35	26
5037567 Lindsley St. (back yard)	0-5 cm	15988	8500	< 0.8	**84**	44	< 0.5	**1.9**	5900	31	**65**	**1100**	24000	75	1900	210	< 1.5	**1200**	**3**	29	27	59
		15989	7900	< 0.8	**97**	38	< 0.5	**1.9**	6000	28	**75**	**1400**	26000	82	2300	190	< 1.5	**1400**	1	28	27	72
	5-10 cm	15990	10000	< 0.8	**38**	32	< 0.5	< 0.8	3100	22	14	**170**	13000	13	1600	180	< 1.5	**310**	< 1	25	29	25
		15991	9800	< 0.8	**42**	29	< 0.5	< 0.8	3100	23	19	**240**	14000	18	1500	180	< 1.5	**390**	< 1	27	29	26
	10-20 cm	15992	9800	< 0.8	17	33	< 0.5	< 0.8	2700	21	7	76	13000	9	1600	160	< 1.5	**120**	< 1	25	30	18
		15993	11000	< 0.8	**20**	39	< 0.5	< 0.8	2800	22	8	**100**	14000	11	1600	160	< 1.5	**150**	< 1	28	31	18
5037562 Lindsley St. (front yard)	0-5 cm	15958	8900	< 0.8	**130**	56	< 0.5	**3**	7500	48	**96**	**1700**	31000	120	2700	180	**3.3**	**1700**	**3**	35	31	100
		15959	8600	< 0.8	**97**	63	< 0.5	**3.8**	9800	49	**99**	**1700**	28000	110	2700	200	**3.9**	**2000**	**3**	37	28	100
	5-10 cm	15960	11000	1	**310**	54	< 0.5	**1.4**	7100	58	**60**	**1100**	31000	**130**	2500	190	< 1.5	**1100**	**5**	34	33	84
		15961	12000	< 0.8	**320**	71	< 0.5	**1.5**	7700	**72**	**63**	**1300**	34000	**140**	2800	230	1.6	**970**	**6**	37	35	87
	10-20 cm	15962	13000	< 0.8	**270**	72	< 0.5	**1.4**	5900	53	**48**	**1000**	29000	100	2500	230	< 1.5	**810**	**5**	35	36	89
		15963	9700	< 0.8	**250**	57	< 0.5	**1.5**	3400	54	**41**	**850**	24000	**87**	2200	210	< 1.5	**670**	**3**	15	28	79
5037563 Lindsley St. (back yard)	0-5 cm	15964	6400	< 0.8	**130**	47	< 0.5	**2.2**	6500	40	**67**	**1300**	24000	130	2200	140	1.6	**1200**	**2**	17	23	110
		15965	6600	< 0.8	**140**	56	< 0.5	**3**	6600	44	**68**	**1500**	25000	**170**	2400	150	2	**1300**	**3**	24	24	150
	5-10 cm	15966	7300	1	**240**	60	< 0.5	**1.4**	4300	53	**42**	**880**	21000	**150**	2000	160	< 1.5	**850**	**3**	18	26	100
		15967	7400	< 0.8	**260**	44	< 0.5	**1.3**	4400	44	**44**	**900**	23000	**170**	1900	150	< 1.5	**860**	**3**	15	26	100
	10-20 cm	15968	12000	< 0.8	**99**	60	< 0.5	0.9	6100	39	**25**	**460**	18000	72	2200	200	< 1.5	**520**	< 1	37	32	84
		15969	14000	**1.1**	**120**	65	< 0.5	0.9	5600	44	**26**	**550**	20000	88	2300	220	< 1.5	**530**	< 1	41	35	92

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037564 Lindsley St. (front yard)	0-5 cm	15970	11000	< 0.8	**43**	51	< 0.5	**2**	12000	42	**49**	**780**	21000	51	3500	210	< 1.5	**850**	< 1	43	31	65
		15971	11000	< 0.8	**57**	53	< 0.5	**2.3**	11000	46	**63**	**950**	26000	66	3900	230	1.7	**1100**	**3**	43	34	62
	5-10 cm	15972	11000	< 0.8	**65**	51	< 0.5	**1.5**	7800	42	**42**	**550**	21000	51	2900	200	< 1.5	**810**	**2**	42	34	50
		15973	13000	< 0.8	**65**	56	< 0.5	**1.2**	9500	44	**39**	**500**	24000	50	2900	210	< 1.5	**700**	< 1	44	36	49
	10-20 cm	15974	12000	< 0.8	**89**	57	< 0.5	**1.1**	8500	43	**33**	**430**	21000	50	2800	170	< 1.5	**620**	**2**	39	33	46
		15975	13000	< 0.8	**61**	60	< 0.5	0.9	8200	42	**29**	**360**	19000	40	2800	160	< 1.5	**550**	< 1	40	33	43
5037565 Lindsley St. (back yard)	0-5 cm	15976	12000	< 0.8	**140**	60	< 0.5	**3**	13000	57	**100**	**2000**	49000	**140**	5200	210	**3.3**	**1800**	**4**	35	43	130
		15977	11000	< 0.8	**100**	71	< 0.5	**2.9**	12000	51	**81**	**1500**	42000	**130**	3600	230	2.4	**1500**	**4**	34	42	130
	5-10 cm	15978	15000	< 0.8	**110**	75	< 0.5	**1.7**	8700	53	**57**	**910**	32000	85	3200	290	< 1.5	**1200**	**3**	37	56	90
		15979	14000	< 0.8	**110**	75	< 0.5	**1.7**	8700	52	**56**	**1000**	34000	100	3200	280	< 1.5	**1100**	**3**	35	54	83
	10-20 cm	15980	15000	< 0.8	**66**	65	< 0.5	0.8	6500	58	**23**	**390**	27000	39	4500	280	< 1.5	**440**	**2**	35	56	61
		15981	20000	0.9	**81**	99	< 0.5	**1.3**	8600	**86**	**31**	**480**	37000	49	7500	400	< 1.5	**600**	**2**	43	73	80
5037569 Lindsley St. (front yard)	0-5 cm	15994	13000	**1.8**	**300**	74	< 0.5	**2.7**	7800	**76**	**86**	**1600**	44000	**170**	3100	200	< 1.5	**1500**	**6**	44	40	110
		15995	8400	< 0.8	**110**	67	< 0.5	**4.1**	12000	57	**110**	**1800**	33000	**160**	4100	190	**3.3**	**1900**	**5**	40	30	110
	5-10 cm	15996	8400	< 0.8	**70**	56	< 0.5	**3.4**	9700	49	**94**	**1500**	30000	110	3900	190	**2.9**	**1500**	**3**	39	31	81
		15997	12000	1	**270**	67	< 0.5	**2**	6800	62	**64**	**1200**	33000	**140**	2200	190	< 1.5	**1200**	**5**	41	37	97
	10-20 cm	15998	12000	< 0.8	**89**	52	< 0.5	< 0.8	3700	30	17	**240**	16000	26	1700	170	< 1.5	**340**	1	34	33	38
		15999	11000	< 0.8	**66**	47	< 0.5	< 0.8	3800	29	20	**240**	17000	25	1500	150	< 1.5	**380**	< 1	34	33	38

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037588 Lindsley St. (front yard)	0-5 cm	18553	9000	< 0.8	**37**	50	< 0.5	**2.3**	10000	37	**55**	**970**	21000	65	3400	190	1.9	**1300**	**2**	36	26	60
		18554	11000	< 0.8	**38**	57	< 0.5	**2**	10000	39	**50**	**870**	22000	59	3400	200	< 1.5	**1100**	**2**	39	30	71
	5-10 cm	18555	12000	< 0.8	**54**	53	< 0.5	1	9800	36	**23**	**360**	17000	34	2800	190	< 1.5	**620**	1	38	29	47
		18556	12000	< 0.8	**51**	46	< 0.5	0.8	8500	33	**21**	**330**	18000	28	2700	190	< 1.5	**370**	1	35	31	60
	10-20 cm	18557	8600	< 0.8	**73**	40	< 0.5	< 0.8	4500	26	12	**190**	14000	25	2400	150	< 1.5	**170**	1	29	29	26
		18558	8000	< 0.8	**47**	30	< 0.5	< 0.8	2700	21	10	**140**	13000	16	2100	110	< 1.5	**140**	< 1	13	23	22
5037589 Lindsley St. (back yard)	0-5 cm	18559	7700	< 0.8	**41**	41	< 0.5	**2.4**	9000	28	**55**	**900**	18000	66	2600	190	< 1.5	**1200**	**2**	26	22	74
		18560	7500	< 0.8	**38**	42	< 0.5	**2.7**	9200	27	**52**	**830**	17000	68	2500	190	< 1.5	**1200**	**2**	23	21	66
	5-10 cm	18561	8700	< 0.8	**27**	33	< 0.5	< 0.8	8000	22	17	**280**	13000	24	2300	210	< 1.5	**410**	1	25	24	39
		18562	8700	< 0.8	**22**	34	< 0.5	< 0.8	7200	22	13	**190**	12000	28	2300	190	< 1.5	**310**	1	26	25	43
	10-20 cm	18563	8600	< 0.8	15	33	< 0.5	< 0.8	5700	22	8	**86**	12000	11	2300	270	< 1.5	**120**	< 1	25	26	24
		18564	8400	< 0.8	14	31	< 0.5	< 0.8	5400	23	9	**90**	13000	12	2500	250	< 1.5	**140**	< 1	26	27	25
5037590 Lindsley St. (front yard)	0-5 cm	18565	7700	< 0.8	**58**	51	< 0.5	**3.3**	11000	40	**95**	**1300**	27000	96	3200	220	**3.1**	**1600**	**3**	30	29	110
		18566	8300	< 0.8	**53**	80	< 0.5	**2.8**	12000	45	**74**	**990**	23000	91	3300	220	**3.6**	**1300**	**3**	32	29	120
	5-10 cm	18567	12000	0.8	**98**	70	< 0.5	**2.7**	17000	48	**70**	**970**	27000	100	3300	380	1.6	**1400**	**4**	43	34	100
		18568	11000	< 0.8	**65**	60	< 0.5	**2.1**	13000	46	**64**	**830**	26000	75	3300	300	< 1.5	**1200**	**3**	37	33	85
	10-20 cm	18569	11000	< 0.8	**46**	66	< 0.5	**1.2**	30000	34	**25**	**310**	18000	34	3300	350	1.5	**480**	**2**	55	30	53
		18570	9900	< 0.8	**41**	61	< 0.5	0.9	13000	34	**26**	**280**	19000	30	3600	300	< 1.5	**410**	**2**	36	31	45
5037591 Lindsley St. (back yard)	0-5 cm	18571	9400	< 0.8	**62**	58	< 0.5	**2.7**	10000	40	**49**	**860**	21000	87	2800	210	2	**980**	**3**	31	29	130
		18572	9800	< 0.8	**61**	56	< 0.5	**2.1**	9400	37	**44**	**710**	21000	82	2900	210	< 1.5	**850**	**3**	33	30	85
	5-10 cm	18573	13000	< 0.8	**85**	68	< 0.5	**1.9**	16000	44	**42**	**680**	20000	69	2700	280	1.6	**980**	**4**	47	33	84
		18574	13000	< 0.8	**80**	75	< 0.5	**2**	17000	44	**38**	**600**	19000	70	2700	290	1.5	**890**	**3**	46	33	90
	10-20 cm	18575	15000	< 0.8	**54**	84	< 0.5	**1.4**	18000	49	21	**330**	18000	39	3400	310	< 1.5	**440**	**3**	51	36	63
		18576	14000	< 0.8	**47**	81	< 0.5	**1.3**	19000	41	21	**310**	17000	32	3600	330	1.8	**410**	**3**	52	35	57

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037592 Lindsley St. (front yard)	0-5 cm	18577	8800	< 0.8	**24**	50	< 0.5	**2**	11000	31	**46**	**610**	17000	45	3500	190	1.8	**790**	**2**	37	25	49
		18578	6600	< 0.8	**23**	39	< 0.5	**2**	7800	32	**51**	**620**	17000	43	3100	170	2.1	**780**	**2**	28	26	60
	5-10 cm	18579	8900	< 0.8	**22**	40	< 0.5	1	10000	25	**34**	**510**	15000	26	2900	180	< 1.5	**740**	**2**	34	23	35
		18580	6600	**2.8**	**22**	30	< 0.5	0.9	7700	20	**24**	**390**	13000	24	2500	130	< 1.5	**510**	**2**	22	19	26
	10-20 cm	18581	5700	< 0.8	**21**	30	< 0.5	< 0.8	7200	18	13	**120**	10000	11	2800	120	2.5	**190**	1	17	17	19
		18582	5400	< 0.8	8	26	< 0.5	< 0.8	3900	19	8	53	11000	5	2400	120	< 1.5	**90**	< 1	21	22	15
5037593 Lindsley St. (back yard)	0-5 cm	18583	6400	**1.3**	**42**	37	< 0.5	**1.8**	9400	27	**69**	**990**	19000	53	3000	200	1.9	**1000**	**3**	24	24	46
		18584	5800	< 0.8	**45**	38	< 0.5	**2.1**	9200	29	**62**	**960**	18000	56	2900	200	2.1	**1000**	**3**	19	23	50
	5-10 cm	18585	7400	< 0.8	**26**	37	< 0.5	< 0.8	10000	21	**22**	**270**	11000	15	2100	220	< 1.5	**580**	**2**	24	26	24
		18586	6400	< 0.8	**27**	36	< 0.5	0.9	7900	20	**22**	**300**	11000	18	2200	230	< 1.5	**500**	**2**	18	27	29
	10-20 cm	18587	7200	< 0.8	**20**	28	< 0.5	< 0.8	3900	20	14	**99**	14000	12	2500	140	< 1.5	**140**	< 1	19	28	18
		18588	5700	< 0.8	10	24	< 0.5	< 0.8	3900	19	11	**100**	11000	7	2200	150	< 1.5	**160**	< 1	18	25	16
5037596 Lindsley St. (front yard)	0-5 cm	18601	7500	< 0.8	6	30	< 0.5	< 0.8	2800	22	7	54	9200	12	1900	120	1.5	**88**	< 1	18	21	24
		18602	7500	< 0.8	8	31	< 0.5	< 0.8	3700	27	10	79	9700	15	2100	130	< 1.5	**120**	< 1	18	21	28
	5-10 cm	18603	7800	< 0.8	9	31	< 0.5	< 0.8	2700	35	17	**100**	10000	14	2100	120	**2.6**	**180**	< 1	16	23	27
		18604	8400	< 0.8	12	33	< 0.5	< 0.8	3000	**75**	**34**	**160**	12000	20	2300	150	**8.8**	**310**	< 1	20	26	35
	10-20 cm	18605	8400	< 0.8	**25**	39	< 0.5	0.9	4700	38	**24**	**290**	14000	30	2600	170	2.5	**410**	< 1	21	25	40
		18606	8900	< 0.8	**26**	40	< 0.5	1	4300	**260**	**28**	**310**	16000	32	2600	180	2.1	**760**	< 1	19	26	43
5037597 Lindsley St. (back yard)	0-5 cm	18607	8500	< 0.8	**72**	50	< 0.5	**2.3**	6700	35	**45**	**820**	21000	81	2400	190	1.6	**800**	**2**	21	26	73
		18608	8100	< 0.8	**94**	58	< 0.5	**3.6**	8200	44	**63**	**1200**	25000	120	2500	210	1.9	**1200**	**3**	22	27	89
	5-10 cm	18609	9600	< 0.8	**63**	57	< 0.5	**1.7**	11000	38	**35**	**500**	18000	53	2800	240	< 1.5	**710**	**3**	24	28	65
		18610	9300	< 0.8	**80**	61	< 0.5	**2**	13000	39	**40**	**630**	19000	57	3000	270	< 1.5	**780**	**3**	27	28	64
	10-20 cm	18611	8600	< 0.8	**44**	62	< 0.5	**1.5**	12000	40	**25**	**340**	15000	44	3300	250	< 1.5	**500**	**2**	30	29	61
		18612	14000	< 0.8	**74**	80	< 0.5	**1.4**	14000	42	**28**	**530**	21000	59	3400	280	< 1.5	**490**	**3**	47	37	54

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037522 Macdonnell St. (front yard)	0-5 cm	15730	9800	< 0.8	< 5	28	< 0.5	< 0.8	5900	30	9	40	13000	9	3200	170	< 1.5	**77**	< 1	37	28	25
		15731	9200	< 0.8	< 5	27	< 0.5	< 0.8	5400	30	9	40	12000	9	3200	160	< 1.5	**82**	< 1	35	27	61
	5-10 cm	15732	8400	< 0.8	< 5	24	< 0.5	< 0.8	2900	28	5	16	12000	5	2400	120	< 1.5	28	< 1	25	24	14
		15733	9100	< 0.8	5	24	< 0.5	< 0.8	3400	29	6	16	12000	5	2400	130	< 1.5	28	< 1	32	26	14
	10-20 cm	15734	9800	< 0.8	**16**	32	< 0.5	< 0.8	3800	31	10	49	15000	9	2700	170	< 1.5	**51**	< 1	35	29	19
		15735	10000	< 0.8	**20**	34	< 0.5	< 0.8	3900	32	11	62	17000	11	2700	180	< 1.5	**55**	< 1	37	30	21
5037523 Macdonnell St. (back yard)	0-5 cm	15724	8000	< 0.8	**26**	33	< 0.5	< 0.8	5500	26	11	**160**	12000	20	2500	160	< 1.5	**160**	< 1	32	26	31
		15725	6400	**3.5**	**20**	15	< 0.5	< 0.8	4400	11	10	63	10000	17	2200	69	< 1.5	**140**	< 1	11	10	15
	5-10 cm	15726	7600	< 0.8	**34**	30	< 0.5	< 0.8	4400	24	9	**160**	12000	19	2300	140	< 1.5	**130**	< 1	29	25	22
		15727	7800	< 0.8	**25**	33	< 0.5	< 0.8	4300	24	7	**110**	12000	18	2300	140	< 1.5	**99**	< 1	28	24	21
	10-20 cm	15728	8600	< 0.8	**31**	36	< 0.5	< 0.8	3500	25	9	**130**	14000	17	2600	150	< 1.5	**110**	< 1	28	28	24
		15729	8000	< 0.8	**33**	34	< 0.5	< 0.8	3700	24	11	**150**	13000	21	2400	150	< 1.5	**130**	< 1	28	27	24
5037570 Macdonnell St. (front yard)	0-5 cm	18444	9700	< 0.8	11	29	< 0.5	< 0.8	3500	27	8	62	12000	10	2100	130	< 1.5	**85**	< 1	25	26	30
		18445	10000	< 0.8	6	31	< 0.5	< 0.8	3900	26	7	49	12000	9	2000	140	< 1.5	**71**	< 1	32	27	28
	5-10 cm	18446	10000	< 0.8	< 5	27	< 0.5	< 0.8	2900	27	5	30	12000	7	2000	120	< 1.5	**44**	< 1	22	25	17
		18447	10000	< 0.8	7	28	< 0.5	< 0.8	3000	27	5	27	12000	6	1900	120	< 1.5	**52**	< 1	24	25	19
	10-20 cm	18448	9800	< 0.8	**34**	36	< 0.5	< 0.8	3500	30	13	**140**	14000	15	2000	140	< 1.5	**160**	< 1	27	26	24
		18449	9100	< 0.8	**21**	33	< 0.5	< 0.8	2900	27	10	**98**	12000	12	2000	130	< 1.5	**120**	< 1	21	24	20
5037571 Macdonnell St. (back yard)	0-5 cm	18450	7900	< 0.8	**51**	43	< 0.5	**2.4**	4500	40	**42**	**680**	20000	69	2300	150	**2.9**	**660**	**2**	21	29	76
		18451	9100	< 0.8	**73**	47	< 0.5	**2.4**	5900	42	**48**	**850**	22000	91	2300	180	**3.3**	**810**	**3**	32	33	71
	5-10 cm	18452	7500	< 0.8	**81**	37	< 0.5	**1.6**	3400	33	**41**	**840**	21000	62	1800	150	< 1.5	**830**	**3**	14	29	59
		18453	9100	< 0.8	**83**	36	< 0.5	**1.5**	3900	34	**38**	**670**	18000	49	1800	170	< 1.5	**820**	**2**	23	30	57
	10-20 cm	18454	10000	< 0.8	**54**	37	< 0.5	1	4000	36	20	**270**	14000	28	1600	150	< 1.5	**450**	**2**	32	28	37
		18455	11000	< 0.8	**45**	42	< 0.5	1	4600	43	19	**260**	15000	29	1600	160	< 1.5	**430**	**2**	38	30	37

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037614 Macdonnell St. (front yard)	0-5 cm	18709	11000	< 0.8	**95**	50	< 0.5	**1.8**	6600	38	**37**	**520**	20000	48	3100	160	1.6	**600**	**3**	39	35	57
		18710	11000	< 0.8	**72**	56	< 0.5	**2.1**	7800	39	**36**	**460**	19000	49	3100	160	2.3	**570**	**2**	41	33	66
	5-10 cm	18711	12000	< 0.8	**110**	54	< 0.5	< 0.8	6100	32	**24**	**390**	19000	35	2500	170	< 1.5	**440**	1	38	35	43
		18712	12000	< 0.8	**110**	49	< 0.5	< 0.8	6100	30	**25**	**430**	20000	39	2700	150	< 1.5	**460**	**3**	36	36	39
	10-20 cm	18713	13000	< 0.8	**95**	51	< 0.5	< 0.8	3400	27	12	**270**	18000	18	2100	150	< 1.5	**190**	**2**	32	37	30
		18714	11000	< 0.8	**120**	46	< 0.5	< 0.8	4000	27	18	**340**	20000	28	2300	130	< 1.5	**290**	**3**	28	35	32
5037615 Macdonnell St. (back yard)	0-5 cm	18715	11000	< 0.8	**56**	33	< 0.5	**1.4**	4600	33	**32**	**520**	17000	42	1900	150	< 1.5	**610**	**2**	34	29	55
		18716	10000	< 0.8	**63**	38	< 0.5	**1.9**	5200	39	**38**	**630**	18000	51	2100	170	< 1.5	**700**	**2**	35	30	63
	5-10 cm	18717	10000	< 0.8	**37**	27	< 0.5	< 0.8	3500	25	21	**340**	14000	25	1600	130	< 1.5	**460**	**3**	26	27	36
		18718	10000	< 0.8	**61**	31	< 0.5	**1.2**	4300	32	**34**	**500**	16000	46	1700	150	< 1.5	**740**	**2**	23	27	50
	10-20 cm	18719	10200	**1.2**	**26**	29	< 0.5	< 0.8	3200	22	11	**130**	13000	19	1600	130	< 1.5	**210**	1	25	25	30
		18720	10500	< 0.8	**28**	31	< 0.5	< 0.8	3500	22	15	**200**	13000	21	1600	130	< 1.5	**310**	1	25	26	29
5037600 Macmillian St. (front yard)	0-5 cm	18625	7700	< 0.8	**38**	40	< 0.5	**2.7**	6200	38	**70**	**1000**	22000	65	2500	200	**2.9**	**1000**	**3**	28	27	66
		18626	7400	< 0.8	**43**	43	< 0.5	**3.1**	6700	37	**78**	**1200**	23000	72	2600	190	**4.6**	**1200**	**3**	30	26	71
	5-10 cm	18627	7800	< 0.8	**21**	34	< 0.5	< 0.8	4000	19	**23**	**310**	14000	16	2100	200	< 1.5	**500**	**2**	14	24	39
		18628	10000	< 0.8	**20**	39	< 0.5	< 0.8	4400	23	21	**300**	17000	15	2500	310	< 1.5	**450**	1	28	31	43
	10-20 cm	18629	8500	< 0.8	16	41	< 0.5	< 0.8	3400	21	7	74	12000	9	1900	190	< 1.5	**130**	1	24	28	24
		18630	12000	< 0.8	9	49	< 0.5	< 0.8	4000	26	8	**88**	16000	9	2700	280	< 1.5	**160**	< 1	38	35	33
5037601 Macmillian St. (back yard)	0-5 cm	18631	11000	< 0.8	8	36	< 0.5	< 0.8	5500	31	5	31	13000	6	2700	180	< 1.5	37	< 1	43	30	22
		18632	10000	< 0.8	**18**	36	< 0.5	< 0.8	5700	33	6	62	13000	8	2800	180	< 1.5	**56**	< 1	42	30	26
	5-10 cm	18633	10000	< 0.8	**21**	37	< 0.5	< 0.8	4100	28	7	76	14000	10	2400	180	< 1.5	**75**	< 1	39	31	24
		18634	11000	< 0.8	16	39	< 0.5	< 0.8	5300	33	8	**96**	13000	8	2500	190	< 1.5	**100**	< 1	40	31	31
	10-20 cm	18635	7600	< 0.8	11	25	< 0.5	< 0.8	2000	19	7	60	12000	7	2500	130	< 1.5	**66**	< 1	15	23	26
		18636	7300	< 0.8	13	29	< 0.5	< 0.8	4700	21	9	**120**	11000	9	2200	140	< 1.5	**140**	< 1	21	22	33

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037516 Morlock St. (front yard)	0-5 cm	15581	7500	< 0.8	**130**	52	< 0.5	**3**	8400	48	**110**	**1700**	32000	**150**	2900	130	**5.1**	**2000**	**3**	23	28	130
		15582	7100	< 0.8	**190**	55	< 0.5	**3.9**	8100	52	**190**	**2900**	46000	**180**	3500	140	**4.8**	**3700**	**4**	22	28	150
	5-10 cm	15583	7100	< 0.8	**230**	53	< 0.5	**1.6**	10000	40	**85**	**1200**	22000	100	2300	150	< 1.5	**2000**	**4**	23	23	81
		15598	7700	< 0.8	**210**	62	< 0.5	**2.4**	10000	41	**120**	**1800**	28000	120	2500	150	< 1.5	**2700**	**4**	23	25	130
	10-20 cm	15599	11000	< 0.8	**160**	70	< 0.5	1	7400	46	**38**	**660**	19000	67	2200	160	< 1.5	**890**	**3**	31	29	61
		15600	13000	< 0.8	**210**	78	< 0.5	0.9	8600	54	**46**	**820**	24000	87	2200	210	< 1.5	**1100**	**4**	37	36	73
5037517 Morlock St. (back yard)	0-5 cm	15601	11000	< 0.8	**95**	72	< 0.5	**1.5**	6500	62	**50**	**750**	22000	**130**	2700	200	**4.5**	**790**	**2**	37	34	99
		15602	9400	< 0.8	**51**	60	< 0.5	**2.2**	7200	51	**41**	**450**	17000	88	2500	160	**4**	**590**	**2**	36	27	130
	5-10 cm	15603	8400	< 0.8	**150**	58	< 0.5	**1.4**	5900	51	**41**	**800**	23000	**150**	1900	160	2	**770**	**4**	23	28	100
		15604	9700	< 0.8	**88**	56	< 0.5	1	6600	43	**37**	**560**	19000	91	2300	170	1.8	**670**	**2**	34	28	97
	10-20 cm	15605	9300	< 0.8	**170**	61	< 0.5	**1.1**	6700	52	**41**	**840**	24000	**130**	2400	160	< 1.5	**810**	**3**	32	29	89
		15606	8900	< 0.8	**100**	57	< 0.5	< 0.8	6100	34	**24**	**600**	15000	65	2100	160	< 1.5	**480**	**2**	30	25	72
5037582 Morlock St. (front yard)	0-5 cm	18517	11000	0.9	**140**	65	< 0.5	**3.3**	9600	**100**	**110**	**1400**	37000	**230**	5600	210	**14**	**1400**	**5**	41	39	140
		18518	12000	< 0.8	**160**	82	< 0.5	**3.3**	9500	**75**	**93**	**1500**	35000	**370**	4600	210	**7.4**	**1400**	**6**	41	38	160
	5-10 cm	18519	9200	< 0.8	**240**	79	< 0.5	**2.8**	5800	54	**77**	**1700**	35000	**170**	2800	170	**3.4**	**1500**	**6**	26	31	110
		18520	9200	< 0.8	**340**	70	< 0.5	**2.5**	5700	64	**86**	**2100**	41000	**260**	2700	170	**3.2**	**1700**	**7**	24	31	130
	10-20 cm	18521	8100	< 0.8	**360**	63	< 0.5	**2.1**	3600	53	**60**	**1400**	26000	**130**	2200	130	< 1.5	**1300**	**6**	20	26	100
		18522	8200	< 0.8	**290**	59	< 0.5	**1.4**	3300	40	**39**	**900**	21000	120	2100	130	< 1.5	**850**	**5**	19	27	76
5037583 Morlock St. (back yard)	0-5 cm	18523	9900	**1.8**	**150**	55	< 0.5	**2.8**	5700	45	**50**	**1000**	27000	**310**	3000	170	**3.8**	**770**	**3**	25	31	110
		18524	11000	**1.9**	**140**	62	< 0.5	**2.5**	6300	46	**45**	**870**	26000	**280**	3000	190	**3.7**	**710**	**2**	34	34	110
	5-10 cm	18525	10000	**1.2**	**190**	55	< 0.5	**1.5**	5200	38	**39**	**1100**	29000	**210**	2700	160	1.7	**740**	**3**	29	33	74
		18526	10000	**6.7**	**200**	58	< 0.5	**1.6**	5300	39	**42**	**1100**	28000	**340**	2700	170	1.6	**810**	**2**	31	33	78
	10-20 cm	18527	10000	1	**220**	62	< 0.5	**1.4**	4700	43	**36**	**880**	24000	**160**	2400	170	< 1.5	**760**	**2**	32	34	68
		18528	9800	0.8	**200**	57	< 0.5	**1.5**	4200	39	**42**	**880**	23000	**160**	2300	170	< 1.5	**790**	**2**	28	31	80

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037602 Morlock St. (front yard)	0-5 cm	18637	8200	< 0.8	**160**	39	< 0.5	**2.7**	3900	54	**68**	**1200**	28000	**140**	2500	130	**6.6**	**980**	**4**	23	25	64
		18638	8200	< 0.8	**190**	45	< 0.5	**2.9**	3400	69	**85**	**1400**	38000	**160**	2900	150	**9.1**	**1100**	**5**	23	30	78
	5-10 cm	18639	8600	< 0.8	**250**	46	< 0.5	**1.7**	2800	42	**52**	**1500**	26000	**170**	1900	130	< 1.5	**840**	**4**	19	23	70
		18640	9800	**8.1**	**220**	45	< 0.5	**1.6**	3100	41	**47**	**1400**	26000	**130**	1900	140	< 1.5	**860**	**4**	29	31	61
	10-20 cm	18641	9400	< 0.8	**210**	44	< 0.5	**1.2**	2600	32	**30**	**730**	18000	87	1700	130	< 1.5	**640**	**3**	29	27	54
		18642	8000	< 0.8	**160**	41	< 0.5	**1.2**	2400	27	**26**	**550**	16000	57	1700	120	< 1.5	**530**	**3**	26	23	43
5037603 Morlock St. (back yard)	0-5 cm	18643	8700	< 0.8	**210**	53	< 0.5	**3.2**	3800	60	**85**	**1800**	36000	**190**	2300	140	**5.1**	**1300**	**5**	27	30	78
		18644	9600	**1.1**	**210**	54	< 0.5	**3.3**	4500	59	**80**	**1800**	34000	**210**	2400	160	**5.1**	**1300**	**5**	31	31	81
	5-10 cm	18645	9600	< 0.8	**200**	65	< 0.5	**2.6**	4800	53	**64**	**1400**	24000	**130**	2000	190	< 1.5	**1400**	**5**	34	27	100
		18646	9800	< 0.8	**190**	65	< 0.5	**2.5**	4700	57	**61**	**1300**	26000	**180**	2100	170	< 1.5	**1300**	**4**	32	28	89
	10-20 cm	18647	13000	< 0.8	**160**	75	< 0.5	**1.7**	8100	52	**55**	**710**	21000	100	2400	200	< 1.5	**1300**	**3**	50	31	95
		18648	9800	< 0.8	**160**	60	< 0.5	**2**	6600	46	**49**	**940**	20000	97	2000	170	< 1.5	**1100**	**3**	35	27	93
5037604 Morlock ST. (front yard)	0-5 cm	18649	10000	< 0.8	**110**	50	< 0.5	**1.5**	5700	49	**46**	**850**	26000	90	2600	170	**4.3**	**620**	**3**	35	36	56
		18650	12000	< 0.8	**100**	54	< 0.5	**1.5**	7100	46	**49**	**820**	28000	94	2900	180	**2.7**	**760**	**3**	43	37	57
	5-10 cm	18651	10000	< 0.8	**180**	51	< 0.5	0.9	3300	41	**28**	**730**	23000	120	2100	150	< 1.5	**530**	**3**	33	34	41
		18652	11000	< 0.8	**210**	55	< 0.5	**2.3**	5600	49	**73**	**1700**	35000	**150**	2500	170	1.7	**1400**	**4**	37	45	70
	10-20 cm	18653	11000	< 0.8	**210**	57	< 0.5	**1.8**	5000	49	**62**	**1400**	33000	**150**	2500	160	**2.7**	**1100**	**3**	36	43	67
		18654	9800	< 0.8	**170**	46	< 0.5	**1.1**	3400	38	**31**	**700**	22000	110	2000	130	< 1.5	**620**	**3**	31	32	39
5037605 Morlock St. (back yard)	0-5 cm	18655	10000	**2**	**53**	46	< 0.5	**2.3**	5200	45	**42**	**650**	20000	**180**	2700	190	**3.9**	**560**	**2**	35	31	62
		18656	11000	**2.3**	**52**	47	< 0.5	**2.2**	5500	44	**47**	**670**	21000	**200**	2800	210	**3.8**	**620**	**3**	36	32	64
	5-10 cm	18657	10000	**3.4**	**160**	54	< 0.5	1	4500	41	**32**	**610**	24000	**250**	2600	190	< 1.5	**520**	**3**	27	30	52
		18658	9100	**2.8**	**110**	45	< 0.5	0.9	3600	35	**24**	**510**	20000	**190**	2500	160	< 1.5	**380**	**3**	18	26	46
	10-20 cm	18659	8000	**1.4**	**130**	40	< 0.5	< 0.8	2600	30	18	**530**	17000	95	2100	140	< 1.5	**290**	**3**	14	24	36
		18660	7200	**1.4**	**140**	39	< 0.5	< 0.8	2600	36	**25**	**880**	18000	110	1900	120	< 1.5	**470**	**4**	12	21	42

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037510 Parkinson St. (front yard)	0-5 cm	15553	8500	< 0.8	< 5	28	< 0.5	< 0.8	3000	29	11	55	12000	11	2200	160	< 1.5	**110**	< 1	20	24	28
		15554	7600	< 0.8	6	27	< 0.5	< 0.8	2900	28	12	62	11000	12	2100	160	1.8	**130**	< 1	18	23	29
	5-10 cm	15555	7700	< 0.8	< 5	24	< 0.5	< 0.8	2500	26	5	13	11000	4	2400	160	< 1.5	27	< 1	17	23	16
		15556	8200	< 0.8	< 5	25	< 0.5	< 0.8	3000	28	5	12	12000	4	2500	180	< 1.5	26	< 1	26	26	17
	10-20 cm	15557	8200	< 0.8	< 5	27	< 0.5	< 0.8	3000	27	5	14	11000	4	2400	180	< 1.5	31	< 1	26	25	22
		15558	11000	< 0.8	< 5	34	< 0.5	< 0.8	4500	35	5	19	14000	5	3000	220	< 1.5	34	< 1	40	32	20
5037511 Parkinson St. (back yard)	0-5 cm	15559	13000	< 0.8	< 5	42	< 0.5	< 0.8	5100	35	8	50	14000	13	2300	200	< 1.5	**97**	< 1	46	32	31
		15560	17000	< 0.8	11	54	< 0.5	1	4300	49	14	**110**	22000	25	3600	230	2.4	**200**	< 1	33	44	57
	5-10 cm	15561	9300	< 0.8	13	33	< 0.5	< 0.8	2800	28	8	**93**	12000	50	2100	140	< 1.5	**100**	< 1	24	26	25
		15562	9900	< 0.8	13	34	< 0.5	< 0.8	3200	29	8	**100**	13000	17	2100	160	< 1.5	**110**	< 1	29	28	27
	10-20 cm	15563	7600	< 0.8	**38**	42	< 0.5	0.8	4100	29	16	**280**	15000	36	2200	150	< 1.5	**280**	1	17	26	41
		15564	8800	< 0.8	**34**	45	< 0.5	< 0.8	6400	31	15	**200**	15000	31	2200	180	< 1.5	**220**	1	28	32	41
5037584 Parkinson St. (front yard) same as 5037510	0-5 cm	18529	10000	< 0.8	6	31	< 0.5	< 0.8	5200	29	12	56	13000	13	2300	200	2	**100**	< 1	39	29	29
		18530	9600	< 0.8	< 5	28	< 0.5	< 0.8	3900	28	11	52	13000	11	2300	180	< 1.5	**91**	< 1	33	28	27
	5-10 cm	18531	8800	< 0.8	< 5	26	< 0.5	< 0.8	3500	27	5	9.5	12000	4	2500	190	< 1.5	22	< 1	29	26	16
		18532	9800	< 0.8	< 5	27	< 0.5	< 0.8	3700	27	5	13	12000	5	2500	190	< 1.5	28	< 1	35	28	18
	10-20 cm	18533	8600	< 0.8	< 5	28	< 0.5	< 0.8	3600	26	5	13	12000	5	2400	190	< 1.5	25	< 1	31	26	17
		18534	11000	< 0.8	< 5	37	< 0.5	< 0.8	5300	32	6	17	14000	6	2800	220	< 1.5	32	< 1	47	31	20
5037585 Parkinson St. (back yard) same as 5037511	0-5 cm	18535	12000	< 0.8	9	37	< 0.5	< 0.8	4500	29	11	**110**	14000	17	2200	180	< 1.5	**210**	< 1	43	30	33
		18536	12000	< 0.8	7	43	< 0.5	< 0.8	5400	31	9	69	14000	23	2300	190	< 1.5	**140**	< 1	46	31	36
	5-10 cm	18537	12000	< 0.8	**21**	42	< 0.5	< 0.8	4300	28	8	**120**	15000	21	2600	180	< 1.5	**100**	< 1	40	31	28
		18538	11000	< 0.8	17	38	< 0.5	< 0.8	4500	29	11	**150**	15000	27	2300	180	< 1.5	**140**	< 1	42	30	34
	10-20 cm	18539	8900	< 0.8	**46**	43	< 0.5	< 0.8	5600	26	16	**290**	15000	39	2300	180	< 1.5	**290**	1	32	28	41
		18540	9100	< 0.8	**34**	44	< 0.5	0.8	5800	27	18	**320**	14000	33	2200	190	< 1.5	**330**	1	31	28	45

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037558 Parkinson St. (front yard)	0-5 cm	15934	7100	1	**98**	53	< 0.5	**3**	11000	45	**69**	**970**	22000	**130**	5700	150	**2.9**	**1300**	**3**	22	25	130
		15935	9600	< 0.8	**180**	56	< 0.5	**2.6**	9800	53	**86**	**1400**	29000	**140**	3800	170	1.9	**1600**	**4**	35	32	120
	5-10 cm	15936	11000	0.8	**290**	59	< 0.5	**2.2**	7000	56	**87**	**1700**	33000	**160**	2600	170	< 1.5	**1800**	**6**	31	33	110
		15937	9900	< 0.8	**260**	59	< 0.5	**1.7**	6100	53	**77**	**1500**	31000	**150**	2600	150	< 1.5	**1700**	**5**	27	32	90
	10-20 cm	15938	10000	< 0.8	**210**	60	< 0.5	**1.3**	4200	43	**56**	**900**	25000	95	2700	150	< 1.5	**1200**	**4**	25	32	75
		15939	10000	< 0.8	**130**	66	< 0.5	< 0.8	3700	39	**27**	**510**	18000	55	2000	150	< 1.5	**580**	**2**	26	32	47
5037559 Parkinson St. (back yard)	0-5 cm	15940	8900	**1.1**	**140**	54	< 0.5	**1.8**	6400	43	**50**	**790**	21000	100	2700	170	1.8	**890**	**3**	28	29	90
		15941	9200	< 0.8	**150**	58	< 0.5	**2**	6600	43	**52**	**950**	22000	**140**	3000	160	< 1.5	**980**	**3**	29	30	100
	5-10 cm	15942	9600	< 0.8	**210**	53	< 0.5	**2.3**	6200	46	**68**	**1200**	25000	**140**	2500	160	< 1.5	**1400**	**5**	31	31	100
		15943	10000	< 0.8	**210**	54	< 0.5	**1.4**	6600	44	**57**	**1100**	26000	**140**	2400	160	< 1.5	**1100**	**5**	36	32	110
	10-20 cm	15944	10000	< 0.8	**130**	48	< 0.5	< 0.8	4200	40	**36**	**670**	19000	85	2200	150	< 1.5	**730**	**3**	35	31	87
		15945	10000	< 0.8	**160**	49	< 0.5	1	5100	43	**42**	**930**	21000	120	2200	150	< 1.5	**890**	**4**	36	31	110
5037560 Parkinson St. (front yard)	0-5 cm	15946	9500	0.9	**160**	69	< 0.5	**3.7**	12000	70	**150**	**2200**	38000	**260**	2900	230	**3.7**	**2800**	**6**	45	39	**210**
		15947	9000	< 0.8	**130**	64	< 0.5	**3.1**	11000	59	**130**	**1900**	31000	**230**	2700	240	**3.6**	**2400**	**6**	38	37	**200**
	5-10 cm	15948	10000	< 0.8	**290**	65	< 0.5	**3.3**	13000	**75**	**95**	**1500**	32000	**220**	2500	180	< 1.5	**2000**	**6**	40	33	**180**
		15949	9600	0.9	**310**	63	< 0.5	**3.7**	13000	**75**	**110**	**1800**	41000	**220**	2700	180	< 1.5	**2300**	**6**	41	33	**210**
	10-20 cm	15950	7300	0.9	**150**	44	< 0.5	**1.4**	4500	36	**36**	**450**	16000	86	1600	140	< 1.5	**730**	**3**	12	22	83
		15951	7400	< 0.8	**130**	39	< 0.5	< 0.8	4100	32	**20**	**270**	13000	53	1500	110	< 1.5	**460**	**2**	12	23	54
5037561 Parkinson St. (back yard)	0-5 cm	15952	8500	0.8	**130**	66	< 0.5	**4.6**	9600	53	**110**	**1900**	29000	**190**	2600	170	2.4	**2200**	**5**	36	28	160
		15953	8600	< 0.8	**160**	66	< 0.5	**4.3**	14000	54	**120**	**2100**	33000	**200**	2800	180	1.7	**2600**	**5**	40	30	**180**
	5-10 cm	15954	8800	< 0.8	**240**	47	< 0.5	**2.8**	7200	45	**74**	**1300**	25000	**150**	2200	150	< 1.5	**1600**	**5**	31	28	140
		15955	8900	< 0.8	**180**	40	< 0.5	**1.7**	5900	38	**48**	**710**	19000	96	2000	160	< 1.5	**950**	**3**	30	28	110
	10-20 cm	15956	9200	< 0.8	**60**	37	< 0.5	< 0.8	3500	24	16	**180**	14000	27	1800	150	< 1.5	**310**	1	30	27	35
		15957	9200	< 0.8	**69**	44	< 0.5	< 0.8	3500	26	17	**200**	14000	43	1800	160	< 1.5	**330**	1	30	28	52

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037580 Parkinson St. (front yard)	0-5 cm	18504	9300	< 0.8	**26**	33	< 0.5	**1.8**	7900	47	**32**	**280**	15000	43	2400	130	**4.9**	**350**	1	34	28	57
		18505	9400	< 0.8	**31**	32	< 0.5	**1.8**	7300	41	**28**	**260**	15000	43	2400	140	**4.1**	**340**	1	33	28	65
	5-10 cm	18506	10000	< 0.8	**65**	35	< 0.5	0.9	6300	33	**26**	**450**	16000	51	2100	130	< 1.5	**490**	**2**	27	27	50
		18507	8800	< 0.8	**90**	34	< 0.5	**1.1**	4400	30	**33**	**570**	18000	62	1900	120	< 1.5	**650**	**2**	16	25	55
	10-20 cm	18508	11000	< 0.8	**270**	66	< 0.5	**2.1**	8400	50	**56**	**1100**	27000	**160**	2100	150	1.7	**1200**	**5**	24	34	99
		18509	9800	< 0.8	**220**	61	< 0.5	**1.5**	6700	44	**52**	**940**	24000	120	2100	140	< 1.5	**1100**	**4**	24	32	78
5037581 Parkinson St. (back yard)	0-5 cm	18511	7600	< 0.8	**29**	26	< 0.5	0.9	3900	31	18	**180**	12000	29	2200	130	**3**	**210**	1	24	23	47
		18512	10000	< 0.8	**46**	45	< 0.5	**1.1**	6500	40	**23**	**260**	15000	44	2400	160	**3.3**	**280**	**2**	37	29	51
	5-10 cm	18513	10000	< 0.8	**43**	38	< 0.5	< 0.8	3900	27	13	**220**	14000	30	2200	160	< 1.5	**180**	1	35	26	30
		18514	9200	< 0.8	**49**	31	< 0.5	< 0.8	3900	26	15	**270**	15000	35	2000	150	< 1.5	**230**	1	31	25	33
	10-20 cm	18515	10000	< 0.8	**97**	49	< 0.5	0.8	4800	34	**31**	**620**	20000	84	2300	170	< 1.5	**560**	**2**	37	28	53
		18516	10000	< 0.8	**110**	50	< 0.5	0.9	4700	36	**33**	**600**	21000	83	2200	170	< 1.5	**570**	**3**	37	29	52
5037536 Rix St. (front yard)	0-5 cm	15802	8900	< 0.8	**160**	51	< 0.5	**2.9**	12000	**73**	**98**	**1600**	32000	**130**	2700	130	< 1.5	**2000**	**5**	34	27	110
		15803	9900	< 0.8	**105**	68	< 0.5	**3.8**	27000	61	**92**	**1400**	28000	**140**	3300	170	2.4	**1700**	**4**	46	30	110
	5-10 cm	15804	8600	0.9	**84**	59	< 0.5	**3.2**	33000	49	**93**	**1400**	27000	120	3800	160	2.4	**1700**	**3**	45	29	100
		15805	9300	< 0.8	**110**	48	< 0.5	**1.9**	10000	62	**54**	**940**	21000	93	2400	110	< 1.5	**1100**	**4**	31	25	67
	10-20 cm	15806	8900	< 0.8	**56**	41	< 0.5	< 0.8	5700	30	17	**210**	11000	25	2100	97	< 1.5	**430**	**2**	27	23	31
		15807	9300	0.9	**57**	48	< 0.5	< 0.8	6500	33	19	**270**	11000	34	2100	98	< 1.5	**470**	**2**	28	23	29
5037537 Rix St. (back yard)	0-5 cm	15808	8100	< 0.8	**94**	67	< 0.5	**4.6**	38000	48	**120**	**2100**	31000	**180**	3200	150	**3.3**	**2400**	**5**	46	27	140
		15809	8400	< 0.8	**80**	72	< 0.5	**4.7**	40000	48	**95**	**1600**	26000	**150**	3500	160	**3.1**	**1700**	**4**	49	28	140
	5-10 cm	15810	9400	< 0.8	**92**	60	< 0.5	**1.8**	10000	36	**51**	**990**	17000	93	2000	110	< 1.5	**1300**	**4**	30	22	67
		15811	10000	< 0.8	**120**	65	< 0.5	**2.4**	14000	35	**68**	**1400**	22000	120	2200	120	< 1.5	**1700**	**5**	34	24	95
	10-20 cm	15812	8700	< 0.8	**64**	54	< 0.5	< 0.8	6800	29	**23**	**330**	12000	39	2200	110	< 1.5	**550**	**2**	28	21	43
		15813	8800	< 0.8	**72**	56	< 0.5	1	7400	34	**31**	**430**	12000	46	1800	98	< 1.5	**820**	**3**	26	21	47

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037552 Rix St. (front yard)	0-5 cm	15898	7600	0.8	**87**	50	< 0.5	**2.4**	10000	**75**	**86**	**1200**	27000	**130**	4400	170	**6.6**	**1300**	**4**	31	30	98
		15899	6900	< 0.8	**97**	60	< 0.5	**3.5**	12000	**73**	**110**	**1400**	27000	**180**	4000	180	**7.6**	**1500**	**4**	35	27	130
	5-10 cm	15900	9000	1	**220**	59	< 0.5	**2.9**	8800	**75**	**97**	**1800**	37000	**170**	2600	160	< 1.5	**1900**	**5**	29	29	140
		15901	8700	0.8	**150**	58	< 0.5	**1.9**	6300	49	**68**	**1000**	26000	110	2400	170	< 1.5	**1400**	**3**	26	28	110
	10-20 cm	15902	9500	< 0.8	**95**	51	< 0.5	0.9	4600	31	**29**	**320**	15000	30	2100	150	< 1.5	**600**	**2**	25	27	55
		15903	7200	< 0.8	**85**	59	< 0.5	1	4900	33	**38**	**380**	12000	52	2200	190	< 1.5	**790**	**2**	33	29	61
5037553 Rix St. (back yard)	0-5 cm	15904	7800	**2.5**	**190**	56	< 0.5	**4.1**	7100	56	**76**	**1600**	30000	**180**	2800	150	< 1.5	**1700**	**5**	34	28	**210**
		15905	7400	**3.8**	**220**	53	< 0.5	**3.9**	5900	51	**77**	**1600**	31000	**170**	2500	140	< 1.5	**1800**	**5**	24	26	**240**
	5-10 cm	15906	9500	< 0.8	**140**	41	< 0.5	**1.3**	3600	29	**33**	**510**	18000	63	1800	150	< 1.5	**910**	**3**	26	29	96
		15907	8700	< 0.8	**100**	34	< 0.5	< 0.8	3100	23	**24**	**320**	15000	36	1600	140	< 1.5	**680**	**2**	26	26	54
	10-20 cm	15908	9500	< 0.8	**37**	45	< 0.5	< 0.8	3100	22	13	**110**	14000	20	1800	160	< 1.5	**260**	< 1	27	27	29
		15909	12000	< 0.8	**55**	62	< 0.5	< 0.8	3900	29	19	**190**	16000	34	1900	180	< 1.5	**400**	1	36	30	39
5037554 Rix St. (front yard)	0-5 cm	15910	7300	< 0.8	**110**	55	< 0.5	**3.1**	5400	49	**69**	**1100**	29000	**150**	2600	160	< 1.5	**1200**	1	26	27	110
		15911	8700	< 0.8	**140**	64	< 0.5	**3.4**	7400	59	**64**	**920**	28000	**200**	2000	180	< 1.5	**1200**	**4**	31	30	160
	5-10 cm	15912	9600	< 0.8	**170**	60	< 0.5	**4.8**	13000	**120**	**66**	**800**	29000	96	2400	160	< 1.5	**1300**	**4**	35	28	120
		15913	9000	< 0.8	**180**	52	< 0.5	**1.9**	4700	43	**38**	**730**	21000	**170**	1900	160	< 1.5	**800**	**4**	29	28	120
	10-20 cm	15914	11000	< 0.8	**82**	59	< 0.5	< 0.8	5600	35	**25**	**220**	15000	38	2200	150	< 1.5	**450**	**5**	34	29	37
		15915	11000	< 0.8	**120**	64	< 0.5	1	4700	34	**26**	**400**	16000	86	2000	190	< 1.5	**560**	**3**	36	31	87
5037555 Rix St. (back yard)	0-5 cm	15916	10000	< 0.8	**120**	75	< 0.5	**2.4**	7100	37	**55**	**1000**	23000	**170**	2300	200	< 1.5	**1100**	**3**	39	31	140
		15917	8400	< 0.8	**120**	62	< 0.5	**2.8**	6500	33	**56**	**1000**	22000	**160**	2200	190	1.7	**1100**	**3**	30	27	140
	5-10 cm	15918	14000	0.9	**120**	87	< 0.5	**1.4**	8200	33	**38**	**690**	25000	**180**	2300	220	< 1.5	**760**	**3**	41	31	140
		15919	9400	0.8	**120**	64	< 0.5	**1.3**	6500	30	**45**	**640**	20000	**130**	2000	210	< 1.5	**850**	**3**	31	29	130
	10-20 cm	15920	9100	< 0.8	**94**	58	< 0.5	< 0.8	4800	26	21	**260**	15000	64	2000	200	< 1.5	**380**	< 1	30	28	76
		15921	9600	< 0.8	**110**	71	< 0.5	0.9	6700	30	**30**	**450**	18000	120	2100	200	< 1.5	**580**	**2**	35	29	120

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.3: Falconbridge residential front yard and back yard soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037612 Rix St. (front yard)	0-5 cm	18697	8400	< 0.8	**180**	46	< 0.5	**3.1**	7100	51	**73**	**1200**	29000	120	3400	160	**4.1**	**1200**	**5**	27	29	88
		18698	9200	< 0.8	**140**	53	< 0.5	**3.2**	7300	51	**65**	**1000**	26000	**130**	2900	170	**3.6**	**1000**	**5**	30	30	100
	5-10 cm	18699	10000	< 0.8	**370**	56	< 0.5	**2.5**	6700	51	**92**	**1900**	40000	**170**	3000	190	1.8	**1800**	**7**	29	34	100
		18700	9900	< 0.8	**350**	62	< 0.5	**2.7**	6400	52	**92**	**2000**	40000	**180**	2600	210	1.9	**1900**	**7**	28	33	110
	10-20 cm	18701	9800	< 0.8	**100**	45	< 0.5	< 0.8	3300	26	**34**	**440**	17000	38	1900	150	< 1.5	**690**	**2**	27	27	55
		18702	10000	< 0.8	**180**	54	< 0.5	**1.2**	4200	31	**49**	**800**	21000	71	2100	170	< 1.5	**1000**	**4**	27	29	76
5037613 Rix St. (back yard)	0-5 cm	18703	8400	< 0.8	**100**	53	< 0.5	**4.9**	8100	40	**66**	**1200**	23000	91	2900	190	**2.7**	**1200**	**4**	30	28	86
		18704	9500	< 0.8	**130**	54	< 0.5	**1.3**	7200	32	**41**	**800**	21000	63	2300	270	< 1.5	**820**	**3**	25	35	61
	5-10 cm	18705	10000	< 0.8	**110**	51	< 0.5	1	5200	29	**32**	**510**	20000	48	2200	260	< 1.5	**700**	**2**	25	35	58
		18706	8900	< 0.8	**150**	46	< 0.5	< 0.8	3400	27	17	**410**	18000	48	2100	160	< 1.5	**300**	**3**	25	29	37
	10-20 cm	18707	8600	< 0.8	**105**	46	< 0.5	**2.5**	6200	35	**46**	**440**	22000	45	2900	180	**3**	**280**	**3**	28	30	76
		18708	11000	< 0.8	**100**	54	< 0.5	< 0.8	4200	28	16	**360**	17000	36	2200	170	< 1.5	**280**	**2**	36	32	34

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Community of Sudbury (Core)																						
5037905 Albinson St. (back yard)	0 - 5 cm	18882	12000	< 0.8	16	110	< 0.5	**1.5**	7200	40	**35**	**820**	24000	97	3300	220	< 1.5	**940**	**5**	48	34	110
		18883	13000	< 0.8	**18**	110	< 0.5	**1.8**	7900	42	**34**	**880**	24000	98	3600	230	< 1.5	**900**	**5**	49	36	110
	5 - 10 cm	18884	15000	< 0.8	9	110	< 0.5	< 0.8	4200	39	10	**180**	17000	40	3200	230	< 1.5	**230**	< 1	46	35	70
		18885	12000	< 0.8	14	100	< 0.5	< 0.8	4100	35	14	**270**	18000	76	3200	230	< 1.5	**340**	1	43	33	81
	10 - 20 cm	18886	14000	< 0.8	6	110	< 0.5	< 0.8	4300	36	8	**110**	17000	37	3100	230	< 1.5	**160**	< 1	48	34	63
		18887	12000	< 0.8	6	87	< 0.5	< 0.8	3800	32	8	**120**	15000	26	2600	200	< 1.5	**160**	< 1	43	31	50
5037894 Anderson Ave. (back yard)	0 - 5 cm	17514	12000	< 0.8	9	150	< 0.5	**1.8**	12000	35	**22**	**460**	19000	120	3400	900	< 1.5	**430**	< 1	67	34	**170**
		17515	9900	< 0.8	9	210	< 0.5	**1.9**	15000	37	**22**	**430**	17000	110	3100	1200	< 1.5	**440**	**3**	84	30	**230**
	5 - 10 cm	17516	11000	< 0.8	8	72	< 0.5	< 0.8	6500	31	10	**130**	16000	25	2900	410	< 1.5	**150**	< 1	43	34	62
		17517	11000	< 0.8	7	78	< 0.5	< 0.8	6800	31	8	**110**	16000	20	2800	480	< 1.5	**120**	< 1	44	33	61
	10 - 20 cm	17518	12000	< 0.8	7	69	< 0.5	< 0.8	5700	31	9	**110**	16000	20	2900	380	< 1.5	**130**	< 1	43	34	61
		17519	10000	< 0.8	6	39	< 0.5	< 0.8	2900	29	8	81	15000	10	2700	210	< 1.5	**84**	< 1	24	31	30
5037964 Antwerp Ave. (back yard)	0 - 5 cm	20857	10000	< 0.8	16	71	< 0.5	**1.5**	4400	37	**26**	**490**	21000	120	3700	220	< 1.5	**560**	**3**	32	29	120
		20858	8800	< 0.8	**22**	80	< 0.5	**1.6**	4600	37	**28**	**640**	22000	**150**	3600	210	< 1.5	**650**	**4**	29	27	150
	5 - 10 cm	20859	9600	< 0.8	**18**	88	< 0.5	0.9	3600	35	**22**	**380**	21000	**140**	3000	240	< 1.5	**450**	**2**	34	29	140
		20860	9000	< 0.8	**22**	78	< 0.5	**1.1**	3500	35	**22**	**450**	19000	110	3000	230	< 1.5	**500**	**3**	28	27	150
	10 - 20 cm	20861	11000	< 0.8	**20**	98	< 0.5	1.0	4000	42	**24**	**430**	24000	**130**	4200	290	< 1.5	**560**	**2**	38	33	160
		20862	12000	< 0.8	**19**	110	< 0.5	**1.2**	4600	46	**25**	**400**	25000	**130**	4500	330	< 1.5	**550**	**2**	44	36	**170**
5037898 Ash St. (back yard)	0 - 5 cm	18840	8200	< 0.8	**33**	64	< 0.5	**3.1**	6800	67	**30**	**730**	19000	97	1500	150	1.7	**980**	**4**	23	23	120
		18841	8500	**1.1**	**34**	80	< 0.5	**2.7**	6300	51	**34**	**770**	20000	120	1600	140	< 1.5	**1100**	**4**	26	24	150
	5 - 10 cm	18842	8400	< 0.8	15	61	< 0.5	< 0.8	3200	37	8	**210**	13000	40	1400	150	< 1.5	**240**	1	24	24	69
		18843	11000	< 0.8	17	67	< 0.5	< 0.8	4400	39	9	**200**	14000	38	1400	160	< 1.5	**300**	1	35	28	79
	10 - 20 cm	18844	12000	< 0.8	10	57	< 0.5	< 0.8	3700	30	7	**120**	14000	18	1600	160	< 1.5	**150**	< 1	33	28	36
		18845	10000	< 0.8	7	40	< 0.5	< 0.8	3300	24	6	85	12000	13	1500	130	< 1.5	**110**	< 1	30	25	33
5037903 Ash St. (back yard)	0 - 5 cm	18870	11000	< 0.8	9	61	< 0.5	**1.1**	6700	35	16	**310**	19000	34	3500	260	< 1.5	**320**	**2**	37	32	92
		18871	8700	< 0.8	8	60	< 0.5	**1.4**	6100	33	19	**410**	19000	49	3500	250	< 1.5	**380**	**3**	26	28	110
	5 - 10 cm	18872	8900	< 0.8	8	58	< 0.5	< 0.8	5600	30	11	**240**	16000	25	3100	250	< 1.5	**210**	1	25	28	69
		18873	8600	< 0.8	8	61	< 0.5	< 0.8	5200	31	13	**250**	17000	34	3400	250	< 1.5	**240**	**2**	25	30	94
	10 - 20 cm	18874	10000	< 0.8	7	62	< 0.5	< 0.8	6600	31	9	**150**	17000	18	3100	260	< 1.5	**150**	1	32	30	57
		18875	9700	< 0.8	10	71	< 0.5	< 0.8	6400	33	11	**180**	18000	23	3500	270	< 1.5	**180**	1	31	32	60

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037967 Bessie Ave. (back yard)	0 - 5 cm	20875	8600	< 0.8	12	86	< 0.5	0.9	6700	33	15	**290**	17000	85	3400	220	< 1.5	**320**	**2**	37	31	140
		20876	9800	< 0.8	13	95	< 0.5	0.9	7000	36	17	**300**	18000	87	3600	240	< 1.5	**360**	**2**	42	33	130
	5 - 10 cm	20877	6000	< 0.8	10	77	< 0.5	< 0.8	6000	26	11	**160**	14000	100	3700	180	< 1.5	**230**	1	29	25	87
		20878	7000	< 0.8	8	72	< 0.5	< 0.8	5900	27	11	**180**	15000	58	3300	190	< 1.5	**230**	1	34	29	80
	10 - 20 cm	20879	6500	< 0.8	6	55	< 0.5	< 0.8	7600	26	10	**140**	14000	52	4200	180	< 1.5	**180**	< 1	35	27	57
		20880	9000	< 0.8	5	67	< 0.5	< 0.8	8200	30	9	**97**	14000	37	4300	190	< 1.5	**140**	< 1	44	28	46
5037962 Bloor St. (back yard)	0 - 5 cm	20845	12000	< 0.8	13	120	< 0.5	**1.3**	5600	39	21	**390**	19000	**140**	3000	300	< 1.5	**440**	**2**	50	32	160
		20846	12000	< 0.8	12	120	< 0.5	**1.5**	5800	39	**24**	**440**	20000	**160**	3000	230	< 1.5	**540**	**2**	48	31	**170**
	5 - 10 cm	20847	9300	1.0	**18**	120	< 0.5	< 0.8	3500	30	19	**310**	18000	**140**	2200	230	< 1.5	**440**	**2**	42	28	150
		20848	9500	0.9	**18**	120	< 0.5	< 0.8	3600	31	20	**360**	19000	**140**	2400	210	< 1.5	**480**	**2**	41	28	150
	10 - 20 cm	20849	8800	**1.3**	**21**	170	< 0.5	0.9	3400	29	18	**330**	19000	**150**	2000	240	< 1.5	**490**	**2**	45	26	**200**
		20850	8500	**1.1**	**22**	150	< 0.5	0.9	3300	28	17	**310**	18000	**150**	2100	250	< 1.5	**450**	**2**	43	26	**190**
5037994 Boland Ave. (front yard)	0 - 5 cm	21078	9600	< 0.8	< 5	37	< 0.5	< 0.8	4100	31	8	**110**	13000	17	2700	200	< 1.5	**110**	1	37	29	32
		21079	9900	< 0.8	< 5	36	< 0.5	< 0.8	4100	31	7	**91**	14000	14	2600	200	< 1.5	**95**	< 1	39	30	28
	5 - 10 cm	21080	9200	< 0.8	< 5	23	< 0.5	< 0.8	3200	27	5	34	12000	7	2000	190	< 1.5	39	< 1	31	27	19
		21081	9800	< 0.8	< 5	28	< 0.5	< 0.8	3500	27	5	39	12000	8	2000	200	< 1.5	43	< 1	36	28	19
	10 - 20 cm	21082	8900	< 0.8	< 5	32	< 0.5	< 0.8	3200	26	6	53	12000	9	2000	190	< 1.5	**63**	< 1	30	27	21
		21083	7600	< 0.8	< 5	31	< 0.5	< 0.8	2300	24	6	62	11000	11	2000	170	< 1.5	**63**	< 1	20	24	20
5037959 Bond St. (front yard)	0 - 5 cm	20827	11000	0.9	**32**	79	< 0.5	**1.2**	4100	37	**44**	**850**	27000	**170**	2700	190	< 1.5	**860**	**2**	40	31	110
		20828	11000	0.9	**32**	87	< 0.5	**1.5**	4200	42	**46**	**810**	28000	**200**	2800	190	< 1.5	**1000**	**3**	40	31	120
	5 - 10 cm	20829	8500	< 0.8	12	52	< 0.5	< 0.8	2600	25	10	**260**	14000	38	2200	160	< 1.5	**224**	1	28	24	54
		20830	9900	< 0.8	**24**	63	< 0.5	0.9	3400	30	18	**470**	20000	**75**	2300	180	< 1.5	**446**	**2**	36	28	75
	10 - 20 cm	20831	8000	< 0.8	< 5	51	< 0.5	< 0.8	2700	23	6	50	12000	12	2100	140	< 1.5	**97**	< 1	31	24	31
		20832	7900	< 0.8	< 5	38	< 0.5	< 0.8	2700	24	7	81	12000	15	2100	150	< 1.5	**130**	< 1	31	24	32
5037960 Brebeuf Ave. (back yard)	0 - 5 cm	20833	9100	< 0.8	10	43	< 0.5	1.0	4100	32	17	**330**	16000	40	2300	180	1.8	**400**	**2**	36	31	50
		20834	9000	< 0.8	12	43	< 0.5	**1.5**	4500	33	**24**	**480**	17000	65	2300	190	< 1.5	**570**	**3**	36	31	75
	5 - 10 cm	20835	7600	< 0.8	< 5	29	< 0.5	< 0.8	2800	24	5	40	11000	6	2200	140	< 1.5	**58**	< 1	27	25	17
		20836	8600	< 0.8	< 5	32	< 0.5	< 0.8	3100	25	6	72	12000	9	2200	150	< 1.5	**83**	< 1	31	28	26
	10 - 20 cm	20837	9200	< 0.8	< 5	38	< 0.5	< 0.8	3200	26	6	39	13000	9	2500	150	< 1.5	**59**	< 1	32	27	22
		20838	7600	< 0.8	< 5	27	< 0.5	< 0.8	2400	23	6	42	12000	7	2200	130	< 1.5	**48**	< 1	23	25	24

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037951 Brock St. (front yard)	0 - 5 cm	20779	11000	< 0.8	7	43	< 0.5	< 0.8	4900	35	11	**150**	16000	33	3100	190	< 1.5	**150**	**2**	38	30	59
		20780	10000	< 0.8	6	43	< 0.5	< 0.8	4700	33	11	**150**	15000	32	3000	200	< 1.5	**160**	**2**	35	30	64
	5 - 10 cm	20781	9600	< 0.8	< 5	25	< 0.5	< 0.8	3200	28	7	56	14000	9	2500	150	< 1.5	**60**	1	31	30	22
		20782	9400	< 0.8	9	24	< 0.5	< 0.8	2900	27	7	60	14000	10	2300	140	< 1.5	**64**	1	27	29	43
	10 - 20 cm	20783	12000	< 0.8	8	37	< 0.5	< 0.8	3000	28	11	**110**	17000	20	2600	190	**2.9**	**140**	**2**	29	32	35
		20784	11000	< 0.8	6	33	< 0.5	< 0.8	3200	29	9	**90**	15000	22	2500	180	< 1.5	**110**	**2**	32	31	41
5037970 Bruce Ave. (back yard)	0 - 5 cm	20893	11000	< 0.8	9	91	< 0.5	< 0.8	11000	34	11	**210**	15000	55	3500	300	< 1.5	**240**	**2**	47	34	**180**
		20894	10000	< 0.8	11	92	< 0.5	**1.2**	10000	34	12	**230**	15000	61	3500	300	< 1.5	**260**	**2**	47	34	**200**
	5 - 10 cm	20895	11000	< 0.8	10	95	< 0.5	1.0	12000	34	12	**210**	16000	57	3600	300	< 1.5	**260**	**2**	48	35	**180**
		20896	11000	< 0.8	11	89	< 0.5	0.9	10000	34	12	**210**	15000	59	3400	290	< 1.5	**260**	1	47	35	**180**
	10 - 20 cm	20897	11000	< 0.8	11	87	< 0.5	< 0.8	8500	33	10	**180**	15000	48	2900	270	< 1.5	**200**	1	47	35	160
		20898	11000	0.9	11	92	< 0.5	< 0.8	8300	32	10	**170**	15000	75	2800	260	< 1.5	**200**	1	46	34	**180**
5037906 Buchanan St. (front yard)	0 - 5 cm	18888	8400	< 0.8	7	34	< 0.5	< 0.8	3800	29	9	**200**	13000	26	2200	160	< 1.5	**210**	1	28	25	44
		18889	8100	< 0.8	7	30	< 0.5	< 0.8	3400	28	10	**180**	13000	25	2100	150	< 1.5	**220**	1	26	26	45
	5 - 10 cm	18890	7600	< 0.8	7	25	< 0.5	< 0.8	2500	28	9	**120**	12000	18	1900	140	< 1.5	**190**	< 1	20	24	28
		18891	7200	< 0.8	8	25	< 0.5	< 0.8	2800	24	9	**130**	12000	17	1800	140	< 1.5	**220**	< 1	22	23	33
	10 - 20 cm	18892	7200	< 0.8	< 5	26	< 0.5	< 0.8	2300	23	6	50	11000	8	1800	130	< 1.5	**85**	< 1	21	24	19
		18893	7100	< 0.8	< 5	24	< 0.5	< 0.8	2100	21	5	43	11000	7	1900	120	< 1.5	**70**	< 1	17	23	18
5037965 Burton Ave. (front yard)	0 - 5 cm	20863	9900	< 0.8	9	80	< 0.5	0.9	6500	31	14	**220**	15000	73	2700	230	< 1.5	**240**	**2**	42	34	100
		20864	11000	< 0.8	9	87	< 0.5	0.9	6900	33	15	**210**	16000	63	2900	230	< 1.5	**240**	**2**	45	35	98
	5 - 10 cm	20865	9100	< 0.8	10	88	< 0.5	< 0.8	4800	27	12	**150**	15000	86	2300	200	< 1.5	**210**	1	40	30	100
		20866	9500	< 0.8	9	97	< 0.5	< 0.8	4900	28	11	**150**	14000	98	2300	200	2.1	**180**	1	41	31	100
	10 - 20 cm	20867	9900	< 0.8	7	100	< 0.5	< 0.8	5100	31	10	**110**	14000	87	2600	200	< 1.5	**160**	< 1	42	31	100
		20868	7200	< 0.8	10	130	< 0.5	< 0.8	4600	24	8	**110**	13000	91	2500	180	< 1.5	**140**	< 1	34	27	120
5037966 Burton Ave. (side yard)	0 - 5 cm	20869	8200	< 0.8	16	36	< 0.5	< 0.8	4900	27	21	**420**	20000	48	2900	200	< 1.5	**480**	**2**	25	31	56
		20870	7800	< 0.8	17	33	< 0.5	< 0.8	4900	27	19	**410**	18000	49	3000	170	< 1.5	**440**	**2**	24	29	50
	5 - 10 cm	20871	7700	< 0.8	11	24	< 0.5	< 0.8	2700	21	8	**130**	14000	13	2300	180	< 1.5	**120**	1	21	27	28
		20872	7500	< 0.8	12	24	< 0.5	< 0.8	2700	20	10	**170**	14000	18	2100	170	< 1.5	**170**	< 1	20	26	27
	10 - 20 cm	20873	5300	< 0.8	< 5	19	< 0.5	< 0.8	2700	20	6	33	12000	5	2700	150	< 1.5	35	< 1	21	24	21
		20874	5600	< 0.8	< 5	17	< 0.5	< 0.8	2400	20	6	42	12000	6	2600	150	< 1.5	42	< 1	19	24	21

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028001 Charlotte St. (back yard)	0 - 5 cm	21114	11000	< 0.8	8	54	< 0.5	**1.2**	11000	32	18	**400**	18000	66	6000	210	< 1.5	**360**	**3**	36	29	86
		21115	11000	< 0.8	7	56	< 0.5	**1.2**	10000	34	21	**400**	19000	63	5500	210	< 1.5	**400**	**3**	38	29	90
	5 - 10 cm	21116	11000	< 0.8	5	53	< 0.5	< 0.8	6400	34	12	**230**	18000	46	4300	220	< 1.5	**180**	1	33	32	58
		21117	12000	< 0.8	8	61	< 0.5	< 0.8	7500	36	14	**280**	18000	51	4600	210	< 1.5	**230**	**2**	38	32	74
	10 - 20 cm	21118	8700	< 0.8	< 5	48	< 0.5	< 0.8	4200	29	7	77	14000	15	3500	180	< 1.5	**73**	< 1	28	27	30
		21119	11000	< 0.8	5	64	< 0.5	< 0.8	5700	33	8	**110**	17000	23	3400	210	< 1.5	**120**	< 1	38	32	49
5037955 Dell St. (back yard)	0 - 5 cm	20803	8000	< 0.8	< 5	34	< 0.5	< 0.8	3400	26	6	40	12000	11	2300	150	< 1.5	**57**	< 1	29	26	24
		20804	8100	< 0.8	< 5	39	< 0.5	< 0.8	3400	25	7	40	12000	11	2300	140	< 1.5	**51**	< 1	28	26	27
	5 - 10 cm	20805	8400	< 0.8	< 5	35	< 0.5	< 0.8	3500	25	7	35	13000	8	2400	150	< 1.5	**48**	< 1	30	26	18
		20806	8300	< 0.8	< 5	34	< 0.5	< 0.8	3500	25	6	29	12000	9	2300	140	< 1.5	**44**	< 1	30	27	17
	10 - 20 cm	20807	7700	< 0.8	5	40	< 0.5	< 0.8	3000	26	13	71	14000	14	2700	160	< 1.5	**79**	< 1	21	26	45
		20808	11000	< 0.8	8	58	< 0.5	< 0.8	4400	33	12	**86**	16000	27	2900	220	< 1.5	**97**	< 1	42	32	52
5037956 Dell St. (back yard)	0 - 5 cm	20809	10000	< 0.8	< 5	42	< 0.5	< 0.8	4500	29	7	**98**	13000	22	2400	220	< 1.5	**110**	1	41	30	42
		20810	10000	< 0.8	< 5	37	< 0.5	< 0.8	3900	27	7	**95**	13000	21	2200	200	< 1.5	**110**	< 1	38	28	39
	5 - 10 cm	20811	7900	< 0.8	< 5	35	< 0.5	< 0.8	3800	26	8	**90**	11000	20	2300	170	< 1.5	**120**	< 1	35	26	34
		20812	7700	< 0.8	< 5	35	< 0.5	< 0.8	3500	25	7	71	11000	14	2200	160	< 1.5	**94**	< 1	33	25	31
	10 - 20 cm	20813	6600	< 0.8	< 5	29	< 0.5	< 0.8	3700	24	8	73	11000	21	2100	140	< 1.5	**110**	< 1	30	23	34
		20814	6900	< 0.8	< 5	34	< 0.5	< 0.8	3600	24	7	66	10000	16	2200	140	< 1.5	**100**	1	32	24	32
5037995 Dunvegan Ct. (back yard)	0 - 5 cm	21084	8000	< 0.8	13	47	< 0.5	**1.1**	4600	28	19	**450**	16000	42	2600	190	< 1.5	**440**	**3**	29	28	47
		21085	8000	< 0.8	14	45	< 0.5	0.9	4300	29	17	**370**	15000	35	2500	190	< 1.5	**380**	**3**	30	28	40
	5 - 10 cm	21086	10000	< 0.8	10	53	< 0.5	< 0.8	5200	31	10	**180**	15000	16	2900	210	< 1.5	**210**	1	37	32	33
		21087	11000	< 0.8	8	63	< 0.5	< 0.8	4900	33	10	**140**	15000	13	3000	210	< 1.5	**170**	1	39	34	30
	10 - 20 cm	21088	7000	< 0.8	< 5	36	< 0.5	< 0.8	3200	22	5	38	11000	4	2300	140	< 1.5	**46**	< 1	31	25	15
		21089	8100	< 0.8	< 5	44	< 0.5	< 0.8	3300	24	5	33	11000	4	2400	150	< 1.5	43	< 1	31	26	14
5037971 Dupont St. (back yard)	0 - 5 cm	20899	12000	< 0.8	16	75	< 0.5	0.9	9100	51	16	**300**	18000	47	3400	230	< 1.5	**370**	**2**	45	35	130
		20900	13000	< 0.8	**20**	84	< 0.5	0.9	9600	46	18	**330**	19000	48	3500	240	< 1.5	**420**	**2**	48	36	150
	5 - 10 cm	20901	13000	< 0.8	16	74	< 0.5	< 0.8	11000	41	15	**270**	18000	43	3200	230	< 1.5	**450**	**2**	48	34	120
		20902	13000	< 0.8	**18**	73	< 0.5	< 0.8	13000	41	17	**300**	19000	45	3200	230	< 1.5	**400**	**2**	49	34	130
	10 - 20 cm	20903	13000	< 0.8	15	73	< 0.5	< 0.8	11000	38	15	**230**	17000	36	2900	220	< 1.5	**340**	**2**	48	33	100
		20904	14000	< 0.8	16	85	< 0.5	< 0.8	13000	42	16	**270**	19000	40	3000	240	< 1.5	**400**	**2**	49	34	130

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037989 Edmund St. (front yard)	0 - 5 cm	21015	9000	< 0.8	7	42	< 0.5	< 0.8	4400	27	9	**160**	13000	48	2500	160	< 1.5	**170**	**2**	31	28	48
		21016	9200	< 0.8	5	37	< 0.5	< 0.8	4000	25	7	**93**	12000	22	2000	160	< 1.5	**110**	1	38	27	35
	5 - 10 cm	21017	11000	< 0.8	14	56	< 0.5	< 0.8	4100	37	14	**290**	19000	78	2800	180	< 1.5	**290**	**2**	34	39	61
		21018	12000	< 0.8	14	65	< 0.5	< 0.8	5400	40	15	**310**	20000	95	3100	200	< 1.5	**310**	**3**	40	40	68
	10 - 20 cm	21019	13000	< 0.8	17	74	< 0.5	< 0.8	3200	39	15	**270**	21000	82	3000	220	< 1.5	**300**	**2**	36	36	58
		21020	12000	< 0.8	17	75	< 0.5	< 0.8	3400	40	15	**250**	20000	76	3000	230	< 1.5	**320**	**2**	36	36	57
5037893 Ethelbert St. (back yard)	0 - 5 cm	17508	12000	< 0.8	14	53	< 0.5	**1.6**	6500	50	**26**	**550**	20000	59	3000	200	< 1.5	**590**	**3**	44	32	77
		17509	10000	< 0.8	16	46	< 0.5	**1.3**	5300	49	**27**	**560**	20000	58	2700	170	< 1.5	**680**	**3**	36	30	72
	5 - 10 cm	17510	6900	< 0.8	13	35	< 0.5	< 0.8	3200	32	15	**390**	13000	38	2100	130	< 1.5	**370**	**2**	22	26	50
		17511	6600	< 0.8	9	32	< 0.5	< 0.8	3000	29	10	**250**	12000	19	2100	120	< 1.5	**250**	1	24	26	41
	10 - 20 cm	17512	8000	< 0.8	< 5	34	< 0.5	< 0.8	3300	27	7	70	12000	8	2500	150	< 1.5	**100**	< 1	33	27	23
		17513	7300	< 0.8	< 5	32	< 0.5	< 0.8	2900	25	6	45	12000	5	2500	150	< 1.5	**78**	< 1	31	25	19
5028002 Granite St. (back yard)	0 - 5 cm	21120	12000	< 0.8	**22**	99	< 0.5	**2.6**	7900	54	**41**	**820**	27000	100	3100	210	< 1.5	**1000**	**5**	47	32	130
		21121	12000	< 0.8	**20**	100	< 0.5	**3.1**	8300	50	**48**	**920**	28000	120	3300	220	< 1.5	**1200**	**6**	47	32	140
	5 - 10 cm	21122	11000	< 0.8	**18**	59	< 0.5	0.9	4600	38	11	**250**	18000	32	2400	170	1.6	**320**	**2**	34	30	62
		21123	11000	< 0.8	**22**	73	< 0.5	**1.4**	5700	52	17	**420**	20000	49	2600	180	< 1.5	**470**	**3**	40	31	82
	10 - 20 cm	21124	11000	< 0.8	14	63	< 0.5	< 0.8	3500	28	7	**150**	15000	31	2100	160	< 1.5	**160**	< 1	35	28	53
		21125	13000	< 0.8	13	71	< 0.5	< 0.8	4700	34	8	**150**	18000	27	2500	180	< 1.5	**190**	< 1	45	34	55
5037993 Huron St. (back yard)	0 - 5 cm	21039	13000	< 0.8	9	66	< 0.5	< 0.8	6700	38	16	**360**	19000	28	3800	200	< 1.5	**320**	**2**	42	34	41
		21040	14000	< 0.8	12	83	< 0.5	**1.2**	8600	43	**25**	**490**	21000	52	4400	230	< 1.5	**520**	**3**	46	34	57
	5 - 10 cm	21041	14000	< 0.8	10	70	< 0.5	< 0.8	3600	40	11	**150**	20000	17	3800	230	< 1.5	**180**	1	32	35	31
		21042	14000	< 0.8	11	77	< 0.5	< 0.8	4300	37	10	**180**	19000	27	3300	220	< 1.5	**180**	1	39	35	40
	10 - 20 cm	21043	18000	< 0.8	9	120	< 0.5	< 0.8	5600	55	14	**140**	26000	23	6600	340	< 1.5	**170**	< 1	46	45	39
		21044	20000	< 0.8	7	130	< 0.5	< 0.8	5500	55	10	**110**	24000	25	5800	310	< 1.5	**130**	< 1	54	46	45
5037997 Hyland Dr. (front yard)	0 - 5 cm	21096	6600	< 0.8	< 5	27	< 0.5	< 0.8	3100	23	9	**140**	12000	31	2500	140	< 1.5	**140**	1	24	24	36
		21097	7200	< 0.8	< 5	25	< 0.5	< 0.8	3100	26	9	**150**	13000	36	2400	140	< 1.5	**140**	1	26	26	34
	5 - 10 cm	21098	6400	< 0.8	6	21	< 0.5	< 0.8	2600	23	8	**110**	12000	17	2100	130	< 1.5	**140**	< 1	22	24	24
		21099	5900	< 0.8	5	18	< 0.5	< 0.8	2300	21	8	84	12000	16	2100	130	< 1.5	**120**	< 1	22	24	20
	10 - 20 cm	21100	7200	< 0.8	8	28	< 0.5	< 0.8	2600	24	9	**120**	13000	18	2200	200	< 1.5	**170**	1	23	27	28
		21101	7800	< 0.8	8	32	< 0.5	< 0.8	2800	26	10	**130**	13000	21	2300	210	< 1.5	**170**	1	25	26	37

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037957 John St. (back yard)	0 - 5 cm	20815	11000	**2.0**	14	120	< 0.5	**1.6**	12000	34	**34**	**830**	18000	**160**	4000	240	< 1.5	**840**	**2**	51	28	**200**
		20816	11000	**1.6**	15	120	< 0.5	**1.7**	12000	33	**33**	**870**	19000	**160**	4000	240	< 1.5	**820**	**3**	49	27	**200**
	5 - 10 cm	20817	12000	**1.1**	17	150	< 0.5	**1.1**	9100	30	**36**	**830**	20000	**150**	3500	240	< 1.5	**970**	**2**	55	29	**190**
		20818	12000	0.9	**19**	150	< 0.5	**1.1**	9300	31	**30**	**790**	21000	**150**	3500	230	< 1.5	**860**	**2**	54	28	**190**
	10 - 20 cm	20819	11000	< 0.8	12	190	< 0.5	< 0.8	5500	24	**20**	**500**	16000	**140**	2000	240	< 1.5	**518**	1	57	24	160
		20820	11000	1.0	13	**240**	< 0.5	1.0	5500	24	**28**	**530**	16000	**180**	1900	260	< 1.5	**820**	**2**	66	25	**200**
5037992 Kingsmount Blvd. (back yard)	0 - 5 cm	21033	11000	< 0.8	14	89	< 0.5	**3.3**	9200	**93**	**30**	**680**	22000	99	2900	180	< 1.5	**780**	**4**	41	28	100
		21034	10000	< 0.8	13	85	< 0.5	**2.9**	9100	**110**	**26**	**640**	21000	97	3100	170	< 1.5	**640**	**4**	35	28	91
	5 - 10 cm	21035	9100	< 0.8	13	64	< 0.5	< 0.8	4000	38	10	**200**	15000	31	2300	140	< 1.5	**360**	1	29	26	52
		21036	11000	< 0.8	15	60	< 0.5	**1.5**	6900	44	19	**400**	18000	45	2600	170	< 1.5	**540**	**2**	36	28	73
	10 - 20 cm	21037	8000	< 0.8	7	42	< 0.5	< 0.8	3300	30	7	**91**	13000	17	2300	150	< 1.5	**130**	< 1	28	26	31
		21038	9700	< 0.8	8	51	< 0.5	< 0.8	3900	36	8	**110**	15000	16	2700	170	< 1.5	**150**	< 1	31	28	40
5037985 Lakeview Dr. (front yard)	0 - 5 cm	20991	12000	< 0.8	< 5	55	< 0.5	< 0.8	5300	38	8	67	16000	14	3700	220	< 1.5	**87**	< 1	42	35	31
		20992	13000	< 0.8	5	71	< 0.5	< 0.8	6000	40	9	84	17000	17	3700	230	< 1.5	**120**	1	44	36	36
	5 - 10 cm	20993	9400	< 0.8	< 5	39	< 0.5	< 0.8	3700	31	8	79	15000	14	3100	190	< 1.5	**96**	< 1	33	30	28
		20994	9800	< 0.8	5	39	< 0.5	< 0.8	4100	32	8	80	16000	15	3400	200	< 1.5	**100**	< 1	34	31	30
	10 - 20 cm	20995	9000	< 0.8	5	40	< 0.5	< 0.8	3500	27	8	**90**	15000	21	2700	190	< 1.5	**120**	< 1	32	28	30
		20996	8900	< 0.8	7	41	< 0.5	< 0.8	3800	29	9	**110**	15000	22	2700	190	< 1.5	**140**	< 1	33	28	32
5037953 Leslie St. (front yard)	0 - 5 cm	20791	12000	< 0.8	12	100	< 0.5	**1.2**	6100	62	18	**270**	20000	100	3800	250	< 1.5	**340**	< 1	45	34	110
		20792	12000	< 0.8	12	99	< 0.5	**1.1**	6100	62	20	**300**	20000	100	3900	260	< 1.5	**390**	**3**	43	33	94
	5 - 10 cm	20793	12000	**1.3**	14	110	< 0.5	< 0.8	4500	58	18	**280**	21000	**130**	3700	240	< 1.5	**330**	**3**	39	34	84
		20794	12000	1.0	14	110	< 0.5	0.9	4600	57	20	**280**	21000	**150**	3600	240	< 1.5	**310**	**2**	41	35	76
	10 - 20 cm	20795	13000	< 0.8	9	98	< 0.5	< 0.8	4000	42	10	**140**	19000	75	3800	270	< 1.5	**160**	1	41	36	68
		20796	13000	**1.2**	11	120	< 0.5	< 0.8	4100	43	13	**190**	20000	120	3700	290	< 1.5	**190**	**2**	42	35	110
5028003 McKim St. (back yard)	0 - 5 cm	21126	12000	1.0	11	110	< 0.5	**1.3**	11000	46	17	**350**	18000	**190**	3200	280	< 1.5	**320**	**2**	54	31	160
		21127	12000	1.0	11	110	< 0.5	**1.4**	10000	49	18	**340**	18000	**220**	3100	300	< 1.5	**340**	**5**	55	31	**180**
	5 - 10 cm	21128	13000	**1.2**	9	140	< 0.5	**1.3**	11000	51	11	**210**	16000	**310**	3000	320	< 1.5	**180**	1	60	32	**210**
		21129	13000	< 0.8	7	100	< 0.5	< 0.8	8700	42	8	**150**	16000	**140**	2900	270	< 1.5	**110**	< 1	55	33	130
	10 - 20 cm	21130	12000	**2.0**	10	**230**	< 0.5	**1.3**	13000	50	14	**200**	16000	**470**	3500	370	< 1.5	**190**	< 1	66	29	**340**
		21131	10000	1.0	8	130	< 0.5	< 0.8	7900	38	12	**130**	15000	**230**	2800	290	< 1.5	**150**	1	48	29	160

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028004 McKim St. (back yard)	0 - 5 cm	21132	13000	**1.2**	**20**	130	< 0.5	**1.9**	5400	44	**46**	**730**	28000	**200**	3600	250	< 1.5	**1050**	**3**	53	36	150
		21133	12000	< 0.8	**19**	110	< 0.5	**1.7**	5800	42	**40**	**660**	25000	**130**	3800	230	< 1.5	**910**	**2**	49	34	140
	5 - 10 cm	21134	14000	**1.3**	12	160	< 0.5	0.9	5500	40	17	**330**	20000	**140**	2900	280	< 1.5	**430**	1	71	35	**190**
		21135	14000	**1.2**	14	130	< 0.5	1.0	5000	39	18	**330**	21000	**130**	3000	250	< 1.5	**480**	**2**	62	36	160
	10 - 20 cm	21136	11000	1.0	8	120	< 0.5	< 0.8	3500	29	9	**190**	16000	86	2300	220	< 1.5	**210**	< 1	52	30	140
		21137	12000	1.0	8	120	< 0.5	< 0.8	3700	32	9	**190**	16000	91	2500	210	< 1.5	**250**	< 1	53	31	130
5028005 McKim St. (back yard)	0 - 5 cm	21138	9700	< 0.8	< 5	49	< 0.5	< 0.8	5700	30	9	**150**	13000	18	2700	250	< 1.5	**170**	1	39	28	45
		21139	9400	< 0.8	6	47	< 0.5	< 0.8	5400	28	9	**160**	14000	19	2700	250	**3.2**	**170**	1	38	28	44
	5 - 10 cm	21140	10000	< 0.8	< 5	49	< 0.5	< 0.8	6800	27	6	**87**	13000	30	2600	250	< 1.5	**96**	< 1	44	28	84
		21141	9800	< 0.8	< 5	55	< 0.5	< 0.8	8400	27	7	**92**	13000	41	2600	290	< 1.5	**110**	< 1	50	29	110
	10 - 20 cm	21142	8300	< 0.8	< 5	39	< 0.5	< 0.8	4600	24	6	81	11000	16	2500	180	< 1.5	**99**	< 1	31	24	41
		21143	8500	< 0.8	< 5	41	< 0.5	< 0.8	4300	26	6	84	12000	12	2600	190	< 1.5	**110**	< 1	32	26	35
5037986 McNaughton St. (front yard)	0 - 5 cm	20997	11000	< 0.8	6	39	< 0.5	< 0.8	4600	28	6	64	13000	15	2300	170	< 1.5	**84**	< 1	37	29	32
		20998	10000	< 0.8	6	36	< 0.5	< 0.8	4300	27	6	58	12000	14	2200	160	< 1.5	**83**	< 1	35	28	30
	5 - 10 cm	20999	10000	< 0.8	6	37	< 0.5	< 0.8	3600	27	7	**86**	13000	21	2200	170	< 1.5	**100**	< 1	34	27	35
		21000	10000	< 0.8	7	36	< 0.5	< 0.8	3500	27	6	82	14000	19	2100	150	< 1.5	**97**	< 1	32	28	34
	10 - 20 cm	21001	8200	< 0.8	7	49	< 0.5	< 0.8	3700	26	11	**140**	14000	37	2500	170	< 1.5	**220**	< 1	32	27	56
		21002	8200	< 0.8	7	49	< 0.5	< 0.8	3700	27	10	**140**	13000	41	2500	190	< 1.5	**200**	< 1	29	27	60
5037987 McNaughton St. (back yard)	0 - 5 cm	21003	9300	< 0.8	6	51	< 0.5	< 0.8	5500	34	11	**150**	14000	26	2700	200	< 1.5	**190**	< 1	35	28	41
		21004	9100	< 0.8	5	51	< 0.5	< 0.8	5500	35	10	**130**	13000	27	2800	200	< 1.5	**150**	< 1	36	27	43
	5 - 10 cm	21005	11000	< 0.8	6	61	< 0.5	< 0.8	4700	32	9	**120**	14000	21	2600	180	< 1.5	**170**	< 1	38	29	31
		21006	9000	< 0.8	6	49	< 0.5	< 0.8	4500	31	10	**150**	14000	22	2600	180	< 1.5	**180**	< 1	35	28	32
	10 - 20 cm	21007	8600	< 0.8	< 5	42	< 0.5	< 0.8	3600	25	5	36	11000	6	2400	160	< 1.5	**55**	< 1	34	26	17
		21008	9900	< 0.8	< 5	52	< 0.5	< 0.8	4300	29	7	56	12000	10	2600	170	< 1.5	**91**	< 1	38	28	24
5037891 McNeill Blvd. (back yard)	0 - 5 cm	17496	8300	< 0.8	10	44	< 0.5	0.9	6700	29	19	**450**	17000	44	3100	160	< 1.5	**420**	**2**	22	24	47
		17497	6400	< 0.8	6	35	< 0.5	< 0.8	4000	25	12	**260**	11000	23	2600	130	< 1.5	**240**	**2**	17	23	33
	5 - 10 cm	17498	7500	< 0.8	7	45	< 0.5	< 0.8	3500	28	10	**170**	14000	13	3200	170	< 1.5	**190**	< 1	27	27	23
		17499	7500	< 0.8	7	41	< 0.5	< 0.8	3400	28	10	**190**	14000	16	3100	160	< 1.5	**200**	< 1	24	26	29
	10 - 20 cm	17500	6400	< 0.8	< 5	39	< 0.5	< 0.8	3000	26	6	67	12000	7	2800	160	1.7	**110**	< 1	24	25	16
		17501	6900	< 0.8	5	42	< 0.5	< 0.8	3600	26	8	**100**	13000	10	3000	170	< 1.5	**130**	< 1	27	25	21

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037892 McNeill Blvd. (back yard)	0 - 5 cm	17502	12000	< 0.8	6	85	< 0.5	< 0.8	5700	49	14	**210**	18000	21	4400	280	< 1.5	**180**	**2**	41	34	39
		17503	13000	< 0.8	5	88	< 0.5	< 0.8	6300	50	12	**200**	18000	18	4500	290	< 1.5	**160**	1	47	36	40
	5 - 10 cm	17504	11000	< 0.8	< 5	65	< 0.5	< 0.8	4600	37	8	**96**	15000	10	3600	230	< 1.5	**98**	< 1	38	32	26
		17505	9800	< 0.8	< 5	57	< 0.5	< 0.8	4400	34	7	85	14000	9	3100	200	< 1.5	**85**	< 1	39	29	22
	10 - 20 cm	17506	12000	< 0.8	< 5	86	< 0.5	< 0.8	5200	43	8	58	19000	8	4900	270	< 1.5	**67**	< 1	39	37	26
		17507	21000	< 0.8	< 5	140	< 0.5	< 0.8	6500	61	10	62	24000	9	6800	360	< 1.5	**76**	< 1	54	49	34
5037963 Melvin Ave. (front yard)	0 - 5 cm	20851	7300	< 0.8	11	49	< 0.5	< 0.8	3600	28	15	**210**	15000	85	2500	160	< 1.5	**290**	**2**	26	26	90
		20852	5900	< 0.8	11	47	< 0.5	< 0.8	3400	24	13	**230**	12000	75	2800	140	< 1.5	**260**	**2**	18	20	67
	5 - 10 cm	20853	6500	< 0.8	15	56	< 0.5	< 0.8	2300	28	14	**260**	16000	110	2200	150	< 1.5	**260**	**2**	20	26	70
		20854	6800	< 0.8	14	61	< 0.5	< 0.8	2500	27	15	**230**	16000	110	2300	170	1.6	**280**	**2**	26	30	75
	10 - 20 cm	20855	6300	< 0.8	**18**	59	< 0.5	< 0.8	2100	24	14	**240**	16000	100	2100	150	< 1.5	**280**	**2**	21	26	71
		20856	6900	< 0.8	15	71	< 0.5	< 0.8	2500	26	14	**230**	16000	120	2400	160	< 1.5	**270**	**2**	25	27	70
5028006 Moland St. (back yard)	0 - 5 cm	21144	8600	< 0.8	9	28	< 0.5	< 0.8	3200	23	15	**310**	15000	19	2000	120	< 1.5	**300**	**2**	22	24	43
		21145	8600	< 0.8	8	34	< 0.5	< 0.8	3400	25	13	**290**	14000	21	2100	140	< 1.5	**340**	**2**	28	26	50
	5 - 10 cm	21146	9300	< 0.8	9	28	< 0.5	< 0.8	2500	23	7	**170**	13000	13	1700	110	< 1.5	**180**	1	27	27	24
		21147	11000	< 0.8	7	43	< 0.5	< 0.8	3600	27	8	**160**	14000	14	1900	150	< 1.5	**170**	< 1	36	30	29
	10 - 20 cm	21148	13000	< 0.8	9	56	< 0.5	< 0.8	3500	32	9	**180**	17000	14	2600	180	< 1.5	**210**	1	41	33	28
		21149	13000	< 0.8	8	56	< 0.5	< 0.8	3900	31	10	**160**	16000	13	2400	200	< 1.5	**200**	1	41	33	31
5037947 Morris St. (front yard)	0 - 5 cm	20755	9600	< 0.8	8	54	< 0.5	< 0.8	3700	30	8	**170**	14000	41	2000	170	< 1.5	**160**	**2**	29	28	47
		20756	11000	< 0.8	8	52	< 0.5	< 0.8	4700	32	9	**220**	15000	35	2100	190	< 1.5	**170**	**2**	43	32	52
	5 - 10 cm	20757	11000	< 0.8	8	55	< 0.5	< 0.8	9000	31	9	**140**	15000	42	2200	210	< 1.5	**180**	**2**	43	31	48
		20758	11000	< 0.8	13	67	< 0.5	1.0	14000	35	16	**290**	19000	100	2600	210	< 1.5	**350**	**3**	43	33	76
	10 - 20 cm	20759	14000	0.9	**20**	120	< 0.5	1.0	6500	42	**22**	**400**	24000	**130**	3300	260	< 1.5	**530**	**3**	47	39	97
		20760	13000	< 0.8	**18**	100	< 0.5	< 0.8	6000	38	19	**440**	25000	110	3200	250	< 1.5	**460**	**3**	42	36	100
5037948 Morris St. (front yard)	0 - 5 cm	20761	10000	< 0.8	8	82	< 0.5	< 0.8	12000	33	11	**180**	16000	**160**	4800	220	< 1.5	**190**	**2**	53	29	150
		20762	12000	< 0.8	7	100	< 0.5	< 0.8	12000	34	9	**140**	16000	71	5500	230	< 1.5	**150**	**2**	73	31	88
	5 - 10 cm	20763	13000	< 0.8	7	59	< 0.5	< 0.8	14000	38	9	**120**	17000	42	6600	250	< 1.5	**150**	**2**	51	34	54
		20764	11000	< 0.8	9	72	< 0.5	< 0.8	8600	32	10	**140**	16000	65	3700	230	< 1.5	**190**	**2**	43	31	82
	10 - 20 cm	20765	12000	< 0.8	11	79	< 0.5	< 0.8	10000	31	12	**190**	19000	98	3500	250	< 1.5	**270**	**2**	44	34	89
		20766	13000	**1.3**	11	80	< 0.5	< 0.8	7700	32	14	**170**	18000	88	3100	240	< 1.5	**290**	**2**	45	33	74

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037952 Mountain St. (front yard)	0 - 5 cm	20785	14000	< 0.8	9	96	< 0.5	< 0.8	5400	42	14	**180**	18000	60	3500	270	< 1.5	**210**	**2**	49	37	86
		20786	14000	< 0.8	9	100	< 0.5	**1.1**	6100	43	15	**200**	19000	82	3500	270	< 1.5	**250**	**2**	49	36	120
	5 - 10 cm	20787	12000	< 0.8	10	50	< 0.5	< 0.8	4400	31	11	**180**	16000	41	2400	180	< 1.5	**190**	**2**	44	33	70
		20788	12000	< 0.8	12	58	< 0.5	< 0.8	4700	34	12	**210**	17000	57	2500	190	< 1.5	**220**	**2**	45	34	82
	10 - 20 cm	20789	13000	< 0.8	11	72	< 0.5	< 0.8	4400	36	12	**160**	19000	72	2600	210	< 1.5	**210**	**2**	47	36	85
		20790	11000	< 0.8	10	45	< 0.5	< 0.8	3200	29	8	**120**	15000	41	2200	160	< 1.5	**150**	1	33	30	62
5037990 O'Connor St. (back yard)	0 - 5 cm	21021	13000	< 0.8	**22**	95	< 0.5	**1.6**	4900	66	**32**	**590**	23000	**134**	2900	210	< 1.5	**480**	**4**	39	32	100
		21022	13000	< 0.8	**18**	91	< 0.5	**1.4**	4800	71	**27**	**530**	22000	**132**	2800	210	< 1.5	**700**	**4**	41	31	92
	5 - 10 cm	21023	14000	< 0.8	15	92	< 0.5	**1.2**	4700	45	16	**270**	17000	77	2700	210	< 1.5	**430**	**2**	40	32	89
		21024	13000	< 0.8	17	99	< 0.5	**1.4**	4200	44	17	**320**	18000	84	2700	220	< 1.5	**480**	**2**	37	31	86
	10 - 20 cm	21025	10000	< 0.8	9	62	< 0.5	< 0.8	3100	30	8	**120**	14000	42	2200	180	< 1.5	**180**	1	31	27	48
		21026	13000	< 0.8	11	85	< 0.5	< 0.8	3700	41	12	**190**	17000	44	2800	190	< 1.5	**300**	**2**	37	30	59
5037961 Patterson St. (back yard)	0 - 5 cm	20839	11000	< 0.8	12	60	< 0.5	< 0.8	4200	33	16	**260**	18000	41	2900	190	< 1.5	**350**	**2**	37	30	59
		20840	12000	< 0.8	10	61	< 0.5	< 0.8	4300	35	16	**240**	18000	37	3000	190	< 1.5	**330**	**2**	38	30	53
	5 - 10 cm	20841	13000	< 0.8	13	82	< 0.5	< 0.8	4300	35	14	**240**	18000	41	2700	190	< 1.5	**320**	1	42	33	68
		20842	13000	< 0.8	11	72	< 0.5	< 0.8	5000	40	14	**230**	18000	31	3000	200	< 1.5	**300**	1	43	34	55
	10 - 20 cm	20843	12000	< 0.8	11	67	< 0.5	< 0.8	4200	32	10	**170**	16000	27	2500	180	1.8	**230**	1	40	31	53
		20844	12000	< 0.8	10	63	< 0.5	< 0.8	4100	34	10	**150**	16000	24	2600	180	< 1.5	**200**	1	40	32	46
5037996 Prete St. (front yard)	0 - 5 cm	21090	8200	< 0.8	8	49	< 0.5	1.0	7400	43	14	**240**	15000	38	2700	230	< 1.5	**270**	**2**	38	28	65
		21091	12000	< 0.8	6	72	< 0.5	1.0	8800	53	13	**260**	16000	37	3300	250	< 1.5	**270**	**2**	42	33	65
	5 - 10 cm	21092	7800	< 0.8	11	47	< 0.5	**1.4**	8400	44	15	**270**	15000	44	2800	250	< 1.5	**330**	**2**	35	29	71
		21093	8200	< 0.8	10	50	< 0.5	**1.3**	8000	50	15	**280**	16000	44	2900	250	< 1.5	**320**	**2**	34	30	70
	10 - 20 cm	21094	6400	< 0.8	9	34	< 0.5	0.9	7500	35	11	**180**	13000	29	3200	200	< 1.5	**230**	**2**	25	25	52
		21095	7300	< 0.8	8	37	< 0.5	< 0.8	10000	35	11	**170**	14000	26	4300	210	< 1.5	**230**	1	33	27	47
5037954 Queen St. (front yard)	0 - 5 cm	20797	11000	< 0.8	8	50	< 0.5	1.0	4600	37	15	**260**	17000	69	3000	180	< 1.5	**280**	**2**	42	34	79
		20798	10000	< 0.8	7	46	< 0.5	< 0.8	4300	33	12	**220**	17000	59	3100	170	< 1.5	**230**	**2**	39	32	69
	5 - 10 cm	20799	9100	< 0.8	< 5	30	< 0.5	< 0.8	2700	27	7	65	14000	15	2800	160	< 1.5	**76**	< 1	27	29	29
		20800	8900	< 0.8	6	31	< 0.5	< 0.8	3100	29	8	64	15000	17	3100	170	< 1.5	**84**	< 1	29	30	28
	10 - 20 cm	20801	7200	< 0.8	5	37	< 0.5	< 0.8	2500	24	6	62	11000	30	2400	140	< 1.5	**85**	< 1	24	24	34
		20802	7400	< 0.8	6	37	< 0.5	< 0.8	2600	24	7	65	12000	39	2500	140	< 1.5	**91**	< 1	27	25	33

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037988 Ramsey Rd. (back yard)	0 - 5 cm	21009	13000	< 0.8	10	87	< 0.5	0.9	7200	40	13	**230**	18000	48	3300	250	< 1.5	**280**	1	46	41	76
		21010	12000	< 0.8	10	81	< 0.5	1.0	6400	36	14	**220**	18000	49	2900	230	< 1.5	**280**	1	43	37	74
	5 - 10 cm	21011	10000	< 0.8	9	56	< 0.5	< 0.8	4600	31	12	**160**	17000	38	2500	200	< 1.5	**250**	1	36	35	58
		21012	10000	1.0	10	60	< 0.5	0.9	5300	34	12	**180**	17000	36	2600	220	< 1.5	**240**	**2**	37	39	61
	10 - 20 cm	21013	9500	< 0.8	7	48	< 0.5	< 0.8	2900	27	7	85	14000	17	2200	160	< 1.5	**100**	1	28	29	39
		21014	10000	1.0	8	51	< 0.5	< 0.8	3700	29	8	**110**	15000	22	2400	180	< 1.5	**140**	1	31	31	49
5037991 Riverside Dr. (front yard)	0 - 5 cm	21027	9600	< 0.8	6	46	< 0.5	< 0.8	5800	28	9	**140**	14000	27	2600	230	< 1.5	**180**	1	40	29	40
		21028	11000	< 0.8	6	52	< 0.5	< 0.8	6100	30	9	**120**	14000	28	2600	220	< 1.5	**170**	1	43	30	37
	5 - 10 cm	21029	11000	< 0.8	7	61	< 0.5	< 0.8	7100	32	9	**140**	15000	31	2700	240	< 1.5	**180**	1	44	31	40
		21030	11000	< 0.8	6	53	< 0.5	< 0.8	6100	29	7	**98**	14000	21	2600	220	< 1.5	**120**	< 1	42	31	33
	10 - 20 cm	21031	7600	< 0.8	8	43	< 0.5	< 0.8	4200	19	6	**110**	11000	22	1600	140	< 1.5	**150**	< 1	29	23	27
		21032	9100	< 0.8	8	47	< 0.5	< 0.8	4700	22	8	**150**	14000	37	1900	150	< 1.5	**210**	< 1	30	27	37
5037907 Sandra Blvd. (front yard)	0 - 5 cm	18894	6500	< 0.8	9	34	< 0.5	< 0.8	3700	26	**22**	**400**	16000	46	2600	150	< 1.5	**470**	**3**	23	25	45
		18895	6800	< 0.8	10	34	< 0.5	< 0.8	3800	26	19	**420**	16000	43	2500	150	< 1.5	**450**	**2**	25	25	41
	5 - 10 cm	18896	7600	< 0.8	10	27	< 0.5	< 0.8	3000	24	11	**200**	13000	17	2300	140	< 1.5	**240**	1	24	24	26
		18897	7100	< 0.8	7	23	< 0.5	< 0.8	2500	21	8	**150**	12000	11	2100	140	< 1.5	**160**	< 1	21	23	20
	10 - 20 cm	18898	5700	< 0.8	7	21	< 0.5	< 0.8	2000	18	8	**110**	11000	11	2200	120	< 1.5	**170**	< 1	16	20	19
		18899	6600	< 0.8	< 5	23	< 0.5	< 0.8	2000	20	6	83	11000	8	2100	130	< 1.5	**120**	< 1	16	22	19
5037968 Selkirk St. (front yard)	0 - 5 cm	20881	9200	< 0.8	< 5	31	< 0.5	< 0.8	4500	27	4	32	12000	7	2400	160	< 1.5	41	< 1	43	28	22
		20882	10000	< 0.8	< 5	37	< 0.5	< 0.8	4800	31	5	46	12000	9	2400	160	< 1.5	**61**	< 1	46	29	23
	5 - 10 cm	20883	9700	< 0.8	< 5	38	< 0.5	< 0.8	4500	28	4	17	13000	5	2500	170	< 1.5	23	< 1	44	29	16
		20884	9700	< 0.8	< 5	39	< 0.5	< 0.8	4500	29	4	17	13000	5	2500	180	< 1.5	24	< 1	45	30	17
	10 - 20 cm	20885	11000	< 0.8	< 5	50	< 0.5	< 0.8	4600	35	6	54	15000	8	2600	180	< 1.5	**74**	< 1	44	32	20
		20886	8400	< 0.8	6	33	< 0.5	< 0.8	3300	26	6	51	13000	8	2300	150	< 1.5	**61**	< 1	29	29	17
5037969 Snowdon Ave. (front yard)	0 - 5 cm	20887	9800	< 0.8	9	53	< 0.5	0.9	6700	32	14	**280**	15000	47	3300	240	< 1.5	**280**	**2**	39	30	55
		20888	9500	< 0.8	9	55	< 0.5	**1.1**	6900	32	17	**350**	16000	59	3400	220	< 1.5	**330**	**3**	37	30	56
	5 - 10 cm	20889	9600	< 0.8	10	47	< 0.5	< 0.8	5800	28	9	**180**	14000	19	2900	210	< 1.5	**180**	**2**	33	29	34
		20890	9600	< 0.8	11	50	< 0.5	< 0.8	6100	30	11	**210**	14000	23	3100	230	< 1.5	**220**	**2**	32	30	38
	10 - 20 cm	20891	9800	< 0.8	< 5	56	< 0.5	< 0.8	12000	29	7	53	14000	7	5600	210	< 1.5	**67**	< 1	46	31	21
		20892	7800	< 0.8	< 5	47	< 0.5	< 0.8	9500	27	6	57	13000	10	4900	200	< 1.5	**67**	< 1	37	28	24

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037902 Spruce St. (back yard)	0 - 5 cm	18864	9300	< 0.8	13	77	< 0.5	1.0	4300	32	21	**430**	18000	69	2800	170	< 1.5	**570**	**2**	33	29	100
		18865	12000	< 0.8	10	110	< 0.5	0.9	4700	40	19	**370**	18000	66	3100	190	< 1.5	**480**	**2**	40	33	96
	5 - 10 cm	18866	10000	< 0.8	13	71	< 0.5	< 0.8	3800	32	19	**360**	18000	76	2600	170	< 1.5	**580**	1	36	32	110
		18867	11000	< 0.8	14	82	< 0.5	< 0.8	3800	34	**22**	**420**	19000	78	2700	180	< 1.5	**640**	**2**	36	31	98
	10 - 20 cm	18868	10000	< 0.8	9	67	< 0.5	< 0.8	3600	30	11	**230**	15000	51	2400	170	< 1.5	**300**	1	34	30	70
		18869	10000	< 0.8	8	71	< 0.5	< 0.8	3500	30	10	**170**	15000	34	2600	180	< 1.5	**220**	< 1	34	30	58
5037958 St. Charles St. (front yard)	0 - 5 cm	20821	9000	< 0.8	< 5	44	< 0.5	< 0.8	5600	45	8	**88**	14000	26	3200	170	< 1.5	**110**	1	34	28	49
		20822	9100	< 0.8	< 5	45	< 0.5	0.9	5900	48	10	**110**	14000	32	3400	180	< 1.5	**140**	1	35	28	62
	5 - 10 cm	20823	9400	< 0.8	< 5	42	< 0.5	< 0.8	4600	42	8	70	14000	21	3000	170	1.6	**90**	< 1	37	30	37
		20824	9800	< 0.8	< 5	49	< 0.5	< 0.8	5200	50	8	84	14000	25	3000	180	< 1.5	**102**	< 1	40	30	57
	10 - 20 cm	20825	7800	< 0.8	< 5	33	< 0.5	< 0.8	4000	30	7	54	12000	14	2600	140	< 1.5	**73**	< 1	35	26	24
		20826	9200	< 0.8	< 5	50	< 0.5	< 0.8	4400	33	7	50	13000	15	2700	170	< 1.5	**68**	< 1	40	28	27
5037999 St. Clair St. (back yard)	0 - 5 cm	21108	11000	< 0.8	7	49	< 0.5	< 0.8	5300	29	8	**180**	14000	28	2400	170	< 1.5	**150**	**2**	39	31	46
		21109	11000	< 0.8	7	52	< 0.5	< 0.8	5600	31	9	**170**	15000	31	2500	180	< 1.5	**160**	**2**	41	32	44
	5 - 10 cm	21110	11000	< 0.8	7	45	< 0.5	< 0.8	4500	30	6	**98**	14000	19	2100	180	< 1.5	**91**	1	40	32	30
		21111	12000	< 0.8	7	47	< 0.5	< 0.8	4500	30	6	**92**	15000	19	2100	180	< 1.5	**91**	< 1	40	34	30
	10 - 20 cm	21112	11000	**1.3**	6	58	< 0.5	< 0.8	5200	33	7	**100**	15000	25	2400	200	< 1.5	**110**	1	40	34	42
		21113	9700	< 0.8	7	48	< 0.5	< 0.8	4600	28	7	**110**	15000	24	2300	200	< 1.5	**110**	1	34	32	41
5037950 St. Raphael St. (front yard)	0 - 5 cm	20773	6900	< 0.8	< 5	34	< 0.5	< 0.8	3000	25	5	63	11000	12	2600	160	< 1.5	**67**	1	17	23	30
		20774	9300	< 0.8	6	40	< 0.5	< 0.8	4600	28	6	68	13000	15	2700	200	< 1.5	**81**	1	35	27	33
	5 - 10 cm	20775	7300	< 0.8	< 5	30	< 0.5	< 0.8	3300	23	5	43	12000	9	2300	150	< 1.5	**56**	< 1	27	24	17
		20776	8600	< 0.8	5	32	< 0.5	< 0.8	3900	27	5	39	13000	9	2600	170	< 1.5	**57**	< 1	32	27	20
	10 - 20 cm	20777	5700	< 0.8	< 5	22	< 0.5	< 0.8	2600	21	5	18	10000	4	2100	130	< 1.5	30	< 1	21	22	10
		20778	6100	< 0.8	< 5	24	< 0.5	< 0.8	2700	21	5	17	11000	4	2300	140	< 1.5	32	< 1	24	23	11
5037904 Stanley St. (back yard)	0 - 5 cm	18876	6200	< 0.8	11	43	< 0.5	< 0.8	4000	27	18	**400**	16000	65	2900	140	< 1.5	**410**	**3**	20	24	48
		18877	6300	< 0.8	10	44	< 0.5	< 0.8	2900	27	19	**420**	16000	44	2700	150	< 1.5	**470**	**3**	21	24	48
	5 - 10 cm	18878	6500	< 0.8	7	41	< 0.5	< 0.8	3000	26	10	**160**	15000	16	2800	160	< 1.5	**200**	< 1	20	25	30
		18879	5100	< 0.8	5	34	< 0.5	< 0.8	1900	21	8	**120**	12000	15	2700	140	< 1.5	**140**	< 1	10	20	25
	10 - 20 cm	18880	4700	< 0.8	6	24	< 0.5	< 0.8	2000	18	6	72	10000	9	2200	110	< 1.5	**110**	< 1	13	19	17
		18881	5100	< 0.8	< 5	23	< 0.5	< 0.8	1900	18	5	50	9500	6	2100	110	< 1.5	**74**	< 1	16	19	15

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037899 Victoria St. (back yard)	0 - 5 cm	18846	11000	1.0	9	77	< 0.5	< 0.8	4000	30	13	**210**	16000	69	2300	190	< 1.5	**270**	1	35	29	97
		18847	9100	**1.3**	10	67	< 0.5	1.0	4000	30	15	**290**	16000	77	2300	170	< 1.5	**350**	**2**	34	27	110
	5 - 10 cm	18848	11000	**1.1**	12	81	< 0.5	< 0.8	4000	32	12	**200**	16000	65	2400	190	< 1.5	**230**	1	36	30	110
		18849	8300	**1.4**	11	62	< 0.5	< 0.8	3000	25	10	**190**	15000	58	1900	170	< 1.5	**220**	1	27	26	78
	10 - 20 cm	18850	7600	**1.1**	9	61	< 0.5	< 0.8	3100	25	11	**150**	14000	57	2000	160	< 1.5	**180**	1	26	25	83
		18851	7400	0.9	10	65	< 0.5	< 0.8	2500	24	10	**170**	13000	62	1900	160	< 1.5	**200**	1	21	24	78
5037998 Wembley Dr. (back yard)	0 - 5 cm	21102	12000	0.9	10	85	< 0.5	**1.8**	6600	**81**	16	**290**	19000	81	3400	240	< 1.5	**290**	**3**	46	34	160
		21103	12000	**1.1**	11	86	< 0.5	**1.7**	6500	**82**	15	**280**	20000	79	3300	230	< 1.5	**280**	**3**	48	36	110
	5 - 10 cm	21104	13000	< 0.8	5	84	< 0.5	< 0.8	6000	59	7	**230**	21000	23	2900	230	< 1.5	**79**	< 1	50	39	84
		21105	11000	1.0	11	85	< 0.5	**1.3**	5500	51	13	**220**	20000	71	2800	200	< 1.5	**250**	**2**	44	34	98
	10 - 20 cm	21106	11000	1.0	12	75	< 0.5	1.0	4400	41	11	**200**	19000	70	2600	190	< 1.5	**240**	**2**	38	34	92
		21107	12000	< 0.8	11	83	< 0.5	< 0.8	5300	40	11	**190**	21000	54	2700	190	< 1.5	**200**	**2**	45	35	89
5037895 White Ave. (back yard)	0 - 5 cm	18822	12000	< 0.8	17	110	< 0.5	**1.3**	7900	41	20	**420**	20000	71	3700	310	< 1.5	**450**	**3**	41	36	110
		18823	14000	< 0.8	**20**	110	< 0.5	**1.4**	7800	44	20	**450**	21000	84	4000	330	< 1.5	**460**	**3**	45	38	130
	5 - 10 cm	18824	12000	< 0.8	**19**	110	< 0.5	< 0.8	7800	40	14	**280**	19000	76	3900	320	< 1.5	**310**	**2**	41	35	110
		18825	15000	< 0.8	**19**	130	< 0.5	0.9	7900	46	15	**320**	21000	83	4200	380	< 1.5	**330**	**2**	49	40	130
	10 - 20 cm	18826	17000	< 0.8	**18**	140	< 0.5	< 0.8	7500	48	14	**280**	21000	**220**	4200	320	< 1.5	**300**	**2**	51	42	100
		18827	16000	< 0.8	15	120	< 0.5	< 0.8	6700	44	13	**220**	20000	55	3900	310	< 1.5	**260**	1	50	40	83
5037896 White Ave. (back yard)	0 - 5 cm	18828	16000	< 0.8	**30**	130	< 0.5	**4.1**	8900	55	**75**	**1600**	36000	100	4200	270	< 1.5	**2000**	**8**	47	40	110
		18829	17000	< 0.8	**30**	140	< 0.5	**3.3**	9100	56	**66**	**1400**	35000	88	4400	300	< 1.5	**1800**	**7**	49	42	110
	5 - 10 cm	18830	20000	< 0.8	13	130	< 0.5	< 0.8	8000	54	16	**240**	23000	16	6300	350	< 1.5	**350**	**2**	53	46	50
		18831	16000	< 0.8	11	100	< 0.5	< 0.8	7500	45	16	**230**	22000	15	5800	310	< 1.5	**350**	1	46	40	45
	10 - 20 cm	18832	8500	< 0.8	< 5	52	< 0.5	< 0.8	11000	29	7	51	14000	6	5800	210	< 1.5	**76**	< 1	36	28	21
		18833	16000	< 0.8	6	110	< 0.5	< 0.8	8400	48	12	**86**	22000	10	7200	350	< 1.5	**140**	< 1	46	41	39
5037897 White Ave. (front yard)	0 - 5 cm	18834	9600	< 0.8	**19**	63	< 0.5	**2.0**	10000	47	**41**	**780**	24000	**140**	3400	190	< 1.5	**1000**	**3**	37	29	86
		18835	9100	< 0.8	**20**	65	< 0.5	**2.8**	11000	50	**48**	**900**	26000	110	3300	180	1.8	**1200**	**4**	38	29	90
	5 - 10 cm	18836	10000	< 0.8	13	57	< 0.5	**1.1**	8200	34	14	**280**	17000	23	3100	190	< 1.5	**370**	**2**	37	30	42
		18837	12000	< 0.8	13	70	< 0.5	< 0.8	8800	37	14	**240**	19000	20	3700	220	< 1.5	**360**	1	41	33	41
	10 - 20 cm	18838	19000	< 0.8	6	130	< 0.5	< 0.8	6800	60	13	**89**	26000	12	7300	360	< 1.5	**120**	< 1	47	47	42
		18839	21000	< 0.8	6	140	< 0.5	< 0.8	9200	62	13	85	28000	12	8300	390	< 1.5	**110**	< 1	52	50	41

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037900 Whittaker St. (front yard)	0 - 5 cm	18852	9200	< 0.8	6	54	< 0.5	< 0.8	5200	31	11	**230**	14000	35	2700	160	< 1.5	**210**	**2**	35	25	56
		18853	8000	< 0.8	6	34	< 0.5	< 0.8	5100	34	12	**230**	14000	35	2900	140	< 1.5	**220**	**2**	26	23	57
	5 - 10 cm	18854	10000	< 0.8	< 5	22	< 0.5	< 0.8	3200	25	4	45	13000	10	1800	150	< 1.5	**49**	< 1	33	28	18
		18855	11000	< 0.8	< 5	31	< 0.5	< 0.8	3700	27	6	58	14000	15	2000	160	< 1.5	**66**	< 1	38	29	23
	10 - 20 cm	18856	11000	< 0.8	< 5	36	< 0.5	< 0.8	3400	26	6	51	13000	17	1900	180	< 1.5	**77**	< 1	36	28	24
		18857	11000	< 0.8	< 5	37	< 0.5	< 0.8	3300	26	5	54	13000	14	1900	170	< 1.5	**58**	< 1	35	27	25
5037901 Whittaker St. (front yard)	0 - 5 cm	18858	12000	< 0.8	8	80	< 0.5	1.0	7400	43	16	**320**	18000	81	4300	230	< 1.5	**340**	**3**	44	34	81
		18859	12000	< 0.8	10	77	< 0.5	1.0	8100	42	15	**330**	18000	78	4200	220	< 1.5	**340**	**2**	46	34	100
	5 - 10 cm	18860	12000	< 0.8	8	81	< 0.5	< 0.8	5800	38	14	**190**	19000	70	3500	230	< 1.5	**260**	1	39	34	76
		18861	13000	< 0.8	7	94	< 0.5	< 0.8	5600	42	13	**190**	19000	52	3900	270	< 1.5	**220**	1	41	36	65
	10 - 20 cm	18862	6400	< 0.8	< 5	54	< 0.5	< 0.8	2400	29	7	58	13000	21	2900	170	< 1.5	**65**	< 1	20	27	36
		18863	12000	< 0.8	< 5	110	< 0.5	< 0.8	3700	51	12	**130**	20000	54	5200	300	< 1.5	**130**	< 1	30	37	55
Community of Gatchell																						
5037758 Bulmer Ave. (front yard)	0-5 cm	16666	7300	< 0.8	6	59	< 0.5	0.9	3700	26	15	**370**	14000	60	3100	140	< 1.5	**290**	**2**	21	22	78
		16667	8100	1	6	61	< 0.5	1	4000	30	19	**440**	15000	69	3000	150	< 1.5	**380**	**3**	25	24	70
	5-10 cm	16668	6800	< 0.8	5	46	< 0.5	< 0.8	2200	21	9	**170**	12000	40	2100	140	< 1.5	**160**	< 1	18	21	53
		16669	7900	< 0.8	5	57	< 0.5	< 0.8	3300	23	11	**220**	13000	41	2700	160	< 1.5	**260**	1	24	24	61
	0-20 cm	16670	6000	< 0.8	5	37	< 0.5	< 0.8	2200	18	7	**100**	11000	34	2400	130	< 1.5	**110**	< 1	18	22	40
		16671	9000	< 0.8	< 5	57	< 0.5	< 0.8	3200	26	8	**89**	13000	28	2700	170	< 1.5	**120**	< 1	28	27	47
5037759 Bulmer Ave. (back yard)	0-5 cm	16672	9700	< 0.8	6	57	< 0.5	0.9	5000	36	13	**290**	15000	39	3500	170	< 1.5	**230**	**2**	34	27	68
		16673	8500	< 0.8	15	45	< 0.5	1.1	3700	31	20	**300**	14000	51	2900	150	< 1.5	**350**	2	19	24	86
	5-10 cm	16674	11000	< 0.8	< 5	56	< 0.5	< 0.8	3600	24	8	**110**	14000	27	2700	160	< 1.5	**110**	< 1	33	28	42
		16675	7200	< 0.8	< 5	37	< 0.5	< 0.8	2800	21	7	**120**	12000	25	2500	140	< 1.5	**100**	< 1	24	23	41
	10-20 cm	16676	7500	< 0.8	6	42	< 0.5	< 0.8	2800	20	8	**130**	12000	28	2300	140	< 1.5	**150**	< 1	26	24	51
		16677	7100	< 0.8	6	42	< 0.5	< 0.8	2600	20	8	**120**	12000	26	2500	140	< 1.5	**130**	**2**	22	23	47

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037762 Clemow Ave. (front yard)	0-5 cm	16690	8800	< 0.8	9	51	< 0.5	< 0.8	3500	27	14	**280**	14000	80	2600	160	< 1.5	**290**	<1	34	27	80
		16691	9900	< 0.8	10	56	< 0.5	< 0.8	4200	30	16	**340**	17000	77	2900	190	< 1.5	**340**	<1	38	28	83
	5-10 cm	16692	11000	< 0.8	7	62	< 0.5	< 0.8	3000	27	9	**130**	13000	42	2400	170	< 1.5	**230**	<1	34	29	59
		16693	9200	**1.2**	8	66	< 0.5	< 0.8	2700	23	9	**190**	13000	49	2300	170	< 1.5	**190**	<1	29	26	76
	10-20 cm	16694	6800	1	6	42	< 0.5	< 0.8	2000	20	8	**160**	11000	47	2100	140	< 1.5	**150**	<1	19	23	59
		16695	7000	< 0.8	<5	47	< 0.5	< 0.8	2100	21	8	**100**	11000	36	2400	140	< 1.5	**180**	<1	20	23	57
5037763 Clemow Ave. (back yard)	0-5 cm	16696	8300	< 0.8	8	62	< 0.5	< 0.8	3300	23	9	**190**	13000	69	2300	160	< 1.5	**210**	<1	25	25	120
		16697	8000	< 0.8	8	60	< 0.5	< 0.8	3600	23	8	**170**	13000	53	2200	160	< 1.5	**180**	1	26	23	97
	5-10 cm	16698	7000	< 0.8	7	60	< 0.5	< 0.8	2700	19	9	**180**	12000	78	2000	130	< 1.5	**220**	<1	20	22	120
		16699	9300	< 0.8	11	68	< 0.5	< 0.8	3400	27	8	**200**	14000	47	2100	150	< 1.5	**200**	1	31	29	120
	10-20 cm	16700	8900	< 0.8	7	69	< 0.5	< 0.8	3200	26	7	**150**	13000	55	2100	150	< 1.5	**190**	<1	31	28	110
		16701	9200	< 0.8	8	64	< 0.5	< 0.8	3000	26	7	**150**	14000	56	2100	150	< 1.5	**180**	1	31	29	120
5037770 Dean Ave. (front yard)	0-5 cm	16738	8200	< 0.8	7	57	< 0.5	< 0.8	3500	35	14	**350**	15000	36	3000	180	< 1.5	**300**	**2**	23	27	64
		16739	8000	< 0.8	7	56	< 0.5	< 0.8	3200	35	14	**360**	15000	40	2900	180	< 1.5	**300**	**2**	21	26	64
	5-10 cm	16740	7100	< 0.8	9	56	< 0.5	< 0.8	3300	34	14	**350**	14000	39	2800	190	< 1.5	**310**	1	22	25	68
		16741	8200	< 0.8	9	58	< 0.5	< 0.8	3800	37	15	**410**	16000	43	3000	190	< 1.5	**320**	**2**	25	26	71
	10-20 cm	16742	7600	< 0.8	9	61	< 0.5	< 0.8	3300	31	13	**320**	15000	37	2900	180	< 1.5	**290**	1	23	26	60
		16743	7100	< 0.8	9	50	< 0.5	< 0.8	2900	30	12	**310**	14000	38	2800	170	< 1.5	**260**	1	20	25	56
5037771 Dean Ave. (back yard)	0-5 cm	16744	7300	< 0.8	8	57	< 0.5	< 0.8	4400	31	12	**350**	13000	31	2800	190	< 1.5	**270**	**3**	24	22	79
		16745	7600	< 0.8	8	62	< 0.5	< 0.8	5100	31	12	**350**	14000	35	2800	200	< 1.5	**280**	**2**	26	23	82
	5-10 cm	16746	7700	< 0.8	9	64	< 0.5	< 0.8	5100	33	12	**380**	14000	34	3100	210	< 1.5	**300**	**2**	28	24	84
		16747	8500	< 0.8	10	67	< 0.5	< 0.8	5600	34	13	**380**	15000	33	3000	230	< 1.5	**320**	**2**	31	26	85
	10-20 cm	16748	8300	< 0.8	9	56	< 0.5	< 0.8	4400	30	11	**310**	14000	26	2700	200	< 1.5	**240**	1	30	25	67
		16749	9300	< 0.8	9	56	< 0.5	< 0.8	4600	28	10	**220**	13000	21	2600	200	< 1.5	**240**	<1	35	27	57

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037756 Demorest St. (front yard)	0-5 cm	16654	12000	< 0.8	5	54	< 0.5	1	6400	38	12	**370**	17000	36	2700	250	< 1.5	**230**	**3**	47	33	67
		16655	12000	< 0.8	6	47	< 0.5	**1.3**	5400	36	15	**440**	11000	43	2400	230	< 1.5	**290**	**3**	37	31	77
	5-10 cm	16656	9500	< 0.8	<5	36	< 0.5	< 0.8	2600	22	7	**80**	10000	20	2100	170	< 1.5	**98**	<1	22	26	29
		16657	9600	< 0.8	<5	31	< 0.5	< 0.8	2500	23	6	**70**	9400	16	2100	150	< 1.5	**80**	<1	18	25	28
	10-20 cm	16658	6800	< 0.8	5	40	< 0.5	< 0.8	2000	18	8	**120**	9000	27	2100	140	< 1.5	**160**	<1	17	21	43
		16659	7500	< 0.8	<5	42	< 0.5	< 0.8	2200	19	8	**100**	9000	33	2200	150	< 1.5	**130**	<1	18	23	44
5037757 Demorest St. (back yard)	0-5 cm	16660	6700	< 0.8	6	28	< 0.5	< 0.8	2100	20	9	**210**	11000	27	2000	140	< 1.5	**160**	1	16	21	43
		16661	7900	< 0.8	6	34	< 0.5	< 0.8	2600	23	12	**310**	13000	45	2200	150	< 1.5	**230**	**2**	21	24	63
	5-10 cm	16662	7100	< 0.8	<5	24	< 0.5	< 0.8	1800	18	6	**68**	11000	13	1800	120	< 1.5	**68**	<1	16	22	24
		16663	9300	< 0.8	<5	25	< 0.5	< 0.8	1900	18	7	**100**	14000	24	1800	120	< 1.5	**97**	<1	17	22	30
	10-20 cm	16664	8000	< 0.8	<5	29	< 0.5	< 0.8	1900	18	6	**82**	12000	19	1800	130	< 1.5	**92**	<1	18	23	29
		16665	8700	< 0.8	<5	30	< 0.5	< 0.8	2000	21	7	**95**	12000	21	1900	140	< 1.5	**100**	<1	18	25	31
5037754 Glover Ave. (front yard)	0-5 cm	16642	6900	< 0.8	10	54	< 0.5	**1.2**	3600	23	21	**570**	16000	83	2600	160	< 1.5	**470**	**3**	22	22	130
		16643	8800	**1.1**	15	72	< 0.5	**1.7**	5100	31	**30**	**850**	19000	**130**	3000	200	< 1.5	**730**	**4**	34	28	160
	5-10 cm	16644	10000	< 0.8	12	60	< 0.5	< 0.8	4000	27	17	**330**	18000	61	2700	200	< 1.5	**440**	**2**	33	28	110
		16645	10000	**1.2**	14	62	< 0.5	< 0.8	4400	28	18	**320**	18000	61	2900	200	< 1.5	**480**	**2**	33	30	120
	10-20 cm	16646	8500	< 0.8	8	52	< 0.5	< 0.8	2900	22	11	**190**	14000	36	2300	180	< 1.5	**270**	1	22	24	85
		16647	9800	< 0.8	7	53	< 0.5	< 0.8	3300	24	9	**140**	15000	25	2400	180	< 1.5	**180**	<1	28	26	68
5037755 Glover Ave. (back yard)	0-5 cm	16648	10000	< 0.8	14	76	< 0.5	0.9	3100	26	19	**590**	21000	64	2300	390	< 1.5	**400**	**4**	30	28	57
		16649	16000	< 0.8	16	110	< 0.5	0.9	4500	35	18	**520**	26000	57	2800	550	< 1.5	**410**	**4**	46	36	61
	5-10 cm	16650	13000	< 0.8	9	59	< 0.5	< 0.8	3600	27	9	**200**	16000	28	2400	190	< 1.5	**220**	**2**	39	30	43
		16651	12000	< 0.8	9	81	< 0.5	< 0.8	3700	28	10	**200**	15000	31	2400	220	< 1.5	**270**	**2**	39	30	55
	10-20 cm	16652	14000	< 0.8	11	84	< 0.5	< 0.8	4100	29	12	**220**	17000	30	2500	230	< 1.5	**300**	1	38	30	65
		16653	15000	< 0.8	9	82	< 0.5	< 0.8	4500	29	10	**170**	17000	29	2600	220	< 1.5	**220**	1	42	32	55

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037468 Gutcher St. (front yard)	0-5 cm	15383	11000	< 0.8	< 5	67	< 0.5	< 0.8	6800	35	10	**250**	15000	41	3500	210	< 1.5	**200**	< 1	45	29	68
		15384	11000	< 0.8	< 5	69	< 0.5	1	7800	37	11	**290**	15000	49	3600	210	< 1.5	**210**	< 1	43	29	78
5037469 Gutcher St. (back yard)	0-5 cm	15385	11000	< 0.8	7	79	< 0.5	< 0.8	5400	35	15	**400**	18000	72	2900	180	< 1.5	**300**	< 1	37	30	82
		15386	12000	< 0.8	9	93	< 0.5	0.9	5900	38	17	**480**	19000	90	3100	210	< 1.5	**360**	1	40	31	99
	5-10 cm	15387	11000	1	**18**	77	< 0.5	< 0.8	3700	32	12	**380**	18000	74	2700	180	< 1.5	**280**	**3**	37	31	67
		15388	10000	0.9	14	70	< 0.5	< 0.8	3600	30	12	**360**	18000	65	2600	170	< 1.5	**270**	**2**	34	30	66
	10-20 cm	15389	10000	< 0.8	11	70	< 0.5	< 0.8	2900	29	12	**250**	16000	48	2700	220	< 1.5	**210**	**2**	31	28	69
		15390	9500	< 0.8	8	67	< 0.5	< 0.8	3100	27	9	**180**	15000	54	2700	200	< 1.5	**160**	< 1	32	28	58
5037760 Gutcher Ave. (front yard)	0-5 cm	16678	7800	< 0.8	12	47	< 0.5	0.8	4200	30	16	**440**	15000	73	3700	180	< 1.5	**300**	<1	15	23	69
		16679	11000	< 0.8	9	45	< 0.5	< 0.8	7100	37	15	**360**	19000	49	4000	230	< 1.5	**280**	<1	32	31	54
	5-10 cm	16680	11000	< 0.8	12	51	< 0.5	< 0.8	4300	31	15	**290**	18000	47	3600	200	< 1.5	**340**	<1	26	29	61
		16681	11000	< 0.8	14	59	< 0.5	< 0.8	5400	33	18	**430**	19000	99	3800	200	< 1.5	**400**	<1	30	30	83
	10-20 cm	16682	9500	< 0.8	8	55	< 0.5	< 0.8	3700	29	11	**180**	16000	32	3300	180	< 1.5	**240**	<1	24	28	51
		16683	9900	< 0.8	15	58	< 0.5	< 0.8	3800	27	12	**190**	16000	39	3300	180	< 1.5	**280**	<1	25	27	64
5037761 Gutcher Ave. (back yard)	0-5 cm	16684	9500	< 0.8	17	67	< 0.5	0.9	2700	39	20	**550**	19000	66	2800	350	< 1.5	**430**	<1	24	28	82
		16685	10000	**1.6**	17	82	< 0.5	**1.2**	3600	42	**22**	**630**	20000	73	3300	330	< 1.5	**460**	<1	29	31	100
	5-10 cm	16686	9600	< 0.8	10	70	< 0.5	< 0.8	2500	34	14	**290**	16000	48	2500	260	< 1.5	**370**	<1	27	29	80
		16687	11000	< 0.8	**18**	86	< 0.5	< 0.8	3300	35	14	**330**	17000	57	3300	300	< 1.5	**360**	<1	30	31	100
	10-20 cm	16688	14000	< 0.8	15	98	< 0.5	< 0.8	4400	35	11	**200**	16000	45	3200	230	< 1.5	**320**	<1	43	34	82
		16689	15000	< 0.8	15	110	< 0.5	< 0.8	4900	41	12	**240**	18000	47	3600	280	< 1.5	**320**	<1	46	37	100

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037772 Landsend St. (front yard)	0-5 cm	16750	14000	< 0.8	<5	70	< 0.5	< 0.8	4900	44	10	**160**	17000	12	3800	230	< 1.5	**140**	1	45	37	34
		16751	13000	< 0.8	<5	53	< 0.5	< 0.8	4400	39	8	**110**	17000	8	3700	220	< 1.5	**90**	<1	42	35	23
	5-10 cm	16752	11000	< 0.8	<5	50	< 0.5	< 0.8	3500	35	8	**81**	15000	10	3100	210	< 1.5	**90**	<1	40	32	30
		16753	13000	< 0.8	<5	69	< 0.5	< 0.8	4000	38	8	**120**	16000	14	3300	230	< 1.5	**110**	<1	45	34	33
	10-20 cm	16754	9600	< 0.8	7	62	< 0.5	< 0.8	4500	31	14	**360**	16000	34	2800	200	< 1.5	**330**	1	40	30	67
		16755	9500	< 0.8	6	75	< 0.5	< 0.8	3700	30	10	**200**	15000	27	2700	240	< 1.5	**220**	<1	41	30	76
5037773 Landsend St. (back yard)	0-5 cm	16756	10000	< 0.8	6	55	< 0.5	< 0.8	2900	24	11	**240**	13000	28	2100	140	< 1.5	**240**	1	26	25	70
		16757	11000	< 0.8	8	59	< 0.5	< 0.8	3600	28	13	**250**	15000	35	2600	170	< 1.5	**240**	1	30	26	64
	5-10 cm	16758	9400	< 0.8	7	65	< 0.5	< 0.8	3200	27	9	**220**	14000	28	2300	160	< 1.5	**180**	<1	31	27	73
		16759	9300	< 0.8	5	56	< 0.5	< 0.8	3000	26	8	**190**	13000	24	2300	150	< 1.5	**170**	<1	30	27	56
	10-20 cm	16760	8500	< 0.8	6	55	< 0.5	< 0.8	2700	23	7	**170**	12000	21	2000	140	< 1.5	**160**	<1	27	24	63
		16761	11000	< 0.8	<5	59	< 0.5	< 0.8	2700	28	7	**110**	13000	12	2400	150	< 1.5	**110**	<1	29	28	40
5037768 Logan Ave. (front yard)	0-5 cm	16726	8900	< 0.8	10	98	< 0.5	**1.4**	4600	38	**28**	**920**	20000	110	3000	180	< 1.5	**800**	**6**	27	28	110
		16727	16000	< 0.8	16	140	< 0.5	**2.1**	8400	54	**41**	**1600**	28000	120	4500	260	< 1.5	**1100**	**9**	43	38	**180**
	5-10 cm	16728	18000	< 0.8	**18**	140	< 0.5	1	6900	49	**27**	**790**	26000	93	3900	270	< 1.5	**890**	**5**	45	41	100
		16729	17000	< 0.8	15	110	< 0.5	< 0.8	5500	47	**22**	**540**	23000	49	3600	260	< 1.5	**620**	**4**	41	40	77
	10-20 cm	16730	16000	0.9	13	150	< 0.5	0.9	8800	47	**23**	**510**	24000	120	4400	310	< 1.5	**810**	**4**	52	40	97
		16731	20000	< 0.8	**22**	160	< 0.5	< 0.8	7900	54	18	**380**	24000	39	5300	330	< 1.5	**600**	**4**	53	45	91
5037769 Logan Ave. (back yard)	0-5 cm	16732	11000	< 0.8	5	46	< 0.5	< 0.8	3300	29	6	**140**	14000	19	2200	170	< 1.5	**130**	**2**	35	28	35
		16733	10000	< 0.8	<5	43	< 0.5	< 0.8	3300	28	7	**140**	13000	18	2100	160	< 1.5	**130**	**2**	32	27	31
	5-10 cm	16734	11000	< 0.8	7	75	< 0.5	< 0.8	3700	32	13	**310**	16000	33	3000	200	< 1.5	**290**	**3**	32	30	58
		16735	11000	< 0.8	6	79	< 0.5	< 0.8	3200	30	10	**220**	14000	38	2700	180	< 1.5	**230**	**2**	31	28	45
	10-20 cm	16736	12000	< 0.8	10	110	< 0.5	< 0.8	4300	38	15	**340**	18000	56	3700	230	< 1.5	**380**	**3**	36	32	79
		16737	13000	< 0.8	9	120	< 0.5	< 0.8	4400	41	13	**310**	19000	36	4000	240	< 1.5	**340**	**3**	39	35	74

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037764 Morrison Ave. (front yard)	0-5 cm	16702	13000	0.9	**20**	120	< 0.5	**2.1**	9900	51	**47**	**1200**	28000	**140**	3800	280	< 1.5	**1300**	**7**	42	35	160
		16703	13000	< 0.8	**21**	120	< 0.5	**2.2**	10000	51	**46**	**1400**	28000	**140**	4100	300	< 1.5	**1400**	**8**	43	36	**180**
	5-10 cm	16704	13000	< 0.8	**18**	83	< 0.5	< 0.8	4300	40	14	**310**	18000	89	3300	260	< 1.5	**380**	**2**	36	34	78
		16705	13000	< 0.8	17	95	< 0.5	< 0.8	4000	39	15	**390**	18000	64	3200	280	< 1.5	**420**	**2**	35	34	84
	10-20 cm	16706	15000	< 0.8	12	99	< 0.5	< 0.8	4300	45	11	**170**	19000	47	4400	310	< 1.5	**210**	1	39	39	79
		16707	13000	< 0.8	16	81	< 0.5	< 0.8	3600	36	10	**190**	17000	54	3200	280	< 1.5	**210**	**2**	36	34	70
5037765 Morrison Ave. (back yard)	0-5 cm	16708	14000	1	**19**	150	< 0.5	**2**	8800	56	**45**	**1300**	28000	**160**	4500	270	< 1.5	**1300**	1	43	36	**180**
		16709	15000	**1.1**	16	130	< 0.5	**1.5**	9400	50	**35**	**1000**	25000	**140**	4100	270	< 1.5	**980**	**5**	48	38	150
	5-10 cm	16710	19000	< 0.8	13	140	< 0.5	< 0.8	7700	50	20	**520**	22000	64	4300	300	< 1.5	**570**	**2**	52	43	110
		16711	19000	< 0.8	11	120	< 0.5	< 0.8	6500	47	13	**320**	20000	45	4400	320	< 1.5	**320**	**2**	52	42	85
	10-20 cm	16712	21000	< 0.8	10	160	< 0.5	< 0.8	5700	54	14	**300**	22000	67	4800	340	< 1.5	**320**	1	54	46	87
		16713	21000	< 0.8	9	160	< 0.5	< 0.8	6100	59	14	**270**	25000	110	6300	390	< 1.5	**280**	1	52	48	94
5037750 Rowat St. (front yard)	0-5 cm	16624	8100	< 0.8	<5	27	< 0.5	< 0.8	1500	22	4	28	11000	9	1800	120	< 1.5	33	<1	16	24	17
		16625	8300	< 0.8	11	56	< 0.5	**1.3**	5900	26	21	**560**	16000	68	2500	180	< 1.5	**520**	**3**	23	25	93
	5-10 cm	16626	8100	< 0.8	12	48	< 0.5	< 0.8	3400	25	13	**280**	14000	32	2200	140	< 1.5	**350**	**2**	21	26	66
		16627	7800	< 0.8	11	46	< 0.5	< 0.8	3100	23	12	**250**	13000	29	2200	140	< 1.5	**330**	1	20	25	68
	10-20 cm	16628	7300	< 0.8	9	41	< 0.5	< 0.8	2600	20	10	**170**	12000	24	2200	130	< 1.5	**230**	1	19	23	53
		16629	6600	< 0.8	9	39	< 0.5	< 0.8	2000	18	8	**170**	11000	24	1900	110	< 1.5	**190**	<1	11	20	48
5037751 Rowat St. (back yard)	0-5 cm	16618	14000	< 0.8	15	79	< 0.5	**2**	6400	39	**33**	**700**	26000	110	3100	230	< 1.5	**740**	**4**	38	32	140
		16619	11000	**1.1**	14	79	< 0.5	**1.9**	5200	39	**30**	**710**	23000	110	2800	230	< 1.5	**600**	**4**	39	32	150
	5-10 cm	16620	10000	< 0.8	15	78	< 0.5	**1.1**	5200	30	**24**	**430**	20000	71	3100	200	< 1.5	**520**	**2**	30	30	120
		16621	8200	< 0.8	15	74	< 0.5	**1.2**	3100	30	**28**	**510**	21000	82	2000	200	< 1.5	**540**	**2**	23	28	120
	10-20 cm	16622	6900	< 0.8	9	40	< 0.5	< 0.8	2300	19	10	**140**	12000	36	1800	130	< 1.5	**190**	<1	19	24	48
		16623	7000	< 0.8	12	51	< 0.5	< 0.8	2200	21	15	**210**	15000	43	2000	150	< 1.5	**260**	<1	17	23	64

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037752 Rowat St. (front yard)	0-5 cm	16630	8500	< 0.8	<5	34	< 0.5	< 0.8	2000	24	9	**210**	11000	18	1800	160	< 1.5	**160**	**2**	19	24	30
		16631	8500	**2.7**	**<**5	31	< 0.5	< 0.8	1700	24	7	**150**	11000	15	1800	140	< 1.5	**120**	1	17	23	27
	5-10 cm	16632	10000	< 0.8	<5	30	< 0.5	< 0.8	2400	24	4	28	11000	8	1900	140	< 1.5	33	<1	33	26	19
		16633	7600	< 0.8	<5	29	< 0.5	< 0.8	2100	22	5	35	12000	5	2300	130	< 1.5	42	<1	22	26	18
	10-20 cm	16634	9300	< 0.8	<5	38	< 0.5	< 0.8	2300	24	5	49	13000	16	2100	180	< 1.5	**48**	<1	30	26	24
		16635	8900	< 0.8	<5	33	< 0.5	< 0.8	2100	25	5	55	12000	15	2100	160	< 1.5	**50**	<1	27	26	21
5037753 Rowat St. (back yard)	0-5 cm	16636	9700	< 0.8	7	52	< 0.5	**1.1**	5900	32	12	**340**	16000	31	2700	190	< 1.5	**260**	**3**	36	41	51
		16637	9700	< 0.8	8	53	< 0.5	**1.3**	6600	32	15	**470**	17000	38	2800	200	< 1.5	**350**	**5**	39	40	62
	5-10 cm	16638	7800	< 0.8	5	30	< 0.5	< 0.8	2800	21	7	65	13000	9	2300	140	< 1.5	**67**	<1	21	29	25
		16639	8200	< 0.8	5	35	< 0.5	< 0.8	3500	23	7	**90**	14000	13	2200	160	< 1.5	**89**	1	22	35	29
	10-20 cm	16640	8500	< 0.8	11	50	< 0.5	**1.1**	5900	25	21	**520**	16000	61	2500	180	< 1.5	**510**	**3**	27	25	86
		16641	7600	< 0.8	5	27	< 0.5	< 0.8	2400	20	6	42	12000	6	2300	130	< 1.5	**49**	<1	18	26	19
5037433 Tuddenham St. (front yard)	0-5 cm	15168	7000	< 0.8	5	53	< 0.5	< 0.8	3400	54	14	**430**	14000	49	2700	170	< 1.5	**280**	**3**	22	24	56
		15169	7600	< 0.8	5	53	< 0.5	< 0.8	3500	53	14	**440**	15000	45	2800	160	< 1.5	**290**	**2**	25	26	46
	5-10 cm	15170	7600	< 0.8	< 5	43	< 0.5	< 0.8	3100	29	12	**250**	14000	30	2700	200	< 1.5	**230**	1	22	25	46
		15171	7900	< 0.8	7	45	< 0.5	< 0.8	3500	30	13	**250**	14000	29	2800	210	< 1.5	**240**	< 1	25	26	45
	10-20 cm	15172	6500	< 0.8	7	40	< 0.5	< 0.8	2700	25	9	**150**	13000	24	2600	190	< 1.5	**180**	1	18	23	37
		15173	6700	< 0.8	6	41	< 0.5	< 0.8	2800	27	9	**160**	13000	22	2600	180	< 1.5	**170**	1	20	24	37
5037434 Tuddenham St. (back yard)	0-5 cm	15174	10000	1	8	73	< 0.5	< 0.8	4200	34	11	**290**	16000	66	3700	210	< 1.5	**230**	1	27	30	100
		15175	15000	< 0.8	8	100	< 0.5	< 0.8	5900	43	12	**260**	18000	56	3900	240	< 1.5	**240**	1	44	37	110
	5-10 cm	15176	13000	< 0.8	8	91	< 0.5	< 0.8	4600	42	12	**270**	19000	62	3600	250	< 1.5	**250**	1	37	33	92
		15177	12000	< 0.8	8	91	< 0.5	< 0.8	4700	40	12	**240**	17000	58	3700	250	< 1.5	**240**	1	38	34	84
	10-20 cm	15178	13000	< 0.8	8	100	< 0.5	< 0.8	4500	39	12	**230**	18000	61	3500	300	< 1.5	**230**	1	42	34	85
		15179	15000	**1.2**	8	100	< 0.5	< 0.8	4900	42	11	**230**	17000	53	3500	240	< 1.5	**230**	1	44	35	72

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.4: Sudbury Core residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037766 Tuddenham Ave. (front yard)	0-5 cm	16714	12000	< 0.8	15	84	< 0.5	0.9	4300	36	**29**	**950**	22000	**300**	2500	200	< 1.5	**720**	**5**	40	32	130
		16715	8500	< 0.8	**19**	67	< 0.5	**1.1**	3300	31	**28**	**950**	21000	**320**	2200	170	< 1.5	**800**	**5**	29	28	130
	5-10 cm	16716	7500	< 0.8	17	59	< 0.5	< 0.8	2300	24	15	**470**	15000	**130**	1900	170	< 1.5	**440**	**3**	19	24	110
		16717	7600	< 0.8	16	62	< 0.5	< 0.8	2200	24	14	**450**	15000	**130**	1800	170	< 1.5	**410**	**3**	18	24	98
	10-20 cm	16718	7100	< 0.8	12	58	< 0.5	< 0.8	1900	23	10	**260**	13000	78	1800	170	< 1.5	**270**	**2**	15	22	84
		16719	7700	< 0.8	11	65	< 0.5	< 0.8	1800	23	11	**240**	13000	79	1800	190	< 1.5	**280**	**2**	17	24	81
5037767 Tuddenham Ave. (back yard)	0-5 cm	16720	7300	< 0.8	12	130	< 0.5	**1.7**	3500	30	**25**	**630**	19000	**200**	2300	190	< 1.5	**480**	**5**	25	23	**180**
		16721	7700	< 0.8	13	90	< 0.5	**1.7**	3000	28	20	**590**	17000	**170**	2200	180	< 1.5	**460**	**4**	23	24	140
	5-10 cm	16722	7800	< 0.8	10	78	< 0.5	1	2600	25	16	**430**	16000	**180**	2000	180	< 1.5	**400**	**3**	23	25	130
		16723	7700	< 0.8	14	79	< 0.5	< 0.8	1900	23	12	**380**	14000	**210**	1800	200	< 1.5	**310**	**3**	17	24	110
	10-20 cm	16724	7100	< 0.8	9	77	< 0.5	< 0.8	1700	21	8	**220**	12000	**240**	1500	150	< 1.5	**240**	**2**	18	21	130
		16725	7400	< 0.8	10	62	< 0.5	< 0.8	1400	19	6	**160**	11000	120	1300	120	< 1.5	**170**	**2**	16	21	62
5037774 Walter Ave. (front yard)	0-5 cm	16762	10000	< 0.8	6	35	< 0.5	< 0.8	4000	29	10	**290**	13000	16	2100	190	< 1.5	**200**	**2**	34	28	35
		16763	9800	< 0.8	<5	34	< 0.5	< 0.8	4100	27	11	**330**	13000	17	2000	200	< 1.5	**230**	**2**	32	27	33
	5-10 cm	16764	8600	< 0.8	<5	30	< 0.5	< 0.8	1500	25	6	**140**	11000	10	1800	190	< 1.5	**83**	<1	13	22	24
		16765	12000	< 0.8	<5	41	< 0.5	< 0.8	3700	31	6	**130**	14000	9	2300	240	< 1.5	**87**	<1	40	31	27
	10-20 cm	16766	13000	< 0.8	10	76	< 0.5	0.9	5900	46	18	**470**	19000	42	2700	260	< 1.5	**450**	**2**	43	38	79
		16767	13000	< 0.8	12	83	< 0.5	1	6400	50	18	**440**	19000	43	2900	250	< 1.5	**510**	**2**	44	40	79
5037775 Walter Ave. (back yard)	0-5 cm	16768	14000	< 0.8	5	67	< 0.5	< 0.8	8400	46	12	**180**	19000	19	4500	290	< 1.5	**190**	<1	47	38	52
		16769	15000	< 0.8	6	75	< 0.5	< 0.8	7800	46	13	**200**	19000	20	4100	280	< 1.5	**230**	1	47	38	52
	5-10 cm	16770	13000	< 0.8	7	70	< 0.5	< 0.8	4400	37	13	**250**	17000	23	3100	220	< 1.5	**290**	1	43	36	61
		16771	13000	< 0.8	11	70	< 0.5	< 0.8	4200	37	15	**360**	18000	35	3000	210	< 1.5	**360**	**2**	42	36	73
	10-20 cm	16772	10000	< 0.8	11	47	< 0.5	< 0.8	2900	30	15	**450**	17000	26	2500	180	< 1.5	**410**	**4**	26	30	80
		16773	12000	< 0.8	12	58	< 0.5	< 0.8	2500	33	13	**410**	18000	21	2800	180	< 1.5	**350**	**3**	30	33	73

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Community of Azilda																						
5028062 Albert St. (back yard)	0 - 5 cm	19072	5400	< 0.8	< 5	26	< 0.5	< 0.8	8500	17	5	64	7500	11	2800	170	< 1.5	**89**	< 1	29	17	28
		19073	5300	< 0.8	< 5	29	< 0.5	< 0.8	11000	19	6	80	8600	13	3700	210	< 1.5	**98**	< 1	28	18	39
	5 - 10 cm	19074	5400	< 0.8	< 5	25	< 0.5	< 0.8	8800	18	5	59	7500	10	3200	170	< 1.5	**88**	< 1	27	17	26
		19075	5200	< 0.8	6	26	< 0.5	< 0.8	9800	18	5	51	7800	8	3200	160	< 1.5	**72**	< 1	30	18	27
	10 - 20 cm	19076	6700	< 0.8	< 5	31	< 0.5	< 0.8	9100	19	4	38	8600	7	2600	170	< 1.5	**58**	< 1	34	19	19
		19077	7100	< 0.8	< 5	34	< 0.5	< 0.8	8300	21	4	24	8100	5	2600	170	< 1.5	38	< 1	38	21	19
5028063 Alphonse St. (front yard)	0 - 5 cm	19078	10000	< 0.8	5	44	< 0.5	< 0.8	8200	37	6	35	14000	9	4200	270	< 1.5	**56**	< 1	47	32	29
		19079	11000	< 0.8	6	50	< 0.5	< 0.8	9200	40	7	40	15000	10	4400	290	< 1.5	**59**	< 1	50	34	31
	5 - 10 cm	19080	6700	< 0.8	< 5	26	< 0.5	< 0.8	5300	26	4	18	11000	5	2900	190	< 1.5	31	< 1	33	25	21
		19081	8600	< 0.8	< 5	33	< 0.5	< 0.8	7600	31	5	20	13000	5	4000	230	< 1.5	35	< 1	43	28	21
	10 - 20 cm	19082	7000	< 0.8	< 5	26	< 0.5	< 0.8	6000	29	4	13	11000	4	3400	200	< 1.5	26	< 1	39	26	17
		19083	5500	< 0.8	< 5	19	< 0.5	< 0.8	7500	22	4	11	10000	3	4100	170	< 1.5	23	< 1	29	22	15
5028073 Belanger St. (back yard)	0 - 5 cm	19138	13000	< 0.8	6	57	< 0.5	< 0.8	15000	42	11	**120**	18000	27	6800	360	< 1.5	**160**	1	53	37	56
		19139	14000	< 0.8	5	65	< 0.5	< 0.8	12000	47	10	**110**	19000	23	5600	350	< 1.5	**150**	< 1	54	41	53
	5 - 10 cm	19140	16000	< 0.8	< 5	69	< 0.5	< 0.8	12000	50	9	62	20000	14	5900	340	< 1.5	**95**	< 1	56	43	40
		19141	14000	< 0.8	< 5	59	< 0.5	< 0.8	12000	45	8	59	19000	13	5600	300	< 1.5	**84**	< 1	54	41	38
	10 - 20 cm	19142	17000	< 0.8	< 5	71	< 0.5	< 0.8	12000	52	8	33	20000	9	6400	310	< 1.5	**56**	< 1	57	44	35
		19143	13000	< 0.8	< 5	49	< 0.5	< 0.8	13000	43	7	24	18000	8	7800	270	< 1.5	40	< 1	50	38	27
5028059 Birch St. (front yard)	0 - 5 cm	19054	14000	< 0.8	10	60	< 0.5	< 0.8	15000	46	12	**140**	19000	30	8100	320	< 1.5	**170**	1	53	40	90
		19055	13000	< 0.8	14	61	< 0.5	0.9	13000	46	11	**130**	18000	29	7000	320	1.9	**160**	1	50	38	77
	5 - 10 cm	19056	12000	< 0.8	10	57	< 0.5	< 0.8	14000	46	11	**110**	16000	22	7400	320	< 1.5	**140**	1	49	38	81
		19057	14000	< 0.8	13	64	< 0.5	1.0	12000	46	11	**120**	18000	26	6600	330	< 1.5	**150**	1	49	40	77
	10 - 20 cm	19058	15000	< 0.8	9	59	< 0.5	< 0.8	14000	49	9	61	19000	13	8100	330	< 1.5	**95**	1	55	41	53
		19059	16000	< 0.8	9	66	< 0.5	< 0.8	10000	52	9	70	19000	15	6700	350	< 1.5	**91**	< 1	55	43	55
5028065 Brunet St. (back yard)	0 - 5 cm	19090	7400	< 0.8	< 5	29	< 0.5	< 0.8	6300	29	7	51	14000	24	3300	210	< 1.5	**69**	1	34	29	36
		19091	7000	< 0.8	< 5	28	< 0.5	< 0.8	5200	29	6	46	14000	18	2800	200	< 1.5	**65**	< 1	34	29	35
	5 - 10 cm	19092	6100	< 0.8	< 5	23	< 0.5	< 0.8	4700	26	6	36	12000	19	2600	180	< 1.5	**52**	< 1	30	26	28
		19093	6700	< 0.8	< 5	24	< 0.5	< 0.8	4500	27	6	41	13000	15	2500	190	< 1.5	**56**	< 1	31	28	27
	10 - 20 cm	19094	5100	< 0.8	< 5	17	< 0.5	< 0.8	3300	23	4	15	11000	7	2200	150	< 1.5	25	< 1	24	24	15
		19095	6200	< 0.8	< 5	22	< 0.5	< 0.8	3700	24	5	21	12000	9	2300	170	< 1.5	31	**2**	26	26	20
5028072 Denis Cr. (back yard)	0 - 5 cm	19132	9800	< 0.8	< 5	39	< 0.5	< 0.8	5800	33	6	51	14000	12	3500	230	< 1.5	**69**	< 1	40	30	40
		19133	9400	< 0.8	< 5	39	< 0.5	< 0.8	5700	32	6	52	14000	12	3300	240	< 1.5	**64**	< 1	38	29	40

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
	5 - 10 cm	19134	11000	< 0.8	< 5	43	< 0.5	< 0.8	5800	38	7	50	15000	11	3800	260	< 1.5	**70**	< 1	43	34	35
		19135	10000	< 0.8	< 5	43	< 0.5	< 0.8	5500	37	7	49	15000	12	3700	250	< 1.5	**68**	< 1	39	32	36
	10 - 20 cm	19136	8700	< 0.8	< 5	32	< 0.5	< 0.8	4800	31	5	34	13000	8	3300	220	< 1.5	**50**	< 1	35	29	26
		19137	6200	< 0.8	< 5	20	< 0.5	< 0.8	3500	26	4	19	11000	5	2700	170	< 1.5	30	< 1	26	24	18
5028066 Ellen St. (front yard)	0 - 5 cm	19096	9500	< 0.8	< 5	36	< 0.5	< 0.8	5600	33	7	65	15000	19	3600	200	< 1.5	**84**	**2**	34	29	31
		19097	9900	< 0.8	< 5	38	< 0.5	< 0.8	5600	33	7	67	15000	17	3500	200	< 1.5	**85**	**2**	37	30	32
	5 - 10 cm	19098	9300	< 0.8	< 5	34	< 0.5	< 0.8	5300	32	6	49	15000	9	3500	200	< 1.5	**67**	1	35	29	25
		19099	11000	< 0.8	< 5	47	< 0.5	< 0.8	6100	40	6	44	16000	9	3500	230	< 1.5	**62**	< 1	45	32	24
	10 - 20 cm	19100	6900	< 0.8	< 5	25	< 0.5	< 0.8	5600	30	4	11	12000	4	2800	200	< 1.5	21	< 1	38	28	10
		19101	6700	< 0.8	< 5	24	< 0.5	< 0.8	5400	26	4	10	11000	3	2900	190	< 1.5	18	< 1	36	26	10
5028061 Laurin St. (front yard)	0 - 5 cm	19066	10000	< 0.8	< 5	39	< 0.5	< 0.8	18000	37	8	69	16000	14	9200	260	< 1.5	**86**	< 1	47	33	33
		19067	10000	< 0.8	5	43	< 0.5	< 0.8	17000	37	9	82	16000	17	8900	260	< 1.5	**100**	< 1	45	34	41
	5 - 10 cm	19068	8000	< 0.8	8	31	< 0.5	< 0.8	20000	31	6	46	13000	10	9300	220	< 1.5	**65**	< 1	43	29	23
		19069	9200	< 0.8	7	34	< 0.5	< 0.8	22000	33	7	45	15000	10	10000	240	< 1.5	**62**	< 1	46	32	24
	10 - 20 cm	19070	8200	< 0.8	< 5	30	< 0.5	< 0.8	20000	30	6	33	13000	7	9100	210	< 1.5	**48**	< 1	43	29	19
		19071	9100	< 0.8	5	34	< 0.5	< 0.8	24000	34	6	28	14000	7	11000	240	< 1.5	**46**	< 1	49	32	21
5028070 Notre Dame St. (front yard)	0 - 5 cm	19120	12000	< 0.8	< 5	52	< 0.5	< 0.8	7000	40	8	59	16000	15	3900	250	< 1.5	**84**	1	46	34	35
		19121	12000	< 0.8	< 5	52	< 0.5	< 0.8	6900	42	8	60	16000	14	4000	250	< 1.5	**83**	1	46	34	35
	5 - 10 cm	19122	10000	< 0.8	< 5	39	< 0.5	< 0.8	5900	37	7	52	15000	10	3700	210	< 1.5	**78**	< 1	40	31	31
		19123	8300	< 0.8	< 5	32	< 0.5	< 0.8	4600	31	6	42	13000	7	3100	190	< 1.5	**62**	< 1	32	27	23
	10 - 20 cm	19124	5700	< 0.8	< 5	20	< 0.5	< 0.8	3100	25	4	14	10000	3	2400	150	< 1.5	30	< 1	23	23	12
		19125	5400	< 0.8	< 5	19	< 0.5	< 0.8	3100	25	4	11	11000	3	2300	160	< 1.5	27	< 1	22	25	11
5028060 Oak St. (back yard)	0 - 5 cm	19060	12000	< 0.8	8	49	< 0.5	< 0.8	8100	38	6	45	13000	9	3500	240	< 1.5	**62**	< 1	52	31	31
		19061	12000	< 0.8	5	50	< 0.5	< 0.8	7900	38	6	45	13000	9	3400	230	< 1.5	**60**	< 1	52	31	30
	5 - 10 cm	19062	11000	< 0.8	6	43	< 0.5	< 0.8	8300	34	6	43	13000	9	3600	230	< 1.5	**58**	< 1	51	29	27
		19063	12000	< 0.8	5	44	< 0.5	< 0.8	8200	34	6	44	13000	10	3400	230	< 1.5	**59**	< 1	52	30	27
	10 - 20 cm	19064	13000	< 0.8	6	49	< 0.5	< 0.8	14000	39	7	55	16000	11	6500	270	< 1.5	**73**	< 1	54	34	33
		19065	12000	< 0.8	6	45	< 0.5	< 0.8	9800	38	7	60	15000	12	4700	240	2.0	**78**	< 1	47	32	32

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028071 Paquette St. (back yard)	0 - 5 cm	19126	11000	< 0.8	6	52	< 0.5	< 0.8	6900	35	6	53	14000	13	3200	220	< 1.5	**76**	< 1	42	31	36
		19127	8800	< 0.8	< 5	36	< 0.5	< 0.8	6400	30	5	45	13000	11	3300	190	< 1.5	**56**	< 1	32	27	41
	5 - 10 cm	19128	8600	< 0.8	< 5	35	< 0.5	< 0.8	4600	28	5	37	12000	10	2800	170	< 1.5	**46**	< 1	27	26	27
		19129	6900	< 0.8	< 5	27	< 0.5	< 0.8	6700	25	5	29	12000	7	3400	190	< 1.5	42	< 1	28	24	22
	10 - 20 cm	19130	6000	< 0.8	< 5	23	< 0.5	< 0.8	4400	23	4	15	11000	5	2700	220	< 1.5	26	< 1	23	24	18
		19131	4900	< 0.8	< 5	16	< 0.5	< 0.8	6100	21	4	12	9700	3	3100	160	< 1.5	20	< 1	20	21	13
5028067 Paul St. (front yard)	0 - 5 cm	19102	8200	< 0.8	< 5	35	< 0.5	< 0.8	6500	29	8	54	14000	14	3100	210	< 1.5	**75**	< 1	39	28	31
		19103	7500	< 0.8	< 5	30	< 0.5	< 0.8	6000	26	8	54	13000	14	2900	190	< 1.5	**70**	< 1	36	27	28
	5 - 10 cm	19104	6900	< 0.8	< 5	28	< 0.5	< 0.8	5500	27	8	46	12000	13	3100	200	< 1.5	**67**	< 1	33	26	27
		19105	6700	< 0.8	< 5	27	< 0.5	< 0.8	5400	27	8	48	12000	13	3200	180	< 1.5	**69**	< 1	29	25	46
	10 - 20 cm	19106	5400	< 0.8	< 5	22	< 0.5	< 0.8	4100	23	5	26	11000	7	2800	160	< 1.5	39	< 1	21	23	17
		19107	6200	< 0.8	< 5	23	< 0.5	< 0.8	4800	24	6	26	11000	7	3100	170	< 1.5	41	< 1	25	24	20
5028064 Poulin St. (front yard)	0 - 5 cm	19084	9900	< 0.8	< 5	36	< 0.5	< 0.8	7200	39	7	57	15000	13	5000	220	< 1.5	**82**	< 1	38	31	32
		19085	10000	< 0.8	< 5	38	< 0.5	< 0.8	6000	40	7	60	15000	13	4300	230	< 1.5	**84**	< 1	39	32	33
	5 - 10 cm	19086	8800	< 0.8	< 5	30	< 0.5	< 0.8	4600	34	6	42	14000	8	3700	200	< 1.5	**61**	< 1	34	29	23
		19087	6700	< 0.8	< 5	23	< 0.5	< 0.8	3500	30	5	24	12000	5	3000	170	< 1.5	40	< 1	27	27	16
	10 - 20 cm	19088	5100	< 0.8	< 5	16	< 0.5	< 0.8	3000	24	4	10	10000	3	2200	140	< 1.5	18	< 1	24	22	9
		19089	5900	< 0.8	< 5	19	< 0.5	< 0.8	3500	24	4	10	11000	3	2300	150	< 1.5	20	< 1	28	24	10
5028069 Rayside Ave. (back yard)	0 - 5 cm	19114	6200	< 0.8	< 5	27	< 0.5	< 0.8	6100	24	6	36	11000	9	3700	160	< 1.5	**47**	< 1	17	21	19
		19115	7800	< 0.8	< 5	30	< 0.5	< 0.8	7400	27	6	35	12000	9	3700	190	< 1.5	**50**	< 1	34	26	19
	5 - 10 cm	19116	8700	< 0.8	< 5	33	< 0.5	< 0.8	9500	29	6	33	13000	9	4600	210	< 1.5	**45**	< 1	42	29	22
		19117	9300	< 0.8	< 5	37	< 0.5	< 0.8	9700	32	6	30	14000	9	4500	230	< 1.5	**46**	< 1	46	31	22
	10 - 20 cm	19118	10000	< 0.8	< 5	43	< 0.5	< 0.8	9600	35	7	35	15000	9	4600	250	< 1.5	**44**	< 1	47	31	23
		19119	8200	< 0.8	< 5	32	< 0.5	< 0.8	8500	29	7	28	13000	8	4100	210	< 1.5	42	< 1	42	29	20
5028068 Wahamaa St. (front yard)	0 - 5 cm	19108	9300	< 0.8	< 5	31	< 0.5	< 0.8	4600	27	5	26	12000	6	2500	190	< 1.5	39	< 1	32	26	15
		19109	8800	< 0.8	< 5	30	< 0.5	< 0.8	4500	26	5	22	12000	6	2500	190	< 1.5	35	< 1	32	26	15
	5 - 10 cm	19110	6000	< 0.8	< 5	19	< 0.5	< 0.8	3300	24	4	8	10000	3	2200	160	< 1.5	17	< 1	22	23	9
		19111	6500	< 0.8	< 5	21	< 0.5	< 0.8	3700	25	4	8	10000	3	2400	170	< 1.5	18	< 1	24	24	11
	10 - 20 cm	19112	6200	< 0.8	< 5	23	< 0.5	< 0.8	4700	26	4	9	10000	3	2700	180	< 1.5	19	< 1	27	24	11
		19113	6400	< 0.8	< 5	25	< 0.5	< 0.8	4300	26	5	14	10000	4	2800	170	< 1.5	24	< 1	21	23	12

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Community of Garson																						
5028110 Catherine Dr. (back yard)	0 - 5 cm	21647	8200	< 0.8	7	45	< 0.5	< 0.8	6300	27	7	79	11000	16	2300	180	< 1.5	**85**	< 1	35	26	33
		21648	8100	< 0.8	6	44	< 0.5	< 0.8	7100	26	8	**91**	11000	19	2400	170	< 1.5	**97**	< 1	34	25	31
	5 - 10 cm	21649	7800	< 0.8	8	33	< 0.5	< 0.8	4300	24	6	54	11000	11	2200	160	< 1.5	**62**	< 1	28	26	26
		21650	8400	< 0.8	8	36	< 0.5	< 0.8	5300	25	6	65	12000	12	2200	160	< 1.5	**71**	< 1	31	27	25
	10 - 20 cm	21651	7800	< 0.8	6	29	< 0.5	< 0.8	3100	22	5	42	11000	8	2000	160	< 1.5	**49**	< 1	26	25	25
5028105 Cedar St. (front yard)	0 - 5 cm	21676	8700	< 0.8	6	50	< 0.5	< 0.8	3900	29	8	74	14000	46	2800	190	< 1.5	**84**	< 1	35	29	61
		21677	12000	< 0.8	5	74	< 0.5	< 0.8	5000	37	9	75	15000	40	3100	210	< 1.5	**90**	< 1	42	32	72
	5 - 10 cm	21678	11000	< 0.8	7	70	< 0.5	< 0.8	4500	34	10	**95**	15000	62	2700	200	< 1.5	**110**	< 1	41	29	69
		21679	10000	< 0.8	6	59	< 0.5	< 0.8	5100	33	9	72	15000	45	2900	200	< 1.5	**91**	< 1	40	30	80
	10 - 20 cm	21680	11000	< 0.8	10	81	< 0.5	< 0.8	4700	34	12	**130**	16000	100	2700	210	< 1.5	**150**	< 1	41	31	81
		21681	9400	< 0.8	5	51	< 0.5	< 0.8	4300	31	8	61	14000	61	2700	200	< 1.5	**77**	< 1	37	29	50
5028113 Cedargreen Dr. (front yard)	0 - 5 cm	19420	12000	< 0.8	< 5	51	< 0.5	< 0.8	3500	32	5	43	14000	6	2200	220	< 1.5	**51**	< 1	41	30	22
		19421	12000	< 0.8	< 5	52	< 0.5	< 0.8	3500	33	5	38	13000	6	2300	220	< 1.5	**47**	< 1	42	31	21
	5 - 10 cm	19422	11000	< 0.8	< 5	44	< 0.5	< 0.8	3200	27	5	44	13000	6	2100	220	< 1.5	**49**	< 1	39	29	21
		19423	8300	< 0.8	< 5	34	< 0.5	< 0.8	3000	23	5	37	13000	6	2000	190	< 1.5	**45**	< 1	30	25	17
	10 - 20 cm	19424	7000	< 0.8	< 5	29	< 0.5	< 0.8	3100	21	5	26	12000	4	2300	160	< 1.5	36	< 1	25	23	15
		19425	6500	< 0.8	< 5	27	< 0.5	< 0.8	3500	22	5	22	12000	4	2400	160	< 1.5	30	< 1	27	24	14
5028104 Desjardins St. (back yard)	0 - 5 cm	21682	7400	< 0.8	5	48	< 0.5	< 0.8	3900	28	8	83	12000	46	2500	160	< 1.5	**75**	< 1	27	25	71
		21683	7200	< 0.8	7	42	< 0.5	< 0.8	4000	27	8	82	13000	50	2800	160	< 1.5	**76**	< 1	24	24	70
	5 - 10 cm	21684	6900	< 0.8	6	38	< 0.5	< 0.8	3000	26	8	79	12000	47	2300	150	< 1.5	**74**	< 1	24	24	66
		21685	6400	< 0.8	8	35	< 0.5	< 0.8	2900	24	7	78	11000	46	2300	140	< 1.5	**71**	< 1	22	23	60
	10 - 20 cm	21686	6000	< 0.8	6	30	< 0.5	< 0.8	1900	22	7	61	11000	41	2200	130	< 1.5	**57**	< 1	17	22	48
		21687	6400	< 0.8	5	31	< 0.5	< 0.8	2100	23	7	58	12000	37	2200	140	< 1.5	**57**	< 1	20	24	42
5028112 Donnelly Dr. (front yard)	0 - 5 cm	19426	7900	< 0.8	< 5	34	< 0.5	< 0.8	5600	29	7	71	13000	14	2500	170	< 1.5	**85**	< 1	27	25	26
		19427	8200	< 0.8	7	33	< 0.5	< 0.8	5100	26	7	73	13000	15	2400	170	< 1.5	**85**	< 1	29	25	26
	5 - 10 cm	19428	8200	< 0.8	< 5	33	< 0.5	< 0.8	4400	26	5	54	12000	11	2300	160	< 1.5	**68**	< 1	25	25	24
		19429	8400	< 0.8	< 5	34	< 0.5	< 0.8	5200	26	6	63	13000	12	2400	170	< 1.5	**76**	< 1	28	26	24
	10 - 20 cm	19430	8100	< 0.8	< 5	32	< 0.5	< 0.8	4300	22	5	33	12000	6	2300	150	< 1.5	**47**	< 1	28	24	18
		19431	8600	< 0.8	< 5	34	< 0.5	< 0.8	5200	23	5	47	12000	8	2500	170	< 1.5	**60**	< 1	29	26	20

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028117 Eva St. (front yard)	0 - 5 cm	19396	8000	< 0.8	7	34	< 0.5	< 0.8	4200	23	8	**97**	11000	23	2100	150	< 1.5	**99**	1	28	25	33
		19397	7400	< 0.8	7	31	< 0.5	< 0.8	3400	23	7	78	11000	20	2000	140	< 1.5	**87**	1	24	24	35
	5 - 10 cm	19398	6500	< 0.8	< 5	21	< 0.5	< 0.8	2100	21	5	38	10000	9	2000	130	**3.2**	**46**	< 1	21	23	19
		19399	6900	< 0.8	< 5	23	< 0.5	< 0.8	2400	22	5	43	11000	9	2000	140	< 1.5	**50**	< 1	21	22	20
	10 - 20 cm	19400	8700	< 0.8	< 5	34	< 0.5	< 0.8	2800	25	5	24	11000	7	2100	160	< 1.5	34	< 1	31	25	22
		19401	8100	< 0.8	< 5	32	< 0.5	< 0.8	2800	23	5	25	11000	6	2200	150	< 1.5	35	< 1	30	26	17
5028111 Maureen St. (back yard)	0 - 5 cm	21641	11000	< 0.8	< 5	50	< 0.5	< 0.8	4300	29	6	62	14000	12	2400	200	< 1.5	**71**	< 1	38	32	32
		21642	11000	< 0.8	5	53	< 0.5	< 0.8	4600	31	6	65	15000	11	2500	200	< 1.5	**73**	< 1	39	32	31
	5 - 10 cm	21643	8800	< 0.8	7	39	< 0.5	< 0.8	3600	24	6	58	13000	11	2200	160	< 1.5	**70**	< 1	29	29	29
		21644	8500	< 0.8	7	43	< 0.5	< 0.8	3400	24	6	66	13000	11	2300	170	< 1.5	**69**	< 1	23	28	31
	10 - 20 cm	21645	7300	< 0.8	5	35	< 0.5	< 0.8	2700	23	5	45	12000	9	2200	150	< 1.5	**55**	< 1	20	28	28
		21646	9000	< 0.8	7	51	< 0.5	< 0.8	3600	24	6	65	13000	10	2000	210	< 1.5	**69**	< 1	29	29	33
5028107 McDougall St. (front yard)	0 - 5 cm	21664	6700	< 0.8	< 5	28	< 0.5	< 0.8	2200	23	5	21	11000	12	2100	140	< 1.5	30	1	22	24	29
		21665	7000	< 0.8	< 5	30	< 0.5	< 0.8	2200	23	5	20	11000	11	2100	140	< 1.5	30	< 1	23	24	30
	5 - 10 cm	21666	7500	< 0.8	< 5	54	< 0.5	< 0.8	3100	27	8	80	12000	34	2100	180	< 1.5	**90**	**2**	26	24	53
		21667	7900	< 0.8	6	53	< 0.5	< 0.8	3700	28	8	**90**	12000	40	2200	200	< 1.5	**100**	**2**	30	25	60
	10 - 20 cm	21668	7700	< 0.8	13	96	< 0.5	< 0.8	4600	31	12	**150**	13000	70	2200	280	< 1.5	**170**	< 1	36	26	96
		21669	7300	< 0.8	10	65	< 0.5	< 0.8	3700	27	9	**100**	13000	61	2200	220	< 1.5	**120**	< 1	29	26	68
5028114 Metcalfe Ave. (front yard)	0 - 5 cm	19414	7100	< 0.8	< 5	33	< 0.5	< 0.8	3000	25	6	51	11000	12	2300	140	**2.9**	**60**	< 1	22	26	25
		19415	7600	< 0.8	6	36	< 0.5	< 0.8	3300	25	6	46	11000	10	2300	140	< 1.5	**58**	< 1	26	27	24
	5 - 10 cm	19416	8900	< 0.8	< 5	40	< 0.5	< 0.8	3900	25	8	79	13000	23	2600	160	< 1.5	**81**	< 1	32	28	26
		19417	11000	< 0.8	< 5	54	< 0.5	< 0.8	4100	31	6	65	13000	17	2500	170	< 1.5	**77**	< 1	35	30	27
	10 - 20 cm	19418	10000	< 0.8	< 5	44	< 0.5	< 0.8	5500	28	7	63	14000	20	3200	180	< 1.5	**69**	< 1	39	29	23
		19419	10000	< 0.8	< 5	51	< 0.5	< 0.8	5400	30	7	53	13000	16	3200	200	< 1.5	**66**	< 1	37	30	29
5028115 Metcalfe Ave. (front yard)	0 - 5 cm	19408	11000	< 0.8	6	33	< 0.5	< 0.8	3700	28	5	38	14000	9	2300	200	< 1.5	**48**	< 1	42	28	32
		19409	11000	< 0.8	< 5	36	< 0.5	< 0.8	3800	30	5	37	14000	9	2300	220	< 1.5	**47**	< 1	43	30	33
	5 - 10 cm	19410	8200	< 0.8	< 5	33	< 0.5	< 0.8	2600	23	5	42	11000	10	2000	170	< 1.5	**55**	< 1	26	25	24
		19411	8800	< 0.8	< 5	38	< 0.5	< 0.8	3300	26	6	40	12000	12	2000	180	< 1.5	**60**	< 1	36	28	27
	10 - 20 cm	19412	11000	< 0.8	< 5	36	< 0.5	< 0.8	3500	28	5	32	14000	8	2200	210	< 1.5	**45**	< 1	43	30	25
		19413	11000	< 0.8	< 5	35	< 0.5	< 0.8	3500	27	6	35	14000	9	2200	200	< 1.5	**46**	< 1	42	29	24

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028102 Orell St. (front yard)	0 - 5 cm	21712	9600	< 0.8	< 5	37	< 0.5	< 0.8	3900	36	5	49	12000	17	2200	170	< 1.5	**52**	< 1	38	28	35
		21713	11000	< 0.8	6	49	< 0.5	< 0.8	4300	38	6	53	13000	20	2600	180	< 1.5	**55**	< 1	41	31	37
	5 - 10 cm	21714	10000	< 0.8	< 5	33	< 0.5	< 0.8	3600	30	5	31	12000	10	2200	170	< 1.5	37	< 1	39	30	20
		21715	11000	< 0.8	< 5	38	< 0.5	< 0.8	4000	33	5	37	14000	12	2500	190	< 1.5	**44**	< 1	42	32	22
	10 - 20 cm	21716	10000	< 0.8	7	47	< 0.5	< 0.8	3200	28	7	65	13000	16	2200	190	< 1.5	**68**	< 1	36	30	23
		21717	8300	< 0.8	7	35	< 0.5	< 0.8	2800	24	7	66	13000	15	2200	190	< 1.5	**59**	< 1	31	28	23
5028103 Orell St. (back yard)	0 - 5 cm	21706	9000	< 0.8	15	54	< 0.5	< 0.8	4200	29	12	**190**	15000	53	2500	180	< 1.5	**210**	1	28	27	63
		21707	9100	< 0.8	17	46	< 0.5	< 0.8	3900	27	12	**190**	16000	43	2400	180	< 1.5	**200**	1	28	28	64
	5 - 10 cm	21708	8700	< 0.8	8	42	< 0.5	< 0.8	2600	25	7	**93**	13000	23	2100	140	< 1.5	**110**	< 1	23	27	37
		21709	7900	**2.7**	10	57	< 0.5	< 0.8	2700	26	8	**98**	13000	39	2200	160	< 1.5	**110**	< 1	19	25	77
	10 - 20 cm	21710	8100	< 0.8	6	33	< 0.5	< 0.8	2000	24	6	54	12000	19	2200	120	< 1.5	**66**	< 1	17	25	28
		21711	9100	< 0.8	6	46	< 0.5	< 0.8	2600	25	6	65	13000	21	2200	150	< 1.5	**74**	< 1	23	27	35
5028108 Penman Ave. (back yard)	0 - 5 cm	21658	8400	< 0.8	7	38	< 0.5	< 0.8	3900	27	7	85	11000	20	1800	160	< 1.5	**110**	< 1	35	27	43
		21659	7600	< 0.8	7	31	< 0.5	< 0.8	3600	27	7	83	11000	19	1800	150	< 1.5	**110**	< 1	33	26	40
	5 - 10 cm	21660	8800	< 0.8	8	35	< 0.5	< 0.8	2900	22	7	80	11000	14	1800	160	< 1.5	**91**	< 1	30	24	32
		21661	6300	< 0.8	7	18	< 0.5	< 0.8	2300	19	6	67	10000	13	1600	120	< 1.5	**84**	1	22	21	34
	10 - 20 cm	21662	6200	< 0.8	6	18	< 0.5	< 0.8	2000	20	5	53	11000	8	1500	120	< 1.5	**68**	1	19	24	24
		21663	5700	< 0.8	6	17	< 0.5	< 0.8	1800	18	4	49	9200	7	1500	110	< 1.5	**54**	1	17	21	22
5028116 Pilotte Rd. (front yard)	0 - 5 cm	19402	11000	< 0.8	< 5	40	< 0.5	< 0.8	4400	28	5	44	12000	12	2500	190	< 1.5	**48**	< 1	38	28	31
		19403	11000	< 0.8	< 5	43	< 0.5	< 0.8	4600	29	5	48	12000	13	2500	190	< 1.5	**52**	< 1	40	29	46
	5 - 10 cm	19404	8400	< 0.8	< 5	31	< 0.5	< 0.8	2800	25	4	15	12000	4	2300	150	< 1.5	20	< 1	30	28	14
		19405	6800	< 0.8	< 5	23	< 0.5	< 0.8	2000	22	4	17	11000	4	2200	140	< 1.5	24	< 1	22	23	23
	10 - 20 cm	19406	6000	< 0.8	< 5	23	< 0.5	< 0.8	2000	21	4	15	11000	3	2300	120	< 1.5	20	< 1	19	24	13
		19407	5800	< 0.8	< 5	23	< 0.5	< 0.8	1700	20	5	13	10000	3	2300	130	< 1.5	18	< 1	18	23	18
5028109 Sandra St. (front yard)	0 - 5 cm	21652	6400	< 0.8	6	35	< 0.5	< 0.8	4200	19	7	**100**	11000	23	2500	140	< 1.5	**110**	< 1	14	22	32
		21653	8600	< 0.8	10	41	< 0.5	< 0.8	5200	22	7	**98**	12000	24	2700	170	< 1.5	**110**	< 1	26	27	33
	5 - 10 cm	21654	7600	< 0.8	7	31	< 0.5	< 0.8	4000	22	6	65	11000	11	2000	150	< 1.5	**69**	< 1	24	26	22
		21655	10000	< 0.8	8	44	< 0.5	< 0.8	4600	27	5	61	12000	11	2200	170	< 1.5	**65**	< 1	37	29	22
	10 - 20 cm	21656	8000	< 0.8	< 5	31	< 0.5	< 0.8	3700	23	4	31	11000	5	2200	140	< 1.5	34	< 1	33	25	16
		21657	9000	**1.2**	< 5	36	< 0.5	< 0.8	3800	27	4	36	12000	6	2000	170	< 1.5	36	< 1	37	27	17

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028106 Yonge St. (front yard)	0 - 5 cm	21670	8700	< 0.8	< 5	39	< 0.5	< 0.8	4500	26	5	34	12000	9	2300	200	< 1.5	**56**	< 1	37	27	30
		21671	9800	< 0.8	< 5	43	< 0.5	< 0.8	5200	29	6	44	13000	11	2400	220	< 1.5	**59**	< 1	41	29	33
	5 - 10 cm	21672	6800	< 0.8	< 5	27	< 0.5	< 0.8	2800	23	5	27	11000	8	2200	150	< 1.5	37	< 1	25	24	21
		21673	7200	< 0.8	< 5	29	< 0.5	< 0.8	3000	22	5	30	11000	10	2100	150	< 1.5	40	< 1	26	23	22
	10 - 20 cm	21674	6300	< 0.8	< 5	26	< 0.5	< 0.8	2100	21	5	31	10000	10	2100	130	< 1.5	38	< 1	20	23	19
		21675	5200	< 0.8	< 5	22	< 0.5	< 0.8	1700	17	4	27	8000	9	1800	120	< 1.5	30	< 1	16	17	18
Community of Lively																						
5028050 2nd Ave. (front yard)	0 - 5 cm	17714	11000	< 0.8	7	44	< 0.5	< 0.8	4700	30	6	56	14000	17	2700	180	< 1.5	**73**	< 1	39	30	26
		17715	8700	< 0.8	7	36	< 0.5	< 0.8	3400	26	6	64	13000	19	2500	160	2.0	**75**	< 1	23	25	27
	5 - 10 cm	17716	11000	< 0.8	7	48	< 0.5	< 0.8	3700	32	6	57	15000	16	2800	180	< 1.5	**74**	< 1	34	30	26
		17717	10000	< 0.8	7	40	< 0.5	< 0.8	3500	28	5	52	14000	14	2500	170	< 1.5	**71**	< 1	33	29	24
	10 - 20 cm	17718	12000	< 0.8	9	64	< 0.5	< 0.8	4600	33	9	**88**	17000	15	3300	220	< 1.5	**180**	1	34	33	34
		17719	14000	< 0.8	11	74	< 0.5	< 0.8	5000	34	9	**110**	19000	25	3400	290	< 1.5	**190**	1	36	36	41
5028047 3d Ave. (front yard)	0 - 5 cm	17696	12000	< 0.8	10	70	< 0.5	< 0.8	6900	33	13	**120**	17000	20	3600	230	< 1.5	**220**	< 1	42	31	49
		17697	12000	< 0.8	10	74	< 0.5	< 0.8	7100	35	16	**160**	18000	46	3900	250	< 1.5	**270**	< 1	42	32	57
	5 - 10 cm	17698	16000	< 0.8	7	76	< 0.5	< 0.8	5000	39	9	66	18000	13	3900	230	< 1.5	**120**	< 1	40	35	41
		17699	18000	< 0.8	8	90	< 0.5	< 0.8	4700	44	9	**83**	20000	16	4500	250	< 1.5	**130**	< 1	42	39	46
	10 - 20 cm	17700	17000	< 0.8	7	91	< 0.5	< 0.8	6500	43	9	58	20000	11	4700	290	< 1.5	**82**	< 1	44	40	40
		17701	19000	< 0.8	10	100	< 0.5	< 0.8	5900	47	11	**90**	23000	15	5500	310	< 1.5	**120**	< 1	44	43	48
5028044 6th Ave. (back yard)	0 - 5 cm	17678	14000	< 0.8	10	81	< 0.5	< 0.8	5400	39	11	**110**	18000	22	3900	260	< 1.5	**150**	< 1	41	36	46
		17679	12000	< 0.8	9	93	< 0.5	< 0.8	4200	35	10	**86**	17000	14	3600	260	< 1.5	**130**	< 1	35	33	47
	5 - 10 cm	17680	15000	< 0.8	11	93	< 0.5	< 0.8	5300	41	11	**110**	19000	18	4100	280	< 1.5	**150**	< 1	45	39	48
		17681	14000	< 0.8	9	83	< 0.5	< 0.8	5300	39	11	**120**	18000	23	3900	280	< 1.5	**150**	< 1	43	37	55
	10 - 20 cm	17682	17000	< 0.8	8	110	< 0.5	< 0.8	5700	41	10	83	19000	14	4000	270	< 1.5	**120**	< 1	49	40	44
		17683	18000	< 0.8	11	120	< 0.5	< 0.8	5900	46	12	**110**	21000	20	4300	300	< 1.5	**170**	< 1	51	43	56
5028042 8th Ave. (front yard)	0 - 5 cm	17666	11000	< 0.8	6	39	< 0.5	< 0.8	4100	27	6	59	14000	10	2500	210	< 1.5	**80**	< 1	36	27	22
		17667	13000	< 0.8	6	51	< 0.5	< 0.8	5100	32	6	63	16000	11	2900	230	< 1.5	**90**	< 1	43	31	26
	5 - 10 cm	17668	14000	< 0.8	7	61	< 0.5	< 0.8	5700	36	7	73	16000	12	2900	230	< 1.5	**120**	< 1	48	36	29
		17669	13000	< 0.8	8	55	< 0.5	< 0.8	5000	31	7	**93**	16000	13	2900	190	< 1.5	**150**	< 1	42	33	30
	10 - 20 cm	17670	11000	< 0.8	9	62	< 0.5	< 0.8	4400	32	9	**100**	15000	13	2800	190	< 1.5	**180**	< 1	38	35	32
		17671	12000	< 0.8	11	80	< 0.5	< 0.8	5400	36	12	**170**	17000	18	3400	210	< 1.5	**330**	1	40	39	42
5028045 9th Ave. (back yard)	0 - 5 cm	17684	17000	< 0.8	14	130	< 0.5	1.0	12000	55	13	**150**	19000	31	4100	320	1.6	**210**	1	63	44	72
		17685	17000	< 0.8	11	120	< 0.5	**1.2**	11000	70	12	**140**	20000	29	4100	300	< 1.5	**190**	1	60	43	95

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
	5 - 10 cm	17686	17000	< 0.8	12	140	< 0.5	1.0	12000	60	12	**160**	20000	31	4100	310	< 1.5	**210**	1	64	47	73
		17687	16000	< 0.8	10	100	< 0.5	< 0.8	10000	58	10	**120**	18000	26	3600	290	< 1.5	**160**	< 1	60	42	63
	10 - 20 cm	17688	14000	< 0.8	13	100	< 0.5	< 0.8	11000	44	10	**140**	18000	25	3500	270	< 1.5	**180**	1	58	40	62
		17689	14000	< 0.8	12	100	< 0.5	< 0.8	10000	44	10	**110**	18000	24	3500	290	< 1.5	**160**	1	60	39	60
5028041 10th Ave. (back yard)	0 - 5 cm	17660	13000	< 0.8	6	47	< 0.5	< 0.8	7000	39	7	62	17000	12	3900	280	< 1.5	**86**	< 1	50	35	32
		17661	13000	< 0.8	7	50	< 0.5	< 0.8	7700	38	7	61	17000	12	4000	280	< 1.5	**87**	< 1	51	35	34
	5 - 10 cm	17662	13000	< 0.8	8	52	< 0.5	< 0.8	6800	39	9	74	18000	15	4100	290	< 1.5	**110**	< 1	45	35	36
		17663	13000	< 0.8	8	54	< 0.5	< 0.8	7300	40	8	74	18000	15	4100	280	< 1.5	**100**	< 1	50	36	36
	10 - 20 cm	17664	15000	< 0.8	12	86	< 0.5	< 0.8	8700	41	12	**130**	20000	31	4200	310	< 1.5	**230**	1	47	39	61
		17665	19000	< 0.8	12	110	< 0.5	< 0.8	9300	46	11	**120**	22000	27	4500	330	< 1.5	**200**	< 1	53	44	63
5028053 Agnes St. (front yard)	0 - 5 cm	17852	9600	< 0.8	5	38	< 0.5	< 0.8	3700	28	8	67	13000	13	2600	210	< 1.5	**90**	1	33	28	33
		17853	10000	< 0.8	< 5	42	< 0.5	< 0.8	3800	30	9	74	14000	14	2700	230	< 1.5	**92**	1	35	30	37
	5 - 10 cm	17854	10000	< 0.8	5	47	< 0.5	< 0.8	4000	32	10	75	16000	14	3400	280	< 1.5	**93**	1	34	32	40
		17855	8900	< 0.8	6	39	< 0.5	< 0.8	3300	30	10	65	15000	12	3200	240	< 1.5	**78**	1	28	30	38
	10 - 20 cm	17856	8900	< 0.8	6	38	< 0.5	< 0.8	3400	30	10	72	16000	12	3600	250	< 1.5	**84**	1	28	31	38
		17857	6900	< 0.8	5	30	< 0.5	< 0.8	2700	25	10	54	15000	8	3600	220	< 1.5	**53**	1	19	29	32
5028043 Birch St. (back yard)	0 - 5 cm	17672	9900	< 0.8	11	52	< 0.5	< 0.8	4900	32	10	**130**	18000	21	3100	230	< 1.5	**140**	1	36	36	42
		17673	9100	< 0.8	10	45	< 0.5	< 0.8	4200	30	8	**110**	17000	20	2900	210	< 1.5	**120**	< 1	32	35	38
	5 - 10 cm	17674	8800	< 0.8	10	40	< 0.5	< 0.8	4100	24	8	**88**	17000	13	2800	210	< 1.5	**98**	< 1	30	35	28
		17675	10000	< 0.8	10	45	< 0.5	< 0.8	4300	25	9	**110**	18000	15	2900	220	< 1.5	**120**	< 1	33	36	31
	10 - 20 cm	17676	11000	< 0.8	9	55	< 0.5	< 0.8	4200	26	9	**90**	17000	15	2900	240	< 1.5	**120**	< 1	35	36	30
		17677	12000	< 0.8	8	46	< 0.5	< 0.8	4200	26	9	67	18000	10	2900	210	< 1.5	**78**	< 1	34	36	28
5028056 Field St. (front yard)	0 - 5 cm	17882	11000	< 0.8	< 5	53	< 0.5	< 0.8	6000	33	5	38	12000	11	2900	170	< 1.5	**58**	< 1	46	30	22
		17883	9600	< 0.8	< 5	38	< 0.5	< 0.8	5100	27	4	37	11000	10	2600	150	< 1.5	**51**	< 1	42	27	31
	5 - 10 cm	17884	11000	< 0.8	< 5	52	< 0.5	< 0.8	4500	32	5	33	13000	7	3200	180	< 1.5	43	< 1	39	31	21
		17885	8600	< 0.8	< 5	39	< 0.5	< 0.8	3700	27	5	25	12000	6	2700	150	< 1.5	34	< 1	32	27	17
	10 - 20 cm	17886	11000	< 0.8	< 5	64	< 0.5	< 0.8	4800	36	6	27	16000	5	4000	220	< 1.5	35	< 1	37	34	23
		17887	13000	< 0.8	< 5	71	< 0.5	< 0.8	5100	38	7	30	17000	7	4300	230	< 1.5	37	< 1	40	35	25

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028049 Irene Cr. (back yard)	0 - 5 cm	17708	17000	< 0.8	5	89	< 0.5	< 0.8	6600	44	7	48	20000	12	4700	300	< 1.5	**53**	< 1	55	44	35
		17709	14000	< 0.8	7	73	< 0.5	< 0.8	5900	37	8	57	21000	10	4700	300	< 1.5	**53**	< 1	44	44	35
	5 - 10 cm	17710	15000	< 0.8	8	76	< 0.5	< 0.8	5000	38	9	47	23000	9	5000	320	< 1.5	**46**	< 1	42	45	32
		17711	13000	< 0.8	8	65	< 0.5	< 0.8	4200	35	8	42	21000	8	4600	280	< 1.5	35	< 1	35	42	31
	10 - 20 cm	17712	15000	< 0.8	9	86	< 0.5	< 0.8	5700	42	10	44	24000	8	5800	350	< 1.5	41	< 1	46	46	35
		17713	15000	< 0.8	7	84	< 0.5	< 0.8	5400	40	9	40	23000	7	5600	330	< 1.5	37	< 1	45	47	33
5028052 Jacobson Dr. (back yard)	0 - 5 cm	17726	16000	< 0.8	17	79	< 0.5	< 0.8	5800	47	8	67	19000	10	4400	290	< 1.5	**62**	< 1	49	41	37
		17727	11000	**1.2**	9	48	< 0.5	< 0.8	4000	33	7	53	15000	9	3400	240	< 1.5	**62**	< 1	38	32	34
	5 - 10 cm	17728	13000	< 0.8	11	70	< 0.5	< 0.8	4700	40	9	63	19000	10	4400	310	< 1.5	**63**	< 1	46	40	40
		17729	10000	< 0.8	10	48	< 0.5	< 0.8	3700	32	7	46	16000	8	3600	240	< 1.5	**48**	< 1	36	31	34
	10 - 20 cm	17730	9000	< 0.8	9	38	< 0.5	< 0.8	3100	27	6	38	15000	6	3000	190	< 1.5	37	< 1	33	29	30
		17731	10000	< 0.8	9	47	< 0.5	< 0.8	3200	29	7	41	16000	8	3300	220	< 1.5	40	< 1	34	31	30
5037463 John St. (front yard)	0-5 cm	15366	11000	<0.8	<5	47	<0.5	<0.8	5700	32	7	51	15000	11	3200	220	<1.5	**75**	<1	41	32	33
		15367	11000	<0.8	<5	48	<0.5	<0.8	5900	32	7	51	15000	10	3000	220	<1.5	**72**	<1	39	32	34
	5-10 cm	15368	9400	<0.8	<5	46	<0.5	<0.8	5300	29	8	72	14000	14	2600	200	<1.5	**110**	<1	36	29	35
		15369	7800	<0.8	<5	40	<0.5	<0.8	4200	26	7	60	13000	13	2600	170	<1.5	**86**	<1	28	25	34
5037464 John St. (back yard)	0-5 cm	15360	8900	<0.8	<5	54	<0.5	<0.8	5400	28	8	**91**	16000	22	3500	250	<1.5	**89**	<1	34	32	52
		15361	9000	<0.8	<5	59	<0.5	<0.8	5500	28	9	**96**	16000	25	3500	260	<1.5	**100**	<1	35	33	56
	5-10 cm	15362	8000	<0.8	<5	44	<0.5	<0.8	4200	26	7	62	15000	14	3200	210	<1.5	**56**	<1	28	30	38
		15363	8200	<0.8	<5	49	<0.5	<0.8	4700	25	7	61	15000	19	3400	220	<1.5	**60**	<1	29	31	45
	10-20 cm	15364	8500	<0.8	<5	44	<0.5	<0.8	4300	25	7	67	16000	14	3200	210	<1.5	**56**	<1	33	32	34
		15365	8200	<0.8	<5	46	<0.5	<0.8	4600	26	7	48	15000	19	3300	210	<1.5	43	<1	32	32	38
5028058 Laura Ave. (back yard)	0 - 5 cm	17876	11000	< 0.8	< 5	52	< 0.5	< 0.8	6800	32	6	48	14000	10	3000	240	< 1.5	**77**	< 1	41	32	32
		17877	12000	< 0.8	5	57	< 0.5	< 0.8	7400	34	6	46	14000	10	3100	250	< 1.5	**73**	< 1	44	32	32
	5 - 10 cm	17878	13000	< 0.8	< 5	60	< 0.5	< 0.8	5900	36	6	31	15000	8	3000	230	< 1.5	**54**	< 1	47	33	27
		17879	16000	< 0.8	< 5	89	< 0.5	< 0.8	6000	46	7	41	18000	9	3900	270	< 1.5	**62**	< 1	48	39	33
	10 - 20 cm	17880	19000	< 0.8	6	110	< 0.5	< 0.8	5300	52	8	44	19000	9	4500	270	< 1.5	**62**	< 1	50	42	37
		17881	15000	< 0.8	8	84	< 0.5	< 0.8	4800	49	7	54	18000	10	4100	250	< 1.5	**73**	< 1	47	37	35

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028046 Margaret Ave. (front yard)	0 - 5 cm	17690	14000	< 0.8	10	82	< 0.5	< 0.8	6200	40	11	**110**	21000	18	4400	310	< 1.5	**190**	1	46	42	48
		17691	13000	< 0.8	9	80	< 0.5	< 0.8	5800	40	11	**100**	20000	17	4400	310	< 1.5	**160**	< 1	46	42	43
	5 - 10 cm	17692	15000	< 0.8	10	85	< 0.5	< 0.8	6300	39	11	**96**	22000	16	4700	320	2.3	**170**	< 1	49	44	43
		17693	16000	< 0.8	8	98	< 0.5	< 0.8	6600	42	10	67	23000	13	5600	320	< 1.5	**120**	< 1	48	47	40
	10 - 20 cm	17694	22000	< 0.8	7	140	< 0.5	< 0.8	8400	54	12	54	30000	10	7500	430	< 1.5	**73**	< 1	60	62	46
		17695	21000	< 0.8	7	130	< 0.5	< 0.8	7200	53	11	48	27000	9	7200	390	< 1.5	**62**	< 1	57	56	44
5028055 Patricia St. (front yard)	0 - 5 cm	17864	11000	< 0.8	< 5	39	< 0.5	< 0.8	5200	33	6	25	13000	7	2500	180	< 1.5	42	< 1	48	31	18
		17865	9700	< 0.8	< 5	32	< 0.5	< 0.8	4200	28	5	24	12000	7	2300	160	< 1.5	43	< 1	38	28	18
	5 - 10 cm	17866	9800	< 0.8	< 5	36	< 0.5	< 0.8	3800	29	5	20	12000	6	2500	160	< 1.5	36	< 1	35	28	16
		17867	9200	< 0.8	< 5	31	< 0.5	< 0.8	3600	27	5	18	11000	6	2300	150	< 1.5	33	< 1	34	26	15
	10 - 20 cm	17868	20000	< 0.8	< 5	150	< 0.5	< 0.8	7200	64	12	44	27000	10	8400	390	< 1.5	61	< 1	52	51	45
		17869	12000	< 0.8	< 5	57	< 0.5	< 0.8	4200	36	7	26	15000	7	3300	200	< 1.5	43	< 1	41	33	22
5028057 Polvi Ave. (back yard)	0 - 5 cm	17870	13000	< 0.8	< 5	82	< 0.5	< 0.8	5100	37	10	**90**	18000	16	4000	290	< 1.5	**130**	< 1	42	37	46
		17871	12000	< 0.8	< 5	67	< 0.5	< 0.8	4100	35	9	76	17000	13	3800	250	< 1.5	**98**	< 1	36	34	42
	5 - 10 cm	17872	11000	1.0	< 5	59	< 0.5	< 0.8	4000	31	7	49	16000	16	3600	220	< 1.5	**60**	< 1	35	34	32
		17873	12000	< 0.8	< 5	66	< 0.5	< 0.8	3900	36	8	55	17000	9	3800	230	< 1.5	**65**	< 1	35	34	37
	10 - 20 cm	17874	8600	< 0.8	< 5	43	< 0.5	< 0.8	3000	26	6	36	14000	6	3200	180	< 1.5	40	< 1	26	28	27
		17875	13000	< 0.8	< 5	78	< 0.5	< 0.8	4000	39	8	50	17000	9	3900	240	< 1.5	**63**	< 1	40	36	35
5028051 Ronald Cr. (front yard)	0 - 5 cm	17720	8000	< 0.8	5	28	< 0.5	< 0.8	3700	23	6	61	13000	12	2200	200	< 1.5	**77**	< 1	29	26	27
		17721	11000	< 0.8	5	42	< 0.5	< 0.8	5900	30	6	69	15000	14	2300	250	< 1.5	**82**	< 1	45	31	35
	5 - 10 cm	17722	10000	< 0.8	< 5	37	< 0.5	< 0.8	4900	27	5	50	14000	10	2200	250	< 1.5	**63**	< 1	46	31	24
		17723	10000	< 0.8	6	36	< 0.5	< 0.8	5400	29	5	52	14000	9	2100	250	< 1.5	**57**	< 1	47	30	26
	10 - 20 cm	17724	9200	< 0.8	< 5	30	< 0.5	< 0.8	4200	25	4	35	12000	7	1800	250	< 1.5	42	1	42	27	22
		17725	11000	< 0.8	< 5	37	< 0.5	< 0.8	4700	27	4	34	13000	7	1800	270	< 1.5	39	< 1	47	29	26
5037466 Selma St. (front yard)	0-5 cm	15391	13000	<0.8	8	76	<0.5	<0.8	5700	40	14	**150**	21000	24	4500	380	<1.5	**180**	<1	43	40	55
		15392	15000	**1.2**	8	84	<0.5	<0.8	5900	45	16	**210**	25000	34	5100	380	<1.5	**270**	**2**	44	46	66
	5-10 cm	15393	13000	<0.8	7	75	<0.5	<0.8	6200	40	12	**110**	22000	19	5400	330	<1.5	**110**	1	39	41	48
		15394	13000	<0.8	8	69	<0.5	<0.8	5700	42	13	**160**	20000	18	4600	350	<1.5	**140**	1	41	38	60
	10-20 cm	15395	17000	<0.8	10	71	<0.5	<0.8	4600	42	13	**190**	22000	20	4300	280	<1.5	**240**	**2**	47	43	77
		15371	22000	<0.8	8	130	<0.5	<0.8	10000	50	9	**120**	23000	31	6200	290	<1.5	**140**	<1	49	42	97

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037460 Suzanne St. (front yard)	0-5 cm	15331	16000	<0.8	9	87	<0.5	<0.8	5100	54	11	**140**	25000	46	4700	340	<1.5	**180**	<1	38	47	59
		15332	16000	<0.8	10	83	<0.5	<0.8	5100	51	11	**140**	24000	55	4500	340	<1.5	**180**	<1	36	44	66
	5-10 cm	15333	16000	<0.8	10	75	<0.5	<0.8	4000	39	10	**140**	24000	32	4300	330	<1.5	**150**	<1	36	47	47
		15334	15000	<0.8	11	74	<0.5	<0.8	3500	35	9	**96**	23000	32	3800	380	<1.5	**110**	<1	33	45	45
	10-20 cm	15335	15000	0.8	10	68	<0.5	<0.8	3400	41	11	**140**	24000	42	4100	320	<1.5	**170**	<1	28	44	54
		15336	16000	<0.8	10	78	<0.5	<0.8	3700	35	9	**110**	23000	31	3600	370	<1.5	**120**	<1	36	46	64
5028054 Westview Cr. (front yard)	0 - 5 cm	17858	10000	< 0.8	6	55	< 0.5	< 0.8	4200	40	12	**130**	18000	29	3500	220	< 1.5	**160**	**2**	30	33	53
		17859	10000	< 0.8	6	55	< 0.5	1.0	4100	39	13	**140**	18000	36	3300	220	< 1.5	**180**	< 1	32	33	65
	5 - 10 cm	17860	12000	< 0.8	6	55	< 0.5	< 0.8	5100	33	10	68	17000	13	3200	230	< 1.5	**80**	< 1	39	38	36
		17861	13000	< 0.8	5	55	< 0.5	< 0.8	5300	33	9	64	18000	13	3400	240	< 1.5	**72**	< 1	40	41	37
	10 - 20 cm	17862	13000	< 0.8	5	61	< 0.5	< 0.8	5000	32	9	46	17000	8	3400	240	< 1.5	**49**	< 1	39	38	30
		17863	11000	< 0.8	< 5	42	< 0.5	< 0.8	4200	29	9	43	16000	7	3100	230	< 1.5	**47**	< 1	34	37	29
5028048 Woodland Ave. (front yard)	0 - 5 cm	17702	15000	< 0.8	6	72	< 0.5	< 0.8	6700	36	9	79	19000	18	4300	250	< 1.5	**81**	< 1	41	37	43
		17703	14000	< 0.8	6	68	< 0.5	< 0.8	6800	36	9	78	17000	19	4100	240	< 1.5	**81**	< 1	48	36	40
	5 - 10 cm	17704	18000	< 0.8	7	100	< 0.5	< 0.8	6500	43	9	53	23000	10	5300	350	2.0	**51**	< 1	51	50	35
		17705	15000	< 0.8	5	68	< 0.5	< 0.8	5700	36	7	32	20000	6	4400	290	< 1.5	29	< 1	49	42	26
	10 - 20 cm	17706	17000	< 0.8	6	87	< 0.5	< 0.8	7000	43	7	68	20000	14	4400	290	< 1.5	**57**	< 1	54	43	37
		17707	17000	< 0.8	6	86	< 0.5	< 0.8	6600	45	7	47	20000	11	4600	300	< 1.5	**49**	< 1	53	43	35
Community of Skead																						
5028118 Bowlands Bay Rd. (back yard)	0 - 5 cm	19460	12000	< 0.8	6	68	< 0.5	< 0.8	3400	40	8	55	15000	35	2800	180	< 1.5	**59**	< 1	30	29	45
		19461	12000	< 0.8	7	68	< 0.5	< 0.8	3200	47	8	57	16000	40	3000	170	< 1.5	**58**	< 1	30	31	44
	5 - 10 cm	19462	9300	< 0.8	< 5	42	< 0.5	< 0.8	2000	27	6	29	13000	9	2400	160	< 1.5	38	< 1	22	27	29
		19463	10000	< 0.8	< 5	48	< 0.5	< 0.8	2500	29	7	42	15000	19	2800	170	< 1.5	43	< 1	26	30	33
	10 - 20 cm	19464	8200	< 0.8	5	43	< 0.5	< 0.8	2100	24	7	28	13000	16	2800	160	< 1.5	33	< 1	24	25	29
		19465	10000	< 0.8	7	48	< 0.5	< 0.8	2500	28	8	47	16000	23	3500	180	< 1.5	**49**	< 1	25	30	34

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028120 Canton Rd. (front yard)	0 - 5 cm	19450	8600	< 0.8	< 5	26	< 0.5	< 0.8	3300	23	5	21	11000	8	2200	140	< 1.5	36	< 1	29	24	26
		19451	8800	< 0.8	< 5	24	< 0.5	< 0.8	2900	23	5	20	12000	7	2200	130	< 1.5	32	< 1	28	23	18
	5 - 10 cm	19452	8000	< 0.8	< 5	30	< 0.5	< 0.8	2500	19	5	22	11000	7	2300	130	< 1.5	32	< 1	21	22	22
		19453	6800	< 0.8	< 5	29	< 0.5	< 0.8	2000	17	5	26	11000	8	2100	120	< 1.5	36	< 1	18	21	19
	10 - 20 cm	19454	6000	< 0.8	< 5	27	< 0.5	< 0.8	1500	15	4	14	9400	3	2200	140	< 1.5	19	< 1	15	17	14
		19455	6300	< 0.8	< 5	27	< 0.5	< 0.8	1600	16	4	12	10000	3	2200	110	< 1.5	18	< 1	17	19	13
5028123 Cottage Lane (front yard)	0 - 5 cm	19432	7900	< 0.8	< 5	43	< 0.5	< 0.8	1700	19	5	28	13000	7	1800	210	< 1.5	35	< 1	22	27	26
		19433	8400	< 0.8	< 5	50	< 0.5	< 0.8	1800	20	5	28	13000	8	1800	280	< 1.5	34	< 1	24	28	30
	5 - 10 cm	19434	8700	< 0.8	< 5	46	< 0.5	< 0.8	1600	21	5	13	13000	4	2100	190	< 1.5	24	< 1	20	28	27
		19435	7500	< 0.8	< 5	40	< 0.5	< 0.8	1200	20	5	11	13000	4	2100	220	< 1.5	23	< 1	13	27	26
	10 - 20 cm	19436	8600	< 0.8	< 5	49	< 0.5	< 0.8	1400	22	5	6	13000	3	2200	170	< 1.5	21	< 1	19	28	23
		19437	8800	< 0.8	< 5	41	< 0.5	< 0.8	1700	21	5	6	14000	3	2200	170	< 1.5	21	< 1	20	28	33
5028121 Kevin Dr. (back yard)	0 - 5 cm	19444	7500	< 0.8	< 5	30	< 0.5	< 0.8	2700	22	5	34	12000	8	2100	200	< 1.5	41	< 1	22	24	23
		19445	9000	< 0.8	< 5	37	< 0.5	< 0.8	3700	25	6	44	12000	9	2300	230	< 1.5	**48**	< 1	29	26	26
	5 - 10 cm	19446	6900	< 0.8	< 5	31	< 0.5	< 0.8	2100	21	5	17	12000	4	2300	160	< 1.5	24	< 1	20	22	19
		19447	9200	< 0.8	< 5	43	< 0.5	< 0.8	3000	22	5	36	13000	9	2100	220	< 1.5	39	< 1	26	26	26
	10 - 20 cm	19448	6300	< 0.8	< 5	28	< 0.5	< 0.8	1700	17	5	11	10000	3	2500	130	< 1.5	16	< 1	18	19	13
		19449	9200	< 0.8	< 5	40	< 0.5	< 0.8	2200	23	5	19	14000	5	2400	170	< 1.5	27	< 1	24	26	25
5028122 Marine Landing (front yard)	0 - 5 cm	19438	8000	< 0.8	5	38	< 0.5	< 0.8	2000	23	6	44	14000	30	2300	170	< 1.5	**45**	< 1	22	30	36
		19439	12000	< 0.8	5	71	< 0.5	< 0.8	2800	30	7	48	16000	35	2700	240	< 1.5	**51**	< 1	29	35	49
	5 - 10 cm	19440	8700	< 0.8	< 5	48	< 0.5	< 0.8	2100	23	6	34	14000	29	2500	210	< 1.5	35	< 1	24	30	34
		19441	12000	< 0.8	< 5	74	< 0.5	< 0.8	2800	30	6	39	16000	22	2900	240	< 1.5	42	< 1	31	34	43
	10 - 20 cm	19442	11000	< 0.8	5	70	< 0.5	< 0.8	2400	26	6	43	15000	26	2500	280	< 1.5	**45**	< 1	30	35	50
		19443	11000	< 0.8	< 5	63	< 0.5	< 0.8	2800	28	6	27	16000	20	2800	220	< 1.5	29	< 1	32	33	32
5028119 MacLennan Dr. (front yard)	0 - 5 cm	19456	11000	< 0.8	< 5	53	< 0.5	< 0.8	3100	27	7	36	14000	11	2600	210	< 1.5	**44**	< 1	33	28	27
		19457	9000	< 0.8	< 5	39	< 0.5	< 0.8	2500	23	7	42	13000	12	2300	200	< 1.5	**46**	< 1	28	26	25
	5 - 10 cm	19458	10000	< 0.8	< 5	48	< 0.5	< 0.8	2100	24	5	25	13000	8	2200	160	< 1.5	30	< 1	29	28	21
		19459	9900	< 0.8	< 5	54	< 0.5	< 0.8	2200	22	5	28	13000	7	2300	170	< 1.5	29	< 1	27	26	18

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Community of Sudbury (East)																						
5037914 Autumnwood Cr. (front yard)	0 - 5 cm	17556	10000	< 0.8	< 5	42	< 0.5	< 0.8	4000	30	6	37	13000	8	2900	170	< 1.5	**48**	< 1	36	29	22
		17557	11000	< 0.8	< 5	73	< 0.5	< 0.8	4300	38	7	24	16000	5	3900	260	< 1.5	31	< 1	35	35	18
	5 - 10 cm	17558	11000	< 0.8	< 5	63	< 0.5	< 0.8	4500	37	7	25	16000	5	3800	240	< 1.5	35	< 1	35	34	18
		17559	9900	< 0.8	< 5	43	< 0.5	< 0.8	4400	30	7	39	13000	10	2800	180	< 1.5	**59**	< 1	40	29	24
	10 - 20 cm	17560	9600	< 0.8	< 5	60	< 0.5	< 0.8	6500	34	7	30	15000	6	4000	220	< 1.5	39	< 1	31	31	21
		17561	9900	< 0.8	< 5	63	< 0.5	< 0.8	5400	36	7	23	16000	5	4100	230	< 1.5	32	< 1	31	33	18
5037925 Avalon Rd. (back yard)	0 - 5 cm	17630	5700	< 0.8	6	27	< 0.5	< 0.8	4700	20	9	**130**	10000	22	2200	130	< 1.5	**200**	< 1	24	18	32
		17631	5900	< 0.8	6	29	< 0.5	< 0.8	3900	20	9	**120**	11000	24	1800	130	< 1.5	**180**	< 1	23	20	30
	5 - 10 cm	17632	5200	< 0.8	< 5	17	< 0.5	< 0.8	2200	18	4	44	8600	6	1600	110	< 1.5	**63**	< 1	18	17	15
		17633	5400	< 0.8	< 5	19	< 0.5	< 0.8	2100	17	5	52	8700	8	1600	110	< 1.5	**64**	< 1	18	17	16
	10 - 20 cm	17634	5400	< 0.8	< 5	19	< 0.5	< 0.8	2100	18	4	33	8700	5	1600	110	< 1.5	**48**	< 1	19	18	13
		17635	5900	< 0.8	< 5	24	< 0.5	< 0.8	2400	18	5	41	8900	8	1600	120	< 1.5	**59**	< 1	22	19	16
5028029 Bancroft Dr. (front yard)	0 - 5 cm	21047	12000	< 0.8	10	55	< 0.5	< 0.8	4300	30	8	**100**	15000	30	2400	190	< 1.5	**89**	1	39	31	46
		21048	12000	< 0.8	10	41	< 0.5	< 0.8	3700	26	8	**100**	15000	24	2100	180	< 1.5	**90**	< 1	35	29	38
	5 - 10 cm	21049	14000	< 0.8	14	54	< 0.5	< 0.8	3100	29	6	**94**	16000	15	2000	160	< 1.5	**60**	< 1	34	33	26
		21050	13000	< 0.8	13	46	< 0.5	< 0.8	3000	27	6	**87**	16000	14	1900	160	< 1.5	**56**	< 1	33	33	23
	10 - 20 cm	21051	12000	**1.3**	13	39	< 0.5	< 0.8	2400	25	6	81	15000	13	1900	160	< 1.5	**48**	< 1	27	31	21
		21052	11000	< 0.8	17	39	< 0.5	< 0.8	2000	24	6	83	14000	13	1900	150	< 1.5	**54**	< 1	23	30	22
5037920 Camelot Dr. (back yard)	0 - 5 cm	17600	11000	< 0.8	< 5	91	< 0.5	< 0.8	6000	33	8	78	15000	21	3300	340	< 1.5	**97**	1	41	29	55
		17601	9200	< 0.8	6	67	< 0.5	< 0.8	4800	29	8	80	14000	25	2900	250	< 1.5	**100**	< 1	32	27	74
	5 - 10 cm	17602	11000	< 0.8	6	86	< 0.5	< 0.8	4800	33	7	59	15000	13	3400	280	< 1.5	**75**	< 1	38	31	29
		17603	9300	< 0.8	< 5	48	< 0.5	< 0.8	4100	26	6	53	13000	12	2500	200	< 1.5	**64**	< 1	31	26	56
	10 - 20 cm	17604	14000	0.9	< 5	110	< 0.5	< 0.8	6400	37	7	56	15000	17	3500	340	< 1.5	**74**	< 1	49	33	43
		17605	14000	< 0.8	< 5	100	< 0.5	< 0.8	5200	37	7	54	16000	11	3500	270	< 1.5	**72**	< 1	44	35	41
5037915 Cherrywood Cr. (front yard)	0 - 5 cm	17562	11000	< 0.8	< 5	51	< 0.5	< 0.8	5700	37	7	49	15000	11	3600	250	< 1.5	**65**	< 1	45	34	28
		17563	14000	< 0.8	5	68	< 0.5	< 0.8	6800	44	8	55	17000	13	3900	290	< 1.5	**79**	< 1	52	38	39
	5 - 10 cm	17564	15000	< 0.8	< 5	77	< 0.5	< 0.8	6400	45	7	41	17000	10	4100	270	< 1.5	**54**	< 1	51	39	27
		17565	15000	< 0.8	< 5	74	< 0.5	< 0.8	6500	43	7	43	17000	9	4000	270	< 1.5	**54**	< 1	52	39	28
	10 - 20 cm	17566	13000	< 0.8	< 5	74	< 0.5	< 0.8	5400	39	8	48	16000	10	3900	240	< 1.5	**63**	< 1	45	37	23
		17567	14000	< 0.8	< 5	74	< 0.5	< 0.8	5300	38	7	52	16000	9	3700	240	1.6	**59**	< 1	47	36	24

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028028 Clearview Ave. (back yard)	0 - 5 cm	17568	11000	< 0.8	6	55	< 0.5	< 0.8	6600	31	9	**90**	14000	26	3300	200	< 1.5	**110**	< 1	43	30	37
		17569	9400	< 0.8	9	51	< 0.5	< 0.8	6300	30	9	**100**	14000	24	3500	190	< 1.5	**110**	< 1	34	29	51
	5 - 10 cm	17570	9100	< 0.8	6	50	< 0.5	< 0.8	4600	30	9	**95**	15000	29	3200	190	< 1.5	**110**	< 1	29	29	37
		17571	8600	< 0.8	7	47	< 0.5	< 0.8	4600	29	9	**91**	15000	26	3200	180	< 1.5	**98**	< 1	27	29	43
	10 - 20 cm	17572	8900	< 0.8	6	53	< 0.5	< 0.8	4500	29	9	**93**	15000	24	3500	200	< 1.5	**96**	< 1	28	28	35
		17573	8900	< 0.8	7	46	< 0.5	< 0.8	4200	30	9	75	15000	18	3200	180	< 1.5	**90**	< 1	28	31	44
5028031 Dale St. (back yard)	0 - 5 cm	21060	11000	< 0.8	6	55	< 0.5	< 0.8	3900	32	8	**96**	16000	40	2600	200	< 1.5	**110**	< 1	38	32	71
		21061	10000	< 0.8	< 5	46	< 0.5	< 0.8	3500	29	7	78	15000	17	2500	180	< 1.5	**87**	< 1	35	30	42
	5 - 10 cm	21062	11000	1.0	7	52	< 0.5	< 0.8	3200	29	8	**120**	16000	32	2600	160	< 1.5	**110**	< 1	35	32	49
		21063	11000	< 0.8	7	47	< 0.5	< 0.8	3300	29	8	**110**	17000	20	2400	170	< 1.5	**110**	< 1	36	32	40
	10 - 20 cm	21064	8000	< 0.8	9	42	< 0.5	< 0.8	2600	25	8	**140**	15000	28	2200	140	< 1.5	**140**	1	26	28	37
		21065	7800	< 0.8	5	33	< 0.5	< 0.8	2800	25	6	67	14000	11	2200	150	< 1.5	**79**	< 1	28	30	26
5037912 Darby St. (front yard)	0 - 5 cm	17532	10000	< 0.8	6	57	< 0.5	< 0.8	4800	35	8	55	15000	12	3500	240	< 1.5	**72**	< 1	35	33	30
		17533	9700	< 0.8	5	54	< 0.5	< 0.8	4900	34	8	56	15000	11	3400	230	< 1.5	**71**	< 1	36	32	30
	5 - 10 cm	17534	9900	< 0.8	< 5	53	< 0.5	< 0.8	4400	36	8	44	16000	9	3700	230	< 1.5	**62**	< 1	33	32	26
		17535	11000	< 0.8	6	56	< 0.5	< 0.8	5100	37	8	51	16000	10	3900	220	< 1.5	**61**	< 1	38	33	26
	10 - 20 cm	17536	11000	< 0.8	6	59	< 0.5	< 0.8	4200	34	8	43	17000	7	3900	210	< 1.5	**52**	< 1	36	32	22
		17537	11000	< 0.8	7	53	< 0.5	< 0.8	4200	33	8	45	16000	7	3600	200	< 1.5	**55**	< 1	36	33	20
5037913 Dorsett Dr. (front yard)	0 - 5 cm	17550	13000	**2.5**	6	59	< 0.5	< 0.8	7100	41	8	59	16000	**170**	3700	240	< 1.5	**81**	< 1	50	36	39
		17551	12000	**2.3**	5	48	< 0.5	< 0.8	6500	37	7	58	15000	**140**	3500	220	< 1.5	**80**	< 1	45	33	34
	5 - 10 cm	17552	11000	**3.3**	6	43	< 0.5	< 0.8	5900	34	7	54	14000	**220**	3300	210	< 1.5	**75**	< 1	39	32	30
		17553	9600	**6.5**	7	40	< 0.5	< 0.8	4600	31	7	55	13000	**310**	3100	190	< 1.5	**68**	< 1	25	27	28
	10 - 20 cm	17554	12000	**2.8**	7	52	< 0.5	< 0.8	5100	35	8	57	16000	**100**	3500	220	< 1.5	**75**	< 1	35	33	32
		17555	12000	**3.9**	7	53	< 0.5	< 0.8	5800	35	8	57	16000	**150**	3600	220	1.8	**72**	< 1	39	34	31
5028027 Dundas St. (back yard)	0 - 5 cm	17654	8300	< 0.8	10	85	< 0.5	< 0.8	6500	25	9	**150**	14000	35	2700	390	< 1.5	**170**	< 1	51	23	50
		17655	7700	< 0.8	10	55	< 0.5	< 0.8	5100	23	8	**110**	13000	32	2500	220	< 1.5	**160**	< 1	38	22	39
	5 - 10 cm	17656	7400	< 0.8	8	39	< 0.5	< 0.8	3600	23	6	64	12000	15	2400	190	2.1	**77**	< 1	34	23	21
		17657	7500	< 0.8	7	34	< 0.5	< 0.8	3200	23	5	64	12000	13	2300	160	< 1.5	**70**	< 1	31	22	18
	10 - 20 cm	17658	7600	< 0.8	< 5	38	< 0.5	< 0.8	3500	23	5	46	11000	10	2400	170	< 1.5	**46**	< 1	33	23	31
		17659	7700	< 0.8	< 5	33	< 0.5	< 0.8	3000	23	5	36	11000	6	2300	160	< 1.5	42	< 1	30	24	16

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037909 Estelle St. (back yard)	0 - 5 cm	17538	10000	< 0.8	**18**	64	< 0.5	< 0.8	3500	31	12	**230**	17000	36	2600	180	< 1.5	**220**	**2**	32	30	39
		17539	11000	< 0.8	14	62	< 0.5	< 0.8	4000	43	11	**180**	17000	30	2600	190	< 1.5	**190**	1	35	30	45
	5 - 10 cm	17540	12000	< 0.8	12	62	< 0.5	< 0.8	2700	29	8	**150**	16000	18	2200	160	< 1.5	**110**	< 1	34	30	37
		17541	11000	< 0.8	12	53	< 0.5	< 0.8	2700	29	9	**140**	16000	17	2600	150	< 1.5	**130**	< 1	29	29	29
	10 - 20 cm	17542	11000	< 0.8	9	51	< 0.5	< 0.8	2600	26	7	**89**	14000	11	2100	150	< 1.5	**73**	< 1	34	29	33
		17543	8200	< 0.8	11	37	< 0.5	< 0.8	2200	25	6	68	13000	10	2400	120	< 1.5	**78**	< 1	23	26	19
5037911 Eugene St. (back yard)	0 - 5 cm	17526	10000	< 0.8	< 5	48	< 0.5	< 0.8	5300	28	6	53	13000	13	2900	200	< 1.5	**68**	< 1	38	29	29
		17527	12000	< 0.8	< 5	62	< 0.5	< 0.8	5100	32	6	58	13000	13	2900	210	< 1.5	**72**	< 1	39	32	41
	5 - 10 cm	17528	9900	< 0.8	< 5	48	< 0.5	< 0.8	4600	27	6	51	13000	11	2800	200	< 1.5	**64**	< 1	36	29	27
		17529	11000	< 0.8	< 5	59	< 0.5	< 0.8	5700	31	6	58	13000	13	3000	210	< 1.5	**74**	< 1	40	31	33
	10 - 20 cm	17530	5300	< 0.8	< 5	25	< 0.5	< 0.8	2300	21	4	21	9500	4	2100	130	< 1.5	38	< 1	19	21	13
		17531	5200	< 0.8	< 5	23	< 0.5	< 0.8	2400	20	4	18	9300	4	2100	130	< 1.5	36	< 1	20	22	12
5028026 Ferndale Ave. (front yard)	0 - 5 cm	17648	19000	< 0.8	6	110	< 0.5	< 0.8	6500	45	12	**150**	22000	56	3700	310	< 1.5	**150**	1	50	41	110
		17649	12000	< 0.8	8	85	< 0.5	< 0.8	5200	42	11	**140**	17000	53	3500	270	< 1.5	**160**	1	38	34	110
	5 - 10 cm	17650	13000	< 0.8	7	90	< 0.5	< 0.8	5400	41	11	**140**	18000	47	3800	290	< 1.5	**140**	1	35	34	110
		17651	13000	< 0.8	7	89	< 0.5	< 0.8	4600	39	10	**130**	17000	51	3400	290	< 1.5	**140**	1	34	33	110
	10 - 20 cm	17652	12000	< 0.8	10	77	< 0.5	< 0.8	4500	39	11	**160**	18000	41	3400	260	< 1.5	**170**	1	34	34	89
		17653	12000	< 0.8	8	78	< 0.5	< 0.8	4600	39	11	**150**	18000	39	3400	260	< 1.5	**180**	1	37	34	85
5037918 Greenwood Dr. (front yard)	0 - 5 cm	17588	11000	< 0.8	< 5	41	< 0.5	< 0.8	5000	27	7	56	14000	13	2600	200	< 1.5	**72**	< 1	41	28	23
		17589	12000	< 0.8	< 5	40	< 0.5	< 0.8	5200	27	6	59	14000	13	2500	200	< 1.5	**67**	< 1	41	29	20
	5 - 10 cm	17590	13000	< 0.8	< 5	46	< 0.5	< 0.8	5100	31	5	34	14000	9	2500	190	< 1.5	43	< 1	46	31	19
		17591	11000	< 0.8	< 5	36	< 0.5	< 0.8	4400	26	5	38	13000	9	2300	170	1.9	**47**	< 1	38	28	16
	10 - 20 cm	17592	11000	< 0.8	6	45	< 0.5	< 0.8	4000	26	9	79	13000	11	2200	250	< 1.5	**85**	< 1	37	28	22
		17593	10000	< 0.8	< 5	39	< 0.5	< 0.8	3700	25	7	46	13000	9	2100	230	< 1.5	**51**	< 1	34	27	18
5037923 Hebert St. (front yard)	0 - 5 cm	17618	11000	< 0.8	6	58	< 0.5	< 0.8	5100	33	7	**91**	16000	18	3500	240	< 1.5	**93**	1	41	32	35
		17619	11000	< 0.8	6	58	< 0.5	< 0.8	5300	35	7	79	16000	17	3400	250	< 1.5	**85**	< 1	42	33	34
	5 - 10 cm	17620	11000	< 0.8	6	51	< 0.5	< 0.8	4500	31	6	61	16000	12	3500	250	< 1.5	**68**	< 1	39	32	29
		17621	10000	< 0.8	5	50	< 0.5	< 0.8	4400	32	7	58	15000	12	3600	250	< 1.5	**71**	< 1	35	31	29
	10 - 20 cm	17622	10000	< 0.8	6	59	< 0.5	< 0.8	5400	33	7	48	17000	8	5600	270	< 1.5	**49**	< 1	33	33	24
		17623	9800	< 0.8	7	55	< 0.5	< 0.8	4700	35	8	51	17000	13	4800	270	1.6	**58**	< 1	31	32	27

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037921 Highgate Rd. (back yard)	0 - 5 cm	17606	12000	< 0.8	6	42	< 0.5	< 0.8	4500	30	5	35	13000	10	2100	200	< 1.5	**49**	< 1	42	29	26
		17607	12000	< 0.8	7	40	< 0.5	< 0.8	4400	30	6	44	13000	12	2200	210	< 1.5	**52**	< 1	41	29	30
	5 - 10 cm	17608	10000	< 0.8	< 5	36	< 0.5	< 0.8	3500	26	5	22	12000	8	2000	170	< 1.5	37	< 1	34	26	19
		17609	11000	< 0.8	< 5	39	< 0.5	< 0.8	4000	27	5	24	13000	8	2100	190	< 1.5	38	< 1	39	28	18
	10 - 20 cm	17610	7700	< 0.8	< 5	34	< 0.5	< 0.8	3400	27	5	22	11000	6	2500	160	< 1.5	36	< 1	29	25	16
		17611	7600	< 0.8	< 5	35	< 0.5	< 0.8	3200	25	5	25	11000	6	2500	160	< 1.5	37	< 1	29	25	19
5037908 Hines St. (front yard)	0 - 5 cm	17544	13000	< 0.8	16	66	< 0.5	< 0.8	4400	37	17	**240**	19000	34	2900	230	< 1.5	**310**	1	36	33	71
		17545	12000	< 0.8	**19**	65	< 0.5	0.9	4900	35	19	**270**	19000	37	2900	230	< 1.5	**360**	**2**	39	33	77
	5 - 10 cm	17546	17000	< 0.8	12	90	< 0.5	< 0.8	4500	40	11	**140**	18000	16	3000	220	< 1.5	**190**	< 1	44	37	48
		17547	16000	< 0.8	14	81	< 0.5	< 0.8	4700	37	12	**150**	18000	17	3200	260	< 1.5	**210**	< 1	46	37	61
	10 - 20 cm	17548	16000	< 0.8	8	83	< 0.5	< 0.8	4100	37	9	**89**	17000	10	3000	250	< 1.5	**100**	< 1	43	35	38
		17549	17000	< 0.8	10	87	< 0.5	< 0.8	4300	38	10	**110**	18000	13	3200	250	< 1.5	**140**	< 1	45	37	49
5028032 Howey Dr. (back yard)	0 - 5 cm	21066	7900	< 0.8	17	39	< 0.5	< 0.8	2200	23	10	**190**	13000	31	1900	130	< 1.5	**190**	1	23	25	44
		21067	7400	< 0.8	15	30	< 0.5	< 0.8	2200	22	9	**150**	12000	23	1800	130	< 1.5	**160**	1	22	23	37
	5 - 10 cm	21068	7900	< 0.8	**21**	34	< 0.5	< 0.8	2000	22	8	**110**	12000	16	1600	130	< 1.5	**120**	< 1	23	25	25
		21069	8900	< 0.8	**28**	41	< 0.5	< 0.8	2500	23	7	**120**	12000	17	1700	150	< 1.5	**110**	< 1	27	26	25
	10 - 20 cm	21070	12000	< 0.8	**19**	71	< 0.5	< 0.8	3300	32	10	**110**	15000	16	2500	200	< 1.5	**110**	< 1	34	31	29
		21071	12000	< 0.8	**21**	67	< 0.5	< 0.8	3300	31	9	**110**	14000	18	2300	180	< 1.5	**120**	< 1	35	31	27
5037922 Kenwood St. (front yard)	0 - 5 cm	17612	7500	< 0.8	13	48	< 0.5	< 0.8	5000	31	10	**160**	14000	31	2300	180	< 1.5	**190**	**2**	29	30	51
		17613	7200	< 0.8	12	47	< 0.5	< 0.8	4700	31	10	**130**	15000	28	2300	180	< 1.5	**180**	**2**	30	31	50
	5 - 10 cm	17614	6500	< 0.8	13	45	< 0.5	< 0.8	4700	30	8	**89**	12000	16	2200	160	< 1.5	**120**	1	25	31	35
		17615	7100	< 0.8	9	41	< 0.5	< 0.8	4500	28	6	72	13000	12	2400	170	< 1.5	**97**	1	28	31	34
	10 - 20 cm	17616	7000	< 0.8	8	45	< 0.5	< 0.8	5300	27	5	57	12000	11	2700	160	< 1.5	**75**	< 1	31	28	31
		17617	5900	< 0.8	8	33	< 0.5	< 0.8	4200	23	5	43	10000	7	2700	150	< 1.5	**55**	< 1	26	25	17
5037949 Lonsdale Ave. (front yard)	0 - 5 cm	20767	16000	< 0.8	7	88	< 0.5	< 0.8	4500	40	15	**150**	19000	38	3800	300	< 1.5	**160**	**2**	39	35	69
		20768	19000	< 0.8	7	100	< 0.5	< 0.8	5200	43	16	**150**	20000	38	4100	310	< 1.5	**170**	1	45	38	65
	5 - 10 cm	20769	15000	< 0.8	8	81	< 0.5	< 0.8	4200	39	14	**160**	19000	38	3800	270	< 1.5	**170**	**2**	36	37	61
		20770	15000	< 0.8	7	82	< 0.5	< 0.8	4300	40	16	**160**	19000	33	4000	300	< 1.5	**160**	**2**	34	36	63
	10 - 20 cm	20771	16000	< 0.8	8	79	< 0.5	< 0.8	4100	39	16	**120**	18000	32	3900	280	< 1.5	**150**	1	32	34	57
		20772	14000	< 0.8	7	79	< 0.5	< 0.8	3700	38	16	**130**	18000	29	4100	290	< 1.5	**140**	**2**	24	31	59

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037926 McKinnon St. (back yard)	0 - 5 cm	17636	12000	< 0.8	< 5	45	< 0.5	< 0.8	4500	32	6	71	15000	14	2600	180	< 1.5	**69**	< 1	41	31	29
		17637	9400	**1.5**	< 5	38	< 0.5	< 0.8	3600	29	6	62	13000	11	2400	170	< 1.5	**61**	< 1	28	26	27
	5 - 10 cm	17638	12000	< 0.8	< 5	45	< 0.5	< 0.8	3800	29	6	53	15000	12	2500	170	< 1.5	**53**	< 1	38	31	26
		17639	10000	< 0.8	< 5	44	< 0.5	< 0.8	3400	28	6	48	14000	10	2500	170	< 1.5	**50**	< 1	33	28	23
	10 - 20 cm	17640	10000	< 0.8	< 5	40	< 0.5	< 0.8	2400	25	7	47	14000	7	2000	130	1.6	**56**	< 1	23	28	31
		17641	9400	< 0.8	5	43	< 0.5	< 0.8	2500	25	6	68	14000	9	1900	140	< 1.5	**55**	< 1	27	27	24
5028030 Mooney St. (front yard)	0 - 5 cm	21054	9600	< 0.8	< 5	27	< 0.5	< 0.8	3400	29	7	59	13000	21	2300	150	< 1.5	**71**	< 1	32	26	35
		21055	9600	< 0.8	< 5	27	< 0.5	< 0.8	3200	29	7	56	12000	23	2200	140	< 1.5	**75**	< 1	32	26	33
	5 - 10 cm	21056	8700	< 0.8	< 5	28	< 0.5	< 0.8	3200	26	6	57	11000	18	1800	140	< 1.5	**68**	< 1	26	25	27
		21057	8300	< 0.8	< 5	30	< 0.5	< 0.8	2900	28	7	59	11000	19	1800	140	< 1.5	**68**	< 1	24	25	28
	10 - 20 cm	21058	8900	< 0.8	6	34	< 0.5	< 0.8	3000	26	9	76	13000	32	2100	150	< 1.5	**90**	< 1	30	26	28
		21059	10000	< 0.8	8	41	< 0.5	< 0.8	3700	29	10	**91**	15000	39	2400	170	< 1.5	**110**	< 1	36	29	38
5028033 North Shore Dr. (front yard)	0 - 5 cm	21072	11000	< 0.8	< 5	62	< 0.5	< 0.8	8200	34	9	**120**	14000	25	3700	220	< 1.5	**140**	1	42	30	42
		21073	9300	< 0.8	< 5	49	< 0.5	< 0.8	8000	30	9	**110**	13000	24	3700	210	< 1.5	**130**	< 1	41	27	41
	5 - 10 cm	21074	6700	< 0.8	< 5	30	< 0.5	< 0.8	7300	23	5	46	11000	9	3500	160	< 1.5	**55**	< 1	32	25	19
		21075	6300	< 0.8	< 5	28	< 0.5	< 0.8	7500	23	5	41	11000	9	3500	160	< 1.5	**51**	< 1	30	24	18
	10 - 20 cm	21076	5600	< 0.8	< 5	26	< 0.5	< 0.8	8900	22	4	23	10000	5	4400	160	< 1.5	27	< 1	29	23	13
		21077	5300	< 0.8	< 5	25	< 0.5	< 0.8	8600	22	5	27	10000	6	4300	160	< 1.5	32	< 1	27	22	15
5037924 Randolph St. (front yard)	0 - 5 cm	17624	8700	< 0.8	6	39	< 0.5	< 0.8	3900	30	7	**97**	14000	27	3100	250	< 1.5	**110**	1	33	29	33
		17625	8700	< 0.8	6	41	< 0.5	< 0.8	4000	28	7	**100**	14000	25	3000	260	< 1.5	**110**	1	36	29	32
	5 - 10 cm	17626	13000	< 0.8	6	47	< 0.5	< 0.8	4400	38	6	62	19000	13	4300	370	< 1.5	**67**	< 1	42	37	35
		17627	9900	< 0.8	6	34	< 0.5	< 0.8	3300	30	6	69	16000	12	3900	330	< 1.5	**70**	< 1	29	32	34
	10 - 20 cm	17628	6500	< 0.8	< 5	25	< 0.5	< 0.8	2100	22	6	33	11000	7	2300	160	< 1.5	**46**	< 1	21	23	17
		17629	8000	< 0.8	< 5	34	< 0.5	< 0.8	2900	24	5	35	12000	8	2200	210	< 1.5	**50**	< 1	30	28	18
5037917 Roger St. (back yard)	0 - 5 cm	17582	9400	< 0.8	5	40	< 0.5	< 0.8	5200	30	6	58	13000	14	2900	170	1.8	**59**	< 1	30	26	44
		17583	9700	< 0.8	6	42	< 0.5	< 0.8	5200	31	6	59	13000	15	2900	180	< 1.5	**57**	< 1	34	28	41
	5 - 10 cm	17584	10000	< 0.8	< 5	48	< 0.5	< 0.8	4100	31	7	34	14000	15	2900	190	< 1.5	**45**	< 1	31	28	32
		17585	10000	< 0.8	< 5	42	< 0.5	< 0.8	4300	30	6	29	14000	14	2700	190	< 1.5	39	< 1	33	28	26
	10 - 20 cm	17586	13000	< 0.8	< 5	79	< 0.5	< 0.8	5600	44	9	54	17000	19	4100	270	< 1.5	**62**	< 1	40	34	53
		17587	17000	< 0.8	< 5	100	< 0.5	< 0.8	6000	46	9	51	18000	22	4100	270	< 1.5	**59**	< 1	50	37	52

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037919 2nd Ave. S. (back yard)	0 - 5 cm	17594	6700	< 0.8	7	31	< 0.5	< 0.8	3900	20	8	**110**	11000	15	2000	120	< 1.5	**150**	< 1	25	21	27
		17595	7500	< 0.8	6	36	< 0.5	< 0.8	4100	23	8	**100**	11000	16	2200	140	< 1.5	**140**	1	28	23	27
	5 - 10 cm	17596	6100	< 0.8	7	29	< 0.5	< 0.8	3200	19	7	**92**	10000	10	1900	110	< 1.5	**130**	< 1	23	21	21
		17597	6300	< 0.8	7	29	< 0.5	< 0.8	3500	24	7	**90**	11000	11	1900	110	< 1.5	**130**	1	26	22	24
	10 - 20 cm	17598	6000	< 0.8	5	29	< 0.5	< 0.8	3200	17	6	77	9000	22	1700	100	< 1.5	**110**	< 1	23	19	26
		17599	6500	< 0.8	7	34	< 0.5	< 0.8	3800	19	7	**95**	10000	13	1800	120	< 1.5	**140**	< 1	27	20	22
5037927 Shappert Ave. (back yard)	0 - 5 cm	17642	9500	< 0.8	7	60	< 0.5	< 0.8	6200	28	11	**140**	15000	43	2400	450	< 1.5	**160**	1	34	25	56
		17643	12000	< 0.8	7	68	< 0.5	< 0.8	5800	33	13	**150**	17000	43	2600	430	< 1.5	**200**	1	39	28	60
	5 - 10 cm	17644	12000	< 0.8	8	71	< 0.5	< 0.8	5200	33	10	**120**	18000	31	2600	390	< 1.5	**150**	< 1	40	32	43
		17645	10000	< 0.8	7	52	< 0.5	< 0.8	3900	29	9	**100**	16000	24	2300	310	< 1.5	**140**	< 1	35	28	36
	10 - 20 cm	17646	9900	< 0.8	< 5	42	< 0.5	< 0.8	3100	24	6	59	13000	11	2000	170	< 1.5	**74**	< 1	32	27	24
		17647	11000	< 0.8	< 5	49	< 0.5	< 0.8	3200	30	7	72	14000	13	2100	180	< 1.5	**81**	< 1	34	28	28
5037916 Victor St. (back yard)	0 - 5 cm	17576	13000	0.9	**23**	83	< 0.5	**1.9**	7600	43	**41**	**1400**	26000	**130**	3700	200	< 1.5	**1400**	**9**	38	36	110
		17577	10000	< 0.8	5	58	< 0.5	< 0.8	6700	31	9	**110**	16000	19	3900	240	< 1.5	**110**	< 1	37	30	43
	5 - 10 cm	17578	9600	< 0.8	< 5	63	< 0.5	< 0.8	6200	31	10	**92**	16000	21	3800	280	< 1.5	**110**	< 1	36	31	65
		17579	9700	< 0.8	< 5	62	< 0.5	< 0.8	6200	31	10	**120**	17000	21	3800	260	< 1.5	**120**	< 1	35	31	47
	10 - 20 cm	17580	10000	< 0.8	< 5	78	< 0.5	< 0.8	8200	34	12	**120**	18000	28	4200	340	< 1.5	**140**	< 1	49	32	80
		17581	10000	< 0.8	6	74	< 0.5	< 0.8	7500	33	11	**130**	19000	28	3800	320	< 1.5	**160**	< 1	40	31	66
5037910 Yollie St. (front yard)	0 - 5 cm	17520	13000	< 0.8	11	78	< 0.5	< 0.8	4600	37	14	**190**	19000	42	3600	230	< 1.5	**220**	1	38	34	50
		17521	10000	< 0.8	< 5	56	< 0.5	< 0.8	3700	31	13	**150**	16000	34	3200	210	< 1.5	**170**	< 1	32	29	37
	5 - 10 cm	17522	15000	< 0.8	< 5	89	< 0.5	< 0.8	4000	43	11	79	19000	13	4400	250	< 1.5	**99**	< 1	41	37	34
		17523	15000	< 0.8	< 5	79	< 0.5	< 0.8	3700	39	11	**94**	18000	17	3800	240	< 1.5	**120**	< 1	40	35	35
	10 - 20 cm	17524	17000	< 0.8	< 5	93	< 0.5	< 0.8	4600	50	11	**100**	19000	17	3800	260	< 1.5	**130**	< 1	46	37	39
		17525	21000	< 0.8	< 5	130	< 0.5	< 0.8	4600	51	10	66	20000	11	4600	270	< 1.5	**99**	< 1	49	43	44
Community of Sudbury (New)																						
5037976 Agincourt Ave. (back yard)	0 - 5 cm	20701	12000	< 0.8	< 5	52	< 0.5	< 0.8	8500	43	8	44	17000	11	4700	300	< 1.5	**61**	< 1	46	36	33
		20702	11000	< 0.8	< 5	47	< 0.5	< 0.8	7200	38	7	39	15000	10	4200	250	< 1.5	**58**	< 1	38	32	30
	5 - 10 cm	20703	12000	< 0.8	< 5	51	< 0.5	< 0.8	9100	43	7	50	17000	11	5400	250	< 1.5	**73**	< 1	42	35	32
		20704	11000	< 0.8	5	47	< 0.5	< 0.8	7400	37	6	50	15000	10	4800	210	< 1.5	**68**	< 1	33	31	29
	10 - 20 cm	20705	13000	< 0.8	8	61	< 0.5	< 0.8	8100	41	10	**130**	18000	17	5300	290	< 1.5	**180**	< 1	45	36	34
		20706	13000	< 0.8	6	59	< 0.5	< 0.8	7100	37	7	74	16000	11	4800	230	< 1.5	**95**	< 1	43	34	32
5028083 Alexander St. (back yard)	0 - 5 cm	20635	8500	< 0.8	6	52	< 0.5	< 0.8	4400	30	9	**110**	14000	19	3200	210	< 1.5	**120**	1	26	27	37
		20636	7400	< 0.8	5	48	< 0.5	< 0.8	3500	29	8	**110**	13000	18	3000	200	< 1.5	**120**	1	16	24	38

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
	5 - 10 cm	20637	7800	< 0.8	< 5	48	< 0.5	< 0.8	3600	30	7	59	14000	10	3400	210	< 1.5	**70**	< 1	20	27	25
		20638	8300	< 0.8	< 5	49	< 0.5	< 0.8	4000	30	7	67	14000	12	3400	230	< 1.5	**78**	< 1	23	27	27
	10 - 20 cm	20639	6500	0.9	< 5	39	< 0.5	< 0.8	4900	26	6	34	12000	7	3800	190	< 1.5	40	< 1	20	24	19
		20640	6100	< 0.8	< 5	35	< 0.5	< 0.8	3900	24	5	36	11000	8	3100	180	< 1.5	42	< 1	18	22	19
5037980 Attlee Ave. (back yard)	0 - 5 cm	20725	16000	< 0.8	7	90	< 0.5	< 0.8	7500	39	11	**120**	17000	17	3800	260	< 1.5	**160**	1	50	36	50
		20726	15000	< 0.8	7	83	< 0.5	< 0.8	7500	40	10	**130**	17000	16	3600	220	< 1.5	**170**	1	50	35	41
	5 - 10 cm	20727	16000	< 0.8	6	84	< 0.5	< 0.8	6400	41	9	**120**	17000	15	3500	220	< 1.5	**140**	< 1	52	37	43
		20728	13000	< 0.8	7	63	< 0.5	< 0.8	6000	34	8	**120**	15000	13	3000	190	< 1.5	**150**	< 1	48	32	35
	10 - 20 cm	20729	16000	< 0.8	< 5	86	< 0.5	< 0.8	5600	42	7	68	16000	9	3800	220	< 1.5	**85**	< 1	53	37	33
		20730	13000	< 0.8	< 5	65	< 0.5	< 0.8	4500	37	9	67	16000	11	3200	230	< 1.5	**80**	< 1	45	35	32
5028019 Auger Ave. (back yard)	0 - 5 cm	17810	8800	< 0.8	< 5	41	< 0.5	< 0.8	3100	34	7	71	12000	15	2300	150	< 1.5	**82**	< 1	29	27	24
		17811	10000	< 0.8	< 5	42	< 0.5	< 0.8	2700	27	6	51	14000	8	2100	140	< 1.5	**56**	< 1	30	29	19
	5 - 10 cm	17812	9500	< 0.8	6	40	< 0.5	< 0.8	2900	30	6	66	13000	11	2200	140	< 1.5	**72**	< 1	31	28	22
		17813	8400	< 0.8	5	36	< 0.5	< 0.8	3000	34	6	69	12000	15	2200	140	< 1.5	**74**	< 1	28	26	23
	10 - 20 cm	17814	9300	< 0.8	8	46	< 0.5	< 0.8	2800	26	7	**120**	14000	15	2200	130	< 1.5	**120**	1	29	28	21
		17815	8600	< 0.8	6	31	< 0.5	< 0.8	2400	24	5	57	12000	8	1800	120	< 1.5	**55**	< 1	26	26	18
5037983 Beatrice Cr. (back yard)	0 - 5 cm	20743	8800	< 0.8	< 5	31	< 0.5	< 0.8	3400	27	6	65	12000	12	2300	150	< 1.5	**75**	**2**	29	26	25
		20744	9000	< 0.8	< 5	31	< 0.5	< 0.8	3600	27	6	72	11000	13	2300	140	< 1.5	**87**	1	33	26	25
	5 - 10 cm	20745	8400	< 0.8	< 5	29	< 0.5	< 0.8	3000	25	5	19	11000	5	2100	150	< 1.5	32	< 1	30	26	18
		20746	9200	< 0.8	< 5	33	< 0.5	< 0.8	3800	28	5	18	12000	5	2300	160	< 1.5	30	< 1	37	28	18
	10 - 20 cm	20747	6700	< 0.8	< 5	38	< 0.5	< 0.8	3000	25	5	14	11000	3	2500	210	< 1.5	22	< 1	30	27	14
		20748	7100	< 0.8	< 5	39	< 0.5	< 0.8	3200	28	5	16	11000	4	2600	210	< 1.5	21	1	30	28	15
5028023 Canterbury St. (front yard)	0 - 5 cm	17834	8800	< 0.8	< 5	46	< 0.5	< 0.8	4100	28	7	68	13000	13	2700	190	< 1.5	**90**	< 1	32	28	29
		17835	7300	< 0.8	< 5	40	< 0.5	< 0.8	3300	25	7	63	12000	13	2500	160	< 1.5	**86**	< 1	24	25	26
	5 - 10 cm	17836	6200	< 0.8	6	31	< 0.5	< 0.8	2400	22	6	58	11000	11	2100	140	< 1.5	**72**	< 1	16	22	22
		17837	7500	< 0.8	< 5	36	< 0.5	< 0.8	3300	25	6	55	12000	10	2300	170	< 1.5	**71**	< 1	25	26	21
	10 - 20 cm	17838	9700	< 0.8	< 5	49	< 0.5	< 0.8	4000	31	6	37	13000	9	2700	200	< 1.5	**54**	< 1	37	29	20
		17839	9900	< 0.8	< 5	52	< 0.5	< 0.8	4000	29	6	34	13000	6	2600	200	< 1.5	**49**	< 1	37	29	18

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037981 Chapman St. (back yard)	0 - 5 cm	20731	8400	< 0.8	< 5	33	< 0.5	< 0.8	3700	27	6	55	11000	12	2100	160	< 1.5	**75**	< 1	32	26	24
		20732	7800	< 0.8	< 5	29	< 0.5	< 0.8	3300	25	7	56	11000	14	2000	150	< 1.5	**79**	< 1	25	24	23
	5 - 10 cm	20733	7000	< 0.8	< 5	25	< 0.5	< 0.8	2600	22	5	41	10000	10	1900	130	< 1.5	**55**	< 1	20	22	19
		20734	6700	< 0.8	< 5	25	< 0.5	< 0.8	2500	21	5	46	10000	9	1800	140	< 1.5	**55**	< 1	22	23	17
	10 - 20 cm	20735	5400	< 0.8	< 5	22	< 0.5	< 0.8	2200	20	4	28	9500	6	2000	120	< 1.5	41	< 1	19	22	16
		20736	5300	< 0.8	< 5	21	< 0.5	< 0.8	2100	21	5	23	9400	5	2000	130	< 1.5	37	< 1	20	22	15
5028020 Claudia Ct. (front yard)	0 - 5 cm	17816	7500	< 0.8	6	36	< 0.5	< 0.8	3600	26	10	**140**	13000	29	2200	190	< 1.5	**150**	1	24	27	35
		17817	7500	< 0.8	6	33	< 0.5	< 0.8	3600	28	9	**120**	13000	26	2100	190	< 1.5	**140**	1	25	28	34
	5 - 10 cm	17818	7300	< 0.8	5	24	< 0.5	< 0.8	2600	23	5	48	11000	7	2200	160	< 1.5	**57**	< 1	21	25	22
		17819	7500	< 0.8	< 5	24	< 0.5	< 0.8	3000	24	5	48	12000	9	2000	170	< 1.5	**55**	< 1	26	26	22
	10 - 20 cm	17820	5700	< 0.8	< 5	27	< 0.5	< 0.8	2500	28	6	34	11000	6	2600	180	< 1.5	41	< 1	19	27	20
		17821	5400	< 0.8	< 5	23	< 0.5	< 0.8	2500	26	5	25	10000	4	2100	170	< 1.5	37	< 1	18	25	20
5028012 Colonial Ct. (back yard)	0 - 5 cm	17762	15000	< 0.8	< 5	76	< 0.5	< 0.8	5700	42	7	62	16000	13	3700	230	< 1.5	**68**	< 1	48	37	28
		17763	15000	< 0.8	< 5	70	< 0.5	< 0.8	5500	40	6	59	16000	12	3400	220	< 1.5	**58**	< 1	47	35	28
	5 - 10 cm	17764	14000	< 0.8	< 5	62	< 0.5	< 0.8	4500	37	6	32	15000	8	3300	220	< 1.5	**44**	< 1	46	34	23
		17765	13000	< 0.8	< 5	56	< 0.5	< 0.8	4500	35	6	36	16000	10	3100	230	< 1.5	**49**	< 1	44	33	23
	10 - 20 cm	17766	12000	< 0.8	< 5	75	< 0.5	< 0.8	5700	41	8	41	17000	7	4800	270	< 1.5	**56**	< 1	44	37	27
		17767	10000	< 0.8	< 5	60	< 0.5	< 0.8	4400	34	9	46	15000	7	4300	230	< 1.5	**61**	< 1	30	30	25
5028021 Danforth Ave. (back yard)	0 - 5 cm	17822	11000	< 0.8	5	55	< 0.5	< 0.8	5400	35	7	**86**	13000	14	2400	160	< 1.5	**120**	1	38	29	28
		17823	9700	**2.2**	< 5	49	< 0.5	< 0.8	5100	34	7	79	12000	13	2400	160	< 1.5	**120**	< 1	37	28	25
	5 - 10 cm	17824	11000	< 0.8	< 5	55	< 0.5	< 0.8	5200	34	7	77	13000	13	2300	160	< 1.5	**100**	< 1	38	30	27
		17825	11000	< 0.8	< 5	51	< 0.5	< 0.8	4400	35	6	68	13000	13	2300	150	< 1.5	**91**	< 1	37	30	24
	10 - 20 cm	17826	8300	< 0.8	< 5	38	< 0.5	< 0.8	3100	26	5	35	12000	7	2300	140	< 1.5	**50**	< 1	26	27	18
		17827	7700	< 0.8	< 5	34	< 0.5	< 0.8	2700	25	5	31	12000	5	2300	130	< 1.5	**44**	< 1	23	26	15
5028016 Eastern Ave. (back yard)	0 - 5 cm	17792	7100	< 0.8	< 5	33	< 0.5	< 0.8	4200	30	7	71	12000	21	2200	130	< 1.5	**89**	< 1	27	25	33
		17793	7200	< 0.8	< 5	33	< 0.5	< 0.8	3300	31	6	74	12000	19	2000	130	< 1.5	**85**	< 1	24	24	35
	5 - 10 cm	17794	6900	< 0.8	< 5	25	< 0.5	< 0.8	2300	23	5	49	12000	12	1900	130	< 1.5	**53**	< 1	22	26	30
		17795	6600	< 0.8	< 5	24	< 0.5	< 0.8	2200	23	5	46	12000	12	1900	120	< 1.5	**58**	< 1	20	26	22
	10 - 20 cm	17796	5300	< 0.8	< 5	21	< 0.5	< 0.8	1500	19	4	29	10000	5	1900	110	< 1.5	35	< 1	13	21	18
		17797	6500	< 0.8	< 5	24	< 0.5	< 0.8	2000	22	5	30	12000	7	1900	120	< 1.5	41	< 1	18	27	20

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028024 Elmhurst Ct. (front yard)	0 - 5 cm	17840	12000	< 0.8	6	64	< 0.5	< 0.8	5200	48	9	**110**	16000	27	2900	180	< 1.5	**130**	1	40	34	42
		17841	12000	< 0.8	< 5	59	< 0.5	< 0.8	4800	43	8	**98**	14000	23	2800	180	< 1.5	**120**	1	40	32	39
	5 - 10 cm	17842	9500	< 0.8	6	40	< 0.5	< 0.8	3700	30	6	76	12000	16	2100	150	< 1.5	**95**	< 1	36	28	26
		17843	9500	< 0.8	6	44	< 0.5	< 0.8	4000	32	7	83	12000	18	2200	160	< 1.5	**100**	< 1	36	28	29
	10 - 20 cm	17844	7200	< 0.8	5	32	< 0.5	< 0.8	2500	20	5	73	10000	10	1700	110	< 1.5	**80**	< 1	23	23	18
		17845	7200	< 0.8	6	32	< 0.5	< 0.8	2600	20	5	77	9800	10	1600	110	< 1.5	**91**	< 1	24	23	17
5028025 Fairburn St. (front yard)	0 - 5 cm	17846	9600	< 0.8	10	66	< 0.5	< 0.8	5200	35	19	**210**	16000	45	3000	190	< 1.5	**250**	**2**	36	29	45
		17847	8900	< 0.8	8	57	< 0.5	< 0.8	4700	34	17	**170**	15000	42	2900	190	< 1.5	**230**	**2**	34	28	40
	5 - 10 cm	17848	8000	< 0.8	8	47	< 0.5	< 0.8	3400	27	10	**120**	13000	25	2500	160	< 1.5	**150**	1	27	26	28
		17849	7700	< 0.8	7	43	< 0.5	< 0.8	3200	26	8	**94**	12000	16	2500	160	< 1.5	**120**	< 1	27	26	23
	10 - 20 cm	17850	8500	< 0.8	6	50	< 0.5	< 0.8	3500	29	9	77	13000	18	2700	180	< 1.5	**120**	< 1	33	28	27
		17851	8000	< 0.8	7	48	< 0.5	< 0.8	3300	26	8	76	12000	15	2500	160	< 1.5	**100**	< 1	30	26	24
5028079 Gary Ave. (back yard)	0 - 5 cm	17768	11000	< 0.8	9	76	< 0.5	< 0.8	6400	34	11	**120**	17000	30	3800	310	< 1.5	**150**	1	42	32	69
		17769	10000	< 0.8	7	67	< 0.5	< 0.8	6200	33	9	**99**	16000	32	3600	260	< 1.5	**120**	< 1	39	30	67
	5 - 10 cm	17770	10000	< 0.8	9	63	< 0.5	< 0.8	5400	30	9	**97**	15000	21	3200	280	< 1.5	**120**	1	39	30	50
		17771	10000	< 0.8	10	63	< 0.5	< 0.8	6400	30	8	**87**	16000	29	3500	260	< 1.5	**110**	< 1	39	30	67
	10 - 20 cm	17772	12000	< 0.8	8	67	< 0.5	< 0.8	6600	31	7	72	16000	15	3300	270	< 1.5	**80**	< 1	45	32	45
		17773	11000	< 0.8	8	56	< 0.5	< 0.8	5600	28	6	58	15000	14	2900	220	< 1.5	**72**	< 1	40	31	45
5037984 Gemmell St. (front yard)	0 - 5 cm	20749	11000	< 0.8	5	51	< 0.5	< 0.8	6700	34	9	**110**	14000	24	3300	200	< 1.5	**140**	1	42	31	34
		20750	12000	< 0.8	7	63	< 0.5	< 0.8	7900	36	10	**140**	15000	25	3600	200	< 1.5	**170**	**2**	45	31	35
	5 - 10 cm	20751	9700	< 0.8	< 5	34	< 0.5	< 0.8	5600	28	6	58	13000	11	2900	160	< 1.5	**74**	**2**	36	28	20
		20752	9200	< 0.8	< 5	41	< 0.5	< 0.8	6500	29	7	**80**	13000	13	3200	170	< 1.5	**110**	1	36	29	22
	10 - 20 cm	20753	9600	< 0.8	< 5	37	< 0.5	< 0.8	8100	28	5	33	13000	6	4000	170	< 1.5	**42**	< 1	32	28	18
		20754	8800	< 0.8	< 5	47	< 0.5	< 0.8	12000	28	7	63	13000	11	5600	200	< 1.5	**83**	1	38	29	22
5028081 Gordon Ave. (back yard)	0 - 5 cm	20623	13000	< 0.8	< 5	54	< 0.5	< 0.8	9000	43	8	45	17000	11	5100	310	< 1.5	**70**	< 1	48	37	33
		20624	12000	< 0.8	< 5	48	< 0.5	< 0.8	7700	38	7	39	16000	9	4400	250	< 1.5	**60**	< 1	40	33	31
	5 - 10 cm	20625	13000	< 0.8	< 5	52	< 0.5	< 0.8	9300	44	7	51	17000	11	5500	250	< 1.5	**68**	< 1	47	37	32
		20626	12000	< 0.8	< 5	49	< 0.5	< 0.8	8200	38	7	52	16000	10	5000	220	< 1.5	**68**	< 1	38	33	31
	10 - 20 cm	20627	14000	< 0.8	8	62	< 0.5	< 0.8	8200	41	10	**130**	19000	17	5300	280	< 1.5	**150**	< 1	45	37	35
		20628	14000	< 0.8	5	61	< 0.5	< 0.8	7700	37	8	76	17000	11	5200	250	< 1.5	**87**	< 1	45	35	33

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028086 Grandview Blvd. (back yard)	0 - 5 cm	20653	14000	< 0.8	8	69	< 0.5	< 0.8	4200	39	9	**120**	12000	23	2800	160	< 1.5	**130**	**2**	38	29	49
		20654	13000	< 0.8	9	60	< 0.5	< 0.8	3400	36	7	**110**	11000	20	2600	150	< 1.5	**110**	**2**	32	26	40
	5 - 10 cm	20655	15000	< 0.8	< 5	68	< 0.5	< 0.8	3500	39	7	60	13000	14	2400	160	< 1.5	**79**	< 1	36	29	36
		20656	15000	< 0.8	5	71	< 0.5	< 0.8	3300	41	6	58	13000	14	3200	160	< 1.5	**74**	1	34	30	34
	10 - 20 cm	20657	18000	< 0.8	< 5	120	< 0.5	< 0.8	4400	56	10	53	21000	11	6200	300	< 1.5	**62**	< 1	41	43	41
		20658	20000	< 0.8	< 5	110	< 0.5	< 0.8	4500	57	9	43	21000	11	6300	280	< 1.5	**55**	< 1	45	44	37
5037979 Hastings Cr. (back yard)	0 - 5 cm	20719	9700	< 0.8	6	51	< 0.5	< 0.8	4900	30	8	**95**	13000	14	3100	190	< 1.5	**130**	< 1	36	29	39
		20720	9600	< 0.8	5	50	< 0.5	< 0.8	5100	29	9	**94**	13000	15	3100	180	< 1.5	**130**	< 1	37	29	37
	5 - 10 cm	20721	7700	< 0.8	7	39	< 0.5	< 0.8	3600	23	7	**110**	11000	13	2300	140	< 1.5	**140**	< 1	24	24	30
		20722	8600	< 0.8	8	45	< 0.5	< 0.8	4000	25	7	**99**	12000	12	2500	160	< 1.5	**120**	1	30	25	32
	10 - 20 cm	20723	11000	< 0.8	6	54	< 0.5	< 0.8	4600	28	6	73	12000	10	2300	160	< 1.5	**93**	< 1	44	29	27
		20724	9100	< 0.8	6	44	< 0.5	< 0.8	4300	24	6	78	11000	10	2100	140	< 1.5	**100**	< 1	39	25	28
5028010 Havenbrook Dr. (front yard)	0 - 5 cm	17750	9700	< 0.8	< 5	40	< 0.5	< 0.8	5800	30	6	46	13000	12	3300	200	< 1.5	**64**	< 1	33	29	26
		17751	10000	< 0.8	< 5	38	< 0.5	< 0.8	5800	30	6	46	13000	12	3200	210	< 1.5	**60**	< 1	37	29	27
	5 - 10 cm	17752	10000	< 0.8	< 5	41	< 0.5	< 0.8	4400	32	6	30	14000	7	3200	210	< 1.5	40	< 1	35	30	20
		17753	9700	< 0.8	< 5	41	< 0.5	< 0.8	5200	31	7	36	14000	9	3300	210	< 1.5	**50**	< 1	32	30	21
	10 - 20 cm	17754	9400	< 0.8	< 5	55	< 0.5	< 0.8	4500	33	9	52	15000	12	4100	210	< 1.5	**58**	< 1	31	33	22
		17755	10000	< 0.8	< 5	63	< 0.5	< 0.8	5200	35	10	59	16000	11	4400	230	< 1.5	**65**	< 1	34	33	24
5037982 Hawthorne Dr. (back yard)	0 - 5 cm	20737	8600	< 0.8	6	68	< 0.5	< 0.8	4100	30	11	**150**	14000	33	3000	180	< 1.5	**200**	**2**	31	27	47
		20738	8200	< 0.8	7	50	< 0.5	1.0	3800	30	10	**140**	13000	29	2900	180	< 1.5	**180**	1	30	26	47
	5 - 10 cm	20739	7300	< 0.8	< 5	42	< 0.5	< 0.8	2900	26	7	**87**	11000	27	2500	160	< 1.5	**98**	< 1	26	24	35
		20740	7000	< 0.8	< 5	34	< 0.5	< 0.8	2700	25	6	54	11000	16	2400	160	< 1.5	**61**	< 1	26	24	25
	10 - 20 cm	20741	7300	< 0.8	< 5	39	< 0.5	< 0.8	2600	27	6	38	12000	11	2700	170	< 1.5	**57**	< 1	25	26	24
		20742	7200	< 0.8	< 5	41	< 0.5	< 0.8	2500	27	6	34	12000	8	2800	180	< 1.5	**50**	< 1	23	25	23
5028087 Inglewood Ct. (back yard)	0 - 5 cm	20659	12000	< 0.8	< 5	45	< 0.5	< 0.8	3700	33	8	82	15000	14	2900	220	< 1.5	**82**	< 1	37	33	35
		20660	12000	< 0.8	< 5	44	< 0.5	< 0.8	3700	34	8	**95**	16000	16	3000	230	< 1.5	**95**	1	37	35	38
	5 - 10 cm	20661	13000	< 0.8	< 5	44	< 0.5	< 0.8	3200	33	7	51	16000	10	2900	210	< 1.5	**55**	< 1	33	33	31
		20662	12000	< 0.8	< 5	43	< 0.5	< 0.8	3000	32	7	45	16000	8	2800	190	< 1.5	**50**	< 1	32	33	28
	10 - 20 cm	20663	13000	< 0.8	< 5	52	< 0.5	< 0.8	3500	35	8	55	16000	10	3300	240	< 1.5	**60**	< 1	35	36	32
		20664	12000	< 0.8	< 5	48	< 0.5	< 0.8	3100	33	7	55	16000	9	3000	180	< 1.5	**56**	< 1	34	35	30

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028014 Josephine St. (back yard)	0 - 5 cm	17780	5900	< 0.8	5	37	< 0.5	< 0.8	3900	22	6	34	10000	7	2200	150	< 1.5	**50**	< 1	26	22	24
		17781	6800	< 0.8	5	45	< 0.5	< 0.8	4400	25	7	41	11000	7	2500	170	< 1.5	**57**	< 1	31	25	25
	5 - 10 cm	17782	6800	< 0.8	< 5	44	< 0.5	< 0.8	4600	26	6	34	11000	5	2300	160	< 1.5	**50**	< 1	33	25	18
		17783	6300	< 0.8	5	38	< 0.5	< 0.8	4200	22	7	33	10000	5	2200	150	< 1.5	**53**	< 1	31	23	17
	10 - 20 cm	17784	8300	< 0.8	5	57	< 0.5	< 0.8	5700	27	7	35	11000	5	2500	170	< 1.5	**54**	< 1	37	27	20
		17785	7500	< 0.8	5	50	< 0.5	< 0.8	5300	24	6	31	10000	6	2200	160	< 1.5	**49**	< 1	36	25	19
5028007 Kennedy St. (front yard)	0 - 5 cm	17732	8700	< 0.8	8	57	< 0.5	< 0.8	5000	32	10	**140**	15000	28	3300	220	< 1.5	**180**	**2**	31	29	40
		17733	8600	< 0.8	7	55	< 0.5	< 0.8	4500	31	10	**120**	14000	28	3200	210	< 1.5	**160**	1	30	29	38
	5 - 10 cm	17734	9400	< 0.8	10	74	< 0.5	< 0.8	5400	32	9	**120**	15000	23	3000	230	< 1.5	**180**	**2**	33	31	39
		17735	8900	< 0.8	8	56	< 0.5	< 0.8	5000	31	9	**120**	15000	23	3000	220	< 1.5	**160**	**2**	31	31	36
	10 - 20 cm	17736	8500	< 0.8	< 5	52	< 0.5	< 0.8	4100	29	6	51	14000	9	3000	200	< 1.5	**76**	1	28	29	28
		17737	8200	< 0.8	< 5	48	< 0.5	< 0.8	3800	28	6	49	13000	9	2700	180	< 1.5	**70**	1	28	29	22
5028022 Kipling Ct. (front yard)	0 - 5 cm	17828	7300	< 0.8	7	47	< 0.5	< 0.8	6000	25	10	**150**	11000	25	2500	170	< 1.5	**180**	**2**	32	25	33
		17829	7100	< 0.8	8	44	< 0.5	< 0.8	5500	26	10	**130**	11000	25	2400	150	< 1.5	**180**	**2**	31	25	29
	5 - 10 cm	17830	7900	< 0.8	9	51	< 0.5	< 0.8	5800	26	8	**110**	11000	17	2400	170	< 1.5	**140**	1	33	26	28
		17831	7100	< 0.8	8	44	< 0.5	< 0.8	5100	25	6	72	10000	23	2300	140	< 1.5	**91**	1	31	25	20
	10 - 20 cm	17832	7000	< 0.8	8	46	< 0.5	< 0.8	5000	23	6	60	10000	10	2300	160	< 1.5	**86**	< 1	29	25	31
		17833	6200	**1.2**	6	36	< 0.5	< 0.8	4100	22	5	37	10000	6	2200	130	< 1.5	**56**	< 1	25	23	15
5037973 Lamothe St. (back yard)	0 - 5 cm	20683	10000	< 0.8	6	49	< 0.5	< 0.8	4600	29	8	**93**	14000	19	2700	200	< 1.5	**110**	1	36	29	39
		20684	10000	< 0.8	7	52	< 0.5	< 0.8	4600	31	8	**99**	14000	21	2800	210	< 1.5	**120**	< 1	36	30	41
	5 - 10 cm	20685	11000	< 0.8	< 5	48	< 0.5	< 0.8	4600	30	7	80	15000	14	2700	190	< 1.5	**93**	1	41	31	34
		20686	13000	< 0.8	< 5	64	< 0.5	< 0.8	5300	35	7	**120**	15000	15	2800	200	< 1.5	**90**	1	48	34	41
	10 - 20 cm	20687	8800	< 0.8	6	47	< 0.5	< 0.8	3700	27	6	44	13000	9	2500	170	< 1.5	**57**	1	37	28	22
		20688	11000	< 0.8	< 5	62	< 0.5	< 0.8	4500	33	6	46	14000	8	2800	200	< 1.5	**62**	1	44	32	23
5028008 Lamothe St. (front yard)	0 - 5 cm	17738	8700	< 0.8	< 5	34	< 0.5	< 0.8	3300	27	6	57	12000	12	2500	180	< 1.5	**67**	1	29	26	26
		17739	9200	< 0.8	< 5	34	< 0.5	< 0.8	3600	30	6	63	13000	15	2700	190	< 1.5	**70**	1	33	27	29
	5 - 10 cm	17740	9300	< 0.8	< 5	32	< 0.5	< 0.8	3000	27	6	38	12000	10	2300	200	< 1.5	**52**	< 1	26	26	25
		17741	9500	< 0.8	< 5	31	< 0.5	< 0.8	3200	27	5	36	12000	10	2300	190	< 1.5	**47**	< 1	30	26	24
	10 - 20 cm	17742	9500	< 0.8	< 5	37	< 0.5	< 0.8	3200	27	5	28	12000	9	2300	200	< 1.5	43	< 1	30	26	23
		17743	12000	< 0.8	< 5	49	< 0.5	< 0.8	4600	33	5	31	14000	8	2700	230	< 1.5	**45**	< 1	45	31	25

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028017 Lasalle Blvd. (front yard)	0 - 5 cm	17798	9500	**1.1**	7	52	< 0.5	< 0.8	4200	32	10	**110**	15000	33	2600	170	< 1.5	**110**	1	34	28	52
		17799	12000	< 0.8	6	69	< 0.5	< 0.8	4500	37	11	**120**	16000	36	2800	190	< 1.5	**110**	< 1	41	31	56
	5 - 10 cm	17800	11000	< 0.8	< 5	56	< 0.5	< 0.8	4100	34	7	61	14000	13	2500	180	< 1.5	**66**	< 1	42	30	36
		17801	11000	< 0.8	7	49	< 0.5	< 0.8	3800	29	7	62	13000	14	2300	170	< 1.5	**64**	< 1	40	29	34
	10 - 20 cm	17802	9900	< 0.8	< 5	46	< 0.5	< 0.8	3500	28	7	71	13000	9	2400	170	< 1.5	**55**	< 1	39	28	28
		17803	11000	< 0.8	< 5	54	< 0.5	< 0.8	3700	29	7	48	14000	11	2500	170	< 1.5	**59**	< 1	40	30	31
5028085 Lavoie St. (back yard)	0 - 5 cm	20647	11000	< 0.8	< 5	47	< 0.5	< 0.8	7100	31	9	78	15000	14	4300	230	< 1.5	**130**	< 1	44	30	41
		20648	14000	< 0.8	7	70	< 0.5	< 0.8	6400	38	10	**110**	17000	16	3700	250	< 1.5	**160**	< 1	48	35	46
	5 - 10 cm	20649	12000	< 0.8	< 5	48	< 0.5	< 0.8	5400	33	8	79	15000	12	3400	200	< 1.5	**110**	< 1	45	33	31
		20650	14000	< 0.8	5	67	< 0.5	< 0.8	5500	38	9	84	17000	13	3800	220	< 1.5	**110**	< 1	46	36	35
	10 - 20 cm	20651	13000	< 0.8	7	58	< 0.5	< 0.8	5500	35	9	**100**	19000	12	3600	210	< 1.5	**130**	< 1	46	37	40
		20652	9500	< 0.8	6	38	< 0.5	< 0.8	3500	27	8	**91**	15000	10	3200	180	< 1.5	**95**	< 1	34	32	34
5037978 Lillian Blvd. (back yard)	0 - 5 cm	20713	9800	< 0.8	< 5	34	< 0.5	< 0.8	3600	31	6	28	16000	4	3500	170	< 1.5	36	< 1	29	32	23
		20714	9300	**2.0**	6	37	< 0.5	< 0.8	2800	25	6	69	12000	12	2000	160	< 1.5	**90**	< 1	27	26	30
	5 - 10 cm	20715	9500	< 0.8	8	39	< 0.5	< 0.8	3000	28	7	82	13000	13	2100	170	< 1.5	**110**	< 1	29	26	32
		20716	11000	< 0.8	5	57	< 0.5	< 0.8	3800	34	7	64	15000	10	3100	210	< 1.5	**82**	< 1	37	32	34
	10 - 20 cm	20717	9900	< 0.8	6	63	< 0.5	< 0.8	3000	34	8	68	15000	8	3400	210	< 1.5	**70**	< 1	27	30	30
		20718	13000	< 0.8	< 5	76	< 0.5	< 0.8	4400	41	7	53	18000	7	4300	270	< 1.5	**66**	< 1	43	37	34
5028084 Madeleine Ave. (back yard)	0 - 5 cm	20641	8100	< 0.8	< 5	38	< 0.5	< 0.8	3900	26	7	74	12000	23	2300	220	< 1.5	**84**	< 1	24	23	47
		20642	7600	< 0.8	< 5	38	< 0.5	< 0.8	3600	25	6	78	11000	24	2100	220	< 1.5	**81**	1	22	22	47
	5 - 10 cm	20643	7300	< 0.8	< 5	34	< 0.5	< 0.8	2900	24	5	48	10000	18	2100	190	< 1.5	**53**	< 1	16	21	36
		20644	8200	< 0.8	< 5	41	< 0.5	< 0.8	3900	26	5	60	11000	20	2200	230	< 1.5	**64**	< 1	24	24	56
	10 - 20 cm	20645	7900	< 0.8	< 5	44	< 0.5	< 0.8	4800	26	5	50	11000	16	2400	250	< 1.5	**59**	< 1	29	24	52
		20646	11000	< 0.8	< 5	68	< 0.5	< 0.8	8300	32	6	47	14000	14	2900	390	< 1.5	**69**	< 1	56	31	58
5028009 Madison Ave. (front yard)	0 - 5 cm	17744	14000	< 0.8	9	94	< 0.5	< 0.8	7000	47	11	**130**	17000	20	3700	320	< 1.5	**170**	1	44	36	55
		17745	13000	< 0.8	9	83	< 0.5	< 0.8	6500	44	11	**130**	17000	21	3600	300	< 1.5	**170**	1	42	34	57
	5 - 10 cm	17746	15000	< 0.8	9	99	< 0.5	< 0.8	7200	47	13	**110**	18000	17	3900	340	< 1.5	**160**	< 1	46	37	55
		17747	15000	< 0.8	8	98	< 0.5	< 0.8	6900	47	11	**110**	18000	18	3900	330	< 1.5	**150**	< 1	47	37	55
	10 - 20 cm	17748	13000	< 0.8	< 5	83	< 0.5	< 0.8	6200	38	10	**87**	16000	12	3800	300	< 1.5	**130**	< 1	39	32	47
		17749	12000	< 0.8	6	83	< 0.5	< 0.8	6500	39	10	81	16000	11	4300	320	< 1.5	**120**	< 1	38	33	46

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028011 Madison Ave. (front yard)	0 - 5 cm	17756	12000	< 0.8	< 5	76	< 0.5	< 0.8	5000	43	9	78	16000	18	4000	270	< 1.5	**98**	< 1	36	34	41
		17757	11000	< 0.8	< 5	62	< 0.5	< 0.8	4100	37	8	**110**	15000	21	3400	240	< 1.5	**100**	1	30	31	49
	5 - 10 cm	17758	13000	< 0.8	< 5	77	< 0.5	< 0.8	5100	41	8	70	17000	13	4200	280	< 1.5	**77**	< 1	38	36	39
		17759	14000	< 0.8	< 5	83	< 0.5	< 0.8	5300	43	9	66	17000	14	4100	290	< 1.5	**82**	< 1	41	37	42
	10 - 20 cm	17760	14000	< 0.8	< 5	73	< 0.5	< 0.8	5600	38	7	39	16000	16	3800	210	< 1.5	**47**	< 1	45	36	21
		17761	16000	< 0.8	< 5	88	< 0.5	< 0.8	5200	43	6	32	17000	7	3900	220	< 1.5	**45**	< 1	47	37	26
5028082 McLean St. (back yard)	0 - 5 cm	20629	14000	< 0.8	5	79	< 0.5	< 0.8	6000	42	8	65	17000	11	3900	220	< 1.5	**76**	< 1	45	37	57
		20630	13000	< 0.8	< 5	67	< 0.5	< 0.8	5800	39	9	66	17000	11	3800	220	< 1.5	**76**	< 1	43	36	54
	5 - 10 cm	20631	13000	< 0.8	< 5	61	< 0.5	< 0.8	5200	36	7	37	17000	7	3700	190	< 1.5	**45**	< 1	43	36	28
		20632	13000	< 0.8	< 5	67	< 0.5	< 0.8	5300	40	7	35	17000	7	3700	200	< 1.5	**44**	< 1	44	37	28
	10 - 20 cm	20633	15000	< 0.8	< 5	71	< 0.5	< 0.8	5200	40	7	38	18000	7	3500	200	< 1.5	**49**	< 1	44	40	26
		20634	19000	**1.5**	9	140	< 0.5	< 0.8	7000	57	12	**130**	26000	66	7000	360	< 1.5	**160**	< 1	55	46	85
5028018 Meadowside Ave. (front yard)	0 - 5 cm	17804	11000	< 0.8	6	56	< 0.5	< 0.8	4100	31	9	**110**	13000	21	2800	160	< 1.5	**130**	< 1	38	29	29
		17805	9600	< 0.8	< 5	46	< 0.5	< 0.8	3600	28	9	**120**	12000	22	2500	140	< 1.5	**150**	< 1	33	26	29
	5 - 10 cm	17806	9500	< 0.8	< 5	45	< 0.5	< 0.8	3300	26	8	**92**	11000	15	2300	140	< 1.5	**130**	< 1	30	25	30
		17807	8900	< 0.8	< 5	41	< 0.5	< 0.8	3000	24	7	71	10000	12	2200	130	< 1.5	**110**	< 1	28	24	23
	10 - 20 cm	17808	7600	< 0.8	< 5	34	< 0.5	< 0.8	2200	22	5	35	11000	6	2100	110	< 1.5	**57**	< 1	17	22	17
		17809	8900	< 0.8	< 5	38	< 0.5	< 0.8	2800	24	6	30	11000	6	2200	130	< 1.5	**58**	< 1	28	25	17
5028088 Montrose Ave. (back yard)	0 - 5 cm	20665	13000	< 0.8	6	89	< 0.5	< 0.8	6400	43	14	**170**	19000	29	5100	310	< 1.5	**200**	1	43	36	72
		20666	13000	< 0.8	< 5	88	< 0.5	< 0.8	6700	45	12	**150**	20000	26	5400	290	< 1.5	**170**	1	44	38	57
	5 - 10 cm	20667	15000	< 0.8	< 5	95	< 0.5	< 0.8	7300	48	10	83	21000	12	6500	290	< 1.5	**120**	< 1	47	41	39
		20668	15000	< 0.8	< 5	100	< 0.5	< 0.8	7100	48	11	**110**	19000	18	5500	280	< 1.5	**140**	< 1	53	42	46
	10 - 20 cm	20669	18000	< 0.8	< 5	110	< 0.5	< 0.8	8600	50	9	50	21000	8	6700	300	< 1.5	**65**	< 1	57	45	33
		20670	12000	< 0.8	< 5	68	< 0.5	< 0.8	4700	35	8	81	15000	18	3300	210	< 1.5	**89**	< 1	40	33	51
5028015 Robin St. (back yard)	0 - 5 cm	17786	16000	< 0.8	< 5	85	< 0.5	< 0.8	6100	41	8	63	17000	13	3800	250	< 1.5	**76**	< 1	46	37	41
		17787	13000	< 0.8	< 5	65	< 0.5	< 0.8	5300	36	7	68	16000	15	3500	240	< 1.5	**74**	< 1	41	33	51
	5 - 10 cm	17788	12000	< 0.8	5	61	< 0.5	< 0.8	4100	35	7	55	16000	11	3500	240	< 1.5	**66**	< 1	35	32	35
		17789	12000	< 0.8	< 5	59	< 0.5	< 0.8	4200	39	7	54	15000	16	3500	220	< 1.5	**65**	< 1	33	31	45
	10 - 20 cm	17790	11000	< 0.8	< 5	72	< 0.5	< 0.8	5600	37	8	43	17000	8	4600	260	< 1.5	**52**	< 1	34	34	28
		17791	13000	< 0.8	< 5	76	< 0.5	< 0.8	5200	40	7	41	18000	8	4500	260	< 1.5	**49**	< 1	39	36	32

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037972 Roland St. (back yard)	0 - 5 cm	20677	10000	< 0.8	9	47	< 0.5	< 0.8	4100	28	11	**180**	15000	29	2500	190	< 1.5	**210**	**2**	36	29	36
		20678	11000	< 0.8	9	50	< 0.5	< 0.8	4600	30	12	**190**	15000	34	2500	220	< 1.5	**210**	< 1	40	30	43
	5 - 10 cm	20679	11000	< 0.8	9	51	< 0.5	< 0.8	4000	31	9	**130**	15000	17	2600	180	< 1.5	**150**	**2**	41	32	26
		20680	12000	< 0.8	10	51	< 0.5	< 0.8	3900	31	10	**140**	16000	18	2400	200	< 1.5	**170**	1	42	33	27
	10 - 20 cm	20681	9500	< 0.8	7	54	< 0.5	< 0.8	3500	28	6	81	12000	10	2600	160	< 1.5	**87**	< 1	39	31	23
		20682	10000	< 0.8	6	52	< 0.5	< 0.8	3600	28	7	68	14000	8	2700	180	1.9	**79**	1	39	30	21
5028013 San Fransciso St. (front yard)	0 - 5 cm	17774	9300	< 0.8	8	46	< 0.5	< 0.8	4200	26	8	84	13000	23	2500	200	< 1.5	**99**	< 1	32	27	37
		17775	9100	< 0.8	6	49	< 0.5	< 0.8	4500	27	8	81	13000	24	2500	210	< 1.5	**100**	< 1	35	29	38
	5 - 10 cm	17776	10000	< 0.8	10	42	< 0.5	< 0.8	3400	26	7	75	14000	15	2300	170	< 1.5	**82**	< 1	29	29	27
		17777	10000	< 0.8	8	43	< 0.5	< 0.8	3900	26	8	69	14000	17	2200	190	< 1.5	**94**	< 1	32	29	29
	10 - 20 cm	17778	7700	< 0.8	7	40	< 0.5	< 0.8	2400	23	8	79	12000	30	2100	150	< 1.5	**100**	< 1	19	24	27
		17779	8400	< 0.8	9	37	< 0.5	< 0.8	2900	24	8	71	13000	16	2100	160	< 1.5	**94**	< 1	24	26	27
5037977 Shelley Dr. (back yard)	0 - 5 cm	20707	13000	< 0.8	6	74	< 0.5	< 0.8	5800	41	8	62	17000	11	3900	220	< 1.5	**80**	< 1	43	36	54
		20708	14000	**1.1**	< 5	80	< 0.5	< 0.8	5800	42	9	64	18000	12	3900	230	< 1.5	**79**	< 1	44	37	53
	5 - 10 cm	20709	11000	< 0.8	< 5	45	< 0.5	< 0.8	4400	33	7	36	16000	7	3400	190	< 1.5	**44**	< 1	38	34	27
		20710	10000	< 0.8	< 5	43	< 0.5	< 0.8	4300	33	6	34	15000	7	3500	180	< 1.5	43	< 1	37	33	27
	10 - 20 cm	20711	14000	< 0.8	< 5	67	< 0.5	< 0.8	4800	39	7	36	18000	6	3500	200	< 1.5	**49**	< 1	45	39	25
		20712	10000	< 0.8	< 5	37	< 0.5	< 0.8	3800	31	6	29	16000	4	3300	180	< 1.5	39	< 1	33	34	24
5028080 Turner Ave. (back yard)	0 - 5 cm	20617	7700	< 0.8	5	42	< 0.5	< 0.8	3800	30	8	**97**	12000	36	2300	170	< 1.5	**103**	< 1	29	28	63
		20618	8500	< 0.8	< 5	50	< 0.5	< 0.8	4200	29	8	73	13000	23	2700	220	< 1.5	**110**	< 1	31	27	52
	5 - 10 cm	20619	8700	< 0.8	5	50	< 0.5	< 0.8	4400	29	8	76	13000	23	2800	220	< 1.5	**100**	< 1	32	28	46
		20620	8600	< 0.8	6	49	< 0.5	< 0.8	4300	28	8	76	13000	22	2800	230	< 1.5	**99**	< 1	31	27	46
	10 - 20 cm	20621	9000	< 0.8	< 5	52	< 0.5	< 0.8	5500	28	8	67	13000	20	2900	290	< 1.5	**85**	< 1	36	27	42
		20622	8900	< 0.8	< 5	61	< 0.5	< 0.8	6800	28	8	65	14000	20	2800	320	< 1.5	**78**	< 1	39	27	51
5028089 Wedgewood Dr. (back yard)	0 - 5 cm	20671	13000	< 0.8	< 5	73	< 0.5	< 0.8	5600	41	10	85	16000	19	3200	220	< 1.5	**100**	< 1	42	34	49
		20672	9900	< 0.8	5	55	< 0.5	< 0.8	4500	32	10	**99**	15000	18	3300	200	< 1.5	**99**	< 1	34	30	56
	5 - 10 cm	20673	12000	< 0.8	5	65	< 0.5	< 0.8	5100	34	9	79	16000	16	3400	210	< 1.5	**100**	< 1	40	33	38
		20674	11000	< 0.8	< 5	57	< 0.5	< 0.8	4600	31	8	81	15000	15	3100	200	< 1.5	**92**	< 1	38	32	40
	10 - 20 cm	20675	11000	< 0.8	< 5	68	< 0.5	< 0.8	4700	34	8	75	16000	14	3400	210	< 1.5	**84**	< 1	39	33	34
		20676	11000	< 0.8	< 5	59	< 0.5	< 0.8	4600	33	8	83	16000	16	3200	210	< 1.5	**90**	1	39	33	43

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037974 Woodbine Ave. (back yard)	0 - 5 cm	20689	16000	< 0.8	6	83	< 0.5	< 0.8	5700	49	10	**120**	18000	23	3800	260	< 1.5	**130**	**2**	48	36	70
		20690	15000	< 0.8	6	84	< 0.5	< 0.8	5500	49	10	**120**	18000	27	3600	250	< 1.5	**140**	**2**	47	36	57
	5 - 10 cm	20691	16000	< 0.8	6	82	< 0.5	< 0.8	4900	49	9	**87**	18000	18	4100	270	< 1.5	**110**	< 1	46	39	62
		20692	12000	< 0.8	< 5	63	< 0.5	< 0.8	4000	38	7	77	14000	15	3000	190	< 1.5	**98**	< 1	38	30	43
	10 - 20 cm	20693	14000	< 0.8	6	77	< 0.5	< 0.8	4000	42	8	76	17000	13	3900	270	< 1.5	**94**	< 1	43	37	49
		20694	12000	< 0.8	7	66	< 0.5	< 0.8	3500	39	8	80	16000	12	3700	250	< 1.5	**100**	< 1	34	33	42
5037975 Woodbine Ave. (back yard)	0 - 5 cm	20695	10000	< 0.8	< 5	57	< 0.5	< 0.8	5100	35	9	76	14000	20	3000	260	< 1.5	**93**	< 1	43	32	45
		20696	8300	< 0.8	< 5	50	< 0.5	< 0.8	4100	30	8	72	13000	24	2700	230	< 1.5	**95**	**2**	29	27	53
	5 - 10 cm	20697	8700	< 0.8	< 5	48	< 0.5	< 0.8	4200	28	7	74	13000	22	2700	220	< 1.5	**88**	**2**	31	27	44
		20698	8600	< 0.8	6	50	< 0.5	< 0.8	4100	28	7	73	13000	22	2700	220	< 1.5	**90**	< 1	32	27	46
	10 - 20 cm	20699	8700	< 0.8	5	54	< 0.5	< 0.8	5600	29	8	66	13000	20	2800	300	< 1.5	**79**	< 1	35	28	42
		20700	8700	< 0.8	5	60	< 0.5	< 0.8	6900	28	8	66	13000	21	2800	330	< 1.5	**74**	< 1	38	27	46
Community of Sudbury (South)																						
5037929 Algonquin Rd. (front yard)	0 - 5 cm	18906	12000	< 0.8	< 5	40	< 0.5	< 0.8	5100	32	6	75	13000	15	2600	200	< 1.5	**74**	< 1	46	30	32
		18907	12000	< 0.8	< 5	42	< 0.5	< 0.8	4900	32	6	67	13000	13	2600	190	< 1.5	**71**	< 1	45	31	51
	5 - 10 cm	18908	12000	< 0.8	< 5	45	< 0.5	< 0.8	4900	34	5	32	10000	10	2700	190	< 1.5	37	< 1	46	30	26
		18909	12000	< 0.8	< 5	38	< 0.5	< 0.8	4300	30	5	33	13000	8	2500	190	< 1.5	38	< 1	42	30	23
	10 - 20 cm	18910	12000	< 0.8	< 5	47	< 0.5	< 0.8	3800	29	6	48	14000	13	2500	170	< 1.5	**53**	< 1	39	30	27
		18911	11000	< 0.8	< 5	43	< 0.5	< 0.8	3500	29	6	43	15000	8	2500	160	< 1.5	**46**	< 1	34	31	23
5037928 Cavendish Ct. (back yard)	0 - 5 cm	18900	9600	< 0.8	< 5	36	< 0.5	< 0.8	3800	27	4	43	11000	9	2400	130	< 1.5	**50**	< 1	29	25	19
		18901	8600	< 0.8	< 5	33	< 0.5	< 0.8	3100	24	4	40	10000	9	2300	120	< 1.5	**48**	< 1	21	22	17
	5 - 10 cm	18902	7900	< 0.8	< 5	27	< 0.5	< 0.8	2200	23	4	31	11000	6	2300	120	< 1.5	36	< 1	19	22	12
		18903	8800	< 0.8	< 5	30	< 0.5	< 0.8	2700	25	4	29	11000	6	2500	130	< 1.5	35	< 1	23	25	14
	10 - 20 cm	18904	10000	< 0.8	< 5	45	< 0.5	< 0.8	2900	26	4	37	12000	6	2500	130	< 1.5	41	< 1	29	28	11
		18905	12000	< 0.8	< 5	52	< 0.5	< 0.8	3300	29	4	31	13000	6	2800	150	< 1.5	35	< 1	35	30	13
5037941 Copper St. (front yard)	0 - 5 cm	18976	9300	< 0.8	< 5	45	< 0.5	< 0.8	5600	41	8	**110**	13000	13	3200	200	< 1.5	**130**	1	37	27	34
		18977	9200	< 0.8	< 5	45	< 0.5	< 0.8	5500	40	9	**110**	13000	13	3200	210	< 1.5	**140**	1	36	28	34
	5 - 10 cm	18978	9100	< 0.8	< 5	44	< 0.5	< 0.8	4700	34	7	58	14000	8	3700	210	< 1.5	**63**	< 1	33	29	27
		18979	10000	< 0.8	< 5	54	< 0.5	< 0.8	4600	37	8	65	16000	8	4100	230	< 1.5	**72**	< 1	32	31	29
	10 - 20 cm	18980	10000	< 0.8	< 5	57	< 0.5	< 0.8	4600	37	9	73	17000	8	4500	230	< 1.5	**75**	< 1	35	33	29
		18981	11000	< 0.8	< 5	58	< 0.5	< 0.8	5300	37	9	67	17000	8	4800	240	< 1.5	**74**	< 1	37	34	28
5037944 Cranbrook Cr. (front yard)	0 - 5 cm	18994	9800	< 0.8	8	54	< 0.5	1.0	5900	39	17	**450**	18000	41	3600	160	< 1.5	**420**	**3**	33	28	48
		18995	11000	< 0.8	7	61	< 0.5	1.0	6300	39	15	**410**	18000	41	3800	190	< 1.5	**360**	**3**	37	30	56

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
	5 - 10 cm	18996	7500	< 0.8	8	40	< 0.5	< 0.8	2500	25	10	**170**	13000	12	2100	160	< 1.5	**170**	1	21	24	33
		18997	8000	< 0.8	9	42	< 0.5	< 0.8	2900	25	8	**120**	13000	10	2100	150	< 1.5	**140**	< 1	27	26	31
	10 - 20 cm	18998	7200	< 0.8	< 5	34	< 0.5	< 0.8	2400	21	5	50	11000	5	2100	140	< 1.5	**67**	< 1	25	23	23
		18999	9800	< 0.8	5	49	< 0.5	< 0.8	3200	26	5	59	12000	5	2400	170	< 1.5	**77**	< 1	32	27	26
5037931 Culver Cr. (front yard)	0 - 5 cm	18918	9000	**1.2**	< 5	38	< 0.5	< 0.8	3400	30	7	**120**	15000	43	2600	170	< 1.5	**84**	1	33	27	43
		18919	9600	< 0.8	6	39	< 0.5	< 0.8	3600	31	6	**100**	16000	53	2600	180	< 1.5	**70**	< 1	33	28	63
	5 - 10 cm	18920	11000	< 0.8	< 5	42	< 0.5	< 0.8	3700	29	5	68	14000	16	2500	160	< 1.5	**55**	< 1	38	30	31
		18921	13000	< 0.8	< 5	59	< 0.5	< 0.8	4200	32	6	71	15000	22	2600	170	< 1.5	**56**	< 1	43	33	34
	10 - 20 cm	18922	11000	< 0.8	< 5	52	< 0.5	< 0.8	3400	28	5	55	12000	11	2300	160	< 1.5	**49**	< 1	39	28	24
		18923	12000	< 0.8	6	59	< 0.5	< 0.8	3500	29	7	75	13000	15	2400	170	< 1.5	**68**	< 1	38	29	26
5037940 Delwood Ct. (front yard)	0 - 5 cm	18970	8100	< 0.8	7	36	< 0.5	1.0	4500	30	13	**340**	13000	31	2500	200	< 1.5	**290**	**2**	34	30	43
		18971	8400	< 0.8	6	37	< 0.5	**1.1**	5300	30	14	**390**	14000	39	2900	200	< 1.5	**340**	**2**	34	29	51
	5 - 10 cm	18972	8500	< 0.8	< 5	28	< 0.5	< 0.8	4600	25	6	78	13000	10	2800	180	< 1.5	**90**	< 1	35	29	22
		18973	9800	< 0.8	< 5	43	< 0.5	< 0.8	6000	29	8	**93**	13000	14	2900	210	< 1.5	**110**	< 1	41	32	28
	10 - 20 cm	18974	5200	< 0.8	< 5	16	< 0.5	< 0.8	2100	17	4	23	9200	4	2200	120	< 1.5	29	< 1	18	19	14
		18975	5200	< 0.8	< 5	17	< 0.5	< 0.8	2200	17	4	25	8900	4	2100	120	< 1.5	31	< 1	19	19	13
5028035 Ester St. (front yard)	0 - 5 cm	19018	8900	< 0.8	5	40	< 0.5	< 0.8	3400	28	6	51	13000	10	3100	180	< 1.5	**60**	< 1	27	27	27
		19019	11000	< 0.8	5	55	< 0.5	< 0.8	4300	33	7	70	15000	12	3600	220	< 1.5	**78**	< 1	36	31	33
	5 - 10 cm	19020	7700	< 0.8	< 5	39	< 0.5	< 0.8	2500	26	6	38	11000	7	2200	160	< 1.5	**44**	< 1	21	27	26
		19021	8200	< 0.8	8	42	< 0.5	< 0.8	2700	28	6	40	12000	7	2500	170	< 1.5	**46**	1	24	27	25
	10 - 20 cm	19022	10000	< 0.8	< 5	39	< 0.5	< 0.8	3900	30	5	36	13000	6	2600	180	< 1.5	**46**	< 1	41	30	20
		19023	8600	< 0.8	< 5	32	< 0.5	< 0.8	3100	26	5	35	12000	6	2400	160	< 1.5	**47**	< 1	28	26	20
5028074 Gennings St. (back yard)	0 - 5 cm	19144	9600	< 0.8	8	44	< 0.5	< 0.8	2900	27	10	**180**	15000	25	2200	160	< 1.5	**200**	**2**	24	28	40
		19145	8700	< 0.8	10	38	< 0.5	< 0.8	2500	24	10	**190**	14000	21	2000	150	< 1.5	**200**	**2**	19	26	36
	5 - 10 cm	19146	8600	< 0.8	8	36	< 0.5	< 0.8	1800	24	7	**110**	14000	12	2300	130	< 1.5	**110**	1	13	27	35
		19147	10000	< 0.8	9	51	< 0.5	< 0.8	2600	26	8	**140**	15000	15	2200	150	< 1.5	**150**	1	25	28	35
	10 - 20 cm	19148	10000	< 0.8	7	46	< 0.5	< 0.8	2500	25	7	**110**	14000	12	2000	140	< 1.5	**120**	< 1	26	27	32
		19149	11000	< 0.8	6	52	< 0.5	< 0.8	2500	26	7	**100**	15000	11	2200	150	< 1.5	**100**	< 1	27	27	37

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037930 Greenvalley Dr. (back yard)	0 - 5 cm	18912	9000	< 0.8	< 5	50	< 0.5	< 0.8	4800	27	7	**100**	13000	22	2600	210	2.0	**95**	1	35	26	50
		18913	8800	< 0.8	5	49	< 0.5	< 0.8	4600	26	7	**100**	13000	21	2500	190	< 1.5	**110**	< 1	36	26	46
	5 - 10 cm	18914	6900	< 0.8	< 5	33	< 0.5	< 0.8	2600	21	5	60	10000	10	2000	140	< 1.5	**63**	< 1	20	22	23
		18915	8800	< 0.8	< 5	42	< 0.5	< 0.8	3700	23	5	55	12000	14	2300	160	< 1.5	**61**	< 1	33	26	25
	10 - 20 cm	18916	9000	< 0.8	6	36	< 0.5	< 0.8	3000	23	5	54	11000	7	2000	120	< 1.5	**58**	< 1	29	25	16
		18917	8500	< 0.8	< 5	34	< 0.5	< 0.8	3000	23	5	42	11000	6	2200	130	< 1.5	**52**	< 1	29	25	15
5028034 Harrison Dr. (front yard)	0 - 5 cm	19012	14000	**1.6**	6	86	< 0.5	< 0.8	4700	49	9	**100**	17000	16	4200	220	**6.4**	**110**	< 1	42	36	39
		19013	11000	< 0.8	8	59	< 0.5	< 0.8	3800	48	9	**180**	16000	38	3300	180	< 1.5	**140**	< 1	27	29	58
	5 - 10 cm	19014	15000	< 0.8	7	93	< 0.5	< 0.8	4100	52	9	**100**	19000	14	4700	210	< 1.5	**85**	< 1	38	38	34
		19015	16000	< 0.8	6	74	< 0.5	< 0.8	3900	46	9	**98**	19000	13	4000	190	1.7	**90**	< 1	38	38	35
	10 - 20 cm	19016	13000	< 0.8	6	48	< 0.5	< 0.8	3700	40	8	**110**	16000	14	2900	170	< 1.5	**100**	< 1	35	34	34
		19017	12000	< 0.8	6	42	< 0.5	< 0.8	3100	36	6	76	16000	11	2800	150	**21**	**61**	< 1	30	32	32
5028038 Jupiter Ct. (back yard)	0 - 5 cm	19036	8700	< 0.8	< 5	29	< 0.5	< 0.8	4200	24	5	84	11000	11	2000	150	< 1.5	**79**	1	33	25	20
		19037	9300	< 0.8	< 5	33	< 0.5	< 0.8	4900	27	5	**93**	12000	12	2200	180	< 1.5	**100**	< 1	39	28	20
	5 - 10 cm	19038	11000	< 0.8	< 5	37	< 0.5	< 0.8	4100	29	5	50	14000	7	2400	240	< 1.5	**42**	< 1	41	30	21
		19039	13000	< 0.8	< 5	50	< 0.5	< 0.8	4800	34	6	53	15000	8	2700	260	< 1.5	**51**	< 1	46	33	23
	10 - 20 cm	19040	9700	< 0.8	< 5	41	< 0.5	< 0.8	4800	35	5	22	14000	4	2900	230	< 1.5	23	< 1	44	32	15
		19041	12000	< 0.8	< 5	52	< 0.5	< 0.8	4500	35	6	38	15000	5	3100	220	< 1.5	33	< 1	43	34	19
5037934 Kaireen St. (front yard)	0 - 5 cm	18936	10000	< 0.8	< 5	38	< 0.5	< 0.8	3800	31	8	60	14000	10	3000	170	1.9	**72**	< 1	34	30	23
		18937	11000	< 0.8	< 5	39	< 0.5	< 0.8	4300	32	7	54	15000	10	3000	180	< 1.5	**65**	< 1	39	32	23
	5 - 10 cm	18938	11000	< 0.8	< 5	34	< 0.5	< 0.8	3200	32	9	57	15000	9	2900	170	< 1.5	**67**	< 1	32	32	23
		18939	10000	< 0.8	< 5	30	< 0.5	< 0.8	3200	30	7	39	15000	7	2800	160	< 1.5	**48**	< 1	31	32	18
5028075 Kirkwood Dr. (back yard)	0 - 5 cm	19150	10000	< 0.8	< 5	56	< 0.5	< 0.8	4200	32	8	76	14000	13	2900	250	< 1.5	**82**	1	33	29	31
		19151	9400	< 0.8	< 5	51	< 0.5	< 0.8	3900	29	7	73	13000	12	2600	240	< 1.5	**75**	< 1	31	27	31
	5 - 10 cm	19152	9400	< 0.8	< 5	49	< 0.5	< 0.8	2800	31	8	57	15000	10	3100	240	< 1.5	**62**	< 1	23	28	27
		19153	9800	< 0.8	< 5	50	< 0.5	< 0.8	3000	32	7	52	15000	9	3100	240	< 1.5	**53**	< 1	27	29	28
	10 - 20 cm	19154	10000	< 0.8	< 5	48	< 0.5	< 0.8	3300	32	8	57	16000	8	3400	210	< 1.5	**64**	< 1	29	30	25
		19155	14000	< 0.8	< 5	66	< 0.5	< 0.8	4400	38	9	53	18000	8	3700	250	< 1.5	**61**	< 1	43	37	29

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5028076 Lakewood Dr. (side yard)	0 - 5 cm	19162	10000	< 0.8	< 5	39	< 0.5	< 0.8	3300	29	7	35	14000	7	3100	190	< 1.5	**53**	< 1	32	30	25
		19163	11000	< 0.8	5	43	< 0.5	< 0.8	3900	30	7	36	14000	7	3100	200	< 1.5	**51**	< 1	37	32	26
	5 - 10 cm	19164	11000	< 0.8	< 5	47	< 0.5	< 0.8	3600	32	7	31	15000	6	3200	190	< 1.5	**44**	< 1	36	33	25
		19165	11000	< 0.8	< 5	48	< 0.5	< 0.8	3700	32	7	38	15000	6	3300	200	< 1.5	**49**	< 1	36	34	27
	10 - 20 cm	19166	10000	< 0.8	< 5	44	< 0.5	< 0.8	3100	30	9	47	16000	7	3400	200	< 1.5	**59**	< 1	29	33	31
		19167	12000	< 0.8	< 5	46	< 0.5	< 0.8	3400	32	8	44	17000	7	3300	200	< 1.5	**56**	< 1	34	34	29
5037936 Loach's Rd. (front yard)	0 - 5 cm	18946	16000	< 0.8	6	85	< 0.5	< 0.8	5500	39	9	**150**	19000	22	3400	280	< 1.5	**160**	**2**	42	37	41
		18947	14000	< 0.8	< 5	68	< 0.5	< 0.8	5300	33	10	**160**	17000	23	3100	260	< 1.5	**160**	**2**	40	34	39
	5 - 10 cm	18948	13000	< 0.8	< 5	50	< 0.5	< 0.8	4600	32	6	73	15000	11	3000	200	2.2	**79**	1	43	33	26
		18949	13000	< 0.8	< 5	52	< 0.5	< 0.8	4500	33	5	58	15000	9	3000	200	< 1.5	**68**	1	45	34	24
	10 - 20 cm	18950	21000	< 0.8	< 5	140	< 0.5	< 0.8	5600	63	10	53	26000	9	7600	360	< 1.5	**63**	< 1	48	49	40
		18951	23000	< 0.8	6	140	< 0.5	< 0.8	5700	65	12	78	27000	12	7800	410	< 1.5	**96**	< 1	54	52	50
5028039 Maki Ave. (front yard)	0 - 5 cm	19042	12000	< 0.8	< 5	52	< 0.5	< 0.8	5800	34	6	53	14000	10	2900	210	< 1.5	**69**	< 1	49	34	33
		19043	12000	< 0.8	< 5	50	< 0.5	< 0.8	5300	35	6	45	14000	9	3000	190	< 1.5	**59**	< 1	46	33	29
	5 - 10 cm	19044	9200	< 0.8	< 5	31	< 0.5	< 0.8	2700	27	8	29	14000	6	2800	140	1.7	43	< 1	26	30	18
		19045	9900	< 0.8	< 5	35	< 0.5	< 0.8	3000	29	7	22	14000	5	2900	150	< 1.5	37	< 1	32	31	20
	10 - 20 cm	19046	9800	< 0.8	6	40	< 0.5	< 0.8	3100	30	14	53	16000	13	3100	160	< 1.5	**75**	< 1	31	31	25
		19047	9600	< 0.8	< 5	39	< 0.5	< 0.8	2800	29	9	34	14000	7	2900	160	< 1.5	**51**	< 1	28	30	19
5037938 Millwood Cr. (front yard)	0 - 5 cm	18958	11000	< 0.8	< 5	48	< 0.5	< 0.8	4500	32	7	**88**	14000	14	3200	210	< 1.5	**88**	< 1	39	30	28
		18959	11000	< 0.8	< 5	49	< 0.5	< 0.8	4700	35	8	**100**	15000	16	3100	220	< 1.5	**110**	1	39	32	35
	5 - 10 cm	18960	13000	< 0.8	< 5	60	< 0.5	< 0.8	4500	37	6	60	15000	11	3300	210	1.6	**70**	< 1	42	32	26
		18961	12000	< 0.8	< 5	59	< 0.5	< 0.8	4400	40	7	75	15000	12	3100	210	< 1.5	**89**	< 1	41	33	32
	10 - 20 cm	18962	8500	< 0.8	< 5	38	< 0.5	< 0.8	3200	30	7	66	12000	10	2600	170	< 1.5	**87**	< 1	30	25	25
		18963	7700	< 0.8	< 5	37	< 0.5	< 0.8	3400	25	5	42	11000	6	2400	150	< 1.5	**55**	< 1	32	26	19
5028037 Moonrock Ave. (back yard)	0 - 5 cm	19030	11000	< 0.8	< 5	43	< 0.5	< 0.8	5800	35	6	49	15000	8	3500	210	< 1.5	**68**	< 1	38	32	23
		19031	12000	< 0.8	< 5	45	< 0.5	< 0.8	6200	36	6	47	15000	8	3700	220	< 1.5	**66**	< 1	44	34	23
	5 - 10 cm	19032	11000	< 0.8	< 5	38	< 0.5	< 0.8	5200	34	6	29	15000	6	3600	200	< 1.5	**44**	< 1	36	32	20
		19033	10000	< 0.8	< 5	38	< 0.5	< 0.8	4900	33	6	27	15000	6	3500	200	< 1.5	42	< 1	35	32	19
	10 - 20 cm	19034	9100	< 0.8	< 5	36	< 0.5	< 0.8	4800	33	6	23	15000	4	3800	200	< 1.5	34	< 1	33	32	19
		19035	10000	< 0.8	< 5	50	< 0.5	< 0.8	6300	38	7	32	16000	6	4700	220	< 1.5	43	< 1	30	32	24

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037933 Muriel Cr. (front yard)	0 - 5 cm	18930	8400	< 0.8	< 5	42	< 0.5	< 0.8	2700	28	7	64	13000	11	2900	160	< 1.5	**63**	< 1	21	26	28
		18931	9700	< 0.8	< 5	46	< 0.5	< 0.8	3400	32	7	66	14000	12	3200	180	1.9	**72**	< 1	28	29	34
	5 - 10 cm	18932	9100	< 0.8	< 5	45	< 0.5	< 0.8	2400	30	8	52	14000	13	3000	180	< 1.5	**56**	< 1	23	28	33
		18933	12000	< 0.8	< 5	55	< 0.5	< 0.8	3900	33	8	47	15000	10	3300	200	< 1.5	**55**	< 1	39	33	26
	10 - 20 cm	18934	10000	< 0.8	< 5	46	< 0.5	< 0.8	3400	35	9	35	16000	7	3500	180	< 1.5	43	< 1	33	33	21
		18935	11000	< 0.8	< 5	53	< 0.5	< 0.8	3300	34	8	40	16000	7	3600	200	< 1.5	**44**	< 1	33	32	23
5028040 Nepahwin Ave. (front yard)	0 - 5 cm	19048	9600	< 0.8	< 5	40	< 0.5	< 0.8	3500	29	6	75	13000	12	3000	160	< 1.5	**76**	< 1	31	28	37
		19049	9500	< 0.8	6	38	< 0.5	< 0.8	3300	29	8	64	12000	8	3200	160	< 1.5	**80**	< 1	20	27	29
	5 - 10 cm	19050	9300	< 0.8	< 5	34	< 0.5	< 0.8	3300	29	6	38	12000	5	2600	160	< 1.5	**45**	< 1	33	30	32
		19051	9600	< 0.8	8	35	< 0.5	< 0.8	3700	29	6	33	13000	5	3000	170	< 1.5	43	< 1	33	30	20
	10 - 20 cm	19052	10000	< 0.8	5	48	< 0.5	< 0.8	3900	34	7	35	14000	5	3400	200	< 1.5	41	< 1	39	32	24
		19053	10000	< 0.8	< 5	46	< 0.5	< 0.8	4500	35	7	41	15000	6	3700	200	< 1.5	**49**	< 1	40	33	22
5028077 Ramsey Lake Rd. (front yard)	0 - 5 cm	19168	14000	< 0.8	7	73	< 0.5	< 0.8	5300	40	9	**120**	18000	16	3800	280	< 1.5	**120**	1	42	38	38
		19169	14000	< 0.8	7	81	< 0.5	< 0.8	4700	41	9	**120**	19000	18	4100	280	< 1.5	**120**	1	43	38	40
	5 - 10 cm	19170	15000	< 0.8	5	82	< 0.5	< 0.8	4700	43	9	**94**	20000	13	4500	270	< 1.5	**95**	< 1	44	40	35
		19171	17000	< 0.8	5	94	< 0.5	< 0.8	4700	48	9	**96**	22000	15	5200	310	< 1.5	**100**	< 1	48	43	41
	10 - 20 cm	19172	14000	< 0.8	< 5	77	< 0.5	< 0.8	4400	40	9	77	20000	12	4300	270	< 1.5	**98**	< 1	43	38	34
		19173	14000	< 0.8	< 5	74	< 0.5	< 0.8	4000	40	8	69	19000	18	4200	280	< 1.5	**82**	< 1	40	38	37
5037942 Robinson Dr. (front yard)	0 - 5 cm	18982	12000	< 0.8	5	49	< 0.5	< 0.8	4400	30	7	**92**	14000	12	2500	220	< 1.5	**110**	< 1	41	30	31
		18983	12000	< 0.8	< 5	56	< 0.5	< 0.8	4400	34	7	**92**	14000	11	2600	230	< 1.5	**110**	< 1	41	30	33
	5 - 10 cm	18984	11000	< 0.8	5	40	< 0.5	< 0.8	3200	29	7	**87**	14000	10	2500	200	< 1.5	**94**	< 1	32	29	30
		18985	12000	< 0.8	5	54	< 0.5	< 0.8	3800	33	7	75	15000	10	2800	220	< 1.5	**94**	< 1	39	32	34
	10 - 20 cm	18986	13000	< 0.8	6	58	< 0.5	< 0.8	4000	35	10	**120**	16000	12	3100	230	< 1.5	**130**	< 1	41	33	37
		18987	11000	< 0.8	6	51	< 0.5	< 0.8	3400	34	10	**120**	16000	13	3200	210	< 1.5	**130**	< 1	32	32	39
5037939 Salo Rd. (front yard)	0 - 5 cm	18964	16000	< 0.8	**30**	110	< 0.5	**1.6**	7200	46	**35**	**870**	27000	**220**	3500	200	< 1.5	**1100**	**4**	43	39	130
		18965	15000	< 0.8	**24**	100	< 0.5	**2.0**	13000	43	**40**	**1100**	27000	**180**	4300	220	< 1.5	**1200**	**6**	46	34	120
	5 - 10 cm	18966	14000	< 0.8	**32**	78	< 0.5	< 0.8	4100	38	**25**	**770**	24000	**230**	2600	150	< 1.5	**740**	**4**	37	36	75
		18967	14000	1.0	**34**	130	< 0.5	< 0.8	4500	37	**29**	**880**	25000	**270**	2400	170	< 1.5	**880**	**5**	38	36	120
	10 - 20 cm	18968	15000	< 0.8	15	76	< 0.5	< 0.8	3300	33	11	**340**	20000	51	2400	160	< 1.5	**210**	**2**	41	38	47
		18969	15000	< 0.8	**19**	67	< 0.5	< 0.8	3300	34	10	**290**	19000	76	2400	140	< 1.5	**210**	**2**	41	38	37

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037943 Southview Dr. (back yard)	0 - 5 cm	18988	8800	< 0.8	< 5	34	< 0.5	< 0.8	3400	28	7	56	13000	6	2900	170	< 1.5	**57**	< 1	34	29	19
		18989	6800	< 0.8	< 5	29	< 0.5	< 0.8	2000	25	6	59	12000	7	2700	140	< 1.5	**60**	< 1	15	23	20
	5 - 10 cm	18990	7600	< 0.8	< 5	31	< 0.5	< 0.8	3300	27	6	25	13000	4	3200	150	< 1.5	28	< 1	28	28	17
		18991	8300	< 0.8	< 5	33	< 0.5	< 0.8	3500	28	6	25	13000	4	3200	160	< 1.5	27	< 1	32	28	17
	10 - 20 cm	18992	7500	< 0.8	< 5	37	< 0.5	< 0.8	3200	29	7	25	14000	3	3600	170	< 1.5	26	< 1	29	28	18
		18993	7100	< 0.8	< 5	35	< 0.5	< 0.8	3400	29	6	25	14000	3	3600	180	< 1.5	25	< 1	31	28	18
5028036 St. Charles Lake Rd. (back yard)	0 - 5 cm	19024	14000	< 0.8	< 5	73	< 0.5	< 0.8	4500	39	6	39	15000	8	3500	210	< 1.5	**51**	< 1	49	35	25
		19025	15000	< 0.8	< 5	75	< 0.5	< 0.8	4700	39	6	42	16000	8	3700	230	< 1.5	**49**	< 1	48	37	26
	5 - 10 cm	19026	19000	< 0.8	7	120	< 0.5	< 0.8	4600	52	17	**200**	23000	33	5600	380	< 1.5	**240**	1	44	42	56
		19027	22000	< 0.8	9	150	< 0.5	< 0.8	4600	**75**	16	**220**	26000	110	5800	400	< 1.5	**220**	1	50	48	59
	10 - 20 cm	19028	17000	< 0.8	8	110	< 0.5	< 0.8	4000	45	12	**190**	20000	17	4400	310	< 1.5	**140**	1	45	40	47
		19029	16000	< 0.8	6	92	< 0.5	< 0.8	3300	44	11	**130**	20000	19	4300	280	< 1.5	**120**	< 1	39	38	40
5037932 Sweetberry Dr. (front yard)	0 - 5 cm	18924	11000	< 0.8	< 5	40	< 0.5	< 0.8	5600	34	5	25	13000	6	2800	200	1.9	34	< 1	48	31	18
		18925	10000	< 0.8	< 5	34	< 0.5	< 0.8	5100	29	5	26	13000	7	2700	190	< 1.5	36	< 1	44	29	17
	5 - 10 cm	18926	12000	< 0.8	< 5	50	< 0.5	< 0.8	6100	39	5	29	15000	7	3500	230	< 1.5	42	< 1	52	35	24
		18927	8400	< 0.8	< 5	31	< 0.5	< 0.8	3600	27	4	21	11000	5	2600	160	< 1.5	31	< 1	28	26	15
	10 - 20 cm	18928	11000	< 0.8	< 5	69	< 0.5	< 0.8	4600	38	7	46	16000	7	4500	220	< 1.5	**56**	< 1	29	32	27
		18929	9600	< 0.8	< 5	58	< 0.5	< 0.8	4000	35	7	43	15000	7	4100	220	< 1.5	**50**	< 1	21	28	25
5037935 Virginia Dr. (front yard)	0 - 5 cm	18940	8900	< 0.8	< 5	33	< 0.5	< 0.8	3800	31	7	**100**	14000	17	3000	200	< 1.5	**87**	1	32	30	26
		18941	9500	< 0.8	< 5	33	< 0.5	< 0.8	4000	32	7	85	15000	14	2900	180	< 1.5	**76**	< 1	35	31	24
	5 - 10 cm	18942	10000	< 0.8	< 5	27	< 0.5	< 0.8	2800	28	6	31	15000	5	2600	130	< 1.5	31	< 1	30	32	17
		18943	12000	< 0.8	< 5	37	< 0.5	< 0.8	3500	31	6	29	15000	5	2800	150	< 1.5	31	1	37	34	18
	10 - 20 cm	18944	12000	< 0.8	< 5	52	< 0.5	< 0.8	4000	35	7	25	17000	4	3200	180	< 1.5	30	1	41	36	18
		18945	10000	< 0.8	< 5	32	< 0.5	< 0.8	3400	32	7	25	16000	4	3300	170	< 1.5	29	< 1	34	33	18
5037946 Walford Rd. (back yard)	0 - 5 cm	19006	15000	< 0.8	12	110	< 0.5	1.0	7000	51	**26**	**560**	25000	120	5200	310	< 1.5	**470**	**3**	49	38	150
		19007	13000	< 0.8	11	87	< 0.5	1.0	6200	47	**23**	**480**	24000	**140**	4800	270	< 1.5	**420**	**3**	40	35	140
	5 - 10 cm	19008	20000	< 0.8	7	140	< 0.5	< 0.8	6600	63	17	**180**	26000	29	7200	340	< 1.5	**190**	**2**	51	46	110
		19009	19000	< 0.8	8	130	< 0.5	< 0.8	6200	59	17	**240**	25000	30	6700	310	< 1.5	**210**	1	49	44	87
	10 - 20 cm	19010	22000	< 0.8	6	140	< 0.5	< 0.8	8000	63	16	**150**	28000	20	8300	330	< 1.5	**160**	< 1	54	47	110
		19011	23000	< 0.8	6	160	0.5	< 0.8	7800	65	15	**150**	28000	20	8300	340	< 1.5	**160**	< 1	57	50	88

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.5: Inner Communities plus Skead residential front or back yard soil results.

Station No.	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037937 Windle Dr. (front yard)	0 - 5 cm	18952	12000	< 0.8	13	61	< 0.5	0.9	4000	50	19	**340**	18000	53	3100	190	< 1.5	**400**	**2**	41	31	43
		18953	12000	< 0.8	11	56	< 0.5	< 0.8	3800	40	15	**270**	17000	42	3100	190	< 1.5	**310**	1	38	31	41
	5 - 10 cm	18954	14000	< 0.8	5	73	< 0.5	< 0.8	3500	39	8	**96**	16000	11	3900	210	< 1.5	**120**	< 1	42	34	29
		18955	14000	< 0.8	< 5	70	< 0.5	< 0.8	3300	38	7	64	17000	8	3900	210	< 1.5	**94**	< 1	37	34	29
	10 - 20 cm	18956	19000	< 0.8	< 5	120	< 0.5	< 0.8	4200	55	8	38	22000	7	6000	270	< 1.5	**52**	< 1	50	44	29
		18957	18000	< 0.8	< 5	120	< 0.5	< 0.8	4100	57	9	44	23000	8	6500	280	< 1.5	**61**	< 1	44	44	36
5028078 Woodlawn Rd. (front yard)	0 - 5 cm	19156	11000	< 0.8	< 5	54	< 0.5	< 0.8	4700	31	8	**100**	14000	15	2800	180	< 1.5	**110**	< 1	39	31	28
		19157	12000	< 0.8	< 5	59	< 0.5	< 0.8	4900	32	7	**88**	14000	15	2900	180	< 1.5	**96**	< 1	40	31	28
	5 - 10 cm	19158	13000	< 0.8	< 5	51	< 0.5	< 0.8	4100	33	5	50	14000	8	2500	180	< 1.5	**60**	< 1	40	32	24
		19159	13000	< 0.8	< 5	53	< 0.5	< 0.8	4200	33	6	52	15000	9	2600	180	< 1.5	**69**	< 1	41	32	23
	10 - 20 cm	19160	12000	< 0.8	< 5	50	< 0.5	< 0.8	4100	32	6	35	14000	6	2600	200	< 1.5	**54**	< 1	41	33	25
		19161	10000	< 0.8	< 5	37	< 0.5	< 0.8	3500	29	6	28	13000	5	2600	190	< 1.5	**49**	< 1	35	30	22
5037945 Yale St (front yard)	0 - 5 cm	19000	18000	< 0.8	7	100	< 0.5	< 0.8	6300	48	15	**270**	21000	29	4700	210	< 1.5	**290**	**2**	47	40	52
		19001	16000	< 0.8	8	99	< 0.5	< 0.8	5700	47	15	**320**	20000	33	4300	220	< 1.5	**310**	**2**	44	37	62
	5 - 10 cm	19002	12000	< 0.8	< 5	41	< 0.5	< 0.8	4000	33	6	56	15000	5	3500	170	< 1.5	**62**	< 1	40	33	22
		19003	13000	< 0.8	< 5	55	< 0.5	< 0.8	4300	38	7	58	16000	5	3500	180	< 1.5	**83**	< 1	43	36	25
	10 - 20 cm	19004	13000	< 0.8	< 5	66	< 0.5	< 0.8	4200	37	7	52	16000	6	4000	200	< 1.5	**79**	< 1	42	35	23
		19005	14000	< 0.8	< 5	73	< 0.5	< 0.8	3900	41	8	69	17000	8	4500	220	< 1.5	**97**	< 1	40	35	29

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.6: Residential garden vegetable results.

Station	Sample No.	Vegetable	Al	Sb	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Community of Coniston																				
5037481 3rd Ave.	15442	beets	78	0.2 <w	0.2 <w	60	0.3 <t	0.5 <w	0.2 <w	15	140	0.5 <w	2400	30	0.2 <w	12	0.2 <w	11	0.5 <w	26
	15440	carrot	81	0.2 <w	0.2 <w	22	0.1 <w	0.6 <t	0.2 <w	8.1	140	0.5 <w	1500	11	0.2 <w	6.9	0.2 <w	12	0.5 <w	20
	15443	lettuce	180	0.2 <w	0.6 <t	16	0.6	0.9 <t	0.4 <t	19	280	1.5 <t	5000	30	0.7 <t	49	0.6 <t	40	0.5 <w	41
	15441	tomato	5 <w	0.2 <w	0.2 <w	1.6 <t	0.1 <w	1.1 <t	0.2 <w	4.7	25	0.5 <w	760	5.2	0.5 <t	1.8 <t	0.2 <w	1.9 <t	0.5 <w	14
5037478 4th Ave.	15423	beets	49	0.2 <w	0.2 <w	7.5	0.1 <w	0.5 <w	0.2 <w	7.6	85	0.5 <w	2500	8.8	0.2 <w	2.3 <t	0.2 <w	7.4	0.5 <w	30
	15422	carrot	55	0.2 <w	0.2 <w	3.6 <t	0.1 <w	0.5 <w	0.2 <w	4.3	110	0.5 <w	1400	8.7	0.2 <w	2.1 <t	0.2 <w	8.6	0.5 <w	21
	15421*	cucumber	6 <t	0.2 <w	0.3 <t	0.8 <t	0.1 <w	0.5 <w	0.2 <w	8	58	110	3200	11	1.5	3.2	0.2 <w	8.8	0.5 <w	33
	15425	potato	11 <t	0.2 <w	0.2 <w	0.5 <w	0.1 <w	0.5 <w	0.2 <w	5.3	33	0.5 <w	1200	5.8	0.5 <t	1.2 <t	0.2 <w	0.9 <t	0.5 <w	14
	15420	Swiss chard	230	0.2 <w	0.2 <w	26	0.6	1.3 <t	0.4 <t	14	290	1.1 <t	12000	59	1.3	3.4	0.2 <w	41	0.5 <w	94
	15424	tomato	5 <w	0.2 <w	0.2 <w	0.5 <w	0.1 <w	0.6 <t	0.2 <w	3.6	26	0.5 <w	1200	11	0.3 <t	0.9 <t	0.2 <w	2.5	0.5 <w	18
5037501 Allan St.	15630	beets	45	0.2 <w	0.2 <w	17	0.3 <t	0.5 <w	0.2 <w	11	87	0.5 <w	2300	14	0.6 <t	26	0.2 <w	9.2	0.5 <w	56
	15629	carrot	38	0.2 <w	0.2 <w	16	0.1 <w	0.5 <w	0.3 <t	4.8	100	0.5 <w	1200	7.2	0.7 <t	9.7	0.2 <w	18	0.5 <w	15
	15628	Swiss chard	68	0.2 <w	0.2 <w	59	0.8	0.8 <t	0.4 <t	18	120	1 <t	8500	33	1.7	35	1.2	29	0.5 <w	300
	15627	tomato	5 <w	0.2 <w	0.2 <w	0.9 <t	0.2 <t	0.5 <w	0.2 <w	5	24 <t	0.5 <w	1200	7.3	0.7 <t	20	0.3 <t	2.3 <t	0.5 <w	22
5037503 Allan St.	15647	lettuce	140	0.2 <w	0.5 <t	7.8	0.3 <t	0.5 <w	0.2 <w	18	250	0.5 <w	2700	17	3.5	5.8	0.3 <t	29	0.5 <w	40
	15645	tomato	5 <w	0.2 <w	0.2 <w	0.8 <t	0.2 <t	0.5 <w	0.2 <w	5.2	17 <t	0.5 <w	1600	6.6	0.6 <t	4.3	0.2 <w	2 <t	0.5 <w	22
	15646	yellow beans	5 <w	0.2 <w	0.2 <w	0.8 <t	0.1 <w	0.5 <w	0.2 <w	5.2	46	0.5 <w	1800	5.8	12	7.3	0.2 <w	3.6	0.5 <w	21
5037506 Caruso St.	15656	carrot	63	0.2 <w	0.2 <w	6.2	0.2 <t	0.5 <w	0.2 <w	5.7	88	0.5 <w	1400	5.1	0.2 <w	4	0.2 <w	7.9	0.5 <w	17
	15658†	lettuce	340	0.2 <w	0.4 <t	10	0.4 <t	1.6 <t	0.3 <t	17	520	0.5 <w	4200	28	3.4	12	0.2 <w	28	1 <t	46
	15657	tomato	9 <t	0.2 <w	0.2 <w	1.2 <t	0.1 <w	1.2 <t	0.2 <w	6.3	26	0.5 <w	1500	12	0.7 <t	2.9	0.2 <w	2.2 <t	0.5 <w	15
5037509 Caruso St.	15671	carrot	14 <t	0.2 <w	0.2 <w	22	0.2 <t	0.5 <w	0.2 <w	6.4	51	0.5 <w	1300	5.7	0.2 <w	5.3	0.2 <w	12	0.5 <w	19
	15674	cucumber	14 <t	0.2 <w	0.3 <t	5.1	0.1 <w	0.5 <w	0.2 <w	9.3	56	0.5	3900	9.1	1.3	9.2	0.2 <w	13	0.5 <w	42
	15673	potato	13 <t	0.2 <w	0.2 <w	0.7 <t	0.1 <w	0.5 <w	0.2 <w	7.3	36	0.5 <w	1200	6	0.4 <t	3.7	0.2 <w	1 <t	0.5 <w	19
	15672	tomato	5 <w	0.2 <w	0.2 <w	1.4 <t	0.3 <t	0.7 <t	0.2 <w	7.9	45	0.5 <w	1800	13	0.4 <t	6.5	0.2 <w	3.1	0.5 <w	25
5037473 East St.	15399	Swiss chard	51	0.2 <w	0.2 <w	43	0.3 <t	0.6 <t	0.2 <w	12	89	0.5 <w	8100	17	0.2 <w	10	0.2 <w	37	0.5 <w	77
	15398	tomato	5 <w	0.2 <w	0.2 <w	0.5 <w	0.2 <t	0.5 <w	0.3 <t	3.8	20 <t	0.5 <w	1100	5.7	0.5 <t	8	0.4 <t	1.5 <t	0.5 <w	9
5037475 East St.	15413	carrot	57	0.2 <w	0.2 <w	9.7	0.1 <w	0.5 <w	0.2 <w	4.8	72	1.1 <t	1400	8	0.2 <w	1.5 <t	0.2 <w	9.4	0.5 <w	16
	15412	tomato	5 <w	0.2 <w	0.2 <w	0.5 <w	0.1 <w	0.5 <w	0.2 <w	1.9 <t	16 <t	0.5 <w	540	3.8	0.2 <w	0.5 <w	0.2 <w	1.2 <t	0.5 <w	7

<w - no measurable amount. <t - trace amount. All results are in µg/g dry wt. All beryllium (Be) results were less than 0.2 µg/g dry wt.
* - possibly contaminated during processing, see Discussion 7.4 for details. † - magnetic particles removed before analysis, see Discussion 7.4 for details.

Table A3.6: Residential garden vegetable results.

Station	Sample No.	Vegetable	Al	Sb	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037487 Edward St.	15471	carrot	43	0.2 <w	0.2 <w	7	0.1 <w	0.5 <w	0.2 <w	5	62	0.7 <t	1500	4.8	0.3 <t	6.4	0.2 <w	7	0.5 <w	14
	15473*	cucumber	5 <w	0.2 <w	0.3 <t	3.6 <t	0.1 <w	0.5 <w	0.2 <w	8.5	99	9.6	3500	12	2.4	8.2	0.2 <w	9.7	0.5 <w	33
	15472	lettuce	69	0.2 <w	0.8 <t	10	0.6	0.7 <t	0.4 <t	23	130	0.7 <t	5300	21	0.5 <t	11	0.2 <w	27	0.5 <w	30
5037484 First Ave.	15454	cucumber	10 <t	0.2 <w	0.2 <w	12	0.1 <w	0.5 <w	1.4	7.6	68	0.5 <w	3000	17	0.7 <t	24	0.2 <w	14	0.5 <w	26
	15455	potato	12 <t	0.2 <w	0.2 <w	1.8 <t	0.2 <t	0.5 <w	0.4 <t	6.4	34	0.5 <w	840	5.1	0.2 <w	5	0.2 <w	0.6 <t	0.5 <w	13
	15456	tomato	11 <t	0.2 <w	0.2 <w	2 <t	0.2 <t	0.8 <t	0.3 <t	6.5	33	0.5 <w	1100	12	0.4 <t	6.9	0.2 <w	2.6	0.5 <w	12
5037495 Walter Cres.	15517	carrot	30	0.2 <w	0.2 <w	17	0.2 <t	0.5 <w	0.2 <w	4.2	74	0.5 <w	1300	6.4	0.2 <w	3.2	0.2 <w	7.7	0.5 <w	17
	15516	tomato	5 <w	0.2 <w	0.2 <w	1.4 <t	0.2 <t	1 <t	0.3 <t	10	41	0.5 <w	2500	13	0.7 <t	7	0.2 <w	2.6	0.5 <w	28
5037498 Walter Cres.	15534†	beets	32	0.2 <w	0.2 <w	19	0.1 <w	0.5 <w	0.2 <w	7.1	66	0.5 <w	2100	11	0.2 <w	2.4 <t	0.2 <w	6.2	0.5 <w	36
	15533	potato	15 <t	0.2 <w	0.2 <w	0.5 <w	0.1 <w	0.5 <w	0.2 <w	4.5	95	0.5 <w	910	3.4	0.4 <t	1.8 <t	0.2 <w	0.7 <t	0.5 <w	9
	15532†	tomato	5 <w	0.2 <w	0.2 <w	0.7 <t	0.1 <w	0.5 <w	0.2 <w	4	16 <t	0.5 <w	1300	6	0.6 <t	1.1 <t	0.2 <w	1.3 <t	0.5 <w	11
5037490 Walter St.	15487	beets	10 <t	0.2 <w	0.2 <w	2 <t	0.2 <t	0.9 <t	0.2 <w	5.9	58	0.8 <t	1900	7.6	0.3 <t	8.2	0.2 <w	4.1	0.5 <w	29
	15488	lettuce	30	0.2 <w	0.6 <t	2.6 <t	0.6	0.6 <t	0.2 <w	24	150	0.5 <w	3600	15	0.4 <t	13	0.2 <w	22	0.5 <w	45
	15486	tomato	5 <w	0.2 <w	0.2 <w	0.5 <w	0.1 <w	0.6 <t	0.2 <w	2 <t	19 <t	0.5 <w	550	2.2 <t	0.6 <t	4.8	0.2 <w	1 <t	0.5 <w	6
5037492 Walter St.	15505	cucumber	14 <t	0.2 <w	0.5 <t	2 <t	0.2 <t	0.5 <w	0.2 <w	11	110	0.5 <w	4300	11	3.2	7.9	0.2 <w	5.8	0.5 <w	48
	15509	green beans	5 <w	0.2 <w	0.2 <w	2.9 <t	0.1 <w	0.5 <w	0.2 <w	7.6	49	0.5 <w	2100	13	17	11	0.2 <w	6.3	0.5 <w	33
	15504	lettuce	1100	0.2 <w	1	11	0.2 <t	3.8	1.2	14	1600	1.9 <t	4400	50	1.6	9.5	0.2 <w	16	2.8	23
	15503	tomato	5 <w	0.2 <w	0.2 <w	0.5 <w	0.1 <w	0.6 <t	0.2 <w	3.4	36	0.5 <w	1000	5.8	0.4 <t	0.8 <t	0.2 <w	3.3	0.5 <w	9
	15506	zucchini	37	0.2 <w	0.2 <w	2.6 <t	0.2 <t	0.8 <t	0.2 <w	18	160	0.5 <w	3400	12	0.5 <t	9.3	0.2 <w	7.4	0.5 <w	80
5037644 William	15691	tomatoes	5	0.2 <w	0.2 <w	0.7 <t	0.1 <w	0.6 <t	0.2 <t	5.3	90	0.5 <w	2000	12	0.5 <t	27	0.6 <t	2.1	0.5 <w	17
Community of Copper Cliff																				
5037452 Cliff St.	15270	carrot	16 <t	0.2 <w	0.7 <t	10	0.1 <w	0.5 <w	0.2 <w	2.9	21 <t	0.5 <w	370	380	0.2 <w	0.8 <t	3	0.9 <t	0.5 <w	5
	15272	cucumber	300	0.2 <w	0.8 <t	3.7 <t	0.1 <w	0.5 <w	0.2 <w	4.5	110	0.5 <w	1400	21	0.7 <t	0.7 <t	2.8	3	0.5 <w	24
	15274	green beans	7 <t	0.2 <w	0.2 <w	5.6	0.1 <w	0.5 <w	0.4 <t	8.2	70	0.6 <t	2500	13	9.4	23	22	8.2	0.5 <w	27
	15273	tomato	170	0.2 <w	0.2 <w	5	0.1 <w	0.5 <w	0.2 <w	5.4	150	0.5 <w	1500	21	0.9 <t	0.8 <t	17	3.8	0.5 <w	26
	15275	yellow beans	9 <t	0.2 <w	0.2 <w	7.5	0.1 <w	0.5 <w	0.2 <w	8.8	80	1.8 <t	2500	17	6.1	21	10	12	0.5 <w	30
	15271	zucchini	23 <t	0.2 <w	0.2 <w	9.7	0.1 <w	0.5 <w	0.2 <w	2.6	40	0.5 <w	360	370	0.2 <w	0.8 <t	4.8	0.9 <t	0.5 <w	5

<w - no measurable amount. <t - trace amount. All results are in µg/g dry wt. All beryllium (Be) results were less than 0.2 µg/g dry wt.
* - possibly contaminated during processing, see Discussion 7.4 for details. † - magnetic particles removed before analysis, see Discussion 7.4 for details.

Table A3.6: Residential garden vegetable results.

Station	Sample No.	Vegetable	Al	Sb	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037445 Cobalt St.	15221†	beets	5 <w	0.2 <w	0.6 <t	5.1	0.1 <w	0.5 <w	0.2 <w	6.6	31	0.5 <w	1400	18	0.2 <w	6.6	0.5 <t	2.6	0.5 <w	13
	15222	carrot	7 <t	0.2 <w	0.4 <t	6.3	0.1 <w	0.5 <w	0.2 <w	6.3	33	0.5 <w	1400	16	0.5 <t	7.6	0.5 <t	2.4 <t	0.5 <w	15
	15237	potato	7 <t	0.2 <w	0.2 <w	6.1	0.1 <w	0.5 <w	0.2 <w	6.3	26	0.5 <w	1100	20	0.3 <t	7.5	0.2 <w	5.7	0.5 <w	11
	15220	tomato	5 <w	0.2 <w	0.2 <w	5.6	0.1 <w	0.5 <w	0.2 <w	6.5	35	0.5 <w	1600	18	0.2 <w	8.1	0.2 <w	3.4	0.5 <w	16
5037438 Collins St.	15188*	carrot	100	0.2 <w	0.3 <t	17	0.2 <t	0.7 <t	0.2 <w	14	190	4.3	1500	15	0.2 <w	15	0.5 <t	24	0.5 <w	27
	15186	lettuce	580	0.2 <w	2.5	28	0.7	2.4 <t	1.6	77	1000	23	3200	48	1.1	58	5.3	43	1.6 <t	51
	15187	parsley	620	0.2 <w	1.6	50	0.3 <t	2.3 <t	2	71	1100	38	4300	68	1	52	1.5	48	1.5 <t	56
5037439 Collins St.	15183†	escarole	1600	0.4 <t	9	29	1.2	6.4	3.6	160	2400	28	3800	53	1.7	120	4	35	4.1	83
	15182	Swiss chard	150	0.2 <w	0.8 <t	58	0.4 <t	0.7 <t	0.5 <t	33	230	2.1 <t	6100	12	0.9 <t	22	1.5	27	0.5 <w	45
	15180	tomato	5 <w	0.2 <w	0.2 <w	0.6 <t	0.1 <w	0.5 <w	0.2 <w	4.9	15 <t	0.5 <w	1100	5.9	0.3 <t	2.8	0.2 <w	1.9 <t	0.5 <w	12
	15181	zucchini	5 <w	0.2 <w	0.2 <w	3.5 <t	0.2 <t	0.8 <t	0.2 <w	13	83	0.5 <w	4200	13	1.1	26	0.5 <t	7.9	0.5 <w	84
5037459 Craig St.	15325	basil	82	0.2 <w	1.3	9.1	0.2 <t	0.9 <t	0.9 <t	63	210	0.9 <t	6400	39	0.5 <t	47	1.1	52	0.5 <w	80
	15326†	beets	60	0.2 <w	0.2 <w	24	0.3 <t	0.5 <w	0.2 <w	12	91	1.6 <t	1500	22	0.2 <w	15	0.2 <w	9.7	0.5 <w	29
	15330	cucumber	5 <w	0.2 <w	0.3 <t	1.1 <t	0.1 <w	0.5 <w	0.2 <w	7.5	42	0.5 <w	3200	14	1.1	20	0.3 <t	7.4	0.5 <w	33
	15327	parsley	400	0.2 <w	0.6 <t	15	0.3 <t	1.5 <t	0.7 <t	44	530	3.6	3300	38	2.4	51	0.6 <t	22	0.9 <t	68
	15324	Swiss chard	45	0.2 <w	0.2 <w	16	0.2 <t	0.5 <w	0.3 <t	31	100	1.2 <t	4600	29	0.2 <w	24	0.2 <w	16	0.5 <w	45
	15329	tomato	5 <w	0.2 <w	0.2 <w	0.5 <w	0.2 <t	0.5 <w	0.2 <w	4.7	16 <t	1.7 <t	790	7.7	0.2 <w	6.2	0.2 <w	1.3 <t	0.5 <w	12
	15328	zucchini	5 <w	0.2 <w	0.2 <w	1.1 <t	0.2 <t	0.8 <t	0.2 <w	22	120	0.5 <w	4400	24	1.1	42	0.4 <t	5.3	0.5 <w	120
5037448 Creighton Rd.	15240	beets	25	0.2 <w	0.2 <w	1.6 <t	0.2 <t	0.5 <w	0.2 <w	7	49	0.5 <w	1300	81	0.4 <t	8.1	0.2 <w	1.5 <t	0.5 <w	17
	15238	carrot	9 <t	0.2 <w	0.2 <w	2.8 <t	0.1 <w	0.5 <w	0.2 <w	6.1	36	0.5 <w	1400	20	1.2	1.5 <t	0.2 <w	2.7	0.5 <w	19
	15242	cucumber	7 <t	0.2 <w	0.6 <t	11	0.2 <t	0.5 <w	0.2 <w	4.9	26	0.5 <w	1100	33	0.2 <w	2.8	0.2 <w	3	0.5 <w	10
	15241	lettuce	18 <t	0.2 <w	0.8 <t	1.2 <t	0.1 <w	0.5 <w	0.2 <w	6.3	41	0.5 <w	1200	63	0.3 <t	7	0.2 <w	1.2 <t	0.5 <w	17
	15239	tomato	6 <t	0.2 <w	0.2 <w	2.6 <t	0.1 <w	0.5 <w	0.2 <w	5.2	32	0.5 <w	1200	18	1.1	1.3 <t	0.2 <w	2.4 <t	0.5 <w	16

<w - no measurable amount. <t - trace amount. All results are in µg/g dry wt. All beryllium (Be) results were less than 0.2 µg/g dry wt.
* - possibly contaminated during processing, see Discussion 7.4 for details. † - magnetic particles removed before analysis, see Discussion 7.4 for details.

Table A3.6: Residential garden vegetable results.

Station	Sample No.	Vegetable	Al	Sb	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037454 Diorite St.	15293	basil	520	0.2 <w	1.1	6	0.2 <t	1.6 <t	1.1	65	650	1.7 <t	5400	17	0.9 <t	56	1.4	32	1.4 <t	43
	15290	beets	120	0.2 <w	0.2 <w	8.5	0.3 <t	0.6 <t	0.4 <t	27	160	0.5 <w	2700	6.1	0.2 <w	22	0.3 <t	5.6	0.5 <w	29
	15297	Bostonlettuc	1900	0.2 <w	2.1	15	1.7	6	4.9	230	2400	7	5000	35	1.1	180	2.5	27	5.1	51
	15292	carrot	82	0.2 <w	0.2 <w	3.3 <t	0.2 <t	0.5 <w	0.2 <w	10	110	0.8 <t	1600	4.7	0.2 <w	16	0.4 <t	5.2	0.5 <w	14
	15296	cucumber	15 <t	0.2 <w	0.3 <t	1.1 <t	0.1 <w	0.5 <w	0.2 <w	9.3	61	0.5 <w	3300	4.9	2.5	15	0.8 <t	5.8	0.5 <w	24
	15298	parsley	450	0.2 <w	0.4 <t	16	0.4 <t	1.4 <t	0.8 <t	54	610	1.3 <t	3000	13	6.5	53	2.9	17	1.3 <t	40
	15295	Swiss chard	86	0.2 <w	0.2 <w	9.1	0.4 <t	0.5 <w	0.2 <w	26	120	0.5 <w	6300	4.2	0.2 <w	16	0.7 <t	11	0.5 <w	22
	15294	tomato	13 <t	0.2 <w	0.2 <w	0.5 <w	0.3 <t	0.5 <w	0.2 <w	8.4	40	0.5 <w	840	5.9	0.2 <w	5.2	1	1 <t	0.5 <w	11
	15291	yellow &	11 <t	0.2 <w	0.2 <w	1.4 <t	0.1 <w	0.5 <w	0.3 <t	11	83	0.5 <w	2500	7.8	8.7	39	0.9 <t	3.5	0.5 <w	25
5037456 Diorite St.	15303	Bostonlettuc	450	0.2 <w	0.5 <t	7	1.1	1.4 <t	1.2	59	540	1.4 <t	4400	29	0.4 <t	53	0.6 <t	23	1 <t	50
	15302	Swiss chard	35	0.2 <w	0.2 <w	18	0.7	0.7 <t	0.4 <t	21	190	0.6 <t	2500	21	0.6 <t	21	0.2 <w	13	0.5 <w	96
	15301	tomato	5 <w	0.2 <w	0.2 <w	0.5 <w	0.3 <t	0.5 <w	0.2 <w	2.3 <t	17 <t	0.5 <w	630	4.3	0.2 <w	5.4	0.2 <w	1 <t	0.5 <w	7
5037442 Evans Rd.	15204	carrot	19 <t	0.2 <w	0.2 <w	11	0.1 <w	0.5 <w	0.2 <w	9.7	40	0.5 <w	1300	6.7	0.2 <w	4.6	0.2 <w	7.1	0.5 <w	16
	15205†	lettuce	620	0.2 <w	2	24	2	2.5	2.3	130	770	7.8	5500	65	1.4	86	5.1	42	1.3 <t	100
	15203	tomato	5 <w	0.2 <w	0.2 <w	0.7 <t	0.2 <t	0.8 <t	0.2 <w	3.9	40	0.5 <w	730	4.5	0.5 <t	8.5	0.3 <t	0.7 <t	0.5 <w	8
5037450 Oliver Cres	15259	carrot	11 <t	0.2 <w	0.3 <t	5	0.1 <w	0.5 <w	0.2 <w	6.9	25	0.5 <w	290	110	0.2 <w	5.3	0.2 <w	1.8 <t	0.5 <w	2
	15257	cucumber	9 <t	0.2 <w	0.6 <t	10	0.2 <t	0.5 <w	0.2 <w	4.6	26	0.5 <w	1000	33	0.2 <w	2.1 <t	0.2 <w	3.4	0.5 <w	9
	15258	green beans	10 <t	0.2 <w	0.2 <w	6.4	0.1 <w	0.5 <w	0.2 <w	6.3	73	0.5 <w	310	120	0.2 <w	5.3	0.2 <w	2.7	0.5 <w	4
	15260	potato	26	0.2 <w	0.2 <w	10	0.1 <w	0.5 <w	0.2 <w	7.2	38	0.5 <w	340	110	0.2 <w	6.9	0.2 <w	1.8 <t	0.5 <w	3
	15261	zucchini	27	0.2 <w	0.2 <w	11	0.1 <w	0.5 <w	0.2 <w	7	40	0.5 <w	430	120	0.2 <w	7.7	0.2 <w	1.1 <t	0.5 <w	5
Community of Falconbridge																				
5037535 Hardy St.	15687	tomatoes	8	0.2 <w	0.2 <w	1.1 <t	0.2 <t	0.5 <w	1.1	6.6	36	1.8	1400	8.9	0.6 <t	27	0.2 <w	1.7	0.5 <w	20
5037515 Hardy St.	15567	zucchini	5 <w	0.2 <w	0.2 <w	0.5 <w	0.2 <t	0.5 <w	2.2	9.9	35	0.5 <w	3200	8.1	1.1	51	0.2 <w	2.6	0.5 <w	33
5037521 Lakeshore Rd.	15611	cucumber	21 <t	0.2 <w	0.7 <t	5	0.1 <w	0.5 <w	1.7	7.3	61	0.5 <w	3600	24	0.7 <t	42	0.2 <w	11	0.5 <w	39
	15612	potato	18 <t	0.2 <w	0.2 <w	0.7 <t	0.2 <t	0.5 <w	0.5 <t	7.9	100	1.4 <t	1000	6.5	0.4 <t	9.1	0.2 <w	0.7 <t	0.5 <w	17
	15610	tomato	5 <w	0.2 <w	0.2 <w	0.9 <t	0.2 <t	0.5 <w	0.4 <t	5.7	180	0.5 <w	1200	11	0.4 <t	20	0.2 <w	1.4 <t	0.5 <w	22
	15609	zucchini	9 <t	0.2 <w	0.2 <w	1.5 <t	0.1 <w	0.5 <w	0.9 <t	13	68	0.5 <w	3100	18	0.7 <t	41	0.2 <w	3.9	0.5 <w	50

<w - no measurable amount. <t - trace amount. All results are in µg/g dry wt. All beryllium (Be) results were less than 0.2 µg/g dry wt.
* - possibly contaminated during processing, see Discussion 7.4 for details. † - magnetic particles removed before analysis, see Discussion 7.4 for details.

Table A3.6: Residential garden vegetable results.

Station	Sample No.	Vegetable	Al	Sb	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037568 Lindsley St.	15690	tomatoes	7	0.2 <w	0.2 <w	0.9 <t	0.5	0.5 <w	0.4 <w	13	57	0.5 <w	3200	21	0.7 <t	17	0.2 <w	2.3	0.5 <w	31
5037518 Morlock St.	15579*	beets	82	0.3 <t	1.9	24	0.5	0.8 <t	1.8	25	180	130	2700	23	0.2 <w	46	0.2 <w	13	0.5 <w	92
	15580*	carrot	59	0.2 <w	1.1	5.7	0.2 <t	0.5 <w	1.1	11	100	5.8	1200	9.7	0.3 <t	26	0.2 <w	7.1	0.5 <w	46
	15578	tomato	5 <w	0.2 <w	0.2 <w	0.5 <w	0.2 <t	0.5 <w	1.5	5.7	44	1 <t	2200	11	0.7 <t	47	0.2 <w	1 <t	0.5 <w	19
5037512 Parkinson St.	15552	cucumber	8 <t	0.2 <w	0.5 <t	5.9	0.2 <t	0.5 <w	2	6.9	43	0.5 <w	4500	18	0.5 <t	34	0.2 <w	16	0.5 <w	56
	15551	tomato	5 <w	0.2 <w	0.2 <w	2.3 <t	0.3 <t	0.5 <w	0.6 <t	6.4	120	0.5 <w	1100	9.8	0.4 <t	17	0.2 <w	2.3 <t	0.5 <w	15
Community of Gatchell																				
5037432 Clemow Ave.	15150	green beans	6 <t	0.2 <w	0.2 <w	4.3 <t	0.1 <w	0.5 <w	0.2 <w	13	83	0.5 <w	3100	15	3	15	0.2 <w	8.6	0.5 <w	46
	15151†	Italian lettuce	220	0.2 <w	1.3	14	0.5	1.2 <t	0.8 <t	57	370	2.1 <t	3500	32	2.9	27	1.6	36	0.5 <w	27
	15152	Swiss chard	240	0.2 <w	0.3 <t	37	0.1 <w	1.1 <t	0.3 <t	22	300	0.5 <w	6200	14	0.3 <t	9.2	0.4 <t	17	0.6 <t	25
	15153	tomato	6 <t	0.2 <w	0.2 <w	1 <t	0.1 <w	0.8 <t	0.2 <w	4.9	27	0.5 <w	730	5	0.4 <t	2.4 <t	0.2 <w	2 <t	0.5 <w	8
5037470 Gutcher St.	15374	beets	100	0.2 <w	0.2 <w	4.8 <t	0.4 <t	0.5 <w	0.2 <w	17	150	1.4 <t	2100	14	0.2 <w	9.6	0.3 <t	11	0.5 <w	50
	15376	cucumbers	10 <t	0.2 <w	0.7 <t	3.4 <t	0.1 <w	0.5 <w	0.2 <w	11	71	0.5 <w	3400	11	1.9	16	0.3 <t	13	0.5 <w	45
	15375	green beans	6 <t	0.2 <w	0.2 <w	3.8 <t	0.1 <w	0.5 <w	0.3 <t	8.3	74	0.5 <w	2600	17	2.1	22	0.3 <t	12	0.5 <w	40
	15378†	Italian lettuce	1300	0.2 <w	2.3	31	1	4.7	2.2	64	1800	11	3700	91	1.2	41	0.7 <t	43	3.3	78
	15380	parsley	570	0.2 <w	1.5	22	0.2 <t	2 <t	0.8 <t	36	730	4.9	3300	47	1.9	25	0.4 <t	26	1.4 <t	46
	15377	Swiss chard	100	0.2 <w	0.3 <t	30	0.3 <t	0.7 <t	0.4 <t	14	140	1.7 <t	5100	12	0.3 <t	9.1	0.4 <t	24	0.5 <w	49
	15379	tomato	5 <w	0.2 <w	0.2 <w	1 <t	0.2 <t	1.2 <t	0.2 <w	4.5	54	0.5 <w	770	4.7	0.3 <t	3.7	0.4 <t	2.1 <t	0.5 <w	12

<w - no measurable amount. <t - trace amount. All results are in µg/g dry wt. All beryllium (Be) results were less than 0.2 µg/g dry wt.
* - possibly contaminated during processing, see Discussion 7.4 for details. † - magnetic particles removed before analysis, see Discussion 7.4 for details.

Table A3.6: Residential garden vegetable results.

Station	Sample No.	Vegetable	Al	Sb	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037435 Tuddenham St.	15162	basil	150	0.2 <w	1.3	12	0.2 <t	0.8 <t	0.4 <t	26	240	2.7	5900	42	0.2 <w	13	0.8 <t	49	0.5 <w	39
	15164	carrot	74	0.2 <w	0.2 <w	3 <t	0.1 <w	0.5 <w	0.2 <w	7.2	120	0.5 <w	1500	6.3	0.2 <w	4.5	0.2 <w	6	0.5 <w	18
	15159	cucumber	5 <w	0.2 <w	0.3 <t	3 <t	0.1 <w	0.5 <w	0.2 <w	9.6	57	0.5 <w	3600	8.9	2.1	9.5	0.2 <w	9	0.5 <w	39
	15158	green beans	5 <w	0.2 <w	0.2 <w	2.5 <t	0.1 <w	0.5 <w	0.3 <t	9.9	71	0.5 <w	3200	15	3.5	19	0.2 <w	8.2	0.5 <w	41
	15161†	Italian lettuce	380	0.2 <w	1	10	0.6	1.6 <t	0.8 <t	42	600	3.4	2400	26	0.9 <t	24	1	21	1.1 <t	28
	15160†	parsley	810	0.2 <w	0.8 <t	12	0.2 <t	3.2	0.9 <t	25	1100	4.6	3900	31	0.7 <t	23	0.4 <t	15	2.3 <t	59
	15165	potato	19 <t	0.2 <w	0.2 <w	0.5 <w	0.1 <w	0.5 <w	0.2 <w	6	53	0.5 <w	1100	4.1	0.5 <t	2.3 <t	0.2 <w	0.5 <	0.5 <w	13
	15156	Swiss chard	63	0.2 <w	0.2 <w	16	0.4 <t	0.6 <t	0.2 <w	25	140	0.5 <w	8400	16	0.8 <t	16	0.6 <t	12	0.5 <w	55
	15157	tomato	5 <w	0.2 <w	0.2 <w	0.6 <t	0.1 <w	1.1 <t	0.2 <w	4.8	63	0.5 <w	1100	8.8	0.2 <w	2.9	0.2 <w	1.4 <t	0.5 <w	13
	15163	white onion	5 <w	0.2 <w	0.2 <w	1.4 <t	0.1 <w	0.5 <w	0.2 <w	2.6	24 <t	0.5 <w	900	5	0.2 <w	4.3	0.2 <w	4.4	0.5 <w	14
Community of Lively																				
5037465 John St.	15355*	beets	150	0.2 <w	0.2 <w	25	0.1 <w	0.8 <t	0.3 <t	11	210	61	2600	19	0.2 <w	4.6	0.2 <w	31	0.5 <w	30
	15357*	carrot	64	0.3 <t	0.2 <w	15	0.2 <t	0.5 <w	0.2 <w	19	92	42	990	6.6	0.2 <w	54	0.2 <w	22	0.5 <w	11
	15353*	cucumber	11 <t	0.2 <w	0.4 <t	5	0.1 <w	1.1 <t	0.4 <t	98	68	21	4000	15	1.5	190	0.2 <w	44	0.5 <w	49
	15354†	lettuce	320	0.2 <w	0.3 <t	13	0.3 <t	1.5 <t	0.2 <w	26	500	2.4 <t	3100	23	0.7 <t	7.3	0.2 <w	67	0.9 <t	41
	15356†*	tomato	5 <w	0.2 <w	0.2 <w	1.3 <t	0.2 <t	0.6 <t	0.2 <w	27	40	48	1600	14	0.2 <w	64	0.2 <w	6.7	0.5 <w	24
5037467 Selma St.	15370	tomato	5 <w	0.2 <w	0.2 <w	1.4 <t	0.1 <w	0.5 <w	0.2 <w	3.6	23 <t	0.5 <w	990	5.2	0.2 <w	4.5	0.2 <w	2.3 <t	0.5 <w	10
5037461 Suzanne St.	15337	beets	65	0.2 <w	0.2 <w	50	0.2 <t	0.5 <w	0.2 <w	13	110	0.7 <t	2700	13	0.2 <w	3.1	0.2 <w	10	0.5 <w	39
	15338*	carrot	57	0.2 <w	0.2 <w	15	0.1 <w	0.5 <w	0.3 <t	9.7	91	40	1800	5.8	0.2 <w	9.6	0.2 <w	9.8	0.5 <w	23
	15339	lettuce	2000	0.2 <w	1.1	30	1.6	4.9	1.9	35	2800	22	6600	110	0.4 <t	26	0.3 <t	46	4.6	110

<w - no measurable amount. <t - trace amount. All results are in µg/g dry wt. All beryllium (Be) results were less than 0.2 µg/g dry wt.
* - possibly contaminated during processing, see Discussion 7.4 for details. † - magnetic particles removed before analysis, see Discussion 7.4 for details.

Table A3.6: Residential garden vegetable results.

Station	Sample No.	Vegetable	Al	Sb	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037462 Suzanne St.	15349	beets	48	0.2 <w	0.2 <w	26	0.2 <t	0.5 <w	0.2 <w	13	84	1.4 <t	3200	12	0.2 <w	2.6	0.2 <w	10	0.5 <w	37
	15342	cucumber	19 <t	0.2 <w	0.2 <w	8.8	0.1 <w	0.8 <t	0.2 <w	16	92	0.5 <w	5000	10	4.2	4.6	0.2 <w	15	0.5 <w	59
	15344	green beans	17 <t	0.2 <w	0.2 <w	5.9	0.1 <w	0.5 <w	0.2 <w	9.1	85	0.5 <w	3000	11	5.7	5.3	0.2 <w	11	0.5 <w	35
	15343†	lettuce	890	0.2 <w	0.4 <t	12	0.3 <t	2.4 <t	0.8 <t	26	1200	2.3 <t	4200	47	0.9 <t	7.6	0.2 <w	20	2.4 <t	33
	15350	potato*	23 <t	0.2 <w	0.2 <w	2.1 <t	0.1 <w	0.5 <w	0.2 <w	8.1	56	67	1500	7.8	0.5 <t	2.1 <t	0.2 <w	2 <t	0.5 <w	29
	15348	Swiss chard	270	0.2 <w	0.2 <w	40	1.1	1.1 <t	0.3 <t	20	360	1.4 <t	13000	41	2.7	5.7	0.2 <w	24	0.6 <t	110
	15347	squash	10 <t	0.2 <w	0.2 <w	2.7 <t	0.1 <w	0.5 <w	0.3 <t	9.8	52	1.7 <t	2700	14	1.5	6.3	0.2 <w	5	0.5 <w	32
	15346	tomato*	5 <w	0.3 <t	0.2 <w	2.5 <t	0.2 <t	0.5 <w	0.2 <w	21	80	260	2000	12	0.4 <t	19	0.2 <w	3.7	0.5 <w	27
	15345	yellow beans	19 <t	0.2 <w	0.2 <w	4.8 <t	0.1 <w	0.5 <w	0.2 <w	11	89	0.5 <w	3100	14	4.5	4.5	0.2 <w	8.6	0.5 <w	37

<w - no measurable amount. <t - trace amount. All results are in µg/g dry wt. All beryllium (Be) results were less than 0.2 µg/g dry wt.
* - possibly contaminated during processing, see Discussion 7.4 for details. † - magnetic particles removed before analysis, see Discussion 7.4 for details.

Table A3.7: Residential garden soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Community of Coniston																						
5037484 1st Ave. (garden)	0-15 cm	15452	7400	< 0.8	< 5	33	< 0.5	< 0.8	2700	20	6	19	8900	4	1900	84	< 1.5	39	< 1	25	20	30
		15453	7400	< 0.8	< 5	33	< 0.5	< 0.8	2600	20	6	19	9000	4	1900	90	< 1.5	39	< 1	25	21	31
5037481 3rd Ave. (garden)	0-15 cm	15444	12000	< 0.8	< 5	76	< 0.5	< 0.8	6500	31	8	55	15000	13	3700	260	< 1.5	**84**	< 1	32	27	40
		15445	12000	< 0.8	< 5	82	< 0.5	< 0.8	7200	33	9	60	15000	13	3900	270	< 1.5	**87**	< 1	34	29	42
5037478 4th Ave. (garden)	0-15 cm	15426	8300	< 0.8	< 5	74	< 0.5	< 0.8	12000	28	6	58	12000	40	3800	300	< 1.5	**65**	< 1	49	26	83
		15427	7600	< 0.8	12	67	< 0.5	< 0.8	11000	23	6	60	12000	35	4300	280	< 1.5	**64**	< 1	39	22	74
5037501 Allan St. (garden)	0-15 cm	15625	8700	< 0.8	13	110	< 0.5	0.8	8900	32	19	**300**	16000	**170**	3100	250	< 1.5	**460**	< 1	42	27	**210**
		15626	8400	< 0.8	13	93	< 0.5	< 0.8	8200	30	19	**310**	15000	**140**	3000	240	< 1.5	**450**	< 1	40	27	**190**
5037503 Allan St. (garden)	0-15 cm	15643	11000	< 0.8	7	60	< 0.5	< 0.8	14000	27	12	**150**	15000	32	4100	240	< 1.5	**210**	< 1	47	29	110
		15644	13000	< 0.8	< 5	80	< 0.5	< 0.8	14000	32	11	**130**	17000	27	4700	270	< 1.5	**160**	< 1	52	34	92
5037506 Caruso St. (garden)	0-15 cm	15654	13000	< 0.8	7	97	< 0.5	< 0.8	21000	39	11	**150**	18000	19	6600	300	< 1.5	**170**	< 1	49	33	98
		15655	14000	< 0.8	6	110	< 0.5	< 0.8	24000	40	11	**160**	18000	20	6600	320	< 1.5	**170**	< 1	53	35	99
5037509 Caruso St. (garden)	0-15 cm	15669	13000	< 0.8	6	71	< 0.5	< 0.8	6600	34	8	73	14000	11	3300	200	< 1.5	**97**	< 1	43	31	31
		15670	13000	< 0.8	6	73	< 0.5	< 0.8	7300	32	8	75	14000	11	3400	210	< 1.5	**95**	< 1	45	32	34
5037473 East St. (garden)	0-15 cm	15396	9600	< 0.8	**18**	70	< 0.5	< 0.8	8900	26	**24**	**400**	17000	61	3200	280	< 1.5	**540**	**2**	43	26	120
		15397	9700	< 0.8	17	72	< 0.5	< 0.8	9000	26	**24**	**380**	18000	48	3100	290	< 1.5	**570**	**2**	43	26	120
5037475 East St. (garden)	0-15 cm	15414	11000	< 0.8	5	56	< 0.5	< 0.8	8700	33	8	67	17000	19	4000	260	< 1.5	**88**	< 1	42	34	64
		15415	10000	< 0.8	< 5	53	< 0.5	< 0.8	7700	32	8	66	15000	17	3900	250	< 1.5	**84**	< 1	37	31	54
5037487 Edward St. (garden)	0-15 cm	15469	11000	< 0.8	19	59	< 0.5	< 0.8	7800	29	15	**270**	16000	47	2800	190	< 1.5	**290**	< 1	39	30	65
		15470	11000	< 0.8	12	52	< 0.5	< 0.8	8800	29	9	**130**	14000	22	2700	190	< 1.5	**150**	< 1	40	33	47

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.7: Residential garden soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037495 Walter Cres (garden)	0-15 cm	15518	10000	< 0.8	9	56	< 0.5	< 0.8	6400	32	9	**100**	20000	13	2900	220	< 1.5	**130**	< 1	39	38	51
		15519	11000	< 0.8	12	57	< 0.5	< 0.8	6000	34	9	**110**	18000	14	2900	230	< 1.5	**150**	< 1	38	38	54
5037498 Walter Cres. (garden)	0-15 cm	15535	13000	< 0.8	< 5	81	< 0.5	< 0.8	8900	37	7	74	17000	22	4300	300	< 1.5	**87**	< 1	51	34	64
		15536	13000	< 0.8	< 5	79	< 0.5	< 0.8	8700	36	7	66	17000	27	4200	280	< 1.5	**83**	< 1	52	34	61
5037490 Walter St. (garden)	0-15 cm	15489	7000	< 0.8	7	120	< 0.5	< 0.8	16000	25	16	**240**	13000	37	3700	250	< 1.5	**350**	< 1	44	21	**180**
		15490	5500	< 0.8	7	110	< 0.5	< 0.8	15000	21	16	**250**	12000	35	3300	240	< 1.5	**350**	< 1	35	18	**170**
5037492 Walter St. (garden)	0-15 cm	15507	9600	< 0.8	< 5	55	< 0.5	< 0.8	11000	29	7	54	14000	12	3900	250	< 1.5	**61**	< 1	39	30	57
		15508	11000	< 0.8	< 5	56	< 0.5	< 0.8	13000	29	7	53	15000	12	3900	260	< 1.5	**60**	< 1	45	31	45
5037644 William Ave. (garden)	0-5 cm	15692	13000	< 0.8	10	99	< 0.5	< 0.8	12000	38	14	**250**	16000	35	4000	270	< 1.5	**340**	< 1	54	33	84
Community of Copper Cliff																						
5037452 Cliff St. (garden)	0-15 cm	15276	12000	0.8	**24**	79	< 0.5	< 0.8	17000	35	**22**	**470**	21000	36	6500	230	1.7	**450**	**12**	43	31	82
		15277	13000	0.8	**23**	84	< 0.5	< 0.8	15000	36	21	**460**	21000	41	5900	230	< 1.5	**430**	**11**	45	33	80
5037445 Cobalt St. (garden)	0-15 cm	15223	12000	0.9	17	70	< 0.5	0.8	7400	30	13	**420**	19000	69	3700	210	< 1.5	**330**	**2**	43	28	84
		15224	11000	< 0.8	16	68	< 0.5	< 0.8	7600	32	15	**470**	17000	77	3900	210	< 1.5	**370**	**2**	43	28	110
5037438 Collins St. (garden)	0-15 cm	15189	11000	**1.4**	**32**	**330**	< 0.5	**1.9**	38000	34	21	**720**	17000	**640**	7100	780	< 1.5	**650**	**2**	160	23	**380**
		15190	10000	**1.5**	**31**	**270**	< 0.5	**1.8**	34000	30	**22**	**660**	17000	**530**	7100	670	< 1.5	**640**	1	130	22	**330**
5037439 Collins St. (garden)	0-15 cm	15184	11000	1	**38**	100	< 0.5	0.9	19000	30	20	**580**	17000	**160**	6100	270	< 1.5	**570**	**2**	53	26	140
		15185	10000	1	**36**	92	< 0.5	0.9	18000	26	21	**520**	17000	**160**	6000	240	< 1.5	**590**	1	48	24	130
5037459 Craig St. (garden)	0-15 cm	15320	13000	< 0.8	11	100	< 0.5	**1.1**	14000	41	21	**730**	19000	78	6000	330	< 1.5	**730**	**3**	50	33	130
		15321	13000	< 0.8	12	110	< 0.5	**1.1**	14000	43	**23**	**820**	20000	71	5600	330	< 1.5	**800**	**3**	52	35	130

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.7: Residential garden soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037448 Creighton Rd. (garden)	0-15 cm	15243	7700	< 0.8	7	61	< 0.5	0.9	9700	20	11	**230**	8700	19	3100	120	< 1.5	**270**	1	35	16	44
		15244	7900	< 0.8	6	65	< 0.5	1	11000	19	11	**260**	8600	19	3000	120	< 1.5	**290**	**2**	39	16	40
5037454 Diorite St. (garden)	0-15 cm	15299	9700	< 0.8	7	40	< 0.5	< 0.8	6800	28	8	**280**	13000	19	3500	170	< 1.5	**200**	**2**	37	29	42
		15300	9200	< 0.8	7	38	< 0.5	< 0.8	6800	27	9	**280**	12000	20	3600	160	< 1.5	**220**	**2**	38	28	41
5037456 Diorite St. (garden)	0-15 cm	15304	11000	< 0.8	9	70	< 0.5	< 0.8	8400	33	18	**740**	16000	51	3800	220	< 1.5	**490**	**4**	35	29	90
		15305	12000	**1.3**	< 5	77	< 0.5	< 0.8	8600	35	21	**680**	17000	53	3800	230	< 1.5	**560**	**4**	42	31	84
5037442 Evans Rd. (garden)	0-15 cm	15206	12000	< 0.8	9	44	< 0.5	< 0.8	6300	27	7	**140**	13000	16	2400	180	< 1.5	**130**	< 1	44	27	33
		15207	11000	< 0.8	9	43	< 0.5	< 0.8	6700	27	7	**150**	13000	16	2400	180	< 1.5	**130**	< 1	44	27	32
5037450 Oliver Cres. (garden)	0-15 cm	15262	11000	0.8	**21**	82	< 0.5	< 0.8	5400	34	15	**340**	18000	**130**	3300	230	< 1.5	**310**	**3**	42	32	89
		15263	11000	< 0.8	**19**	70	< 0.5	< 0.8	5000	31	14	**280**	17000	100	3100	210	< 1.5	**280**	**2**	39	31	78
Community of Falconbridge																						
5037515 HARDY ST. (garden)	0-15 cm	15566	9600	< 0.8	**120**	65	< 0.5	**1.9**	21000	38	**54**	**1100**	26000	120	4800	180	2.3	**1100**	**3**	45	31	150
5037535 Hardy St. (garden)	0-15 cm	15688	9600	**1.2**	**400**	88	< 0.5	**2.8**	12000	**77**	**73**	**1700**	37000	**240**	3500	210	2.5	**1400**	**7**	34	35	140
5037521 Lakeshore Rd. (garden)	0-15 cm	15607	7300	< 0.8	**25**	47	< 0.5	< 0.8	4700	28	16	**230**	14000	22	2400	200	< 1.5	**260**	< 1	28	27	40
		15608	8000	< 0.8	16	48	< 0.5	< 0.8	5600	26	14	**150**	13000	18	2300	180	< 1.5	**210**	< 1	30	24	42
5037568 Lindsley St. (garden)	0-15 cm	15689	7900	0.8	**26**	38	< 0.5	< 0.8	4500	23	**22**	**360**	13000	34	2100	160	< 1.5	**360**	< 1	26	25	45
5037518 Morlock St. (garden)	0-15 cm	15576	11000	< 0.8	**110**	61	< 0.5	**1.7**	7700	49	**44**	**690**	19000	96	2400	140	< 1.5	**960**	**2**	38	27	83
		15577	8800	< 0.8	**86**	52	< 0.5	**1.5**	7900	42	**38**	**640**	16000	82	2400	130	< 1.5	**820**	**2**	32	23	79
5037512 Parkinson St. (garden)	0-15 cm	15549	7900	< 0.8	6	32	< 0.5	< 0.8	2200	22	8	45	9600	7	1600	100	< 1.5	**60**	< 1	19	22	23
		15550	7300	< 0.8	6	32	< 0.5	< 0.8	2300	21	8	45	8700	7	1600	96	< 1.5	**62**	< 1	18	20	23

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table A3.7: Residential garden soil results.

Station	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Community of Gatchell																						
5037432 Clemow Ave. (garden)	0-15 cm	15154	8100	< 0.8	< 5	70	< 0.5	< 0.8	5800	28	9	**140**	14000	23	3700	300	< 1.5	**120**	1	31	25	75
		15155	8200	< 0.8	5	68	< 0.5	< 0.8	5100	28	8	**130**	14000	21	3600	280	< 1.5	**120**	< 1	29	25	65
5037470 Gutcher St. (garden)	0-15 cm	15381	10000	1	11	130	< 0.5	< 0.8	13000	28	12	**250**	16000	86	4400	420	< 1.5	**260**	< 1	52	28	**170**
		15382	10000	1	12	120	< 0.5	< 0.8	12000	28	12	**260**	16000	88	4300	400	< 1.5	**270**	< 1	52	28	180
5037435 Tuddenham St. (garden)	0-15 cm	15166	9900	< 0.8	6	85	< 0.5	< 0.8	6900	35	11	**210**	16000	**130**	4100	260	< 1.5	**190**	1	32	28	87
		15167	7200	< 0.8	6	54	< 0.5	< 0.8	3500	56	15	**440**	14000	51	2700	170	< 1.5	**300**	1	22	25	58
Community of Lively																						
5037465 John St. (garden)	0-15 cm	15358	11000	< 0.8	< 5	94	< 0.5	< 0.8	12000	28	8	**79**	17000	55	5500	320	< 1.5	**80**	< 1	65	33	93
		15359	13000	**1.1**	< 5	110	< 0.5	< 0.8	15000	29	8	**92**	20000	80	6700	340	< 1.5	**91**	< 1	72	35	110
5037467 Selma St.	0-15 cm	15372	21000	< 0.8	7	120	< 0.5	< 0.8	9200	49	8	**110**	22000	28	5600	310	< 1.5	**130**	< 1	48	41	100
5037461 Suzanne St. (garden)	0-15 cm	15340	14000	< 0.8	8	76	< 0.5	< 0.8	9900	32	10	**120**	22000	110	6600	270	< 1.5	**130**	< 1	28	36	110
		15341	18000	< 0.8	9	89	< 0.5	< 0.8	12000	37	11	**110**	25000	93	7000	350	< 1.5	**150**	< 1	49	46	96
5037462 Suzanne St. (garden)	0-15 cm	15351	13000	< 0.8	< 5	60	< 0.5	< 0.8	7700	29	8	61	19000	35	4200	280	< 1.5	**74**	< 1	40	37	76
		15352	15000	< 0.8	< 5	76	< 0.5	< 0.8	8500	33	8	60	20000	34	4400	310	< 1.5	**73**	< 1	45	42	97

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

4. SAMPLING STATION COORDINATES AND MAPS

Table A4: Coordinates of the 2001 Greater Sudbury Survey Residential Sampling Sites
(All coordinates are rounded to the nearest 100 metres)

Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5028001	Charlotte St.	Sudbury (Core)	back yard	17	499100	5146900	46.4759	-81.0120
5028002	Granite St.	Sudbury (Core)	back yard	17	499100	5149700	46.5006	-81.0114
5028003	Mckim St.	Sudbury (Core)	back yard	17	499000	5149600	46.5002	-81.0131
5028004	Mckim St.	Sudbury (Core)	back yard	17	499100	5149600	46.5003	-81.0114
5028005	Mckim St.	Sudbury (Core)	back yard	17	499300	5149600	46.4998	-81.0087
5028006	Moland St.	Sudbury (Core)	back yard	17	498400	5148400	46.4895	-81.0202
5028007	Kennedy St.	Sudbury (New)	front yard	17	504500	5152300	46.5240	-80.9415
5028008	Lamothe St.	Sudbury (New)	front yard	17	504900	5152500	46.5258	-80.9355
5028009	Madison Ave.	Sudbury (New)	front yard	17	505200	5152800	46.5288	-80.9317
5028010	Haven Brook Dr.	Sudbury (New)	front yard	17	505100	5153400	46.5341	-80.9330
5028011	Madison Ave.	Sudbury (New)	front yard	17	505700	5153000	46.5304	-80.9251
5028012	Colonial Cres.	Sudbury (New)	back yard	17	505600	5152500	46.5258	-80.9266
5028013	San Fransciso St.	Sudbury (New)	front yard	17	506600	5152200	46.5238	-80.9138
5028014	Josephine St.	Sudbury (New)	back yard	17	506200	5152600	46.5269	-80.9190
5028015	Robin St.	Sudbury (New)	back yard	17	506100	5153300	46.5333	-80.9199
5028016	Eastern Ave.	Sudbury (New)	back yard	17	506600	5153100	46.5315	-80.9143
5028017	Lasalle Blvd	Sudbury (New)	front yard	17	506900	5152100	46.5220	-80.9100
5028018	Meadowside Ave.	Sudbury (New)	front yard	17	506100	5151600	46.5182	-80.9209
5028019	Auger Ave.	Sudbury (New)	back yard	17	505200	5151000	46.5127	-80.9327
5028020	Claudia C0urt	Sudbury (New)	front yard	17	505300	5151700	46.5189	-80.9304
5028021	Danforth Ave.	Sudbury (New)	back yard	17	504900	5151400	46.5159	-80.9359
5028022	Kipling Crt.	Sudbury (New)	front yard	17	504800	5151000	46.5121	-80.9378
5028023	Canterbury St.	Sudbury (New)	front yard	17	504700	5151100	46.5138	-80.9383
5028024	Elmhurst Crt.	Sudbury (New)	front yard	17	504600	5150500	46.5079	-80.9404
5028025	Fairburn St.	Sudbury (New)	front yard	17	504400	5151500	46.5172	-80.9427
5028026	Ferndale Ave.	Sudbury (East)	front yard	17	502800	5149500	46.4988	-80.9639
5028027	Dundas St.	Sudbury (East)	back yard	17	503100	5149300	46.4973	-80.9602
5028028	Clearview Ave.	Sudbury (East)	back yard	17	502800	5149200	46.4965	-80.9633
5028029	Bancroft Dr.	Sudbury (East)	front yard	17	503300	5149100	46.4954	-80.9567
5028030	Mooney St	Sudbury (East)	front yard	17	503800	5148600	46.4906	-80.9506
5028031	Dale St.	Sudbury (East)	back yard	17	503400	5148300	46.4879	-80.9556
5028032	Howey Dr.	Sudbury (East)	back yard	17	503000	5148500	46.4901	-80.9604
5028033	North Shore Dr.	Sudbury (East)	front yard	17	503200	5148200	46.4877	-80.9583
5028034	Harrison Dr.	Sudbury (South)	front yard	17	499400	5143000	46.4405	-81.0072
5028035	Ester St.	Sudbury (South)	front yard	17	499000	5143400	46.4440	-81.0126
5028036	St. Charles Lake Rd.	Sudbury (South)	back yard	17	499500	5143700	46.4472	-81.0071
5028037	Moonrock Ave.	Sudbury (South)	back yard	17	498900	5144300	46.4525	-81.0143
5028038	Jupiter Cres.	Sudbury (South)	back yard	17	499000	5144600	46.4549	-81.0126
5028039	Maki Ave.	Sudbury (South)	front yard	17	500300	5144800	46.4566	-80.9959
5028040	Nepahwin Ave.	Sudbury (South)	front yard	17	500700	5145500	46.4627	-80.9910
5028041	10th Ave.	Lively	back yard	17	488800	5143100	46.4411	-81.1457
5028042	8th Ave.	Lively	front yard	17	489200	5143100	46.4416	-81.1412
5028043	Birch St.	Lively	back yard	17	489500	5143100	46.4417	-81.1364
5028044	6th Ave.	Lively	back yard	17	489100	5142800	46.4383	-81.1417
5028045	9th Ave.	Lively	back yard	17	488800	5142800	46.4390	-81.1455
5028046	Margaret Ave.	Lively	front yard	17	488600	5142600	46.4371	-81.1485
5028047	Third Ave.	Lively	front yard	17	488600	5142300	46.4343	-81.1481
5028048	Woodland Ave.	Lively	front yard	17	488400	5142200	46.4332	-81.1514
5028049	Irene Cres.	Lively	back yard	17	488400	5141700	46.4290	-81.1510
5028050	Second Ave.	Lively	front yard	17	488900	5142200	46.4337	-81.1443
5028051	Ronald Cres.	Lively	front yard	17	489000	5139700	46.4111	-81.1426

Table A4: Coordinates of the 2001 Greater Sudbury Survey Residential Sampling Sites
(All coordinates are rounded to the nearest 100 metres)

Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5028052	Jacobson Dr.	Lively	back yard	17	489300	5141100	46.4230	-81.1395
5028053	Agnes St.	Lively	front yard	17	488500	5140000	46.4134	-81.1498
5028054	Westview Cres.	Lively	front yard	17	489900	5140900	46.4219	-81.1318
5028055	Patricia St.	Lively	front yard	17	490400	5140900	46.4216	-81.1255
5028056	Field St.	Lively	front yard	17	490200	5140600	46.4185	-81.1271
5028057	Lvi Ave.	Lively	back yard	17	490600	5141100	46.4231	-81.1229
5028058	Laura Ave.	Lively	back yard	17	490900	5141000	46.4228	-81.1182
5028059	Birch St.	Azilda	front yard	17	492600	5154700	46.5461	-81.0969
5028060	Oak St.	Azilda	back yard	17	492500	5154400	46.5435	-81.0977
5028061	Laurin St.	Azilda	front yard	17	492200	5154900	46.5477	-81.1020
5028062	Albert St.	Azilda	back yard	17	491800	5154400	46.5429	-81.1074
5028063	Alphonse St.	Azilda	front yard	17	491600	5154900	46.5475	-81.1100
5028064	Ulin St.	Azilda	front yard	17	491500	5155200	46.5506	-81.1103
5028065	Brunet St.	Azilda	back yard	17	491100	5155200	46.5499	-81.1160
5028066	Ellen St.	Azilda	front yard	17	490700	5155200	46.5502	-81.1209
5028067	Paul St.	Azilda	front yard	17	490400	5155300	46.5508	-81.1253
5028068	Wahamaa St.	Azilda	front yard	17	489900	5154400	46.5428	-81.1314
5028069	Rayside Ave.	Azilda	back yard	17	490400	5155500	46.5526	-81.1257
5028070	Notre Dame St.	Azilda	front yard	17	490400	5155900	46.5570	-81.1255
5028071	Paquette St.	Azilda	back yard	17	491000	5155700	46.5552	-81.1174
5028072	Denis Crt.	Azilda	back yard	17	491100	5156400	46.5609	-81.1161
5028073	Belanger St.	Azilda	back yard	17	489400	5156600	46.5633	-81.1390
5028074	Gennings St.	Sudbury (South)	back yard	17	503300	5147200	46.4786	-80.9567
5028075	Kirkwood Dr.	Sudbury (South)	back yard	17	503100	5147400	46.4806	-80.9597
5028076	Lakewood Dr.	Sudbury (South)	front yard	17	503200	5146200	46.4693	-80.9587
5028077	Ramsey Lake Rd.	Sudbury (South)	front yard	17	501200	5146100	46.4687	-80.9845
5028078	Woodlawn Rd.	Sudbury (South)	front yard	17	502700	5147200	46.4788	-80.9655
5028079	Gary Ave.	Sudbury (New)	front yard	17	505900	5152200	46.5233	-80.9236
5028080	Turner Ave.	Sudbury (New)	back yard	17	501300	5152500	46.5257	-80.9835
5028081	Gordon Ave.	Sudbury (New)	back yard	17	501200	5152000	46.5220	-80.9848
5028082	Mclean St.	Sudbury (New)	back yard	17	501700	5152000	46.5214	-80.9779
5028083	Alexander St.	Sudbury (New)	back yard	17	502000	5151600	46.5183	-80.9738
5028084	Madeleine Ave.	Sudbury (New)	back yard	17	502300	5152000	46.5219	-80.9698
5028085	Lavoie St.	Sudbury (New)	back yard	17	502700	5152200	46.5235	-80.9643
5028086	Grandview Blvd.	Sudbury (New)	back yard	17	502300	5152500	46.5261	-80.9700
5028087	Inglewood Crt	Sudbury (New)	back yard	17	502600	5152600	46.5265	-80.9657
5028088	Montrose Ave.	Sudbury (New)	back yard	17	502800	5152000	46.5219	-80.9629
5028089	Wedgewood Dr.	Sudbury (New)	back yard	17	503200	5152600	46.5266	-80.9580
5028090	Craig St.	Copper Cliff	front yard	17	495200	5147400	46.4804	-81.0626
5028091	Craig St.	Copper Cliff	back yard	17	495100	5147500	46.4814	-81.0633
5028092	Diorite	Copper Cliff	front yard	17	495000	5147300	46.4791	-81.0645
5028093	Bradley	Copper Cliff	back yard	17	495100	5147000	46.4761	-81.0644
5028102	Orell St.	Garson	front yard	17	510300	5155800	46.5553	-80.8659
5028103	Orell St.	Garson	back yard	17	510200	5156100	46.5586	-80.8667
5028104	Desjardins St.	Garson	back yard	17	510200	5156300	46.5606	-80.8663
5028105	Cedar St.	Garson	front yard	17	510300	5156700	46.5640	-80.8656
5028106	Yonge St.	Garson	front yard	17	510700	5156500	46.5620	-80.8598
5028107	Mcdougall St.	Garson	front yard	17	510800	5156700	46.5636	-80.8592
5028108	Penman Ave.	Garson	back yard	17	509800	5154600	46.5448	-80.8722
5028109	Sandra St.	Garson	front yard	17	509900	5155100	46.5495	-80.8713
5028110	Catherine Dr.	Garson	back yard	17	510600	5155400	46.5517	-80.8621
5028111	Maureen St.	Garson	back yard	17	511000	5154700	46.5454	-80.8569
5028112	Donnelly Dr.	Garson	front yard	17	507500	5154400	46.5432	-80.9022

Table A4: Coordinates of the 2001 Greater Sudbury Survey Residential Sampling Sites
(All coordinates are rounded to the nearest 100 metres)

Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5028113	Cedargreen Dr.	Garson	front yard	17	507900	5154800	46.5467	-80.8966
5028114	Metcalfe Ave.	Garson	front yard	17	508500	5154800	46.5464	-80.8888
5028115	Metcalfe Ave.	Garson	front yard	17	508500	5155000	46.5486	-80.8890
5028116	Pilotte Rd.	Garson	front yard	17	508700	5154800	46.5470	-80.8862
5028117	Eva St.	Garson	front yard	17	509300	5155100	46.5498	-80.8793
5028118	Bowlands Bay Rd.	Skead	front yard	17	517900	5166600	46.6526	-80.7658
5028119	Maclennan Dr.	Skead	front yard	17	519200	5168900	46.6729	-80.7489
5028120	Canton Rd.	Skead	front yard	17	519300	5168900	46.6736	-80.7477
5028121	Kevin Dr.	Skead	back yard	17	519400	5169100	46.6756	-80.7464
5028122	Landing Rd.	Skead	front yard	17	519300	5170000	46.6831	-80.7477
5028123	Cottage Lane	Skead	front yard	17	519700	5169900	46.6827	-80.7419
5037432	Clemow Ave.	Gatchell	garden	17	498100	5147100	46.4777	-81.0245
5037433	Tuddenham St.	Gatchell	front yard	17	498000	5149600	46.5002	-81.0267
5037434	Tuddenham St.	Gatchell	back yard	17	498000	5146900	46.4760	-81.0264
5037435	Tuddenham St.	Gatchell	garden	17	498000	5147000	46.4761	-81.0262
5037436	Collins St.	Copper Cliff	front yard	17	494700	5146500	46.4720	-81.0692
5037437	Collins St.	Copper Cliff	back yard	17	494700	5146500	46.4721	-81.0695
5037438	Collins St.	Copper Cliff	garden	17	494700	5146500	46.4720	-81.0693
5037439	Collins St.	Copper Cliff	garden	17	494700	5146500	46.4721	-81.0695
5037440	Evans Rd.	Copper Cliff	front yard	17	494800	5146200	46.4689	-81.0683
5037441	Evans Rd.	Copper Cliff	back yard	17	494800	5146200	46.4691	-81.0681
5037442	Evans Rd.	Copper Cliff	garden	17	494800	5146200	46.4691	-81.0681
5037443	Cobalt St.	Copper Cliff	front yard	17	494400	5146700	46.4735	-81.0729
5037444	Cobalt St.	Copper Cliff	back yard	17	494400	5146700	46.4735	-81.0730
5037445	Cobalt St.	Copper Cliff	garden	17	494400	5146700	46.4735	-81.0731
5037446	Creighton Rd.	Copper Cliff	front yard	17	494300	5146800	46.4752	-81.0747
5037447	Creighton Rd.	Copper Cliff	back yard	17	494300	5146900	46.4752	-81.0748
5037448	Creighton Rd.	Copper Cliff	garden	17	494300	5146900	46.4752	-81.0747
5037449	Oliver Cres.	Copper Cliff	back yard	17	494600	5147300	46.4796	-81.0702
5037450	Oliver Cres.	Copper Cliff	garden	17	494600	5147300	46.4796	-81.0703
5037451	Cliff St.	Copper Cliff	back yard	17	494800	5147500	46.4813	-81.0676
5037452	Cliff St.	Copper Cliff	garden	17	494800	5147500	46.4813	-81.0676
5037453	Diorite St.	Copper Cliff	back yard	17	495000	5147300	46.4790	-81.0652
5037454	Diorite St.	Copper Cliff	garden	17	495000	5147300	46.4791	-81.0653
5037455	Diorite St.	Copper Cliff	back yard	17	495300	5147400	46.4802	-81.0611
5037456	Diorite St.	Copper Cliff	garden	17	495300	5147400	46.4802	-81.0612
5037457	Craig St.	Copper Cliff	front yard	17	495200	5147600	46.4816	-81.0630
5037458	Craig St.	Copper Cliff	back yard	17	495200	5147600	46.4817	-81.0628
5037459	Craig St.	Copper Cliff	garden	17	495200	5147600	46.4817	-81.0627
5037460	Suzanne St.	Lively	front yard	17	487800	5144200	46.4515	-81.1587
5037461	Suzanne St.	Lively	garden	17	487800	5144200	46.4515	-81.1584
5037462	Suzanne St.	Lively	garden	17	487800	5144200	46.4515	-81.1584
5037463	John St.	Lively	front yard	17	487900	5144300	46.4518	-81.1573
5037464	John St.	Lively	back yard	17	487900	5144300	46.4517	-81.1574
5037465	John St.	Lively	garden	17	487900	5144200	46.4517	-81.1575
5037466	Selma St.	Lively	front yard	17	488000	5144200	46.4510	-81.1558
5037467	Selma St.	Lively	garden	17	488000	5144200	46.4510	-81.1559
5037468	Gutcher St.	Gatchell	front yard	17	498300	5147000	46.4763	-81.0221
5037469	Gutcher St.	Gatchell	back yard	17	498300	5147000	46.4765	-81.0219
5037470	Gutcher St.	Gatchell	garden	17	498300	5147000	46.4765	-81.0219
5037471	East St.	Coniston	front yard	17	512700	5148400	46.4893	-80.8349
5037472	East St.	Coniston	back yard	17	512700	5148400	46.4895	-80.8346
5037473	East St.	Coniston	garden	17	512700	5148400	46.4891	-80.8346

Table A4: Coordinates of the 2001 Greater Sudbury Survey Residential Sampling Sites
(All coordinates are rounded to the nearest 100 metres)

Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5037474	East St.	Coniston	back yard	17	512500	5148600	46.4912	-80.8376
5037475	East St.	Coniston	garden	17	512500	5148700	46.4913	-80.8374
5037476	4th Ave.	Coniston	front yard	17	511900	5148700	46.4920	-80.8444
5037477	4th Ave.	Coniston	back yard	17	512000	5148700	46.4920	-80.8441
5037478	4th Ave.	Coniston	garden	17	512000	5148700	46.4920	-80.8440
5037479	3rd Ave.	Coniston	front yard	17	511800	5148500	46.4899	-80.8459
5037480	3rd Ave.	Coniston	back yard	17	511800	5148500	46.4899	-80.8462
5037481	3rd Ave.	Coniston	garden	17	511800	5148500	46.4899	-80.8462
5037482	First Ave.	Coniston	front yard	17	511600	5148300	46.4885	-80.8486
5037483	First Ave.	Coniston	back yard	17	511600	5148300	46.4885	-80.8483
5037484	First Ave.	Coniston	garden	17	511600	5148300	46.4885	-80.8482
5037485	Edward St.	Coniston	front yard	17	511500	5148700	46.4915	-80.8499
5037486	Edward St.	Coniston	back yard	17	511500	5148700	46.4915	-80.8501
5037487	Edward St.	Coniston	garden	17	511500	5148700	46.4915	-80.8502
5037488	Walter St.	Coniston	front yard	17	511400	5148000	46.4853	-80.8518
5037489	Walter St.	Coniston	back yard	17	511400	5148000	46.4851	-80.8518
5037490	Walter St.	Coniston	garden	17	511400	5148000	46.4851	-80.8519
5037491	Walter St.	Coniston	front yard	17	511200	5148000	46.4852	-80.8547
5037492	Walter St.	Coniston	garden	17	511100	5148000	46.4852	-80.8549
5037493	Walter Cres.	Coniston	front yard	17	511200	5147800	46.4836	-80.8540
5037494	Walter Cres.	Coniston	back yard	17	511200	5147800	46.4835	-80.8542
5037495	Walter Cres.	Coniston	garden	17	511200	5147800	46.4835	-80.8544
5037496	Walter Cres.	Coniston	front yard	17	511300	5147800	46.4833	-80.8528
5037497	Walter Cres.	Coniston	back yard	17	511300	5147800	46.4835	-80.8528
5037498	Walter Cres.	Coniston	garden	17	511300	5147800	46.4835	-80.8528
5037499	Allan St.	Coniston	front yard	17	511400	5148100	46.4864	-80.8511
5037500	Allan St.	Coniston	back yard	17	511400	5148100	46.4866	-80.8511
5037501	Allan St.	Coniston	garden	17	511400	5148100	46.4866	-80.8510
5037502	Allan St.	Coniston	back yard	17	511000	5148100	46.4864	-80.8567
5037503	Allan St.	Coniston	garden	17	511000	5148100	46.4864	-80.8567
5037504	Caruso St.	Coniston	front yard	17	510900	5148200	46.4869	-80.8580
5037505	Caruso St.	Coniston	back yard	17	510900	5148100	46.4867	-80.8580
5037506	Caruso St.	Coniston	garden	17	510900	5148100	46.4866	-80.8580
5037507	Caruso St.	Coniston	front yard	17	511000	5148200	46.4870	-80.8566
5037508	Caruso St.	Coniston	back yard	17	511000	5148200	46.4871	-80.8566
5037509	Caruso St.	Coniston	garden	17	511000	5148200	46.4872	-80.8566
5037510	Parkinson St.	Falconbridge	front yard	17	514500	5158000	46.5753	-80.8109
5037511	Parkinson St.	Falconbridge	back yard	17	514500	5158000	46.5754	-80.8108
5037512	Parkinson St.	Falconbridge	garden	17	514500	5158000	46.5754	-80.8108
5037513	Hardy St.	Falconbridge	front yard	17	514600	5158100	46.5762	-80.8094
5037514	Hardy St.	Falconbridge	back yard	17	514600	5158100	46.5761	-80.8097
5037515	Hardy St.	Falconbridge	garden	17	514600	5158100	46.5761	-80.8096
5037516	Morlock St.	Falconbridge	front yard	17	514600	5158000	46.5756	-80.8097
5037517	Morlock St.	Falconbridge	back yard	17	514600	5158000	46.5756	-80.8095
5037518	Morlock St.	Falconbridge	garden	17	514600	5158000	46.5756	-80.8094
5037519	Lakeshore Rd.	Falconbridge	front yard	17	514700	5158000	46.5750	-80.8084
5037520	Lakeshore Rd.	Falconbridge	back yard	17	514700	5157900	46.5748	-80.8081
5037521	Lakeshore Rd.	Falconbridge	garden	17	514700	5157900	46.5748	-80.8080
5037522	Macdonnell	Falconbridge	front yard	17	514300	5157900	46.5746	-80.8128
5037523	Macdonnell	Falconbridge	back yard	17	514400	5157900	46.5747	-80.8126
5037524	Bennett	Falconbridge	front yard	17	514300	5157800	46.5738	-80.8132
5037525	Bennett	Falconbridge	back yard	17	514300	5157800	46.5739	-80.8131
5037526	Hodge St.	Falconbridge	front yard	17	514300	5157700	46.5726	-80.8128

Table A4: Coordinates of the 2001 Greater Sudbury Survey Residential Sampling Sites
(All coordinates are rounded to the nearest 100 metres)

Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5037527	Hodge St.	Falconbridge	back yard	17	514300	5157700	46.5727	-80.8127
5037528	Lakeshore	Falconbridge	front yard	17	514400	5157700	46.5725	-80.8126
5037529	Lakeshore	Falconbridge	back yard	17	514400	5157700	46.5725	-80.8125
5037530	Lakeshore	Falconbridge	front yard	17	514400	5157700	46.5730	-80.8116
5037531	Lakeshore	Falconbridge	back yard	17	514400	5157700	46.5730	-80.8117
5037532	Lakeshore	Falconbridge	front yard	17	514700	5158000	46.5754	-80.8082
5037533	Hardy	Falconbridge	front yard	17	514600	5158100	46.5762	-80.8090
5037534	Hardy	Falconbridge	front yard	17	514600	5158100	46.5760	-80.8089
5037535	Hardy	Falconbridge	garden	17	514600	5158100	46.5763	-80.8089
5037536	Rix St.	Falconbridge	front yard	17	514400	5158000	46.5753	-80.8119
5037537	Rix St.	Falconbridge	back yard	17	514400	5158000	46.5752	-80.8120
5037538	Edison Rd.	Falconbridge	front yard	17	514000	5158200	46.5776	-80.8167
5037539	Edison Rd.	Falconbridge	back yard	17	514000	5158300	46.5777	-80.8169
5037540	Edison	Falconbridge	front yard	17	514000	5158200	46.5773	-80.8170
5037541	Edison	Falconbridge	back yard	17	514000	5158200	46.5774	-80.8173
5037542	Chesser	Falconbridge	front yard	17	514200	5158100	46.5763	-80.8150
5037543	Chesser	Falconbridge	back yard	17	514200	5158100	46.5763	-80.8148
5037544	Cobalt St.	Falconbridge	front yard	17	514100	5158000	46.5757	-80.8155
5037545	Cobalt St.	Falconbridge	back yard	17	514100	5158000	46.5756	-80.8155
5037546	Cobalt St.	Falconbridge	front yard	17	514200	5158100	46.5759	-80.8146
5037547	Cobalt St.	Falconbridge	back yard	17	514200	5158100	46.5761	-80.8146
5037548	Franklin St.	Falconbridge	front yard	17	514300	5158000	46.5754	-80.8140
5037549	Franklin St.	Falconbridge	back yard	17	514200	5158000	46.5754	-80.8143
5037550	Franklin St.	Falconbridge	front yard	17	514300	5158100	46.5763	-80.8139
5037551	Franklin St.	Falconbridge	back yard	17	514300	5158100	46.5763	-80.8136
5037552	Rix St.	Falconbridge	front yard	17	514400	5158000	46.5757	-80.8127
5037553	Rix St.	Falconbridge	back yard	17	514400	5158000	46.5758	-80.8125
5037554	Rix St.	Falconbridge	front yard	17	514300	5158200	46.5773	-80.8129
5037555	Rix St.	Falconbridge	back yard	17	514400	5158200	46.5773	-80.8126
5037556	Copper St.	Falconbridge	front yard	17	514200	5158000	46.5751	-80.8148
5037557	Copper St.	Falconbridge	back yard	17	514200	5158000	46.5752	-80.8148
5037558	Parkinson St.	Falconbridge	front yard	17	514400	5158100	46.5763	-80.8117
5037559	Parkinson St.	Falconbridge	back yard	17	514400	5158100	46.5763	-80.8115
5037560	Parkinson	Falconbridge	front yard	17	514400	5158100	46.5767	-80.8119
5037561	Parkinson	Falconbridge	back yard	17	514400	5158100	46.5767	-80.8121
5037562	Lindsley	Falconbridge	front yard	17	514400	5158200	46.5774	-80.8121
5037563	Lindsley	Falconbridge	back yard	17	514400	5158200	46.5773	-80.8121
5037564	Lindsley St.	Falconbridge	front yard	17	514300	5158300	46.5779	-80.8135
5037565	Lindsley St.	Falconbridge	back yard	17	514300	5158300	46.5781	-80.8135
5037566	Lindsley St.	Falconbridge	front yard	17	514200	5158300	46.5777	-80.8146
5037567	Lindsley St.	Falconbridge	back yard	17	514200	5158200	46.5775	-80.8146
5037568	Lindsley St	Falconbridge	garden	17	514200	5158200	46.5775	-80.8146
5037569	Lindsley St. E	Falconbridge	front yard	17	514100	5158300	46.5781	-80.8154
5037570	Macdonnell	Falconbridge	front yard	17	514400	5157900	46.5742	-80.8124
5037571	Macdonnell	Falconbridge	back yard	17	514400	5157900	46.5742	-80.8125
5037572	Lakeshore	Falconbridge	front yard	17	514400	5157700	46.5726	-80.8118
5037573	Lakeshore	Falconbridge	back yard	17	514400	5157700	46.5724	-80.8117
5037574	Hodge St.	Falconbridge	front yard	17	514300	5157700	46.5723	-80.8128
5037575	Hodge St.	Falconbridge	back yard	17	514300	5157600	46.5722	-80.8130
5037576	Bennett St.	Falconbridge	front yard	17	514400	5157700	46.5731	-80.8123
5037577	Bennett St.	Falconbridge	back yard	17	514400	5157700	46.5730	-80.8125
5037578	Lakeshore	Falconbridge	front yard	17	514500	5157800	46.5732	-80.8112
5037579	Lakeshore	Falconbridge	back yard	17	514500	5157800	46.5733	-80.8114

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Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5037580	Parkinson St.	Falconbridge	front yard	17	514600	5157900	46.5744	-80.8097
5037581	Parkinson St.	Falconbridge	back yard	17	514600	5157900	46.5743	-80.8099
5037582	Morlock St.	Falconbridge	front yard	17	514600	5158000	46.5754	-80.8096
5037583	Morlock St.	Falconbridge	back yard	17	514600	5158000	46.5754	-80.8097
5037584	Parkinson St.	Falconbridge	front yard	17	514500	5158000	46.5753	-80.8109
5037585	Parkinson St.	Falconbridge	back yard	17	514500	5158000	46.5753	-80.8108
5037586	Edison	Falconbridge	front yard	17	514300	5158500	46.5798	-80.8128
5037587	Edison	Falconbridge	back yard	17	514300	5158500	46.5800	-80.8130
5037588	Lindsley	Falconbridge	front yard	17	514000	5158300	46.5785	-80.8177
5037589	Lindsley	Falconbridge	back yard	17	514000	5158400	46.5787	-80.8176
5037590	Lindsley	Falconbridge	front yard	17	513900	5158500	46.5798	-80.8180
5037591	Lindsley	Falconbridge	back yard	17	513900	5158500	46.5798	-80.8183
5037592	Lindsley	Falconbridge	front yard	17	514000	5158600	46.5808	-80.8171
5037593	Lindsley	Falconbridge	back yard	17	514000	5158600	46.5809	-80.8173
5037594	Hillcres.t	Falconbridge	front yard	17	514100	5158500	46.5797	-80.8159
5037595	Hillcres.t	Falconbridge	back yard	17	514100	5158500	46.5799	-80.8159
5037596	Lindsley	Falconbridge	front yard	17	513900	5158400	46.5793	-80.8183
5037597	Lindsley	Falconbridge	back yard	17	513900	5158400	46.5792	-80.8181
5037598	Copper St.	Falconbridge	front yard	17	514100	5157900	46.5749	-80.8155
5037599	Copper St.	Falconbridge	back yard	17	514100	5158000	46.5750	-80.8155
5037600	Macmillian	Falconbridge	front yard	17	514100	5158100	46.5761	-80.8159
5037601	Macmillian	Falconbridge	back yard	17	514100	5158100	46.5761	-80.8156
5037602	Morlock	Falconbridge	front yard	17	514600	5158000	46.5753	-80.8095
5037603	Morlock	Falconbridge	back yard	17	514600	5158000	46.5752	-80.8096
5037604	Morlock St.	Falconbridge	front yard	17	514600	5158000	46.5752	-80.8093
5037605	Morlock St.	Falconbridge	back yard	17	514600	5158000	46.5751	-80.8094
5037606	Hardy	Falconbridge	front yard	17	514700	5158000	46.5757	-80.8087
5037607	Hardy	Falconbridge	back yard	17	514600	5158000	46.5755	-80.8089
5037608	Lakeshore	Falconbridge	front yard	17	514500	5157800	46.5735	-80.8106
5037609	Lakeshore	Falconbridge	back yard	17	514500	5157800	46.5733	-80.8104
5037610	Lakeshore	Falconbridge	front yard	17	514600	5157900	46.5746	-80.8093
5037611	Lakeshore	Falconbridge	back yard	17	514600	5157900	46.5747	-80.8094
5037612	Rix	Falconbridge	front yard	17	514500	5157900	46.5743	-80.8110
5037613	Rix	Falconbridge	back yard	17	514500	5157900	46.5742	-80.8112
5037614	Macdonnell	Falconbridge	front yard	17	514400	5157800	46.5737	-80.8118
5037615	Macdonnell	Falconbridge	back yard	17	514400	5157800	46.5736	-80.8120
5037630	Oak St.	Coniston	front yard	17	511400	5147000	46.4764	-80.8521
5037631	Oak St.	Coniston	back yard	17	511400	5147000	46.4764	-80.8519
5037632	Oak St.	Coniston	back yard	17	511400	5147200	46.4781	-80.8511
5037633	Oak St.	Coniston	back yard	17	511400	5147200	46.4782	-80.8511
5037634	Oak St.	Coniston	front yard	17	511400	5147300	46.4789	-80.8512
5037635	Oak St.	Coniston	back yard	17	511400	5147300	46.4789	-80.8514
5037636	Edward St.	Coniston	front yard	17	511500	5147300	46.4788	-80.8500
5037637	Edward St.	Coniston	back yard	17	511500	5147300	46.4788	-80.8502
5037638	William Ave.	Coniston	front yard	17	511400	5147600	46.4819	-80.8510
5037639	William St.	Coniston	back yard	17	511500	5147600	46.4819	-80.8507
5037640	William	Coniston	front yard	17	511400	5147600	46.4817	-80.8511
5037641	William	Coniston	back yard	17	511400	5147600	46.4817	-80.8513
5037642	William	Coniston	front yard	17	511400	5147600	46.4823	-80.8511
5037643	William	Coniston	back yard	17	511400	5147600	46.4823	-80.8514
5037644	William	Coniston	garden	17	511400	5147700	46.4824	-80.8514
5037645	William	Coniston	front yard	17	511400	5147800	46.4838	-80.8511
5037646	William	Coniston	back yard	17	511400	5147800	46.4838	-80.8514

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Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5037647	Nickel	Coniston	front yard	17	511400	5147900	46.4845	-80.8521
5037648	Nickel	Coniston	back yard	17	511400	5147900	46.4847	-80.8521
5037649	5th Ave.	Coniston	front yard	17	512000	5148600	46.4912	-80.8430
5037650	5th Ave.	Coniston	back yard	17	512000	5148600	46.4912	-80.8430
5037651	4th Ave.	Coniston	front yard	17	511900	5148500	46.4897	-80.8445
5037652	4th Ave.	Coniston	back yard	17	511900	5148500	46.4897	-80.8447
5037653	4th Ave.	Coniston	front yard	17	511900	5148600	46.4907	-80.8445
5037654	4th Ave.	Coniston	back yard	17	511900	5148600	46.4907	-80.8447
5037655	4th Ave.	Coniston	front yard	17	512000	5148600	46.4907	-80.8442
5037656	4th Ave.	Coniston	back yard	17	512000	5148600	46.4907	-80.8439
5037657	3rd Ave.	Coniston	front yard	17	511800	5148700	46.4913	-80.8460
5037658	3rd Ave.	Coniston	back yard	17	511800	5148700	46.4913	-80.8462
5037659	3rd Ave.	Coniston	front yard	17	511800	5148700	46.4915	-80.8462
5037660	3rd Ave.	Coniston	back yard	17	511800	5148700	46.4915	-80.8464
5037661	3rd Ave.	Coniston	front yard	17	511800	5148500	46.4903	-80.8460
5037662	3rd Ave.	Coniston	back yard	17	511800	5148500	46.4903	-80.8463
5037663	3rd Ave.	Coniston	front yard	17	511800	5148500	46.4902	-80.8457
5037664	3rd Ave.	Coniston	back yard	17	511900	5148500	46.4902	-80.8454
5037665	3rd Ave.	Coniston	front yard	17	511800	5148400	46.4894	-80.8456
5037666	3rd Ave.	Coniston	back yard	17	511900	5148400	46.4894	-80.8454
5037667	2nd Ave.	Coniston	front yard	17	511700	5148500	46.4903	-80.8474
5037668	2nd Ave.	Coniston	back yard	17	511700	5148500	46.4903	-80.8476
5037669	2nd Ave.	Coniston	front yard	17	511700	5148500	46.4903	-80.8472
5037670	2nd Ave.	Coniston	back yard	17	511700	5148500	46.4903	-80.8470
5037671	2nd Ave.	Coniston	front yard	17	511700	5148600	46.4908	-80.8472
5037672	2nd Ave.	Coniston	back yard	17	511700	5148600	46.4908	-80.8475
5037673	Spruce	Coniston	front yard	17	511700	5148700	46.4914	-80.8476
5037674	Spruce	Coniston	back yard	17	511700	5148700	46.4914	-80.8479
5037675	2nd Ave.	Coniston	front yard	17	511700	5148600	46.4911	-80.8471
5037676	2nd Ave.	Coniston	back yard	17	511800	5148600	46.4912	-80.8466
5037677	1st Ave.	Coniston	front yard	17	511600	5148700	46.4919	-80.8488
5037678	1st Ave.	Coniston	back yard	17	511600	5148700	46.4919	-80.8490
5037679	1st Ave.	Coniston	front yard	17	511600	5148500	46.4902	-80.8485
5037680	1st Ave.	Coniston	back yard	17	511600	5148500	46.4902	-80.8483
5037681	1st Ave.	Coniston	front yard	17	511600	5148500	46.4898	-80.8486
5037682	1st Ave.	Coniston	side yard	17	511600	5148500	46.4898	-80.8483
5037683	1st Ave.	Coniston	front yard	17	511600	5148300	46.4885	-80.8487
5037684	1st Ave.	Coniston	back yard	17	511600	5148300	46.4885	-80.8490
5037685	1st Ave.	Coniston	front yard	17	511600	5148400	46.4894	-80.8488
5037686	1st Ave.	Coniston	back yard	17	511600	5148400	46.4894	-80.8490
5037687	Edward	Coniston	front yard	17	511500	5148500	46.4895	-80.8499
5037688	Edward	Coniston	back yard	17	511500	5148500	46.4895	-80.8501
5037689	Edward	Coniston	front yard	17	511500	5148500	46.4897	-80.8499
5037690	Edward	Coniston	back yard	17	511500	5148500	46.4897	-80.8501
5037691	Edward	Coniston	front yard	17	511500	5148400	46.4888	-80.8500
5037692	Edward	Coniston	back yard	17	511500	5148400	46.4888	-80.8502
5037693	Edward	Coniston	front yard	17	511500	5148400	46.4892	-80.8499
5037694	Edward	Coniston	back yard	17	511500	5148400	46.4892	-80.8501
5037695	Edward	Coniston	front yard	17	511500	5148600	46.4909	-80.8497
5037696	Edward	Coniston	back yard	17	511600	5148600	46.4909	-80.8495
5037697	Edward	Coniston	front yard	17	511500	5148700	46.4919	-80.8497
5037698	Edward	Coniston	back yard	17	511600	5148700	46.4919	-80.8495
5037699	Edward	Coniston	front yard	17	511500	5148700	46.4916	-80.8499

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Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5037700	Edward	Coniston	back yard	17	511500	5148700	46.4916	-80.8501
5037701	Edward	Coniston	front yard	17	511500	5148800	46.4929	-80.8500
5037702	Edward	Coniston	back yard	17	511500	5148800	46.4929	-80.8503
5037703	Edward	Coniston	front yard	17	511500	5148800	46.4928	-80.8499
5037704	Edward	Coniston	back yard	17	511500	5148800	46.4928	-80.8496
5037705	Concession	Coniston	side yard	17	511900	5148800	46.4931	-80.8445
5037706	Concession	Coniston	side yard	17	512000	5148800	46.4931	-80.8442
5037707	Concession	Coniston	front yard	17	511900	5148800	46.4931	-80.8449
5037708	Concession	Coniston	back yard	17	511900	5148900	46.4932	-80.8449
5037709	Concession	Coniston	front yard	17	511700	5148800	46.4930	-80.8474
5037710	Concession	Coniston	back yard	17	511700	5148900	46.4932	-80.8474
5037711	Concession	Coniston	front yard	17	511600	5148800	46.4929	-80.8488
5037712	Concession	Coniston	back yard	17	511600	5148800	46.4928	-80.8488
5037713	Amanda	Coniston	front yard	17	511800	5148900	46.4936	-80.8466
5037714	Amanda	Coniston	back yard	17	511800	5148900	46.4935	-80.8466
5037715	Balsam	Coniston	front yard	17	511800	5148800	46.4925	-80.8461
5037716	Balsam	Coniston	back yard	17	511800	5148800	46.4926	-80.8461
5037717	Balsam	Coniston	front yard	17	511700	5148800	46.4925	-80.8476
5037718	Balsam	Coniston	back yard	17	511700	5148800	46.4927	-80.8476
5037719	Aubrey	Coniston	front yard	17	511400	5148500	46.4903	-80.8516
5037720	Aubrey	Coniston	back yard	17	511400	5148500	46.4903	-80.8520
5037721	Caruso	Coniston	back yard	17	511500	5148200	46.4869	-80.8503
5037722	Caruso	Coniston	front yard	17	511400	5148200	46.4871	-80.8515
5037723	Caruso	Coniston	back yard	17	511400	5148200	46.4874	-80.8515
5037724	Caruso	Coniston	front yard	17	511300	5148200	46.4870	-80.8532
5037725	Caruso	Coniston	back yard	17	511300	5148200	46.4869	-80.8532
5037726	Caruso	Coniston	front yard	17	511200	5148200	46.4871	-80.8535
5037727	Caruso	Coniston	back yard	17	511200	5148200	46.4871	-80.8535
5037728	Caruso	Coniston	front yard	17	511200	5148200	46.4870	-80.8538
5037729	Caruso	Coniston	back yard	17	511200	5148200	46.4871	-80.8538
5037730	Caruso	Coniston	front yard	17	511200	5148200	46.4870	-80.8538
5037731	Caruso	Coniston	back yard	17	511200	5148200	46.4869	-80.8538
5037732	Caruso	Coniston	front yard	17	511200	5148200	46.4871	-80.8544
5037733	Caruso	Coniston	back yard	17	511200	5148200	46.4871	-80.8544
5037734	East	Coniston	front yard	17	512500	5148600	46.4912	-80.8377
5037735	East	Coniston	back yard	17	512400	5148600	46.4910	-80.8379
5037736	East	Coniston	front yard	17	512500	5148500	46.4901	-80.8369
5037737	East	Coniston	back yard	17	512500	5148500	46.4900	-80.8372
5037738	East	Coniston	front yard	17	512600	5148500	46.4899	-80.8359
5037739	East	Coniston	back yard	17	512600	5148500	46.4900	-80.8356
5037740	Albert	Coniston	front yard	17	512600	5148600	46.4910	-80.8359
5037741	Albert	Coniston	back yard	17	512600	5148600	46.4909	-80.8361
5037742	Bryce	Coniston	front yard	17	512100	5148300	46.4885	-80.8419
5037743	Bryce	Coniston	back yard	17	512100	5148300	46.4884	-80.8417
5037744	William	Coniston	front yard	17	511400	5147900	46.4849	-80.8510
5037745	William	Coniston	back yard	17	511500	5147900	46.4849	-80.8507
5037746	William	Coniston	front yard	17	511400	5148000	46.4856	-80.8510
5037747	William	Coniston	back yard	17	511500	5148000	46.4856	-80.8507
5037748	Nickel St.	Coniston	front yard	17	511300	5148100	46.4864	-80.8530
5037749	Nickel St.	Coniston	back yard	17	511300	5148100	46.4862	-80.8531
5037750	Rowat St.	Gatchell	front yard	17	498500	5147100	46.4778	-81.0192
5037751	Rowat St.	Gatchell	back yard	17	498500	5147100	46.4778	-81.0192
5037752	Rowat St.	Gatchell	front yard	17	498600	5147200	46.4780	-81.0185

Table A4: Coordinates of the 2001 Greater Sudbury Survey Residential Sampling Sites
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Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5037753	Rowat St.	Gatchell	back yard	17	498600	5147200	46.4781	-81.0183
5037754	Glover	Gatchell	front yard	17	498500	5147200	46.4787	-81.0200
5037755	Glover	Gatchell	back yard	17	498500	5147200	46.4786	-81.0199
5037756	Demorest St.	Gatchell	front yard	17	498400	5147100	46.4776	-81.0206
5037757	Demorest St.	Gatchell	back yard	17	498400	5147100	46.4775	-81.0208
5037758	Bulmer	Gatchell	front yard	17	498300	5147200	46.4785	-81.0228
5037759	Bulmer	Gatchell	back yard	17	498300	5147200	46.4783	-81.0226
5037760	Gutcher	Gatchell	front yard	17	498200	5147100	46.4773	-81.0233
5037761	Gutcher	Gatchell	back yard	17	498200	5147100	46.4772	-81.0236
5037762	Clemon	Gatchell	front yard	17	498100	5147100	46.4772	-81.0246
5037763	Clemon	Gatchell	back yard	17	498100	5147100	46.4772	-81.0243
5037764	Morrison	Gatchell	front yard	17	498100	5146900	46.4759	-81.0252
5037765	Morrison	Gatchell	back yard	17	498000	5146900	46.4758	-81.0254
5037766	Tuddenham	Gatchell	front yard	17	497900	5147000	46.4762	-81.0270
5037767	Tuddenham	Gatchell	back yard	17	497900	5146900	46.4760	-81.0273
5037768	Logan	Gatchell	front yard	17	497800	5147000	46.4767	-81.0289
5037769	Logan	Gatchell	back yard	17	497800	5147000	46.4767	-81.0291
5037770	Dean	Gatchell	front yard	17	497700	5146800	46.4752	-81.0301
5037771	Dean	Gatchell	back yard	17	497700	5146800	46.4752	-81.0298
5037772	Landsend St.	Gatchell	front yard	17	497700	5147200	46.4784	-81.0295
5037773	Landsend St.	Gatchell	back yard	17	497700	5147200	46.4786	-81.0296
5037774	Walter	Gatchell	front yard	17	497600	5147000	46.4765	-81.0315
5037775	Walter	Gatchell	back yard	17	497600	5147000	46.4765	-81.0317
5037776	Mcnevin	Copper Cliff	front yard	17	495200	5146200	46.4692	-81.0627
5037777	Mcnevin	Copper Cliff	back yard	17	495200	5146200	46.4692	-81.0629
5037778	Mckeen	Copper Cliff	front yard	17	495300	5146200	46.4689	-81.0615
5037779	Mckeen	Copper Cliff	back yard	17	495300	5146200	46.4690	-81.0616
5037780	Peter St.	Copper Cliff	front yard	17	495100	5146100	46.4689	-81.0636
5037781	Peter St.	Copper Cliff	back yard	17	495100	5146100	46.4689	-81.0635
5037782	Peter St.	Copper Cliff	front yard	17	495100	5146100	46.4680	-81.0641
5037783	Peter St.	Copper Cliff	back yard	17	495100	5146100	46.4680	-81.0643
5037784	Church St.	Copper Cliff	front yard	17	495000	5146100	46.4688	-81.0649
5037785	Church St.	Copper Cliff	back yard	17	495000	5146100	46.4687	-81.0646
5037786	Church St.	Copper Cliff	front yard	17	495000	5146100	46.4684	-81.0654
5037787	Church St.	Copper Cliff	back yard	17	495000	5146100	46.4684	-81.0656
5037788	Evans Rd.	Copper Cliff	front yard	17	494900	5146300	46.4701	-81.0667
5037789	Evans Rd.	Copper Cliff	back yard	17	494900	5146300	46.4702	-81.0669
5037790	Evans Rd.	Copper Cliff	front yard	17	494900	5146200	46.4697	-81.0669
5037791	Evans Rd.	Copper Cliff	back yard	17	494900	5146200	46.4695	-81.0667
5037792	Evans Rd.	Copper Cliff	front yard	17	494800	5146100	46.4685	-81.0679
5037793	Evans Rd.	Copper Cliff	back yard	17	494800	5146100	46.4684	-81.0676
5037794	Evans St.	Copper Cliff	front yard	17	494700	5146000	46.4679	-81.0687
5037795	Evans St.	Copper Cliff	back yard	17	494700	5146100	46.4680	-81.0688
5037796	Orford St.	Copper Cliff	front yard	17	494700	5146200	46.4695	-81.0690
5037797	Orford St.	Copper Cliff	back yard	17	494700	5146200	46.4697	-81.0686
5037798	Orford St.	Copper Cliff	front yard	17	494600	5146300	46.4700	-81.0697
5037799	Orford St.	Copper Cliff	back yard	17	494700	5146300	46.4702	-81.0695
5037800	Orford St.	Copper Cliff	front yard	17	494600	5146300	46.4704	-81.0706
5037801	Orford St.	Copper Cliff	back yard	17	494600	5146300	46.4706	-81.0704
5037802	Finland	Copper Cliff	front yard	17	494500	5146200	46.4697	-81.0711
5037803	Finland	Copper Cliff	back yard	17	494500	5146300	46.4699	-81.0712
5037804	Venice St.	Copper Cliff	back yard	17	495500	5147400	46.4803	-81.0589
5037805	Dominico	Copper Cliff	front yard	17	495500	5147600	46.4818	-81.0590

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Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5037806	Dominico	Copper Cliff	back yard	17	495500	5147600	46.4817	-81.0587
5037807	Dominico	Copper Cliff	back yard	17	495400	5147600	46.4823	-81.0593
5037808	Domenico	Copper Cliff	back yard	17	495300	5147400	46.4803	-81.0609
5037809	Craig St.	Copper Cliff	front yard	17	495200	5147400	46.4800	-81.0625
5037810	Craig St.	Copper Cliff	back yard	17	495200	5147400	46.4802	-81.0630
5037811	Craig St.	Copper Cliff	front yard	17	495200	5147500	46.4814	-81.0631
5037812	Diorite St.	Copper Cliff	back yard	17	495400	5147400	46.4801	-81.0601
5037813	Diorite St.	Copper Cliff	front yard	17	495400	5147400	46.4800	-81.0604
5037814	Diorite St.	Copper Cliff	front yard	17	495300	5147400	46.4800	-81.0611
5037815	Diorite St.	Copper Cliff	back yard	17	495300	5147400	46.4801	-81.0611
5037816	Diorite St.	Copper Cliff	back yard	17	495100	5147300	46.4790	-81.0643
5037817	Union	Copper Cliff	front yard	17	495100	5147200	46.4785	-81.0633
5037818	Union	Copper Cliff	back yard	17	495200	5147200	46.4784	-81.0631
5037819	Park St.	Copper Cliff	front yard	17	494800	5147200	46.4787	-81.0683
5037820	Park St.	Copper Cliff	back yard	17	494800	5147300	46.4788	-81.0683
5037821	Jones	Copper Cliff	front yard	17	494900	5147400	46.4797	-81.0665
5037822	Jones	Copper Cliff	back yard	17	494900	5147300	46.4796	-81.0664
5037823	Jones	Copper Cliff	back yard	17	494800	5147400	46.4798	-81.0681
5037824	Market	Copper Cliff	front yard	17	494800	5146900	46.4756	-81.0678
5037825	Market	Copper Cliff	back yard	17	494800	5146900	46.4758	-81.0677
5037826	Market	Copper Cliff	front yard	17	494700	5146900	46.4757	-81.0684
5037827	Serpentine	Copper Cliff	front yard	17	495000	5147000	46.4770	-81.0651
5037828	Serpentine	Copper Cliff	back yard	17	495000	5147000	46.4769	-81.0654
5037829	Bradley St.	Copper Cliff	front yard	17	495000	5147000	46.4764	-81.0647
5037830	Bradley St.	Copper Cliff	front yard	17	495000	5147000	46.4762	-81.0649
5037831	Bradley St.	Copper Cliff	back yard	17	495000	5146900	46.4760	-81.0651
5037832	Wer St.	Copper Cliff	front yard	17	494500	5146400	46.4716	-81.0713
5037833	Wer St.	Copper Cliff	back yard	17	494500	5146500	46.4717	-81.0715
5037834	Wer St.	Copper Cliff	front yard	17	494500	5146300	46.4706	-81.0721
5037835	Wer St.	Copper Cliff	back yard	17	494500	5146300	46.4705	-81.0718
5037836	Wer St.	Copper Cliff	front yard	17	494500	5146400	46.4712	-81.0714
5037837	Wer St.	Copper Cliff	back yard	17	494500	5146400	46.4711	-81.0712
5037838	Orford St.	Copper Cliff	front yard	17	494500	5146400	46.4709	-81.0712
5037839	Orford St.	Copper Cliff	back yard	17	494500	5146400	46.4710	-81.0710
5037840	Wer St.	Copper Cliff	front yard	17	494800	5146700	46.4735	-81.0681
5037841	Wer St.	Copper Cliff	back yard	17	494800	5146700	46.4734	-81.0679
5037842	Diorite St.	Copper Cliff	front yard	17	495000	5147300	46.4789	-81.0651
5037843	Diorite St.	Copper Cliff	back yard	17	495000	5147300	46.4789	-81.0651
5037844	Union	Copper Cliff	front yard	17	495100	5147200	46.4782	-81.0640
5037845	Union	Copper Cliff	back yard	17	495100	5147200	46.4781	-81.0639
5037846	Park St.	Copper Cliff	front yard	17	494700	5147200	46.4786	-81.0685
5037847	Park St.	Copper Cliff	back yard	17	494700	5147200	46.4784	-81.0685
5037848	Park St.	Copper Cliff	front yard	17	494700	5147200	46.4787	-81.0686
5037849	Park St.	Copper Cliff	back yard	17	494700	5147300	46.4789	-81.0686
5037850	Marconi St.	Copper Cliff	front yard	17	495100	5147300	46.4792	-81.0633
5037851	Marconi St.	Copper Cliff	back yard	17	495100	5147300	46.4791	-81.0635
5037852	Park St.	Copper Cliff	front yard	17	494700	5147200	46.4785	-81.0693
5037853	Park St.	Copper Cliff	side yard	17	494700	5147200	46.4785	-81.0691
5037854	Oliver	Copper Cliff	front yard	17	494600	5147300	46.4791	-81.0698
5037855	Oliver	Copper Cliff	back yard	17	494700	5147300	46.4791	-81.0695
5037856	Cobalt	Copper Cliff	front yard	17	494400	5146500	46.4723	-81.0727
5037857	Cobalt	Copper Cliff	back yard	17	494400	5146500	46.4723	-81.0724
5037858	Cobalt	Copper Cliff	front yard	17	494400	5146600	46.4726	-81.0726

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Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5037859	Cobalt	Copper Cliff	back yard	17	494500	5146600	46.4725	-81.0723
5037860	Cobalt	Copper Cliff	front yard	17	494400	5146600	46.4726	-81.0727
5037861	Cobalt	Copper Cliff	back yard	17	494400	5146600	46.4726	-81.0729
5037862	Cobalt	Copper Cliff	front yard	17	494400	5146600	46.4730	-81.0727
5037863	Cobalt	Copper Cliff	back yard	17	494400	5146600	46.4730	-81.0730
5037864	Nickel	Copper Cliff	front yard	17	495100	5146500	46.4718	-81.0643
5037865	Nickel	Copper Cliff	back yard	17	495000	5146500	46.4718	-81.0646
5037866	Nickel	Copper Cliff	front yard	17	495100	5146500	46.4717	-81.0640
5037867	Nickel	Copper Cliff	back yard	17	495100	5146500	46.4718	-81.0638
5037868	Nickel	Copper Cliff	front yard	17	495100	5146400	46.4715	-81.0637
5037869	Nickel	Copper Cliff	back yard	17	495100	5146500	46.4716	-81.0636
5037870	Nickel	Copper Cliff	front yard	17	495200	5146400	46.4710	-81.0631
5037871	Nickel	Copper Cliff	back yard	17	495200	5146400	46.4712	-81.0629
5037872	Succo	Copper Cliff	front yard	17	495000	5146400	46.4715	-81.0652
5037873	Succo	Copper Cliff	back yard	17	495000	5146400	46.4715	-81.0649
5037874	Succo	Copper Cliff	back yard	17	495000	5146400	46.4709	-81.0646
5037875	Finland	Copper Cliff	front yard	17	494900	5146500	46.4722	-81.0667
5037876	Finland	Copper Cliff	back yard	17	494900	5146500	46.4720	-81.0666
5037877	Finland	Copper Cliff	front yard	17	494900	5146500	46.4721	-81.0668
5037878	Finland	Copper Cliff	back yard	17	494900	5146500	46.4720	-81.0668
5037879	Finland	Copper Cliff	side yard	17	494900	5146500	46.4722	-81.0670
5037880	Collins	Copper Cliff	front yard	17	494600	5146400	46.4710	-81.0702
5037881	Collins	Copper Cliff	back yard	17	494600	5146400	46.4710	-81.0700
5037882	Collins	Copper Cliff	front yard	17	494500	5146300	46.4700	-81.0721
5037883	Collins	Copper Cliff	back yard	17	494500	5146300	46.4699	-81.0719
5037884	Collins	Copper Cliff	front yard	17	494400	5146300	46.4699	-81.0723
5037885	Collins	Copper Cliff	back yard	17	494500	5146200	46.4697	-81.0722
5037886	Balsam	Copper Cliff	front yard	17	494800	5146800	46.4748	-81.0679
5037887	Balsam	Copper Cliff	back yard	17	494800	5146800	46.4747	-81.0680
5037888	Balsam	Copper Cliff	back yard	17	494900	5146600	46.4732	-81.0663
5037889	Balsam	Copper Cliff	front yard	17	494900	5146500	46.4717	-81.0662
5037890	Balsam	Copper Cliff	back yard	17	494900	5146500	46.4717	-81.0664
5037891	Mcneill Blvd	Sudbury (Core)	back yard	17	499400	5149400	46.4985	-81.0081
5037892	Mcneill Boulevard	Sudbury (Core)	back yard	17	498900	5149500	46.4991	-81.0137
5037893	Ethelbert St.	Sudbury (Core)	back yard	17	498900	5149400	46.4981	-81.0146
5037894	Anderson Ave.	Sudbury (Core)	back yard	17	498900	5149300	46.4974	-81.0147
5037895	White Ave.	Sudbury (Core)	back yard	17	499300	5149400	46.4983	-81.0098
5037896	White Ave.	Sudbury (Core)	back yard	17	499200	5149400	46.4983	-81.0104
5037897	White Ave.	Sudbury (Core)	front yard	17	499100	5149400	46.4981	-81.0123
5037898	Ash St.	Sudbury (Core)	back yard	17	499500	5149100	46.4953	-81.0063
5037899	Victoria St.	Sudbury (Core)	back yard	17	499300	5148400	46.4895	-81.0093
5037900	Whittaker St.	Sudbury (Core)	front yard	17	499200	5148400	46.4895	-81.0098
5037901	Whittaker St.	Sudbury (Core)	front yard	17	499300	5148100	46.4861	-81.0095
5037902	Spruce St.	Sudbury (Core)	back yard	17	499000	5148700	46.4920	-81.0130
5037903	Ash St.	Sudbury (Core)	back yard	17	498800	5149000	46.4947	-81.0159
5037904	Stanley St.	Sudbury (Core)	back yard	17	499200	5149100	46.4959	-81.0100
5037905	Albinson St.	Sudbury (Core)	back yard	17	499100	5148200	46.4874	-81.0115
5037906	Buchanan St.	Sudbury (Core)	front yard	17	499000	5147600	46.4821	-81.0133
5037907	Sandra Blvd	Sudbury (Core)	front yard	17	498700	5147700	46.4827	-81.0174
5037908	Hines St.	Sudbury (East)	front yard	17	507500	5148500	46.4899	-80.9024
5037909	Estelle St.	Sudbury (East)	back yard	17	507300	5148000	46.4858	-80.9054
5037910	Yollie St.	Sudbury (East)	front yard	17	507300	5148800	46.4928	-80.9048
5037911	Eugene St.	Sudbury (East)	back yard	17	506800	5148600	46.4906	-80.9111

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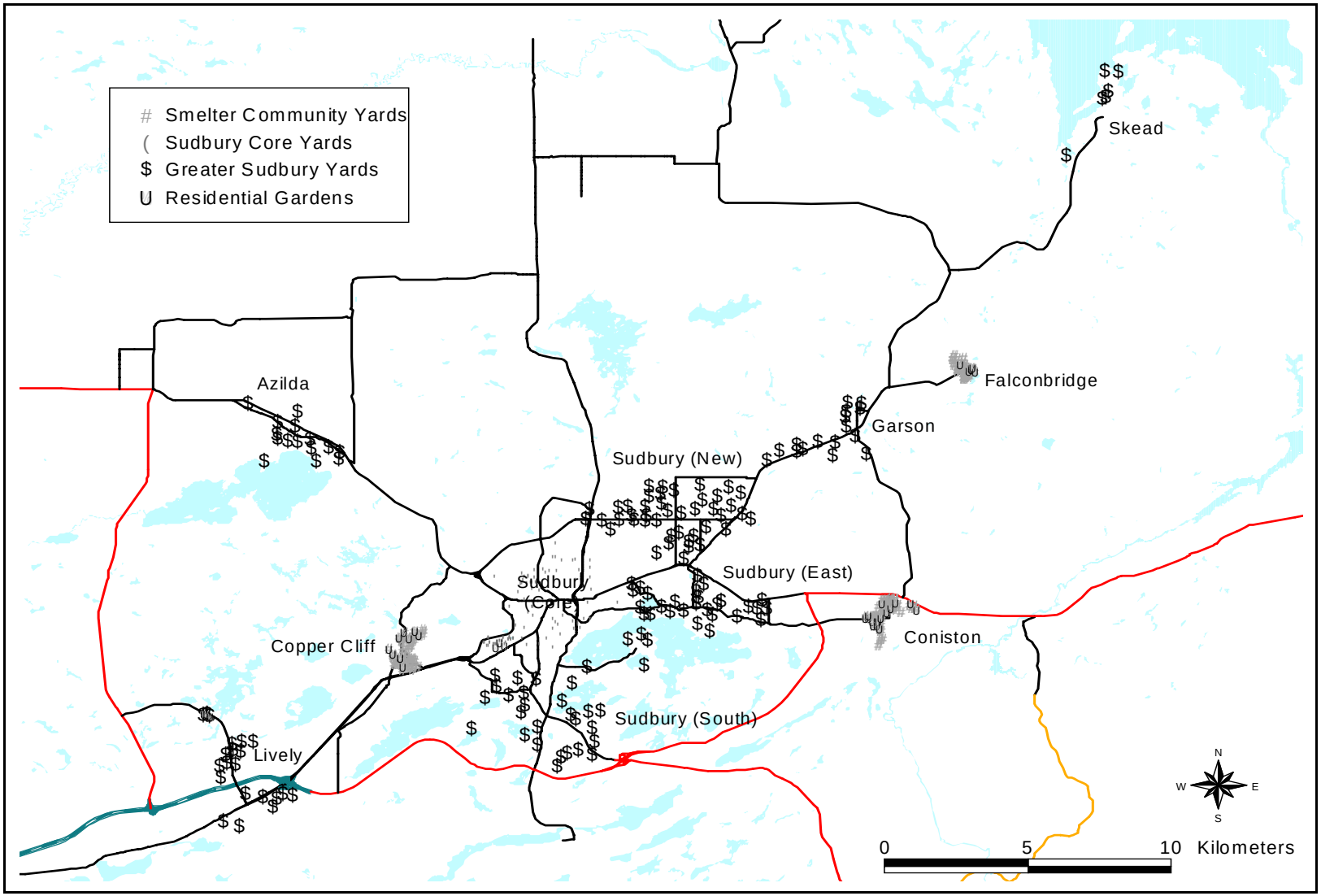
Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5037912	Darby St.	Sudbury (East)	front yard	17	507100	5148500	46.4897	-80.9069
5037913	Dorsett Dr.	Sudbury (East)	front yard	17	506400	5148200	46.4870	-80.9163
5037914	Autumnwood Cres.	Sudbury (East)	front yard	17	505900	5148800	46.4926	-80.9233
5037915	Cherrywood Cres.	Sudbury (East)	front yard	17	505700	5148700	46.4915	-80.9253
5037916	Victor St.	Sudbury (East)	back yard	17	505400	5148400	46.4893	-80.9295
5037917	Roger St.	Sudbury (East)	back yard	17	505600	5148200	46.4874	-80.9273
5037918	Greenwood Dr.	Sudbury (East)	front yard	17	505500	5147500	46.4814	-80.9287
5037919	2nd Ave. S	Sudbury (East)	back yard	17	505100	5147900	46.4844	-80.9340
5037920	Camelot Dr.	Sudbury (East)	back yard	17	505000	5149800	46.5015	-80.9344
5037921	Highgate Rd.	Sudbury (East)	back yard	17	505300	5149500	46.4989	-80.9315
5037922	Kenwood St.	Sudbury (East)	front yard	17	505000	5149100	46.4959	-80.9347
5037923	Hebert St.	Sudbury (East)	front yard	17	505100	5148900	46.4941	-80.9335
5037924	Randolph St.	Sudbury (East)	front yard	17	505000	5148700	46.4916	-80.9346
5037925	Avalon Rd.	Sudbury (East)	back yard	17	504600	5148400	46.4890	-80.9404
5037926	Mckinnon St.	Sudbury (East)	back yard	17	504300	5148700	46.4920	-80.9443
5037927	Shappert Ave.	Sudbury (East)	back yard	17	504100	5148300	46.4886	-80.9464
5037928	Cave.ndish Crt.	Sudbury (South)	back yard	17	500500	5142700	46.4380	-80.9935
5037929	Algonquin Rd.	Sudbury (South)	front yard	17	500300	5142500	46.4364	-80.9962
5037930	Greenvalley Dr.	Sudbury (South)	back yard	17	500100	5142200	46.4332	-80.9981
5037931	Culver Cres.	Sudbury (South)	front yard	17	501400	5142600	46.4370	-80.9823
5037932	Sweetberry Dr.	Sudbury (South)	front yard	17	500900	5142800	46.4390	-80.9881
5037933	Muriel Cres.	Sudbury (South)	front yard	17	501500	5143100	46.4417	-80.9811
5037934	Kaireen St.	Sudbury (South)	front yard	17	501400	5143700	46.4470	-80.9821
5037935	Virginia Dr.	Sudbury (South)	front yard	17	501700	5144400	46.4533	-80.9781
5037936	Loach's Rd.	Sudbury (South)	front yard	17	501200	5144400	46.4529	-80.9838
5037937	Windle Dr.	Sudbury (South)	front yard	17	500800	5144000	46.4499	-80.9897
5037938	Millwood Cres.	Sudbury (South)	front yard	17	500700	5144200	46.4514	-80.9915
5037939	Salo Rd.	Sudbury (South)	front yard	17	497100	5143700	46.4465	-81.0372
5037940	Delwood Crt	Sudbury (South)	front yard	17	497600	5144900	46.4576	-81.0310
5037941	Copper St.	Sudbury (South)	front yard	17	498000	5145800	46.4657	-81.0261
5037942	Robinson Dr.	Sudbury (South)	front yard	17	498000	5145400	46.4618	-81.0257
5037943	Southview Dr.	Sudbury (South)	back yard	17	498800	5145700	46.4648	-81.0158
5037944	Cranbrook Cres.	Sudbury (South)	front yard	17	498500	5145000	46.4587	-81.0200
5037945	Yale St.	Sudbury (South)	front yard	17	499000	5145100	46.4595	-81.0130
5037946	Walford Rd.	Sudbury (South)	back yard	17	499400	5145600	46.4643	-81.0076
5037947	Morris St.	Sudbury (Core)	front yard	17	501100	5148000	46.4853	-80.9861
5037948	Morris St.	Sudbury (Core)	front yard	17	501300	5148000	46.4853	-80.9833
5037949	Lonsdale Ave.	Sudbury (Core)	front yard	17	502200	5148600	46.4910	-80.9707
5037950	St. Raphael St.	Sudbury (Core)	front yard	17	501200	5148600	46.4910	-80.9842
5037951	Brock St.	Sudbury (Core)	front yard	17	501300	5149100	46.4956	-80.9827
5037952	Mountain St.	Sudbury (Core)	front yard	17	501100	5149200	46.4966	-80.9860
5037953	Leslie St.	Sudbury (Core)	front yard	17	501300	5149600	46.4999	-80.9832
5037954	Queen St.	Sudbury (Core)	front yard	17	501300	5150000	46.5035	-80.9832
5037955	Dell St.	Sudbury (Core)	back yard	17	501300	5150300	46.5063	-80.9835
5037956	Dell St.	Sudbury (Core)	back yard	17	500700	5150300	46.5062	-80.9910
5037957	John St.	Sudbury (Core)	back yard	17	500800	5147800	46.4838	-80.9889
5037958	St. Charles St.	Sudbury (Core)	front yard	17	500800	5150300	46.5067	-80.9898
5037959	Bond St.	Sudbury (Core)	front yard	17	500900	5149900	46.5026	-80.9885
5037960	Brebeuf Ave.	Sudbury (Core)	back yard	17	500700	5149500	46.4992	-80.9903
5037961	Patterson St.	Sudbury (Core)	back yard	17	500000	5149400	46.4983	-80.9997
5037962	Bloor St.	Sudbury (Core)	back yard	17	500000	5149600	46.4998	-80.9996
5037963	Melvin Ave.	Sudbury (Core)	front yard	17	500100	5149900	46.5022	-80.9983
5037964	Antwerp Ave.	Sudbury (Core)	back yard	17	499900	5149900	46.5023	-81.0019

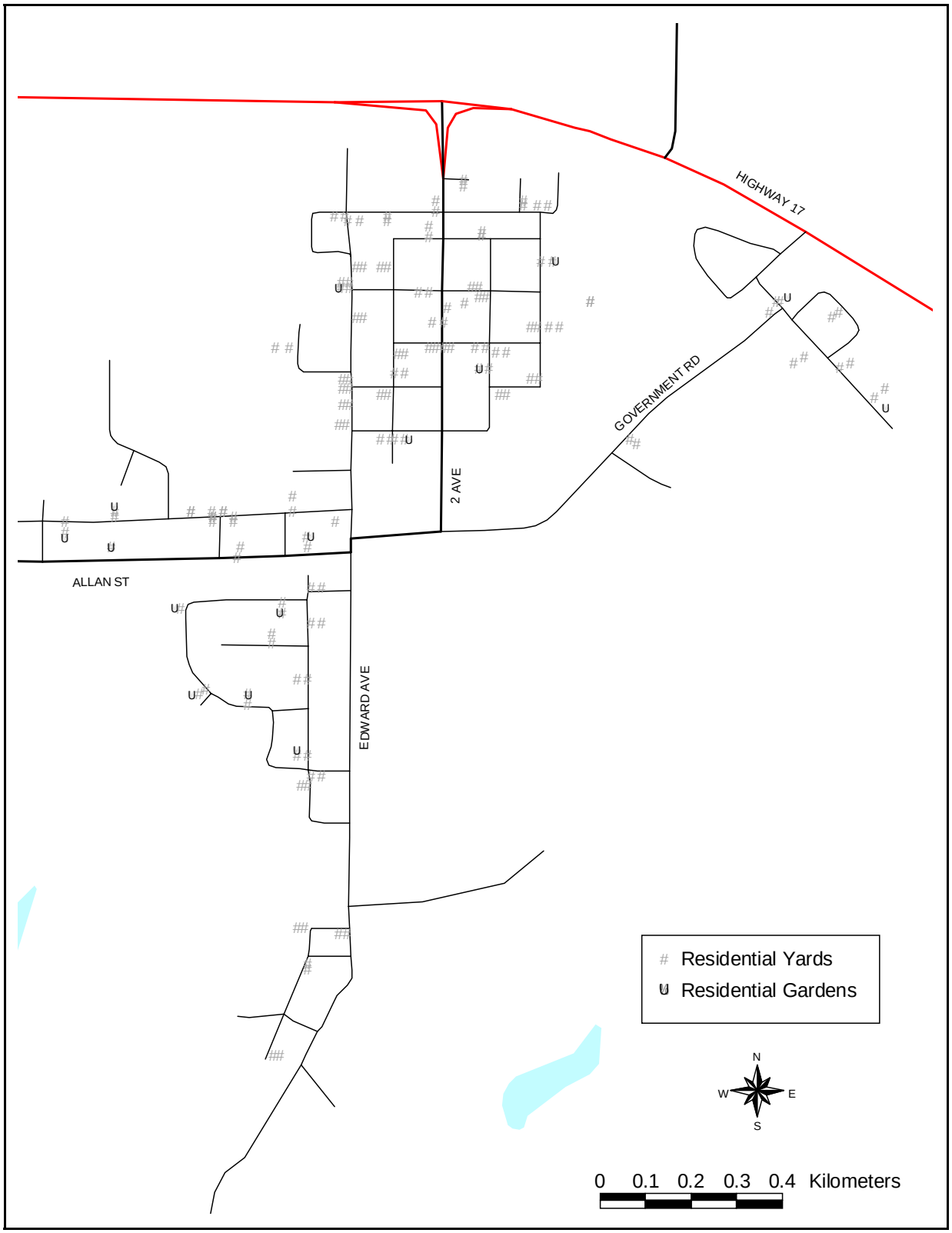
Table A4: Coordinates of the 2001 Greater Sudbury Survey Residential Sampling Sites
(All coordinates are rounded to the nearest 100 metres)

Station No.	Street	Community	Yard	Zone	Easting	Northing	Latitude	Longitude
5037965	Burton Ave.	Sudbury (Core)	front yard	17	499700	5149800	46.5017	-81.0034
5037966	Burton Ave.	Sudbury (Core)	side yard	17	500000	5150400	46.5075	-81.0001
5037967	Bessie Ave.	Sudbury (Core)	back yard	17	499600	5149900	46.5029	-81.0049
5037968	Selkirk St.	Sudbury (Core)	front yard	17	500100	5151000	46.5123	-80.9990
5037969	Snowdon Ave.	Sudbury (Core)	front yard	17	500100	5150400	46.5073	-80.9991
5037970	Bruce Ave.	Sudbury (Core)	back yard	17	500300	5150300	46.5063	-80.9961
5037971	Dunt St.	Sudbury (Core)	back yard	17	499300	5149900	46.5027	-81.0088
5037972	Roland St.	Sudbury (New)	back yard	17	503300	5152200	46.5235	-80.9571
5037973	Lamothe St.	Sudbury (New)	back yard	17	504000	5152400	46.5249	-80.9477
5037974	Woodbine Ave.	Sudbury (New)	back yard	17	503800	5152700	46.5278	-80.9504
5037975	Woodbine Ave.	Sudbury (New)	back yard	17	503400	5153000	46.5305	-80.9560
5037976	Agincrt. Ave.	Sudbury (New)	back yard	17	503400	5153300	46.5337	-80.9561
5037977	Shelley Dr.	Sudbury (New)	back yard	17	503900	5153300	46.5333	-80.9498
5037978	Lillian Blvd	Sudbury (New)	back yard	17	504200	5153200	46.5322	-80.9451
5037979	Hastings Crt	Sudbury (New)	back yard	17	503800	5153100	46.5313	-80.9508
5037980	Attlee Ave.	Sudbury (New)	back yard	17	503600	5152000	46.5214	-80.9525
5037981	Chapman St.	Sudbury (New)	back yard	17	503200	5152000	46.5214	-80.9576
5037982	Hawthorne Rd.	Sudbury (New)	back yard	17	504100	5151400	46.5158	-80.9459
5037983	Beatrice Crt.	Sudbury (New)	back yard	17	503600	5150700	46.5096	-80.9525
5037984	Gemmell St.	Sudbury (New)	front yard	17	504100	5151100	46.5131	-80.9471
5037985	Lakeview Dr.	Sudbury(core)	front yard	17	500000	5146800	46.4748	-81.0005
5037986	Mcnaughton St.	Sudbury Core	front yard	17	500700	5147600	46.4817	-80.9908
5037987	Mcnaughton St.	Sudbury (Core)	back yard	17	500900	5147600	46.4820	-80.9880
5037988	Ramsey Rd.	Sudbury (Core)	back yard	17	500900	5147700	46.4830	-80.9888
5037989	Edmund St.	Sudbury (Core)	front yard	17	500700	5147800	46.4842	-80.9910
5037990	O'connor St.	Sudbury (Core)	back yard	17	500300	5148100	46.4861	-80.9955
5037991	Riverside Dr.	Sudbury (Core)	front yard	17	500000	5147900	46.4850	-81.0005
5037992	Kingsmount Blvd.	Sudbury (Core)	back yard	17	500100	5147800	46.4838	-80.9993
5037993	Huron St.	Sudbury (Core)	back yard	17	498900	5149800	46.5014	-81.0142
5037994	Boland Ave.	Sudbury (Core)	front yard	17	500200	5147300	46.4795	-80.9971
5037995	Dunvegan Crt.	Sudbury (Core)	back yard	17	499800	5147200	46.4781	-81.0028
5037996	Prete St.	Sudbury (Core)	front yard	17	499500	5146900	46.4761	-81.0062
5037997	Hyland Dr.	Sudbury (Core)	front yard	17	500000	5147500	46.4814	-81.0000
5037998	Wembley Dr	Sudbury (Core)	back yard	17	500200	5147700	46.4832	-80.9977
5037999	St. Clair St.	Sudbury (Core)	back yard	17	498900	5147200	46.4782	-81.0142

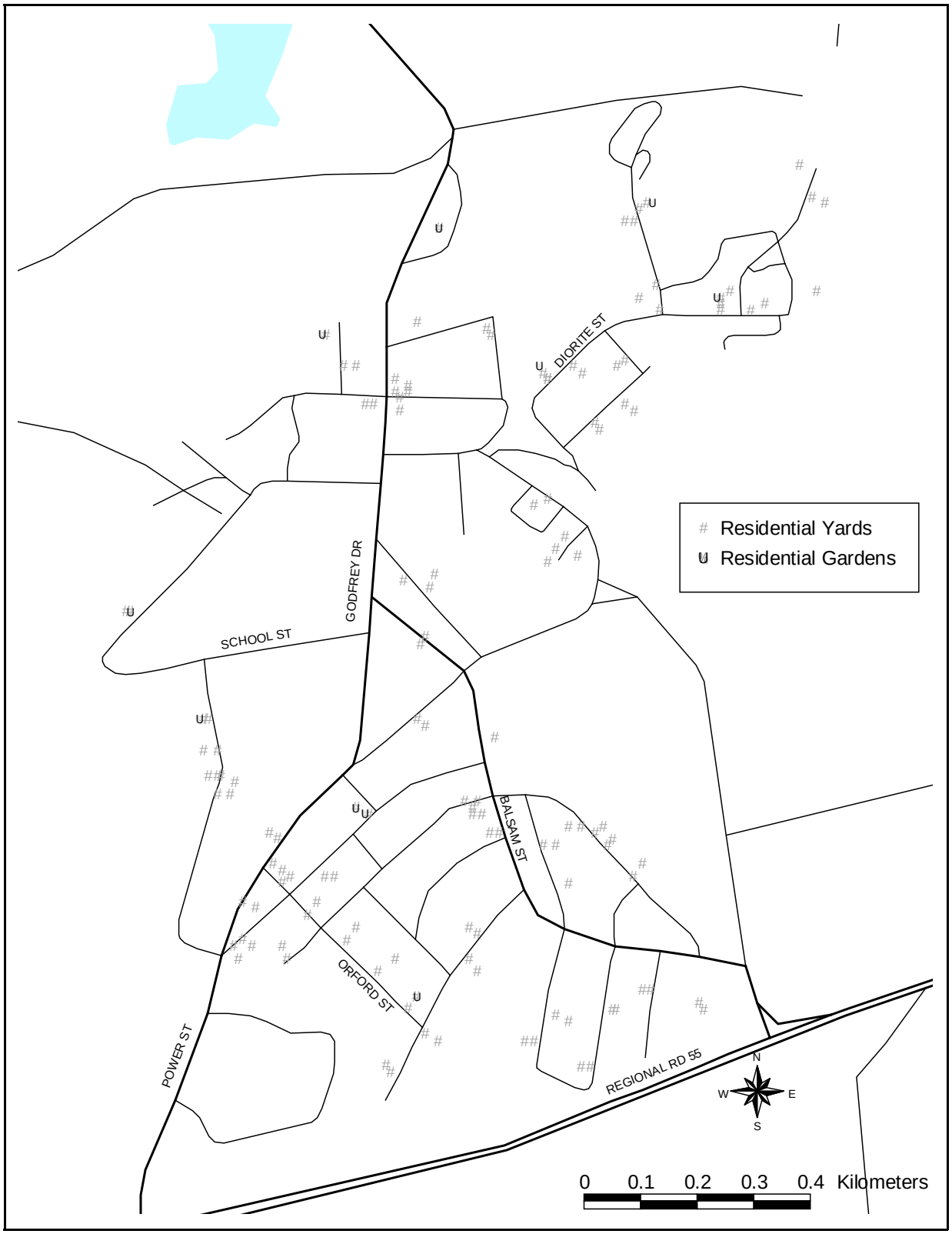


Map A4.1: Residential sampling locations in the City of Greater Sudbury

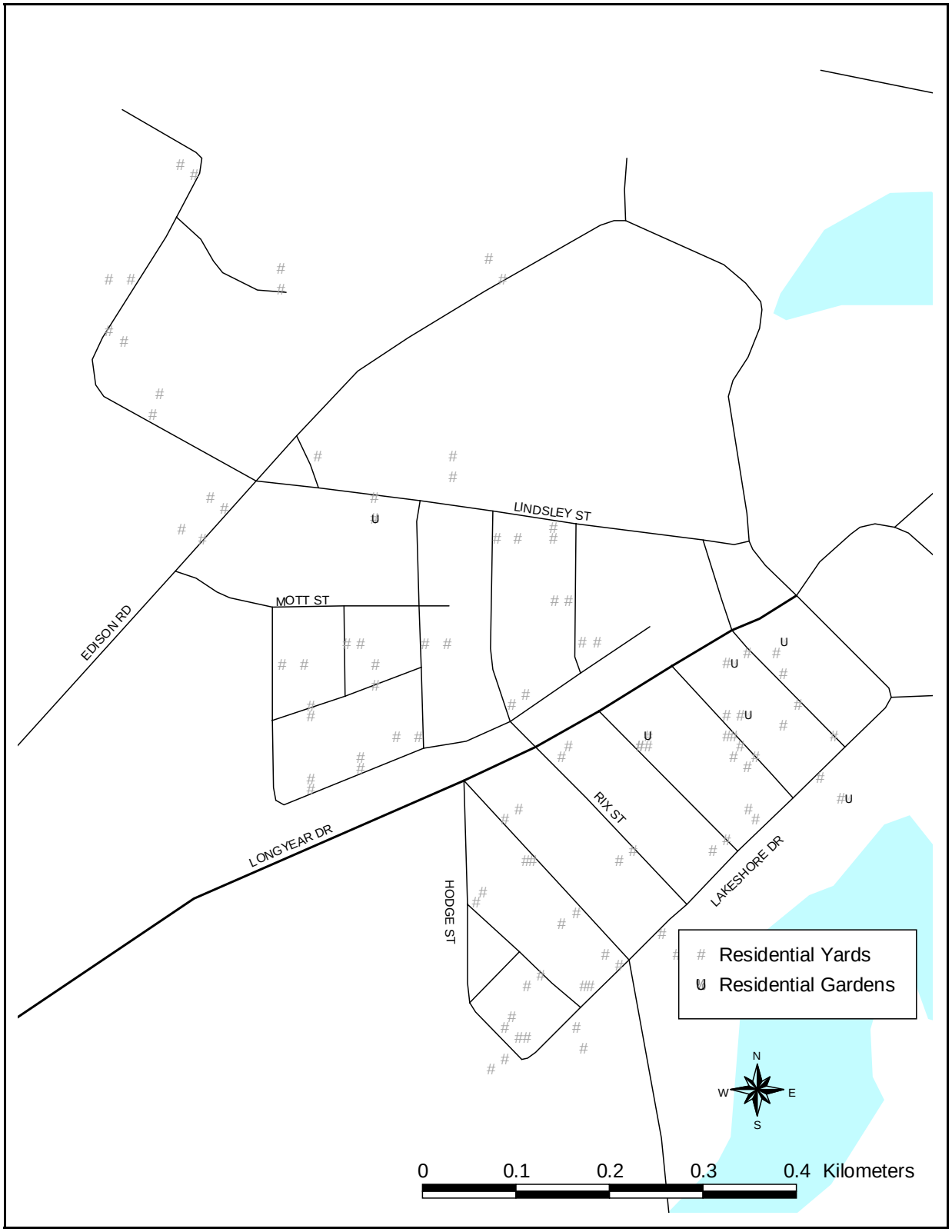
(positions have been rounded off to the nearest 100 metres)



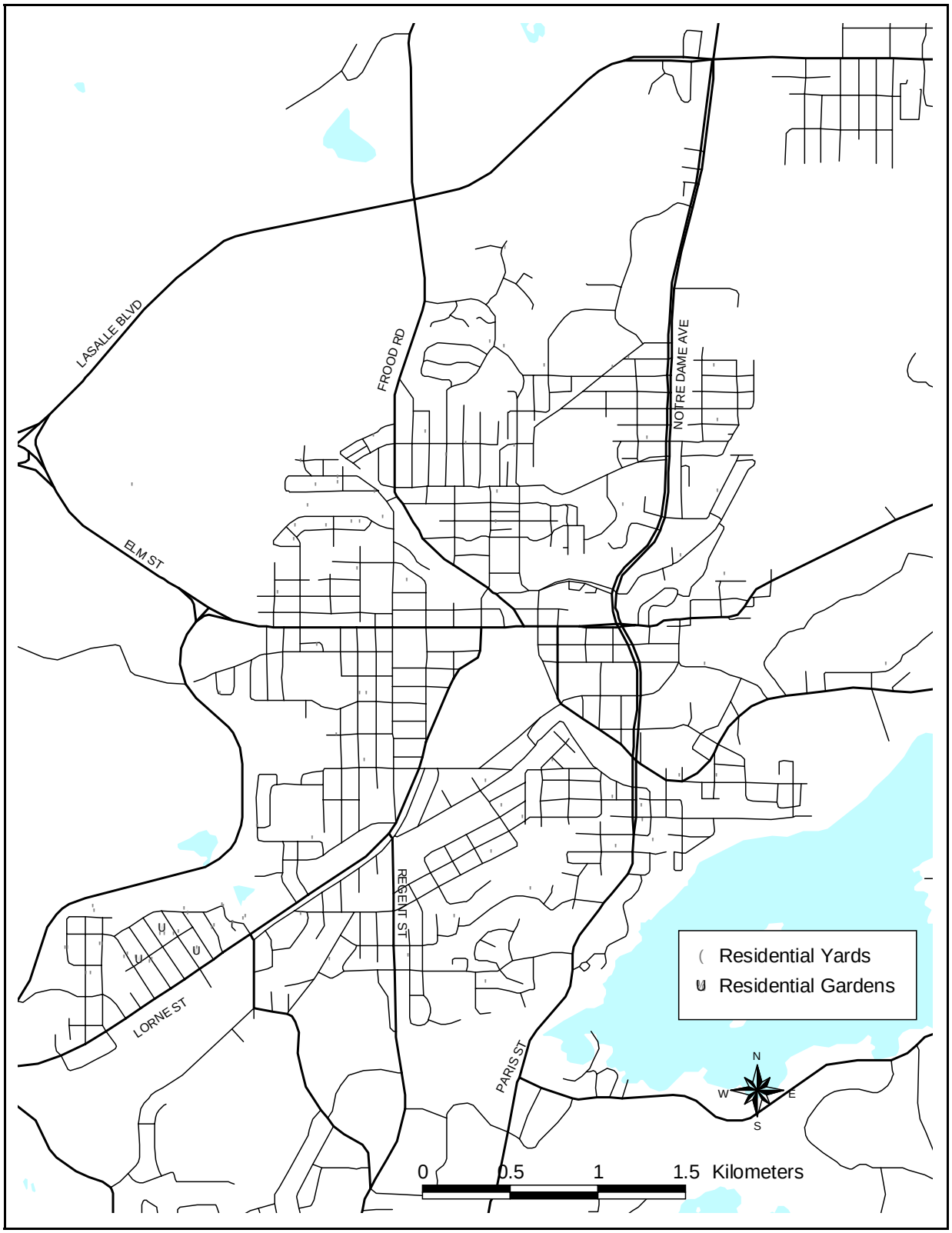
Map A4.2: Residential sampling locations in Coniston (positions have been rounded off to the nearest 100 metres)



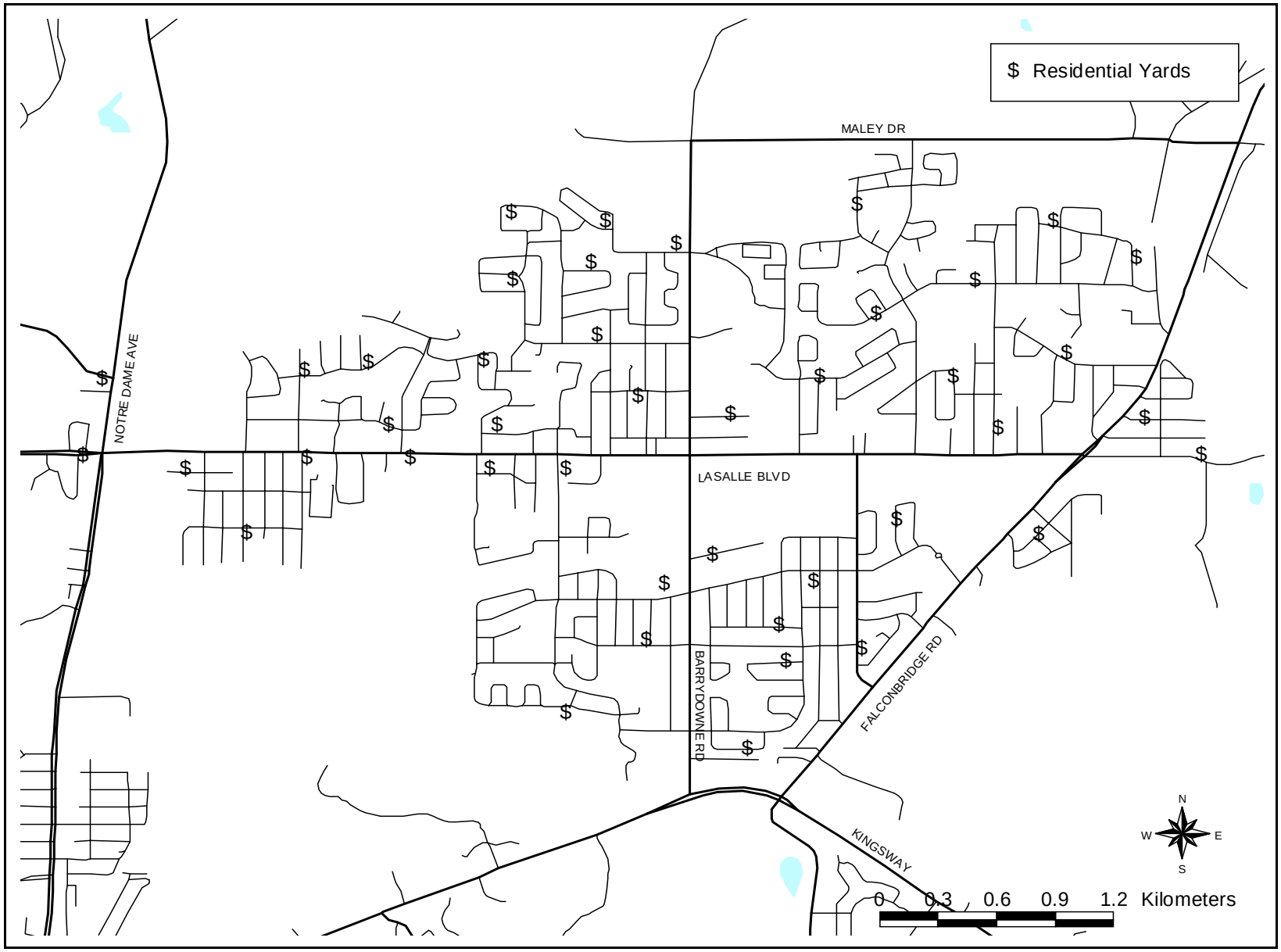
Map A4.3: Residential sampling locations in Copper Cliff (positions have been rounded off to the nearest 100 metres)



Map A4.4: Residential sampling locations in Falconbridge (positions have been rounded off to the nearest 100 metres)

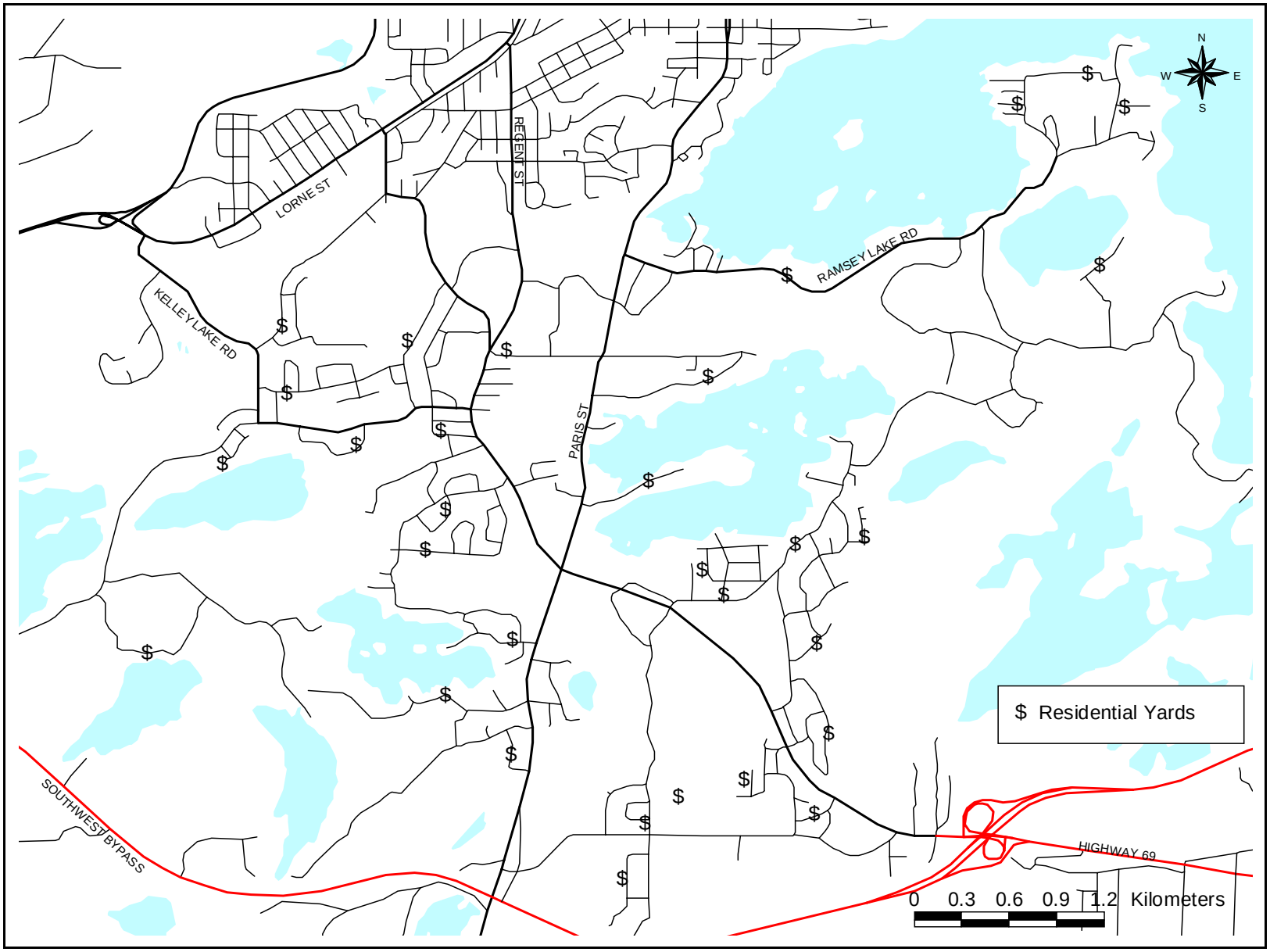


Map A4.5: Residential sampling locations in the Sudbury Core (positions have been rounded off to the nearest 100 metres)



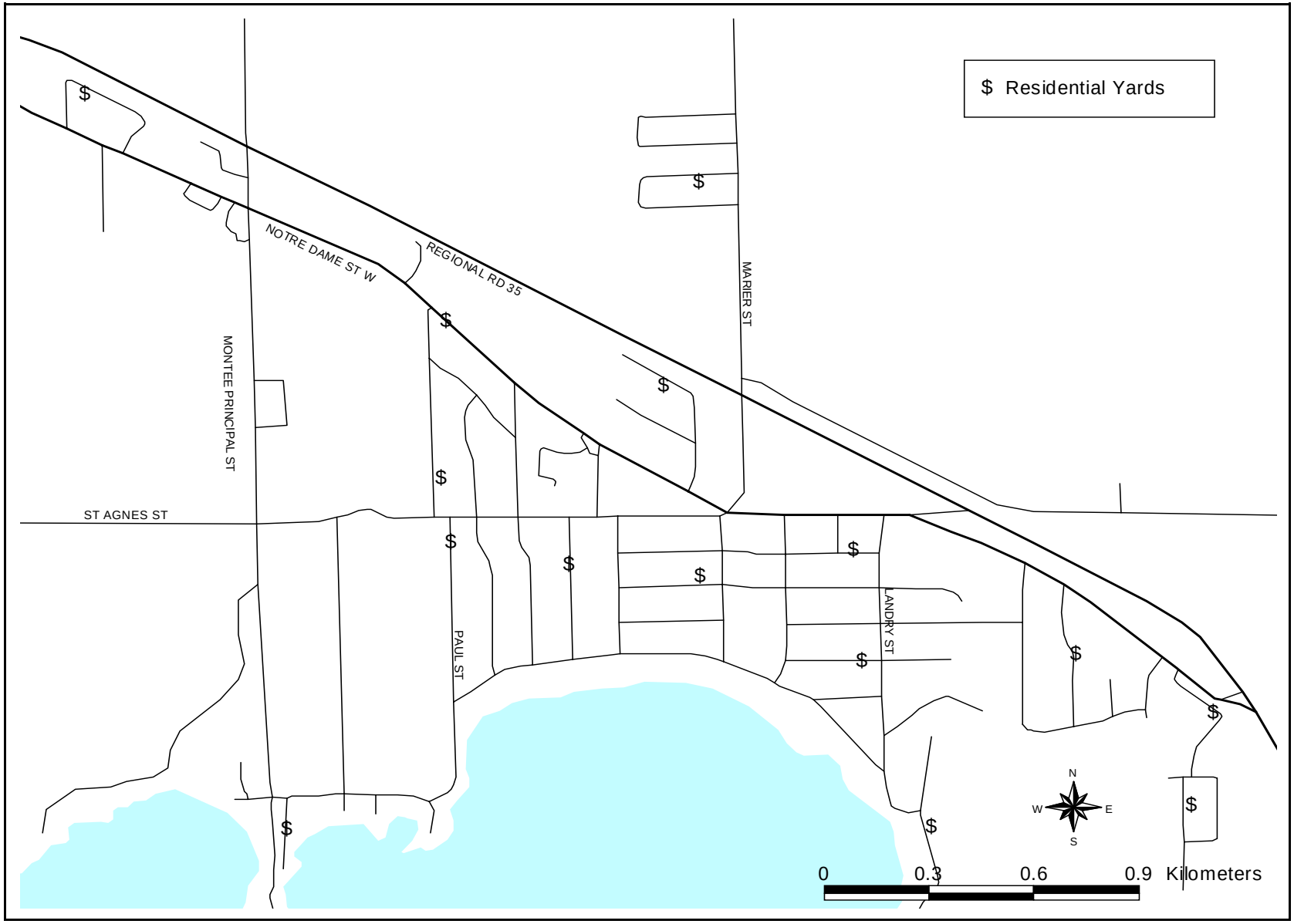
Map A4.6: Residential sampling locations in Sudbury New

(positions have been rounded off to the nearest 100 metres)



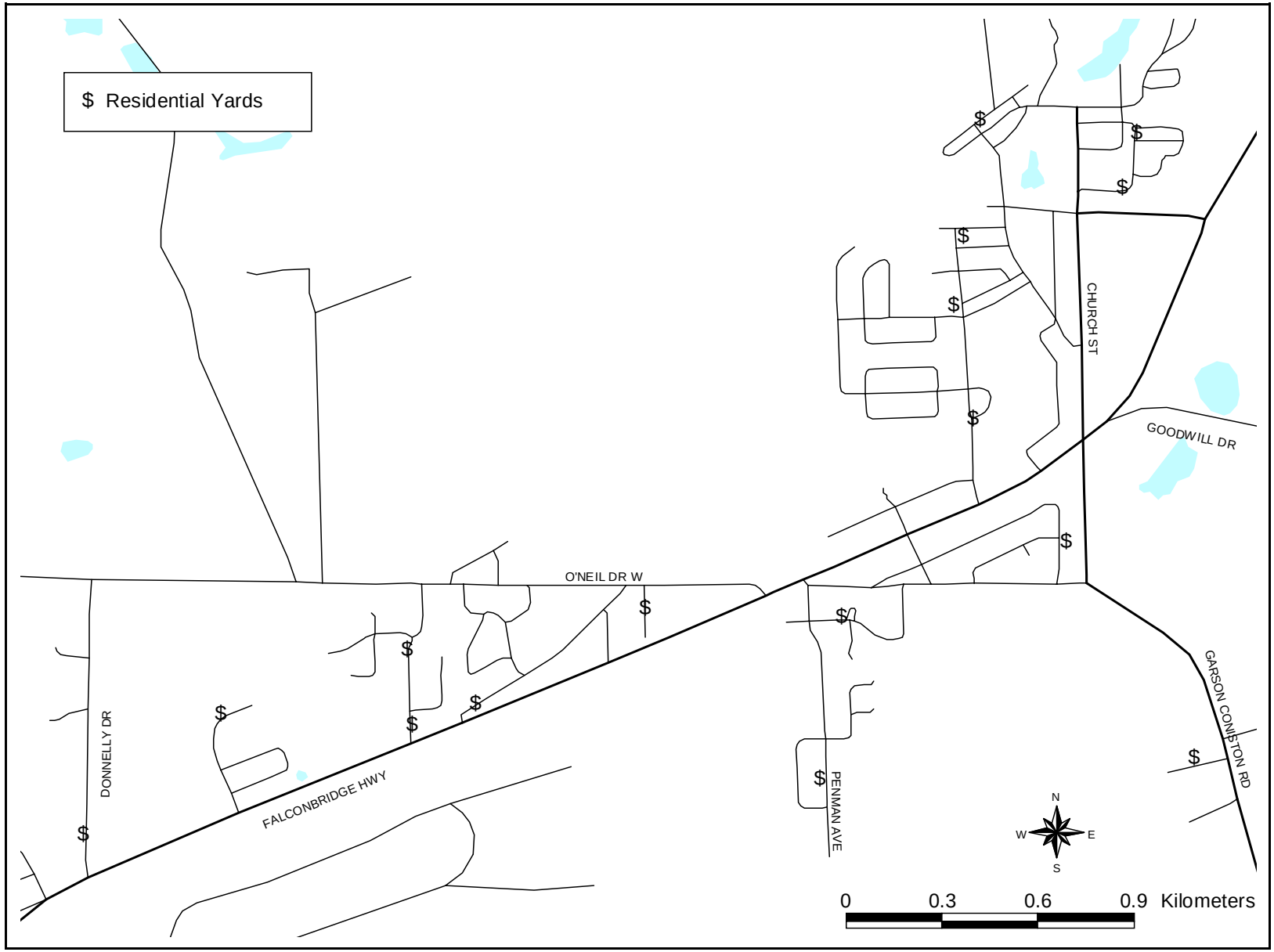
Map A4.7: Residential sampling locations in Sudbury South

(positions have been rounded off to the nearest 100 metres)



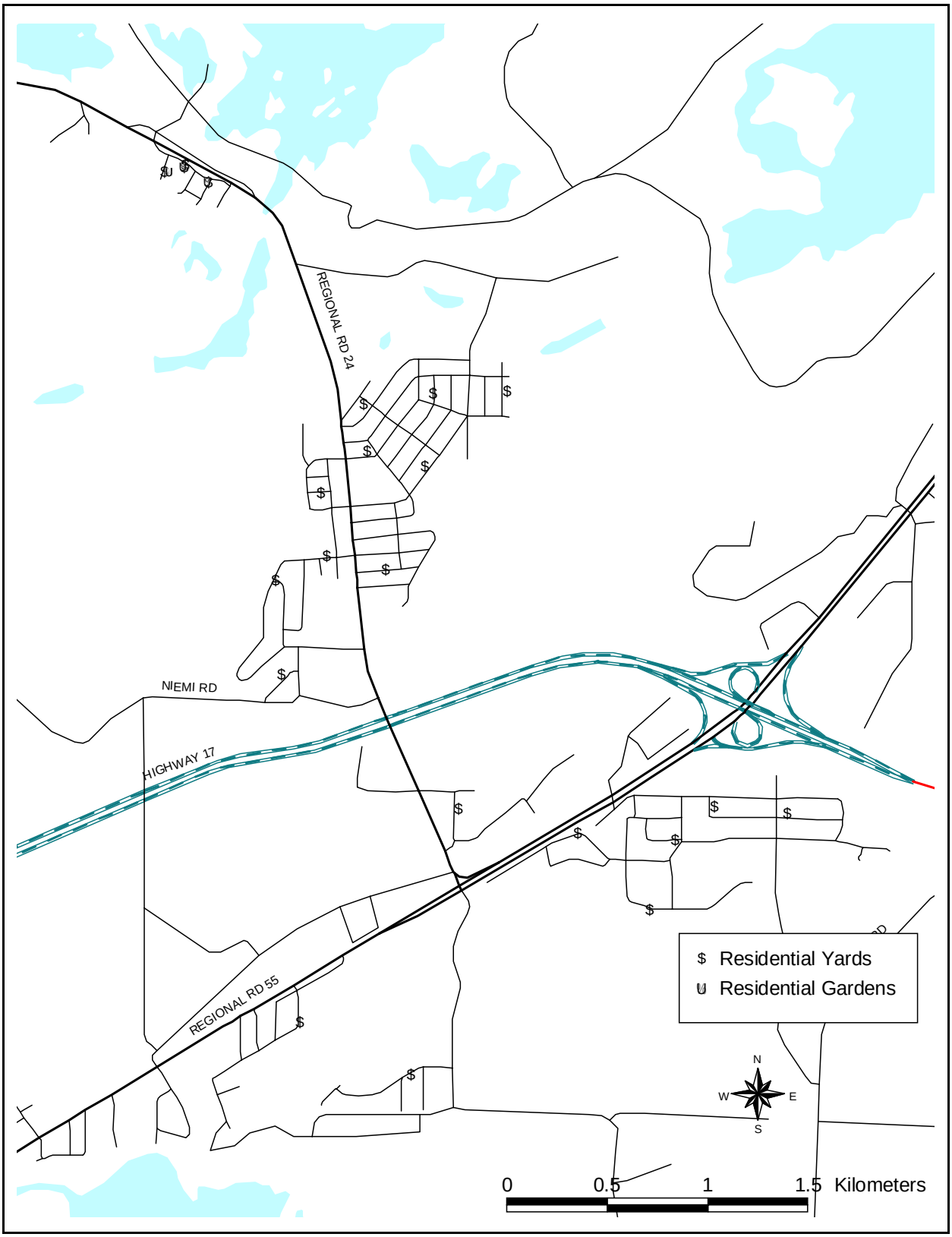
Map A4.8: Residential sampling locations in Azilda

(positions have been rounded off to the nearest 100 metres)

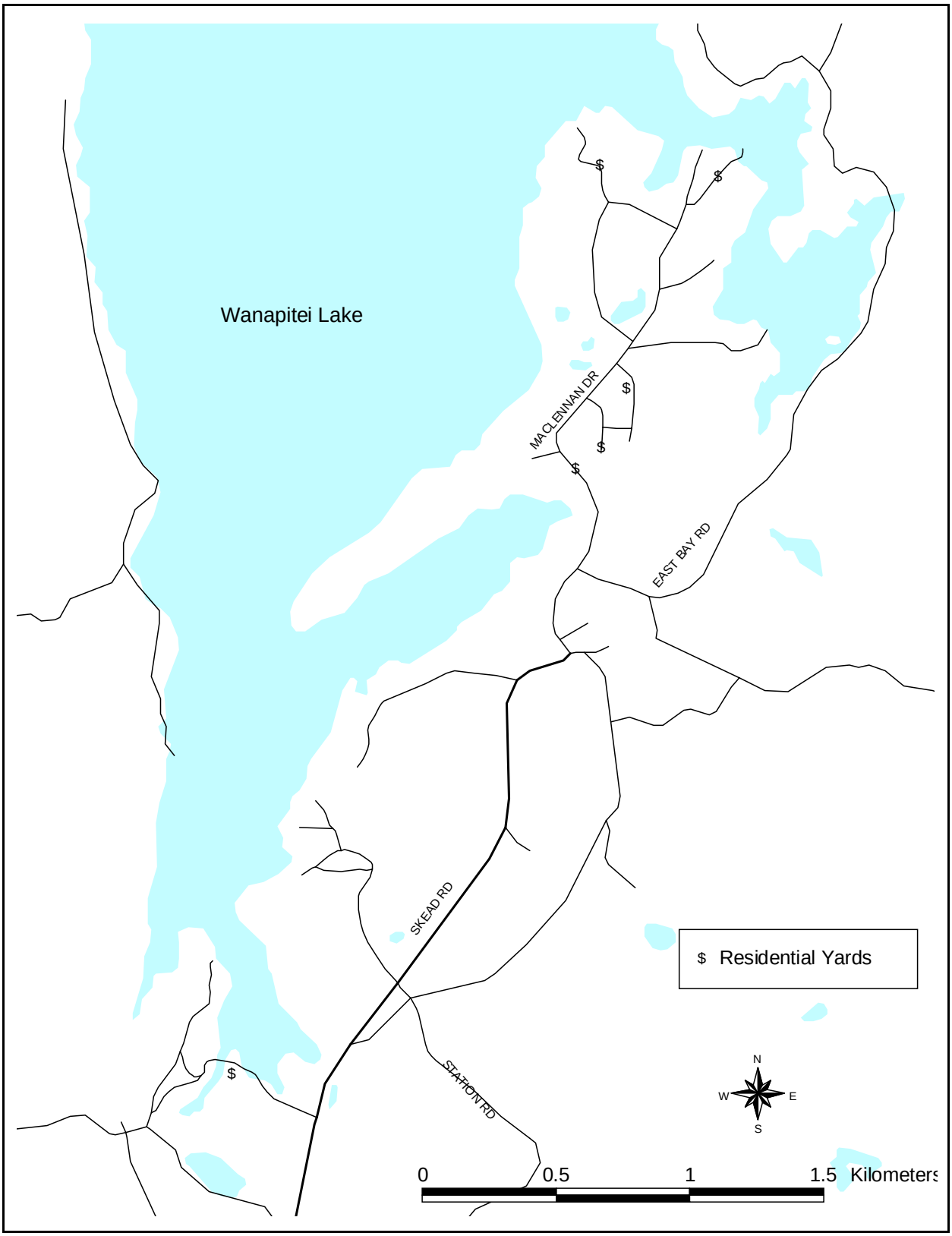


Map A4.9: Residential sampling locations in Garson

(positions have been rounded off to the nearest 100 metres)



Map A4.10: Residential sampling locations in Lively (positions have been rounded off to the nearest 100 metres)



Map A4.11: Residential sampling locations in Skead(positions have been rounded off to the nearest 100 metres)

City of Greater Sudbury 2001 Urban Soil Survey

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School and Daycare

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1.0 METHODS

During the month of July 2001, MOE representatives collected soil, sand and gravel samples from each school and daycare within the City of Greater Sudbury. At each site, samples were collected in duplicate from all child play areas and especially from areas where school children could come in direct contact with bare soil. Samples were collected in different ways from different locations as described below. The sampling location and pattern of sampling is indicated on each school map attached in Section 2.0. The school maps are provided to indicate the sampling locations on the property and may not be spatially accurate.

Gravel playgrounds, containing slag in some instances, were prevalent at schools within the older urban areas of the Greater City of Sudbury. Since this was the only area for school children to play, duplicate samples were collected from the gravel playground by pushing aside the larger stones and, with a trowel, scraping the underlying fine gravel material. All samples were collected while walking in an "X" pattern across the gravel playground. For this type of sampling, the purpose was to collect the fine particles that would be air borne when school children run and/or slide on the gravel.

Sand samples were collected from all sanded play areas including those with play structures and sand boxes. Due to the constant mixing of sand and homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. In most cases, one sample was collected from the interior of the play area in an "X" pattern below the play structure, while the other sample was collected from the perimeter of the sanded play area adjacent to the pressure treated wood border and/or soil. This type of sampling should indicate if there is a concentration gradient from the outside wood border and/or surrounding soil to the interior of the play area. If there was no wooden border, both sand samples were collected from the interior of the sanded play area in an "X" pattern. In most cases, duplicate sand samples were collected; however, at some locations single sand samples were collected.

Soccer and football fields were sampled in duplicate with a hand held soil corer in an "X" pattern of the entire length of the field. Cores were separated into three depths, 0-5 cm, 5 - 10 cm, and 10 - 20 cm where possible. In addition, duplicate samples were taken in any worn area where bare soil was visible; most predominately at soccer goal posts and centre field. Due to the compacted nature of these areas, surface soil samples were taken with a trowel to represent the 0-5 cm depth.

Baseball diamond infields were in most cases gravel and very compacted. Therefore, duplicate surface samples were taken with a trowel. In most cases, one surface sample was collected while walking along the baseline, while the other was collected while walking an "X" pattern from home base to 2nd base and from 1st to 3rd base. This type of sampling should indicate if there is an effect of the chalk lines applied to the baseline compared to the interior of the infield.

Baseball diamond outfields were sampled in duplicate with soil corers in an "X" or "W" pattern. Cores were separated into three depths, 0-5 cm, 5 - 10 cm, and 10 - 20 cm where possible. Where the infield was grassed, samples were collected with a soil corer either as a separate site or combined with the baseball diamond outfield.

Sand from long jump pit landing sites was sampled in duplicate in an "X" pattern. A hand trowel

was used to sample the 0 to 15 cm layer due to the constant mixing of the sand in this location.

Samples were also taken from any grassed greenspace area where school children would play. Cores were separated into three depths, 0-5 cm, 5 - 10 cm, and 10 - 20 cm where possible.

Outdoor ice rinks were not sampled based on the premise that they would only be used when the soil was covered by ice. The remaining paved areas were not sampled.

All samples were delivered to the MOE Phytotoxicology laboratory where they were organized and shipped to Agat Laboratories for Processing (MOE 2000, Appendix F). Agat followed MOE Standard Operating Procedures which included air drying and sieving samples to obtain the 2 mm size fraction, and then further grinding the sample in a mortar and pestle to pass through a Number 45 mesh (0.355 mm) sieve. Finally, the ground material was stored in glass jars. All soil samples were then forwarded to Lakefield Laboratory for chemical analysis including: arsenic (As), aluminum (Al), barium (Ba), beryllium (Be), calcium (Ca), cadmium (Cd), cobalt (Co), copper (Cu), chromium (Cr), iron (Fe), magnesium (Mg), manganese (Mn), molybdenum (Mo), nickel (Ni), lead (Pb), selenium (Se), strontium (Sr), vanadium (V), and zinc (Zn). MOE data management and quality control procedures for both sample processing and metals analysis carried out by contract laboratories is outlined in Appendix F.

All data are reported in µg/g dry weight and were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997). In addition, school and daycare property samples have been compared to undisturbed soil results from nearby sites sampled as part of the 2000 Sudbury Soils Report (MOE 2001). It is important to note that the 2000 Report documented metals concentrations in surface soils primarily from undeveloped areas which may not be representative of all materials sampled on the school and/or daycare properties. All of the data presented within this report will be used to support the Human Health Risk Assessment that will be conducted for the City of Greater Sudbury.

2.0 INDIVIDUAL SCHOOL RESULTS, DESCRIPTIONS AND MAPS

2.1 Rainbow District School Board

As of June 2001, the Rainbow District School Board provided the MOE with a list of 40 school properties. MOE representatives were able to collect samples from each property during the summer of 2001. For each school there is a section below describing the results, a table with a subset of the results, and a map showing the sampling locations. The maps were provided by the Rainbow District School Board and the locations of the sampling sites shown are only approximate. The schools are listed alphabetically. Complete results for each school are listed in Table 4.1 along with the results from the other school boards.

Table B2.1 summarizes the number of schools in Rainbow District School Board that were sampled and the number schools where at least one sample exceeded the MOE soil criteria for nickel, copper, cobalt, arsenic or lead (MOE 1997).

Table B2.1: Number of Rainbow District Schools where at least on sample exceed MOE soil criteria.

Number of Schools Sampled	Nickel Exceedences		Copper Exceedences		Cobalt Exceedences		Arsenic Exceedences		Lead Exceedences	
	Table F	Table A	Table F	Table A	Table F	Table A	Table F	Table A	Table F	Table A
40	39	18	11	7	4	2	1	1	3	0

In order to fit all of the results data onto one table the standard chemical abbreviations had to used. To interpret the tables properly, the chart below can be used to translate the abbreviations.

Chemical Symbols Used in Results Tables				
Al - aluminum	**Sb** - antimony	**As** - arsenic	**Ba** - barium	**Be** - beryllium
Cd - cadmium	**Ca** - calcium	**Cr** - chromium	**Co** - cobalt	**Cu** - copper
Fe - iron	**Pb** - lead	**Mg** - magnesium	**Mn** - manganese	**Mo** - molybdenum
Ni - nickel	**Se** - selenium	**Sr** - strontium	**V** - vanadium	**Zn** - zinc

Please note as of 2004, Rainbow District School Board has closed Falconbridge Public School (2.2.13) and Robert Jack Public School (2.1.34) and has renamed Northeastern Secondary School (2.2.27) to Northeastern Elementary School.

2.1.1 Adamsdale Public School - Rainbow District School Board 181 1st Avenue, Sudbury

Adamsdale Public School was sampled on July 17, 2001. Figure 2.1.1 details the sampling locations at this property. Samples were taken from four areas on the school property. Area A corresponds to the baseball diamond outfield. Areas B and C correspond to the north and south baseball diamond infields, respectively. The north baseball diamond infield was grassed while the south infield was sand and gravel. Due to the compacted nature of Areas A, B, and C it was only possible to sample the surface soil (0 - 5 cm). Area D corresponds to sand samples that were taken from below the play structures. Due to the constant mixing of sand and the homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structure. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil of all other locations at this property. Copper was also elevated above the Table F Ontario Soil Background Criteria in the surface soil of the baseball diamond outfield and the south baseball diamond infield. The highest nickel and copper concentrations, 130 and 100 ppm, respectively, occurred in the surface soil of the south baseball diamond infield. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 0.5 km south and 1 km north of Adamsdale School, Stations 77 and 361, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations as high as 210 and 220 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.1: Concentration of 13 Elements in Soil in µg/g Collected at Adamsdale Public School, 181 1st Avenue, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037144	14299	0 - 5	< 0.8	< 5	41	< 0.8	41	6	**62**	49	< 1.5	**73**	< 1	29	30
		14300	0 - 5	< 0.8	6	44	< 0.8	43	7	**60**	34	< 1.5	**73**	< 1	33	36
Area B grass	5037145	14301	0 - 5	< 0.8	< 5	48	< 0.8	39	7	44	11	1.6	**65**	< 1	34	47
		14302	0 - 5	< 0.8	< 5	47	< 0.8	37	7	42	10	< 1.5	**60**	< 1	33	34
Area C gravel	5037146	14303	0 - 5	< 0.8	8	25	< 0.8	29	10	**100**	19	< 1.5	**120**	< 1	29	48
		14304	0 - 5	< 0.8	8	22	< 0.8	28	10	**92**	19	< 1.5	**130**	< 1	28	38
Area D sand	5037147	14305	0 - 15	< 0.8	< 5	23	< 0.8	29	7	17	2	< 1.5	19	< 1	28	17
		14306	0 - 15	< 0.8	5	22	< 0.8	29	8	18	3	< 1.5	20	< 1	29	17
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

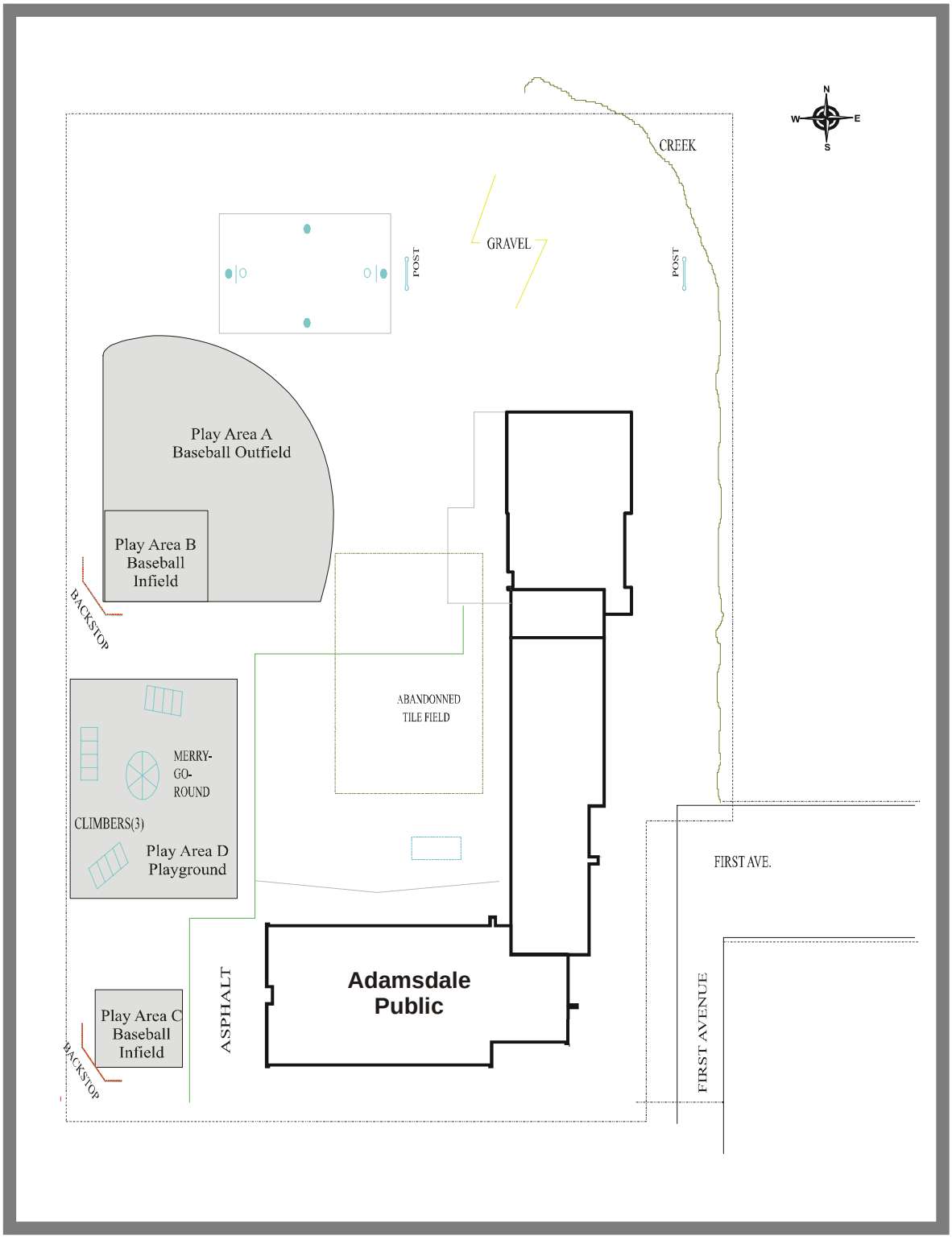

Figure B2.1.1: Adamsdale Public School Soil Sampling Locations - 2001

2.1.2 Alexander Public School - Rainbow District School Board 39 St. Brendan Street, Sudbury

Alexander Public School, in which Alexander Kids Daycare is located, was sampled on July 5, 2001. Figure B2.1.2 details the sampling locations at this property. Samples were collected from three areas on the school property, including the play area believed to be used by Alexander Kids Daycare. Areas A and B correspond to the northwest and southeast gravel playgrounds, respectively. Area C corresponds to the sand samples that were taken below the play structure. Due to the constant mixing of sand and the homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and the Table A Effects Based Soil Criteria (MOE 1997).

Metals concentrations were not elevated in the sand beneath the play structure in Area C. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metals concentrations. Copper (Cu), and nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria at both gravel playgrounds, whereas cobalt (Co) was elevated above the Table F Ontario Soil Background Criteria at the northwest gravel playground only. Nickel concentrations were above the MOE Table A Effects Based Soil Criteria at the northwest gravel playground of this property as well. The highest nickel, copper, and cobalt concentrations, 180, 180, and 31 ppm, respectively, were found at the northwest gravel playground. All other metals were listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

The nickel and copper results from the gravel playgrounds are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km south and 1.5 km west of Alexander Public School and Alexander Kids Daycare, Stations 74 and 75, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations as high as 830 and 820 ppm, respectively. The cobalt results from the gravel playgrounds are similar to those reported historically. The highest cobalt soil concentration reported for Stations 74 and 75 of the MOE Sudbury 2000 Report for the City of Greater Sudbury

Table B2.1.2: Concentration of 13 Elements in Soil in µg/g Collected at Alexander Public School, 39 St. Brendan Street, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037084	14166	0 - 5	< 0 . 8	< 5	34	< 0.8	47	**31**	**180**	14	< 1.5	**180**	< 1	35	73
		14167	0 - 5	< 0 . 8	< 5	40	< 0.8	47	**27**	**160**	14	< 1.5	**170**	< 1	36	61
Area B gravel	5037085	14168	0 - 5	< 0 . 8	< 5	29	< 0.8	26	8	**77**	6	< 1.5	**80**	< 1	25	26
		14169	0 - 5	< 0 . 8	< 5	35	< 0.8	29	11	**120**	9	< 1.5	**120**	< 1	27	40
Area C sand	5037086	14170	0 - 15	< 0 . 8	< 5	22	< 0.8	30	7	31	3	< 1.5	39	< 1	30	23
		14171	0 - 15	< 0 . 8	< 5	18	< 0.8	26	6	24	3	< 1.5	29	< 1	24	21
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

(MOE 2001) was 38 ppm. It is important to note that previous MOE sampling was of undisturbed soils, whereas, these results reported below are for small particles collected on gravel playgrounds.

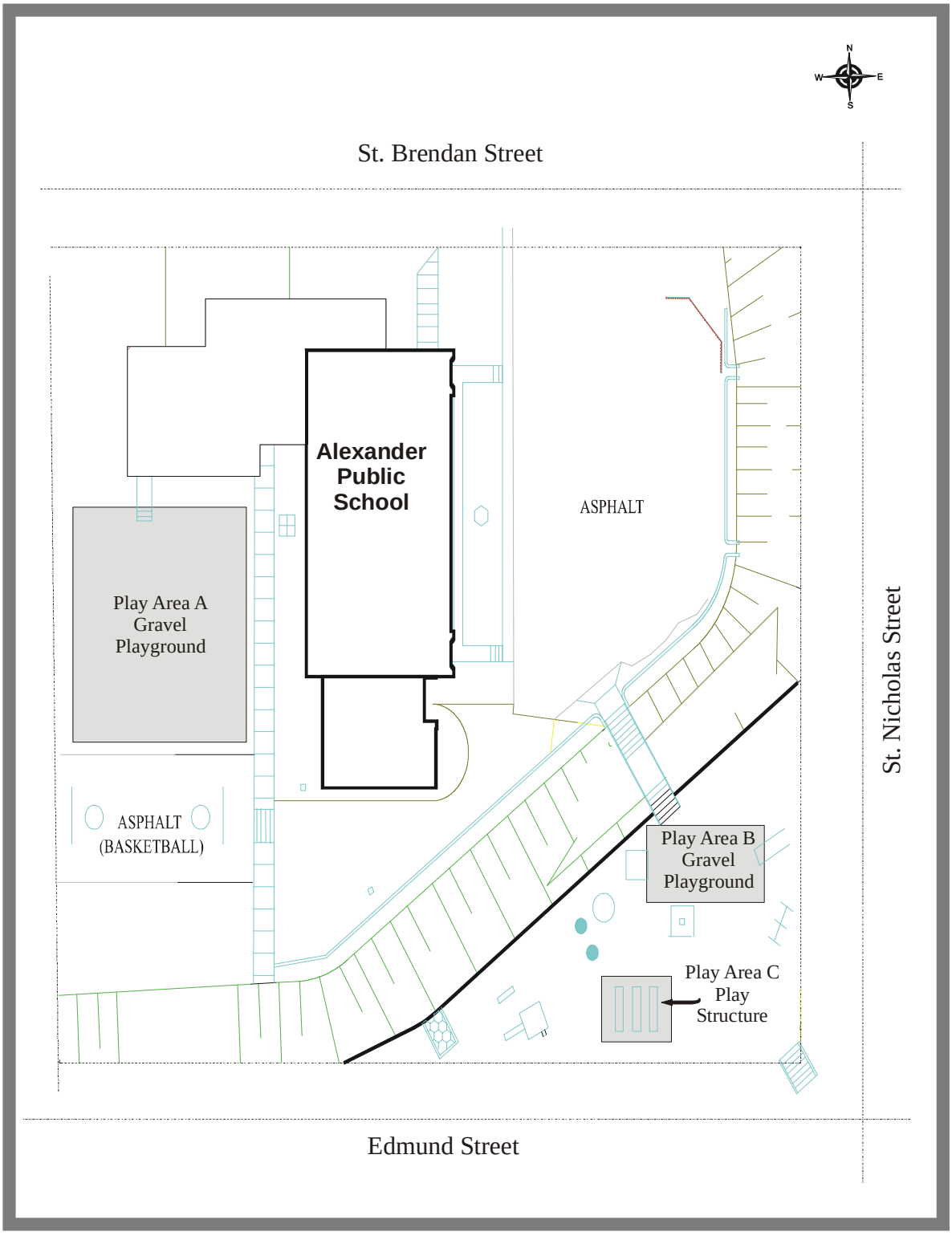

Figure B2.1.2: Alexander Public School Soil Sampling Locations - 2001

2.1.3 Algonquin Road Public School - Rainbow District School Board 2650 Algonquin Road, Sudbury

Algonquin Road Public School was sampled on July 3, 2001. Figure B2.1.3 details the sampling locations at this property. Samples were taken from five areas on the school property. Areas A and E correspond to the grassed play area north of the school and the baseball diamond outfield, respectively. Due to the compacted nature of these grassed areas, it was only possible to sample to a depth of 15 cm in the area north of the school and 10 cm in the baseball diamond outfield. Areas B and C correspond to the sand samples that were taken below the play structures. Due to the constant mixing of the sand and the homogeneous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. Area D corresponds to the baseball diamond infield. Due to the compacted nature of the gravel and sand infield, it was only possible to sample the surface soil (0 - 5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structures. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metals concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in Areas A and D. The highest nickel and copper concentrations, 85 and 74 ppm, respectively, occurred in the 5-10 cm depth of the grassed area north of the school (Area A). All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

Table B2.1.3: Concentration of 13 Elements in Soil in µg/g Collected at Algonquin Road Public School, 2650 Algonquin Road, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037016	14002	0 - 5	< 0.8	< 5	31	< 0.8	30	8	51	9	< 1.5	**63**	< 1	30	31
		14003	0 - 5	< 0.8	< 5	34	< 0.8	31	9	**58**	10	< 1.5	**71**	< 1	30	32
		14004	5 - 10	< 0.8	< 5	37	< 0.8	30	8	**71**	15	< 1.5	**85**	< 1	30	39
		14005	5 - 10	< 0.8	< 5	40	< 0.8	31	8	**74**	13	< 1.5	**80**	< 1	31	40
		14006	10 - 15	< 0.8	< 5	40	< 0.8	28	6	39	8	< 1.5	**49**	< 1	31	24
		14007	10 - 15	< 0.8	< 5	37	< 0.8	27	5	42	7	< 1.5	**46**	< 1	31	24
Area B sand	5037017	14008	0 - 15	< 0.8	< 5	22	< 0.8	29	7	23	4	< 1.5	24	< 1	30	16
		14009	0 - 15	< 0.8	< 5	21	< 0.8	30	7	23	3	< 1.5	24	< 1	32	16
Area C sand	5037018	14010	0 - 15	< 0.8	< 5	20	< 0.8	28	7	18	3	< 1.5	24	< 1	33	14
		14011	0 - 15	< 0.8	< 5	24	< 0.8	35	7	22	3	< 1.5	27	< 1	35	17
Area D gravel	5037019	14012	0 - 5	**1.1**	< 5	48	< 0.8	35	9	52	8	< 1.5	**62**	< 1	30	23
		14013	0 - 5	**1.5**	< 5	58	< 0.8	41	10	54	7	2.7	**68**	< 1	33	29
Area E grass	5037020	14018	0 - 5	< 0.8	< 5	41	< 0.8	33	7	45	9	< 1.5	**72**	< 1	30	31
		14019	0 - 5	< 0.8	< 5	41	< 0.8	35	7	47	9	< 1.5	**72**	< 1	31	33
		14020	5 - 10	< 0.8	6	50	< 0.8	46	8	47	10	< 1.5	**72**	< 1	37	37
		14021	5 - 10	< 0.8	< 5	45	< 0.8	47	8	41	10	< 1.5	**66**	< 1	37	32
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

These soil results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1.5 km north northeast and 1.5 km southwest of Algonquin Public School, Stations 366 and 365, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations as high as 170 and

190 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

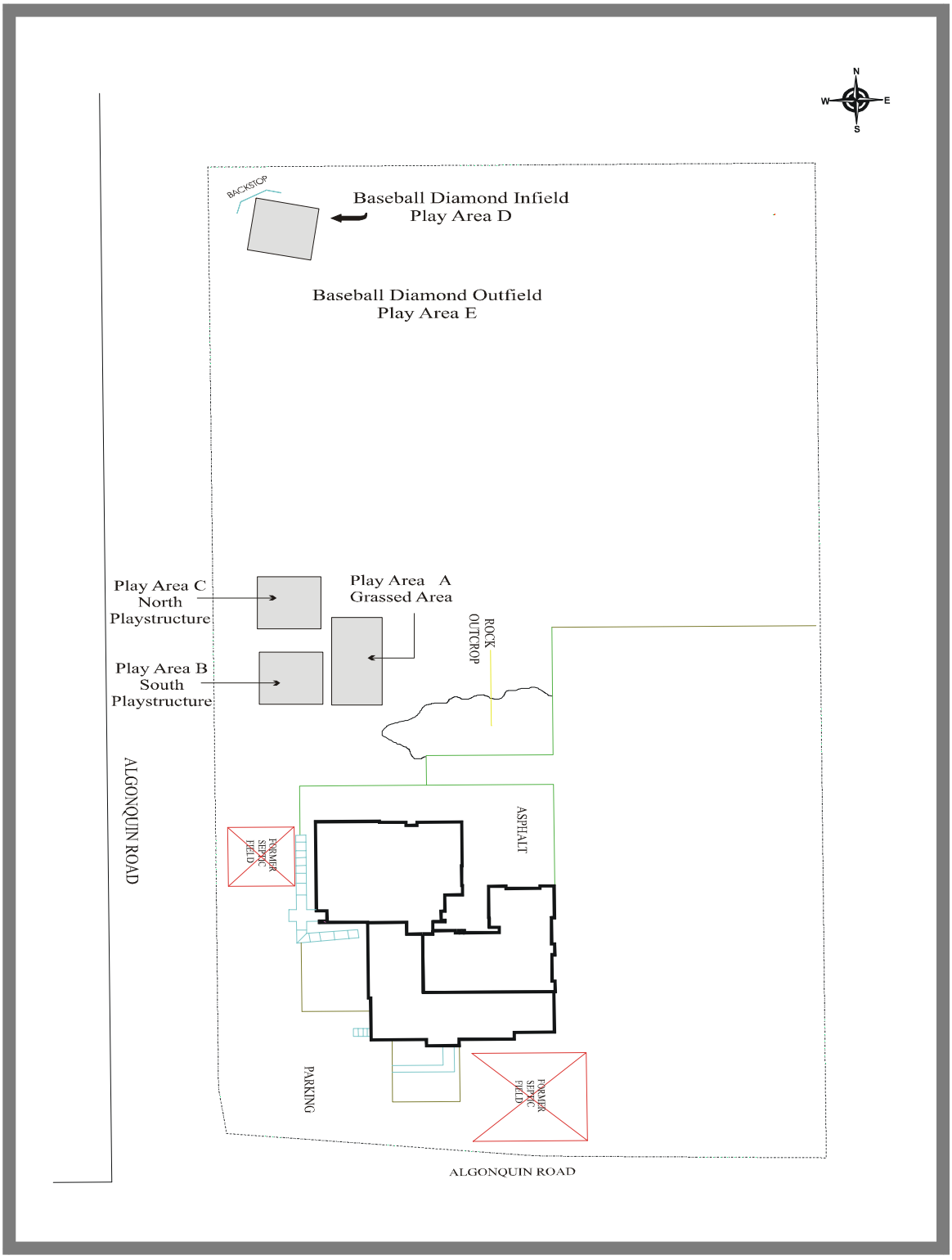

Figure B2.1.3: Algonquin Public School Soil Sampling Locations - 2001

2.1.4 C.R. Judd Public School - Rainbow District School Board 8 Lincoln Street, Capreol

C.R. Judd Public School, including C.R. Judd Daycare, was sampled on July 20, 2001. Figure B2.1.4 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the baseball diamond outfield. Due to the compacted nature of this area it was only possible to sample the surface soil (0-5 cm). Area B corresponds to the grassed football field southwest of the school. Soil samples from this location were taken at all three depths. Area C corresponds to sand taken from the sand boxes located on the east side of the school. Due to the constant mixing of sand and homogeneous nature of the sanded areas, a single sand sample was collected with a hand trowel to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand from the sand boxes. The sand present is not likely native to the school property and is believed to have been introduced when the sand boxes were constructed. Thus the sand was not expected to have elevated metal concentrations. Only one sample from this property had a nickel concentration that was slightly elevated above the MOE Table F Ontario Soil Background Criteria at 46 ppm. There were not any other exceedences of the MOE Table F Ontario Soil Background Criteria or the MOE Table A Effects Based Soil Criteria at this property. In addition, aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were also below the MOE Table F Ontario Soil Background Criteria.

These soil results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km north northwest of C.R. Judd Public School, Station 352 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations as high as 130 and 110 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.4: Concentration of 13 Elements in Soil in µg/g Collected at C.R. Judd Public School, 8 Lincoln Street, Capreol - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037354	14571	0 - 5	< 0 . 8	6	33	< 0.8	25	4	34	10	< 1.5	**46**	< 1	26	28
		14572	0 - 5	< 0 . 8	6	34	< 0.8	26	5	30	10	< 1.5	41	< 1	26	28
Area B grass	5037355	14573	0 - 5	< 0 . 8	6	27	< 0.8	31	4	30	32	< 1.5	36	< 1	24	26
		14574	0 - 5	< 0 . 8	6	27	< 0.8	36	4	31	49	< 1.5	37	< 1	23	27
		14575	5 - 10	< 0 . 8	6	27	< 0.8	24	4	19	9	< 1.5	30	< 1	22	22
		14576	5 - 10	< 0 . 8	5	25	< 0.8	24	4	16	5	< 1.5	26	< 1	21	19
		14577	10 - 20	< 0 . 8	< 5	25	< 0.8	24	4	13	4	< 1.5	21	< 1	24	17
		14578	10 - 20	< 0 . 8	< 5	30	< 0.8	26	4	17	5	< 1.5	29	< 1	26	22
Area C sand	5037356	14579	0 - 15	< 0 . 8	< 5	23	< 0.8	25	6	12	2	< 1.5	18	< 1	25	16
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

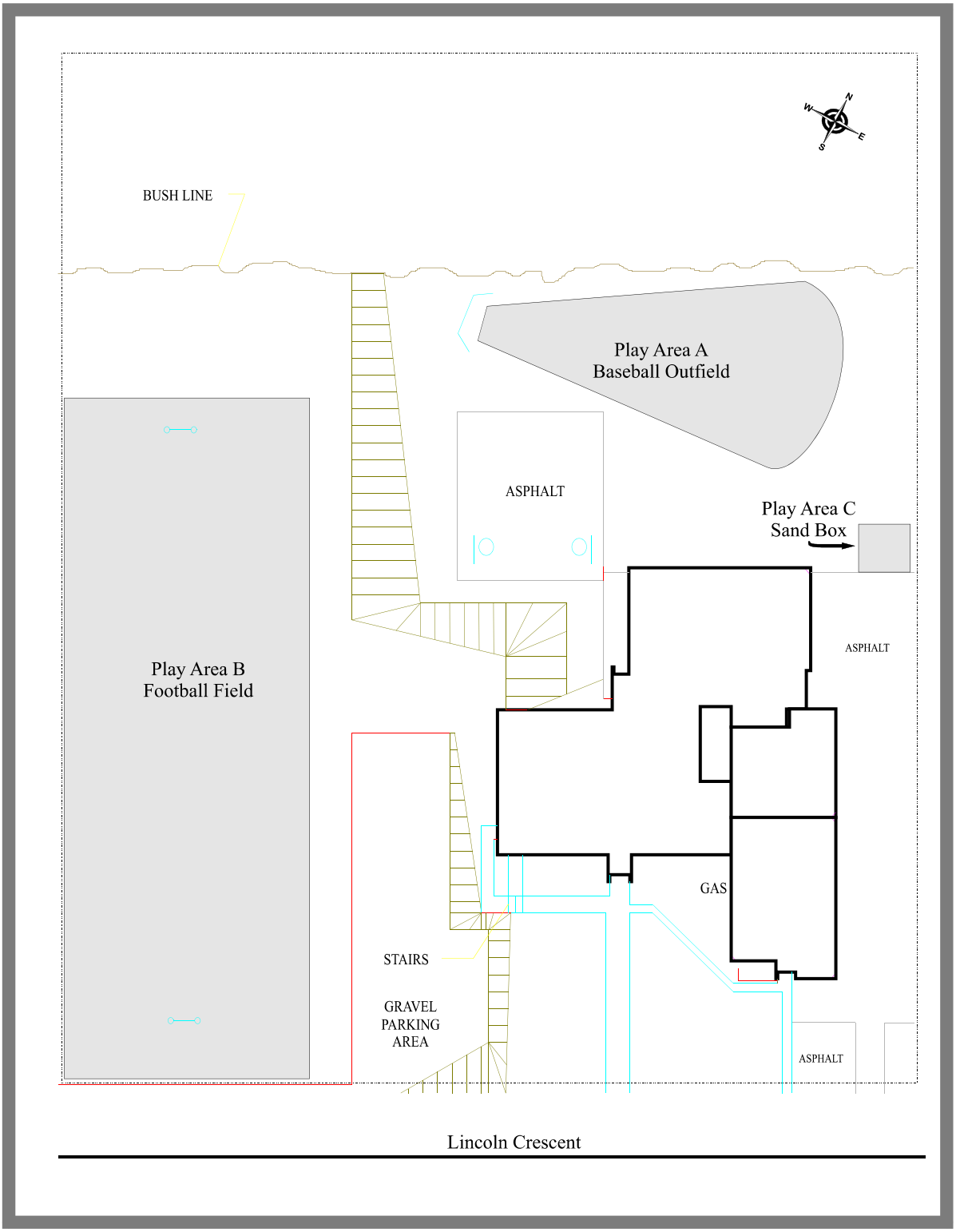

Figure B2.1.4: C.R. Judd Public School Sampling Locations - 2001.

2.1.5 Carl A. Nesbitt Public School - Rainbow District School Board 1241 Roy Street, Sudbury

Carl A. Nesbitt Public School was sampled on July 17, 2001. Figure B2.1.5 details the sampling locations at this property. Samples were taken from nine areas on the school property. Area A corresponds to the grassed area of the south soccer field. Areas B and C correspond to the worn areas at the south and north goal posts, respectively. Area G corresponds to the worn area at the north goal post of the north soccer field. Area H corresponds to the baseball diamond infield. Due to the compacted nature of Areas A, B, C, G, and H, it was only possible to sample the surface soil (0 - 5 cm) layer. Areas D and E correspond to sand samples taken from below the play structure and from the sand box, respectively. Area I corresponds to a sand sample that was taken from the landing area of the long jump pit. Due to the constant mixing of sand and the homogeneous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. Area F corresponds to the grassed area of the north soccer field. All depths were able to be collected from this area. All data was compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metals concentrations were not elevated in the sand samples that were taken from below the play structure (Area D), from the sand box (Area E), or from the landing area of the long jump pit (Area I). The sand present is not likely native to the school property and is believed to have been introduced when the play areas were constructed. Thus the sand was not expected to have elevated metals concentrations. Nickel concentrations were elevated above the MOE Table F Ontario Soil Background Criteria at all other sampling locations and depths at this property. Copper was elevated above the Table F Ontario Soil Background Criteria for all sampling depths at both soccer fields. The highest nickel and copper concentrations, 120 and 110 ppm, respectively, occurred in the surface soil of the south soccer field. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These surface soil results are similar to those reported historically. Previous MOE sampling of undisturbed soils approximately 1 east of Carl A. Nesbitt Public School, Station 43 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations as high as 190 and 210 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of all materials sampled on this property.

Table B2.1.5: Concentration of 13 Elements in Soil in µg/g Collected at Carl A Nesbitt Public School, 1241 Roy Street, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037184	14346	0 - 5	< 0.8	6	48	< 0.8	32	9	**110**	18	< 1.5	**120**	< 1	30	35
		14347	0 - 5	< 0.8	5	44	< 0.8	32	7	**100**	12	< 1.5	**77**	< 1	31	28
Area B soil	5037185	14348	0 - 5	< 0.8	6	44	< 0.8	35	7	50	11	< 1.5	**75**	< 1	34	27
Area C soil	5037186	14349	0 - 5	< 0.8	5	37	< 0.8	34	7	56	11	< 1.5	**74**	< 1	32	27
Area D sand	5037187	14350	0 - 15	< 0.8	< 5	23	< 0.8	26	6	14	2	< 1.5	22	< 1	33	16
		14351	0 - 15	< 0.8	< 5	24	< 0.8	27	6	15	2	< 1.5	22	< 1	33	17
Area E sand	5037188	14352	0 - 15	< 0.8	< 5	19	< 0.8	22	5	12	2	< 1.5	17	< 1	27	16
		14353	0 - 15	< 0.8	< 5	20	< 0.8	25	6	15	3	< 1.5	19	< 1	31	20
Area F grass	5037189	14357	0 - 5	< 0.8	< 5	41	< 0.8	36	8	**87**	16	< 1.5	**99**	< 1	30	34
		14358	0 - 5	< 0.8	< 5	44	< 0.8	35	8	**73**	13	< 1.5	**77**	< 1	33	31
		14359	5 - 10	< 0.8	6	38	< 0.8	34	7	**60**	10	< 1.5	**70**	< 1	31	27
		14360	5 - 10	< 0.8	< 5	34	< 0.8	30	7	47	7	< 1.5	**55**	< 1	31	24
		14361	10 - 20	< 0.8	8	40	< 0.8	33	8	**73**	11	< 1.5	**100**	< 1	29	27
		14362	10 - 20	< 0.8	7	42	< 0.8	34	8	**57**	9	< 1.5	**94**	< 1	30	24
Area G soil	5037190	14355	0 - 5	< 0.8	6	41	< 0.8	32	6	53	8	< 1.5	**60**	< 1	32	47
Area H soil	5037191	14354	0 - 5	< 0.8	< 5	46	< 0.8	32	7	51	10	< 1.5	**73**	< 1	31	41
Area I sand	5037192	14356	0 - 15	< 0.8	< 5	18	< 0.8	21	5	11	2	< 1.5	14	< 1	26	13
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

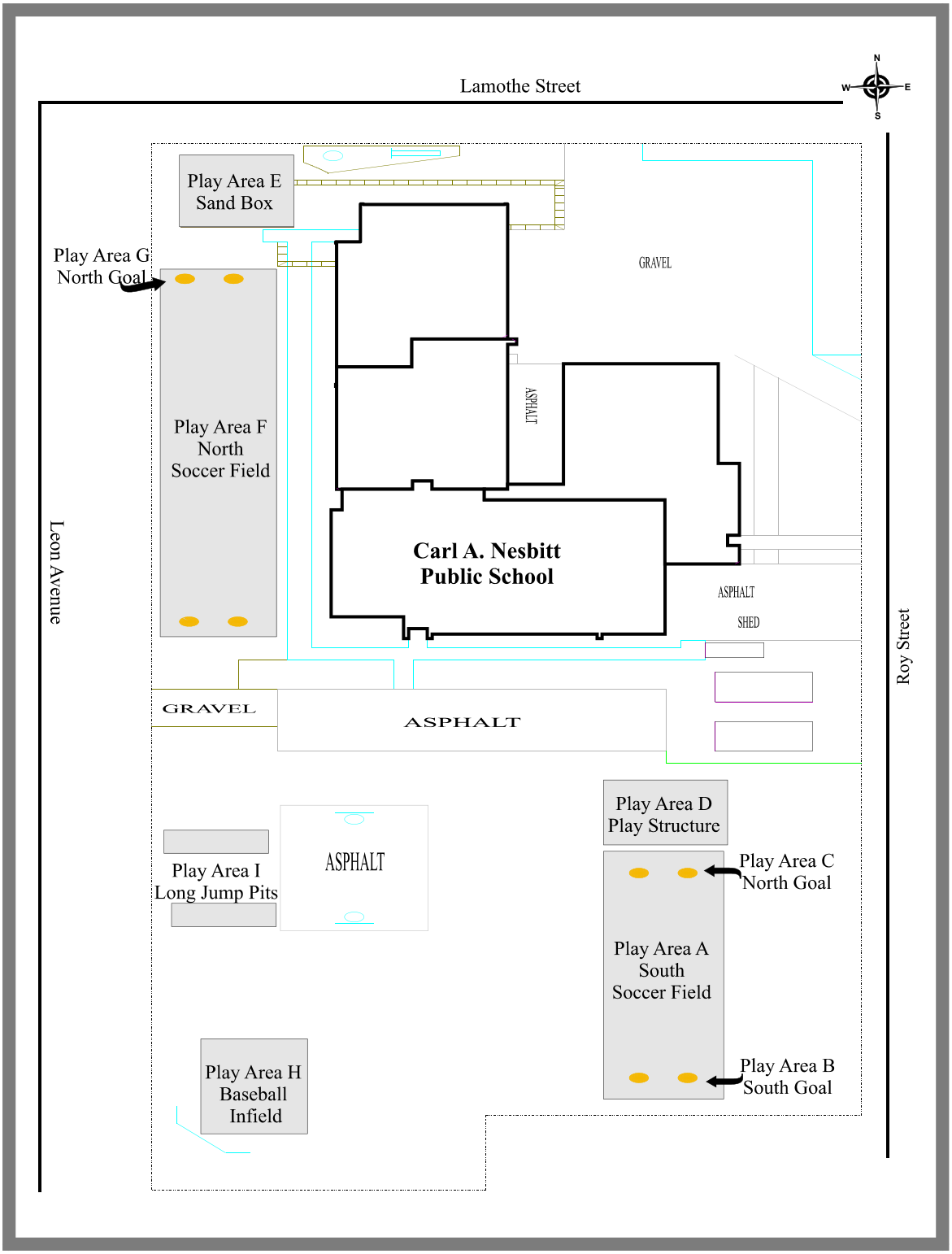

Figure B2.1.5: Carl A. Nesbitt Public School Sampling Locations - 2001.

2.1.6 Chelmsford Public School - Rainbow District School Board 121 Charlotte Street, Chelmsford

Chelmsford Public School, including Services de Garde Rayside-Balfour #2 Daycare, was sampled on July 19, 2001. Figure B2.1.6 details the sampling locations at this property. Samples were taken from four areas on the school property. Area A corresponds to the grassed area of the soccer field. Areas B, C, and D correspond to sand samples that were taken from the north, east and west sanded play areas, respectively. Due to the constant mixing of sand and the homogeneous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structures or in the landing area of the long jump pit. The sand present is not likely native to the school property and is believed to have been introduced when the play areas were constructed. Thus the sand was not expected to have elevated metals concentrations. Nickel concentrations were marginally elevated above the MOE Table F Ontario Soil Background Criteria in the soil samples collected from the soccer field, with the highest nickel concentration found, 49 ppm, in the surface soil layer (0-5 cm). All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results are slightly lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 3 km southwest and 3 km northwest of Chelmsford Public School, Stations 385 and 386 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel concentrations as high as 83 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.6: Concentration of 13 Elements in Soil in µg/g Collected at Chelmsford Public School, 121 Charlotte Street, Chelmsford - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037388	14526	0 - 5	< 0.8	6	43	< 0.8	35	6	32	11	< 1.5	**47**	< 1	33	30
		14527	0 - 5	< 0.8	< 5	43	< 0.8	33	6	28	10	< 1.5	**49**	< 1	32	29
		14528	5 - 10	< 0.8	< 5	44	< 0.8	36	6	22	10	< 1.5	42	< 1	35	25
		14529	5 - 10	< 0.8	< 5	43	< 0.8	35	6	28	11	< 1.5	**47**	< 1	33	26
		14530	10 - 20	< 0.8	< 5	37	< 0.8	28	5	20	9	< 1.5	38	< 1	31	21
		14531	10 - 20	< 0.8	< 5	40	< 0.8	30	6	22	9	< 1.5	42	< 1	32	23
Area B sand	5037389	14523	0 - 15	< 0.8	< 5	18	< 0.8	26	6	15	4	< 1.5	16	< 1	31	21
Area C sand	5037390	14524	0 - 15	< 0.8	< 5	18	< 0.8	27	7	15	4	< 1.5	20	< 1	32	23
Area D sand	5037391	14525	0 - 15	< 0.8	< 5	16	< 0.8	25	6	17	4	< 1.5	16	< 1	33	20
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

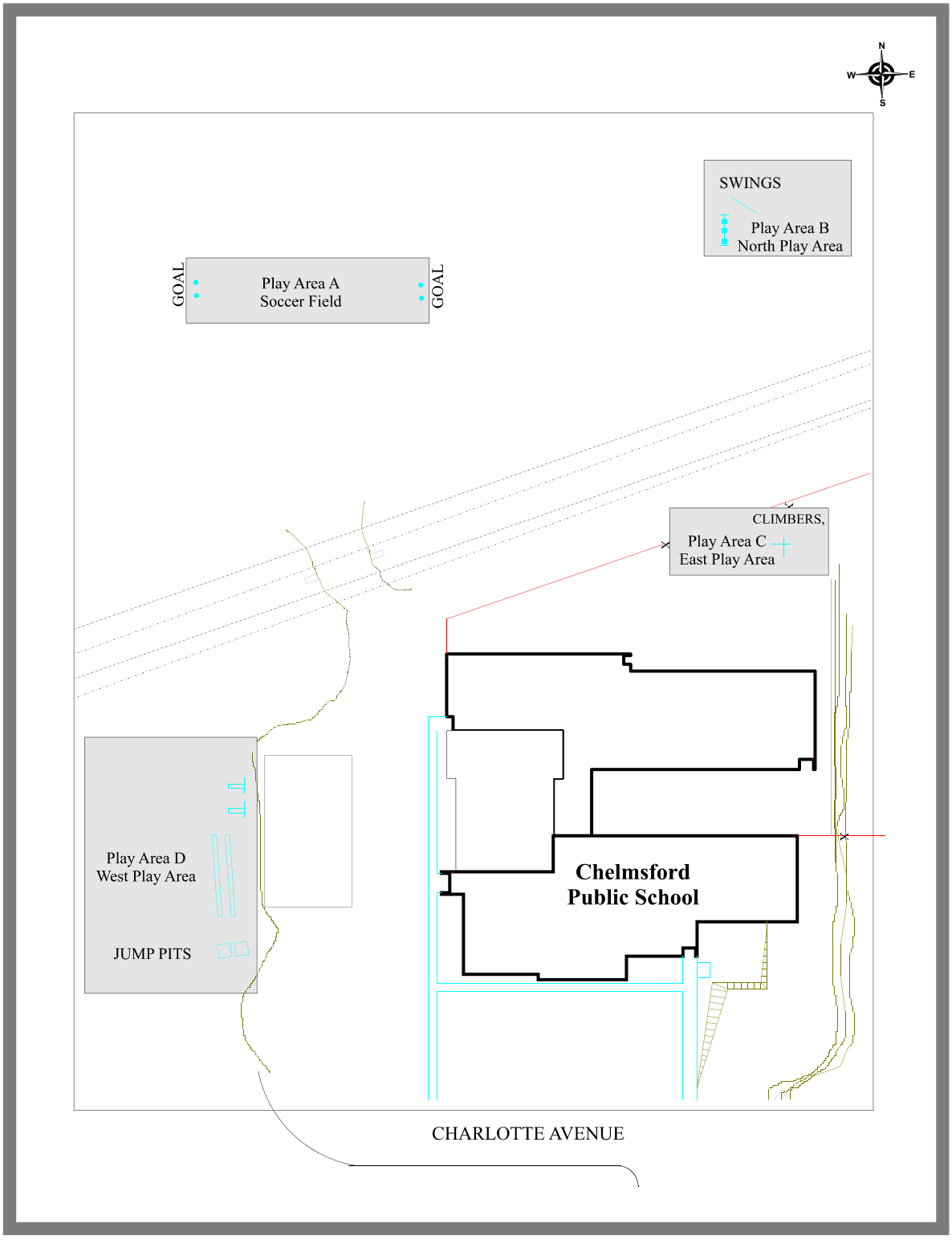

Figure B2.1.6: Chelmsford Public School Sampling Locations - 2001.

2.1.7 Chelmsford Valley District School - Rainbow District School Board 3594 Highway 144, Chelmsford

The property of Chelmsford Valley District School , which is also utilized by students of E.P. Pavillion de l'avenir of the Conseil Scolaire du District de Grand Nord de L'Ontario, was sampled on July 19, 2001. Figure B2.1.7 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to grassed football field located inside of the running track. Area B corresponds to grassed areas of the soccer fields at the north end of the property. Area C corresponds to the baseball diamond infield. Due to the compacted nature of Area C, it was only possible to sample the surface soil (0 - 5 cm), while all other grassed areas were sampled at three depths. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil of the soccer fields only. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results are slightly lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 3 km southwest and 3 km northwest of Chelmsford Valley District School, Stations 385 and 386, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel concentrations as high as 83 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.7: Concentration of 13 Elements in Soil in µg/g Collected at Chelmsford Valley District School, 3594 Highway 144, Chelmsford - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037375	14503	0 - 5	< 0.8	< 5	36	< 0 . 8	34	5	23	46	< 1.5	36	< 1	28	21
		14504	0 - 5	< 0.8	6	35	< 0 . 8	36	5	19	55	< 1.5	32	< 1	28	21
		14505	5 - 10	< 0.8	< 5	37	< 0 . 8	30	5	16	8	< 1.5	30	< 1	30	20
		14506	5 - 10	< 0.8	5	39	< 0 . 8	33	7	23	15	< 1.5	38	< 1	31	25
		14507	10 - 20	< 0.8	< 5	36	< 0 . 8	30	6	27	17	< 1.5	43	< 1	29	23
Area B grass	5037376	14508	0 - 5	< 0.8	6	32	< 0 . 8	24	5	38	14	< 1.5	**54**	< 1	26	22
		14509	0 - 5	< 0.8	< 5	30	< 0 . 8	22	5	37	14	< 1.5	**55**	< 1	24	21
		14510	5 - 10	< 0.8	< 5	33	< 0 . 8	25	5	18	7	< 1.5	33	< 1	27	18
		14511	5 - 10	< 0.8	5	34	< 0 . 8	26	5	22	9	< 1.5	39	< 1	27	19
		14512	10 - 20	< 0.8	< 5	35	< 0 . 8	27	4	17	7	< 1.5	35	< 1	26	18
Area C soil	5037377	14513	0 - 5	< 0.8	< 5	37	< 0 . 8	29	6	17	6	< 1.5	27	< 1	28	22
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

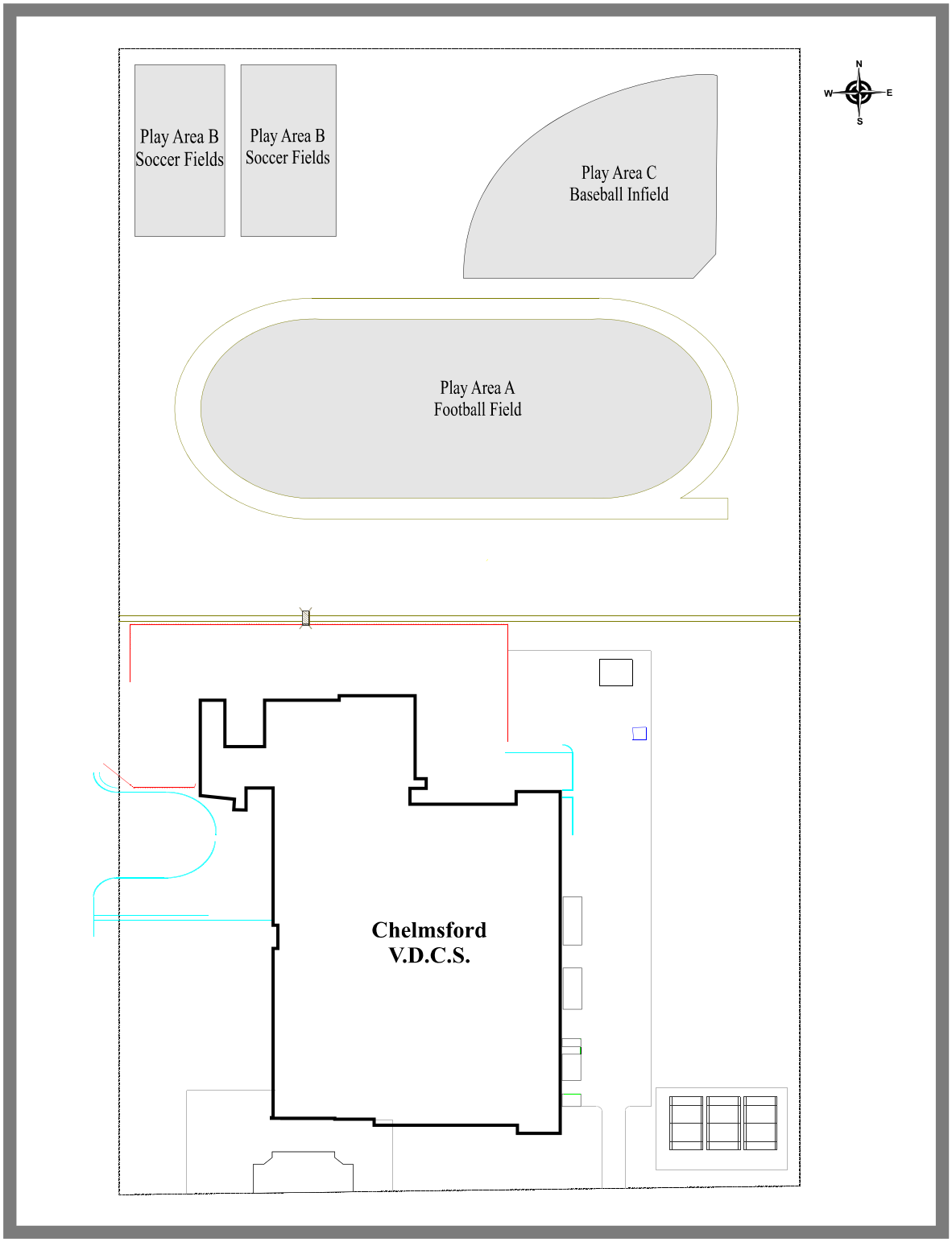

Figure B2.1.7: Chelmsford Valley District School Sampling Locations - 2001.

2.1.8 Churchill Public School - Rainbow District School Board 1722 Fielding Street, Sudbury

Churchill Public School was sampled on July 28, 2001. Figure B2.1.8 details the sampling locations at this property. Samples were taken from six areas on the school property. Area A corresponds to the shared baseball diamond outfields on the west side of the school building. Areas B and C correspond to the south and north baseball diamond infields, respectively. Area E corresponds to the baseball diamond outfield on the north east end of the school property and Area F corresponds to the baseball diamond infield at the same location. Due to the compacted nature of these baseball diamonds, it was only possible to sample the surface soil (0-5 cm). Area D corresponds to the sand in the landing area of the long jump pit. Due to the constant mixing of the sand and homogeneous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand of the landing area of the long jump pit. The sand present is not likely native to the school property and is believed to have been introduced when the play area was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria at all other soil sampling locations at this property. Nickel, copper, and cobalt (Co) concentrations were also elevated above the MOE Table A Effects Based Soil Criteria in the grassed area of the baseball diamond outfield located on the northeast end of the school property. The highest nickel, copper and cobalt concentrations found on this property were 420, 300, and 42 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.
These results are higher than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km north of Churchill Public School, Station 43 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel, copper, and cobalt surface soil concentrations as high as 190, 210, and 12, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.18: Concentration of 13 Elements in Soil in µg/g Collected at Churchill Public School, 1722 Fielding Street, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037166	14448	0 - 5	< 0.8	6	39	< 0.8	30	8	**100**	18	< 1.5	**120**	1	27	28
		14449	0 - 5	< 0.8	< 5	44	0.8	36	9	**130**	28	< 1.5	**140**	1	29	32
Area B soil	5037167	14450	0 - 5	< 0.8	< 5	40	< 0.8	41	13	**100**	14	< 1.5	**120**	< 1	31	42
Area C soil	5037168	14451	0 - 5	< 0.8	< 5	26	< 0.8	25	8	52	7	< 1.5	**59**	< 1	26	23
Area D sand	5037169	14452	0 - 15	< 0.8	< 5	18	< 0.8	22	5	12	2	< 1.5	18	< 1	23	14
Area E grass	5037170	14453	0 - 5	< 0.8	8	40	< 0.8	38	**42**	**300**	34	< 1.5	**420**	1	32	69
		14454	0 - 5	< 0.8	6	44	< 0.8	34	**34**	**220**	21	< 1.5	**320**	1	33	54
Area F soil	5037171	14455	0 - 5	< 0.8	7	40	< 0.8	34	14	**110**	17	< 1.5	**120**	1	32	75
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

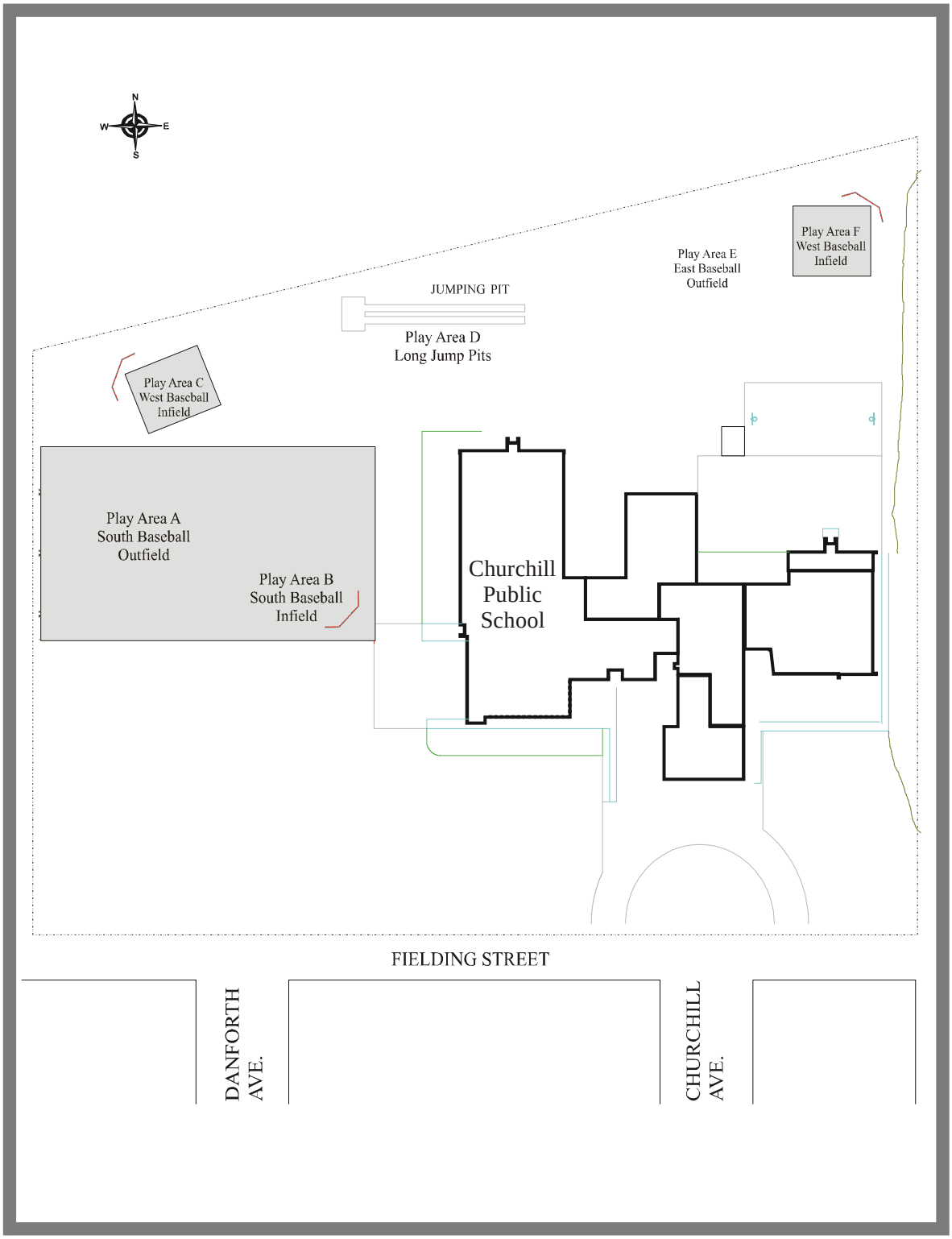

Figure B2.1.8: Churchill Public School Sampling Locations - 2001

2.1.9 Confederation Secondary School - Rainbow District School Board 1918 Main Street West, Val Caron

Confederation Secondary School was sampled on July 23, 2001. Figure B2.1.9 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to the grassed area of the soccer field and Area B corresponds to the worn areas at the north and south goal posts. Due to the compacted nature of the soccer field, it was only possible to sample the surface soil (0-5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel and lead concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil of the grassed soccer field, with the highest nickel and lead concentrations being 74 and 170 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel soil results are lower than those reported historically, while the lead soil results are higher than previously reported. Previous MOE sampling of undisturbed soils approximately 1 km northwest and 2 km south southeast of Confederation Secondary School, Stations 15 and 340, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and lead concentrations of 140 and 90 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.9: Concentration of 13 Elements in Soil in µg/g Collected at Confederation Secondary School, 1918 Main Street West, Val Caron - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037294	14797	0 - 5	< 0.8	< 5	35	< 0 . 8	57	5	40	**170**	< 1.5	**54**	< 1	22	23
		14798	0 - 5	< 0.8	< 5	38	< 0 . 8	36	5	52	**77**	< 1.5	**74**	< 1	20	26
Area B soil	5037295	14799	0 - 5	< 0.8	< 5	27	< 0 . 8	26	3	26	21	< 1.5	38	< 1	26	17
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

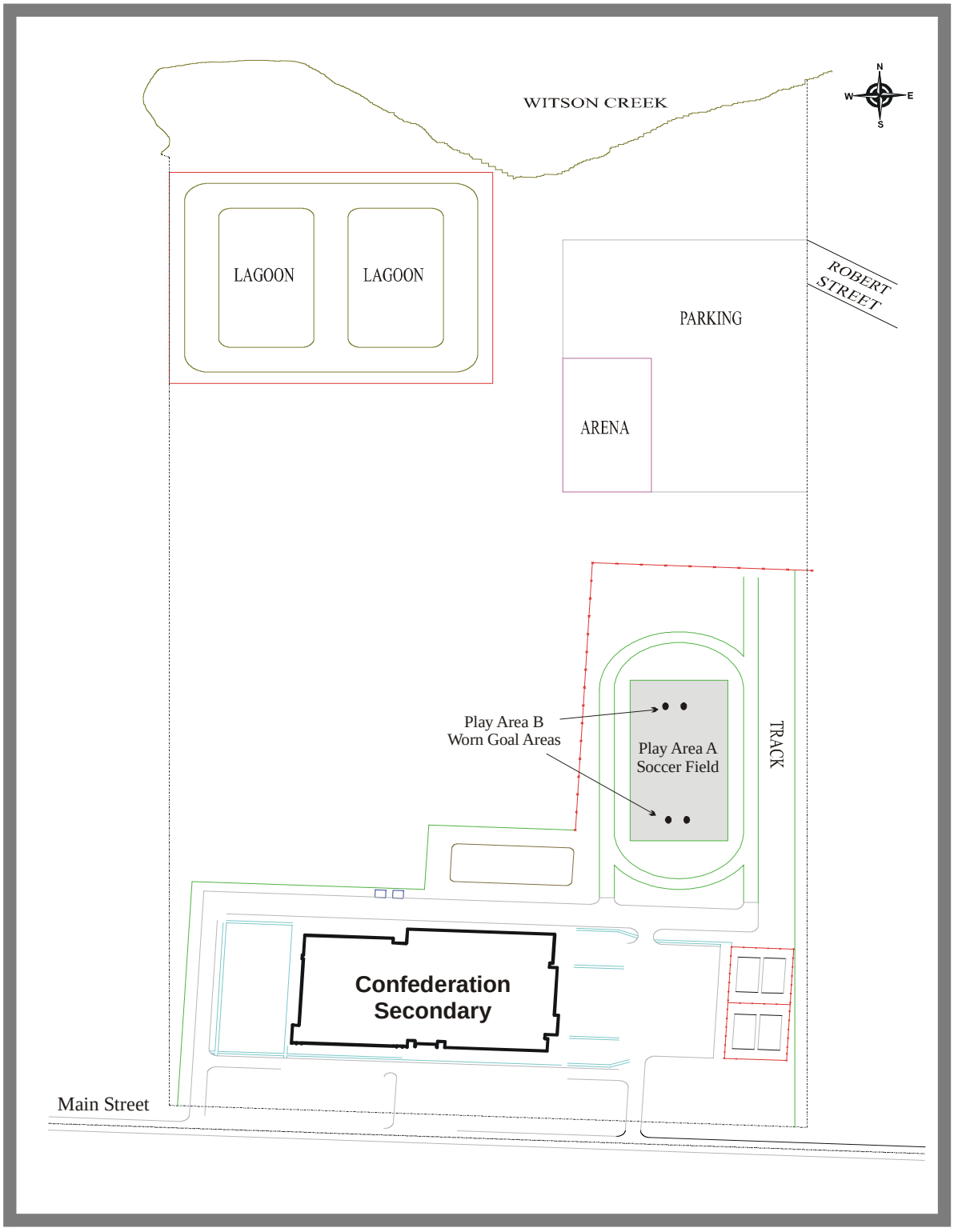

Figure B2.1.9: Confederation Secondary School Sampling Locations - 2001

2.1.10 Copper Cliff Public School - Rainbow District School Board 50 School Street, Copper Cliff

Copper Cliff Public School was sampled on July 21, 2001. Figure B2.1.10 details the sampling locations at this property. Samples were taken from five areas on the school property. Area A corresponds to the large grassed area in the centre of the property. Areas B and C correspond to sand samples beneath the north and south play structures, respectively. Due to the constant mixing of sand and homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. Area D corresponds to the baseball diamond outfield and Area E corresponds to the grassed baseball diamond infield. Due to the compacted nature of Area E, it was only possible to sample the surface soil (0-5 cm). Areas D and E were sampled again on September 17th, 2001 as part of Gerry Mills Memorial Park. See Appendix C for re-sampling results. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structures. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel and copper concentrations were elevated above the MOE Table A Effects Based Soil Criteria at all other soil locations at this property. Arsenic, cobalt and selenium were also elevated above the Table A Effects Based Soil Criteria at selected sites, while antimony, cadmium, and lead exceeded the Table F Ontario Soil Background Criteria at selected sites. The highest nickel and copper concentrations, 2500 and 2900 ppm, respectively, occurred in the surface soil of the large grassed area (Area A). Depth samples were collected for Areas A and D only and in both cases, nickel and copper concentrations were highest at the surface and decreased with increasing depths. This observation is indicative of atmospheric deposition. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

These soil results are consistent with those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km north, 1 km east southeast, and 1 km southeast of Copper Cliff Public School, Stations 87, 96, and 106, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated soil nickel and copper levels as high as 2125 and 2800 ppm, respectively. The nickel and copper levels found in the surface soil of the grassed area at the Copper Cliff Public School are slightly higher than those found historically. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.10: Concentration of 13 Elements in Soil in µg/g Collected at Copper Cliff Public School, 50 School Street, Copper Cliff - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037254	14670	0 - 5	< 0.8	**32**	82	**3.1**	48	**80**	**2900**	**100**	1.6	**2500**	**12**	28	110
		14671	0 - 5	< 0.8	**37**	76	**2.6**	54	**80**	**2500**	**90**	< 1.5	**2500**	**8**	33	110
		14672	5 - 10	**1.5**	**65**	83	**1.1**	39	**38**	**1100**	34	< 1.5	**1600**	**4**	31	51
		14673	5 - 10	**1.6**	**77**	97	**1.4**	45	**46**	**1300**	41	< 1.5	**1900**	**6**	34	68
		14674	10 - 20	1	**35**	63	< 0.8	28	11	**190**	7	< 1.5	**260**	1	28	30
		14675	10 - 20	**1.1**	**44**	58	< 0.8	27	14	**260**	11	< 1.5	**370**	1	27	27
Area B sand	5037255 Slide	14676	0 - 15	< 0.8	< 5	28	< 0.8	35	9	47	4	< 1.5	43	< 1	37	24
		14677	0 - 15	< 0.8	< 5	26	< 0.8	35	9	36	4	< 1.5	34	< 1	36	23
	5037256 Climbers	14678	0 - 15	< 0.8	< 5	26	< 0.8	33	8	43	4	< 1.5	38	< 1	33	22
		14679	0 - 15	< 0.8	< 5	22	< 0.8	32	8	27	3	< 1.5	28	< 1	32	21
	5037257 Swings	14680	0 - 15	< 0.8	< 5	25	< 0.8	34	8	39	4	< 1.5	34	< 1	36	23
		14681	0 - 15	< 0.8	< 5	24	< 0.8	33	8	26	3	< 1.5	24	< 1	34	22
Area C sand	5037258 Climbers	14682	0 - 15	< 0.8	< 5	27	< 0.8	35	8	34	4	< 1.5	27	< 1	36	21
		14683	0 - 15	< 0.8	< 5	27	< 0.8	32	9	29	4	< 1.5	30	< 1	33	21
	5037259 Climbers	14684	0 - 15	< 0.8	< 5	26	< 0.8	34	9	32	3	< 1.5	29	< 1	34	21
		14685	0 - 15	< 0.8	< 5	27	< 0.8	34	9	34	3	< 1.5	33	< 1	34	21
Area D grass	5037260* Baseball Outfiled	14686	0 - 5	< 0.8	**24**	37	**3.1**	24	**54**	**2000**	**96**	< 1.5	**1700**	**7**	16	49
		14687	0 - 5	< 0.8	**28**	32	**2.6**	20	**45**	**1600**	51	< 1.5	**1500**	**5**	16	39
		14688	5 - 10	**1.4**	**66**	81	**1.6**	33	**39**	**980**	33	< 1.5	**1100**	**7**	34	57
		14689	5 - 10	**1.8**	**94**	76	**2.4**	38	**42**	**940**	55	< 1.5	**1100**	**9**	33	67
		14690	10 - 20	< 0.8	**36**	36	< 0.8	23	15	**190**	11	< 1.5	**250**	**3**	26	26
		14691	10 - 20	0.9	**52**	42	**1.1**	15	23	**540**	19	< 1.5	**710**	**4**	22	19
Area E grass	5037261* Infield	14692	0 - 5	< 0.8	6	85	< 0.8	30	11	**250**	11	< 1.5	**250**	1	27	26
		14693	0 - 5	< 0.8	6	110	< 0.8	32	11	**270**	12	< 1.5	**260**	1	29	27
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

* - the baseball diamond was sampled twice. Once as part of the school and the second time as Gerry Mills Memorial Park. (see Appendix C)

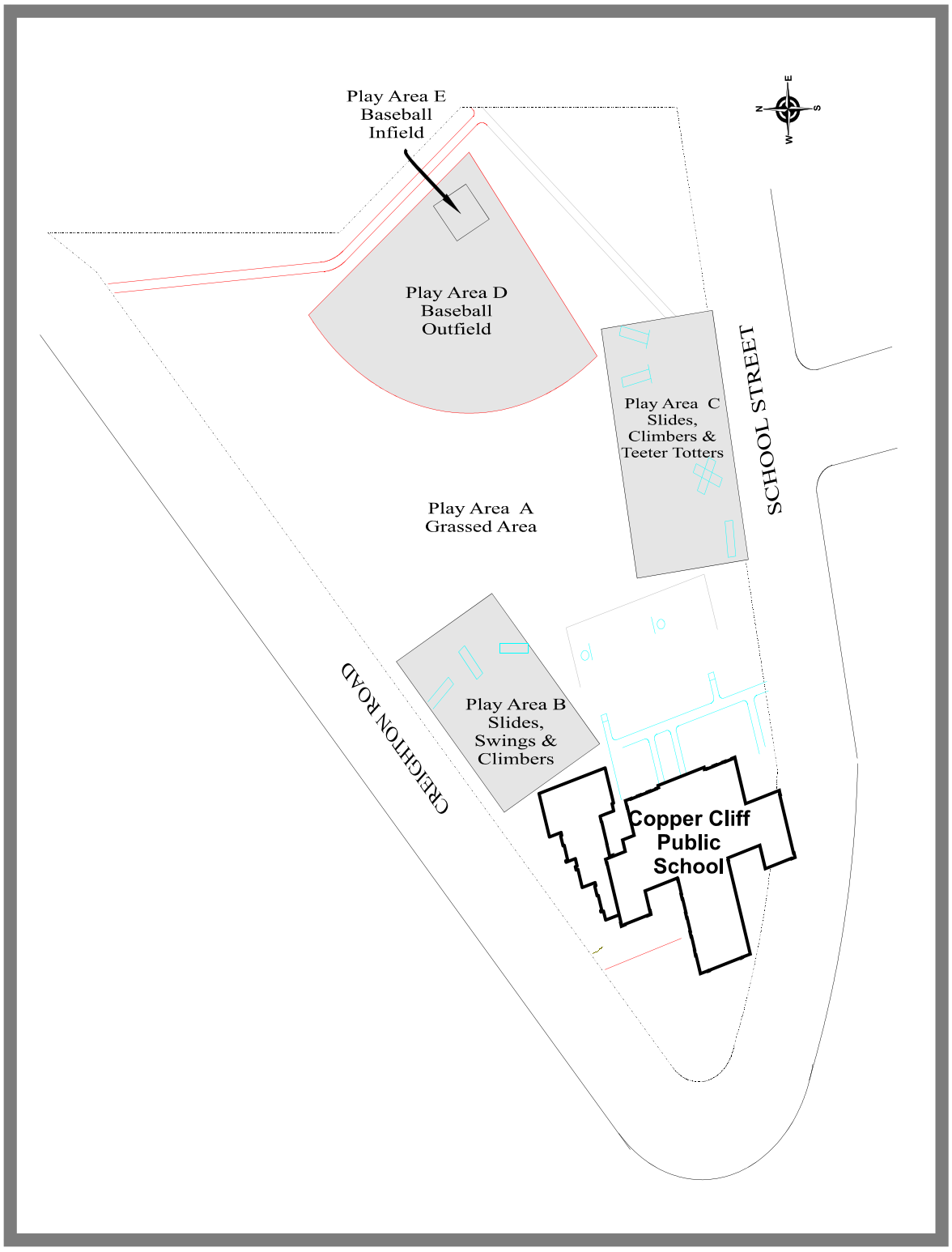

Figure B2.1.10: Copper Cliff Public School Sampling Locations - 2001.

2.1.11 Cyril Varney Public School - Rainbow District School Board 1545 Gary Street, Sudbury

Cyril Varney Public School was sampled on July 18, 2001. Figure B2.1.11 details the sampling locations at this property. Samples were taken from seven areas on the school property. Area A corresponds to the grassed area of the soccer field. Areas B and C correspond to the worn areas around the north and south soccer goal posts, respectively. Area D corresponds to the baseball diamond infield. Area F corresponds to the grassed area on the north side of the school building. Due to the compacted nature of Areas A, B, C, D, and F it was only possible to sample to depth (10 - 20 cm) in one replicate of the soccer field and the surface soil layer (0 -5 cm) at the goal posts, baseball diamond infield, and north grassed area, respectively. Areas E and G correspond to the sand samples that were collected below the play structure and at the landing area of the long jump pit, respectively. Due to the constant mixing of the sand and the homogeneous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0 -15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Table B2.1.11: Concentration of 13 Elements in Soil in µg/g Collected at Cyril Varney Public School, 1545 Gary Street, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037220	14367	0 - 5	< 0.8	7	41	< 0.8	28	6	46	11	< 1.5	**66**	< 1	26	27
		14368	0 - 5	< 0.8	7	37	< 0.8	29	6	38	10	< 1.5	**60**	< 1	26	24
		14369	5 - 10	< 0.8	< 5	23	< 0.8	22	5	22	5	< 1.5	35	< 1	21	15
		14370	5 - 10	< 0.8	7	39	< 0.8	34	7	25	9	< 1.5	**45**	< 1	32	22
		14380	10 - 20	< 0.8	< 5	21	< 0.8	28	11	**92**	12	< 1.5	**87**	< 1	27	28
Area B soil	5037221	14371	0 - 5	< 0.8	< 5	23	< 0.8	28	8	26	4	< 1.5	28	< 1	31	20
Area C soil	5037222	14372	0 - 5	< 0.8	6	39	< 0.8	29	7	**77**	25	< 1.5	**78**	< 1	25	24
Area D soil	5037223	14373	0 - 5	< 0.8	5	43	1	35	11	**160**	54	< 1.5	**160**	2	24	36
		14374	0 - 5	< 0.8	< 5	32	< 0.8	33	6	51	29	< 1.5	**67**	< 1	27	23
Area E sand	5037224	14375	0 - 15	< 0.8	< 5	17	< 0.8	22	7	35	**82**	< 1.5	**80**	< 1	13	13
		14376	0 - 15	< 0.8	< 5	15	< 0.8	11	4	9	9	< 1.5	27	< 1	11	9
Area F grass	5037225	14377	0 - 5	< 0.8	< 5	32	< 0.8	24	4	26	12	< 1.5	35	< 1	24	18
		14378	0 - 5	< 0.8	5	31	< 0.8	27	6	39	12	< 1.5	**53**	< 1	26	21
Area G sand	5037226	14379	0 - 15	< 0.8	5	30	< 0.8	21	6	39	6	< 1.5	**51**	< 1	23	18
Table F (results in bold)				1	14	190	1	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the sand beneath the play structure and at the landing of the long jump pit. The sand present is not likely native to the school property and is believed to have been introduced when the play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni), copper (Cu), and lead (Pb) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria at selected sites at this property. There was only one sample with a nickel concentration which was elevated above the MOE Table A Effects Based Soil Criteria at 160 ppm. The highest nickel and copper concentrations were found in the surface soil of the baseball diamond infield (Area D) both with concentrations of 160 ppm. The highest lead value,

82 ppm, was found in the first replicate of the sampling of sand from below the play structure. This replicate was collected from the perimeter of the sanded play area which is in close proximity to the natural soil and grassed areas (Areas D and F) of the property. Therefore, it is possible that soil particles may have been sampled along with the sand. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

These soil nickel and copper results are slightly lower than those reported historically, while the elevated lead result in higher than previously reported. Previous MOE sampling of undisturbed soils approximately 1.5 km northwest and 1 km southwest of Cyril Varney Public School, Stations 6 and 43 of the MOE 2000 Sudbury Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soils concentrations as high as 190 and 210 ppm, respectively. The highest lead concentration found historically at these sites was 39 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

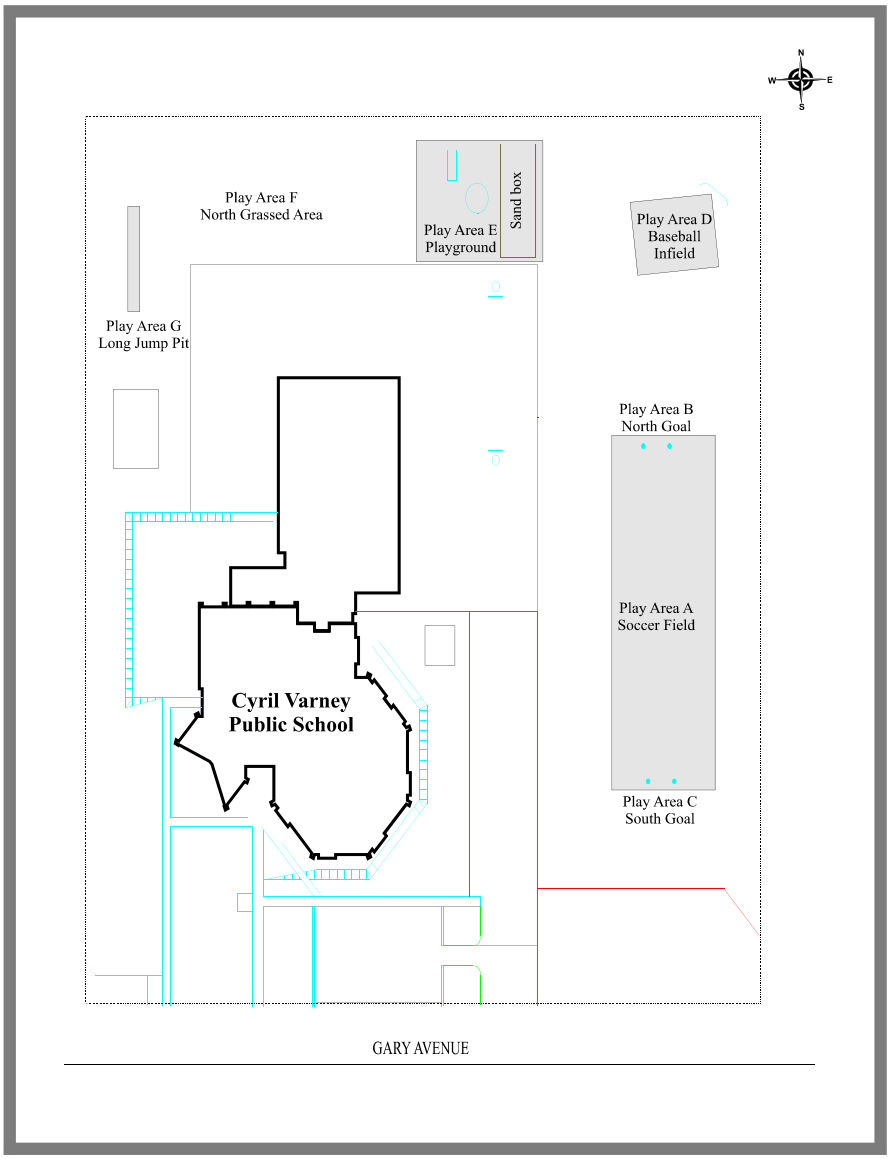

Figure B2.1.11: Cyril Varney Public School Sampling Locations - 2001.

2.1.12 Ernie Checkeris Public School - Rainbow District School Board 1570 Agincourt Avenue, Sudbury

Ernie Checkeris Public School was sampled on July 22, 2001. Figure B2.1.12 details the sampling locations at this property. Samples were taken from four areas on the school property. Area A corresponds the grassed area of the soccer field. Area B corresponds to the baseball diamond infield. Due to the compacted nature of this area, it was only possible to sample the surface layer (0-5 cm). Areas C and D correspond to sand samples that were taken below the play structure and in the landing area of the long jump pit, respectively. Due to the constant mixing of sand and the homogeneous nature of the sanded areas, sand samples were collected with a hand trowel to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structure or at the landing area of the long jump pit. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni), and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria at all other sampling locations at this property. Nickel concentrations in the surface soil of the soccer field were also elevated above the MOE Table A Effects Based Soil Criteria. The highest nickel and copper concentrations, 160 and 130 ppm, respectively, were found in the surface soil of the soccer field. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

These nickel and copper soil results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km northeast and 1.5 km south of Ernie Checkeris Public School, Stations 6 and 86, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper concentrations as high as 230 and 200 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of all materials sampled on this property.

Table B2.1.12: Concentration of 13 Elements in Soil in µg/g Collected at Ernie Checkeris Public School, 1570 Agincourt Avenue, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037208	14762	0 - 5	< 0.8	5	43	< 0.8	29	8	**120**	31	< 1.5	**160**	< 1	28	33
		14763	0 - 5	< 0.8	6	43	< 0.8	29	7	**130**	27	< 1.5	**150**	< 1	29	37
		14764	5 - 10	< 0.8	< 5	36	< 0.8	26	5	56	7	< 1.5	**70**	< 1	30	34
		14765	5 - 10	< 0.8	< 5	33	< 0.8	20	5	**67**	7	< 1.5	**96**	< 1	25	23
		14766	10 - 20	< 0.8	< 5	33	< 0.8	21	4	34	5	< 1.5	**66**	< 1	26	19
		14767	10 - 20	< 0.8	5	37	< 0.8	23	5	50	7	< 1.5	**67**	< 1	28	21
Area B gravel	5037209	14768	0 - 5	< 0.8	5	38	< 0.8	22	5	**61**	8	< 1.5	**93**	< 1	29	35
Area C sand	5037210	14769	0 - 15	< 0.8	< 5	22	< 0.8	25	6	21	3	< 1.5	27	< 1	34	21
		14770	0 - 15	< 0.8	< 5	21	< 0.8	24	6	19	3	< 1.5	24	< 1	28	21
Area D sand	5037211	14771	0 - 15	< 0.8	< 5	25	< 0.8	26	6	24	3	< 1.5	30	< 1	34	20
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

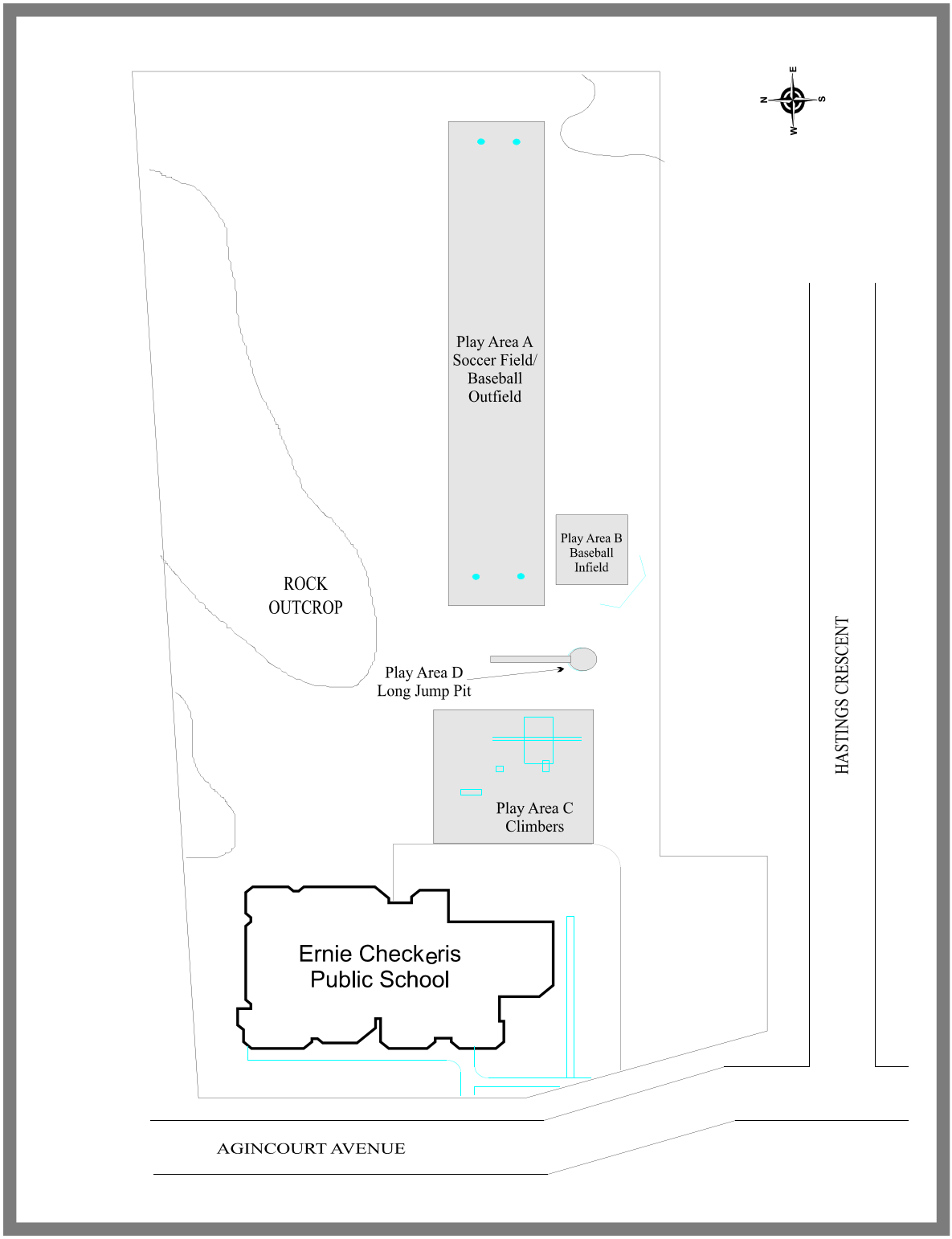

Figure B2.1.12: Ernie Checkeris Public School Sampling Locations - 2001.

2.1.13 Falconbridge Public School - Rainbow District School Board 72 Edison Street, Falconbridge

Falconbridge Public School was sampled on July 22, 2001 and has since closed at this location. Figure B2.1.13 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the baseball diamond outfield. Area B corresponds to the baseball diamond infield. Due to the compacted nature of Areas A and B, it was only possible to sample the surface soil (0 - 5 cm) layer. Area C corresponds to the sand samples that were taken from the sanded play area. Due to the constant mixing of sand and the homogeneous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sanded play area, Area C. The sand present is not likely native to the school property and is believed to have been introduced when the play area was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria at all other sample locations at this property, while copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria at the baseball diamond outfield. The highest nickel and copper concentrations, 120 and 66 ppm, respectively, were found in the surface soil of the baseball diamond outfield. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results are much lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km southeast, 0.5 km northeast, and 0.5 km south of Falconbridge Public School, Stations 44, 22, and 36, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicate nickel and copper concentrations as high as 810 and 920 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.13: Concentration of 13 Elements in Soil in µg/g Collected at Falconbridge Public School, 72 Edison Street, Falconbridge - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037357	14755	0 - 5	< 0.8	< 5	46	< 0.8	35	11	**58**	21	1.5	**110**	< 1	30	36
		14756	0 - 5	< 0.8	< 5	43	1	31	12	**66**	20	1.8	**120**	< 1	26	35
Area B soil	5037358	14757	0 - 5	< 0.8	< 5	26	< 0.8	31	13	46	11	< 1.5	**61**	< 1	32	27
Area C sand	5037359	14758	0 - 15	< 0.8	< 5	18	< 0.8	22	6	17	2	< 1.5	37	< 1	28	14
		14759	0 - 15	< 0.8	< 5	21	< 0.8	25	6	21	3	< 1.5	34	< 1	30	15
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

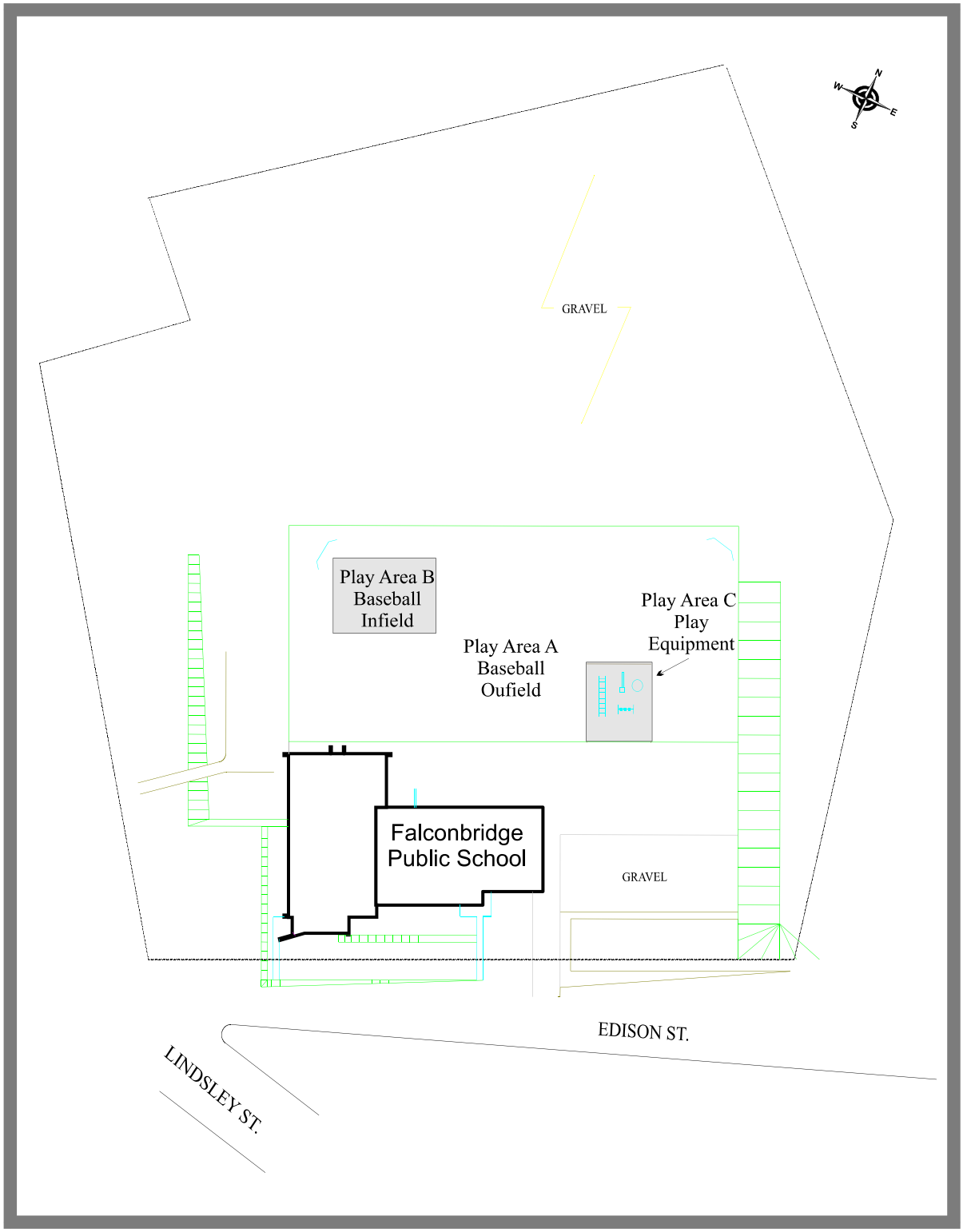

Figure B2.1.13: Falconbridge Public School Sampling Locations - 2001.

2.1.14 Gatchell School - Rainbow District School Board
31 Tuddenham Avenue, Sudbury

Gatchell School was sampled on July 6, 2001. Figure B2.1.14 details the sampling locations at this property. Samples were taken from five areas on the school property. Areas A and B correspond to sand samples that were taken from the west and east sand boxes on the south side of the school building, respectively. Due to the constant mixing of sand and the homogeneous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. Areas C and D correspond to the west and east grassed areas, respectively, on the south side of the school building. Areas A, B, C, and D were separated from the parking lot and surrounding property by a chain linked fence. Following a discussion with the custodian of this property, it was learned that two years ago new fill, sand, and sod had been introduced to the property within the chain linked fence for landscaping purposes. For this reason, it was decided that soil samples should be taken of the grassed area outside of the fenced play area, Area E, to gain an understanding of undisturbed soil concentrations at this location. Due to the compacted nature of these grassed areas, it was only possible to sample the surface soil (0-5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the sand collected from the west sand box but not from the east sand box. The sand present in not likely native to the school property and is known to have been introduced when these play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) concentrations were slightly elevated above the MOE Table F Ontario Soil Background Criteria for most of the samples from the grassed play areas within the chain link fence. Since new fill, sod, and sand had been recently added, none of the areas within the chain link fence was expected to have elevated metal concentrations. The highest concentrations of nickel (Ni), cobalt (Co), copper (Cu), lead (Pb), and selenium (Se), 380, 21, 530, 75, and 3.1 ppm, respectively, occurred in the grassed area outside of the chain link fence, Area E. This soil is believed to be native to the area and thus, it is not surprising that the metal concentrations, especially nickel and copper, are elevated above the MOE Table A Effects Based Soil Criteria. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

Table B2.1.14: Concentration of 13 Elements in Soil in µg/g Collected at Gatchell School, 31 Tuddenham Avenue, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037098	14208	0 - 15	< 0.8	< 5	33	< 0.8	32	9	**85**	7	< 1.5	**59**	< 1	39	32
Area B sand	5037099	14209	0 - 15	< 0.8	< 5	24	< 0.8	22	6	26	3	< 1.5	31	< 1	28	14
Area C grass	5037100	14210	0 - 5	< 0.8	< 5	32	< 0.8	26	5	43	7	< 1.5	**51**	< 1	26	19
		14211	0 - 5	< 0.8	< 5	24	< 0.8	32	7	27	3	< 1.5	29	< 1	31	21
Area D grass	5037101	14212	0 - 5	< 0.8	< 5	31	< 0.8	26	5	38	7	< 1.5	**47**	< 1	25	18
		14213	0 - 5	< 0.8	< 5	31	< 0.8	25	5	43	6	< 1.5	**54**	< 1	24	18
Area E grass	5037102	14214	0 - 5	< 0.8	8	45	< 0.8	51	**20**	**530**	**71**	< 1.5	**360**	**3.1**	32	96
		14215	0 - 5	< 0.8	7	41	< 0.8	49	**21**	**480**	**75**	< 1.5	**380**	**2.8**	33	99
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

The soil metals concentrations from the play areas within the chain link fence are much lower than those reported historically, whereas the results from the original grassed area, Area E, are similar to those previously reported. Previous MOE sampling of undisturbed soils approximately 1.1 km west and 0.5 km south of Gatchell School, Stations 72 and 73, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper concentrations as high as 370, and 340 ppm, respectively. The cobalt and lead results found at Area E of this site are higher than those reported historically. The highest surface soil concentrations of cobalt and lead previously reported were 16, and 21 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of all materials sampled on this property.

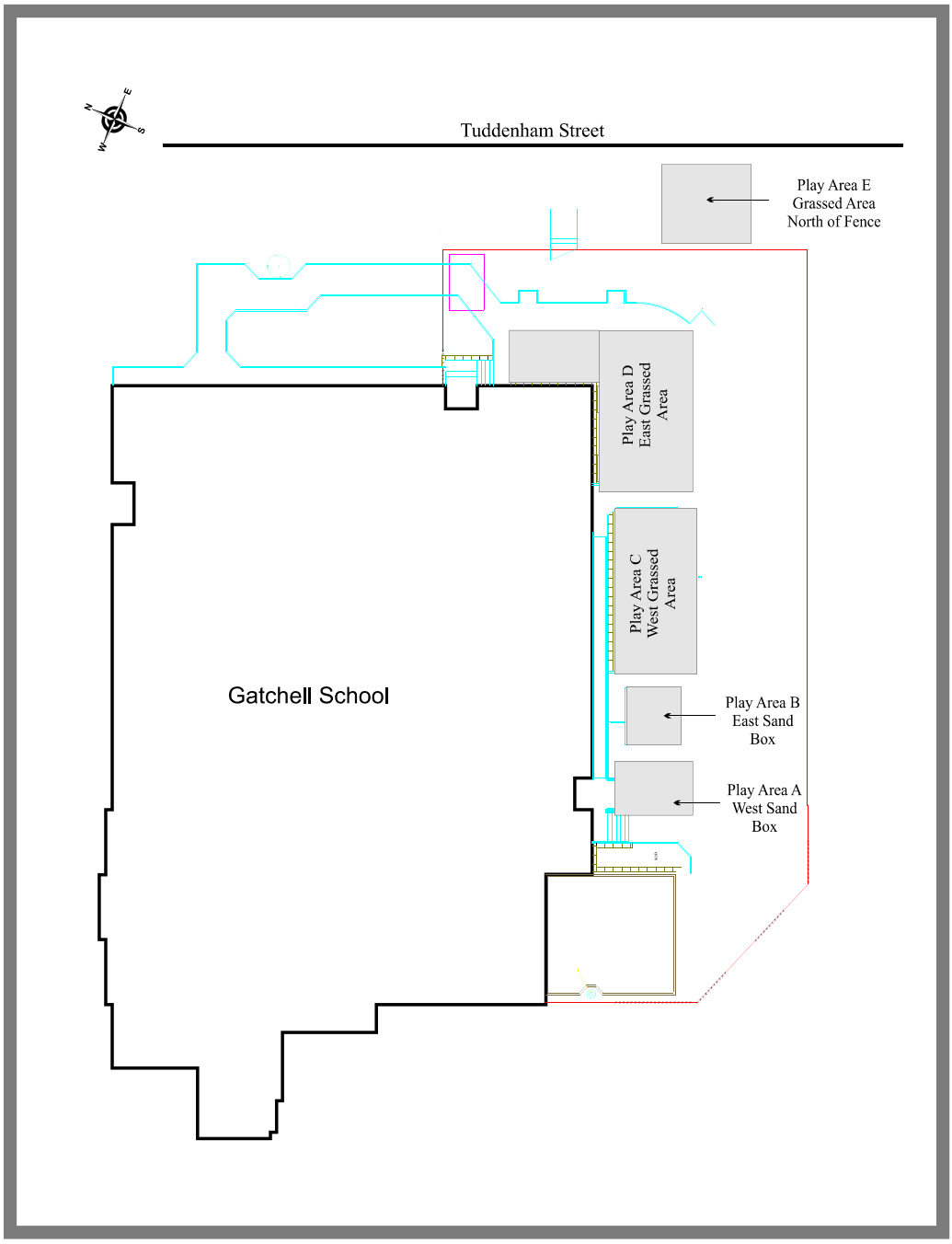

Figure B2.1.14: Gatchell School Sampling Locations - 2001.

2.1.15 George Vanier Public School - Rainbow District School Board 249 6th Avenue, Lively

George Vanier Public School was sampled on July 21, 2001. Figure B2.1.15 details the sampling locations at this property. Samples were taken from six areas on the school property. Areas A and F correspond to the west and east baseball diamond outfields, respectively. Areas B and E correspond to the west and east baseball diamond infield, respectively. Due to the compacted nature of the baseball diamonds, it was only possible to sample the surface soil (0-5 cm). Areas C and D correspond to the sand samples that were taken from below the west and east play structures, respectively. Due to the constant mixing of sand and the homogeneous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metals concentrations were not elevated in the sand beneath the two play structures. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil of all other sampling locations at this property. Copper (Cu), lead (Pb), cobalt (Co), cadmium (Cd), and selenium (Se) were also elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil of the west baseball diamond outfield. This play area, Area A, also had the highest metals concentrations with nickel and copper concentrations, 630 and 370 ppm, respectively, elevated above the MOE Table A Effects Based Soil Criteria. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

Table B2.1.15: Concentration of 13 Elements in Soil in µg/g Collected at George Vanier Public School, 249 6th Avenue, Lively - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037248	14726	0 - 5	< 0.8	< 5	45	0.9	29	17	**190**	**65**	< 1.5	**320**	**2**	24	39
		14727	0 - 5	< 0.8	7	70	**1.6**	39	**27**	**370**	**110**	< 1.5	**630**	**4**	31	56
Area B gravel	5037249	14728	0 - 5	< 0.8	< 5	17	< 0.8	26	8	**60**	6	< 1.5	**120**	< 1	28	30
Area C sand	5037250	14729	0 - 15	< 0.8	< 5	23	< 0.8	29	7	19	3	< 1.5	26	< 1	28	19
Area D sand	5037251	14730	0 - 15	< 0.8	< 5	20	< 0.8	25	7	17	2	< 1.5	27	< 1	28	17
Area E gravel	5037252	14731	0 - 5	< 0.8	< 5	34	< 0.8	25	6	35	7	< 1.5	**57**	< 1	25	21
Area F grass	5037253	14732	0 - 5	< 0.8	< 5	24	< 0.8	21	6	43	8	< 1.5	**68**	< 1	20	21
		14733	0 - 5	< 0.8	< 5	32	< 0.8	24	7	**67**	13	< 1.5	**110**	< 1	23	26
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600
< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.																

For Area A, the copper results are similar to those reported historically, whereas the nickel and lead results are higher than those reported historically. The remaining sampling locations have metals concentrations that are well below the concentrations reported previously for nearby locations. Previous MOE sampling of undisturbed soils approximately 0.8 km northwest of George Vanier Public School, Station 376 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE

2001), indicated nickel, copper and lead concentrations of 310, 350, and 46 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

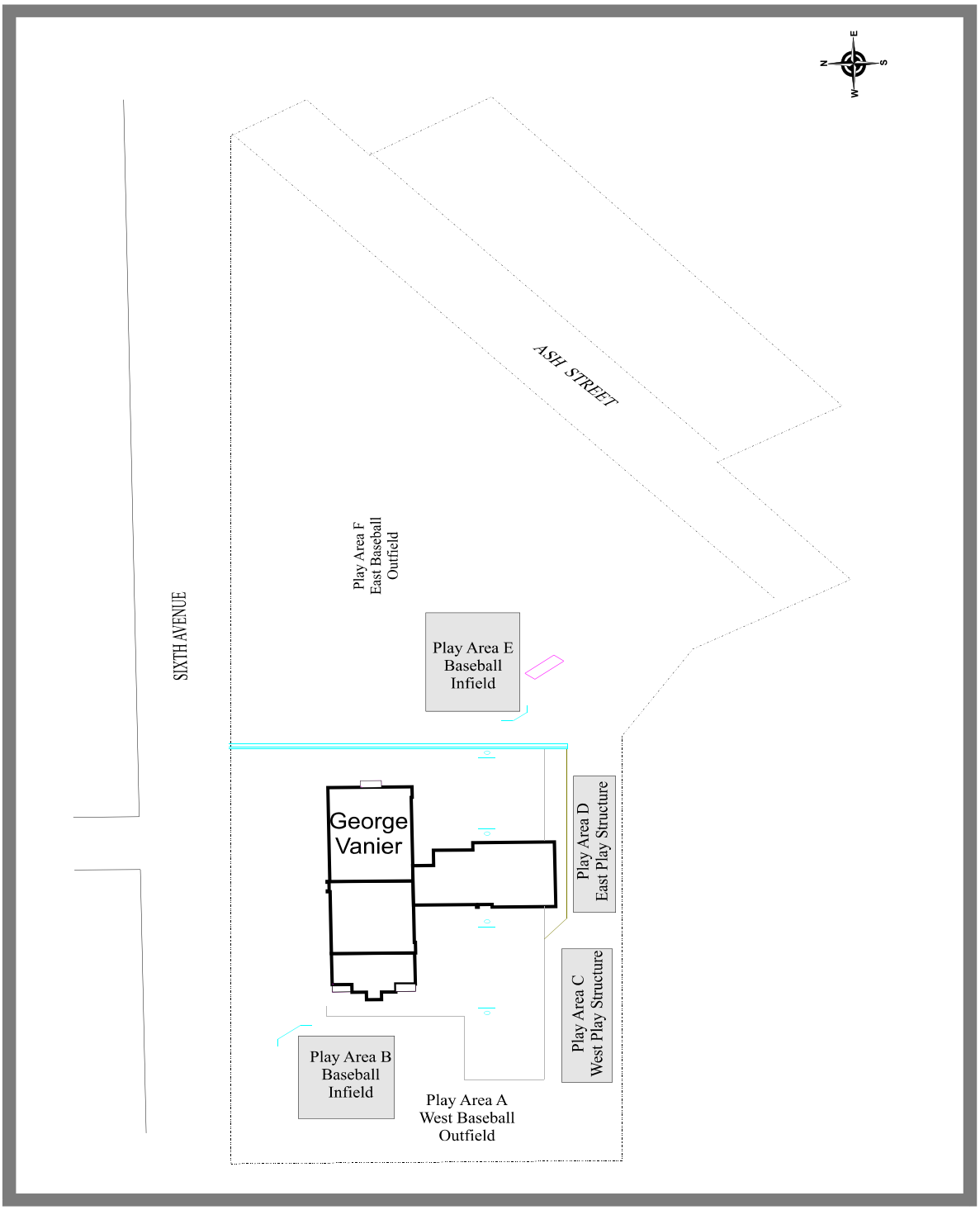

Figure B2.1.15: George Vanier Public School Sampling Locations - 2001

2.1.16 Jessie Hamilton Public School - Rainbow District School Board 16 Jessie Street, Lively

Jessie Hamilton Public School was sampled on July 21, 2001. Figure B2.1.16 details the sampling locations at this property. Samples were taken from eight areas on the school property. Areas A and B correspond to sand samples that were taken from below the play structure and from the landing areas of the long jump pits, respectively. Due to the constant mixing of sand and the homogeneous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. Area C corresponds to the west baseball diamond infield. Area D corresponds to the grassed area of the soccer field. Areas E and F correspond to the worn areas around the west and east soccer goal posts, respectively. Areas G and H correspond to the east baseball diamond infield and outfield, respectively. Due to the compacted nature of the baseball diamonds and soccer field, it was only possible to sample the surface soil (0-5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structures; however, nickel and copper concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the sand from the landing areas of the long jump pits. The sand present is not likely native to the school property and is believed to have been introduced when the play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. The sanded landing areas of the long jump pits did not have a border separating them from the surrounding soils. Due to the close proximity of the long jump pits to the natural soil and grassed areas (Areas G and H) of the property, it is possible that soil particles may have been sampled along with the sand. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil of all other locations at this property, and above the MOE Table A Effects Based Soil Criteria in the surface soil of the soccer field and east baseball diamond outfield. Copper (Cu) was also elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil of the soccer field and east baseball diamond. The highest nickel and copper concentrations, 260 and 130 ppm, respectively, were found in the surface soil of the soccer field and east baseball diamond. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

These soil results are much lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 100 m north of Jessie Hamilton Public School, Station 100 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper concentration ranges of 57 to 700, and 35 to 568 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.16: Concentration of 13 Elements in Soil in µg/g Collected at Jessie Hamilton Public School, 16 Jessie Street, Lively - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037227	14694	0 - 15	< 0.8	< 5	22	< 0.8	27	7	17	3	< 1.5	22	< 1	27	18
		14695	0 - 15	< 0.8	< 5	24	< 0.8	30	6	16	3	< 1.5	22	< 1	34	21
Area B sand	5037228	14696	0 - 15	< 0.8	< 5	23	< 0.8	31	10	**60**	5	< 1.5	**150**	< 1	33	40
		14697	0 - 15	< 0.8	< 5	25	< 0.8	31	7	47	6	< 1.5	**67**	< 1	30	25
Area C soil	5037229	14698	0 - 5	< 0.8	< 5	46	< 0.8	24	5	36	7	< 1.5	**60**	< 1	26	27
		14699	0 - 5	< 0.8	< 5	46	< 0.8	25	5	37	7	< 1.5	**63**	< 1	27	37
Area D grass	5037230	14700	0 - 5	< 0.8	< 5	65	< 0.8	30	10	**130**	18	< 1.5	**<u>260</u>**	< 1	28	43
		14701	0 - 5	< 0.8	< 5	49	**1.5**	38	10	**110**	17	< 1.5	**<u>240</u>**	< 1	33	42
Area E soil	5037231	14702	0 - 5	< 0.8	< 5	46	< 0.8	42	8	**60**	10	< 1.5	**96**	< 1	36	49
Area F soil	5037232	14703	0 - 5	< 0.8	< 5	46	< 0.8	26	6	52	9	< 1.5	**84**	< 1	27	39
Area G gravel	5037233	14704	0 - 5	< 0.8	< 5	34	< 0.8	34	12	**61**	7	< 1.5	**100**	< 1	32	31
Area H grass	5037234	14705	0 - 5	< 0.8	< 5	40	< 0.8	30	9	**110**	16	< 1.5	**<u>260</u>**	< 1	29	30
		14706	0 - 5	< 0.8	5	40	< 0.8	30	8	**110**	17	< 1.5	**<u>250</u>**	< 1	30	29
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

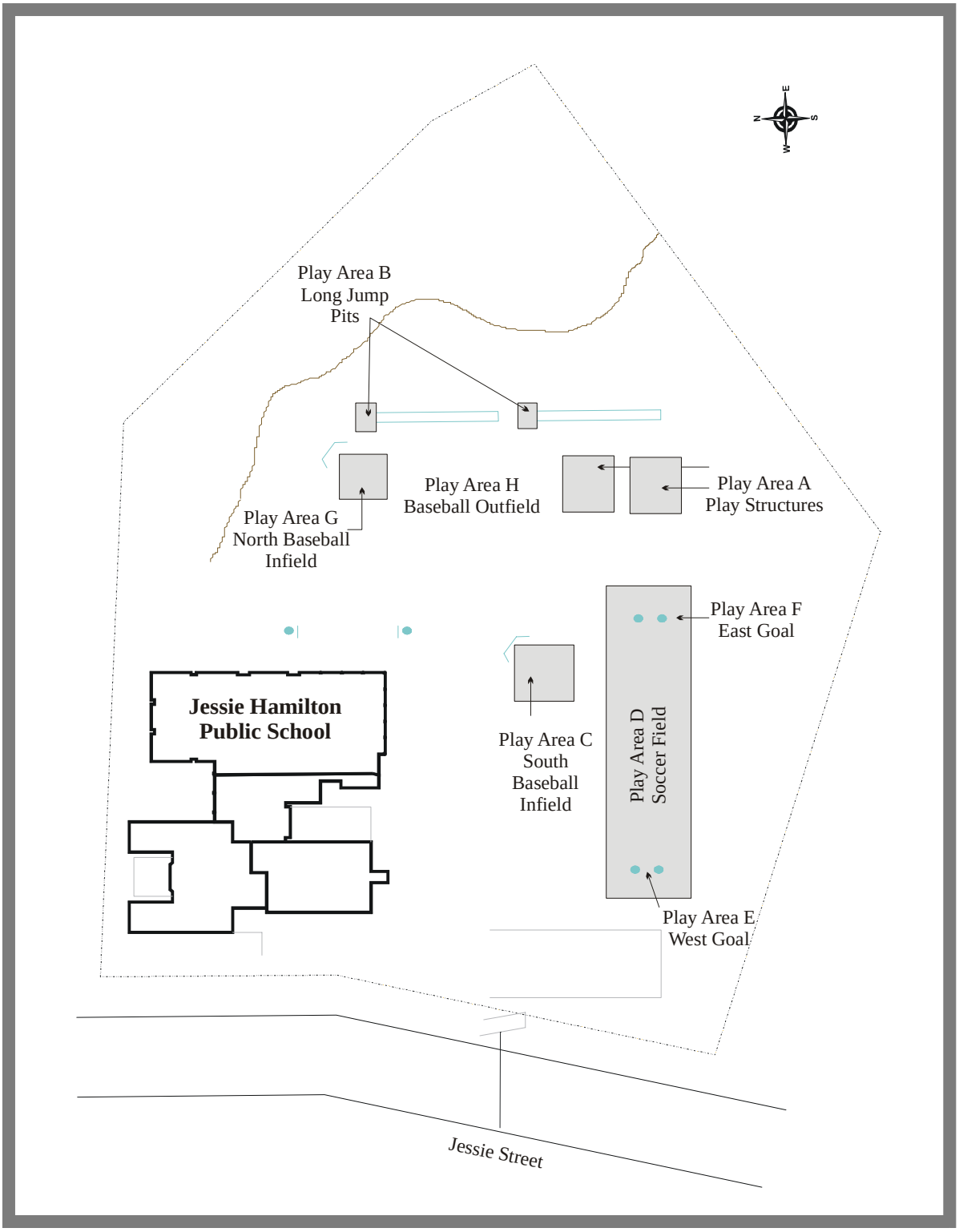

Figure B2.1.16: Jessie Hamilton Public School Sampling Locations - 2001

2.1.17 Lansdowne Public School - Rainbow District School Board 185 Lansdowne Street North, Sudbury

Lansdowne Public School was sampled on July 16, 2001. Figure B2.1.17 details the sampling locations at this property. Samples were taken from three areas on the school property. Areas A and B correspond to the baseball diamond outfield and infield, respectively. Area C corresponds to the gravel playground at the northwest corner of the school property. Due to the compacted nature of all areas, it was only possible to sample the surface soil layer (0 -5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface layer of all sampling locations on this property and concentrations were also elevated above the MOE Table A Effects Based Soil Criteria at the baseball diamond infield and outfield. Copper concentrations were also elevated above the MOE Table F Ontario Soil Background Criteria at the baseball diamond infield and outfield. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

These soil results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 0.5 km north of Lansdowne Public School, Station 84 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper concentrations as high as 490 and 520 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.17: Concentration of 13 Elements in Soil in µg/g Collected at Lansdowne Public School, 185 Lansdowne Street North, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037115	14261	0 - 5	< 0.8	6	52	< 0.8	34	9	**150**	23	< 1.5	**170**	1	30	39
		14262	0 - 5	< 0.8	6	53	< 0.8	35	9	**130**	18	< 1.5	**160**	< 1	29	38
Area B gravel	5037116	14263	0 - 5	< 0.8	5	47	< 0.8	31	10	**150**	18	< 1.5	**170**	< 1	29	53
		14264	0 - 5	< 0.8	5	47	< 0.8	33	10	**120**	18	< 1.5	**140**	< 1	30	33
Area C gravel	5037117	14265	0 - 5	< 0.8	< 5	24	< 0.8	33	7	52	4	< 1.5	**67**	< 1	35	28
		14266	0 - 5	< 0.8	< 5	19	< 0.8	30	7	45	4	< 1.5	**57**	< 1	34	25
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

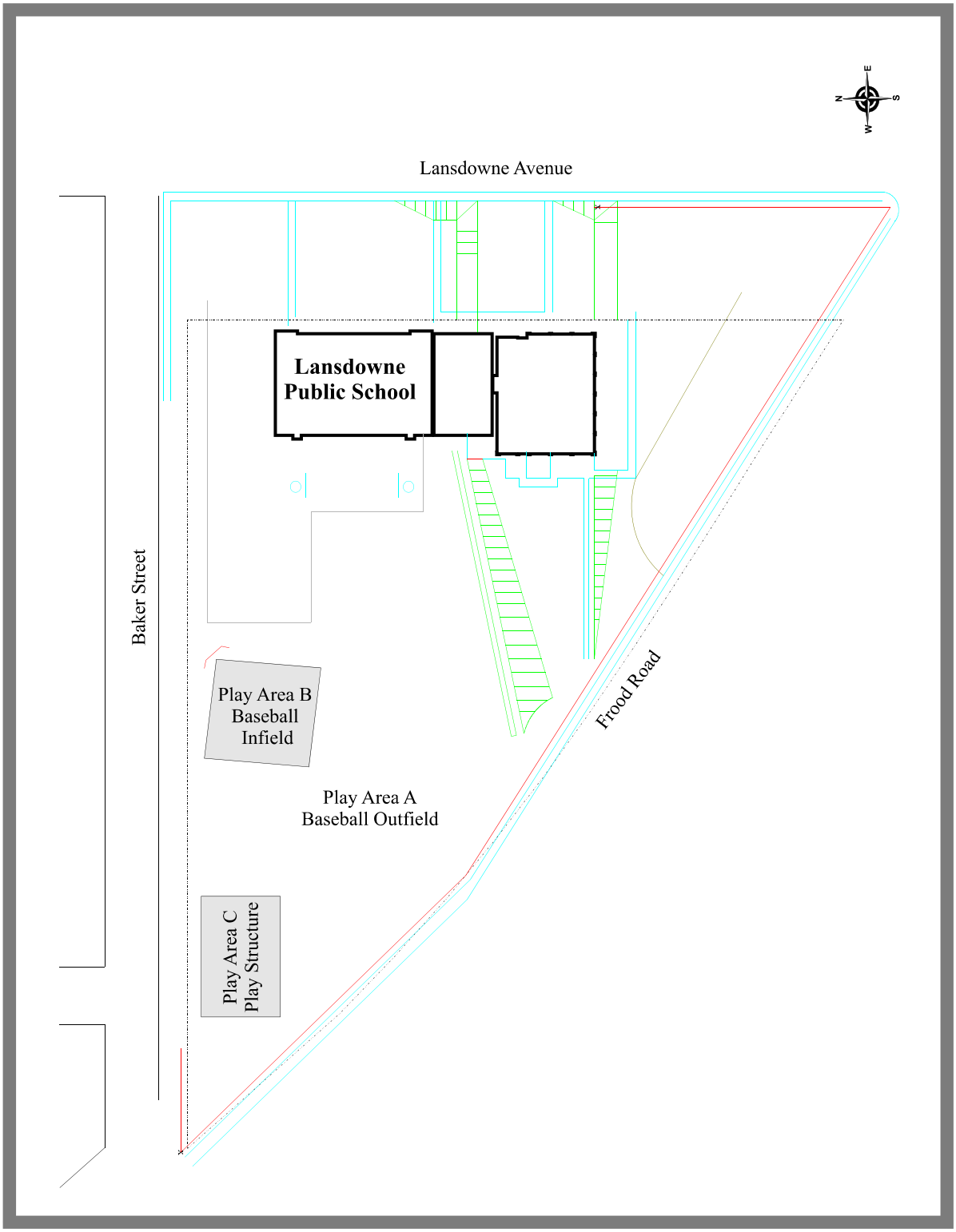

Figure B2.1.17: Lansdowne Public School Sampling Locations - 2001.

2.1.18 Larchwood Public School - Rainbow District School Board Box 220 Main Street, Dowling

Larchwood Public School was sampled on July 19, 2001. Figure B2.1.18 details the sampling locations at this property. Samples were taken from three areas on the school property. Areas A and C correspond to the grassed area of the soccer field and the worn area around the west goal post, respectively. Due to the compacted nature of the soccer field, it was only possible to sample the surface soil (0-5 cm). Area B corresponds to the sand samples that were taken below the play structure. Due to the constant mixing of sand and the homogeneous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structure. The sand present is not likely native to the school property and is believed to have been introduced when the play structure was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel concentrations were slightly elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil of the soccer field. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria.

These soil results are similar to those reported historically. Previous MOE sampling of undisturbed soils approximately 3.5 km southwest of Larchwood Public School, Station 391 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper concentrations of 25 and 14 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.18: Concentration of 13 Elements in Soil in µg/g Collected at Larchwood Public School, Box 220 Main Street, Dowling - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037402	14557	0 - 5	< 0.8	< 5	50	< 0.8	46	6	23	30	< 1.5	**44**	< 1	33	34
		14558	0 - 5	< 0.8	< 5	54	< 0.8	53	7	25	51	< 1.5	**49**	< 1	35	38
Area C sand	5037403	14559	0 - 15	< 0.8	< 5	20	< 0.8	26	6	19	4	< 1.5	19	< 1	34	23
Area B soil	5037404	14560	0 - 5	< 0.8	< 5	44	< 0.8	37	5	24	14	< 1.5	38	< 1	30	37
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

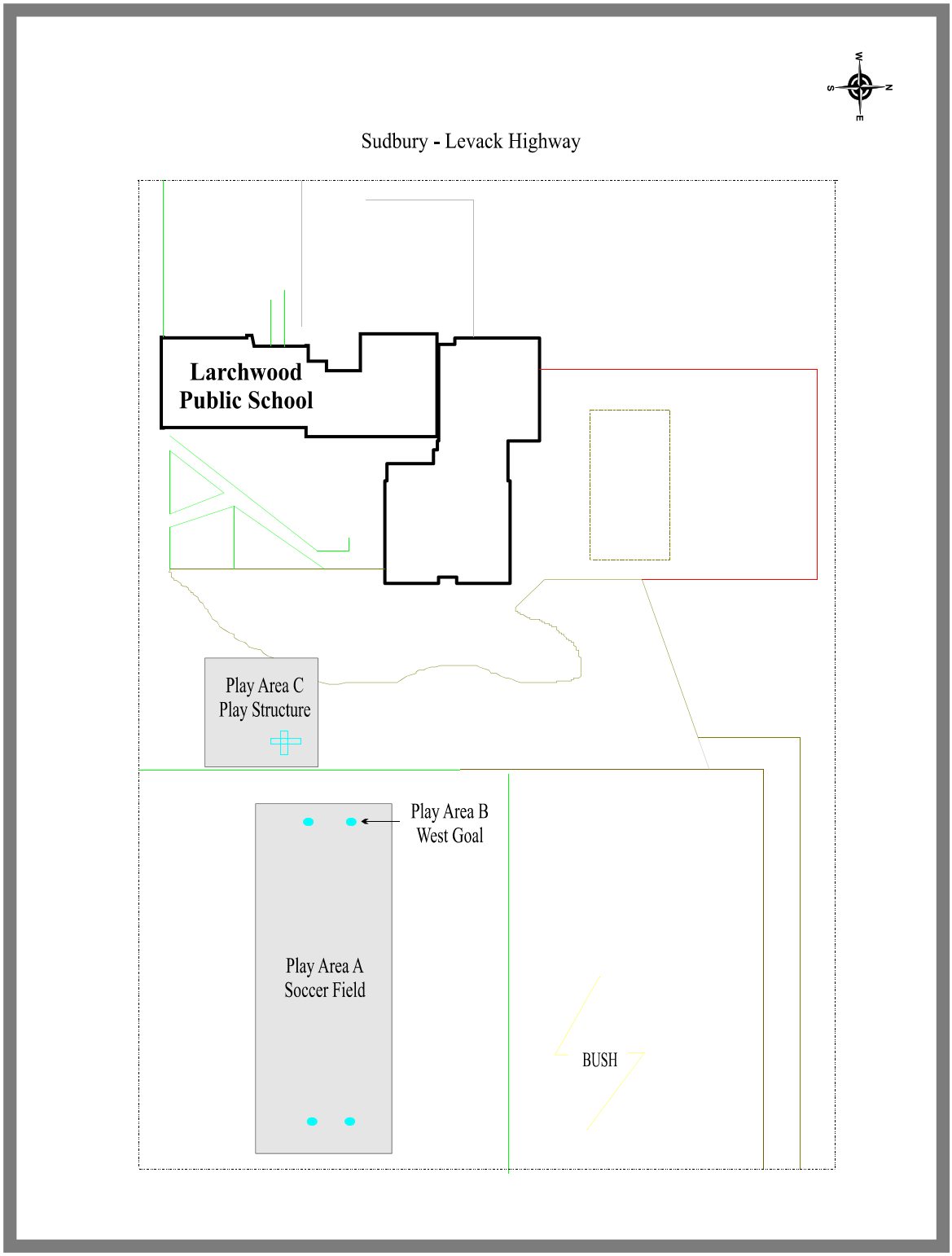

Figure B2.1.18: Larchwood Public School Sampling Locations - 2001.

2.1.19 Lasalle Secondary School - Rainbow District School Board 1545 Kennedy Street, Sudbury

Lasalle Secondary School was sampled on July 17, 2001. Figure B2.1.19 details the sampling locations on this property. Samples were taken from four areas on the school property. Areas A and B correspond to the grassed areas of the north and south soccer fields, respectively. Areas C and D correspond to the worn areas around the west and east goal posts of the soccer fields, respectively. Due to the compacted nature of these soccer fields, it was only possible to collect one replicate of depth samples from the south soccer field and only surface sample (0-5 cm) from the other sampling locations. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for all soil samples collected from the north and south soccer fields. There was only one sample that had a nickel concentration slightly elevated above the MOE Table A Effects Based Soil Criteria at 160 ppm. Concentrations of copper (Cu), lead (Pb), and selenium (Se) were also elevated above the MOE Table F Ontario Soil Background Criteria at some sampling depths of the soccer fields. All other metals listed, as well al aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

These soil results are within the lower end of the concentration ranges reported historically. Previous MOE sampling of undisturbed soils approximately 0.2 km northeast and 1.5 km southwest of Lasalle Secondary School, Stations 43, and 86, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations ranges of 28 to 375, and 33 to 305 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.19: Concentration of 13 Elements in Soil in µg/g Collected at Lasalle Secondary, 1545 Kennedy Street, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037215	14333	0 - 5	< 0.8	6	42	< 0.8	30	7	**83**	26	< 1.5	**90**	< 1	29	26
		14334	0 - 5	< 0.8	< 5	46	1	37	10	**160**	53	< 1.5	**160**	**2**	27	38
Area B grass	5037216	14335	0 - 5	< 0.8	< 5	36	< 0.8	35	6	55	28	< 1.5	**73**	< 1	31	25
		14336	0 - 5	< 0.8	< 5	36	< 0.8	45	7	**66**	**77**	< 1.5	**84**	< 1	30	26
		14339	5 - 10	< 0.8	5	32	< 0.8	29	6	40	9	< 1.5	**55**	< 1	29	22
		14340	10 - 20	< 0.8	5	30	< 0.8	21	5	41	6	< 1.5	**56**	< 1	24	18
Area C soil	5037217	14337	0 - 5	< 0.8	< 5	31	< 0.8	22	3	20	9	< 1.5	29	< 1	23	17
Area D soil	5037218	14338	0 - 5	< 0.8	< 5	32	< 0.8	25	4	26	12	< 1.5	35	< 1	25	19
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

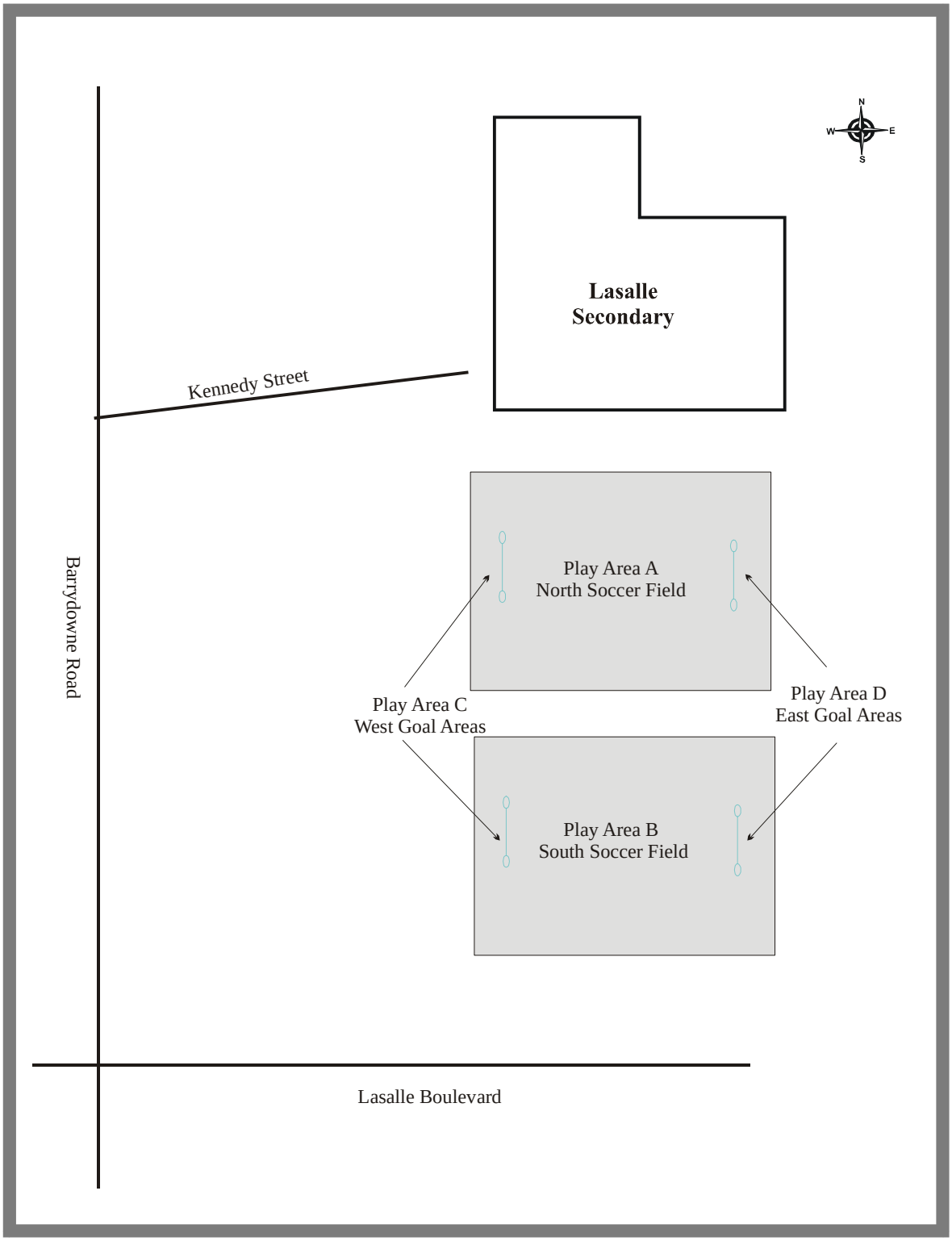

Figure B2.1.19: Lasalle Secondary School Sampling Locations - 2001.

2.1.20 Levack Public School (formerly) - Rainbow District School Board 38 School Street, Levack

Levack Public School was sampled on July 19, 2001 and has since closed at this location. Figure B2.1.20 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to the gravel baseball diamond in the northwest corner of the school property. Area B corresponds to the sand beneath the play structure located on the south side of the school building. Due to the constant mixing of sand and the homogeneous nature of the sanded area, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structure. The sand present is not likely native to the school property and is believed to have been introduced when the play structure was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria in the fine gravel particles of the baseball diamond. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

The results from the gravel baseball diamond are much higher than soil results reported historically. Previous MOE sampling of undisturbed soils approximately 5 and 4 km southeast of Levack Public School (formerly), Station 390 and 388, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations of 80 and 56 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of all materials sampled on this property.

Table B2.1.20: Concentration of 13 Elements in Soil in µg/g Collected at Levack Public School (formerly), 38 School Street, Levack - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037406	14568	0 - 5	< 0.8	< 5	28	< 0.8	27	7	43	23	< 1.5	**50**	< 1	27	30
		14569	0 - 5	1	5	35	< 0.8	23	17	**670**	32	< 1.5	**350**	1	26	46
Area B sand	5037407	14570	0 - 15	< 0.8	< 5	18	< 0.8	23	6	15	2	< 1.5	16	< 1	29	18
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

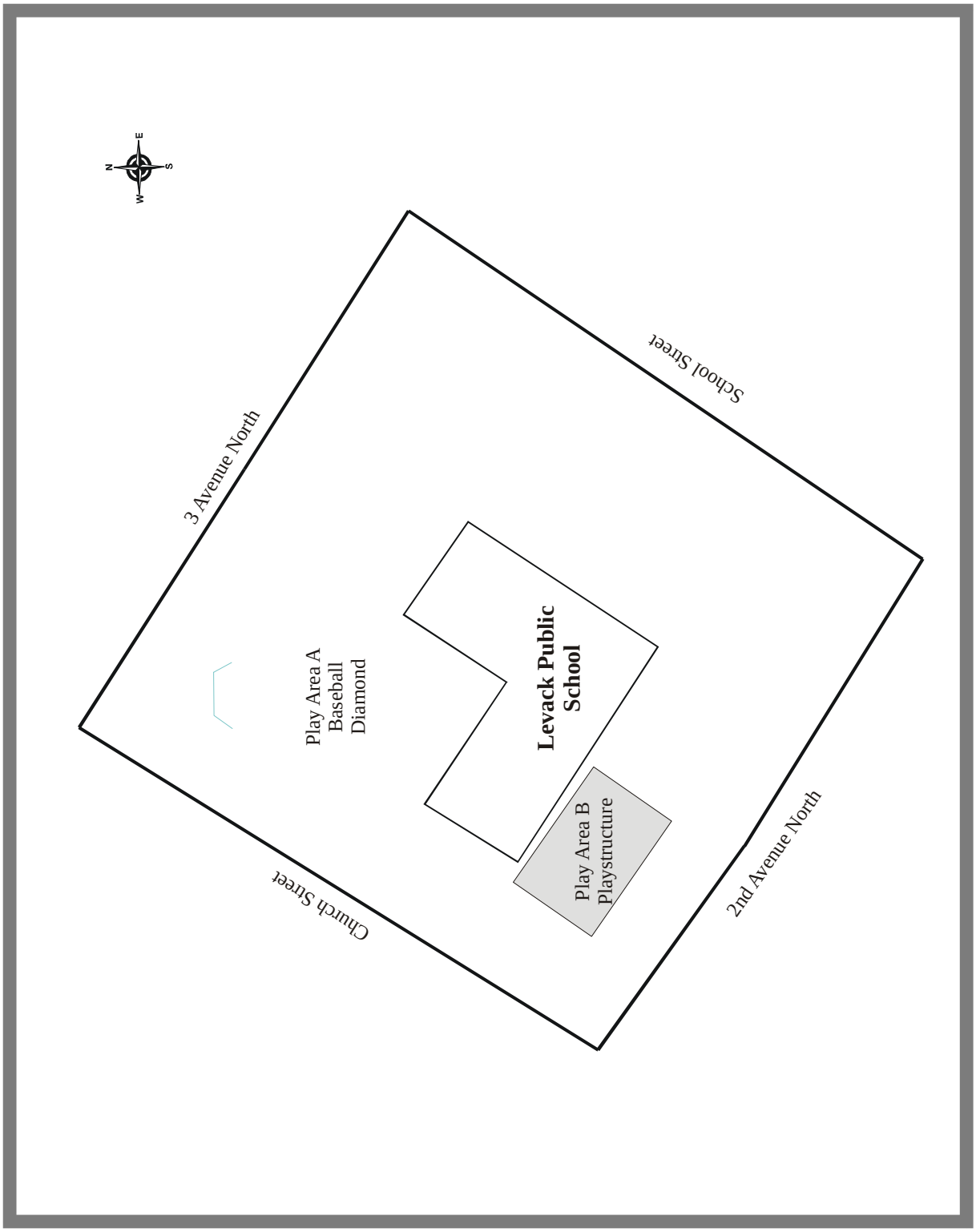

Figure B2.1.20: Levack Public School (formerly) Sampling Locations - 2001.

2.1.21 Levack District High School (now Levack Public School) - Rainbow District School Board
100 High Street, Levack

Levack District High School was sampled on July 19, 2001 and has since been replaced by Levack Public School at this location. Figure B2.1.21 details the sampling locations at this property. Samples were taken from one area on the school property. Area A corresponds to the soccer field north of the school property. Due to the compacted nature of this area, it was only possible to sample the 10 - 20 cm depth for one replicate. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in all depth samples collected from the soccer field. The highest nickel concentration, 73 ppm, was found in the surface soil layer (0-5 cm). All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results are similar to those reported historically. Previous MOE sampling of undisturbed soils approximately 5 and 4 km southeast of Levack District High School (now Levack Public School), Stations 390 and 388, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper concentrations as high as 80 and 56 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.21: Concentration of 13 Elements in Soil in µg/g Collected at Levack District High School (now Levack Public School), 100 High Street, Levack - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037408	14563	0 - 5	< 0.8	< 5	54	< 0.8	33	8	48	21	< 1.5	**72**	1	28	62
		14564	0 - 5	< 0.8	< 5	53	< 0.8	33	9	44	16	< 1.5	**73**	< 1	29	40
		14565	5 - 10	< 0.8	< 5	46	< 0.8	34	7	29	7	< 1.5	40	1	34	24
		14566	5 - 10	< 0.8	< 5	46	< 0.8	34	7	36	8	< 1.5	**53**	< 1	33	27
		14567	10 - 20	< 0.8	< 5	38	< 0.8	33	6	28	7	< 1.5	**45**	< 1	31	26
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

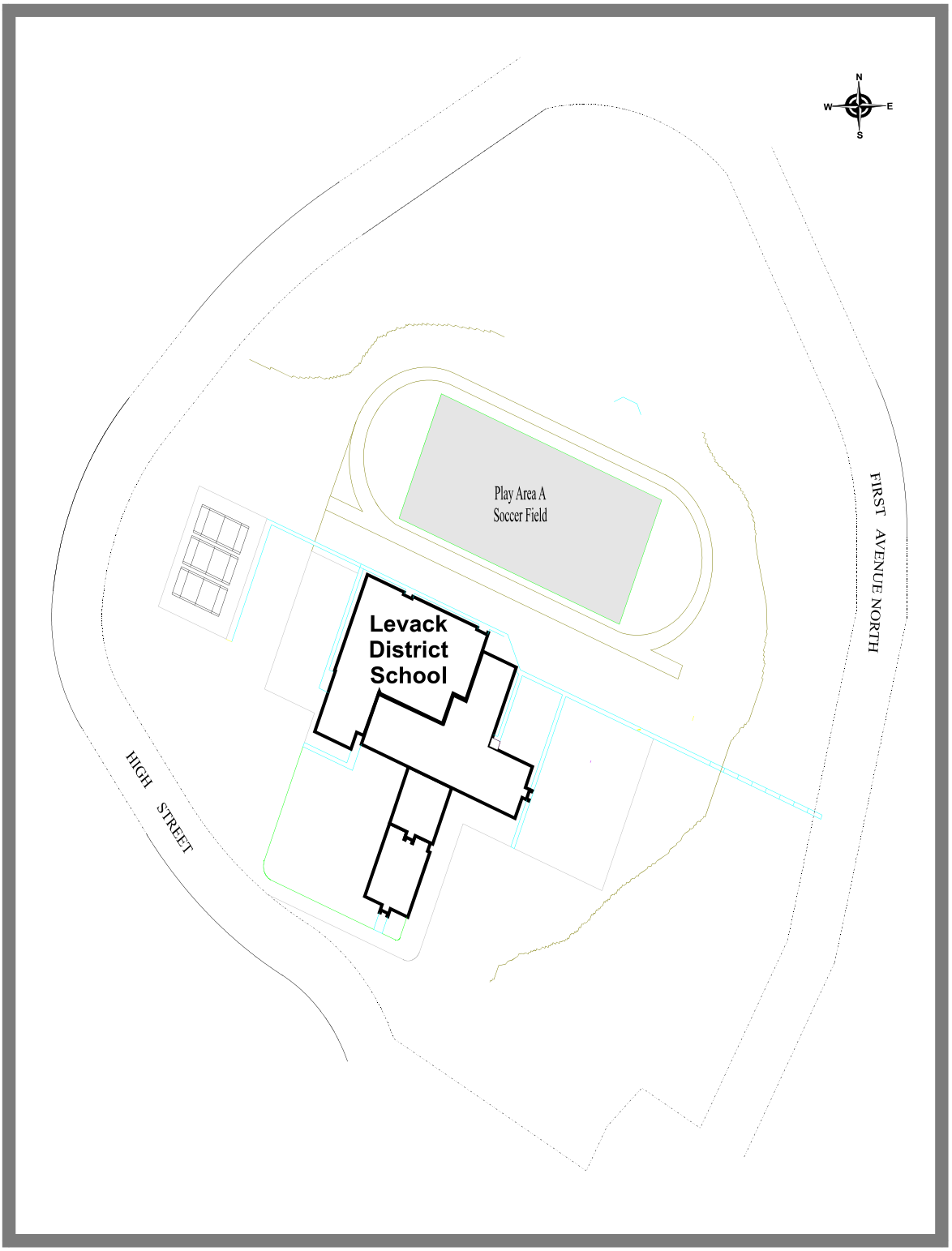

Figure B2.1.21: Levack District High School (now Levack Public School) Sampling Locations - 2001.

2.1.22 Lively District High School - Rainbow District School Board Box 430 5th Avenue, Lively

Lively District High School was sampled on July 21, 2001. Figure B2.1.22 details the sampling locations at this property. Samples were taken from one area on the school property. Area A corresponds to the soccer field east of the school building. Due to the compacted nature of this area, it was only possible to sample the 5-10 cm and 10-20 cm depths for one replicate. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni), copper (Cu), and lead (Pb) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil samples collected from the soccer field. The highest nickel, copper and lead concentrations found in the surface soil were 140, 93, and 120 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil nickel and copper results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km southeast of Lively District High School, Station 376 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper concentrations as high as 310 and 350 ppm, respectively. The lead concentrations at this site are higher than the historic sampling indicated. The highest lead concentration found at Station 376 was 46 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of all materials sampled on this property.

Table B2.1.22: Concentration of 13 Elements in Soil in µg/g Collected at Lively District High School, Box 430 5th Avenue, Lively - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037247	14734	0 - 5	< 0.8	6	42	< 0.8	60	6	**60**	**120**	< 1.5	**85**	< 1	31	31
		14735	0 - 5	< 0.8	< 5	47	< 0.8	47	8	**93**	**85**	< 1.5	**140**	1	29	34
		14736	5 - 10	< 0.8	7	28	< 0.8	24	5	37	11	< 1.5	**54**	< 1	26	23
		14737	10 - 20	< 0.8	5	31	< 0.8	22	4	30	6	< 1.5	42	< 1	25	23
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

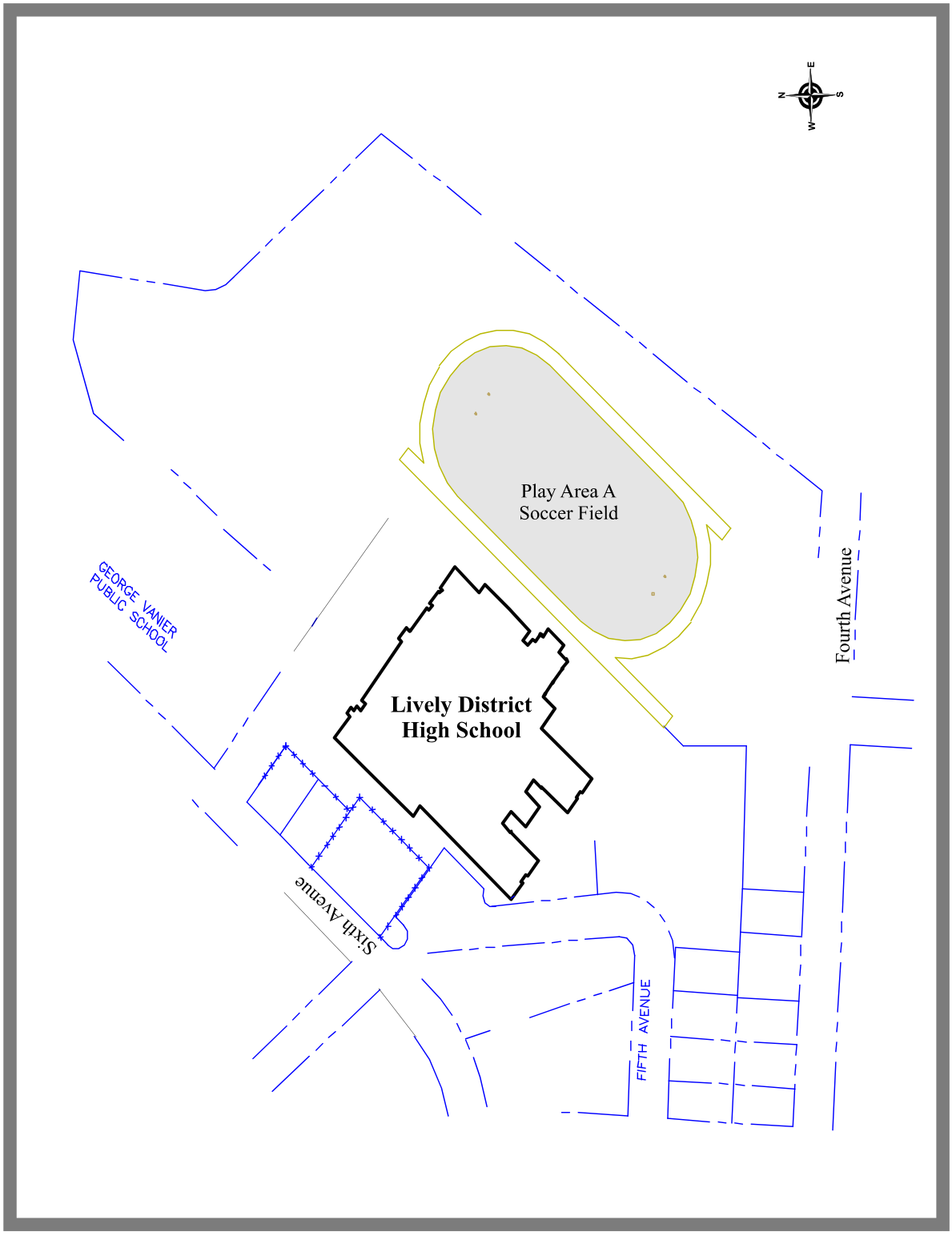

Figure B2.1.22: Lively District High School Sampling Locations - 2001.

2.1.23 Lockerby Composite School - Rainbow District School Board 1391 Ramsey View Court, Sudbury

Lockerby Composite School was sampled on July 15, 2001. Figure B2.1.23 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the grassed area of the soccer field. Areas B and C correspond to the worn areas around the north and south goal posts of the soccer field, respectively. Due to the compacted nature of these areas, it was only possible to sample the surface soil (0-5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni), copper (Cu), lead (Pb), and antimony (Sb) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil samples collected from the soccer field. The highest nickel, copper and lead concentrations found in the surface soil were 120, 110, and 200 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil nickel and copper results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km south of Lively District High School, Station 364 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper concentrations as high as 210 and 280 ppm, respectively. The lead concentrations at this site were higher than the historic sampling indicated. The highest lead concentration found at Station 364 was 22 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.23: Concentration of 13 Elements in Soil in µg/g Collected at Lockerby Composite School, 1391 Ramsey View Court, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037055	14111	0 - 5	**1.3**	< 5	48	< 0.8	36	7	**75**	**75**	< 1.5	**87**	< 1	28	25
		14112	0 - 5	0.9	< 5	39	< 0.8	67	8	**110**	**200**	< 1.5	**120**	< 1	28	30
Area B soil	5037056	14113	0 - 5	**3.2**	< 5	35	< 0.8	39	7	**62**	**110**	< 1.5	**85**	< 1	31	26
Area C soil	5037057	14114	0 - 5	**4.4**	< 5	32	< 0.8	33	6	50	**150**	< 1.5	**70**	< 1	30	25
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

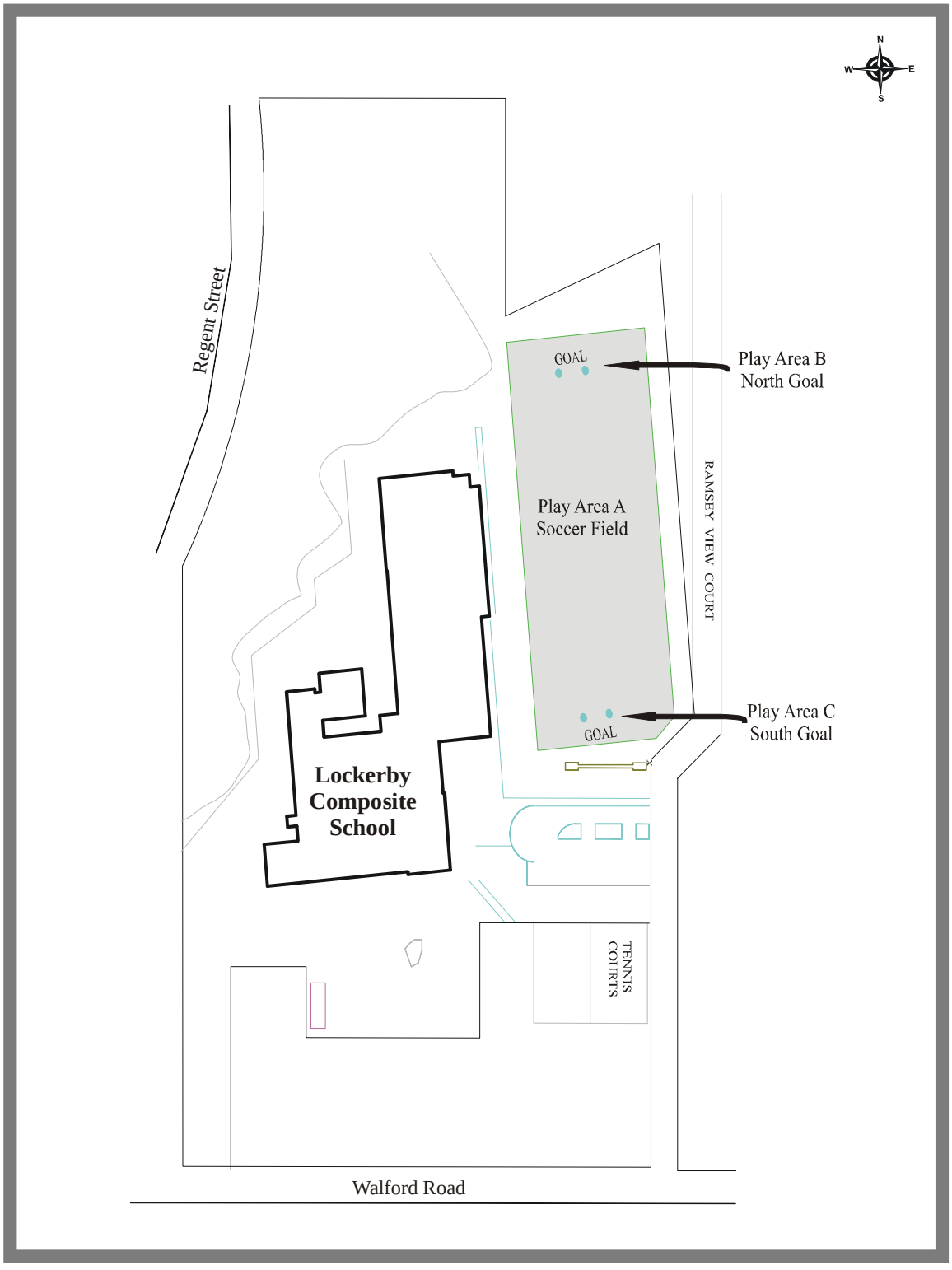

Figure B2.1.23: Lockerby Composite School Sampling Locations - 2001

2.1.24 Lo-Ellen Park Secondary School - Rainbow District School Board 275 Loach's Road, Sudbury

Lo-Ellen Park Secondary School was sampled on July 4, 2001. Figure B2.1.24 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the grassed area of the soccer field. Areas B and C correspond to the worn areas around the east and west goal posts of the soccer field, respectively. Due to the compacted nature of the areas around the goal posts, it was only possible to sample the surface soil (0-5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni), copper (Cu), and lead (Pb) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil samples collected from the soccer field. The highest nickel, copper and lead concentrations found in the surface soil were 160, 120, and 140 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil nickel and copper results are similar to those reported historically. Previous MOE sampling of undisturbed soils approximately 300 m northeast of Lively District High School, Station 365 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper concentrations of 190 ppm each. The lead concentrations at this site are higher than the historic sampling indicated. The highest lead concentration found at Station 365 was 21 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.24: Concentration of 13 Elements in Soil in µg/g Collected at Lo-Ellen Park Secondary, 275 Loach's Road, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037029	14078	0 - 5	< 0.8	< 5	41	< 0.8	54	10	**120**	**140**	< 1.5	**160**	< 1	27	25
		14079	0 - 5	< 0.8	< 5	37	< 0.8	51	10	**120**	**120**	< 1.5	**140**	< 1	26	24
		14080	5 - 10	< 0.8	8	36	< 0.8	27	8	**91**	11	< 1.5	**130**	< 1	29	21
		14081	5 - 10	< 0.8	< 5	34	< 0.8	27	8	**89**	12	< 1.5	**110**	< 1	28	20
		14082	10 - 20	< 0.8	< 5	30	< 0.8	23	6	53	7	< 1.5	**78**	< 1	26	15
		14083	10 - 20	< 0.8	< 5	21	< 0.8	19	5	29	4	< 1.5	40	< 1	22	12
Area B soil	5037030	14084	0 - 5	< 0.8	< 5	37	< 0.8	27	6	45	14	< 1.5	**53**	< 1	28	21
Area C soil	5037031	14085	0 - 5	< 0.8	< 5	48	< 0.8	34	9	**110**	29	< 1.5	**130**	< 1	31	27
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

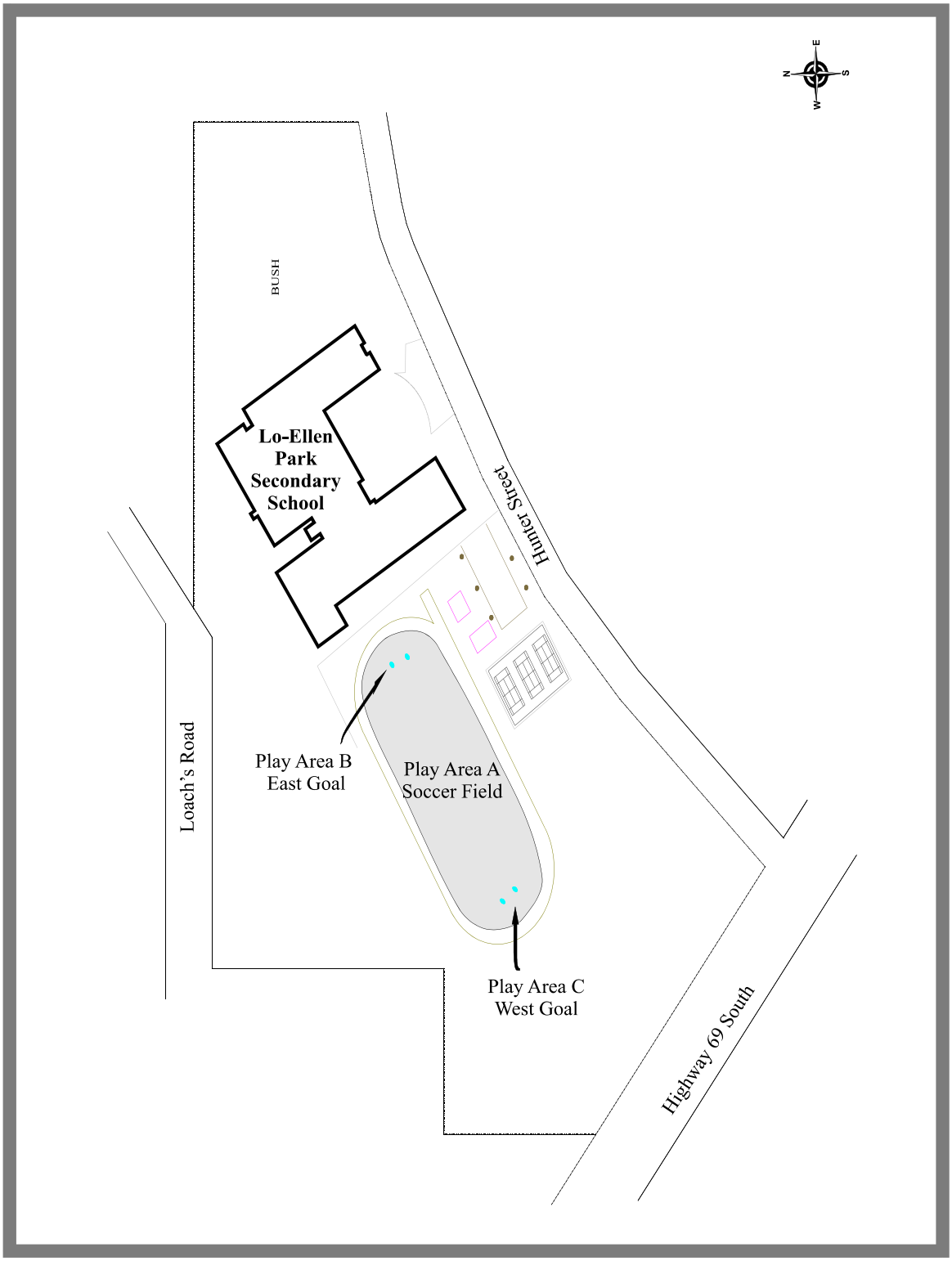

Figure B2.1.24: Lo-Ellen Park Secondary School Sampling Locations - 2001.

2.1.25 Long Lake Public School - Rainbow District School Board 4420 Long Lake Road, Sudbury

Long Lake Public School was sampled on July 5, 2001. Figure B2.1.25 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to the grassed play area on the east side of the school building. Area B corresponds to the sand samples that were taken below the play structures. Due to the constant mixing of sand and the homogeneous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structure. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in all samples from the grassed play area. The highest nickel and copper concentrations, 110 and 92 ppm, respectively, were found in the surface soil layer (0-5 cm). All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 2.5 km north and 2 km west of Long Lake Public School, Stations 366 and 429, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations as high as 480 and 440 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.25: Concentration of 13 Elements in Soil in µg/g Collected at Long Lake Public School, 4420 Long Lake Road, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037021	14197	0 - 5	< 0.8	6	33	< 0.8	23	7	**92**	15	< 1.5	**110**	< 1	23	26
		14198	0 - 5	< 0.8	6	28	< 0.8	21	6	**82**	10	< 1.5	**84**	< 1	22	22
		14201	5 - 10	< 0.8	7	37	< 0.8	24	5	**60**	8	< 1.5	**74**	< 1	26	24
		14202	5 - 10	< 0.8	9	34	< 0.8	22	5	**82**	10	< 1.5	**78**	< 1	20	23
		14203	10 - 20	< 0.8	< 5	38	< 0.8	27	5	18	5	< 1.5	**44**	< 1	25	22
		14204	10 - 20	< 0.8	6	39	< 0.8	26	5	28	6	< 1.5	**59**	< 1	28	23
Area B sand	5037022	14199	0 - 15	< 0.8	< 5	29	< 0.8	27	7	21	3	< 1.5	21	< 1	25	23
		14200	0 - 15	< 0.8	< 5	33	< 0.8	28	8	41	3	< 1.5	24	< 1	28	24
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

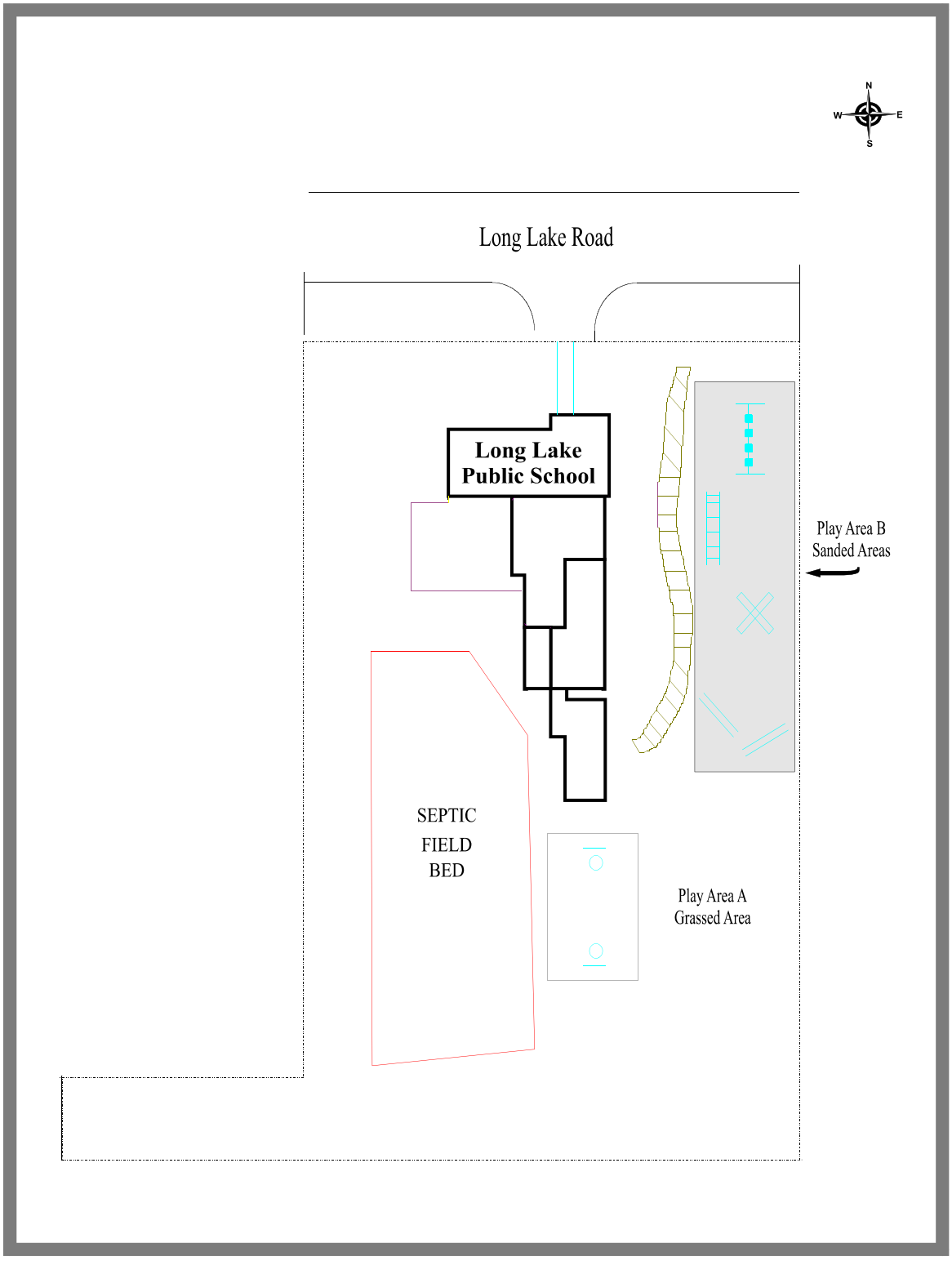

Figure B2.1.25: Long Lake Public School Sampling Locations - 2001.

2.1.26 MacLeod Public School - Rainbow District School Board 310 Anthony Street, Sudbury

MacLeod Public School was sampled on July 4, 2001. Figure B2.1.26 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the sand samples that were taken below the play structure. Due to the constant mixing of sand and the homogeneous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. Area B corresponds to the gravel samples that were taken over the entire baseball diamond. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. Area C corresponds to the grassed play area on the east side of the basketball court. Due to the compacted nature of the grassed areas, it was only possible to sample the surface soil (0-5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structure. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in all surface samples from the grassed and gravel play areas. The highest nickel and copper concentrations were found in the surface soil layer (0-5 cm) of the grassed area with concentrations of 160 and 150 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There was one exceedences of the MOE Table A Effects Based Soil Criteria for nickel at this property.

These soil results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 0.5 km south of MacLeod Public School, Station 364 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations as high as 210 and 280 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.26: Concentration of 13 Elements in Soil in µg/g Collected at MacLeod Public School, 310 Anthony Street, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037047	14104	0 - 15	< 0.8	< 5	31	< 0.8	25	5	33	7	< 1.5	43	< 1	26	17
		14105	0 - 15	< 0.8	< 5	26	< 0.8	35	7	22	3	< 1.5	28	< 1	33	21
Area B gravel	5037048	14100	0 - 5	< 0.8	< 5	68	< 0.8	29	12	**100**	9	< 1.5	**81**	< 1	68	34
		14101	0 - 5	< 0.8	< 5	65	< 0.8	29	15	**96**	8	< 1.5	**64**	< 1	66	29
Area C grass	5037049	14102	0 - 5	< 0.8	< 5	52	< 0.8	41	10	**130**	16	< 1.5	**160**	1.1	35	40
		14103	0 - 5	< 0.8	< 5	47	< 0.8	39	9	**150**	19	< 1.5	**140**	1.1	33	38
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

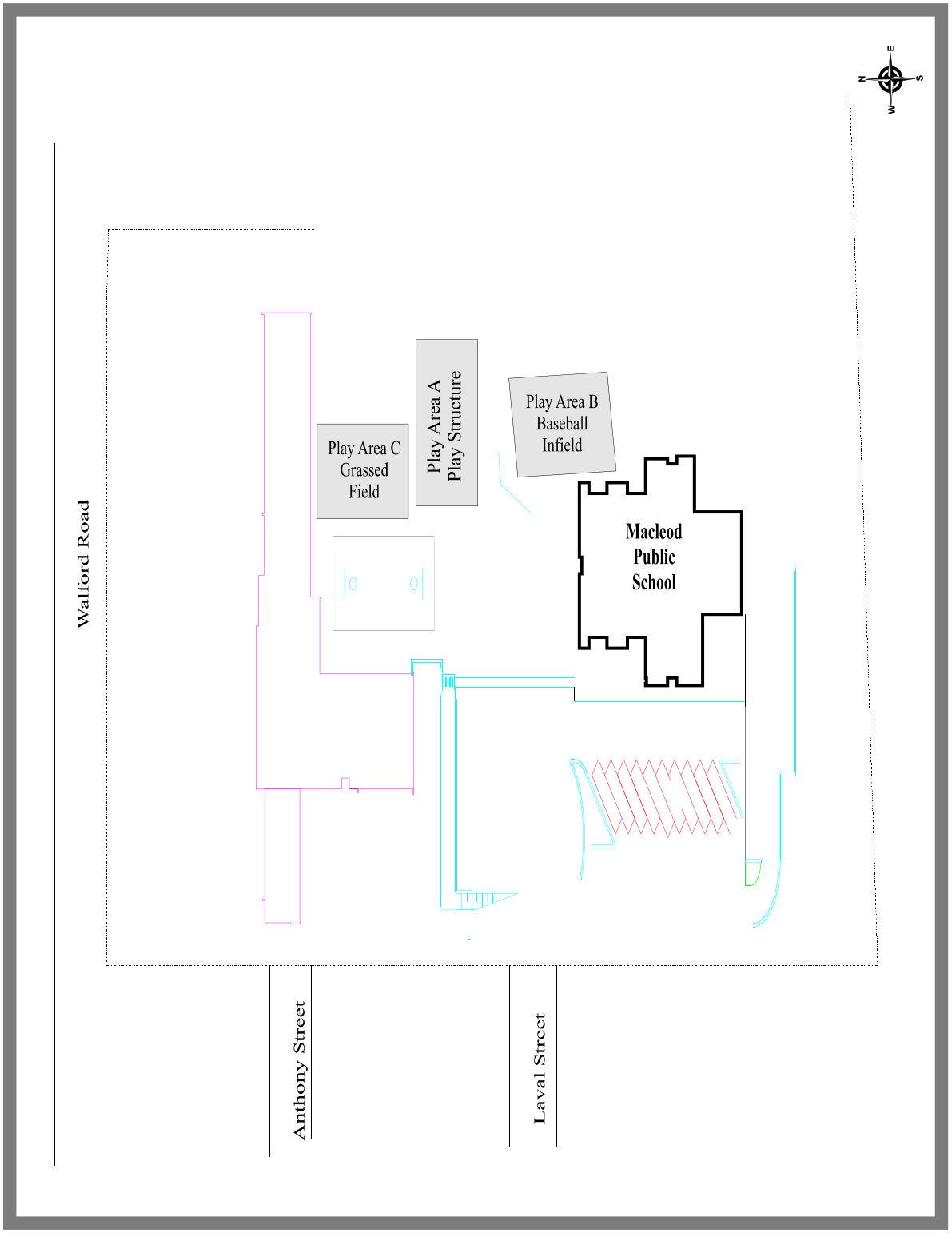

Figure B2.1.26: MacLeod Public School Sampling Locations - 2001.

2.1.27 Northeastern Secondary School - Rainbow District School Board 45 Spruce Street, Garson

Northeastern Secondary School was sampled on July 18, 2001 and has since been renamed Northeastern Elementary School. Figure B2.1.27 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to samples taken from the grassed area of the football field. Area B corresponds to samples taken from the baseball diamond outfield. Due to the compacted nature of Areas B, it was only possible to sample the surface soil (0-5 cm). Area C corresponds to the gravel samples that were taken from the baseball diamond infield. Hand trowels were used to collect gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in most samples from this property. The highest nickel and copper concentrations on this property were found in the surface soil layer (0-5 cm) of the baseball diamond outfield with concentrations of 250 and 210 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. Nickel concentrations exceeded the MOE Table A Effects Based Soil Criteria at two locations at this property.

These nickel surface soil results are slightly higher than those reported historically. Previous MOE sampling of undisturbed soils approximately 0.5 km south of Northeastern Secondary School, Station 39 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel surface soil concentrations of 100 to 130 ppm. These copper surface soil results are similar to what has been reported historically for this site, with the highest concentrations being 200 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.27: Concentration of 13 Elements in Soil in µg/g Collected at Northeastern Secondary, 45 Spruce Street, Garson - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037322	14407	0 - 5	< 0.8	8	32	< 0.8	26	8	**88**	27	< 1.5	**120**	< 1	26	37
		14408	0 - 5	< 0.8	9	39	< 0.8	30	10	**140**	51	< 1.5	**<u>180</u>**	< 1	27	45
		14409	5 - 10	< 0.8	6	28	< 0.8	28	5	30	11	< 1.5	**52**	< 1	30	27
		14410	5 - 10	< 0.8	8	36	< 0.8	31	5	31	10	< 1.5	**51**	< 1	36	33
		14413	10 - 20	< 0.8	6	35	< 0.8	28	5	25	9	< 1.5	38	< 1	31	25
		14414	10 - 20	< 0.8	6	24	< 0.8	21	4	16	4	< 1.5	26	< 1	23	15
Area B grass	5037323	14405	0 - 5	< 0.8	9	48	0.9	26	15	**210**	45	< 1.5	**<u>250</u>**	1	25	72
		14406	0 - 5	< 0.8	7	37	< 0.8	25	8	**81**	15	< 1.5	**110**	< 1	27	35
Area C gravel	5037324	14411	0 - 5	< 0.8	7	30	< 0.8	27	6	37	8	< 1.5	**58**	< 1	29	30
		14412	0 - 5	< 0.8	6	29	< 0.8	28	6	33	9	< 1.5	**58**	< 1	30	27
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

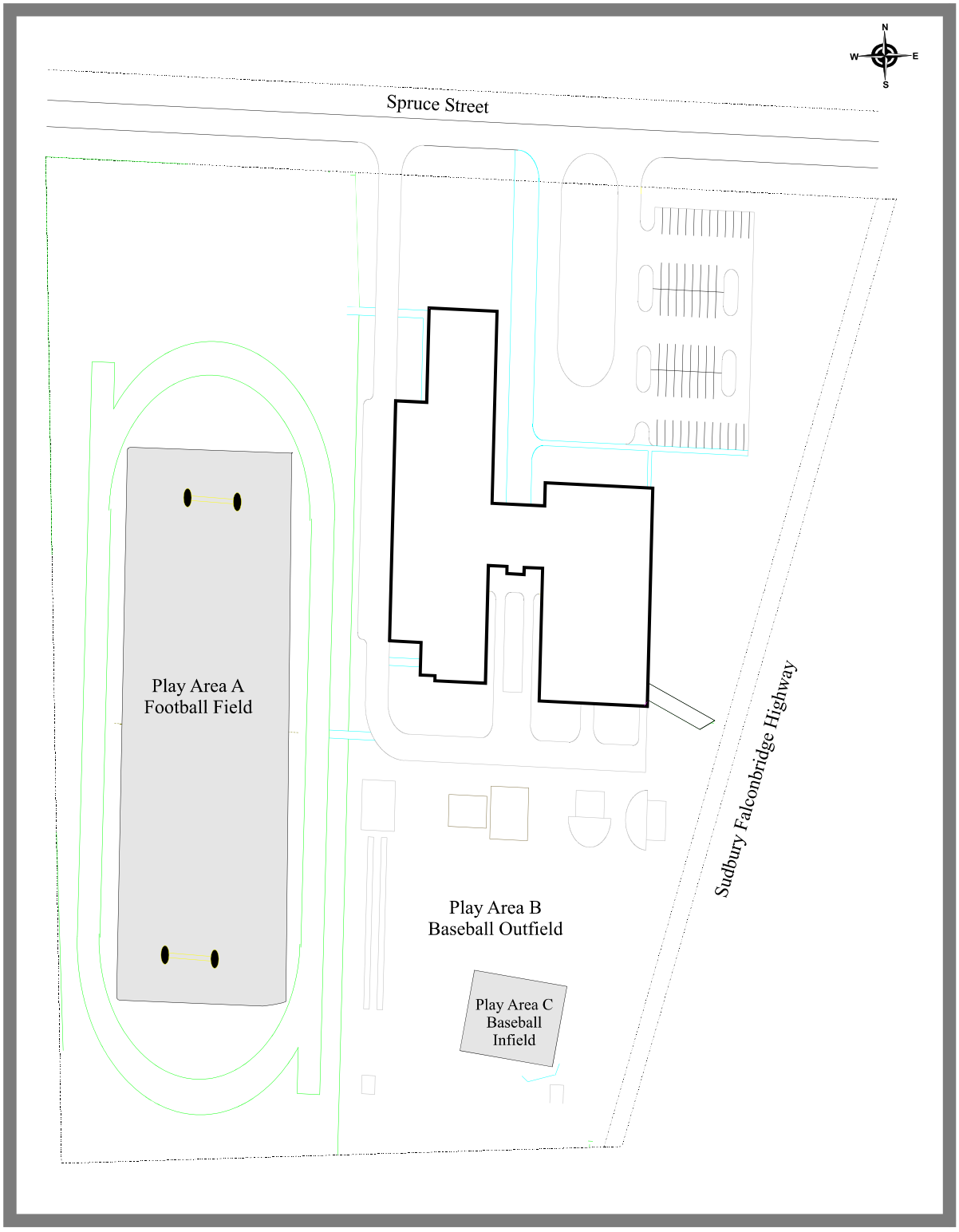

Figure B2.1.27: Northeastern Secondary School Sampling Locations - 2001.

2.1.28 Pinecrest Public School - Rainbow District School Board 1650 Dominion Drive, Hanmer

Pinecrest Public School was sampled on July 20, 2001. Figure B2.1.28 details the sampling locations at this property. Samples were taken from five areas on the school property. Area A and E correspond to samples taken from the grassed area of the soccer field and the worn areas around the goal posts, respectively. Area B corresponds to samples taken from the baseball diamond infield. Due to the compacted nature of Areas A, B and E, it was only possible to sample the surface soil (0-5 cm). Area C corresponds to sand samples taken from the landing area of the long jump pit. Due to the constant mixing of sand and the homogeneous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. Area D corresponds to the gravel playground. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand of the landing area of the long jump pit. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for all samples from the soccer field, baseball diamond infield, and gravel playground. Copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in both samples taken from the gravel playground. The highest nickel and copper concentrations on this property were found in the gravel from the playground with concentrations of 130 and 83 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

Table B2.1.28: Concentration of 13 Elements in Soil in µg/g Collected at Pinecrest Public School, 1650 Dominion Drive, Hanmer - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037318	14661	0 - 5	< 0.8	6	34	< 0.8	27	5	40	12	< 1.5	**54**	< 1	28	26
		14662	0 - 5	< 0.8	< 5	36	< 0.8	27	4	37	9	< 1.5	**44**	< 1	28	24
		14663	5 - 10	< 0.8	6	31	< 0.8	26	5	39	11	< 1.5	**52**	< 1	26	29
		14664	5 - 10	< 0.8	5	35	< 0.8	27	5	31	9	< 1.5	**45**	< 1	27	24
Area B soil	5037319	14669	0 - 5	< 0.8	5	29	< 0.8	27	4	38	14	< 1.5	41	< 1	26	34
Area C sand	5037320	14666	0 - 15	< 0.8	< 5	20	< 0.8	25	7	12	3	< 1.5	17	< 1	28	15
Area D gravel	5037321	14667	0 - 5	< 0.8	5	49	< 0.8	46	16	**81**	11	< 1.5	**130**	< 1	44	42
		14668	0 - 5	< 0.8	< 5	49	< 0.8	46	15	**83**	10	< 1.5	**120**	< 1	45	41
Area E soil	5030971	14665	0 - 5	< 0.8	5	31	< 0.8	28	5	35	10	< 1.5	**49**	< 1	27	33
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

The nickel and copper results from the gravel playground are similar to those reported historically. Previous MOE sampling of undisturbed soils approximately 2 km east and 3 km southwest of Pinecrest Public School, Stations 15 and 344, respectively, of the MOE Sudbury 2000 Report for

the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations of 84 and 100 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

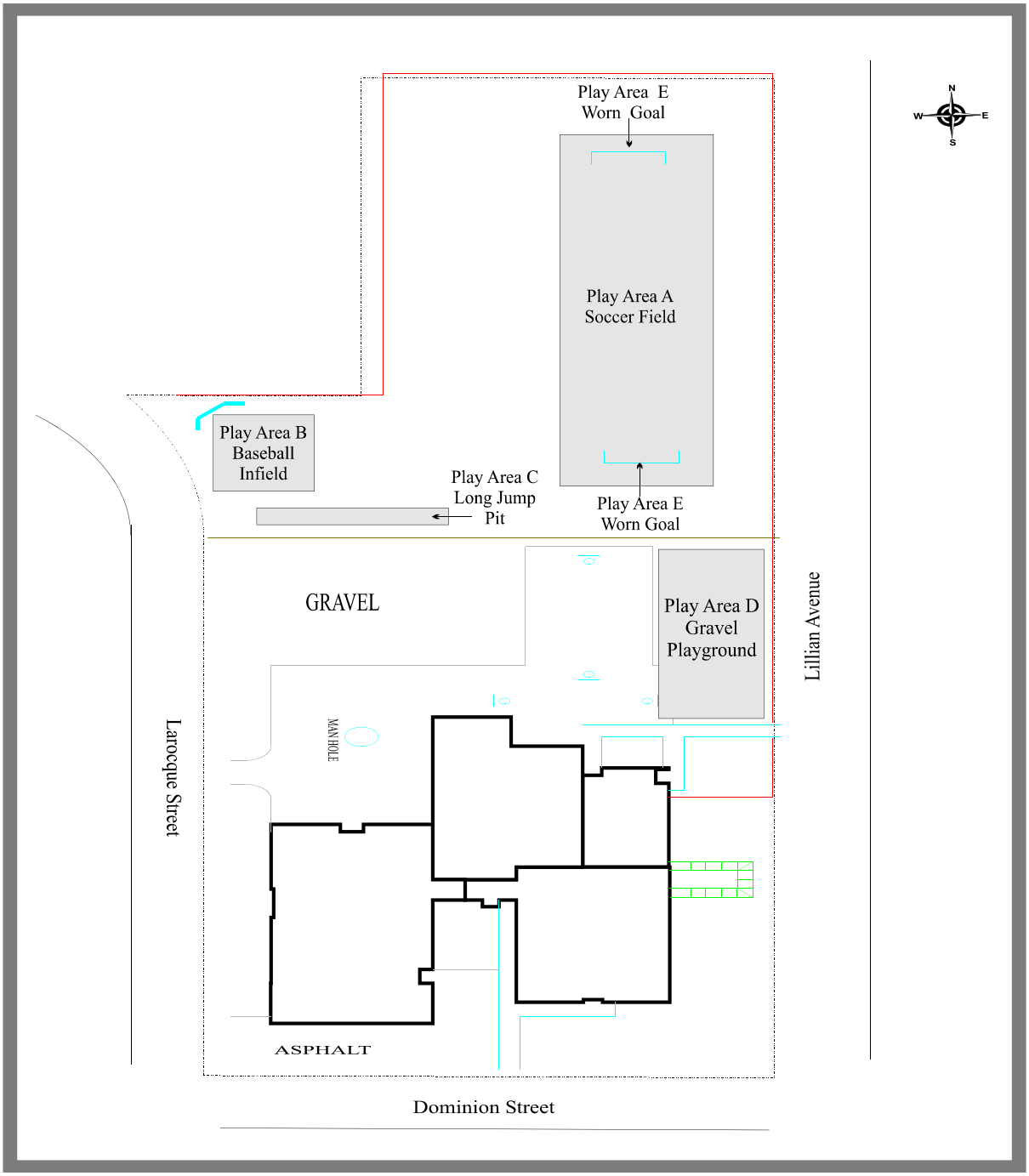

Figure B2.1.28: Pinecrest Public School Sampling Locations - 2001.

2.1.29 Princess Anne Public School - Rainbow District School Board 500 Douglas Street, Sudbury

Princess Anne Public School, including Princess Anne Kids, was sampled on July 5, 2001. Figure B2.1.29 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to samples taken from the gravel of the baseball diamond infield. Area B corresponds to samples taken from the grassed area of the baseball diamond outfield. Due to the compacted nature of Areas A, and B, it was only possible to sample all three depths for one replicate of the outfield and the surface (0-5 cm) layer of the infield. Area C corresponds to sand samples taken from the sand box. Due to the constant mixing of sand and the homogeneous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand of the sand box. The sand present is not likely native to the school property and is believed to have been introduced when the play area was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria, and in most cases for nickel, above the MOE Table A Effects Based Soil Criteria, for all other samples collected from this property. The highest nickel and copper concentrations on this property were found in the 5 - 10 cm depth sample of the baseball diamond outfield with concentrations of 370 and 240 ppm, respectively. The presence of darkly stained rocks, believed to be slag, was noted on the east side of the baseball diamond. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

These nickel and copper soil results are higher than those reported historically. Previous MOE sampling of undisturbed soils approximately 70 m north of Princess Anne Public School, Station 378 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations of 250 and 180 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.29: Concentration of 13 Elements in Soil in µg/g Collected at Princess Anne Public School, 500 Douglas Street, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037106	14134	0 - 5	< 0.8	6	34	< 0.8	35	17	**220**	18	< 1.5	**200**	**2**	30	28
		14135	0 - 5	< 0.8	6	31	< 0.8	32	13	**200**	13	< 1.5	**170**	< 1	29	25
Area B grass	5037107	14136	0 - 5	< 0.8	7	46	< 0.8	39	11	**200**	43	< 1.5	**280**	< 1	31	33
		14137	0 - 5	< 0.8	7	45	< 0.8	35	13	**240**	21	< 1.5	**300**	**2**	31	37
		14139	5 - 10	< 0.8	8	56	< 0.8	38	13	**240**	17	< 1.5	**370**	1	33	38
		14140	10 - 20	< 0.8	< 5	41	< 0.8	29	8	**120**	10	< 1.5	**170**	< 1	27	27
Area C sand	5037108	14138	0 - 15	< 0.8	< 5	23	< 0.8	31	8	36	4	< 1.5	34	< 1	31	22
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

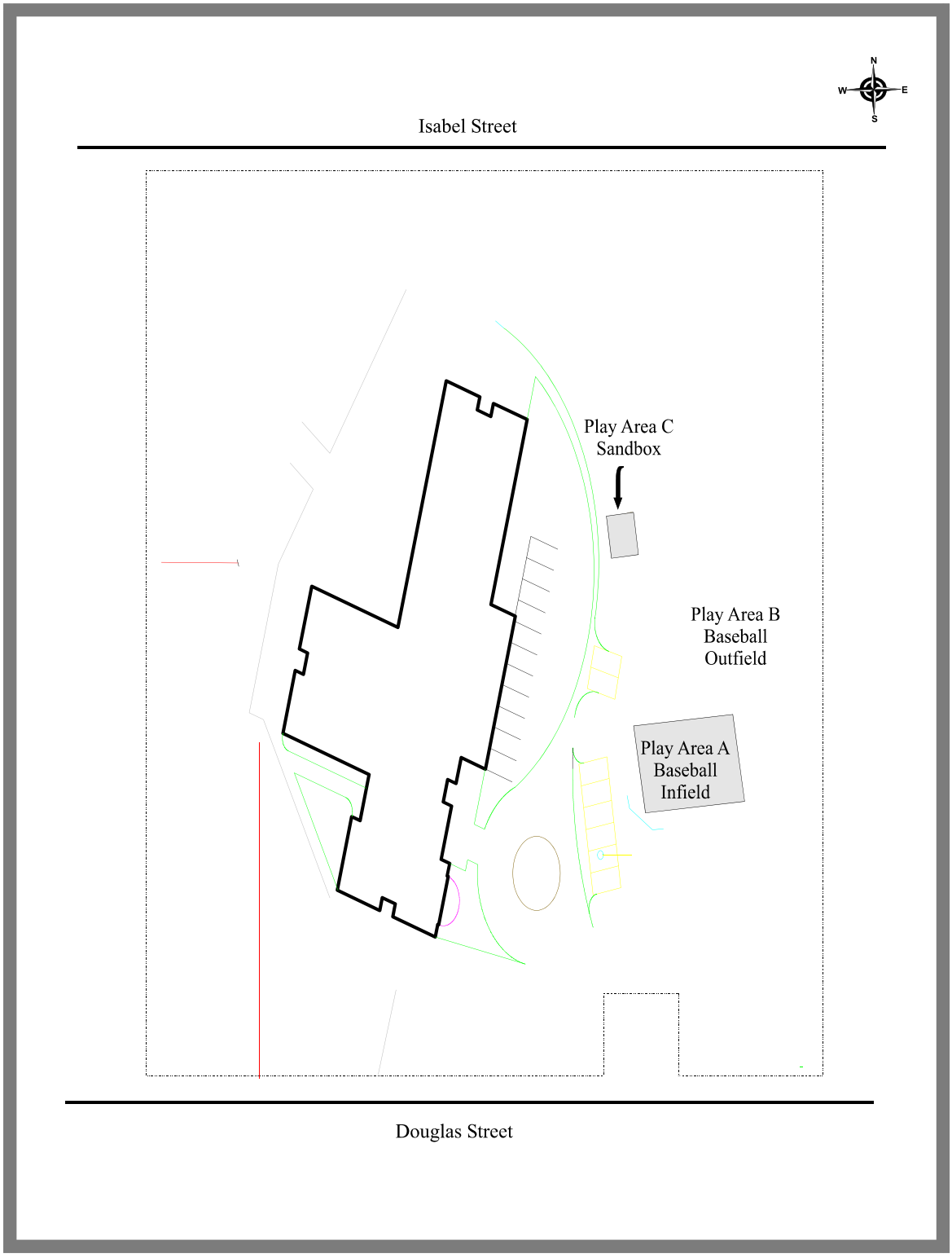

Figure B2.1.29: Princess Anne Public School Sampling Locations - 2001.

2.1.30 Queen Elizabeth II Public School - Rainbow District School Board 32 Dell Street, Sudbury

Queen Elizabeth II Public School was sampled on July 17, 2001. Figure B2.1.30 details the sampling locations at this property. Samples were taken from eight areas on the school property. Area A corresponds to samples taken from the grassed area of both soccer fields. Areas B and C correspond to samples taken from the worn areas around the west and east goal posts of both fields, respectively. Due to the compacted nature of Areas B and C, it was only possible to sample the surface soil (0-5 cm) layer. Area D corresponds to sand samples taken from below the play structure. Area E corresponds to sand samples taken from the landing area of the long jump pit. Due to the constant mixing of sand and the homogeneous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. Areas F, G, and H correspond to gravel samples taken from the shared baseball diamond outfield, and west and east infields, respectively. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand from below the play structure or from the landing area of the long jump pit. The sand present is not likely native to the school properties and is believed to have been introduced when the play area was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni), and in most cases copper (Cu), concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for all other samples taken from this property. Nickel and copper concentrations were elevated above the MOE Table A Effects Based Soil Criteria for the gravel samples taken from the baseball diamonds. The highest nickel and copper concentrations on this property were found at the east baseball diamond infield with concentrations of 370 and 300 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

These nickel and copper soil results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1.4 km northwest and 1.4 km southwest of Queen Elizabeth II Public School, Stations 362 and 84, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations as high as 490 and 520 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.30: Concentration of 13 Elements in Soil in µg/g Collected at Queen Elizabeth II Public School, 32 Dell Street, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037119	14269	0 - 5	< 0.8	7	35	< 0.8	29	8	**120**	15	< 1.5	**120**	< 1	29	28
		14270	0 - 5	< 0.8	9	37	< 0.8	25	8	**130**	17	< 1.5	**130**	< 1	28	29
		14271	5 - 10	< 0.8	7	34	< 0.8	25	7	**92**	12	< 1.5	**99**	< 1	28	26
		14272	5 - 10	< 0.8	6	33	< 0.8	25	6	**73**	9	< 1.5	**83**	< 1	28	25
		14280	10 - 20	< 0.8	6	35	< 0.8	27	6	43	7	< 1.5	**54**	< 1	31	24
		14281	10 - 20	< 0.8	< 5	32	< 0.8	28	6	49	7	< 1.5	**61**	< 1	27	23
Area B soil	5037120	14273	0 - 5	< 0.8	8	30	< 0.8	24	5	45	9	< 1.5	**63**	< 1	27	22
Area C soil	5037121	14274	0 - 5	< 0.8	6	37	< 0.8	27	7	**100**	14	< 1.5	**120**	< 1	28	26
Area D sand	5037122	14275	0 - 15	< 0.8	< 5	20	< 0.8	31	7	32	3	< 1.5	37	< 1	33	42
		14276	0 - 15	< 0.8	6	20	< 0.8	27	7	23	3	< 1.5	26	< 1	29	22
Area E sand	5037123	14277	0 - 15	< 0.8	< 5	20	< 0.8	25	7	26	3	< 1.5	34	< 1	29	17
Area F gravel	5037124	14282	0 - 5	< 0.8	7	36	< 0.8	32	16	**210**	19	< 1.5	**240**	< 1	30	38
		14283	0 - 5	< 0.8	8	39	0.8	31	17	**260**	26	< 1.5	**270**	1	29	58
Area G gravel	5037125	14278	0 - 5	< 0.8	7	34	< 0.8	29	16	**210**	23	< 1.5	**240**	< 1	31	110
Area H gravel	5037126	14279	0 - 5	< 0.8	9	40	1	29	**20**	**300**	30	< 1.5	**370**	1	29	65
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

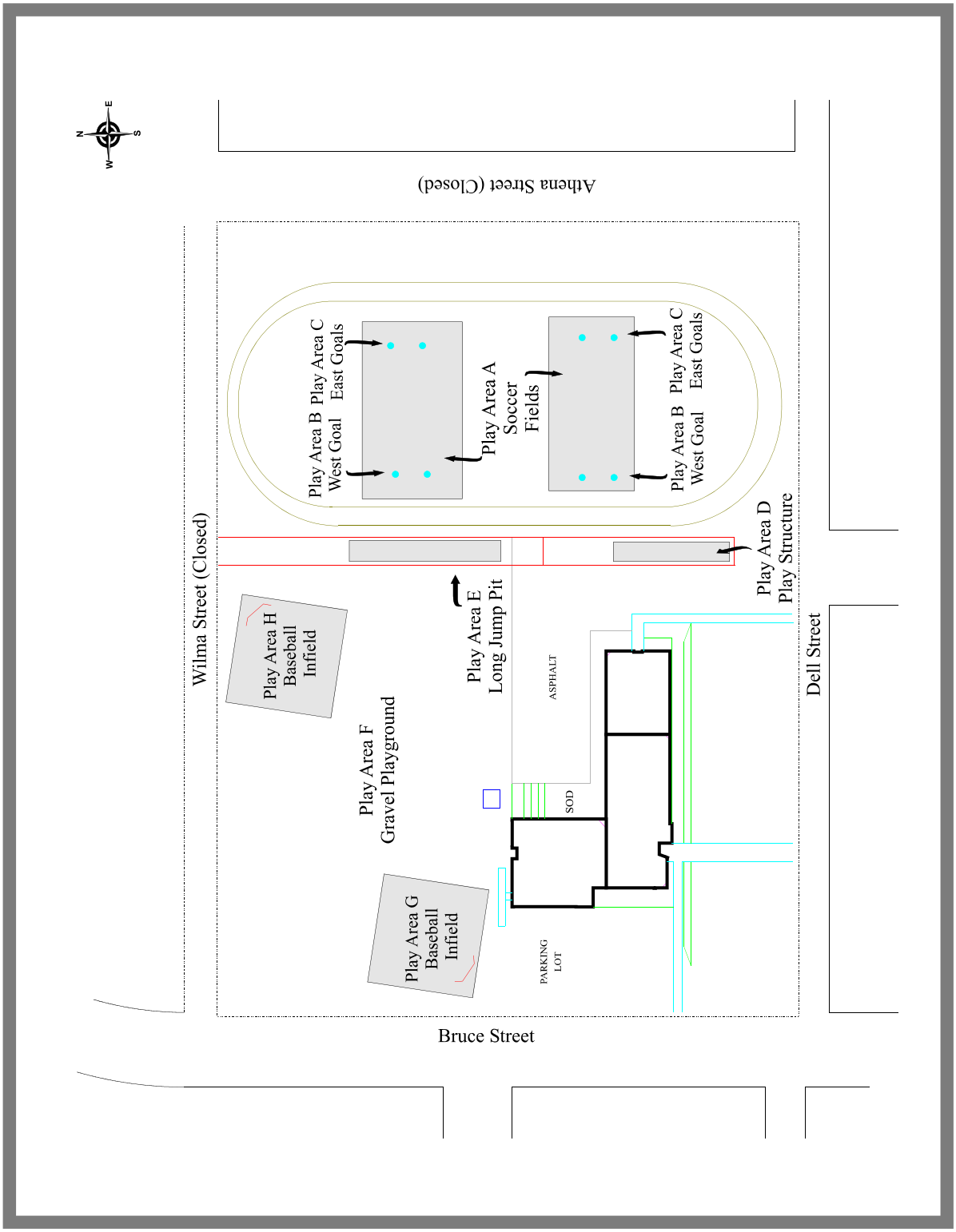

Figure B2.1.30: Queen Elizabeth II Public School Sampling Locations - 2001.

2.1.31 R. H. Murray Public School - Rainbow District School Board 3 Henry Street, Whitefish

R. H. Murray Public School was sampled on July 21, 2001. Figure B2.1.31 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the soccer field. Area B corresponds to the worn areas at the north and south goal posts. Due to the compacted nature of these areas it was only possible to sample the surface soil (0 - 5 cm). Area C corresponds to sand samples that were taken from below the play structure. Due to the constant mixing of sand and homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structure. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. None of the samples from this property were found to have metal concentrations above the MOE Table F Ontario Soil Background Criteria. In addition, aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were also below the MOE Table F Ontario Soil Background Criteria.

These soil results are similar to those reported historically for the City of Greater Sudbury (MOE 2001). Previous MOE sampling of undisturbed soils approximately 2.5 km northwest, 2.2 km north and 0.5 km southwest of R.H. Murray Public School, Stations 394, 397, and 103, respectively, of the MOE Sudbury 2000 Report (MOE 2001), indicated nickel and copper concentration ranges of 20 to 76, and 21 to 100 ppm, respectively. As indicated on the R.H. Murray school map provided, the soccer field has been built above a septic field. Therefore, the soil history at this site is not known due to the potential soil disturbance during installation of the septic tank. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of all materials sampled on this property.

Table B2.1.31: Concentration of 13 Elements in Soil in µg/g Collected at R.H. Murray Public School, 3 Henry Street, Whitefish - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037409	14744	0 - 5	< 0.8	< 5	62	< 0.8	23	5	24	11	< 1.5	32	< 1	29	45
		14745	0 - 5	< 0.8	< 5	74	< 0.8	27	6	29	13	< 1.5	37	< 1	31	53
Area B soil	5037410	14746	0 - 5	< 0.8	< 5	81	< 0.8	37	6	22	9	< 1.5	27	< 1	38	47
Area C sand	5037411	14747	0 - 15	< 0.8	< 5	31	< 0.8	31	6	16	3	< 1.5	17	< 1	31	19
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

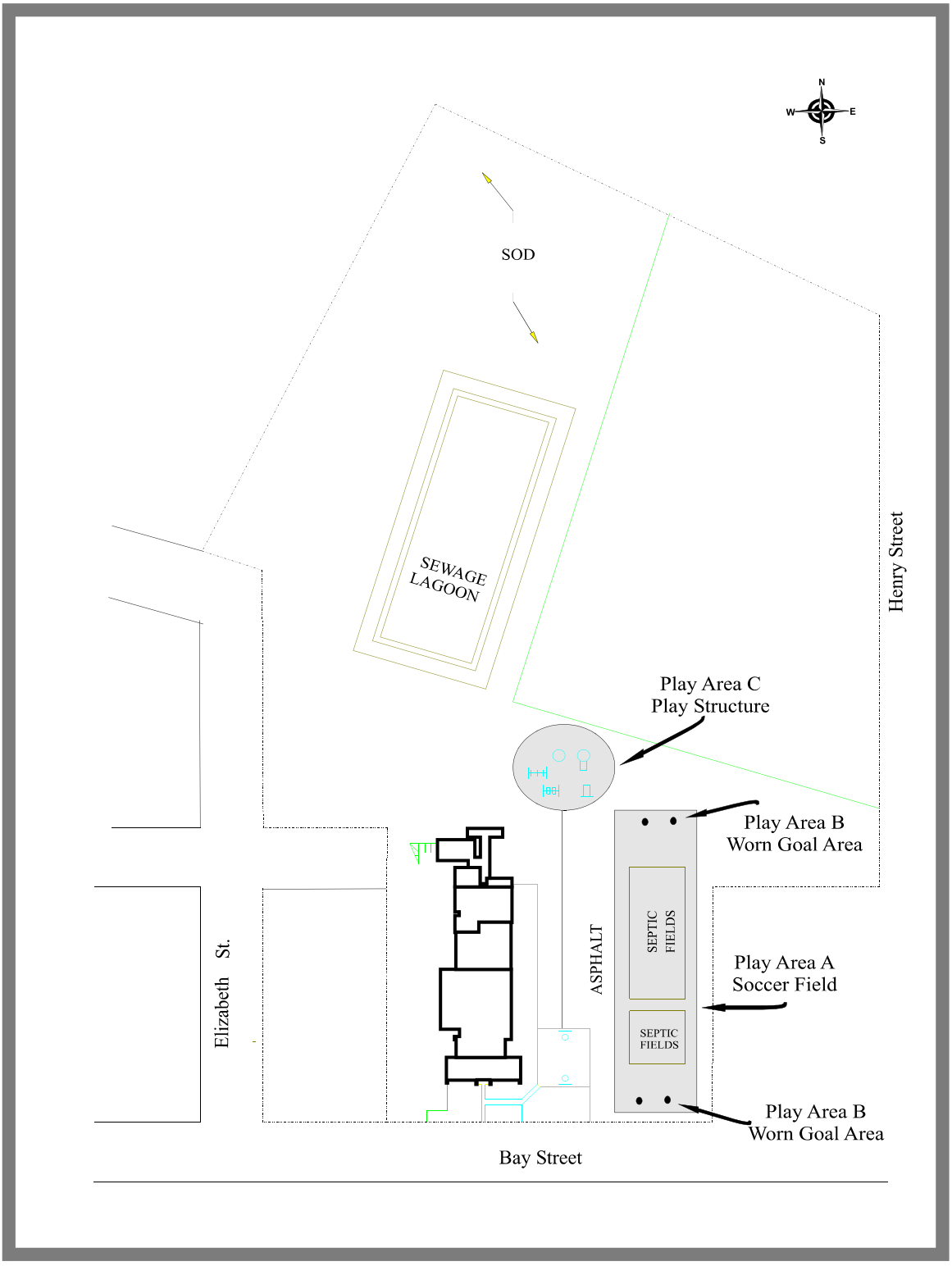

Figure B2.1.31: R. H. Murray Public School Sampling Locations - 2001.

2.1.32 R.L. Beattie Public School - Rainbow District School Board 102 Loach's Road, Sudbury

R. L. Beattie Public School, including Beattie Kids Daycare, was sampled on July 4, 2001. Figure B2.1.32 details the sampling locations at this property. Samples were taken from seven areas on the school property. Area A corresponds sand samples from below the climbers on the west side of the property. Area B corresponds sand samples from below the playground equipment on the north side of the school building. Area G corresponds to sand samples collected from below the play structure on the east side of the school property. Due to the constant mixing of sand and homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. Area C corresponds to the grassed area of the soccer field. Areas D and E correspond to the worn areas around the west and east soccer goal posts, respectively. Area F corresponds to the gravel sample of the baseball diamond infield. Due to the compacted nature of Areas C, D, E, and F it was only possible to sample the surface layer (0 - 5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in any of the sand samples from beneath the play structures. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for all other grass and gravel samples taken from this property. The highest nickel and copper concentrations on this property were found at the worn area around the west soccer goal post with concentrations of 110 and 87 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

Table B2.1.32: Concentration of 13 Elements in Soil in µg/g Collected at R.L. Beattie Public School, 102 Loach's Road, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037032	14072	0 - 15	< 0.8	< 5	23	< 0.8	31	7	23	3	< 1.5	25	1	32	17
		14073	0 - 15	< 0.8	< 5	21	< 0.8	28	7	24	3	< 1.5	27	< 1	28	16
Area B sand	5037033	14074	0 - 15	< 0.8	< 5	20	< 0.8	30	7	25	3	< 1.5	28	< 1	29	17
		14075	0 - 15	< 0.8	< 5	20	< 0.8	30	6	21	3	< 1.5	23	< 1	28	17
Area C grass	5037034	14068	0 - 5	< 0.8	< 5	42	< 0.8	33	7	**77**	13	< 1.5	**97**	< 1	32	31
		14069	0 - 5	< 0.8	< 5	42	< 0.8	32	7	**83**	13	< 1.5	**100**	< 1	32	31
Area D soil	5037035	14071	0 - 5	0.9	< 5	52	< 0.8	36	8	**87**	15	< 1.5	**110**	< 1	32	36
Area E soil	5037036	14070	0 - 5	< 0.8	< 5	54	< 0.8	33	7	**61**	11	< 1.5	**84**	< 1	33	51
Area F gravel	5037037	14076	0 - 5	< 0.8	< 5	27	< 0.8	32	9	**82**	11	< 1.5	**82**	< 1	28	27
Area G sand	5037038	14077	0 - 15	< 0.8	< 5	22	< 0.8	29	7	19	3	< 1.5	21	< 1	28	16
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

These nickel and copper soil results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 0.5 km southeast of R.L. Beattie Public School, Station 365 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations as high as 190 ppm each. Historic MOE sampling in the

Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

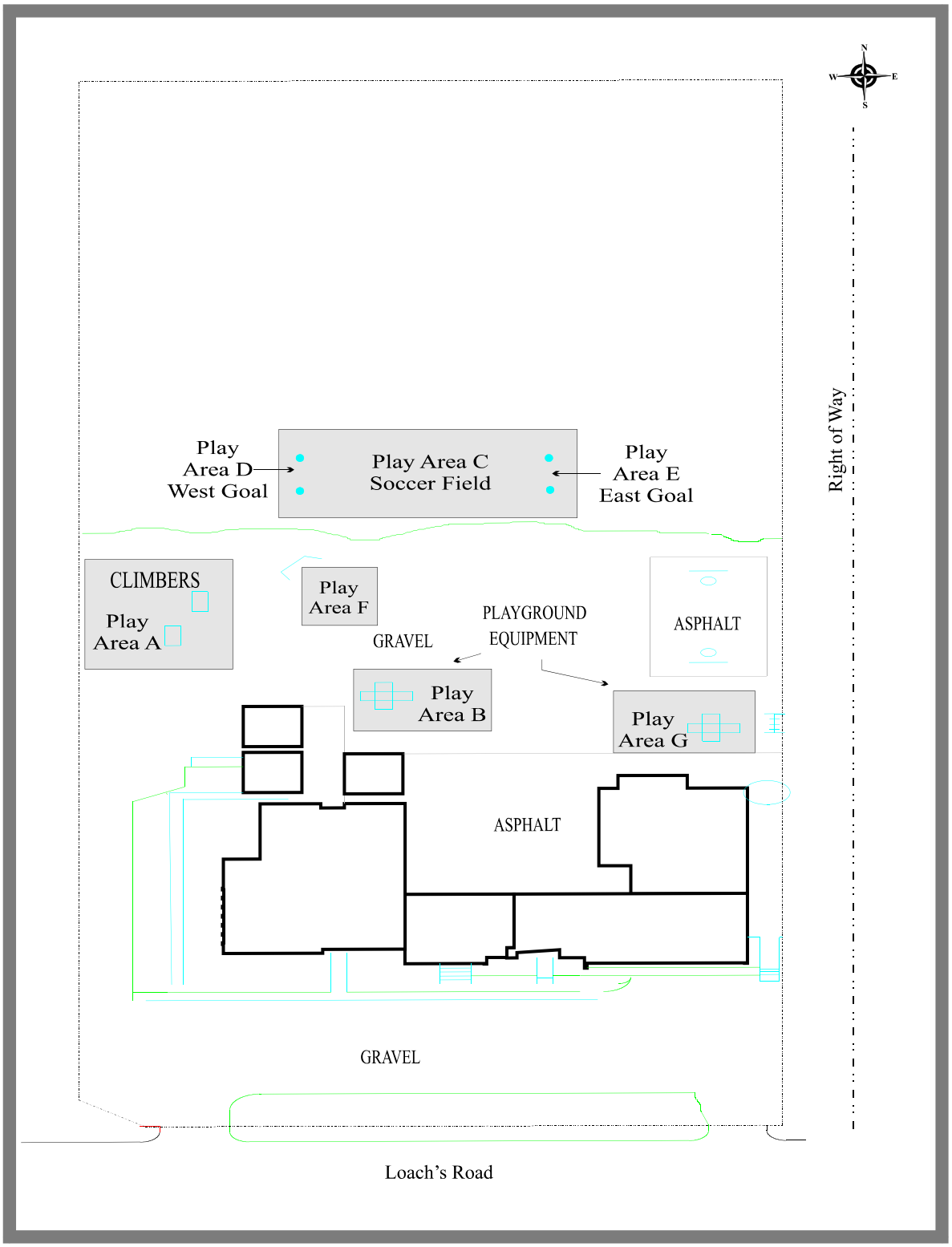

Figure B2.1.32: R.L. Beattie Public School Sampling Locations - 2001.

2.1.33 Redwood Acres Public School - Rainbow District School Board 4625 Carl Street, Hanmer

Redwood Acres Public School was sampled on July 20, 2001. Figure B2.1.33 details the sampling locations at this property. Samples were taken from seven areas on the school property. Area A corresponds to the grassed area of the north soccer field . Areas B and C correspond to the worn areas around the east and west goal posts of the north soccer field, respectively. Due to the compacted nature of Areas A, B, and C, it was only possible to sample to 10 cm for the north grassed soccer field and the surface soil (0 - 5 cm) layer around the worn goal posts. Area G corresponds to the grassed area of the south soccer field. Areas D and E correspond to samples taken from the south and north baseball diamond infields, respectively. Area F corresponds to sand samples collected from sand boxes on the east side of the school property. Due to the constant mixing of sand and homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand samples from the sand boxes. The sand present is not likely native to the school property and is believed to have been introduced when the play area was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria at selected surface soil sites of the south grassed soccer field. The highest nickel concentrations on this property was found in the surface soil (0-5 cm) layer of the south soccer field with a concentration of 72 ppm.

Table B2.1.33: Concentration of 13 Elements in Soil in µg/g Collected at Redwood Acres Public School, 4625 Carl Street, Hanmer - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037332	14612	0 - 5	< 0.8	< 5	32	< 0.8	26	4	21	15	< 1.5	34	1	26	21
		14613	0 - 5	< 0.8	< 5	31	< 0.8	26	5	25	43	< 1.5	40	< 1	25	22
		14614	5 - 10	< 0.8	< 5	29	< 0.8	25	4	24	8	< 1.5	32	< 1	25	19
		14615	5 - 10	< 0.8	< 5	28	< 0.8	24	4	22	7	< 1.5	31	< 1	24	19
Area B soil	5037333	14607	0 - 5	< 0.8	< 5	28	< 0.8	25	5	20	9	< 1.5	32	< 1	24	21
Area C soil	5037334	14608	0 - 5	< 0.8	< 5	27	< 0.8	26	4	21	7	< 1.5	36	< 1	25	27
Area D soil	5037335	14609	0 - 5	< 0.8	< 5	35	< 0.8	34	10	44	7	< 1.5	40	< 1	35	31
Area E soil	5037336	14610	0 - 5	< 0.8	6	35	< 0.8	32	10	43	6	< 1.5	41	< 1	33	27
Area F sand	5037337	14611	0 - 15	< 0.8	< 5	20	< 0.8	23	6	15	3	< 1.5	16	< 1	29	20
Area G grass	5037338	14616	0 - 5	< 0.8	7	31	< 0.8	24	5	54	18	< 1.5	**72**	< 1	23	24
		14617	0 - 5	< 0.8	6	30	< 0.8	27	4	43	11	< 1.5	**52**	< 1	26	24
		14618	5 - 10	< 0.8	< 5	30	< 0.8	25	4	27	7	< 1.5	**44**	< 1	24	21
		14619	5 - 10	< 0.8	< 5	25	< 0.8	23	4	18	5	< 1.5	32	< 1	21	18
		14620	10 - 20	< 0.8	< 5	24	< 0.8	23	4	13	4	< 1.5	23	< 1	22	17
		14621	10 - 20	< 0.8	< 5	22	< 0.8	22	4	15	4	< 1.5	22	< 1	23	14
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600
< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.																

All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil

Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel soil results are similar those reported historically. Previous MOE sampling of undisturbed soils approximately 2.5 km northwest, 2 km southwest, and 1.5 km southeast of Redwood Acres Public School, Stations 346, 347, and 350, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel surface soil concentrations of 43 to 150 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

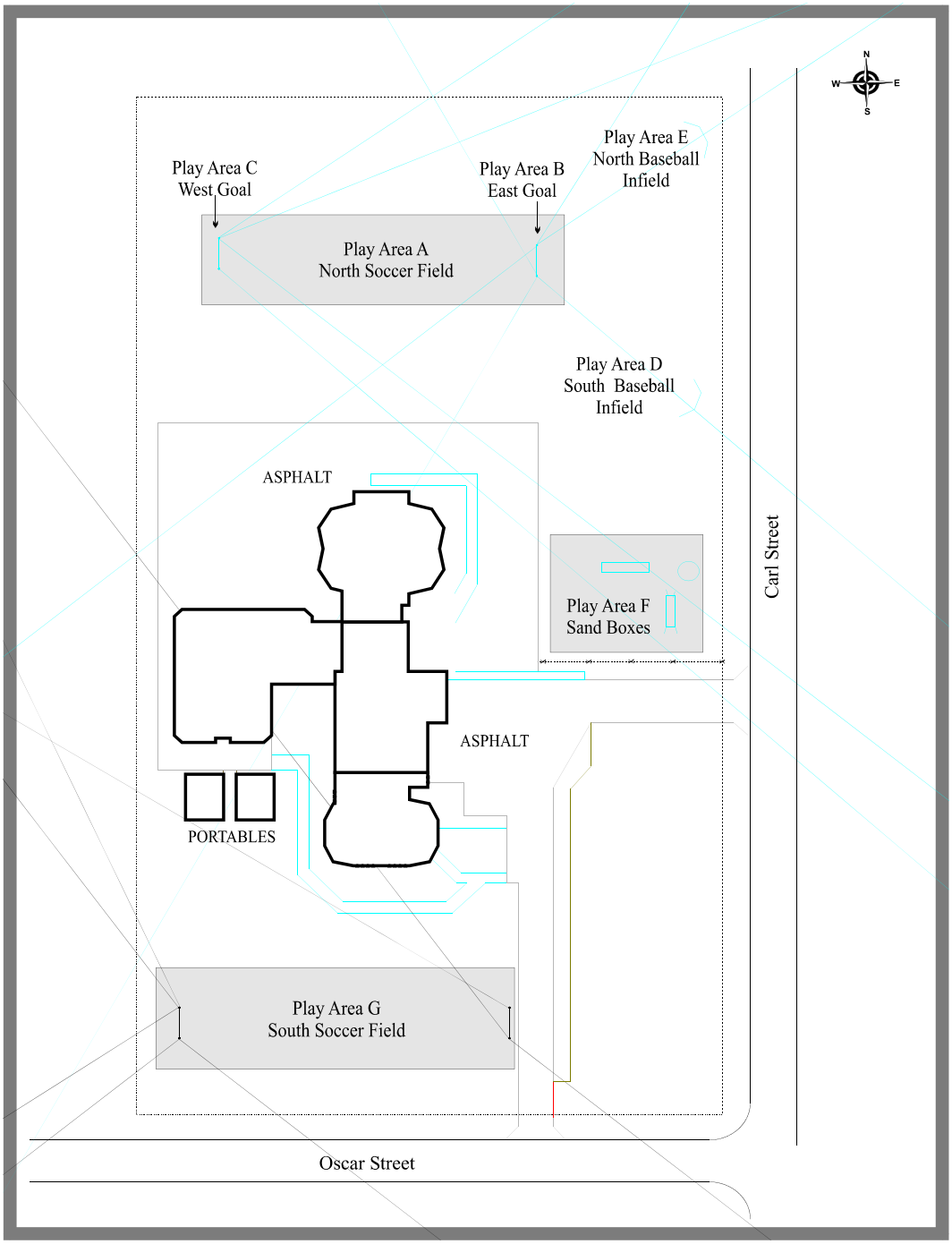

Figure B2.1.33: Redwood Acres Public School Sampling Locations - 2001.

2.1.34 Robert Jack Public School - Rainbow District School Board
7 Margaret Street, Garson

Robert Jack Public School, including R.J. Kids Daycare, was sampled on July 18, 2001 and has since closed at this location. Figure B2.1.34 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the grassed baseball diamond outfield. Area B corresponds to the baseball diamond infield. Due to the compacted nature of Areas A and B, it was only possible to sample all three depths for one replicate of the outfield and the surface soil (0 - 5 cm) layer for the infield. Area C corresponds to the gravel playground. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni), copper (Cu) and arsenic (As) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for selected sites of the baseball outfield and gravel playground. The highest nickel concentration on this property, 69 ppm, was found in the surface soil (0-5 cm) layer of the outfield, while the highest copper and arsenic concentrations, 71 and 15 ppm, respectively, were found in the 5-10 cm depth. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel soil results are similar those reported historically. Previous MOE sampling of undisturbed soils approximately 0.5 km south of Robert Jack Public School, Station 40 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel surface soil concentrations of 37 to 87 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.34: Concentration of 13 Elements in Soil in µg/g Collected at Robert Jack Public School, 7 Margaret Street, Garson - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037272	14420	0 - 5	< 0.8	9	33	< 0.8	24	5	51	10	< 1.5	**54**	< 1	24	29
		14421	0 - 5	< 0.8	9	38	< 0.8	30	6	51	14	< 1.5	**69**	< 1	29	33
		14426	5 - 10	< 0.8	**15**	32	< 0.8	21	4	**71**	9	< 1.5	**47**	< 1	26	22
		14427	10 - 20	< 0.8	8	31	< 0.8	21	5	18	7	< 1.5	41	< 1	24	23
Area B soil	5037273	14422	0 - 5	< 0.8	5	35	< 0.8	29	6	26	6	< 1.5	41	< 1	28	70
		14423	0 - 5	< 0.8	< 5	32	< 0.8	28	6	23	5	< 1.5	35	< 1	29	29
Area C gravel	5037274	14424	0 - 5	< 0.8	7	34	< 0.8	32	15	45	6	< 1.5	**56**	< 1	33	29
		14425	0 - 5	< 0.8	6	34	< 0.8	32	15	**61**	6	< 1.5	**61**	< 1	31	30
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

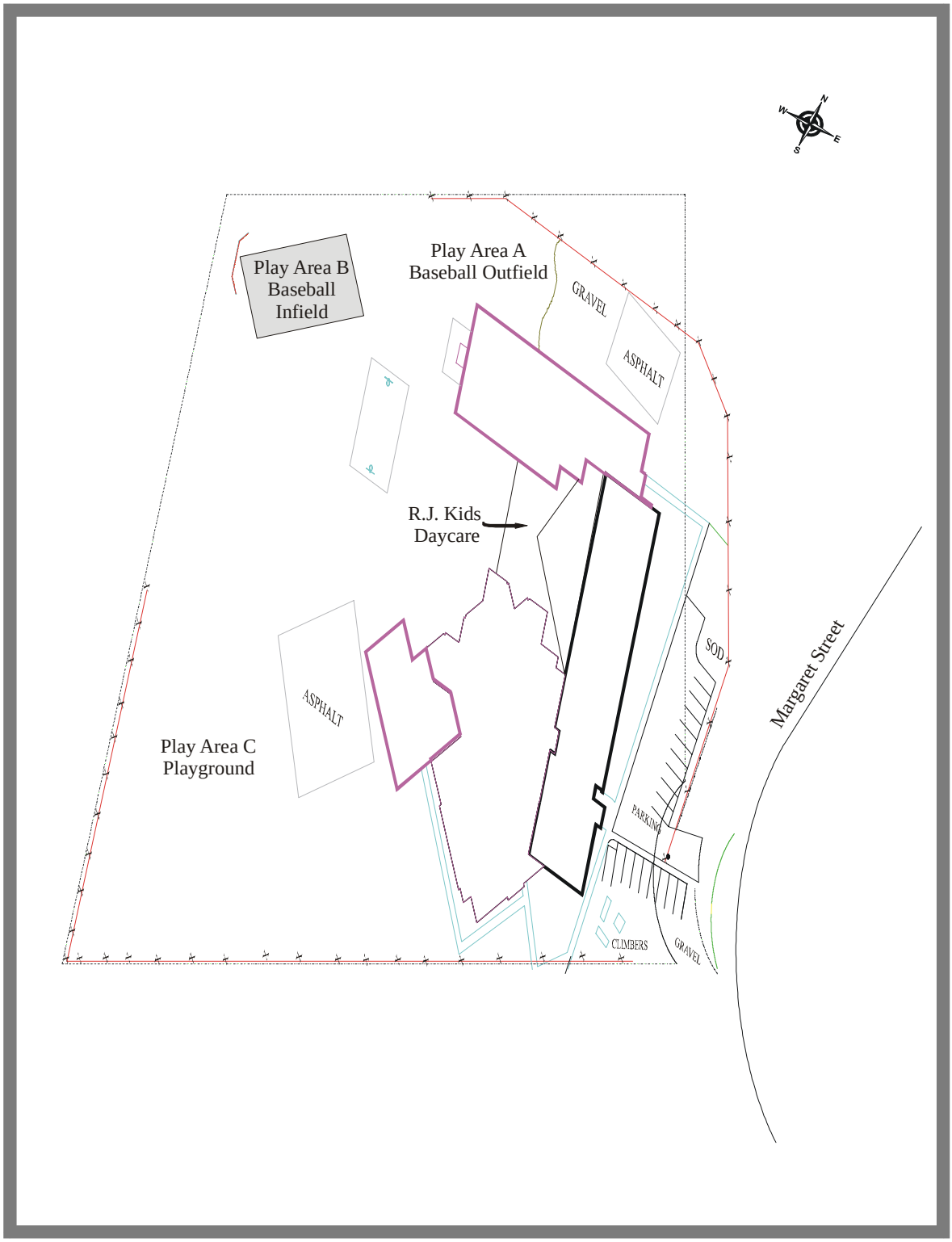

Figure B2.1.34: Robert Jack Public School Sampling Locations - 2001.

2.1.35 Sudbury Secondary School - Rainbow District School Board 85 Mackenzie Street, Sudbury

Sudbury Secondary School was sampled on July 16, 2001. Figure B2.1.35 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the grassed area of the soccer field. Areas B and C correspond to the worn areas around the east and west goal posts, respectively. Due to the compacted nature of Areas B and C, it was only possible to sample the surface soil (0 - 5 cm) layer. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni), and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for all sites sampled on this property. The highest nickel and copper concentrations, 170 and 150 ppm, respectively, were found in the surface soil (0-5 cm) layer of the soccer field. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There was one exceedence of the MOE Table A Effects Based Soil Criteria for nickel at this property.

These nickel and copper results are lower those reported historically. Previous MOE sampling of undisturbed soils approximately 0.8 km northwest of Sudbury Secondary School, Station 84 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations as high as 490 and 520 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.35: Concentration of 13 Elements in Soil in µg/g Collected at Sudbury Secondary School, 85 Mackenzie Street, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037131	14249	0 - 5	< 0.8	6	43	0.8	34	9	**150**	29	< 1.5	**170**	1	30	40
		14250	0 - 5	< 0.8	7	37	< 0.8	30	8	**110**	21	< 1.5	**130**	< 1	28	32
		14251	5 - 10	< 0.8	6	36	< 0.8	32	7	**62**	13	< 1.5	**76**	< 1	33	27
		14252	5 - 10	< 0.8	7	37	< 0.8	32	7	**73**	19	< 1.5	**92**	< 1	31	29
		14253	10 - 20	< 0.8	5	42	< 0.8	33	8	**97**	20	< 1.5	**110**	< 1	33	30
		14254	10 - 20	< 0.8	< 5	37	< 0.8	33	8	**76**	22	< 1.5	**98**	< 1	31	31
Area B soil	5037132	14255	0 - 5	< 0.8	6	39	< 0.8	32	8	**85**	16	< 1.5	**100**	< 1	33	31
Area C soil	5037133	14256	0 - 5	< 0.8	7	42	< 0.8	37	7	**65**	19	< 1.5	**86**	< 1	37	31
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

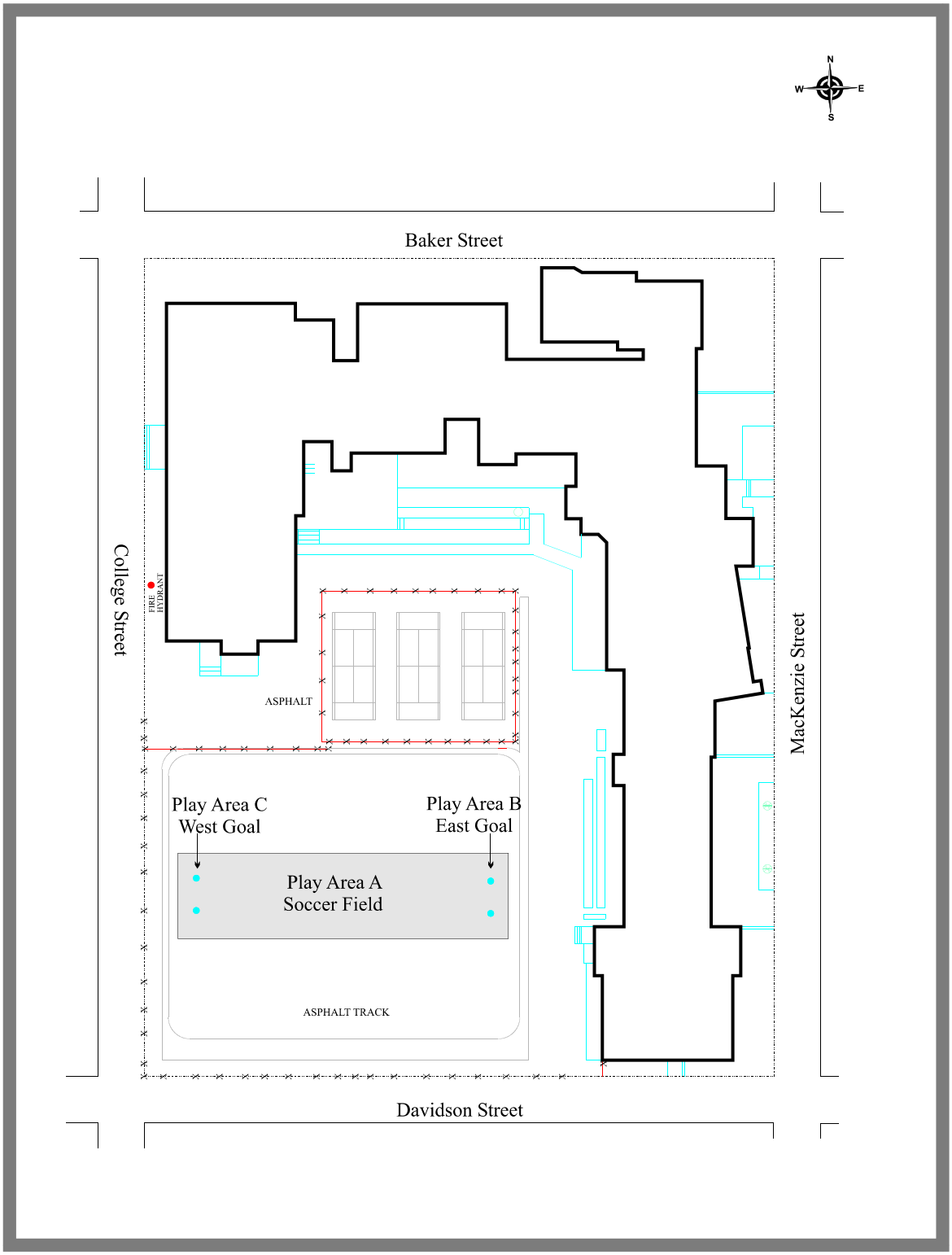

Figure B2.1.35: Sudbury Secondary School Sampling Locations - 2001.

2.1.36 Val Caron Public School - Rainbow District School Board 1555 Main Street East, Val Caron

Val Caron Public School was sampled on July 23, 2001. Figure B2.1.36 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to the grassed area on the east side of the school building. Area B corresponds to sand samples collected from beneath the play structures. Due to the constant mixing of sand and the homogeneous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structures. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for all samples collected from the grassed area (Area A) of this property. The highest nickel concentration, 62 ppm, was found in the surface soil (0-5 cm) layer of the grassed play area. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel results are lower those reported historically. Previous MOE sampling of undisturbed soils approximately 1.8 km south of Val Caron Public School, Station 340 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated a nickel surface soil concentration of 140 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.36: Concentration of 13 Elements in Soil in µg/g Collected at Val Caron Public School, 1555 Main Street East, Val Caron - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037286	14778	0 - 5	< 0.8	< 5	46	< 0.8	36	7	47	16	< 1.5	**62**	< 1	34	43
		14779	0 - 5	< 0.8	< 5	48	< 0.8	37	7	42	14	< 1.5	**55**	< 1	35	37
		14780	5 - 10	< 0.8	< 5	44	< 0.8	35	6	42	14	< 1.5	**58**	< 1	32	41
		14781	5 - 10	< 0.8	< 5	46	< 0.8	38	7	41	15	< 1.5	**56**	< 1	35	43
		14782	10 - 20	< 0.8	< 5	36	< 0.8	28	5	42	12	< 1.5	**57**	< 1	27	26
		14783	10 - 20	< 0.8	< 5	40	< 0.8	35	6	45	12	< 1.5	**52**	< 1	33	39
Area B sand	5037287	14784	0 - 15	< 0.8	< 5	21	< 0.8	23	5	11	2	< 1.5	17	< 1	25	18
		14785	0 - 15	< 0.8	< 5	18	< 0.8	23	5	12	2	< 1.5	17	< 1	29	18
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

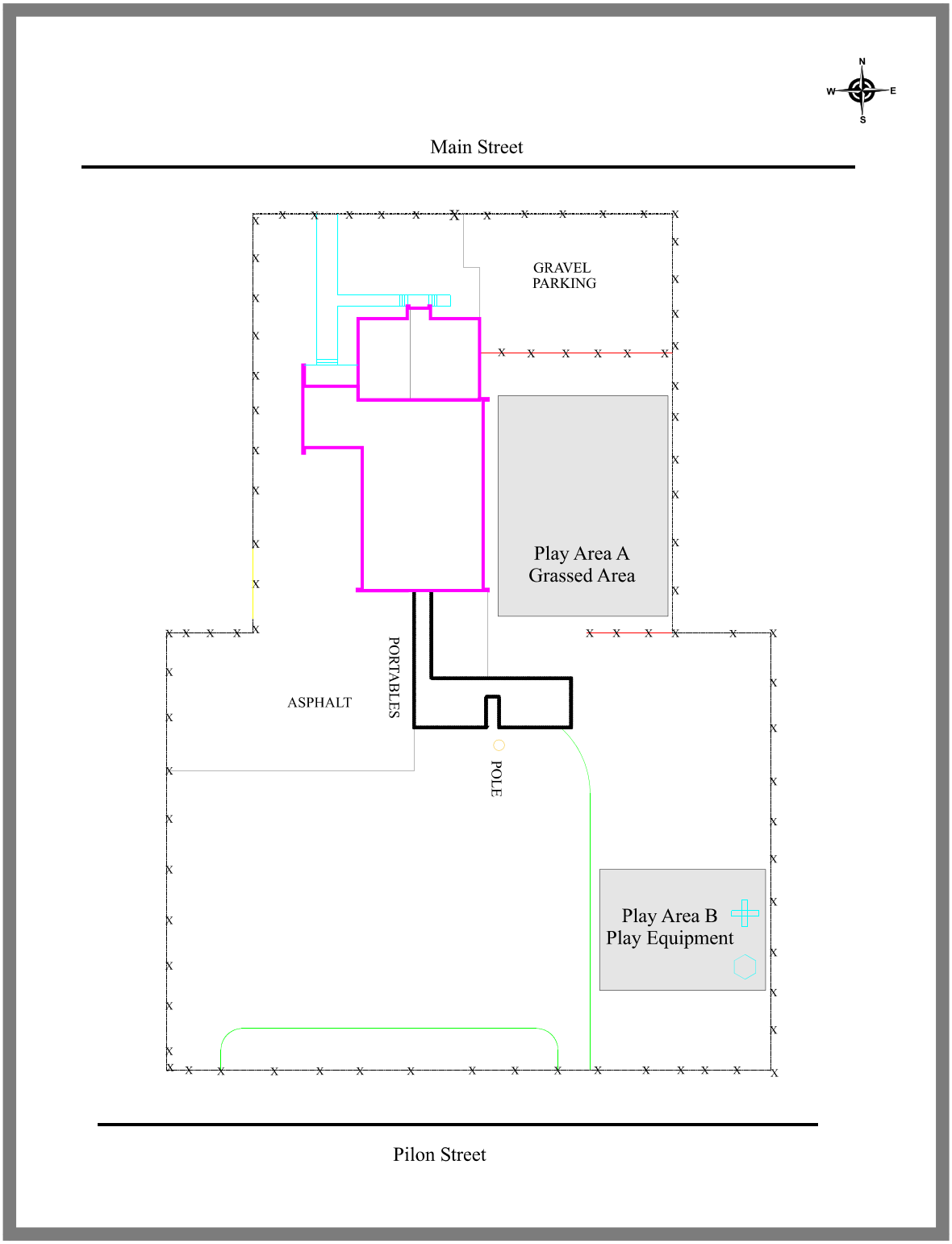

Figure B2.1.36: Val Caron Public School Sampling Locations - 2001.

2.1.37 Valleyview Public School - Rainbow District School Board 1840 Valley View Road, Val Caron

Valleyview Public School was sampled on July 23, 2001. Figure B2.1.37 details the sampling locations at this property. Samples were taken from five areas on the school property. Areas A and B correspond to the grassed area of the baseball diamond outfield and surface soil of the baseball diamond infield, respectively. Areas C and D correspond to the grassed area of the soccer field and the worn areas around the goal posts, respectively. Due to the compacted nature of Areas A, B, C, and D, it was only possible to sample to depth for one replicate of the baseball diamond outfield and the surface soil (0 - 5 cm) layer of the baseball diamond infield and soccer field. Area E corresponds to sand samples that were taken below the play structure on the north side of the school building. Due to the constant mixing of sand and the homogeneous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structure. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play area was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for all samples collected from the baseball diamond and soccer field. Copper (Cu) concentrations were also elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil of the baseball diamond infield and grassed area of the soccer field. The highest nickel and copper concentrations, 120 and 91 ppm, respectively, were found in the surface soil (0-5 cm) layer of the grassed soccer field. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

Table B2.1.37: Concentration of 13 Elements in Soil in µg/g Collected at Valleyview Public School, 1840 Valley View Road, Val Caron - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037281	14826	0 - 5	< 0.8	< 5	45	< 0.8	37	7	48	14	< 1.5	**65**	< 1	36	31
		14827	0 - 5	< 0.8	< 5	43	< 0.8	37	7	46	14	< 1.5	**64**	< 1	34	31
		14828	5 - 10	< 0.8	< 5	42	< 0.8	37	7	38	12	< 1.5	**59**	< 1	33	29
		14829	10 - 20	< 0.8	< 5	39	< 0.8	35	7	31	10	< 1.5	**57**	< 1	35	28
Area B soil	5037282	14832	0 - 5	< 0.8	< 5	51	< 0.8	40	12	**76**	9	< 1.5	**110**	< 1	43	38
		14833	0 - 5	< 0.8	< 5	50	< 0.8	41	11	**59**	10	< 1.5	**55**	< 1	41	38
Area C grass	5037283	14834	0 - 5	< 0.8	< 5	53	< 0.8	40	10	**90**	21	< 1.5	**120**	1.2	32	51
		14835	0 - 5	< 0.8	< 5	54	< 0.8	41	9	**91**	22	< 1.5	**120**	1.2	33	56
Area D soil	5037284	14836	0 - 5	< 0.8	< 5	45	< 0.8	36	6	47	11	< 1.5	**71**	< 1	30	43
Area E sand	5037285	14837	0 - 15	< 0.8	< 5	23	< 0.8	25	6	13	2	< 1.5	23	< 1	31	17
		14838	0 - 15	< 0.8	< 5	20	< 0.8	23	5	12	2	< 1.5	20	< 1	22	16
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

These nickel and copper results are similar to those reported historically. Previous MOE sampling

of undisturbed soils approximately 0.7 km southeast of Valleyview Public School, Station 340 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations of 140 and 130 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

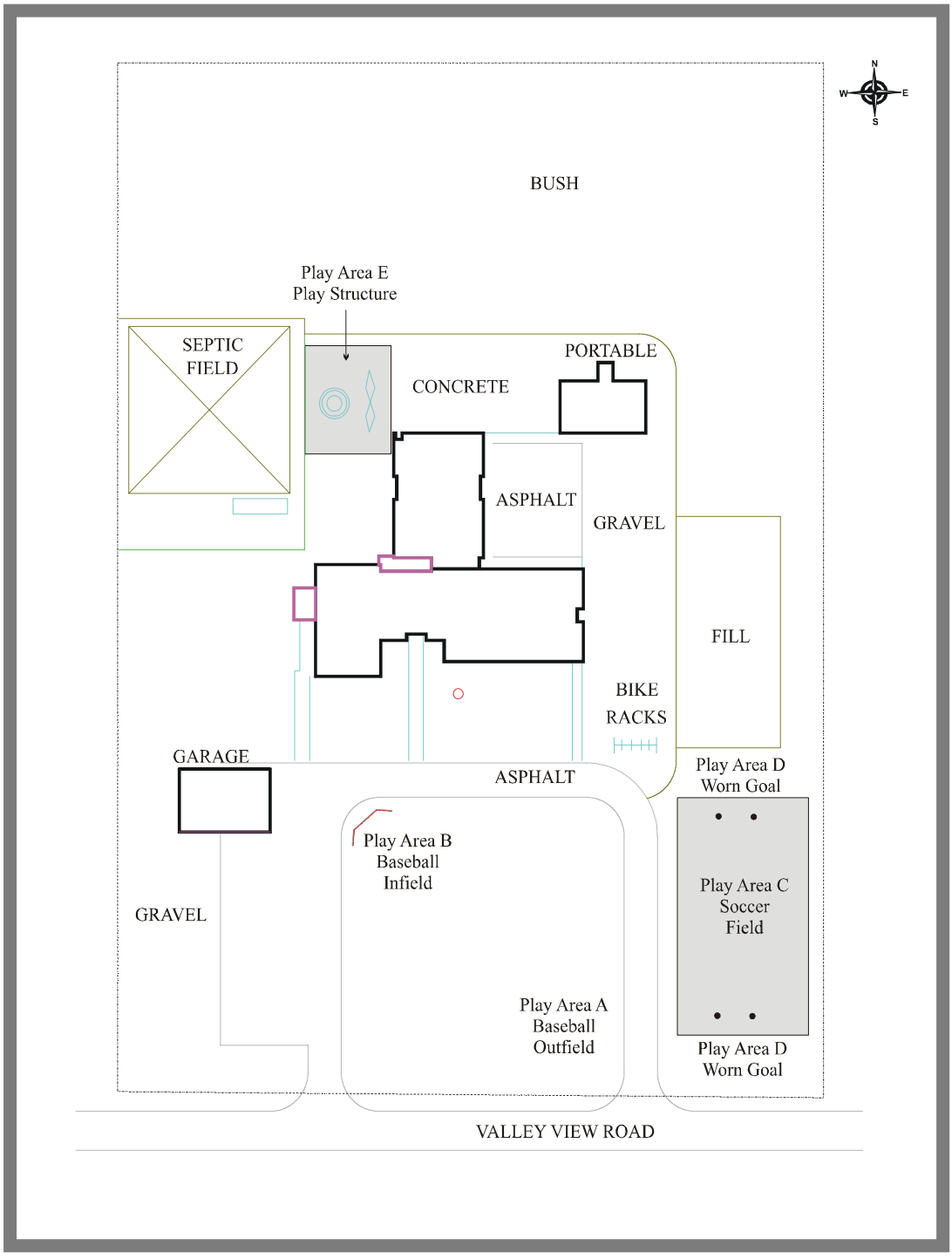

Figure B2.1.37: Valley View Public School Sampling Locations - 2001

2.1.38 Wanup Public School - Rainbow District School Board 4543 Highway 537, Sudbury

Wanup Public School was sampled on July 6, 2001. Figure B2.1.38 details the sampling locations at this property. Samples were taken from four areas on the school property. Area A corresponds to the grassed area of both soccer fields. Areas B and C correspond to the grassed baseball diamond outfield and soil baseball diamond infield, respectively. Due to the compacted nature of Area C, it was only possible to sample the surface soil (0 - 5 cm) layer. Area D corresponds to the sand samples that were taken from the sanded play area. Due to the constant mixing of sand and the homogeneous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand from the sand box. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play area was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for all other sites sampled on this property. Copper (Cu) was elevated above the MOE Table F Ontario Soil Background Criteria for one sample only. The highest nickel concentrations, 66 ppm, were found in the surface soil (0-5 cm) layer of the baseball diamond outfield. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria for nickel at this property.

Table B2.1.38: Concentration of 13 Elements in Soil in µg/g Collected at Wanup Public School, 4543 Highway 537, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037002	14223	0 - 5	< 0.8	< 5	30	< 0.8	21	5	56	13	< 1.5	**65**	< 1	23	22
		14224	0 - 5	< 0.8	< 5	29	< 0.8	22	5	**58**	12	< 1.5	**59**	< 1	25	25
		14225	5 - 10	< 0.8	< 5	32	< 0.8	20	4	45	9	< 1.5	**58**	< 1	24	24
		14226	5 - 10	< 0.8	< 5	32	< 0.8	22	5	45	9	< 1.5	**64**	< 1	25	25
		14227	10 - 20	< 0.8	< 5	32	< 0.8	21	4	34	7	< 1.5	**56**	< 1	24	24
		14228	10 - 20	< 0.8	< 5	29	< 0.8	20	4	24	6	< 1.5	**48**	< 1	22	21
Area B grass	5037003	14229	0 - 5	< 0.8	< 5	35	< 0.8	25	5	51	13	< 1.5	**66**	< 1	28	23
		14230	0 - 5	< 0.8	< 5	36	< 0.8	24	5	53	12	< 1.5	**66**	< 1	28	24
		14231	5 - 10	< 0.8	< 5	36	< 0.8	24	4	41	9	< 1.5	**53**	< 1	29	25
		14232	5 - 10	< 0.8	< 5	33	< 0.8	23	4	38	8	< 1.5	**50**	< 1	28	25
		14233	10 - 20	< 0.8	< 5	38	< 0.8	24	4	32	7	< 1.5	**48**	< 1	28	25
		14234	10 - 20	< 0.8	< 5	34	< 0.8	25	4	25	6	< 1.5	**44**	< 1	28	24
Area C soil	5037004	14235	0 - 5	< 0.8	< 5	36	< 0.8	30	9	27	4	< 1.5	27	< 1	31	27
		14236	0 - 5	< 0.8	< 5	34	< 0.8	36	9	38	4	< 1.5	**55**	< 1	34	24
Area D sand	5037005	14237	0 - 15	< 0.8	< 5	23	< 0.8	33	7	19	3	< 1.5	21	< 1	33	24
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

These nickel results are similar to those reported historically. Previous MOE sampling of undisturbed soils approximately 0.5 km south of Wanup Public School, Station 58 of the MOE

Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel surface soil concentrations from 31 to 130 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

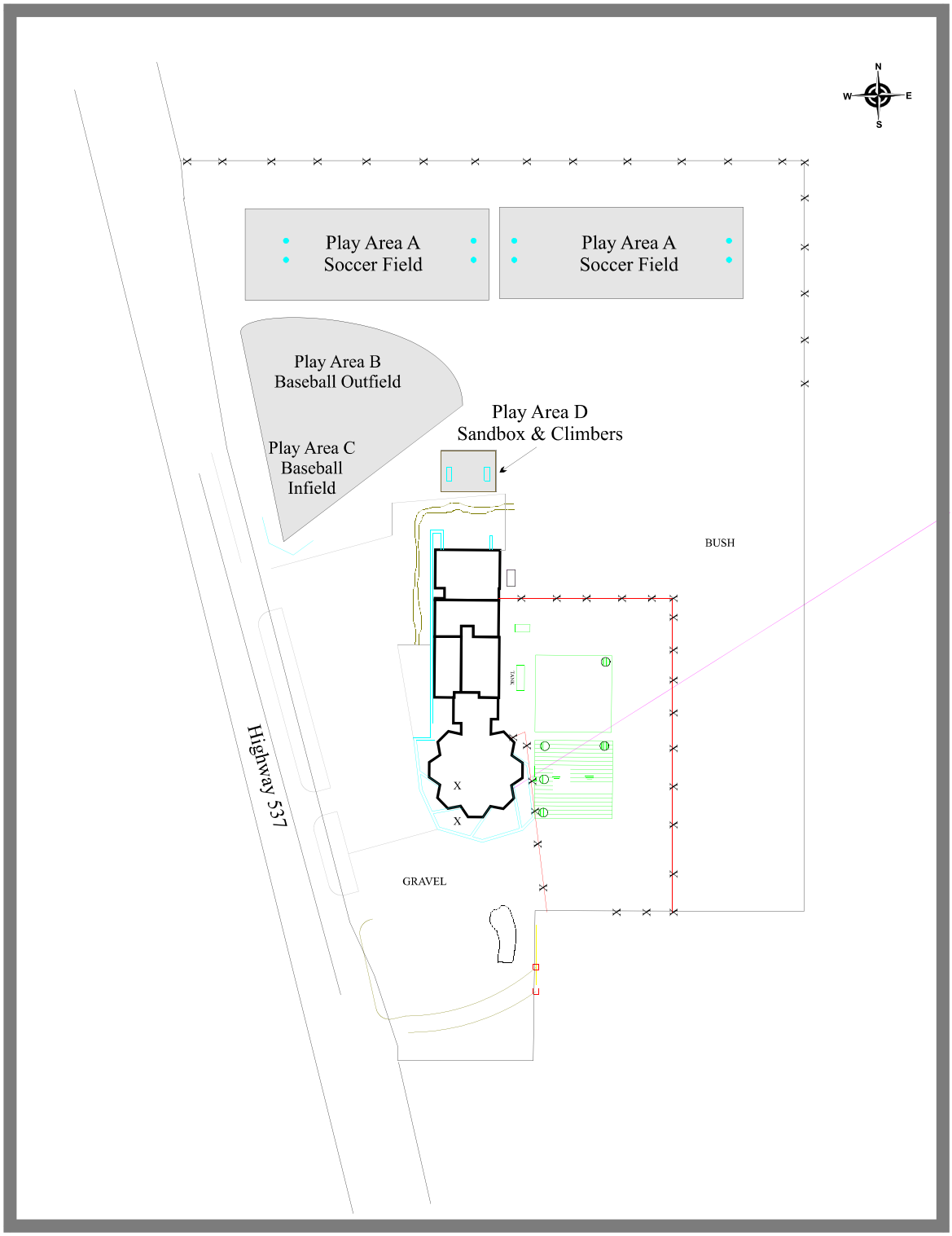

Figure B2.1.38: Wanup Public School Sampling Locations - 2001.

2.1.39 Wembley Public School - Rainbow District School Board 408 Wembley Drive, Sudbury

Wemblay Public School was sampled on July 5, 2001. Figure B2.1.39 details the sampling locations at this property. Samples were taken from six areas on the school property. Areas A, B, and C correspond to the grassed area of the soccer field and the worn areas around the northeast and southwest soccer goal posts, respectively. Area D corresponds to the north baseball diamond infield. Due to the compacted nature of Areas A, B, C, and D, it was only possible to sample the surface soil (0 - 5 cm) layer. Areas E and F correspond to the sand samples collected from the sanded play areas on the northwest and southeast corners of the property, respectively. Due to the constant mixing of sand and the homogeneous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structure. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play area was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for all other samples collected from this property. Aside from the northeast soccer goal post, copper (Cu) concentrations were also elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil of all other samples from this property. The highest nickel and copper concentrations, 180 and 160 ppm, respectively, were found in the surface soil (0-5 cm) layer of the grassed soccer field. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There was one exceedence of the MOE Table A Effects Based Soil Criteria for nickel at this property.

Table B2.1.39: Concentration of 13 Elements in Soil in µg/g Collected at Wembley Public School, 408 Wembley Drive, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037077	14159	0 - 5	< 0.8	< 5	37	< 0.8	31	16	**160**	16	< 1.5	**180**	1	26	37
		14160	0 - 5	< 0.8	< 5	33	< 0.8	29	7	**81**	11	< 1.5	**88**	1	27	30
Area B soil	5037078	14161	0 - 5	< 0.8	< 5	30	< 0.8	30	5	41	8	< 1.5	**60**	< 1	29	22
Area C soil	5037079	14162	0 - 5	< 0.8	< 5	34	< 0.8	29	8	**120**	16	< 1.5	**130**	1	27	40
Area D soil	5037080	14163	0 - 5	< 0.8	< 5	27	< 0.8	25	9	**66**	7	< 1.5	**63**	< 1	27	20
Area E sand	5037081	14164	0 - 15	< 0.8	< 5	19	< 0.8	28	7	24	3	< 1.5	29	< 1	29	18
Area F sand	5037082	14165	0 - 15	< 0.8	< 5	21	< 0.8	30	7	35	4	< 1.5	43	< 1	33	23
Table F(results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A(results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

These nickel and copper results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km southeast of Wemblay Public School, Station 74 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations as high as 790 and 740 ppm, respectively. Historic MOE

sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

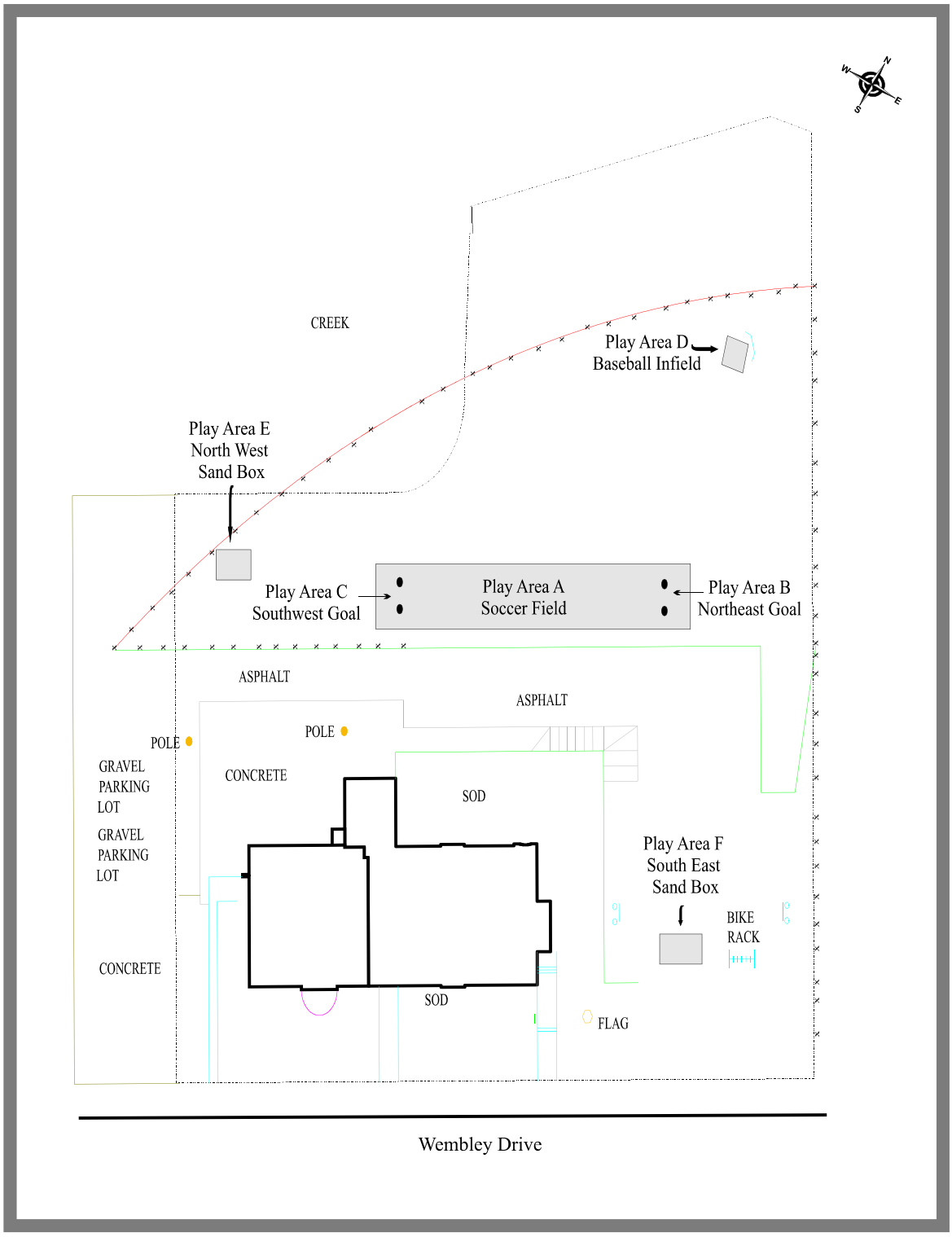

Figure B2.1.39: Wembley Public School Sampling Locations - 2001

2.1.40 Westmount Avenue Public School - Rainbow District School Board 511 Westmount Avenue, Sudbury

Westmount Avenue Public School was sampled on July 17, 2001. Figure B2.1.40 details the sampling locations at this property. Samples were taken from seven areas on the school property. Area A corresponds to the grassed play area in the southeast corner of the school property. Areas B, E, and G correspond to sand samples collected from the sanded play area on the south side of the property, from beneath the play structures in the northwest corner of the school property, and from beneath the swing set on the north end of the property, respectively. Due to the constant mixing of sand and the homogeneous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. Areas C and D correspond to the gravel baseball diamond infield and grassed baseball diamond outfield, respectively. Area F corresponds to the grassed area of the soccer field. Due to the compacted nature of Areas C, D, and F, it was only possible to sample the surface soil (0 - 5 cm) layer of the baseball diamond and the 10 - 20 cm depth for one replicate of the soccer field. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structure. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play area was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria at selected sites from this property. The highest nickel and copper concentrations, 130 and 110 ppm, respectively, were found in the surface soil (0-5 cm) layer of the grassed baseball diamond outfield. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results are higher than those reported historically. Previous MOE sampling of undisturbed soils approximately 0.5 km southeast of Westmount Avenue Public School, Station 361 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations of 66 and 52 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.1.40: Concentration of 13 Elements in Soil in µg/g Collected at Westmount Avenue Public School, 511 Westmount Avenue, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037174	14311	0 - 5	< 0.8	6	32	< 0.8	29	7	**70**	15	< 1.5	**81**	< 1	29	25
		14312	0 - 5	< 0.8	7	30	< 0.8	27	6	**63**	13	< 1.5	**66**	< 1	28	25
		14313	5 - 10	< 0.8	6	25	< 0.8	27	6	36	7	< 1.5	**42**	< 1	30	21
		14314	5 - 10	< 0.8	6	30	< 0.8	27	7	41	8	< 1.5	**54**	< 1	29	22
		14315	10 - 20	< 0.8	6	30	< 0.8	25	5	25	5	< 1.5	38	< 1	30	16
		14316	10 - 20	< 0.8	9	43	< 0.8	30	7	40	8	< 1.5	**58**	< 1	34	22
Area B sand	5037175	14317	0 - 15	< 0.8	< 5	19	< 0.8	28	7	15	3	< 1.5	21	< 1	34	14
Area C gravel	5037176	14318	0 - 5	0.8	6	38	< 0.8	29	9	**77**	13	< 1.5	**95**	< 1	28	27
		14319	0 - 5	< 0.8	7	33	< 0.8	28	10	**84**	13	< 1.5	**100**	< 1	28	29
Area D grass	5037177	14320	0 - 5	< 0.8	< 5	34	< 0.8	26	6	53	12	< 1.5	**66**	< 1	25	28
		14321	0 - 5	< 0.8	5	48	< 0.8	36	9	**110**	23	< 1.5	**130**	1	30	38
Area E sand	5037178	14322	0 - 15	< 0.8	5	28	< 0.8	30	9	35	4	< 1.5	34	1	36	23
		14324	0 - 15	< 0.8	6	28	< 0.8	31	9	34	4	< 1.5	31	< 1	35	25
Area F grass	5037179	14325	0 - 5	< 0.8	5	39	< 0.8	33	7	**71**	16	< 1.5	**86**	< 1	29	30
		14326	0 - 5	< 0.8	< 5	33	< 0.8	26	6	54	11	< 1.5	**68**	< 1	26	25
		14327	5 - 10	< 0.8	< 5	36	< 0.8	26	5	30	7	< 1.5	42	< 1	27	21
		14328	5 - 10	< 0.8	< 5	33	< 0.8	24	5	39	8	< 1.5	**50**	< 1	25	21
		14329	10 - 20	< 0.8	< 5	36	< 0.8	26	5	33	9	< 1.5	**49**	< 1	25	20
Area G sand	5037180	14331	0 - 15	< 0.8	6	29	< 0.8	28	9	42	5	< 1.5	37	< 1	32	22
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

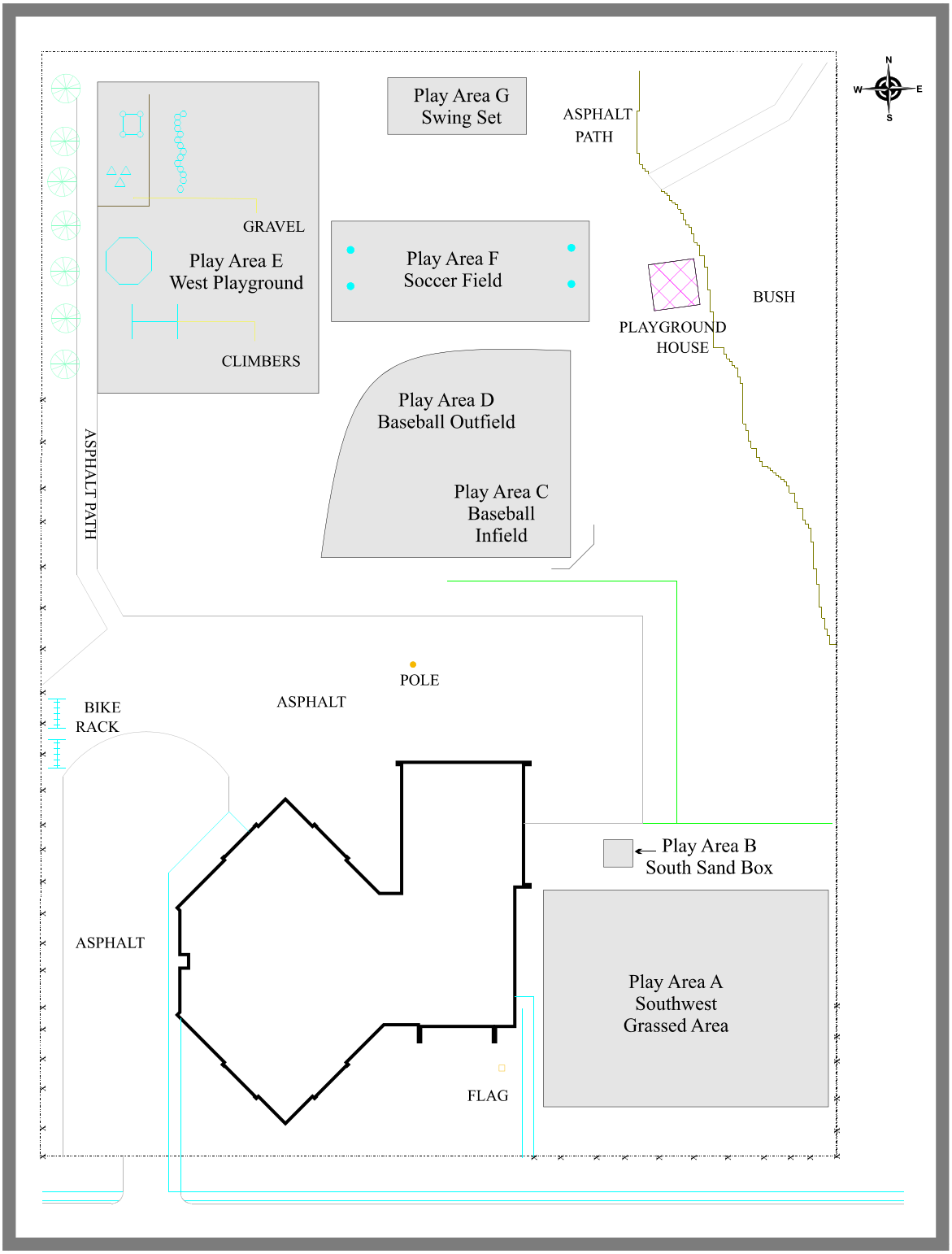

Figure B2.1.40: Westmount Avenue Public School Sampling Locations - 2001.

2.2 Sudbury Catholic District School Board

As of June 2001, the Sudbury Catholic District School Board provided the MOE with a list of 26 school properties. MOE representatives were able to collect samples from all but one property during the summer of 2001. St. Albert Adult Centre was paved; however, the St. Albert Child Care Centre at the same location did have one grassed child play area which was sampled and is discussed in the daycare section of this report. For each school there is a section below describing the results, a table with a subset of the results, and a map showing the sampling locations. The maps were provided by the Sudbury Catholic District School Board and the locations of the sampling sites shown are only approximate. The schools are listed alphabetically. Complete results for each school are listed in Table 4.1 along with the results from the other school boards.

Table B2.2: Number of Sudbury Catholic District Schools where at least on sample exceed MOE soil criteria.

Number of Schools	Nickel Exceedences		Copper Exceedences		Cobalt Exceedences		Arsenic Exceedences		Lead Exceedences	
	Table F	Table A	Table F	Table A	Table F	Table A	Table F	Table A	Table F	Table A
26	23	5	4	2	4	0	0	0	1	0

In order to fit all of the results data onto one table the standard chemical abbreviations had to used. To interpret the tables properly, the chart below can be used to translate the abbreviations.

Chemical Symbols Used in Results Tables				
Al - aluminum	**Sb** - antimony	**As** - arsenic	**Ba** - barium	**Be** - beryllium
Cd - cadmium	**Ca** - calcium	**Cr** - chromium	**Co** - cobalt	**Cu** - copper
Fe - iron	**Pb** - lead	**Mg** - magnesium	**Mn** - manganese	**Mo** - molybdenum
Ni - nickel	**Se** - selenium	**Sr** - strontium	**V** - vanadium	**Zn** - zinc

Please note as of 2004, the Sudbury Catholic District School Board has closed St. Anthony (2.2.9) and St. Kevin (Bishop Alexander Carter Secondary School) (2.2.19) and has renamed St. Anne (2.2.8) Bishop Alexander Carter Secondary School. One school has also been purchased from Le Conseil Scolaire Catholique du Nouvel-Ontario, St. Michel (2.2.25) and has been renamed St. Anne.

2.2.1 Corpus Christi - Sudbury Catholic District School Board 811 Robinson Drive, Sudbury

Corpus Christi was sampled on July 4, 2001. Figure B2.2.1 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to the baseball diamond infield and Area B correspond to the baseball diamond outfield. Due to the compacted nature of Areas A, and B it was only possible to sample the surface soil (0 - 5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil in all of the samples collected from this property. The highest nickel concentration, 74 ppm, occurred in the surface soil of the baseball diamond infield. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km north and 1 km southwest of Corpus Christi, Stations 73 and 368, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations as high as 490 and 400 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.1: Concentration of 13 Elements in Soil in µg/g Collected at Corpus Christi, 811 Robinson Drive, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037039	14086	0 - 5	< 0.8	< 5	40	< 0 . 8	34	7	50	10	< 1.5	**74**	< 1	31	34
		14087	0 - 5	< 0.8	< 5	42	< 0 . 8	35	7	48	11	< 1.5	**71**	< 1	32	37
Area B gravel	5037040	14088	0 - 5	< 0.8	< 5	43	< 0 . 8	36	7	49	11	< 1.5	**71**	< 1	34	40
		14089	0 - 5	< 0.8	< 5	41	< 0 . 8	35	7	46	10	< 1.5	**67**	< 1	31	32
Table F(results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A(results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

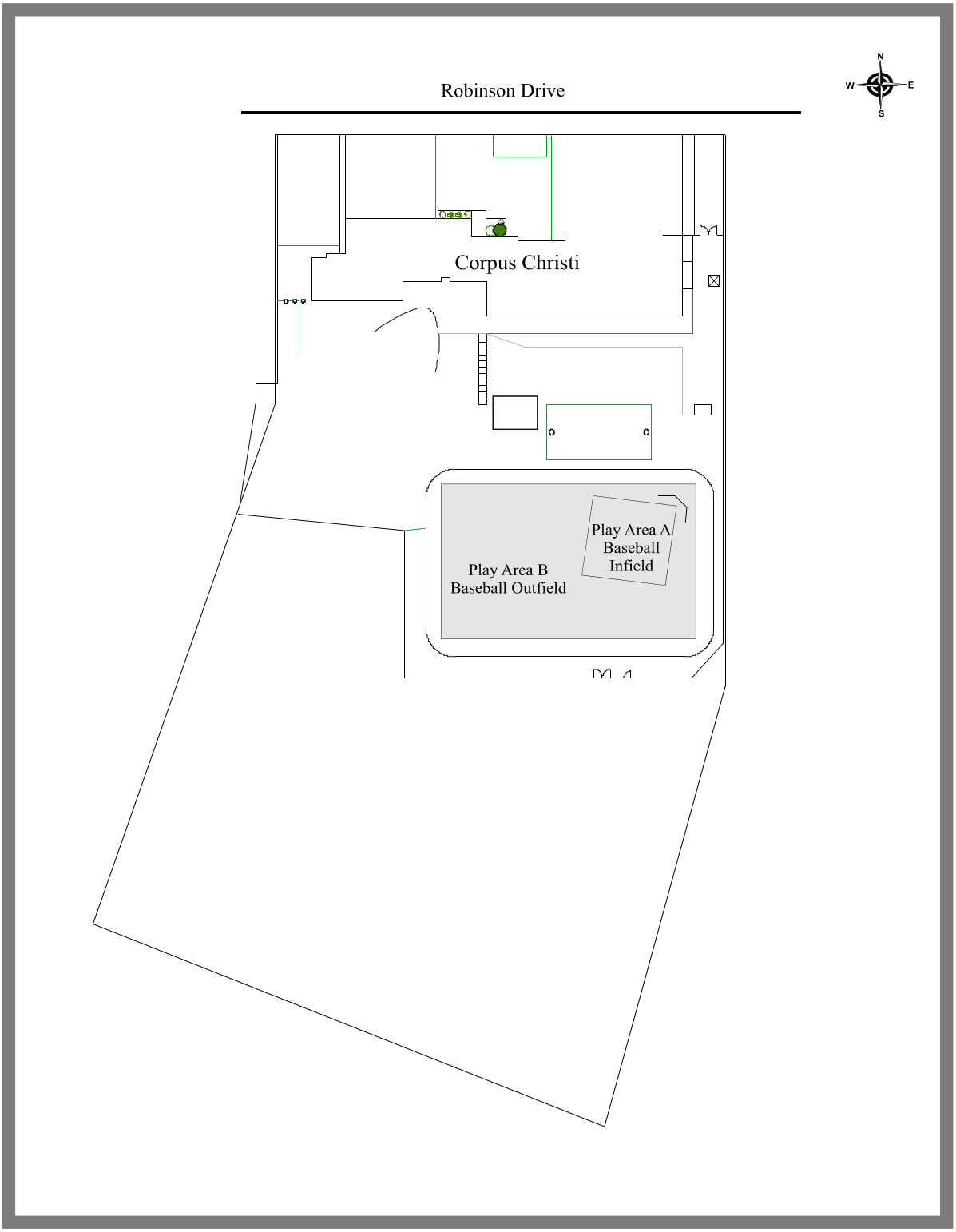

Figure B2.2.1: Corpus Christi Sampling Locations - 2001.

2.2.2 Immaculate Conception - Sudbury Catholic District School Board 1748 Pierre Street, Val Caron

Immaculate Conception was sampled on July 23, 2001. Figure B2.2.2 details the sampling locations at this property. Samples were taken from one area on the school property. Area A corresponds to the gravel playground behind the school building. Due to the constant mixing of the gravel and the homogenous nature of the gravel area, samples were collected with hand trowels to represent the 0-5 cm layer. There were not any other play areas present on this property to sample. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in both gravel samples. The highest nickel and copper concentrations found were 79 and 84 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km northwest and 2 km south of Immaculate Conception School, Stations 15 and 340, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations as high as 140 and 130 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.2: Concentration of 13 Elements in Soil in µg/g Collected at Immaculate Conception, 1748 Pierre Street, Val Caron - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037293	14786	0 - 5	< 0.8	6	38	< 0.8	39	9	**84**	16	1.6	**79**	1	38	53
		14787	0 - 5	< 0.8	< 5	34	< 0.8	40	9	**70**	12	< 1.5	**67**	< 1	39	43
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

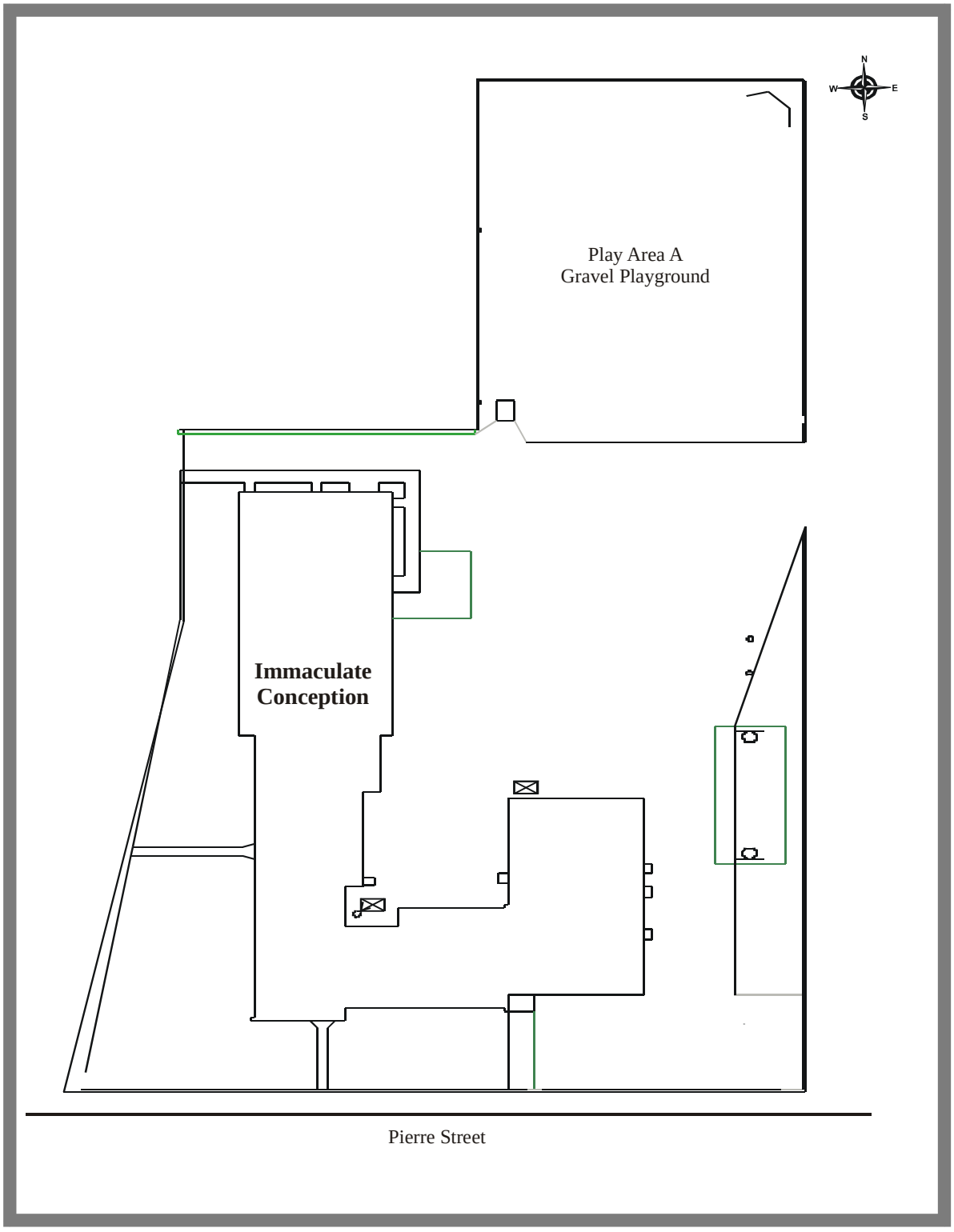

Figure B2.2.2: Immaculate Conception Sampling Locations - 2001.

2.2.3 Marymount Academy - Sudbury Catholic District School Board 165 D'Youville Street, Sudbury

Marymount Academy was sampled on July 16, 2001. Figure B2.2.3 details the sampling locations at this property. Samples were taken from one area on the school property. Area A corresponds to the grassed area surrounding the picnic tables on the front lawn of the school. Due to the compacted nature of this grassed area, it was only possible to sample the 5 - 10 cm depth for one replicate. There were not any other play areas present on this property to be sampled. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni), copper (Cu), lead (Pb), cadmium (Cd), and selenium (Se) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil of the grassed play area. Nickel and copper concentrations were also elevated above the MOE Table A Effects Based Soil Criteria in the surface soil samples. The highest nickel, copper, lead, cadmium, and selenium concentrations found in the surface soil were 660, 510, 70, 1.3, and 4 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

The nickel, copper, and selenium soil results are similar to those reported historically, whereas the lead concentrations are higher than previously reported. Previous MOE sampling of undisturbed soils approximately 1 km northwest, and 1.75 km southwest of Marymount Academy, Stations 84, and 378, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 230 to 490, and 180 to 520 ppm, respectively. The highest surface soil selenium and lead concentrations previously reported for Station 84 were 3.5 ppm and 35 ppm, respectively. The highest surface soil cadmium concentration previously reported for Station 378 was 0.35 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.3: Concentration of 13 Elements in Soil in µg/g Collected at Marymount Academy, 165 D'Youville Street, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037134	14246	0 - 5	< 0.8	14	53	**1.3**	26	22	**500**	**70**	< 1.5	**510**	**3**	28	50
		14247	0 - 5	< 0.8	14	51	**1.3**	26	28	**510**	**65**	< 1.5	**660**	**4**	28	52
		14248	5 - 10	< 0.8	10	31	< 0.8	18	8	**150**	30	< 1.5	**160**	< 1	23	37
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

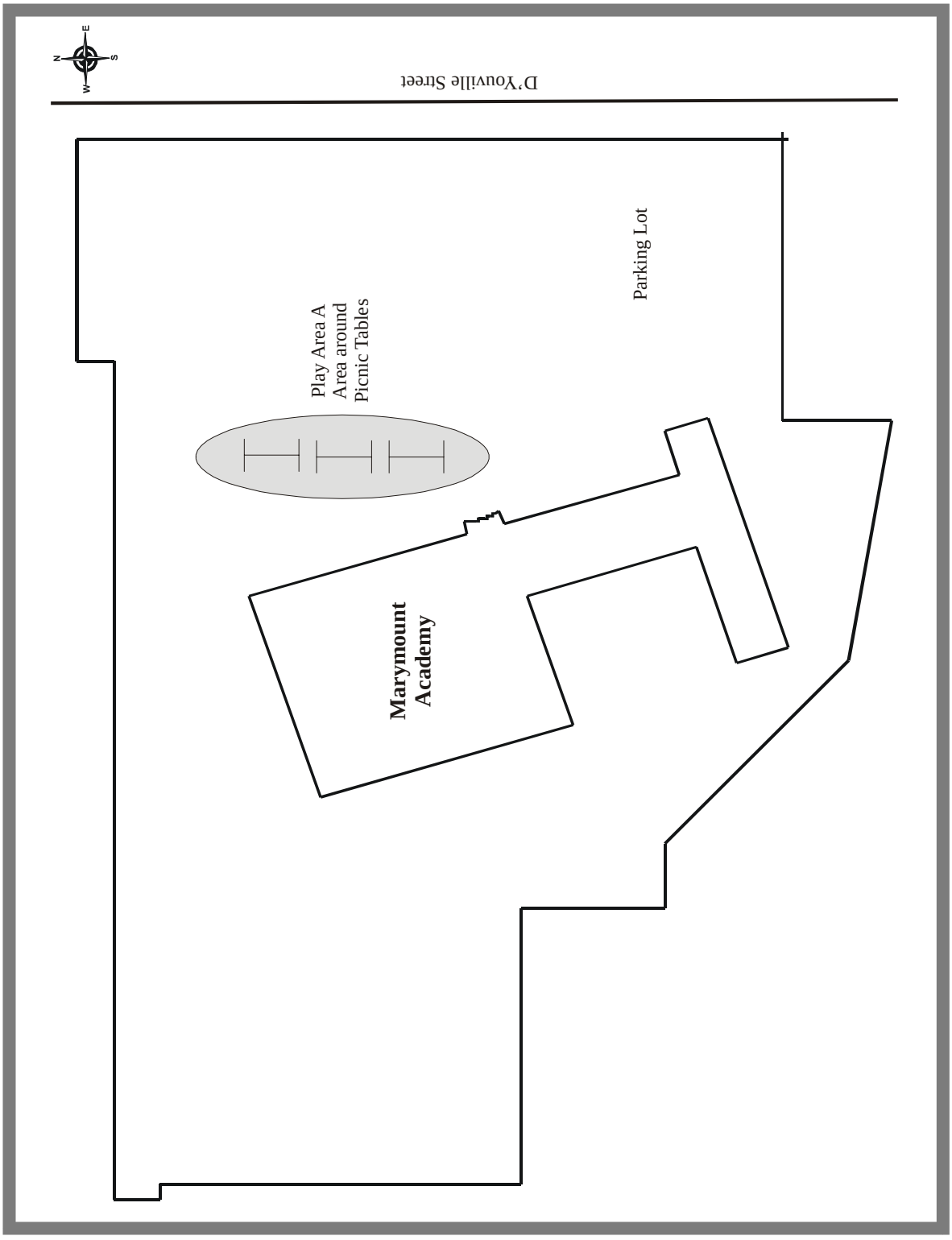

Figure B2.2.3: Marymount Academy Sampling Locations - 2001.

2.2.4 Our Lady of Fatima - Sudbury Catholic District School Board 1755 R.R. 55, Naughton

Our Lady of Fatima was sampled on July 21, 2001. Figure B2.2.4 details the sampling locations at this property. Samples were taken from one area on the school property. Area A corresponds to the grassed soccer field on the south side of the property. There were not any other play areas on this property to sample. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil (0-5 cm) and the 5-10 cm depth of the grassed soccer field. The nickel concentrations were higher in the surface soil and decreased with increasing depth. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 0.7 km northeast and 2.5 km northeast of Our Lady of Fatima, Stations 403 and 379, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations as high as 230 and 250 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.4: Concentration of 13 Elements in Soil in µg/g Collected at Our Lady of Fatima, 1755 R.R. 55, Naughton - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037262	14738	0 - 5	< 0.8	< 5	29	< 0.8	23	5	45	14	< 1.5	**71**	< 1	23	25
		14739	0 - 5	< 0.8	< 5	29	< 0.8	23	5	44	12	< 1.5	**68**	< 1	23	25
		14740	5 - 10	< 0.8	6	29	< 0.8	22	5	35	8	< 1.5	**55**	< 1	23	27
		14741	5 - 10	< 0.8	< 5	27	< 0.8	22	4	37	8	< 1.5	**50**	< 1	21	25
		14742	10 - 20	< 0.8	< 5	28	< 0.8	21	4	21	5	< 1.5	36	< 1	21	22
		14743	10 - 20	< 0.8	< 5	29	< 0.8	20	4	18	5	< 1.5	33	< 1	21	23
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

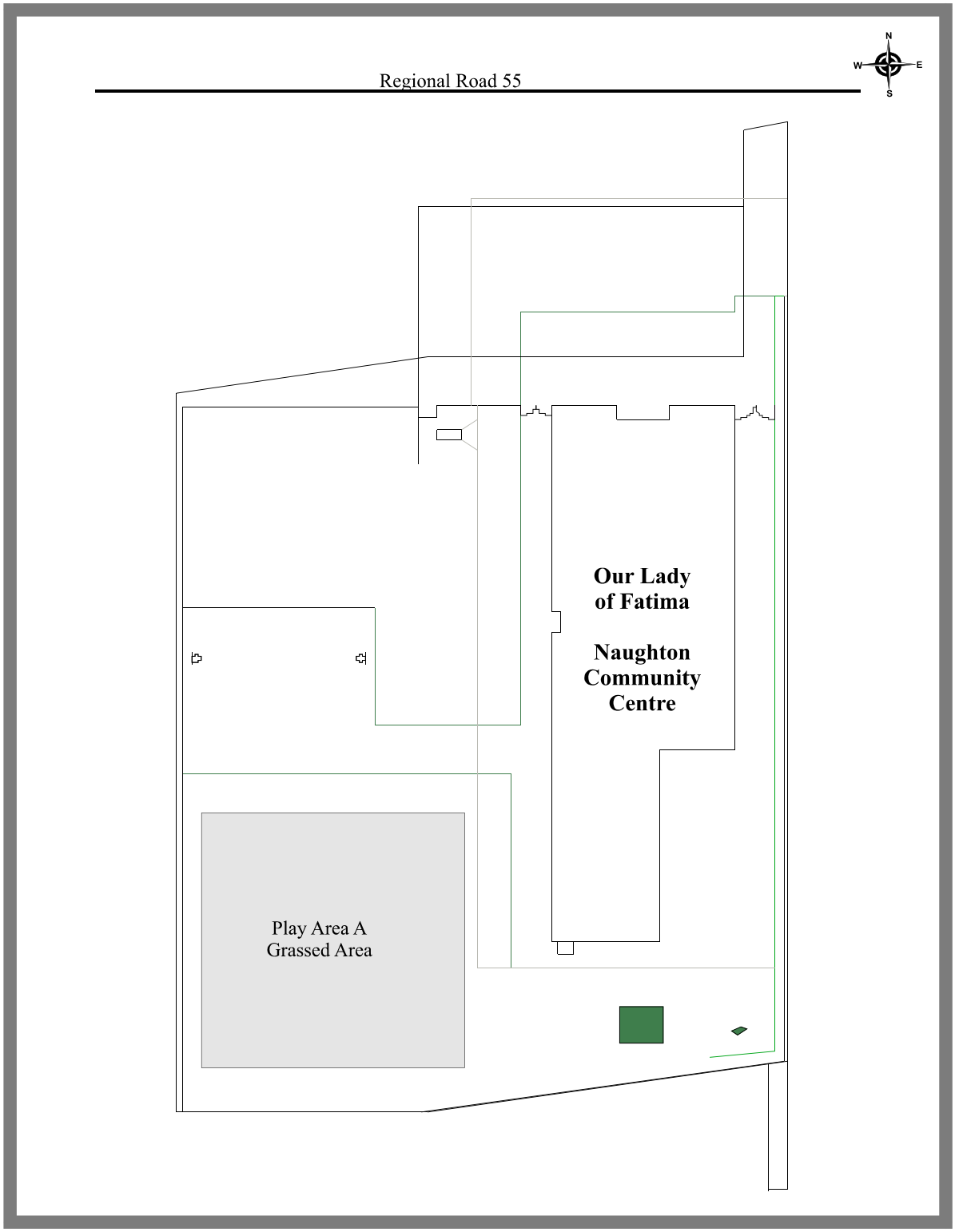

Figure B2.2.4: Our Lady of Fatima Sampling Locations - 2001.

2.2.5 Pius XII - Sudbury Catholic District School Board 44 3rd Avenue, Sudbury

Pius XII was sampled on July 17, 2001. Figure B2.2.5 details the sampling locations at this property. Samples were taken from one area on the school property. Area A corresponds to the gravel playground on the south side of the property. Due to the constant mixing of gravel and the homogenous nature of the gravel area, samples were collected with hand trowels to represent the 0-5 cm depth. There were not any other play areas to sample on this property. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel concentrations were slightly elevated above the MOE Table F Ontario Soil Background Criteria in both the gravel playground samples. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These results are much lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 0.7 km west, and 1.5 km southwest of Pius XII, Stations 77, and 78, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations as high as 360 and 350 ppm, respectively. However, nickel and copper concentrations found at historical Station 361, 1.5 km north of Pius XII, are similar to those found at Pius XII. The highest nickel and copper concentrations reported were 66 and 52 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.5: Concentration of 13 Elements in Soil in µg/g Collected at Pius XII, 44 3rd Ave, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037148	14297	0 - 5	< 0.8	< 5	35	< 0.8	32	11	52	8	< 1.5	**59**	< 1	30	28
		14298	0 - 5	< 0.8	< 5	33	< 0.8	33	9	51	7	< 1.5	**53**	< 1	31	27
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

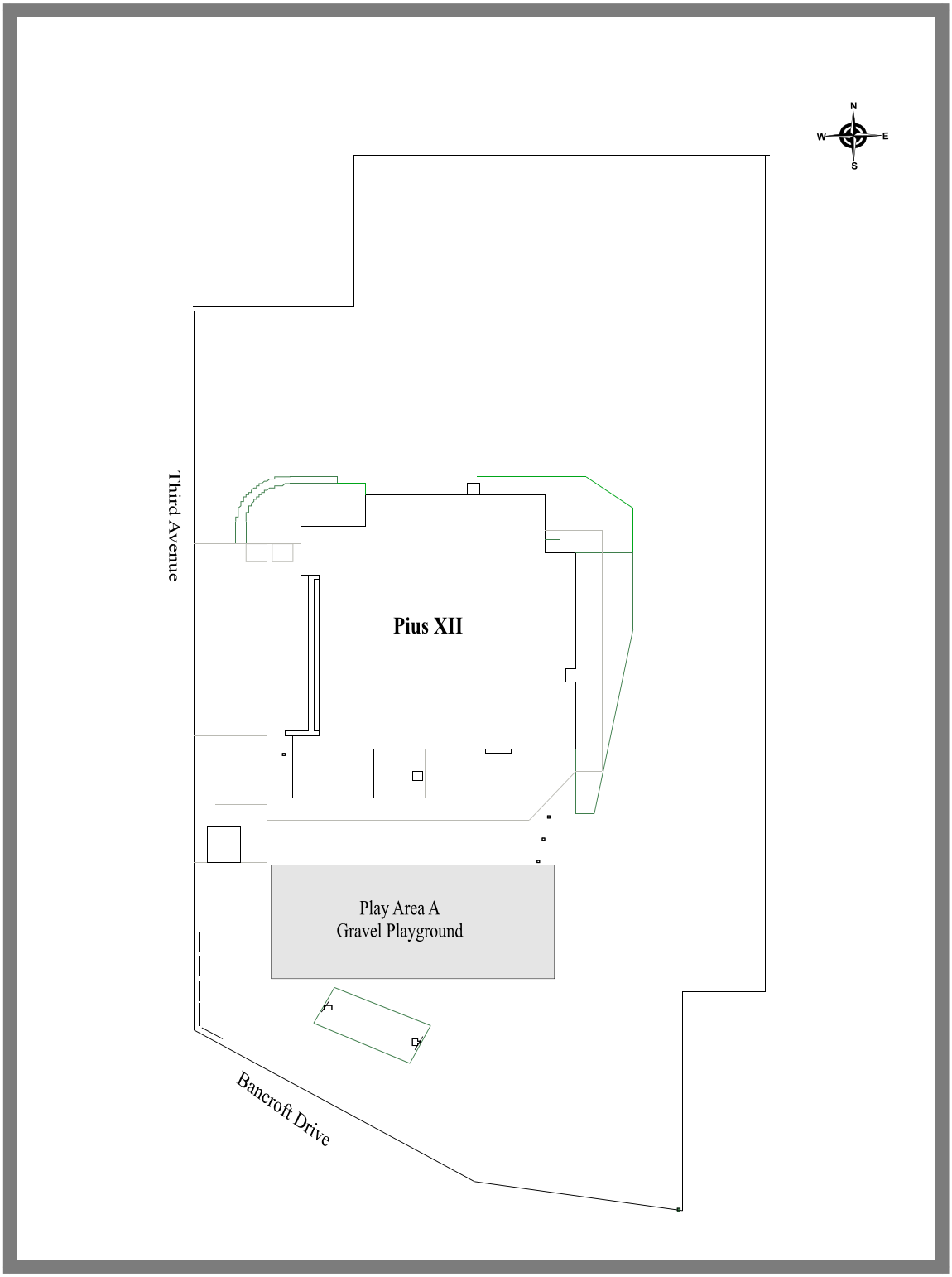

Figure B2.2.5: Pius XII Sampling Locations - 2001.

2.2.6 Sacred Heart - Sudbury Catholic District School Board 1169 Dollard Avenue, Sudbury

Sacred Heart was sampled on July 18, 2001 and has since been sold. Figure B2.2.6 details the sampling locations at this property. Samples were taken from one area on the school property. Area A corresponds to the gravel playground on the west side of the school building. Due to the constant mixing of gravel and the homogenous nature of the gravel area, samples were collected with hand trowels to represent the 0-5 cm depth. There were not any other play areas to sample on this property. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel and copper concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in both of the gravel samples. The highest nickel and copper concentrations found were 90 and 72 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km northeast and 1 km northwest of formerly Sacred Heart School, Stations 42 and 43, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations as high as 190 and 210 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.6: Concentration of 13 Elements in Soil in µg/g Collected at Sacred Heart (formerly), 1169 Dollard Avenue, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037219	14365	0 - 5	< 0.8	< 5	23	< 0.8	27	12	**62**	9	< 1.5	**76**	< 1	29	44
		14366	0 - 5	< 0.8	< 5	29	< 0.8	26	11	**72**	16	< 1.5	**90**	< 1	28	52
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

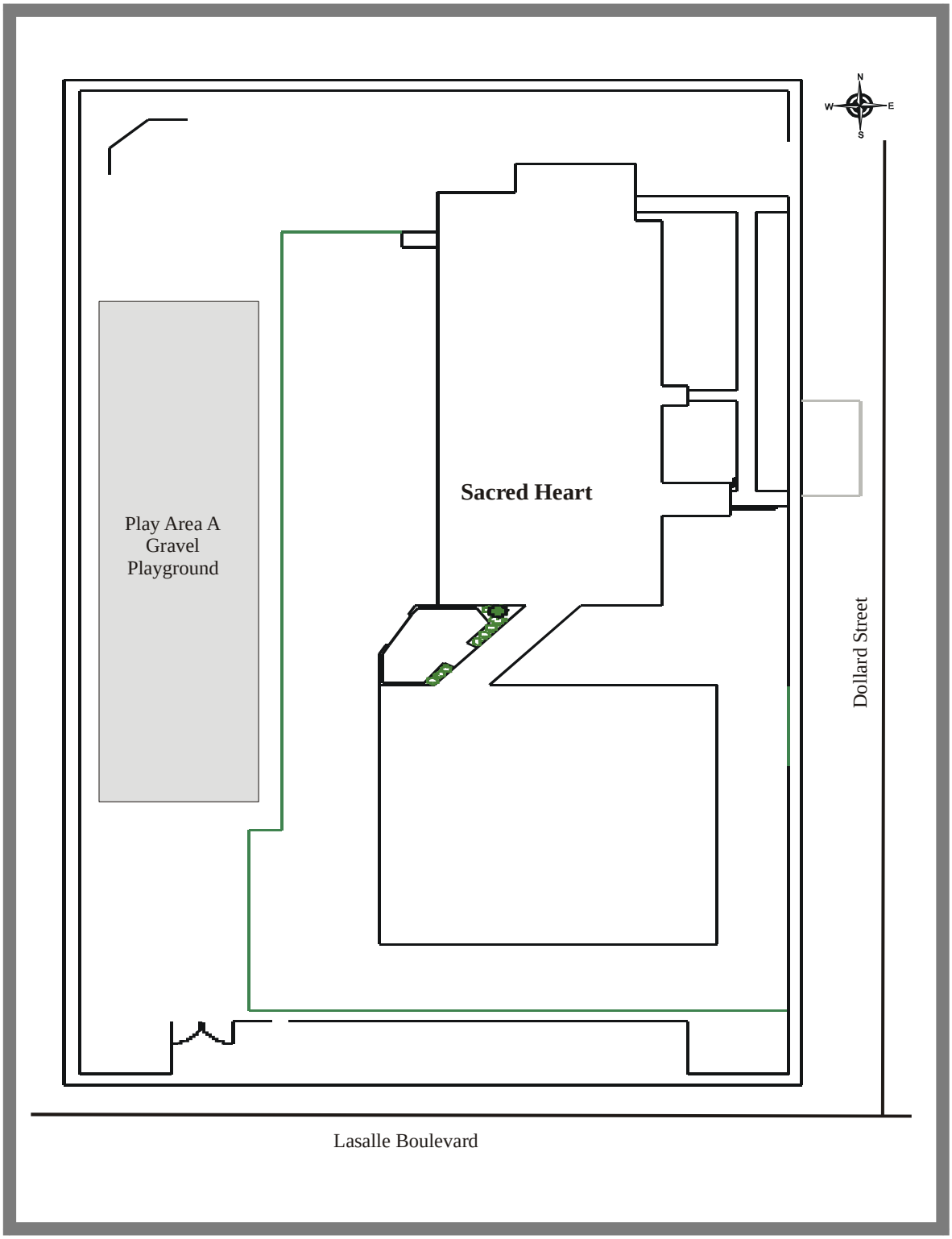

Figure B2.2.6: Sacred Heart (formerly)Sampling Locations - 2001.

2.2.7 St. Andrew - Sudbury Catholic District School Board 1305 Holland Road, Sudbury

St. Andrew School was sampled on July 17, 2001. Figure B2.2.7 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the gravel playground at the south side of the property. Area B corresponds to the sand samples taken from the sand boxes behind the school building. Due to the constant mixing of the sand and the homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect gravel samples to represent the 0-5 cm depth. Area C corresponds to the baseball diamond infield. Due to the compacted nature of Area C it was only possible to sample the surface soil (0 - 5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand from the sand boxes. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel and copper concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface layer of the both the gravel playground and the baseball diamond infield. Nickel concentrations were elevated above the MOE Table A Effects Based Soil Criteria in the surface samples collected from the baseball diamond infield. The highest nickel and copper concentrations found at this property were 170 and 160 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

Previous MOE sampling of undisturbed soils approximately 1 km east of St. Andrew School, Station 83 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations that are similar to those found on the school property; nickel and copper concentration ranges of 90 to 180 ppm and 74 to 210 ppm, respectively. However, Station 86, located approximately 1 km southwest of the Sacred Heart, indicated nickel and copper concentrations as high as 375 and 305 ppm, respectively.

Table B2.2.7: Concentration of 13 Elements in Soil in µg/g Collected at St. Andrew, 1305 Holland Road, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037212	14341	0 - 5	< 0.8	< 5	27	< 0.8	28	10	**91**	12	< 1.5	**93**	< 1	30	30
		14342	0 - 5	< 0.8	< 5	24	< 0.8	30	11	**100**	15	< 1.5	**100**	< 1	30	36
Area B sand	5037213	14343	0 - 15	< 0.8	< 5	19	< 0.8	23	6	20	3	< 1.5	29	< 1	28	16
Area C soil	5037214	14344	0 - 5	< 0.8	8	44	< 0.8	33	15	**160**	20	< 1.5	**170**	< 1	39	40
		14345	0 - 5	< 0.8	8	42	< 0.8	32	16	**160**	20	< 1.5	**160**	< 1	32	38
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

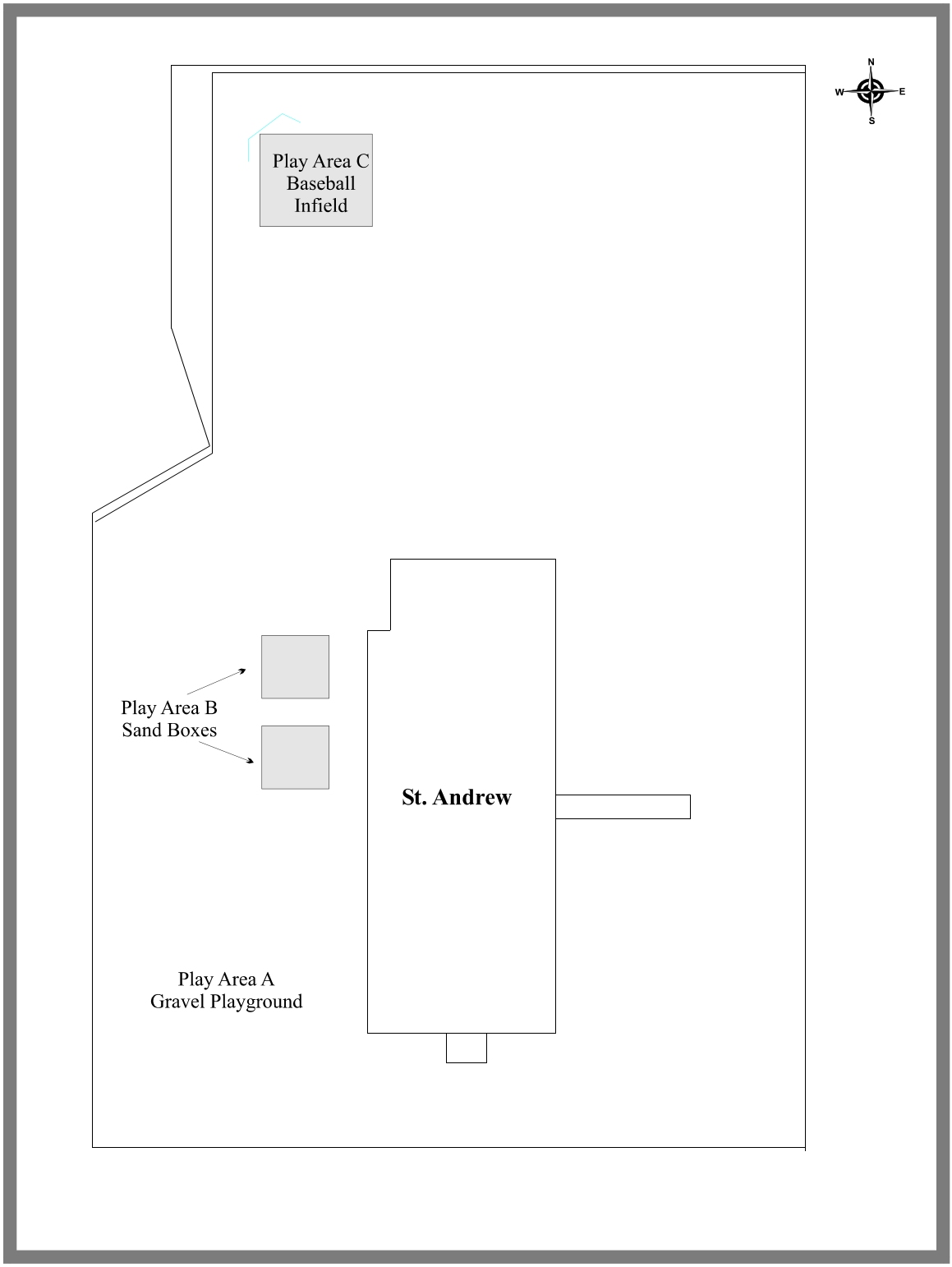

Figure B2.2.7: St. Andrew Sampling Locations - 2001.

2.2.8 St. Anne - Sudbury Catholic District School Board 539 Francis Street, Hanmer

St. Anne School was sampled on July 20, 2001 and has since been renamed Bishop Alexander Carter Secondary School. Figure B2.2.8 details the sampling locations at this property. Samples were taken from four areas on the school property. Area A corresponds to sand samples taken from the sanded play areas. Area B corresponds to the gravel playground at the south side of the property. Due to the constant mixing of the sand and the homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect gravel samples to represent the 0-5 cm depth. Areas C and D correspond to the baseball diamond infield and outfield, respectively. Due to the compacted nature of Areas C and D it was only possible to sample the surface soil (0 - 5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand from the sanded play areas. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. None of the other samples from this property were found to have elevated metal concentrations above the MOE Table F Ontario Soil Background Criteria. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

These results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 2.5 km southwest, 1.5 km north and 1 km southeast of St. Anne School, Stations 344, 346, and 347, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 43 to 150 ppm and 35 to 110 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.8: Concentration of 13 Elements in Soil in µg/g Collected at St. Anne, 539 Francis Street, Hanmer - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037347	14637	0 - 15	< 0.8	< 5	21	< 0.8	32	6	17	4	< 1.5	22	< 1	38	25
Area B gravel	5037348	14638	0 - 5	< 0.8	< 5	23	< 0.8	30	7	29	7	< 1.5	34	< 1	32	32
		14639	0 - 5	< 0.8	< 5	23	< 0.8	31	7	29	8	< 1.5	35	< 1	31	35
Area C gravel	5037349	14640	0 - 5	< 0.8	< 5	27	< 0.8	19	5	13	3	< 1.5	17	< 1	22	15
Area D grass	5037350	14641	0 - 5	< 0.8	< 5	32	< 0.8	25	4	22	7	< 1.5	33	< 1	25	30
		14642	0 - 5	< 0.8	< 5	34	< 0.8	27	5	26	8	< 1.5	37	< 1	29	34
		14643	5 - 10	< 0.8	< 5	32	< 0.8	26	5	20	7	< 1.5	32	< 1	27	23
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

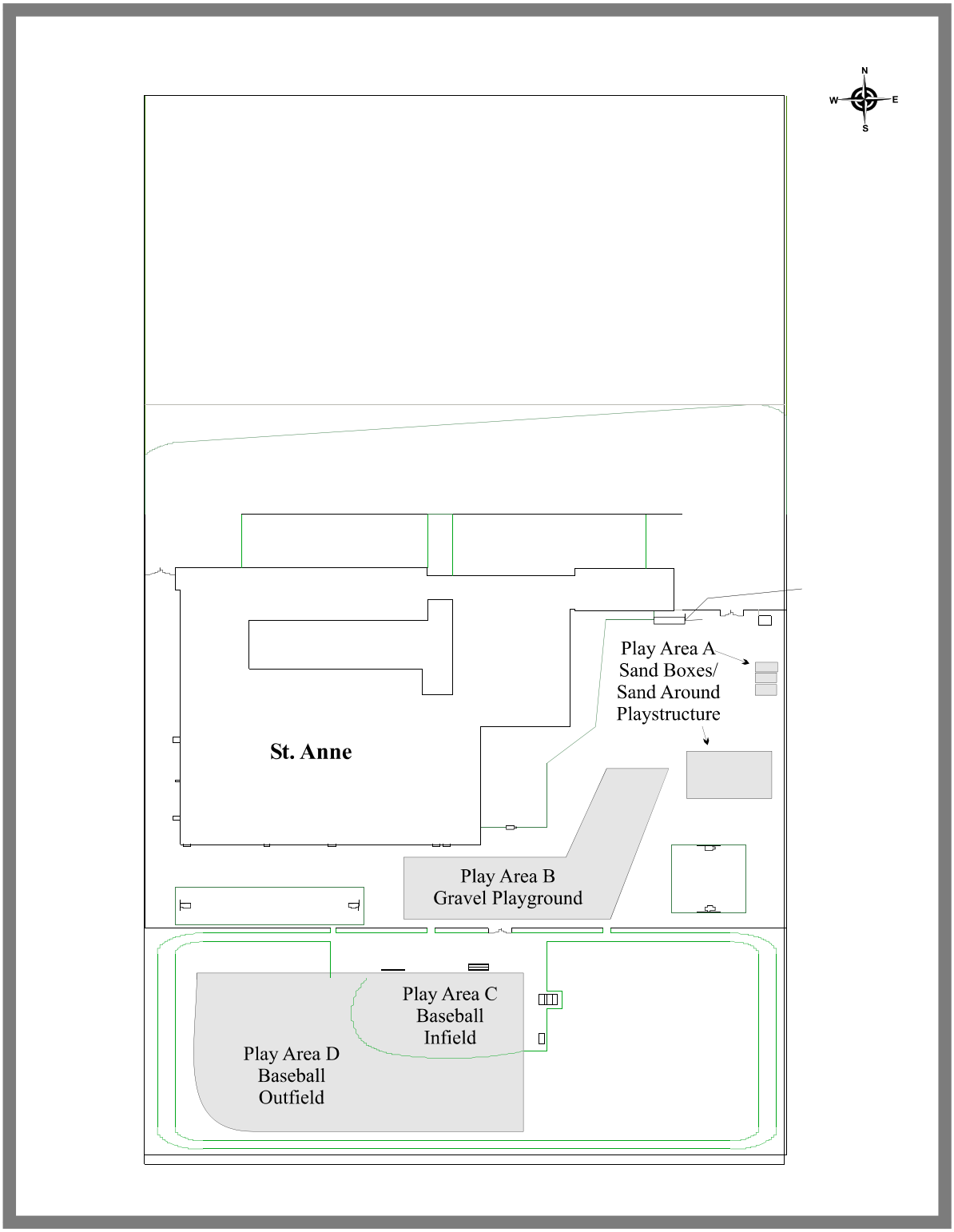

Figure B2.2.8: St. Anne Sampling Locations - 2001.

2.2.9 St. Anthony - Sudbury Catholic District School Board 11 Mary Street, Sudbury

St. Anthony was sampled on July 6, 2001 and has since been closed. Figure B2.2.9 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to the gravel playground on the north side of the school building. Area B corresponds to the sand collected from the landing area of the long jump pits. Due to the constant mixing of the sand and the homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni), copper (Cu), cobalt (Co), molybdenum (Mo), and selenium (Se) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in gravel and sand samples collected from this property. Nickel and copper concentrations were also elevated above the MOE Table A Effects Based Soil Criteria in the gravel playground samples. The highest nickel, and copper concentrations found in the gravel samples were 290 and 310 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

The nickel concentrations are similar to those reported historically, whereas the copper concentrations at this site are higher than previously reported. Previous MOE sampling of undisturbed soils approximately 1.4 km northeast and 1.5 km north of St. Anthony, Stations 378 and 83, respectively, of the MOE Sudbury 2000 Report, for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 90 to 250, and 74 to 210 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.9: Concentration of 13 Elements in Soil in µg/g Collected at St. Anthony, 11 Mary Street, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037103	14205	0 - 5	< 0.8	6	39	< 0.8	36	**20**	**310**	15	< 1.5	**290**	**2**	33	40
		14206	0 - 5	0.9	5	35	< 0.8	34	17	**270**	13	**4.3**	**260**	**1.6**	32	32
Area B sand	5037104	14207	0 - 15	< 0.8	6	29	< 0.8	40	11	**86**	6	< 1.5	**77**	< 1	42	27
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

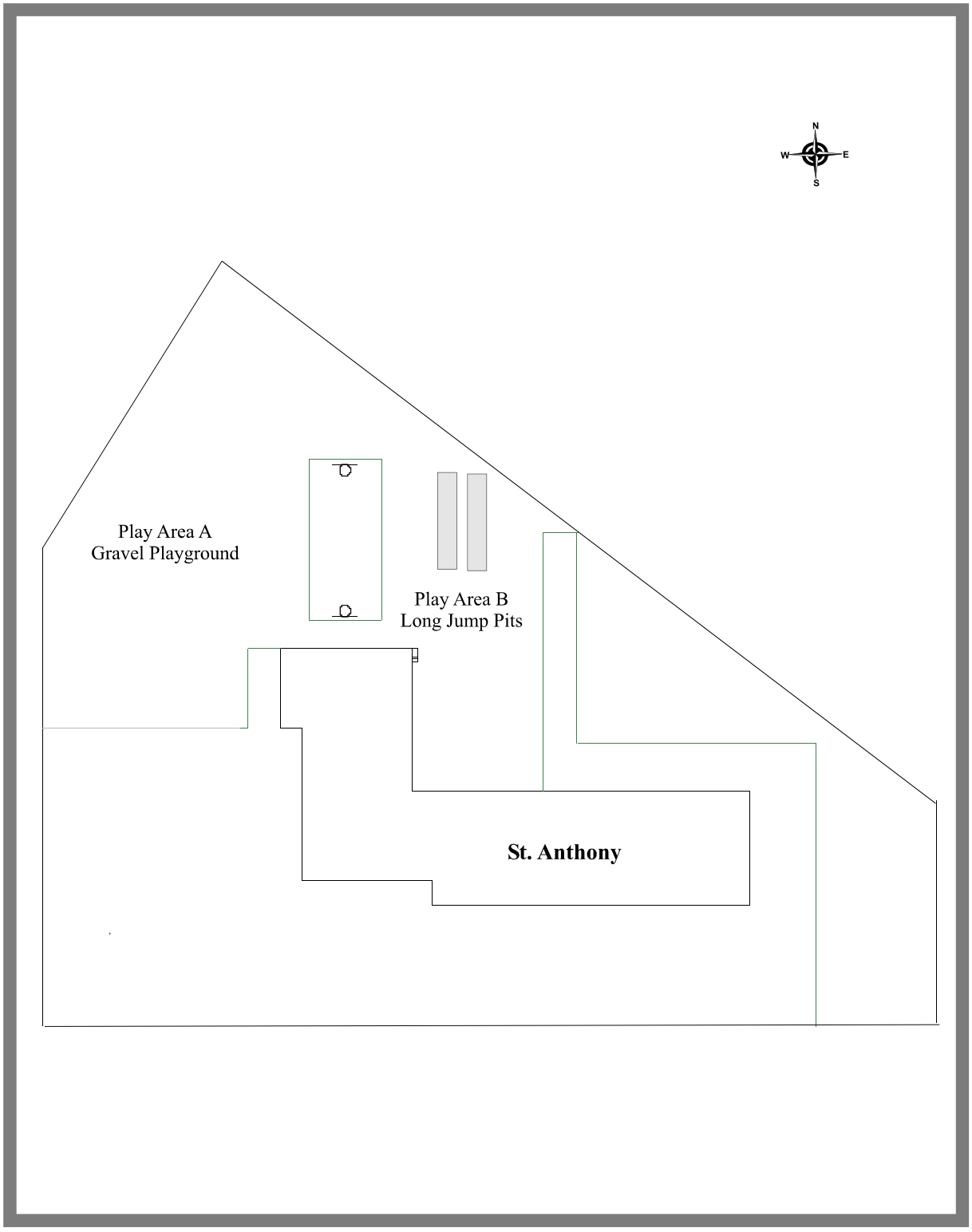

Figure B2.2.9: St. Anthony Sampling Locations - 2001.

2.2.10 St. Benedict Secondary School - Sudbury Catholic School Board 2993 Algonquin Road, Sudbury

St. Benedict Secondary School, including Maple Tree Preschool Inc. #2, was sampled on July 4, 2001. Figure B2.2.10 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the grassed area of the soccer field. Areas B and C correspond to the worn areas around the north and south goal posts, respectively. Due to the compacted nature of the soccer field, it was only possible to sample the surface soil (0 - 5 cm) layer. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Only one sample from the grassed area of the soccer field had a nickel (Ni) concentration that was slightly elevated above the MOE Table F Ontario Soil Background Criteria. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria (MOE 1997).

These results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1.5 km west, 2 km southwest, and 2 km north of St. Benedict Secondary School, Stations 404, 366, and 365, respectively, of the MOE Sudbury 2000 Report, for the City of Greater Sudbury (MOE 2001), indicated a nickel surface soil concentration range of 120 to 170 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.10: Concentration of 13 Elements in Soil in µg/g Collected at St. Benedict Secondary, 2993 Algonquin Road, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037023	14058	0 - 5	< 0.8	< 5	32	< 0.8	29	6	29	7	< 1.5	**46**	< 1	29	19
		14059	0 - 5	< 0.8	< 5	29	< 0.8	25	5	26	6	< 1.5	40	< 1	23	17
Area B soil	5037024	14060	0 - 5	< 0.8	< 5	29	< 0.8	22	4	25	7	< 1.5	30	< 1	24	17
		14061	0 - 5	< 0.8	< 5	28	< 0.8	22	4	19	7	< 1.5	31	< 1	24	15
Area C soil	5037025	14062	0 - 5	< 0.8	< 5	32	< 0.8	28	6	25	4	< 1.5	40	< 1	30	16
		14063	0 - 5	< 0.8	< 5	36	< 0.8	30	6	24	4	< 1.5	39	< 1	33	16
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

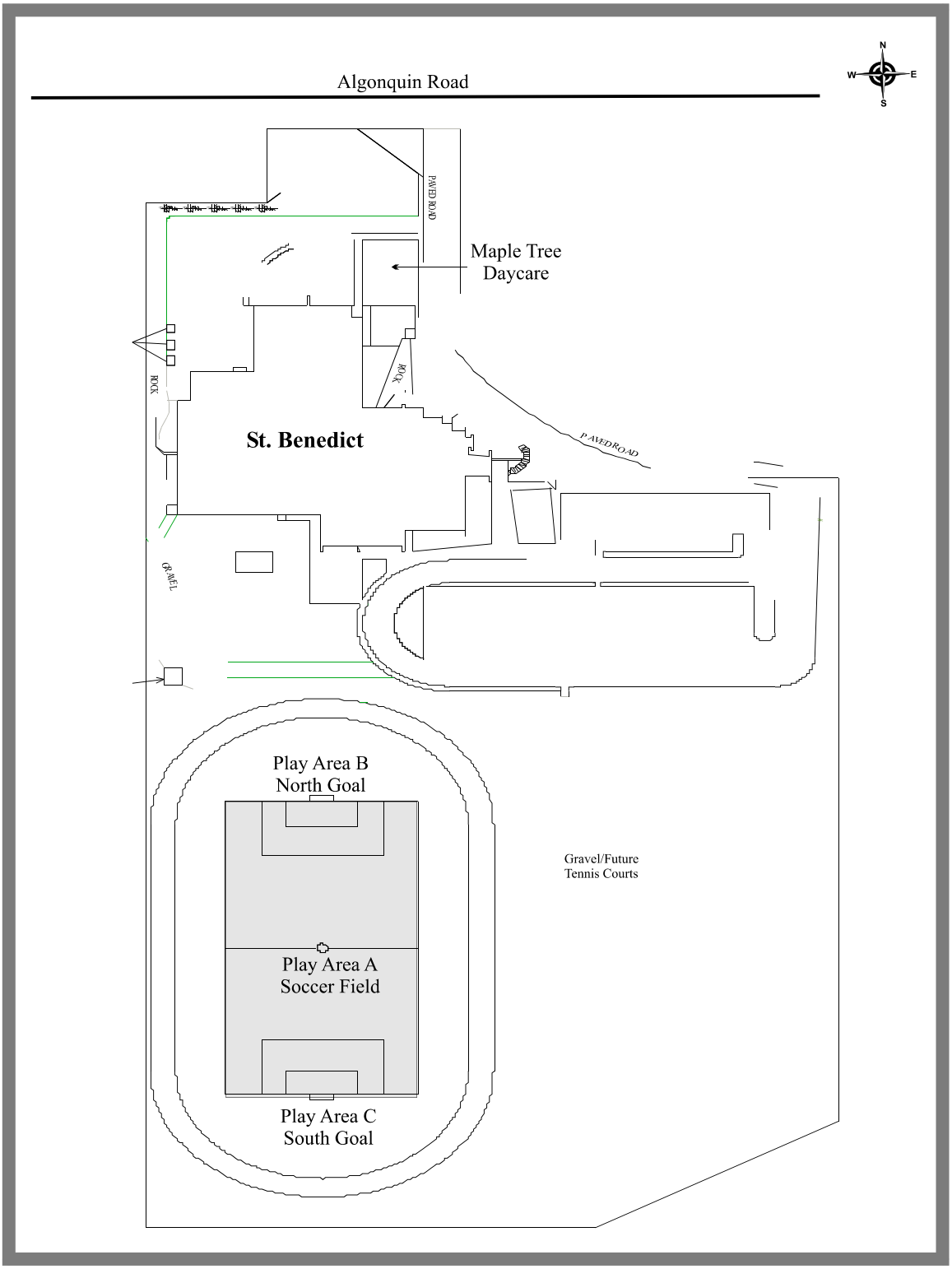

Figure B2.2.10: St. Benedict Secondary School Sampling Locations - 2001.

2.2.11 St. Bernadette - Sudbury Catholic District School Board 870 Auger Avenue, Sudbury

St. Bernadette was sampled on July 18, 2001. Figure B2.2.11 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to the gravel baseball diamond infield. Area B corresponds to the gravel playground. Due to the constant mixing of gravel and the homogenous nature of the gravel areas, samples were collected with hand trowels to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni), copper (Cu), and cobalt (Co) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the gravel samples collected from this property. The highest nickel, cobalt, and copper concentrations found in the gravel samples were 100, 21 and 100 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These results are higher than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km southwest of St. Bernadette, Station 361 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel, copper, and cobalt surface soil concentrations of 66, 52, and 9.3 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.11: Concentration of 13 Elements in Soil in µg/g Collected at St. Bernadette, 870 Auger Avenue, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037164	14444	0 - 5	< 0.8	8	30	< 0.8	28	11	**86**	16	< 1.5	**93**	< 1	32	24
		14445	0 - 5	< 0.8	8	26	< 0.8	26	11	**81**	15	< 1.5	**85**	< 1	29	24
Area B gravel	5037165	14446	0 - 5	< 0.8	7	28	< 0.8	28	**21**	**100**	11	< 1.5	**100**	< 1	26	32
		14447	0 - 5	< 0.8	< 5	23	< 0.8	29	**26**	**79**	10	< 1.5	**91**	< 1	28	33
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

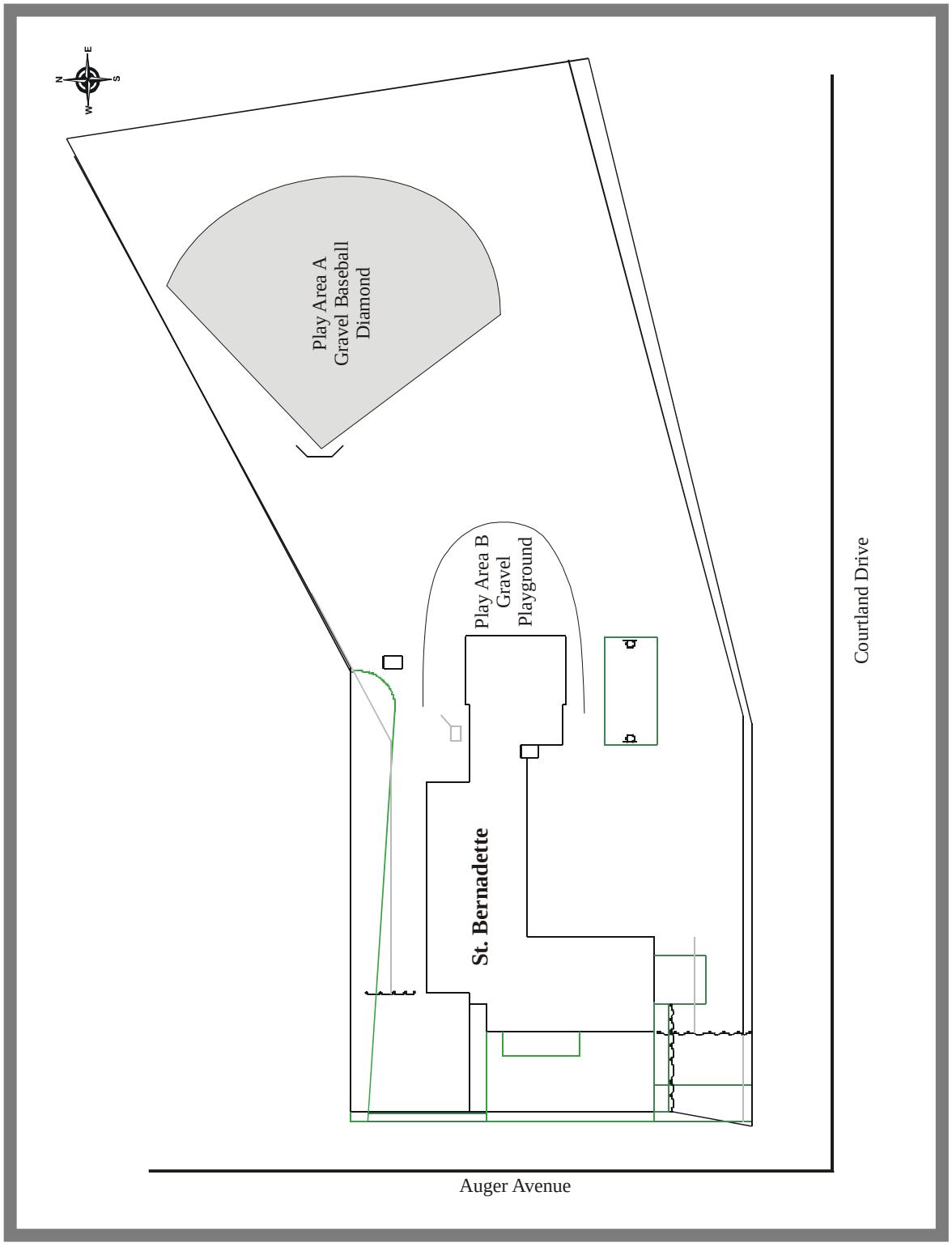

Figure B2.2.11: St. Bernadette Sampling Locations - 2001.

2.2.12 St. Charles - Sudbury Catholic District School Board 26 Charlotte Street, Chelmsford

St. Charles School was sampled on July 19, 2001. Figure B2.2.12 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to the gravel playground on the east side of the school building. Area B corresponds to sand samples collected from below the play structure. Due to the constant mixing of the sand and the homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structure. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the gravel samples, with the highest nickel concentration being 63 ppm. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These results are similar to those reported historically. Previous MOE sampling of undisturbed soils approximately 4 km southwest and 2.5 km northwest of St. Charles School, Stations 385 and 386, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated a nickel surface soil concentration range of 65 to 83 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.12: Concentration of 13 Elements in Soil in µg/g Collected at St. Charles, 26 Charlotte Street, Chelmsford - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037394	14520	0 - 5	< 0.8	< 5	25	< 0.8	27	7	35	6	< 1.5	**59**	< 1	30	25
		14521	0 - 5	< 0.8	< 5	25	< 0.8	26	7	44	6	< 1.5	**63**	< 1	31	27
Area B sand	5037395	14522	0 - 15	< 0.8	< 5	13	< 0.8	24	4	11	3	< 1.5	13	< 1	24	21
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

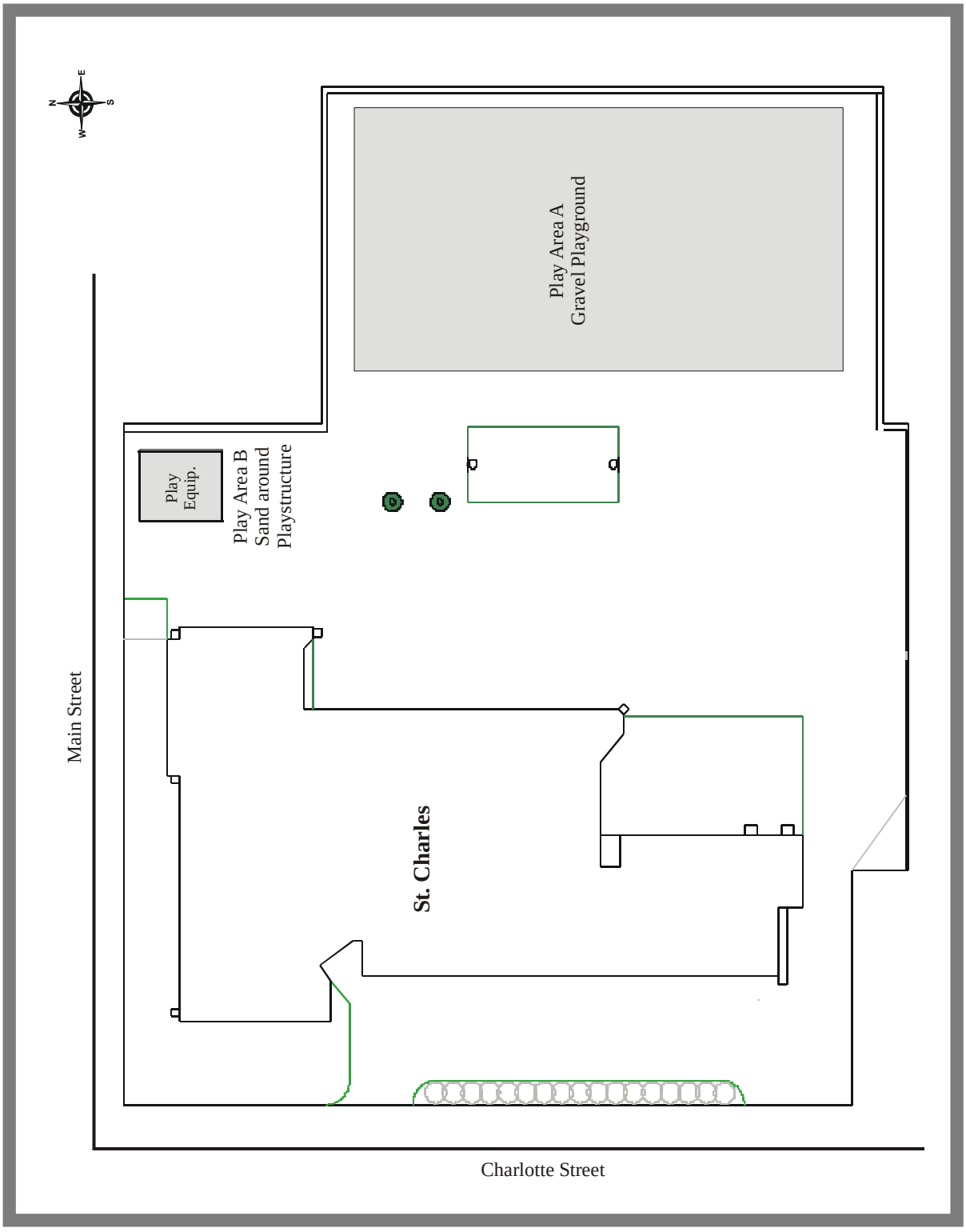

Figure B2.2.12: St. Charles Sampling Locations - 2001.

2.2.13 St. Charles College - Sudbury Catholic District School Board 1940 Hawthorne Drive, Sudbury

St. Charles College was sampled on July 18, 2001. Figure B2.2.13 details the sampling locations at this property. Samples were taken from four areas on the school property. Areas A and B correspond to the grassed area of the east soccer field and the worn areas around the east soccer field goal posts, respectively. Areas C and D correspond to the west soccer field and the worn areas around the west soccer field goal posts, respectively. Due to the compacted nature of both soccer fields, it was only possible to sample the surface soil (0-5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni), copper (Cu), lead (Pb), and antimony (Sb) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the gravel samples. The highest nickel and copper concentrations, 120 and 93 ppm, respectively, were found in the surface soil of the west soccer field while the highest lead and antimony concentrations, 130 and 2.1 ppm, respectively, were found in the surface soil of the east soccer field. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results are similar to those reported historically, while these lead results are higher than previously reported. Previous MOE sampling of undisturbed soils approximately 1 km northwest and 2 km west of St. Charles College, Stations 43 and 86, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 28 to 375 and 33 to 305 ppm, respectively. The highest lead concentration found at these historic sites was 39 ppm. Unfortunately, these historical samples were not analyzed for antimony. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.13: Concentration of 13 Elements in Soil in µg/g Collected at St. Charles College, 1940 Hawthorne Drive, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037160	14438	0 - 5	**2.1**	6	38	< 0.8	30	7	**67**	**130**	< 1.5	**86**	< 1	25	29
		14439	0 - 5	**1.6**	6	46	< 0.8	30	6	**67**	**92**	< 1.5	**85**	< 1	25	29
Area B soil	5037162	14442	0 - 5	0.8	5	34	< 0.8	31	6	41	24	< 1.5	**59**	< 1	27	26
Area C grass	5037161	14440	0 - 5	< 0.8	8	31	< 0.8	30	6	**89**	49	< 1.5	**100**	< 1	22	24
		14441	0 - 5	< 0.8	7	34	< 0.8	45	7	**93**	**120**	< 1.5	**120**	< 1	21	28
Area D soil	5037163	14443	0 - 5	< 0.8	5	45	< 0.8	38	8	43	13	< 1.5	**69**	< 1	32	28
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

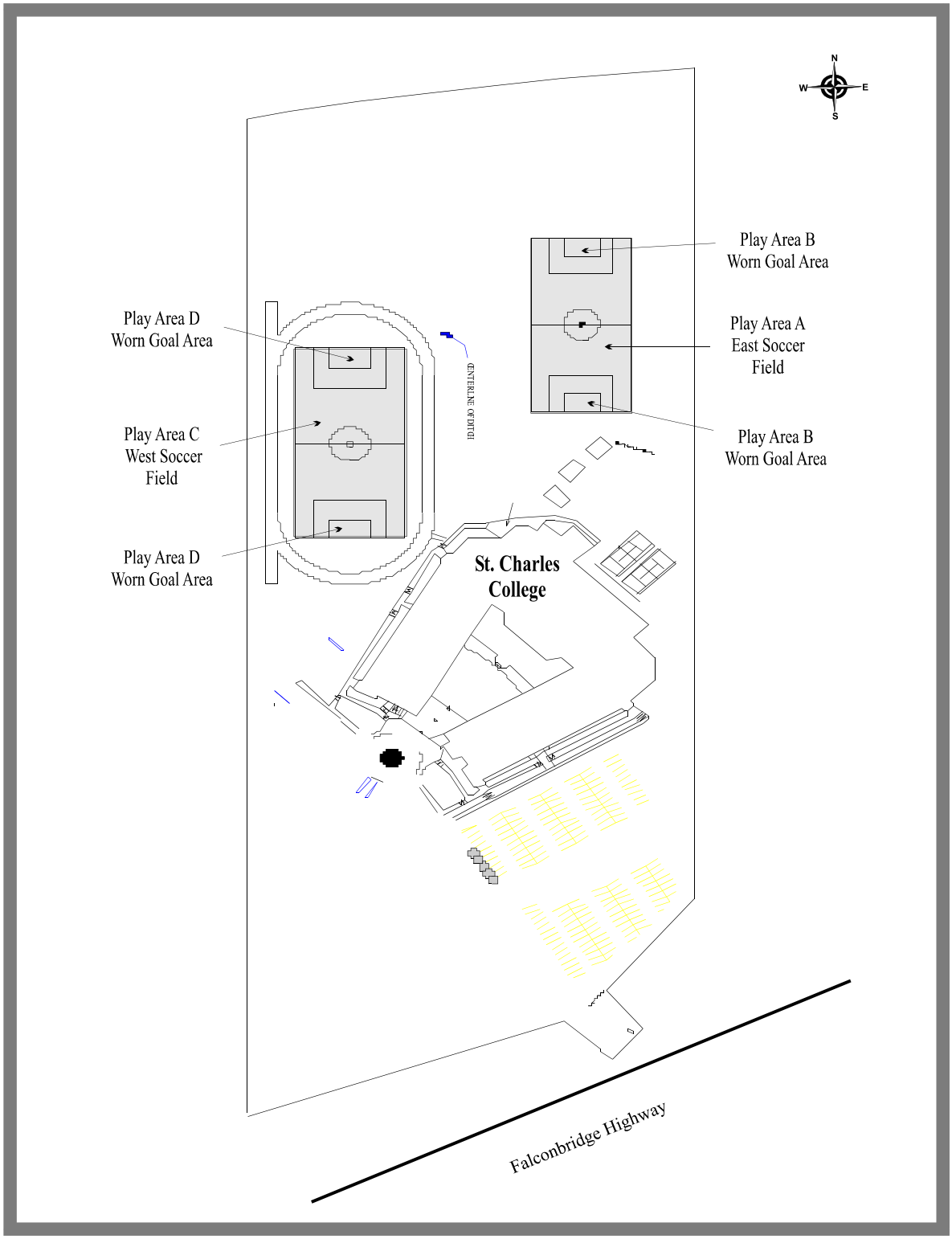

Figure B2.2.13: St. Charles College Sampling Locations - 2001.

2.2.14 St. Christopher - Sudbury Catholic District School Board 2843 CKSO Road, Sudbury

St. Christopher School, including All Nations Daycare, was sampled on July 4, 2001. Figure B2.2.14 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to sand samples that were collected below the play structure. Area B corresponds to the gravel baseball diamond infield. Due to the constant mixing of the sand and the homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect gravel samples to represent the 0-5 cm depth. Area C corresponds to the grassed baseball diamond outfield. Due to the compacted nature of the grassed area and/or the presence of bedrock at shallow depths, it was only possible to sample the surface soil (0-5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Neither nickel (Ni), copper (Cu) nor cobalt (Co) concentrations were elevated in the sand beneath the play structure. It is not clearly understood why molybdenum (Mo) was elevated above the MOE Table F Ontario Soil Background Criteria in one replicate of the sand samples since this metal is not associated with the local industries. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. There were no other exceedences of the MOE Table F Ontario Soil Background Criteria at this property. All metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

Aside from the elevated molybdenum result, all other results from this property are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 0.5 km northwest and 2 km northeast of St. Christopher School, Stations 404 and 406, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated a nickel surface soil concentration range of 58 to 120 ppm and a maximum molybdenum concentration of less than 0.5 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.14: Concentration of 13 Elements in Soil in µg/g Collected at St. Christopher, 2843 CKSO Road, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037013	14052	0 - 15	< 0.8	< 5	25	< 0.8	53	8	23	30	**4.1**	25	< 1	48	110
		14053	0 - 15	< 0.8	< 5	24	< 0.8	32	9	23	3	< 1.5	22	< 1	33	19
Area B gravel	5037014	14054	0 - 5	< 0.8	< 5	39	< 0.8	36	8	27	8	< 1.5	35	< 1	41	30
		14055	0 - 5	< 0.8	< 5	38	< 0.8	38	7	26	7	< 1.5	37	< 1	41	29
Area C grass	5037015	14056	0 - 5	< 0.8	< 5	40	< 0.8	33	7	23	4	< 1.5	30	< 1	32	19
		14057	0 - 5	< 0.8	< 5	40	< 0.8	31	7	25	5	< 1.5	34	< 1	32	20
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

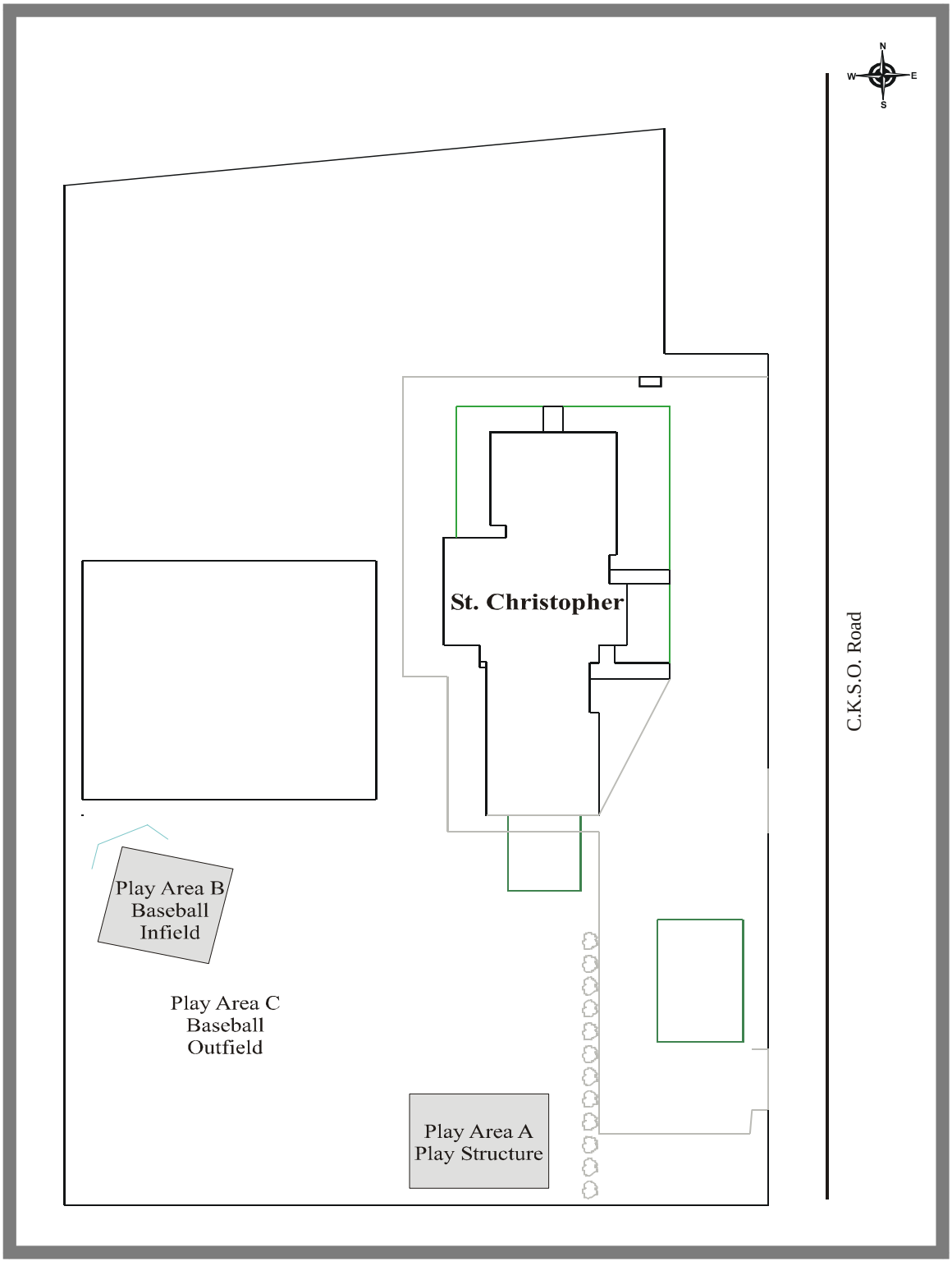

Figure B2.2.14: St. Christopher Sampling Locations - 2001.

2.2.15 St. David - Sudbury Catholic District School Board 350 Jean Street, Sudbury

St. David School was sampled on July 17, 2001. Figure B2.2.15 details the sampling locations at this property. Samples were taken from one area on the school property. Area A corresponds to the gravel playground on the north side of the school building. Due to the constant mixing of the gravel and the homogenous nature of the gravel area, samples were collected using hand trowels to represent the 0-5 cm depth. There were no other play areas on this property to sample. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni), and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in one replicate of the gravel samples. The highest nickel and copper concentrations found were 92 and 88 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results are much lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 0.5 km south, 2 km west, and 1.5 km north of St. David School, Stations 84, 363, and 362, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 230 to 490 and 230 to 450 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.15: Concentration of 13 Elements in Soil in µg/g Collected at St. David, 350 Jean Street, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037118	14267	0 - 5	< 0.8	< 5	18	< 0.8	20	6	18	3	< 1.5	27	< 1	24	17
		14268	0 - 5	< 0.8	< 5	29	< 0.8	28	13	**88**	8	< 1.5	**92**	< 1	30	42
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

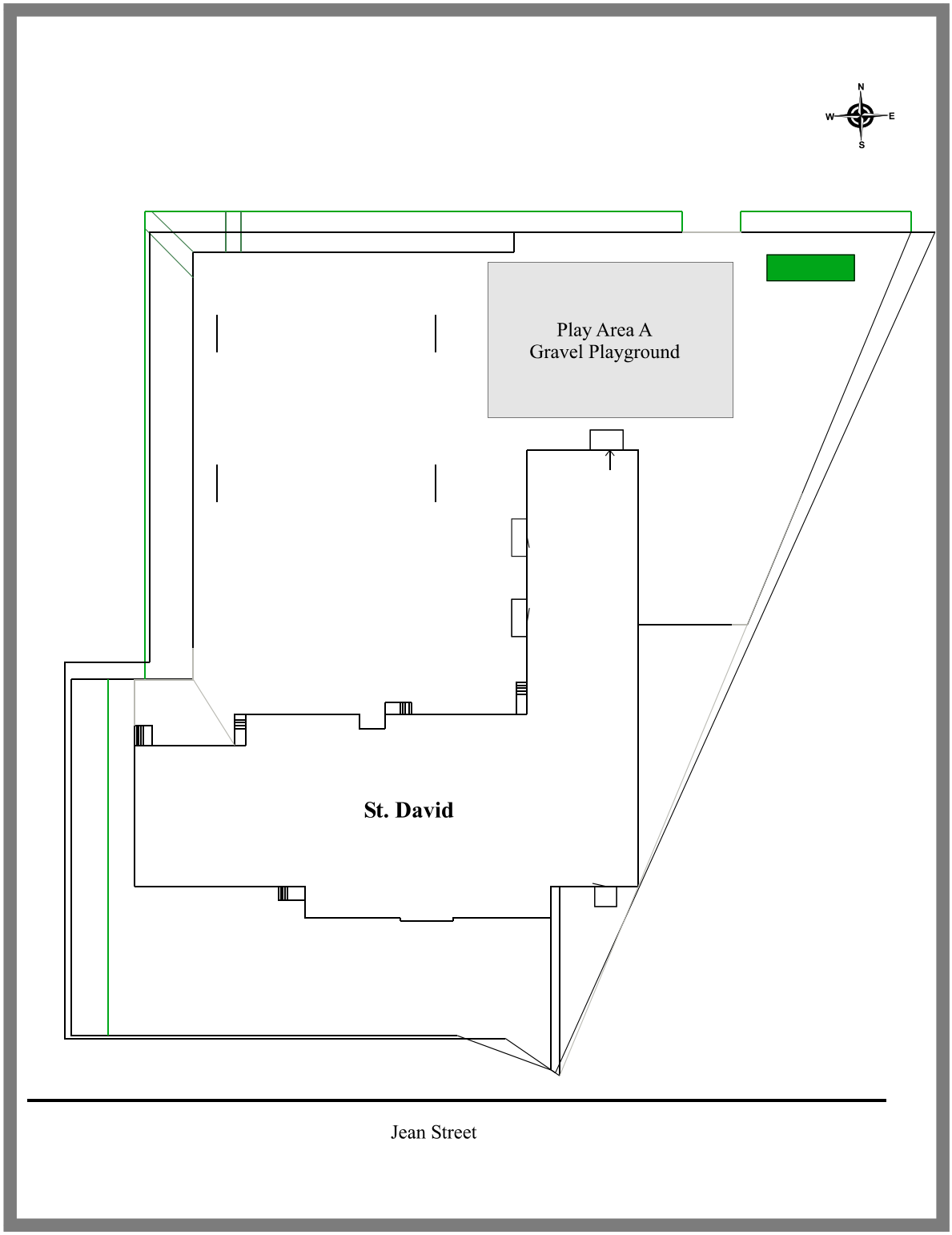

Figure B2.2.15: St. David Sampling Locations - 2001.

2.2.16 St. Francis - Sudbury Catholic District School Board 691 Lilac Street, Sudbury

St. Francis School, including the formerly Jubilee Heritage Centre Daycare, was sampled on July 5, 2001. Figure B2.2.16 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the gravel baseball diamond infield. Area B corresponds to sand samples collected from the landing area of the long jump pits. Area C corresponds to the gravel playground to the northwest side of the school building. Due to the constant mixing of the sand and the homogenous nature of the sanded area, samples were collected using hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand from the landing area of the long jump pit. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni), and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in all other samples from this property. The highest nickel and copper concentrations, 170 and 180 ppm, respectively, were found in the gravel playground samples. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There was only one sample from the gravel playground that had a nickel concentration elevated above the MOE Table A Effects Based Soil Criteria (MOE 1997).

These nickel and copper results fall in the lower end of the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km southwest, 1 km north, and 1 km west of St. Francis School, Stations 73, 378, and 74, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 145 to 790 and 158 to 740 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.16: Concentration of 13 Elements in Soil in µg/g Collected at St. Francis, 691 Lilac Street, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037069	14141	0 - 5	< 0.8	< 5	24	< 0.8	31	12	**140**	15	< 1.5	**150**	< 1	27	40
		14142	0 - 5	< 0.8	< 5	25	< 0.8	30	13	**160**	15	< 1.5	**150**	< 1	26	40
Area B sand	5037070	14143	0 - 15	< 0.8	< 5	21	< 0.8	32	8	30	4	< 1.5	32	< 1	34	21
Area C gravel	5037071	14144	0 - 5	< 0.8	< 5	39	< 0.8	35	13	**140**	10	< 1.5	**130**	< 1	29	56
		14145	0 - 5	< 0.8	< 5	39	< 0.8	38	15	**180**	15	< 1.5	**170**	< 1	32	110
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

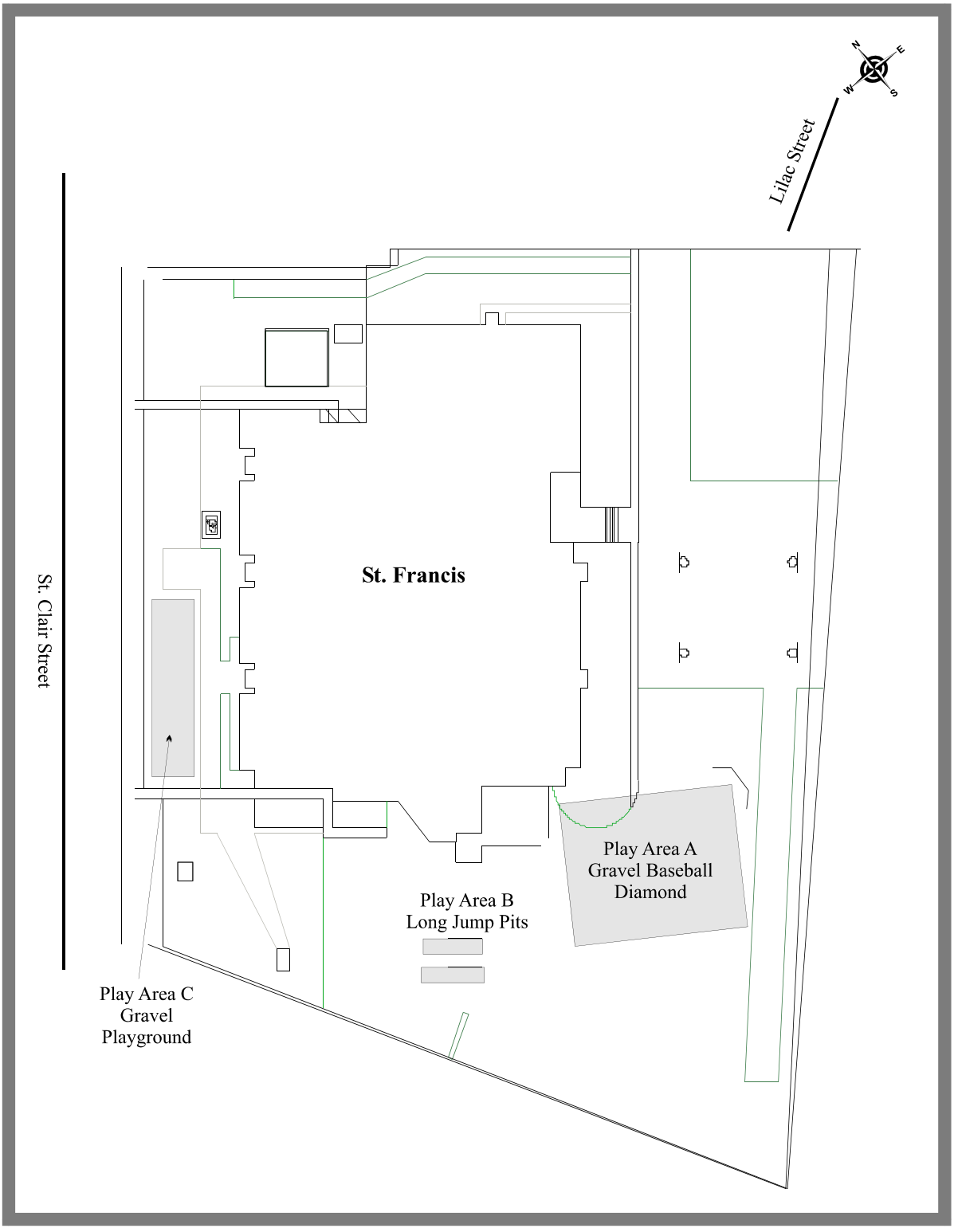

Figure B2.2.16: St. Francis Sampling Locations - 2001.

2.2.17 St. James - Sudbury Catholic District School Board 280 Anderson Drive, Lively

St. James School, including Walden Daycare Centre #2, was sampled on July 21, 2001. Figure B2.2.17 details the sampling locations at this property. Samples were taken from one area on the school property. Area A corresponds to the gravel playground on the north side of the school property. Due to the constant mixing of the gravel and the homogenous nature of the gravel areas, samples were collected using hand trowels to represent the 0-5 cm depth. There were not any other play areas to sample at this property. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni), and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the gravel samples. The highest nickel and copper concentrations found were 70 and 64 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results fall in the lower end of the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km north, 2 km southwest, and 2 km southeast of St. James School, Stations 376, 375, and 101, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 69 to 340 and 61 to 350 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.17: Concentration of 13 Elements in Soil in µg/g Collected at St. James, 280 Anderson Drive, Lively - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037244	14719	0 - 5	< 0.8	5	30	< 0.8	32	11	**64**	9	< 1.5	**70**	< 1	31	34
		14720	0 - 5	< 0.8	< 5	30	< 0.8	29	10	48	7	< 1.5	**47**	< 1	32	30
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

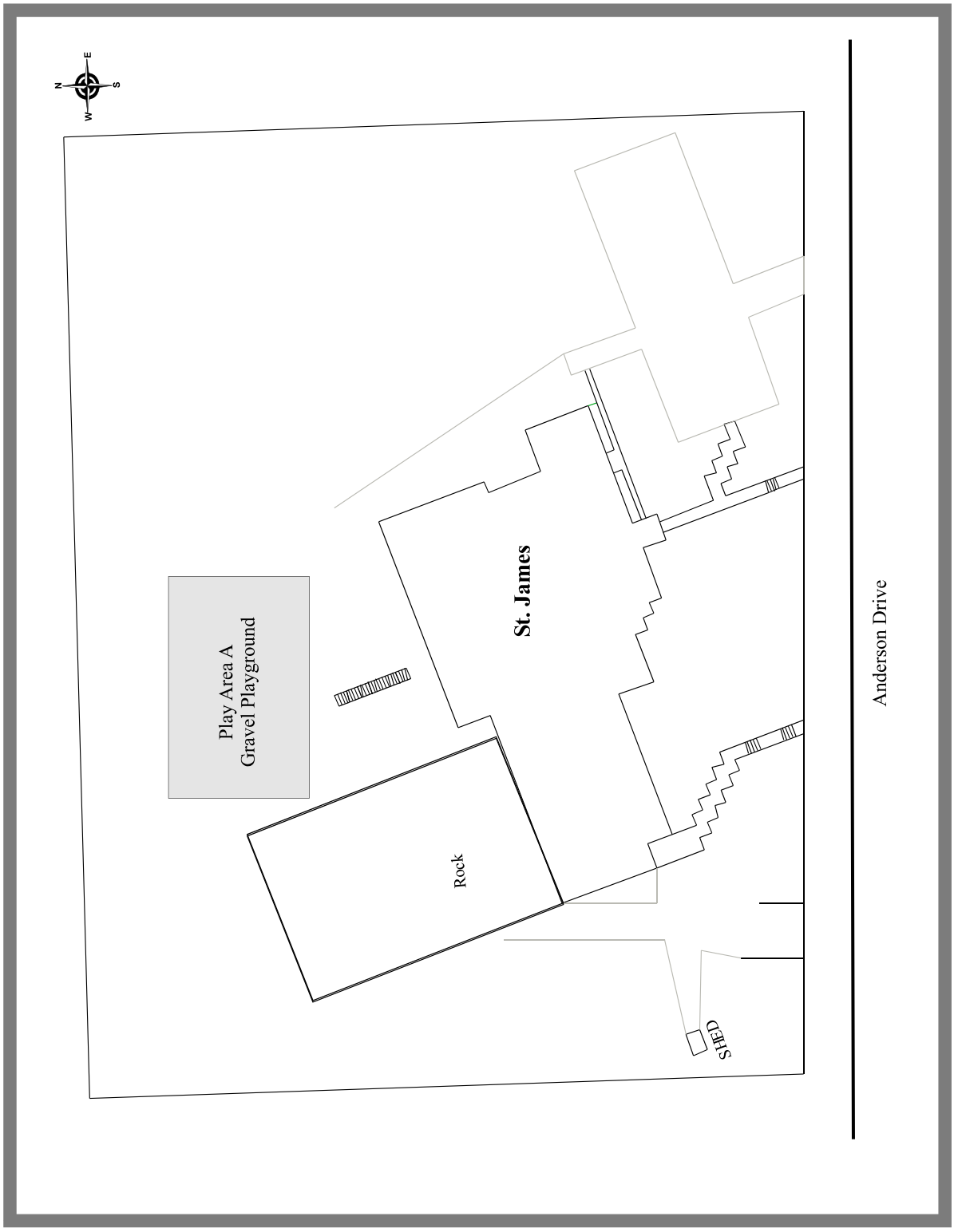

Figure B2.2.17: St. James Sampling Locations - 2001.

2.2.18 St. John - Sudbury Catholic District School Board 181 William Street, Garson

St. John School, including Teddy Bear Daycare #3, was sampled on July 18, 2001. Figure B2.2.18 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the gravel playground on the west side of the school property. Area B corresponds to the gravel playground on the north side of the school building. Area C corresponds to the sand samples collected from the sanded play area on the south edge of the school property. Due to the constant mixing of the sand and the homogenous nature of the sanded area, sand samples were collected using hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand samples collected from the sanded play area. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni), and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in samples collected from both gravel playgrounds. The highest nickel and copper concentrations, 73 and 59 ppm, respectively, were found in the north gravel playground samples. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results fall within the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km southwest, and 0.5 km southeast of St. John School, Stations 40 and 39, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 37 to 130 and 24 to 200 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.18: Concentration of 13 Elements in Soil in µg/g Collected at St. John, 181 William Street, Garson - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037276	14415	0 - 5	< 0.8	8	27	< 0.8	27	8	**57**	10	< 1.5	**68**	< 1	29	28
		14416	0 - 5	< 0.8	9	25	< 0.8	26	9	**59**	10	< 1.5	**73**	< 1	30	28
Area B gravel	5037277	14417	0 - 5	< 0.8	7	29	< 0.8	24	7	43	7	< 1.5	**62**	< 1	26	25
		14418	0 - 5	< 0.8	6	29	< 0.8	24	8	51	7	< 1.5	**71**	< 1	24	24
Area C sand	5037278	14419	0 - 15	< 0.8	< 5	19	< 0.8	20	5	12	2	< 1.5	18	< 1	23	16
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

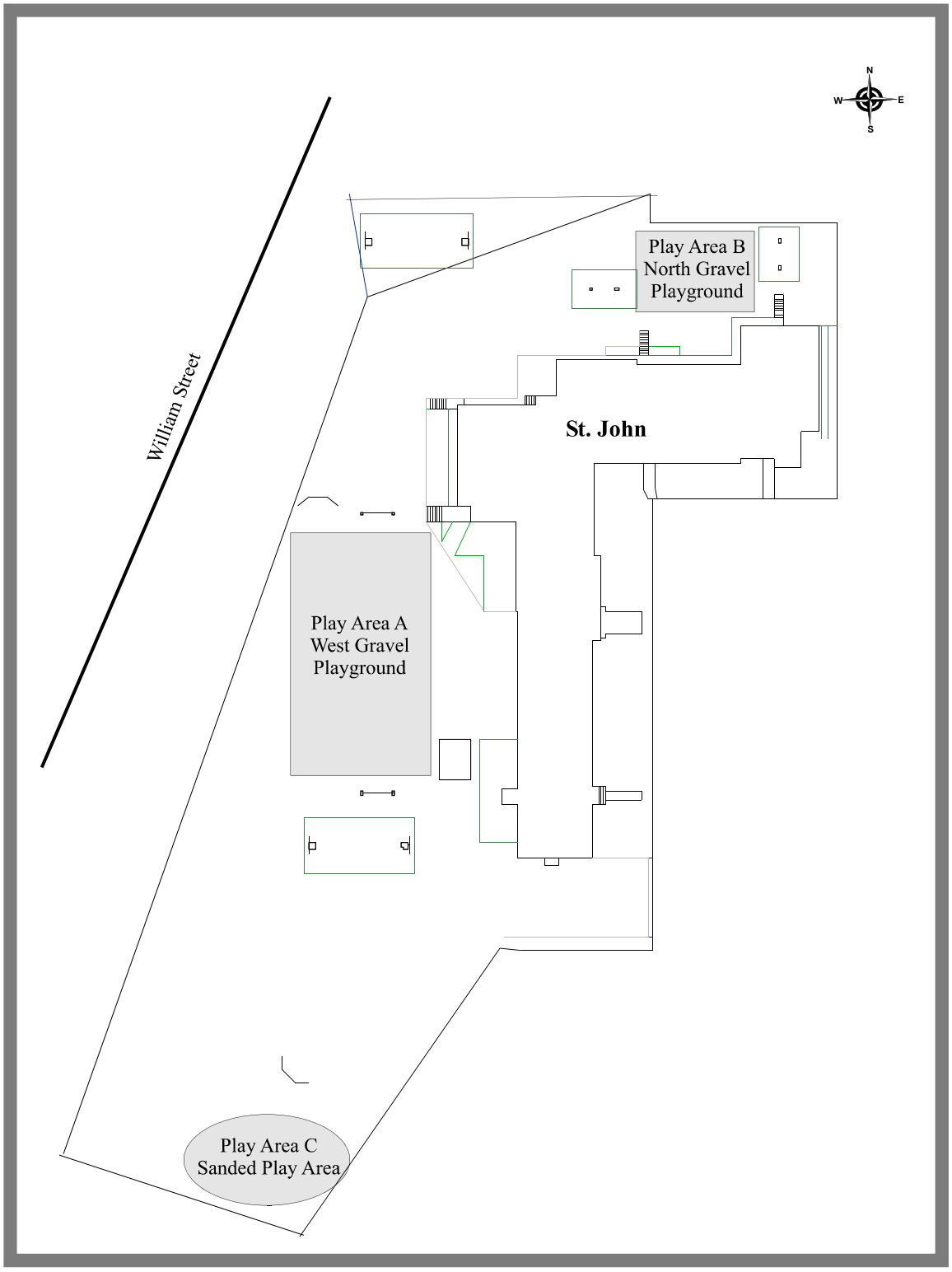

Figure B2.2.18: St. John Sampling Locations - 2001.

2.2.19 St. Kevin (Bishop Alexander C.C.S.S.) - Sudbury Catholic District School Board 3075 River Road, Val Caron

St. Kevin School was sampled on July 23, 2001 and is now the temporary location of Bishop Alexander C.C.S.S. within the Sudbury Catholic District School Board. A permanent location for this school has been found at St. Anne (2.2.8) and this location has since been closed. Figure B2.2.19 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to the gravel baseball diamond on the east side of the property. Area B corresponds to the gravel playground on the north side of the school building. Due to the constant mixing of the gravel and the homogenous nature of the gravel areas, all samples from this property were collected using hand trowels to represent the 0-5 cm depth. There were not any other play areas to sample at this property. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni), and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for all samples collected from this property. The highest nickel and copper concentrations, 92 and 82 ppm, respectively, were found in the north gravel playground samples. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results fall within the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 2 km northwest, 2 km southwest, and 3 km northeast of St. Kevin (Bishop Alexander C.C.S.S.) School, Stations 15, 340, and 344, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 66 to 140 and 57 to 130 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.19: Concentration of 13 Elements in Soil in µg/g Collected at St. Kevin (Bishop Alexander C.C.S.S.), 3075 River Road, Val Caron - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037288	14774	0 - 5	< 0.8	< 5	31	< 0.8	42	12	**59**	12	< 1.5	**57**	< 1	38	38
		14775	0 - 5	< 0.8	< 5	29	< 0.8	40	15	**64**	10	< 1.5	**63**	< 1	38	39
Area B gravel	5037289	14776	0 - 5	< 0.8	< 5	37	< 0.8	42	10	**71**	14	< 1.5	**68**	< 1	39	37
		14777	0 - 5	< 0.8	< 5	36	< 0.8	44	11	**82**	12	< 1.5	**92**	< 1	46	38
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

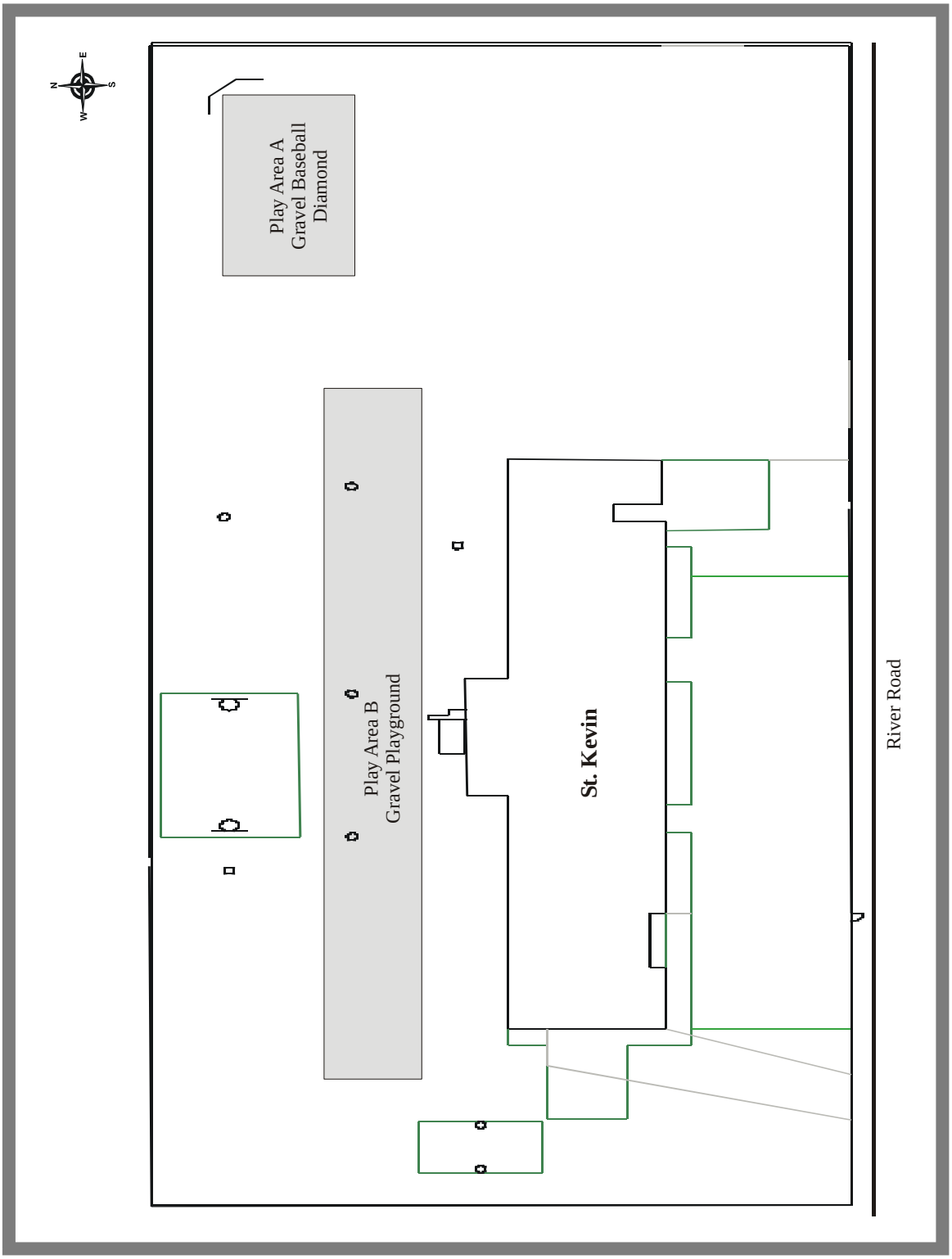

Figure B2.2.19: St. Kevin (Bishop Alexander C.C.S.S.) Sampling Locations - 2001.

2.2.20 St. Mary - Sudbury Catholic District School Board 26 Meehan Avenue, Capreol

St. Mary School was sampled on July 20, 2001. Figure B2.2.20 details the sampling locations at this property. Samples were taken from one area on the school property. Area A corresponds to the gravel playground on the south side of the school. Due to the constant mixing of the gravel and the homogenous nature of the gravel areas, all samples from this property were collected using hand trowels to represent the 0-5 cm depth. There were not any other play areas to sample at this property. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni), and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for all samples collected from this property. The highest nickel and copper concentrations found were 72 and 97 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 2 km north and 0.5 km south of St. Mary School, Stations 352 and 351, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 130 to 330 and 110 to 300 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.20: Concentration of 13 Elements in Soil in µg/g Collected at St. Mary, 26 Meehan Avenue, Capreol - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037352	14582	0 - 5	< 0.8	6	32	< 0.8	27	8	**69**	22	< 1.5	**69**	< 1	34	46
		14583	0 - 5	< 0.8	8	31	< 0.8	26	7	**97**	25	< 1.5	**72**	< 1	33	48
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

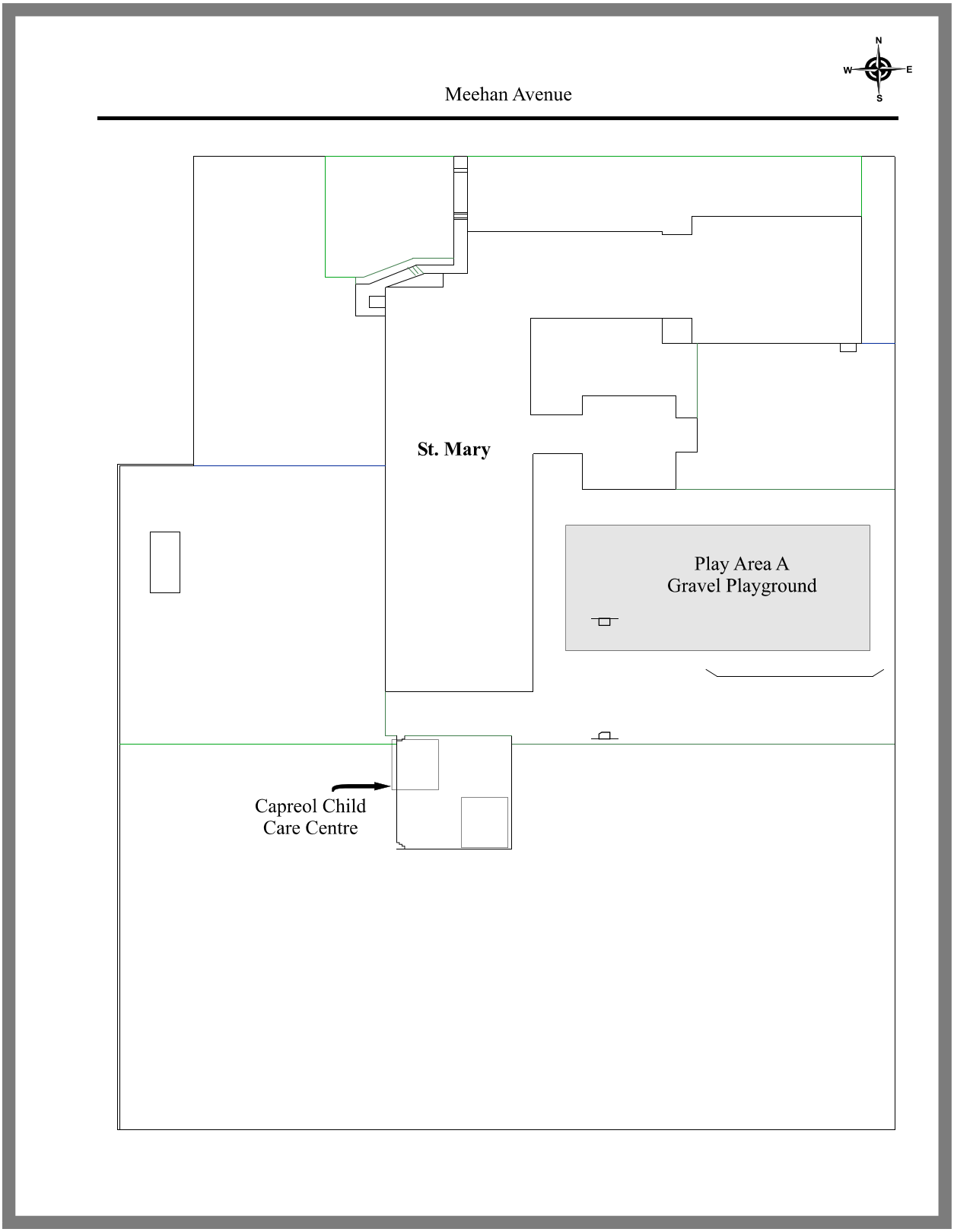

Figure B2.2.20: St. Mary School Sampling Locations - 2001.

2.2.21 St. Michael - Sudbury Catholic District School Board 41 Samson Street, Sudbury

St. Michael School was sampled on July 5, 2001. Figure B2.2.21 details the sampling locations at this property. Samples were taken from one area on the school property. Area A corresponds to the gravel playground on the west side of the school building. Due to the constant mixing of the gravel and the homogenous nature of the gravel areas, all samples from this property were collected using hand trowels to represent the 0-5 cm depth. There were not any other play areas to sample at this property. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni), and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for all samples collected from this property. The highest nickel and copper concentrations found were 140 and 120 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results fall within the lower end of the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 0.5 km south of St. Michael School, Station 74 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 145 to 790 and 220 to 740 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.21: Concentration of 13 Elements in Soil in µg/g Collected at St. Michael, 41 Samson Street, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037083	14132	0 - 5	< 0.8	< 5	26	< 0.8	29	11	**120**	11	< 1.5	**130**	< 1	30	32
		14133	0 - 5	< 0.8	< 5	29	< 0.8	29	11	**120**	11	< 1.5	**140**	< 1	27	65
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

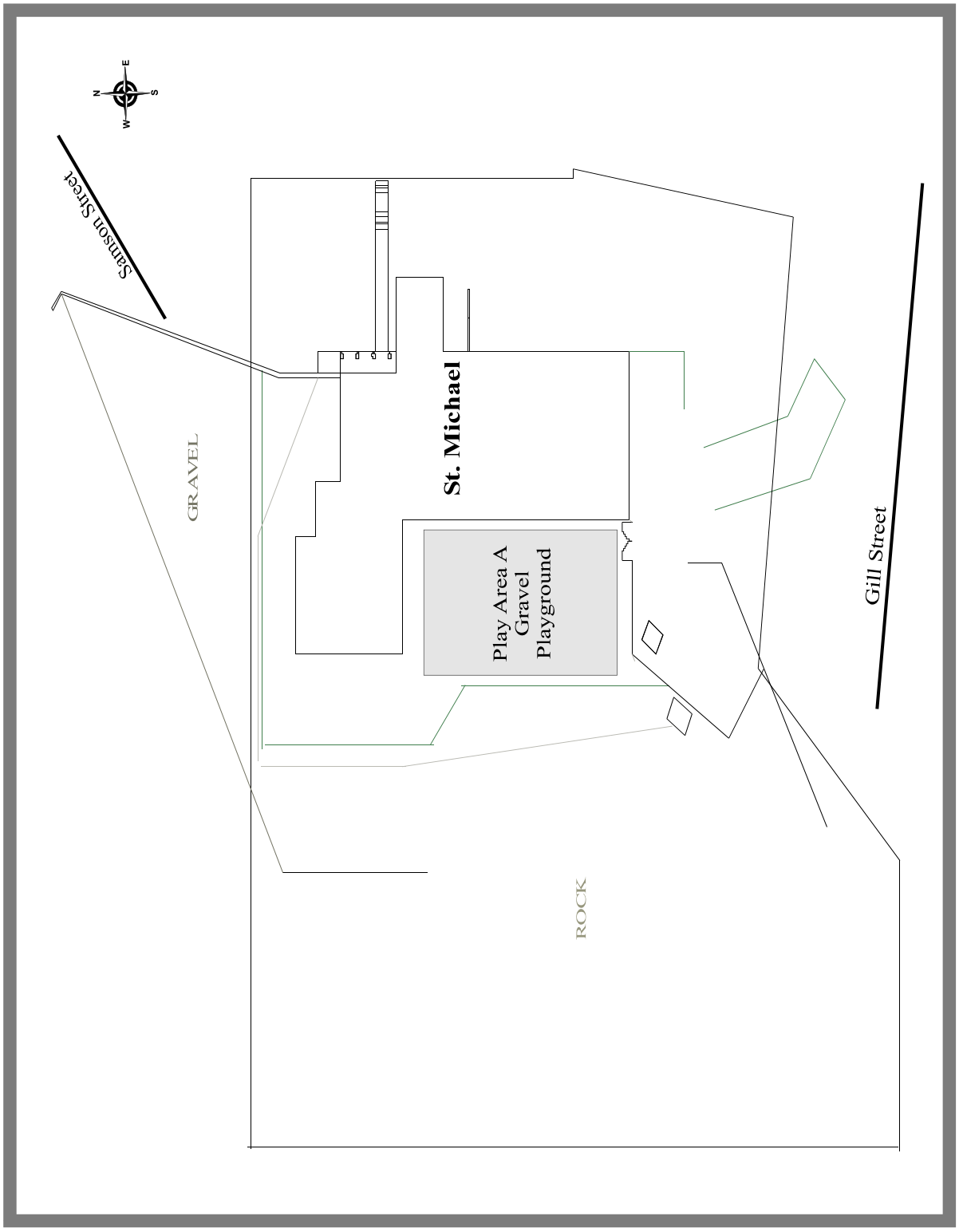

Figure B2.2.21: St. Michael Sampling Locations - 2001.

2.2.22 St. Paul - Sudbury Catholic District School Board
1 Edward Avenue North, Coniston

St. Paul School was sampled on July 22, 2001. Figure B2.2.22 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to the gravel playground on the east side of the school building. Area B corresponds to the sand collected from the landing area of the long jump pit. Due to the constant mixing of the sand and the homogenous nature of the sanded area, sand samples were collected using hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand collected from the landing area of the long jump pit. The sand present is not likely native to the school property and is believed to have been introduced when the play area was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni), and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for both gravel playground samples. The highest nickel and copper concentrations found were 120 and 100 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results fall within the lower end of the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km southwest, 0.8 km northeast, and 1 km southwest of St. Paul School, Stations 81, 49, and 48, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 70 to 970 and 54 to 780 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.22: Concentration of 13 Elements in Soil in µg/g Collected at St. Paul, 1 Edward Avenue North, Coniston - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037263	14752	0 - 5	< 0.8	6	43	< 0.8	35	14	**99**	12	< 1.5	**120**	< 1	34	42
		14753	0 - 5	< 0.8	6	45	< 0.8	43	14	**100**	14	< 1.5	**120**	< 1	32	46
Area B sand	5037264	14754	0 - 15	< 0.8	< 5	26	< 0.8	18	6	15	2	< 1.5	17	< 1	23	13
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

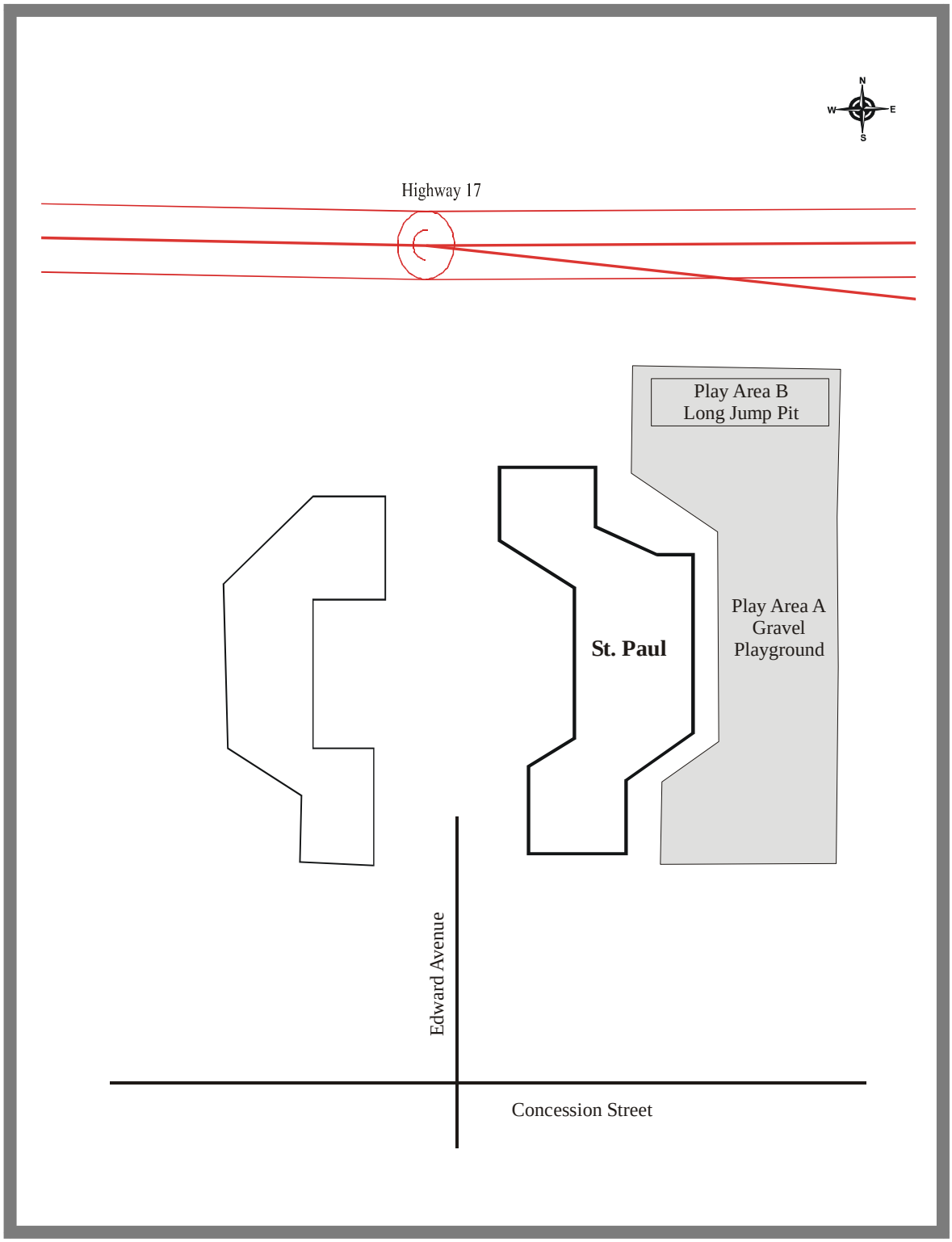

Figure B2.2.22: St. Paul Sampling Locations - 2001.

2.2.23 St. Raphael - Sudbury Catholic District School Board 1096 Dublin Street, Sudbury

St. Raphael School, including Cedar Park Daycare #2, was sampled on July 18, 2001. Figure B2.2.23 details the sampling locations at this property. Samples were taken from one area on the school property. Area A corresponds to the gravel playground on the west side of the school building. Due to the constant mixing of the gravel and the homogenous nature of the gravel areas, all samples from this property were collected using hand trowels to represent the 0-5 cm depth. There were not any other play areas to sample on this property. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni), and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for the gravel playground samples. The highest nickel and copper concentrations found were 96 and 93 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results fall within the lower end of the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 0.2 km east and 1 km southwest of St. Raphael School, Stations 86 and 85, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 56 to 540 and 35 to 330 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.23: Concentration of 13 Elements in Soil in µg/g Collected at St. Raphael, 1096 Dublin Street, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037193	14460	0 - 5	< 0.8	< 5	34	< 0.8	35	12	**93**	14	< 1.5	**96**	< 1	36	77
		14461	0 - 5	< 0.8	< 5	30	< 0.8	26	8	42	8	< 1.5	**47**	< 1	28	27
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

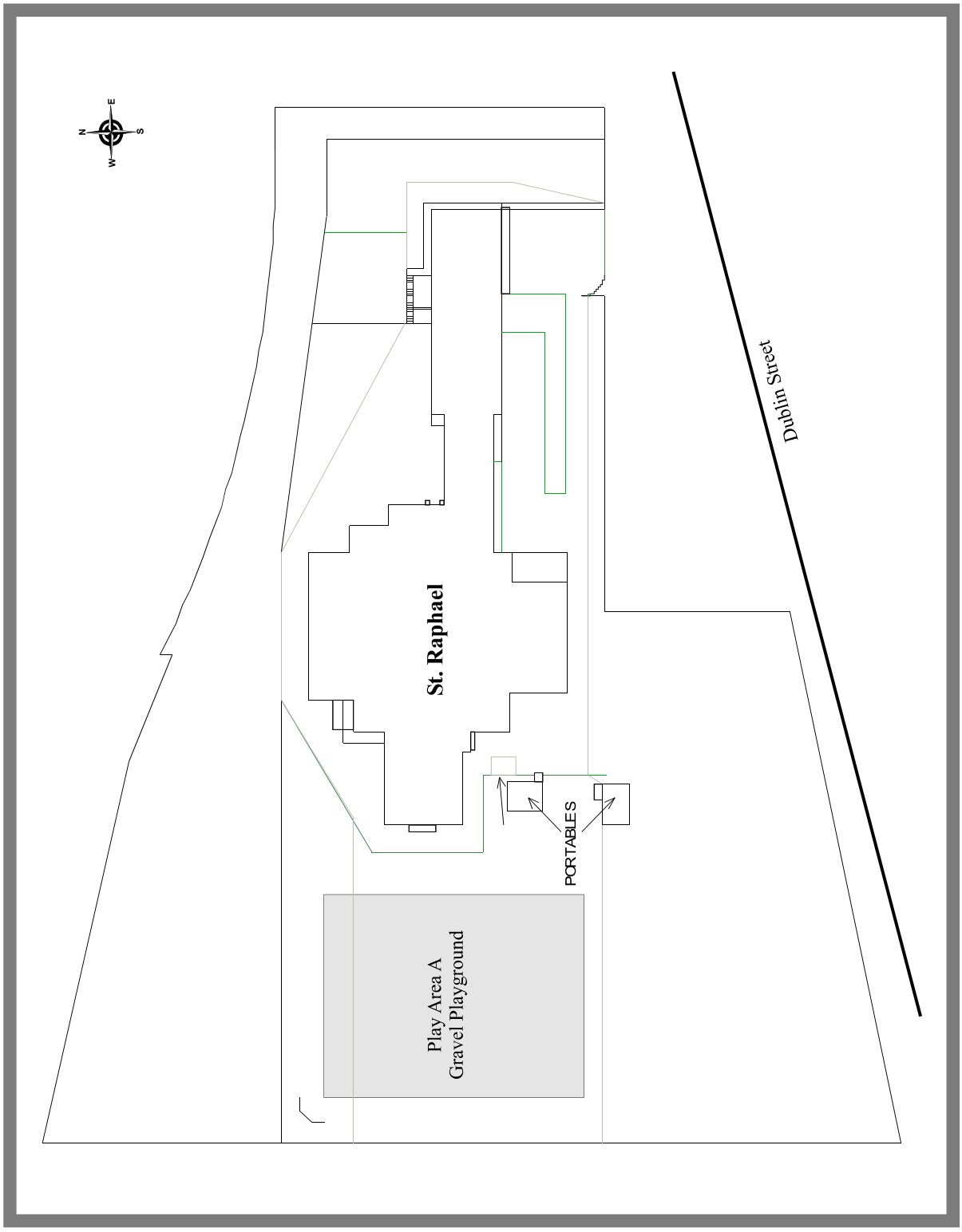

Figure B2.2.23: St. Raphael Sampling Locations - 2001.

2.2.24 St. Theresa - Sudbury Catholic District School Board 56 Walford Road, Sudbury

St. Theresa School was sampled on July 5, 2001. Figure B2.2.24 details the sampling locations at this property. Samples were taken from four areas on the school property. Areas A, B and C correspond to sand samples collected from below the play structures. Area D corresponds to the gravel playground to the north and east side of the school building. Due to the constant mixing of the sand and the homogenous nature of the sanded area, sand samples were collected using hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structures. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni), and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for the gravel playground samples. The highest nickel and copper concentrations found were 110 and 97 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 0.7 km southwest and 1.5 km northeast of St. Theresa School, Stations 364 and 74, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 145 to 790 and 220 to 740 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.2.24: Concentration of 13 Elements in Soil in µg/g Collected at St. Theresa, 56 Walford Road, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037050	14106	0 - 15	< 0.8	< 5	21	< 0.8	28	7	18	3	< 1.5	21	< 1	31	16
Area B sand	5037051	14107	0 - 15	< 0.8	< 5	20	< 0.8	28	7	17	3	< 1.5	21	< 1	26	15
Area C sand	5037052	14108	0 - 15	< 0.8	< 5	21	< 0.8	29	7	20	3	< 1.5	24	< 1	29	18
Area D gravel	5037053	14109	0 - 5	< 0.8	< 5	28	< 0.8	34	15	**97**	9	< 1.5	**110**	< 1	29	34
		14110	0 - 5	< 0.8	< 5	28	< 0.8	36	17	**97**	9	< 1.5	**110**	< 1	30	31
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

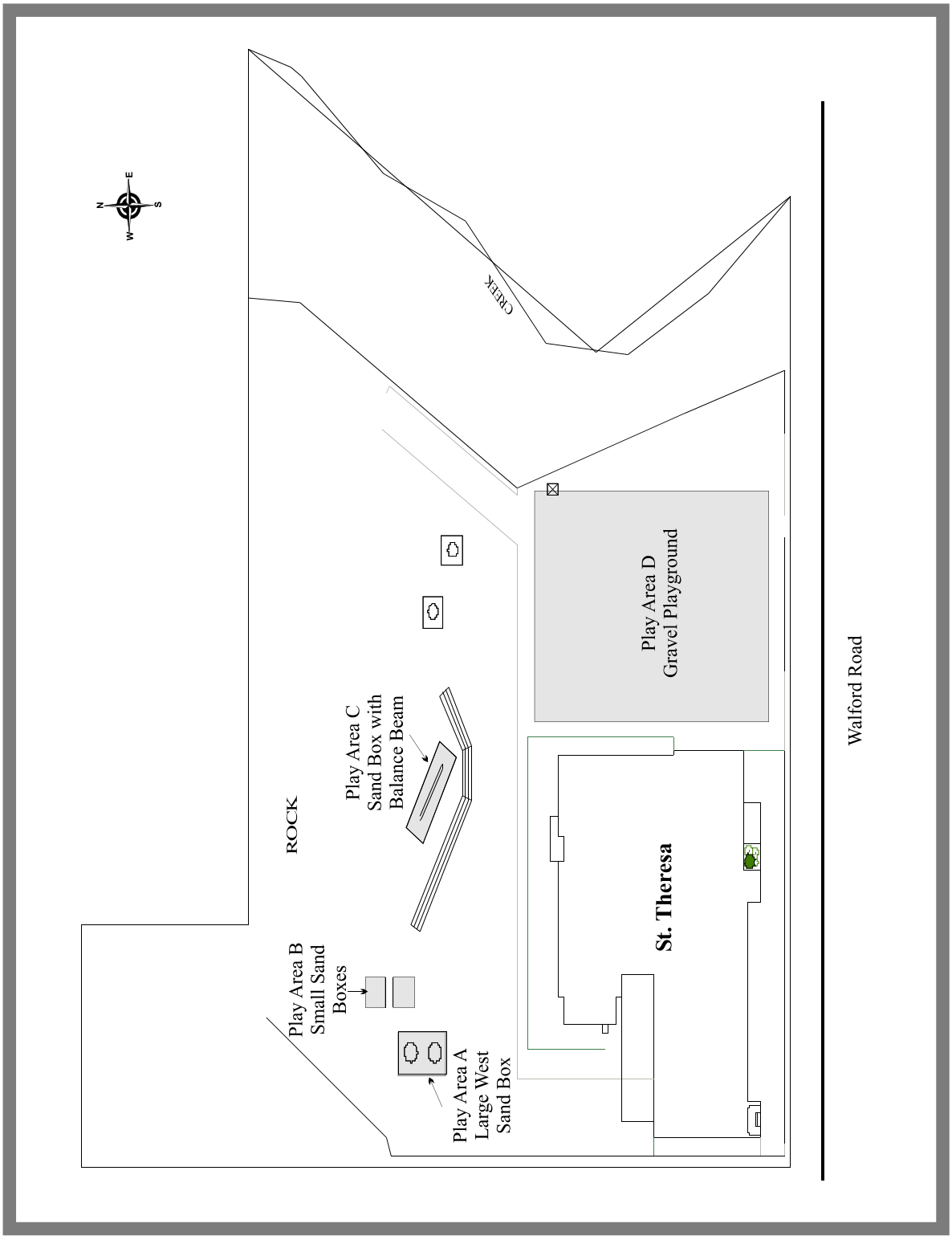

Figure B2.2.24: St. Theresa Sampling Locations - 2001.

2.2.25 St. Thomas (formerly) - Sudbury Catholic District School Board 504 St. Raphael Street, Sudbury

St. Thomas School was sampled on July 5, 2001 and has since been sold. Figure B2.2.25 details the sampling locations at this property. Samples were taken from four areas on the school property. Areas A and B correspond to sand samples collected from below the south and north play structures, respectively. Area C corresponds to the gravel baseball diamond infield. Area D corresponds to the gravel playground to the northeast side of the school building. Due to the constant mixing of the sand and the homogenous nature of the sanded areas, sand samples were collected using hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structures. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni), and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for all gravel samples. Cobalt (Co) and zinc (Zn) concentrations were also elevated above the MOE Table F Ontario Soil Background Criteria at selected sites. The highest nickel, copper, and cobalt concentrations, 190, 140, and 23 ppm, respectively, were found in a sample from the gravel playground, while the highest zinc concentration, 200 ppm, was found in a sample from the baseball diamond infield. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There was only one exceedence of the MOE Table A Effects Based Soil Criteria for nickel at this property.

Table B2.2.25: Concentration of 13 Elements in Soil in µg/g Collected at St. Thomas (formerly), 504 St. Raphael Street, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037094	14191	0 - 15	< 0.8	< 5	18	< 0.8	30	7	21	3	< 1.5	27	< 1	25	25
Area B sand	5037095	14192	0 - 15	< 0.8	< 5	19	< 0.8	29	7	22	3	< 1.5	23	< 1	32	23
Area C gravel	5037096	14193	0 - 5	< 0.8	< 5	27	< 0.8	24	11	**100**	11	< 1.5	**130**	< 1	25	**200**
		14194	0 - 5	< 0.8	< 5	28	< 0.8	24	11	**100**	11	< 1.5	**130**	< 1	24	150
Area D gravel	5037097	14195	0 - 5	< 0.8	< 5	31	< 0.8	32	**22**	**130**	11	< 1.5	**150**	< 1	30	40
		14196	0 - 5	< 0.8	5	42	< 0.8	35	**23**	**140**	12	< 1.5	**190**	< 1	33	39
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

These nickel and copper results are lower than those reported historically. The cobalt concentrations found are similar to those reported previously, while the zinc concentration is much higher than historically found. Previous MOE sampling of undisturbed soils approximately 0.5 km southeast and 2 km northeast of St. Thomas (formerly) School, Stations 75 and 411, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 380 to 980 and 340 to 820 ppm, respectively. At the same historic sites, the cobalt surface soil concentration range was 17 to 38 ppm, while the highest zinc concentration previously reported was 66 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

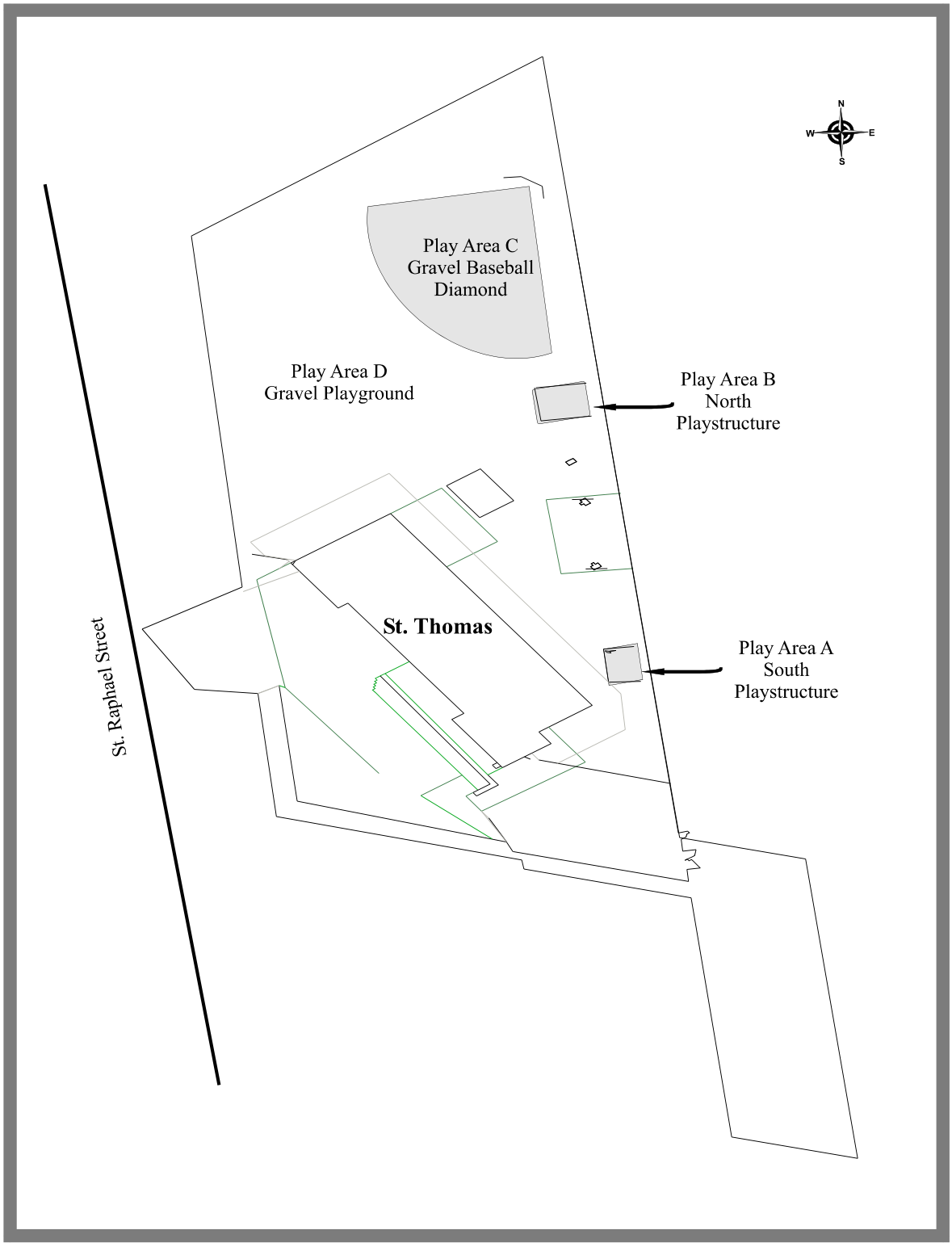

Figure B2.2.25: St. Thomas (formerly) Sampling Locations - 2001.

2.3 Le Conseil Scolaire du District de Grand Nord de L'Ontario

As of June 2001, Le Conseil Scolaire du District de Grand Nord de L'Ontario provided the MOE with a list of 8 school properties. MOE representatives were able to collect samples from all properties during the summer of 2001. E. P. Pavillon-de-l'avenir is on the same property as Chelmsford Valley District School in the Rainbow District School Board. For each school there is a section below describing the results, a table with a subset of the results, and a map showing the sampling locations. The maps were produced from field notes. They are not to scale and the locations of the buildings, boundaries and sampling sites shown are only approximate. The schools are listed alphabetically. Complete results for each school are listed in Table 4.1 along with the results from the other school boards.

Table B2.3: Number of Le Conseil Scolaire du District de Grand Nord de L'Ontario school in which at least one sample exceed MOE soil criteria.

Number of Schools	Nickel Exceedences		Copper Exceedences		Cobalt Exceedences		Arsenic Exceedences		Lead Exceedences	
	Table F	Table A	Table F	Table A	Table F	Table A	Table F	Table A	Table F	Table A
8	5	1	1	0	0	0	0	0	1	0

In order to fit all of the results data onto one table the standard chemical abbreviations had to used. To interpret the tables properly, the chart below can be used to translate the abbreviations.

Chemical Symbols Used in Results Tables				
Al - aluminum	**Sb** - antimony	**As** - arsenic	**Ba** - barium	**Be** - beryllium
Cd - cadmium	**Ca** - calcium	**Cr** - chromium	**Co** - cobalt	**Cu** - copper
Fe - iron	**Pb** - lead	**Mg** - magnesium	**Mn** - manganese	**Mo** - molybdenum
Ni - nickel	**Se** - selenium	**Sr** - strontium	**V** - vanadium	**Zn** - zinc

2.3.1 E.P. Pavillon-de-l'avenir - Conseil Scolaire du District de Grand Nord de L'Ontario 370 Cote Avenue, Chelmsford

See Chelmsford Valley District School in Section 2.1.7 for sampling results and map of sampling locations for E.P. Pavillon-de-l'avenir.

2.3.2 E.P. Franco Nord - Conseil Scolaire du District de Grand Nord de L'Ontario 178 Avenue Junction, Sudbury

E.P. Franco Nord was sampled on July 19, 2001. Figure B2.3.2 details the sampling locations at this property. Samples were taken from four areas on the school property. Area A corresponds to the grassed play area on the east side of the property. Areas B and C correspond to the sand samples that were taken below the north and south play structures, respectively. Area D corresponds to the gravel playground. Due to the constant mixing of sand and the homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structures. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in sample taken from the gravel playground. The highest nickel and copper concentrations found in these samples was 85 and 87 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1.5 km southeast of E.P. Franco Nord, Station 90 of the MOE Sudbury 2000 Report, for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations as high as 570 and 470 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.3.2: Concentration of 13 Elements in Soil in µg/g Collected at E.P. Franco Nord, 178 Avenue Junction, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037361	14479	0 - 5	< 0.8	< 5	29	< 0.8	26	5	22	7	< 1.5	38	< 1	27	18
		14480	0 - 5	< 0.8	6	27	< 0.8	24	4	18	6	< 1.5	32	< 1	25	16
Area B sand	5037362	14481	0 - 15	< 0.8	< 5	22	< 0.8	25	7	22	7	< 1.5	19	< 1	39	27
Area C sand	5037363	14482	0 - 15	< 0.8	< 5	16	< 0.8	23	5	16	4	< 1.5	19	< 1	28	21
Area D gravel	5037364	14483	0 - 5	< 0.8	5	32	< 0.8	33	11	**87**	12	< 1.5	**85**	< 1	37	39
		14484	0 - 5	< 0.8	6	25	< 0.8	32	10	**76**	11	< 1.5	**73**	< 1	35	38
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

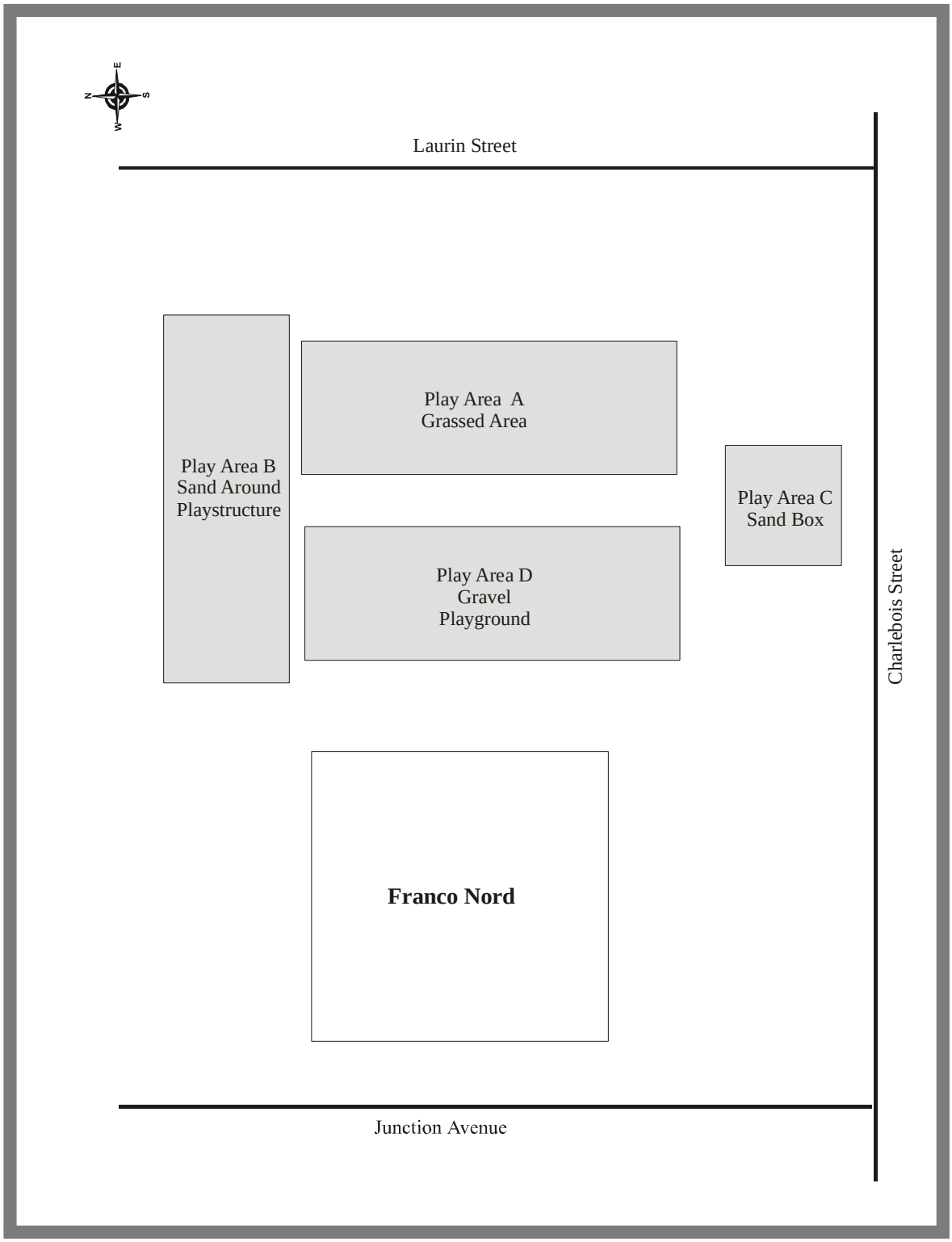

Figure B2.3.2: E.P. Franco Nord Sampling Locations - 2001.

2.3.3 E.P. Foyer Jeunesse - Conseil Scolaire du District de Grand Nord de L'Ontario 4752 Rue Notre Dame, Hanmer

E.P. Foyer Jeunesse, including Garderie Jardiniere Francophone, was sampled on July 20, 2001. Figure B2.3.3 details the sampling locations at this property. Samples were taken from four areas on the school property. Area A corresponds to sand samples that were collected from below the play structure on the south side of the school building. Area D corresponds to the sand samples taken from below the tether ball poles. Area B corresponds to gravel samples taken from the play area on the west side of the play structure (Area A). Due to the constant mixing of sand and the homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. Area C corresponds to the grassed area on the south side of the property. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structure or the tether ball poles. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. None of the samples from this property were found to have metal concentrations above the MOE Table F Ontario Soil Background Criteria. In addition, aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results are slightly lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 2 km southeast of E.P. Foyer Jeunesse, Station 350 of the MOE Sudbury 2000 Report, for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations of 78 and 56 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.3.3: Concentration of 13 Elements in Soil in µg/g Collected at E.P. Foyer Jeunesse at E.S. Hanmer, 4752 Rue Notre Dame, Hanmer - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037343	14602	0 - 15	< 0.8	< 5	16	< 0.8	24	6	13	2	< 1.5	21	< 1	26	17
		14603	0 - 15	< 0.8	< 5	18	< 0.8	28	6	16	3	< 1.5	25	< 1	33	19
Area B gravel	5037344	14604	0 - 5	< 0.8	< 5	40	< 0.8	43	10	55	9	< 1.5	40	< 1	42	40
		14605	0 - 5	< 0.8	< 5	40	< 0.8	43	10	49	10	< 1.5	38	< 1	42	37
Area C grass	5037345	14596	0 - 5	< 0.8	7	32	< 0.8	25	4	27	10	< 1.5	39	< 1	22	24
		14597	0 - 5	< 0.8	6	36	< 0.8	26	5	35	12	< 1.5	42	< 1	25	27
		14598	5 - 10	< 0.8	6	31	< 0.8	25	4	19	9	< 1.5	29	< 1	24	21
		14599	5 - 10	< 0.8	< 5	30	< 0.8	24	4	16	7	< 1.5	28	< 1	22	18
		14600	10 - 20	< 0.8	< 5	28	< 0.8	23	4	13	6	< 1.5	23	< 1	21	17
		14601	10 - 20	< 0.8	< 5	27	< 0.8	24	4	12	5	< 1.5	23	< 1	23	19
Area D sand	5037346	14606	0 - 15	< 0.8	< 5	22	< 0.8	24	6	16	2	< 1.5	39	< 1	30	16
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. **Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.**

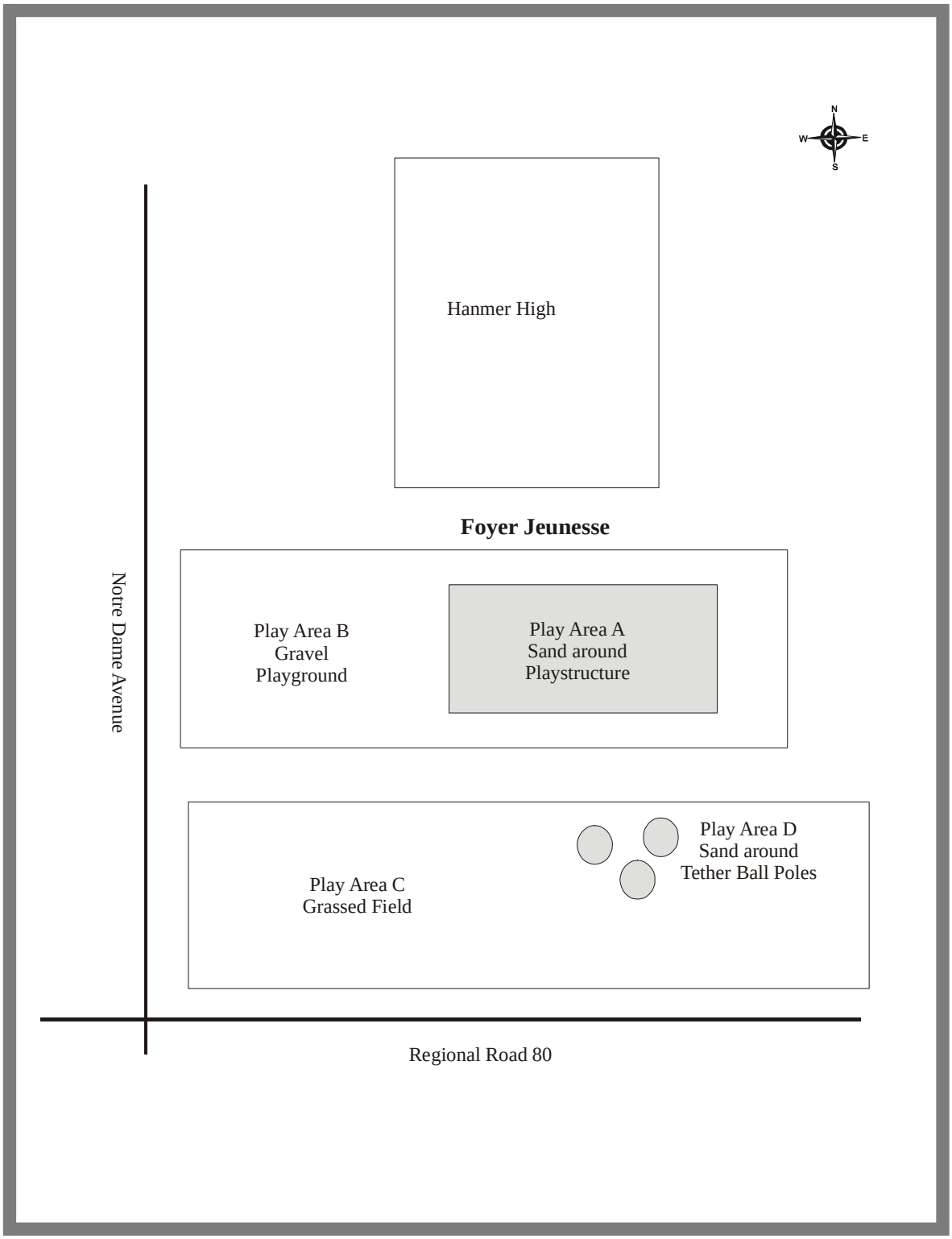

Figure B2.3.3: E.P. Foyer Jeunesse Sampling Locations - 2001.

2.3.4 E.S. Hanmer - Conseil Scolaire du District de Grand Nord de L'Ontario 4800 Rue Notre Dame, Hanmer

E.S. Hanmer was sampled on July 20, 2001. Figure B2.3.4 details the sampling locations at this property. Samples were taken from four areas on the school property. Areas A and B correspond to the grassed area of the east soccer field and the worn areas around the soccer goal posts, respectively. Due to the compacted nature of Areas A and B, it was only possible to sample the surface soil (0-5 cm). Area C corresponds to the grassed area of the west soccer field. Area D corresponds to the sand samples taken from the landing area of the long jump pit. Due to the constant mixing of sand and the homogenous nature of the sanded area, sand samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structures. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and lead (Pb) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in samples taken from the surface soil samples from east and west grassed soccer fields. The highest nickel and lead concentrations found in these samples was 62 and 79 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results are similar to those reported historically. Previous MOE sampling of undisturbed soils approximately 2 km southeast, 2 km southwest, and 2.5 km northwest of E.S. Hanmer, Stations 350, 346, and 347, respectively, of the MOE Sudbury 2000 Report, for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 43 to 150 and 35 to 110 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.3.4: Concentration of 13 Elements in Soil in µg/g Collected at E.S. Hanmer, 4800 Rue Notre Dame, Hanmer - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037339	14586	0 - 5	< 0.8	< 5	42	< 0.8	37	6	33	**79**	< 1.5	**50**	< 1	27	46
		14587	0 - 5	< 0.8	< 5	52	< 0.8	39	7	46	**78**	< 1.5	**62**	< 1	30	44
Area B soil	5037340	14588	0 - 5	< 0.8	< 5	32	< 0.8	29	5	30	25	< 1.5	41	< 1	28	30
Area C grass	5037341	14589	0 - 5	< 0.8	6	36	< 0.8	31	5	39	12	< 1.5	**50**	< 1	30	27
		14590	0 - 5	< 0.8	< 5	33	< 0.8	28	5	36	11	< 1.5	**46**	< 1	27	26
		14591	5 - 10	< 0.8	< 5	29	< 0.8	27	4	29	9	< 1.5	37	< 1	28	23
		14592	5 - 10	< 0.8	< 5	23	< 0.8	23	4	31	8	< 1.5	42	< 1	25	17
		14593	10 - 20	< 0.8	< 5	27	< 0.8	26	4	30	7	< 1.5	34	< 1	27	19
		14594	10 - 20	< 0.8	< 5	22	< 0.8	20	4	29	8	< 1.5	33	< 1	22	18
Area D sand	5037342	14595	0 - 15	< 0.8	< 5	21	< 0.8	25	6	18	3	< 1.5	25	< 1	33	18
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

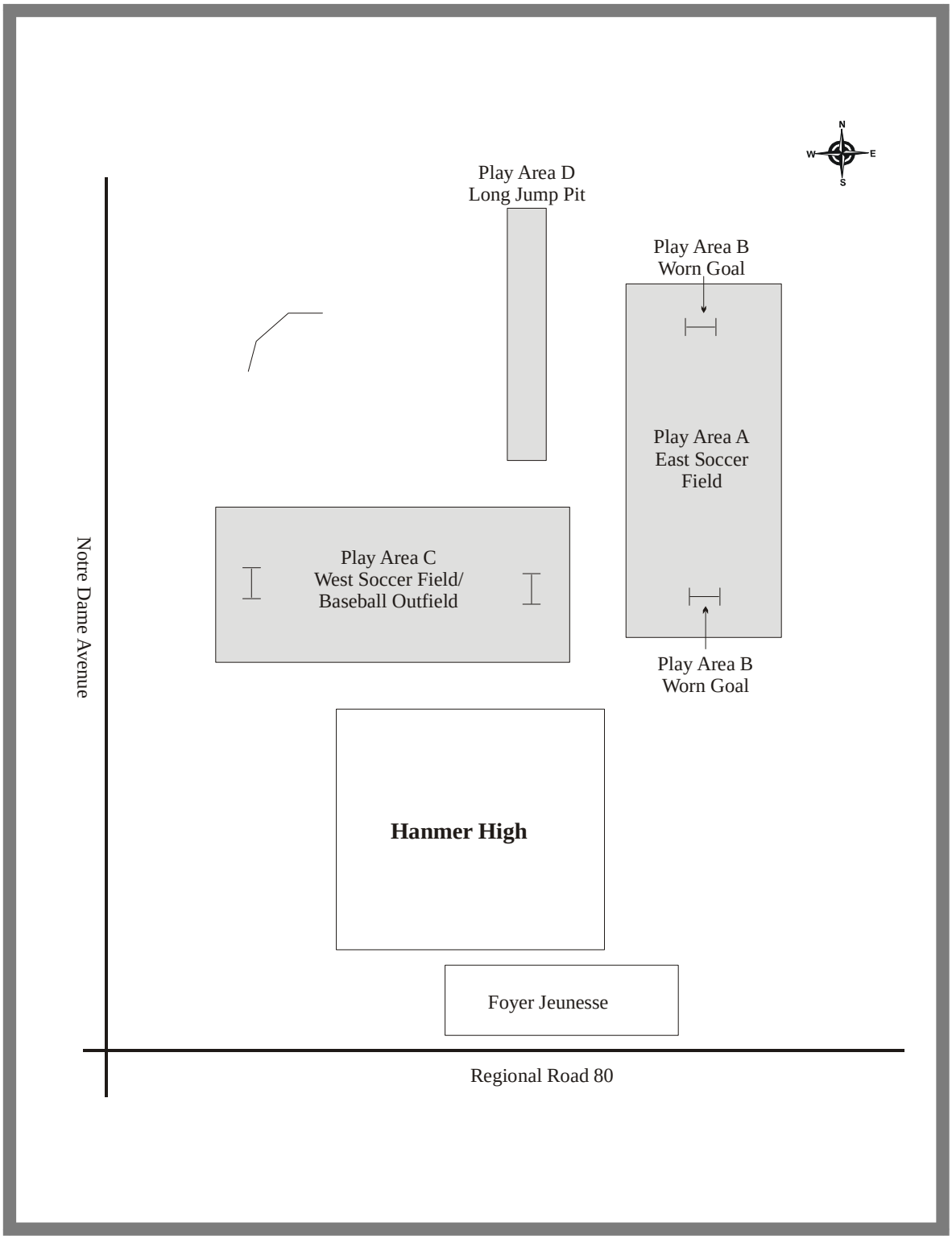

Figure B2.3.4: E.S. Hanmer Sampling Locations - 2001.

2.3.5 E.P. Jeanne-Sauve - Conseil Scolaire du District de Grand Nord de L'Ontario 300 Rue Van Horne, Sudbury

E.P. Jeanne-Sauve was sampled on July 5, 2001. Figure B2.3.5 details the sampling locations at this property. Samples were taken from six areas on the school property. Area A corresponds to the grassed areas of the baseball diamond outfields. Area B corresponds to samples taken from the worn area around home plate for both baseball diamond infields. Due to the compacted nature of Areas A and B, it was only possible to sample the surface soil (0-5 cm). Area D corresponds to the grassed area on the northwest corner of the school building. Areas C , E, and F correspond to sand samples collected from the sand boxes located northwest of the school building. Due to the constant mixing of sand and the homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structures. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for all other samples taken from this property. The highest nickel and copper concentrations, 130 ppm each, were found in the surface soil of the grassed play area northwest of the school building. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

Table B2.3.5: Concentration of 13 Elements in Soil in µg/g Collected at E.P. Jeanne-Sauve, 300 Rue Van Horne, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037089	14179	0 - 5	< 0.8	< 5	43	< 0.8	33	7	**92**	17	< 1.5	**110**	< 1	27	33
		14180	0 - 5	< 0.8	< 5	40	< 0.8	29	7	**110**	19	< 1.5	**130**	< 1	24	36
Area B soil	5037090	14183	0 - 5	< 0.8	< 5	41	< 0.8	30	7	**94**	16	< 1.5	**110**	< 1	27	73
Area C sand	5037091	14184	0 - 15	< 0.8	< 5	21	< 0.8	28	7	19	3	< 1.5	20	< 1	27	17
Area D grass	5037092	14181	0 - 5	< 0.8	< 5	34	< 0.8	26	7	**110**	22	< 1.5	**99**	< 1	24	33
		14182	0 - 5	< 0.8	< 5	34	< 0.8	28	8	**130**	28	< 1.5	**130**	1.4	25	38
		14187	5 - 10	< 0.8	< 5	31	< 0.8	25	4	47	8	< 1.5	**49**	< 1	25	23
		14188	5 - 10	< 0.8	< 5	32	< 0.8	27	5	**66**	14	< 1.5	**64**	< 1	27	26
		14189	10 - 20	< 0.8	< 5	39	< 0.8	29	4	25	7	< 1.5	37	< 1	32	23
		14190	10 - 20	< 0.8	< 5	35	< 0.8	25	4	25	7	< 1.5	35	< 1	26	22
Area E sand	5030970	14185	0 - 15	< 0.8	< 5	18	< 0.8	25	7	21	3	< 1.5	20	< 1	28	16
Area F sand	5037093	14186	0 - 15	< 0.8	< 5	19	< 0.8	28	7	23	3	< 1.5	25	< 1	28	17
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

These soil results are much lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km east of E.P. Jeanne-Sauve, Station 75 of the MOE Sudbury 2000 Report, for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil

concentrations as high as 830 and 820 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

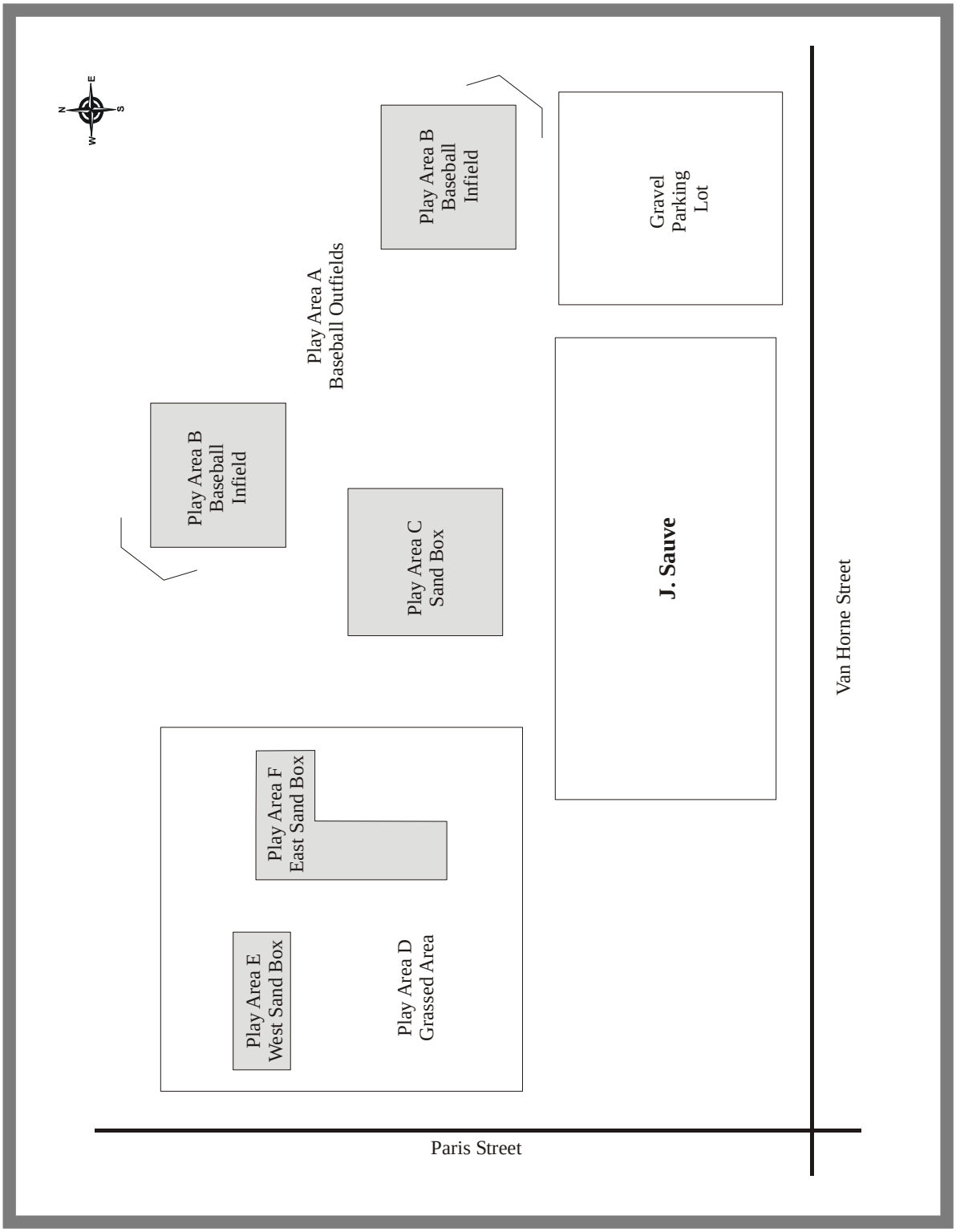

Figure B2.3.5: J. Sauve Soil Sampling Locations - 2001.

2.3.6. Jean-Ethier-Blais - Conseil Scolaire du District de Grand Nord de L'Ontario 2190 Boulevard Lasalle, Sudbury

Jean-Ethier-Blais was sampled on July 18, 2001. Figure B2.3.6 details the sampling locations at this property. Samples were taken from four areas on the school property. Area A corresponds to the grassed areas of the football field. Area B corresponds to the grassed area of the baseball diamond outfield. Area C corresponds to the baseball diamond infield. Due to the compacted nature of Areas A and C, it was only possible to sample the 10 - 20 cm depth for one replicate of the football field and the surface soil layer of the baseball diamond infield. Area D corresponds to sand samples taken from beneath the play structure. Due to the constant mixing of sand and the homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structures. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for selected samples taken from this property. The highest nickel and copper concentrations, 100 and 85 ppm, respectively, were found in the surface soil of the grassed area of the baseball diamond outfield. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

Table B2.3.6: Concentration of 13 Elements in Soil in µg/g Collected at E.P. Jean-Ethier-Blais, 2190 Boulevard Lasalle, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037151	14391	0 - 5	< 0.8	< 5	18	< 0.8	23	5	12	2	< 1.5	18	< 1	25	16
		14392	0 - 5	< 0.8	< 5	17	< 0.8	24	5	13	2	< 1.5	18	< 1	27	18
		14393	5 - 10	< 0.8	< 5	44	< 0.8	30	7	52	9	< 1.5	**63**	< 1	32	40
		14394	5 - 10	< 0.8	< 5	42	< 0.8	32	7	54	8	< 1.5	**61**	< 1	32	46
		14401	10 - 20	< 0.8	5	32	< 0.8	32	7	38	9	< 1.5	**44**	< 1	26	45
Area B grass	5037152	14395	0 - 5	< 0.8	< 5	15	< 0.8	20	5	11	2	< 1.5	16	< 1	23	12
		14396	0 - 5	< 0.8	< 5	45	< 0.8	34	8	**85**	15	< 1.5	**100**	< 1	31	33
		14397	5 - 10	< 0.8	< 5	42	< 0.8	37	7	**77**	13	< 1.5	**86**	< 1	34	31
		14398	5 - 10	< 0.8	5	37	< 0.8	33	7	**60**	10	< 1.5	**73**	< 1	32	26
		14402	10 - 20	< 0.8	< 5	32	< 0.8	23	4	31	7	< 1.5	**45**	< 1	23	20
		14403	10 - 20	< 0.8	< 5	28	< 0.8	25	4	25	6	< 1.5	38	< 1	24	18
Area C soil	5037153	14399	0 - 5	< 0.8	< 5	29	< 0.8	26	5	33	8	< 1.5	42	< 1	25	41
		14400	0 - 5	< 0.8	< 5	40	< 0.8	24	5	33	8	< 1.5	**59**	< 1	26	26
Area D sand	5037154	14404	0 - 15	< 0.8	< 5	16	< 0.8	22	5	13	2	< 1.5	19	< 1	34	22
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

These soil results are similar to those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km northeast of E.P. Jean-Ethier-Blais, Station 42 of the MOE Sudbury 2000 Report, for the City of Greater Sudbury (MOE 2001), indicated surface soil nickel and copper

concentration ranges of 46 to 170 ppm and 26 to 150 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

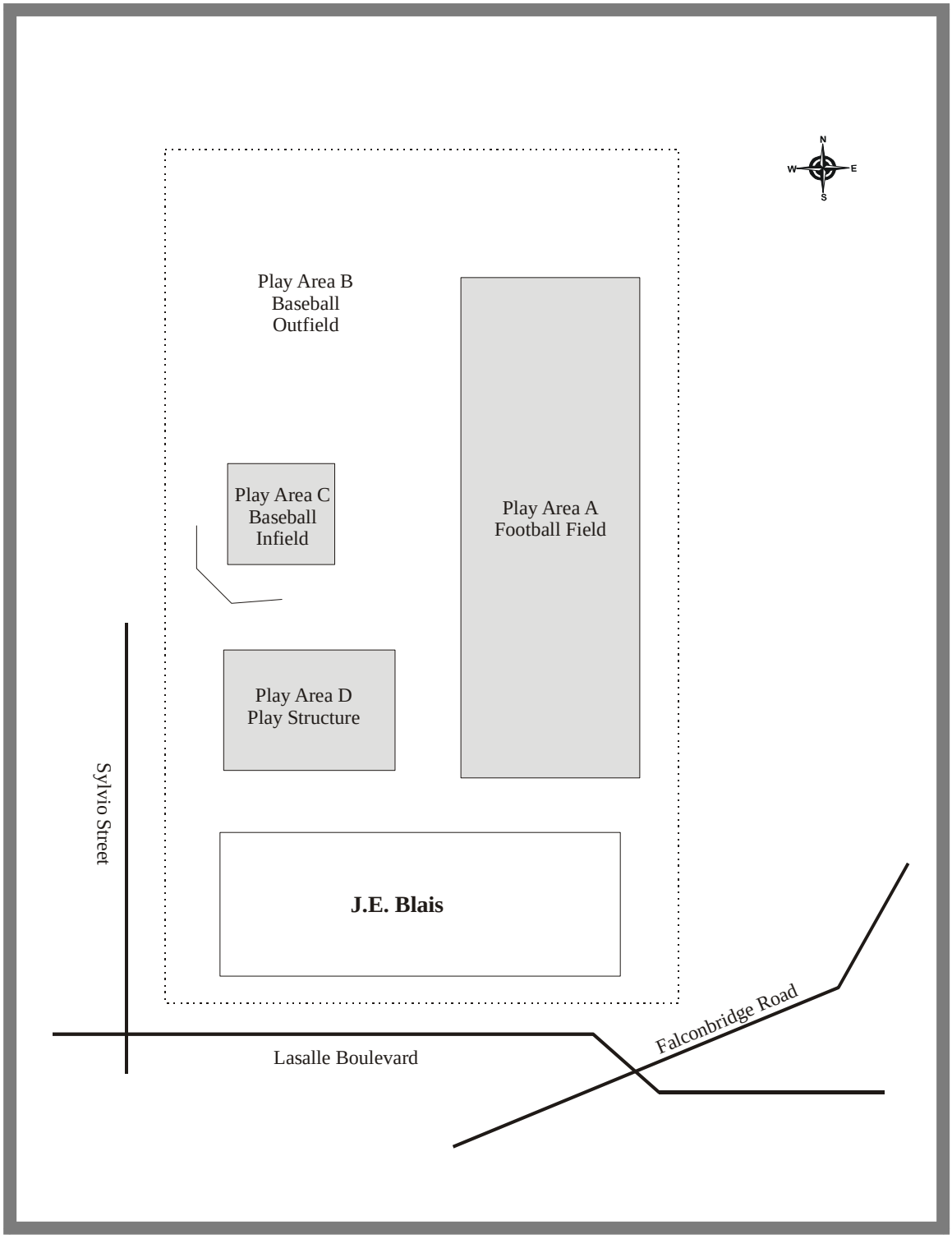

Figure B2.3.6: J.E. Blais Soil Sampling Locations - 2001.

2.3.7 E.S. Macdonald Cartier - Conseil Scolaire du District de Grand Nord de L'Ontario 37 Boulevard Lasalle West, Sudbury

E.S. Macdonald Cartier was sampled on July 19, 2001. Figure B2.3.7 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the grassed area of the soccer field. Areas B and C correspond to the worn areas around the north and south soccer goal posts, respectively. Due to the compacted nature of Areas A, B, and C, it was only possible to sample the surface soil layer (0-5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for all samples taken from this property. Copper (Cu), lead (Pb), and selenium (Se) were also elevated above the MOE Table F Ontario Soil Background Criteria for selected samples from this property. The highest nickel, copper, lead and selenium concentrations, 170, 140, 150, and 2 ppm, respectively, were found in the surface soil of the grassed area of the soccer field. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. Only one sample taken from the grassed area of the soccer field was elevated above the MOE Table A Effects Based Soil Criteria (MOE 1997).

The nickel and copper soil results are lower than those reported historically, while the lead soil results are similar to those previously reported. Previous MOE sampling of undisturbed soils approximately 1.5 km southwest, 2 km southeast, and 0.8 km north of E.S. Macdonald Cartier, Stations 362, 85, and 337, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated surface soil nickel and copper concentration ranges of 56 to 375 ppm and 35 to 305 ppm, respectively. The highest lead surface soil concentration reported for Station 337 was 91 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.3.7: Concentration of 13 Elements in Soil in µg/g Collected at E.S. Macdonald Cartier, 37 Boulevard Lasalle West, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037203	14473	0 - 5	< 0.8	5	38	< 0.8	29	7	**99**	35	< 1.5	**110**	< 1	27	25
		14474	0 - 5	< 0.8	6	45	0.9	54	9	**140**	**150**	< 1.5	**<u>170</u>**	**2**	25	31
Area B soil	5037204	14475	0 - 5	< 0.8	6	36	< 0.8	31	6	51	13	< 1.5	**73**	< 1	29	24
Area C soil	5037205	14476	0 - 5	< 0.8	< 5	32	< 0.8	25	5	37	9	< 1.5	**47**	< 1	25	21
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

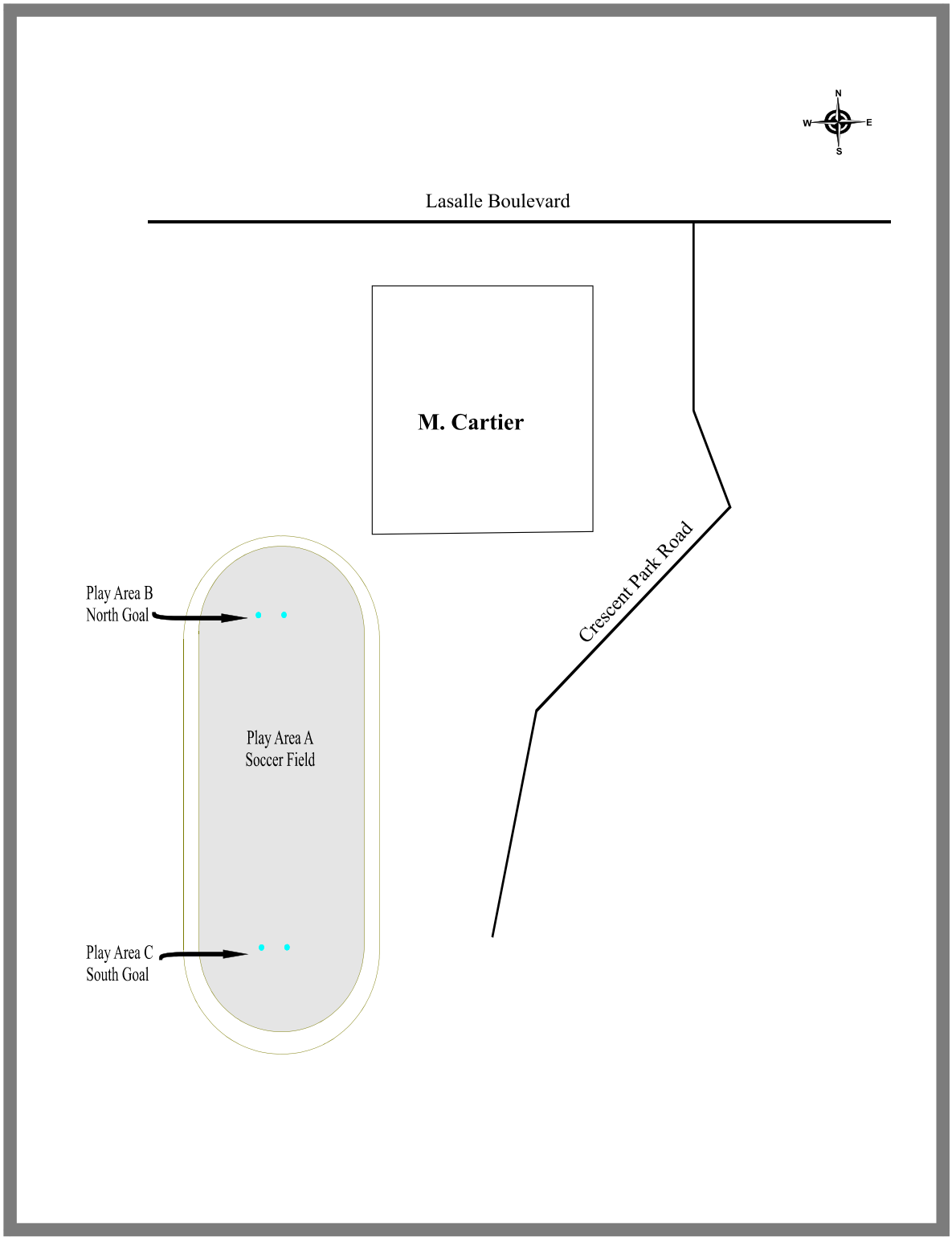

Figure B2.3.7: E.S. Macdonald Cartier Sampling Locations - 2001.

2.3.8 E.P. Sud Ouest Publique (Helene-Gravel) - Conseil Scolaire du District de Grand Nord de L'Ontario, 1412 Rue Stephen, Sudbury

E.P. Sud Ouest Publique, recently renamed E.P. Helene-Gravel, was sampled on July 4, 2001. Figure B2.3.8 details the sampling locations at this property. Samples were taken from six areas on the school property. Area A corresponds to the baseball diamond infield. Area B corresponds to the grassed area of the baseball diamond outfield. Area C corresponds to the grassed area of the soccer field. Areas D and E correspond to the worn areas around the west and east soccer goal posts, respectively. Due to the compacted nature of Areas A, B, C, D, and E, it was only possible to sample the surface soil layer (0-5 cm). Area E corresponds to the sand samples that were taken from beneath the play structure. Due to the constant mixing of sand and the homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni), and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for the sand that was taken from beneath the play structures. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for almost all other samples taken from this property. Lead (Pb) and selenium (Se) were also elevated above the MOE Table F Ontario Soil Background Criteria for selected sites. Nickel concentrations were elevated above the MOE Table A Effects Based Soil Criteria in surface soil samples collected from the baseball diamond on this property. The highest nickel and copper concentrations, 190 and 170 ppm, respectively, were found in the surface soil of the grassed area of the baseball diamond outfield. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

Table B2.3.8: Concentration of 13 Elements in Soil in µg/g Collected at E.P. Sud Ouest Publique (Helene-Gravel), 1412 Rue Stephen, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A soil	5037041	14096	0 - 5	< 0.8	< 5	49	< 0.8	35	8	**140**	18	< 1.5	**160**	< 1	31	35
		14097	0 - 5	< 0.8	< 5	47	< 0.8	35	9	**130**	28	< 1.5	**170**	< 1	30	35
Area B grass	5037042	14098	0 - 5	< 0.8	< 5	48	< 0.8	34	8	**120**	16	< 1.5	**140**	< 1	30	34
		14099	0 - 5	0.8	< 5	57	< 0.8	36	9	**170**	19	< 1.5	**190**	**1.7**	32	39
Area C grass	5037043	14090	0 - 5	< 0.8	< 5	44	< 0.8	31	8	**130**	16	< 1.5	**150**	1.3	27	30
		14091	0 - 5	< 0.8	< 5	44	< 0.8	30	8	**130**	31	< 1.5	**130**	1.1	27	31
Area D soil	5037044	14092	0 - 5	**2**	< 5	37	< 0.8	30	8	**110**	**120**	< 1.5	**120**	< 1	29	29
Area E soil	5037045	14093	0 - 5	< 0.8	< 5	26	< 0.8	30	9	47	4	< 1.5	**47**	< 1	31	23
Area F sand	5037046	14094	0 - 15	< 0.8	< 5	46	< 0.8	33	8	**110**	14	< 1.5	**130**	< 1	29	28
		14095	0 - 15	< 0.8	< 5	34	< 0.8	33	8	54	4	< 1.5	**53**	< 1	36	32
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

The nickel and copper soil results are lower to those reported historically, while the lead soil results are higher than previously reported. Previous MOE sampling of undisturbed soils approximately 0.8 km southwest of E.P. Sud Ouest Publique (E.P. Helene-Gravel), Station 368 of the MOE Sudbury

2000 Report, for the City of Greater Sudbury (MOE 2001), indicated surface soil nickel and copper concentrations of 400 and 490 ppm, respectively. The highest lead surface soil concentration reported for Station 368 was 30 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

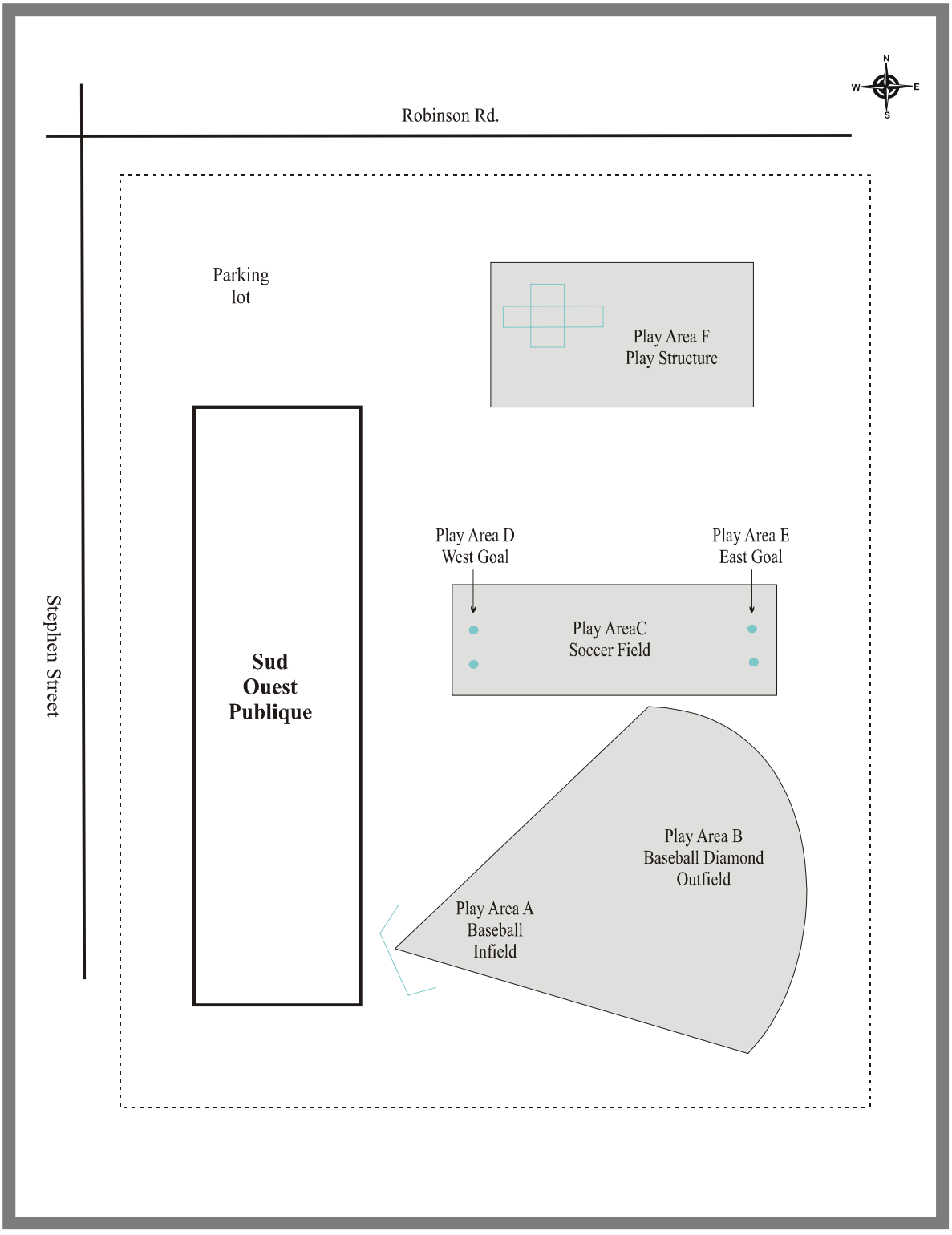

Figure B2.3.8: Sud Ouest Publique (E.p. Helene-Gravel) Soil Sampling Locations - 2001.

2.4 Le Conseil Scolaire Catholique du Nouvel-Ontario

As of June 2001, Le Conseil Scolaire Catholique du Nouvel-Ontario provided the MOE with a list of 31 school properties. MOE representatives were able to collect samples from all but two properties. Both St. Aloysius and St. Louis de Gonzague were paved and did not have any play areas to sample. For each school there is a section below describing the results, a table with a subset of the results, and a map showing the sampling locations. The maps were produced from field notes. They are not to scale and the locations of the buildings, boundaries and sampling sites shown are only approximate. The schools are listed alphabetically. Complete results for each school are listed in Table 4.1 along with the results from the other school boards.

Table B2.4: Number of Le Conseil Scolaire Catholique du Nouvel-Ontario school where at least one sample exceed MOE soil criteria.

Number of Schools	Nickel Exceedences		Copper Exceedences		Cobalt Exceedences		Arsenic Exceedences		Lead Exceedences	
	Table F	Table A	Table F	Table A	Table F	Table A	Table F	Table A	Table F	Table A
31	28	7	6	0	4	0	0	0	0	0

In order to fit all of the results data onto one table the standard chemical abbreviations had to used. To interpret the tables properly, the chart below can be used to translate the abbreviations.

Chemical Symbols Used in Results Tables				
Al - aluminum	**Sb** - antimony	**As** - arsenic	**Ba** - barium	**Be** - beryllium
Cd - cadmium	**Ca** - calcium	**Cr** - chromium	**Co** - cobalt	**Cu** - copper
Fe - iron	**Pb** - lead	**Mg** - magnesium	**Mn** - manganese	**Mo** - molybdenum
Ni - nickel	**Se** - selenium	**Sr** - strontium	**V** - vanadium	**Zn** - zinc

Please note as of 2004, Le Conseil Scolaire Catholique du Nouvel-Ontario has sold one school, St. Michel (2.4.25) to the Sudbury Catholic District School Board.

2.4.1 College Notre Dame - Le Conseil Scolaire Catholique du Nouvel-Ontario 100 Rue Levis, Sudbury

College Notre Dame was sampled on July 16, 2001. Figure B2.4.1 details the sampling locations at this property. Samples were taken from one area on the school property. Area A corresponds to the grassed field located behind the portables. Due to the compacted nature of this area and/or the presence of bedrock, it was only possible to sample the surface soil (0 - 5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metals were not elevated above the MOE Table F Ontario Soil Background Criteria at any site from this property. All metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results are much lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 2 km northwest, 1 km west, and 2 km southeast of College Notre Dame, Stations 362, 84, and 75, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 230 to 740 and 230 to 820 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.1: Concentration of 13 Elements in Soil in µg/g Collected at College Notre Dame, 100 Rue Levis, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037135	14244	0 - 5	< 0.8	6	36	< 0.8	25	5	27	8	< 1.5	38	< 1	28	20
		14245	0 - 5	< 0.8	5	33	< 0.8	25	4	26	8	< 1.5	39	< 1	29	21
Table F (results in bold)				1.0	14	190	1.	67	19	56	55		43		91	150
Table A (results in bold and				13	20	750	12.	750	40	225	200		150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

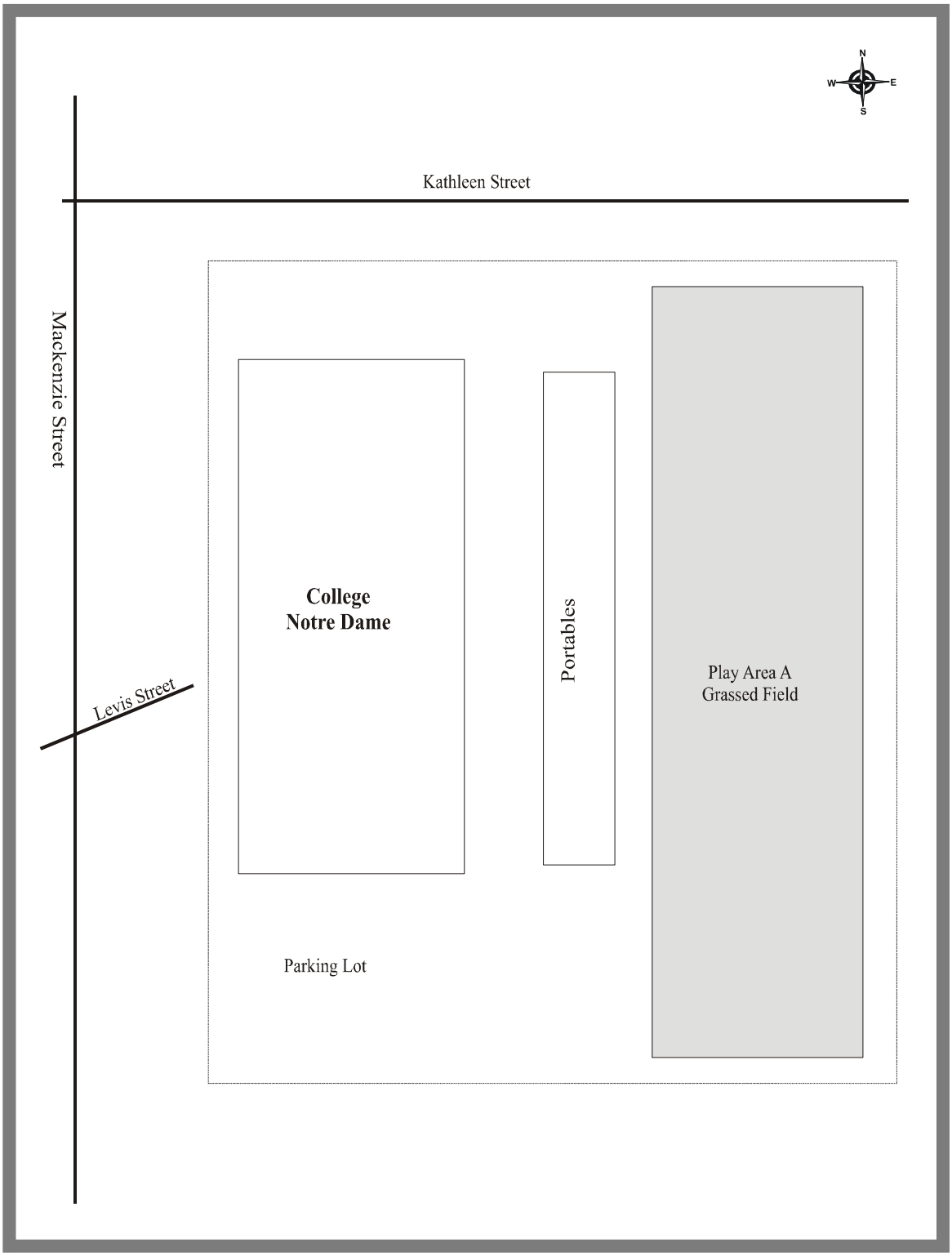

Figure B2.4.1: College Notre Dame Sampling Locations - 2001.

2.4.2 E.S.C. l'Heritage - Le Conseil Scolaire Catholique du Nouvel-Ontario 323 2nd Avenue, Sudbury

E.S.C. l'Heritage was sampled on July 17, 2001. Figure B2.4.2 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the grassed area of the soccer field. Areas B and C correspond to the worn areas around the north and south soccer goal posts, respectively. Due to the compacted nature of the soccer field, it was only possible to sample the surface soil (0 - 5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil in both samples from the grassed area of the soccer field and only nickel was elevated for the north goal post area. The highest nickel concentration occurred in the surface soil of the grassed soccer field, 120 and 100 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results fall within the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km south and 1 km north of E.S.C. l'Heritage, Stations 77 and 361, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 66 to 210 and 52 to 220 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.2: Concentration of 13 Elements in Soil in µg/g Collected at E.S.C L'Heritage, 323 2nd Avenue, Sudbury -

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037141	14307	0 - 5	< 0.8	5	47	< 0.8	42	9	**100**	42	< 1.5	**120**	< 1	31	34
		14308	0 - 5	< 0.8	7	50	< 0.8	43	9	**76**	24	< 1.5	**100**	< 1	34	33
Area B soil	5037142	14309	0 - 5	< 0.8	5	45	< 0.8	33	6	39	10	< 1.5	**52**	< 1	31	25
Area C soil	5037143	14310	0 - 5	< 0.8	6	44	< 0.8	34	6	29	9	< 1.5	43	< 1	30	29
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

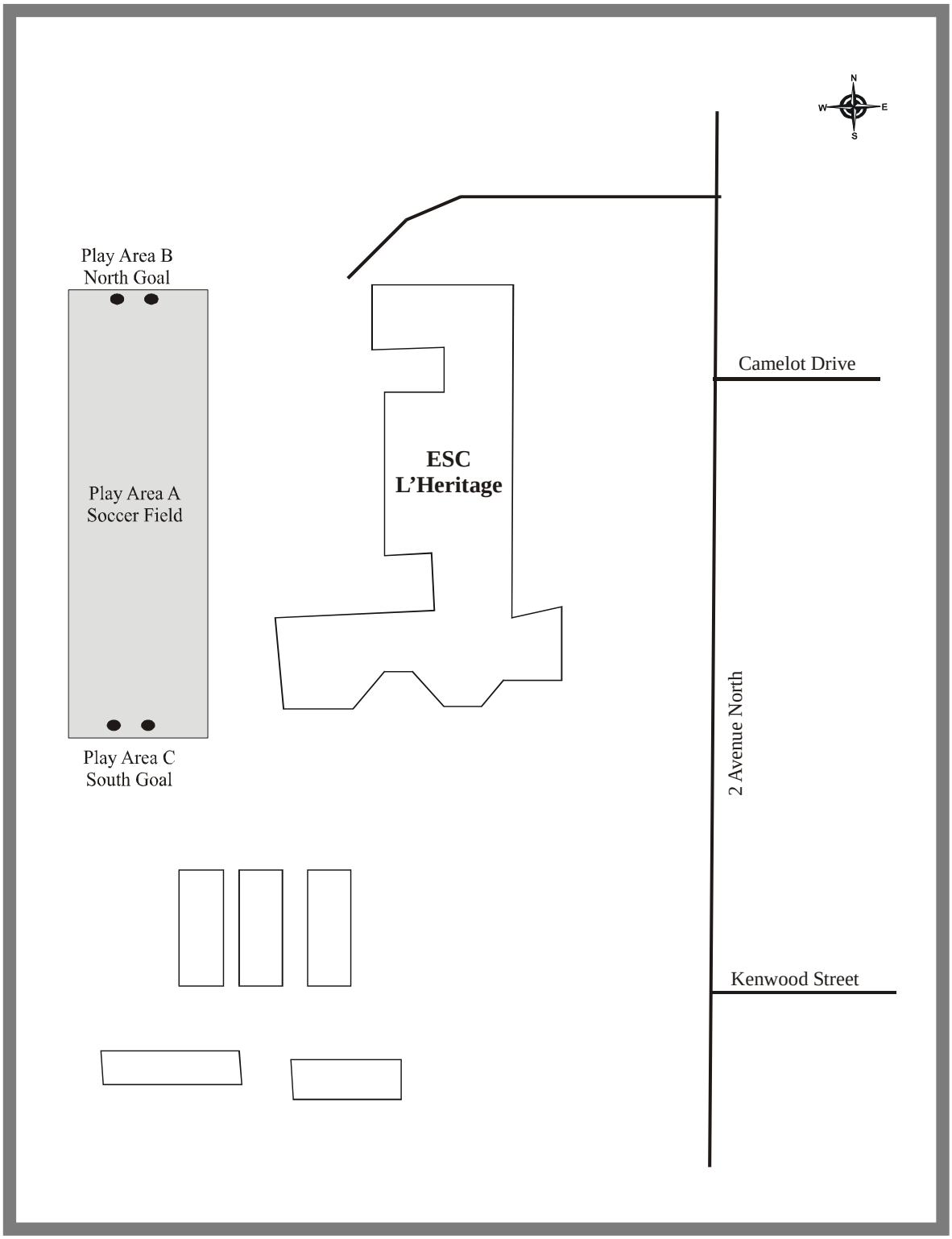

Figure B2.4.2: E.S.C. l'Heritage Sampling Locations - 2001.

2.4.3 E.S.C. Champlain - Le Conseil Scolaire Catholique du Nouvel-Ontario 61 Brookside Drive, Chelmsford

E.S.C. Champlain was sampled on July 19, 2001. Figure B2.4.3 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the grassed area of the soccer field. Area B corresponds to the worn areas of the baseball diamond infield. Due to the compacted nature of Areas A and B it was only possible to sample the surface soil (0 - 5 cm). Area C corresponds to sand collected from the landing area of the long jump pit. Due to the constant mixing of sand and the homogeneous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand collected from the landing area of the long jump pit. The sand present is not likely native to the school property and is believed to have been introduced when the play area was constructed. Thus the sand was not expected to have elevated metal concentrations. One replicate of the soccer field surface soil had a nickel concentration marginally elevated above the MOE Table F Ontario Soil Background Criteria. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 3.5 km northwest, 2.5 km southwest, and 4 km southeast of E.S.C. Champlain, Stations 386, 385, and 384, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 65 to 170 and 49 to 130 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.3: Concentration of 13 Elements in Soil in µg/g Collected at E.S.C. Champlain, 61 Brookside Drive, Chelmsford - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037382	14536	0 - 5	< 0.8	< 5	29	< 0.8	25	5	32	9	< 1.5	41	< 1	27	21
		14537	0 - 5	< 0.8	< 5	30	< 0.8	24	5	33	10	< 1.5	**44**	< 1	26	22
Area B soil	5037383	14538	0 - 5	< 0.8	< 5	46	< 0.8	29	7	24	6	< 1.5	32	< 1	30	25
Area C sand	5037384	14539	0 - 15	< 0.8	< 5	22	< 0.8	30	7	27	8	< 1.5	20	< 1	40	26
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

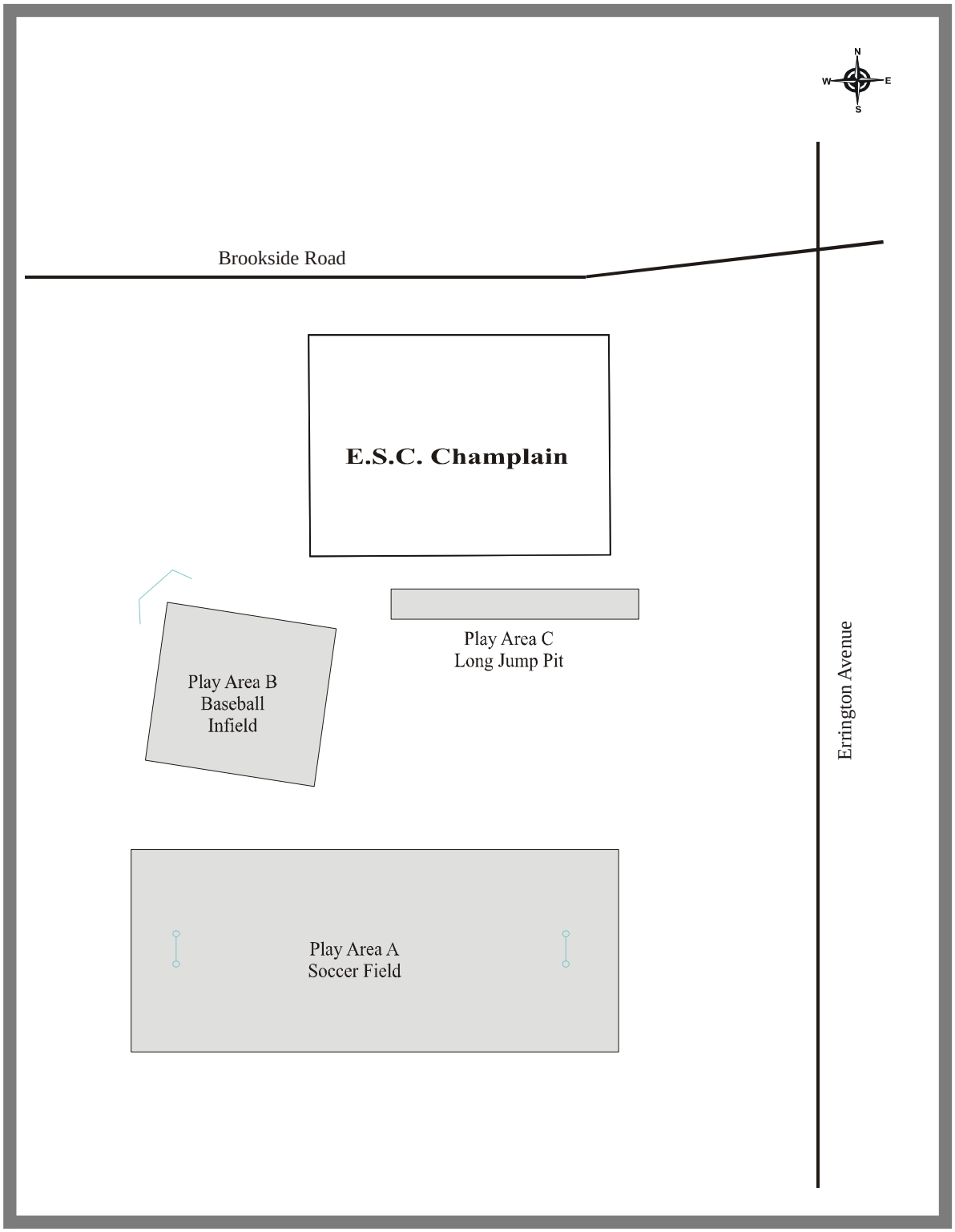

Figure B2.4.3: E.S.C. Champlain Sampling Locations - 2001.

2.4.4 E.S.C. l'Horizon - Le Conseil Scolaire Catholique du Nouvel-Ontario 1650 Valleyview Drive, Val Caron

E.S.C. l'Horizon was sampled on July 23, 2001. Figure B2.4.4 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to the grassed area of the baseball diamond outfield. Area B corresponds to the worn areas of the baseball diamond infield. Due to the compacted nature of the infield, it was only possible to sample the surface soil (0 - 5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the all samples from the baseball diamond outfield. The highest nickel concentration occurred in the surface soil (0-5 cm) of the outfield. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 0.2 km south, 3.2 km west, and 2.5 km northeast of E.S.C. l'Horizon, Stations 340, 341, and 348, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 96 to 210 and 92 to 180 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.4: Concentration of 13 Elements in Soil in µg/g Collected at E.S.C. l'Horizon, 1650 Valleyview Drive, Val Caron - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037279	14818	0 - 5	< 0.8	< 5	47	< 0.8	33	6	35	9	< 1.5	**52**	< 1	32	30
		14819	0 - 5	< 0.8	< 5	47	< 0.8	33	6	35	9	< 1.5	**53**	< 1	32	31
		14820	5 - 10	< 0.8	< 5	48	< 0.8	33	6	33	9	< 1.5	**51**	< 1	32	30
		14821	5 - 10	< 0.8	< 5	49	< 0.8	33	6	34	9	< 1.5	**51**	< 1	32	32
		14822	10 - 20	< 0.8	< 5	50	< 0.8	34	6	33	9	< 1.5	**52**	< 1	32	36
		14823	10 - 20	< 0.8	< 5	47	< 0.8	33	6	31	8	< 1.5	**46**	< 1	33	32
Area B soil	5037280	14824	0 - 5	< 0.8	< 5	29	< 0.8	19	5	20	3	< 1.5	30	< 1	23	16
		14825	0 - 5	< 0.8	< 5	27	< 0.8	20	5	17	2	< 1.5	19	< 1	22	13
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

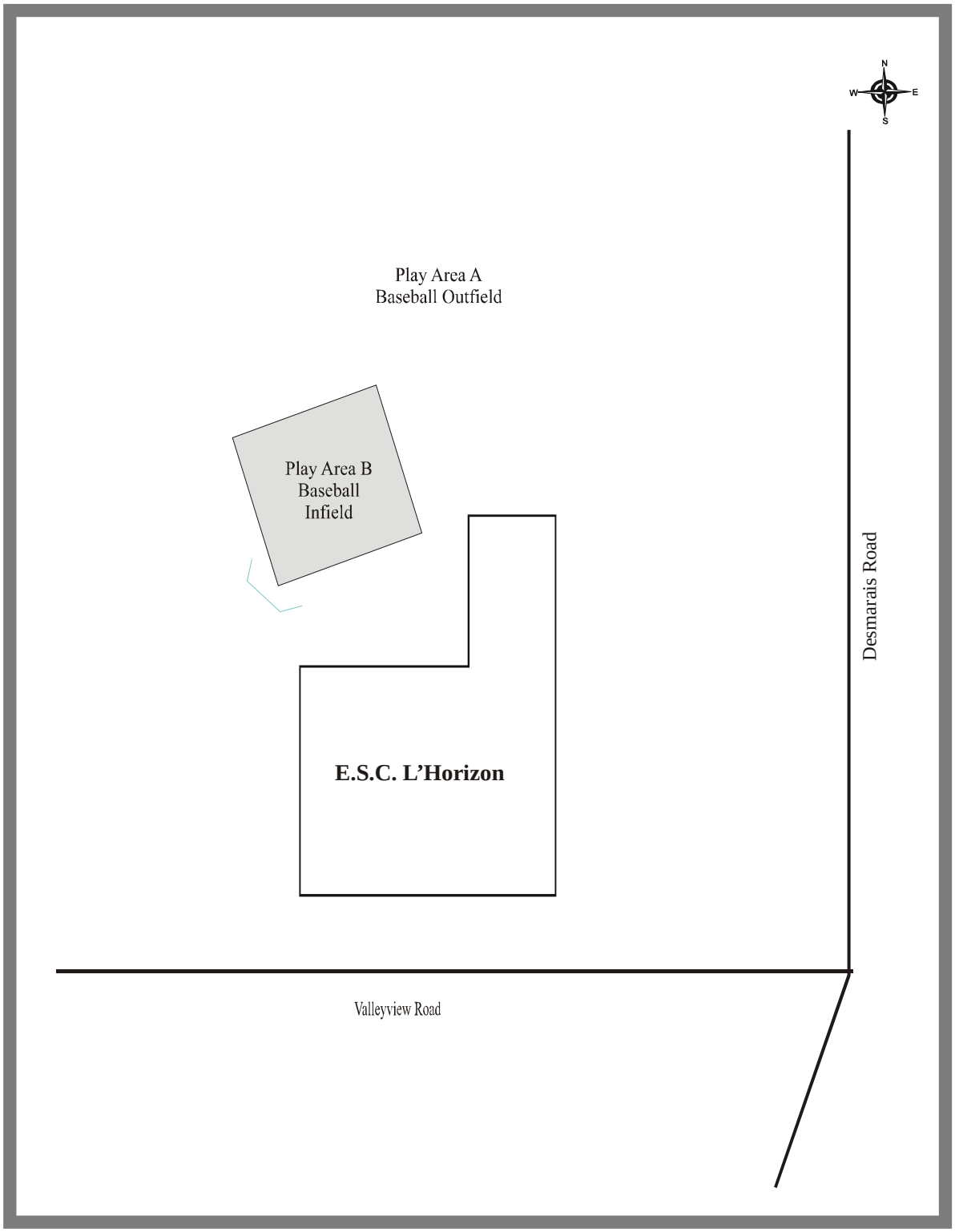

Figure B2.4.4: E.S.C. l'Horizon Sampling Locations - 2001.

2.4.5 Ecole Leon XIII - Le Conseil Scolaire Catholique du Nouvel-Ontario 1311 Rue Gemmell, Sudbury

Ecole Leon XIII was sampled on July 18, 2001. Figure B2.4.5 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the gravel playground. Areas B and C correspond to sand samples collected from below the swing set and play structure, respectively. Due to the constant mixing and homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the swing set and play structure. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in both gravel samples. The highest nickel and copper concentrations found were 130 and 120 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results fall within the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km southwest, 1 km northwest, and 1 km southeast of Ecole Leon XIII, Stations 11, 86, and 361, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 45 to 375 and 35 to 305 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.5: Concentration of 13 Elements in Soil in µg/g Collected at Ecole Leon XIII, 1311 Rue Gemmell, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037181	14456	0 - 5	< 0.8	< 5	36	< 0.8	34	14	**120**	18	< 1.5	**130**	1	31	33
		14457	0 - 5	< 0.8	< 5	30	< 0.8	32	13	**110**	16	< 1.5	**120**	< 1	29	30
Area B sand	5037182	14458	0 - 15	< 0.8	< 5	20	< 0.8	22	5	16	3	< 1.5	20	< 1	23	21
Area C sand	5037183	14459	0 - 15	< 0.8	< 5	15	< 0.8	19	4	11	2	< 1.5	13	< 1	18	11
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.



Figure B2.4.5: Ecole Leon XIII Sampling Locations - 2001.

2.4.6 Ecole St. Pierre (formerly) - Le Conseil Scolaire Catholique du Nouvel-Ontario 102 Rue Hill, Wahnapitae

Ecole St. Pierre was sampled on July 22, 2001 and has since been sold. Figure B2.4.6 details the sampling locations at this property. Samples were taken from one area on the school property. Area A corresponds to the gravel playground on the west side of the school building. Due to the constant mixing and homogenous nature of the gravel areas, samples were collected with hand trowels to represent the 0-5 cm depth. There were not any other play areas to sample on this property. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in both gravel samples. The highest nickel and copper concentrations found were 73 and 73 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results fall within the lower end of the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km southwest, 1 km north, and 1 km southeast of Ecole St. Pierre (formerly), Stations 64, 418, and 65, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 88 to 2100 and 39 to 760 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.6: Concentration of 13 Elements in Soil in µg/g Collected at Ecole St. Pierre (formerly), 102 Rue Hill, Wahnapitae - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037267	14748	0 - 5	< 0.8	6	48	< 0.8	40	11	**73**	13	< 1.5	**73**	< 1	36	33
		14749	0 - 5	< 0.8	5	33	< 0.8	36	10	**58**	10	< 1.5	**60**	< 1	34	29
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

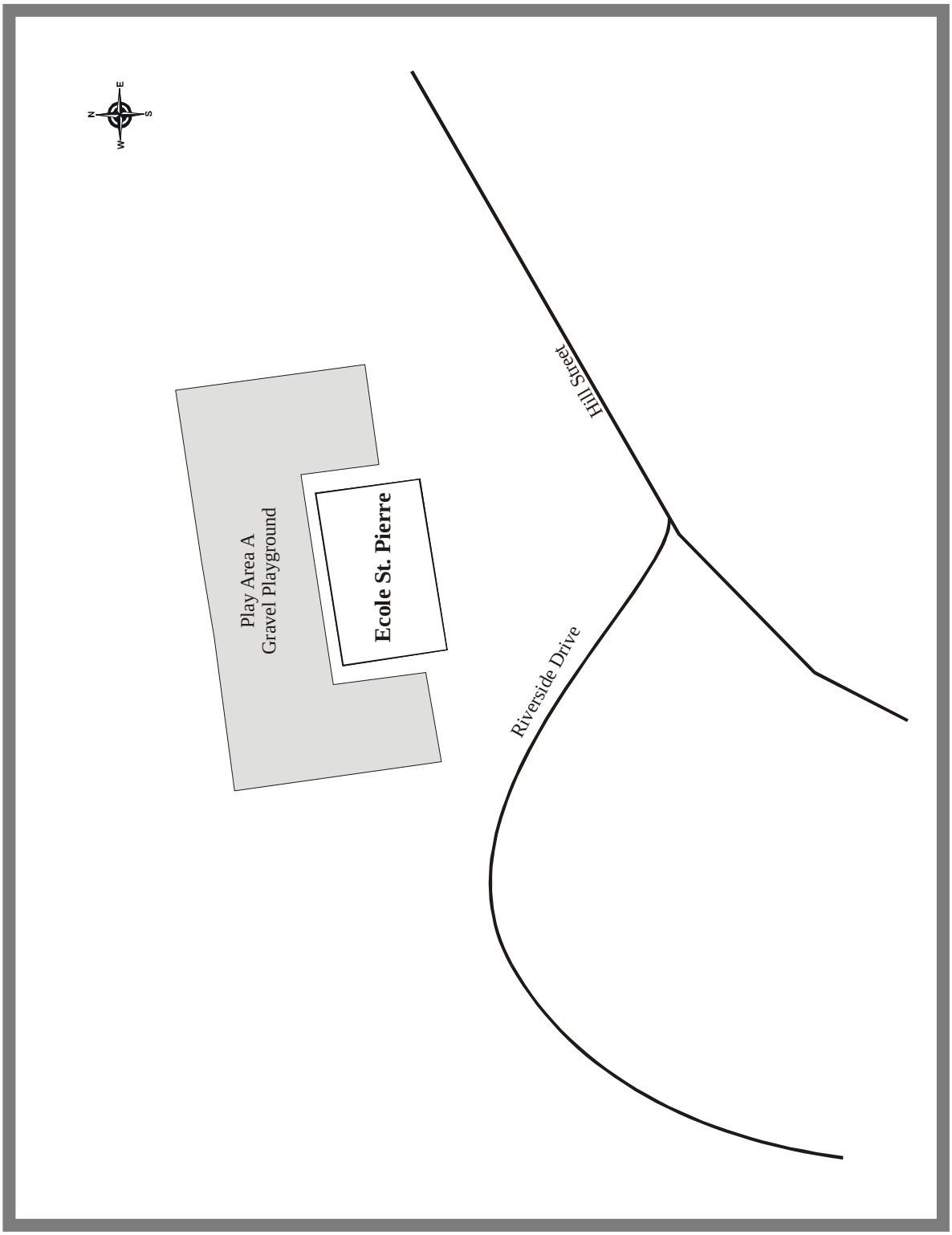

Figure B2.4.6: Ecole St. Pierre (formerly) Sampling Locations - 2001.

2.4.7 Ecole St. Remi (formerly) - Le Conseil Scolaire Catholique du Nouvel-Ontario 95 Rue Estelle, Sudbury

Ecole St. Remi was sampled on July 17, 2001 and has since been sold. Figure B2.4.7 details the sampling locations at this property. Samples were taken from one area on the school property. Area A corresponds to the gravel playground on the west side of the school building. Due to the constant mixing and homogenous nature of the gravel areas, samples were collected with hand trowels to represent the 0-5 cm depth. There were not any other play areas to sample on this property. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in both gravel samples. The highest nickel and copper concentrations found were 100 and 98 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km northeast, 0.5 km southwest, and 1 km south of Ecole St. Remi (formerly), Stations 410, 78, and 79, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 110 to 360 and 110 to 350 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.7: Concentration of 13 Elements in Soil in µg/g Collected at Ecole St. Remi (formerly), 95 Rue Estelle,

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037149	14295	0 - 5	< 0.8	7	41	< 0.8	36	13	**72**	12	< 1.5	**79**	< 1	35	31
		14296	0 - 5	< 0.8	6	40	< 0.8	41	16	**98**	14	< 1.5	**100**	< 1	38	37
Table F	(results in bold)			1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A	(results in bold and			13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

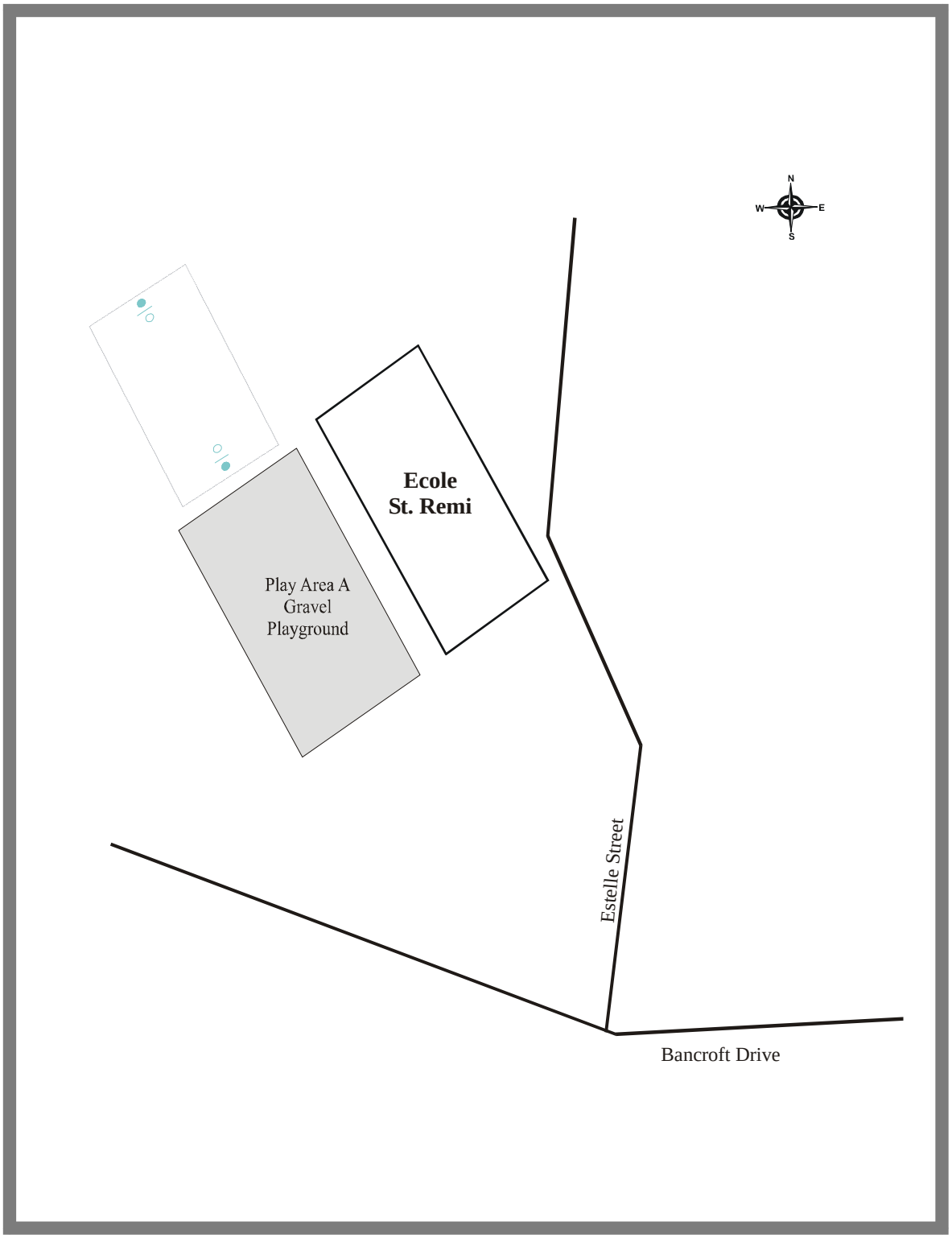

Figure B2.4.7: Ecole St. Remi (formerly) Sampling Locations - 2001.

2.4.8 Ecole Ste. Agnes (Association for Community Living) - Le Conseil Scolaire Catholique du Nouvel-Ontario, 80 Rue Landry, Azilda

Ecole Ste. Agnes was sampled on July 19, 2001. At the time of sampling, the Association for Community Living inhabited this building. Figure B2.4.8 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to the grassed area east of the gravel playground. Due to the compacted nature of the grassed area, it was only possible to sample to the 5-10 cm depth. Area B corresponds to the gravel playground east of the school building. Due to the constant mixing and homogenous nature of the gravel area, samples were collected with hand trowels to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in almost all samples collected from this property. The highest nickel and copper concentrations, 150 and 120 ppm, respectively, were found in the surface soil of the grassed area. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results fall within the lower end of the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 2 km northeast, 2 km southeast, and 2 km southeast of Ecole Ste. Agnes, Stations 92, 91, and 90, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 36 to 770 and 37 to 820 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of all materials sampled on this property.

Table B2.4.8: Concentration of 13 Elements in Soil in µg/g Collected at Ecole Ste. Agnes (Association for Community Living), 80 Rue Landry, Azilda - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037371	14496	0 - 5	< 0.8	8	40	< 0.8	36	9	**110**	21	< 1.5	**130**	< 1	32	42
		14497	0 - 5	< 0.8	8	43	< 0.8	38	11	**120**	23	< 1.5	**150**	< 1	33	47
		14498	5 - 10	< 0.8	7	43	< 0.8	38	9	**64**	14	< 1.5	**100**	< 1	32	41
		14499	5 - 10	< 0.8	5	32	< 0.8	33	6	39	7	< 1.5	**70**	< 1	30	31
Area B gravel	5037372	14485	0 - 5	< 0.8	5	27	< 0.8	39	11	**81**	20	< 1.5	**89**	1	38	37
		14486	0 - 5	< 0.8	5	24	< 0.8	33	10	**77**	20	< 1.5	**85**	1	39	33
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

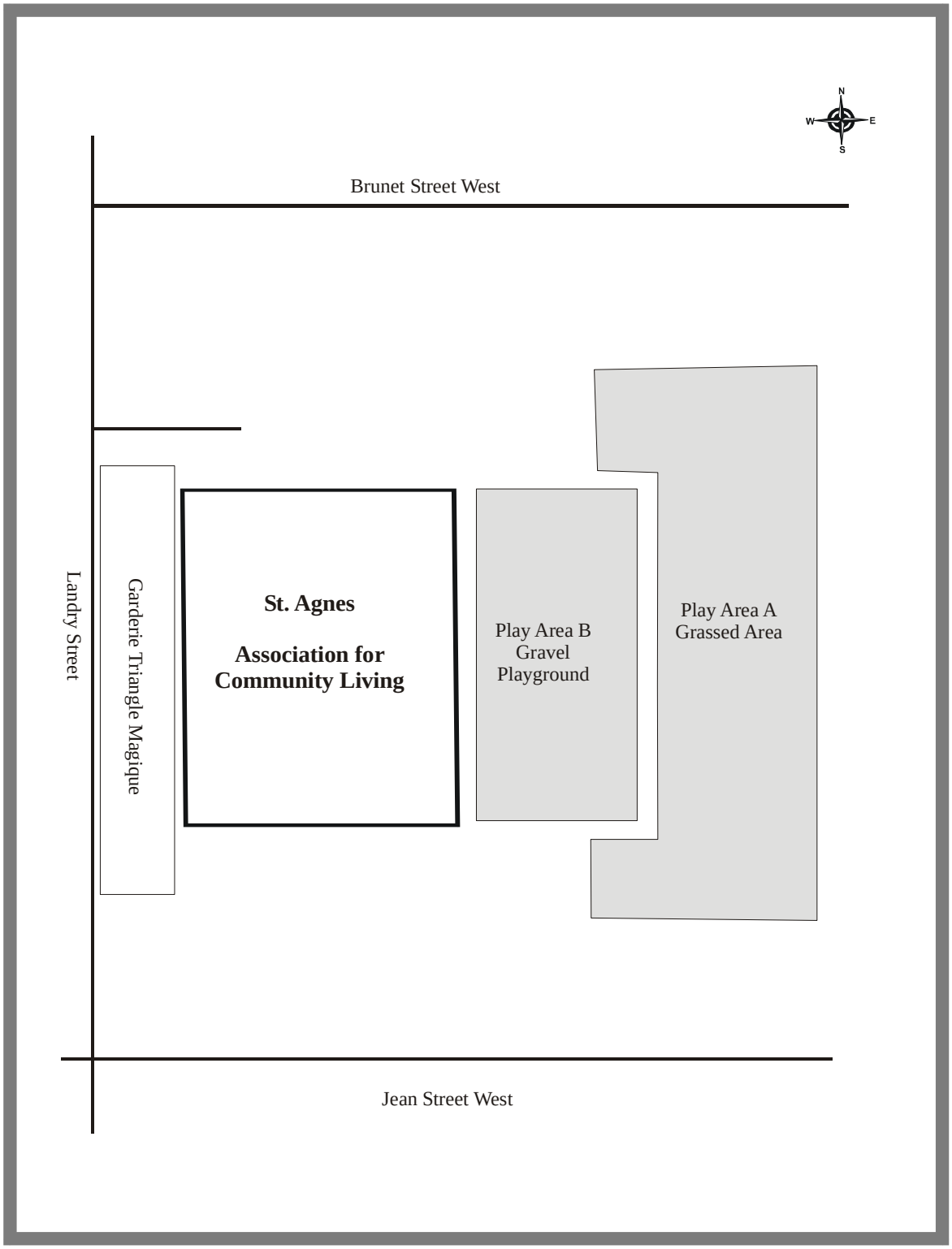

Figure B2.4.8: Ecole Ste. Agnes (Association for Community Living) Sampling Locations - 2001.

2.4.9 Felix Ricard - Le Conseil Scolaire Catholique du Nouvel-Ontario 691 Lasalle Boulevard, Sudbury

Felix Ricard was sampled on July 18, 2001. Figure B2.4.9 details the sampling locations at this property. Samples were taken from seven areas on the school property. Area A corresponds to the shared grassed baseball diamond outfields. Areas B and C correspond to the north and south baseball diamond infields, respectively. Due to the compacted nature of Areas A, B, C, and G, it was only possible to sample the surface soil layer (0-5 cm). Area D corresponds to sand samples collected from the sand boxes located west of the school building. Area E corresponds to sand samples collected from the sand boxes in the west play area north of the school building. Areas F and G correspond to sand and soil samples, respectively, collected from the east play area north of the school building. Due to the constant mixing and homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand sample collected from the sanded play areas. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in both grassed play areas sampled. The highest nickel and copper concentrations, 91 and 86 ppm, respectively, were found in the shared grassed baseball diamond outfields. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results fall within the lower end of the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km northwest, 1 km south, and 1 km southeast of Felix Ricard, Stations 337, 85, and 86, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 56 to 540 and 35 to 440 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.9: Concentration of 13 Elements in Soil in µg/g Collected at Felix Ricard, 691 Lasalle Boulevard, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037194	14462	0 - 5	< 0.8	< 5	34	< 0.8	26	6	**86**	14	< 1.5	**91**	< 1	25	27
		14463	0 - 5	< 0.8	< 5	27	< 0.8	25	5	50	9	< 1.5	**58**	< 1	26	22
Area B soil	5037195	14464	0 - 5	< 0.8	< 5	35	< 0.8	29	8	34	5	< 1.5	39	< 1	29	29
		14465	0 - 5	< 0.8	< 5	35	< 0.8	28	8	31	4	< 1.5	34	< 1	28	23
Area C soil	5037196	14466	0 - 5	< 0.8	7	43	< 0.8	33	9	33	4	< 1.5	34	< 1	33	23
		14467	0 - 5	< 0.8	< 5	42	< 0.8	32	9	32	4	< 1.5	32	< 1	32	24
Area D sand	5037197	14468	0 - 15	< 0.8	< 5	19	< 0.8	25	6	17	2	< 1.5	30	< 1	29	27
Area E sand	5037198	14469	0 - 15	< 0.8	< 5	20	< 0.8	26	7	24	3	< 1.5	31	< 1	27	19
Area F sand	5037199	14470	0 - 15	< 0.8	< 5	19	< 0.8	25	7	24	3	< 1.5	28	< 1	28	17
Area G grass	5037200	14471	0 - 5	< 0.8	< 5	29	< 0.8	27	6	43	9	< 1.5	**52**	< 1	27	34
		14472	0 - 5	< 0.8	6	27	< 0.8	27	6	51	9	< 1.5	**56**	< 1	26	37
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

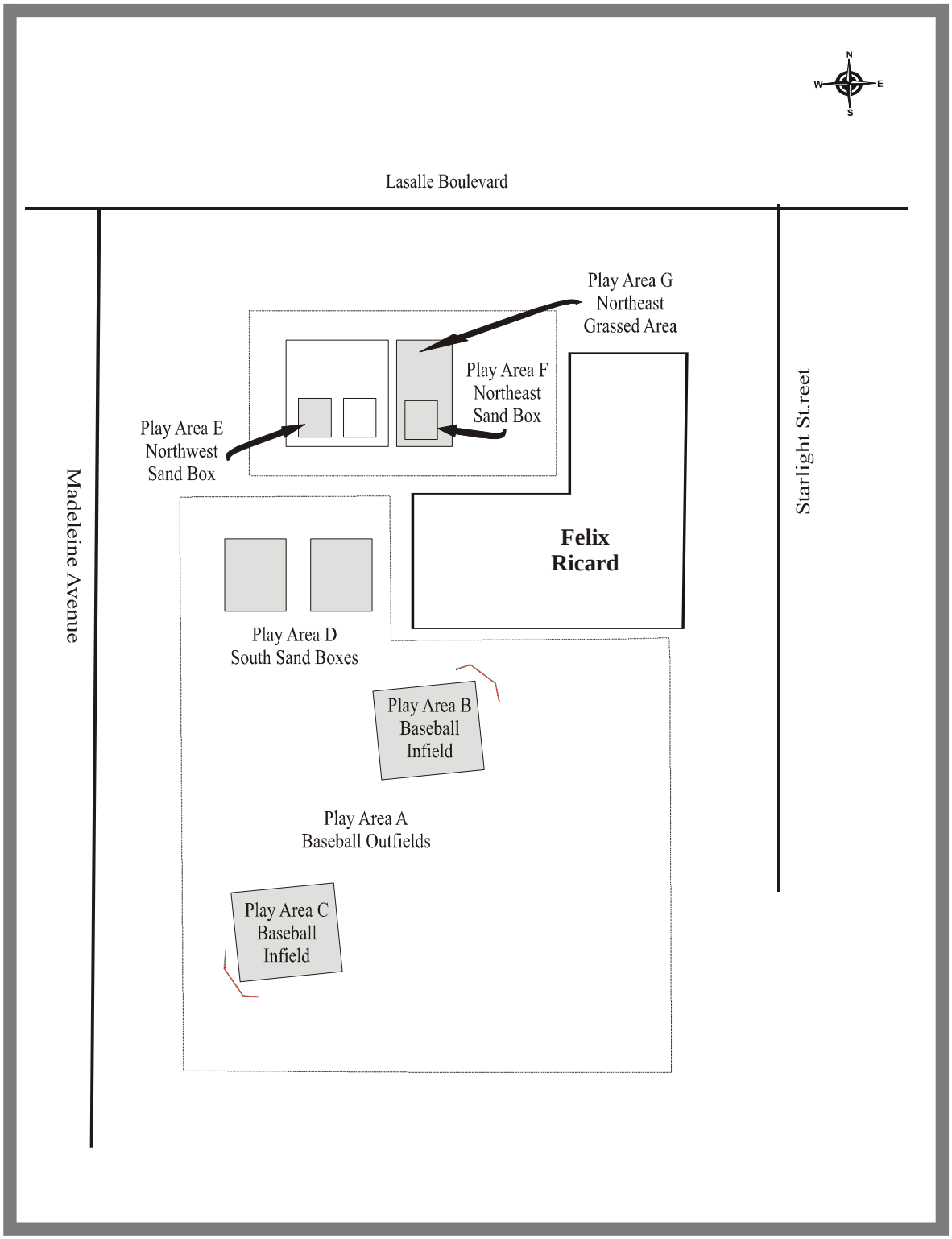

Figure B2.4.9: Felix Ricard Sampling Locations - 2001.

2.4.10 Jacques Cartier - Le Conseil Scolaire Catholique du Nouvel-Ontario C.P. 1357, 14 Rue Ontario, Chelmsford

Jacques Cartier was sampled on July 19, 2001. Figure B2.4.10 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the gravel playground west of the school building. Areas B and C correspond to sand samples collected from the sand boxes on the west and north side of the school building, respectively. Due to the constant mixing and homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand samples from the sanded play areas. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. None of the samples from this property were found to have metal concentrations above the MOE Table F Ontario Soil Background Criteria. In addition, aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 3 km northwest, 2.5 km southwest, and 5 km southeast of Jacques Cartier, Stations 386, 385, and 384, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 65 to 170 and 49 to 130 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.10: Concentration of 13 Elements in Soil in µg/g Collected at Jacques Cartier, C.P. 1357, 14 Rue Ontario, Chelmsford - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037385	14540	0 - 5	< 0.8	< 5	27	< 0.8	29	9	38	12	< 1.5	35	< 1	32	30
		14541	0 - 5	< 0.8	< 5	25	< 0.8	31	9	42	14	< 1.5	35	< 1	37	34
Area B sand	5037386	14542	0 - 15	< 0.8	< 5	19	< 0.8	24	6	18	5	< 1.5	16	< 1	34	22
Area C sand	5037387	14543	0 - 15	< 0.8	< 5	26	< 0.8	31	8	29	6	< 1.5	23	< 1	37	33
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold and				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

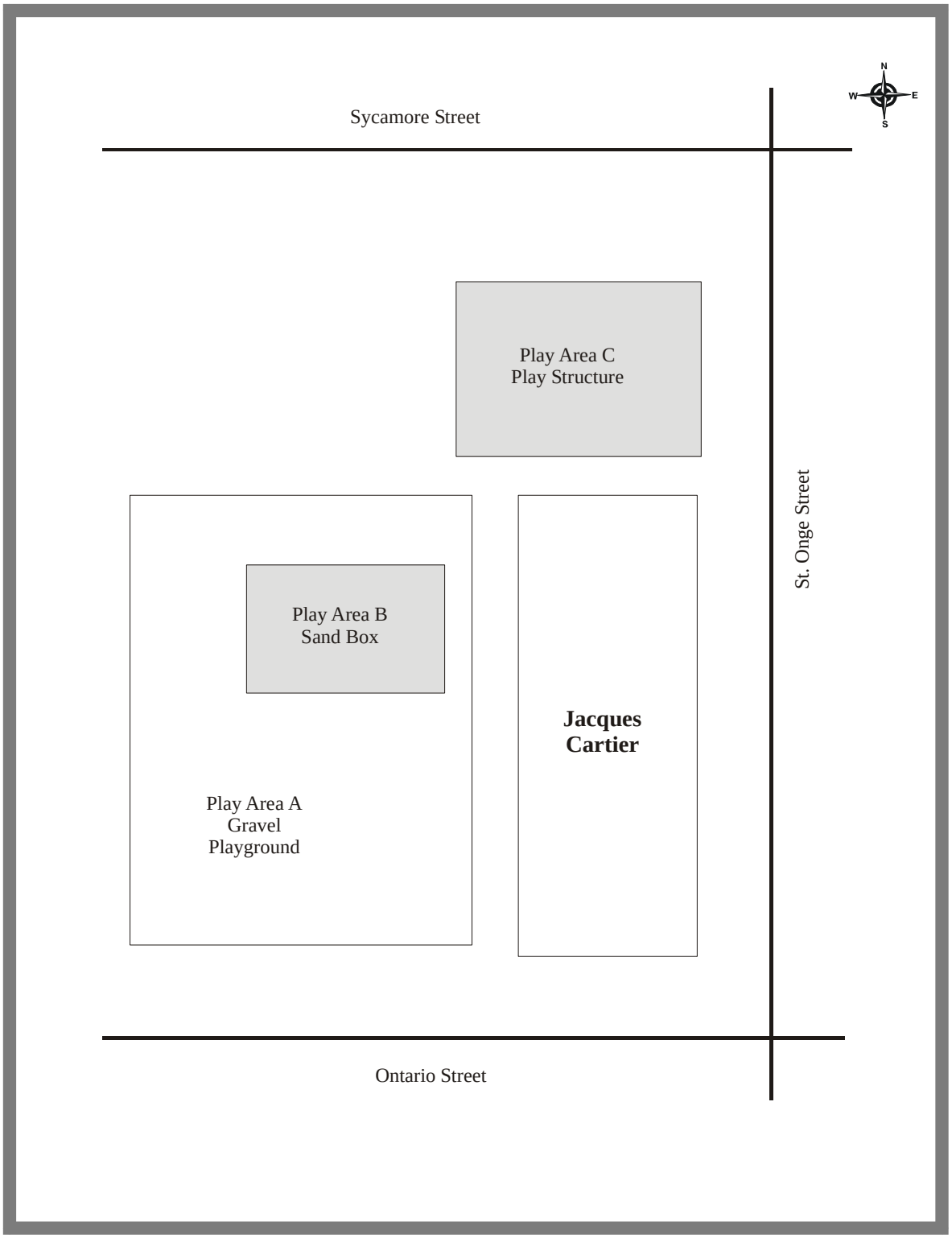

Figure B2.4.10: Jacques Cartier Sampling Locations - 2001.

2.4.11 Mgr. Cote - Le Conseil Scolaire Catholique du Nouvel-Ontario C.P. 789, 96 Rue Gaudette, Chelmsford

Mgr. Cote was sampled on July 19, 2001. Figure B2.4.11 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to the grassed area south of the gravel playground. Due to the compacted nature of the grassed area, it was only possible to sample the surface soil (0-5 cm). Area B corresponds to the gravel playground south of the school building. Due to the constant mixing and homogenous nature of the gravel area, samples were collected with hand trowels to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in all samples collected from this property, while copper (Cu) was elevated in one replicate sample from the gravel playground. The highest nickel and copper concentrations, 78 ppm each, were found in one replicate sample from the gravel playground. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These results fall within the lower end of the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 3 km northwest, 3.5 km southwest, and 5 km southeast of Mgr. Cote, Stations 386, 385, and 384, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 65 to 170 and 49 to 130 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.11: Concentration of 13 Elements in Soil in µg/g Collected at Mgr. Cote, C.P. 789, 96 Rue Gaudette, Chelmsford - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037392	14532	0 - 5	< 0.8	< 5	35	< 0.8	25	8	44	13	< 1.5	**64**	< 1	30	32
		14533	0 - 5	< 0.8	< 5	47	< 0.8	28	10	55	14	< 1.5	**65**	< 1	34	40
Area B gravel	5037393	14534	0 - 5	< 0.8	< 5	29	< 0.8	32	10	49	21	< 1.5	**51**	< 1	32	35
		14535	0 - 5	< 0.8	< 5	33	< 0.8	32	12	**78**	24	< 1.5	**78**	< 1	29	40
Table F(results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A(results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

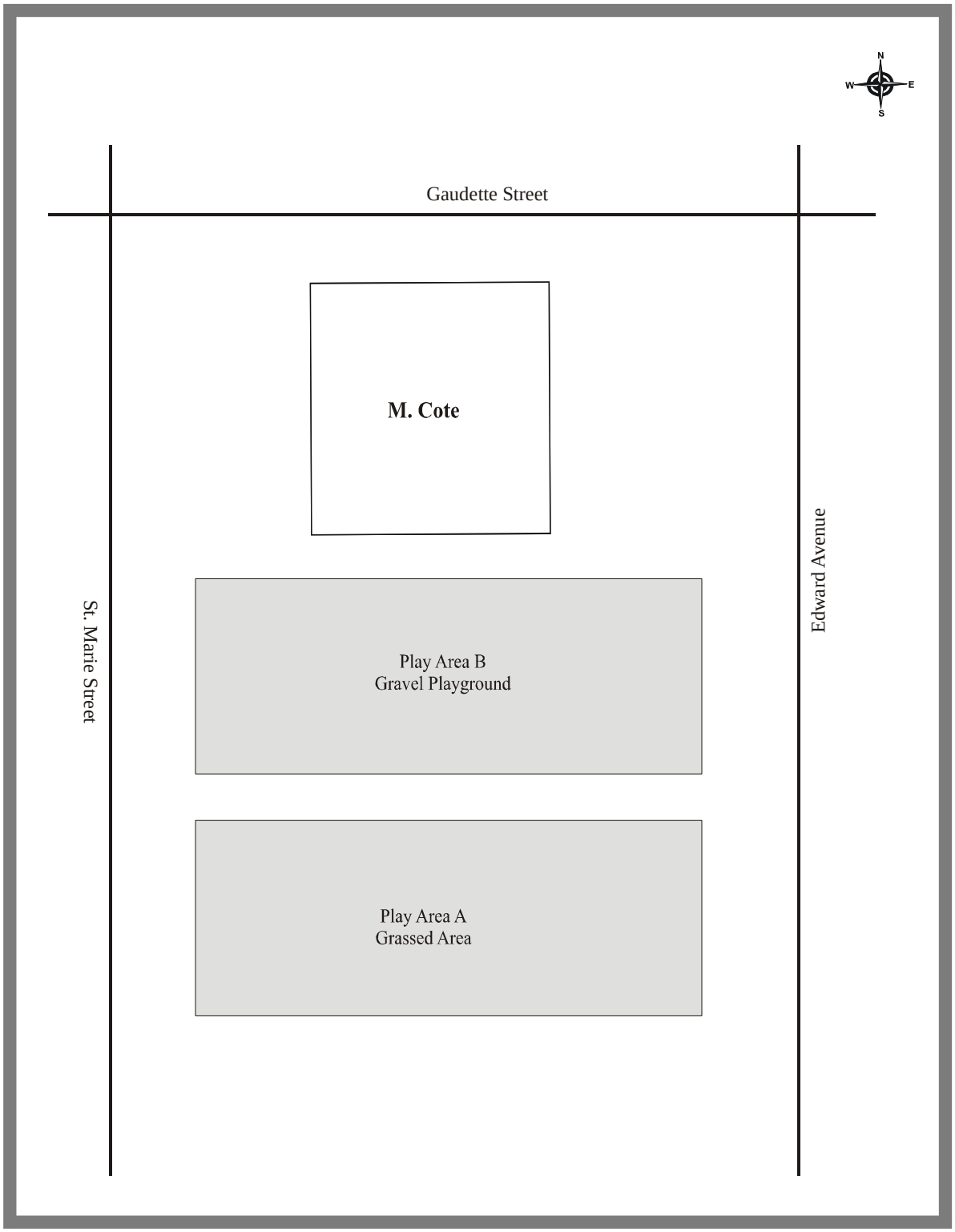

Figure B2.4.11: Mgr. Cote Sampling Locations - 2001.

2.4.12 Notre Dame - Le Conseil Scolaire Catholique du Nouvel-Ontario 4503 Rue Dennie, Hanmer

Notre Dame was sampled on July 20, 2001. Figure B2.4.12 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the gravel playground southwest of the school building. Due to the constant mixing and homogenous nature of the gravel area, samples were collected with hand trowels to represent the 0-5 cm depth. Area B corresponds to the grassed baseball diamond outfield. Area C corresponds to the baseball diamond infield. Due to the compacted nature of the baseball diamond infield, it was only possible to sample to the surface soil (0-5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for selected sites from this property, while cobalt (Co) was elevated in one replicate sample from the gravel playground. The highest nickel concentration, 75 ppm, was found in the surface soil of the baseball diamond outfield, while the highest copper and cobalt concentrations, 80 and 32 ppm, respectively, were found in one replicate sample from the gravel playground. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results fall within the concentration ranges of those reported historically, while the elevated cobalt result is higher than previously reported. Previous MOE sampling of undisturbed soils approximately 1 km southwest, 2.5 km northwest, and 2 km east of Notre Dame, Stations 347, 346, and 350, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 43 to 150 and 35 to 110 ppm, respectively. The highest cobalt concentration reported at these historic sites was 7.4 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.12: Concentration of 13 Elements in Soil in µg/g Collected at Notre Dame, 4503 Rue Dennie, Hanmer -

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037327	14628	0 - 5	< 0.8	6	36	< 0.8	39	**32**	**80**	17	< 1.5	**74**	< 1	35	51
		14629	0 - 5	< 0.8	< 5	48	< 0.8	41	17	56	10	< 1.5	**52**	< 1	38	53
Area B grass	5037328	14630	0 - 5	< 0.8	6	42	< 0.8	30	6	**67**	16	< 1.5	**75**	1	28	38
		14631	0 - 5	< 0.8	5	43	< 0.8	32	6	51	14	< 1.5	**54**	< 1	29	32
		14632	5 - 10	< 0.8	< 5	38	< 0.8	29	4	31	8	< 1.5	39	< 1	28	26
		14633	5 - 10	< 0.8	6	36	< 0.8	26	5	54	44	< 1.5	**50**	< 1	26	24
		14634	10 - 20	< 0.8	< 5	34	< 0.8	26	4	14	6	< 1.5	24	< 1	26	19
		14635	10 - 20	< 0.8	< 5	32	< 0.8	27	4	10	5	< 1.5	23	< 1	27	22
Area C soil	5037329	14636	0 - 5	< 0.8	< 5	32	< 0.8	46	11	**68**	12	< 1.5	**50**	< 1	46	48
Table F(results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A(results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

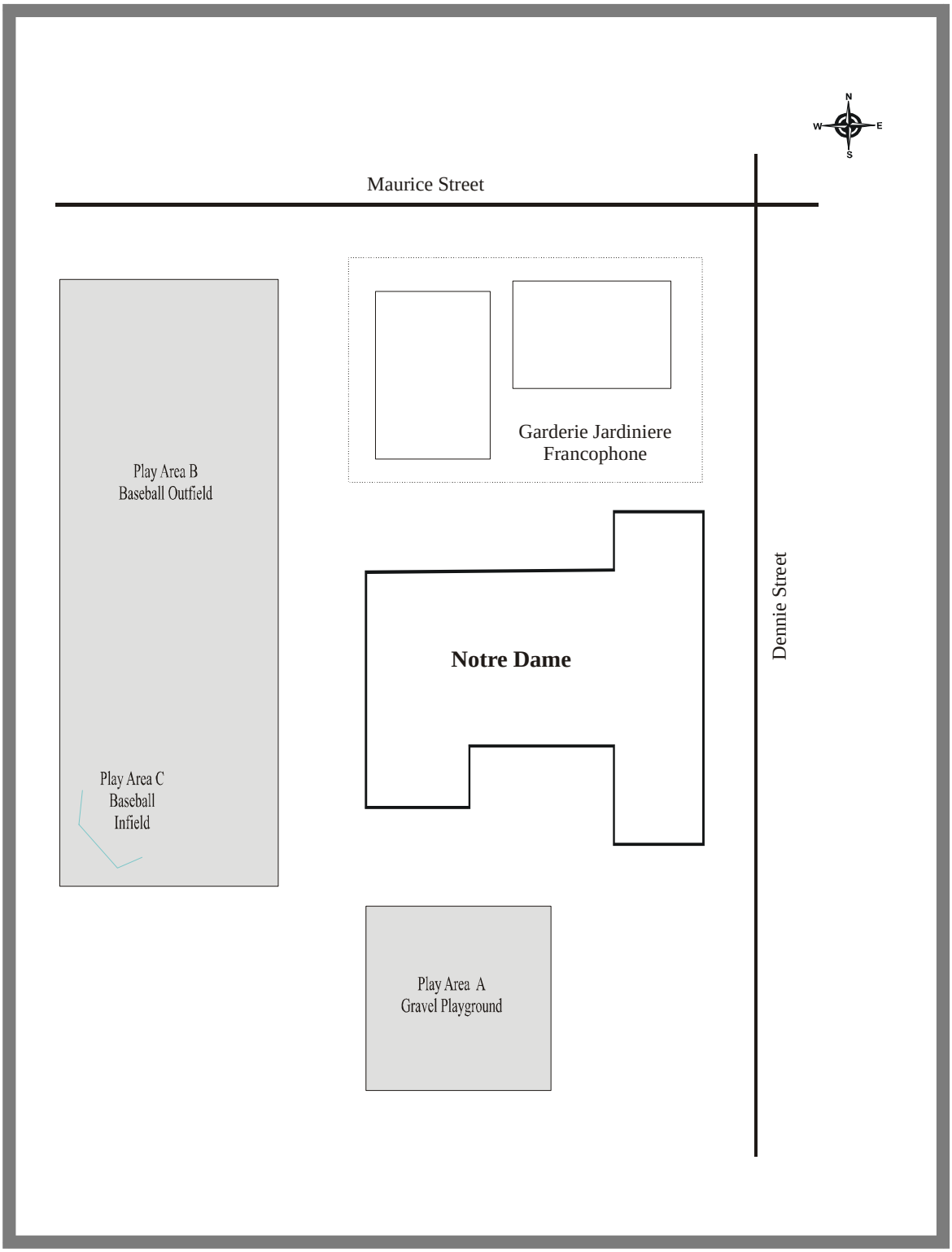

Figure B2.4.12: Notre Dame Sampling Locations - 2001.

2.4.13 Notre Dame de l'Esperance - Le Conseil Scolaire Catholique du Nouvel-Ontario 2965 Rue Hope, Val Caron

Notre Dame de l'Esperance was sampled on July 23, 2001. Figure B2.4.13 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the grassed area west of the school building. Area B corresponds to sand samples that were collected from the four sanded play areas west and south of the school building. Area C corresponds to the gravel playground south of the school building. Due to the constant mixing and homogenous nature of the sanded areas, samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand collected from the four sanded play areas. The sand present was not likely native to the school property and is believed to have been introduced when the play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for selected sites from this property. The highest nickel and copper concentrations, 120 and 75 ppm, respectively, were found in one replicate sample from the gravel playground. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These results are similar to those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km northwest, and 3 km southeast of Notre Dame de l'Esperance, Stations 15 and 348, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations of 84 and 96 and 92 and 100 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.13: Concentration of 13 Elements in Soil in µg/g Collected at Notre Dame de l'Esperance, 2965 Rue Hope, Val Caron - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037290	14808	0 - 5	< 0.8	< 5	35	< 0.8	61	4	36	14	< 1.5	**66**	< 1	78	36
		14809	0 - 5	< 0.8	< 5	42	< 0.8	66	4	40	11	< 1.5	**54**	< 1	28	25
		14810	5 - 10	< 0.8	< 5	46	< 0.8	40	4	54	8	< 1.5	**53**	< 1	24	29
		14811	5 - 10	< 0.8	< 5	32	< 0.8	26	4	27	7	< 1.5	40	< 1	29	18
		14812	10 - 20	< 0.8	< 5	26	< 0.8	19	3	14	5	< 1.5	26	< 1	18	12
		14813	10 - 20	< 0.8	< 5	37	< 0.8	24	3	24	6	< 1.5	36	< 1	21	14
Area B sand	5037291	14814	0 - 15	< 0.8	< 5	36	< 0.8	28	6	21	3	< 1.5	28	< 1	35	18
		14815	0 - 15	< 0.8	< 5	31	< 0.8	36	6	21	5	< 1.5	24	< 1	40	20
Area C gravel	5037292	14816	0 - 5	< 0.8	< 5	35	< 0.8	34	10	**57**	7	< 1.5	**53**	< 1	34	31
		14817	0 - 5	< 0.8	< 5	31	< 0.8	32	11	**75**	7	< 1.5	**120**	< 1	34	30
Table F(results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A(results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

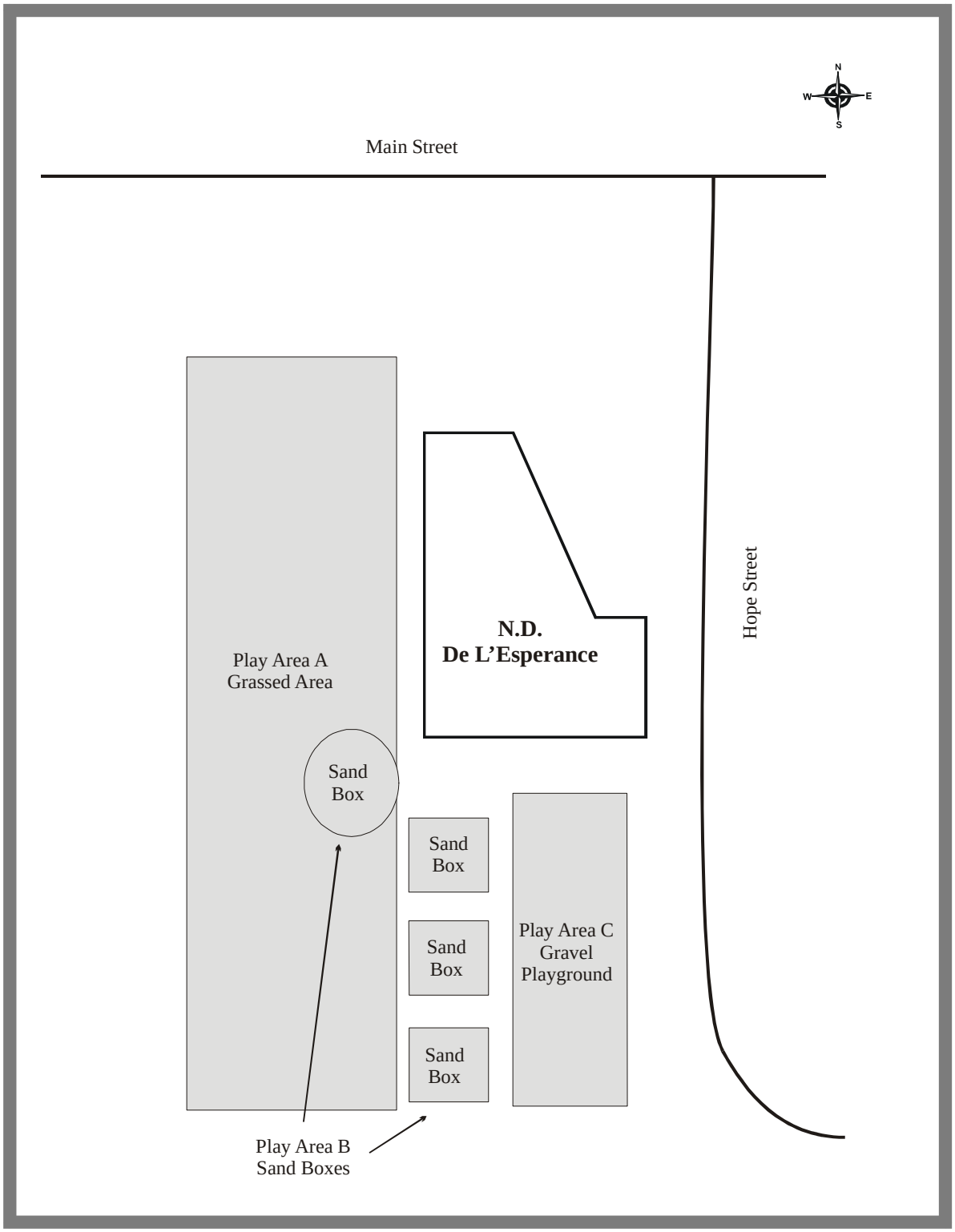

Figure B2.4.13: Notre Dame de l'Esperance Sampling Locations - 2001.

2.4.14 Notre Dame de la Merci - Le Conseil Scolaire Catholique du Nouvel-Ontario 2 Edward Avenue, Coniston

Notre Dame de la Merci was sampled on July 22, 2001. Figure B2.4.14 details the sampling locations at this property. Samples were taken from one area on the school property. Area A corresponds to the gravel playground west of the school building. Due to the constant mixing and homogenous nature of the gravel area, samples were collected with hand trowels to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni) concentrations were elevated above the MOE Table A Effects Based Soil Criteria, while copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for all samples collected from this property. The highest nickel and copper concentrations found were 190 and 200 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

These results fall within the lower end of the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km southwest, 1 km northeast, and 1 km southeast of Notre Dame de la Merci, Stations 81, 49, and 48, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 70 to 970 and 54 to 780 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.14: Concentration of 13 Elements in Soil in µg/g Collected at Notre Dame de la Merci, 2 Edward Avenue, Coniston - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037265	14750	0 - 5	**1.5**	13	44	< 0.8	42	14	**200**	30	< 1.5	**<u>190</u>**	1	34	42
		14751	0 - 5	< 0.8	8	40	< 0.8	39	15	**140**	17	< 1.5	**<u>170</u>**	< 1	35	40
Table F(results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A(results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

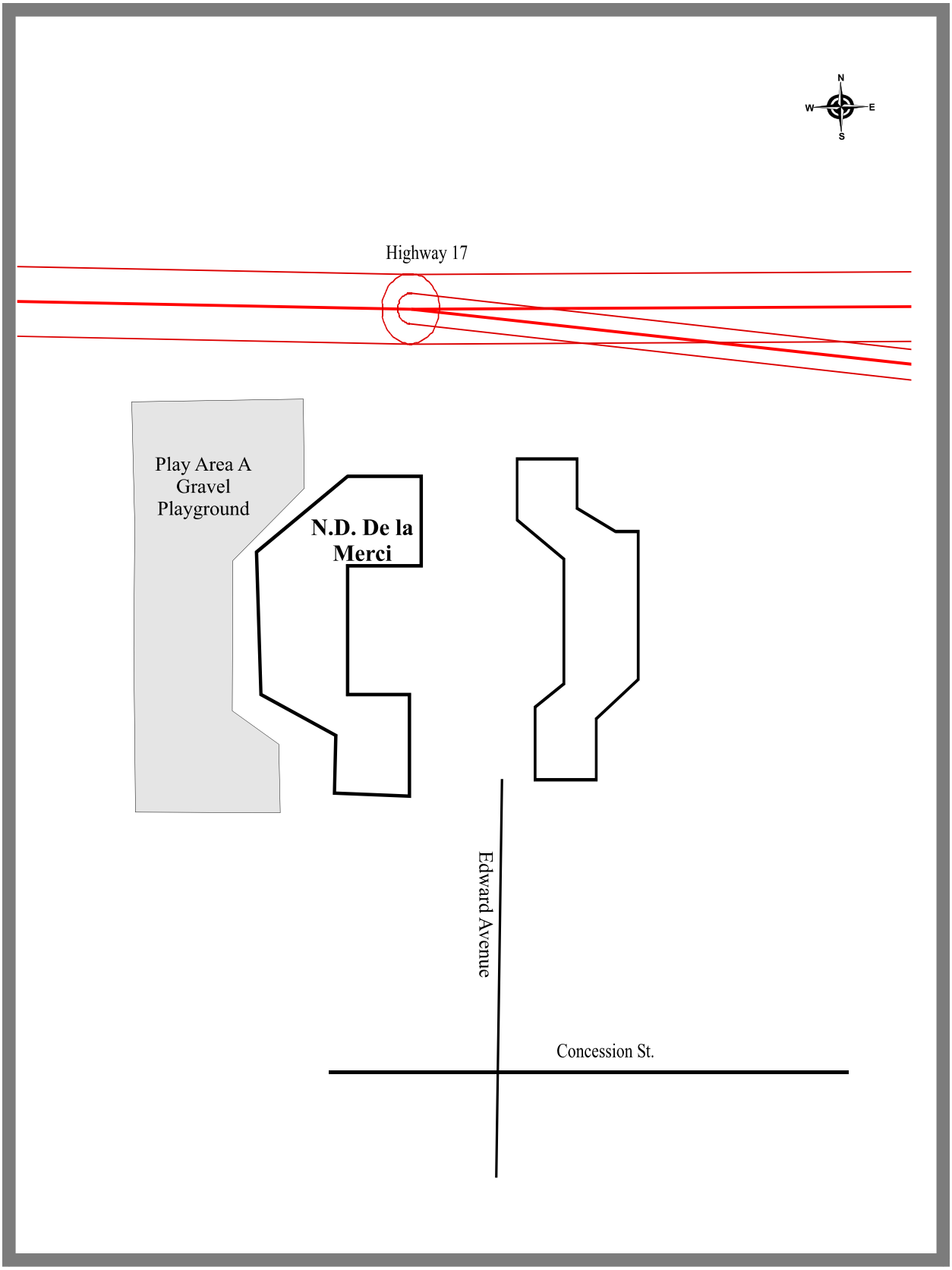

Figure B2.4.14: Notre Dame de la Merci Sampling Locations - 2001.

2.4.15 Notre Dame du Rosaire - Le Conseil Scolaire Catholique du Nouvel-Ontario 2891 Chemin Martin, Blezard Valley

Notre Dame du Rosaire was sampled on July 23, 2001. Figure B2.4.15 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to the grassed area west of the gravel playground. Area B corresponds to the gravel playground west of the school building. Due to the constant mixing and homogenous nature of the gravel areas, samples were collected with hand trowels to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for selected sites from this property. The highest nickel and copper concentrations, 92 and 63 ppm, respectively, were found in the surface soil of the grassed play area. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These results fall within the lower end of the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 2 km northeast, and 1 km south of Notre Dame du Rosaire, Stations 15 and 341, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 28 to 210 and 40 to 180 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.15: Concentration of 13 Elements in Soil in µg/g Collected at Notre Dame du Rosaire, 2891 Chemin Martin, Blezard Valley - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037304	14800	0 - 5	< 0.8	< 5	30	< 0.8	26	6	**63**	14	< 1.5	**82**	< 1	28	26
		14801	0 - 5	< 0.8	< 5	41	< 0.8	24	6	35	17	< 1.5	**92**	< 1	29	27
		14802	5 - 10	< 0.8	< 5	29	< 0.8	38	4	26	7	< 1.5	37	< 1	45	24
		14803	5 - 10	< 0.8	< 5	28	< 0.8	51	5	28	8	< 1.5	38	< 1	65	41
		14804	10 - 20	< 0.8	< 5	38	< 0.8	56	5	37	5	< 1.5	25	< 1	63	30
		14805	10 - 20	< 0.8	< 5	48	< 0.8	54	5	51	8	< 1.5	**44**	< 1	61	38
Area B gravel	5037305	14806	0 - 5	< 0.8	< 5	42	< 0.8	52	10	36	9	< 1.5	**45**	< 1	58	41
		14807	0 - 5	< 0.8	< 5	36	< 0.8	56	10	40	8	< 1.5	**47**	< 1	69	38
Table F(results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A(results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

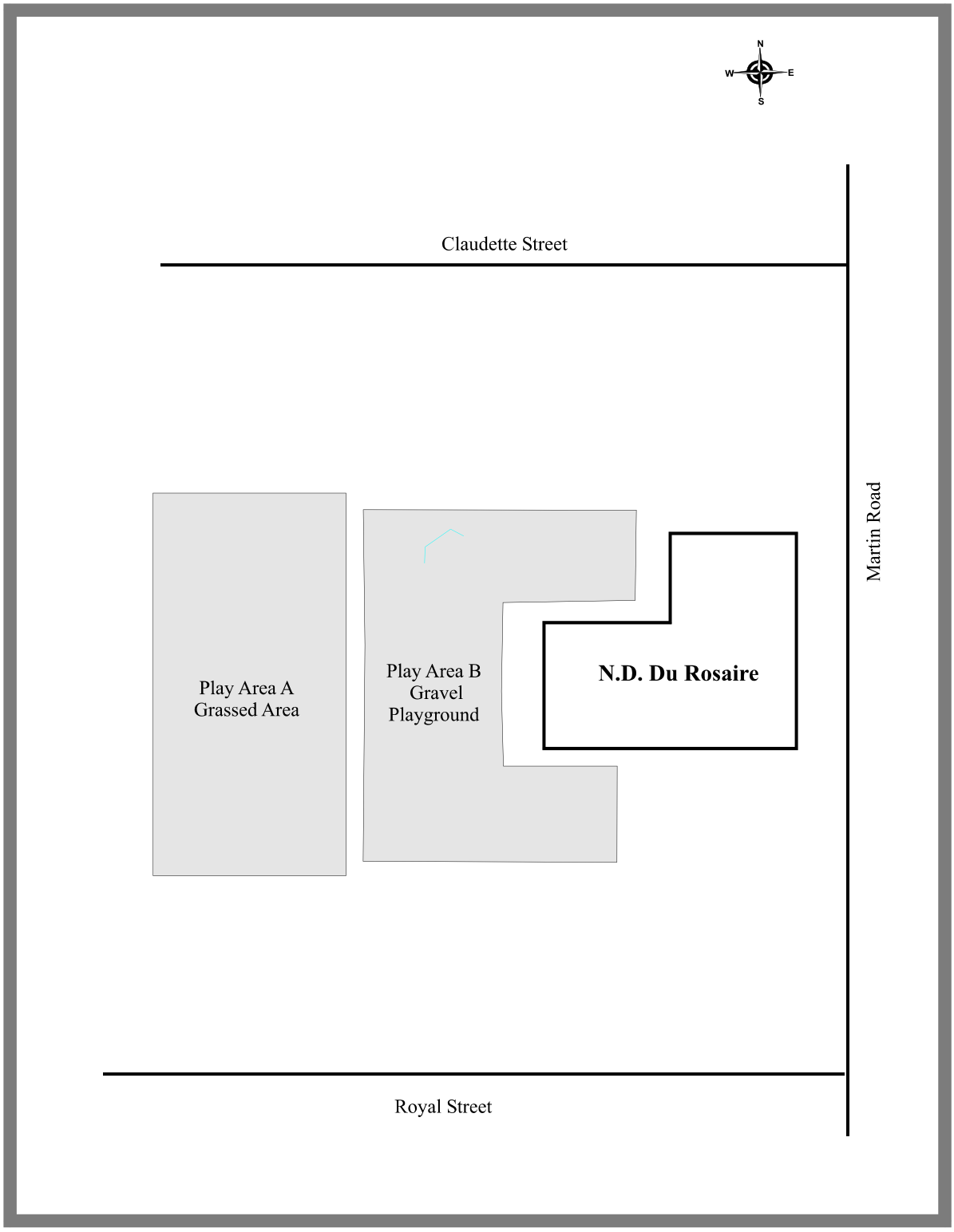

Figure B2.4.15: Notre Dame du Rosaire Sampling Locations - 2001.

2.4.16 St. Augustin - Le Conseil Scolaire Catholique du Nouvel-Ontario 648 Promenade O'Neil West, Garson

St. Augustin was sampled on July 18, 2001. Figure B2.4.16 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to sand samples that were collected from the sand boxes north of the school building. Areas B and C correspond to the west and east gravel playgrounds, respectively. Due to the constant mixing and homogenous nature of the sanded areas, samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand collected from the sanded play area. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the gravel playground samples. The highest nickel and copper concentrations, 67 and 71 ppm, respectively, were found in the east gravel playground sample. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These results fall within the lower end of the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km northwest, and 2 km northwest of St. Augustin, Stations 40 and 39, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 37 to 120 and 24 to 200 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.16: Concentration of 13 Elements in Soil in µg/g Collected at St. Augustin, 648 Promenade O' Neil West, Garson - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037269	14432	0 - 15	< 0.8	6	37	< 0.8	25	7	21	4	< 1.5	21	< 1	27	18
		14433	0 - 15	< 0.8	7	27	< 0.8	22	7	22	4	< 1.5	22	< 1	25	17
Area B gravel	5037270	14434	0 - 5	< 0.8	6	29	< 0.8	27	8	44	8	< 1.5	**50**	< 1	26	24
		14435	0 - 5	< 0.8	7	28	< 0.8	27	8	44	9	< 1.5	**51**	< 1	28	23
Area C gravel	5037271	14436	0 - 5	< 0.8	9	38	< 0.8	29	7	**57**	12	< 1.5	**56**	< 1	32	20
		14437	0 - 5	< 0.8	9	40	< 0.8	30	7	**71**	14	< 1.5	**67**	< 1	30	22
Table F(results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A(results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

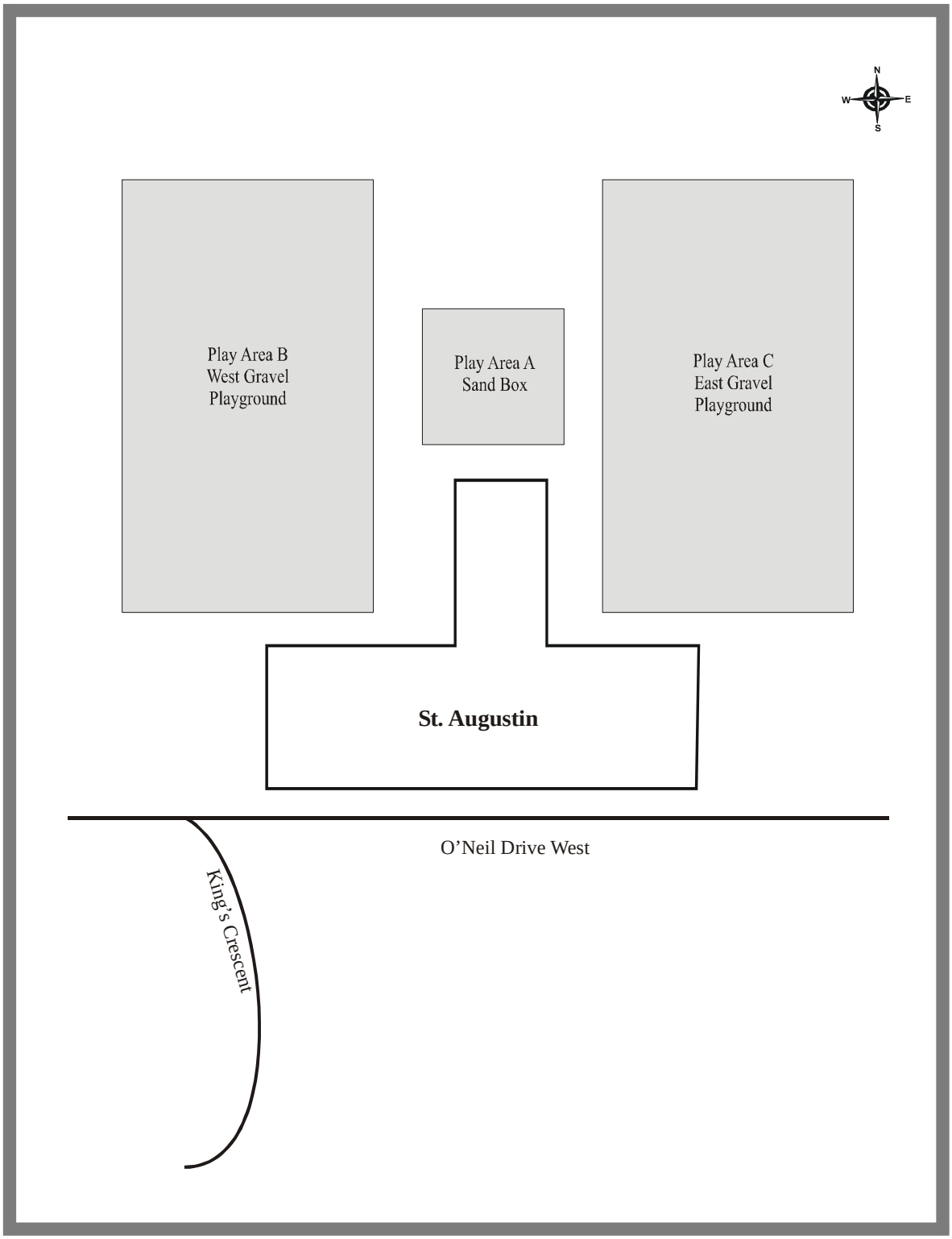

Figure B2.4.16: St. Augustin Sampling Locations - 2001.

2.4.17 St. Denis - Le Conseil Scolaire Catholique du Nouvel-Ontario 347 Rue Hyland, Sudbury

St. Denis was sampled on July 5, 2001. Figure B2.4.17 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the grassed hill on the south side of the school property. Area B corresponds to the gravel playground south of the school building. Area C corresponds to sand samples taken from beneath the play structure. Due to the constant mixing and homogenous nature of the sanded areas, samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structure. The sand present is not likely native to the school property and is believed to have been introduced when the play area was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for all other samples from this property and above MOE Table A Effects Based Soil Criteria at selected sites. Copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil samples collected from the grassed hill and from the gravel playground. The highest nickel and copper concentrations, 160 and 200 ppm, respectively, were found in the surface soil of the grassed play area. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

Table B2.4.17: Concentration of 13 Elements in Soil in µg/g Collected at St. Denis, 347 Rue Hyland, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037074	14149	0 - 5	< 0.8	< 5	36	< 0.8	26	8	**200**	25	< 1.5	**150**	< 1	25	65
		14150	0 - 5	< 0.8	< 5	45	< 0.8	26	9	**180**	23	< 1.5	**160**	**2**	27	130
		14151	5 - 10	< 0.8	< 5	39	< 0.8	24	5	52	9	< 1.5	**67**	1	26	42
		14152	5 - 10	< 0.8	< 5	39	< 0.8	26	5	41	9	< 1.5	**60**	< 1	27	31
		14153	10 - 20	< 0.8	< 5	41	< 0.8	24	6	49	10	< 1.5	**74**	< 1	25	28
		14154	10 - 20	< 0.8	< 5	41	< 0.8	24	5	36	9	< 1.5	**60**	< 1	27	33
Area B gravel	5037075	14155	0 - 5	< 0.8	< 5	28	< 0.8	31	12	**71**	7	< 1.5	**72**	< 1	31	29
		14156	0 - 5	< 0.8	< 5	26	< 0.8	30	14	**87**	10	< 1.5	**91**	< 1	28	31
Area C sand	5037076	14157	0 - 15	< 0.8	< 5	18	< 0.8	28	9	34	4	< 1.5	37	< 1	26	23
		14158	0 - 15	< 0.8	< 5	18	< 0.8	29	8	29	3	< 1.5	32	< 1	27	25
Table F(results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A(results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

These results fall within the lower end of the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km east, 1 km northwest, and 1 km southwest of St. Denis, Stations 74, 378, and 73, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 145 to 790 and 158 to 740 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

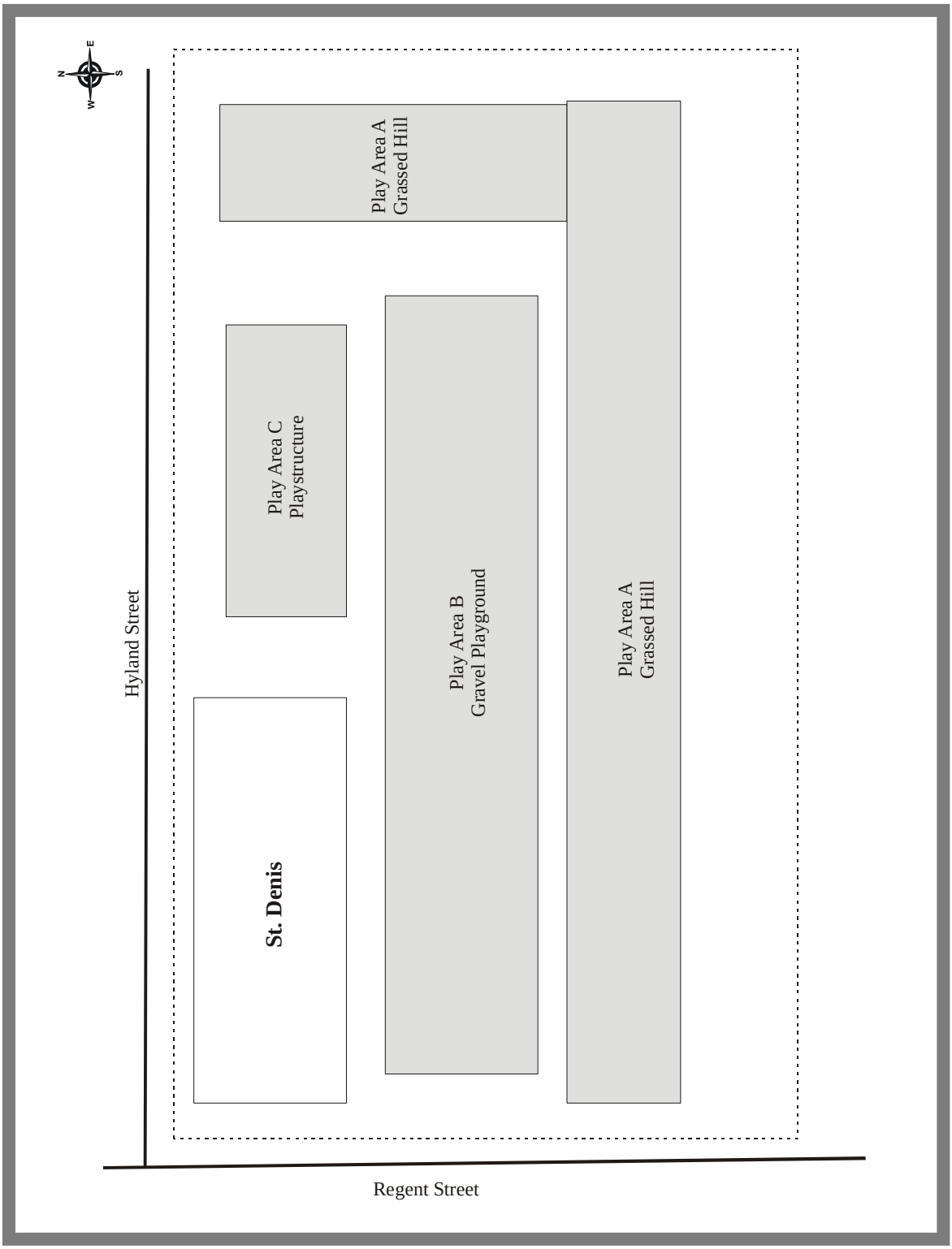

Figure B2.4.17: St. Denis Soil Sampling Locations - 2001.

2.4.18 St. Dominique - Le Conseil Scolaire Catholique du Nouvel-Ontario 2096 Rue Montfort, Sudbury

St. Dominique was sampled on July 18, 2001. Figure B2.4.18 details the sampling locations at this property. Samples were taken from five areas on the school property. Area A corresponds to the grassed area north of the school building. Area B corresponds to sand samples collected from the south sand box. Area C corresponds to the grass and gravel baseball diamond outfield. Due to the compacted nature of Areas A and C, it was only possible to sample to the 5 - 10 cm depth in the grassed play area and the surface soil layer (0-5 cm) in the outfield. Area D corresponds to the gravel baseball diamond infield. Area E corresponds to the pea gravel collected from the north sand boxes. Due to the constant mixing and homogenous nature of the "sand box" areas, samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Elevated metal concentrations were found in the sand and pea gravel samples collected from the south and north "sand box" play areas, respectively. Although it is possible that the sand is native to the school property; it is believed to have been introduced when the play areas were constructed. The sand and pea gravel samples were not expected to have elevated metal concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for all surface samples collected from this property and the MOE Table A Effects Based Soil Criteria at selected sites. Copper (Cu) was also elevated above the MOE Table F Ontario Soil Background Criteria at selected surface soil sites. The highest nickel and copper concentrations, 190 and 170 ppm, respectively, were found in the sand samples from the south sand box. It is believed that soil particles may have migrated into these play areas and are responsible for the elevated metal concentrations. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

These soil results fall within the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km northeast and 1 km west of St. Dominique, Stations 42 and 43, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 28 to 190 and 26 to 200 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.18: Concentration of 13 Elements in Soil in µg/g Collected at St. Dominique, 2096 Rue Montfort, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037155	14381	0 - 5	< 0.8	< 5	46	< 0.8	27	11	**74**	19	< 1.5	**110**	< 1	27	28
		14382	0 - 5	< 0.8	< 5	49	< 0.8	28	13	**77**	21	< 1.5	**120**	< 1	27	30
		14389	5 - 10	< 0.8	< 5	20	< 0.8	24	6	14	2	< 1.5	23	< 1	28	15
		14390	5 - 10	< 0.8	< 5	23	< 0.8	27	6	16	3	< 1.5	24	< 1	34	16
Area B sand	5037156	14383	0 - 15	< 0.8	8	47	< 0.8	34	16	**170**	21	< 1.5	**<u>190</u>**	< 1	36	40
Area C grass	5037157	14385	0 - 5	< 0.8	< 5	43	< 0.8	32	8	**110**	18	< 1.5	**130**	< 1	29	33
		14386	0 - 5	< 0.8	< 5	42	< 0.8	32	7	**100**	12	< 1.5	**77**	< 1	31	27
Area D gravel	5037158	14387	0 - 5	< 0.8	< 5	41	< 0.8	34	7	50	11	< 1.5	**73**	< 1	33	26
		14388	0 - 5	< 0.8	< 5	35	< 0.8	34	7	55	11	< 1.5	**78**	< 1	32	27
Area E gravel	5037159	14384	0 - 5	< 0.8	8	37	< 0.8	31	16	**170**	23	< 1.5	**<u>170</u>**	< 1	33	36
Table F(results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A(results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

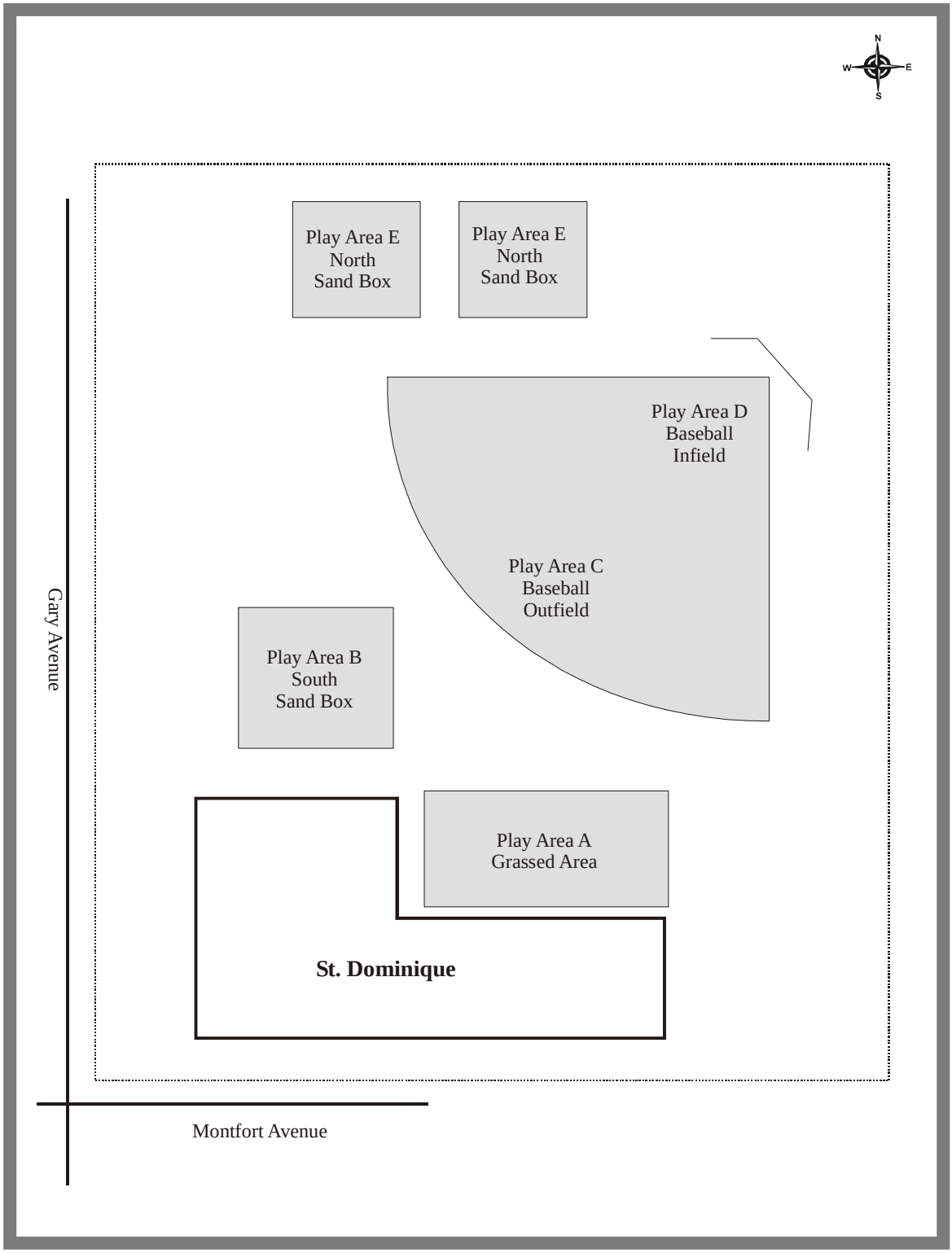

Figure B2.4.18: St. Dominique Sampling Locations - 2001.

2.4.19 St. Etienne - Le Conseil Scolaire Catholique du Nouvel-Ontario C.P. 310, 79 Rue Houle, Dowling

St. Etienne was sampled on July 19, 2001. Figure B2.4.19 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to the gravel playground. Area B corresponds to sand samples collected from the sanded play areas. Due to the constant mixing and homogenous nature of the sanded area, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand from the sand boxes. The sand present is not likely native to the school property and is believed to have been introduced when the play area was constructed. Thus the sand was not expected to have elevated metal concentrations. Neither of the gravel samples were found to have metal concentrations above the MOE Table F Ontario Soil Background Criteria. In addition, aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

These results fall within the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 2 km northeast, 4 km west, and 5 km southwest of St. Etienne, Stations 388, 389, and 391, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 25 to 83 and 14 to 69 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.19: Concentration of 13 Elements in Soil in µg/g Collected at St. Etienne, C.P. 310, 79 Rue Houle, Dowling - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037400	14554	0 - 5	< 0.8	< 5	28	< 0.8	33	9	42	20	< 1.5	35	< 1	42	35
		14555	0 - 5	< 0.8	< 5	29	< 0.8	34	9	41	16	< 1.5	34	< 1	42	37
Area B sand	5037401	14556	0 - 15	< 0.8	< 5	21	< 0.8	36	7	23	5	< 1.5	21	< 1	38	28
Table F(results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A(results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

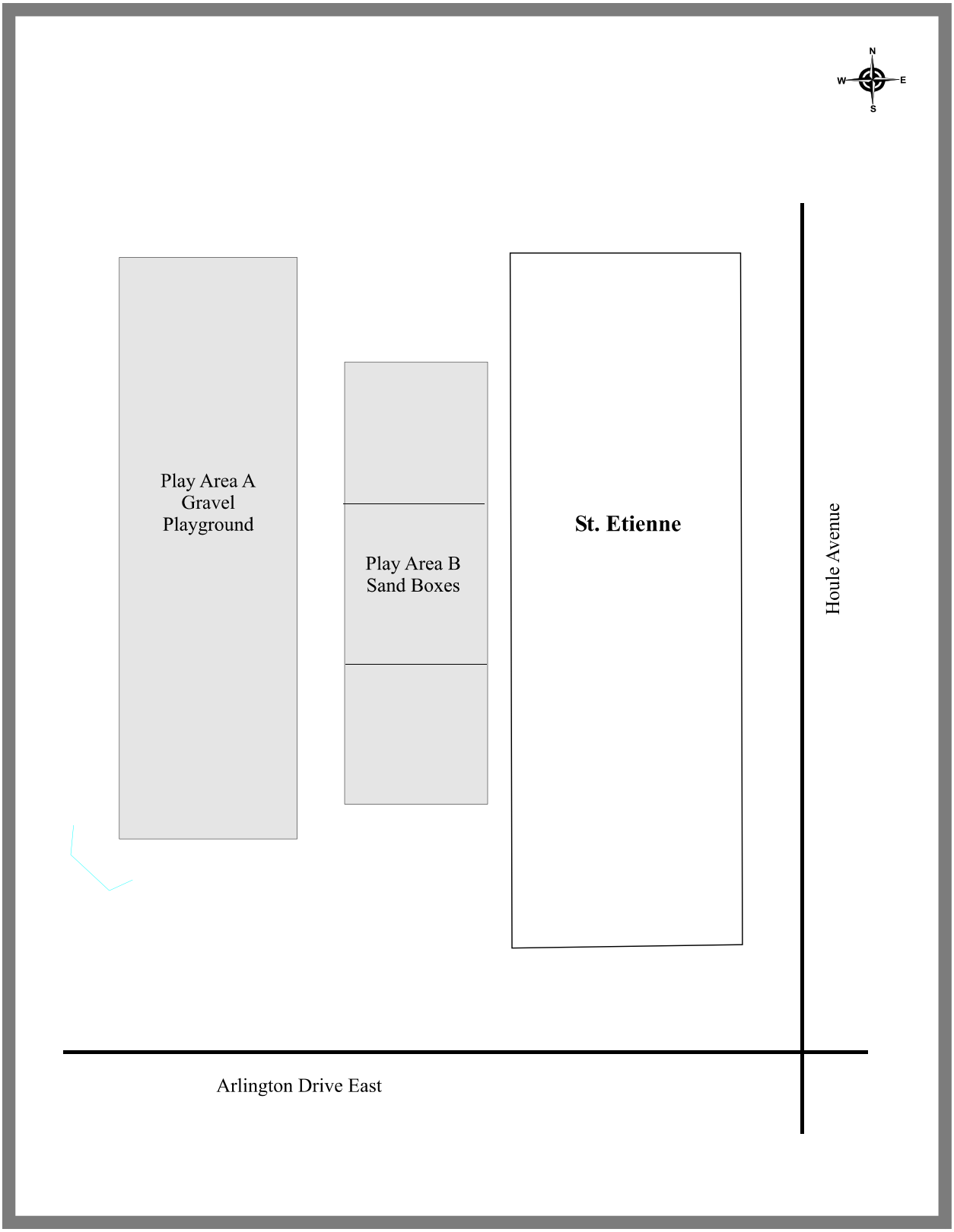

Figure B2.4.19: St. Etienne School Sampling Locations - 2001.

2.4.20 St. Gabriel (Better Beginnings) - Le Conseil Scolaire Catholique du Nouvel-Ontario 450 Morin Street, Sudbury

St. Gabriel was sampled on July 17, 2001. At the time of sampling, Sudbury Better Beginnings Program inhabited this building. Figure B2.4.20 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to the gravel playground. Area B corresponds to sand samples collected from beneath the play structure. Due to the constant mixing and homogenous nature of the sanded area, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structure. The sand present is not likely native to the school property and is believed to have been introduced when the play area was constructed. Thus the sand was not expected to have elevated metal concentrations. For both gravel playground samples, nickel (Ni) concentrations were elevated above the MOE Table A Effects Based Soil Criteria, and copper (Cu) and cobalt (Co) were elevated above the MOE Table F Ontario Soil Background Criteria. The highest nickel, copper, and cobalt concentrations at the gravel playground were 200, 200, and 21 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

The nickel and copper results are lower than those reported historically, while the cobalt concentrations are within the concentration range previously reported. Previous MOE sampling of undisturbed soils approximately 2 km southeast, 1 km southwest, and 1.5 km northwest of St. Gabriel, Stations 75, 84, and 362, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel, copper and cobalt surface soil concentration ranges of 230 to 830, 230 to 820 ppm, and 15 to 38 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.20: Concentration of 13 Elements in Soil in µg/g Collected at St. Gabriel School Better Beginnings, 450 Morin Street, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037127	14284	0 - 5	< 0.8	7	31	< 0.8	34	**20**	**190**	19	< 1.5	**180**	< 1	34	41
		14285	0 - 5	< 0.8	6	31	< 0.8	31	**21**	**200**	21	< 1.5	**200**	< 1	31	47
Area B sand	5037128	14286	0 - 15	< 0.8	5	27	< 0.8	23	8	25	3	< 1.5	23	< 1	33	16
		14287	0 - 15	< 0.8	< 5	23	< 0.8	20	8	22	3	< 1.5	22	< 1	26	15
Table F(results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A(results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

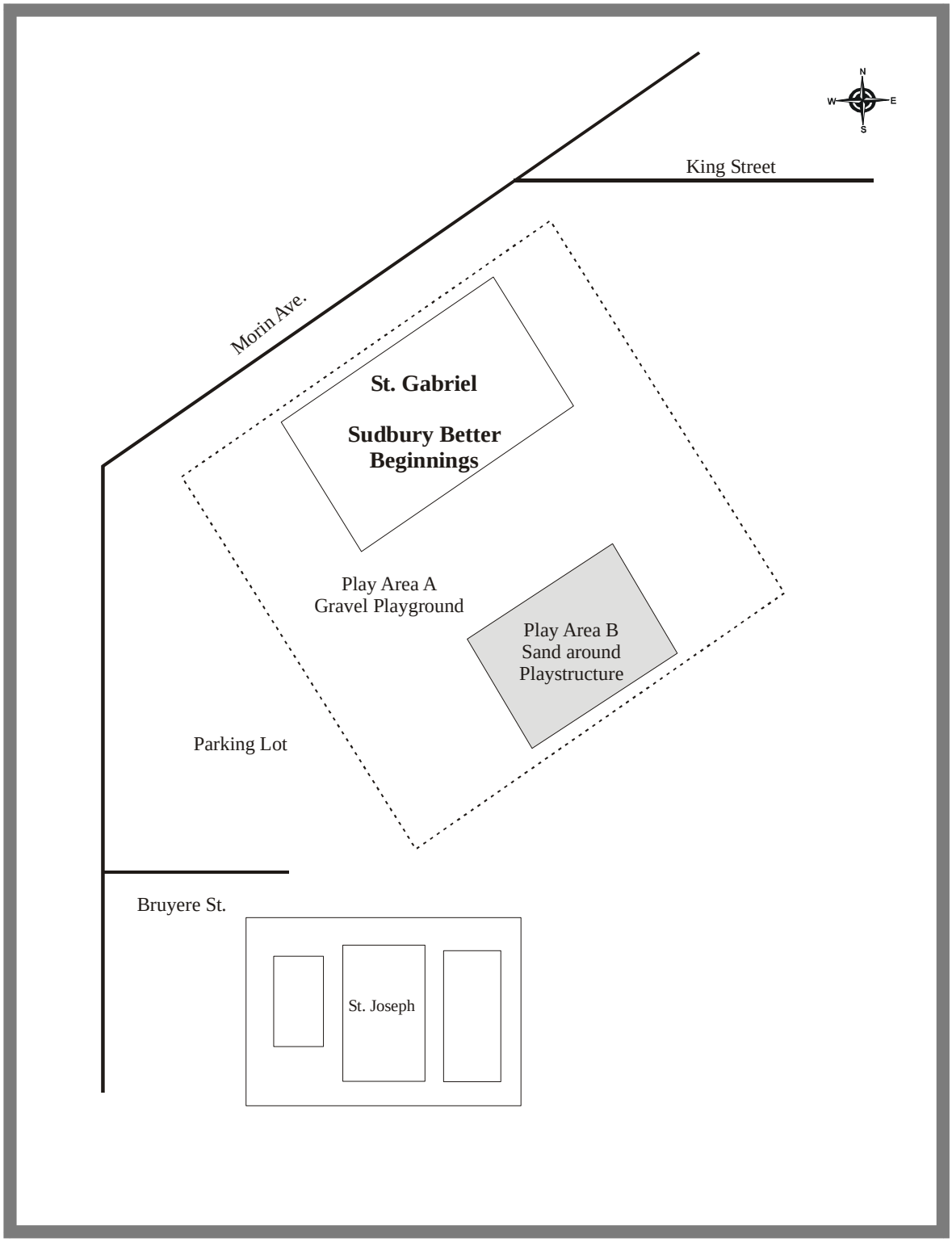

Figure B2.4.20: St. Gabriel School (Better Beginnings) Sampling Locations - 2001.

2.4.21 St. Jean (formerly) - Le Conseil Scolaire Catholique du Nouvel-Ontario 1127 Promenade Bancroft, Sudbury

St. Jean was sampled on July 17, 2001 and has since been sold. Figure B2.4.21 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to the gravel playground. Area B corresponds to sand samples collected from the sand box. Due to the constant mixing and homogenous nature of the sanded area, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand from the sand box. The sand present is not likely native to the school property and is believed to have been introduced when the play area was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for both gravel playground samples from this property and above MOE Table A Effects Based Soil Criteria at selected sites. The highest nickel and copper concentrations found in the gravel samples were 180 and 160 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

These results fall within the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km south, and 1 km southwest of St. Jean (formerly), Stations 76 and 75, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 78 to 830 and 120 to 820 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.21: Concentration of 13 Elements in Soil in µg/g Collected at St. Jean (formerly), 1127 Promenade Bancroft, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037139	14292	0 - 5	< 0.8	6	35	< 0.8	46	14	**140**	18	1.9	**140**	1	41	49
		14293	0 - 5	< 0.8	7	30	< 0.8	35	15	**160**	17	< 1.5	**<u>180</u>**	< 1	31	36
Area B sand	5037140	14294	0 - 15	< 0.8	6	22	< 0.8	27	6	34	4	< 1.5	37	< 1	26	24
Table F(results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A(results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

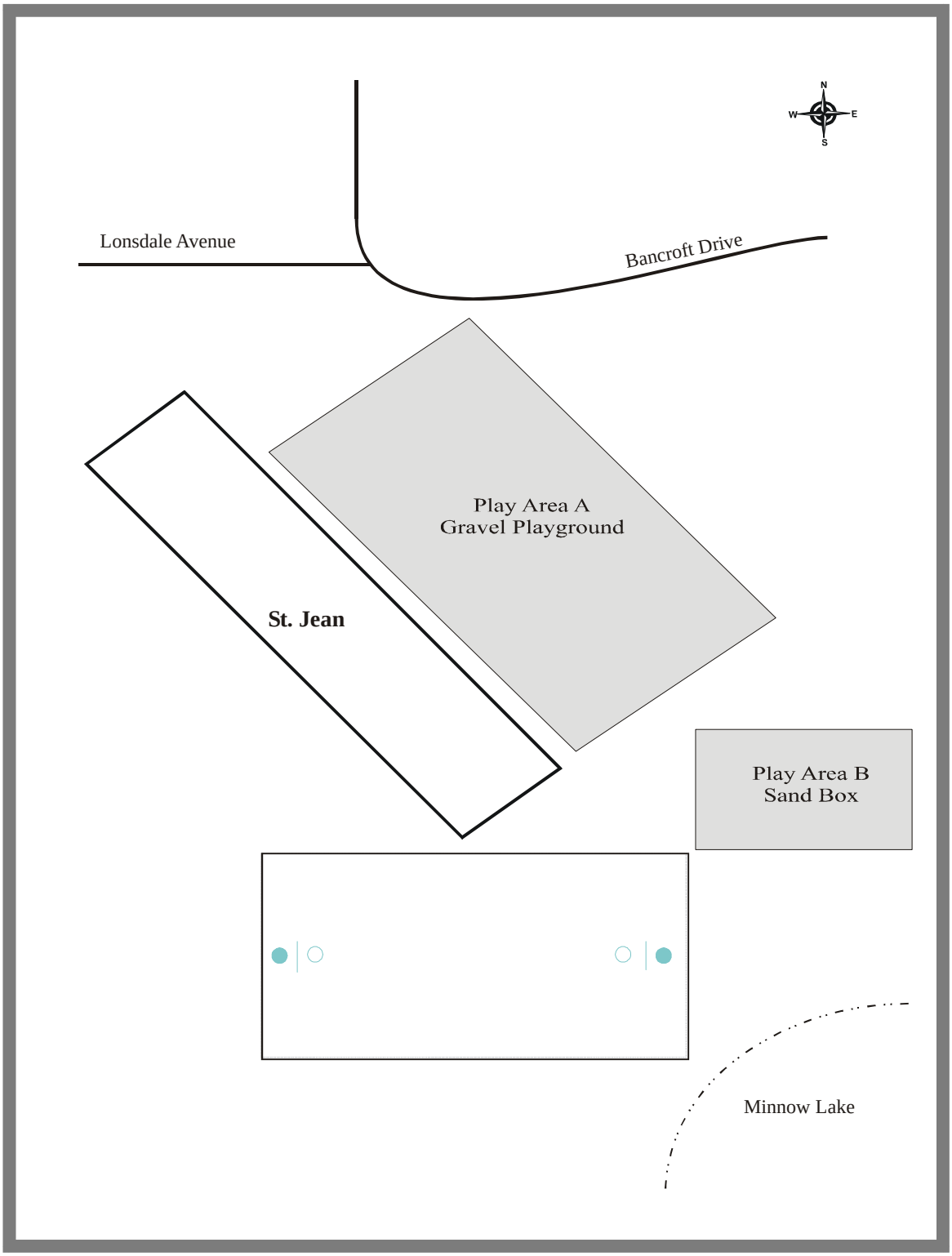

Figure B2.4.21: St. Jean (formerly) Sampling Locations - 2001.

2.4.22 St. Joseph - Le Conseil Scolaire Catholique du Nouvel-Ontario 100 Bruyere Street, Sudbury

St. Joseph was sampled on July 17, 2001. Figure B2.4.22 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to sand samples collected from beneath the play structures on the west side of the school building. Area B corresponds to the gravel playground on the east side of the school building. Due to the constant mixing and homogenous nature of the sanded area, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structure. The sand present is not likely native to the school property and is believed to have been introduced when the play area was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni), copper (Cu) and cobalt (Co) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in both gravel samples. Nickel concentrations were also elevated above the MOE Table A Effects Based Soil Criteria for both samples from the gravel playground. The highest nickel, copper, and cobalt concentrations found in the gravel samples were 190, 170, and 22 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

These nickel and copper results are lower than those reported historically, while the elevated cobalt concentration falls within the concentration range previously reported. Previous MOE sampling of undisturbed soils approximately 2 km northwest, 1 km southwest, and 2 km southeast of St. Jospeh, Stations 362, 84, and 75, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 230 to 830 and 230 to 820 ppm, respectively. The concentration range for cobalt at these historic sites was 15 to 38 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.22: Concentration of 13 Elements in Soil in µg/g Collected at St. Joseph, 100 Bruyere Street, Sudbury -

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037129	14288	0 - 15	< 0.8	< 5	21	< 0.8	25	7	28	3	< 1.5	22	< 1	27	18
		14289	0 - 15	< 0.8	< 5	19	< 0.8	26	8	23	3	< 1.5	23	< 1	27	16
Area B gravel	5037130	14290	0 - 5	< 0.8	5	32	< 0.8	34	16	**170**	21	< 1.5	**<u>170</u>**	< 1	33	38
		14291	0 - 5	< 0.8	6	31	< 0.8	33	**22**	**170**	22	< 1.5	**<u>190</u>**	< 1	32	36
Table F(results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A(results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

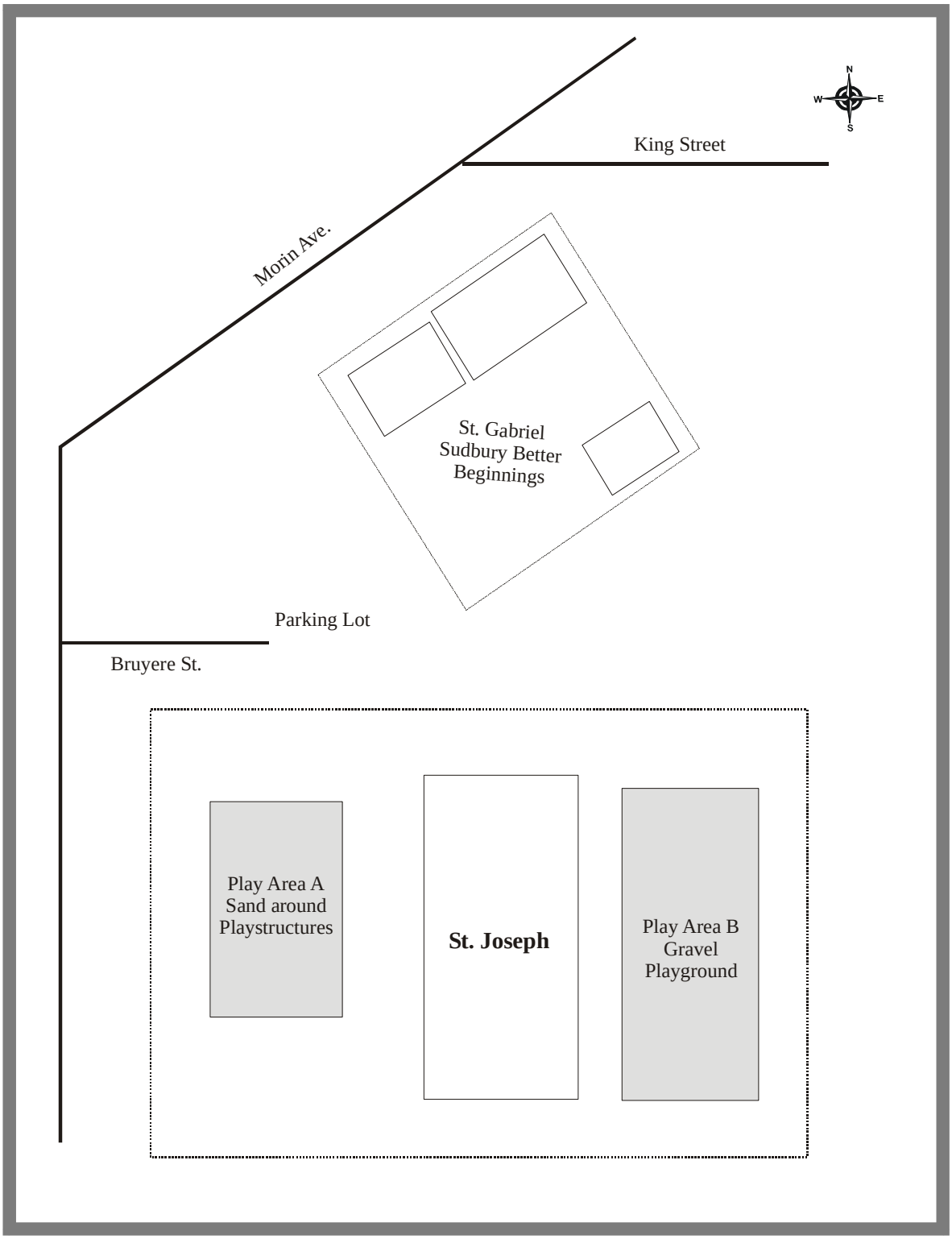

Figure B2.4.22: St. Joseph Sampling Locations - 2001.

2.4.23 St. Joseph - Le Conseil Scolaire Catholique du Nouvel-Ontario 1215 Rue St. Anthony, Val Therese

St. Joseph was sampled on July 20, 2001. Figure B2.4.23 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the gravel playground south of the school building. Area B corresponds to sand samples collected from beneath the play structure. Due to the constant mixing and homogenous nature of the sanded area, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. Area C corresponds to the grassed play area south of the gravel playground. Due to the compacted nature of Area C, or the presence of bedrock at shallow depths, it was only possible to sample the surface soil (0-5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structure. The sand present is not likely native to the school property and is believed to have been introduced when the play area was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for all other samples from this property, with the higher values found in the grassed play area. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel results fall within the lower end of the concentration range of those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km southeast, 2.5 km east, and 3 km northeast of St. Joseph, Stations 344, 347, and 346, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated a nickel surface soil concentration range of 43 to 150 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.23: Concentration of 13 Elements in Soil in µg/g Collected at St. Joseph, 1215 Rue St. Anthony, Val Therese - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037309	14651	0 - 5	< 0.8	6	35	< 0.8	31	15	49	9	< 1.5	**49**	< 1	34	33
		14652	0 - 5	< 0.8	< 5	26	< 0.8	27	15	38	9	< 1.5	**45**	< 1	28	29
Area B sand	5037310	14653	0 - 15	< 0.8	< 5	41	< 0.8	46	9	43	6	< 1.5	35	< 1	51	29
Area C grass	5037311	14654	0 - 5	< 0.8	< 5	37	< 0.8	28	8	53	10	< 1.5	**59**	< 1	30	26
		14655	0 - 5	< 0.8	< 5	46	< 0.8	31	11	52	11	< 1.5	**55**	< 1	32	31
Table F(results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A(results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

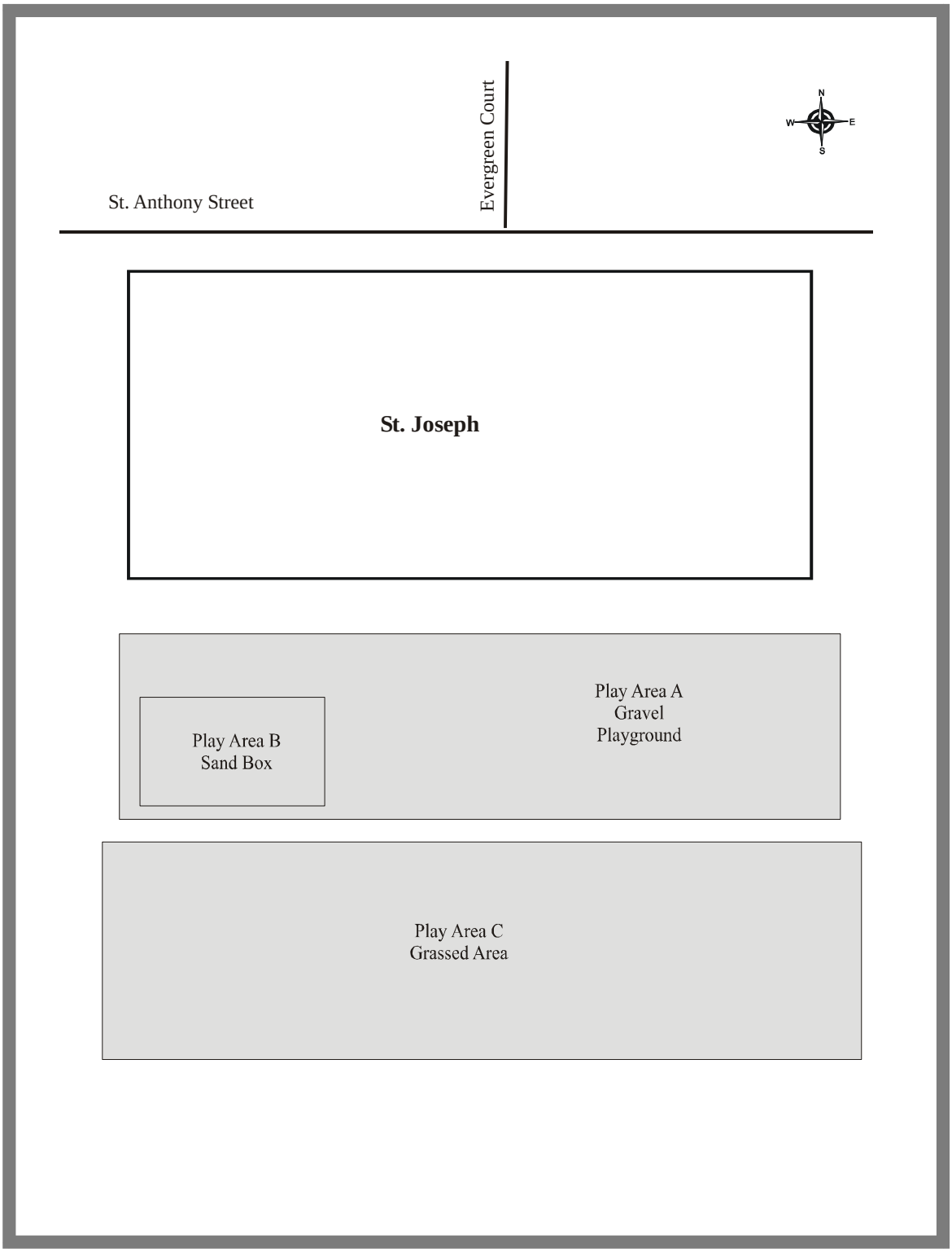

Figure B2.4.23: St. Joseph Sampling Locations - 2001.

2.4.24 St. Joseph - Le Conseil Scolaire Catholique du Nouvel-Ontario 3634 Avenue Errington, Chelmsford

St. Joseph was sampled on July 19, 2001. Figure B2.4.24 details the sampling locations at this property. Samples were taken from four areas on the school property. Area A corresponds to the grassed area of the baseball diamond. The entire diamond was grassed, without a separate infield area. Therefore, the entire diamond was sampled as one site. Area B corresponds to grassed play area on the west end of the school property. Due to the compacted nature of the grassed play area, it was only possible to sample the surface soil (0-5 cm). Area C and D correspond to sand samples collected from the north and south sanded play areas, respectively. Due to the constant mixing and homogenous nature of the sanded areas, samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand from either sand box. The sand present is not likely native to the school property and is believed to have been introduced when the play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. There was only one sample with an elevated nickel (Ni) concentration that was slightly above the MOE Table F Ontario Soil Background Criteria at 50 ppm. The elevated nickel concentration, 50 ppm, was found in one replicate sample from the west grassed play area, Area B. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 2 km northwest, 4 km southwest, and 6 km southeast of St. Joseph, Stations 386, 385, and 384, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated a nickel surface soil concentration range of 65 to 170 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.24: Concentration of 13 Elements in Soil in µg/g Collected at St. Joseph, 3634 Avenue Errington, Chelmsford - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037396	14544	0 - 5	< 0.8	< 5	20	< 0.8	22	4	22	10	< 1.5	30	< 1	26	18
		14545	0 - 5	< 0.8	< 5	19	< 0.8	20	3	26	10	< 1.5	33	< 1	23	20
		14546	5 - 10	< 0.8	< 5	20	< 0.8	20	3	11	6	< 1.5	21	< 1	21	15
		14547	5 - 10	< 0.8	< 5	20	< 0.8	20	3	18	9	< 1.5	27	< 1	25	18
		14548	10 - 20	< 0.8	< 5	18	< 0.8	21	3	4	4	< 1.5	13	< 1	23	12
		14549	10 - 20	< 0.8	< 5	23	< 0.8	21	3	6	5	< 1.5	15	< 1	25	13
Area B grass	5037397	14550	0 - 5	< 0.8	6	24	< 0.8	18	3	23	8	< 1.5	33	< 1	26	19
		14551	0 - 5	< 0.8	7	28	< 0.8	24	4	38	12	< 1.5	**50**	< 1	32	21
Area C sand	5037398	14552	0 - 15	< 0.8	< 5	21	< 0.8	22	5	13	3	< 1.5	21	< 1	27	15
Area D sand	5037399	14553	0 - 15	< 0.8	< 5	20	< 0.8	24	5	13	2	< 1.5	19	< 1	28	18
Table F(results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A(results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.



Figure B2.4.24: St. Joseph Soil Sampling Locations - 2001.

2.4.25 St. Michel - Le Conseil Scolaire Catholique du Nouvel-Ontario 4500 Rue St. Michele, Hanmer

St. Michel was sampled on July 20, 2001 and has since been purchased by the Sudbury Catholic District School Board, with the name changed to St. Anne. Figure B2.4.25 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to the gravel playground. Area B corresponds to sand samples collected from beneath the play structure. Due to the constant mixing and homogenous nature of the sanded area, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structure. The sand present is not likely native to the school property and is believed to have been introduced when the play area was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni), copper (Cu), and cobalt (Co) were elevated above the MOE Table F Ontario Soil Background Criteria in at least one replicate sample from the gravel playground. The highest nickel, copper, and cobalt concentrations found were 56, 66, and 24 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel results are lower than those reported historically, while the copper concentrations fall within the concentration ranges previously reported. The elevated cobalt concentration found at this property was higher than previously reported. Previous MOE sampling of undisturbed soils approximately 1 km southeast and 2 km southwest of St. Michel, Stations 350 and 347, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 78 to 150 and 56 to 110 ppm, respectively. The highest cobalt concentration reported historically for these sites was 7.4 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.25: Concentration of 13 Elements in Soil in µg/g Collected at St. Michel, 4500 Rue St. Michele, Hanmer - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037330	14622	0 - 5	< 0.8	< 5	34	< 0.8	30	**24**	**66**	11	< 1.5	**53**	< 1	32	33
		14623	0 - 5	< 0.8	< 5	30	< 0.8	26	18	53	9	< 1.5	**56**	< 1	28	27
Area B sand	5037331	14624	0 - 15	< 0.8	< 5	18	< 0.8	23	5	15	2	< 1.5	16	< 1	27	18
Table F(results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A(results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

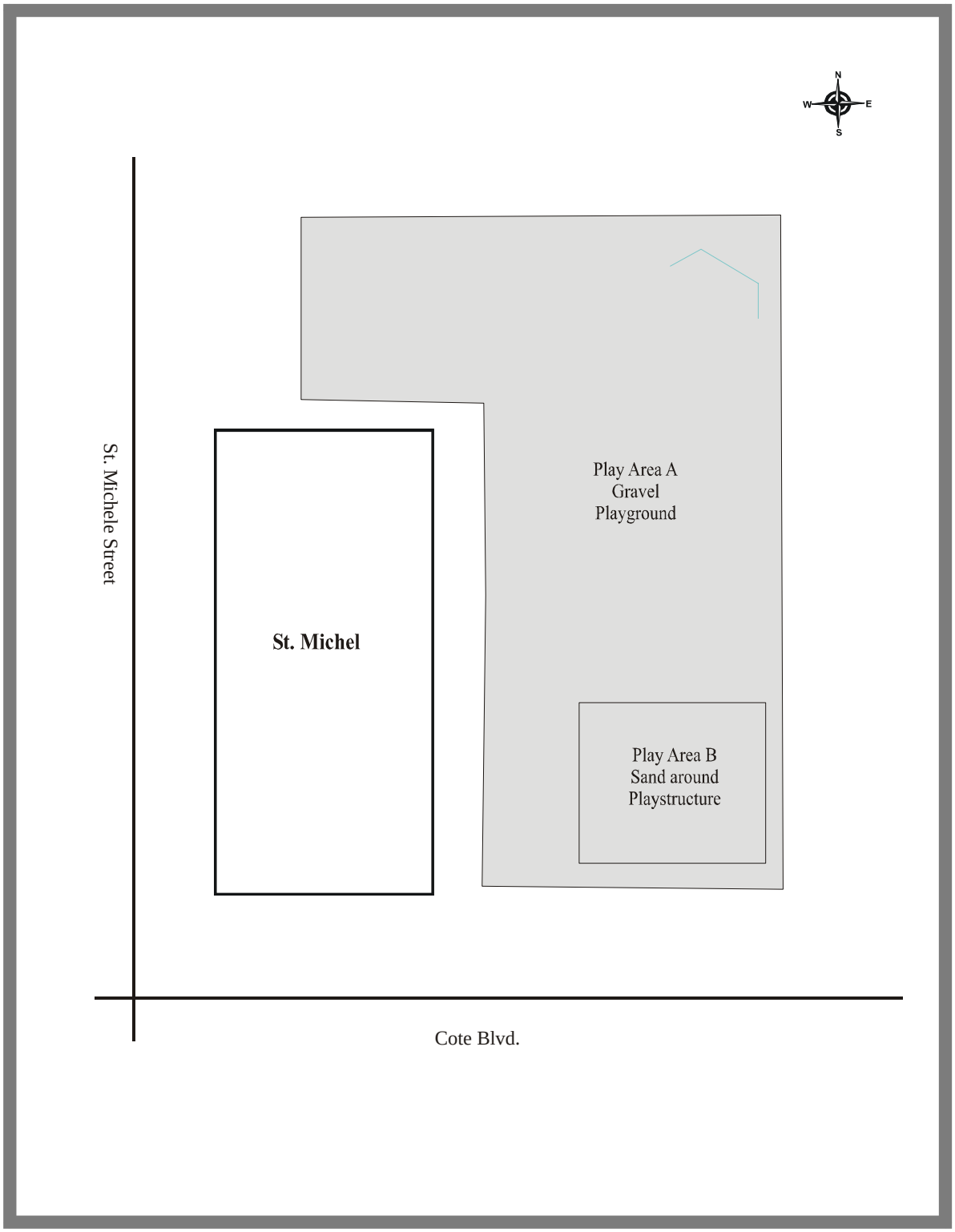

Figure B2.4.25: St. Michel Sampling Locations - 2001.

2.4.26 St. Paul - Le Conseil Scolaire Catholique du Nouvel-Ontario 185 6th Avenue, Lively

St. Paul was sampled on July 21, 2001. Figure B2.4.26 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to the grassed area of the baseball diamond. The entire diamond was grassed, without a separate infield area. Therefore, the entire diamond was sampled as one site. Due to the compacted nature of the baseball diamond, it was only possible to sample to the 5 -10 cm depth for one replicate. Area B corresponds to the gravel playground just south of the school building. Due to the constant mixing and homogenous nature of the gravel areas, samples were collected with hand trowels to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for all samples from this property. The highest nickel and copper concentrations , 150 and 110 ppm, respectively, were found in the surface soil layer of the grassed baseball diamond. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results fall within the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km south and 2.5 km southeast of St. Paul, Stations 376 and 100, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 34 to 700 and 35 to 568 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.26: Concentration of 13 Elements in Soil in µg/g Collected at St. Paul, 185 6th Avenue, Lively - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037245	14721	0 - 5	< 0.8	6	67	< 0.8	34	10	**110**	19	< 1.5	**150**	< 1	32	53
		14722	0 - 5	< 0.8	< 5	58	< 0.8	31	9	**93**	15	< 1.5	**130**	1	30	42
		14723	5 - 10	< 0.8	7	53	< 0.8	32	10	**100**	14	< 1.5	**130**	< 1	31	50
Area B gravel	5037246	14724	0 - 5	< 0.8	< 5	30	< 0.8	34	11	**83**	13	< 1.5	**90**	< 1	34	36
		14725	0 - 5	< 0.8	< 5	31	< 0.8	35	11	**79**	12	< 1.5	**83**	< 1	35	35
Table F(results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A(results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

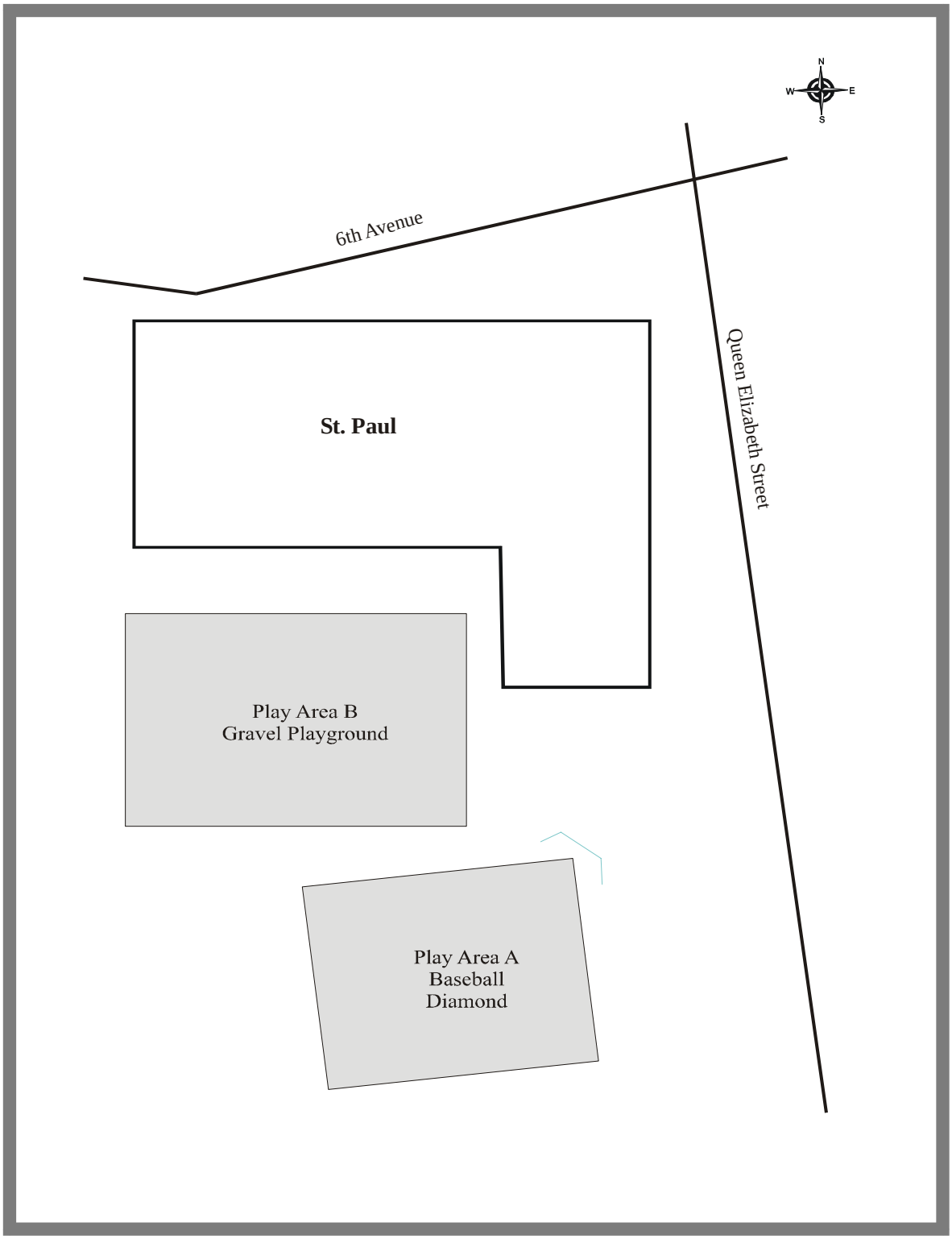

Figure B2.4.26: St. Paul Sampling Locations - 2001.

2.4.27 St. Pierre - Le Conseil Scolaire Catholique du Nouvel-Ontario 70 Rue Wilfred, Sudbury

St. Pierre was sampled on July 22, 2001. Figure B2.4.27 details the sampling locations at this property. Samples were taken from one area on the school property. Area A corresponds to the gravel playground surrounding the school building. Due to the constant mixing and homogenous nature of the gravel areas, samples were collected with hand trowels to represent the 0-5 cm depth. There were not any other play areas to sample at this property. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni), copper (Cu), and cobalt (Co) were elevated above the MOE Table F Ontario Soil Background Criteria in at least one replicate sample from the gravel playground. The highest nickel, copper, and cobalt concentrations found were 120, 93, and 29 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results fall within the lower end of the concentration ranges of those reported historically, while the cobalt concentrations fall within the higher end of the concentration ranges previously reported. Previous MOE sampling of undisturbed soils approximately 1 km northwest and 1.5 km southeast of St. Pierre, Stations 77 and 74, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 91 to 790 and 87 to 740 ppm, respectively. The concentration range for cobalt at these historic sites was 6.5 to 32 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.27: Concentration of 13 Elements in Soil in µg/g Collected at St. Pierre, 70 Rue Wilfred, Sudbury - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037266	14772	0 - 5	< 0.8	< 5	39	< 0.8	35	**29**	**93**	7	< 1.5	**120**	< 1	34	39
		14773	0 - 5	< 0.8	< 5	39	< 0.8	33	17	**82**	7	< 1.5	**88**	< 1	30	31
Table F(results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A(results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

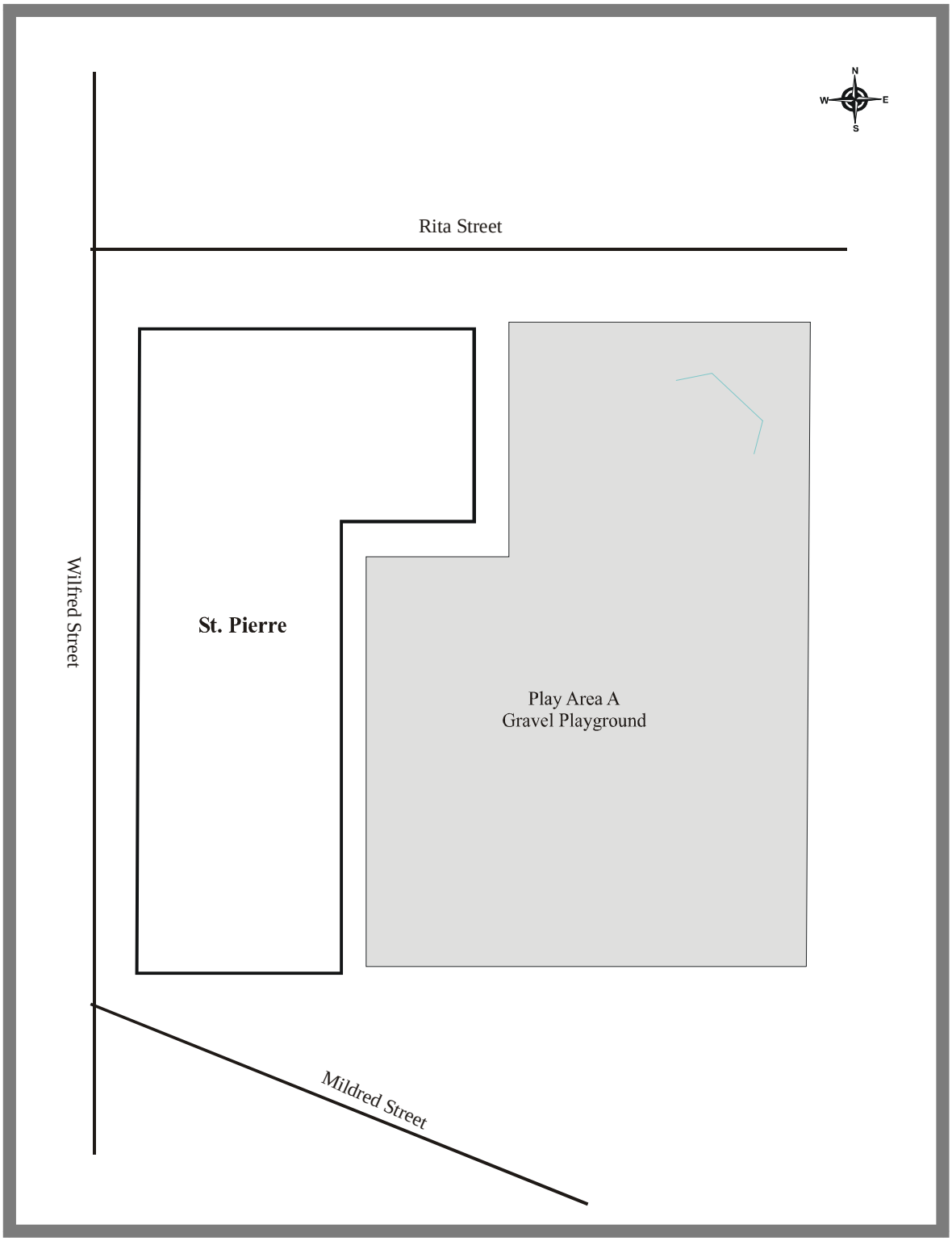

Figure B2.4.27: St. Pierre Sampling Locations - 2001.

2.4.28 Ste. Marie - Le Conseil Scolaire Catholique du Nouvel-Ontario 25 Rue Marier, Azilda

Ste. Marie was sampled on July 19, 2001. Figure B2.4.28 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to the gravel baseball diamond and playground north of the school building. Area B corresponds to sand samples collected from beneath the play structure west of the school building. Due to the constant mixing and homogenous nature of the sanded area, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structure. The sand is not likely native to the school property and is believed to have been introduced when the play structure was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for both gravel playground samples. The highest nickel and copper concentrations found were 85 and 68 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 2.5 km southeast and 4.5 km southwest of Ste. Marie, Stations 90, 91, and 384, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 100 to 770 and 74 to 820 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.28: Concentration of 13 Elements in Soil in µg/g Collected at Ste. Marie, 25 Rue Marier, Azilda - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037373	14500	0 - 5	< 0.8	< 5	34	< 0.8	36	12	**68**	14	< 1.5	**85**	< 1	36	46
		14501	0 - 5	< 0.8	< 5	34	< 0.8	32	11	**58**	12	< 1.5	**60**	< 1	36	42
Area B sand	5037374	14502	0 - 15	< 0.8	< 5	17	< 0.8	23	5	17	4	< 1.5	19	< 1	28	25
Table F(results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A(results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

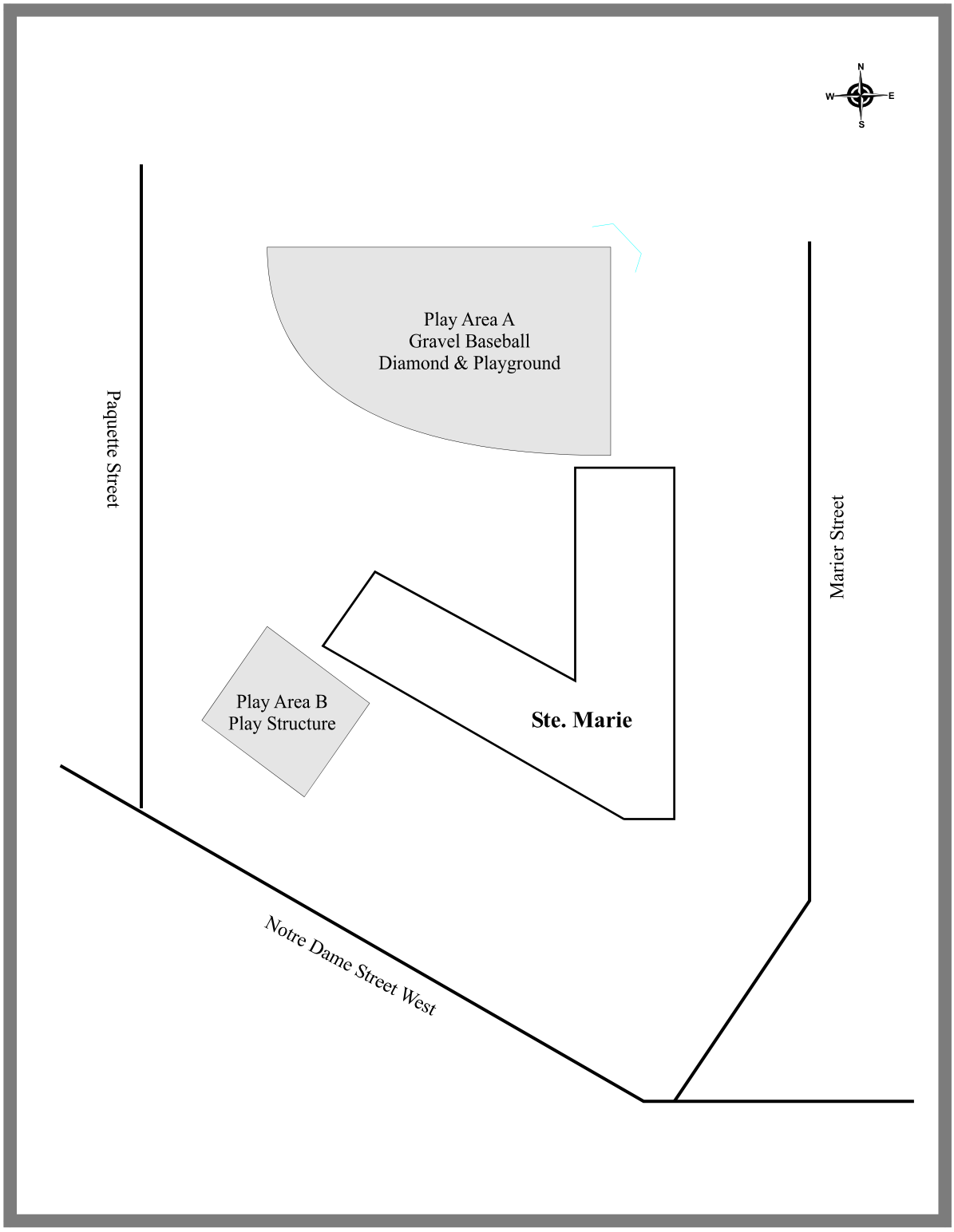

Figure B2.4.28: Ste. Marie School Sampling Locations - 2001.

2.4.29 Ste. Therese - Le Conseil Scolaire Catholique du Nouvel-Ontario 4617 Rue Ste. Therese, Val Therese

Ste. Therese was sampled on July 20, 2001. Figure B2.4.29 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to sand samples collected from the sand box west of the school building. Area B corresponds to the gravel playground also west of the school building. Due to the constant mixing and homogenous nature of the sanded area, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. Area C corresponds to the grassed play area west of the gravel playground. Due to the compacted nature of Area C, or the presence of bedrock at shallow depths, it was only possible to sample the surface soil (0-5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand from the sand box. The sand present is not likely native to the school property and is believed to have been introduced when the play area was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for both grassed play area samples from this property. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel results fall within the lower end of the concentration range of those reported historically. Previous MOE sampling of undisturbed soils approximately 2 km southeast, 3 km northeast, and 3 km southeast of Ste. Therese, Stations 344, 346, and 347, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated a nickel surface soil concentration range of 43 to 150 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.4.29: Concentration of 13 Elements in Soil in µg/g Collected at Ste. Therese, 4617 Rue Ste. Therese, Val Therese - 2001

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037306	14656	0 - 15	< 0.8	< 5	17	< 0.8	24	5	9	2	< 1.5	14	< 1	28	14
Area B gravel	5037307	14657	0 - 5	< 0.8	< 5	26	< 0.8	39	8	37	8	< 1.5	36	< 1	34	27
		14658	0 - 5	< 0.8	< 5	28	< 0.8	37	8	44	10	< 1.5	40	< 1	37	32
Area C grass	5037308	14659	0 - 5	< 0.8	6	36	< 0.8	28	7	48	14	< 1.5	**55**	< 1	29	34
		14660	0 - 5	< 0.8	< 5	37	< 0.8	34	7	44	12	< 1.5	**46**	< 1	34	38
Table F(results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A(results in bold and underlined)				13	20	750	12	750	40	225	200	5.0	150	10	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

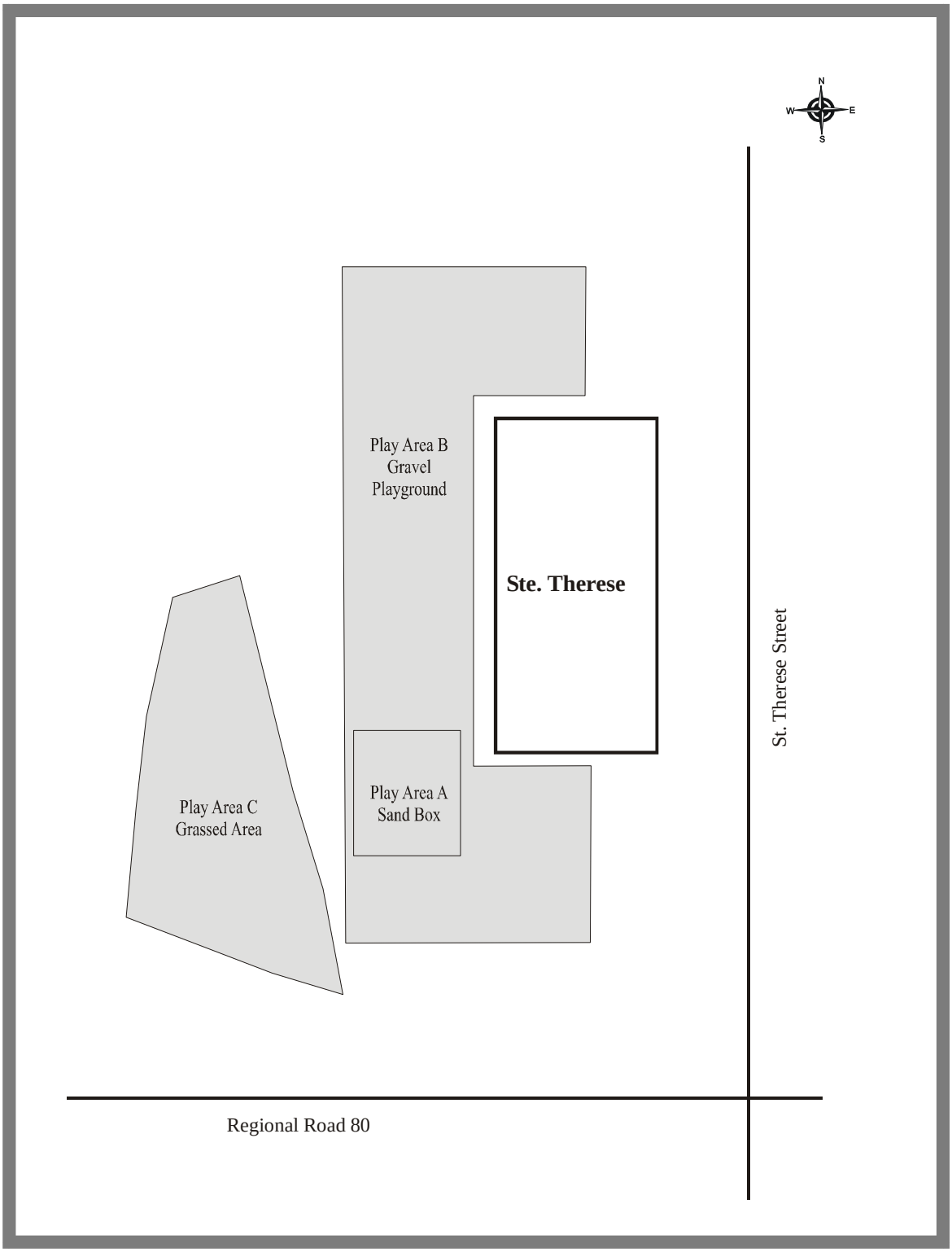

Figure B2.4.29: Ste. Therese Sampling Locations - 2001.

2.5 Private Schools

There were only two private schooling facilities provided to the MOE by the City of Greater Sudbury. Both Baron Academy Nursery (formerly)and Montessori School of Sudbury were sampled in July 2001.

2.5.1 Baron Academy Nursery (formerly), 1534 Pioneer Road, Sudbury

Baron Academy Nursery was sampled on July 4, 2001 and has since been sold. Figure B2.5.1 details the sampling locations at this property. Samples were taken from two areas on the school property. Area A corresponds to the baseball diamond infield and Area B correspond to the baseball diamond outfield. Due to the compacted nature of Areas A and B, it was only possible to sample the surface soil layer of the infield and to 10 cm in the outfield. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in selected samples taken from the baseball diamond outfield. The highest nickel and copper concentrations found, 71, and 58 ppm, respectively, were found in the surface soil of the grassed baseball diamond outfield. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These soil results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1.5 km west of Baron Academy Nursery (formerly), Station 404 of the MOE Sudbury 2000 Report, for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations as high as 120 and 110 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.5.1: Concentration of 13 Elements in Soil in µg/g at Baron Academy Nursery (formerly), 1534 Pioneer Road, Sudbury

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037006	14024	0 - 5	< 0.8	5	31	< 0.8	25	4	15	4	< 1.5	23	< 1	25	14
		14025	0 - 5	< 0.8	5	43	< 0.8	31	6	21	6	< 1.5	30	< 1	29	21
Area B grass	5037007	14026	0 - 5	< 0.8	5	27	< 0.8	25	6	**58**	12	< 1.5	**71**	< 1	25	21
		14027	0 - 5	< 0.8	5	28	< 0.8	24	6	47	10	< 1.5	**61**	< 1	24	21
		14028	5 - 10	< 0.8	5	29	< 0.8	27	6	55	8	< 1.5	**60**	< 1	26	19
		14029	5 - 10	< 0.8	5	30	< 0.8	24	5	48	7	< 1.5	**57**	< 1	25	19
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold &				13	20	750	3.0	750	40	150	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

Note: The ball field was also sampled separately as part of McFarlane Lake Playground. (see Appendix C)

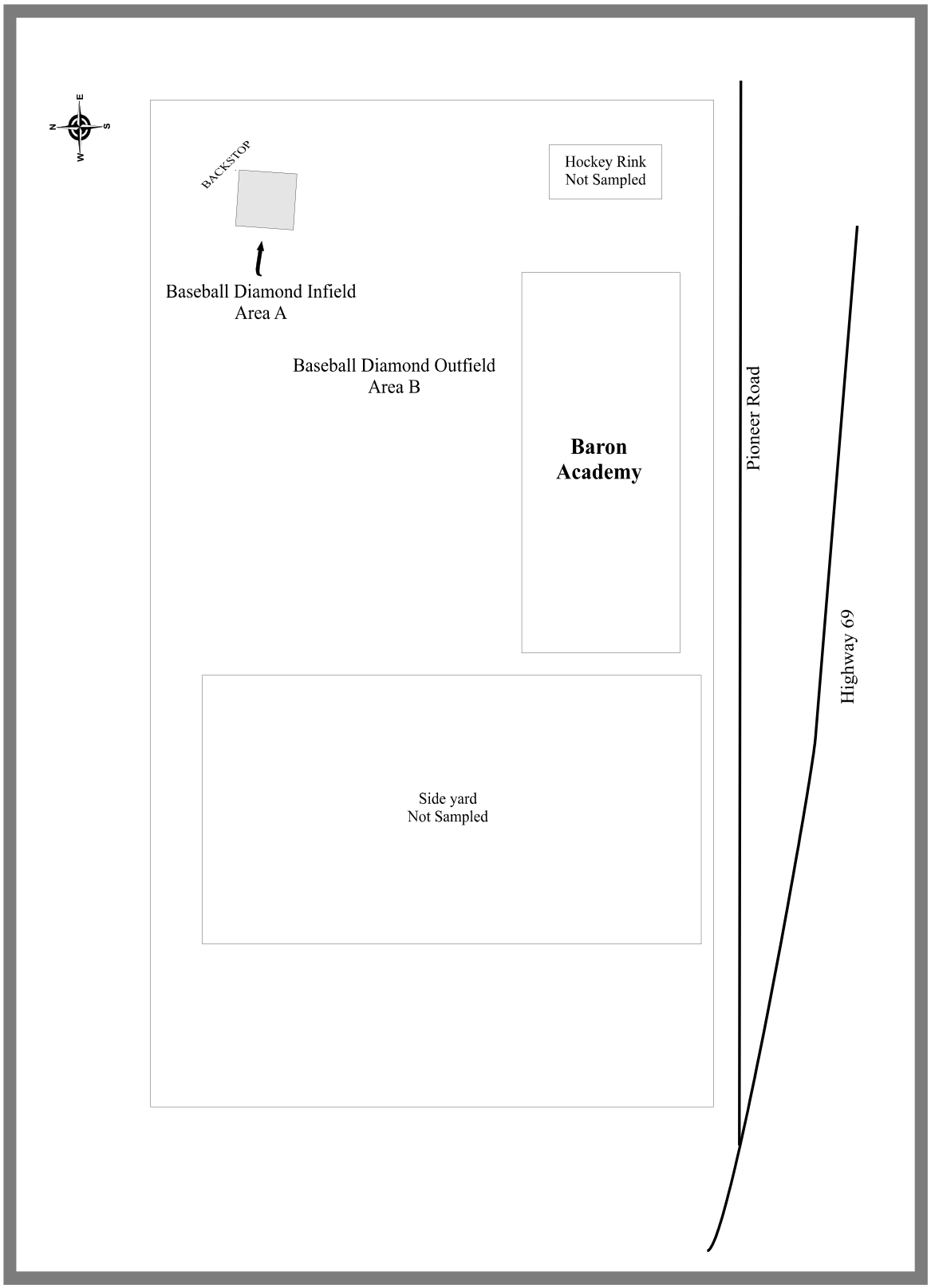

Figure B2.5.1: Baron Academy Nursery (formerly)Sampling Locations - 2001.

2.5.2 Montessori School of Sudbury, 295 Victoria Street, Sudbury

Montessori School of Sudbury was sampled on July 6, 2001. Figure B2.5.2 details the sampling locations at this property. Samples were taken from three areas on the school property. Area A corresponds to the grassed play area on the south side of the fenced property. Due to the compacted nature of Area A, it was only possible to sample the surface soil layer (0-5 cm). Area B corresponds to the sand samples that were taken from the sand boxes. Area D corresponds to the gravel playground in the lower part of the property. Due to the constant mixing and homogenous nature of the sanded area, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand from the sand boxes. The sand present is not likely native to the school property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in all other samples taken from this property. Cobalt (Co) and chromium (Cr) concentrations were also elevated above the MOE Table F Ontario Soil Background Criteria in both the gravel samples. The highest nickel and copper concentrations found in the surface soil samples from the grassed play area were 210 and 150 ppm, respectively. The highest cobalt and chromium concentrations, 30 and 90 ppm, respectively, were found in the samples from the gravel playground. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. Only one sample, 0 -5 cm from the grassed play area, had a nickel concentration that exceeded the MOE Table A Effects Based Soil Criteria.

The nickel and copper soil results are similar to those reported historically, while the cobalt and chromium concentrations are higher than those previously reported. Previous MOE sampling of undisturbed soils approximately 0.5 km southwest of Montessori School of Sudbury, Station 378 of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations of 250 and 180 ppm, respectively. The highest cobalt and chromium concentrations previously reported were 13 and 23 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.5.2: Concentration of 13 Elements in Soil in µg/g at Montessori School of Sudbury, 295 Victoria Street, Sudbury

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037109	14216	0 - 5	< 0.8	5	35	< 0.8	28	7	**80**	13	< 1.5	**110**	< 1	26	31
		14217	0 - 5	< 0.8	6	44	< 0.8	32	10	**150**	24	< 1.5	**210**	1.1	28	39
Area B sand	5037110	14218	0 - 15	< 0.8	5	22	< 0.8	26	7	30	3	< 1.5	32	< 1	33	17
Area C gravel	5037111	14219	0 - 5	< 0.8	5	120	< 0.8	**90**	**28**	**150**	19	< 1.5	**120**	< 1	73	90
		14220	0 - 5	< 0.8	5	120	< 0.8	**86**	**30**	**130**	15	< 1.5	**130**	< 1	70	95
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold &				13	20	750	3.0	750	40	150	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results can be found in Table 4.1.

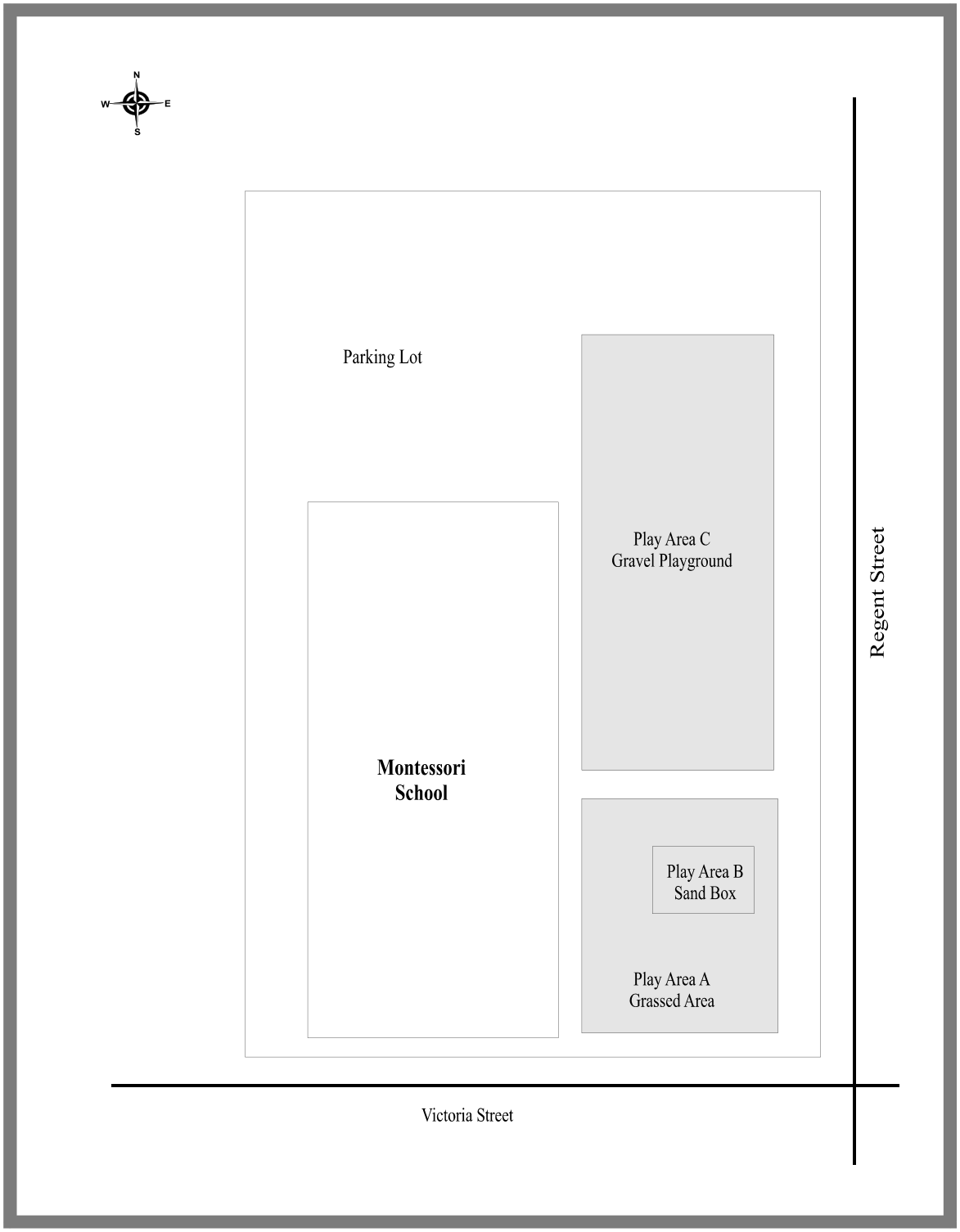

Figure B2.5.2: Montessori School Sampling Locations - 2001.

2.6 City of Sudbury Daycares

In June of 2001, the City of Sudbury, Health and Social Services, provided the MOE with an addressed list of all municipal daycare facilities. Sampling was carried out in July of 2001. Several facilities were not sampled for various reasons.

The following properties did not have any play areas to sample:

All Nations Children, 885 Prete Street, Sudbury
Dowling Co-op Nursery, 7 Douglas Street, Sudbury
Happy Tots Cooperative, at Sudbury Secondary School
Jubilee Heritage Centre, 169 Applegrove Street, Sudbury
Junior Citizens Daycare, 140 Durham Street, Sudbury
Larch Street Kids Child Care- Head Office, 199 Larch Street, Sudbury
YMCA Centre for Life, 140 Durham Street, Sudbury

Minnow Lake Co-op Nursery, 1305 Holland Street, Sudbury is located within a private residence and was not sampled.

The following properties were an intrinsic part of an associated school and therefore, the daycare data can be found with the school at which they are located:

Alexander Kids at Alexander Public School, 39 St. Brendan Street, Sudbury
All Nations - St. Christopher, 2843 CKSO Road, Sudbury
Beattie Kids at R.L. Beattie Public School, 102 Loach's Road, Sudbury
Cedar Park Daycare #2 at St. Raphael School, 1096 Dublin Street, Sudbury
C.R. Judd Daycare at C.R. Judd Public School, 8 Lincoln Street, Capreol
Garderie Jardiniere Francophone at E.P. Foyer Jeunesse, 4752 Rue Notre Dame, Hanmer
Princess Anne Kids at Princess Anne School, 500 Douglas Street, Sudbury
Services de Garde de Rayside-Balfour #2 at Chelmsford Public School, 121 Charlotte Street, Chelmsford
Teddy Bear Daycare at St. John School, 181 William Street, Garson
Walden Daycare Centre #2 at St. James School, 280 Anderson Drive, Lively

Only the properties that were on the list as of June 4, 2001 were sampled. Detailed sampling descriptions and site maps are provided in the following sections. For those daycares located within schools, sampling descriptions and site maps are provided in the section referenced.

2.6.1 Alexander Kids at Alexander Public School, 39 St. Brendan Street, Sudbury

This daycare is operated by Larch Street Kids and is located in the same building as Alexander Public School, Rainbow District School Board. See Alexander Public School for the discussion, results and map (Section 2.1.2).

2.6.2 All Nations -South End, 2690 Henri Street, Sudbury

All Nations South End was sampled on July 4, 2001. Samples were taken from five areas on the daycare property. Area A corresponds to the grassed play area on the front lawn of the house. Areas B and C correspond to sand samples collected from the sanded play areas in the southwest and northeast corners of the back yard. Due to the constant mixing and homogenous nature of the sanded areas, samples were collected with hand trowels to represent the 0-15 cm depth. Area D corresponds to the grassed play area on the east side of the house and fence. Area E corresponds to the grassed play area on the west side of the fence and in the north back yard play area. There was no impediment to sampling all three depths for the grassed play areas. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sanded play areas. The sand is not likely native to the daycare property and is believed to have been introduced when the play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil of the front yard and for all samples collected from the back and side yard grassed play areas. Copper (Cu) was elevated above the MOE Table F Ontario Soil Background Criteria for selected sites from the back and side yard only.

The highest nickel concentration, 93 ppm, was found in the 10 - 20 cm depth of the side yard, while the highest copper concentration , 65 ppm, was found in the 5 - 10 cm depth of the back yard. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results fall within the lower end of the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km west and 1 km northeast of All Nations South End, Stations 404 and 406, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 58 to 120 and 57 to 110 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.2: Concentration of 13 Elements in Soil in µg/g at All Nations -South End, 2690 Henri Street, Sudbury

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037008	14030	0 - 5	< 0.8	< 5	31	< 0.8	31	7	36	6	< 1.5	**48**	< 1	29	23
		14031	0 - 5	< 0.8	< 5	31	< 0.8	35	7	32	6	< 1.5	**49**	< 1	34	24
		14032	5 - 10	< 0.8	< 5	25	< 0.8	29	7	35	5	< 1.5	43	< 1	29	18
		14033	5 - 10	< 0.8	< 5	28	< 0.8	31	7	28	5	< 1.5	37	< 1	33	20
		14034	10 - 20	< 0.8	< 5	26	< 0.8	29	7	28	5	< 1.5	36	< 1	31	18
		14035	10 - 20	< 0.8	< 5	27	< 0.8	28	7	29	5	< 1.5	39	< 1	29	19
Area B sand	5037009	14036	0 - 15	< 0.8	< 5	14	< 0.8	23	4	14	3	< 1.5	16	< 1	27	14
		14037	0 - 15	< 0.8	< 5	14	< 0.8	24	3	15	2	< 1.5	11	< 1	26	14
Area C sand	5037010	14038	0 - 15	< 0.8	< 5	19	< 0.8	29	8	22	3	< 1.5	27	< 1	28	27
		14039	0 - 15	< 0.8	< 5	20	< 0.8	31	9	26	4	< 1.5	29	< 1	32	32
Area D grass	5037011	14040	0 - 5	< 0.8	< 5	25	< 0.8	30	7	33	6	< 1.5	**46**	< 1	23	20
		14041	0 - 5	< 0.8	< 5	30	< 0.8	35	9	38	7	< 1.5	**58**	< 1	25	27
		14042	5 - 10	< 0.8	< 5	27	< 0.8	25	6	32	7	< 1.5	**51**	< 1	25	17
		14043	5 - 10	< 0.8	< 5	27	< 0.8	25	6	30	7	< 1.5	**45**	< 1	26	19
		14044	10 - 20	< 0.8	6	33	< 0.8	27	7	**63**	14	< 1.5	**93**	< 1	28	28
		14045	10 - 20	< 0.8	6	26	< 0.8	22	6	39	9	< 1.5	**58**	< 1	24	17
Area E grass	5037012	14046	0 - 5	< 0.8	< 5	39	< 0.8	32	7	48	10	< 1.5	**66**	< 1	27	32
		14047	0 - 5	< 0.8	< 5	40	< 0.8	30	7	56	11	< 1.5	**85**	< 1	29	28
		14048	5 - 10	< 0.8	< 5	39	< 0.8	28	7	39	9	< 1.5	**62**	< 1	29	23
		14049	5 - 10	< 0.8	< 5	36	< 0.8	27	7	**65**	13	< 1.5	**92**	< 1	27	23
		14050	10 - 20	< 0.8	< 5	31	< 0.8	24	6	49	11	< 1.5	**72**	< 1	25	22
		14051	10 - 20	< 0.8	< 5	30	< 0.8	24	5	44	9	< 1.5	**69**	< 1	25	20
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

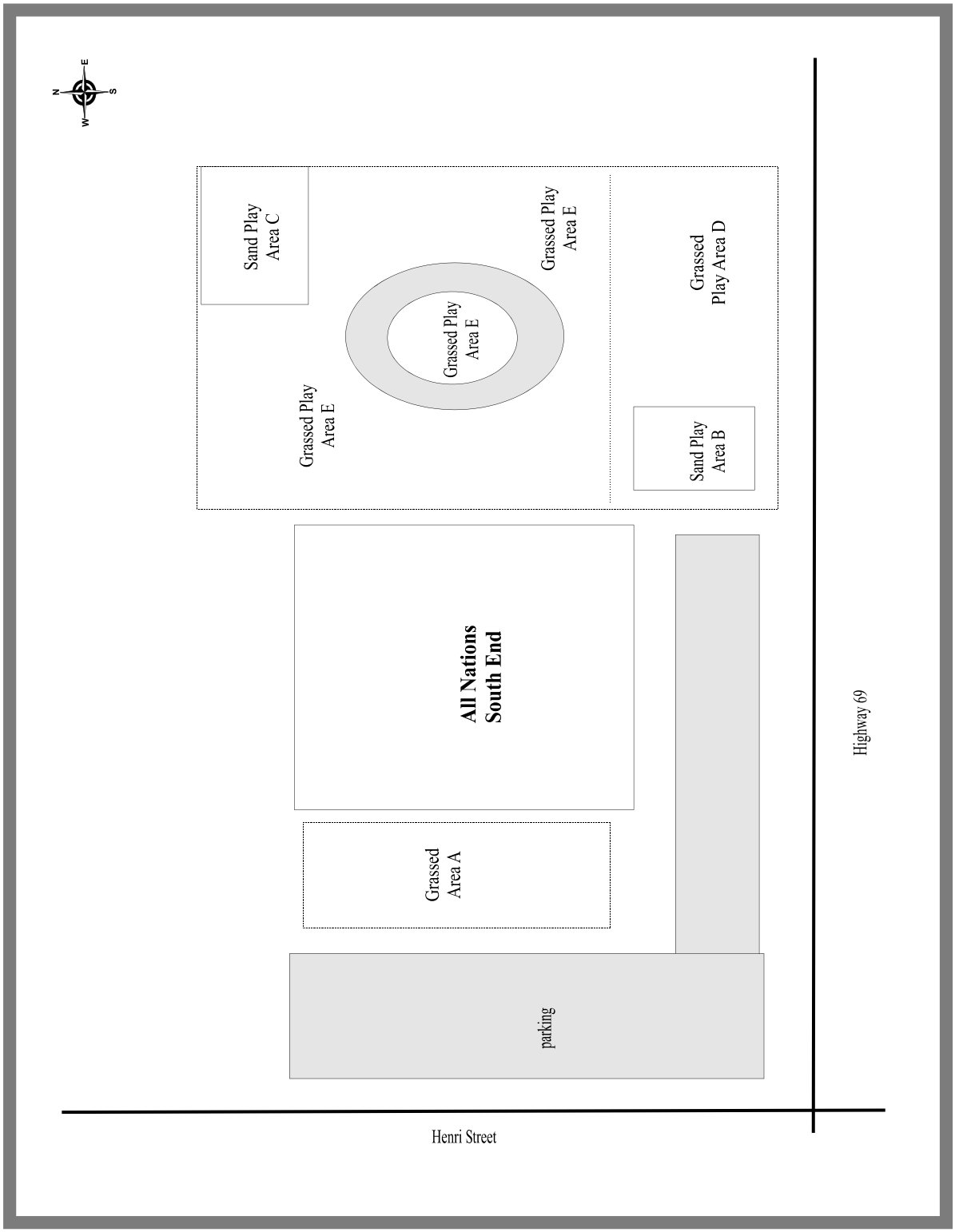

Figure B2.6.2: All Nations - South End Sampling Locations - 2001.

2.6.3 All Nations - St. Christopher, 2843 CKSO Road, Sudbury

This daycare is located in the same building as St. Christopher School, Sudbury Catholic District School Board. See St. Christopher School for the discussion, results and location of Area C - play structure (Section 2.2.14).

2.6.4 Beattie Kids, 102 Loach's Road, Sudbury

This daycare is operated by Larch Street Kids and is located in the same building as R.L. Beattie Public School, Rainbow District School Board. See R.L. Beattie Public School for the discussion, results and map (Section 2.1.32).

2.6.5 Capreol Child Care Centre at St. Mary, 26 Meehan Street, Capreol

Capreol Child Care Centre was sampled on July 20, 2001. Samples were taken from two areas on St. Mary property. Area A corresponds to sand samples collected from beneath the play structure and Area B corresponds to sand samples collected from the sand box. Both areas are located on the south side of St. Mary's School. Due to the constant mixing and homogenous nature of the sanded areas, samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in either the sand beneath the play structure or from the sand box. The sand is not likely native to the property and is believed to have been introduced when the play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 2 km north and 0.5 km south of Capreol Child Care Centre, Stations 352 and 351, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 130 to 330 and 110 to 300 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.5: Concentration of 13 Elements in Soil in µg/g at Capreol Child Care Centre at St. Mary, 26 Meehan Street, Capreol

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037353	14580	0 - 15	< 0.8	< 5	15	< 0.8	21	4	10	3	< 1.5	15	< 1	24	14
Area B sand		14581	0 - 15	< 0.8	< 5	14	< 0.8	18	4	7	3	< 1.5	13	< 1	20	12
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

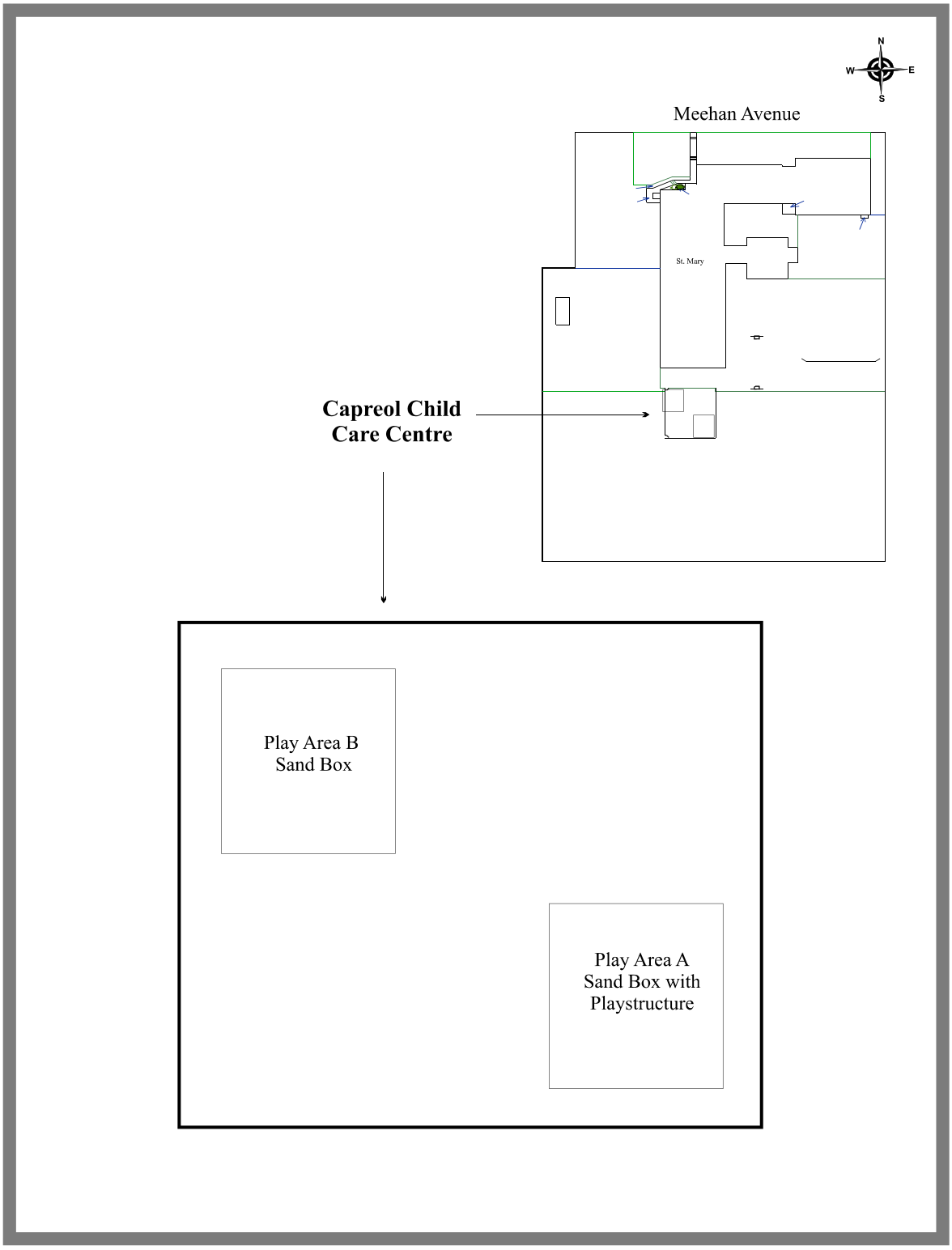

Figure B2.6.5: Capreol Child Care Centre Sampling Locations - 2001.

2.6.6 Cedar Park Daycare #1, 1073 Beaumont Street, Sudbury

Cedar Park Daycare was sampled on July 23, 2001. Samples were taken from two areas on the daycare property. Area A corresponds to the grassed play area in the back yard. Due to the compacted nature of the grassed area, or the presence of bedrock at shallow depths, it was only possible to sample the surface soil layer (0-5 cm). Area B corresponds to sand samples collected from the sanded play areas on the west side of the backyard. Due to the constant mixing and homogenous nature of the sanded areas, samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sanded play areas. The sand is not likely native to the daycare property and is believed to have been introduced when the play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni), copper (Cu), and selenium (Se) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil of the back yard. The highest nickel, copper, and selenium concentrations found were 130, 130, and 1.6 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel, copper, and selenium results fall within the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 1.5 km northeast and 1 km south of Cedar Park Daycare, Stations 6 and 86, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel, copper, and selenium surface soil concentration ranges of 56 to 375, 35 to 305, and 0.28 to 1.7 ppm, respectively.
Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.6: Concentration of 13 Elements in Soil in µg/g at Cedar Park Daycare, 1073 Beaumont Street, Sudbury

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037206	14839	0 - 5	< 0.8	< 5	53	< 0.8	34	8	**99**	15	< 1.5	**110**	**1.6**	31	48
		14840	0 - 5	< 0.8	< 5	57	0.9	32	9	**130**	21	< 1.5	**130**	**1.5**	32	62
Area B sand	5037207	14841	0 - 15	< 0.8	< 5	21	< 0.8	26	6	15	3	< 1.5	24	< 1	23	19
		14842	0 - 15	< 0.8	< 5	17	< 0.8	23	5	19	3	< 1.5	26	< 1	26	18
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

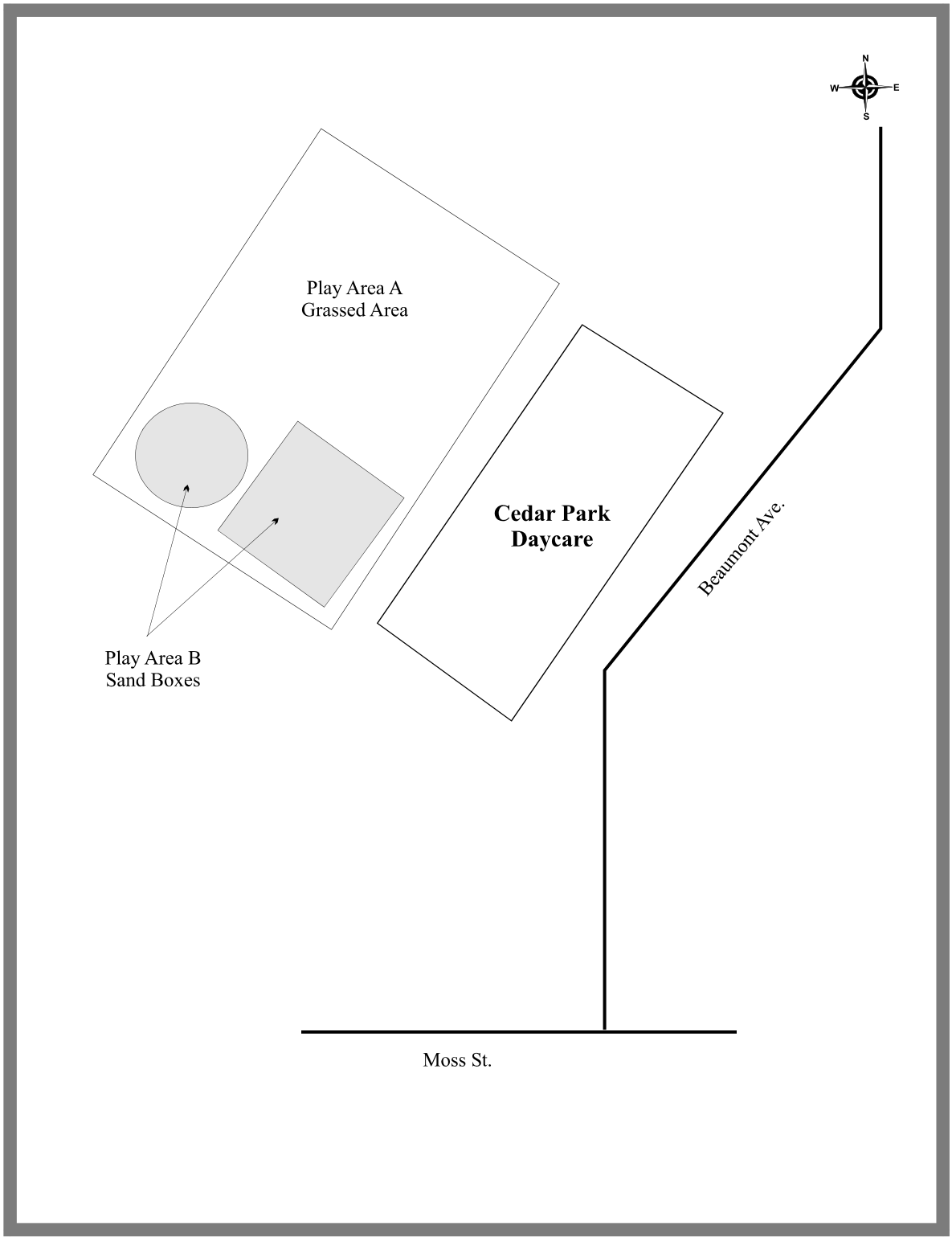

Figure B2.6.6: Cedar Park Daycare Sampling Locations - 2001.

2.6.7 Cedar Park Daycare #2 at St. Raphael School, 1096 Dublin Street, Sudbury

This daycare is located in the same building as St. Raphael School, Sudbury Catholic District School Board. See St. Raphael School for the discussion, results and map (Section 2.2.23).

2.6.8 Centre Educatif Etoile du Nord at College Boreal, 21 Lasalle Boulevard, Sudbury

Centre Educatif Etoile du Nord was sampled on July 19, 2001. Samples were taken from two areas on the daycare property. Areas A and B correspond to sand samples collected from below the west and east play structures, respectively. Due to the constant mixing and homogenous nature of the sanded areas, samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Nickel (Ni) and copper (Cu) concentrations were elevated in the sand beneath the play structures. The sand is not likely native to the daycare property and is believed to have been introduced when the sanded play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. There were not any other play areas surrounding these sanded areas. It is not known if the sand was placed on bare soil when the sanded play areas were constructed. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km west and 1 km northeast of Centre Educatif Etoile Du Nord, Stations 362 and 337, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations as high as 530 and 450 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.8: Concentration of 13 Elements in Soil in µg/g at Centre Educatif Etoile du Nord at College Boreal, 21 Lasalle Boulevard, Sudbury

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037201	14477	0 - 15	< 0.8	7	26	< 0.8	25	13	**92**	7	< 1.5	**90**	< 1	29	41
Area B sand	5037202	14478	0 - 15	< 0.8	6	24	< 0.8	23	11	**69**	6	< 1.5	**65**	< 1	29	32
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

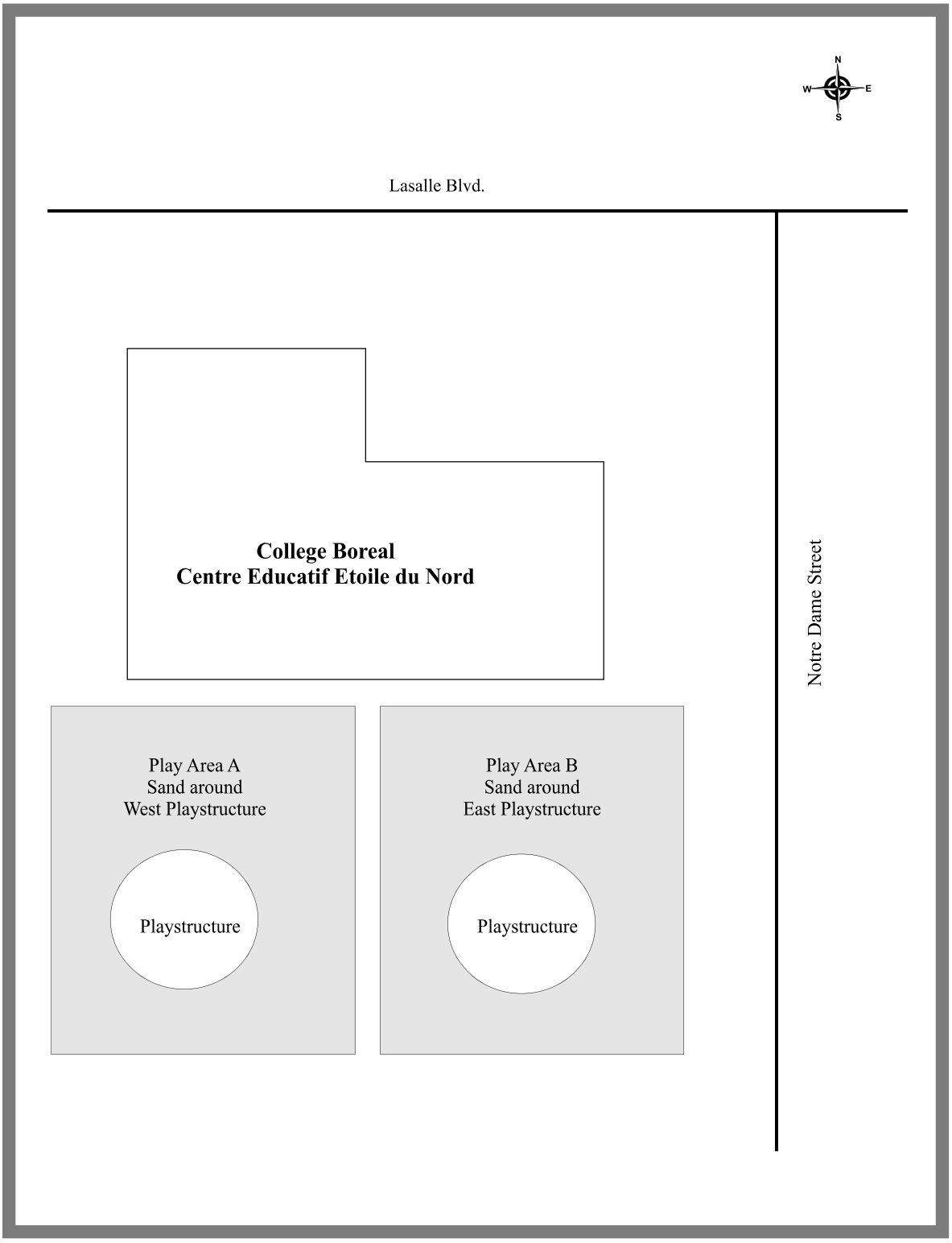

Figure B2.6.8: Centre Educatif Etoile du Nord Sampling Locations - 2001.

2.6.9 Circle of Friends, 106 Arlington Drive, Dowling

Circle of Friends was sampled on July 19, 2001. Samples were taken from one area on the daycare property. Area A corresponds to sand samples collected from the sand box behind the building. Due to the constant mixing and homogenous nature of the sanded areas, samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand from the sand box. The sand is not likely native to the daycare property and is believed to have been introduced when the play area was constructed. Thus the sand was not expected to have elevated metal concentrations. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 2.5 km west, 3 km southwest, and 3.5 km northeast of Circle of Friends, Stations 389, 391, and 388, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 25 to 83 and 14 to 69 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.9: Concentration of 13 Elements in Soil in µg/g at Circle of Friends, 106 Arlington Drive, Dowling

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037405	14561	0 - 15	< 0.8	< 5	16	< 0.8	25	5	10	2	< 1.5	16	< 1	29	14
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

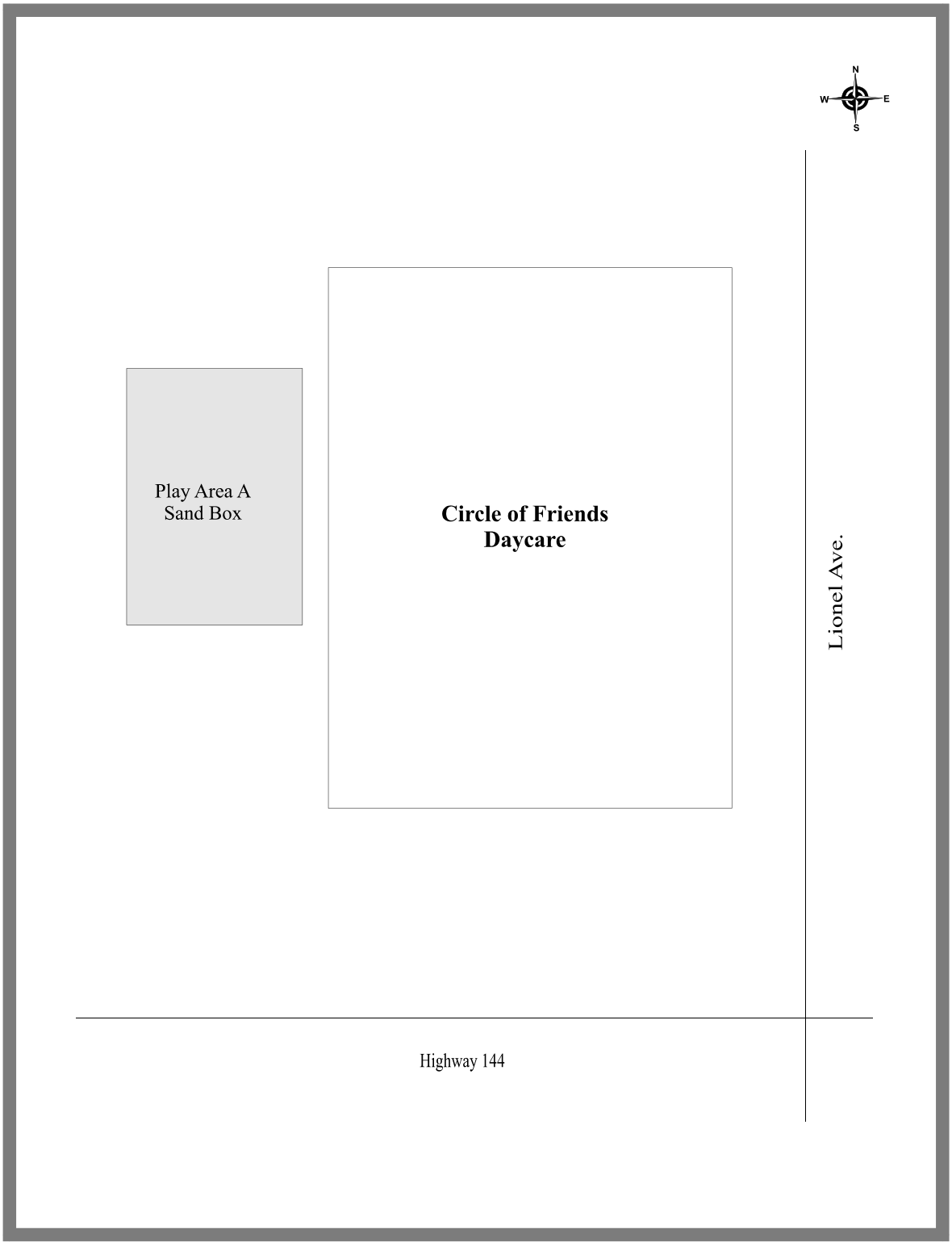

Figure B2.6.9: Circle of Friends Daycare Sampling Locations - 2001.

2.6.10 Cotton Candy Daycare, 298 College Street, Sudbury

Cotton Candy Daycare was sampled on July 16, 2001. Samples were taken from two areas on the daycare property. Areas A and B correspond to sand samples collected from the sanded play areas in the east and west corners of the daycare property, respectively. Due to the constant mixing and homogenous nature of the sanded areas, samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand from either sanded play area. The sand is not likely native to the daycare property and is believed to have been introduced when the play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results are much lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km west of Cotton Candy Daycare, Station 84, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentrations as high as 490 and 520 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.10: Concentration of 13 Elements in Soil in µg/g at Cotton Candy Daycare, 298 College Street, Sudbury

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037113	14257	0 - 15	< 0.8	< 5	20	< 0.8	27	6	21	3	< 1.5	27	< 1	30	17
		14258	0 - 15	< 0.8	< 5	17	< 0.8	28	5	20	3	< 1.5	25	< 1	31	17
Area B sand	5037114	14259	0 - 15	< 0.8	< 5	27	< 0.8	30	8	36	4	< 1.5	39	< 1	32	24
		14260	0 - 15	< 0.8	< 5	24	< 0.8	29	8	36	4	< 1.5	39	< 1	31	22
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

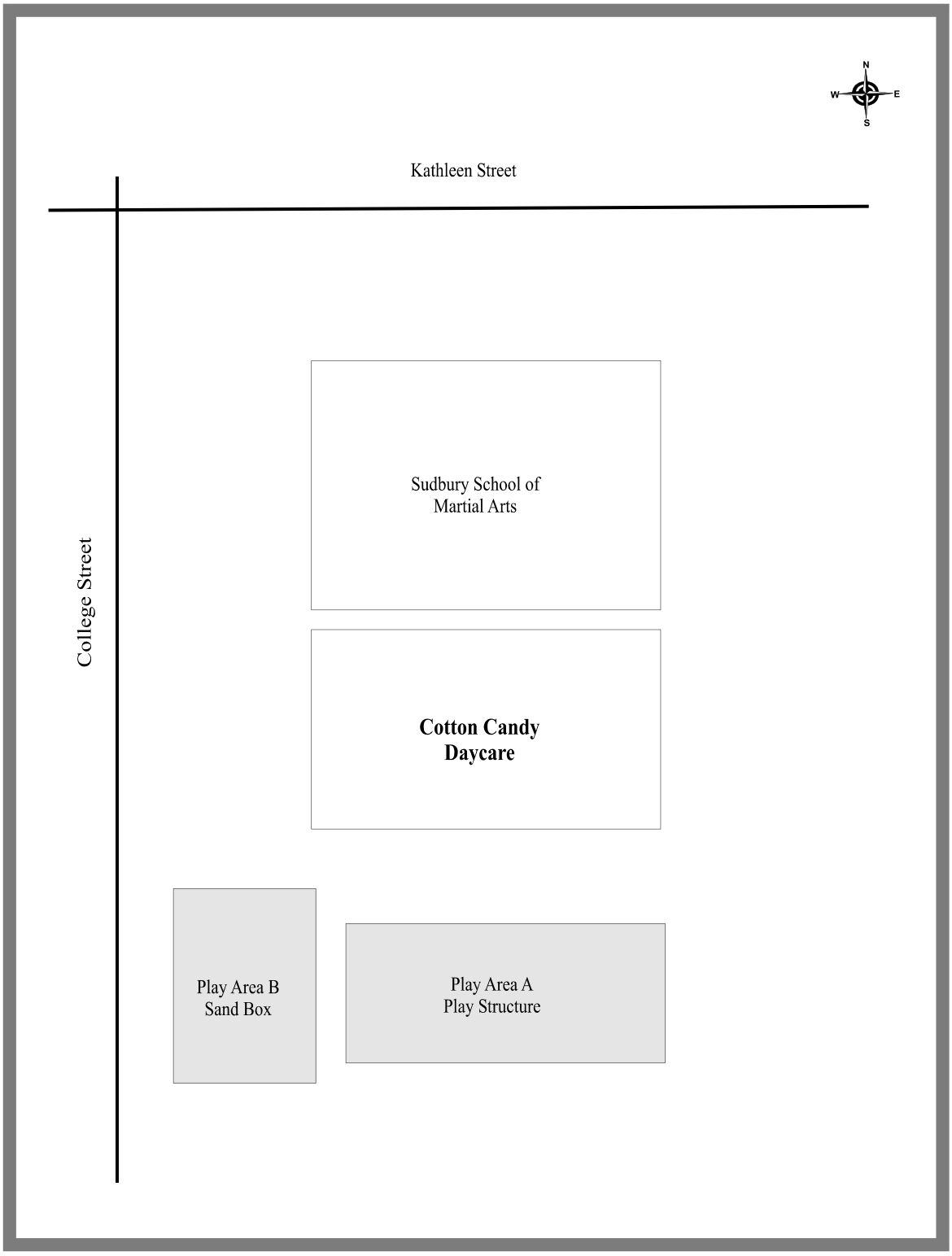

Figure B2.6.10: Cotton Candy Daycare Sampling Locations - 2001.

2.6.11 C.R. Judd Daycare at C.R. Judd Public School, 8 Lincoln Street, Capreol

This daycare is located in the same building as C.R. Judd Public School, Rainbow District School Board. See C.R. Judd Public School for the discussion, results and map (Section 2.1.4).

2.6.12 Garderie du Triangle Magique at St. Agnes, 80 Rue Landry, Azilda

Garderie du Triangle Magique was sampled on July 19, 2001. Samples were taken from six areas on the daycare property. Areas A and B correspond to the sand box and grassed play area in the south fenced play area, respectively. Areas C and D correspond to the sand box and grassed area in the centre fenced play area, respectively. Areas E and F correspond to the sand box and grassed area in the north fenced play area, respectively. Due to the constant mixing and homogenous nature of the sanded areas, samples were collected with hand trowels to represent the 0-15 cm depth. In addition, due to the compacted nature of the grassed areas, it was only possible to sample the surface soil (0-5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in either of the south or centre sand boxes. Arsenic (As) was elevated above the MOE Table A Effects Based Soil Criteria for the sand collected from the north sand box. The origin of the sand is not known, however, it is believed to have been introduced when the play areas were constructed. Thus the sand was not expected to have elevated metalloid concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil of all of the grassed play areas. Copper (Cu) was elevated above the MOE Table F Ontario Soil Background Criteria for one replicate sample from the south grassed area. The highest nickel and copper concentrations, 71 and 64 ppm, respectively, occurred in the surface soil of the south grassed area. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel, copper, and arsenic results fall within the lower end of the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 2 km northeast and 2 km southeast of Garderie du Triangle Magique, Stations 92, 91, and 90, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel, copper, and arsenic surface soil concentration ranges of 36 to 770, 37 to 820 and 10 to 48 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.12: Concentration of 13 Elements in Soil in µg/g at Garderie du Triangle Magique at St. Agnes, 80 Rue Landry, Azilda

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037365	14487	0 - 15	< 0.8	< 5	13	< 0.8	21	4	8	2	< 1.5	15	< 1	23	13
Area B grass	5037366	14488	0 - 5	< 0.8	5	31	< 0.8	28	6	54	12	< 1.5	**69**	< 1	27	32
		14489	0 - 5	< 0.8	< 5	34	< 0.8	30	7	**64**	14	< 1.5	**71**	< 1	28	29
Area C sand	5037367	14490	0 - 15	< 0.8	< 5	11	< 0.8	21	3	8	2	< 1.5	14	< 1	21	15
Area D grass	5037368	14491	0 - 5	< 0.8	5	30	< 0.8	25	6	54	14	< 1.5	**65**	< 1	26	31
		14492	0 - 5	< 0.8	5	27	< 0.8	24	5	35	10	< 1.5	**44**	< 1	24	28
Area E sand	5037369	14493	0 - 15	< 0.8	**23**	12	< 0.8	30	3	27	2	< 1.5	14	< 1	26	15
Area F grass	5037370	14494	0 - 5	< 0.8	6	27	< 0.8	24	5	45	11	< 1.5	**53**	< 1	24	25
		14495	0 - 5	< 0.8	6	28	< 0.8	25	5	46	11	< 1.5	**54**	< 1	26	25
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

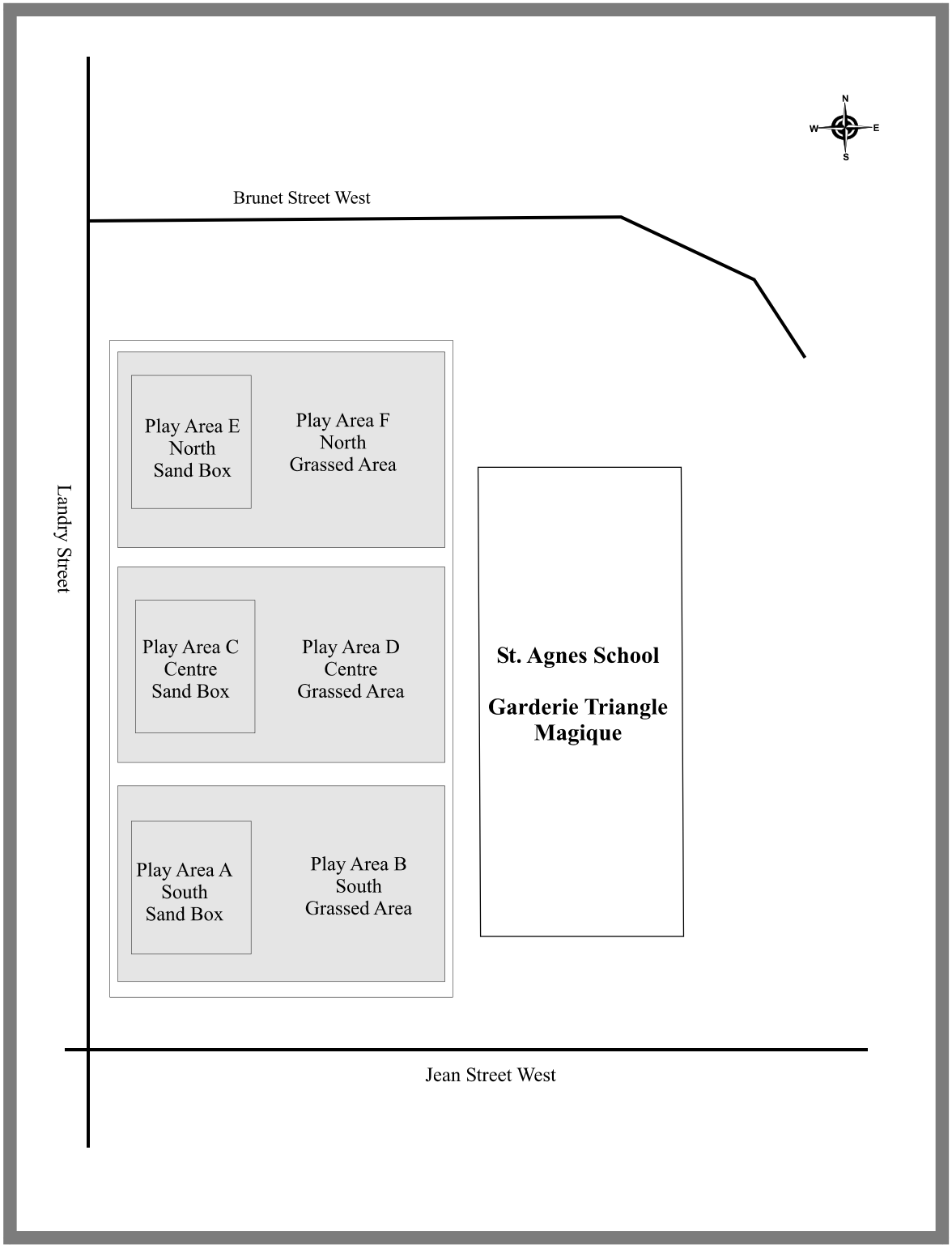

Figure B2.6.12: Garderie Triangle Magique Sampling Locations - 2001.

2.6.13 Garderie Jardiniere Francophone formerly at Foyer Jeunesse, 4752 rue Notre Dame, Hanmer

Garderie Jardiniere Francophone was sampled on July 20, 2001 and has since closed. Samples were taken from two areas on the Foyer Jeunesse property. Area A corresponds to sand samples collected from below the play structure. Area B corresponds to the gravel playground. Due to the constant mixing and homogenous nature of the sanded areas, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand beneath the play structure. The sand present is not likely native to the daycare property and is believed to have been introduced when the play area was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni), copper (Cu), and cobalt (Co) concentrations were elevated in both of the gravel playground samples. The highest nickel, copper and cobalt concentrations found were 67, 80, and 33 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results fall within the lower end of the concentration ranges of those reported historically, while the elevated cobalt concentrations are higher than previously reported. Previous MOE sampling of undisturbed soils approximately 1 km southwest, 2.5 km northwest, and 2 km east of Garderie Jardiniere Francophone (formerly), Stations 347, 346, and 350, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 43 to 150 and 35 to 110 ppm, respectively. The highest cobalt concentration previously reported at these historic sites was 7.4 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.13: Concentration of 13 Elements in Soil in µg/g at Garderie Jardiniere Francophone formerly at Foyer Jeunesse, 4752 rue Notre Dame, Hanmer

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037325	14625	0 - 15	< 0.8	< 5	22	< 0.8	32	6	27	4	< 1.5	22	< 1	36	35
Area B gravel	5037326	14626	0 - 5	< 0.8	< 5	20	< 0.8	32	**33**	**80**	13	< 1.5	**67**	< 1	33	53
		14627	0 - 5	< 0.8	< 5	22	< 0.8	32	**22**	**60**	11	< 1.5	**48**	< 1	31	41
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

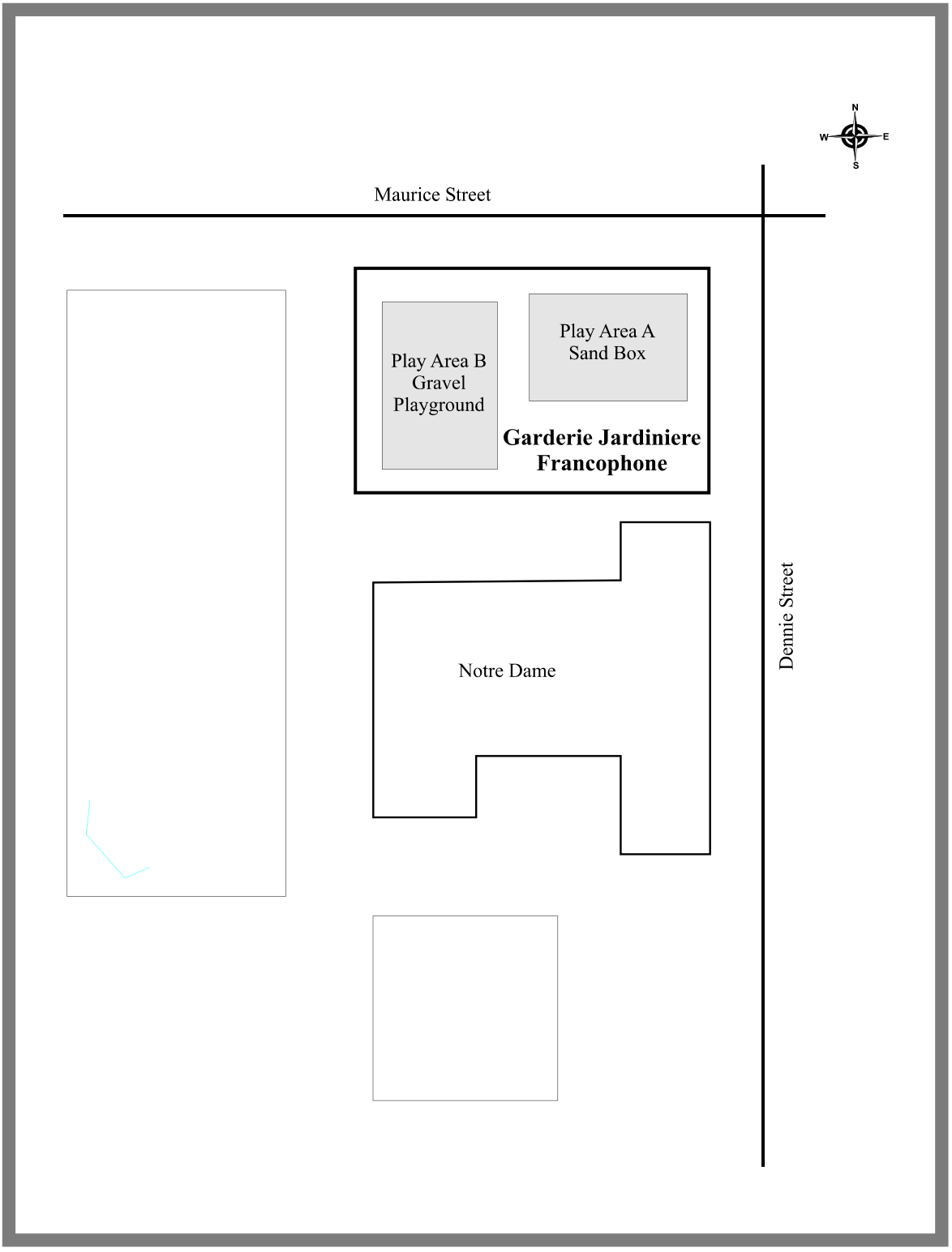

Figure B2.6.13: Garderie Jardiniere Francophone Sampling Locations - 2001.

2.6.14 Garderie Jardiniere Francophone at E.P. Foyer Jeunesse, 4752 Rue Notre Dame, Hanmer

This daycare was located in the same building as E.P. Foyer Jeunesse, Conseil Scolaire du District de Grand Nord de L'Ontario. See E.P. Foyer Jeunesse for the discussion, results and location of daycare play areas A and B (Section 2.3.3).

2.6.15 Jubilee Heritage Centre formerly at St. Francis, 691 Lilac Street, Sudbury

Jubilee Heritage Centre was sampled on July 5, 2001 but has since closed. Samples were taken from two areas on the daycare property. Area A corresponds to the soil playground beside the sanded play structure on the north side of St. Francis school building. Area B corresponds to sand samples collected from below the play structure. Due to the constant mixing and homogenous nature of the sanded areas, samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand from beneath the play structure. The sand present is not likely native to the daycare property and is believed to have been introduced when the play structure was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil of both samples from the soil from beside the play structure. Copper (Cu) was elevated above the MOE Table F Ontario Soil Background Criteria for one replicate sample from the soil playground. The highest nickel and copper concentrations found were 74 and 62 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results are much lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km north, 1 km southwest, and 1.5 km west of Jubilee Heritage Centre (formerly), Stations 378, 73, and 74, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 145 to 790 and 158 to 740 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.15: Concentration of 13 Elements in Soil in µg/g at Jubilee Heritage Centre formerly at St. Francis, 691 Lilac Street, Sudbury

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A soil	5037072	14146	0 - 5	< 0.8	< 5	31	< 0.8	30	8	56	7	< 1.5	**69**	< 1	28	27
		14147	0 - 5	< 0.8	< 5	27	< 0.8	29	8	**62**	7	< 1.5	**74**	< 1	28	26
Area B sand	5037073	14148	0 - 15	< 0.8	< 5	21	< 0.8	27	7	22	3	< 1.5	25	< 1	26	18
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

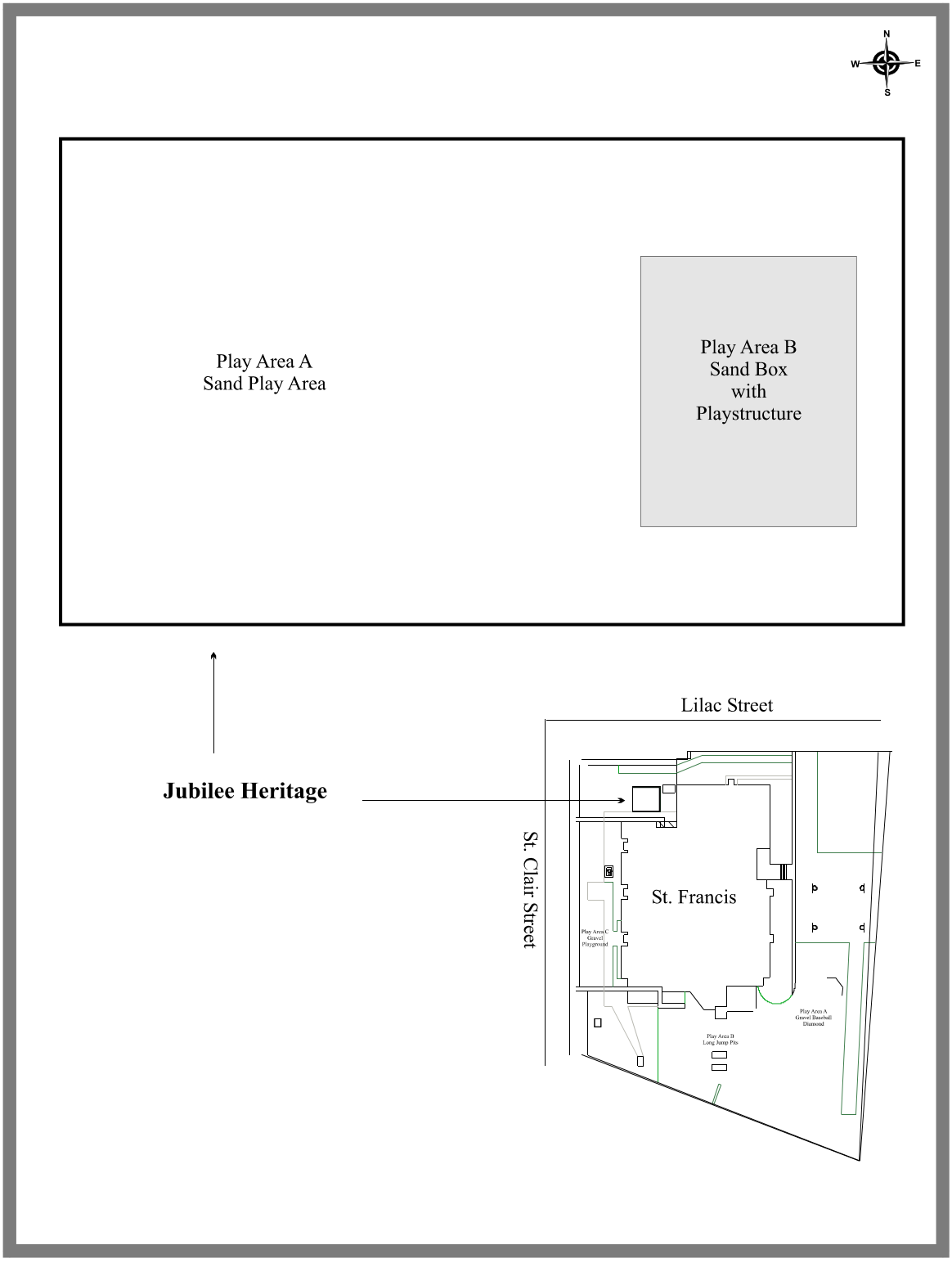

Figure B2.6.15: Jubilee Heritage Sampling Locations - 2001.

2.6.16 Junior Citizens Daycare (formerly Little Ones Corner), 210 Lloyd Street, Sudbury

Junior Citizens Daycare, formerly named Little Ones Corner, was sampled on July 16, 2001. At the time of sampling, it's temporary locations was at 210 Lloyd Street. The new permanent location, 41 Ramsey Lake Road, has not been sampled. Samples were taken from three areas on the daycare property. Area A corresponds to the grassed play area on the west side of the property. Due to the compacted nature of the grassed play area, it was only possible to sample the surface soil (0-5 cm). Areas B and C correspond to sand samples collected from the north and south sanded play areas, respectively. Due to the constant mixing and homogenous nature of the sanded areas, samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand samples collected from either sanded play area. The sand present is not likely native to the daycare property and is believed to have been introduced when the play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in both of the surface soil samples from the grassed play area. The highest nickel and copper concentrations found were 94 and 86 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results are much lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1.5 km northwest and 1 km southeast of Junior Citizens Daycare, Stations 84 and 75, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 230 to 830 and 230 to 820 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.16: Concentration of 13 Elements in Soil in µg/g at Junior Citizens Daycare (formerly Little Ones Corner), 210 Lloyd Street, Sudbury

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037136	14238	0 - 5	< 0.8	< 5	41	< 0.8	34	8	**86**	16	< 1.5	**94**	< 1	30	46
		14239	0 - 5	< 0.8	< 5	39	< 0.8	35	9	**67**	11	< 1.5	**76**	< 1	31	38
Area B sand	5037137	14240	0 - 15	< 0.8	< 5	22	< 0.8	30	7	32	6	< 1.5	33	< 1	27	24
		14241	0 - 15	< 0.8	< 5	29	< 0.8	34	8	32	5	< 1.5	36	< 1	33	30
Area C sand	5037138	14242	0 - 15	< 0.8	< 5	22	< 0.8	26	7	35	7	< 1.5	40	< 1	23	26
		14243	0 - 15	< 0.8	< 5	22	< 0.8	27	7	38	7	< 1.5	43	< 1	25	27
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

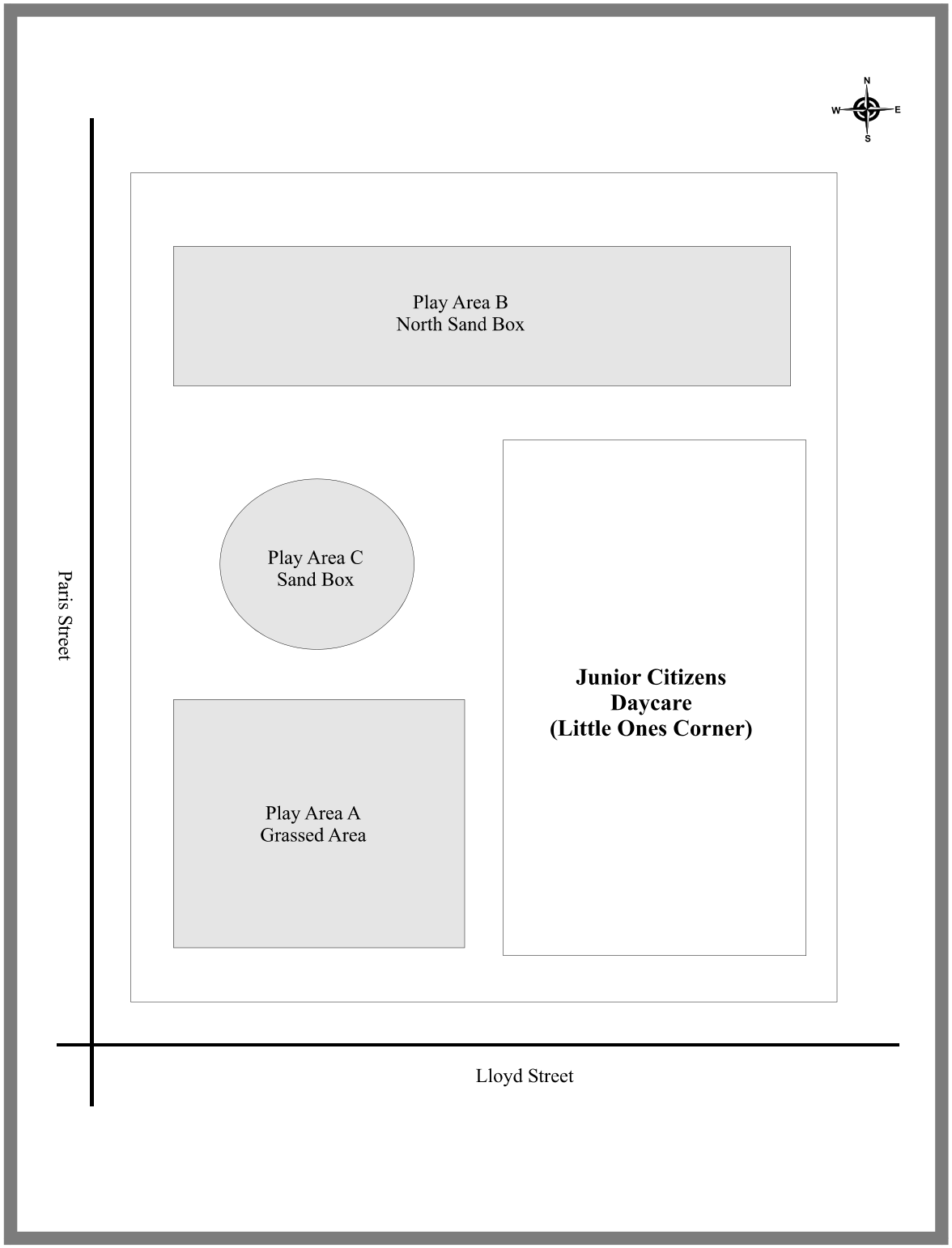

Figure B2.6.16: Junior Citizens Daycare (formely Little Ones Corner) Sampling Locations - 2001.

2.6.17 La Garderie Touche a Tout, Laurentian University

La Garderie Touche a Tout was sampled on July 5, 2001. Samples were taken from four areas on the daycare property. Areas A and C correspond to sand samples collected from the west and east sanded play areas, respectively. Due to the constant mixing and homogenous nature of the sanded areas, samples were collected with hand trowels to represent the 0-15 cm depth. Areas B and D correspond to the west and east grassed play areas, respectively. Due to the compacted nature of these grassed areas, or the presence of bedrock at shallow depths, it was only possible to sample the surface soil (0-5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in sand from either sanded play area. The sand present is not likely native to the daycare property and is believed to have been introduced when the play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil of both samples from the both grassed play areas. The highest nickel concentration found was 73 ppm. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results are much lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km north, 2.5 km northwest, and 2 km southwest of Garderie Touche a Tout, Stations 19, 74, and 365, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 145 to 1000 and 190 to 980 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.17: Concentration of 13 Elements in Soil in µg/g at La Garderie Touche a Tout, Laurentian University

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037058	14126	0 - 15	< 0.8	< 5	20	< 0.8	25	6	22	3	< 1.5	24	< 1	31	18
Area B grass	5037059	14127	0 - 5	< 0.8	< 5	40	< 0.8	37	6	37	9	< 1.5	**57**	< 1	34	24
		14128	0 - 5	< 0.8	< 5	40	< 0.8	37	6	39	9	< 1.5	**58**	< 1	33	24
Area C sand	5037060	14129	0 - 15	< 0.8	< 5	19	< 0.8	24	6	15	2	< 1.5	21	< 1	29	14
Area D grass	5037061	14130	0 - 5	< 0.8	< 5	44	< 0.8	36	8	49	10	< 1.5	**73**	< 1	35	31
		14131	0 - 5	< 0.8	< 5	40	< 0.8	34	7	43	9	< 1.5	**64**	< 1	32	25
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

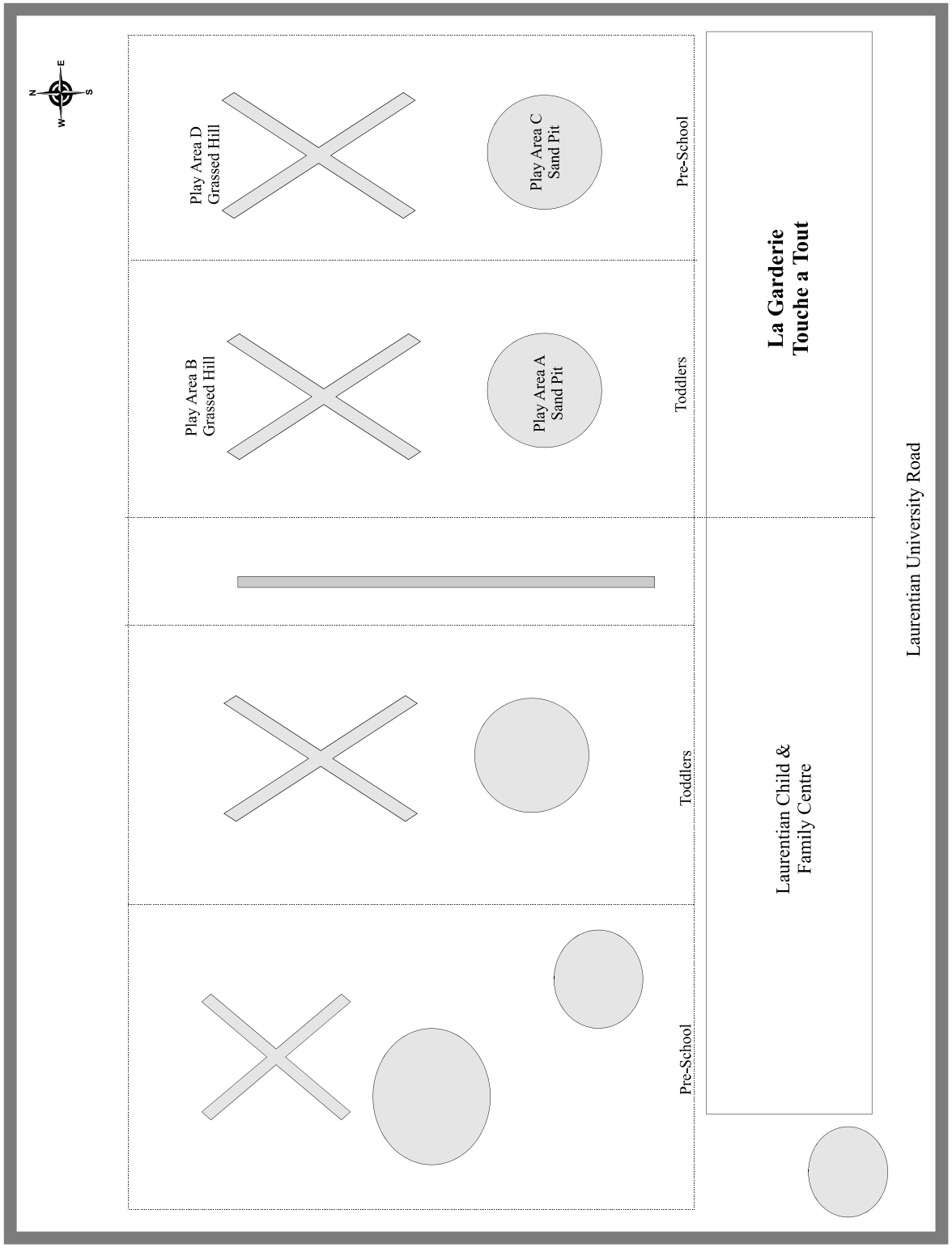

Figure B2.6.17: La Garderie Touche a Tout Sampling Locations - 2001.

2.6.18 Laurentian Child & Family Centre, Laurentian University

Laurentian Child and Family Centre was sampled on July 5, 2001. Samples were taken from seven areas on the daycare property. Area A corresponds to sand samples collected from the pile of sand from the parking lot that was purchased to use in the sanded play areas. Area B corresponds to sand samples collected from beneath the play structure located in the west play area. Areas C and D correspond to sand samples collected from the west and east sanded play areas, respectively. Due to the constant mixing and homogenous nature of the sanded areas, samples were collected with hand trowels to represent the 0-15 cm depth. Areas E and F correspond to the west and east grassed play areas, respectively. Area G corresponds to the long narrow grassed play area on the east edge of the Laurantian Child and Family Centre play area. Due to the compacted nature of these grassed areas, or the presence of bedrock at shallow depths, it was only possible to sample the surface soil (0-5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in sand from either sanded play area. The sand present is not likely native to the daycare property and is believed to have been introduced when the play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil of all samples from the grassed play areas. The highest nickel concentration found was 60 ppm. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

Table B2.6.18: Concentration of 13 Elements in Soil in µg/g at Laurentian Child & Family Centre, Laurentian University

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037062	14115	0 - 15	< 0.8	< 5	12	< 0.8	15	3	6	2	< 1.5	11	< 1	16	9
Area B sand	5037063	14116	0 - 15	< 0.8	< 5	17	< 0.8	24	6	16	3	< 1.5	22	< 1	29	16
		14117	0 - 15	< 0.8	< 5	17	< 0.8	24	6	17	3	< 1.5	22	< 1	31	16
Area C sand	5037064	14122	0 - 15	< 0.8	< 5	16	< 0.8	20	4	8	2	< 1.5	12	< 1	22	10
Area D sand	5037065	14123	0 - 15	< 0.8	< 5	23	< 0.8	30	8	25	3	< 1.5	29	< 1	33	18
Area E grass	5037066	14118	0 - 5	< 0.8	< 5	42	< 0.8	37	6	37	10	< 1.5	**59**	< 1	34	28
		14119	0 - 5	< 0.8	< 5	44	< 0.8	37	6	37	10	< 1.5	**60**	< 1	35	28
Area F grass	5037067	14120	0 - 5	< 0.8	< 5	44	< 0.8	38	6	39	10	< 1.5	**60**	< 1	35	30
		14121	0 - 5	< 0.8	5	45	< 0.8	41	6	37	11	< 1.5	**58**	< 1	35	31
Area G grass	5037068	14124	0 - 5	< 0.8	< 5	46	< 0.8	38	6	41	10	< 1.5	**60**	< 1	35	30
		14125	0 - 5	< 0.8	6	45	< 0.8	37	6	41	10	< 1.5	**60**	< 1	34	31
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

These nickel and copper results are much lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km north, 2.5 km northwest, and 2 km southwest of Laurentian Child and Family Centre, Stations 19, 74, and 365, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 145 to 1000 and 190 to 980 ppm, respectively. Historic MOE sampling in

the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

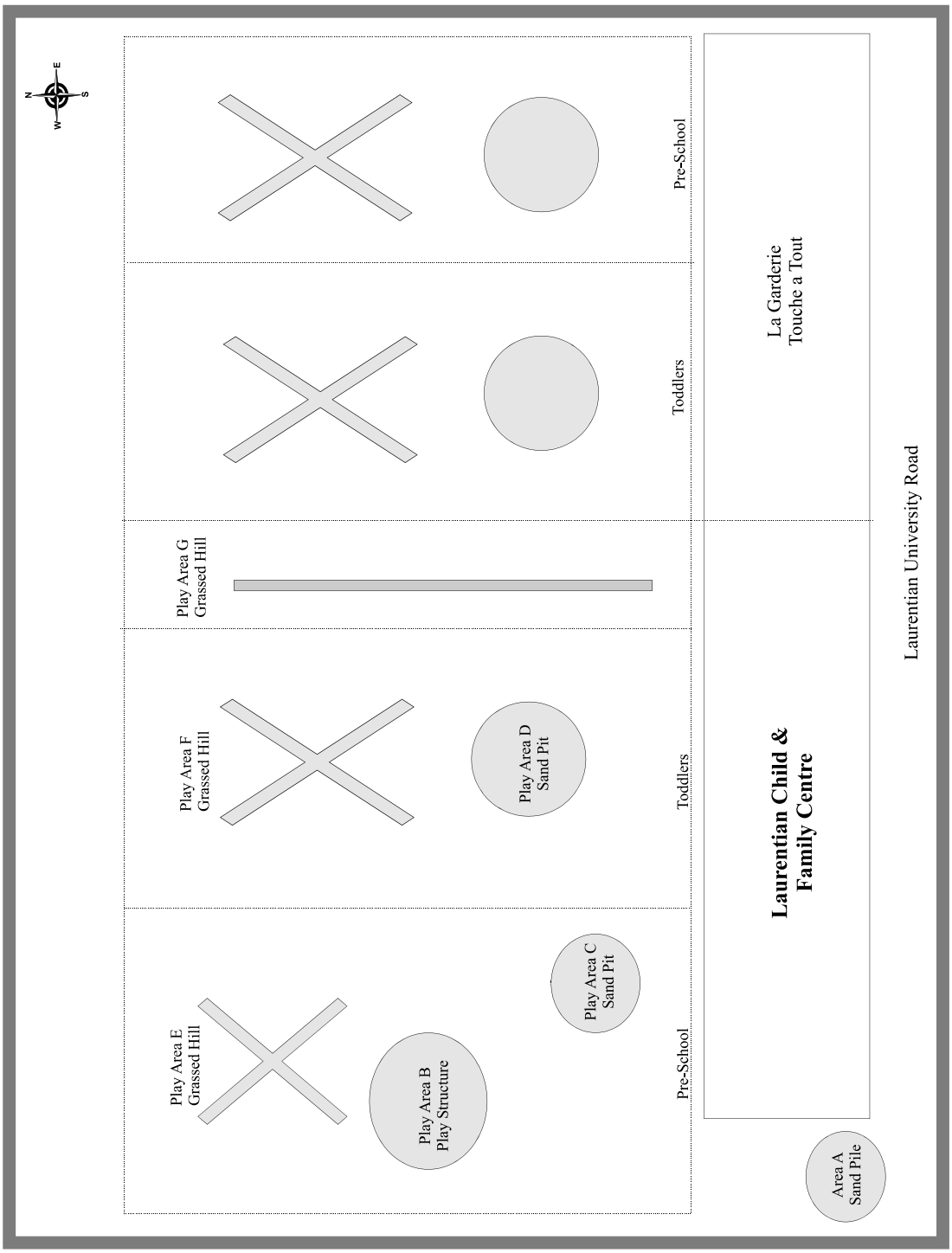

Figure B2.6.18: Laurentian Child & Family Centre Daycare Sampling Locations - 2001.

2.6.19 Maple Tree Preschool Inc. #1, 158 John Street, Sudbury

Maple Tree Preschool Inc. #1 was sampled on July 5, 2001. Samples were taken from two areas on the daycare property. Area A corresponds to the grassed play area surrounding the sand box. Area B corresponds to sand samples collected from the sand box. Due to the constant mixing and homogenous nature of the sanded areas, samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand collected from the sand box. The sand present is not likely native to the daycare property and is believed to have been introduced when the sand box was constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and copper (Cu) concentrations were elevated in selected samples from the grassed play area. The highest nickel and copper concentrations, 160 ppm each, were found in the 10 - 20 cm depth layer of the grassed play area. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There was one nickel value that exceeded the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1.5 km northwest, 0.7 km southwest, and 1 km northeast of Maple Tree Preschool Inc. #1, Stations 378, 74, and 75, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 145 to 830 and 180 to 820 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.19: Concentration of 13 Elements in Soil in µg/g at Maple Tree Preschool Inc. #1, 158 John Street, Sudbury

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037087	14173	0 - 5	< 0.8	< 5	27	< 0.8	21	6	55	8	< 1.5	**75**	< 1	21	28
		14174	0 - 5	< 0.8	< 5	30	< 0.8	24	6	**67**	9	< 1.5	**86**	< 1	25	27
		14175	5 - 10	< 0.8	< 5	30	< 0.8	26	6	**59**	11	< 1.5	**65**	< 1	26	29
		14176	5 - 10	< 0.8	< 5	29	< 0.8	25	7	43	8	< 1.5	**54**	< 1	25	26
		14177	10 - 20	< 0.8	7	29	< 0.8	28	11	**160**	27	< 1.5	**160**	< 1	30	37
		14178	10 - 20	< 0.8	5	24	< 0.8	22	7	**91**	17	< 1.5	**99**	< 1	22	26
Area B sand	5037088	14172	0 - 15	< 0.8	< 5	14	< 0.8	17	4	10	3	< 1.5	17	< 1	16	10
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

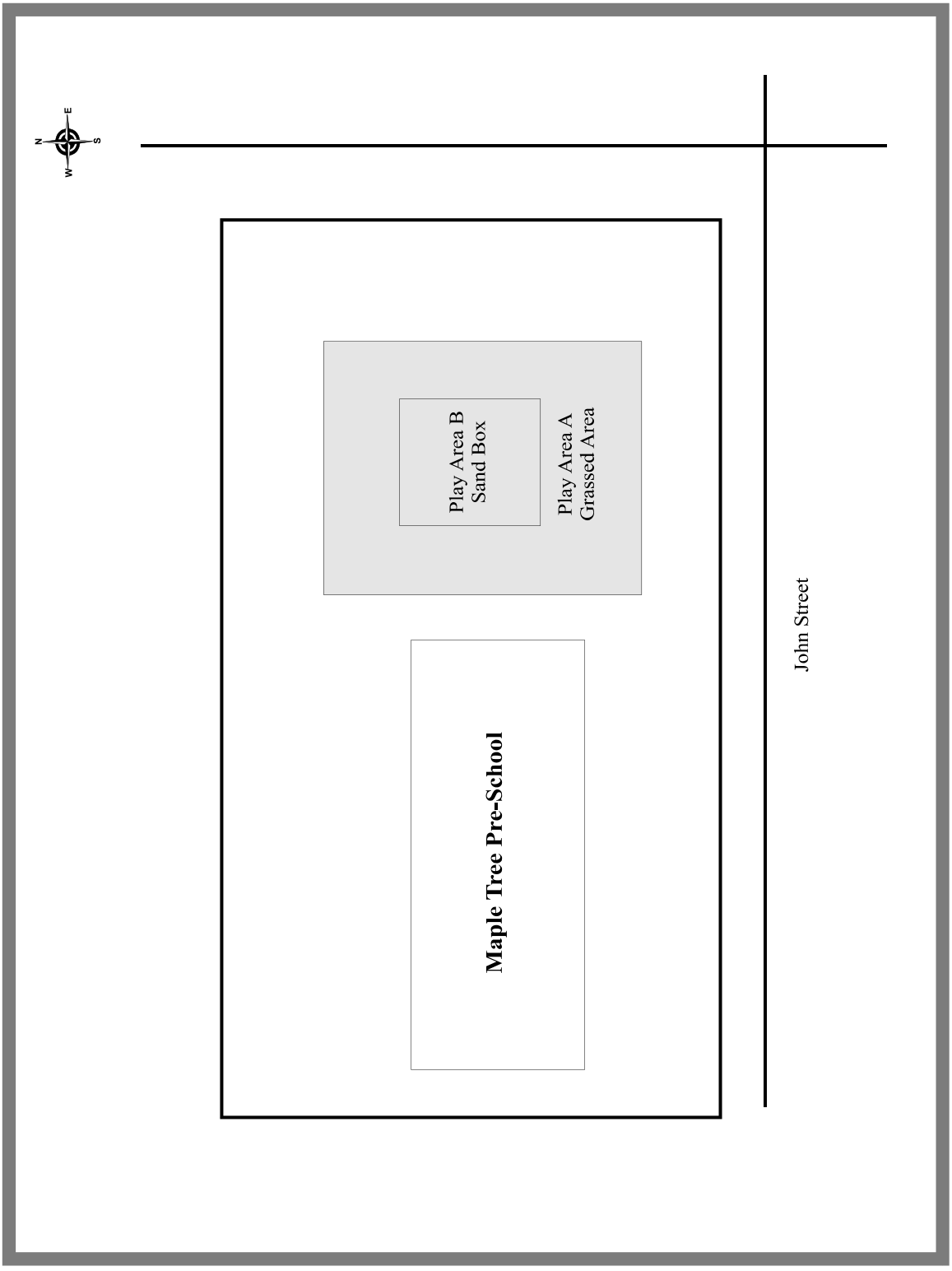

Figure B2.6.19: Maple Tree Preschool #1 Sampling Locations - 2001.

2.6.20 Maple Tree Preschool Inc. #2 at St. Benedict Secondary, 2993 Algonquin Road, Sudbury

Maple Tree Preschool Inc. #2 was sampled on July 4, 2001. Samples were taken from three areas on the daycare property. Area A corresponds to the grassed play area. Due to the compacted nature if the grassed area, or the presence of bedrock at shallow depths, it was only possible to sample the surface soil layer (0-5 cm). Areas B and C correspond to sand samples collected from the southwest and northeast sanded play areas, respectively. Due to the constant mixing and homogenous nature of the sanded areas, samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand from either sanded play area. The sand is not likely native to the daycare property and is believed to have been introduced when the play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. None of the samples from this property were found to have metal concentrations above the MOE Table F Ontario Soil Background Criteria. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 2 km southwest, 1.5 km north, and 1.5 km east of Maple Tree Preschool Inc. #2, Stations 366, 365, and 404, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 120 to 190 and 110 to 190 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.20: Concentration of 13 Elements in Soil in µg/g at Maple Tree Preschool Inc. #2 at St. Benedict Secondary, 2993 Algonquin Road, Sudbury

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037026	14064	0 - 5	< 0.8	< 5	29	< 0.8	29	6	22	6	< 1.5	35	< 1	27	22
		14065	0 - 5	< 0.8	6	34	< 0.8	30	6	27	6	< 1.5	41	< 1	30	24
Area B sand	5037027	14067	0 - 15	< 0.8	< 5	24	< 0.8	32	6	18	3	< 1.5	20	< 1	31	17
Area C sand	5037028	14066	0 - 15	< 0.8	< 5	21	< 0.8	28	6	19	3	< 1.5	22	< 1	28	17
Table F	(results in bold)			1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A	(results in bold & underlined)			13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

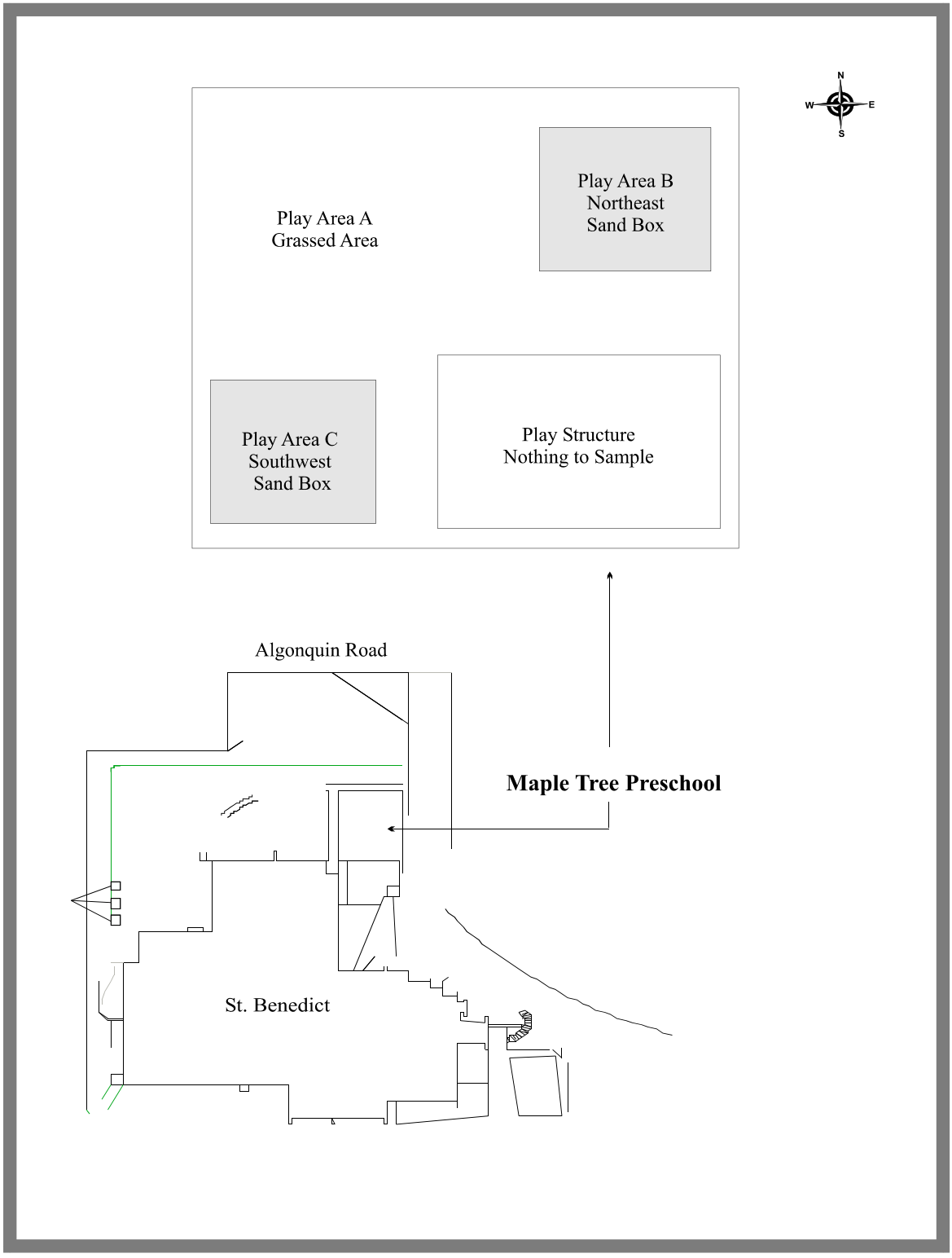

Figure B2.6.20: Maple Tree Preschool #2 Sampling Locations - 2001.

2.6.21 Play and Learn Daycare at Cambrian College, 1400 Barrydowne Road, Sudbury

Play and Learn Daycare was sampled on July 17, 2001. Samples were taken from two areas on the daycare property. Areas A and B correspond to the south and north sanded play areas, respectively. Due to the constant mixing and homogenous nature of the sanded areas, samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand from either sanded play area. The sand is not likely native to the daycare property and is believed to have been introduced when the play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km northwest and 0.5 km southeast of Play and Learn Daycare, Stations 6 and 43, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 28 to 230 and 33 to 210 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.21: Concentration of 13 Elements in Soil in µg/g at Play and Learn Daycare, 1400 Barrydowne Road, Sudbury

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037172	14330	0 - 15	< 0.8	5	18	< 0.8	25	6	14	2	< 1.5	21	< 1	29	17
Area B sand	5037173	14332	0 - 15	< 0.8	< 5	22	< 0.8	31	9	29	4	< 1.5	34	< 1	31	23
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

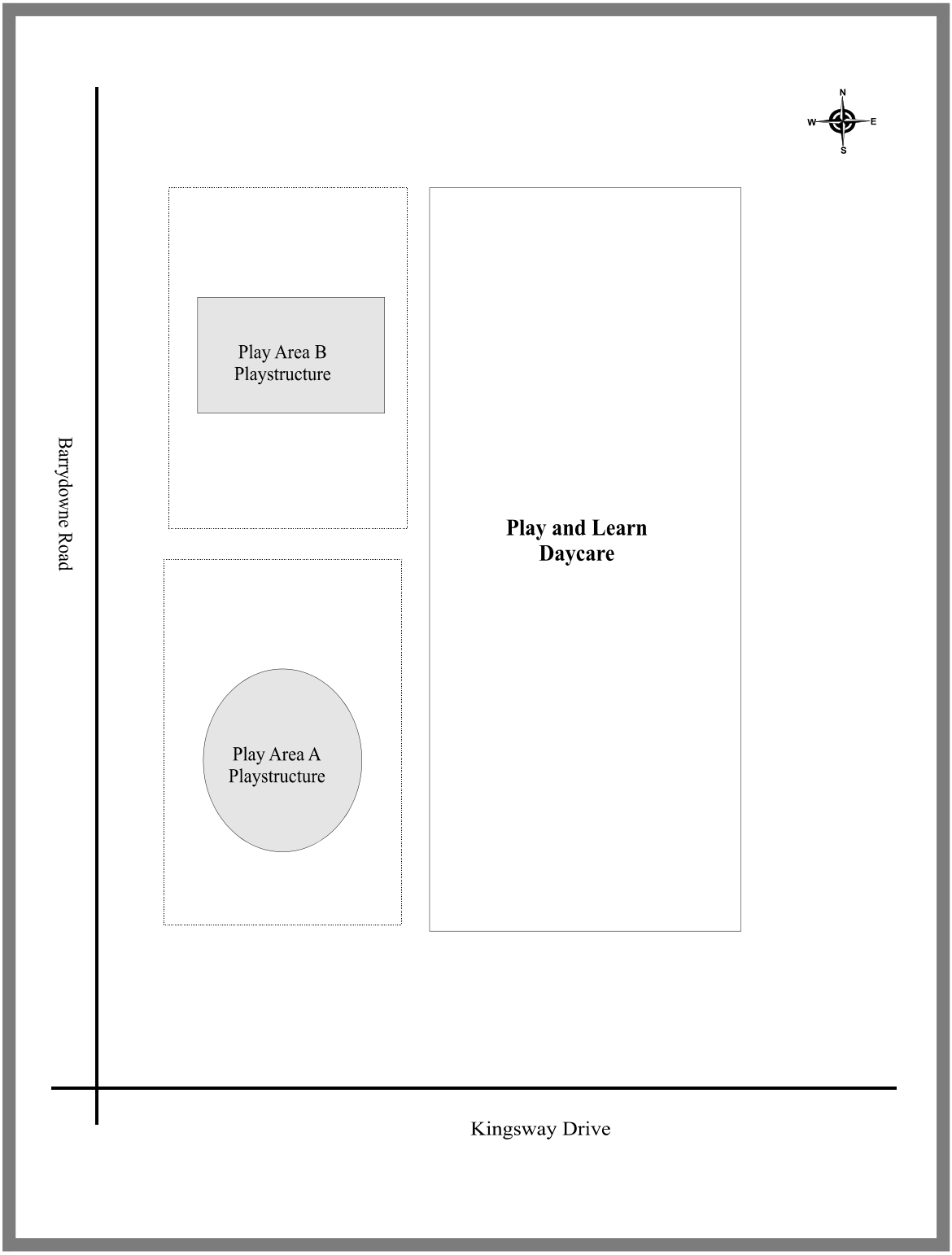

Figure B2.6.21: Play & Learn Daycare Sampling Locations - 2001.

2.6.22 Princess Anne Kids at Princess Anne Public School, 500 Douglas Street, Sudbury

This daycare is operated by Larch Street Kids and is located in the same building as Princess Anne Public School, Rainbow District School Board. See Princess Anne Public School for the discussion, results and map (Section 2.1.29).

2.6.23 R.J. Kids at Robert Jack Public School, 7 Margaret Street, Garson

R.J. Kids, operated by Larch Street Kids and located in Robert Jack Public School, was sampled on July 18, 2001. Samples were taken from two areas on the daycare property. Areas A corresponds to the gravel playground. Area B corresponds to sand samples collected from the sand box. Due to the constant mixing and homogenous nature of the sanded area, sand samples were collected with hand trowels to represent the 0-15 cm depth. Hand trowels were also used to collect the gravel samples to represent the 0-5 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand from the sand box. The sand is not likely native to the daycare property and is believed to have been introduced when the play area was constructed. Thus the sand was not expected to have elevated metal concentrations. None of the samples from this property had concentrations above the MOE Table F Ontario Soil Background Criteria. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results fall within the lower end of the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 2 km northwest, 0.5 km southwest, and 1 km west of R. J. Kids Daycare, Stations 412, 40, and 39, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 37 to 140 and 24 to 200 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.23: Concentration of 13 Elements in Soil in µg/g at RJ Kids at Robert Jack Public School, 7 Margaret Street, Garson

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A gravel	5037275	14428	0 - 5	< 0.8	6	25	< 0.8	23	7	23	4	< 1.5	31	< 1	25	18
Area B sand	5037275	14429	0 - 15	< 0.8	5	18	< 0.8	25	6	15	3	< 1.5	22	< 1	29	17
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

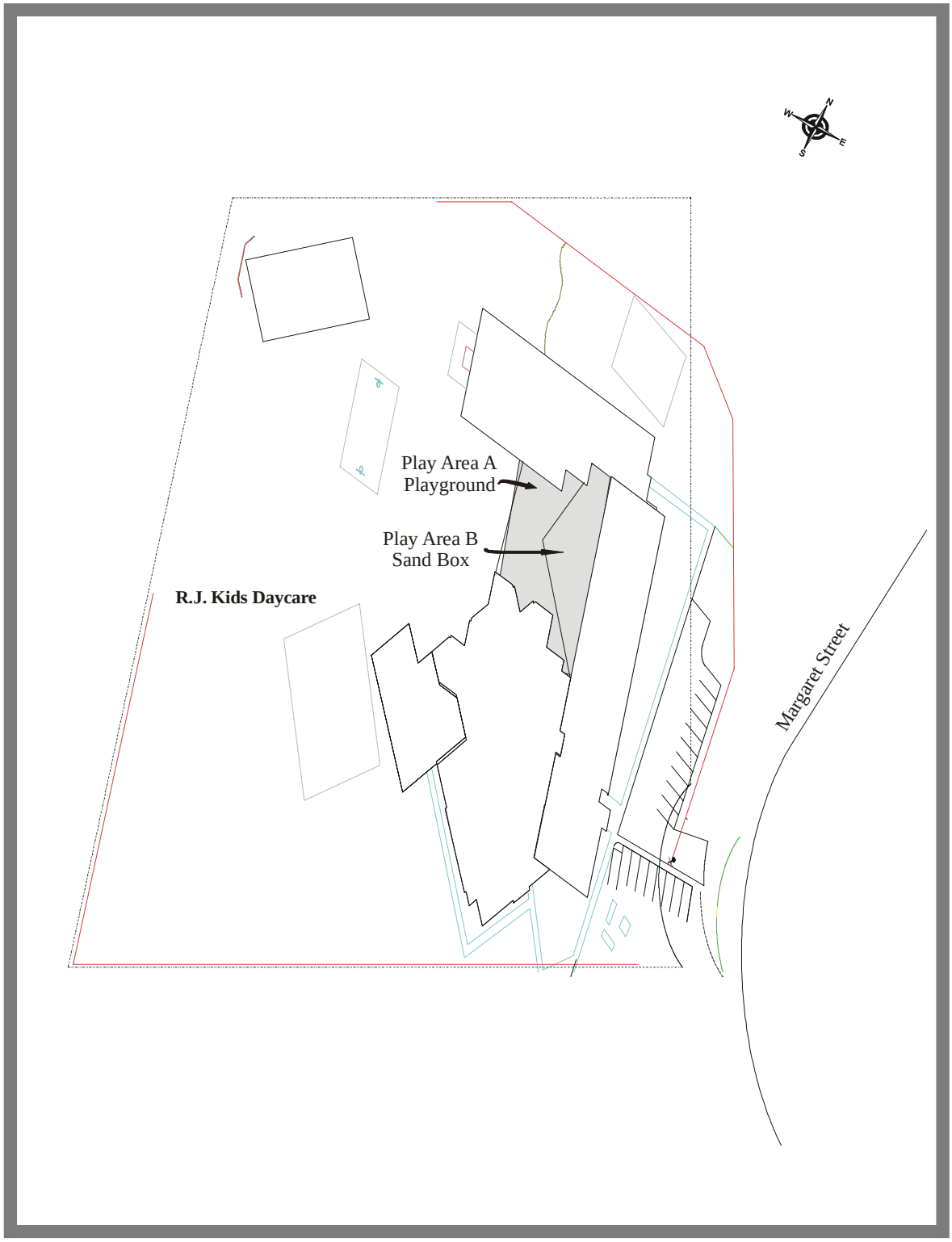

Figure B2.6.23: R. J. Kids Daycare Sampling Locations - 2001.

2.6.24 Services De Garde De Rayside - Balfour #1, 30 Hill Street, Chelmsford

Services de Garde de Rayside-Balfour #1 was sampled on July 19, 2001. Samples were taken from four areas on the daycare property. Areas A, B and C correspond to sand samples collected from the north, west, and south sanded play areas, respectively. Due to the constant mixing and homogenous nature of the sanded areas, samples were collected with hand trowels to represent the 0-15 cm depth. Area D corresponds to the grassed play area along the east fence line. Due to the compacted nature of these grassed areas, or the presence of bedrock at shallow depths, it was only possible to sample the surface soil (0-5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in sand any of the sanded play areas. The sand present is not likely native to the daycare property and is believed to have been introduced when the play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil from the grassed play area. The highest nickel concentration found was 66 ppm. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results fall within the lower end of the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 3.5 km northwest, 3 km southwest, and 4 km southeast of Services de Garde de Rayside-Balfour #1, Stations 386, 385, and 384, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 65 to 170 and 49 to 130 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.24: Concentration of 13 Elements in Soil in µg/g at Services De Garde De Rayside - Balfour #1, 30 Hill Street, Chelmsford

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037379	14514	0 - 15	< 0.8	5	14	< 0.8	22	6	15	4	< 1.5	18	< 1	25	18
Area B sand	5037378	14515	0 - 15	< 0.8	< 5	11	< 0.8	22	5	11	3	< 1.5	17	< 1	22	15
		14516	0 - 15	< 0.8	< 5	16	< 0.8	24	7	18	4	< 1.5	20	< 1	29	21
Area C sand	5037380	14517	0 - 15	< 0.8	< 5	12	< 0.8	25	5	13	3	< 1.5	18	< 1	25	17
Area D grass	5037381	14518	0 - 5	< 0.8	7	32	< 0.8	27	8	48	17	< 1.5	**66**	< 1	26	30
		14519	0 - 5	< 0.8	5	36	< 0.8	30	7	38	15	< 1.5	**58**	< 1	29	28
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

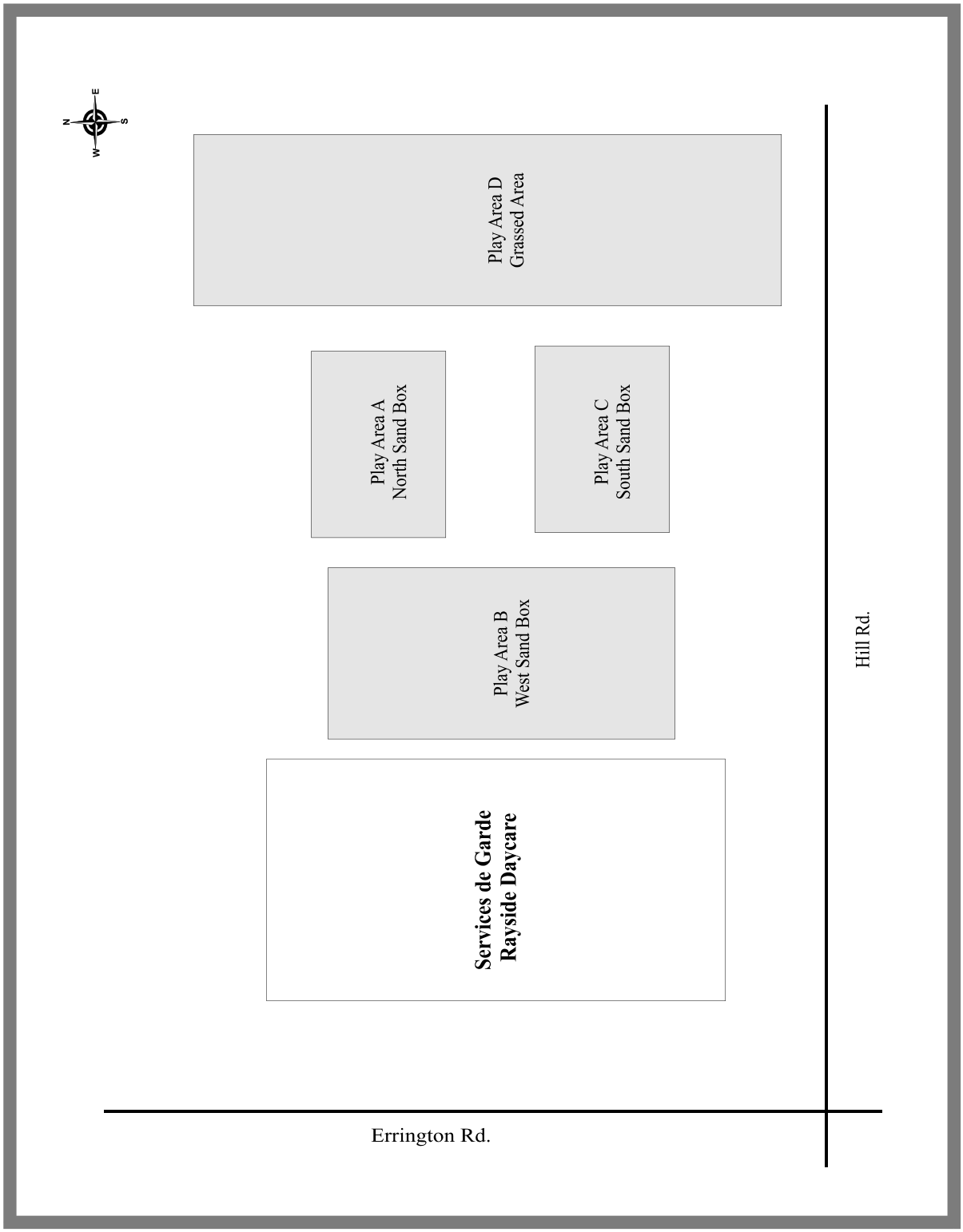

Figure B2.6.24: Services de Garde Rayside - Balfour #1 Sampling Locations - 2001.

2.6.25 Services De Garde De Rayside - Balfour #2, 121 Charlotte Street, Chelmsford

This daycare is located in the same building as Chelmsford Public School, Rainbow District School Board. See Chelmsford Public School for the discussion, results and map (Section 2.1.6).

2.6.26 Shooting Star Daycare, 4120 Elmview Drive, Hanmer

Shooting Star Daycare was sampled on July 20, 2001. Samples were taken from six areas on the daycare property. Areas A to D are sanded play areas that are located immediately east of the daycare building. Area A corresponds to sand samples collected from the southern most sanded areas designated for school aged children. Area B corresponds to sand samples collected from the play area just north of Area A that has been designated for preschool children. Area C corresponds to sand samples collected from the sanded play area just north of Area B that has also been designated for preschool children. Area D corresponds to the northern most sanded area that has been designated fo toddler aged children. Area E corresponds to the sanded play area in the southeast corner of the property, just east of Areas A and B. Area F corresponds to soil samples taken from a hill located in the northeast corner of the property. Due to the constant mixing and homogenous nature of the sanded areas, samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

One sand sample, from Area A, was found to be elevated above the MOE Table F Ontario Soil Background Criteria for nickel. Metal concentrations were not elevated in any other sand or soil sample from this property. The sand present is not likely native to the daycare property and according to a discussion had on site the day of sampling, the sand had been introduced in November 2000 and more sand was added in June or July of 2001. Thus the sand was not expected to have elevated metal concentrations. The highest nickel concentration found was 60 ppm. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 50 m south, 2 km northeast, and 3.5 km southeast of Shooting Star Daycare, Stations 344, 347, and 349, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 66 to 150 and 57 to 110 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.26: Concentration of 13 Elements in Soil in µg/g at Shooting Star Daycare, 4120 Elmview Drive, Hanmer

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037312	14644	0 - 15	< 0.8	< 5	32	< 0.8	35	11	26	5	< 1.5	**60**	< 1	33	27
Area B sand	5037313	14645	0 - 15	< 0.8	< 5	22	< 0.8	30	6	16	3	< 1.5	23	< 1	30	18
Area C sand	5037314	14646	0 - 15	< 0.8	< 5	25	< 0.8	32	10	20	4	< 1.5	27	< 1	33	22
Area D sand	5037315	14647	0 - 15	< 0.8	< 5	23	< 0.8	30	7	18	4	< 1.5	26	< 1	31	22
Area E sand	5037316	14648	0 - 15	< 0.8	< 5	20	< 0.8	28	6	14	3	< 1.5	22	< 1	29	16
Area F soil	5037317	14649	0 - 5	< 0.8	< 5	28	< 0.8	28	5	16	6	< 1.5	34	< 1	28	17
		14650	0 - 5	< 0.8	< 5	27	< 0.8	27	4	12	5	< 1.5	28	< 1	27	15
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

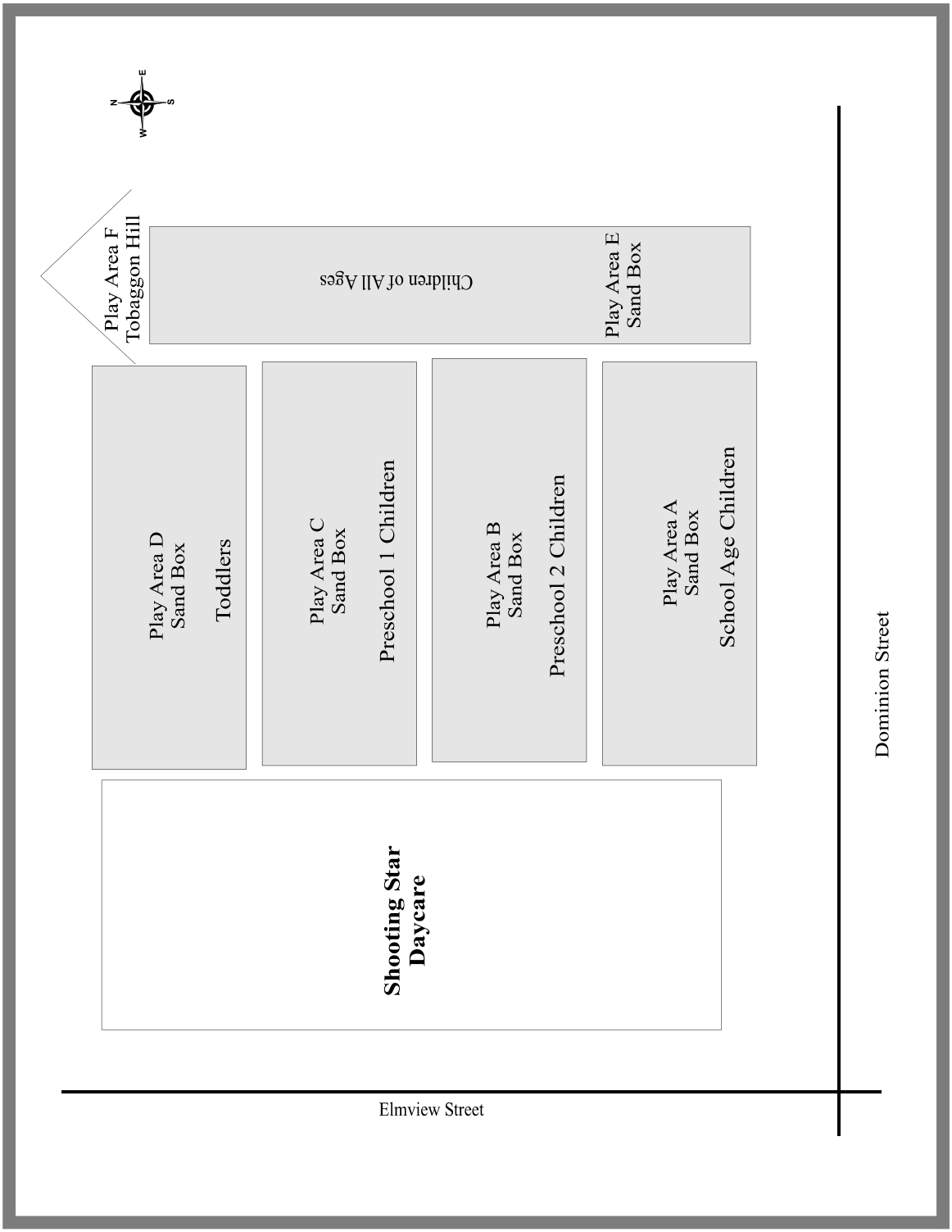

Figure B2.6.26: Shooting Star Daycare Sampling Locations - 2001.

2.6.27 Smiles 'n' Freckles Inc. Daycare, 63 Ridgemont Avenue, Sudbury

Smiles ‘n’ Freckles Inc. Daycare was sampled on July 17, 2001. Samples were taken from one area on the daycare property. Area A corresponds to sand samples collected from beneath the play structure. Due to the constant mixing and homogenous nature of the sanded areas, samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand from beneath the play structure. The sand is not likely native to the daycare property and is believed to have been introduced when the play area was constructed. Thus the sand was not expected to have elevated metal concentrations. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results are much lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km southwest and 1 km north of Smiles ‘n’ Freckles Inc. Daycare, Stations 78, 79, and 410, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 110 to 360 and 110 to 350 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.27: Concentration of 13 Elements in Soil in µg/g at Smiles 'n' Freckles Inc. Daycare, 63 Ridgemont Avenue, Sudbury

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037150	14363	0 - 15	< 0.8	< 5	21	< 0.8	23	7	18	33	< 1.5	20	< 1	28	17
		14364	0 - 15	< 0.8	< 5	21	< 0.8	25	8	19	3	< 1.5	21	< 1	33	19
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

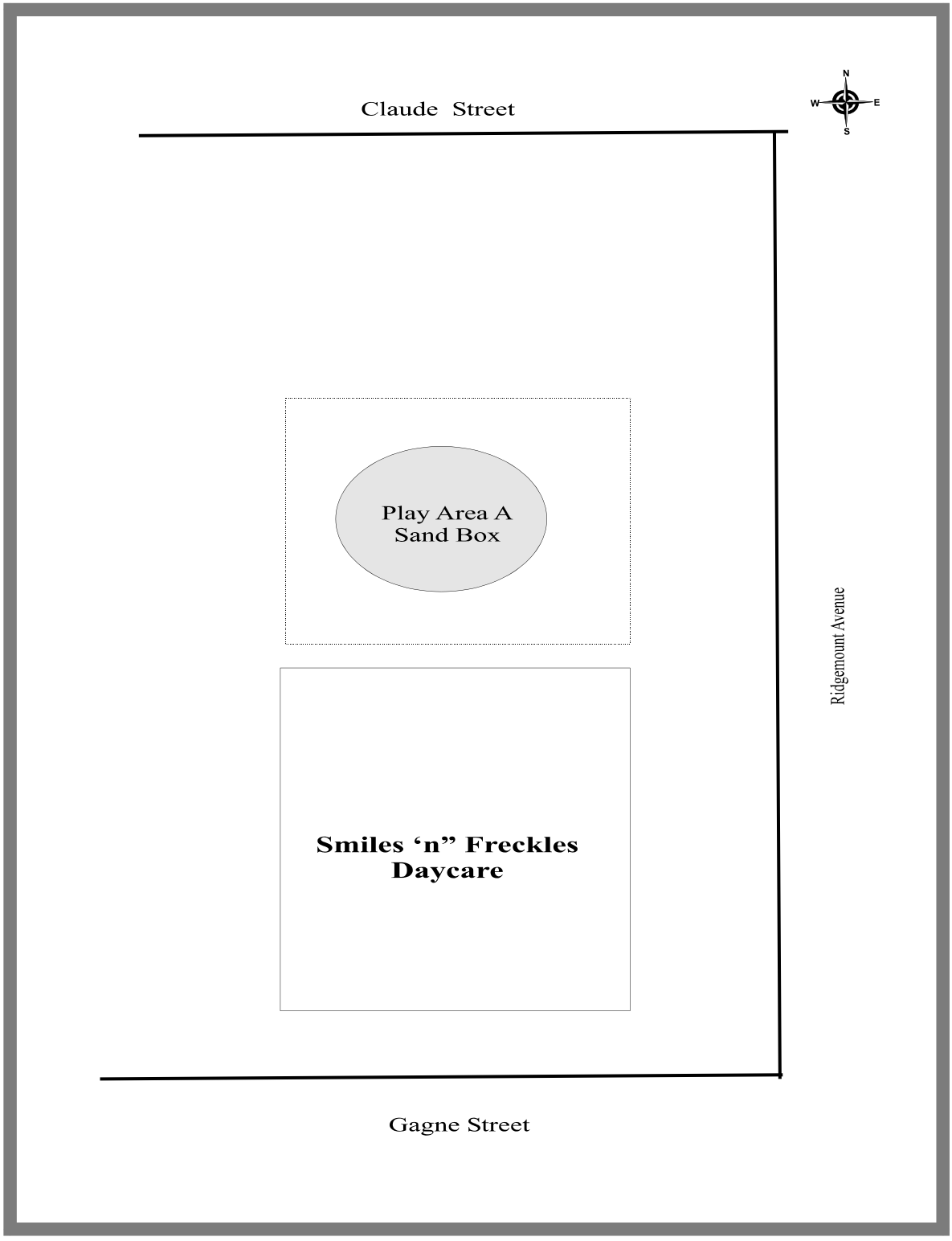

Figure B2.6.27: Smiles 'n' Freckles Daycare Sampling Locations -2001.

2.6.28 St. Albert Child Care Centre, 135 Eyre Street, Sudbury

St. Albert Child Care Centre was sampled on July 6, 2001. Samples were taken from one area on the daycare property. Area A corresponds to the grassed play area on the front lawn of St. Albert Adults Centre. Due to the compacted nature of the grassed area, or the presence of bedrock at shallow depths, it was only possible to sample the surface soil (0-5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

None of the samples from this property had metal concentrations above the MOE Table F Ontario Soil Background Criteria. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km northwest and 0.5 km southwest of St. Albert Child Care Centre, Stations 83 and 378, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 90 to 250 and 74 to 210 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.28: Concentration of 13 Elements in Soil in µg/g at St. Albert Child Care Centre, 135 Eyre Street, Sudbury

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037105	14221	0 - 5	< 0.8	< 5	40	< 0.8	28	5	20	5	< 1.5	29	< 1	28	17
		14222	0 - 5	< 0.8	< 5	45	< 0.8	29	6	20	5	< 1.5	31	< 1	28	18
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

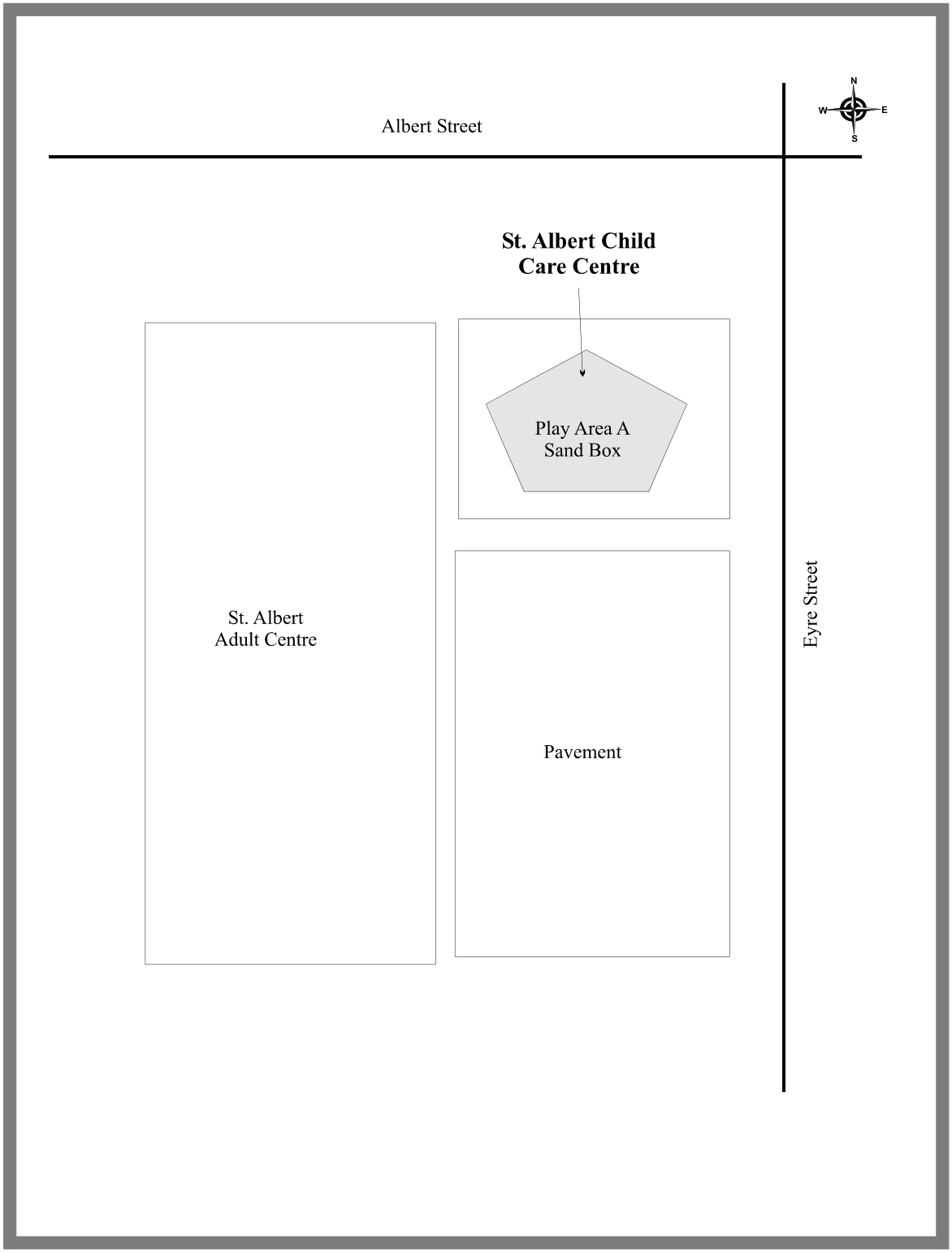

Figure B2.6.28: St. Albert Child Care Centre Sampling Locations - 2001.

2.6.29 Teddy Bear Daycare #1 at First Baptist Church, 2603 Falconbridge Highway

Teddy Bear Daycare #1 at First Baptist Church was sampled on July 18, 2001. Samples were taken from one area on the daycare property. Areas A corresponds to sand samples collected from the sanded play area behind the church. Due to the constant mixing and homogeneous nature of the sanded area, samples were collected with hand trowels to represent the 0 -15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand from the sanded play area. The sand present is not likely native to the daycare property and is believed to have been introduced when the play area was constructed. Thus the sand was not expected to have elevated metal concentrations. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results fall within the lower end of the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km southwest, 1.5 km south, and 1.5 km east of Teddy Bear Daycare, Stations 41, 412, and 40, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 37 to 140 and 24 to 193 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.29: Concentration of 13 Elements in Soil in µg/g at Teddy Bear Daycare #1 at First Baptist Church, 2603 Falconbridge Highway

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037268	14430	0 - 15	< 0.8	6	20	< 0.8	23	6	17	3	< 1.5	22	< 1	30	16
		14431	0 - 15	< 0.8	5	25	< 0.8	26	6	16	3	< 1.5	23	< 1	31	17
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

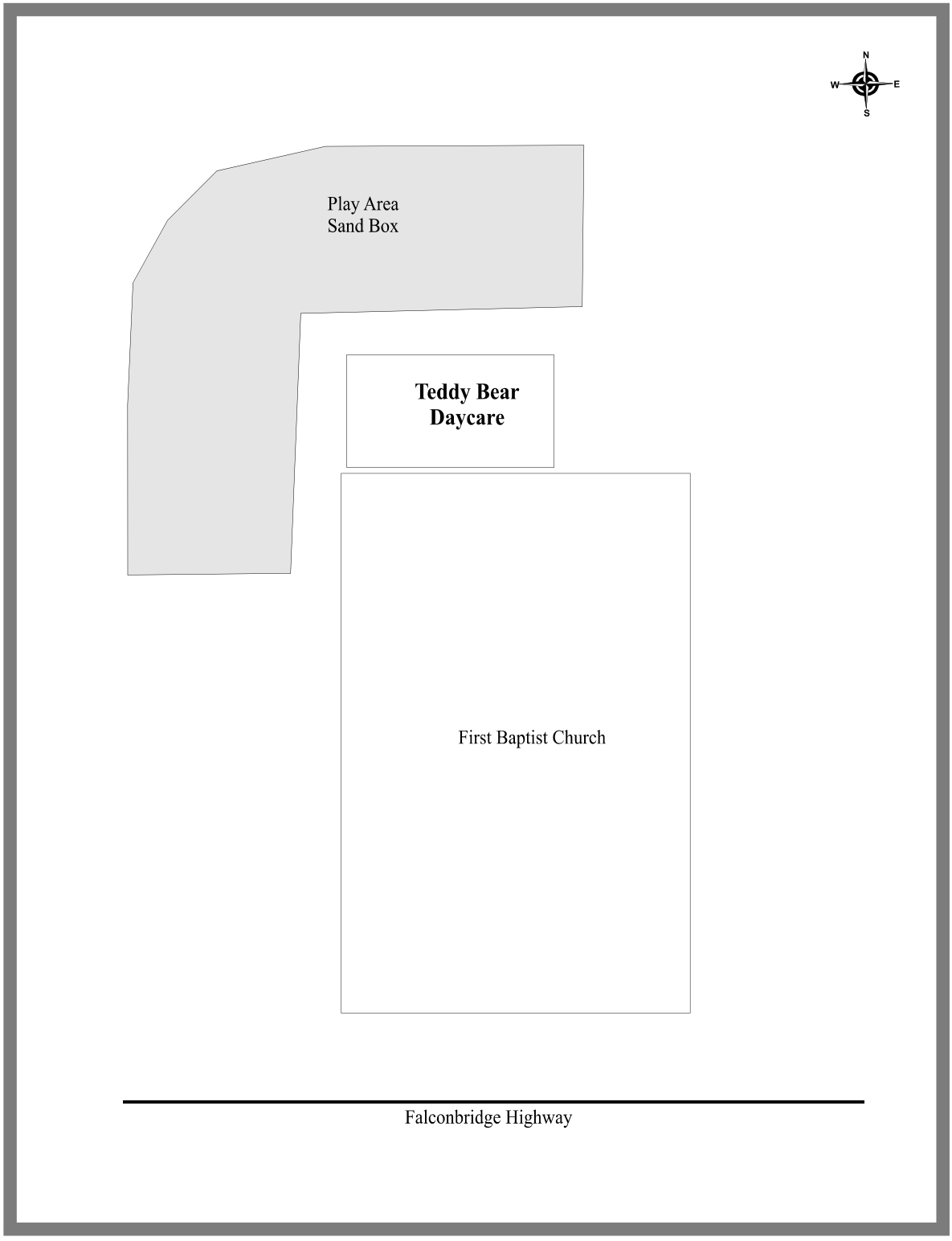

Figure B2.6.29: Teddy Bear Daycare #1 Sampling Locations - 2001.

2.6.30 Teddy Bear Daycare #2 at Falconbridge Recreation Centre, Edison Road, Falconbridge

Teddy Bear Daycare #2, seasonal daycare at Falconbridge Recreation Centre, was sampled on July 22, 2001. Samples were taken from one area on the daycare property. Area A corresponds to sand samples collected from beneath the slide and swings in Centennial Park, beside the tennis courts. Due to the constant mixing and homogeneous nature of the sanded area, samples were collected with hand trowels to represent the 0-15 cm depth. Area A was sampled again on September 18th, 2001 as part of Centennial Park. See Appendix C for re-sampling results. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand from beneath the slide and swings. The sand present is not likely native to the daycare property and is believed to have been introduced when the play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results are much lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 0.5 km north, 0.5 km northeast, and 0.5 km southwest of Teddy Bear Daycare, Stations 23, 22, and 36, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 68 to 1100 and 148 to 1300 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.30: Concentration of 13 Elements in Soil in µg/g at Teddy Bear Daycare #2 at Falconbridge Recreation Centre, Edison Road, Falconbridge

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037360	14760	0 - 15	< 0.8	< 5	17	< 0.8	20	5	14	2	< 1.5	21	< 1	22	13
		14761	0 - 15	< 0.8	< 5	21	< 0.8	21	5	13	2	< 1.5	19	< 1	25	14
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

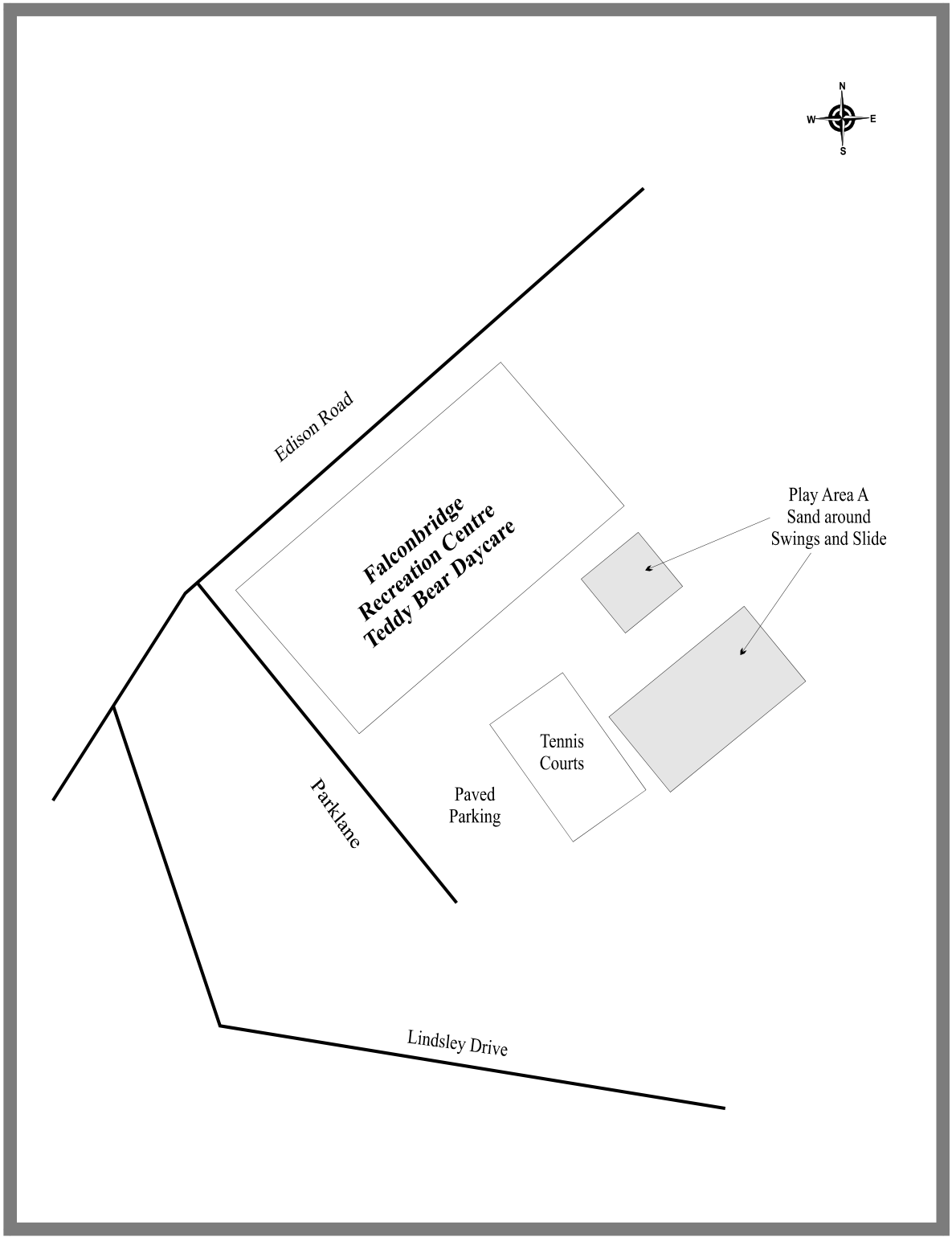

Figure B2.6.30: Teddy Bear Daycare #2 Sampling Locations - 2001.

2.6.31 Teddy Bear Daycare #3 at St. John School, 181 William Street, Garson

This daycare is located in the same building as St. John School, Sudbury Catholic District School Board. See St. John School for the discussion, results and map (Section 2.2.18).

2.6.32 Valley East Co-op-at Raymond Plourde Arena, 1919 Helene Street, Val Caron

Valley East Co-op, at Raymond Plourde Arena, was sampled on July 23, 2001. Samples were taken from eight areas on the daycare property. Area A corresponds the grassed play area between and around the play structures. Due to the compacted nature of the grassed area, it was only possible to sample the surface soil (0-5 cm). Area B corresponds to sand samples collected from beneath the tire hang. Area C corresponds to sand samples collected from beneath the adult swings. Area D corresponds to sand samples collected from beneath the monkey bars. Area E corresponds to sand samples collected from beneath the child swings. Area F corresponds to sand samples collected from beneath the play structure. Area G corresponds to sand samples collected from the landing area of the smaller slide. Area H corresponds to sand samples collected from the landing area of the larger slide. Due to the constant mixing and homogeneous nature of the sanded area, samples were collected with hand trowels to represent the 0-15 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in any of the sand samples from this property. The sand present is not likely native to the daycare property and is believed to have been introduced when the play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for both samples from the grassed play area. The highest nickel concentration found was 54 ppm. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

Table B2.6.32: Concentration of 13 Elements in Soil in µg/g at Valley East Co-op-at Raymond Plourde Arena, 1919 Helene Street, Val Caron

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037296	14788	0 - 5	< 0.8	7	29	< 0.8	24	4	43	10	< 1.5	**50**	< 1	25	27
		14789	0 - 5	< 0.8	< 5	29	< 0.8	24	4	42	11	< 1.5	**54**	< 1	26	26
Area B sand	5037297	14790	0 - 15	< 0.8	< 5	22	< 0.8	42	7	28	4	< 1.5	28	< 1	50	25
Area C sand	5037298	14791	0 - 15	< 0.8	< 5	32	< 0.8	46	8	35	5	< 1.5	28	< 1	47	38
Area D sand	5037299	14792	0 - 15	< 0.8	< 5	29	< 0.8	50	11	36	5	< 1.5	29	< 1	59	30
Area E sand	5037300	14793	0 - 15	< 0.8	< 5	43	< 0.8	52	8	48	6	< 1.5	30	< 1	56	36
Area F sand	5037301	14794	0 - 15	< 0.8	< 5	22	< 0.8	45	7	26	4	< 1.5	27	< 1	54	39
Area G sand	5037302	14795	0 - 15	< 0.8	< 5	28	< 0.8	50	8	39	6	< 1.5	35	< 1	56	35
Area H sand	5037303	14796	0 - 15	< 0.8	< 5	29	< 0.8	55	8	33	5	< 1.5	30	< 1	56	32
Table F	(results in bold)			1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A	(results in bold & underlined)			13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

Note: The play structures and grass area were also sampled separately as part of the Confederation Playground.(see Appendix C)

These nickel and copper results are lower than those reported historically. Previous MOE sampling of undisturbed soils approximately 1 km west, 2.5 km southeast, and 3.5 km southwest of Valley East Co-op, Stations 15, 340, and 341, respectively, of the MOE Sudbury 2000 Report for the City

of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 84 to 210 and 100 to 180 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

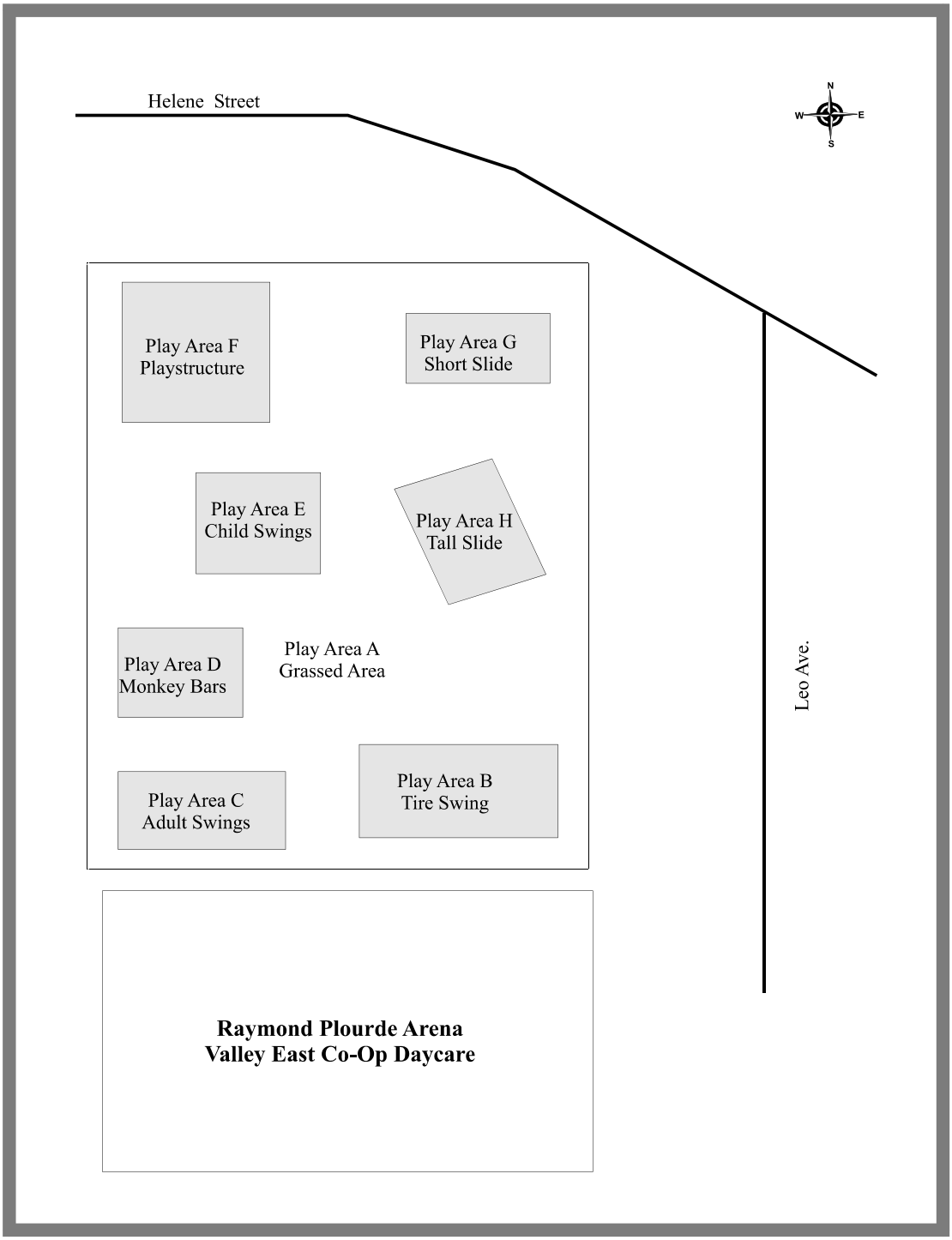

Figure B2.6.32: Valley East Co-Op Daycare Sampling Locations - 2001.

2.6.33 Walden Daycare Centre #1, 500 Niemi Drive, Lively

Walden Daycare Centre #1 was sampled on July 21, 2001. Samples were taken from five areas on the daycare property. Areas A corresponds to the grassed play area stretching from the parking lot to the northwest fence facing Niemi Road. Area B corresponds to sand samples collected from the two sand boxes just south of the Area A. Area C corresponds to wood chips collected from around the sand boxes. Area D corresponds to sand samples collected from the sanded play area north of the building. Area E corresponds to the grassed play area surrounding Area D, on the northern edge of the property. Due to the constant mixing and homogeneous nature of the sanded area, samples were collected with hand trowels to represent the 0-15 cm depth. The wood chips were also collected with hand trowels to represent the 0-15 cm layer. Due to the compacted nature of the grassed area, or the presence of bedrock at shallow depths, it was only possible to sample the surface soil (0-5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in the sand or wood chip samples from this property. Neither the sand nor wood chips present are native to the daycare property and both are believed to have been introduced when the play areas were constructed. Thus, neither the sand nor wood chips were expected to have elevated metal concentrations. Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in the surface soils of both grassed play areas. Copper (Cu) was elevated above the MOE Table F Ontario Soil Background Criteria in the surface soil of the north grassed play area only. The highest nickel and copper concentrations found on this property were 110 and 93 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

Table B2.6.33: Concentration of 13 Elements in Soil in µg/g at Walden Daycare Centre #1, 500 Niemi Drive, Lively

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A grass	5037238	14711	0 - 5	< 0.8	< 5	37	< 0.8	30	6	38	8	< 1.5	**49**	< 1	29	27
		14712	0 - 5	< 0.8	< 5	39	< 0.8	31	7	42	9	< 1.5	**52**	< 1	31	30
Area B sand	5037239	14718	0 - 15	< 0.8	< 5	19	< 0.8	29	8	20	3	< 1.5	21	< 1	30	19
	5037240	14713	0 - 15	< 0.8	< 5	22	< 0.8	28	7	18	3	< 1.5	18	< 1	29	17
Area C mulch	5037241	14714	0 - 15	< 0.8	< 5	20	< 0.8	27	8	34	4	< 1.5	35	< 1	27	22
Area D sand	5037242	14715	0 - 15	< 0.8	< 5	18	< 0.8	28	10	31	5	< 1.5	30	< 1	25	29
Area E grass	5037243	14716	0 - 5	< 0.8	< 5	59	< 0.8	38	17	**92**	17	< 1.5	**110**	< 1	34	51
		14717	0 - 5	< 0.8	< 5	67	< 0.8	36	13	**93**	37	< 1.5	**95**	< 1	37	58
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold & underlined)				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

These nickel and copper results fall within the lower end of the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 1.5 km north, 1.5 km southwest, and 2.5 km east of Walden Daycare Centre, Stations 376, 375, and 100, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 34 to 700 and 35 to 568 ppm, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

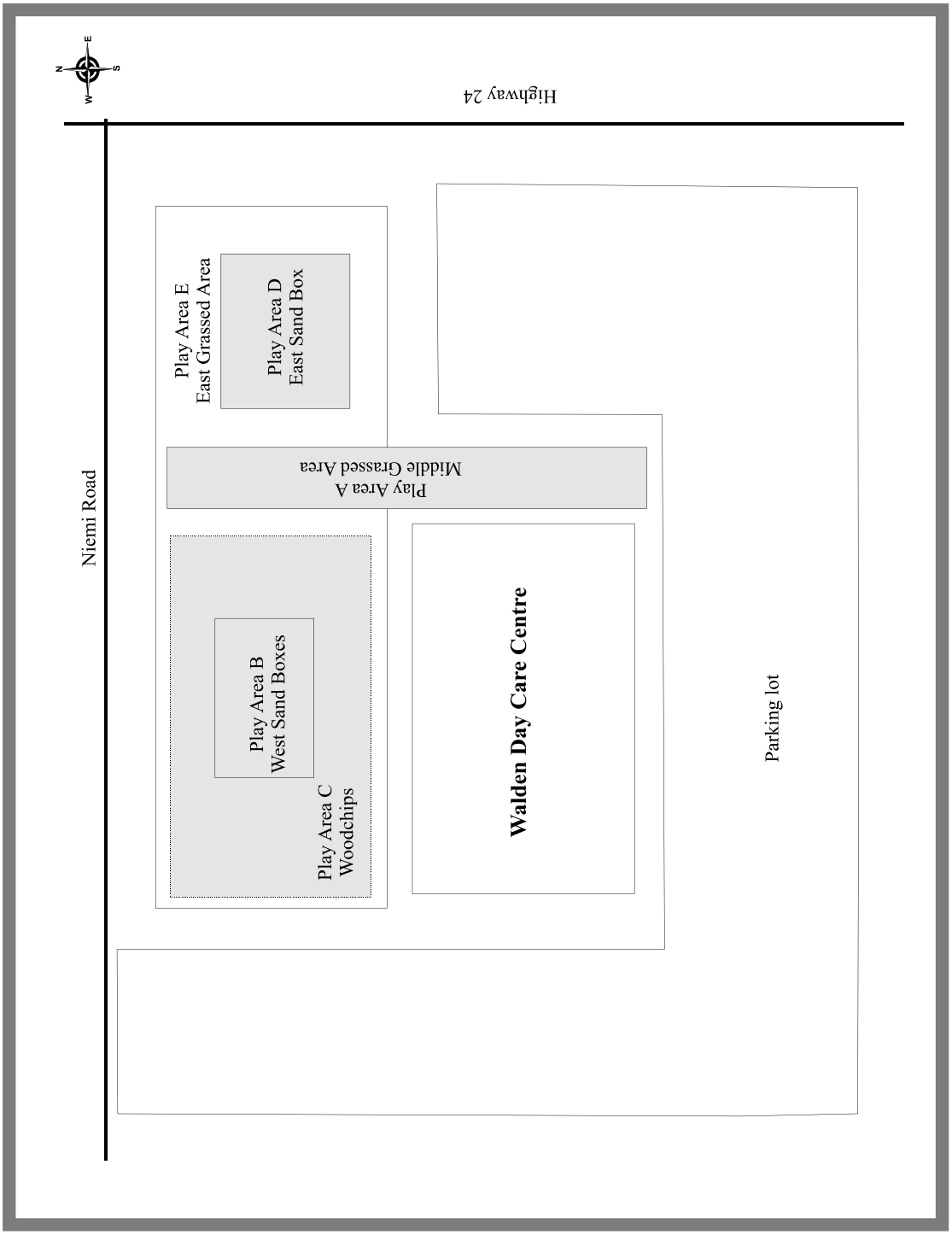

Figure B2.6.33: Walden Daycare Centre #1 Sampling Locations - 2001.

2.6.34 Walden Daycare Centre #2 at St. James School, 280 Anderson Drive, Lively

This daycare is located in the same building as St. James School, Sudbury Catholic District School Board. See St. James School for the discussion, results and map (Section 2.2.17).

2.6.35 Walden Play and Learn, 3 Westview Crescent, Lively

Walden Play and Learn was sampled on July 21, 2001. Samples were taken from three areas on the daycare property. Areas A and B correspond to sand samples collected from beneath the north and south play structures, respectively. Due to the constant mixing and homogeneous nature of the sanded area, samples were collected with hand trowels to represent the 0-15 cm depth. Area C corresponds to the grassed play area west of Area B. Due to the compacted nature of this grassed area, or the presence of bedrock at shallow depths, it was only possible to sample the surface soil (0-5 cm). All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria (MOE 1997).

Metal concentrations were not elevated in either of the sanded play areas. The sand present is not likely native to the daycare property and is believed to have been introduced when the play areas were constructed. Thus the sand was not expected to have elevated metal concentrations. Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria for samples collected from the grassed play area only. The highest nickel and copper concentrations found were 73 and 61 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn), and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria. There were no exceedences of the MOE Table A Effects Based Soil Criteria at this property.

These nickel and copper results fall within the lower end of the concentration ranges of those reported historically. Previous MOE sampling of undisturbed soils approximately 0.2 km southwest and 2 km northeast of Walden Play and Learn, Stations 101 and 100, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated nickel and copper surface soil concentration ranges of 34 to 700 ppm and 35 to 568, respectively. Historic MOE sampling in the Sudbury area was of undeveloped surface soils which may not be representative of the materials sampled on this property.

Table B2.6.35: Concentration of 13 Elements in Soil in µg/g at Walden Play and Learn, 3 Westview Crescent, Lively

Map ID	Station	Sample Number	Soil Depth	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
Area A sand	5037236	14709	0 - 15	< 0.8	< 5	32	< 0.8	28	6	53	4	< 1.5	25	< 1	29	27
Area B sand	5037237	14710	0 - 15	< 0.8	< 5	26	< 0.8	30	7	28	6	< 1.5	28	< 1	38	24
Area C grass	5037235	14707	0 - 5	< 0.8	< 5	30	< 0.8	21	6	41	10	< 1.5	**73**	< 1	22	21
		14708	0 - 5	< 0.8	< 5	45	< 0.8	30	6	**61**	8	< 1.5	**73**	< 1	31	31
Table F (results in bold)				1.0	14	190	1.0	67	19	56	55	2.5	43	1.4	91	150
Table A (results in bold &				13	20	750	3.0	750	40	225	200	5.0	150	2.0	200	600

< - less than the Method Detection Limit. Al, Ca, Fe, Mg, Mn, and Sr results for this school can be found in Table 4.2.

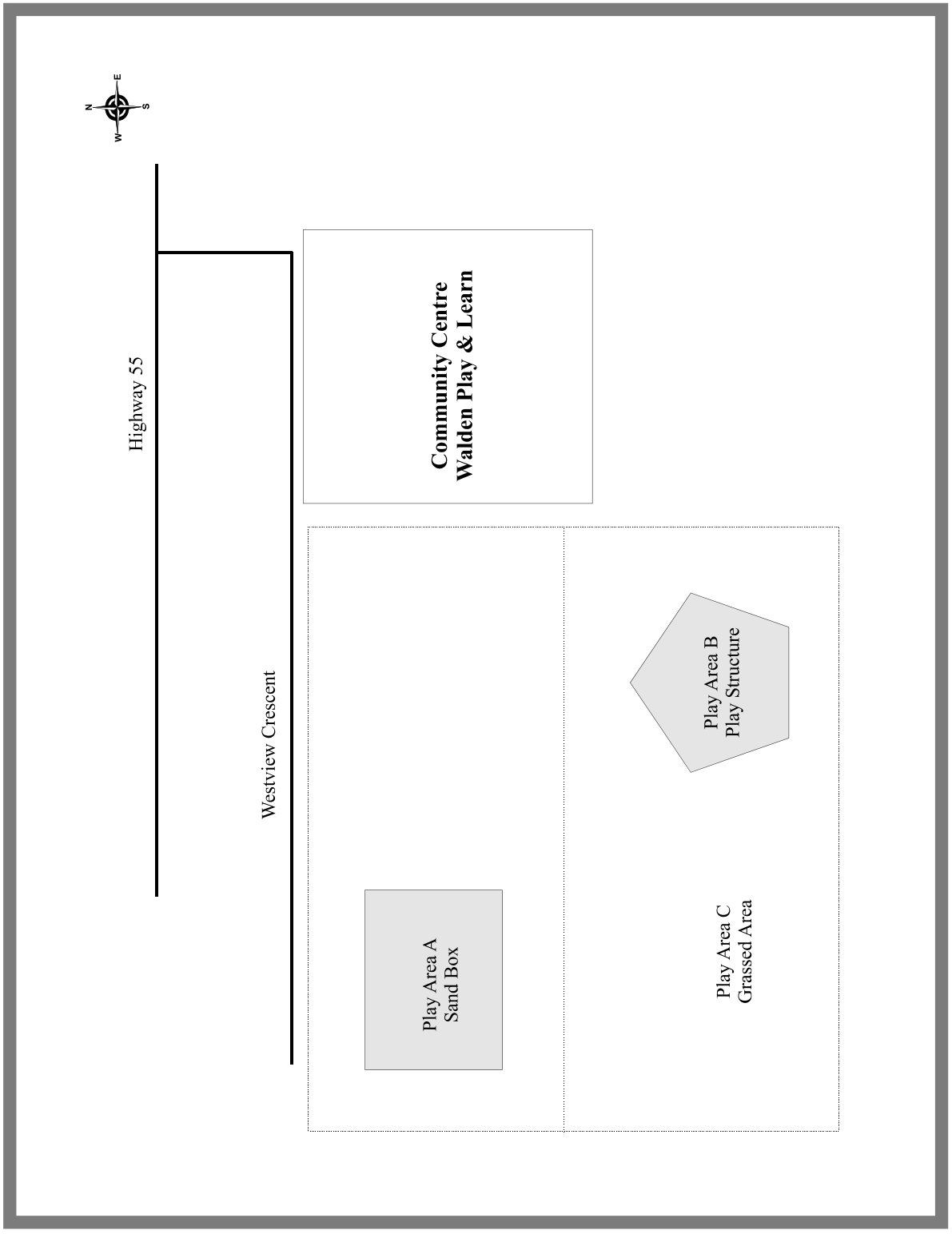

Figure B2.6.35: Walden Play & Learn Sampling Locations - 2001.

3.0 SUMMARY STATISTICS FOR ALL SCHOOLS AND DAYCARES

Table B3.1: Number of schools or daycares in which at least one sample exceed MOE soil criteria.

School Board	Number of Schools	Nickel Exceedences		Copper Exceedences		Cobalt Exceedences		Arsenic Exceedences		Lead Exceedences	
		Table F	Table A	Table F	Table A	Table F	Table A	Table F	Table A	Table F	Table A
Daycares	25	16	2	7	0	1	0	0	1	0	0
Rainbow	40	39	18	11	7	4	2	1	1	3	0
Sudbury Catholic	26	23	5	4	2	4	0	0	0	1	0
Grand Nord	8	5	1	1	0	0	0	0	0	1	0
Scolaire Catholique	31	28	7	6	0	4	0	0	0	0	0
TOTAL:	130	111	33	29	9	13	2	1	2	5	0

Table B3.2: Summary Statistics for All* Sand Samples from All Schools and Daycares in the Sudbury Region

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	3200	0.4	2.5	11	0.3	0.4	1500	11	3	6	7400	2	1900	70	0.8	11	0.5	10	11	9
10th	4460	0.4	2.5	16	0.3	0.4	2160	22	5	12	11000	2	2600	140	0.8	16	0.5	15	24	14
1st quartile	5000	0.4	2.5	19	0.3	0.4	2500	24	6	16	12000	3	3000	150	0.8	20	0.5	18	27	16
Median	5800	0.4	2.5	21	0.3	0.4	2900	27	7	21	14000	3	3700	170	0.8	24	0.5	21	29	19
3rd quartile	6900	0.4	2.5	24	0.3	0.4	3400	30	8	29	16000	4	4200	190	0.8	31	0.5	25	33	24
95th	8540	0.4	6	32	0.3	0.4	4300	39	9	52	19400	7	5040	240	0.8	62	0.5	30	41	34
Maximum	10000	0.8	23	47	0.5	0.8	12000	55	16	170	26000	82	6000	300	4	190	1	46	59	110
Mean	6059	0.4	3	22	0.3	0.4	3073	28	7	25	14255	4	3659	175	0.8	29	0.5	21	31	21
Geometric mean	5906	0.4	3	21	0.3	0.4	2945	27	7	22	13961	3	3566	172	0.8	26	0.5	21	30	20
Sample std. dev.	1392	0.0	2	6	0.0	0.0	1113	6	2	18	2955	7	814	33	0.2	20	0.1	6	7	9
CV (std. dev./mean)	23%	7%	61%	26%	7%	7%	36%	23%	26%	72%	21%	152%	22%	19%	32%	70%	10%	26%	23%	43%
Lower CI for the mean	5861	0.4	2.7	21	0.2	0.4	2915	27	7	23	13835	3	3543	170	0.7	26	0.5	20	30	20
Upper CI for the mean	6257	0.4	3.2	23	0.3	0.4	3232	29	7	28	14676	5	3774	179	0.8	32	0.5	22	32	22
Kurtosis	-0.1	193	87.7	3.7	193	193	33.2	4.3	4.2	23.5	1.7	104	0.0	1.3	175	27.9	94.0	1.2	4.5	50.1
Skewness	0.6	13.9	8.3	1.4	13.9	13.9	4.7	1.6	1.1	4.0	0.8	9.5	0.3	0.6	13.0	4.6	9.7	0.6	1.4	5.5

n = 193 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table B3.3: Summary Statistics for Playground Gravel Samples from All Schools and Daycares in the Sudbury Region

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4600	0.4	2.5	18	0.3	0.4	2000	20	6	18	11000	3	2800	140	0.8	27	0.5	10	24	17
10th	5900	0.4	2.5	25	0.3	0.4	2600	27	8	42	14000	7	3700	170	0.8	40	0.5	18	28	27
1st quartile	6500	0.4	2.5	28	0.3	0.4	3000	30	9	51	16000	9	4150	180	0.8	56	0.5	23	30	30
Median	7600	0.4	2.5	33	0.3	0.4	3500	33	12	78	18000	11	4500	210	0.8	80	0.5	27	32	36
3rd quartile	8600	0.4	6	39	0.3	0.4	4100	37	16	115	20000	15	5300	230	0.8	120	0.5	29	36	41
95th	11000	0.4	8	48	0.3	0.4	5100	47	28	200	24000	21	6400	300	0.8	190	1	35	45	65
Maximum	20000	1.5	13	120	0.3	0.8	14000	90	33	310	43000	30	14000	390	4	290	2	47	73	110
Mean	7978	0.4	4	35	0.3	0.4	3710	35	14	91	18436	12	4829	214	0.8	97	0.6	26	34	39
Geometric mean	7727	0.4	4	33	0.3	0.4	3526	34	13	78	17957	11	4666	210	0.8	84	0.5	25	34	37
Sample std. dev.	2320	0.1	2	14	0.0	0.0	1575	10	6	55	4742	5	1557	45	0.4	56	0.2	6	8	15
CV (std. dev./mean)	29%	29%	55%	40%	0%	10%	43%	28%	45%	61%	26%	40%	32%	21%	47%	58%	40%	25%	24%	38%
Lower CI for the mean	7518	0.4	4	32	0.3	0.4	3398	33	13	80	17495	11	4520	205	0.7	86	0.5	25	33	36
Upper CI for the mean	8438	0.4	5	37	0.3	0.4	4022	37	15	102	19376	13	5138	223	0.9	108	0.6	27	36	41
Kurtosis	12.5	68.7	1.2	27.4		101.0	28.7	16.0	1.3	2.8	11.7	1.0	22.2	2.5	74.9	1.6	20.7	1.4	10.4	8.1
Skewness	2.8	8.1	1.2	4.7		10.0	4.8	3.3	1.3	1.6	2.7	1.0	4.0	1.4	8.4	1.3	4.2	0.1	2.9	2.5

n = 101 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table B3.4: Summary Statistics for Baseball Infield Crushed Stone Samples from All Schools and Daycares in the Sudbury Region

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4100	0.4	2.5	17	0.3	0.4	2000	19	4	13	9500	3	2100	120	0.8	17	0.5	15	22	14
10th	5220	0.4	2.5	25	0.3	0.4	2600	24	6	28	12000	7	3000	150	0.8	38	0.5	18	25	23
1st quartile	6400	0.4	2.5	28	0.3	0.4	2900	27	7	50	14000	8	3400	170	0.8	62	0.5	22	28	27
Median	7900	0.4	2.5	34	0.3	0.4	3950	29	10	68	15000	11	4100	190	0.8	84	0.5	29	29	30
3rd quartile	9700	0.4	6	40	0.3	0.4	7600	34	12	100	17000	16	5400	230	0.8	130	0.5	45	32	40
95th	12000	1.0	8	58	0.3	0.4	12850	40	17	220	21000	23	6100	260	0.8	238	1	84	41	108
Maximum	15000	1.5	9	68	0.3	1.0	15000	42	20	670	24000	32	7600	270	3	370	2	90	68	200
Mean	8269	0.5	4	35	0.3	0.4	5345	30	10	99	15512	13	4400	196	0.8	106	0.6	36	32	41
Geometric mean	7916	0.4	4	34	0.3	0.4	4554	30	9	72	15200	11	4223	193	0.8	87	0.5	32	31	35
Sample std. dev.	2469	0.2	2	11	0.0	0.1	3264	5	4	107	3208	6	1240	36	0.3	74	0.2	19	9	34
CV (std. dev./mean)	30%	48%	52%	31%	0%	22%	62%	17%	36%	109%	21%	51%	29%	19%	38%	71%	45%	54%	28%	84%
Lower CI for the mean	7490	0.4	3	32	0.3	0.4	4316	29	9	65	14500	11	4009	184	0.7	82	0.5	30	29	30
Upper CI for the mean	9048	0.5	5	38	0.3	0.4	6375	32	11	133	16524	15	4791	207	0.9	129	0.6	42	34	52
Kurtosis	0.3	12.8	-0.8	2.2		42.0	1.0	0.0	0.2	18.9	0.9	1.8	-0.5	-0.7	42.0	5.0	27.5	1.6	10.8	12.7
Skewness	0.7	3.6	0.9	1.3		6.5	1.3	0.4	0.6	3.9	0.9	1.3	0.3	0.2	6.5	2.1	5.1	1.4	3.1	3.4

n = 42 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table B3.5: Summary Statistics for All* 0-5 Cm Soil Samples from All Schools and Daycares in the Sudbury Region

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4100	0.4	2.5	15	0.3	0.4	1700	18	3	11	8500	2	1200	98	0.8	16	0.5	14	16	12
10th	7230	0.4	2.5	28	0.3	0.4	2830	24	5	24	11000	6	2100	140	0.8	34	0.5	22	24	20
1st quartile	8200	0.4	2.5	31	0.3	0.4	3500	26	6	36	12000	9	2400	165	0.8	47	0.5	28	26	24
Median	9200	0.4	2.5	37	0.3	0.4	4700	30	7	51	13000	13	3100	200	0.8	67	0.5	33	29	29
3rd quartile	10750	0.4	6	45	0.3	0.4	6800	35	8	92	15000	21	3900	230	0.8	110	0.5	40	31	37
95th	12000	0.4	8	54	0.3	0.8	11000	45	15	199	18850	84	5485	289	0.8	259	2	49	35	56
Maximum	17000	4.4	37	110	0.5	3.1	33000	67	80	2900	34000	200	9200	440	2	2500	12	170	78	130
Mean	9319	0.4	4	39	0.3	0.5	5690	31	8	99	13856	22	3282	201	0.8	114	0.7	34	29	32
Geometric mean	9158	0.4	4	38	0.3	0.4	4970	31	7	58	13582	15	3095	195	0.8	75	0.6	33	29	30
Sample std. dev.	1698	0.3	4	11	0	0	3660	7	8	256	3077	28	1195	50	0.1	236	1.0	12	5	14
CV (std. dev./mean)	18%	71%	86%	28%	10%	66%	64%	24%	93%	259%	22%	128%	36%	25%	16%	208%	134%	36%	17%	45%
Lower CI for the mean	9133	0.4	4	38	0.2	0.4	5289	31	7	71	13519	19	3151	195	0.8	88	0.6	33	28	31
Upper CI for the mean	9505	0.5	5	40	0.3	0.5	6090	32	9	127	14192	25	3413	206	0.8	139	0.8	36	29	34
Kurtosis	1.1	99.4	38.7	7.3	104.6	48.6	17.4	4.4	53.1	79.5	12.4	11.4	3.3	1.8	45.4	73.4	72.5	45.1	33.9	13.0
Skewness	0.1	9.4	5.3	1.8	10.3	6.6	3.4	1.6	6.6	8.6	2.6	3.2	1.4	0.9	6.8	8.1	7.7	4.6	3.5	2.9

n = 324 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table B3.6: Summary Statistics for All* 5-10 Cm Soil Samples from All Schools and Daycares in the Sudbury Region

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5400	0.4	2.5	20	0.3	0.4	1600	18	3	11	7700	2	1100	100	0.8	21	0.5	13	20	15
10th	7300	0.4	2.5	26	0.3	0.4	2100	23	4	19	11000	7	1750	135	0.8	32	0.5	18	24	18
1st quartile	8650	0.4	2.5	29	0.3	0.4	2500	24	5	28	12000	7	1900	145	0.8	41	0.5	24	26	21
Median	9900	0.4	2.5	34	0.3	0.4	3650	27	6	39	13000	9	2450	180	0.8	53	0.5	31	29	25
3rd quartile	11000	0.4	6	40	0.3	0.4	5600	33	7	60	14500	11	3300	215	0.8	71	0.5	38	32	31
95th	13000	0.4	11	54	0.3	0.4	14750	39	11	173	18250	31	5125	280	0.8	213	1	45	35	47
Maximum	15000	1.8	94	97	0.3	2.4	38000	51	46	1300	24000	55	8500	310	0.8	1900	9	52	65	68
Mean	9775	0.4	7	37	0.3	0.5	5063	29	7	89	13315	11	2798	184	0.8	117	0.8	31	29	28
Geometric mean	9597	0.4	4	35	0.3	0.4	4038	28	6	45	13074	10	2599	178	0.8	61	0.6	29	29	26
Sample std. dev.	1836	0.2	15	12	0.0	0.3	4796	6	7	211	2692	8	1199	49	0.0	284	1.3	9	6	10
CV (std. dev./mean)	19%	53%	214%	34%	0%	59%	95%	22%	101%	239%	20%	74%	43%	27%	0%	244%	165%	30%	20%	38%
Lower CI for the mean	9401	0.4	4	34	0.3	0.4	4086	28	6	46	12766	9	2554	174	0.8	59	0.5	29	28	25
Upper CI for the mean	10149	0.5	10	39	0.3	0.5	6039	30	9	132	13863	13	3042	194	0.8	175	1.0	33	30	30
Kurtosis	0.3	21.8	21.9	8.4		35.8	23.4	1.2	18.8	21.1	4.0	12.7	5.5	-0.3		25.2	27.8	-0.7	16.0	3.7
Skewness	0.1	4.8	4.7	2.5		5.8	4.2	1.1	4.4	4.7	1.5	3.4	1.9	0.6		5.0	5.2	0.0	2.8	1.7

n = 96 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table B3.7: Summary Statistics for All 10-20 Cm Soil Samples from All Schools and Daycares in the Sudbury

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5200	0.4	2.5	18	0.3	0.4	1400	15	3	4	7000	4	1500	85	0.8	13	0.5	12	18	12
10th	7180	0.4	2.5	24	0.3	0.4	2000	21	4	14	10000	5	1700	120	0.8	23	0.5	16	22	15
1st quartile	8100	0.4	2.5	28	0.3	0.4	2500	23	4	23	11000	6	1900	145	0.8	36	0.5	22	24	19
Median	9200	0.4	2.5	34	0.3	0.4	3100	26	5	31	12000	7	2200	170	0.8	46	0.5	28	27	22
3rd quartile	11000	0.4	5	39	0.3	0.4	4300	28	6	49	14000	9	2900	200	0.8	66	0.5	34	30	26
95th	12000	0.4	17	47	0.3	0.4	8020	34	11	169	15300	18	4670	242	0.8	194	0.6	44	33	36
Maximum	12000	1.1	52	63	0.3	1.1	13000	56	23	540	27000	27	6500	340	0.8	710	4	49	63	45
Mean	9208	0.4	5	34	0.3	0.4	3773	27	6	51	12533	8	2536	172	0.8	70	0.6	28	28	23
Geometric mean	9049	0.4	4	33	0.3	0.4	3350	26	5	34	12264	8	2397	166	0.8	51	0.5	27	27	22
Sample std. dev.	1665	0.1	9	8	0.0	0.1	2186	6	3	72	2931	4	987	47	0.0	93	0.5	9	7	6
CV (std. dev./mean)	18%	28%	164%	24%	0%	20%	58%	24%	52%	142%	24%	52%	39%	28%	0%	133%	84%	33%	25%	28%
Lower CI for the mean	8822	0.4	3	32	0.3	0.4	3267	25	5	34	11854	7	2307	161	0.8	49	0.5	26	26	22
Upper CI for the mean	9594	0.5	8	36	0.3	0.4	4280	28	7	67	13212	9	2765	183	0.8	92	0.7	31	29	24
Kurtosis	-0.5	23.5	16.2	1.8		75.0	6.0	9.0	14.2	29.6	12.2	5.5	5.2	2.4		30.7	37.0	-0.7	16.3	1.2
Skewness	-0.2	4.9	4.1	0.8		8.7	2.3	2.4	3.2	4.9	2.8	2.2	2.2	1.1		5.1	6.0	0.3	3.5	0.9

n = 75 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

4.0 COMBINED SCHOOL AND DAYCARE RESULTS - Schools in alphabetical order.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Adamsdale Public School - Rainbow District School Board, 181 1st Avenue, Sudbury																						
Area A grass	5037144	14299	0 - 5	11000	< 0.8	< 5	41	< 0.8	5300	41	6	**62**	13000	49	2600	210	< 1.5	**73**	< 1	40	29	30
		14300	0 - 5	12000	< 0.8	6	44	< 0.8	6100	43	7	**60**	15000	34	3500	260	< 1.5	**73**	< 1	41	33	36
Area B grass	5037145	14301	0 - 5	12000	< 0.8	< 5	48	< 0.8	6900	39	7	44	15000	11	3700	280	1.6	**65**	< 1	46	34	47
		14302	0 - 5	12000	< 0.8	< 5	47	< 0.8	6600	37	7	42	15000	10	3600	270	< 1.5	**60**	< 1	43	33	34
Area C gravel	5037146	14303	0 - 5	8100	< 0.8	8	25	< 0.8	2600	29	10	**100**	15000	19	3000	150	< 1.5	**120**	< 1	23	29	48
		14304	0 - 5	7800	< 0.8	8	22	< 0.8	2000	28	10	**92**	15000	19	2300	150	< 1.5	**130**	< 1	22	28	38
Area D sand	5037147	14305	0 - 15	6500	< 0.8	< 5	23	< 0.8	3100	29	7	17	14000	2	3700	180	< 1.5	19	< 1	26	28	17
		14306	0 - 15	6300	< 0.8	5	22	< 0.8	3100	29	8	18	15000	3	3700	180	< 1.5	20	< 1	24	29	17
Alexander Public School - Rainbow District School Board, 39 St. Brendan Street, Sudbury																						
Area A gravel	5037084	14166	0 - 5	7800	< 0.8	< 5	34	< 0.8	4400	47	**31**	**180**	22000	14	5300	240	< 1.5	**180**	< 1	27	35	73
		14167	0 - 5	8300	< 0.8	< 5	40	< 0.8	4400	47	**27**	**160**	23000	14	5700	240	< 1.5	**170**	< 1	25	36	61
Area B gravel	5037085	14168	0 - 5	5700	< 0.8	< 5	29	< 0.8	3200	26	8	**77**	13000	6	3800	170	< 1.5	**80**	< 1	28	25	26
		14169	0 - 5	6800	< 0.8	< 5	35	< 0.8	3800	29	11	**120**	14000	9	4200	200	< 1.5	**120**	< 1	28	27	40
Area C sand	5037086	14170	0 - 15	6300	< 0.8	< 5	22	< 0.8	2900	30	7	31	15000	3	3800	170	< 1.5	39	< 1	25	30	23
		14171	0 - 15	5800	< 0.8	< 5	18	< 0.8	2300	26	6	24	13000	3	3800	160	< 1.5	29	< 1	20	24	21
Algonquin Road Public School - Rainbow District School Board, 2650 Algonquin Road, Sudbury																						
Area A grass	5037016	14002	0 - 5	8200	< 0.8	< 5	31	< 0.8	3200	30	8	51	15000	9	3500	170	< 1.5	**63**	< 1	30	30	31
		14003	0 - 5	8800	< 0.8	< 5	34	< 0.8	3400	31	9	**58**	15000	10	3500	180	< 1.5	**71**	< 1	33	30	32
		14004	5 - 10	9500	< 0.8	< 5	37	< 0.8	3400	30	8	**71**	14000	15	2700	160	< 1.5	**85**	< 1	33	30	39
		14005	5 - 10	9900	< 0.8	< 5	40	< 0.8	3500	31	8	**74**	15000	13	2900	160	< 1.5	**80**	< 1	36	31	40
		14006	10 - 15	11000	< 0.8	< 5	40	< 0.8	3300	28	6	39	14000	8	2400	150	< 1.5	**49**	< 1	38	31	24
		14007	10 - 15	9700	< 0.8	< 5	37	< 0.8	2600	27	5	42	14000	7	2100	120	< 1.5	**46**	< 1	33	31	24
Area B sand	5037017	14008	0 - 15	6800	< 0.8	< 5	22	< 0.8	3200	29	7	23	15000	4	3800	170	< 1.5	24	< 1	28	30	16
		14009	0 - 15	6700	< 0.8	< 5	21	< 0.8	3000	30	7	23	15000	3	4000	180	< 1.5	24	< 1	24	32	16
Area C sand	5037018	14010	0 - 15	6000	< 0.8	< 5	20	< 0.8	2700	28	7	18	14000	3	3400	160	< 1.5	24	< 1	24	33	14
		14011	0 - 15	7000	< 0.8	< 5	24	< 0.8	3000	35	7	22	16000	3	3800	180	< 1.5	27	< 1	28	35	17
Area D gravel	5037019	14012	0 - 5	9700	**1.1**	< 5	48	< 0.8	3400	35	9	52	14000	8	4800	160	< 1.5	**62**	< 1	31	30	23
		14013	0 - 5	10000	**1.5**	< 5	58	< 0.8	4100	41	10	54	15000	7	4800	180	**2.7**	**68**	< 1	34	33	29

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Area E grass	5037020	14018	0 - 5	9500	< 0.8	< 5	41	< 0.8	6600	33	7	45	14000	9	3800	260	< 1.5	**72**	< 1	40	30	31
		14019	0 - 5	10000	< 0.8	< 5	41	< 0.8	6300	35	7	47	14000	9	3800	250	< 1.5	**72**	< 1	40	31	33
		14020	5 - 10	12000	< 0.8	6	50	< 0.8	6100	46	8	47	17000	10	4500	310	< 1.5	**72**	< 1	37	37	37
		14021	5 - 10	12000	< 0.8	< 5	45	< 0.8	6300	47	8	41	17000	10	4400	290	< 1.5	**66**	< 1	41	37	32
Baron Academy Nursery (formerly)- Private School, 1534 Pioneer Road, Sudbury																						
Area A gravel	5037006	14024	0 - 5	6300	< 0.8	< 5	31	< 0.8	8000	25	4	15	11000	4	4300	190	< 1.5	23	< 1	70	25	14
		14025	0 - 5	8000	< 0.8	< 5	43	< 0.8	10000	31	6	21	14000	6	6100	220	< 1.5	30	< 1	87	29	21
Area B grass	5037007	14026	0 - 5	7400	< 0.8	< 5	27	< 0.8	4400	25	6	**58**	11000	12	2700	180	< 1.5	**71**	< 1	29	25	21
		14027	0 - 5	7600	< 0.8	< 5	28	< 0.8	4600	24	6	47	11000	10	2800	180	< 1.5	**61**	< 1	28	24	21
		14028	5 - 10	8600	< 0.8	< 5	29	< 0.8	3200	27	6	55	12000	8	2300	140	< 1.5	**60**	< 1	26	26	19
		14029	5 - 10	8900	< 0.8	< 5	30	< 0.8	2800	24	5	48	11000	7	2000	130	< 1.5	**57**	< 1	24	25	19
C.R. Judd Public School - Rainbow District School Board, 8 Lincoln Street, Capreol																						
Area A grass	5037354	14571	0 - 5	11000	< 0.8	6	33	< 0.8	2800	25	4	34	13000	10	1900	150	< 1.5	**46**	< 1	26	26	28
		14572	0 - 5	11000	< 0.8	6	34	< 0.8	2900	26	5	30	13000	10	2000	160	< 1.5	41	< 1	28	26	28
Area B grass	5037355	14573	0 - 5	8800	< 0.8	6	27	< 0.8	2500	31	4	30	11000	32	1900	140	< 1.5	36	< 1	22	24	26
		14574	0 - 5	8600	< 0.8	6	27	< 0.8	2400	36	4	31	11000	49	2000	130	< 1.5	37	< 1	20	23	27
		14575	5 - 10	7600	< 0.8	6	27	< 0.8	2200	24	4	19	11000	9	2000	150	< 1.5	30	< 1	16	22	22
		14576	5 - 10	7000	< 0.8	5	25	< 0.8	2000	24	4	16	10000	5	1900	140	< 1.5	26	< 1	14	21	19
		14577	10 - 20	7300	< 0.8	< 5	25	< 0.8	2700	24	4	13	11000	4	2200	180	< 1.5	21	< 1	22	24	17
		14578	10 - 20	8400	< 0.8	< 5	30	< 0.8	3300	26	4	17	12000	5	2100	200	< 1.5	29	< 1	31	26	22
Area C sand	5037356	14579	0 - 15	5600	< 0.8	< 5	23	< 0.8	2800	25	6	12	12000	2	3100	150	< 1.5	18	< 1	22	25	16
Carl A. Nesbitt Public School - Rainbow District School Board, 1241 Roy Street, Sudbury																						
Area A grass	5037184	14346	0 - 5	11000	< 0.8	6	48	< 0.8	10000	32	9	**110**	14000	18	3500	280	< 1.5	**120**	< 1	46	30	35
		14347	0 - 5	12000	< 0.8	5	44	< 0.8	7400	32	7	**100**	14000	12	3100	230	< 1.5	**77**	< 1	44	31	28
Area B soil	5037185	14348	0 - 5	14000	< 0.8	6	44	< 0.8	6800	35	7	50	17000	11	4800	210	< 1.5	**75**	< 1	47	34	27
Area C soil	5037186	14349	0 - 5	11000	< 0.8	5	37	< 0.8	7300	34	7	56	14000	11	4000	230	< 1.5	**74**	< 1	45	32	27
Area D sand	5037187	14350	0 - 15	5600	< 0.8	< 5	23	< 0.8	2100	26	6	14	14000	2	3200	160	< 1.5	22	< 1	20	33	16
		14351	0 - 15	5700	< 0.8	< 5	24	< 0.8	2300	27	6	15	14000	2	3000	160	< 1.5	22	< 1	19	33	17

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Area E sand	5037188	14352	0 - 15	4900	< 0.8	< 5	19	< 0.8	2900	22	5	12	12000	2	2900	140	< 1.5	17	< 1	17	27	16
		14353	0 - 15	5000	< 0.8	< 5	20	< 0.8	3100	25	6	15	14000	3	3100	160	< 1.5	19	< 1	17	31	20
Area F grass	5037189	14357	0 - 5	9200	< 0.8	< 5	41	< 0.8	4300	36	8	**87**	13000	16	2400	180	< 1.5	**99**	< 1	33	30	34
		14358	0 - 5	11000	< 0.8	< 5	44	< 0.8	4900	35	8	**73**	14000	13	2600	180	< 1.5	**77**	< 1	40	33	31
		14359	5 - 10	12000	< 0.8	6	38	< 0.8	3700	34	7	**60**	17000	10	2500	180	< 1.5	**70**	< 1	33	31	27
		14360	5 - 10	9300	< 0.8	< 5	34	< 0.8	2600	30	7	47	13000	7	2400	140	< 1.5	**55**	< 1	23	31	24
		14361	10 - 20	9300	< 0.8	8	40	< 0.8	2600	33	8	**73**	13000	11	2200	180	< 1.5	**100**	< 1	25	29	27
		14362	10 - 20	9200	< 0.8	7	42	< 0.8	3700	34	8	**57**	12000	9	2500	180	< 1.5	**94**	< 1	28	30	24
Area G soil	5037190	14355	0 - 5	9200	< 0.8	6	41	< 0.8	4400	32	6	53	13000	8	2800	150	< 1.5	**60**	< 1	32	32	47
Area H soil	5037191	14354	0 - 5	10000	< 0.8	< 5	46	< 0.8	5500	32	7	51	15000	10	3000	190	< 1.5	**73**	< 1	38	31	41
Area I sand	5037192	14356	0 - 15	4200	< 0.8	< 5	18	< 0.8	2300	21	5	11	11000	2	2700	140	< 1.5	14	< 1	16	26	13
Chelmsford Public School - Rainbow District School Board, 121 Charlotte Street, Chelmsford																						
Area A grass	5037388	14526	0 - 5	12000	< 0.8	6	43	< 0.8	7100	35	6	32	15000	11	3600	300	< 1.5	**47**	< 1	45	33	30
		14527	0 - 5	11000	< 0.8	< 5	43	< 0.8	6600	33	6	28	14000	10	3600	260	< 1.5	**49**	< 1	43	32	29
		14528	5 - 10	12000	< 0.8	< 5	44	< 0.8	6300	36	6	22	16000	10	3600	240	< 1.5	42	< 1	47	35	25
		14529	5 - 10	12000	< 0.8	< 5	43	< 0.8	6400	35	6	28	15000	11	3600	250	< 1.5	**47**	< 1	44	33	26
		14530	10 - 20	11000	< 0.8	< 5	37	< 0.8	4500	28	5	20	13000	9	2500	180	< 1.5	38	< 1	44	31	21
		14531	10 - 20	11000	< 0.8	< 5	40	< 0.8	5100	30	6	22	14000	9	3100	200	< 1.5	42	< 1	43	32	23
Area B sand	5037389	14523	0 - 15	5100	< 0.8	< 5	18	< 0.8	2900	26	6	15	15000	4	3900	180	< 1.5	16	< 1	18	31	21
Area C sand	5037390	14524	0 - 15	4700	< 0.8	< 5	18	< 0.8	3100	27	7	15	15000	4	3400	170	< 1.5	20	< 1	18	32	23
Area D sand	5037391	14525	0 - 15	5500	< 0.8	< 5	16	< 0.8	3200	25	6	17	16000	4	3900	180	< 1.5	16	< 1	20	33	20

Table F (results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A (results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Chelmsford Valley District School - Rainbow District School Board, 3594 Highway 144, Chelmsford																						
Area A grass	5037375	14503	0 - 5	9700	< 0.8	< 5	36	< 0.8	4700	34	5	23	12000	46	2300	210	< 1.5	36	< 1	40	28	21
		14504	0 - 5	10000	< 0.8	6	35	< 0.8	4000	36	5	19	13000	55	2300	170	< 1.5	32	< 1	36	28	21
		14505	5 - 10	11000	< 0.8	< 5	37	< 0.8	5300	30	5	16	13000	8	2400	190	< 1.5	30	< 1	39	30	20
		14506	5 - 10	11000	< 0.8	5	39	< 0.8	4400	33	7	23	15000	15	2800	190	< 1.5	38	< 1	39	31	25
		14507	10 - 20	9900	< 0.8	< 5	36	< 0.8	4300	30	6	27	14000	17	2500	190	< 1.5	43	< 1	34	29	23
Area B grass	5037376	14508	0 - 5	8300	< 0.8	6	32	< 0.8	5500	24	5	38	10000	14	2400	160	< 1.5	**54**	< 1	39	26	22
		14509	0 - 5	7800	< 0.8	< 5	30	< 0.8	5300	22	5	37	10000	14	2600	160	< 1.5	**55**	< 1	30	24	21
		14510	5 - 10	8800	< 0.8	< 5	33	< 0.8	4500	25	5	18	11000	7	2400	170	< 1.5	33	< 1	38	27	18
		14511	5 - 10	9000	< 0.8	5	34	< 0.8	5800	26	5	22	12000	9	2500	180	< 1.5	39	< 1	40	27	19
		14512	10 - 20	9000	< 0.8	< 5	35	< 0.8	5400	27	4	17	11000	7	2400	170	< 1.5	35	< 1	47	26	18
Area C soil	5037377	14513	0 - 5	9200	< 0.8	< 5	37	< 0.8	11000	29	6	17	14000	6	5600	230	< 1.5	27	< 1	56	28	22
Churchill Public School - Rainbow District School Board, 1722 Fielding Street, Sudbury																						
Area A grass	5037166	14448	0 - 5	8900	< 0.8	6	39	< 0.8	7200	30	8	**100**	13000	18	3200	220	< 1.5	**120**	1	34	27	28
		14449	0 - 5	9600	< 0.8	< 5	44	0.8	7300	36	9	**130**	14000	28	3400	290	< 1.5	**140**	1	42	29	32
Area B soil	5037167	14450	0 - 5	7900	< 0.8	< 5	40	< 0.8	3000	41	13	**100**	18000	14	4700	260	< 1.5	**120**	< 1	26	31	42
Area C soil	5037168	14451	0 - 5	5900	< 0.8	< 5	26	< 0.8	13000	25	8	52	13000	7	8300	180	< 1.5	**59**	< 1	32	26	23
Area D sand	5037169	14452	0 - 15	4500	< 0.8	< 5	18	< 0.8	2000	22	5	12	11000	2	2600	140	< 1.5	18	< 1	18	23	14
Area E grass	5037170	14453	0 - 5	8200	< 0.8	8	40	< 0.8	3300	38	**42**	**300**	24000	34	4300	270	< 1.5	**420**	1	28	32	69
		14454	0 - 5	8200	< 0.8	6	44	< 0.8	3400	34	**34**	**220**	22000	21	4200	220	< 1.5	**320**	1	28	33	54
Area F soil	5037171	14455	0 - 5	8500	< 0.8	7	40	< 0.8	2900	34	14	**110**	18000	17	4400	220	< 1.5	**120**	1	28	32	75
College Notre Dame - Le Conseil Scolaire Catholique du Nouvel - Ontario, 100 Rue Levis, Sudbury																						
Area A grass	5037135	14244	0 - 5	9600	< 0.8	6	36	< 0.8	3300	25	5	27	11000	8	2100	150	< 1.5	38	< 1	32	28	20
		14245	0 - 5	10000	< 0.8	5	33	< 0.8	3800	25	4	26	12000	8	2100	150	< 1.5	39	< 1	37	29	21

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Confederation Secondary School - Rainbow District School Board, 1918 Main Street West, Val Caron																						
Area A grass	5037294	14797	0 - 5	8100	< 0.8	< 5	35	< 0.8	15000	57	5	40	9400	**170**	2900	130	< 1.5	**54**	< 1	37	22	23
		14798	0 - 5	7400	< 0.8	< 5	38	< 0.8	33000	36	5	52	8600	**77**	4500	150	< 1.5	**74**	< 1	46	20	26
Area B soil	5037295	14799	0 - 5	9400	< 0.8	< 5	27	< 0.8	4200	26	3	26	9900	21	1600	130	< 1.5	38	< 1	34	26	17
Copper Cliff Public School - Rainbow District School Board, 50 School Street, Copper Cliff																						
Area A grass	5037254	14670	0 - 5	9100	< 0.8	**32**	82	**3.1**	27000	48	**80**	**2900**	30000	**100**	4400	250	1.6	**2500**	**12**	40	28	110
		14671	0 - 5	11000	< 0.8	**37**	76	**2.6**	21000	54	**80**	**2500**	34000	**90**	4700	230	< 1.5	**2500**	**8**	39	33	110
		14672	5 - 10	14000	**1.5**	**65**	83	**1.1**	17000	39	**38**	**1100**	20000	34	3400	210	< 1.5	**1600**	**4**	41	31	51
		14673	5 - 10	15000	**1.6**	**77**	97	**1.4**	17000	45	**46**	**1300**	24000	41	3700	270	< 1.5	**1900**	**6**	44	34	68
		14674	10 - 20	11000	1	**35**	63	< 0.8	4300	28	11	**190**	14000	7	2400	150	< 1.5	**260**	1	29	28	30
		14675	10 - 20	9800	**1.1**	**44**	58	< 0.8	4800	27	14	**260**	13000	11	2500	170	< 1.5	**370**	1	29	27	27
Area B sand	5037255	14676	0 - 15	8200	< 0.8	< 5	28	< 0.8	3900	35	9	47	18000	4	4600	220	< 1.5	43	< 1	29	37	24
		14677	0 - 15	7700	< 0.8	< 5	26	< 0.8	3400	35	9	36	18000	4	4700	220	< 1.5	34	< 1	24	36	23
	5037256	14678	0 - 15	7500	< 0.8	< 5	26	< 0.8	3200	33	8	43	17000	4	4500	210	< 1.5	38	< 1	23	33	22
		14679	0 - 15	7300	< 0.8	< 5	22	< 0.8	3100	32	8	27	17000	3	4700	210	< 1.5	28	< 1	21	32	21
	5037257	14680	0 - 15	7100	< 0.8	< 5	25	< 0.8	3200	34	8	39	17000	4	4500	210	< 1.5	34	< 1	21	36	23
		14681	0 - 15	7800	< 0.8	< 5	24	< 0.8	3500	33	8	26	17000	3	4600	220	< 1.5	24	< 1	26	34	22
Area C sand	5037258	14682	0 - 15	7800	< 0.8	< 5	27	< 0.8	3700	35	8	34	18000	4	4600	220	< 1.5	27	< 1	26	36	21
		14683	0 - 15	8200	< 0.8	< 5	27	< 0.8	3800	32	9	29	17000	4	4600	220	< 1.5	30	< 1	29	33	21
	5037259	14684	0 - 15	8000	< 0.8	< 5	26	< 0.8	3600	34	9	32	17000	3	4700	220	< 1.5	29	< 1	27	34	21
		14685	0 - 15	8100	< 0.8	< 5	27	< 0.8	3700	34	9	34	18000	3	4600	210	< 1.5	33	< 1	28	34	21
Area D grass	5037260	14686	0 - 5	10000	< 0.8	**24**	37	**3.1**	11000	24	**54**	**2000**	26000	**96**	5500	130	< 1.5	**1700**	**7**	27	16	49
		14687	0 - 5	11000	< 0.8	**28**	32	**2.6**	12000	20	**45**	**1600**	23000	51	4100	98	< 1.5	**1500**	**5**	20	16	39
		14688	5 - 10	14000	**1.4**	**66**	81	**1.6**	8800	33	**39**	**980**	19000	33	3300	200	< 1.5	**1100**	**7**	43	34	57
		14689	5 - 10	13000	**1.8**	**94**	76	**2.4**	9100	38	**42**	**940**	19000	55	3300	190	< 1.5	**1100**	**9**	42	33	67
		14690	10 - 20	9100	< 0.8	**36**	36	< 0.8	3300	23	15	**190**	12000	11	2100	130	< 1.5	**250**	**3**	27	26	26
		14691	10 - 20	10000	0.9	**52**	42	**1.1**	6800	15	23	**540**	16000	19	2700	170	< 1.5	**710**	**4**	33	22	19
Area E grass	5037261	14692	0 - 5	7400	< 0.8	6	85	< 0.8	7000	30	11	**250**	13000	11	5000	170	< 1.5	**250**	1	57	27	26
		14693	0 - 5	8500	< 0.8	6	110	< 0.8	7000	32	11	**270**	13000	12	4800	190	< 1.5	**260**	1	60	29	27

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Corpus Christi - Sudbury Catholic District School Board, 811 Robinson Drive, Sudbury																						
Area A gravel	5037039	14086	0 - 5	11000	< 0.8	< 5	40	< 0.8	13000	34	7	50	15000	10	6100	250	< 1.5	**74**	< 1	45	31	34
		14087	0 - 5	12000	< 0.8	< 5	42	< 0.8	13000	35	7	48	15000	11	6100	260	< 1.5	**71**	< 1	48	32	37
Area B gravel	5037040	14088	0 - 5	12000	< 0.8	< 5	43	< 0.8	14000	36	7	49	16000	11	6500	270	< 1.5	**71**	< 1	47	34	40
		14089	0 - 5	11000	< 0.8	< 5	41	< 0.8	13000	35	7	46	15000	10	6200	260	< 1.5	**67**	< 1	44	31	32
Cyril Varney Public School - Rainbow District School Board, 1545 Gary Street, Sudbury																						
Area A grass	5037220	14367	0 - 5	7700	< 0.8	7	41	< 0.8	4400	28	6	46	11000	11	2700	220	< 1.5	**66**	< 1	30	26	27
		14368	0 - 5	8800	< 0.8	7	37	< 0.8	4100	29	6	38	13000	10	2800	220	< 1.5	**60**	< 1	23	26	24
		14369	5 - 10	5800	< 0.8	< 5	23	< 0.8	2400	22	5	22	9800	5	2300	140	< 1.5	35	< 1	18	21	15
		14370	5 - 10	11000	< 0.8	7	39	< 0.8	5800	34	7	25	15000	9	3400	230	< 1.5	**45**	< 1	38	32	22
		14380	10 - 20	5600	< 0.8	< 5	21	< 0.8	2400	28	11	**92**	14000	12	3800	170	< 1.5	**87**	< 1	17	27	28
Area B soil	5037221	14371	0 - 5	5700	< 0.8	< 5	23	< 0.8	3200	28	8	26	14000	4	3500	170	< 1.5	28	< 1	22	31	20
Area C soil	5037222	14372	0 - 5	7900	< 0.8	6	39	< 0.8	4100	29	7	**77**	12000	25	2600	160	< 1.5	**78**	< 1	22	25	24
Area D soil	5037223	14373	0 - 5	8000	< 0.8	5	43	1	6600	35	11	**160**	13000	54	3000	210	< 1.5	**160**	**2**	28	24	36
		14374	0 - 5	8800	< 0.8	< 5	32	< 0.8	4700	33	6	51	13000	29	2700	190	< 1.5	**67**	< 1	26	27	23
Area E sand	5037224	14375	0 - 15	8600	< 0.8	< 5	17	< 0.8	5600	22	7	35	13000	**82**	2700	190	< 1.5	**80**	< 1	26	13	13
		14376	0 - 15	8300	< 0.8	< 5	15	< 0.8	4400	11	4	9	9100	9	2600	70	< 1.5	27	< 1	21	11	9
Area F grass	5037225	14377	0 - 5	8400	< 0.8	< 5	32	< 0.8	4200	24	4	26	10000	12	2400	150	< 1.5	35	< 1	33	24	18
		14378	0 - 5	8500	< 0.8	5	31	< 0.8	3700	27	6	39	13000	12	2400	180	< 1.5	**53**	< 1	23	26	21
Area G sand	5037226	14379	0 - 15	7000	< 0.8	5	30	< 0.8	2600	21	6	39	11000	6	1900	140	< 1.5	**51**	< 1	18	23	18
E.P. Pavillon-de-l'avenir, Consiel Scolarie du District de Grand Nord de L'Ontairo, 370 Cote Avenue, Chelmsford This school is located in the same building as Chelmsford V.D.C.S, Rainbow District School Board. See that Chelmsford Valley District School above for the results.																						
E.S.C. l'Heritage, 323 2nd Avenue - Le Conseil Scolaire Catholique du Novel - Ontario, Sudbury																						
Area A grass	5037141	14307	0 - 5	11000	< 0.8	5	47	< 0.8	5900	42	9	**100**	15000	42	3200	220	< 1.5	**120**	< 1	40	31	34
		14308	0 - 5	12000	< 0.8	7	50	< 0.8	6300	43	9	**76**	16000	24	3600	250	< 1.5	**100**	< 1	43	34	33
Area B soil	5037142	14309	0 - 5	11000	< 0.8	5	45	< 0.8	7300	33	6	39	14000	10	3700	230	< 1.5	**52**	< 1	46	31	25
Area C soil	5037143	14310	0 - 5	12000	< 0.8	6	44	< 0.8	5800	34	6	29	14000	9	3000	210	< 1.5	43	< 1	38	30	29

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
E.S.C. Champlain - Le Conseil Scolaire Catholique du Nouvel - Ontario, 61 Brookside Drive, Chelmsford																						
Area A grass	5037382	14536	0 - 5	9600	< 0.8	< 5	29	< 0.8	4000	25	5	32	12000	9	2200	160	< 1.5	41	< 1	37	27	21
		14537	0 - 5	9200	< 0.8	< 5	30	< 0.8	3700	24	5	33	11000	10	2200	160	< 1.5	**44**	< 1	33	26	22
Area B soil	5037383	14538	0 - 5	8700	< 0.8	< 5	46	< 0.8	14000	29	7	24	15000	6	8200	230	< 1.5	32	< 1	76	30	25
Area C sand	5037384	14539	0 - 15	7100	< 0.8	< 5	22	< 0.8	4100	30	7	27	18000	8	4500	220	< 1.5	20	< 1	28	40	26
E.S.C. l'Horizon- Le Conseil Scolaire Catholique du Nouvel - Ontario, 1650 Valleyview Drive, Val Caron																						
Area A grass	5037279	14818	0 - 5	12000	< 0.8	< 5	47	< 0.8	7600	33	6	35	14000	9	3200	250	< 1.5	**52**	< 1	46	32	30
		14819	0 - 5	12000	< 0.8	< 5	47	< 0.8	7500	33	6	35	15000	9	3200	270	< 1.5	**53**	< 1	46	32	31
		14820	5 - 10	12000	< 0.8	< 5	48	< 0.8	8500	33	6	33	14000	9	3300	260	< 1.5	**51**	< 1	48	32	30
		14821	5 - 10	12000	< 0.8	< 5	49	< 0.8	8400	33	6	34	14000	9	3300	280	< 1.5	**51**	< 1	45	32	32
		14822	10 - 20	12000	< 0.8	< 5	50	< 0.8	8300	34	6	33	14000	9	3200	280	< 1.5	**52**	< 1	49	32	36
		14823	10 - 20	12000	< 0.8	< 5	47	< 0.8	7900	33	6	31	15000	8	3400	270	< 1.5	**46**	< 1	47	33	32
Area B soil	5037280	14824	0 - 5	5400	< 0.8	< 5	29	< 0.8	11000	19	5	20	11000	3	4500	220	< 1.5	30	< 1	33	23	16
		14825	0 - 5	5100	< 0.8	< 5	27	< 0.8	11000	20	5	17	11000	2	4500	170	< 1.5	19	< 1	31	22	13
Ecole Leon XIII - Le Conseil Scolaire Catholique du Nouvel - Ontario, 1311 Rue Gemmell, Sudbury																						
Area A gravel	5037181	14456	0 - 5	8000	< 0.8	< 5	36	< 0.8	2600	34	14	**120**	19000	18	4300	190	< 1.5	**130**	1	26	31	33
		14457	0 - 5	7100	< 0.8	< 5	30	< 0.8	2400	32	13	**110**	17000	16	3900	180	< 1.5	**120**	< 1	22	29	30
Area B sand	5037182	14458	0 - 15	3900	< 0.8	< 5	20	< 0.8	3200	22	5	16	11000	3	2600	130	< 1.5	20	< 1	17	23	21
Area C sand	5037183	14459	0 - 15	3700	< 0.8	< 5	15	< 0.8	1500	19	4	11	9200	2	2100	110	< 1.5	13	< 1	15	18	11
Ecole St. Pierre (formerly) - Le Conseil Scolarie Catholique du Nouvel - Ontario, 102 Rue Hill, Wahnapitae																						
Area A gravel	5037267	14748	0 - 5	11000	< 0.8	6	48	< 0.8	4100	40	11	**73**	19000	13	4800	230	< 1.5	**73**	< 1	35	36	33
		14749	0 - 5	8200	< 0.8	5	33	< 0.8	3600	36	10	**58**	18000	10	4500	210	< 1.5	**60**	< 1	27	34	29
Ecole St. Remi (formerly) - Le Conseil Scolaire Catholique du Nouvel - Ontario, 95 Rue Estelle, Sudbury																						
Area A gravel	5037149	14295	0 - 5	10000	< 0.8	7	41	< 0.8	3800	36	13	**72**	19000	12	5100	280	< 1.5	**79**	< 1	31	35	31
		14296	0 - 5	9900	< 0.8	6	40	< 0.8	3700	41	16	**98**	21000	14	5900	290	< 1.5	**100**	< 1	29	38	37

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Ecole Ste. Agnes (Association for Community Living) - Le Conseil Scolarie Catholique du Novel - Ontario, 80 Rue Landry, Azilda																						
Area A grass	5037371	14496	0 - 5	9700	< 0.8	8	40	< 0.8	4000	36	9	**110**	16000	21	3500	260	< 1.5	**130**	< 1	34	32	42
		14497	0 - 5	10000	< 0.8	8	43	< 0.8	4500	38	11	**120**	16000	23	3700	290	< 1.5	**150**	< 1	38	33	47
		14498	5 - 10	11000	< 0.8	7	43	< 0.8	4300	38	9	**64**	16000	14	3800	280	< 1.5	**100**	< 1	36	32	41
		14499	5 - 10	8900	< 0.8	5	32	< 0.8	3700	33	6	39	14000	7	3200	230	< 1.5	**70**	< 1	32	30	31
Area B gravel	5037372	14485	0 - 5	8200	< 0.8	5	27	< 0.8	2700	39	11	**81**	20000	20	5700	230	< 1.5	**89**	1	18	38	37
		14486	0 - 5	8000	< 0.8	5	24	< 0.8	3500	33	10	**77**	20000	20	5300	230	< 1.5	**85**	1	26	39	33
Ernie Checkeris Public School - Rainbow District School Board, 1570 Agincourt Avenue, Sudbury																						
Area A grass	5037208	14762	0 - 5	9500	< 0.8	5	43	< 0.8	4800	29	8	**120**	12000	31	2600	160	< 1.5	**160**	< 1	35	28	33
		14763	0 - 5	9900	< 0.8	6	43	< 0.8	6500	29	7	**130**	12000	27	3700	160	< 1.5	**150**	< 1	42	29	37
		14764	5 - 10	11000	< 0.8	< 5	36	< 0.8	2900	26	5	56	13000	7	2300	140	< 1.5	**70**	< 1	29	30	34
		14765	5 - 10	8600	< 0.8	< 5	33	< 0.8	2800	20	5	**67**	10000	7	1800	110	< 1.5	**96**	< 1	28	25	23
		14766	10 - 20	8600	< 0.8	< 5	33	< 0.8	2900	21	4	34	10000	5	2000	120	< 1.5	**66**	< 1	29	26	19
		14767	10 - 20	9500	< 0.8	5	37	< 0.8	2800	23	5	50	11000	7	2000	120	< 1.5	**67**	< 1	29	28	21
Area B gravel	5037209	14768	0 - 5	9200	< 0.8	5	38	< 0.8	2900	22	5	**61**	12000	8	2100	120	< 1.5	**93**	< 1	26	29	35
Area C sand	5037210	14769	0 - 15	5200	< 0.8	< 5	22	< 0.8	2900	25	6	21	11000	3	3200	170	< 1.5	27	< 1	18	34	21
		14770	0 - 15	4800	< 0.8	< 5	21	< 0.8	2200	24	6	19	12000	3	3200	160	< 1.5	24	< 1	15	28	21
Area D sand	5037211	14771	0 - 15	5600	< 0.8	< 5	25	< 0.8	2700	26	6	24	14000	3	3400	180	< 1.5	30	< 1	19	34	20
Falconbridge Public School - Rainbow District School Board, 72 Edison Street, Falconbridge																						
Area A grass	5037357	14755	0 - 5	9800	< 0.8	< 5	46	< 0.8	6300	35	11	**58**	13000	21	3400	220	1.5	**110**	< 1	42	30	36
		14756	0 - 5	8700	< 0.8	< 5	43	1	7000	31	12	**66**	12000	20	3400	210	1.8	**120**	< 1	38	26	35
Area B soil	5037358	14757	0 - 5	6100	< 0.8	< 5	26	< 0.8	2500	31	13	46	16000	11	4200	190	< 1.5	**61**	< 1	19	32	27
Area C sand	5037359	14758	0 - 15	4100	< 0.8	< 5	18	< 0.8	2400	22	6	17	12000	2	2900	140	< 1.5	37	< 1	13	28	14
		14759	0 - 15	4800	< 0.8	< 5	21	< 0.8	2700	25	6	21	13000	3	2900	150	< 1.5	34	< 1	19	30	15
Felix Richard - Le Conseil Scolaire Catholique du Nouvel - Ontario, 691 Lasalle Boulevard, Sudbury																						
Area A grass	5037194	14462	0 - 5	8700	< 0.8	< 5	34	< 0.8	4400	26	6	**86**	12000	14	2600	150	< 1.5	**91**	< 1	32	25	27
		14463	0 - 5	8900	< 0.8	< 5	27	< 0.8	3200	25	5	50	11000	9	1900	130	< 1.5	**58**	< 1	32	26	22
Area B soil	5037195	14464	0 - 5	7100	< 0.8	< 5	35	< 0.8	9600	29	8	34	14000	5	4700	180	< 1.5	39	< 1	41	29	29
		14465	0 - 5	7200	< 0.8	< 5	35	< 0.8	7600	28	8	31	14000	4	4300	180	< 1.5	34	< 1	39	28	23

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Area C soil	5037196	14466	0 - 5	8400	< 0.8	7	43	< 0.8	7100	33	9	33	16000	4	4100	210	< 1.5	34	< 1	41	33	23
		14467	0 - 5	7800	< 0.8	< 5	42	< 0.8	6200	32	9	32	16000	4	4300	210	< 1.5	32	< 1	36	32	24
Area D sand	5037197	14468	0 - 15	4500	< 0.8	< 5	19	< 0.8	2900	25	6	17	12000	2	2900	140	< 1.5	30	< 1	18	29	27
Area E sand	5037198	14469	0 - 15	5000	< 0.8	< 5	20	< 0.8	2700	26	7	24	13000	3	2900	160	< 1.5	31	< 1	19	27	19
Area F sand	5037199	14470	0 - 15	6500	< 0.8	< 5	19	< 0.8	2600	25	7	24	13000	3	2900	150	< 1.5	28	< 1	17	28	17
Area G grass	5037200	14471	0 - 5	9200	< 0.8	< 5	29	< 0.8	3300	27	6	43	13000	9	2000	160	< 1.5	**52**	< 1	32	27	34
		14472	0 - 5	8900	< 0.8	6	27	< 0.8	3000	27	6	51	13000	9	2100	150	< 1.5	**56**	< 1	29	26	37
E.P. Foyer Jeunesse at E.S. Hanmer - Conseil Scolaire du District de Grand Nord de L'Ontario, 4752 Rue Notre Dame, Hanmer																						
Area A sand	5037343	14602	0 - 15	4500	< 0.8	< 5	16	< 0.8	1800	24	6	13	12000	2	3100	160	< 1.5	21	< 1	< 10	26	17
		14603	0 - 15	5100	< 0.8	< 5	18	< 0.8	2200	28	6	16	13000	3	3200	160	< 1.5	25	< 1	14	33	19
Area B gravel	5037344	14604	0 - 5	11000	< 0.8	< 5	40	< 0.8	3600	43	10	55	21000	9	5900	280	< 1.5	40	< 1	27	42	40
		14605	0 - 5	11000	< 0.8	< 5	40	< 0.8	3800	43	10	49	21000	10	5700	270	< 1.5	38	< 1	30	42	37
Area C grass	5037345	14596	0 - 5	9600	< 0.8	7	32	< 0.8	3000	25	4	27	11000	10	2400	130	< 1.5	39	< 1	16	22	24
		14597	0 - 5	11000	< 0.8	6	36	< 0.8	3000	26	5	35	12000	12	2300	150	< 1.5	42	< 1	22	25	27
		14598	5 - 10	10000	< 0.8	6	31	< 0.8	1800	25	4	19	11000	9	1800	130	< 1.5	29	< 1	17	24	21
		14599	5 - 10	9900	< 0.8	< 5	30	< 0.8	1600	24	4	16	11000	7	1700	110	< 1.5	28	< 1	14	22	18
		14600	10 - 20	9200	< 0.8	< 5	28	< 0.8	1400	23	4	13	10000	6	1800	100	< 1.5	23	< 1	12	21	17
		14601	10 - 20	9500	< 0.8	< 5	27	< 0.8	1600	24	4	12	11000	5	1800	110	< 1.5	23	< 1	15	23	19
Area D sand	5037346	14606	0 - 15	5400	< 0.8	< 5	22	< 0.8	2100	24	6	16	13000	2	3100	170	< 1.5	39	< 1	16	30	16
E.P. Franco Nord - Conseil Scolaire du District de Grand de L'ONTARIO, 178 Avenue Junction, Sudbury																						
Area A grass	5037361	14479	0 - 5	8800	< 0.8	< 5	29	< 0.8	3400	26	5	22	11000	7	2200	160	< 1.5	38	< 1	32	27	18
		14480	0 - 5	8500	< 0.8	6	27	< 0.8	3500	24	4	18	10000	6	2100	150	< 1.5	32	< 1	32	25	16
Area B sand	5037362	14481	0 - 15	6500	< 0.8	< 5	22	< 0.8	4300	25	7	22	18000	7	4300	210	< 1.5	19	< 1	30	39	27
Area C sand	5037363	14482	0 - 15	4500	< 0.8	< 5	16	< 0.8	5300	23	5	16	12000	4	3500	160	< 1.5	19	< 1	21	28	21
Area D gravel	5037364	14483	0 - 5	8100	< 0.8	5	32	< 0.8	3500	33	11	**87**	19000	12	5700	260	< 1.5	**85**	< 1	23	37	39
		14484	0 - 5	6700	< 0.8	6	25	< 0.8	3000	32	10	**76**	17000	11	4900	230	< 1.5	**73**	< 1	18	35	38

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Gatchell School - Rainbow District School Board, 31 Tuddenham Avenue, Sudbury																						
Area A sand	5037098	14208	0 - 15	7300	< 0.8	< 5	33	< 0.8	4300	32	9	**85**	19000	7	5300	240	< 1.5	**59**	< 1	29	39	32
Area B sand	5037099	14209	0 - 15	5200	< 0.8	< 5	24	< 0.8	3400	22	6	26	12000	3	2800	150	< 1.5	31	< 1	23	28	14
Area C grass	5037100	14210	0 - 5	7200	< 0.8	< 5	32	< 0.8	4200	26	5	43	9800	7	2300	150	< 1.5	**51**	< 1	34	26	19
		14211	0 - 5	6200	< 0.8	< 5	24	< 0.8	3000	32	7	27	15000	3	4000	180	< 1.5	29	< 1	23	31	21
Area D grass	5037101	14212	0 - 5	8000	< 0.8	< 5	31	< 0.8	3900	26	5	38	11000	7	2200	150	< 1.5	**47**	< 1	34	25	18
		14213	0 - 5	7700	< 0.8	< 5	31	< 0.8	3200	25	5	43	10000	6	2000	140	< 1.5	**54**	< 1	26	24	18
Area E grass	5037102	14214	0 - 5	8100	< 0.8	8	45	< 0.8	3700	51	**20**	**530**	20000	**71**	3600	180	< 1.5	**360**	**3.1**	32	32	96
		14215	0 - 5	8000	< 0.8	7	41	< 0.8	3000	49	**21**	**480**	21000	**75**	3000	190	< 1.5	**380**	**2.8**	33	33	99
George Vanier Public School - Rainbow District School Board, 249 6th Avenue, Lively																						
Area A grass	5037248	14726	0 - 5	6600	< 0.8	< 5	45	0.9	2800	29	17	**190**	15000	**65**	3000	140	< 1.5	**320**	**2**	16	24	39
		14727	0 - 5	8600	< 0.8	7	70	**1.6**	4900	39	**27**	**370**	20000	**110**	3600	190	< 1.5	**630**	**4**	28	31	56
Area B gravel	5037249	14728	0 - 5	5400	< 0.8	< 5	17	< 0.8	3500	26	8	**60**	11000	6	3000	160	< 1.5	**120**	< 1	28	28	30
Area C sand	5037250	14729	0 - 15	6100	< 0.8	< 5	23	< 0.8	2800	29	7	19	14000	3	3700	170	< 1.5	26	< 1	23	28	19
Area D sand	5037251	14730	0 - 15	5000	< 0.8	< 5	20	< 0.8	1800	25	7	17	13000	2	3400	170	< 1.5	27	< 1	14	28	17
Area E gravel	5037252	14731	0 - 5	6400	< 0.8	< 5	34	< 0.8	7700	25	6	35	11000	7	4200	180	< 1.5	**57**	< 1	67	25	21
Area F grass	5037253	14732	0 - 5	5400	< 0.8	< 5	24	< 0.8	3200	21	6	43	8500	8	2500	140	< 1.5	**68**	< 1	26	20	21
		14733	0 - 5	6700	< 0.8	< 5	32	< 0.8	3500	24	7	**67**	11000	13	2600	150	< 1.5	**110**	< 1	32	23	26
E.S. Hanmer - Conseil Scolaire du District de Grand Nord de L'Ontario, 4800 Rue Notre Dame, Hanmer																						
Area A grass	5037339	14586	0 - 5	10000	< 0.8	< 5	42	< 0.8	17000	37	6	33	13000	**79**	3800	200	< 1.5	**50**	< 1	28	27	46
		14587	0 - 5	11000	< 0.8	< 5	52	< 0.8	6400	39	7	46	15000	**78**	3200	240	< 1.5	**62**	< 1	24	30	44
Area B soil	5037340	14588	0 - 5	9800	< 0.8	< 5	32	< 0.8	5600	29	5	30	13000	25	2600	190	< 1.5	41	< 1	33	28	30

Table F (results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A (results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Area C grass	5037341	14589	0 - 5	11000	< 0.8	6	36	< 0.8	4700	31	5	39	13000	12	2200	170	< 1.5	**50**	< 1	40	30	27
		14590	0 - 5	9800	< 0.8	< 5	33	< 0.8	4200	28	5	36	12000	11	2200	150	< 1.5	**46**	< 1	33	27	26
		14591	5 - 10	10000	< 0.8	< 5	29	< 0.8	4000	27	4	29	12000	9	1900	150	< 1.5	37	< 1	40	28	23
		14592	5 - 10	7000	< 0.8	< 5	23	< 0.8	2100	23	4	31	7700	8	1100	110	< 1.5	42	< 1	26	25	17
		14593	10 - 20	11000	< 0.8	< 5	27	< 0.8	3600	26	4	30	12000	7	1800	140	< 1.5	34	< 1	39	27	19
		14594	10 - 20	7300	< 0.8	< 5	22	< 0.8	1700	20	4	29	9500	8	1700	85	< 1.5	33	< 1	12	22	18
Area D sand	5037342	14595	0 - 15	4900	< 0.8	< 5	21	< 0.8	1800	25	6	18	14000	3	3000	170	< 1.5	25	< 1	13	33	18
Immaculate Conception - Sudbury Catholic District School Board, 1748 Pierre Street, Val Caron																						
Area A gravel	5037293	14786	0 - 5	9400	< 0.8	6	38	< 0.8	4100	39	9	**84**	20000	16	5700	250	1.6	**79**	1	29	38	53
		14787	0 - 5	8600	< 0.8	< 5	34	< 0.8	3400	40	9	**70**	20000	12	5800	230	< 1.5	**67**	< 1	23	39	43
E.P. Jeanne-Sauve, 300 Rue Van Horne - Conseil Scolaire du District de Grand Nord de L'Ontario, Sudbury																						
Area A grass	5037089	14179	0 - 5	8900	< 0.8	< 5	43	< 0.8	11000	33	7	**92**	13000	17	5800	210	< 1.5	**110**	< 1	34	27	33
		14180	0 - 5	7500	< 0.8	< 5	40	< 0.8	10000	29	7	**110**	12000	19	5500	190	< 1.5	**130**	< 1	30	24	36
Area B soil	5037090	14183	0 - 5	7500	< 0.8	< 5	41	< 0.8	8800	30	7	**94**	12000	16	4600	190	< 1.5	**110**	< 1	29	27	73
Area C soil	5037091	14184	0 - 5	5800	< 0.8	< 5	21	< 0.8	3200	28	7	19	13000	3	4000	170	< 1.5	20	< 1	20	27	17
Area D grass	5037092	14181	0 - 5	8100	< 0.8	< 5	34	< 0.8	4000	26	7	**110**	12000	22	3000	160	< 1.5	**99**	< 1	25	24	33
		14182	0 - 5	7200	< 0.8	< 5	34	< 0.8	4000	28	8	**130**	12000	28	3300	170	< 1.5	**130**	1.4	22	25	38
		14187	5 - 10	9900	< 0.8	< 5	31	< 0.8	2300	25	4	47	11000	8	1800	110	< 1.5	**49**	< 1	22	25	23
		14188	5 - 10	9900	< 0.8	< 5	32	< 0.8	3400	27	5	**66**	12000	14	2300	150	< 1.5	**64**	< 1	30	27	26
		14189	10 - 20	11000	< 0.8	< 5	39	< 0.8	3100	29	4	25	13000	7	2200	160	< 1.5	37	< 1	33	32	23
		14190	10 - 20	11200	< 0.8	< 5	35	< 0.8	2200	25	4	25	14000	7	2000	150	< 1.5	35	< 1	20	26	22
Area E sand	5030970	14185	0 - 15	5800	< 0.8	< 5	18	< 0.8	2500	25	7	21	15000	3	4200	160	< 1.5	20	< 1	14	28	16
Area F sand	5037093	14186	0 - 15	6000	< 0.8	< 5	19	< 0.8	2200	28	7	23	15000	3	4200	190	< 1.5	25	< 1	14	28	17

Table F (results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A (results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
E.P. Jean-Ethier-Blais - Conseil Scolaire du District de Grand Nord de L'Ontario, 2190 Boulevard Lasalle, Sudbury																						
Area A grass	5037151	14391	0 - 5	4600	< 0.8	< 5	18	< 0.8	2600	23	5	12	12000	2	3000	140	< 1.5	18	< 1	17	25	16
		14392	0 - 5	4300	< 0.8	< 5	17	< 0.8	2600	24	5	13	12000	2	2900	140	< 1.5	18	< 1	16	27	18
		14393	5 - 10	10000	< 0.8	< 5	44	< 0.8	5700	30	7	52	15000	9	3100	190	< 1.5	**63**	< 1	41	32	40
		14394	5 - 10	10000	< 0.8	< 5	42	< 0.8	4400	32	7	54	14000	8	3000	150	< 1.5	**61**	< 1	35	32	46
		14401	10 - 20	8100	< 0.8	5	32	< 0.8	2700	32	7	38	12000	9	2900	180	< 1.5	**44**	< 1	19	26	45
Area B grass	5037152	14395	0 - 5	4100	< 0.8	< 5	15	< 0.8	2100	20	5	11	11000	2	2800	130	< 1.5	16	< 1	14	23	12
		14396	0 - 5	10000	< 0.8	< 5	45	< 0.8	4500	34	8	**85**	13000	15	2600	190	< 1.5	**100**	< 1	38	31	33
		14397	5 - 10	11000	< 0.8	< 5	42	< 0.8	4400	37	7	**77**	14000	13	2600	180	< 1.5	**86**	< 1	40	34	31
		14398	5 - 10	10000	< 0.8	5	37	< 0.8	3400	33	7	**60**	14000	10	2600	180	< 1.5	**73**	< 1	31	32	26
		14402	10 - 20	7100	< 0.8	< 5	32	< 0.8	2400	23	4	31	9500	7	1900	130	< 1.5	**45**	< 1	17	23	20
		14403	10 - 20	8200	< 0.8	< 5	28	< 0.8	2900	25	4	25	11000	6	2200	140	< 1.5	38	< 1	22	24	18
Area C soil	5037153	14399	0 - 5	8000	< 0.8	< 5	29	< 0.8	2200	26	5	33	12000	8	2300	150	< 1.5	42	< 1	16	25	41
		14400	0 - 5	8200	< 0.8	< 5	40	< 0.8	2800	24	5	33	12000	8	1900	160	< 1.5	**59**	< 1	22	26	26
Area D sand	5037154	14404	0 - 15	4100	< 0.8	< 5	16	< 0.8	2800	22	5	13	12000	2	2900	140	< 1.5	19	< 1	12	34	22
Jacques Cartier - Le Conseil Scolaire Catholique du Nouvel - Ontario, C.P. 1357, 14 Rue Ontario, Chelmsford																						
Area A gravel	5037385	14540	0 - 5	8000	< 0.8	< 5	27	< 0.8	3500	29	9	38	17000	12	4300	210	< 1.5	35	< 1	27	32	30
		14541	0 - 5	7900	< 0.8	< 5	25	< 0.8	3600	31	9	42	19000	14	4800	220	< 1.5	35	< 1	28	37	34
Area B sand	5037386	14542	0 - 15	6200	< 0.8	< 5	19	< 0.8	3700	24	6	18	16000	5	4200	200	< 1.5	16	< 1	26	34	22
Area C sand	5037387	14543	0 - 15	8000	< 0.8	< 5	26	< 0.8	4000	31	8	29	18000	6	4400	240	< 1.5	23	< 1	33	37	33
Jessie Hamilton Public School - Rainbow District School Board, 16 Jessie Street, Lively																						
Area A sand	5037227	14694	0 - 15	6300	< 0.8	< 5	22	< 0.8	3200	27	7	17	13000	3	3700	170	< 1.5	22	< 1	24	27	18
		14695	0 - 15	6500	< 0.8	< 5	24	< 0.8	3900	30	6	16	15000	3	3800	190	< 1.5	22	< 1	25	34	21
Area B sand	5037228	14696	0 - 15	6700	< 0.8	< 5	23	< 0.8	3000	31	10	**60**	15000	5	4100	190	< 1.5	**150**	< 1	22	33	40
		14697	0 - 15	7900	< 0.8	< 5	25	< 0.8	3200	31	7	47	16000	6	4200	190	< 1.5	**67**	< 1	25	30	25
Area C soil	5037229	14698	0 - 5	9900	< 0.8	< 5	46	< 0.8	8400	24	5	36	12000	7	4300	180	< 1.5	**60**	< 1	89	26	27
		14699	0 - 5	10000	< 0.8	< 5	46	< 0.8	8400	25	5	37	13000	7	4400	180	< 1.5	**63**	< 1	84	27	37
Area D grass	5037230	14700	0 - 5	9800	< 0.8	< 5	65	< 0.8	18000	30	10	**130**	15000	18	9200	210	< 1.5	**260**	< 1	170	28	43
		14701	0 - 5	11000	< 0.8	< 5	49	**1.5**	7000	38	10	**110**	17000	17	4600	250	< 1.5	**240**	< 1	46	33	42

Table F (results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A (results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Area E soil	5037231	14702	0 - 5	12000	< 0.8	< 5	46	< 0.8	7000	42	8	**60**	18000	10	5300	290	< 1.5	**96**	< 1	41	36	49
Area F soil	5037232	14703	0 - 5	7900	< 0.8	< 5	46	< 0.8	7400	26	6	52	13000	9	3100	270	< 1.5	**84**	< 1	30	27	39
Area G gravel	5037233	14704	0 - 5	7400	< 0.8	< 5	34	< 0.8	3500	34	12	**61**	17000	7	5400	210	< 1.5	**100**	< 1	21	32	31
Area H grass	5037234	14705	0 - 5	8900	< 0.8	< 5	40	< 0.8	4100	30	9	**110**	15000	16	3200	190	< 1.5	**260**	< 1	30	29	30
		14706	0 - 5	9200	< 0.8	5	40	< 0.8	4200	30	8	**110**	15000	17	3000	170	< 1.5	**250**	< 1	31	30	29
Lansdowne Public School - Rainbow District School Board, 185 Lansdowne Street North, Sudbury																						
Area A grass	5037115	14261	0 - 5	11000	< 0.8	6	52	< 0.8	8400	34	9	**150**	15000	23	4000	230	< 1.5	**170**	1	41	30	39
		14262	0 - 5	11000	< 0.8	6	53	< 0.8	7400	35	9	**130**	15000	18	3700	210	< 1.5	**160**	< 1	37	29	38
Area B gravel	5037116	14263	0 - 5	9300	< 0.8	5	47	< 0.8	7300	31	10	**150**	14000	18	4000	210	< 1.5	**170**	< 1	36	29	53
		14264	0 - 5	9800	< 0.8	5	47	< 0.8	9800	33	10	**120**	15000	18	5300	240	< 1.5	**140**	< 1	47	30	33
Area C sand	5037117	14265	0 - 15	5300	< 0.8	< 5	24	< 0.8	2700	33	7	52	15000	4	3000	160	< 1.5	**67**	< 1	23	35	28
		14266	0 - 15	4900	< 0.8	< 5	19	< 0.8	2300	30	7	45	14000	4	3000	150	< 1.5	**57**	< 1	18	34	25
Larchwood Public School - Rainbow District School Board, Box 220 Main Street, Dowling																						
Area A grass	5037402	14557	0 - 5	13000	< 0.8	< 5	50	< 0.8	6300	46	6	23	15000	30	3900	230	< 1.5	**44**	< 1	45	33	34
		14558	0 - 5	13000	< 0.8	< 5	54	< 0.8	7900	53	7	25	16000	51	4300	250	< 1.5	**49**	< 1	51	35	38
Area B sand	5037403	14559	0 - 15	5900	< 0.8	< 5	20	< 0.8	3400	26	6	19	16000	4	4300	200	< 1.5	19	< 1	22	34	23
Area C soil	5037404	14560	0 - 5	11000	< 0.8	< 5	44	< 0.8	9100	37	5	24	13000	14	4100	200	< 1.5	38	< 1	46	30	37
Lasalle Secondary - Rainbow District School Board, 1545 Kennedy Street, Sudbury																						
Area A grass	5037215	14333	0 - 5	9300	< 0.8	6	42	< 0.8	4500	30	7	**83**	13000	26	2700	170	< 1.5	**90**	< 1	32	29	26
		14334	0 - 5	9000	< 0.8	< 5	46	1	6900	37	10	**160**	13000	53	3100	220	< 1.5	**160**	**2**	35	27	38
Area B grass	5037216	14335	0 - 5	11000	< 0.8	< 5	36	< 0.8	5600	35	6	55	14000	28	2800	210	< 1.5	**73**	< 1	39	31	25
		14336	0 - 5	10000	< 0.8	< 5	36	< 0.8	6500	45	7	**66**	14000	**77**	2400	210	< 1.5	**84**	< 1	38	30	26
		14339	5 - 10	9900	< 0.8	5	32	< 0.8	4200	29	6	40	13000	9	2500	200	< 1.5	**55**	< 1	30	29	22
		14340	10 - 20	7800	< 0.8	5	30	< 0.8	2700	21	5	41	12000	6	1900	150	< 1.5	**56**	< 1	22	24	18
Area C soil	5037217	14337	0 - 5	8500	< 0.8	< 5	31	< 0.8	4100	22	3	20	9200	9	2500	140	< 1.5	29	< 1	36	23	17

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Area D soil	5037218	14338	0 - 5	9100	< 0.8	< 5	32	< 0.8	4300	25	4	26	11000	12	2400	150	< 1.5	35	< 1	37	25	19
Levack Public School (formerly) - Rainbow District School Board, 38 School Street, Levack																						
Area A gravel	5037406	14568	0 - 5	7600	< 0.8	< 5	28	< 0.8	4600	27	7	43	14000	23	4000	190	< 1.5	**50**	< 1	24	27	30
		14569	0 - 5	6800	1	5	35	< 0.8	4100	23	17	**670**	19000	32	3600	170	< 1.5	**350**	1	21	26	46
Area B sand	5037407	14570	0 - 15	4600	< 0.8	< 5	18	< 0.8	2800	23	6	15	13000	2	3400	150	< 1.5	16	< 1	13	29	18
Levack District High School (now Levack Public School) - Rainbow District School Board, 100 High Street, Levack																						
Area A grass	5037408	14563	0 - 5	8800	< 0.8	< 5	54	< 0.8	11000	33	8	48	12000	21	3200	330	< 1.5	**72**	1	46	28	62
		14564	0 - 5	9200	< 0.8	< 5	53	< 0.8	10000	33	9	44	12000	16	3100	440	< 1.5	**73**	< 1	47	29	40
		14565	5 - 10	9700	< 0.8	< 5	46	< 0.8	9700	34	7	29	14000	7	3600	270	< 1.5	40	1	49	34	24
		14566	5 - 10	9600	< 0.8	< 5	46	< 0.8	10000	34	7	36	13000	8	3600	230	< 1.5	**53**	< 1	45	33	27
		14567	10 - 20	8600	< 0.8	< 5	38	< 0.8	12000	33	6	28	13000	7	3800	210	< 1.5	**45**	< 1	36	31	26
Lively District High School - Rainbow District School Board, 5th Avenue, Lively																						
Area A grass	5037247	14734	0 - 5	11000	< 0.8	6	42	< 0.8	5500	60	6	**60**	15000	**120**	2900	200	< 1.5	**85**	< 1	43	31	31
		14735	0 - 5	11000	< 0.8	< 5	47	< 0.8	6200	47	8	**93**	14000	**85**	3000	210	< 1.5	**140**	1	40	29	34
		14736	5 - 10	9000	< 0.8	7	28	< 0.8	2800	24	5	37	12000	11	1800	160	< 1.5	**54**	< 1	24	26	23
		14737	10 - 20	8900	< 0.8	5	31	< 0.8	2200	22	4	30	12000	6	1700	150	< 1.5	42	< 1	20	25	23
Lockerby Composite School - Rainbow District School Board, 1391 Ramsey View Court, Sudbury																						
Area A grass	5037055	14111	0 - 5	9600	**1.3**	< 5	48	< 0.8	6000	36	7	**75**	13000	**75**	3100	200	< 1.5	**87**	< 1	41	28	25
		14112	0 - 5	10000	0.9	< 5	39	< 0.8	6800	67	8	**110**	13000	**200**	3200	220	< 1.5	**120**	< 1	42	28	30
Area B soil	5037056	14113	0 - 5	10000	**3.2**	< 5	35	< 0.8	6400	39	7	**62**	14000	**110**	3600	230	< 1.5	**85**	< 1	45	31	26
Area C soil	5037057	14114	0 - 5	9900	**4.4**	< 5	32	< 0.8	5600	33	6	50	13000	**150**	3400	200	< 1.5	**70**	< 1	43	30	25
Lo-Ellen Park Secondary - Rainbow District School Board, 275 Loach's Road, Sudbury																						
Area A grass	5037029	14078	0 - 5	9500	< 0.8	< 5	41	< 0.8	6500	54	10	**120**	12000	**140**	2600	170	< 1.5	**160**	< 1	34	27	25
		14079	0 - 5	9200	< 0.8	< 5	37	< 0.8	5600	51	10	**120**	13000	**120**	2500	160	< 1.5	**140**	< 1	32	26	24
		14080	5 - 10	9700	< 0.8	8	36	< 0.8	4800	27	8	**91**	13000	11	2600	140	< 1.5	**130**	< 1	30	29	21
		14081	5 - 10	10000	< 0.8	< 5	34	< 0.8	4600	27	8	**89**	13000	12	2600	150	< 1.5	**110**	< 1	30	28	20
		14082	10 - 20	7900	< 0.8	< 5	30	< 0.8	3700	23	6	53	11000	7	2300	130	< 1.5	**78**	< 1	28	26	15
		14083	10 - 20	5800	< 0.8	< 5	21	< 0.8	2800	19	5	29	9500	4	2100	110	< 1.5	40	< 1	23	22	12

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Area B soil	5037030	14084	0 - 5	9700	< 0.8	< 5	37	< 0.8	2800	27	6	45	13000	14	2100	210	< 1.5	**53**	< 1	28	28	21
Area C soil	5037031	14085	0 - 5	11000	< 0.8	< 5	48	< 0.8	5400	34	9	**110**	14000	29	2800	170	< 1.5	**130**	< 1	34	31	27
Long Lake Public School - Rainbow District School Board, 4420 Long Lake Road, Sudbury																						
Area A grass	5037021	14197	0 - 5	7000	< 0.8	6	33	< 0.8	2500	23	7	**92**	12000	15	2100	160	< 1.5	**110**	< 1	18	23	26
		14198	0 - 5	6800	< 0.8	6	28	< 0.8	2000	21	6	**82**	11000	10	1800	140	< 1.5	**84**	< 1	15	22	22
		14201	5 - 10	9100	< 0.8	7	37	< 0.8	2500	24	5	**60**	12000	8	1600	210	< 1.5	**74**	< 1	28	26	24
		14202	5 - 10	7400	< 0.8	9	34	< 0.8	1600	22	5	**82**	11000	10	1700	140	< 1.5	**78**	< 1	13	20	23
		14203	10 - 20	10000	< 0.8	< 5	38	< 0.8	2700	27	5	18	12000	5	2400	170	< 1.5	**44**	< 1	26	25	22
		14204	10 - 20	11000	< 0.8	6	39	< 0.8	3300	26	5	28	13000	6	2200	200	< 1.5	**59**	< 1	34	28	23
Area B sand	5037022	14199	0 - 15	5500	< 0.8	< 5	29	< 0.8	1800	27	7	21	14000	3	4100	170	< 1.5	21	< 1	10	25	23
		14200	0 - 15	6200	< 0.8	< 5	33	< 0.8	2500	28	8	41	15000	3	4200	180	< 1.5	24	< 1	15	28	24
E.S. Macdonald Cartier - Conseil Scolaire du District de Grand Nord de L'Ontario, 37 Boulevard Lasalle West, Sudbury																						
Area A grass	5037203	14473	0 - 5	9200	< 0.8	5	38	< 0.8	5900	29	7	**99**	12000	35	2100	160	< 1.5	**110**	< 1	33	27	25
		14474	0 - 5	8600	< 0.8	6	45	0.9	5200	54	9	**140**	11000	**150**	2300	170	< 1.5	**170**	**2**	32	25	31
Area B soil	5037204	14475	0 - 5	10000	< 0.8	6	36	< 0.8	4800	31	6	51	13000	13	2300	180	< 1.5	**73**	< 1	42	29	24
Area C soil	5037205	14476	0 - 5	9000	< 0.8	< 5	32	< 0.8	3900	25	5	37	12000	9	2200	180	< 1.5	**47**	< 1	31	25	21
MacLeod Public School - Rainbow District School Board, 310 Anthony Street, Sudbury																						
Area A sand	5037047	14104	0 - 15	8800	< 0.8	< 5	31	< 0.8	4000	25	5	33	11000	7	2200	150	< 1.5	43	< 1	36	26	17
		14105	0 - 15	8300	< 0.8	< 5	26	< 0.8	3800	35	7	22	17000	3	4600	200	< 1.5	28	< 1	30	33	21
Area B gravel	5037048	14100	0 - 5	15000	< 0.8	< 5	68	< 0.8	8200	29	12	**100**	24000	9	6100	200	< 1.5	**81**	< 1	90	68	34
		14101	0 - 5	14000	< 0.8	< 5	65	< 0.8	7600	29	15	**96**	24000	8	5900	200	< 1.5	**64**	< 1	85	66	29
Area C grass	5037049	14102	0 - 5	12000	< 0.8	< 5	52	< 0.8	9000	41	10	**130**	17000	16	5000	380	< 1.5	**160**	1.1	46	35	40
		14103	0 - 5	12000	< 0.8	< 5	47	< 0.8	6600	39	9	**150**	16000	19	4200	300	< 1.5	**140**	1.1	39	33	38
Marymount Academy - Sudbury Catholic District School Board, 165 D'Youville Street, Sudbury																						
Area A grass	5037134	14246	0 - 5	8700	< 0.8	14	53	**1.3**	3800	26	**22**	**500**	16000	**70**	2200	180	< 1.5	**510**	**3**	28	28	50
		14247	0 - 5	8400	< 0.8	14	51	**1.3**	3800	26	**28**	**510**	18000	**65**	2100	180	< 1.5	**660**	**4**	27	28	52
		14248	5 - 10	6900	< 0.8	10	31	< 0.8	2300	18	8	**150**	11000	30	1700	120	< 1.5	**160**	< 1	17	23	37

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Mgr. Cote, C.P. 789 - Le Conseil Scolarie Catholique du Nouvel - Ontario, 96 Rue Gaudette, Chelmsford																						
Area A grass	5037392	14532	0 - 5	8800	< 0.8	< 5	35	< 0.8	7300	25	8	44	15000	13	4300	280	< 1.5	**64**	< 1	37	30	32
		14533	0 - 5	9700	< 0.8	< 5	47	< 0.8	10000	28	10	55	17000	14	5400	370	< 1.5	**65**	< 1	39	34	40
Area B gravel	5037393	14534	0 - 5	7200	< 0.8	< 5	29	< 0.8	3700	32	10	49	16000	21	4000	200	< 1.5	**51**	< 1	28	32	35
		14535	0 - 5	7600	< 0.8	< 5	33	< 0.8	3800	32	12	**78**	15000	24	4100	210	< 1.5	**78**	< 1	27	29	40
Montessori School of Sudbury - Private School, 295 Victoria Street, Sudbury																						
Area A grass	5037109	14216	0 - 5	8300	< 0.8	< 5	35	< 0.8	5700	28	7	**80**	13000	13	2900	170	< 1.5	**110**	< 1	30	26	31
		14217	0 - 5	8300	< 0.8	< 6	44	< 0.8	5600	32	10	**150**	13000	24	3100	180	< 1.5	**210**	1.1	32	28	39
Area B sand	5037110	14218	0 - 15	5900	< 0.8	< 5	22	< 0.8	3100	26	7	30	17000	3	4100	160	< 1.5	32	< 1	16	33	17
Area C gravel	5037111	14219	0 - 5	20000	< 0.8	< 5	120	< 0.8	2200	**90**	**28**	**150**	43000	19	14000	390	< 1.5	**120**	< 1	10	73	90
		14220	0 - 5	20000	< 0.8	< 5	120	< 0.8	2000	**86**	**30**	**130**	42000	15	14000	370	< 1.5	**130**	< 1	10	70	95
Northeastern Secondary - Rainbow District School Board, 45 Spruce Street, Garson																						
Area A grass	5037322	14407	0 - 5	7300	< 0.8	8	32	< 0.8	3900	26	8	**88**	13000	27	2900	240	< 1.5	**120**	< 1	17	26	37
		14408	0 - 5	8000	< 0.8	9	39	< 0.8	5600	30	10	**140**	14000	51	2800	250	< 1.5	**180**	< 1	31	27	45
		14409	5 - 10	7500	< 0.8	6	28	< 0.8	3600	28	5	30	12000	11	3100	240	< 1.5	**52**	< 1	24	30	27
		14410	5 - 10	10000	< 0.8	8	36	< 0.8	4600	31	5	31	15000	10	3000	300	< 1.5	**51**	< 1	38	36	33
		14413	10 - 20	8400	< 0.8	6	35	< 0.8	3600	28	5	25	13000	9	2800	220	< 1.5	38	< 1	27	31	25
		14414	10 - 20	5200	< 0.8	6	24	< 0.8	2500	21	4	16	9100	4	2200	150	< 1.5	26	< 1	20	23	15
Area B grass	5037323	14405	0 - 5	7200	< 0.8	9	48	0.9	5800	26	15	**210**	14000	45	3600	200	< 1.5	**250**	1	36	25	72
		14406	0 - 5	7400	< 0.8	7	37	< 0.8	4100	25	8	**81**	13000	15	2900	220	< 1.5	**110**	< 1	23	27	35
Area C gravel	5037324	14411	0 - 5	7600	< 0.8	7	30	< 0.8	4700	27	6	37	12000	8	2900	250	< 1.5	**58**	< 1	40	29	30
		14412	0 - 5	8600	< 0.8	6	29	< 0.8	4700	28	6	33	13000	9	2800	230	< 1.5	**58**	< 1	44	30	27
Notre Dame - Le Conseil Scolaire Catholique du Nouvel - Ontario, 4503 Rue Dennie, Hanmer																						
Area A gravel	5037327	14628	0 - 5	7600	< 0.8	6	36	< 0.8	3100	39	**32**	**80**	24000	17	5200	220	< 1.5	**74**	< 1	19	35	51
		14629	0 - 5	11000	< 0.8	< 5	48	< 0.8	5100	41	17	56	23000	10	5800	260	< 1.5	**52**	< 1	38	38	53
Area B grass	5037328	14630	0 - 5	9700	< 0.8	6	42	< 0.8	3500	30	6	**67**	13000	16	2400	230	< 1.5	**75**	1	34	28	38
		14631	0 - 5	13000	< 0.8	5	43	< 0.8	4000	32	6	51	15000	14	2400	250	< 1.5	**54**	< 1	42	29	32
		14632	5 - 10	13000	< 0.8	< 5	38	< 0.8	3900	29	4	31	13000	8	1900	190	< 1.5	39	< 1	40	28	26
		14633	5 - 10	10000	< 0.8	6	36	< 0.8	2500	26	5	54	12000	44	1900	170	< 1.5	**50**	< 1	26	26	24
		14634	10 - 20	10000	< 0.8	< 5	34	< 0.8	2900	26	4	14	11000	6	1800	160	< 1.5	24	< 1	32	26	19
		14635	10 - 20	12000	< 0.8	< 5	32	< 0.8	2500	27	4	10	12000	5	1900	150	< 1.5	23	< 1	27	27	22

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Area C soil	5037329	14636	0 - 5	9400	< 0.8	< 5	32	< 0.8	4000	46	11	**68**	21000	12	5800	300	< 1.5	**50**	< 1	28	46	48
Notre Dame de l'Esperance - Le Conseil Scolaire Catholique du Nouvel - Ontario, 2965 Rue Hope, Val Caron																						
Area A grass	5037290	14808	0 - 5	11000	< 0.8	< 5	35	< 0.8	5000	61	4	36	33000	14	5200	330	< 1.5	**66**	< 1	43	78	36
		14809	0 - 5	11000	< 0.8	< 5	42	< 0.8	18000	66	4	40	12000	11	3400	170	< 1.5	**54**	< 1	51	28	25
		14810	5 - 10	9500	< 0.8	< 5	46	< 0.8	38000	40	4	54	11000	8	5600	180	< 1.5	**53**	< 1	52	24	29
		14811	5 - 10	11000	< 0.8	< 5	32	< 0.8	5000	26	4	27	11000	7	1900	160	< 1.5	40	< 1	38	29	18
		14812	10 - 20	7400	< 0.8	< 5	26	< 0.8	2500	19	3	14	7000	5	1600	88	< 1.5	26	< 1	23	18	12
		14813	10 - 20	9500	< 0.8	< 5	37	< 0.8	3900	24	3	24	8500	6	1700	130	< 1.5	36	< 1	39	21	14
Area B sand	5037291	14814	0 - 15	6100	< 0.8	< 5	36	< 0.8	3800	28	6	21	15000	3	3500	180	< 1.5	28	< 1	23	35	18
		14815	0 - 15	7900	< 0.8	< 5	31	< 0.8	4300	36	6	21	17000	5	4100	210	< 1.5	24	< 1	29	40	20
Area C gravel	5037292	14816	0 - 5	8300	< 0.8	< 5	35	< 0.8	4400	34	10	**57**	17000	7	5000	210	< 1.5	**53**	< 1	31	34	31
		14817	0 - 5	8000	< 0.8	< 5	31	< 0.8	4100	32	11	**75**	18000	7	5000	210	< 1.5	**120**	< 1	28	34	30
Notre Dame de la Merci - Le Conseil Scolaire Catholique du Nouvel - Ontario, 2 Edward Avenue, Coniston																						
Area A gravel	5037265	14750	0 - 5	9300	**1.5**	13	44	< 0.8	2900	42	14	**200**	25000	30	4300	180	< 1.5	**<u>190</u>**	1	27	34	42
		14751	0 - 5	9200	< 0.8	8	40	< 0.8	3700	39	15	**140**	22000	17	5700	220	< 1.5	**<u>170</u>**	< 1	27	35	40
Notre Dame du Rosaire - Le Conseil Scolarie Catholique du Nouvel - Ontario, 2891 Chemin Martin, Blezard Valley																						
Area A grass	5037304	14800	0 - 5	9000	< 0.8	< 5	30	< 0.8	4100	26	6	**63**	12000	14	2300	170	< 1.5	**82**	< 1	37	28	26
		14801	0 - 5	11000	< 0.8	< 5	41	< 0.8	3900	24	6	35	13000	17	2100	240	< 1.5	**92**	< 1	39	29	27
		14802	5 - 10	8800	< 0.8	< 5	29	< 0.8	4100	38	4	26	18000	7	4500	250	< 1.5	37	< 1	35	45	24
		14803	5 - 10	11000	< 0.8	< 5	28	< 0.8	4700	51	5	28	24000	8	5700	290	< 1.5	38	< 1	35	65	41
		14804	10 - 20	12000	< 0.8	< 5	38	< 0.8	5100	56	5	37	27000	5	5600	330	< 1.5	25	< 1	44	63	30
		14805	10 - 20	12000	< 0.8	< 5	48	< 0.8	5200	54	5	51	26000	8	5900	340	< 1.5	**44**	< 1	43	61	38
Area B gravel	5037305	14806	0 - 5	9000	< 0.8	< 5	42	< 0.8	4400	52	10	36	26000	9	4900	340	< 1.5	**45**	< 1	40	58	41
		14807	0 - 5	11000	< 0.8	< 5	36	< 0.8	4600	56	10	40	30000	8	5400	320	< 1.5	**47**	< 1	39	69	38
Our Lady of Fatima - Sudbury Catholic District School Board, 1755 R.R. 55, Naughton																						
Area A grass	5037262	14738	0 - 5	8200	< 0.8	< 5	29	< 0.8	3200	23	5	45	11000	14	2100	160	< 1.5	**71**	< 1	26	23	25
		14739	0 - 5	8000	< 0.8	< 5	29	< 0.8	3200	23	5	44	11000	12	2000	160	< 1.5	**68**	< 1	25	23	25
		14740	5 - 10	8600	< 0.8	6	29	< 0.8	2500	22	5	35	11000	8	1800	170	< 1.5	**55**	< 1	21	23	27
		14741	5 - 10	7700	< 0.8	< 5	27	< 0.8	2200	22	4	37	10000	8	1900	140	< 1.5	**50**	< 1	16	21	25
		14742	10 - 20	8700	< 0.8	< 5	28	< 0.8	2100	21	4	21	11000	5	1800	160	< 1.5	36	< 1	16	21	22
		14743	10 - 20	8400	< 0.8	< 5	29	< 0.8	2000	20	4	18	11000	5	1600	170	< 1.5	33	< 1	15	21	23

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Pinecrest Public School - Rainbow District School Board, 1650 Dominion Drive, Hanmer																						
Area A grass	5037318	14661	0 - 5	12000	< 0.8	6	34	< 0.8	9000	27	5	40	13000	12	2200	150	< 1.5	**54**	< 1	36	28	26
		14662	0 - 5	12000	< 0.8	< 5	36	< 0.8	3800	27	4	37	13000	9	2000	140	< 1.5	**44**	< 1	34	28	24
		14663	5 - 10	11000	< 0.8	6	31	< 0.8	4700	26	5	39	12000	11	2000	140	< 1.5	**52**	< 1	27	26	29
		14664	5 - 10	12000	< 0.8	5	35	< 0.8	4100	27	5	31	13000	9	2000	140	< 1.5	**45**	< 1	31	27	24
Area B soil	5037319	14669	0 - 5	11000	< 0.8	5	29	< 0.8	2400	27	4	38	13000	14	2100	130	< 1.5	41	< 1	22	26	34
Area C sand	5037320	14666	0 - 15	5000	< 0.8	< 5	20	< 0.8	3400	25	7	12	12000	3	3200	160	< 1.5	17	< 1	20	28	15
Area D gravel	5037321	14667	0 - 5	11000	< 0.8	5	49	< 0.8	4600	46	16	**81**	22000	11	6600	300	< 1.5	**130**	< 1	35	44	42
		14668	0 - 5	11000	< 0.8	< 5	49	< 0.8	4300	46	15	**83**	23000	10	6600	300	< 1.5	**120**	< 1	34	45	41
Area E soil	5030971	14665	0 - 5	11000	< 0.8	5	31	< 0.8	3700	28	5	35	13000	10	2100	150	< 1.5	**49**	< 1	29	27	33
Pius XII - Sudbury Catholic District School Board, 44 3rd Ave, Sudbury																						
Area A gravel	5037148	14297	0 - 5	6500	< 0.8	< 5	35	< 0.8	3800	32	11	52	13000	8	4200	200	< 1.5	**59**	< 1	29	30	28
		14298	0 - 5	7600	< 0.8	< 5	33	< 0.8	3800	33	9	51	15000	7	4100	200	< 1.5	**53**	< 1	30	31	27
Princess Anne Public School - Rainbow District School Board, 500 Douglas Street, Sudbury																						
Area A gravel	5037106	14134	0 - 5	7800	< 0.8	6	34	< 0.8	2800	35	17	**220**	18000	18	4800	190	< 1.5	**200**	**2**	26	30	28
		14135	0 - 5	7800	< 0.8	6	31	< 0.8	2800	32	13	**200**	18000	13	4800	190	< 1.5	**170**	< 1	24	29	25
Area B grass	5037107	14136	0 - 5	10000	< 0.8	7	46	< 0.8	5700	39	11	**200**	15000	43	3100	200	< 1.5	**280**	< 1	40	31	33
		14137	0 - 5	11000	< 0.8	7	45	< 0.8	6200	35	13	**240**	19000	21	3100	190	< 1.5	**300**	**2**	32	31	37
		14139	5 - 10	10000	< 0.8	8	56	< 0.8	5800	38	13	**240**	16000	17	3200	240	< 1.5	**370**	1	35	33	38
		14140	10 - 20	8100	< 0.8	5	41	< 0.8	4000	29	8	**120**	13000	10	2900	180	< 1.5	**170**	< 1	27	27	27
Area C sand	5037108	14138	0 - 15	7100	< 0.8	< 5	23	< 0.8	3500	31	8	36	15000	4	4300	190	< 1.5	34	< 1	28	31	22
Queen Elizabeth II Public School - Rainbow District School Board, 32 Dell Street, Sudbury																						
Area A grass	5037119	14269	0 - 5	9600	< 0.8	7	35	< 0.8	3800	29	8	**120**	13000	15	2000	200	< 1.5	**120**	< 1	34	29	28
		14270	0 - 5	9800	< 0.8	9	37	< 0.8	4500	25	8	**130**	13000	17	2300	200	< 1.5	**130**	< 1	34	28	29
		14271	5 - 10	10000	< 0.8	7	34	< 0.8	4000	25	7	**92**	13000	12	2200	220	< 1.5	**99**	< 1	31	28	26
		14272	5 - 10	9700	< 0.8	6	33	< 0.8	3600	25	6	**73**	12000	9	2200	180	< 1.5	**83**	< 1	28	28	25
		14280	10 - 20	11000	< 0.8	6	35	< 0.8	3100	27	6	43	13000	7	2400	200	< 1.5	**54**	< 1	33	31	24
		14281	10 - 20	10000	< 0.8	< 5	32	< 0.8	2800	28	6	49	13000	7	2100	190	< 1.5	**61**	< 1	24	27	23

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Area B soil	5037120	14273	0 - 5	8900	< 0.8	8	30	< 0.8	3500	24	5	45	12000	9	2300	160	< 1.5	**63**	< 1	30	27	22
Area C soil	5037121	14274	0 - 5	9000	< 0.8	6	37	< 0.8	5400	27	7	**100**	12000	14	2400	190	< 1.5	**120**	< 1	31	28	26
Area D sand	5037122	14275	0 - 15	6800	< 0.8	< 5	20	< 0.8	3400	31	7	32	16000	3	4000	190	< 1.5	37	< 1	27	33	42
		14276	0 - 15	6900	< 0.8	6	20	< 0.8	3200	27	7	23	14000	3	4200	190	< 1.5	26	< 1	26	29	22
Area E sand	5037123	14277	0 - 15	5500	< 0.8	< 5	20	< 0.8	2800	25	7	26	13000	3	3600	160	< 1.5	34	< 1	21	29	17
Area F gravel	5037124	14282	0 - 5	6700	< 0.8	7	36	0.8	5400	32	16	**210**	15000	19	4500	210	< 1.5	**240**	1	27	30	38
		14283	0 - 5	7300	< 0.8	8	39	< 0.8	4400	31	17	**260**	17000	26	4600	190	< 1.5	**270**	< 1	27	29	58
Area G gravel	5037125	14278	0 - 5	7000	< 0.8	7	34	< 0.8	4000	29	16	**210**	16000	23	4500	190	< 1.5	**240**	< 1	30	31	110
Area H gravel	5037126	14279	0 - 5	8100	< 0.8	9	40	1	9600	29	**20**	**300**	16000	30	7600	210	< 1.5	**370**	1	33	29	65
R.H. Murray Public School - Rainbow District School Board, 3 Henry Street, Whitefish																						
Area A grass	5037409	14744	0 - 5	11000	< 0.8	< 5	62	< 0.8	5000	23	5	24	14000	11	3400	270	< 1.5	32	< 1	24	29	45
		14745	0 - 5	13000	< 0.8	< 5	74	< 0.8	5900	27	6	29	16000	13	3800	300	< 1.5	37	< 1	27	31	53
Area B soil	5037410	14746	0 - 5	17000	< 0.8	< 5	81	< 0.8	5200	37	6	22	19000	9	4500	300	< 1.5	27	< 1	33	38	47
Area C soil	5037411	14747	0 - 5	8800	< 0.8	< 5	31	< 0.8	4400	31	6	16	16000	3	4200	190	< 1.5	17	< 1	35	31	19
R.L. Beattie Public School - Rainbow District School Board, 102 Loach's Road, Sudbury																						
Area A sand	5037032	14072	0 - 15	7200	< 0.8	< 5	23	< 0.8	3400	31	7	23	16000	3	4200	190	< 1.5	25	< 1	27	32	17
		14073	0 - 15	6000	< 0.8	< 5	21	< 0.8	2600	28	7	24	15000	3	4000	180	< 1.5	27	< 1	20	28	16
Area B sand	5037033	14074	0 - 15	6200	< 0.8	< 5	20	< 0.8	2800	30	7	25	14000	3	3900	170	< 1.5	28	< 1	22	29	17
		14075	0 - 15	6300	< 0.8	< 5	20	< 0.8	2800	30	6	21	15000	3	4000	170	< 1.5	23	< 1	23	28	17
Area C grass	5037034	14068	0 - 5	11000	< 0.8	< 5	42	< 0.8	7100	33	7	**77**	15000	13	3100	230	< 1.5	**97**	< 1	45	32	31
		14069	0 - 5	11000	< 0.8	< 5	42	< 0.8	7500	32	7	**83**	15000	13	3300	240	< 1.5	**100**	< 1	45	32	31
Area D soil	5037035	14071	0 - 5	11000	0.9	< 5	52	< 0.8	6700	36	8	**87**	15000	15	3700	230	< 1.5	**110**	< 1	43	32	36
Area E soil	5037036	14070	0 - 5	11000	< 0.8	< 5	54	< 0.8	6100	33	7	**61**	15000	11	3300	230	< 1.5	**84**	< 1	44	33	51
Area F gravel	5037037	14076	0 - 5	6800	< 0.8	< 5	27	< 0.8	2900	32	9	**82**	15000	11	3800	170	< 1.5	**82**	< 1	26	28	27

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Area G sand	5037038	14077	0 - 15	7100	< 0.8	< 5	22	< 0.8	3300	29	7	19	14000	3	4000	180	< 1.5	21	< 1	28	28	16
Redwood Acres Public School - Rainbow District School Board, 4625 Carl Street, Hanmer																						
Area A grass	5037332	14612	0 - 5	9900	< 0.8	< 5	32	< 0.8	3000	26	4	21	12000	15	2000	150	< 1.5	34	1	27	26	21
		14613	0 - 5	9700	< 0.8	< 5	31	< 0.8	3200	26	5	25	12000	43	2200	150	< 1.5	40	< 1	24	25	22
		14614	5 - 10	9400	< 0.8	< 5	29	< 0.8	2200	25	4	24	12000	8	1800	140	< 1.5	32	< 1	19	25	19
		14615	5 - 10	9100	< 0.8	< 5	28	< 0.8	2000	24	4	22	11000	7	1700	140	< 1.5	31	< 1	16	24	19
Area B soil	5037333	14607	0 - 5	9100	< 0.8	< 5	28	< 0.8	2100	25	5	20	11000	9	2100	120	< 1.5	32	< 1	16	24	21
Area C soil	5037334	14608	0 - 5	9200	< 0.8	< 5	27	< 0.8	3000	26	4	21	11000	7	1900	130	< 1.5	36	< 1	27	25	27
Area D soil	5037335	14609	0 - 5	8100	< 0.8	< 5	35	< 0.8	3200	34	10	44	17000	7	5100	220	< 1.5	40	< 1	24	35	31
Area E soil	5037336	14610	0 - 5	8400	< 0.8	6	35	< 0.8	3300	32	10	43	17000	6	4700	220	< 1.5	41	< 1	25	33	27
Area F sand	5037337	14611	0 - 15	5100	< 0.8	< 5	20	< 0.8	4000	23	6	15	13000	3	3300	170	< 1.5	16	< 1	19	29	20
Area G grass	5037338	14616	0 - 5	8700	< 0.8	7	31	< 0.8	28000	24	5	54	11000	18	3300	140	< 1.5	**72**	< 1	38	23	24
		14617	0 - 5	9200	< 0.8	6	30	< 0.8	3800	27	4	43	11000	11	1900	160	< 1.5	**52**	< 1	28	26	24
		14618	5 - 10	8600	< 0.8	< 5	30	< 0.8	3300	25	4	27	11000	7	2000	160	< 1.5	**44**	< 1	21	24	21
		14619	5 - 10	7200	< 0.8	< 5	25	< 0.8	2300	23	4	18	9500	5	1900	130	< 1.5	32	< 1	14	21	18
		14620	10 - 20	8500	< 0.8	< 5	24	< 0.8	3100	23	4	13	11000	4	1800	150	< 1.5	23	< 1	15	22	17
		14621	10 - 20	7100	< 0.8	< 5	22	< 0.8	1900	22	4	15	10000	4	1900	130	< 1.5	22	< 1	12	23	14
Robert Jack Public School - Rainbow District School Board, 7 Margaret Street, Garson																						
Area A grass	5037272	14420	0 - 5	7400	< 0.8	9	33	< 0.8	3000	24	5	51	11000	10	2200	160	< 1.5	**54**	< 1	18	24	29
		14421	0 - 5	9300	< 0.8	9	38	< 0.8	4600	30	6	51	13000	14	2800	190	< 1.5	**69**	< 1	32	29	33
		14426	5 - 10	8500	< 0.8	**15**	32	< 0.8	2000	21	4	**71**	11000	9	1500	140	< 1.5	**47**	< 1	24	26	22
		14427	10 - 20	8200	< 0.8	8	31	< 0.8	1900	21	5	18	10000	7	1700	160	< 1.5	41	< 1	22	24	23
Area B soil	5037273	14422	0 - 5	8800	< 0.8	< 5	35	< 0.8	2400	29	6	26	13000	6	2800	170	< 1.5	41	< 1	24	28	70
		14423	0 - 5	8400	< 0.8	< 5	32	< 0.8	2400	28	6	23	13000	5	2600	160	< 1.5	35	< 1	27	29	29
Area C gravel	5037274	14424	0 - 5	7200	< 0.8	7	34	< 0.8	3500	32	15	45	17000	6	4200	200	< 1.5	**56**	< 1	27	33	29
		14425	0 - 5	7100	< 0.8	6	34	< 0.8	3400	32	15	**61**	17000	6	4000	180	< 1.5	**61**	< 1	27	31	30

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Sacred Heart (formerly)- Sudbury Catholic District School Board, 1169 Dollard Avenue, Sudbury																						
Area A gravel	5037219	14365	0 - 5	5000	< 0.8	< 5	23	< 0.8	2300	27	12	**62**	15000	9	3400	160	< 1.5	**76**	< 1	17	29	44
		14366	0 - 5	5200	< 0.8	< 5	29	< 0.8	3200	26	11	**72**	15000	16	4000	170	< 1.5	**90**	< 1	18	28	52
St. Andrew - Sudbury Catholic District School Board, 1305 Holland Road, Sudbury																						
Area A gravel	5037212	14341	0 - 5	6500	< 0.8	< 5	27	< 0.8	2700	28	10	**91**	15000	12	3700	170	< 1.5	**93**	< 1	23	30	30
		14342	0 - 5	6700	< 0.8	< 5	24	< 0.8	2600	30	11	**100**	16000	15	3900	180	< 1.5	**100**	< 1	20	30	36
Area B sand	5037213	14343	0 - 15	4900	< 0.8	< 5	19	< 0.8	2600	23	6	20	13000	3	3000	150	< 1.5	29	< 1	17	28	16
Area C soil	5037214	14344	0 - 5	9900	< 0.8	8	44	< 0.8	3400	33	15	**160**	22000	20	4700	240	< 1.5	**170**	< 1	29	39	40
		14345	0 - 5	9300	< 0.8	8	42	< 0.8	3400	32	16	**160**	21000	20	4400	220	< 1.5	**160**	< 1	28	32	38
St. Anne - Sudbury Catholic District School Board, 539 Francis Street, Hanmer																						
Area A sand	5037347	14637	0 - 15	5400	< 0.8	< 5	21	< 0.8	2900	32	6	17	15000	4	3800	190	< 1.5	22	< 1	22	38	25
Area B gravel	5037348	14638	0 - 5	5500	< 0.8	< 5	23	< 0.8	3300	30	7	29	13000	7	4200	190	< 1.5	34	< 1	25	32	32
		14639	0 - 5	5900	< 0.8	< 5	23	< 0.8	3200	31	7	29	15000	8	4500	180	< 1.5	35	< 1	22	31	35
Area C gravel	5037349	14640	0 - 5	4100	< 0.8	< 5	27	< 0.8	15000	19	5	13	9500	3	5500	140	< 1.5	17	< 1	54	22	15
Area D grass	5037350	14641	0 - 5	8200	< 0.8	< 5	32	< 0.8	4800	25	4	22	11000	7	2500	180	< 1.5	33	< 1	34	25	30
		14642	0 - 5	9800	< 0.8	< 5	34	< 0.8	4800	27	5	26	12000	8	2200	200	< 1.5	37	< 1	34	29	34
		14643	5 - 10	10000	< 0.8	< 5	32	< 0.8	4100	26	5	20	12000	7	2200	190	< 1.5	32	< 1	32	27	23
St. Anthony - Sudbury Catholic District School Board, 11 Mary Street, Sudbury																						
Area A gravel	5037103	14205	0 - 5	8400	< 0.8	6	39	< 0.8	4100	36	**20**	**310**	19000	15	4900	210	< 1.5	**290**	**2**	30	33	40
		14206	0 - 5	7500	0.9	5	35	< 0.8	3500	34	17	**270**	17000	13	4500	200	**4.3**	**260**	**1.6**	28	32	32
Area B sand	5037104	14207	0 - 15	8600	< 0.8	6	29	< 0.8	3800	40	11	**86**	21000	6	6000	240	< 1.5	**77**	< 1	28	42	27
St. Augustin - Le Conseil Scolaire Catholique du Nouvel - Ontario, 648 Promenade O' Neil West, Garson																						
Area A sand	5037269	14432	0 - 15	7100	< 0.8	6	37	< 0.8	3600	25	7	21	13000	4	3400	180	< 1.5	21	< 1	25	27	18
		14433	0 - 15	5600	< 0.8	7	27	< 0.8	3400	22	7	22	12000	4	3300	170	< 1.5	22	< 1	20	25	17
Area B gravel	5037270	14434	0 - 5	6300	< 0.8	6	29	< 0.8	3400	27	8	44	13000	8	3400	170	< 1.5	**50**	< 1	25	26	24
		14435	0 - 5	6200	< 0.8	7	28	< 0.8	3100	27	8	44	13000	9	3500	170	< 1.5	**51**	< 1	25	28	23
Area C gravel	5037271	14436	0 - 5	8600	< 0.8	9	38	< 0.8	3000	29	7	**57**	14000	12	3300	180	< 1.5	**56**	< 1	30	32	20
		14437	0 - 5	8800	< 0.8	9	40	< 0.8	3000	30	7	**71**	14000	14	3300	180	< 1.5	**67**	< 1	30	30	22

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
St. Benedict Secondary - Sudbury Catholic District School Board, 2993 Algonquin Road, Sudbury																						
Area A grass	5037023	14058	0 - 5	9300	< 0.8	< 5	32	< 0.8	3800	29	6	29	13000	7	2900	180	< 1.5	**46**	< 1	29	29	19
		14059	0 - 5	7600	< 0.8	< 5	29	< 0.8	2900	25	5	26	11000	6	2400	140	< 1.5	40	< 1	19	23	17
Area B soil	5037024	14060	0 - 5	7600	< 0.8	< 5	29	< 0.8	5500	22	4	25	9700	7	2400	150	< 1.5	30	< 1	34	24	17
		14061	0 - 5	7000	< 0.8	< 5	28	< 0.8	5200	22	4	19	9500	7	2400	150	< 1.5	31	< 1	31	24	15
Area C soil	5037025	14062	0 - 5	10000	< 0.8	< 5	32	< 0.8	2200	28	6	25	14000	4	2400	130	< 1.5	40	< 1	26	30	16
		14063	0 - 5	11000	< 0.8	< 5	36	< 0.8	2900	30	6	24	15000	4	2400	140	< 1.5	39	< 1	34	33	16
St. Bernadette - Sudbury Catholic District School Board, 870 Auger Avenue, Sudbury																						
Area A gravel	5037164	14444	0 - 5	6800	< 0.8	8	30	< 0.8	2300	28	11	**86**	17000	16	3800	190	< 1.5	**93**	< 1	19	32	24
		14445	0 - 5	6000	< 0.8	8	26	< 0.8	2000	26	11	**81**	16000	15	3800	180	< 1.5	**85**	< 1	15	29	24
Area B gravel	5037165	14446	0 - 5	5500	< 0.8	7	28	< 0.8	2100	28	**21**	**100**	18000	11	3800	190	< 1.5	**100**	< 1	13	26	32
		14447	0 - 5	5300	< 0.8	< 5	23	< 0.8	2400	29	**26**	**79**	21000	10	3700	160	< 1.5	**91**	< 1	16	28	33
St. Charles - Sudbury Catholic District School Board, 26 Charlotte Street, Chelmsford																						
Area A gravel	5037394	14520	0 - 5	5900	< 0.8	< 5	25	< 0.8	3300	27	7	35	14000	6	3800	210	< 1.5	**59**	< 1	24	30	25
		14521	0 - 5	6300	< 0.8	< 5	25	< 0.8	3700	26	7	44	15000	6	4100	190	< 1.5	**63**	< 1	27	31	27
Area B sand	5037395	14522	0 - 15	4000	< 0.8	< 5	13	< 0.8	2100	24	4	11	10000	3	2500	130	< 1.5	13	< 1	15	24	21
St. Charles College - Sudbury Catholic District School Board, 1940 Hawthorne Drive, Sudbury																						
Area A grass	5037160	14438	0 - 5	8700	**2.1**	6	38	< 0.8	4800	30	7	**67**	12000	**130**	2800	170	< 1.5	**86**	< 1	29	25	29
		14439	0 - 5	9000	**1.6**	6	46	< 0.8	6100	30	6	**67**	12000	**92**	2700	180	< 1.5	**85**	< 1	31	25	29
Area B soil	5037162	14442	0 - 5	9000	0.8	5	34	< 0.8	6100	31	6	41	13000	24	3500	210	< 1.5	**59**	< 1	32	27	26
Area C grass	5037161	14440	0 - 5	7900	< 0.8	8	31	< 0.8	3100	30	6	**89**	10000	49	1600	120	< 1.5	**100**	< 1	22	22	24
		14441	0 - 5	6900	< 0.8	7	34	< 0.8	3700	45	7	**93**	9700	**120**	1700	130	< 1.5	**120**	< 1	23	21	28
Area D soil	5037163	14443	0 - 5	10000	< 0.8	5	45	< 0.8	3100	38	8	43	17000	13	3900	230	< 1.5	**69**	< 1	25	32	28
St. Christopher - Sudbury Catholic District School Board, 2843 CKSO Road, Sudbury																						
Area A sand	5037013	14052	0 - 15	10000	< 0.8	< 5	25	< 0.8	3300	53	8	23	16000	30	5100	200	**4.1**	25	< 1	26	48	110
		14053	0 - 15	10000	< 0.8	< 5	24	< 0.8	3400	32	9	23	17000	3	4500	190	< 1.5	22	< 1	28	33	19
Area B gravel	5037014	14054	0 - 5	12000	< 0.8	< 5	39	< 0.8	5700	36	8	27	20000	8	5400	260	< 1.5	35	< 1	39	41	30
		14055	0 - 5	11000	< 0.8	< 5	38	< 0.8	5700	38	7	26	20000	7	5400	270	< 1.5	37	< 1	37	41	29

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Area C grass	5037015	14056	0 - 5	9500	< 0.8	< 5	40	< 0.8	3600	33	7	23	16000	4	3900	210	< 1.5	30	< 1	31	32	19
		14057	0 - 5	9400	< 0.8	< 5	40	< 0.8	3700	31	7	25	16000	5	3900	210	< 1.5	34	< 1	31	32	20
St. David - Sudbury Catholic District School Board, 350 Jean Street, Sudbury																						
Area A gravel	5037118	14267	0 - 5	4600	< 0.8	< 5	18	< 0.8	2900	20	6	18	11000	3	3200	140	< 1.5	27	< 1	18	24	17
		14268	0 - 5	6000	< 0.8	< 5	29	< 0.8	3200	28	13	**88**	15000	8	4000	170	< 1.5	**92**	< 1	24	30	42
St. Denis - Le Conseil Scolaire Catholique du Nouvel - Ontario, 347 Rue Hyland, Sudbury																						
Area A grass	5037074	14149	0 - 5	9500	< 0.8	< 5	36	< 0.8	2600	26	8	**200**	13000	25	1900	180	< 1.5	**150**	< 1	24	25	65
		14150	0 - 5	10000	< 0.8	< 5	45	< 0.8	3500	26	9	**180**	13000	23	2100	200	< 1.5	**160**	**2**	34	27	130
		14151	5 - 10	11000	< 0.8	< 5	39	< 0.8	2900	24	5	**52**	12000	9	1700	210	< 1.5	**67**	1	30	26	42
		14152	5 - 10	12000	< 0.8	< 5	39	< 0.8	3000	26	5	41	13000	9	1800	220	< 1.5	**60**	< 1	35	27	31
		14153	10 - 20	9100	< 0.8	< 5	41	< 0.8	3300	24	6	49	12000	10	2200	210	< 1.5	**74**	< 1	28	25	28
		14154	10 - 20	11000	< 0.8	< 5	41	< 0.8	3000	24	5	36	12000	9	1800	220	< 1.5	**60**	< 1	34	27	33
Area B gravel	5037075	14155	0 - 5	6600	< 0.8	< 5	28	< 0.8	3300	31	12	**71**	17000	7	4200	180	< 1.5	**72**	< 1	26	31	29
		14156	0 - 5	6200	< 0.8	< 5	26	< 0.8	3000	30	14	**87**	16000	10	4400	180	< 1.5	**91**	< 1	23	28	31
Area C sand	5037076	14157	0 - 15	5500	< 0.8	< 5	18	< 0.8	2200	28	9	34	14000	4	4200	160	< 1.5	37	< 1	16	26	23
		14158	0 - 15	5800	< 0.8	< 5	18	< 0.8	2400	29	8	29	15000	3	4200	170	< 1.5	32	< 1	18	27	25
St. Dominique - Le Conseil Scolarie Catholique du Nouvel - Ontario, 2096 Rue Montfort, Sudbury																						
Area A grass	5037155	14381	0 - 5	8000	< 0.8	< 5	46	< 0.8	3000	27	11	**74**	13000	19	3400	200	< 1.5	**110**	< 1	23	27	28
		14382	0 - 5	8400	< 0.8	< 5	49	< 0.8	2900	28	13	**77**	14000	21	3600	200	< 1.5	**120**	< 1	22	27	30
		14389	5 - 10	5400	< 0.8	< 5	20	< 0.8	1900	24	6	14	13000	2	3100	160	< 1.5	23	< 1	18	28	15
		14390	5 - 10	5500	< 0.8	< 5	23	< 0.8	1700	27	6	16	14000	3	2700	160	< 1.5	24	< 1	19	34	16
Area B sand	5037156	14383	0 - 15	9500	< 0.8	8	47	< 0.8	3300	34	16	**170**	20000	21	5200	240	< 1.5	**190**	1	33	36	40
Area C grass	5037157	14385	0 - 5	10000	< 0.8	5	43	< 0.8	9900	32	8	**110**	14000	18	3400	270	< 1.5	**130**	1	45	29	33
		14386	0 - 5	11000	< 0.8	< 5	42	< 0.8	7300	32	7	**100**	14000	12	3100	220	< 1.5	**77**	< 1	43	31	27
Area D gravel	5037158	14387	0 - 5	12000	< 0.8	5	41	< 0.8	7600	34	7	50	15000	11	5400	210	< 1.5	**73**	< 1	49	33	26
		14388	0 - 5	11000	< 0.8	< 5	35	< 0.8	8300	34	7	55	15000	11	3300	230	< 1.5	**78**	< 1	48	32	27
Area E gravel	5037159	14384	0 - 5	7700	< 0.8	8	37	< 0.8	3100	31	16	**170**	18000	23	4400	220	< 1.5	**170**	1	26	33	36
St. Etienne - Le Conseil Scolaire Catholique du Nouvel - Ontario, C.P. 310, 79 Rue Houle, Dowling																						
Area A gravel	5037400	14554	0 - 5	9000	< 0.8	< 5	28	< 0.8	3900	33	9	42	21000	20	5600	240	< 1.5	35	< 1	31	42	35
		14555	0 - 5	9000	< 0.8	< 5	29	< 0.8	3700	34	9	41	21000	16	5700	250	< 1.5	34	< 1	28	42	37

Table F (results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A (results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Area B sand	5037401	14556	0 - 15	6700	< 0.8	< 5	21	< 0.8	4000	36	7	23	18000	5	4400	210	< 1.5	21	< 1	28	38	28
St. Francis - Sudbury Catholic District School Board, 691 Lilac Street, Sudbury																						
Area A gravel	5037069	14141	0 - 5	5400	< 0.8	< 5	24	< 0.8	2600	31	12	**140**	15000	15	3800	150	< 1.5	**150**	< 1	19	27	40
		14142	0 - 5	5800	< 0.8	< 5	25	< 0.8	2700	30	13	**160**	15000	15	3900	150	< 1.5	**150**	< 1	20	26	40
Area B sand	5037070	14143	0 - 15	6900	< 0.8	< 5	21	< 0.8	3200	32	8	30	17000	4	4500	190	< 1.5	32	< 1	22	34	21
Area C gravel	5037071	14144	0 - 5	7400	< 0.8	< 5	39	< 0.8	4000	35	13	**140**	16000	10	4800	190	< 1.5	**130**	< 1	24	29	56
		14145	0 - 5	7600	< 0.8	< 5	39	< 0.8	4100	38	15	**180**	17000	15	4700	200	< 1.5	**170**	< 1	26	32	110
St. Gabriel (Better Beginnings) - Le Conseil Scolaire Catholique du Nouvel - Ontario, 450 Morin Street, Sudbury																						
Area A gravel	5037127	14284	0 - 5	7400	< 0.8	7	31	< 0.8	3500	34	**20**	**190**	20000	19	4400	200	< 1.5	**180**	< 1	25	34	41
		14285	0 - 5	7100	< 0.8	6	31	< 0.8	3400	31	**21**	**200**	19000	21	4200	190	< 1.5	**200**	< 1	26	31	47
Area B sand	5037128	14286	0 - 15	5400	< 0.8	5	27	< 0.8	2500	23	8	25	14000	3	3400	190	< 1.5	23	< 1	18	33	16
		14287	0 - 15	4900	< 0.8	< 5	23	< 0.8	2100	20	8	22	13000	3	3200	170	< 1.5	22	< 1	15	26	15
St. James - Sudbury Catholic District School Board, 280 Anderson Drive, Lively																						
Area A gravel	5037244	14719	0 - 5	8100	< 0.8	5	30	< 0.8	3600	32	11	**64**	15000	9	4500	250	< 1.5	**70**	< 1	23	31	34
		14720	0 - 5	6300	< 0.8	< 5	30	< 0.8	2500	29	10	48	14000	7	4100	250	< 1.5	**47**	< 1	17	32	30
St. Jean (formerly) - Le Conseil Scolarie Catholique du Nouvel - Ontario, 1127 Promenade Bancroft, Sudbury																						
Area A gravel	5037139	14292	0 - 5	9400	< 0.8	6	35	< 0.8	4200	46	14	**140**	20000	18	5600	250	1.9	**140**	1	32	41	49
		14293	0 - 5	7200	< 0.8	7	30	< 0.8	3400	35	15	**160**	17000	17	4300	180	< 1.5	**180**	< 1	26	31	36
Area B sand	5037140	14294	0 - 15	5100	< 0.8	6	22	< 0.8	2900	27	6	34	12000	4	2900	150	< 1.5	37	< 1	21	26	24
St. John - Sudbury Catholic District School Board, 181 William Street, Garson																						
Area A gravel	5037276	14415	0 - 5	6700	< 0.8	8	27	< 0.8	2700	27	8	**57**	14000	10	3000	170	< 1.5	**68**	< 1	22	29	28
		14416	0 - 5	6300	< 0.8	9	25	< 0.8	2700	26	9	**59**	14000	10	3200	170	< 1.5	**73**	< 1	22	30	28
Area B gravel	5037277	14417	0 - 5	6000	< 0.8	7	29	< 0.8	2500	24	7	43	11000	7	2800	150	< 1.5	**62**	< 1	18	26	25
		14418	0 - 5	5800	< 0.8	6	29	< 0.8	2600	24	8	51	12000	7	2900	160	< 1.5	**71**	< 1	19	24	24

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Area C sand	5037278	14419	0 - 15	4100	< 0.8	< 5	19	< 0.8	3400	20	5	12	9900	2	2600	130	< 1.5	18	< 1	15	23	16
St. Joseph - Le Conseil Scolarie Catholique du Nouvel - Ontario, 100 Bruyere Street, Sudbury																						
Area A sand	5037129	14288	0 - 15	5800	< 0.8	< 5	21	< 0.8	2700	25	7	28	14000	3	3600	170	< 1.5	22	< 1	20	27	18
		14289	0 - 15	5800	< 0.8	< 5	19	< 0.8	2300	26	8	23	14000	3	3300	170	< 1.5	23	< 1	18	27	16
Area B gravel	5037130	14290	0 - 5	6700	< 0.8	5	32	< 0.8	3500	34	16	**170**	18000	21	4300	200	< 1.5	**170**	< 1	23	33	38
		14291	0 - 5	6600	< 0.8	6	31	< 0.8	3200	33	**22**	**170**	18000	22	4200	190	< 1.5	**190**	< 1	31	32	36
St. Joseph - Le Conseil Scolarie Catholique du Nouvel - Ontario, 1215 Rue St. Anthony, Hanmer																						
Area A gravel	5037309	14651	0 - 5	7100	< 0.8	6	35	< 0.8	3100	31	15	49	19000	9	4300	200	< 1.5	**49**	< 1	24	34	33
		14652	0 - 5	5600	< 0.8	< 5	26	< 0.8	2200	27	15	38	16000	9	3800	160	< 1.5	**45**	< 1	16	28	29
Area B sand	5037310	14653	0 - 15	8700	< 0.8	< 5	41	< 0.8	2900	46	9	43	22000	6	5200	250	< 1.5	35	< 1	18	51	29
Area C grass	5037311	14654	0 - 5	7100	< 0.8	< 5	37	< 0.8	2900	28	8	53	14000	10	3700	200	< 1.5	**59**	< 1	21	30	26
		14655	0 - 5	8700	< 0.8	< 5	46	< 0.8	3600	31	11	52	17000	11	4200	210	< 1.5	**55**	< 1	29	32	31
St. Joseph - Le Conseil Scolarie Catholique du Nouvel - Ontario, 3634 Avenue Errington, Chelmsford																						
Area A grass	5037396	14544	0 - 5	7700	< 0.8	< 5	20	< 0.8	2400	22	4	22	11000	10	1600	120	< 1.5	30	< 1	25	26	18
		14545	0 - 5	6800	< 0.8	< 5	19	< 0.8	2100	20	3	26	10000	10	1500	110	< 1.5	33	< 1	21	23	20
		14546	5 - 10	6900	< 0.8	< 5	20	< 0.8	1800	20	3	11	9200	6	1400	100	< 1.5	21	< 1	18	21	15
		14547	5 - 10	7500	< 0.8	< 5	20	< 0.8	2100	20	3	18	11000	9	1500	110	< 1.5	27	< 1	22	25	18
		14548	10 - 20	7800	< 0.8	< 5	18	< 0.8	2000	21	3	4	10000	4	1700	98	< 1.5	13	< 1	19	23	12
		14549	10 - 20	8300	< 0.8	< 5	23	< 0.8	2100	21	3	6	10000	5	1500	110	< 1.5	15	< 1	22	25	13
Area B grass	5037397	14550	0 - 5	7000	< 0.8	6	24	< 0.8	1700	18	3	23	11000	8	1200	100	< 1.5	33	< 1	20	26	19
		14551	0 - 5	8600	< 0.8	7	28	< 0.8	2600	24	4	38	13000	12	1400	140	< 1.5	**50**	< 1	29	32	21
Area C sand	5037398	14552	0 - 15	5400	< 0.8	< 5	21	< 0.8	1900	22	5	13	12000	3	3000	150	< 1.5	21	< 1	18	27	15
Area D sand	5037399	14553	0 - 15	5000	< 0.8	< 5	20	< 0.8	2200	24	5	13	12000	2	3000	150	< 1.5	19	< 1	17	28	18
St. Kevin (Bishop Alexander C.C.S.S.) - Sudbury Catholic District School Board, 3075 River Road, Val Caron																						
Area A gravel	5037288	14774	0 - 5	9100	< 0.8	< 5	31	< 0.8	3900	42	12	**59**	21000	12	5900	240	< 1.5	**57**	< 1	28	38	38
		14775	0 - 5	8800	< 0.8	< 5	29	< 0.8	3700	40	15	**64**	21000	10	6000	240	< 1.5	**63**	< 1	25	38	39
Area B gravel	5037289	14776	0 - 5	10000	< 0.8	< 5	37	< 0.8	4200	42	10	**71**	21000	14	6100	250	< 1.5	**68**	< 1	29	39	37
		14777	0 - 5	10000	< 0.8	< 5	36	< 0.8	4400	44	11	**82**	23000	12	6400	280	< 1.5	**92**	< 1	31	46	38

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
St. Mary - Sudbury Catholic District School Board, 26 Meehan Avenue, Capreol																						
Area A gravel	5037352	14582	0 - 5	12000	< 0.8	6	32	< 0.8	1700	27	8	**69**	17000	22	2600	280	< 1.5	**69**	< 1	16	34	46
		14583	0 - 5	13000	< 0.8	8	31	< 0.8	1800	26	7	**97**	15000	25	2200	250	< 1.5	**72**	< 1	18	33	48
St. Michael - Sudbury Catholic District School Board, 41 Samson Street, Sudbury																						
Area A gravel	5037083	14132	0 - 5	7200	< 0.8	< 5	26	< 0.8	3900	29	11	**120**	19000	11	5100	170	< 1.5	**130**	< 1	19	30	32
		14133	0 - 5	6500	< 0.8	< 5	29	< 0.8	5100	29	11	**120**	15000	11	4200	180	< 1.5	**140**	< 1	24	27	65
St. Michel Le Conseil Scolaire Catholique du Nouvel - Ontario, 4500 Rue St. Michele, Hanmer																						
Area A gravel	5037330	14622	0 - 5	6500	< 0.8	< 5	34	< 0.8	2300	30	**24**	**66**	21000	11	4300	170	< 1.5	**53**	< 1	15	32	33
		14623	0 - 5	5700	< 0.8	< 5	30	< 0.8	2200	26	18	53	17000	9	3700	150	< 1.5	**56**	< 1	14	28	27
Area B sand	5037331	14624	0 - 15	4500	< 0.8	< 5	18	< 0.8	2300	23	5	15	11000	2	3000	150	< 1.5	16	< 1	11	27	18
St. Paul - Le Conseil Scolaire Catholique du Nouvel - Ontario, 185 6th Avenue, Lively																						
Area A grass	5037245	14721	0 - 5	11000	< 0.8	6	67	< 0.8	6800	34	10	**110**	15000	19	3300	260	< 1.5	**150**	< 1	40	32	53
		14722	0 - 5	10000	< 0.8	< 5	58	< 0.8	6300	31	9	**93**	12000	15	2900	240	< 1.5	**130**	1	39	30	42
		14723	5 - 10	10000	< 0.8	7	53	< 0.8	3300	32	10	**100**	16000	14	3300	190	< 1.5	**130**	< 1	31	31	50
Area B gravel	5037246	14724	0 - 5	6400	< 0.8	< 5	30	< 0.8	2900	34	11	**83**	17000	13	4400	210	< 1.5	**90**	< 1	21	34	36
		14725	0 - 5	6900	< 0.8	< 5	31	< 0.8	3400	35	11	**79**	17000	12	4400	210	< 1.5	**83**	< 1	26	35	35
St. Paul - Sudbury Catholic District School Board, 1 Edward Avenue North, Coniston																						
Area A gravel	5037263	14752	0 - 5	8900	< 0.8	6	43	< 0.8	4300	35	14	**99**	18000	12	5500	250	< 1.5	**120**	< 1	28	34	42
		14753	0 - 5	9500	< 0.8	6	45	< 0.8	4300	43	14	**100**	19000	14	5800	260	< 1.5	**120**	< 1	28	32	46
Area B sand	5037264	14754	0 - 15	4600	< 0.8	< 5	26	< 0.8	2400	18	6	15	10000	2	2700	130	< 1.5	17	< 1	18	23	13
St. Pierre - Le Conseil Scolaire Catholique du Nouvel - Ontario, 70 Rue Wilfred, Sudbury																						
Area A gravel	5037266	14772	0 - 5	8000	< 0.8	< 5	39	< 0.8	4800	35	**29**	**93**	22000	7	4900	230	< 1.5	**120**	< 1	28	34	39
		14773	0 - 5	8300	< 0.8	< 5	39	< 0.8	5200	33	17	**82**	18000	7	4700	210	< 1.5	**88**	< 1	30	30	31
St. Raphael - Sudbury Catholic District School Board, 1096 Dublin Street, Sudbury																						
Area A gravel	5037193	14460	0 - 5	8300	< 0.8	< 5	34	< 0.8	3400	35	12	**93**	18000	14	4500	220	< 1.5	**96**	< 1	31	36	77
		14461	0 - 5	6400	< 0.8	< 5	30	< 0.8	3000	26	8	42	14000	8	3300	170	< 1.5	**47**	< 1	24	28	27
St. Theresa - Sudbury Catholic District School Board, 56 Walford Road, Sudbury																						
Area A sand	5037050	14106	0 - 15	6700	< 0.8	< 5	21	< 0.8	3200	28	7	18	15000	3	3900	180	< 1.5	21	< 1	28	31	16

Table F (results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A (results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Area B sand	5037051	14107	0 - 15	6600	< 0.8	< 5	20	< 0.8	3100	28	7	17	14000	3	4100	170	< 1.5	21	< 1	26	26	15
Area C sand	5037052	14108	0 - 15	6500	< 0.8	< 5	21	< 0.8	2700	29	7	20	14000	3	4200	180	< 1.5	24	< 1	24	29	18
Area D gravel	5037053	14109	0 - 5	7400	< 0.8	< 5	28	< 0.8	3400	34	15	**97**	18000	9	4900	190	< 1.5	**110**	< 1	26	29	34
		14110	0 - 5	7700	< 0.8	< 5	28	< 0.8	3500	36	17	**97**	19000	9	5000	190	< 1.5	**110**	< 1	28	30	31
St. Thomas (formerly) - Sudbury Catholic District School Board - Ontario, 504 St. Raphael Street, Sudbury																						
Area A sand	5037094	14191	0 - 15	6500	< 0.8	< 5	18	< 0.8	2200	30	7	21	15000	3	5200	200	< 1.5	27	< 1	14	25	25
Area B sand	5037095	14192	0 - 15	6000	< 0.8	< 5	19	< 0.8	2500	29	7	22	16000	3	4100	180	< 1.5	23	< 1	16	32	23
Area C gravel	5037096	14193	0 - 5	5100	< 0.8	< 5	27	< 0.8	3000	24	11	**100**	13000	11	3300	170	< 1.5	**130**	< 1	16	25	**200**
		14194	0 - 5	5200	< 0.8	< 5	28	< 0.8	2600	24	11	**100**	13000	11	3400	170	< 1.5	**130**	< 1	16	24	150
Area D gravel	5037097	14195	0 - 5	6400	< 0.8	< 5	31	< 0.8	2800	32	**22**	**130**	18000	11	4600	190	< 1.5	**150**	< 1	20	30	40
		14196	0 - 5	8100	< 0.8	5	42	< 0.8	3800	35	**23**	**140**	19000	12	4900	210	< 1.5	**190**	< 1	29	33	39
Ste. Marie - Le Conseil Scolaire Catholique du Nouvel - Ontario, 25 Rue Marier, Azilda																						
Area A gravel	5037373	14500	0 - 5	8100	< 0.8	< 5	34	< 0.8	4400	36	12	**68**	18000	14	5000	230	< 1.5	**85**	< 1	35	36	46
		14501	0 - 5	8000	< 0.8	< 5	34	< 0.8	4500	32	11	**58**	18000	12	5100	230	< 1.5	**60**	< 1	33	36	42
Area B sand	5037374	14502	0 - 15	5200	< 0.8	< 5	17	< 0.8	3500	23	5	17	13000	4	3200	170	< 1.5	19	< 1	25	28	25
Ste. Therese - Le Conseil Scolaire Catholique du Nouvel - Ontario, 4617 Rue Ste. Therese, Val Therese																						
Area A sand	5037306	14656	0 - 15	4900	< 0.8	< 5	17	< 0.8	3000	24	5	9	12000	2	3100	150	< 1.5	14	< 1	19	28	14
Area B gravel	5037307	14657	0 - 5	7500	< 0.8	< 5	26	< 0.8	3800	39	8	37	16000	8	4400	230	< 1.5	36	< 1	29	34	27
		14658	0 - 5	8100	< 0.8	< 5	28	< 0.8	3800	37	8	44	17000	10	5000	230	< 1.5	40	< 1	30	37	32
Area C grass	5037308	14659	0 - 5	8800	< 0.8	6	36	< 0.8	4000	28	7	48	13000	14	2800	230	< 1.5	**55**	< 1	35	29	34
		14660	0 - 5	9300	< 0.8	< 5	37	< 0.8	3900	34	7	44	15000	12	3300	230	< 1.5	**46**	< 1	34	34	38
E.P. Sud Ouest Publique (Helene-Gravel) - Conseil Scolaire du District de Grand Nord de L'Ontario, 1412 Rue Stephen, Sudbury																						
Area A soil	5037041	14096	0 - 5	10000	< 0.8	< 5	49	< 0.8	8600	35	8	**140**	14000	18	4300	240	< 1.5	**160**	< 1	41	31	35
		14097	0 - 5	11000	< 0.8	< 5	47	< 0.8	8900	35	9	**130**	14000	28	4200	240	< 1.5	**170**	< 1	43	30	35
Area B grass	5037042	14098	0 - 5	10000	< 0.8	< 5	48	< 0.8	7700	34	8	**120**	14000	16	4100	250	< 1.5	**140**	< 1	38	30	34
		14099	0 - 5	11000	< 0.8	5	57	< 0.8	9100	36	9	**170**	15000	19	4200	280	< 1.5	**190**	**1.7**	47	32	39

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Area C grass	5037043	14090	0 - 5	9400	< 0.8	< 5	44	< 0.8	7800	31	8	**130**	14000	16	4000	220	< 1.5	**150**	1.3	36	27	30
		14091	0 - 5	9600	< 0.8	< 5	44	< 0.8	7300	30	8	**130**	13000	31	3900	210	< 1.5	**130**	1.1	36	27	31
Area D soil	5037044	14092	0 - 5	10000	**2**	< 5	37	< 0.8	5700	30	8	**110**	13000	**120**	3200	220	< 1.5	**120**	< 1	43	29	29
Area E soil	5037045	14093	0 - 5	7600	< 0.8	< 5	26	< 0.8	3200	30	9	47	17000	4	4500	200	< 1.5	**47**	< 1	26	31	23
Area F sand	5037046	14094	0 - 15	10000	< 0.8	< 5	46	< 0.8	12000	33	8	**110**	14000	14	5500	250	< 1.5	**130**	< 1	46	29	28
		14095	0 - 15	8100	< 0.8	< 5	34	< 0.8	3400	33	8	54	18000	4	4700	210	< 1.5	**53**	< 1	24	36	32
Sudbury Secondary School - Rainbow District School Board, 85 Mackenzie Street, Sudbury																						
Area A grass	5037131	14249	0 - 5	10000	< 0.8	6	43	0.8	6200	34	9	**150**	13000	29	3100	220	< 1.5	**170**	1	41	30	40
		14250	0 - 5	9200	< 0.8	7	37	< 0.8	5100	30	8	**110**	12000	21	2800	210	< 1.5	**130**	< 1	34	28	32
		14251	5 - 10	11000	< 0.8	6	36	< 0.8	5600	32	7	**62**	14000	13	3000	240	< 1.5	**76**	< 1	45	33	27
		14252	5 - 10	11000	< 0.8	7	37	< 0.8	5500	32	7	**73**	14000	19	2900	210	< 1.5	**92**	< 1	42	31	29
		14253	10 - 20	11000	< 0.8	5	42	< 0.8	5500	33	8	**97**	15000	20	2900	220	< 1.5	**110**	< 1	45	33	30
		14254	10 - 20	11000	< 0.8	< 5	37	< 0.8	5300	33	8	**76**	14000	22	3000	230	< 1.5	**98**	< 1	42	31	31
Area B soil	5037132	14255	0 - 5	10000	< 0.8	6	39	< 0.8	6000	32	8	**85**	13000	16	3300	240	< 1.5	**100**	< 1	47	33	31
Area C soil	5037133	14256	0 - 5	12000	< 0.8	7	42	< 0.8	6700	37	7	**65**	15000	19	3300	270	< 1.5	**86**	< 1	52	37	31
Val Caron Public School - Rainbow District School Board, 1555 Main Street East, Val Caron																						
Area A grass	5037286	14778	0 - 5	12000	< 0.8	< 5	46	< 0.8	6000	36	7	47	15000	16	3500	240	< 1.5	**62**	< 1	43	34	43
		14779	0 - 5	12000	< 0.8	< 5	48	< 0.8	6100	37	7	42	16000	14	3600	250	< 1.5	**55**	< 1	42	35	37
		14780	5 - 10	12000	< 0.8	< 5	44	< 0.8	5600	35	6	42	15000	14	3300	230	< 1.5	**58**	< 1	37	32	41
		14781	5 - 10	13000	< 0.8	< 5	46	< 0.8	6200	38	7	41	16000	15	3700	250	< 1.5	**56**	< 1	40	35	43
		14782	10 - 20	9500	< 0.8	< 5	36	< 0.8	4000	28	5	42	12000	12	2400	160	< 1.5	**57**	< 1	28	27	26
		14783	10 - 20	12000	< 0.8	< 5	40	< 0.8	5500	35	6	45	15000	12	3300	210	< 1.5	**52**	< 1	38	33	39
Area B sand	5037287	14784	0 - 15	5500	< 0.8	< 5	21	< 0.8	4100	23	5	11	12000	2	3500	150	< 1.5	17	< 1	21	25	18
		14785	0 - 15	5000	< 0.8	< 5	18	< 0.8	11000	23	5	12	13000	2	5900	150	< 1.5	17	< 1	22	29	18

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Valleyview Public School - Rainbow District School Board, 1840 Valley View Road, Val Caron																						
Area A grass	5037281	14826	0 - 5	12000	< 0.8	< 5	45	< 0.8	5500	37	7	48	16000	14	3600	250	< 1.5	**65**	< 1	41	36	31
		14827	0 - 5	11000	< 0.8	< 5	43	< 0.8	5300	37	7	46	16000	14	3500	240	< 1.5	**64**	< 1	37	34	31
		14828	5 - 10	11000	< 0.8	< 5	42	< 0.8	5000	37	7	38	15000	12	3500	250	< 1.5	**59**	< 1	34	33	29
		14829	10 - 20	12000	< 0.8	< 5	39	< 0.8	5400	35	7	31	16000	10	3300	230	< 1.5	**57**	< 1	42	35	28
Area B soil	5037282	14832	0 - 5	10000	< 0.8	< 5	51	< 0.8	4300	40	12	**76**	20000	9	5800	270	< 1.5	**110**	< 1	34	43	38
		14833	0 - 5	10000	< 0.8	< 5	50	< 0.8	4200	41	11	**59**	20000	10	5900	280	< 1.5	**55**	< 1	33	41	38
Area C grass	5037283	14834	0 - 5	12000	< 0.8	< 5	53	< 0.8	7400	40	10	**90**	17000	21	3400	310	< 1.5	**120**	1.2	39	32	51
		14835	0 - 5	11000	< 0.8	< 5	54	< 0.8	6700	41	9	**91**	15000	22	3000	330	< 1.5	**120**	1.2	42	33	56
Area D soil	5037284	14836	0 - 5	11000	< 0.8	< 5	45	< 0.8	6400	36	6	47	14000	11	3000	280	< 1.5	**71**	< 1	39	30	43
Area E sand	5037285	14837	0 - 15	5800	< 0.8	< 5	23	< 0.8	3000	25	6	13	14000	2	3800	180	< 1.5	23	< 1	18	31	17
		14838	0 - 15	5400	< 0.8	< 5	20	< 0.8	2600	23	5	12	11000	2	3300	150	< 1.5	20	< 1	18	22	16
Wanup Public School - Rainbow District School Board, 4543 Highway 537, Sudbury																						
Area A grass	5037002	14223	0 - 5	7100	< 0.8	< 5	30	< 0.8	2100	21	5	56	9900	13	1600	180	< 1.5	**65**	< 1	22	23	22
		14224	0 - 5	8400	< 0.8	< 5	29	< 0.8	2400	22	5	**58**	11000	12	1900	180	< 1.5	**59**	< 1	25	25	25
		14225	5 - 10	8200	< 0.8	< 5	32	< 0.8	2100	20	4	45	11000	9	1600	180	< 1.5	**58**	< 1	21	24	24
		14226	5 - 10	12000	< 0.8	< 5	32	< 0.8	2200	22	5	45	15000	9	1800	230	< 1.5	**64**	< 1	22	25	25
		14227	10 - 20	8300	< 0.8	< 5	32	< 0.8	2300	21	4	34	11000	7	1700	200	< 1.5	**56**	< 1	23	24	24
		14228	10 - 20	7700	< 0.8	< 5	29	< 0.8	1800	20	4	24	9900	6	1700	200	< 1.5	**48**	< 1	17	22	21
Area B grass	5037003	14229	0 - 5	8800	< 0.8	< 5	35	< 0.8	3100	25	5	51	12000	13	2000	180	< 1.5	**66**	< 1	32	28	23
		14230	0 - 5	9300	< 0.8	< 5	36	< 0.8	3400	24	5	53	12000	12	1900	180	< 1.5	**66**	< 1	36	28	24
		14231	5 - 10	10000	< 0.8	< 5	36	< 0.8	2900	24	4	41	13000	9	1800	180	< 1.5	**53**	< 1	32	29	25
		14232	5 - 10	9600	< 0.8	< 5	33	< 0.8	2800	23	4	38	12000	8	1800	150	< 1.5	**50**	< 1	29	28	25
		14233	10 - 20	9900	< 0.8	< 5	38	< 0.8	3300	24	4	32	12000	7	1900	190	< 1.5	**48**	< 1	34	28	25
		14234	10 - 20	10000	< 0.8	< 5	34	< 0.8	3000	25	4	25	13000	6	1900	180	< 1.5	**44**	< 1	32	28	24
Area C soil	5037004	14235	0 - 5	7200	< 0.8	< 5	36	< 0.8	9800	30	9	27	15000	4	5000	200	< 1.5	27	< 1	61	31	27
		14236	0 - 5	9400	< 0.8	< 5	34	< 0.8	5100	36	9	38	19000	4	5300	220	< 1.5	**55**	< 1	35	34	24
Area D sand	5037005	14237	0 - 15	7700	< 0.8	< 5	23	< 0.8	3400	33	7	19	17000	3	4400	190	< 1.5	21	< 1	29	33	24

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Wembley Public School - Rainbow District School Board, 408 Wemblay Drive, Sudbury																						
Area A grass	5037077	14159	0 - 5	8600	< 0.8	< 5	37	< 0.8	3700	31	16	**160**	15000	16	2600	190	< 1.5	**180**	< 1	29	26	37
		14160	0 - 5	9200	< 0.8	< 5	33	< 0.8	3700	29	7	**81**	12000	11	2500	180	< 1.5	**88**	< 1	31	27	30
Area B soil	5037078	14161	0 - 5	9400	< 0.8	< 5	30	< 0.8	4200	30	5	41	13000	8	2500	200	< 1.5	**60**	< 1	37	29	22
Area C soil	5037079	14162	0 - 5	8700	< 0.8	< 5	34	< 0.8	3700	29	8	**120**	12000	16	2500	170	< 1.5	**130**	< 1	36	27	40
Area D soil	5037080	14163	0 - 5	6500	< 0.8	< 5	27	< 0.8	3400	25	9	**66**	13000	7	3200	180	< 1.5	**63**	< 1	29	27	20
Area E sand	5037081	14164	0 - 15	5900	< 0.8	< 5	19	< 0.8	2700	28	7	24	14000	3	3800	170	< 1.5	29	< 1	19	29	18
Area F sand	5037082	14165	0 - 15	6200	< 0.8	< 5	21	< 0.8	3300	30	7	35	16000	4	3700	180	< 1.5	43	< 1	23	33	23
Westmount Avenue Public School - Rainbow District School Board, 511 Westmount Avenue, Sudbury																						
Area A grass	5037174	14311	0 - 5	8700	< 0.8	6	32	< 0.8	3200	29	7	**70**	13000	15	2400	150	< 1.5	**81**	< 1	30	29	25
		14312	0 - 5	8300	< 0.8	7	30	< 0.8	2800	27	6	**63**	12000	13	2300	150	< 1.5	**66**	< 1	26	28	25
		14313	5 - 10	8200	< 0.8	6	25	< 0.8	2500	27	6	36	13000	7	2300	150	< 1.5	42	< 1	23	30	21
		14314	5 - 10	9500	< 0.8	6	30	< 0.8	2500	27	7	41	13000	8	2400	170	< 1.5	**54**	< 1	25	29	22
		14315	10 - 20	6800	< 0.8	6	30	< 0.8	2600	25	5	25	13000	5	2300	160	< 1.5	38	< 1	25	30	16
		14316	10 - 20	10000	< 0.8	9	43	< 0.8	3800	30	7	40	15000	8	2400	230	< 1.5	**58**	< 1	38	34	22
Area B sand	5037175	14317	0 - 15	4600	< 0.8	< 5	19	< 0.8	2700	28	7	15	15000	3	2900	160	< 1.5	21	< 1	18	34	14
Area C gravel	5037176	14318	0 - 5	9200	< 0.8	6	38	< 0.8	3800	29	9	**77**	14000	13	3100	230	< 1.5	**95**	< 1	32	28	27
		14319	0 - 5	8100	0.8	7	33	< 0.8	3300	28	10	**84**	14000	13	3100	200	< 1.5	**100**	< 1	28	28	29
Area D grass	5037177	14320	0 - 5	9700	< 0.8	< 5	34	< 0.8	4200	26	6	53	12000	12	2700	170	< 1.5	**66**	< 1	25	25	28
		14321	0 - 5	10800	< 0.8	5	48	< 0.8	5500	36	9	**110**	14000	23	2800	240	< 1.5	**130**	1	39	30	38
Area E sand	5037178	14322	0 - 15	7300	< 0.8	5	28	< 0.8	2800	30	9	35	17000	4	3500	200	< 1.5	34	< 1	27	36	23
		14324	0 - 15	6400	< 0.8	6	28	< 0.8	2600	31	9	34	16000	4	3800	210	< 1.5	31	< 1	22	35	25

Table F	(results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A	(results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.1: Concentration of 19 Elements in Soil in µg/g Collected on 105 School Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Area F grass	5037179	14325	0 - 5	10700	< 0.8	5	39	< 0.8	4100	33	7	**71**	14000	16	2600	200	< 1.5	**86**	< 1	36	29	30
		14326	0 - 5	10300	< 0.8	< 5	33	< 0.8	4300	26	6	54	12000	11	2700	170	< 1.5	**68**	< 1	29	26	25
		14327	5 - 10	11200	< 0.8	< 5	36	< 0.8	3500	26	5	30	13000	7	2200	160	< 1.5	42	< 1	31	27	21
		14328	5 - 10	10500	< 0.8	< 5	33	< 0.8	3000	24	5	39	12000	8	2000	150	< 1.5	**50**	< 1	27	25	21
		14329	10 - 20	10200	< 0.8	< 5	36	< 0.8	2700	26	5	33	12000	9	2000	140	< 1.5	**49**	< 1	23	25	20
Area G sand	5037180	14331	0 - 15	7200	< 0.8	6	29	< 0.8	3100	28	9	42	16000	5	3900	190	< 1.5	37	< 1	26	32	22

Table F (results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A (results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.2: Concentration of 19 Elements in Soil in µg/g Collected on 25 Daycare Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Alexander Kids at Alexander Public School, 39 St. Brendan Street, Sudbury																						
This daycare is operated by Larch Street Kids and is located in the same building as Alexander Public School, Rainbow District School Board. See Alexander Public																						
All Nations -South End, 2690 Henri Street, Sudbury																						
Area A grass	5037008	14030	0 - 5	8300	< 0.8	< 5	31	< 0.8	3600	31	7	36	14000	6	3600	190	< 1.5	**48**	< 1	24	29	23
		14031	0 - 5	9900	< 0.8	< 5	31	< 0.8	4000	35	7	32	16000	6	4100	180	< 1.5	**49**	< 1	28	34	24
		14032	5 - 10	8700	< 0.8	< 5	25	< 0.8	2300	29	7	35	14000	5	3700	170	< 1.5	43	< 1	17	29	18
		14033	5 - 10	9500	< 0.8	< 5	28	< 0.8	3000	31	7	28	16000	5	3900	180	< 1.5	37	< 1	25	33	20
		14034	10 - 20	9400	< 0.8	< 5	26	< 0.8	2500	29	7	28	15000	5	3700	170	< 1.5	36	< 1	22	31	18
		14035	10 - 20	8400	< 0.8	< 5	27	< 0.8	2000	28	7	29	14000	5	3100	170	< 1.5	39	< 1	19	29	19
Area B sand	5037009	14036	0 - 15	4300	< 0.8	< 5	14	< 0.8	2400	23	4	14	11000	3	2500	150	< 1.5	16	< 1	17	27	14
		14037	0 - 15	4300	< 0.8	< 5	14	< 0.8	2300	24	3	15	11000	2	2600	150	< 1.5	11	< 1	16	26	14
Area C sand	5037010	14038	0 - 15	6200	< 0.8	< 5	19	< 0.8	2100	29	8	22	15000	3	4100	180	< 1.5	27	< 1	15	28	27
		14039	0 - 15	6200	< 0.8	< 5	20	< 0.8	2300	31	9	26	16000	4	4000	180	< 1.5	29	< 1	17	32	32
Area D grass	5037011	14040	0 - 5	6800	< 0.8	< 5	25	< 0.8	12000	30	7	33	13000	6	7300	190	< 1.5	**46**	< 1	23	23	20
		14041	0 - 5	7900	< 0.8	< 5	30	< 0.8	11000	35	9	38	13000	7	6500	210	< 1.5	**58**	< 1	27	25	27
		14042	5 - 10	7200	< 0.8	< 5	27	< 0.8	17000	25	6	32	12000	7	8500	200	< 1.5	**51**	< 1	33	25	17
		14043	5 - 10	7200	< 0.8	< 5	27	< 0.8	14000	25	6	30	12000	7	6900	190	< 1.5	**45**	< 1	38	26	19
		14044	10 - 20	8600	< 0.8	6	33	< 0.8	13000	27	7	**63**	13000	14	6500	220	< 1.5	**93**	< 1	39	28	28
		14045	10 - 20	6300	< 0.8	6	26	< 0.8	10000	22	6	39	11000	9	5300	160	< 1.5	**58**	< 1	31	24	17
Area E grass	5037012	14046	0 - 5	8600	< 0.8	< 5	39	< 0.8	6900	32	7	48	14000	10	4500	200	< 1.5	**66**	< 1	30	27	32
		14047	0 - 5	9500	< 0.8	< 5	40	< 0.8	7400	30	7	56	13000	11	4600	220	< 1.5	**85**	< 1	39	29	28
		14048	5 - 10	8700	< 0.8	< 5	39	< 0.8	9200	28	7	39	13000	9	5200	190	< 1.5	**62**	< 1	33	29	23
		14049	5 - 10	8600	< 0.8	< 5	36	< 0.8	7600	27	7	**65**	13000	13	4600	190	< 1.5	**92**	< 1	34	27	23
		14050	10 - 20	7400	< 0.8	< 5	31	< 0.8	7700	24	6	49	11000	11	4400	160	< 1.5	**72**	< 1	27	25	22
		14051	10 - 20	7300	< 0.8	< 5	30	< 0.8	5700	24	5	44	11000	9	3200	170	< 1.5	**69**	< 1	29	25	20
All Nations St. Christopher, 2841 CKSO Rd., Sudbury																						
This daycare is located in the same building as St. Christopher School, Catholic District School Board. See St. Christopher School above for the results.																						
Beattie Kids, 102 Loach's Rd., Sudbury																						
This daycare is operated by Larch Street Kids and is located in the same building as R.L. Beattie Public School, Rainbow District School Board. See R.L. Beattie Public School above for the results.																						

Table F (results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A (results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.2: Concentration of 19 Elements in Soil in µg/g Collected on 25 Daycare Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Capreol Child Care Centre at St. Mary, 26 Meehan Street, Capreol																						
Area A sand	5037353	14580	0 - 15	5200	< 0.8	< 5	15	< 0.8	1700	21	4	10	9900	3	2500	140	< 1.5	15	< 1	11	24	14
		14581	0 - 15	4500	< 0.8	< 5	14	< 0.8	1800	18	4	7	8700	3	2300	120	< 1.5	13	< 1	11	20	12
Cedar Park Daycare #1, 1073 Beaumont Street, Sudbury																						
Area A grass	5037206	14839	0 - 5	8000	< 0.8	< 5	53	< 0.8	8100	34	8	**99**	13000	15	3500	220	< 1.5	**110**	**1.6**	35	31	48
		14840	0 - 5	8600	< 0.8	< 5	57	0.9	9000	32	9	**130**	13000	21	3600	240	< 1.5	**130**	**1.5**	38	32	62
Area B sand	5037207	14841	0 - 15	6400	< 0.8	< 5	21	< 0.8	2600	26	6	15	13000	3	4200	160	< 1.5	24	< 1	19	23	19
		14842	0 - 15	4700	< 0.8	< 5	17	< 0.8	2400	23	5	19	12000	3	3100	140	< 1.5	26	< 1	16	26	18
Cedar Park Daycare #2, 1096 Dublin St., Sudbury This daycare is located in the same building as St. Raphael School, Sudbury Catholic District School Board. See St. Raphael School above for the results.																						
Centre Educatif Etoile du Nord at College Boreal, 21 Lasalle Boulevard, Sudbury																						
Area A sand	5037201	14477	0 - 15	5400	< 0.8	7	26	< 0.8	2500	25	13	**92**	15000	7	3900	190	< 1.5	**90**	< 1	17	29	41
Area B sand	5037202	14478	0 - 15	5500	< 0.8	6	24	< 0.8	2500	23	11	**69**	14000	6	3500	180	< 1.5	**65**	< 1	18	29	32
Circle of Friends, 106 Arlington Drive, Dowling																						
Area A sand	5037405	14561	0 - 15	4300	< 0.8	< 5	16	< 0.8	2900	25	5	10	12000	2	3000	140	< 1.5	16	< 1	14	29	14
Cotton Candy Daycare, 298 College Street, Sudbury																						
Area A sand	5037113	14257	0 - 15	5900	< 0.8	< 5	20	< 0.8	2900	27	6	21	14000	3	3300	180	< 1.5	27	< 1	25	30	17
		14258	0 - 15	5500	< 0.8	< 5	17	< 0.8	3000	28	5	20	13000	3	3000	180	< 1.5	25	< 1	25	31	17
Area B sand	5037114	14259	0 - 15	8200	< 0.8	< 5	27	< 0.8	3000	30	8	36	16000	4	3400	200	< 1.5	39	< 1	32	32	24
		14260	0 - 15	6900	< 0.8	< 5	24	< 0.8	3200	29	8	36	15000	4	4200	190	< 1.5	39	< 1	24	31	22
C.R. Judd Daycare at C.R. Judd Public School, 8 Lincoln Street, Capreol This daycare is located in the same building as C.R. Judd Public School, Rainbow District School Board. See C.R. Judd Public School above for the results.																						
Garderie du Triangle Magique at St. Agnes, 80 Rue Landry, Azilda																						
Area A sand	5037365	14487	0 - 15	4200	< 0.8	< 5	13	< 0.8	2500	21	4	8	9100	2	2000	130	< 1.5	15	< 1	18	23	13
Area B grass	5037366	14488	0 - 5	8500	< 0.8	5	31	< 0.8	5300	28	6	54	13000	12	2500	200	< 1.5	**69**	< 1	33	27	32
		14489	0 - 5	8500	< 0.8	< 5	34	< 0.8	5100	30	7	**64**	14000	14	3100	210	< 1.5	**71**	< 1	34	28	29
Area C sand	5037367	14490	0 - 15	3700	< 0.8	< 5	11	< 0.8	2100	21	3	8	8700	2	1900	120	< 1.5	14	< 1	15	21	15

Table F (results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A (results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.2: Concentration of 19 Elements in Soil in µg/g Collected on 25 Daycare Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Area D grass	5037368	14491	0 - 5	8100	< 0.8	5	30	< 0.8	5000	25	6	54	12000	14	2300	200	< 1.5	**65**	< 1	33	26	31
		14492	0 - 5	7800	< 0.8	5	27	< 0.8	3600	24	5	35	11000	10	2100	190	< 1.5	**44**	< 1	28	24	28
Area E sand	5037369	14493	0 - 15	4300	< 0.8	**23**	12	< 0.8	2700	30	3	27	11000	2	1900	150	< 1.5	14	< 1	23	26	15
Area F grass	5037370	14494	0 - 5	7600	< 0.8	6	27	< 0.8	3900	24	5	45	11000	11	2100	180	< 1.5	**53**	< 1	30	24	25
		14495	0 - 5	8000	< 0.8	6	28	< 0.8	4200	25	5	46	12000	11	2200	190	< 1.5	**54**	< 1	31	26	25
Garderie Jardiniere Francophone, 4752 rue Notre Dame, Hanmer This daycare is located in the same building as E.P. Foyer Jeunesse, Conseil Scolaire du District de Grand Nord de L'Ontario. See E.P. Foyer Jeunesse above for the results.																						
Garderie Jardiniere Francophone formerly at Ecole Notre Dame, 4503 Rue Dennie, Hanmer																						
Area A sand	5037325	14625	0 - 15	5500	< 0.8	< 5	22	< 0.8	2000	32	6	27	14000	4	3800	190	< 1.5	22	< 1	10	36	35
Area B gravel	5037326	14626	0 - 5	5200	< 0.8	< 5	20	< 0.8	2200	32	**33**	**80**	23000	13	4300	170	< 1.5	**67**	< 1	11	33	53
		14627	0 - 5	6000	< 0.8	< 5	22	< 0.8	2600	32	**22**	**60**	20000	11	4400	170	< 1.5	**48**	< 1	15	31	41
Jubilee Heritage Centre formerly at St. Francis, 691 Lilac Street, Sudbury																						
Area A soil	5037072	14146	0 - 5	8200	< 0.8	< 5	31	< 0.8	3300	30	8	56	14000	7	3600	180	< 1.5	**69**	< 1	26	28	27
		14147	0 - 5	6900	< 0.8	< 5	27	< 0.8	2800	29	8	**62**	13000	7	3700	170	< 1.5	**74**	< 1	21	28	26
Area B sand	5037073	14148	0 - 15	6000	< 0.8	< 5	21	< 0.8	2800	27	7	22	14000	3	4100	170	< 1.5	25	< 1	21	26	18
Junior Citizens Daycare (formerly Little Ones Corner), 210 Lloyd Street, Sudbury																						
Area A grass	5037136	14238	0 - 5	9400	< 0.8	< 5	41	< 0.8	5000	34	8	**86**	14000	16	3000	220	< 1.5	**94**	< 1	39	30	46
		14239	0 - 5	9000	< 0.8	< 5	39	< 0.8	4500	35	9	**67**	14000	11	3300	210	< 1.5	**76**	< 1	37	31	38
Area B sand	5037137	14240	0 - 15	6000	< 0.8	< 5	22	< 0.8	2700	30	7	32	14000	6	3700	170	< 1.5	33	< 1	19	27	24
		14241	0 - 15	7800	< 0.8	< 5	29	< 0.8	3400	34	8	32	17000	5	4700	200	< 1.5	36	< 1	27	33	30
Area C sand	5037138	14242	0 - 15	6400	< 0.8	< 5	22	< 0.8	2500	26	7	35	12000	7	3700	170	< 1.5	40	< 1	21	23	26
		14243	0 - 15	6700	< 0.8	< 5	22	< 0.8	2900	27	7	38	13000	7	3700	170	< 1.5	43	< 1	23	25	27
La Garderie Touche a Tout, Laurentian University																						
Area A sand	5037058	14126	0 - 15	5400	< 0.8	< 5	20	< 0.8	3400	25	6	22	14000	3	3300	160	< 1.5	24	< 1	23	31	18
Area B grass	5037059	14127	0 - 5	11000	< 0.8	< 5	40	< 0.8	12000	37	6	37	15000	9	7300	220	< 1.5	**57**	< 1	47	34	24
		14128	0 - 5	11000	< 0.8	< 5	40	< 0.8	12000	37	6	39	16000	9	7100	210	< 1.5	**58**	< 1	45	33	24
Area C sand	5037060	14129	0 - 15	5800	< 0.8	< 5	19	< 0.8	3200	24	6	15	15000	2	3200	150	< 1.5	21	< 1	18	29	14

Table F (results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A (results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.2: Concentration of 19 Elements in Soil in µg/g Collected on 25 Daycare Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Area D grass	5037061	14130	0 - 5	11800	< 0.8	< 5	44	< 0.8	7100	36	8	49	16000	10	4400	210	< 1.5	**73**	< 1	43	35	31
		14131	0 - 5	10000	< 0.8	< 5	40	< 0.8	8100	34	7	43	14000	9	5000	210	< 1.5	**64**	< 1	43	32	25
Laurentian Child & Family Centre, Laurentian University																						
Area A sand	5037062	14115	0 - 15	3200	< 0.8	< 5	12	< 0.8	1500	15	3	6	7400	2	2100	100	< 1.5	11	< 1	15	16	9
Area B sand	5037063	14116	0 - 15	4500	< 0.8	< 5	17	< 0.8	3100	24	6	16	13000	3	3400	150	< 1.5	22	< 1	18	29	16
		14117	0 - 15	4500	< 0.8	< 5	17	< 0.8	3000	24	6	17	13000	3	3200	150	< 1.5	22	< 1	18	31	16
Area C sand	5037064	14122	0 - 15	4100	< 0.8	< 5	16	< 0.8	2200	20	4	8	9200	2	2200	120	< 1.5	12	< 1	18	22	10
Area D sand	5037065	14123	0 - 15	7700	< 0.8	< 5	23	< 0.8	4100	30	8	25	16000	3	4400	190	< 1.5	29	< 1	31	33	18
Area E grass	5037066	14118	0 - 5	11000	< 0.8	< 5	42	< 0.8	9500	37	6	37	15000	10	4900	230	< 1.5	**59**	< 1	50	34	28
		14119	0 - 5	11000	< 0.8	< 5	44	< 0.8	10000	37	6	37	15000	10	5400	230	< 1.5	**60**	< 1	51	35	28
Area F grass	5037067	14120	0 - 5	12000	< 0.8	< 5	44	< 0.8	12000	38	6	39	16000	10	6100	240	< 1.5	**60**	< 1	50	35	30
		14121	0 - 5	12000	< 0.8	< 5	45	< 0.8	11000	41	6	37	16000	11	5700	240	< 1.5	**58**	< 1	50	35	31
Area G grass	5037068	14124	0 - 5	11000	< 0.8	< 5	46	< 0.8	11000	38	6	41	15000	10	5600	240	< 1.5	**60**	< 1	49	35	30
		14125	0 - 5	11000	< 0.8	6	45	< 0.8	11000	37	6	41	15000	10	5300	230	< 1.5	**60**	< 1	50	34	31
Maple Tree Preschool Inc. #2 at St. Benedict Secondary, 2993 Algonquin Road, Sudbury																						
Area A grass	5037026	14064	0 - 5	8200	< 0.8	< 5	29	< 0.8	6400	29	6	22	14000	6	4400	180	< 1.5	35	< 1	31	27	22
		14065	0 - 5	8500	< 0.8	6	34	< 0.8	7000	30	6	27	14000	6	4100	200	< 1.5	41	< 1	35	30	24
Area B sand	5037027	14067	0 - 15	6700	< 0.8	< 5	24	< 0.8	3400	32	6	18	15000	3	3600	180	< 1.5	20	< 1	29	31	17
Area C sand	5037028	14066	0 - 15	6400	< 0.8	< 5	21	< 0.8	3100	28	6	19	14000	3	3700	170	< 1.5	22	< 1	26	28	17
Maple Tree Preschool Inc. #1 , 158 John Street, Sudbury																						
Area A grass	5037087	14173	0 - 5	6300	< 0.8	< 5	27	< 0.8	2400	21	6	55	9000	8	2100	110	< 1.5	**75**	< 1	20	21	28
		14174	0 - 5	7900	< 0.8	< 5	30	< 0.8	3700	24	6	**67**	11000	9	2300	140	< 1.5	**86**	< 1	29	25	27
		14175	5 - 10	8400	< 0.8	< 5	30	< 0.8	3300	26	6	**59**	12000	11	2600	160	< 1.5	**65**	< 1	29	26	29
		14176	5 - 10	7500	< 0.8	< 5	29	< 0.8	3000	25	7	43	11000	8	2400	140	< 1.5	**54**	< 1	26	25	26
		14177	10 - 20	8100	< 0.8	7	29	< 0.8	2800	28	11	**160**	15000	27	2900	170	< 1.5	**160**	< 1	21	30	37
		14178	10 - 20	6600	< 0.8	5	24	< 0.8	2200	22	7	**91**	12000	17	2200	140	< 1.5	**99**	< 1	15	22	26

Table F (results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A (results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.2: Concentration of 19 Elements in Soil in µg/g Collected on 25 Daycare Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Area B sand	5037088	14172	0 - 15	4100	< 0.8	< 5	14	< 0.8	1500	17	4	10	8100	3	2400	110	< 1.5	17	< 1	14	16	10
Play and Learn Daycare, 1400 Barrydowne Road, Sudbury																						
Area A sand	5037172	14330	0 - 15	5000	< 0.8	< 5	18	< 0.8	3300	25	6	14	13000	2	3200	150	< 1.5	21	< 1	21	29	17
Area B sand	5037173	14332	0 - 15	6100	< 0.8	< 5	22	< 0.8	3100	31	9	29	15000	4	3300	170	< 1.5	34	< 1	23	31	23
Princess Anne Kids at Princess Anne Public School, 500 Douglas St., Sudbury This daycare is operated by Larch Street Kids and is located in the same building as Princess Anne Public School, Rainbow District School Board. See Princess Anne Public School above for the results.																						
RJ Kids at Robert Jack Public School, 7 Margaret Street, Garson																						
Area A gravel	5037275	14428	0 - 5	5400	< 0.8	6	25	< 0.8	2900	23	7	23	11000	4	2700	140	< 1.5	31	< 1	19	25	18
Area B sand	5037275	14429	0 - 15	4600	< 0.8	5	18	< 0.8	2800	25	6	15	12000	3	2800	150	< 1.5	22	< 1	17	29	17
Services De Garde De Rayside - Balfour #1, 30 Hill Street, Chelmsford																						
Area A sand	5037379	14514	0 - 15	4800	< 0.8	< 5	14	< 0.8	2700	22	6	15	12000	4	2900	150	< 1.5	18	< 1	21	25	18
Area B sand	5037378	14515	0 - 15	4600	< 0.8	< 5	11	< 0.8	2500	22	5	11	10000	3	2700	120	< 1.5	17	< 1	18	22	15
		14516	0 - 15	4800	< 0.8	< 5	16	< 0.8	2500	24	7	18	13000	4	3400	160	< 1.5	20	< 1	18	29	21
Area C sand	5037380	14517	0 - 15	4700	< 0.8	< 5	12	< 0.8	2500	25	5	13	10000	3	2900	130	< 1.5	18	< 1	18	25	17
Area D grass	5037381	14518	0 - 5	8400	< 0.8	7	32	< 0.8	4200	27	8	48	12000	17	2600	200	< 1.5	**66**	< 1	32	26	30
		14519	0 - 5	10000	< 0.8	5	36	< 0.8	5200	30	7	38	13000	15	2800	210	< 1.5	**58**	< 1	40	29	28
Services De Garde De Rayside - Balfour #2 at Chelmsford Public School, 121 Charlotte Street, Chelmsford This daycare is located in the same building as Chelmsford Public School, Rainbow District School Board. See Chelmsford Public School above for the results.																						
Shooting Star Daycare, 4120 Elmview Drive, Hanmer																						
Area A sand	5037312	14644	0 - 15	7700	< 0.8	< 5	32	< 0.8	3900	35	11	26	15000	5	3700	230	< 1.5	**60**	< 1	30	33	27
Area B sand	5037313	14645	0 - 15	5100	< 0.8	< 5	22	< 0.8	2800	30	6	16	14000	3	3700	170	< 1.5	23	< 1	16	30	18
Area C sand	5037314	14646	0 - 15	5700	< 0.8	< 5	25	< 0.8	2800	32	10	20	15000	4	4200	200	< 1.5	27	< 1	18	33	22

Table F (results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A (results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.2: Concentration of 19 Elements in Soil in µg/g Collected on 25 Daycare Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Area D sand	5037315	14647	0 - 15	6000	< 0.8	< 5	23	< 0.8	3000	30	7	18	15000	4	4100	190	< 1.5	26	< 1	21	31	22
Area E sand	5037316	14648	0 - 15	5000	< 0.8	< 5	20	< 0.8	2900	28	6	14	13000	3	3300	170	< 1.5	22	< 1	18	29	16
Area F soil	5037317	14649	0 - 5	8200	< 0.8	< 5	28	< 0.8	4100	28	5	16	12000	6	2300	190	< 1.5	34	< 1	33	28	17
		14650	0 - 5	7800	< 0.8	< 5	27	< 0.8	4100	27	4	12	12000	5	2300	200	< 1.5	28	< 1	34	27	15
Smiles 'N' Freckles Inc. Daycare, 63 Ridgemont Avenue, Sudbury																						
Area A sand	5037150	14363	0 - 15	4800	< 0.8	< 5	21	< 0.8	4500	23	7	18	13000	33	3500	150	< 1.5	20	< 1	17	28	17
		14364	0 - 15	5200	< 0.8	< 5	21	< 0.8	5200	25	8	19	14000	3	3900	160	< 1.5	21	< 1	18	33	19
St. Albert Child Care Centre, 135 Eyre Street, Sudbury																						
Area A grass	5037105	14221	0 - 5	8100	< 0.8	< 5	40	< 0.8	4200	28	5	20	12000	5	3400	170	< 1.5	29	< 1	25	28	17
		14222	0 - 5	8400	< 0.8	< 5	45	< 0.8	4200	29	6	20	13000	5	3400	170	< 1.5	31	< 1	27	28	18
Teddy Bear Daycare #1 at First Baptist Church, 2503 Falconbridge Highway																						
Area A sand	5037268	14430	0 - 15	4800	< 0.8	6	20	< 0.8	2500	23	6	17	12000	3	3000	150	< 1.5	22	< 1	16	30	16
		14431	0 - 15	5400	< 0.8	5	25	< 0.8	3500	26	6	16	13000	3	3300	170	< 1.5	23	< 1	25	31	17
Teddy Bear Daycare #2 at Falconbridge Recreation Centre, Edison Road, Falconbridge																						
Area A sand	5037360	14760	0 - 15	4400	< 0.8	< 5	17	< 0.8	2200	20	5	14	10000	2	2600	130	< 1.5	21	< 1	17	22	13
		14761	0 - 15	5000	< 0.8	< 5	21	< 0.8	2600	21	5	13	11000	2	2600	140	< 1.5	19	< 1	20	25	14
Teddy Bear Daycare #3, 181 William St., Garson This daycare is located in the same building as St. John School, Sudbury Catholic District School Board. See St. John School above for the results.																						
Valley East Co-op-at Raymond Plourde Arena, 1919 Helene Street, Val Caron																						
Area A grass	5037296	14788	0 - 5	9900	< 0.8	7	29	< 0.8	2700	24	4	43	12000	10	1800	140	< 1.5	**50**	1	27	25	27
		14789	0 - 5	9300	< 0.8	< 5	29	< 0.8	2900	24	4	42	11000	11	1800	140	< 1.5	**54**	< 1	31	26	26
Area B sand	5037297	14790	0 - 15	7300	< 0.8	< 5	22	< 0.8	3000	42	7	28	20000	4	4500	230	< 1.5	28	< 1	23	50	25
Area C sand	5037298	14791	0 - 15	8400	< 0.8	< 5	32	< 0.8	3400	46	8	35	21000	5	4900	260	< 1.5	28	< 1	27	47	38
Area D sand	5037299	14792	0 - 15	8500	< 0.8	< 5	29	< 0.8	3400	50	11	36	24000	5	4800	280	< 1.5	29	< 1	26	59	30
Area E sand	5037300	14793	0 - 15	9600	< 0.8	< 5	43	< 0.8	3700	52	8	48	23000	6	5500	300	< 1.5	30	< 1	33	56	36

Table F (results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A (results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

Table B4.2: Concentration of 19 Elements in Soil in µg/g Collected on 25 Daycare Properties in the Sudbury Area in the Summer of 2001

Map ID	Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Area F sand	5037301	14794	0 - 15	6800	< 0.8	< 5	22	< 0.8	2900	45	7	26	21000	4	4300	230	< 1.5	27	< 1	23	54	39
Area G sand	5037302	14795	0 - 15	8300	< 0.8	< 5	28	< 0.8	3100	50	8	39	26000	6	5000	240	< 1.5	35	< 1	25	56	35
Area H sand	5037303	14796	0 - 15	7000	< 0.8	< 5	29	< 0.8	2800	55	8	33	23000	5	4500	230	< 1.5	30	< 1	21	56	32
Walden Daycare Centre #1, 500 Niemi Drive, Lively																						
Area A grass	5037238	14711	0 - 5	8800	< 0.8	< 5	37	< 0.8	4200	30	6	38	12000	8	2800	200	< 1.5	**49**	< 1	31	29	27
		14712	0 - 5	10000	< 0.8	< 5	39	< 0.8	4400	31	7	42	14000	9	2800	210	< 1.5	**52**	< 1	36	31	30
Area B sand	5037239	14718	0 - 15	5700	< 0.8	< 5	19	< 0.8	3000	29	8	20	13000	3	3800	170	< 1.5	21	< 1	19	30	19
	5037240	14713	0 - 15	5800	< 0.8	< 5	22	< 0.8	3900	28	7	18	12000	3	4100	180	< 1.5	18	< 1	24	29	17
Area C mulch	5037241	14714	0 - 15	5900	< 0.8	< 5	20	< 0.8	4000	27	8	34	13000	4	3700	170	< 1.5	35	< 1	25	27	22
Area D sand	5037242	14715	0 - 15	5200	< 0.8	< 5	18	< 0.8	2200	28	10	31	12000	5	3500	150	< 1.5	30	< 1	16	25	29
Area E grass	5037243	14716	0 - 5	9600	< 0.8	< 5	59	< 0.8	4900	38	17	**92**	18000	17	4000	260	< 1.5	**110**	< 1	36	34	51
		14717	0 - 5	9700	< 0.8	< 5	67	< 0.8	5000	36	13	**93**	17000	37	4000	270	< 1.5	**95**	< 1	39	37	58
Walden Daycare Centre #2 at St. James School, 280 Anderson Drive, Lively This daycare is located in the same building as St. James School, Sudbury Catholic District School Board. See St. James School above for the results.																						
Walden Play and Learn, 3 Westview Crescent, Lively																						
Area A sand	5037236	14709	0 - 15	7800	< 0.8	< 5	32	< 0.8	4900	28	6	53	18000	4	4700	160	< 1.5	25	< 1	26	29	27
Area B sand	5037237	14710	0 - 15	8300	< 0.8	< 5	26	< 0.8	4600	30	7	28	17000	6	4700	220	< 1.5	28	< 1	35	38	24
Area C grass	5037235	14707	0 - 5	11000	< 0.8	< 5	30	< 0.8	3200	21	6	41	14000	10	2600	110	< 1.5	**73**	< 1	23	22	21
		14708	0 - 5	9100	< 0.8	< 5	45	< 0.8	2700	30	6	**61**	13000	8	2700	160	< 1.5	**73**	< 1	33	31	31

Table F (results in bold)	NG	1.0	14	190	1.0	NG	67	19	56	NG	55	NG	NG	2.5	43	1.4	NG	91	150
Table A (results in bold and underlined)	NG	13	20	750	12.0	NG	750	40	225	NG	200	NG	NG	5.0	150	10	NG	200	600

< - less than the Method Detection Limit. All beryllium (Be) results were <0.5 µg/g. NG - no guideline.

5.0 SAMPLING LOCATION COORDINATES

Table B5: Coordinates of School and Daycare Sampling Stations, in Map Datum NAD83
(coordinates were obtained using GPS and are accurate to approximately 30 m)

Station	Location	UTM		Geographic	
		Easting	Northing	Longitude	Latitude
5037002	Wanup Public School	513421	5136174	-80.825479	46.379009
5037003		513391	5136143	-80.82587	46.378728
5037004		513381	5136126	-80.826001	46.378575
5037005		513416	5136134	-80.825545	46.378647
5037006	Baron Academy Nursery (formerly)	504563	5142525	-80.940603	46.436281
5037007		504548	5142493	-80.940798	46.435993
5037008	All Nations -South End	504075	5142258	-80.946957	46.433884
5037009		504093	5142247	-80.946723	46.433782
5037010		504107	5142270	-80.946541	46.433989
5037011		504110	5142247	-80.946502	46.433782
5037012		504103	5142260	-80.946593	46.433899
5037013	St. Christopher	503249	5141813	-80.957712	46.429881
5037014		503186	5141847	-80.958532	46.430187
5037015		503203	5141834	-80.958311	46.43007
5037016	Algonquin Road Public School	500354	5142554	-80.995392	46.43656
5037017		500352	5142556	-80.995418	46.436578
5037018		500338	5142571	-80.9956	46.436713
5037019		500337	5142626	-80.995613	46.437206
5037020		500359	5142617	-80.995327	46.437127
5037021	Long Lake Public School	500548	5139146	-80.992871	46.405887
5037022		500550	5139207	-80.992844	46.406436
5037023	St. Benedict Secondary	501210	5142163	-80.98425	46.43304
5037024		501210	5142212	-80.98425	46.433481
5037025		501213	5142115	-80.984211	46.432608
5037026	Maple Tree Preschool Inc. #2	501212	5142383	-80.984224	46.43502
5037027		501227	5142383	-80.984028	46.43502
5037028		501212	5142368	-80.984224	46.434885
5037029	Lo-Ellen Park Secondary	500831	5143846	-80.98918	46.448187
5037030		500853	5143857	-80.988894	46.448286
5037031		500788	5143820	-80.98974	46.447953
5037032	R.L. Beattie Public School	500437	5144126	-80.99431	46.450708
5037033		500443	5144122	-80.994232	46.450672
5037034		500469	5144164	-80.993893	46.451047
5037035		500435	5144164	-80.994336	46.451047
5037036		500505	5144164	-80.993425	46.451047
5037037		500456	5144130	-80.994063	46.450744
5037038		500511	5144109	-80.993346	46.450555
5037039	Corpus Christi	498293	5145309	-81.022231	46.461352
5037040		498275	5145294	-81.022465	46.461217

Table B5: Coordinates of School and Daycare Sampling Stations, in Map Datum NAD83
(coordinates were obtained using GPS and are accurate to approximately 30 m)

Station	Location	UTM		Geographic	
		Easting	Northing	Longitude	Latitude
5037041	E.P. Sud Ouest Publique (Helene-Gravel)	498106	5145238	-81.024666	46.460713
5037042		498138	5145257	-81.024249	46.460884
5037043		498109	5145272	-81.024627	46.461019
5037044		498093	5145272	-81.024835	46.461019
5037045		498136	5145272	-81.024275	46.461019
5037046		498087	5145298	-81.024913	46.461253
5037047	MacLeod Public School	499542	5145464	-81.005965	46.462746
5037048		499540	5145431	-81.005991	46.462449
5037049		499533	5145493	-81.006082	46.46301
5037050	St. Theresa	499819	5145670	-81.002357	46.464603
5037051		499820	5145672	-81.002344	46.464621
5037052		499833	5145672	-81.002175	46.464621
5037053		499843	5145666	-81.002045	46.464567
5037055	Lockerby Composite School	499666	5145812	-81.00435	46.465881
5037056		499663	5145857	-81.004389	46.466286
5037057		499665	5145784	-81.004363	46.465629
5037058	La Garderie Touche a Tout Daycare	502578	5145537	-80.966425	46.463399
5037059		502566	5145544	-80.966581	46.463462
5037060		502582	5145545	-80.966373	46.463471
5037061		502570	5145552	-80.966529	46.463534
5037062	Laurentian Child & Family Centre	502581	5145486	-80.966386	46.46294
5037063		502554	5145507	-80.966738	46.463129
5037064		502565	5145510	-80.966594	46.463156
5037065		502569	5145519	-80.966542	46.463237
5037066		502550	5145517	-80.96679	46.463219
5037067		502555	5145527	-80.966725	46.463309
5037068		502567	5145530	-80.966568	46.463336
5037069	St. Francis	498970	5146965	-81.013418	46.476257
5037070		498933	5146989	-81.0139	46.476473
5037071		498924	5147049	-81.014017	46.47701
5037072	Jubilee Heritage Centre formerly at St. Francis	498947	5147095	-81.013717	46.477427
5037073		498960	5147087	-81.013548	46.477355
5037074	St. Denis	499547	5147138	-81.005901	46.477812
5037075		499526	5147161	-81.006175	46.478019
5037076		499554	5147214	-81.00581	46.478496
5037077	Wembley Public School	499558	5147460	-81.005758	46.480712
5037078		499591	5147478	-81.005328	46.480875
5037079		499531	5147452	-81.00611	46.48064
5037080		499580	5147496	-81.005472	46.481034
5037081		499507	5147441	-81.006423	46.480541
5037082		499621	5147457	-81.004938	46.480686
5037083	St. Michael	500380	5147489	-80.995049	46.480974

Table B5: Coordinates of School and Daycare Sampling Stations, in Map Datum NAD83
(coordinates were obtained using GPS and are accurate to approximately 30 m)

Station	Location	UTM		Geographic	
		Easting	Northing	Longitude	Latitude
5037084	Alexander Public School	500349	5147908	-80.995453	46.484744
5037085		500385	5147894	-80.994984	46.484618
5037086	Alexander Public School & Alex. Kids	500392	5147889	-80.994893	46.484573
5037087	Maple Tree Preschool Inc. #1	500715	5147777	-80.990685	46.483565
5037088		500715	5147776	-80.990685	46.483556
5037089	E.P. Jeanne-Sauve	500965	5148383	-80.987426	46.489016
5037090		500960	5148380	-80.987491	46.488989
5037091		500913	5148403	-80.988104	46.489196
5037092		500890	5148322	-80.988404	46.488467
5037093		500890	5148312	-80.988404	46.488377
5030970		500970	5148105	-80.987362	46.486514
5037094	St. Thomas (formerly)	501602	5148531	-80.979126	46.490349
5037095		501578	5148558	-80.979438	46.490592
5037096		501568	5148571	-80.979569	46.490709
5037097		501571	5148552	-80.97953	46.490535
5037098	Gatchell School	497959	5146826	-81.026587	46.475004
5037099		497971	5146833	-81.026431	46.475067
5037100		497978	5146836	-81.026339	46.475091
5037101		497985	5146844	-81.026248	46.475166
5037102		497987	5146826	-81.026222	46.475001
5037103	St. Anthony	497960	5147227	-81.026576	46.47861
5037104		497960	5147200	-81.026576	46.478367
5037105	St. Albert Child Care Centre	499335	5148519	-81.008665	46.490243
5037106	Princess Anne Public School	499054	5148085	-81.012326	46.486337
5037106		499054	5148085	-81.012326	46.486337
5037107		499068	5148095	-81.012143	46.486427
5037108		499057	5148099	-81.012286	46.486463
5037109	Montessori School of Sudbury	499464	5148386	-81.006984	46.489043
5037110		499455	5148386	-81.007101	46.489043
5037111		499462	5148361	-81.00701	46.488818
5037113	Cotton Candy Daycare	500025	5149564	-80.999674	46.499648
5037114		500021	5149569	-80.999726	46.499693
5037115	Lansdowne Public School	499701	5149304	-81.003896	46.497305
5037116		499718	5149320	-81.003675	46.497449
5037117		499657	5149320	-81.00447	46.497449
5037118	St. David	499399	5149961	-81.007833	46.50322

Table B5: Coordinates of School and Daycare Sampling Stations, in Map Datum NAD83
(coordinates were obtained using GPS and are accurate to approximately 30 m)

Station	Location	UTM		Geographic	
		Easting	Northing	Longitude	Latitude
5037119	Queen Elizabeth Ii Public School	500474	5150353	-80.993822	46.506748
5037120		500454	5150353	-80.994083	46.506748
5037121		500494	5150353	-80.993561	46.506748
5037122		500448	5150308	-80.994161	46.506343
5037123		500445	5150375	-80.9942	46.506943
5037124		500382	5150380	-80.995021	46.506988
5037125		500341	5150363	-80.995555	46.506835
5037126		500422	5150399	-80.9945	46.507159
5037127	Sudbury Better Beginnings	500374	5149975	-80.995126	46.503347
5037128		500390	5149955	-80.994917	46.503164
5037129	St. Joseph - Sudbury	500319	5149845	-80.995843	46.502174
5037129		500319	5149845	-80.995843	46.502174
5037130		500415	5149845	-80.994591	46.502174
5037131	Sudbury Secondary School	500047	5149193	-80.999388	46.496309
5037132		500072	5149192	-80.999062	46.4963
5037133		500022	5149192	-80.999713	46.4963
5037134	Marymount Academy	500408	5149260	-80.994683	46.496912
5037135	College Notre Dame	500592	5149518	-80.992285	46.499234
5037136	Junior Citizens Daycare	500789	5148903	-80.989719	46.493699
5037137		500798	5148923	-80.989601	46.493879
5037138		500800	5148928	-80.989575	46.493924
5037139	St. Jean (formerly)	503095	5148974	-80.959669	46.494328
5037140		503113	5148925	-80.959435	46.493887
5037141	E.S.C l'Heritage	504699	5149363	-80.938763	46.497823
5037142		504699	5149411	-80.938763	46.498255
5037143		504697	5149310	-80.93879	46.497346
5037144	Adamsdale Public School	504734	5149054	-80.93831	46.495041
5037145		504709	5149040	-80.938636	46.494913
5037146		504709	5148992	-80.938637	46.494481
5037147		504729	5149023	-80.938376	46.49476
5037148	Pius XII	505407	5148576	-80.929546	46.490735
5037149	Ecole St. Remi (formerly)	507095	5148155	-80.907557	46.486927
5037150	Smiles 'N' Freckles Daycare	507597	5148120	-80.901017	46.486607
5037151	E.P. Jean-Ethier-Blais	506234	5152180	-80.918722	46.523159
5037152		506200	5152220	-80.919164	46.523519
5037153		506200	5152180	-80.919165	46.523159
5037154		506200	5152158	-80.919165	46.522961
5037155	St. Dominique	505958	5152452	-80.922317	46.525609
5037156		505908	5152480	-80.922968	46.525862
5037157		505977	5152483	-80.922068	46.525888
5037158		506042	5152522	-80.92122	46.526238
5037159		505950	5152524	-80.92242	46.526257

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Station	Location	UTM		Geographic	
		Easting	Northing	Longitude	Latitude
5037160	St. Charles College	505619	5151727	-80.926745	46.519091
5037161		505545	5151671	-80.927711	46.518587
5037162		505619	5151727	-80.926745	46.519091
5037163		505545	5151671	-80.927711	46.518587
5037164	St. Bernadette	505292	5151381	-80.931012	46.515979
5037165		505256	5151359	-80.931482	46.515782
5037166	Churchill Public School	504968	5151678	-80.935233	46.518652
5037167		504952	5151705	-80.935441	46.518895
5037168		504929	5151726	-80.935741	46.519084
5037169		504987	5151736	-80.934985	46.519173
5037170		505063	5151727	-80.933994	46.519092
5037171		505083	5151740	-80.933733	46.519209
5037172	Play and Learn Daycare	504614	5152820	-80.939837	46.528935
5037173		504614	5152820	-80.939837	46.528935
5037174	Westmount Avenue Public School	504605	5150640	-80.939976	46.509316
5037175		504582	5150659	-80.940275	46.509484
5037176		504575	5150685	-80.940366	46.509721
5037177		504549	5150694	-80.940705	46.509799
5037178		504518	5150709	-80.941109	46.509934
5037179		504564	5150701	-80.940509	46.509862
5037180		504563	5150719	-80.940522	46.510027
5037181	Ecole Leon XIII	504005	5150896	-80.947794	46.51162
5037182		503959	5150958	-80.948393	46.512179
5037183		503955	5150929	-80.948446	46.511918
5037184	Carl A. Nesbitt Public School	503841	5152248	-80.949921	46.523789
5037185		503841	5152226	-80.949921	46.523591
5037186		503841	5152267	-80.949921	46.52396
5037187		503849	5152279	-80.949816	46.524068
5037188		503788	5152379	-80.950611	46.524968
5037189		503788	5152320	-80.950611	46.524437
5037190		503788	5152347	-80.950611	46.52468
5037191		503793	5152238	-80.950547	46.523699
5037192		503788	5152277	-80.950612	46.52405
5037193	St. Raphael	503317	5151666	-80.956757	46.518557
5037194	Felix Ricard	502383	5151892	-80.968932	46.520592
5037195		502402	5151912	-80.968684	46.520771
5037196		502364	5151868	-80.96918	46.520376
5037197		502349	5151977	-80.969375	46.521357
5037198		502353	5152016	-80.969323	46.521708
5037199		502379	5152016	-80.968984	46.521708
5037200		502366	5152025	-80.969153	46.521789

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Station	Location	UTM		Geographic	
		Easting	Northing	Longitude	Latitude
5037201	Centre Educatif Etoile du Nord	500544	5151499	-80.992908	46.517062
5037202		500544	5151499	-80.992908	46.517062
5037203	E.S. Macdonald Cartier	500870	5151885	-80.988658	46.520532
5037204		500870	5151845	-80.988658	46.520172
5037205		500870	5151925	-80.988657	46.520892
5037206	Cedar Park Daycare	503361	5152630	-80.956176	46.527229
5037207		503358	5152625	-80.956215	46.527187
5037208	Ernie Checkeris Public School	503768	5153119	-80.950865	46.531631
5037209		503735	5153114	-80.951296	46.531583
5037210		503725	5153120	-80.951426	46.531637
5037211		503702	5153120	-80.951726	46.531637
5037212	St. Andrew	503993	5152573	-80.947936	46.526713
5037213		503990	5152478	-80.947976	46.525858
5037214		503979	5152431	-80.94812	46.525435
5037215	Lasalle Secondary	504654	5152456	-80.939319	46.525655
5037216		504654	5152420	-80.939319	46.525331
5037217		504603	5152435	-80.939984	46.525467
5037218		504704	5152435	-80.938667	46.525466
5037219	Sacred Heart (formerly)	505877	5152147	-80.923377	46.522868
5037220	Cyril Varney Public School	505778	5153103	-80.924655	46.531469
5037221		505738	5153103	-80.925177	46.53147
5037222		505818	5153103	-80.924134	46.531469
5037223		505712	5153115	-80.925516	46.531578
5037224		505709	5153090	-80.925555	46.531353
5037225		505709	5153058	-80.925556	46.531065
5037226		505719	5153028	-80.925426	46.530795
5037227	Jessie Hamilton Public School	491363	5140925	-81.1124	46.421842
5037228		491379	5140959	-81.112192	46.422148
5037229		491326	5140952	-81.112882	46.422084
5037230		491307	5140926	-81.113129	46.42185
5037231		491242	5140936	-81.113975	46.421939
5037232		491342	5140936	-81.112673	46.421941
5037233		491363	5140992	-81.112401	46.422445
5037234		491349	5140971	-81.112583	46.422256
5037235	Walden Play and Learn	489540	5140698	-81.136119	46.419776
5037236		489563	5140692	-81.135819	46.41972
5037237		489551	5140682	-81.135975	46.419629
5037238	Walden Daycare Centre	488827	5141553	-81.145418	46.427459
5037239		488811	5141557	-81.145626	46.427492
5037240		488809	5141556	-81.145652	46.427483
5037242		488835	5141564	-81.145314	46.427556
5037243		488832	5141571	-81.145353	46.427619

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Station	Location	UTM		Geographic	
		Easting	Northing	Longitude	Latitude
5037244	St. James	488546	5141945	-81.149084	46.430982
5037245	St. Paul	488584	5142397	-81.148601	46.435048
5037246		488561	5142436	-81.148901	46.435399
5037247	Lively District High School	489202	5142537	-81.14056	46.436318
5037248	George Vanier Public School	489176	5142672	-81.140901	46.437533
5037249		489169	5142690	-81.140993	46.437695
5037250		489218	5142689	-81.140355	46.437686
5037251		489238	5142718	-81.140095	46.437948
5037252		489240	5142749	-81.14007	46.438227
5037253		489233	5142778	-81.140162	46.438488
5037254	Copper Cliff Public School	494367	5146850	-81.073378	46.475196
5037255		494367	5146904	-81.073379	46.475682
5037256		494377	5146902	-81.073248	46.475665
5037257		494367	5146896	-81.073379	46.47561
5037258		494367	5146781	-81.073377	46.474576
5037259		494390	5146787	-81.073078	46.47463
5037260		494411	5146870	-81.072805	46.475377
5037261		494453	5146867	-81.072258	46.47535
5037262	Our Lady of Fatima	484984	5138653	-81.195341	46.401285
5037263	St. Paul	511593	5148986	-80.848931	46.494343
5037264		511604	5149029	-80.848787	46.49473
5037265	Notre Dame De La Merci	511426	5148991	-80.851107	46.494394
5037266	St. Pierre	505299	5148367	-80.930955	46.488854
5037267	Ecole St. Pierre (formerly)	516454	5148102	-80.785619	46.486289
5037268	Teddybear Daycare #1, First Baptist	508385	5154781	-80.89063	46.546546
5037269	St. Augustin	508982	5155316	-80.882833	46.55135
5037270		508954	5155302	-80.883198	46.551228
5037271		509012	5155302	-80.882442	46.551224
5037272	Robert Jack Public School	509964	5155582	-80.870017	46.55373
5037273		509940	5155603	-80.87033	46.553919
5037274		509881	5155550	-80.871101	46.553443
5037275	RJ Kids at Robert Jack Public School	509943	5155546	-80.870292	46.553406
5037276	St. John	510424	5155952	-80.864008	46.557053
5037277		510439	5156056	-80.86381	46.557989
5037278		510452	5155916	-80.863644	46.556728
5037279	E.S.C. l'Horizon	499337	5160295	-81.008656	46.596218
5037280		499293	5160255	-81.00923	46.595858
5037281	Valleyview Public School	498704	5160147	-81.016919	46.594885
5037282		498685	5160166	-81.017168	46.595056
5037283		498739	5160164	-81.016463	46.595038
5037284		498739	5160165	-81.016463	46.595047
5037285		498670	5160236	-81.017364	46.595686

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Station	Location	UTM		Geographic	
		Easting	Northing	Longitude	Latitude
5037286	Val Caron Public School	499562	5161840	-81.00572	46.610122
5037287		499573	5161787	-81.005576	46.609649
5037288	St. Kevin (Bishop Alexander C.C.S.S)	500126	5162193	-80.998354	46.613299
5037289		500105	5162111	-80.998629	46.612561
5037290	Notre Dame de l'Esperance	498850	5161790	-81.015017	46.609671
5037291		498862	5161770	-81.014861	46.609491
5037292		498907	5161759	-81.014273	46.609392
5037293	Immaculate Conception	499043	5162095	-81.012498	46.61242
5037294	Confederation Secondary School	498560	5162173	-81.018806	46.613118
5037295		498560	5162173	-81.018806	46.613118
5037296	Valley East Co-op-Raymond Plourde Arena	498574	5162426	-81.018624	46.615394
5037297		498586	5162410	-81.018467	46.61525
5037298		498564	5162410	-81.018754	46.61525
5037299		498564	5162422	-81.018754	46.615358
5037300		498565	5162434	-81.018741	46.615466
5037301		498564	5162445	-81.018754	46.615565
5037302		498586	5162445	-81.018467	46.615565
5037303		498586	5162431	-81.018467	46.615439
5037304	Notre Dame du Rosaire	496033	5161353	-81.0518	46.605728
5037305		495982	5161353	-81.052466	46.605728
5037306	Ste. Therese	499777	5166711	-81.002914	46.653962
5037307		499778	5166766	-81.002901	46.654453
5037308		499750	5166702	-81.003267	46.653877
5037309	St. Joseph - Hanmer	500521	5166250	-80.993191	46.649809
5037310		500502	5166242	-80.99344	46.649737
5037311		500521	5166230	-80.993191	46.649629
5037312	Shooting Star Daycare	501085	5165040	-80.985824	46.638919
5037313		501085	5165055	-80.985824	46.639054
5037314		501085	5165070	-80.985824	46.639189
5037315		501085	5165085	-80.985824	46.639324
5037316		501105	5165055	-80.985562	46.639054
5037317		501105	5165095	-80.985562	46.639414
5037318	Pinecrest Public School	499247	5165110	-81.009839	46.63955
5037319		499209	5165061	-81.010335	46.639109
5037320		499218	5165050	-81.010217	46.63901
5037321		499248	5165029	-81.009825	46.638821
5030971		499214	5165065	-81.01027	46.639149
5037322	Northeastern Secondary	510767	5156256	-80.859526	46.559783
5037323		510852	5156240	-80.858418	46.559638
5037324		510877	5156215	-80.858092	46.559416
5037325	Garderie Jardiniere Francophone formerly at Ecole ND	504106	5166467	-80.94634	46.651754
5037326		504071	5166467	-80.946797	46.651754

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Station	Location	UTM		Geographic	
		Easting	Northing	Longitude	Latitude
5037327	Notre Dame	504074	5166374	-80.946759	46.650913
5037328		504024	5166435	-80.947411	46.651462
5037329		504017	5166390	-80.947503	46.651057
5037330	St. Michel	505121	5166475	-80.933075	46.651819
5037331		505120	5166432	-80.933088	46.651432
5037332	Redwood Acres Public School	504610	5166820	-80.939749	46.654923
5037333		504640	5166820	-80.939357	46.654923
5037334		504580	5166820	-80.940141	46.654923
5037335		504665	5166807	-80.939031	46.654806
5037336		504665	5166858	-80.93903	46.655265
5037337		504665	5166775	-80.939031	46.654518
5037338		504610	5166710	-80.93975	46.653933
5037339	E.S. Hanmer	504373	5167420	-80.942841	46.660324
5037340		504290	5167420	-80.943926	46.660325
5037341		504373	5167378	-80.942842	46.659946
5037342		504331	5167420	-80.94339	46.660325
5037343	E.P. Foyer Jeunesse & Garderie Jardiniere Francophone	504335	5167218	-80.94334	46.658507
5037344		504296	5167218	-80.943849	46.658507
5037345		504296	5167186	-80.94385	46.658219
5037345		504296	5167186	-80.94385	46.658219
5037346		504335	5167186	-80.94334	46.658219
5037347	St. Anne	502556	5167032	-80.966593	46.656842
5037348		502528	5166999	-80.966959	46.656545
5037349		502512	5166976	-80.967168	46.656338
5037350		502491	5166951	-80.967443	46.656113
5037351	Capreol High School - Millennium Centre	506018	5172175	-80.921277	46.703103
5037352	St. Mary	505992	5172126	-80.921618	46.702662
5037353	Capreol Child Care Centre at St. Mary	505966	5172085	-80.921959	46.702294
5037354	C.R. Judd Public School	505983	5173357	-80.92172	46.713745
5037355		505970	5173304	-80.921891	46.713264
5037356		506003	5173344	-80.921458	46.713623
5037357	Falconbridge Public School	514090	5158361	-80.816108	46.578669
5037358		514066	5158358	-80.816422	46.578639
5037359		514102	5158364	-80.815951	46.578692
5037360	Teddy Bear Daycare #2 - Centennial Park	514311	5158361	-80.813224	46.578664
5037361	E.P. Franco Nord	492131	5154824	-81.10264	46.546936
5037362		492114	5154881	-81.102863	46.547449
5037363		492122	5154777	-81.102757	46.546513
5037364		492104	5154817	-81.102992	46.546873

Table B5: Coordinates of School and Daycare Sampling Stations, in Map Datum NAD83
(coordinates were obtained using GPS and are accurate to approximately 30 m)

Station	Location	UTM		Geographic	
		Easting	Northing	Longitude	Latitude
5037365	Garderie du Triangle Magique at St. Agnes	491631	5155040	-81.109166	46.548874
5037366		491640	5155040	-81.109049	46.548874
5037367		491631	5155065	-81.109166	46.549099
5037368		491640	5155065	-81.109049	46.549099
5037369		491631	5155090	-81.109167	46.549324
5037370		491640	5155090	-81.109049	46.549324
5037371	Association for Community Living	491740	5155052	-81.107744	46.548987
5037372		491736	5155054	-81.107797	46.549005
5037373	Ste. Marie	491174	5155525	-81.115136	46.553236
5037374		491094	5155490	-81.116179	46.55292
5037375	Chelmsford Valley District School	485137	5157538	-81.193954	46.571242
5037376		485092	5157575	-81.194542	46.571574
5037377		485188	5157575	-81.19329	46.571577
5037378	Services De Garde De Rayside - Balfour	484963	5157769	-81.196232	46.573317
5037379		484955	5157762	-81.196336	46.573254
5037380		484963	5157757	-81.196232	46.573209
5037381		484976	5157762	-81.196062	46.573255
5037382	E.S.C. Champlain	484706	5157571	-81.199579	46.57153
5037383		484666	5157623	-81.200103	46.571997
5037384		484724	5157631	-81.199346	46.57207
5037385	Jacques Cartier	484304	5157925	-81.204837	46.574706
5037386		484332	5157910	-81.204471	46.574572
5037387		484388	5157933	-81.203741	46.57478
5037388	Chelmsford Public School	485482	5158252	-81.189474	46.577676
5037389		485413	5158260	-81.190375	46.577746
5037390		485406	5158302	-81.190468	46.578124
5037391		485526	5158359	-81.188903	46.578639
5037392	Mgr Cote	485189	5158328	-81.193301	46.578353
5037393		485189	5158368	-81.193302	46.578713
5037394	St. Charles	485523	5158757	-81.188955	46.582221
5037395		485495	5158788	-81.189321	46.5825
5037396	St. Joseph - Chelmsford	484741	5159125	-81.199174	46.585516
5037397		484726	5159057	-81.199367	46.584903
5037398		484770	5159074	-81.198794	46.585057
5037399		484770	5159033	-81.198792	46.584688
5037400	St. Etienne	474810	5159821	-81.328838	46.59148
5037401		474830	5159821	-81.328577	46.591481
5037402	Larchwood Public School	474275	5159085	-81.335781	46.584836
5037403		474275	5159109	-81.335782	46.585052
5037404		474258	5159116	-81.336005	46.585115
5037405	Circle of Friends	473496	5159299	-81.345961	46.586735

Table B5: Coordinates of School and Daycare Sampling Stations, in Map Datum NAD83
(coordinates were obtained using GPS and are accurate to approximately 30 m)

Station	Location	UTM		Geographic	
		Easting	Northing	Longitude	Latitude
5037406	Levack Public School (formerly)	469960	5165490	-81.392518	46.642297
5037407		469920	5165430	-81.393037	46.641755
5037408	Levack District High School (now Levack	469638	5165811	-81.396747	46.645171
5037409	R.H. Murray Public School	475745	5136367	-81.31541	46.380444
5037410		475745	5136367	-81.31541	46.380444
5037411		475684	5136429	-81.316207	46.380997

City of Greater Sudbury 2001 Urban Soil Survey

Appendix C

Park Results

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1. METHODS

During the months of September and October of 2001, samples were collected from 169 park properties including those provided by the city as of July 2001, as well as additional properties MOE located that were not listed by the city. At each site samples were collected in duplicate from all play areas and especially from areas where young children could come in direct contact with bare soil. Samples were collected in different ways from different locations as described below.

Sand samples were collected from beneath all play structures and/or beach areas. Due to the constant mixing of sand and homogenous nature of the sanded areas, sand samples were collected with hand trowels or corers to represent the 0-15 cm depth. Duplicate samples were collected in a reproducible and representative manner of the sanded areas (ie. “X” pattern)

Soccer and football fields were sampled in duplicate with a soil corer in an “X” pattern of the entire length of the field. Cores were separated into three depths, 0-5 cm, 5 - 10 cm, and 10 - 20 cm where possible. In addition, duplicate samples were taken in any worn area; most predominately at soccer goal posts and centre field. Due to the compacted nature of these areas, surface soil samples were taken with a trowel when necessary.

Baseball diamond infields were in most cases gravel and very compacted. Therefore, duplicate surface samples were taken with a trowel or corer while walking along the baseline. Baseball diamond outfields were sampled in duplicate with soil corers in an “X” or “M” pattern. Cores were separated into three depths, 0-5 cm, 5 - 10 cm, and 10 - 20 cm where possible. Where the infield was grassed, samples were collected with a soil corer either as a separate site or combined with the baseball diamond outfield.

Sand from long jump pit landing sites was sampled in duplicate in an “X” pattern. A hand trowel or corer was used to sample the 0 to 15 cm layer due to the constant mixing of the sand in this location.

Samples were also taken from any grassed area where children would play. Cores were separated into three depths, 0-5 cm, 5 - 10 cm, and 10 - 20 cm where possible.

Soil samples were delivered to the MOE Phytotoxicology laboratory where they were organized and shipped to Agat Laboratories for Processing (MOE 2000, Appendix F). Agat followed MOE Standard Operating Procedures which included air drying and sieving samples to obtain the 2 mm size fraction, and then further grinding the sample in a mortar and pestle to pass though a Number 45 mesh (0.355 mm) sieve. Finally, the ground material was stored in glass jars. All soil samples were then forwarded to Lakefield Laboratory for chemical analysis including: arsenic (As), aluminum (Al), barium (Ba), beryllium (Be), calcium (Ca), cadmium (Cd), cobalt (Co), copper (Cu), chromium (Cr), iron (Fe), magnesium (Mg), manganese (Mn), molybdenum (Mo), nickel (Ni), lead (Pb), selenium (Se), strontium (Sr), vanadium (V), and zinc (Zn). MOE data management and quality control procedures for both sample processing and metals analysis carried out by contract laboratories is outlined in Appendix F.

Soil data were compared with the MOE Table F Soil Background Guidelines and Table A Soil Clean-up Guidelines (MOE 1997). Table C3.1 summarizes the total number of parks that were sampled in the City of Greater Sudbury, as well as the number of parks sampled in each community

where at least one sample exceeded the MOE soil criteria for nickel (Ni), copper (Cu), cobalt (Co), arsenic (As) or lead (Pb). Complete results for each park are listed in Section C4. All of the data presented within this report will be used to support the Human Health Risk Assessment that will be conducted for the Greater City of Sudbury.

Sketch maps of each park showing the sampling location and pattern of sampling are located in Section C5. The maps were recreated from hand drawn sketches made by MOE field investigators in the field and thus the sampling site locations are only approximate.

2. INDIVIDUAL PARK RESULTS, DESCRIPTION AND MAPS

The three parks with the highest metals concentrations are discussed individually within this section. These parks are: Bell Park in the Sudbury Core, Copper Cliff Nickel Park and Gerry Mills Park in Copper Cliff, and Centennial Park and Falconbridge Ball Fields in Falconbridge. For each of the three parks there is a section below describing the results, a table with a subset of the results, and a map showing the sampling locations.

C2.1 Bell Park - Sudbury Core
900 Paris Street, Sudbury

Bell Park was sampled on September 12, 2001. Figure C2.1 details the sampling locations at this property. Samples were taken from sixteen play areas and five beaches on the park property. Sampling locations descriptions are provided in Table C2.1.

All soil samples were taken from three depths of 0-5 cm, 5-10 cm and 10-20 cm. Due to the constant mixing of sand and the homogenous nature of the sanded areas, play sand and beach sand samples were collected with hand trowels or corers to represent the 0-15 cm depth. Due to constant mixing, bark chips were collected with hand trowels to represent the 0-10 cm depth. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria.

Metal concentrations were not elevated in the sand beneath the play structures of Areas G and K and one replicate of Area M. The sand present is not likely native to the park property and is believed to have been introduced when the play structures were constructed. However, beach sand from Beach Areas 1 to 5 did have nickel concentrations elevated above the MOE Table F Ontario Soil Background Criteria. Beach sand is known to be native and thus concentrations found may reflect natural elevations due to long term metals deposition.

Nickel (Ni) concentrations were elevated above the MOE Table F Ontario Soil Background Criteria in all other soil samples from this property. The highest nickel (Ni), copper (Cu), cobalt (Co) and arsenic (As) concentrations, 3284, 1800, 100 and 45 ppm, respectively, occurred in the surface soil of the treed area west of the parking on the west side of Paris Street, north of York Street (Area O). Areas O and P were the only non landscaped areas sampled from this park and had the highest concentrations of metals. Within the landscaped areas of the park, Area A had the highest nickel (Ni), copper (Cu) and cobalt (Co) concentrations at 1528, 950 and 55 ppm, respectively. All other areas of Bell Park have substantially lower metals concentrations than Areas A, O and P, with average nickel, copper, cobalt and arsenic concentrations of approximately 110, 88, 9 and 6 ppm, respectively.

The nickel (Ni) and copper (Cu) results for Areas A, O and P are much higher than those reported historically, whereas metals results for all other locations at Bell Park are similar to or lower than historic findings. Previous MOE sampling of undisturbed soils approximately 0.4 km north northwest and 2 km northeast of Bell Park, Stations 74 and 75, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated a nickel (Ni) concentration range of 145 - 830 ppm. Copper (Cu) concentrations ranged from 220 - 820 ppm. Cobalt (Co) concentrations ranged from 11 - 38 and the arsenic (As) concentration range was 11 - 52 ppm.

Table C2.1: Sample Location Descriptions for Bell Park, Sudbury Core		
Sample Area	**Area Use**	**Sample Type**
Area A	Greenspace South of York St. Parking Lot	soil
Area B	Greenspace behind Amphitheatre	soil
Area C	Greenspace South of Pond	soil
Area D	Greenspace East of East Parking Lot	soil
Area E	Greenspace West of Main Gazebo	soil
Area F	Greenspace West of Main Beach	soil
Area G	Play Structures North of Hospital	play sand
Area H	Greenspace around Area G	soil
Area I	Greenspace South of First Aid Station	soil
Area J	Greenspace North of Swings (Area N)	soil
Area K	Swings North of Hospital	play sand
Area L	Greenspace North of Ramsey Airways	soil
Area M	Main Play Structure South of North Parking Lot	bark chips
Area N	Swings South of Main Play Structure	bark chips
Area O	Treed Area West of Parking Lot, West of Paris St. & North of York St.	soil
Area P	Treed Area West of Parking Lot, West of Paris St. & South of York St.	soil
Beach A	Beach on Southeast end of Park, South of Amphitheatre	beach sand
Beach B	Beach located East of Flower Garden, North of Amphitheatre	beach sand
Beach C	Beach North of Beach B and South of Main Gazebo	beach sand
Beach D	Beach Just South of Old Canoe Club	beach sand
Beach E	Main Beach South of North Parking Lot off of John Street	beach sand

Table C2.1: Concentrations of 13 Elements in Soil in µg/g Collected at Bell Park, 900 Paris Street, Sudbury - 2001.

Station	Map ID	Soil Depth	Sample No.	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
5030441 Green Space	A	0-5 cm (soil)	20001	**1.2**	**32**	120	**1.7**	37	**55**	**950**	101	< 1.5	**1528**	**7**	33	70
			20002	< 0.8	**26**	120	**1.1**	39	**33**	**590**	57	< 1.5	**787**	**4**	36	52
		5-10 cm (soil)	20003	< 0.8	**20**	130	< 0.8	37	20	**360**	39	< 1.5	**423**	**2**	36	42
			20004	< 0.8	16	130	< 0.8	37	11	**200**	15	< 1.5	**211**	1	37	36
		10-20 cm (soil)	20005	< 0.8	10	110	< 0.8	40	9	61	11	< 1.5	**114**	< 1	39	32
			20006	< 0.8	6	120	< 0.8	43	8	49	8	< 1.5	**93**	< 1	41	31
5030442 Green Space	B	0-5 cm (soil)	20017	< 0.8	< 5	40	< 0.8	34	10	**89**	17	< 1.5	**112**	1	32	45
			20018	< 0.8	< 5	43	< 0.8	35	8	80	15	< 1.5	**102**	< 1	35	40
		5-10 cm (soil)	20019	< 0.8	< 5	54	< 0.8	38	7	65	12	< 1.5	**86**	< 1	41	32
			20020	< 0.8	< 5	43	< 0.8	34	6	62	10	< 1.5	**80**	< 1	39	29
		10-20 cm (soil)	20021	< 0.8	< 5	51	< 0.8	34	5	47	7	< 1.5	**52**	< 1	38	29
			20022	< 0.8	< 5	42	< 0.8	32	6	46	8	< 1.5	**63**	< 1	34	24
5030443 Green Space	C	0-5 cm (soil)	20023	< 0.8	< 5	74	< 0.8	45	11	83	22	< 1.5	**104**	< 1	40	45
			20024	< 0.8	< 5	74	< 0.8	45	11	**160**	30	< 1.5	**188**	< 1	36	52
		5-10 cm (soil)	20025	< 0.8	< 5	58	< 0.8	39	12	**130**	29	< 1.5	**142**	1	35	44
			20026	< 0.8	< 5	62	< 0.8	42	10	72	16	< 1.5	**87**	< 1	38	39
		10-20 cm (soil)	20027	< 0.8	< 5	64	< 0.8	36	9	57	19	< 1.5	**65**	< 1	31	30
			20028	< 0.8	< 5	59	< 0.8	36	11	49	11	< 1.5	**67**	< 1	32	31
5030444 Green Space	D	0-5 cm (soil)	20029	< 0.8	7	42	**1.1**	30	15	**180**	40	< 1.5	**257**	**2**	29	47
			20030	< 0.8	7	44	0.9	30	12	**170**	42	< 1.5	**230**	**2**	30	48
		5-10 cm (soil)	20031	< 0.8	7	38	< 0.8	30	7	83	16	< 1.5	**110**	1	31	32
			20032	< 0.8	7	36	< 0.8	30	7	**89**	22	< 1.5	**120**	< 1	31	33
		10-20 cm (soil)	20033	< 0.8	6	35	< 0.8	28	6	58	12	< 1.5	**86**	< 1	28	26
			20034	< 0.8	8	39	< 0.8	29	7	**86**	18	< 1.5	**120**	1	30	32
5030445 Green Space	E	0-5 cm (soil)	20035	< 0.8	< 5	37	< 0.8	27	8	**93**	38	< 1.5	**120**	1	27	36
			20036	< 0.8	< 5	42	< 0.8	29	9	**98**	21	< 1.5	**110**	1	27	36
		5-10 cm (soil)	20037	< 0.8	5	64	< 0.8	28	9	**97**	**59**	< 1.5	**120**	< 1	27	46
			20038	< 0.8	7	35	< 0.8	25	7	**86**	24	< 1.5	**90**	**2**	25	34
		10-20 cm (soil)	20039	< 0.8	7	56	< 0.8	29	10	**130**	39	< 1.5	**170**	1	28	43
			20040	< 0.8	6	48	< 0.8	27	8	**86**	29	< 1.5	**100**	< 1	28	38
5030446 Green Space	F	0-5 cm (soil)	20041	< 0.8	7	57	< 0.8	35	11	**150**	22	< 1.5	**150**	1	34	38
			20042	< 0.8	5	61	< 0.8	36	10	**110**	19	< 1.5	**130**	1	34	34
		5-10 cm (soil)	20043	< 0.8	5	56	< 0.8	35	8	58	9	< 1.5	**76**	< 1	36	27
			20044	< 0.8	6	56	< 0.8	36	8	68	12	< 1.5	**82**	< 1	37	29
		10-20 cm (soil)	20045	< 0.8	6	60	< 0.8	36	9	67	20	< 1.5	**90**	< 1	36	27
			20046	< 0.8	6	47	< 0.8	33	8	56	18	< 1.5	**71**	< 1	37	28
5030447 Play Structure	G	0-15 cm (sand)	20047	< 0.8	< 5	30	< 0.8	33	8	38	9	< 1.5	38	< 1	41	32
			20048	< 0.8	< 5	27	< 0.8	29	8	29	7	< 1.5	31	< 1	40	28
5030448 Green Space	H	0-5 cm (soil)	20049	< 0.8	6	44	< 0.8	27	10	**140**	30	< 1.5	**200**	< 1	26	58
			20050	< 0.8	5	59	< 0.8	32	12	**140**	33	< 1.5	**220**	< 1	32	58
		5-10 cm (soil)	20051	< 0.8	7	44	< 0.8	30	7	53	13	< 1.5	**91**	< 1	31	34
			20052	< 0.8	5	42	< 0.8	28	6	56	14	< 1.5	**80**	< 1	30	30
		10-20 cm (soil)	20053	< 0.8	< 5	44	< 0.8	30	6	38	9	< 1.5	**62**	< 1	31	29
			20054	< 0.8	< 5	47	< 0.8	30	6	34	10	< 1.5	**61**	< 1	32	27
Table F (results in bold)				1.0	17	210	1.0	71	21	85	120	2.5	43	1.9	91	160
Table A (results in bold & underlined)				13	20	750	12	750	40	225	200	40	150	10	200	600

< - less than Method Detection Limit

Al, Be, Ca, Fe, Mg, Mn, and Sr results can be found in Table C4.4.

Table C2.1: Concentrations of 13 Elements in Soil in µg/g Collected at Bell Park, 900 Paris Street, Sudbury - 2001.

Station	Map ID	Soil Depth	Sample No.	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
5030449 Green Space	I	0-5 cm (soil)	20055	< 0.8	< 5	44	< 0.8	35	7	59	12	< 1.5	**78**	< 1	32	31
			20056	< 0.8	5	46	< 0.8	31	7	59	12	< 1.5	**78**	< 1	31	33
		5-10 cm (soil)	20057	< 0.8	< 5	46	< 0.8	32	6	49	12	< 1.5	**64**	< 1	32	28
			20058	< 0.8	< 5	58	< 0.8	35	7	42	12	< 1.5	**62**	< 1	34	29
		10-20 cm (soil)	20059	< 0.8	< 5	52	< 0.8	32	6	48	12	< 1.5	**65**	< 1	32	30
			20060	< 0.8	< 5	50	< 0.8	33	7	42	12	< 1.5	**64**	< 1	32	31
5030450 Green Space	J	0-5 cm (soil)	20061	< 0.8	7	67	< 0.8	42	11	**120**	22	< 1.5	**160**	1	35	43
			20062	< 0.8	7	80	< 0.8	45	11	**110**	27	< 1.5	**150**	1	38	61
		5-10 cm (soil)	20063	< 0.8	8	68	< 0.8	43	12	**110**	23	< 1.5	**150**	< 1	37	37
			20064	< 0.8	7	53	< 0.8	38	10	**100**	26	< 1.5	**120**	< 1	33	41
		10-20 cm (soil)	20065	< 0.8	9	60	< 0.8	37	12	**150**	23	< 1.5	**210**	1	34	40
			20066	< 0.8	5	66	< 0.8	45	14	**160**	33	< 1.5	**220**	1	35	46
5030451 Play Structure	K	0-15 cm (sand)	20067	< 0.8	< 5	29	< 0.8	28	11	39	5	< 1.5	41	< 1	33	24
			20068	< 0.8	< 5	25	< 0.8	28	10	38	6	< 1.5	39	< 1	30	24
5030457 Beach	Beach 1	0-15 cm (sand)	20007	< 0.8	< 5	20	< 0.8	36	10	45	8	< 1.5	**78**	< 1	36	32
			20008	< 0.8	< 5	18	< 0.8	31	10	34	8	< 1.5	**63**	< 1	29	32
5030458 Beach	Beach 2	0-15 cm (sand)	20009	< 0.8	< 5	16	< 0.8	32	11	28	4	< 1.5	**58**	< 1	30	27
			20010	**2.2**	< 5	14	< 0.8	29	10	27	4	< 1.5	**55**	< 1	27	25
5030459 Beach	Beach 3	0-10 cm (sand)	20011	< 0.8	< 5	18	< 0.8	34	11	36	4	< 1.5	**61**	< 1	34	23
			20012	< 0.8	< 5	18	< 0.8	30	12	43	4	< 1.5	**77**	< 1	31	24
5030460 Beach	Beach 4	0-15 cm (sand)	20013	< 0.8	< 5	20	< 0.8	32	10	33	5	< 1.5	**47**	< 1	36	27
			20014	< 0.8	10	22	< 0.8	32	10	32	4	< 1.5	**50**	< 1	33	26
5030461 Beach	Beach 5	0-15 cm (sand)	20015	< 0.8	< 5	18	< 0.8	31	8	31	5	< 1.5	**47**	< 1	35	26
			20016	< 0.8	< 5	17	< 0.8	30	8	32	5	< 1.5	**49**	< 1	28	26
5030452 Green Space	L	0-5 cm (soil)	20069	< 0.8	< 5	50	< 0.8	33	10	**130**	32	< 1.5	**147**	**2**	29	45
			20070	**1.5**	< 5	51	< 0.8	34	9	**130**	23	< 1.5	**142**	**2**	30	44
		5-10 cm (soil)	20071	< 0.8	< 5	46	< 0.8	36	9	78	16	< 1.5	**100**	< 1	34	35
			20072	< 0.8	5	48	< 0.8	40	9	84	19	< 1.5	**112**	< 1	35	37
		10-20 cm (soil)	20073	< 0.8	6	49	< 0.8	37	10	**100**	22	< 1.5	**129**	< 1	34	42
			20074	< 0.8	< 5	54	< 0.8	36	11	**140**	30	< 1.5	**176**	< 1	32	41
5030453 Play Structure	M	0-10 cm (bark chips)	20075	< 0.8	< 5	21	< 0.8	12	4	43	5	< 1.5	40	< 1	12	18
			20076	< 0.8	8	27	< 0.8	14	4	58	6	< 1.5	**48**	< 1	13	23
5030454 Play Structure	N	0-10 cm (bark chips)	20077	< 0.8	< 5	35	< 0.8	22	6	64	8	< 1.5	**57**	1.1	7	27
			20078	< 0.8	< 5	61	< 0.8	38	9	**100**	12	< 1.5	**83**	1.2	14	45
5030455 Green Space	O	0-5 cm (soil)	20079	**1.1**	**41**	130	**2.5**	51	**100**	**1500**	**142**	< 1.5	**3230**	**8**	36	130
			20080	**1.1**	**45**	140	**3**	50	**100**	**1800**	**156**	2.3	**3284**	**11**	34	140
		5-10 cm (soil)	20081	< 0.8	17	180	0.9	71	18	**330**	41	< 1.5	**398**	**2**	46	120
			20082	< 0.8	< 5	130	1	49	**26**	**470**	37	< 1.5	**594**	**2**	40	83
		10-20 cm (soil)	20083	< 0.8	< 5	130	< 0.8	56	9	45	8	< 1.5	**82**	< 1	45	66
			20084	< 0.8	9	120	< 0.8	50	9	85	8	< 1.5	**90**	< 1	44	56
5030456 Green Space	P	0-5 cm (soil)	20085	< 0.8	**60**	98	0.9	38	**48**	**940**	94	< 1.5	**1215**	**4**	32	63
			20086	0.9	**58**	110	**1.3**	34	**56**	**1300**	115	< 1.5	**1513**	**5**	29	68
		5-10 cm (soil)	20087	< 0.8	17	67	< 0.8	36	13	**240**	18	< 1.5	**145**	1	30	44
			20088	< 0.8	12	62	< 0.8	30	9	**140**	14	< 1.5	**103**	< 1	27	40
		10-20 cm (soil)	20089	< 0.8	6	59	< 0.8	40	10	78	7	< 1.5	**55**	< 1	32	40
			20090	< 0.8	6	57	< 0.8	39	9	68	7	< 1.5	**60**	< 1	32	38
Table F (results in bold)				1.0	17	210	1.0	71	21	85	120	2.5	43	1.9	91	160
Table A (results in bold & underlined)				13	20	750	12	750	40	225	200	40	150	10	200	600
< - less than Method Detection Limit																
Al, Be, Ca, Fe, Mg, Mn, and Sr results can be found in Table C4.4.																

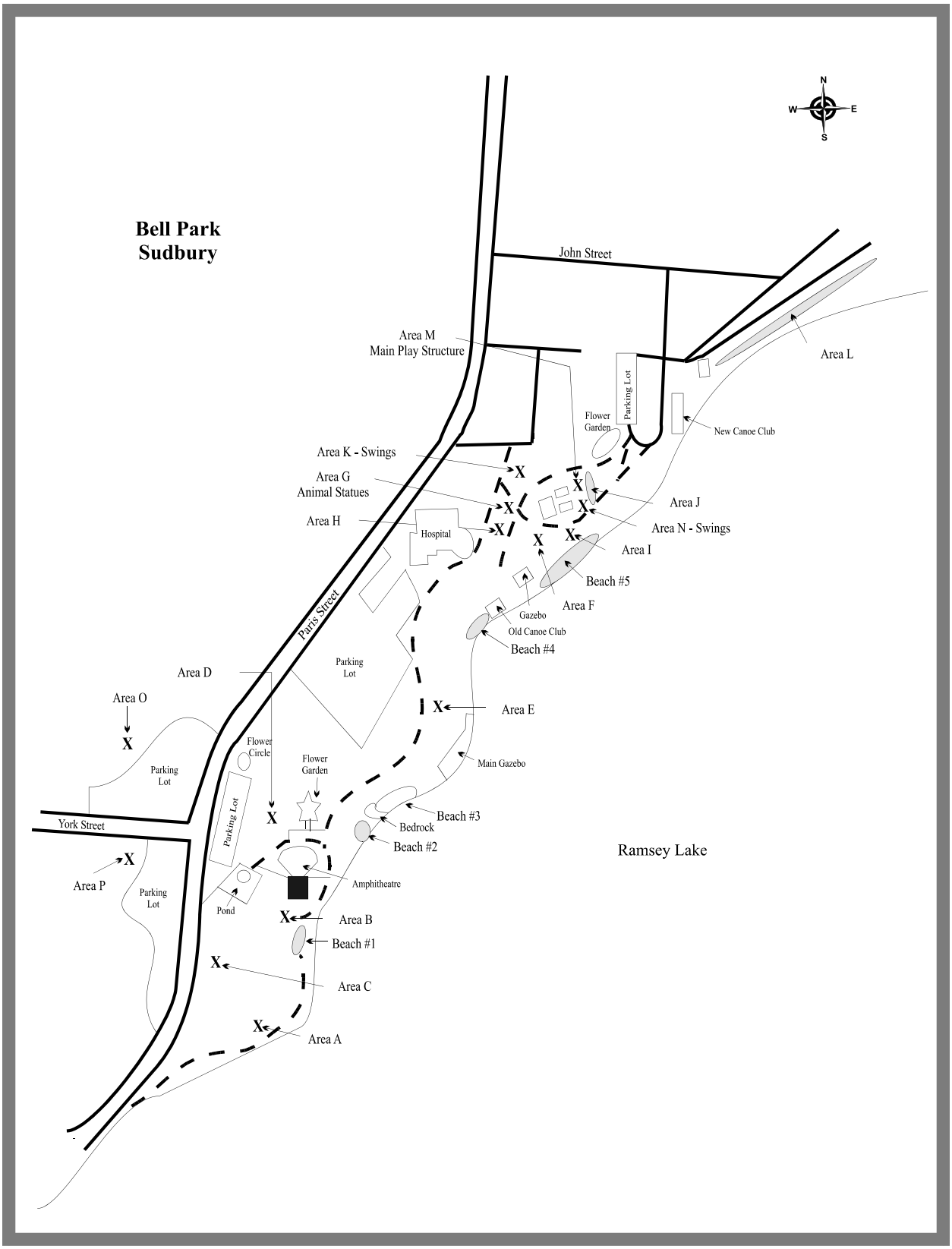


Figure C2.1: Bell Park, Sudbury Core - 2001.

C2.2 Copper Cliff (Nickel) Park & Gerry Mills Memorial Ball Park School Street, Copper Cliff

Copper Cliff (Nickel) Park and Gerry Mills Memorial Ball Park were sampled on September 17, 2001. Figure C2.1 details the sampling locations at this property. Samples were taken from six areas on the park properties. Areas A and B correspond to the baseball diamond infield and outfield, respectively, of Copper Cliff (Nickel) Park. Areas C and D correspond to the north and west grassed greenspace, respectively, of the same park. Areas E and F correspond to the baseball diamond infield and outfield, respectively, of Gerry Mills Memorial Ball Park, which was also sampled as part of Copper Cliff Public School (Appendix B). All soil samples were collected with a soil corer at depth, 0-5 cm, 5-10 cm and 10-20 cm, except Area A baseball diamond infield where it was only possible to collect the 0-5 cm layer due to compaction. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria.

Nickel (Ni) and copper (Cu) concentrations were elevated above the MOE Table A Effects Based Soil Criteria for all samples from these properties. Arsenic (As), cobalt (Co) and selenium (Se) were also elevated above the Table A Effects Based Soil Criteria at selected sites, while antimony (Sb), cadmium (Cd) and lead (Pb) exceeded the Table F Ontario Soil Background Criteria at fewer sites.

The highest nickel (Ni), copper (Cu), cobalt (Co) and arsenic (As) concentrations, 3649, 3400, 100 and 101 ppm, respectively, occurred in the 0-5 cm or 5-10 cm soil layer of the baseball diamond outfield of Gerry Mills Memorial Ball Park (Area F). Soil results for previous sampling of this baseball diamond, as part of Copper Cliff Public School (Appendix B), were substantially lower with nickel and copper concentrations as high as 1700 and 2000 ppm, respectively, for the surface soil layer of the baseball diamond outfield. The highest nickel and copper concentrations found at Copper Cliff Public School (Appendix B) were 2500 and 2900 ppm, respectively, from the green space just west of the baseball diamond. These concentrations are much higher than those found in green space Areas C and D of the Copper Cliff (Nickel) Park. These results give an indication of how variable metals concentrations can be within the soils of Copper Cliff.

Aside from Area A, depth samples were collected and for all areas except Area D, nickel (Ni) and copper (Cu) concentrations were highest at the surface and decreased with increasing depths. This observation is indicative of atmospheric deposition. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn) and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

The soil metal results for Area F are higher than those reported historically, whereas the remaining soil samples are similar to historic findings. Previous MOE sampling of undisturbed soils approximately 1 km north, 1 km east southeast and 1 km southeast of Copper Cliff (Nickel) Park and Gerry Mills Memorial Ball Park, Stations 87, 96 and 106, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), indicated soil nickel (Ni) and copper (Cu) levels as high as 2125 and 2800 ppm, respectively. The majority of samples collected from these parks are within the concentration ranges found historically. The nickel (Ni) concentration range from historic sampling was 180 - 2125 ppm. Copper (Cu) concentrations ranged from 240 - 2800 ppm. Cobalt (Co) concentrations ranged from 14 - 63 and the arsenic (As) concentration range was 3.8 - 69 ppm. Historic MOE sampling in the Sudbury area was of undeveloped surface soils, which may not be representative of all of the materials sampled on this property.

Table C2.2: Concentrations of 13 Elements in Soil in µg/g Collected at Copper Cliff (Nickel) Park and Gerry Mills Park, School Street, Copper Cliff - 2001.

Station	Map ID	Soil Depth	Sample No.	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
5030462 Baseball Infield	A	0-5 cm (soil)	20091	< 0.8	5	53	< 0.8	30	10	**180**	11	< 1.5	**162**	< 1	29	31
			20092	< 0.8	5	58	< 0.8	29	10	**180**	12	< 1.5	**155**	< 1	27	29
5030463 Baseball Outfield	B	0-5 cm (soil)	20093	< 0.8	6	39	< 0.8	27	14	**430**	20	< 1.5	**350**	**2**	26	28
			20094	< 0.8	7	38	< 0.8	25	9	**250**	13	< 1.5	**205**	**2**	24	24
		5-10 cm (soil)	20095	< 0.8	7	37	< 0.8	26	8	**190**	13	< 1.5	**146**	< 1	25	27
			20096	< 0.8	5	43	< 0.8	28	8	**180**	10	< 1.5	**139**	< 1	27	26
		10-20 cm (soil)	20097	< 0.8	7	100	< 0.8	44	12	**160**	21	< 1.5	**183**	< 1	39	42
			20098	< 0.8	6	100	< 0.8	45	10	**140**	12	< 1.5	**141**	< 1	42	38
5030464 Green Space	C	0-5 cm (soil)	20099	< 0.8	8	70	**1.4**	41	**22**	**990**	37	< 1.5	**599**	**3**	34	49
			20100	< 0.8	9	76	**1.2**	43	**22**	**990**	36	< 1.5	**595**	**4**	36	48
		5-10 cm (soil)	20101	< 0.8	7	65	< 0.8	34	9	**190**	11	< 1.5	**153**	< 1	34	32
			20102	< 0.8	6	69	< 0.8	34	10	**190**	11	< 1.5	**178**	< 1	34	32
		10-20 cm (soil)	20103	< 0.8	7	73	< 0.8	36	11	**160**	12	< 1.5	**165**	1	34	37
			20104	< 0.8	< 5	52	< 0.8	29	7	**86**	8	< 1.5	**92**	< 1	28	27
5030467 Green Space	D	0-5 cm (soil)	20117	< 0.8	14	69	< 0.8	44	21	**660**	34	< 1.5	**490**	**4**	34	52
			20118	1	12	59	< 0.8	38	19	**640**	32	< 1.5	**450**	**4**	31	48
		5-10 cm (soil)	20119	< 0.8	6	36	< 0.8	25	8	**180**	10	< 1.5	**160**	< 1	27	32
			20120	< 0.8	< 5	32	< 0.8	25	6	**110**	9	< 1.5	**120**	< 1	26	26
		10-20 cm (soil)	20121	< 0.8	**27**	72	< 0.8	36	18	**540**	28	< 1.5	**600**	**2**	33	40
			20122	< 0.8	**23**	73	< 0.8	35	13	**370**	28	< 1.5	**370**	**2**	32	34
Gerry Mills Memorial Ball Park, School Street *(* - 5030465 and 5030466 were also sampled separately as part of Copper Cliff School)*																
5030465* Baseball Outfield	F	0-5 cm (soil)	20105	**1.1**	**63**	75	**3.7**	42	**100**	**3400**	120	< 1.5	**3649**	**21**	27	150
			20106	1	**54**	79	**4**	54	**93**	**3300**	**130**	< 1.5	**2906**	**22**	35	140
		5-10 cm (soil)	20107	**1.8**	**101**	61	**1.1**	35	**49**	**970**	44	< 1.5	**1339**	**13**	30	56
			20108	**2.6**	**90**	66	0.9	35	**50**	**910**	50	< 1.5	**1200**	< 1	29	56
		10-20 cm (soil)	20109	**1.1**	**64**	45	< 0.8	25	15	**190**	14	< 1.5	**310**	**6**	26	30
			20110	< 0.8	**32**	43	< 0.8	21	10	**130**	8	1.9	**200**	**2**	25	25
5030466* Baseball Infield	E	0-5 cm (soil)	20111	< 0.8	8	50	< 0.8	31	11	**300**	15	< 1.5	**300**	**2**	29	31
			20112	< 0.8	7	49	< 0.8	29	11	**350**	17	< 1.5	**290**	**2**	27	30
		5-10 cm (soil)	20113	< 0.8	13	37	< 0.8	26	10	**210**	11	< 1.5	**170**	1	26	26
			20114	< 0.8	10	38	< 0.8	26	8	**170**	10	< 1.5	**130**	1	26	25
		10-20 cm (soil)	20115	< 0.8	11	38	< 0.8	24	9	**150**	10	< 1.5	**160**	1	26	26
			20116	< 0.8	9	36	< 0.8	25	8	**130**	9	2.4	**130**	1	25	26
Table F (results in bold)				1.0	17	210	1.0	71	21	85	120	2.5	43	1.9	91	160
Table A (results in bold & underlined)				13	20	750	12	750	40	225	200	40	150	10	200	600
< - less than Method Detection Limit													Al, Be, Ca, Fe, Mg, Mn, and Sr results can be found in Table C4.2.			

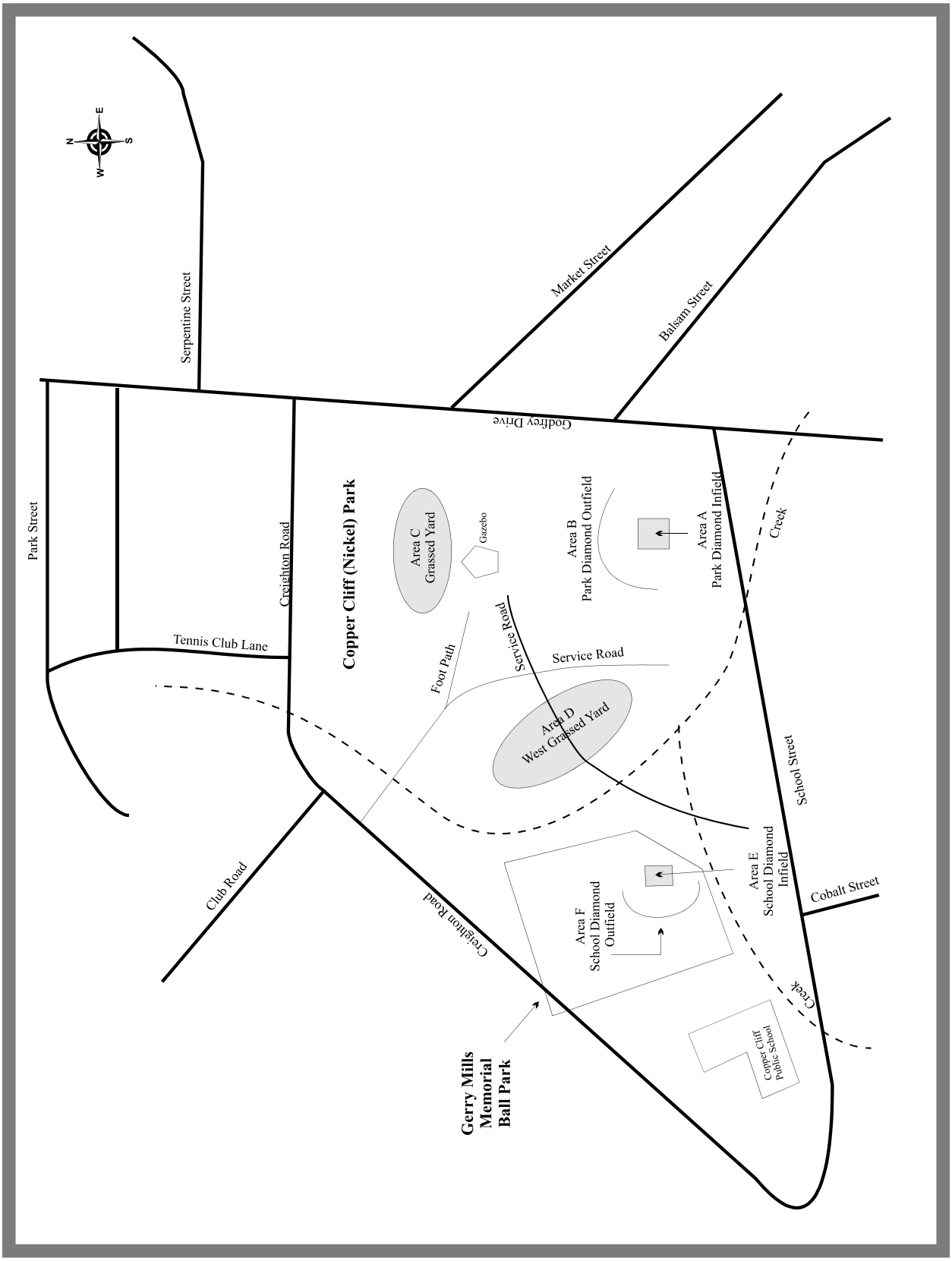


Figure C2.2: Copper Cliff (Nickel) Park & Gerry Mills Memorial Ball Park, Copper Cliff - 2001.

C2.3 Falconbridge Ball Fields & Centennial Park 63 Edison Street, Falconbridge

Falconbridge Ball Fields and Centennial Park were sampled on September 18, 2001. Samples were collected from eight areas on the park properties, Figure C2.3. Areas A and B correspond to sand samples collected from beneath the swings and slide beside the tennis courts, respectively, in Centennial Park. These play areas were also sampled as part of Teddy Bear Daycare (see Appendix B). Due to the constant mixing and homogeneous nature of the sanded area, samples were collected with hand trowels to represent the 0-15 cm depth. Areas C and D correspond to the west and east green spaces, respectively, in Centennial Park. Areas E and F correspond to the west baseball diamond infield and outfield, respectively. Areas G and H correspond to the east baseball diamond infield and outfield, respectively. These two ball diamonds belong to the Falconbridge Ball Fields. It was possible to sample all three depths, 0-5 cm, 5-10 cm and 10-20 cm, for all soil samples at both parks. All data were compared with the MOE Table F Ontario Soil Background Criteria and Table A Effects Based Soil Criteria.

Metal concentrations were not elevated in the sand from beneath the slide and swings. Similar results were found when these play areas were sampled as part of Teddy Bear Daycare #3 (Appendix B). The sand present is not likely native to the park property and is believed to have been introduced when the play areas were constructed. Thus, the sand was not expected to have elevated metal concentrations. Nickel (Ni), copper (Cu) and arsenic (As) concentrations were elevated above the MOE Table A Effects Based Soil Criteria for all other samples from Centennial Park and for the majority of those from the Falconbridge Ball Fields. Antimony (Sb), cadmium (Cd), chromium (Cr), lead (Pb), molybdenum (Mo) and selenium (Se) concentrations exceeded the Table F Ontario Soil Background Criteria at selected sites. The highest nickel (Ni), copper (Cu), cobalt (Co) and arsenic (As) concentrations, 2500, 1800, 130 and 101 ppm, respectively, occurred in the 0-5 cm or 5-10 cm soil layer of the west green space of Centennial Park (Area C). All other sampling areas on this property have substantially lower nickel, copper, cobalt and arsenic concentrations with average values of approximately 460, 390, 23 and 59 ppm, respectively. All other metals listed, as well as aluminum (Al), calcium (Ca), iron (Fe), magnesium (Mg), manganese (Mn) and strontium (Sr) which are not listed, were below the MOE Table F Ontario Soil Background Criteria.

The soil metal results for Area C are higher than those reported historically, whereas the remaining soil samples are within the concentration ranges found historically. Previous MOE sampling of undisturbed soils approximately 0.5 km north, 0.5 km northeast and 0.5 km southwest of Centennial Park and Falconbridge Ball Fields, Stations 23, 22 and 36, respectively, of the MOE Sudbury 2000 Report for the City of Greater Sudbury (MOE 2001), found nickel (Ni) and copper (Cu) surface soil concentration ranges of 68 to 1100 and 148 to 1300 ppm, respectively. The cobalt (Co) concentration range was 6 to 60 ppm and arsenic (As) concentrations ranged from 31 to 510. Historic MOE sampling in the Sudbury area was of undeveloped surface soils, which may not be representative of all of the materials sampled on this property.

Table C2.3: Concentrations of 13 Elements in Soil in µg/g Collected at Centennial Park and Falconbridge Ball Fields, 63 Edison Street, Falconbridge

(*-5037474 & 5030475 were also sampled separately as part of Teddy Bear Daycare)

Station	Map ID	Soil Depth	Sample No.	Sb	As	Ba	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	V	Zn
5030474 Play Structure	A	0-5 cm (sand)	20147	< 0.8	< 5	20	< 0.8	24	6	18	3	< 1.5	26	< 1	29	15
			20148	< 0.8	< 5	21	< 0.8	24	6	19	4	< 1.5	30	< 1	30	16
5030475 Play Structure	B	0-5 cm (sand)	20149	< 0.8	< 5	21	< 0.8	22	5	12	6	< 1.5	20	< 1	24	12
			20150	< 0.8	< 5	17	< 0.8	19	4	10	2	< 1.5	17	< 1	22	12
5030476 Green Space	C	0-5 cm (soil)	20151	< 0.8	**71**	44	**2.8**	37	**86**	**1300**	67	< 1.5	**1800**	**3**	37	79
			20152	< 0.8	**84**	45	**4.2**	37	**130**	**1800**	110	**2.8**	**2500**	**4**	31	96
		5-10 cm (soil)	20153	< 0.8	**99**	42	**1.2**	46	**30**	**610**	58	< 1.5	**680**	**3**	45	41
			20154	< 0.8	**101**	46	**1.4**	32	**36**	**680**	69	< 1.5	**770**	**3**	35	39
		10-20 cm (soil)	20155	< 0.8	**63**	36	< 0.8	**75**	21	**330**	33	2.2	**470**	**2**	59	41
			20156	< 0.8	**74**	46	< 0.8	68	**25**	**370**	38	< 1.5	**550**	**3**	58	39
5030477 Green Space	D	0-5 cm (soil)	20157	< 0.8	**49**	28	**1.7**	26	**57**	**830**	44	< 1.5	**1200**	**2**	27	47
			20158	< 0.8	**56**	43	**2.9**	34	**72**	**1200**	65	2	**1500**	**3**	30	65
		5-10 cm (soil)	20159	< 0.8	**76**	44	< 0.8	34	**26**	**540**	53	< 1.5	**520**	**2**	32	31
			20160	< 0.8	**66**	42	< 0.8	32	**24**	**490**	49	< 1.5	**500**	**2**	32	30
		10-20 cm (soil)	20161	< 0.8	**85**	58	< 0.8	58	**30**	**500**	48	< 1.5	**610**	**3**	47	41
			20162	< 0.8	**66**	58	< 0.8	50	21	**360**	39	< 1.5	**430**	**2**	40	34
Falconbridge Ballfields, 63 Edison Street																
Station	**Map ID**	**Soil Depth**	**Sample No.**	**Sb**	**As**	**Ba**	**Cd**	**Cr**	**Co**	**Cu**	**Pb**	**Mo**	**Ni**	**Se**	**V**	**Zn**
5030478 Baseball Outfield	H	0-5 cm (soil)	20163	< 0.8	**38**	36	< 0.8	39	**23**	**360**	28	1.6	**370**	**2**	35	32
			20164	< 0.8	**49**	38	< 0.8	39	**28**	**430**	33	1.8	**470**	**2**	33	38
		5-10 cm (soil)	20165	1	**120**	50	< 0.8	**99**	**46**	**880**	54	< 1.5	**880**	**6**	74	66
			20166	**1.5**	**100**	50	**1.1**	**88**	**58**	**950**	**63**	< 1.5	**1100**	**4**	67	67
		10-20 cm (soil)	20167	< 0.8	**130**	47	< 0.8	**150**	**42**	**750**	49	< 1.5	**860**	**7**	**110**	86
			20168	< 0.8	**110**	56	< 0.8	**99**	**38**	**710**	46	< 1.5	**990**	**6**	75	72
5030479 Baseball Infield	G	0-5 cm (soil)	20169	**1.2**	**54**	43	< 0.8	**73**	**34**	**480**	27	< 1.5	**690**	**3**	56	64
			20170	< 0.8	**31**	38	< 0.8	54	**23**	**300**	23	< 1.5	**400**	**2**	41	40
		5-10 cm (soil)	20171	< 0.8	**110**	48	< 0.8	**140**	**28**	**580**	42	< 1.5	**590**	**8**	**110**	88
			20172	< 0.8	**100**	42	< 0.8	**140**	**30**	**570**	38	< 1.5	**620**	**7**	**98**	76
		10-20 cm (soil)	20173	< 0.8	**100**	45	< 0.8	**150**	**25**	**500**	42	< 1.5	**490**	**6**	**110**	85
			20174	< 0.8	**120**	50	< 0.8	**160**	**26**	**480**	43	< 1.5	**530**	**8**	**130**	82
5030480 Baseball Outfield	F	0-5 cm (soil)	20175	< 0.8	**36**	44	0.9	40	**27**	**400**	25	< 1.5	**490**	1	35	31
			20176	< 0.8	**29**	33	< 0.8	37	21	**350**	20	< 1.5	**400**	1	34	30
		5-10 cm (soil)	20177	< 0.8	**86**	62	< 0.8	**95**	**28**	**510**	33	< 1.5	**600**	**4**	75	53
			20178	< 0.8	**98**	57	< 0.8	**97**	**31**	**580**	37	< 1.5	**690**	**5**	74	52
		10-20 cm (soil)	20179	< 0.8	**89**	76	< 0.8	**100**	**24**	**430**	34	< 1.5	**530**	**3**	77	52
			20180	< 0.8	**85**	54	< 0.8	**100**	16	**310**	28	< 1.5	**320**	**4**	79	45
5030481 Baseball Infield	E	0-5 cm (soil)	20181	< 0.8	< 5	22	< 0.8	26	8	55	6	< 1.5	**68**	< 1	26	21
			20182	< 0.8	**39**	32	< 0.8	59	15	**100**	14	< 1.5	**180**	**2**	51	31
		5-10 cm (soil)	20183	< 0.8	7	23	< 0.8	27	7	45	5	< 1.5	**56**	< 1	25	18
			20184	< 0.8	10	22	< 0.8	30	9	48	7	< 1.5	**79**	< 1	29	20
		10-20 cm (soil)	20185	< 0.8	**56**	30	< 0.8	**79**	20	**220**	18	< 1.5	**280**	**4**	57	59
			20186	< 0.8	**101**	42	< 0.8	**120**	**27**	**270**	30	< 1.5	**420**	**4**	**93**	61
Table F (results in bold)				1.0	17	210	1.0	71	21	85	120	2.5	43	1.9	91	160
Table A (results in bold & underlined)				13	20	750	12	750	40	225	200	40	150	10	200	600

< - less than Method Detection Limit

Al, Be, Ca, Fe, Mg, Mn, and Sr results can be found in Table C4.3.

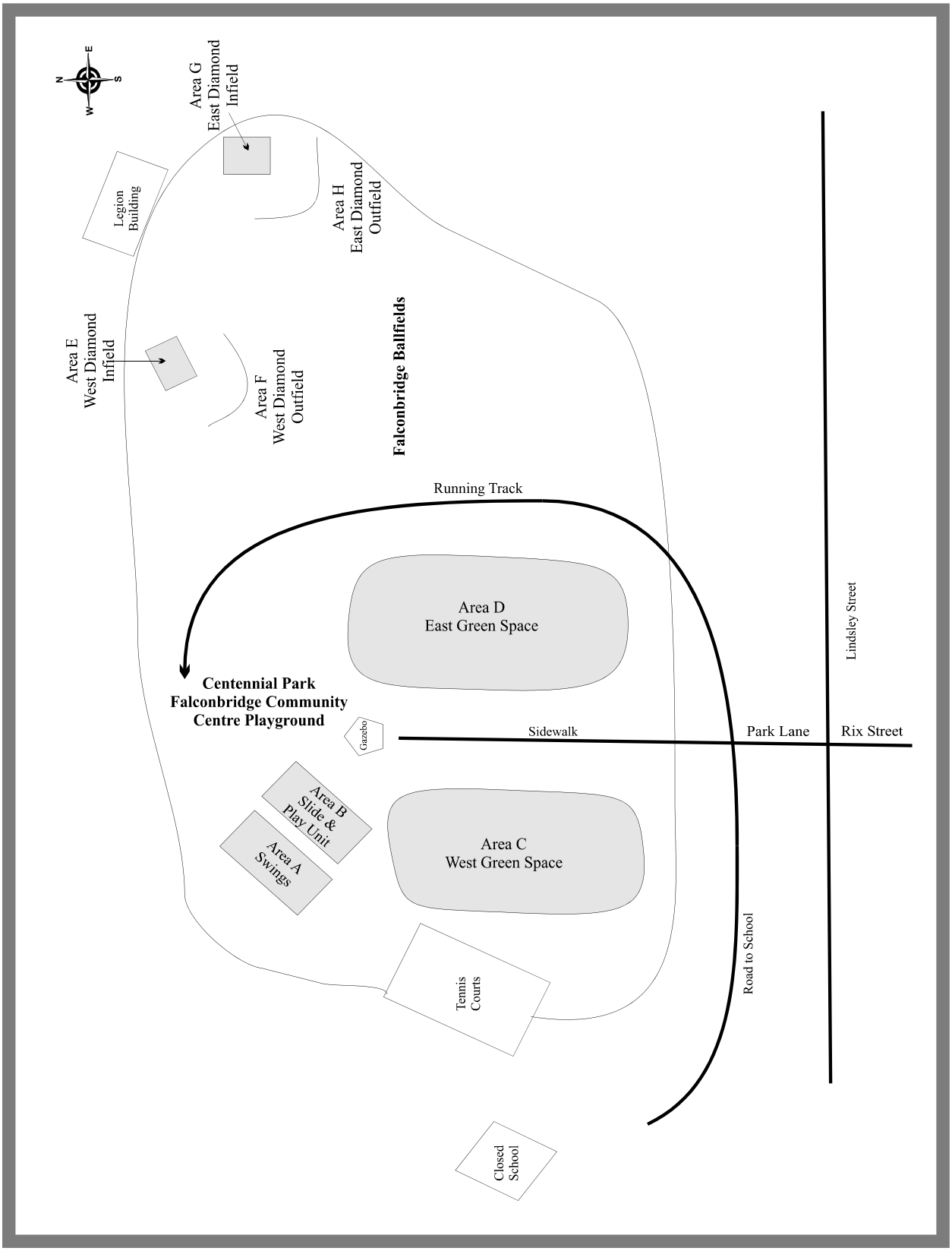


Figure C2.3: Centennial Park & Falconbridge Ball Fields, Falconbridge - 2001.

3. DATA RESULTS SUMMARIES

Table C.3.1: Summary of MOE Table F and Table A Soil Criteria Exceedences.
(The number of parks in each community with at least one sample exceeding the MOE Table F and Table A Soil Criteria)

Community	Number of Parks	Number of Nickel Exceedences		Number of Copper Exceedences		Number of Cobalt Exceedences		Number of Arsenic Exceedences		Number of Lead Exceedences	
		Table F	Table A	Table F	Table A	Table F	Table A	Table F	Table A	Table F	Table A
Coniston	5	4	3	3	3	1	1	0	0	0	0
Copper Cliff	6	6	6	6	6	3	2	0	0	1	0
Falconbridge	5	3	2	3	2	2	2	2	2	0	0
Sudbury Core	23	20	13	12	4	3	1	0	0	1	0
Inner Sudbury	63	54	16	13	5	3	0	0	0	0	0
Outer Sudbury	67	52	3	1	2	3	1	0	0	1	1
Greater Sudbury Total:	**169**	**139**	**43**	**38**	**22**	**15**	**7**	**2**	**2**	**3**	**1**

Table C.3.2: Summary Statistics for 0-5 cm Park Soil Samples in the City of Greater Sudbury

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	3900	0.4	2.5	17	0.3	0.4	1600	17	4	8	7400	1	1300	90	0.8	16	0.5	10	8	11
10th	6900	0.4	2.5	25	0.3	0.4	2900	22	4	26	11000	8	2000	140	0.8	38	0.5	24	23	19
1st quartile	8300	0.4	2.5	31	0.3	0.4	3550	25	5	35	12000	10	2300	160	0.8	48	0.5	30	26	23
Median	9650	0.4	2.5	38	0.3	0.4	4900	29	7	53	14000	13	3000	190	0.8	72	0.5	36	28	30
3rd quartile	11000	0.4	6	48	0.3	0.4	6800	35	11	95	16000	20	3800	240	0.8	121	0.5	43	32	38
95th	15000	0.4	16	75	0.3	0.9	11000	46	20	360	22000	34	6265	310	0.8	389	2	52	39	62
Maximum	27000	2.6	84	150	0.3	4.2	27000	73	130	4600	45000	130	13000	650	3	3649	22	80	56	150
Mean	10010	0.4	6	42	0.3	0.5	5640	31	10	130	14641	17	3310	209	0.8	146	0.8	37	29	33
Geometric mean	9664	0.4	4	39	0.2	0.4	5043	30	8	63	14186	14	3066	199	0.8	85	0.6	35	29	31
Sample std. dev.	2785	0.2	9	18	0.0	0.4	3034	8	11	374	4194	14	1475	74	0.2	320	2	10	6	16
CV (std. dev./mean)	28%	40%	149%	42%	0%	86%	54%	27%	116%	289%	29%	86%	45%	35%	26%	219%	192%	27%	20%	48%
Lower CI for the mean	9767	0.4	5	40	0.3	0.4	5376	30	9	97	14275	16	3181	203	0.8	119	0.7	36	29	32
Upper CI for the mean	10253	0.4	7	43	0.3	0.5	5905	31	11	162	15007	18	3439	216	0.8	174	0.9	37	30	35
Kurtosis	5.5	72.6	31.3	6.8		47.2	8.6	3.1	47.6	88.3	11.7	27.5	7.1	7.8	95.2	59.2	134.3	0.7	4.2	13.4
Skewness	1.5	7.8	5.1	2.1		6.6	2.3	1.4	6.3	8.8	2.7	4.5	2.2	2.2	9.3	7.1	10.8	0.3	1.2	2.8

n = 508 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table C.3.3: Summary Statistics for 5-10 cm Park Soil Samples in the City of Greater Sudbury

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	3900	0.4	2.5	15	0.3	0.4	1400	17	3	7	7600	1	1300	92	0.8	14	0.5	13	13	10
10th	7200	0.4	2.5	24	0.3	0.4	2600	22	4	20	11000	6	1800	130	0.8	32	0.5	23	24	17
1st quartile	8550	0.4	2.5	30	0.3	0.4	3100	25	5	27	12000	8	2100	150	0.8	39	0.5	28	26	20
Median	9900	0.4	2.5	38	0.3	0.4	4100	28	7	42	14000	10	2600	190	0.8	58	0.5	35	29	27
3rd quartile	12000	0.4	6	49	0.3	0.4	5900	35	9	69	16000	13	3700	235	0.8	92	0.5	42	33	34
95th	16850	0.4	16	72	0.3	0.4	9485	48	14	190	21000	31	6200	330	0.8	210	1	50	41	56
Maximum	37000	2.6	120	210	0.6	1.4	22000	140	58	970	100000	91	13700	590	2	1339	13	65	110	160
Mean	10506	0.4	7	42	0.3	0.4	4800	31	8	71	15092	13	3149	204	0.8	92	0.7	35	30	29
Geometric mean	10064	0.4	4	39	0.3	0.4	4332	30	7	46	14264	11	2863	193	0.8	65	0.6	34	30	27
Sample std. dev.	3426	0.2	15	21	0.0	0.1	2442	12	6	111	7704	10	1632	73	0.1	130	0.8	9	9	14
CV (std. dev./mean)	33%	47%	220%	49%	9%	22%	51%	40%	71%	158%	51%	78%	52%	36%	12%	142%	126%	27%	29%	49%
Lower CI for the mean	10200	0.4	5	40	0.2	0.4	4581	30	7	61	14403	12	3003	197	0.7	80	0.6	34	30	28
Upper CI for the mean	10812	0.5	8	44	0.3	0.4	5018	33	8	81	15781	13	3295	210	0.8	103	0.7	36	31	31
Kurtosis	12.1	48.2	32.9	15.4	179.2	74.6	7.8	28.1	30.5	33.9	67.6	18.1	9.4	4.9	233.4	41.4	118.5	-0.4	25.1	16.1
Skewness	2.5	6.6	5.7	3.1	13.2	8.6	2.1	4.3	4.7	5.4	7.2	3.7	2.5	1.8	14.8	5.8	9.9	0.1	4.0	2.9

n = 484 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table C.3.4: Summary Statistics for 10-20 cm Park Soil Samples in the City of Greater Sudbury

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4900	0.4	2.5	14	0.3	0.4	1500	17	3	7	8300	2	1400	93	0.8	14	0.5	12	10	9
10th	6800	0.4	2.5	24	0.3	0.4	2300	21	4	17	11000	5	1800	140	0.8	28	0.5	23	23	16
1st quartile	8400	0.4	2.5	31	0.3	0.4	3100	25	5	25	12000	7	2100	160	0.8	37	0.5	28	26	20
Median	9900	0.4	2.5	40	0.3	0.4	3900	29	7	37	14000	10	2700	200	0.8	55	0.5	35	29	26
3rd quartile	12000	0.4	6	53	0.3	0.4	5300	37	9	65	17000	13	3700	250	0.8	89	0.5	42	35	34
95th	18000	0.4	23	89	0.3	0.4	8900	55	16	190	24000	34	6400	350	0.8	213	1	52	46	54
Maximum	31000	4.0	130	210	0.5	1.2	20000	160	42	750	110000	214	15500	600	3	990	8	68	130	230
Mean	10722	0.4	7	45	0.3	0.4	4580	33	8	64	16069	13	3272	211	0.8	85	0.7	35	32	29
Geometric mean	10166	0.4	4	41	0.3	0.4	4092	31	7	42	14839	10	2938	199	0.8	61	0.6	34	30	27
Sample std. dev.	3785	0.3	16	23	0.0	0.1	2582	16	5	87	10048	13	1842	76	0.2	106	0.7	10	11	16
CV (std. dev./mean)	35%	64%	216%	51%	7%	17%	56%	48%	60%	136%	63%	105%	56%	36%	23%	124%	106%	28%	35%	54%
Lower CI for the mean	10371	0.4	6	43	0.2	0.4	4340	31	7	56	15139	11	3101	204	0.8	75	0.6	34	31	28
Upper CI for the mean	11072	0.5	9	48	0.3	0.4	4819	34	8	72	17000	14	3443	218	0.8	95	0.7	36	33	31
Kurtosis	4.5	97.4	29.6	9.2	223.0	98.0	9.8	26.7	17.5	23.1	51.3	117.5	11.7	4.0	70.5	24.7	58.8	-0.4	26.3	57.3
Skewness	1.7	9.5	5.2	2.4	15.0	9.8	2.7	4.3	3.5	4.3	6.5	8.7	2.8	1.6	8.3	4.4	7.2	0.2	4.2	5.3

n = 451 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table C.3.5: Summary Statistics for 0-15 cm Beach Sand Samples from Parks in the City of Greater Sudbury

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4100	0.4	2.5	14	0.3	0.4	1300	18	4	7	10000	3	2200	140	0.8	14	0.5	10	18	10
10th	4920	0.4	2.5	17	0.3	0.4	2210	23	7	21	12000	4	2720	170	0.8	29	0.5	17	23	16
1st quartile	5200	0.4	2.5	19	0.3	0.4	2600	24	8	23	13000	4	3100	180	0.8	32	0.5	19	28	18
Median	6050	0.4	2.5	24	0.3	0.4	3000	30	9	29	15000	5	3550	190	0.8	38	0.5	24	31	23
3rd quartile	7300	0.4	2.5	27	0.3	0.4	3600	32	9	36	17000	6	4000	210	0.8	63	0.5	29	34	26
95th	8980	0.4	2.5	35	0.3	0.4	4255	35	9	31	18000	6	4185	250	0.8	40	1.0	38	40	29
Maximum	12000	2.2	10	74	0.3	0.4	4600	39	12	130	19000	21	4500	250	0.8	170	1.0	39	40	39
Mean	6674	0.4	3.1	27	0.3	0.4	3093	29	9	36	15048	6	3517	197	0.8	49	0.6	25	31	23
Geometric mean	6454	0.4	2.9	24	0.3	0.4	3010	28	8	30	14841	5	3462	195	0.8	43	0.6	23	30	22
Sample std. dev.	1.6	42.0	7.1	5.3			0.0	-0.6	1.8	7.0	-0.7	5.7	-0.7	-0.3		6.5	2.6	-0.5	0.1	0.1
CV (std. dev./mean)	1.3	6.5	2.7	2.3			0.0	0.1	-1.0	2.4	-0.2	2.4	-0.4	0.3		2.1	2.1	0.2	-0.4	0.4
Lower CI for the mean	28%	63%	54%	51%	0%	0%	23%	17%	21%	69%	16%	64%	17%	14%	0%	58%	31%	29%	16%	29%
Upper CI for the mean	1850	0.3	1.7	13	0.0	0.0	690	5	2	24	2430	4	600	28	0.0	28	0.2	7	5	6
Kurtosis	6090	0.4	2.6	22	0.3	0.4	2875	27	8	28	14281	5	3328	189	0.8	40	0.5	22	29	21
Skewness	7257	0.5	3.7	31	0.3	0.4	3310	30	9	43	15814	7	3706	206	0.8	58	0.6	27	32	25

n = 42 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table C.3.6: Summary Statistics for 0 -15 cm Play Structure Sand Samples from Parks in the City of Greater Sudbury

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	2700	0.4	2.5	10	0.3	0.4	1500	12	4	6	6200	2	1400	110	0.8	13	0.5	10	7	10
10th	4800	0.4	2.5	18	0.3	0.4	2100	23	6	15	11000	3	2700	150	0.8	20	0.5	16	24	16
1st quartile	5500	0.4	2.5	21	0.3	0.4	2400	25	7	19	13000	4	3000	170	0.8	24	0.5	19	27	20
Median	6600	0.4	2.5	26	0.3	0.4	2800	29	8	29	16000	5	3600	190	0.8	29	0.5	23	33	25
3rd quartile	7950	0.4	2.5	34	0.3	0.4	3350	35	10	42	18000	6	4200	230	0.8	37	0.5	28	39	29
95th	10000	0.4	6	45	0.3	0.4	4400	47	13	71	23000	10	5420	300	0.8	85	1	39	52	38
Maximum	13000	2.3	34	67	0.3	0.4	6500	59	22	210	27000	24	7200	370	2	680	2	47	62	81
Mean	6912	0.4	3.2	28	0.3	0.4	2966	31	8	35	15989	5	3712	204	0.8	40	0.6	24	34	26
Geometric mean	6678	0.4	2.8	27	0.2	0.4	2875	30	8	29	15538	5	3600	199	0.8	32	0.5	24	33	24
Sample std. dev.	1825	0.1	3.0	10	0.0	0.0	775	8	3	27	3811	3	935	51	0.1	53	0.2	7	9	8
CV (std. dev./mean)	26%	34%	94%	34%	0%	0%	26%	26%	31%	77%	24%	54%	25%	25%	18%	133%	34%	29%	27%	32%
Lower CI for the mean	6722	0.4	2.9	27	0.3	0.4	2885	30	8	33	15591	5	3615	199	0.8	34	0.5	24	33	25
Upper CI for the mean	7103	0.4	4	29	0.3	0.4	3047	32	9	38	16386	6	3810	210	0.8	45	0.6	25	35	27
Kurtosis	0.1	116.9	64.5	1.0			1.9	0.6	4.1	17.3	0.0	10.9	1.3	0.1	70.9	77.1	19.5	0.3	0.2	7.4
Skewness	0.6	10.5	7.3	0.9			1.2	1.0	1.3	3.5	0.5	2.6	0.8	0.8	8.5	7.8	3.9	0.7	0.6	1.7

n = 357 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table C.3.7: Summary Statistics for 0-5 cm Baseball Infield Crushed Stone Samples from Parks in the City of Greater Sudbury

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5100	0.4	2.5	18	0.3	0.4	2800	17	3	11	8200	2	2100	140	0.8	18	0.5	22	11	10
10th	5800	0.4	2.5	26	0.3	0.4	4200	21	4	15	10000	4	3200	150	0.8	22	0.5	37	19	15
1st quartile	6900	0.4	2.5	30	0.3	0.4	6550	23	5	18	11000	5	3800	160	0.8	27	0.5	45	23	18
Median	8000	0.4	2.5	40	0.3	0.4	11000	26	6	23	13000	6	6000	190	0.8	34	0.5	74	26	23
3rd quartile	9400	0.4	2.5	51	0.3	0.4	19000	29	8	36	14000	7	9050	215	0.8	43	0.5	140	29	28
95th	12000	0.4	9	71	0.3	0.4	142500	37	10	72	19000	10	21250	280	2	136	1	270	36	34
Maximum	26000	1.3	17	200	0.6	0.4	250000	43	17	300	27000	15	26000	510	3	350	1	340	40	64
Mean	8402	0.4	3.3	44	0.3	0.4	27509	27	7	34	13360	6	7752	200	1.0	45	0.6	106	26	23
Geometric mean	8082	0.4	2.9	40	0.3	0.4	13442	26	6	26	13047	6	6387	194	0.9	37	0.5	82	25	22
Sample std. dev.	2789	0.1	2.9	25	0.0	0.0	46752	5	2	42	3079	2	5392	54	0.5	47	0.2	80	6	8
CV (std. dev./mean)	33%	30%	88%	58%	16%	0%	171%	20%	34%	123%	23%	37%	70%	27%	55%	106%	28%	76%	22%	34%
Lower CI for the mean	7887	0.4	3	40	0.2	0.4	18874	26	6	27	12792	6	6756	190	0.9	36	0.5	92	25	22
Upper CI for the mean	8917	0.4	4	49	0.3	0.4	36145	28	7	42	13929	7	8748	210	1.1	54	0.6	121	27	25
Kurtosis	18.5	35.4	13.2	22.5	59.4		10.2	0.5	5.9	26.2	3.4	2.1	2.4	11.9	5.1	26.7	5.0	0.5	0.4	6.7
Skewness	3.5	5.9	3.8	4.1	7.7		3.2	0.8	1.8	4.9	1.4	1.2	1.7	2.7	2.4	4.8	2.6	1.2	-0.1	1.8

n = 116 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table C.3.8: Summary Statistics for 0-5 cm Park Soil Samples in the Outer Sudbury Communities

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4600	0.4	2.5	19	0.3	0.4	1600	18	4	9	9300	4	1600	110	0.8	19	0.5	13	8	13
10th	6960	0.4	2.5	25	0.3	0.4	2860	22	4	20	11000	8	1800	140	0.8	33	0.5	24	23	19
1st quartile	8500	0.4	2.5	28	0.3	0.4	3300	24	5	26	12000	9	2100	160	0.8	39	0.5	31	26	22
Median	9700	0.4	2.5	34	0.3	0.4	4300	27	5	33	13000	11	2400	180	0.8	47	0.5	36	28	27
3rd quartile	11000	0.4	2.5	43	0.3	0.4	5850	32	7	42	15000	14	3600	230	0.8	56	0.5	42	31	36
95th	15200	0.4	9	71	0.3	0.4	9520	45	12	55	21000	27	5440	420	0.8	78	0.5	49	41	59
Maximum	27000	1.6	16	150	0.3	3.8	19000	67	22	74	29000	66	10000	650	2	151	1.0	61	55	78
Mean	10155	0.4	4	39	0.3	0.4	4921	29	6	34	13797	13	2931	212	0.8	50	0.5	36	29	31
Geometric mean	9762	0.4	3	36	0.2	0.4	4479	29	6	32	13428	12	2693	198	0.8	47	0.5	35	28	29
Sample std. dev.	3201	0.1	3	20	0.0	0.3	2460	8	3	12	3563	7	1414	93	0.1	17	0.1	9	7	13
CV (std. dev./mean)	32%	25%	80%	51%	0%	70%	50%	28%	47%	34%	26%	57%	48%	44%	9%	35%	20%	24%	24%	42%
Lower CI for the mean	9679	0.4	3.1	36	0.3	0.4	4555	28	6	32	13267	12	2720	198	0.7	47	0.5	35	28	29
Upper CI for the mean	10632	0.4	4	42	0.3	0.5	5287	31	7	36	14327	14	3141	225	0.8	52	0.5	38	30	33
Kurtosis	8.2	102	10.4	11.6		101.3	9.0	4.6	6.7	0.6	4.4	16.0	5.9	6.8	177	7.8	17.7	0.1	4.4	2.7
Skewness	2.3	9.7	3.3	3.1		9.9	2.4	1.9	2.4	0.6	1.9	3.2	2.2	2.4	13.3	2.0	4.4	0.0	1.3	1.6

n = 177 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table C.3.9: Summary Statistics for 0-5 cm Park Soil Samples in the Inner Sudbury Communities

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4900	0.4	2.5	18	0.3	0.4	1800	17	4	13	9100	3	1300	90	0.8	25	0.5	10	17	13
10th	6900	0.4	2.5	26	0.3	0.4	2900	22	5	32	11000	7	2200	140	0.8	45	0.5	23	22	19
1st quartile	8200	0.4	2.5	31	0.3	0.4	4000	24	6	45	12000	10	2400	160	0.8	62	0.5	29	25	25
Median	9600	0.4	2.5	40	0.3	0.4	5000	28	8	60	14000	13	3200	200	0.8	82	0.5	36	28	30
3rd quartile	11000	0.4	6	49	0.3	0.4	6600	34	9	79	15000	17	3800	240	0.8	110	0.5	44	32	36
95th	15000	0.4	12	74	0.3	0.4	12000	45	14	168	19000	26	6250	318	0.8	247	1.0	56	37	51
Maximum	17000	2.6	27	95	0.3	1.0	27000	57	20	230	22000	50	13000	510	0.8	304	1.0	80	42	77
Mean	9911	0.4	5	42	0.3	0.4	5741	30	8	70	14018	14	3438	211	0.8	96	0.6	37	29	31
Geometric mean	9612	0.4	4	39	0.2	0.4	5154	29	8	61	13765	13	3211	202	0.8	84	0.5	35	28	29
Sample std. dev.	2485	0.2	4	15	0.0	0.1	3093	7	3	41	2727	7	1465	67	0.0	57	0.2	11	5	11
CV (std. dev./mean)	25%	51%	81%	36%	0%	15%	54%	25%	35%	58%	20%	50%	43%	32%	0%	59%	29%	30%	17%	34%
Lower CI for the mean	9551	0.4	4	40	0.3	0.4	5293	29	8	64	13622	13	3226	201	0.8	88	0.5	35	28	29
Upper CI for the mean	10272	0.5	5	44	0.3	0.4	6190	31	9	76	14413	15	3651	221	0.8	105	0.6	38	29	32
Kurtosis	0.3	60.4	7.7	1.3		90.5	13.1	1.3	1.3	3.2	0.3	6.2	11.2	4.3		3.1	3.7	1.1	0.1	3.3
Skewness	0.7	7.4	2.4	1.1		9.6	2.8	1.1	1.0	1.7	0.7	2.0	2.6	1.5		1.8	2.4	0.6	0.5	1.4

n = 186 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table C.3.10: Summary Statistics for 0-5 cm Park Soil Samples in the Sudbury Core

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	4000	0.4	2.5	17	0.3	0.4	2100	19	5	17	9900	1	2000	110	0.8	24	0.5	13	21	13
10th	7580	0.4	2.5	27	0.3	0.4	3040	24	6	48	12000	8	2380	150	0.8	60	0.5	27	24	21
1st quartile	8600	0.4	2.5	35	0.3	0.4	4500	27	7	70	13000	12	2900	170	0.8	83	0.5	31	26	26
Median	10000	0.4	2.5	44	0.3	0.4	5600	31	10	110	15000	20	3200	210	0.8	130	0.5	37	29	37
3rd quartile	12000	0.4	6	55	0.3	0.4	7850	36	12	160	17000	26	3950	250	0.8	195	1	46	34	46
95th	15000	0.4	8	74	0.3	0.9	11000	45	17	240	20000	41	6230	293	0.8	290	2	52	37	67
Maximum	20000	1.5	32	120	0.3	1.7	16000	50	55	950	30000	101	9800	310	0.8	1528	4	60	40	140
Mean	10334	0.4	5	46	0.3	0.5	6293	32	11	134	15378	21	3683	210	0.8	162	0.8	38	30	38
Geometric mean	9932	0.4	4	43	0.3	0.4	5724	31	10	108	15102	17	3484	204	0.8	127	0.7	37	29	35
Sample std. dev.	2795	0.2	4	18	0.0	0.2	2785	7	6	114	3111	14	1379	51	0	171	0.5	10	4	18
CV (std. dev./mean)	27%	35%	89%	39%	0%	46%	44%	22%	60%	85%	20%	65%	38%	24%	0%	106%	70%	25%	15%	47%
Lower CI for the mean	9761	0.4	4	43	0.3	0.4	5722	31	9	111	14741	18	3401	200	0.8	127	0.7	36	29	35
Upper CI for the mean	10906	0.5	6	50	0.3	0.5	6863	33	12	157	16015	24	3966	221	0.8	197	0.9	40	31	42
Kurtosis	0.8	36.0	26.6	4.1		12.7	1.6	-0.4	27.7	29.3	4.5	12.3	4.7	-0.9		44.0	9.4	-0.1	-0.7	10.3
Skewness	0.3	6.0	4.6	1.5		3.4	1.1	0.4	4.4	4.6	1.6	2.5	1.9	0.2		5.9	2.9	-0.2	0.3	2.4

n = 95 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table C.3.11: Summary Statistics for 0-5 cm Park Soil Samples in Coniston

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	3900	0.4	2.5	20	0.3	0.4	2000	17	4	8	7400	2	1600	110	0.8	16	0.5	18	18	11
10th	5800	0.4	2.5	28	0.3	0.4	2490	20	5	14	11000	3	1960	119	0.8	23	0.5	22	22	15
1st quartile	6900	0.4	2.5	32	0.3	0.4	3000	23	6	26	11000	6	2200	140	0.8	40	0.5	26	24	16
Median	7650	0.4	7	37	0.3	0.4	6300	26	12	99	13500	11	2900	175	0.8	195	0.5	32	25	30
3rd quartile	9300	0.4	13	46	0.3	0.4	9400	28	24	450	15000	20	3400	200	0.8	610	1.0	35	27	41
95th	11000	0.4	17	60	0.3	1.1	15400	35	40	614	17350	41	9220	297	0.8	888	1.4	45	30	52
Maximum	11000	0.4	19	81	0.3	1.3	18000	36	43	620	18000	42	10000	310	0.8	940	2.0	45	31	58
Mean	7836	0.4	8	40	0.3	0.5	6979	26	16	211	13243	16	3636	184	0.8	300	0.7	32	25	30
Geometric mean	7583	0.4	6	38	0.3	0.5	5761	25	12	93	12961	11	3122	174	0.8	141	0.6	31	25	26
Sample std. dev.	1912	0.0	6	14	0.0	0.3	4386	5	12	221	2612	12	2433	62	0.0	313	0.4	8	3	14
CV (std. dev./mean)	25%	0%	74%	36%	0%	54%	65%	20%	83%	109%	20%	84%	69%	35%	0%	108%	60%	26%	13%	50%
Lower CI for the mean	6690	0.4	5	31	0.3	0.4	4351	23	8	79	11678	8	2178	146	0.8	112	0.5	27	23	21
Upper CI for the mean	8981	0.4	11	48	0.3	0.7	9607	29	23	343	14808	23	5094	221	0.8	487	1.0	37	27	39
Kurtosis	0.1		-1.1	5.4		3.3	1.6	0.2	0.3	-0.8	0.6	0.4	3.4	-0.2		-0.3	6.5	-0.5	0.9	-1.1
Skewness	0.0		0.6	1.9		2.0	1.3	0.4	1.2	0.9	-0.3	1.1	2.1	0.9		1.0	2.4	0.1	-0.1	0.4

n = 14 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table C.3.12: Summary Statistics for 0-5 cm Park Soil Samples in Falconbridge

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	6500	0.4	2.5	22	0.3	0.4	3100	24	8	44	12000	6	1800	130	0.8	68	0.5	22	25	17
10th	8050	0.4	5	28	0.3	0.4	3400	26	10	54	12000	10	1940	140	0.8	87	0.5	25	26	20
1st quartile	8800	0.4	12	29	0.3	0.4	3500	26	15	88	13000	14	2500	150	0.8	120	1	27	26	25
Median	9300	0.4	34	36	0.3	0.4	3550	37	22	325	20500	22	2850	170	0.8	385	2	32	31	31
3rd quartile	9800	0.4	49	43	0.3	0.9	7600	39	34	480	27000	33	3400	230	2	690	2	34	35	47
95th	11450	0.5	73	44	0.3	3.1	10450	61	93	1375	41600	73	5455	268	2	1905	3	35	52	82
Maximum	14000	1.2	84	45	0.3	4.2	13000	73	130	1800	45000	110	6900	310	3	2500	4	35	56	96
Mean	9456	0.4	34	35	0.3	1.0	5206	38	34	456	21722	31	3189	187	1.2	601	2	31	33	39
Geometric mean	9342	0.4	23	35	0.3	0.6	4635	36	24	255	19857	23	2978	181	1.0	335	1	30	32	35
Sample std. dev.	1510	0.2	23	7	0.0	1.1	2871	13	32	490	9717	26	1300	48	0.6	675	1	4	8	22
CV (std. dev./mean)	16%	42%	70%	20%	0%	116%	57%	34%	97%	110%	46%	86%	42%	27%	56%	116%	63%	14%	26%	57%
Lower CI for the mean	8683	0.4	22	32	0.3	0.4	3737	31	17	206	16750	17	2523	162	0.8	256	1	29	29	28
Upper CI for the mean	10228	0.5	46	39	0.3	1.6	6675	44	50	707	26695	44	3854	211	1.5	947	2	33	37	50
Kurtosis	4.0	18.0	-0.4	-1.2		2.9	1.5	2.4	3.7	1.9	0.5	4.1	2.5	0.6	0.6	2.2	-0.4	0.0	2.1	1.2
Skewness	1.2	4.2	0.4	-0.2		1.9	1.6	1.5	2.0	1.6	1.1	2.0	1.6	1.2	1.3	1.7	0.7	-1.0	1.6	1.4

n = 18 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

Table C.3.13: Summary Statistics for 0-5 cm Park Soil Samples in Copper Cliff

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	7300	0.4	2.5	34	0.3	0.4	2700	25	9	250	13000	13	2400	150	0.8	205	1.0	17	24	24
10th	7960	0.4	6	38	0.3	0.4	4140	28	11	314	13000	16	2610	177	0.8	254	1.0	30	25	29
1st quartile	9100	0.4	7	40	0.3	0.4	4300	29	12	350	13000	17	3000	180	0.8	300	2	35	27	30
Median	9950	0.4	8	56	0.3	0.4	6050	37	17	610	17500	25	3600	195	0.8	455	3	39	30	43
3rd quartile	11000	0.4	14	70	0.3	1.4	8900	43	22	990	25000	37	4000	240	0.8	620	6	43	34	55
95th	13000	1.0	55	81	0.3	3.7	18600	56	94	4260	31350	122	4625	265	2.4	3017	21	47	36	142
Maximum	13000	1.1	63	90	0.3	4.0	22000	64	100	4600	39000	130	5900	290	3.4	3649	22	49	36	150
Mean	10150	0.5	16	57	0.3	1.2	7622	38	32	1274	19500	45	3611	207	1.0	959	5	39	31	56
Geometric mean	9998	0.5	11	55	0.3	0.8	6506	37	22	764	18312	32	3520	204	0.9	593	3	38	30	47
Sample std. dev.	1756	0	17	16	0	1	4938	10	31	1430	7396	42	833	36	0.7	1076	6	8	4	38
CV (std. dev./mean)	18%	48%	110%	29%	0%	105%	67%	27%	101%	115%	39%	95%	24%	18%	71%	116%	121%	20%	14%	69%
Lower CI for the mean	9251	0.4	7	49	0.3	0.6	5095	33	16	542	15716	24	3185	189	0.6	408	2	35	28	37
Upper CI for the mean	11049	0.6	24	66	0.3	1.8	10149	43	48	2006	23284	67	4037	225	1.3	1509	9	42	33	76
Kurtosis	-0.8	2.2	3.5	-1.0		0.6	3.4	0.6	0.3	0.7	0.8	0.0	1.7	-0.1	9.6	1.0	2.7	2.2	-1.6	1.4
Skewness	0.2	2.0	2.1	0.3		1.4	1.9	0.9	1.5	1.5	1.2	1.4	0.8	0.7	3.1	1.6	1.9	-1.2	-0.1	1.6

n = 18 *Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling*

4. ANALYTICAL RESULTS

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Community of Blezard Valley																							
Carrefour Sen. Rheal Belisle Sports Complex, 2777 Main St. (Also known as Blezard Valley Playground)																							
5030668 Green Space	A	0-5 cm (soil)	19856	10000	< 0.8	5	28	< 0.5	< 0.8	3200	24	4	42	13000	10	1700	150	< 1.5	**50**	< 1	38	29	19
			19857	11000	< 0.8	6	34	< 0.5	< 0.8	3300	24	4	44	13000	12	1800	160	< 1.5	**51**	1	39	28	26
		5-10 cm (soil)	19858	12000	< 0.8	< 5	41	< 0.5	< 0.8	3900	30	5	44	14000	11	1900	160	< 1.5	**54**	< 1	45	31	20
			19859	12000	< 0.8	6	88	< 0.5	< 0.8	4100	28	5	50	14000	16	1900	170	< 1.5	**61**	< 1	46	30	56
		10-20 cm (soil)	19860	11000	< 0.8	6	37	< 0.5	< 0.8	4000	28	5	45	13000	15	1900	170	< 1.5	**56**	< 1	44	30	32
			19861	11000	< 0.8	5	40	< 0.5	< 0.8	4000	27	4	45	14000	20	1900	160	< 1.5	**58**	< 1	47	31	43
5030669 Play Structure	B	0-5 cm (sand)	19862	11000	< 0.8	< 5	45	< 0.5	< 0.8	4000	52	9	40	25000	5	5000	330	< 1.5	30	< 1	40	57	27
			19863	10000	< 0.8	< 5	42	< 0.5	< 0.8	3500	55	10	54	24000	7	5600	320	< 1.5	32	< 1	30	56	38
5030670 Green Space	C	0-5 cm (sand)	19864	8300	< 0.8	< 5	32	< 0.5	< 0.8	3100	42	8	40	19000	9	4700	280	< 1.5	27	< 1	27	47	27
			19865	8400	< 0.8	< 5	34	< 0.5	< 0.8	2900	44	9	46	22000	6	4700	280	< 1.5	29	< 1	24	55	31
5030671 Baseball Infield	D	0-5 cm (gravel)	19866	5700	< 0.8	< 5	25	< 0.5	< 0.8	6100	24	4	13	11000	4	3500	160	< 1.5	19	< 1	44	24	14
			19867	5800	< 0.8	< 5	25	< 0.5	< 0.8	5800	26	4	12	11000	3	3400	150	< 1.5	18	< 1	45	25	12
5030672 Baseball Outfield	E	0-5 cm (soil)	19868	9000	< 0.8	< 5	32	< 0.5	< 0.8	4300	23	4	46	10000	13	1900	140	< 1.5	**68**	< 1	43	26	22
			19869	9300	< 0.8	< 5	29	< 0.5	< 0.8	4500	23	4	45	11000	13	2000	140	< 1.5	**63**	< 1	42	27	34
		5-10 cm (soil)	19870	9300	< 0.8	< 5	28	< 0.5	< 0.8	3700	22	4	34	11000	10	1700	120	< 1.5	**48**	< 1	41	27	16
			19871	9300	< 0.8	< 5	29	< 0.5	< 0.8	3800	23	4	42	11000	13	1800	130	< 1.5	**55**	< 1	40	27	17
		10-20 cm (soil)	19872	8600	< 0.8	6	26	< 0.5	< 0.8	2900	22	4	43	10000	12	1800	110	< 1.5	**57**	< 1	29	25	17
			19873	8800	< 0.8	< 5	29	< 0.5	< 0.8	3400	23	4	26	10000	9	1700	120	< 1.5	42	< 1	38	26	15
5030673 Baseball Infield	F	0-5 cm (gravel)	19874	6300	< 0.8	< 5	28	< 0.5	< 0.8	6500	25	4	15	11000	4	3700	160	< 1.5	20	< 1	52	26	14
			19875	8000	< 0.8	< 5	36	< 0.5	< 0.8	7100	29	5	17	12000	4	3800	200	< 1.5	21	< 1	63	29	15
5030674 Baseball Outfield	G	0-5 cm (soil)	19876	10000	< 0.8	5	38	< 0.5	< 0.8	6000	28	5	55	11000	14	2400	160	< 1.5	**78**	< 1	49	29	26
			19877	10000	< 0.8	5	38	< 0.5	< 0.8	5700	30	5	**60**	11000	14	2300	160	< 1.5	**79**	< 1	50	29	24
		5-10 cm (soil)	19878	11000	< 0.8	6	36	< 0.5	< 0.8	5600	29	6	**60**	12000	15	2300	170	< 1.5	**78**	< 1	50	31	23
			19879	10000	< 0.8	< 5	35	< 0.5	< 0.8	5000	27	5	**61**	11000	14	2000	150	< 1.5	**77**	< 1	49	30	20
		10-20 cm (soil)	19880	10000	< 0.8	< 5	36	< 0.5	< 0.8	5200	27	5	34	11000	10	2100	160	< 1.5	**55**	< 1	49	28	17
			19881	8900	< 0.8	< 5	30	< 0.5	< 0.8	4100	23	4	27	11000	7	1900	140	< 1.5	**50**	< 1	40	26	19

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030675 Ball Diamond	H	0-5 cm (soil)	19882	8200	< 0.8	< 5	30	< 0.5	< 0.8	4200	23	5	**62**	11000	15	1900	150	< 1.5	**84**	< 1	41	26	26
			19883	7300	< 0.8	< 5	26	< 0.5	< 0.8	3300	21	5	**58**	9600	14	1800	120	< 1.5	**75**	1	31	24	24
		5-10 cm (soil)	19884	8400	< 0.8	< 5	29	< 0.5	< 0.8	3500	23	5	**60**	11000	15	1800	130	< 1.5	**83**	< 1	37	26	23
			19885	8600	< 0.8	6	28	< 0.5	< 0.8	3700	22	5	53	11000	13	1800	130	< 1.5	**69**	< 1	38	26	22
		10-20 cm (soil)	19886	8700	< 0.8	< 5	31	< 0.5	< 0.8	3500	23	5	32	11000	10	1700	140	< 1.5	**58**	< 1	36	25	19
			19887	8400	< 0.8	< 5	31	< 0.5	< 0.8	3000	21	4	21	11000	7	1700	120	< 1.5	42	< 1	29	24	17
Community of Capreol																							
Capreol Centennial Recreation Park, Field St.																							
5030759 Baseball Outfield	A	0-5 cm (soil)	21555	10000	< 0.8	**16**	38	< 0.5	< 0.8	5500	25	5	36	13000	12	2700	230	< 1.5	**54**	< 1	30	27	41
			21556	11000	< 0.8	**15**	40	< 0.5	< 0.8	5900	25	6	39	14000	13	2800	240	< 1.5	**60**	< 1	34	28	47
		5-10 cm (soil)	21557	11000	< 0.8	**16**	40	< 0.5	< 0.8	5900	27	7	46	14000	12	2600	260	< 1.5	**59**	< 1	36	33	43
			21558	11000	< 0.8	**15**	37	< 0.5	< 0.8	4700	26	6	39	14000	9	2300	240	< 1.5	**49**	< 1	30	30	36
		10-20 cm (soil)	21559	13000	< 0.8	**15**	41	< 0.5	< 0.8	4700	29	7	40	15000	9	2300	290	< 1.5	**50**	< 1	31	33	36
			21560	11000	< 0.8	**15**	38	< 0.5	< 0.8	4500	29	6	34	15000	8	2500	260	< 1.5	**45**	< 1	33	34	31
5030760 Baseball Outfield	B	0-5 cm (soil)	21563	11000	< 0.8	**15**	31	< 0.5	< 0.8	3500	25	5	25	12000	8	2100	150	< 1.5	43	< 1	30	27	24
			21564	13000	< 0.8	**15**	40	< 0.5	< 0.8	5000	29	5	28	14000	9	2300	190	< 1.5	**44**	< 1	45	31	27
		5-10 cm (soil)	21565	13000	< 0.8	**15**	49	< 0.5	< 0.8	6000	34	5	39	15000	10	2800	250	< 1.5	**47**	< 1	45	35	35
			21566	12000	< 0.8	**15**	36	< 0.5	< 0.8	4800	28	6	35	14000	11	2400	200	< 1.5	**53**	< 1	34	30	29
		10-20 cm (soil)	21567	17000	< 0.8	**15**	60	< 0.5	< 0.8	6200	40	5	48	19000	10	2900	350	< 1.5	**49**	< 1	46	42	42
			21568	12000	< 0.8	**15**	41	< 0.5	< 0.8	5000	30	6	36	15000	9	2600	250	< 1.5	**48**	< 1	36	33	32
5030761 Baseball Infield	C	0-5 cm (soil)	21561	9500	< 0.8	**15**	30	< 0.5	< 0.8	5300	27	8	20	14000	5	3600	160	< 1.5	29	< 1	38	27	24
			21562	7500	0.9	**15**	30	< 0.5	< 0.8	5300	28	6	20	13000	5	3800	170	< 1.5	29	< 1	40	29	25
5030762 Baseball Infield	D	0-5 cm (soil)	21569	9800	< 0.8	**15**	45	< 0.5	< 0.8	7000	30	7	22	14000	4	3700	190	< 1.5	25	< 1	57	30	19
			21570	6100	< 0.8	**15**	30	< 0.5	< 0.8	4200	25	6	21	11000	5	3500	160	< 1.5	26	< 1	34	25	13
5030763 Soccer Field	E	0-5 cm (soil)	21571	11000	< 0.8	**16**	46	< 0.5	< 0.8	9600	25	7	**74**	15000	23	3500	280	< 1.5	**96**	< 1	26	32	47
			21572	10000	< 0.8	**16**	38	< 0.5	< 0.8	11000	24	6	**61**	13000	21	5100	220	< 1.5	**80**	< 1	21	27	40
		5-10 cm (soil)	21573	12000	< 0.8	**15**	39	< 0.5	< 0.8	3900	27	6	45	15000	12	2300	280	< 1.5	**59**	< 1	19	32	35
			21574	12000	< 0.8	**16**	40	< 0.5	< 0.8	3700	27	6	48	15000	12	2200	280	< 1.5	**59**	< 1	15	32	35
		10-20 cm (soil)	21575	13000	< 0.8	< 5	43	< 0.5	< 0.8	4200	31	8	42	16000	11	2300	310	< 1.5	**71**	< 1	31	38	38
			21576	14000	< 0.8	6	55	< 0.5	< 0.8	4200	32	9	**63**	17000	18	2300	360	< 1.5	**100**	1	33	38	40

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Doug Mohn's Park at Capreol Centennial Recreation Park, Field St.																							
5030764 Green Space	F	0-5 cm (soil)	21577	7900	< 0.8	< 5	22	< 0.5	< 0.8	3300	26	5	17	12000	6	2200	170	< 1.5	38	< 1	33	27	18
			21578	6700	< 0.8	< 5	19	< 0.5	< 0.8	3100	27	4	14	11000	4	2200	150	< 1.5	30	< 1	27	24	17
		5-10 cm (soil)	21579	7400	< 0.8	< 5	24	< 0.5	< 0.8	2900	26	5	15	12000	5	2100	170	< 1.5	33	< 1	29	27	15
			21580	7000	**1.8**	< 5	23	< 0.5	< 0.8	2800	26	5	20	12000	6	2300	180	< 1.5	37	< 1	26	28	16
		10-20 cm (soil)	21581	7100	< 0.8	< 5	23	< 0.5	< 0.8	2800	26	5	22	12000	7	2200	170	< 1.5	39	< 1	29	28	15
			21582	5600	< 0.8	< 5	18	< 0.5	< 0.8	1800	24	5	17	11000	6	2200	150	< 1.5	33	< 1	14	27	14
5030765 Play Structure	G	0-5 cm (sand)	21583	5000	< 0.8	< 5	15	< 0.5	< 0.8	3100	28	5	12	12000	4	3000	150	< 1.5	25	< 1	18	27	29
			21584	5000	< 0.8	< 5	16	< 0.5	< 0.8	3600	28	5	14	12000	4	3000	170	< 1.5	24	< 1	21	29	17
Capreol Public Beach, Vermillion River on Lakeshore Dr.																							
5030768 Green Space	A	0-5 cm (soil)	21597	5700	< 0.8	< 5	19	< 0.5	< 0.8	2800	22	4	17	9300	11	2200	130	< 1.5	25	< 1	23	22	18
			21598	6400	< 0.8	< 5	23	< 0.5	< 0.8	3100	22	4	23	9700	11	2100	130	< 1.5	33	< 1	27	23	19
		5-10 cm (soil)	21599	6700	< 0.8	< 5	29	< 0.5	< 0.8	2900	23	4	26	9500	11	1900	130	< 1.5	32	< 1	26	24	25
			21600	6300	< 0.8	< 5	23	< 0.5	< 0.8	2700	22	4	26	9200	13	1900	120	< 1.5	34	< 1	22	22	18
		10-20 cm (soil)	21601	6800	< 0.8	< 5	28	< 0.5	< 0.8	2800	25	4	27	10000	16	2100	140	< 1.5	37	< 1	24	24	25
			21602	5800	< 0.8	< 5	19	< 0.5	< 0.8	2600	20	4	20	8500	10	1800	120	< 1.5	30	1	24	21	14
5030769 Beach	B	0-5 cm (sand)	21603	7100	< 0.8	< 5	24	< 0.5	< 0.8	4000	30	4	6.9	12000	4	2400	190	< 1.5	15	< 1	39	28	13
			21604	6200	< 0.8	< 5	20	< 0.5	< 0.8	3500	28	4	6.9	12000	4	2400	180	< 1.5	14	< 1	33	28	13
Cenotaph Park, Kelly St. & Hanna Ave.																							
5030766 Green Space	A	0-5 cm (soil)	21585	9000	< 0.8	< 5	34	< 0.5	< 0.8	4600	26	5	27	11000	10	2200	170	< 1.5	**48**	< 1	35	26	22
			21586	10000	< 0.8	< 5	39	< 0.5	< 0.8	5100	27	5	27	12000	10	2300	170	< 1.5	**49**	< 1	44	27	24
		5-10 cm (soil)	21587	10000	0.9	< 5	36	< 0.5	< 0.8	4800	28	4	23	11000	8	2100	160	< 1.5	39	< 1	42	27	19
			21588	11000	< 0.8	< 5	41	< 0.5	< 0.8	5100	29	4	25	12000	10	2100	180	< 1.5	41	< 1	44	30	21
		10-20 cm (soil)	21589	9000	< 0.8	< 5	32	< 0.5	< 0.8	4400	23	4	23	11000	9	1800	150	< 1.5	35	< 1	37	25	20
			21590	10000	< 0.8	< 5	39	< 0.5	< 0.8	4800	28	4	22	12000	11	2000	180	< 1.5	35	< 1	42	28	22
Dunn Park, Pine St.																							
5030772 Green Space	A	0-5 cm (soil)	21613	8600	< 0.8	< 5	26	< 0.5	< 0.8	3200	26	6	40	14000	15	2100	190	< 1.5	**51**	< 1	24	32	30
			21614	8200	< 0.8	< 5	27	< 0.5	< 0.8	3800	24	5	43	13000	21	2000	160	< 1.5	**55**	< 1	28	28	34
		5-10 cm (soil)	21615	7900	< 0.8	< 5	25	< 0.5	< 0.8	3400	27	5	28	12000	7	2100	190	< 1.5	30	< 1	30	28	24
			21616	8300	< 0.8	< 5	27	< 0.5	< 0.8	3600	27	5	20	13000	21	2200	200	< 1.5	34	< 1	36	30	72
		10-20 cm (soil)	21617	9000	< 0.8	< 5	29	< 0.5	< 0.8	3900	29	6	24	14000	12	2300	210	< 1.5	38	< 1	35	30	24
			21618	8800	< 0.8	< 5	31	< 0.5	< 0.8	3300	31	6	26	15000	11	2300	190	< 1.5	40	< 1	30	33	22
5030773 Play Structure	B	0-5 cm (sand)	21619	5000	< 0.8	< 5	15	< 0.5	< 0.8	2400	24	4	8.8	9800	8	2200	150	< 1.5	15	< 1	23	23	16
			21620	5400	< 0.8	< 5	18	< 0.5	< 0.8	2500	25	4	9	10000	7	2200	170	< 1.5	15	< 1	24	24	12

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Ella Lake Campground, Capreol Lake Road																							
5030776 Green Space	A	0-5 cm (soil)	21628	11000	< 0.8	< 5	32	< 0.5	< 0.8	3000	33	7	50	15000	18	2500	180	< 1.5	**66**	< 1	38	33	36
			21629	13000	< 0.8	< 5	41	< 0.5	< 0.8	3200	37	8	52	17000	17	2500	200	< 1.5	**68**	< 1	40	36	37
		5-10 cm (soil)	21630	14000	< 0.8	< 5	43	< 0.5	< 0.8	3100	38	8	38	17000	12	2600	210	< 1.5	**53**	< 1	40	41	41
			21631	13000	< 0.8	7	41	< 0.5	< 0.8	2800	34	9	47	17000	15	2600	190	< 1.5	**67**	< 1	33	37	39
		10-20 cm (soil)	21632	9000	< 0.8	5	30	< 0.5	< 0.8	2500	37	9	42	16000	16	3500	180	< 1.5	**53**	< 1	27	34	29
5030777 Beach	B	0-5 cm (sand)	21633	4900	< 0.8	< 5	17	< 0.5	< 0.8	2700	27	5	9.6	12000	3	2400	200	< 1.5	17	< 1	22	29	14
			21634	4300	< 0.8	< 5	14	< 0.5	< 0.8	2000	24	4	9.6	10000	4	2200	150	< 1.5	21	< 1	14	23	9.6
5030778 Green Space	C	0-5 cm (soil)	21635	11000	< 0.8	< 5	37	< 0.5	< 0.8	3600	28	5	29	14000	9	2000	200	< 1.5	**48**	< 1	38	29	23
			21636	9300	< 0.8	< 5	33	< 0.5	< 0.8	3300	27	5	26	13000	9	2100	190	< 1.5	**45**	< 1	33	27	22
		5-10 cm (soil)	21637	11000	0.9	< 5	36	< 0.5	< 0.8	3300	27	6	23	13000	10	2000	210	< 1.5	**48**	< 1	35	27	20
			21638	11000	< 0.8	< 5	37	< 0.5	< 0.8	3500	27	5	22	13000	8	2000	210	< 1.5	42	< 1	38	28	20
		10-20 cm (soil)	21639	11000	< 0.8	< 5	40	< 0.5	< 0.8	3600	29	6	24	14000	9	2000	230	< 1.5	**48**	< 1	38	29	22
			21640	11000	< 0.8	< 5	37	< 0.5	< 0.8	2900	28	6	27	14000	9	2000	210	< 1.5	**45**	< 1	28	27	23
McNicol Playground, Between Lincoln & Mooney Streets																							
5030770 Green Space	A	0-5 cm (soil)	21605	10000	< 0.8	< 5	58	< 0.5	< 0.8	4200	37	6	47	16000	**66**	2300	220	< 1.5	**59**	< 1	45	32	66
			21606	10000	< 0.8	< 5	49	< 0.5	< 0.8	4200	34	5	41	15000	43	2300	200	< 1.5	**50**	< 1	44	30	50
		5-10 cm (soil)	21607	9500	**1.1**	< 5	83	< 0.5	< 0.8	4000	32	5	39	16000	**91**	2200	250	< 1.5	**47**	< 1	45	32	97
			21608	11000	0.9	< 5	91	< 0.5	< 0.8	4300	36	5	40	15000	**72**	2300	260	< 1.5	**44**	< 1	48	33	94
		10-20 cm (soil)	21609	11000	**3**	9	210	< 0.5	0.9	5400	45	10	**85**	23000	**214**	2700	430	< 1.5	**76**	< 1	68	44	**230**
5030771 Play Structure	B	0-5 cm (sand)	21611	4200	< 0.8	< 5	14	< 0.5	< 0.8	2700	22	5	10	10000	4	2800	140	< 1.5	17	< 1	16	23	17
			21612	4100	< 0.8	< 5	14	< 0.5	< 0.8	2800	23	4	11	10000	4	2600	140	< 1.5	16	< 1	16	23	16
Norman Rec. Lion's Playground- Capreol Lion's Den, Albert St.																							
5030774 Green Space	A	0-5 cm (soil)	21623	9000	< 0.8	< 5	29	< 0.5	< 0.8	1700	23	4	29	11000	13	1600	140	< 1.5	**44**	< 1	17	22	22
			21624	10000	0.9	< 5	31	< 0.5	< 0.8	2400	25	5	32	13000	13	1700	160	< 1.5	43	< 1	31	26	26
		5-10 cm (soil)	21625	10000	< 0.8	< 5	30	< 0.5	< 0.8	2600	25	4	24	12000	11	1700	140	< 1.5	34	< 1	31	26	18
			21626	12000	< 0.8	< 5	38	< 0.5	< 0.8	3500	32	5	24	14000	13	2000	180	< 1.5	37	< 1	43	30	20
		10-20 cm (soil)	21627	13000	< 0.8	< 5	44	< 0.5	< 0.8	3400	37	6	37	17000	23	2300	220	< 1.5	**46**	< 1	43	36	32
5030775 Play Structure	B	0-5 cm (sand)	21621	7000	< 0.8	< 5	18	< 0.5	< 0.8	2500	30	6	15	14000	5	2700	190	< 1.5	23	< 1	23	32	17
			21622	6400	< 0.8	< 5	17	< 0.5	< 0.8	2200	28	6	14	13000	5	2600	190	< 1.5	24	< 1	21	30	15

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Prescott Park, 26 Bloor St.																							
5030767 Green Space	A	0-5 cm (soil)	21591	9500	< 0.8	6	43	< 0.5	< 0.8	3600	27	6	**57**	15000	34	2200	190	< 1.5	**63**	< 1	30	30	49
			21592	8500	< 0.8	< 5	35	< 0.5	< 0.8	3600	23	5	48	13000	27	2000	160	< 1.5	**57**	< 1	27	26	43
		5-10 cm (soil)	21593	8400	< 0.8	< 5	36	< 0.5	< 0.8	3100	22	5	34	13000	19	1900	170	< 1.5	**45**	< 1	24	27	32
			21594	8400	< 0.8	< 5	33	< 0.5	< 0.8	4000	22	4	32	12000	17	1900	170	< 1.5	42	< 1	27	27	30
		10-20 cm (soil)	21595	8500	< 0.8	< 5	34	< 0.5	< 0.8	5300	21	4	24	14000	14	2000	190	< 1.5	30	< 1	29	28	27
			21596	8100	< 0.8	< 5	34	< 0.5	< 0.8	5200	19	4	16	13000	10	2000	210	1.7	26	< 1	28	27	24
Community of Chelmsford																							
Bathurst Playground, Bathurst & Leonard St.																							
5030831 Green Space	A	0-5 cm (soil)	21293	12000	< 0.8	< 5	46	< 0.5	< 0.8	9700	39	7	44	18000	14	3600	350	< 1.5	**69**	< 1	48	34	48
			21294	12000	< 0.8	< 5	47	< 0.5	< 0.8	9500	38	9	44	17000	30	3600	290	< 1.5	**78**	< 1	42	32	36
		5-10 cm (soil)	21295	12000	< 0.8	< 5	44	< 0.5	< 0.8	6900	39	8	29	17000	12	3300	230	< 1.5	**58**	< 1	36	32	28
			21296	14000	< 0.8	5	49	< 0.5	< 0.8	8500	42	7	34	19000	11	3700	260	< 1.5	**60**	< 1	49	37	30
		10-20 cm (soil)	21297	11000	< 0.8	< 5	41	< 0.5	< 0.8	7100	38	7	30	16000	11	4400	200	< 1.5	**46**	< 1	31	32	27
			21298	12000	< 0.8	< 5	44	< 0.5	< 0.8	6300	38	7	30	17000	14	3900	210	< 1.5	**47**	< 1	36	33	27
5030832 Play Structure	B	0-5 cm (sand)	21299	8500	< 0.8	< 5	38	< 0.5	< 0.8	4100	38	11	49	25000	11	7000	300	< 1.5	31	< 1	23	48	39
			21300	8900	< 0.8	< 5	42	< 0.5	< 0.8	4000	36	11	52	25000	12	7200	300	< 1.5	30	< 1	22	46	39
Berthiaume Playground, Berthiaume & Gravelle St.																							
5030833 Green Space	A	0-5 cm (soil)	21301	6700	< 0.8	< 5	25	< 0.5	< 0.8	17000	26	8	32	13000	12	8800	230	< 1.5	**45**	< 1	31	25	20
			21302	6500	< 0.8	< 5	25	< 0.5	< 0.8	19000	26	8	33	13000	12	10000	220	< 1.5	**47**	< 1	26	23	20
		5-10 cm (soil)	21303	6600	< 0.8	< 5	24	< 0.5	< 0.8	18000	26	7	19	13000	8	9700	190	< 1.5	28	< 1	26	24	18
			21304	6400	< 0.8	< 5	23	< 0.5	< 0.8	22000	26	6	16	13000	6	12000	200	< 1.5	24	< 1	29	24	16
		10-20 cm (soil)	21305	6400	< 0.8	< 5	22	< 0.5	< 0.8	20000	26	6	16	13000	6	11000	190	< 1.5	25	< 1	24	23	16
			21306	7000	< 0.8	< 5	24	< 0.5	< 0.8	19000	27	6	18	14000	8	10000	200	< 1.5	24	< 1	27	24	18
5030834 Play Structure	B	0-5 cm (sand)	21307	6300	< 0.8	< 5	20	< 0.5	< 0.8	3400	28	9	27	18000	7	4400	220	< 1.5	24	< 1	22	38	25
			21308	7800	< 0.8	< 5	28	< 0.5	< 0.8	4500	32	9	28	19000	7	4600	240	< 1.5	26	< 1	39	38	25
Bonaventure Playground (Shirley Playground), Edna & Shirley Streets																							
5030735 Green Space	A	0-5 cm (soil)	21367	9900	< 0.8	< 5	32	< 0.5	< 0.8	3400	25	4	19	11000	8	2300	170	< 1.5	33	< 1	42	27	21
			21368	9900	< 0.8	< 5	32	< 0.5	< 0.8	3400	25	5	23	12000	9	2100	170	< 1.5	36	< 1	42	28	22
		5-10 cm (soil)	21369	10000	< 0.8	< 5	28	< 0.5	< 0.8	5100	23	4	16	12000	8	2300	150	< 1.5	22	< 1	40	28	19
			21370	11000	< 0.8	< 5	33	< 0.5	< 0.8	5200	26	4	22	12000	9	2600	160	< 1.5	22	< 1	41	28	23
		10-20 cm (soil)	21371	8800	< 0.8	< 5	30	< 0.5	< 0.8	3500	24	5	17	11000	10	2200	170	< 1.5	27	< 1	40	28	20
			21372	7700	< 0.8	< 5	30	< 0.5	< 0.8	3600	37	8	33	18000	7	4000	260	< 1.5	29	< 1	38	41	36
5030736 Play Structure	B	0-5 cm (sand)	21373	8100	< 0.8	< 5	33	< 0.5	< 0.8	3700	39	9	37	19000	8	4300	260	< 1.5	30	< 1	38	43	36
			21374	9500	< 0.8	< 5	33	< 0.5	< 0.8	3600	27	5	17	12000	10	2200	190	< 1.5	31	< 1	42	30	21

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Cote Park, 215 Edward Ave.																							
5030725 Baseball Outfield	A	0-5 cm (soil)	21331	10000	< 0.8	5	40	< 0.5	< 0.8	6200	29	6	34	14000	10	2900	200	< 1.5	**52**	< 1	47	31	30
			21332	9300	< 0.8	5	36	< 0.5	< 0.8	4600	27	6	33	13000	10	2400	180	< 1.5	**53**	< 1	35	28	29
		5-10 cm (soil)	21333	8300	< 0.8	6	32	< 0.5	< 0.8	4000	27	6	32	12000	9	2300	170	< 1.5	**52**	< 1	34	29	26
			21334	9200	< 0.8	6	34	< 0.5	< 0.8	4000	28	6	34	13000	9	2300	160	< 1.5	**52**	< 1	35	29	27
		10-20 cm (soil)	21335	7500	< 0.8	< 5	28	< 0.5	< 0.8	3800	26	5	26	12000	6	2300	180	< 1.5	**45**	< 1	30	27	24
			21336	7300	< 0.8	< 5	26	< 0.5	< 0.8	3600	25	5	22	12000	6	2400	170	< 1.5	33	< 1	28	25	22
5030726 Baseball Infield	B	0-5 cm (soil)	21337	8300	< 0.8	< 5	36	< 0.5	< 0.8	12000	27	6	23	14000	6	6800	220	< 1.5	29	< 1	80	28	28
			21338	8000	< 0.8	< 5	34	< 0.5	< 0.8	12000	27	5	22	14000	5	6400	220	< 1.5	26	< 1	77	29	27
5030727 Play Structure	C	0-5 cm (sand)	21339	5000	< 0.8	< 5	16	< 0.5	< 0.8	3000	24	4	17	13000	4	2800	170	< 1.5	14	< 1	24	28	29
			21340	5100	< 0.8	< 5	16	< 0.5	< 0.8	3000	24	4	17	13000	4	2900	170	< 1.5	16	< 1	23	27	28
5030728 Play Structure	D	0-5 cm (sand)	21341	5100	< 0.8	< 5	17	< 0.5	< 0.8	3500	26	4	14	13000	4	3000	170	< 1.5	13	< 1	21	27	29
			21342	4600	< 0.8	< 5	16	< 0.5	< 0.8	2900	23	4	12	12000	4	2900	150	< 1.5	14	< 1	17	26	27
5030729 Green Space	E	0-5 cm (soil)	21343	9000	< 0.8	< 5	34	< 0.5	< 0.8	7000	29	6	34	14000	11	3400	200	< 1.5	**47**	< 1	36	27	36
			21344	8200	< 0.8	< 5	32	< 0.5	< 0.8	6600	29	7	36	14000	14	3400	200	< 1.5	**46**	< 1	31	25	41
		5-10 cm (soil)	21345	8300	< 0.8	< 5	31	< 0.5	< 0.8	6600	28	6	29	13000	11	3500	190	< 1.5	40	< 1	34	27	33
			21346	7900	< 0.8	< 5	30	< 0.5	< 0.8	7100	26	6	26	12000	12	3700	180	< 1.5	34	< 1	33	26	32
		10-20 cm (soil)	21347	9700	< 0.8	8	36	< 0.5	< 0.8	7200	31	6	24	14000	9	3400	220	< 1.5	34	< 1	46	29	34
			21348	8400	< 0.8	< 5	31	< 0.5	< 0.8	8500	28	6	26	14000	9	3900	210	< 1.5	34	< 1	42	27	29
David Street Playground, David & Marion Streets																							
5030720 Green Space	A	0-5 cm (soil)	21309	9600	< 0.8	< 5	33	< 0.5	< 0.8	4600	31	5	22	13000	11	2500	180	< 1.5	39	< 1	40	28	24
			21310	10000	< 0.8	< 5	35	< 0.5	< 0.8	4400	31	5	23	13000	14	2400	170	< 1.5	40	< 1	40	28	20
		5-10 cm (soil)	21311	9000	< 0.8	< 5	25	< 0.5	< 0.8	3900	26	4	15	12000	7	2100	170	< 1.5	26	< 1	37	26	19
			21312	8400	< 0.8	< 5	24	< 0.5	< 0.8	3400	24	4	12	11000	6	2000	150	< 1.5	25	< 1	34	25	16
		10-20 cm (soil)	21313	6200	< 0.8	< 5	16	< 0.5	< 0.8	2500	20	4	7.2	9300	6	1800	120	< 1.5	16	< 1	21	22	22
			21314	5700	< 0.8	< 5	14	< 0.5	< 0.8	1900	20	3	7.3	9700	3	1700	120	< 1.5	17	< 1	14	21	21
5030721 Play Structure	B	0-5 cm (sand)	21315	7700	< 0.8	< 5	27	< 0.5	< 0.8	3400	31	10	31	19000	8	5800	240	< 1.5	27	< 1	24	36	36
			21316	7800	< 0.8	< 5	29	< 0.5	< 0.8	3700	32	10	34	21000	8	5900	250	< 1.5	26	< 1	25	40	37
5030722 Play Structure	C	0-5 cm (sand)	21317	5700	< 0.8	5	17	< 0.5	< 0.8	2500	24	6	20	13000	9	2600	160	< 1.5	22	< 1	20	26	33
			21318	5700	< 0.8	< 5	17	< 0.5	< 0.8	2500	24	5	18	13000	7	2600	160	< 1.5	23	< 1	20	25	30

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Fireman Park, Morgan Rd.																							
5030830 Green Space	A	0-5 cm (soil)	21287	7600	< 0.8	< 5	31	< 0.5	< 0.8	5500	28	**20**	15	12000	8	3200	210	< 1.5	**104**	< 1	37	26	36
			21288	6900	< 0.8	< 5	28	< 0.5	< 0.8	4400	26	16	12	12000	8	2700	200	< 1.5	**78**	< 1	36	25	32
		5-10 cm (soil)	21289	7700	< 0.8	< 5	30	< 0.5	< 0.8	5500	29	17	12	13000	6	3400	220	< 1.5	**76**	< 1	36	27	27
			21290	9000	< 0.8	< 5	36	< 0.5	< 0.8	6100	33	17	12	14000	6	3800	230	< 1.5	**77**	< 1	40	29	28
		10-20 cm (soil)	21291	5300	< 0.8	< 5	22	< 0.5	< 0.8	3400	22	13	6.9	9700	3	2400	160	< 1.5	**53**	< 1	28	21	20
			21292	4900	< 0.8	< 5	19	< 0.5	< 0.8	2700	21	5	7.4	9500	3	2100	150	< 1.5	21	< 1	22	20	20
Larchmount Drive Playground, Larchmount Dr																							
5030828 Green Space	A	0-5 cm (soil)	21279	10000	< 0.8	< 5	35	< 0.5	< 0.8	5500	29	**22**	26	14000	11	2800	220	< 1.5	**<u>151</u>**	< 1	40	28	26
			21280	9700	< 0.8	< 5	32	< 0.5	< 0.8	4500	26	16	25	13000	8	2400	180	< 1.5	**121**	< 1	36	26	22
		5-10 cm (soil)	21281	9700	< 0.8	< 5	32	< 0.5	< 0.8	4800	28	19	24	14000	10	2800	200	< 1.5	**134**	< 1	35	27	23
			21282	9800	< 0.8	< 5	32	< 0.5	< 0.8	4800	28	18	25	13000	9	2600	190	< 1.5	**130**	< 1	37	28	22
		10-20 cm (soil)	21283	9400	< 0.8	< 5	30	< 0.5	< 0.8	4500	29	19	21	16000	8	3600	220	< 1.5	**76**	< 1	28	31	30
			21284	9900	< 0.8	< 5	33	< 0.5	< 0.8	5200	29	**20**	19	15000	10	3300	210	< 1.5	**105**	< 1	35	30	24
5030829 Play Structure	B	0-5 cm (sand)	21285	6100	< 0.8	6	18	< 0.5	< 0.8	2800	31	19	23	16000	5	4000	190	< 1.5	**62**	< 1	22	31	26
			21286	9400	< 0.8	7	38	< 0.5	< 0.8	4300	38	**21**	26	18000	5	4000	230	< 1.5	**63**	< 1	40	38	28
Main St. Playground, Main & Queen Streets																							
5030724 Green Space	A	0-5 cm (soil)	21325	7900	< 0.8	6	24	< 0.5	< 0.8	3700	24	5	24	12000	14	2100	170	< 1.5	32	< 1	34	26	36
			21326	8200	< 0.8	< 5	31	< 0.5	< 0.8	4000	29	5	26	13000	17	2600	180	< 1.5	34	< 1	34	26	44
		5-10 cm (soil)	21327	8400	< 0.8	< 5	25	< 0.5	< 0.8	3400	24	4	21	12000	11	2000	160	< 1.5	30	< 1	30	26	28
			21328	7900	< 0.8	< 5	24	< 0.5	< 0.8	3500	24	5	21	12000	13	2200	160	< 1.5	30	< 1	32	25	31
		10-20 cm (soil)	21329	6500	< 0.8	< 5	20	< 0.5	< 0.8	3100	20	4	8.4	10000	5	2100	140	< 1.5	16	< 1	30	22	19
			21330	6800	< 0.8	< 5	20	< 0.5	< 0.8	3300	24	5	15	11000	9	2100	160	< 1.5	26	< 1	30	24	24
Nickel Basin Playground, Vermillion Lake Rd.																							
5030822 Green Space	A	0-5 cm (soil)	21255	11000	< 0.8	< 5	43	< 0.5	< 0.8	6600	36	7	27	16000	12	3600	260	< 1.5	**51**	< 1	35	30	31
			21256	11000	< 0.8	< 5	43	< 0.5	< 0.8	7700	36	7	26	15000	12	4000	260	< 1.5	**53**	< 1	38	31	31
		5-10 cm (soil)	21257	11000	< 0.8	< 5	44	< 0.5	< 0.8	5600	37	7	22	15000	10	3400	240	< 1.5	40	< 1	34	32	30
			21258	13000	< 0.8	< 5	47	< 0.5	< 0.8	8000	41	8	20	17000	10	4300	250	< 1.5	**44**	< 1	48	36	32
		10-20 cm (soil)	21259	14000	< 0.8	< 5	48	< 0.5	< 0.8	6900	43	7	14	18000	8	4100	260	< 1.5	32	< 1	50	37	30
			21260	13000	< 0.8	< 5	49	< 0.5	< 0.8	8100	43	7	14	18000	8	4500	270	< 1.5	35	< 1	49	37	30
5030823 Play Structure	B	0-5 cm (sand)	21261	9600	< 0.8	< 5	42	< 0.5	< 0.8	5000	46	10	48	24000	10	6700	310	< 1.5	27	< 1	37	45	41
			21262	9200	< 0.8	< 5	40	< 0.5	< 0.8	5100	42	11	42	23000	10	6500	290	< 1.5	28	< 1	37	42	38

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Northend Playground & Playfields, 3878 Regional Rd. 15																							
5030737 Baseball Outfield	A	0-5 cm (soil)	21375	8900	< 0.8	7	37	< 0.5	< 0.8	2900	21	6	41	11000	14	1600	210	< 1.5	**73**	< 1	30	24	27
			21376	8700	< 0.8	7	35	< 0.5	< 0.8	2900	20	5	40	11000	13	1600	200	< 1.5	**67**	< 1	30	23	27
		5-10 cm (soil)	21377	9000	< 0.8	7	36	< 0.5	< 0.8	2300	21	5	35	12000	10	1500	210	< 1.5	**57**	< 1	24	24	27
			21378	9100	< 0.8	8	37	< 0.5	< 0.8	2600	22	6	34	12000	11	1600	210	< 1.5	**64**	< 1	27	24	27
		10-20 cm (soil)	21379	9400	< 0.8	5	37	< 0.5	< 0.8	2400	22	5	23	12000	8	1600	210	< 1.5	**46**	< 1	26	24	24
			21380	8800	< 0.8	7	36	< 0.5	< 0.8	2200	20	6	28	12000	10	1500	220	< 1.5	**57**	< 1	22	23	25
5030738 Baseball Infield	B	0-5 cm (soil)	21381	6800	< 0.8	< 5	32	< 0.5	< 0.8	8000	20	6	21	10000	7	4200	170	< 1.5	**44**	< 1	61	21	21
			21382	6400	< 0.8	< 5	33	< 0.5	< 0.8	8100	20	6	21	9900	7	4300	160	< 1.5	42	< 1	60	20	22
5030739 Green Space	C	0-5 cm (soil)	21383	8600	< 0.8	6	35	< 0.5	< 0.8	2300	21	6	47	12000	14	1600	220	< 1.5	**75**	< 1	24	23	29
			21384	9200	< 0.8	6	36	< 0.5	< 0.8	2900	22	6	44	12000	15	1700	230	< 1.5	**71**	< 1	30	25	28
		5-10 cm (soil)	21385	11000	< 0.8	7	42	< 0.5	< 0.8	3600	25	6	36	14000	11	1700	250	< 1.5	**63**	< 1	42	28	30
			21386	12000	< 0.8	6	48	< 0.5	< 0.8	4200	28	6	35	15000	12	2000	280	< 1.5	**66**	< 1	46	30	31
		10-20 cm (soil)	21387	12000	< 0.8	6	49	< 0.5	< 0.8	4000	31	6	30	14000	10	2000	270	< 1.5	**57**	< 1	45	29	28
			21388	12000	< 0.8	6	44	< 0.5	< 0.8	3900	26	7	28	14000	12	1900	260	< 1.5	**74**	< 1	45	29	28
Rodrigue Street Playground, Rodrigue Avenue & Water Street																							
5030723 Green Space	A	0-5 cm (soil)	21319	5300	< 0.8	5	22	< 0.5	< 0.8	3100	24	4	18	11000	17	2100	140	< 1.5	25	< 1	23	23	46
			21320	4600	< 0.8	< 5	20	< 0.5	< 0.8	3100	22	5	16	10000	20	2100	140	< 1.5	32	< 1	17	22	40
		5-10 cm (soil)	21321	5200	< 0.8	< 5	20	< 0.5	< 0.8	2800	21	3	15	10000	14	2000	140	< 1.5	18	< 1	21	22	42
			21322	4900	< 0.8	< 5	20	< 0.5	< 0.8	2300	22	4	15	9700	14	2100	130	< 1.5	22	< 1	16	21	40
		10-20 cm (soil)	21323	5000	< 0.8	< 5	22	< 0.5	< 0.8	2600	20	4	13	9600	14	2000	140	< 1.5	22	< 1	18	21	36
			21324	5300	< 0.8	< 5	21	< 0.5	< 0.8	3300	22	4	14	10000	16	2200	160	< 1.5	22	< 1	24	22	31
St. Onge Playground (Irene Playground), Irene Crescent																							
5030732 Green Space	A	0-5 cm (soil)	21357	8200	< 0.8	< 5	29	< 0.5	< 0.8	7300	27	9	47	13000	11	4100	260	< 1.5	**56**	< 1	34	26	29
			21358	8700	< 0.8	< 5	29	< 0.5	< 0.8	6800	26	7	42	13000	11	4000	230	< 1.5	**55**	< 1	36	27	32
		5-10 cm (soil)	21359	7900	< 0.8	< 5	24	< 0.5	< 0.8	12000	26	6	26	13000	8	8100	200	< 1.5	35	< 1	37	25	23
			21360	8700	< 0.8	< 5	28	< 0.5	< 0.8	11000	27	7	30	13000	9	6300	220	< 1.5	43	< 1	40	28	26
		10-20 cm (soil)	21361	5600	< 0.8	< 5	21	< 0.5	< 0.8	17000	22	6	16	11000	6	9700	210	1.6	27	< 1	28	21	18
			21362	6200	< 0.8	< 5	21	< 0.5	< 0.8	16000	22	5	16	11000	6	8900	200	< 1.5	26	< 1	33	23	20
5030733 Play Structure	B	0-5 cm (sand)	21363	8000	< 0.8	< 5	31	< 0.5	< 0.8	3200	41	9	44	22000	7	5900	270	< 1.5	24	< 1	29	44	36
			21364	10000	< 0.8	< 5	43	< 0.5	< 0.8	4100	42	10	**69**	22000	8	6100	290	< 1.5	26	< 1	46	47	39
5030734 Play Structure	C	0-5 cm (sand)	21365	9100	< 0.8	< 5	36	< 0.5	< 0.8	4000	37	9	47	22000	8	5900	270	< 1.5	29	< 1	40	44	38
			21366	8800	< 0.8	< 5	34	< 0.5	< 0.8	3700	42	9	48	22000	8	6000	280	< 1.5	28	< 1	36	44	39

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Vaillancourt Street Playground, Vaillancourt Cr. & Abbe St.																							
5030730 Green Space	A	0-5 cm (soil)	21349	11000	< 0.8	< 5	44	< 0.5	< 0.8	6400	33	5	30	15000	10	3000	230	< 1.5	35	< 1	46	31	35
			21350	11000	< 0.8	< 5	46	< 0.5	< 0.8	6600	34	6	31	15000	12	3200	240	< 1.5	38	< 1	46	31	38
		5-10 cm (soil)	21351	12000	< 0.8	< 5	44	< 0.5	< 0.8	6000	32	5	28	15000	10	2800	230	< 1.5	37	< 1	47	32	31
			21352	9600	< 0.8	< 5	30	< 0.5	< 0.8	3500	27	5	26	13000	10	2300	200	< 1.5	38	< 1	36	28	26
		10-20 cm (soil)	21353	8400	< 0.8	< 5	28	< 0.5	< 0.8	3300	24	5	24	12000	9	2300	190	< 1.5	33	< 1	29	26	23
			21354	7600	< 0.8	< 5	27	< 0.5	< 0.8	3100	23	5	22	11000	10	2300	180	< 1.5	31	< 1	26	25	23
5030731 Play Structure	B	0-5 cm (sand)	21355	6300	< 0.8	< 5	26	< 0.5	< 0.8	2600	34	8	36	18000	10	4000	230	< 1.5	27	< 1	22	38	46
			21356	7200	< 0.8	< 5	29	< 0.5	< 0.8	3000	40	9	42	19000	10	4100	240	< 1.5	29	< 1	27	40	50
Vermillion Lake Road Park, Vermillion Lake Rd.																							
5030824 Ball Diamond	A	0-5 cm (soil)	21263	8700	< 0.8	< 5	34	< 0.5	< 0.8	7500	29	7	27	14000	7	3900	210	< 1.5	**80**	< 1	33	27	35
			21264	9700	< 0.8	< 5	37	< 0.5	< 0.8	8000	33	8	25	15000	8	3900	270	< 1.5	**65**	< 1	38	30	38
		5-10 cm (soil)	21265	9400	< 0.8	< 5	35	< 0.5	< 0.8	6400	32	9	32	15000	7	3400	230	< 1.5	**98**	< 1	36	30	33
			21266	9800	< 0.8	< 5	39	< 0.5	< 0.8	7100	34	8	26	15000	8	3800	260	< 1.5	**70**	< 1	38	31	37
		10-20 cm (soil)	21267	9400	< 0.8	< 5	35	< 0.5	< 0.8	6500	32	8	34	15000	7	3500	250	< 1.5	**99**	< 1	37	30	30
			21268	11000	< 0.8	< 5	42	< 0.5	< 0.8	7400	38	8	25	16000	9	4000	270	< 1.5	**68**	< 1	38	32	42
5030825 Green Space	B	0-5 cm (soil)	21269	14000	< 0.8	< 5	59	< 0.5	< 0.8	11000	47	9	21	19000	11	5600	380	< 1.5	42	< 1	54	39	40
			21270	13000	< 0.8	6	54	< 0.5	< 0.8	10000	44	8	22	18000	10	5200	390	< 1.5	40	< 1	53	38	37
		5-10 cm (soil)	21271	14000	< 0.8	< 5	57	< 0.5	< 0.8	9900	46	8	17	19000	9	5500	290	< 1.5	36	< 1	55	38	37
			21272	14000	< 0.8	< 5	57	< 0.5	< 0.8	9700	46	9	17	19000	12	5400	310	< 1.5	40	< 1	56	40	38
		10-20 cm (soil)	21273	13000	< 0.8	< 5	55	< 0.5	< 0.8	9700	46	8	17	18000	8	5400	320	< 1.5	32	< 1	55	39	36
			21274	12000	< 0.8	< 5	44	< 0.5	< 0.8	9600	39	**29**	14	17000	9	5200	290	< 1.5	**124**	< 1	50	36	32
5030826 Play Structure	C	0-5 cm (sand)	21275	3600	< 0.8	< 5	9.9	< 0.5	< 0.8	2500	20	13	5.9	8700	2	1900	120	< 1.5	**45**	< 1	18	20	10
			21276	3500	< 0.8	< 5	9.8	< 0.5	< 0.8	2400	20	11	6	8800	2	1900	120	< 1.5	40	< 1	17	20	10
5030827 Play Area	D	0-5 cm (sand)	21277	3600	< 0.8	< 5	11	< 0.5	< 0.8	2400	23	13	6.6	10000	2	2100	150	< 1.5	**46**	< 1	17	23	11
			21278	3800	< 0.8	< 5	12	< 0.5	< 0.8	2600	23	14	6.8	10000	2	2100	170	< 1.5	42	< 1	19	23	12
Community of Dowling																							
A.Y. Jackson Memorial Park, 350 Hwy 144 North																							
5030813 Green Space	A	0-5 cm (soil)	21221	10000	< 0.8	< 5	35	< 0.5	< 0.8	3500	24	6	25	14000	12	2100	190	< 1.5	34	< 1	36	30	30
			21222	10000	< 0.8	< 5	35	< 0.5	< 0.8	3400	24	5	28	13000	12	2100	180	< 1.5	36	< 1	36	28	30
		5-10 cm (soil)	21223	8300	< 0.8	< 5	28	< 0.5	< 0.8	3000	20	4	22	9900	11	1600	130	< 1.5	34	< 1	32	23	19
			21224	8400	**1.4**	< 5	29	< 0.5	< 0.8	2800	21	4	24	10000	14	1700	130	< 1.5	34	< 1	30	23	20
		10-20 cm (soil)	21225	8200	< 0.8	< 5	34	< 0.5	< 0.8	2700	21	4	33	11000	38	1600	160	< 1.5	38	< 1	29	24	25
			21226	9900	< 0.8	< 5	34	< 0.5	< 0.8	2700	22	5	25	13000	16	1800	150	< 1.5	34	< 1	28	27	33

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Douglas Street Playground, Gerard St.																							
5030815 Play Structure	A	0-5 cm (sand)	21229	5500	< 0.8	< 5	26	< 0.5	< 0.8	3000	26	7	16	15000	4	3800	230	< 1.5	19	< 1	21	29	22
			21230	7700	< 0.8	< 5	43	< 0.5	< 0.8	4400	30	7	16	18000	5	4000	290	< 1.5	18	< 1	36	39	24
5030816 Play Structure	B	0-5 cm (sand)	21231	6000	< 0.8	< 5	19	< 0.5	< 0.8	3500	26	7	16	16000	5	3800	190	< 1.5	19	< 1	28	32	24
			21232	8500	< 0.8	< 5	35	< 0.5	< 0.8	4400	29	6	17	17000	5	4000	220	< 1.5	18	< 1	41	35	27
5030817 Green Space	C	0-5 cm (soil)	21233	15000	< 0.8	< 5	62	< 0.5	**3.8**	6200	45	12	28	19000	16	4700	270	< 1.5	42	< 1	46	38	49
			21234	19000	< 0.8	< 5	81	< 0.5	**2.6**	7000	52	11	37	21000	19	5400	310	< 1.5	**48**	< 1	48	41	62
		5-10 cm (soil)	21235	17000	< 0.8	< 5	73	< 0.5	< 0.8	6200	48	8	33	20000	14	4500	260	< 1.5	40	< 1	41	38	64
			21236	17000	< 0.8	< 5	72	< 0.5	< 0.8	6100	48	8	32	20000	13	4500	260	< 1.5	43	< 1	42	38	62
		10-20 cm (soil)	21237	12000	< 0.8	< 5	45	< 0.5	< 0.8	4600	39	7	19	17000	13	3800	250	< 1.5	31	< 1	35	35	35
			21238	12000	< 0.8	< 5	46	< 0.5	< 0.8	4600	38	7	20	17000	15	3900	260	< 1.5	29	< 1	38	35	37
Dowling Ballfields, Hwy 144																							
5030818 Baseball Outfield	A	0-5 cm (soil)	21239	15000	< 0.8	< 5	54	< 0.5	< 0.8	4700	43	8	29	18000	14	4100	270	< 1.5	42	< 1	39	36	41
			21240	15000	< 0.8	< 5	54	< 0.5	< 0.8	4800	41	8	31	17000	15	4100	250	< 1.5	**48**	< 1	38	35	39
		5-10 cm (soil)	21241	15000	< 0.8	< 5	48	< 0.5	< 0.8	3300	42	7	21	17000	8	3700	250	< 1.5	34	< 1	32	34	38
			21242	17000	< 0.8	< 5	58	< 0.5	< 0.8	3800	46	7	19	19000	9	3900	280	< 1.5	34	< 1	39	37	39
		10-20 cm (soil)	21243	15000	< 0.8	< 5	55	< 0.5	< 0.8	3300	42	7	14	18000	6	4000	240	< 1.5	29	< 1	33	37	30
			21244	16000	< 0.8	< 5	58	< 0.5	< 0.8	3300	46	8	16	19000	7	4100	270	< 1.5	31	< 1	35	36	33
5030819 Baseball Infield	B	0-5 cm (soil)	21245	7800	< 0.8	< 5	32	< 0.5	< 0.8	8000	27	5	16	13000	6	4500	190	< 1.5	26	< 1	52	26	27
			21246	8000	< 0.8	< 5	33	< 0.5	< 0.8	8100	26	5	15	13000	5	4500	200	< 1.5	25	< 1	54	27	24
5030820 Baseball Outfield	C	0-5 cm (soil)	21247	14000	< 0.8	< 5	57	< 0.5	< 0.8	6800	42	7	24	17000	12	4200	250	< 1.5	39	< 1	47	36	33
			21248	15000	< 0.8	< 5	62	< 0.5	< 0.8	6600	45	7	26	17000	12	4000	260	< 1.5	41	< 1	47	36	35
		5-10 cm (soil)	21249	14000	< 0.8	< 5	52	< 0.5	< 0.8	5700	39	6	20	17000	10	3600	240	< 1.5	36	< 1	46	36	30
			21250	15000	< 0.8	< 5	56	< 0.5	< 0.8	5800	41	7	23	18000	10	3700	260	< 1.5	38	< 1	46	36	32
		10-20 cm (soil)	21251	15000	< 0.8	< 5	53	< 0.5	< 0.8	4500	37	6	18	17000	9	3000	230	< 1.5	30	< 1	43	37	32
			21252	16000	< 0.8	< 5	55	< 0.5	< 0.8	4800	38	6	22	17000	10	3300	240	< 1.5	37	< 1	45	36	33
5030821 Baseball Infield	D	0-5 cm (soil)	21253	7400	< 0.8	< 5	27	< 0.5	< 0.8	14000	26	6	15	13000	5	7300	190	< 1.5	29	< 1	40	26	20
			21254	7400	< 0.8	< 5	29	< 0.5	< 0.8	15000	26	6	17	13000	7	7700	190	< 1.5	27	< 1	41	28	21
Gerard St. Playground, Gerard St.																							
5030814 Play Structure	A	0-5 cm (sand)	21227	5200	< 0.8	< 5	16	< 0.5	< 0.8	2100	21	6	16	14000	6	3400	160	< 1.5	18	< 1	13	29	24
			21228	5900	< 0.8	< 5	19	< 0.5	< 0.8	2900	27	7	20	17000	8	3700	190	< 1.5	20	< 1	20	35	28

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Community of Guilletville																							
Guilletville Playground, Simon St.																							
5030664 Green Space	A	0-5 cm (soil)	19806	8000	< 0.8	< 5	25	< 0.5	< 0.8	5300	23	4	37	11000	8	3200	140	< 1.5	**46**	< 1	23	23	21
			19807	7800	< 0.8	< 5	25	< 0.5	< 0.8	5700	23	4	37	11000	8	3600	140	< 1.5	**45**	< 1	24	24	21
		5-10 cm (soil)	19808	8300	< 0.8	< 5	27	< 0.5	< 0.8	5700	27	4	27	12000	6	3500	170	< 1.5	36	< 1	29	28	20
			19809	7800	< 0.8	< 5	27	< 0.5	< 0.8	4600	25	4	25	11000	6	3100	160	< 1.5	32	< 1	25	25	18
		10-20 cm (soil)	19810	7000	< 0.8	< 5	23	< 0.5	< 0.8	3400	25	4	13	11000	4	2500	160	< 1.5	25	< 1	25	26	18
			19811	6400	< 0.8	< 5	21	< 0.5	< 0.8	3000	26	4	12	12000	4	2400	170	< 1.5	23	< 1	24	29	15
5030665 Play Structure	B	0-15 cm (sand)	19812	8200	< 0.8	< 5	32	< 0.5	< 0.8	3200	44	8	38	21000	5	4600	270	< 1.5	32	< 1	25	53	30
			19813	8400	< 0.8	< 5	34	< 0.5	< 0.8	3100	47	8	41	21000	6	4700	280	< 1.5	32	< 1	26	50	27
5030666 Play Structure	C	0-15 cm (sand)	19814	7900	< 0.8	< 5	36	< 0.5	< 0.8	2900	51	9	42	22000	5	5000	280	< 1.5	32	< 1	22	54	31
			19815	7700	< 0.8	< 5	35	< 0.5	< 0.8	2900	46	9	42	21000	5	4700	270	< 1.5	32	< 1	22	52	31
5030667 Play Structure	D	0-15 cm (sand)	19816	6200	< 0.8	< 5	31	< 0.5	< 0.8	1900	36	8	41	16000	5	4500	240	< 1.5	25	< 1	10	40	37
			19817	6700	< 0.8	< 5	31	< 0.5	< 0.8	3200	46	8	36	20000	4	4600	260	< 1.5	27	< 1	20	53	34
Community of Hanmer																							
Centennial Ball Park, Centennial Drive																							
5030892 Play Structure	A	0-5 cm (sand)	18352	9400	< 0.8	< 5	33	< 0.5	< 0.8	3600	49	8	27	23000	5	4200	290	< 1.5	27	< 1	35	51	29
			18353	7500	< 0.8	< 5	25	< 0.5	< 0.8	2700	37	9	29	21000	5	4100	240	< 1.5	27	< 1	24	46	30
5030893 Green Space	B	0-5 cm (soil)	18354	9500	< 0.8	< 5	21	< 0.5	< 0.8	3500	26	5	31	13000	10	2100	150	< 1.5	**50**	< 1	35	27	18
			18355	9600	< 0.8	5	26	< 0.5	< 0.8	3000	26	5	40	14000	11	2100	170	< 1.5	**52**	< 1	31	27	20
		5-10 cm (soil)	18356	9500	< 0.8	< 5	22	< 0.5	< 0.8	2800	26	6	16	14000	6	2100	170	< 1.5	36	< 1	28	26	17
			18357	8600	**1.2**	< 5	20	< 0.5	< 0.8	2300	23	5	11	13000	6	1800	130	< 1.5	30	< 1	22	24	15
		10-20 cm (soil)	18358	7700	< 0.8	< 5	23	< 0.5	< 0.8	3000	26	5	11	11000	5	2000	150	< 1.5	26	< 1	29	26	13
			18359	11000	< 0.8	< 5	23	< 0.5	< 0.8	3900	31	5	6.8	14000	4	2200	180	< 1.5	26	< 1	43	32	15
5030894 Baseball Infield	C	0-5 cm (soil)	18360	8600	< 0.8	< 5	39	< 0.5	< 0.8	8600	33	6	20	14000	6	4600	210	< 1.5	33	< 1	80	30	20
			18361	8200	< 0.8	< 5	35	< 0.5	< 0.8	7200	27	5	19	13000	6	3900	200	< 1.5	29	< 1	65	28	17
5030895 Baseball Outfield	D	0-5 cm (soil)	18362	9400	< 0.8	< 5	24	< 0.5	< 0.8	3200	23	4	19	11000	8	1800	140	< 1.5	36	< 1	32	25	18
			18363	9300	< 0.8	< 5	23	< 0.5	< 0.8	2900	22	4	19	11000	7	1700	140	< 1.5	34	< 1	31	25	19
		5-10 cm (soil)	18364	9600	< 0.8	< 5	26	< 0.5	< 0.8	2500	23	4	20	11000	8	1600	130	< 1.5	35	< 1	27	25	15
			18365	9800	< 0.8	< 5	27	< 0.5	< 0.8	2700	24	4	22	12000	7	1700	150	< 1.5	36	< 1	30	26	16
		10-20 cm (soil)	18366	9200	< 0.8	8	27	< 0.5	< 0.8	1800	22	4	26	11000	8	1500	130	< 1.5	37	< 1	20	24	16
			18367	9400	< 0.8	5	27	< 0.5	< 0.8	2200	22	4	28	12000	8	1500	150	< 1.5	36	< 1	26	24	16
5030896 Baseball Infield	E	0-5 cm (soil)	18368	5500	< 0.8	< 5	31	< 0.5	< 0.8	14000	22	5	14	10000	4	5200	170	< 1.5	21	< 1	68	23	13
			18369	8100	< 0.8	< 5	47	< 0.5	< 0.8	16000	28	6	18	13000	5	6400	230	< 1.5	28	< 1	110	29	18
5030897 Baseball Outfield	F	0-5 cm (soil)	18370	12000	< 0.8	< 5	43	< 0.5	< 0.8	5100	31	5	42	14000	10	2500	220	< 1.5	**48**	< 1	49	32	25

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
			18371	12000	< 0.8	< 5	44	< 0.5	< 0.8	5500	34	6	35	14000	10	2600	220	< 1.5	**57**	< 1	49	32	24
		5-10 cm (soil)	18372	13000	< 0.8	< 5	46	< 0.5	< 0.8	4500	31	5	35	14000	10	2200	210	< 1.5	**45**	< 1	49	32	23
			18373	13000	< 0.8	< 5	46	< 0.5	< 0.8	4800	33	5	32	14000	9	2400	230	< 1.5	42	< 1	48	32	22
		10-20 cm (soil)	18374	12000	< 0.8	< 5	40	< 0.5	< 0.8	4100	26	5	34	13000	9	2000	230	< 1.5	**56**	< 1	41	28	22
			18375	9600	< 0.8	< 5	34	< 0.5	< 0.8	3200	24	4	30	12000	8	1900	210	< 1.5	42	< 1	27	28	20
Elmview Playground, Elmview Drive																							
5030898 Play Structure	A	0-5 cm (sand)	18288	7500	< 0.8	< 5	34	< 0.5	< 0.8	2500	43	10	44	20000	6	4600	250	< 1.5	31	< 1	18	42	31
			18289	8100	< 0.8	< 5	35	< 0.5	< 0.8	2500	46	10	46	21000	6	4700	270	< 1.5	31	< 1	18	50	33
5030899 Play Structure	B	0-5 cm (sand)	18290	7500	< 0.8	< 5	29	< 0.5	< 0.8	2600	39	8	35	19000	5	4000	230	< 1.5	28	< 1	25	42	26
			18291	8900	< 0.8	< 5	34	< 0.5	< 0.8	3600	42	8	35	19000	5	3900	260	< 1.5	26	< 1	34	46	28
5030900 Baseball Infield	C	0-5 cm (soil)	18292	11000	< 0.8	< 5	90	< 0.5	< 0.8	27000	29	8	29	15000	6	6500	220	< 1.5	36	< 1	110	29	29
			18293	13000	< 0.8	< 5	100	< 0.5	< 0.8	34000	34	8	31	16000	8	8400	230	< 1.5	42	< 1	140	31	28
5030901 Baseball Outfield	D	0-5 cm (soil)	18294	10000	< 0.8	< 5	36	< 0.5	< 0.8	4100	28	5	36	13000	13	2100	180	< 1.5	**56**	< 1	42	28	28
			18295	12000	< 0.8	< 5	41	< 0.5	< 0.8	5100	32	5	34	13000	12	2200	190	< 1.5	**48**	< 1	46	30	28
		5-10 cm (soil)	18296	10000	< 0.8	< 5	34	< 0.5	< 0.8	3500	28	5	32	12000	13	2000	170	< 1.5	**45**	< 1	35	28	29
			18297	8400	< 0.8	< 5	32	< 0.5	< 0.8	2300	25	5	34	11000	12	1800	160	< 1.5	**46**	< 1	22	24	27
		10-20 cm (soil)	18298	10000	< 0.8	< 5	36	< 0.5	< 0.8	3300	26	4	33	12000	11	1700	170	< 1.5	**48**	< 1	35	28	26
			18299	11000	< 0.8	< 5	35	< 0.5	< 0.8	3200	26	4	34	12000	11	1700	160	< 1.5	**52**	< 1	36	27	24
Farmdale Playground, 4760 Morrie Court																							
5030886 Play Structure	A	0-5 cm (sand)	18332	8900	< 0.8	< 5	34	< 0.5	< 0.8	3200	43	8	39	19000	5	4400	270	< 1.5	28	< 1	32	48	27
			18333	10000	< 0.8	< 5	44	< 0.5	< 0.8	3700	51	9	48	23000	6	4500	330	< 1.5	30	< 1	41	54	34
5030887 Play Structure	B	0-5 cm (sand)	18334	11000	< 0.8	< 5	49	< 0.5	< 0.8	3500	47	9	55	22000	6	4800	330	< 1.5	31	< 1	39	52	34
			18335	11000	< 0.8	< 5	55	< 0.5	< 0.8	3300	49	11	**70**	24000	8	6000	340	< 1.5	35	< 1	33	51	39
5030888 Baseball Infield	C	0-5 cm (soil)	18336	7100	< 0.8	< 5	27	< 0.5	< 0.8	3400	30	6	19	14000	4	3100	180	< 1.5	22	< 1	38	32	16
			18337	7300	< 0.8	< 5	27	< 0.5	< 0.8	3800	30	6	20	14000	4	3300	180	< 1.5	24	< 1	41	30	16
5030889 Baseball Outfield	D	0-5 cm (soil)	18338	8500	< 0.8	< 5	29	< 0.5	< 0.8	3600	25	4	39	12000	22	2000	180	< 1.5	**67**	< 1	36	10	28
			18339	8700	< 0.8	< 5	37	< 0.5	< 0.8	3400	25	4	38	12000	22	2000	180	< 1.5	39	< 1	34	9	30
		5-10 cm (soil)	18340	8600	< 0.8	< 5	32	< 0.5	< 0.8	2500	24	4	31	11000	23	1700	180	< 1.5	36	< 1	28	25	24
			18341	8400	< 0.8	< 5	40	< 0.5	< 0.8	2500	24	4	28	11000	35	1700	170	< 1.5	36	< 1	25	25	31
		10-20 cm (soil)	18342	8600	< 0.8	< 5	29	< 0.5	< 0.8	2400	22	4	13	10000	9	1500	190	< 1.5	27	< 1	27	24	19
			18343	7600	< 0.8	< 5	34	< 0.5	< 0.8	2200	20	4	24	9900	19	1400	140	< 1.5	31	< 1	22	22	21
5030890 Baseball Infield	E	0-5 cm (soil)	18344	6700	< 0.8	< 5	46	< 0.5	< 0.8	15000	25	6	21	12000	6	6700	190	< 1.5	30	< 1	110	26	20
			18345	7300	< 0.8	< 5	46	< 0.5	< 0.8	15000	24	6	23	12000	6	6700	190	< 1.5	30	< 1	110	25	20
5030891 Baseball Outfield	F	0-5 cm (soil)	18346	9300	< 0.8	< 5	26	< 0.5	< 0.8	4900	26	5	30	12000	10	2200	140	< 1.5	40	< 1	35	26	18
			18347	11000	< 0.8	< 5	35	< 0.5	< 0.8	4100	31	5	28	13000	10	2400	170	< 1.5	43	< 1	43	28	20

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
		5-10 cm (soil)	18348	10000	< 0.8	< 5	32	< 0.5	< 0.8	3700	31	5	24	13000	8	2100	180	< 1.5	34	< 1	43	28	15
			18349	10000	< 0.8	< 5	29	< 0.5	< 0.8	3300	29	4	19	12000	6	1900	170	< 1.5	30	< 1	41	27	14
		10-20 cm (soil)	18350	11000	< 0.8	< 5	33	< 0.5	< 0.8	3700	29	4	17	13000	6	1900	180	< 1.5	28	< 1	42	29	14
			18351	11000	< 0.8	< 5	34	< 0.5	< 0.8	3800	32	5	23	13000	9	2200	190	< 1.5	33	< 1	40	28	16
Howard Armstrong Rec Centre, 4040 Elmview Dr																							
5030943 Play Structure	A	0-5 cm (sand)	18376	6900	< 0.8	< 5	28	< 0.5	< 0.8	2600	42	8	33	21000	4	4300	230	< 1.5	26	< 1	14	52	31
			18377	7500	< 0.8	< 5	28	< 0.5	< 0.8	3300	49	8	30	23000	4	4700	250	< 1.5	27	< 1	23	60	32
5030944 Soccer Field	B	0-5 cm (soil)	19368	11000	< 0.8	< 5	27	< 0.5	< 0.8	5000	23	4	49	13000	11	1900	150	< 1.5	**51**	< 1	37	8	19
			19369	9600	0.9	7	27	< 0.5	< 0.8	11000	22	4	43	12000	9	2100	150	< 1.5	**45**	1	34	24	19
		5-10 cm (soil)	19370	10000	< 0.8	9	37	< 0.5	< 0.8	2900	25	4	46	13000	10	1700	150	< 1.5	**46**	< 1	32	26	21
			19371	11000	< 0.8	9	37	< 0.5	< 0.8	10000	26	6	55	13000	14	1900	170	< 1.5	**73**	< 1	39	28	22
		10-20 cm (soil)	19372	11000	**1.2**	< 5	36	< 0.5	< 0.8	3200	48	5	22	13000	8	2100	170	**2.7**	**48**	< 1	35	29	22
			19373	11000	< 0.8	5	36	< 0.5	< 0.8	3300	27	5	28	13000	10	1900	160	< 1.5	**45**	< 1	36	28	21
5030945 Soccer Field	C	0-5 cm (soil)	19374	9700	< 0.8	< 5	36	< 0.5	< 0.8	8300	28	5	43	13000	11	2600	190	< 1.5	**59**	< 1	41	29	21
			19375	9000	< 0.8	< 5	34	< 0.5	< 0.8	14000	25	6	42	12000	10	2500	190	< 1.5	**60**	< 1	40	27	21
		5-10 cm (soil)	19376	10000	< 0.8	6	36	< 0.5	< 0.8	3000	27	5	**57**	13000	13	1900	130	< 1.5	**67**	< 1	30	27	21
			19377	11000	< 0.8	7	37	< 0.5	< 0.8	6100	27	5	50	13000	14	1900	140	< 1.5	**67**	< 1	36	28	20
		10-20 cm (soil)	19378	11000	< 0.8	< 5	39	< 0.5	< 0.8	3400	28	4	28	13000	9	2000	140	< 1.5	37	< 1	36	29	21
			19379	13000	< 0.8	< 5	45	< 0.5	< 0.8	4200	34	5	19	14000	8	2300	180	< 1.5	33	< 1	43	32	21
5030946 Soccer Field	D	0-5 cm (soil)	19380	9800	< 0.8	< 5	37	< 0.5	< 0.8	8300	28	5	26	12000	8	2600	190	< 1.5	40	< 1	43	28	27
			19381	9700	< 0.8	< 5	35	< 0.5	< 0.8	8900	29	5	26	12000	8	2700	190	< 1.5	39	< 1	43	28	23
		5-10 cm (soil)	19382	12000	< 0.8	< 5	35	< 0.5	< 0.8	4400	29	4	32	14000	9	1800	150	< 1.5	**46**	< 1	44	30	20
			19383	11000	< 0.8	< 5	35	< 0.5	< 0.8	4500	28	4	32	13000	9	1800	150	< 1.5	**47**	< 1	44	29	19
		10-20 cm (soil)	19384	11000	< 0.8	< 5	38	< 0.5	< 0.8	4400	28	5	37	13000	13	2000	150	< 1.5	**55**	< 1	43	30	21
			19385	9200	< 0.8	< 5	27	< 0.5	< 0.8	2700	23	4	41	12000	11	1800	120	< 1.5	**50**	< 1	27	26	19
5030947 Soccer Field	E	0-5 cm (soil)	19386	9300	< 0.8	< 5	28	< 0.5	< 0.8	4000	24	4	23	12000	7	2100	150	< 1.5	32	< 1	28	25	23
			19387	9400	< 0.8	< 5	28	< 0.5	< 0.8	5000	25	6	21	12000	8	2700	160	< 1.5	37	< 1	28	25	22
		5-10 cm (soil)	19388	9300	< 0.8	< 5	28	< 0.5	< 0.8	2900	27	5	13	12000	6	2100	150	< 1.5	24	< 1	29	26	16
			19389	9200	< 0.8	< 5	30	< 0.5	< 0.8	2700	26	6	14	12000	5	2200	150	< 1.5	28	< 1	24	25	19
		10-20 cm (soil)	19390	9400	< 0.8	< 5	26	< 0.5	< 0.8	3500	28	5	9.5	12000	5	2200	170	< 1.5	20	< 1	33	26	13
			19391	10000	< 0.8	< 5	30	< 0.5	< 0.8	4300	31	6	9.9	14000	4	2600	200	< 1.5	22	< 1	40	30	14

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
St. Joseph Ball Park (Lion's Playground) , 4611 St. Joseph St.																							
5030881 Play Structure	A	0-5 cm (sand)	18306	7800	< 0.8	< 5	26	< 0.5	< 0.8	2900	45	8	35	24000	5	4300	250	< 1.5	28	< 1	26	53	28
			18307	8500	< 0.8	< 5	28	< 0.5	< 0.8	3200	49	8	32	26000	5	4000	270	< 1.5	26	< 1	29	62	29
5030882 Play Structure	B	0-5 cm (sand)	18308	10000	< 0.8	< 5	38	< 0.5	< 0.8	4100	52	8	37	26000	6	4300	310	< 1.5	26	< 1	40	60	36
			18309	10000	< 0.8	< 5	37	< 0.5	< 0.8	3800	47	8	39	24000	5	4300	280	< 1.5	26	< 1	39	53	37
5030883 Baseball Outfield	C	0-5 cm (soil)	18310	11000	< 0.8	< 5	35	< 0.5	< 0.8	4500	26	4	37	12000	10	2100	170	< 1.5	**46**	< 1	40	26	22
			18311	11000	< 0.8	< 5	35	< 0.5	< 0.8	4200	26	4	32	12000	10	2000	170	< 1.5	**44**	< 1	40	26	22
		5-10 cm (soil)	18312	11000	< 0.8	< 5	32	< 0.5	< 0.8	3700	24	4	25	12000	9	1900	160	< 1.5	37	< 1	34	26	21
			18313	11000	< 0.8	< 5	33	< 0.5	< 0.8	3200	25	4	25	12000	8	1800	160	< 1.5	35	< 1	33	26	21
		10-20 cm (soil)	18314	9900	< 0.8	< 5	31	< 0.5	< 0.8	2800	24	5	17	12000	8	1900	160	< 1.5	38	< 1	29	24	17
			18315	10000	< 0.8	< 5	28	< 0.5	< 0.8	2500	26	5	11	12000	5	1900	160	< 1.5	29	< 1	27	24	15
5030884 Baseball Infield	D	0-5 cm (soil)	18316	5700	< 0.8	< 5	31	< 0.5	< 0.8	13000	22	5	18	11000	6	5400	160	< 1.5	25	< 1	61	23	28
			18317	5900	< 0.8	< 5	33	< 0.5	< 0.8	15000	23	6	20	12000	6	5600	170	< 1.5	30	< 1	64	24	35
5030885 Baseball Outfield	E	0-5 cm (soil)	18318	7800	< 0.8	5	24	< 0.5	< 0.8	2600	24	5	26	11000	12	2000	120	< 1.5	41	< 1	23	22	26
			18319	6800	< 0.8	< 5	26	< 0.5	< 0.8	2400	25	4	28	10000	12	1900	110	< 1.5	41	< 1	20	22	23
		5-10 cm (soil)	18320	8200	< 0.8	< 5	22	< 0.5	< 0.8	2000	24	4	29	11000	12	1900	120	< 1.5	41	< 1	19	24	20
			18321	7900	< 0.8	< 5	22	< 0.5	< 0.8	2000	24	4	25	11000	10	1800	130	< 1.5	37	< 1	21	25	18
		10-20 cm (soil)	18322	8400	< 0.8	< 5	27	< 0.5	< 0.8	1900	23	4	29	11000	11	1800	130	< 1.5	39	< 1	18	23	18
			18323	8200	< 0.8	< 5	26	< 0.5	< 0.8	1800	24	4	25	11000	10	1800	130	< 1.5	38	< 1	18	23	18
Theresa Playground (Hanmer Playground), Spruce St.																							
5030879 Play Structure	A	0-5 cm (sand)	18324	6600	< 0.8	< 5	32	< 0.5	< 0.8	1500	34	8	37	16000	6	3700	220	< 1.5	27	< 1	10	38	29
			18325	7800	< 0.8	< 5	36	< 0.5	< 0.8	1900	36	8	46	18000	6	4000	240	< 1.5	29	< 1	14	41	34
5030880 Baseball Outfield	B	0-5 cm (soil)	18326	6600	< 0.8	< 5	22	< 0.5	< 0.8	1700	22	4	24	10000	8	1900	130	< 1.5	34	< 1	13	23	18
			18327	7000	< 0.8	< 5	22	< 0.5	< 0.8	1600	22	5	27	10000	10	1800	130	< 1.5	38	< 1	13	22	19
		5-10 cm (soil)	18328	7100	< 0.8	< 5	26	< 0.5	< 0.8	1700	24	5	24	10000	8	1900	150	< 1.5	34	< 1	14	23	17
			18329	7300	< 0.8	< 5	26	< 0.5	< 0.8	2100	24	5	21	10000	8	1900	170	< 1.5	32	< 1	20	24	17
		10-20 cm (soil)	18330	10000	< 0.8	< 5	36	< 0.5	< 0.8	3400	31	5	17	13000	6	2000	250	< 1.5	28	< 1	42	30	19
			18331	11000	< 0.8	< 5	36	< 0.5	< 0.8	3800	32	4	12	13000	5	2100	200	< 1.5	24	< 1	43	30	16
Station	**Map ID**	**Soil Depth**	**Sample No.**	**Al**	**Sb**	**As**	**Ba**	**Be**	**Cd**	**Ca**	**Cr**	**Co**	**Cu**	**Fe**	**Pb**	**Mg**	**Mn**	**Mo**	**Ni**	**Se**	**Sr**	**V**	**Zn**

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Community of Levack																							
4th Avenue Playground, 4th Avenue																							
5030800 Green Space	A	0-5 cm (soil)	21475	8500	< 0.8	< 5	32	< 0.5	< 0.8	4700	35	7	35	16000	14	3700	270	< 1.5	**45**	< 1	33	33	36
			21476	8200	< 0.8	< 5	30	< 0.5	< 0.8	4900	32	7	33	15000	14	3700	240	< 1.5	**44**	< 1	32	30	33
		5-10 cm (soil)	21477	11000	< 0.8	< 5	41	< 0.5	< 0.8	7000	40	8	51	18000	19	4200	300	< 1.5	**71**	< 1	44	37	40
			21478	10000	< 0.8	< 5	38	< 0.5	< 0.8	6100	37	8	46	16000	16	3900	260	< 1.5	**62**	< 1	36	33	37
		10-20 cm (soil)	21479	9000	< 0.8	< 5	34	< 0.5	< 0.8	5500	36	9	**61**	17000	36	4400	280	< 1.5	**67**	< 1	30	34	52
			21480	10000	< 0.8	< 5	39	< 0.5	< 0.8	6700	38	8	42	17000	19	4200	270	< 1.5	**59**	< 1	41	36	34
5030801 Play Structure	B	0-5 cm (sand)	21481	5800	< 0.8	< 5	19	< 0.5	< 0.8	3000	30	7	20	15000	5	3800	190	< 1.5	25	< 1	22	32	31
			21482	8000	< 0.8	< 5	28	< 0.5	< 0.8	4300	39	7	19	19000	6	4100	230	< 1.5	25	< 1	36	42	34
Larch St. Playground, Larch St.																							
5030805 Play Structure	A	0-5 cm (sand)	21497	5400	< 0.8	7	24	< 0.5	< 0.8	2800	31	7	18	16000	8	3600	210	< 1.5	32	< 1	20	38	29
			21498	5100	< 0.8	6	15	< 0.5	< 0.8	2200	29	4	18	16000	5	3400	160	< 1.5	17	< 1	14	37	29
5030806 Green Space	B	0-5 cm (soil)	21499	9900	< 0.8	6	33	< 0.5	< 0.8	4500	34	6	25	15000	10	3600	250	< 1.5	38	< 1	31	30	30
			21500	12000	< 0.8	< 5	57	< 0.5	< 0.8	6900	46	7	25	18000	11	4300	290	< 1.5	38	< 1	49	38	37
		5-10 cm (soil)	21501	9300	< 0.8	< 5	26	< 0.5	< 0.8	3500	30	7	23	16000	15	3700	200	< 1.5	**51**	< 1	23	32	26
			21502	11000	< 0.8	< 5	37	< 0.5	< 0.8	5200	37	5	26	16000	10	3700	260	< 1.5	34	< 1	36	33	30
		10-20 cm (soil)	21503	11000	< 0.8	< 5	42	< 0.5	< 0.8	5600	39	6	26	16000	10	3700	270	< 1.5	38	< 1	41	34	32
			21504	12000	< 0.8	< 5	47	< 0.5	< 0.8	6100	39	6	26	17000	12	4100	270	< 1.5	33	< 1	46	38	31
Levack Ball Park, 2nd Avenue																							
5030802 Soccer Field	A	0-5 cm (soil)	21483	11000	< 0.8	< 5	50	< 0.5	< 0.8	4400	31	5	19	14000	10	2300	160	< 1.5	29	< 1	41	32	26
			21484	10000	< 0.8	< 5	42	< 0.5	< 0.8	4600	27	5	22	13000	12	2500	150	< 1.5	34	< 1	39	29	25
		5-10 cm (soil)	21485	10000	< 0.8	< 5	38	< 0.5	< 0.8	4600	29	6	29	14000	9	2400	190	< 1.5	**44**	< 1	38	31	22
			21486	10000	< 0.8	< 5	36	< 0.5	< 0.8	4700	31	5	29	14000	8	2500	190	< 1.5	40	< 1	40	31	23
		10-20 cm (soil)	21487	11000	< 0.8	< 5	40	< 0.5	< 0.8	6300	36	6	25	16000	8	3500	230	< 1.5	35	< 1	45	34	26
			21488	10000	< 0.8	< 5	40	< 0.5	< 0.8	6600	35	7	18	14000	8	3500	230	< 1.5	36	< 1	41	32	25
5030803 Baseball Outfield	B	0-5 cm (soil)	21489	11000	< 0.8	< 5	45	< 0.5	< 0.8	5800	36	7	46	16000	12	3500	230	< 1.5	40	< 1	41	32	45
			21490	10000	**1.6**	< 5	44	< 0.5	< 0.8	6800	35	8	36	15000	15	3800	210	< 1.5	**49**	< 1	40	31	41
		5-10 cm (soil)	21491	10000	< 0.8	< 5	38	< 0.5	< 0.8	4000	33	7	**67**	16000	14	3100	200	< 1.5	**55**	< 1	32	33	37
			21492	10000	< 0.8	< 5	36	< 0.5	< 0.8	4400	33	7	44	16000	10	3300	210	< 1.5	**46**	< 1	32	31	32
		10-20 cm (soil)	21493	9700	< 0.8	< 5	35	< 0.5	< 0.8	2900	29	9	**100**	17000	25	3000	180	< 1.5	**94**	< 1	25	34	44
			21494	9300	< 0.8	< 5	31	< 0.5	< 0.8	3500	30	8	**70**	16000	19	3300	190	< 1.5	**70**	< 1	30	35	42
5030804 Baseball Infield	C	0-5 cm (soil)	21495	6600	< 0.8	< 5	26	< 0.5	< 0.8	4600	22	6	15	11000	6	3200	160	< 1.5	29	< 1	37	24	23
			21496	6500	< 0.8	< 5	27	< 0.5	< 0.8	4900	22	5	15	11000	5	3300	150	< 1.5	23	< 1	41	24	24

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Community of Naughton																							
Naughton Ballfield, 1 Denis St.																							
5030924 Baseball Infield	A	0-5 cm (gravel)	18200	5600	< 0.8	< 5	37	< 0.5	< 0.8	13000	21	5	19	9400	5	6700	160	< 1.5	29	< 1	89	20	16
			18201	5300	< 0.8	< 5	33	< 0.5	< 0.8	11000	19	5	19	8200	5	6000	150	< 1.5	28	< 1	76	18	15
5030925 Baseball Outfield	B	0-5 cm (soil)	18202	7500	< 0.8	< 5	25	< 0.5	< 0.8	3200	24	4	28	10000	6	2100	140	< 1.5	35	< 1	34	24	16
			18203	8300	< 0.8	< 5	27	< 0.5	< 0.8	3200	25	5	23	11000	6	2200	150	< 1.5	33	< 1	35	25	16
		5-10 cm (soil)	18204	7600	< 0.8	< 5	22	< 0.5	< 0.8	3100	26	5	14	11000	4	2300	150	< 1.5	22	< 1	33	25	14
			18205	7300	< 0.8	< 5	22	< 0.5	< 0.8	3400	24	4	12	11000	4	2300	150	< 1.5	21	< 1	33	24	13
		10-20 cm (soil)	18206	6000	< 0.8	< 5	18	< 0.5	< 0.8	2900	23	4	6.5	9700	3	2100	160	< 1.5	15	< 1	29	23	12
			18207	7200	< 0.8	< 5	21	< 0.5	< 0.8	3100	23	4	8.3	11000	3	2100	170	< 1.5	17	< 1	32	24	12
Oja Sports Complex (Simon Lake Sports Complex), 36 Phil St.																							
5030918 Baseball Infield	A	0-5 cm (soil)	18176	13000	< 0.8	< 5	64	< 0.5	< 0.8	12000	43	8	31	20000	8	7500	300	< 1.5	35	< 1	100	38	32
			18177	13000	< 0.8	< 5	72	< 0.5	< 0.8	16000	41	8	31	19000	8	9500	300	< 1.5	36	< 1	140	39	32
5030919 Baseball Outfield	B	0-5 cm (soil)	18178	12000	< 0.8	< 5	48	< 0.5	< 0.8	8400	36	8	33	16000	11	4000	280	< 1.5	**62**	< 1	47	34	27
			18179	10000	< 0.8	< 5	38	< 0.5	< 0.8	7300	30	6	36	14000	11	3500	250	< 1.5	**56**	< 1	40	30	26
		5-10 cm (soil)	18180	10000	< 0.8	< 5	41	< 0.5	< 0.8	6800	32	7	42	15000	11	3600	280	< 1.5	**57**	< 1	38	30	29
			18181	9900	< 0.8	< 5	38	< 0.5	< 0.8	6400	32	7	34	15000	10	3700	260	< 1.5	**51**	< 1	35	30	26
		10-20 cm (soil)	18182	8900	< 0.8	< 5	40	< 0.5	< 0.8	4200	27	7	39	13000	11	2800	290	< 1.5	**54**	< 1	27	27	29
			18183	9400	**1.6**	< 5	36	< 0.5	< 0.8	4300	27	6	32	14000	10	2700	250	< 1.5	**45**	< 1	29	28	25
5030920 Baseball Infield	C	0-5 cm (soil)	18184	5800	< 0.8	< 5	32	< 0.5	< 0.8	10000	19	4	16	9300	4	5400	210	< 1.5	28	< 1	75	20	14
			18185	5900	< 0.8	< 5	34	< 0.5	< 0.8	12000	20	5	15	9700	5	6000	210	< 1.5	29	< 1	82	20	14
5030921 Baseball Outfield	D	0-5 cm (soil)	18186	8500	< 0.8	< 5	36	< 0.5	< 0.8	4000	24	6	38	12000	9	2300	230	< 1.5	**53**	< 1	35	26	20
			18187	7100	< 0.8	< 5	32	< 0.5	< 0.8	3000	22	6	36	11000	9	2100	180	< 1.5	**53**	< 1	26	22	18
		5-10 cm (soil)	18188	6600	< 0.8	< 5	24	< 0.5	< 0.8	2300	20	4	22	10000	6	1700	140	< 1.5	32	< 1	19	21	14
			18189	6600	< 0.8	< 5	26	< 0.5	< 0.8	2600	20	5	24	9700	6	1700	140	< 1.5	36	< 1	21	21	15
		10-20 cm (soil)	18190	7900	< 0.8	< 5	24	< 0.5	< 0.8	3000	23	4	14	11000	6	1800	150	< 1.5	27	< 1	28	26	15
			18191	8000	< 0.8	< 5	31	< 0.5	< 0.8	3800	23	5	22	11000	8	1800	180	< 1.5	37	< 1	39	25	17
5030922 Play Structure	E	0-5 cm (sand)	18192	7500	< 0.8	< 5	27	< 0.5	< 0.8	4000	23	6	27	17000	10	3100	220	< 1.5	26	< 1	37	35	27
			18193	6200	< 0.8	< 5	20	< 0.5	< 0.8	3300	21	6	26	16000	9	2800	200	< 1.5	24	< 1	29	36	26
5030923 Green Space	F	0-5 cm (soil)	18194	10000	< 0.8	< 5	41	< 0.5	< 0.8	5300	30	7	27	13000	8	2700	240	< 1.5	41	< 1	42	29	22
			18195	9500	< 0.8	< 5	36	< 0.5	< 0.8	5200	28	7	30	13000	8	2700	250	< 1.5	42	< 1	40	29	23
		5-10 cm (soil)	18196	9600	< 0.8	< 5	35	< 0.5	< 0.8	5300	25	6	26	13000	8	2600	220	< 1.5	41	< 1	40	28	22
			18197	7000	< 0.8	< 5	28	< 0.5	< 0.8	3000	22	6	27	11000	8	2200	180	< 1.5	37	< 1	22	23	22
		10-20 cm (soil)	18198	7600	< 0.8	< 5	32	< 0.5	< 0.8	3200	22	5	35	10000	10	2000	190	< 1.5	**46**	< 1	23	24	22
			18199	7700	< 0.8	< 5	32	< 0.5	< 0.8	2900	19	5	36	10000	10	1900	170	< 1.5	**49**	< 1	20	22	20

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Simon Lake Park, 263 Simon Lake Drive																							
5030914 Beach	A	0-5 cm (sand)	18160	6200	< 0.8	< 5	20	< 0.5	< 0.8	2700	30	9	30	16000	6	4100	190	< 1.5	30	< 1	20	32	29
			18161	6800	< 0.8	6	23	< 0.5	< 0.8	3100	31	8	30	15000	5	3900	200	< 1.5	29	< 1	26	33	35
5030915 Play Structure	B	0-5 cm (sand)	18162	6600	< 0.8	< 5	21	< 0.5	< 0.8	3100	29	8	25	15000	6	4200	200	< 1.5	25	< 1	26	33	26
			18163	5200	< 0.8	< 5	17	< 0.5	< 0.8	2200	25	8	26	13000	4	3400	170	< 1.5	27	< 1	14	27	27
5030916 Green Space	C	0-5 cm (soil)	18164	6300	< 0.8	< 5	37	< 0.5	< 0.8	2800	19	5	49	10000	23	1800	140	< 1.5	**63**	< 1	22	21	29
			18165	6000	< 0.8	< 5	43	< 0.5	< 0.8	2700	18	6	56	10000	31	1800	140	< 1.5	**83**	< 1	22	21	42
		5-10 cm (soil)	18166	6400	< 0.8	< 5	38	< 0.5	< 0.8	2400	18	4	42	10000	20	1600	110	< 1.5	**54**	< 1	20	22	30
			18167	6000	< 0.8	5	56	< 0.5	< 0.8	2800	18	6	55	9400	38	1600	140	< 1.5	**70**	< 1	25	21	60
		10-20 cm (soil)	18168	6500	< 0.8	< 5	40	< 0.5	< 0.8	2400	17	4	28	9500	20	1600	110	< 1.5	40	< 1	21	22	31
			18169	6300	< 0.8	< 5	67	< 0.5	< 0.8	2600	17	4	26	10000	43	1600	120	< 1.5	39	< 1	23	22	57
5030917 Green Space	D	0-5 cm (soil)	18170	7000	< 0.8	< 5	35	< 0.5	< 0.8	3000	25	6	45	13000	22	2300	180	< 1.5	**59**	< 1	23	26	32
			18171	6500	< 0.8	< 5	33	< 0.5	< 0.8	2600	21	5	39	12000	17	2000	170	< 1.5	**49**	< 1	20	24	28
		5-10 cm (soil)	18172	6800	< 0.8	< 5	34	< 0.5	< 0.8	2400	21	5	31	12000	13	2100	150	< 1.5	40	< 1	20	26	26
			18173	8100	< 0.8	< 5	39	< 0.5	< 0.8	3200	23	5	31	14000	12	2200	180	< 1.5	42	< 1	28	29	29
		10-20 cm (soil)	18174	12000	< 0.8	< 5	59	< 0.5	< 0.8	4400	30	6	22	17000	10	2500	200	< 1.5	34	< 1	40	38	27
			18175	11000	< 0.8	< 5	51	< 0.5	< 0.8	4400	28	5	19	17000	11	2700	200	< 1.5	31	< 1	38	36	27
Community of Onaping Falls																							
Fraser Park (Onaping Tot Lot), Fraser Ave.																							
5030809 Play Structure	A	0-5 cm (sand)	21205	5200	< 0.8	< 5	20	< 0.5	< 0.8	2300	27	6	18	12000	4	3400	170	< 1.5	18	< 1	16	29	23
			21206	6200	< 0.8	< 5	22	< 0.5	< 0.8	3100	29	6	19	15000	4	3500	190	< 1.5	19	< 1	25	33	25
Gill Loop Playground, Gill Ave.																							
5030807 Green Space	A	0-5 cm (soil)	21197	8800	< 0.8	< 5	34	< 0.5	< 0.8	3500	31	7	30	15000	22	3000	210	1.7	31	< 1	34	35	37
			21198	7800	< 0.8	< 5	28	< 0.5	< 0.8	3000	30	6	29	14000	26	3000	190	< 1.5	29	< 1	28	33	36
		5-10 cm (soil)	21199	11000	< 0.8	< 5	39	< 0.5	< 0.8	3200	31	7	30	16000	16	2700	240	< 1.5	32	< 1	34	36	43
			21200	11000	< 0.8	< 5	37	< 0.5	< 0.8	3100	30	6	25	15000	16	2600	240	< 1.5	31	< 1	32	36	43
		10-20 cm (soil)	21201	14000	< 0.8	< 5	45	< 0.5	< 0.8	3300	32	6	16	18000	7	2600	280	< 1.5	27	< 1	38	38	39
			21202	12000	< 0.8	< 5	53	< 0.5	< 0.8	3700	36	6	19	16000	10	2500	330	< 1.5	26	< 1	42	39	54
5030808 Play Structure	B	0-5 cm (sand)	21203	6800	< 0.8	< 5	26	< 0.5	< 0.8	3000	27	6	19	14000	5	3200	200	< 1.5	20	< 1	25	32	25
			21204	7200	< 0.8	< 5	24	< 0.5	< 0.8	3000	28	6	19	14000	5	3100	200	< 1.5	21	< 1	27	32	26

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Onaping Community Centre Playground, Hillside Ave.																							
5030810 Ball Diamond	A	0-5 cm (soil)	21207	6800	< 0.8	< 5	24	< 0.5	< 0.8	3100	25	4	15	11000	6	2300	150	< 1.5	22	< 1	28	28	27
			21208	8300	< 0.8	< 5	32	< 0.5	< 0.8	4000	30	5	15	12000	6	2500	180	< 1.5	22	< 1	38	31	35
		5-10 cm (soil)	21209	9500	< 0.8	< 5	33	< 0.5	< 0.8	3700	29	5	12	13000	4	2400	190	< 1.5	19	< 1	40	32	26
			21210	8300	< 0.8	< 5	30	< 0.5	< 0.8	3400	27	4	11	12000	5	2300	180	< 1.5	18	< 1	37	30	25
		10-20 cm (soil)	21211	7400	< 0.8	< 5	22	< 0.5	< 0.8	2800	25	4	6.7	11000	3	2000	150	< 1.5	14	< 1	31	31	20
			21212	9300	< 0.8	< 5	34	< 0.5	< 0.8	3400	29	4	9.6	12000	4	2100	180	< 1.5	15	< 1	40	34	23
5030811 Ball Diamond	B	0-5 cm (soil)	21213	9600	< 0.8	< 5	43	< 0.5	< 0.8	5800	32	4	16	13000	8	3200	190	< 1.5	25	< 1	60	31	22
			21214	7200	< 0.8	< 5	25	< 0.5	< 0.8	3800	26	5	15	12000	8	2700	170	< 1.5	25	< 1	31	29	21
		5-10 cm (soil)	21215	7000	< 0.8	< 5	19	< 0.5	< 0.8	2400	23	4	9	12000	5	2300	140	< 1.5	19	< 1	25	28	18
			21216	6400	< 0.8	< 5	17	< 0.5	< 0.8	2300	22	4	10	11000	5	2300	140	< 1.5	20	< 1	22	26	18
		10-20 cm (soil)	21217	6400	< 0.8	< 5	19	< 0.5	< 0.8	1900	22	5	6.5	14000	6	2200	150	< 1.5	17	< 1	19	26	18
			21218	6600	< 0.8	< 5	19	< 0.5	< 0.8	2200	22	5	9.1	11000	5	2300	140	< 1.5	18	< 1	22	27	17
5030812 Play Structure	C	0-5 cm (sand)	21219	5200	< 0.8	6	15	< 0.5	< 0.8	2400	28	7	21	14000	6	3300	160	< 1.5	20	< 1	18	29	29
			21220	5300	< 0.8	6	16	< 0.5	< 0.8	2400	29	6	23	16000	7	2900	170	< 1.5	20	< 1	22	36	31
Community of Skead																							
Brighton Street Playground, Brighton Street																							
5030965 Play Structure	A	0-5 cm (sand)	21791																				
			21792	5400	< 0.8	< 5	29	< 0.5	< 0.8	2700	28	9	26	15000	6	3400	200	< 1.5	33	< 1	22	33	26
5030966 Play Structure	B	0-5 cm (sand)	21793	4300	< 0.8	< 5	17	< 0.5	< 0.8	2000	21	6	15	11000	5	2700	140	< 1.5	22	< 1	17	24	17
			21794	4100	< 0.8	< 5	19	< 0.5	< 0.8	1700	21	7	23	10000	5	2600	140	< 1.5	30	< 1	14	22	19
5030967 Green Space	C	0-5 cm (soil)	21795	7900	< 0.8	8	39	< 0.5	< 0.8	3400	26	11	**73**	14000	15	3000	210	< 1.5	**90**	< 1	30	29	38
			21796	7000	< 0.8	< 5	37	< 0.5	< 0.8	3500	26	14	**72**	14000	19	3100	210	< 1.5	**110**	< 1	27	27	42
		5-10 cm (soil)	21797	11000	< 0.8	5	58	< 0.5	< 0.8	4700	33	11	**61**	15000	11	3300	220	< 1.5	**71**	< 1	41	33	27
			21798	11000	< 0.8	6	62	< 0.5	< 0.8	3900	34	12	**61**	16000	12	3100	200	< 1.5	**86**	< 1	39	33	33
		10-20 cm (soil)	21799	11000	< 0.8	5	60	< 0.5	< 0.8	4400	34	11	45	16000	9	3100	250	< 1.5	**62**	< 1	42	33	26
			21800	9000	< 0.8	5	46	< 0.5	< 0.8	3900	30	10	48	14000	11	3000	220	< 1.5	**67**	< 1	37	32	29
MacLennan Playground (Silver Birch Crescent Playground) , McLennan & Silver Birch Crescent																							
5030960 Play Structure	A	0-5 cm (sand)	21775	3600	< 0.8	< 5	24	< 0.5	< 0.8	1800	19	5	15	10000	2	2400	130	< 1.5	16	< 1	12	22	13
			21776	4100	< 0.8	< 5	24	< 0.5	< 0.8	2000	19	4	14	11000	3	2500	130	< 1.5	13	< 1	16	23	14
5030961 Play Structure	B	0-5 cm (sand)	21777	5100	< 0.8	< 5	31	< 0.5	< 0.8	2400	21	7	19	12000	4	3000	160	< 1.5	23	< 1	19	24	19
			21778	5500	< 0.8	< 5	35	< 0.5	< 0.8	2600	22	7	20	12000	5	3100	170	< 1.5	23	< 1	22	26	20

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Skead Community Centre, 3971 Skead Rd.																							
5030962 Baseball Infield	A	0-5 cm (soil)	21779	9800	< 0.8	< 5	52	< 0.5	< 0.8	4800	34	8	28	14000	6	3200	220	< 1.5	28	< 1	40	33	34
			21780	9700	< 0.8	< 5	46	< 0.5	< 0.8	3900	30	7	27	14000	6	3100	210	< 1.5	28	< 1	39	31	34
5030963 Baseball Outfield	B	0-5 cm (soil)	21781	9800	< 0.8	< 5	32	< 0.5	< 0.8	3500	24	4	40	12000	14	1600	170	< 1.5	**52**	< 1	36	27	26
			21782	10000	< 0.8	< 5	33	< 0.5	< 0.8	4100	26	4	33	12000	11	1600	140	< 1.5	**48**	< 1	37	27	23
		5-10 cm (soil)	21783	11000	< 0.8	< 5	37	< 0.5	< 0.8	3500	26	4	41	13000	11	1800	130	< 1.5	**44**	< 1	38	29	18
			21784	8800	< 0.8	< 5	26	< 0.5	< 0.8	2300	21	4	33	11000	9	1400	99	< 1.5	37	< 1	27	24	15
		10-20 cm (soil)	21785	9200	< 0.8	< 5	32	< 0.5	< 0.8	2200	22	4	41	12000	11	1600	110	< 1.5	**44**	< 1	26	26	16
			21786	8700	< 0.8	< 5	29	< 0.5	< 0.8	2300	22	4	36	11000	10	1600	110	< 1.5	42	< 1	26	24	16
5030964 Green Space	C	0-5 cm (soil)	21787	7000	< 0.8	< 5	22	< 0.5	< 0.8	3100	23	4	8.6	9600	4	2100	130	< 1.5	19	< 1	24	23	13
			21788	7800	< 0.8	< 5	23	< 0.5	< 0.8	4000	26	4	9.5	11000	4	2400	150	< 1.5	20	< 1	32	26	14
		5-10 cm (soil)	21789	7900	< 0.8	< 5	24	< 0.5	< 0.8	3100	26	5	8.2	11000	4	2000	160	< 1.5	19	< 1	31	26	12
			21790	6900	< 0.8	< 5	22	< 0.5	< 0.8	2600	24	4	7.3	10000	4	1900	150	< 1.5	18	< 1	24	24	12
Community of Val Caron																							
Carol Richard Playground, George St.																							
5030662 Green Space	A	0-5 cm (soil)	19798	5900	< 0.8	< 5	21	< 0.5	< 0.8	2700	19	5	27	10000	14	2200	190	< 1.5	38	< 1	26	21	21
			19799	6800	< 0.8	< 5	26	< 0.5	< 0.8	3500	25	5	30	11000	10	2200	230	< 1.5	42	< 1	34	25	24
		5-10 cm (soil)	19800	7800	< 0.8	< 5	30	< 0.5	< 0.8	3800	25	5	22	13000	7	2200	220	< 1.5	35	< 1	37	27	25
			19801	7100	< 0.8	< 5	28	< 0.5	< 0.8	3500	24	5	22	12000	7	2300	240	< 1.5	33	< 1	34	26	23
		10-20 cm (soil)	19802	7700	< 0.8	5	32	< 0.5	< 0.8	3700	25	6	28	15000	45	2100	290	< 1.5	42	< 1	33	30	37
			19803	6100	< 0.8	< 5	30	< 0.5	< 0.8	3100	22	4	14	11000	5	1800	210	< 1.5	22	< 1	25	25	30
5030663 Play Structure	B	0-15 cm (sand)	19804	7500	< 0.8	< 5	36	< 0.5	< 0.8	2100	36	11	42	17000	5	4400	280	< 1.5	27	< 1	16	40	29
			19805	7600	< 0.8	< 5	31	< 0.5	< 0.8	2300	37	8	43	19000	5	4400	250	< 1.5	26	< 1	17	44	29
Confederation Arena, Helene St.																							
*(* -Stations 5030638 to 5030641 were also sampled separately as part of the Valley East Co-op school)*																							
5030638* Green Space	A	0-5 cm (soil)	19818	9200	< 0.8	< 5	29	< 0.5	< 0.8	2700	24	4	41	11000	10	1800	140	< 1.5	**47**	< 1	30	26	27
			19819	12000	< 0.8	5	41	< 0.5	< 0.8	4100	32	4	46	13000	11	2000	180	< 1.5	**51**	< 1	47	32	42
		5-10 cm (soil)	19820	13000	< 0.8	< 5	45	< 0.5	< 0.8	4500	33	4	41	14000	12	2200	170	< 1.5	**51**	< 1	48	33	25
			19821	12000	< 0.8	< 5	43	< 0.5	< 0.8	3800	31	5	44	13000	13	1900	170	< 1.5	**57**	1	47	31	28
		10-20 cm (soil)	19822	13000	< 0.8	< 5	45	< 0.5	< 0.8	4500	32	5	42	14000	14	2300	180	< 1.5	**58**	< 1	48	32	31
			19823	12000	< 0.8	< 5	41	< 0.5	< 0.8	4200	30	5	36	13000	13	2200	180	< 1.5	**54**	< 1	47	31	29
5030639* Play Structure	B	0-5 cm (sand)	19824	7500	< 0.8	< 5	28	< 0.5	< 0.8	3000	39	6	25	17000	5	4400	240	< 1.5	23	< 1	25	42	28
			19825	7000	< 0.8	< 5	29	< 0.5	< 0.8	2600	40	7	28	18000	5	4400	250	< 1.5	25	< 1	20	43	29
5030640* Play Structure	C	0-5 cm (sand)	19826	7500	< 0.8	< 5	25	< 0.5	< 0.8	2800	34	6	27	17000	4	4300	230	< 1.5	24	< 1	25	39	25
			19827	7800	< 0.8	< 5	29	< 0.5	< 0.8	2800	43	7	34	20000	4	4700	250	< 1.5	27	< 1	21	51	29
5030641* Play Structure	D	0-5 cm (sand)	19828	6600	< 0.8	< 5	23	< 0.5	< 0.8	2700	34	6	22	15000	4	3700	230	< 1.5	21	< 1	23	37	23

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
			19829	6900	< 0.8	< 5	24	< 0.5	< 0.8	2700	33	6	25	16000	5	3800	220	< 1.5	22	< 1	24	39	26
5030642 Baseball Infield	E	0-5 cm (soil)	19836	6400	< 0.8	< 5	31	< 0.5	< 0.8	9000	21	4	18	9000	4	4200	140	< 1.5	22	< 1	53	23	17
			19837	6900	< 0.8	< 5	34	< 0.5	< 0.8	7400	24	4	19	11000	4	3800	160	< 1.5	22	1	58	26	18
5030643 Baseball Outfield	F	0-5 cm (soil)	19830	9700	< 0.8	< 5	30	< 0.5	< 0.8	4400	27	4	45	12000	14	2200	150	< 1.5	**52**	1	38	28	24
			19831	9600	< 0.8	< 5	30	< 0.5	< 0.8	3900	25	4	43	11000	14	2100	140	< 1.5	**52**	1	35	27	23
		5-10 cm (soil)	19832	9700	< 0.8	< 5	27	< 0.5	< 0.8	2600	23	4	35	11000	8	1600	140	< 1.5	37	1	28	27	19
			19833	9500	< 0.8	< 5	26	< 0.5	< 0.8	2400	22	3	30	11000	8	1500	120	< 1.5	33	< 1	24	25	18
		10-20 cm (soil)	19834	8800	< 0.8	< 5	28	< 0.5	< 0.8	2300	22	3	47	10000	10	1400	130	< 1.5	**46**	1	26	26	15
			19835	8400	< 0.8	< 5	21	< 0.5	< 0.8	2000	19	3	32	8300	8	1400	110	< 1.5	32	1	21	25	13
Daniel Park, 3199 Daniel Ave.																							
5030649 Green Space	A	0-5 cm (soil)	19756	9400	< 0.8	< 5	25	< 0.5	< 0.8	2700	24	4	31	12000	10	2000	160	< 1.5	41	< 1	28	24	19
			19757	9400	< 0.8	< 5	28	< 0.5	< 0.8	3000	26	5	30	12000	10	2000	160	< 1.5	43	< 1	34	26	20
		5-10 cm (soil)	19758	11000	< 0.8	< 5	38	< 0.5	< 0.8	4100	31	5	30	14000	12	2300	220	< 1.5	40	< 1	42	29	22
			19759	10000	< 0.8	< 5	31	< 0.5	< 0.8	3900	27	5	28	13000	10	2300	180	< 1.5	37	< 1	39	28	22
		10-20 cm (soil)	19760	10000	< 0.8	< 5	33	< 0.5	< 0.8	3900	26	5	35	13000	13	2100	200	< 1.5	**47**	< 1	39	27	24
			19761	9700	< 0.8	< 5	32	< 0.5	< 0.8	3400	30	6	32	13000	12	2300	210	< 1.5	**44**	< 1	36	29	24
5030650 Play Structure	B	0-15 cm (sand)	19762	12000	< 0.8	< 5	54	< 0.5	< 0.8	4500	59	10	**58**	27000	7	5700	340	< 1.5	34	< 1	42	60	34
			19763	11000	< 0.8	< 5	48	< 0.5	< 0.8	4100	53	10	53	26000	7	5400	320	< 1.5	34	< 1	38	56	32
5030651 Play Structure	C	0-15 cm (sand)	19764	13000	< 0.8	< 5	54	< 0.5	< 0.8	5000	48	8	**63**	22000	7	5500	320	< 1.5	29	< 1	41	29	41
			19765	11000	< 0.8	< 5	42	< 0.5	< 0.8	4900	45	7	45	20000	6	4600	290	< 1.5	25	< 1	37	27	35
5030652 Play Structure	D	0-15 cm (sand)	19766	11000	< 0.8	< 5	44	< 0.5	< 0.8	4800	43	7	43	19000	9	3800	300	< 1.5	32	< 1	39	23	30
			19767	10000	< 0.8	< 5	40	< 0.5	< 0.8	4100	39	7	44	18000	8	4200	290	< 1.5	33	< 1	28	20	30
Flake Playground, Percy Ave.																							
5030644 Green Space	A	0-5 cm (soil)	19844	9000	< 0.8	< 5	29	< 0.5	< 0.8	2300	24	4	36	11000	10	1800	130	< 1.5	**45**	1	23	25	24
			19845	8800	< 0.8	< 5	30	< 0.5	< 0.8	2300	24	4	35	11000	9	1800	140	< 1.5	43	1	24	25	23
		5-10 cm (soil)	19846	8200	< 0.8	< 5	28	< 0.5	< 0.8	2400	23	4	30	11000	9	1900	130	< 1.5	38	1	21	24	25
			19847	8900	< 0.8	< 5	27	< 0.5	< 0.8	2800	25	5	31	12000	9	1900	140	< 1.5	41	< 1	31	26	12
		10-20 cm (soil)	19848	8300	< 0.8	< 5	24	< 0.5	< 0.8	2900	24	5	24	12000	7	2000	150	< 1.5	36	< 1	33	26	9.7
			19849	8400	< 0.8	< 5	24	< 0.5	< 0.8	3100	24	4	29	11000	8	1800	150	< 1.5	38	< 1	34	26	9.2
5030645 Play Structure	B	0-15 cm (sand)	19850	7800	< 0.8	< 5	43	< 0.5	< 0.8	3200	46	11	38	24000	5	4500	320	< 1.5	29	< 1	27	51	25
			19851	8000	< 0.8	< 5	31	< 0.5	< 0.8	3000	43	8	37	21000	4	4600	260	< 1.5	27	< 1	27	47	24

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030646 Play Structure	C	0-15 cm (sand)	19852	10000	< 0.8	< 5	44	< 0.5	< 0.8	3300	51	10	52	23000	8	4700	300	< 1.5	32	< 1	31	54	28
			19853	9400	< 0.8	< 5	40	< 0.5	< 0.8	2900	46	10	51	23000	6	4700	290	< 1.5	32	< 1	26	52	27
5030647 Play Structure	D	0-15 cm (sand)	19854	8900	< 0.8	< 5	37	< 0.5	< 0.8	2800	46	9	44	22000	6	4500	280	< 1.5	30	< 1	27	48	22
			19855	8300	< 0.8	< 5	33	< 0.5	< 0.8	2600	45	9	40	23000	4	4400	250	< 1.5	29	< 1	23	48	20
McMillan Park, McMillan Dr.																							
5030656 Green Space	A	0-5 cm (soil)	19778	11000	< 0.8	< 5	30	< 0.5	< 0.8	3500	27	5	40	13000	10	2200	170	< 1.5	**47**	< 1	38	29	24
			19779	11000	< 0.8	< 5	28	< 0.5	< 0.8	3500	27	5	36	14000	10	2200	170	< 1.5	**44**	< 1	40	28	22
		5-10 cm (soil)	19780	10000	< 0.8	< 5	31	< 0.5	< 0.8	3900	26	5	31	13000	9	2100	160	< 1.5	41	< 1	41	28	19
			19781	12000	< 0.8	< 5	34	< 0.5	< 0.8	3700	28	5	38	14000	10	2200	180	< 1.5	**46**	< 1	43	30	22
		10-20 cm (soil)	19782	12000	< 0.8	< 5	39	< 0.5	< 0.8	4200	32	5	25	14000	8	2300	180	< 1.5	41	< 1	46	30	20
			19783	12000	< 0.8	< 5	40	< 0.5	< 0.8	4200	31	6	39	14000	11	2300	200	< 1.5	**52**	< 1	46	32	23
5030657 Play Structure	B	0-15 cm (sand)	19784	13000	< 0.8	< 5	56	< 0.5	< 0.8	4600	58	11	**65**	26000	7	6100	370	< 1.5	36	< 1	45	58	48
			19785	9600	< 0.8	< 5	40	< 0.5	< 0.8	3300	44	10	53	22000	6	5400	290	< 1.5	33	< 1	30	47	37
5030658 Play Structure	C	0-15 cm (sand)	19786	8500	< 0.8	< 5	31	< 0.5	< 0.8	3000	41	9	35	21000	5	4200	250	< 1.5	28	< 1	28	49	28
			19787	7900	< 0.8	< 5	27	< 0.5	< 0.8	2700	36	8	30	18000	5	4300	230	< 1.5	28	< 1	24	39	26
McCrea Heights Playground (Hillside Playground), 1218 Hillsdale Ave.																							
5030648 Green Space	A	0-5 cm (soil)	19838	12000	< 0.8	< 5	42	< 0.5	< 0.8	4600	31	4	43	13000	13	2300	200	< 1.5	**49**	1	45	31	31
			19839	12000	< 0.8	< 5	42	< 0.5	< 0.8	4300	31	4	39	13000	11	2200	200	< 1.5	**46**	1	44	30	29
		5-10 cm (soil)	19840	9700	< 0.8	< 5	31	< 0.5	< 0.8	3200	25	4	25	12000	8	1900	160	< 1.5	34	1	34	27	23
			19841	8900	< 0.8	< 5	31	< 0.5	< 0.8	2800	25	4	26	12000	8	2000	180	< 1.5	32	1	29	27	23
		10-20 cm (soil)	19842	7700	< 0.8	< 5	26	< 0.5	< 0.8	2700	25	5	23	11000	8	2100	170	< 1.5	37	< 1	26	26	22
			19843	6100	< 0.8	< 5	22	< 0.5	< 0.8	2100	21	5	21	9200	10	1900	140	< 1.5	34	< 1	17	22	24
Pinecrest Park, Swanson Crt.																							
5030659 Green Space	A	0-5 cm (soil)	19788	8300	< 0.8	< 5	26	< 0.5	< 0.8	4000	25	5	29	12000	9	2500	170	< 1.5	39	< 1	34	27	27
			19789	8600	< 0.8	< 5	27	< 0.5	< 0.8	4100	26	5	30	12000	9	2500	170	< 1.5	36	< 1	37	27	26
		5-10 cm (soil)	19790	8000	< 0.8	< 5	25	< 0.5	< 0.8	4100	28	5	24	12000	11	2500	180	1.7	32	< 1	37	27	23
			19791	7400	< 0.8	< 5	23	< 0.5	< 0.8	3900	24	5	19	11000	10	2400	180	< 1.5	27	< 1	35	25	22
		10-20 cm (soil)	19792	7900	< 0.8	< 5	23	< 0.5	< 0.8	4500	26	4	14	12000	8	2400	180	< 1.5	21	< 1	40	27	18
			19793	7300	< 0.8	< 5	21	< 0.5	< 0.8	3900	25	4	14	11000	7	2300	180	< 1.5	23	< 1	36	26	18
5030660 Play Structure	B	0-15 cm (sand)	19794	9300	< 0.8	< 5	40	< 0.5	< 0.8	3000	43	9	54	21000	6	5200	270	< 1.5	32	< 1	25	44	37
			19795	10000	< 0.8	< 5	44	< 0.5	< 0.8	3400	44	9	53	21000	7	5200	290	< 1.5	31	< 1	32	48	38
5030661 Play Structure	C	0-15 cm (sand)	19796	10000	< 0.8	< 5	41	< 0.5	< 0.8	3300	46	9	55	22000	6	5400	290	< 1.5	32	< 1	30	48	35
			19797	11000	< 0.8	< 5	48	< 0.5	< 0.8	4100	52	10	51	23000	7	5200	320	< 1.5	34	< 1	42	54	34

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Sunnyside Playground, 3273 Maple St.																							
5030653 Baseball Outfield	A	0-5 cm (soil)	19768	8000	< 0.8	6	27	< 0.5	< 0.8	4000	25	6	45	13000	21	2000	170	< 1.5	**61**	< 1	27	28	32
			19769	9900	< 0.8	< 5	25	< 0.5	< 0.8	2800	23	4	19	12000	7	1700	120	< 1.5	32	< 1	32	26	17
		5-10 cm (soil)	19770	10000	< 0.8	< 5	29	< 0.5	< 0.8	3100	26	4	25	13000	7	1900	170	< 1.5	31	< 1	36	29	19
			19771	10000	< 0.8	< 5	29	< 0.5	< 0.8	2800	24	4	23	12000	7	1900	150	< 1.5	33	< 1	32	27	18
		10-15 cm (soil)	19772	11000	< 0.8	6	33	< 0.5	< 0.8	2900	28	5	51	14000	11	2000	240	< 1.5	**58**	< 1	35	32	24
			19773	12000	< 0.8	6	36	< 0.5	< 0.8	3000	28	6	46	15000	11	2000	250	< 1.5	**53**	< 1	37	34	24
5030654 Baseball Infield	B	0-5 cm (soil)	19774	7900	< 0.8	< 5	35	< 0.5	< 0.8	6600	27	7	35	13000	7	4200	210	< 1.5	37	< 1	44	29	24
			19775	8000	< 0.8	< 5	33	< 0.5	< 0.8	5800	26	7	36	14000	7	3200	200	< 1.5	38	< 1	41	30	25
5030655 Play Structure	C	0-5 cm (sand)	19776	10000	< 0.8	< 5	42	< 0.5	< 0.8	3100	45	10	**57**	22000	7	5200	290	< 1.5	35	< 1	28	49	38
			19777	10000	< 0.8	< 5	62	< 0.5	< 0.8	2200	44	12	**70**	21000	8	5700	350	< 1.5	40	< 1	15	44	44
Community of Val Therese																							
Mederic Park, Mederic St.																							
5030902 Green Space	A	0-5 cm (soil)	18300	10000	< 0.8	< 5	28	< 0.5	< 0.8	3200	26	4	28	12000	8	1900	160	< 1.5	36	< 1	36	27	22
			18301	9800	< 0.8	< 5	27	< 0.5	< 0.8	3100	27	4	24	12000	7	1900	160	< 1.5	32	< 1	35	26	22
		5-10 cm (soil)	18302	9200	< 0.8	< 5	29	< 0.5	< 0.8	3300	27	4	25	12000	8	2000	180	< 1.5	32	< 1	36	27	22
			18303	8900	< 0.8	< 5	30	< 0.5	< 0.8	3400	25	4	21	12000	7	2100	200	< 1.5	29	< 1	34	26	24
		10-20 cm (soil)	18304	9400	< 0.8	< 5	37	< 0.5	< 0.8	3200	27	4	47	12000	12	1800	190	< 1.5	**56**	< 1	38	28	24
			18305	7800	< 0.8	< 5	29	< 0.5	< 0.8	3100	25	4	29	11000	11	2000	190	< 1.5	39	< 1	28	24	24
Rose Court Park, Rose Court																							
5030903 Play Structure	A	0-5 cm (sand)	18268	6400	< 0.8	< 5	17	< 0.5	< 0.8	2000	30	6	18	13000	4	2800	170	< 1.5	21	< 1	22	32	17
			18269	7600	0.9	< 5	22	< 0.5	< 0.8	2400	34	7	18	14000	4	2900	190	< 1.5	22	< 1	26	34	20
5030904 Play Structure	B	0-5 cm (sand)	18270	7100	< 0.8	< 5	23	< 0.5	< 0.8	2400	41	8	24	16000	5	3100	210	< 1.5	27	< 1	25	40	24
			18271	6900	< 0.8	< 5	20	< 0.5	< 0.8	2300	31	8	20	15000	4	3100	190	< 1.5	25	< 1	23	36	22
5030905 Green Space	C	0-5 cm (soil)	18272	11000	< 0.8	< 5	37	< 0.5	< 0.8	4300	31	6	34	13000	10	2400	190	< 1.5	**50**	< 1	45	29	24
			18273	9700	< 0.8	< 5	30	< 0.5	< 0.8	3400	26	5	33	12000	10	2100	160	< 1.5	**46**	< 1	38	27	22
		5-10 cm (soil)	18274	10000	< 0.8	< 5	35	< 0.5	< 0.8	4100	30	6	29	13000	10	2500	190	< 1.5	41	< 1	44	29	22
			18275	9700	< 0.8	< 5	33	< 0.5	< 0.8	4000	29	6	35	13000	11	2500	190	< 1.5	**53**	< 1	39	28	24
		10-20 cm (soil)	18276	8500	< 0.8	< 5	32	< 0.5	< 0.8	3500	28	5	32	11000	10	2500	170	< 1.5	**47**	< 1	29	26	22
			18277	9100	< 0.8	< 5	35	< 0.5	< 0.8	3500	29	6	24	12000	9	2600	180	< 1.5	43	< 1	31	27	23
Valley Acres Playground, East St.																							
5030906 Play Structure	A	0-5 cm (sand)	18278	7900	< 0.8	< 5	36	< 0.5	< 0.8	2300	39	9	52	18000	6	4400	260	< 1.5	31	< 1	17	42	30
			18279	9100	< 0.8	< 5	49	< 0.5	< 0.8	2700	44	11	**73**	19000	8	5200	320	< 1.5	38	< 1	21	47	37
5030907 Play Structure	B	0-5 cm (sand)	18280	8000	< 0.8	< 5	33	< 0.5	< 0.8	2800	40	9	45	22000	6	4300	270	< 1.5	31	< 1	23	51	31
			18281	9700	< 0.8	< 5	40	< 0.5	< 0.8	3200	44	10	**66**	21000	7	5300	290	< 1.5	34	< 1	26	46	33

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030908 Green Space	C	0-5 cm (soil)	18282	11000	< 0.8	5	29	< 0.5	< 0.8	3300	30	6	32	13000	9	1800	140	< 1.5	**46**	< 1	38	27	18
			18283	10000	< 0.8	< 5	28	< 0.5	< 0.8	2800	25	4	32	12000	9	1700	120	< 1.5	43	< 1	33	26	18
		5-10 cm (soil)	18284	12000	< 0.8	< 5	33	< 0.5	< 0.8	3000	26	4	34	13000	11	1700	150	< 1.5	**48**	< 1	38	28	18
			18285	11000	< 0.8	< 5	34	< 0.5	< 0.8	3300	26	5	36	12000	11	1800	150	< 1.5	**52**	< 1	38	28	20
		10-20 cm (soil)	18286	9700	< 0.8	7	36	< 0.5	< 0.8	2300	24	4	39	12000	16	1500	140	< 1.5	**61**	< 1	31	27	20
			18287	9700	< 0.8	7	38	< 0.5	< 0.8	2500	26	4	41	12000	14	1600	140	< 1.5	**59**	1	30	28	23
Community of Wahnapitae																							
Glenbower Crescent Ballfield, Glenbower & Hwy 17																							
5030538 Baseball Infield	A	0-5 cm (soil)	20397	8000	< 0.8	< 5	32	< 0.5	< 0.8	4900	28	6	14	13000	4	3400	190	< 1.5	21	< 1	36	27	20
			20398	7200	< 0.8	< 5	28	< 0.5	< 0.8	4200	27	6	14	13000	4	3300	180	< 1.5	22	< 1	27	26	19
5030539 Baseball Outfield	B	0-5 cm (soil)	20399	13000	< 0.8	< 5	51	< 0.5	< 0.8	4900	41	9	36	18000	14	4200	270	< 1.5	**54**	< 1	39	35	33
			20400	12000	< 0.8	< 5	48	< 0.5	< 0.8	4600	39	10	31	18000	9	4000	270	< 1.5	**52**	< 1	38	34	32
		5-10 cm (soil)	20401	13000	< 0.8	< 5	52	< 0.5	< 0.8	3400	36	9	29	18000	6	3900	230	< 1.5	**50**	< 1	32	33	28
			20402	11000	< 0.8	< 5	49	< 0.5	< 0.8	3700	36	8	24	16000	6	3900	210	< 1.5	39	< 1	33	33	26
		10-20 cm (soil)	20403	11000	< 0.8	< 5	46	< 0.5	< 0.8	3500	35	8	36	18000	6	3900	200	< 1.5	42	< 1	32	33	26
			20404	11000	< 0.8	< 5	43	< 0.5	< 0.8	3400	35	9	33	18000	12	3900	210	< 1.5	**48**	< 1	32	32	26
Mountainview Playground, Mountainview St.																							
5030540 Play Structure	A	0-5 cm (sand)	20405	6200	< 0.8	< 5	30	< 0.5	< 0.8	2600	29	10	35	16000	6	3500	190	< 1.5	41	< 1	22	30	33
			20406	5900	< 0.8	< 5	28	< 0.5	< 0.8	2500	25	11	38	15000	5	3400	180	< 1.5	36	< 1	21	26	32
5030541 Play Structure	B	0-5 cm (sand)	20407	6100	< 0.8	< 5	28	< 0.5	< 0.8	2600	27	9	32	15000	7	3500	180	< 1.5	38	< 1	21	27	32
			20408	6500	< 0.8	< 5	30	< 0.5	< 0.8	3000	28	9	41	17000	6	3600	190	< 1.5	37	< 1	26	31	52
5030542 Green Space	C	0-5 cm (soil)	20409	7200	< 0.8	< 5	32	< 0.5	< 0.8	6000	28	11	23	15000	7	3500	180	< 1.5	43	< 1	31	30	23
			20410	9200	< 0.8	< 5	46	< 0.5	< 0.8	6900	32	9	26	16000	5	3700	200	< 1.5	35	< 1	35	31	27
		5-10 cm (soil)	20411	11000	< 0.8	< 5	58	< 0.5	< 0.8	9000	35	10	40	18000	7	4100	220	< 1.5	**50**	< 1	44	34	31
			20412	12000	< 0.8	< 5	55	< 0.5	< 0.8	15000	39	12	52	19000	9	5200	220	< 1.5	**59**	< 1	48	34	36
		10-20 cm (soil)	20413	13000	< 0.8	< 5	53	< 0.5	< 0.8	18000	37	10	34	19000	7	5700	210	< 1.5	**48**	< 1	54	34	30
			20414	14000	< 0.8	< 5	56	< 0.5	< 0.8	17000	38	11	41	21000	7	5900	230	< 1.5	**51**	< 1	52	35	32
Ray St. Playground, Ray St.																							
5030948 Play Structure	A	0-5 cm (sand)	20387	6000	< 0.8	< 5	28	< 0.5	< 0.8	2500	28	8	20	17000	4	3500	190	< 1.5	28	< 1	21	36	28
			20388	5800	< 0.8	< 5	27	< 0.5	< 0.8	2500	28	8	18	16000	3	3400	180	< 1.5	27	< 1	21	37	25
Wahnapitae Community Club, 161 Glenbower Cresc.																							
5030537 Play Structure	A	0-5 cm (sand)	20395	12000	< 0.8	< 5	67	< 0.5	< 0.8	5800	54	5	29	20000	3	4200	280	< 1.5	17	**2**	47	45	33
			20396	10000	< 0.8	< 5	58	< 0.5	< 0.8	5300	44	6	24	17000	5	3700	260	< 1.5	21	**2**	42	42	27

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Wahnapitae Lions Park, Glenbower & Hwy 17																							
5030536 Green Space	A	0-5 cm (soil)	20389	11000	< 0.8	5	38	< 0.5	< 0.8	3800	38	9	38	19000	12	4300	240	< 1.5	**47**	< 1	28	33	33
			20390	12000	< 0.8	< 5	44	< 0.5	< 0.8	4400	40	9	44	19000	14	4500	240	< 1.5	**49**	< 1	32	33	35
		5-10 cm (soil)	20391	13000	< 0.8	< 5	50	< 0.5	< 0.8	4400	40	9	34	20000	8	4600	220	< 1.5	**48**	1	34	36	28
			20392	19000	< 0.8	< 5	120	< 0.5	< 0.8	5800	58	8	41	22000	10	5400	280	< 1.5	38	**2**	54	51	37
		10-20 cm (soil)	20393	20000	< 0.8	< 5	120	< 0.5	< 0.8	6400	54	8	36	24000	9	5500	250	< 1.5	**51**	**2**	52	48	36
			20394	19000	< 0.8	< 5	130	< 0.5	< 0.8	6400	57	8	39	21000	8	5300	310	< 1.5	43	**2**	56	49	35
Community of Whitefish																							
Camp Wassakwa, 295 Regional Rd. 4																							
5030781 Green Space	A	0-5 cm (soil)	21181	20000	< 0.8	< 5	120	< 0.5	< 0.8	5500	49	11	42	24000	10	6400	380	< 1.5	**50**	< 1	51	51	55
			21182	19000	< 0.8	< 5	110	< 0.5	< 0.8	5300	48	12	39	24000	10	6500	400	< 1.5	**49**	1	49	50	50
		5-10 cm (soil)	21183	22000	< 0.8	< 5	130	< 0.5	< 0.8	4900	55	13	36	29000	10	7700	470	< 1.5	**47**	< 1	51	58	61
			21184	21000	< 0.8	< 5	120	< 0.5	< 0.8	4900	56	12	42	27000	15	7500	420	< 1.5	**45**	< 1	51	57	59
		10-20 cm (soil)	21185	21000	< 0.8	< 5	130	< 0.5	< 0.8	5000	56	12	34	29000	10	7900	460	< 1.5	43	< 1	52	59	60
			21186	19000	< 0.8	< 5	110	< 0.5	< 0.8	4600	53	12	31	28000	9	7300	420	< 1.5	43	< 1	49	55	59
5030782 Beach	B	0-5 cm (sand)	21187	5200	< 0.8	< 5	19	< 0.5	< 0.8	2900	22	8	29	14000	5	3400	220	< 1.5	36	< 1	22	30	21
			21188	5300	< 0.8	< 5	16	< 0.5	< 0.8	2500	23	9	32	14000	5	3400	190	< 1.5	41	< 1	17	30	21
Centennial Park, 400 Graham Rd.																							
5030909 Play Structure	A	0-5 cm (sand)	18138	10000	< 0.8	< 5	41	< 0.5	< 0.8	4000	34	8	26	19000	5	5000	230	< 1.5	27	< 1	35	36	32
			18139	10000	< 0.8	5	38	< 0.5	< 0.8	3800	34	9	23	19000	4	4300	220	< 1.5	28	< 1	34	34	32
5030910 Green Space	B	0-5 cm (soil)	18140	12000	< 0.8	11	55	< 0.5	< 0.8	6300	36	12	56	19000	32	3800	570	< 1.5	**75**	< 1	44	36	66
			18141	13000	< 0.8	9	59	< 0.5	< 0.8	6700	40	11	52	19000	27	4000	470	< 1.5	**76**	< 1	48	40	58
		5-10 cm (soil)	18142	11000	< 0.8	**23**	53	< 0.5	< 0.8	5100	36	12	**71**	19000	48	3700	500	< 1.5	**74**	< 1	40	36	64
			18143	12000	< 0.8	**22**	62	< 0.5	< 0.8	6100	39	12	**66**	20000	49	4100	590	1.5	**69**	< 1	45	40	66
		10-20 cm (soil)	18144	11000	**4**	**44**	58	< 0.5	< 0.8	4000	35	10	**77**	21000	**74**	3000	510	< 1.5	**65**	< 1	41	37	62
			18145	13000	1	**28**	70	< 0.5	< 0.8	5400	40	12	**88**	21000	**66**	3700	600	< 1.5	**68**	< 1	47	41	80
5030911 Green Space	C	0-5 cm (soil)	18146	13000	< 0.8	14	68	< 0.5	< 0.8	6900	38	12	52	21000	34	5400	620	< 1.5	**58**	< 1	44	40	76
			18147	12000	< 0.8	14	68	< 0.5	< 0.8	6900	38	12	52	20000	36	5400	650	< 1.5	**56**	< 1	44	41	73
		5-10 cm (soil)	18148	11000	< 0.8	8	58	< 0.5	< 0.8	4200	35	9	39	19000	31	4000	410	< 1.5	34	< 1	40	37	47
			18149	10000	< 0.8	< 5	48	< 0.5	< 0.8	3900	31	8	29	16000	11	3700	320	< 1.5	29	< 1	37	32	35
		10-20 cm (soil)	18150	10000	< 0.8	< 5	52	< 0.5	< 0.8	3600	32	7	25	15000	6	3600	240	< 1.5	26	< 1	39	33	28
			18151	9600	< 0.8	< 5	45	< 0.5	< 0.8	3600	30	7	24	15000	6	3600	210	< 1.5	24	< 1	35	31	26

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.1: Outer Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Den Lou Playground, 26 Den Lou Rd.																							
5030779 Play Structure	A	0-5 cm (sand)	21173	9700	< 0.8	< 5	40	< 0.5	< 0.8	5600	23	7	34	20000	8	3900	300	< 1.5	19	< 1	43	46	32
			21174	8600	< 0.8	< 5	35	< 0.5	< 0.8	4700	24	7	39	20000	8	3900	280	< 1.5	20	< 1	35	43	32
5030780 Green Space	B	0-5 cm (soil)	21175	16000	< 0.8	< 5	84	< 0.5	< 0.8	4300	38	13	50	24000	15	4600	500	< 1.5	**57**	< 1	42	46	65
			21176	18000	< 0.8	< 5	100	< 0.5	< 0.8	5100	41	16	**72**	26000	18	4800	520	< 1.5	**76**	< 1	48	50	68
		5-10 cm (soil)	21177	13000	< 0.8	< 5	73	< 0.5	< 0.8	3200	30	11	33	19000	10	3400	360	< 1.5	**44**	< 1	34	36	50
			21178	17000	< 0.8	< 5	87	< 0.5	< 0.8	4700	39	14	49	24000	13	4700	470	< 1.5	**59**	< 1	44	46	66
		10-20 cm (soil)	21179	17000	< 0.8	< 5	84	< 0.5	< 0.8	3900	39	10	24	24000	9	4700	430	< 1.5	37	< 1	42	45	61
			21180	17000	< 0.8	< 5	93	< 0.5	< 0.8	4000	40	12	28	23000	10	4700	430	< 1.5	42	< 1	45	46	67
RH Murray Sports Complex, 10 Henry St.																							
5030912 Baseball Infield	A	0-5 cm (soil)	18152	10000	< 0.8	< 5	55	< 0.5	< 0.8	9900	32	6	16	13000	5	6100	230	< 1.5	22	< 1	93	30	22
			18153	9100	< 0.8	< 5	49	< 0.5	< 0.8	9500	32	6	16	14000	5	5400	240	< 1.5	23	< 1	81	32	22
5030913 Baseball Outfield	B	0-5 cm (soil)	18154	27000	< 0.8	< 5	150	< 0.5	< 0.8	6000	67	11	35	25000	14	7500	420	< 1.5	**52**	< 1	54	55	57
			18155	26000	< 0.8	< 5	140	< 0.5	< 0.8	6000	64	12	37	26000	14	7100	420	< 1.5	**50**	< 1	53	55	56
		5-10 cm (soil)	18156	30000	< 0.8	< 5	160	0.5	< 0.8	5200	**76**	12	34	29000	13	7800	480	< 1.5	**48**	< 1	56	62	65
			18157	30000	< 0.8	< 5	160	0.5	< 0.8	5100	**77**	13	34	30000	14	8200	490	< 1.5	**53**	< 1	56	62	66
		10-20 cm (soil)	18158	27000	< 0.8	< 5	150	0.5	< 0.8	4400	**78**	12	33	30000	11	8500	490	< 1.5	**47**	< 1	52	62	62
			18159	23000	< 0.8	< 5	120	< 0.5	< 0.8	4200	**70**	12	31	27000	11	7400	460	< 1.5	**47**	< 1	48	56	62
Whitefish Playground, 25 Paul St.																							
5030783 Play Structure	A	0-5 cm (sand)	21189	5800	< 0.8	< 5	19	< 0.5	< 0.8	3000	26	7	18	14000	4	3600	180	< 1.5	21	< 1	23	28	21
			21190	6000	< 0.8	< 5	21	< 0.5	< 0.8	3100	26	8	19	14000	4	3600	190	< 1.5	25	< 1	24	31	20
5030784 Green Space	B	0-5 cm (soil)	21191	11000	< 0.8	< 5	48	< 0.5	< 0.8	5400	31	7	30	15000	11	2900	280	< 1.5	**50**	< 1	41	31	31
			21192	12000	< 0.8	< 5	55	< 0.5	< 0.8	7000	33	8	34	16000	9	3400	360	< 1.5	39	< 1	42	32	36
		5-10 cm (soil)	21193	14000	< 0.8	< 5	60	< 0.5	< 0.8	6500	40	8	23	17000	12	3700	270	< 1.5	**51**	< 1	47	38	33
			21194	14000	**1.4**	< 5	59	< 0.5	< 0.8	6000	42	8	31	18000	11	3900	280	< 1.5	**48**	< 1	47	38	37
		10-20 cm (soil)	21195	11000	< 0.8	< 5	51	< 0.5	< 0.8	5400	27	7	27	17000	9	3200	250	< 1.5	24	< 1	39	37	29
			21196	8600	< 0.8	6	39	< 0.5	< 0.8	3900	24	8	32	16000	8	3100	250	< 1.5	21	< 1	26	35	36

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Community of Azilda																							
Birchview Playground, Birch & Donald St., Azilda																							
5030740 Green Space	A	0-5 cm (soil)	21389	16000	< 0.8	12	72	< 0.5	< 0.8	8000	57	**20**	**160**	22000	28	6100	440	< 1.5	**304**	1	47	42	61
			21390	16000	< 0.8	8	67	< 0.5	< 0.8	7500	54	15	**130**	22000	22	6000	430	< 1.5	**208**	< 1	48	42	55
		5-10 cm (soil)	21391	15000	< 0.8	7	61	< 0.5	< 0.8	7100	52	13	**99**	21000	17	5700	400	< 1.5	**190**	< 1	43	39	49
			21392	14000	< 0.8	8	60	< 0.5	< 0.8	5900	49	10	**120**	20000	13	5400	390	< 1.5	**131**	< 1	34	37	56
		10-20 cm (soil)	21393	15000	< 0.8	< 5	63	< 0.5	< 0.8	6500	55	9	51	21000	9	5900	390	< 1.5	**81**	< 1	44	42	43
			21394	16000	< 0.8	6	69	< 0.5	< 0.8	7300	55	11	**70**	22000	12	5900	410	< 1.5	**118**	< 1	47	44	45
5030741 Play Structure	B	0-5 cm (sand)	21395	5800	< 0.8	6	19	< 0.5	< 0.8	3200	26	8	23	15000	6	4200	200	< 1.5	26	< 1	24	31	23
			21396	5900	< 0.8	< 5	20	< 0.5	< 0.8	3400	28	9	23	16000	6	4200	200	< 1.5	24	< 1	26	33	23
Centennial Park (Whitewater Lake Park), Whitewater Lake, Azilda																							
5030755 Green Space	A	0-5 cm (soil)	21535	6900	< 0.8	< 5	32	< 0.5	< 0.8	10000	28	7	52	11000	11	4500	200	< 1.5	**78**	< 1	26	23	29
			21536	11000	< 0.8	**15**	43	< 0.5	< 0.8	12000	33	7	51	14000	10	5100	260	< 1.5	**73**	< 1	48	31	28
		5-10 cm (soil)	21537	9500	< 0.8	**15**	41	< 0.5	< 0.8	11000	31	6	**57**	12000	10	4500	220	< 1.5	**76**	< 1	46	30	29
			21538	9300	< 0.8	**15**	38	< 0.5	< 0.8	11000	29	6	45	12000	8	4000	230	< 1.5	**64**	< 1	46	28	25
		10-20 cm (soil)	21539	9900	< 0.8	**15**	42	< 0.5	< 0.8	14000	32	6	49	13000	9	5700	230	< 1.5	**76**	< 1	47	29	28
			21540	8300	< 0.8	**15**	37	< 0.5	**1.1**	9000	27	6	50	10000	**64**	3100	190	< 1.5	**72**	< 1	42	25	28
5030756 Green Space	B	0-5 cm (soil)	21541	17000	< 0.8	**16**	68	< 0.5	< 0.8	13000	51	12	**110**	21000	17	6600	430	< 1.5	**150**	< 1	55	42	51
			21542	15000	< 0.8	**16**	61	< 0.5	< 0.8	12000	47	12	**110**	19000	17	6100	360	< 1.5	**150**	< 1	54	39	49
		5-10 cm (soil)	21543	18000	< 0.8	**16**	71	< 0.5	< 0.8	13000	53	12	**96**	22000	15	7000	360	< 1.5	**140**	< 1	58	44	52
			21544	14000	< 0.8	**16**	59	< 0.5	< 0.8	12000	44	11	**88**	18000	14	5700	300	< 1.5	**130**	< 1	51	38	45
		10-20 cm (soil)	21545	15000	< 0.8	**15**	57	< 0.5	< 0.8	12000	47	9	48	19000	9	6300	290	< 1.5	**69**	< 1	49	38	42
			21546	16000	< 0.8	**15**	63	< 0.5	< 0.8	13000	48	9	53	19000	10	6000	280	< 1.5	**80**	< 1	55	40	45
5030757 Green Space	C	0-5 cm (soil)	21547	16000	< 0.8	**15**	75	< 0.5	1	13000	53	9	**59**	19000	11	6600	320	< 1.5	**88**	< 1	56	41	74
			21548	15000	< 0.8	**15**	75	< 0.5	1	12000	51	10	**85**	19000	14	6300	320	< 1.5	**120**	< 1	56	41	77
		5-10 cm (soil)	21549	14000	< 0.8	**16**	68	< 0.5	**1.2**	13000	48	12	**100**	18000	17	6200	400	< 1.5	**140**	< 1	53	38	69
			21550	14000	< 0.8	**16**	72	< 0.5	**1.1**	13000	48	11	**110**	18000	18	6000	400	< 1.5	**140**	1	53	38	74
		10-20 cm (soil)	21551	14000	< 0.8	**16**	74	< 0.5	**1.1**	13000	50	11	**110**	18000	18	6000	400	< 1.5	**140**	< 1	54	39	76
			21552	14000	< 0.8	**15**	68	< 0.5	**1.2**	15000	48	8	55	18000	10	6300	310	< 1.5	**75**	< 1	52	38	86
5030758 Play Structure	D	0-5 cm (sand)	21553	5500	< 0.8	**15**	21	< 0.5	< 0.8	3200	25	6	20	13000	5	3200	180	< 1.5	20	< 1	24	28	32
			21554	5400	< 0.8	**15**	20	< 0.5	< 0.8	3200	25	6	21	12000	5	3200	180	< 1.5	21	< 1	23	28	26

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Gauthier Playground (Commercial Playground), Commercial Ave. & Raymond Cr, Azilda																							
5030752 Green Space	A	0-5 cm (soil)	21521	11000	< 0.8	< 5	51	< 0.5	< 0.8	7900	35	8	**61**	17000	13	4300	280	< 1.5	**91**	1	38	32	44
			21522	11000	< 0.8	5	53	< 0.5	< 0.8	8400	35	8	**69**	17000	14	4400	300	< 1.5	**100**	1	34	32	47
		5-10 cm (soil)	21523	12000	< 0.8	6	53	< 0.5	< 0.8	8500	36	8	**64**	17000	13	4400	270	< 1.5	**95**	1	37	33	42
			21524	12000	< 0.8	< 5	54	< 0.5	< 0.8	9500	37	9	**65**	18000	13	5500	280	< 1.5	**100**	1	38	34	43
		10-20 cm (soil)	21525	14000	< 0.8	6	55	< 0.5	< 0.8	10000	43	8	**60**	19000	12	5800	290	< 1.5	**96**	1	50	38	40
			21526	15000	< 0.8	< 5	58	< 0.5	< 0.8	9100	44	8	53	19000	11	5300	300	< 1.5	**84**	< 1	52	40	41
5030753 Play Structure	B	0-5 cm (sand)	21527	7600	**2.3**	< 5	26	< 0.5	< 0.8	4400	32	8	23	19000	6	5000	240	< 1.5	23	< 1	33	41	33
			21528	10000	< 0.8	< 5	45	< 0.5	< 0.8	5500	36	8	24	20000	6	5400	260	< 1.5	25	< 1	42	42	35
Rick McDonald Memorial Complex (Champlain Fields), 158 Ste. Agnes Rd., Azilda																							
5030742 Baseball Outfield	A	0-5 cm (soil)	21397	10000	< 0.8	6	40	< 0.5	< 0.8	6200	35	8	**69**	15000	13	3600	270	< 1.5	**101**	< 1	44	32	36
			21398	10000	< 0.8	7	39	< 0.5	< 0.8	7700	35	10	**75**	15000	16	4300	270	< 1.5	**119**	< 1	50	31	36
		5-10 cm (soil)	21399	9400	< 0.8	7	38	< 0.5	< 0.8	4500	34	9	**57**	15000	14	3300	260	< 1.5	**111**	< 1	31	30	32
			21400	9900	< 0.8	9	39	< 0.5	< 0.8	5300	34	9	**58**	15000	13	3500	260	< 1.5	**103**	< 1	37	31	31
		10-20 cm (soil)	21401	11000	< 0.8	7	40	< 0.5	< 0.8	5600	37	9	54	16000	12	3600	280	< 1.5	**105**	< 1	43	34	31
			21402	13000	< 0.8	9	52	< 0.5	< 0.8	6700	42	9	51	18000	12	4000	290	< 1.5	**92**	< 1	52	38	31
5030743 Baseball Infield	B	0-5 cm (gravel)	21403	9700	< 0.8	< 5	55	< 0.5	< 0.8	13000	32	8	38	18000	9	7900	280	< 1.5	41	< 1	130	36	34
			21404	9400	< 0.8	< 5	50	< 0.5	< 0.8	10000	31	10	36	18000	10	7100	270	< 1.5	43	< 1	100	34	33
5030744 Baseball Outfield	C	0-5 cm (soil)	21405	8800	< 0.8	< 5	33	< 0.5	< 0.8	5400	31	8	**61**	14000	17	3200	250	< 1.5	**92**	< 1	42	29	30
			21406	8100	< 0.8	< 5	31	< 0.5	< 0.8	4700	29	7	54	13000	14	2900	220	< 1.5	**81**	< 1	37	27	27
		5-10 cm (soil)	21407	9800	< 0.8	< 5	40	< 0.5	< 0.8	5400	35	7	40	14000	9	3200	240	< 1.5	**66**	< 1	43	31	24
			21408	6400	< 0.8	< 5	21	< 0.5	< 0.8	3300	25	5	32	11000	5	2200	160	< 1.5	**48**	< 1	27	24	18
		10-20 cm (soil)	21409	7200	< 0.8	< 5	26	< 0.5	< 0.8	4000	28	6	25	12000	7	2700	200	< 1.5	**44**	< 1	28	27	20
			21410	6800	< 0.8	< 5	24	< 0.5	< 0.8	3400	26	6	34	12000	8	2400	180	< 1.5	**58**	< 1	24	24	20
5030745 Baseball Infield	D	0-5 cm (soil)	21411	6000	< 0.8	< 5	29	< 0.5	< 0.8	11000	22	6	25	11000	9	5600	180	< 1.5	39	< 1	68	23	27
			21412	6600	< 0.8	< 5	30	< 0.5	< 0.8	11000	24	5	27	12000	6	5700	190	< 1.5	27	< 1	70	23	28
5030746 Play Structure	E	0-5 cm (sand)	21413	4700	< 0.8	< 5	16	< 0.5	< 0.8	2100	23	6	25	13000	7	3300	180	< 1.5	23	< 1	12	27	24
			21414	4600	< 0.8	< 5	15	< 0.5	< 0.8	1900	22	6	25	13000	6	3300	170	< 1.5	24	< 1	10	26	24
5030747 Baseball Outfield	F	0-5 cm (soil)	21415	8200	< 0.8	< 5	31	< 0.5	< 0.8	5000	29	8	56	13000	13	3100	220	< 1.5	**89**	< 1	29	26	30
			21416	8400	< 0.8	7	31	< 0.5	< 0.8	4900	29	8	49	13000	13	3000	200	< 1.5	**85**	< 1	30	26	28
		5-10 cm (soil)	21417	8300	< 0.8	7	32	< 0.5	< 0.8	5200	29	9	51	13000	11	3300	220	< 1.5	**98**	< 1	28	26	27
			21418	8600	< 0.8	7	33	< 0.5	< 0.8	5600	29	8	49	13000	10	3400	230	< 1.5	**82**	< 1	30	27	27
		10-20 cm (soil)	21419	8600	< 0.8	9	34	< 0.5	< 0.8	4500	31	9	48	14000	12	3300	220	< 1.5	**97**	< 1	24	27	27
			21420	8700	< 0.8	8	35	< 0.5	< 0.8	5200	32	9	48	14000	11	3500	250	< 1.5	**88**	< 1	26	28	28
5030748 Baseball Infield	G	0-5 cm (soil)	21421	6400	< 0.8	< 5	51	< 0.5	< 0.8	16000	23	9	28	13000	8	8700	200	< 1.5	40	< 1	150	23	31
Table F (results in bold)				NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)				NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
			21422	6300	< 0.8	< 5	61	< 0.5	< 0.8	19000	22	8	27	12000	9	10000	200	< 1.5	40	< 1	190	20	32
5030749 Green Space	H	0-5 cm (soil)	21509	11000	< 0.8	6	45	< 0.5	< 0.8	7400	38	9	**74**	16000	24	4100	290	< 1.5	**110**	< 1	45	33	38
			21510	10000	< 0.8	6	43	< 0.5	< 0.8	7500	38	7	**76**	15000	11	4100	260	< 1.5	38	< 1	46	33	36
		5-10 cm (soil)	21511	10000	< 0.8	6	41	< 0.5	< 0.8	8500	38	7	52	15000	15	4500	250	< 1.5	**77**	< 1	47	33	28
			21512	10000	< 0.8	< 5	42	< 0.5	< 0.8	8600	38	7	54	15000	13	4700	250	< 1.5	**77**	< 1	46	32	29
		10-20 cm (soil)	21513	9700	< 0.8	6	34	< 0.5	< 0.8	8600	35	8	38	15000	11	4600	250	< 1.5	**72**	< 1	42	32	26
			21514	10000	< 0.8	6	37	< 0.5	< 0.8	8100	34	7	41	15000	10	4500	250	< 1.5	**76**	< 1	40	32	28
Shawn St. Playground, Shawn St., Azilda																							
5030750 Green Space	A	0-5 cm (soil)	21515	10000	< 0.8	< 5	43	< 0.5	< 0.8	7700	34	8	46	16000	12	4200	250	< 1.5	**66**	< 1	38	32	37
			21516	10000	< 0.8	< 5	43	< 0.5	< 0.8	7600	33	8	45	16000	13	3800	270	< 1.5	**71**	< 1	35	31	38
		5-10 cm (soil)	21517	9900	< 0.8	< 5	42	< 0.5	< 0.8	8300	35	12	49	17000	16	4500	250	< 1.5	**70**	< 1	37	32	46
			21518	10000	< 0.8	< 5	42	< 0.5	< 0.8	7200	35	10	**60**	17000	20	4100	250	< 1.5	**63**	< 1	37	32	54
5030751 Play Structure	B	0-5 cm (sand)	21519	4800	< 0.8	< 5	16	< 0.5	< 0.8	3000	24	5	16	11000	5	3000	160	< 1.5	20	< 1	19	24	24
			21520	4800	< 0.8	< 5	16	< 0.5	< 0.8	3200	25	5	16	12000	5	2900	170	< 1.5	20	< 1	20	25	25
Trillium Centre, 149 Montee Principale, Azilda																							
5030754 Football Field	A	0-5 cm (soil)	21529	13000	< 0.8	< 5	56	< 0.5	< 0.8	9600	47	8	43	17000	44	5000	300	< 1.5	**72**	< 1	49	37	32
			21530	12000	< 0.8	< 5	50	< 0.5	< 0.8	9800	43	8	40	16000	34	5100	280	< 1.5	**71**	< 1	48	33	30
		5-10 cm (soil)	21531	6800	< 0.8	< 5	40	< 0.5	< 0.8	8400	38	8	41	9800	19	4900	250	< 1.5	**73**	< 1	37	32	30
			21532	9900	< 0.8	< 5	39	< 0.5	< 0.8	8700	37	8	38	14000	13	4900	240	< 1.5	**66**	< 1	37	31	30
		10-20 cm (soil)	21533	9000	< 0.8	< 5	35	< 0.5	< 0.8	6000	39	8	51	14000	49	3600	220	< 1.5	**84**	< 1	31	28	35
			21534	8400	< 0.8	< 5	34	< 0.5	< 0.8	5600	32	8	47	13000	18	3500	200	< 1.5	**90**	< 1	27	27	26
Community of Garson																							
Cedar Green Playground, Alpine St.																							
5030534 Play Structure	A	0-5 cm (sand)	20383	5200	< 0.8	< 5	23	< 0.5	< 0.8	2200	23	6	14	13000	2	3100	150	< 1.5	25	< 1	18	30	16
			20384	5300	< 0.8	< 5	22	< 0.5	< 0.8	2200	24	7	12	13000	2	3000	160	< 1.5	26	< 1	18	29	16
Cedar Playground, Cedar St.																							
5030506 Play Structure	A	0-5 cm (sand)	20275	5800	< 0.8	< 5	26	< 0.5	< 0.8	2100	26	6	13	14000	2	3000	170	< 1.5	24	< 1	23	31	16
			20276	7000	< 0.8	< 5	43	< 0.5	< 0.8	2700	30	6	15	15000	2	3000	190	< 1.5	28	< 1	29	35	18
5030507 Play Structure	B	0-5 cm (sand)	20277	5800	< 0.8	< 5	24	< 0.5	< 0.8	2200	27	6	13	14000	2	2800	170	< 1.5	24	< 1	24	34	19
			20278	6100	< 0.8	< 5	26	< 0.5	< 0.8	2200	27	6	12	14000	2	2900	170	< 1.5	23	< 1	24	32	19

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030508 Green Space	C	0-5 cm (soil)	20279	12000	< 0.8	7	62	< 0.5	< 0.8	5900	38	10	**95**	17000	17	3300	250	< 1.5	**174**	< 1	42	32	45
			20280	9600	< 0.8	8	48	< 0.5	< 0.8	4600	34	12	**96**	16000	22	3100	240	< 1.5	**172**	< 1	35	30	43
		5-10 cm (soil)	20281	7700	< 0.8	< 5	37	< 0.5	< 0.8	3300	28	10	**80**	14000	13	2500	190	< 1.5	**176**	< 1	27	26	33
			20282	6800	< 0.8	< 5	30	< 0.5	< 0.8	2700	24	11	**90**	14000	14	2300	160	< 1.5	**220**	< 1	21	24	31
		10-20 cm (soil)	20283	5200	< 0.8	< 5	20	< 0.5	< 0.8	1700	20	8	50	10000	8	1800	120	< 1.5	**134**	< 1	15	22	20
			20284	6300	< 0.8	< 5	24	< 0.5	< 0.8	2100	20	8	**84**	12000	9	1900	140	< 1.5	**134**	< 1	19	23	21
Garson Community Centre, 100 Church St.																							
5030504 Green Space	A	0-5 cm (soil)	20263	6500	< 0.8	< 5	19	< 0.5	< 0.8	5200	18	5	42	10000	8	3500	94	< 1.5	**49**	< 1	10	20	17
			20264	8300	< 0.8	11	30	< 0.5	< 0.8	3500	23	6	**68**	12000	12	2300	140	< 1.5	80	1	28	26	21
		5-10 cm (soil)	20265	8300	< 0.8	7	26	< 0.5	< 0.8	2600	21	5	37	11000	6	2000	130	< 1.5	**44**	< 1	26	25	16
			20266	9400	< 0.8	13	34	< 0.5	< 0.8	2500	22	6	**65**	12000	11	1700	140	< 1.5	**60**	< 1	28	28	18
		10-20 cm (soil)	20267	8500	< 0.8	7	26	< 0.5	< 0.8	2300	21	5	37	12000	7	1700	140	< 1.5	**47**	< 1	26	26	16
			20268	8500	< 0.8	**16**	32	< 0.5	< 0.8	1900	22	8	**100**	13000	18	1600	140	< 1.5	**107**	< 1	21	26	20
5030505 Green Space	B	0-5 cm (soil)	20269	8200	< 0.8	6	38	< 0.5	< 0.8	3800	25	8	**65**	13000	20	2600	180	< 1.5	**87**	< 1	31	27	28
			20270	7300	< 0.8	7	32	< 0.5	< 0.8	3400	24	8	**68**	13000	22	2300	160	< 1.5	**96**	< 1	27	26	28
		5-10 cm (soil)	20271	7800	< 0.8	5	31	< 0.5	< 0.8	3000	24	6	38	12000	8	2200	160	< 1.5	**52**	< 1	28	26	21
			20272	6800	< 0.8	< 5	27	< 0.5	< 0.8	2800	23	6	35	11000	8	2100	180	< 1.5	**52**	< 1	26	26	19
		10-20 cm (soil)	20273	7000	< 0.8	< 5	23	< 0.5	< 0.8	2400	21	5	21	11000	4	2000	140	< 1.5	36	< 1	25	24	16
			20274	6900	< 0.8	< 5	25	< 0.5	< 0.8	2300	21	5	19	11000	4	1900	140	< 1.5	34	1	24	23	15
Lion's Park & Playground, Birch St.																							
5030511 Baseball Infield	A	0-5 cm (soil)	20293	8200	< 0.8	< 5	26	< 0.5	< 0.8	4600	31	5	13	12000	4	2300	200	< 1.5	25	< 1	47	27	17
			20294	7600	< 0.8	< 5	24	< 0.5	< 0.8	4500	28	5	13	12000	5	2400	200	< 1.5	28	< 1	46	27	16
		5-10 cm (soil)	20295	9100	< 0.8	5	32	< 0.5	< 0.8	4300	31	6	13	13000	6	2600	210	< 1.5	30	< 1	46	28	17
			20296	9300	< 0.8	< 5	33	< 0.5	< 0.8	4400	30	6	14	14000	5	2800	210	< 1.5	32	< 1	46	29	17
		10-20 cm (soil)	20297	8900	< 0.8	< 5	30	< 0.5	< 0.8	3700	28	7	27	14000	8	2600	190	< 1.5	**45**	< 1	39	28	20
			20298	6800	< 0.8	< 5	23	< 0.5	< 0.8	2900	24	4	30	11000	6	2200	160	< 1.5	37	< 1	30	24	19
5030512 Baseball Outfield	B	0-5 cm (soil)	20299	6900	< 0.8	8	29	< 0.5	< 0.8	4500	22	9	**90**	11000	17	2600	160	< 1.5	**153**	< 1	28	25	29
			20300	7200	< 0.8	10	33	< 0.5	< 0.8	4400	24	11	**110**	12000	24	2300	170	< 1.5	**192**	< 1	30	26	32
		5-10 cm (soil)	20301	7000	< 0.8	5	24	< 0.5	< 0.8	2100	21	5	39	10000	8	1800	120	< 1.5	**67**	< 1	24	22	17
			20302	7900	< 0.8	6	28	< 0.5	< 0.8	2900	22	8	53	11000	8	2000	140	< 1.5	**74**	< 1	29	25	20
		10-20 cm (soil)	20303	6200	< 0.8	< 5	21	< 0.5	< 0.8	1900	21	5	24	10000	5	1900	110	< 1.5	39	< 1	18	22	14
			20304	6000	**1.3**	< 5	20	< 0.5	< 0.8	2000	21	5	24	10000	5	1900	110	< 1.5	43	< 1	19	24	14
5030513 Play Structure	C	0-5 cm (sand)	20305	6100	< 0.8	5	26	< 0.5	< 0.8	2500	27	11	**72**	14000	18	3000	170	< 1.5	**102**	< 1	21	27	28
			20306	5500	< 0.8	< 5	22	< 0.5	< 0.8	2300	27	10	51	14000	18	3100	170	< 1.5	**70**	< 1	17	28	26
5030514 Play Structure	D	0-5 cm (sand)	20307	5200	< 0.8	< 5	20	< 0.5	< 0.8	2000	25	6	12	13000	3	3000	160	< 1.5	25	< 1	16	28	17

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
			20308	5200	< 0.8	< 5	23	< 0.5	< 0.8	2200	23	6	15	13000	5	3000	160	< 1.5	31	< 1	18	29	17
5030515 Green Space	E	0-5 cm (soil)	20309	7400	< 0.8	< 5	24	< 0.5	< 0.8	2700	25	7	47	13000	16	2400	140	< 1.5	**61**	< 1	23	24	30
			20310	6900	< 0.8	< 5	22	< 0.5	< 0.8	2400	23	6	41	11000	18	2000	130	< 1.5	**59**	< 1	20	23	23
		5-10 cm (soil)	20311	6600	< 0.8	< 5	16	< 0.5	< 0.8	1800	20	5	27	10000	11	1600	120	< 1.5	38	< 1	16	22	20
			20312	6500	< 0.8	< 5	15	< 0.5	< 0.8	1900	20	5	19	10000	10	1600	110	< 1.5	30	< 1	17	22	18
		10-20 cm (soil)	20313	6400	< 0.8	< 5	26	< 0.5	< 0.8	1900	21	6	28	10000	16	1800	130	< 1.5	**48**	< 1	18	22	25
			20314	8600	< 0.8	< 5	36	< 0.5	< 0.8	3100	27	8	28	12000	17	2300	180	< 1.5	**50**	< 1	33	26	29
5030516 Green Space	F	0-5 cm (soil)	20315	8100	< 0.8	10	37	< 0.5	< 0.8	4900	27	12	**110**	14000	24	2400	160	< 1.5	**194**	< 1	34	32	36
			20316	9000	< 0.8	9	41	< 0.5	< 0.8	5100	27	11	**100**	14000	20	2400	170	< 1.5	**169**	< 1	36	30	32
		5-10 cm (soil)	20317	8600	< 0.8	6	33	< 0.5	< 0.8	3800	26	6	35	12000	8	2100	150	< 1.5	**63**	< 1	33	31	21
			20318	9400	< 0.8	7	38	< 0.5	< 0.8	4100	28	6	44	13000	8	2200	160	< 1.5	**85**	< 1	34	33	22
		10-20 cm (soil)	20319	5900	< 0.8	< 5	21	< 0.5	< 0.8	2000	21	4	21	9400	4	1900	110	< 1.5	36	< 1	20	21	14
			20320	5100	< 0.8	< 5	20	< 0.5	< 0.8	1700	17	4	18	8400	3	1800	99	< 1.5	32	< 1	16	18	13
Lorne Brady Park, O'Neil Drive West																							
5030522 Green Space	A	0-5 cm (soil)	20339	5000	< 0.8	< 5	18	< 0.5	< 0.8	2900	21	5	16	9600	4	2100	140	< 1.5	26	< 1	21	22	14
			20340	4900	< 0.8	< 5	18	< 0.5	< 0.8	3000	21	5	16	9700	4	2200	150	< 1.5	25	< 1	23	22	15
		5-10 cm (soil)	20341	5300	< 0.8	< 5	18	< 0.5	< 0.8	2700	22	4	10	9700	3	1900	150	< 1.5	20	< 1	23	23	12
			20342	5100	< 0.8	< 5	16	< 0.5	< 0.8	2600	20	4	11	9400	1	1900	150	< 1.5	20	< 1	19	20	12
		10-20 cm (soil)	20343	6100	< 0.8	< 5	21	< 0.5	< 0.8	1600	19	4	14	10000	2	1900	110	< 1.5	23	< 1	12	19	15
			20344	6500	< 0.8	< 5	23	< 0.5	< 0.8	2200	20	5	18	11000	2	2000	130	< 1.5	29	< 1	19	22	14
5030523 Green Space	B	0-5 cm (soil)	20345	6200	< 0.8	< 5	22	< 0.5	< 0.8	2900	21	4	27	9800	4	1900	140	< 1.5	37	< 1	25	21	16
			20346	5900	< 0.8	< 5	20	< 0.5	< 0.8	2600	20	4	29	9500	3	1900	140	< 1.5	30	< 1	22	20	14
5030524 Baseball Infield	C	0-5 cm (soil)	20347	7800	< 0.8	< 5	39	< 0.5	< 0.8	5300	29	6	22	14000	5	3600	190	< 1.5	34	< 1	37	26	26
			20348	6900	< 0.8	< 5	40	< 0.5	< 0.8	4200	26	6	21	13000	7	3300	170	< 1.5	35	< 1	31	24	24
5030525 Baseball Outfield	D	0-5 cm (soil)	20349	7600	< 0.8	< 5	32	< 0.5	< 0.8	2900	22	6	38	12000	17	2100	130	< 1.5	**60**	< 1	21	22	26
			20350	7400	< 0.8	< 5	31	< 0.5	< 0.8	3200	22	6	41	11000	16	2200	120	< 1.5	**56**	< 1	21	22	27
		5-10 cm (soil)	20351	6300	< 0.8	< 5	29	< 0.5	< 0.8	2000	21	5	42	10000	19	1900	120	< 1.5	**46**	< 1	17	22	27
			20352	6300	< 0.8	< 5	29	< 0.5	< 0.8	2400	21	5	29	11000	19	2000	120	< 1.5	43	< 1	19	22	25
		10-20 cm (soil)	20353	8700	< 0.8	< 5	45	< 0.5	< 0.8	3000	26	5	26	12000	15	2300	160	< 1.5	37	< 1	30	26	30
			20354	8400	**2.8**	< 5	40	< 0.5	< 0.8	2800	24	5	23	12000	15	2400	140	< 1.5	38	< 1	28	25	25
5030526 Baseball Infield	E	0-5 cm (soil)	20355	7400	< 0.8	< 5	30	< 0.5	< 0.8	6700	26	5	11	12000	2	3600	160	< 1.5	20	< 1	40	24	16
			20356	7100	< 0.8	< 5	29	< 0.5	< 0.8	6200	24	5	12	12000	2	3300	160	< 1.5	22	< 1	38	23	17

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030527 Baseball Outfield	F	0-5 cm (soil)	20357	9600	< 0.8	< 5	41	< 0.5	< 0.8	3700	24	6	41	12000	7	2100	150	< 1.5	**56**	< 1	30	25	28
			20358	6600	< 0.8	< 5	27	< 0.5	< 0.8	3200	19	5	41	10000	10	1900	130	< 1.5	**57**	< 1	22	20	22
		5-10 cm (soil)	20359	6000	< 0.8	< 5	23	< 0.5	< 0.8	1900	19	4	31	10000	6	1900	120	< 1.5	31	< 1	15	20	16
			20360	6100	< 0.8	< 5	24	< 0.5	< 0.8	2300	19	5	33	11000	6	1800	130	< 1.5	38	< 1	17	22	17
		10-20 cm (soil)	20361	5700	< 0.8	< 5	23	< 0.5	< 0.8	1600	19	4	13	9800	3	2000	120	< 1.5	24	< 1	14	20	14
			20362	6100	< 0.8	< 5	27	< 0.5	< 0.8	2100	19	4	20	10000	4	2300	130	< 1.5	25	< 1	17	21	15
5030528 Baseball Infield	G	0-5 cm (soil)	20363	5200	< 0.8	< 5	20	< 0.5	< 0.8	3700	21	4	12	9300	4	2400	140	< 1.5	24	< 1	27	20	18
			20364	5500	< 0.8	< 5	20	< 0.5	< 0.8	3900	21	5	14	10000	4	2400	150	< 1.5	23	< 1	28	21	18
5030529 Baseball Outfield	H	0-5 cm (soil)	20365	7900	< 0.8	< 5	26	< 0.5	< 0.8	15000	20	6	48	10000	15	8200	120	< 1.5	**73**	< 1	27	20	32
			20366	7900	0.8	< 5	30	< 0.5	< 0.8	8000	22	6	**59**	11000	16	3900	130	< 1.5	**83**	< 1	28	21	36
		5-10 cm (soil)	20367	7200	< 0.8	< 5	21	< 0.5	< 0.8	14000	17	5	36	9500	10	8100	92	< 1.5	**56**	< 1	19	19	21
			20368	7300	< 0.8	< 5	23	< 0.5	< 0.8	13000	19	5	43	10000	10	7400	99	< 1.5	**57**	< 1	22	20	23
		10-20 cm (soil)	20369	8300	< 0.8	6	24	< 0.5	< 0.8	3000	21	4	35	11000	9	2100	93	< 1.5	**44**	< 1	20	22	18
			20370	10000	< 0.8	5	39	< 0.5	< 0.8	3400	24	4	32	11000	7	1800	120	< 1.5	40	< 1	31	26	19
Matson Playground, Old Falconbridge Rd.																							
5030535 Play Structure	A	0-5 cm (sand)	20385	3900	< 0.8	< 5	16	< 0.5	< 0.8	2300	20	4	9.7	10000	2	2100	130	< 1.5	14	< 1	18	22	12
			20386	4100	< 0.8	< 5	17	< 0.5	< 0.8	2400	20	4	9.7	9900	2	2200	130	< 1.5	14	< 1	19	22	12
Metcalfe Playground (Imperial Subdivision Playground), Metcalfe Ave.																							
5030530 Play Structure	A	0-5 cm (sand)	20371	6600	< 0.8	5	30	< 0.5	< 0.8	2300	28	7	20	14000	4	3000	170	< 1.5	26	< 1	22	29	29
			20372	7000	< 0.8	5	34	< 0.5	< 0.8	2400	29	8	20	15000	3	2900	180	< 1.5	24	< 1	23	29	30
5030531 Play Structure	B	0-5 cm (sand)	20373	7700	< 0.8	< 5	36	< 0.5	< 0.8	2700	25	5	17	12000	3	2400	160	< 1.5	21	< 1	26	24	17
			20374	6400	< 0.8	< 5	28	< 0.5	< 0.8	2700	24	6	14	12000	3	2600	150	< 1.5	21	< 1	23	24	18
5030532 Play Structure	C	0-5 cm (sand)	20375	8400	< 0.8	< 5	42	< 0.5	< 0.8	2800	30	7	24	15000	8	2800	190	< 1.5	33	< 1	30	33	81
			20376	6400	< 0.8	< 5	29	< 0.5	< 0.8	2600	27	9	22	15000	7	3200	180	< 1.5	32	< 1	22	32	71
5030533 Green Space	D	0-5 cm (soil)	20377	10000	< 0.8	5	43	< 0.5	< 0.8	4000	30	7	53	14000	11	2800	190	< 1.5	**62**	< 1	38	28	24
			20378	8600	< 0.8	< 5	33	< 0.5	< 0.8	4000	29	7	42	13000	12	2600	190	< 1.5	**65**	< 1	35	27	21
		5-10 cm (soil)	20379	8600	< 0.8	< 5	38	< 0.5	< 0.8	2700	28	7	32	13000	9	2500	160	< 1.5	**48**	< 1	26	26	19
			20380	8700	< 0.8	< 5	34	< 0.5	< 0.8	3900	28	6	19	12000	5	2500	180	< 1.5	28	< 1	38	28	17
		10-20 cm (soil)	20381	11000	< 0.8	< 5	66	< 0.5	< 0.8	3600	38	9	23	17000	7	3700	250	< 1.5	29	< 1	35	32	20
			20382	12000	< 0.8	< 5	75	< 0.5	< 0.8	3500	40	8	23	18000	6	4400	270	< 1.5	37	< 1	36	34	23
Penman Avenue Playground , Penman Ave																							
5030519 Play Structure	A	0-5 cm (sand)	20329	4500	< 0.8	< 5	18	< 0.5	< 0.8	2300	24	5	15	13000	5	2700	140	< 1.5	25	< 1	16	28	29
			20330	4500	< 0.8	< 5	17	< 0.5	< 0.8	2300	23	5	19	11000	3	2700	140	< 1.5	23	< 1	16	25	28
5030520 Play Structure	B	0-5 cm (sand)	20331	7500	< 0.8	< 5	36	< 0.5	< 0.8	4200	30	5	17	13000	3	2800	190	< 1.5	35	< 1	34	31	20
			20332	6200	< 0.8	< 5	26	< 0.5	< 0.8	3600	25	5	18	12000	3	2700	170	< 1.5	40	< 1	29	25	19

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030521 Green Space	C	0-5 cm (soil)	20333	9000	< 0.8	7	40	< 0.5	< 0.8	5000	27	10	**110**	12000	19	2400	150	< 1.5	**236**	< 1	36	26	32
			20334	8000	< 0.8	7	37	< 0.5	< 0.8	5700	24	11	**140**	12000	24	2800	140	< 1.5	**276**	< 1	33	24	42
		5-10 cm (soil)	20335	8700	< 0.8	6	35	< 0.5	< 0.8	3900	26	7	49	11000	10	2100	140	< 1.5	**162**	< 1	34	26	25
			20336	8100	< 0.8	6	32	< 0.5	< 0.8	3900	24	7	**60**	11000	12	2100	130	< 1.5	**184**	< 1	33	25	27
		10-20 cm (soil)	20337	6400	< 0.8	< 5	26	< 0.5	< 0.8	2500	22	6	24	10000	11	1800	130	< 1.5	**89**	< 1	25	23	16
			20338	6500	< 0.8	< 5	26	< 0.5	< 0.8	2500	21	7	38	10000	17	1800	120	< 1.5	**124**	< 1	22	23	20
Saturn Playground, O'Neil Drive East at End of Catherine St.																							
5030503 Play Structure	A	0-5 cm (sand)	20261	5300	< 0.8	< 5	22	< 0.5	< 0.8	2000	26	6	19	14000	3	3100	160	< 1.5	23	< 1	17	29	21
			20262	5200	< 0.8	< 5	23	< 0.5	< 0.8	2000	26	7	19	14000	3	3000	160	< 1.5	25	< 1	19	32	19
Thomas Street Playground Tot Lot, Thomas St.																							
5030517 Play Structure	A	0-5 cm (sand)	20321	4700	< 0.8	< 5	18	< 0.5	< 0.8	2100	24	8	16	12000	3	2400	140	< 1.5	24	< 1	18	27	16
			20322	4900	< 0.8	< 5	18	< 0.5	< 0.8	2100	23	5	16	11000	2	2600	140	< 1.5	23	< 1	17	25	16
5030518 Green Space	B	0-5 cm (soil)	20323	8200	< 0.8	6	41	< 0.5	< 0.8	2600	28	9	**65**	14000	12	2900	160	< 1.5	**76**	< 1	27	26	21
			20324	6700	< 0.8	6	34	< 0.5	< 0.8	2300	25	8	**64**	12000	13	2600	140	< 1.5	**76**	< 1	22	24	22
		5-10 cm (soil)	20325	8600	< 0.8	< 5	41	< 0.5	< 0.8	2400	26	6	37	13000	7	2600	150	< 1.5	**54**	< 1	26	27	20
			20326	8100	< 0.8	6	39	< 0.5	< 0.8	2500	25	7	49	13000	8	2500	150	< 1.5	**65**	< 1	25	26	21
		10-20 cm (soil)	20327	6900	< 0.8	< 5	27	< 0.5	< 0.8	2200	23	6	25	11000	5	2200	130	< 1.5	41	< 1	24	24	15
			20328	6100	< 0.8	< 5	21	< 0.5	< 0.8	1700	19	5	31	10000	5	1800	98	< 1.5	**47**	< 1	16	21	16
Tiger Field, Pine St.																							
5030509 Baseball Infield	A	0-5 cm (soil)	20285	5800	< 0.8	< 5	23	< 0.5	< 0.8	3700	23	6	26	11000	6	2900	160	< 1.5	41	< 1	28	22	24
			20286	5800	< 0.8	< 5	23	< 0.5	< 0.8	3800	23	6	27	11000	6	2800	160	< 1.5	42	< 1	27	24	22
5030510 Baseball Outfield	B	0-5 cm (soil)	20287	6700	< 0.8	14	25	< 0.5	< 0.8	4300	24	12	**160**	14000	23	2200	130	< 1.5	**203**	< 1	24	24	23
			20288	7900	< 0.8	**18**	32	< 0.5	< 0.8	3100	27	16	**230**	15000	34	2400	140	< 1.5	**289**	**2**	26	25	30
		5-10 cm (soil)	20289	6600	< 0.8	10	20	< 0.5	< 0.8	1400	20	8	**86**	11000	10	2000	100	< 1.5	**125**	< 1	13	21	17
			20290	7400	< 0.8	10	23	< 0.5	< 0.8	1700	21	8	**86**	12000	11	2000	110	< 1.5	**130**	< 1	18	24	19
		10-20 cm (soil)	20291	6700	< 0.8	< 5	25	< 0.5	< 0.8	1500	21	6	36	11000	6	1900	110	< 1.5	**64**	< 1	17	23	14
			20292	11000	< 0.8	6	39	< 0.5	< 0.8	2800	26	7	34	14000	5	2200	140	< 1.5	**78**	< 1	33	28	15
Community of Lively																							
B Street Ballfield (George Vanier), B St. and 9th Ave.																							
5030932 Baseball Infield	A	0-5 cm (gravel)	18232	9100	< 0.8	< 5	40	< 0.5	< 0.8	9000	24	7	52	14000	10	4600	200	< 1.5	**87**	< 1	56	29	27
			18233	9400	< 0.8	< 5	42	< 0.5	< 0.8	8700	25	8	**69**	14000	10	4400	210	< 1.5	**140**	< 1	59	29	26

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030933 Baseball Outfield	B	0-5 cm (soil)	18234	14000	< 0.8	10	78	< 0.5	< 0.8	5000	37	14	**190**	19000	32	2900	200	< 1.5	**290**	**2**	47	37	41
			18235	13000	< 0.8	11	70	< 0.5	< 0.8	4600	34	12	**180**	18000	25	2900	190	< 1.5	**260**	1	46	36	44
		5-10 cm (soil)	18236	13000	< 0.8	11	58	< 0.5	< 0.8	4500	31	9	**110**	16000	12	2900	200	< 1.5	**140**	< 1	41	35	33
			18237	11000	< 0.8	10	54	< 0.5	< 0.8	3500	29	9	**100**	15000	10	2800	190	< 1.5	**130**	< 1	30	31	31
		10-20 cm (soil)	18238	9800	< 0.8	7	50	< 0.5	< 0.8	3500	28	8	**67**	17000	9	3500	240	< 1.5	**75**	< 1	25	35	30
			18239	11000	< 0.8	7	59	< 0.5	< 0.8	3400	33	9	**71**	19000	10	4000	260	< 1.5	**74**	< 1	25	36	31
Beaver Lake Playground, 45 Club Rd.																							
5030877 Play Area	A	0-5 cm (sand)	18130	7700	< 0.8	< 5	26	< 0.5	< 0.8	3200	24	8	39	20000	9	4300	220	< 1.5	**68**	< 1	41	38	32
			18131	7500	< 0.8	< 5	26	< 0.5	< 0.8	2700	23	8	38	18000	10	4200	220	< 1.5	27	< 1	32	40	32
5030878 Green Space	B	0-5 cm (soil)	18132	20000	< 0.8	6	100	< 0.5	< 0.8	3700	58	14	39	28000	27	7700	470	< 1.5	**52**	< 1	41	52	75
			18133	21000	< 0.8	< 5	110	< 0.5	< 0.8	3700	59	15	42	29000	20	7800	530	< 1.5	**49**	< 1	41	55	78
		5-10 cm (soil)	18134	26000	< 0.8	< 5	130	< 0.5	< 0.8	4200	66	14	34	34000	24	9500	510	< 1.5	**44**	< 1	47	60	76
			18135	37000	< 0.8	< 5	210	0.6	< 0.8	5300	**77**	14	31	36000	13	10000	540	< 1.5	41	< 1	58	74	86
		10-20 cm (soil)	18136	29000	< 0.8	< 5	150	< 0.5	< 0.8	4300	65	11	25	32000	12	8900	450	< 1.5	37	< 1	54	63	71
			18137	31000	< 0.8	< 5	160	0.5	< 0.8	5200	65	13	26	35000	11	9500	490	< 1.5	38	< 1	56	66	80
Black Lake Road Playground, Black Lake Rd.																							
5030862 Play Structure	A	0-5 cm (sand)	18014	9700	< 0.8	5	48	< 0.5	< 0.8	3900	36	9	40	16000	7	4000	230	< 1.5	38	< 1	35	35	38
			18015	9400	< 0.8	5	44	< 0.5	< 0.8	3700	36	10	41	17000	10	4000	240	< 1.5	37	< 1	34	36	37
5030863 Green Space	B	0-5 cm (soil)	18016	9900	< 0.8	5	39	< 0.5	< 0.8	3100	30	9	**79**	15000	15	2900	210	< 1.5	**89**	< 1	31	30	40
			18017	8300	< 0.8	< 5	29	< 0.5	< 0.8	2900	24	7	39	13000	7	2700	180	< 1.5	32	< 1	25	28	26
		5-10 cm (soil)	18018	13000	< 0.8	< 5	48	< 0.5	< 0.8	3100	35	8	**65**	16000	13	3000	220	< 1.5	**69**	< 1	33	34	40
			18019	9000	< 0.8	< 5	37	< 0.5	< 0.8	3000	29	8	**78**	15000	17	3100	210	< 1.5	**84**	< 1	29	30	40
		10-20 cm (soil)	18020	13000	< 0.8	5	48	< 0.5	< 0.8	3600	32	7	**64**	17000	11	2700	210	< 1.5	**70**	< 1	38	34	35
			18021	9300	< 0.8	< 5	33	< 0.5	< 0.8	3100	26	7	53	15000	10	2800	200	< 1.5	**49**	< 1	31	30	32
Central Park, 213 6th Avenue																							
5030859 Green Space	A	0-5 cm (soil)	18000	9400	< 0.8	< 5	40	< 0.5	< 0.8	6100	31	7	**63**	14000	14	3100	220	< 1.5	**81**	< 1	42	29	36
			18001	10000	< 0.8	< 5	43	< 0.5	< 0.8	5500	32	7	**67**	14000	14	3100	230	< 1.5	**85**	< 1	45	32	38
		5-10 cm (soil)	18002	8000	< 0.8	< 5	33	< 0.5	< 0.8	7200	25	6	36	12000	7	3600	190	< 1.5	**44**	< 1	36	27	23
			18003	8700	< 0.8	< 5	37	< 0.5	< 0.8	4600	27	7	47	14000	12	3100	200	< 1.5	**59**	< 1	36	29	27
		10-20 cm (soil)	18004	11000	< 0.8	< 5	55	< 0.5	< 0.8	5900	35	8	56	15000	12	3600	250	< 1.5	**73**	< 1	40	36	36
			18005	10000	< 0.8	6	52	< 0.5	< 0.8	4400	33	7	52	17000	10	3400	240	< 1.5	**61**	< 1	37	35	32

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030860 Green Space	B	0-5 cm (soil)	18006	16000	< 0.8	10	81	< 0.5	< 0.8	4000	46	15	**210**	20000	30	3300	260	< 1.5	**280**	**2**	44	37	52
			18007	16000	< 0.8	11	80	< 0.5	< 0.8	4000	41	13	**170**	18000	20	3400	270	< 1.5	**230**	1	44	37	53
		5-10 cm (soil)	18008	15000	< 0.8	9	93	< 0.5	< 0.8	3900	45	10	**84**	17000	13	3600	310	< 1.5	**150**	< 1	42	39	57
			18009	16000	< 0.8	8	95	< 0.5	< 0.8	4000	46	9	**69**	18000	11	3500	290	< 1.5	**150**	< 1	44	40	160
		10-20 cm (soil)	18010	16000	< 0.8	7	85	< 0.5	< 0.8	4000	41	8	**58**	19000	10	4000	280	< 1.5	**80**	< 1	50	40	44
			18011	23000	< 0.8	7	120	< 0.5	< 0.8	4400	51	8	**57**	22000	11	4600	320	< 1.5	**74**	< 1	58	49	66
Fielding Memorial Park Complex, 345 Fielding Rd.																							
5030940 Green Space	A	0-5 cm (soil)	19354	7800	< 0.8	6	25	< 0.5	< 0.8	2300	22	6	**62**	11000	10	1400	190	< 1.5	**85**	< 1	25	24	25
			19355	6800	< 0.8	6	23	< 0.5	< 0.8	1800	20	5	56	10000	9	1300	170	< 1.5	**73**	< 1	17	22	23
		5-10 cm (soil)	19356	7500	< 0.8	6	26	< 0.5	< 0.8	2100	21	6	51	11000	9	1400	200	< 1.5	**68**	< 1	24	24	23
			19357	7400	< 0.8	6	26	< 0.5	< 0.8	2000	21	6	**65**	11000	9	1300	190	< 1.5	**81**	< 1	22	23	23
		10-20 cm (soil)	19358	7700	< 0.8	8	29	< 0.5	< 0.8	2100	22	6	**70**	11000	10	1400	200	< 1.5	**86**	< 1	23	24	31
			19359	7000	< 0.8	9	33	< 0.5	< 0.8	1800	21	7	**95**	11000	12	1400	190	< 1.5	**115**	1	20	22	23
5030941 Play Structure	B	0-5 cm (sand)	19360	5500	< 0.8	< 5	17	< 0.5	< 0.8	1900	28	8	26	13000	5	3800	160	< 1.5	29	< 1	16	22	27
			19361	6100	< 0.8	< 5	21	< 0.5	< 0.8	2500	30	8	27	13000	6	3800	180	< 1.5	35	< 1	22	24	27
5030942 Green Space	C	0-5 cm (soil)	19362	10000	< 0.8	7	37	< 0.5	< 0.8	3300	29	6	**70**	13000	12	1900	200	< 1.5	**100**	< 1	38	28	28
			19363	8400	**1.2**	< 5	31	< 0.5	< 0.8	2300	23	6	**69**	11000	11	1600	180	< 1.5	**88**	< 1	27	24	25
		5-10 cm (soil)	19364	8900	< 0.8	6	34	< 0.5	< 0.8	2500	24	6	**68**	12000	10	1700	160	< 1.5	**92**	< 1	30	26	26
			19365	8900	< 0.8	6	34	< 0.5	< 0.8	2500	24	6	**72**	12000	10	1600	190	< 1.5	**94**	< 1	30	25	26
		10-20 cm (soil)	19366	12000	< 0.8	8	42	< 0.5	< 0.8	4100	25	6	**100**	15000	14	2200	190	< 1.5	**102**	< 1	38	10	32
			19367	17000	< 0.8	< 5	87	< 0.5	< 0.8	4300	37	8	**110**	17000	13	3000	230	< 1.5	**128**	1	45	15	38
Goodwill Playground, 540 Reg. Rd. 55																							
5030926 Play Structure	A	0-5 cm (sand)	18208	6300	< 0.8	< 5	17	< 0.5	< 0.8	2000	30	13	36	14000	7	3700	160	< 1.5	36	< 1	17	26	36
			18209	6300	< 0.8	< 5	18	< 0.5	< 0.8	2000	29	11	35	13000	7	3500	150	< 1.5	33	< 1	18	24	36
5030927 Green Space	B	0-5 cm (soil)	18210	6400	< 0.8	5	22	< 0.5	< 0.8	2300	22	8	55	15000	9	3200	170	< 1.5	**49**	< 1	19	28	26
			18211	6800	< 0.8	< 5	24	< 0.5	< 0.8	2700	23	9	**59**	15000	10	3200	180	< 1.5	**56**	< 1	23	30	27
		5-10 cm (soil)	18212	6700	< 0.8	< 5	26	< 0.5	< 0.8	2800	22	10	38	15000	7	3200	200	< 1.5	34	< 1	23	32	26
			18213	10000	< 0.8	< 5	47	< 0.5	< 0.8	4400	26	10	41	18000	7	3600	250	< 1.5	41	< 1	35	39	29
		10-20 cm (soil)	18214	9000	< 0.8	< 5	37	< 0.5	< 0.8	4400	24	8	35	16000	6	3300	220	< 1.5	25	< 1	35	37	25
			18215	9300	< 0.8	< 5	39	< 0.5	< 0.8	4200	24	9	36	17000	6	3200	230	< 1.5	28	< 1	35	38	24
Hillcrest Sports Centre, Hillcrest Dr.																							
5030934 Play Structure	A	0-5 cm (sand)	18240	9800	< 0.8	< 5	40	< 0.5	< 0.8	3800	36	10	**60**	23000	10	7100	320	< 1.5	36	< 1	26	49	43
			18241	8700	< 0.8	< 5	38	< 0.5	< 0.8	3300	34	11	56	24000	10	6500	300	< 1.5	32	< 1	18	49	44

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030935 Soccer Field	B	0-5 cm (soil)	18242	9300	< 0.8	6	45	< 0.5	< 0.8	7300	31	7	45	15000	12	3600	270	< 1.5	**63**	< 1	32	29	28
			18243	9300	< 0.8	9	48	< 0.5	< 0.8	7600	32	7	43	17000	10	3900	310	< 1.5	**57**	< 1	28	29	30
		5-10 cm (soil)	18244	9800	< 0.8	8	51	< 0.5	< 0.8	9500	36	7	43	18000	10	5000	290	< 1.5	**57**	< 1	32	32	32
			18245	9500	< 0.8	6	49	< 0.5	< 0.8	8000	35	7	48	17000	9	4400	280	< 1.5	**53**	< 1	32	31	31
		10-20 cm (soil)	18246	9800	< 0.8	5	47	< 0.5	< 0.8	7300	35	6	48	16000	10	3900	250	< 1.5	**57**	< 1	31	30	32
			18247	8700	< 0.8	< 5	41	< 0.5	< 0.8	5200	30	6	41	14000	8	3500	210	< 1.5	**52**	< 1	22	26	28
5030936 Soccer Field	C	0-5 cm (soil)	18248	9600	< 0.8	5	44	< 0.5	< 0.8	8100	33	7	53	15000	13	3700	280	< 1.5	**75**	< 1	32	29	31
			18249	9000	< 0.8	7	44	< 0.5	< 0.8	8000	32	7	49	14000	11	3900	310	< 1.5	**66**	< 1	26	27	30
		5-10 cm (soil)	18250	9900	< 0.8	5	47	< 0.5	< 0.8	10000	37	8	54	16000	13	5000	290	< 1.5	**68**	< 1	34	30	33
			18251	10000	< 0.8	5	47	< 0.5	< 0.8	10000	38	7	42	16000	11	5000	290	< 1.5	**56**	< 1	39	32	32
		10-20 cm (soil)	18252	14000	< 0.8	7	68	< 0.5	< 0.8	13000	48	8	45	20000	12	6300	360	< 1.5	**61**	< 1	59	43	36
			18253	13000	< 0.8	5	65	< 0.5	< 0.8	12000	44	7	43	18000	10	5700	330	< 1.5	**55**	< 1	55	39	33
5030937 Soccer Field	D	0-5 cm (soil)	18254	16000	< 0.8	6	93	< 0.5	< 0.8	5100	45	8	**76**	18000	13	3700	230	< 1.5	**110**	< 1	50	39	33
			18255	16000	< 0.8	5	95	< 0.5	< 0.8	5300	42	8	**86**	18000	14	3800	260	< 1.5	**120**	< 1	50	39	34
		5-10 cm (soil)	18256	16000	< 0.8	< 5	100	< 0.5	< 0.8	4600	40	7	**61**	17000	10	3500	210	< 1.5	**72**	< 1	52	38	29
			18257	11000	< 0.8	< 5	59	< 0.5	< 0.8	3500	31	9	**61**	14000	12	2900	200	< 1.5	**89**	< 1	42	30	26
		10-20 cm (soil)	18258	9600	< 0.8	< 5	55	< 0.5	< 0.8	3300	30	7	46	15000	8	2900	190	< 1.5	**57**	< 1	40	30	24
			18259	11000	< 0.8	< 5	56	< 0.5	< 0.8	3400	31	8	**60**	15000	10	3000	190	< 1.5	**79**	< 1	40	29	24
5030938 Baseball Infield	E	0-5 cm (soil)	18260	5200	< 0.8	< 5	30	< 0.5	< 0.8	5900	17	6	31	10000	7	3900	140	< 1.5	**45**	< 1	61	20	19
			18261	6200	< 0.8	< 5	32	< 0.5	< 0.8	5800	19	6	31	11000	6	3700	160	< 1.5	**45**	< 1	63	23	21
5030939 Baseball Outfield	F	0-5 cm (soil)	18262	9800	< 0.8	< 5	29	< 0.5	< 0.8	4500	26	6	36	13000	8	2600	160	< 1.5	**60**	< 1	37	28	21
			18263	9100	< 0.8	< 5	27	< 0.5	< 0.8	4300	24	5	29	13000	6	2700	150	< 1.5	**49**	< 1	30	26	20
		5-10 cm (soil)	18264	9700	< 0.8	< 5	29	< 0.5	< 0.8	3300	25	5	13	13000	5	2100	150	< 1.5	26	< 1	33	27	19
			18265	9800	< 0.8	< 5	30	< 0.5	< 0.8	3500	26	5	12	13000	7	2100	170	< 1.5	26	< 1	34	27	19
		10-20 cm (soil)	18266	9800	< 0.8	< 5	37	< 0.5	< 0.8	3400	26	6	17	13000	6	2700	180	< 1.5	32	< 1	30	27	22
			18267	11000	< 0.8	< 5	49	< 0.5	< 0.8	3900	31	7	20	15000	7	3100	210	< 1.5	37	< 1	36	30	24
Long Lake Park, 1200 Kantola Rd.																							
5030861 Beach	A	0-5 cm (sand)	18012	9800	< 0.8	6	56	< 0.5	< 0.8	3400	38	9	**75**	15000	16	3800	180	< 1.5	**91**	< 1	32	31	36
			18013	10000	< 0.8	5	49	< 0.5	< 0.8	3600	39	9	**59**	16000	12	4000	180	< 1.5	**63**	< 1	31	33	39
Meatbird Lake Park, 785 Reg. Rd. 24																							
5030928 Play Structure	A	0-5 cm (sand)	18216	9800	< 0.8	7	47	< 0.5	< 0.8	3000	37	11	43	16000	7	3800	180	< 1.5	34	< 1	28	33	32
			18217	9600	< 0.8	6	46	< 0.5	< 0.8	3000	35	10	42	15000	6	3900	170	< 1.5	35	< 1	27	30	32
5030929 Beach	B	0-5 cm (sand)	18218	6800	< 0.8	< 5	24	< 0.5	< 0.8	3600	28	8	29	18000	6	3800	210	< 1.5	36	< 1	28	40	22
			18219	4100	< 0.8	< 5	20	< 0.5	< 0.8	1300	18	7	27	10000	6	3000	150	< 1.5	31	< 1	10	18	18
5030930 Green Space	C	0-5 cm (soil)	18220	9900	0.9	< 5	53	< 0.5	< 0.8	4000	40	11	**210**	19000	16	4300	230	< 1.5	**130**	1	28	34	32

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
			18221	12000	< 0.8	6	67	< 0.5	< 0.8	5200	47	13	**210**	22000	20	5200	280	< 1.5	**160**	1	38	40	38
		5-10 cm (soil)	18222	13000	< 0.8	< 5	65	< 0.5	< 0.8	4800	53	10	**120**	21000	11	5100	240	< 1.5	**110**	1	37	40	32
			18223	14000	< 0.8	< 5	72	< 0.5	< 0.8	5100	52	10	**180**	22000	13	5100	260	< 1.5	**110**	< 1	41	42	34
		10-20 cm (soil)	18224	14000	< 0.8	< 5	77	< 0.5	< 0.8	5600	60	10	**150**	23000	10	6100	260	< 1.5	**100**	< 1	39	43	33
			18225	17000	< 0.8	< 5	110	< 0.5	< 0.8	6000	**69**	12	**130**	27000	10	7100	330	< 1.5	**110**	< 1	45	51	36
		0-5 cm (soil)	18226	10000	< 0.8	< 5	41	< 0.5	< 0.8	4500	27	8	**62**	15000	10	3700	190	< 1.5	**86**	< 1	30	30	25
			18227	8600	< 0.8	< 5	35	< 0.5	< 0.8	3600	25	7	**69**	14000	10	3300	170	< 1.5	**70**	< 1	23	26	25
5030931 Green Space	D	5-10 cm (soil)	18228	9800	< 0.8	7	41	< 0.5	< 0.8	2800	26	8	**60**	15000	11	2600	200	< 1.5	**75**	< 1	28	29	25
			18229	9000	< 0.8	6	34	< 0.5	< 0.8	2700	23	6	44	13000	9	2400	170	< 1.5	**56**	< 1	26	26	22
		10-20 cm (soil)	18230	13000	< 0.8	6	58	< 0.5	< 0.8	3900	30	8	**74**	17000	13	2800	250	< 1.5	**91**	< 1	40	35	32
			18231	12000	< 0.8	7	48	< 0.5	< 0.8	3400	28	8	**65**	16000	12	2600	210	< 1.5	**79**	< 1	38	33	27
Pinehights Park, 72 Jacob St.																							
5030864 Play Structure	A	0-5 cm (sand)	18022	6700	< 0.8	7	26	< 0.5	< 0.8	2500	29	8	32	12000	5	3100	160	< 1.5	31	< 1	22	24	27
			18023	6100	< 0.8	6	27	< 0.5	< 0.8	2300	30	7	27	11000	5	2900	160	< 1.5	29	< 1	20	24	27
5030865 Green Space	B	0-5 cm (soil)	18024	8800	< 0.8	< 5	53	< 0.5	< 0.8	3000	26	7	55	15000	10	2400	510	< 1.5	**74**	< 1	30	29	37
			18025	8900	< 0.8	< 5	53	< 0.5	< 0.8	2600	26	7	**58**	16000	9	2300	510	< 1.5	**70**	< 1	27	28	35
		5-10 cm (soil)	18026	11000	< 0.8	5	50	< 0.5	< 0.8	3500	29	8	**68**	16000	11	2500	360	< 1.5	**88**	< 1	36	30	32
			18027	9700	< 0.8	< 5	53	< 0.5	< 0.8	3200	30	9	**82**	17000	11	2600	440	< 1.5	**90**	< 1	33	30	37
		10-20 cm (soil)	18028	15000	< 0.8	6	51	< 0.5	< 0.8	4000	37	10	**140**	17000	19	2900	270	< 1.5	**140**	1	46	34	40
			18029	16000	< 0.8	7	61	< 0.5	< 0.8	4100	42	11	**120**	19000	18	3200	270	< 1.5	**140**	1	46	36	39
Royal Canadian Legion Branch 546 Playground, 279 Ash St.																							
5030854 Green Space	A	0-5 cm (soil)	17982	12000	< 0.8	8	60	< 0.5	< 0.8	5800	35	14	**180**	21000	47	3900	200	< 1.5	**250**	1	40	37	62
			17983	12000	< 0.8	8	60	< 0.5	< 0.8	6000	34	14	**180**	20000	50	3900	200	< 1.5	**260**	**2**	38	35	64
		5-10 cm (soil)	17984	14000	< 0.8	8	59	< 0.5	< 0.8	4400	34	10	**110**	19000	22	3500	220	< 1.5	**140**	< 1	40	37	41
			17985	12000	< 0.8	8	57	< 0.5	< 0.8	4800	32	9	**98**	17000	19	3700	190	< 1.5	**120**	< 1	37	36	38
		10-20 cm (soil)	17986	13000	< 0.8	9	75	< 0.5	< 0.8	4400	38	11	**120**	20000	21	3900	250	< 1.5	**160**	< 1	39	37	45
			17987	17000	< 0.8	8	110	< 0.5	< 0.8	4700	46	12	**120**	24000	26	5400	300	< 1.5	**160**	< 1	47	45	51
5030855 Green Space	B	0-5 cm (soil)	17988	11000	< 0.8	< 5	45	< 0.5	< 0.8	3500	29	8	45	16000	9	3000	210	< 1.5	**59**	< 1	38	32	32
			17989	15000	< 0.8	< 5	58	< 0.5	< 0.8	5400	34	9	43	19000	9	3700	260	< 1.5	**60**	< 1	48	37	35
		5-10 cm (soil)	17990	13000	< 0.8	< 5	53	< 0.5	< 0.8	4000	32	8	33	18000	7	3200	220	< 1.5	**44**	< 1	44	37	27
			17991	15000	< 0.8	< 5	64	< 0.5	< 0.8	4800	35	8	33	18000	8	3400	230	< 1.5	43	< 1	48	39	28
		10-20 cm (soil)	17992	18000	< 0.8	< 5	76	< 0.5	< 0.8	4900	39	9	46	22000	14	4000	280	< 1.5	**60**	< 1	51	40	34
			17993	18000	< 0.8	< 5	83	< 0.5	< 0.8	4900	40	9	38	22000	10	5000	300	< 1.5	**51**	< 1	53	45	33
5030856 Play Structure	C	0-5 cm (sand)	17994	9600	< 0.8	< 5	32	< 0.5	< 0.8	4200	34	9	34	19000	6	5100	200	< 1.5	35	< 1	38	35	25
			17995	8200	< 0.8	< 5	29	< 0.5	< 0.8	3700	34	9	36	17000	5	4300	210	< 1.5	40	< 1	31	32	26

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030857 Play Structure	D	0-5 cm (sand)	17996	8400	< 0.8	< 5	31	< 0.5	< 0.8	3600	34	9	29	18000	4	4500	220	< 1.5	31	< 1	32	36	27
			17997	7300	< 0.8	< 5	25	< 0.5	< 0.8	3000	32	9	27	16000	4	4400	210	< 1.5	32	< 1	26	31	26
5030858 Play Structure	E	0-5 cm (sand)	17998	7100	< 0.8	< 5	26	< 0.5	< 0.8	2700	32	10	28	16000	4	4300	200	< 1.5	30	< 1	24	34	25
			17999	7300	< 0.8	< 5	25	< 0.5	< 0.8	2900	33	9	29	17000	4	4400	210	< 1.5	33	< 1	24	34	26
V.L.A. Playground, 26 O'Neil St.																							
5030958 Play Structure	A	0-5 cm (sand)	19466	4200	< 0.8	< 5	20	< 0.5	< 0.8	1900	18	5	18	10000	3	2400	130	< 1.5	21	< 1	15	22	18
			19467	4200	< 0.8	< 5	19	< 0.5	< 0.8	1900	18	5	20	9800	3	2400	130	< 1.5	22	< 1	16	20	19
5030959 Green Space	B	0-5 cm (soil)	19468	9200	< 0.8	< 5	46	< 0.5	< 0.8	5500	30	10	**57**	15000	8	3400	210	< 1.5	**64**	< 1	37	30	32
			19469	7000	< 0.8	< 5	28	< 0.5	< 0.8	7300	25	6	32	12000	6	3700	180	< 1.5	**44**	< 1	33	25	20
		5-10 cm (soil)	19470	8300	< 0.8	< 5	40	< 0.5	< 0.8	5300	28	10	54	15000	8	3500	220	< 1.5	**52**	< 1	33	31	28
			19471	6200	< 0.8	< 5	23	< 0.5	< 0.8	7700	24	6	20	11000	5	3800	180	< 1.5	**61**	< 1	30	25	18
		10-20 cm (soil)	19472	7700	< 0.8	< 5	37	< 0.5	< 0.8	4300	28	10	54	15000	6	3700	210	< 1.5	**48**	< 1	28	31	28
			19473	5600	< 0.8	< 5	20	< 0.5	< 0.8	10000	23	5	18	11000	4	4700	170	< 1.5	23	< 1	25	23	17
Sudbury East																							
Adamsdale Playground, 270 Second Ave.																							
5030693 Play Structure	A	0-5 cm (sand)	19242	7600	< 0.8	< 5	32	< 0.5	< 0.8	2900	27	6	25	13000	4	2800	170	< 1.5	36	< 1	28	29	18
			19243	7900	< 0.8	< 5	35	< 0.5	< 0.8	3200	28	6	23	13000	4	2900	170	< 1.5	32	< 1	32	29	19
5030694 Baseball Infield	B	0-5 cm (gravel)	19244	8200	< 0.8	< 5	50	< 0.5	< 0.8	150000	21	5	22	10000	7	22000	150	2.4	37	< 1	340	15	14
			19245	8200	< 0.8	< 5	51	< 0.5	< 0.8	150000	22	5	22	10000	6	21000	140	2.2	34	< 1	330	15	14
5030695 Baseball Outfield	C	0-5 cm (soil)	19246	9700	< 0.8	< 5	34	< 0.5	< 0.8	5900	25	7	**68**	13000	17	3300	180	< 1.5	**81**	< 1	37	24	25
			19247	7700	< 0.8	< 5	26	< 0.5	< 0.8	4700	22	6	**60**	11000	15	2700	150	< 1.5	**68**	< 1	30	22	19
		5-10 cm (soil)	19248	7800	< 0.8	< 5	25	< 0.5	< 0.8	3000	21	4	40	10000	9	1900	130	< 1.5	**51**	< 1	24	20	17
			19249	7800	< 0.8	< 5	23	< 0.5	< 0.8	2700	23	4	39	11000	9	1800	130	< 1.5	**46**	< 1	26	23	15
		10-20 cm (soil)	19250	8600	< 0.8	< 5	26	< 0.5	< 0.8	3000	23	4	35	9100	10	1700	110	< 1.5	**50**	< 1	30	22	15
			19251	6800	< 0.8	< 5	23	< 0.5	< 0.8	2100	19	4	25	8300	8	1500	100	< 1.5	42	< 1	23	19	11
5030696 Baseball Infield	D	0-5 cm (gravel)	19252	6600	< 0.8	< 5	43	< 0.5	< 0.8	76000	20	7	27	11000	7	15000	140	**3.1**	38	< 1	270	16	18
			19253	7000	< 0.8	< 5	43	< 0.5	< 0.8	78000	18	7	28	11000	7	15000	140	**3.2**	40	< 1	290	16	17
5030697 Baseball Outfield	E	0-5 cm (soil)	19254	8200	< 0.8	< 5	26	< 0.5	< 0.8	5700	21	7	**77**	11000	24	3200	130	< 1.5	**91**	< 1	31	22	22
			19255	6900	< 0.8	< 5	26	< 0.5	< 0.8	11000	17	6	**65**	9600	21	6700	110	< 1.5	**73**	< 1	45	17	22
		5-10 cm (soil)	19256	8200	< 0.8	< 5	20	< 0.5	< 0.8	2200	20	4	41	10000	10	1600	100	< 1.5	**51**	< 1	23	21	15
			19257	8200	< 0.8	< 5	22	< 0.5	< 0.8	3100	22	5	42	10000	10	2100	110	< 1.5	**53**	< 1	28	22	16
		10-20 cm (soil)	19258	7500	< 0.8	< 5	27	< 0.5	< 0.8	2000	20	5	42	10000	9	1600	120	< 1.5	**58**	< 1	26	22	14
			19259	8100	< 0.8	< 5	29	< 0.5	< 0.8	2100	21	5	42	10000	9	1600	120	< 1.5	**61**	< 1	29	23	14
Bellevue Avenue Park, Bellevue Ave.																							
5030686 Play Structure	A	0-5 cm (sand)	19220	6800	< 0.8	< 5	26	< 0.5	< 0.8	2600	27	7	26	15000	4	3000	170	< 1.5	28	< 1	26	30	29

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
			19221	7900	< 0.8	< 5	34	< 0.5	< 0.8	3100	27	11	28	16000	7	3100	180	< 1.5	41	< 1	30	31	32
Camp Sudaca, 527 Moonlight Beach Rd.																							
5030716 Green Space	A	0-5 cm (soil)	19338	12000	< 0.8	< 5	50	< 0.5	< 0.8	4600	32	8	49	15000	16	3000	250	< 1.5	**57**	< 1	40	30	36
			19339	12000	< 0.8	< 5	46	< 0.5	< 0.8	4900	32	8	35	15000	13	2900	260	< 1.5	**64**	< 1	43	30	34
		5-10 cm (soil)	19340	12000	< 0.8	< 5	45	< 0.5	< 0.8	4000	32	9	43	15000	16	2800	220	< 1.5	**64**	< 1	39	30	32
			19341	12000	< 0.8	< 5	49	< 0.5	< 0.8	4300	32	10	41	15000	14	3000	280	< 1.5	**66**	< 1	40	31	32
		10-20 cm (soil)	19342	9100	< 0.8	< 5	34	< 0.5	< 0.8	3400	27	8	34	14000	10	3100	200	< 1.5	**53**	< 1	30	27	30
			19343	9400	< 0.8	< 5	35	< 0.5	< 0.8	3100	27	11	54	14000	19	2700	240	< 1.5	**80**	< 1	27	27	33
5030717 Green Space	B	0-5 cm (soil)	19344	10000	< 0.8	< 5	45	< 0.5	< 0.8	5200	27	12	**95**	13000	15	3500	250	< 1.5	**150**	< 1	33	26	36
			19345	10000	< 0.8	< 5	46	< 0.5	< 0.8	4200	27	14	**95**	13000	13	3200	230	< 1.5	**140**	< 1	28	26	34
		5-10 cm (soil)	19346	10000	< 0.8	< 5	49	< 0.5	< 0.8	2800	29	9	46	14000	6	2800	210	< 1.5	**61**	< 1	32	27	27
			19347	10000	< 0.8	< 5	50	< 0.5	< 0.8	2900	32	8	25	13000	5	2700	200	< 1.5	**47**	< 1	37	29	27
		10-20 cm (soil)	19348	13000	< 0.8	< 5	64	< 0.5	< 0.8	3100	37	7	23	15000	5	3200	210	< 1.5	34	< 1	42	33	28
			19349	12000	< 0.8	< 5	65	< 0.5	< 0.8	2900	35	9	35	16000	8	2900	230	< 1.5	**57**	< 1	36	33	32
5030718 Beach	C	0-5 cm (sand)	19326	4800	< 0.8	< 5	27	< 0.5	< 0.8	2200	23	8	22	14000	4	3200	230	< 1.5	37	< 1	13	34	17
			19327	4900	< 0.8	< 5	23	< 0.5	< 0.8	2600	25	8	21	14000	4	3300	240	< 1.5	35	< 1	17	32	17
		5-10 cm (sand)	19328	5400	< 0.8	< 5	26	< 0.5	< 0.8	2500	25	9	28	14000	4	3400	250	< 1.5	37	< 1	19	28	18
			19329	5200	< 0.8	< 5	24	< 0.5	< 0.8	2600	25	9	21	15000	4	3300	250	< 1.5	33	< 1	18	36	18
		10-20 cm (sand)	19330	5200	< 0.8	< 5	25	< 0.5	< 0.8	2300	24	9	24	15000	4	3300	250	< 1.5	40	< 1	17	32	18
			19331	5200	< 0.8	< 5	24	< 0.5	< 0.8	2200	23	9	22	13000	4	3200	250	< 1.5	35	< 1	17	27	16
5030719 Beach	D	0-5 cm (sand)	19332	7200	< 0.8	< 5	39	< 0.5	< 0.8	4300	24	10	**59**	12000	10	3100	230	< 1.5	**92**	< 1	29	23	30
			19333	5800	< 0.8	< 5	32	< 0.5	< 0.8	4100	22	9	51	11000	8	2900	200	< 1.5	**89**	< 1	23	21	24
		5-10 cm (sand)	19334	6000	< 0.8	< 5	27	< 0.5	< 0.8	2200	22	8	46	12000	8	2700	140	< 1.5	**66**	< 1	19	22	19
			19335	7400	< 0.8	< 5	33	< 0.5	< 0.8	2800	25	9	**61**	13000	10	3000	170	< 1.5	**89**	< 1	25	24	22
		10-20 cm (sand)	19336	12000	< 0.8	8	71	< 0.5	< 0.8	3200	32	11	**120**	15000	21	3000	180	< 1.5	**170**	< 1	34	30	25
			19337	12000	< 0.8	7	74	< 0.5	< 0.8	3300	32	9	**130**	15000	18	2900	170	< 1.5	**75**	< 1	34	30	26
Carmichael Community Centre & Arena, Bellevue Ave.																							
5030687 Play Structure	A	0-5 cm (sand)	19222	7300	< 0.8	< 5	25	< 0.5	< 0.8	3000	27	7	30	16000	4	3400	170	< 1.5	34	< 1	28	32	21
			19223	9900	< 0.8	< 5	40	< 0.5	< 0.8	3700	30	8	28	18000	4	3500	190	< 1.5	30	< 1	35	35	22
5030688 Baseball Infield	B	0-5 cm (gravel)	19224	8700	< 0.8	< 5	37	< 0.5	< 0.8	45000	23	6	22	13000	6	9000	160	1.8	30	< 1	130	22	18
			19225	10000	< 0.8	< 5	52	< 0.5	< 0.8	72000	22	8	28	14000	8	15000	160	1.8	**47**	< 1	190	21	22

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030689 Baseball Outfield	C	0-5 cm (soil)	19226	9100	< 0.8	< 5	40	< 0.5	< 0.8	6100	23	7	**58**	11000	14	4300	170	< 1.5	**93**	< 1	39	25	25
			19227	9500	< 0.8	< 5	38	< 0.5	< 0.8	4100	26	7	**62**	12000	13	2500	200	< 1.5	**83**	< 1	36	28	26
		5-10 cm (soil)	19228	9600	< 0.8	< 5	35	< 0.5	< 0.8	3500	25	6	42	12000	11	2500	170	< 1.5	**67**	< 1	34	28	22
			19229	9200	< 0.8	< 5	33	< 0.5	< 0.8	2900	24	6	36	12000	9	2000	160	< 1.5	**54**	< 1	32	27	20
		10-20 cm (soil)	19230	8000	< 0.8	< 5	32	< 0.5	< 0.8	2100	21	6	37	10000	9	1800	140	< 1.5	**56**	< 1	26	24	18
			19231	7700	< 0.8	< 5	33	< 0.5	< 0.8	2900	21	5	34	10000	9	1900	140	< 1.5	**60**	< 1	27	23	20
5030690 Baseball Infield	D	0-5 cm (gravel)	19232	9200	< 0.8	< 5	56	< 0.5	< 0.8	62000	27	6	25	13000	6	13000	180	1.8	38	< 1	210	23	25
			19233	9200	**1.3**	< 5	68	< 0.5	< 0.8	52000	28	7	36	14000	6	13000	200	< 1.5	43	< 1	190	26	27
5030691 Baseball Outfield	E	0-5 cm (soil)	19234	8300	< 0.8	< 5	37	< 0.5	< 0.8	6500	24	6	**58**	11000	11	2900	160	< 1.5	**86**	< 1	33	24	26
			19235	9100	< 0.8	< 5	41	< 0.5	< 0.8	4900	26	7	**59**	11000	12	3000	170	< 1.5	**91**	1	34	25	27
		5-10 cm (soil)	19236	7900	< 0.8	< 5	33	< 0.5	< 0.8	3500	22	5	48	10000	9	2300	130	< 1.5	**69**	< 1	30	23	22
			19237	8100	< 0.8	< 5	33	< 0.5	< 0.8	3400	23	5	43	11000	8	2400	140	< 1.5	**67**	1	30	24	22
		10-20 cm (soil)	19238	7800	< 0.8	< 5	36	< 0.5	< 0.8	2300	21	6	40	10000	7	2000	120	< 1.5	**69**	< 1	25	23	20
			19239	8100	< 0.8	< 5	35	< 0.5	< 0.8	2700	22	5	34	10000	7	2100	130	< 1.5	**55**	< 1	29	24	21
East End Playground, 2765 Rheal St.																							
5030794 Play Structure	A	0-5 cm (sand)	21455	5100	< 0.8	< 5	19	< 0.5	< 0.8	2400	23	7	13	12000	2	3200	150	< 1.5	21	< 1	17	24	16
			21456	5000	< 0.8	< 5	19	< 0.5	< 0.8	2700	21	6	12	12000	2	3000	150	< 1.5	18	< 1	19	21	16
5030795 Play Structure	B	0-5 cm (sand)	21457	5700	< 0.8	< 5	22	< 0.5	< 0.8	2200	23	8	20	13000	3	3300	160	< 1.5	25	< 1	17	24	19
			21458	5500	< 0.8	< 5	22	< 0.5	< 0.8	2400	23	10	21	13000	4	3400	170	< 1.5	27	< 1	17	26	20
Eyre Playground, Ferndale Ave.																							
5030692 Play Structure	A	0-5 cm (sand)	19240	7100	< 0.8	< 5	26	< 0.5	< 0.8	3700	32	9	25	16000	4	3700	200	< 1.5	28	< 1	30	32	25
			19241	8800	< 0.8	< 5	36	< 0.5	< 0.8	4200	33	8	24	16000	4	3900	210	< 1.5	26	< 1	36	35	26
Grace Playground, Rita St.																							
5030796 Play Structure	A	0-5 cm (sand)	21459	6800	< 0.8	< 5	22	< 0.5	< 0.8	3100	30	12	36	16000	4	4200	190	< 1.5	**178**	< 1	22	26	21
			21460	6400	< 0.8	< 5	21	< 0.5	< 0.8	2500	28	13	**71**	15000	3	4000	190	< 1.5	**232**	< 1	18	24	21
5030797 Green Space	B	0-5 cm (soil)	21461	9200	< 0.8	5	48	< 0.5	< 0.8	4700	30	12	**91**	15000	19	3800	220	< 1.5	**116**	< 1	30	25	46
			21462	8300	< 0.8	< 5	40	< 0.5	< 0.8	4300	28	10	**64**	14000	14	3700	220	< 1.5	**93**	< 1	28	26	40
		5-10 cm (soil)	21463	12000	< 0.8	< 5	53	< 0.5	< 0.8	5600	36	8	**75**	16000	10	4400	200	< 1.5	**65**	< 1	37	13	41
			21464	12000	< 0.8	< 5	54	< 0.5	< 0.8	5200	35	8	**74**	16000	11	4000	210	< 1.5	**75**	< 1	37	15	44
		10-20 cm (soil)	21465	12000	< 0.8	8	64	< 0.5	< 0.8	4300	34	9	**90**	16000	10	3500	190	< 1.5	**111**	< 1	35	30	35
			21466	15000	< 0.8	8	90	< 0.5	< 0.8	4800	41	13	**97**	18000	16	4100	210	< 1.5	**164**	< 1	40	34	42
5030798 Baseball Infield	C	0-5 cm (soil)	21467	8700	< 0.8	< 5	18	< 0.5	< 0.8	240000	18	6	16	9100	8	24000	140	2.1	**47**	< 1	260	11	23
			21468	9000	< 0.8	< 5	18	< 0.5	< 0.8	250000	17	6	15	9400	9	26000	150	2.5	**46**	< 1	270	11	23

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030799 Baseball Outfield	D	0-5 cm (soil)	21469	11000	< 0.8	< 5	59	< 0.5	< 0.8	14000	29	10	54	13000	12	8600	190	< 1.5	**92**	< 1	65	27	44
			21470	10000	< 0.8	< 5	47	< 0.5	< 0.8	5300	33	9	**64**	15000	16	3700	200	< 1.5	**87**	< 1	37	29	31
		5-10 cm (soil)	21471	11000	< 0.8	< 5	65	< 0.5	< 0.8	6600	32	10	**64**	15000	11	5200	180	< 1.5	**91**	< 1	42	30	38
			21472	8900	< 0.8	< 5	45	< 0.5	< 0.8	3500	30	8	49	14000	8	3200	160	< 1.5	**67**	< 1	26	28	25
		10-20 cm (soil)	21473	14000	< 0.8	10	79	< 0.5	< 0.8	5300	38	13	**160**	18000	19	3800	200	< 1.5	**209**	1	37	30	45
			21474	15000	< 0.8	10	89	< 0.5	< 0.8	5000	41	13	**190**	19000	22	4200	200	< 1.5	**215**	1	40	33	50
Lonsdale Playground, 811 Lonsdale Ave.																							
5030684 Play Area	A	0-5 cm (gravel)	19216	6800	< 0.8	< 5	24	< 0.5	< 0.8	2500	25	10	**110**	16000	10	3100	160	< 1.5	**75**	< 1	23	26	27
			19217	6100	< 0.8	< 5	25	< 0.5	< 0.8	2300	25	17	**130**	16000	14	3200	160	< 1.5	**130**	1	18	26	27
5030685 Play Structure	B	0-5 cm (gravel)	19218	5600	< 0.8	< 5	23	< 0.5	< 0.8	2100	23	10	34	16000	5	3100	190	< 1.5	28	< 1	19	34	21
			19219	6200	< 0.8	< 5	25	< 0.5	< 0.8	2400	24	11	39	17000	5	3300	200	< 1.5	33	< 1	23	37	22
Moonlight Beach Ball Park, Moonlight Beach Rd.																							
5030682 Baseball Outfield	A	0-5 cm (soil)	19888	13000	< 0.8	< 5	52	< 0.5	< 0.8	7800	35	9	52	16000	10	3600	240	< 1.5	**104**	< 1	45	32	31
			19889	12000	< 0.8	6	54	< 0.5	< 0.8	6500	35	9	55	16000	10	3700	250	< 1.5	**87**	< 1	42	32	31
		5-10 cm (soil)	19890	16000	< 0.8	6	86	< 0.5	< 0.8	3800	45	12	**69**	20000	11	4400	300	< 1.5	**97**	< 1	44	40	40
			19891	17000	< 0.8	8	94	< 0.5	< 0.8	5100	47	14	**110**	22000	14	5100	330	< 1.5	**123**	< 1	46	40	40
		10-20 cm (soil)	19892	17000	< 0.8	6	88	< 0.5	< 0.8	3600	47	12	**74**	22000	11	5100	320	< 1.5	**93**	< 1	43	40	42
			19893	20000	< 0.8	10	110	< 0.5	< 0.8	3300	53	11	**130**	26000	15	5800	350	< 1.5	**142**	< 1	42	43	49
5030683 Baseball Infield	B	0-5 cm (soil)	19894	7600	< 0.8	< 5	34	< 0.5	< 0.8	14000	29	7	23	15000	5	5700	200	< 1.5	29	< 1	67	27	22
			19895	7000	< 0.8	< 5	32	< 0.5	< 0.8	10000	27	7	20	14000	5	4700	200	< 1.5	28	< 1	58	26	20
Moonlight Beach Park, Moonlight Beach Rd.																							
5030676 Beach	A	0-15 cm (sand)	19732	5100	< 0.8	< 5	24	< 0.5	< 0.8	3000	25	8	23	14000	4	3200	170	< 1.5	31	< 1	19	29	16
			19733	5200	< 0.8	< 5	23	< 0.5	< 0.8	2900	24	8	21	13000	3	3300	170	< 1.5	30	< 1	18	27	16
5030677 Play Structure	B	0-5 cm (sand)	19734	5700	< 0.8	< 5	23	< 0.5	< 0.8	3200	24	6	15	13000	2	3300	170	< 1.5	17	< 1	23	24	16
			19735	6100	< 0.8	< 5	24	< 0.5	< 0.8	3000	28	8	19	14000	3	3400	180	< 1.5	21	< 1	23	29	20
5030678 Play Structure	C	0-15 cm (gravel)	19736	6200	< 0.8	< 5	32	< 0.5	< 0.8	3300	28	10	32	15000	5	3500	210	< 1.5	36	< 1	22	32	20
			19737	6700	< 0.8	< 5	34	< 0.5	< 0.8	3200	27	9	36	14000	6	3400	200	< 1.5	**49**	< 1	21	27	20
5030679 Green Space	D	0-5 cm (soil)	19738	6900	< 0.8	< 5	31	< 0.5	< 0.8	6200	26	13	56	13000	10	3500	190	< 1.5	**97**	< 1	24	22	27
			19739	8900	< 0.8	< 5	46	< 0.5	< 0.8	6900	27	14	**86**	15000	15	3600	220	< 1.5	**130**	< 1	33	25	38
		5-10 cm (soil)	19740	8700	< 0.8	< 5	40	< 0.5	< 0.8	5500	27	10	**67**	12000	13	2700	170	< 1.5	**120**	< 1	34	26	35
			19741	11000	< 0.8	< 5	52	< 0.5	< 0.8	6400	31	8	**67**	13000	11	2700	200	< 1.5	**100**	< 1	43	29	30
		10-20 cm (soil)	19742	11000	< 0.8	< 5	60	< 0.5	< 0.8	5900	30	6	**57**	12000	10	2500	200	< 1.5	**76**	< 1	42	30	33
			19743	13000	< 0.8	< 5	71	< 0.5	< 0.8	6800	35	9	**62**	15000	12	2800	310	< 1.5	**110**	< 1	44	33	32

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030680 Green Space	E	0-5 cm (soil)	19744	12000	< 0.8	< 5	75	< 0.5	< 0.8	6300	40	10	**69**	13000	16	3900	230	< 1.5	**150**	< 1	49	35	39
			19745	14000	< 0.8	< 5	73	< 0.5	< 0.8	6800	40	10	**79**	16000	17	3600	220	< 1.5	**140**	< 1	47	34	34
		5-10 cm (soil)	19746	12000	< 0.8	8	56	< 0.5	< 0.8	4200	34	8	51	15000	9	3200	190	< 1.5	**94**	< 1	37	33	27
			19747	12000	< 0.8	< 5	58	< 0.5	< 0.8	3600	34	8	52	15000	9	3300	190	< 1.5	**85**	< 1	33	31	26
		10-20 cm (soil)	19748	14000	< 0.8	< 5	79	< 0.5	< 0.8	3800	42	10	**64**	19000	11	4300	240	< 1.5	**100**	< 1	38	35	34
			19749	15000	< 0.8	< 5	91	< 0.5	< 0.8	3800	42	10	**62**	19000	10	4400	260	< 1.5	**97**	< 1	39	36	32
5030681 Green Space (undisturbed)	F	0-5 cm (soil)	19750	8100	< 0.8	**36**	82	< 0.5	1	2300	22	**28**	**700**	20000	**62**	1100	130	< 1.5	**800**	**3**	31	24	39
			19751	8300	< 0.8	**28**	67	< 0.5	< 0.8	2300	21	19	**540**	16000	44	1200	140	< 1.5	**480**	**3**	31	24	31
		5-10 cm (soil)	19752	13000	< 0.8	10	52	< 0.5	< 0.8	2400	28	9	**130**	17000	12	2000	130	< 1.5	**130**	1	32	32	29
			19753	11000	< 0.8	7	40	< 0.5	< 0.8	2400	24	6	**71**	13000	9	1600	110	< 1.5	**74**	1	33	28	21
		10-20 cm (soil)	19754	18000	< 0.8	< 5	64	< 0.5	< 0.8	2800	36	12	54	20000	9	2500	140	< 1.5	**94**	< 1	36	36	39
			19755	13000	< 0.8	< 5	47	< 0.5	< 0.8	2100	30	9	35	16000	6	2300	110	< 1.5	**54**	< 1	26	31	24
Ridgemount Playground (Sudbury Northeast Lions Club), 3088 Claude St.																							
5030791 Play Structure	A	0-5 cm (sand)	21453	4600	< 0.8	< 5	19	< 0.5	< 0.8	2100	24	6	19	14000	4	2900	150	< 1.5	23	< 1	14	30	22
			21454	4900	< 0.8	< 5	18	< 0.5	< 0.8	2100	21	6	16	11000	3	2800	140	< 1.5	20	< 1	17	21	18
5030792 Baseball Infield	B	0-5 cm (gravel)	21445	9100	**1.2**	6	27	< 0.5	< 0.8	220000	18	5	12	9300	7	22000	150	2.4	42	< 1	260	12	9.7
			21446	8800	< 0.8	5	24	< 0.5	< 0.8	170000	20	5	11	9700	6	18000	160	2	41	< 1	220	14	9.9
5030793 Baseball Outfield	C	0-5 cm (soil)	21447	9200	0.8	10	38	< 0.5	< 0.8	4100	25	5	30	12000	8	2400	150	< 1.5	**52**	< 1	34	26	16
			21448	9100	< 0.8	**16**	36	< 0.5	< 0.8	4200	25	6	31	12000	11	2500	160	< 1.5	**53**	< 1	34	27	18
		5-10 cm (soil)	21449	6700	< 0.8	< 5	25	< 0.5	< 0.8	2400	22	5	22	11000	4	2300	130	< 1.5	35	< 1	21	24	16
			21450	6700	< 0.8	< 5	25	< 0.5	< 0.8	2600	22	6	26	12000	6	2500	140	< 1.5	39	< 1	21	24	22
		10-20 cm (soil)	21451	6100	< 0.8	< 5	30	< 0.5	< 0.8	2500	24	5	26	11000	4	2500	140	< 1.5	30	< 1	22	23	15
			21452	6600	< 0.8	< 5	35	< 0.5	< 0.8	2500	25	7	25	13000	4	3300	180	< 1.5	31	< 1	22	25	18
Sudbury New																							
Cambrian College, Governors Rd.																							
5030698 Baseball Infield	A	0-5 cm (gravel)	19260	9800	< 0.8	< 5	50	< 0.5	< 0.8	15000	29	5	29	13000	6	7700	203	< 1.5	28	< 1	130	21	24
			19261	9100	< 0.8	< 5	50	< 0.5	< 0.8	19000	25	5	24	14000	6	9600	190	< 1.5	26	< 1	160	24	25
5030699 Baseball Outfield	B	0-5 cm (soil)	19262	11000	< 0.8	< 5	44	< 0.5	< 0.8	4400	28	7	56	15000	14	2600	220	< 1.5	**67**	< 1	40	30	27
			19263	11000	< 0.8	< 5	37	< 0.5	< 0.8	4100	27	7	49	15000	11	2700	200	< 1.5	**62**	< 1	36	30	24
		5-10 cm (soil)	19264	11000	< 0.8	< 5	41	< 0.5	< 0.8	3600	28	8	50	15000	7	2900	180	< 1.5	**64**	< 1	31	31	26
			19265	10000	< 0.8	< 5	36	< 0.5	< 0.8	3200	27	8	45	14000	6	2600	170	< 1.5	**58**	< 1	27	28	24
		10-20 cm (soil)	19266	9400	< 0.8	< 5	33	< 0.5	< 0.8	2800	26	8	34	13000	4	2600	150	< 1.5	**52**	< 1	24	27	22
			19267	11000	< 0.8	< 5	39	< 0.5	< 0.8	3200	28	8	45	15000	7	2900	170	< 1.5	**59**	< 1	29	30	24

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030700 Football Field	C	0-5 cm (soil)	19268	9200	< 0.8	< 5	31	< 0.5	< 0.8	5700	30	7	46	13000	10	3100	200	< 1.5	**66**	< 1	37	28	28
			19269	9400	< 0.8	< 5	34	< 0.5	< 0.8	6000	31	9	53	13000	16	3300	190	< 1.5	**92**	< 1	38	28	27
		5-10 cm (soil)	19270	8000	< 0.8	< 5	27	< 0.5	< 0.8	3800	28	6	26	12000	7	2500	200	< 1.5	**46**	< 1	34	27	20
			19271	8800	< 0.8	< 5	31	< 0.5	< 0.8	4300	30	6	30	13000	8	2700	210	< 1.5	**49**	< 1	36	29	22
		10-20 cm (soil)	19272	8300	< 0.8	< 5	30	< 0.5	< 0.8	4100	28	6	26	13000	8	2600	220	< 1.5	**48**	< 1	35	28	20
			19273	7300	< 0.8	< 5	25	< 0.5	< 0.8	3400	25	5	21	11000	6	2200	180	< 1.5	34	< 1	30	26	17
Cedar Park, 47 Normandy Crescent																							
5030610 Play Area	A	0-5 cm (sand)	20917	6700	< 0.8	< 5	35	< 0.5	< 0.8	2500	24	5	14	11000	2	3000	150	< 1.5	22	< 1	23	24	16
			20918	6300	< 0.8	< 5	32	< 0.5	< 0.8	2300	25	6	15	10000	2	2800	140	< 1.5	24	< 1	22	22	15
5030611 Play Structure	B	0-5 cm (sand)	20919	7000	< 0.8	< 5	37	< 0.5	< 0.8	3200	25	6	13	11000	3	3100	150	< 1.5	19	< 1	29	22	16
			20920	4800	< 0.8	< 5	18	< 0.5	< 0.8	2700	19	6	13	10000	2	2900	130	< 1.5	20	< 1	16	20	16
5030612 Play Structure	C	0-5 cm (sand)	20921	5600	< 0.8	< 5	24	< 0.5	< 0.8	2600	25	11	27	14000	4	3500	180	< 1.5	29	< 1	18	28	20
			20922	11000	< 0.8	< 5	41	< 0.5	< 0.8	3100	34	9	42	17000	8	4200	210	< 1.5	**59**	< 1	26	33	30
5030613 Green Space	D	0-5 cm (soil)	20923	10000	**2**	< 5	45	< 0.5	< 0.8	4900	30	6	43	14000	9	3000	200	< 1.5	**64**	< 1	40	29	23
			20924	11000	< 0.8	< 5	49	< 0.5	< 0.8	5400	32	8	54	15000	12	3300	230	< 1.5	**86**	< 1	41	31	25
		5-10 cm (soil)	20925	9900	< 0.8	< 5	47	< 0.5	< 0.8	5300	31	8	35	15000	7	3900	230	< 1.5	**48**	< 1	42	30	21
			20926	9700	< 0.8	< 5	45	< 0.5	< 0.8	7400	32	8	32	15000	7	4900	220	< 1.5	**50**	< 1	38	29	20
		10-20 cm (soil)	20927	7400	< 0.8	< 5	37	< 0.5	< 0.8	8600	27	7	29	13000	5	5500	220	< 1.5	43	< 1	30	24	34
			20928	13000	< 0.8	< 5	69	< 0.5	< 0.8	8300	40	8	30	19000	7	5800	260	< 1.5	**48**	< 1	48	36	23
Don Lita Playground, 1024 Brookfield Ave.																							
5030634 Play Structure	A	0-5 cm (sand)	21157	6400	< 0.8	< 5	27	< 0.5	< 0.8	3200	28	9	24	17000	4	3800	200	< 1.5	28	< 1	23	37	23
			21158	6200	< 0.8	< 5	27	< 0.5	< 0.8	3300	28	9	25	16000	4	3800	190	< 1.5	28	< 1	23	35	21
5030635 Play Structure	B	0-5 cm (sand)	21159	5500	< 0.8	< 5	23	< 0.5	< 0.8	2400	27	7	22	15000	3	3300	180	< 1.5	28	< 1	19	32	20
			21160	5200	< 0.8	< 5	23	< 0.5	< 0.8	2500	25	7	16	13000	3	3100	170	< 1.5	28	< 1	20	31	20
Downe Playground, 1387 Gemmell St.																							
5030785 Play Structure	A	0-5 cm (sand)	21425	5300	< 0.8	< 5	24	< 0.5	< 0.8	2400	23	10	30	13000	4	3500	170	< 1.5	32	< 1	16	27	21
			21426	7500	< 0.8	< 5	38	< 0.5	< 0.8	3600	33	12	32	17000	5	3600	220	< 1.5	36	< 1	29	44	23
5030786 Play Structure	B	0-5 cm (sand)	21427	6000	< 0.8	< 5	28	< 0.5	< 0.8	2700	24	7	20	12000	3	2900	170	< 1.5	22	< 1	26	27	14
			21428	5600	< 0.8	< 5	26	< 0.5	< 0.8	2700	24	7	17	11000	3	2700	160	< 1.5	23	< 1	27	25	13
5030787 Baseball Infield	C	0-5 cm (gravel)	21429	10000	< 0.8	< 5	58	< 0.5	< 0.8	11000	34	10	28	16000	7	6700	240	< 1.5	**45**	< 1	92	36	23
			21430	12000	< 0.8	< 5	65	< 0.5	< 0.8	11000	36	9	30	16000	7	7000	230	< 1.5	**45**	< 1	90	34	22

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030788 Baseball Outfield	D	0-5 cm (soil)	21431	11000	< 0.8	6	51	< 0.5	< 0.8	7700	28	8	**89**	14000	18	4400	220	< 1.5	**115**	< 1	53	27	30
			21432	10000	< 0.8	6	45	< 0.5	< 0.8	6500	27	8	**99**	13000	21	3700	220	< 1.5	**127**	< 1	38	26	31
		5-10 cm (soil)	21433	10000	< 0.8	6	43	< 0.5	< 0.8	3900	26	7	**63**	13000	12	2800	160	< 1.5	**93**	< 1	31	26	24
			21434	9800	< 0.8	6	41	< 0.5	< 0.8	3500	25	6	**58**	12000	12	2500	160	< 1.5	**80**	< 1	27	25	23
		10-20 cm (soil)	21435	9800	< 0.8	8	52	< 0.5	< 0.8	3000	31	10	**110**	15000	12	3200	190	< 1.5	**145**	< 1	29	28	24
			21436	8100	< 0.8	< 5	40	< 0.5	< 0.8	2800	25	7	**63**	12000	9	2500	160	< 1.5	**94**	< 1	25	25	20
Grandview Park, 580 Grandview St.																							
5030609 Play Structure	A	0-5 cm (sand)	20915	7400	< 0.8	< 5	42	< 0.5	< 0.8	2700	29	7	27	13000	5	3200	180	< 1.5	29	< 1	26	30	20
			20916	7700	< 0.8	< 5	39	< 0.5	< 0.8	2900	29	9	30	16000	4	3500	210	< 1.5	29	< 1	28	34	22
Lansing Field, 1830 Lamothe St.																							
5030619 Soccer Field	A	0-5 cm (soil)	20943	10000	< 0.8	< 5	39	< 0.5	< 0.8	5900	32	7	42	14000	10	3300	230	< 1.5	**61**	< 1	42	31	27
			20944	11000	< 0.8	< 5	41	< 0.5	< 0.8	7200	32	7	43	15000	10	3200	260	< 1.5	**64**	< 1	43	31	27
		5-10 cm (soil)	20945	9800	< 0.8	< 5	37	< 0.5	< 0.8	5200	30	8	45	14000	13	3000	210	< 1.5	**59**	< 1	39	29	27
			20946	10000	**1.6**	< 5	38	< 0.5	< 0.8	4900	30	7	42	14000	9	2900	200	< 1.5	**63**	< 1	39	29	25
		10-20 cm (soil)	20947	9700	< 0.8	< 5	30	< 0.5	< 0.8	4700	27	5	25	13000	7	2500	190	< 1.5	40	< 1	38	27	20
			20948	11000	< 0.8	< 5	37	< 0.5	< 0.8	5000	31	7	30	15000	8	2800	230	< 1.5	**48**	< 1	43	30	23
5030620 Play Structure	B	0-5 cm (sand)	20949	6600	< 0.8	< 5	27	< 0.5	< 0.8	2800	26	10	34	17000	4	3800	200	< 1.5	29	< 1	24	34	19
			20950	6600	< 0.8	< 5	28	< 0.5	< 0.8	2800	27	10	34	17000	4	3600	210	< 1.5	29	< 1	26	36	20
5030621 Baseball Infield	C	0-5 cm (soil)	20951	11000	< 0.8	< 5	42	< 0.5	< 0.8	9400	38	9	37	19000	8	5900	280	< 1.5	**45**	< 1	55	37	32
			20952	10000	< 0.8	< 5	38	< 0.5	< 0.8	8700	36	8	33	18000	8	5700	270	< 1.5	**44**	< 1	51	35	30
5030622 Baseball Outfield	D	0-5 cm (soil)	20953	11000	< 0.8	< 5	43	< 0.5	< 0.8	7500	28	7	**74**	13000	15	3500	250	< 1.5	**94**	< 1	44	28	27
			20954	12000	< 0.8	< 5	51	< 0.5	< 0.8	8700	32	7	**77**	15000	16	3600	290	< 1.5	**97**	1	49	31	29
		5-10 cm (soil)	20955	12000	< 0.8	< 5	45	< 0.5	< 0.8	6300	31	6	52	14000	10	3000	240	< 1.5	**69**	< 1	49	30	28
			20956	13000	0.8	< 5	51	< 0.5	< 0.8	7700	38	6	40	17000	9	3600	300	< 1.5	**58**	< 1	52	32	28
		10-20 cm (soil)	20957	10000	< 0.8	< 5	46	< 0.5	< 0.8	5300	29	6	38	15000	6	3300	200	< 1.5	**59**	< 1	40	29	20
			20958	11000	< 0.8	< 5	46	< 0.5	< 0.8	6300	32	6	34	16000	6	3500	230	< 1.5	**50**	< 1	42	29	22
Lynwood Playground, Lynwood & Dowling																							
5030789 Play Structure	A	0-5 cm (sand)	21437	4800	< 0.8	< 5	21	< 0.5	< 0.8	2200	26	9	27	14000	4	3000	170	< 1.5	33	< 1	14	36	19
			21438	4500	< 0.8	< 5	20	< 0.5	< 0.8	1900	22	7	24	12000	4	2900	160	< 1.5	27	< 1	13	29	17
5030790 Green Space	B	0-5 cm (soil)	21439	7100	< 0.8	< 5	38	< 0.5	< 0.8	2700	24	7	**89**	12000	14	2500	160	< 1.5	**86**	< 1	23	24	22
			21440	5600	**1.3**	**27**	34	< 0.5	< 0.8	2300	21	9	**89**	11000	18	2400	160	< 1.5	**109**	< 1	16	21	21
		5-10 cm (soil)	21441	6500	< 0.8	**32**	38	< 0.5	< 0.8	2100	23	8	**81**	11000	15	2200	150	< 1.5	**101**	< 1	19	23	20
			21442	6000	< 0.8	**21**	33	< 0.5	< 0.8	2300	20	6	**60**	10000	10	2000	140	< 1.5	**79**	< 1	22	22	17
		10-20 cm (soil)	21443	9900	< 0.8	**18**	48	< 0.5	< 0.8	3900	26	6	40	12000	8	2300	160	< 1.5	**66**	< 1	44	28	18
			21444	10000	< 0.8	13	53	< 0.5	< 0.8	3800	28	5	38	12000	7	2400	160	< 1.5	**58**	< 1	44	28	20

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Madison Playground, Carling Court																							
5030632 Play Structure	A	0-5 cm (sand)	21150	5600	< 0.8	< 5	25	< 0.5	< 0.8	2500	28	8	31	17000	3	3600	200	< 1.5	25	< 1	18	38	24
			21151	6500	< 0.8	< 5	27	< 0.5	< 0.8	2700	27	10	34	17000	4	3600	210	< 1.5	29	< 1	23	37	24
5030633 Green Space	B	0-5 cm (soil)	21152	11000	< 0.8	< 5	46	< 0.5	< 0.8	6100	28	7	48	14000	11	3200	210	< 1.5	**66**	< 1	51	29	28
			21153	9600	< 0.8	< 5	43	< 0.5	< 0.8	5500	26	7	**60**	14000	14	3000	210	< 1.5	**81**	< 1	45	27	30
		5-10 cm (soil)	21154	11000	< 0.8	< 5	43	< 0.5	< 0.8	4700	27	6	47	14000	10	2200	210	< 1.5	**56**	< 1	44	28	28
			21155	10000	< 0.8	< 5	38	< 0.5	< 0.8	4400	26	4	38	13000	7	2100	200	< 1.5	40	< 1	43	28	28
		10-15 cm (soil)	21156	9100	< 0.8	< 5	36	< 0.5	< 0.8	3700	24	7	52	13000	13	2300	160	< 1.5	**60**	< 1	33	25	27
McLean Playground, 345 McLean Ave.																							
5030607 Play Structure	A	0-5 cm (sand)	20907	6000	< 0.8	7	28	< 0.5	< 0.8	2300	26	10	44	15000	4	3600	200	< 1.5	**55**	< 1	19	32	21
			20908	6700	< 0.8	< 5	30	< 0.5	< 0.8	2700	29	11	53	16000	5	3700	210	< 1.5	**91**	< 1	22	36	24
5030608 Green Space	B	0-5 cm (soil)	20909	11000	< 0.8	5	54	< 0.5	< 0.8	4600	35	14	**100**	18000	16	4800	240	< 1.5	**130**	< 1	34	34	40
			20910	9900	< 0.8	< 5	50	< 0.5	< 0.8	4300	33	13	**110**	18000	17	4900	240	< 1.5	**120**	< 1	32	31	38
		5-10 cm (soil)	20911	9700	< 0.8	6	43	< 0.5	< 0.8	2800	33	12	**92**	18000	14	3900	230	< 1.5	**110**	< 1	26	32	38
			20912	9600	< 0.8	< 5	44	< 0.5	< 0.8	2800	33	11	**66**	18000	10	4300	230	< 1.5	**70**	< 1	25	31	32
		10-20 cm (soil)	20913	11000	< 0.8	< 5	48	< 0.5	< 0.8	3200	37	9	**59**	18000	9	3900	230	< 1.5	**80**	< 1	30	35	34
			20914	5200	< 0.8	< 5	22	< 0.5	< 0.8	2300	23	8	22	13000	3	3300	170	< 1.5	23	< 1	19	28	19
Place Hurtubise Playground, 432 Place Hurtubise																							
5030628 Green Space	A	0-5 cm (soil)	20977	9300	< 0.8	< 5	66	< 0.5	< 0.8	4500	35	10	**76**	17000	21	3900	210	< 1.5	**73**	< 1	38	33	50
			20978	8200	< 0.8	< 5	38	< 0.5	< 0.8	4000	30	8	56	14000	12	3400	190	< 1.5	**60**	< 1	34	29	37
		5-10 cm (soil)	20979	7200	< 0.8	< 5	34	< 0.5	< 0.8	3700	27	7	44	13000	15	3100	160	< 1.5	42	< 1	30	26	30
			20980	7100	**1.6**	< 5	31	< 0.5	< 0.8	4500	25	5	26	13000	4	2800	150	< 1.5	24	< 1	35	27	19
		10-20 cm (soil)	20981	8000	< 0.8	5	38	< 0.5	< 0.8	4900	26	6	**57**	14000	16	2900	150	< 1.5	**49**	< 1	37	27	28
			20982	6200	< 0.8	< 5	34	< 0.5	< 0.8	4000	23	6	28	12000	6	3100	150	< 1.5	29	< 1	23	24	19
5030629 Play Structure	B	0-5 cm (sand)	20983	5100	< 0.8	< 5	21	< 0.5	< 0.8	2900	24	8	20	15000	4	3300	180	< 1.5	24	< 1	18	36	22
			20984	5200	< 0.8	5	23	< 0.5	< 0.8	3000	26	8	24	15000	4	3200	180	< 1.5	25	< 1	20	33	23
Redfern Park, Redfern St.																							
5030617 Green Space	A	0-5 cm (soil)	20935	16000	< 0.8	7	86	< 0.5	< 0.8	5900	40	15	**150**	19000	22	4100	240	< 1.5	**250**	< 1	43	36	37
			20936	14000	**2.6**	8	74	< 0.5	< 0.8	6000	36	14	**160**	17000	24	4100	220	< 1.5	**250**	1	41	34	35
		5-10 cm (soil)	20937	14000	< 0.8	6	62	< 0.5	< 0.8	4300	34	7	**72**	16000	9	2900	150	< 1.5	**110**	< 1	42	32	24
			20938	10000	< 0.8	6	43	< 0.5	< 0.8	3300	26	8	**81**	13000	12	2500	130	< 1.5	**140**	< 1	29	28	22
		10-20 cm (soil)	20939	11000	< 0.8	5	48	< 0.5	< 0.8	3200	29	7	**64**	13000	9	2700	140	< 1.5	**91**	< 1	30	27	23
			20940	9500	< 0.8	< 5	38	< 0.5	< 0.8	2800	26	6	37	13000	6	2300	110	< 1.5	**63**	< 1	26	27	19
5030618 Play Structure	B	0-5 cm (sand)	20941	4800	< 0.8	< 5	23	< 0.5	< 0.8	2000	21	13	**64**	12000	3	3200	160	< 1.5	**290**	< 1	15	26	18
			20942	4700	< 0.8	< 5	18	< 0.5	< 0.8	1800	21	17	42	11000	3	3100	160	< 1.5	**480**	< 1	12	22	17

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Ridgecrest Tot Lot, 1347 Roy Ave.																							
5030614 Play Structure	A	0-5 cm (sand)	20929	4600	**1.7**	< 5	18	< 0.5	< 0.8	1600	20	7	21	11000	3	3100	150	< 1.5	22	< 1	12	20	15
			20930	4500	1	< 5	20	< 0.5	< 0.8	1800	19	7	17	9900	3	2700	130	< 1.5	22	< 1	15	20	13
5030615 Play Structure	B	0-5 cm (sand)	20931	4700	< 0.8	< 5	18	< 0.5	< 0.8	2600	19	6	15	9900	2	3000	140	< 1.5	20	< 1	16	19	14
			20932	5100	< 0.8	< 5	24	< 0.5	< 0.8	2600	22	6	17	11000	2	3100	150	< 1.5	21	< 1	20	22	15
5030616 Play Structure	C	0-5 cm (sand)	20933	5300	< 0.8	< 5	24	< 0.5	< 0.8	2500	22	6	17	10000	2	2900	150	< 1.5	19	< 1	21	20	14
			20934	4200	< 0.8	< 5	18	< 0.5	< 0.8	2000	18	6	16	10000	6	2600	130	< 1.5	18	< 1	15	22	13
Rosemarie Playground, 1919 Montfort St.																							
5030630 Play Structure	A	0-5 cm (sand)	20985	6200	< 0.8	< 5	26	< 0.5	< 0.8	2300	26	9	35	16000	4	3700	210	< 1.5	28	< 1	18	34	24
			20986	6500	< 0.8	< 5	28	< 0.5	< 0.8	2600	32	10	34	17000	5	3900	210	< 1.5	32	< 1	20	40	24
5030631 Green Space	B	0-5 cm (soil)	20987	6500	< 0.8	< 5	27	< 0.5	< 0.8	2700	22	8	**72**	12000	18	2500	130	< 1.5	**83**	< 1	20	22	37
			20988	6300	< 0.8	< 5	27	< 0.5	< 0.8	2700	22	8	**74**	12000	20	2500	130	< 1.5	**94**	< 1	18	23	26
		5-10 cm (soil)	20989	7200	< 0.8	< 5	32	< 0.5	< 0.8	2900	24	7	53	13000	11	2500	150	< 1.5	**64**	< 1	22	24	46
		10-15 cm (soil)	20990	8200	< 0.8	< 5	39	< 0.5	< 0.8	3200	22	7	29	14000	9	2600	230	< 1.5	**46**	< 1	18	25	24
Twin Forks Athletic Field, 1475 Gary St.																							
5030623 Play Structure	A	0-5 cm (sand)	20959	6700	< 0.8	< 5	30	< 0.5	< 0.8	2600	30	10	31	17000	3	3800	220	< 1.5	34	< 1	24	42	23
			20960	6400	< 0.8	< 5	30	< 0.5	< 0.8	2500	26	9	32	15000	3	3700	200	< 1.5	30	< 1	23	30	21
5030624 Play Structure	B	0-5 cm (sand)	20961	6000	< 0.8	< 5	26	< 0.5	< 0.8	2500	25	9	27	16000	3	3600	190	< 1.5	26	< 1	20	33	22
			20962	6300	< 0.8	< 5	27	< 0.5	< 0.8	2500	30	9	30	17000	3	3800	220	< 1.5	27	< 1	21	39	23
5030625 Baseball Infield	C	0-5 cm (soil)	20963	6000	< 0.8	< 5	43	< 0.5	< 0.8	19000	21	5	20	11000	4	9000	250	< 1.5	27	< 1	130	23	18
			20964	7000	< 0.8	< 5	54	< 0.5	< 0.8	24000	24	5	23	13000	6	11000	270	< 1.5	32	< 1	170	25	20
5030626 Baseball Outfield	D	0-5 cm (soil)	20965	8800	< 0.8	< 5	31	< 0.5	< 0.8	7100	28	5	36	12000	8	3600	240	< 1.5	**50**	< 1	46	27	22
			20966	9800	< 0.8	< 5	40	< 0.5	< 0.8	11000	31	6	50	14000	10	4600	350	< 1.5	**67**	< 1	56	29	26
		5-10 cm (soil)	20967	8100	< 0.8	< 5	28	< 0.5	< 0.8	6800	26	5	27	11000	6	3500	220	< 1.5	39	< 1	41	26	19
			20968	8200	< 0.8	< 5	31	< 0.5	< 0.8	6700	27	5	25	12000	7	3900	220	< 1.5	39	< 1	35	26	20
		10-20 cm (soil)	20969	9500	< 0.8	< 5	34	< 0.5	< 0.8	5800	31	6	21	14000	7	2900	250	< 1.5	37	< 1	37	29	22
			20970	9500	< 0.8	< 5	34	< 0.5	< 0.8	5600	31	6	20	13000	7	2700	240	< 1.5	35	< 1	40	30	22

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030627 Soccer Field	E	0-5 cm (soil)	20971	13000	< 0.8	< 5	53	< 0.5	< 0.8	8900	41	7	52	16000	11	4400	300	< 1.5	**66**	< 1	50	35	32
			20972	13000	< 0.8	< 5	55	< 0.5	< 0.8	11000	39	7	**69**	15000	14	5200	340	< 1.5	**82**	< 1	50	32	61
		5-10 cm (soil)	20973	13000	< 0.8	< 5	42	< 0.5	< 0.8	8900	39	6	26	17000	7	4200	250	< 1.5	38	< 1	52	36	24
			20974	11000	< 0.8	< 5	37	< 0.5	< 0.8	8000	35	5	24	15000	6	3700	220	< 1.5	36	< 1	48	33	22
		10-20 cm (soil)	20975	13000	< 0.8	< 5	46	< 0.5	< 0.8	12000	41	7	23	18000	7	5800	260	< 1.5	38	< 1	55	36	27
			20976	13000	< 0.8	< 5	44	< 0.5	< 0.8	10000	39	6	27	17000	7	5000	250	< 1.5	37	< 1	54	35	24
Westmount Playground, 109 Kipling Court																							
5030636 Green Space	A	0-5 cm (soil)	21161	12000	< 0.8	8	42	< 0.5	< 0.8	4800	31	9	46	16000	10	3200	210	< 1.5	**67**	< 1	36	32	28
			21162	13000	< 0.8	9	46	< 0.5	< 0.8	4600	32	10	**58**	17000	10	3200	230	< 1.5	**77**	< 1	36	34	33
		5-10 cm (soil)	21163	12000	< 0.8	**22**	49	< 0.5	< 0.8	5600	30	18	**140**	15000	18	2900	190	< 1.5	**300**	1	37	30	30
			21164	12000	< 0.8	**17**	46	< 0.5	< 0.8	5700	29	16	**140**	16000	16	3300	220	< 1.5	**270**	1	34	30	30
		10-20 cm (soil)	21165	9400	< 0.8	**40**	46	< 0.5	< 0.8	4700	24	**21**	**300**	14000	21	2400	150	< 1.5	**360**	1	29	24	24
			21166	11000	< 0.8	**39**	49	< 0.5	< 0.8	5600	27	19	**270**	15000	22	2700	180	< 1.5	**360**	**2**	33	28	32
5030637 Green Space	B	0-5 cm (soil)	21167	12000	< 0.8	11	45	< 0.5	< 0.8	5800	32	12	**68**	18000	11	3400	240	< 1.5	**110**	< 1	35	35	36
			21168	13000	< 0.8	9	50	< 0.5	< 0.8	6200	34	11	**65**	18000	11	3400	260	< 1.5	**100**	< 1	38	36	36
		5-10 cm (soil)	21169	13000	< 0.8	9	60	< 0.5	< 0.8	6600	36	12	**71**	18000	11	3600	260	< 1.5	**94**	< 1	41	36	36
			21170	17000	< 0.8	9	84	< 0.5	< 0.8	7600	41	10	54	20000	11	3900	310	< 1.5	**75**	< 1	48	42	45
		10-20 cm (soil)	21171	12000	< 0.8	11	54	< 0.5	< 0.8	6400	32	12	**94**	17000	12	3400	250	< 1.5	**94**	< 1	37	33	36
			21172	14000	< 0.8	11	68	< 0.5	< 0.8	7900	37	11	**86**	19000	12	4100	280	< 1.5	**91**	< 1	43	37	39
Sudbury South																							
Algonquin Park, 2646 Algonquin Rd.																							
5030840 Play Structure	A	0-5 cm (sand)	17930	6600	< 0.8	< 5	22	< 0.5	< 0.8	3000	30	8	20	14000	4	3700	190	< 1.5	26	< 1	25	30	20
			17931	5700	< 0.8	< 5	19	< 0.5	< 0.8	2500	27	7	17	13000	4	3300	170	< 1.5	25	< 1	22	26	17
5030841 Play Structure	B	0-5 cm (sand)	17932	5900	< 0.8	< 5	20	< 0.5	< 0.8	2700	31	8	18	14000	3	3500	180	< 1.5	28	< 1	24	30	22
			17933	5700	< 0.8	< 5	20	< 0.5	< 0.8	2600	33	8	19	14000	4	3400	170	< 1.5	29	< 1	22	30	23
5030842 Baseball Infield	C	0-5 cm (soil)	17934	7900	< 0.8	< 5	46	< 0.5	< 0.8	2800	34	8	50	13000	7	4200	150	< 1.5	**59**	< 1	22	27	30
			17935	9300	< 0.8	< 5	47	< 0.5	< 0.8	3000	38	10	48	15000	9	4500	160	< 1.5	**63**	< 1	26	31	28
5030843 Baseball Outfield	D	0-5 cm (soil)	17936	9900	< 0.8	< 5	38	< 0.5	< 0.8	4800	35	7	44	14000	9	3400	260	< 1.5	**79**	< 1	36	31	30
			17937	9400	< 0.8	< 5	39	< 0.5	< 0.8	4700	35	8	46	13000	12	3400	240	< 1.5	**82**	1	32	29	30
		5-10 cm (soil)	17938	11000	< 0.8	< 5	42	< 0.5	< 0.8	6100	40	8	42	15000	12	4000	300	< 1.5	**78**	1	40	34	30
			17939	11000	< 0.8	< 5	41	< 0.5	< 0.8	5500	39	9	42	15000	12	3800	280	< 1.5	**78**	< 1	38	33	30
		10-20 cm (soil)	17940	13000	< 0.8	< 5	54	< 0.5	< 0.8	7200	47	9	45	17000	12	4300	330	< 1.5	**81**	< 1	54	41	32
			17941	13000	< 0.8	< 5	56	< 0.5	< 0.8	7700	46	9	42	17000	12	4300	320	< 1.5	**76**	< 1	52	38	31

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Copper Street Playground, Copper St.																							
5030955 Green Space	A	0-5 cm (soil)	21751	9300	< 0.8	< 5	29	< 0.5	< 0.8	3100	23	4	41	11000	7	2100	130	< 1.5	**47**	< 1	29	25	27
			21752	10000	< 0.8	< 5	35	< 0.5	< 0.8	3800	26	5	55	13000	8	2400	160	< 1.5	**57**	< 1	36	28	28
		5-10 cm (soil)	21753	10000	< 0.8	< 5	36	< 0.5	< 0.8	3200	26	5	27	13000	6	2200	150	< 1.5	34	< 1	31	27	22
			21754	9800	< 0.8	< 5	36	< 0.5	< 0.8	3200	26	5	25	12000	5	2400	160	< 1.5	34	< 1	33	27	20
		10-20 cm (soil)	21755	10000	< 0.8	< 5	41	< 0.5	< 0.8	3300	28	6	21	13000	5	2600	180	< 1.5	34	< 1	34	28	19
			21756	9200	< 0.8	< 5	38	< 0.5	< 0.8	3000	27	6	19	13000	5	2600	160	< 1.5	28	< 1	31	27	17
5030956 Play Structure	B	0-5 cm (sand)	21757	5600	< 0.8	5	23	< 0.5	< 0.8	2500	28	9	47	15000	5	3400	170	< 1.5	40	< 1	19	30	23
			21758	6100	< 0.8	6	24	< 0.5	< 0.8	2700	26	9	43	14000	4	3500	180	< 1.5	37	< 1	23	30	22
5030957 Green Space	C	0-5 cm (soil)	21759	8500	< 0.8	5	26	< 0.5	< 0.8	3700	22	4	30	9100	8	1800	120	< 1.5	**44**	< 1	32	23	26
			21760	11000	< 0.8	5	34	< 0.5	< 0.8	5100	28	4	34	11000	9	2200	150	< 1.5	**45**	< 1	43	28	31
		5-10 cm (soil)	21761	9300	< 0.8	< 5	31	< 0.5	< 0.8	4200	23	3	23	9300	7	1800	120	< 1.5	31	< 1	40	25	15
			21762	9900	< 0.8	< 5	32	< 0.5	< 0.8	4100	24	4	23	10000	7	1900	130	< 1.5	34	< 1	39	27	16
		10-20 cm (soil)	21763	13000	< 0.8	< 5	64	< 0.5	< 0.8	4900	33	5	21	13000	6	3000	200	< 1.5	32	< 1	48	31	19
			21764	11000	< 0.8	< 5	57	< 0.5	< 0.8	4900	33	6	23	14000	5	3400	210	< 1.5	32	< 1	47	32	21
Lake Laurentian Conservation Area, South Bay Rd.																							
5030949 Native	A	0-5 cm (soil)	21719	9100	**4.3**	**24**	84	< 0.5	**1.4**	27000	25	**33**	**560**	18000	**61**	2300	410	< 1.5	**750**	**4**	47	24	60
			21720	12000	< 0.8	**24**	100	< 0.5	**1.6**	15000	32	**34**	**550**	20000	**61**	2700	570	< 1.5	**730**	**4**	50	31	64
		5-10 cm (soil)	21721	17000	< 0.8	7	100	< 0.5	< 0.8	4400	42	8	**63**	15000	9	3300	310	< 1.5	**81**	< 1	56	37	42
			21722	20000	**1.6**	< 5	120	< 0.5	< 0.8	4400	48	8	41	18000	7	4000	300	< 1.5	**68**	< 1	57	42	48
		10-20 cm (soil)	21723	20000	1	< 5	110	< 0.5	< 0.8	4200	49	8	28	19000	7	4500	280	< 1.5	**52**	< 1	54	41	44
			21724	25000	**1.4**	< 5	140	< 0.5	< 0.8	4100	61	10	23	23000	8	6300	300	< 1.5	**57**	< 1	55	49	48
5030950 Native	B	0-5 cm (soil)	21725	15000	0.9	**25**	81	< 0.5	< 0.8	2500	35	18	**290**	20000	31	2000	140	< 1.5	**380**	**2**	36	36	38
			21726	13000	**3.2**	**22**	71	< 0.5	< 0.8	2200	31	19	**280**	17000	30	1500	150	< 1.5	**400**	**2**	33	34	33
		5-10 cm (soil)	21727	14000	< 0.8	8	47	< 0.5	< 0.8	2100	29	15	**99**	16000	15	1900	160	< 1.5	**130**	1	32	32	39
			21728	16000	< 0.8	6	45	< 0.5	< 0.8	2200	32	14	**68**	17000	12	2000	160	< 1.5	**82**	1	30	35	35
		10-20 cm (soil)	21729	14000	< 0.8	< 5	46	< 0.5	< 0.8	1700	32	12	52	16000	7	2500	130	< 1.5	**52**	< 1	25	30	33
			21730	18000	< 0.8	< 5	49	< 0.5	< 0.8	2300	36	13	**110**	19000	12	2900	130	< 1.5	**53**	1	29	37	71
5030951 Native	C	0-5 cm (soil)	21731	10000	< 0.8	10	69	< 0.5	< 0.8	2300	28	7	**78**	14000	8	2400	230	< 1.5	**110**	1	29	27	62
			21732	5200	< 0.8	**21**	72	< 0.5	0.9	1700	19	**23**	**460**	14000	42	1400	310	< 1.5	**545**	**2**	18	17	51
		5-10 cm (soil)	21733	7900	< 0.8	**23**	95	< 0.5	1	2500	24	**28**	**510**	16000	47	1900	390	< 1.5	**585**	**3**	28	22	61
			21734	6600	< 0.8	7	45	< 0.5	< 0.8	1200	20	5	**64**	10000	7	1500	120	< 1.5	**80**	< 1	16	20	38
		10-20 cm (soil)	21735	12000	< 0.8	< 5	57	< 0.5	< 0.8	2500	32	6	22	16000	5	3100	180	< 1.5	**61**	< 1	33	29	60
			21736	10000	< 0.8	< 5	48	< 0.5	< 0.8	1900	28	6	27	14000	7	2300	150	< 1.5	**61**	< 1	23	28	54
5030952 Native	D	0-5 cm (soil)	21737	11000	< 0.8	6	71	< 0.5	< 0.8	2800	42	13	**120**	17000	18	4000	250	< 1.5	**154**	< 1	25	30	36

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
			21738	11000	< 0.8	6	76	< 0.5	< 0.8	3800	42	13	**120**	16000	17	3900	250	< 1.5	**164**	< 1	31	31	36
		5-10 cm (soil)	21739	13000	< 0.8	< 5	90	< 0.5	< 0.8	3300	47	11	**68**	19000	9	4800	270	< 1.5	**107**	< 1	31	36	38
			21740	15000	< 0.8	< 5	110	< 0.5	< 0.8	3600	54	14	**60**	22000	9	6100	340	< 1.5	**103**	< 1	32	40	47
		10-20 cm (soil)	21741	14000	< 0.8	< 5	86	< 0.5	< 0.8	3300	44	11	52	18000	8	4500	280	< 1.5	**84**	< 1	34	35	37
			21742	16000	< 0.8	< 5	110	< 0.5	< 0.8	3900	50	11	**60**	21000	9	5400	310	< 1.5	**104**	< 1	39	40	41
Lilly Creek Athletic Field, 90 Centennial Dr.																							
5030596 Soccer Field	A	0-5 cm (soil)	19174	8900	< 0.8	< 5	28	< 0.5	< 0.8	6600	24	5	56	11000	10	3200	160	< 1.5	**66**	< 1	35	25	19
			19175	9200	< 0.8	< 5	32	< 0.5	< 0.8	6300	25	5	**65**	12000	11	2900	170	< 1.5	**73**	< 1	37	26	18
		5-10 cm (soil)	19176	9400	< 0.8	< 5	25	< 0.5	< 0.8	3400	24	4	27	11000	5	2100	100	< 1.5	35	< 1	28	25	14
			19177	9900	< 0.8	< 5	30	< 0.5	< 0.8	3100	25	4	20	12000	5	1900	120	< 1.5	30	< 1	30	26	14
		10-20 cm (soil)	19178	9500	< 0.8	< 5	22	< 0.5	< 0.8	3400	25	4	39	12000	6	2000	120	< 1.5	**45**	< 1	31	25	14
			19179	8900	< 0.8	< 5	27	< 0.5	< 0.8	2500	24	4	26	11000	5	1900	100	< 1.5	30	< 1	22	24	13
5030597 Soccer Field	B	0-5 cm (soil)	19180	9200	< 0.8	< 5	33	< 0.5	< 0.8	5200	25	5	27	12000	6	2400	170	< 1.5	41	< 1	33	27	16
			19181	9900	< 0.8	< 5	33	< 0.5	< 0.8	5000	26	4	26	12000	6	2300	170	< 1.5	36	< 1	37	28	16
		5-10 cm (soil)	19182	12000	< 0.8	< 5	46	< 0.5	< 0.8	7000	32	5	32	14000	8	2600	220	< 1.5	**47**	< 1	48	33	24
			19183	12000	< 0.8	< 5	46	< 0.5	< 0.8	6500	32	5	30	14000	7	2600	210	< 1.5	43	< 1	48	32	21
		10-20 cm (soil)	19184	12000	< 0.8	< 5	40	< 0.5	< 0.8	4100	29	4	24	13000	8	2000	160	< 1.5	39	< 1	43	30	17
			19185	11000	< 0.8	< 5	35	< 0.5	< 0.8	4500	28	5	22	13000	6	2200	180	< 1.5	42	< 1	42	28	17
5030598 Soccer Field	C	0-5 cm (soil)	19186	11000	< 0.8	< 5	32	< 0.5	< 0.8	4600	28	4	23	13000	6	2300	170	< 1.5	42	< 1	42	29	16
			19187	12000	< 0.8	< 5	39	< 0.5	< 0.8	4600	34	4	21	13000	7	2300	180	< 1.5	39	< 1	44	31	16
		5-10 cm (soil)	19188	8700	< 0.8	< 5	28	< 0.5	< 0.8	2700	24	4	22	11000	7	1900	140	< 1.5	34	< 1	27	24	14
			19189	9400	< 0.8	< 5	31	< 0.5	< 0.8	3100	26	5	23	12000	7	1900	150	< 1.5	36	< 1	31	27	15
5030599 Soccer Field	D	0-5 cm (soil)	19190	8100	< 0.8	< 5	26	< 0.5	< 0.8	6000	21	6	**72**	10000	12	2500	150	< 1.5	**82**	1	28	24	20
			19191	8200	< 0.8	< 5	22	< 0.5	< 0.8	1800	22	4	30	11000	7	1600	90	< 1.5	36	< 1	13	22	13
		5-10 cm (soil)	19192	9400	< 0.8	< 5	21	< 0.5	< 0.8	2500	23	4	33	12000	8	1600	110	< 1.5	37	< 1	24	24	20
			19193	8500	< 0.8	< 5	21	< 0.5	< 0.8	3600	21	4	**60**	11000	10	1900	130	< 1.5	**59**	< 1	28	23	22
5030600 Soccer Field	E	0-5 cm (soil)	19194	9300	0.8	< 5	31	< 0.5	< 0.8	3900	24	5	35	13000	8	2000	170	< 1.5	**46**	1	32	27	24
			19195	9200	< 0.8	< 5	23	< 0.5	< 0.8	2800	23	4	32	12000	8	1700	160	< 1.5	39	< 1	28	25	21
		5-10 cm (soil)	19196	9100	< 0.8	7	22	< 0.5	< 0.8	2900	21	4	33	12000	8	1700	150	< 1.5	41	< 1	27	25	20
			19197	9700	< 0.8	< 5	32	< 0.5	< 0.8	4000	24	5	35	14000	8	2100	160	< 1.5	**51**	< 1	32	27	23

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030601 Soccer Field	F	0-5 cm (soil)	19198	8400	< 0.8	< 5	24	< 0.5	< 0.8	5000	21	5	54	11000	10	2800	130	< 1.5	**64**	1	34	23	21
			19199	9100	< 0.8	< 5	24	< 0.5	< 0.8	4000	22	5	44	12000	9	2200	140	< 1.5	**54**	< 1	33	25	23
		5-10 cm (soil)	19200	8600	< 0.8	6	22	< 0.5	< 0.8	2300	22	4	26	12000	7	1700	110	< 1.5	35	< 1	22	24	20
			19201	9100	< 0.8	< 5	23	< 0.5	< 0.8	2500	22	5	27	12000	8	1800	120	< 1.5	39	< 1	27	25	20
5030602 Baseball Outfield	G	0-5 cm (soil)	19202	11000	< 0.8	< 5	42	< 0.5	< 0.8	12000	29	10	**120**	16000	18	6800	230	< 1.5	**137**	**2**	67	27	39
			19203	14000	< 0.8	< 5	53	< 0.5	< 0.8	12000	38	10	**140**	17000	19	7200	240	< 1.5	**137**	< 1	62	33	43
		5-10 cm (soil)	19204	14000	< 0.8	< 5	56	< 0.5	< 0.8	8900	39	8	**69**	19000	13	6600	260	< 1.5	**78**	< 1	65	36	38
			19205	15000	< 0.8	< 5	53	< 0.5	< 0.8	6300	42	9	**74**	19000	12	4100	270	< 1.5	**83**	< 1	55	37	38
5030603 Baseball Infield	H	0-5 cm (gravel)	19206	7400	< 0.8	< 5	47	< 0.5	< 0.8	15000	21	6	29	12000	5	9100	160	< 1.5	36	< 1	140	24	19
			19207	7700	< 0.8	< 5	46	< 0.5	< 0.8	17000	23	6	30	13000	5	9600	180	< 1.5	34	< 1	140	24	20
5030604 Play Structure	I	0-15 cm (sand)	19208	7300	< 0.8	< 5	31	< 0.5	< 0.8	2600	29	10	37	17000	5	3500	210	< 1.5	31	< 1	27	35	25
			19209	7200	< 0.8	< 5	28	< 0.5	< 0.8	2400	36	11	36	16000	8	3700	200	< 1.5	36	< 1	24	32	24
Lockerby Playground, 120 Walford Rd.																							
5030605 Green Space	A	0-5 cm (soil)	19210	10000	< 0.8	< 5	30	< 0.5	< 0.8	3400	24	9	43	13000	18	2000	190	< 1.5	**101**	< 1	34	25	32
			19211	11000	< 0.8	< 5	31	< 0.5	< 0.8	4200	24	6	45	14000	11	2300	190	< 1.5	**61**	< 1	36	26	31
		5-10 cm (soil)	19212	11000	< 0.8	< 5	33	< 0.5	< 0.8	3800	24	5	27	14000	9	1900	210	< 1.5	42	< 1	38	27	21
			19213	11000	< 0.8	< 5	36	< 0.5	< 0.8	3400	24	6	31	14000	10	2000	200	< 1.5	**48**	< 1	34	26	22
5030606 Play Structure	B	0-15 cm (sand)	19214	6300	< 0.8	< 5	17	< 0.5	< 0.8	1900	30	6	22	17000	4	2700	180	< 1.5	28	< 1	20	36	20
			19215	7000	< 0.8	< 5	18	< 0.5	< 0.8	2100	29	6	20	16000	3	2700	180	< 1.5	24	< 1	22	33	21
Long Lake Playground, 4472 Long Lake Rd.																							
5030835 Green Space	A	0-5 cm (soil)	17912	10000	< 0.8	< 5	38	< 0.5	< 0.8	3400	28	6	**61**	12000	12	2300	190	< 1.5	**70**	< 1	34	28	29
			17913	9600	< 0.8	< 5	37	< 0.5	< 0.8	3300	27	6	**57**	12000	11	2200	180	< 1.5	**69**	< 1	35	28	29
		5-10 cm (soil)	17914	10000	< 0.8	< 5	38	< 0.5	< 0.8	3100	28	6	33	13000	7	2400	190	< 1.5	42	< 1	35	29	21
			17915	8500	< 0.8	< 5	35	< 0.5	< 0.8	2100	25	5	35	11000	7	2000	170	< 1.5	42	< 1	23	25	20
		10-20 cm (soil)	17916	9000	< 0.8	< 5	41	< 0.5	< 0.8	3100	28	6	25	13000	5	2700	180	< 1.5	32	< 1	34	30	17
			17917	9100	< 0.8	< 5	44	< 0.5	< 0.8	3000	29	6	28	13000	5	2600	180	< 1.5	35	< 1	34	29	18
5030836 Play Structure	B	0-5 cm (sand)	17918	7000	< 0.8	< 5	22	< 0.5	< 0.8	2800	31	7	24	15000	19	4000	190	< 1.5	27	< 1	25	29	33
			17919	7300	< 0.8	< 5	24	< 0.5	< 0.8	3200	31	8	26	16000	4	4000	200	< 1.5	28	< 1	28	32	33
5030837 Baseball Infield	C	0-5 cm (soil)	17920	5100	< 0.8	< 5	28	< 0.5	< 0.8	9400	23	5	17	9400	4	5300	160	< 1.5	25	< 1	71	24	15
			17921	5600	< 0.8	< 5	21	< 0.5	< 0.8	5600	23	4	14	11000	3	3700	160	< 1.5	21	< 1	40	24	14

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030838 Baseball Outfield	D	0-5 cm (soil)	17922	11000	< 0.8	< 5	41	< 0.5	< 0.8	8800	36	8	**86**	14000	15	4700	240	< 1.5	**117**	< 1	46	31	32
			17923	12000	< 0.8	< 5	50	< 0.5	< 0.8	8600	38	8	**84**	15000	14	4600	230	< 1.5	**112**	< 1	48	32	32
		5-10 cm (soil)	17924	12000	< 0.8	< 5	46	< 0.5	< 0.8	7200	39	9	**77**	16000	12	4600	200	< 1.5	**107**	< 1	46	33	34
			17925	12000	< 0.8	< 5	51	< 0.5	< 0.8	6600	38	8	**69**	15000	11	4100	200	< 1.5	**90**	< 1	46	30	30
5030839 Soccer Field	E	0-5 cm (soil)	17926	14000	< 0.8	< 5	56	< 0.5	< 0.8	6700	42	9	**78**	17000	13	4600	260	< 1.5	**103**	< 1	43	34	36
			17927	14000	< 0.8	< 5	59	< 0.5	< 0.8	7500	40	9	**66**	16000	13	4900	230	< 1.5	**95**	< 1	41	33	33
		5-10 cm (soil)	17928	9600	< 0.8	< 5	36	< 0.5	< 0.8	3500	32	7	38	13000	8	3100	190	< 1.5	**60**	< 1	31	30	23
			17929	8200	< 0.8	< 5	31	< 0.5	< 0.8	2700	28	7	30	12000	6	2700	160	< 1.5	**47**	< 1	24	27	20
McFarlane Lake Playground, Pioneer Rd.																							
5030844* Greenspace	A	0-5 cm (soil)	17942	8100	< 0.8	< 5	24	< 0.5	< 0.8	3400	23	4	27	11000	6	2200	160	< 1.5	39	< 1	29	23	18
			17943	7600	< 0.8	< 5	21	< 0.5	< 0.8	3000	21	4	26	10000	6	2100	140	< 1.5	37	< 1	23	21	16
		5-10 cm (soil)	17944	7100	< 0.8	< 5	26	< 0.5	< 0.8	5400	23	4	16	10000	5	3400	160	< 1.5	26	< 1	26	23	15
			17945	7200	< 0.8	< 5	27	< 0.5	< 0.8	7000	24	4	17	11000	5	4100	180	< 1.5	26	< 1	28	23	15
5030845* Baseball Infield	B	0-5 cm (soil)	17946	6900	< 0.8	< 5	38	< 0.5	< 0.8	12000	27	5	21	12000	5	6900	200	1.6	27	< 1	100	27	19
			17947	7400	< 0.8	< 5	43	< 0.5	< 0.8	13000	28	5	20	13000	5	7400	220	< 1.5	28	< 1	120	28	19
5030846* Baseball Outfield	C	0-5 cm (soil)	17948	11000	< 0.8	< 5	44	< 0.5	< 0.8	6800	36	7	**61**	14000	11	3600	250	< 1.5	**70**	< 1	49	32	26
			17949	11000	< 0.8	5	42	< 0.5	< 0.8	6500	38	6	**62**	14000	11	3700	220	< 1.5	**71**	< 1	48	32	26
		5-10 cm (soil)	17950	11000	< 0.8	< 5	35	< 0.5	< 0.8	5300	31	6	51	14000	8	2900	190	< 1.5	**60**	< 1	48	30	22
			17951	11000	< 0.8	< 5	39	< 0.5	< 0.8	5400	34	6	37	14000	6	3000	210	< 1.5	**50**	< 1	50	33	20
Nepahwin Park, 1742 Paris St.																							
5030847 Green Space	A	0-5 cm (soil)	17952	12000	< 0.8	6	60	< 0.5	< 0.8	3800	33	8	**81**	14000	16	2300	240	< 1.5	**121**	1	39	31	28
			17953	12000	< 0.8	6	55	< 0.5	< 0.8	6400	35	10	**120**	14000	26	3200	260	< 1.5	**155**	1	42	30	36
		5-10 cm (soil)	17954	11000	< 0.8	< 5	40	< 0.5	< 0.8	4500	31	7	**75**	13000	15	2400	200	< 1.5	**85**	< 1	40	31	25
			17955	11000	< 0.8	< 5	39	< 0.5	< 0.8	4100	28	6	48	12000	11	2100	210	< 1.5	**71**	< 1	41	29	23
		10-20 cm (soil)	17956	9900	< 0.8	< 5	43	< 0.5	< 0.8	4900	30	9	**120**	13000	22	2900	230	< 1.5	**135**	< 1	33	29	37
			17957	8300	< 0.8	< 5	32	< 0.5	< 0.8	2200	25	7	**72**	12000	13	1800	190	< 1.5	**81**	< 1	20	27	26
5030848 Green Space	B	0-5 cm (soil)	17958	8000	< 0.8	< 5	36	< 0.5	< 0.8	5500	25	8	**100**	11000	19	3100	190	< 1.5	**118**	< 1	27	26	31
			17959	8500	< 0.8	< 5	39	< 0.5	< 0.8	5700	27	8	**110**	12000	21	3300	220	< 1.5	**123**	< 1	27	27	32
		5-10 cm (soil)	17960	9300	< 0.8	< 5	38	< 0.5	< 0.8	4800	26	6	**71**	12000	14	2800	180	< 1.5	**79**	< 1	30	27	27
			17961	10000	< 0.8	< 5	41	< 0.5	< 0.8	6300	28	6	**68**	13000	13	3100	200	< 1.5	**80**	< 1	36	30	30
		10-20 cm (soil)	17962	11000	< 0.8	< 5	47	< 0.5	< 0.8	4800	29	6	**63**	14000	16	2500	200	< 1.5	**80**	< 1	42	32	27
			17963	10000	< 0.8	< 5	44	< 0.5	< 0.8	4600	30	8	**71**	14000	14	2800	200	< 1.5	**110**	< 1	34	30	28
5030849 Play Structure	C	0-5 cm (sand)	17964	8200	< 0.8	< 5	36	< 0.5	< 0.8	3700	32	**22**	**210**	18000	5	4100	230	< 1.5	**680**	< 1	31	44	30
			17965	7400	< 0.8	< 5	30	< 0.5	< 0.8	3300	29	16	**130**	17000	7	4100	220	< 1.5	**330**	< 1	24	33	27

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.2: Inner Community Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030850 Play Structure	D	0-5 cm (sand)	17966	7900	< 0.8	< 5	29	< 0.5	< 0.8	3400	33	15	**58**	20000	5	4200	220	< 1.5	**87**	< 1	26	40	24
			17967	7300	< 0.8	< 5	29	< 0.5	< 0.8	3200	33	17	**65**	18000	5	3900	200	< 1.5	**67**	< 1	24	40	25
5030851 Beach	E	0-5 cm (sand)	17968	8300	< 0.8	< 5	24	< 0.5	< 0.8	3900	32	8	23	18000	4	4100	210	< 1.5	32	< 1	32	36	23
			17969	7300	< 0.8	< 5	21	< 0.5	< 0.8	3700	30	8	25	17000	5	3900	190	< 1.5	29	< 1	28	34	21
		5-10 cm (sand)	17970	7700	< 0.8	< 5	24	< 0.5	< 0.8	3800	32	8	29	16000	5	4200	190	< 1.5	33	< 1	30	33	24
			17971	7500	< 0.8	< 5	24	< 0.5	< 0.8	3500	31	8	28	17000	4	3900	190	< 1.5	32	< 1	29	34	20
		10-20 cm (sand)	17972	9800	< 0.8	< 5	37	< 0.5	< 0.8	4600	37	9	29	19000	5	4300	230	< 1.5	38	< 1	38	40	26
			17973	9100	< 0.8	< 5	36	< 0.5	< 0.8	4300	36	9	31	18000	5	3900	220	< 1.5	36	< 1	38	38	21
Robinson Playground, 215 Cranbrook Cres.																							
5030708 Baseball Infield	A	0-5 cm (soil)	19296	7200	< 0.8	< 5	40	< 0.5	< 0.8	17000	24	6	47	12000	7	8500	190	< 1.5	**66**	< 1	130	25	17
			19297	8700	< 0.8	< 5	51	< 0.5	< 0.8	18000	28	6	42	13000	6	8600	210	< 1.5	**56**	< 1	140	27	18
5030709 Baseball Outfield	B	0-5 cm (soil)	19298	11000	< 0.8	< 5	44	< 0.5	< 0.8	27000	28	8	**180**	14000	29	13000	230	< 1.5	**151**	< 1	80	25	31
			19299	12000	< 0.8	< 5	46	< 0.5	< 0.8	19000	29	6	**99**	13000	10	9300	200	< 1.5	**86**	< 1	68	26	23
		5-10 cm (soil)	19300	12000	< 0.8	< 5	45	< 0.5	< 0.8	7100	34	7	**69**	16000	8	3700	190	< 1.5	**74**	< 1	49	32	27
			19301	13000	< 0.8	< 5	54	< 0.5	< 0.8	5500	35	8	47	16000	7	3600	190	< 1.5	**68**	< 1	46	33	29
		10-20 cm (soil)	19302	13000	< 0.8	< 5	48	< 0.5	< 0.8	6400	35	7	32	17000	7	3600	210	< 1.5	**53**	< 1	49	33	26
			19303	9700	< 0.8	< 5	41	< 0.5	< 0.8	4500	28	8	50	14000	5	3100	180	< 1.5	**66**	< 1	31	31	26
5030710 Play Structure	C	0-5 cm (sand)	19304	5500	< 0.8	< 5	36	< 0.5	< 0.8	2400	27	9	45	14000	3	3500	170	< 1.5	38	< 1	27	28	24
			19305	5600	< 0.8	< 5	33	< 0.5	< 0.8	2300	26	9	34	14000	2	3600	150	< 1.5	37	< 1	23	26	22

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.3: Sudbury Core Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Antwerp Playground, 459 Antwerp St.																							
5030573 Play Structure	A	0-5 cm (sand)	20527	7100	< 0.8	< 5	23	< 0.5	< 0.8	4100	30	9	35	18000	7	4200	220	< 1.5	38	< 1	33	38	29
			20528	6800	< 0.8	< 5	22	< 0.5	< 0.8	3900	28	8	31	17000	6	4300	210	< 1.5	32	< 1	29	34	28
Bell Park, 900 Paris Street																							
5030441 Green Space	A	0-5 cm (soil)	20001	14000	**1.2**	**32**	120	< 0.5	**1.7**	4400	37	**55**	**950**	30000	**101**	2900	310	< 1.5	**1528**	**7**	47	33	70
			20002	16000	< 0.8	**26**	120	< 0.5	**1.1**	4600	39	**33**	**590**	24000	**57**	3200	290	< 1.5	**787**	**4**	52	36	52
		5-10 cm (soil)	20003	19000	< 0.8	**20**	130	< 0.5	< 0.8	4100	37	**20**	**360**	22000	39	3000	250	< 1.5	**423**	**2**	52	36	42
			20004	19000	< 0.8	**16**	130	< 0.5	< 0.8	4100	37	11	**200**	20000	15	3100	240	< 1.5	**211**	1	53	37	36
		10-20 cm (soil)	20005	21000	< 0.8	10	110	< 0.5	< 0.8	3900	40	9	**61**	21000	11	3400	170	< 1.5	**114**	< 1	52	39	32
			20006	22000	< 0.8	6	120	< 0.5	< 0.8	4000	43	8	49	21000	8	3600	190	< 1.5	**93**	< 1	53	41	31
5030442 Green Space	B	0-5 cm (soil)	20017	8800	< 0.8	< 5	40	< 0.5	< 0.8	5200	34	10	**89**	16000	17	3200	240	< 1.5	**112**	1	32	32	45
			20018	9500	< 0.8	< 5	43	< 0.5	< 0.8	5600	35	8	**80**	16000	15	3100	230	< 1.5	**102**	< 1	37	35	40
		5-10 cm (soil)	20019	12000	< 0.8	< 5	54	< 0.5	< 0.8	6800	38	7	**65**	17000	12	3200	240	< 1.5	**86**	< 1	45	41	32
			20020	9800	< 0.8	< 5	43	< 0.5	< 0.8	6300	34	6	**62**	15000	10	3200	210	< 1.5	**80**	< 1	39	39	29
		10-20 cm (soil)	20021	12000	< 0.8	< 5	51	< 0.5	< 0.8	4900	34	5	47	17000	7	2800	220	< 1.5	**52**	< 1	44	38	29
			20022	10000	< 0.8	< 5	42	< 0.5	< 0.8	4500	32	6	46	15000	8	2800	170	< 1.5	**63**	< 1	41	34	24
5030443 Green Space	C	0-5 cm (soil)	20023	15000	< 0.8	< 5	74	< 0.5	< 0.8	6300	45	11	**83**	20000	22	4600	270	< 1.5	**104**	< 1	51	40	45
			20024	14000	< 0.8	< 5	74	< 0.5	< 0.8	9400	45	11	**160**	18000	30	5400	260	< 1.5	**188**	< 1	48	36	52
		5-10 cm (soil)	20025	13000	< 0.8	< 5	58	< 0.5	< 0.8	8800	39	12	**130**	19000	29	5300	250	< 1.5	**142**	1	45	35	44
			20026	14000	< 0.8	< 5	62	< 0.5	< 0.8	8300	42	10	**72**	21000	16	5400	280	< 1.5	**87**	< 1	49	38	39
		10-20 cm (soil)	20027	11000	< 0.8	< 5	64	< 0.5	< 0.8	5400	36	9	**57**	18000	19	4000	190	< 1.5	**65**	< 1	42	31	30
			20028	11000	< 0.8	< 5	59	< 0.5	< 0.8	8500	36	11	49	18000	11	6000	230	< 1.5	**67**	< 1	41	32	31
5030444 Green Space	D	0-5 cm (soil)	20029	9600	< 0.8	7	42	< 0.5	**1.1**	8500	30	15	**180**	15000	40	3500	260	< 1.5	**257**	**2**	37	29	47
			20030	9100	< 0.8	7	44	< 0.5	0.9	7300	30	12	**170**	14000	42	3300	230	< 1.5	**230**	**2**	36	30	48
		5-10 cm (soil)	20031	9400	< 0.8	7	38	< 0.5	< 0.8	5700	30	7	**83**	14000	16	2400	210	< 1.5	**110**	1	36	31	32
			20032	9800	< 0.8	7	36	< 0.5	< 0.8	5000	30	7	**89**	14000	22	2300	190	< 1.5	**120**	< 1	36	31	33
		10-20 cm (soil)	20033	8900	< 0.8	6	35	< 0.5	< 0.8	4100	28	6	**58**	13000	12	2100	190	< 1.5	**86**	< 1	34	28	26
			20034	9600	< 0.8	8	39	< 0.5	< 0.8	4600	29	7	**86**	14000	18	2200	180	< 1.5	**120**	1	34	30	32
5030445 Green Space	E	0-5 cm (soil)	20035	8900	< 0.8	< 5	37	< 0.5	< 0.8	3900	27	8	**93**	14000	38	2500	210	< 1.5	**120**	1	29	27	36
			20036	9100	< 0.8	< 5	42	< 0.5	< 0.8	4900	29	9	**98**	13000	21	2900	230	< 1.5	**110**	1	30	27	36
		5-10 cm (soil)	20037	9000	< 0.8	5	64	< 0.5	< 0.8	3300	28	9	**97**	15000	**59**	2600	190	< 1.5	**120**	< 1	26	27	46
			20038	8900	< 0.8	7	35	< 0.5	< 0.8	3100	25	7	**86**	13000	24	2300	160	< 1.5	**90**	**2**	23	25	34
		10-20 cm (soil)	20039	10000	< 0.8	7	56	< 0.5	< 0.8	3400	29	10	**130**	16000	39	2700	200	< 1.5	**170**	1	30	28	43
			20040	9900	< 0.8	6	48	< 0.5	< 0.8	3700	27	8	**86**	14000	29	2600	180	< 1.5	**100**	< 1	30	28	38
5030446 Green Space	F	0-5 cm (soil)	20041	13000	< 0.8	7	57	< 0.5	< 0.8	6100	35	11	**150**	17000	22	3600	250	< 1.5	**150**	1	41	34	38
Table F (results in bold)				NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)				NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.3: Sudbury Core Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
			20042	14000	< 0.8	5	61	< 0.5	< 0.8	6200	36	10	**110**	17000	19	3500	240	< 1.5	**130**	1	41	34	34
		5-10 cm (soil)	20043	15000	< 0.8	5	56	< 0.5	< 0.8	4400	35	8	**58**	16000	9	3000	190	< 1.5	**76**	< 1	42	36	27
			20044	14000	< 0.8	6	56	< 0.5	< 0.8	4500	36	8	**68**	18000	12	3100	200	< 1.5	**82**	< 1	42	37	29
		10-20 cm (soil)	20045	14000	< 0.8	6	60	< 0.5	< 0.8	3700	36	9	**67**	17000	20	2800	190	< 1.5	**90**	< 1	40	36	27
			20046	13000	< 0.8	6	47	< 0.5	< 0.8	4300	33	8	56	17000	18	2700	190	< 1.5	**71**	< 1	39	37	28
5030447 Play Structure	G	0-15 cm (sand)	20047	8500	< 0.8	< 5	30	< 0.5	< 0.8	4000	33	8	38	20000	9	4200	250	< 1.5	38	< 1	35	41	32
			20048	7900	< 0.8	< 5	27	< 0.5	< 0.8	4100	29	8	29	19000	7	4100	240	< 1.5	31	< 1	33	40	28
5030448 Green Space	H	0-5 cm (soil)	20049	9000	< 0.8	6	44	< 0.5	< 0.8	4100	27	10	**140**	13000	30	2700	220	< 1.5	**200**	< 1	30	26	58
			20050	12000	< 0.8	5	59	< 0.5	< 0.8	7200	32	12	**140**	15000	33	3200	260	< 1.5	**220**	< 1	44	32	58
		5-10 cm (soil)	20051	12000	< 0.8	7	44	< 0.5	< 0.8	4500	30	7	53	14000	13	2300	180	< 1.5	**91**	< 1	42	31	34
			20052	12000	< 0.8	5	42	< 0.5	< 0.8	4300	28	6	56	14000	14	2300	170	< 1.5	**80**	< 1	40	30	30
		10-20 cm (soil)	20053	11000	< 0.8	< 5	44	< 0.5	< 0.8	3600	30	6	38	15000	9	2600	180	< 1.5	**62**	< 1	37	31	29
			20054	11000	< 0.8	< 5	47	< 0.5	< 0.8	3900	30	6	34	15000	10	2600	190	< 1.5	**61**	< 1	39	32	27
5030449 Green Space	I	0-5 cm (soil)	20055	10000	< 0.8	< 5	44	< 0.5	< 0.8	5300	35	7	**59**	14000	12	3100	210	< 1.5	**78**	< 1	39	32	31
			20056	11000	< 0.8	5	46	< 0.5	< 0.8	5400	31	7	**59**	14000	12	2900	210	< 1.5	**78**	< 1	42	31	33
		5-10 cm (soil)	20057	11000	< 0.8	< 5	46	< 0.5	< 0.8	5900	32	6	49	14000	12	2900	210	< 1.5	**64**	< 1	45	32	28
			20058	13000	< 0.8	< 5	58	< 0.5	< 0.8	5700	35	7	42	14000	12	2800	220	< 1.5	**62**	< 1	48	34	29
		10-20 cm (soil)	20059	11000	< 0.8	< 5	52	< 0.5	< 0.8	5700	32	6	48	14000	12	2700	210	< 1.5	**65**	< 1	46	32	30
			20060	12000	< 0.8	< 5	50	< 0.5	< 0.8	4500	33	7	42	15000	12	2500	220	< 1.5	**64**	< 1	45	32	31
5030450 Green Space	J	0-5 cm (soil)	20061	13000	< 0.8	7	67	< 0.5	< 0.8	7000	42	11	**120**	17000	22	4100	290	< 1.5	**160**	1	47	35	43
			20062	14000	< 0.8	7	80	< 0.5	< 0.8	8600	45	11	**110**	18000	27	4000	280	< 1.5	**150**	1	49	38	61
		5-10 cm (soil)	20063	15000	< 0.8	8	68	< 0.5	< 0.8	6600	43	12	**110**	19000	23	3800	260	< 1.5	**150**	< 1	47	37	37
			20064	11000	< 0.8	7	53	< 0.5	< 0.8	4500	38	10	**100**	16000	26	3700	250	< 1.5	**120**	< 1	35	33	41
		10-20 cm (soil)	20065	12000	< 0.8	9	60	< 0.5	< 0.8	5000	37	12	**150**	18000	23	3200	260	< 1.5	**210**	1	43	34	40
			20066	12000	< 0.8	5	66	< 0.5	< 0.8	6400	45	14	**160**	19000	33	4100	280	< 1.5	**220**	1	41	35	46
5030451 Play Structure	K	0-15 cm (sand)	20067	6800	< 0.8	< 5	29	< 0.5	< 0.8	2800	28	11	39	15000	5	3800	210	< 1.5	41	< 1	26	33	24
			20068	6400	< 0.8	< 5	25	< 0.5	< 0.8	2500	28	10	38	15000	6	3700	190	< 1.5	39	< 1	23	30	24
5030457 Beach	Beach A	0-15 cm (sand)	20007	6000	< 0.8	< 5	20	< 0.5	< 0.8	3400	36	10	45	19000	8	3700	190	< 1.5	**78**	< 1	25	36	32
			20008	6000	< 0.8	< 5	18	< 0.5	< 0.8	3000	31	10	34	17000	8	4000	190	< 1.5	**63**	< 1	23	29	32
5030458 Beach	Beach B	0-15 cm (sand)	20009	6500	< 0.8	< 5	16	< 0.5	< 0.8	3200	32	11	28	17000	4	4500	210	< 1.5	**58**	< 1	25	30	27
			20010	6000	**2.2**	< 5	14	< 0.5	< 0.8	2900	29	10	27	16000	4	4400	200	< 1.5	**55**	< 1	22	27	25
5030459 Beach	Beach C	0-10 cm (sand)	20011	6100	< 0.8	< 5	18	< 0.5	< 0.8	2900	34	11	36	18000	4	3800	180	< 1.5	**61**	< 1	24	34	23
			20012	5800	< 0.8	< 5	18	< 0.5	< 0.8	2600	30	12	43	17000	4	3800	170	< 1.5	**77**	< 1	20	31	24
5030460 Beach	Beach D	0-15 cm (sand)	20013	7000	< 0.8	< 5	20	< 0.5	< 0.8	3500	32	10	33	19000	5	4400	210	< 1.5	**47**	< 1	28	36	27
			20014	7300	< 0.8	10	22	< 0.5	< 0.8	3700	32	10	32	18000	4	4300	210	< 1.5	**50**	< 1	28	33	26

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.3: Sudbury Core Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030461 Beach	Beach E	0-15 cm (sand)	20015	5900	< 0.8	< 5	18	< 0.5	< 0.8	2900	31	8	31	16000	5	3900	180	< 1.5	**47**	< 1	24	35	26
			20016	5900	< 0.8	< 5	17	< 0.5	< 0.8	2500	30	8	32	16000	5	4000	180	< 1.5	**49**	< 1	20	28	26
5030452 Green Space	L	0-5 cm (soil)	20069	9900	< 0.8	< 5	50	< 0.5	< 0.8	7100	33	10	**130**	14000	32	3400	230	< 1.5	**147**	**2**	41	29	45
			20070	10000	**1.5**	< 5	51	< 0.5	< 0.8	8300	34	9	**130**	15000	23	3500	230	< 1.5	**142**	**2**	43	30	44
		5-10 cm (soil)	20071	11000	< 0.8	< 5	46	< 0.5	< 0.8	6100	36	9	**78**	16000	16	3500	250	< 1.5	**100**	< 1	46	34	35
			20072	12000	< 0.8	5	48	< 0.5	< 0.8	5800	40	9	**84**	17000	19	3600	260	< 1.5	**112**	< 1	45	35	37
		10-20 cm (soil)	20073	12000	< 0.8	6	49	< 0.5	< 0.8	5800	37	10	**100**	17000	22	3400	250	< 1.5	**129**	< 1	45	34	42
			20074	11000	< 0.8	< 5	54	< 0.5	< 0.8	5300	36	11	**140**	17000	30	3300	230	< 1.5	**176**	< 1	40	32	41
5030453 Play Structure	M	0-10 cm (bark chips)	20075	2700	< 0.8	< 5	21	< 0.5	< 0.8	2100	12	4	43	6200	5	1500	110	< 1.5	40	< 1	14	12	18
			20076	3400	< 0.8	8	27	< 0.5	< 0.8	2700	14	4	**58**	7100	6	1400	120	< 1.5	**48**	< 1	18	13	23
5030454 Play Structure	N	0-10 cm (bark chips)	20077	7600	< 0.8	< 5	35	< 0.5	< 0.8	5600	22	6	**64**	11000	8	3100	190	< 1.5	**57**	1.1	20	7	27
			20078	9800	< 0.8	< 5	61	< 0.5	< 0.8	6500	38	9	**100**	14000	12	4000	330	< 1.5	**83**	1.2	33	14	45
5030455 Green Space	O	0-5 cm (soil)	20079	15000	**1.1**	**41**	130	< 0.5	**2.5**	7400	51	**100**	**1500**	46000	**142**	3400	590	< 1.5	**3230**	**8**	50	36	130
			20080	16000	**1.1**	**45**	140	< 0.5	**3**	8000	50	**100**	**1800**	46000	**156**	3600	690	2.3	**3284**	**11**	51	34	140
		5-10 cm (soil)	20081	24000	< 0.8	**17**	180	< 0.5	0.9	4800	**68**	18	**330**	23000	41	4500	510	< 1.5	**398**	**2**	49	46	120
			20082	20000	< 0.8	< 5	130	< 0.5	1	4900	49	**26**	**470**	23000	37	4100	500	< 1.5	**594**	**2**	52	40	83
		10-20 cm (soil)	20083	23000	< 0.8	< 5	130	< 0.5	< 0.8	4500	56	9	45	20000	8	5000	370	< 1.5	**82**	< 1	51	45	66
			20084	22000	< 0.8	9	120	< 0.5	< 0.8	4400	50	9	**74**	20000	8	5000	290	< 1.5	**90**	< 1	56	44	56
5030456 Green Space	P	0-5 cm (soil)	20085	15000	< 0.8	**60**	98	< 0.5	0.9	2900	38	**48**	**940**	30000	**94**	2500	280	< 1.5	**1215**	**4**	35	32	63
			20086	11000	0.9	**58**	110	< 0.5	**1.3**	3000	34	**56**	**1300**	32000	**115**	2200	370	< 1.5	**1513**	**5**	32	29	68
		5-10 cm (soil)	20087	16000	< 0.8	**17**	67	< 0.5	< 0.8	1800	36	13	**240**	18000	18	2600	270	< 1.5	**145**	1	25	30	44
			20088	13000	< 0.8	12	62	< 0.5	< 0.8	1900	30	9	**140**	15000	14	2200	190	< 1.5	**103**	< 1	27	27	40
		10-20 cm (soil)	20089	17000	< 0.8	6	59	< 0.5	< 0.8	2000	40	10	**78**	18000	7	3200	200	< 1.5	**55**	< 1	28	32	40
			20090	17000	< 0.8	6	57	< 0.5	< 0.8	2200	39	9	**68**	17000	7	3000	180	< 1.5	**60**	< 1	33	32	38
Brebeuf Park, Corner of Kathleen & Notre Dame																							
5030703 Baseball Infield	A	0-5 cm (soil)	19278	8400	< 0.8	< 5	66	< 0.5	< 0.8	131000	23	8	**88**	12000	11	24000	160	2	**135**	< 1	270	17	25
			19279	9700	< 0.8	< 5	67	< 0.5	< 0.8	140000	25	9	**79**	13000	12	25000	160	2.1	**148**	< 1	270	18	24

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.3: Sudbury Core Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030704 Baseball Outfield	B	0-5 cm (soil)	19280	12000	< 0.8	< 5	56	< 0.5	< 0.8	12000	31	11	**140**	14000	27	6400	170	< 1.5	**203**	< 1	47	28	35
			19281	11000	< 0.8	< 5	53	< 0.5	< 0.8	11000	29	10	**160**	14000	31	5600	190	< 1.5	**205**	1	46	27	35
		5-10 cm (soil)	19282	12000	< 0.8	< 5	44	< 0.5	< 0.8	4100	30	8	**74**	14000	12	2700	170	< 1.5	**111**	< 1	41	30	27
			19283	13000	< 0.8	< 5	52	< 0.5	< 0.8	4500	31	8	**71**	14000	11	2700	190	< 1.5	**97**	< 1	43	31	28
		10-20 cm (soil)	19284	11000	< 0.8	7	54	< 0.5	< 0.8	3500	31	10	**110**	15000	20	2800	200	< 1.5	**191**	< 1	36	30	29
			19285	11000	< 0.8	7	55	< 0.5	< 0.8	3400	30	10	**110**	16000	18	2800	190	< 1.5	**167**	< 1	35	30	29
5030705 Soccer Field	C	0-5 cm (soil)	19286	11000	< 0.8	< 5	55	< 0.5	< 0.8	7200	28	8	**92**	14000	20	3400	180	< 1.5	**116**	< 1	37	28	28
			19287	11000	< 0.8	< 5	40	< 0.5	< 0.8	8000	28	8	**99**	14000	22	3800	170	< 1.5	**117**	< 1	37	28	28
		5-10 cm (soil)	19288	12000	< 0.8	< 5	38	< 0.5	< 0.8	3600	30	7	45	16000	9	2800	160	< 1.5	**63**	< 1	31	30	22
			19289	12000	< 0.8	< 5	38	< 0.5	< 0.8	3600	30	7	43	15000	8	2700	170	< 1.5	**62**	< 1	33	31	21
		10-20 cm (soil)	19290	11000	< 0.8	< 5	50	< 0.5	< 0.8	3400	30	7	41	15000	10	2900	170	< 1.5	**64**	< 1	32	30	24
			19291	12000	< 0.8	< 5	47	< 0.5	< 0.8	3100	31	8	36	16000	7	3000	170	< 1.5	**53**	< 1	30	31	23
Elm West Playground, 550 White Ave.																							
5030554 Baseball Infield	A	0-5 cm (soil)	20457	9800	< 0.8	< 5	46	< 0.5	< 0.8	12000	37	10	45	18000	9	6800	270	< 1.5	**55**	1	73	36	34
			20458	9800	< 0.8	< 5	45	< 0.5	< 0.8	12000	36	10	45	19000	9	6800	280	< 1.5	**58**	< 1	72	36	34
5030555 Baseball Outfield	B	0-5 cm (soil)	20459	10000	< 0.8	8	47	< 0.5	< 0.8	8300	32	17	**260**	16000	23	5200	180	< 1.5	**350**	< 1	43	32	83
			20460	9900	< 0.8	7	41	< 0.5	< 0.8	10000	31	15	**210**	14000	21	5200	210	< 1.5	**300**	< 1	52	28	52
		5-10 cm (soil)	20461	12000	< 0.8	11	67	< 0.5	< 0.8	4000	38	12	**170**	18000	14	3900	200	< 1.5	**230**	1	37	36	36
			20462	11000	< 0.8	8	53	< 0.5	< 0.8	5300	32	13	**200**	16000	16	3900	170	< 1.5	**280**	< 1	37	32	40
		10-20 cm (soil)	20463	11000	< 0.8	10	64	< 0.5	< 0.8	3600	35	11	**130**	17000	11	3500	200	< 1.5	**180**	< 1	36	32	32
			20464	11000	< 0.8	10	66	< 0.5	< 0.8	3400	34	12	**130**	17000	13	3600	190	< 1.5	**210**	< 1	33	32	32
5030556 Baseball Infield	C	0-5 cm (soil)	20465	11000	< 0.8	< 5	44	< 0.5	< 0.8	7500	37	9	40	20000	9	6100	280	< 1.5	38	< 1	53	40	38
			20466	11000	< 0.8	< 5	44	< 0.5	< 0.8	7900	38	9	37	19000	9	6100	280	< 1.5	41	< 1	54	38	37
5030557 Baseball Outfield	D	0-5 cm (soil)	20467	12000	< 0.8	10	59	< 0.5	< 0.8	11000	36	14	**250**	17000	22	7300	200	< 1.5	**260**	**2**	47	32	41
			20468	12000	< 0.8	7	55	< 0.5	< 0.8	8600	34	10	**170**	16000	17	5000	200	< 1.5	**160**	1	48	32	54
		5-10 cm (soil)	20469	13000	< 0.8	8	77	< 0.5	< 0.8	4100	41	11	**130**	19000	13	4300	240	< 1.5	**160**	< 1	37	36	38
			20470	18000	< 0.8	7	110	< 0.5	< 0.8	5800	51	13	**130**	23000	13	5500	290	< 1.5	**180**	1	49	46	42
		10-20 cm (soil)	20471	21000	< 0.8	6	130	< 0.5	< 0.8	4400	53	11	**100**	22000	11	5200	280	< 1.5	**140**	< 1	50	46	41
			20472	14000	< 0.8	6	79	< 0.5	< 0.8	3700	38	10	**110**	18000	10	3600	210	< 1.5	**150**	< 1	40	34	32
5030558 Play Structure	E	0-5 cm (sand)	20473	8200	< 0.8	< 5	36	< 0.5	< 0.8	3700	31	8	32	16000	4	3500	200	< 1.5	36	< 1	33	34	24
			20474	6600	< 0.8	< 5	25	< 0.5	< 0.8	3300	28	7	29	15000	3	3400	180	< 1.5	32	< 1	27	32	22

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.3: Sudbury Core Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Lawson St. Playground, Fraser St.																							
5030953 Green Space	A	0-5 cm (soil)	21743	13000	< 0.8	< 5	72	< 0.5	< 0.8	6400	41	17	**230**	17000	26	4500	230	< 1.5	**278**	1	42	34	49
			21744	13000	< 0.8	< 5	69	< 0.5	< 0.8	8200	43	17	**240**	18000	29	5200	240	< 1.5	**286**	1	44	35	44
		5-10 cm (soil)	21745	14000	< 0.8	< 5	77	< 0.5	< 0.8	8400	42	12	**120**	18000	14	5900	240	< 1.5	**142**	< 1	44	36	41
			21746	13000	< 0.8	< 5	70	< 0.5	< 0.8	7100	40	13	**120**	17000	18	5000	230	< 1.5	**175**	< 1	43	34	44
		10-20 cm (soil)	21747	15000	< 0.8	< 5	100	< 0.5	< 0.8	8800	41	14	**72**	17000	20	6500	230	< 1.5	**186**	< 1	40	36	32
			21748	11000	< 0.8	< 5	73	< 0.5	< 0.8	8400	34	8	51	15000	10	5600	220	< 1.5	**54**	< 1	38	31	27
5030954 Play Structure	B	0-5 cm (sand)	21749	6600	< 0.8	5	31	< 0.5	< 0.8	2700	29	12	46	16000	5	3800	220	< 1.5	42	< 1	24	38	23
			21750	6700	< 0.8	5	32	< 0.5	< 0.8	2800	29	11	52	17000	5	4000	230	< 1.5	**49**	< 1	23	38	24
Little Britain Tot Lot, Granite St.																							
5030701 Play Structure	A	0-5 cm (sand)	19274	6800	< 0.8	6	32	< 0.5	< 0.8	2700	35	12	**110**	15000	10	3800	200	< 1.5	**111**	< 1	26	28	29
			19275	6700	< 0.8	11	31	< 0.5	< 0.8	2500	34	12	**120**	15000	10	3900	200	< 1.5	**114**	< 1	24	27	29
5030702 Play Structure	B	0-5 cm (sand)	19276	6500	< 0.8	< 5	24	< 0.5	< 0.8	2700	30	10	52	16000	5	3800	200	< 1.5	**55**	< 1	23	33	23
			19277	5900	< 0.8	< 5	22	< 0.5	< 0.8	2300	27	8	50	15000	12	3800	190	< 1.5	**145**	< 1	18	30	23
Melvin Ave. And Mabel St. Playground, Corner of Melvin Ave. And Mabel St.																							
5030576 Green Space	A	0-5 cm (soil)	20537	8100	< 0.8	5	28	< 0.5	< 0.8	3100	26	8	**85**	13000	20	2200	160	< 1.5	**120**	< 1	29	26	40
			20538	8600	< 0.8	< 5	36	< 0.5	< 0.8	3300	25	7	**62**	13000	12	2300	160	< 1.5	**84**	< 1	30	25	31
		5-10 cm (soil)	20539	8700	< 0.8	< 5	24	< 0.5	< 0.8	2600	23	5	43	13000	11	1600	150	< 1.5	**54**	< 1	25	26	24
			20540	9600	< 0.8	< 5	28	< 0.5	< 0.8	3000	25	6	44	13000	14	1800	140	< 1.5	**64**	< 1	29	26	25
		10-20 cm (soil)	20541	8600	< 0.8	6	32	< 0.5	< 0.8	2400	23	6	**57**	13000	43	1800	150	< 1.5	**81**	< 1	24	25	45
			20542	9200	< 0.8	7	37	< 0.5	< 0.8	2500	25	7	**93**	15000	20	1900	160	< 1.5	**110**	< 1	27	26	46
5030577 Play Structure	B	0-5 cm (sand)	20543	6500	< 0.8	< 5	22	< 0.5	< 0.8	3000	32	9	32	17000	7	3700	180	< 1.5	39	< 1	23	33	25
			20544	5900	< 0.8	< 5	20	< 0.5	< 0.8	2600	30	8	30	16000	5	3600	170	< 1.5	40	< 1	19	32	25
Memorial Park, Corner of Minto & Brady St.																							
5030711 Green Space	A	0-5 cm (soil)	19306	5800	< 0.8	< 5	39	< 0.5	< 0.8	2800	28	8	45	14000	1	3400	170	< 1.5	24	< 1	29	30	24
			19307	5600	< 0.8	< 5	31	< 0.5	< 0.8	2700	30	8	46	14000	1	3300	200	< 1.5	25	< 1	37	28	28
5030712 Green Space	B	0-5 cm (soil)	19308	4000	< 0.8	< 5	18	< 0.5	< 0.8	3000	22	7	19	13000	3	3000	140	< 1.5	27	< 1	13	28	13
			19309	4200	< 0.8	< 5	17	< 0.5	< 0.8	3000	22	6	17	12000	3	3000	140	< 1.5	24	< 1	14	27	13
5030713 Green Space	C	0-5 cm (soil)	19310	8800	< 0.8	6	38	< 0.5	< 0.8	4500	32	10	**110**	14000	26	2900	200	< 1.5	**120**	1	32	27	32
			19311	7900	< 0.8	< 5	38	< 0.5	< 0.8	4300	29	11	**83**	14000	26	3100	210	< 1.5	**98**	1	23	25	33
		5-10 cm (soil)	19312	9200	< 0.8	6	41	< 0.5	< 0.8	5800	31	13	**120**	16000	30	3200	200	< 1.5	**160**	1	34	28	36
			19313	9700	< 0.8	< 5	44	< 0.5	< 0.8	5700	34	11	**78**	16000	24	3500	230	< 1.5	**96**	< 1	33	30	37
		10-20 cm (soil)	19314	8100	< 0.8	6	38	< 0.5	< 0.8	4400	29	16	**140**	16000	36	2800	190	< 1.5	**180**	< 1	27	25	39
			19315	8800	< 0.8	< 5	49	< 0.5	< 0.8	5800	32	12	**97**	16000	34	3600	220	< 1.5	**130**	1	31	28	38
5030714 Green Space	D	0-5 cm (soil)	19316	7100	< 0.8	10	39	< 0.5	0.8	4400	32	14	**240**	14000	**56**	2600	190	< 1.5	**260**	**3**	23	24	38

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.3: Sudbury Core Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
			19317	8400	< 0.8	7	42	< 0.5	< 0.8	4900	31	12	**140**	15000	30	3000	210	< 1.5	**170**	**2**	29	26	37
		5-10 cm (soil)	19318	7600	< 0.8	7	29	< 0.5	< 0.8	3900	26	9	**130**	12000	27	2100	170	< 1.5	**170**	1	30	25	27
			19319	11000	< 0.8	6	47	< 0.5	< 0.8	6000	33	8	**100**	14000	21	2600	200	< 1.5	**130**	1	44	30	30
		0-5 cm (soil)	19320	10000	< 0.8	6	47	< 0.5	< 0.8	6800	33	10	**130**	15000	43	2800	220	< 1.5	**180**	1	44	30	34
			19321	10000	< 0.8	< 5	48	< 0.5	< 0.8	6400	33	9	**82**	15000	25	3000	260	< 1.5	**110**	1	43	30	31
5030715 Green Space	E	5-10 cm (soil)	19322	10000	< 0.8	7	47	< 0.5	< 0.8	7000	34	12	**140**	15000	39	2800	220	< 1.5	**210**	1	43	31	34
			19323	9400	< 0.8	6	41	< 0.5	< 0.8	6000	33	10	**110**	14000	38	2800	220	< 1.5	**160**	1	40	29	30
		10-20 cm (soil)	19324	8500	< 0.8	6	36	< 0.5	< 0.8	4900	26	8	**79**	13000	24	2400	200	< 1.5	**120**	< 1	35	27	29
			19325	8200	< 0.8	5	35	< 0.5	< 0.8	4400	26	8	**77**	12000	21	2200	210	< 1.5	**130**	< 1	30	26	27
Nolin Creek Park, Beatty and McNeil St.																							
		0-5 cm (soil)	20493	11000	< 0.8	6	41	< 0.5	< 0.8	5600	36	8	**71**	16000	16	3400	250	< 1.5	**80**	< 1	40	32	39
			20494	11000	< 0.8	6	44	< 0.5	< 0.8	6100	37	10	**67**	16000	20	3600	260	< 1.5	**100**	< 1	43	34	39
5030564 Green Space	A	5-10 cm (soil)	20495	10000	< 0.8	7	42	< 0.5	< 0.8	5900	35	9	**89**	15000	16	3700	240	< 1.5	**91**	< 1	36	31	38
			20496	11000	< 0.8	5	42	< 0.5	< 0.8	6100	36	9	**63**	16000	20	3700	260	< 1.5	**84**	< 1	38	32	38
		10-20 cm (soil)	20497	10000	< 0.8	< 5	42	< 0.5	< 0.8	6000	35	13	**78**	16000	36	3700	240	< 1.5	**110**	< 1	35	31	41
			20498	11000	< 0.8	< 5	48	< 0.5	< 0.8	7900	38	11	**94**	17000	27	4200	250	< 1.5	**110**	< 1	40	32	39
O'Connor Park (Better Beginnings), 140 St. George St.																							
5030578 Play Structure	A	0-5 cm (sand)	20545	5500	< 0.8	< 5	20	< 0.5	< 0.8	2100	28	8	28	14000	3	3700	180	< 1.5	43	< 1	16	27	20
			20546	6500	< 0.8	< 5	26	< 0.5	< 0.8	2800	30	9	33	16000	4	3700	200	< 1.5	42	< 1	23	35	22
5030579 Play Area	B	0-5 cm (sand)	20547	7200	< 0.8	< 5	24	< 0.5	< 0.8	3500	31	9	29	16000	4	3600	190	< 1.5	32	< 1	28	31	21
			20548	9300	< 0.8	< 5	38	< 0.5	< 0.8	4500	36	8	28	16000	3	3800	210	< 1.5	27	< 1	37	35	23
5030580 Green Space	C	0-5 cm (soil)	20549	11000	< 0.8	6	55	< 0.5	< 0.8	7700	33	10	**150**	15000	28	3600	220	< 1.5	**190**	**2**	42	30	38
			20550	12000	< 0.8	6	53	< 0.5	< 0.8	8300	36	11	**150**	15000	26	3600	220	< 1.5	**190**	**2**	42	30	39
		5-10 cm (soil)	20551	13000	< 0.8	5	54	< 0.5	< 0.8	7600	36	8	**92**	16000	18	3300	230	< 1.5	**130**	< 1	45	32	39
			20552	13000	< 0.8	6	54	< 0.5	< 0.8	6800	36	10	**100**	16000	21	3000	230	< 1.5	**160**	< 1	44	31	36
		10-20 cm (soil)	20553	14000	< 0.8	7	47	< 0.5	< 0.8	6900	35	4	**99**	18000	11	3700	220	< 1.5	**60**	**3**	39	31	36
			20554	15000	< 0.8	8	41	< 0.5	< 0.8	6900	30	4	**140**	21000	13	3900	190	< 1.5	**82**	1	34	28	38
5030581 Green Space	D	0-5 cm (soil)	20555	14000	< 0.8	7	49	< 0.5	< 0.8	7800	38	5	**180**	20000	14	4500	280	< 1.5	**76**	**2**	43	35	73
			20556	15000	< 0.8	6	46	< 0.5	< 0.8	9100	35	5	**170**	20000	17	5100	270	< 1.5	**83**	**2**	43	32	66
		5-10 cm (soil)	20557	14000	< 0.8	5	41	< 0.5	< 0.8	5300	32	3	**75**	17000	8	3100	230	< 1.5	41	< 1	41	33	43
			20558	16000	< 0.8	< 5	45	< 0.5	< 0.8	5900	34	3	**80**	19000	8	3600	240	< 1.5	39	< 1	42	34	53
		10-20 cm (soil)	20559	14000	< 0.8	< 5	51	< 0.5	< 0.8	5600	32	4	**95**	18000	12	3300	240	< 1.5	**60**	< 1	41	31	40
			20560	17000	< 0.8	5	54	< 0.5	< 0.8	6300	36	3	**75**	20000	12	3700	280	< 1.5	38	< 1	46	35	55

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.3: Sudbury Core Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Participaction Projects Playground, Haig St.																							
5030552 Play Structure	A	0-5 cm (sand)	20449	8100	< 0.8	< 5	45	< 0.5	< 0.8	3200	27	8	33	14000	4	3700	190	< 1.5	34	< 1	29	29	20
			20450	6700	< 0.8	< 5	32	< 0.5	< 0.8	3400	25	8	47	14000	4	3700	190	< 1.5	38	< 1	25	27	20
5030553 Green Space	B	0-5 cm (soil)	20451	10000	< 0.8	< 5	45	< 0.5	< 0.8	4000	29	8	**89**	13000	10	3000	160	< 1.5	**110**	< 1	34	27	25
			20452	9600	< 0.8	< 5	37	< 0.5	< 0.8	4900	29	8	**78**	14000	9	3300	160	< 1.5	**99**	< 1	36	29	26
		5-10 cm (soil)	20453	9600	< 0.8	< 5	37	< 0.5	< 0.8	3300	30	6	20	14000	4	3000	150	< 1.5	32	< 1	33	29	17
			20454	7900	< 0.8	< 5	27	< 0.5	< 0.8	2600	27	7	23	12000	4	2800	140	< 1.5	35	< 1	26	25	18
		10-20 cm (soil)	20455	7700	< 0.8	< 5	36	< 0.5	< 0.8	2600	26	8	26	13000	5	2800	150	< 1.5	**45**	< 1	25	24	19
			20456	6900	< 0.8	< 5	24	< 0.5	< 0.8	2300	24	7	22	12000	4	2600	130	< 1.5	35	< 1	22	23	16
Percy Playground, 600 Percy Ave.																							
5030591 Play Structure	A	0-5 cm (sand)	20595	6800	< 0.8	< 5	22	< 0.5	< 0.8	3400	27	9	28	15000	5	3900	190	< 1.5	30	< 1	25	33	23
			20596	6900	< 0.8	< 5	21	< 0.5	< 0.8	3400	28	8	29	16000	3	3900	190	< 1.5	32	< 1	24	32	22
5030592 Play Structure	B	0-5 cm (sand)	20597	6700	< 0.8	< 5	25	< 0.5	< 0.8	3000	28	10	40	16000	3	4000	200	< 1.5	**48**	< 1	23	28	27
			20598	7300	< 0.8	< 5	26	< 0.5	< 0.8	3400	30	10	39	17000	3	3900	200	< 1.5	**44**	< 1	26	33	29
5030593 Green Space	C	0-5 cm (soil)	20599	9600	< 0.8	5	30	< 0.5	< 0.8	5200	27	7	**70**	13000	10	2900	160	< 1.5	**90**	< 1	34	25	25
			20600	9900	< 0.8	< 5	32	< 0.5	< 0.8	5400	28	9	**88**	14000	17	3100	170	< 1.5	**130**	< 1	33	26	28
		5-10 cm (soil)	20601	8800	< 0.8	< 5	25	< 0.5	< 0.8	3000	23	5	23	12000	6	2100	120	< 1.5	38	< 1	20	22	18
			20602	8800	< 0.8	< 5	26	< 0.5	< 0.8	3600	24	5	22	11000	4	2100	120	< 1.5	39	< 1	28	24	18
		10-20 cm (soil)	20603	9300	< 0.8	< 5	35	< 0.5	< 0.8	4000	27	7	29	13000	7	2500	150	< 1.5	**48**	< 1	32	27	22
			20604	11000	< 0.8	< 5	38	< 0.5	< 0.8	5200	31	8	50	14000	13	2700	170	< 1.5	**87**	< 1	42	28	31
5030594 Green Space	D	0-5 cm (soil)	20605	16000	< 0.8	< 5	75	< 0.5	< 0.8	7300	48	11	**100**	19000	15	4700	270	< 1.5	**130**	< 1	52	39	46
			20606	15000	< 0.8	5	74	< 0.5	< 0.8	7900	44	13	**150**	19000	24	4700	290	< 1.5	**200**	1	50	37	49
		5-10 cm (soil)	20607	14000	< 0.8	< 5	62	< 0.5	< 0.8	7100	39	8	55	18000	9	4400	260	< 1.5	**67**	< 1	48	35	36
			20608	15000	< 0.8	< 5	68	< 0.5	< 0.8	7400	43	10	**62**	19000	12	4600	280	< 1.5	**86**	< 1	53	38	40
		10-20 cm (soil)	20609	14000	< 0.8	< 5	73	< 0.5	< 0.8	8200	43	11	47	18000	11	4900	260	< 1.5	**76**	< 1	49	35	39
			20610	14000	< 0.8	< 5	66	< 0.5	< 0.8	7800	42	7	52	19000	11	4700	270	< 1.5	**56**	< 1	50	38	37
5030595 Green Space	E	0-5 cm (soil)	20611	9400	< 0.8	6	38	< 0.5	< 0.8	5000	29	14	**150**	16000	26	3000	190	< 1.5	**220**	< 1	36	28	45
			20612	7900	< 0.8	7	42	< 0.5	< 0.8	4800	29	**20**	**220**	16000	32	3300	200	< 1.5	**330**	1	31	28	62
		5-10 cm (soil)	20613	8900	< 0.8	< 5	38	< 0.5	< 0.8	3800	26	9	**78**	15000	12	2600	160	< 1.5	**120**	< 1	30	27	36
			20614	9600	< 0.8	< 5	40	< 0.5	< 0.8	4500	27	10	**100**	16000	13	2900	170	< 1.5	**140**	< 1	34	30	34
		10-20 cm (soil)	20615	8700	**2.8**	< 5	39	< 0.5	< 0.8	6900	28	7	37	13000	6	3900	180	< 1.5	**56**	< 1	33	27	38
			20616	10000	< 0.8	6	48	< 0.5	< 0.8	5500	30	9	**77**	15000	12	3500	200	< 1.5	**89**	< 1	34	28	35

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.3: Sudbury Core Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Queen's Athletic Field, 30 Regent Street																							
5030559 Green Space	A	0-5 cm (soil)	20475	8600	< 0.8	< 5	22	< 0.5	< 0.8	2300	22	5	46	12000	9	2000	120	< 1.5	**55**	< 1	26	24	20
			20476	8300	< 0.8	< 5	27	< 0.5	< 0.8	2400	21	6	**90**	12000	13	2000	130	< 1.5	**92**	< 1	24	23	23
		5-10 cm (soil)	20477	8100	< 0.8	< 5	23	< 0.5	< 0.8	1900	23	6	42	13000	10	2300	160	< 1.5	**50**	1	22	25	21
			20478	8600	< 0.8	< 5	23	< 0.5	< 0.8	2100	24	7	48	13000	8	2400	170	< 1.5	**57**	1	25	25	22
		10-20 cm (soil)	20479	7300	< 0.8	< 5	26	< 0.5	< 0.8	2000	23	7	38	13000	15	2500	160	< 1.5	**53**	< 1	23	24	21
			20480	8200	< 0.8	< 5	28	< 0.5	< 0.8	2200	23	8	50	13000	10	2400	170	< 1.5	**68**	< 1	26	26	23
5030560 Play Structure	B	0-5 cm (sand)	20481	6100	< 0.8	< 5	21	< 0.5	< 0.8	2300	26	8	26	15000	3	3300	170	< 1.5	25	< 1	22	28	19
			20482	6400	< 0.8	< 5	21	< 0.5	< 0.8	2400	26	8	22	15000	3	3300	180	< 1.5	24	< 1	26	27	18
5030561 Soccer Field	C	0-5 cm (soil)	20483	5000	< 0.8	< 5	21	< 0.5	< 0.8	2700	20	5	33	11000	4	2300	130	< 1.5	42	< 1	24	23	15
			20484	4300	< 0.8	< 5	17	< 0.5	< 0.8	2200	19	5	30	9900	3	2200	110	< 1.5	36	1	18	21	14
		5-10 cm (soil)	20485	4400	< 0.8	< 5	17	< 0.5	< 0.8	2000	17	4	12	9400	2	2100	110	< 1.5	18	< 1	18	21	12
			20486	5200	< 0.8	< 5	20	< 0.5	< 0.8	2300	18	5	15	10000	2	2200	120	< 1.5	21	< 1	23	23	12
		10-20 cm (soil)	20487	5600	< 0.8	< 5	22	< 0.5	< 0.8	2400	20	4	11	11000	2	2200	140	< 1.5	16	< 1	25	24	13
			20488	5200	< 0.8	< 5	19	< 0.5	< 0.8	2200	18	4	11	11000	2	2200	120	< 1.5	15	< 1	24	23	14
5030562 Soccer Field	D	0-5 cm (soil)	20489	7500	< 0.8	< 5	33	< 0.5	< 0.8	4500	23	7	52	13000	7	2700	180	< 1.5	**57**	1	33	26	22
			20490	8600	< 0.8	< 5	41	< 0.5	< 0.8	4500	26	7	46	13000	7	2700	190	< 1.5	**57**	< 1	35	29	24
5030563 Soccer Field	E	0-5 cm (soil)	20491	9200	< 0.8	< 5	44	< 0.5	< 0.8	5200	28	7	51	14000	8	3100	200	< 1.5	**60**	< 1	37	31	26
			20492	7700	< 0.8	< 5	36	< 0.5	< 0.8	4700	24	7	56	13000	8	2900	190	< 1.5	**63**	< 1	33	28	25
Riverdale Park, 199 York St.																							
5030706 Play Structure	A	0-5 cm (sand)	19292	6400	< 0.8	< 5	26	< 0.5	< 0.8	2900	26	10	40	16000	7	3800	200	< 1.5	38	< 1	25	33	25
			19293	7000	< 0.8	< 5	29	< 0.5	< 0.8	3200	29	11	46	18000	7	3900	220	< 1.5	**45**	< 1	27	39	26
5030707 Green Space	B	0-5 cm (soil)	19294	5800	< 0.8	6	26	< 0.5	< 0.8	2100	24	13	**140**	16000	26	3000	140	< 1.5	**200**	1	19	24	26
			19295	6200	< 0.8	8	28	< 0.5	< 0.8	2400	26	14	**150**	17000	28	3100	150	< 1.5	**218**	1	21	25	25
Ryan Heights Playground, 1 Ryan Heights																							
5030574 Green Space	A	0-5 cm (soil)	20529	12000	< 0.8	5	73	< 0.5	0.9	6200	38	18	**210**	20000	30	3800	230	< 1.5	**260**	**2**	37	36	140
			20530	12000	< 0.8	< 5	80	< 0.5	0.8	6100	40	17	**180**	19000	28	3900	230	< 1.5	**240**	1	38	34	89
		5-10 cm (soil)	20531	11000	< 0.8	5	58	< 0.5	< 0.8	5900	35	12	**130**	20000	13	3600	270	< 1.5	**130**	< 1	36	40	74
			20532	9400	< 0.8	< 5	50	< 0.5	< 0.8	5100	32	11	**110**	17000	15	3600	180	< 1.5	**130**	< 1	30	32	41
		10-20 cm (soil)	20533	9800	< 0.8	6	53	< 0.5	< 0.8	5200	32	11	**100**	18000	14	3400	170	< 1.5	**120**	< 1	30	37	37
			20534	9600	< 0.8	< 5	56	< 0.5	< 0.8	5800	32	12	**96**	17000	19	3800	180	< 1.5	**130**	< 1	30	32	35
5030575 Play Structure	B	0-5 cm (sand)	20535	5900	< 0.8	< 5	23	< 0.5	< 0.8	2400	28	8	25	15000	3	3600	180	< 1.5	30	< 1	18	30	22
			20536	5600	< 0.8	< 5	23	< 0.5	< 0.8	2400	31	8	27	16000	3	3400	180	< 1.5	33	< 1	18	39	23
Selkirk Field, Burton & Selkirk Streets																							
5030568 Play Structure	A	0-5 cm (sand)	20509	8500	< 0.8	< 5	38	< 0.5	< 0.8	3400	38	11	48	18000	6	4100	230	< 1.5	**56**	< 1	29	38	28

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.3: Sudbury Core Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
			20510	7900	< 0.8	< 5	33	< 0.5	< 0.8	3300	29	11	41	18000	4	3900	230	< 1.5	39	< 1	28	40	25
5030569 Play Structure	B	0-5 cm (sand)	20511	9300	< 0.8	< 5	42	< 0.5	< 0.8	3700	35	13	**67**	19000	7	4500	240	< 1.5	**69**	< 1	32	40	29
			20512	9200	< 0.8	5	40	< 0.5	< 0.8	3600	36	14	**75**	19000	8	4400	240	< 1.5	**85**	< 1	32	41	30
5030570 Baseball Infield	C	0-5 cm (soil)	20513	9800	< 0.8	< 5	48	< 0.5	< 0.8	11000	30	5	27	14000	4	5700	220	< 1.5	36	< 1	87	28	25
			20514	7600	< 0.8	< 5	36	< 0.5	< 0.8	9900	26	6	28	13000	4	5600	200	< 1.5	35	< 1	82	26	25
5030571 Baseball Outfield	D	0-5 cm (soil)	20515	8600	< 0.8	< 5	23	< 0.5	< 0.8	4900	25	6	49	12000	8	2900	150	< 1.5	**70**	< 1	31	25	20
			20516	9200	< 0.8	< 5	24	< 0.5	< 0.8	4800	26	8	53	12000	10	2700	160	< 1.5	**80**	< 1	31	25	21
		5-10 cm (soil)	20517	7700	< 0.8	< 5	21	< 0.5	< 0.8	3400	24	6	23	11000	6	2200	130	< 1.5	36	< 1	26	23	15
			20518	9100	< 0.8	< 5	24	< 0.5	< 0.8	4100	27	6	29	13000	6	2400	160	< 1.5	**44**	< 1	35	27	17
		10-20 cm (soil)	20519	7600	< 0.8	< 5	25	< 0.5	< 0.8	4600	27	7	42	13000	8	2900	160	< 1.5	**57**	< 1	30	26	19
			20520	8100	< 0.8	< 5	26	< 0.5	< 0.8	4100	26	8	35	12000	8	2500	160	< 1.5	**58**	< 1	31	26	19
5030572 Green Space	E	0-5 cm (soil)	20521	11000	< 0.8	< 5	52	< 0.5	< 0.8	4900	32	13	**110**	18000	26	3400	240	< 1.5	**150**	< 1	36	32	39
			20522	12000	< 0.8	< 5	67	< 0.5	< 0.8	4700	38	**22**	**130**	21000	34	3900	250	< 1.5	**190**	< 1	37	34	52
		5-10 cm (soil)	20523	9900	< 0.8	< 5	41	< 0.5	< 0.8	4300	29	11	**94**	16000	20	3400	180	< 1.5	**130**	< 1	28	30	33
			20524	11000	< 0.8	5	56	< 0.5	< 0.8	5100	34	13	**96**	18000	21	4100	220	< 1.5	**130**	< 1	36	33	39
		10-20 cm (soil)	20525	9900	< 0.8	< 5	36	< 0.5	< 0.8	5200	27	8	**63**	14000	11	3200	180	< 1.5	**74**	< 1	34	30	25
			20526	14000	< 0.8	< 5	63	< 0.5	< 0.8	6500	36	12	**76**	19000	14	4200	220	< 1.5	**100**	< 1	44	36	33
Terry Fox Complex, 17 Lasalle Blvd																							
5030582 Baseball Infield	A	0-5 cm (soil)	20561	11000	< 0.8	< 5	54	< 0.5	< 0.8	27000	27	5	39	17000	6	14000	210	< 1.5	38	< 1	240	27	25
			20562	9800	< 0.8	< 5	54	< 0.5	< 0.8	27000	26	3	39	15000	4	15000	210	< 1.5	25	< 1	240	26	24
5030583 Baseball Outfield	B	0-5 cm (soil)	20563	15000	< 0.8	6	61	< 0.5	< 0.8	16000	45	6	**200**	20000	15	8700	280	< 1.5	**110**	**2**	59	35	46
			20564	20000	< 0.8	5	60	< 0.5	< 0.8	16000	50	5	**190**	24000	12	9800	290	< 1.5	**82**	1	60	40	47
		5-10 cm (soil)	20565	18000	< 0.8	6	69	< 0.5	< 0.8	9200	58	10	**110**	23000	13	6600	280	< 1.5	**120**	< 1	57	44	50
			20566	19000	< 0.8	6	65	< 0.5	< 0.8	10000	58	9	**120**	24000	12	7200	290	< 1.5	**110**	< 1	57	44	50
		10-20 cm (soil)	20567	21000	< 0.8	7	81	< 0.5	< 0.8	11000	64	6	**120**	25000	9	7400	300	< 1.5	**86**	< 1	62	48	53
			20568	18000	< 0.8	6	68	< 0.5	< 0.8	9800	55	9	**97**	22000	12	6700	270	< 1.5	**120**	< 1	54	42	46
5030584 Baseball Infield	C	0-5 cm (soil)	20569	12000	< 0.8	< 5	76	< 0.5	< 0.8	27000	33	4	54	19000	5	15000	260	< 1.5	31	< 1	300	34	32
			20570	12000	< 0.8	< 5	70	< 0.5	< 0.8	27000	31	3	55	19000	4	15000	240	< 1.5	24	< 1	310	32	29
5030585 Baseball Outfield	D	0-5 cm (soil)	20571	11000	< 0.8	5	48	< 0.5	1	11000	36	12	**150**	16000	30	5900	240	< 1.5	**200**	**2**	47	28	39
			20572	11000	< 0.8	5	48	< 0.5	**1.1**	11000	36	12	**150**	15000	25	5800	230	< 1.5	**200**	**2**	46	28	40
		5-10 cm (soil)	20573	13000	< 0.8	7	47	< 0.5	< 0.8	6900	41	10	**110**	18000	16	4100	220	< 1.5	**150**	1	44	33	40
			20574	12000	< 0.8	6	47	< 0.5	< 0.8	6600	42	10	**99**	17000	16	4300	220	< 1.5	**160**	1	40	33	41
		10-20 cm (soil)	20575	11000	< 0.8	6	45	< 0.5	< 0.8	5000	39	10	**80**	17000	14	3800	200	< 1.5	**130**	< 1	28	29	36
			20576	14000	< 0.8	6	55	< 0.5	< 0.8	7200	45	11	**96**	19000	14	4500	260	< 1.5	**140**	< 1	50	38	45
5030586 Baseball Infield	E	0-5 cm (soil)	20577	7600	< 0.8	< 5	70	< 0.5	< 0.8	26000	24	8	48	13000	8	13000	210	< 1.5	**66**	< 1	240	26	27

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.3: Sudbury Core Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
			20578	8000	< 0.8	< 5	70	< 0.5	< 0.8	26000	25	8	48	14000	8	13000	220	1.5	**64**	< 1	230	27	28
5030587 Baseball Outfield	F	0-5 cm (soil)	20579	13000	< 0.8	6	59	< 0.5	< 0.8	11000	42	12	**150**	18000	20	6200	310	< 1.5	**180**	**2**	50	35	41
			20580	13000	< 0.8	5	58	< 0.5	0.9	11000	42	12	**130**	18000	21	6300	310	< 1.5	**190**	**2**	47	34	39
		5-10 cm (soil)	20581	17000	< 0.8	7	64	< 0.5	< 0.8	7800	56	12	**100**	23000	15	6200	360	< 1.5	**150**	1	50	42	51
			20582	17000	< 0.8	8	64	< 0.5	< 0.8	7600	56	14	**110**	23000	17	6200	360	< 1.5	**160**	< 1	48	42	54
		10-20 cm (soil)	20583	14000	< 0.8	8	58	< 0.5	< 0.8	6400	50	13	**97**	21000	15	5800	320	< 1.5	**150**	< 1	40	38	49
			20584	15000	< 0.8	8	60	< 0.5	< 0.8	6900	51	12	**92**	21000	14	5900	340	< 1.5	**140**	1	44	40	49
5030588 Baseball Infield	G	0-5 cm (soil)	20585	23000	< 0.8	6	200	0.5	< 0.8	46000	27	10	38	24000	6	14000	460	1.6	**56**	< 1	190	26	57
			20586	26000	< 0.8	7	200	0.6	< 0.8	52000	30	11	34	27000	6	17000	510	1.6	**55**	< 1	210	31	64
5030589 Baseball Outfield	H	0-5 cm (soil)	20587	13000	< 0.8	5	54	< 0.5	< 0.8	9300	43	10	**110**	17000	17	5300	300	< 1.5	**140**	1	51	38	40
			20588	12000	< 0.8	< 5	52	< 0.5	0.9	10000	40	10	**130**	17000	21	5700	300	< 1.5	**160**	1	47	34	39
		5-10 cm (soil)	20589	14000	< 0.8	< 5	56	< 0.5	< 0.8	7300	46	10	54	19000	12	4300	310	< 1.5	**89**	< 1	54	41	39
			20590	14000	< 0.8	< 5	54	< 0.5	< 0.8	7700	45	10	**62**	19000	14	4200	310	< 1.5	**100**	< 1	56	41	39
		10-20 cm (soil)	20591	14000	< 0.8	< 5	60	< 0.5	< 0.8	7100	46	9	45	19000	11	4200	340	< 1.5	**78**	< 1	52	39	36
			20592	12000	< 0.8	< 5	44	< 0.5	< 0.8	6200	39	9	45	17000	11	3800	310	< 1.5	**78**	< 1	48	36	35
5030590 Play Structure	I	0-5 cm (sand)	20593	5000	< 0.8	< 5	19	< 0.5	< 0.8	2400	29	8	32	16000	3	3300	170	< 1.5	43	< 1	18	34	27
			20594	5100	< 0.8	< 5	20	< 0.5	< 0.8	2400	27	8	34	15000	3	3200	160	< 1.5	43	< 1	18	34	25
Victory Playground, Frood Rd.																							
5030565 Green Space	A	0-5 cm (soil)	20499	7900	< 0.8	< 5	26	< 0.5	< 0.8	3900	26	7	**73**	13000	19	2600	150	< 1.5	**100**	< 1	28	24	29
			20500	8500	< 0.8	< 5	27	< 0.5	< 0.8	5100	26	7	**68**	13000	16	3000	160	< 1.5	**96**	< 1	30	26	30
		5-10 cm (soil)	20501	7400	< 0.8	< 5	26	< 0.5	< 0.8	2800	24	6	**60**	12000	16	2400	150	< 1.5	**69**	< 1	20	24	27
			20502	8700	< 0.8	< 5	27	< 0.5	< 0.8	3800	26	6	50	13000	12	2400	160	< 1.5	**71**	< 1	31	26	24
		10-20 cm (soil)	20503	6300	< 0.8	< 5	26	< 0.5	< 0.8	2400	22	6	52	12000	15	2400	140	< 1.5	**68**	< 1	22	22	24
			20504	8600	< 0.8	< 5	34	< 0.5	< 0.8	2900	25	6	45	12000	19	2100	160	< 1.5	**62**	< 1	26	24	29
5030566 Play Structure	B	0-5 cm (sand)	20505	7800	< 0.8	< 5	26	< 0.5	< 0.8	3600	34	11	36	19000	7	4500	220	< 1.5	37	< 1	27	34	27
			20506	7300	< 0.8	6	25	< 0.5	< 0.8	3200	34	10	42	19000	8	4400	210	< 1.5	40	< 1	23	34	29
5030567 Play Structure	C	0-5 cm (sand)	20507	7300	< 0.8	< 5	25	< 0.5	< 0.8	3400	32	8	35	18000	5	4000	190	< 1.5	37	< 1	26	34	28
			20508	7600	< 0.8	< 5	24	< 0.5	< 0.8	3400	31	9	32	17000	4	4100	190	< 1.5	37	< 1	28	30	26
Community of Gatchell																							
Delki Dozzi Athletic Field, 3 Mary St.																							
5030546 Play Structure	A	0-5 cm (sand)	20429	6200	< 0.8	< 5	22	< 0.5	< 0.8	2800	27	8	32	14000	4	3700	170	< 1.5	33	< 1	23	26	19
			20430	6000	< 0.8	< 5	21	< 0.5	< 0.8	2600	25	6	25	13000	3	3600	170	< 1.5	23	< 1	22	22	18

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.3: Sudbury Core Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030547 Soccer Field	B	0-5 cm (soil)	20431	11000	1	< 5	42	< 0.5	< 0.8	7500	31	6	**94**	13000	11	3100	170	< 1.5	**95**	< 1	57	29	25
			20432	11000	< 0.8	< 5	40	< 0.5	< 0.8	7600	31	8	**110**	13000	14	3100	170	< 1.5	**120**	< 1	50	29	24
		5-10 cm (soil)	20433	11000	< 0.8	< 5	37	< 0.5	< 0.8	6000	32	6	48	13000	11	2500	150	< 1.5	**69**	< 1	49	30	20
			20434	10000	< 0.8	< 5	34	< 0.5	< 0.8	5000	31	6	49	12000	9	2000	150	< 1.5	**66**	< 1	48	30	19
		10-20 cm (soil)	20435	9800	**1.2**	< 5	40	< 0.5	< 0.8	6500	31	8	47	13000	10	2500	150	< 1.5	**75**	< 1	47	30	20
			20436	9200	< 0.8	< 5	37	< 0.5	< 0.8	6900	28	8	**58**	15000	8	3400	140	< 1.5	**75**	< 1	39	27	20
5030548 Soccer Field	C	0-5 cm (soil)	20437	8300	< 0.8	< 5	31	< 0.5	< 0.8	4500	23	5	47	12000	8	2300	150	< 1.5	**60**	< 1	32	24	20
			20438	8300	< 0.8	< 5	32	< 0.5	< 0.8	4500	23	6	47	12000	8	2300	150	< 1.5	**62**	< 1	31	24	21
5030549 Soccer Field	D	0-5 cm (soil)	20439	8900	< 0.8	< 5	35	< 0.5	< 0.8	4400	25	6	**57**	12000	9	2200	180	< 1.5	**72**	< 1	35	25	24
			20440	9100	< 0.8	< 5	34	< 0.5	< 0.8	4500	24	6	**57**	12000	9	2200	180	< 1.5	**78**	< 1	37	25	23
5030550 Baseball Infield	E	0-5 cm (soil)	20441	6900	0.8	< 5	23	< 0.5	< 0.8	80000	21	6	35	12000	5	11000	160	2.1	**49**	< 1	140	19	18
			20442	7300	< 0.8	< 5	26	< 0.5	< 0.8	95000	22	7	44	12000	6	13000	160	1.9	**59**	< 1	160	19	16
5030551 Baseball Outfield	F	0-5 cm (soil)	20443	7700	< 0.8	< 5	30	< 0.5	< 0.8	5600	24	7	**140**	11000	14	2600	130	< 1.5	**130**	1	33	23	21
			20444	9300	< 0.8	< 5	37	< 0.5	< 0.8	10000	26	7	**170**	12000	13	3300	160	< 1.5	**150**	1	55	26	24
		5-10 cm (soil)	20445	9000	< 0.8	< 5	28	< 0.5	< 0.8	4400	27	5	48	12000	8	2300	130	< 1.5	**58**	< 1	34	27	20
			20446	9400	< 0.8	6	28	< 0.5	< 0.8	4500	28	5	50	13000	9	2300	140	< 1.5	**60**	< 1	39	28	20
		10-20 cm (soil)	20447	8900	< 0.8	< 5	36	< 0.5	< 0.8	4300	27	5	36	13000	8	2300	150	< 1.5	**51**	< 1	38	28	20
			20448	11000	< 0.8	< 5	43	< 0.5	< 0.8	6000	32	7	42	15000	9	2700	170	< 1.5	**65**	< 1	47	31	23
Gatchell Pool Field, Tuddenham Ave.																							
5030545 Green Space	A	0-5 cm (soil)	20423	8500	< 0.8	< 5	35	< 0.5	< 0.8	3400	28	11	**240**	15000	19	2900	150	< 1.5	**190**	**2**	30	26	29
			20424	8500	< 0.8	5	35	< 0.5	< 0.8	3300	28	11	**240**	15000	23	2800	150	< 1.5	**200**	1	30	26	30
		5-10 cm (soil)	20425	9200	< 0.8	5	41	< 0.5	< 0.8	3000	28	12	**140**	15000	19	2700	160	< 1.5	**190**	< 1	30	28	30
			20426	8600	**1.5**	< 5	41	< 0.5	< 0.8	2600	26	10	**130**	14000	32	2700	160	< 1.5	**170**	< 1	26	26	28
		10-20 cm (soil)	20427	9300	< 0.8	< 5	51	< 0.5	< 0.8	3500	29	10	**68**	15000	28	3000	190	1.6	**110**	< 1	30	29	32
			20428	8700	< 0.8	< 5	56	< 0.5	< 0.8	2900	30	9	**59**	16000	20	3300	190	< 1.5	**79**	< 1	26	29	31
Quinn & Logan Streets Playground , Quinn & Logan Streets																							
5030543 Play Structure	A	0-5 cm (sand)	20415	6300	< 0.8	6	26	< 0.5	< 0.8	2500	29	11	**78**	16000	6	3400	200	< 1.5	**64**	< 1	22	34	28
			20416	5900	< 0.8	6	26	< 0.5	< 0.8	2300	26	11	**85**	15000	7	3500	190	< 1.5	**74**	< 1	18	34	25
5030544 Green Space	B	0-5 cm (soil)	20417	12000	< 0.8	7	44	< 0.5	< 0.8	6400	38	12	**190**	18000	16	3800	270	< 1.5	**167**	1	41	34	47
			20418	13000	< 0.8	6	45	< 0.5	< 0.8	6900	39	10	**220**	18000	15	3900	260	< 1.5	**153**	**2**	43	35	48
		5-10 cm (soil)	20419	13000	< 0.8	6	43	< 0.5	< 0.8	6500	39	7	**66**	17000	10	3700	290	< 1.5	**80**	< 1	48	36	38
			20420	12000	< 0.8	5	42	< 0.5	< 0.8	6100	51	9	**79**	17000	13	3500	270	2.4	**110**	< 1	45	34	38
		10-20 cm (soil)	20421	12000	< 0.8	5	45	< 0.5	< 0.8	6200	38	8	**74**	17000	12	3600	280	< 1.5	**87**	< 1	47	35	36
			20422	12000	< 0.8	5	46	< 0.5	< 0.8	6200	37	9	**78**	17000	15	3500	260	< 1.5	**100**	< 1	46	34	36

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.4: Coniston Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Centennial Playground, Edward St																							
5030491 Play Structure	A	0-5 cm (sand)	20217	8500	**1.6**	< 5	43	< 0.5	< 0.8	4000	30	6	14	15000	3	3400	210	< 1.5	22	< 1	30	35	21
			20218	9300	< 0.8	< 5	51	< 0.5	< 0.8	4400	32	6	16	14000	3	3500	200	< 1.5	26	< 1	29	34	21
5030492 Baseball Infield	B	0-5 cm (soil)	20219	6500	< 0.8	< 5	32	< 0.5	< 0.8	6800	23	4	9	11000	2	3200	170	< 1.5	16	< 1	31	25	15
			20220	3900	< 0.8	< 5	20	< 0.5	< 0.8	4800	17	4	8.3	7400	2	2400	110	< 1.5	16	< 1	18	18	11
		5-10 cm (soil)	20221	3900	< 0.8	< 5	23	< 0.5	< 0.8	4800	18	4	9	7600	2	2700	110	< 1.5	16	< 1	15	17	11
			20222	4100	< 0.8	< 5	20	< 0.5	< 0.8	5500	17	4	8.2	7800	2	2700	110	< 1.5	14	< 1	19	18	9.8
5030493 Baseball Outfield	C	0-5 cm (soil)	20223	6900	< 0.8	< 5	33	< 0.5	< 0.8	2400	23	6	26	11000	5	2100	140	< 1.5	38	< 1	22	23	16
			20224	7500	< 0.8	< 5	36	< 0.5	< 0.8	2700	24	6	26	11000	6	2200	140	< 1.5	40	< 1	26	24	17
		5-10 cm (soil)	20225	7600	< 0.8	< 5	32	< 0.5	< 0.8	2800	22	5	25	10000	4	2100	140	< 1.5	36	< 1	28	24	14
			20226	8600	< 0.8	< 5	41	< 0.5	< 0.8	3300	26	5	25	11000	5	2300	150	< 1.5	34	< 1	32	26	16
		10-20 cm (soil)	20227	8900	< 0.8	< 5	53	< 0.5	< 0.8	4200	28	6	28	12000	5	3000	160	< 1.5	36	< 1	30	28	18
			20228	8400	< 0.8	< 5	46	< 0.5	< 0.8	3100	27	5	27	12000	5	2600	150	< 1.5	35	< 1	28	26	16
Community Centre Field, Government Rd.																							
5030502 Greenspace	A	0-5 cm (soil)	20255	11000	< 0.8	< 5	81	< 0.5	< 0.8	6300	34	7	49	15000	9	3300	270	< 1.5	**68**	< 1	45	31	28
			20256	11000	< 0.8	< 5	48	< 0.5	< 0.8	5900	36	7	39	14000	8	3100	290	< 1.5	**60**	< 1	45	30	32
		5-10 cm (soil)	20257	11000	< 0.8	< 5	54	< 0.5	< 0.8	6400	38	7	**57**	15000	9	3200	260	< 1.5	**74**	< 1	46	32	28
			20258	12000	< 0.8	< 5	52	< 0.5	< 0.8	6000	37	8	**64**	14000	9	3300	260	< 1.5	**92**	< 1	46	32	29
		10-20 cm (soil)	20259	9200	< 0.8	< 5	42	< 0.5	< 0.8	4800	30	8	**81**	14000	8	3200	220	< 1.5	**110**	< 1	35	28	27
			20260	9900	< 0.8	< 5	43	< 0.5	< 0.8	5700	32	6	**87**	15000	6	3200	240	< 1.5	**72**	< 1	37	30	26
East End Ballfield - East End Park, East Street																							
5030498 Baseball Infield	A	0-5 cm (soil)	20247	8400	< 0.8	**17**	36	< 0.5	< 0.8	3300	24	17	**300**	15000	15	2200	150	< 1.5	**350**	1	33	26	20
			20248	8100	< 0.8	**15**	40	< 0.5	< 0.8	3300	24	16	**290**	15000	14	2100	160	< 1.5	**340**	**2**	34	26	21
5030499 Baseball Outfield	B	0-5 cm (soil)	20249	6900	< 0.8	11	31	< 0.5	< 0.8	3000	21	12	**230**	13000	11	1900	140	< 1.5	**260**	1	33	24	18
			20250	5500	< 0.8	10	26	< 0.5	< 0.8	2000	19	12	**220**	12000	11	1600	110	< 1.5	**260**	1	22	21	16
East End Playground, East Street																							
5030500 Play Structure	A	0-5 cm (sand)	20251	5600	< 0.8	< 5	24	< 0.5	< 0.8	2400	25	6	29	13000	5	2700	160	< 1.5	37	< 1	22	27	19
			20252	6100	< 0.8	10	30	< 0.5	< 0.8	2700	23	7	29	13000	5	2800	160	< 1.5	40	< 1	26	26	18
5030501 Play Structure	B	0-5 cm (sand)	20253	5500	< 0.8	< 5	27	< 0.5	< 0.8	2300	24	6	11	11000	3	2900	150	< 1.5	20	< 1	24	25	15
			20254	6800	< 0.8	< 5	32	< 0.5	< 0.8	2100	24	6	12	11000	3	2900	160	< 1.5	20	< 1	24	25	16
Red Sox Ballfield, Second Ave. & Cedar St.																							
5030496 Baseball Infield	A	0-5 cm (soill)	20239	7300	< 0.8	< 5	28	< 0.5	< 0.8	5900	28	4	17	10000	4	2800	210	< 1.5	38	< 1	50	26	19
			20240	7400	< 0.8	< 5	26	< 0.5	< 0.8	6200	26	4	17	10000	4	2900	200	< 1.5	38	< 1	51	25	20

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.4: Coniston Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030497 Baseball Outfield	B	0-5 cm (soil)	20241	9300	< 0.8	7	39	< 0.5	< 0.8	14000	28	14	**110**	13000	16	8800	190	< 1.5	**230**	< 1	35	27	39
			20242	9900	< 0.8	6	47	< 0.5	< 0.8	18000	29	12	**88**	14000	17	10000	310	< 1.5	**160**	< 1	42	27	45
		5-10 cm (soil)	20243	9500	< 0.8	12	38	< 0.5	< 0.8	13000	26	15	**180**	15000	10	8100	140	< 1.5	**310**	< 1	33	28	26
			20244	11000	< 0.8	9	40	< 0.5	< 0.8	10000	28	13	**73**	14000	8	6900	150	< 1.5	**220**	< 1	36	30	26
		10-20 cm (soil)	20245	9100	< 0.8	10	38	< 0.5	< 0.8	4000	26	16	**200**	14000	10	2600	140	< 1.5	**460**	< 1	34	27	23
			20246	9000	< 0.8	**20**	39	< 0.5	< 0.8	5000	27	18	**330**	15000	12	3400	140	< 1.5	**550**	< 1	32	27	28
Second Ave. Park, Junction of 2nd Ave. & Government Rd.																							
5030494 Green Space	A	0-5 cm (soil)	20229	7600	< 0.8	13	35	< 0.5	< 0.8	6300	25	**24**	**470**	14000	20	2600	140	< 1.5	**610**	1	31	24	36
			20230	8100	< 0.8	**16**	41	< 0.5	1	9400	28	**38**	**610**	17000	40	3600	180	< 1.5	**860**	**2**	33	26	48
		5-10 cm (soil)	20231	6400	< 0.8	6	28	< 0.5	< 0.8	2600	22	8	**89**	9600	5	2000	120	< 1.5	**200**	< 1	23	22	15
			20232	7200	< 0.8	< 5	30	< 0.5	< 0.8	3000	23	9	**120**	10000	5	2100	130	< 1.5	**210**	< 1	27	24	16
5030495 Green Space	B	0-5 cm (soil)	20233	7900	< 0.8	14	38	< 0.5	0.8	6700	26	**29**	**450**	15000	28	2700	180	< 1.5	**640**	**2**	31	25	41
			20234	7700	< 0.8	**19**	46	< 0.5	**1.3**	9400	26	**43**	**620**	18000	42	3400	200	< 1.5	**940**	**2**	32	25	58
		5-10 cm (soil)	20235	6600	< 0.8	6	31	< 0.5	< 0.8	3300	23	8	**120**	10000	6	2000	130	< 1.5	**210**	< 1	27	23	16
			20236	8900	< 0.8	8	41	< 0.5	< 0.8	4200	26	11	**180**	12000	8	2200	150	< 1.5	**250**	< 1	36	27	24
		10-15 cm (soil)	20237	8900	< 0.8	< 5	45	< 0.5	< 0.8	3600	27	5	52	11000	5	2200	150	< 1.5	**90**	< 1	36	26	14
			20238	9700	< 0.8	< 5	45	< 0.5	< 0.8	3400	26	6	**69**	11000	5	2100	130	< 1.5	**110**	< 1	35	26	17

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.5: Falconbridge Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Centennial Park, 63 Edison Street																							
*(* - 5030474 and 5030475 were also sampled separately as part of Teddy Bear Daycare)*																							
5030474 Play Structure	A	0-5 cm (sand)	20147	5000	< 0.8	< 5	20	< 0.5	< 0.8	2400	24	6	18	12000	3	2800	150	< 1.5	26	< 1	21	29	15
			20148	5200	< 0.8	< 5	21	< 0.5	< 0.8	2600	24	6	19	13000	4	2700	160	< 1.5	30	< 1	23	30	16
5030475 Play Structure	B	0-5 cm (sand)	20149	4700	< 0.8	< 5	21	< 0.5	< 0.8	2400	22	5	12	11000	6	2400	140	< 1.5	20	< 1	21	24	12
			20150	4300	< 0.8	< 5	17	< 0.5	< 0.8	2200	19	4	10	9800	2	2300	130	< 1.5	17	< 1	19	22	12
5030476 Green Space	C	0-5 cm (soil)	20151	9600	< 0.8	**71**	44	< 0.5	**2.8**	10000	37	**86**	**1300**	27000	**67**	3400	260	< 1.5	**1800**	**3**	33	37	79
			20152	8200	< 0.8	**84**	45	< 0.5	**4.2**	13000	37	**130**	**1800**	31000	**110**	3700	230	**2.8**	**2500**	**4**	32	31	96
		5-10 cm (soil)	20153	11000	< 0.8	**99**	42	< 0.5	**1.2**	9000	46	**30**	**610**	28000	**58**	3900	270	< 1.5	**680**	**3**	32	45	41
			20154	9400	< 0.8	**101**	46	< 0.5	**1.4**	9000	32	**36**	**680**	21000	**69**	2500	240	< 1.5	**770**	**3**	34	35	39
		10-20 cm (soil)	20155	14000	< 0.8	**63**	36	< 0.5	< 0.8	6400	**75**	**21**	**330**	38000	33	7000	280	2.2	**470**	**2**	28	59	41
			20156	14000	< 0.8	**74**	46	< 0.5	< 0.8	7700	**68**	**25**	**370**	35000	38	6000	250	< 1.5	**550**	**3**	33	58	39
5030477 Green Space	D	0-5 cm (soil)	20157	7700	< 0.8	**49**	28	< 0.5	**1.7**	7600	26	**57**	**830**	17000	44	2700	140	< 1.5	**1200**	**2**	30	27	47
			20158	9300	< 0.8	**56**	43	< 0.5	**2.9**	9300	34	**72**	**1200**	22000	**65**	3000	160	2	**1500**	**3**	35	30	65
		5-10 cm (soil)	20159	10000	< 0.8	**76**	44	< 0.5	< 0.8	6000	34	**26**	**540**	20000	53	2200	140	< 1.5	**520**	**2**	39	32	31
			20160	11000	< 0.8	**66**	42	< 0.5	< 0.8	6500	32	**24**	**490**	20000	49	2300	140	< 1.5	**500**	**2**	40	32	30
		10-20 cm (soil)	20161	14000	< 0.8	**85**	58	< 0.5	< 0.8	6800	58	**30**	**500**	34000	48	4400	210	< 1.5	**610**	**3**	41	47	41
			20162	12000	< 0.8	**66**	58	< 0.5	< 0.8	4700	50	**21**	**360**	26000	39	3300	170	< 1.5	**430**	**2**	37	40	34
Central Park , Longyear Drive																							
5030489 Green Space	A	0-5 cm (soil)	20209	9200	< 0.8	< 5	29	< 0.5	< 0.8	4200	29	15	44	12000	9	2100	150	< 1.5	**89**	< 1	34	25	17
			20210	9500	< 0.8	6	30	< 0.5	< 0.8	4000	26	10	52	12000	10	2000	150	< 1.5	**83**	< 1	35	26	19
		5-10 cm (soil)	20211	7900	< 0.8	6	29	< 0.5	< 0.8	2900	22	6	46	11000	9	2000	130	< 1.5	**50**	< 1	22	23	16
			20212	8200	< 0.8	**29**	26	< 0.5	< 0.8	3100	23	6	32	11000	8	1900	130	< 1.5	43	< 1	26	23	14
		10-20 cm (soil)	20213	8200	< 0.8	10	29	< 0.5	< 0.8	2500	23	8	**70**	13000	11	2100	140	< 1.5	**62**	< 1	23	24	14
			20214	11000	< 0.8	5	50	< 0.5	< 0.8	3700	27	6	55	13000	8	2600	180	< 1.5	42	< 1	32	30	23
5030490 Play Structure	B	0-5 cm (sand)	20215	6900	< 0.8	5	37	< 0.5	< 0.8	3200	24	9	30	15000	4	3100	200	< 1.5	**44**	< 1	28	32	19
			20216	6400	< 0.8	< 5	35	< 0.5	< 0.8	3100	28	9	30	15000	4	3200	190	< 1.5	**44**	< 1	28	34	19
Dedication Park, Junction of Parkinson & Lindsley Streets																							
5030488 Green Space	A	0-5 cm (soil)	20203	8800	< 0.8	10	28	< 0.5	< 0.8	3600	24	10	**88**	12000	13	1800	130	< 1.5	**120**	< 1	31	25	21
			20204	9100	< 0.8	12	27	< 0.5	< 0.8	3500	26	11	**87**	13000	16	1800	140	< 1.5	**110**	< 1	32	26	26
		5-10 cm (soil)	20205	8800	< 0.8	**31**	29	< 0.5	< 0.8	3100	26	18	**240**	16000	30	1800	140	< 1.5	**240**	1	30	26	22
			20206	8800	< 0.8	11	26	< 0.5	< 0.8	3100	25	13	**160**	14000	32	1800	130	< 1.5	**190**	< 1	28	25	25
		10-20 cm (soil)	20207	9400	< 0.8	**32**	32	< 0.5	< 0.8	3300	26	17	**250**	15000	28	1800	150	< 1.5	**260**	1	30	28	25
			20208	10000	< 0.8	**61**	46	< 0.5	0.9	4300	32	**42**	**540**	23000	48	2000	160	< 1.5	**600**	1	34	30	46

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.5: Falconbridge Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Falconbridge Ballfields, 63 Edison Street																							
5030478 Baseball Outfield	A	0-5 cm (soil)	20163	10000	< 0.8	**38**	36	< 0.5	< 0.8	3400	39	**23**	**360**	22000	28	3100	170	1.6	**370**	**2**	26	35	32
			20164	9300	< 0.8	**49**	38	< 0.5	< 0.8	3500	39	**28**	**430**	22000	33	3200	170	1.8	**470**	**2**	22	33	38
		5-10 cm (soil)	20165	16000	1	**120**	50	< 0.5	< 0.8	3600	**99**	**46**	**880**	67000	54	8500	340	< 1.5	**880**	**6**	22	74	66
			20166	16000	**1.5**	**100**	50	< 0.5	**1.1**	4800	**88**	**58**	**950**	53000	**63**	7800	340	< 1.5	**1100**	**4**	27	67	67
		10-20 cm (soil)	20167	24000	< 0.8	**130**	47	< 0.5	< 0.8	5400	**150**	**42**	**750**	100000	49	14000	480	< 1.5	**860**	**7**	27	**110**	86
			20168	19000	< 0.8	**110**	56	< 0.5	< 0.8	7900	**99**	**38**	**710**	61000	46	9100	350	< 1.5	**990**	**6**	35	75	72
5030479 Baseball Infield	B	0-5 cm (soil)	20169	14000	**1.2**	**54**	43	< 0.5	< 0.8	7600	**73**	**34**	**480**	45000	27	6900	310	< 1.5	**690**	**3**	34	56	64
			20170	11000	< 0.8	**31**	38	< 0.5	< 0.8	3500	54	**23**	**300**	32000	23	5200	240	< 1.5	**400**	**2**	22	41	40
		5-10 cm (soil)	20171	23000	< 0.8	**110**	48	< 0.5	< 0.8	6700	**140**	**28**	**580**	100000	42	13000	460	< 1.5	**590**	**8**	32	**110**	88
			20172	22000	< 0.8	**100**	42	< 0.5	< 0.8	4300	**140**	**30**	**570**	99000	38	13700	480	< 1.5	**620**	**7**	23	**98**	76
		10-20 cm (soil)	20173	25000	< 0.8	**100**	45	< 0.5	< 0.8	5800	**150**	**25**	**500**	110000	42	15000	500	< 1.5	**490**	**6**	28	**110**	85
			20174	25000	< 0.8	**120**	50	< 0.5	< 0.8	4700	**160**	**26**	**480**	110000	43	15500	540	< 1.5	**530**	**8**	28	**130**	82
5030480 Baseball Outfield	C	0-5 cm (soil)	20175	11000	< 0.8	**36**	44	< 0.5	0.9	3500	40	**27**	**400**	21000	25	2800	170	< 1.5	**490**	1	32	35	31
			20176	9700	< 0.8	**29**	33	< 0.5	< 0.8	3500	37	**21**	**350**	20000	20	2900	170	< 1.5	**400**	1	30	34	30
		5-10 cm (soil)	20177	19000	< 0.8	**86**	62	< 0.5	< 0.8	6300	**95**	**28**	**510**	56000	33	7600	330	< 1.5	**600**	**4**	46	75	53
			20178	18000	< 0.8	**98**	57	< 0.5	< 0.8	6200	**97**	**31**	**580**	62000	37	7500	330	< 1.5	**690**	**5**	45	74	52
		10-20 cm (soil)	20179	20000	< 0.8	**89**	76	< 0.5	< 0.8	6400	**100**	**24**	**430**	56000	34	7900	350	< 1.5	**530**	**3**	46	77	52
			20180	19000	< 0.8	**85**	54	< 0.5	< 0.8	5600	**100**	16	**310**	61000	28	7900	340	< 1.5	**320**	**4**	42	79	45
5030481 Baseball Infield	D	0-5 cm (soil)	20181	6500	< 0.8	< 5	22	< 0.5	< 0.8	3100	26	8	55	13000	6	2600	160	< 1.5	**68**	< 1	27	26	21
			20182	9800	< 0.8	**39**	32	< 0.5	< 0.8	3400	59	15	**100**	41000	14	5200	250	< 1.5	**180**	**2**	27	51	31
		5-10 cm (soil)	20183	5900	< 0.8	7	23	< 0.5	< 0.8	2700	27	7	45	13000	5	2600	150	< 1.5	**56**	< 1	23	25	18
			20184	6700	< 0.8	10	22	< 0.5	< 0.8	3000	30	9	48	17000	7	2900	170	< 1.5	**79**	< 1	25	29	20
		10-20 cm (soil)	20185	11000	< 0.8	**56**	30	< 0.5	< 0.8	2600	**79**	**20**	**220**	52000	18	7100	280	< 1.5	**280**	**4**	16	57	59
			20186	17000	< 0.8	**101**	42	< 0.5	< 0.8	3100	**120**	**27**	**270**	89000	30	11000	410	< 1.5	**420**	**4**	22	**93**	61
Parkinson Playground, Parkinson St.																							
5030482 Play Structure	A	0-5 cm (sand)	20187	4700	< 0.8	< 5	19	< 0.5	< 0.8	2300	24	7	21	13000	6	2800	160	< 1.5	36	< 1	18	27	16
			20188	4900	< 0.8	< 5	22	< 0.5	< 0.8	2500	26	11	22	14000	8	2900	160	< 1.5	**50**	< 1	18	32	17
5030483 Play Structure	B	0-5 cm (sand)	20189	4800	< 0.8	< 5	17	< 0.5	< 0.8	2700	27	8	41	13000	4	2400	160	< 1.5	**54**	< 1	23	30	17
			20190	4200	< 0.8	6	16	< 0.5	< 0.8	2300	28	9	**57**	14000	6	2300	150	< 1.5	**67**	< 1	16	34	20
5030484 Play Structure	C	0-5 cm (sand)	20191	5300	< 0.8	< 5	23	< 0.5	< 0.8	2300	25	8	45	13000	4	3000	150	< 1.5	**48**	< 1	18	26	22
			20192	5700	< 0.8	< 5	28	< 0.5	< 0.8	2700	30	12	**63**	16000	6	3000	180	< 1.5	**75**	< 1	22	36	26
5030485 Play Structure	D	0-5 cm (sand)	20193	5900	< 0.8	**34**	27	< 0.5	< 0.8	2300	31	17	**160**	16000	22	2600	160	1.9	**130**	1	21	30	25
			20194	5300	< 0.8	**34**	25	< 0.5	< 0.8	1900	28	15	**170**	14000	24	2400	140	2.1	**130**	1	17	26	23
5030486 Play Structure	E	0-5 cm (sand)	20195	5100	< 0.8	**18**	24	< 0.5	< 0.8	2300	30	14	**120**	15000	11	2400	170	1.7	**110**	< 1	19	30	20
Table F (results in bold)				NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)				NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.5: Falconbridge Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
			20196	5800	< 0.8	**21**	26	< 0.5	< 0.8	2600	35	13	**160**	16000	12	2600	180	1.9	**110**	< 1	23	32	22
5030487 Green Space	F	0-5 cm (soil)	20197	8600	< 0.8	**24**	41	< 0.5	< 0.8	3400	34	18	**180**	15000	21	2500	180	1.6	**180**	< 1	34	30	25
			20198	8900	< 0.8	**17**	36	< 0.5	< 0.8	3600	37	18	**160**	14000	18	2500	180	2.2	**170**	< 1	35	29	25
		5-10 cm (soil)	20199	9000	< 0.8	**23**	46	< 0.5	< 0.8	3700	32	15	**210**	15000	17	2300	190	< 1.5	**210**	< 1	36	29	26
			20200	9400	< 0.8	**25**	44	< 0.5	< 0.8	3800	32	19	**220**	15000	20	2200	200	< 1.5	**300**	< 1	36	29	28
		10-20 cm (soil)	20201	8700	< 0.8	**22**	48	< 0.5	< 0.8	3300	29	12	**120**	15000	13	2300	200	< 1.5	**150**	< 1	32	30	21
			20202	6400	< 0.8	**24**	31	< 0.5	< 0.8	2800	22	13	**140**	13000	14	2300	170	< 1.5	**190**	< 1	23	27	17

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.6: Copper Cliff Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Copper Cliff (Nickel) Park, Godfrey & School Street																							
5030462 Baseball Infield	A	0-5 cm (soil)	20091	9100	< 0.8	5	53	< 0.5	< 0.8	7800	30	10	**180**	16000	11	5600	210	< 1.5	**162**	< 1	56	29	31
			20092	9100	< 0.8	5	58	< 0.5	< 0.8	8300	29	10	**180**	15000	12	5900	210	< 1.5	**155**	< 1	68	27	29
5030463 Baseball Outfield	B	0-5 cm (soil)	20093	8300	< 0.8	6	39	< 0.5	< 0.8	4000	27	14	**430**	13000	20	2700	190	< 1.5	**350**	**2**	32	26	28
			20094	7300	< 0.8	7	38	< 0.5	< 0.8	2700	25	9	**250**	13000	13	2700	150	< 1.5	**205**	**2**	17	24	24
		5-10 cm (soil)	20095	8600	< 0.8	7	37	< 0.5	< 0.8	5100	26	8	**190**	13000	13	3700	170	< 1.5	**146**	< 1	24	25	27
			20096	9300	< 0.8	5	43	< 0.5	< 0.8	4000	28	8	**180**	14000	10	3300	180	< 1.5	**139**	< 1	27	27	26
		10-20 cm (soil)	20097	18000	< 0.8	7	100	< 0.5	< 0.8	6200	44	12	**160**	21000	21	4600	260	< 1.5	**183**	< 1	51	39	42
			20098	19000	< 0.8	6	100	< 0.5	< 0.8	5900	45	10	**140**	20000	12	4700	270	< 1.5	**141**	< 1	52	42	38
5030464 Green Space	C	0-5 cm (soil)	20099	13000	< 0.8	8	70	< 0.5	**1.4**	8000	41	**22**	**990**	18000	37	3800	250	< 1.5	**599**	**3**	47	34	49
			20100	13000	< 0.8	9	76	< 0.5	**1.2**	6600	43	**22**	**990**	18000	36	3500	220	< 1.5	**595**	**4**	46	36	48
		5-10 cm (soil)	20101	13000	< 0.8	7	65	< 0.5	< 0.8	4400	34	9	**190**	16000	11	3000	200	< 1.5	**153**	< 1	43	34	32
			20102	14000	< 0.8	6	69	< 0.5	< 0.8	4700	34	10	**190**	17000	11	3200	190	< 1.5	**178**	< 1	44	34	32
		10-20 cm (soil)	20103	14000	< 0.8	7	73	< 0.5	< 0.8	3600	36	11	**160**	19000	12	3100	230	< 1.5	**165**	1	39	34	37
			20104	10000	< 0.8	< 5	52	< 0.5	< 0.8	2600	29	7	**86**	15000	8	2700	170	< 1.5	**92**	< 1	29	28	27
5030467 Green Space	D	0-5 cm (soil)	20117	10000	< 0.8	14	69	< 0.5	< 0.8	4300	44	**21**	**660**	28000	34	3600	180	< 1.5	**490**	**4**	30	34	52
			20118	9200	1	12	59	< 0.5	< 0.8	5800	38	19	**640**	24000	32	4000	180	< 1.5	**450**	**4**	30	31	48
		5-10 cm (soil)	20119	9100	< 0.8	6	36	< 0.5	< 0.8	4200	25	8	**180**	13000	10	2500	160	< 1.5	**160**	< 1	34	27	32
			20120	9100	< 0.8	< 5	32	< 0.5	< 0.8	4700	25	6	**110**	12000	9	2500	170	< 1.5	**120**	< 1	38	26	26
		10-20 cm (soil)	20121	13000	< 0.8	**27**	72	< 0.5	< 0.8	5100	36	18	**540**	20000	28	3000	210	< 1.5	**600**	**2**	43	33	40
			20122	13000	< 0.8	**23**	73	< 0.5	< 0.8	4600	35	13	**370**	18000	28	2700	200	< 1.5	**370**	**2**	43	32	34
Copper Cliff Lion's Park, Power St.																							
5030470 Play Structure	A	0-5 cm (sand)	20135	6700	< 0.8	< 5	26	< 0.5	< 0.8	2900	34	10	54	16000	5	3900	200	< 1.5	**47**	< 1	24	32	51
			20136	8400	< 0.8	< 5	34	< 0.5	< 0.8	3900	36	10	**65**	19000	5	4200	230	< 1.5	**58**	< 1	32	40	23
5030471 Play Structure	B	0-5 cm (sand)	20137	9300	< 0.8	< 5	42	< 0.5	< 0.8	4100	34	9	**64**	17000	5	4300	230	< 1.5	**47**	< 1	35	37	24
			20138	8600	< 0.8	< 5	37	< 0.5	< 0.8	3600	31	10	**57**	16000	5	4100	210	< 1.5	**53**	< 1	31	33	23
5030472 Play Structure	C	0-5 cm (sand)	20139	11000	< 0.8	9	42	< 0.5	< 0.8	4300	39	14	**210**	20000	18	4600	210	< 1.5	**240**	**2**	36	38	28
			20140	9100	< 0.8	8	32	< 0.5	< 0.8	3700	36	13	**210**	19000	17	4500	200	2	**190**	**2**	31	34	28
5030473 Green Space	D	0-5 cm (soil)	20141	13000	< 0.8	8	67	< 0.5	< 0.8	11000	43	12	**360**	18000	20	5900	290	< 1.5	**260**	**3**	49	36	37
			20142	11000	< 0.8	8	52	< 0.5	< 0.8	8900	36	12	**320**	17000	16	4400	260	< 1.5	**240**	**3**	46	34	34
		5-10 cm (soil)	20143	12000	< 0.8	7	54	< 0.5	< 0.8	9500	36	10	**210**	18000	12	5400	250	< 1.5	**150**	**2**	47	34	32
			20144	9900	< 0.8	7	45	< 0.5	< 0.8	7800	32	8	**86**	17000	8	4500	210	< 1.5	**88**	1	40	31	27
		10-20 cm (soil)	20145	10000	< 0.8	13	49	< 0.5	< 0.8	5500	30	11	**220**	17000	13	3700	190	< 1.5	**200**	**7**	38	32	32
			20146	11000	< 0.8	< 5	62	< 0.5	< 0.8	5400	37	9	**60**	20000	6	4600	260	< 1.5	**47**	< 1	42	37	32
Diorite Playground, Diorite St.																							

Table F (results in bold)	NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)	NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

Table C4.6: Copper Cliff Parks

Station	Map ID	Soil Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5030852 Green Space	A	0-5 cm (soil)	17974	9900	< 0.8	6	37	< 0.5	**1.1**	9800	31	**20**	**790**	14000	30	4400	210	< 1.5	**620**	**6**	43	25	55
			17975	9500	< 0.8	< 5	34	< 0.5	< 0.8	7800	29	15	**580**	13000	20	3600	200	< 1.5	**460**	**4**	43	25	34
		5-10 cm (soil)	17976	12000	< 0.8	< 5	45	< 0.5	< 0.8	6200	36	9	**230**	15000	11	3700	220	< 1.5	**180**	**2**	50	33	34
			17977	10000	**1.8**	< 5	36	< 0.5	< 0.8	6200	33	9	**170**	15000	11	3400	220	< 1.5	**160**	1	44	31	33
		10-20 cm (soil)	17978	7200	< 0.8	< 5	26	< 0.5	< 0.8	4700	26	8	**270**	12000	12	3200	190	< 1.5	**140**	1	30	24	25
			17979	5400	< 0.8	< 5	17	< 0.5	< 0.8	3900	20	5	**100**	9400	6	2500	140	< 1.5	**59**	< 1	23	21	17
5030853 Play Structure	B	0-5 cm (sand)	17980	6800	< 0.8	< 5	28	< 0.5	< 0.8	3400	31	12	**75**	18000	5	4100	220	< 1.5	**63**	< 1	24	40	23
			17981	9200	< 0.8	< 5	29	< 0.5	< 0.8	4500	27	12	**87**	17000	6	5400	210	< 1.5	**75**	< 1	25	39	23
Gerry Mills Memorial Ball Park, School Street																							
5030465* Baseball Outfield	A	0-5 cm (soil)	20105	9100	**1.1**	**63**	75	< 0.5	**3.7**	22000	42	**100**	**3400**	30000	**120**	3600	240	< 1.5	**3649**	**21**	43	27	150
			20106	11000	1	**54**	79	< 0.5	**4**	18000	54	**93**	**3300**	39000	**130**	3900	240	< 1.5	**2906**	**22**	41	35	140
		5-10 cm (soil)	20107	11000	**1.8**	**101**	61	< 0.5	**1.1**	9400	35	**49**	**970**	20000	44	2800	170	< 1.5	**1339**	**13**	38	30	56
			20108	11000	**2.6**	**90**	66	< 0.5	0.9	10000	35	**50**	**910**	19000	50	2800	160	< 1.5	**1200**	< 1	34	29	56
		10-20 cm (soil)	20109	8600	**1.1**	**64**	45	< 0.5	< 0.8	3600	25	15	**190**	13000	14	2200	150	< 1.5	**310**	**6**	29	26	30
			20110	7800	< 0.8	**32**	43	< 0.5	< 0.8	3400	21	10	**130**	12000	8	2000	170	1.9	**200**	**2**	27	25	25
5030466* Baseball Infield	B	0-5 cm (soil)	20111	8200	< 0.8	8	50	< 0.5	< 0.8	4200	31	11	**300**	14000	15	3100	180	< 1.5	**300**	**2**	38	29	31
			20112	7400	< 0.8	7	49	< 0.5	< 0.8	4300	29	11	**350**	13000	17	3000	170	< 1.5	**290**	**2**	35	27	30
		5-10 cm (soil)	20113	8200	< 0.8	13	37	< 0.5	< 0.8	3500	26	10	**210**	13000	11	2600	160	< 1.5	**170**	1	31	26	26
			20114	8100	< 0.8	10	38	< 0.5	< 0.8	3300	26	8	**170**	13000	10	2700	160	< 1.5	**130**	1	29	26	25
		10-20 cm (soil)	20115	8800	< 0.8	11	38	< 0.5	< 0.8	3100	24	9	**150**	13000	10	2200	150	< 1.5	**160**	1	30	26	26
			20116	8100	< 0.8	9	36	< 0.5	< 0.8	2700	25	8	**130**	13000	9	2400	150	2.4	**130**	1	25	25	26
Green Space Park, Junction of Serpentine and Subway Rd.																							
5030469 Green Space	A	0-5 cm (soil)	20129	10000	< 0.8	6	40	< 0.5	< 0.8	4700	33	12	**340**	13000	16	2400	180	< 1.5	**340**	**2**	38	29	29
			20130	9800	< 0.8	7	47	< 0.5	< 0.8	4300	29	15	**430**	14000	20	2400	180	< 1.5	**400**	**2**	38	28	30
		5-10 cm (soil)	20131	8500	< 0.8	< 5	32	< 0.5	< 0.8	3400	27	5	26	12000	7	2300	150	< 1.5	40	< 1	23	25	19
			20132	9500	< 0.8	< 5	30	< 0.5	< 0.8	4000	26	5	45	12000	10	2300	160	< 1.5	**58**	< 1	34	27	18
		10-20 cm (soil)	20133	11000	< 0.8	< 5	55	< 0.5	< 0.8	3900	34	7	25	15000	7	3400	200	< 1.5	37	< 1	33	31	21
			20134	12000	< 0.8	< 5	64	< 0.5	< 0.8	4400	38	7	29	17000	8	3800	230	< 1.5	40	< 1	39	35	24
Italian Commemorative Park, Junction of Serpentine and Subway Rd.																							
5030468 Green Space	A	0-5 cm (soil)	20123	12000	< 0.8	**30**	90	< 0.5	**3**	6300	64	**88**	**4600**	27000	**120**	4300	220	**3.4**	**2800**	**20**	38	36	110
			20124	11000	< 0.8	**26**	60	< 0.5	**2.6**	4500	50	**79**	**4200**	25000	**120**	3700	190	2.2	**2300**	**22**	39	33	87
		5-10 cm (soil)	20125	10000	< 0.8	< 5	59	< 0.5	< 0.8	6500	33	10	**190**	17000	9	5800	220	< 1.5	**170**	< 1	35	32	28
			20126	8600	< 0.8	< 5	45	< 0.5	< 0.8	7100	29	10	**250**	15000	10	5800	180	< 1.5	**210**	1	31	28	28
		10-20 cm (soil)	20127	9200	< 0.8	< 5	58	< 0.5	< 0.8	3400	34	9	**110**	16000	9	3700	230	< 1.5	**110**	< 1	30	30	27
			20128	7600	< 0.8	< 5	40	< 0.5	< 0.8	4300	25	7	**130**	14000	8	3400	180	2.4	**86**	< 1	32	27	21

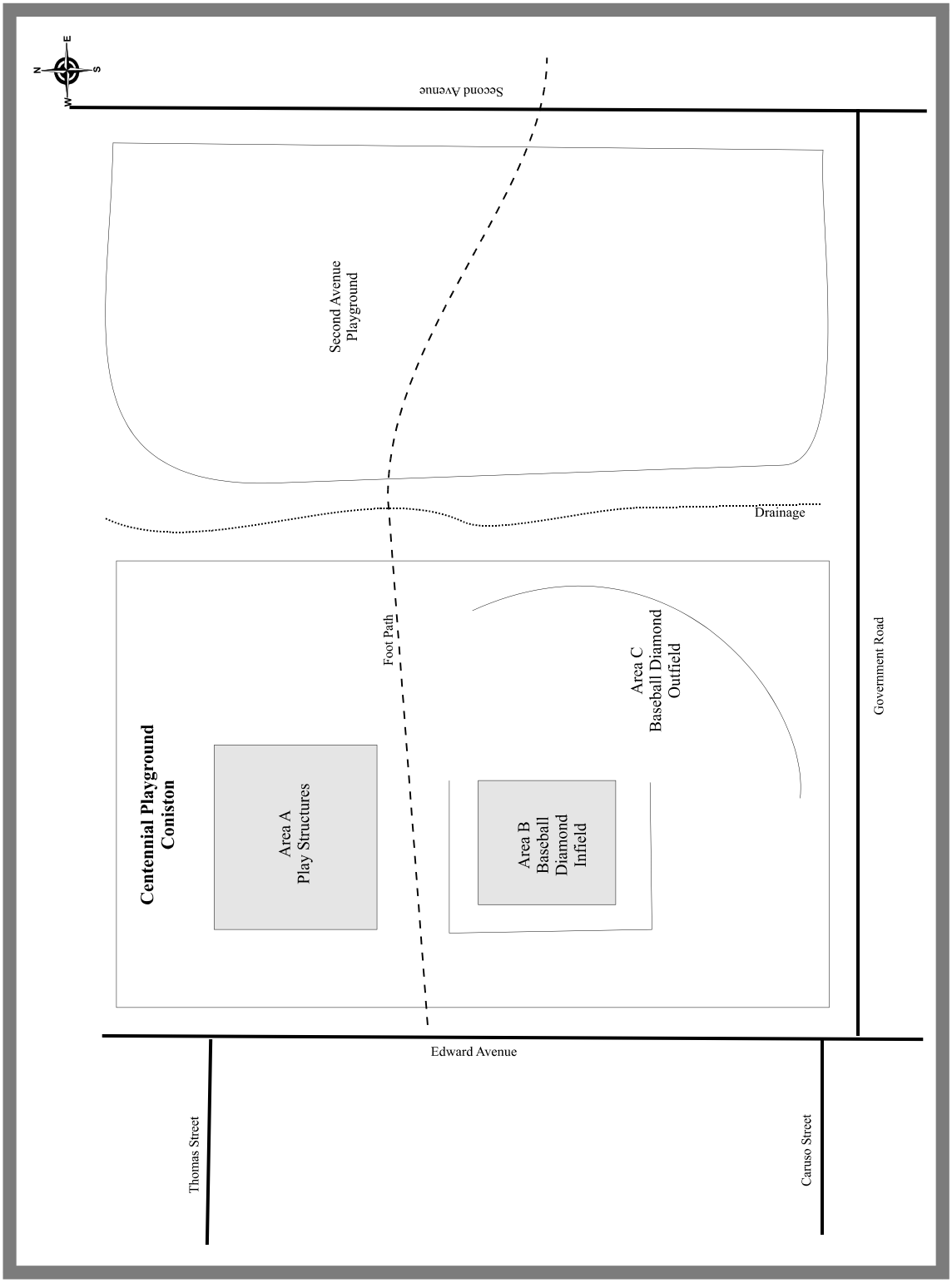
*(* - 5030465 and 5030466 were also sampled separately as part of Copper Cliff School)*

Table F (results in bold)			NG	1.0	17	210	1.2	1.0	NG	71	21	85	NG	120	NG	NG	2.5	43	1.9	NG	91	160
Table A (results in bold and underlined)			NG	13	20	750	1.2	12.0	NG	750	40	225	NG	200	NG	NG	40	150	10	NG	200	600

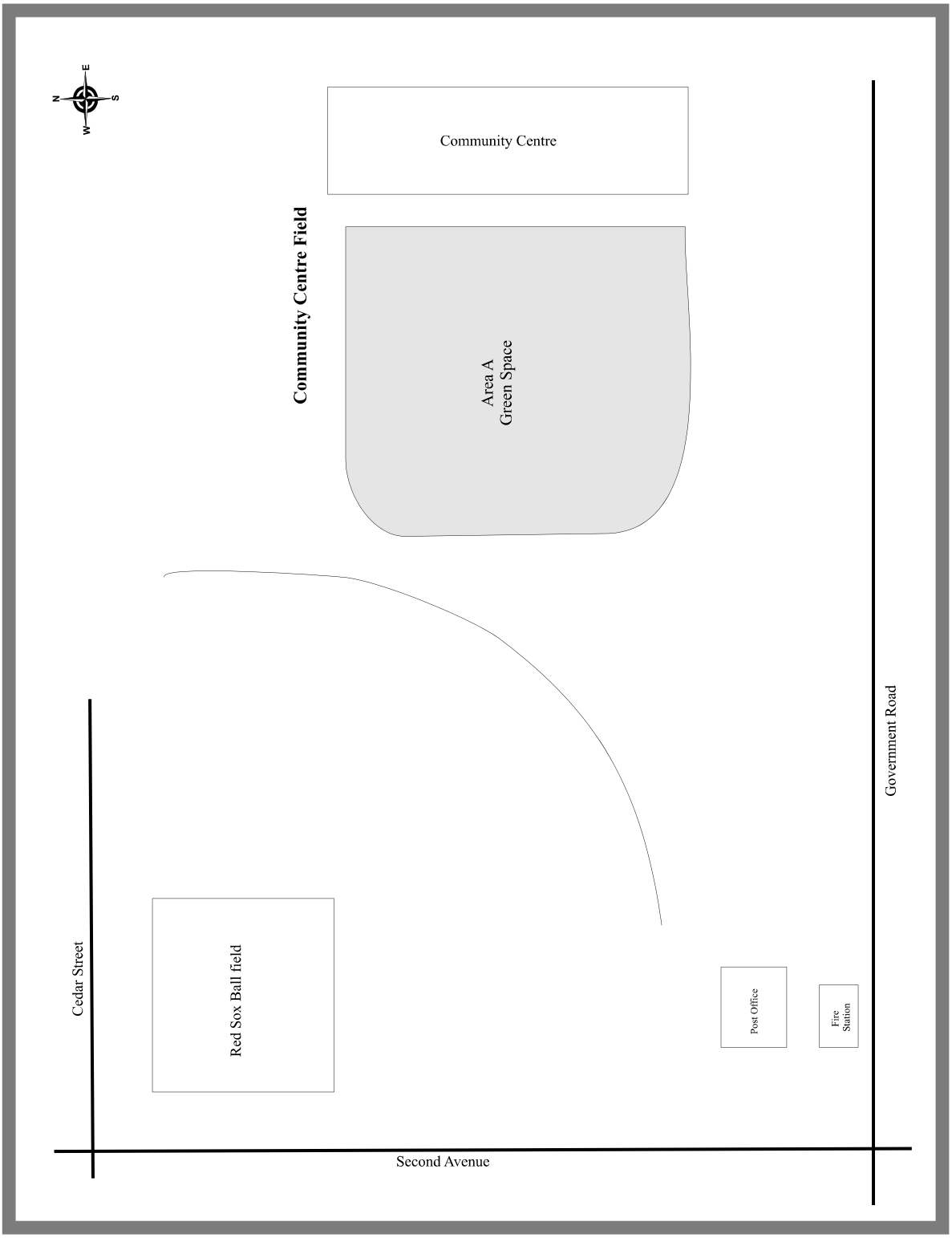
< - less than the Method Detection Limit. NG - no guideline. All results are in µg/g dry wt.

5. PARK SAMPLING MAPS

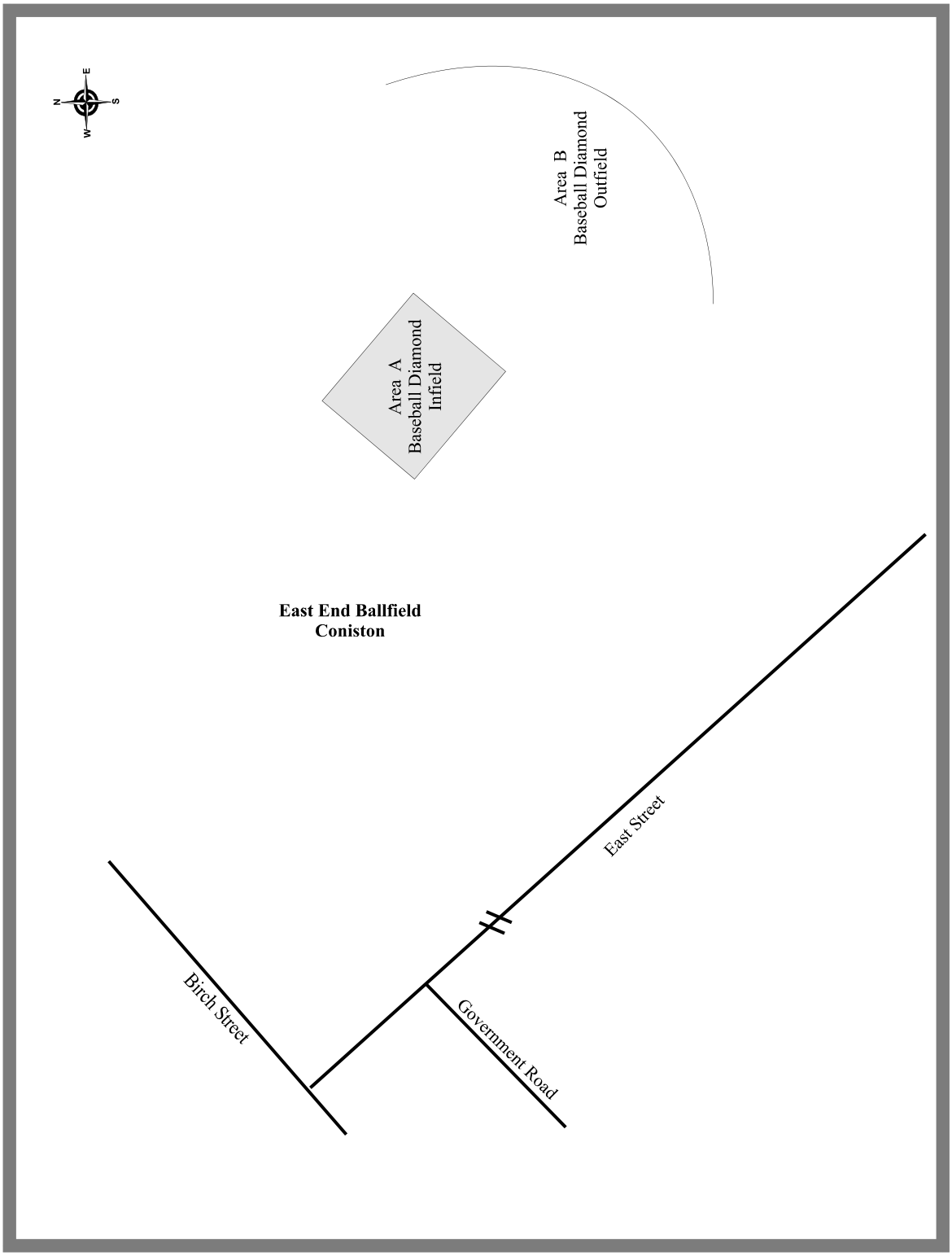
5.1 Coniston Park Maps



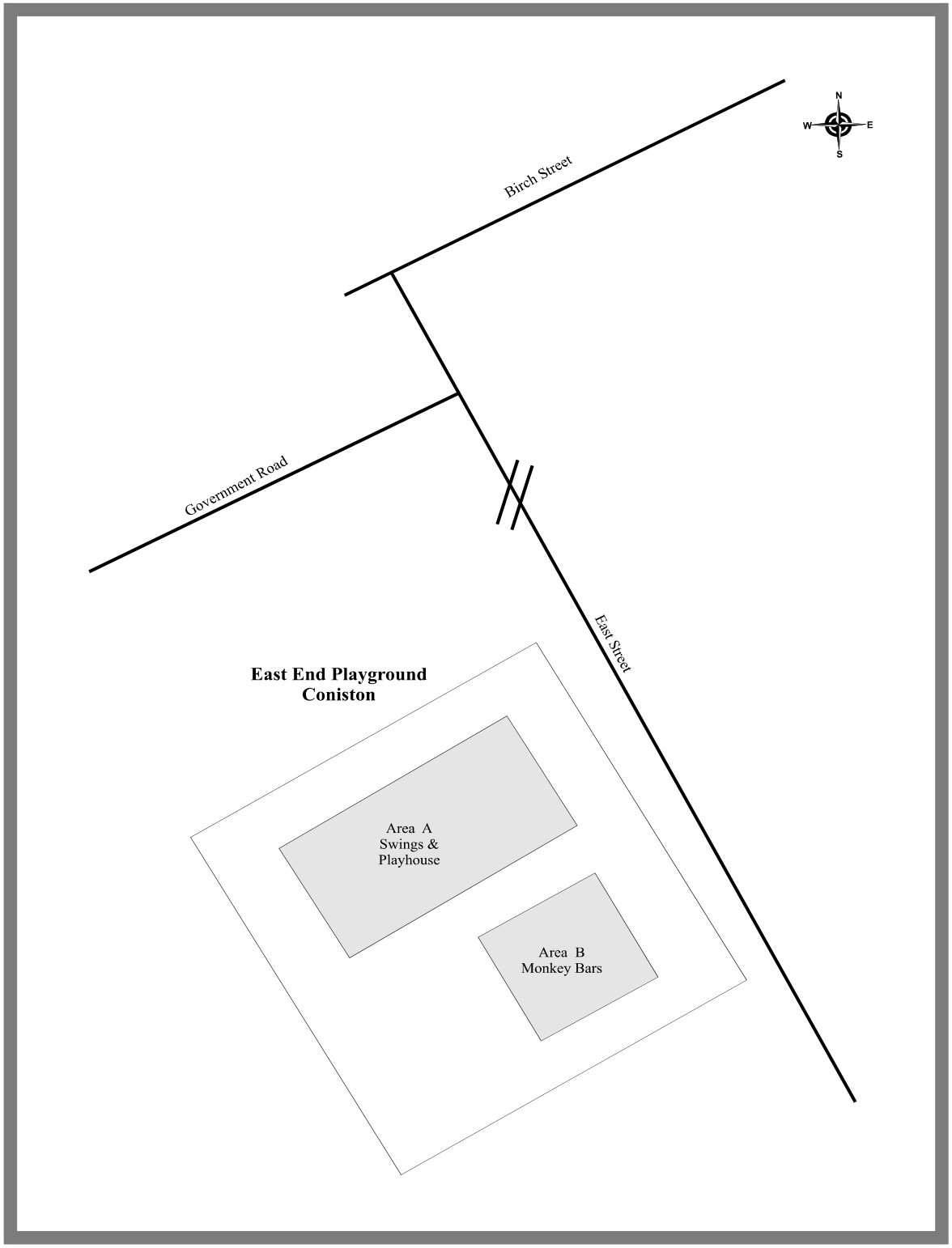
Map C5.1.1: Centennial Playground, Coniston - 2001.



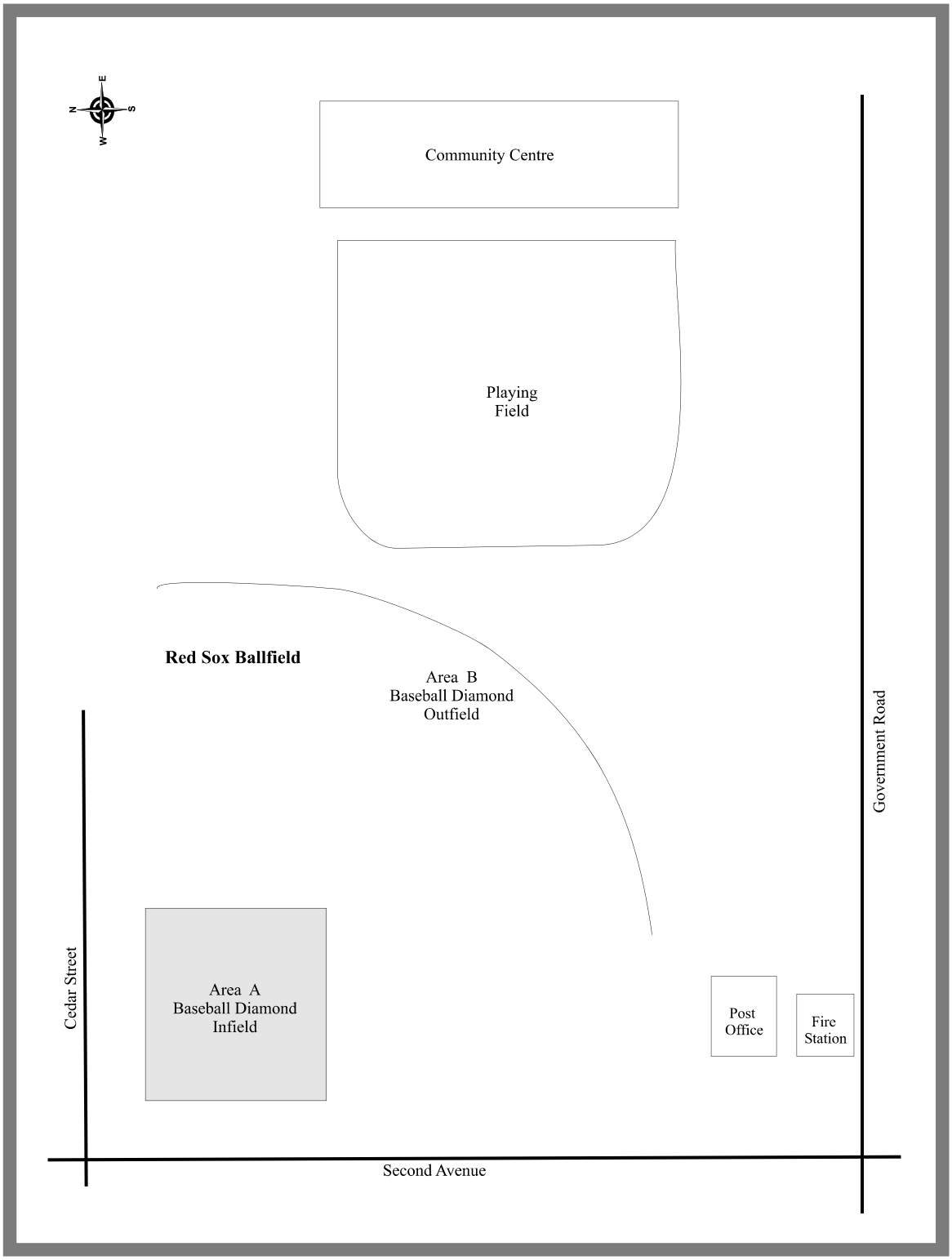
Map C5.1.2: Community Centre Field, Coniston - 2001.



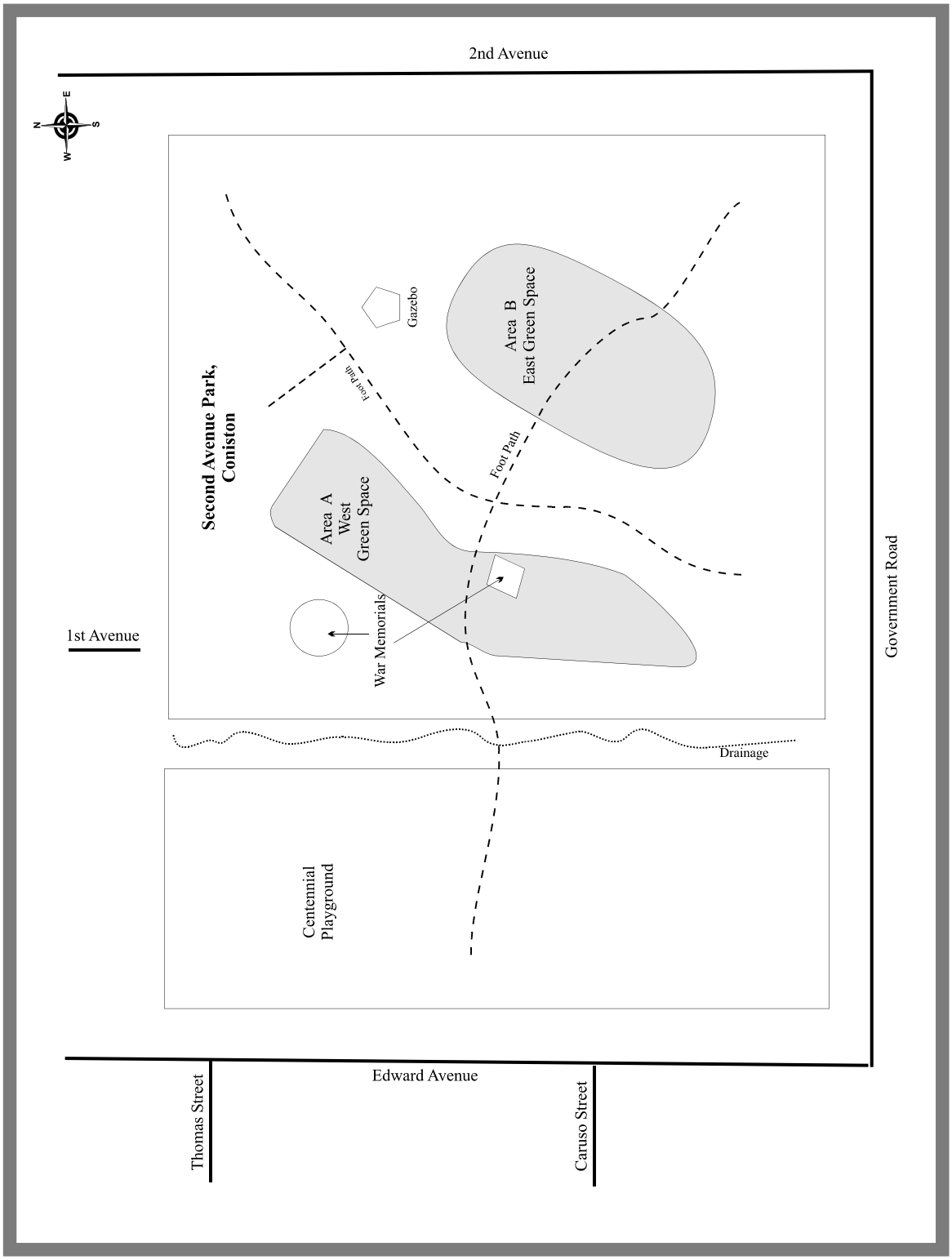
Map C5.1.3: East End Ballfield, Coniston - 2001.



Map C5.1.4: East End Playground, Coniston - 2001.

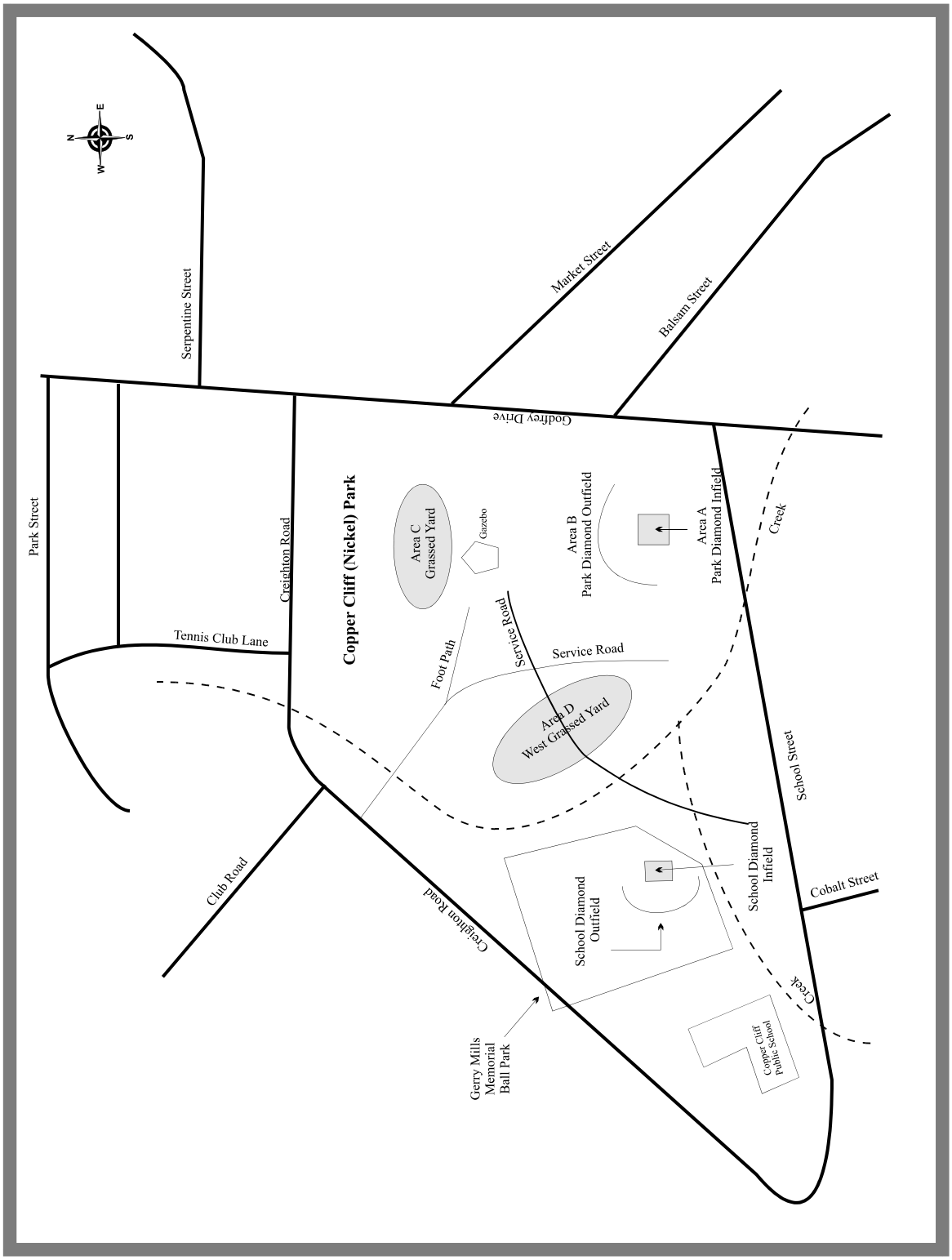


Map C5.1.5: Red Sox Ballfield, Coniston - 2001.

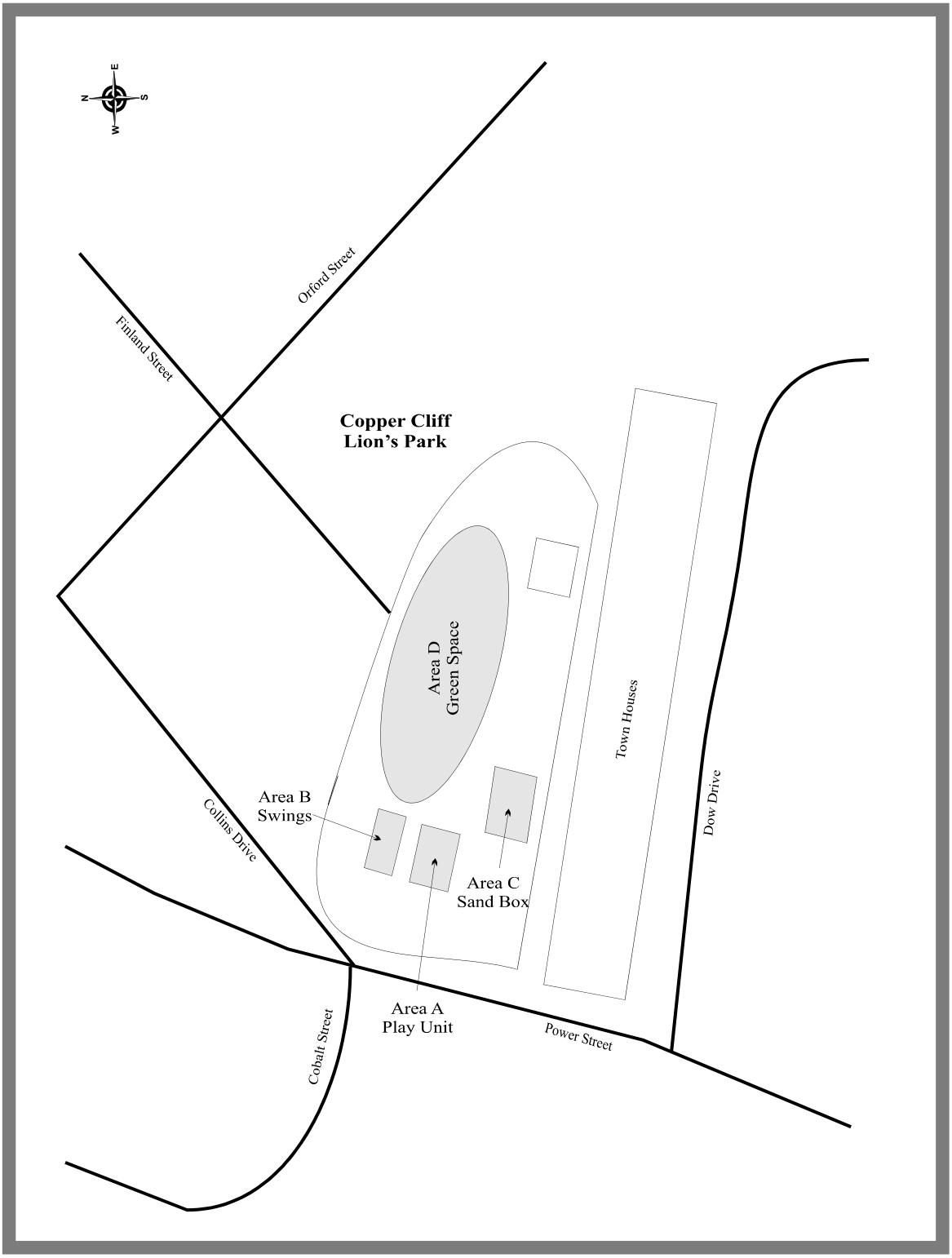


Map C5.1.6: Second Avenue Park, Coniston - 2001.

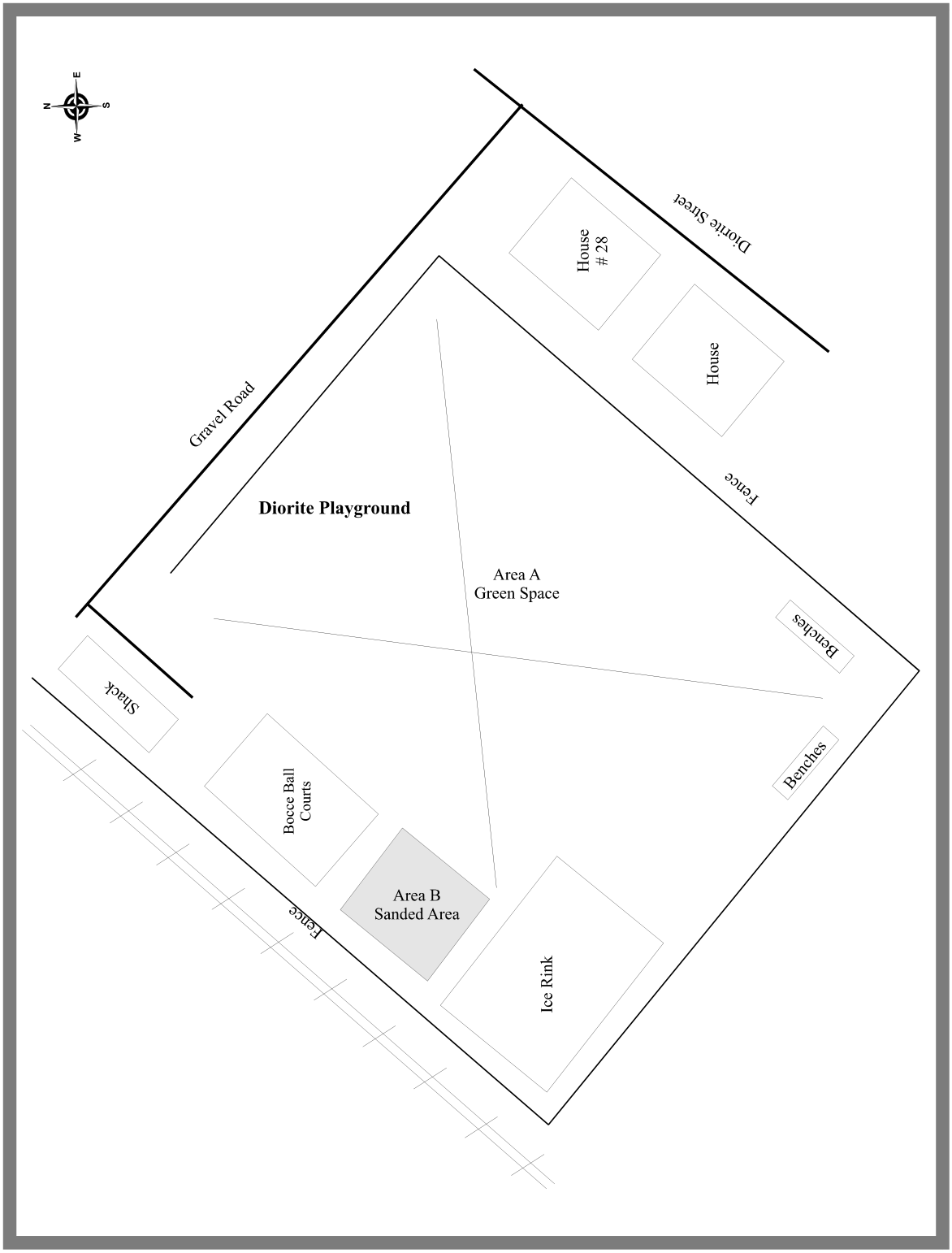
5.2 Copper Cliff Park Maps



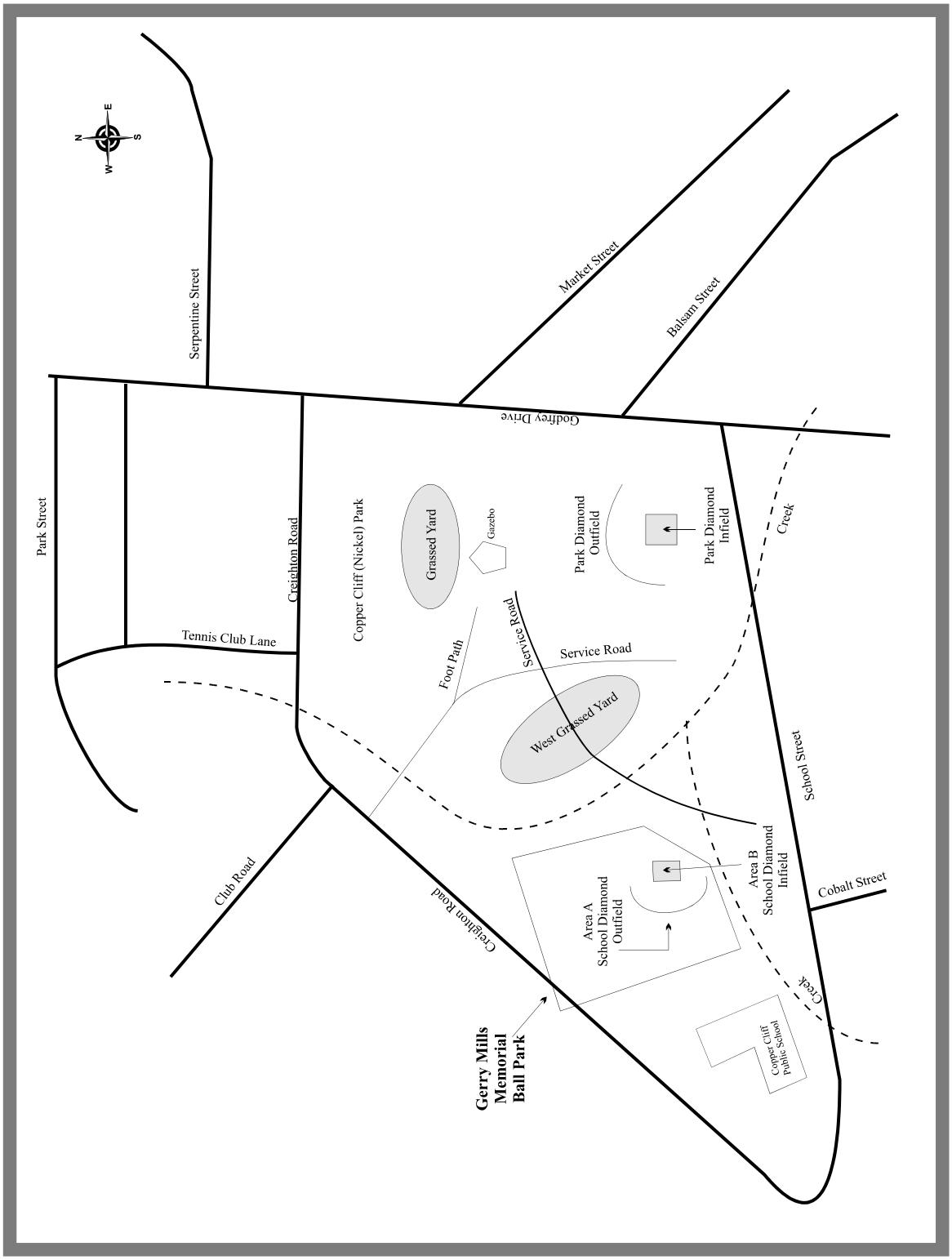
Map C5.2.1: Copper Cliff (Nickel) Park, Copper Cliff - 2001.



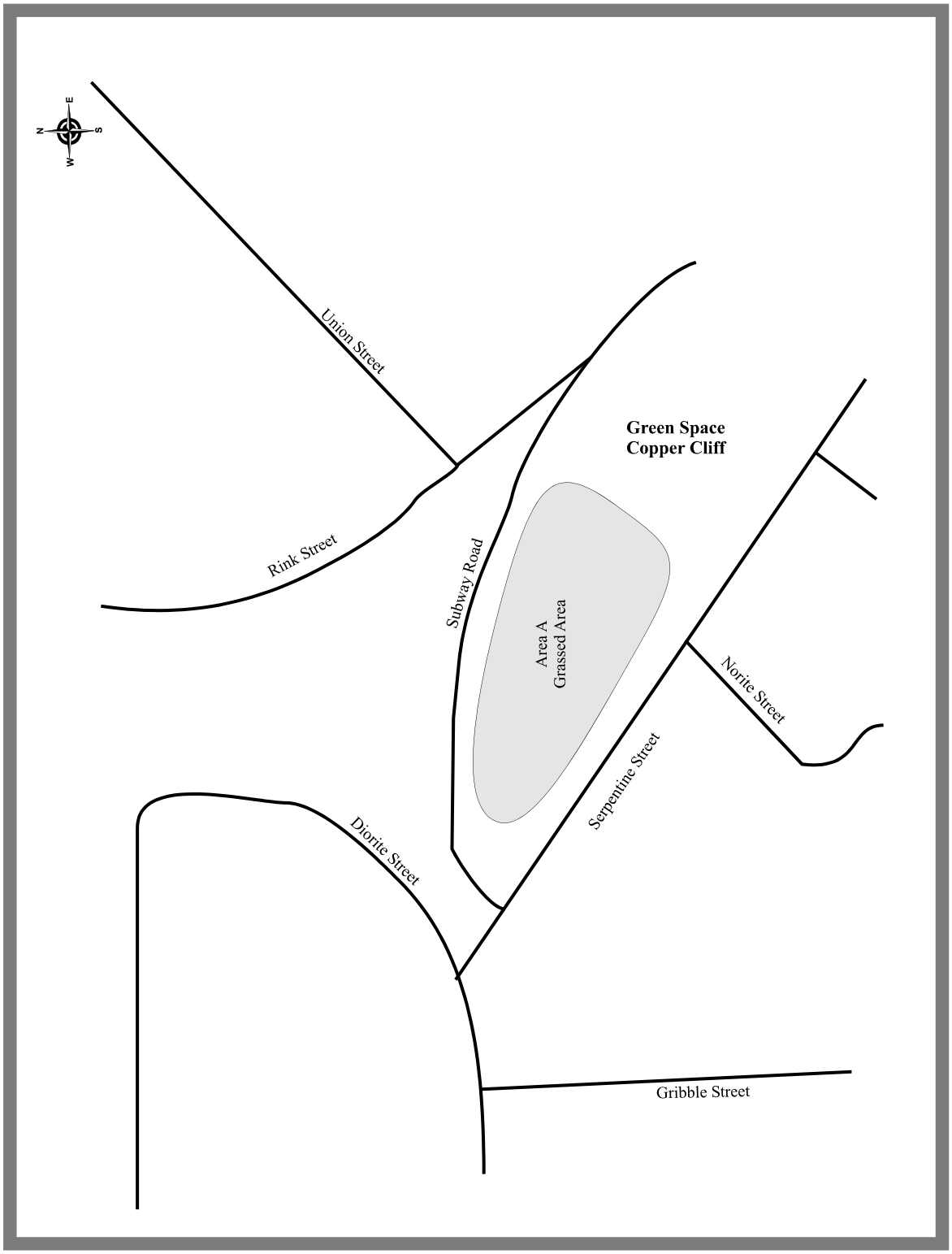
Map C5.2.2: Copper Cliff Lion's Park, Copper Cliff - 2001.



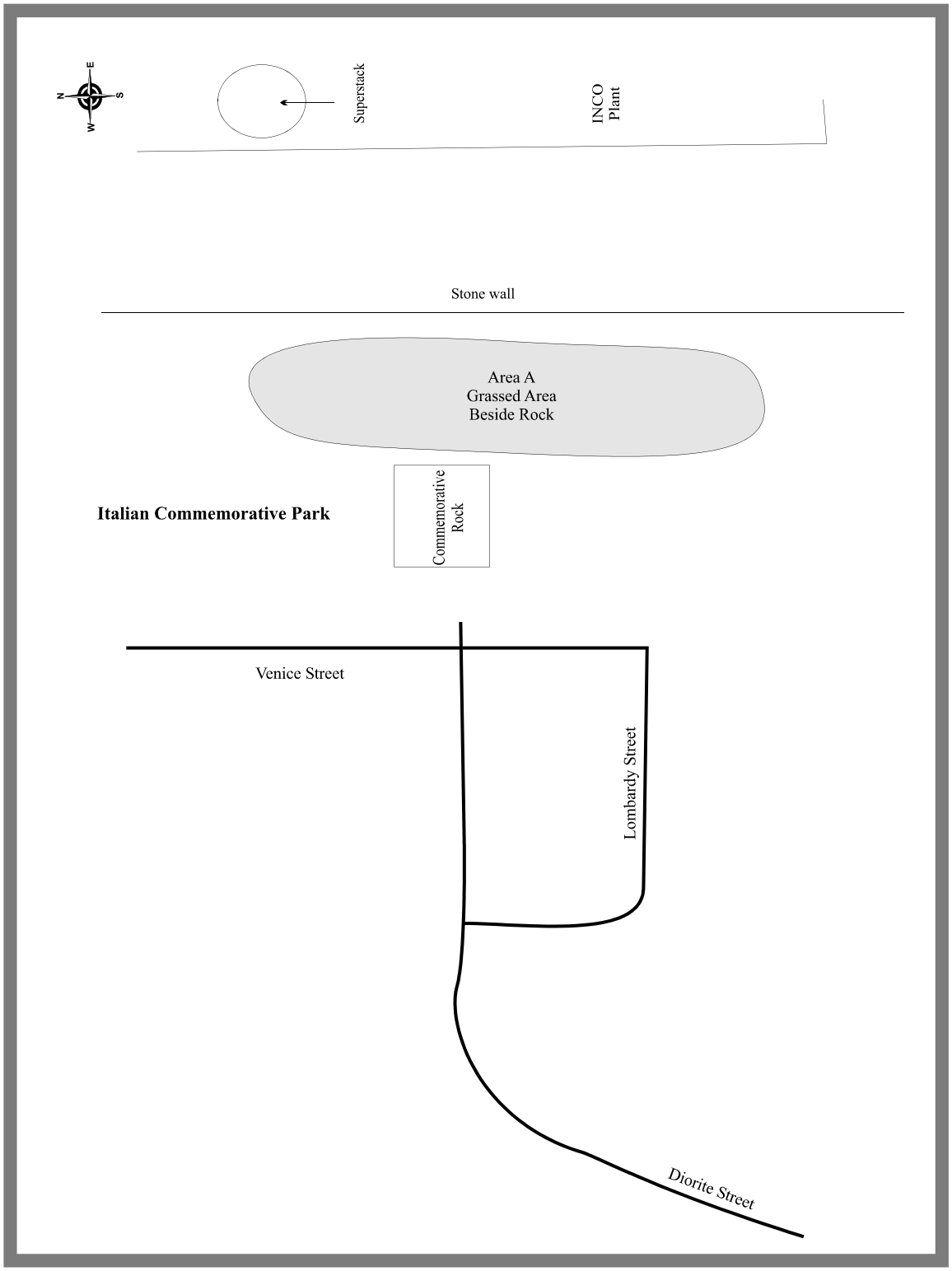
Map C5.2.3: Diorite Playground, Copper Cliff - 2001.



Map C5.2.4: Gerry Mills Memorial Ball Park, Copper Cliff - 2001.

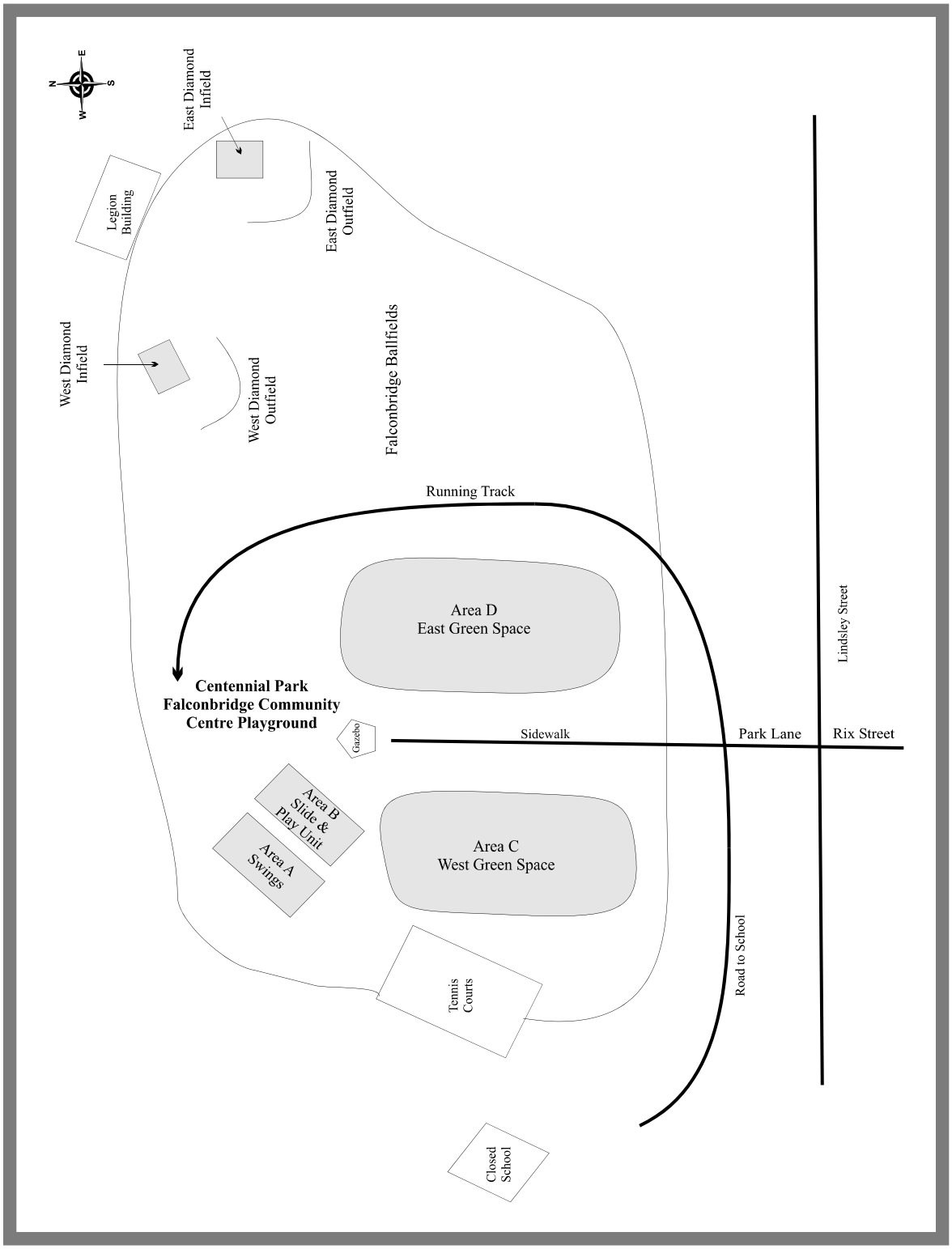


Map C5.2.5: Green Space Park, Copper Cliff - 2001.

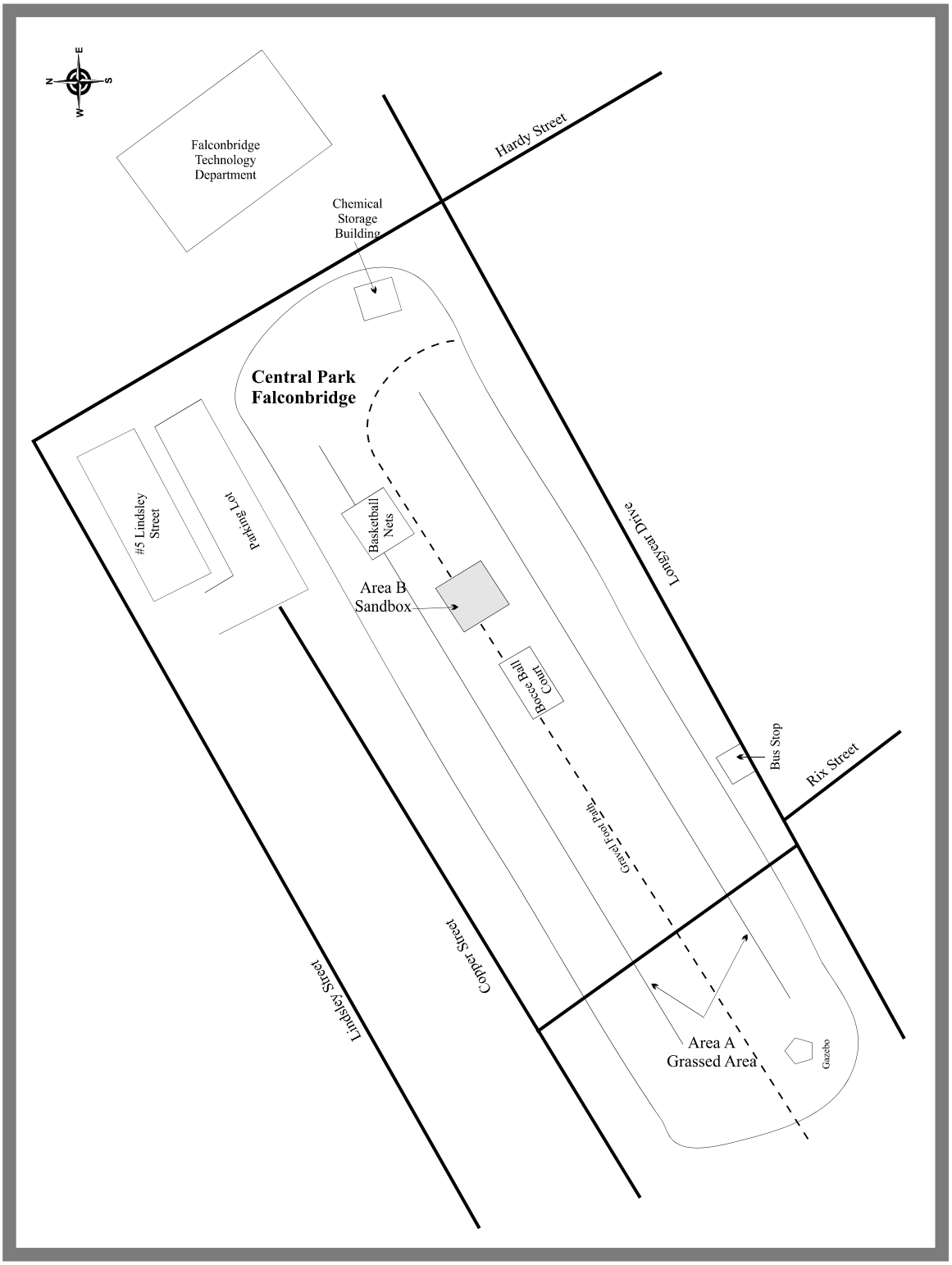


Map C5.2.6: Italian Commemorative Park, Copper Cliff - 2001.

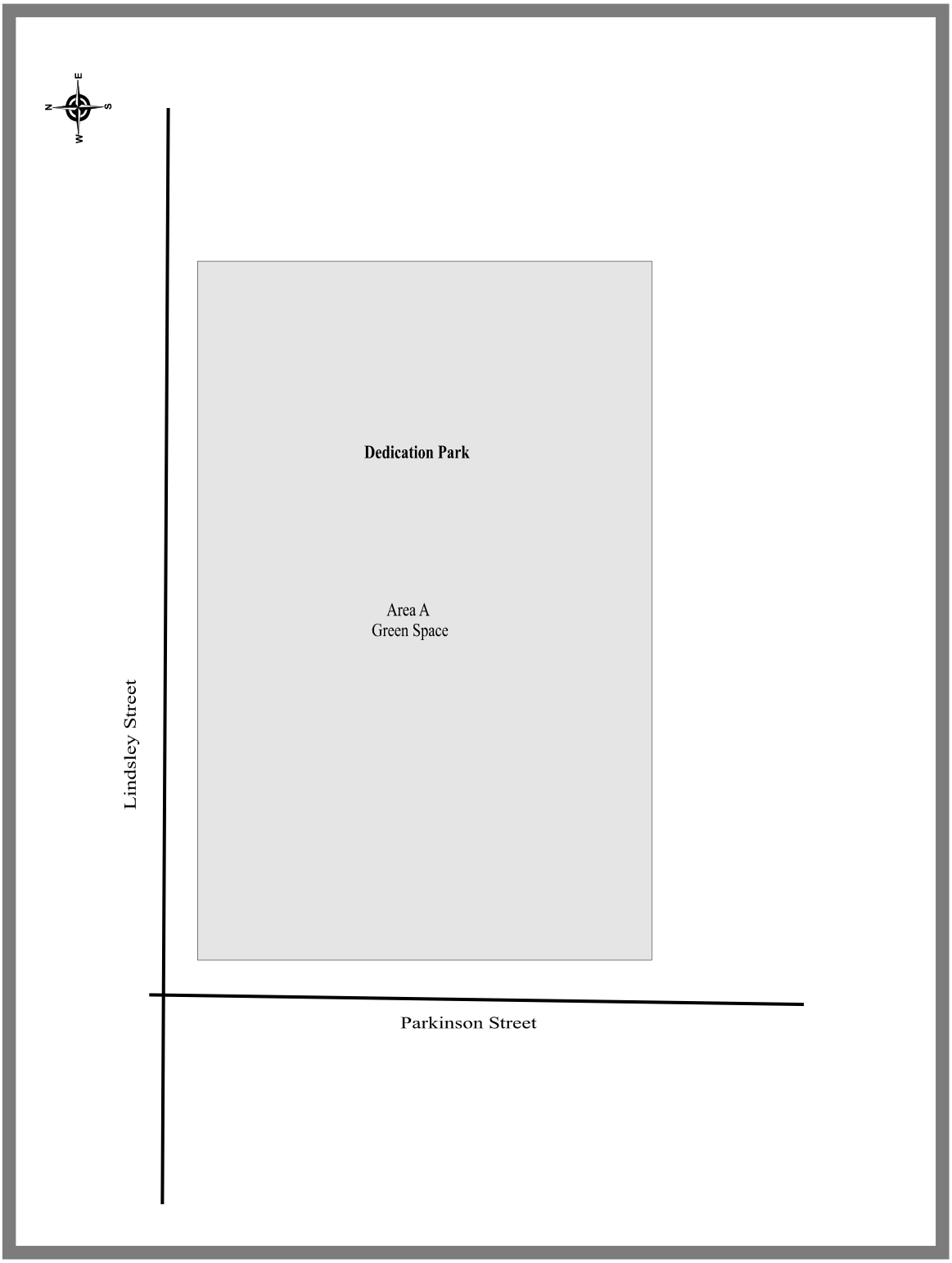
5.3 Falconbridge Park Maps



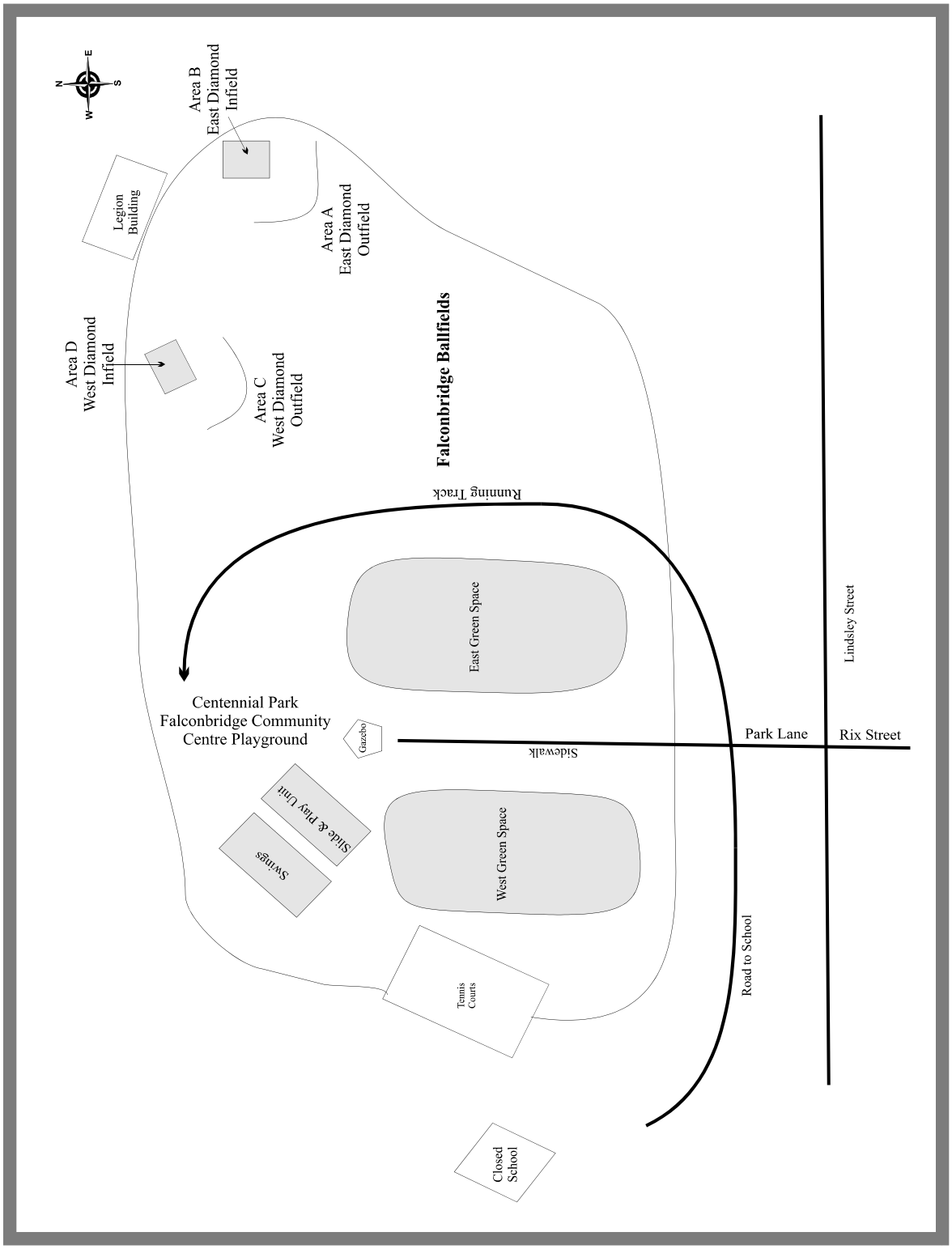
Map C5.3.1: Centennial Park, Falconbridge - 2001.



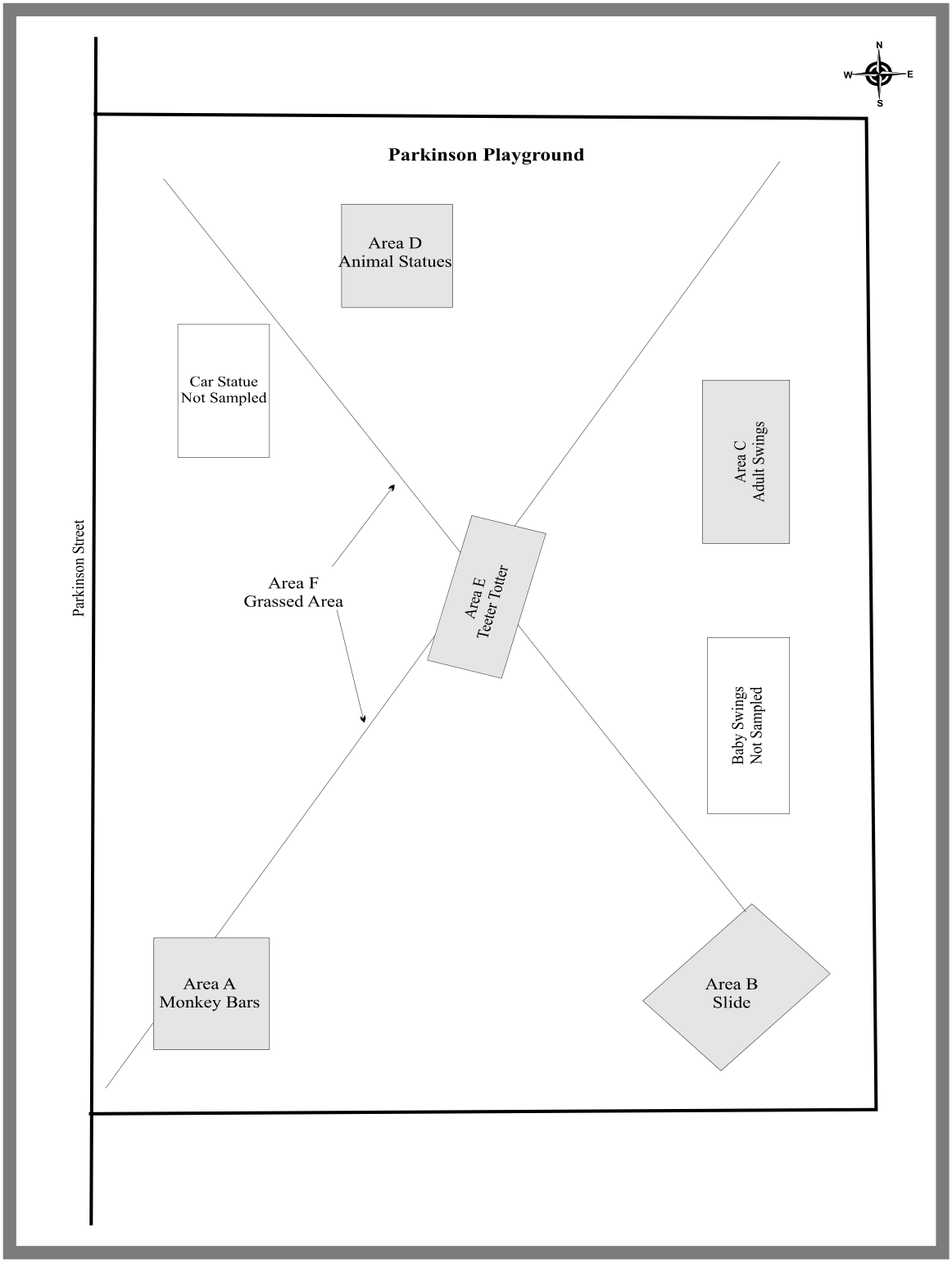
Map C5.3.2: Central Park, Falconbridge - 2001.



Map C5.3.3: Dedication Park, Falconbridge - 2001.

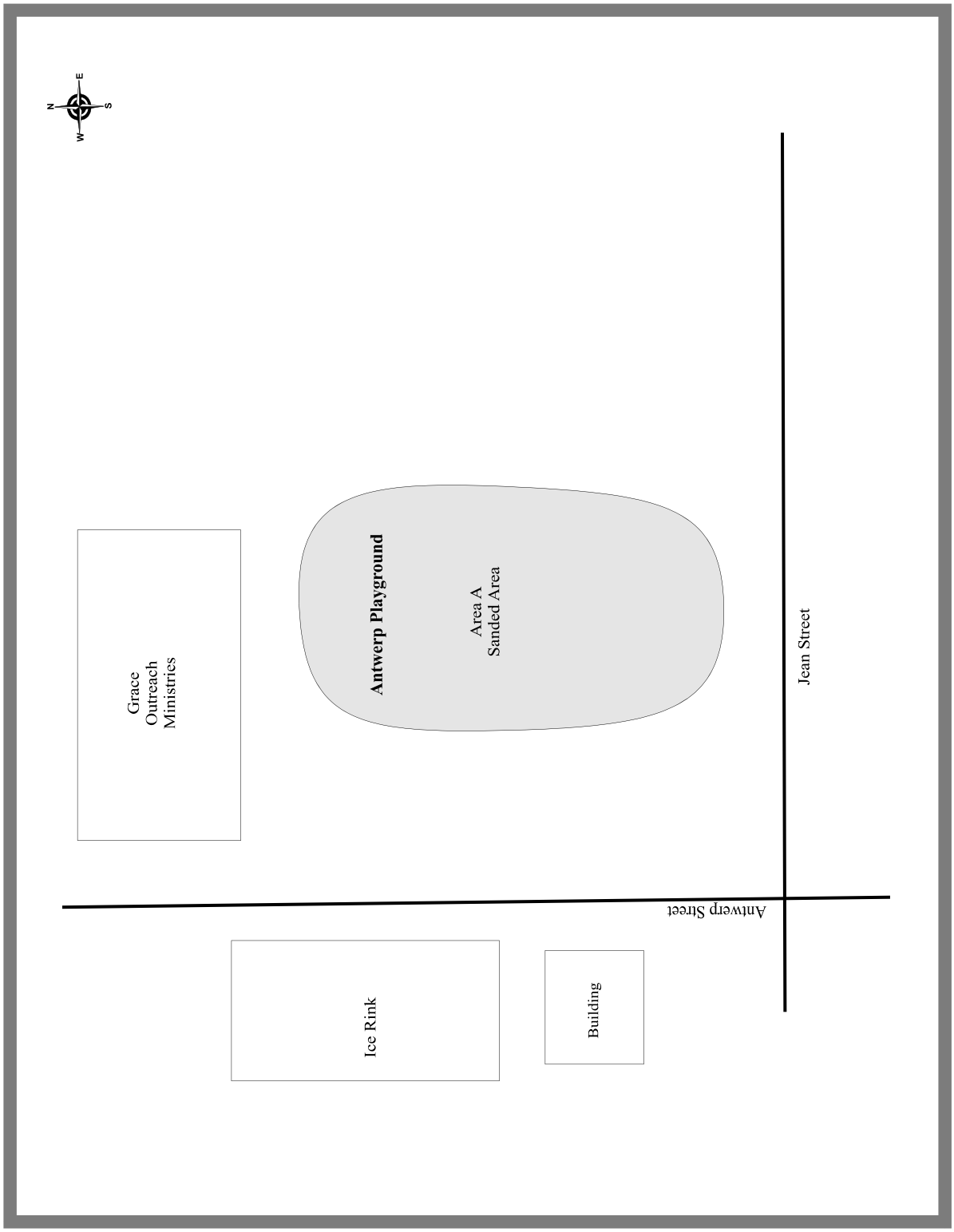


Map C5.3.4: Falconbridge Ballfields, Falconbridge - 2001.

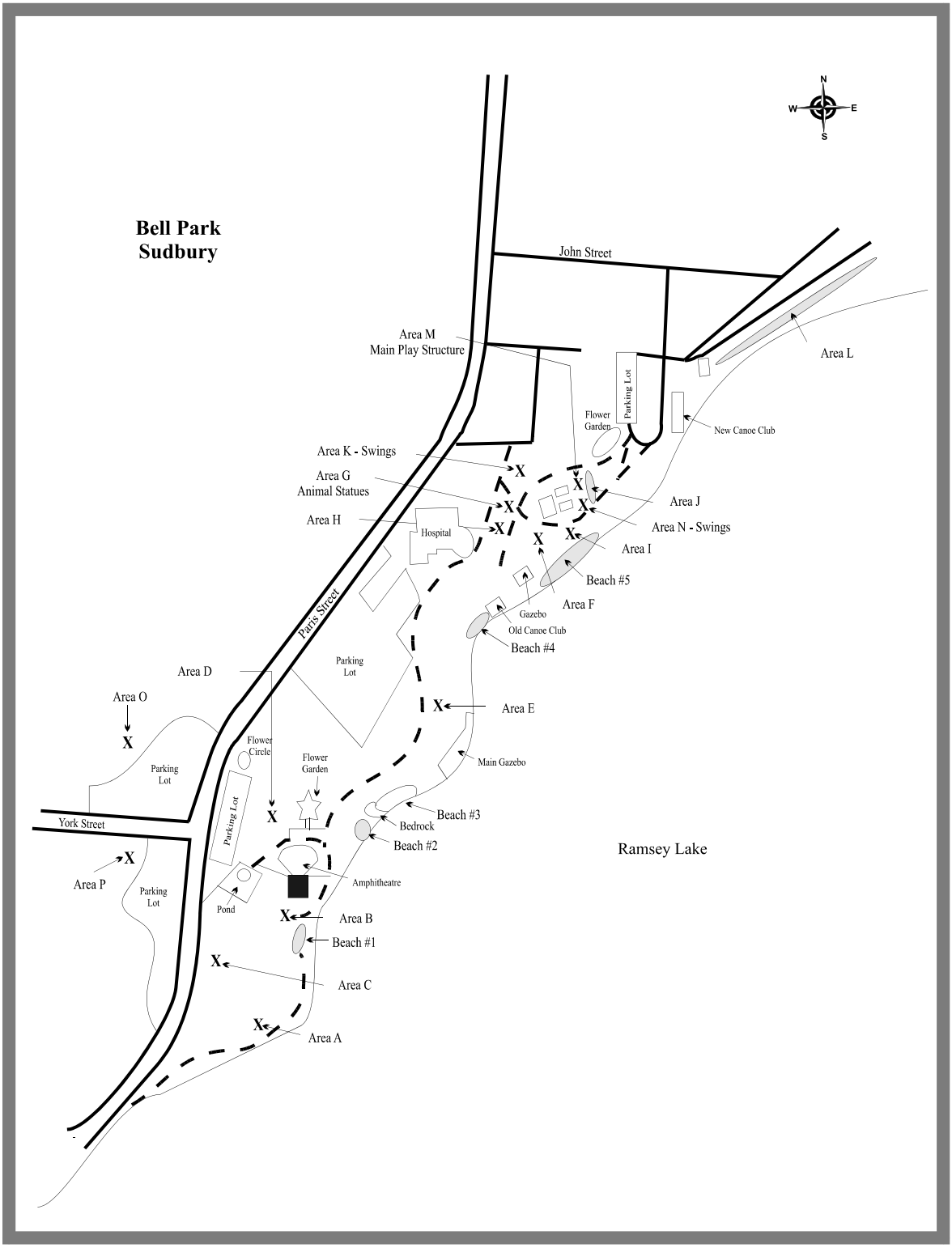


Map C5.3.5: Parkinson Playground, Falconbridge - 2001.

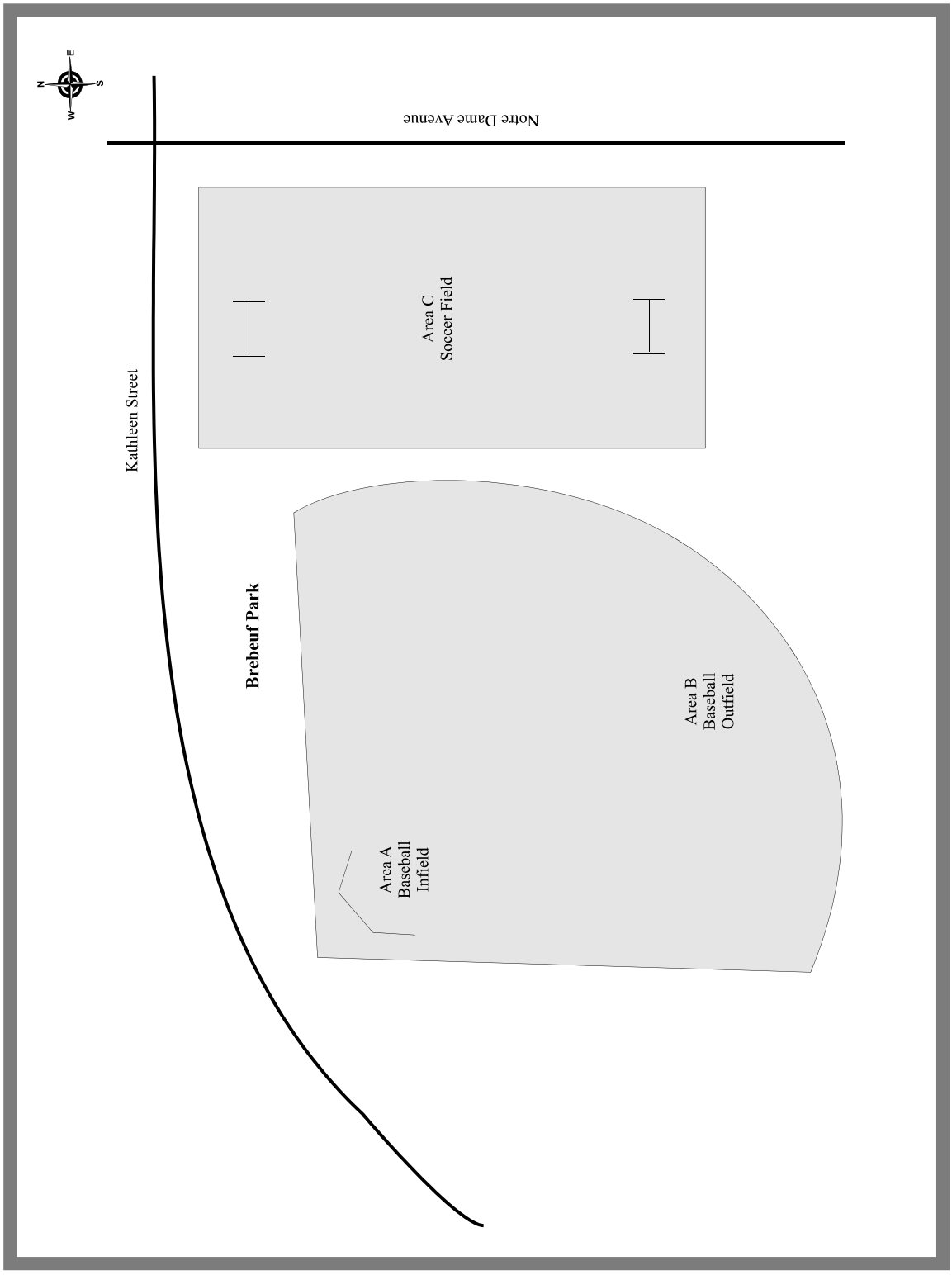
5.3 Sudbury Core Park Maps



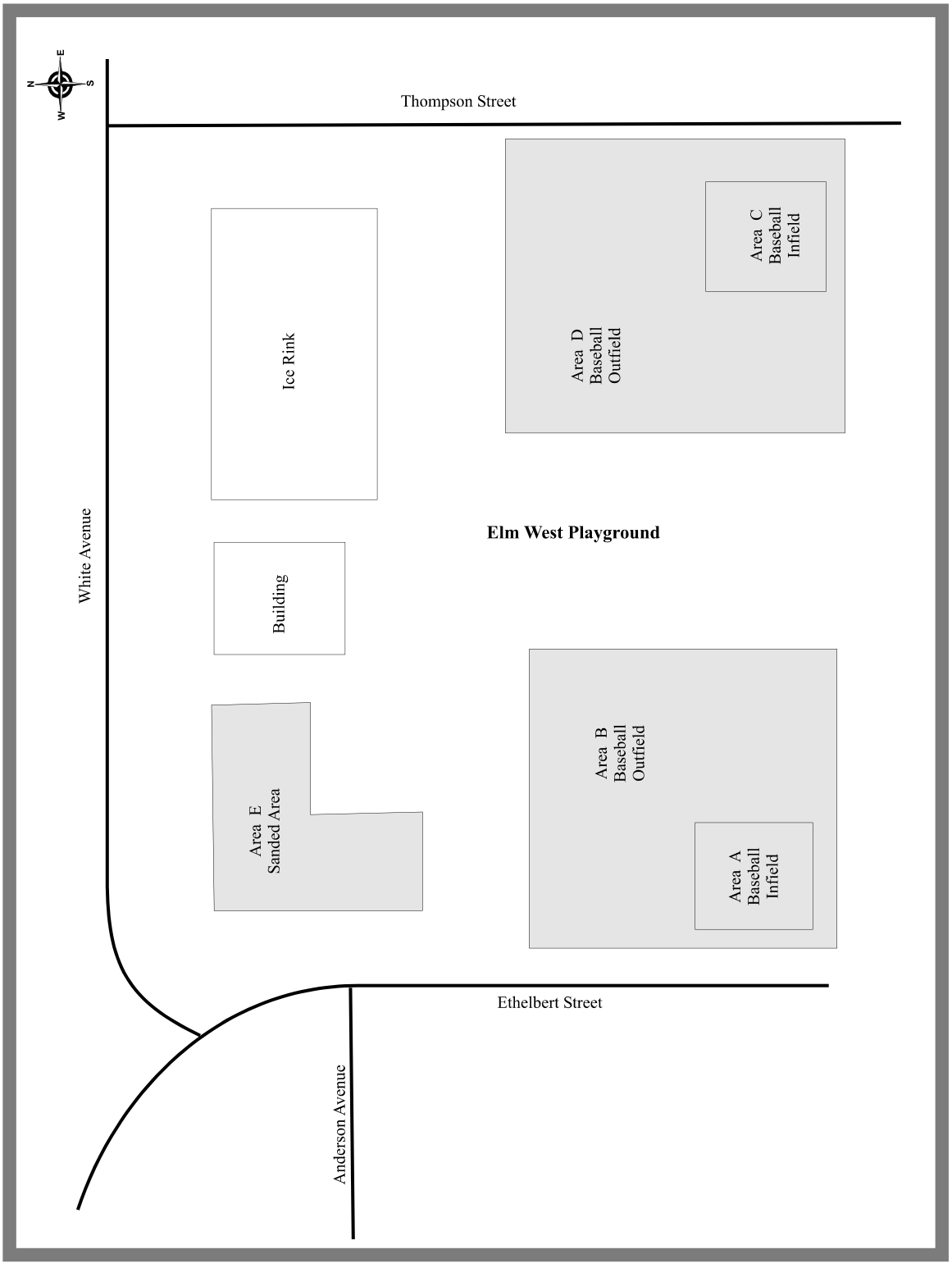
Map C5.4.1: Antwerp Playground, Sudbury Core- 2001.



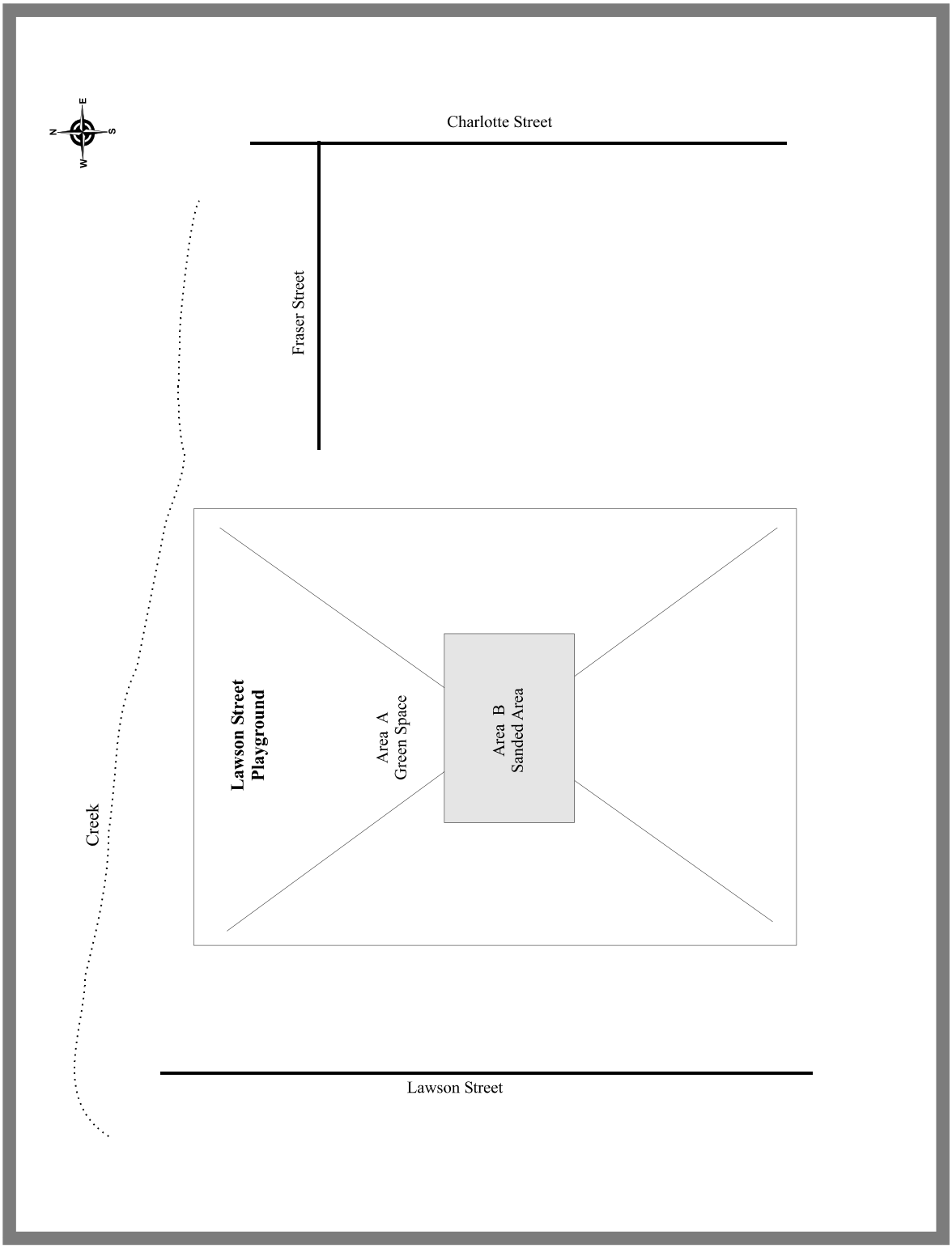
Map C5.4.2: Bell Park, Sudbury Core - 2001.



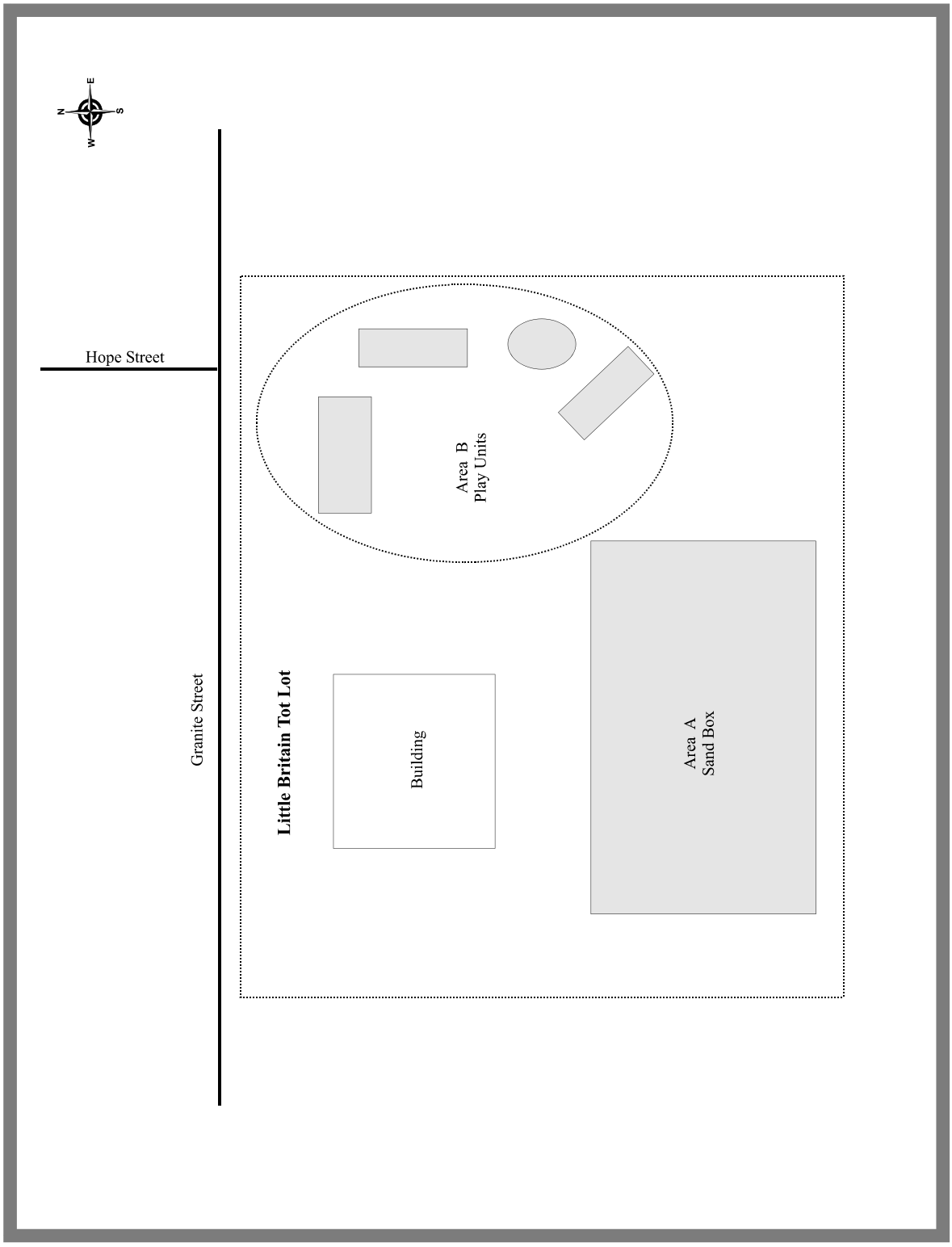
Map C5.4.3: Brebeuf Park, Sudbury Core - 2001.



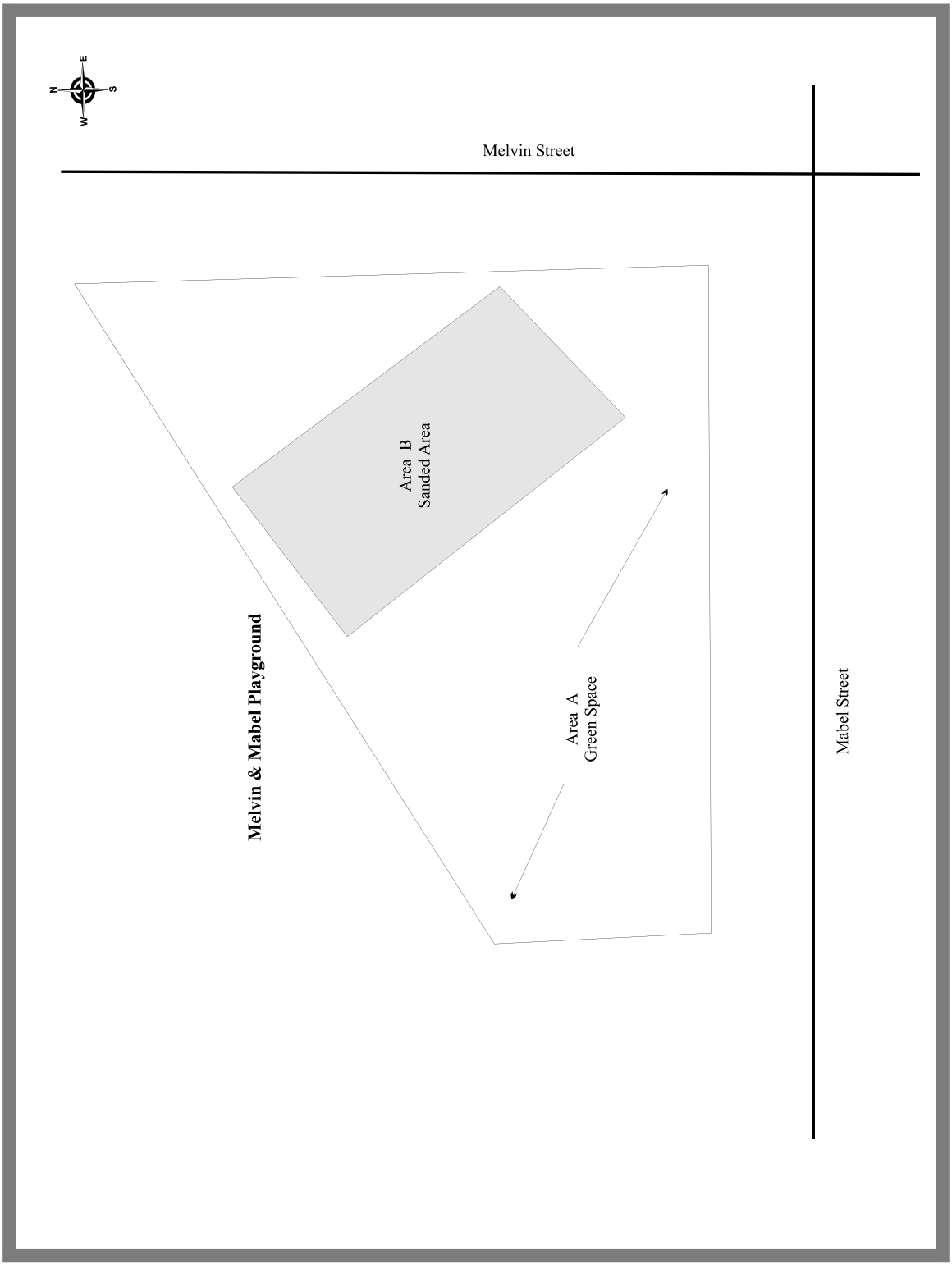
Map C5.4.4: Elm West Playground, Sudbury Core - 2001.



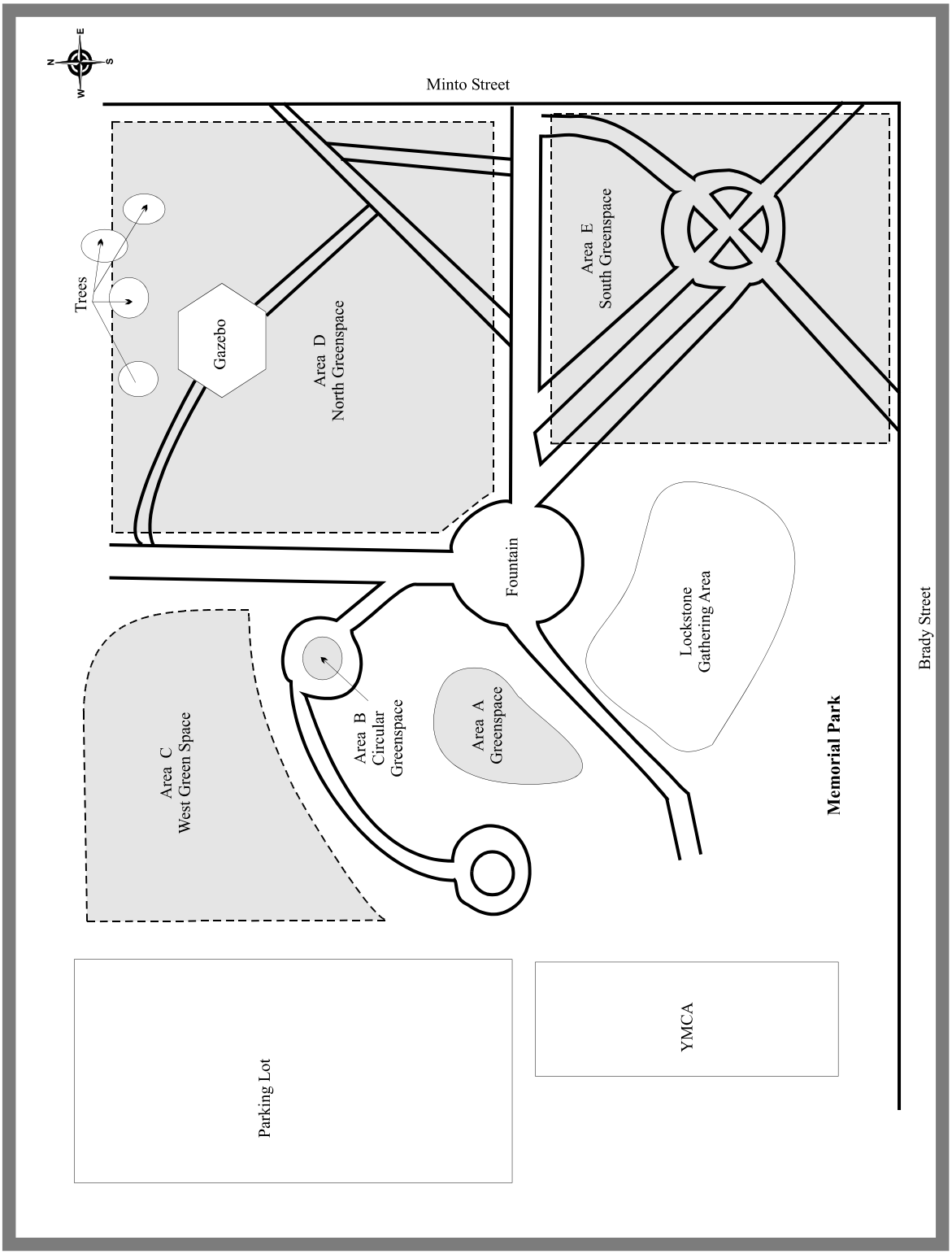
Map C5.4.5: Lawson Street Playground, Sudbury Core - 2001.



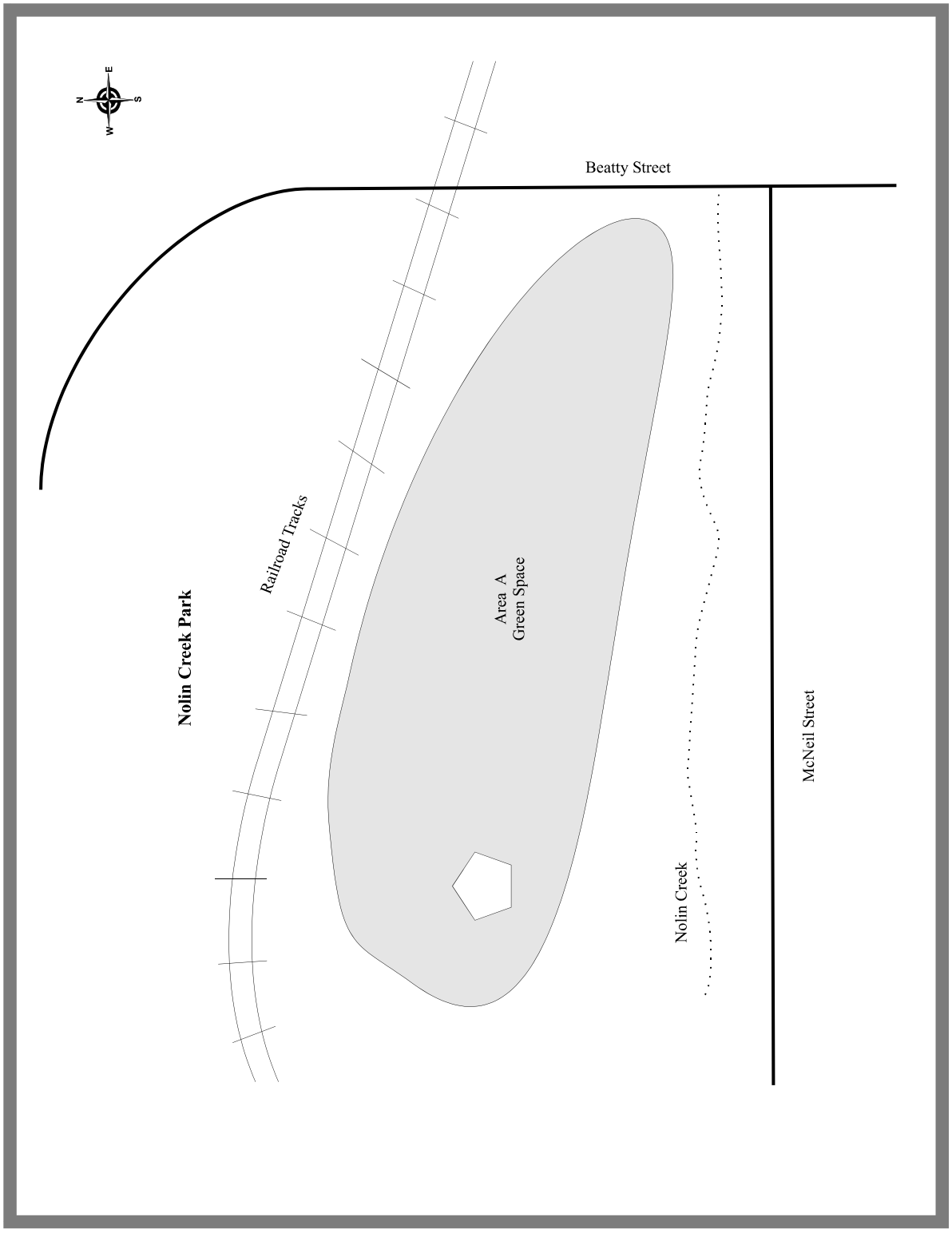
Map C5.4.6: Little Britain Tot Lot, Sudbury Core - 2001.



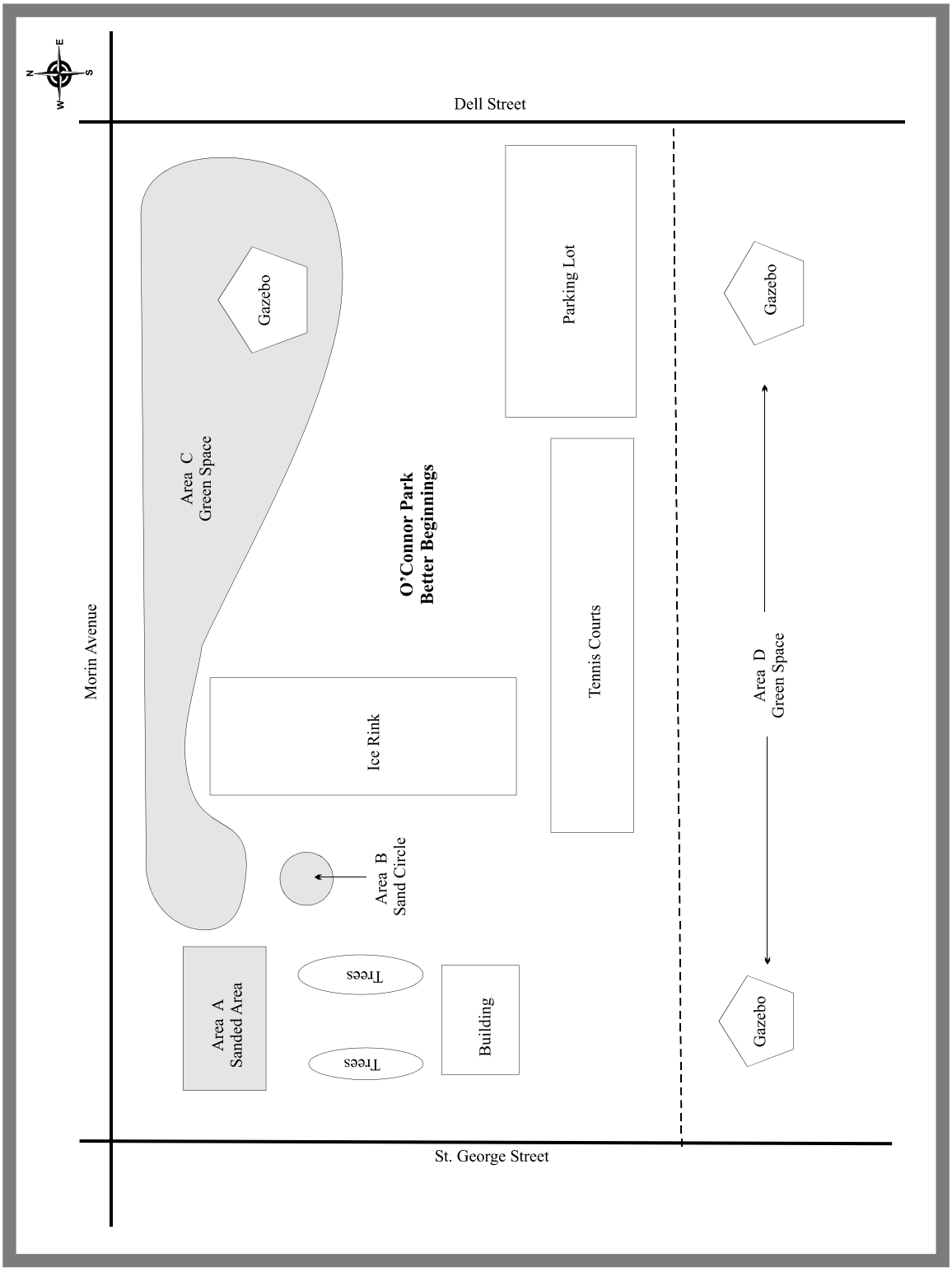
Map C5.4.7: Melvin and Mabel Streets Playground, Sudbury Core - 2001.



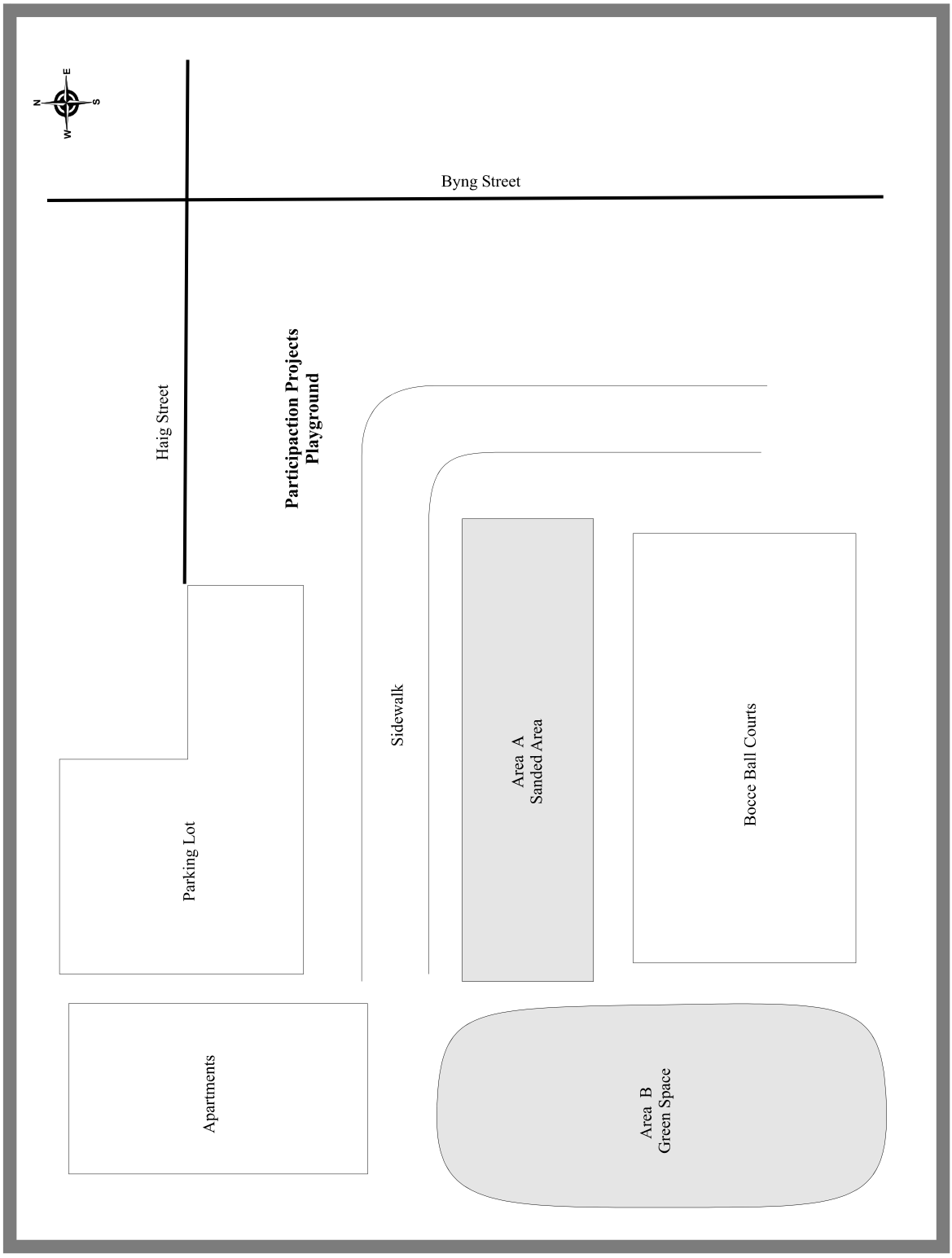
Map C5.4.8: Memorial Park, Sudbury Core - 2001.



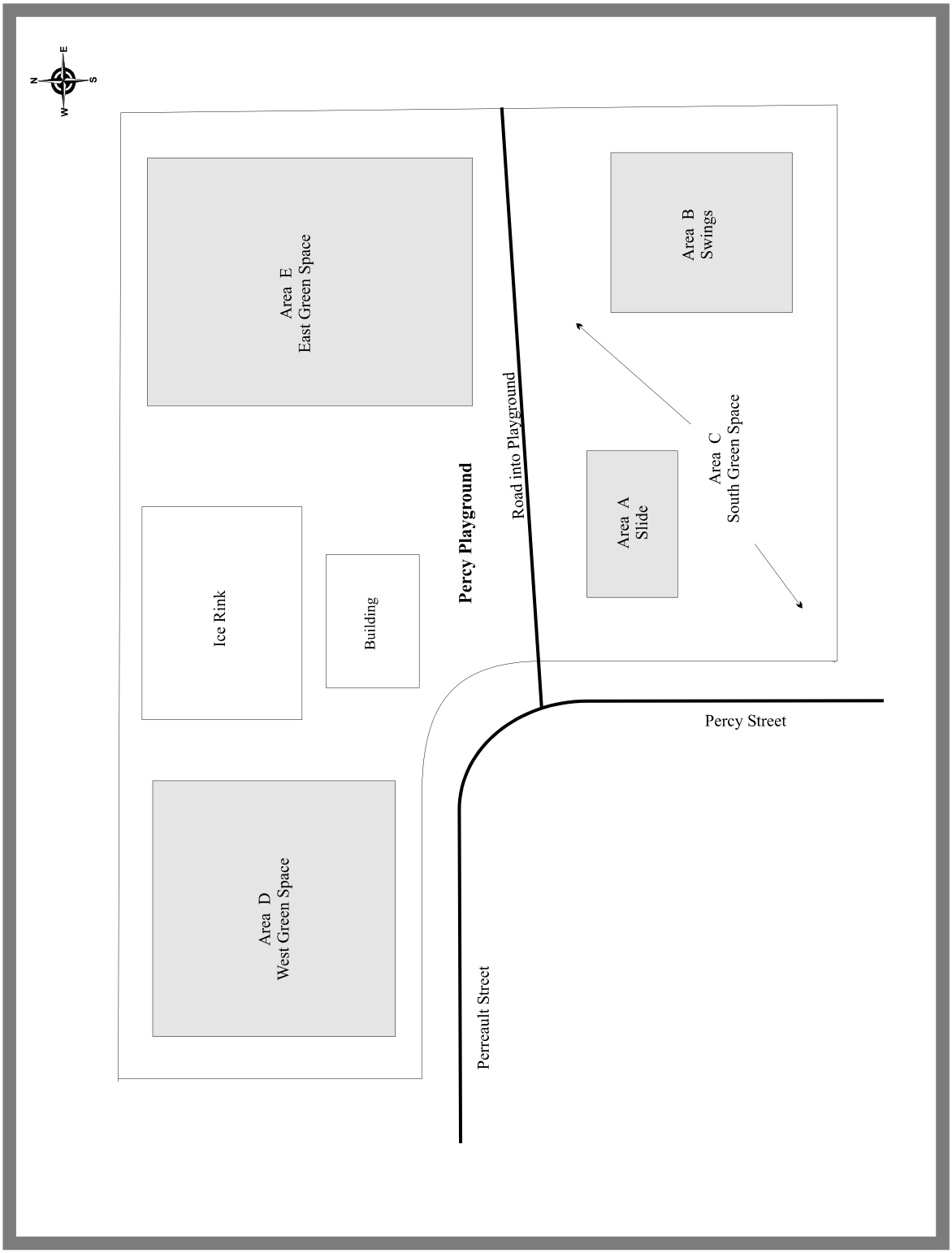
Map C5.4.9: Nolin Creek Park, Sudbury Core - 2001.



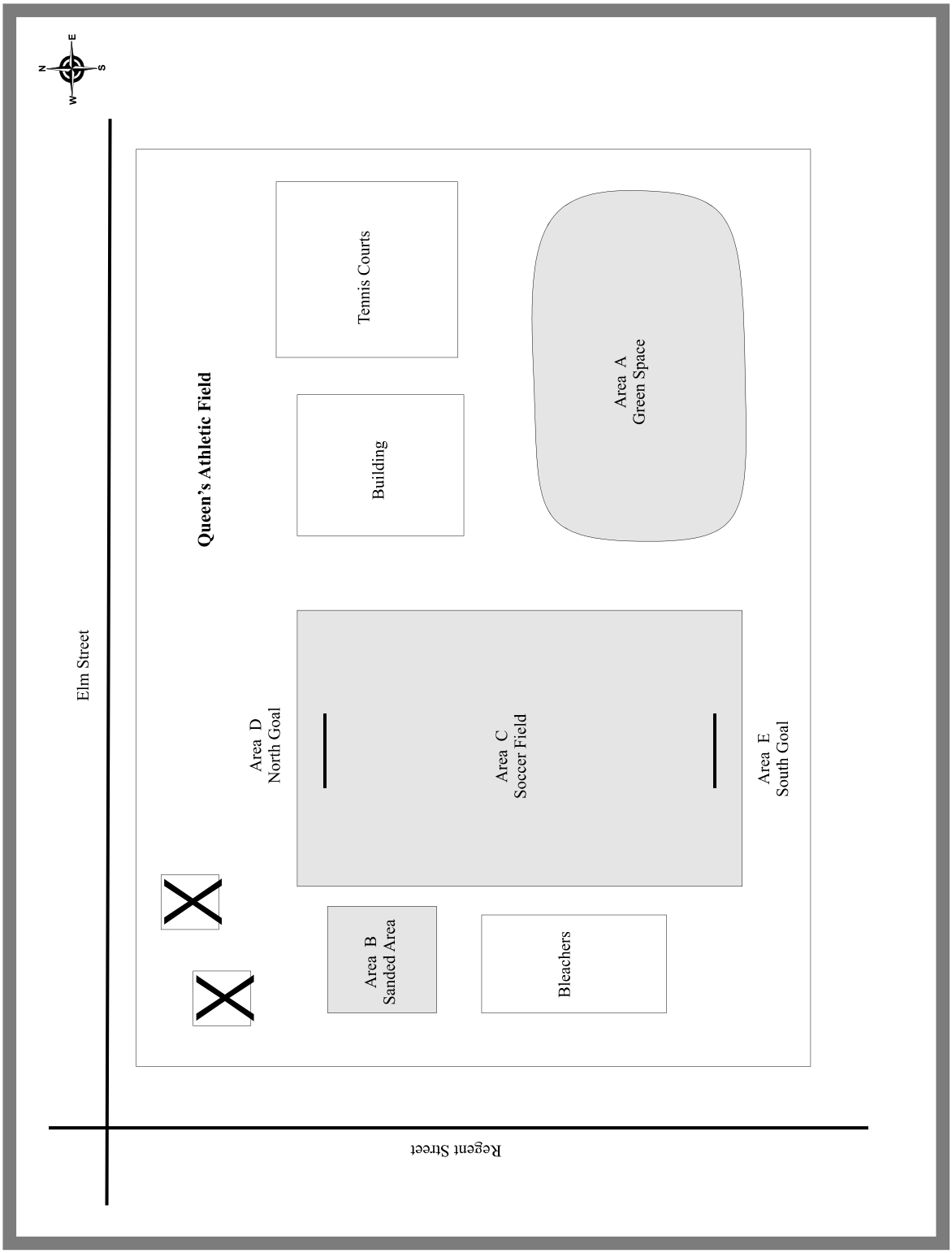
Map C5.4.10: O'Connor Park (Better Beginnings), Sudbury Core - 2001.



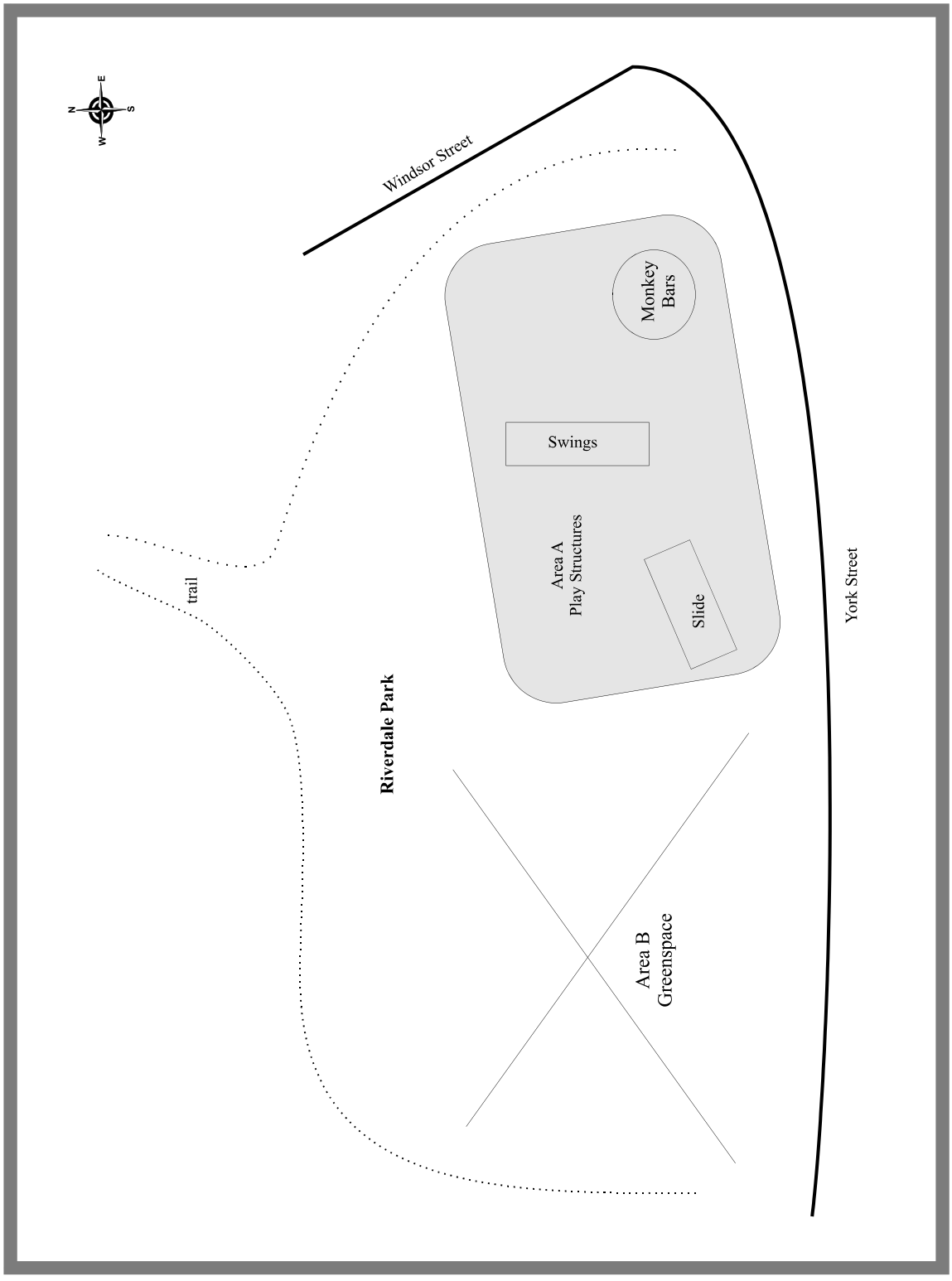
Map C5.4.11: Participaction Projects Playground, Sudbury Core - 2001.



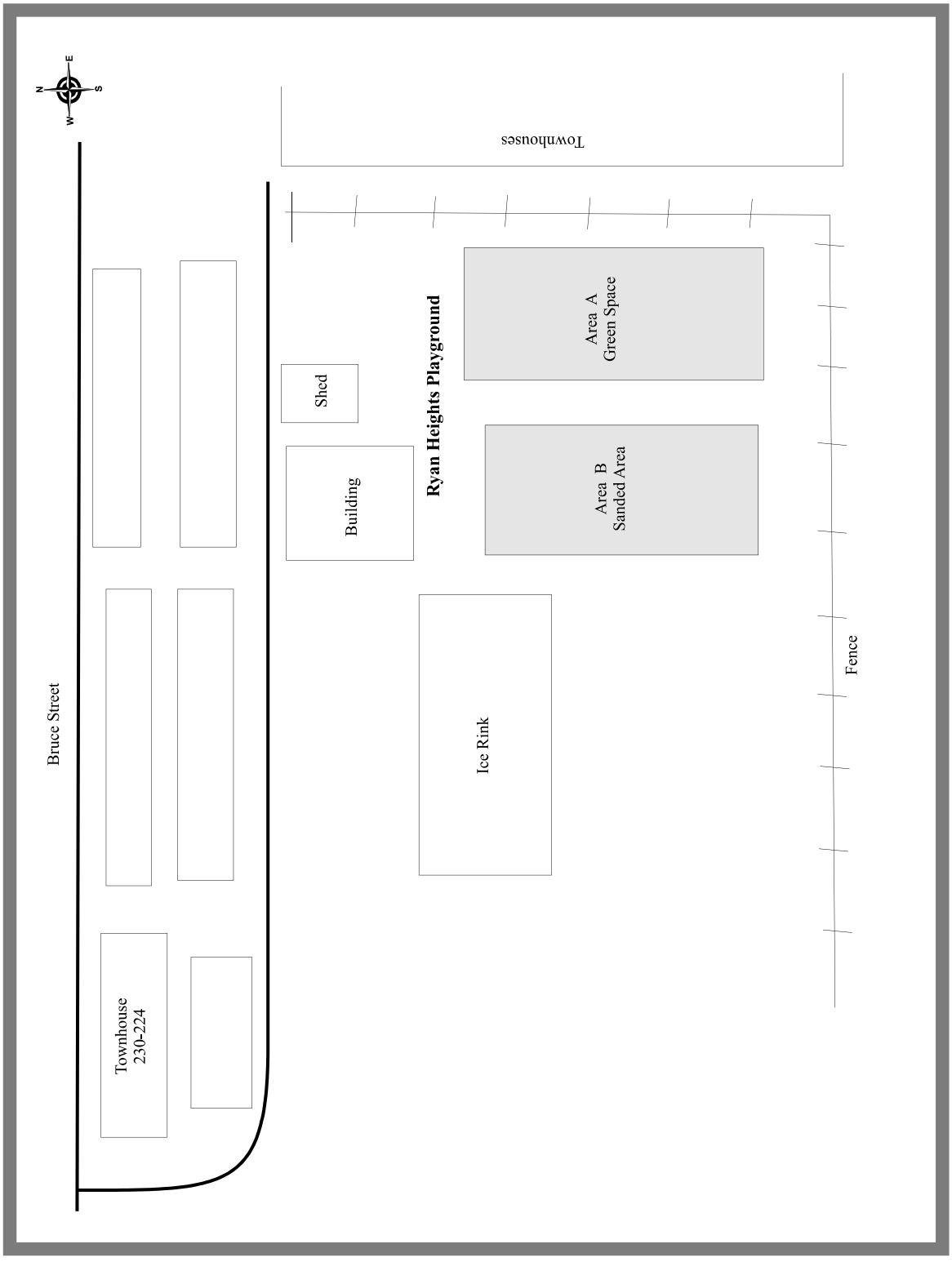
Map C5.4.12: Percy Playground, Sudbury Core - 2001.



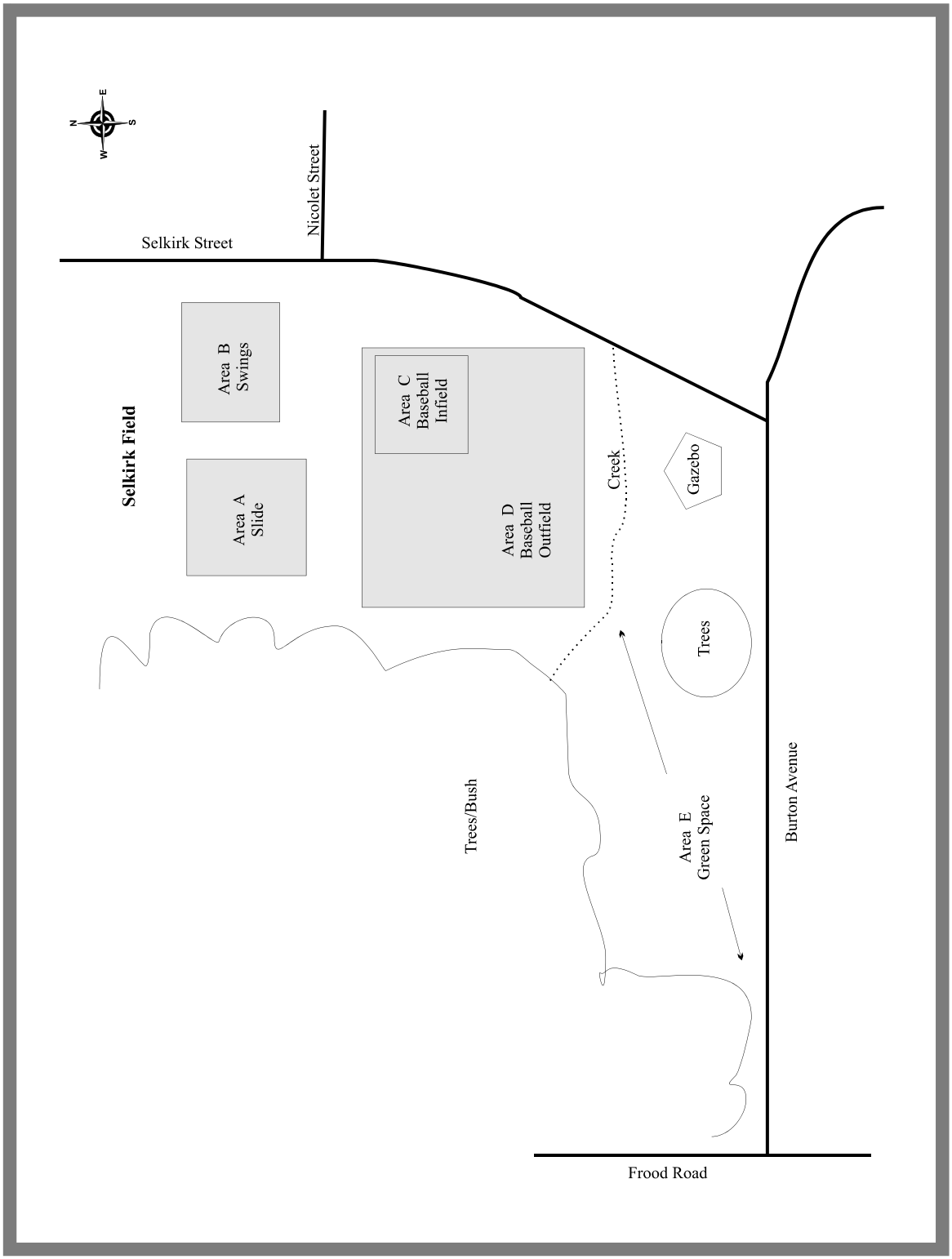
Map C5.4.13: Queen's Athletic Field, Sudbury Core - 2001.



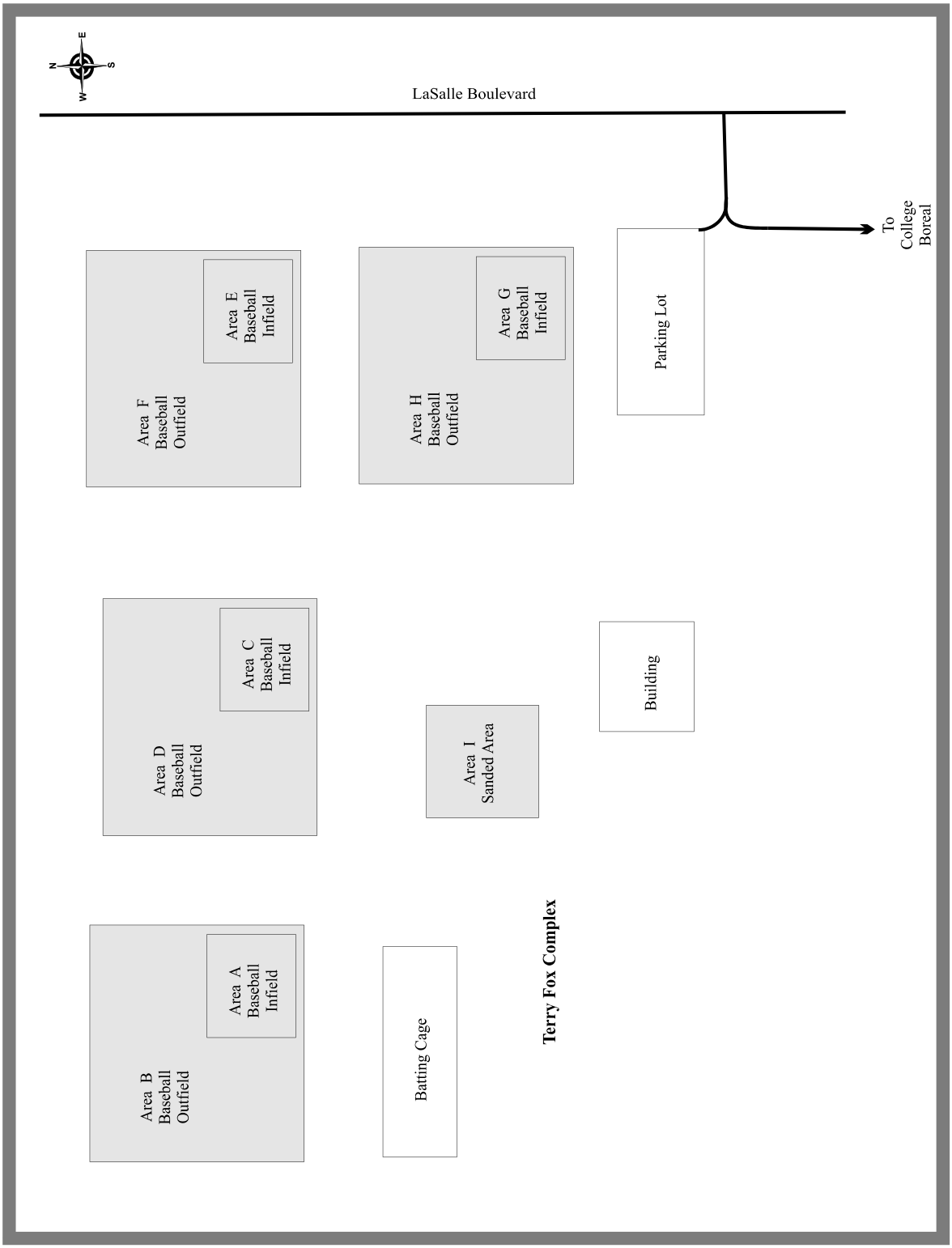
Map C5.4.14: Riverdale Park, Sudbury Core - 2001.



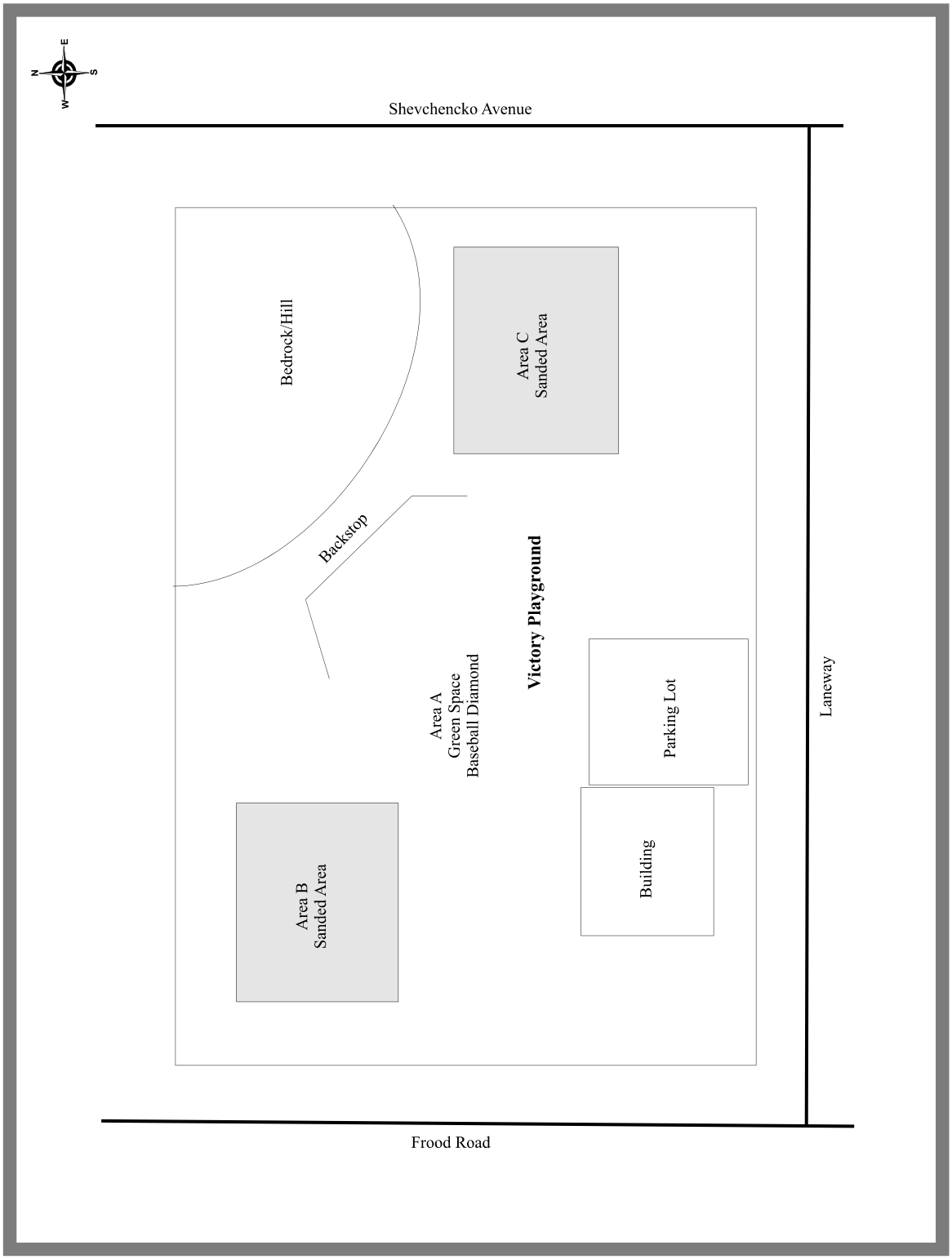
Map C5.4.15: Ryan Heights Playground, Sudbury Core - 2001.



Map C5.4.16: Selkirk Field, Sudbury Core - 2001.

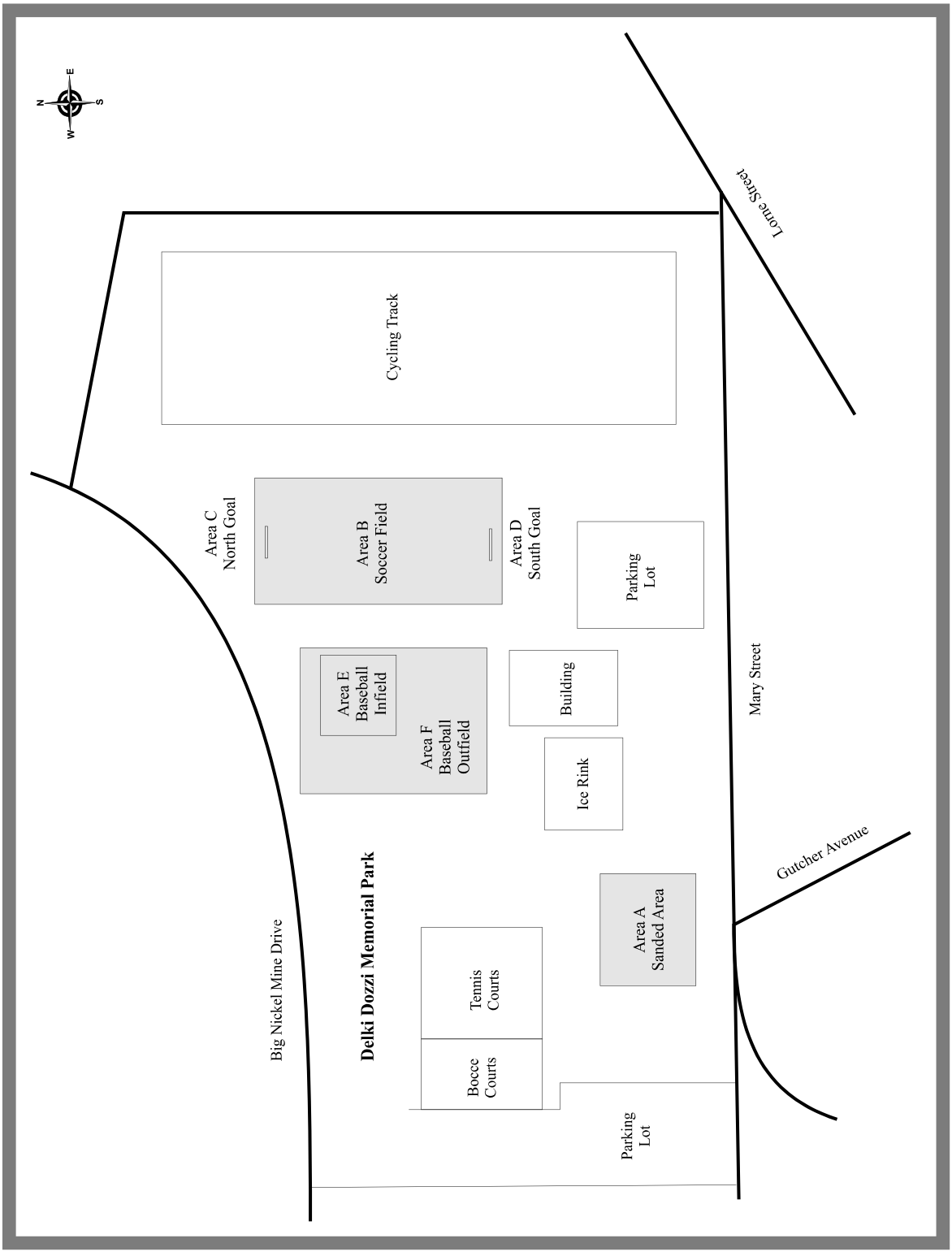


Map C5.4.17: Terry Fox Complex, Sudbury Core - 2001.

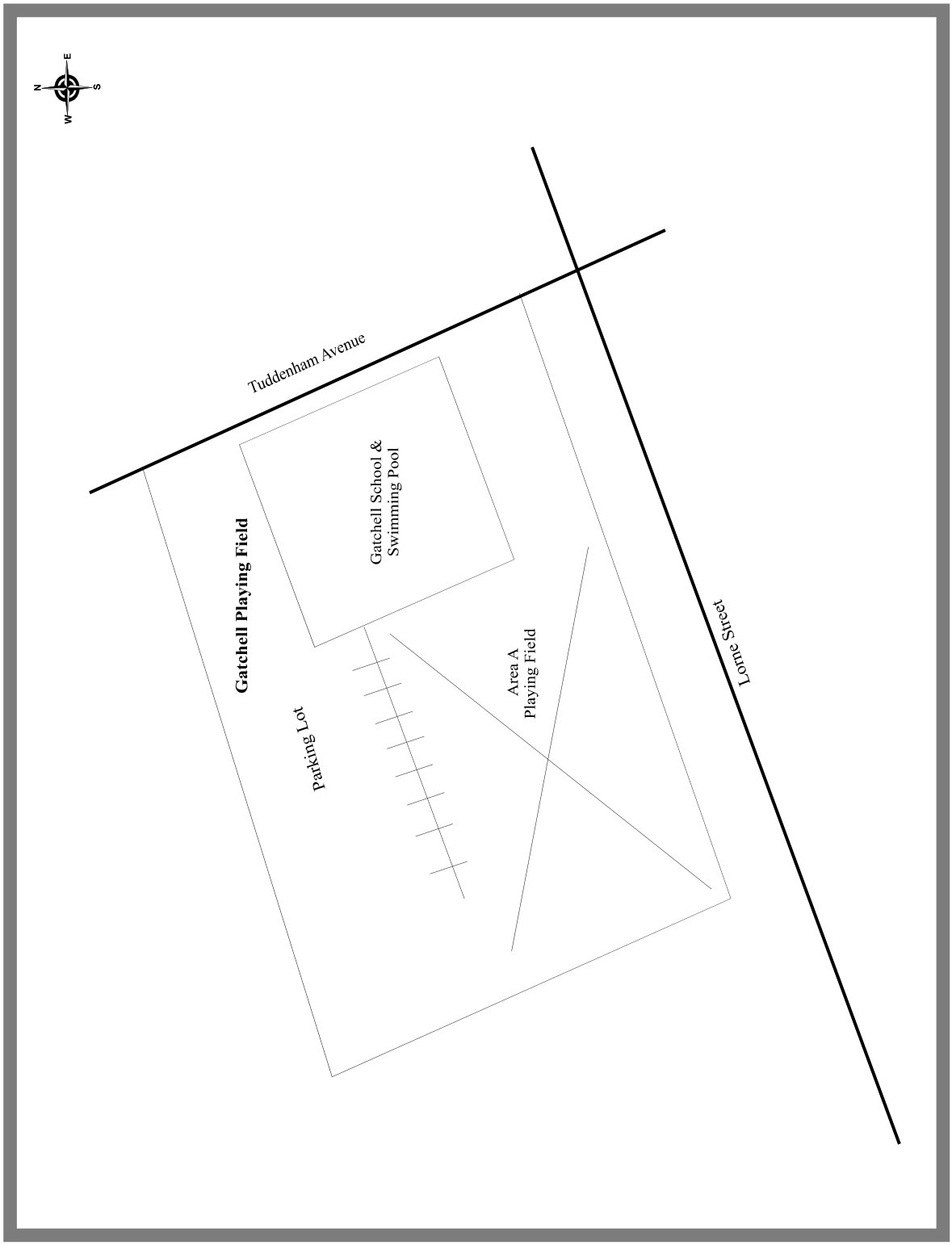


Map C5.4.18: Victory Playground, Sudbury Core - 2001.

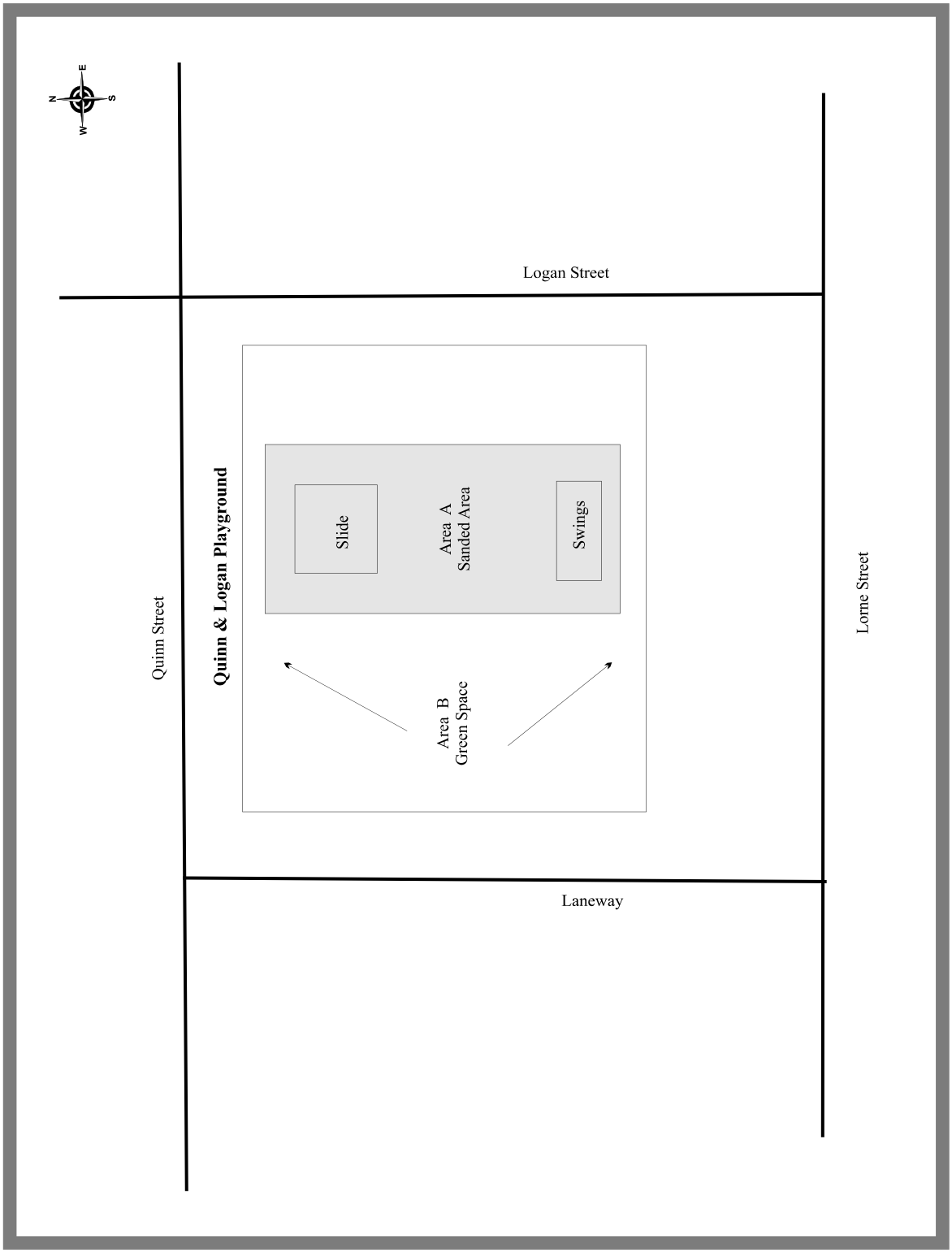
5.5 Gatchel Park Maps



Map C5.4.19: Delki Dozzi Athletic Field, Gatchell - 2001.

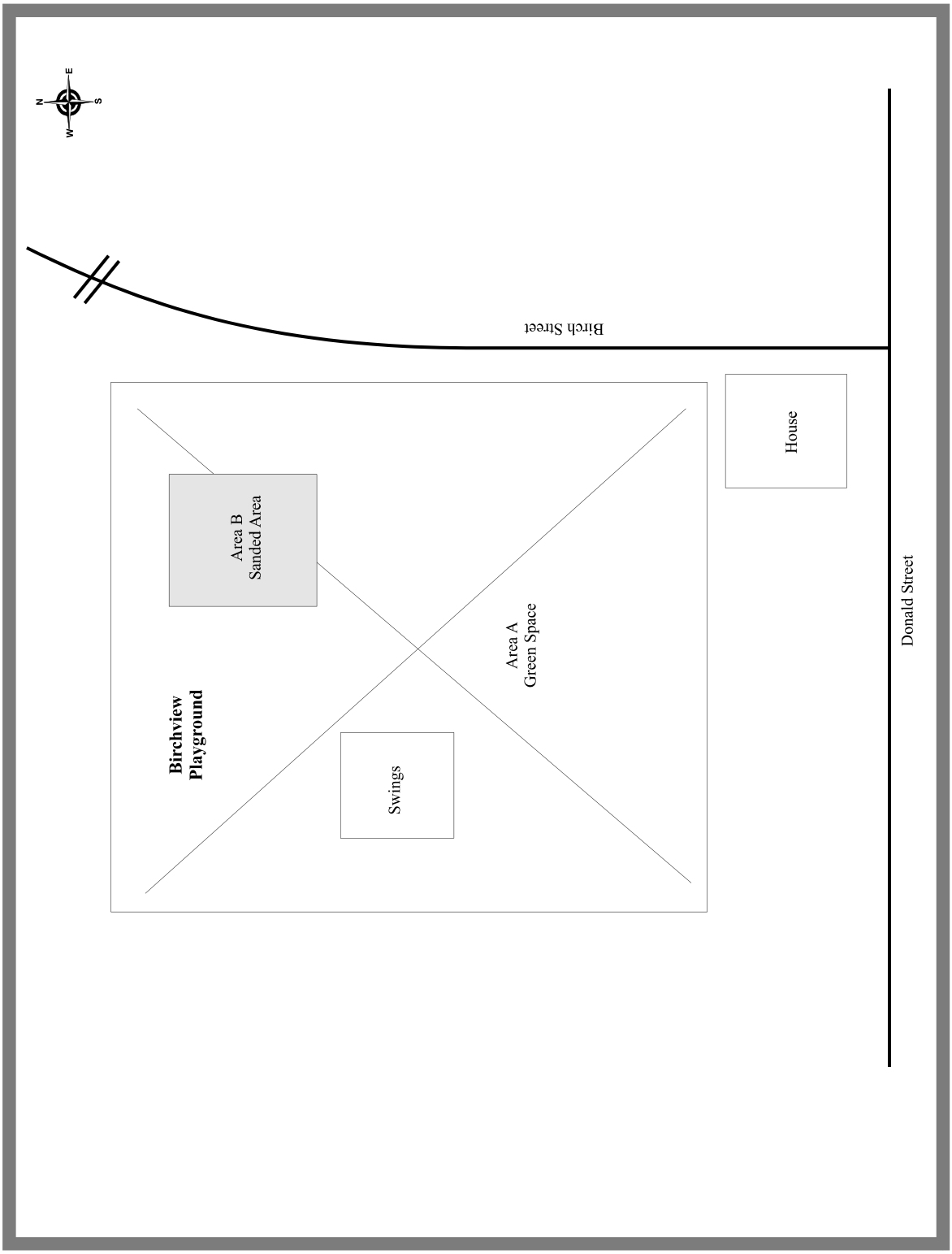


Map C5.4.20: Gatchell Pool Field, Gatchell - 2001.

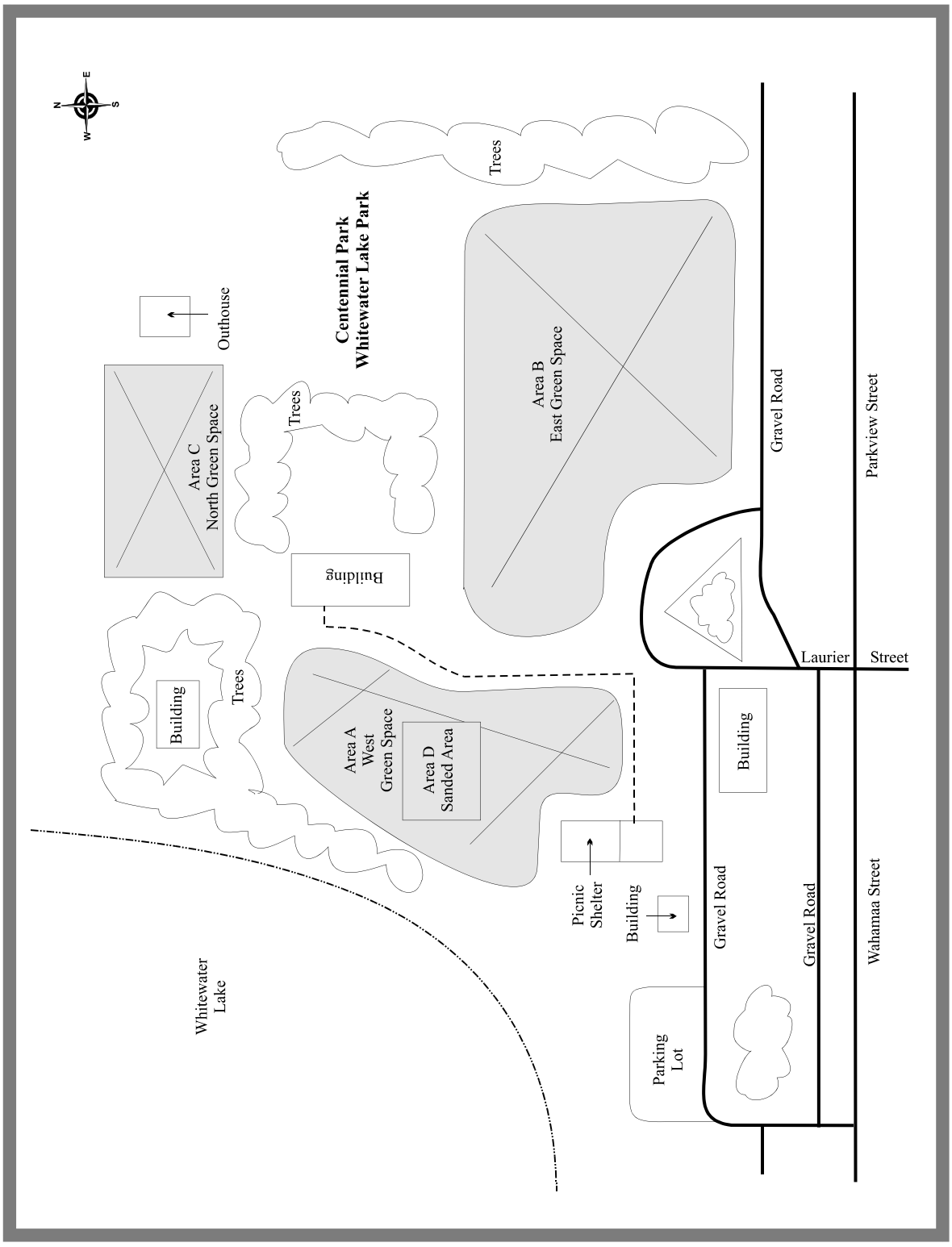


Map C5.4.21: Park located at the corner of Quinn and Logan Streets, Gatchell - 2001.

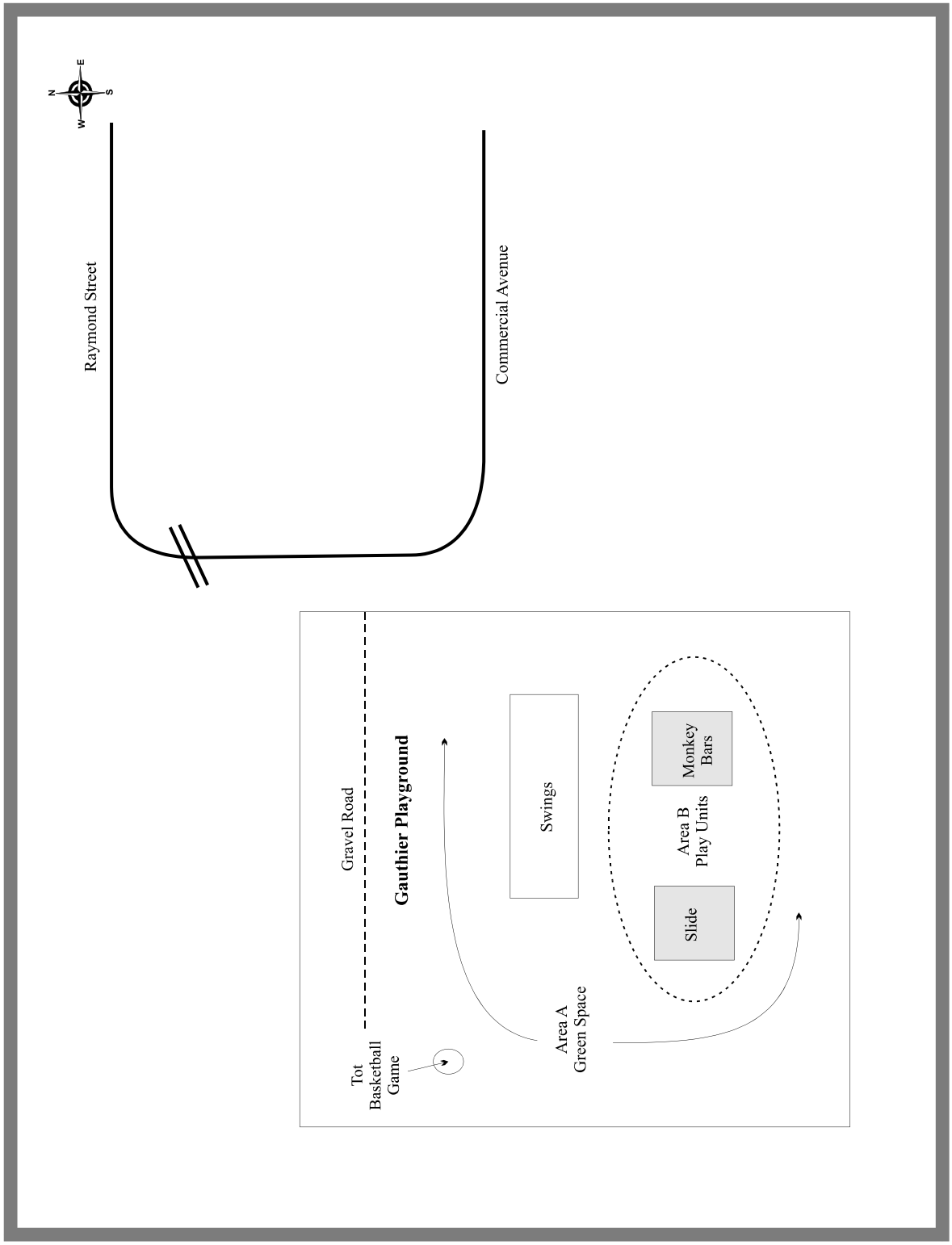
5.5 Azilda Park Maps



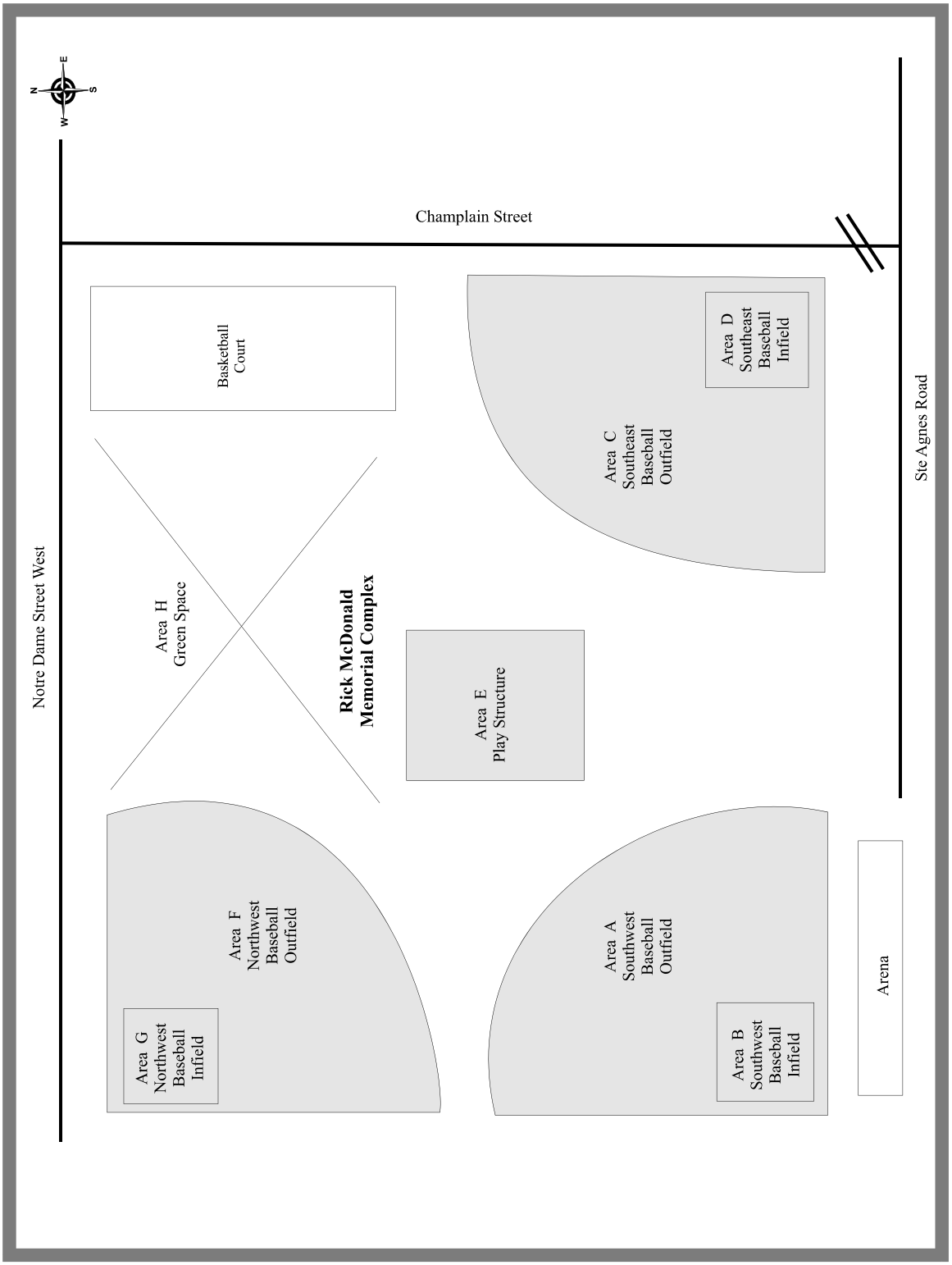
Map C5.5.1: Birchview Playground, Azilda - 2001.



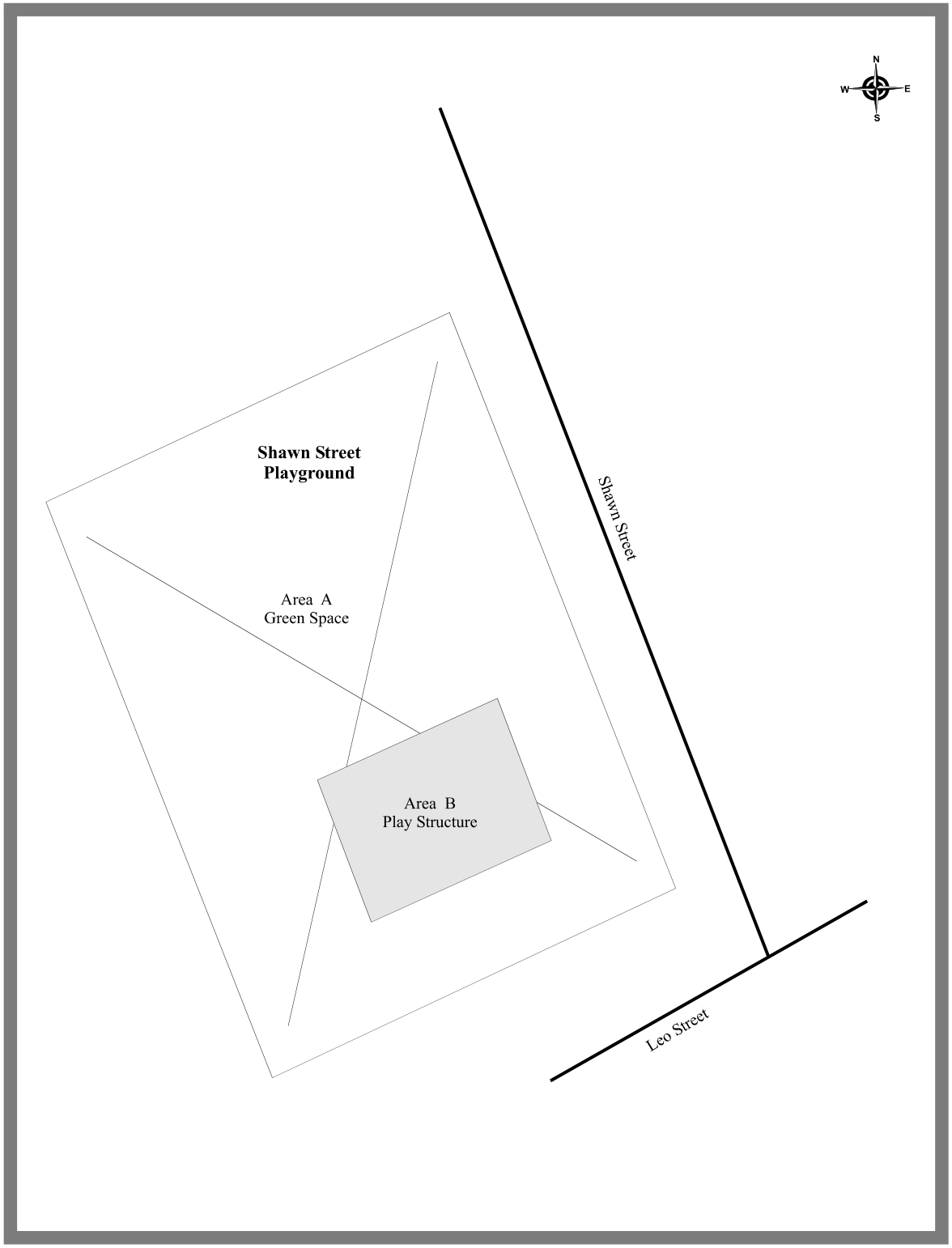
Map C5.5.2: Centennial Park (Whitewater Lake Park), Azilda - 2001.



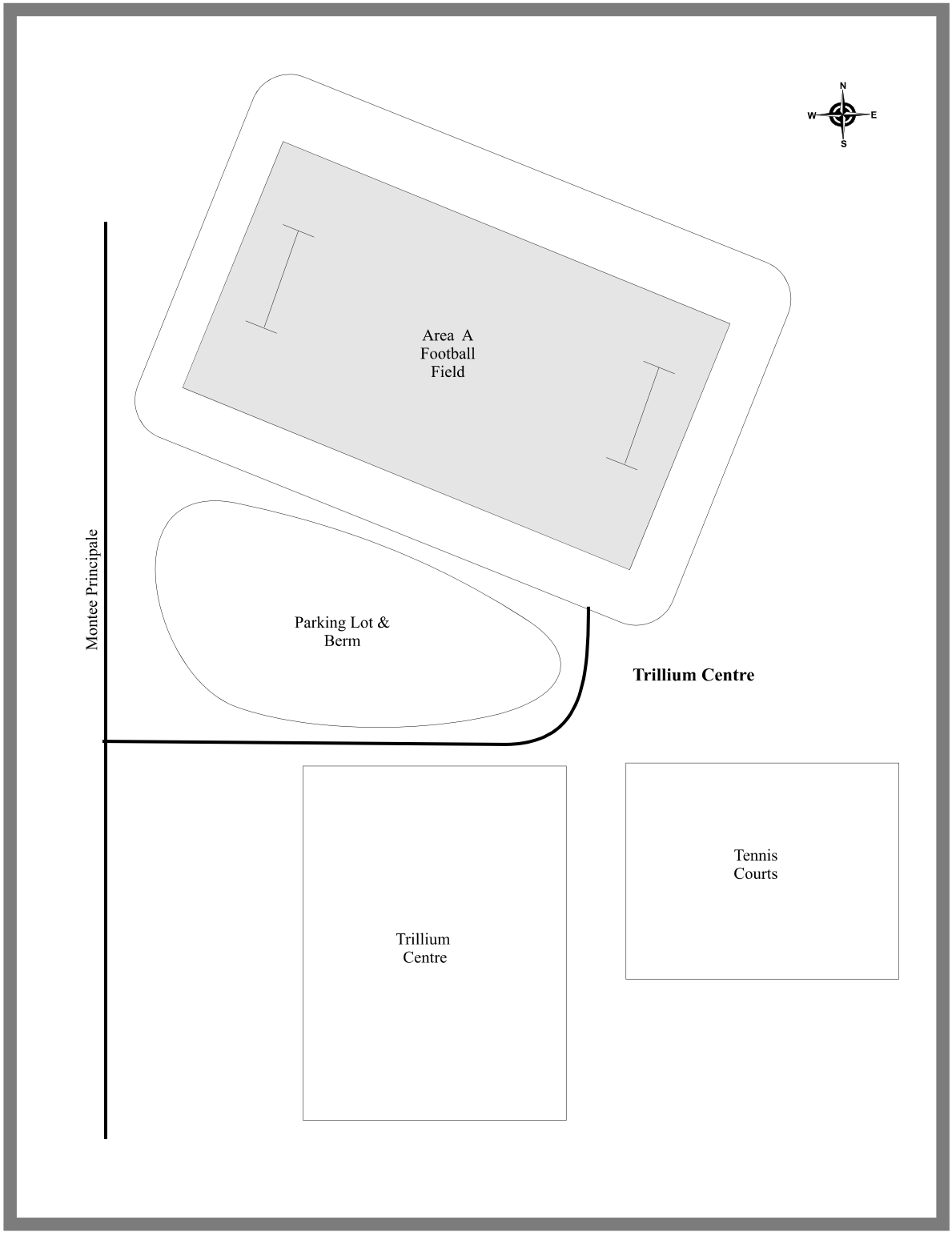
Map C5.5.3: Gauthier Playground (Commercial Playground), Azilda - 2001.



Map C5.5.4: Rick McDonald Memorial Complex (Champlain Fields), Azilda - 2001.

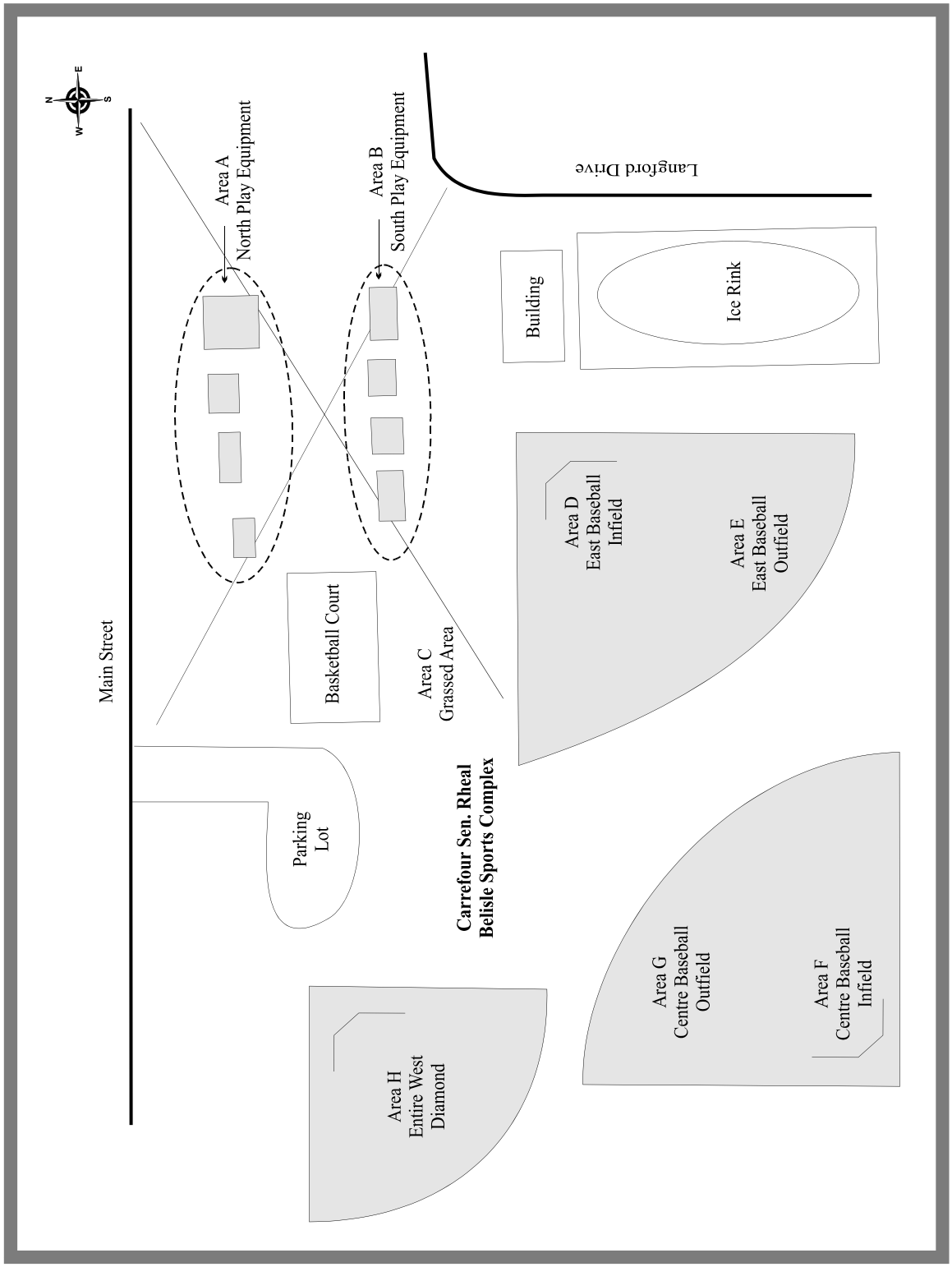


Map C5.5.5: Shawn Street Playground, Azilda - 2001.



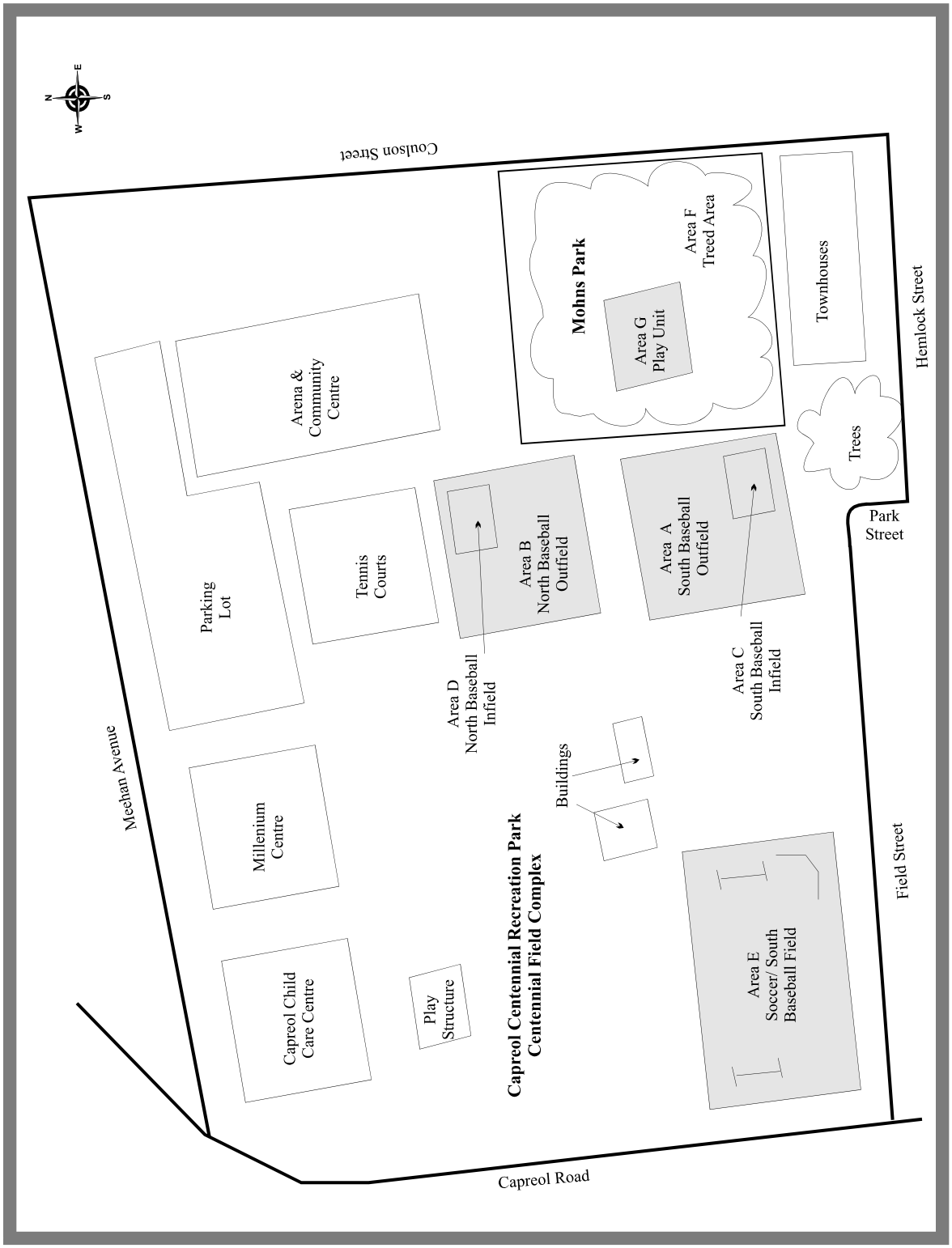
Map C5.5.6: Trillium Centre, Azilda - 2001.

5.6 Blezzard Valley Park Maps

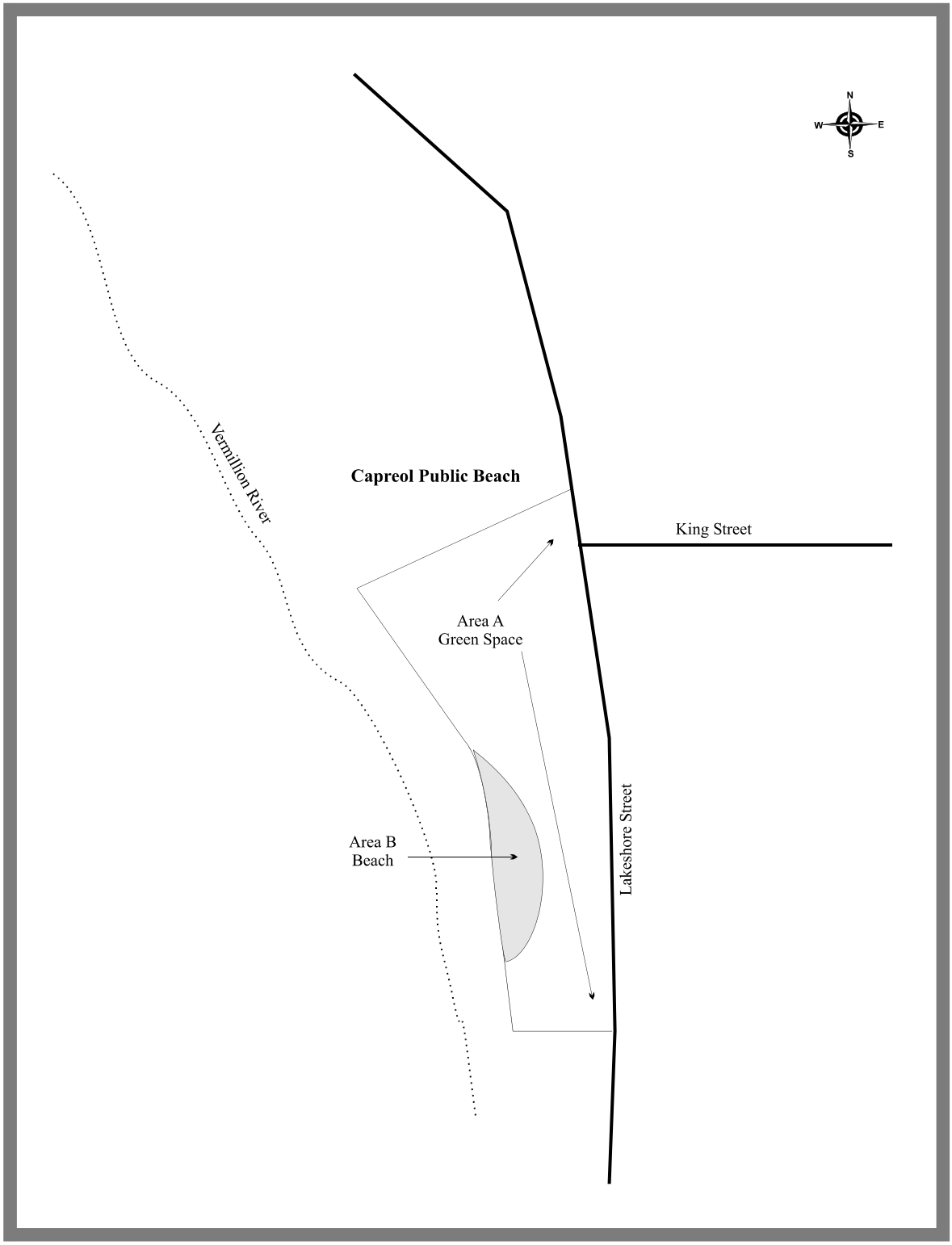


Map C5.6.1: Carrefour Sen. Rheal Belisle Sports Complex, Blezzard Valley - 2001.

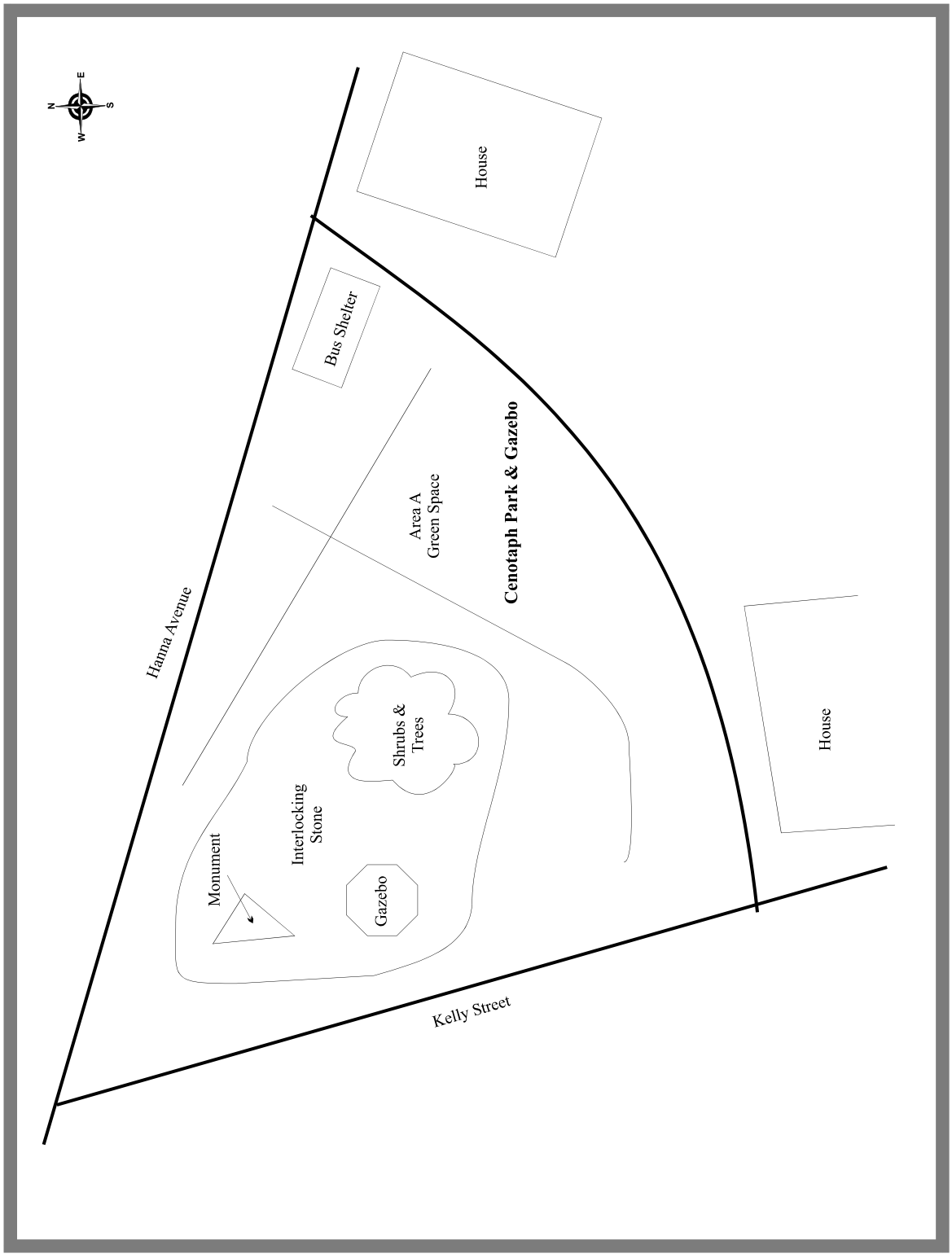
5.7 Capreol Park Maps



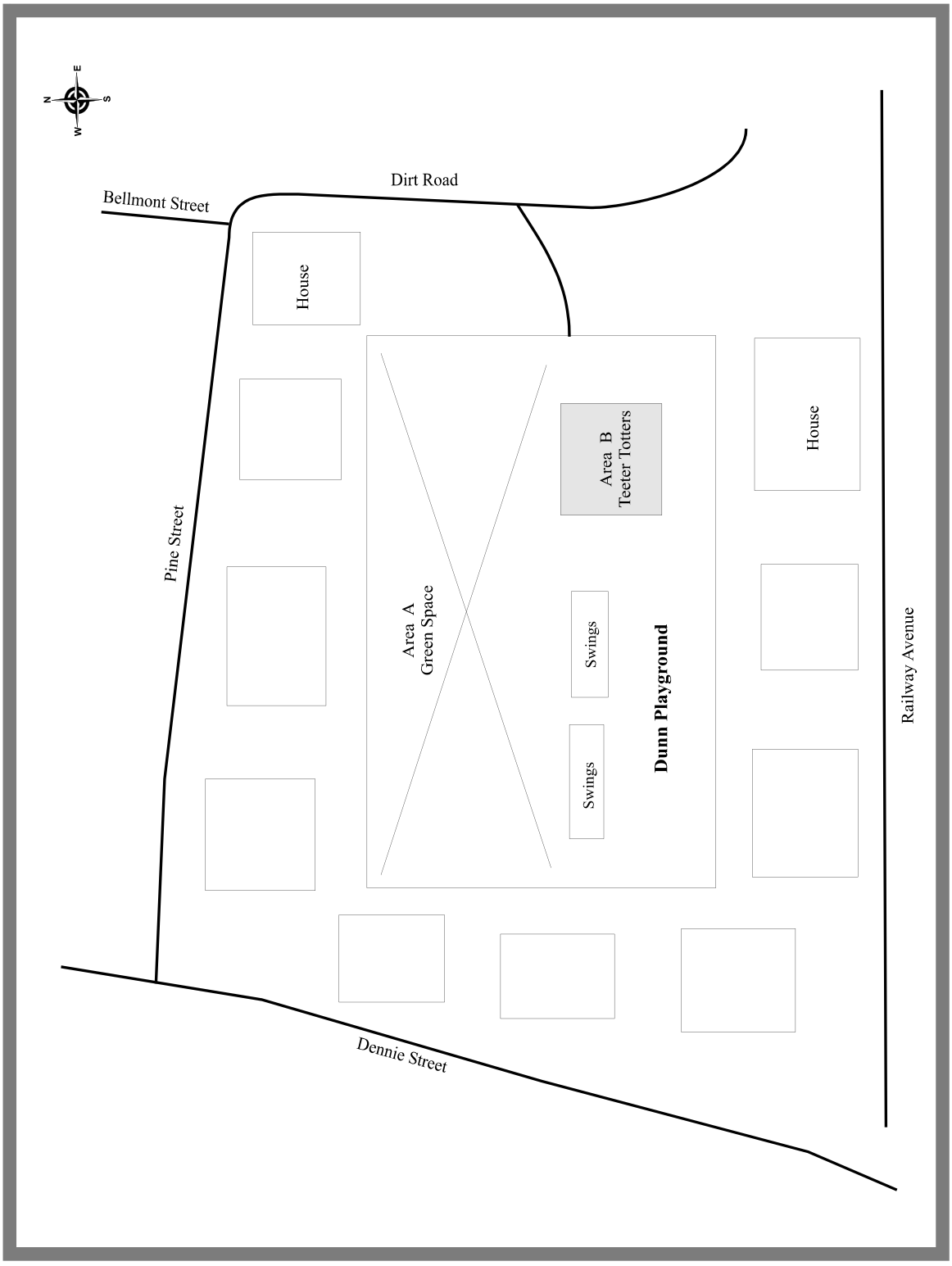
Map C5.7.1: Capreol Centennial Recreation Park, including Doug Mohn's Park, Capreol - 2001.



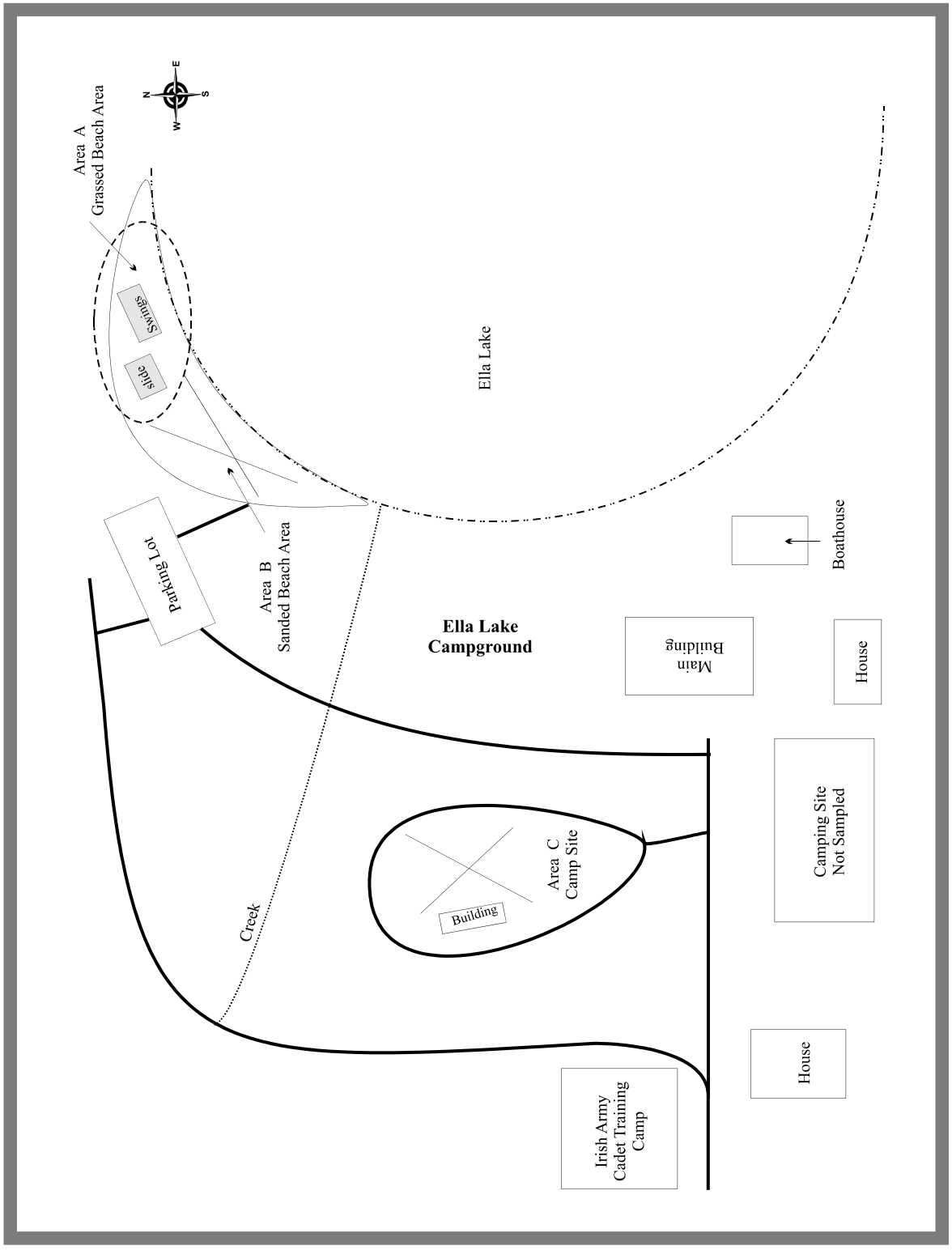
Map C5.7.2: Capreol Public Beach, Capreol - 2001.



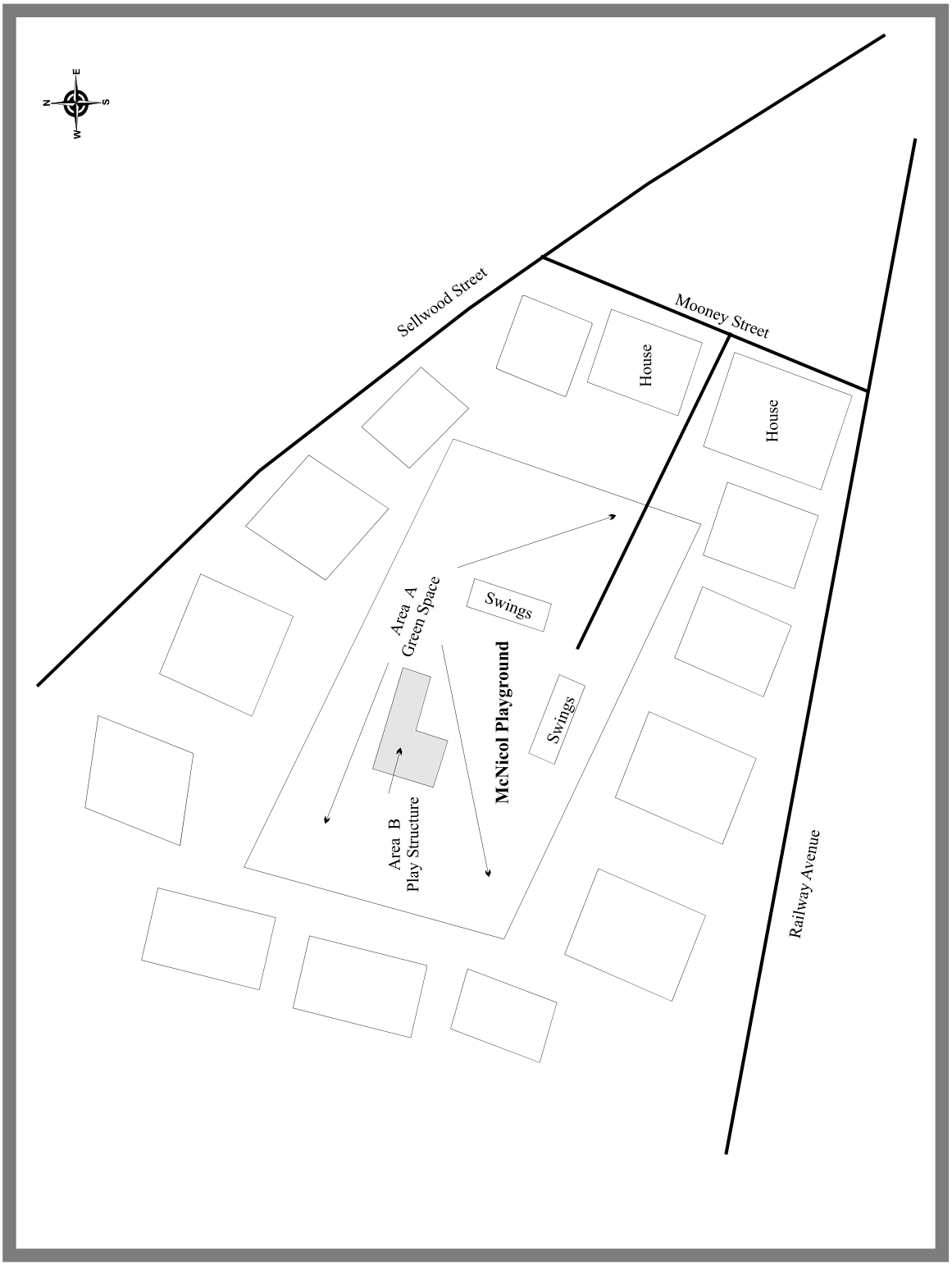
Map C5.7.3: Cenotaph Park, Capreol - 2001.



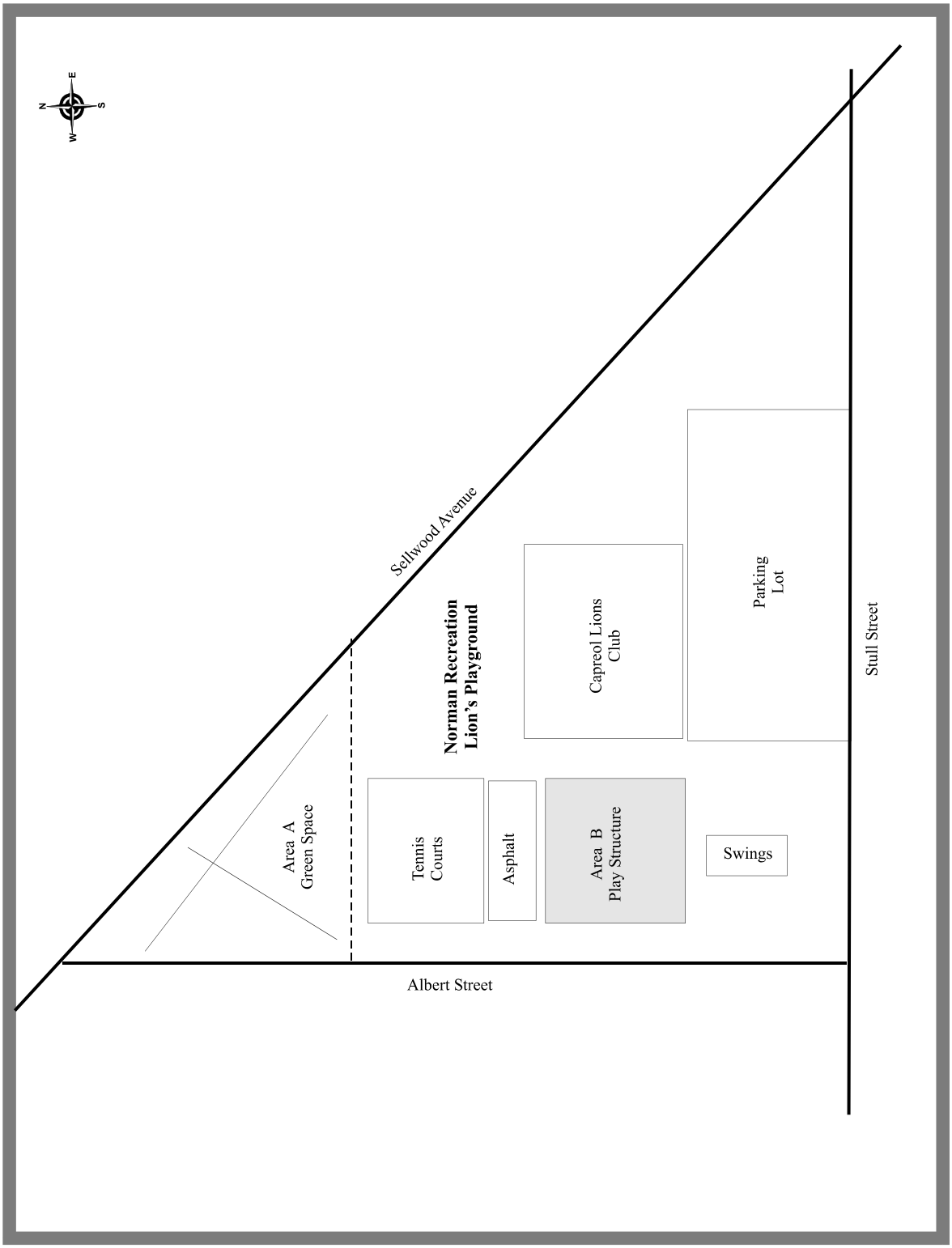
Map C5.7.4: Dunn Park, Capreol - 2001.



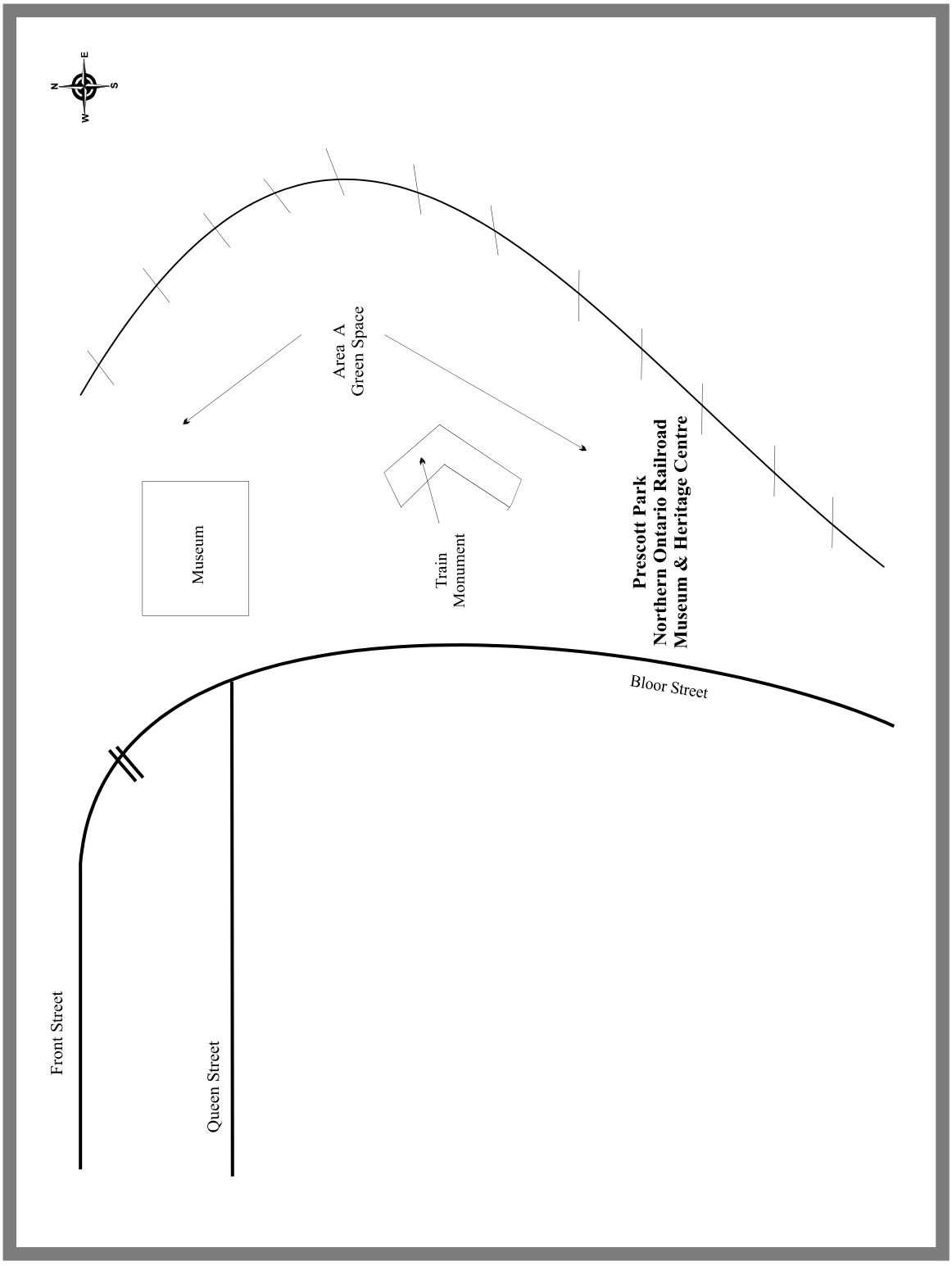
Map C5.7.5: Ella Lake Campground, Capreol - 2001.



Map C5.7.6: McNicol Playground, Capreol - 2001.

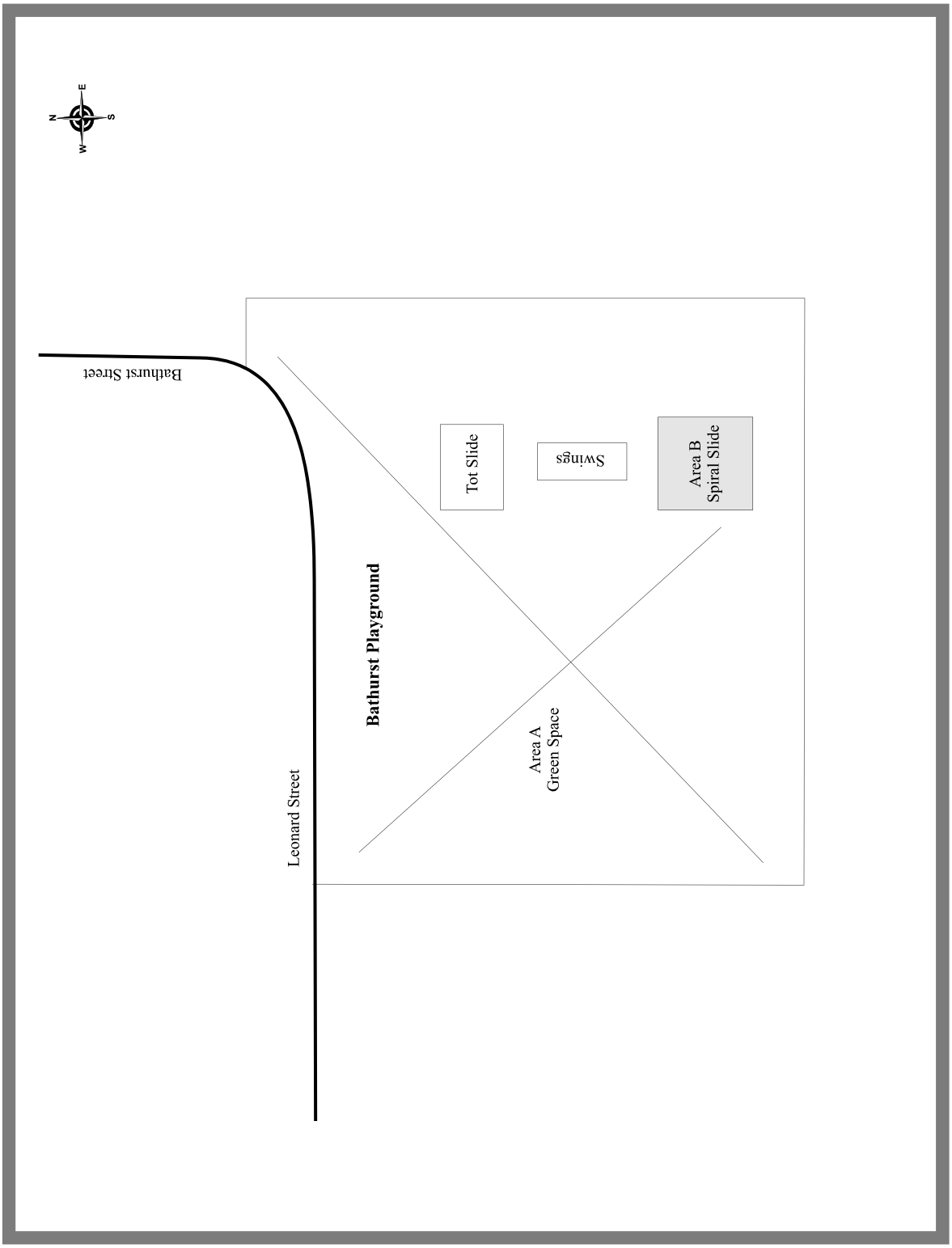


Map C5.7.7: Norman Rec. Lion's Playground (Capreol Lion's Den), Capreol - 2001.

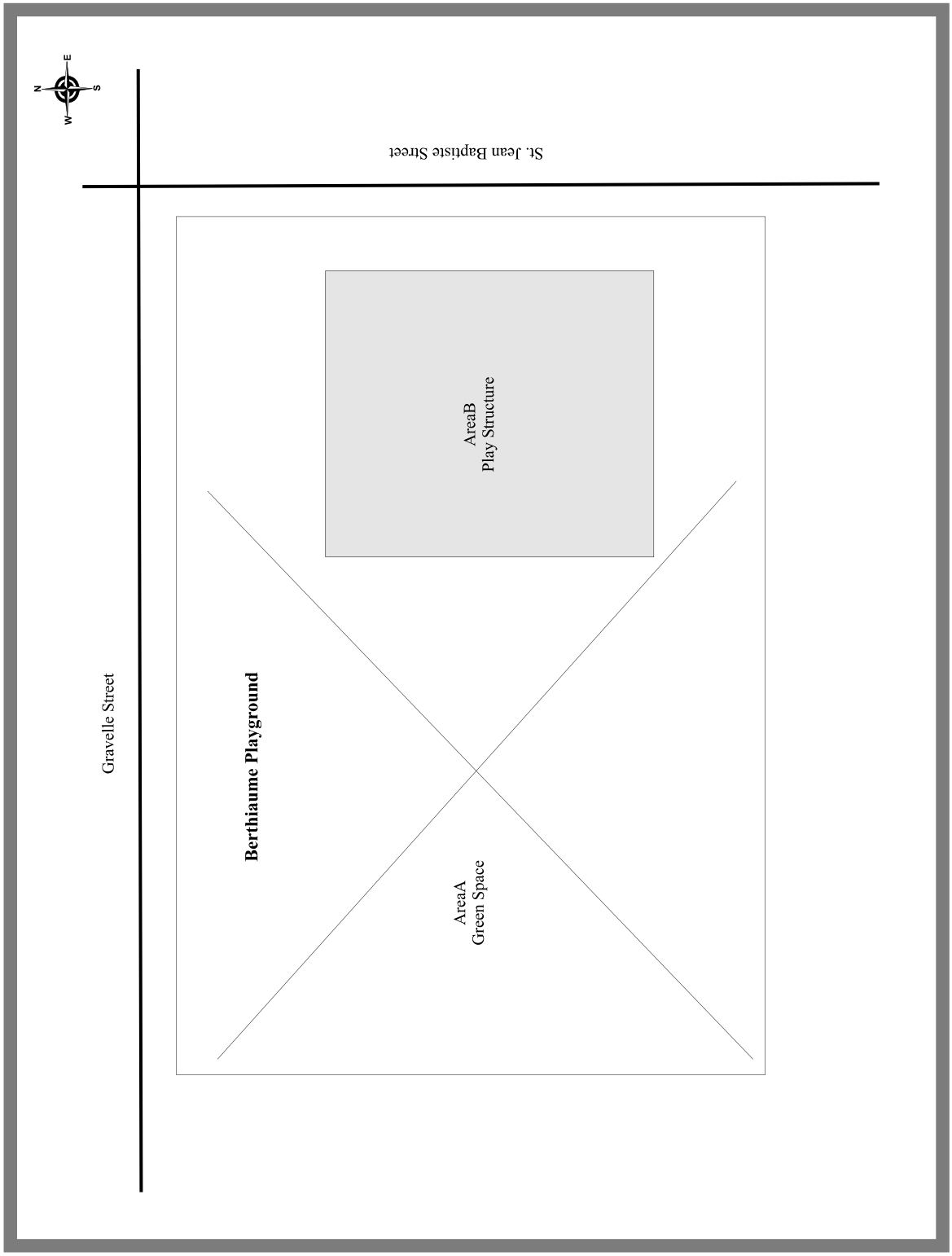


Map C5.7.8: Prescott Park, Capreol - 2001.

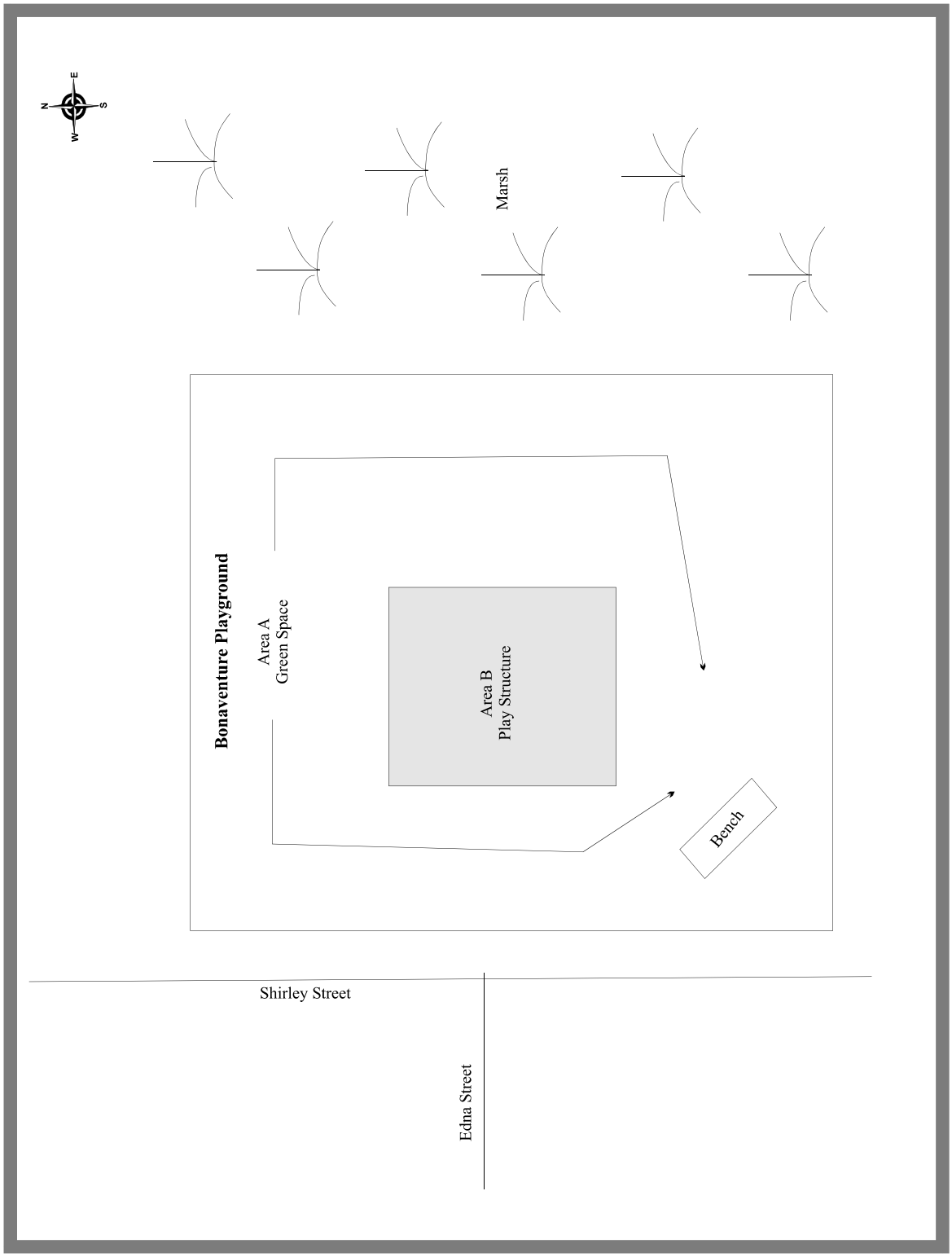
5.8 Chelmsford Park Maps



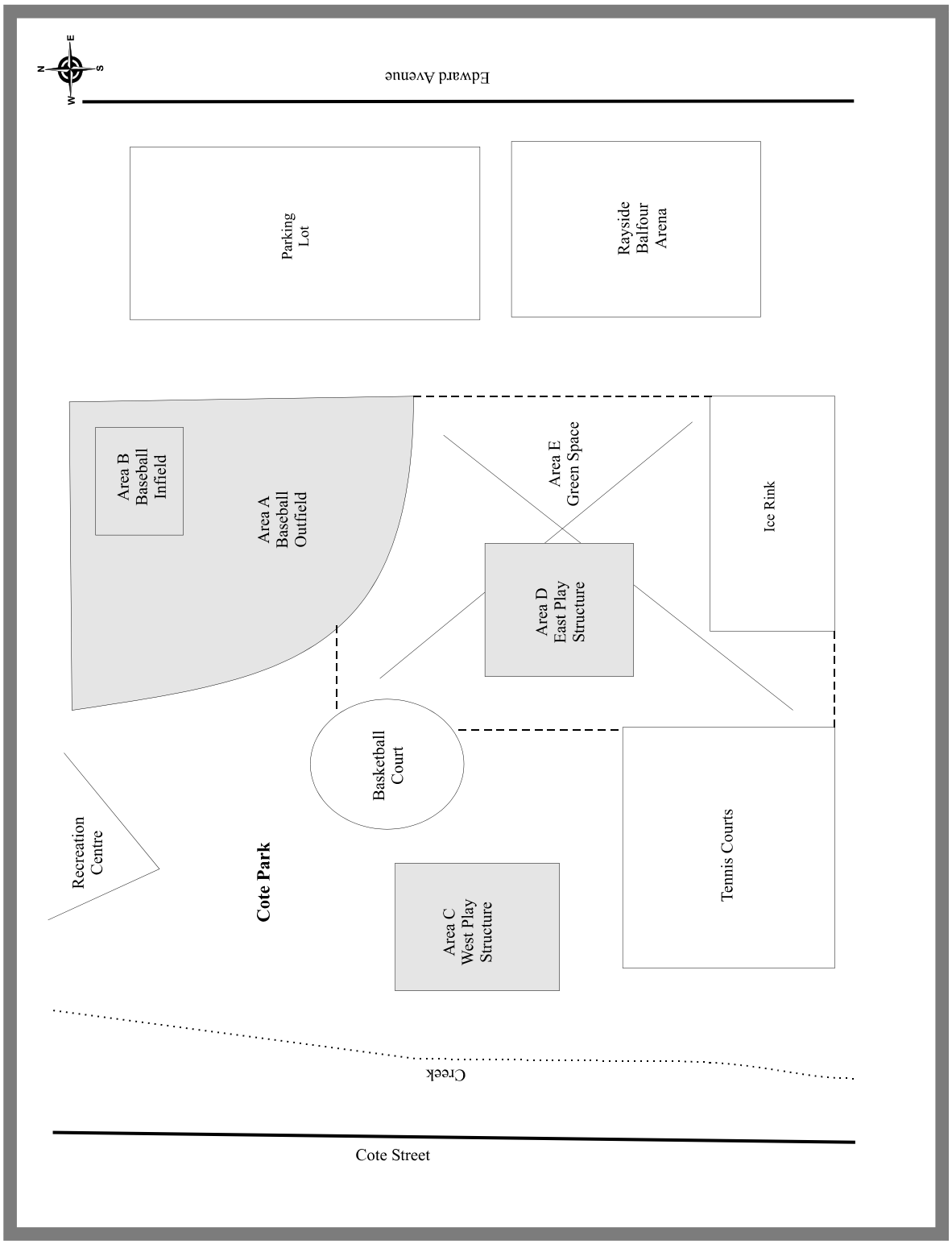
Map C5.8.1: Bathurst Playground, Chelmsford - 2001.



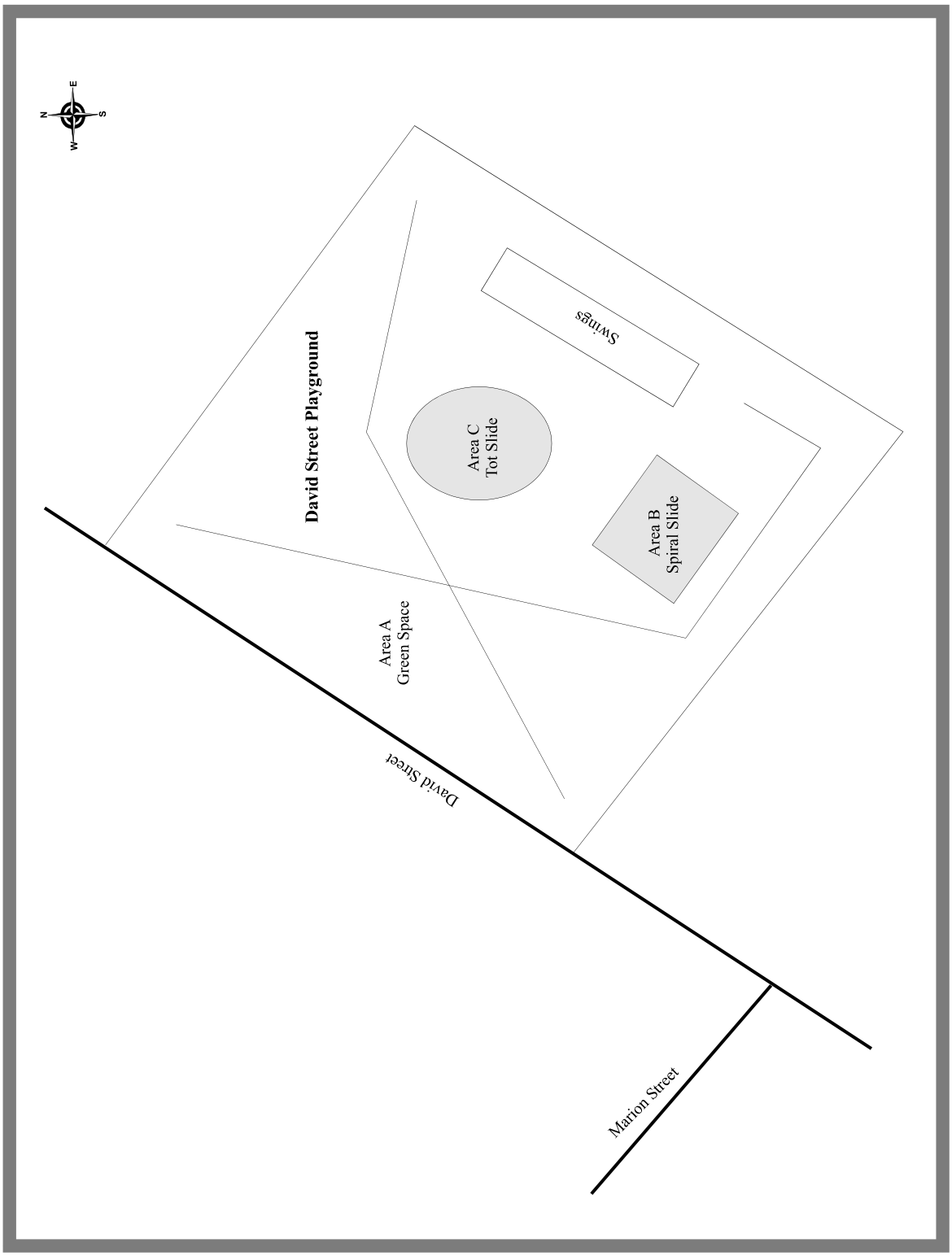
Map C5.8.2: Berthiaume Playground, Chelmsford - 2001.



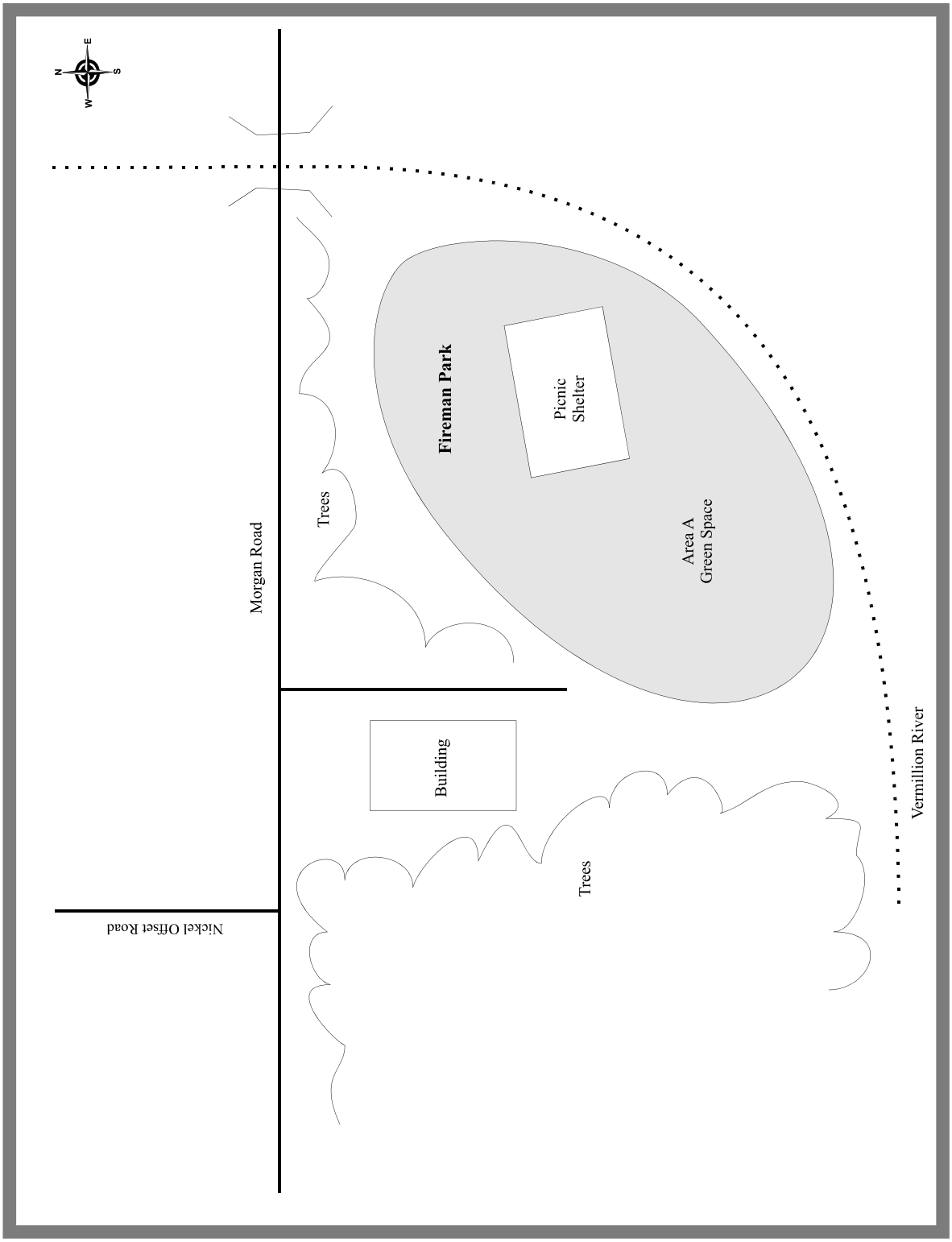
Map C5.8.3: Bonaventure Playground (Shirley Playground), Chelmsford - 2001.



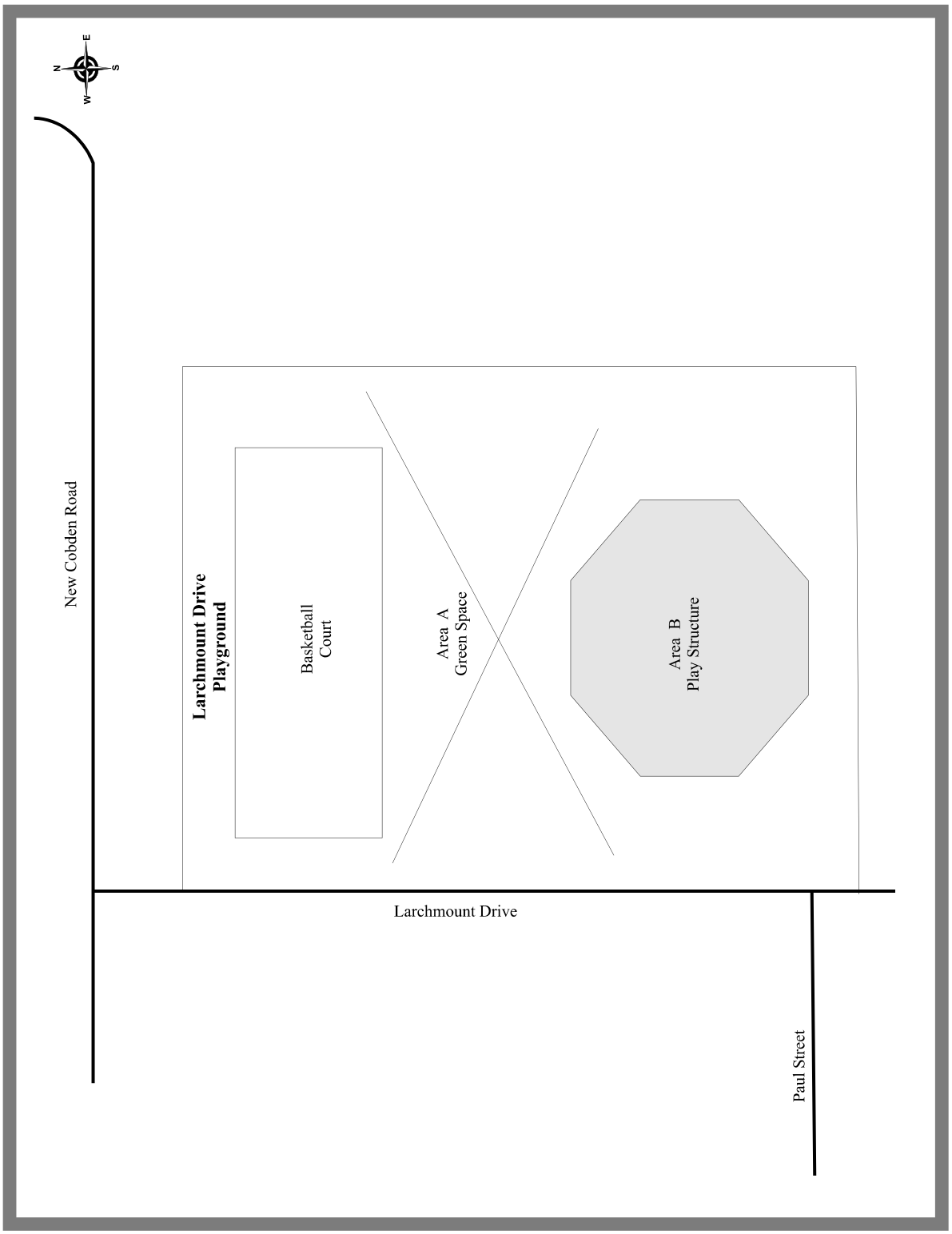
Map C5.8.4: Cote Park, Chelmsford - 2001.



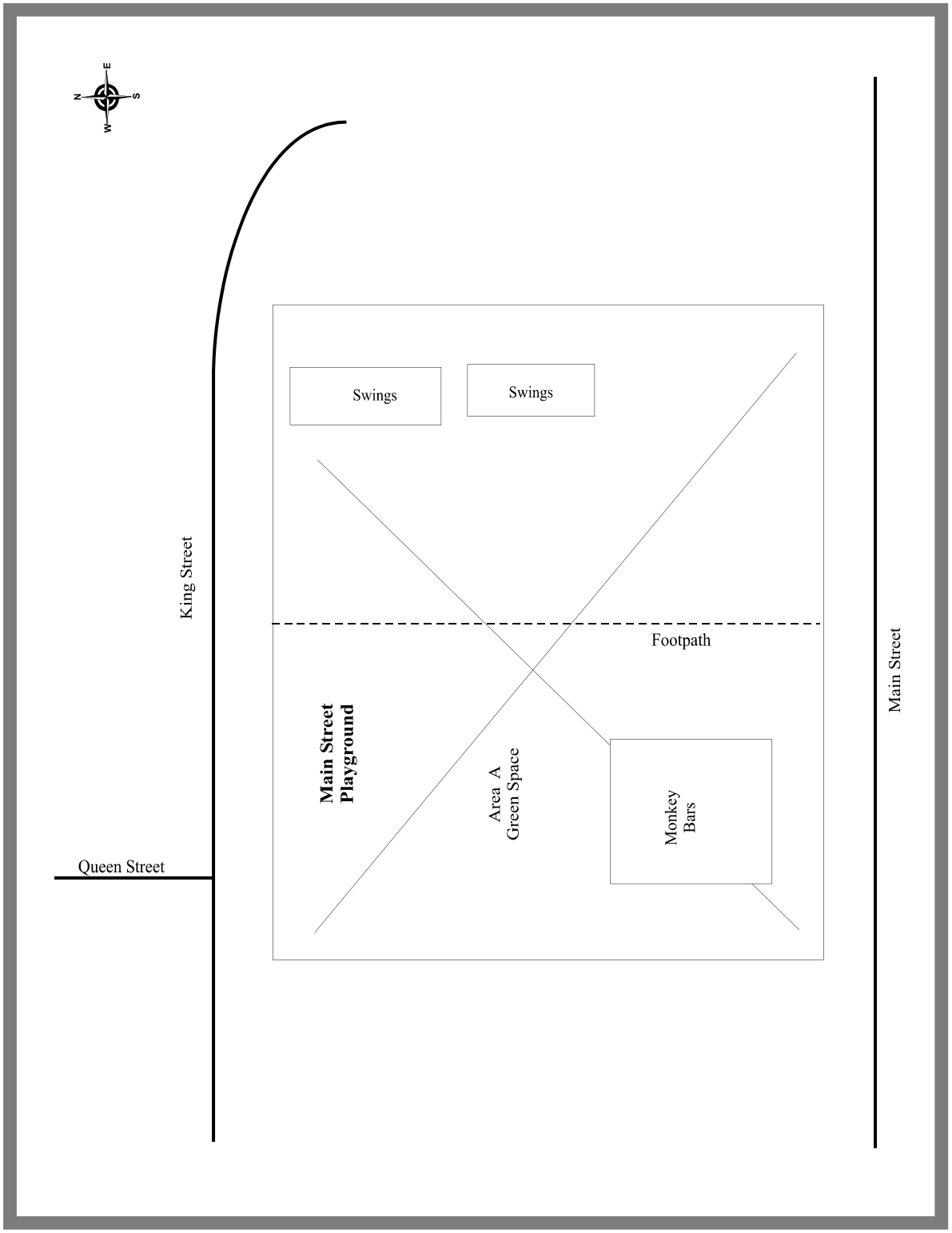
Map C5.8.5: David Street Playground, Chelmsford - 2001.



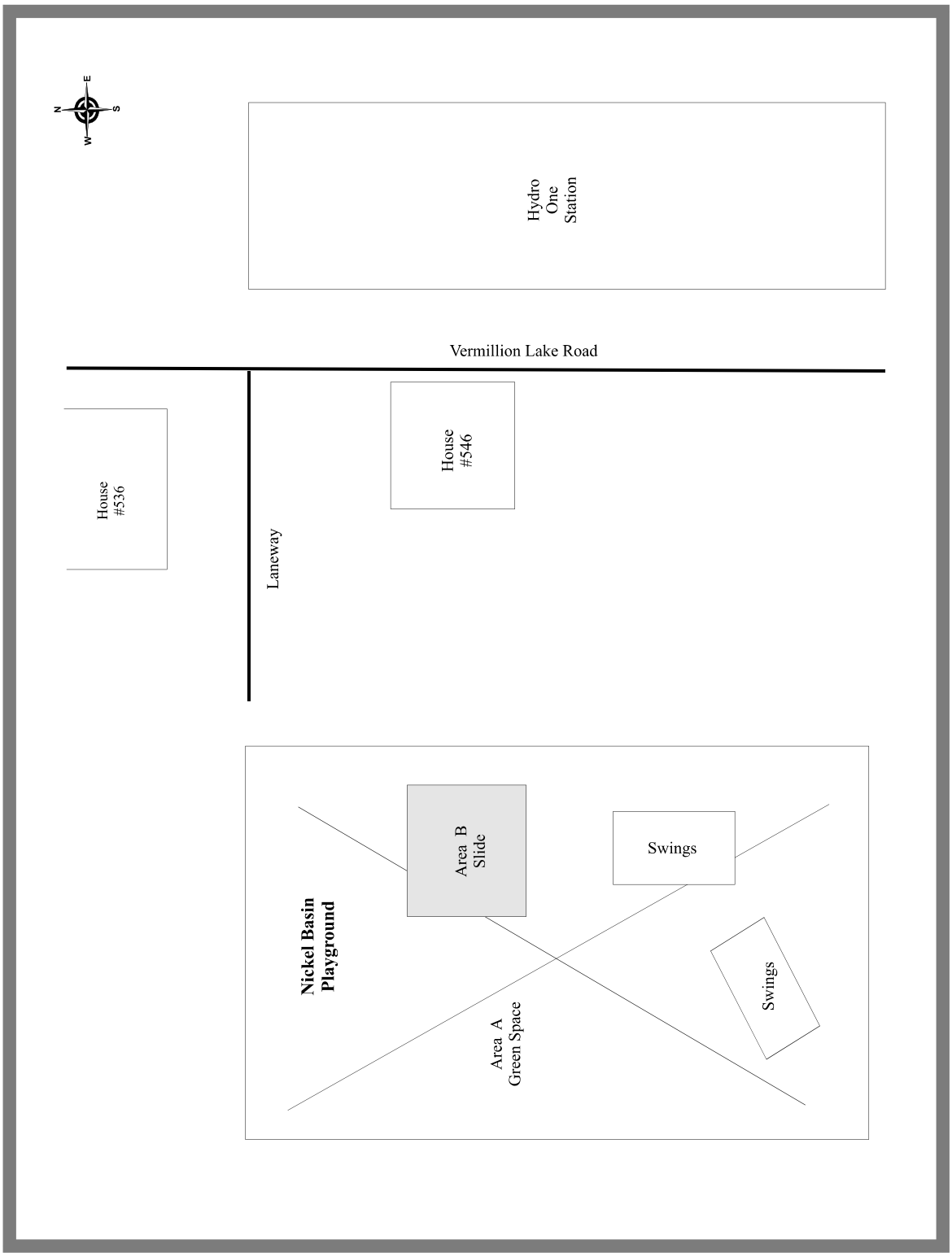
Map C5.8.6: Fireman Park, Chelmsford - 2001.



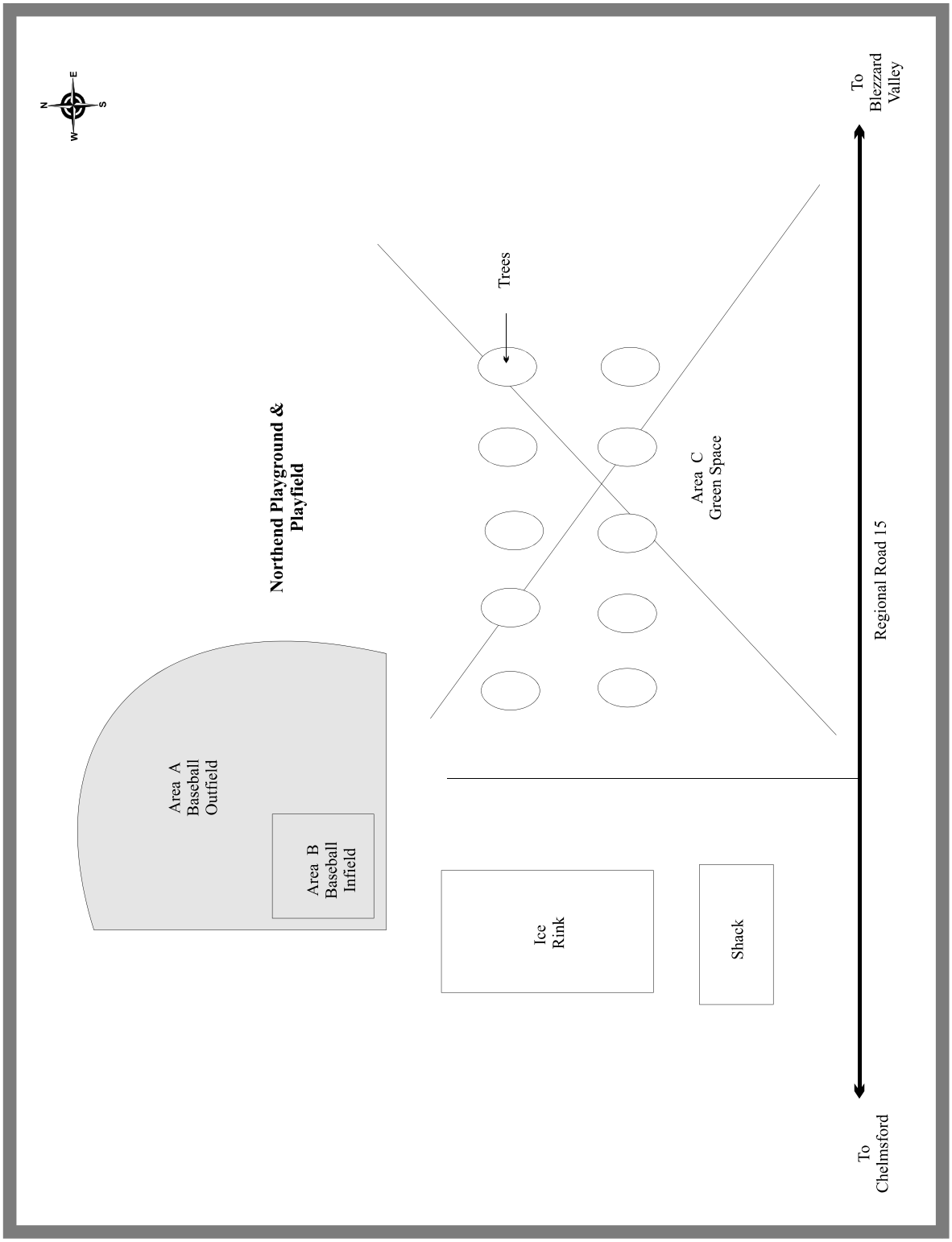
Map C5.8.7: Larchmount Drive Playground, Chelmsford - 2001.



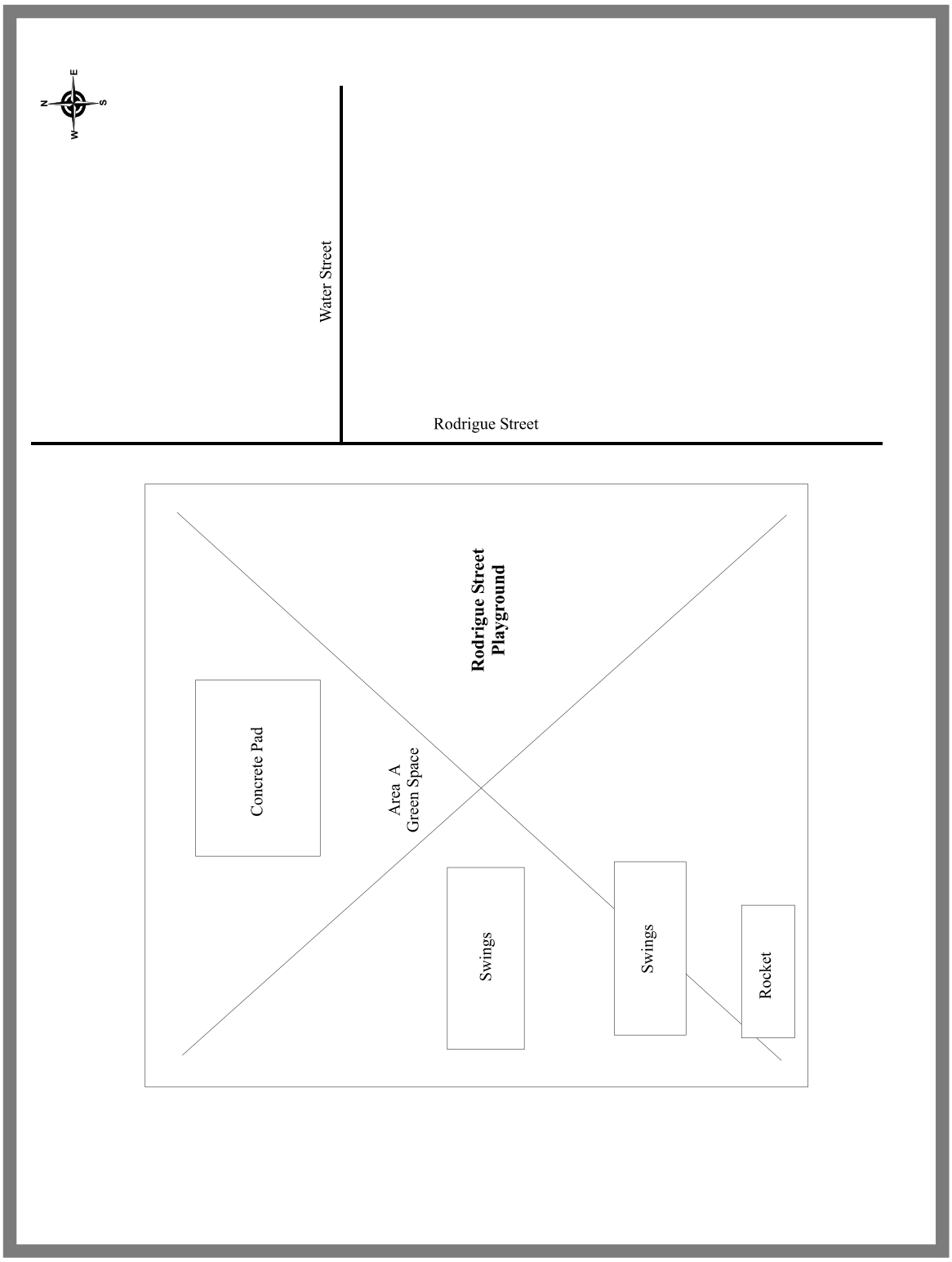
Map C5.8.8: Main Street Playground, Chelmsford - 2001.



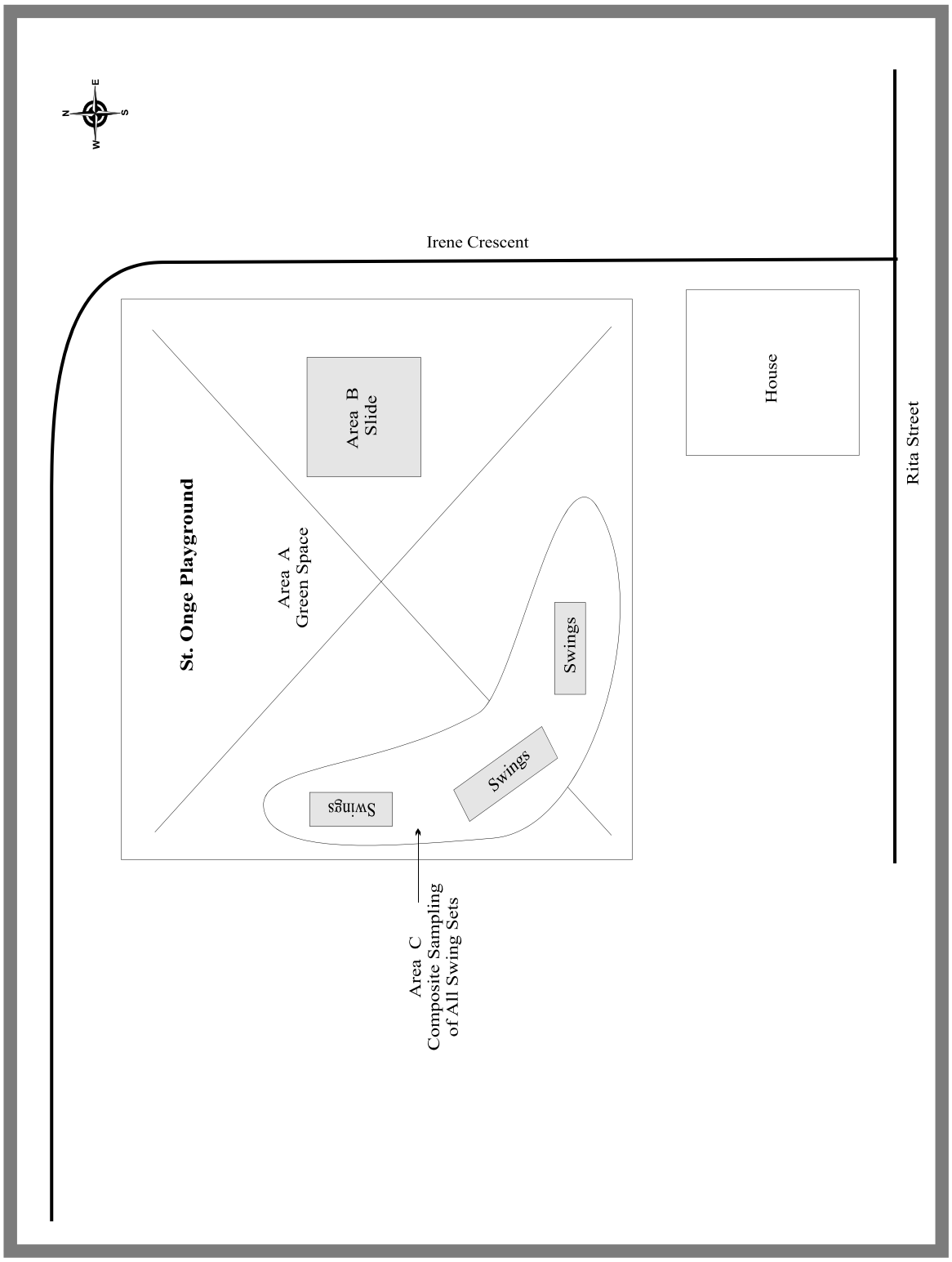
Map C5.8.9: Nickel Basin Playground, Chelmsford - 2001.



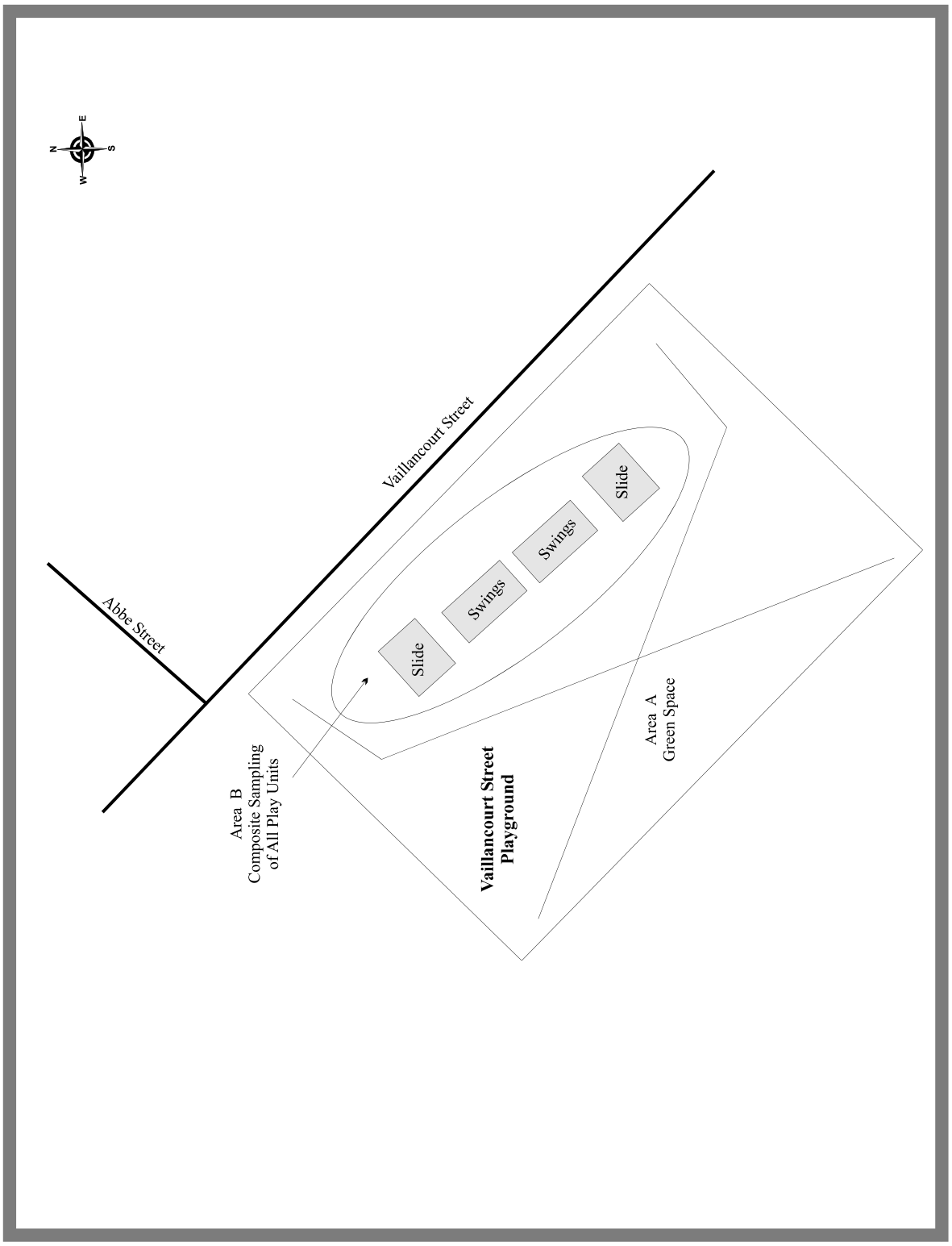
Map C5.8.10: Northend Playground and Playfields, Chelmsford - 2001.



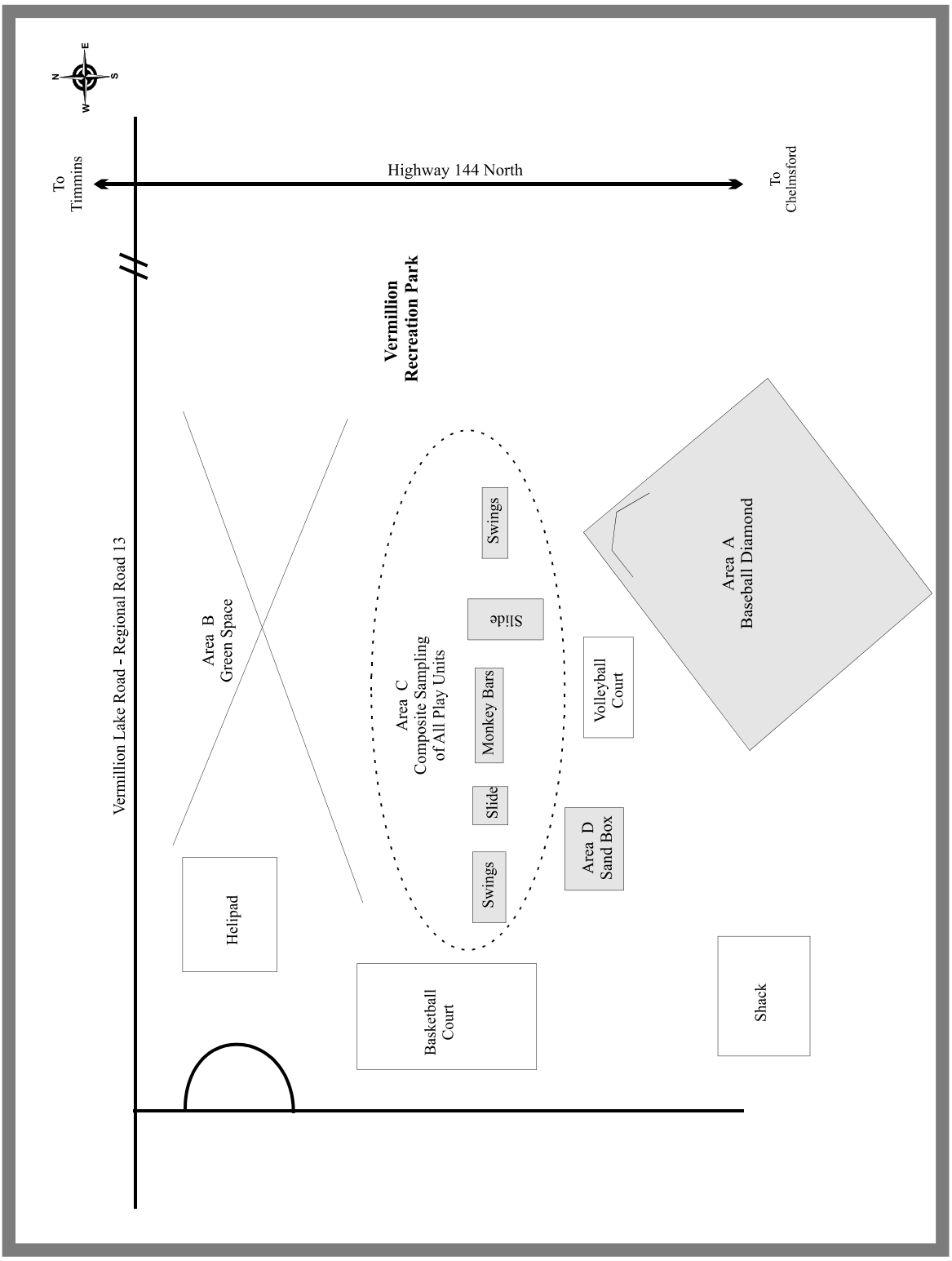
Map C5.8.11: Rodrigue Street Playground, Chelmsford - 2001.



Map C5.8.12: St. Onge Playground (Irene Playground), Chelmsford - 2001.

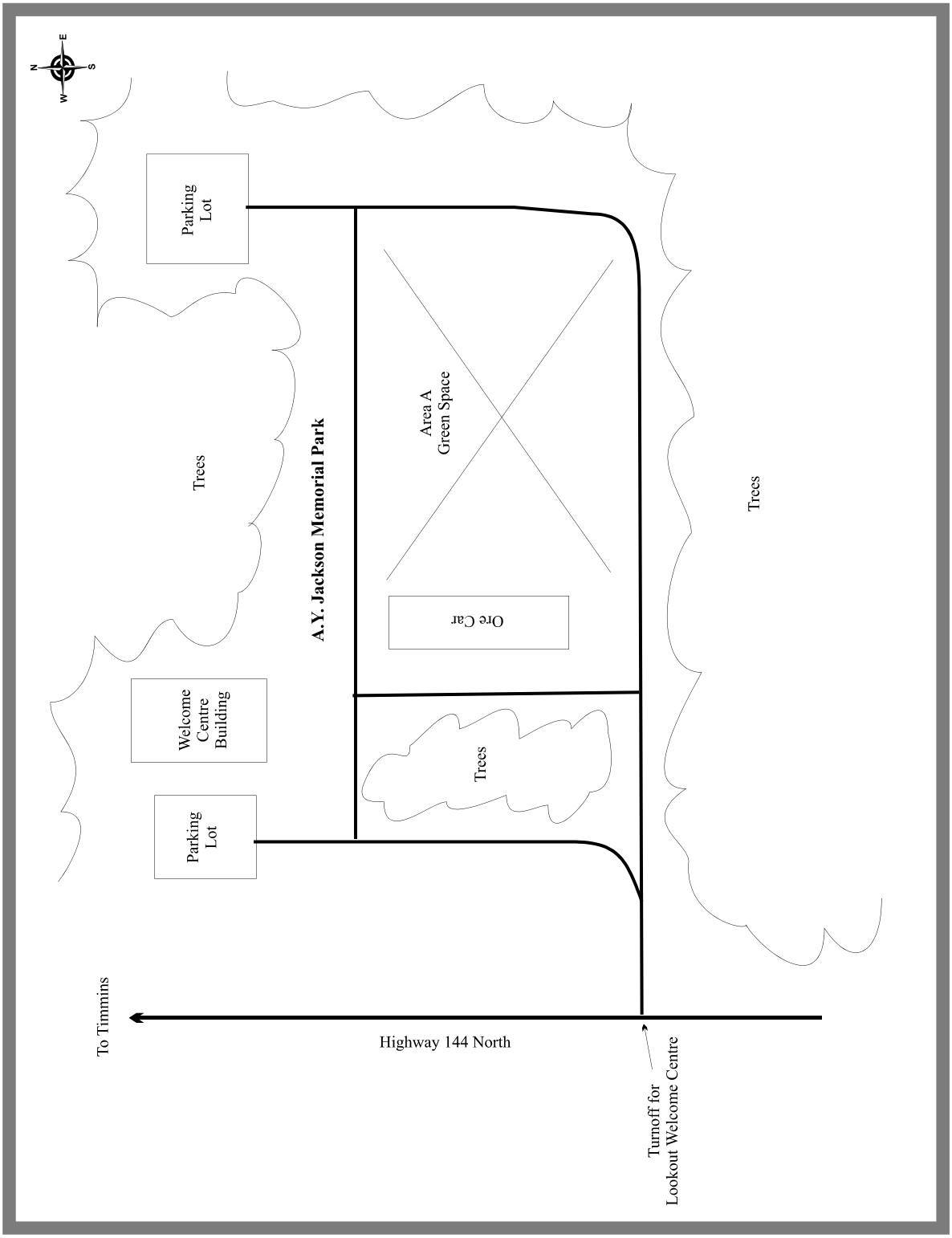


Map C5.8.13: Vaillancourt Street Playground, Chelmsford - 2001.

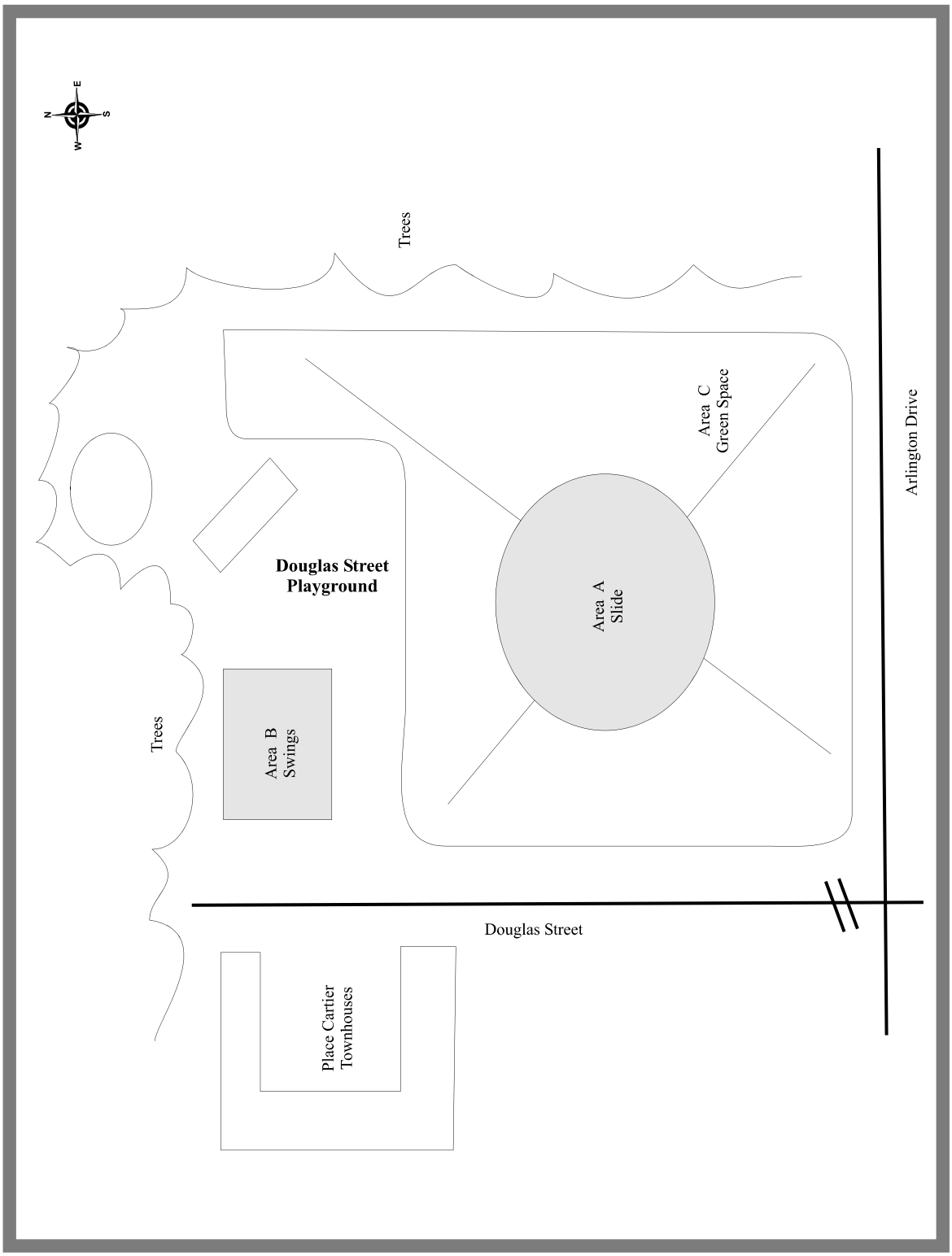


Map C5.8.14: Vermillion Lake Road Park, Chelmsford - 2001.

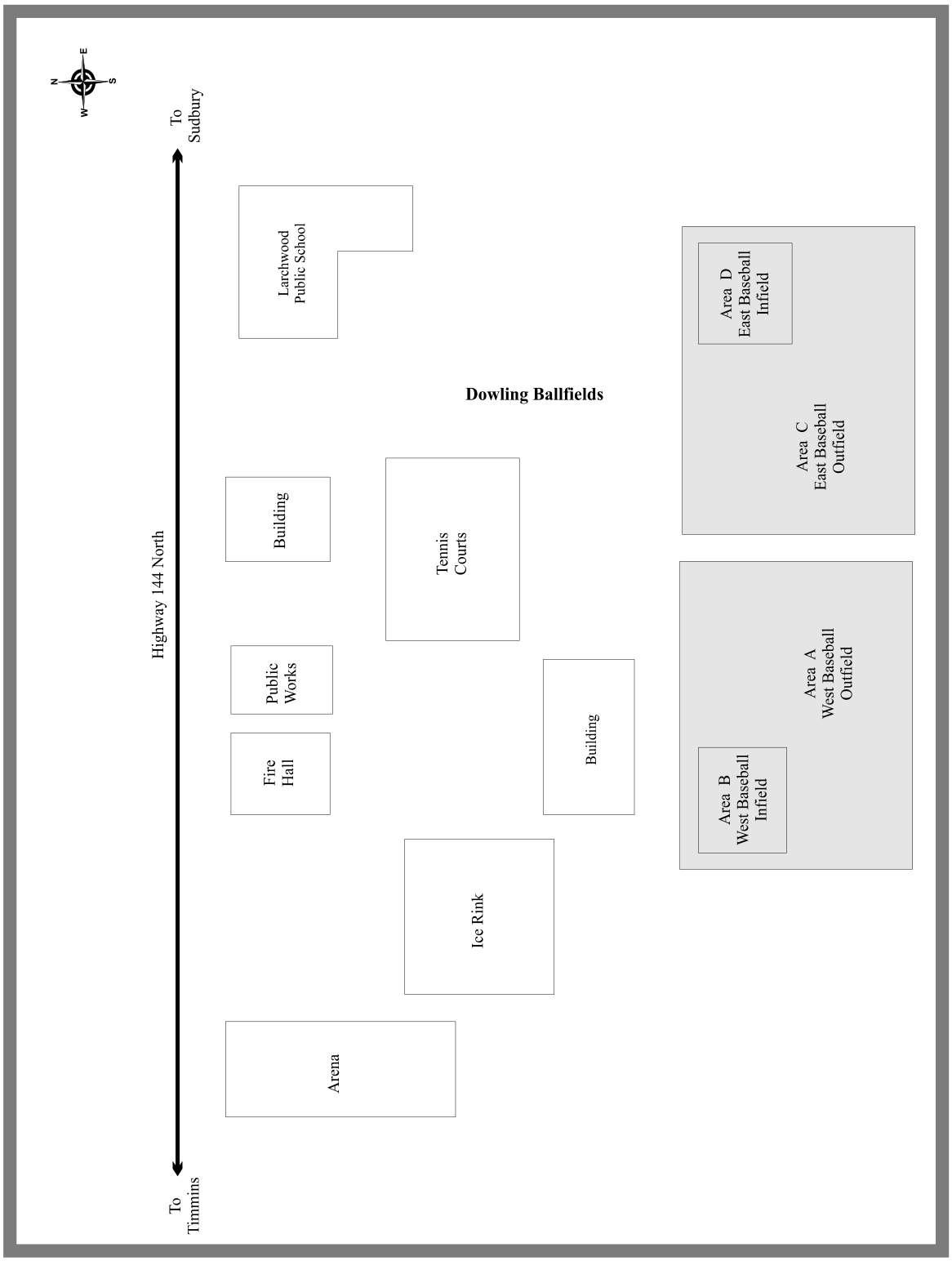
5.9 Dowling Park Maps



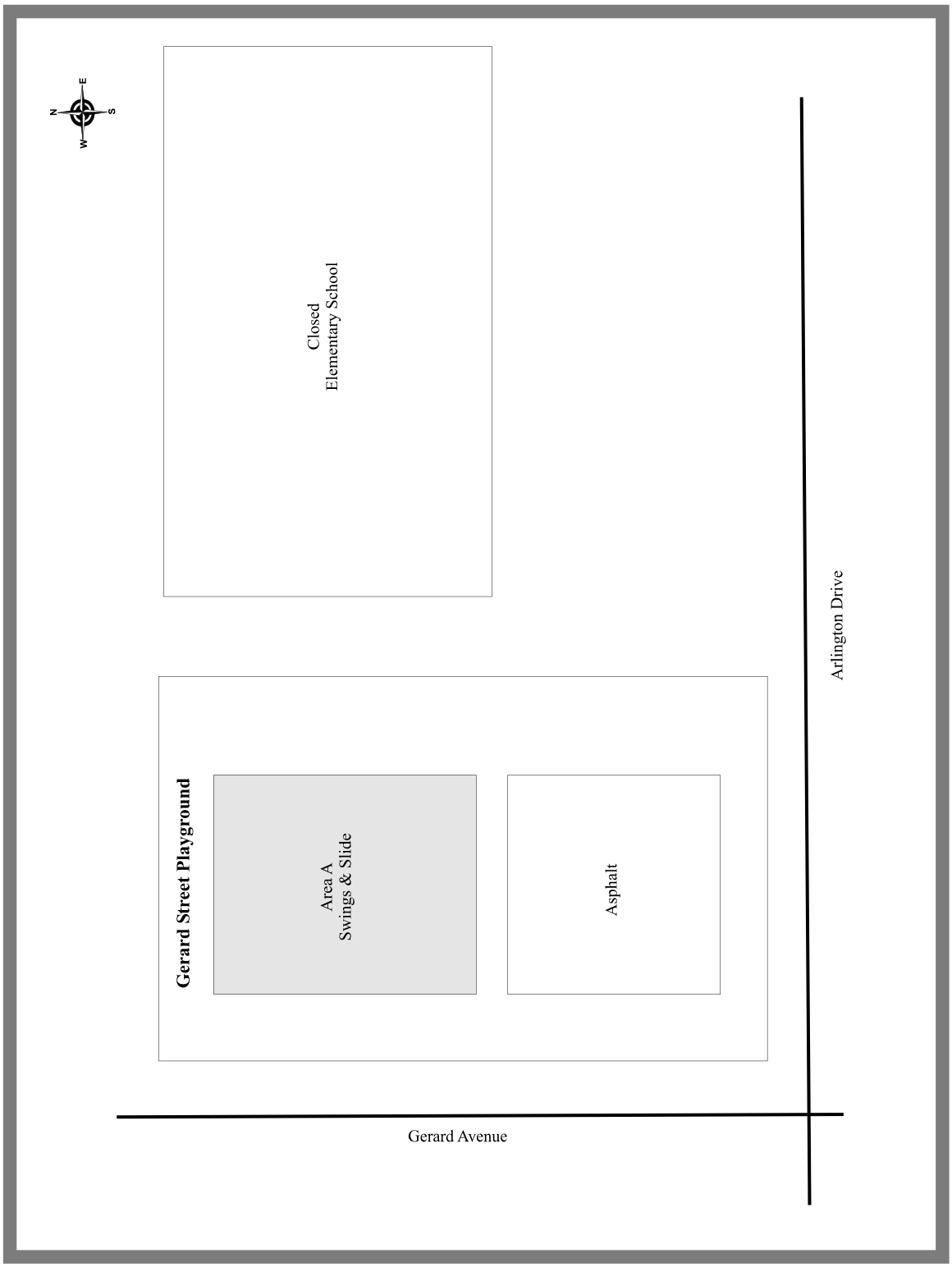
Map C5.9.1: A.Y. Jackson Memorial Park, Dowling - 2001.



Map C5.9.2: Douglas Street Playground, Dowling - 2001.

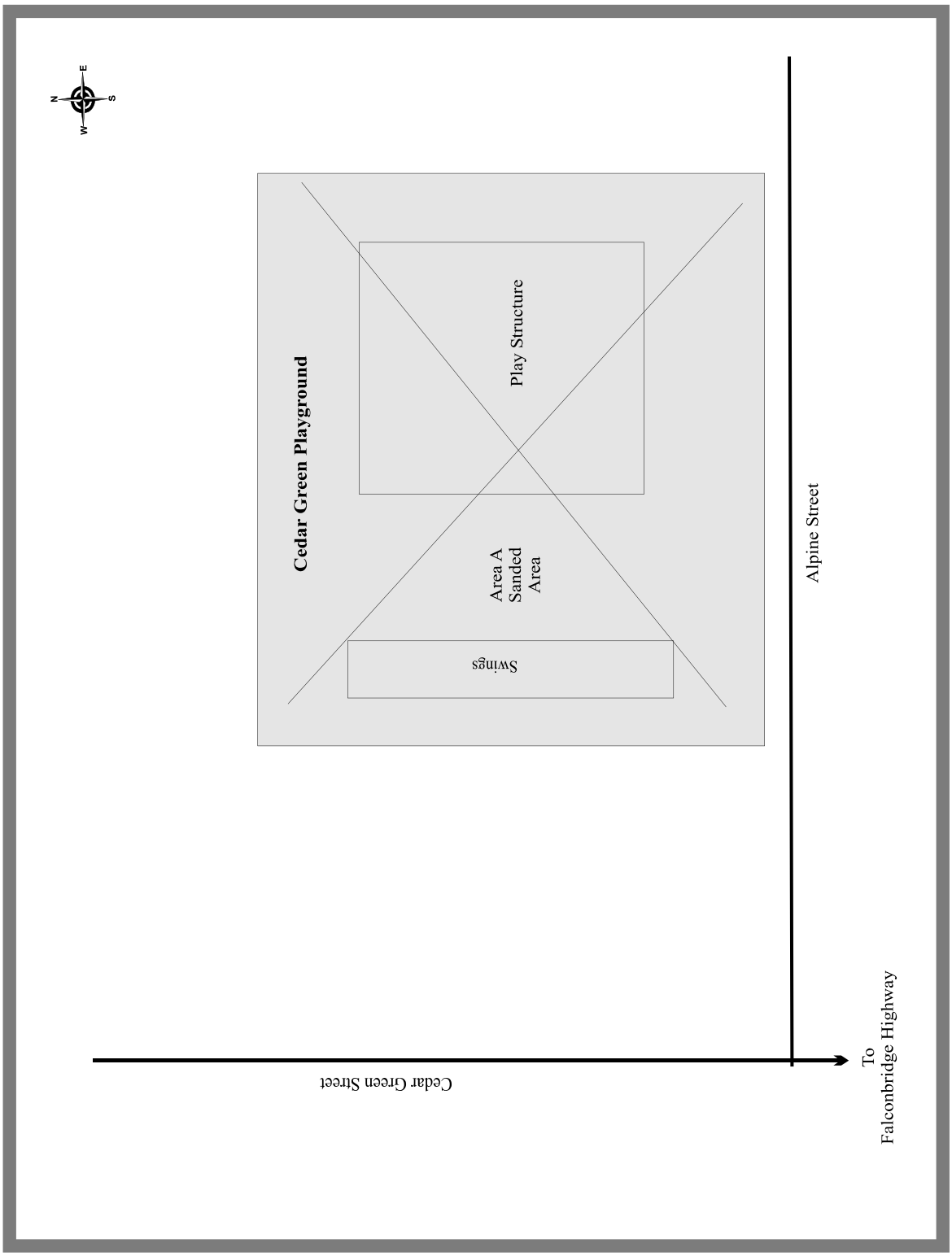


Map C5.9.3: Dowling Ballfields, Dowling - 2001.

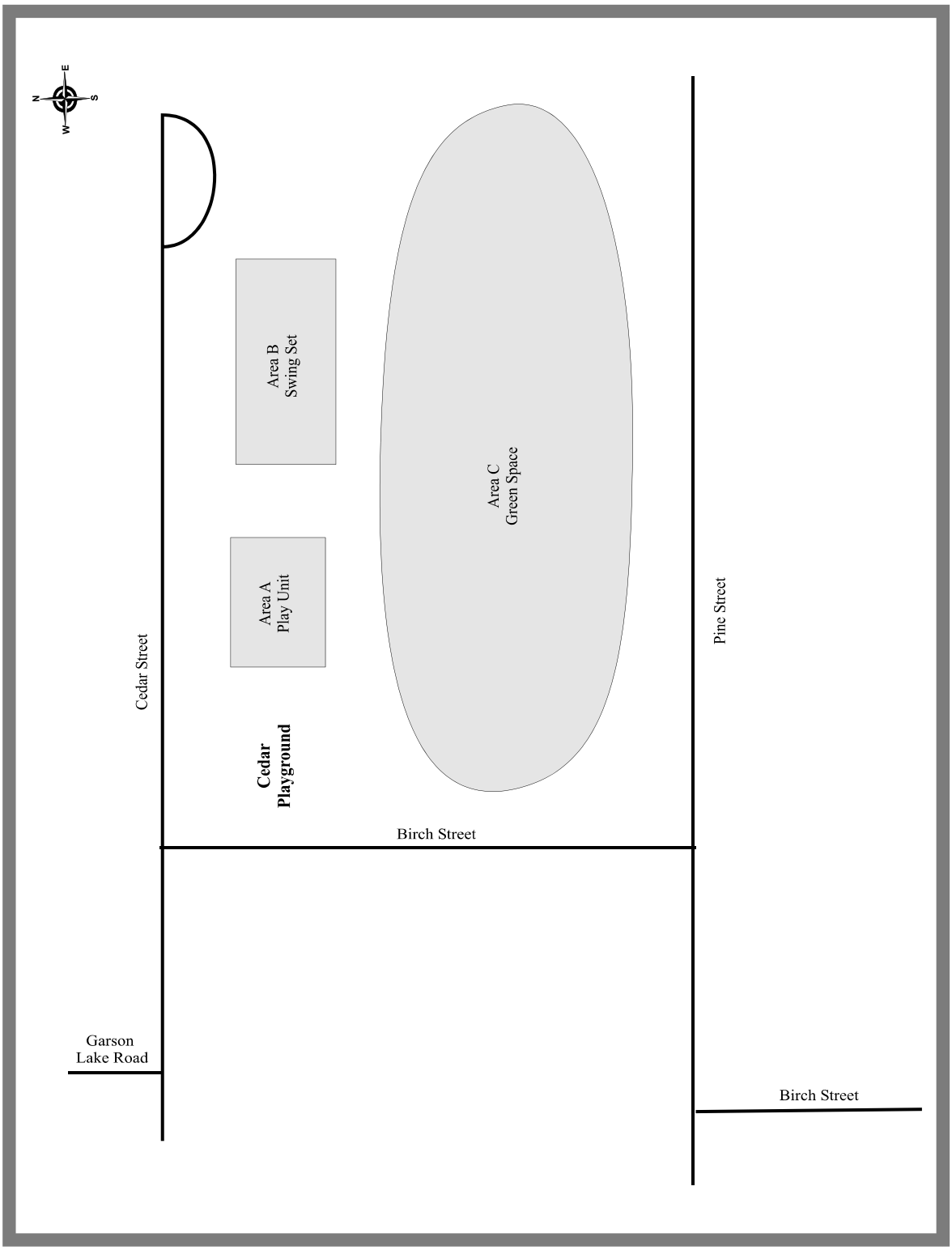


Map C5.9.4: Gerard Street Playground, Dowling - 2001.

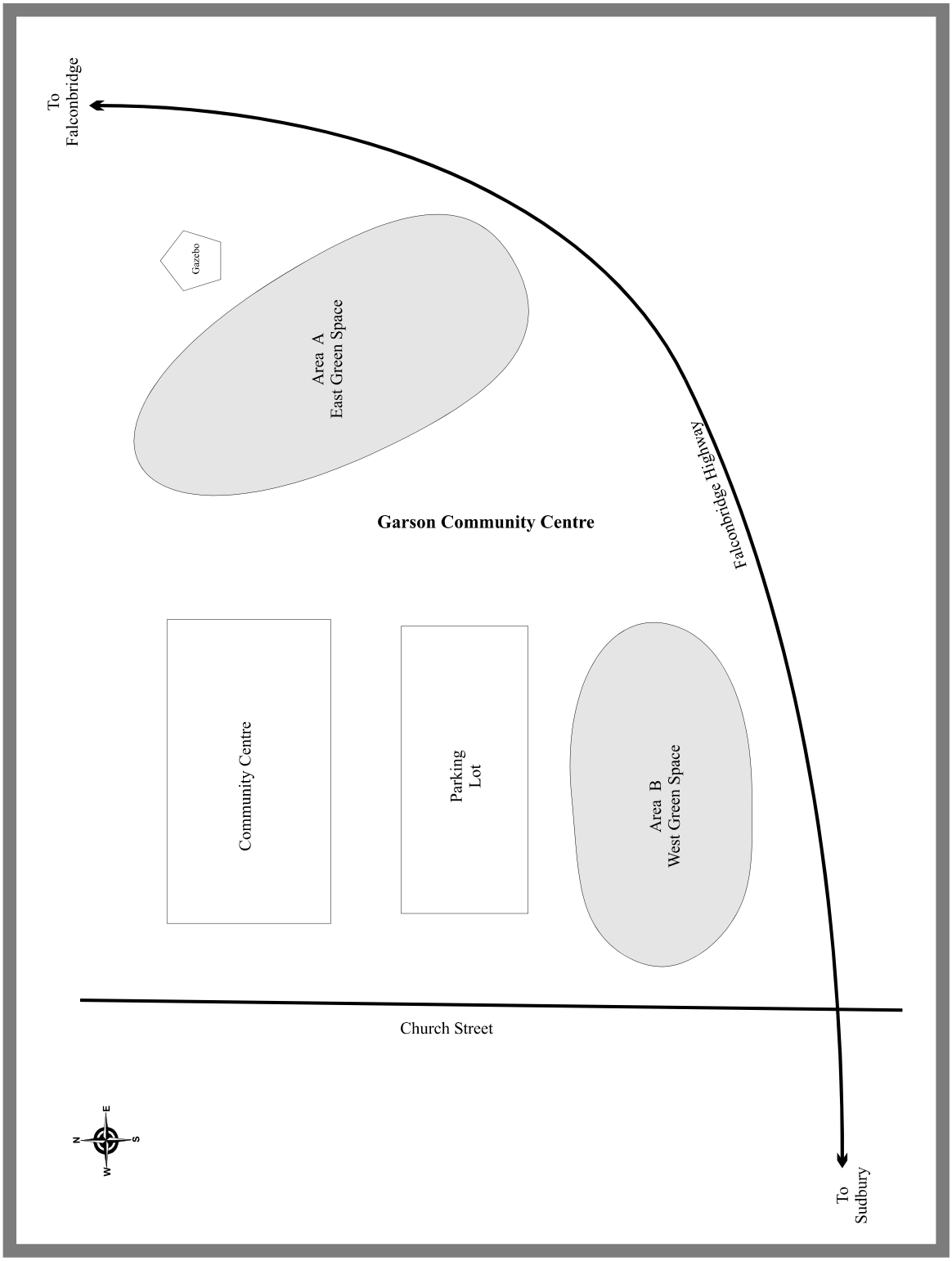
5.10 Garson Park Maps



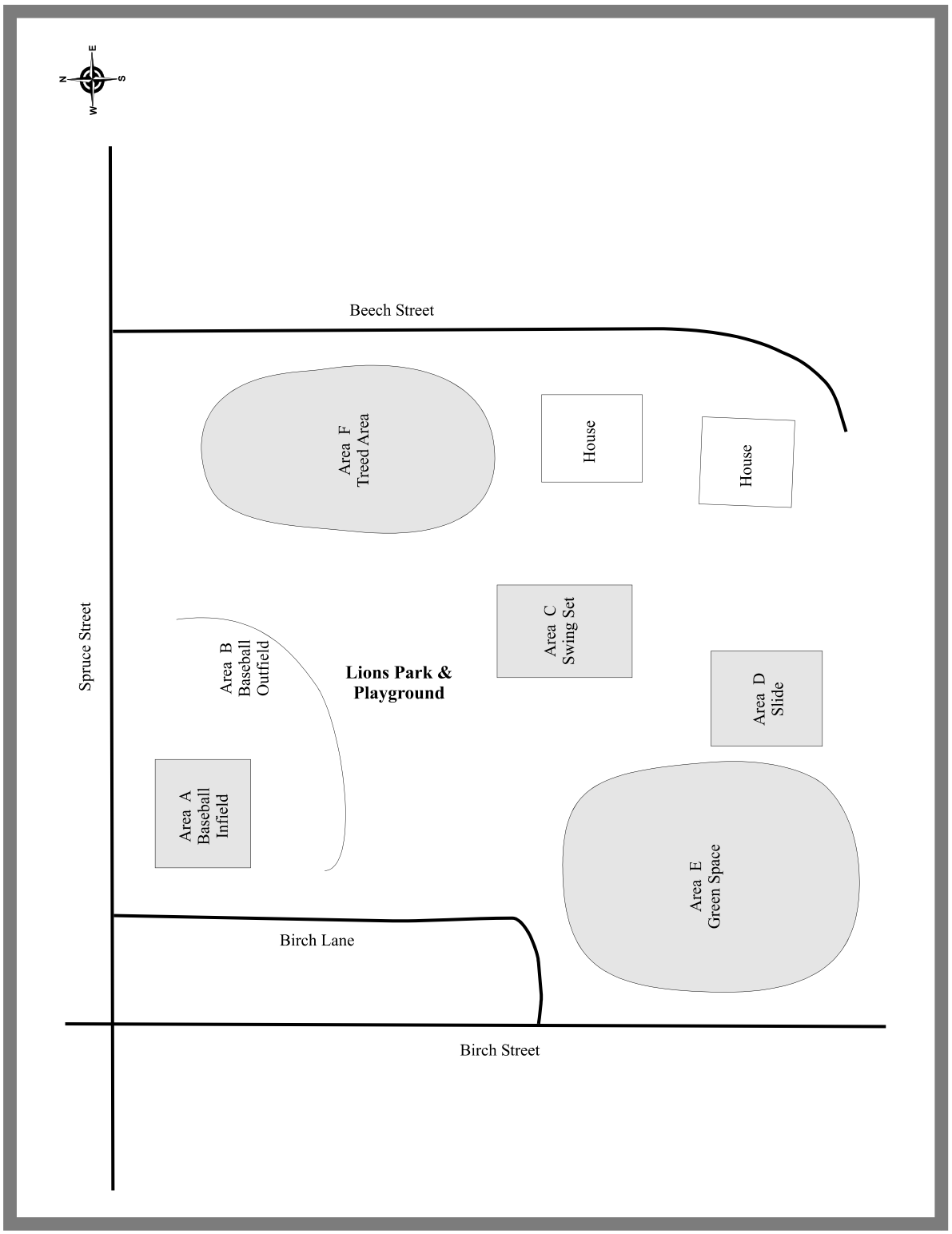
Map C5.10.1: Cedar Green Playground, Garson - 2001.



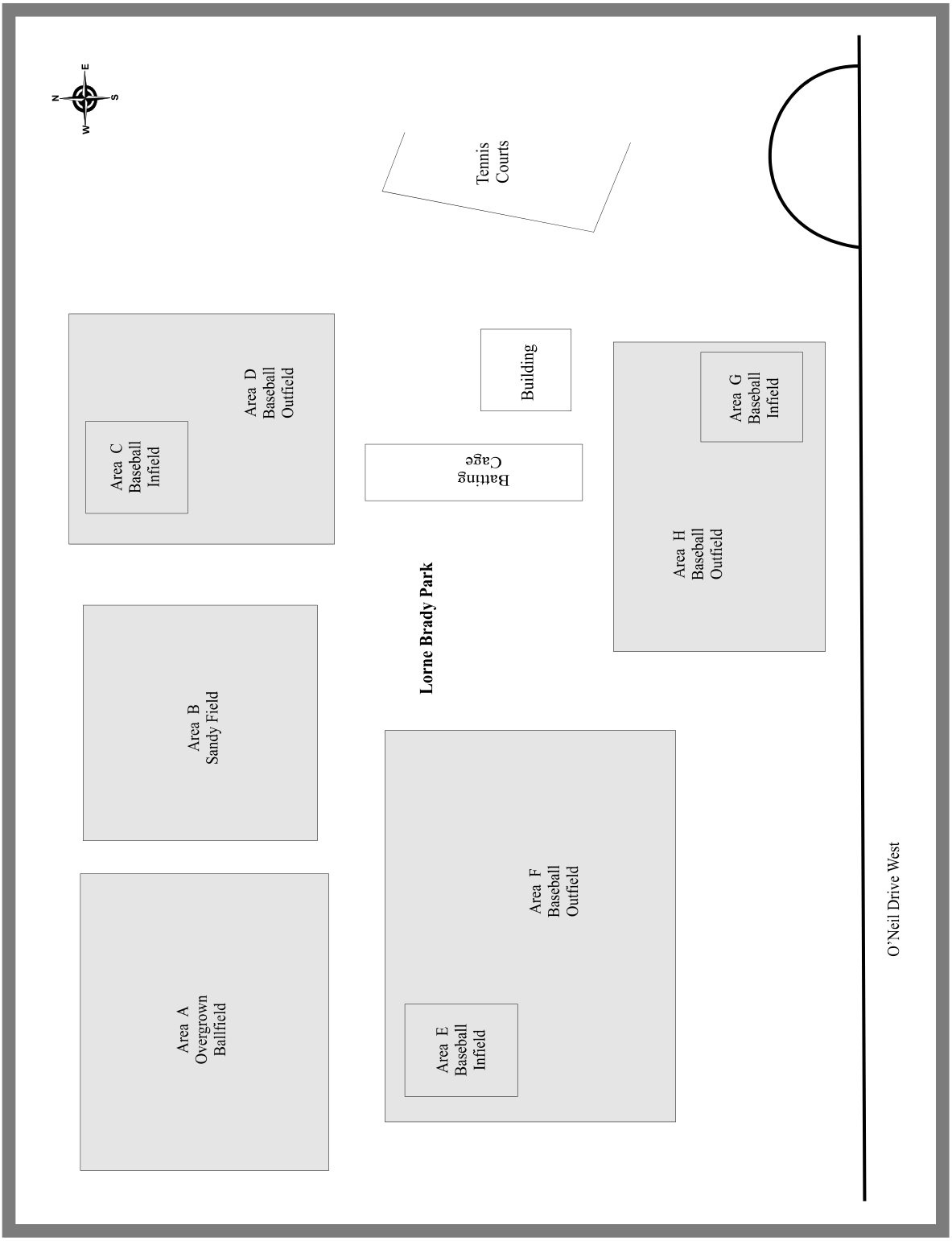
Map C5.10.2: Cedar Playground, Garson - 2001.



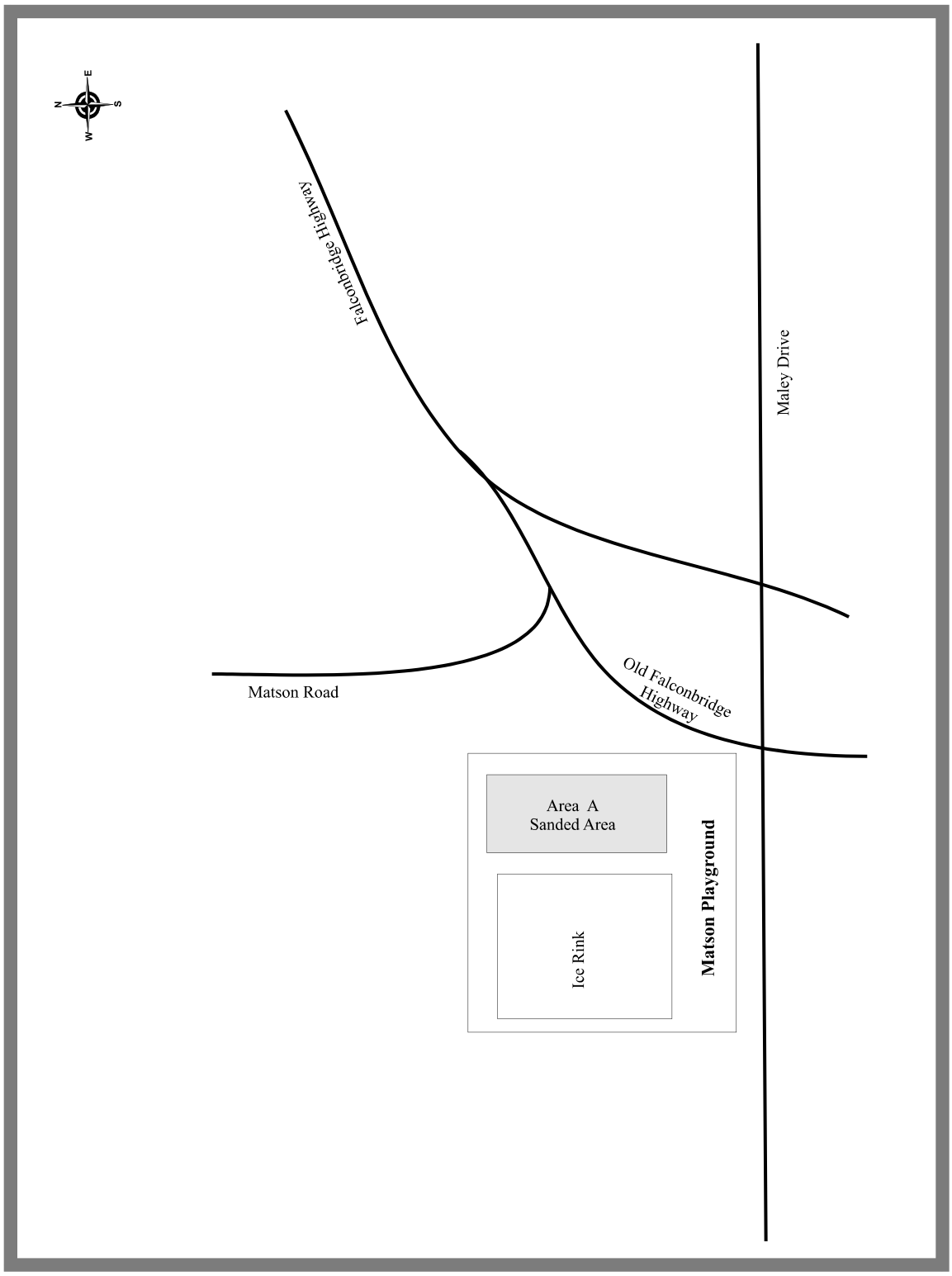
Map C5.10.3: Garson Community Centre, Garson - 2001.



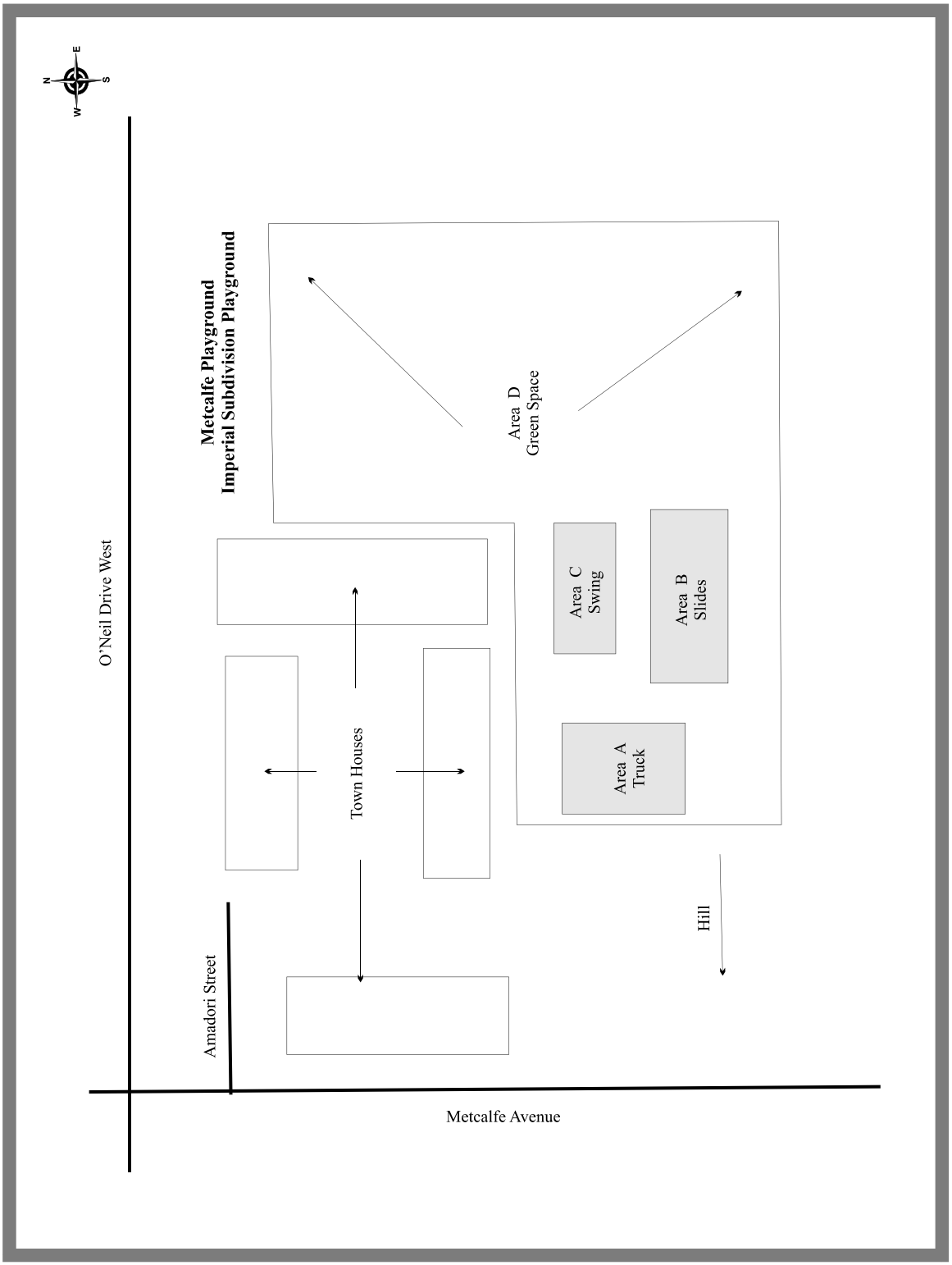
Map C5.10.4: Lion's Park & Playground, Garson - 2001.



Map C5.10.5: Lorne Brady Park, Garson - 2001.



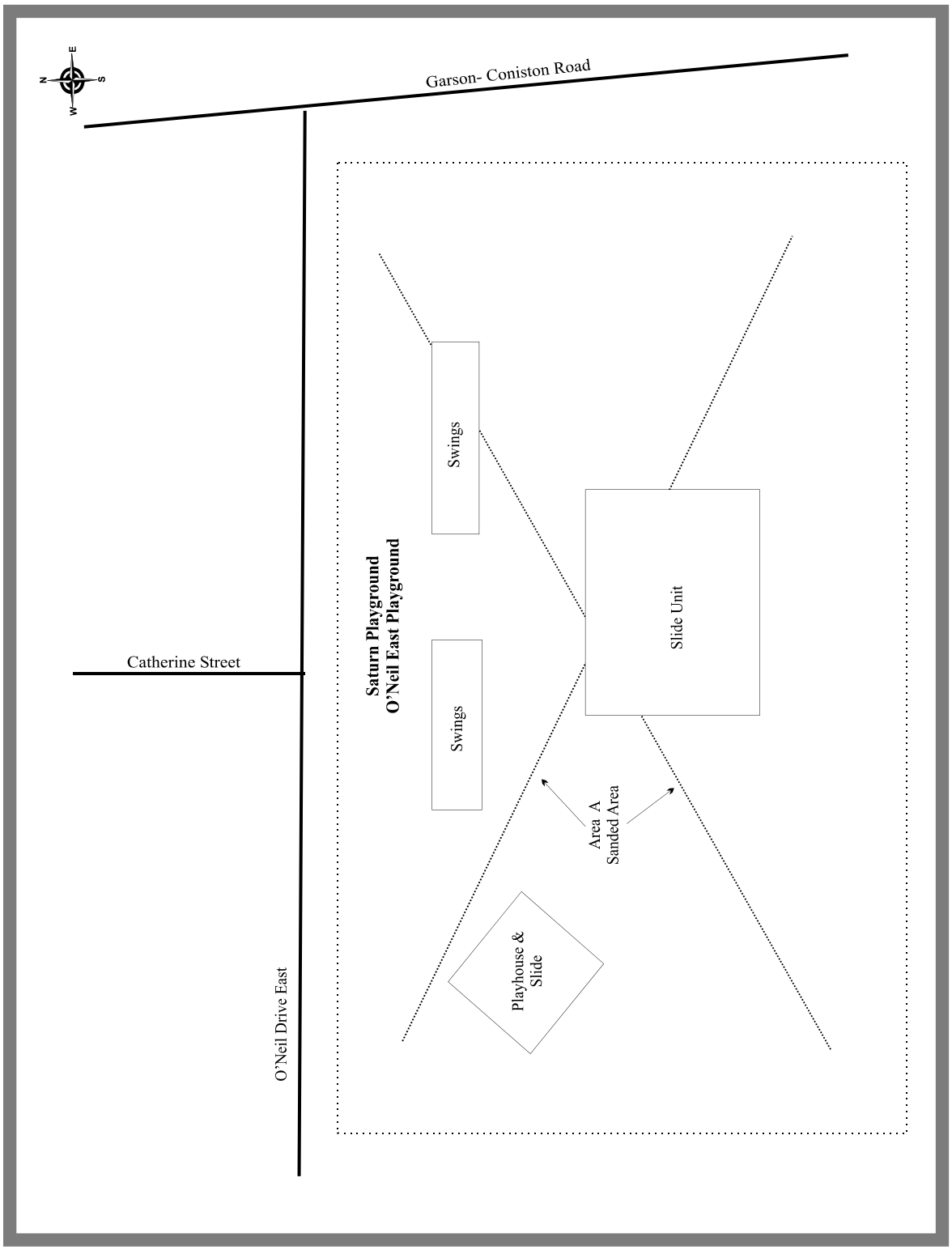
Map C5.10.6: Matson Playground, Garson - 2001.



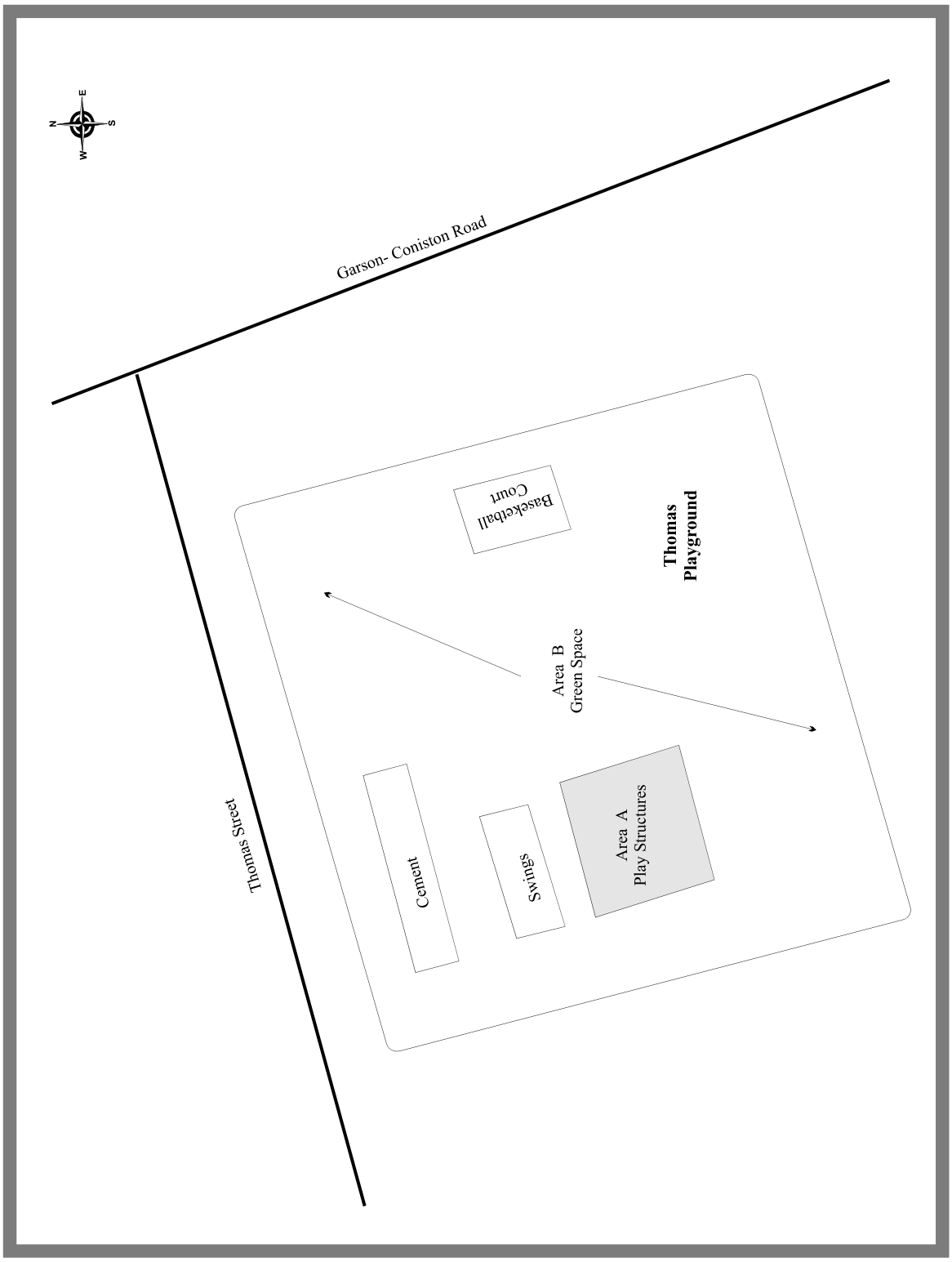
Map C5.10.7: Metcalfe Playground (Imperial Subdivision Playground), Garson - 2001.



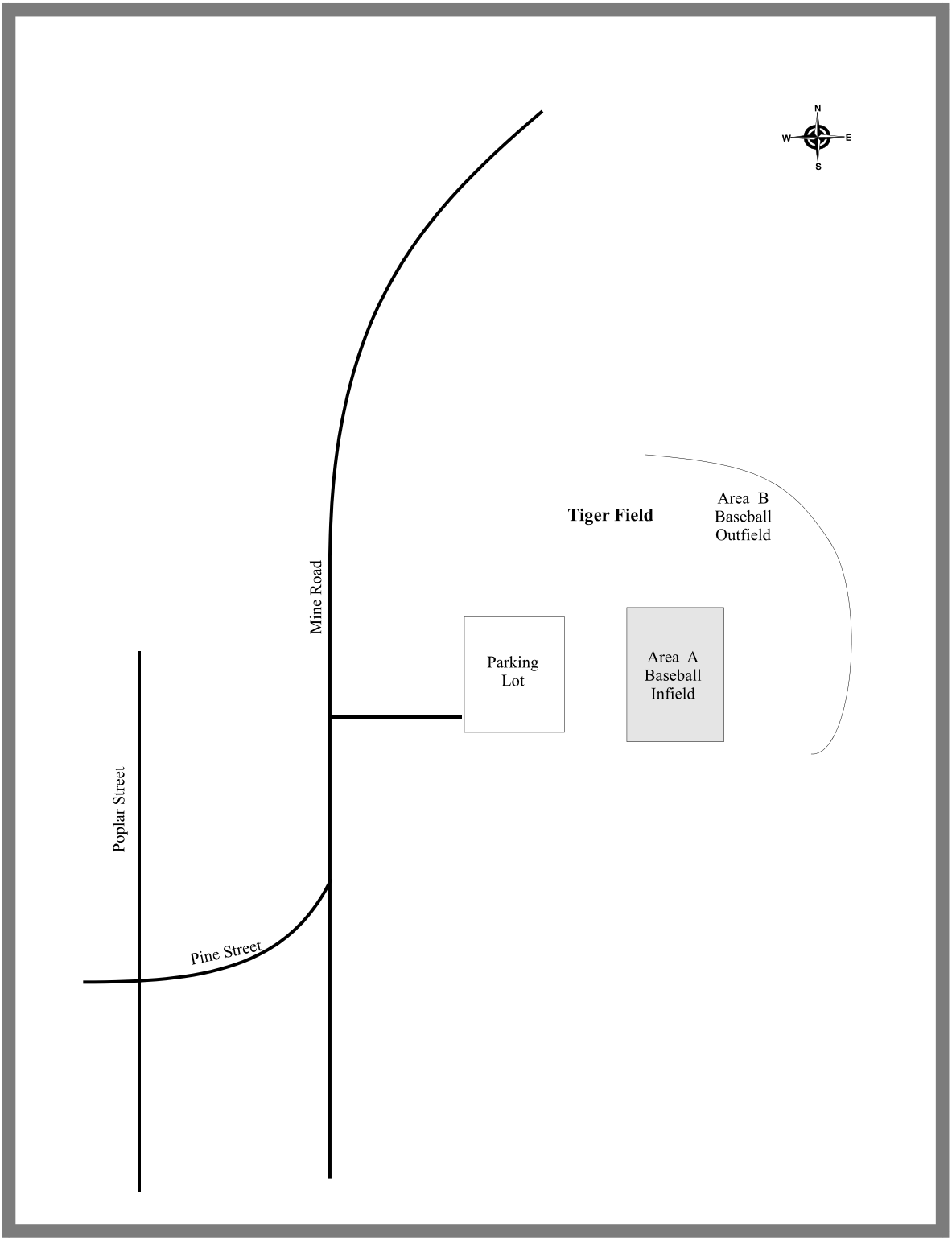
Map C5.10.8: Penman Avenue Playground, Garson - 2001.



Map C5.10.9: Saturn Playground, Garson - 2001.

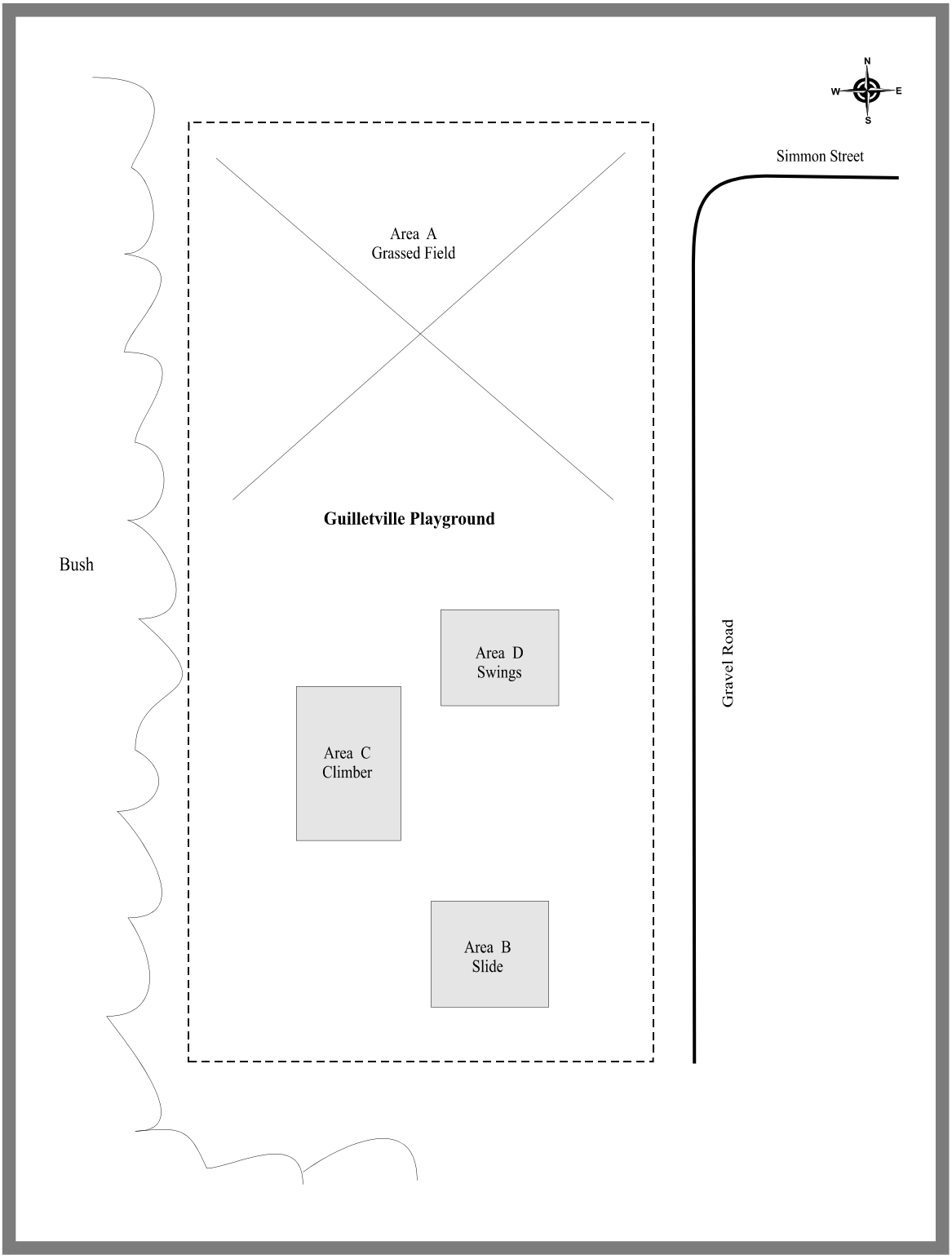


Map C5.10.10: Thomas Street Playground Tot Lot, Garson - 2001.



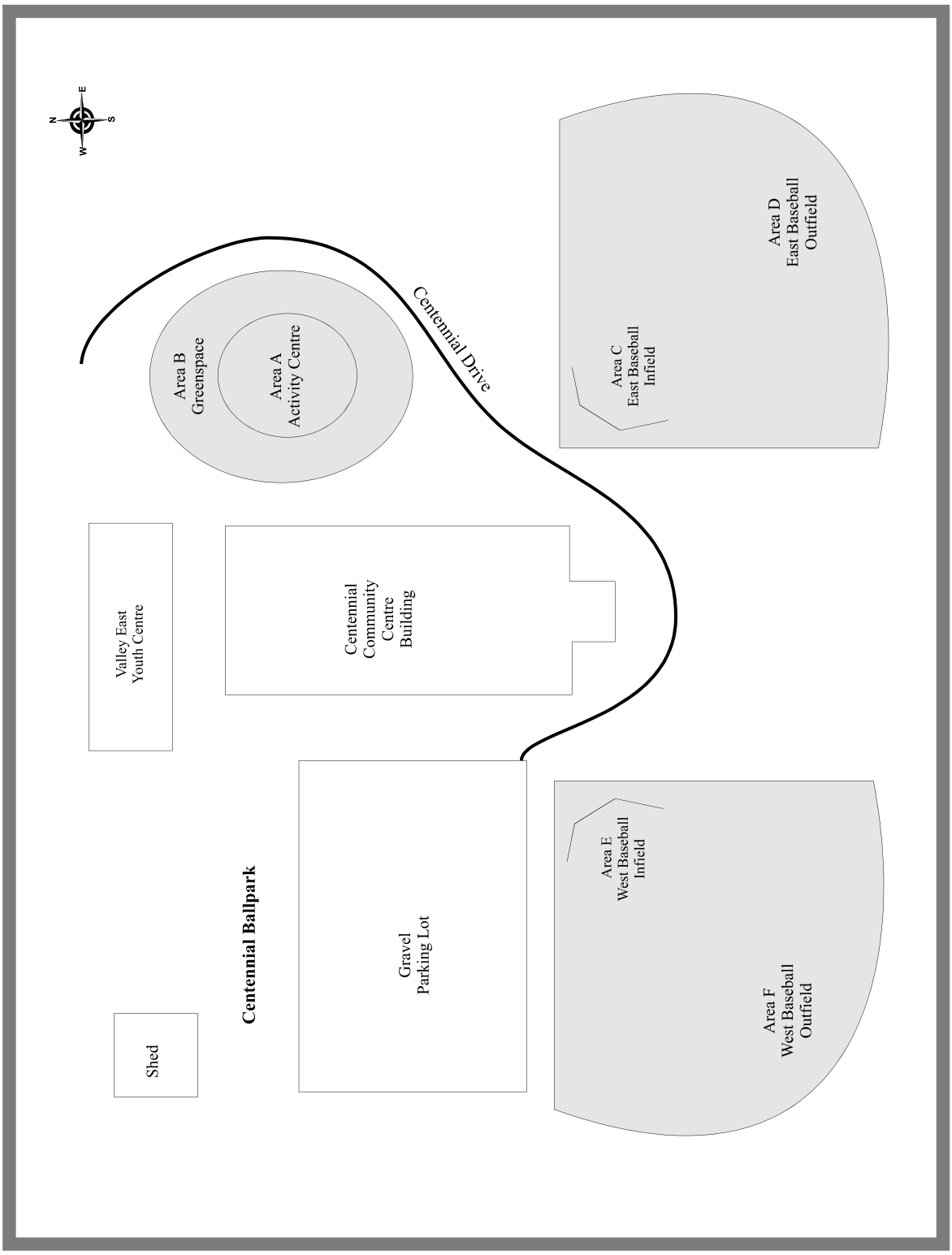
Map C5.10.11: Tiger Field, Garson - 2001.

5.11 Guilletville Park Map

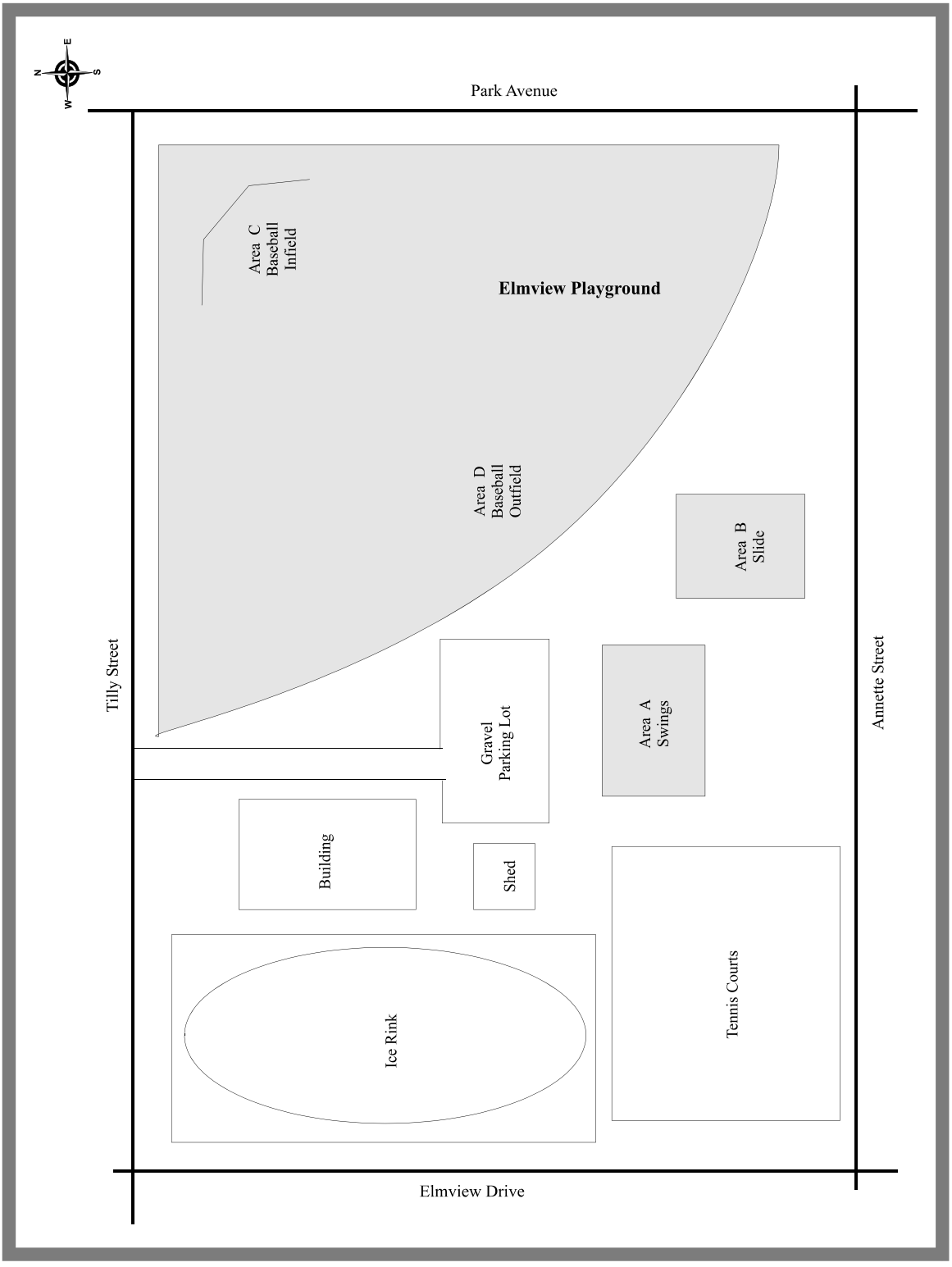


Map C5.11.1: Guilletville Playground, Guilletville - 2001.

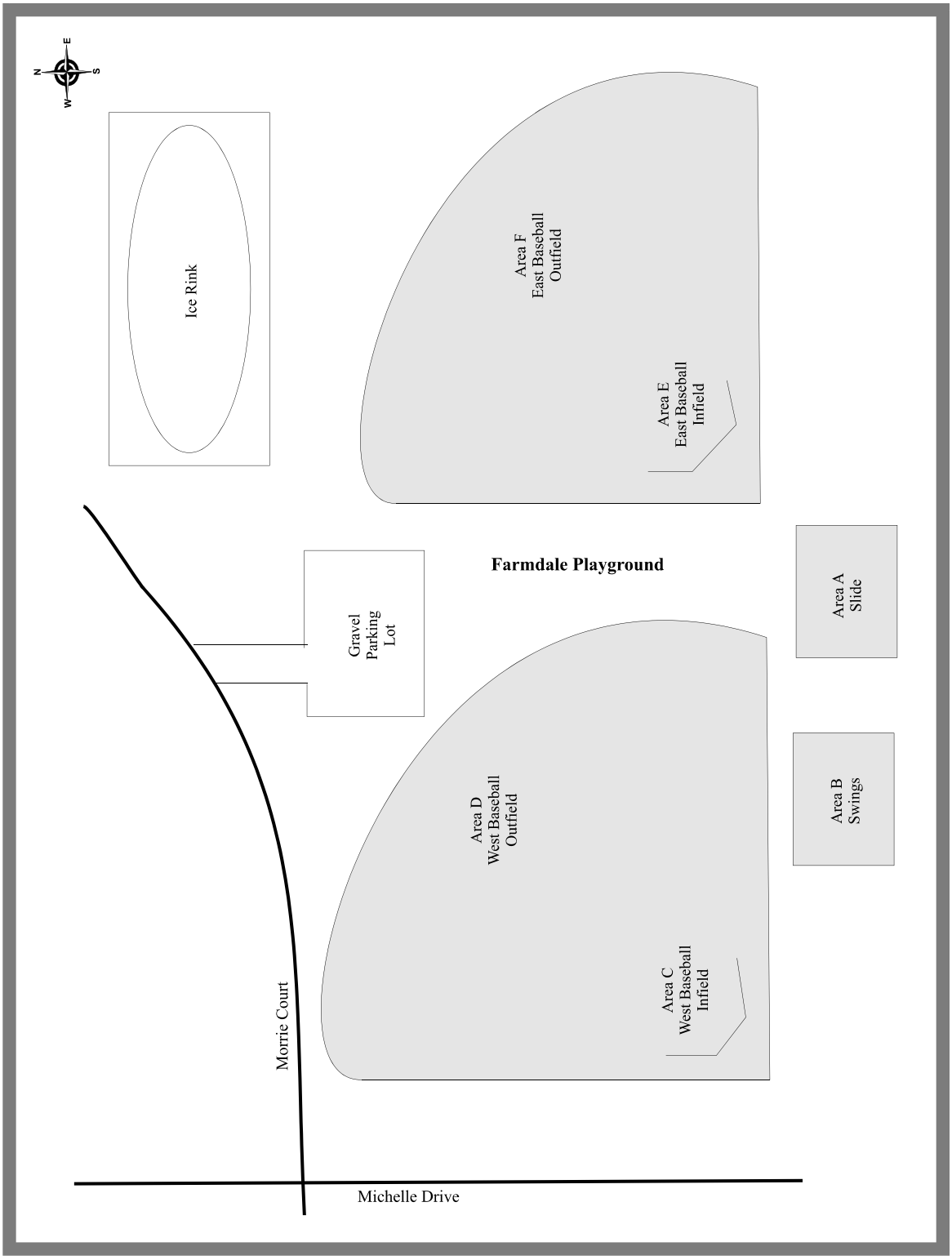
5.12 Hanmer Park Maps



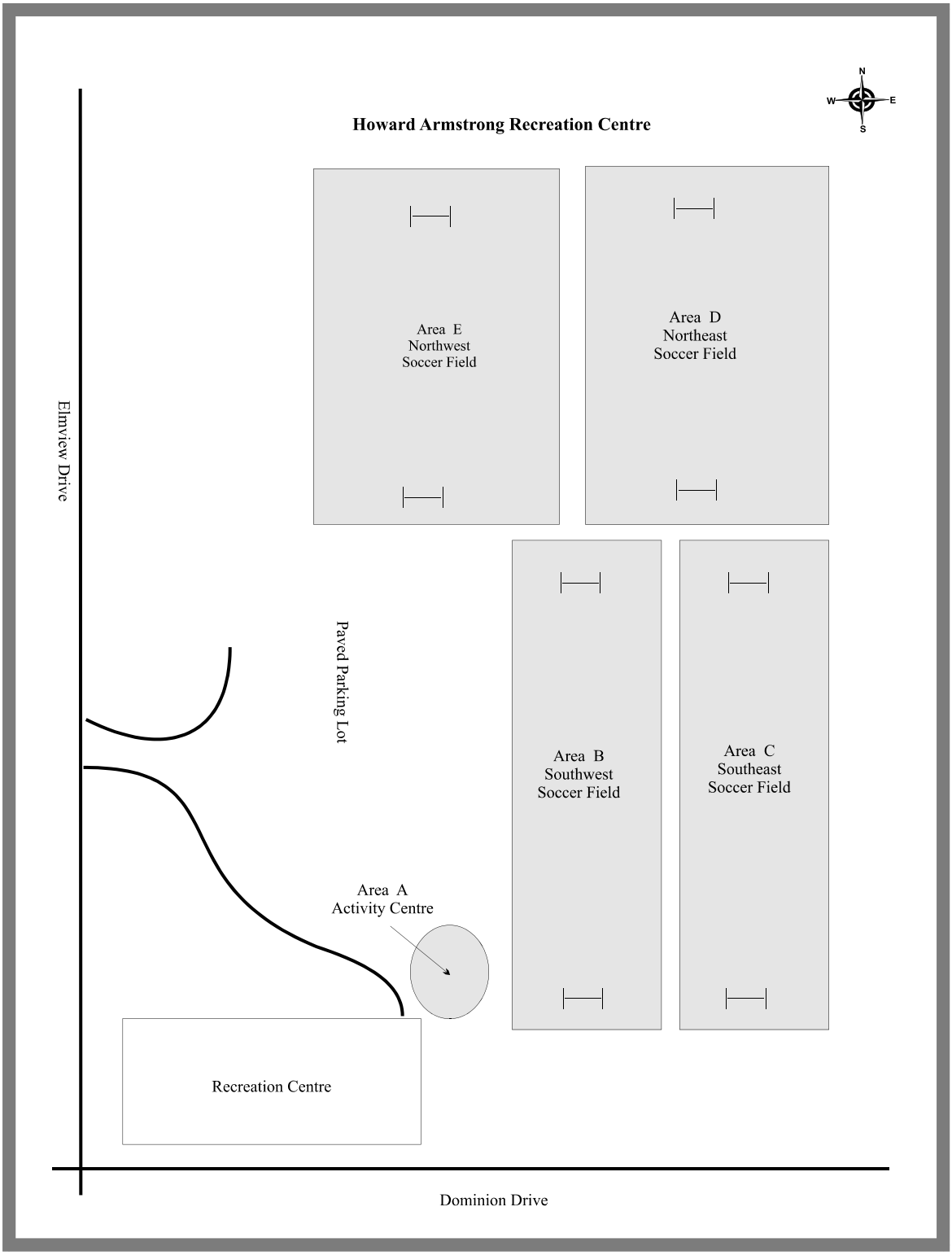
Map C5.12.1: Centennial Ballpark, Hanmer - 2001.



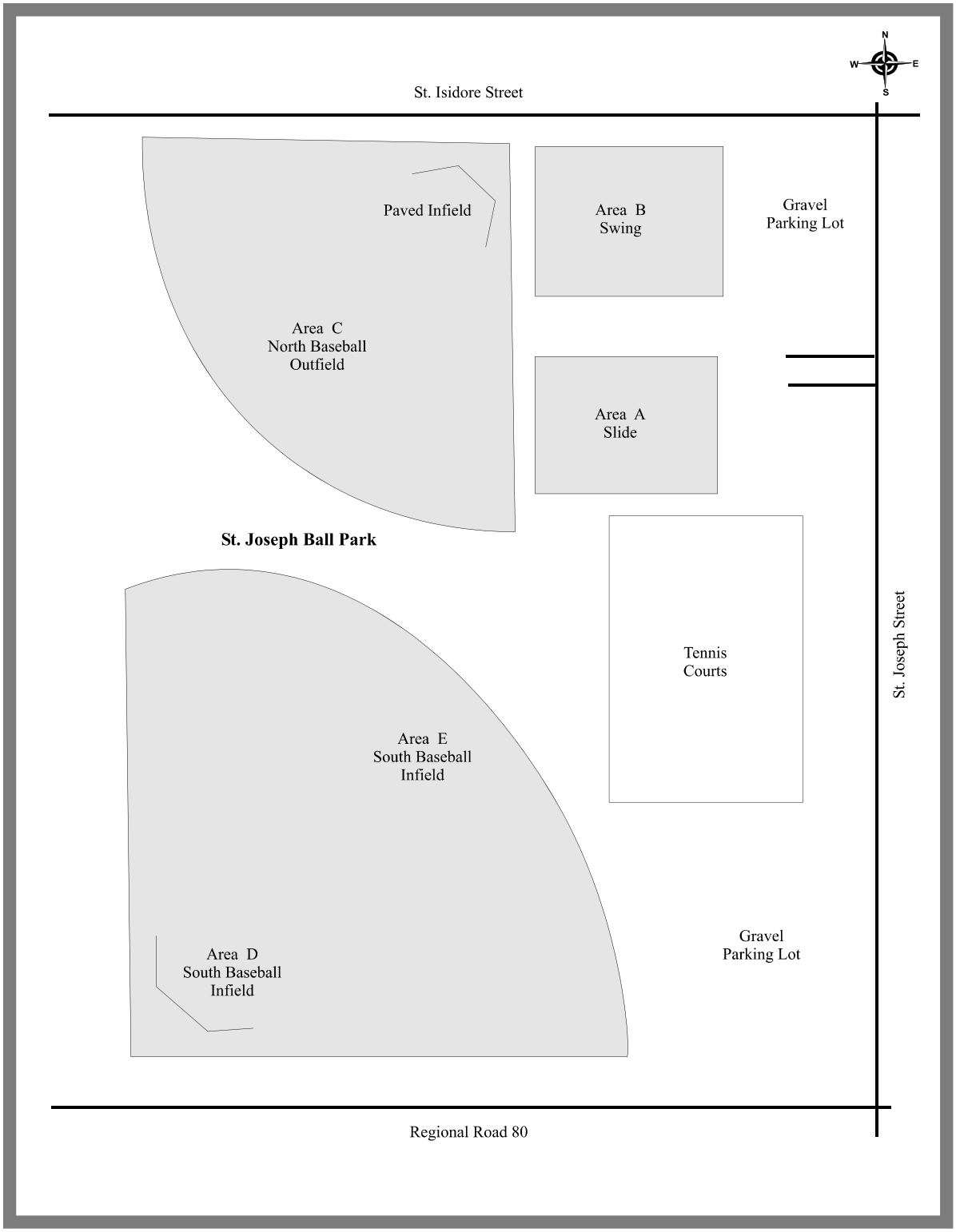
Map C5.12.2: Elmview Playground, Hanmer - 2001.



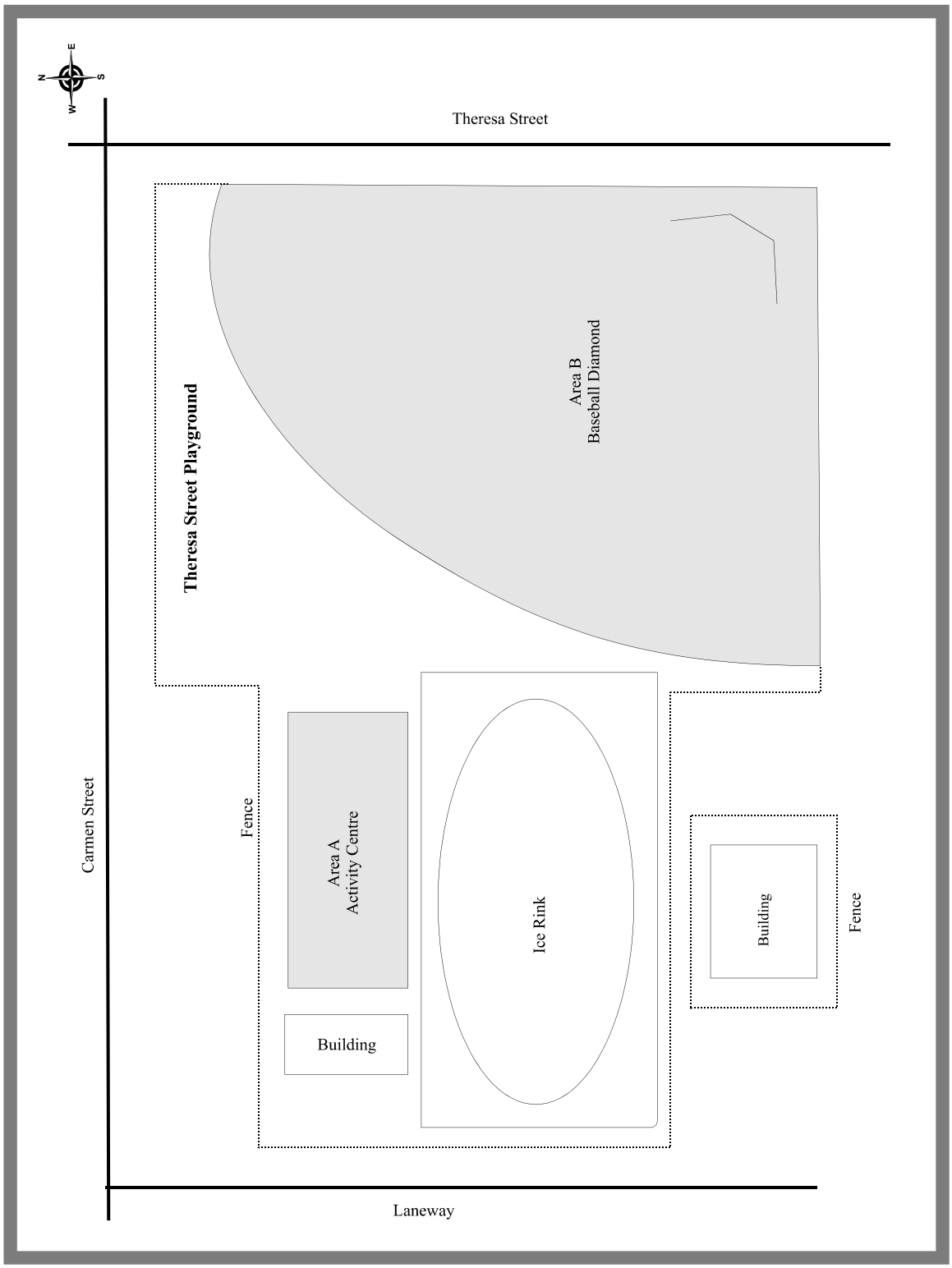
Map C5.12.3: Farmdale Playground, Hanmer - 2001.



Map C5.12.4: Howard Armstrong Rec. Centre, Hanmer - 2001.

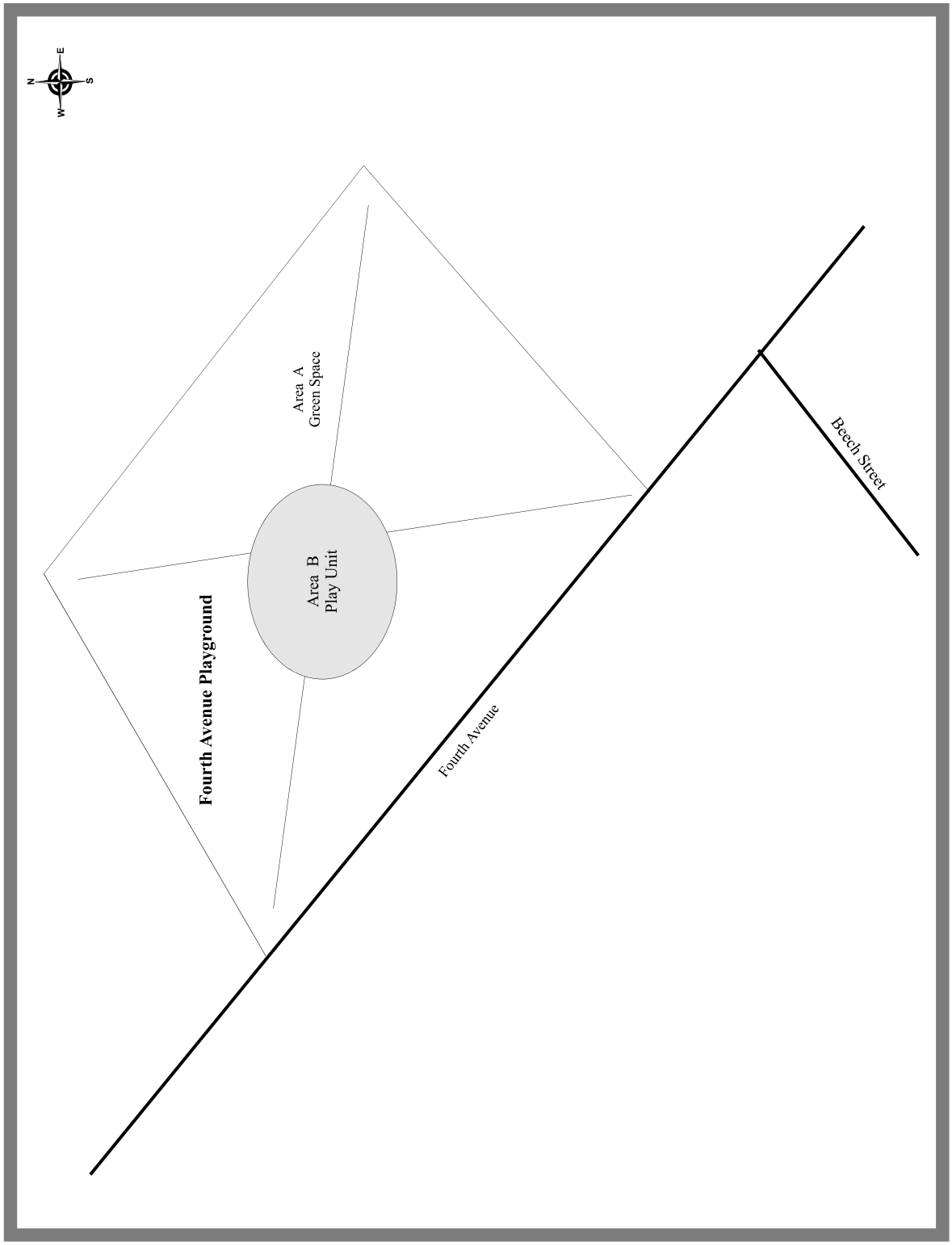


Map C5.12.5: St. Joseph Ball Park (Lion's Playground), Hanmer - 2001.

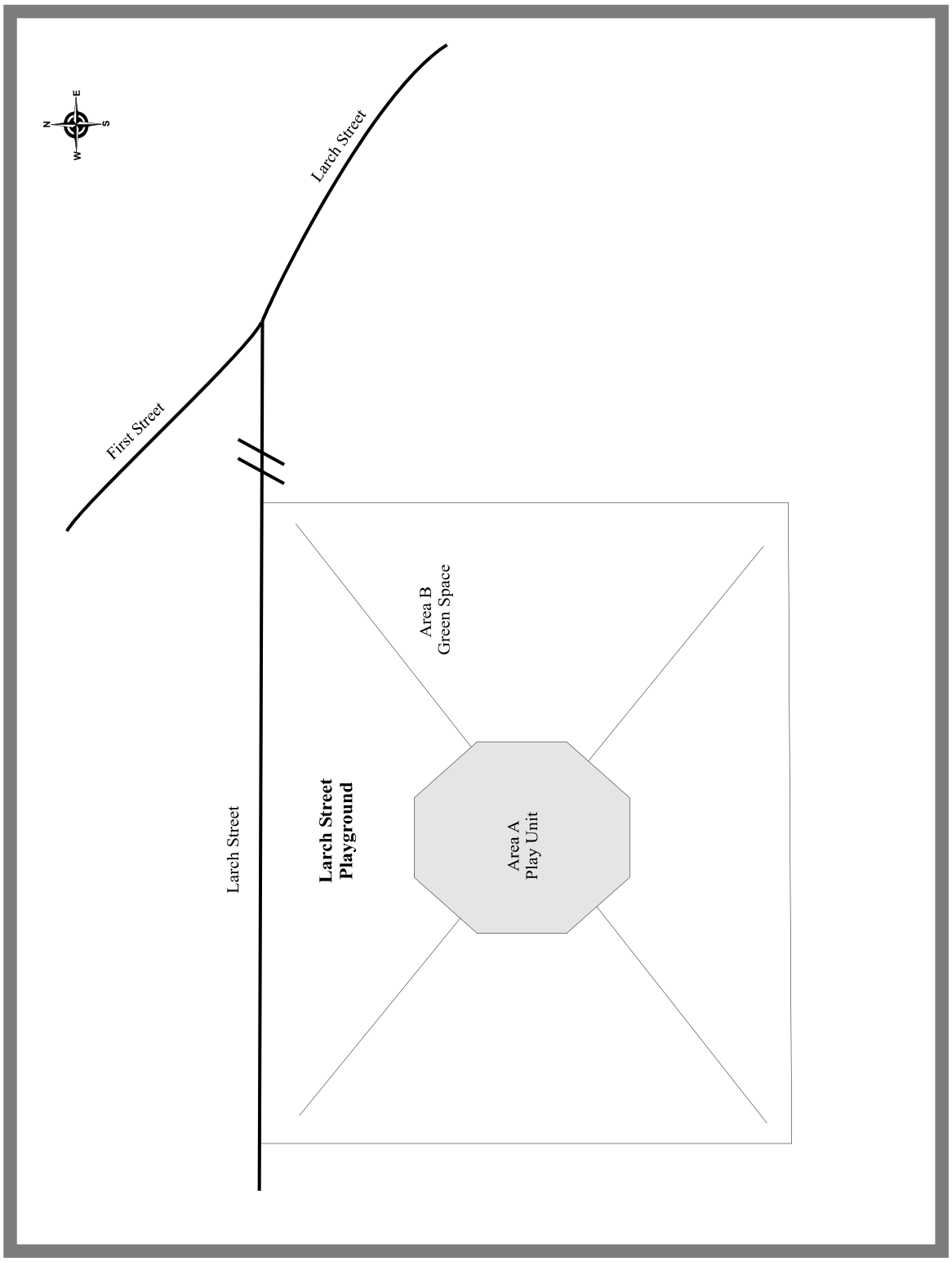


Map C5.12.6: Theresa Playground (Hanmer Playground), Hanmer - 2001.

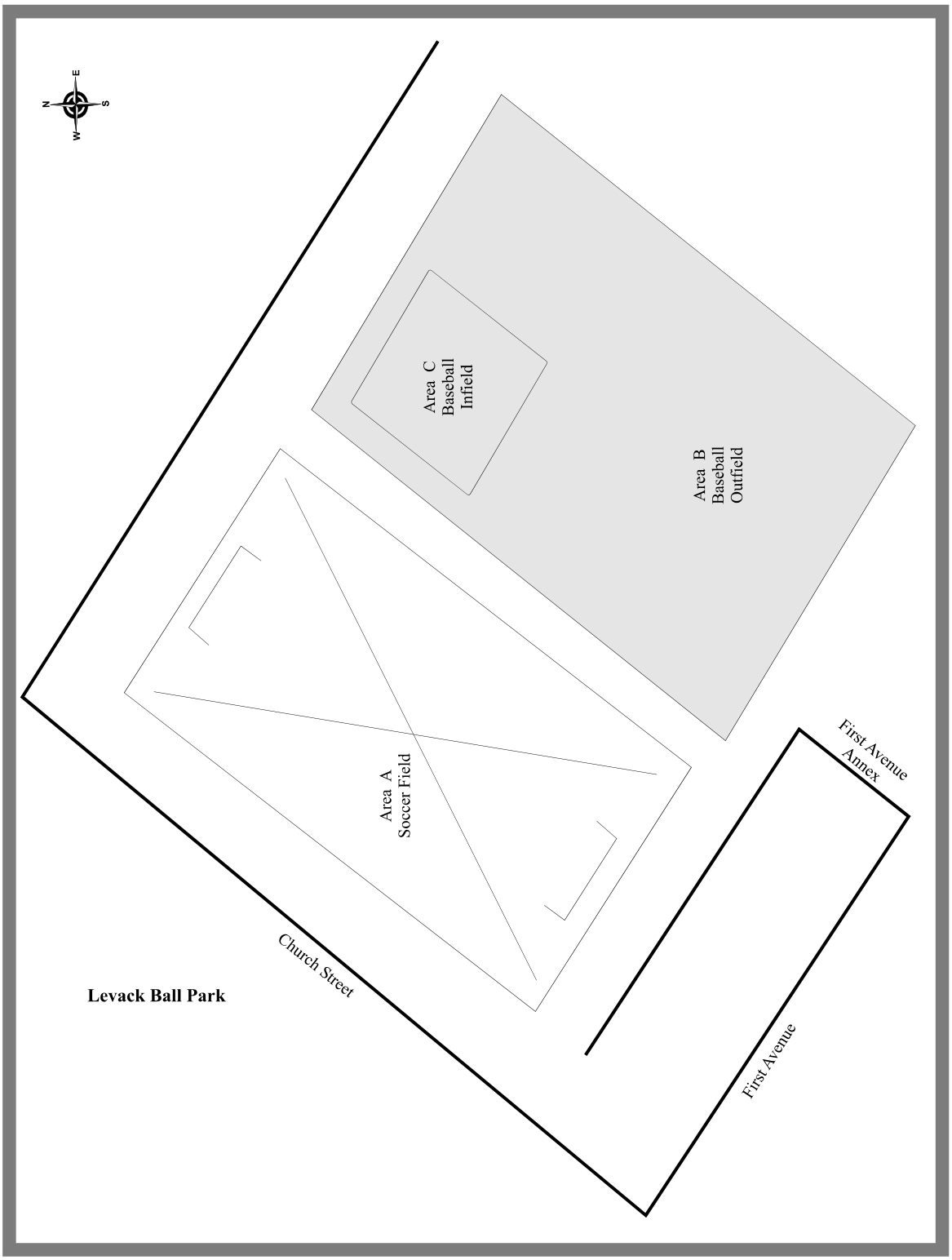
5.13 Levack Park Maps



Map C5.13.1: 4th Avenue Playground, Levack - 2001.

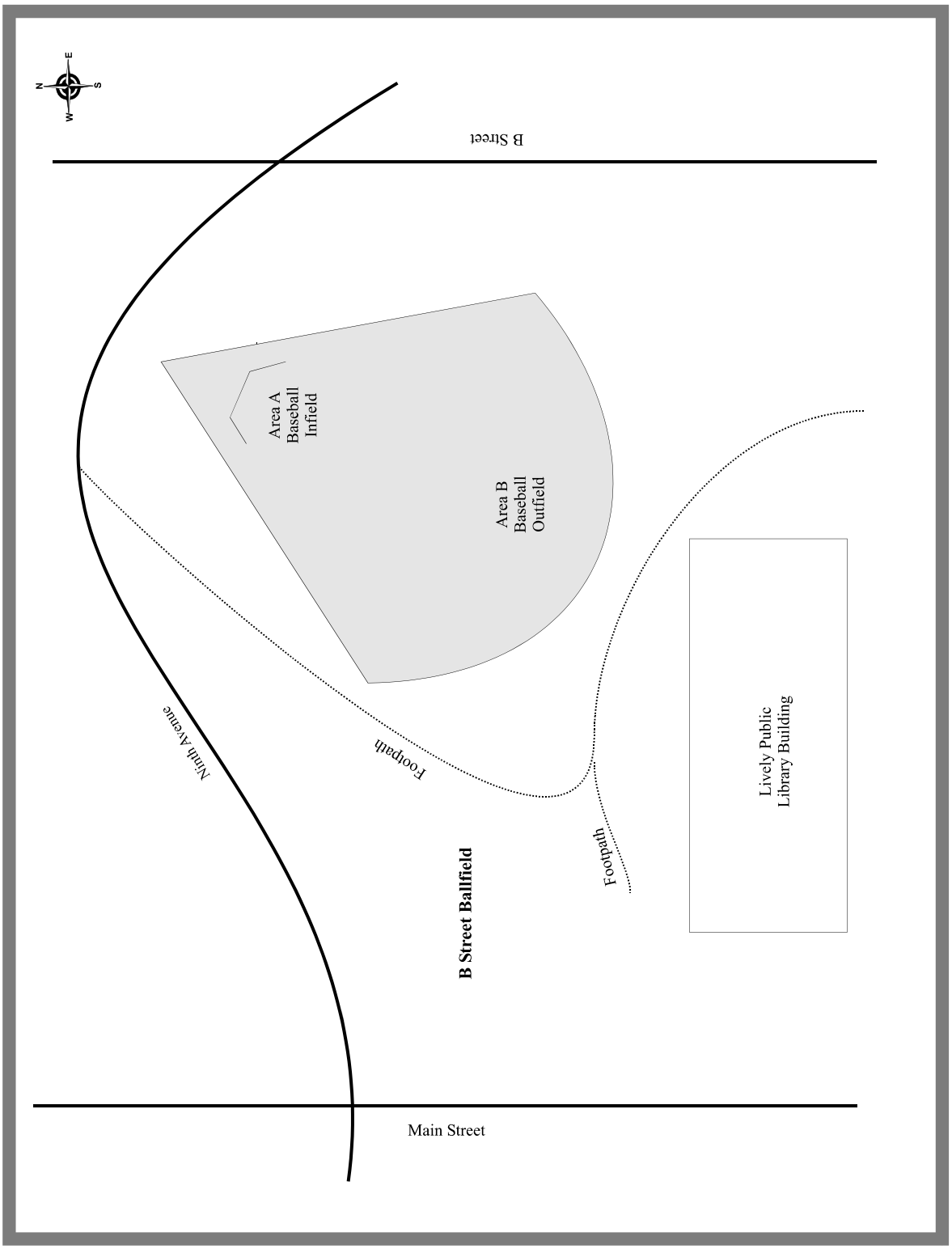


Map C5.13.2: Larch Street Playground, Levack - 2001.

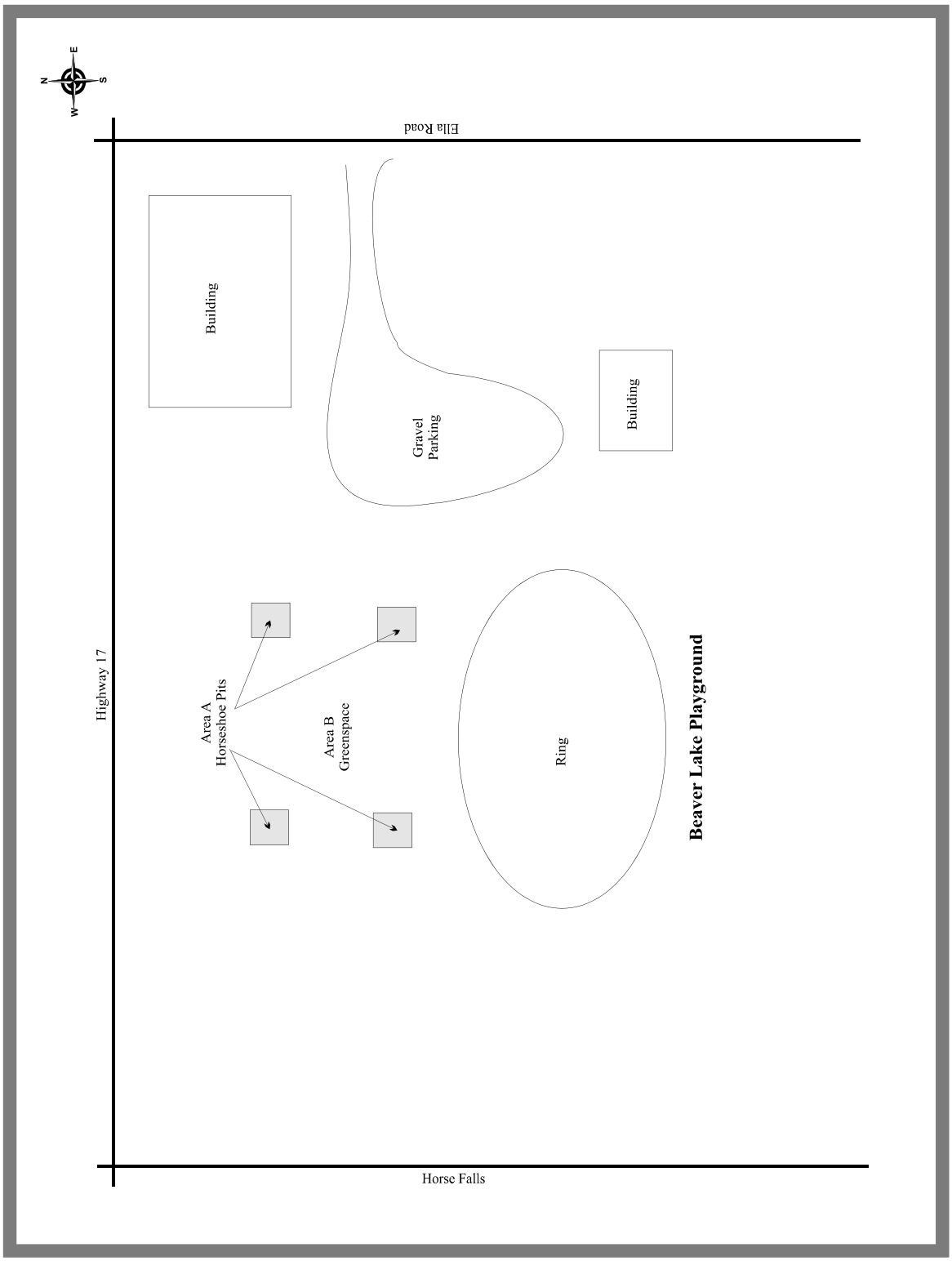


Map C5.13.3: Levack Ball Park, Levack - 2001.

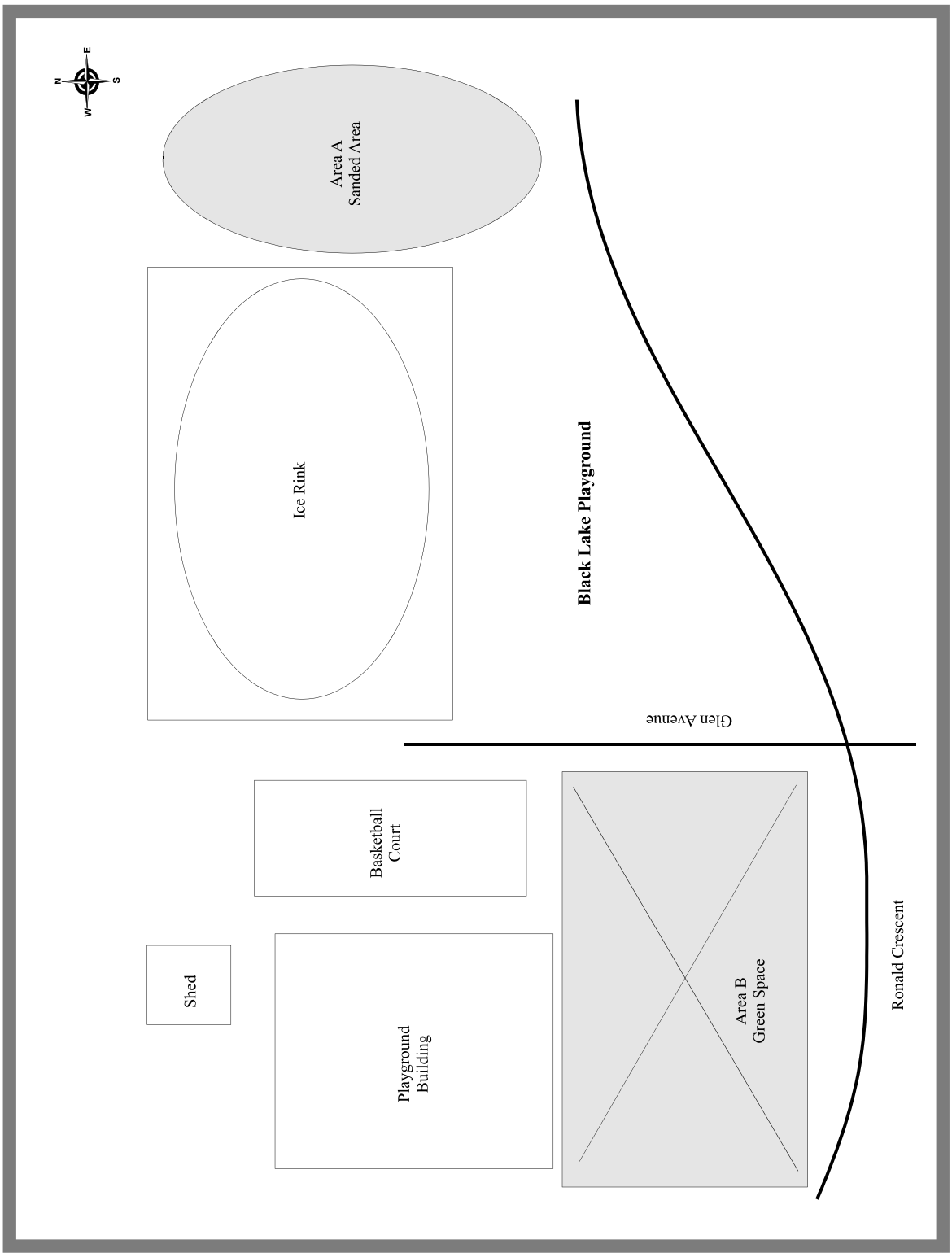
5.14 Lively Park Maps



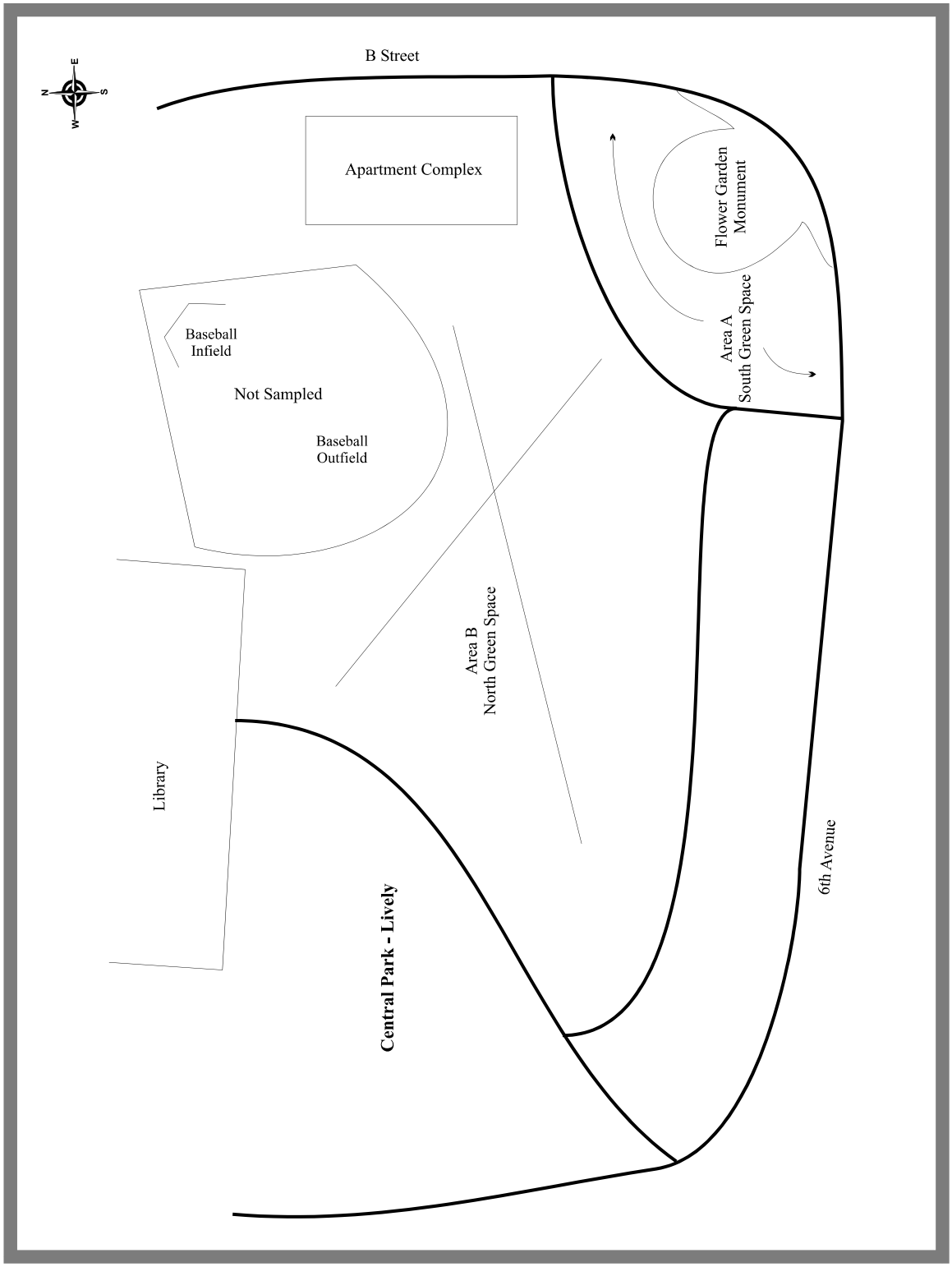
Map C5.14.1: B Street Ballfield (George Vanier), Lively - 2001.



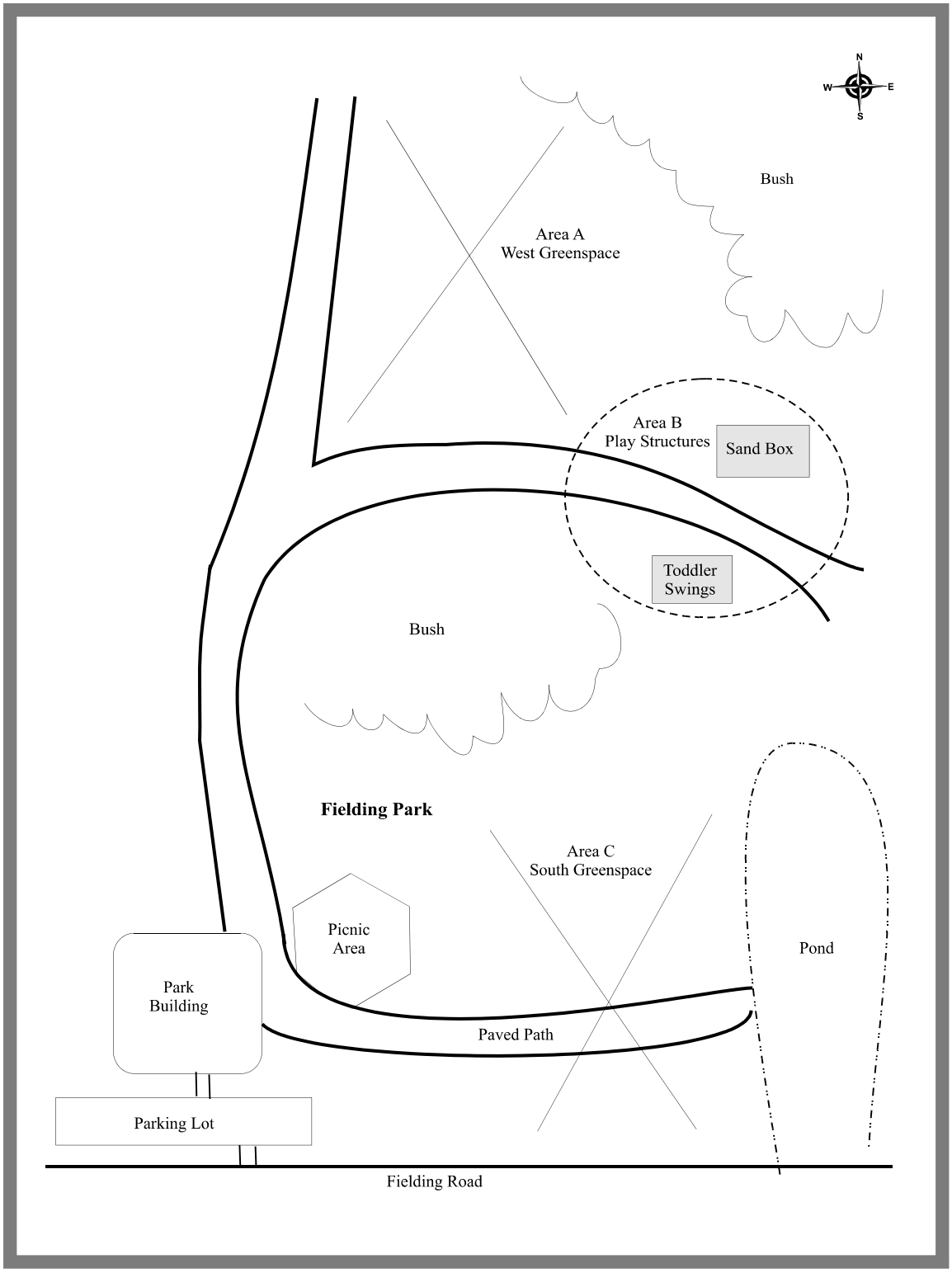
Map C5.14.2: Beaver Lake Playground, Lively - 2001.



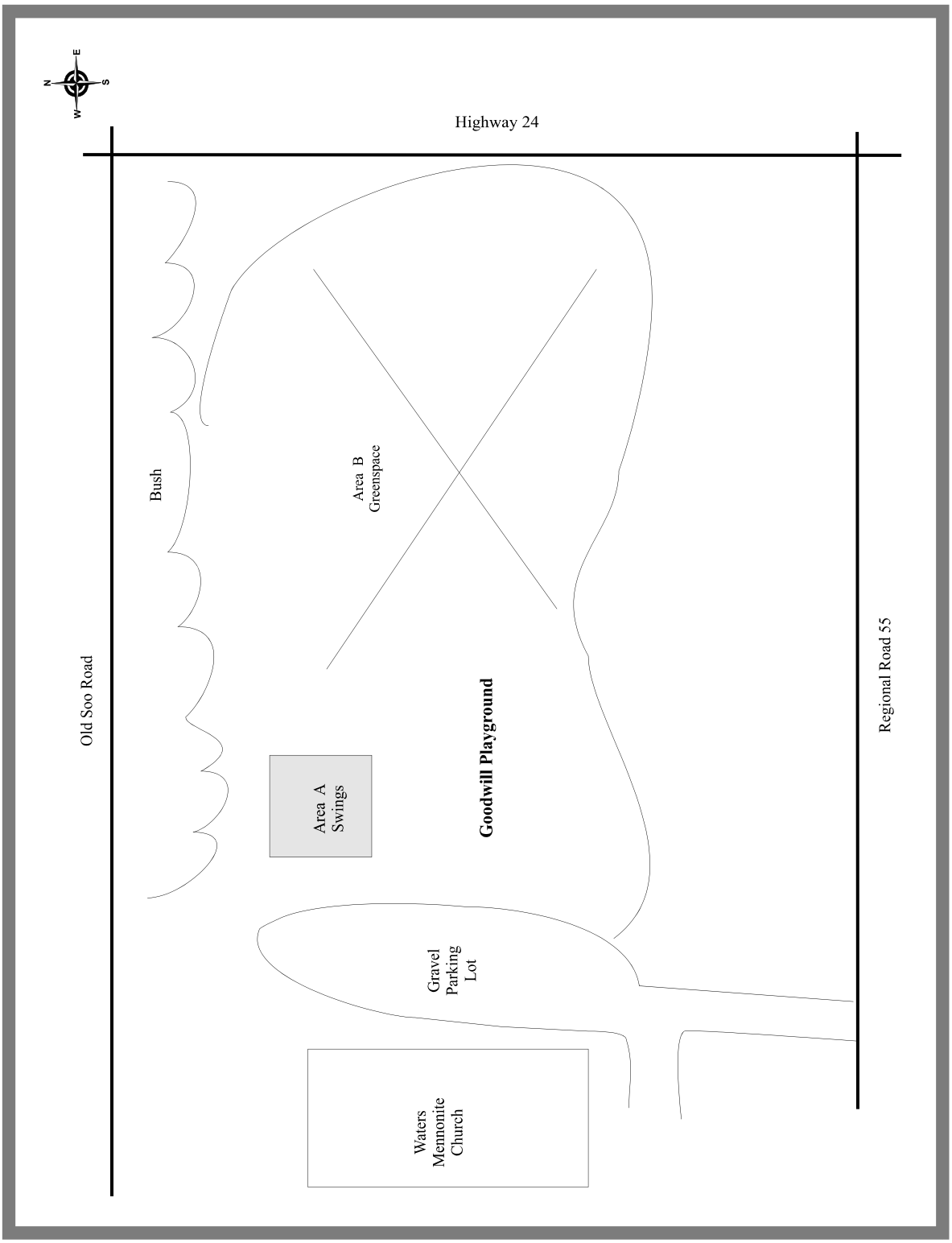
Map C5.14.3: Black Lake Road Playground, Lively - 2001.



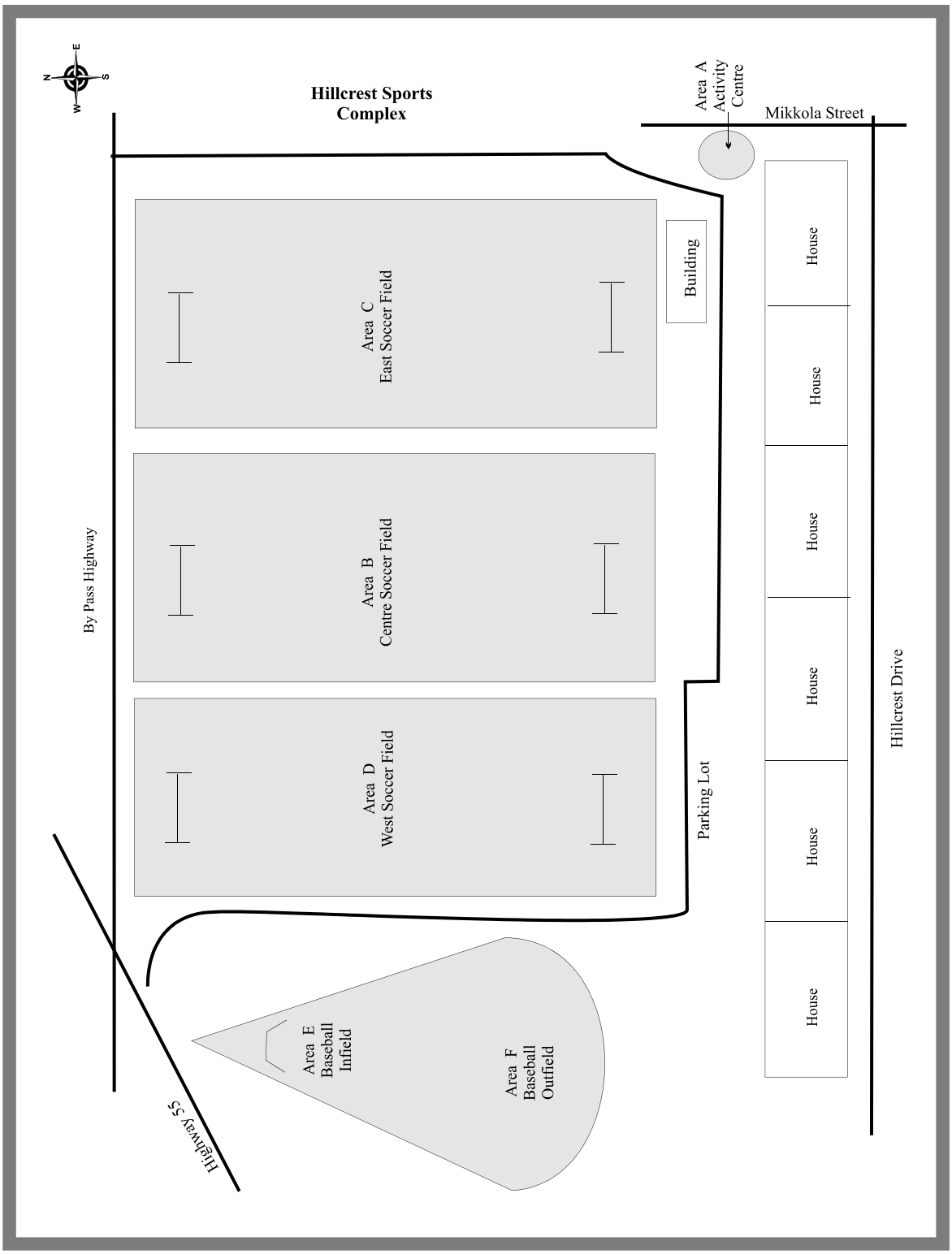
Map C5.14.4: Central Park, Lively - 2001.



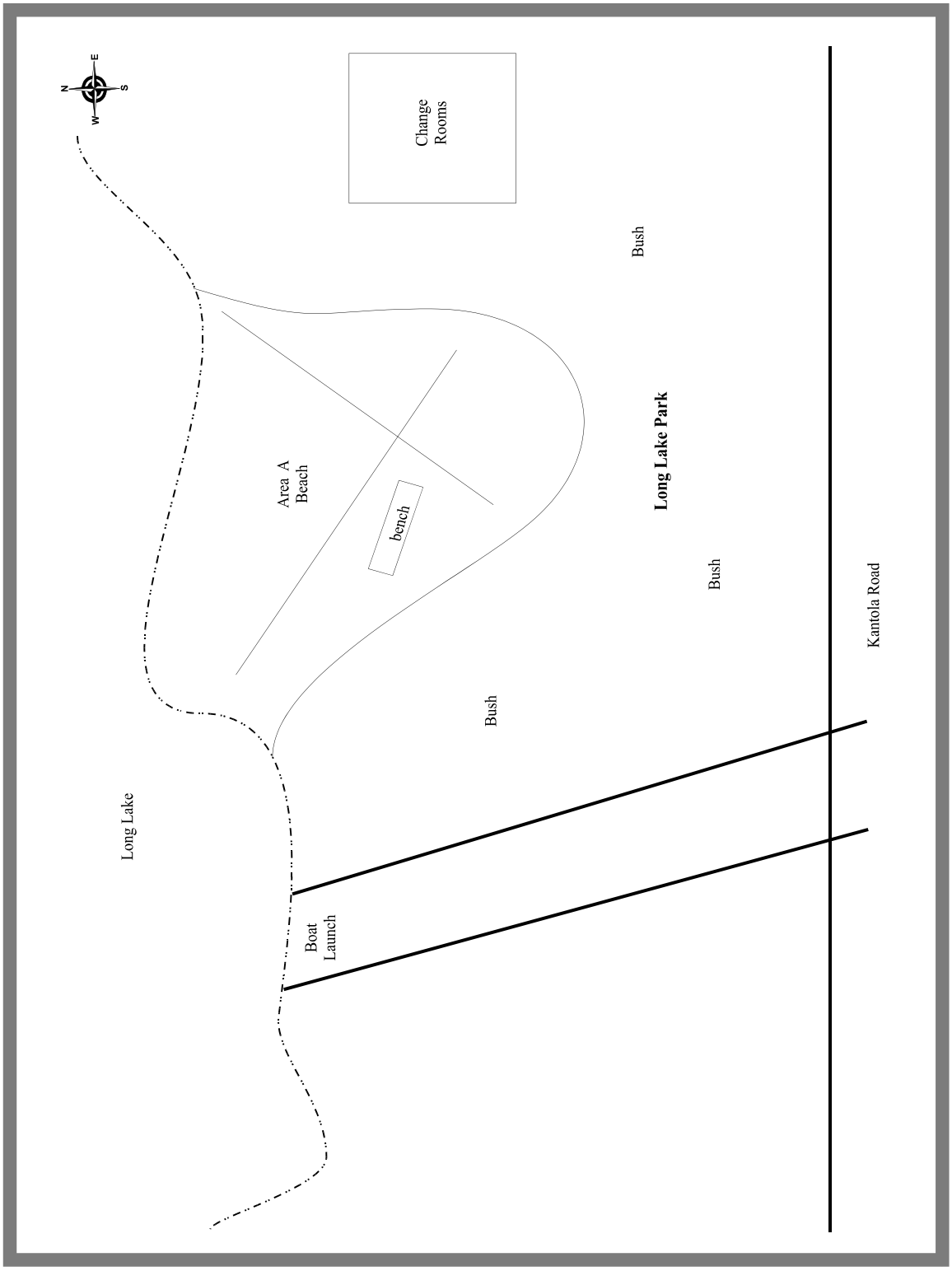
Map C5.14.5: Fielding Memorial Park Complex, Lively - 2001.



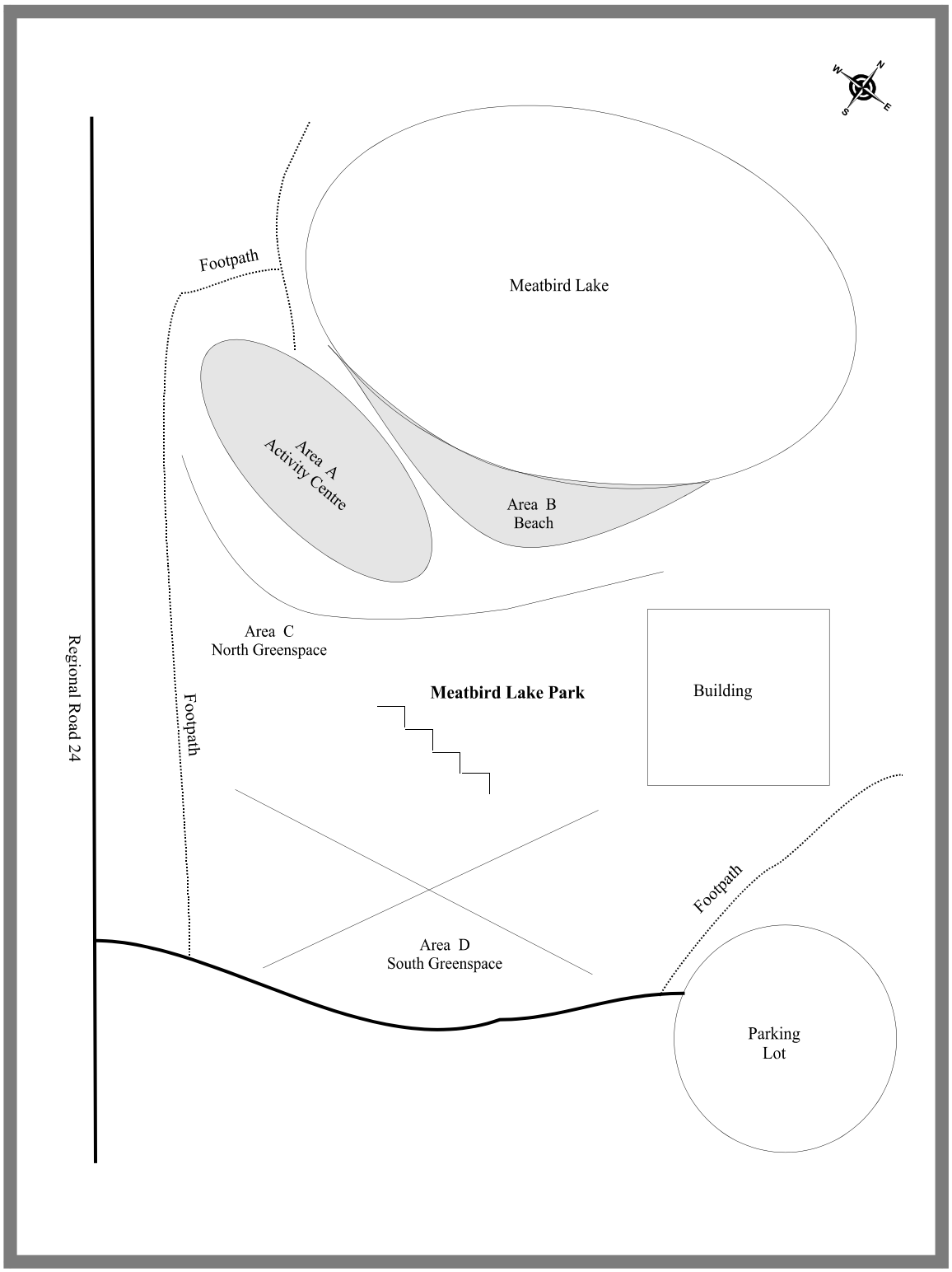
Map C5.14.6: Goodwill Playground, Lively - 2001.



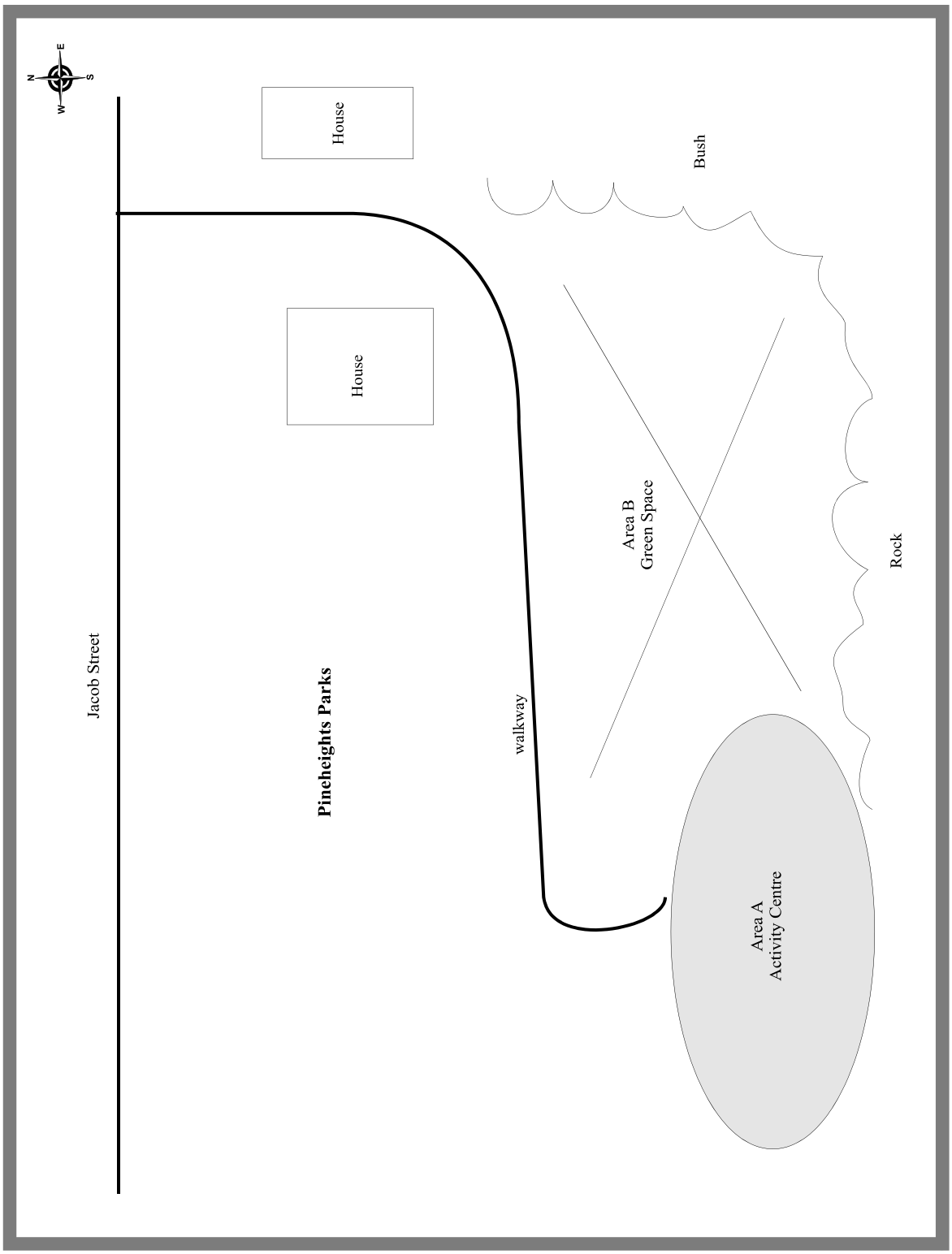
Map C5.14.7: Hillcrest Sports Centre, Lively - 2001.



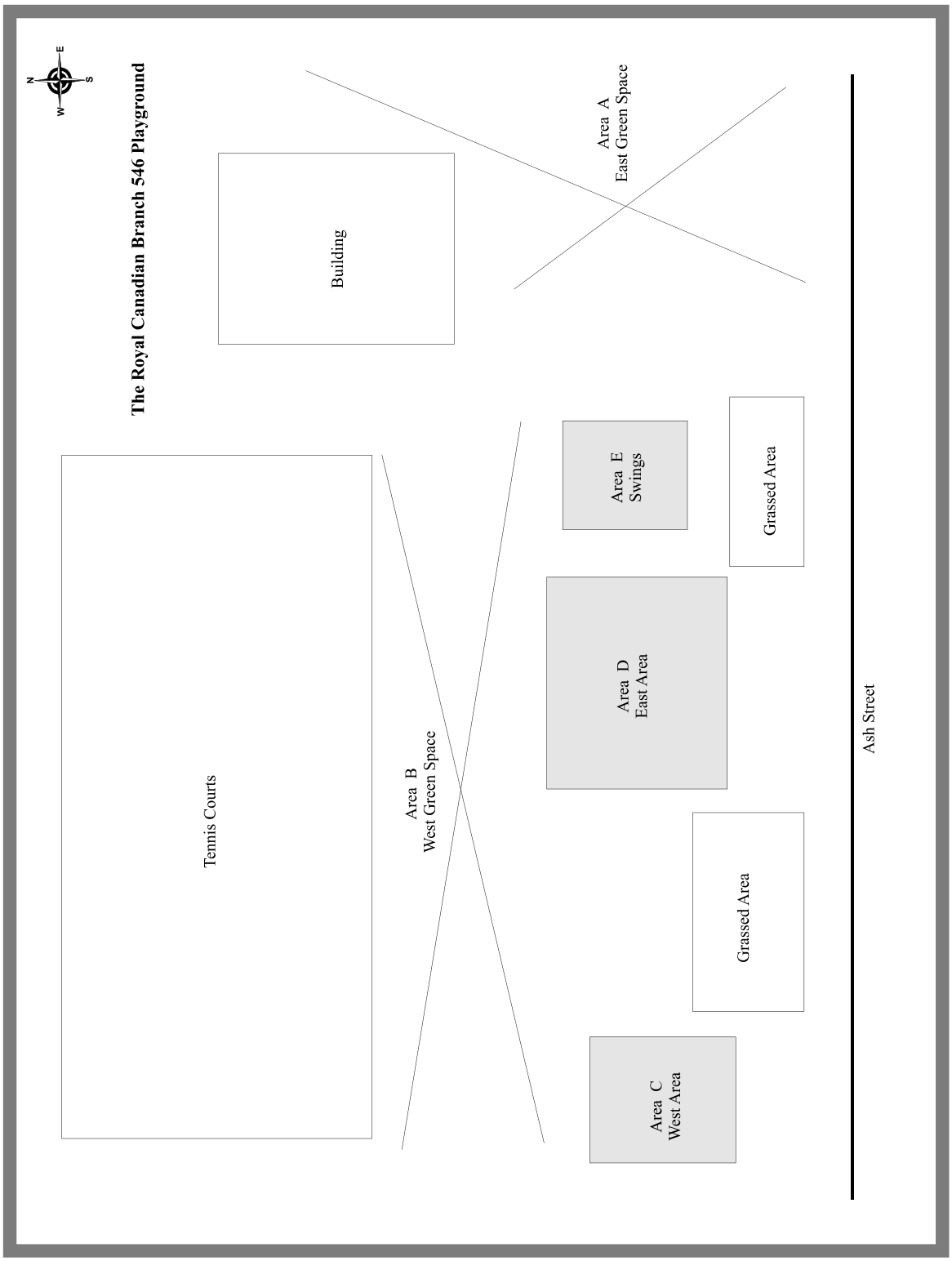
Map C5.14.8: Long Lake Park, Lively - 2001.



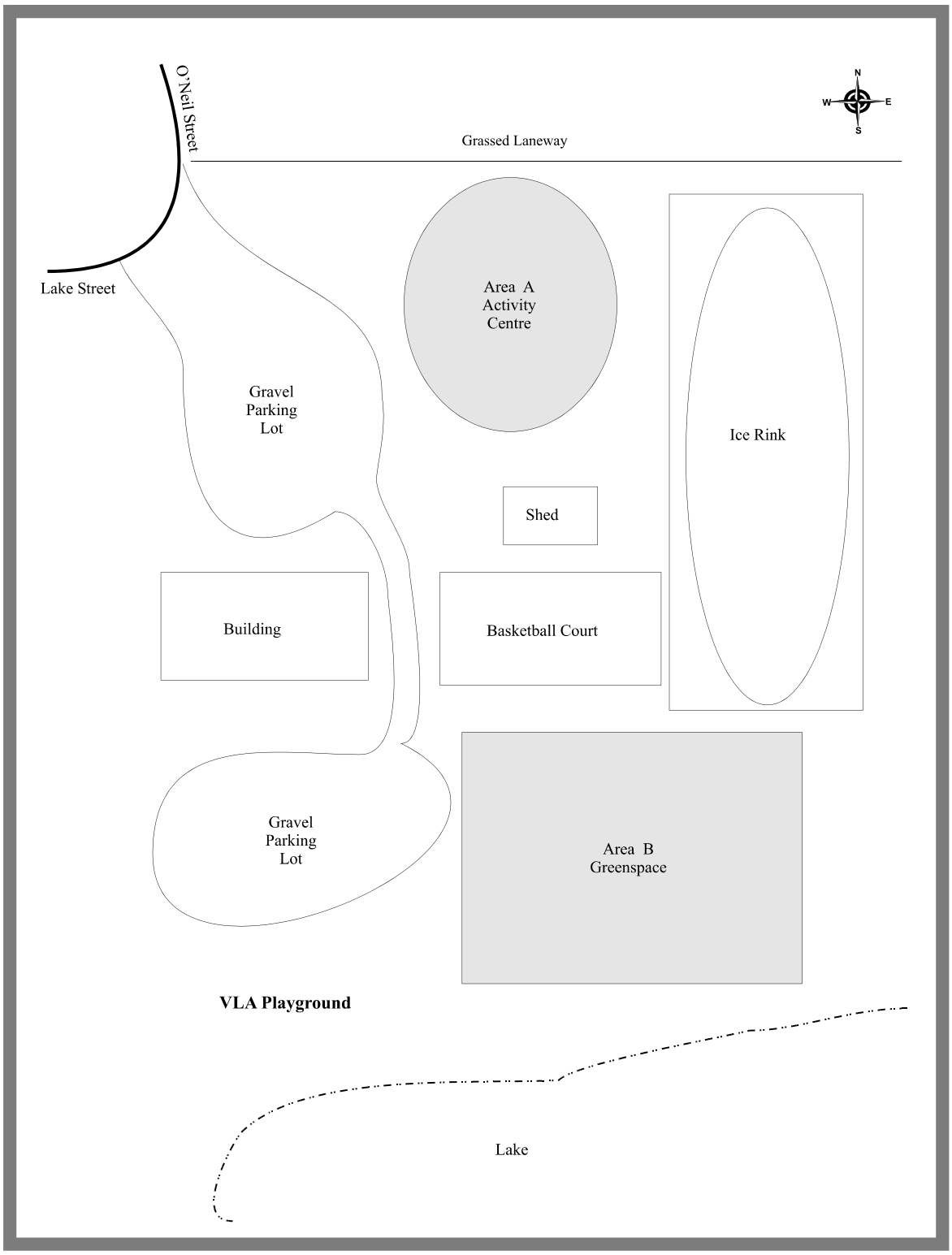
Map C5.14.9: Meatbird Lake Park, Lively - 2001.



Map C5.14.10: Pinehights Playground, Lively - 2001.

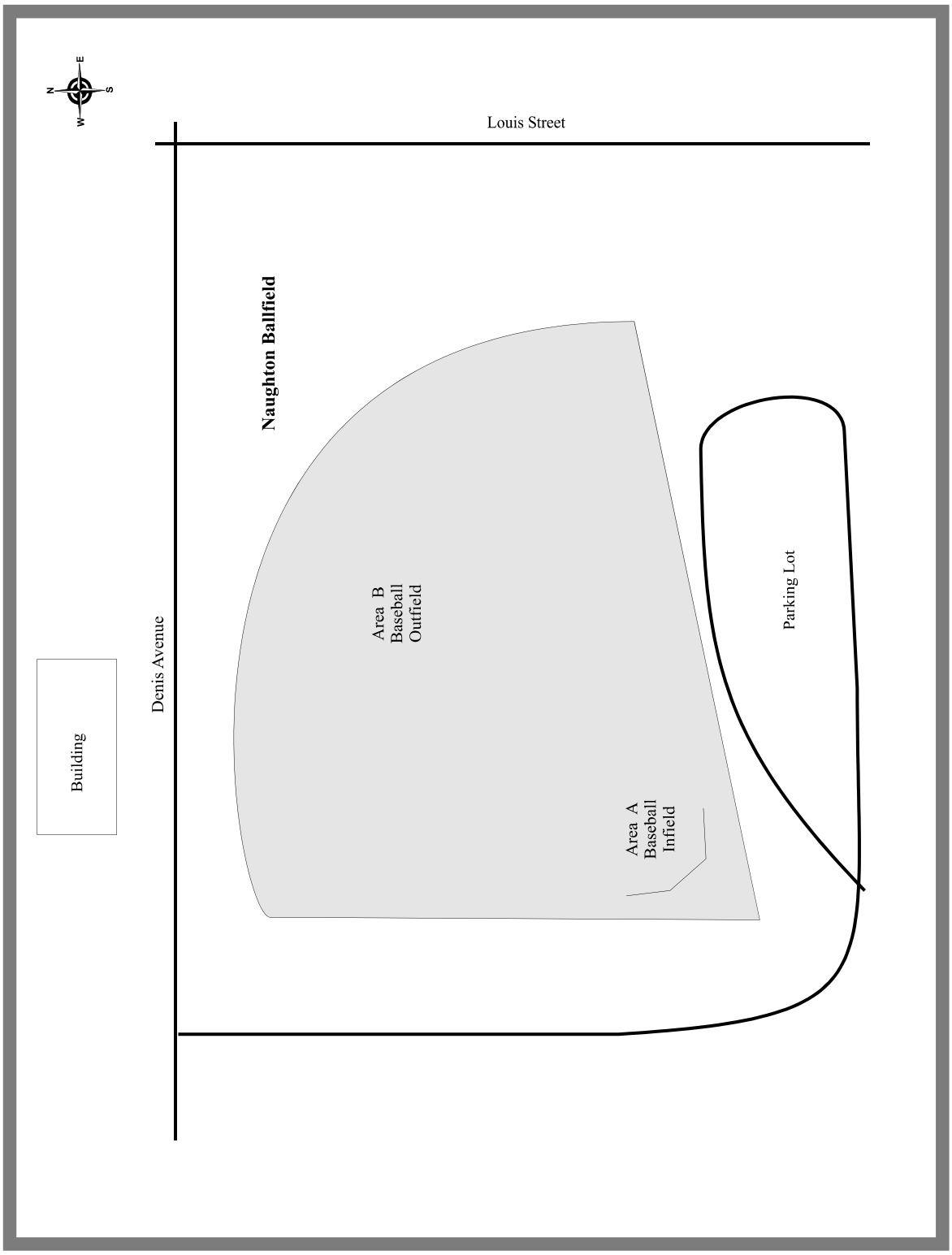


Map C5.14.11: Royal Canadian Legion Branch 546 Playground, Lively - 2001.

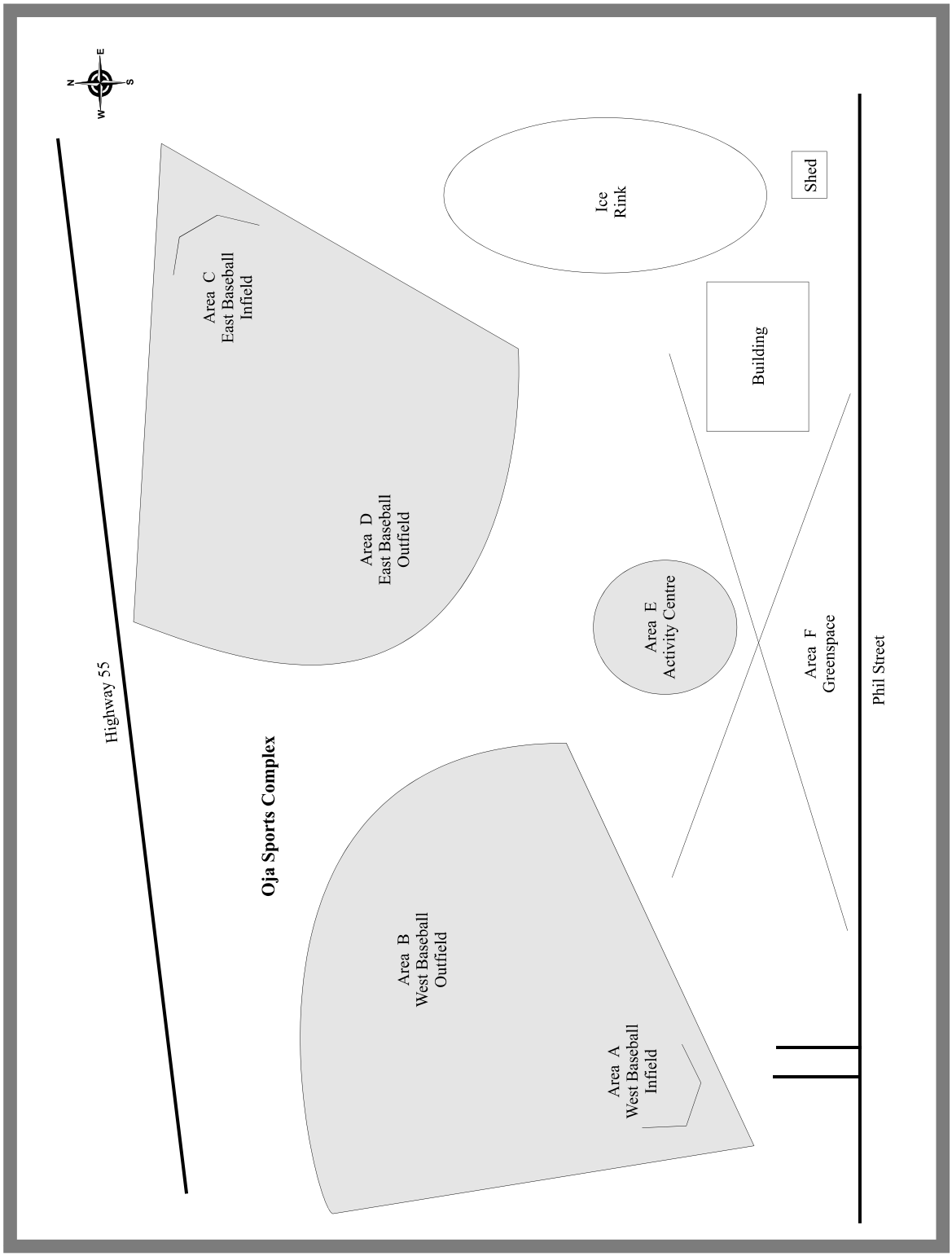


Map C5.14.12: V.L.A. Playground, Lively - 2001.

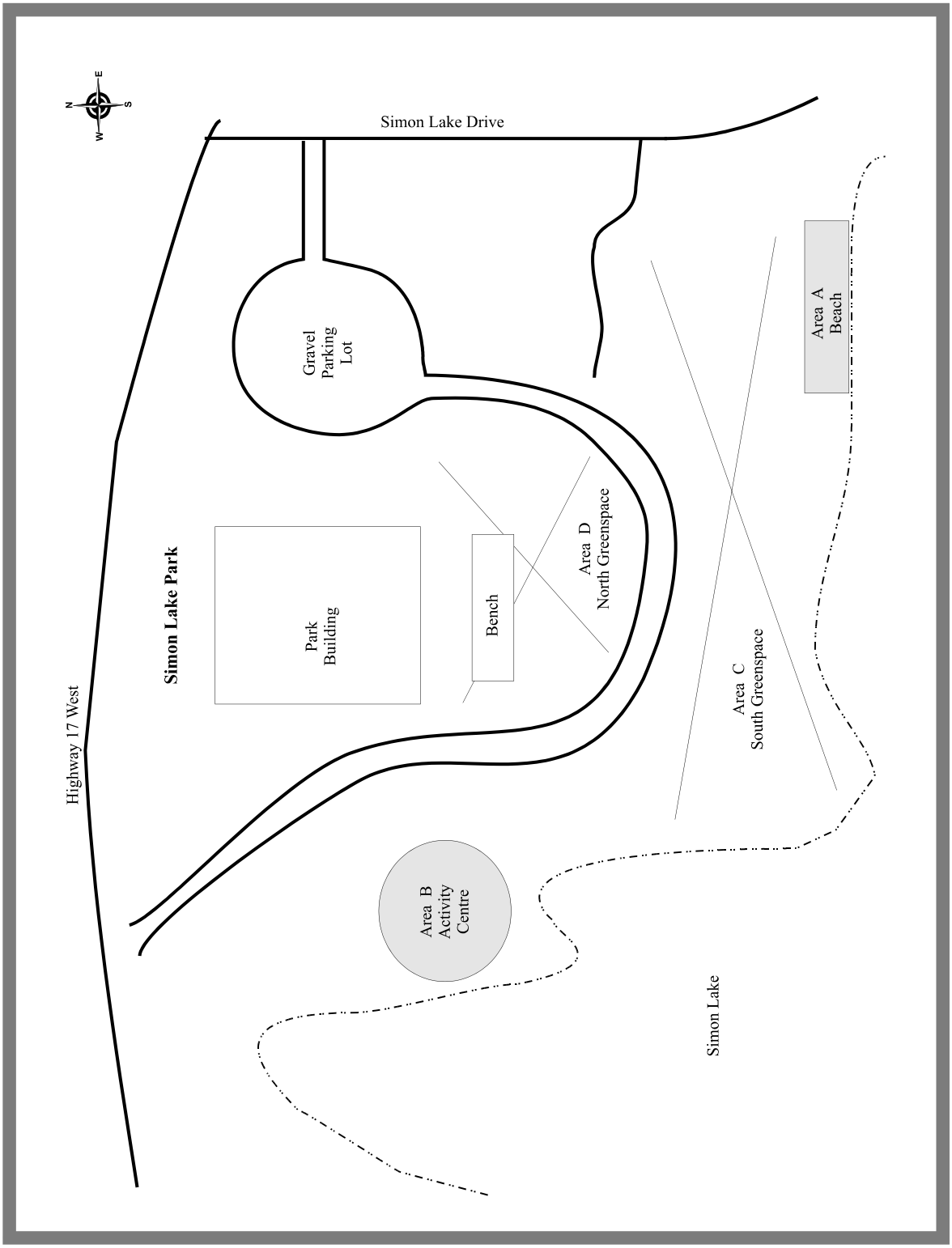
5.15 Naughton Park Maps



Map C5.15.1: Naughton Ballfield, Naughton - 2001.

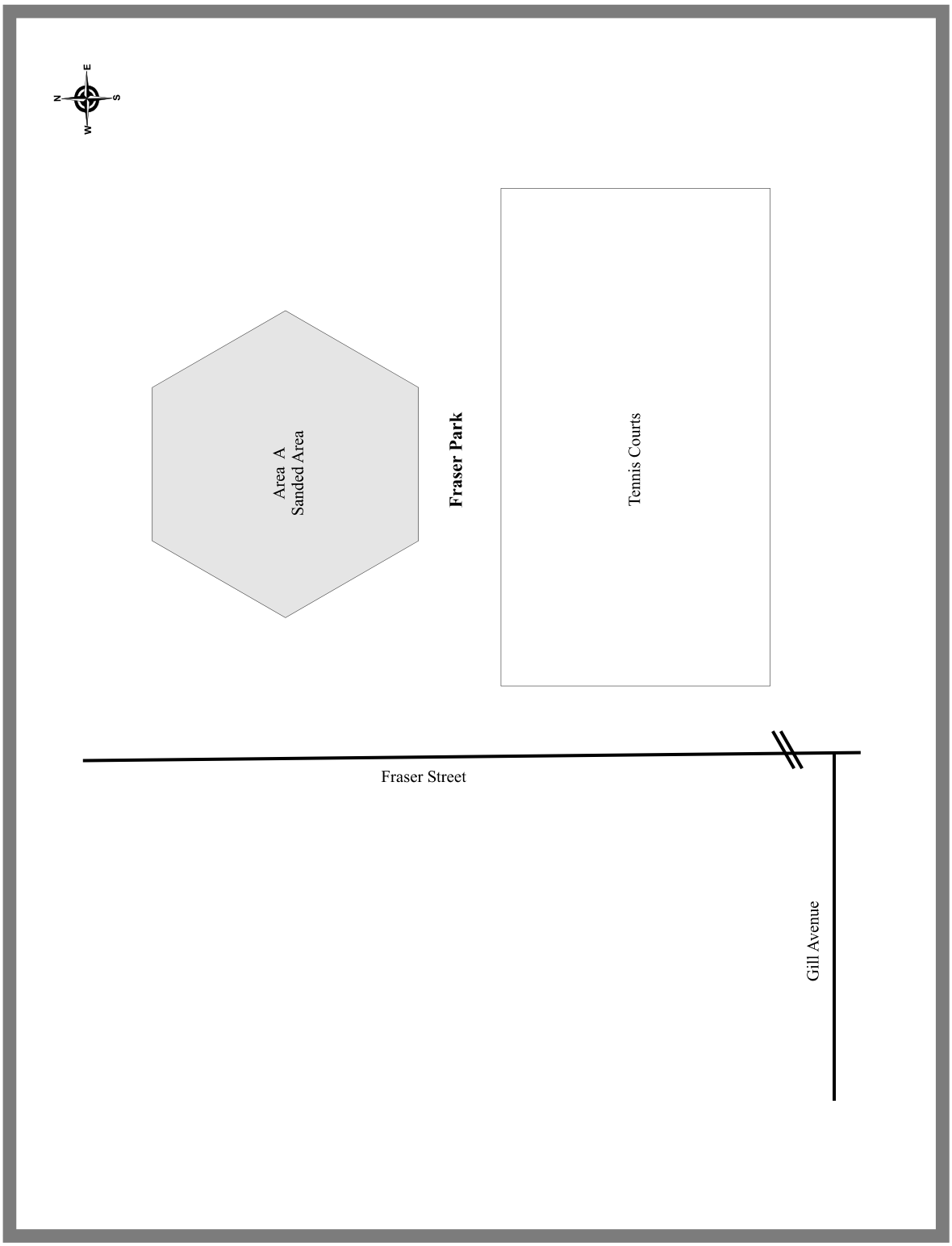


Map C5.15.2: Oja Sports Complex (Simon Lake Sports Complex), Naughton - 2001.

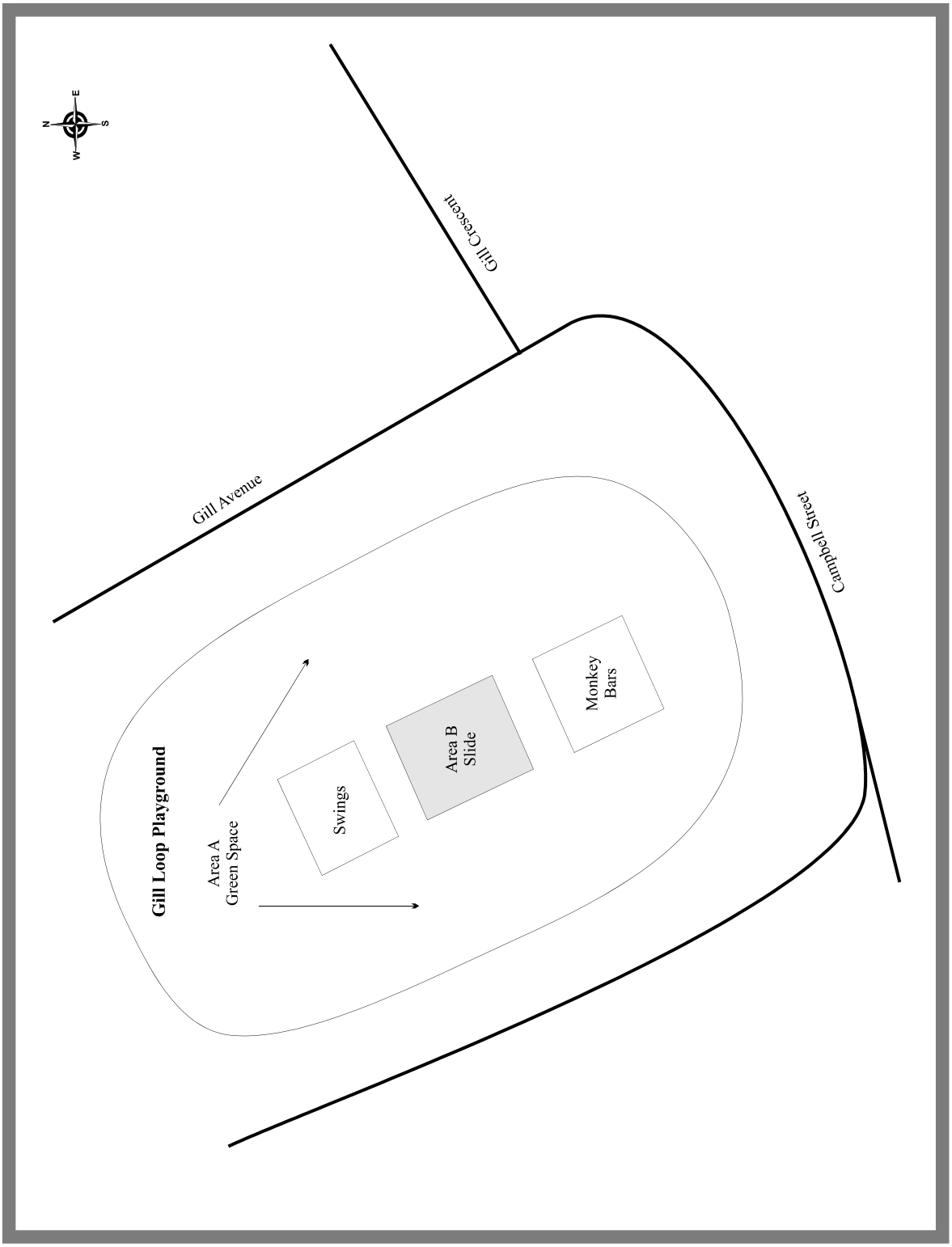


Map C5.15.3: Simon Lake Park, Naughton - 2001.

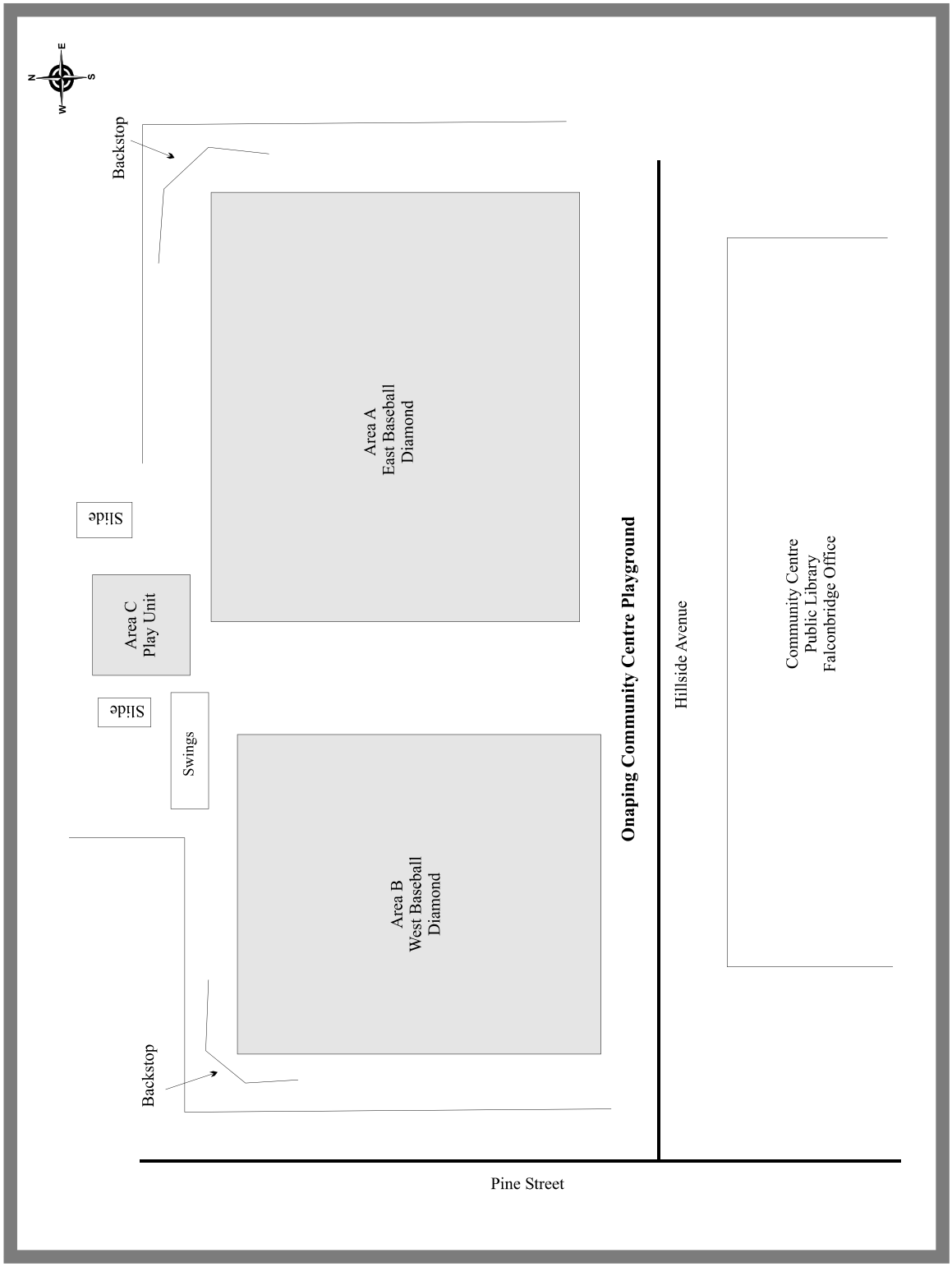
5.16 Onaping Falls Park Maps



Map C5.16.1: Fraser Park (Onaping Tot Lot), Onaping Falls - 2001.

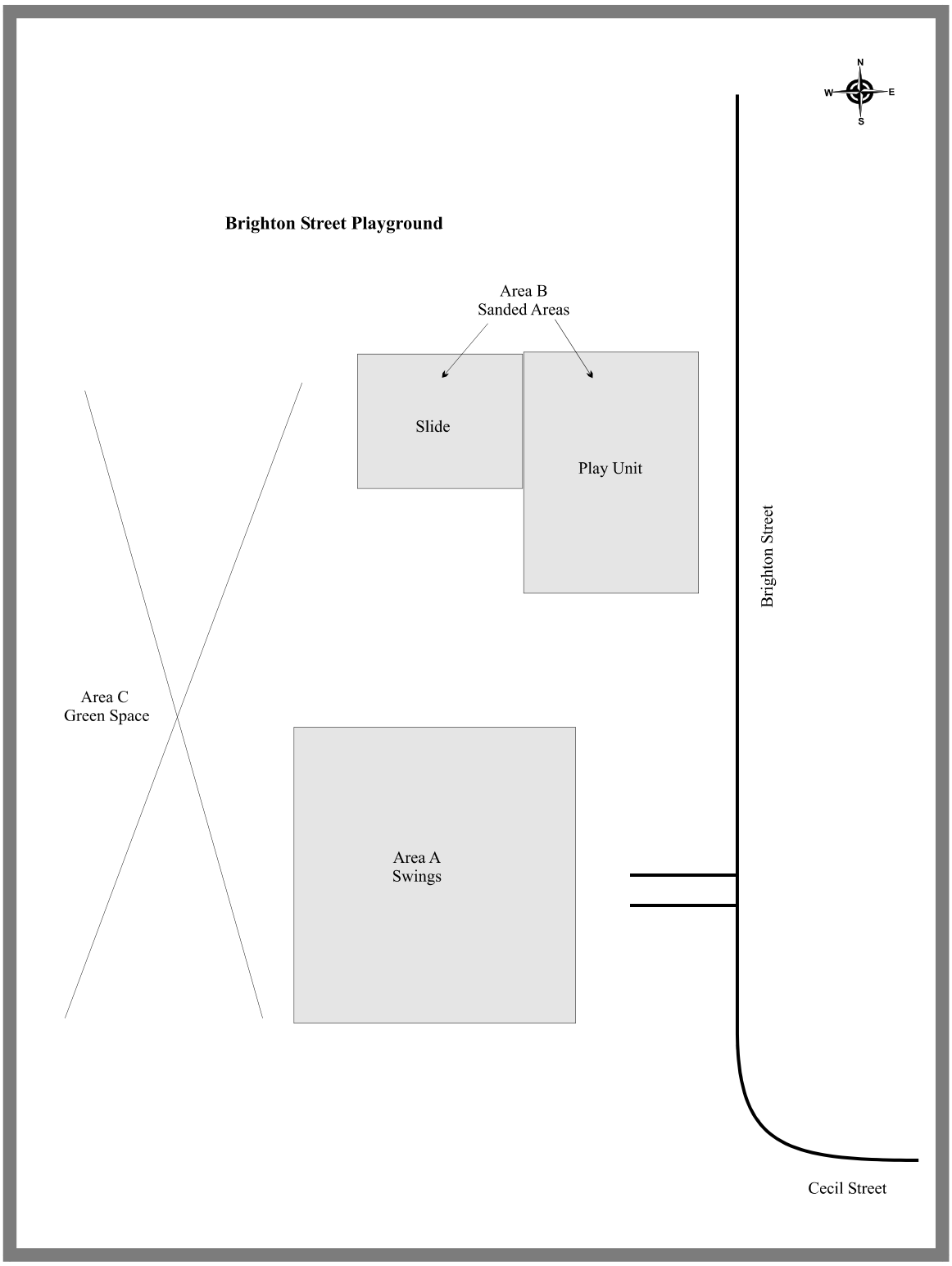


Map C5.16.2: Gill Loop Playground, Onaping Falls - 2001.



Map C5.16.3: Onaping Community Centre Playground, Onaping Falls - 2001.

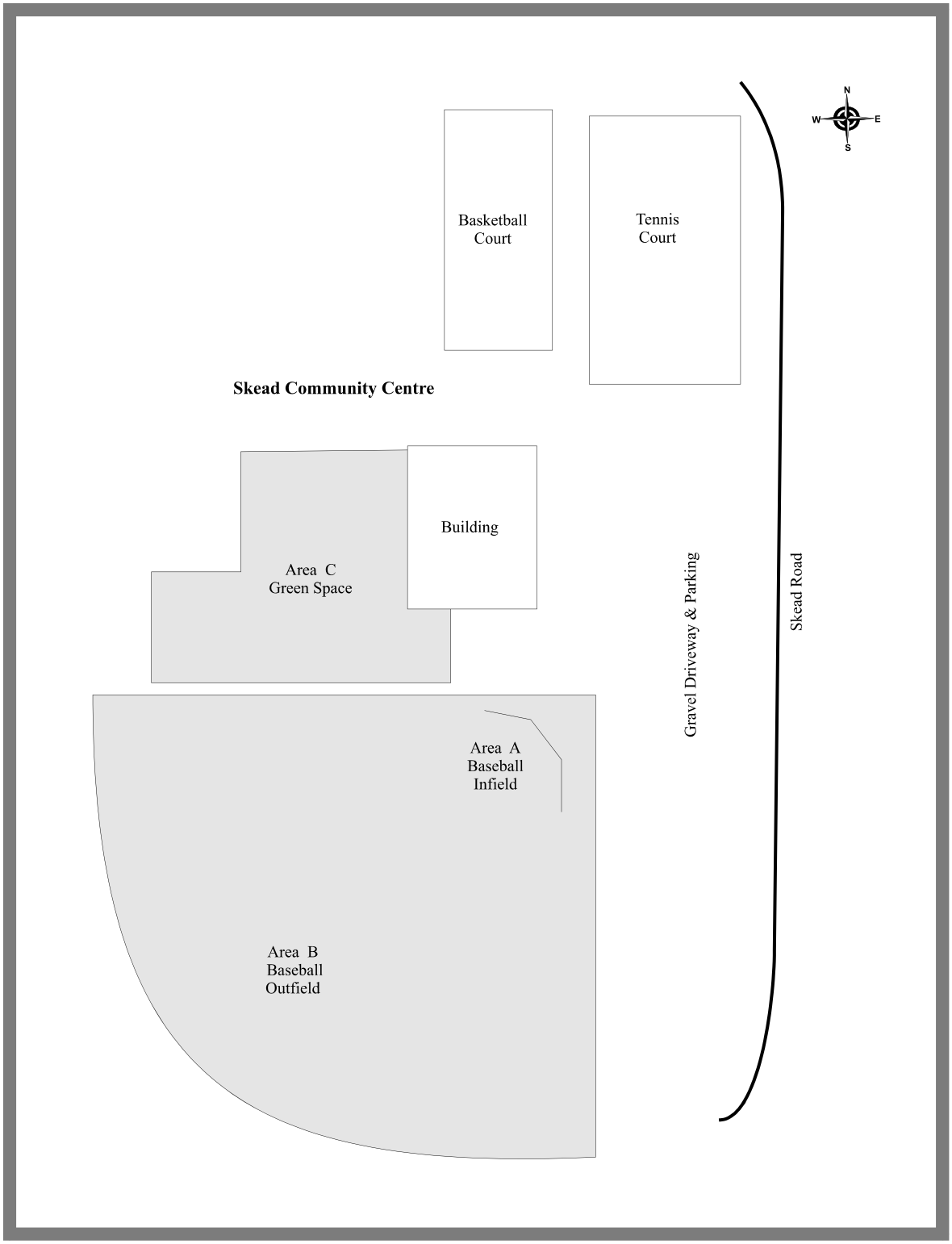
5.17 Skead Park Maps



Map C5.17.1: Brighton Street Playground, Skead - 2001.

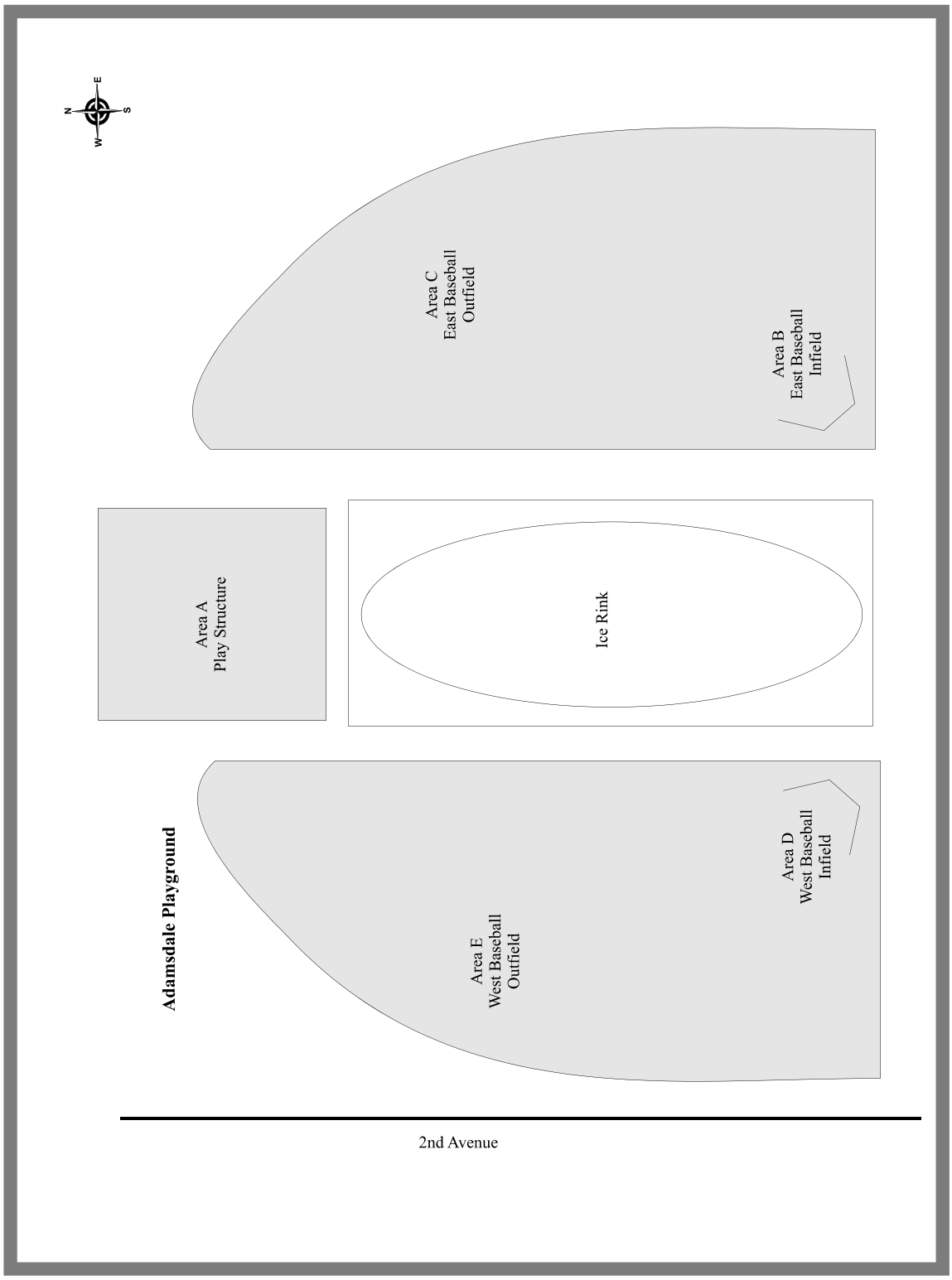


Map C5.17.2: MacLennan Playground (Silver Birch Crescent Playground), Skead - 2001.

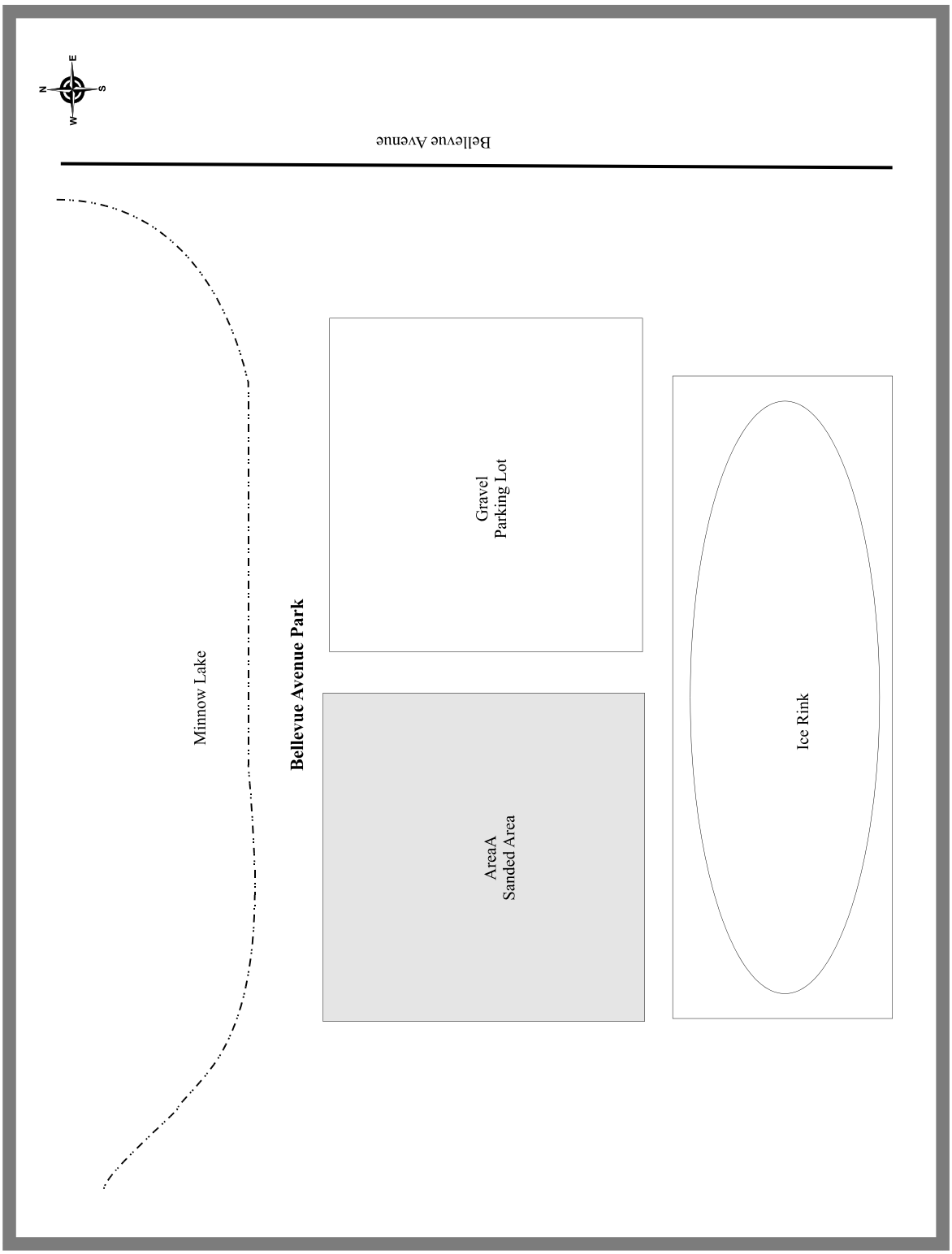


Map C5.17.3: Skead Community Centre, Skead - 2001.

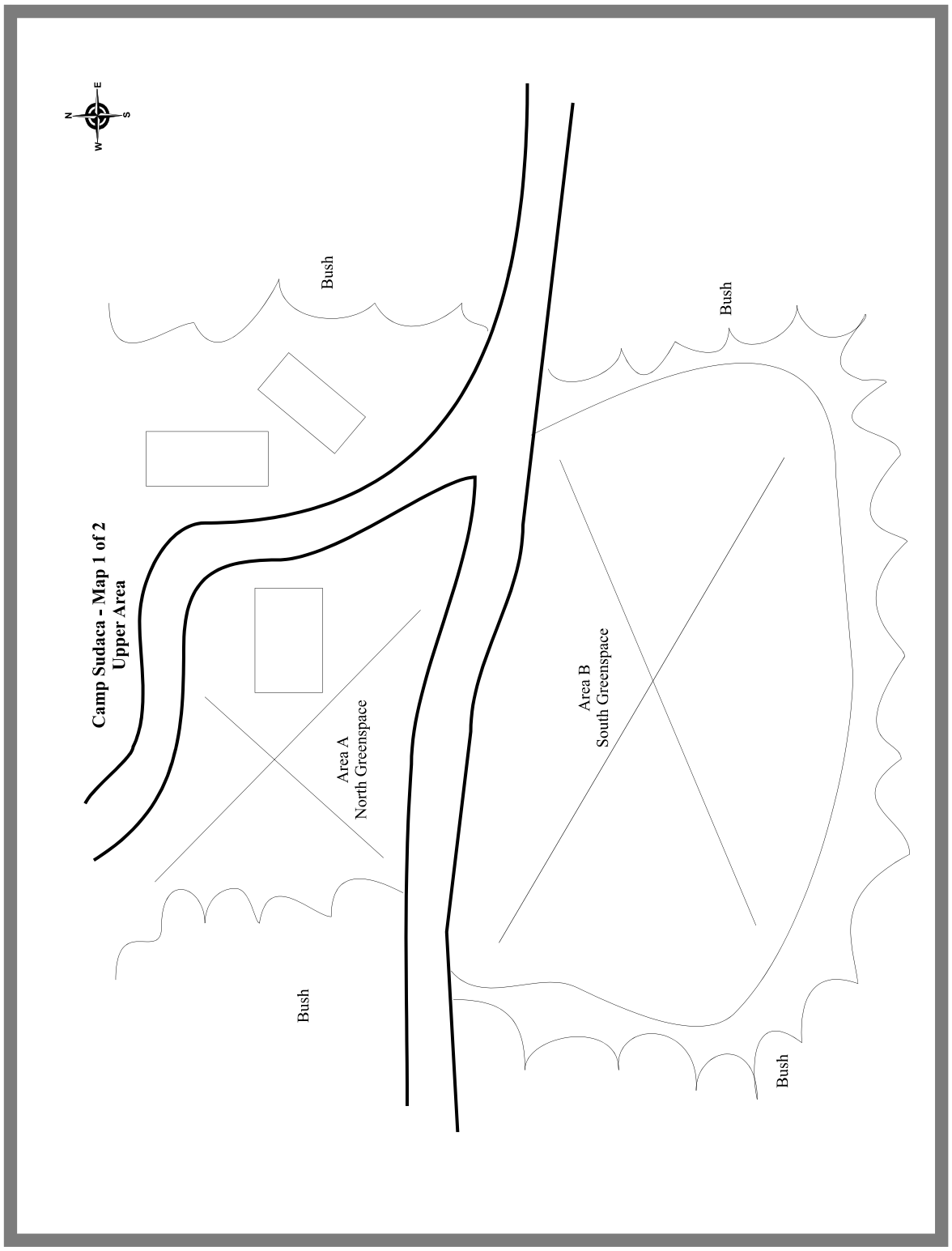
5.18 Sudbury East Park Maps



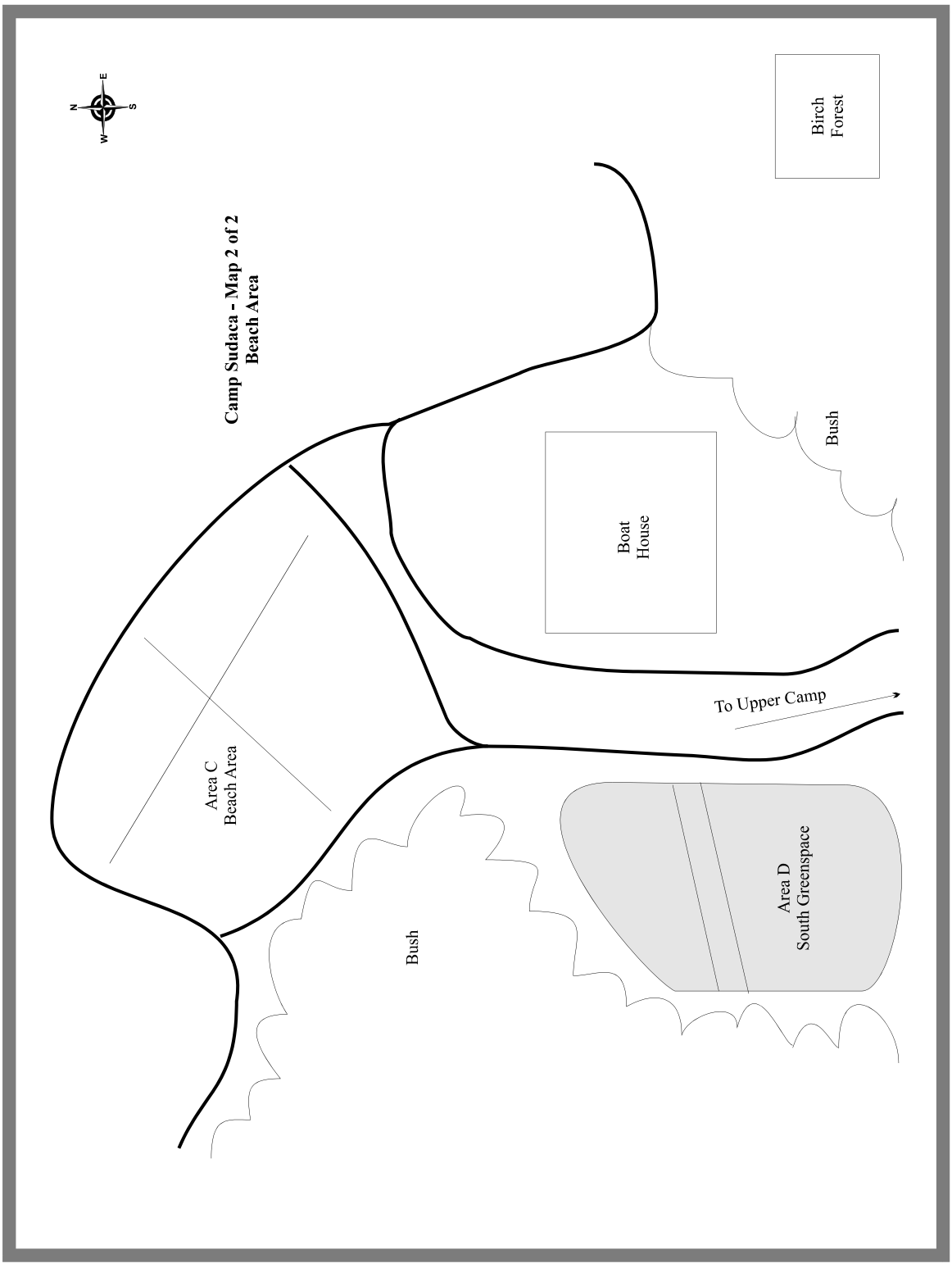
Map C5.18.1: Adamsdale Playground, Sudbury East - 2001.



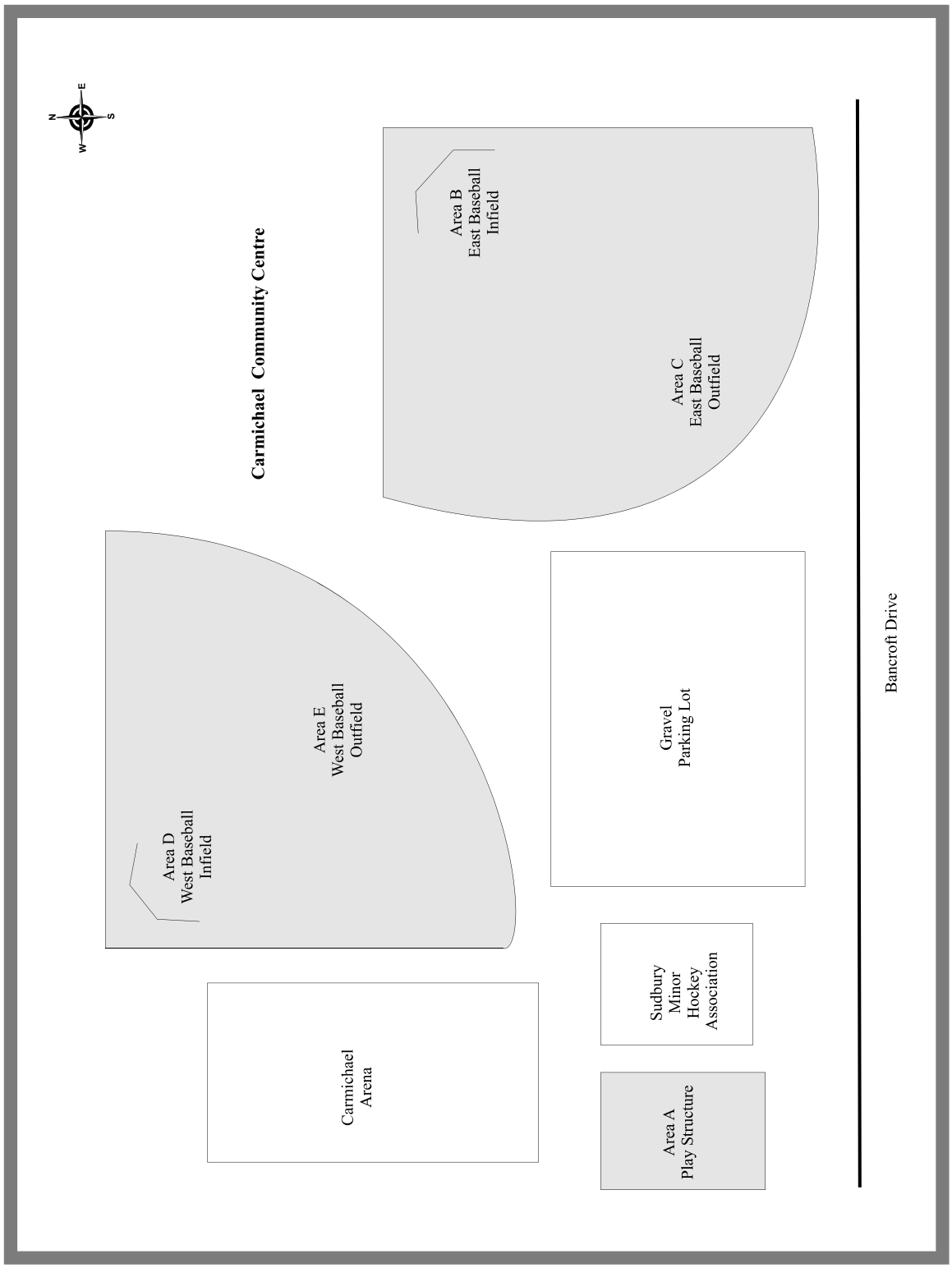
Map C5.18.2: Bellevue Avenue Park, Sudbury East - 2001.



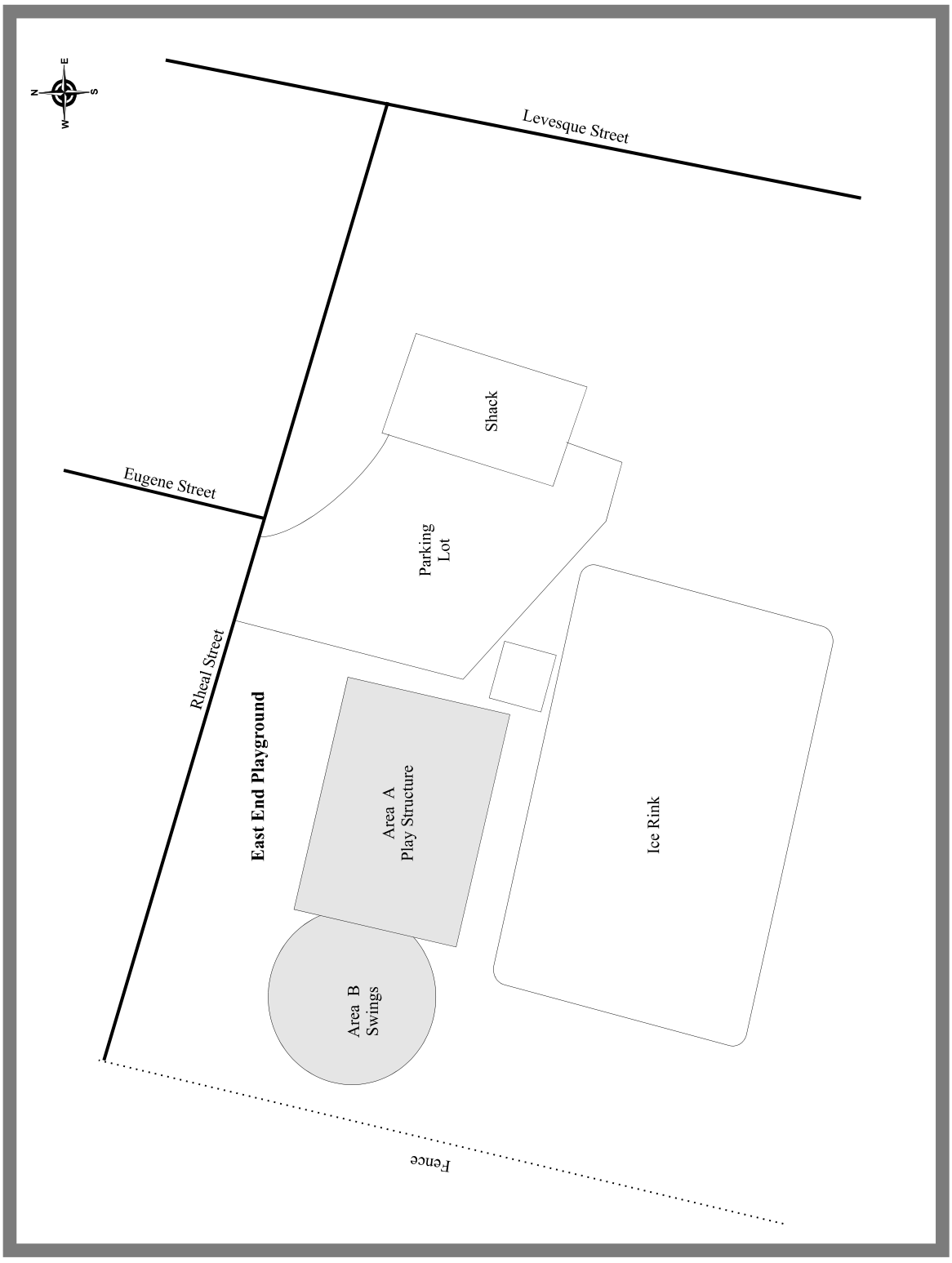
Map C5.18.3.1: Upper Area of Camp Sudaca, Sudbury East -2001.



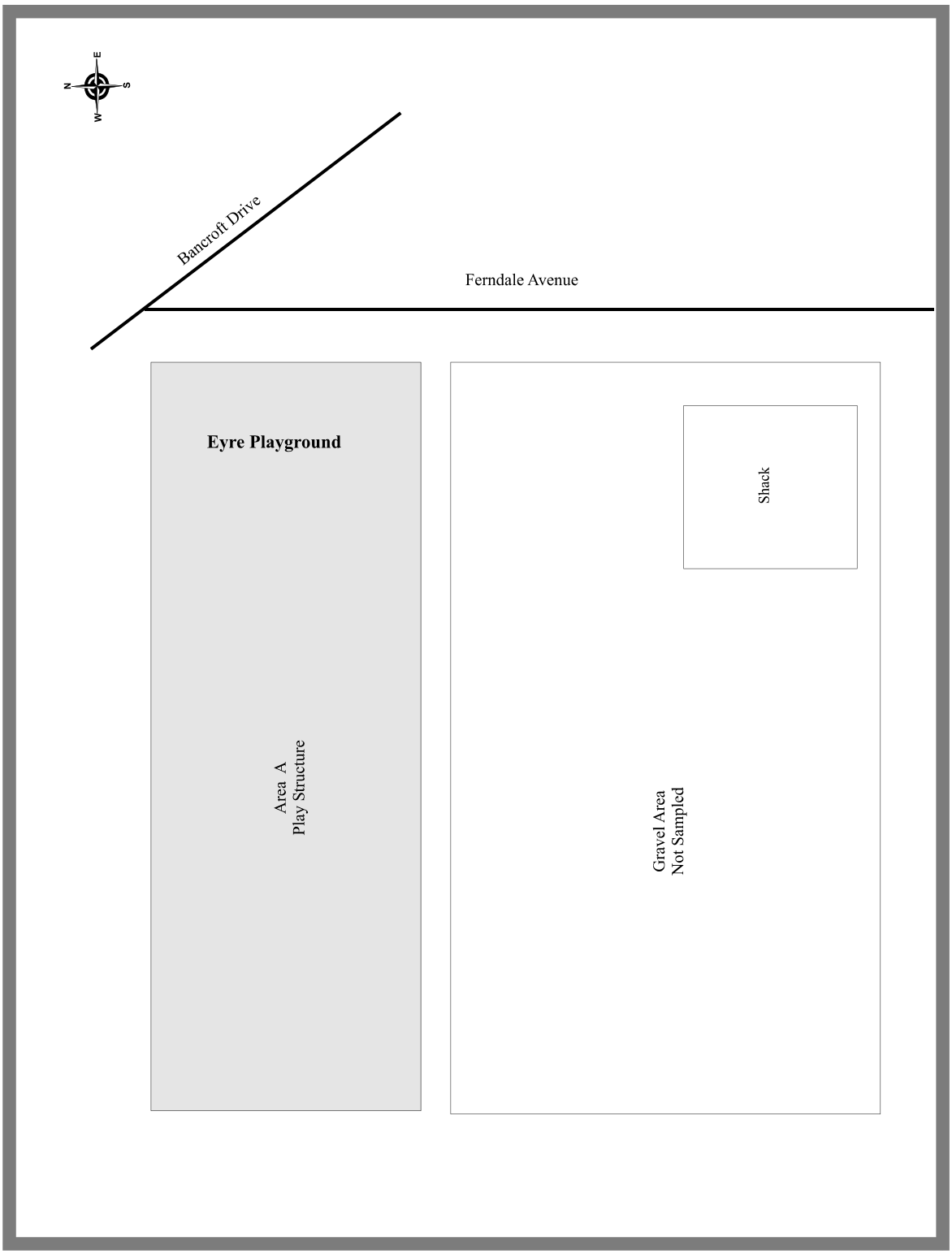
Map C5.18.3.2: Beach Area of Camp Sudaca, Sudbury East - 2001.



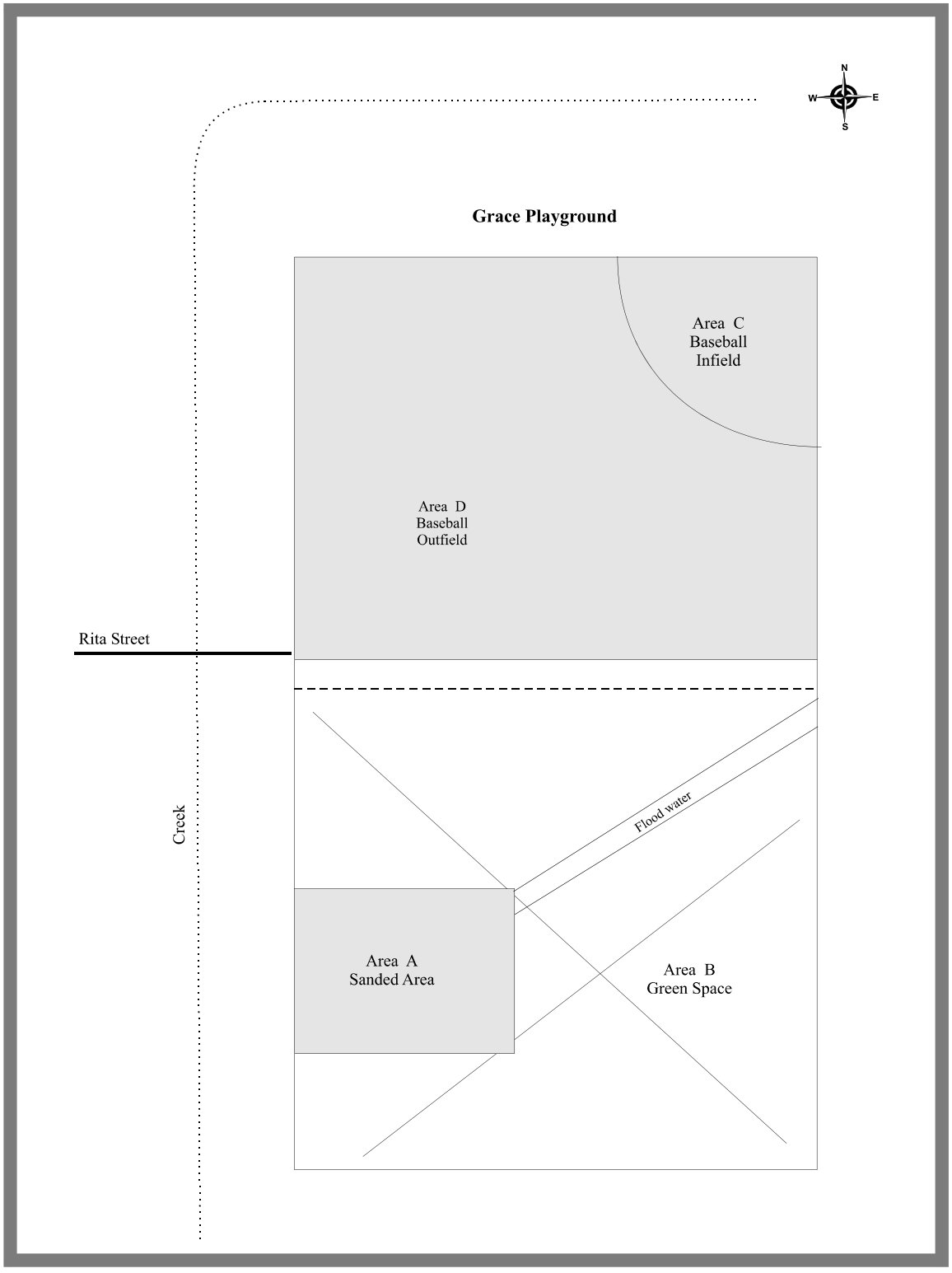
Map C5.18.4: Carmichael Community Centre & Arena, Sudbury East - 2001.



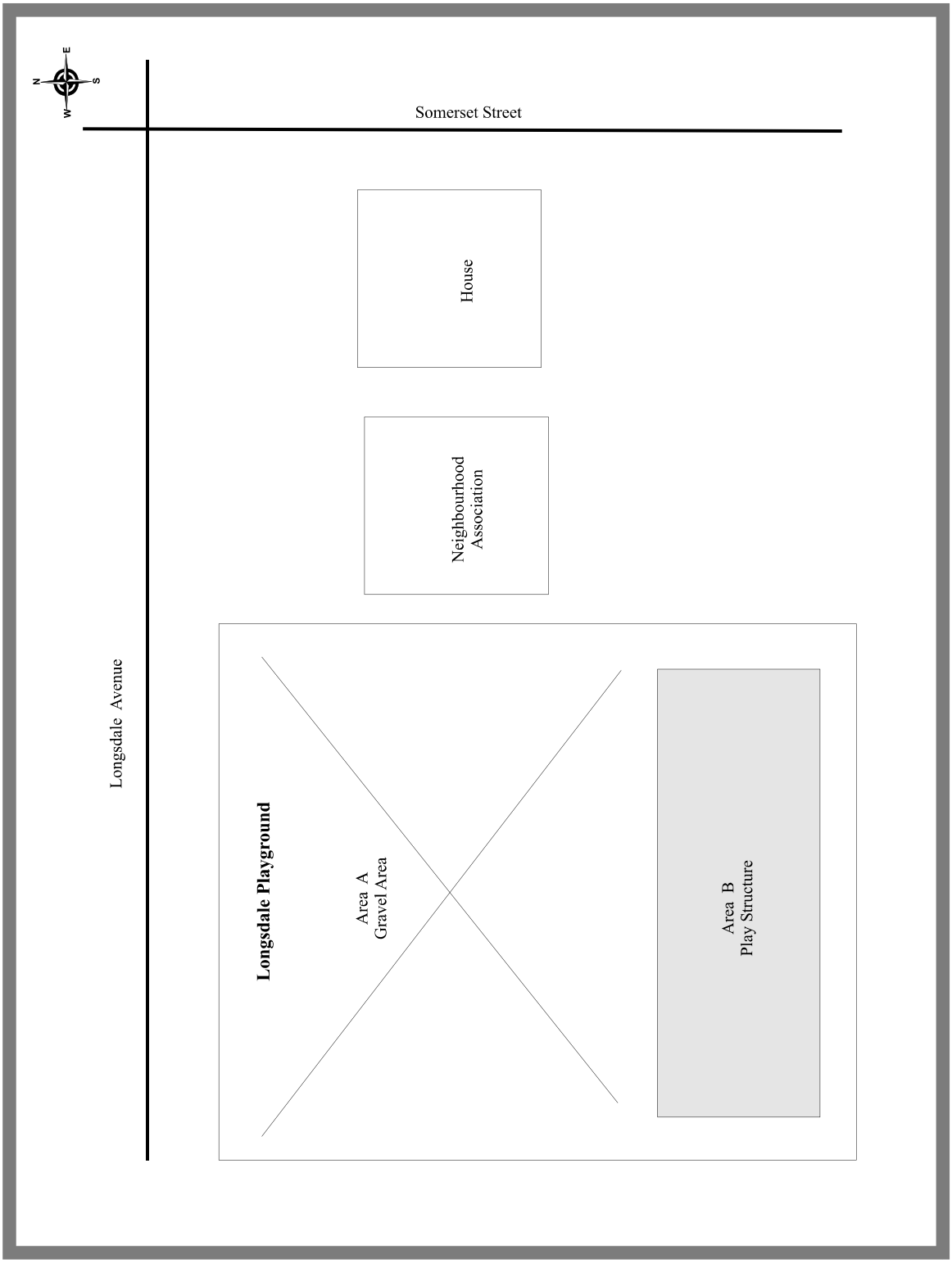
Map C5.18.5: East End Playground, Sudbury East - 2001.



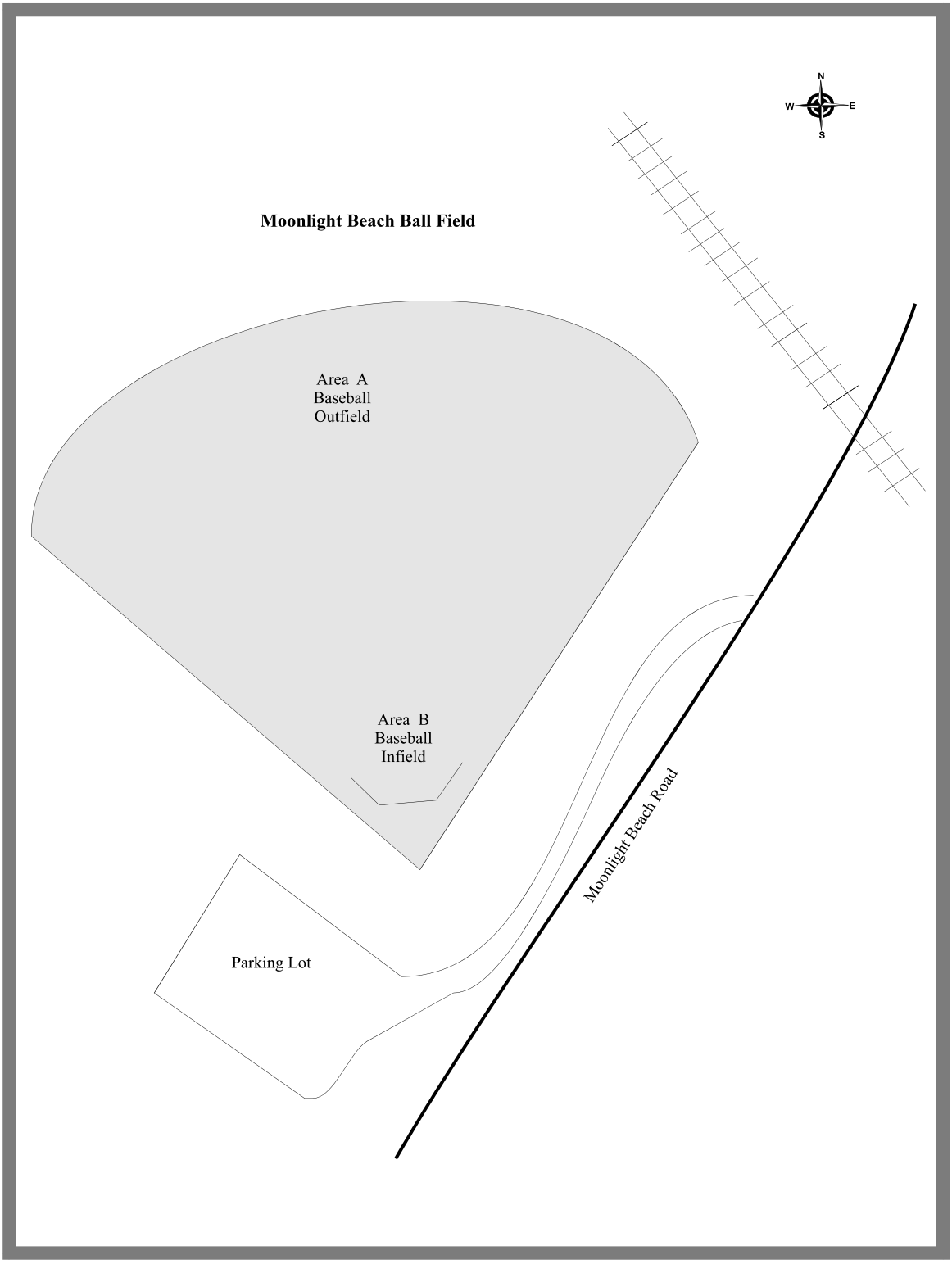
Map C5.18.6: Eyre Playground, Sudbury East - 2001.



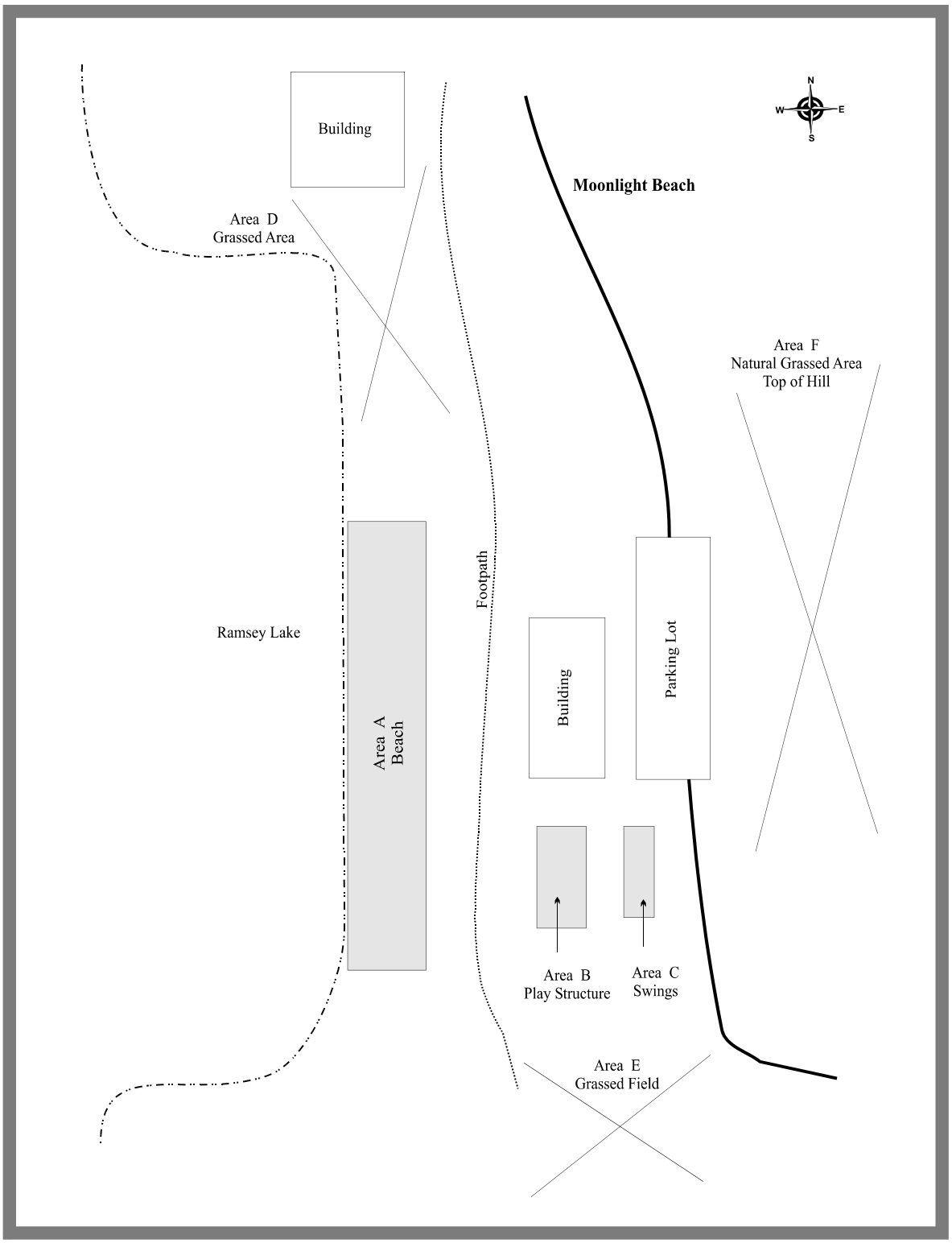
Map C5.18.7: Grace Playground, Sudbury East - 2001.



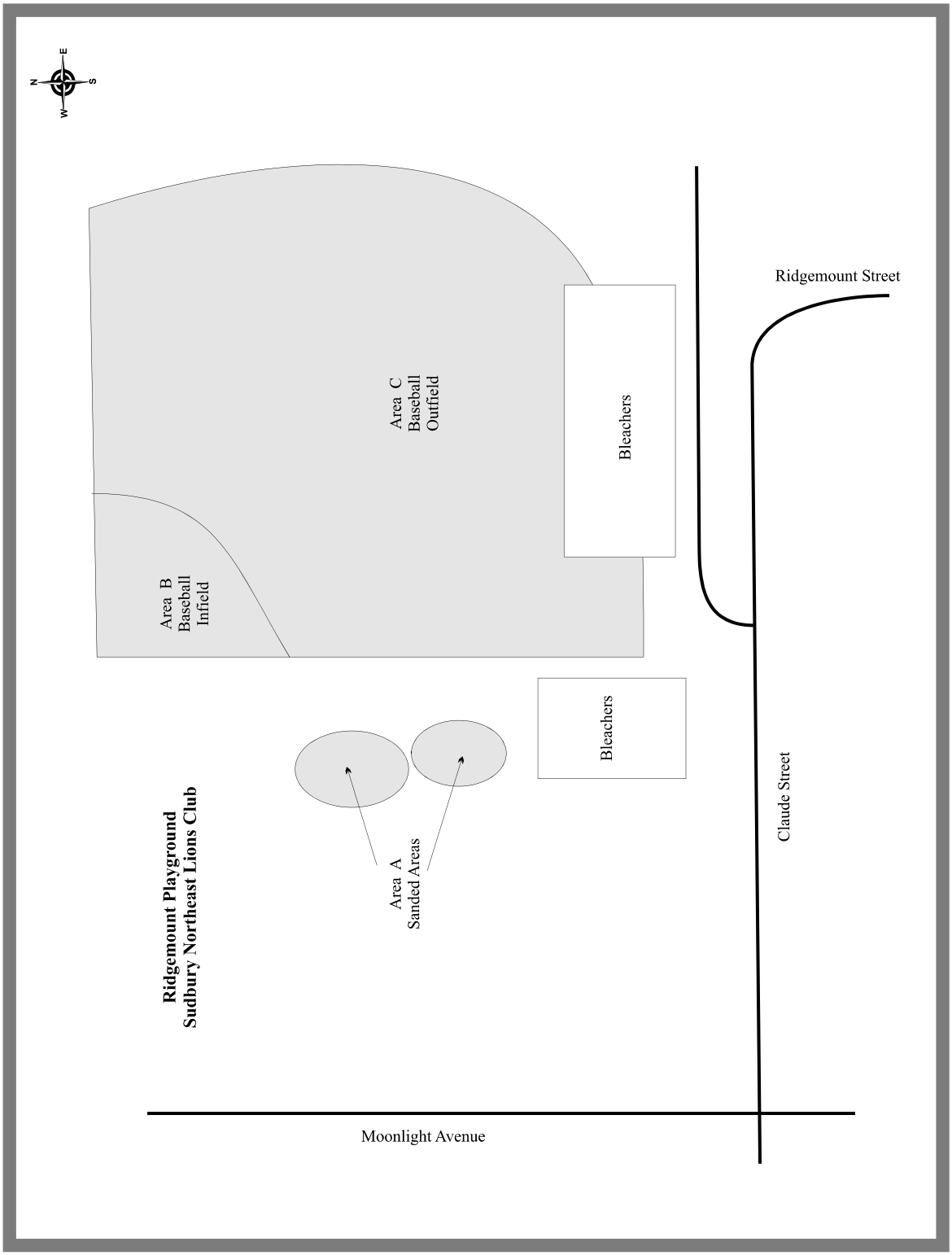
Map C5.18.8: Lonsdale Playground, Sudbury East - 2001.



Map C5.18.9: Moonlight Beach Ball Park, Sudbury East - 2001.

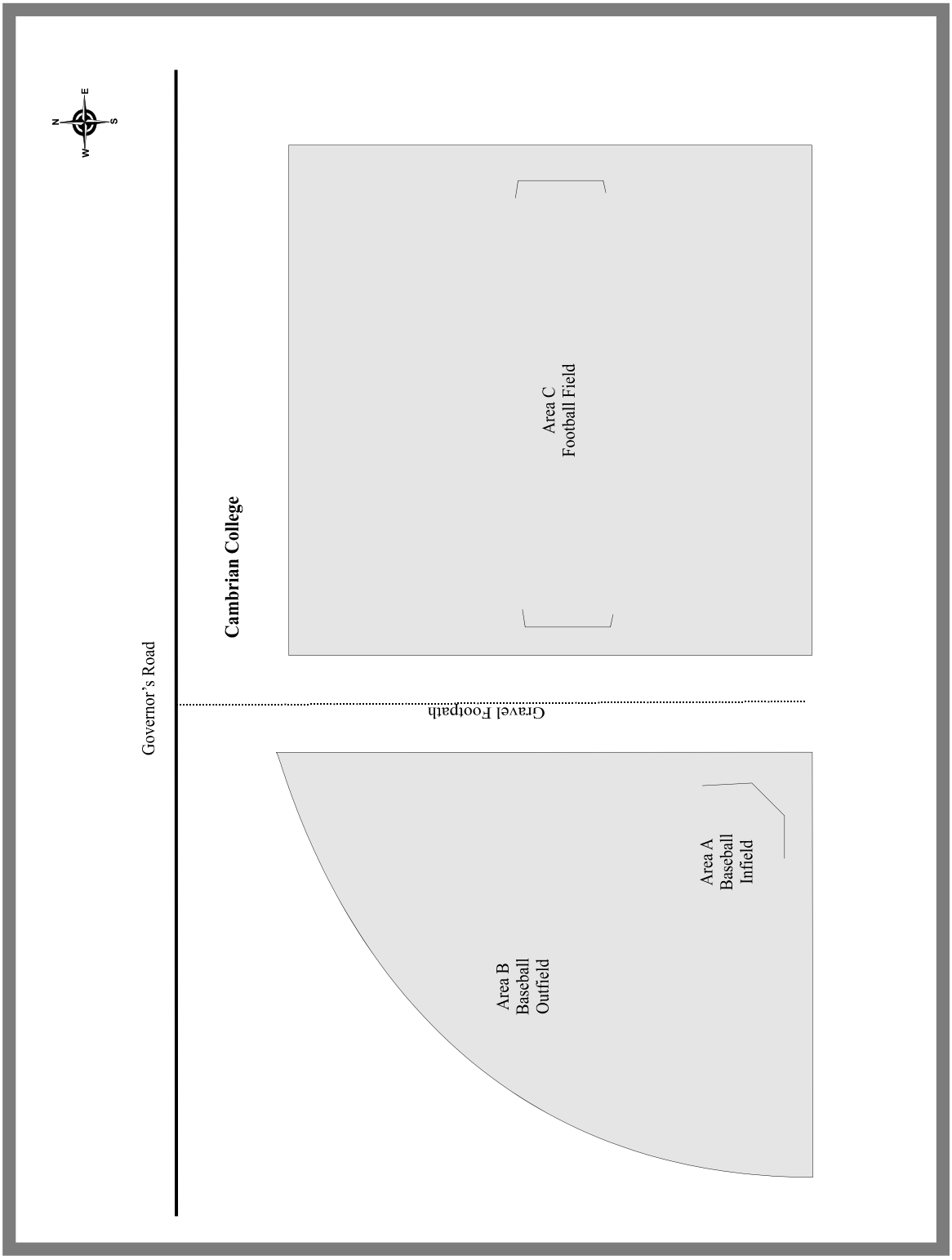


Map C5.18.10: Moonlight Beach Park, Sudbury East - 2001.

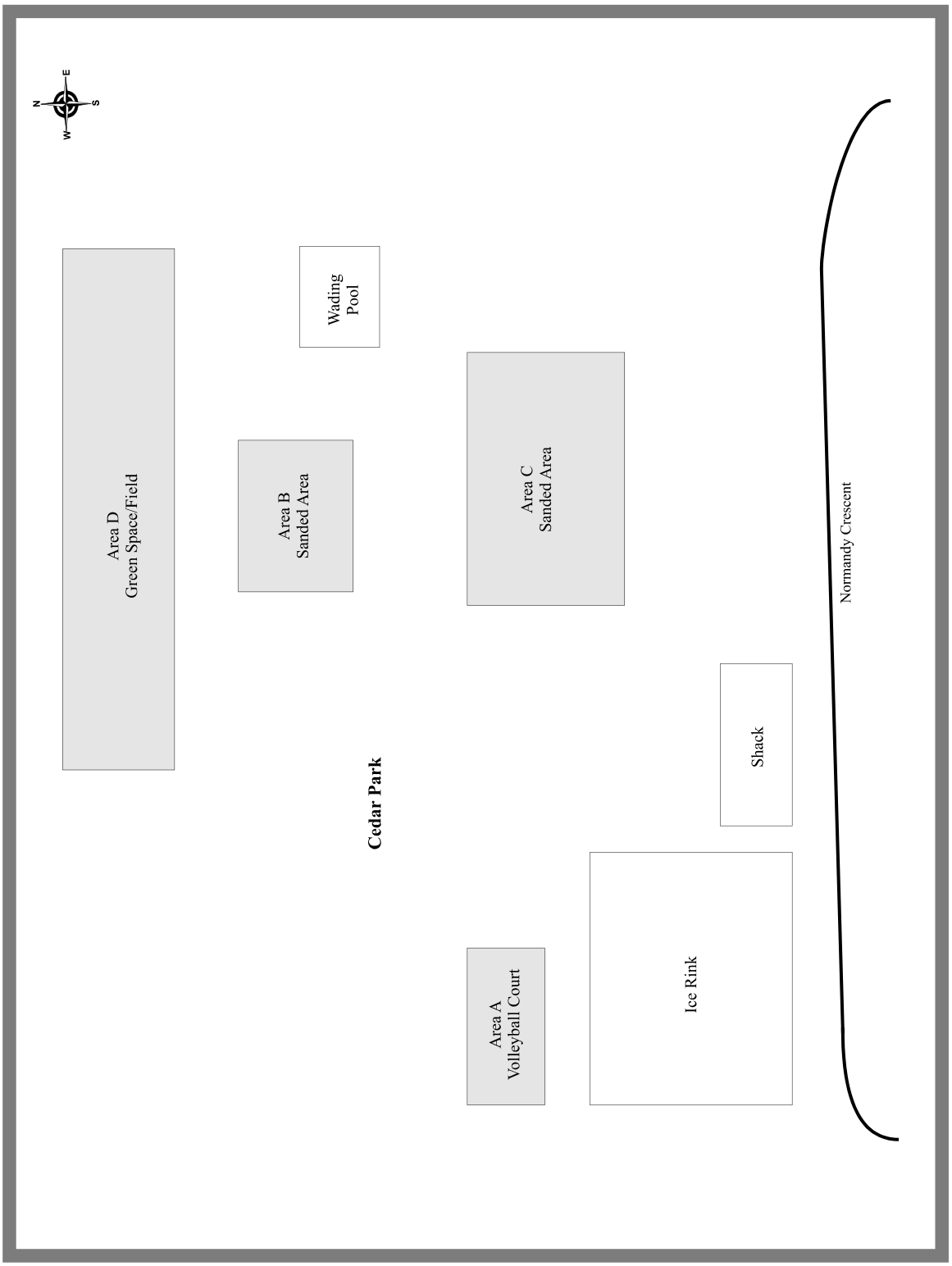


Map C5.18.11: Ridgemount Playground (Sudbury Northeast Lions Club), Sudbury East - 2001.

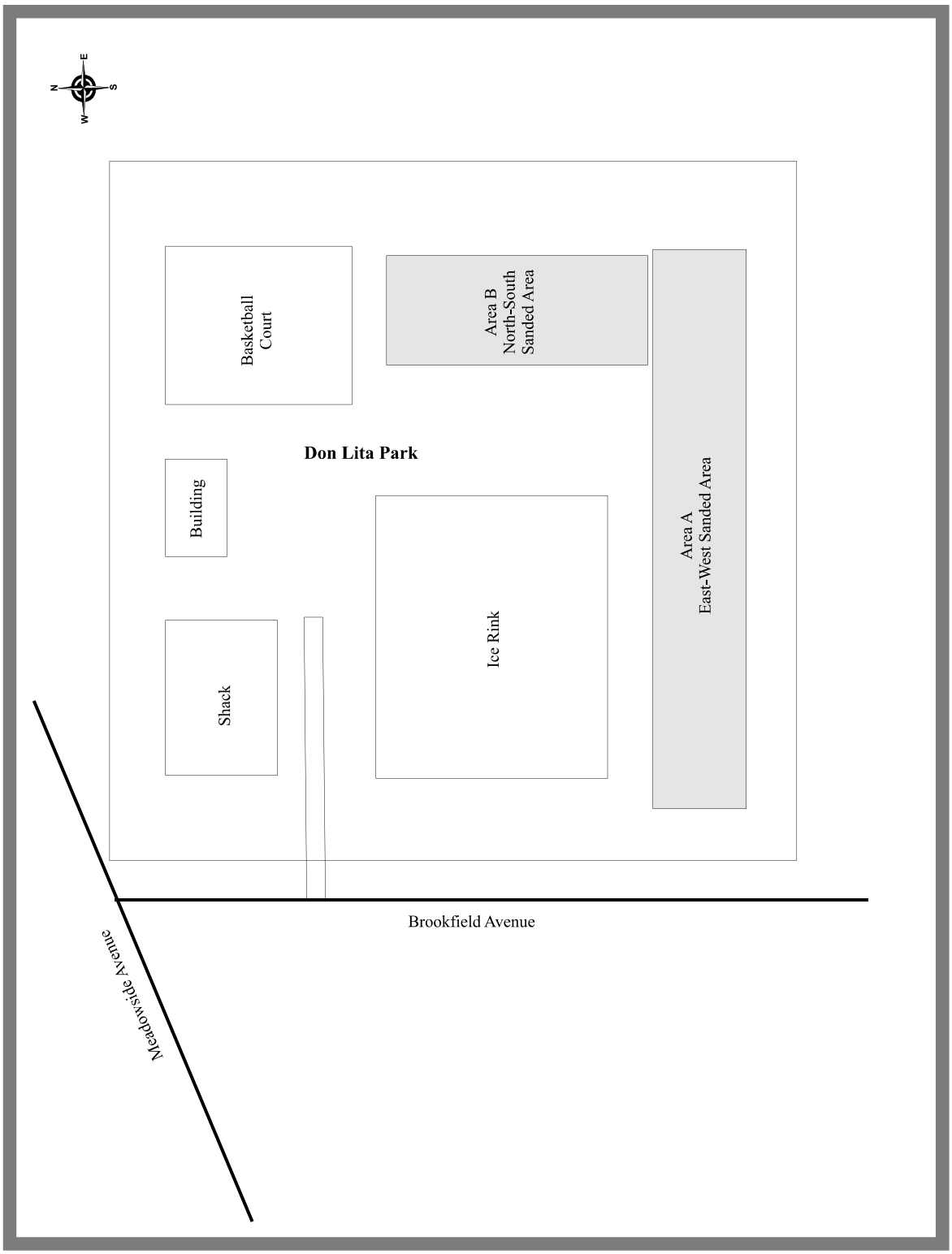
5.19 Sudbury New Park Maps



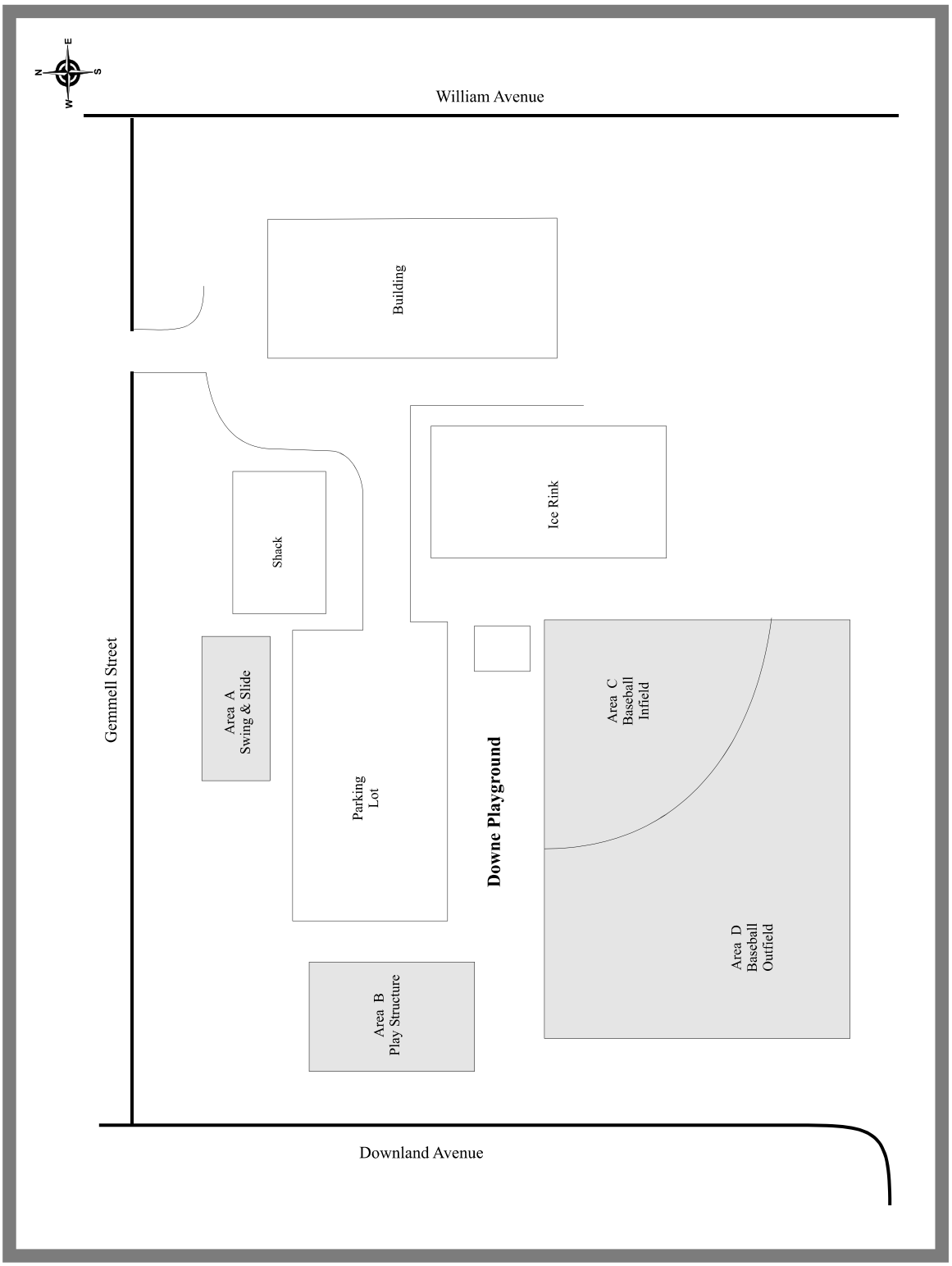
Map C5.19.1: Cambrian College, Sudbury New - 2001.



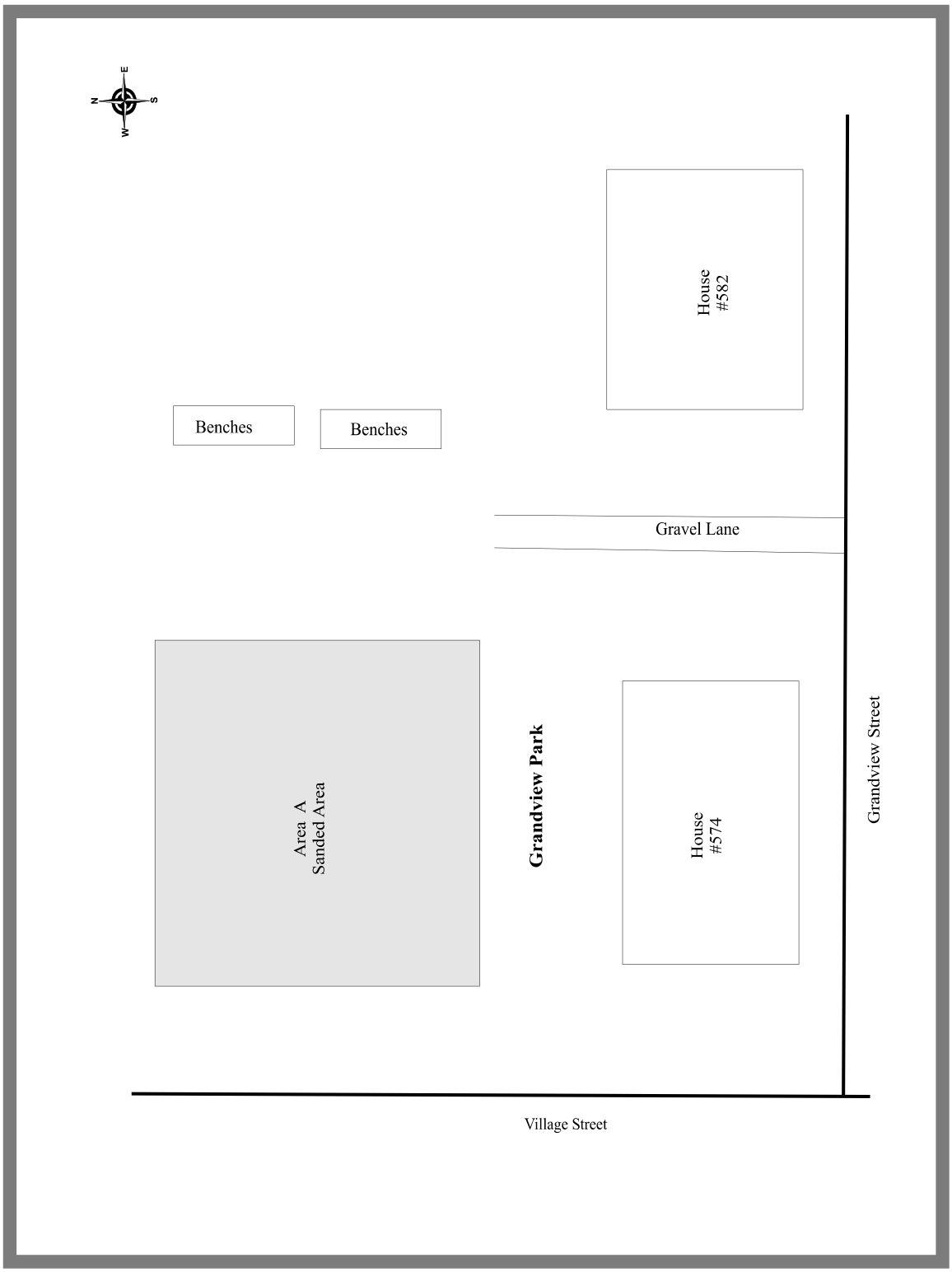
Map C5.19.2: Cedar Park, Sudbury New - 2001.



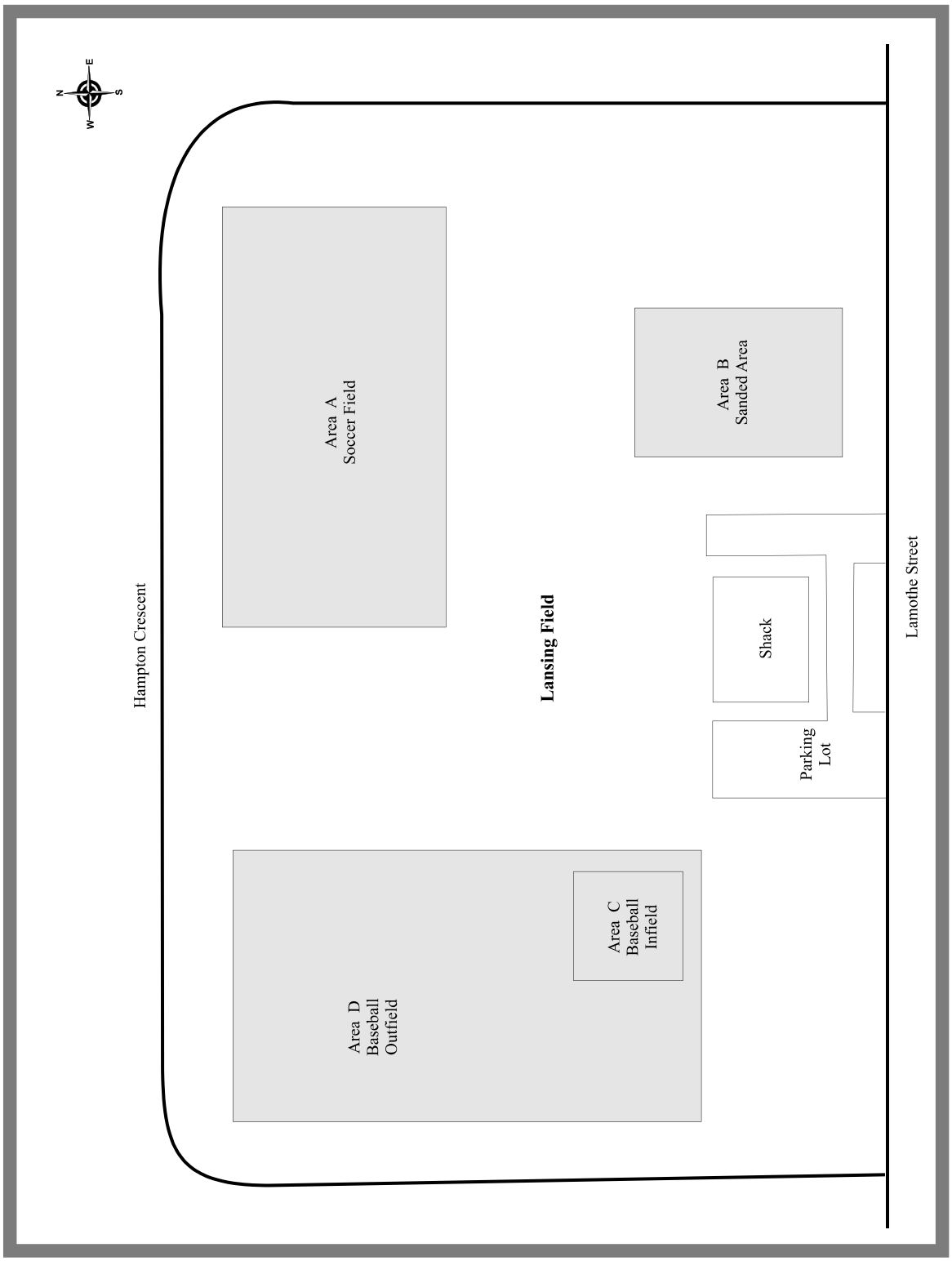
Map C5.19.3: Don Lita Park, Sudbury New - 2001.



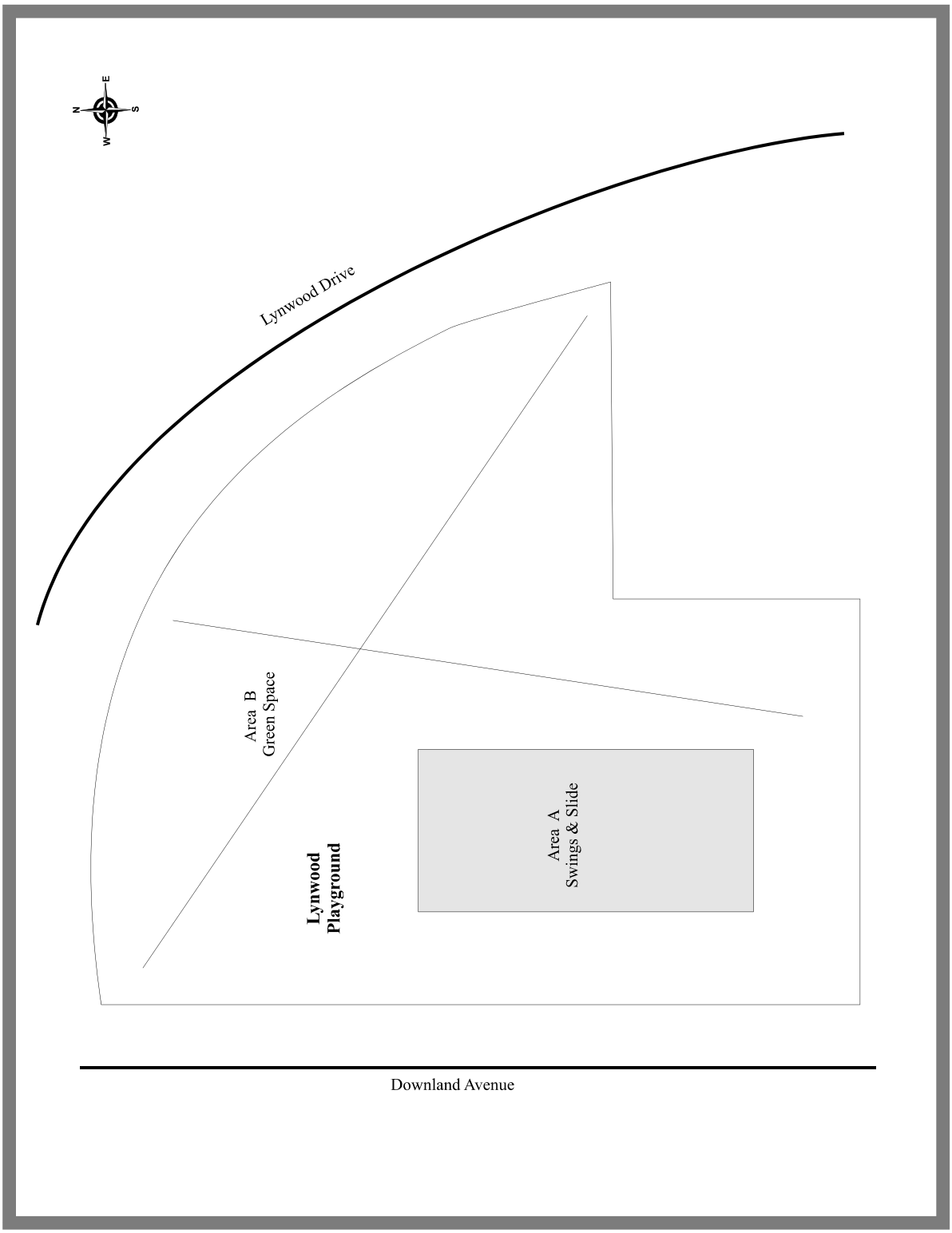
Map C5.19.4: Downe Playground, Sudbury New - 2001.



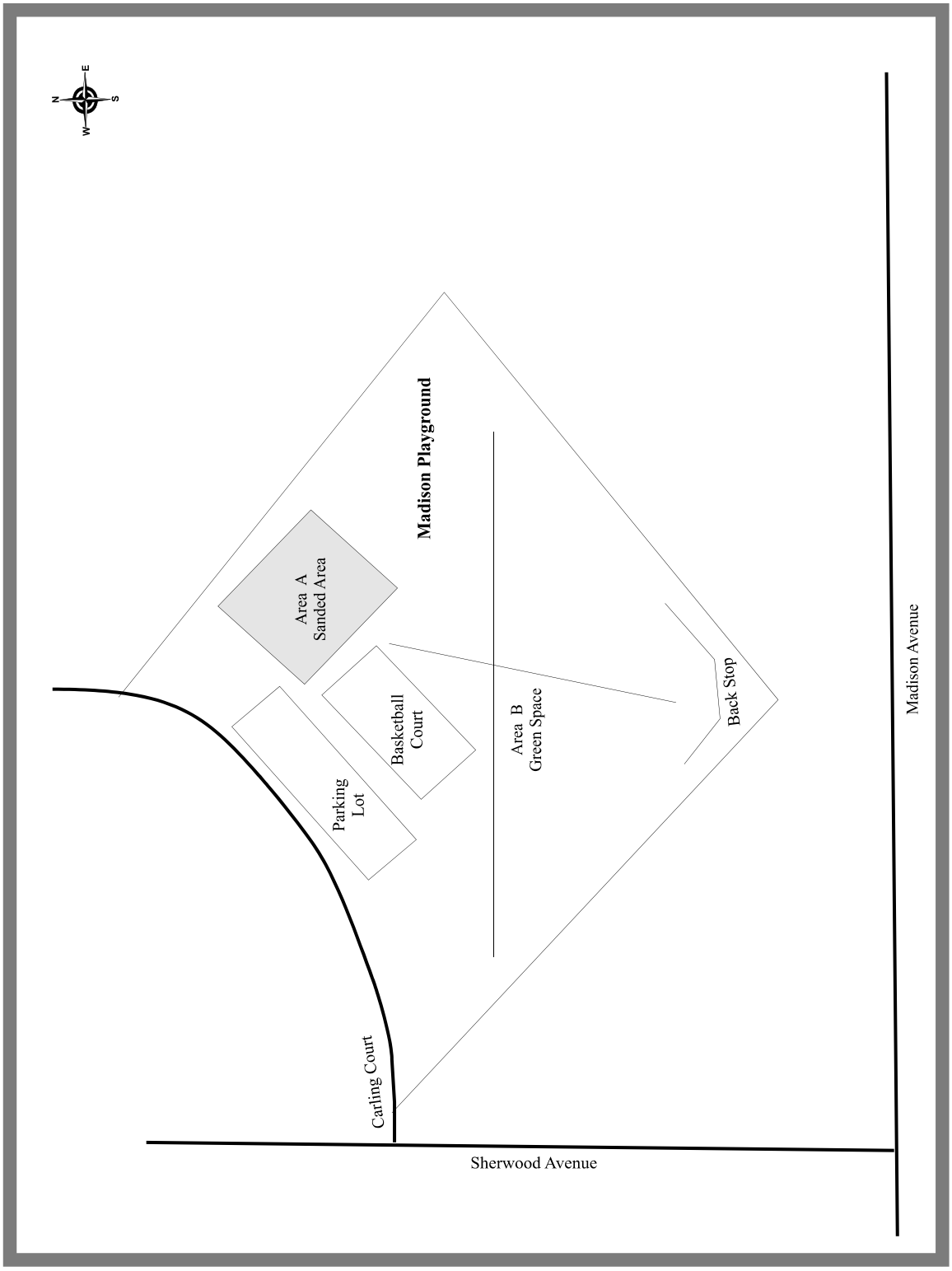
Map C5.19.5: Grandview Park, Sudbury New - 2001.



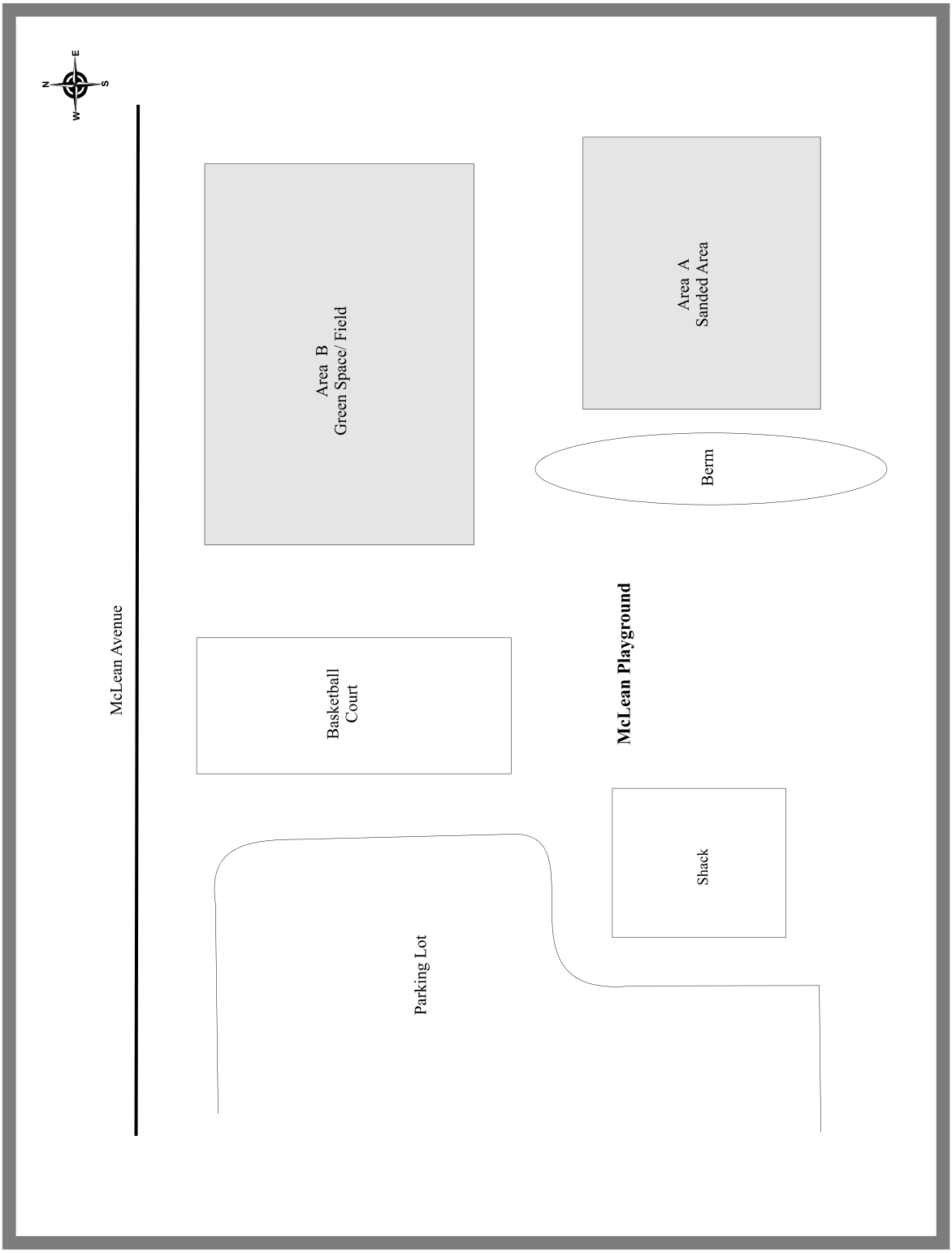
Map C5.19.6: Lansing Field, Sudbury New - 2001.



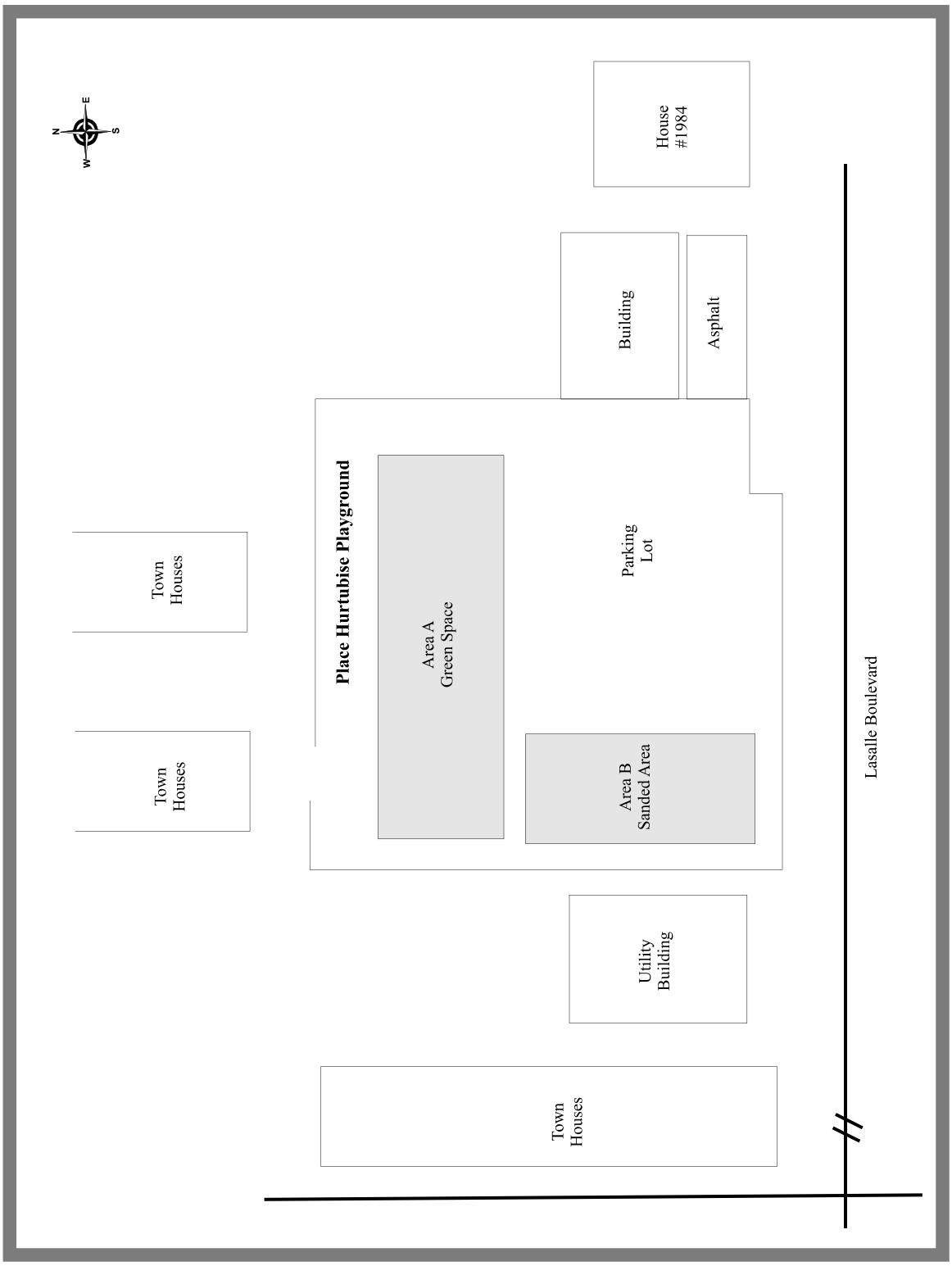
Map C5.19.7: Lynwood Playground, Sudbury New - 2001.



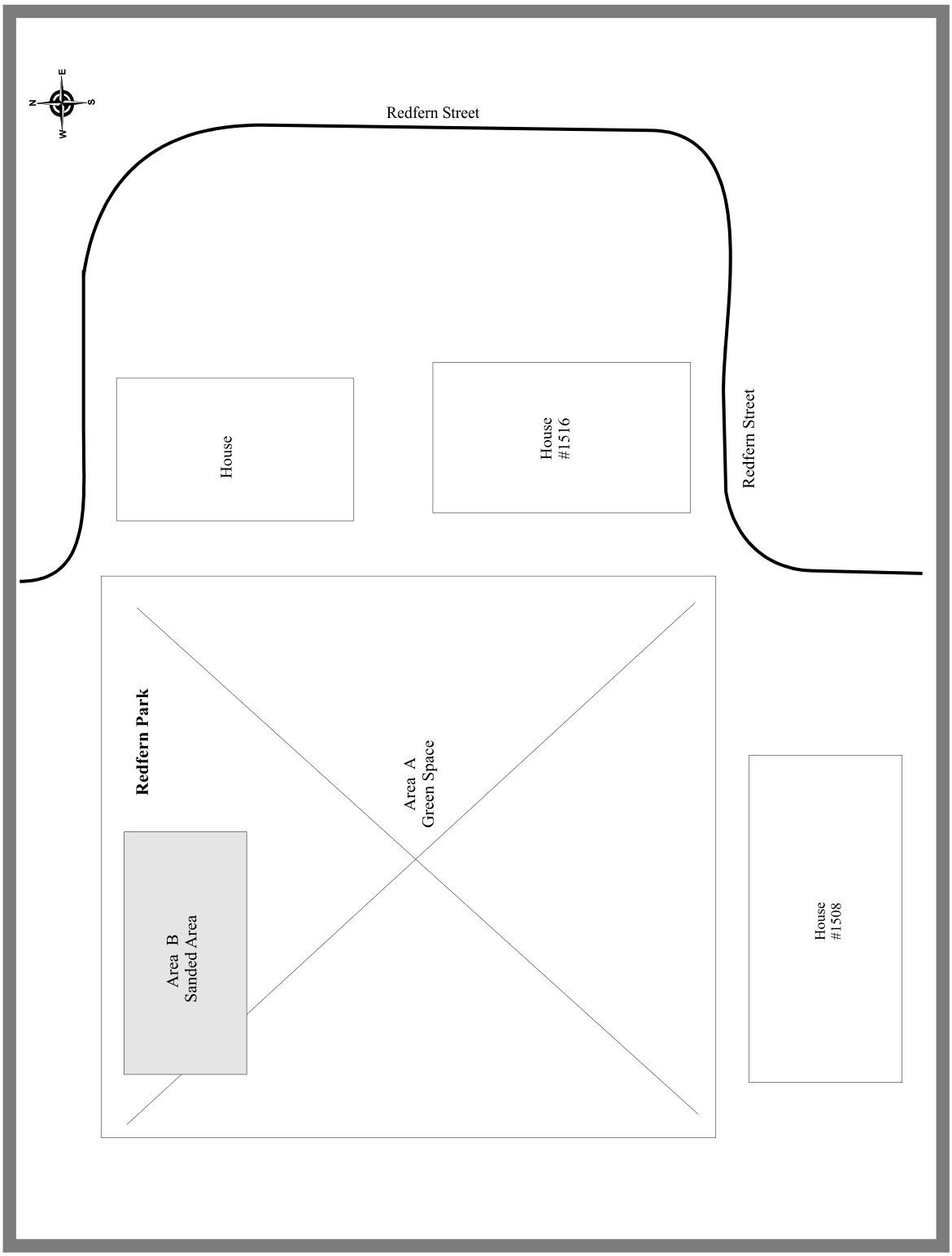
Map C5.19.8: Madison Playground, Sudbury New - 2001.



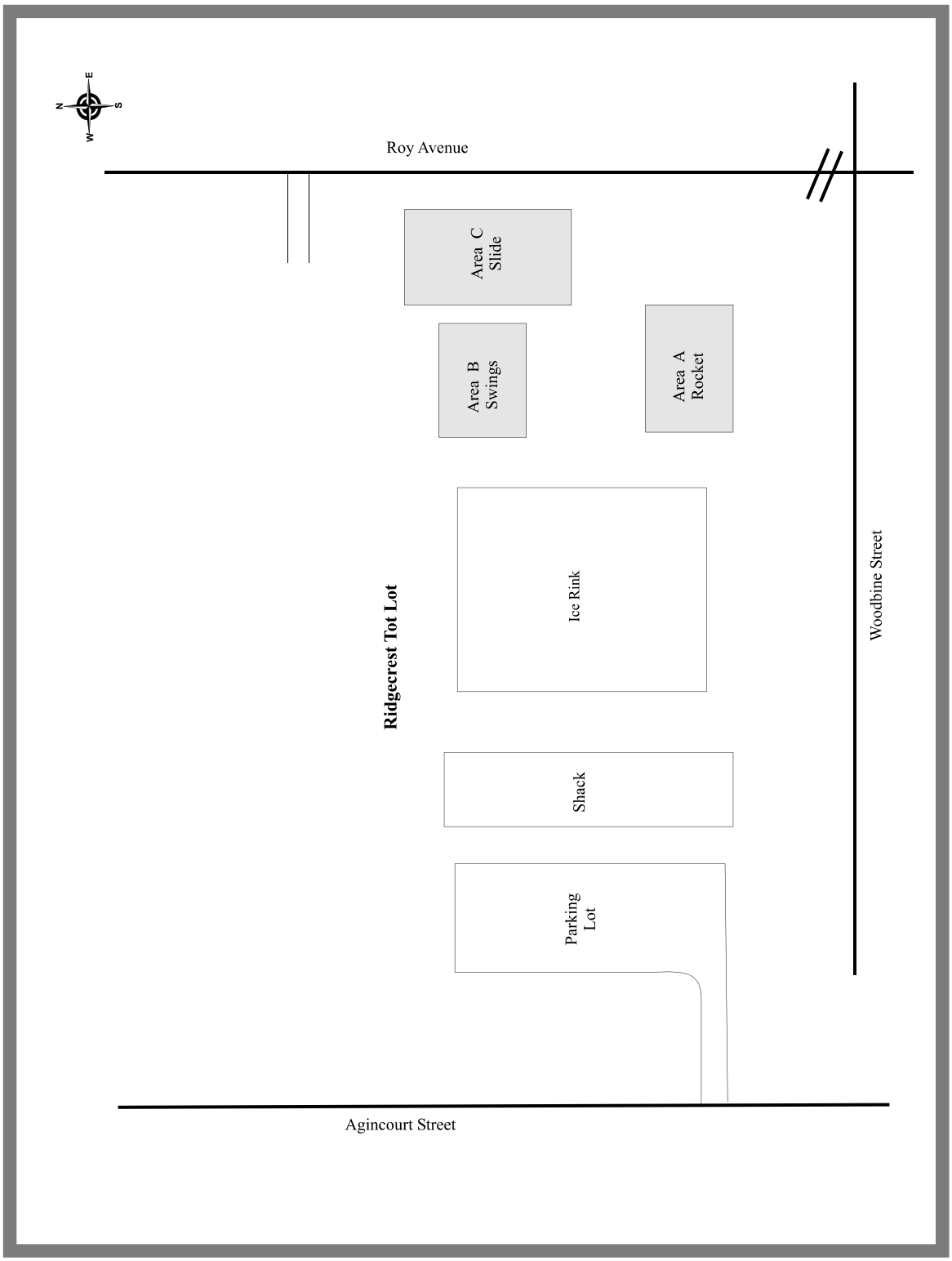
Map C5.19.9: McLean Playground, Sudbury New - 2001.



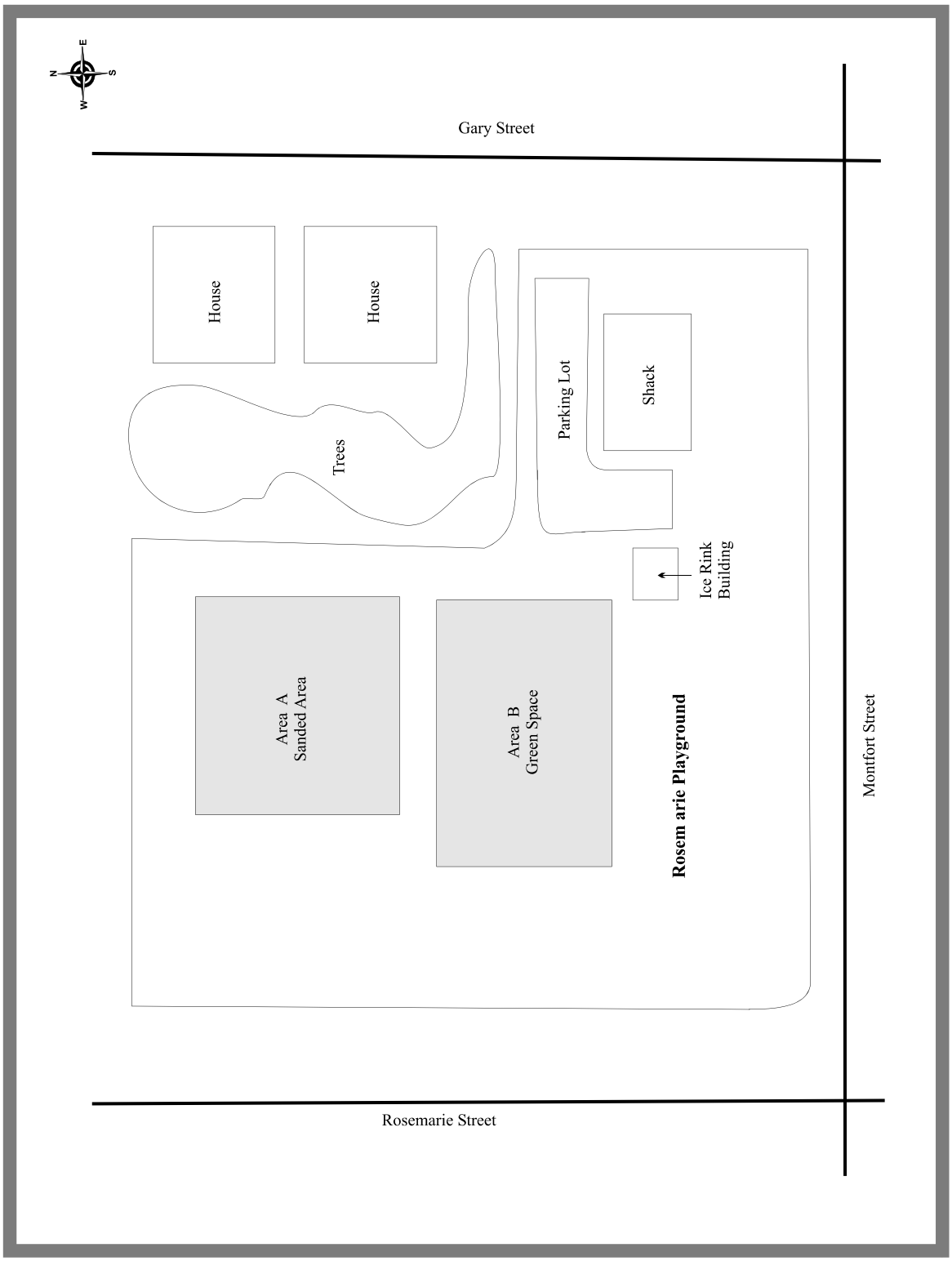
Map C5.19.10: Place Hurtubise Playground, Sudbury New - 2001.



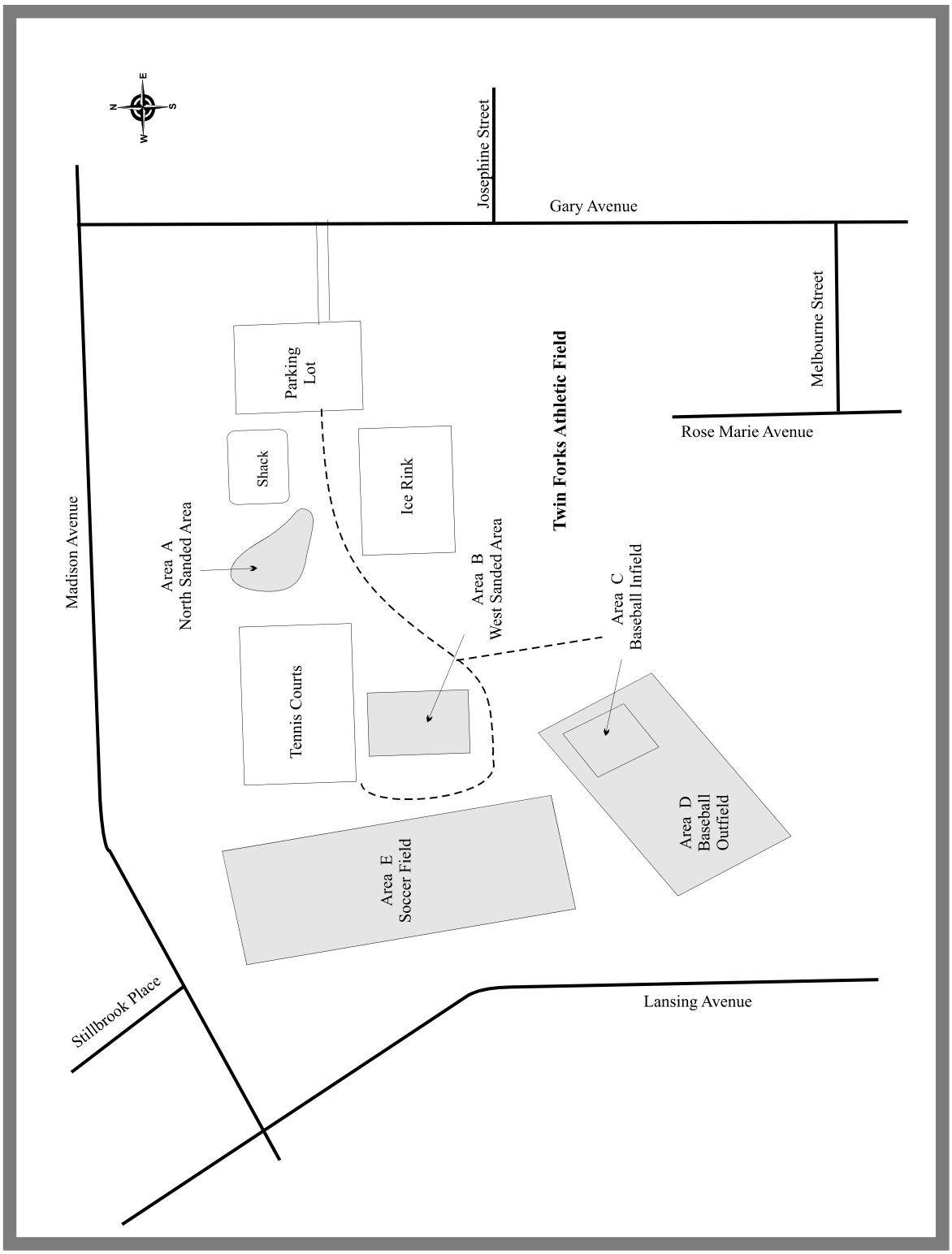
Map C5.19.11: Redfern Park, Sudbury New - 2001.



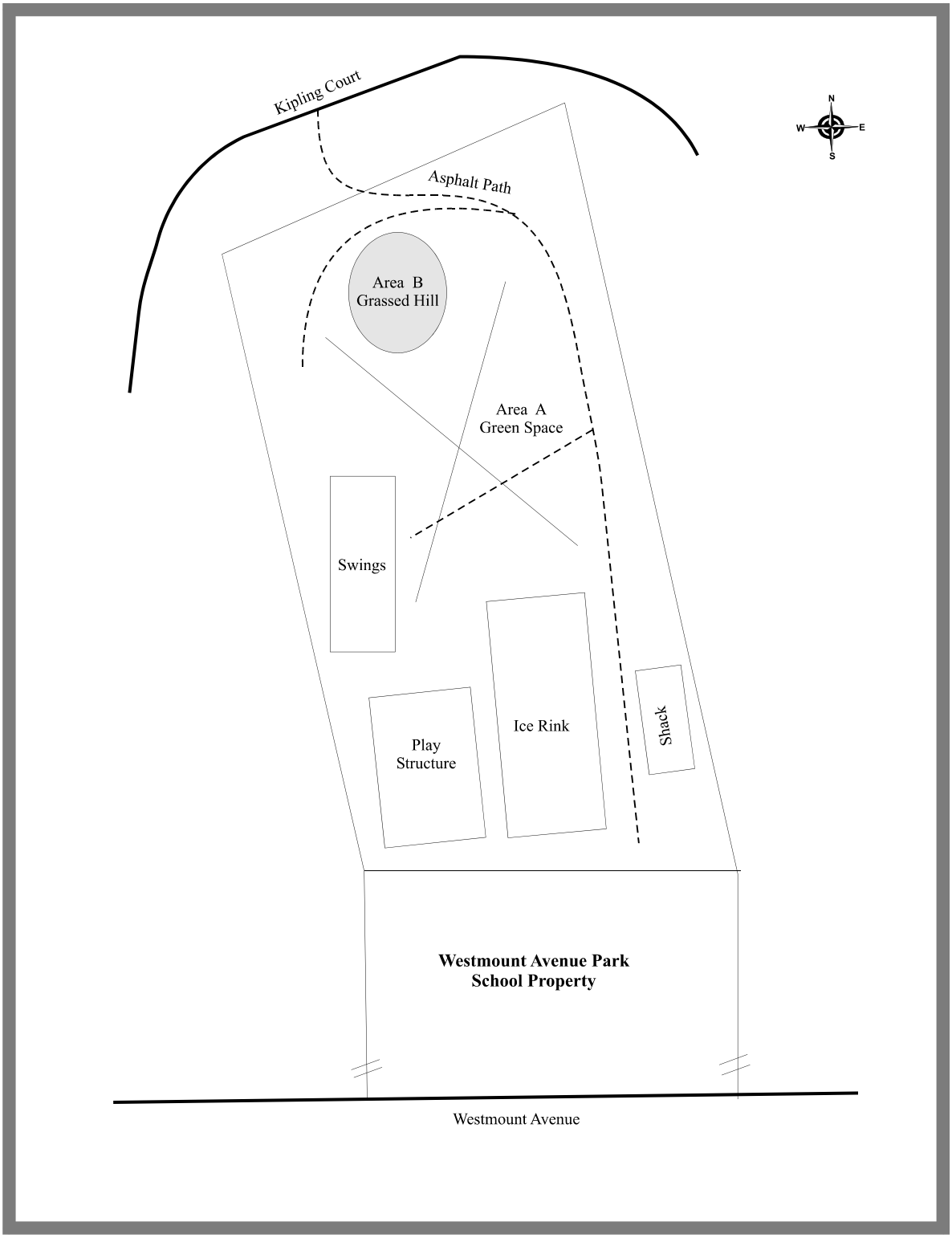
Map C5.19.12: Ridgecrest Tot Lot, Sudbury New - 2001.



Map C5.19.13: Rosemarie Playground, Sudbury New - 2001.

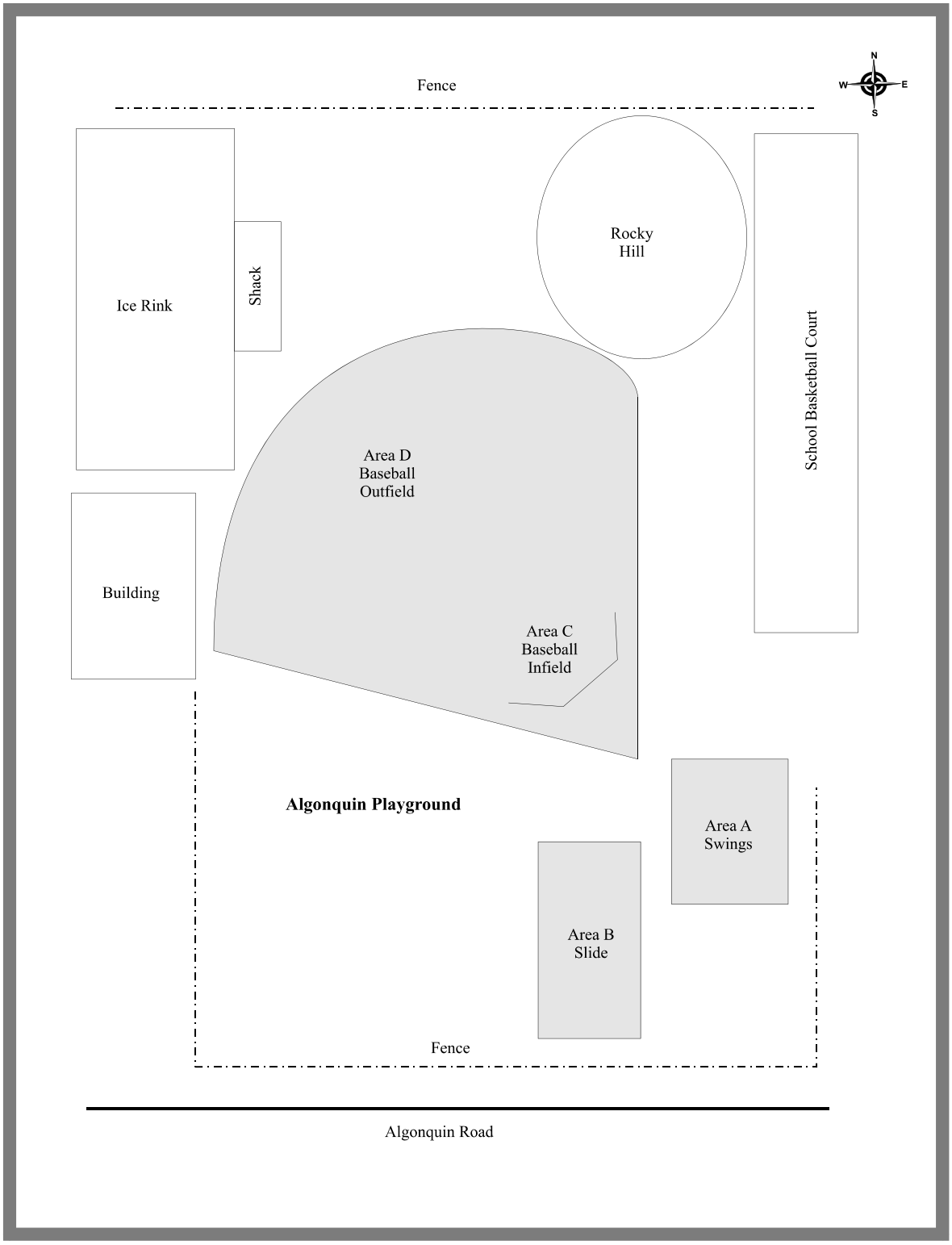


Map C5.19.14: Twin Forks Athletic Field, Sudbury New - 2001.

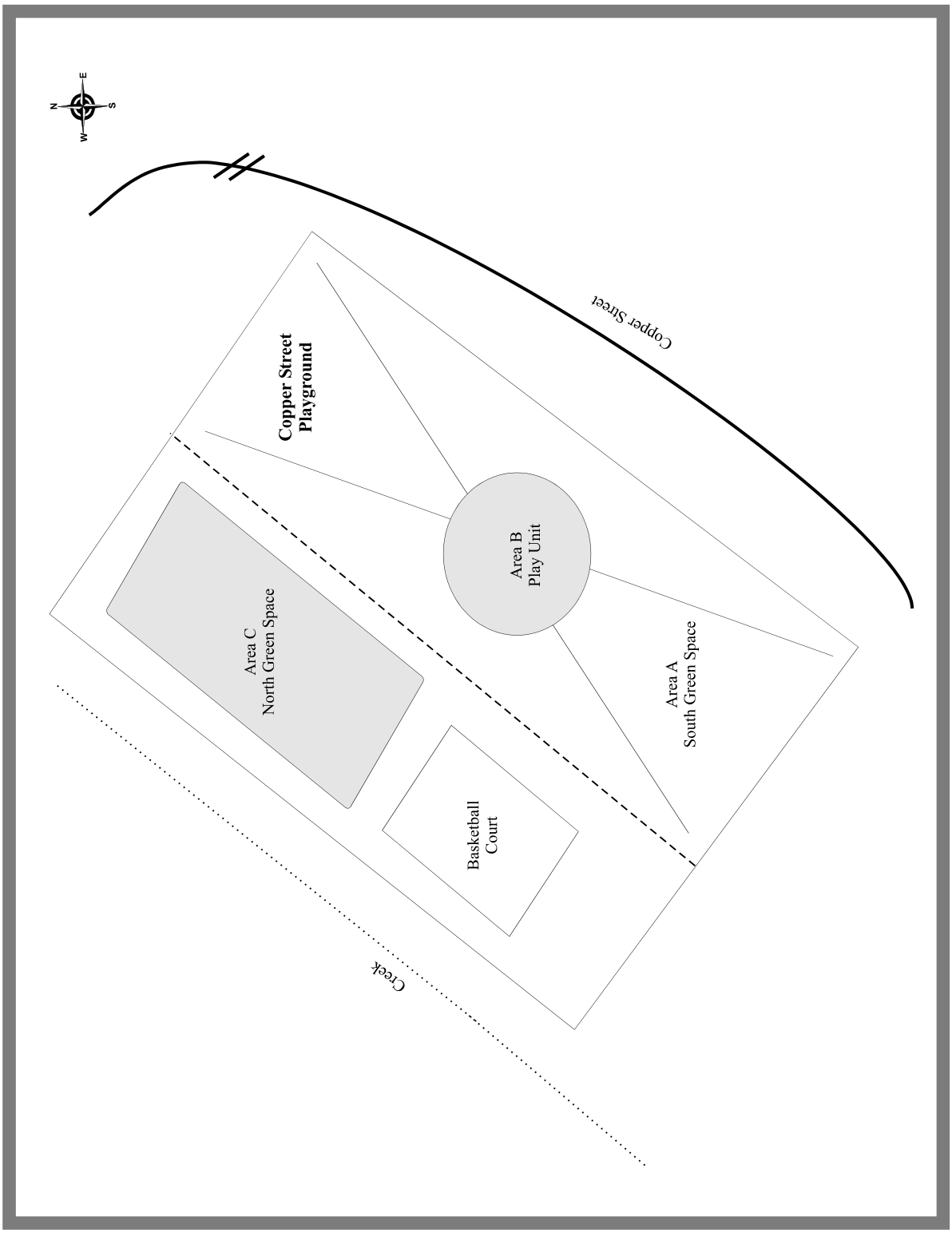


Map C5.19.15: Westmount Playground, Sudbury New - 2001.

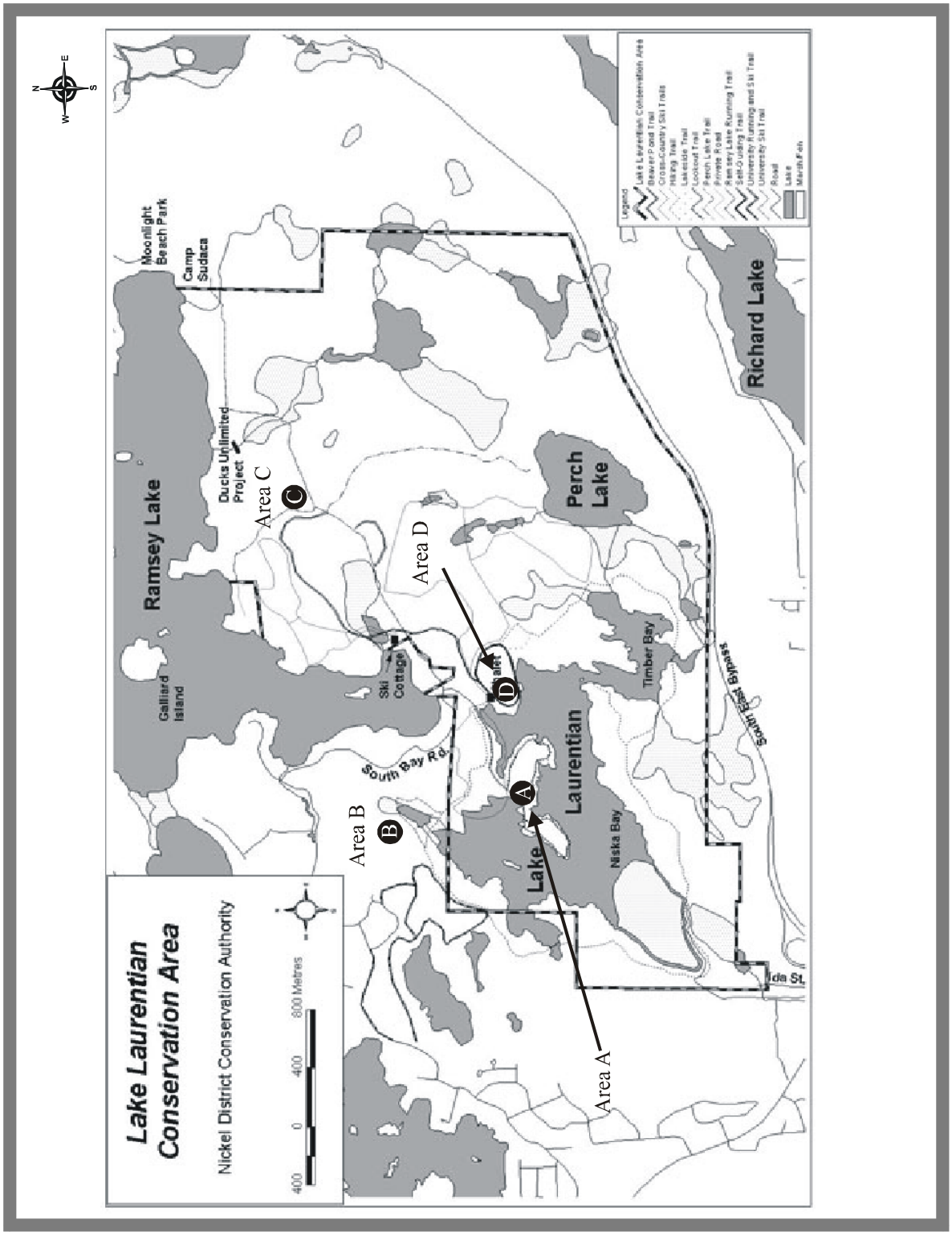
5.20 Sudbury South Park Maps



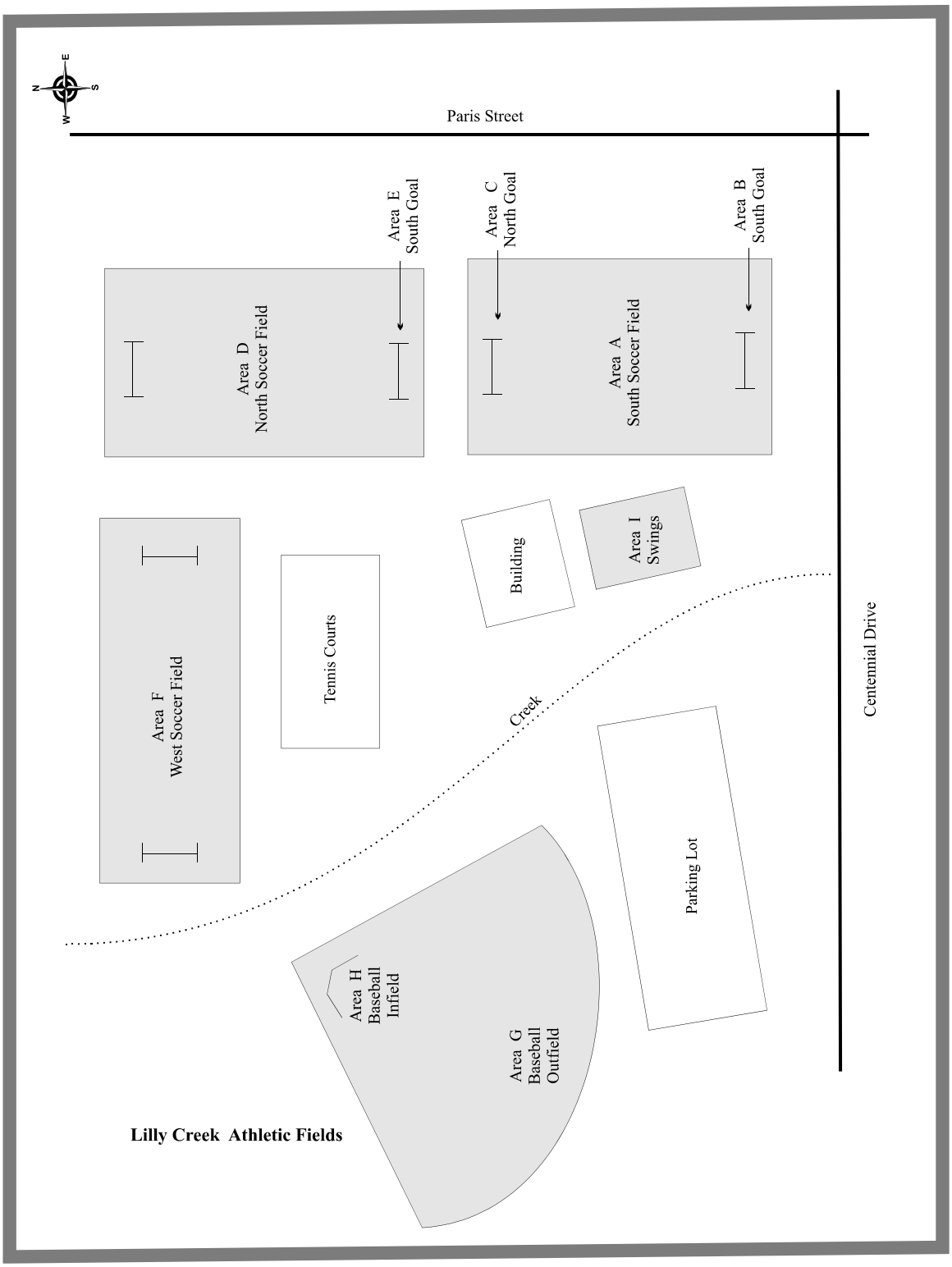
Map C5.20.1: Algonquin Playground, Sudbury South - 2001.



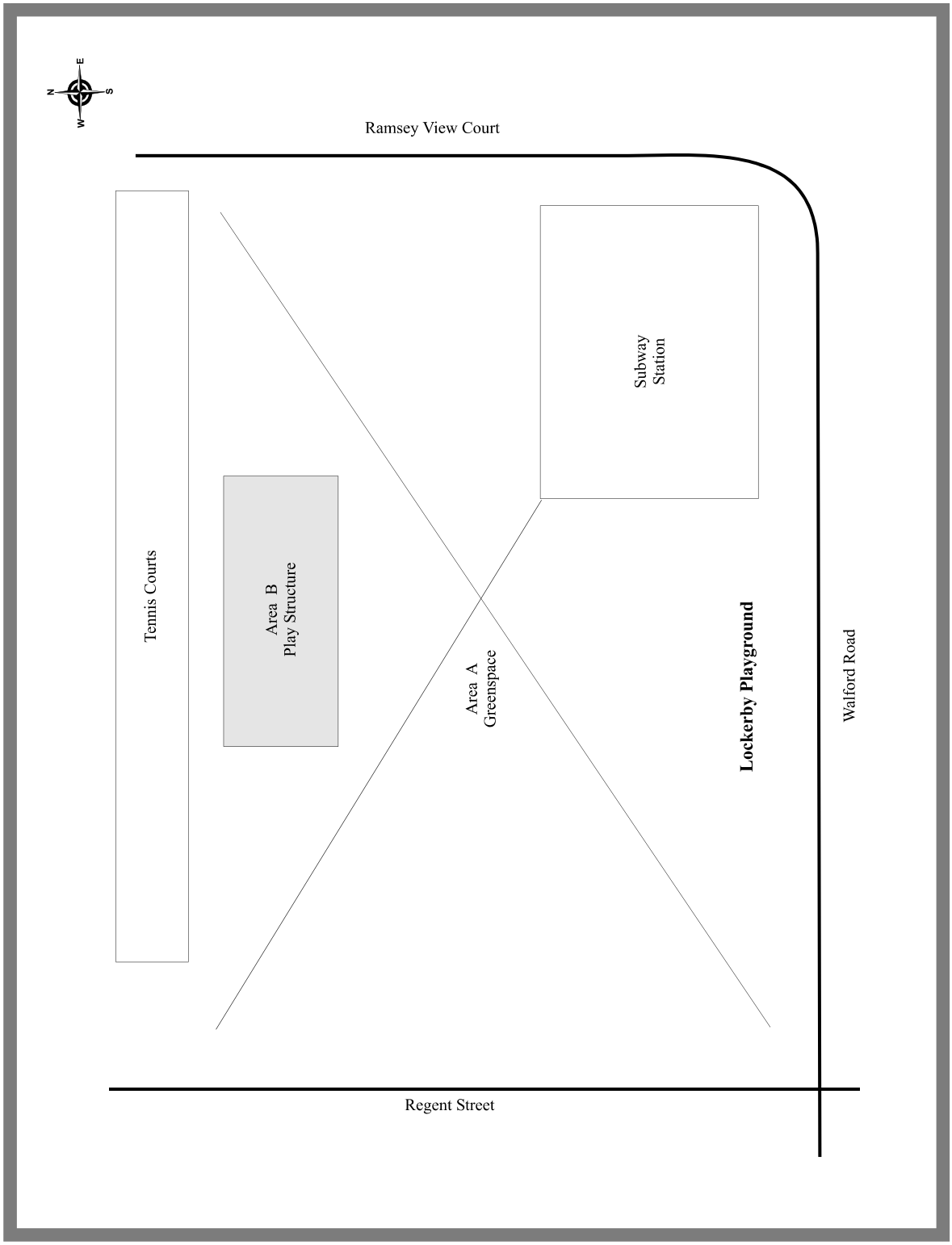
Map C5.20.2: Copper Street Playground, Sudbury South - 2001.



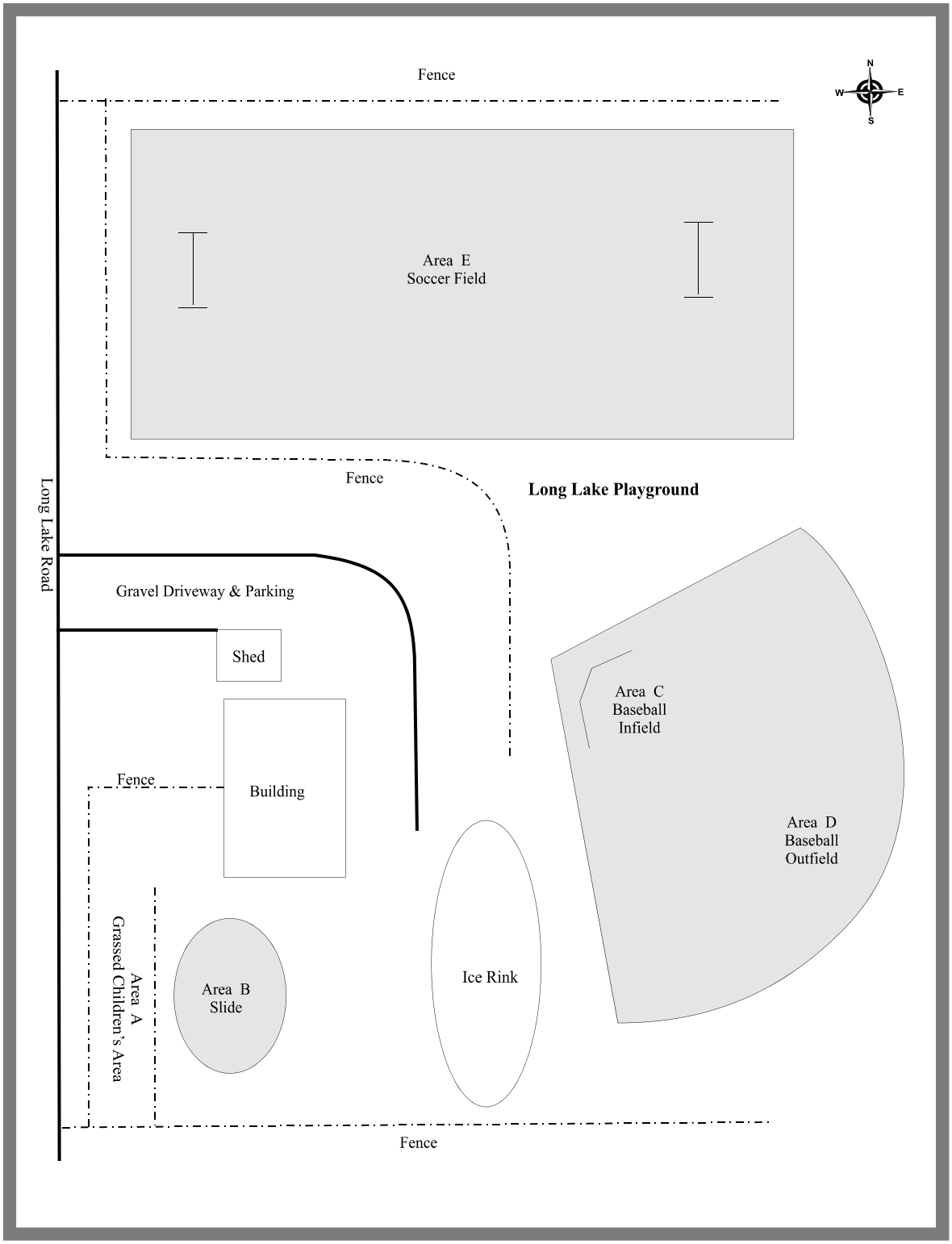
Map C5.20.3: Lake Laurentian Conservation Area, Sudbury South - 2001



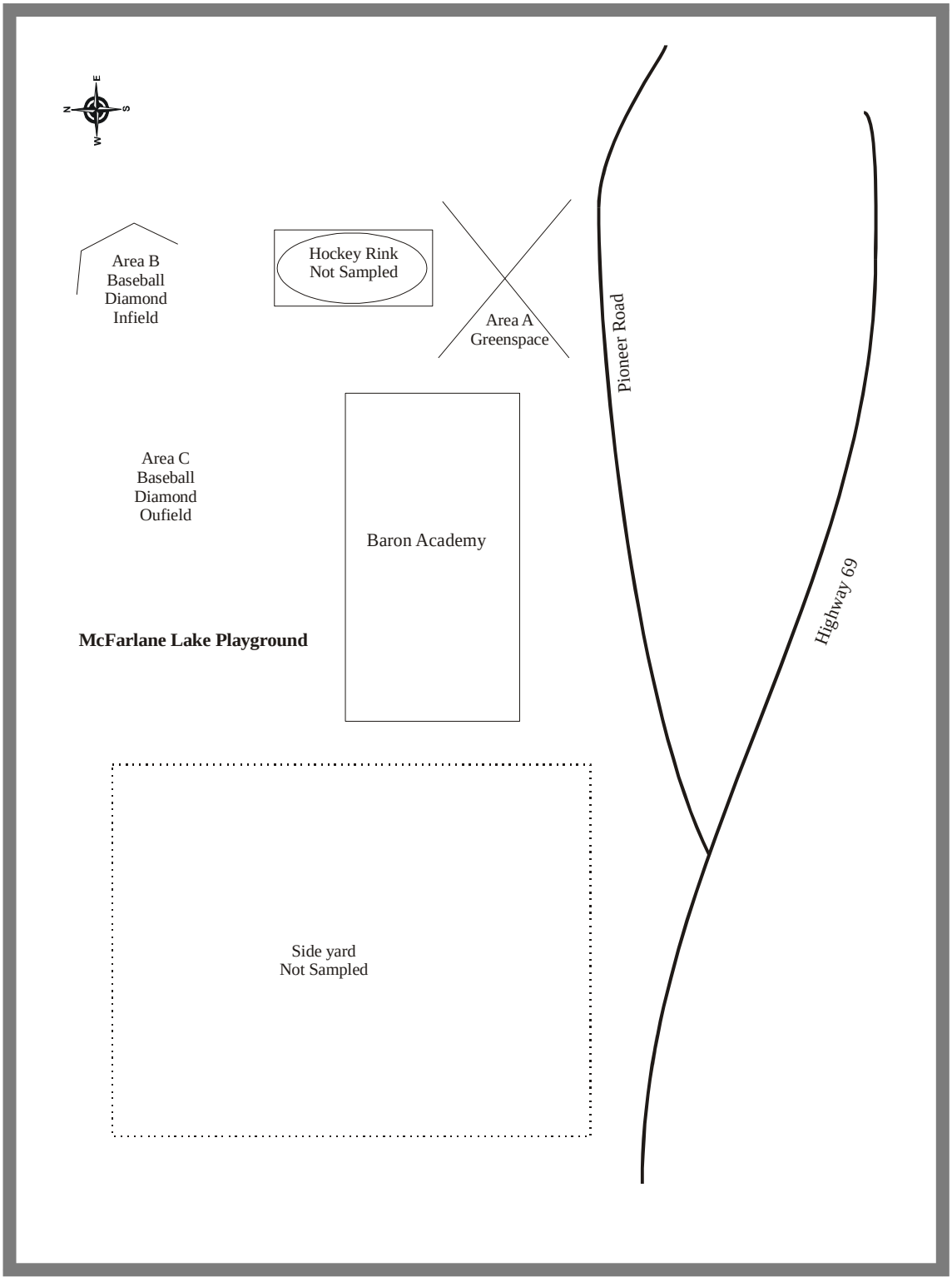
Map C5.20.4: Lilly Creek Athletic Field, Sudbury South - 2001.



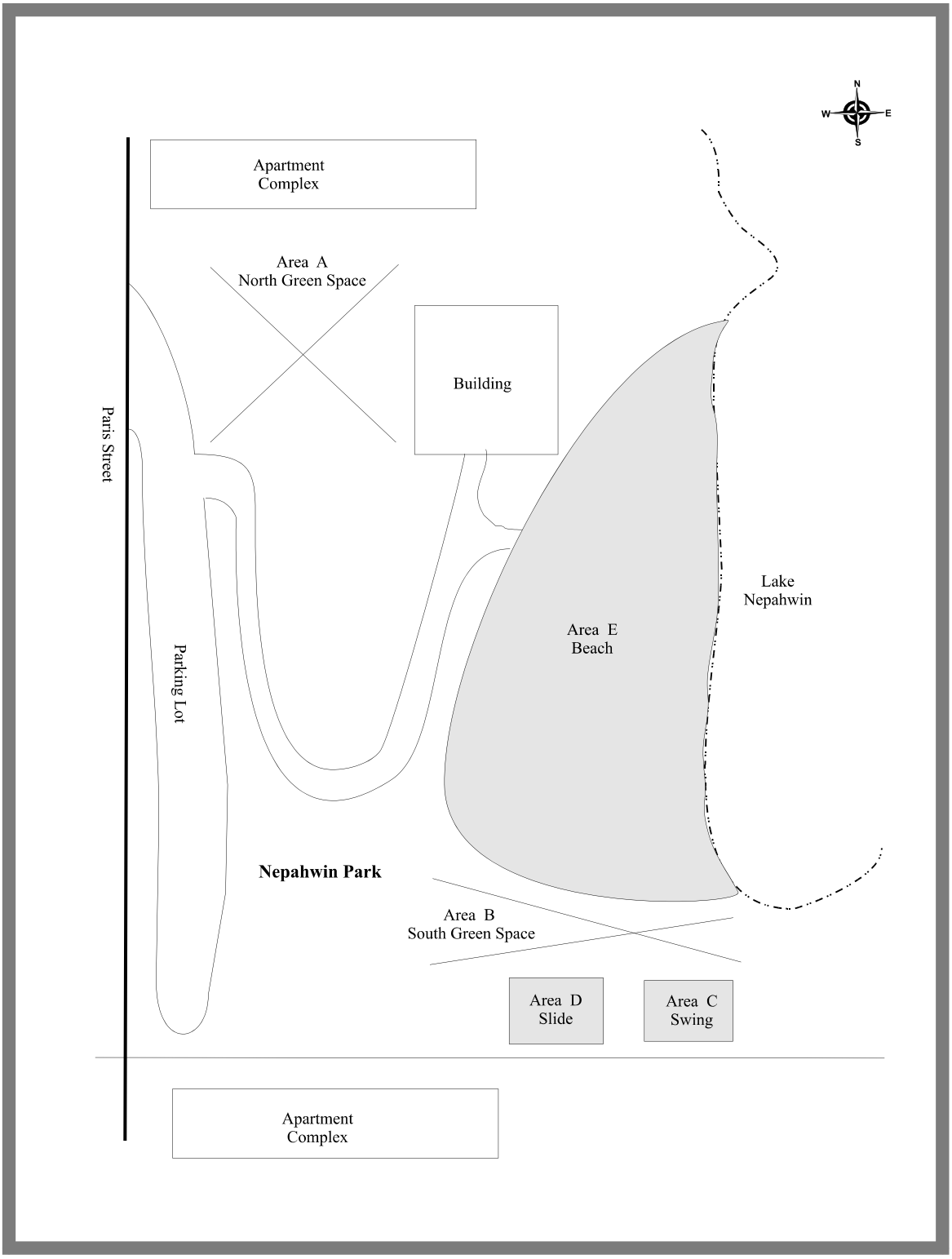
Map C5.20.5: Lockerby Playground, Sudbury South - 2001.



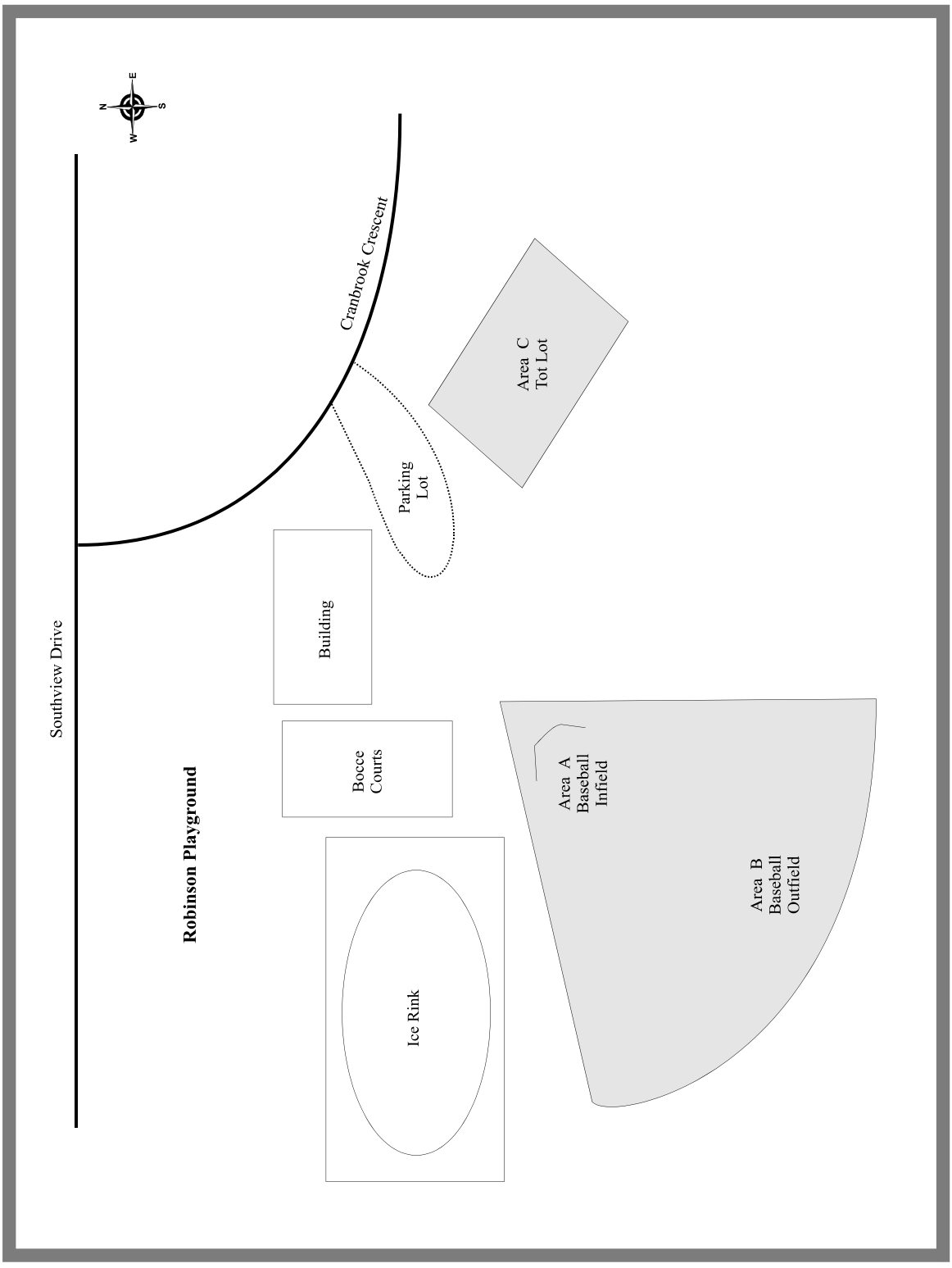
Map C5.20.6: Long Lake Playground, Sudbury South - 2001.



Map C5.20.7: McFarlane Lake Playground, Sudbury South - 2001

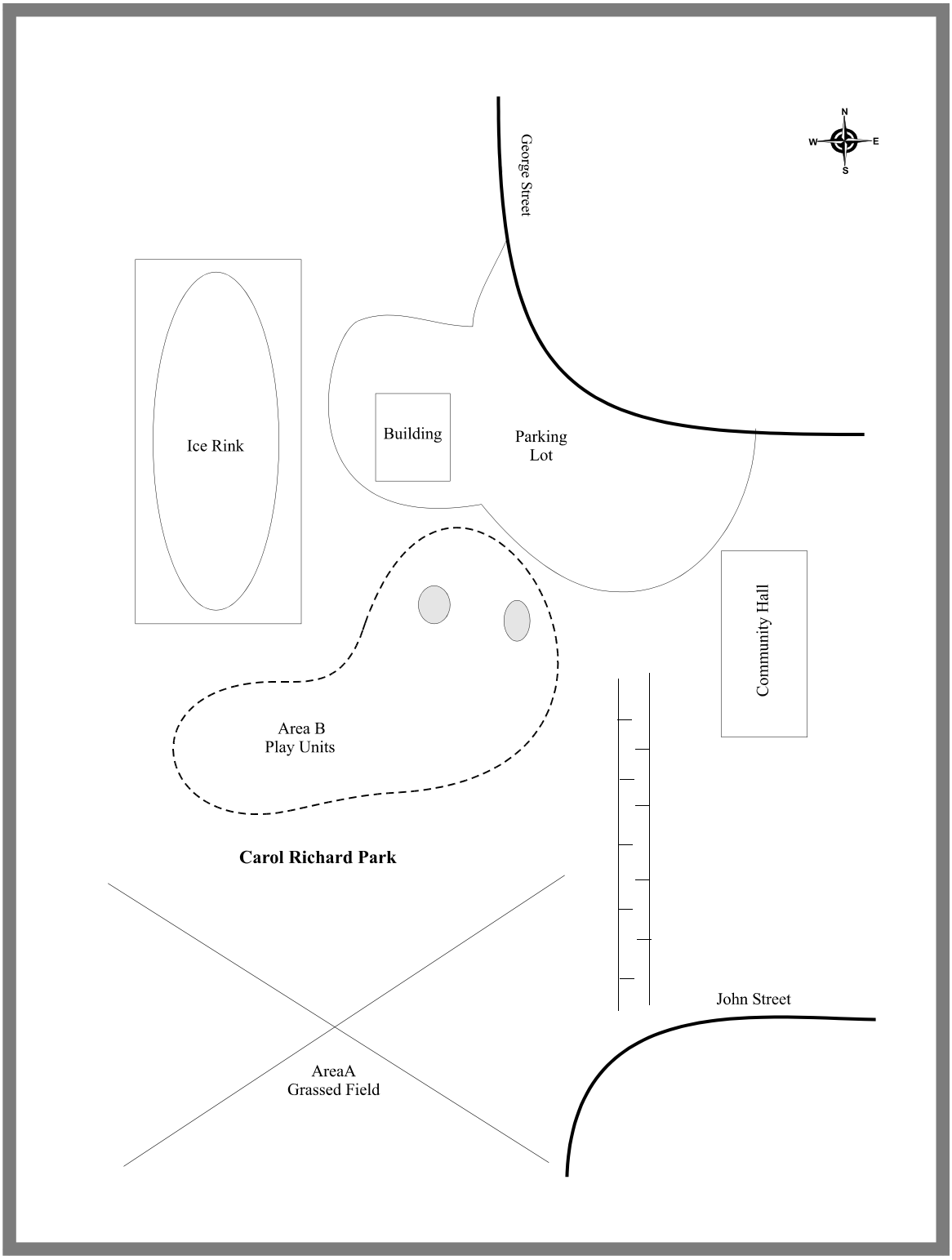


Map C5.20.8: Nepahwin Park, Sudbury South - 2001.

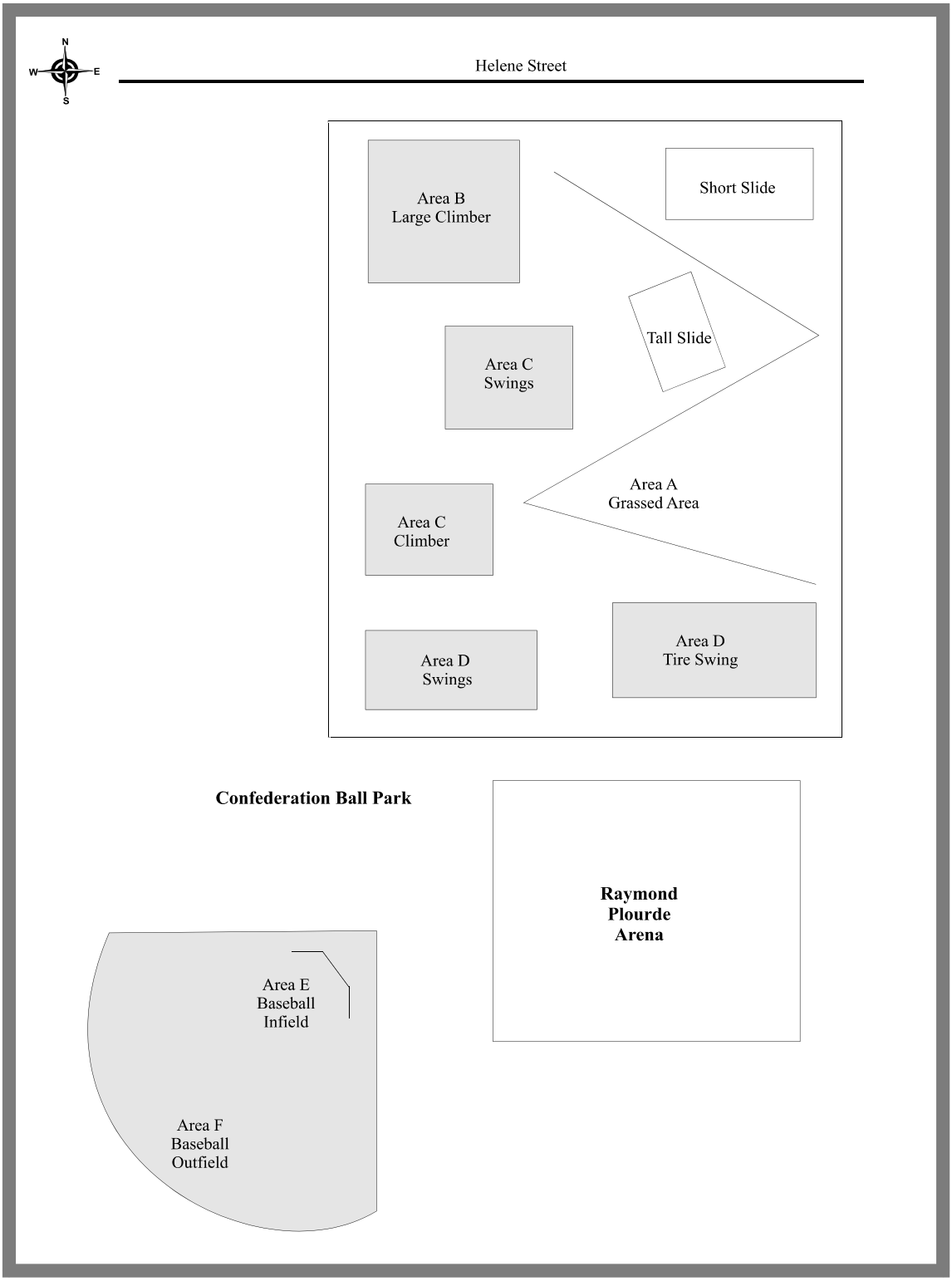


Map C5.20.9: Robinson Playground, Sudbury South - 2001.

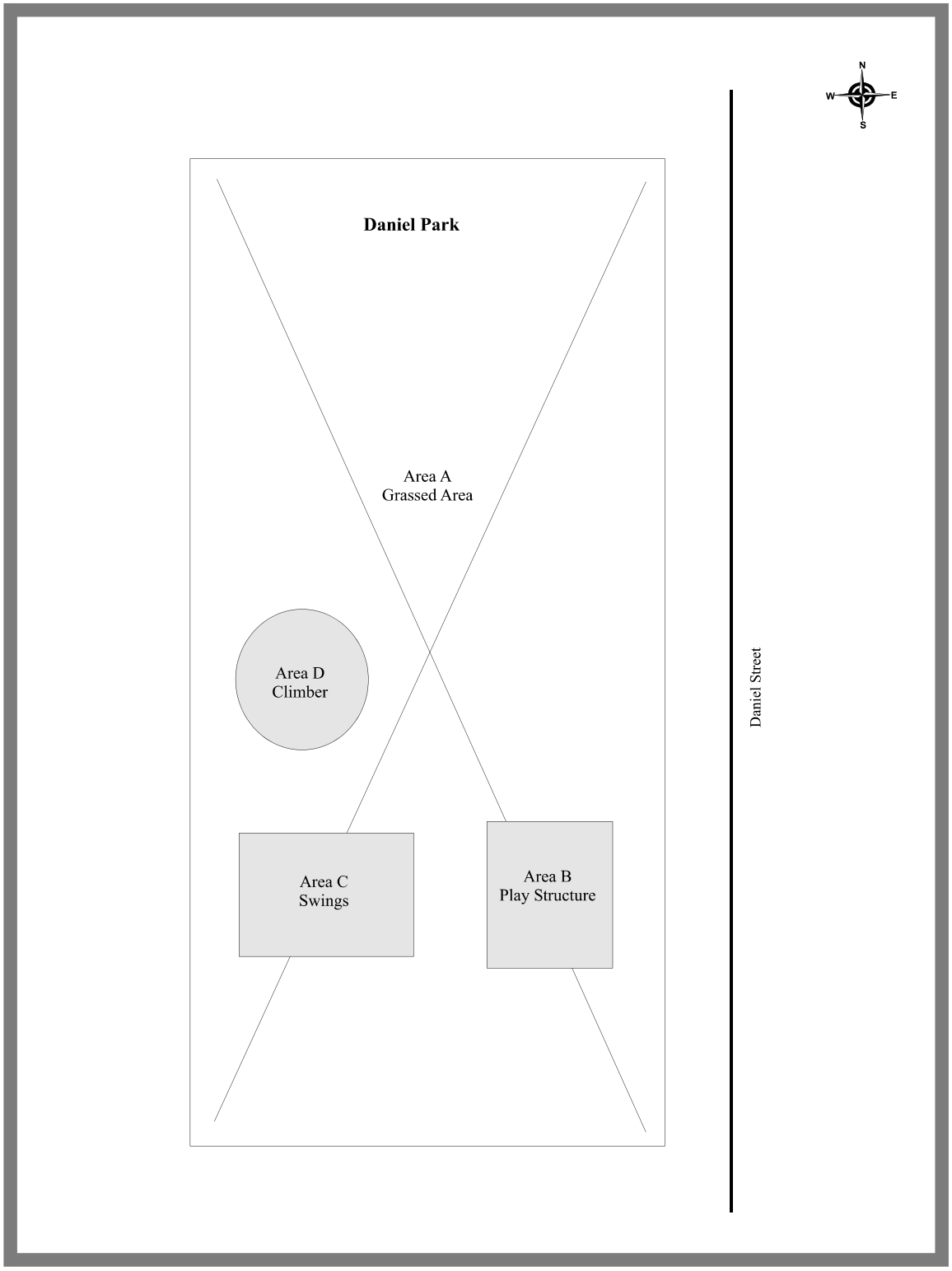
5.21 Val Caron Park Maps



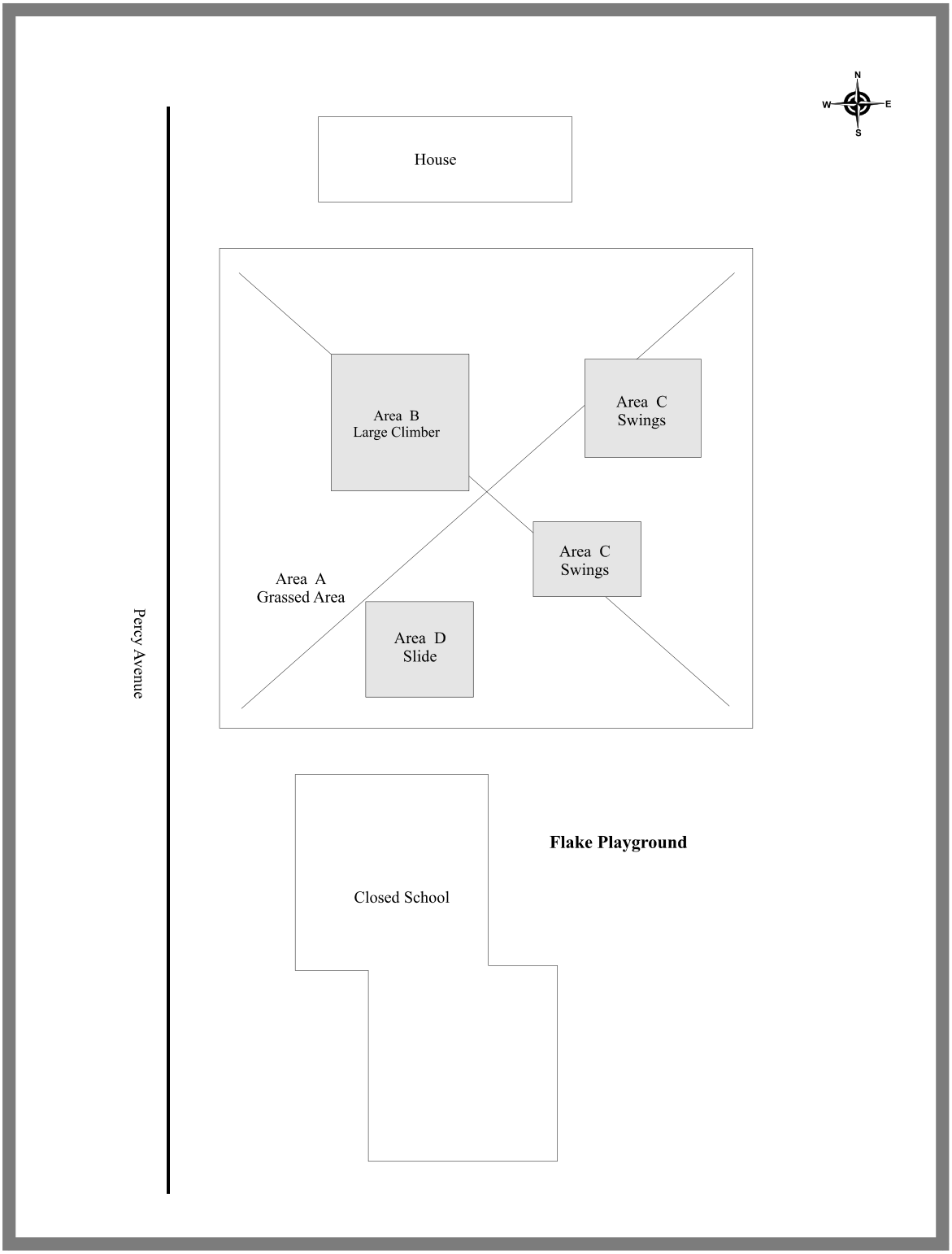
Map C5.21.1: Carol Richard Playground, Val Caron - 2001.



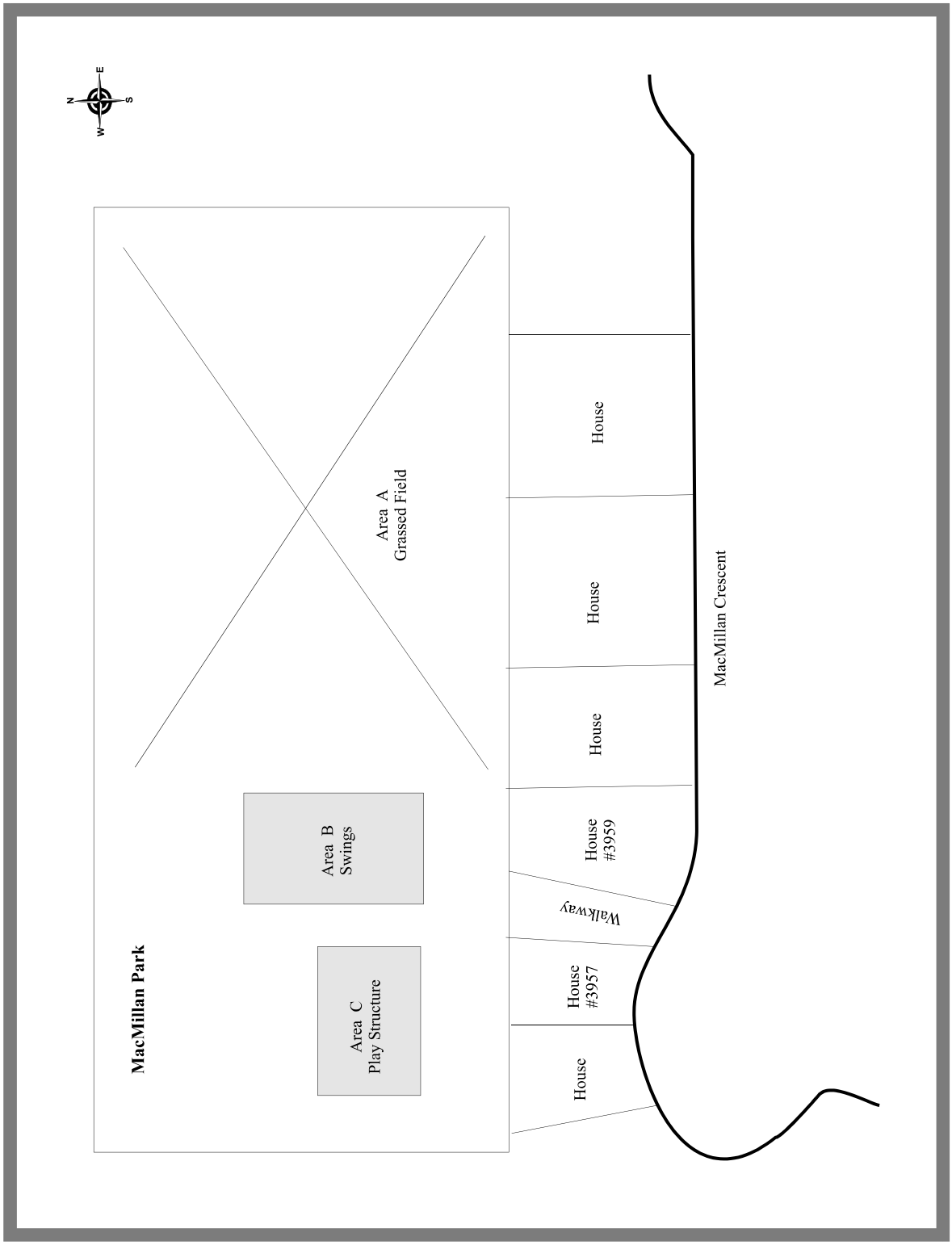
Map C5.21.2: Confederation Arena, Val Caron - 2001.



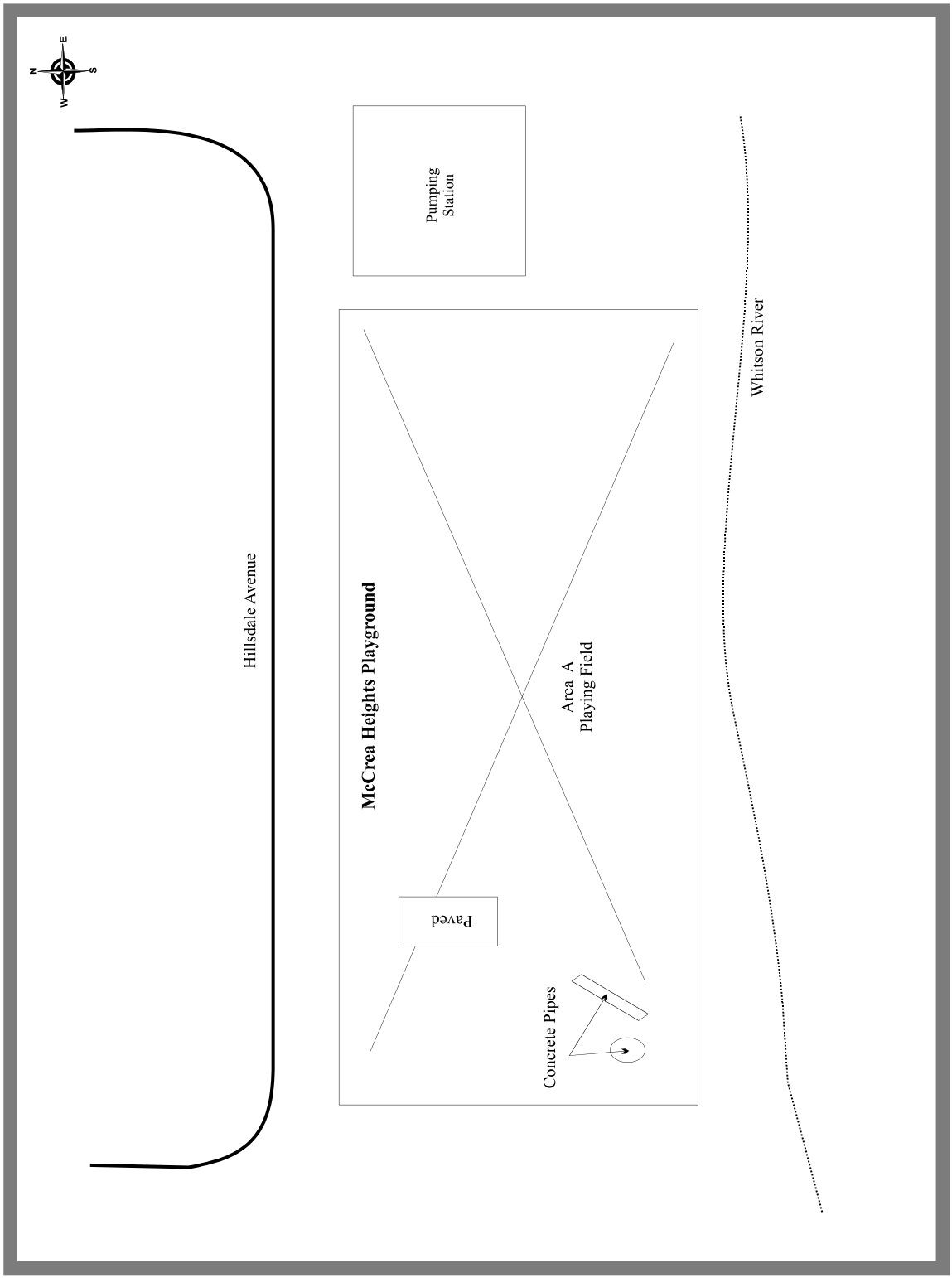
Map C5.21.3: Daniel Park, Val Caron - 2001.



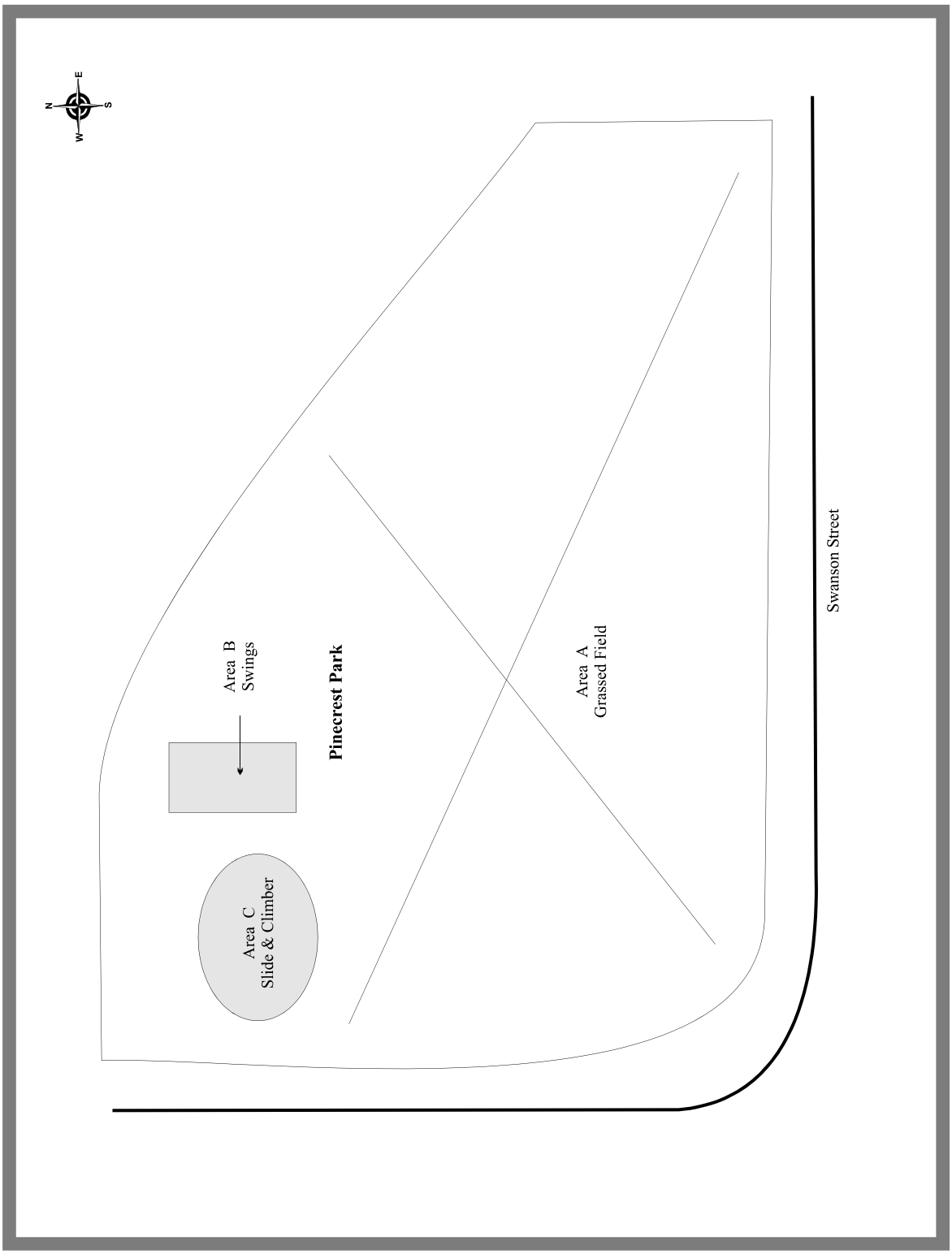
Map C5.21.4: Flake Playground, Val Caron - 2001.



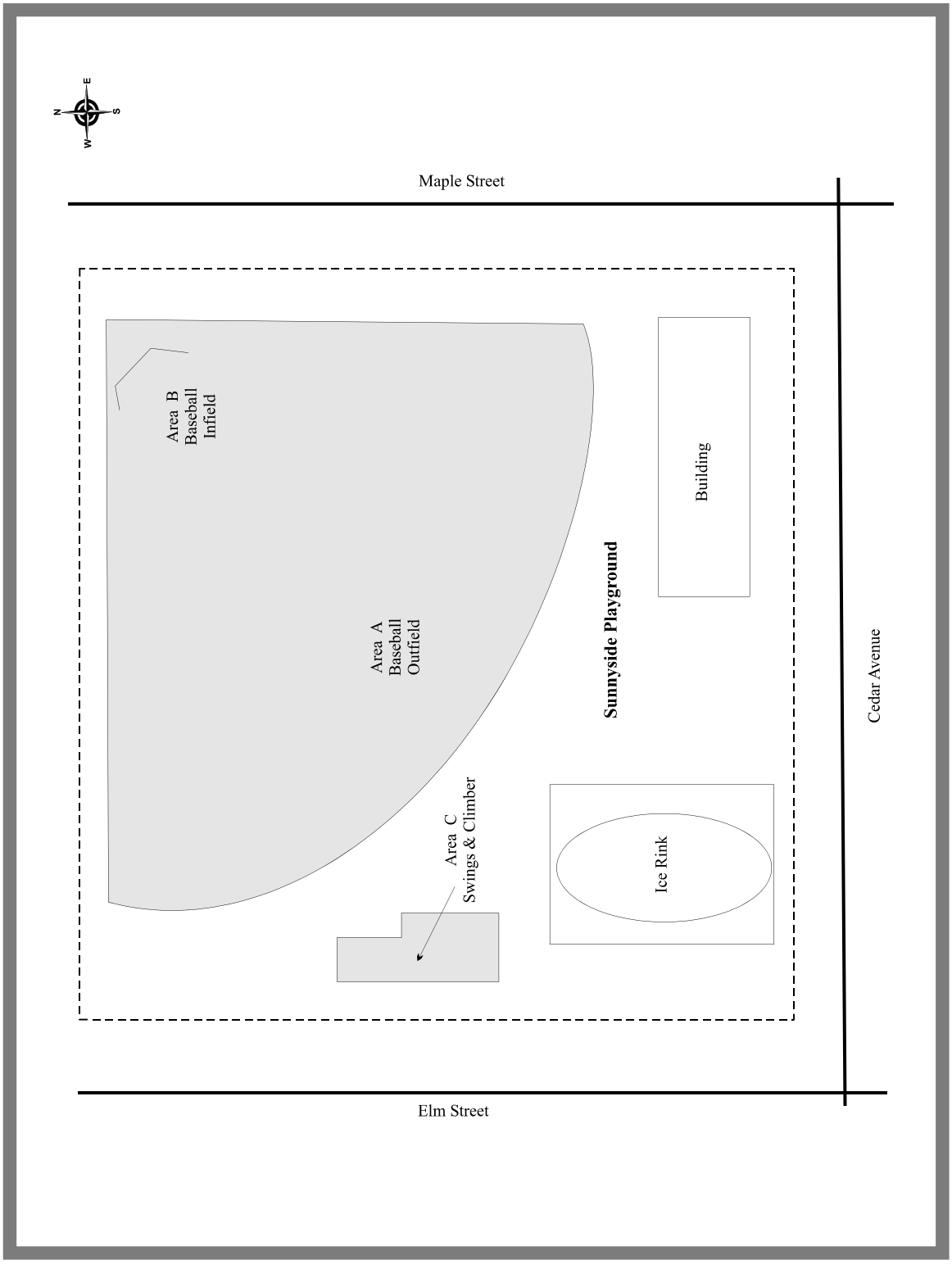
Map C5.21.5: McMillan Park, Val Caron - 2001.



Map C5.21.6: McCrea Heights Playground (Hillside Playground), Val Caron - 2001.

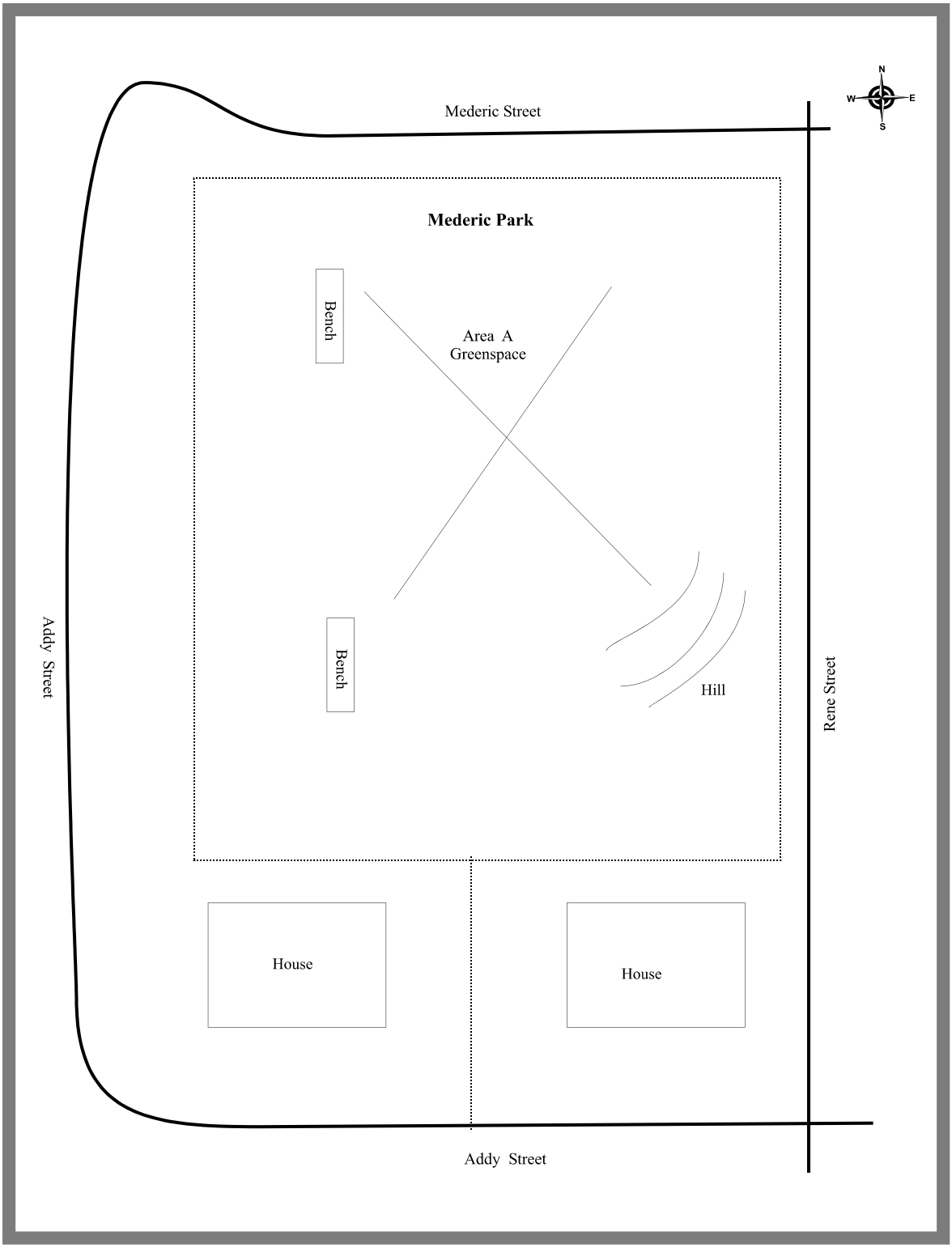


Map C5.21.7: Pinecrest Park, Val Caron - 2001.

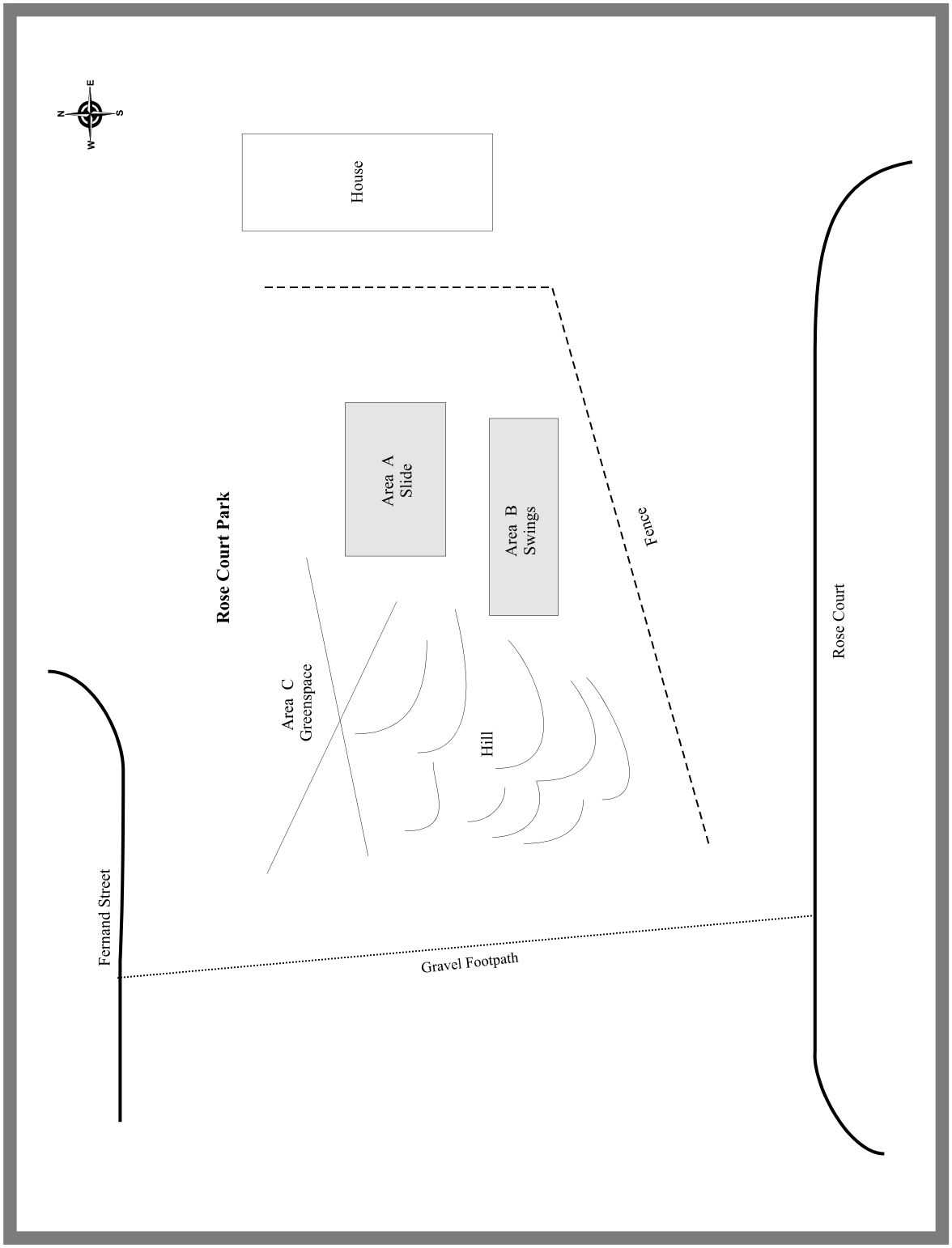


Map C5.21.8: Sunnyside Playground, Val Caron - 2001.

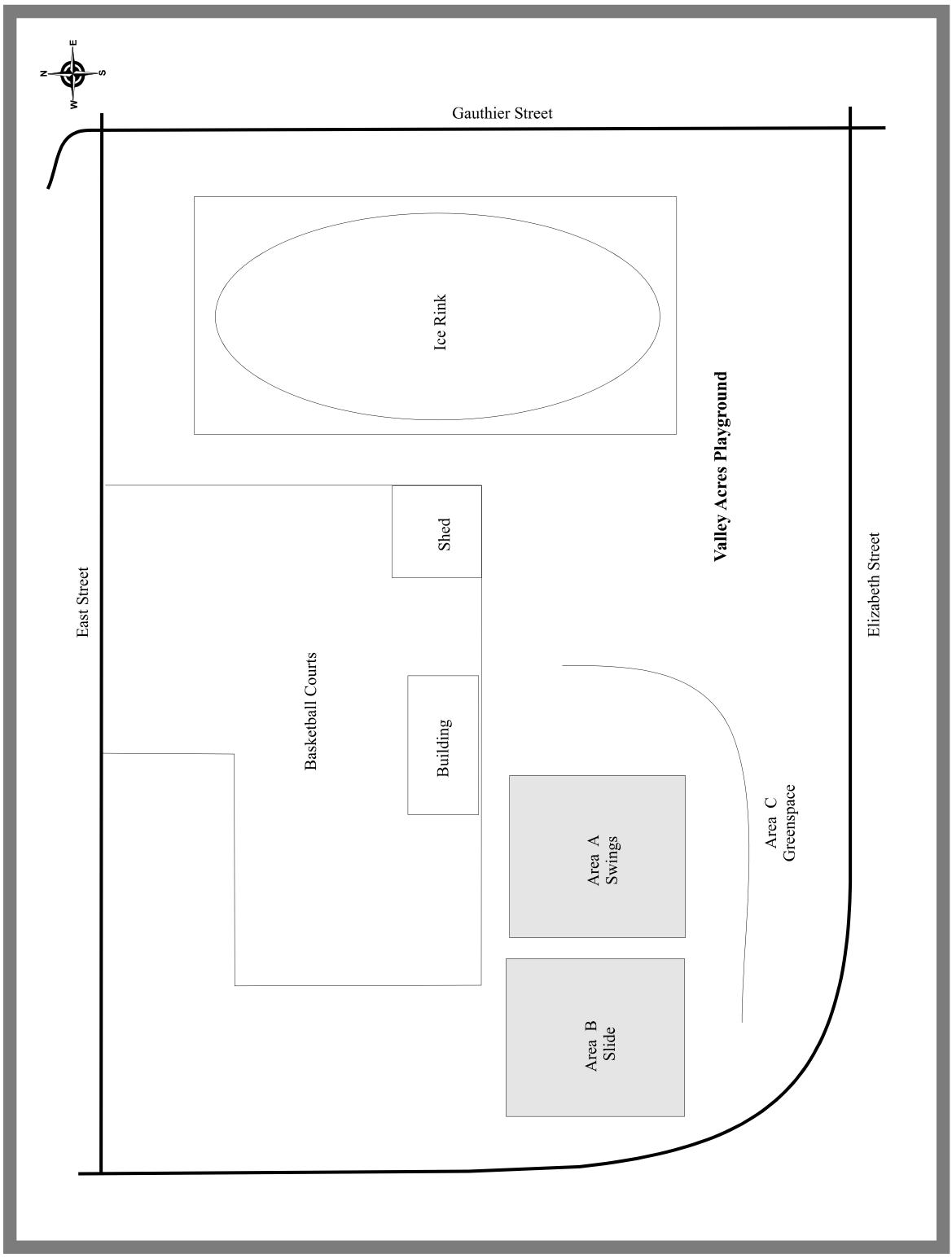
5.22 Val Therese Park Maps



Map C5.22.1: Mederic Park, Val Therese - 2001.

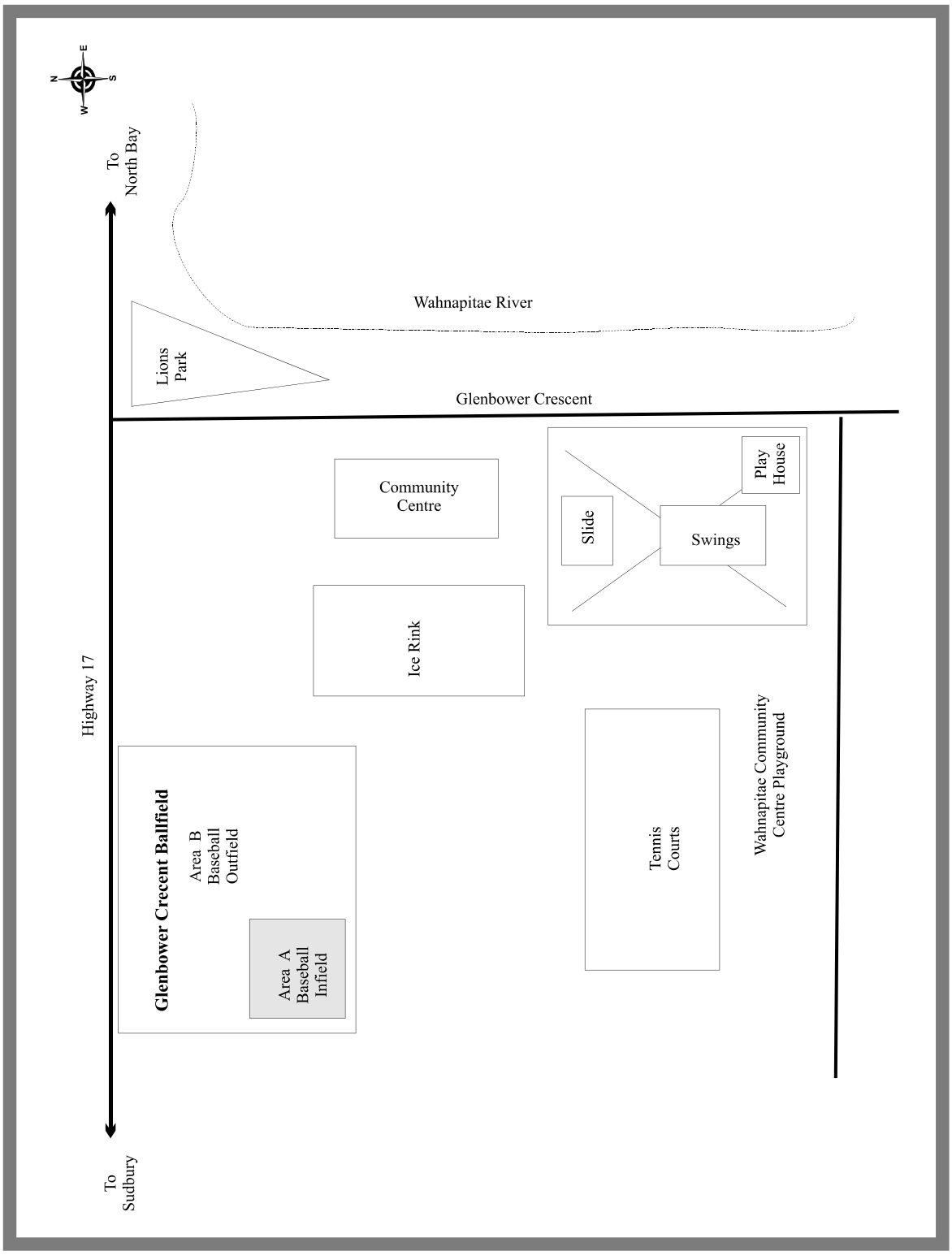


Map C5.22.2: Rose Court Park, Val Therese - 2001.

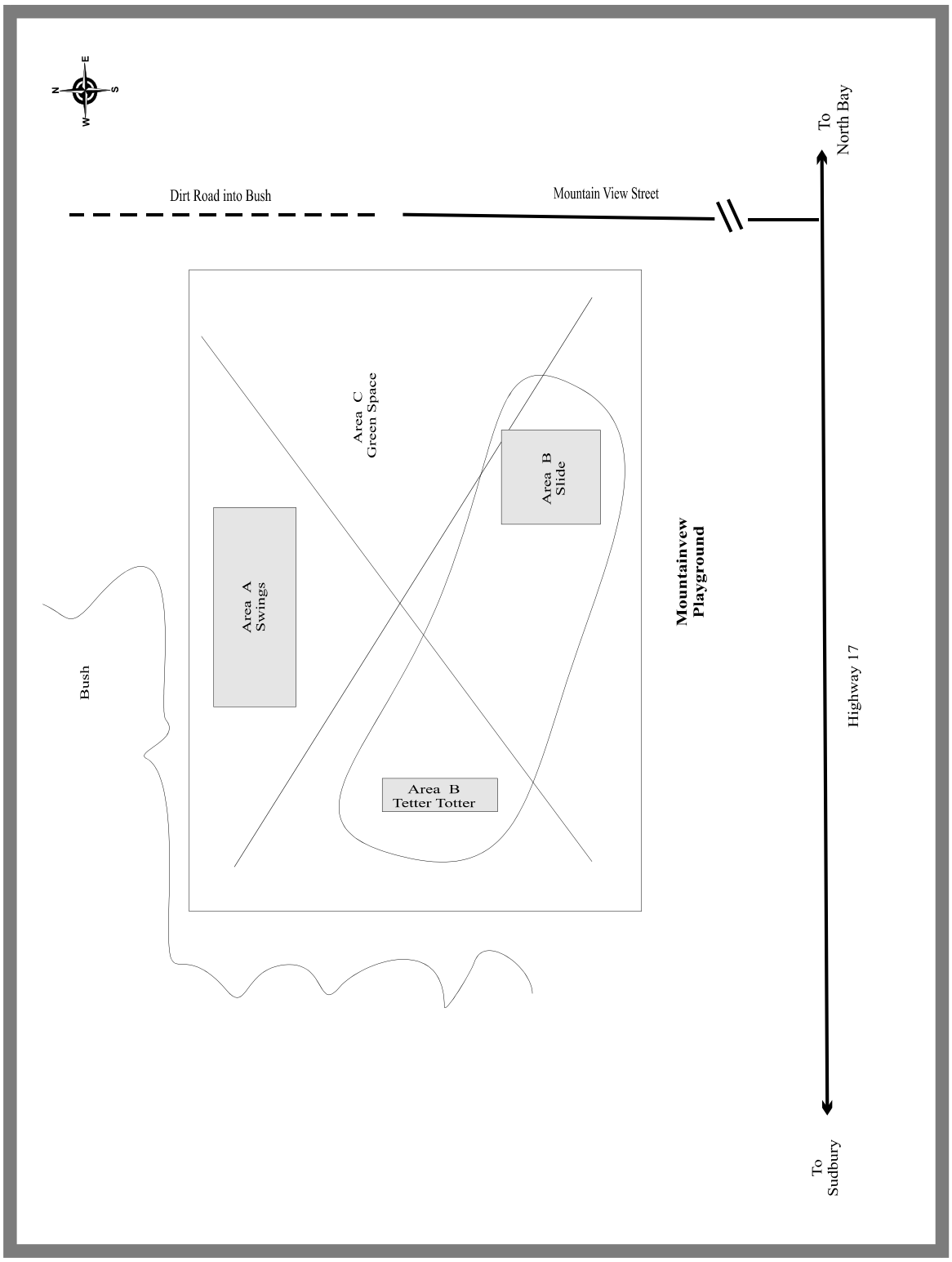


Map C5.22.3: Valley Acres Playground, Val Therese - 2001.

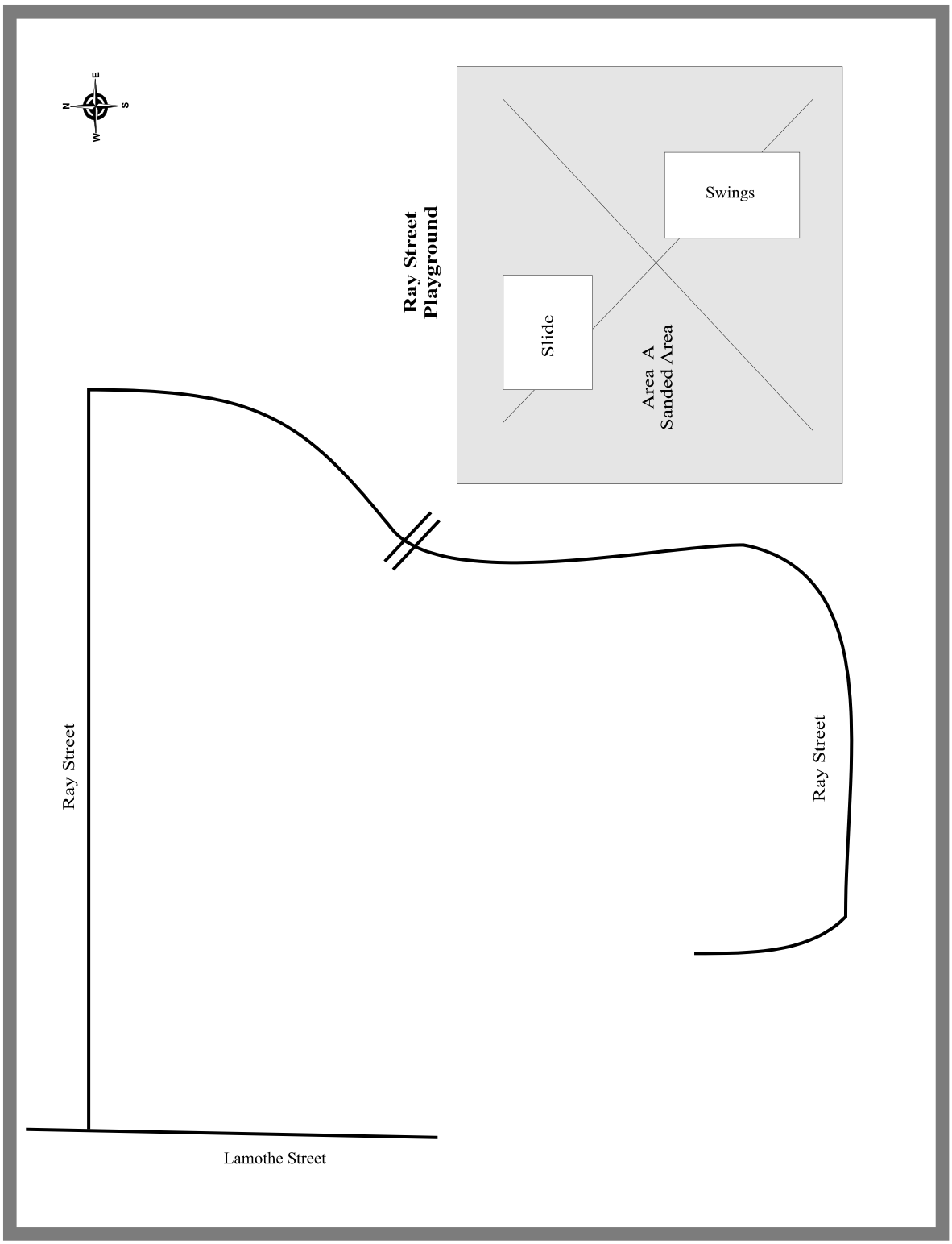
5.23 Wahnapitae Park Maps



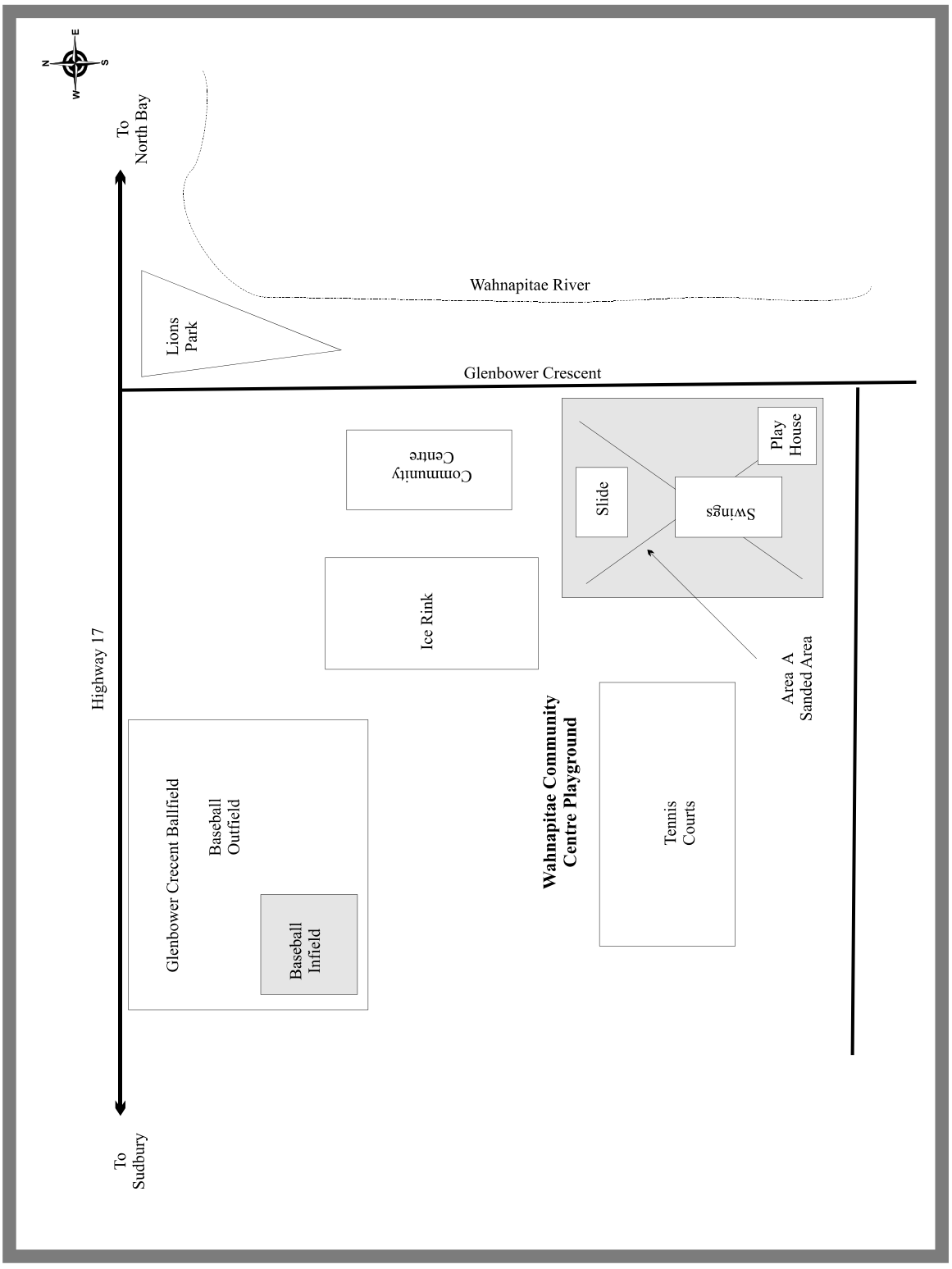
Map C5.23.1: Glenbower Crescent Ballfield, Wahnapitae - 2001.



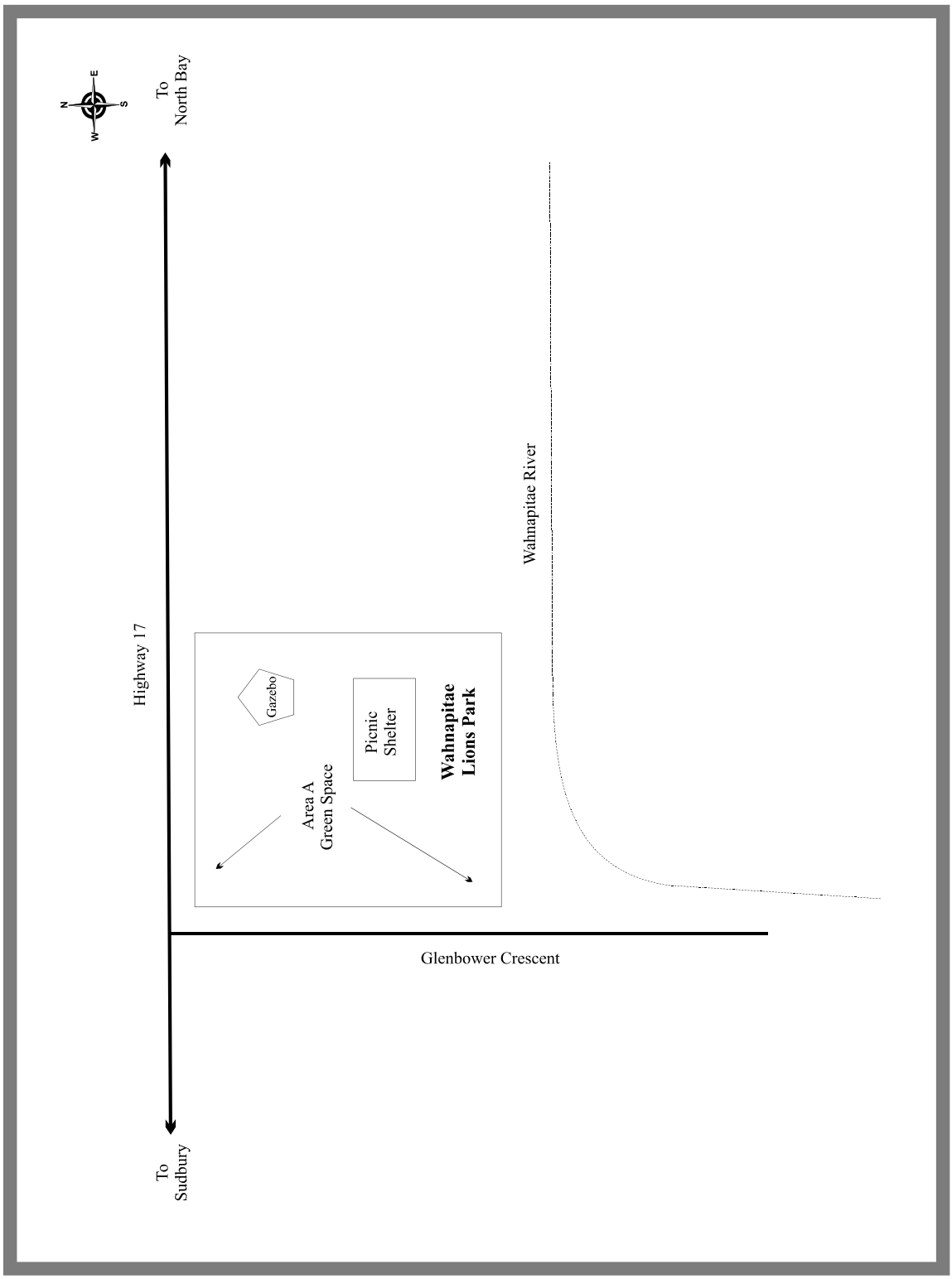
Map C5.23.2: Mountainview Playground, Wahnapitae - 2001.



Map C5.23.3: Ray Street Playground, Wahnapitae - 2001.

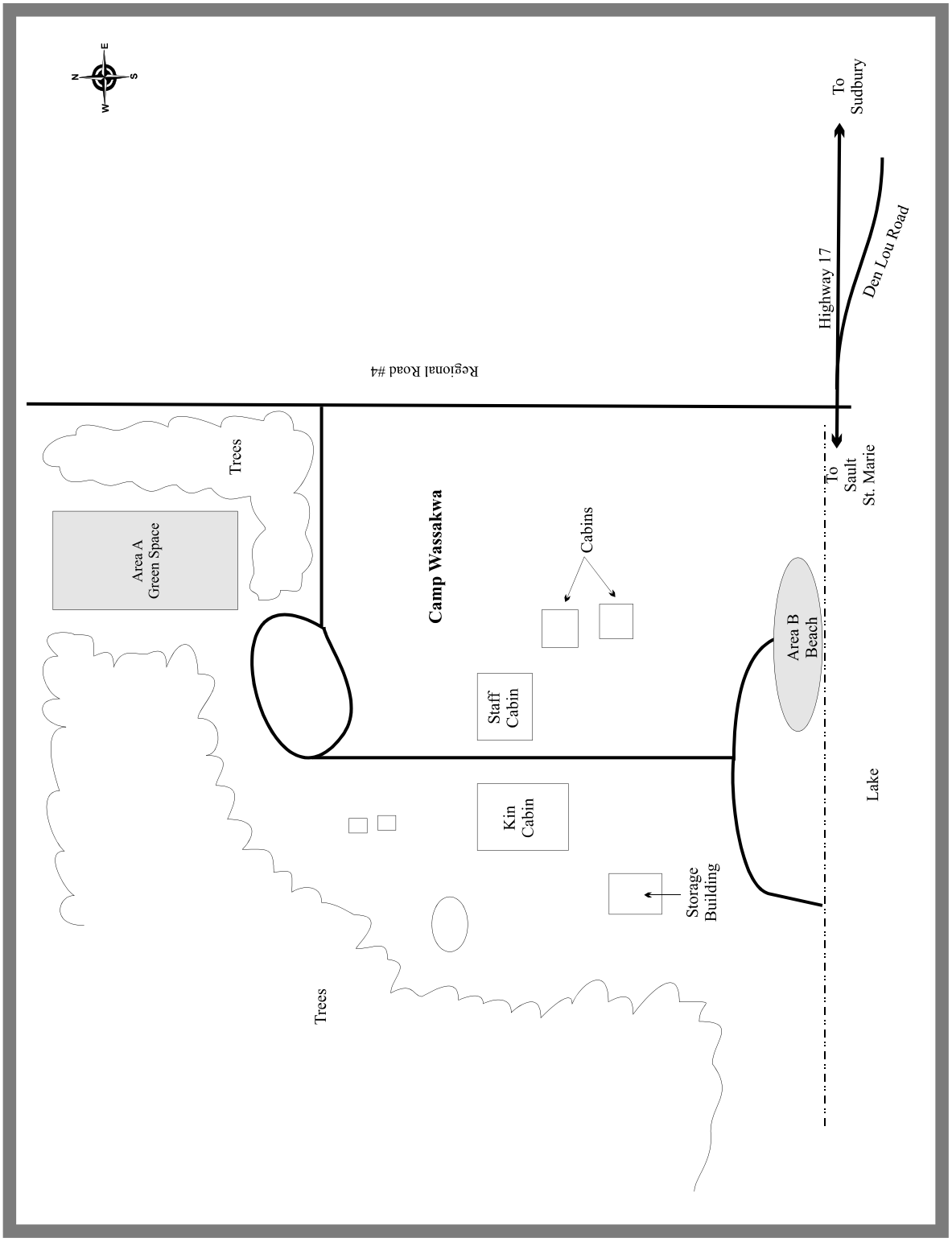


Map C5.23.4: Wahnapitae Community Club, Wahnapitae - 2001.

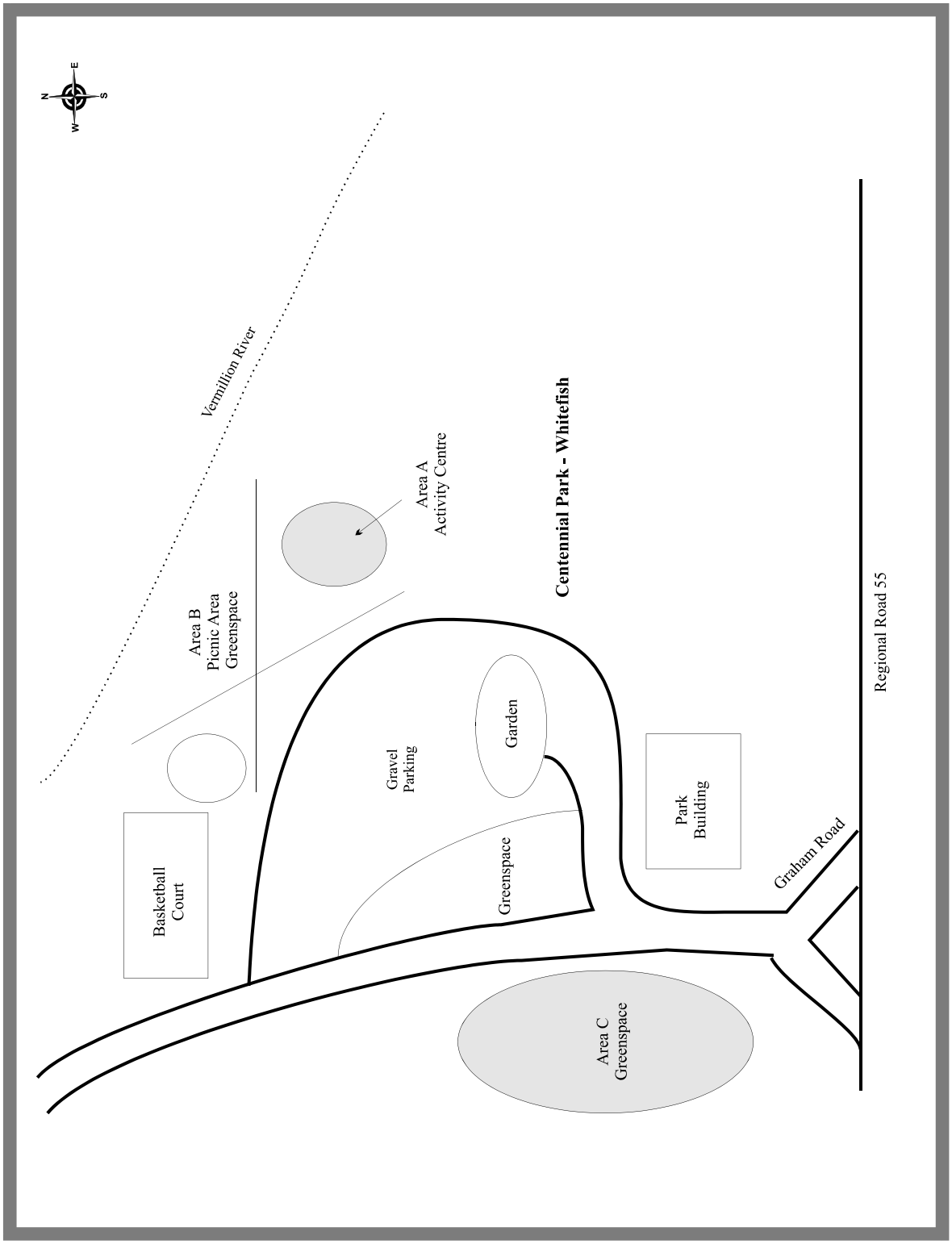


Map C5.23.5: Wahnapitae Lions Park, Wahnapitae - 2001.

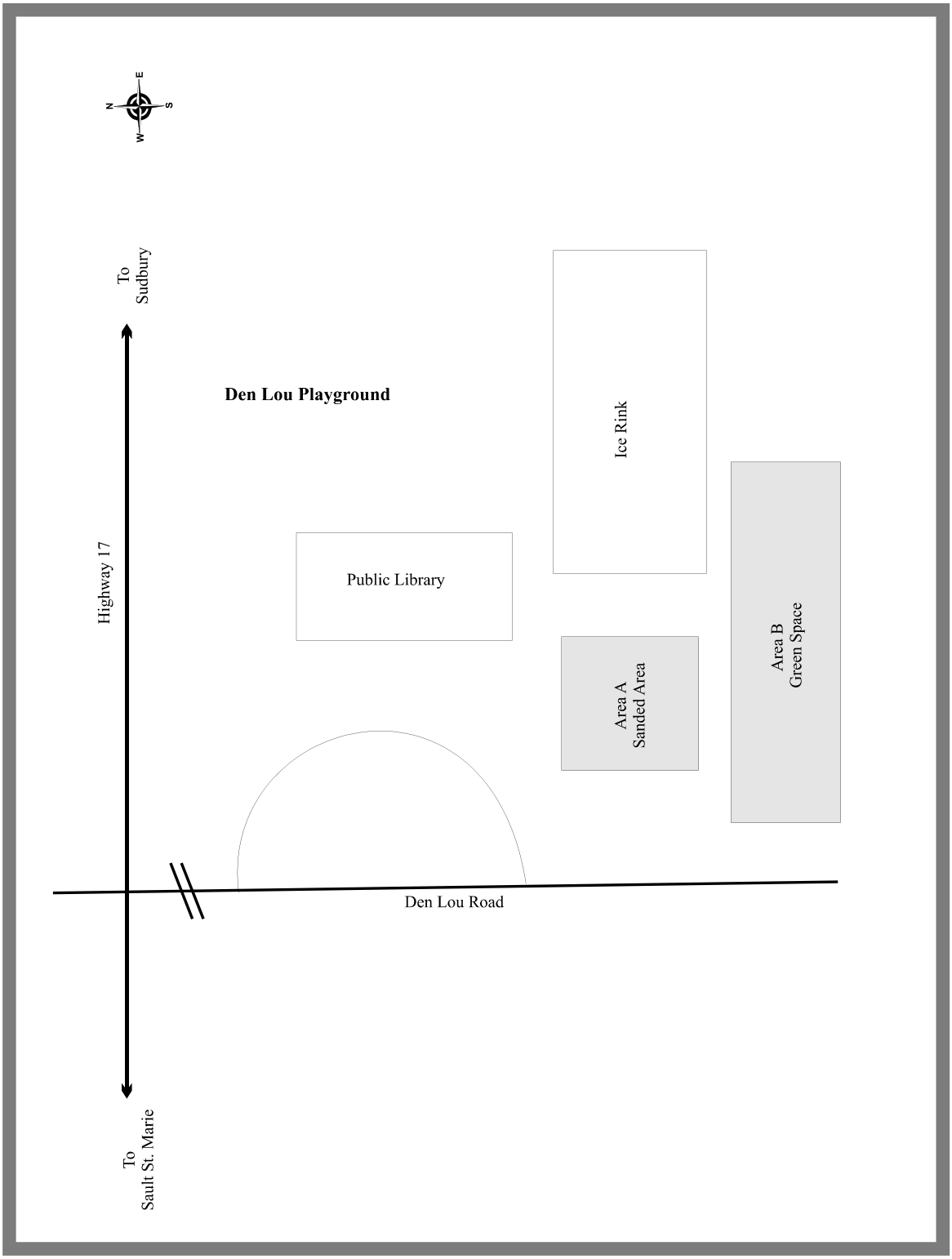
5.24 Whitefish Park Maps



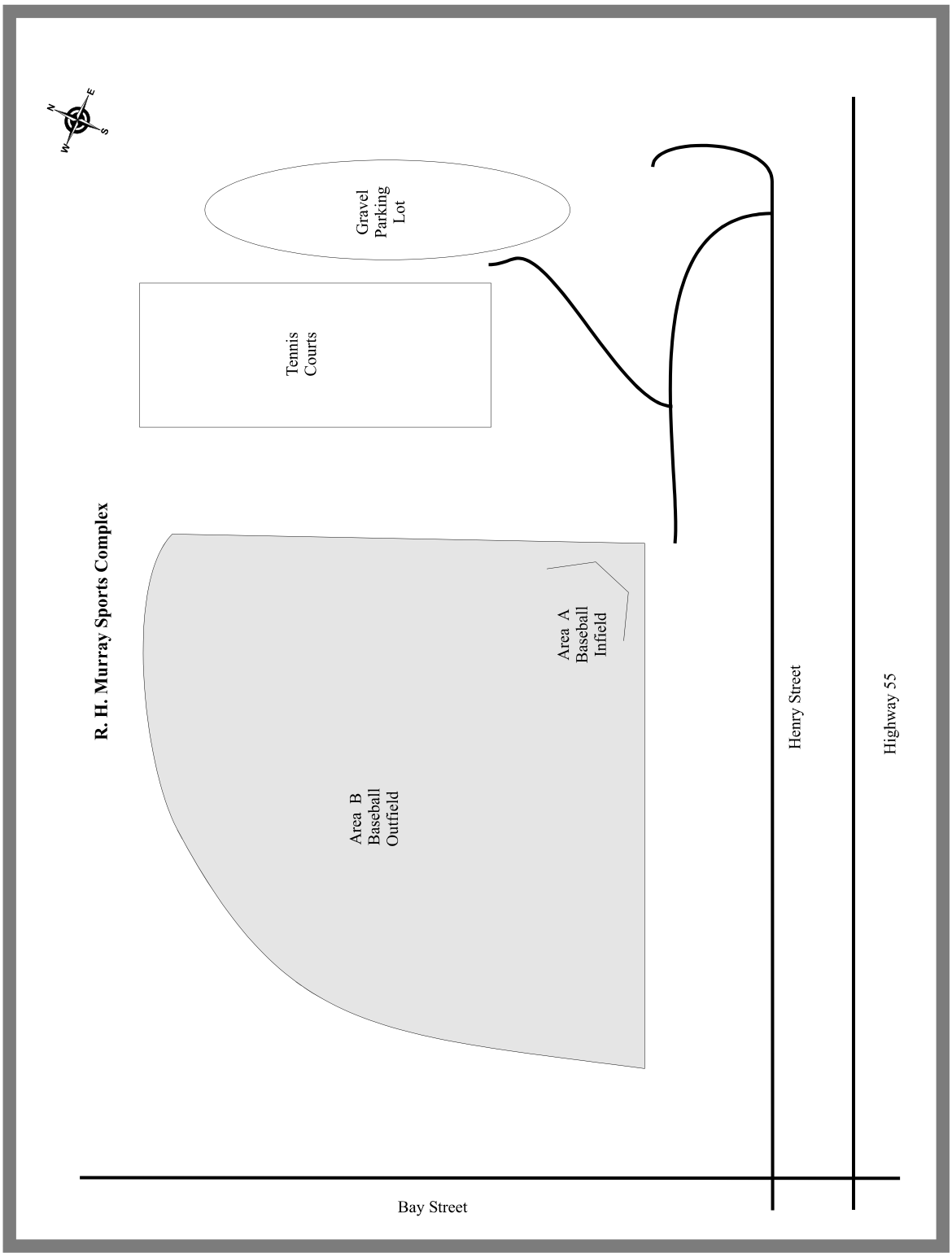
Map C5.24.1: Camp Wassakwa, Whitefish - 2001.



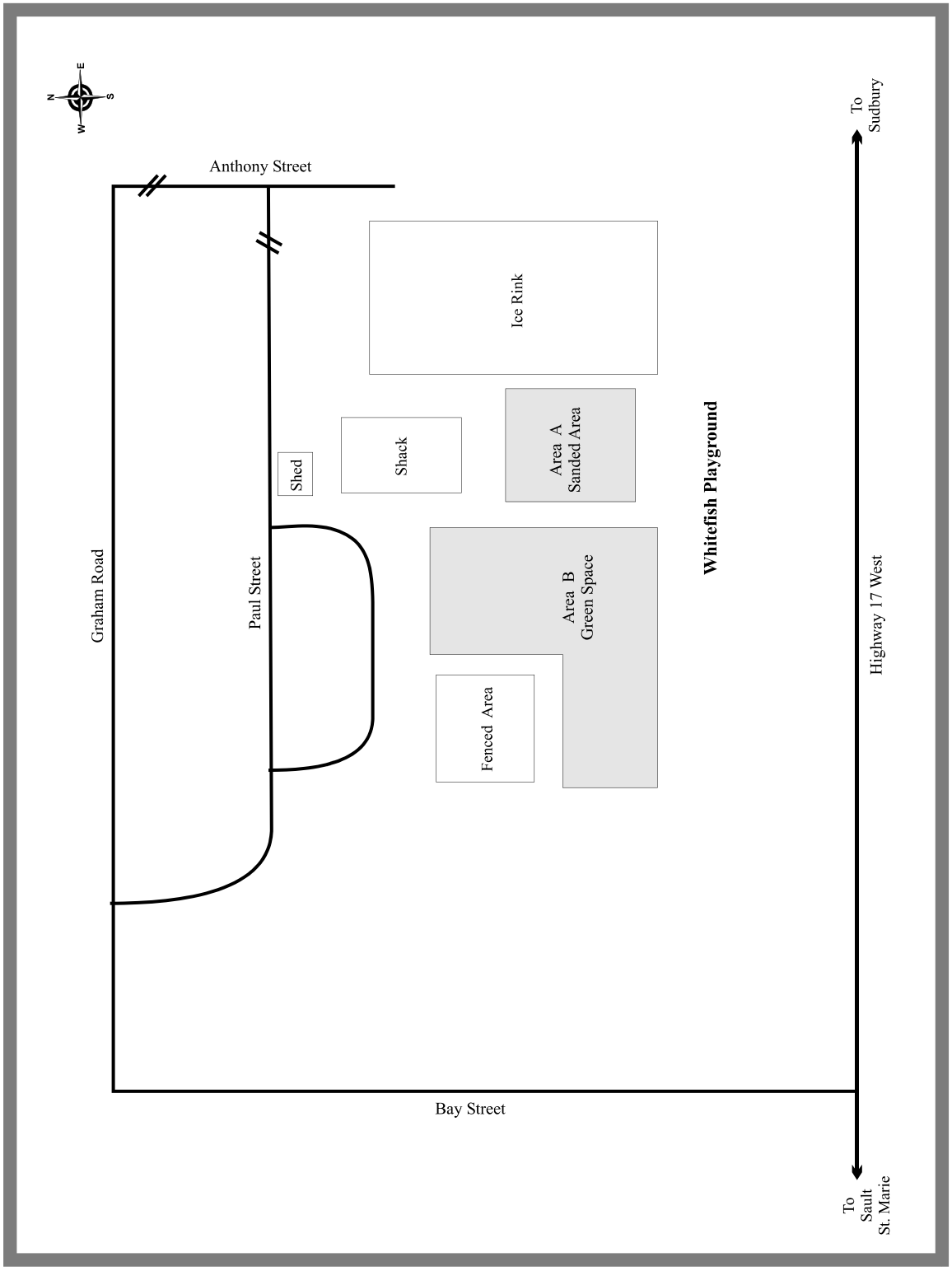
Map C5.24.2: Centennial Park, Whitefish - 2001.



Map C5.24.3: Den Lou Playground, Whitefish - 2001.



Map C5.24.4: R.H. Murray Sports Complex, Whitefish - 2001.



Map C5.24.5: Whitefish Playground, Whitefish - 2001.

6. PARK SAMPLING STATION COORDINATES

Table C6: Park Sampling Station Coordinates (Map Datum NAD 83, accurate to ±30 metres)

Station	Park	Community	Easting	Northing	Latitude	Longitude
5030441	Bell Park	Sudbury Core	500584	5146758	46.474392	-80.992393
5030442	Bell Park	Sudbury Core	500596	5146901	46.475679	-80.992236
5030443	Bell Park	Sudbury Core	500510	5146864	46.475346	-80.993356
5030444	Bell Park	Sudbury Core	500547	5147004	46.476606	-80.992874
5030445	Bell Park	Sudbury Core	500806	5147123	46.477676	-80.9895
5030446	Bell Park	Sudbury Core	500928	5147345	46.479674	-80.98791
5030447	Bell Park	Sudbury Core	500886	5147373	46.479926	-80.988458
5030448	Bell Park	Sudbury Core	500880	5147369	46.47989	-80.988536
5030449	Bell Park	Sudbury Core	500977	5147359	46.4798	-80.987272
5030450	Bell Park	Sudbury Core	501001	5147398	46.480151	-80.986959
5030451	Bell Park	Sudbury Core	500944	5147442	46.480547	-80.987702
5030452	Bell Park	Sudbury Core	501200	5147601	46.481978	-80.984366
5030453	Bell Park	Sudbury Core	500988	5147389	46.48007	-80.987129
5030454	Bell Park	Sudbury Core	500995	5147378	46.479971	-80.987038
5030455	Bell Park	Sudbury Core	500367	5147088	46.477362	-80.995219
5030456	Bell Park	Sudbury Core	500367	5146936	46.475994	-80.995219
5030457	Bell Park	Sudbury Core	500623	5146870	46.4754	-80.991884
5030458	Bell Park	Sudbury Core	500694	5146986	46.476444	-80.990959
5030459	Bell Park	Sudbury Core	500730	5147040	46.47693	-80.99049
5030460	Bell Park	Sudbury Core	500838	5147184	46.478225	-80.989083
5030461	Bell Park	Sudbury Core	500991	5147337	46.479602	-80.98709
5030462	Copper Cliff (Nickel) Park	Copper Cliff	494665	5146850	46.475199	-81.069496
5030463	Copper Cliff (Nickel) Park	Copper Cliff	494635	5146893	46.475586	-81.069888
5030464	Copper Cliff (Nickel) Park	Copper Cliff	494595	5147021	46.476737	-81.07041
5030465	Gerry Mills Memorial Ball Park	Copper Cliff	494414	5146842	46.475125	-81.072766
5030466	Gerry Mills Memorial Ball Park	Copper Cliff	494434	5146864	46.475323	-81.072505
5030467	Copper Cliff (Nickel) Park	Copper Cliff	494497	5146882	46.475486	-81.071685
5030468	Italian Commemorative Park	Copper Cliff	495445	5147351	46.479713	-81.05934
5030469	Green Space Park	Copper Cliff	494966	5147108	46.477523	-81.065578
5030470	Copper Cliff Lion's Park	Copper Cliff	494452	5146226	46.469581	-81.072263
5030471	Copper Cliff Lion's Park	Copper Cliff	494459	5146237	46.469681	-81.072172
5030472	Copper Cliff Lion's Park	Copper Cliff	494449	5146190	46.469257	-81.072302
5030473	Copper Cliff Lion's Park	Copper Cliff	494524	5146181	46.469177	-81.071325
5030474	Centennial Park	Falconbridge	514337	5158386	46.578885	-80.812884
5030475	Centennial Park	Falconbridge	514332	5158396	46.578975	-80.812949
5030476	Centennial Park	Falconbridge	514307	5158322	46.57831	-80.813277
5030477	Centennial Park	Falconbridge	514368	5158342	46.578489	-80.812481
5030478	Falconbridge Ballfields	Falconbridge	514542	5158437	46.57934	-80.810207
5030479	Falconbridge Ballfields	Falconbridge	514554	5158468	46.579619	-80.810049
5030480	Falconbridge Ballfields	Falconbridge	514448	5158426	46.579243	-80.811434
5030481	Falconbridge Ballfields	Falconbridge	514471	5158456	46.579512	-80.811133
5030482	Parkinson Playground	Falconbridge	514541	5157963	46.575074	-80.810235
5030483	Parkinson Playground	Falconbridge	514548	5157978	46.575209	-80.810143
5030484	Parkinson Playground	Falconbridge	514536	5157996	46.575371	-80.810299
5030485	Parkinson Playground	Falconbridge	514522	5157988	46.5753	-80.810482
5030486	Parkinson Playground	Falconbridge	514528	5157984	46.575264	-80.810404
5030487	Parkinson Playground	Falconbridge	514537	5157979	46.575218	-80.810286
5030488	Dedication Park	Falconbridge	514464	5158194	46.577155	-80.811232
5030489	Central Park	Falconbridge	514444	5158059	46.57594	-80.811498
5030490	Central Park	Falconbridge	514482	5158085	46.576173	-80.811001
5030491	Centennial Playground	Coniston	511558	5148219	46.487441	-80.849406

Table C6: Park Sampling Station Coordinates (Map Datum NAD 83, accurate to ±30 metres)

Station	Park	Community	Easting	Northing	Latitude	Longitude
5030492	Centennial Playground	Coniston	511557	5148213	46.487387	-80.849419
5030493	Centennial Playground	Coniston	511570	5148179	46.487081	-80.849251
5030494	Second Ave Park	Coniston	511690	5148211	46.487367	-80.847687
5030495	Second Ave Park	Coniston	511647	5148219	46.48744	-80.848247
5030496	Red Sox Ballfield	Coniston	511766	5148317	46.48832	-80.846694
5030497	Red Sox Ballfield	Coniston	511794	5148287	46.488049	-80.84633
5030498	East End Ballfield - East End Park	Coniston	512806	5148475	46.489723	-80.833139
5030499	East End Ballfield - East End Park	Coniston	512813	5148441	46.489417	-80.833048
5030500	East End Ballfield - East End Park	Coniston	512615	5148427	46.489294	-80.835629
5030501	East End Ballfield - East End Park	Coniston	512635	5148425	46.489276	-80.835368
5030502	Community Centre Field	Coniston	511823	5148231	46.487545	-80.845953
5030503	Saturn Playground	Garson	510551	5155203	46.55031	-80.862368
5030504	Garson Community Centre	Garson	510803	5156017	46.557632	-80.859062
5030505	Garson Community Centre	Garson	510691	5155837	46.556014	-80.860527
5030506	Cedar Playground	Garson	510444	5156811	46.564783	-80.863728
5030507	Cedar Playground	Garson	510458	5156816	46.564828	-80.863545
5030508	Cedar Playground	Garson	510458	5156898	46.565566	-80.863543
5030509	Tiger Field	Garson	510961	5156827	46.564919	-80.856982
5030510	Tiger Field	Garson	510992	5156866	46.565269	-80.856576
5030511	Lion's Park & Playground	Garson	510497	5156391	46.561003	-80.863046
5030512	Lion's Park & Playground	Garson	510473	5156409	46.561165	-80.863358
5030513	Lion's Park & Playground	Garson	510513	5156462	46.561645	-80.862835
5030514	Lion's Park & Playground	Garson	510499	5156428	46.561339	-80.863019
5030515	Lion's Park & Playground	Garson	510484	5156449	46.561528	-80.863214
5030516	Lion's Park & Playground	Garson	510521	5156531	46.562265	-80.862729
5030517	Thomas Street Playground Tot Lot	Garson	511071	5154687	46.545662	-80.855597
5030518	Thomas Street Playground Tot Lot	Garson	511079	5154681	46.545607	-80.855493
5030519	Penman Ave Playground	Garson	509799	5155013	46.548615	-80.872182
5030520	Penman Ave Playground	Garson	509786	5154808	46.546767	-80.872356
5030521	Penman Ave Playground	Garson	509747	5154802	46.546714	-80.872864
5030522	Lorne Brady Park	Garson	509167	5155448	46.552536	-80.880417
5030523	Lorne Brady Park	Garson	509216	5155417	46.552256	-80.879778
5030524	Lorne Brady Park	Garson	509269	5155401	46.552111	-80.879087
5030525	Lorne Brady Park	Garson	509269	5155359	46.551733	-80.879088
5030526	Lorne Brady Park	Garson	509129	5155403	46.552131	-80.880913
5030527	Lorne Brady Park	Garson	509137	5155360	46.551744	-80.88081
5030528	Lorne Brady Park	Garson	509171	5155268	46.550916	-80.880368
5030529	Lorne Brady Park	Garson	509162	5155301	46.551213	-80.880485
5030530	Metcalfe Playground (Imperial Subdivision Playground)	Garson	508623	5155060	46.549051	-80.88752
5030531	Metcalfe Playground (Imperial Subdivision Playground)	Garson	508631	5155055	46.549006	-80.887416
5030532	Metcalfe Playground (Imperial Subdivision Playground)	Garson	508637	5155066	46.549105	-80.887338
5030533	Metcalfe Playground (Imperial Subdivision Playground)	Garson	508676	5155093	46.549347	-80.886829
5030534	Cedar Green Playground	Garson	508052	5154902	46.547639	-80.894971
5030535	Matson (Aka Subdivision) Playground	Garson	506832	5154140	46.540795	-80.910896
5030536	Wahnapitae Lions Park	Wahnapitae	516259	5148396	46.48894	-80.788149
5030537	Wahnapitae Community Club Playground	Wahnapitae	516181	5148275	46.487853	-80.78917
5030538	Glenbower Crescent Ballfield	Wahnapitae	516155	5148343	46.488466	-80.789506
5030539	Glenbower Crescent Ballfield	Wahnapitae	516158	5148387	46.488862	-80.789466
5030540	Mountainview Playground	Wahnapitae	515953	5148849	46.493024	-80.792121
5030541	Mountainview Playground	Wahnapitae	515952	5148844	46.492979	-80.792134
5030542	Mountainview Playground	Wahnapitae	515951	5148846	46.492997	-80.792147

Table C6: Park Sampling Station Coordinates (Map Datum NAD 83, accurate to ±30 metres)

Station	Park	Community	Easting	Northing	Latitude	Longitude
5030543	Quinn & Logan Streets Playground	Gatchell	497788	5146928	46.475921	-81.028815
5030544	Quinn & Logan Streets Playground	Gatchell	497765	5146695	46.473821	-81.029113
5030545	Gatchell Pool Field	Gatchell	497899	5146803	46.474794	-81.027368
5030546	Delki Dozzi Athletic Field	Gatchell	498166	5147239	46.478718	-81.023892
5030547	Delki Dozzi Athletic Field	Gatchell	498390	5147372	46.479916	-81.020974
5030548	Delki Dozzi Athletic Field	Gatchell	498392	5147419	46.480339	-81.020949
5030549	Delki Dozzi Athletic Field	Gatchell	498388	5147322	46.479466	-81.021
5030550	Delki Dozzi Athletic Field	Gatchell	498254	5147382	46.480006	-81.022746
5030551	Delki Dozzi Athletic Field	Gatchell	498244	5147348	46.4797	-81.022876
5030552	Participaction Projects Playground	Sudbury Core	498760	5147496	46.481033	-81.016155
5030553	Participaction Projects Playground	Sudbury Core	498742	5147483	46.480916	-81.016389
5030554	Elm West Playground	Sudbury Core	498954	5149266	46.496962	-81.013631
5030555	Elm West Playground	Sudbury Core	498988	5149517	46.499224	-81.013189
5030556	Elm West Playground	Sudbury Core	499092	5149517	46.499224	-81.011833
5030557	Elm West Playground	Sudbury Core	499071	5149541	46.49944	-81.012107
5030558	Elm West Playground	Sudbury Core	498959	5149560	46.499611	-81.013567
5030559	Queen's Athletic Field	Sudbury Core	499608	5148883	46.493519	-81.005108
5030560	Queen's Athletic Field	Sudbury Core	499482	5148729	46.49213	-81.00675
5030561	Queen's Athletic Field	Sudbury Core	499527	5148679	46.49168	-81.006163
5030562	Queen's Athletic Field	Sudbury Core	499540	5148954	46.494158	-81.005994
5030563	Queen's Athletic Field	Sudbury Core	499541	5148846	46.493186	-81.005981
5030564	Nolin Creek Park	Sudbury Core	499413	5149473	46.498826	-81.00765
5030565	Victory Playground	Sudbury Core	499504	5150148	46.5049	-81.006465
5030566	Victory Playground	Sudbury Core	499484	5150177	46.505161	-81.006725
5030567	Victory Playground	Sudbury Core	499528	5150152	46.504936	-81.006152
5030568	Selkirk Field	Sudbury Core	500055	5150826	46.511002	-80.999283
5030569	Selkirk Field	Sudbury Core	500066	5150844	46.511164	-80.99914
5030570	Selkirk Field	Sudbury Core	500035	5150797	46.510741	-80.999544
5030571	Selkirk Field	Sudbury Core	499997	5150789	46.510669	-81.000039
5030572	Selkirk Field	Sudbury Core	499906	5150772	46.510516	-81.001225
5030573	Antwerp Playground	Sudbury Core	499877	5149960	46.503209	-81.001603
5030574	Ryan Heights Playground	Sudbury Core	500579	5150471	46.507807	-80.992453
5030575	Ryan Heights Playground	Sudbury Core	500570	5150468	46.50778	-80.99257
5030576	Melvin Ave And Mabel St Playground	Sudbury Core	500109	5149889	46.50257	-80.998579
5030577	Melvin Ave And Mabel St Playground	Sudbury Core	500121	5149893	46.502606	-80.998423
5030578	O'Connor Park (Better Beginnings)	Sudbury Core	500574	5150191	46.505287	-80.992519
5030579	O'Connor Park (Better Beginnings)	Sudbury Core	500590	5150199	46.505359	-80.99231
5030580	O'Connor Park (Better Beginnings)	Sudbury Core	500595	5150213	46.505485	-80.992245
5030581	O'Connor Park (Better Beginnings)	Sudbury Core	500726	5150232	46.505656	-80.990538
5030582	Terry Fox Complex	Sudbury Core	500255	5151183	46.514215	-80.996676
5030583	Terry Fox Complex	Sudbury Core	500258	5151142	46.513846	-80.996637
5030584	Terry Fox Complex	Sudbury Core	500158	5151235	46.514683	-80.99794
5030585	Terry Fox Complex	Sudbury Core	500168	5151194	46.514314	-80.99781
5030586	Terry Fox Complex	Sudbury Core	500054	5151289	46.515169	-80.999296
5030587	Terry Fox Complex	Sudbury Core	500061	5151251	46.514827	-80.999205
5030588	Terry Fox Complex	Sudbury Core	500159	5151375	46.515943	-80.997927
5030589	Terry Fox Complex	Sudbury Core	500168	5151316	46.515412	-80.99781
5030590	Terry Fox Complex	Sudbury Core	500213	5151256	46.514872	-80.997223
5030591	Percy Playground	Sudbury Core	501429	5150351	46.506726	-80.981374
5030592	Percy Playground	Sudbury Core	501467	5150336	46.506591	-80.980879
5030593	Percy Playground	Sudbury Core	501450	5150341	46.506636	-80.981101
5030594	Percy Playground	Sudbury Core	501385	5150407	46.50723	-80.981948
5030595	Percy Playground	Sudbury Core	501456	5150393	46.507104	-80.981022
5030596	Lilly Creek Athletic Field	Sudbury South	500043	5146094	46.468416	-80.99944

Table C6: Park Sampling Station Coordinates (Map Datum NAD 83, accurate to ±30 metres)

Station	Park	Community	Easting	Northing	Latitude	Longitude
5030597	Lilly Creek Athletic Field	Sudbury South	500034	5146052	46.468038	-80.999557
5030598	Lilly Creek Athletic Field	Sudbury South	500050	5146130	46.46874	-80.999349
5030599	Lilly Creek Athletic Field	Sudbury South	500076	5146246	46.469784	-80.99901
5030600	Lilly Creek Athletic Field	Sudbury South	500062	5146202	46.469388	-80.999192
5030601	Lilly Creek Athletic Field	Sudbury South	500002	5146301	46.470279	-80.999974
5030602	Lilly Creek Athletic Field	Sudbury South	499874	5146208	46.469442	-81.001641
5030603	Lilly Creek Athletic Field	Sudbury South	499878	5146255	46.469865	-81.001589
5030604	Lilly Creek Athletic Field	Sudbury South	499989	5146129	46.468731	-81.000143
5030605	Lockerby Playground	Sudbury South	499657	5145638	46.464312	-81.004467
5030606	Lockerby Playground	Sudbury South	499651	5145649	46.464411	-81.004545
5030607	McLean Playground	Sudbury New	501673	5151917	46.520819	-80.978188
5030608	McLean Playground	Sudbury New	501669	5151951	46.521125	-80.978241
5030609	Grandview Park	Sudbury New	502211	5152552	46.526532	-80.971171
5030610	Cedar Park	Sudbury New	503139	5152400	46.52516	-80.959072
5030611	Cedar Park	Sudbury New	503194	5152353	46.524737	-80.958356
5030612	Cedar Park	Sudbury New	503140	5152346	46.524674	-80.95906
5030613	Cedar Park	Sudbury New	503244	5152345	46.524665	-80.957704
5030614	Ridgecrest Tot Lot	Sudbury New	503843	5152747	46.528279	-80.949891
5030615	Ridgecrest Tot Lot	Sudbury New	503841	5152766	46.52845	-80.949916
5030616	Ridgecrest Tot Lot	Sudbury New	503858	5152769	46.528477	-80.949695
5030617	Redfern Park	Sudbury New	504132	5153003	46.530582	-80.94612
5030618	Redfern Park	Sudbury New	504123	5153044	46.530951	-80.946237
5030619	Lansing Field	Sudbury New	505300	5152686	46.527721	-80.930893
5030620	Lansing Field	Sudbury New	505323	5152653	46.527423	-80.930594
5030621	Lansing Field	Sudbury New	505240	5152611	46.527046	-80.931676
5030622	Lansing Field	Sudbury New	505194	5152615	46.527082	-80.932276
5030623	Twin Forks Athletic Field	Sudbury New	505701	5152896	46.529607	-80.925662
5030624	Twin Forks Athletic Field	Sudbury New	505661	5152846	46.529158	-80.926184
5030625	Twin Forks Athletic Field	Sudbury New	505651	5152783	46.528591	-80.926315
5030626	Twin Forks Athletic Field	Sudbury New	505639	5152748	46.528276	-80.926472
5030627	Twin Forks Athletic Field	Sudbury New	505584	5152826	46.528978	-80.927188
5030628	Place Hurtubise Playground	Sudbury New	505663	5152118	46.522606	-80.926167
5030629	Place Hurtubise Playground	Sudbury New	505660	5152084	46.5223	-80.926206
5030630	Rosemarie Playground	Sudbury New	505766	5152492	46.525971	-80.924819
5030631	Rosemarie Playground	Sudbury New	505775	5152458	46.525665	-80.924703
5030632	Madison Playground	Sudbury New	506324	5153184	46.532193	-80.917534
5030633	Madison Playground	Sudbury New	506335	5153158	46.531959	-80.917391
5030634	Don Lita Playground	Sudbury New	506272	5151763	46.519406	-80.918232
5030635	Don Lita Playground	Sudbury New	506287	5151790	46.519648	-80.918036
5030636	Westmount Playground	Sudbury New	504543	5150808	46.510825	-80.940782
5030637	Westmount Playground	Sudbury New	504532	5150836	46.511077	-80.940925
5030638	Confederation Arena	Val Caron	498556	5162445	46.615565	-81.018859
5030639	Confederation Arena	Val Caron	498543	5162463	46.615727	-81.019029
5030640	Confederation Arena	Val Caron	498547	5162439	46.615511	-81.018976
5030641	Confederation Arena	Val Caron	498558	5162422	46.615358	-81.018833
5030642	Confederation Arena	Val Caron	498451	5162326	46.614494	-81.02023
5030643	Confederation Arena	Val Caron	498407	5162293	46.614197	-81.020804
5030644	Flake Playground	Val Caron	497267	5162538	46.616398	-81.035694
5030645	Flake Playground	Val Caron	497268	5162547	46.616479	-81.035681
5030646	Flake Playground	Val Caron	497284	5162545	46.616461	-81.035472
5030647	Flake Playground	Val Caron	497272	5162517	46.616209	-81.035628
5030648	McCrea Heights Playground (Hillside)	Val Caron	497615	5162114	46.612584	-81.031147
5030649	Daniel Park	Val Caron	500052	5162440	46.615522	-80.999321
5030650	Daniel Park	Val Caron	500055	5162427	46.615405	-80.999282

Table C6: Park Sampling Station Coordinates (Map Datum NAD 83, accurate to ±30 metres)

Station	Park	Community	Easting	Northing	Latitude	Longitude
5030651	Daniel Park	Val Caron	500041	5162424	46.615378	-80.999465
5030652	Daniel Park	Val Caron	500043	5162442	46.61554	-80.999438
5030653	Sunnyside Playground	Val Caron	501742	5162609	46.617041	-80.977249
5030654	Sunnyside Playground	Val Caron	501767	5162627	46.617203	-80.976922
5030655	Sunnyside Playground	Val Caron	501713	5162603	46.616987	-80.977627
5030656	McMillan Park	Val Caron	499499	5164806	46.636814	-81.006546
5030657	McMillan Park	Val Caron	499508	5164803	46.636787	-81.006428
5030658	Macmillian Playground	Val Caron	499487	5164803	46.636787	-81.006702
5030659	Pinecrest Park	Val Caron	499077	5164287	46.632143	-81.012058
5030660	Pinecrest Park	Val Caron	499073	5164337	46.632593	-81.01211
5030661	Pinecrest Park	Val Caron	499058	5164335	46.632575	-81.012306
5030662	Carol Richard Playground	Val Caron	499013	5163934	46.628966	-81.012893
5030663	Carol Richard Playground	Val Caron	499021	5163959	46.629191	-81.012789
5030664	Guilletville Playground	Guilletville	499364	5158519	46.580235	-81.008301
5030665	Guilletville Playground	Guilletville	499400	5158520	46.580244	-81.007831
5030666	Guilletville Playground	Guilletville	499387	5158510	46.580154	-81.008001
5030667	Guilletville Playground	Guilletville	499385	5158525	46.580289	-81.008027
5030668	Blezzard Valley Playground	Blezard Valley	495945	5161597	46.607923	-81.052951
5030669	Blezzard Valley Playground	Blezard Valley	495951	5161590	46.60786	-81.052873
5030670	Blezzard Valley Playground	Blezard Valley	495952	5161584	46.607806	-81.05286
5030671	Carrefour Sen. Rheal Belisle Sports Comp	Blezard Valley	495919	5161542	46.607428	-81.05329
5030672	Carrefour Sen. Rheal Belisle Sports Comp	Blezard Valley	495888	5161516	46.607194	-81.053695
5030673	Carrefour Sen. Rheal Belisle Sports Comp	Blezard Valley	495803	5161497	46.607022	-81.054805
5030674	Carrefour Sen. Rheal Belisle Sports Comp	Blezard Valley	495822	5161519	46.607221	-81.054557
5030675	Carrefour Sen. Rheal Belisle Sports Comp	Blezard Valley	495810	5161598	46.607931	-81.054714
5030676	Moonlight Beach Park	Sudbury East	506933	5146673	46.473591	-80.90969
5030677	Moonlight Beach Park	Sudbury East	506946	5146671	46.473573	-80.909521
5030678	Moonlight Beach Park	Sudbury East	506966	5146693	46.473771	-80.90926
5030679	Moonlight Beach Park	Sudbury East	506953	5146760	46.474374	-80.909428
5030680	Moonlight Beach Park	Sudbury East	506967	5146595	46.472889	-80.909248
5030681	Moonlight Beach Park	Sudbury East	507054	5146713	46.47395	-80.908113
5030682	Moonlight Beach Ball Park	Sudbury East	507197	5147409	46.480212	-80.90624
5030683	Moonlight Beach Ball Park	Sudbury East	507195	5147374	46.479897	-80.906266
5030684	Lonsdale Playground	Sudbury East	502094	5148575	46.490741	-80.972715
5030685	Lonsdale Playground	Sudbury East	502103	5148536	46.49039	-80.972598
5030686	Bellevue Ave Park	Sudbury East	503372	5148541	46.49043	-80.956062
5030687	Carmichaal Community Centre & Arena	Sudbury East	503558	5148965	46.494245	-80.953636
5030688	Carmichaal Community Centre & Arena	Sudbury East	503601	5148853	46.493237	-80.953076
5030689	Carmichaal Community Centre & Arena	Sudbury East	503613	5148894	46.493605	-80.952919
5030690	Carmichaal Community Centre & Arena	Sudbury East	503685	5148957	46.494172	-80.951981
5030691	Carmichaal Community Centre & Arena	Sudbury East	503663	5148921	46.493848	-80.952268
5030692	Eyre Playground	Sudbury East	502753	5149418	46.498325	-80.964123
5030693	Adamsdale Playground	Sudbury East	505006	5149340	46.49761	-80.934763
5030694	Adamsdale Playground	Sudbury East	505036	5149274	46.497016	-80.934372
5030695	Adamsdale Playground	Sudbury East	505061	5149317	46.497403	-80.934046
5030696	Adamsdale Playground	Sudbury East	504954	5149312	46.497359	-80.935441
5030697	Adamsdale Playground	Sudbury East	504958	5149311	46.49735	-80.935389
5030698	Cambrian College	Sudbury New	504510	5153128	46.531704	-80.94119
5030699	Cambrian College	Sudbury New	504499	5153162	46.53201	-80.941333
5030700	Cambrian College	Sudbury New	504615	5153150	46.531901	-80.93982
5030701	Little Britain Tot Lot	Sudbury Core	499040	5149656	46.500472	-81.012511
5030702	Little Britain Tot Lot	Sudbury Core	499052	5149675	46.500643	-81.012355
5030703	Brebeuf Park	Sudbury Core	500836	5149733	46.501165	-80.989105
5030704	Brebeuf Park	Sudbury Core	500867	5149712	46.500976	-80.988701

Table C6: Park Sampling Station Coordinates (Map Datum NAD 83, accurate to ±30 metres)

Station	Park	Community	Easting	Northing	Latitude	Longitude
5030705	Brebeuf Park	Sudbury Core	500938	5149726	46.501102	-80.987775
5030706	Riverdale Park (York & Windsor)	Sudbury Core	499984	5146898	46.475652	-81.000208
5030707	Riverdale Park (York & Windsor)	Sudbury Core	499940	5146889	46.475571	-81.000782
5030708	Robinson Playground	Sudbury South	498084	5145005	46.458613	-81.024951
5030709	Robinson Playground	Sudbury South	498079	5144975	46.458343	-81.025016
5030710	Robinson Playground	Sudbury South	498105	5145032	46.458856	-81.024678
5030711	Memorial Park	Sudbury Core	500528	5148535	46.490384	-80.99312
5030712	Memorial Park	Sudbury Core	500534	5148546	46.490483	-80.993042
5030713	Memorial Park	Sudbury Core	500526	5148561	46.490618	-80.993146
5030714	Memorial Park	Sudbury Core	500561	5148540	46.490429	-80.99269
5030715	Memorial Park	Sudbury Core	500588	5148508	46.490141	-80.992338
5030716	Camp Sudaca	Sudbury East	506810	5146345	46.470641	-80.911297
5030717	Camp Sudaca	Sudbury East	506830	5146313	46.470353	-80.911037
5030718	Camp Sudaca	Sudbury East	506695	5146513	46.472154	-80.912793
5030719	Camp Sudaca	Sudbury East	506701	5146433	46.471434	-80.912716
5030720	David St Playground	Chelmsford	484356	5158405	46.579027	-81.204175
5030721	David St Playground	Chelmsford	484346	5158384	46.578838	-81.204305
5030722	David St Playground	Chelmsford	484354	5158410	46.579072	-81.204201
5030723	Rodrigue St Playground	Chelmsford	484457	5158769	46.582305	-81.202869
5030724	Main St Playground	Chelmsford	485232	5158901	46.583511	-81.192758
5030725	Cote Park	Chelmsford	485152	5157997	46.575374	-81.193773
5030726	Cote Park	Chelmsford	485157	5158028	46.575653	-81.193709
5030727	Cote Park	Chelmsford	485072	5157960	46.575039	-81.194816
5030728	Cote Park	Chelmsford	485126	5157944	46.574896	-81.194111
5030729	Cote Park	Chelmsford	485123	5157954	46.574986	-81.19415
5030730	Vaillancourt Street Playground	Chelmsford	485123	5157954	46.574986	-81.19415
5030731	Vaillancourt Street Playground	Chelmsford	485152	5157997	46.575374	-81.193773
5030732	St. Onge Playground (Irene Playground)	Chelmsford	484244	5157598	46.571762	-81.205609
5030733	St. Onge Playground (Irene Playground)	Chelmsford	484248	5157595	46.571735	-81.205557
5030734	St. Onge Playground (Irene Playground)	Chelmsford	484235	5157590	46.57169	-81.205726
5030735	Bonaventure Play (Shirley Playground)	Chelmsford	485636	5156842	46.56499	-81.187421
5030736	Bonaventure Play (Shirley Playground)	Chelmsford	485628	5156840	46.564972	-81.187525
5030737	Northend Playground	Chelmsford	490498	5160260	46.595836	-81.124052
5030738	Northend Playground	Chelmsford	490471	5160238	46.595638	-81.124404
5030739	Northend Playground	Chelmsford	490507	5160172	46.595044	-81.123933
5030740	Birchview Playground	Azilda	492485	5154594	46.54487	-81.098019
5030741	Birchview Playground	Azilda	492494	5154605	46.54497	-81.097902
5030742	Rick McDonald Memorial (Champlain Fields)	Azilda	490687	5155498	46.552983	-81.121489
5030743	Rick McDonald Memorial (Champlain Fields)	Azilda	490664	5155469	46.552722	-81.121788
5030744	Rick McDonald Memorial (Champlain Fields)	Azilda	490753	5155490	46.552912	-81.120628
5030745	Rick McDonald Memorial (Champlain Fields)	Azilda	490776	5155461	46.552652	-81.120327
5030746	Rick McDonald Memorial (Champlain Fields)	Azilda	490723	5155524	46.553218	-81.12102
5030747	Rick McDonald Memorial (Champlain Fields)	Azilda	490698	5155571	46.553641	-81.121347
5030748	Rick McDonald Memorial (Champlain Fields)	Azilda	490673	5155600	46.553901	-81.121673
5030749	Rick McDonald Memorial (Champlain Fields)	Azilda	490751	5155561	46.553551	-81.120655
5030750	Shawn St Playground	Azilda	490495	5155626	46.554133	-81.123996
5030751	Shawn St Playground	Azilda	490490	5155605	46.553944	-81.124061
5030752	Gauthier Playground (Commercial Playground)	Azilda	490879	5156468	46.561716	-81.119003
5030753	Gauthier Playground (Commercial Playground)	Azilda	490883	5156451	46.561563	-81.118951
5030754	Trillium Centre	Azilda	489941	5155954	46.557076	-81.13123
5030755	Whitewater Lake Park (Centennial Park)	Azilda	489816	5154478	46.543791	-81.132829
5030756	Whitewater Lake Park (Centennial Park)	Azilda	489838	5154582	46.544728	-81.132544
5030757	Whitewater Lake Park (Centennial Park)	Azilda	489724	5154556	46.544492	-81.13403
5030758	Whitewater Lake Park (Centennial Park)	Azilda	489792	5154469	46.54371	-81.133141

Table C6: Park Sampling Station Coordinates (Map Datum NAD 83, accurate to ±30 metres)

Station	Park	Community	Easting	Northing	Latitude	Longitude
5030759	Capreol Centennial Park	Capreol	506119	5171985	46.701392	-80.919959
5030760	Capreol Centennial Park	Capreol	506092	5172057	46.702041	-80.920311
5030761	Capreol Centennial Park	Capreol	506101	5171941	46.700997	-80.920195
5030762	Capreol Centennial Park	Capreol	506111	5172091	46.702346	-80.920062
5030763	Capreol Centennial Park	Capreol	505960	5171936	46.700953	-80.922039
5030764	Doug Mohn's Playground (Capreol Centennial Park)	Capreol	506196	5172026	46.701761	-80.918951
5030765	Doug Mohn's Playground (Capreol Centennial Park)	Capreol	506202	5172016	46.701671	-80.918873
5030766	Cenotaph Park & Gazebo	Capreol	505927	5172479	46.70584	-80.922464
5030767	Prescott Park	Capreol	505825	5172813	46.708846	-80.923794
5030768	Capreol Public Beach	Capreol	505611	5172732	46.708119	-80.926595
5030769	Capreol Public Beach	Capreol	505630	5172700	46.707831	-80.926347
5030770	McNicol Playground	Capreol	505958	5173072	46.711176	-80.922051
5030771	McNicol Playground	Capreol	505958	5173075	46.711203	-80.922051
5030772	Dunn Park	Capreol	506359	5172993	46.710461	-80.916805
5030773	Dunn Park	Capreol	506359	5172970	46.710254	-80.916806
5030774	Norman Rec Lions Playground (Capreol Lion's Den)	Capreol	505592	5173610	46.716021	-80.926833
5030775	Norman Rec Lions Playground (Capreol Lion's Den)	Capreol	505593	5173529	46.715292	-80.92682
5030776	Ella Lake Park	Capreol	509844	5173240	46.712642	-80.871206
5030777	Ella Lake Park	Capreol	509854	5173223	46.712489	-80.871076
5030778	Ella Lake Park	Capreol	509703	5173183	46.712131	-80.873052
5030779	Den Lou Playground	Whitefish	471519	5135074	46.36864	-81.370285
5030780	Den Lou Playground	Whitefish	471526	5135045	46.36838	-81.370192
5030781	Camp Wassakwa	Whitefish	471172	5136930	46.385329	-81.37491
5030782	Camp Wassakwa	Whitefish	470948	5136759	46.38378	-81.377813
5030783	Whitefish Playground	Whitefish	476429	5136373	46.38052	-81.306516
5030784	Whitefish Playground	Whitefish	476392	5136352	46.380329	-81.306996
5030785	Downe Playground	Sudbury New	503920	5150983	46.512404	-80.948901
5030786	Downe Playground	Sudbury New	503875	5150968	46.512269	-80.949488
5030787	Downe Playground	Sudbury New	503906	5150941	46.512026	-80.949084
5030788	Downe Playground	Sudbury New	503882	5150906	46.511711	-80.949397
5030789	Lynwood Playground	Sudbury New	503827	5151413	46.516274	-80.95011
5030790	Lynwood Playground	Sudbury New	503842	5151429	46.516418	-80.949914
5030791	Ridgemount Playground	Sudbury East	507573	5148652	46.491395	-80.901321
5030792	Ridgemount Playground	Sudbury East	507596	5148689	46.491727	-80.901021
5030793	Ridgemount Playground	Sudbury East	507616	5148657	46.491439	-80.900761
5030794	East End Playground	Sudbury East	506821	5148488	46.489927	-80.911122
5030795	East End Playground	Sudbury East	506800	5148495	46.48999	-80.911396
5030796	Grace Playground	Sudbury East	505380	5148362	46.488806	-80.9299
5030797	Grace Playground	Sudbury East	505402	5148368	46.48886	-80.929613
5030798	Grace Playground	Sudbury East	505403	5148450	46.489598	-80.929599
5030799	Grace Playground	Sudbury East	505379	5148436	46.489472	-80.929912
5030800	4th Ave Playground	Levack	470310	5165448	46.641934	-81.387943
5030801	4th Ave Playground	Levack	470305	5165480	46.642222	-81.38801
5030802	Levack Ball Park	Levack	469972	5165305	46.640632	-81.39235
5030803	Levack Ball Park	Levack	470023	5165266	46.640284	-81.391681
5030804	Levack Ball Park	Levack	470016	5165306	46.640643	-81.391775
5030805	Larch St Playground	Levack	469718	5165955	46.64647	-81.395711
5030806	Larch St Playground	Levack	469716	5165968	46.646587	-81.395738
5030807	Gill Loop Playground	Onaping Falls	468262	5163600	46.62521	-81.414575
5030808	Gill Loop Playground	Onaping Falls	468243	5163600	46.625209	-81.414823
5030809	Fraser Park (Onaping Tot Lot)	Onaping Falls	468627	5163508	46.624399	-81.409801

Table C6: Park Sampling Station Coordinates (Map Datum NAD 83, accurate to ±30 metres)

Station	Park	Community	Easting	Northing	Latitude	Longitude
5030810	Onaping Community Centre	Onaping Falls	468057	5163015	46.619936	-81.417212
5030811	Onaping Community Centre	Onaping Falls	467998	5163025	46.620023	-81.417983
5030812	Onaping Community Centre	Onaping Falls	468045	5163044	46.620196	-81.417371
5030813	A.Y. Jackson Memorial Park	Dowling	470846	5159433	46.587828	-81.38056
5030814	Gerard St Playground	Dowling	473786	5159513	46.588669	-81.342188
5030815	Douglas St Playground	Dowling	474695	5159836	46.591611	-81.33034
5030816	Douglas St Playground	Dowling	474689	5159853	46.591763	-81.330419
5030817	Douglas St Playground	Dowling	474702	5159849	46.591728	-81.330249
5030818	Dowling Ballfields	Dowling	474118	5159039	46.584416	-81.337828
5030819	Dowling Ballfields	Dowling	474097	5159064	46.58464	-81.338103
5030820	Dowling Ballfields	Dowling	474191	5159042	46.584446	-81.336875
5030821	Dowling Ballfields	Dowling	474212	5159072	46.584717	-81.336603
5030822	Nickel Basin Playground	Chelmsford	479501	5156896	46.565317	-81.267472
5030823	Nickel Basin Playground	Chelmsford	479515	5156911	46.565452	-81.26729
5030824	Vermillion Lake Road Park	Chelmsford	473177	5152992	46.529961	-81.34976
5030825	Vermillion Lake Road Park	Chelmsford	473184	5153119	46.531104	-81.349676
5030826	Vermillion Lake Road Park	Chelmsford	473163	5153061	46.530581	-81.349947
5030827	Vermillion Lake Road Park	Chelmsford	473150	5153048	46.530463	-81.350115
5030828	Larchmount Dr Playground	Chelmsford	471384	5155862	46.555715	-81.373317
5030829	Larchmount Dr Playground	Chelmsford	471382	5155859	46.555688	-81.373342
5030830	Fireman Park	Chelmsford	481593	5163911	46.628507	-81.240454
5030831	Bathurst Playground	Chelmsford	483467	5157014	46.566488	-81.215728
5030832	Bathurst Playground	Chelmsford	483482	5157003	46.566389	-81.215532
5030833	Berthiaume Playground	Chelmsford	486466	5157318	46.569291	-81.176605
5030834	Berthiaume Playground	Chelmsford	486494	5157318	46.569291	-81.17624
5030835	Long Lake Playground	Sudbury South	500407	5139238	46.406715	-80.994705
5030836	Long Lake Playground	Sudbury South	500371	5139220	46.406553	-80.995173
5030837	Long Lake Playground	Sudbury South	500429	5139176	46.406157	-80.994419
5030838	Long Lake Playground	Sudbury South	500411	5139145	46.405878	-80.994653
5030839	Long Lake Playground	Sudbury South	500474	5139162	46.406031	-80.993833
5030840	Algonquin Park	Sudbury South	500338	5142568	46.436684	-80.9956
5030841	Algonquin Park	Sudbury South	500336	5142588	46.436864	-80.995626
5030842	Algonquin Park	Sudbury South	500339	5142615	46.437107	-80.995587
5030843	Algonquin Park	Sudbury South	500361	5142643	46.437359	-80.995301
5030844	McFarlane Lake Playground	Sudbury South	504578	5142452	46.435624	-80.940408
5030845	McFarlane Lake Playground	Sudbury South	504576	5142601	46.436965	-80.940433
5030846	McFarlane Lake Playground	Sudbury South	504544	5142578	46.436758	-80.940849
5030847	Nepahwin Park	Sudbury South	500022	5144830	46.457041	-80.999714
5030848	Nepahwin Park	Sudbury South	500065	5144805	46.456816	-80.999154
5030849	Nepahwin Park	Sudbury South	500057	5144788	46.456663	-80.999258
5030850	Nepahwin Park	Sudbury South	500043	5144790	46.456681	-80.99944
5030851	Nepahwin Park	Sudbury South	500071	5144843	46.457158	-80.999075
5030852	Diorite Playground	Coppercliff	495005	5147345	46.479656	-81.065073
5030853	Diorite Playground	Coppercliff	494959	5147309	46.479332	-81.065671
5030854	Royal Can. Legion Branch 546 Playground	Lively	488809	5142561	46.436528	-81.145676
5030855	Royal Can. Legion Branch 546 Playground	Lively	488875	5142552	46.436448	-81.144817
5030856	Royal Can. Legion Branch 546 Playground	Lively	488884	5142563	46.436547	-81.1447
5030857	Royal Can. Legion Branch 546 Playground	Lively	488859	5142562	46.436538	-81.145025
5030858	Royal Can. Legion Branch 546 Playground	Lively	488841	5142556	46.436483	-81.145259
5030859	Central Park	Lively	488982	5142617	46.437035	-81.143425
5030860	Central Park	Lively	488921	5142643	46.437268	-81.14422
5030861	Long Lake Park	Lively	491841	5134090	46.360335	-81.10606
5030862	Black Lake Road Playground	Lively	489031	5139849	46.412124	-81.142723
5030863	Black Lake Road Playground	Lively	488974	5139800	46.411683	-81.143463

Table C6: Park Sampling Station Coordinates (Map Datum NAD 83, accurate to ±30 metres)

Station	Park	Community	Easting	Northing	Latitude	Longitude
5030864	Pinehights Playground	Lively	488238	5139707	46.410833	-81.153037
5030865	Pinehights Playground	Lively	488252	5139733	46.411067	-81.152856
5030877	Beaver Lake Playground	Lively	461405	5130857	46.330188	-81.501427
5030878	Beaver Lake Playground	Lively	461387	5130842	46.330052	-81.501659
5030879	Theresa Playground (Hanmer Playground)	Hammer	504698	5165664	46.644519	-80.938611
5030880	Theresa Playground (Hanmer Playground)	Hammer	504740	5165638	46.644285	-80.938062
5030881	St Joseph Ball Park (Lion's Playground)	Hammer	503915	5166726	46.654082	-80.948833
5030882	St Joseph Ball Park (Lion's Playground)	Hammer	503917	5166761	46.654397	-80.948807
5030883	St Joseph Ball Park (Lion's Playground)	Hammer	503844	5166760	46.654388	-80.949761
5030884	St Joseph Ball Park (Lion's Playground)	Hammer	503850	5166658	46.65347	-80.949684
5030885	St Joseph Ball Park (Lion's Playground)	Hammer	503877	5166693	46.653785	-80.94933
5030886	Farmdale Playground	Hanmer	502864	5167179	46.658164	-80.962567
5030887	Farmdale Playground	Hanmer	502826	5167172	46.658101	-80.963063
5030888	Farmdale Playground	Hanmer	502839	5167198	46.658335	-80.962893
5030889	Farmdale Playground	Hanmer	502851	5167220	46.658533	-80.962736
5030890	Farmdale Playground	Hanmer	502907	5167193	46.658289	-80.962004
5030891	Farmdale Playground	Hanmer	502937	5167218	46.658514	-80.961612
5030892	Centennial Ballpark	Hanmer	503158	5166186	46.649226	-80.958731
5030893	Centennial Ballpark	Hanmer	503181	5166212	46.64946	-80.95843
5030894	Centennial Ballpark	Hanmer	503077	5166116	46.648596	-80.95979
5030895	Centennial Ballpark	Hanmer	503045	5166141	46.648822	-80.960208
5030896	Centennial Ballpark	Hanmer	503126	5166035	46.647867	-80.95915
5030897	Centennial Ballpark	Hanmer	503107	5165992	46.64748	-80.959398
5030898	Elmview Playground	Hanmer	501037	5166075	46.648234	-80.986449
5030899	Elmview Playground	Hanmer	501045	5166056	46.648063	-80.986344
5030900	Elmview Playground	Hanmer	501093	5166102	46.648477	-80.985717
5030901	Elmview Playground	Hanmer	501067	5166070	46.648189	-80.986057
5030902	Mederic Park	Hanmer	500679	5165686	46.644733	-80.991127
5030903	Rose Court Park	Hanmer	499740	5165131	46.639739	-81.003397
5030904	Rose Court Park	Hanmer	499758	5165122	46.639658	-81.003162
5030905	Rose Court Park	Hanmer	499737	5165122	46.639658	-81.003436
5030906	Valley Acres Playground	Hanmer	499521	5165994	46.647505	-81.006259
5030907	Valley Acres Playground	Hanmer	499497	5165996	46.647523	-81.006573
5030908	Valley Acres Playground	Hanmer	499540	5165970	46.647289	-81.006011
5030909	Centennial Park	Whitefish	478334	5137593	46.391563	-81.2818
5030910	Centennial Park	Whitefish	478350	5137575	46.391402	-81.281591
5030911	Centennial Park	Whitefish	478201	5137530	46.390992	-81.283527
5030912	R.H. Murray Sports Complex	Whitefish	475689	5136487	46.381519	-81.316145
5030913	R.H. Murray Sports Complex	Whitefish	475699	5136518	46.381799	-81.316016
5030914	Simon Lake Park	Naughton	484262	5138429	46.399251	-81.204726
5030915	Simon Lake Park	Naughton	484218	5138457	46.399502	-81.205299
5030916	Simon Lake Park	Naughton	484246	5138436	46.399313	-81.204934
5030917	Simon Lake Park	Naughton	484237	5138482	46.399727	-81.205053
5030918	Oja Sports Complex (Simon Lake Sports Complex)	Naughton	483795	5138087	46.396162	-81.210789
5030919	Oja Sports Complex (Simon Lake Sports Complex)	Naughton	483795	5138047	46.395802	-81.210788
5030920	Oja Sports Complex (Simon Lake Sports Complex)	Naughton	483680	5138030	46.395646	-81.212283
5030921	Oja Sports Complex (Simon Lake Sports Complex)	Naughton	483689	5137994	46.395322	-81.212165
5030922	Oja Sports Complex (Simon Lake Sports Complex)	Naughton	483703	5138074	46.396043	-81.211985
5030923	Oja Sports Complex (Simon Lake Sports Complex)	Naughton	483696	5138079	46.396087	-81.212076

Table C6: Park Sampling Station Coordinates (Map Datum NAD 83, accurate to ±30 metres)

Station	Park	Community	Easting	Northing	Latitude	Longitude
5030924	Naughton Ballfield	Naughton	485237	5139009	46.404493	-81.192061
5030925	Naughton Ballfield	Naughton	485220	5138976	46.404195	-81.192281
5030926	Goodwill Playground	Lively	488933	5140544	46.418378	-81.144014
5030927	Goodwill Playground	Lively	488962	5140544	46.418378	-81.143637
5030928	Meatbird Lake Park	Lively	488360	5144030	46.449741	-81.151557
5030929	Meatbird Lake Park	Lively	488389	5144063	46.450038	-81.151181
5030930	Meatbird Lake Park	Lively	488401	5144057	46.449984	-81.151024
5030931	Meatbird Lake Park	Lively	488425	5144055	46.449967	-81.150712
5030932	B Street Ballfield (George Vanier)	Lively	488869	5142782	46.438518	-81.1449
5030933	B Street Ballfield (George Vanier)	Lively	488884	5142747	46.438203	-81.144704
5030934	Hillcrest Sports Centre	Lively	490818	5141201	46.424319	-81.119498
5030935	Hillcrest Sports Centre	Lively	490711	5141274	46.424974	-81.120892
5030936	Hillcrest Sports Centre	Lively	490789	5141282	46.425047	-81.119877
5030937	Hillcrest Sports Centre	Lively	490639	5141273	46.424964	-81.121829
5030938	Hillcrest Sports Centre	Lively	490532	5141305	46.425251	-81.123222
5030939	Hillcrest Sports Centre	Lively	490530	5141273	46.424963	-81.123247
5030940	Fielding Memorial Park Complex	Lively	492652	5141366	46.425826	-81.095632
5030941	Fielding Memorial Park Complex	Lively	492634	5141346	46.425646	-81.095866
5030942	Fielding Memorial Park Complex	Lively	492609	5141368	46.425844	-81.096192
5030943	Howard Armstrong Rec Centre	Hanmer	505300	5152686	46.527721	-80.930893
5030944	Howard Armstrong Rec Centre	Hanmer	501204	5165099	46.63945	-80.984269
5030945	Howard Armstrong Rec Centre	Hanmer	501265	5165096	46.639423	-80.983472
5030946	Howard Armstrong Rec Centre	Hanmer	501273	5165192	46.640287	-80.983367
5030947	Howard Armstrong Rec Centre	Hanmer	501175	5165202	46.640377	-80.984647
5030948	Ray St Playground	Wahnapitae	516321	5147296	46.479036	-80.78738
5030949	Lake Laurentian Conservation Area	Sudbury South	503331	5144319	46.452434	-80.956627
5030950	Lake Laurentian Conservation Area	Sudbury South	503440	5145383	46.462009	-80.9552
5030951	Lake Laurentian Conservation Area	Sudbury South	505132	5145409	46.462232	-80.933164
5030952	Lake Laurentian Conservation Area	Sudbury South	504067	5144601	46.454968	-80.947041
5030953	Lawson St Playground	Sudbury Core	498805	5146771	46.474508	-81.015566
5030954	Lawson St Playground	Sudbury Core	498802	5146779	46.47458	-81.015606
5030955	Copper St Playground	Sudbury South	498016	5146171	46.469106	-81.025842
5030956	Copper St Playground	Sudbury South	498017	5146177	46.46916	-81.025829
5030957	Copper St Playground	Sudbury South	498005	5146211	46.469466	-81.025985
5030958	V.L.A. Playground	Lively	487459	5139336	46.40748	-81.163163
5030959	V.L.A. Playground	Lively	487464	5139307	46.407219	-81.163097
5030960	MacLennan Playground (Silver Birch Playground)	Skead	519376	5169314	46.677103	-80.746661
5030961	MacLennan Playground (Silver Birch Playground)	Skead	519383	5169317	46.67713	-80.746569
5030962	Skead Community Centre	Skead	518900	5167656	46.662196	-80.752952
5030963	Skead Community Centre	Skead	518872	5167635	46.662008	-80.753319
5030964	Skead Community Centre	Skead	518892	5167686	46.662466	-80.753055
5030965	Brighton Street Playground	Skead	511531	5158574	46.580631	-80.849501
5030966	Brighton Street Playground	Skead	511539	5158583	46.580712	-80.849396
5030967	Brighton Street Playground	Skead	511511	5158575	46.580641	-80.849762

City of Greater Sudbury 2001 Urban Soil Survey

Appendix D

Commercial Produce and Wild Blueberry Soil and Vegetation Sampling Results

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1. METHODS

During the period of July and August of 2001, soil and produce samples were collected from seven commercial berry farms, three wild blueberry patches, and six commercial market garden produce growers within the City of Greater Sudbury. At each site produce was collected in duplicate if enough produce was available and soil was collected from the vicinity in which the produce was grown (MOE 1993). Soil was sampled in duplicate and since these areas are cultivated on a regular basis, soil cores of 0 to 15 cm were taken (MOE 1993). In areas with shallow bedrock, soil samples of 0 to 10 cm were taken. All vegetation samples were kept on ice during transportation and shipping. It should be noted that most berry samples, especially strawberries and raspberries, were collected late in the season and were therefore extremely ripe. In order to collect samples large enough for duplicate analysis it was necessary to sample from large areas of the farms, some of which had closed for the season.

Vegetation samples were delivered to the MOE Phytotoxicology laboratory for processing (MOE 2000b). The protocol for vegetation processing includes washing the produce with tap water as would be done in the home prior to consumption. All produce samples were treated in this fashion with the exception of the berries. Berry samples could not be washed due to their over ripeness (ie. some had become almost liquified during shipping). Instead, the berry samples were poured into beakers, were oven dried, and ground in a Wiley™ mill. The chopped washed vegetables were oven dried and ground in the same fashion. The ground material was then stored in glass jars until submitted for analysis. All produce samples were forwarded to Laboratory Services Branch, MOE, for chemical analysis including: arsenic(As), aluminum (Al), barium (Ba), beryllium (Be), calcium (Ca), cadmium (Cd), cobalt (Co), copper (Cu), chromium (Cr), iron (Fe), magnesium (Mg), manganese (Mn), molybdenum (Mo), nickel (Ni), lead (Pb), selenium (Se), strontium (Sr), vanadium (V), and zinc (Zn). In addition, the vegetation analytical suite included sulphur (S), boron (B), chlorine (Cl), and potassium (K).

Soil samples were delivered to the MOE Phytotoxicology laboratory where they were organized and shipped to Agat Laboratories for processing (MOE 2000, Appendix F). Agat followed MOE Standard Operating Procedures which included air drying and sieving samples to obtain the 2 mm size fraction, and then further grinding the sample using a mortar and pestle to pass though a Number 45 mesh (0.355 mm) sieve (MOE 2000). Finally, the ground material was stored in glass jars. All soil samples were sent to Lakefield Laboratory for the same parameter analyses as the vegetation, except for S, B, Cl, and K. MOE data management and quality control procedures for both sample processing and metals analysis carried out by contract laboratories is outlined in Appendix F.

Interpretation of the produce results was based on comparisons with data from the following control locations: 2 control locations for raspberries, 1 control location for strawberries, and blueberries, and 1 market garden control station. Control sites were chosen based on current knowledge of the range and extent of elevated soil metal levels in the Sudbury area and were located approximately 125 km and 245 km west and 70 km northwest of the Copper Cliff superstack. Soil data were compared with the MOE Table F Soil Background Guidelines and Table A Soil Clean-up Guidelines (MOE 1997).

2. ANALYTICAL RESULTS SUMMARIES

Table D2.1: Summary Statistics for 0-15 cm Soil Samples from Market Gardens in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5300	0.4	2.5	19	0.3	0.4	2600	16	3	26	8500	5	1700	100	0.75	27	0.5	13	18	19
10th	6080	0.4	2.5	24	0.3	0.4	2690	17	4	28	9430	5	1700	110	0.75	35	0.5	16	20	20
1st quartile	6400	0.4	5.0	27	0.3	0.4	3000	19	4	31	10000	7	1800	120	0.75	38	0.5	17	22	22
Median	7750	0.4	6.0	29	0.3	0.4	3650	21	4	35	10000	8	1900	125	0.75	44	0.5	19	23	27
3rd quartile	9350	0.4	7.0	32	0.3	0.4	3950	23	4	42	11000	10	2100	150	0.75	50	0.5	28	25	30
95th	11000	0.4	9.0	39	0.3	0.5	4820	25	5	44	12050	13	2310	201	0.75	59	0.5	34	28	34
Maximum	11000	0.4	9.0	44	0.3	1.9	5200	26	5	46	13000	17	2500	220	0.75	62	0.5	36	28	43
Mean	7830	0.4	5.7	29	0.3	0.5	3595	21	4	36	10390	9	1960	139	0.75	44	0.5	21	23	27
Geometric mean	7651	0.4	5.3	29	0.3	0.4	3528	20	4	35	10339	8	1948	135	0.75	43	0.5	20	23	26
Sample standard deviation	1694	0.0	2.0	6	0.0	0.3	702	3	0	6	1046	3	224	32	0.00	9	0.0	7	3	6
CV (standard deviation/mean)	22%	0%	36%	20%	0%	71%	20%	14%	11%	17%	10%	36%	12%	24%	0%	21%	0%	32%	11%	23%
Lower bound CI for the mean	7016	0.4	4.7	27	0.3	0.3	3258	19	4	33	9888	7	1852	123	0.75	39	0.5	18	22	24
Upper bound CI for the mean	8644	0.4	6.7	32	0.3	0.6	3932	22	4	39	10892	10	2068	154	0.75	48	0.5	25	24	29
Kurtosis	-1.0		-0.7	1.9		20.0	0.0	-0.9	3.0	-1.2	0.8	1.4	0.0	1.2		-0.2		-0.4	-0.2	1.1
Skewness	0.4		-0.2	0.6		4.5	0.5	0.0	0.0	0.1	0.7	1.1	0.8	1.4		0.2		0.9	0.1	0.9

There were 20 samples. Concentrations are in µg/g dry wt. ng - no guideline

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table D2.2: Summary Statistics for 0-15 cm Soil Samples from Commercial Berry Producers in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5900	0.4	2.5	18	0.3	0.4	550	13	3	20	7100	7	790	35	0.75	29	0.5	10	14	11
10th	6320	0.4	2.5	22	0.3	0.4	1420	14	3	22	7810	7	957	64	0.75	31	0.5	10	17	14
1st quartile	6650	0.4	2.5	24	0.3	0.4	1800	18	3	25	8400	7	1350	78	0.75	33	0.5	10	18	15
Median	7300	0.4	5.0	27	0.3	0.4	2100	19	4	29	9100	8	1600	110	0.75	39	0.5	10	19	18
3rd quartile	8200	0.4	7.0	33	0.3	0.4	2900	21	4	35	9950	10	1800	130	0.75	42	0.5	11	20	24
95th	12800	0.4	9.5	36	0.3	0.4	4595	26	5	51	15700	17	2635	170	0.75	50	1.0	15	22	33
Maximum	16000	0.4	10	39	0.3	0.4	5800	27	5	72	21000	18	2900	180	0.75	52	1.0	17	23	39
Mean	7903	0.4	5.0	28	0.3	0.4	2411	19	4	31	9759	9	1660	106	0.75	39	0.5	11	19	20
Geometric mean	7680	0.4	4.5	27	0.3	0.4	2171	19	4	30	9473	9	1583	99	0.75	38	0.5	11	19	19
Sample standard deviation	2210	0.0	2.4	5	0.0	0.0	1096	4	1	11	2862	3	515	37	0.00	6	0.1	2	2	7
CV (standard deviation/mean)	28%	0%	49%	20%	0%	0%	46%	19%	18%	36%	30%	35%	32%	35%	0%	17%	27%	17%	10%	34%
Lower bound CI for the mean	7093	0.4	4.2	26	0.3	0.4	2010	18	4	27	8711	8	1472	93	0.75	36	0.5	10	18	18
Upper bound CI for the mean	8713	0.4	5.9	30	0.3	0.4	2813	20	4	35	10808	10	1849	119	0.75	41	0.6	12	20	23
Kurtosis	7.5		-1.0	-0.8			2.5	0.4	-0.7	6.4	9.6	2.2	0.4	-0.5		-0.5	7.0	3.5	0.7	0.6
Skewness	2.7		0.4	0.1			1.3	0.6	0.3	2.4	3.0	1.8	0.7	0.1		0.5	2.9	2.1	-0.1	1.1

There were 32 samples. Concentrations are in µg/g dry wt. ng - no guideline

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table D2.3: Summary Statistics for 0-15 cm Soil Samples from Wild Blueberry Sites in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	6400	0.4	33	24	0.3	0.4	610	16	6	120	10000	17	1100	110	0.75	77	0.5	10	18	16
Median	9250	0.7	36	39	0.3	0.4	905	25	11	225	16500	23	2300	180	0.75	179	2.0	12	31	33
Maximum	13000	1.0	39	51	0.3	0.4	1200	33	15	400	25000	32	3600	230	0.75	290	3.0	14	43	49
Mean	9475	0.7	36	38	0.3	0.4	905	25	11	243	17000	24	2325	175	0.75	181	1.9	12	31	33
Geometric mean	8975	0.6	36	36	0.3	0.4	870	23	10	217	15485	23	1976	167	0.75	154	1.5	12	28	28
Sample standard deviation	3046	0.3	3	12	0.0	0.0	250	9	4	111	7036	6	1226	51	0.00	95	1.1	2	12	17
CV (standard deviation/mean)	37%	49%	8%	36%	0%	0%	32%	40%	44%	53%	48%	27%	61%	34%	0%	60%	70%	18%	45%	59%

There were 4 samples. Concentrations are in µg/g dry wt.

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table D2.4: Summary Statistics for All Market Garden Vegetables Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5.0	0.2	0.2	0.5	0.2	6.0	0.1	220	0.5	0.2	4.0	23	0.5	1100	3.7	0.2	0.5	0.2	0.5	0.5	12
10th percentile	5.0	0.2	0.2	0.6	0.2	7.6	0.1	319	0.5	0.2	6.1	36	0.5	1130	8.1	0.2	1.0	0.2	0.8	0.5	14
1st quartile	9.0	0.2	0.2	1.0	0.2	13	0.1	1050	0.5	0.2	7.8	58	0.5	1450	9.7	0.2	3.3	0.2	1.2	0.5	19
Median	40	0.2	0.2	4.8	0.2	16	0.2	2700	0.5	0.2	9.5	98	0.5	2550	22	0.3	6.0	0.2	6.8	0.5	30
3rd quartile	110	0.2	0.2	14	0.2	19	0.4	4650	0.7	0.5	11	185	0.5	3700	56	0.7	15	0.2	12	0.5	33
95th percentile	360	0.2	0.6	40	0.2	26	1.8	11000	1.1	1.1	16	378	0.9	6410	176	1.1	43	0.2	30	0.9	48
Maximum	1200	0.2	1.0	92	0.2	28	2.3	14000	3.4	1.1	17	1300	3.1	15000	230	2.6	45	0.2	43	2.9	61
Mean	112	0.2	0.3	12	0.2	16	0.4	3799	0.7	0.4	9.9	162	0.6	3107	45	0.5	11	0.2	9.0	0.6	28
Geometric mean	39	0.2	0.2	4.4	0.2	15	0.2	2180	0.6	0.3	9.4	104	0.5	2482	24	0.4	6.0	0.2	4.9	0.5	26
Sample standard deviation	213	0.0	0.2	17	0.0	5.8	0.6	3688	0.5	0.3	3.2	221	0.4	2642	56	0.5	12	0.0	9.1	0.4	11
CV (standard deviation/mean)	192%	0%	63%	151%	0%	36%	133%	98%	71%	75%	33%	138%	68%	86%	125%	104%	110%	0%	103%	70%	41%
Lower bound CI for the mean	46	0.2	0.2	6	0.2	14	0.3	2665	0.5	0.3	9.0	94	0.5	2294	28	0.3	7.2	0.2	6.2	0.5	25
Upper bound CI for the mean	177	0.2	0.3	17	0.2	18	0.6	4933	0.8	0.5	11	230	0.7	3919	62	0.7	14	0.2	12	0.7	32
Kurtosis	16.9		12.6	10.4		-0.5	3.7	0.9	24.0	0.7	-0.5	17.1	37.6	10.8	2.5	8.7	2.9		4.1	24.0	0.6
Skewness	3.9		3.5	2.9		0.0	2.1	1.3	4.6	1.4	0.5	3.9	6.0	3.0	1.8	2.8	1.8		1.9	4.8	0.7

There were 44 samples collected from 6 market vegetable producers. Concentrations are in µg/g dry wt.
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table D2.4.1: Summary Statistics for Market Garden Fruit Vegetables Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5.0	0.2	0.2	0.5	0.2	11	0.1	380	0.5	0.2	4.0	23	0.5	1100	7.1	0.2	0.5	0.2	0.5	0.5	12
10th percentile	5.0	0.2	0.2	0.6	0.2	13	0.1	930	0.5	0.2	5.8	32	0.5	1410	9.0	0.2	1.6	0.2	1.0	0.5	14
1st quartile	5.0	0.2	0.2	1.5	0.2	14	0.1	1500	0.5	0.2	6.7	51	0.5	1700	13	0.3	3.3	0.2	3.6	0.5	19
Median	9.0	0.2	0.2	4.1	0.2	16	0.1	3150	0.5	0.2	8.8	67	0.5	2750	18	0.4	8.6	0.2	5.5	0.5	30
3rd quartile	35	0.2	0.2	7.4	0.2	19	0.1	4400	0.5	0.4	11	96	0.5	3400	25	0.7	18	0.2	9.2	0.5	40
95th percentile	58	0.2	0.2	14	0.2	26	0.4	4795	0.8	1.1	14	186	0.5	3795	85	2.2	45	0.2	13	0.5	56
Maximum	120	0.2	0.2	14	0.2	27	0.5	5100	0.8	1.1	14	200	0.5	3900	93	2.6	45	0.2	14	0.5	61
Mean	24	0.2	0.2	5.0	0.2	17	0.1	2912	0.6	0.4	8.9	78	0.5	2568	27	0.6	14	0.2	6.4	0.5	30
Geometric mean	14	0.2	0.2	3.2	0.2	17	0.1	2428	0.5	0.3	8.5	67	0.5	2390	20	0.5	7.5	0.2	4.5	0.5	27
Sample standard deviation	27	0.0	0.0	4.0	0.0	4	0.1	1450	0.1	0.3	2.6	44	0.0	910	24	0.6	15	0.0	4.2	0.0	14
CV (standard deviation/mean)	114%	0%	0%	83%	0%	26%	73%	51%	19%	78%	30%	58%	0%	36%	91%	102%	107%	0%	67%	0%	46%
Lower bound CI for the mean	12.0	0.2	0.2	3.1	0.2	15	0.1	2254	0.5	0.3	7.7	58	0.5	2155	16	0.3	7.5	0.2	4.5	0.5	24
Upper bound CI for the mean	36.6	0.2	0.2	6.8	0.2	19	0.2	3570	0.6	0.5	10	97	0.5	2981	37	0.9	21	0.2	8.3	0.5	37
Kurtosis	5.8			0.2		0.0	6.7	-1.3	1.0	1.4	-0.4	3.0		-1.5	3.0	5.9	0.2		-1.1		-0.2
Skewness	2.2			0.9		0.9	2.7	-0.2	1.6	1.6	0.2	1.6		-0.1	1.9	2.5	1.2		0.2		0.7

22 of the 44 vegetable samples collected were fruit vegetables. Concentrations are in µg/g dry wt.
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table D2.4.2: Summary Statistics for Market Garden Leafy Vegetables Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	31	0.2	0.2	3.1	0.2	14	0.3	8300	0.5	0.2	11	92	0.5	3800	23	0.2	3.2	0.2	9.7	0.5	28
10th percentile	66	0.2	0.2	4.4	0.2	16	0.3	9280	0.5	0.2	11	119	0.5	4220	27	0.2	5.0	0.2	11	0.5	29
1st quartile	96	0.2	0.3	9.0	0.2	18	0.4	9800	0.6	0.3	12	155	0.5	4450	70	0.2	6.0	0.2	12	0.5	30
Median	170	0.2	0.4	19	0.2	19	1.6	10500	0.8	0.6	15	255	0.5	5300	150	0.2	8.6	0.2	22	0.5	33
3rd quartile	540	0.2	0.7	45	0.2	21	2.0	12000	1.4	0.9	16	580	1.0	9250	180	0.7	16	0.2	31	1.3	34
95th percentile	1053	0.2	0.9	80	0.2	24	2.2	13650	2.9	1.0	17	1143	2.4	13950	213	1.0	17	0.2	39	2.6	38
Maximum	1200	0.2	1.0	92	0.2	25	2.3	14000	3.4	1.1	17	1300	3.1	15000	230	1.1	17	0.2	43	2.9	40
Mean	355	0.2	0.5	30	0.2	19	1.3	10863	1.2	0.6	14	422	0.9	7100	132	0.4	10	0.2	23	1.0	33
Geometric mean	193	0.2	0.4	18	0.2	19	1.0	10729	0.9	0.5	14	287	0.7	6287	103	0.3	8.7	0.2	20	0.8	32
Sample standard deviation	389	0.0	0.3	28	0.0	3	0.8	1733	1.0	0.3	2.1	400	0.8	3856	69	0.3	5.0	0.0	11	0.8	3
CV (standard deviation/mean)	117%	0%	59%	102%	0%	17%	65%	17%	88%	56%	16%	101%	96%	58%	56%	82%	53%	0%	53%	91%	11%
Lower bound CI for the mean	6.9	0.2	0.2	4.4	0.2	16	0.6	9312	0.3	0.3	12	64	0.2	3652	70	0.1	5.6	0.2	13	0.2	29
Upper bound CI for the mean	704	0.2	0.7	55	0.2	22	2.0	12413	2.0	0.9	16	779	1.7	10548	193	0.7	14	0.2	33	1.8	36
Kurtosis	1.6		-0.4	1.7		1.0	-2.1	-0.1	3.6	-1.1	-1.4	1.8	6.8	0.7	-0.7	0.6	-1.6		-1.0	2.2	2.2
Skewness	1.6		0.9	1.5		0.6	-0.3	0.6	2.0	0.3	-0.4	1.6	2.6	1.4	-0.6	1.4	0.3		0.5	1.8	1.1

8 of the 44 vegetable samples collected were leafy vegetables. Concentrations are in µg/g dry wt.

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table D2.4.3: Summary Statistics for Market Garden Root Vegetables Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	15	0.2	0.2	0.5	0.2	6.0	0.1	220	0.5	0.2	5.9	26	0.5	1100	3.7	0.2	0.5	0.2	0.6	0.5	12
10th percentile	21	0.2	0.2	0.5	0.2	6.0	0.1	256	0.5	0.2	6.8	46	0.5	1100	4.8	0.2	0.6	0.2	0.6	0.5	13
1st quartile	35	0.2	0.2	0.6	0.2	7.0	0.2	310	0.5	0.2	7.8	55	0.5	1100	7.9	0.2	1.0	0.2	0.9	0.5	16
Median	96	0.2	0.2	1.1	0.2	9.0	0.3	540	0.5	0.2	8.3	130	0.5	1250	9.7	0.2	3.7	0.2	1.4	0.5	20
3rd quartile	150	0.2	0.2	25	0.2	19	0.8	2400	0.7	0.3	10	210	0.5	1900	23	0.2	11	0.2	11.0	0.5	31
95th percentile	1053	0.2	0.9	80	0.2	24	2.2	13650	2.9	1.0	17	1143	2.4	13950	213	1.0	17	0.2	39.2	2.6	38
Maximum	370	0.2	0.3	41	0.2	28	1.0	2800	1.2	1.1	16	390	0.8	3200	110	1.1	21	0.2	15.0	0.9	35
Mean	110	0.2	0.2	12	0.2	13	0.4	1156	0.6	0.3	9.2	147	0.5	1671	24	0.3	6.0	0.2	5.2	0.5	22
Geometric mean	77	0.2	0.2	3.2	0.2	11	0.3	740	0.6	0.3	8.9	115	0.5	1548	14	0.3	3.4	0.2	2.5	0.5	21
Sample standard deviation	91	0.0	0.0	13.7	0.0	7.4	0.3	993	0.2	0.2	2.7	98	0.1	712	31	0.3	5.8	0.0	5.4	0.1	8.1
CV (standard deviation/mean)	86%	0%	17%	123%	0%	58%	80%	89%	33%	80%	30%	69%	17%	44%	130%	95%	101%	0%	108%	20%	37%
Lower bound CI for the mean	56	0.2	0.2	3.3	0.2	8.7	0.2	561	0.5	0.2	7.6	89	0.5	1245	6.1	0.2	2.5	0.2	2.0	0.5	18
Upper bound CI for the mean	165	0.2	0.2	20	0.2	17	0.6	1751	0.7	0.5	11	206	0.6	2098	43	0.5	9.5	0.2	8.4	0.6	27
Kurtosis	3.6		3.8	-0.8		-0.8	-0.7	-1.5	4.9	8.2	1.9	1.1	5.4	0.5	4.2	3.4	1.5		-1.2	14.0	-1.6
Skewness	1.6		2.3	0.9		0.8	1.0	0.6	2.1	2.8	1.5	1.0	2.5	1.3	2.2	2.2	1.4		0.8	3.7	0.3

14 of the 44 vegetables samples collected were root vegetables. Concentrations are in µg/g dry wt.

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table D2.5: Summary Statistics for All Commercial Berries and Wild Blueberries Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1.0	0.2	5.0	0.1	640	0.5	0.2	2.0	13	0.5	260	5	0.2	1.4	0.2	0.9	0.5	2.0
10th percentile	5	0.2	0.2	2.0	0.2	6.0	0.1	925	0.5	0.2	2.9	20	0.5	355	12	0.2	1.6	0.2	1.0	0.5	4.0
1st quartile	5	0.2	0.2	4.0	0.2	6.0	0.1	1000	0.5	0.2	3.9	24	0.5	620	15	0.2	2.0	0.2	1.8	0.5	5.0
Median	5	0.2	0.2	5.7	0.2	7.0	0.1	1300	0.5	0.2	4.6	31	0.5	965	17	0.3	4.9	0.2	2.2	0.5	7.0
3rd quartile	9	0.2	0.2	8.9	0.2	8.5	0.1	1650	0.5	0.2	5.4	35	0.5	1050	51	0.5	6.6	0.2	3.1	0.5	13
95th percentile	15	0.2	0.2	12.3	0.2	11	0.2	1900	0.5	0.3	6.4	64	0.6	1500	101	0.8	8.5	0.2	4.8	0.5	15
Maximum	24	0.2	0.2	14.0	0.2	11	0.8	2100	0.5	0.4	6.7	160	1.1	1600	110	1.1	9.6	0.3	9.5	0.5	20
Mean	8	0.2	0.2	6.4	0.2	7.5	0.1	1330	0.5	0.2	4.6	34	0.5	903	34	0.4	4.6	0.2	2.6	0.5	8.6
Geometric mean	7	0.2	0.2	5.2	0.2	7.4	0.1	1279	0.5	0.2	4.5	30	0.5	812	24	0.3	3.9	0.2	2.3	0.5	7.5
Sample standard deviation	4.5	0.0	0.0	3.5	0.0	1.5	0.1	361	0.0	0.0	1.1	24	0.1	364	31	0.2	2.5	0.0	1.6	0.0	4.2
CV (standard deviation/mean)	61%	0%	0%	56%	0%	21%	94%	28%	0%	19%	25%	71%	20%	41%	92%	63%	54%	8%	61%	0%	50%
Lower bound CI for the mean	6	0.2	0.2	5.2	0.2	7.0	0.1	1206	0.5	0.2	4.2	26	0.5	777	23	0.3	3.8	0.2	2.1	0.5	7.2
Upper bound CI for the mean	9	0.2	0.2	7.6	0.2	8.1	0.2	1454	0.5	0.2	5.0	43	0.6	1028	45	0.4	5.5	0.2	3.1	0.5	10.1
Kurtosis	8.2			-0.7		0.1	33.0	-0.8		15.5	-0.2	20.9	30.4	-0.6	0.6	3.3	-1.2	36.0	9.2		-0.1
Skewness	2.8			0.4		0.7	5.7	0.1		3.9	-0.3	4.2	5.4	-0.1	1.4	1.8	0.1	6.0	2.5		0.6

There were 36 samples collected from 7 commercial berry producers and 3 wild blueberry sites. Concentrations are in µg/g dry wt.
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table D2.5.1: Summary Statistics for Commercial Raspberries Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	1.0	0.2	5.0	0.1	930	0.5	0.2	4.1	23	0.5	900	11	0.2	4.6	0.2	0.9	0.5	9.0
10th percentile	5	0.2	0.2	1.4	0.2	6.0	0.1	1050	0.5	0.2	4.5	24	0.5	945	14	0.2	5.2	0.2	1.3	0.5	10
1st quartile	5	0.2	0.2	2.0	0.2	6.5	0.1	1250	0.5	0.2	4.6	28	0.5	970	15	0.2	5.7	0.2	1.8	0.5	11
Median	5	0.2	0.2	3.7	0.2	7.0	0.1	1500	0.5	0.2	5.1	32	0.5	1050	17	0.4	6.5	0.2	2.2	0.5	13
3rd quartile	6	0.2	0.2	5.7	0.2	9.0	0.1	1700	0.5	0.2	5.6	34	0.6	1450	37	0.5	7.7	0.2	2.9	0.5	13
95th percentile	11	0.2	0.2	7.9	0.2	11	0.3	1750	0.5	0.2	6.0	47	0.7	1525	65	1.0	9.1	0.2	6.1	0.5	18
Maximum	12	0.2	0.2	8.4	0.2	11	0.8	1900	0.5	0.3	6.2	68	1.1	1600	84	1.1	9.6	0.2	9.5	0.5	20
Mean	6	0.2	0.2	4.0	0.2	7.8	0.1	1452	0.5	0.2	5.1	33	0.6	1177	27	0.4	6.7	0.2	2.7	0.5	13
Geometric mean	6	0.2	0.2	3.2	0.2	7.6	0.1	1423	0.5	0.2	5.1	32	0.5	1153	22	0.4	6.5	0.2	2.3	0.5	12
Sample standard deviation	2.3	0.0	0.0	2.3	0.0	1.9	0.2	277	0.0	0.0	0.6	10	0.1	241	21	0.3	1.4	0.0	2.0	0.0	2.6
CV (standard deviation/mean)	38%	0%	0%	61%	0%	25%	122%	20%	0%	12%	11%	31%	27%	21%	79%	63%	22%	0%	75%	0%	21%
Lower bound CI for the mean	5	0.2	0.2	2.7	0.2	6.8	0.1	1299	0.5	0.2	4.8	27	0.5	1044	16	0.3	5.9	0.2	1.6	0.5	11
Upper bound CI for the mean	8	0.2	0.2	5.3	0.2	8.8	0.2	1604	0.5	0.2	5.4	39	0.6	1309	39	0.6	7.4	0.2	3.8	0.5	14
Kurtosis	1.6			-1.1		-0.8	16.0	-0.7		16.0	-0.6	9.4	13.3	-1.5	1.9	1.7	-0.3		8.6		2.6
Skewness	1.8			0.4		0.6	4.0	-0.5		4.0	0.2	2.7	3.6	0.5	1.7	1.5	0.6		2.7		1.4

16 raspberry samples were collected. Concentrations are in µg/g dry wt.
Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table D2.5.2: Summary Statistics for Commercial Strawberries Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	5	0.2	0.2	3.9	0.2	6.0	0.1	920	0.5	0.2	2.0	13.0	0.5	510	4.6	0.2	1.4	0.2	1.0	0.5	4.0
10th percentile	5	0.2	0.2	4.3	0.2	6.0	0.1	936	0.5	0.2	2.6	19.3	0.5	561	9.6	0.2	1.5	0.2	1.2	0.5	4.3
1st quartile	5	0.2	0.2	5.7	0.2	6.0	0.1	1000	0.5	0.2	2.8	23.0	0.5	630	13.0	0.2	1.5	0.2	1.8	0.5	5.0
Median	5	0.2	0.2	8.7	0.2	7.0	0.1	1300	0.5	0.2	3.9	26.0	0.5	850	16.5	0.3	1.9	0.2	2.8	0.5	6.0
3rd quartile	7	0.2	0.2	12.0	0.2	8.0	0.1	1700	0.5	0.2	4.5	35.0	0.5	1000	21.0	0.4	2.1	0.2	4.2	0.5	7.0
95th percentile	9	0.2	0.2	13.4	0.2	8.4	0.2	1970	0.5	0.3	6.2	97.0	0.5	1070	27.1	0.7	2.2	0.2	4.4	0.5	7.4
Maximum	11	0.2	0.2	14.0	0.2	9.0	0.2	2100	0.5	0.4	6.5	160.0	0.5	1200	29.0	0.7	2.2	0.2	4.7	0.5	8.0
Mean	6	0.2	0.2	8.6	0.2	7.2	0.1	1336	0.5	0.2	3.9	37.8	0.5	838	16.8	0.3	1.8	0.2	2.8	0.5	6.0
Geometric mean	6	0.2	0.2	7.9	0.2	7.2	0.1	1287	0.5	0.2	3.7	30.1	0.5	813	15.3	0.3	1.8	0.2	2.5	0.5	5.9
Sample standard deviation	1.8	0.0	0.0	3.3	0.0	0.9	0.0	375	0.0	0.1	1.3	35.7	0.0	199	6.5	0.2	0.3	0.0	1.2	0.0	1.2
CV (standard deviation/mean)	30%	0%	0%	40%	0%	14%	32%	29%	0%	26%	33%	98%	0%	25%	40%	51%	16%	0%	45%	0%	21%
Lower bound CI for the mean	5	0.2	0.2	6.6	0.2	6.7	0.1	1111	0.5	0.2	3.2	16.4	0.5	719	12.9	0.2	1.7	0.2	2.1	0.5	5.3
Upper bound CI for the mean	7	0.2	0.2	10.6	0.2	7.8	0.1	1560	0.5	0.3	4.7	59.2	0.5	957	20.7	0.4	2.0	0.2	3.5	0.5	6.7
Kurtosis	3.2			-1.5		-1.0	3.8	-0.6		7.7	-0.1	10.7		-0.8	-0.2	0.8	-1.6		-1.3		-0.9
Skewness	1.9			0.1		0.1	2.3	0.8		2.8	0.5	3.2		-0.2	0.2	1.3	-0.1		0.1		-0.3

14 strawberries samples were collected. Concentrations are in µg/g dry wt.

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

Table D2.5.3: Summary Statistics for Wild Blueberries Collected in the City of Greater Sudbury - 2001.

	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Minimum	8	0.2	0.2	4.3	0.2	5.0	0.1	640	0.5	0.2	3.7	15	0.5	260	66	0.2	4.3	0.2	0.9	0.5	2.0
10th percentile	8	0.2	0.2	4.7	0.2	5.4	0.1	664	0.5	0.2	4.1	20	0.5	260	78	0.2	4.5	0.2	1.2	0.5	2.0
1st quartile	9	0.2	0.2	5.3	0.2	6.0	0.1	700	0.5	0.2	3.9	16	0.5	260	73	0.2	4.7	0.2	1.6	0.5	2.0
Median	10	0.2	0.2	8.2	0.2	8.0	0.1	910	0.5	0.2	4.6	30	0.5	325	98	0.2	5.4	0.2	2.0	0.5	4.0
3rd quartile	24	0.2	0.2	9.4	0.2	9.0	0.1	1300	0.5	0.2	6.4	35	0.5	370	110	0.2	6.8	0.2	2.2	0.5	5.0
95th percentile	24	0.2	0.2	9.9	0.2	9.0	0.1	1460	0.5	0.2	6.6	49	0.5	386	110	0.2	7.0	0.3	2.2	0.5	5.6
Maximum	24	0.2	0.2	10.0	0.2	9.0	0.1	1500	0.5	0.2	6.7	53	0.5	390	110	0.2	7.1	0.3	2.3	0.5	6.0
Mean	14	0.2	0.2	7.6	0.2	7.5	0.1	993	0.5	0.2	5.0	30	0.5	322	92	0.2	5.6	0.2	1.8	0.5	3.8
Geometric mean	12	0.2	0.2	7.2	0.2	7.3	0.1	947	0.5	0.2	4.9	27	0.5	318	91	0.2	5.5	0.2	1.7	0.5	3.5
Sample standard deviation	7	0.0	0.0	2.1	0.0	1.5	0.0	312	0.0	0.0	1.2	13	0.0	50	17	0.0	1.1	0.0	0.5	0.0	1.5
CV (standard deviation/mean)	56%	0%	0%	30%	0%	22%	0%	34%	0%	0%	26%	48%	0%	17%	20%	0%	21%	19%	29%	0%	42%
Lower bound CI for the mean	6	0.2	0.2	5.2	0.2	5.8	0.1	635	0.5	0.2	3.6	15	0.5	264	73	0.2	4.4	0.2	1.3	0.5	2.2
Upper bound CI for the mean	22	0.2	0.2	9.9	0.2	9.2	0.1	1352	0.5	0.2	6.3	45	0.5	379	112	0.2	6.8	0.3	2.4	0.5	5.5
Kurtosis	-1.9			-1.4		-1.0		-1.2			-1.7	0.0		-1.9	-1.6		-2.2	6.0	1.4		-1.3
Skewness	0.9			-0.6		-0.8		0.7			0.6	0.7		-0.1	-0.7		0.3	2.4	-1.3		0.0

6 wild blueberries samples were collected. Concentrations are in µg/g dry wt.

Note: the standard-deviation and the confidence interval of the mean are valid only in the case of a simple random sampling

3. ANALYTICAL RESULTS

Table D3.1: Results of Chemical Analysis for Soil Collected from Market Gardens, Commercial Berry Farms, and Wild Blueberry Sites.

Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
Market Gardens																						
5037619	14919	0 - 15	9100	<0.8	9	32	<0.5	<0.8	3800	23	4	43	11000	11	1900	140	<1.5	**62**	<1	34	26	22
	14920	0 - 15	8100	<0.8	9	30	<0.5	<0.8	3500	23	4	44	10000	10	1900	130	<1.5	**59**	<1	29	25	22
5037620	14921	0 - 15	9400	<0.8	6	32	<0.5	<0.8	3100	22	4	33	10000	8	1800	120	<1.5	**46**	<1	30	25	19
	14922	0 - 15	9300	<0.8	6	32	<0.5	<0.8	2700	22	4	36	10000	9	1700	120	<1.5	**50**	<1	26	25	19
5037621	14941	0 - 15	6400	<0.8	7	26	<0.5	<0.8	2600	18	4	46	10000	10	1700	100	<1.5	43	<1	17	23	27
	14942	0 - 15	6500	<0.8	6	28	<0.5	<0.8	2900	17	4	40	10000	9	1700	110	<1.5	39	<1	18	22	29
5037622	14945	0 - 15	6400	<0.8	8	29	<0.5	<0.8	3700	19	5	43	10000	13	1800	120	<1.5	**50**	<1	16	22	33
	14946	0 - 15	6200	<0.8	7	29	<0.5	<0.8	3800	20	4	43	10000	13	2000	130	<1.5	**44**	<1	16	22	34
5037623	14952	0 - 15	6400	<0.8	5	19	<0.5	<0.8	3300	20	4	27	12000	5	2000	130	<1.5	28	<1	13	25	29
	14953	0 - 15	6100	<0.8	5	19	<0.5	<0.8	3600	19	4	26	11000	5	2000	120	<1.5	27	<1	13	24	31
5037624	14961	0 - 15	5300	<0.8	5	24	<0.5	**1.9**	4800	17	4	33	8500	5	2100	120	<1.5	36	<1	18	18	25
	14962	0 - 15	5900	<0.8	5	26	<0.5	<0.8	5200	19	4	35	9500	5	2200	120	<1.5	36	<1	20	19	27
5037626	14988	0 - 15	9500	<0.8	8	32	<0.5	<0.8	2700	23	4	31	11000	7	1800	150	<1.5	43	<1	18	23	20
	14989	0 - 15	9500	<0.8	7	32	<0.5	<0.8	2600	22	4	31	11000	7	1700	150	<1.5	**44**	<1	16	23	21
5037627	14995	0 - 15	7400	<0.8	< 5	29	<0.5	<0.8	3900	23	4	32	10000	7	2500	120	<1.5	**44**	<1	21	22	31
	14996	0 - 15	6700	<0.8	5	27	<0.5	<0.8	3400	22	4	31	8800	7	2300	110	<1.5	40	<1	17	20	28
5037628	14999	0 - 15	11000	<0.8	5	39	<0.5	<0.8	3800	26	5	39	13000	9	2100	220	<1.5	**55**	<1	29	28	29
	15000	0 - 15	11000	<0.8	6	44	<0.5	<0.8	4500	25	4	41	12000	17	2300	160	<1.5	**54**	<1	36	28	43
5037629	15003	0 - 15	8100	<0.8	5	28	<0.5	<0.8	4000	16	3	28	10000	7	1900	200	<1.5	36	<1	19	21	21
	15004	0 - 15	8300	<0.8	5	28	<0.5	<0.8	4000	17	3	34	10000	8	1800	200	<1.5	39	<1	22	22	22
Market Garden Control																						
5037625	14977	0 - 15	6900	<0.8	5	54	<0.5	<0.8	4000	17	3	10	8100	37	1800	150	<1.5	9	<1	22	19	56
	14978	0 - 15	7000	<0.8	5	55	<0.5	<0.8	3900	17	3	10	8100	34	1800	150	<1.5	10	<1	22	19	56
Commercial Berry Farms																						
5037413	14845	0 - 10	8400	<0.8	6	34	<0.5	<0.8	1800	20	4	38	9900	13	1500	140	<1.5	41	<1	10	19	30
	14846	0 - 10	11000	<0.8	5	33	<0.5	<0.8	1700	21	4	38	13000	12	1400	130	<1.5	42	<1	11	20	29
5037414	14849	0 - 10	6300	<0.8	5	20	<0.5	<0.8	1800	18	3	33	7800	8	1700	56	<1.5	35	<1	<10	17	14
	14850	0 - 10	5900	<0.8	5	22	<0.5	<0.8	2100	19	3	35	7100	9	1800	64	<1.5	41	<1	10	19	15
5037415	14853	0 - 10	8100	<0.8	5	22	<0.5	<0.8	2000	20	3	28	9100	8	1900	69	<1.5	31	<1	<10	18	15
	14854	0 - 10	7900	<0.8	5	22	<0.5	<0.8	2100	20	3	31	9100	8	1900	69	<1.5	33	<1	<10	19	15
5037416	14857	0 - 15	6700	<0.8	7	18	<0.5	<0.8	550	13	3	**65**	7300	15	790	35	<1.5	**52**	1	10	14	11
	14858	0 - 15	6800	<0.8	9	19	<0.5	<0.8	610	15	3	**72**	7800	16	930	40	<1.5	**49**	1	10	16	12

Table D3.1: Results of Chemical Analysis for Soil Collected from Market Gardens, Commercial Berry Farms, and Wild Blueberry Sites.

Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037417	14861	0 - 15	7600	<0.8	5	26	<0.5	<0.8	1400	19	4	25	9200	7	1600	110	<1.5	35	1	<10	18	18
	14862	0 - 15	8800	<0.8	6	27	<0.5	<0.8	1600	21	4	26	9500	7	1600	110	<1.5	37	<1	<10	19	19
5037418	14865	0 - 10	8000	<0.8	5	33	<0.5	<0.8	3100	27	5	29	10000	7	2500	140	<1.5	42	<1	17	23	23
	14866	0 - 10	7400	<0.8	5	33	<0.5	<0.8	2700	27	5	29	10000	8	2500	130	<1.5	42	<1	16	22	24
5037419	14869	0 - 10	15000	<0.8	5	32	<0.5	<0.8	5200	26	5	24	19000	7	2800	130	<1.5	38	<1	12	21	22
	14870	0 - 10	16000	<0.8	5	32	<0.5	<0.8	5800	26	5	25	21000	7	2900	130	<1.5	36	<1	13	21	22
5037420	14873	0 - 15	8000	<0.8	5	28	<0.5	<0.8	4100	19	4	22	9800	7	1600	81	<1.5	33	<1	11	20	15
	14874	0 - 15	7500	<0.8	5	27	<0.5	<0.8	3300	19	4	22	9200	8	1600	83	<1.5	35	<1	11	20	15
5037421	14877	0 - 15	7500	<0.8	5	28	<0.5	<0.8	2100	18	4	23	9700	8	1200	110	<1.5	33	<1	11	19	18
	14878	0 - 15	7000	<0.8	5	28	<0.5	<0.8	1800	18	4	22	8900	8	1200	110	<1.5	32	<1	<10	19	17
5037422	14881	0 - 15	6000	<0.8	5	27	<0.5	<0.8	2000	15	3	26	7900	8	920	74	<1.5	32	<1	<10	18	14
	14882	0 - 15	6300	<0.8	5	26	<0.5	<0.8	1800	14	3	24	8300	8	890	67	<1.5	31	<1	<10	17	13
5037423	14885	0 - 15	6500	<0.8	5	27	<0.5	<0.8	2900	17	3	20	8500	7	1300	82	<1.5	29	<1	<10	17	15
	14886	0 - 15	6500	<0.8	5	26	<0.5	<0.8	3100	18	3	20	9100	7	2500	84	<1.5	29	<1	11	18	15
5037424	14889	0 - 15	7100	<0.8	5	39	<0.5	<0.8	2800	22	4	40	10000	18	1800	120	<1.5	**50**	<1	15	22	39
	14890	0 - 15	8300	<0.8	8	37	<0.5	<0.8	2500	21	4	39	9300	18	1800	110	<1.5	**51**	<1	14	20	36
5037425	14893	0 - 15	6600	<0.8	7	25	<0.5	<0.8	3100	14	3	26	8000	8	1700	170	<1.5	39	<1	<10	17	21
	14894	0 - 15	6500	<0.8	8	25	<0.5	<0.8	2700	14	3	32	8100	8	1500	170	<1.5	39	<1	<10	17	20
5037426	14897	0 - 15	7000	<0.8	7	22	<0.5	<0.8	2800	19	4	29	9000	7	1700	110	<1.5	39	<1	<10	19	17
	14898	0 - 15	6800	<0.8	7	22	<0.5	<0.8	2900	19	4	25	8800	7	1800	110	<1.5	35	<1	<10	19	16
5037428	14905	0 - 15	7000	<0.8	10	34	<0.5	<0.8	1800	18	4	36	8800	10	1300	110	<1.5	43	<1	<10	18	24
	14906	0 - 15	7200	<0.8	10	35	<0.5	<0.8	1900	18	4	35	9100	10	1400	110	<1.5	42	<1	<10	19	25
5037429	14909	0 - 15	8400	<0.8	7	32	<0.5	<0.8	1400	19	4	31	10000	9	1500	160	<1.5	**45**	<1	<10	19	29
	14910	0 - 15	8800	<0.8	7	32	<0.5	<0.8	1700	20	4	31	10000	8	1600	180	<1.5	**44**	<1	11	21	28
Commercial Berry Farm Control																						
5037427	14901	0 - 15	4800	<0.8	5	19	<0.5	<0.8	2800	11	2	5	7700	8	1800	87	<1.5	9	<1	<10	16	24
	14902	0 - 15	4400	<0.8	5	19	<0.5	<0.8	2600	11	2	4	7100	8	1600	82	<1.5	8	<1	<10	16	23
5037617	14969	0 - 15	5600	<0.8	5	21	<0.5	<0.8	2500	13	1	<1	6200	7	890	87	<1.5	6	<1	11	15	27
	14970	0 - 15	5900	<0.8	5	22	<0.5	<0.8	2600	13	1	<1	6400	8	950	89	<1.5	7	<1	12	16	31
5037618	14973	0 - 15	6700	<0.8	5	21	<0.5	<0.8	2700	12	1	<1	5300	6	890	64	<1.5	6	<1	11	14	21
	14974	0 - 15	6900	<0.8	5	21	<0.5	<0.8	2900	13	1	<1	5500	6	940	64	<1.5	7	<1	12	14	23
Wild Blueberries																						
5037430	14913	0 - 15	12000	1	**38**	51	<0.5	<0.8	1100	33	15	**400**	23000	32	3500	230	<1.5	**290**	**3**	14	42	49
	14914	0 - 15	13000	1	**33**	49	<0.5	<0.8	1200	33	14	**290**	25000	25	3600	220	<1.5	**260**	**3**	13	43	49

Table D3.2: Results of Chemical Analysis for Commercial Market Garden Vegetables Collected in the City of Greater Sudbury.

Station	Sample Number	Vegetable	Al	As	Ba	Bo	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Sr	V	Zn
Market Gardens																				
5037622	14947	beans, green	5<w	0.2<w	6	16	0.1<w	4400	0.5<w	0.2<w	7	55	0.5<w	1900	16	2	5.3	6.2	0.5<w	24
5037620	14933	beans, yellow	35	0.2<w	14	15	0.1<w	4600	0	0.9<t	5.9	100	0.5<w	2700	87	0.2<w	45	12	0.5<w	32
	14934	beans, yellow	44	0.2<w	14	18	0.2<t	4800	0.5<w	0.8<t	6.4	96	0	2800	93	0.3<t	45	13	0.5<w	33
5037622	14948	beans, yellow	8<t	0.2<w	8.4	15	0.1<w	4600	0.5<w	0.2<w	8	78	0.5<w	2100	17	3	7.1	7.4	0.5<w	22
5037626	14992	beans, yellow	48	0.2<w	4.7	19	0.1<w	4700	0.5<w	0.3<t	10	100	0.5<w	3300	27	0.7<t	10	5.3	0.5<w	30
5037620	14937	beet root	140	0.2<w	27	14	0.8	1500	0.5<w	0.6<t	9	150	0.5<w	2400	82	0.2<w	13	11	0.5<w	32
	14938	beet root	190	0.3<t	25	16	1	1600	0.8<t	1.1	16	270	0.5<w	3200	110	0.2<w	21	12	0.5<w	35
5037626	14991	carrot	180	0.2<w	11	23	0.3<t	2500	0.8<t	0.2<w	10	230	0.5<w	1900	21	0.2<w	3.2	5.2	0.5<w	23
5037619	14925	carrot	92	0.2<w	28	28	0.8	2800	0.7<t	0.2<w	11	100	0.5<w	1800	23	0.2<w	11	15	0.5<w	33
	14926	carrot	99	0.2<w	24	24	0.8	2600	0.6<t	0.2<w	8	110	0.5<w	1700	23	0.2<w	12	14	0.5<w	31
5037620	14935	cucumber	30	0.2<w	6.6	18	0.1<w	3500	0.5<w	0.3<t	8	63	0.5<w	3900	17	0.3<t	15	12	0.5<w	30
	14936	cucumber	58	0.2<w	10	15	0.1<w	3600	0.5<w	0.5<t	10	91	0.5<w	3800	25	0.3<t	22	14	0.5<w	30
5037626	14990	cucumber	120	0.2<w	3.6	17	0.1<w	4000	0.8<t	0.2<w	9	190	0.5<w	3700	20	0.9<t	4.9	4.9	0.5<w	34
5037620	14929	lettuce	230	0.4<t	17	14	2.1	9900	0.6<t	0.5<t	13	310	0	4500	150	0.2<w	9.3	27	0.5<w	32
	14930	lettuce	780	0.8<t	20	17	2.3	11000	1.9<t	0.9<t	15	850	1.0<t	4700	180	0.2<w	14	30	1.9<t	33
5037623	14954	lettuce	81	0.6<t	4.9	22	0.4<t	14000	0.8<t	0.2<w	16	180	0.9<t	5900	29	0.8<t	6.2	16	0.5<w	40
	14955	lettuce	31	0.4<t	3.1	19	0.3<t	9700	0.5<w	0.2<w	11	92	0.5<w	4400	23	0.5<t	3.2	11	0.5<w	29
5037626	14994	lettuce	1200	1	13	18	1.8	11000	3	0.8<t	14	1300	3.1	3800	150	0.2<w	7.8	13	2.9	28
5037623	14960	peppers, banana	5<w	0.2<w	0.5<w	13	0.1<w	900	0.5<w	0.2<w	11	200	0.5<w	1700	12	0.8<t	3.6	0.7<t	0.5<w	19
5037623	14956	peppers, green	5<w	0.2<w	0.5<w	16	0.1<w	380	0.5<w	0.2<w	8	32	0.5<w	1200	8.4	0.5<t	3.2	0.5<w	0.5<w	12
5037621	14943	potato	17<t	0.2<w	0.6<t	6	0.1<w	310	0.5<w	0.2<w	6	26	0.5<w	1100	3.7	1	1.0<t	0.6<t	0.5<w	12
	14944	potato	35	0.2<w	0.5<w	6	0.1<w	310	0.5<w	0.2<w	7	44	0.5<w	1100	3.8	1	0.9<t	0.6<t	0.5<w	12
5037627	14997	potato	48	0.2<w	0.5<w	6	0.3<t	500	0.5<w	0.3<t	7	120	0.7<t	1200	7.2	0.2<w	3.6	1.2<t	0.5<w	14
	14998	potato	100	0.2<w	0.9<t	9	0.2<t	580	0.5<w	0.3<t	8	210	0.5<w	1300	8.4	0.2<w	4.2	1.5<t	0.5<w	16
5037628	15001	potato	150	0.2<w	1.2<t	7	0.3<t	340	0.5<w	0.2<w	8	170	0.8<t	1100	8.4	0.2<w	3.8	0.9<t	0.5<w	17
	15002	potato	76	0.2<w	1.0<t	9	0.2<t	270	0.5<w	0.2<w	8	140	0.5<w	1100	7.9	0.2<w	3.3	0.7<t	0.5<w	17
5037629	15005	potato	15.<t	0.2<w	0.6<t	9	0.2<t	220<t	0.5<w	0.2<w	7.8	49	0.5<w	1200	10	0	0.5<w	0.9<t	0.5<w	20
	15006	potato	31	0.2<w	0.7<t	7	0.1<w	250	0.5<w	0.2<w	8.1	55	0.5<w	1200	9.4	0	0.5<w	1.1<t	0.5<w	20

Table D3.2: Results of Chemical Analysis for Commercial Market Garden Vegetables Collected in the City of Greater Sudbury.

Station	Sample Number	Vegetable	Al	As	Ba	Bo	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Sr	V	Zn
5037619	14923	pumpkin	5<w	0.2<w	5.3	21	0.1<w	3200	0.5<w	0.2<w	11	51	0.5<w	3600	18	0.3<t	18	11	0.5<w	41
	14924	pumpkin	10<t	0.2<w	4.2	18	0.2<t	2400	0.5<w	0.2<w	8.6	86	0	3400	22	0.2<w	16	8.8	0.5<w	56
5037622	14949 †	radish	370	0.3<t	41	19	0.3<t	2400	1.2<t	0.3<t	14	390	0	3100	23	0.4<t	5.7	8.2	0.9<t	31
5037620	14939	swiss chard	110	0.2<w	57	18	1.3	10000	0.5<w	0.6<t	16	130	0	12000	180	0.2<w	17	32	0.5<w	33
	14940	swiss chard	300	0.3<t	92	19	1.8	13000	0.8<t	1.1	17	310	0	15000	230	0.2<w	17	43	0.7<t	34
5037622	14950	swiss chard	110	0.2<w	32	25	0.3<t	8300	0.7<t	0.4<t	11	200	0	6500	110	1	5.7	9.7	0.5<w	31
5037620	14931	tomato	17<t	0.2<w	2.7	14	0.4<t	1500	0.5<w	0.4<t	11	70	0.5<w	2000	22	0.2<w	11	3.6	0.5<w	25
	14932	tomato	34	0.2<w	4	14	0.5	1600	0.5<w	0.4<t	10	70	0.5<w	2100	25	0.2<w	12	4.6	0.5<w	24
5037626	14993	tomato	52	0.2<w	2.7	16	0.1<w	2200	0.5<w	0.2<w	7.8	63	0	1400	13	0.7<t	0.5<w	4.7	0.5<w	18
5037623	14957	tomato, red	7<t	0.2<w	0.9<t	13	0.1<w	1200	0.8<t	0.2<w	5.2	31	0	1500	9	0.6<t	1.8<t	1.1<t	0.5<w	14
	14958	tomato, red	8<t	0.2<w	0.8<t	11	0.1<w	1300	0.7<t	0.2<w	5.8	32	0	1600	9	0.7<t	1.6<t	1.2<t	0.5<w	15
5037623	14959	tomato, yellow	5<w	0.2<w	0.6<t	12	0.1<w	890	0.5<w	0.2<w	4	23<t	0.5<w	1100	7.1	0.4<t	1.1<t	1<t	0.5<w	13
5037620	14927	zucchini	8<t	0.2<w	8.9	23	0.1<w	3100	0.7<t	1.1	11	60	0.5<w	3000	55	0.4<t	40	9.2	0.5<w	48
	14928	zucchini	20<t	0.2<w	7.4	24	0.2<t	2900	0.5<w	1.1	14	100	0.5<w	3700	56	0.2<w	43	9.2	0.5<w	61
5037624	14963	zucchini	6<t	0.2<w	1.5<t	27	0.1<w	5100	0.7<t	0.2<w	14	64	0	2900	14	0.5<t	3.3	5.6	0.5<w	48
	14964	zucchini	5<w	0.2<w	1.8<t	26	0.1<w	3200	0.5<w	0.3<t	11	50	0	3100	13	0.3<t	3.3	4.6	0.5<w	40
Market Garden Controls																				
5037625	14983	beans, green	50	0.2<w	6	21	0.1<w	3300	0.6<t	0.2<w	8.2	120	1.4<t	2400	16	0.8<t	0.5<w	9.8	0.5<w	38
5037625	14984	beans, yellow	34	0.2<w	10	23	0.1<w	4800	0.5<w	0.2<w	7.9	100	0.5<w	3000	18	1	0.7<t	14	0.5<w	39
5037625	14979 †	beet root	310	0.2<w	35	20	0.4<t	3000	8.2	0.2<w	11	350	1.6<t	3200	46	1	5.6	19	0.7<t	77
5037625	14981	carrot	150	0.2<w	33	24	0.5	3300	0.6<t	0.2<w	7.1	150	1.9<t	1900	14	0.2<w	0.5<w	17	0.5<w	31
5037625	14980	cucumber	93	0.2<w	7.4	19	0.1<w	5500	0.8<t	0.2<w	11	150	1.0<t	4200	14	3	0.6<t	14	0.5<w	47
5037625	14987 †	lettuce	2400	0.8<t	40	19	0.4<t	13000	5.8	1.2	15	2300	19	3300	79	2	3.7	45	5.3	69
5037625	14982	pepper, green	71	0.2<w	2.7	20	0.2<t	2100	0.5<w	0.3<t	13	130	0.9<t	1900	14	0.6<t	0.7<t	4.5	0.5<w	28
5037625	14986 †	swiss chard	1600	0.8<t	65	21	0.2<t	14000	3.8	0.7<t	7.5	1500	10	11000	52	0.7<t	2.2<t	48	3.6	49
5037625	14985	tomato	7.<t	0.2<w	0.7<t	10	0.2<t	1100	0.5<w	0.2<w	6.5	35	0.6<t	850	11	0.2<w	1.1<t	0.9<t	0.5<w	23

All data are µg/g dry weight of duplicate samples where sufficient produce was available. <t - trace amount, <w - no measurable response above detection limit.
Antimony (Sb), beryllium (Be), and selenium (Se) are not reported as all results were 0.2<w.
† - magnetic particles removed before analysis, see Discussion 7.4 and Appendix G for details.

Table D3.3: Results of Chemical Analysis for Commercial and Wild Berries Collected Within the City of Greater Sudbury.

Station	Sample Number	Type of Fruit	Al	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	Zn
Commercial Berry Farms																			
5037413	14843	Raspberry	5<w	6.7	6	0.1<w	1400	0.5<w	0.2<w	4.6	23<t	0.5<w	960	17	0.2<w	4.6	0.2<w	3	10
	14844	Raspberry	5<w	7.7	7	0.1<w	1400	0.5<w	0.2<w	4.4	25	0.5<w	1000	17	0.2<w	4.9	0.2<w	2.9	11
5037414	14847	Raspberry	5<w	2.1<t	7	0.1<w	1700	0.5<w	0.2<w	4.9	32	0.6<t	1600	16	1	5.9	0.2<w	1.6<t	13
	14848	Raspberry	5<w	1.8<t	11	0.1<w	1600	0.5<w	0.2<w	5.1	27	0.5<w	1500	15	1.1	5.9	0.2<w	1.5<t	13
5037419	14867	Raspberry	5<w	2.1<t	9	0.8	1700	0.5<w	0.2<w	5.3	68	0.5<w	1100	59	0.2<w	8.9	0.2<w	2.2<t	13
	14868	Raspberry	5<w	1.9<t	11	0.1<w	1600	0.5<w	0.3<t	4.6	30	0.5<w	930	84	0.2<w	9.6	0.2<w	2.0<t	11
5037421	14875	Raspberry	11<t	8.4	9	0.1<w	1900	0.5<w	0.2<w	5.1	34	0.6<t	1000	25	0.4<t	8.3	0.2<w	9.5	12
	14876	Raspberry	5<w	4.8	5	0.1<w	1500	0.5<w	0.2<w	4.8	40	0.5<w	1000	12	0.3<t	5.8	0.2<w	2.1<t	10
5037424	14887	Raspberry	6<t	2.5	11	0.1<w	1100	0.5<w	0.2<w	5.9	34	0.6<t	1300	16	0.5<t	8	0.2<w	2.1<t	20
	14888	Raspberry	5<w	2.4<t	9	0.1<w	930	0.5<w	0.2<w	5.3	28	0.5<w	1200	11	0.5<t	6.6	0.2<w	1.9<t	17
5037425	14891	Raspberry	5<w	4.9	7	0.1<w	1500	0.5<w	0.2<w	5.6	33	0.5<w	1500	15	0.6<t	6.8	0.2<w	2.9	13
	14892	Raspberry	5<w	5.1	7	0.1<w	1400	0.5<w	0.2<w	6.2	32	0.5<w	1500	18	0.5<t	6.4	0.2<w	2.6	14
5037426	14895	Raspberry	6<t	6	7	0.1<w	1700	0.5<w	0.2<w	5.7	35	0.5<w	1400	15	0.5<t	7.4	0.2<w	2.3<t	13
	14896	Raspberry	6<t	5.3	7	0.1<w	1700	0.5<w	0.2<w	5.5	23<t	0.5<w	970	17	0.3<t	6.5	0.2<w	5	9
5037428	14903	Raspberry	12<t	1<t	6	0.1<w	1100	0.5<w	0.2<w	4.1	32	1.1<t	900	53	0.3<t	5.5	0.2<w	1.0<t	11
	14904	Raspberry	10<t	1<t	6	0.1<w	1000	0.5<w	0.2<w	4.6	32	0.5<w	970	49	0.2<w	5.4	0.2<w	0.9<t	13
5037415	14851	Strawberry	5<w	5.1	8	0.1<w	950	0.5<w	0.2<w	6	25	0.5<w	1000	8.5	0.7<t	1.4<t	0.2<w	1.0<t	7
	14852	Strawberry	5<w	5.7	6	0.1<w	920	0.5<w	0.2<w	6.5	23<t	0.5<w	1000	4.6	0.7<t	1.6<t	0.2<w	1.0<t	7
5037417	14859 †	Strawberry	6<t	5.7	9	0.1<w	1000	0.5<w	0.4<t	4.5	29	0.5<w	840	18	0.4<t	2.2<t	0.2<w	1.8<t	6
	14860	Strawberry	5<w	14	7	0.1<w	1900	0.5<w	0.2<w	4.5	23<t	0.5<w	1200	17	0.4<t	2.0<t	0.2<w	4.3	6
5037418	14863 †	Strawberry	8<t	4	7	0.1<w	1100	0.5<w	0.2<w	3.5	36	0.5<w	630	29	0.2<w	2.2<t	0.2<w	1.8<t	5
	14864	Strawberry	7<t	3.9	7	0.1<w	1300	0.5<w	0.2<w	2.7	25	0.5<w	610	26	0.2<w	1.5<t	0.2<w	2.1<t	5
5037420	14871	Strawberry	8<t	12	8	0.1<w	2100	0.5<w	0.2<w	4.5	27	0.5<w	960	16	0.4<t	2.0<t	0.2<w	4.7	6
	14872	Strawberry	11<t	9.8	6	0.1<w	1300	0.5<w	0.2<w	3.8	31	0.5<w	860	13	0.4<t	1.9<t	0.2<w	3.1	5
5037422	14879	Strawberry	5<w	12	6	0.1<w	1300	0.5<w	0.2<w	2.5	63	0.5<w	540	14	0.2<w	1.5<t	0.2<w	3.3	4<t
	14880	Strawberry	5<w	9.9	6	0.1<w	1300	0.5<w	0.2<w	2<t	13<t	0.5<w	510	12	0.2<w	1.5<t	0.2<w	3.2	4<t

Table D3.3: Results of Chemical Analysis for Commercial and Wild Berries Collected Within the City of Greater Sudbury.

Station	Sample Number	Type of Fruit	Al	Ba	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	Zn
5037423	14883	Strawberry	5<w	13	8	0.1<w	1700	0.5<w	0.3<t	3.9	160	0.5<w	1000	17	0.3<t	2.2<t	0.2<w	4.2	8
	14884	Strawberry	5<w	11	8	0.1<w	1800	0.5<w	0.2<w	4.6	35	0.5<w	1000	14	0.3<t	2.1<t	0.2<w	4.3	7
5037429	14907	Strawberry	5<w	7.2	7	0.2<t	930	0.5<w	0.2<w	2.8	19<t	0.5<w	740	21	0.2<w	1.7<t	0.2<w	1.9<t	7
	14908	Strawberry	5<w	7.5	8	0.2<t	1100	0.5<w	0.2<w	3	20<t	0.5<w	840	25	0.2<w	1.9<t	0.2<w	2.5	7
Commercial Berry Farm Control																			
5037427	14899	Raspberry	5<w	2.1<t	5	0.1<w	1900	0.5<w	0.2<w	4.4	29	0.8<t	1100	16	1	1.1<t	0.2<w	2.1<t	15
	14900	Raspberry	5<w	2.1<t	6	0.1<w	1800	0.5<w	0.2<w	3.9	26	0.5<w	1000	15	0.8<t	0.9<t	0.2<w	2.0<t	14
5037617	14971	Raspberry	250	3.3	10	0.1<w	1900	0.6<t	0.2<w	3.8	97	0.5<w	1200	18	0.8<t	1.0<t	0.2<w	2.7	21
	14972	Raspberry	160	5.1	14	0.1<w	2400	0.5<w	0.2<w	5.5	63	0.5<w	1400	21	0.9<t	0.5<w	0.2<w	3.8	25
5037618	14975	Strawberry	190	7.7	12	0.1<w	1600	0.5<w	0.2<w	4.4	32	1.2<t	920	13	0.6<t	0.5<w	0.2<w	3.3	8
	14976	Strawberry	240	7.3	12	0.1<w	1600	0.5<w	0.2<w	3.4	34	0.5<w	960	13	0.4<t	0.6<t	0.2<w	3	8
Wild Blueberry																			
5037416	14855	Wild	9<t	7.9	8	0.1<w	850	0.5<w	0.2<w	3.7	15<t	0.5<w	340	73	0.2<w	4.8	0.2<w	2.3<t	5
	14856	Wild	10<t	8.4	8	0.1<w	970	0.5<w	0.2<w	3.9	16<t	0.5<w	390	66	0.2<w	5.9	0.2<w	2.1<t	6
5037430	14911	Wild	8<t	5.3	6	0.1<w	700	0.5<w	0.2<w	4.5	53	0.5<w	260	97	0.2<w	4.7	0.2<w	2.2<t	2<t
	14912	Wild	9<t	4.3	5	0.1<w	640	0.5<w	0.2<w	4.7	25	0.5<w	260	98	0.2<w	4.3	0.2<w	1.6<t	2<t
5037431	14915	Wild	24<t	10	9	0.1<w	1500	0.5<w	0.2<w	6.7	35	0.5<w	310	110	0.2<w	6.8	0.2<w	1.8<t	4<t
	14916	Wild	24<t	9.4	9	0.1<w	1300	0.5<w	0.2<w	6.4	35	0.5<w	370	110	0.2<w	7.1	0.3<t	0.9<t	4<t
Wild Blueberry Control																			
5037616	14967	Wild	18<t	10	7	0.1<w	730	0.7<t	0.2<w	2.7	23<t	0.7<t	330	370	0.2<w	0.9<t	0.2<w	0.8<t	5
	14968	Wild	20<t	9.4	6	0.1<w	710	0.5<w	0.2<w	2.5	27	1.1<t	320	350	0.2<w	0.7<t	0.2<w	0.8<t	6

All data are µg/g dry weight of duplicate samples where sufficient produce was available. <t - trace amount, <w - no measurable response above detection limit.
Arsenic (As), beryllium (Be), and antimony (Sb) are not reported as all results were 0.2<w. All vanadium (V) results were 0.5<w.
† - magnetic particles removed before analysis, see Discussion 7.4 and Appendix G for details.

4. SAMPLING STATION CO-ORDINATES

Table D4.1: Market Garden, Commercial Berry and Wild Blueberry Sampling Station Coordinates
(Map Datum NAD 83, accurate to ±30 metres)

Station	Zone	Easting	Northing	Latitude	Longitude
5037413	17	508974	5167570	46.661632	-80.882699
5037414	17	509617	5166023	46.647701	-80.874327
5037415	17	509570	5166097	46.648368	-80.874939
5037416	17	509644	5166044	46.64789	-80.873973
5037417	17	509585	5166484	46.651851	-80.874735
5037418	17	496047	5164051	46.630012	-81.05164
5037419	17	496057	5163974	46.629319	-81.051509
5037420	17	487059	5160211	46.595341	-81.168948
5037421	17	487089	5160199	46.595234	-81.168556
5037422	17	487072	5160053	46.593919	-81.168774
5037423	17	487126	5160140	46.594703	-81.168071
5037424	17	509693	5166595	46.652848	-80.873322
5037425	17	509766	5166843	46.655079	-80.872362
5037426	17	509681	5166893	46.65553	-80.873472
5037427	17	410765	5114652	46.179598	-82.156175
5037428	17	492275	5160513	46.598139	-81.100857
5037429	17	492217	5160978	46.602323	-81.101622
5037430	17	494744	5152997	46.530523	-81.068537
5037431	17	513234	5157928	46.57479	-80.827292
5037616	17	453039	5201860	46.968599	-81.617339
5037617	17	326986	5127591	46.279836	-83.245763
5037618	17	326962	5127474	46.278777	-83.246032
5037619	17	495212	5161832	46.610037	-81.062525
5037620	17	495254	5161734	46.609155	-81.061976
5037621	17	512448	5155255	46.550749	-80.837622
5037622	17	512453	5155233	46.550551	-80.837557
5037623	17	512480	5155200	46.550254	-80.837206
5037624	17	512503	5155210	46.550343	-80.836905
5037625	17	328318	5125803	46.264094	-83.227835
5037626	17	493088	5160680	46.599651	-81.090245
5037627	17	494069	5162313	46.614356	-81.077458
5037628	17	494536	5163269	46.622964	-81.07137
5037629	17	434171	5117298	46.206074	-81.853324

Table D3.1: Results of Chemical Analysis for Soil Collected from Market Gardens, Commercial Berry Farms, and Wild Blueberry Sites.

Station	Sample Number	Soil Depth	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
5037431	14917	0 - 15	6400	<0.8	**34**	24	<0.5	<0.8	710	16	6	**120**	10000	17	1100	110	<1.5	**77**	<1	<10	19	16
	14918	0 - 15	6500	<0.8	**39**	29	<0.5	<0.8	610	16	7	**160**	10000	21	1100	140	<1.5	**98**	1	<10	18	16
Wild Blueberry Control																						
5037616	14965	0 - 10	8900	<0.8	6	59	<0.5	<0.8	3100	15	3	15	10000	15	1100	260	<1.5	20	<1	20	25	26
	14966	0 - 10	11000	<0.8	5	53	<0.5	<0.8	3600	19	3	14	13000	13	1400	230	<1.5	19	<1	36	32	25
Table F			N/A	1	14	190	1.2	1	N/A	67	19	56	N/A	55	N/A	N/A	2.5	43	1.4	N/A	91	150
Table A			N/A	13	20	750	1.2	3	N/A	750	40	150	N/A	200	N/A	N/A	5	150	2	N/A	200	600

All data are µg/g dry weight, mean of duplicate samples and analysis. Data in bold exceed the Table F Ontario Typical Range Background Soil Guideline for the agricultural land use category (MOE 1997, Appendix H). Data in bold and underlined exceed the Table A Soil Clean-up Guideline for coarse agricultural soils (MOE 1997, Appendix H). N/A - no applicable guidelines exist for naturally occurring elements. < - less than the Method Detection Limit (MDL).

City of Greater Sudbury 2001 Urban Soil Survey

Appendix E

Soil

pH
Electrical Conductivity
Total Organic Carbon

Results

1. Methods

In addition to the twenty inorganic chemical analysis conducted on each soil sample, one in ten soil samples were analyzed for pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC). Samples with sample numbers ending in “0" were selected to have these additional analysis carried out on them. In the initial sample submission to the laboratory the laboratory mistakenly performed the three additional test on all samples. This resulted in the quota for these analysis being used up before all samples had been analyzed. As a result only a portion of the Park soil samples were analyzed for pH, EC and TOC as the parks were sampled last.

The results are organized by sampling Station Number. The Electrical Conductivity results are in μS/cm and the Total Organic Carbon results are in mg/g dry weight. In some case only one or two of the three analysis were conducted on a sample.

Table E1: Soil pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC) Results for the City of Greater Sudbury, 2001

Station No.	Community	Landuse	Area Used For	Sample No.	Sample Type	Soil Depth	TOC	EC	pH
5028001	Sudbury (Core)	Residential	Yard - back	21115	Urban Soil	0-5 cm	50	49	6.8
5028002	Sudbury (Core)	Residential	Yard - back	21125	Urban Soil	10-20 cm	24	101	6.3
5028004	Sudbury (Core)	Residential	Yard - back	21135	Urban Soil	5-10 cm	25	89	6.2
5028006	Sudbury (Core)	Residential	Yard - back	21145	Urban Soil	0-5 cm	27	391	6.8
5028007	Sudbury (New)	Residential	Yard - front	17735	Urban Soil	5-10 cm	38	157	5.9
5028009	Sudbury (New)	Residential	Yard - front	17745	Urban Soil	0-5 cm	34	242	6.4
5028010	Sudbury (New)	Residential	Yard - front	17755	Urban Soil	10-20 cm	8	195	7.5
5028012	Sudbury (New)	Residential	Yard - back	17765	Urban Soil	5-10 cm	13	169	6.8
5028013	Sudbury (New)	Residential	Yard - front	17775	Urban Soil	0-5 cm	37	200	6.5
5028014	Sudbury (New)	Residential	Yard - back	17785	Urban Soil	10-20 cm	29	141	6.3
5028016	Sudbury (New)	Residential	Yard - back	17795	Urban Soil	5-10 cm	12	77	6.1
5028018	Sudbury (New)	Residential	Yard - front	17805	Urban Soil	0-5 cm	31	165	5.7
5028019	Sudbury (New)	Residential	Yard - back	17815	Urban Soil	10-20 cm	12	100	5.7
5028021	Sudbury (New)	Residential	Yard - back	17825	Urban Soil	5-10 cm	25	145	6.6
5028023	Sudbury (New)	Residential	Yard - front	17835	Urban Soil	0-5 cm	20	152	6.7
5028024	Sudbury (New)	Residential	Yard - front	17845	Urban Soil	10-20 cm	13	77	6.4
5028027	Sudbury (East)	Residential	Yard - back	17655	Urban Soil	0-5 cm	21	359	7.0
5028030	Sudbury (East)	Residential	Yard - front	21055	Urban Soil	0-5 cm	20	179	5.7
5028031	Sudbury (East)	Residential	Yard - back	21065	Urban Soil	10-20 cm	13	90	5.7
5028033	Sudbury (East)	Residential	Yard - front	21075	Urban Soil	5-10 cm	12	275	7.1
5028034	Sudbury (South)	Residential	Yard - front	19015	Urban Soil	5-10 cm	20	88	6.1
5028036	Sudbury (South)	Residential	Yard - back	19025	Urban Soil	0-5 cm	10	166	5.6
5028037	Sudbury (South)	Residential	Yard - back	19035	Urban Soil	10-20 cm	10	223	7.5
5028039	Sudbury (South)	Residential	Yard - front	19045	Urban Soil	5-10 cm	8	91	6.8
5028041	Lively	Residential	Yard - back	17665	Urban Soil	10-20 cm	42	373	6.9
5028043	Lively	Residential	Yard - back	17675	Urban Soil	5-10 cm	21	75	6.1
5028045	Lively	Residential	Yard - back	17685	Urban Soil	0-5 cm	63	330	7.0
5028046	Lively	Residential	Yard - front	17695	Urban Soil	10-20 cm	6	68	6.9
5028048	Lively	Residential	Yard - front	17705	Urban Soil	5-10 cm	20	224	6.7
5028050	Lively	Residential	Yard - front	17715	Urban Soil	0-5 cm	31	275	6.4

EC - is in µS/cm TOC - is in mg/g dry weight nd - not determined

Table E1: Soil pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC) Results for the City of Greater Sudbury, 2001

Station No.	Community	Landuse	Area Used For	Sample No.	Sample Type	Soil Depth	TOC	EC	pH
5028051	Lively	Residential	Yard - front	17725	Urban Soil	10-20 cm	9	110	6.1
5028053	Lively	Residential	Yard - front	17855	Urban Soil	5-10 cm	18	58	5.7
5028055	Lively	Residential	Yard - front	17865	Urban Soil	0-5 cm	14	198	6.5
5028056	Lively	Residential	Yard - front	17885	Urban Soil	5-10 cm	10	155	7.1
5028057	Lively	Residential	Yard - back	17875	Urban Soil	10-20 cm	10	96	6.4
5028059	Azilda	Residential	Yard - front	19055	Urban Soil	0-5 cm	41	380	7.1
5028060	Azilda	Residential	Yard - back	19065	Urban Soil	10-20 cm	31	304	7.4
5028062	Azilda	Residential	Yard - back	19075	Urban Soil	5-10 cm	32	296	7.4
5028064	Azilda	Residential	Yard - front	19085	Urban Soil	0-5 cm	27	219	6.8
5028065	Azilda	Residential	Yard - back	19095	Urban Soil	10-20 cm	6	74	7.0
5028067	Azilda	Residential	Yard - front	19105	Urban Soil	5-10 cm	17	160	7.2
5028069	Azilda	Residential	Yard - back	19115	Urban Soil	0-5 cm	27	349	7.3
5028070	Azilda	Residential	Yard - front	19125	Urban Soil	10-20 cm	3	85	7.3
5028072	Azilda	Residential	Yard - back	19135	Urban Soil	5-10 cm	23	109	6.7
5028074	Sudbury (South)	Residential	Yard - back	19145	Urban Soil	0-5 cm	33	163	6.2
5028075	Sudbury (South)	Residential	Yard - back	19155	Urban Soil	10-20 cm	12	104	6.1
5028076	Sudbury (South)	Residential	Yard - side	19165	Urban Soil	5-10 cm	12	80	5.7
5028081	Sudbury (New)	Residential	Yard - back	20625	Urban Soil	5-10 cm	26	129	6.9
5028083	Sudbury (New)	Residential	Yard - back	20635	Urban Soil	0-5 cm	17	224	6.7
5028086	Sudbury (New)	Residential	Yard - back	20655	Urban Soil	5-10 cm	29	173	5.8
5028088	Sudbury (New)	Residential	Yard - back	20665	Urban Soil	0-5 cm	43	979	7.0
5028089	Sudbury (New)	Residential	Yard - back	20675	Urban Soil	10-20 cm	15	378	7.0
5028090	Copper Cliff	Residential	Yard - front	17895	Urban Soil	0-5 cm	86	346	5.4
5028091	Copper Cliff	Residential	Yard - back	17905	Urban Soil	10-20 cm	36	231	7.0
5028102	Garson	Residential	Yard - front	21715	Urban Soil	5-10 cm	14	108	6.0
5028104	Garson	Residential	Yard - back	21685	Urban Soil	5-10 cm	18	103	6.8
5028106	Garson	Residential	Yard - front	21675	Urban Soil	10-20 cm	7	65	6.8
5028107	Garson	Residential	Yard - front	21665	Urban Soil	0-5 cm	6	117	6.7
5028109	Garson	Residential	Yard - front	21655	Urban Soil	5-10 cm	12	208	7.4
5028111	Garson	Residential	Yard - back	21645	Urban Soil	10-20 cm	9	107	7.0

EC - is in µS/cm TOC - is in mg/g dry weight nd - not determined

Table E1: Soil pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC) Results for the City of Greater Sudbury, 2001

Station No.	Community	Landuse	Area Used For	Sample No.	Sample Type	Soil Depth	TOC	EC	pH
5028113	Garson	Residential	Yard - front	19425	Urban Soil	10-20 cm	4	127	7.2
5028114	Garson	Residential	Yard - front	19415	Urban Soil	0-5 cm	20	210	6.8
5028116	Garson	Residential	Yard - front	19405	Urban Soil	5-10 cm	6	92	6.7
5028118	SKEAD	Residential	Yard - back	19465	Urban Soil	10-20 cm	9	45	6.5
5028120	SKEAD	Residential	Yard - front	19455	Urban Soil	10-20 cm	4	66	6.7
5028121	SKEAD	Residential	Yard - back	19445	Urban Soil	0-5 cm	19	180	6.3
5028123	SKEAD	Residential	Yard - front	19435	Urban Soil	5-10 cm	4	55	5.4
5030445	Sudbury (Core)	Parks	Greenspace	20035	Urban Soil	0-5 cm	28	479	6.3
5030446	Sudbury (Core)	Parks	Greenspace	20045	Urban Soil	10-20 cm	13	149	6.7
5030449	Sudbury (Core)	Parks	Greenspace	20055	Urban Soil	0-5 cm	32	534	6.8
5030450	Sudbury (Core)	Parks	Greenspace	20065	Urban Soil	10-20 cm	31	162	6.7
5030453	Sudbury (Core)	Parks	Play structure	20075	Play/Beach Sand	0-10 cm	222	nd	7.4
5030456	Sudbury (Core)	Parks	Native	20085	Undisturbed Soil	0-5 cm	58	146	4.9
5030463	Copper Cliff	Parks	Baseball outfield	20095	Urban Soil	5-10 cm	12	264	6.8
5030465	Copper Cliff	Parks	Baseball outfield	20105	Urban Soil	0-5 cm	204	nd	7.2
5030466	Copper Cliff	Parks	Baseball infield	20115	Urban Soil	10-20 cm	9	74	7.0
5030468	Copper Cliff	Parks	Greenspace	20125	Urban Soil	5-10 cm	6	176	7.4
5030470	Copper Cliff	Parks	Play structure	20135	Play/Beach Sand	0-5 cm	1	30	7.5
5030473	Copper Cliff	Parks	Greenspace	20145	Urban Soil	10-20 cm	11	306	7.4
5030476	Falconbridge	Parks	Greenspace	20155	Urban Soil	10-20 cm	65	136	6.0
5030478	Falconbridge	Parks	Baseball outfield	20165	Urban Soil	5-10 cm	12	207	6.4
5030480	Falconbridge	Parks	Baseball outfield	20175	Urban Soil	0-5 cm	16	113	6.2
5030481	Falconbridge	Parks	Baseball infield	20185	Urban Soil	10-20 cm	2	529	4.3
5030486	Falconbridge	Parks	Play structure	20195	Play/Beach Sand	0-5 cm	4	28	6.8
5030488	Falconbridge	Parks	Greenspace	20205	Urban Soil	5-10 cm	18	100	6.2
5030490	Falconbridge	Parks	Play structure	20215	Play/Beach Sand	0-5 cm	1	25	6.7
5030493	Coniston	Parks	Baseball outfield	20225	Urban Soil	5-10 cm	7	211	7.5
5030495	Coniston	Parks	Greenspace	20235	Urban Soil	5-10 cm	10	161	6.9
5030497	Coniston	Parks	Baseball outfield	20245	Urban Soil	10-20 cm	6	861	7.5
5030502	Coniston	Parks	Baseball infield	20255	Urban Soil	0-5 cm	17	612	7.2

EC - is in µS/cm TOC - is in mg/g dry weight nd - not determined

Table E1: Soil pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC) Results for the City of Greater Sudbury, 2001

Station No.	Community	Landuse	Area Used For	Sample No.	Sample Type	Soil Depth	TOC	EC	pH
5030504	Garson	Parks	Greenspace	20265	Urban Soil	5-10 cm	8	139	7.1
5030506	Garson	Parks	Play structure	20275	Play/Beach Sand	0-5 cm	1	49	6.4
5030509	Garson	Parks	Baseball infield	20285	Gravel	0-5 cm	2	128	7.5
5030511	Garson	Parks	Baseball infield	20295	Urban Soil	5-10 cm	1	117	6.6
5030545	Gatchell	Parks	Greenspace	20425	Urban Soil	5-10 cm	8	116	nd
5030547	Gatchell	Parks	Soccer field	20435	Urban Soil	10-20 cm	10	239	nd
5030551	Gatchell	Parks	Baseball outfield	20445	Urban Soil	5-10 cm	14	192	nd
5030553	Sudbury (Core)	Parks	Greenspace	20455	Urban Soil	10-20 cm	5	59	nd
5030595	Sudbury (Core)	Parks	Greenspace	20615	Urban Soil	10-20 cm	6	204	nd
5030596	Sudbury (South)	Parks	Soccer field	19175	Urban Soil	0-5 cm	30	174	6.9
5030609	Sudbury (New)	Parks	Play structure	20915	Play/Beach Sand	0-5 cm	1	25	nd
5030613	Sudbury (New)	Parks	Greenspace	20925	Urban Soil	5-10 cm	6	130	nd
5030617	Sudbury (New)	Parks	Greenspace	20935	Urban Soil	0-5 cm	38	287	nd
5030619	Sudbury (New)	Parks	Soccer field	20945	Urban Soil	5-10 cm	14	353	7.0
5030622	Sudbury (New)	Parks	Baseball outfield	20955	Urban Soil	5-10 cm	24	284	7.1
5030626	Sudbury (New)	Parks	Baseball outfield	20965	Urban Soil	0-5 cm	21	798	7.3
5030627	Sudbury (New)	Parks	Soccer field	20975	Urban Soil	10-20 cm	11	378	7.6
5030639	Val Caron	Parks	Play structure	19825	Play/Beach Sand	0-5 cm	2	25	5.9
5030643	Val Caron	Parks	Baseball outfield	19835	Urban Soil	10-20 cm	15	40	5.3
5030644	Val Caron	Parks	Greenspace	19845	Urban Soil	0-5 cm	19	54	5.3
5030647	Val Caron	Parks	Play structure	19855	Play/Beach Sand	0-15 cm	2	25	7.5
5030651	Val Caron	Parks	Play structure	19765	Play/Beach Sand	0-15 cm	3	25	5.8
5030654	Val Caron	Parks	Baseball infield	19775	Gravel	0-5 cm	8	184	7.0
5030657	Val Caron	Parks	Play structure	19785	Play/Beach Sand	0-15 cm	3	25	7.3
5030660	Val Caron	Parks	Play structure	19795	Play/Beach Sand	0-15 cm	2	25	6.9
5030663	Val Caron	Parks	Play structure	19805	Play/Beach Sand	0-15 cm	1	25	6.6
5030666	Guilletville	Parks	Play structure	19815	Play/Beach Sand	0-15 cm	1	25	6.0
5030670	Blezard Valley	Parks	Play structure	19865	Play/Beach Sand	0-5 cm	2	25	7.2
5030673	Blezard Valley	Parks	Baseball infield	19875	Gravel	0-5 cm	5	119	7.3
5030675	Blezard Valley	Parks	Baseball diamond	19885	Urban Soil	5-10 cm	19	74	6.2

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Table E1: Soil pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC) Results for the City of Greater Sudbury, 2001

Station No.	Community	Landuse	Area Used For	Sample No.	Sample Type	Soil Depth	TOC	EC	pH
5030677	Sudbury (East)	Parks	Play structure	19735	Play/Beach Sand	0-5 cm	1	25	6.4
5030680	Sudbury (East)	Parks	Greenspace	19745	Urban Soil	0-5 cm	41	240	5.8
5030681	Sudbury (East)	Parks	Native	19755	Undisturbed Soil	10-20 cm	12	31	5.1
5030756	Azilda	Parks	Greenspace	21545	Urban Soil	10-20 cm	20	339	7.5
5030759	Capreol	Parks	Baseball outfield	21555	Urban Soil	0-5 cm	29	213	6.8
5030760	Capreol	Parks	Baseball outfield	21565	Urban Soil	5-10 cm	25	110	6.8
5030763	Capreol	Parks	Soccer field	21575	Urban Soil	10-20 cm	29	83	7.4
5030766	Capreol	Parks	Greenspace	21585	Urban Soil	0-5 cm	44	290	6.9
5030767	Capreol	Parks	Greenspace	21595	Urban Soil	10-20 cm	22	221	7.5
5030770	Capreol	Parks	Greenspace	21605	Urban Soil	0-5 cm	27	124	6.4
5030772	Capreol	Parks	Greenspace	21615	Urban Soil	5-10 cm	10	62	6.3
5030774	Capreol	Parks	Greenspace	21625	Urban Soil	5-10 cm	13	27	5.8
5030778	Capreol	Parks	Greenspace	21635	Urban Soil	0-5 cm	24	77	5.6
5030844	Sudbury (South)	Parks	Greenspace	17945	Urban Soil	5-10 cm	6	191	7.2
5030849	Sudbury (South)	Parks	Play structure	17965	Play/Beach Sand	0-5 cm	6	71	6.8
5030852	Copper Cliff	Parks	Greenspace	17975	Urban Soil	0-5 cm	47	340	6.7
5030854	Lively	Parks	Greenspace	17985	Urban Soil	5-10 cm	18	178	6.6
5030856	Lively	Parks	Play structure	17995	Play/Beach Sand	0-5 cm	1	34	7.2
5030859	Lively	Parks	Greenspace	18005	Urban Soil	10-20 cm	9	241	6.9
5030862	Lively	Parks	Play structure	18015	Play/Beach Sand	0-5 cm	1	25	7.0
5030865	Lively	Parks	Greenspace	18025	Urban Soil	0-5 cm	15	104	6.3
5030878	Whitefish	Parks	Greenspace	18135	Urban Soil	5-10 cm	13	56	6.3
5030879	Hanmer	Parks	Play structure	18325	Play/Beach Sand	0-5 cm	2	27	6.5
5030883	Hanmer	Parks	Baseball outfield	18315	Urban Soil	10-20 cm	8	67	6.7
5030887	Hanmer	Parks	Play structure	18335	Play/Beach Sand	0-5 cm	2	25	6.4
5030890	Hanmer	Parks	Baseball infield	18345	Gravel	0-5 cm	4	84	7.3
5030893	Hanmer	Parks	Greenspace	18355	Urban Soil	0-5 cm	22	48	5.5
5030895	Hanmer	Parks	Baseball outfield	18365	Urban Soil	5-10 cm	11	83	6.3
5030901	Val Therese	Parks	Baseball outfield	18295	Urban Soil	0-5 cm	25	195	6.2
5030902	Val Therese	Parks	Greenspace	18305	Urban Soil	10-20 cm	14	65	6.3

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Table E1: Soil pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC) Results for the City of Greater Sudbury, 2001

Station No.	Community	Landuse	Area Used For	Sample No.	Sample Type	Soil Depth	TOC	EC	pH
5030908	Val Therese	Parks	Greenspace	18285	Urban Soil	5-10 cm	19	74	5.6
5030910	Whitefish	Parks	Greenspace	18145	Urban Soil	10-20 cm	17	115	6.5
5030913	Whitefish	Parks	Baseball outfield	18155	Urban Soil	0-5 cm	38	287	6.7
5030925	Naughton	Parks	Baseball outfield	18205	Urban Soil	5-10 cm	3	110	7.0
5030927	Lively	Parks	Greenspace	18215	Urban Soil	10-20 cm	1	25	7.2
5030930	Lively	Parks	Greenspace	18225	Urban Soil	10-20 cm	7	104	7.3
5030933	Lively	Parks	Baseball outfield	18235	Urban Soil	0-5 cm	29	186	6.1
5030950	Sudbury (South)	Parks	Native	21725	Undisturbed Soil	0-5 cm	39	48	4.5
5037003	Wanup	Schools/Day Cares	Baseball outfield	14233	Urban Soil	10-20 cm	15	64	5.8
5037008	Sudbury (South)	Schools/Day Cares	Greenspace	14030	Urban Soil	0-5 cm	16	314	6.5
5037010	Sudbury (South)	Schools/Day Cares	Play structure	14038	Play/Beach Sand	0-5 cm	1	25	6.9
5037012	Sudbury (South)	Schools/Day Cares	Greenspace	14047	Urban Soil	0-5 cm	25	593	6.8
5037014	Sudbury (South)	Schools/Day Cares	Baseball infield	14055	Gravel	0-5 cm	9	497	6.9
5037016	Sudbury (South)	Schools/Day Cares	Playground	14004	Urban Soil	5-10 cm	15	69	5.7
5037020	Sudbury (South)	Schools/Day Cares	Baseball outfield	14018	Urban Soil	0-5 cm	25	261	6.6
5037026	Sudbury (South)	Schools/Day Cares	Greenspace	14065	Urban Soil	0-5 cm	13	220	7.2
5037033	Sudbury (South)	Schools/Day Cares	Play structure	14075	Play/Beach Sand	0-5 cm	1	26	7.5
5037046	Sudbury (South)	Schools/Day Cares	Play structure	14094	Play/Beach Sand	0-5 cm	1	25	6.5
5037047	Sudbury (South)	Schools/Day Cares	Play structure	14104	Play/Beach Sand	0-5 cm	15	25	6.4
5037057	Sudbury (South)	Schools/Day Cares	Soccer field	14114	Urban Soil	0-5 cm	16	1440	6.6
5037064	Sudbury (South)	Schools/Day Cares	Play/beach sand pit	14122	Play/Beach Sand	0-5 cm	1	25	7.2
5037070	Sudbury (Core)	Schools/Day Cares	Long jump pit	14143	Play/Beach Sand	0-5 cm	1	25	6.0
5037074	Sudbury (Core)	Schools/Day Cares	Greenspace	14153	Urban Soil	10-20 cm	13	133	6.4
5037079	Sudbury (Core)	Schools/Day Cares	Soccer field	14162	Urban Soil	0-5 cm	26	642	5.0
5037080	Sudbury (Core)	Schools/Day Cares	Baseball infield	14163	Urban Soil	0-5 cm	7	27	6.6
5037081	Sudbury (Core)	Schools/Day Cares	Play structure	14164	Play/Beach Sand	0-5 cm	nd	35	6.3
5037087	Sudbury (Core)	Schools/Day Cares	Greenspace	14173	Urban Soil	0-5 cm	nd	142	6.1
5037090	Sudbury (Core)	Schools/Day Cares	Baseball infield	14183	Urban Soil	0-5 cm	nd	229	6.8
5037096	Sudbury (Core)	Schools/Day Cares	Baseball diamond	14193	Gravel	0-5 cm	nd	83	7.0
5037101	Sudbury (Core)	Schools/Day Cares	Greenspace	14212	Urban Soil	0-5 cm	16	112	5.8

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Table E1: Soil pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC) Results for the City of Greater Sudbury, 2001

Station No.	Community	Landuse	Area Used For	Sample No.	Sample Type	Soil Depth	TOC	EC	pH
5037105	Sudbury (Core)	Schools/Day Cares	Greenspace	14222	Urban Soil	0-5 cm	7	124	6.0
5037106	Sudbury (Core)	Schools/Day Cares	Baseball infield	14134	Gravel	0-5 cm	7	27	6.3
5037113	Sudbury (Core)	Schools/Day Cares	Play structure	14257	Play/Beach Sand	0-5 cm	1	25	6.7
5037117	Sudbury (Core)	Schools/Day Cares	Playground	14265	Play/Beach Sand	0-5 cm	2	27	6.6
5037122	Sudbury (Core)	Schools/Day Cares	Play structure	14275	Play/Beach Sand	0-5 cm	1	25	6.6
5037127	Sudbury (Core)	Schools/Day Cares	Playground	14285	Gravel	0-5 cm	5	300	7.1
5037134	Sudbury (Core)	Schools/Day Cares	Greenspace	14248	Urban Soil	5-10 cm	18	85	5.6
5037147	Sudbury (East)	Schools/Day Cares	Play structure	14305	Play/Beach Sand	0-5 cm	1	25	6.9
5037149	Sudbury (East)	Schools/Day Cares	Playground	14295	Gravel	0-5 cm	2	25	6.5
5037150	Sudbury (East)	Schools/Day Cares	Play structure	14363	Play/Beach Sand	0-5 cm	1	47	8.0
5037152	Sudbury (New)	Schools/Day Cares	Baseball diamond/soccer field	14395	Urban Soil	0-5 cm	23	93	5.7
5037157	Sudbury (New)	Schools/Day Cares	Baseball outfield	14385	Urban Soil	0-5 cm	5	63	5.9
5037164	Sudbury (New)	Schools/Day Cares	Baseball diamond	14445	Gravel	0-5 cm	2	25	4.7
5037171	Sudbury (New)	Schools/Day Cares	Baseball infield	14455	Urban Soil	0-5 cm	3	83	7.5
5037174	Sudbury (New)	Schools/Day Cares	Playground	14315	Urban Soil	10-20 cm	6	37	5.6
5037179	Sudbury (New)	Schools/Day Cares	Soccer field	14325	Urban Soil	0-5 cm	31	198	6.0
5037186	Sudbury (New)	Schools/Day Cares	Soccer field	14349	Urban Soil	0-5 cm	17	5460	7.0
5037187	Sudbury (New)	Schools/Day Cares	Play structure	14351	Play/Beach Sand	0-5 cm	1	25	6.6
5037195	Sudbury (New)	Schools/Day Cares	Baseball infield	14465	Urban Soil	0-5 cm	2	5420	7.9
5037200	Sudbury (New)	Schools/Day Cares	Playground	14472	Urban Soil	0-5 cm	14	100	6.1
5037209	Sudbury (New)	Schools/Day Cares	Baseball infield	14768	Gravel	0-5 cm	14	1282	5.4
5037216	Sudbury (New)	Schools/Day Cares	Soccer field	14335	Urban Soil	0-5 cm	24	360	6.7
5037224	Sudbury (New)	Schools/Day Cares	Play structure	14375	Play/Beach Sand	0-5 cm	1	31	8.0
5037229	Lively	Schools/Day Cares	Baseball infield	14699	Urban Soil	0-5 cm	13	471	7.4
5037231	Lively	Schools/Day Cares	Soccer field	14702	Urban Soil	0-5 cm	17	515	7.1
5037244	Lively	Schools/Day Cares	Playground	14719	Urban Soil	0-5 cm	5	102	5.4
5037251	Lively	Schools/Day Cares	Play structure	14730	Play/Beach Sand	0-5 cm	1	25	5.7
5037254	Copper Cliff	Schools/Day Cares	Playground	14675	Urban Soil	10-20 cm	24	406	6.8
5037255	Copper Cliff	Schools/Day Cares	Play structure	14676	Play/Beach Sand	0-5 cm	1	25	7.1
5037262	Whitefish	Schools/Day Cares	Soccer field	14741	Urban Soil	5-10 cm	12	78	5.6

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Table E1: Soil pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC) Results for the City of Greater Sudbury, 2001

Station No.	Community	Landuse	Area Used For	Sample No.	Sample Type	Soil Depth	TOC	EC	pH
5037266	Sudbury (East)	Schools/Day Cares	Playground	14773	Gravel	0-5 cm	2	318	7.9
5037270	Garson	Schools/Day Cares	Playground	14435	Gravel	0-5 cm	5	224	7.6
5037274	Garson	Schools/Day Cares	Playground	14425	Gravel	0-5 cm	5	42	7.3
5037276	Garson	Schools/Day Cares	Playground	14415	Gravel	0-5 cm	5	91	6.1
5037280	Val Caron	Schools/Day Cares	Baseball infield	14825	Urban Soil	0-5 cm	5	845	7.9
5037283	Val Caron	Schools/Day Cares	Soccer field	14834	Urban Soil	0-5 cm	59	195	6.0
5037287	Val Caron	Schools/Day Cares	Play structure	14785	Play/Beach Sand	0-5 cm	1	54	8.1
5037291	Val Caron	Schools/Day Cares	Play structure	14815	Play/Beach Sand	0-5 cm	5	34	6.5
5037302	Val Caron	Schools/Day Cares	Play structure	14795	Play/Beach Sand	0-5 cm	5	30	5.0
5037304	Blezard Valley	Schools/Day Cares	Playground	14805	Urban Soil	10-20 cm	14	65	5.3
5037311	Val Therese	Schools/Day Cares	Playground	14655	Urban Soil	0-5 cm	7	31	5.2
5037313	Val Therese	Schools/Day Cares	Play/beach sand box	14645	Play/Beach Sand	0-5 cm	1	66	7.4
5037318	Val Therese	Schools/Day Cares	Baseball diamond/soccer field	14665	Urban Soil	0-5 cm	17	145	6.3
5037323	Garson	Schools/Day Cares	Baseball diamond/soccer field	14405	Urban Soil	0-5 cm	38	117	6.5
5037325	Hanmer	Schools/Day Cares	Play structure	14625	Play/Beach Sand	0-5 cm	2	25	6.2
5037328	Hanmer	Schools/Day Cares	Baseball diamond/soccer field	14635	Urban Soil	10-20 cm	10	68	5.0
5037332	Hanmer	Schools/Day Cares	Soccer field	14613	Urban Soil	0-5 cm	20	102	5.7
5037334	Hanmer	Schools/Day Cares	Soccer field	14608	Urban Soil	0-5 cm	10	257	5.5
5037340	Hanmer	Schools/Day Cares	Soccer field	14588	Urban Soil	0-5 cm	17	405	6.6
5037342	Hanmer	Schools/Day Cares	Long jump pit	14595	Play/Beach Sand	0-5 cm	1	25	5.8
5037359	Falconbridge	Schools/Day Cares	Playground	14759	Play/Beach Sand	0-5 cm	1	29	7.3
5037364	Azilda	Schools/Day Cares	Playground	14483	Gravel	0-5 cm	3	25	6.6
5037371	Azilda	Schools/Day Cares	Playground	14499	Urban Soil	5-10 cm	9	92	5.6
5037375	Chelmsford	Schools/Day Cares	Football field	14505	Urban Soil	5-10 cm	13	195	6.2
5037378	Chelmsford	Schools/Day Cares	Play structure	14515	Play/Beach Sand	0-5 cm	1	25	6.8
5037391	Chelmsford	Schools/Day Cares	Play structure	14525	Play/Beach Sand	0-5 cm	1	25	7.7
5037393	Chelmsford	Schools/Day Cares	Playground	14535	Gravel	0-5 cm	7	85	7.2
5037396	Chelmsford	Schools/Day Cares	Baseball outfield	14545	Urban Soil	0-5 cm	9	114	6.0
5037399	Chelmsford	Schools/Day Cares	Play structure	14553	Play/Beach Sand	0-5 cm	1	25	7.1
5037402	Dowling	Schools/Day Cares	Soccer field	14557	Urban Soil	0-5 cm	36	135	6.5

EC - is in µS/cm TOC - is in mg/g dry weight nd - not determined

Table E1: Soil pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC) Results for the City of Greater Sudbury, 2001

Station No.	Community	Landuse	Area Used For	Sample No.	Sample Type	Soil Depth	TOC	EC	pH
5037406	Levack	Schools/Day Cares	Baseball diamond	14568	Gravel	0-5 cm	18	223	7.3
5037408	Levack	Schools/Day Cares	Baseball diamond/soccer field	14565	Urban Soil	5-10 cm	86	115	6.3
5037410	Whitefish	Schools/Day Cares	Soccer field	14746	Urban Soil	0-5 cm	26	1238	4.5
5037413	Capreol	Agriculture	Com. Berry	14845	Tilled Soil	0-10 cm	25	191	6.0
5037413	Capreol	Agriculture	Com. Berry	14846	Tilled Soil	0-10 cm	25	nd	nd
5037414	Capreol	Agriculture	Com. Berry	14849	Tilled Soil	0-10 cm	20	nd	nd
5037414	Capreol	Agriculture	Com. Berry	14850	Tilled Soil	0-10 cm	22	nd	nd
5037415	Capreol	Agriculture	Com. Berry	14853	Tilled Soil	0-10 cm	15	nd	nd
5037415	Capreol	Agriculture	Com. Berry	14854	Tilled Soil	0-10 cm	16	nd	nd
5037416	Capreol	Agriculture	Will blueberry	14857	Tilled Soil	0-15 cm	33	nd	nd
5037416	Capreol	Agriculture	Will blueberry	14858	Tilled Soil	0-15 cm	35	nd	nd
5037417	Capreol	Agriculture	Com. Berry	14861	Tilled Soil	0-15 cm	17	nd	nd
5037417	Capreol	Agriculture	Com. Berry	14862	Tilled Soil	0-15 cm	17	nd	nd
5037418	Blezard Valley	Agriculture	Com. Berry	14865	Tilled Soil	0-10 cm	17	411	5.1
5037418	Blezard Valley	Agriculture	Com. Berry	14866	Tilled Soil	0-10 cm	17	nd	nd
5037419	Blezard Valley	Agriculture	Com. Berry	14869	Tilled Soil	0-10 cm	14	nd	nd
5037419	Blezard Valley	Agriculture	Com. Berry	14870	Tilled Soil	0-10 cm	16	nd	nd
5037420	Chelmsford	Agriculture	Com. Berry	14874	Tilled Soil	0-15 cm	22	nd	nd
5037420	Chelmsford	Agriculture	Com. Berry	14873	Tilled Soil	0-15 cm	23	nd	nd
5037421	Chelmsford	Agriculture	Com. Berry	14877	Tilled Soil	0-15 cm	19	nd	nd
5037421	Chelmsford	Agriculture	Com. Berry	14878	Tilled Soil	0-15 cm	20	nd	nd
5037422	Chelmsford	Agriculture	Com. Berry	14882	Tilled Soil	0-15 cm	26	nd	nd
5037422	Chelmsford	Agriculture	Com. Berry	14881	Tilled Soil	0-15 cm	27	nd	nd
5037423	Chelmsford	Agriculture	Com. Berry	14885	Tilled Soil	0-15 cm	24	284	6.7
5037423	Chelmsford	Agriculture	Com. Berry	14886	Tilled Soil	0-15 cm	22	nd	nd
5037424	Hanmer	Agriculture	Com. Berry	14890	Tilled Soil	0-15 cm	33	nd	nd
5037424	Hanmer	Agriculture	Com. Berry	14889	Tilled Soil	0-15 cm	34	nd	nd
5037425	Hanmer	Agriculture	Com. Berry	14893	Tilled Soil	0-15 cm	18	nd	nd
5037425	Hanmer	Agriculture	Com. Berry	14894	Tilled Soil	0-15 cm	18	nd	nd
5037426	Hanmer	Agriculture	Com. Berry	14897	Tilled Soil	0-15 cm	15	nd	nd

EC - is in µS/cm TOC - is in mg/g dry weight nd - not determined

Table E1: Soil pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC) Results for the City of Greater Sudbury, 2001

Station No.	Community	Landuse	Area Used For	Sample No.	Sample Type	Soil Depth	TOC	EC	pH
5037426	Hanmer	Agriculture	Com. Berry	14898	Tilled Soil	0-15 cm	16	nd	nd
5037427	Massey	Agriculture	Com. Berry	14901	Tilled Soil	0-15 cm	13	nd	nd
5037427	Massey	Agriculture	Com. Berry	14902	Tilled Soil	0-15 cm	21	nd	nd
5037428	Blezard Valley	Agriculture	Com. Berry	14905	Tilled Soil	0-15 cm	21	717	5.6
5037428	Blezard Valley	Agriculture	Com. Berry	14906	Tilled Soil	0-15 cm	22	nd	nd
5037429	Blezard Valley	Agriculture	Com. Berry	14910	Tilled Soil	0-15 cm	18	nd	nd
5037429	Blezard Valley	Agriculture	Com. Berry	14909	Tilled Soil	0-15 cm	18	nd	nd
5037430		Agriculture	Will blueberry	14914	Undisturbed Soil	0-15 cm	36	nd	nd
5037430		Agriculture	Will blueberry	14913	Undisturbed Soil	0-15 cm	38	nd	nd
5037431		Agriculture	Will blueberry	14918	Undisturbed Soil	0-15 cm	9	nd	nd
5037431		Agriculture	Will blueberry	14917	Undisturbed Soil	0-15 cm	11	nd	nd
5037432	Gatchell	Residential	Garden	15155	Garden Soil	0-15 cm	45	414	6.7
5037434	Gatchell	Residential	Yard - back	15175	Urban Soil	0-5 cm	37	95	6.3
5037436	Copper Cliff	Residential	Yard - front	15195	Urban Soil	10-20 cm	16	111	6.4
5037439	Copper Cliff	Residential	Garden	15185	Garden Soil	0-15 cm	40	264	6.9
5037440	Copper Cliff	Residential	Yard - front	15215	Urban Soil	0-5 cm	23	132	6.3
5037443	Copper Cliff	Residential	Yard - front	15225	Urban Soil	0-5 cm	37	230	8.1
5037444	Copper Cliff	Residential	Yard - back	15235	Urban Soil	10-20 cm	35	144	6.1
5037446	Copper Cliff	Residential	Yard - front	15245	Urban Soil	0-5 cm	52	50	6.1
5037447	Copper Cliff	Residential	Yard - back	15255	Urban Soil	10-20 cm	51	25	6.2
5037449	Copper Cliff	Residential	Yard - back	15265	Urban Soil	0-5 cm	34	339	6.2
5037453	Copper Cliff	Residential	Yard - back	15285	Urban Soil	0-5 cm	41	178	6.4
5037456	Copper Cliff	Residential	Garden	15305	Garden Soil	0-15 cm	58	287	6.7
5037457	Copper Cliff	Residential	Yard - front	15315	Urban Soil	5-10 cm	17	187	6.5
5037460	Lively	Residential	Yard - front	15335	Urban Soil	10-20 cm	24	50	5.4
5037460	Lively	Residential	Yard - front	15334	Urban Soil	5-10 cm	20	54	5.4
5037464	Lively	Residential	Yard - back	15365	Urban Soil	10-20 cm	12	122	6.8
5037469	Gatchell	Residential	Yard - back	15385	Urban Soil	0-5 cm	33	100	5.8
5037489	Coniston	Residential	Yard - back	15495	Urban Soil	10-20 cm	12	163	7.0
5037491	Coniston	Residential	Yard - front	15515	Urban Soil	10-20 cm	39	102	6.6

EC - is in µS/cm TOC - is in mg/g dry weight nd - not determined

Table E1: Soil pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC) Results for the City of Greater Sudbury, 2001

Station No.	Community	Landuse	Area Used For	Sample No.	Sample Type	Soil Depth	TOC	EC	pH
5037494	Coniston	Residential	Yard - back	15525	Urban Soil	10-20 cm	22	102	6.6
5037496	Coniston	Residential	Yard - front	15545	Urban Soil	5-10 cm	16	100	6.7
5037498	Coniston	Residential	Garden	15535	Garden Soil	0-15 cm	31	194	7.0
5037499	Coniston	Residential	Yard - front	15635	Urban Soil	10-20 cm	14	114	6.9
5037501	Coniston	Residential	Garden	15625	Garden Soil	0-15 cm	52	176	6.9
5037505	Coniston	Residential	Yard - back	15665	Urban Soil	0-5 cm	53	128	6.5
5037506	Coniston	Residential	Garden	15655	Garden Soil	0-15 cm	57	725	6.7
5037507	Coniston	Residential	Yard - front	15675	Urban Soil	0-5 cm	72	458	5.6
5037508	Coniston	Residential	Yard - back	15685	Urban Soil	10-20 cm	16	87	5.6
5037510	Falconbridge	Residential	Yard - front	15555	Urban Soil	5-10 cm	8	53	6.3
5037513	Falconbridge	Residential	Yard - front	15575	Urban Soil	10-20 cm	48	194	7.0
5037514	Falconbridge	Residential	Yard - back	15565	Urban Soil	0-5 cm	55	310	6.4
5037517	Falconbridge	Residential	Yard - back	15605	Urban Soil	10-20 cm	74	95	6.0
5037520	Falconbridge	Residential	Yard - back	15615	Urban Soil	5-10 cm	54	150	6.4
5037523	Falconbridge	Residential	Yard - back	15726	Urban Soil	5-10 cm	20	78	6.5
5037525	Falconbridge	Residential	Yard - back	15741	Urban Soil	10-20 cm	30	119	6.4
5037525	Falconbridge	Residential	Yard - back	15737	Urban Soil	0-5 cm	87	257	6.4
5037527	Falconbridge	Residential	Yard - back	15750	Urban Soil	5-10 cm	53	128	6.0
5037528	Falconbridge	Residential	Yard - front	15765	Urban Soil	10-20 cm	55	192	6.6
5037530	Falconbridge	Residential	Yard - front	15775	Urban Soil	5-10 cm	74	317	6.8
5037532	Falconbridge	Residential	Yard - front	15785	Urban Soil	0-5 cm	91	188	6.4
5037534	Falconbridge	Residential	Yard - front	15795	Urban Soil	10-20 cm	41	162	6.4
5037536	Falconbridge	Residential	Yard - front	15805	Urban Soil	5-10 cm	45	180	6.7
5037538	Falconbridge	Residential	Yard - front	15815	Urban Soil	0-5 cm	154	nd	6.3
5037539	Falconbridge	Residential	Yard - back	15825	Urban Soil	10-20 cm	67	165	6.4
5037540	Falconbridge	Residential	Yard - front	15835	Urban Soil	5-10 cm	60	113	6.2
5037542	Falconbridge	Residential	Yard - front	15845	Urban Soil	0-5 cm	101	554	6.4
5037544	Falconbridge	Residential	Yard - front	15855	Urban Soil	10-20 cm	50	257	6.5
5037546	Falconbridge	Residential	Yard - front	15865	Urban Soil	5-10 cm	78	261	6.8
5037548	Falconbridge	Residential	Yard - front	15895	Urban Soil	5-10 cm	58	218	6.3

EC - is in µS/cm TOC - is in mg/g dry weight nd - not determined

Table E1: Soil pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC) Results for the City of Greater Sudbury, 2001

Station No.	Community	Landuse	Area Used For	Sample No.	Sample Type	Soil Depth	TOC	EC	pH
5037550	Falconbridge	Residential	Yard - front	15875	Urban Soil	0-5 cm	84	388	6.9
5037551	Falconbridge	Residential	Yard - back	15885	Urban Soil	10-20 cm	70	156	5.7
5037553	Falconbridge	Residential	Yard - back	15905	Urban Soil	0-5 cm	53	108	6.1
5037554	Falconbridge	Residential	Yard - front	15915	Urban Soil	10-20 cm	39	163	6.5
5037557	Falconbridge	Residential	Yard - back	15926	Urban Soil	10-20 cm	47	140	6.3
5037559	Falconbridge	Residential	Yard - back	15943	Urban Soil	5-10 cm	34	319	6.7
5037561	Falconbridge	Residential	Yard - back	15956	Urban Soil	10-20 cm	18	276	6.8
5037561	Falconbridge	Residential	Yard - back	15955	Urban Soil	5-10 cm	27	374	6.9
5037563	Falconbridge	Residential	Yard - back	15965	Urban Soil	0-5 cm	85	445	5.7
5037564	Falconbridge	Residential	Yard - front	15975	Urban Soil	10-20 cm	46	78	6.5
5037566	Falconbridge	Residential	Yard - front	15985	Urban Soil	5-10 cm	40	189	6.5
5037569	Falconbridge	Residential	Yard - front	15995	Urban Soil	0-5 cm	143	nd	6.2
5037570	Falconbridge	Residential	Yard - front	18445	Urban Soil	0-5 cm	25	174	6.7
5037573	Falconbridge	Residential	Yard - back	18465	Urban Soil	5-10 cm	72	140	6.4
5037574	Falconbridge	Residential	Yard - front	18473	Urban Soil	10-20 cm	30	201	6.7
5037575	Falconbridge	Residential	Yard - back	18479	Urban Soil	10-20 cm	89	203	6.6
5037576	Falconbridge	Residential	Yard - front	18485	Urban Soil	10-20 cm	18	125	7.1
5037578	Falconbridge	Residential	Yard - front	18495	Urban Soil	5-10 cm	65	158	6.6
5037580	Falconbridge	Residential	Yard - front	18505	Urban Soil	0-5 cm	50	304	6.6
5037581	Falconbridge	Residential	Yard - back	18515	Urban Soil	10-20 cm	25	104	6.5
5037583	Falconbridge	Residential	Yard - back	18525	Urban Soil	5-10 cm	57	208	6.0
5037585	Falconbridge	Residential	Yard - back	18535	Urban Soil	0-5 cm	30	188	5.6
5037586	Falconbridge	Residential	Yard - front	18546	Urban Soil	10-20 cm	37	154	6.4
5037589	Falconbridge	Residential	Yard - back	18559	Urban Soil	0-5 cm	80	296	6.6
5037589	Falconbridge	Residential	Yard - back	18563	Urban Soil	10-20 cm	34	183	6.9
5037590	Falconbridge	Residential	Yard - front	18565	Urban Soil	0-5 cm	96	nd	6.7
5037591	Falconbridge	Residential	Yard - back	18575	Urban Soil	10-20 cm	119	273	7.0
5037593	Falconbridge	Residential	Yard - back	18585	Urban Soil	5-10 cm	155	91	6.2
5037595	Falconbridge	Residential	Yard - back	18595	Urban Soil	0-5 cm	63	151	6.5
5037598	Falconbridge	Residential	Yard - front	18615	Urban Soil	5-10 cm	134	213	6.8

EC - is in µS/cm TOC - is in mg/g dry weight nd - not determined

Table E1: Soil pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC) Results for the City of Greater Sudbury, 2001

Station No.	Community	Landuse	Area Used For	Sample No.	Sample Type	Soil Depth	TOC	EC	pH
5037600	Falconbridge	Residential	Yard - front	18625	Urban Soil	0-5 cm	101	152	6.4
5037601	Falconbridge	Residential	Yard - back	18635	Urban Soil	10-20 cm	10	43	6.2
5037603	Falconbridge	Residential	Yard - back	18643	Urban Soil	0-5 cm	76	117	5.3
5037605	Falconbridge	Residential	Yard - back	18655	Urban Soil	0-5 cm	50	121	5.8
5037606	Falconbridge	Residential	Yard - front	18665	Urban Soil	10-20 cm	95	281	6.8
5037608	Falconbridge	Residential	Yard - front	18675	Urban Soil	5-10 cm	52	110	6.2
5037610	Falconbridge	Residential	Yard - front	18685	Urban Soil	0-5 cm	81	320	6.2
5037611	Falconbridge	Residential	Yard - back	18695	Urban Soil	10-20 cm	46	139	6.4
5037613	Falconbridge	Residential	Yard - back	18705	Urban Soil	5-10 cm	51	152	6.4
5037615	Falconbridge	Residential	Yard - back	18715	Urban Soil	0-5 cm	51	128	6.4
5037616		Agriculture	Com. Berry	14965	Tilled Soil	0-10 cm	72	nd	nd
5037622		Agriculture	Market garden	14945	Tilled Soil	0-15 cm	21	480	7.0
5037627		Agriculture	Market garden	14995	Tilled Soil	0-15 cm	15	1100	6.6
5037629		Agriculture	Market garden	15003	Tilled Soil	0-15 cm	15	270	5.8
5037630	Coniston	Residential	Yard - front	16004	Urban Soil	10-20 cm	5	100	6.7
5037632	Coniston	Residential	Yard - front	16015	Urban Soil	5-10 cm	18	96	6.3
5037634	Coniston	Residential	Yard - front	16035	Urban Soil	10-20 cm	37	221	6.6
5037635	Coniston	Residential	Yard - back	16025	Urban Soil	0-5 cm	51	106	5.6
5037637	Coniston	Residential	Yard - back	16045	Urban Soil	5-10 cm	17	155	6.8
5037639	Coniston	Residential	Yard - back	16055	Urban Soil	0-5 cm	73	325	6.4
5037640	Coniston	Residential	Yard - front	16065	Urban Soil	10-20 cm	10	222	6.5
5037645	Coniston	Residential	Yard - front	16095	Urban Soil	10-20 cm	26	78	6.5
5037647	Coniston	Residential	Yard - front	16105	Urban Soil	5-10 cm	17	97	6.4
5037650	Coniston	Residential	Yard - back	16115	Urban Soil	0-5 cm	34	115	6.1
5037651	Coniston	Residential	Yard - front	16125	Urban Soil	10-20 cm	12	72	6.3
5037653	Coniston	Residential	Yard - front	16135	Urban Soil	5-10 cm	12	49	6.5
5037655	Coniston	Residential	Yard - front	16155	Urban Soil	10-20 cm	6	60	6.7
5037656	Coniston	Residential	Yard - back	16145	Urban Soil	0-5 cm	16	90	6.6
5037658	Coniston	Residential	Yard - back	16165	Urban Soil	5-10 cm	25	206	6.4
5037660	Coniston	Residential	Yard - back	16175	Urban Soil	0-5 cm	31	218	6.3

EC - is in µS/cm TOC - is in mg/g dry weight nd - not determined

Table E1: Soil pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC) Results for the City of Greater Sudbury, 2001

Station No.	Community	Landuse	Area Used For	Sample No.	Sample Type	Soil Depth	TOC	EC	pH
5037661	Coniston	Residential	Yard - front	16185	Urban Soil	10-20 cm	6	48	6.4
5037663	Coniston	Residential	Yard - front	16195	Urban Soil	5-10 cm	19	156	6.8
5037665	Coniston	Residential	Yard - front	16205	Urban Soil	0-5 cm	26	98	6.1
5037666	Coniston	Residential	Yard - back	16215	Urban Soil	10-20 cm	17	50	6.5
5037668	Coniston	Residential	Yard - back	16225	Urban Soil	5-10 cm	13	146	7.2
5037670	Coniston	Residential	Yard - back	16235	Urban Soil	0-5 cm	105	39	6.8
5037671	Coniston	Residential	Yard - front	16245	Urban Soil	10-20 cm	25	338	6.6
5037673	Coniston	Residential	Yard - front	16255	Urban Soil	5-10 cm	11	100	7.2
5037675	Coniston	Residential	Yard - front	16265	Urban Soil	0-5 cm	46	223	7.0
5037676	Coniston	Residential	Yard - back	16275	Urban Soil	10-20 cm	19	96	7.0
5037678	Coniston	Residential	Yard - back	16285	Urban Soil	5-10 cm	15	86	6.6
5037680	Coniston	Residential	Yard - back	16295	Urban Soil	0-5 cm	43	359	6.6
5037681	Coniston	Residential	Yard - front	16305	Urban Soil	10-20 cm	8	131	7.2
5037683	Coniston	Residential	Yard - front	16315	Urban Soil	5-10 cm	30	128	7.0
5037685	Coniston	Residential	Yard - front	16325	Urban Soil	0-5 cm	58	70	5.5
5037686	Coniston	Residential	Yard - back	16335	Urban Soil	10-20 cm	11	103	6.3
5037688	Coniston	Residential	Yard - back	16345	Urban Soil	5-10 cm	89	361	7.1
5037690	Coniston	Residential	Yard - back	16355	Urban Soil	0-5 cm	49	797	6.2
5037691	Coniston	Residential	Yard - front	16365	Urban Soil	10-20 cm	18	166	6.4
5037693	Coniston	Residential	Yard - front	16377	Urban Soil	10-20 cm	10	47	6.3
5037695	Coniston	Residential	Yard - front	16385	Urban Soil	0-5 cm	54	253	6.5
5037696	Coniston	Residential	Yard - back	16395	Urban Soil	10-20 cm	17	144	6.7
5037698	Coniston	Residential	Yard - back	16405	Urban Soil	5-10 cm	12	44	5.6
5037700	Coniston	Residential	Yard - back	16415	Urban Soil	0-5 cm	68	305	6.7
5037701	Coniston	Residential	Yard - front	16425	Urban Soil	10-20 cm	8	51	6.3
5037703	Coniston	Residential	Yard - front	16435	Urban Soil	5-10 cm	12	112	7.1
5037705	Coniston	Residential	Yard - front	16445	Urban Soil	0-5 cm	26	304	7.2
5037706	Coniston	Residential	Yard - back	16455	Urban Soil	10-20 cm	15	113	7.1
5037710	Coniston	Residential	Yard - back	16475	Urban Soil	0-5 cm	20	165	5.7
5037711	Coniston	Residential	Yard - front	16485	Urban Soil	10-20 cm	4	61	5.8

EC - is in µS/cm TOC - is in mg/g dry weight nd - not determined

Table E1: Soil pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC) Results for the City of Greater Sudbury, 2001

Station No.	Community	Landuse	Area Used For	Sample No.	Sample Type	Soil Depth	TOC	EC	pH
5037713	Coniston	Residential	Yard - front	16495	Urban Soil	5-10 cm	25	320	6.9
5037715	Coniston	Residential	Yard - front	16505	Urban Soil	0-5 cm	48	99	6.5
5037716	Coniston	Residential	Yard - back	16515	Urban Soil	10-20 cm	12	77	6.9
5037718	Coniston	Residential	Yard - back	16525	Urban Soil	5-10 cm	25	166	6.7
5037720	Coniston	Residential	Yard - back	16535	Urban Soil	0-5 cm	35	131	6.4
5037721	Coniston	Residential	Yard - back	16545	Urban Soil	10-20 cm	14	31	6.2
5037723	Coniston	Residential	Yard - back	16555	Urban Soil	5-10 cm	20	89	6.9
5037725	Coniston	Residential	Yard - back	16565	Urban Soil	0-5 cm	50	205	6.3
5037726	Coniston	Residential	Yard - front	16575	Urban Soil	10-20 cm	12	109	6.6
5037728	Coniston	Residential	Yard - front	16585	Urban Soil	5-10 cm	17	112	6.7
5037730	Coniston	Residential	Yard - front	16595	Urban Soil	0-5 cm	27	101	6.4
5037731	Coniston	Residential	Yard - back	16605	Urban Soil	10-20 cm	16	70	6.2
5037733	Coniston	Residential	Yard - back	16615	Urban Soil	5-10 cm	23	154	7.1
5037735	Coniston	Residential	Yard - back	18732	Urban Soil	10-20 cm	8	59	6.8
5037738	Coniston	Residential	Yard - front	18750	Urban Soil	10-20 cm	10	53	6.8
5037739	Coniston	Residential	Yard - back	18755	Urban Soil	10-20 cm	9	26	6.2
5037741	Coniston	Residential	Yard - back	18765	Urban Soil	5-10 cm	16	165	7.4
5037743	Coniston	Residential	Yard - back	18775	Urban Soil	0-5 cm	41	228	7.1
5037744	Coniston	Residential	Yard - front	18785	Urban Soil	10-20 cm	10	127	7.6
5037746	Coniston	Residential	Yard - front	18795	Urban Soil	5-10 cm	19	164	7.3
5037748	Coniston	Residential	Yard - front	18805	Urban Soil	0-5 cm	34	218	6.1
5037750	Gatchell	Residential	Yard - front	16625	Urban Soil	0-5 cm	44	234	6.7
5037752	Gatchell	Residential	Yard - back	16635	Urban Soil	10-20 cm	8	60	5.5
5037754	Gatchell	Residential	Yard - front	16645	Urban Soil	5-10 cm	28	290	6.8
5037756	Gatchell	Residential	Yard - front	16655	Urban Soil	0-5 cm	34	225	6.6
5037757	Gatchell	Residential	Yard - back	16665	Urban Soil	10-20 cm	11	51	7.2
5037759	Gatchell	Residential	Yard - back	16675	Urban Soil	5-10 cm	7	59	6.6
5037761	Gatchell	Residential	Yard - back	16685	Urban Soil	0-5 cm	44	176	6.0
5037762	Gatchell	Residential	Yard - front	16695	Urban Soil	10-20 cm	6	84	6.4
5037764	Gatchell	Residential	Yard - front	16705	Urban Soil	5-10 cm	24	102	6.4

EC - is in µS/cm TOC - is in mg/g dry weight nd - not determined

Table E1: Soil pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC) Results for the City of Greater Sudbury, 2001

Station No.	Community	Landuse	Area Used For	Sample No.	Sample Type	Soil Depth	TOC	EC	pH
5037766	Gatchell	Residential	Yard - front	16715	Urban Soil	0-5 cm	43	92	5.8
5037767	Gatchell	Residential	Yard - back	16725	Urban Soil	10-20 cm	18	75	6.2
5037769	Gatchell	Residential	Yard - back	16735	Urban Soil	5-10 cm	19	64	6.2
5037771	Gatchell	Residential	Yard - back	16745	Urban Soil	0-5 cm	48	121	6.8
5037772	Gatchell	Residential	Yard - front	16755	Urban Soil	10-20 cm	8	46	6.8
5037774	Gatchell	Residential	Yard - front	16765	Urban Soil	5-10 cm	15	48	5.8
5037776	Copper Cliff	Residential	Yard - front	16775	Urban Soil	0-5 cm	38	194	6.8
5037777	Copper Cliff	Residential	Yard - back	16785	Urban Soil	10-20 cm	20	109	7.4
5037779	Copper Cliff	Residential	Yard - back	16795	Urban Soil	5-10 cm	39	122	7.1
5037781	Copper Cliff	Residential	Yard - back	16805	Urban Soil	0-5 cm	27	164	7.1
5037782	Copper Cliff	Residential	Yard - front	16815	Urban Soil	10-20 cm	36	167	7.1
5037784	Copper Cliff	Residential	Yard - front	16825	Urban Soil	5-10 cm	22	300	7.5
5037786	Copper Cliff	Residential	Yard - front	16835	Urban Soil	0-5 cm	21	238	7.1
5037787	Copper Cliff	Residential	Yard - back	16845	Urban Soil	10-20 cm	22	176	6.8
5037789	Copper Cliff	Residential	Yard - back	16855	Urban Soil	5-10 cm	14	176	6.8
5037791	Copper Cliff	Residential	Yard - back	16865	Urban Soil	0-5 cm	62	59	6.6
5037792	Copper Cliff	Residential	Yard - front	16875	Urban Soil	10-20 cm	14	78	6.0
5037794	Copper Cliff	Residential	Yard - front	16885	Urban Soil	5-10 cm	8	61	6.9
5037796	Copper Cliff	Residential	Yard - front	16895	Urban Soil	0-5 cm	20	149	6.5
5037797	Copper Cliff	Residential	Yard - back	16905	Urban Soil	10-20 cm	32	108	6.5
5037799	Copper Cliff	Residential	Yard - back	16915	Urban Soil	5-10 cm	29	156	6.9
5037801	Copper Cliff	Residential	Yard - back	16925	Urban Soil	0-5 cm	85	62	6.9
5037802	Copper Cliff	Residential	Yard - front	16935	Urban Soil	10-20 cm	25	148	6.4
5037804	Copper Cliff	Residential	Yard - back	16945	Urban Soil	5-10 cm	4	308	6.6
5037806	Copper Cliff	Residential	Yard - back	16955	Urban Soil	0-5 cm	51	183	6.6
5037807	Copper Cliff	Residential	Yard - back	16965	Urban Soil	10-20 cm	57	190	6.5
5037809	Copper Cliff	Residential	Yard - front	17315	Urban Soil	10-20 cm	18	124	6.8
5037811	Copper Cliff	Residential	Yard - front	17325	Urban Soil	5-10 cm	40	101	5.8
5037813	Copper Cliff	Residential	Yard - front	17335	Urban Soil	0-5 cm	38	376	5.4
5037814	Copper Cliff	Residential	Yard - front	17345	Urban Soil	10-20 cm	20	88	5.9

EC - is in µS/cm TOC - is in mg/g dry weight nd - not determined

Table E1: Soil pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC) Results for the City of Greater Sudbury, 2001

Station No.	Community	Landuse	Area Used For	Sample No.	Sample Type	Soil Depth	TOC	EC	pH
5037816	Copper Cliff	Residential	Yard - back	17355	Urban Soil	5-10 cm	27	91	6.3
5037818	Copper Cliff	Residential	Yard - back	17365	Urban Soil	0-5 cm	18	64	6.0
5037819	Copper Cliff	Residential	Yard - front	17375	Urban Soil	10-20 cm	43	129	6.5
5037821	Copper Cliff	Residential	Yard - front	17385	Urban Soil	5-10 cm	74	133	5.9
5037823	Copper Cliff	Residential	Yard - back	17395	Urban Soil	0-5 cm	38	126	6.3
5037825	Copper Cliff	Residential	Yard - back	17425	Urban Soil	0-5 cm	42	239	5.2
5037826	Copper Cliff	Residential	Yard - front	17415	Urban Soil	5-10 cm	51	165	6.5
5037827	Copper Cliff	Residential	Yard - front	17405	Urban Soil	10-20 cm	17	98	6.7
5037829	Copper Cliff	Residential	Yard - front	17445	Urban Soil	5-10 cm	19	260	6.7
5037831	Copper Cliff	Residential	Yard - back	17435	Urban Soil	10-20 cm	42	187	6.6
5037833	Copper Cliff	Residential	Yard - back	17455	Urban Soil	0-5 cm	107	247	6.6
5037834	Copper Cliff	Residential	Yard - front	17485	Urban Soil	0-5 cm	56	188	6.1
5037835	Copper Cliff	Residential	Yard - back	17495	Urban Soil	10-20 cm	27	158	6.5
5037836	Copper Cliff	Residential	Yard - front	17465	Urban Soil	10-20 cm	54	403	6.9
5037838	Copper Cliff	Residential	Yard - front	17475	Urban Soil	5-10 cm	49	190	6.6
5037840	Copper Cliff	Residential	Yard - front	17305	Urban Soil	0-5 cm	44	212	6.5
5037842	Copper Cliff	Residential	Yard - front	17015	Urban Soil	10-20 cm	26	112	6.7
5037843	Copper Cliff	Residential	Yard - back	17005	Urban Soil	0-5 cm	48	196	5.2
5037844	Copper Cliff	Residential	Yard - front	17025	Urban Soil	5-10 cm	12	65	6.5
5037846	Copper Cliff	Residential	Yard - front	17035	Urban Soil	0-5 cm	46	130	6.2
5037849	Copper Cliff	Residential	Yard - back	17045	Urban Soil	10-20 cm	15	102	6.5
5037851	Copper Cliff	Residential	Yard - back	17055	Urban Soil	5-10 cm	36	170	6.7
5037852	Copper Cliff	Residential	Yard - front	17065	Urban Soil	0-5 cm	107	90	6.1
5037853	Copper Cliff	Residential	Yard - side	17075	Urban Soil	10-20 cm	38	85	6.0
5037855	Copper Cliff	Residential	Yard - back	17085	Urban Soil	5-10 cm	9	138	7.4
5037856	Copper Cliff	Residential	Yard - front	17095	Urban Soil	0-5 cm	79	nd	6.8
5037859	Copper Cliff	Residential	Yard - back	17105	Urban Soil	10-20 cm	21	62	6.6
5037861	Copper Cliff	Residential	Yard - back	17115	Urban Soil	5-10 cm	38	144	6.4
5037862	Copper Cliff	Residential	Yard - front	17135	Urban Soil	10-20 cm	36	103	6.2
5037863	Copper Cliff	Residential	Yard - back	17125	Urban Soil	0-5 cm	46	166	6.0

EC - is in µS/cm TOC - is in mg/g dry weight nd - not determined

Table E1: Soil pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC) Results for the City of Greater Sudbury, 2001

Station No.	Community	Landuse	Area Used For	Sample No.	Sample Type	Soil Depth	TOC	EC	pH
5037864	Copper Cliff	Residential	Yard - front	17145	Urban Soil	5-10 cm	20	66	6.1
5037866	Copper Cliff	Residential	Yard - front	17155	Urban Soil	0-5 cm	38	167	6.0
5037869	Copper Cliff	Residential	Yard - back	17165	Urban Soil	10-20 cm	37	230	7.1
5037871	Copper Cliff	Residential	Yard - back	17175	Urban Soil	5-10 cm	51	234	6.8
5037872	Copper Cliff	Residential	Yard - front	17195	Urban Soil	10-20 cm	13	81	6.8
5037873	Copper Cliff	Residential	Yard - back	17185	Urban Soil	0-5 cm	23	263	6.8
5037875	Copper Cliff	Residential	Yard - front	17211	Urban Soil	5-10 cm	14	184	7.0
5037877	Copper Cliff	Residential	Yard - front	17221	Urban Soil	0-5 cm	108	nd	6.5
5037878	Copper Cliff	Residential	Yard - back	17219	Urban Soil	10-20 cm	14	97	6.3
5037881	Copper Cliff	Residential	Yard - back	17235	Urban Soil	5-10 cm	44	169	6.6
5037882	Copper Cliff	Residential	Yard - front	17255	Urban Soil	10-20 cm	22	170	6.5
5037883	Copper Cliff	Residential	Yard - back	17245	Urban Soil	0-5 cm	100	87	6.1
5037884	Copper Cliff	Residential	Yard - front	17265	Urban Soil	5-10 cm	61	319	6.5
5037886	Copper Cliff	Residential	Yard - front	17275	Urban Soil	0-5 cm	35	336	6.6
5037888	Copper Cliff	Residential	Yard - back	17285	Urban Soil	10-20 cm	26	233	7.0
5037889	Copper Cliff	Residential	Yard - front	17295	Urban Soil	5-10 cm	17	103	6.7
5037892	Sudbury (Core)	Residential	Yard - back	17505	Urban Soil	5-10 cm	30	146	6.2
5037894	Sudbury (Core)	Residential	Yard - back	17515	Urban Soil	0-5 cm	31	551	7.2
5037895	Sudbury (Core)	Residential	Yard - back	18825	Urban Soil	5-10 cm	38	248	6.9
5037897	Sudbury (Core)	Residential	Yard - front	18835	Urban Soil	0-5 cm	79	582	6.8
5037898	Sudbury (Core)	Residential	Yard - back	18845	Urban Soil	10-20 cm	10	95	6.9
5037900	Sudbury (Core)	Residential	Yard - front	18855	Urban Soil	5-10 cm	14	126	5.7
5037902	Sudbury (Core)	Residential	Yard - back	18865	Urban Soil	0-5 cm	23	444	6.3
5037903	Sudbury (Core)	Residential	Yard - back	18875	Urban Soil	10-20 cm	25	234	7.5
5037905	Sudbury (Core)	Residential	Yard - back	18885	Urban Soil	5-10 cm	15	108	6.0
5037907	Sudbury (Core)	Residential	Yard - front	18895	Urban Soil	0-5 cm	35	220	6.4
5037908	Sudbury (East)	Residential	Yard - front	17545	Urban Soil	0-5 cm	40	441	6.9
5037910	Sudbury (East)	Residential	Yard - front	17525	Urban Soil	10-20 cm	11	56	6.0
5037912	Sudbury (East)	Residential	Yard - front	17535	Urban Soil	5-10 cm	26	230	7.1
5037913	Sudbury (East)	Residential	Yard - front	17555	Urban Soil	10-20 cm	23	207	6.8

EC - is in µS/cm TOC - is in mg/g dry weight nd - not determined

Table E1: Soil pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC) Results for the City of Greater Sudbury, 2001

Station No.	Community	Landuse	Area Used For	Sample No.	Sample Type	Soil Depth	TOC	EC	pH
5037915	Sudbury (East)	Residential	Yard - front	17565	Urban Soil	5-10 cm	14	227	7.4
5037917	Sudbury (East)	Residential	Yard - back	17585	Urban Soil	5-10 cm	11	100	6.7
5037919	Sudbury (East)	Residential	Yard - back	17595	Urban Soil	0-5 cm	29	256	6.5
5037920	Sudbury (East)	Residential	Yard - back	17605	Urban Soil	10-20 cm	13	172	6.9
5037922	Sudbury (East)	Residential	Yard - front	17615	Urban Soil	5-10 cm	28	151	6.7
5037924	Sudbury (East)	Residential	Yard - front	17625	Urban Soil	0-5 cm	33	183	6.1
5037925	Sudbury (East)	Residential	Yard - back	17635	Urban Soil	10-20 cm	6	58	6.5
5037927	Sudbury (East)	Residential	Yard - back	17645	Urban Soil	5-10 cm	19	74	6.0
5037928	Sudbury (South)	Residential	Yard - back	18905	Urban Soil	10-20 cm	8	90	5.6
5037930	Sudbury (South)	Residential	Yard - back	18915	Urban Soil	5-10 cm	14	155	6.7
5037932	Sudbury (South)	Residential	Yard - front	18925	Urban Soil	0-5 cm	19	392	6.6
5037933	Sudbury (South)	Residential	Yard - front	18935	Urban Soil	10-20 cm	10	83	6.4
5037935	Sudbury (South)	Residential	Yard - front	18945	Urban Soil	10-20 cm	6	120	5.2
5037937	Sudbury (South)	Residential	Yard - front	18955	Urban Soil	5-10 cm	10	49	5.8
5037939	Sudbury (South)	Residential	Yard - front	18965	Urban Soil	0-5 cm	105	nd	6.6
5037940	Sudbury (South)	Residential	Yard - front	18975	Urban Soil	10-20 cm	5	95	7.3
5037942	Sudbury (South)	Residential	Yard - front	18985	Urban Soil	5-10 cm	13	108	6.4
5037944	Sudbury (South)	Residential	Yard - front	18995	Urban Soil	0-5 cm	69	366	6.5
5037945	Sudbury (South)	Residential	Yard - front	19005	Urban Soil	10-20 cm	9	153	6.6
5037947	Sudbury (Core)	Residential	Yard - front	20755	Urban Soil	0-5 cm	54	190	5.8
5037948	Sudbury (Core)	Residential	Yard - front	20765	Urban Soil	10-20 cm	58	445	6.8
5037950	Sudbury (Core)	Residential	Yard - front	20775	Urban Soil	5-10 cm	12	167	6.5
5037952	Sudbury (Core)	Residential	Yard - front	20785	Urban Soil	0-5 cm	32	237	6.7
5037953	Sudbury (Core)	Residential	Yard - front	20795	Urban Soil	10-20 cm	13	122	5.5
5037955	Sudbury (Core)	Residential	Yard - back	20805	Urban Soil	5-10 cm	14	134	6.1
5037957	Sudbury (Core)	Residential	Yard - back	20815	Urban Soil	0-5 cm	70	190	6.5
5037958	Sudbury (Core)	Residential	Yard - front	20825	Urban Soil	10-20 cm	6	94	6.8
5037960	Sudbury (Core)	Residential	Yard - back	20835	Urban Soil	5-10 cm	6	54	6.2
5037962	Sudbury (Core)	Residential	Yard - back	20845	Urban Soil	0-5 cm	34	310	6.2
5037963	Sudbury (Core)	Residential	Yard - front	20855	Urban Soil	10-20 cm	20	106	6.0

EC - is in µS/cm TOC - is in mg/g dry weight nd - not determined

Table E1: Soil pH, Electrical Conductivity (EC) and Total Organic Carbon (TOC) Results for the City of Greater Sudbury, 2001

Station No.	Community	Landuse	Area Used For	Sample No.	Sample Type	Soil Depth	TOC	EC	pH
5037965	Sudbury (Core)	Residential	Yard - front	20865	Urban Soil	5-10 cm	23	161	6.7
5037967	Sudbury (Core)	Residential	Yard - back	20875	Urban Soil	0-5 cm	47	426	6.6
5037968	Sudbury (Core)	Residential	Yard - front	20885	Urban Soil	10-20 cm	16	128	5.8
5037970	Sudbury (Core)	Residential	Yard - back	20895	Urban Soil	5-10 cm	60	207	7.3
5037973	Sudbury (New)	Residential	Yard - back	20685	Urban Soil	5-10 cm	20	118	6.9
5037975	Sudbury (New)	Residential	Yard - back	20695	Urban Soil	0-5 cm	22	196	7.1
5037976	Sudbury (New)	Residential	Yard - back	20705	Urban Soil	10-20 cm	18	257	7.3
5037978	Sudbury (New)	Residential	Yard - back	20715	Urban Soil	5-10 cm	13	135	6.0
5037980	Sudbury (New)	Residential	Yard - back	20725	Urban Soil	0-5 cm	37	378	6.8
5037981	Sudbury (New)	Residential	Yard - back	20735	Urban Soil	10-20 cm	8	133	5.8
5037983	Sudbury (New)	Residential	Yard - back	20745	Urban Soil	5-10 cm	8	88	5.9
5037985	Sudbury (Core)	Residential	Yard - front	20995	Urban Soil	10-20 cm	13	114	6.7
5037987	Sudbury (Core)	Residential	Yard - back	21005	Urban Soil	5-10 cm	29	127	6.3
5037989	Sudbury (Core)	Residential	Yard - front	21015	Urban Soil	0-5 cm	40	286	6.0
5037990	Sudbury (Core)	Residential	Yard - back	21025	Urban Soil	10-20 cm	19	84	6.0
5037992	Sudbury (Core)	Residential	Yard - back	21035	Urban Soil	5-10 cm	23	99	6.1
5037995	Sudbury (Core)	Residential	Yard - back	21085	Urban Soil	0-5 cm	50	205	5.8
5037996	Sudbury (Core)	Residential	Yard - front	21095	Urban Soil	10-20 cm	35	268	7.0
5037998	Sudbury (Core)	Residential	Yard - back	21105	Urban Soil	5-10 cm	43	101	6.5

EC - is in µS/cm TOC - is in mg/g dry weight nd - not determined

City of Greater Sudbury 2001 Urban Soil Survey

Appendix F

Soil Data Management

and

Laboratory Quality Control

1.0 Soil Sample Preparation

Soil sample preparation was initiated by the Phytotoxicology Laboratory of the Ministry of the Environment. Due to the large number of samples collected from the City of Greater Sudbury, MOE established a contract with Agat Laboratories in Mississauga, Ontario to continue processing the soil samples as outlined in the MOE Standard Operating Procedures (MOE 2000). Split samples, prepared by both MOE and Agat laboratories, were submitted to MOE Laboratory Services Branch for a metals scan to verify processing was being done correctly. The data agreed within the 20% criterion required by MOE. Agat also performed their own quality control assessment by having two individuals process selected split samples. Agat had the split samples analyzed for metals to verify that individuals of their staff were processing samples similarly. Data corresponding to Agat's internal verification process was accepted by the MOE. MOE staff also audited the Agat facility and required modifications as necessary to ensure compliance with MOE Standard Operating Procedures (MOE 2000).

2.0 Soil Sample Analysis

Lakefield Research Laboratories was selected and funded by local Sudbury industries (ie. Inco & Falconbridge) to analyze all Sudbury samples. The contract with Lakefield was signed after a thorough review of their proposal and evaluation of pre-selected samples. Lakefield is accredited by the Standards Council of Canada / Canadian Association of Environmental Analytical Laboratories to perform metals analysis in soils. All samples are prepared prior to analysis by Lakefield Method 9-2-37. Method 9-2-37 is based on EPA method 3051 and has been further developed at Lakefield Research Limited. Sewage sludge, sediment and/or soil samples are prepared for the determination of various analytes. A representative sample is weighed or measured into a Teflon vessel. Nitric acid and Hydrochloric acid are added, the vessel is sealed and microwave energy is applied. The resulting digestion is centrifuged and sent to various instrument groups for analysis.

Lakefield reported results for this study using three instrumental techniques: inductively coupled plasma mass spectrometry (ICP-MS), inductively coupled plasma-atomic emission spectrometry (ICP) and hydride generation atomic absorption spectrophotometry (HG-AAS). These analyses are performed after the metals in the soil samples are brought into solution using an acid digestion technique. This dissolution step is based on an aqua regia digestion procedure which involves nitric and hydrochloric acids in a 1:3 ratio. Methods were also set up for analysis of pH, Electrical Conductivity and Total Organic Carbon.

The ICP-MS (Method E2022) technique was used for chemical analysis of: antimony (Sb), cadmium (Cd), cobalt (Co), lead (Pb) and nickel (Ni). The ICP (Method E2027) technique was used for chemical analysis of: aluminum (Al), arsenic (As), barium (Ba), beryllium (Be), calcium (Ca), copper (Cu), chromium (Cr), iron (Fe), magnesium (Mg), manganese (Mn), molybdenum (Mo), strontium (Sr), vanadium (V), and zinc (Zn). The HG-AAS (Method E2023) technique was used for chemical analysis of: arsenic (As) and selenium (Se). Refer to Tables F2.1 through F2.3 for analytical method detection limits.

Table F2.1: ICP-MS Method Detection	
Element	MDL (µg/g)
Antimony	0.8
Cadmium	0.8
Cobalt	1
Lead	1
Nickel	1

Table F2.2: ICP Method Detection Limits			
Element	MDL (µg/g)	Element	MDL (µg/g)
Aluminum	2.5	Iron	5
Arsenic	10	Magnesium	1
Barium	0.5	Manganese	2
Beryllium	0.5	Molybdenum	1.5
Calcium	10	Strontium	10
Chromium	5	Vanadium	2
Copper	1	Zinc	2.5

Table F2.3: HG-AAS Method Detection	
Element	MDL (µg/g)
Arsenic	5
Selenium	1

3.0 Soil Quality Control and Assurance

The quality control activities for the Sudbury project involved a multi-step process. The first step was the analysis of 20 samples from the City of greater Sudbury by both the MOE Laboratory Services Branch and Lakefield. The criterion used was 20%, which is the same criterion used for in-house quality control duplicate samples. The MOE used a hot block digestion procedure while Lakefield used a microwave digestion technique. Both these digestion techniques are similar to those used by the United States Environmental Protection Agency (EPA). This step uncovered some data quality issues such as the use of wrong microwave settings during the microwave digestion process. Several of these issues were resolved.

The second step involved the analysis of a further 80 samples. Lakefield analysed these samples using both microwave and hot block digestions. The microwave digestion procedure produced results closer to those obtained by MOE. As a result, the microwave digestion technique was adopted. Several elements, showed better correlation with MOE data when analysed by ICP-MS rather than ICP. As a result, Co, Pb and Ni were reported by ICP-MS rather than by ICP.

Each sample submission sent to Lakefield contained up to 38 samples, 2 duplicate samples, calibration check samples, instrument blanks, method blanks, 2 certified or in-house reference materials, 1 sample from the original 100 samples analysed, and 1 sample split with the MOE.

Lakefield provided a QC run format for each analytical method used (ICP, ICP-MS, HG-AAS) as well as the acceptance criteria. These data were all passed through the Ministry of the Environment Laboratory Information Management System (MOE LIMS). The manager of the MOE Spectroscopy Section, or designate, checked all data being submitted before approving the results. This involved checking that the QC data provided met the acceptance criteria and that the results for the duplicates and sample split were within acceptable criteria (tentatively set at 20%). The frequency of QC checks for the other 3 parameters (pH, TOC, conductivity) was less frequent and did not exceed 75 samples in total.

Calibration/drift checks were controlled within 10%. Blanks were held under a maximum amount. All elements for Till-2, a reference material, were controlled within 20%. Lead was originally held within 10% which was in keeping with the suppliers specifications. Data for reference material Till-2, was plotted for each element to track changes with time. It appears that values for many elements in Till-2 changed slightly with time. This is likely due to changing to different bottles of material. As a result, acceptance criteria for lead were raised to 20%.

Each submission contained a large number of field replicates. These replicates were expected to be within 20%. Where larger differences occurred, samples were checked with a portable x-ray instrument. If the differences were confirmed, the original data were accepted. Where differences were not acceptable, the samples were re-analysed by either Lakefield or by MOE. Less than 5% of all samples were repeated. Many of the differences were the result of improper use of dilution factors or samples being mixed up during sample collection, preparation or analysis.

MOE also checked the sample processing done at AGAT Laboratories, a contract laboratory hired to prepare samples. This was done to uncover any problems with contamination in the sample processing steps. Approximately 5 samples were processed by both MOE and AGAT. Results for all metals generally fell within 20%. MOE and Agat participated in a large study previously to this, and data were found to be acceptable. This inter-comparison confirmed the acceptability of the data.

For further samples, Agat was responsible for proving their processing capability. This was done by having 2 AGAT staff each prepare a percentage of samples and having AGAT test the samples themselves at their Calgary laboratory. These data were monitored by MOE. Results for these samples were also compared to results supplied by Lakefield.

3.1 Laboratory Differences

Lakefield reported several samples with zinc values less than the detection limit. This was the result of some analytical difficulties. These problems were resolved and all the affected samples were re-analysed and reported.

At the end of the study, a comparison of twenty (20) high metal concentration samples uncovered a bias between MOE Laboratory Services Branch data and Lakefield data with respect to arsenic and cobalt. MOE results were approximately 20% higher than Lakefield's. The arsenic differences were not seen in the pre-project inter-comparison since most of the samples analysed in ths early inter-

comparison had relatively low concentrations.

Lakefield normally reports cobalt results by ICP-MS (inductively coupled plasma mass spectrometry) while MOE uses ICP (inductively coupled plasma-atomic emission spectrometry)

Lakefield normally reports high arsenic results (>100 ppm) by ICP and lower values by HG-AAS (hydride generation atomic absorption spectrophotometry). MOE currently reports all arsenic results by hydride generation atomic absorption spectrophotometry.

The methods used to get metals, such as cobalt and nickel, into solution are similar but slightly different. Both methods are based on an aqua regia digestion procedure which involves nitric and hydrochloric acids in a 1:3 ratio. The methods used to dissolve arsenic are quite different, with the MOE method being more rigorous ([MOE = nitric:sulphuric:perchloric] vs [Lakefield = aqua regia]). The perchloric digestion is closer to a 'total' digestion or analysis such as would be obtained by using hydrofluoric acid or fusion techniques or by analyzing by XRF or neutron activation. The aqua regia digestion yields what is generally referred to as 'environmentally available' results. Many Certified Reference Materials (CRM's) now provide results for both total analysis and 'environmentally available' based on specific EPA methodologies.

A number of steps were taken to try to resolve the differences:

1. MOE analysed a second batch of 30 samples to eliminate a one-shot anomaly. The results of the second study confirmed the observations of the first study.

2. Lakefield Research was contacted and told of the findings. Lakefield co-operated fully in the attempt to resolve the differences.

3. MOE analyzed 30 arsenic samples by a second digestion procedure and by two different analytical techniques (ICP and ICP-MS). Initial results by HG-AAS and ICP were similar even with different digestions. This was surprising since there has consistently been a low bias for the aqua regia. vs the nitric;sulphuric;perchloric (NSP) digestion . MOE ICP-MS results were slightly lower than MOE ICP results, but the samples were not analysed until almost 2 weeks later. MOE confirmed that some arsenic is lost from solution with time. Regression analysis showed slopes of 0.93 and 0.87 for samples which were not diluted prior to analysis and those which did need dilution respectively. Some of these differences may be attributable to slope drifts between days, but there does seem to be some loss with time. For samples with greater than 200 ppm arsenic, the MOE ICP-MS data resembled MOE ICP/hydride data or was intermediate between MOE ICP/ Hydride data and Lakefield.

4. MOE analysed all 30 cobalt samples by a second ICP instrument using different wavelengths and 15 samples by a second technique (ICP-MS). The second ICP gave slightly lower results than the instrument normally used for these analyses. The ICP-MS results were generally lower than either ICP instrument, but again these samples were analysed almost 2 weeks after the original analysis. The MOE ICP-MS data more closely resembled the data from Lakefield. MOE selected 2 samples with the widest differences between ICP and ICP-MS to analyse for a full element scan (i.e. look for all possible elements feasible given the equipment) and detected some cerium and neodymium. These should not interfere with either cobalt or arsenic and give any false high results. Both Lakefield and MOE found that the ICP wavelength most commonly used

for cobalt (228.616 nm) is biased slightly high with respect to other wavelengths which can be used. MOE has re-calculated an inter-element correction factor for the interference by titanium on cobalt. This will lower MOE values slightly and reduce the differences in results.

5. MOE purchased 2 certified reference materials which had elevated arsenic values. Results from this testing with the perchloric digestion are about 5% high for arsenic, but within the acceptable range. Lakefield provided data showing that their results were 5% to 15% low for these same two reference samples. MOE analysed these samples with the aqua regia digestion as well and results were 1% to 5% low. MOE cobalt results were 8.7 and 8.4 µg/g respectively with target values of 8.2 µg/g.

Conclusions:

1) For any health risk assessments, arsenic results provided by Lakefield Research should be corrected upwards by 10% to bring their results more in line with accepted values for certified reference materials. Lakefield Research has been notified of this decision and is in agreement.

2) Cobalt results provided by Lakefield Research will be accepted as will all other results.

3.2 Soil Data Management and QC Measures

Data checking was performed by the manager or a senior scientist of the Spectroscopy Section, as well as staff of the Phytotoxicology Section. If the results for the "check" samples and the replicate data were acceptable, then the rest of the data were checked for outliers. Outliers were generally due to the improper use of dilution factors or sample non-homogeneity. Many of these samples were checked by MOE Phytotoxicology staff using a portable x-ray fluorescence (XRF) unit to determine if differences in results were accurate. Results that were confirmed by the XRF data were accepted. If the original results were not confirmed by the XRF, MOE requested that Lakefield re-calculate the dilution factor or repeat the analyses. Once all these criteria were met, the data were released by MOE Laboratory Services Branch and incorporated into the Sudbury database for further evaluation and reporting.

Once all data had been extracted from the database, Phytotoxicology Staff checked through the data three more times to ensure that all data and sampling information was correct. Extracted data was compared to sampling field notes to ensure all information had been entered correctly into the database. Report tables were then checked again against the field notes and laboratory submissions to ensure data had been manipulated correctly and that sampling information had not changed. The final tables were checked a third and final time for accuracy of information and format consistency. All data management and quality control measures are outlined in Figure F1.

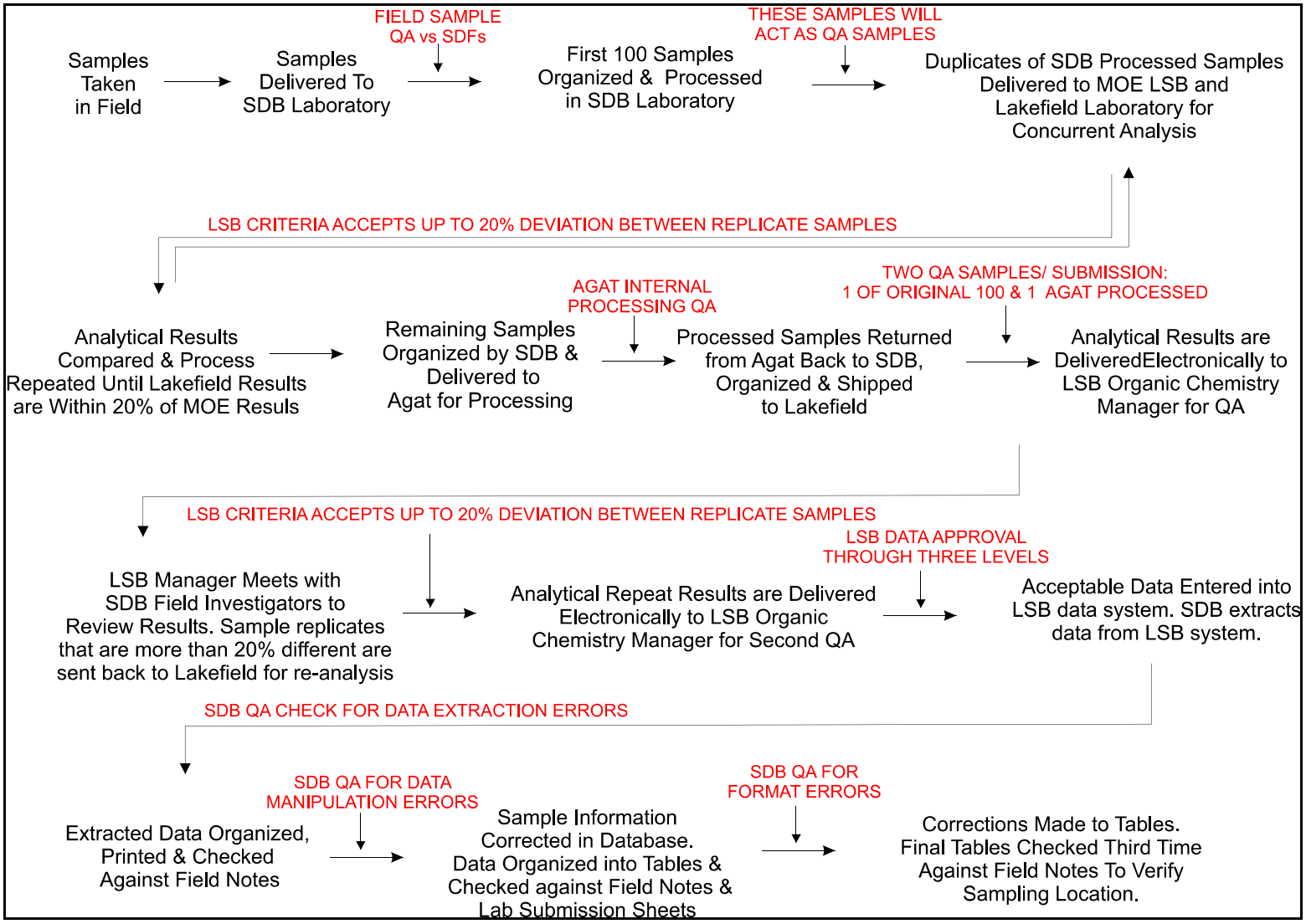

Figure F1: Soil Data Management and Quality Control Measures, City of Greater Sudbury 2001 Survey.

City of Greater Sudbury 2001 Urban Soil Survey

Appendix G

Edible Produce

Laboratory Quality Control Issues

1.0 Grinder Filing Issue

During the period of July and August of 2001, soil and produce samples were collected from seven commercial berry farms, three wild blueberry patches, and six commercial market garden produce growers within the City of Greater Sudbury. Residential garden produce was also sampled at a subset of the residential properties in close proximity to the smelting areas. Six gardens were sampled in Falconbridge and 15 in Coniston and 15 in Copper Cliff, including Gatchell and North Lively.

Vegetation samples were delivered to the MOE Phytotoxicology laboratory for processing (MOE 2000b). The protocol for vegetation processing includes washing the produce with tap water as would be done in the home prior to consumption. All produce samples were treated in this fashion with the exception of the berries. Berry samples could not be washed due to their over ripeness (ie. some had become almost liquified during shipping). Instead, the berry samples were poured into beakers, were oven dried, and ground in a Thomas-Wiley™ mill. The chopped washed vegetables were oven dried and ground in the same fashion. Two different types of Thomas-Wiley mills were used; the Standard Bench Model (Photo 1) with chamber dimensions of 20 cm diameter and 7.6 cm depth and the Intermediate Model (Photo 2) with chamber dimensions of 40 mm diameter and 22 mm depth. Both mills were used in the Sudbury project; however use was dependent on sample size and laboratory sample load. Regardless of which mill was used, the ground material was stored in glass jars until submitted for analysis. All produce samples were forwarded to Laboratory Services Branch (LSB), MOE, for chemical analysis including arsenic(As), aluminum (Al), barium (Ba), beryllium (Be), calcium (Ca), cadmium (Cd), cobalt (Co), copper (Cu), chromium (Cr), iron (Fe), magnesium (Mg), manganese (Mn), molybdenum (Mo), nickel (Ni), lead (Pb), selenium (Se), strontium (Sr), vanadium (V), zinc (Zn), as well as sulphur (S), boron (B), chlorine (Cl), and potassium (K).

Prior to analysis of these samples, the LSB lab technician noted foreign material in the samples that resembled iron filings. He passed a magnet over the sample and noted that these particles were magnetic. All samples were returned to the Phytotoxicology Laboratory, without any analysis completed, where a magnet was passed through all samples in the following manner:

- small aliquots (approximately 1-2 grams) of the processed vegetation samples were poured out onto a sheet of white 81/2 x 11 inch paper.
- the fingers a of Neo-Pro powder-free Chloroprene examination glove were removed and placed over a 4.8 cm x 2.2 cm x 1 cm bar magnet to prevent any cross contamination between the magnet and the sample as well as to prevent contamination between samples.
- the covered bar magnet was swept over each aliquot until the entire sample had been screened and any filings that were in the sample adhered to the magnet.
- the glove was removed from the magnet in order for the filings to detach and fall onto the white paper.
- the filings were gathered together by running the magnet underneath the paper.
  the collected filings were stuck onto a piece of adhesive tape and placed on the sample jar lid from which they were removed.

Following this procedure, 21 of 246 vegetation samples were found to have magnetic particles with 14 from residential gardens, 4 from commercial vegetable growers, 2 from commercial berry growers and 1 wild blueberry sample. These samples are marked with a † in Appendix A Table 3.6

and Appendix D Tables 3.2 and 3.3. Each piece of tape with filings was stuck onto a microscope slide and all 21 slides were submitted to Laboratory Services Branch for identification by Energy Dispersive X-ray Fluorescence Method ID3092 (C97957) to determine the relative concentrations of total metals present. The samples were examined by stereoscopic and polarized light microscopy. Particles from the samples were mounted on carbon stubs and examined in the scanning electron microscope (SEM) and analysis of individual particles was done by energy dispersive x-ray analysis (EDXRA) to determine elemental composition.

The origin of these magnetic particles was assumed to be either the Standard or Intermediate Wiley Mills used during the processing of the samples. The Standard Wiley Mill, with chamber dimensions of 20 cm diameter and 7.6 cm depth, is composed of both steel and stainless steel materials. The body and blades of the Standard Wiley Mill are composed of steel (primarily iron), while the 1 mm screen is stainless steel. As illustrated in Photo G1, the blades of the Standard Wiley Mill can not come in contact with the stainless steel screen.

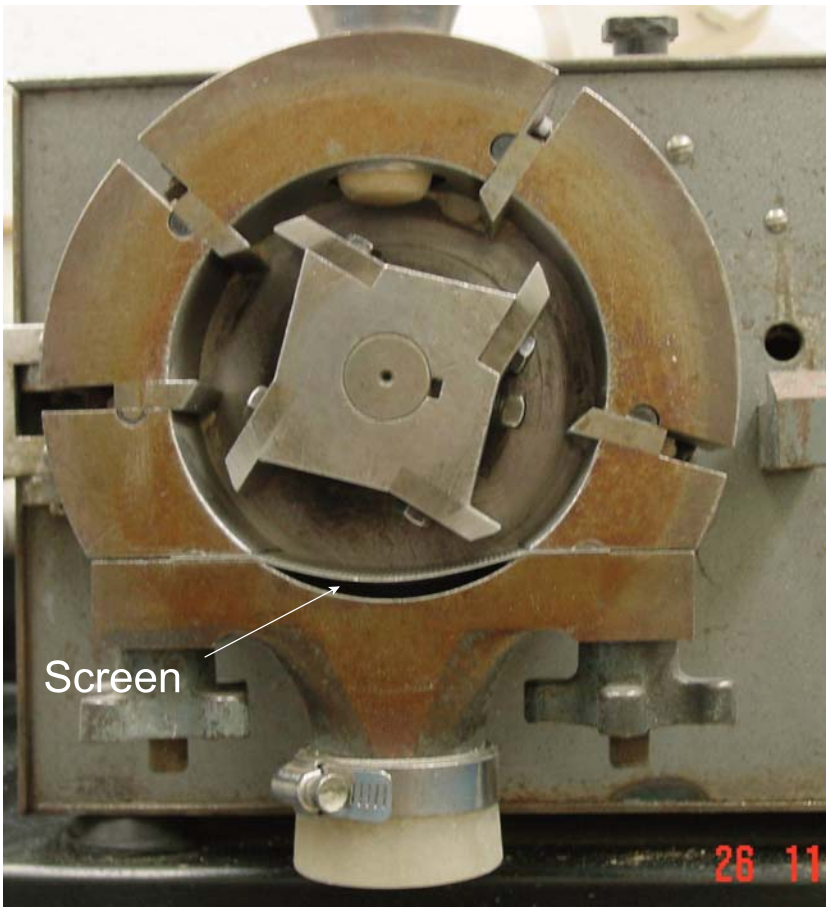

Photo G1: Standard Thomas-Wiley Mill, with chamber dimensions of 20 cm diameter and 7.6 cm depth.

The Intermediate Wiley Mill, with chamber dimensions of 40 mm diameter and 22 mm depth, is composed of nickel, zinc, copper, lead and iron. The body and blades of this grinder are composed of steel. No other parts of the mill have steel or stainless steel materials present. The receiving tube is nickel plated brass, which is an alloy of copper and zinc. The screen had no yellow metal, suggesting it is pure nickel. The screen is attached to the receiving tube with pure lead solder. As illustrated in Photo G2, the receiving tube is not fixed and therefore there it is possible for the blades to come into contact with the screen and/or lead solder during operation.

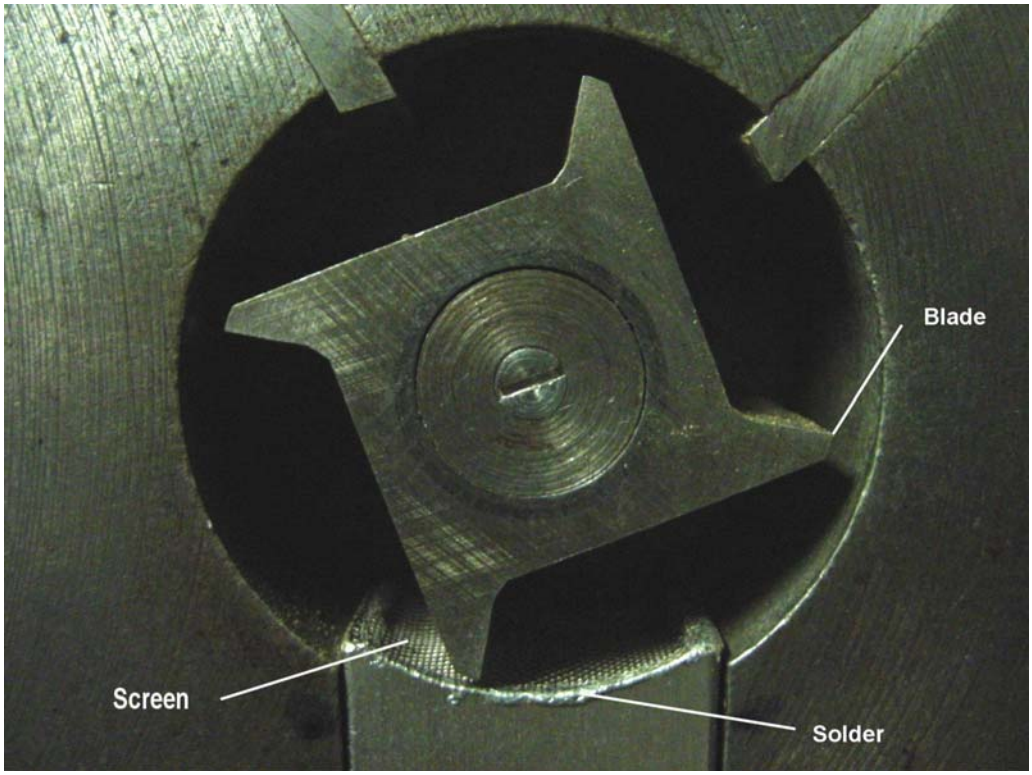

Photo G2: Intermediate Thomas-Wiley Mill, with chamber dimensions of 40 mm diameter and 22 mm depth.

2.0 Results

Table G1.1: Energy Dispersive X-ray Fluorescence Results of Metal Filings Present in Sudbury Edible Produce Samples, 2001.

Sample	Station	Cr	Fe	Ni	Cu	Zn	Pb	Ca
15151	5037432	-	86	3	3	-	-	6
15160	5037435	-	88	-	-	-	-	9
15161	5037435	-	75	-	-	-	-	22
15205	5037442	-	84	4	3	-	-	8
15343	5037462	-	96	-	-	-	-	3
15356	5037465	-	3	60	4	-	30	-
15378	5037470	-	90	-	-	-	-	7
15354	5037465	-	93	-	-	-	-	5
15658	5037506	-	78	-	-	-	-	16
15532	5037498	-	76	-	-	-	-	21
15534	5037498	-	75	-	-	-	-	21
15221	5037445	-	85	-	-	-	-	10
15326	5037459	-	89	-	-	8	-	-
15183	5037439	-	92	-	-	-	-	4
14979	5037625	7	88	-	-	-	-	3
14949	5037622	-	69	-	-	-	-	28
14987	5037625	-	90	-	-	-	-	7
14986	5037625	-	90	-	-	7	-	-
14863	5037418	-	84	-	-	-	-	14
14859	5037417	-	95	-	-	-	-	4
14916	5037431	-	93	-	-	5	-	-

Concentrations are expressed as percent of the total metals present. These results are qualitative only. No results are given where the measured concentration was less than 2.5 % of the metals present

Table G1.2: Conclusions Regarding the Source of Metals Found in Sudbury Edible Produce Samples with Filings, 2001.

Field Number	Sample & Location	Comments
15151-2001 15160-2001 15161-2001 15205-2001 15343-2001 15378-2001 15354-2001 15658-2001 15532-2001 15534-2001 15221-2001 15183-2001 14949-2001 14987-2001 14863-2001 14859-2001	lettuce - (5037432) parsley - (5037435) lettuce - (5037435) lettuce - (5037442) lettuce - (5037462) lettuce - (5037470) lettuce - (5037465) lettuce - (5037506) tomato - (5037498) beets - (5037498) beets - (5037445) lettuce - (5037439) radish - (5037622) lettuce - (5037625) strawberry - (5037418) strawberry - (5037417)	These samples contained iron from environmental sources. The presence of magnetite (iron oxide) spheres and other fly ash in many of these samples indicates that, in addition to the iron from the mineral particles, the source of some of the iron could be a high temperature furnace. A more likely scenario is that not all of the soil from the surrounding garden soil was removed during washing and the iron found in these samples was environmental or naturally occurring.
15356-2001	tomato - (5037465)	This sample contained very high levels of Ni and Pb. Analysis of the small shiny metallic fragments present in this sample revealed that they were Ni and Pb. The high levels of nickel and lead in this sample are apparently due to the presence of these metal fragments. This sample was likely ground in the Intermediate Wiley Mill which has both nickel and lead in its composition.
15326-2001 14986-2001 14916-2001	beets - (5037459) swiss chard - (5037625) wild blueberry - (5037431)	These samples contained mainly Fe and a lesser amount of Zn. The metallic particles in these samples were mostly in the shape of straight and curved fragments of wire. The appearance and the results from the elemental analysis of these samples are consistent with contamination of the samples with metal from staples.
14979-2001	beets - (5037625)	In addition to particles containing iron, (iron oxide), this sample contained small irregularly shaped fragments of metal with a bright shiny luster. Elemental analysis of this material revealed that it was Fe and Cr, possibly an iron-chromium stainless steel. This sample was likely ground in the Standard Wiley Mill which is composed of both steel and stainless steel materials.

3.0 Metals Analysis Procedures for Vegetation Samples

Once all samples had been screened for magnetic particles, all 246 edible produce samples were re-submitted to LSB for metals analysis (MET3065) and hydrides (HYD3245) including arsenic(As), aluminum (Al), barium (Ba), beryllium (Be), calcium (Ca), cadmium (Cd), cobalt (Co), copper (Cu), chromium (Cr), iron (Fe), magnesium (Mg), manganese (Mn), molybdenum (Mo), nickel (Ni), lead (Pb), selenium (Se), strontium (Sr), vanadium (V), zinc (Zn), as well as sulphur (S), boron (B), chlorine (Cl), and potassium (K).

In the CAEAL accredited LSB Method MET3065, vegetation samples are ashed and then digested with aqua regia and hydrogen peroxide. The samples are cooled, made to volume and analyzed by Inductively Coupled Plasma Optical Emission Spectrometry.

In the CAEAL accredited LSB Method HYD3245, vegetation samples are digested with a 6:3:1 ratio of Nitric:Sulphuric:Perchloric acid solution. The samples are mixed with hydrochloric acid and made to volume. The samples are then analyzed by Hydride Generation Flameless Atomic Absorption Spectrophotometry.

4.0 Elevated Lead and Nickel Concentrations in Sudbury Residential Garden Produce

There were two distinct collections of produce collected in Sudbury in 2001. The first was of commercial berries, market gardens and wild blueberries. The second was of residential garden vegetables in Coniston, Copper Cliff and Falconbridge.

At the commercial farms and wild berry patches there was a large amount of produce available to sample and large duplicate samples were collected. As a result, all of the commercial berries and vegetables samples were ground using the Standard Thomas-Wiley Mill. No evidence of any lead contamination by grinding was present in these samples.

The residential gardens were small, often only a few plants of each vegetable, and to take enough sample as was collected in the market gardens would have meant the removal of a significant portion of the available produce. As a result only **single** small samples were collected of each vegetable from the residential gardens. Even though the residential garden vegetable samples were small in size, most of the samples were ground on the large Standard Wiley Mill. However, a small number of residential garden vegetable samples were ground using the Intermediate Wiley Mill as well as recollected by technicians. At that time no record was kept as to what grinder was used to grind each sample.

Two factors made the evaluation of the residential garden vegetable results for possible lead, nickel and/or copper contamination from the use of the Intermediate grinder difficult. The first was that only single samples were collected at each garden. If duplicate samples had been collected, as was done with the commercial samples, it would have been easier to discern spurious contamination by the grinder as there would have been a significant difference between the duplicates. The second problem was that the main contamination in the Sudbury area soils from the mining and smelting operations is nickel, copper, and cobalt and to a lesser degree lead. Also lead contamination from paint, historic automobile exhaust, and other sources often result in elevated soil lead concentrations

in residential soils. These are the same elements that contaminate the samples when the grinder blades strike the screen in the small grinder.

During this same time period, vegetable samples from a non-related project were also found to have unexpected elevated lead concentrations. All of these secondary samples were known to have been passed through the small Intermediate Thomas-Wiley Mill which had both nickel and lead present as composition materials of the receiving tube. It is not known which, if any, of the Sudbury vegetable samples were ground in this small grinder. However, the unexpected lead concentrations found in two unrelated projects indicated that some part of the small grinder may be contributing a contaminant.

All Thomas-Wiley mill grinders were temporarily decommissioned for use until the following quality control project was conducted to determine the malleability of the small grinder sieve (MOE inventory tag number C98021).

Step One:
Washed and dried cabbage samples were passed through the Intermediate (small) grinder which was equipped with the 60 mesh nickel plated and lead soldered sieve. This sieve was the only sieve available for use in the small grinder during the time frame of the Sudbury and non-Sudbury related vegetable collection. A new technician was instructed on the grinding processing methodology without any mention of the suspected sieve problem. A total of 14 samples were passed through the grinder to see if lead and/or nickel were removed from the receiving tube during the grinding process or when the receiving tube was removed and replaced during cleaning.

Findings:
Nickel was elevated above the method detection limit in all 14 samples with concentrations ranging from 4.5 to 230 ppm. Lead was elevated above the method detection limit in 11 of 14 samples with concentrations ranging from 2.5 to 24 ppm. Copper was also elevated in 2 of the 14 samples with the highest concentration being 120 ppm. After each sample, the receiving tube is removed and the grinder parts cleaned. It is clear from these results that it is not always possible to place the receiving tube back in the exact location required for proper functioning, thereby resulting in elevated levels of nickel, lead and copper.

Step Two:
Washed and dried cabbage samples were passed through the Intermediate (small) grinder using the 60 mesh nickel plated and lead soldered sieve by a technician who was instructed to push the receiving tube as high as possible so that the stainless steel blades came in contact with the receiving tube and screen. The purpose of this experiment was to determine the degree of abrasion possible when the receiving tube was intentionally placed into the grinder improperly.

Findings:
In this stage of testing, the receiving tube was deliberately placed in a position that would cause contamination of the sample as the blades came into contact with the receiving tube parts. Following the processing of only 4 samples, the mesh screen of the receiving tube was damaged beyond repair due to the constant friction of the blades against the mesh. For all 4 samples, nickel, lead and copper were extremely elevated with the last sample having concentrations of 1200, 180 and 530 ppm, respectively. This testing indicated that with improper placement of the receiving tube, it is possible to contaminate the sample to a large degree and that the highest nickel, copper and lead results

occurred in the same sample.

Step Three:
Washed and dried cabbage samples (14 samples) were passed through the Intermediate (small) grinder using a new receiving tube with a 20 mesh stainless steel sieve mesh. It is not known if this mesh is attached to the receiving tube by lead solder. This receiving tube was properly placed in the small grinder so that the circle of the small grinder inner chamber was completed and the blades did not come in contact with the screen or edges where the screen was attached to the receiving tube. This experiment was done to ensure that the proposed replacement sieve would not contribute any contaminants to study samples.

Findings:
Of the 14 samples, 1 sampled had an elevated nickel concentration of 5.2, while 5 had elevated lead concentrations ranging from 2.7 to 10. These concentrations are not as high as those from the previous testing stage but this testing indicates that sample contamination is still occurring when the Intermediate (small) grinder is used, regardless of the receiving tube used. It was decided after this stage of testing that the Intermediate (small) grinder would be permanently decommissioned from use in the Phytotoxicology Laboratory.

Step Four:
A new Thomas-Wiley Mill Standard Mill, with all parts being stainless steel, was purchased. Prior to using this grinder for processing of any vegetation samples, 67 samples of washed and dried cabbage samples were processed to determine if the stainless steel parts are contributing metals to the study samples.

Findings:

Of the 67 samples, 8 had elevated nickel, iron and chromium concentrations from the wear of the stainless steel blades and grinder body. Elevated nickel concentrations ranged from 2.6 to 34 ppm, elevated iron concentrations ranged from 62 to 220 ppm and elevated chromium concentrations ranged from 4.7 to 69 ppm. This stage of testing indicated that sample contamination was possible when the stainless steel Standard (large) grinder was used and therefore, it may be better to continue using the Standard Thomas-Wiley Mill composed of steel.

Step Five:
Dried cabbage samples will be used as quality control and assurance from this point in time forward. All vegetation samples will be processed on the Standard (large) Thomas-Wiley Mill, with steel body and blades and stainless steel screen. A total of 67 washed and dried cabbage samples were processed through this grinder prior to study samples, during the run of study samples and following the study samples. These cabbage samples will be analyzed along with the study samples to ensure that there is not an increase in metals over time due to grinder deterioration.

Findings:

Of the 67 samples, only 1 sample had an elevated iron concentration of 220 ppm. All nickel, copper, chromium and lead concentrations were very low and in most cases, below the method detection limit. Iron is not normally an element that we are concerned with in Phytotoxicology investigations and therefore, this type of Thomas-Wiley Mill grinder is best suited to use in our laboratory. It was

decided at this point that only this type of grinder would be used for all future vegetation processing, with the grinder blades and body composed of steel and the sieve composed of stainless steel.

Step Seven:
All samples from this point in time forward will be documented with regards to grinder used and technician responsible for processing. This will aid in isolating any future problems with grinder filings and/or increased metal concentrations.

All data relating to this quality control procedure is documented in the MOE report *"Phytotoxicity Laboratory Incident Report"* (MOE 2003).

5.0 Implications for Sudbury Residential Garden Produce:

Following the laboratory quality control project, it was determined that several Sudbury residential garden produce samples had been processed in the Intermediate (small) grinder by several technicians over a 2 month period. To determine which samples had been compromised by the processing, statistical testing was undertaken as outlined below.

It was decided to use lead as the tracer for possible contamination by the Intermediate grinder as lead is not as common as nickel, copper, or cobalt in Sudbury, it is not readily taken up by most plants, and the lead solder is one of the first parts of the Intermediate receiving tube screen struck by the grinder blades. To be on the conservative side it was decided to use a lead concentration of greater than 2 μg/g dry weight as an indication of possible grinder contamination. Of the 148 garden vegetable samples, there were 28 with a lead concentration greater than 2 μg/g. Of these 7 were root vegetables (potato, carrot, beet, etc.), 5 were fruit vegetables (tomato, beans, cucumber, etc.), and 16 were leafy vegetables (lettuce, Swiss chard. parsley, etc.). These samples are marked with an * in Appendix A Table 3.6. There was no correlation between the copper, nickel, cobalt and lead in the root or fruit vegetables in the vegetables with lead greater that 2 μg/g. However, there was a correlation between nickel and copper in the leafy vegetables with lead greater that 2 μg/g. There was also a good correlation between the concentrations of lead and aluminum and aluminum and chromium in the leafy vegetables. Therefore, high lead concentrations occurred with high aluminum concentrations in the leafy vegetables.

Aluminum is a main constituent of soil and elevated aluminum concentrations in the samples suggest that not all of the soil particles were washed off the leafy vegetables. In the soils from the residential properties there was a good correlation between the aluminum concentrations with the chromium and vanadium concentrations. The ratio of aluminum to chromium and vanadium in the soil from each of the gardens in which leafy vegetables had lead greater that 2 μg/g were the same as that found in the leafy vegetables. Thus it can be concluded that the aluminum in the leafy vegetables originated from the soil in which it was grown. The ratio of lead to aluminum in the soil where each sample was collected was multiplied by the amount of aluminum in the leafy vegetable sample to estimate the amount of lead in the leafy vegetable that came from the surrounding soil. There was a very good correlation between the calculated lead concentration and that measured in the lab, see Figure G1. From these results it was concluded that all of the lead greater that 2 μg/g in the leafy vegetables, up to 32 μg/g, is likely due to soil left on the leafy vegetables after washing and not contamination by the Intermediate Wiley Mill grinder. Consequently the nickel and copper results for these same samples are considered accurate.

The same process was used to determining how much of the lead in seven root and five fruit vegetables with lead concentrations above 2.0 µg/g was due to all of the soil particles not being washed of based on the aluminum concentrations in these samples. The aluminum concentrations in these samples was much lower than the leafy vegetables and very little of the lead was attributed to soil particles not being all washed off these samples. Thus these samples were considered to have been potentially contaminated by processing in the Intermediate (small) grinder. Re-sampling of some of the gardens in 2002 confirmed this, see Section 4 below.

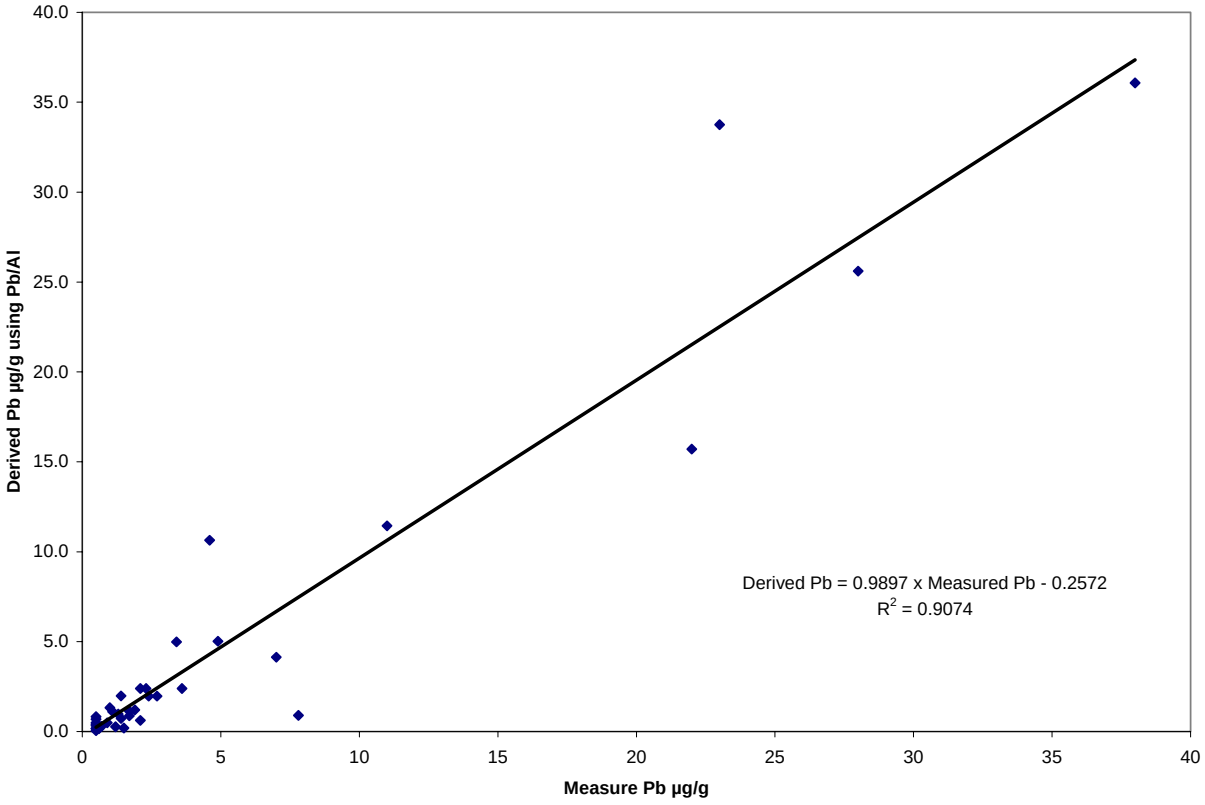

Figure G1: Relationship of measured lead concentration to calculated lead concentration in leafy vegetables collected in residential gardens in Coniston, Copper Cliff and Falconbridge, 2001.

6.0 2002 Sudbury Garden Re-Sampling

In order to verify that the lead concentrations that were found in a small subset of Sudbury residential garden vegetables sampled in 2001 were due to quality control issues associated with the Intermediate (small) Thomas-Wiley Mill used for sample processing and not due to uptake by produce. Five of the original properties sampled in 2001 were re-visited in 2002, those being Diorite and Collins Street in Copper Cliff, Tuddenham Street in Gatchell and John and Suzanne Streets in Lively. Due to the time of sampling, September 2002, only root and fruit vegetables were available 0for harvest, as well as garden soil.

The results of the 2002 re-sampling of vegetables and soil for the five properties are given in Tables G4.1 to G4.10.

7.0 Conclusions of Re-Sampling

For all five properties, the 2002 re-sampling results of garden soil did not indicate any change from the 2001 soil data. The 2002 vegetation data from properties in Copper Cliff and Gatchell verified the 2001 data found, which indicates that these samples were processed correctly in 2001.

The 2002 vegetation results from John and Suzanne Street in Lively indicate that the 2001 vegetation data was compromised by the use of the Intermediate Wiley Mill for processing. In 2001, carrots from the John Street garden were found to have lead and nickel concentrations of 42 and 54 ppm, respectively. Following re-sampling in 2002 and use of the steel Standard Thomas-Wiley Mill for processing indicated that carrots from this same garden had lead concentrations that were below method detection limits and nickel concentrations ranging from 1.3 to 1.4 ppm.

In 2001, carrots from the Suzanne Street garden were found to have lead and nickel concentrations of 40 and 9.6 ppm, respectively. Following re-sampling in 2002 and the use of the steel Standard Thomas-Wiley Mill for processing indicated that carrots and tomatoes from this same garden had lead concentrations also below method detection and nickel concentrations ranging from 1.9 to 4.1.

These are more accurate vegetation values and were expected based on the surrounding soil concentrations of the same metals. Re-sampling results have proven that the small Intermediate Thomas-Wiley Mill grinder did have an impact on certain vegetable samples that were processed in 2001 (these are indicated in Appendix A by an “*”) and that with proper processing using the large Standard Steel Thomas-Wiley Mill (Photo 1), these elevated lead and nickel concentrations do not occur.

Table G4.1: Results of 2001 and 2002 garden vegetable sampling at Station 5037454, Diorite St., Copper Cliff.

Station	Sample No.	Vegetable	Al	Sb	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
2001 Sampling																				
5037454 Diorite St.	15290	beets	120	0.2 <w	0.2 <w	8.5	0.3 <t	0.6 <t	0.4 <t	27	160	0.5 <w	2700	6.1	0.2 <w	22	0.3 <t	5.6	0.5 <w	29
	15292	carrot	82	0.2 <w	0.2 <w	3.3 <t	0.2 <t	0.5 <w	0.2 <w	10	110	0.8 <t	1600	4.7	0.2 <w	16	0.4 <t	5.2	0.5 <w	14
	15294	tomato	13 <t	0.2 <w	0.2 <w	0.5 <w	0.3 <t	0.5 <w	0.2 <w	8.4	40	0.5 <w	840	5.9	0.2 <w	5.2	1	1 <t	0.5 <w	11
2002 Sampling																				
5037454 Diorite St.	1320	beet rep 1	28	0.2 <w	0.2 <w	12	0.3 <t	0.5 <w	0.3 <t	19	47	0.5 <w	2600	4.7	0.2 <w	18	0.6 <t	8.4	0.5 <w	37
	1321	beet rep 2	13 <t	0.2 <w	0.2 <w	16	0.3 <t	0.5 <w	0.2 <w	15	39	0.5 <w	3900	4	0.2 <w	19	0.4 <t	7.8	0.5 <w	41
	1318	carrot rep 1	16 <t	0.2 <w	0.2 <w	3.8	0.1 <w	0.5 <w	0.2 <w	7.5	33	0.5 <w	1100	4	0.2 <w	11	0.4 <t	4.1	0.5 <w	19
	1319	carrot rep 2	13 <t	0.2 <w	0.2 <w	3.7	0.1 <w	0.5 <w	0.2 <w	6.4	28	1.4 <t	1000	2.1	0.2 <w	10	0.5 <t	4.1	0.5 <w	13
	1322	tomato reg.	14 <t	0.2 <w	0.2 <w	0.5 <w	0.2 <t	0.5 <w	0.4 <t	9.4	39	0.5 <w	1500	9.2	0.5 <w	10	0.2 <w	1.1 <t	0.5 <w	14
	1323	tomato cherry	38	0.2 <w	0.2 <w	0.6 <t	0.5	0.5 <w	0.3 <t	10	87	1.1 <t	2000	11	0.9 <w	8.6	1.4	1 <t	0.5 <w	17

Table G4.2: Results of 2001 and 2002 garden soil sampling at Station 5037454, Diorite St., Copper Cliff.

Station	Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
2001 Sampling																						
5037454 Diorite St. (garden)	0-15 cm	15299	9700	< 0.8	7	40	< 0.5	< 0.8	6800	28	8	**280**	13000	19	3500	170	< 1.5	**200**	**2**	37	29	42
		15300	9200	< 0.8	7	38	< 0.5	< 0.8	6800	27	9	**280**	12000	20	3600	160	< 1.5	**220**	**2**	38	28	41
2002 Sampling																						
5037454 Diorite St. (garden)	0-15 cm	1326	11000	< 0.4	8	51	< 0.5	< 0.8	7100	30	13	**400**	13000	32	4200	170	< 0.5	**310**	**3**	25	30	54
		1328	9700	< 0.2	7	38	< 0.5	< 0.6	6900	27	12	**330**	12000	21	4200	150	< 0.5	**260**	**4**	23	26	49
	15-25 cm	1327	10000	< 0.3	10	51	< 0.5	< 0.4	5600	29	12	**310**	13000	23	3500	180	< 0.5	**240**	**3**	21	30	42
		1329	9600	< 0.2	8	39	< 0.5	< 0.6	5100	27	9	**230**	12000	15	3200	160	< 0.5	**180**	**2**	19	26	46

Table G4.3: Results of 2001 and 2002 garden vegetable sampling at Station 5037439, Collins St., Copper Cliff.

Station	Sample No.	Vegetable	Al	Sb	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
2001 Sampling																				
5037439 Collins St.	15180	tomato	5 <w	0.2 <w	0.2 <w	0.6 <t	0.1 <w	0.5 <w	0.2 <w	4.9	15 <t	0.5 <w	1100	5.9	0.3 <t	2.8	0.2 <w	1.9 <t	0.5 <w	12
2002 Sampling																				
5037439 Collins St.	1342	tomato rep 1	5 <w	0.2 <w	0.2 <w	0.5 <	0 <t	0.5 <w	0.2 <w	4.3	17	0.5 <w	1100	3.7	0.7 <t	3.7	0.2 <w	2 <t	0.5 <w	8
	1343	tomato rep 2	5 <w	0.2 <w	0.2 <w	0.7 <t	0 <w	0.5 <w	0.2 <w	5.4	11	0.5 <w	1000	2.7	0.6 <t	4.1	0.3 <t	2.9	0.5 <w	9

Table G4.4: Results of 2001 and 2002 garden soil sampling at Station 5037439, Collins St., Copper Cliff.

Station	Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
2001 Sampling																						
5037439 Collins St. (garden)	0-15 cm	15184	11000	1	**38**	100	< 0.5	0.9	19000	30	20	**580**	17000	**160**	6100	270	< 2	**570**	**2**	53	26	140
		15185	10000	1	**36**	92	< 0.5	0.9	18000	26	21	**520**	17000	**160**	6000	240	< 2	**590**	1	48	24	130
2002 Sampling																						
5037439 Collins St. (garden)	0-15 cm	1344	10000	1.7	**44**	120	< 0.5	0.9	19000	39	21	**610**	14000	190	6900	290	< 1	**600**	**3**	43	26	180
		1346	11000	1.2	**38**	130	< 0.5	0.8	21000	34	22	**680**	15000	160	7200	310	< 1	**640**	**3**	46	27	180
	15-20 cm	1345	10000	1.3	**41**	120	< 0.5	0.8	14000	35	22	**650**	16000	160	4800	260	< 1	**620**	**3**	39	27	160
		1347	11000	1.2	**40**	120	< 0.5	0.6	15000	36	22	**590**	16000	150	4900	270	< 1	**610**	**4**	39	27	160

Table G4.5: Results of 2001 and 2002 garden vegetable sampling at Station 5037435, Tuddenham St., Gatchell.

Station	Sample No.	Vegetable	Al	Sb	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
2001 Sampling																				
5037435 Tuddenham St.	15165	potato	19 <t	0.2 <w	0.2 <w	0.5 <w	0.1 <w	0.5 <w	0.2 <w	6	53	0.5 <w	1100	4.1	1 <t	2.3 <t	0.2 <w	0.5 <w	0.5 <w	13
	15157	tomato	5 <w	0.2 <w	0.2 <w	0.6 <t	0.1 <w	1.1 <t	0.2 <w	4.8	63	0.5 <w	1100	8.8	0 <w	2.9	0.2 <w	1.4 <t	0.5 <w	13
2002 Sampling																				
2001 5037435 Tuddenham St.	1334	potato rep 1	5 <w	0.2 <w	0.2 <w	0.5 <w	0.1 <w	0.5 <w	0.2 <w	7.2	26	0.5 <w	1200	4.3	1 <t	2.5	0.2 <w	0.5 <w	0.5 <w	16
	1335	potato rep 2	40	0.2 <w	0.2 <w	0.5 <w	0.1 <w	0.6 <t	0.2 <w	8.2	63	1.7 <t	1200	5.1	1 <t	3.9	0.2 <w	0.5 <w	0.5 <w	18
	1330	tomato rep 1	5 <w	0.2 <w	0.2 <w	0.5 <w	0.2 <t	0.5 <w	0.2 <w	4.3	17	0.5 <w	1200	4.9	1 <t	3.1	0.2 <w	1.7 <t	0.5 <w	9
	1331	tomato rep 2	5 <w	0.2 <w	0.2 <w	0.5 <w	0.2 <t	0.5 <w	0.2 <w	4.3	12	0.5 <w	1200	5.3	0 <t	1.8 <t	0.2 <w	0.9 <t	0.5 <w	10

Table G4.6: Results of 2001 and 2002 garden soil sampling at Station 5037435, Tuddenham St., Gatchell.

Station	Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
2001 Sampling																						
5037435 Tuddenham St. (garden)	0-15 cm	15166	9900	< 0.8	6	85	< 0.5	< 0.8	6900	35	11	**210**	16000	**130**	4100	260	< 1.5	**190**	1	32	28	87
		15167	7200	< 0.8	6	54	< 0.5	< 0.8	3500	56	15	**440**	14000	51	2700	170	< 1.5	**300**	1	22	25	58
2002 Sampling																						
5037435 Tuddenham St. (garden)	0-15 cm	1332	11000	< 0.5	7	99	< 0.5	< 0.6	8100	39	12	**220**	15000	48	4900	290	< 0.5	**210**	**2**	32	30	110
		1336	12000	< 0.4	7	100	< 0.5	< 0.7	8900	40	13	**220**	15000	47	5200	310	< 1.1	**210**	**2**	34	32	100
	15-30 cm	1333	11000	< 0.4	7	97	< 0.5	< 0.7	7600	42	13	**220**	16000	53	5100	290	< 0.5	**220**	**2**	32	33	110
		1337	12000	< 0.5	8	100	< 0.5	< 0.6	8600	41	14	**230**	15000	50	5200	310	< 0.5	**220**	**2**	34	32	110

Table G4.7: Results of 2001 and 2002 garden vegetable sampling at Station 5037465, John St., North Lively.

Station	Sample No.	Vegetable	Al	Sb	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
2002 Sampling																				
5037465 John St.	15357*	carrot	64	0 <t	0.2 <w	15	0.2 <t	1 <w	0.2 <w	19	92	42	990	6.6	0.2 <w	54	0.2 <w	22	0.5 <w	11
2002 Sampling																				
5037465 John St.	1310	carrot rep 1	26	0 <w	0.2 <w	14	0.1 <w	1 <t	0.2 <w	4.3	50	0.5 <w	980	4.8	0.2 <w	1.4	0.2 <w	26	0.5 <w	15
	1311	carrot rep 2	21	0	0.2 <w	12	0.1 <w	1 <w	0.2 <w	3.5	34	0.5 <w	970	5.1	0.2 <w	1.3	0.2 <w	26	0.5 <w	13

Table G4.8: Results of 2001 and 2002 garden soil sampling at Station 5037465, John St., North Lively.

Station	Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
2001 Sampling																						
5037465 John St. (garden)	0-15 cm	15358	11000	< 0.8	< 5	94	< 0.5	< 1	12000	28	8	79	1700	55	5500	320	< 1.5	**80**	< 1	65	33	93
		15359	13000	**1**	< 5	110	< 0.5	< 1	15000	29	8	**92**	2000	80	6700	340	< 1.5	**91**	< 1	72	35	110
2002 Sampling																						
5037465 John St. (garden)	0-15 cm	1312	8400	< 0.4	6	75	< 0.5	< 0	9200	25	9	75	13000	35	5600	270	< 0.5	**79**	< 0.8	45	29	88
		1313	9200	< 0.5	6	84	< 0.5	< 0	9700	26	10	**86**	14000	48	6000	300	< 0.5	**94**	< 0.7	46	31	97
	15-30 cm	1314	8500	< 0.3	5	47	< 0.5	< 0	3500	23	10	50	13000	21	3700	200	< 0.5	**56**	< 0.4	20	31	53
		1315	8300	< 0.3	5	130	< 0.5	< 0	4000	23	9	41	13000	64	3700	190	< 0.5	43	< 0.3	61	30	78

Table G4.9: Results of 2001 and 2002 garden vegetable sampling at Station 5037461, Suzanne St., North Lively.

Station	Sample No.	Vegetable	Al	Sb	As	Ba	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
2001 Sampling																				
5037461 Suzanne St.	15338*	carrot	57	0.2 <w	0.2 <w	15	0.1 <w	0.5 <w	0.3 <t	9.7	91	40	1800	5.8	0.2 <w	9.6	0.2 <w	9.8	0.5 <w	23
2002 Sampling																				
5037461 Suzanne St.	1300	carrot rep 1	18	0.2 <w	0.2 <w	8.8	0.1 <w	0.5 <w	0.2 <w	5.4	56	0.5 <w	970	4.6	0.2 <w	2	0.2 <w	5.9	0.5 <w	15
	1301	carrot rep 2	41	0.2 <w	0.2 <w	13	0.1 <w	0.5 <w	0.2 <w	7.4	65	0.5 <w	1200	5.5	0.2 <w	4.1	0.2 <w	7.7	0.5 <w	19
	1306	tomato rep 1	42	0.2 <w	0.2 <w	1	0.1 <w	0.5 <w	0.2 <w	10	85	0.5 <w	1400	11	0.4 <t	1.9	0.2 <w	1.8	0.5 <w	21
	1307	tomato rep 2	25	0.2 <w	0.2 <w	2.2	0.1 <w	0.5 <w	0.2 <w	12	73	0.5 <w	2300	14	0.2 <w	3.1	0.2 <w	3.5	0.5 <w	28

Table G4.10: Results of 2001 and 2002 garden soil sampling at Station 5037461, Suzanne St., North Lively.

Station	Depth	Sample No.	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Se	Sr	V	Zn
2001 Sampling																						
5037461 Suzanne St. (garden)	0-15 cm	15340	14000	< 0.8	8	76	< 0.5	< 0.8	9900	32	10	**120**	2200	110	6600	270	< 1.5	**130**	< 1	28	36	110
		15341	18000	< 0.8	9	89	< 0.5	< 0.8	12000	37	11	**110**	2500	93	7000	350	< 1.5	**150**	< 1	49	46	96
2002 Sampling																						
5037461 Suzanne St. (garden)	0-15 cm	1302	17000	< 0.6	11	85	< 0.5	< 0.6	10000	37	13	**110**	22000	45	7200	300	< 0.5	**130**	1	31	44	95
		1303	17000	< 0.6	11	85	< 0.5	< 0.3	10000	37	13	**100**	21000	44	7300	300	< 0.5	**130**	1	32	45	96
	15-25 cm	1304	17000	< 0.7	11	81	< 0.5	< 0.4	5300	36	14	**130**	22000	28	5400	270	< 0.5	**150**	**2**	23	44	73
		1305	17000	< 0.7	11	84	< 0.5	< 0.7	5300	38	14	**190**	23000	26	5300	290	< 0.5	**160**	**2**	25	48	72

City of Greater Sudbury 2001 Survey

Appendix H

Ministry Soil Criteria

MOE Ontario Soil Background Criteria (Table F)

The numbers listed as being "Ontario Soil Background Criteria", or Table F, were derived from the "Ontario Typical Ranges (OTR)" guidelines (MOE 1997). The OTRs represent the expected upper background range of various chemicals in soil in Ontario. These were derived from a province-wide soil sampling program conducted to determine the range of ambient background chemical concentrations in surface soil in Ontario result from natural geological processes and human activity remote from the influence of known point sources of pollution. Soils were analyzed for approximately 39 inorganic and 119 organic compounds. Soil concentrations above the "background levels" may be indicative of local pollution impacts or could also be a result of local geological deposits or natural sources of organic chemicals, such as ash from forest fires or oil seepage. Complete details on the "background criteria/OTR" development process can be found in the MOE report "*Ontario Typical Range of Chemical Parameters in Soil, Vegetation, Moss Bags and Snow*", (MOE 1993c). For the Table F, "Ontario Soil Background Criteria" a number of the OTR parameters were taken and new background numbers were created that, with a few minor exceptions, are higher than the OTR_{98} guideline numbers. The exception occur when the Table A derived number was less than the OTR_{98} guideline number. In this case both the Table F and Table A numbers were set at the OTR_{98} guideline number. Complete details on the Table F, "Ontario Soil Background Criteria" development process can be found in the MOE report "*Guideline for Use at Contaminated Sites in Ontario*", (MOE 1997).

MOE Soil Remediation Criteria (Table A)

The MOE soil remediation criteria have been developed to provide guidance in assessing and triggering certain decisions or actions for soils that have elevated soil concentrations. These criteria are not action levels, in that exceeding one or more of the criteria does not automatically mean that a clean-up must be conducted, but that further study of the potential human and/or ecological risks is warranted.

Decisions on the need to undertake action when the criteria are exceeded require consideration of factors such as:

- a demonstrated presence or likelihood of an adverse effect to human health and/or the natural environment;
- an understanding of the type of protection provided by the criteria gained through knowledge of the exposure pathways and receptors (i.e. humans, animals, plants) which were considered in the development of the criteria, and through understanding how that combination of pathways and receptors relate to those which could be found in the community;
- local environment conditions that are known to modify chemicals availability and toxicity; and
- an understanding of the relationship between dose and health response for sensitive receptors

from all exposure pathways, including the safety and uncertainty factors that have been used in the development of the criteria.

In each case, the decision to undertake action should entail all of these factors plus any additional factors specific to the community in question. When the decision is made that action is needed, it is generally accepted that a human health and/or ecological risk assessment(s) are carried out to assess the level of risks to the community, identify the major contributing factors to risk and, if warranted develop intervention levels for remediation.

The soil remediation criteria are effects-based concentrations set to protect against the potential for adverse effects to human health, ecological health, and the natural environment, whichever is the most sensitive, often a plant or soil dwelling animal. The overarching assumption is by protecting the most sensitive receptor and the most sensitive endpoint the rest of the environment is protected by default. There are different criteria for land use, soil texture, soil depth, and ground water use. The criteria have also been established so that there will not be a potential for adverse effects through chemicals transferred from soil to indoor air, from ground water or surface water through release of volatile gases, from leaching of chemicals in soil to ground water, or from ground water discharge to surface water.

Currently there are criteria for approximately 25 inorganic elements and 90 organic compounds. Criteria were developed only if there were sufficient, defendable, effects-based data on the potential to cause an adverse effect. The development of Soil Remediation Criteria is a continuous program, and criteria for more elements and compounds will be developed as additional environmental data become available. Similarly, new information could result in future modifications to the existing criteria.

For more information, please refer to the Guideline for Use at Contaminated Sites in Ontario. Revised December 1997, Ontario Ministry of Environment and Energy, PIBs 3161E01, ISBN 0-7778-5905-X.1.