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.

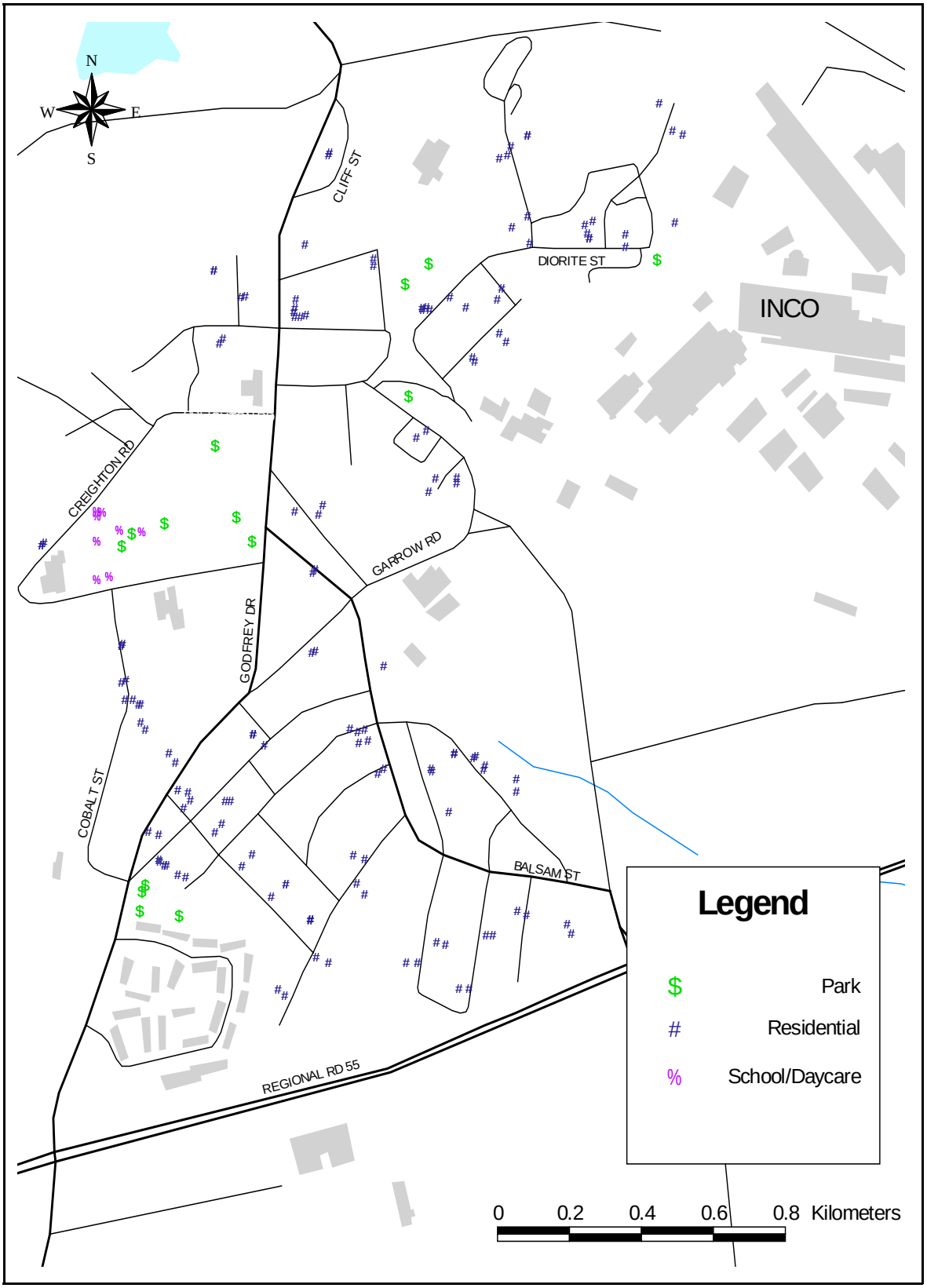
Data formatting was completed using Microsoft Excel 97, SR-2 (I), Microsoft Corporation. This version of Microsoft Excel was also used for selected data analysis including:

- 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.

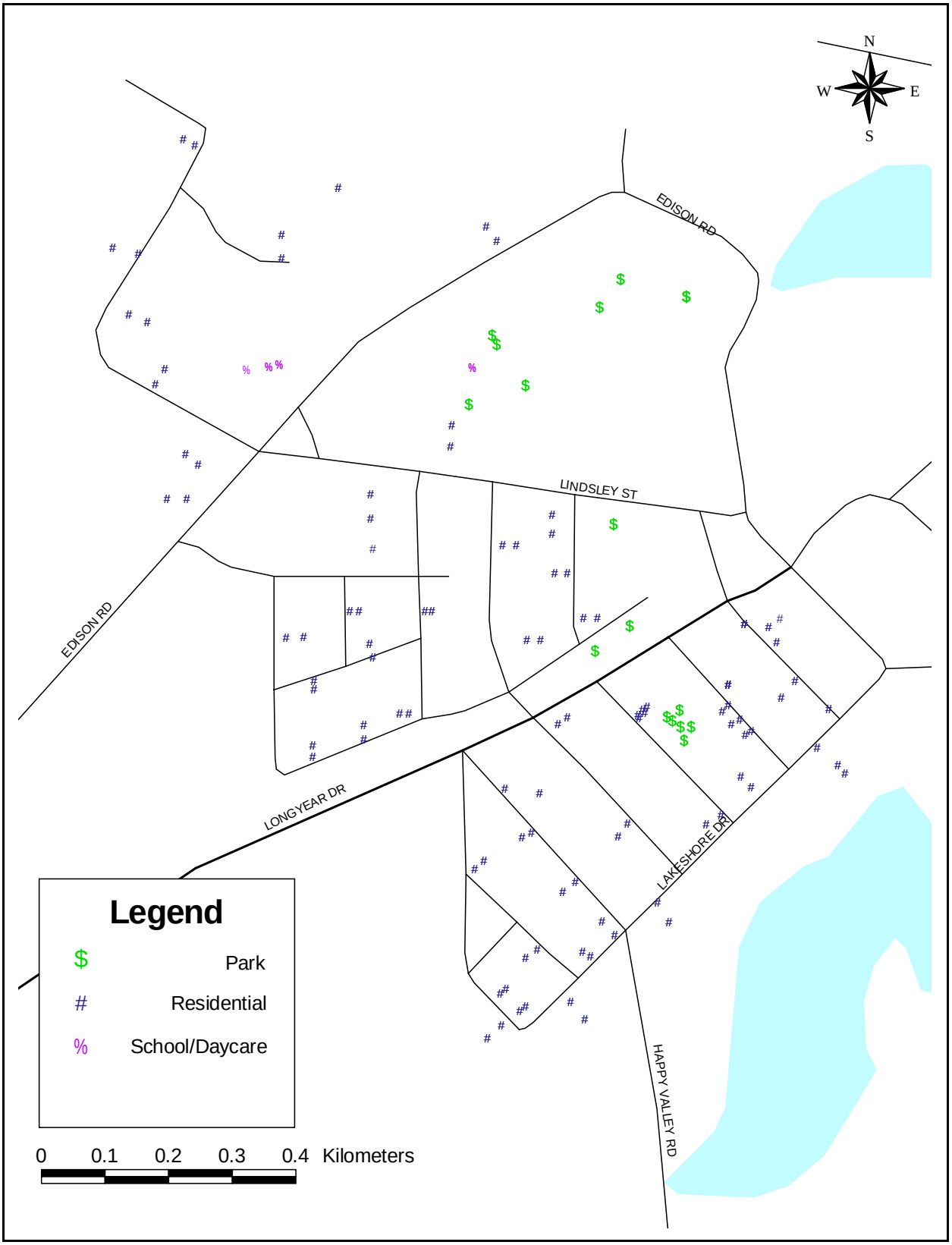
Additional data analysis was completed using XLSTAT version 6.0, Addinsoft, 2002. This version of XLSTAT was used for the following data analysis:

- the generation of descriptive statistics including: minimum, maximum, mean, median, geometric mean, 10^{th} and 95^{th} 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.

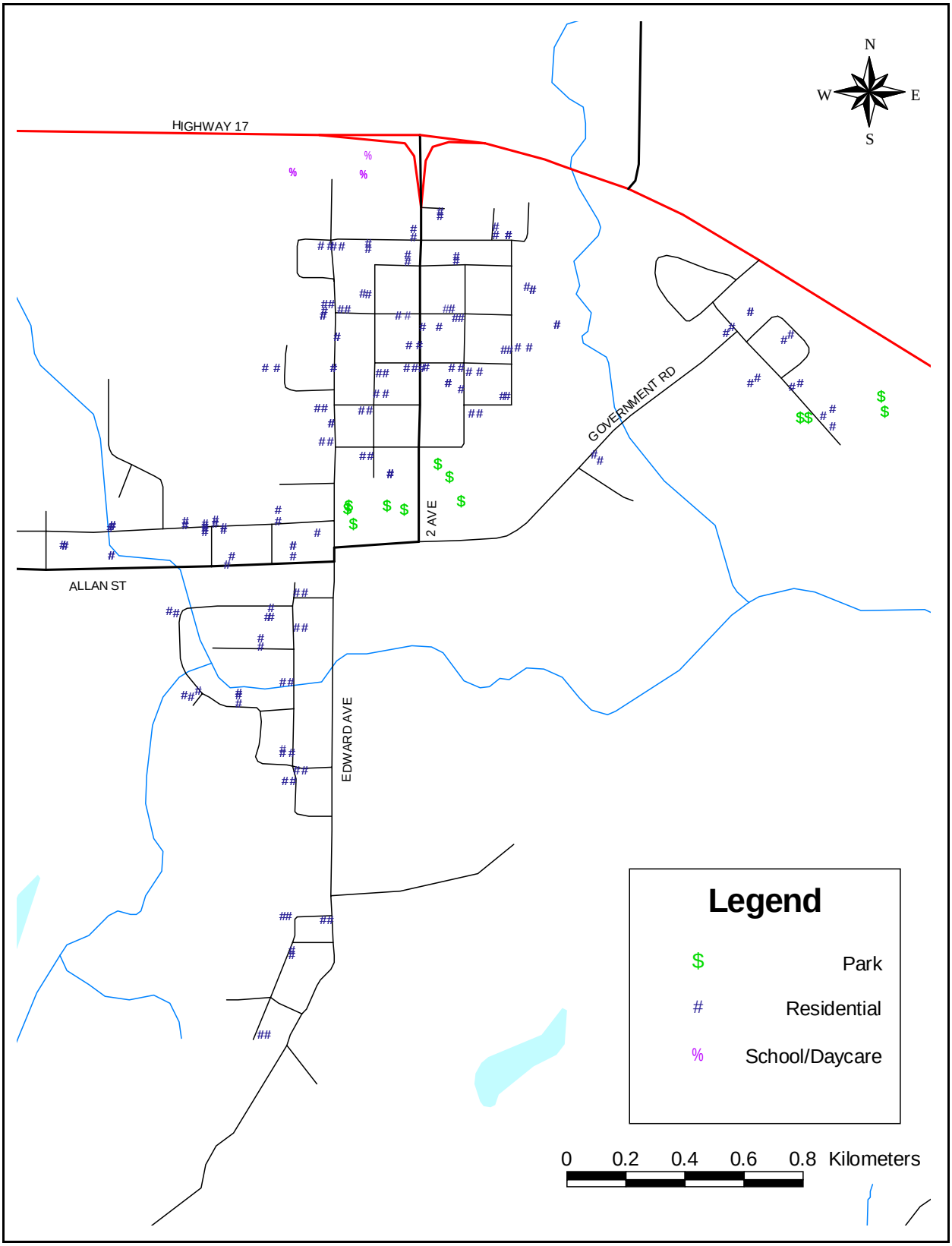
10.1 Soil Sampling Station Maps for the City of Greater Sudbury by Community



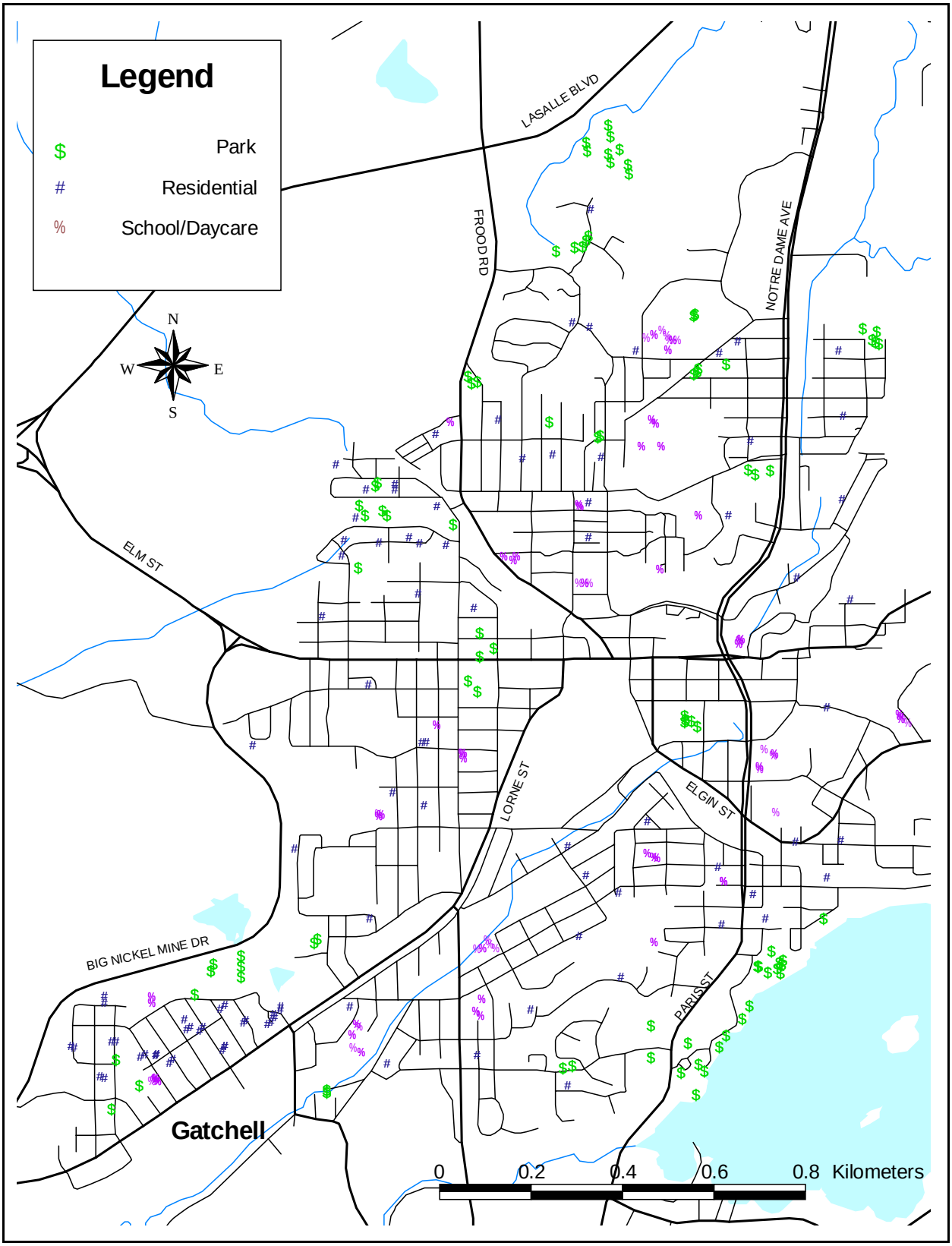
Map 10.1.1: Station map for Copper Cliff



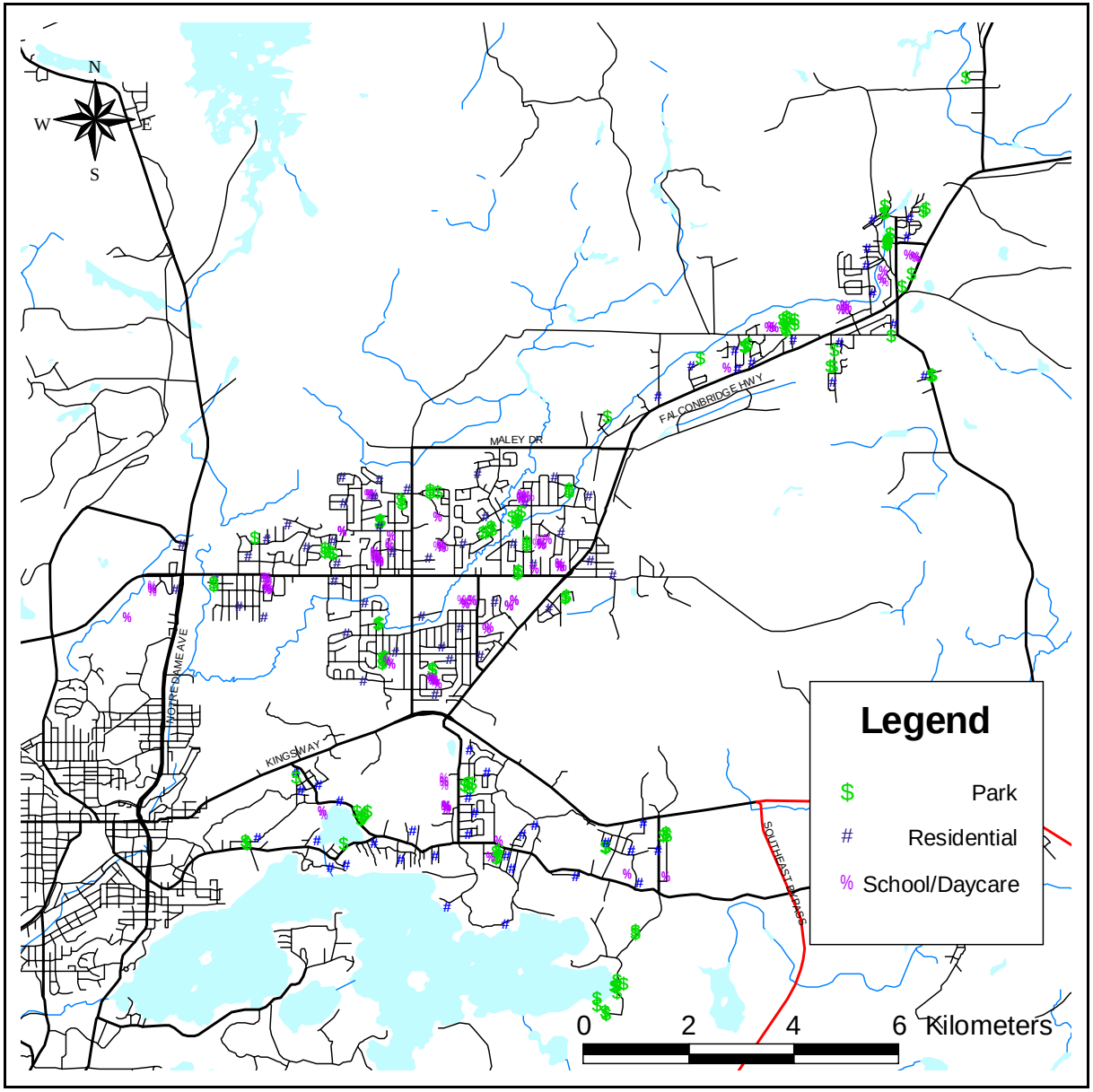
Map 10.1.2: Station map for Falconbridge



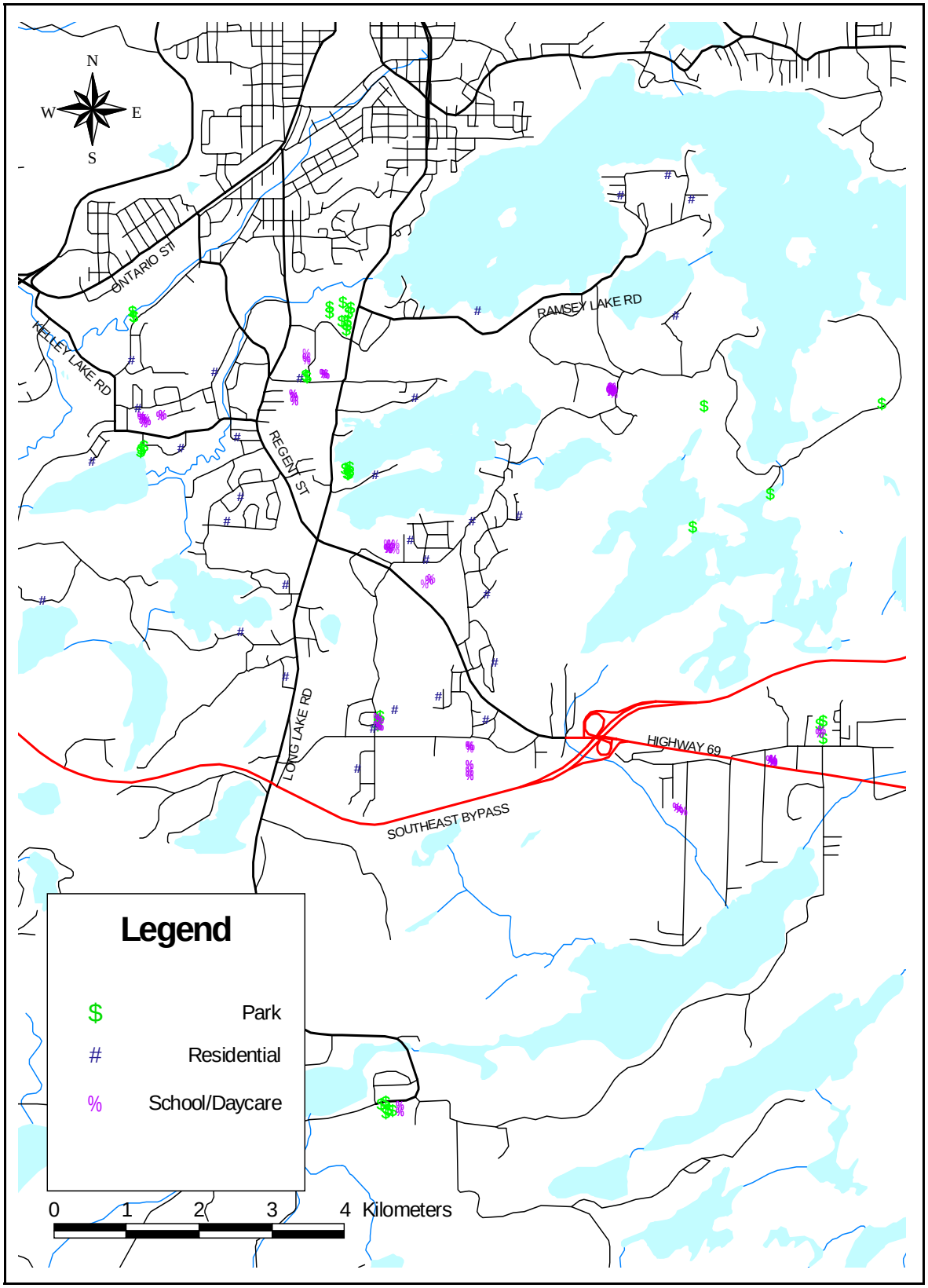
Map 10.1.3: Station map for Coniston



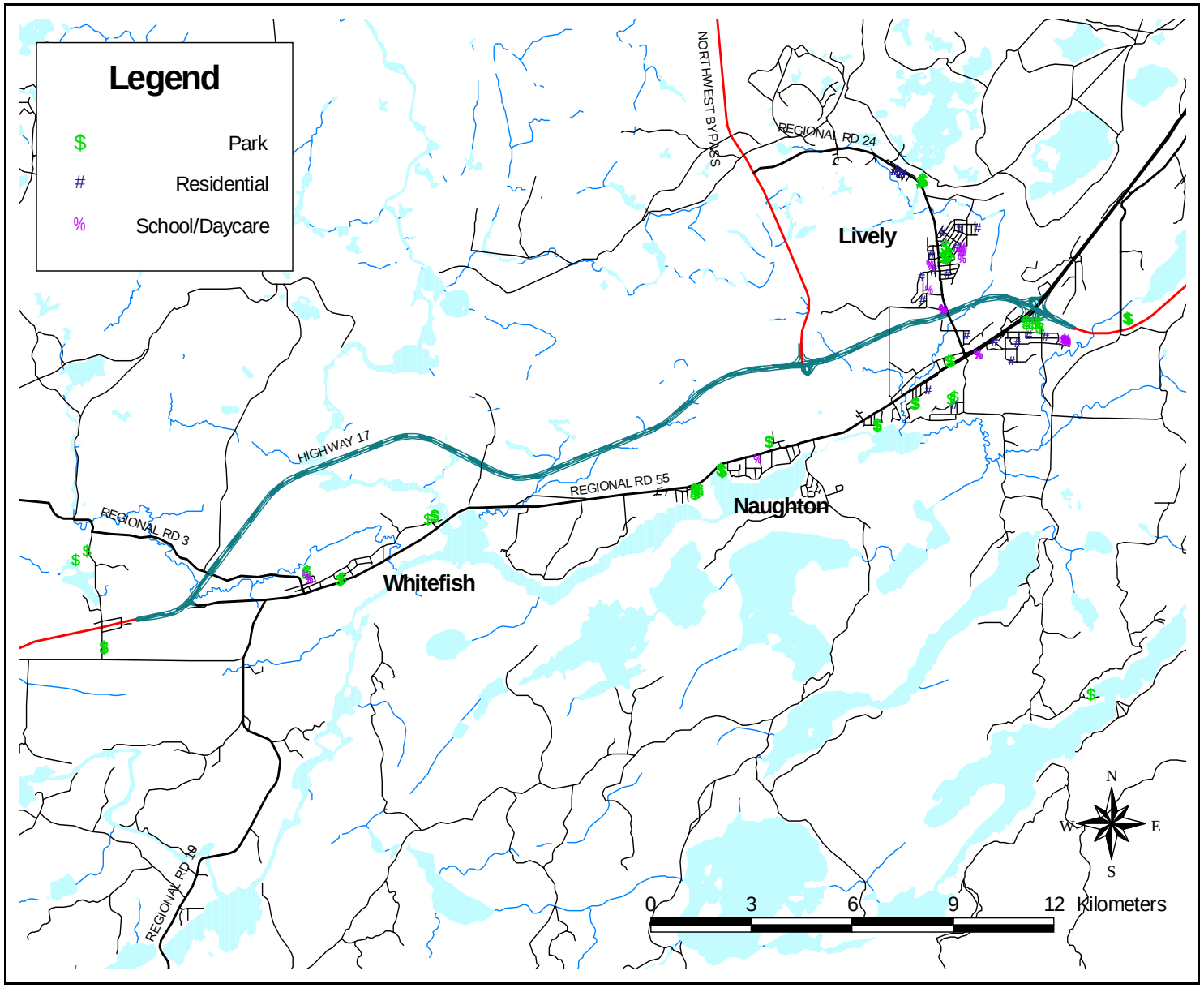
Map 10.1.4: Station map for Sudbury Core



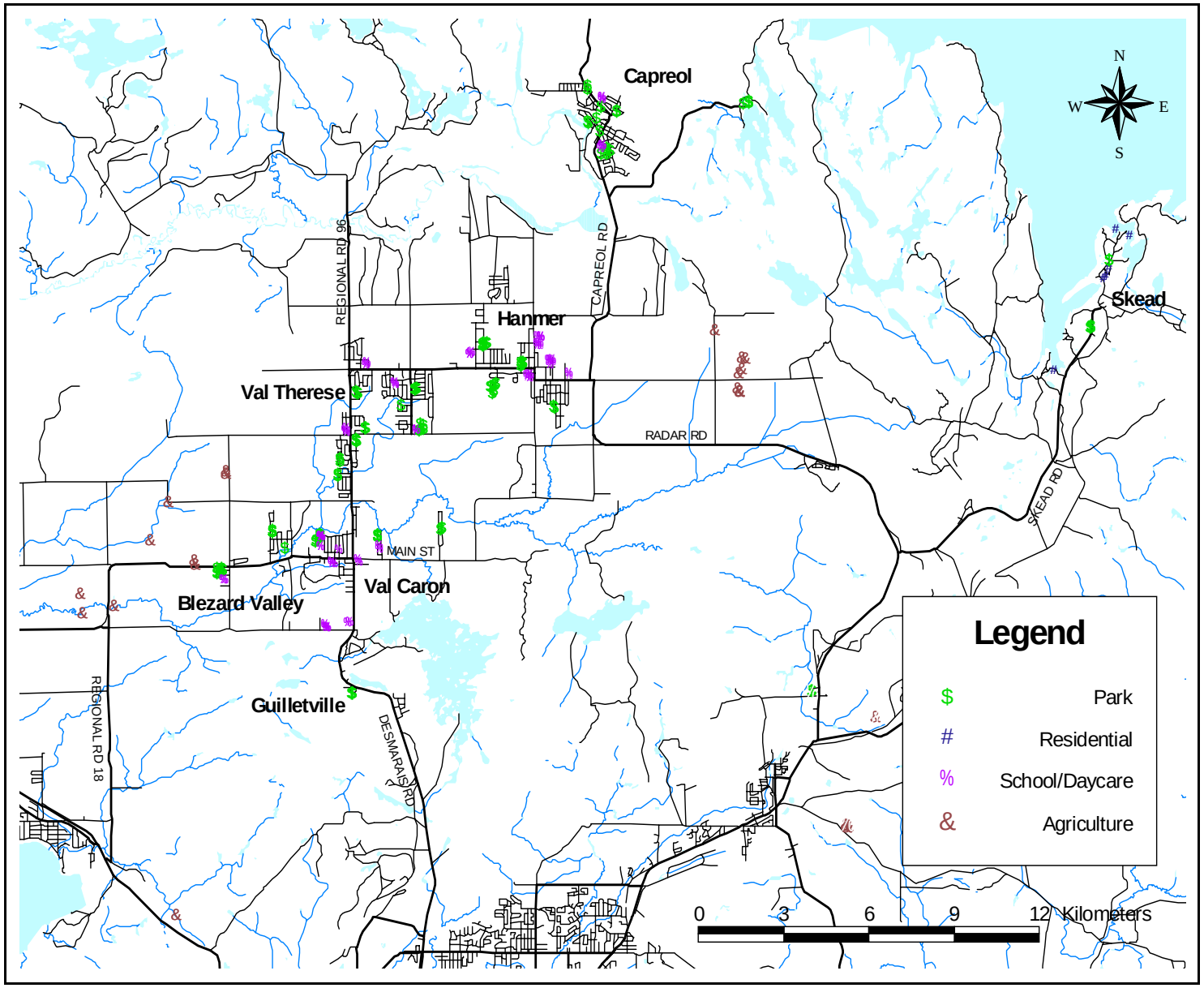
Map 10.1.5: Station map for Sudbury East, Sudbury New and Garson



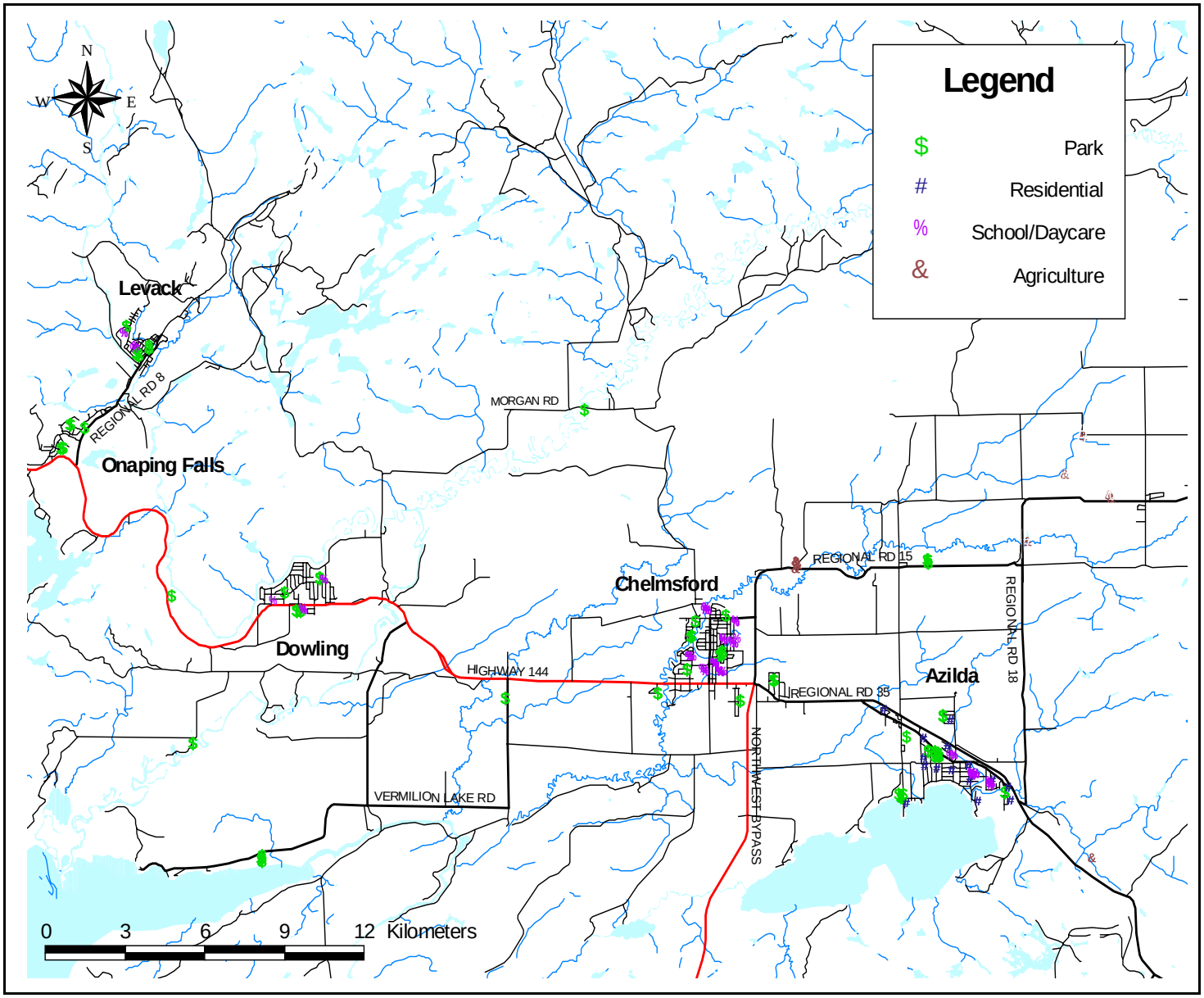
Map 10.1.6: Station map for Sudbury South



Map 10.1.7: Station Map for Sudbury West



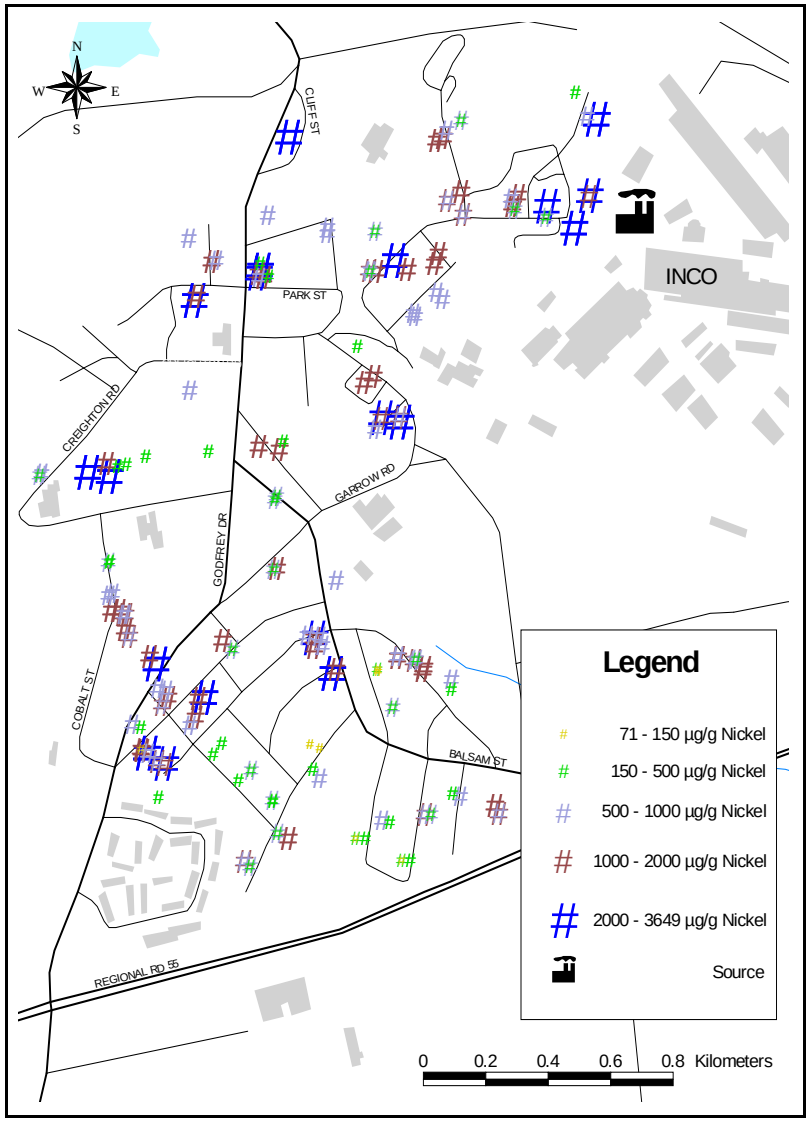
Map 10.1.8: Station map for Valley East



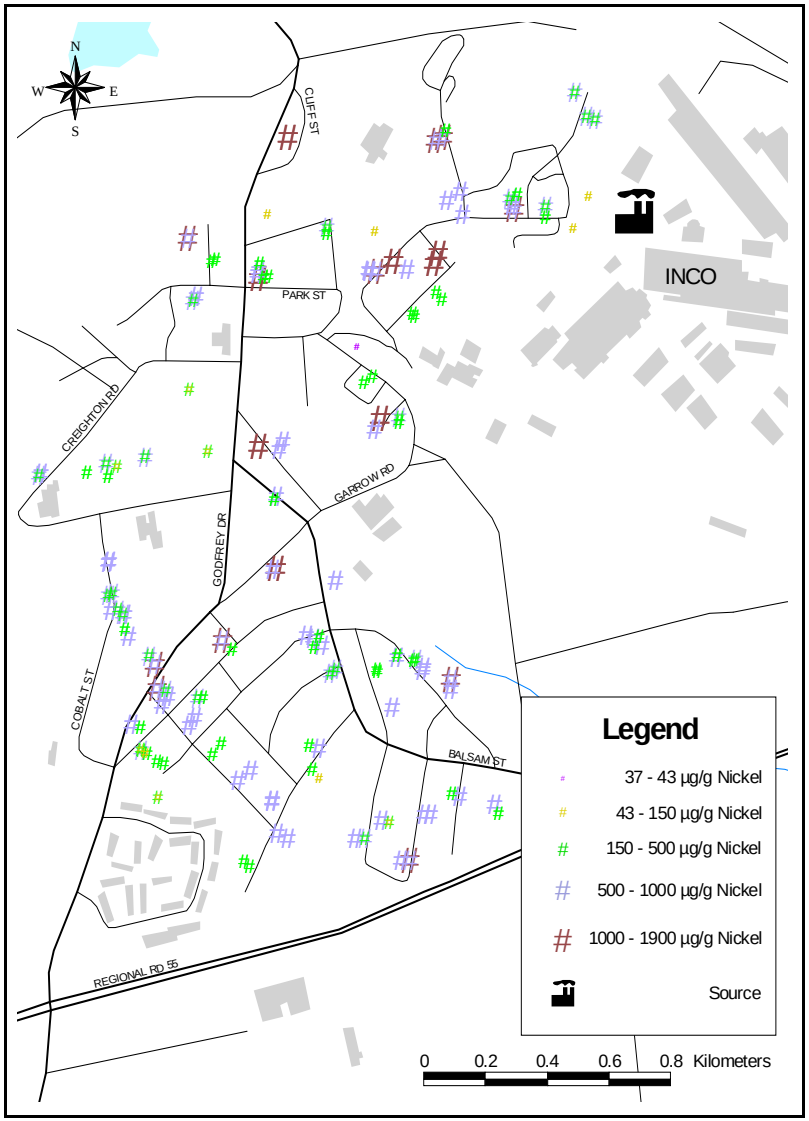
Map 10.1.9: Station map for Valley West

10.2 Concentration Gradient Maps for Selected Metals and Arsenic in Urban Soils of the City of Greater Sudbury

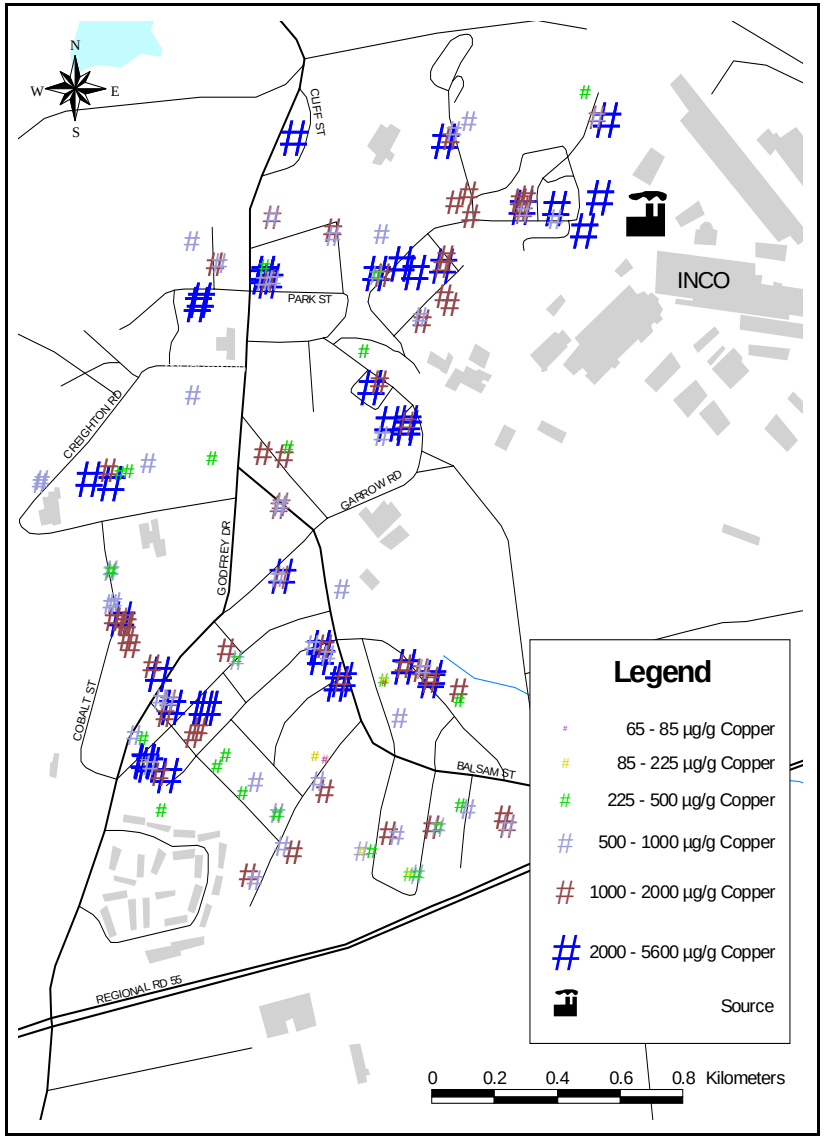
10.2.1 Copper Cliff



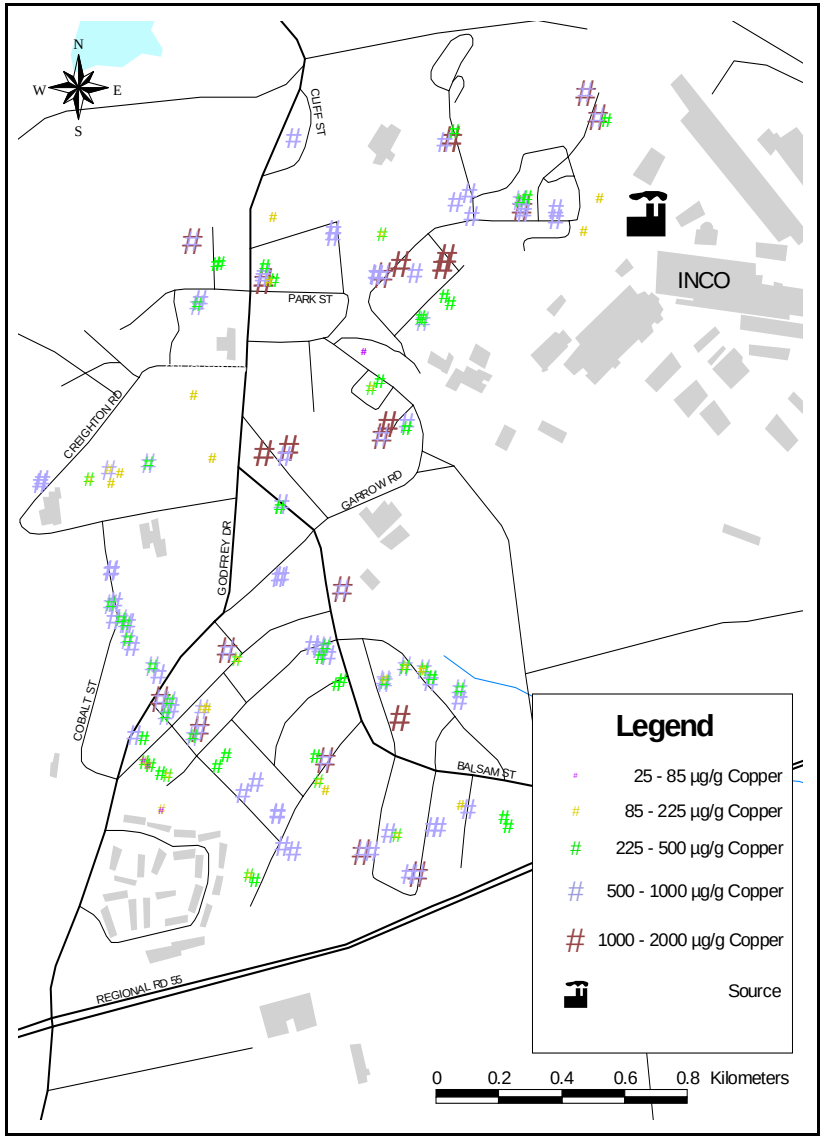
Map 10.2.1.1: Ni concentrations in urban 0 - 5 cm soil in Copper Cliff



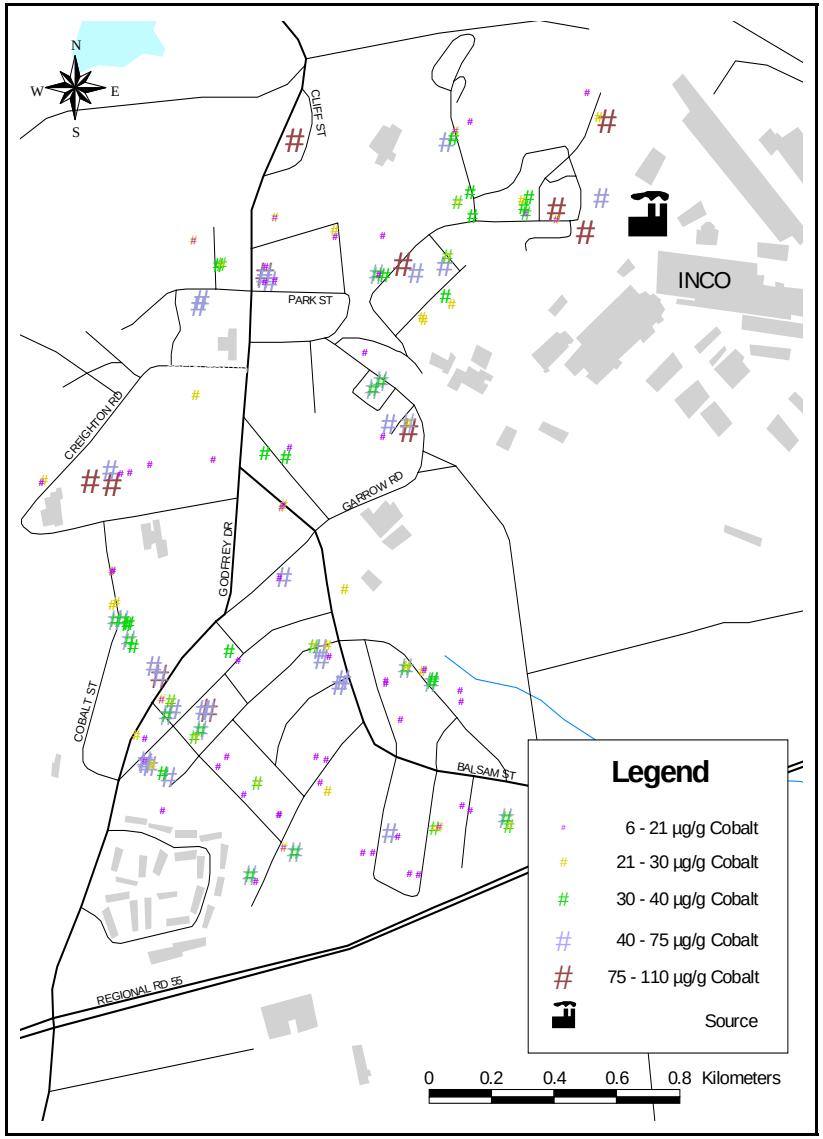
Map 10.2.1.2: Ni concentrations in urban 10 - 20 cm soil in Copper Cliff



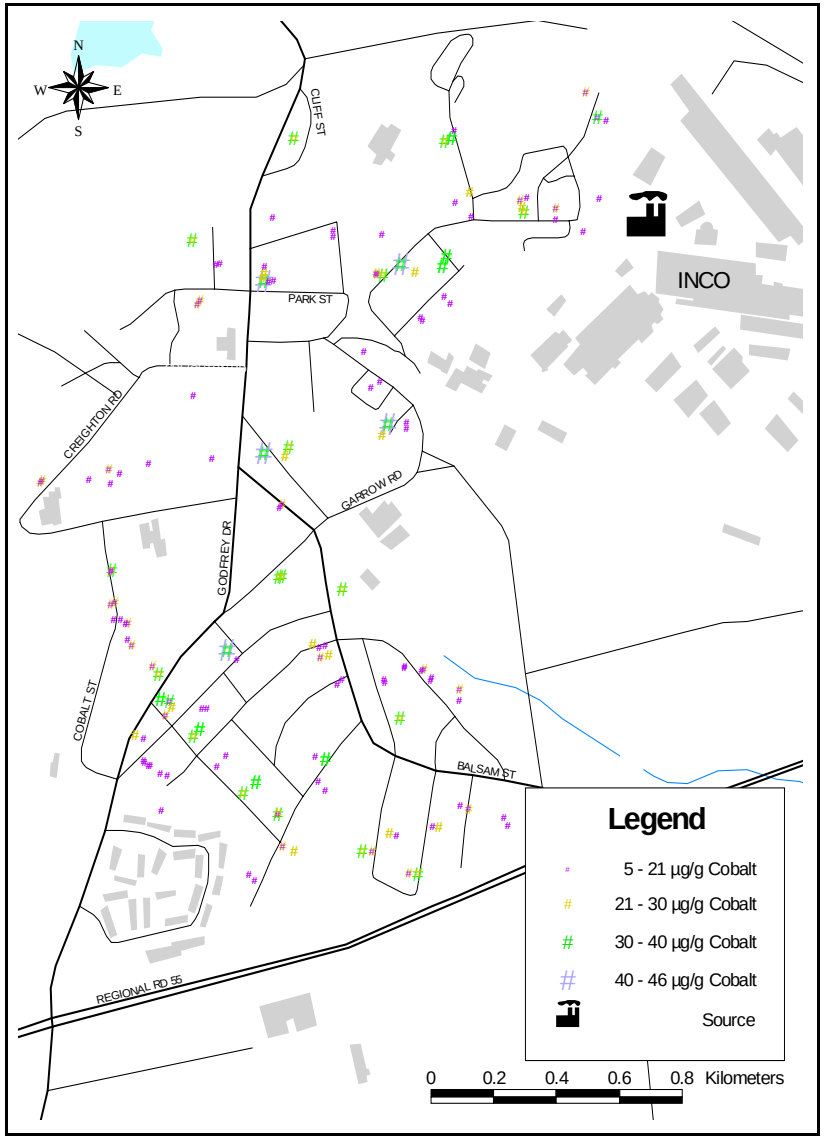
Map 10.2.1.3: Cu concentrations in urban 0 - 5 cm soil in Copper Cliff



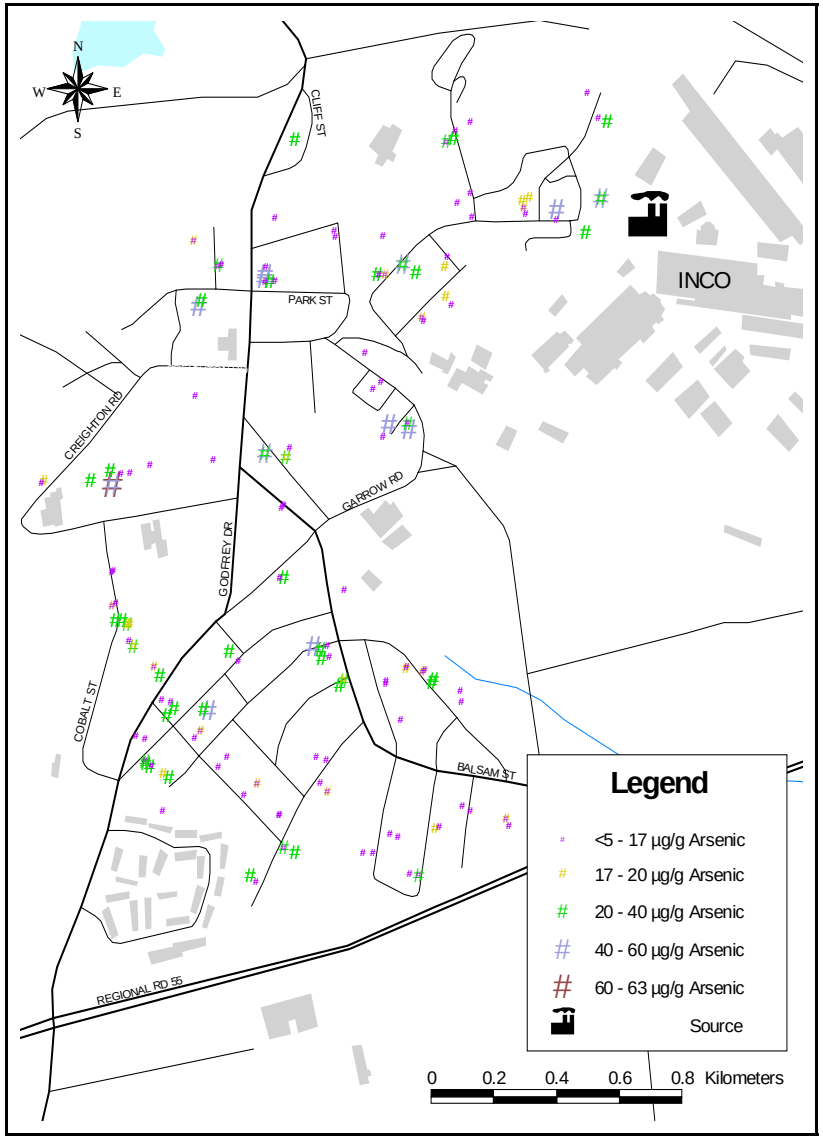
Map 10.2.1.4: Cu concentrations in urban 10 - 20 cm soil in Copper Cliff



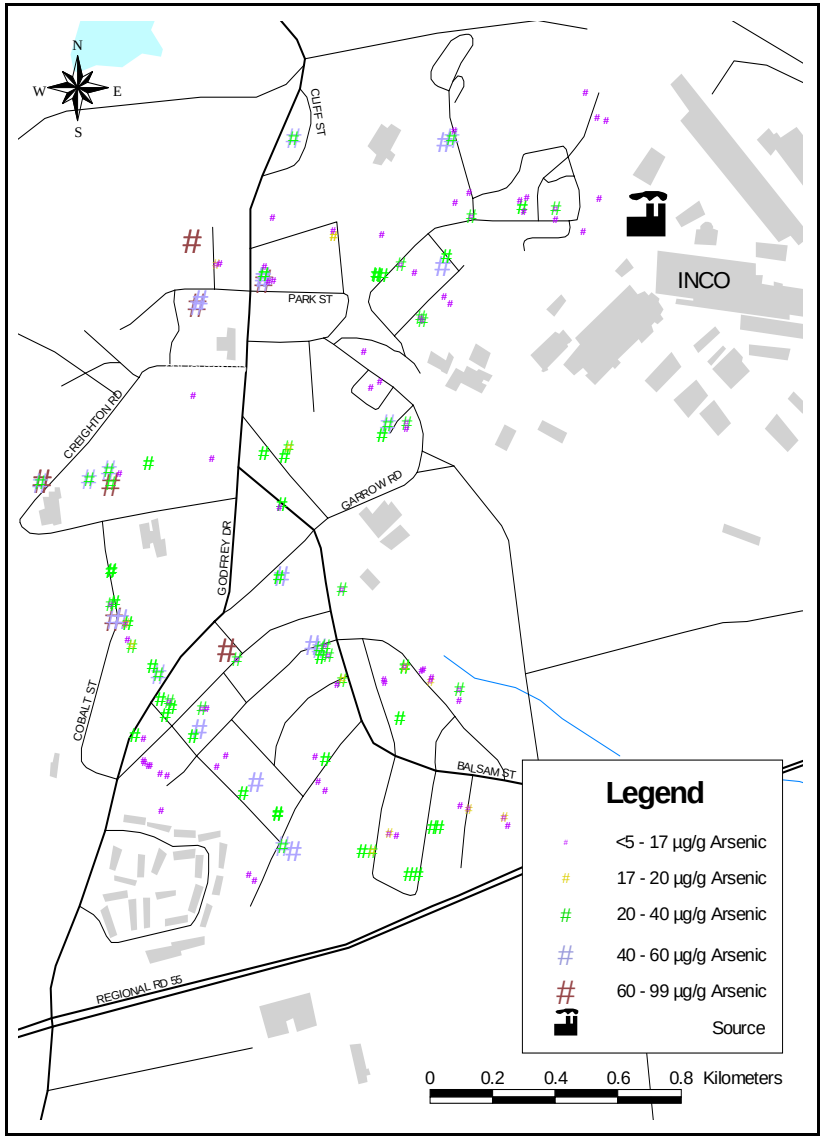
Map 10.2.1.5: Co concentrations in urban 0 - 5 cm soil in Copper Cliff



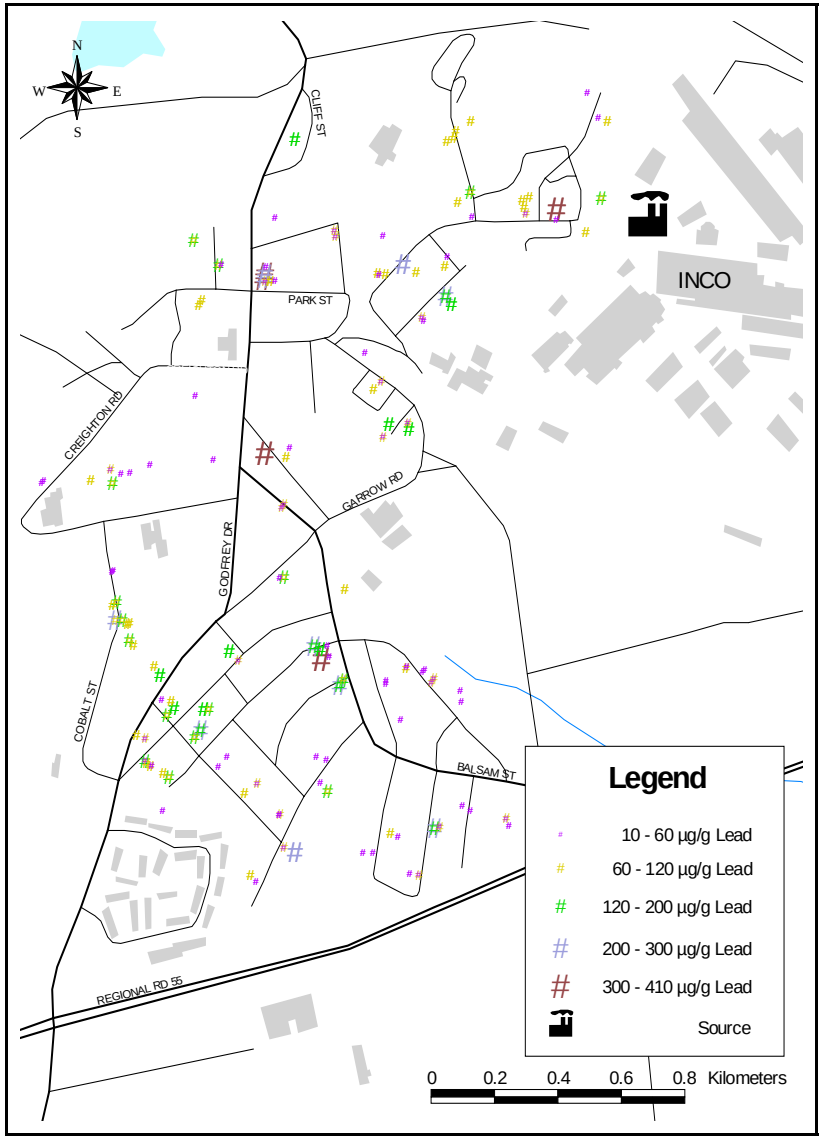
Map 10.2.1.6: Co concentrations in urban 10 - 20 cm soil in Copper Cliff



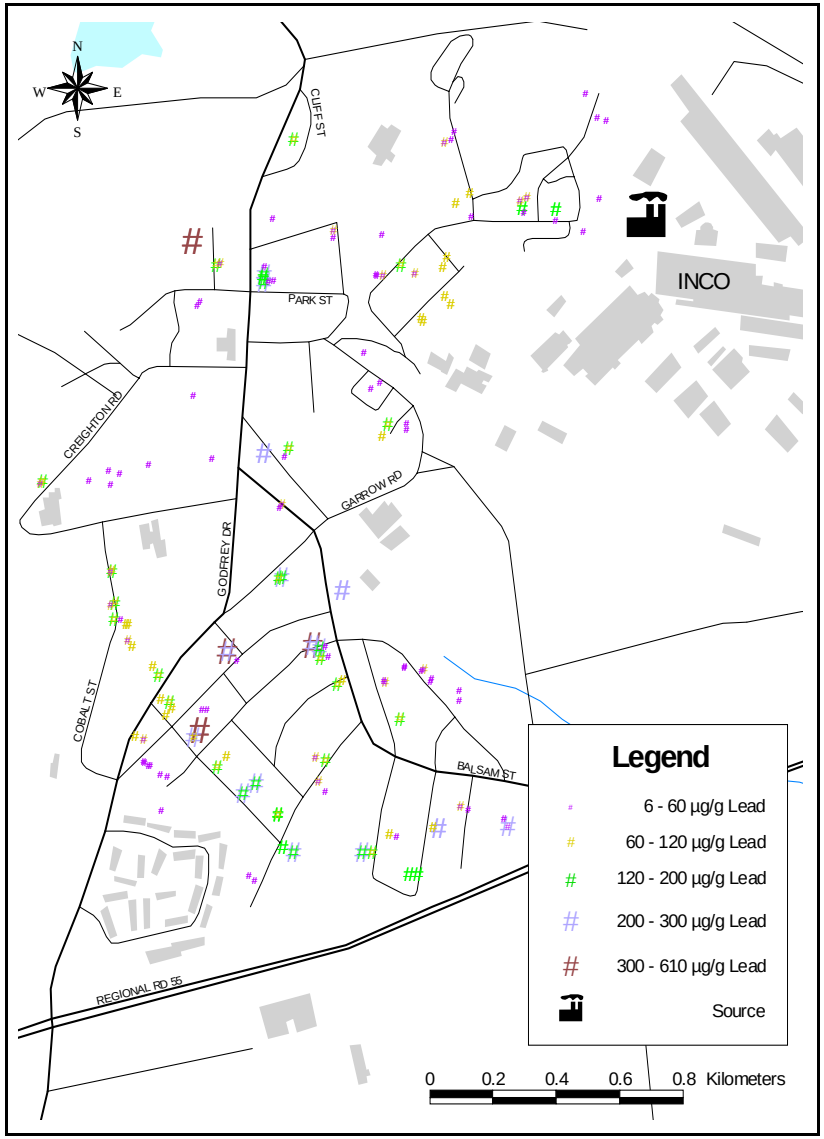
Map 10.2.1.7: As concentrations in urban 0 - 5 cm soil in Copper Cliff



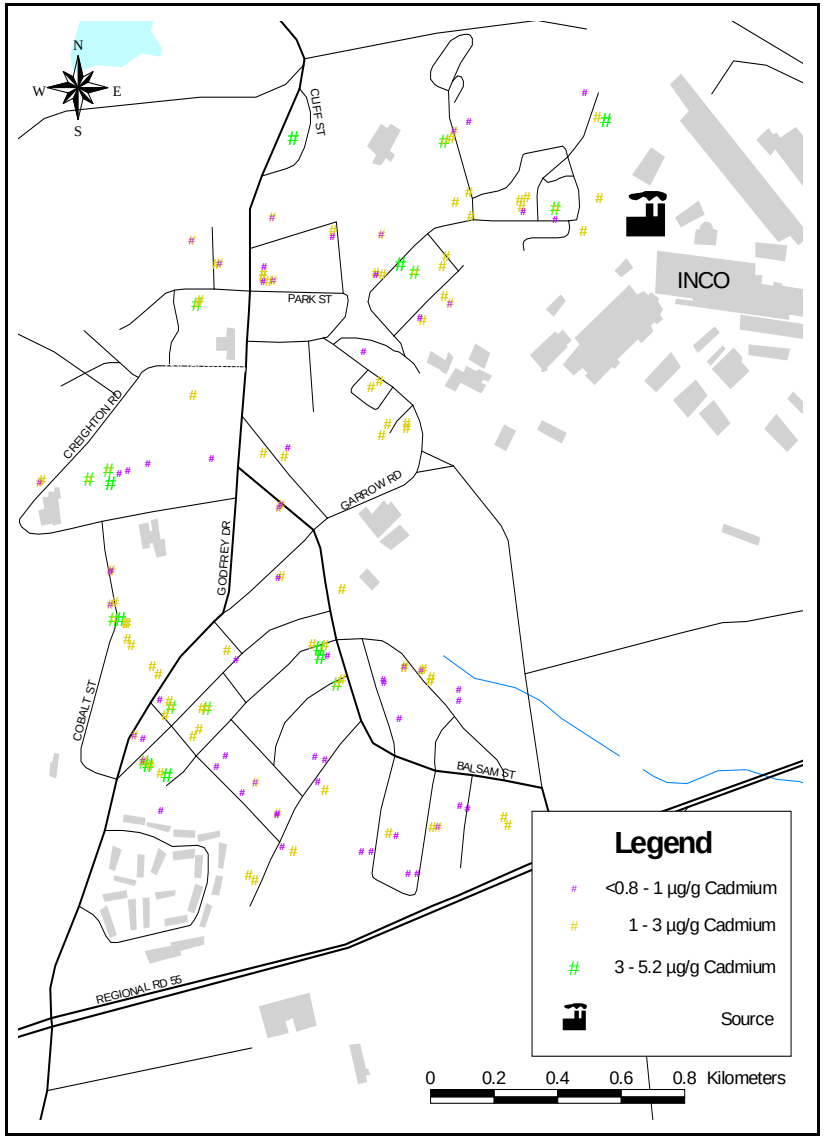
Map 10.2.1.8: As concentrations in urban 10 - 20 cm soil in Copper Cliff



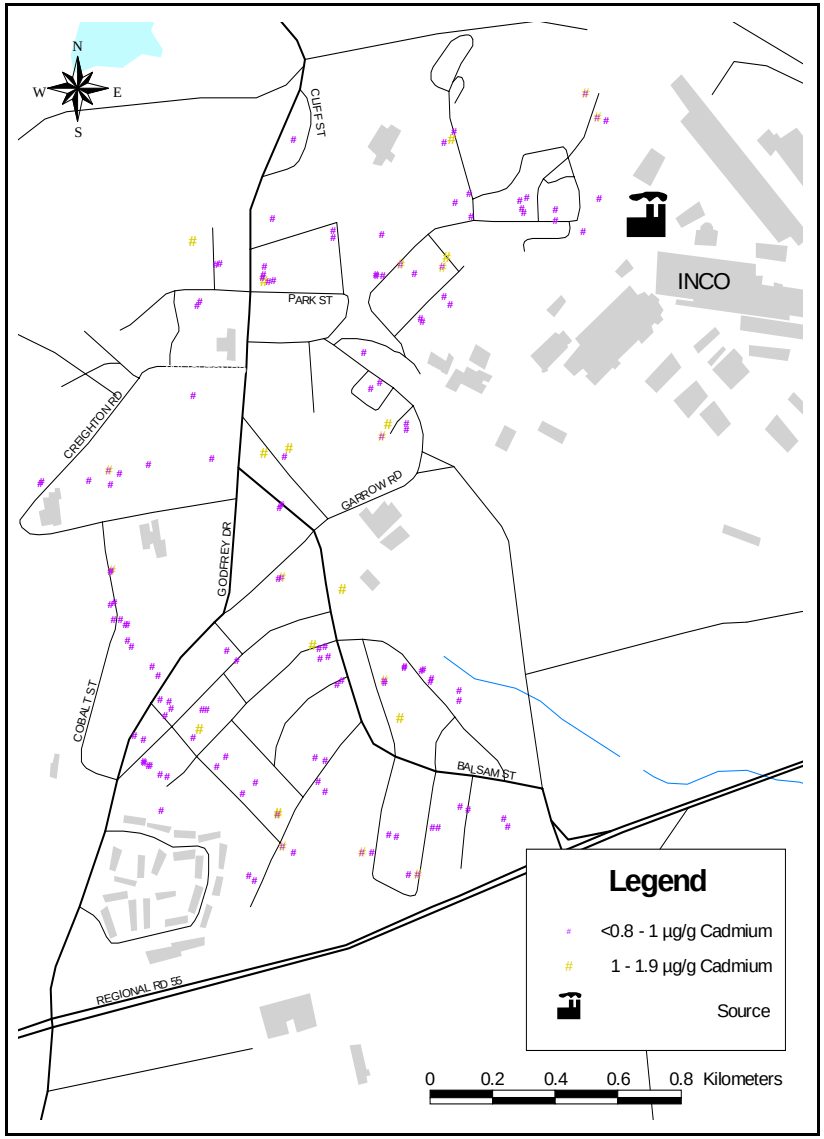
Map 10.2.1.9: Pb concentrations in urban 0 - 5 cm soil in Copper Cliff



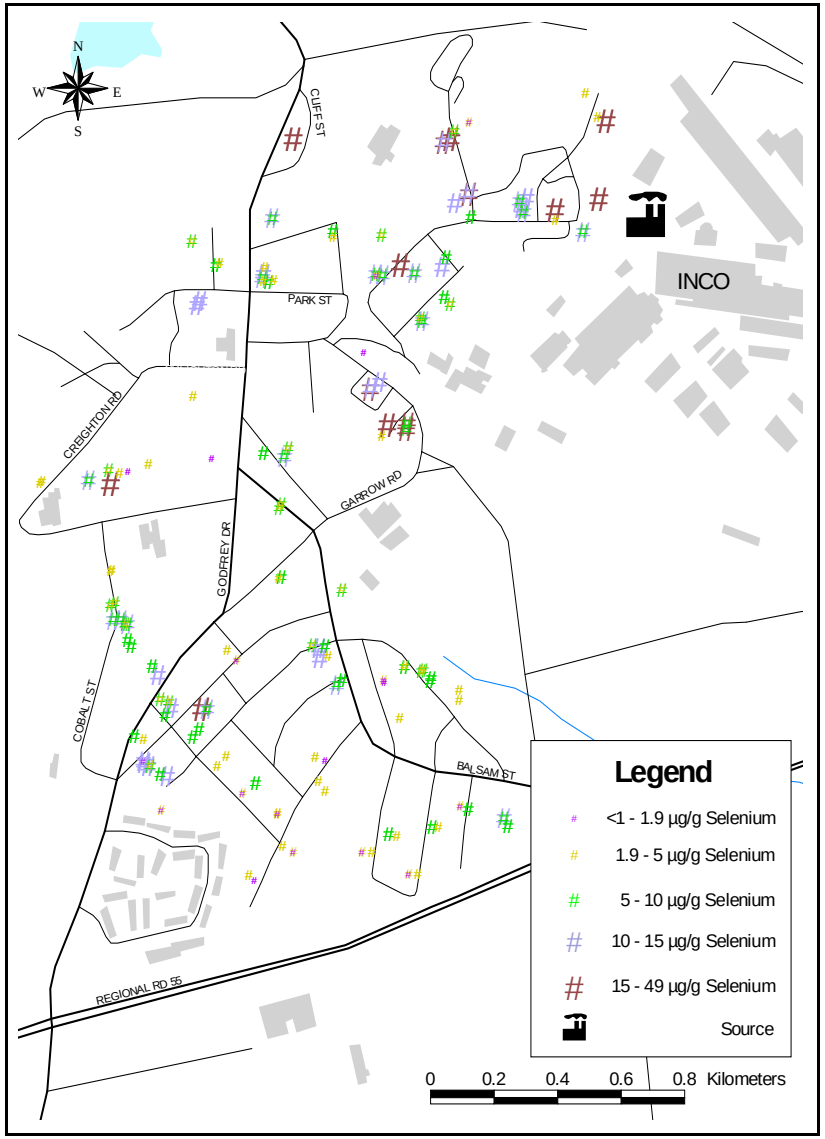
Map 10.2.1.10: Pb concentrations in urban 10 - 20 cm soil in Copper Cliff



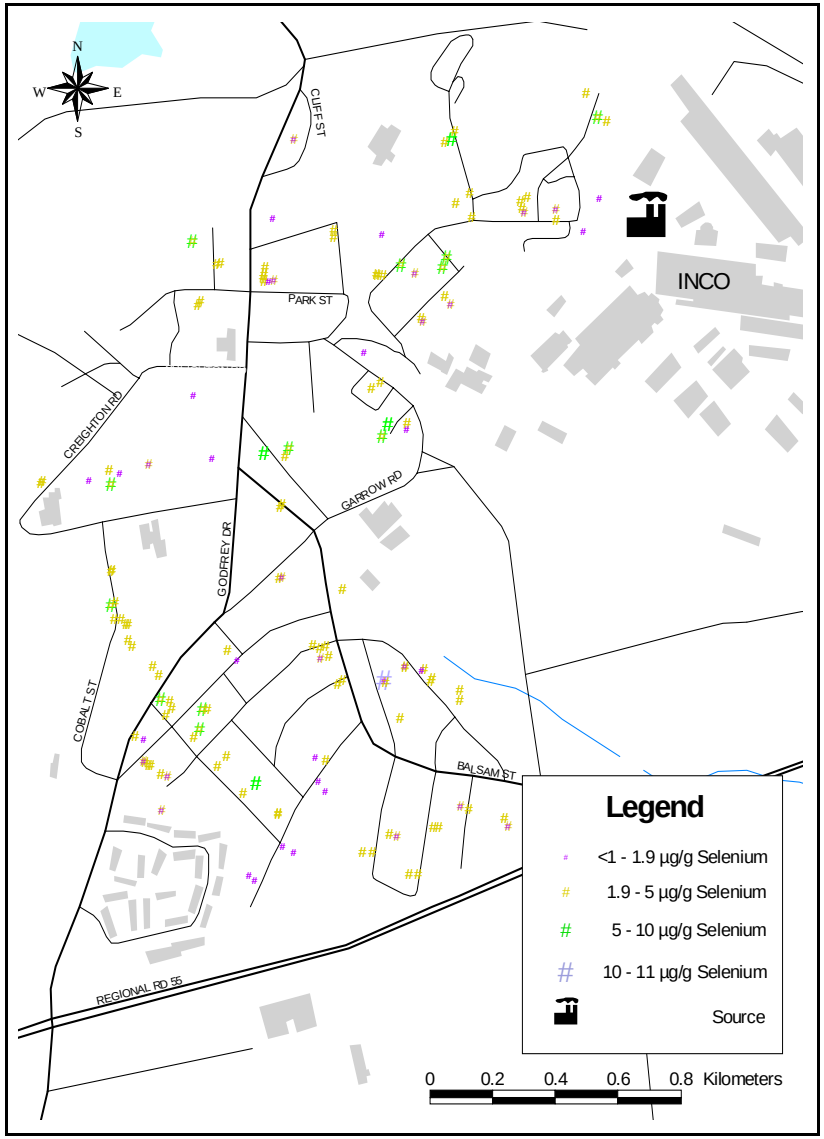
Map 10.2.1.11: Cd concentrations in urban 0 - 5 cm soil in Copper Cliff



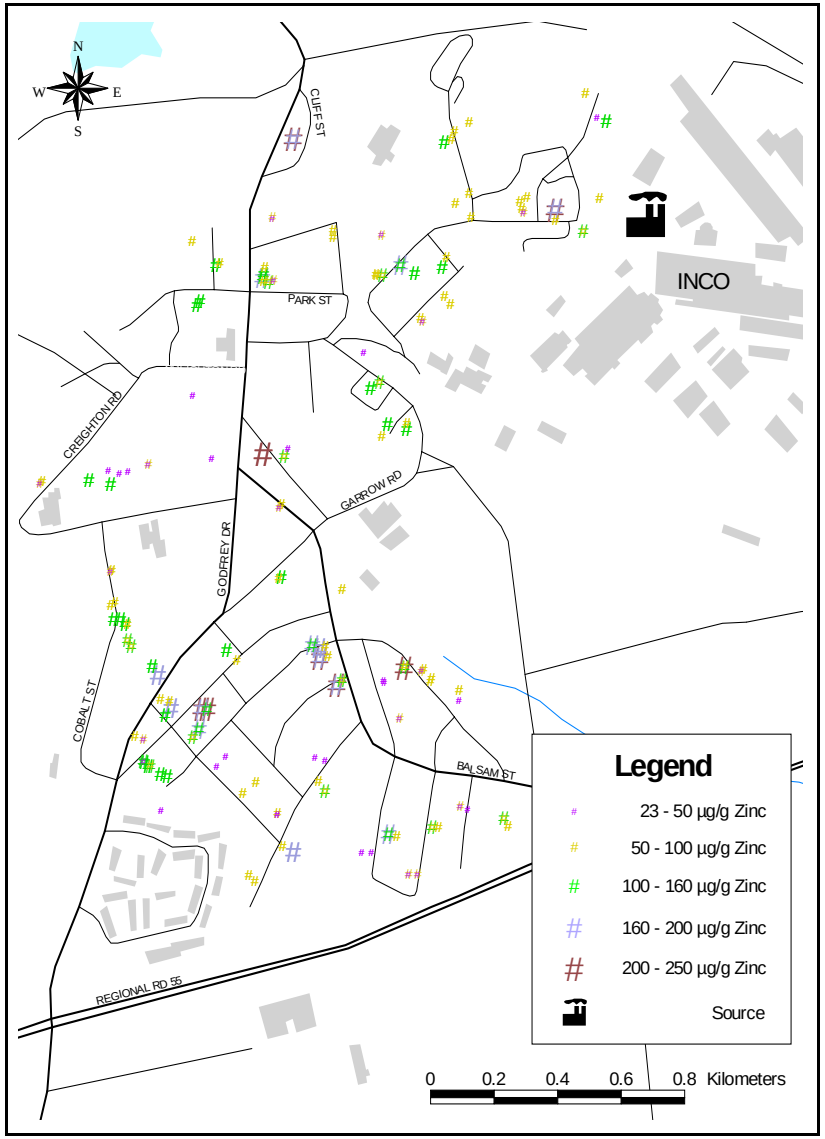
Map 10.2.1.12: Cd concentrations in urban 10 - 20 cm soil in Copper Cliff



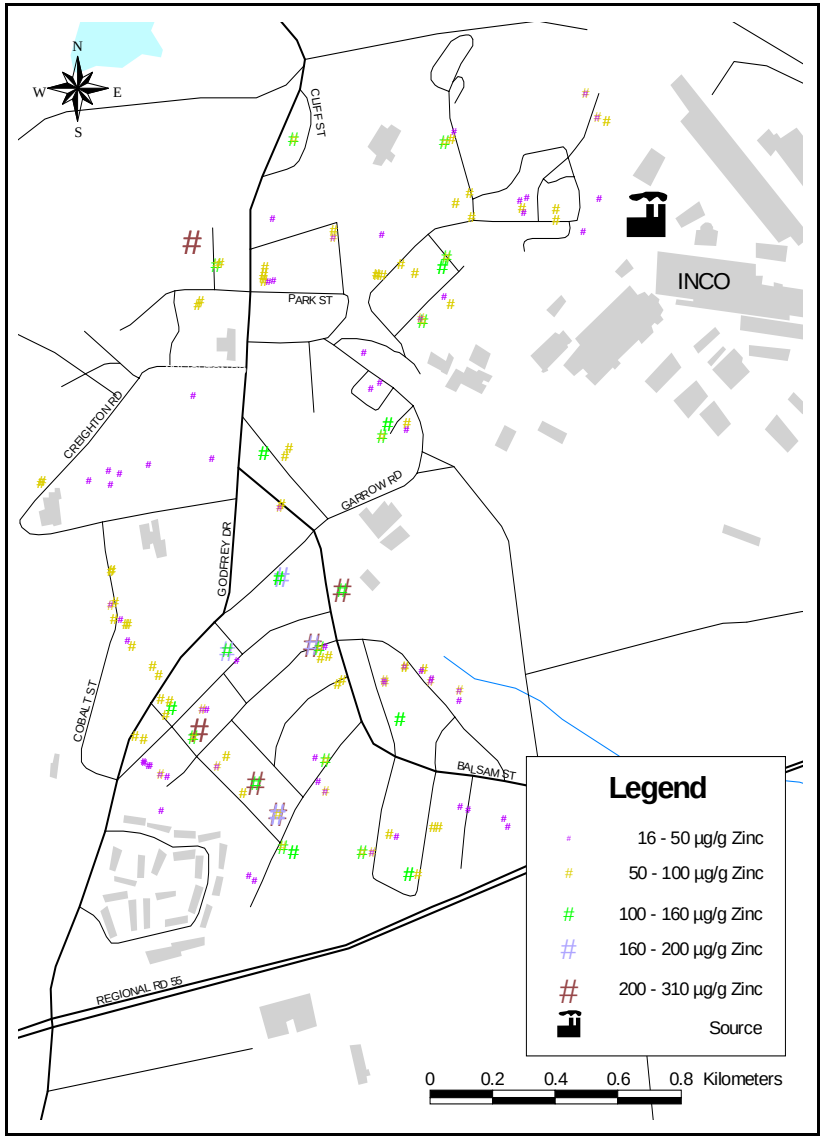
Map 10.2.1.13: Se concentrations in urban 0 - 5 cm soil in Copper Cliff



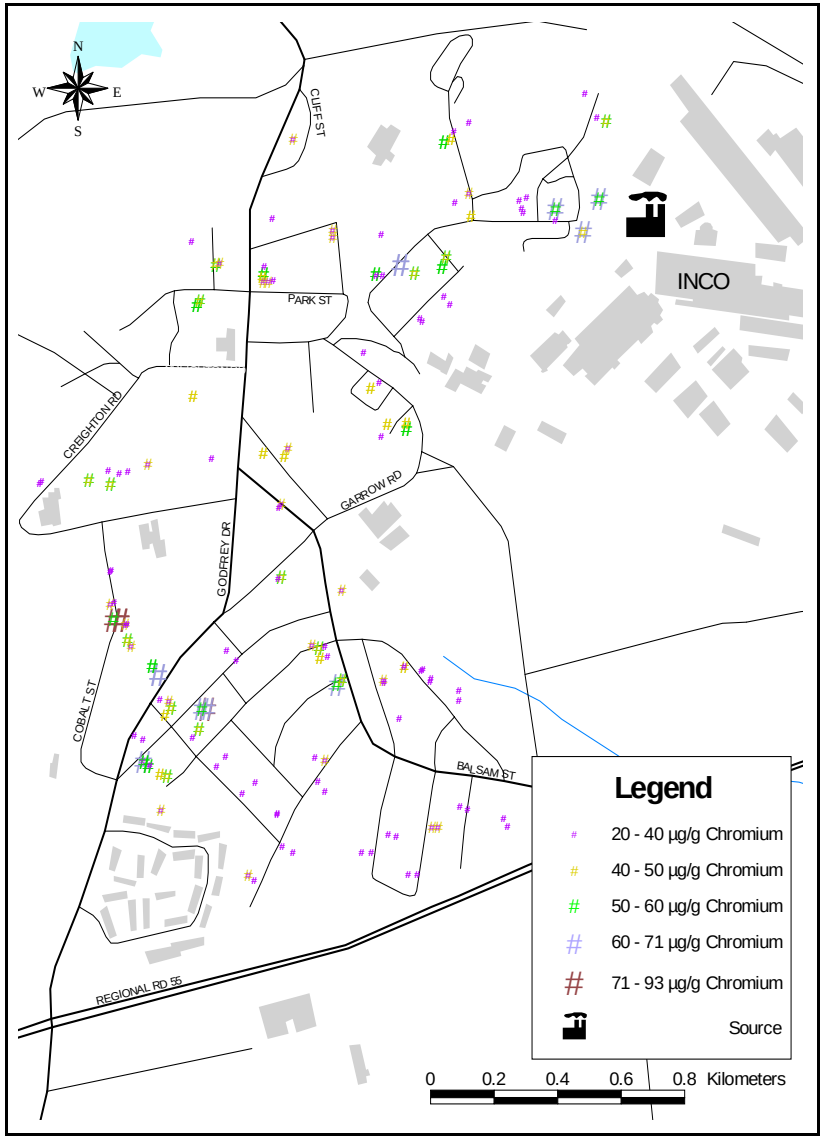
Map 10.2.1.14: Se concentrations in urban 10 - 20 cm soil in Copper Cliff



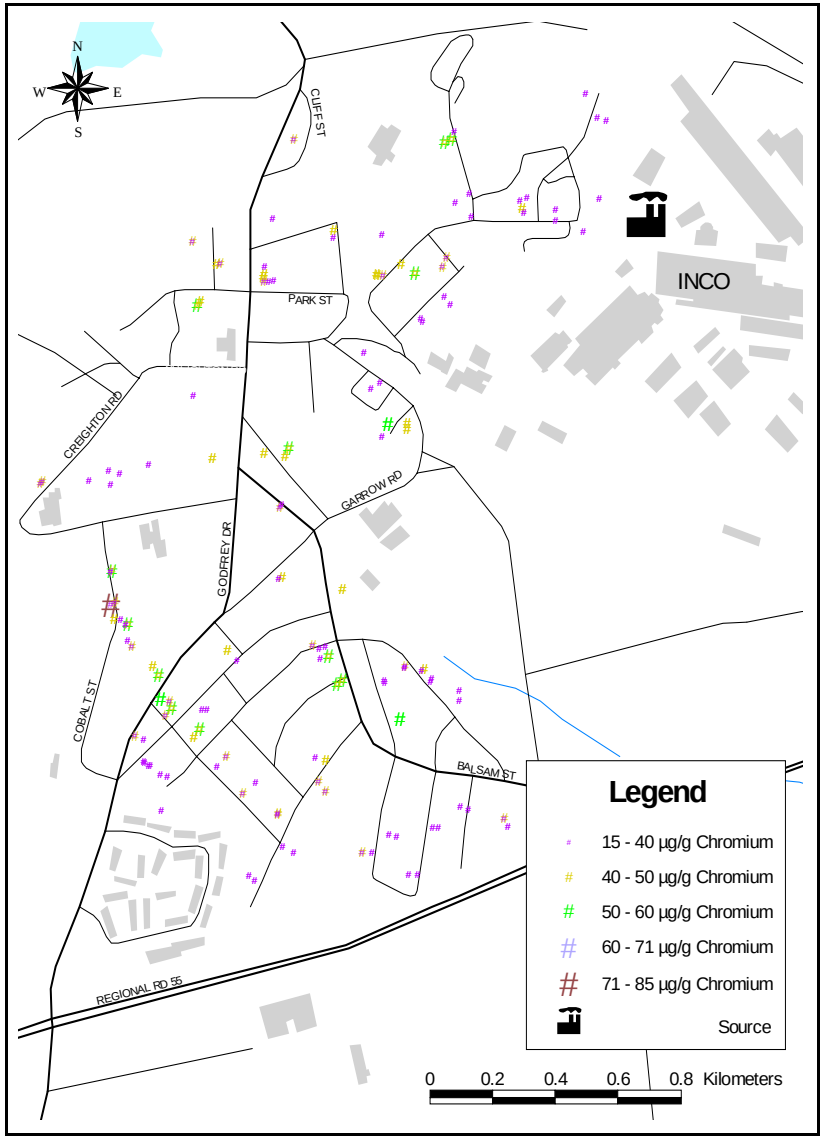
Map 10.2.1.15: Zn concentrations in urban 0 - 5 cm soil in Copper Cliff



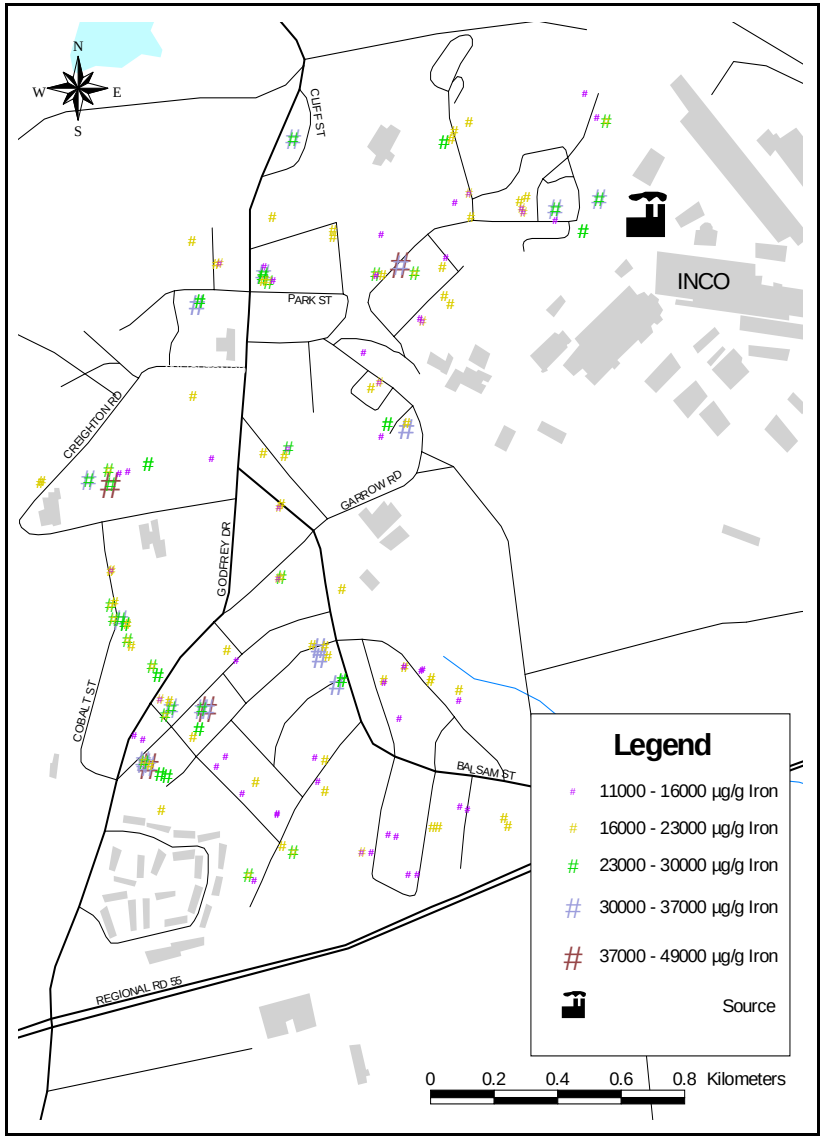
Map 10.2.1.16: Zn concentrations in urban 10 - 20 cm soil in Copper Cliff



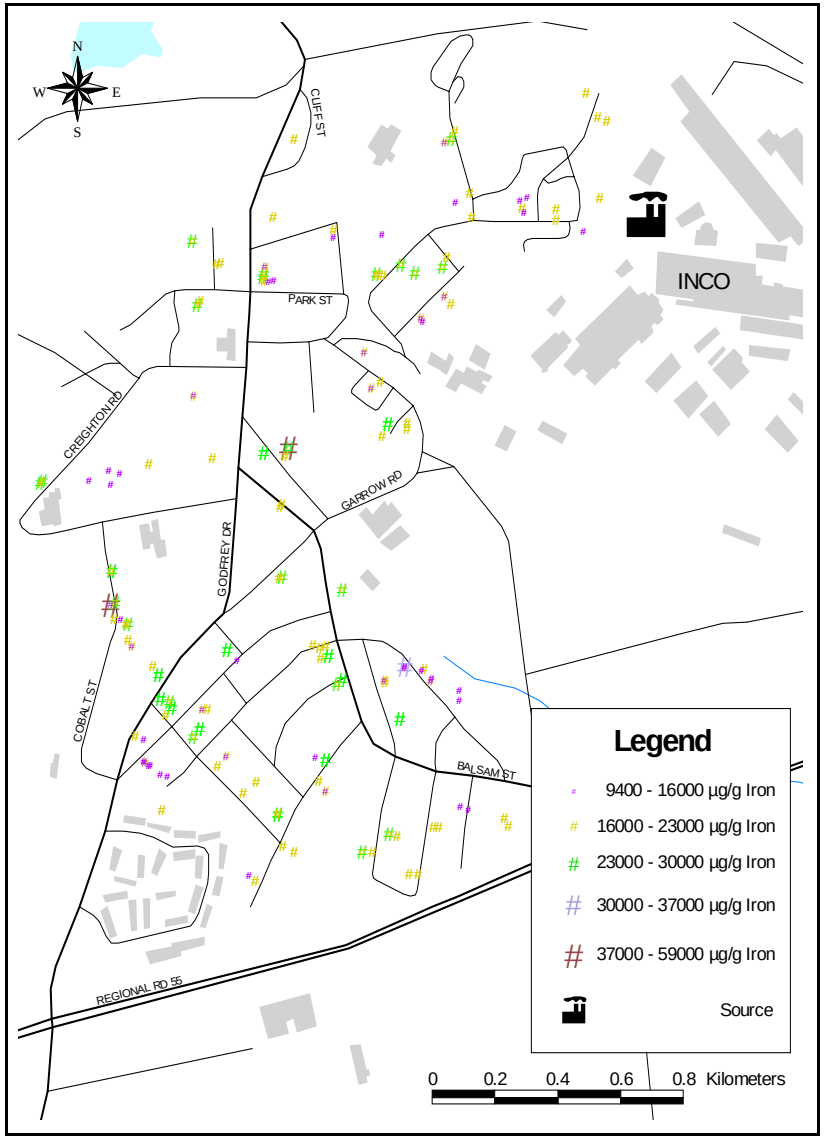
Map 10.2.1.17: Cr concentrations in urban 0 - 5 cm soil in Copper Cliff



Map 10.2.1.18: Cr concentrations in urban 10 - 20 cm soil in Copper Cliff

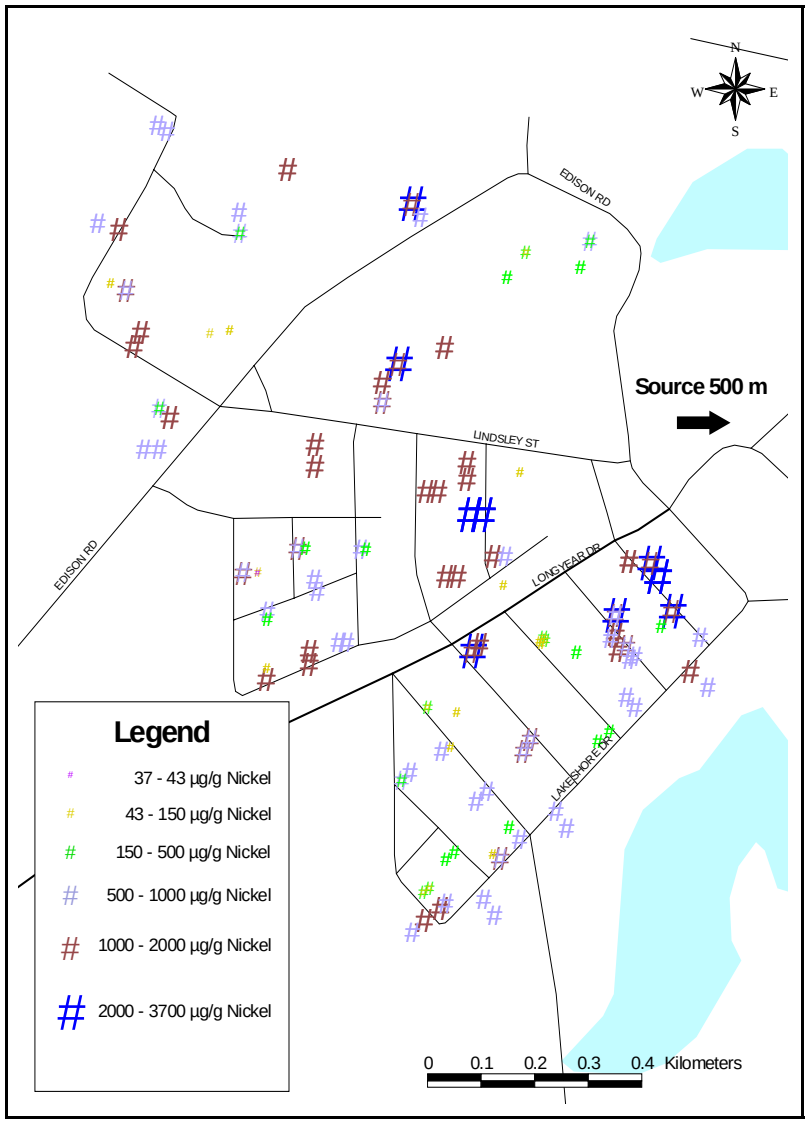


Map 10.2.1.19: Fe concentrations in urban 0 - 5 cm soil in Copper Cliff

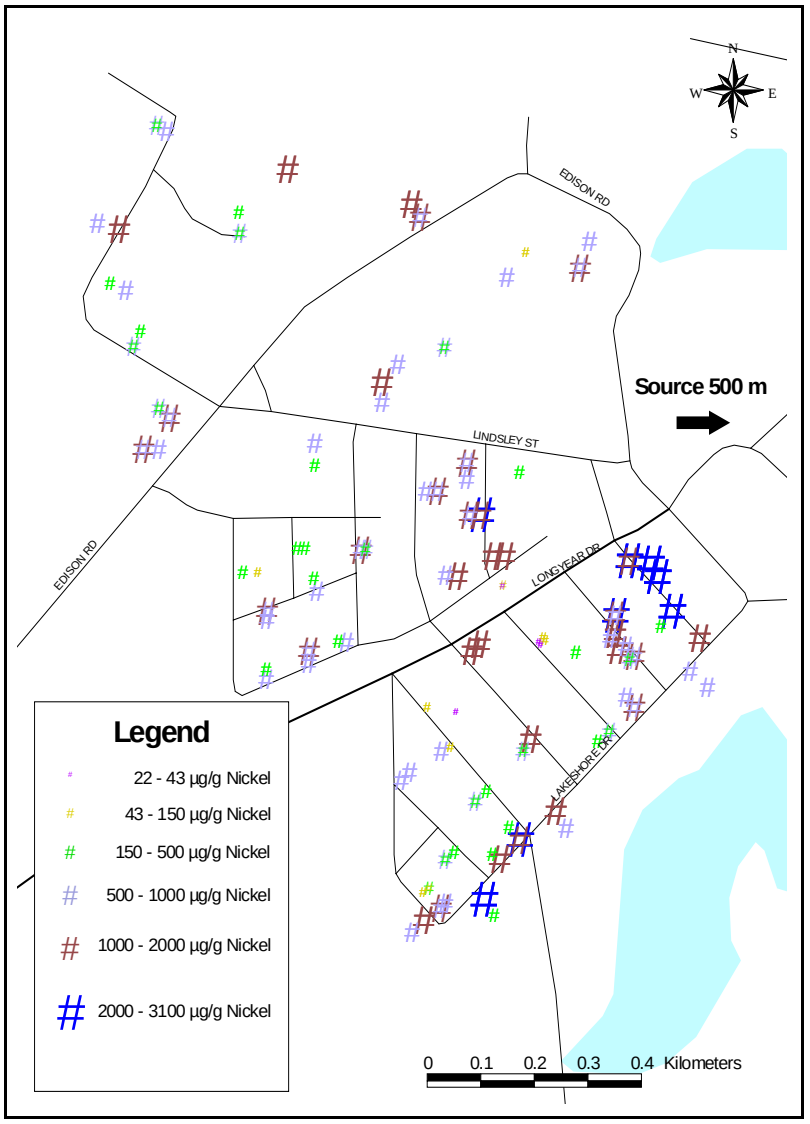


Map 10.2.1.20: Fe concentrations in urban 10 - 20 cm soil in Copper Cliff

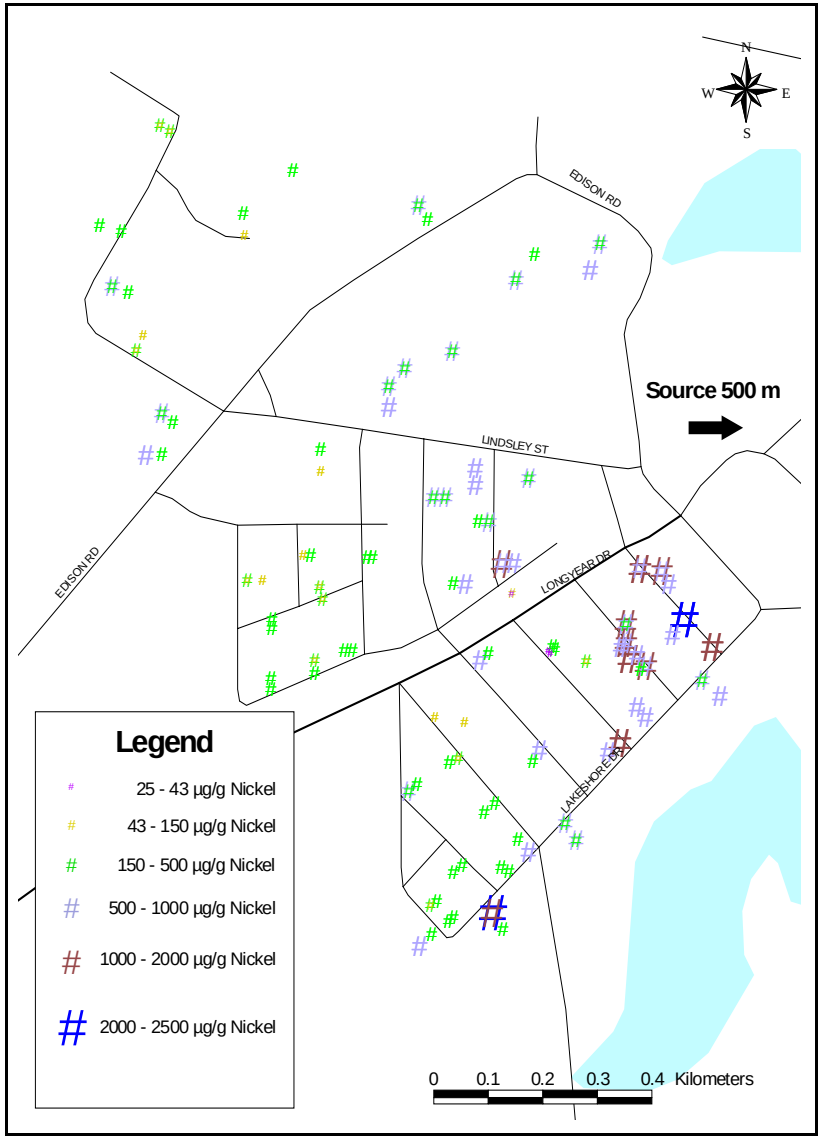
10.2.2 Falconbridge



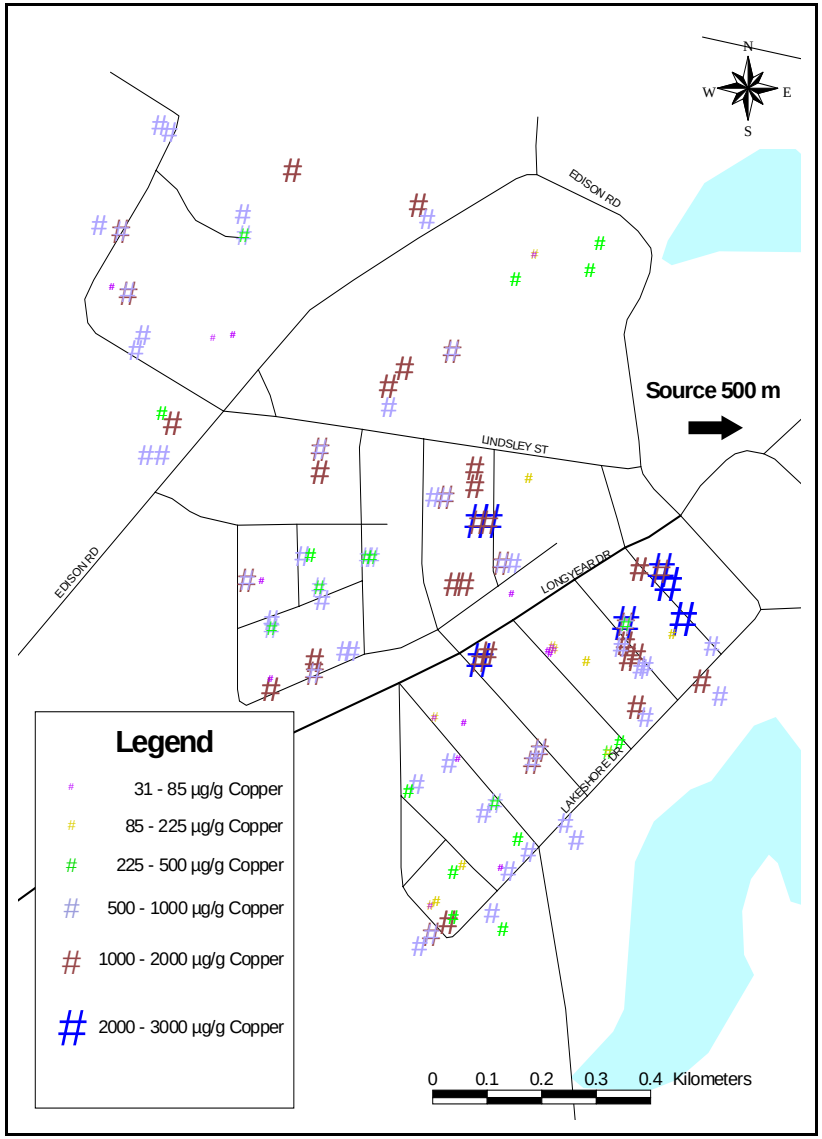
Map 10.2.2.1: Ni concentrations in urban 0 - 5 cm soil in Falconbridge



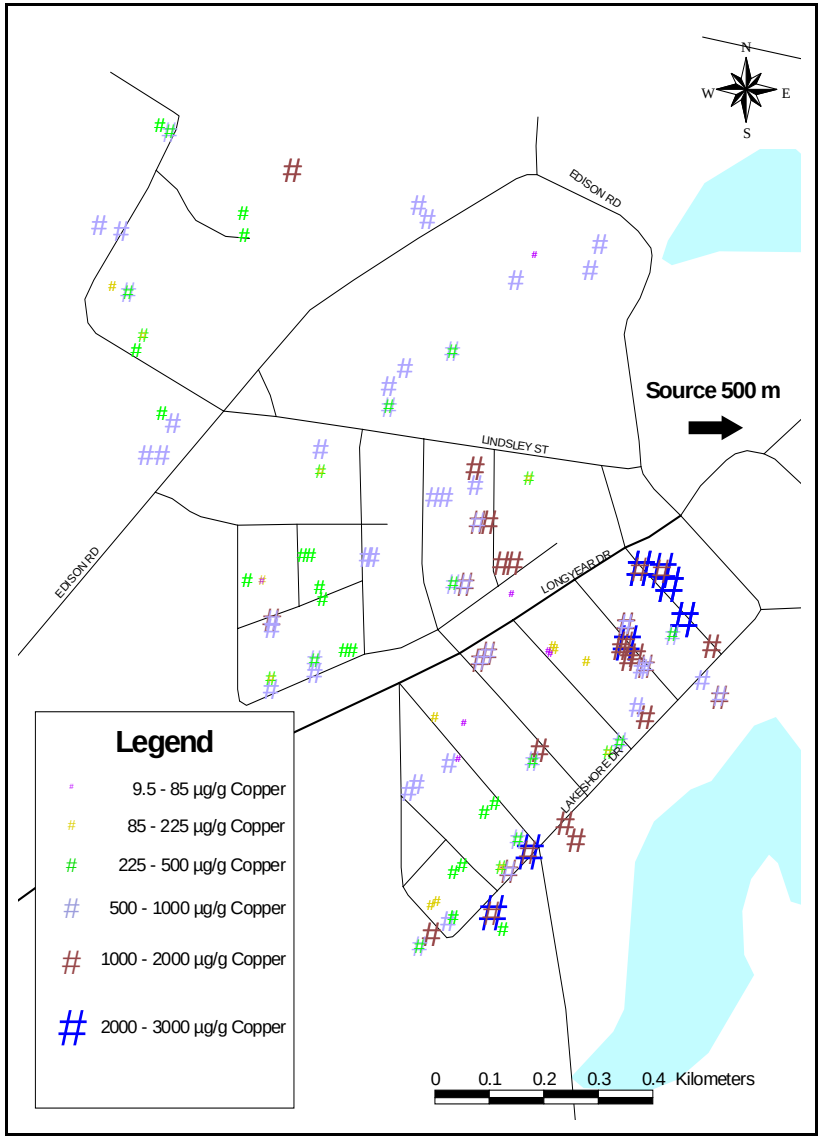
Map 10.2.2.2: Ni concentrations in urban 5 - 10 cm soil in Falconbridge



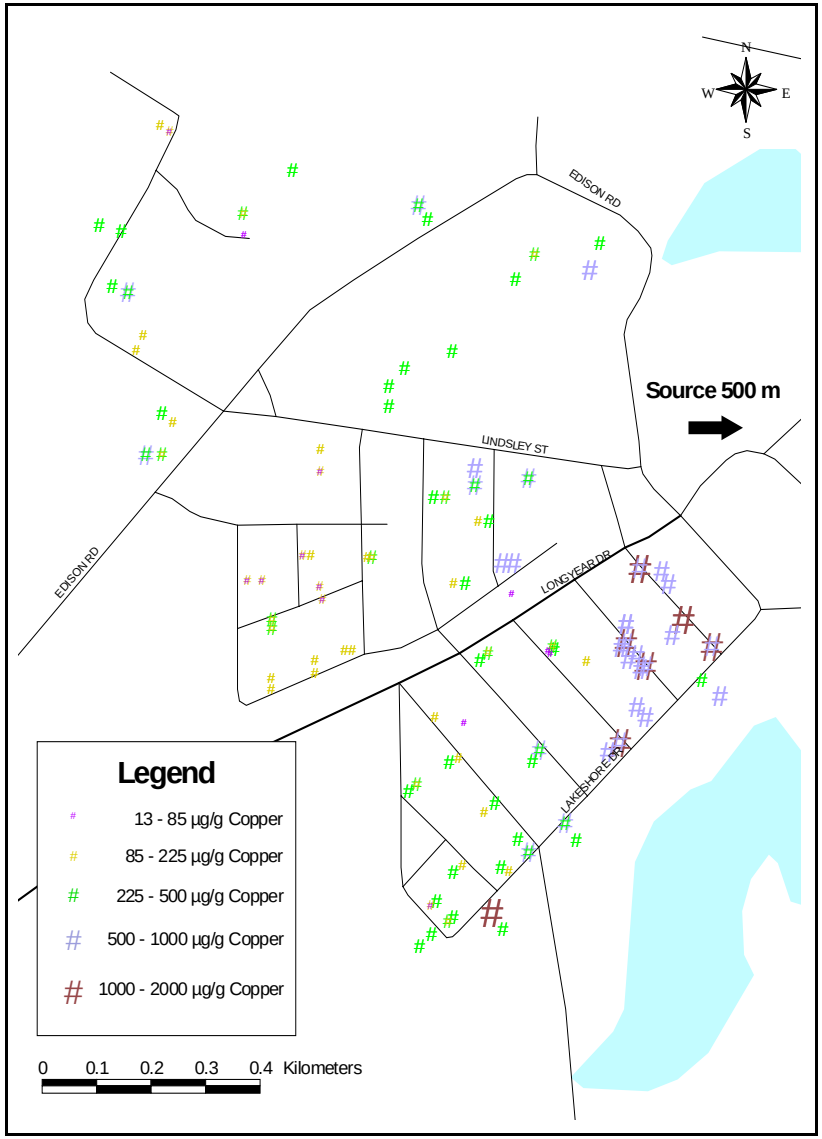
Map 10.2.2.3: Ni concentrations in urban 10 - 20 cm soil in Falconbridge



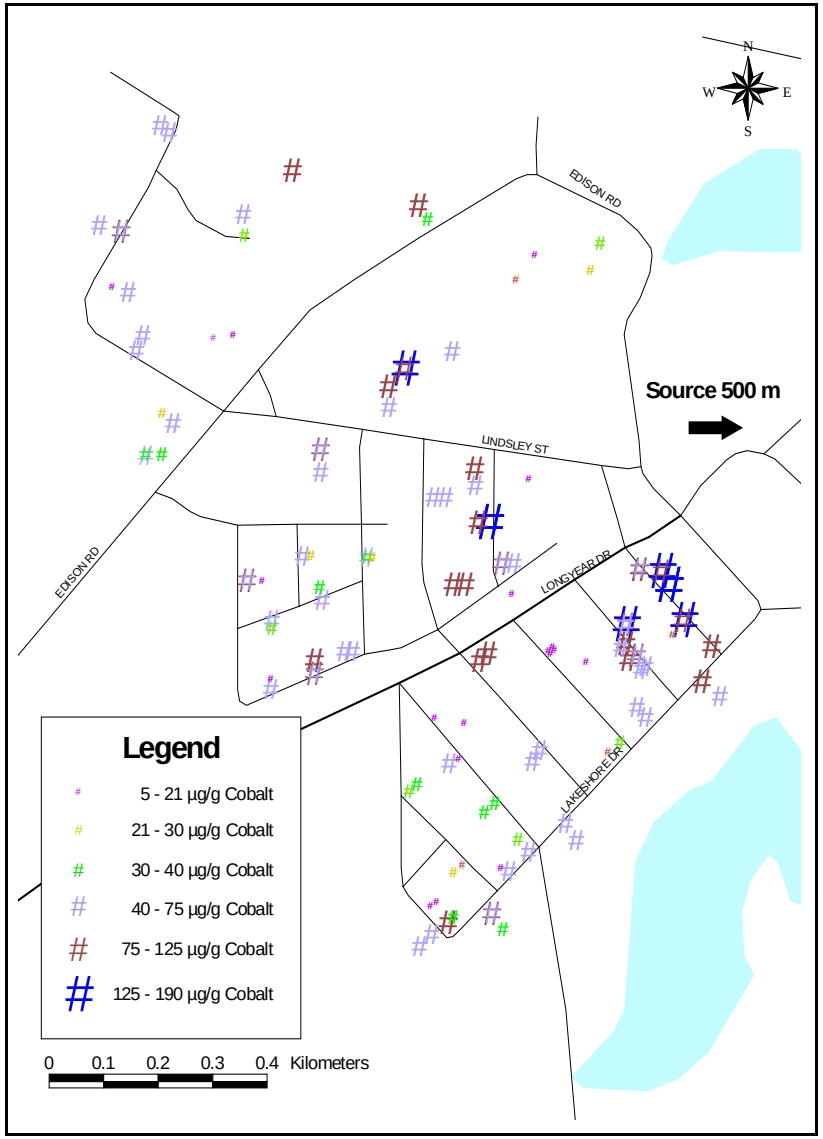
Map 10.2.2.4: Cu concentrations in urban 0 - 5 cm soil in Falconbridge



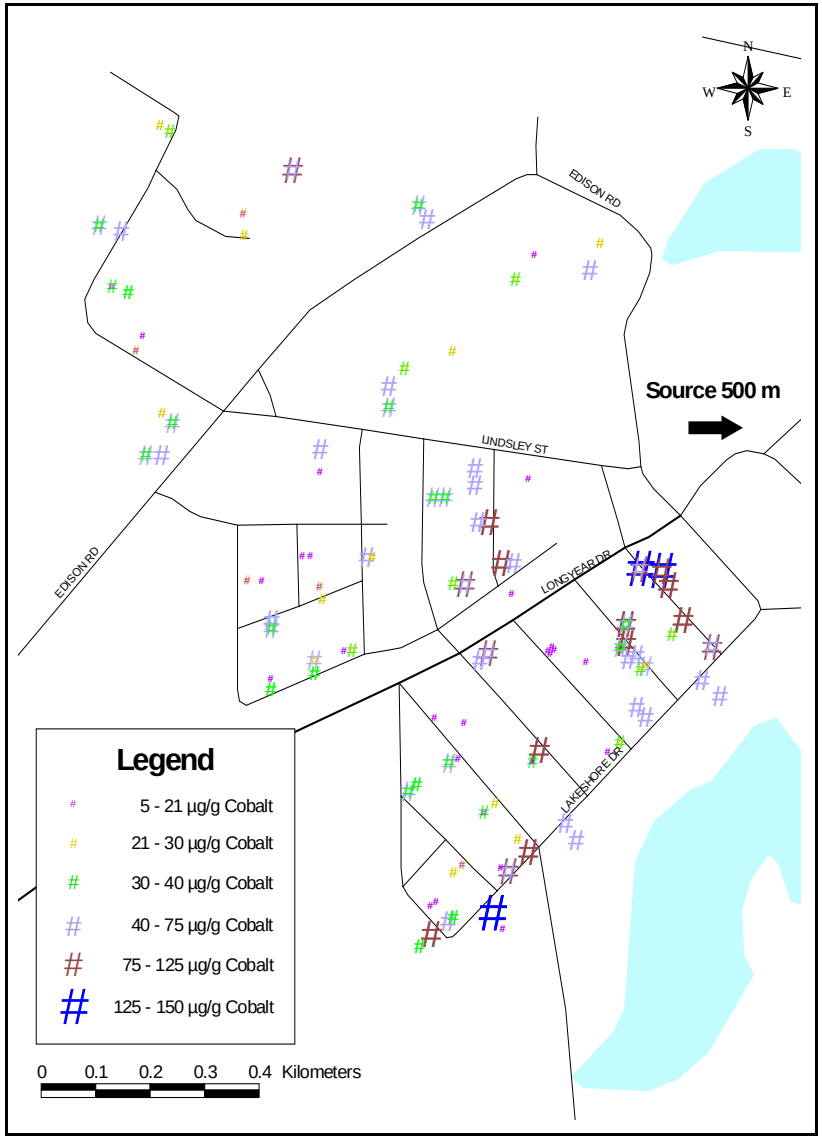
Map 10.2.2.5: Cu concentrations in urban 5 - 10 cm soil in Falconbridge



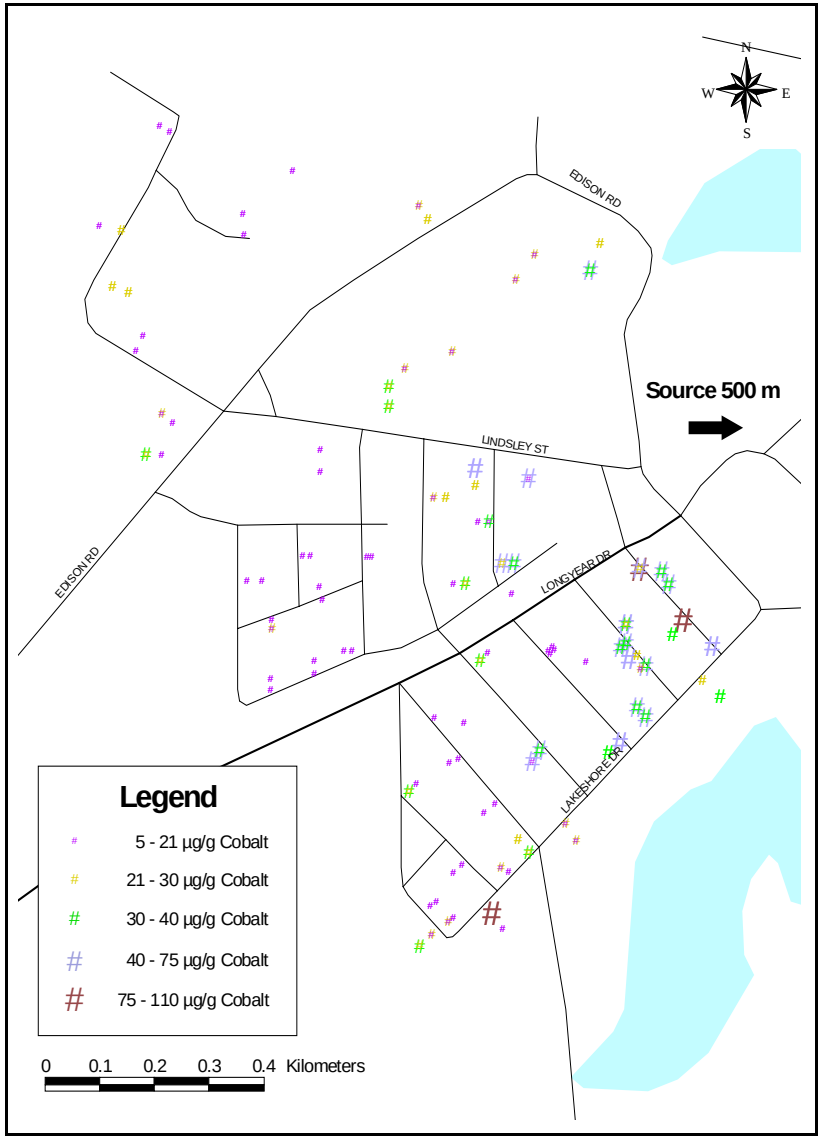
Map 10.2.2.6: Cu concentrations in urban 10 - 20 cm soil in Falconbridge



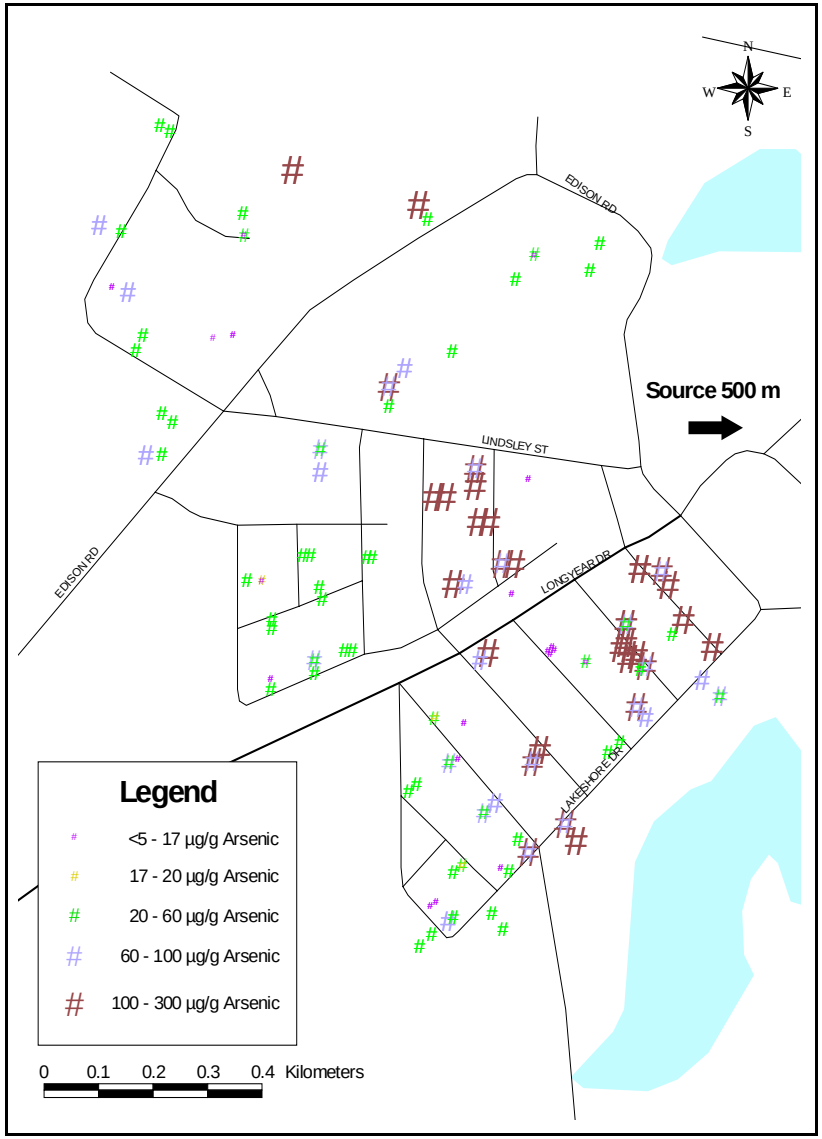
Map 10.2.2.7: Co concentrations in urban 0 - 5 cm soil in Falconbridge



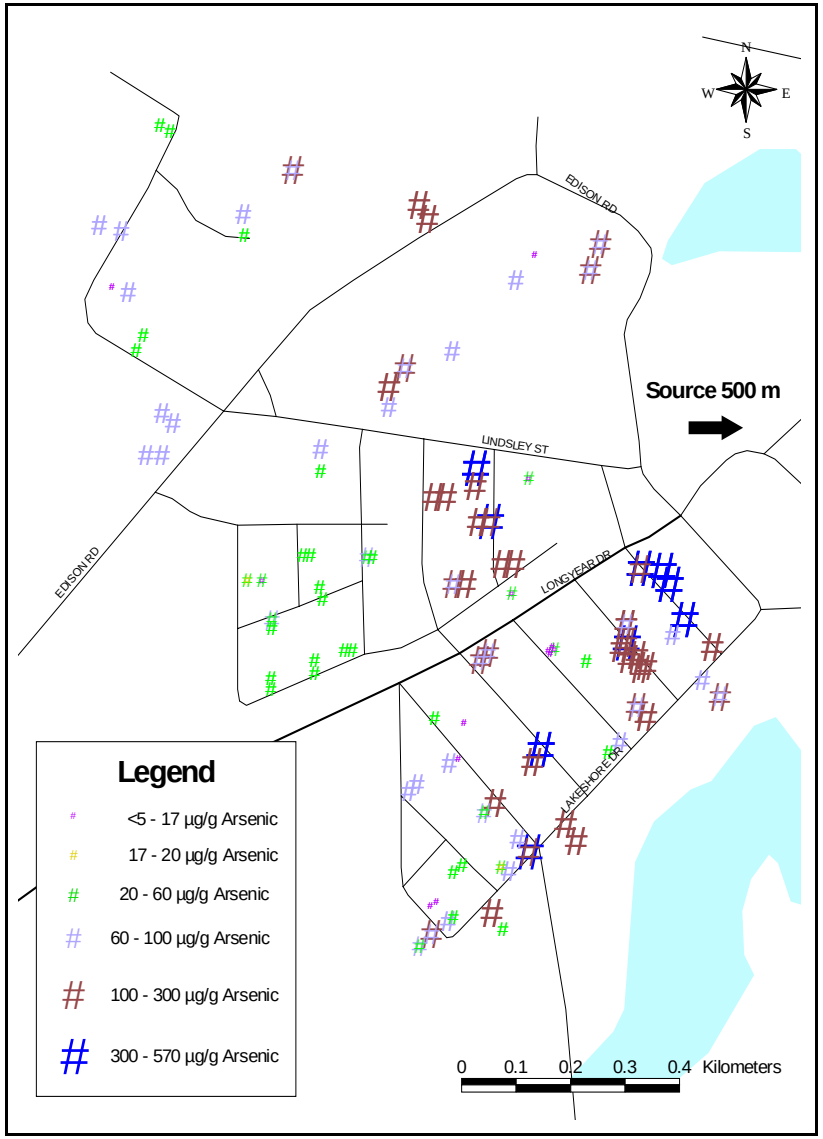
Map 10.2.2.8: Co concentrations in urban 5 - 10 cm soil in Falconbridge



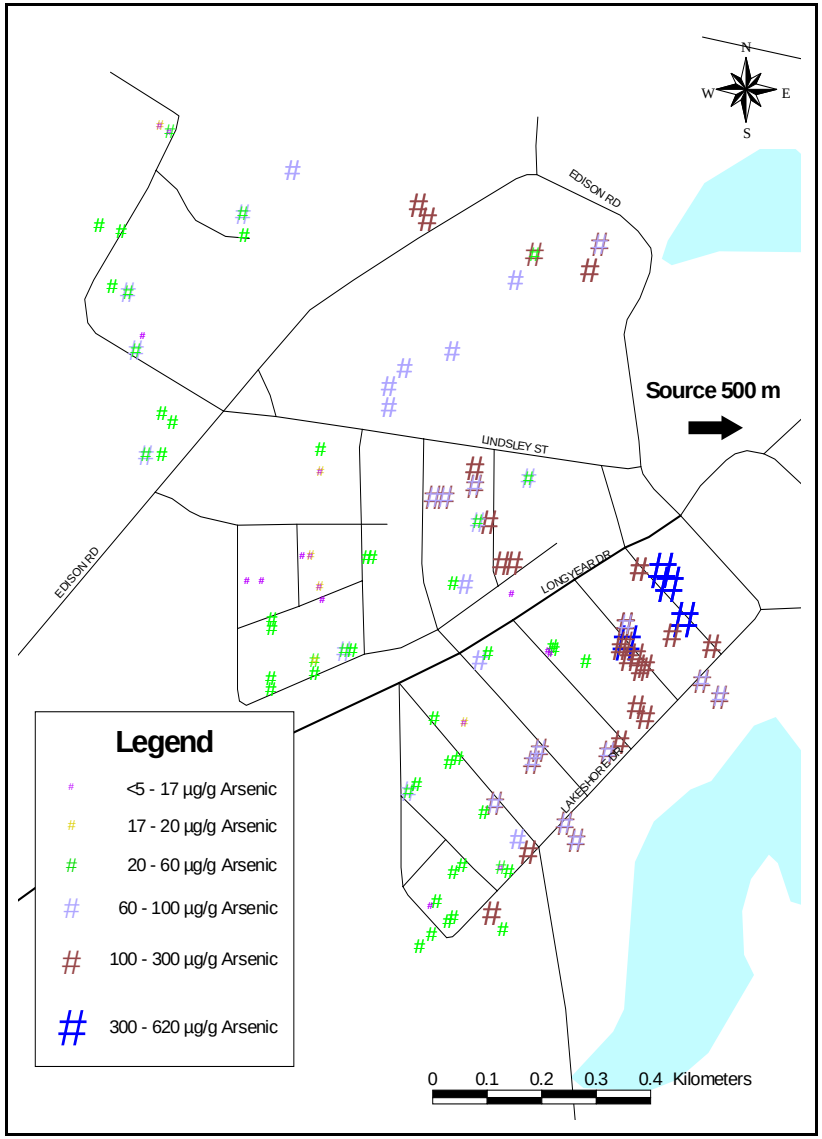
Map 10.2.2.9: Co concentrations in urban 10 - 20 cm soil in Falconbridge



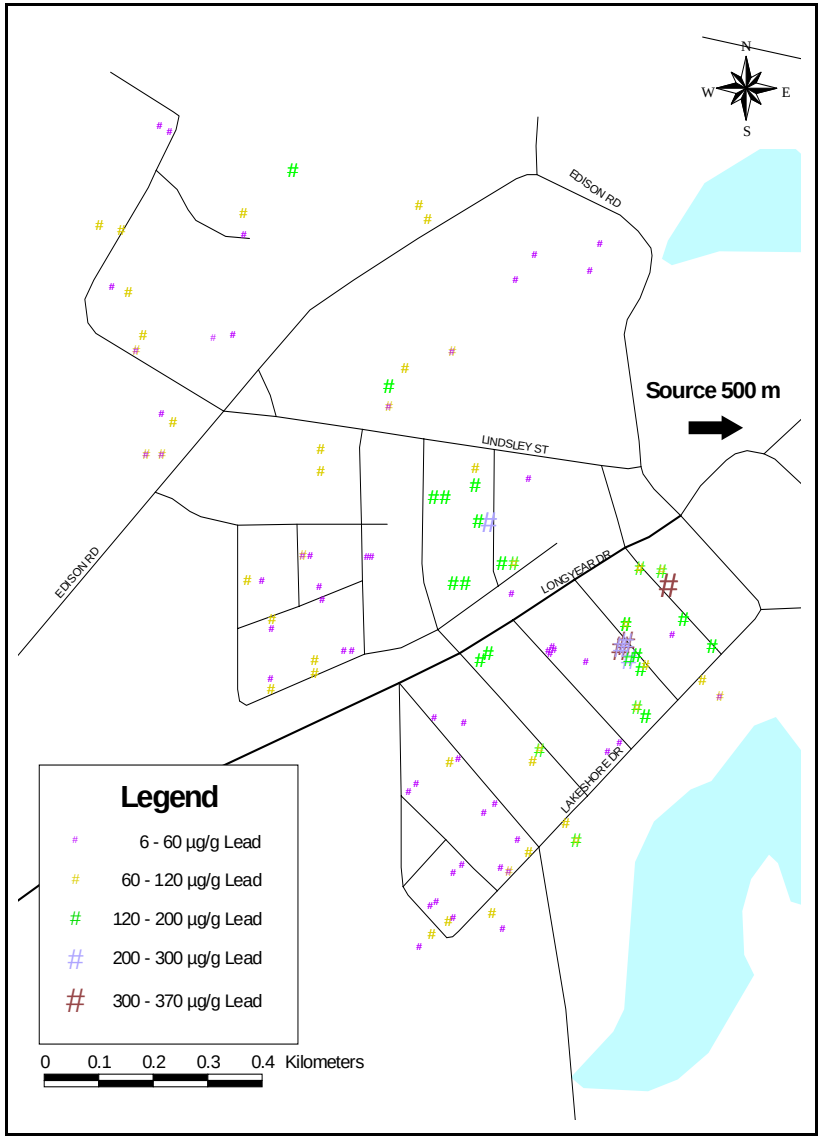
Map 10.2.2.10: As concentrations in urban 0 - 5 cm soil in Falconbridge



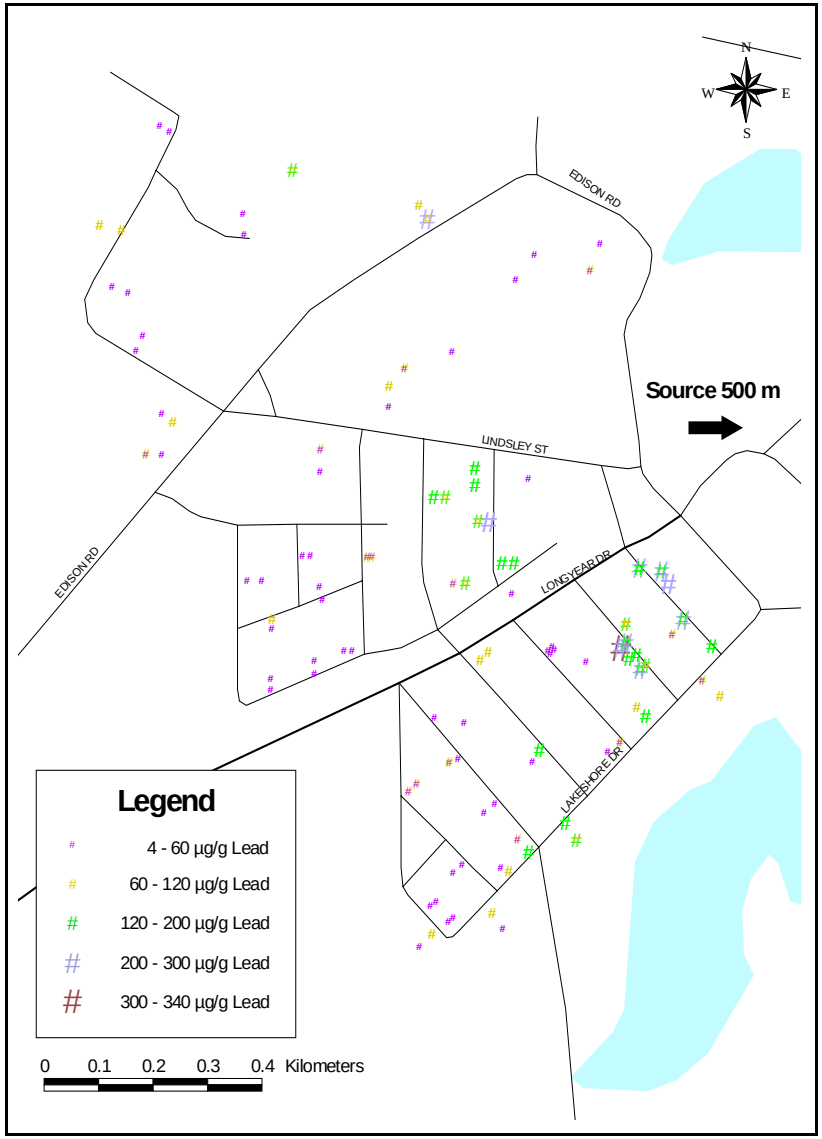
Map 10.2.2.11: As concentrations in urban 5 - 10 cm soil in Falconbridge



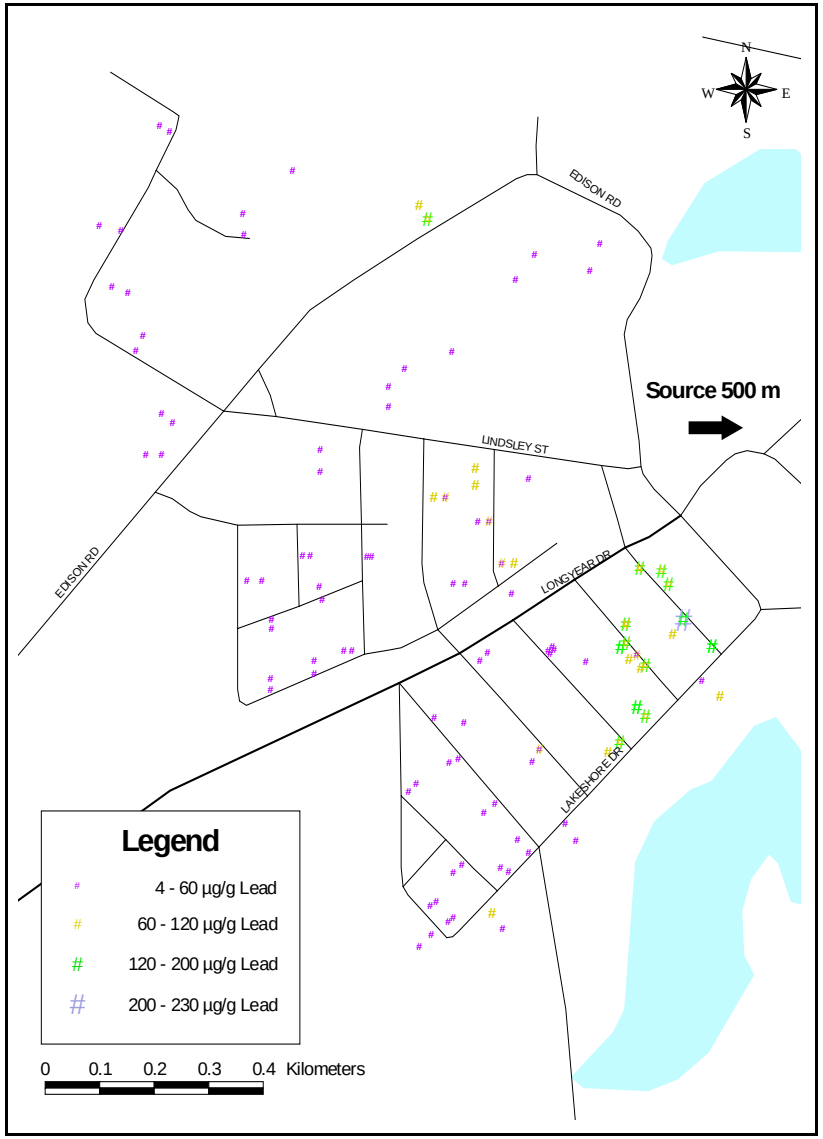
Map 10.2.2.12: As concentrations in urban 10 - 20 cm soil in Falconbridge



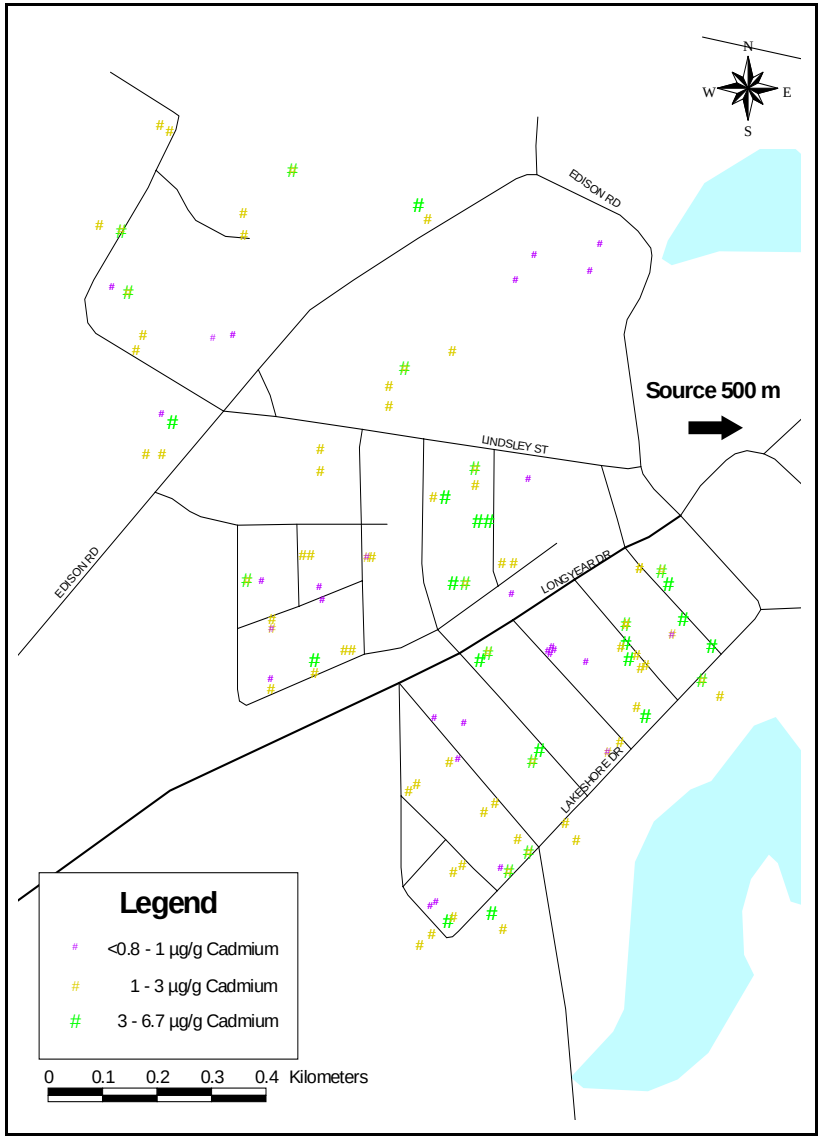
Map 10.2.2.13: Pb concentrations in urban 0 - 5 cm soil in Falconbridge



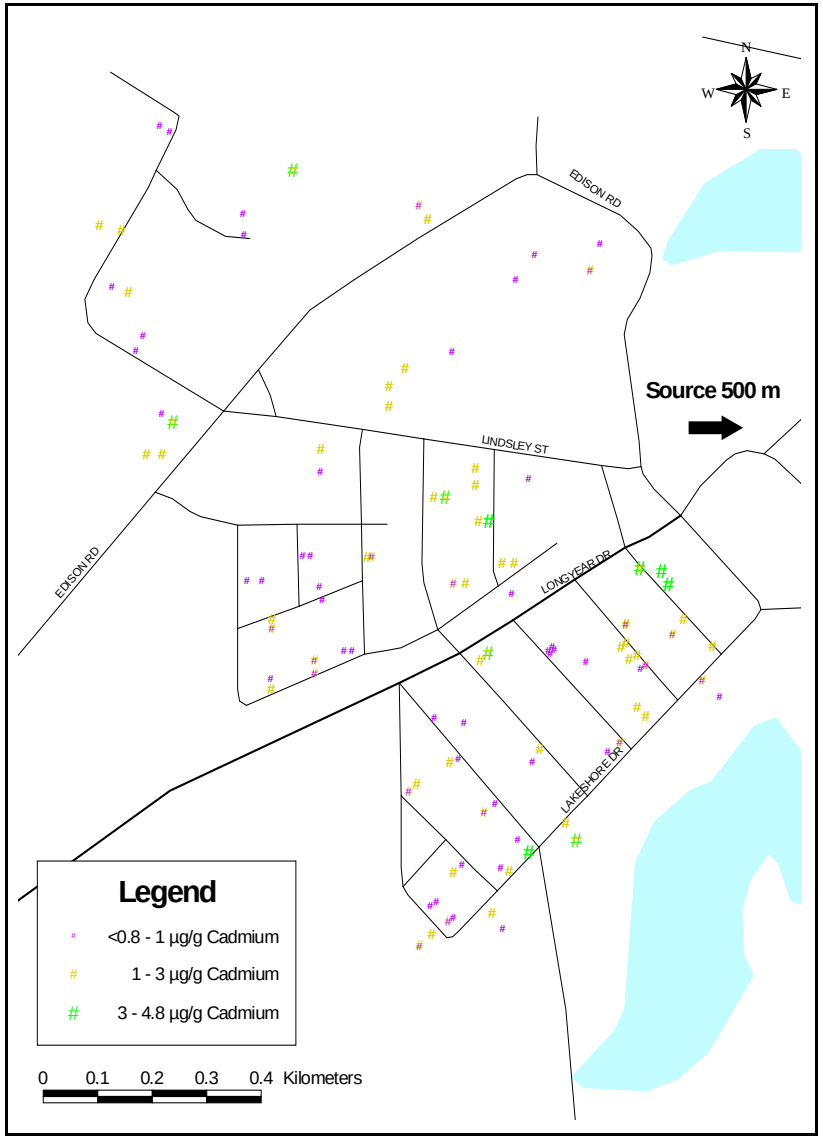
Map 10.2.2.14: Pb concentrations in urban 5 - 10 cm soil in Falconbridge



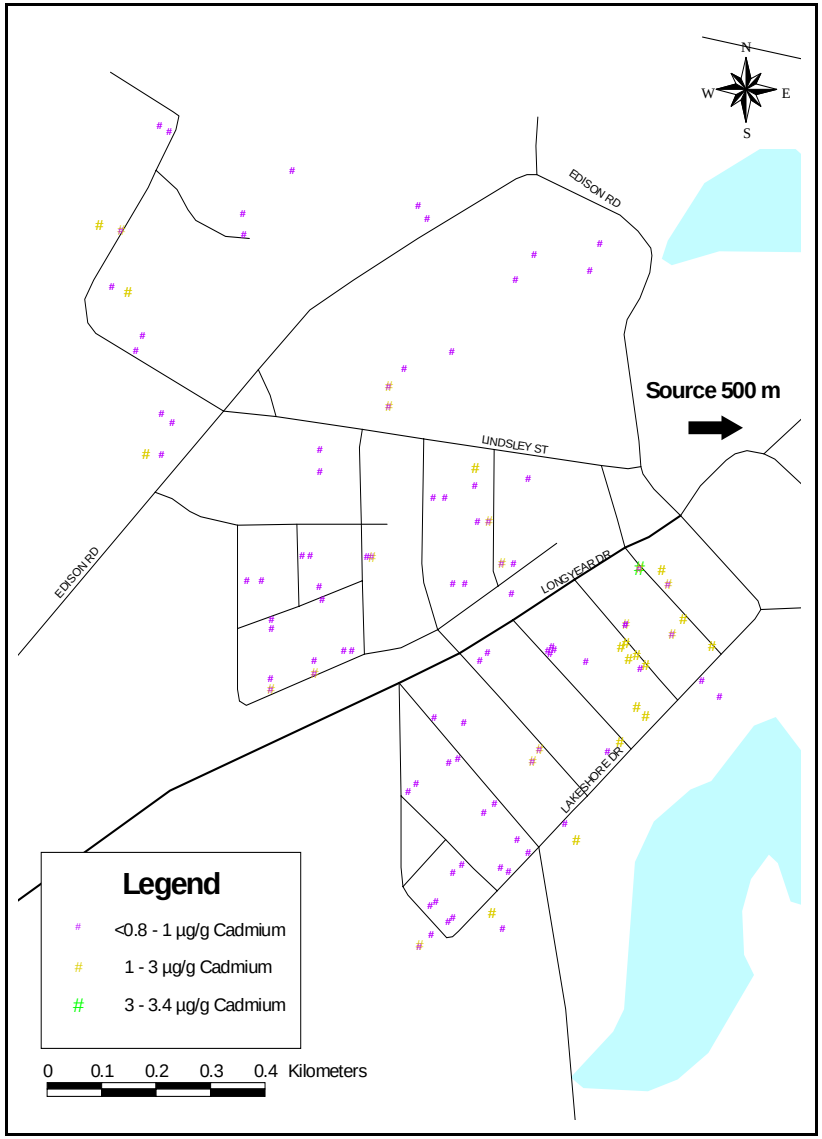
Map 10.2.2.15: Pb concentrations in urban 10 - 20 cm soil in Falconbridge



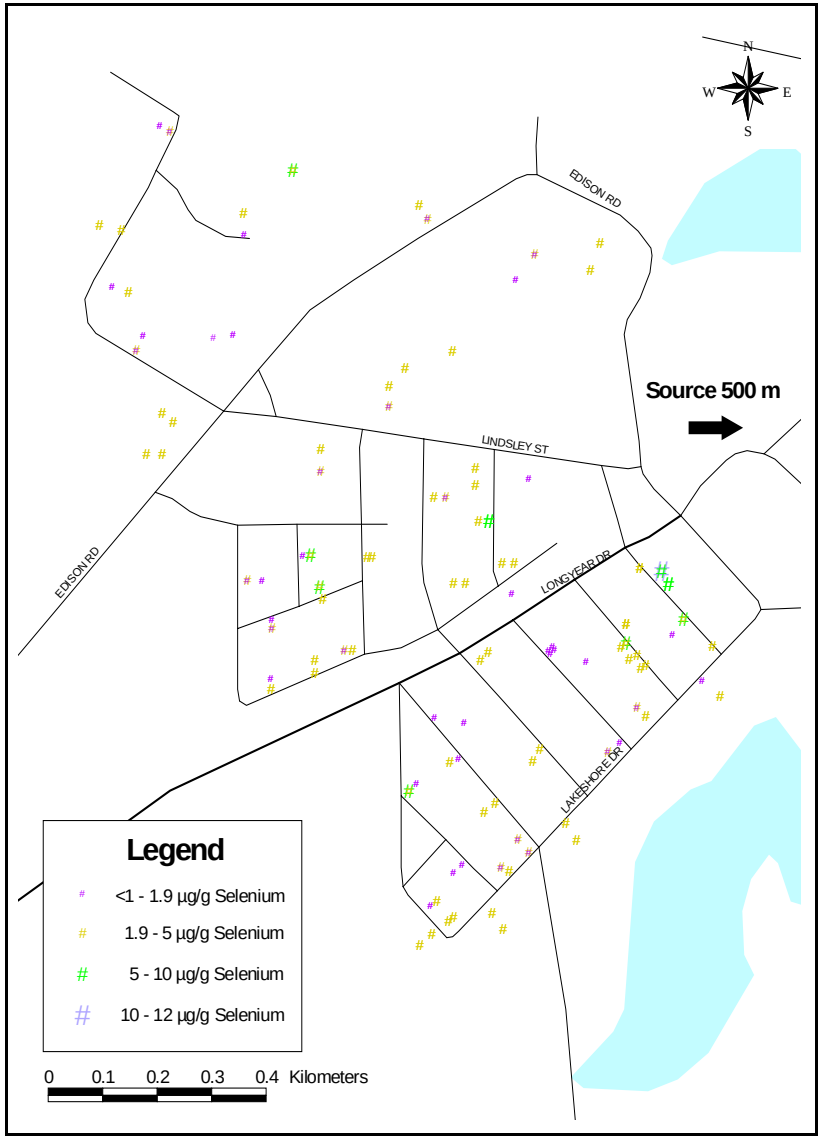
Map 10.2.2.16: Cd concentrations in urban 0 - 5 cm soil in Falconbridge



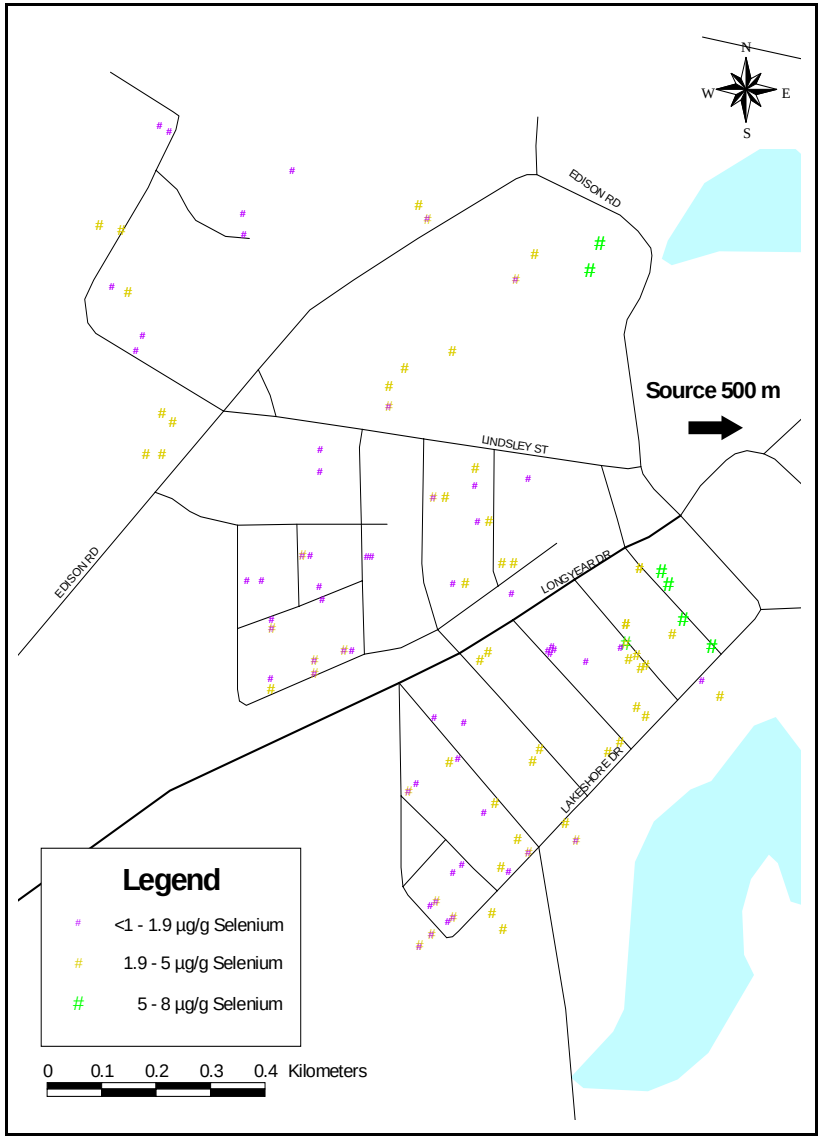
Map 10.2.2.17: Cd concentrations in urban 5 - 10 cm soil in Falconbridge



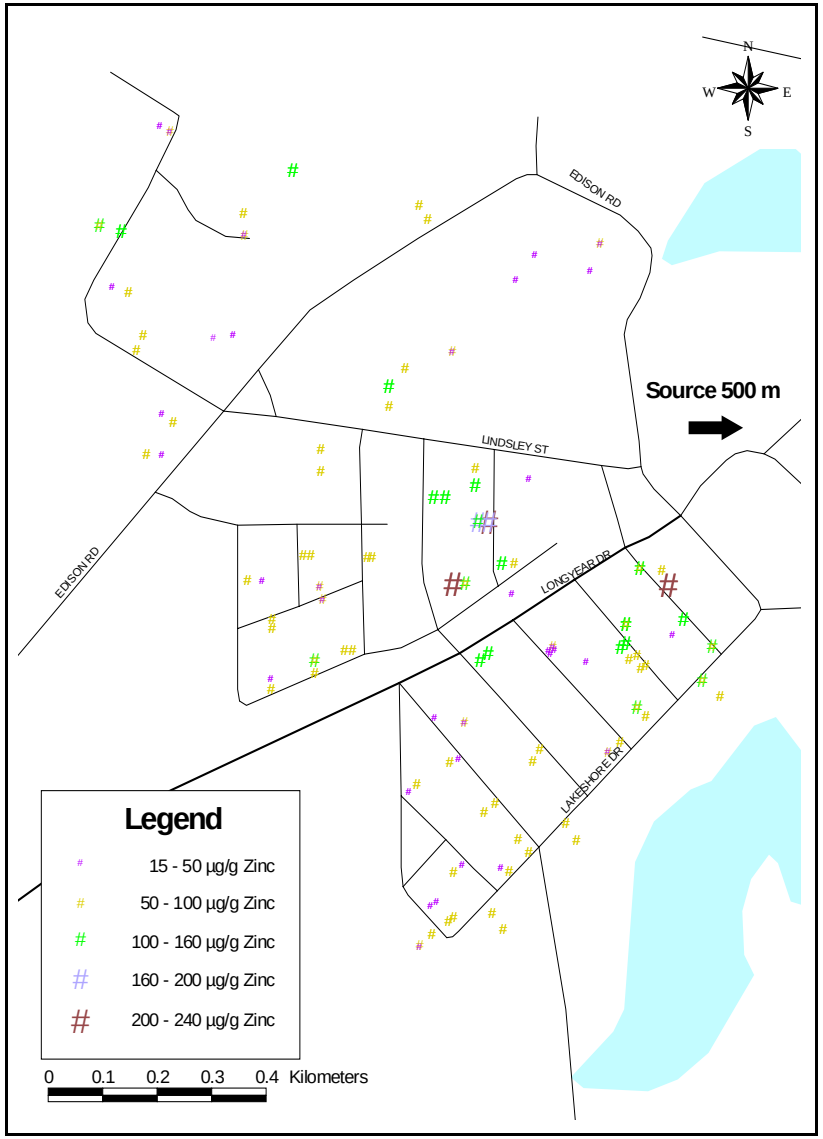
Map 10.2.2.18: Cd concentrations in urban 10 - 20 cm soil in Falconbridge



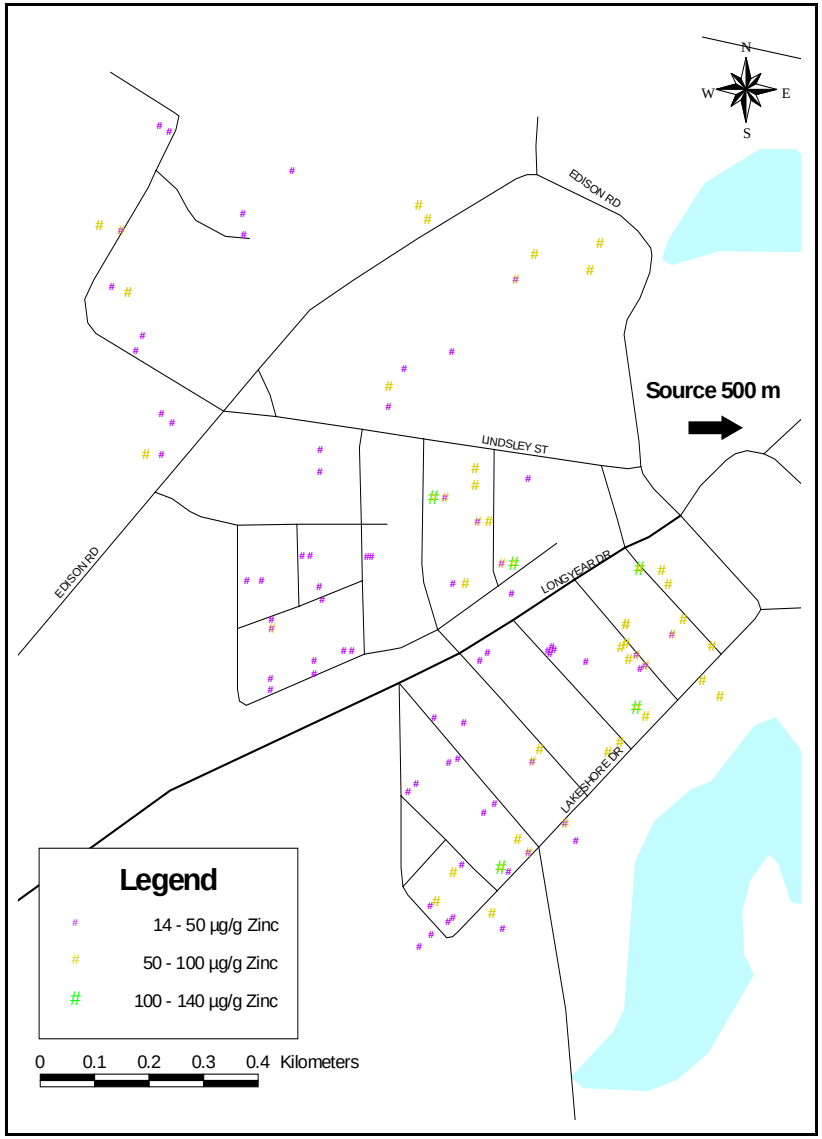
Map 10.2.2.19: Se concentrations in urban 0 - 5 cm soil in Falconbridge



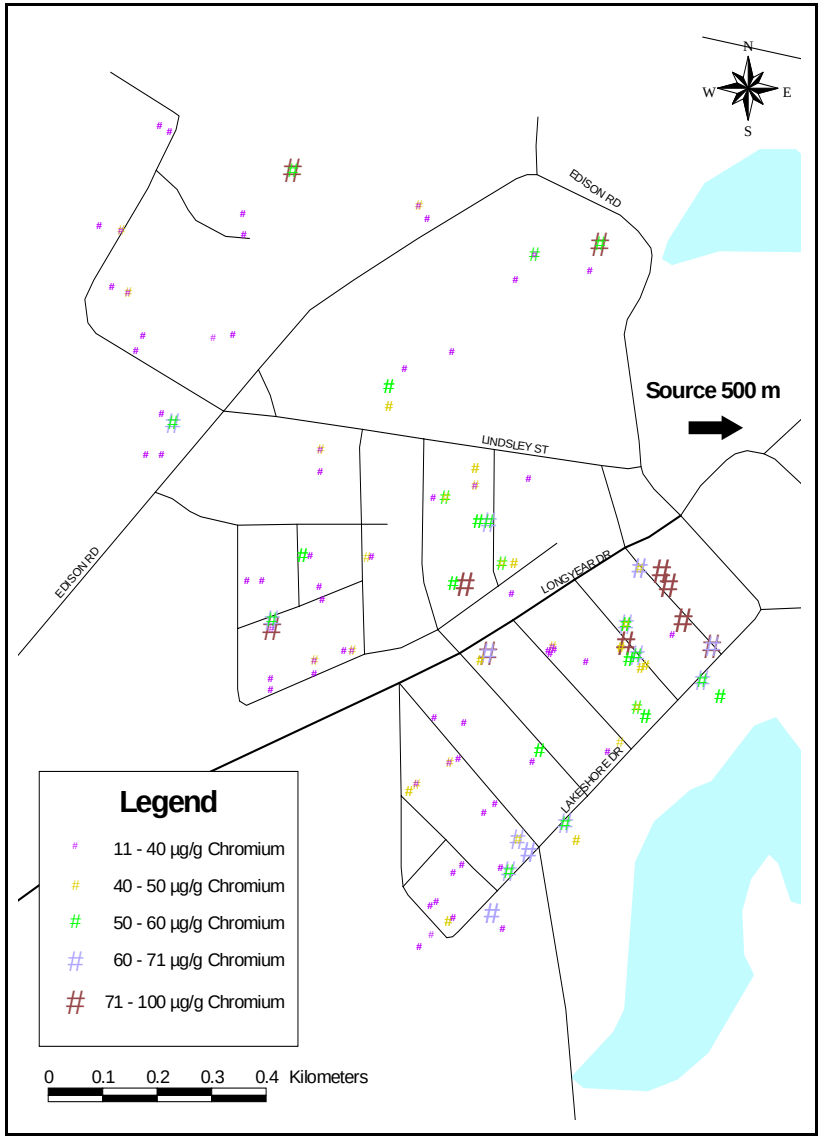
Map 10.2.2.20: Se concentrations in urban 10 - 20 cm soil in Falconbridge



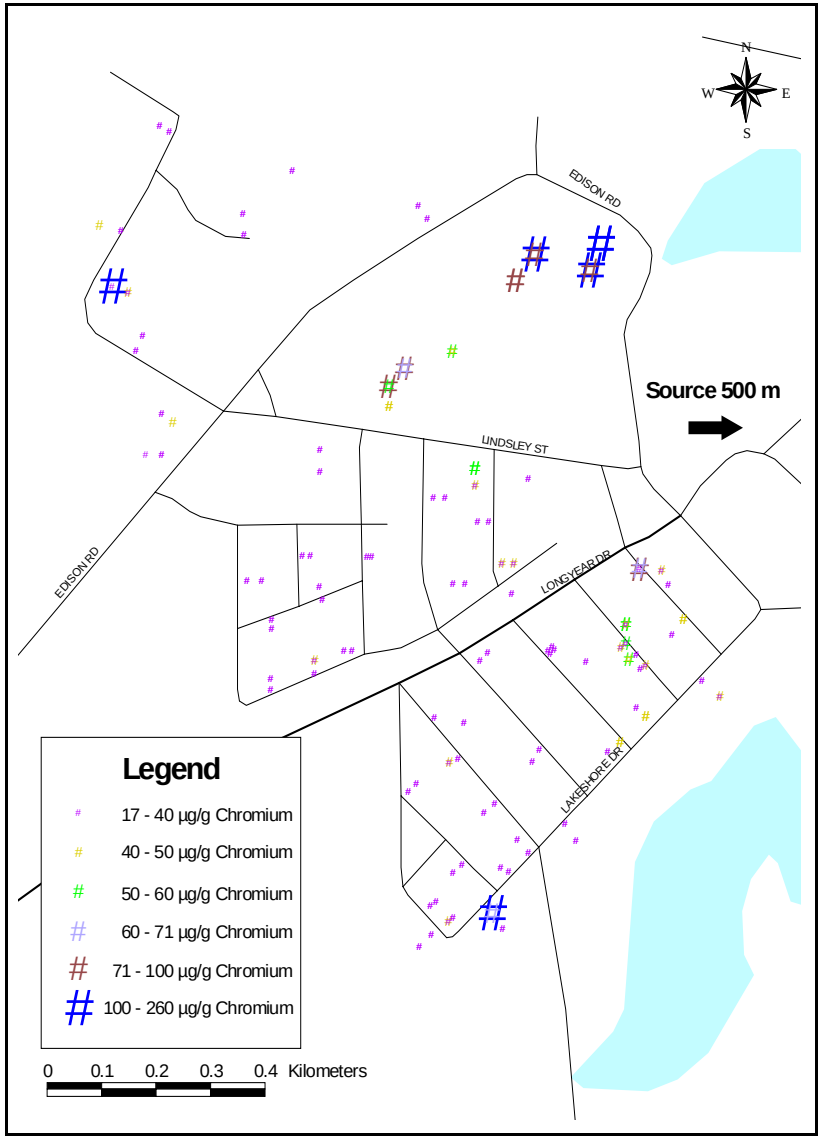
Map 10.2.2.21: Zn concentrations in urban 0 - 5 cm soil in Falconbridge



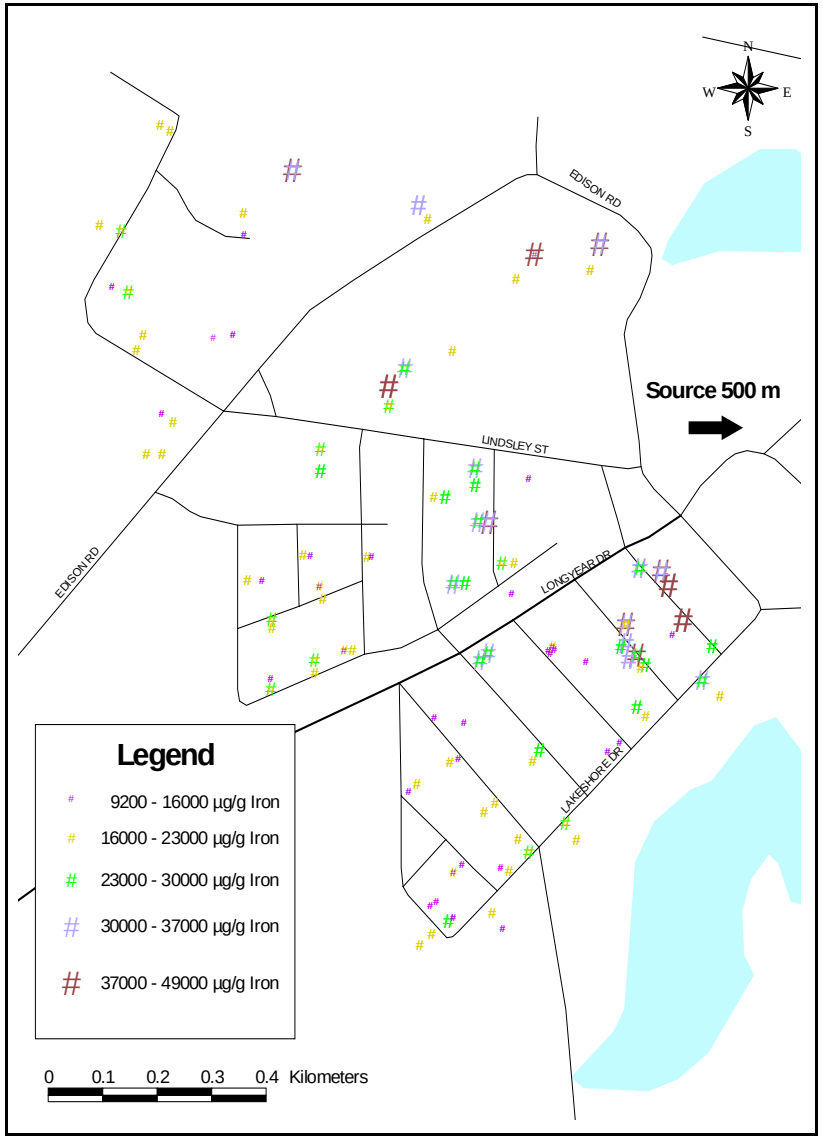
Map 10.2.2.22: Zn concentrations in urban 0 - 5 cm soil in Falconbridge



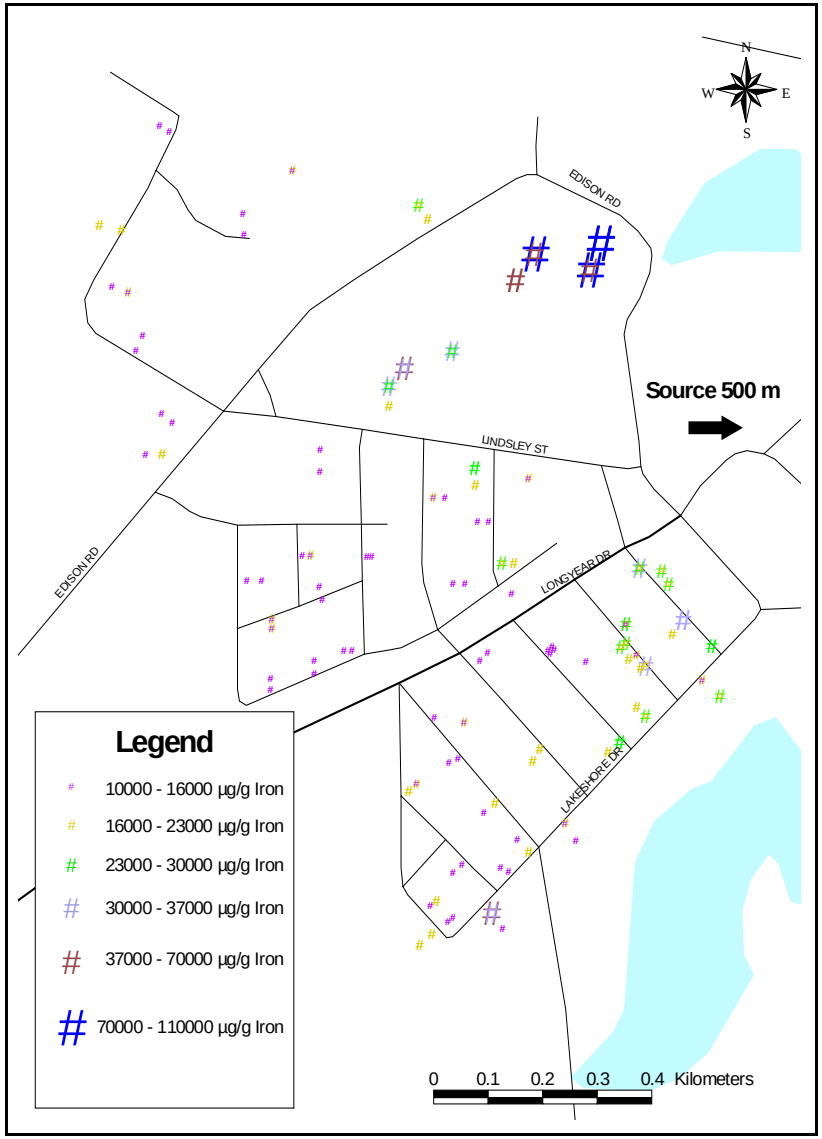
Map 10.2.2.23: Cr concentrations in urban 0 - 5 cm soil in Falconbridge



Map 10.2.2.24: Cr concentrations in urban 10 - 20 cm soil in Falconbridge

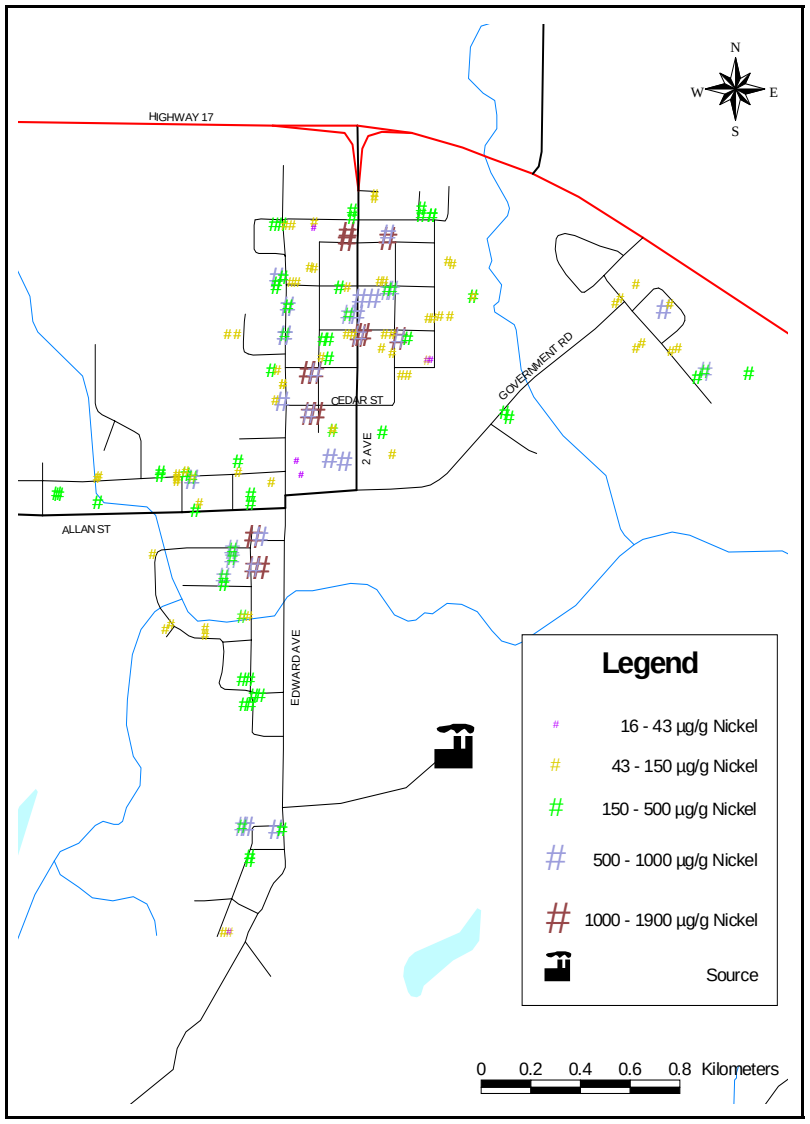


Map 10.2.2.25: Fe concentrations in urban 0 - 5 cm soil in Falconbridge

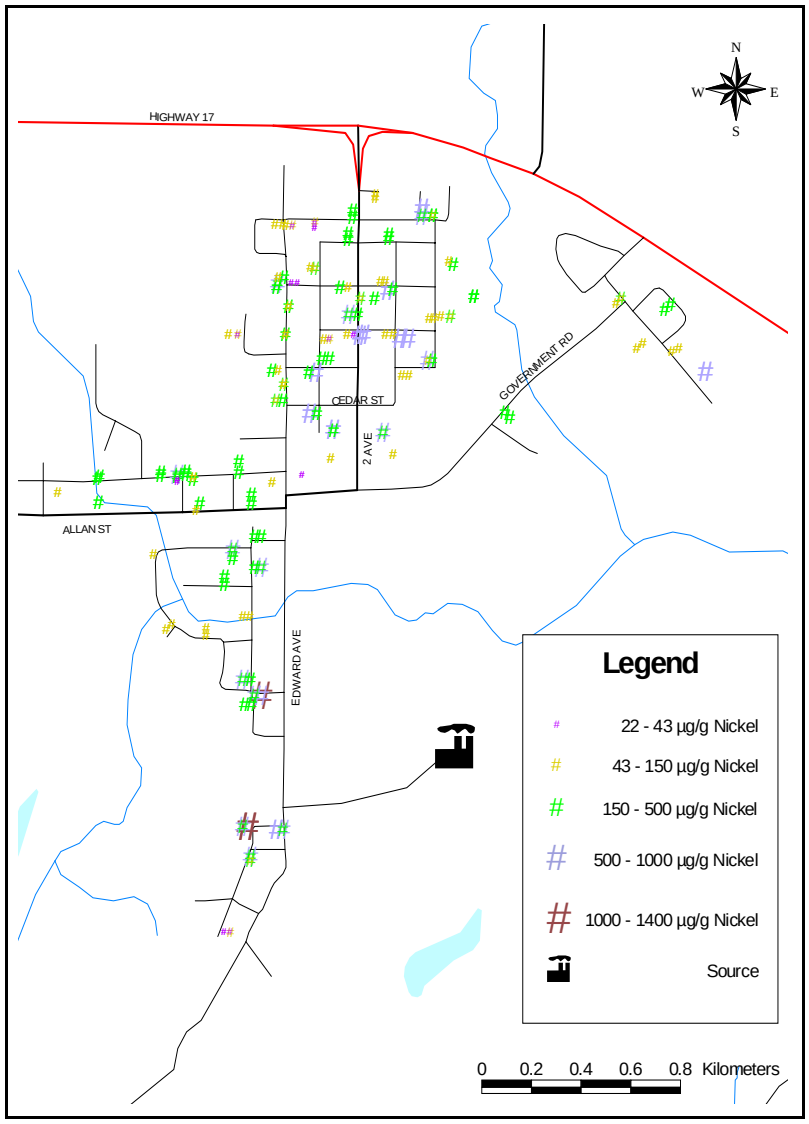


Map 10.2.2.26: Fe concentrations in urban 10 - 20 cm soil in Falconbridge

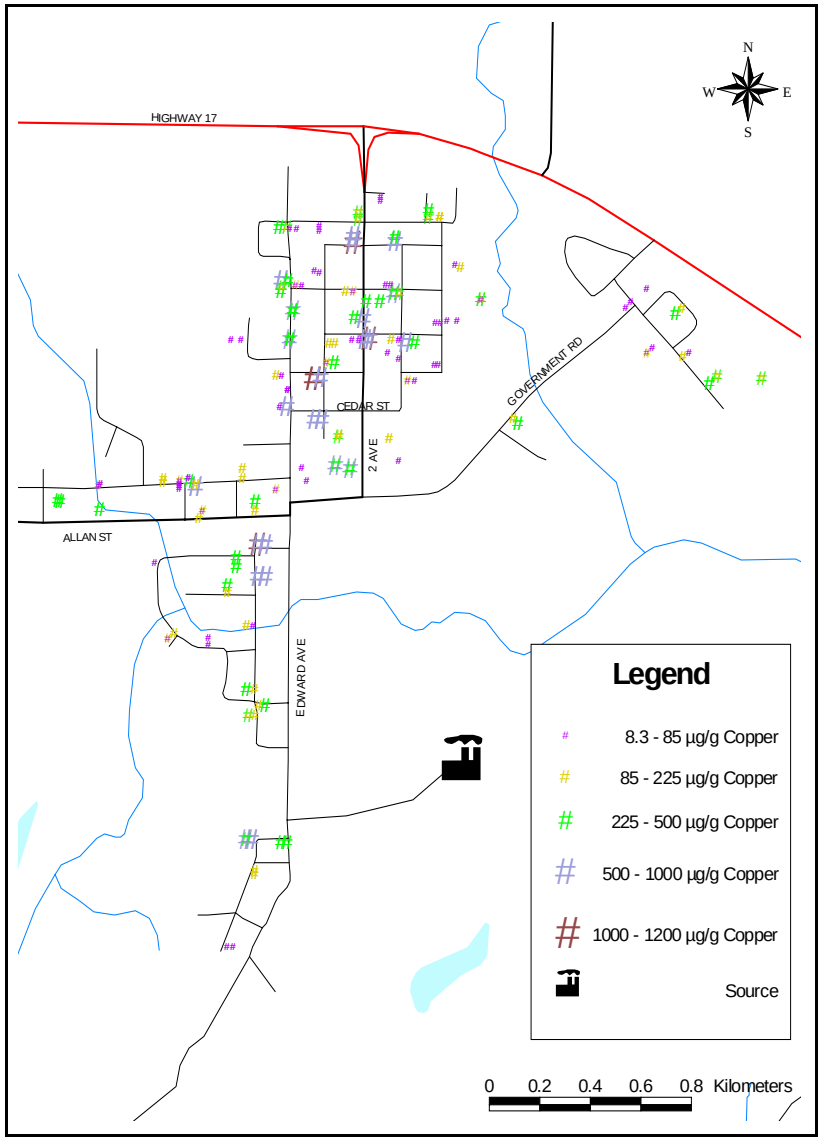
10.2.3 Coniston



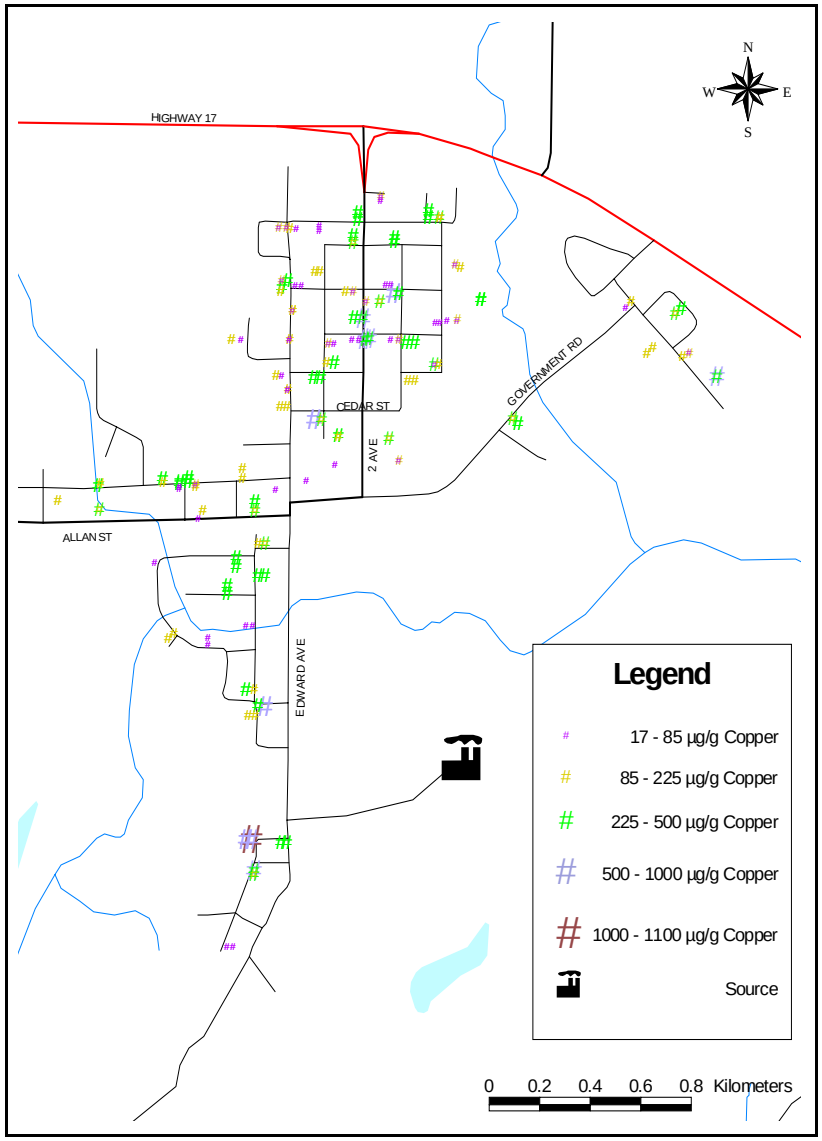
Map 10.2.3.1: Ni concentrations in urban 0 - 5 cm soil in Coniston



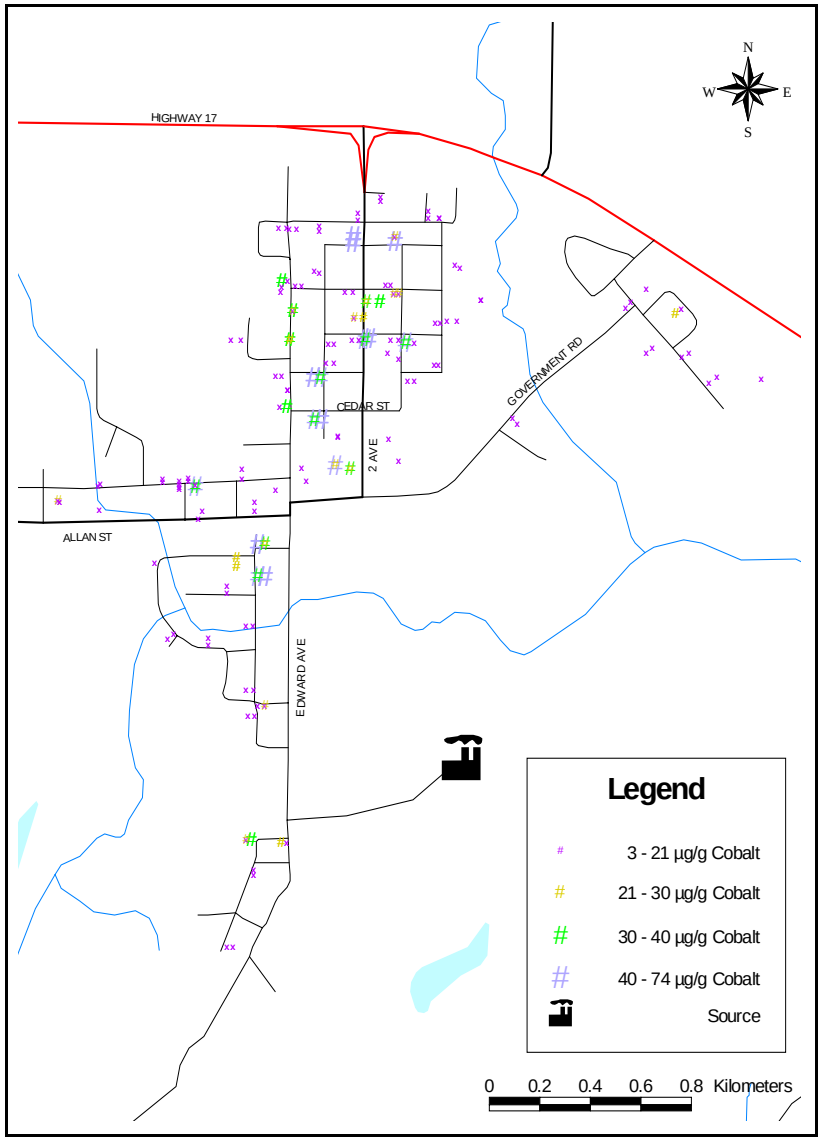
Map 10.2.3.2: Ni concentrations in urban 10 - 20 cm soil in Coniston



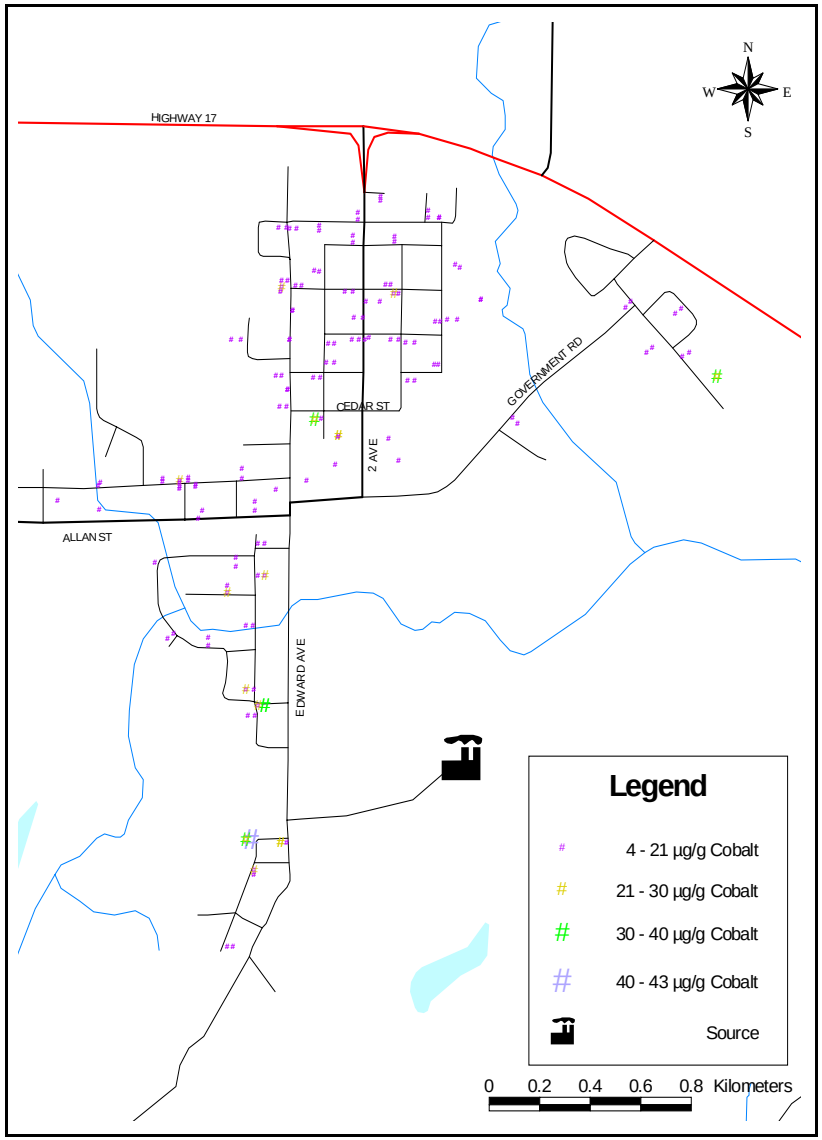
Map 10.2.3.3: Cu concentrations in urban 0 - 5 cm soil in Coniston



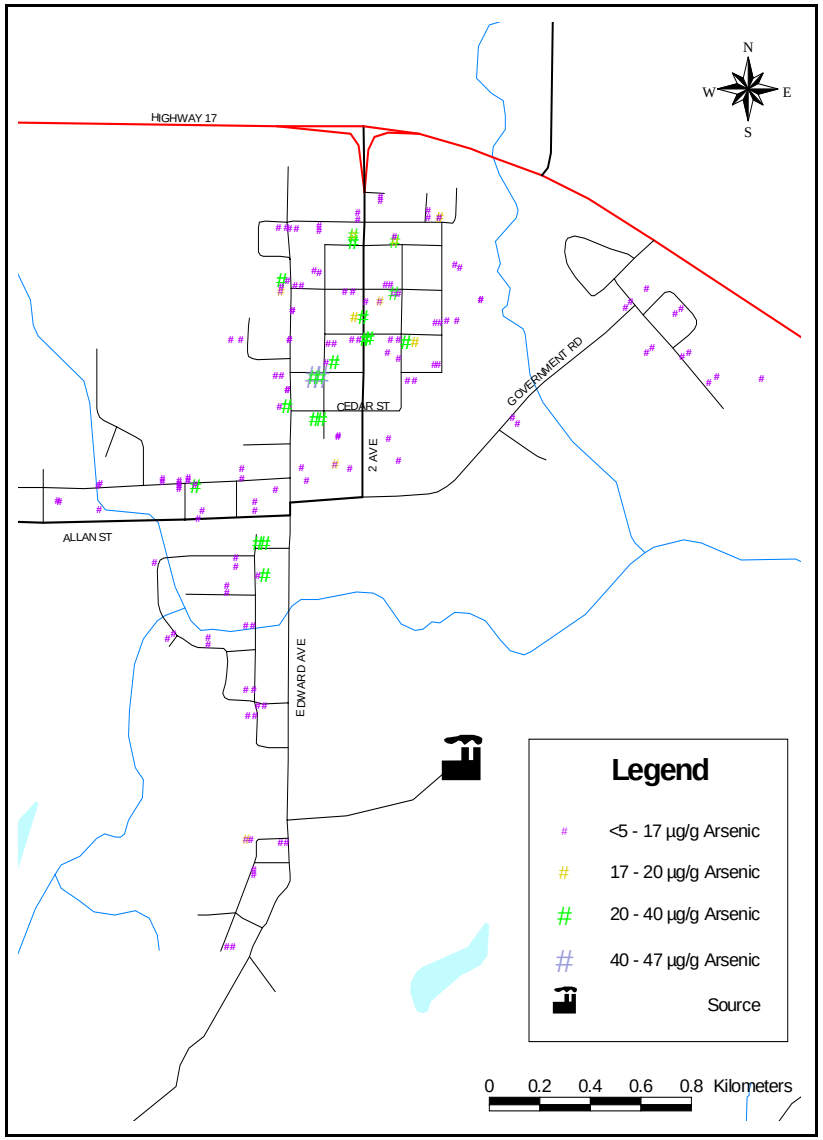
Map 10.2.3.4: Cu concentrations in urban 10 - 20 cm soil in Coniston



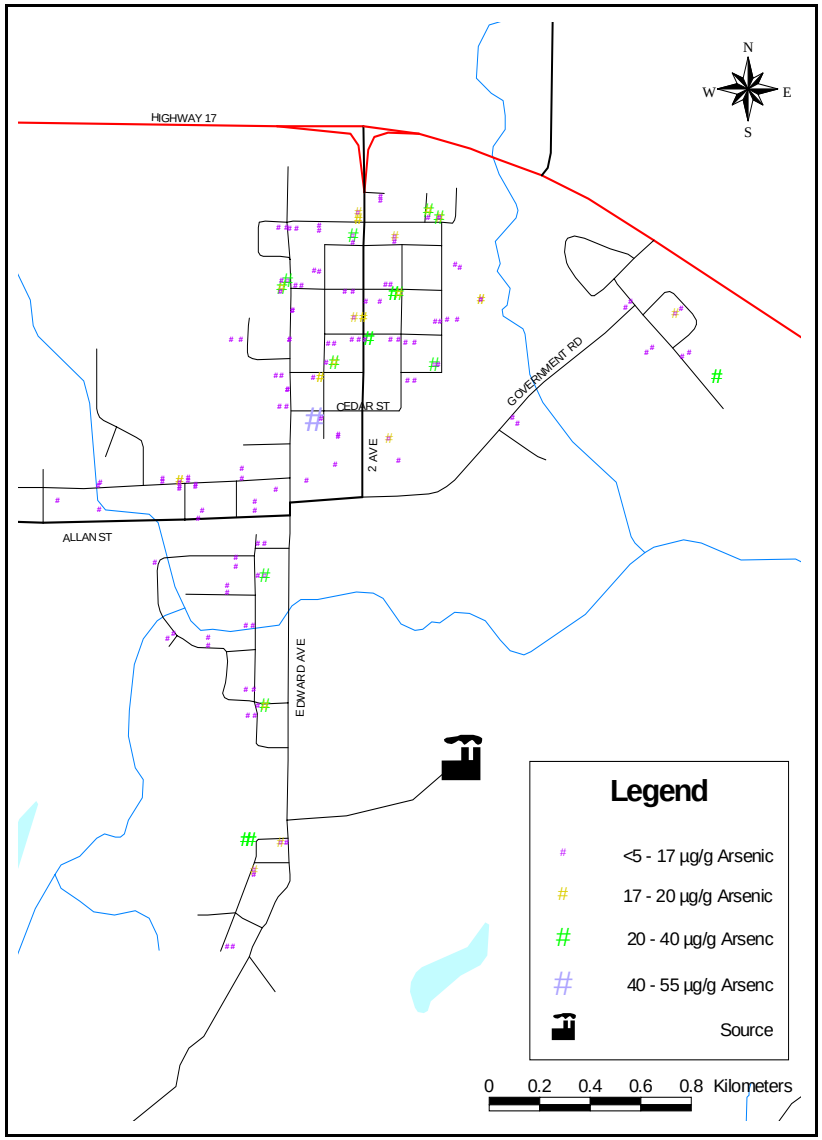
Map 10.2.3.5: Co concentrations in urban 0 - 5 cm soil in Coniston



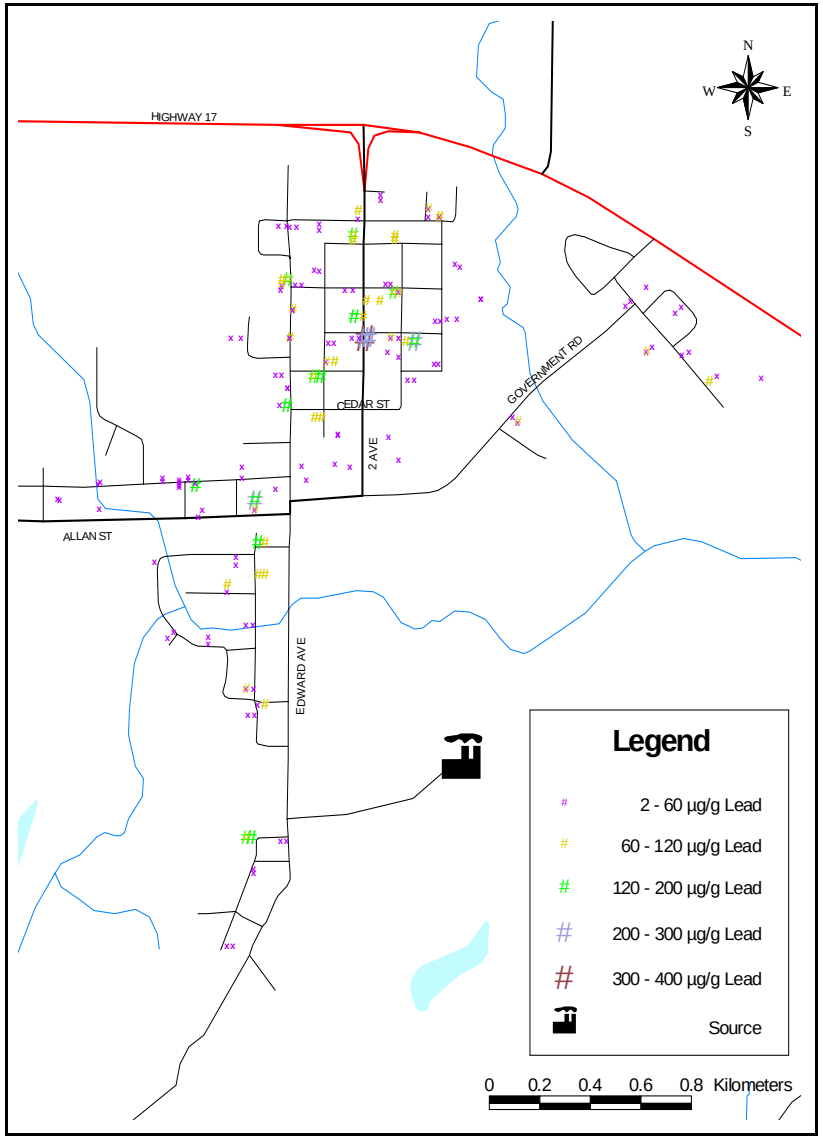
Map 10.2.3.6: Co concentrations in urban 10 - 20 cm soil in Coniston



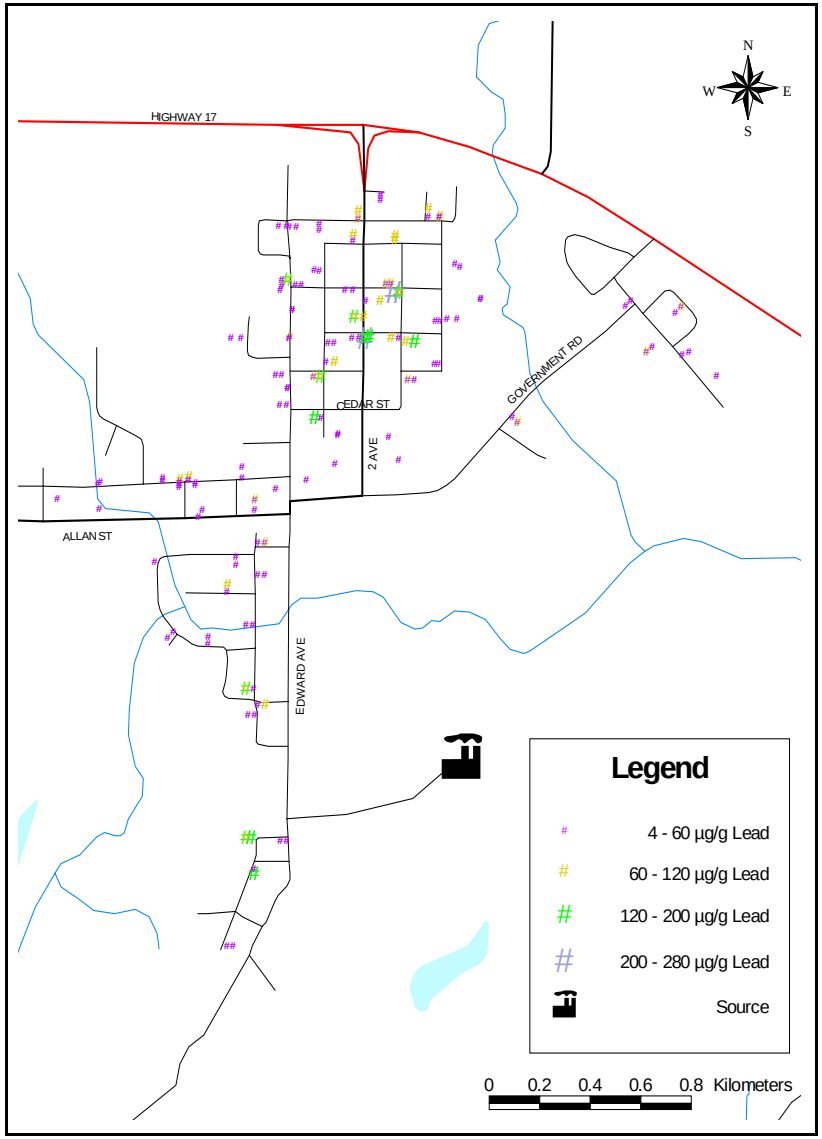
Map 10.2.3.7: As concentrations in urban 0 - 5 cm soil in Coniston



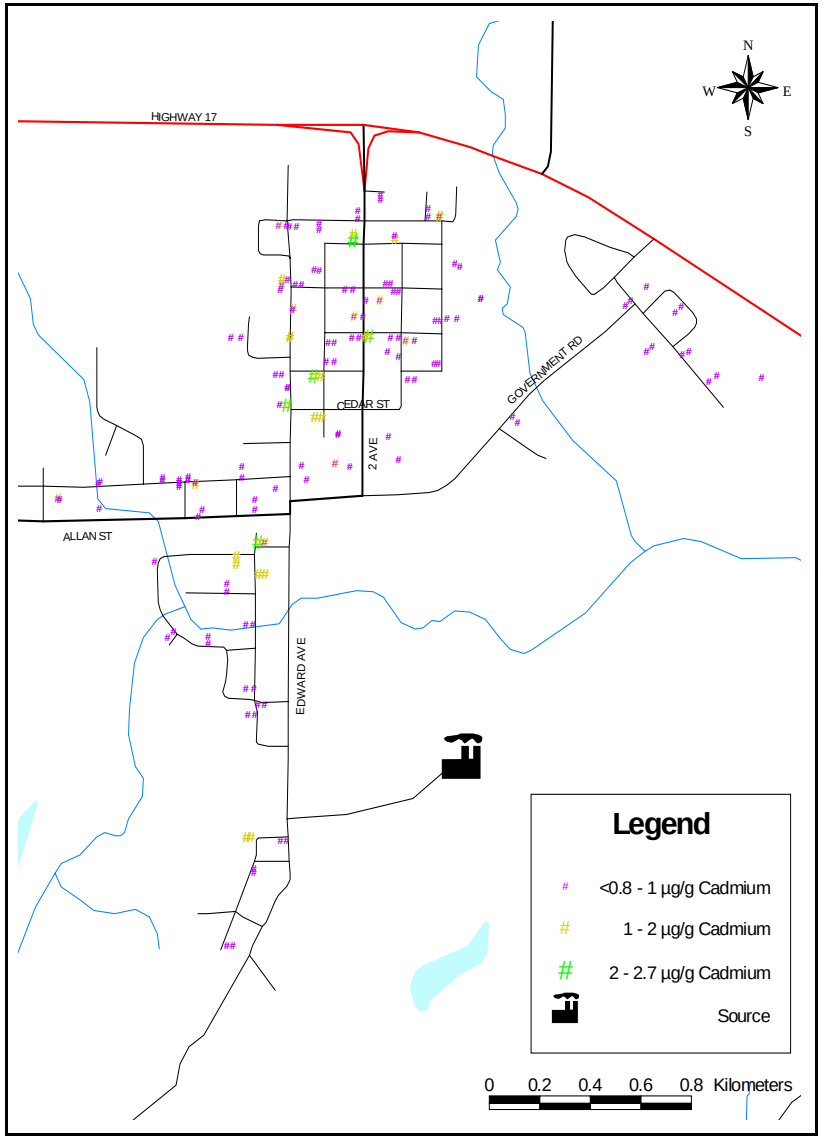
Map 10.2.3.8: As concentrations in urban 10 - 20 cm soil in Coniston



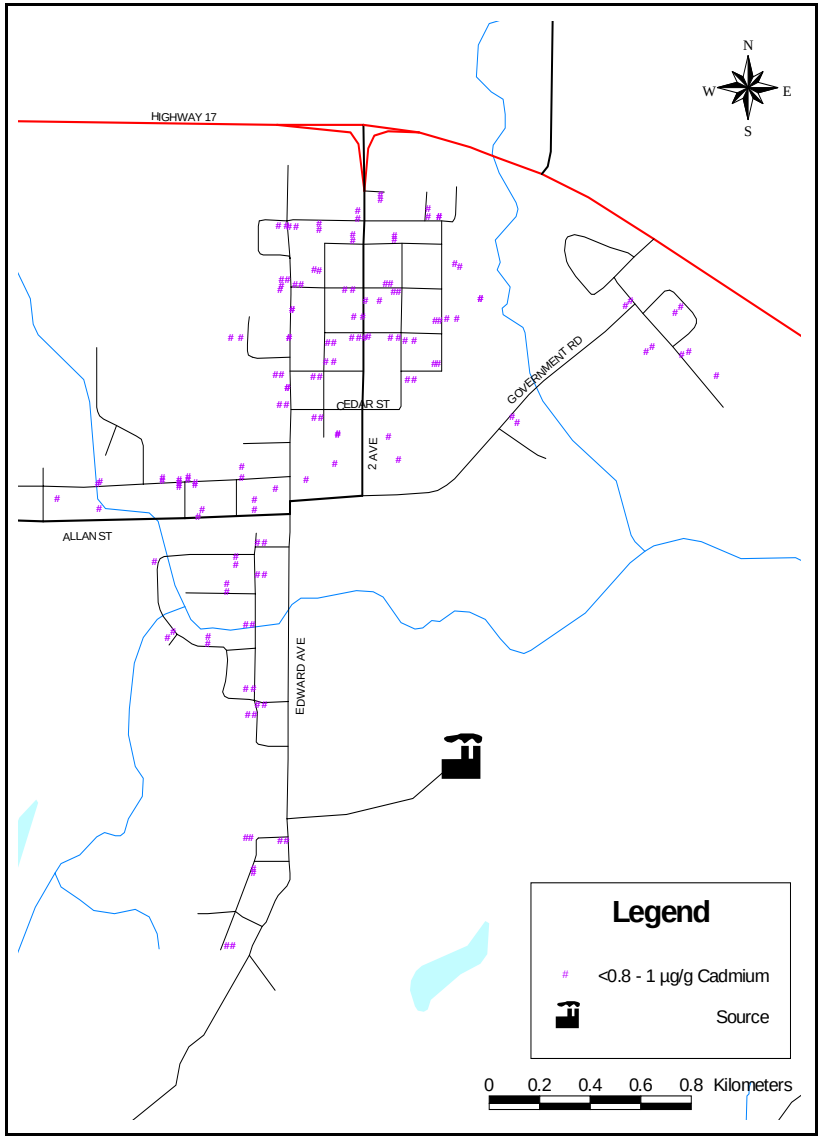
Map 10.2.3.9: Pb concentrations in urban 0 - 5 cm soil in Coniston



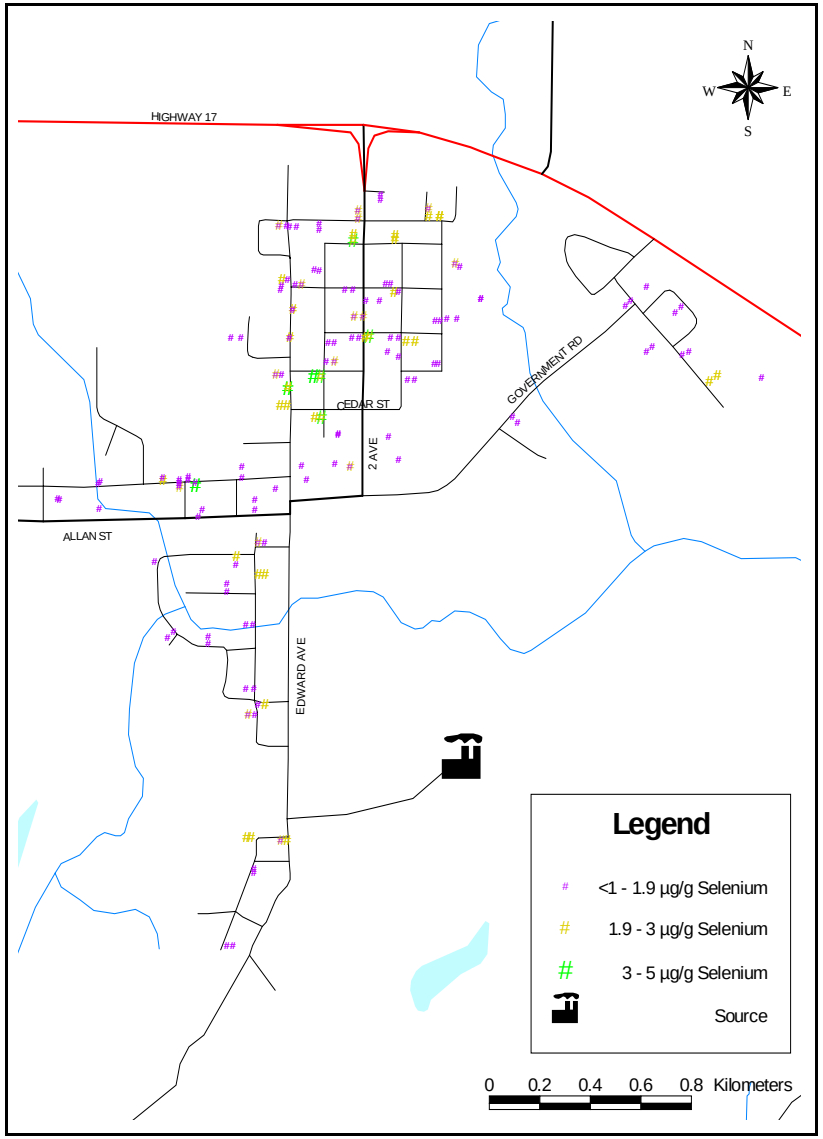
Map 10.2.3.10: Pb concentrations in urban 10 - 20 cm soil in Coniston



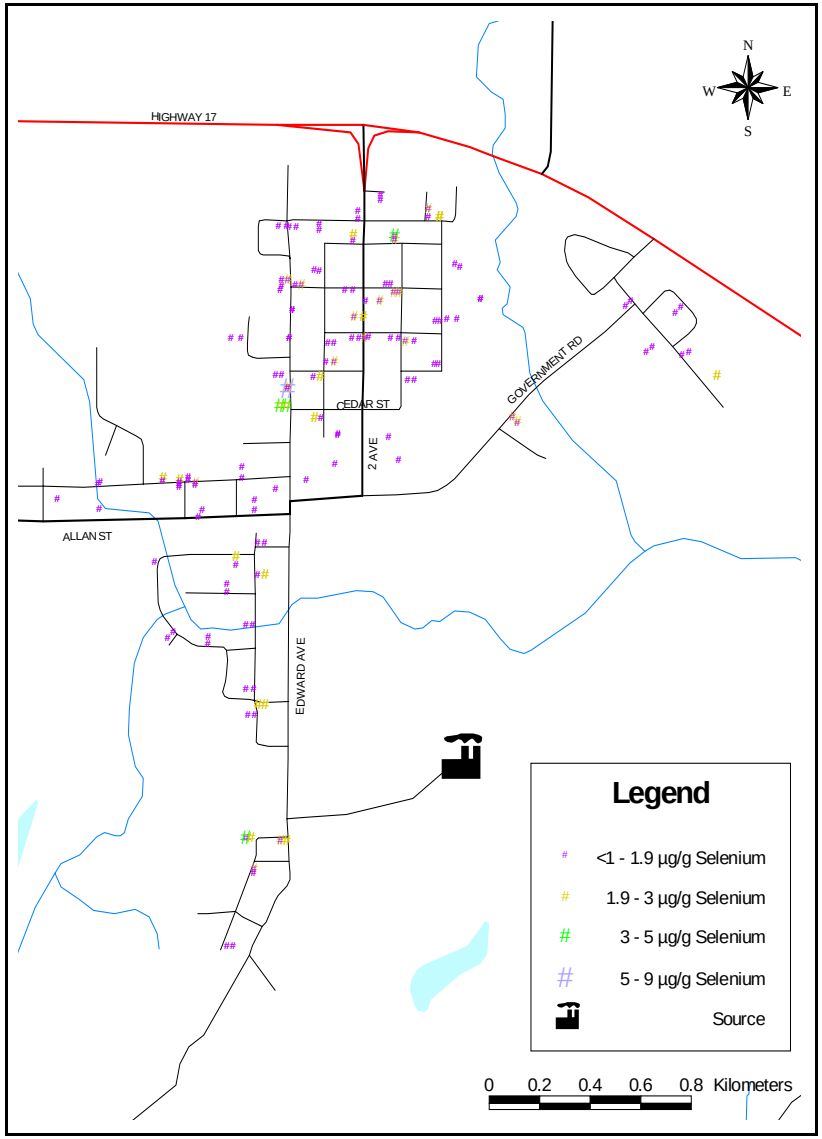
Map 10.2.3.11: Cd concentrations in urban 0 - 5 cm soil in Coniston



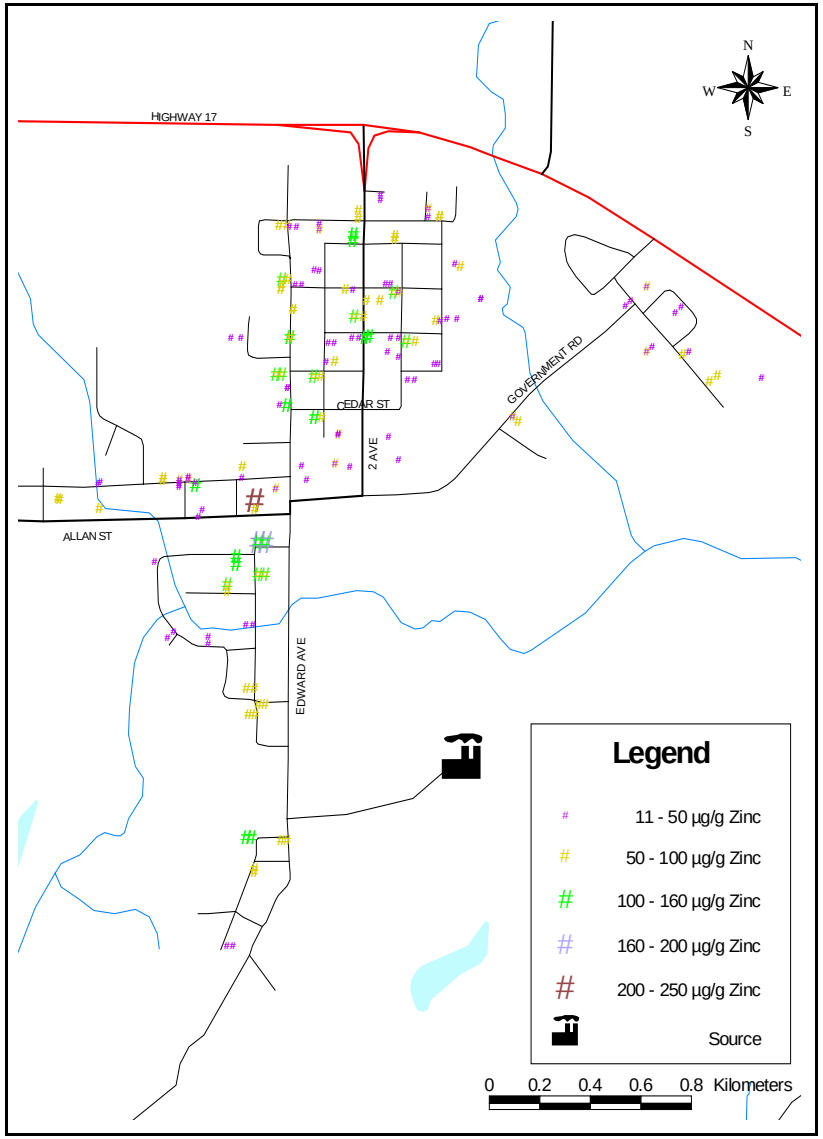
Map 10.2.3.12: Cd concentrations in urban 10 - 20 cm soil in Coniston



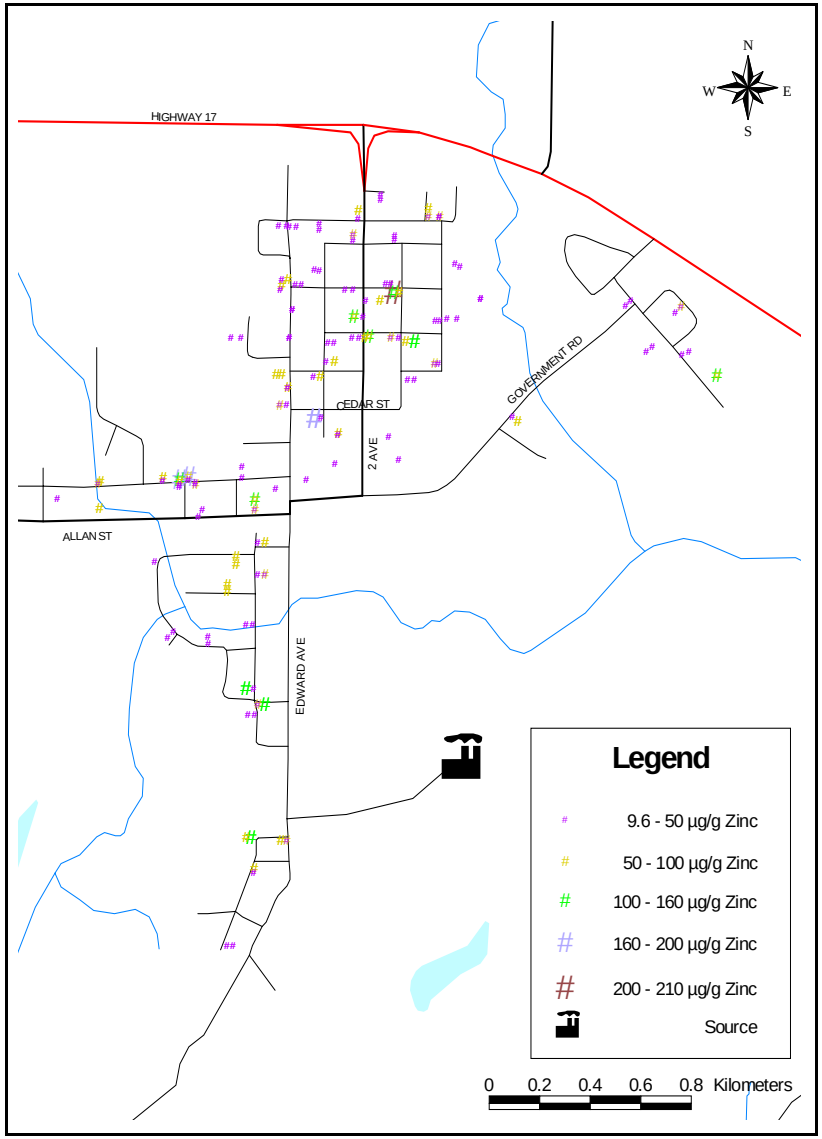
Map 10.2.3.13: Se concentrations in urban 0 - 5 cm soil in Coniston



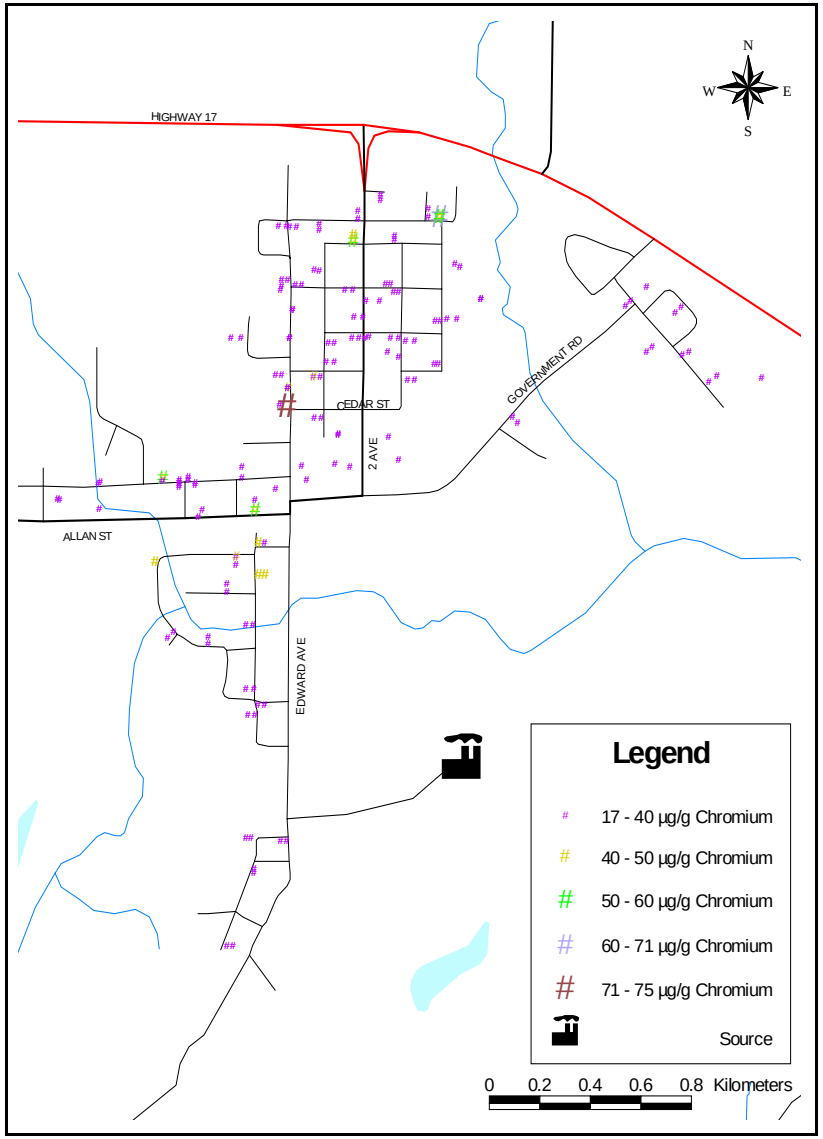
Map 10.2.3.14: Se concentrations in urban 10 - 20 cm soil in Coniston



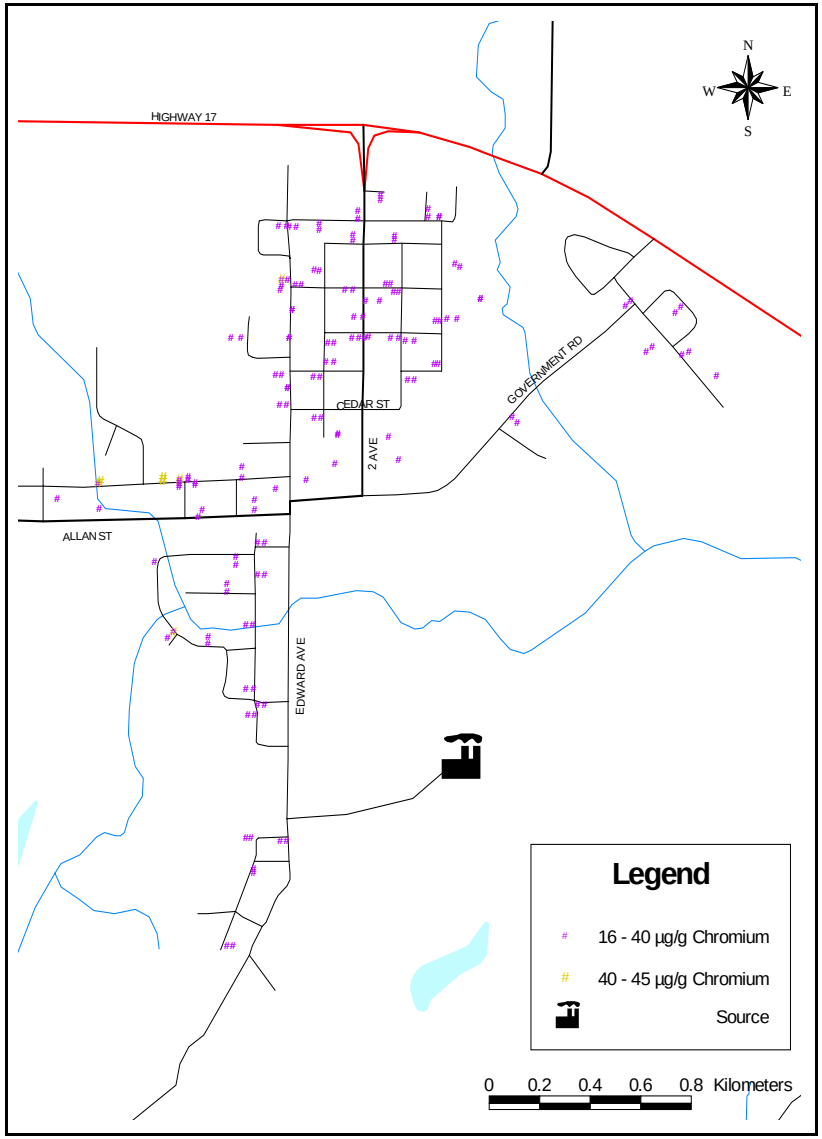
Map 10.2.3.15: Zn concentrations in urban 0 - 5 cm soil in Coniston



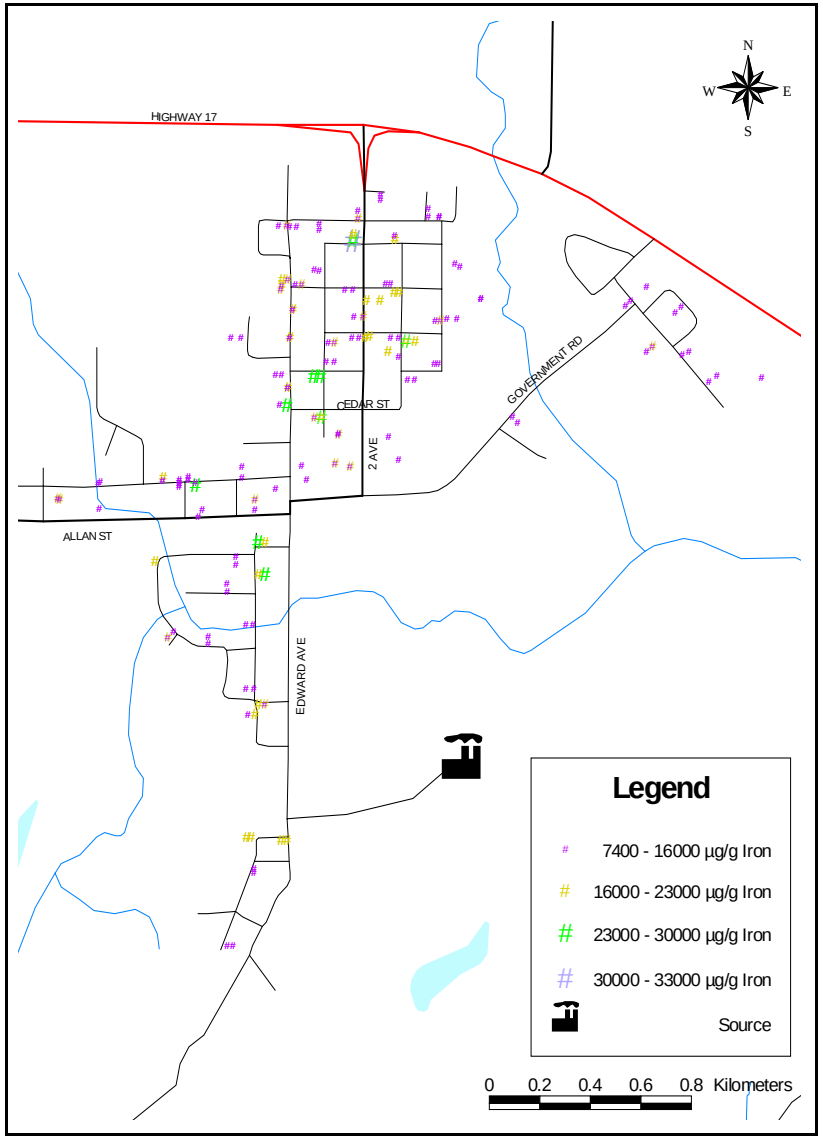
Map 10.2.3.16: Zn concentrations in urban 10 - 20 cm soil in Coniston



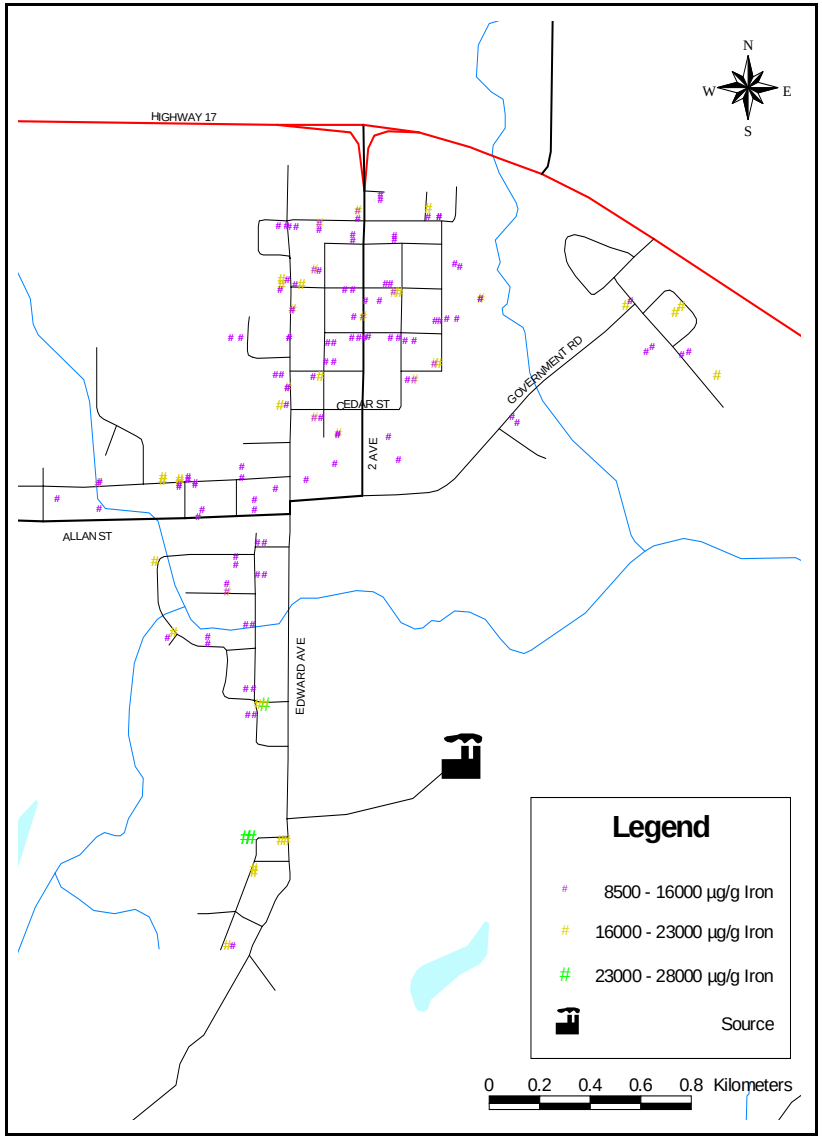
Map 10.2.3.17: Cr concentrations in urban 0 - 5 cm soil in Coniston



Map 10.2.3.18: Cr concentrations in urban 10 - 20 cm soil in Coniston

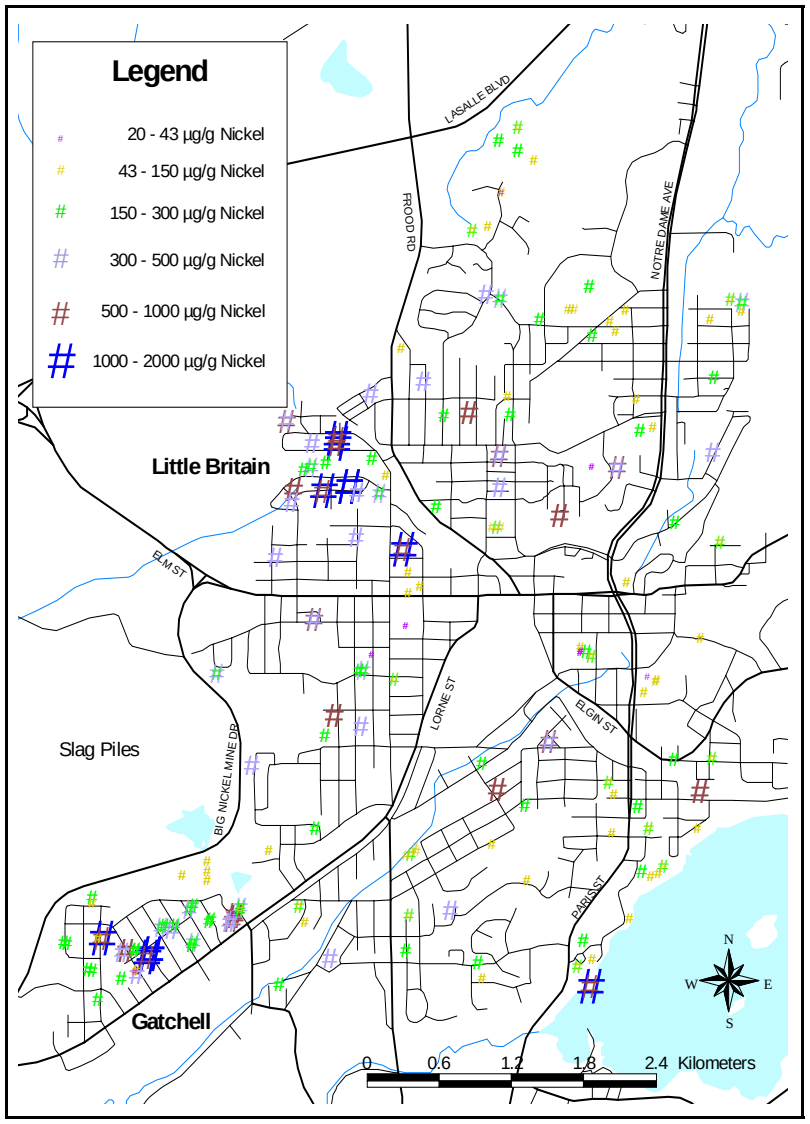


Map 10.2.3.19: Fe concentrations in urban 0 - 5 cm soil in Coniston

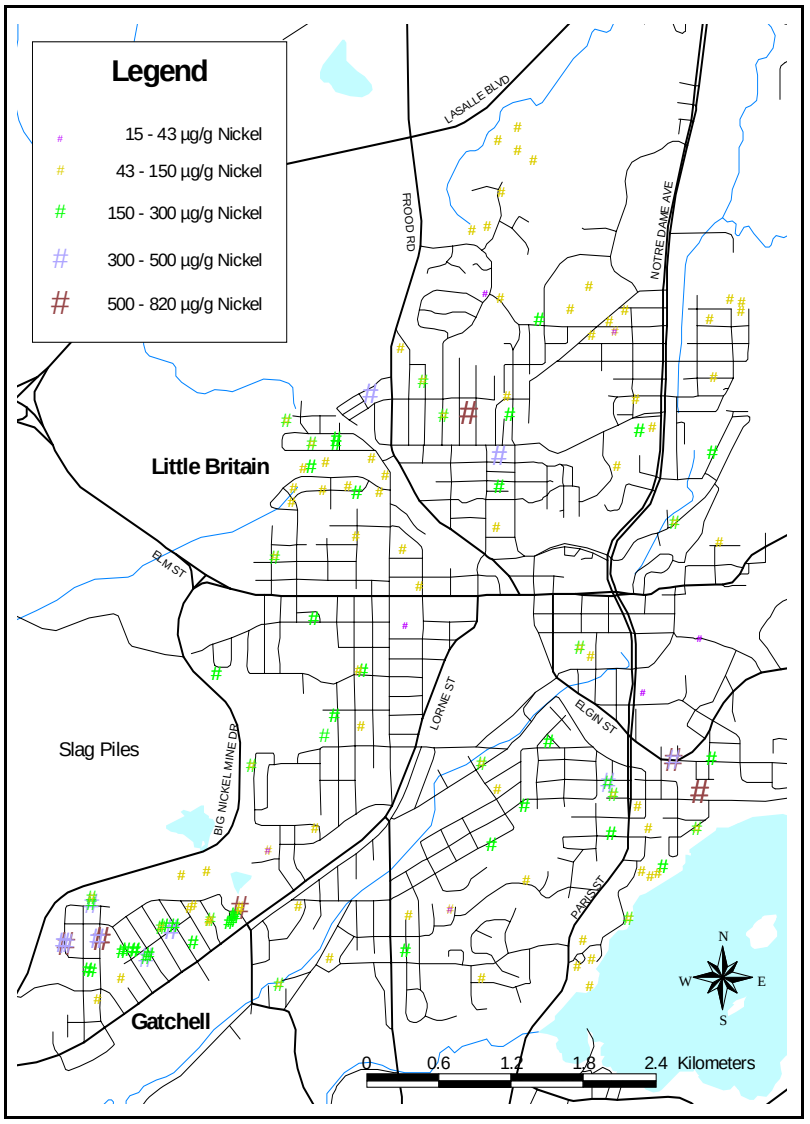


Map 10.2.3.20: Fe concentrations in urban 10 - 20 cm soil in Coniston

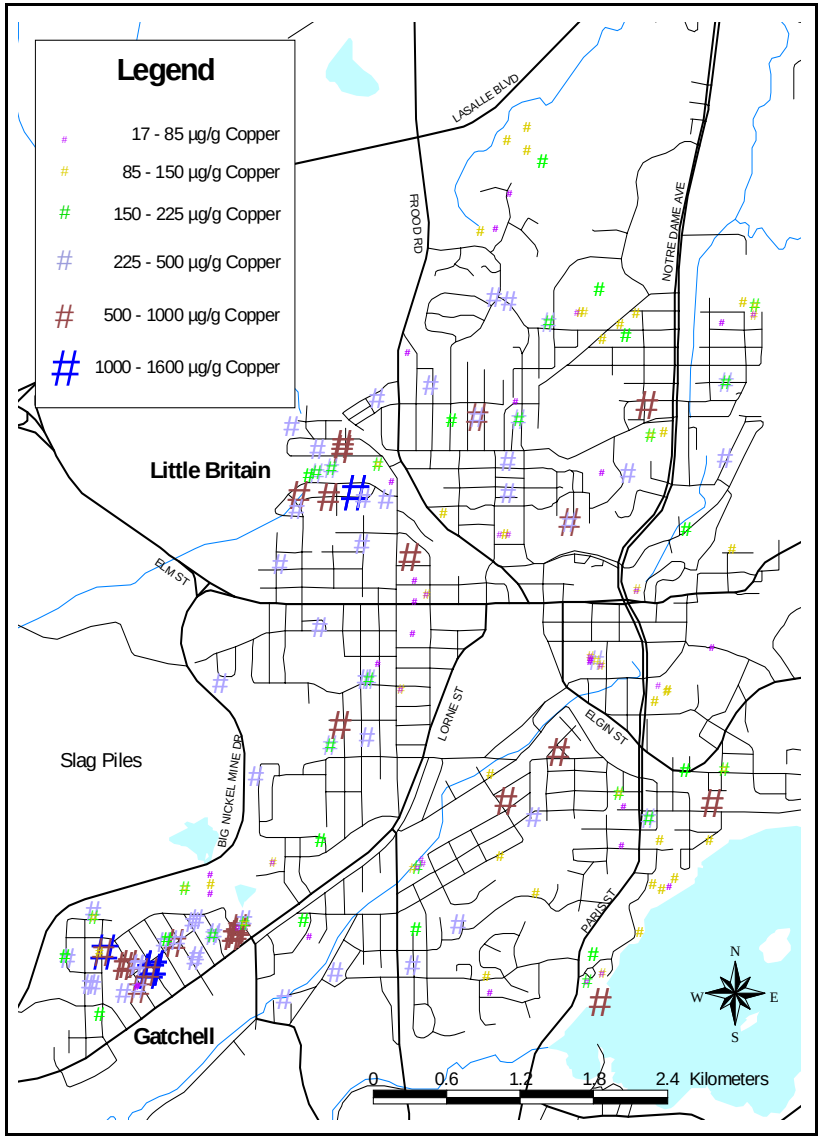
10.2.4 Sudbury Core



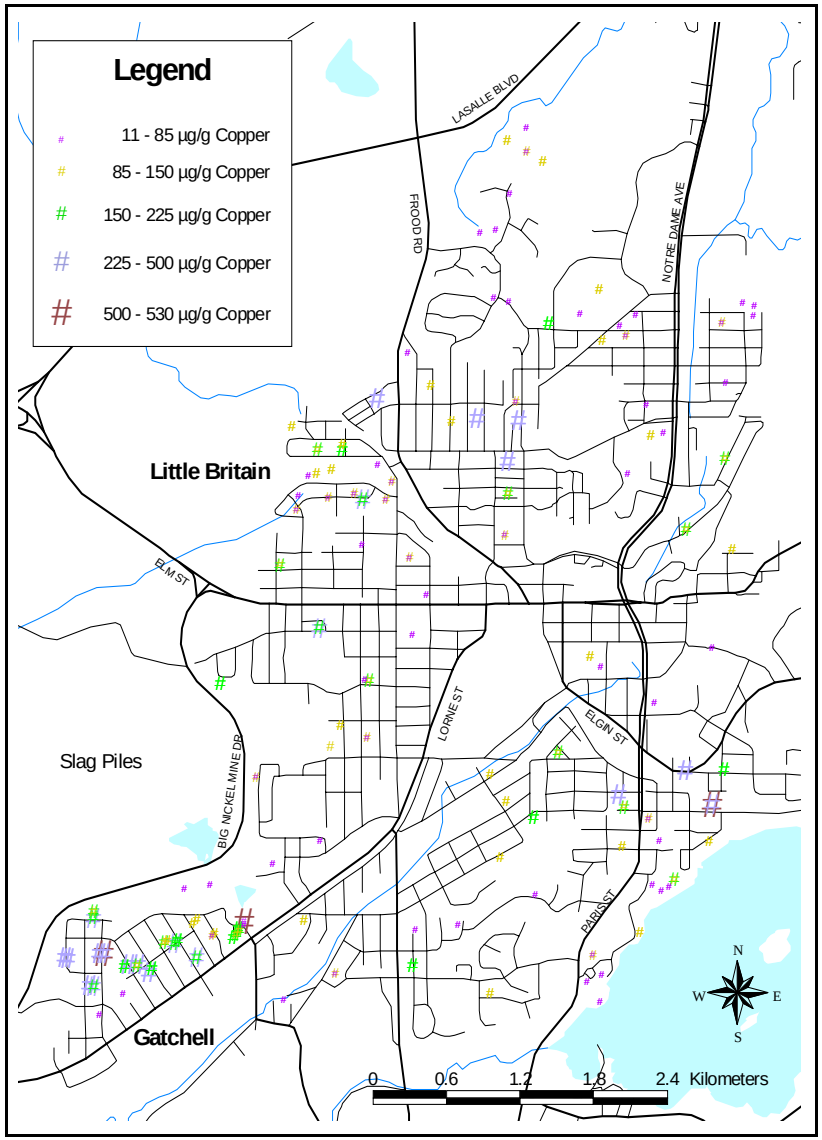
Map 10.2.4.1: Ni concentrations in urban 0 - 5 cm soil in Sudbury Core



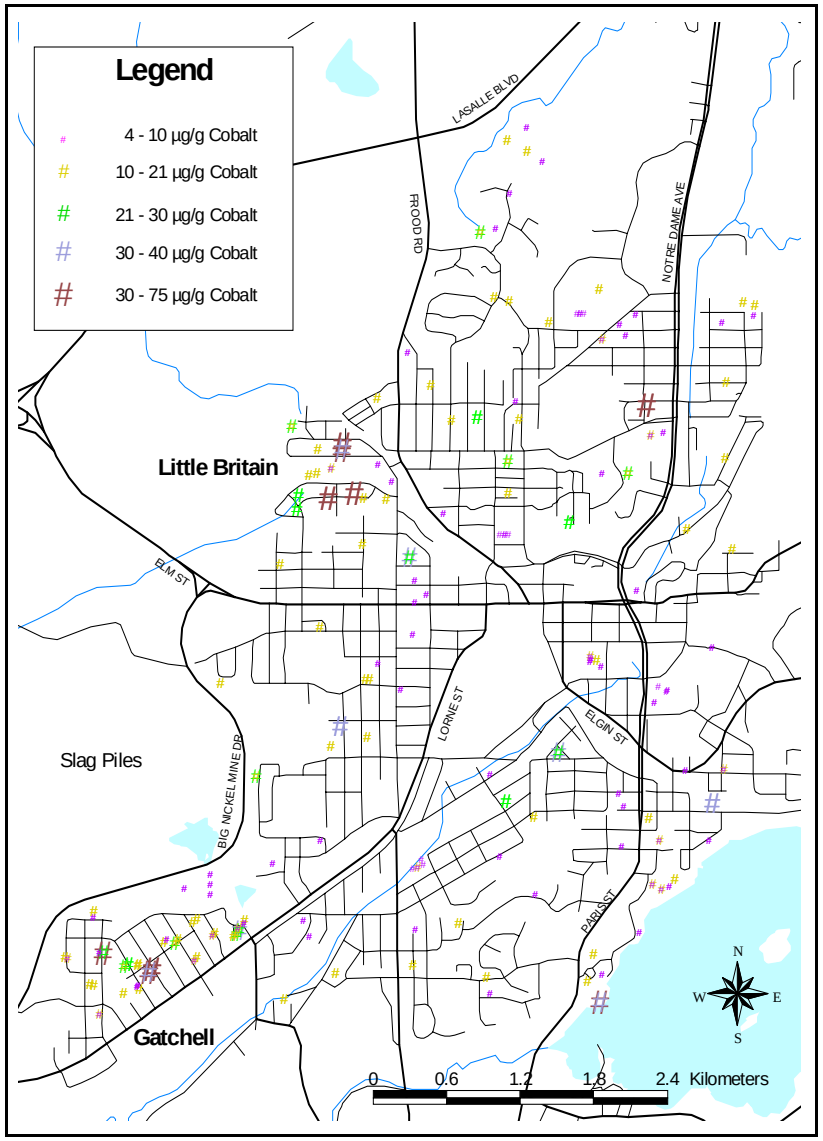
Map 10.2.4.2: Ni concentrations in urban 10 - 20 cm soil in Sudbury Core



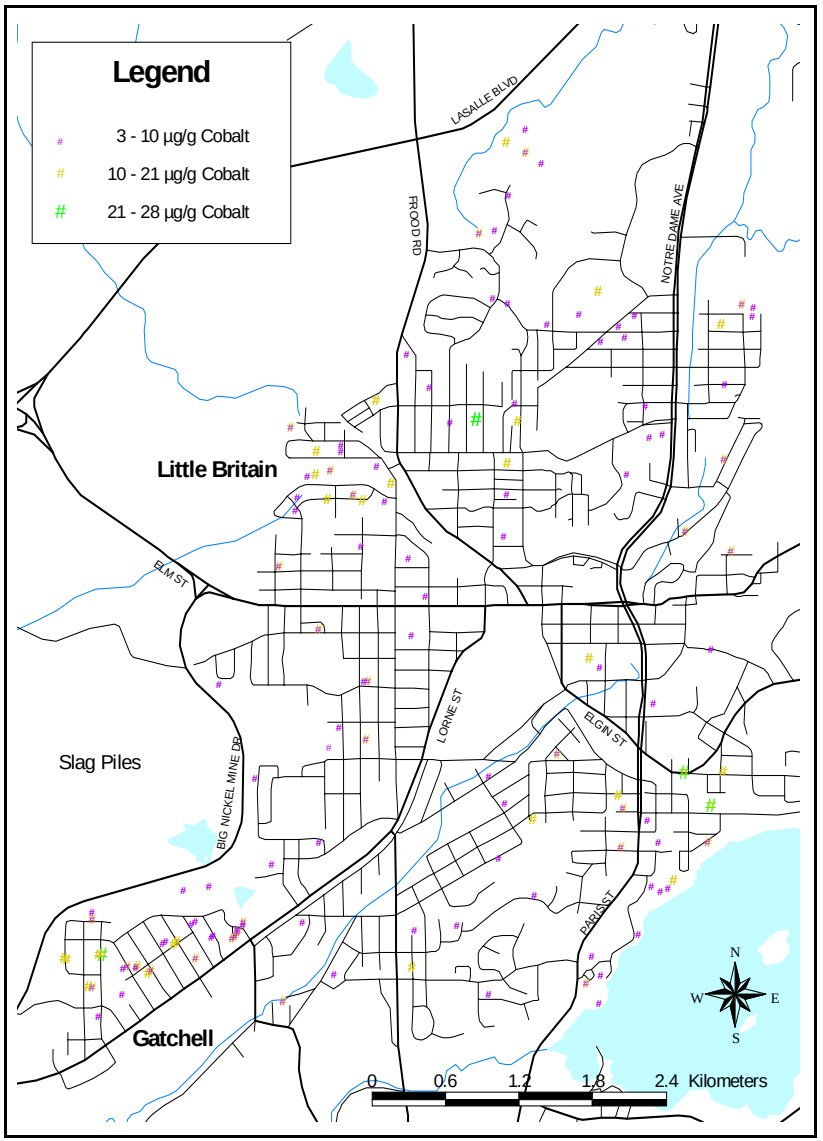
Map 10.2.4.3: Cu concentrations in urban 0 - 5 cm soil in Sudbury Core



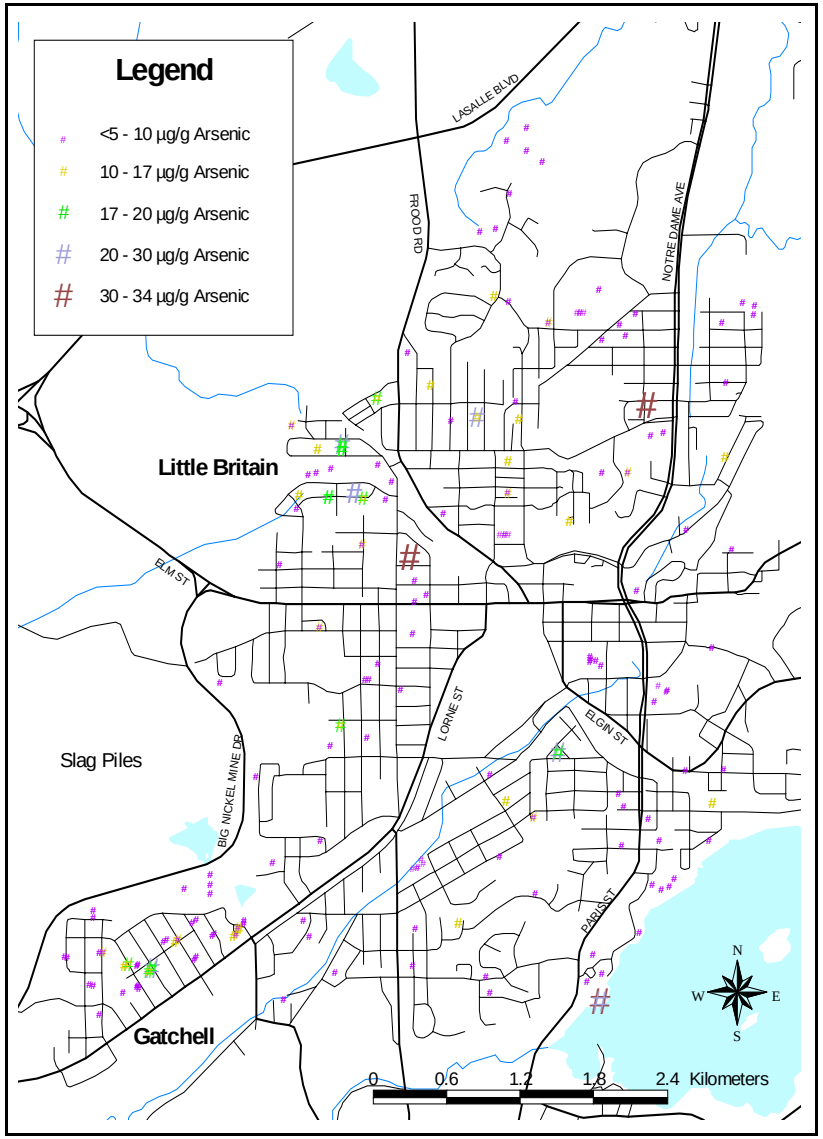
Map 10.2.4.4: Cu concentrations in urban 10 - 20 cm soil in Sudbury Core



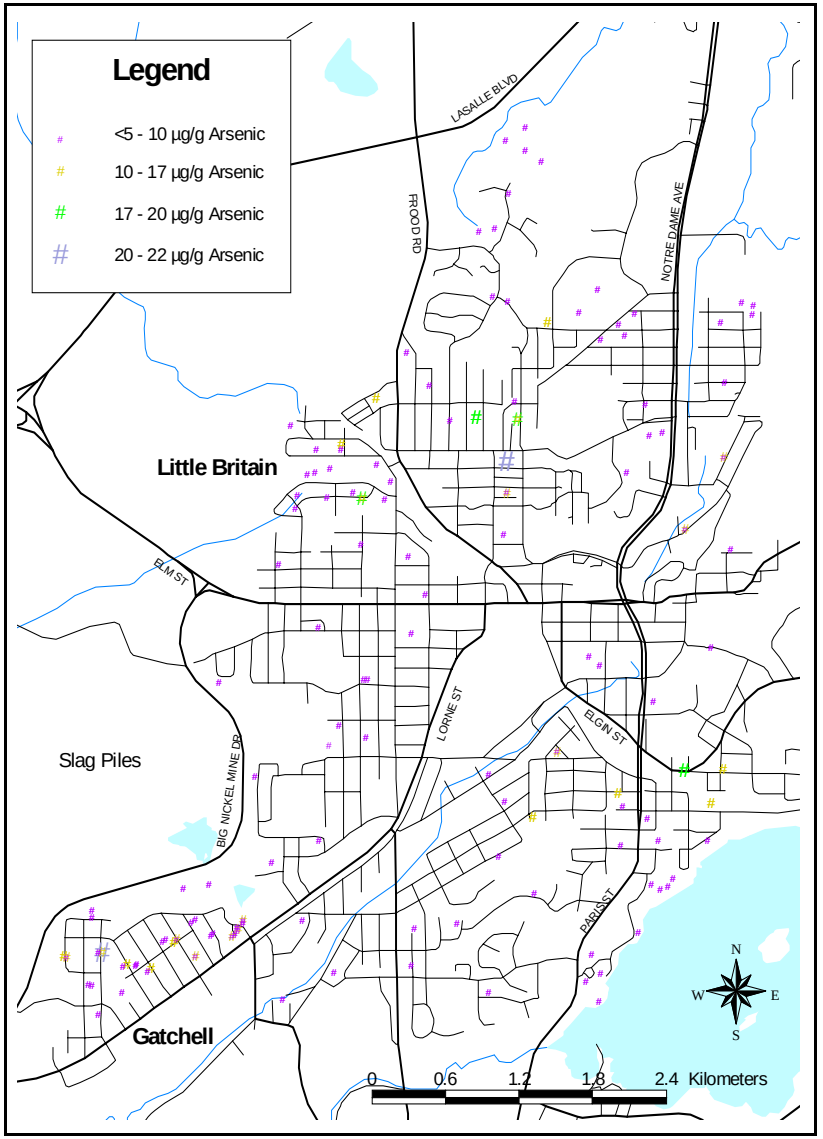
Map 10.2.4.5: Co concentrations in urban 0 - 5 cm soil in Sudbury Core



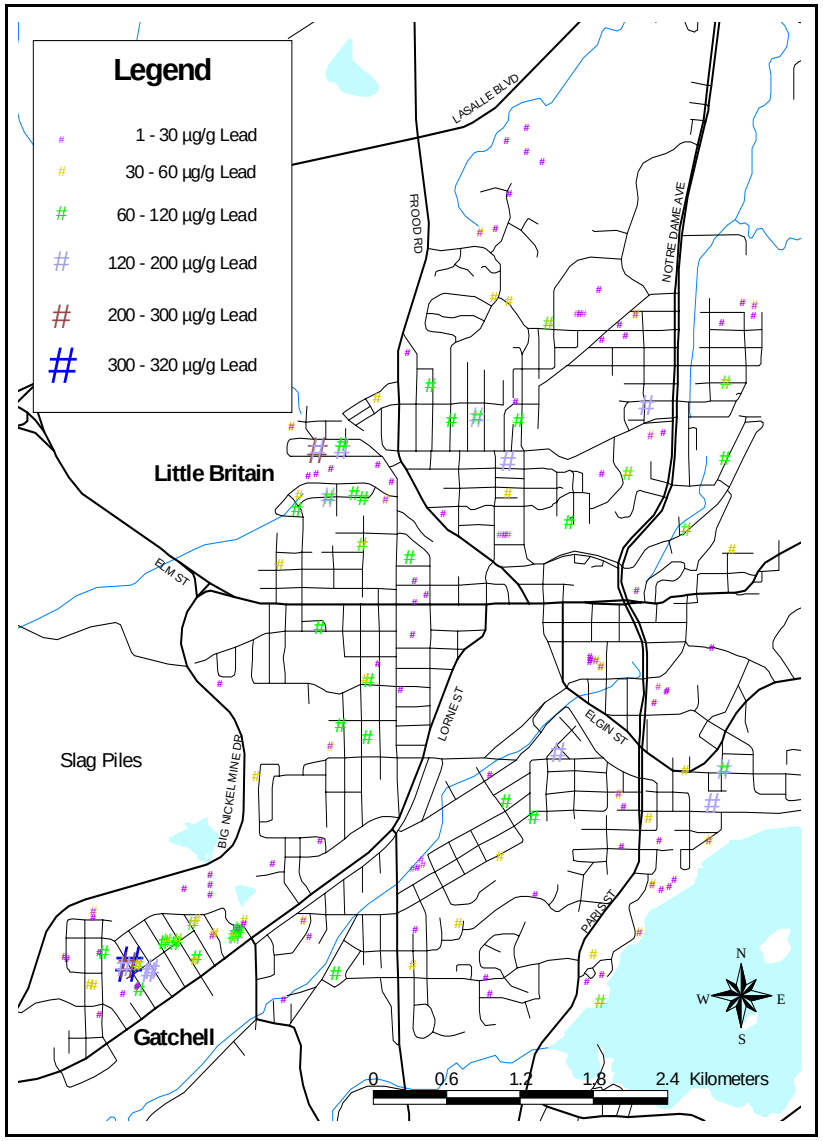
Map 10.2.4.6: Co concentrations in urban 10 - 20 cm in Sudbury Core



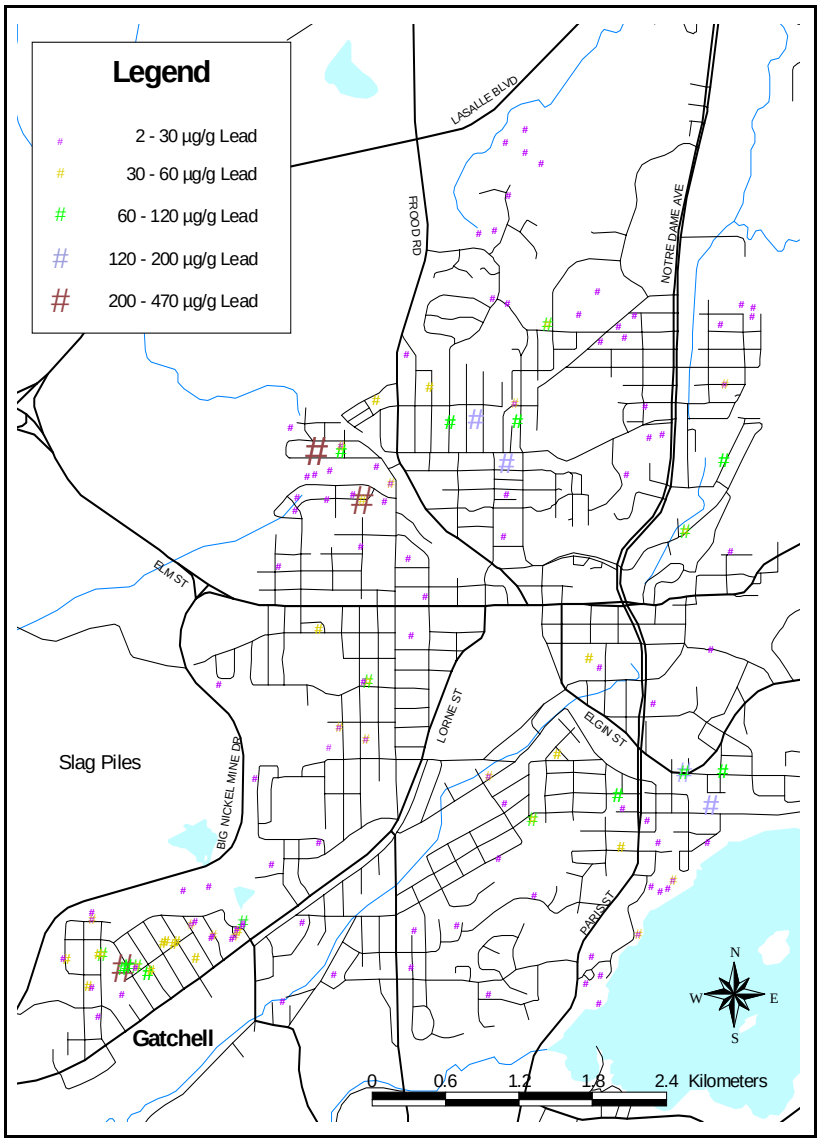
Map 10.2.4.7: As concentrations in urban 0 - 5 cm soil in Sudbury Core



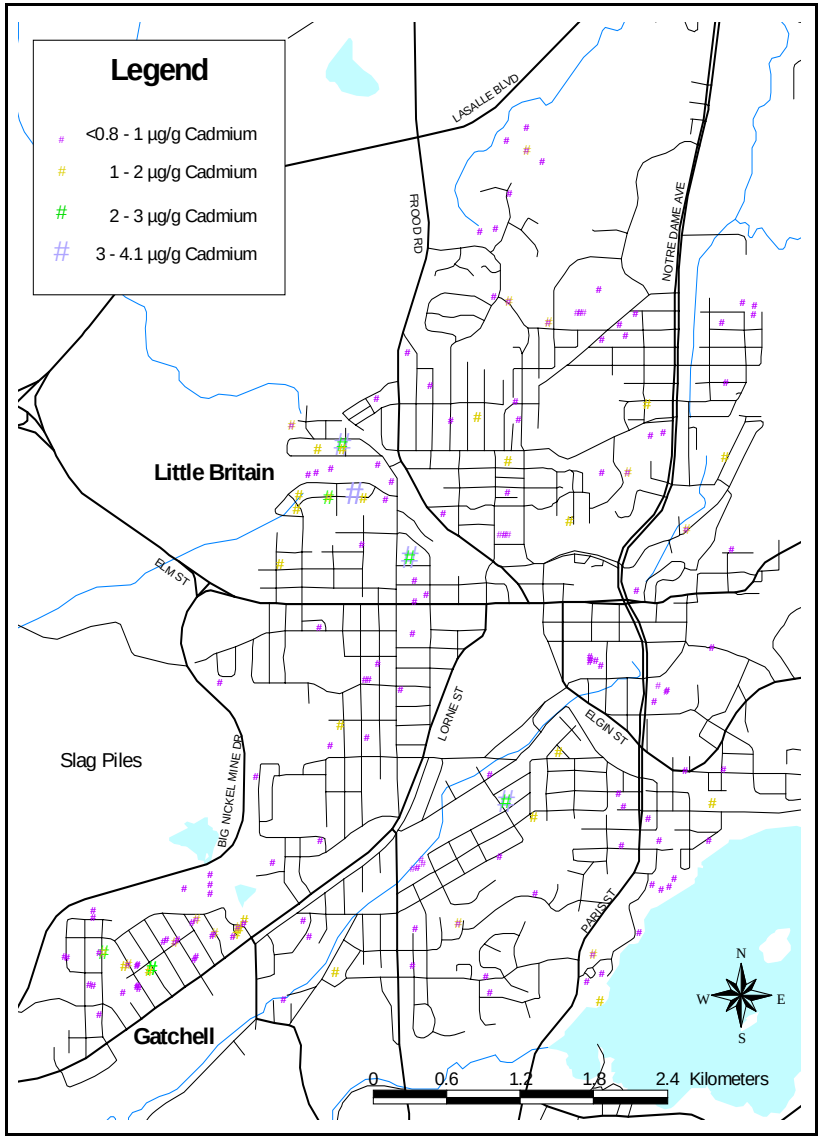
Map 10.2.4.8: As concentrations in urban 10 - 20 cm soil in Sudbury Core



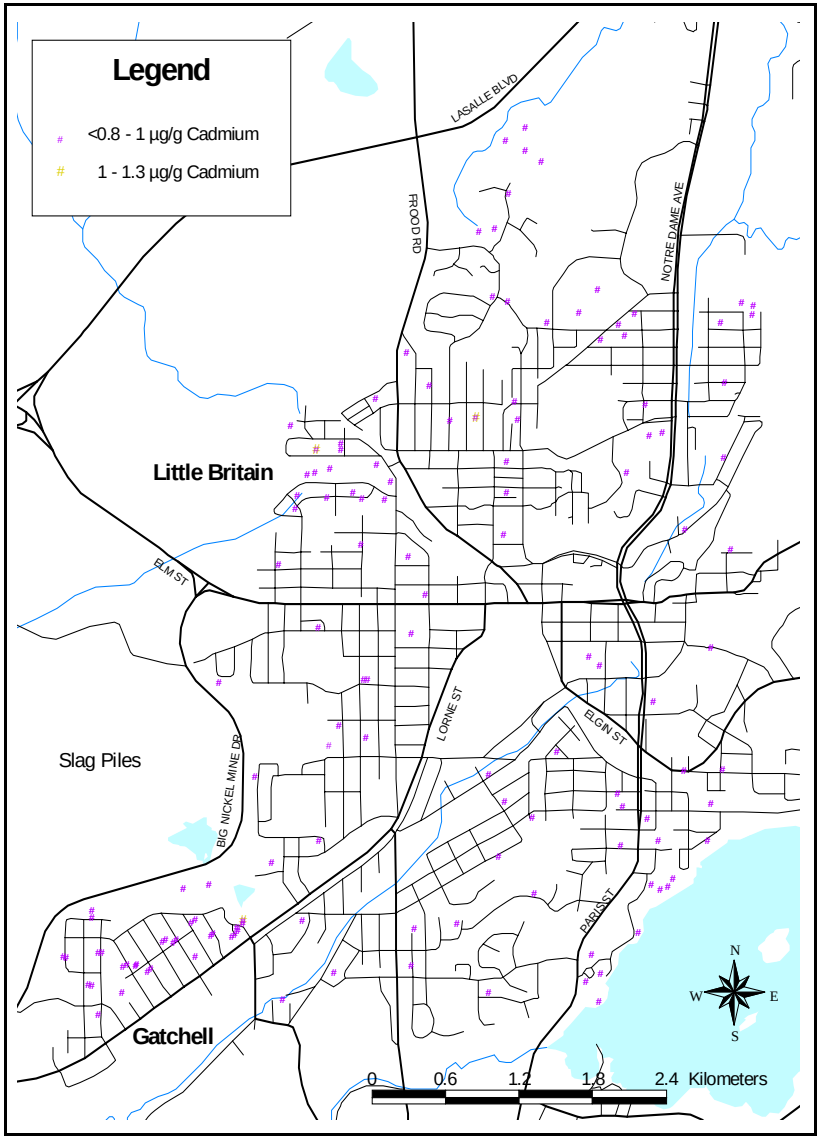
Map 10.2.4.9: Pb concentrations in urban 0 - 5 cm soil in Sudbury Core



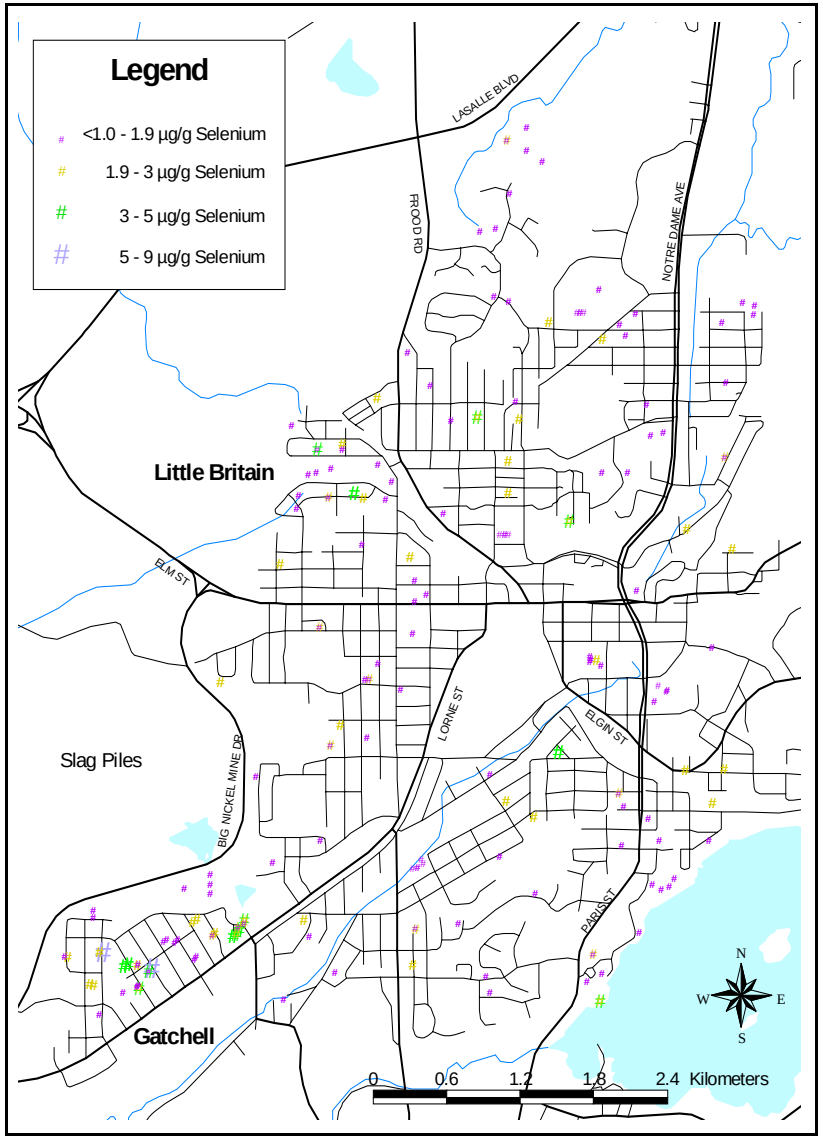
Map 10.2.4.10: Pb concentrations in urban 10 - 20 cm soil in Sudbury Core



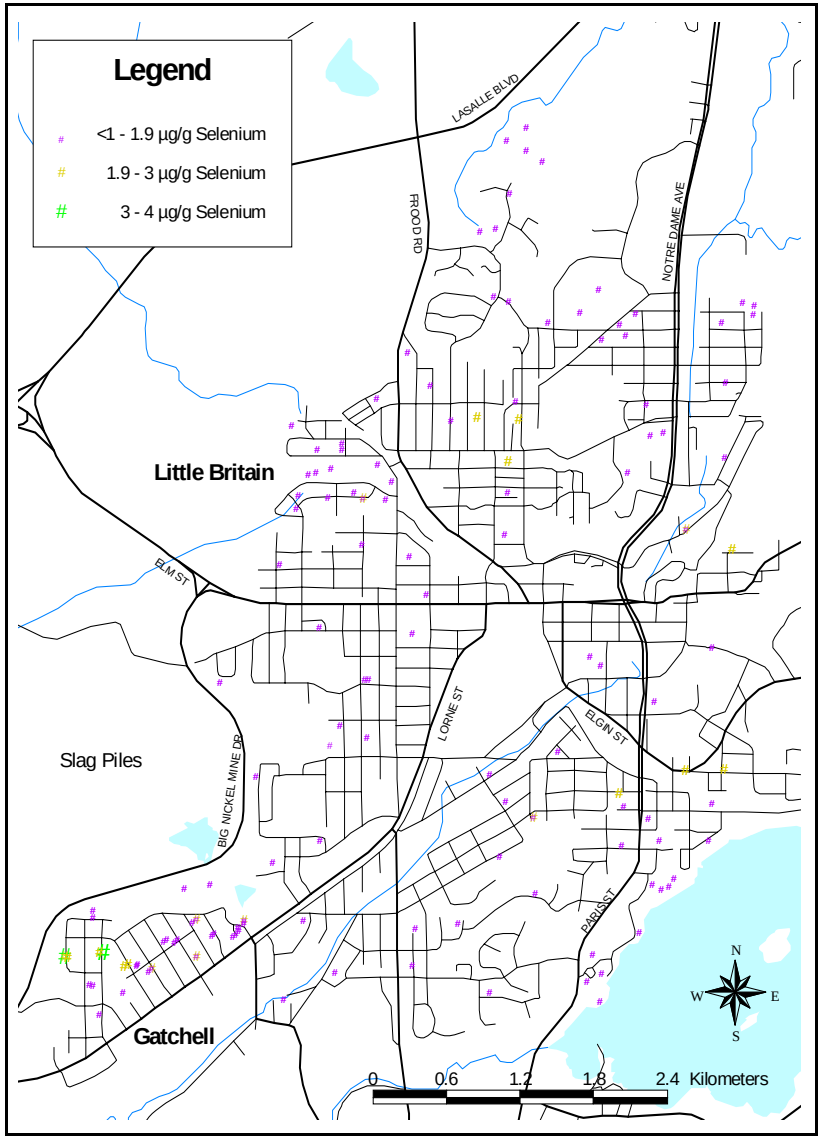
Map 10.2.4.11: Cd concentrations in urban 0 - 5 cm soil in Sudbury Core



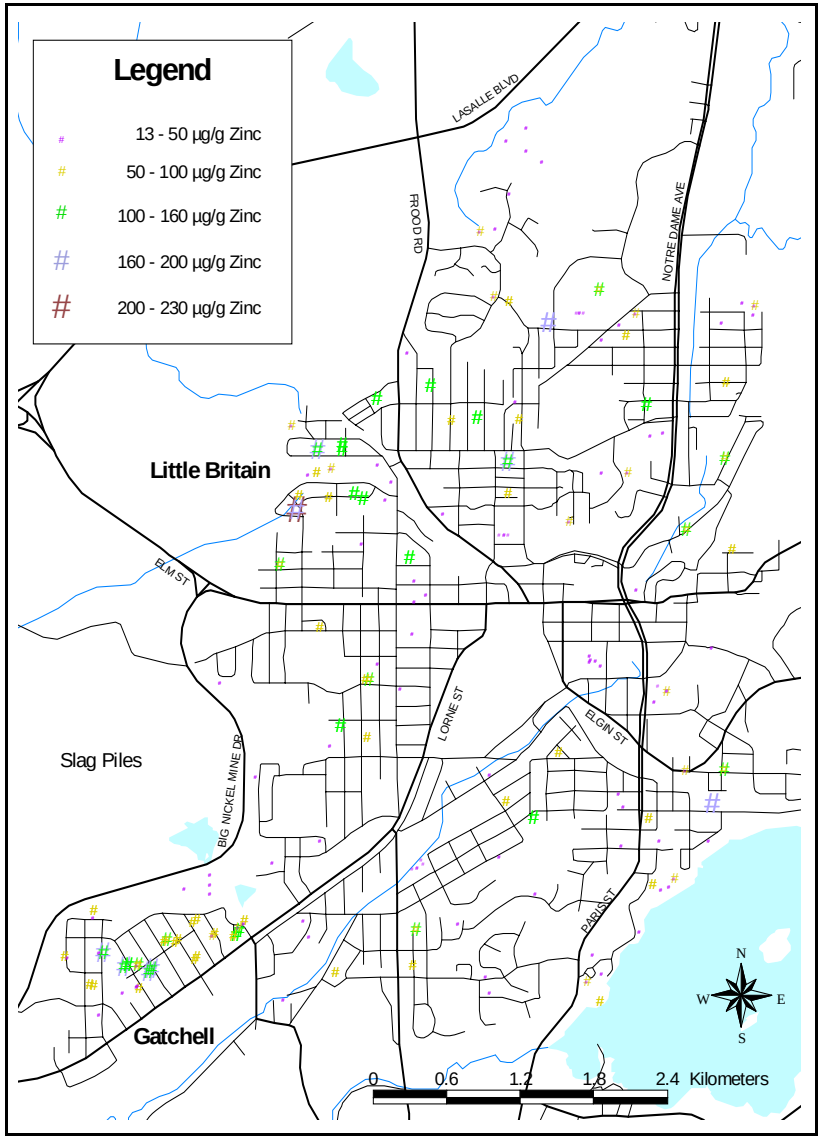
Map 10.2.4.12: Cd concentrations in urban10 - 20 cm soil in Sudbury Core



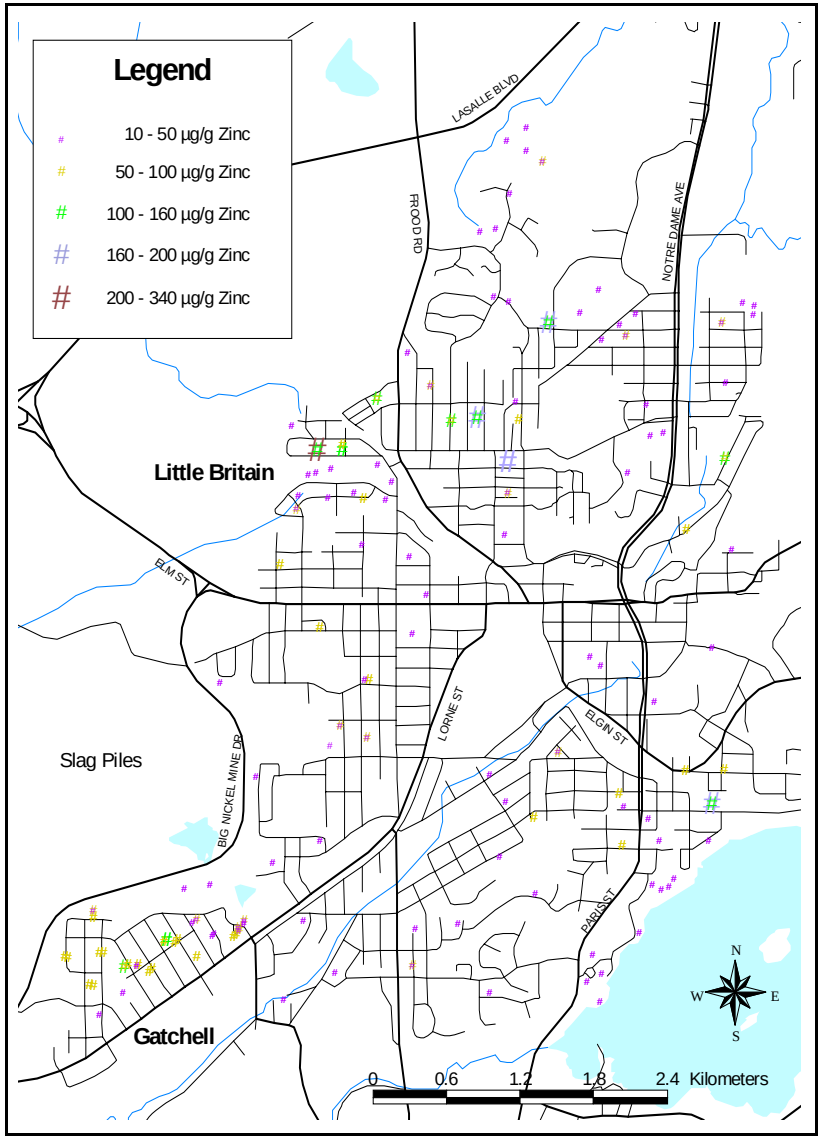
Map 10.2.4.13: Se concentrations in urban 0 - 5 cm soil in Sudbury Core



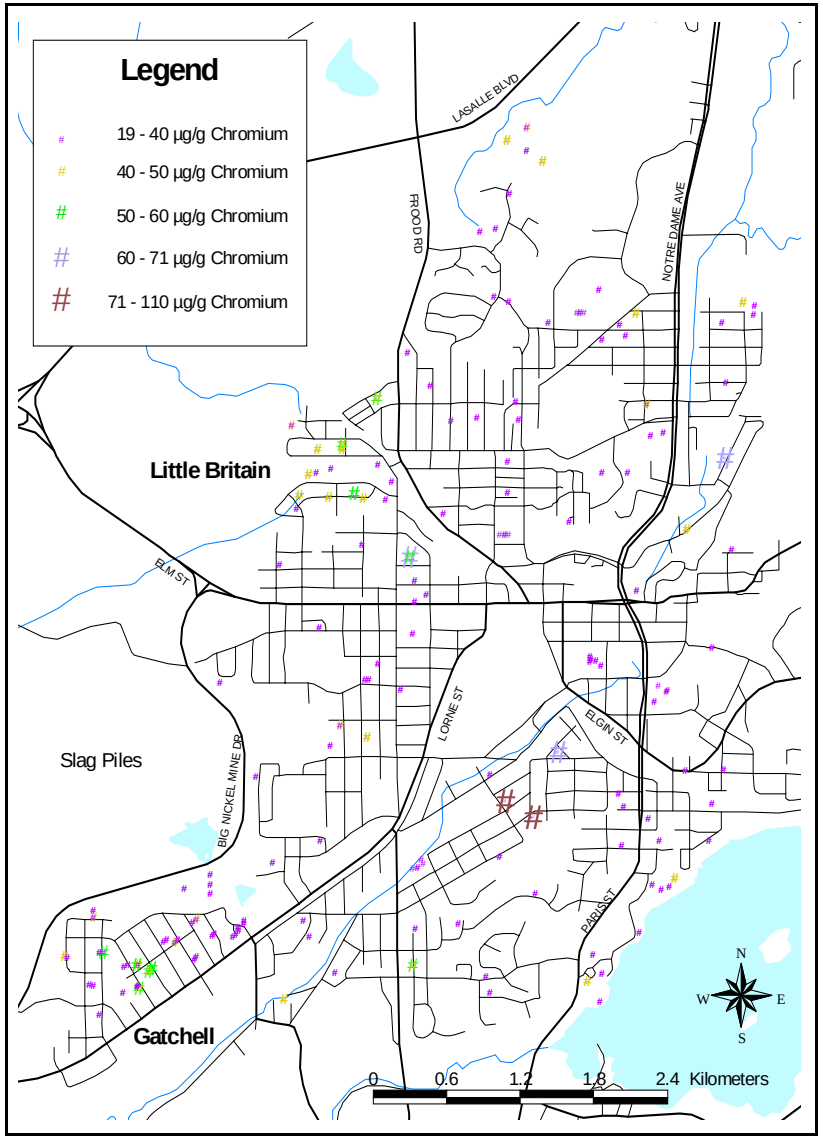
Map 10.2.4.14: Se concentrations in urban 10 - 20 cm soil in Sudbury Core



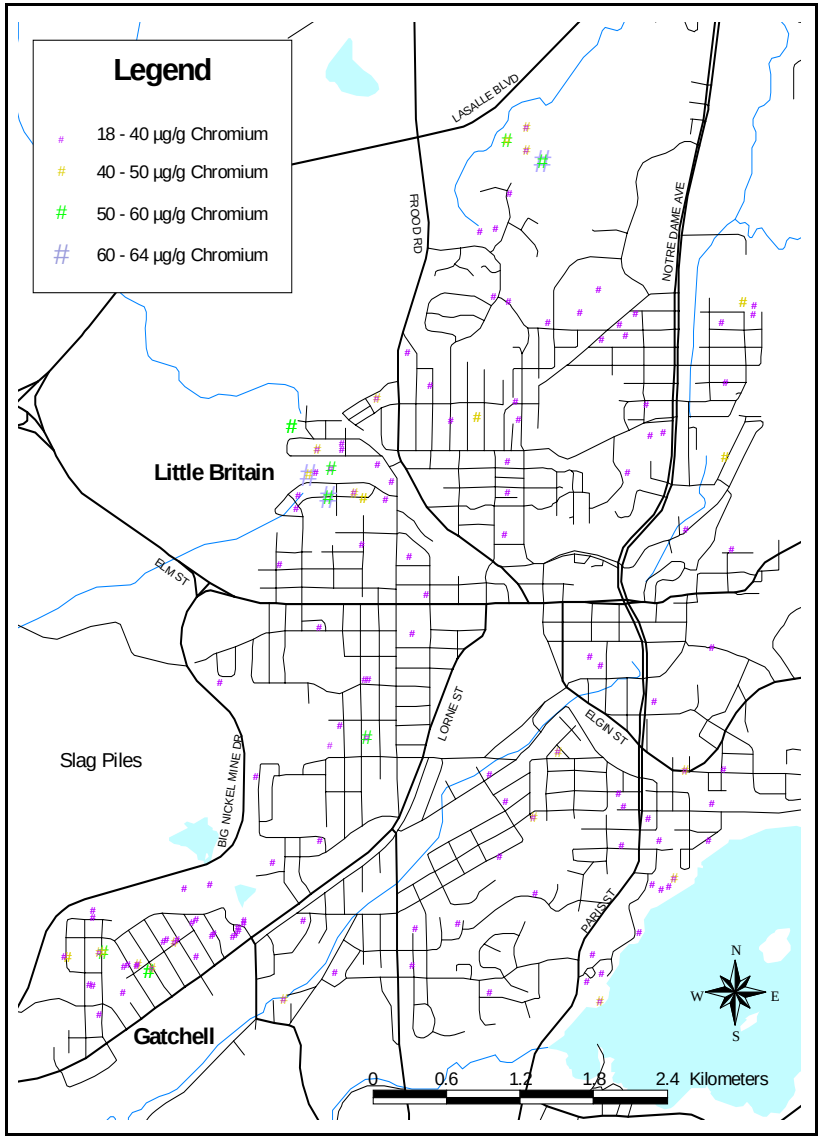
Map 10.2.4.15: Zn concentrations in urban 0 - 5 cm soil in Sudbury Core



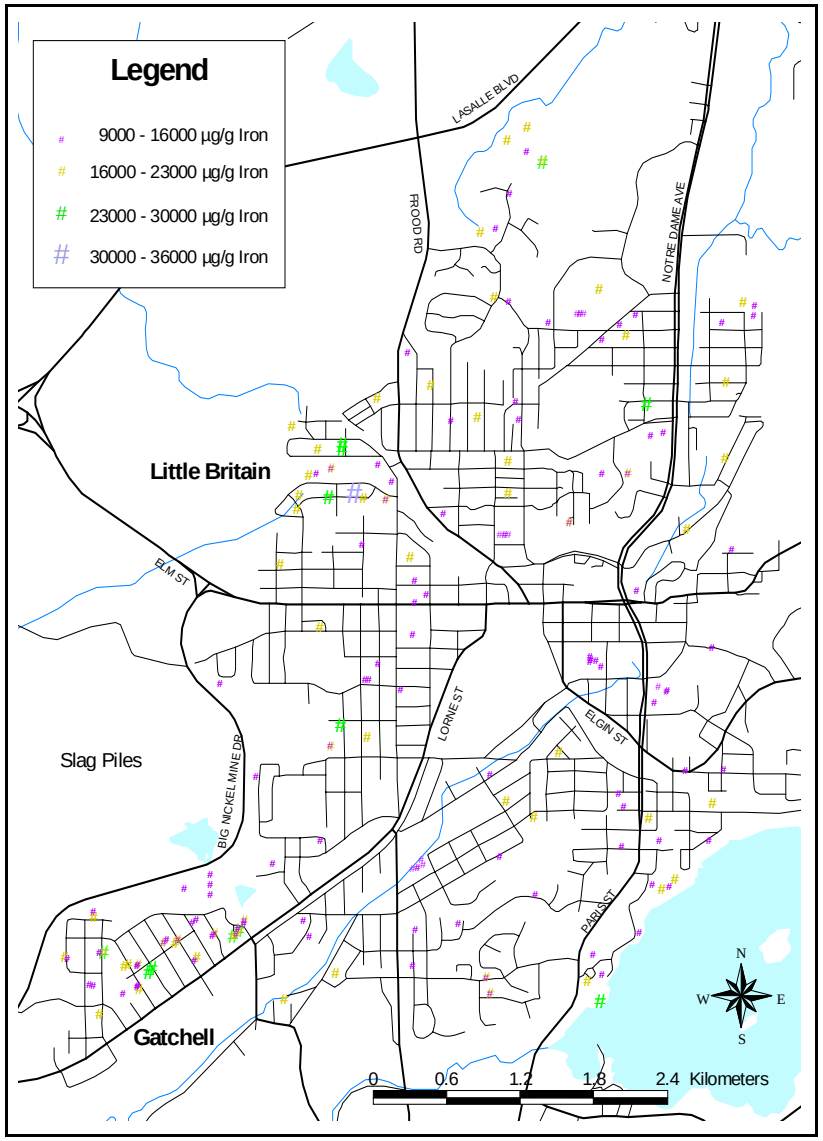
Map 10.2.4.16: Zn concentrations in urban 10 - 20 cm soil in Sudbury Core



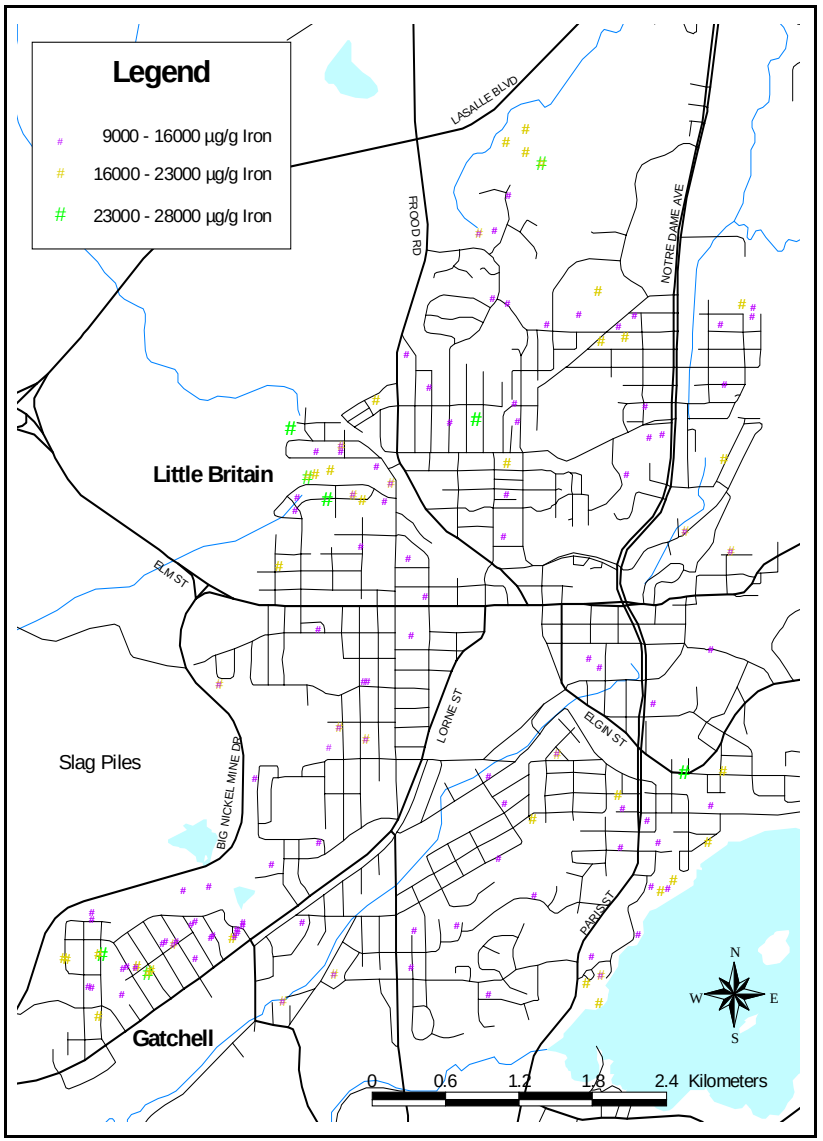
Map 10.2.4.17: Cr concentrations in urban 0 - 5 cm soil in Sudbury Core



Map 10.2.4.18: Cr concentrations in urban 10 - 20 cm in Sudbury Core

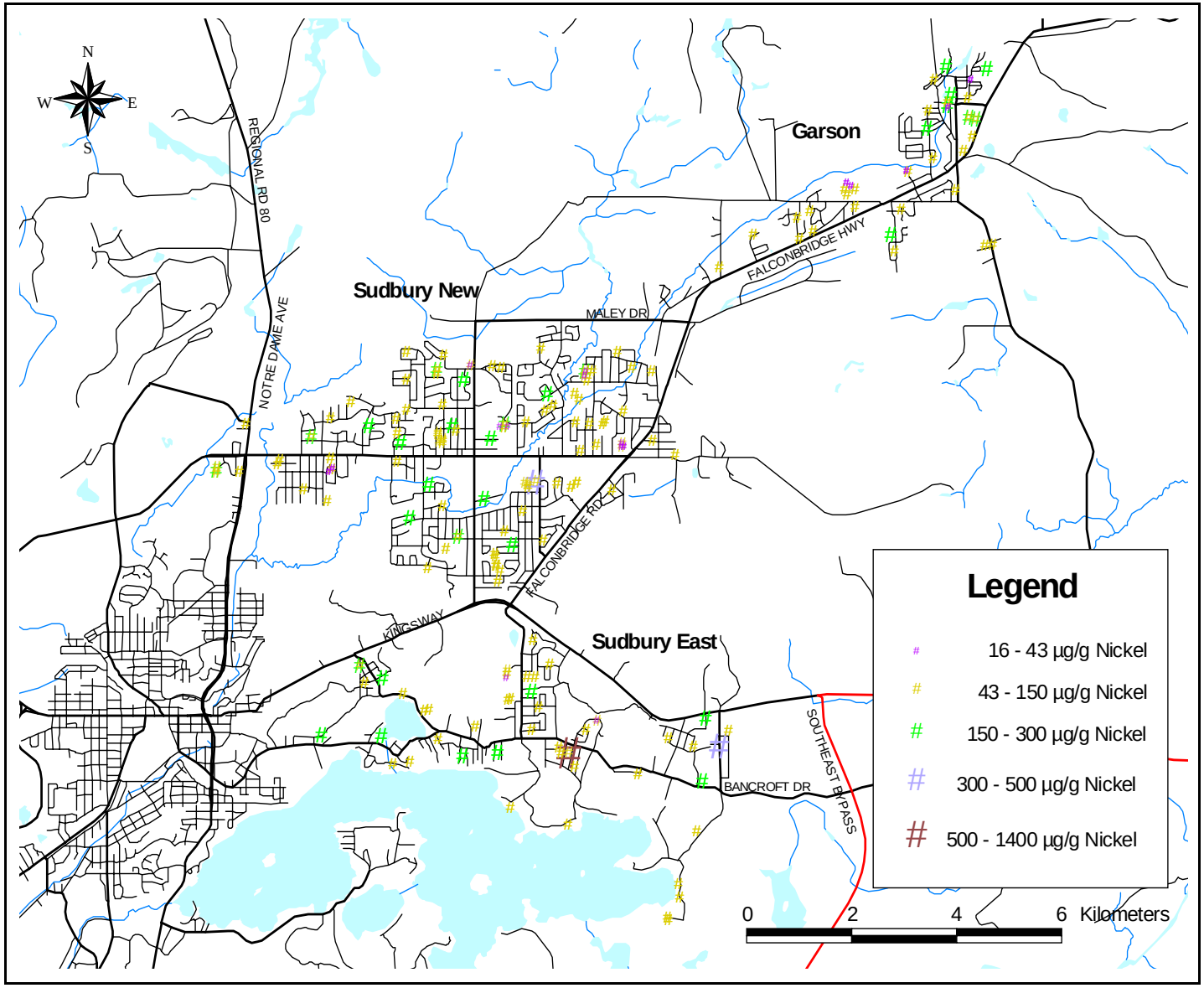


Map 10.2.4.19: Fe concentrations in urban 0 - 5 cm soil in Sudbury Core

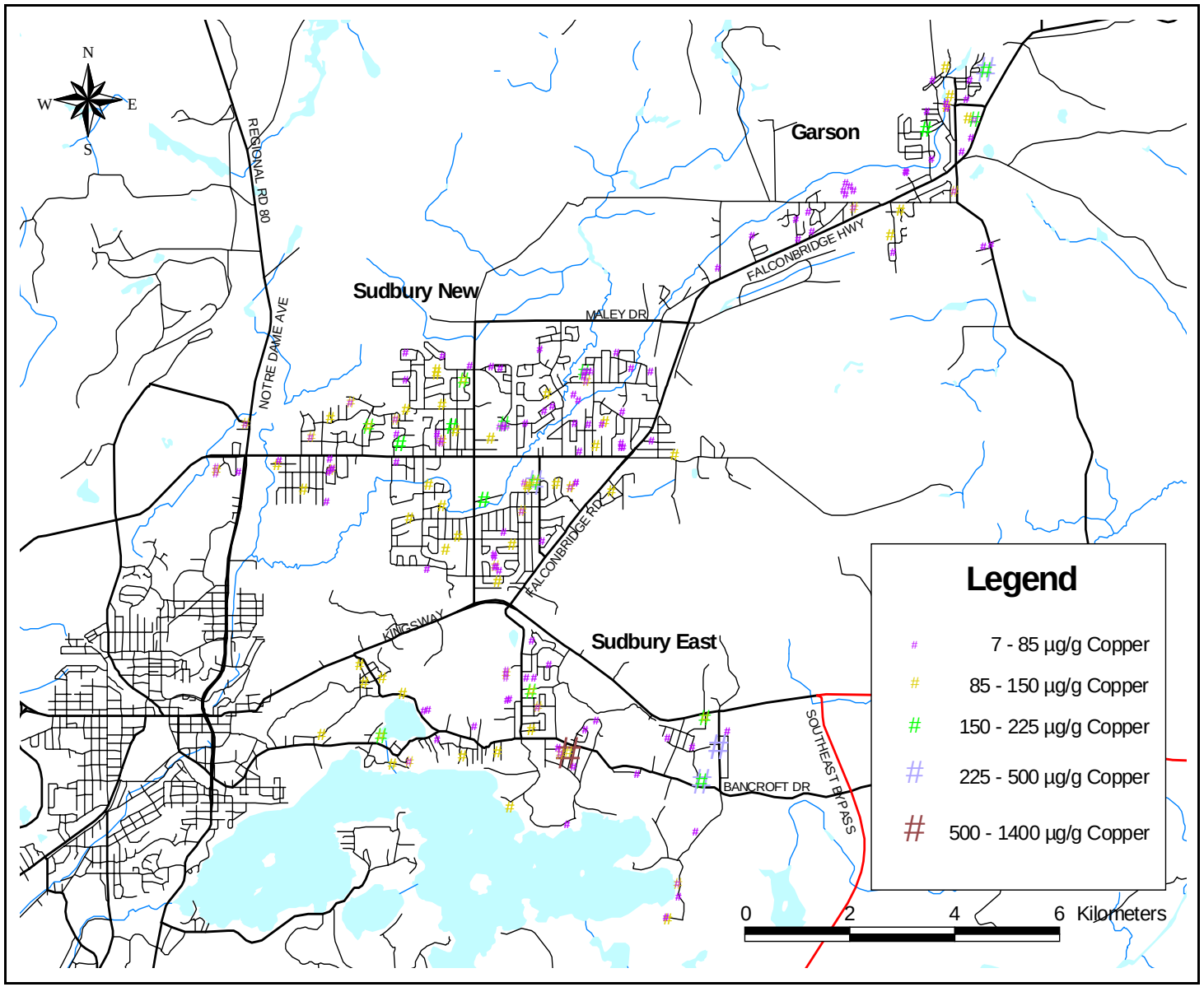


Map 10.2.4.20: Fe concentrations in urban 10 - 20 cm soil in Sudbury Core

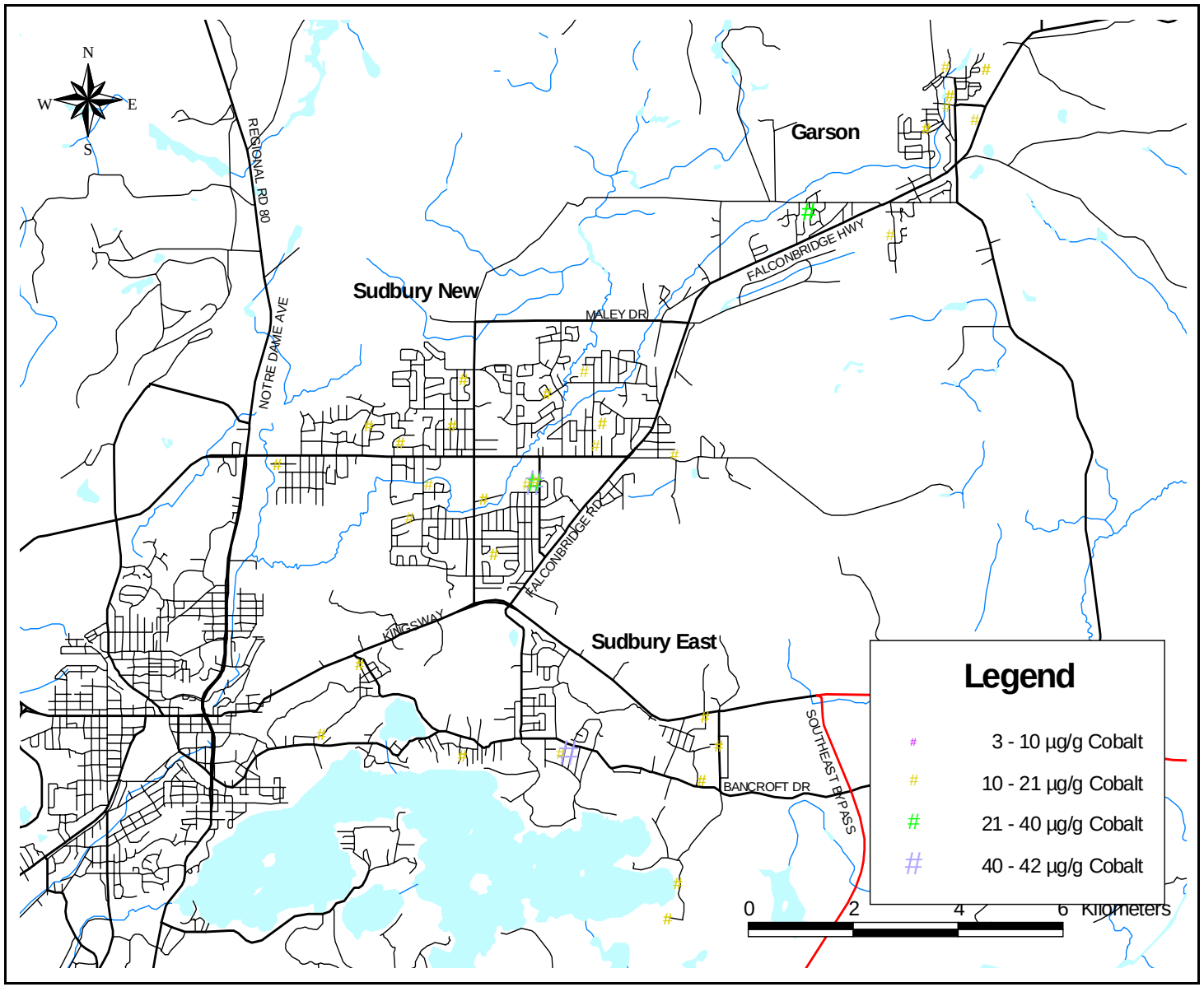
10.2.5 Sudbury New and East, and Garson



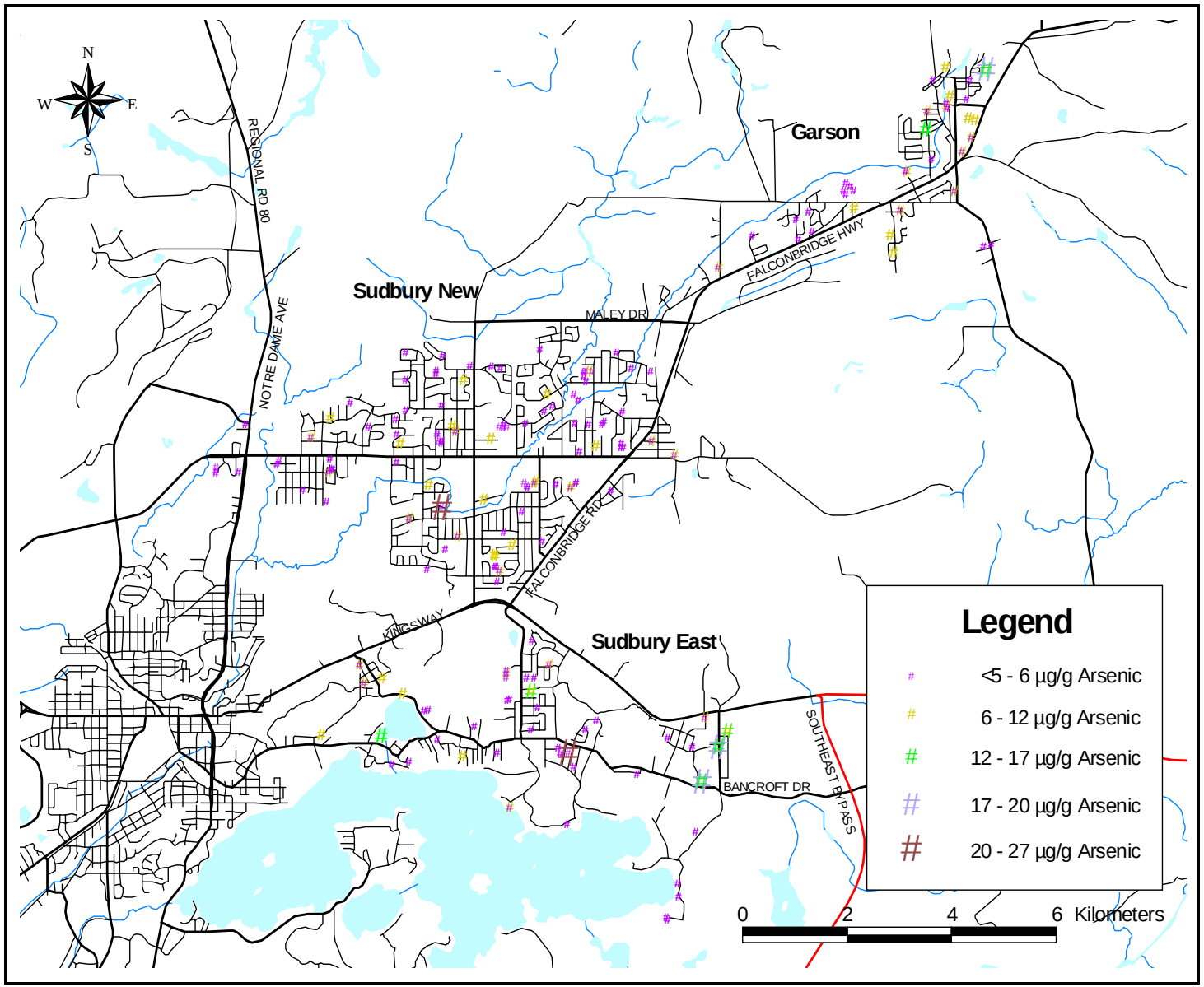
Map 10.2.5.1: Ni concentrations in urban 0 - 5 cm soil in Sudbury New and East, and Garson



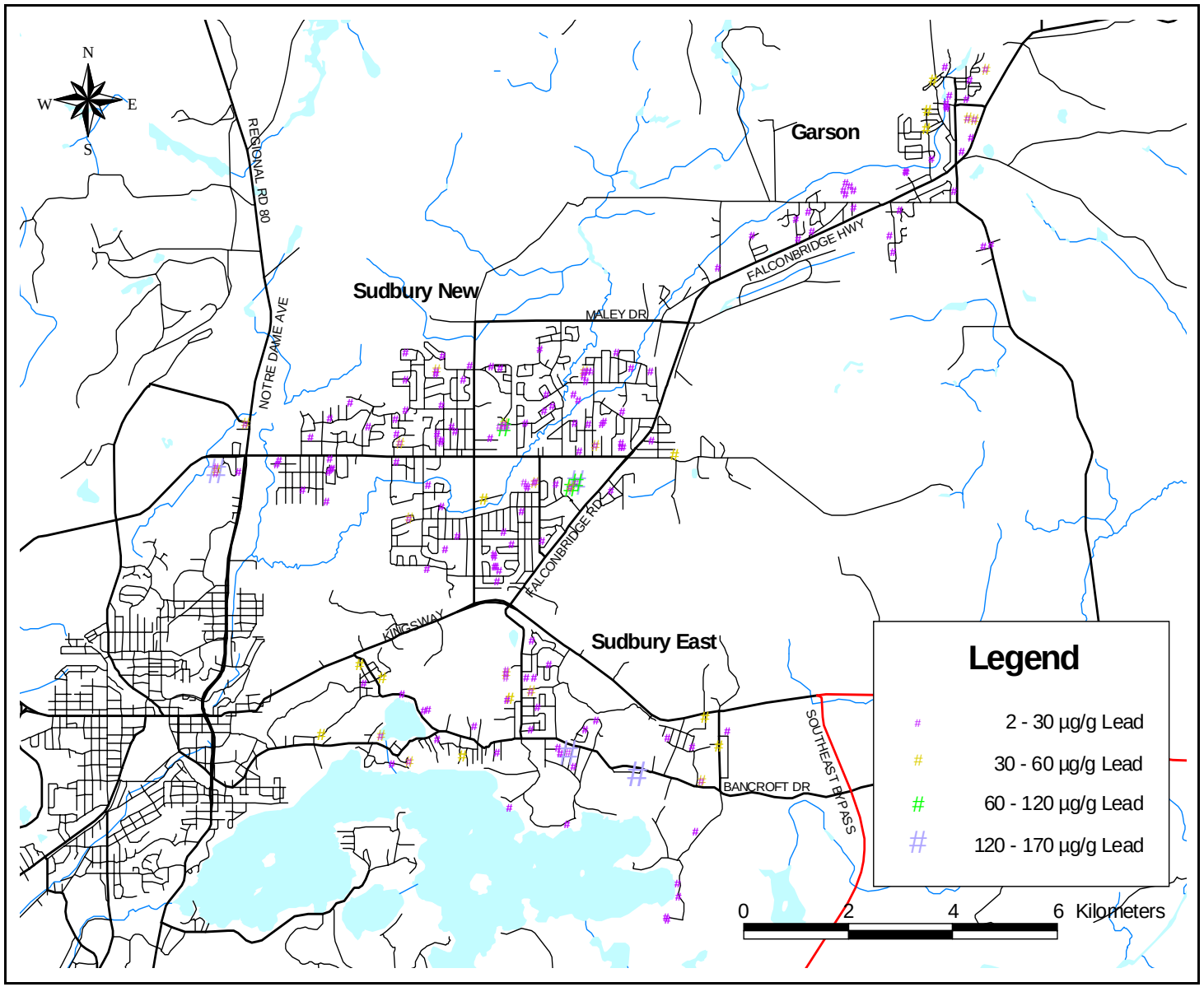
Map 10.2.5.2: Cu concentrations in urban 0 - 5 cm soil in Sudbury New and East, and Garson



Map 10.2.5.3: Co concentrations in urban 0 - 5 cm soil in Sudbury New and East, and Garson

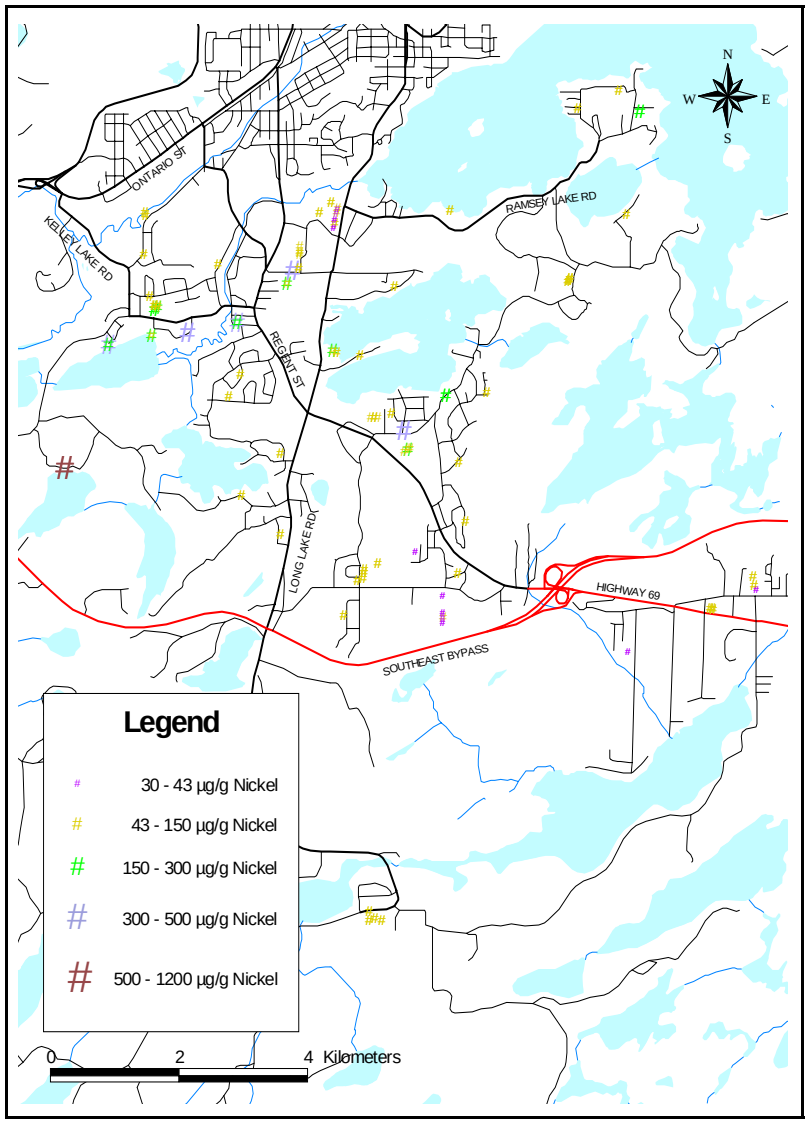


Map 10.2.5.4: As concentrations in urban 0 - 5 cm soil in Sudbury New and East, and Garson

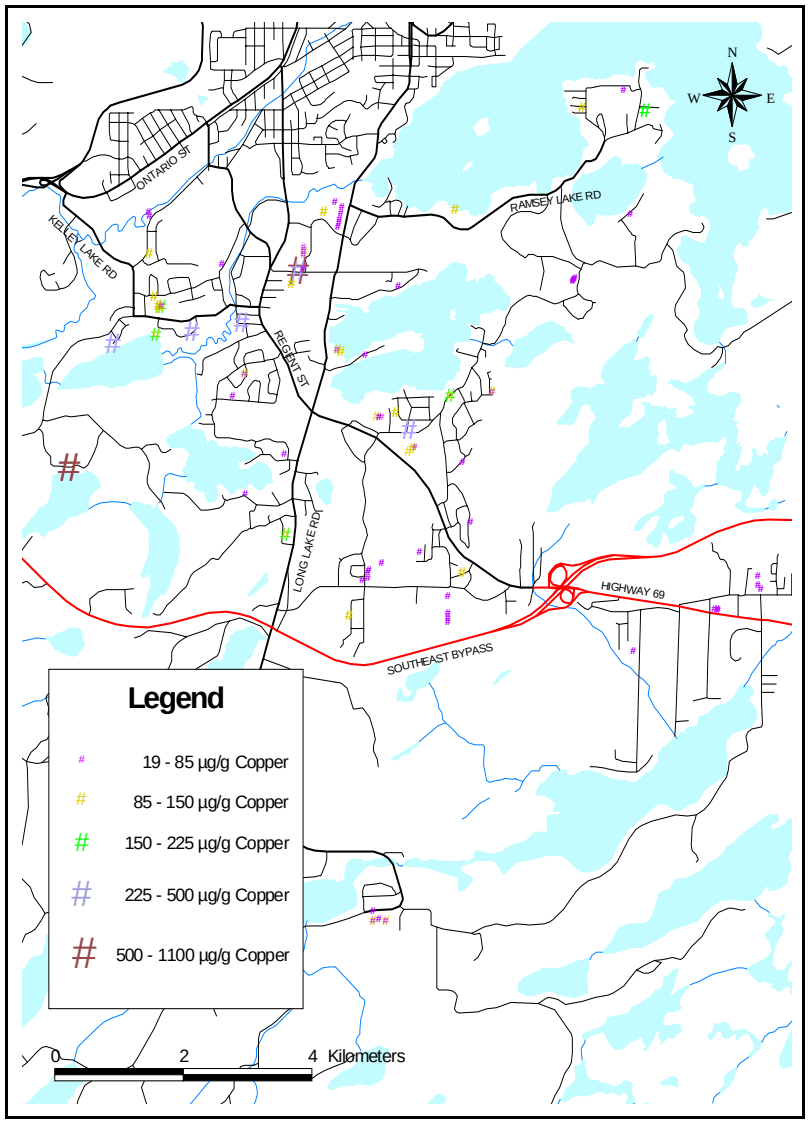


Map 10.2.5.5: Pb oncentrations in urban 0 - 5 cm soil in Sudbury New and East, and Garson

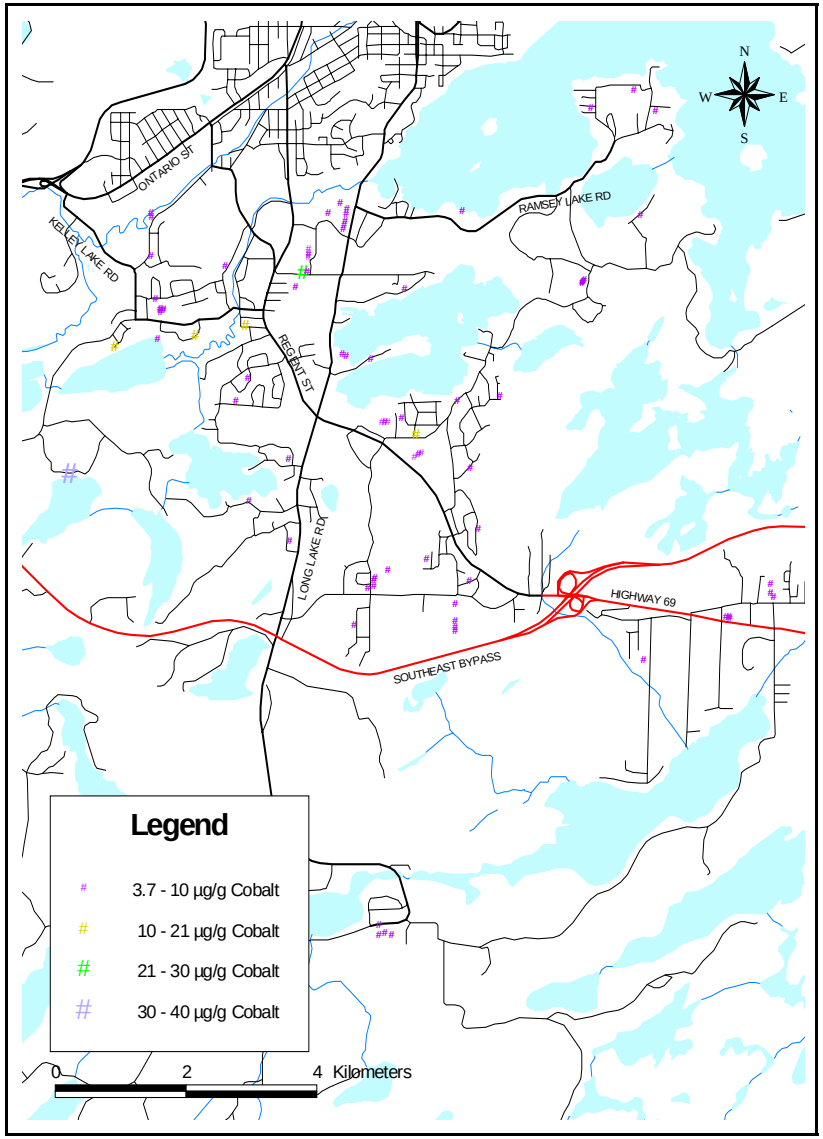
10.2.6 Sudbury South



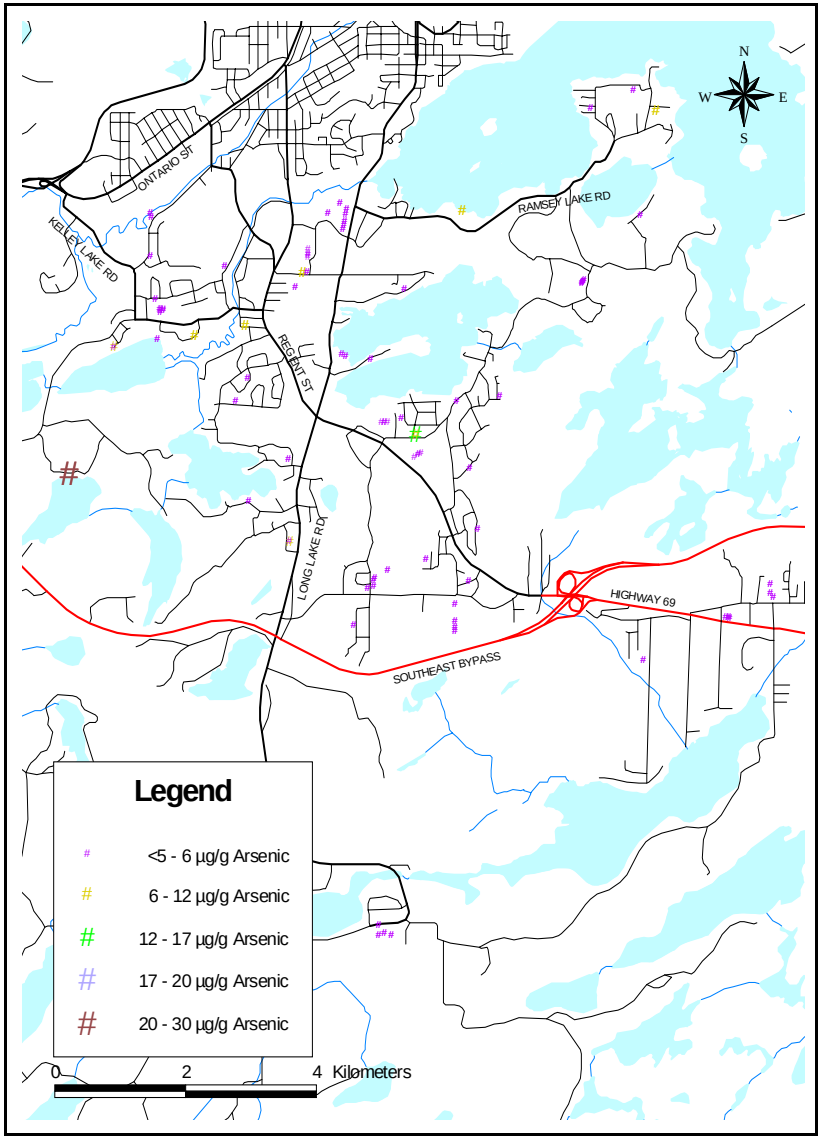
Map 10.2.6.1: Ni concentrations in urban 0 - 5 cm soil in Sudbury South



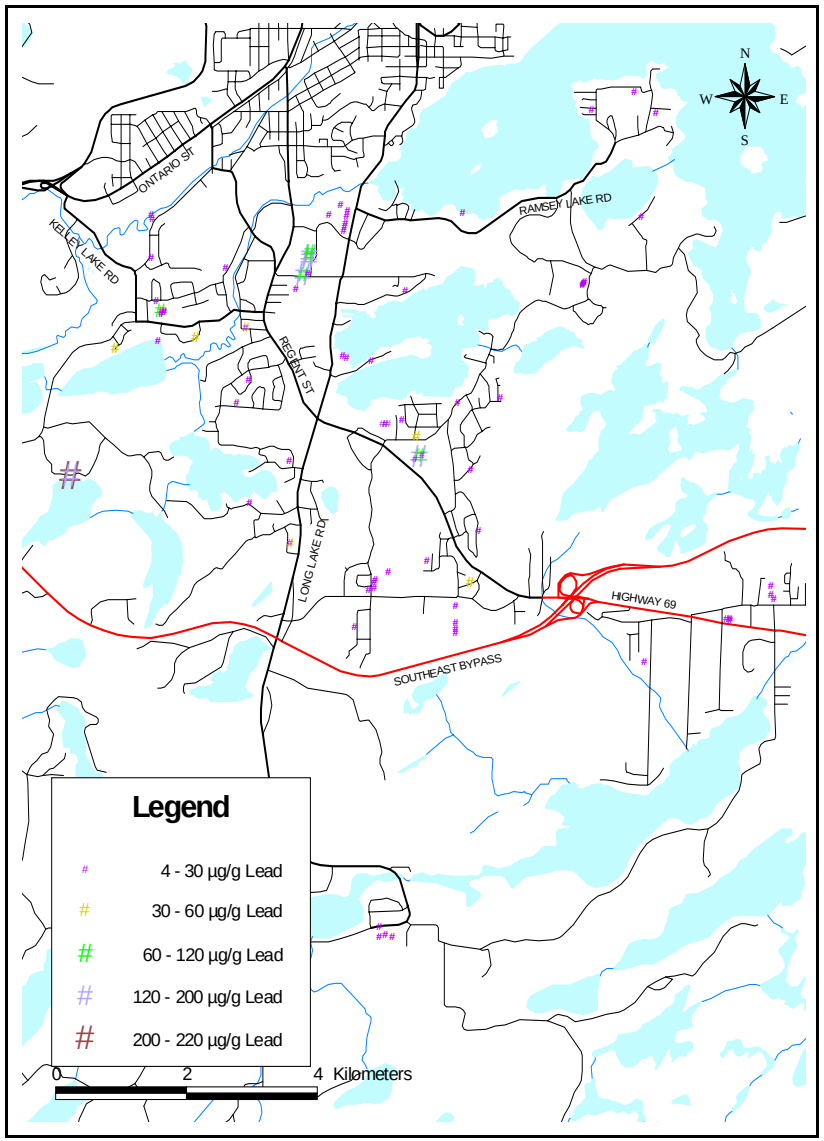
Map 10.2.6.2: Cu concentrations in urban 0 - 5 cm soil in Sudbury South



Map 10.2.6.3: Co concentrations in urban 0 - 5 cm soil in Sudbury South

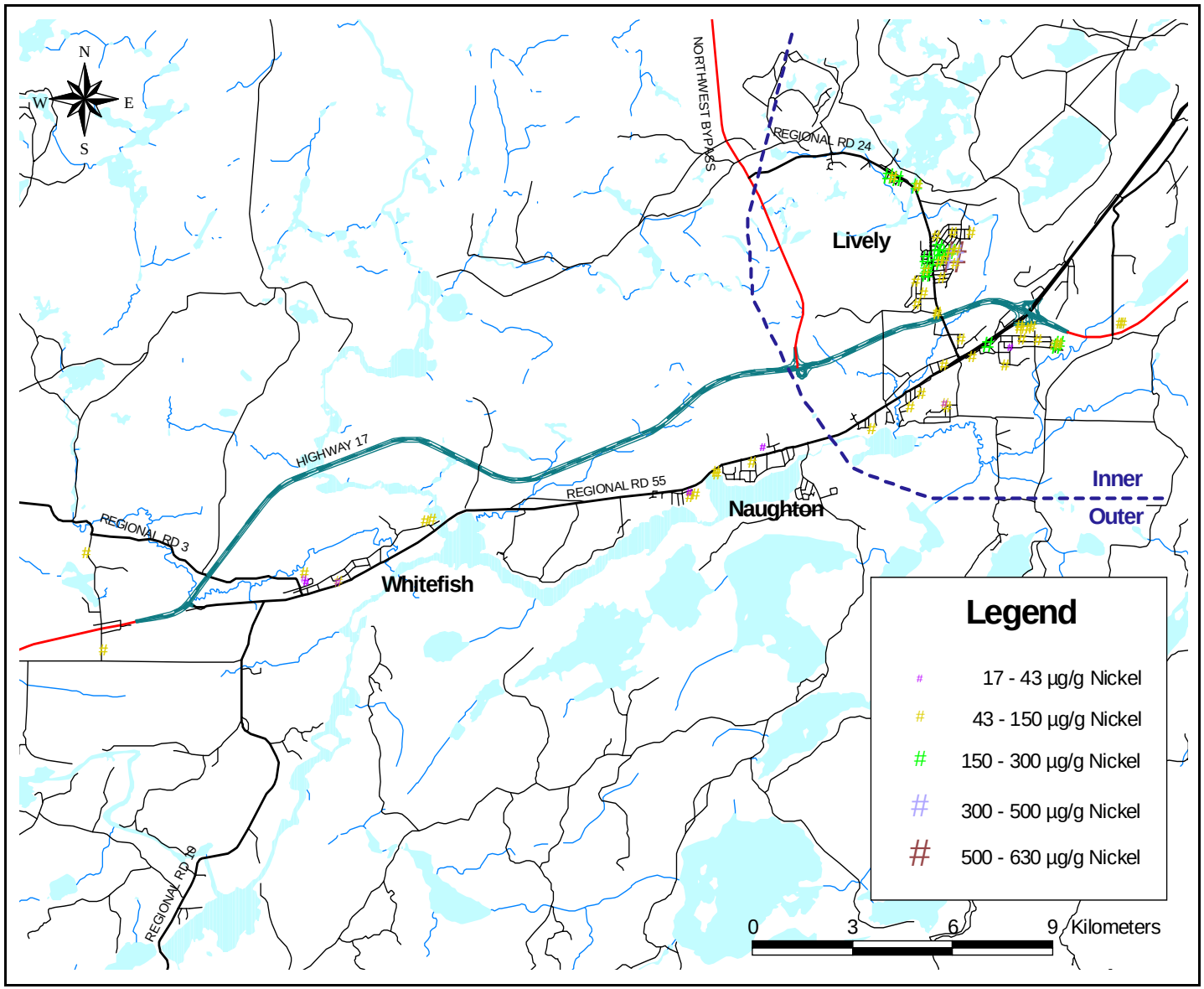


Map 10.2.6.4: As concentrations in urban 0 - 5 cm soil in Sudbury South

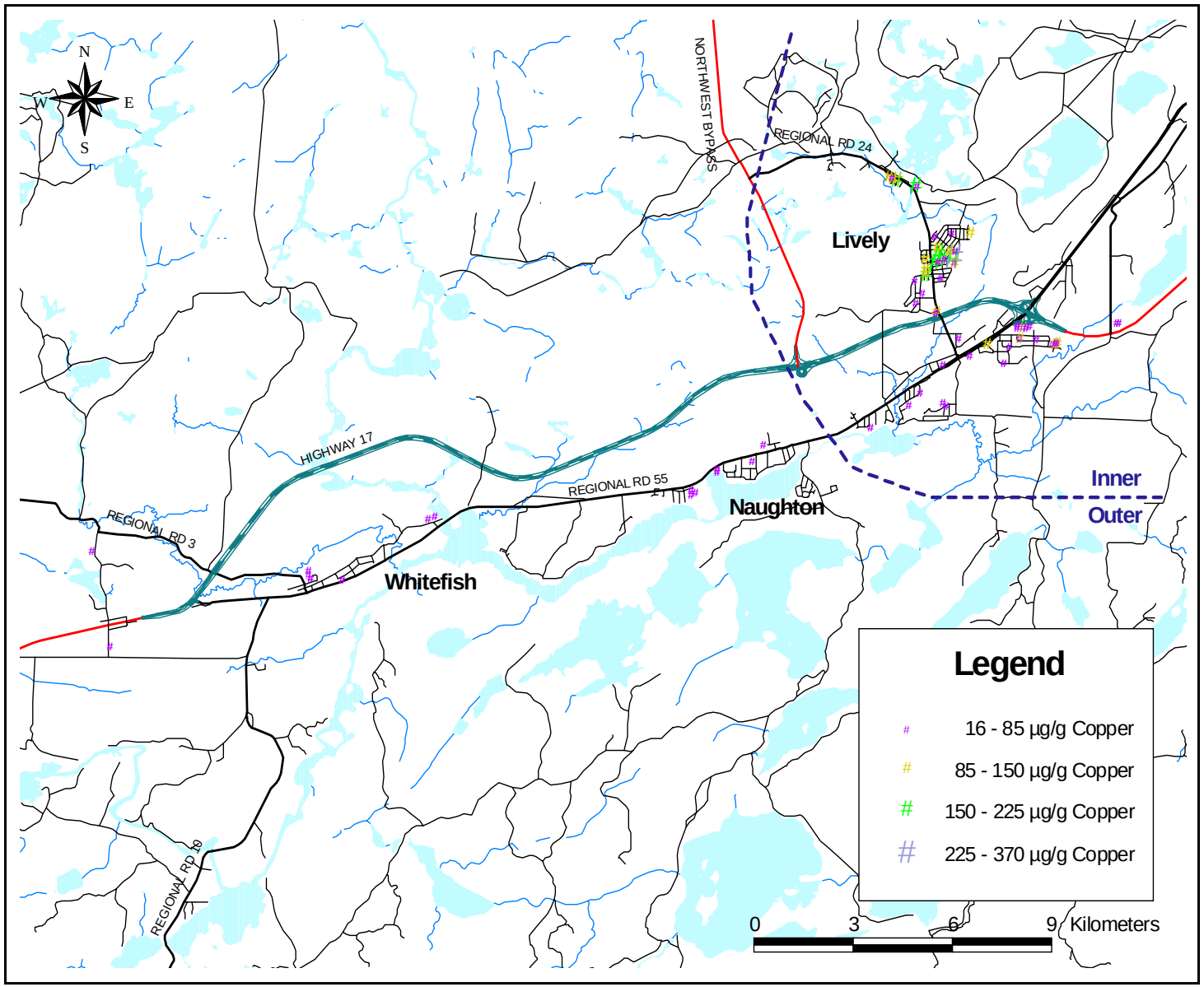


Map 10.2.6.5: Pb concentrations in urban 0 - 5 cm soil in Sudbury South

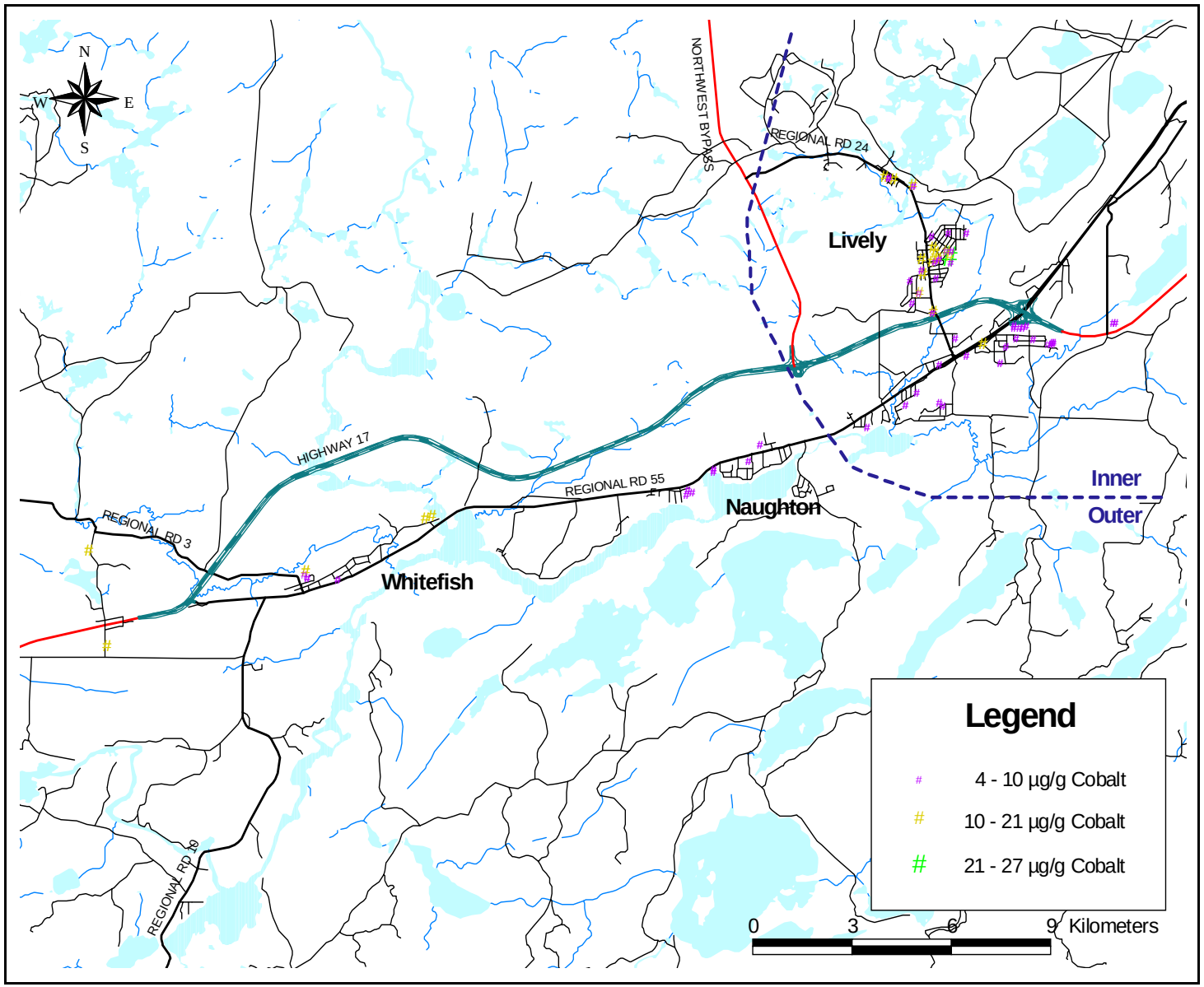
10.2.7 Sudbury West



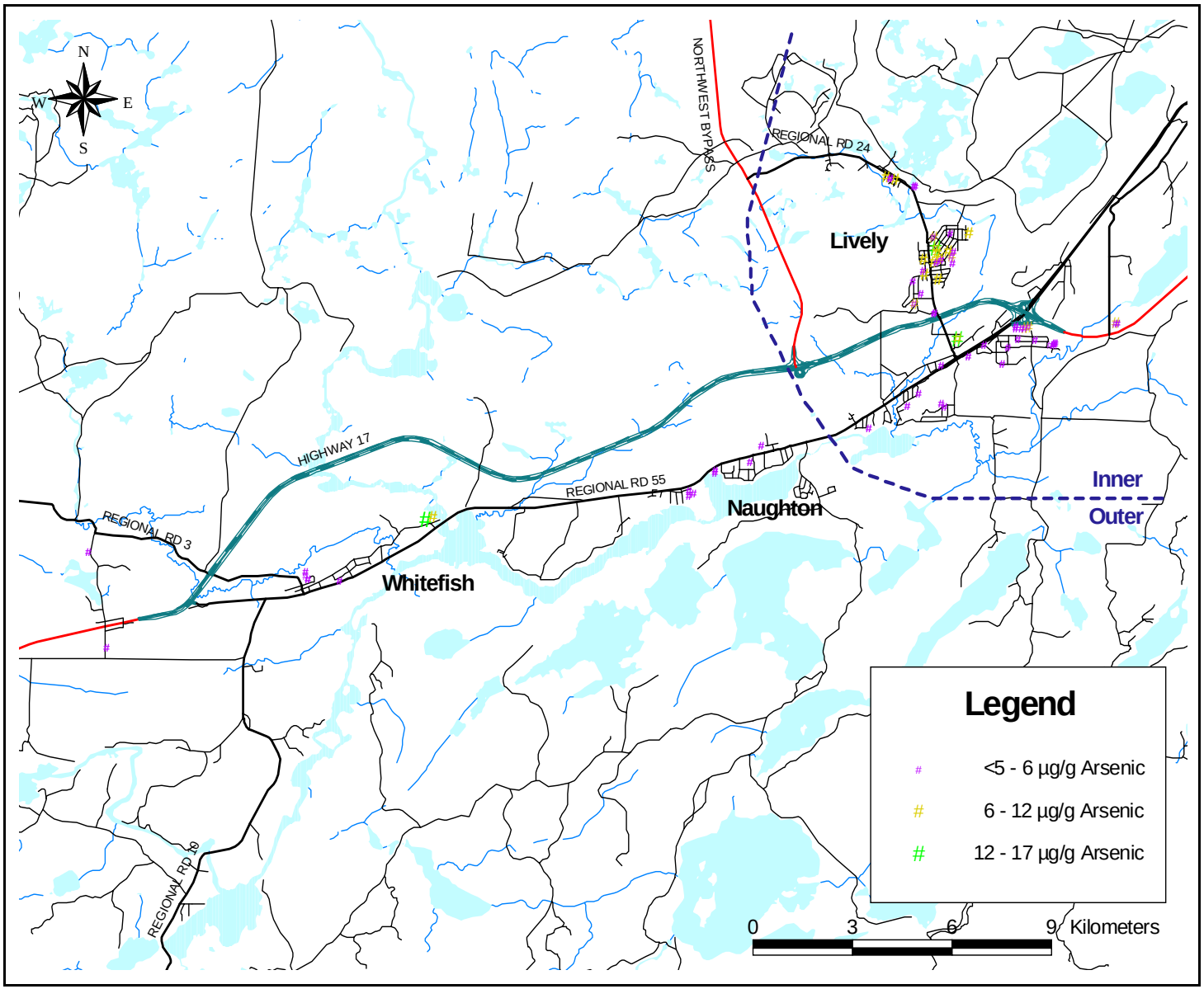
Map 10.2.7.1: Ni concentrations in urban 0 - 5 cm soil in Sudbury West



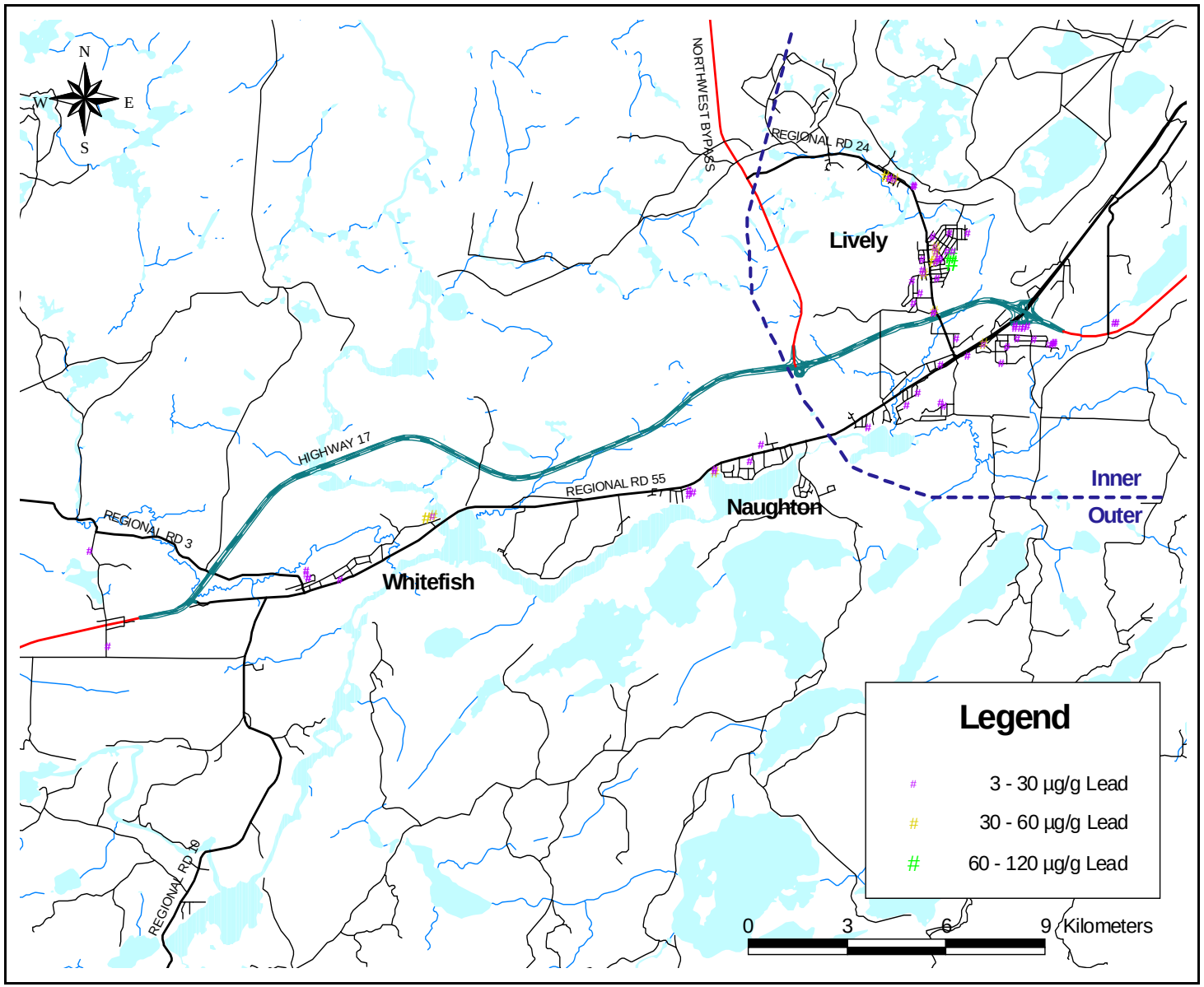
Map 10.2.7.2: Cu concentrations in urban 0 - 5 cm soil in Sudbury West



Map 10.2.7.3: Co concentrations in urban 0 - 5 cm soil in Sudbury West

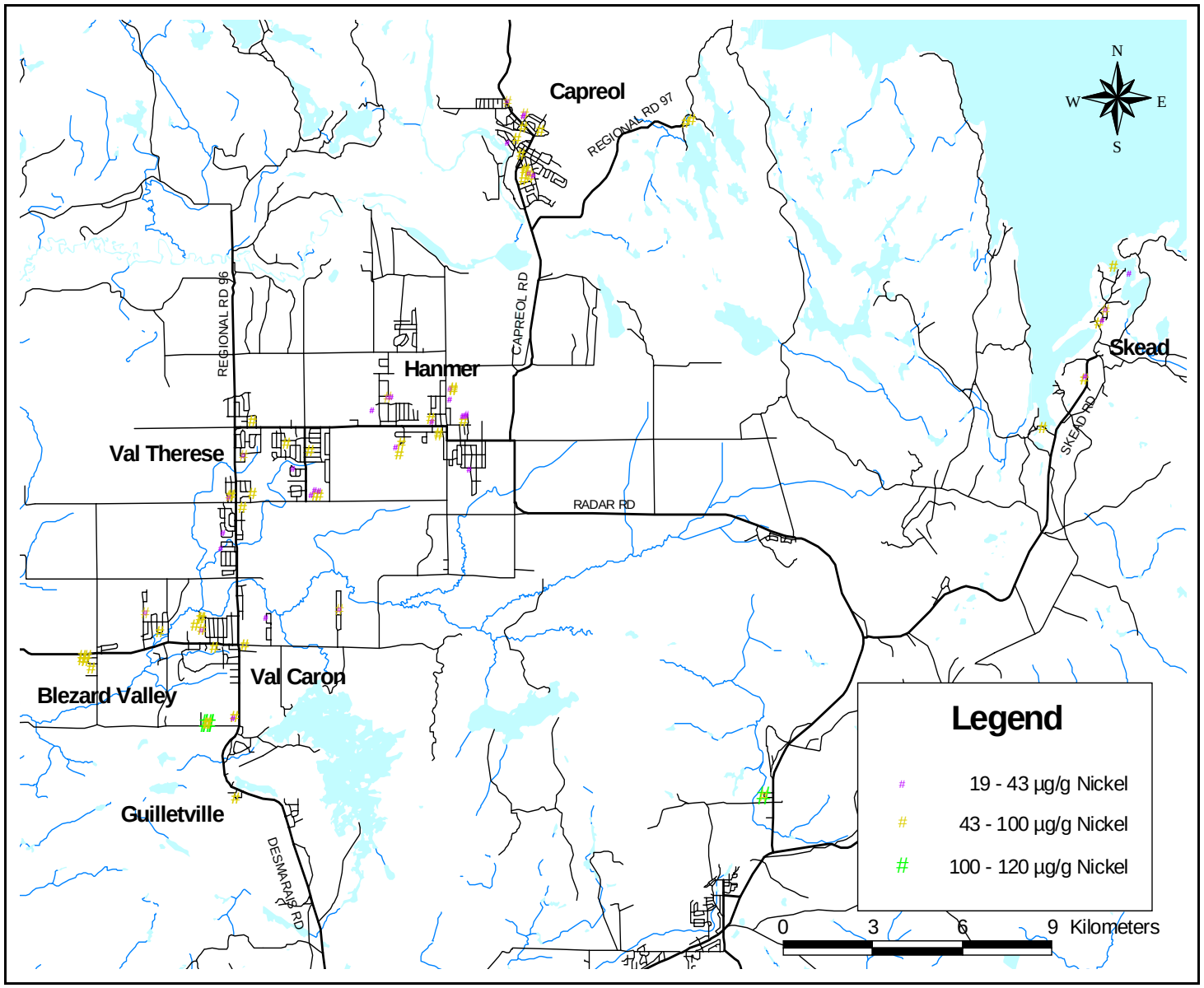


Map 10.2.7.4: As concentrations in urban 0 - 5 cm soil in Sudbury West

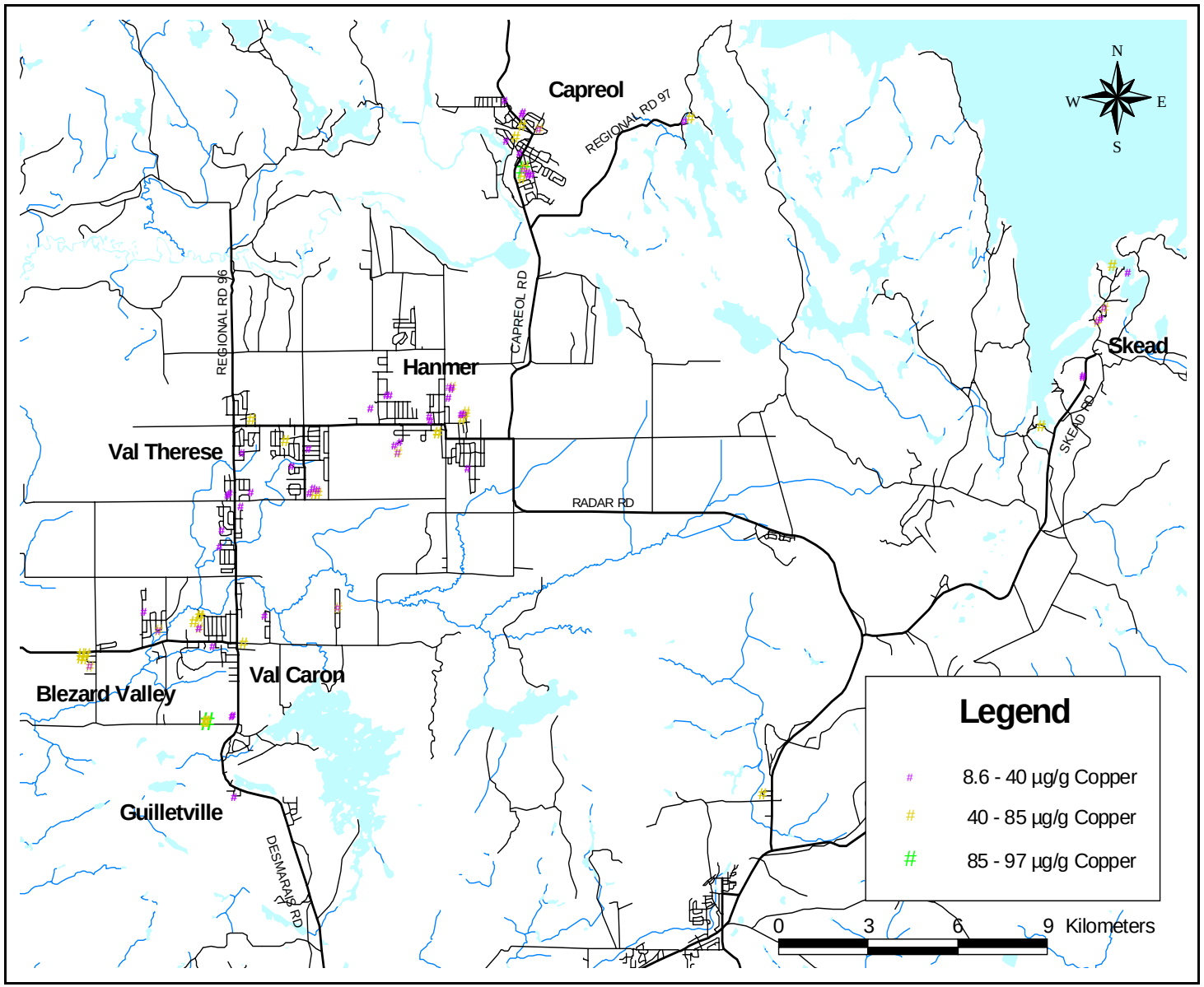


Map 10.2.7.5: Pb concentrations in urban 0 - 5 cm soil in Sudbury West

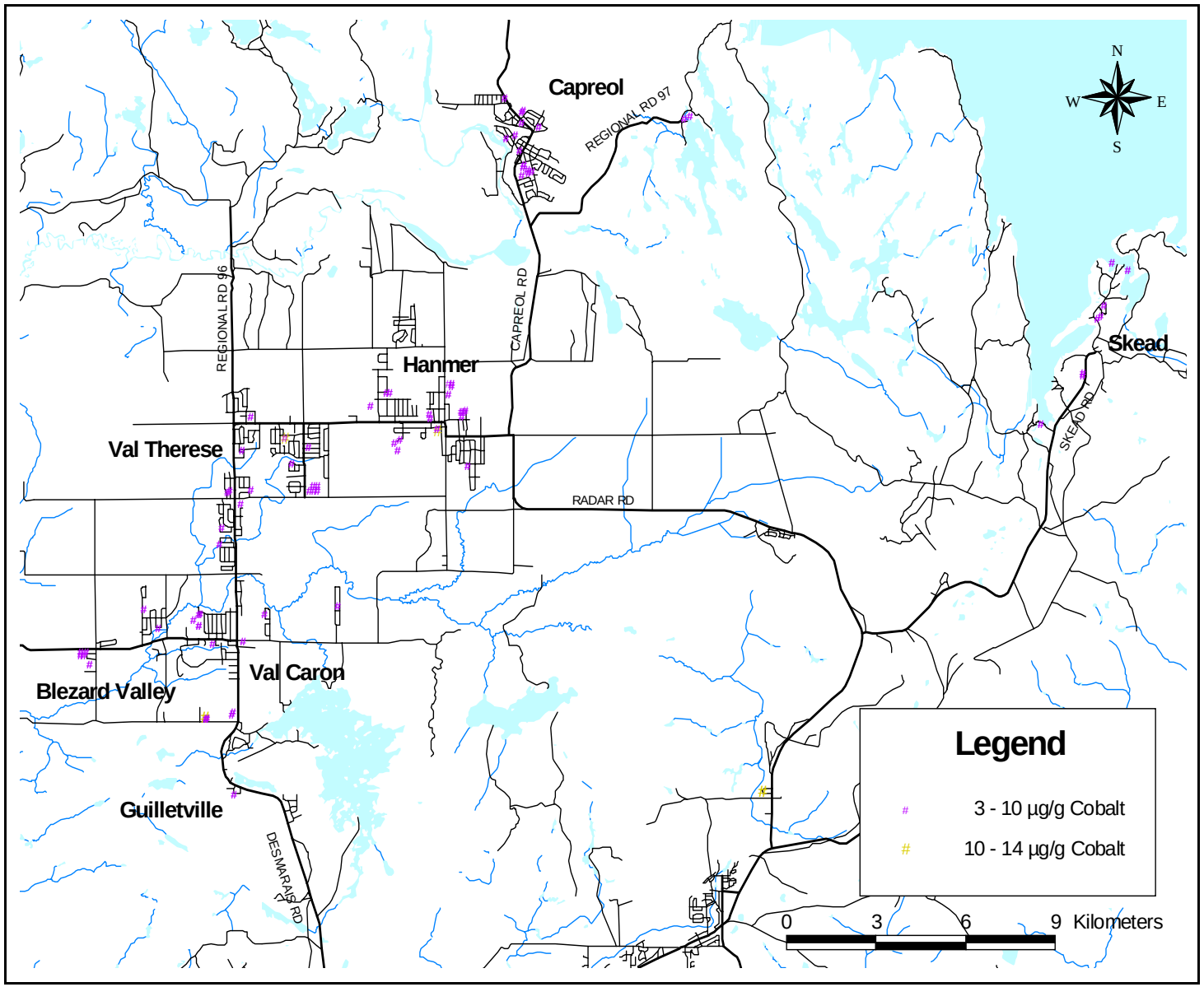
10.2.8 Valley East



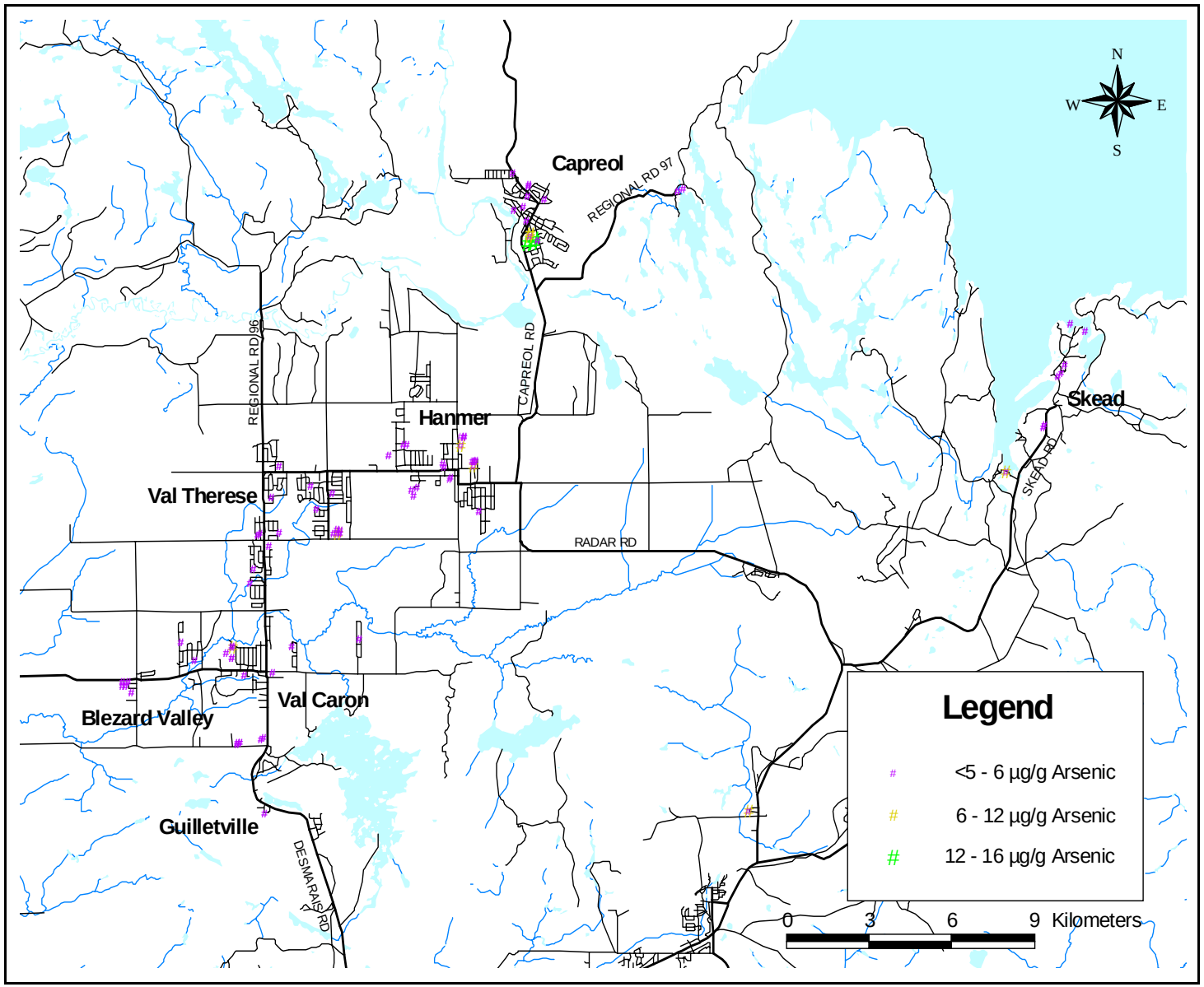
Map 10.2.8.1: Ni concentrations in urban 0 - 5 cm soil in Valley East



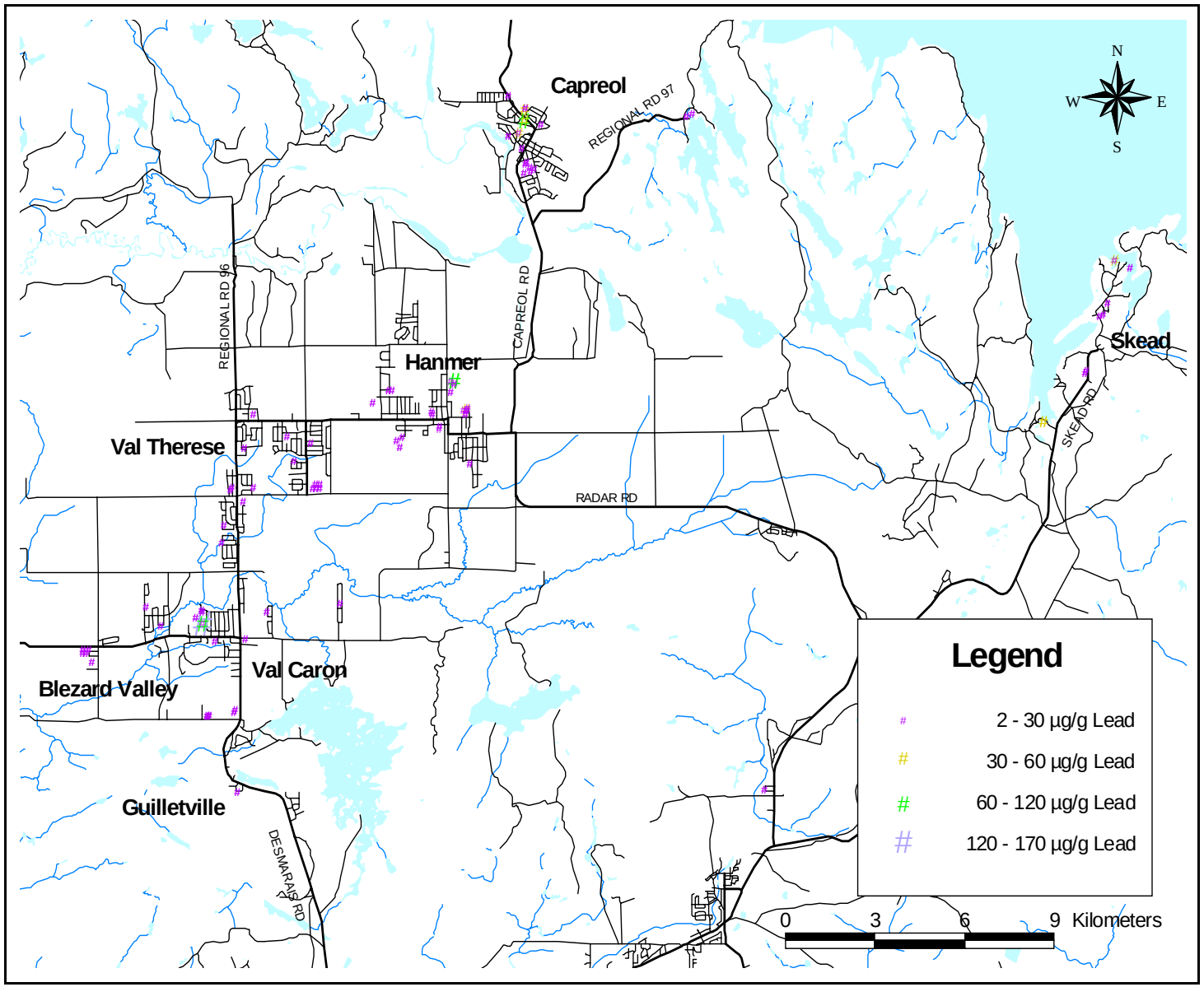
Map 10.2.8.2: Cu concentrations in urban 0 - 5 cm soil in Valley East



Map 10.2.8.3: Co concentrations in urban 0 - 5 cm soil in Valley East

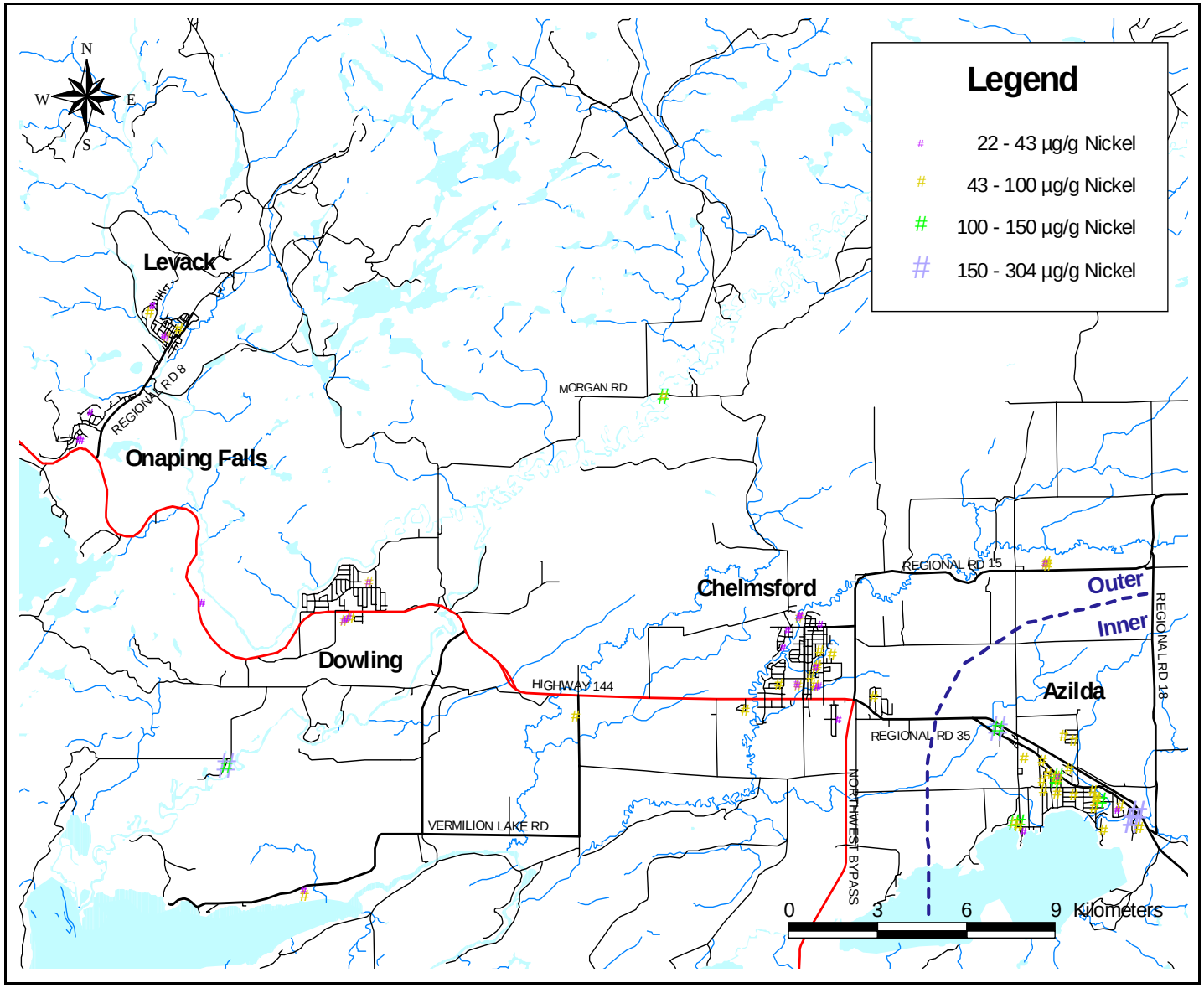


Map 10.2.8.4: As concentrations in urban 0 - 5 cm soil in Valley East

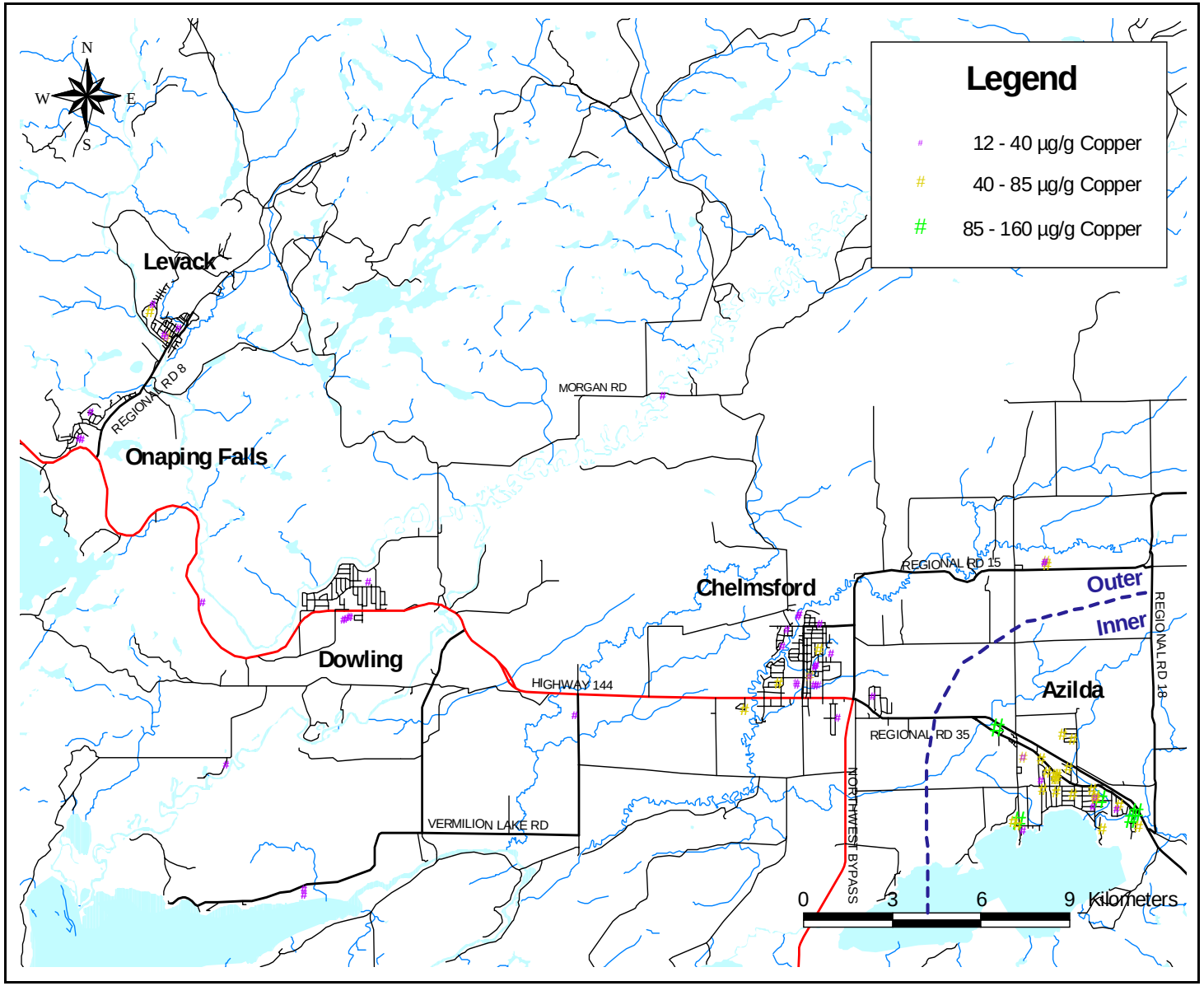


Map 10.2.8.5: Pb concentrations in urban 0 - 5 cm soil in Valley East

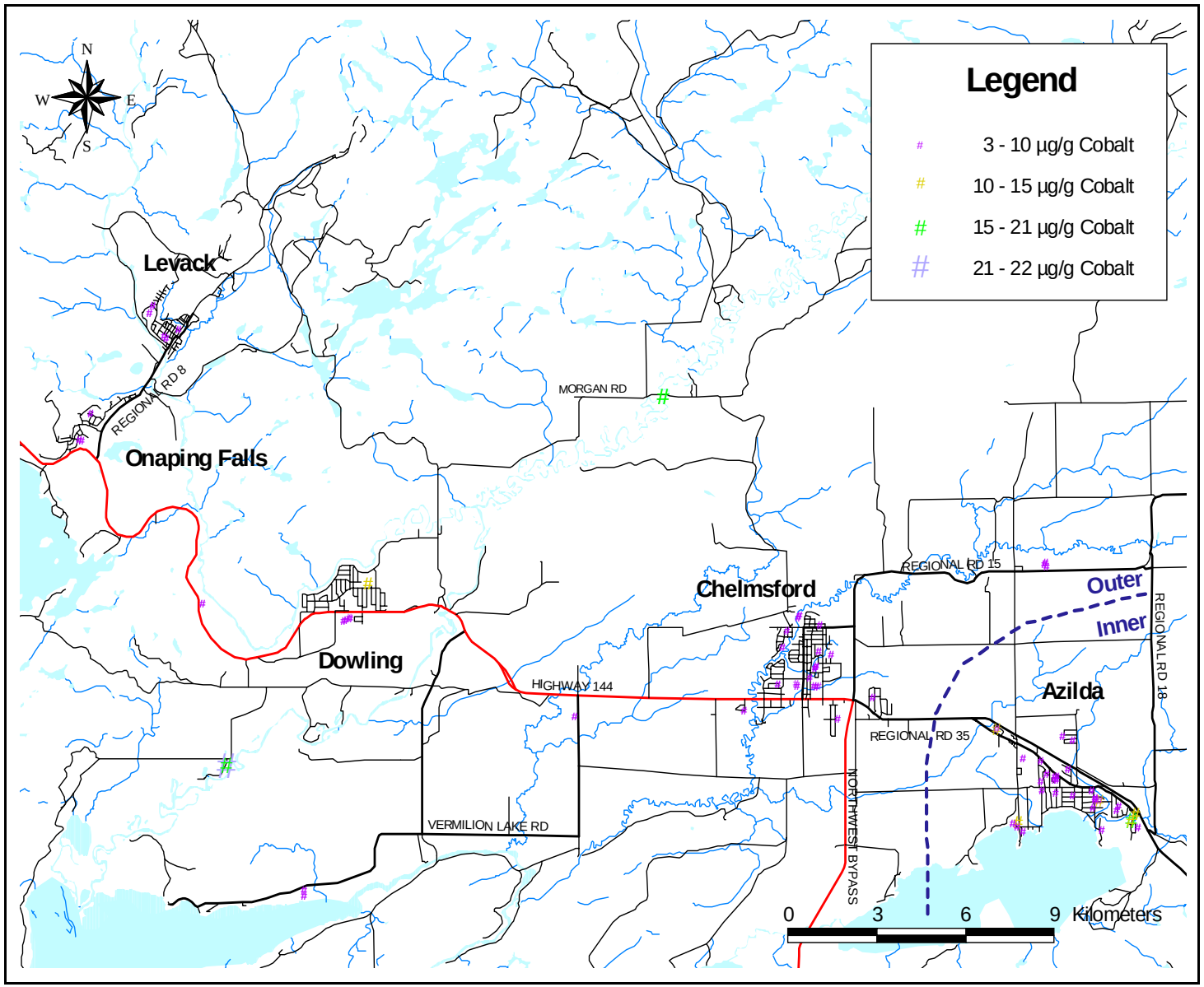
10.2.9 Valley West



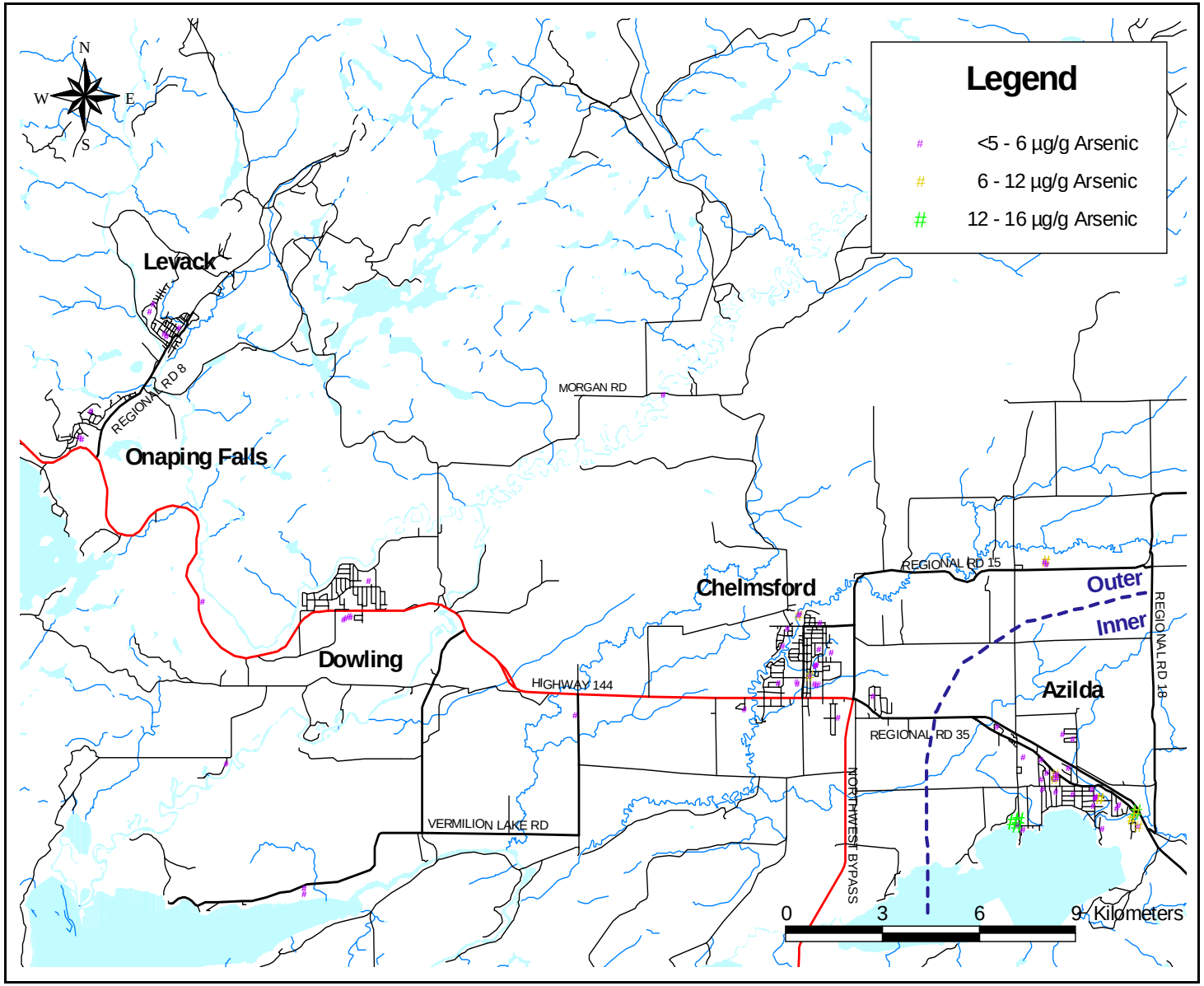
Map 10.2.9.1: Ni concentrations in urban 0 - 5 cm soil in Valley West



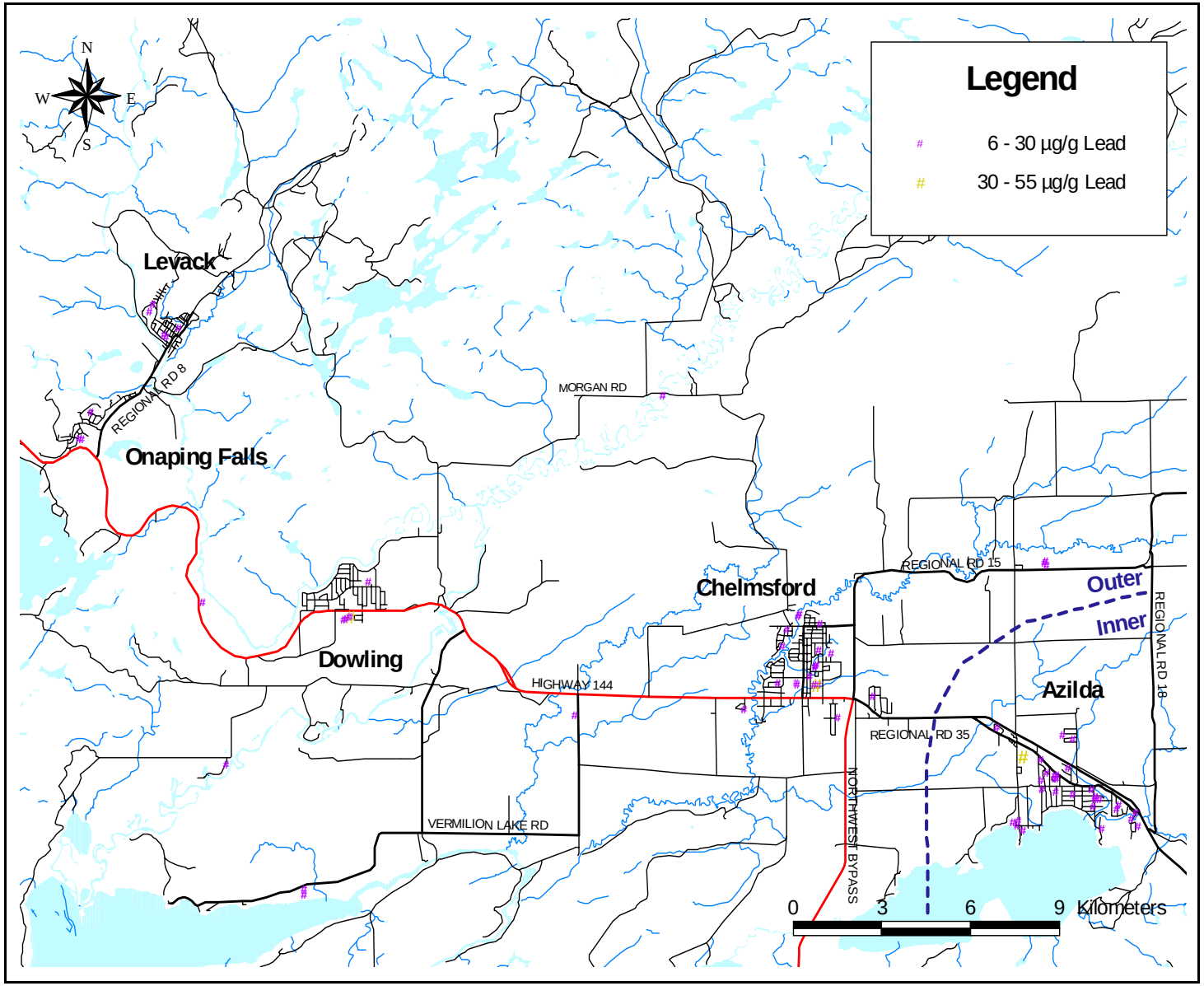
Map 10.2.9.2: Cu concentrations in urban 0 - 5 cm soil in Valley West



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)

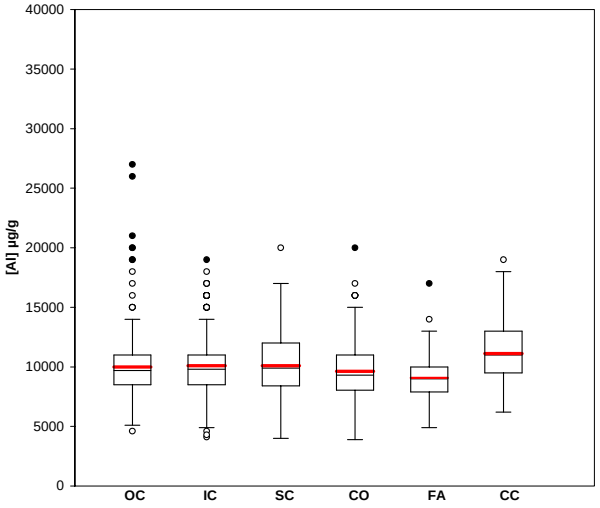


Figure 10.3.5.1: Aluminum, 0 to 5 cm, by Communities

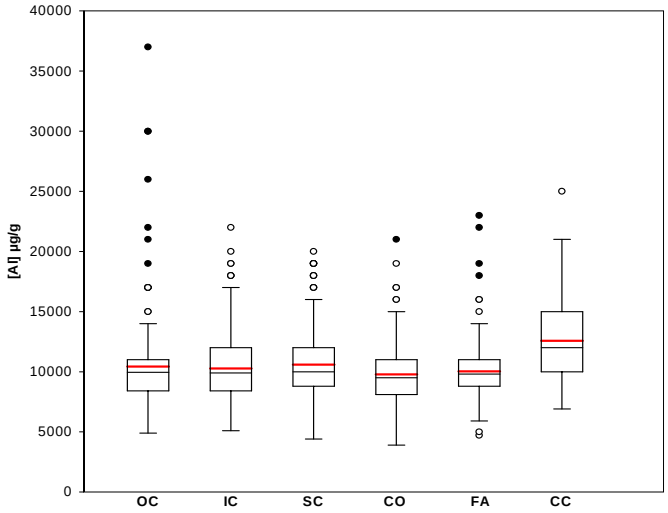


Figure 10.3.5.1b: Aluminum, 5 to 10 cm, by Communities

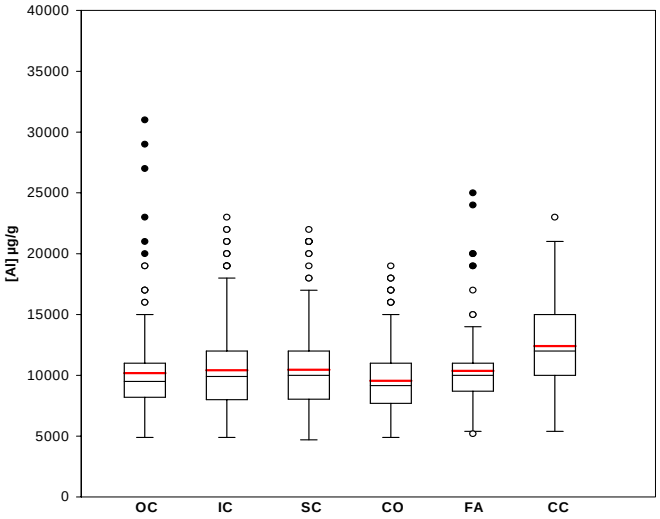


Figure 10.3.5.1c: Aluminum, 10 to 20 cm, by Communities

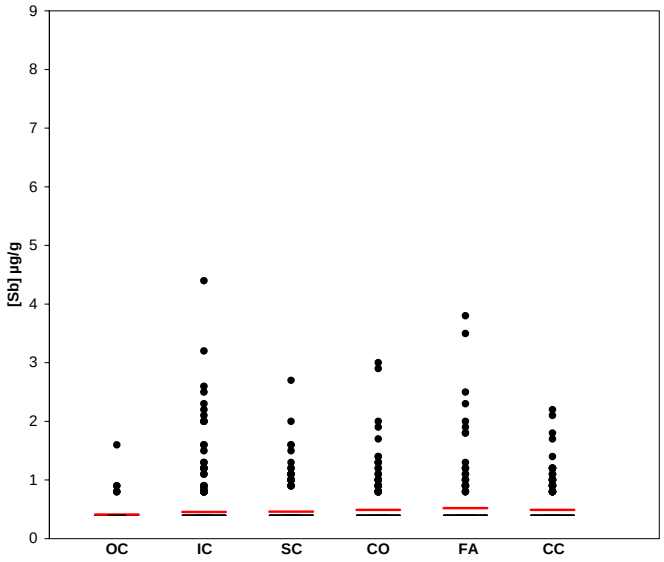


Figure 10.3.5.2: Antimony, 0 to 5 cm, by Communities

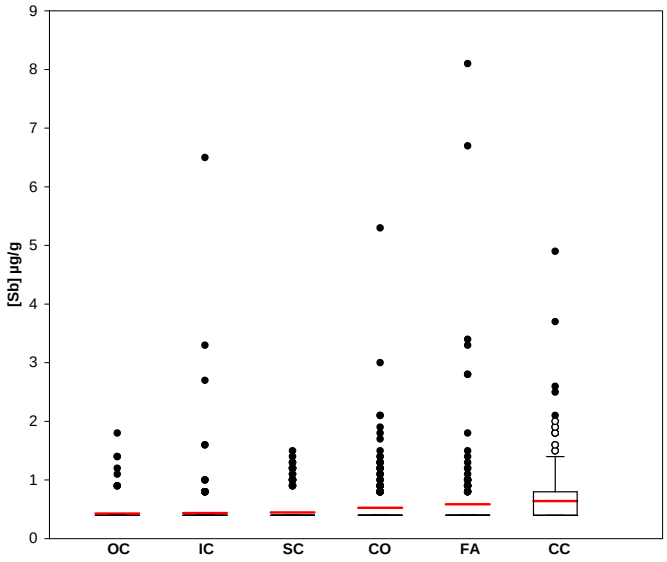


Figure 10.3.5.2b: Antimony, 5 to 10 cm, by Communities

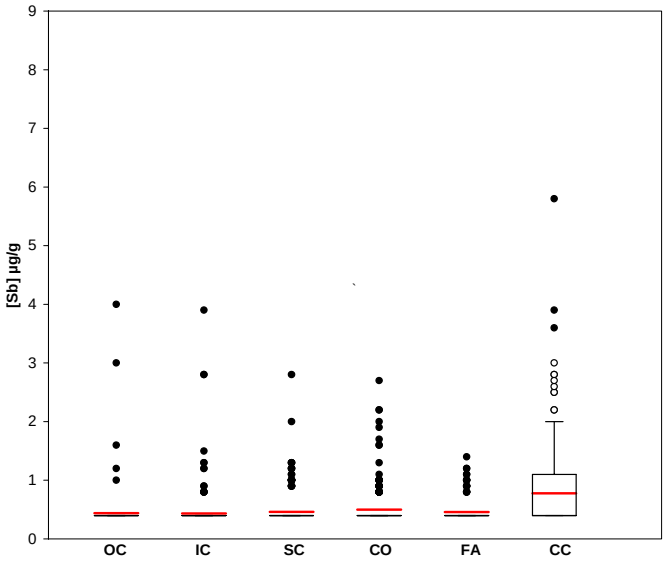


Figure 10.3.5.2c: Antimony, 10 to 20 cm, by Communities

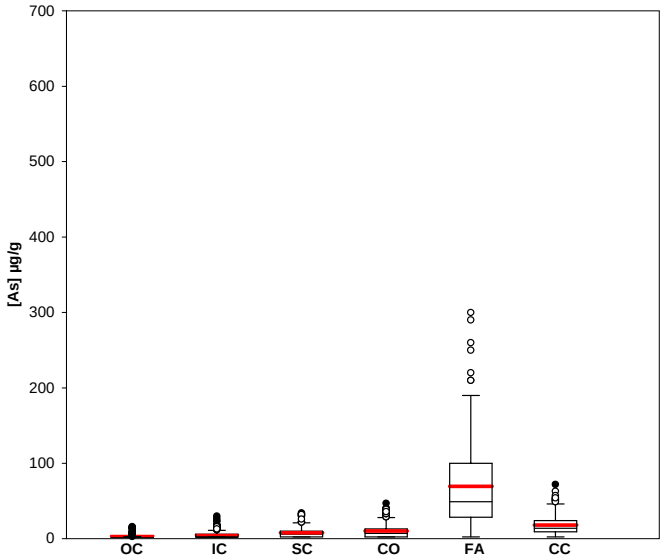


Figure 10.3.5.3: Arsenic, 0 to 5 cm, by Communities

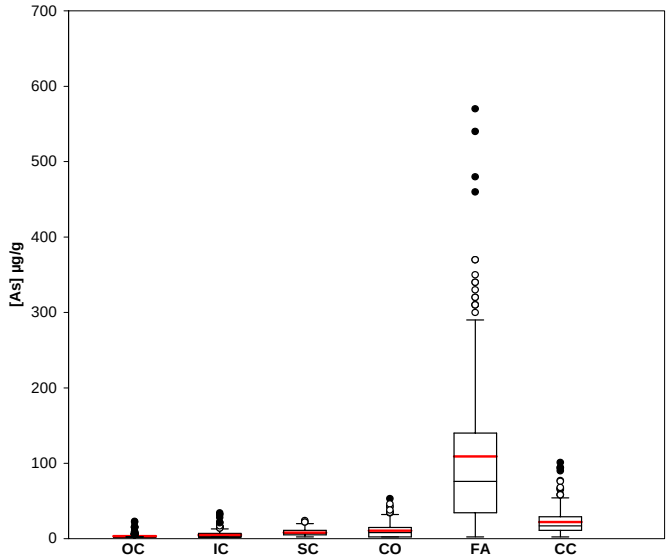


Figure 10.3.5.3b: Arsenic, 5 to 10 cm, by Communities

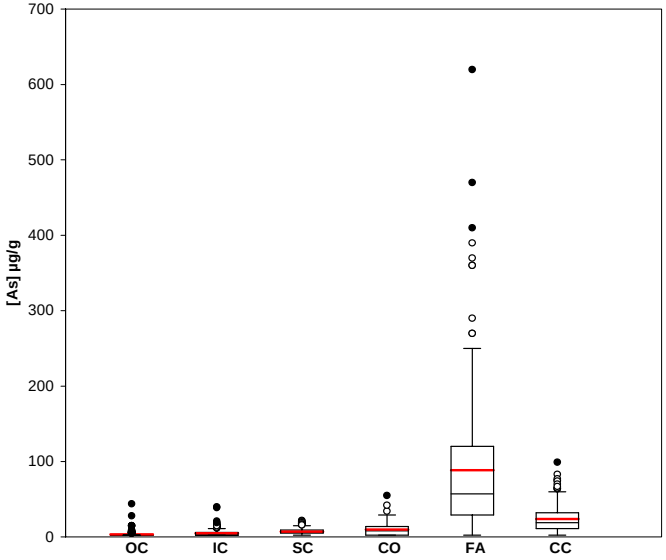


Figure 10.3.5.3c: Arsenic, 10 to 20 cm, by Communities

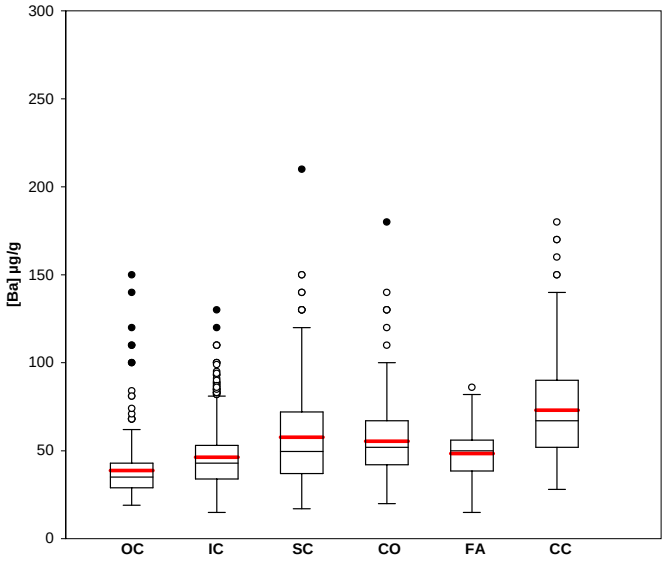


Figure 10.3.5.4: Barium, 0 to 5 cm, by Communities

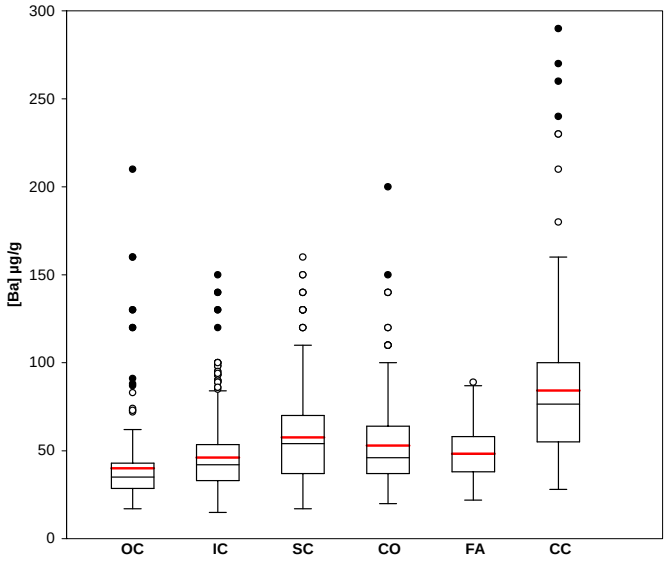


Figure 10.3.5.4b: Barium, 5 to 10 cm, by Communities

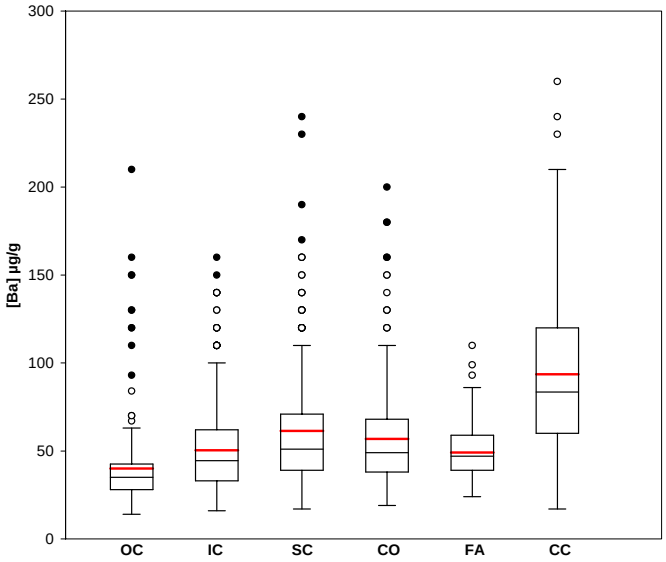


Figure 10.3.5.4c: Barium, 10 to 20 cm, by Communities

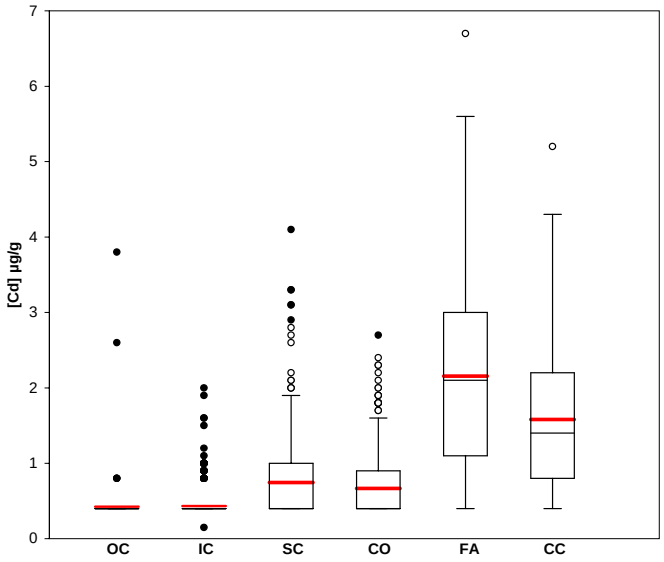


Figure 10.3.5.5: Cadmium, 0 to 5 cm, by Communities

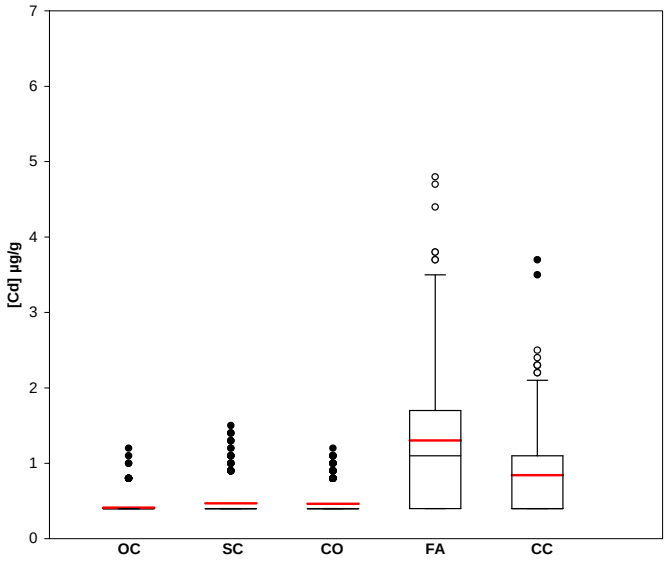


Figure 10.3.5.5b: Cadmium, 5 to 10 cm, by Communities

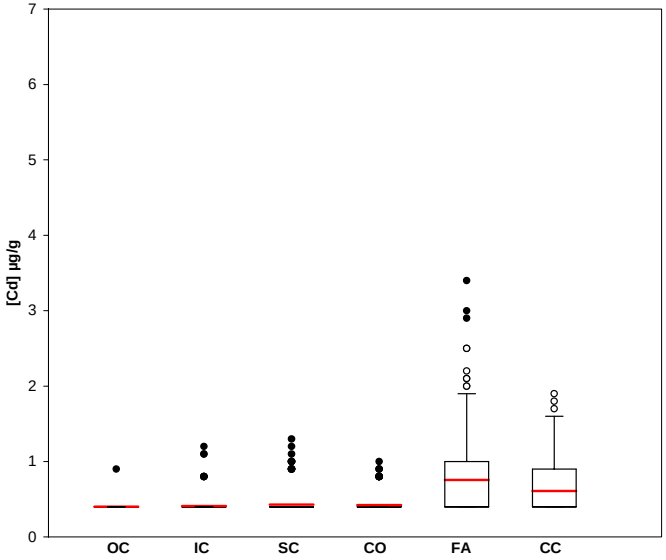


Figure 10.3.5.5c: Cadmium, 10 to 20 cm, by Communities

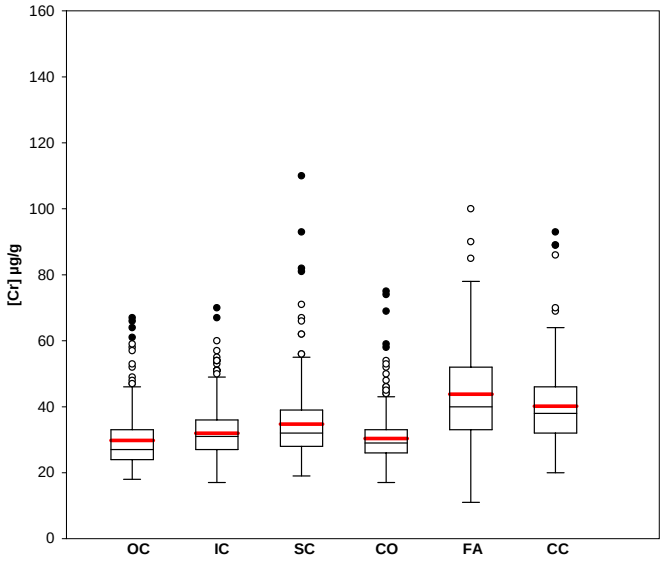


Figure 10.3.5.6: Chromium, 0 to 5 cm, by Communities

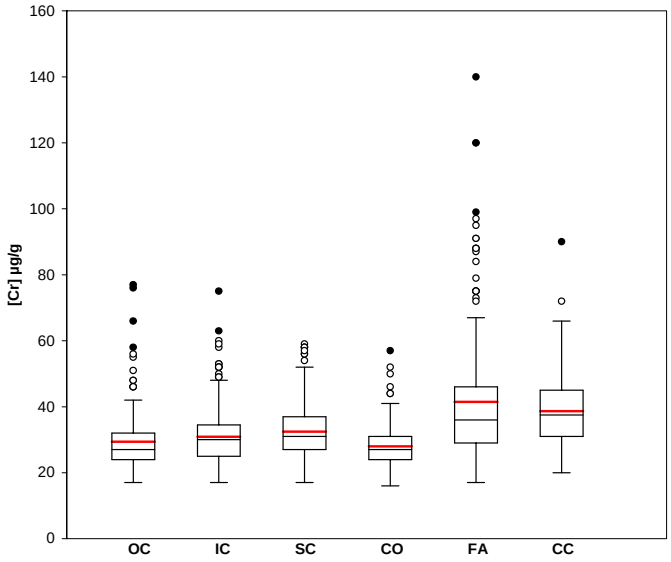


Figure 10.3.5.6b: Chromium, 5 to 10 cm, by Communities

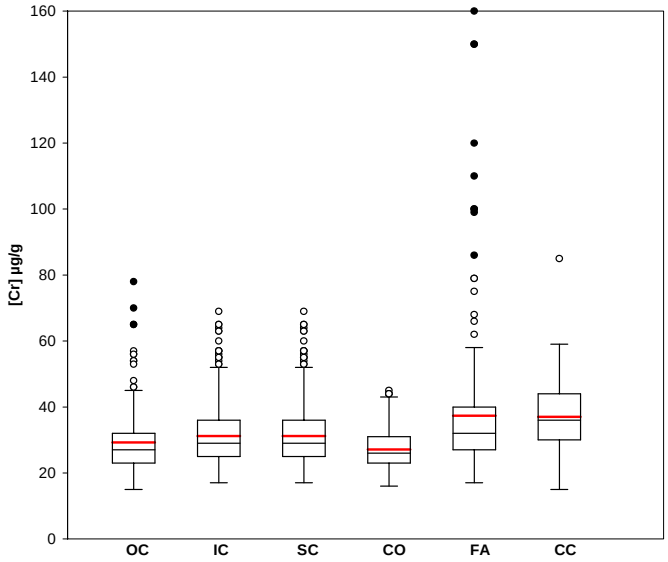


Figure 10.3.5.6c: Chromium, 10 to 20 cm, by Communities

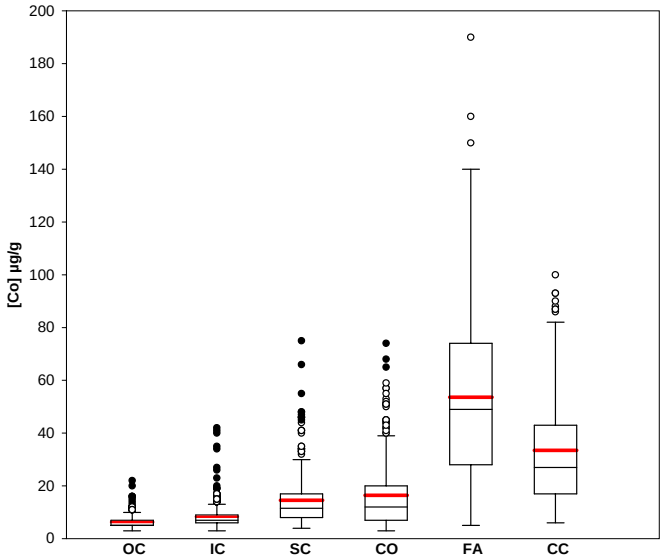


Figure 10.3.5.7: Cobalt, 0 to 5 cm, by Communities

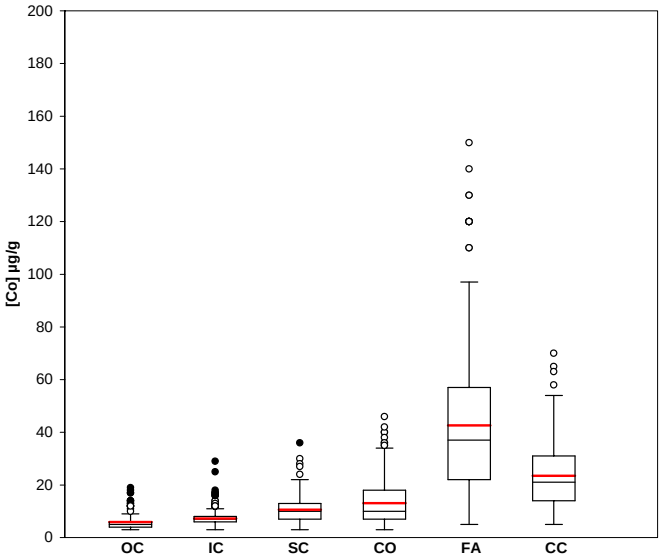


Figure 10.3.5.7b: Cobalt, 5 to 10 cm, by Communities

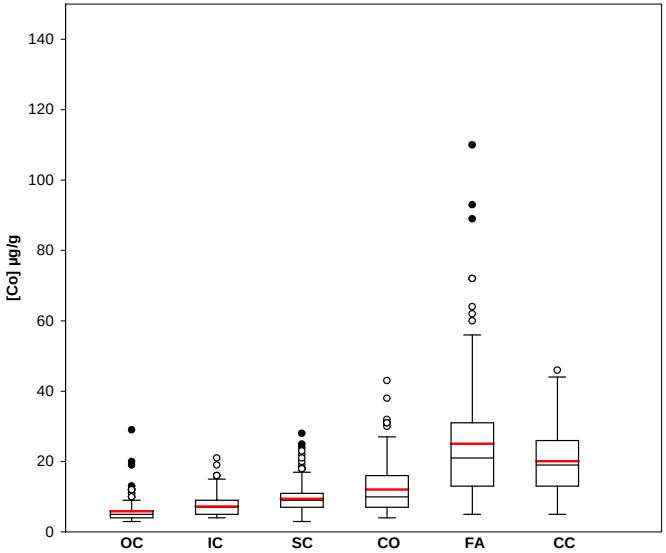


Figure 10.3.5.7c: Cobalt, 10 to 20 cm, by Communities

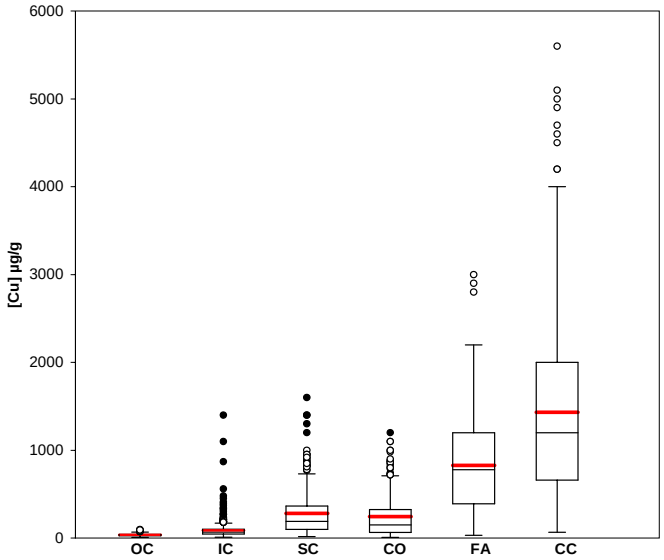


Figure 10.3.5.8: Copper, 0 to 5 cm, by Communities

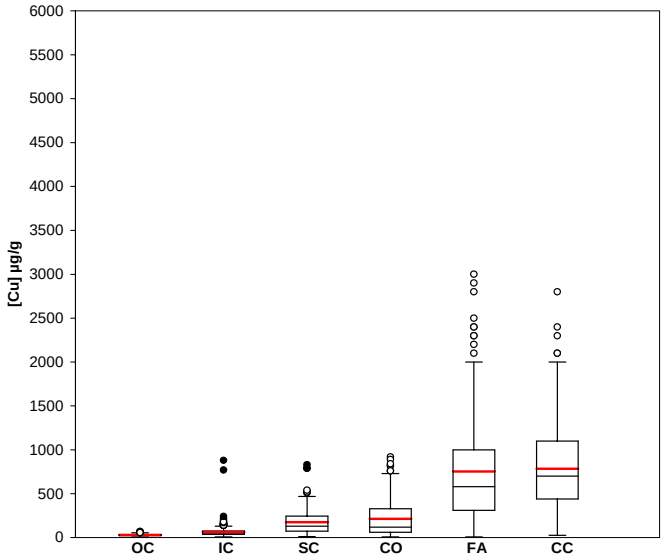


Figure 10.3.5.8b: Copper, 5 to 10 cm, by Communities

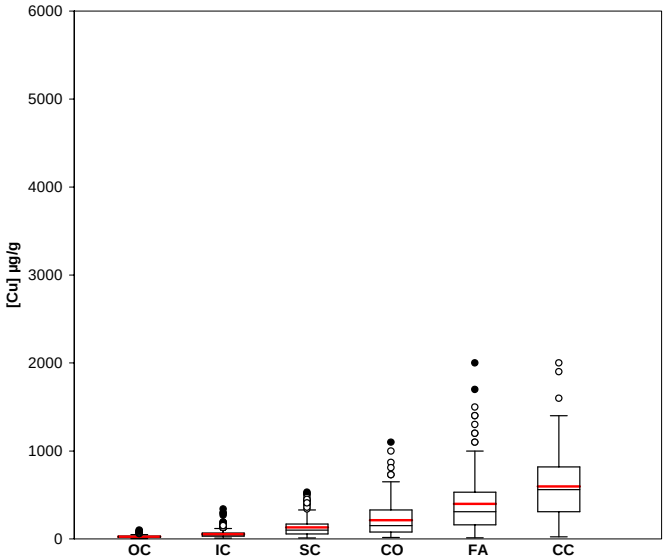


Figure 10.3.5.8c: Copper, 10 to 20 cm, by Communities

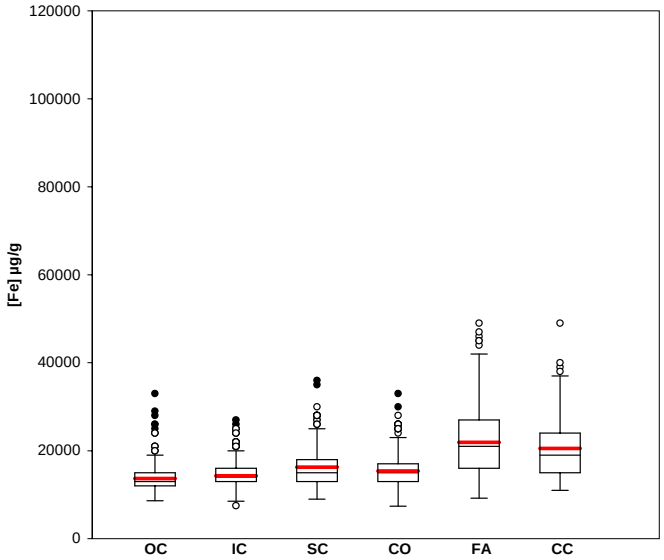


Figure 10.3.5.9: Iron, 0 to 5 cm, by Communities

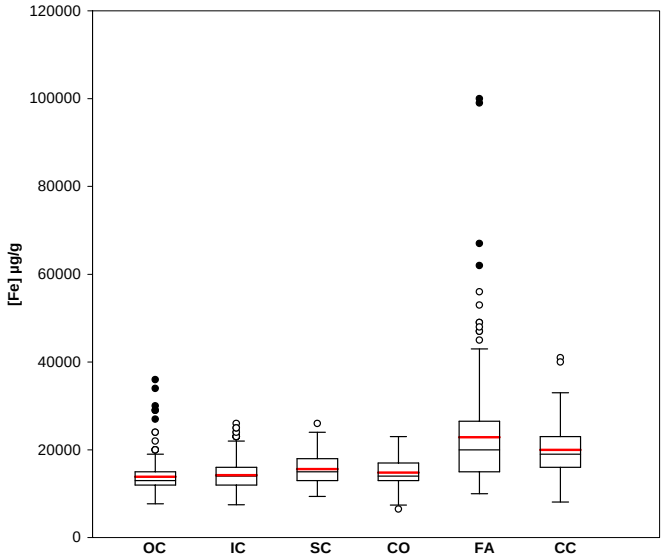


Figure 10.3.5.9b: Iron, 5 to 10 cm, by Communities

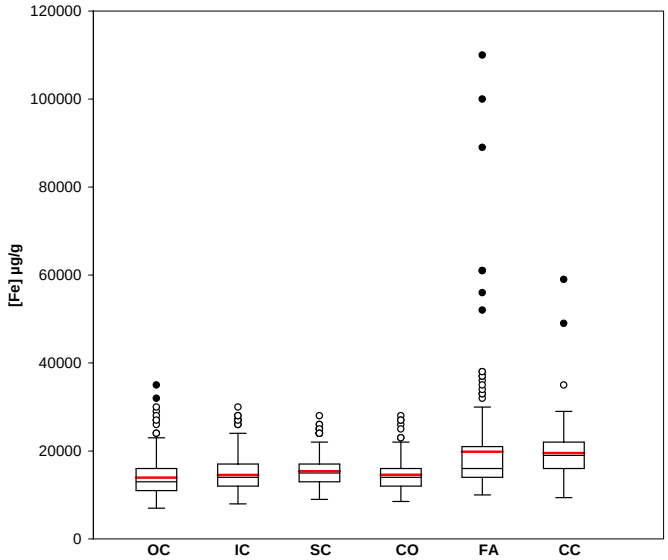


Figure 10.3.5.9c: Iron, 10 to 20 cm, by Communities

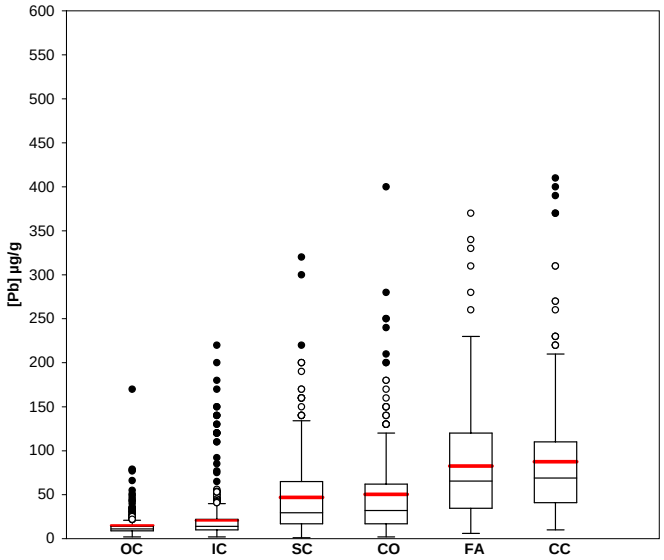


Figure 10.3.5.10: Lead, 0 to 5 cm, by Communities

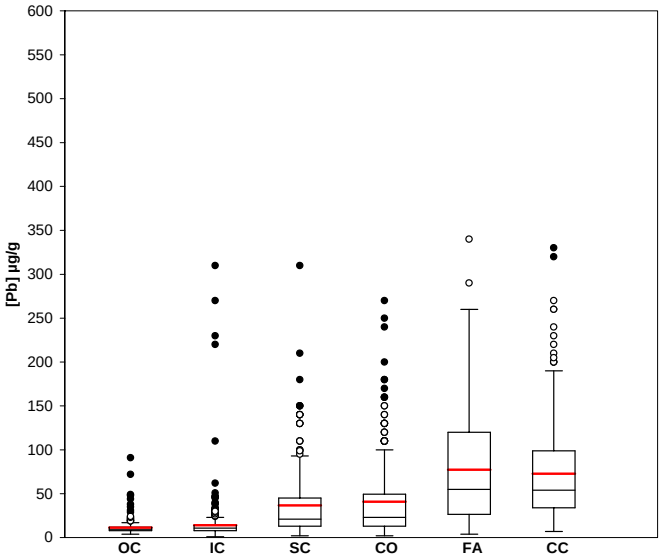


Figure 10.3.5.10b: Lead, 5 to 10 cm, by Communities

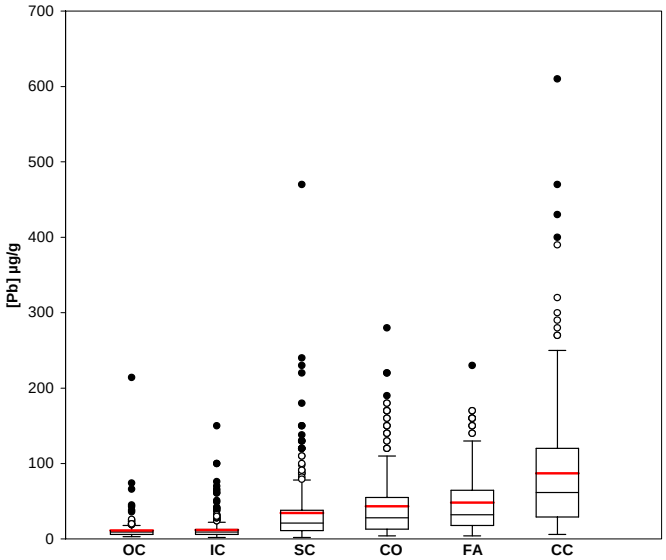


Figure 10.3.5.10c: Lead, 10 to 20 cm, by Communities

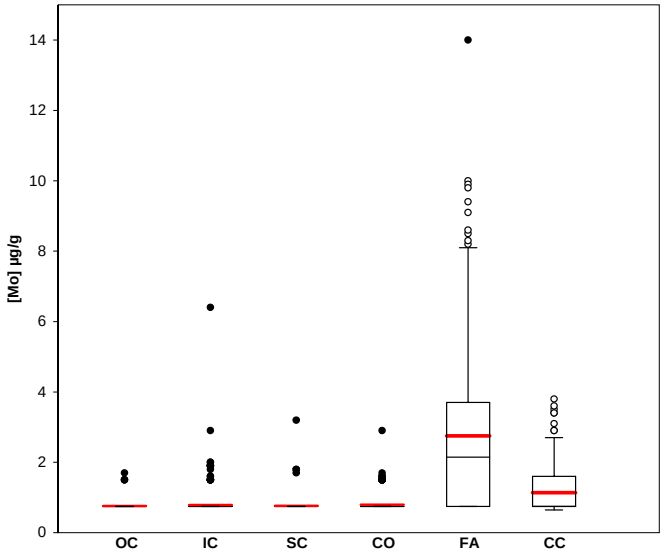


Figure 10.3.5.11: Molybdenum, 0 to 5 cm, by Communities

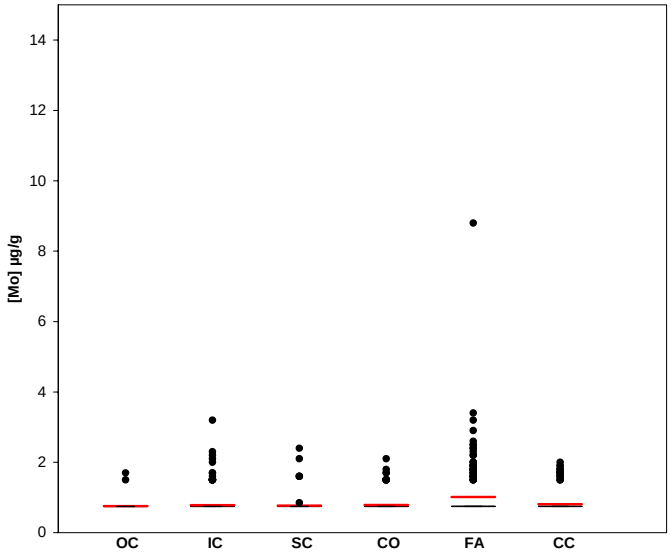


Figure 10.3.5.11b: Molybdenum, 5 to 10 cm, by Communities

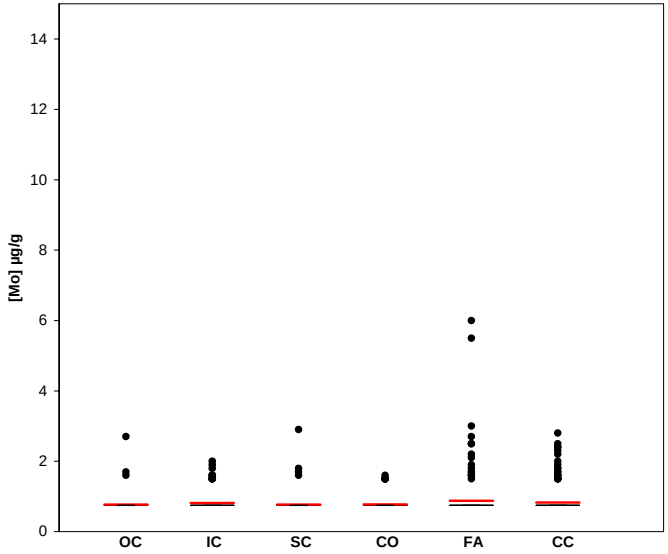


Figure 10.3.5.11c: Molybdenum, 10 to 20cm, by Communities

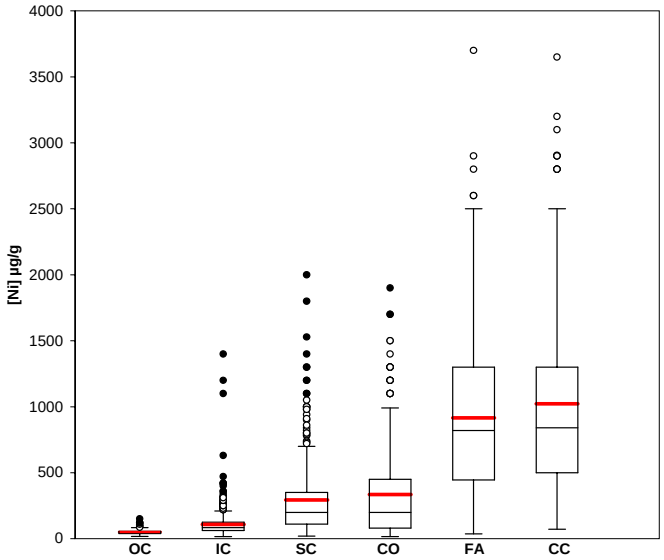


Figure 10.3.5.12: Nickel, 0 to 5 cm, by Communities

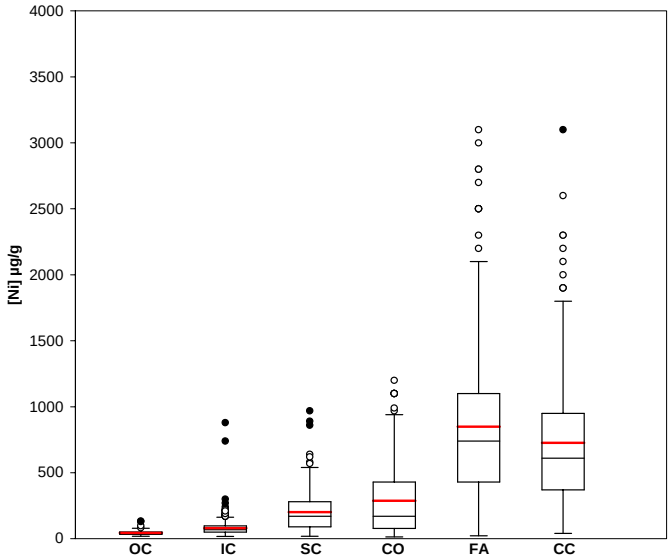


Figure 10.3.5.12b: Nickel, 5 to 10 cm, by Communities

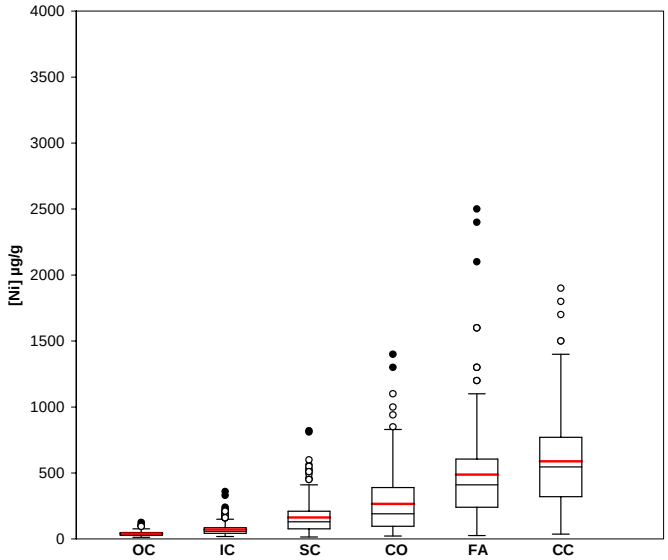


Figure 10.3.5.12c: Nickel, 10 to 20 cm, by Communities

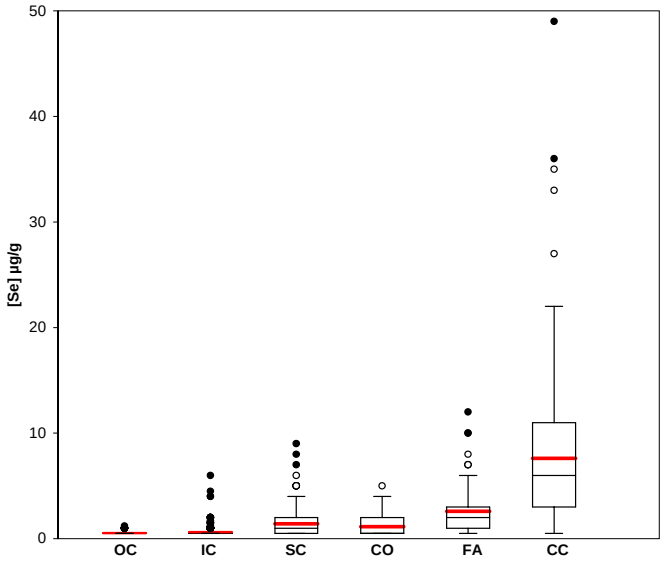


Figure 10.3.5.13: Selenium, 0 to 5 cm, by Communities

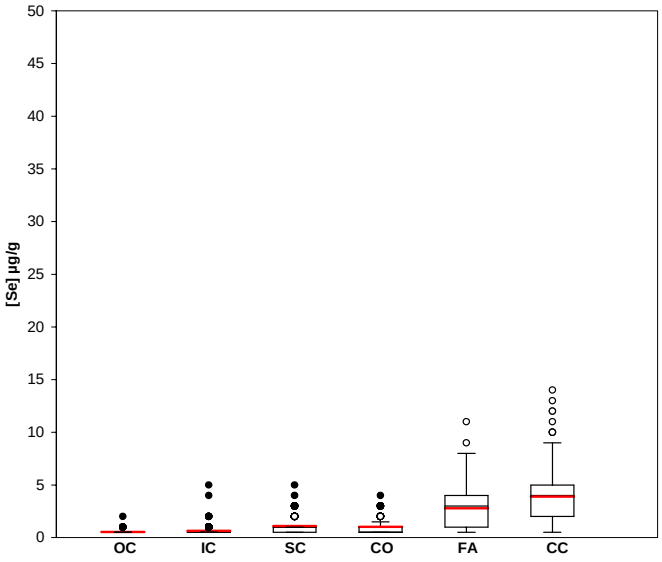


Figure 10.3.5.13b: Selenium, 5 to 10 cm, by Communities

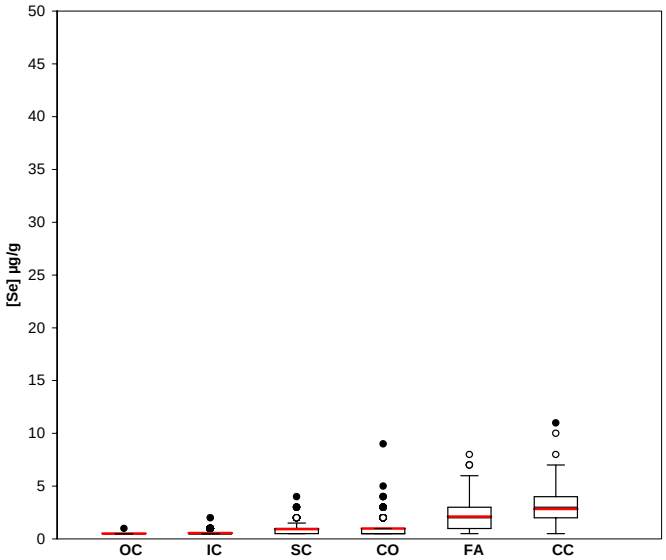


Figure 10.3.5.13c: Selenium, 10 to 20 cm, by Communities

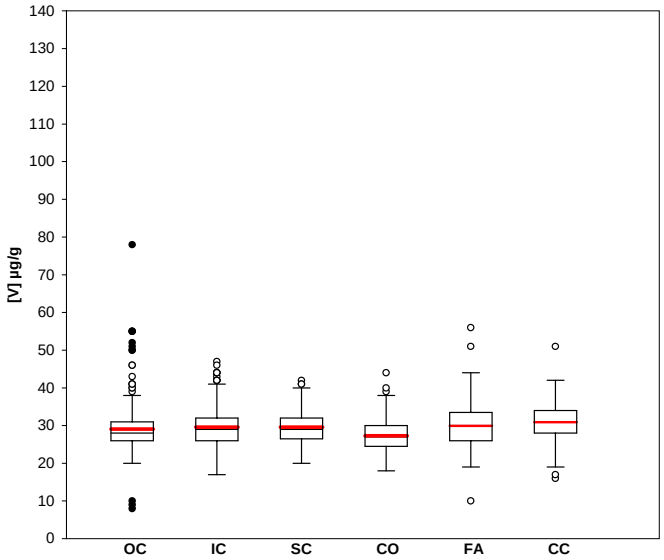


Figure 10.3.5.14: Vanadium, 0 to 5 cm, by Communities

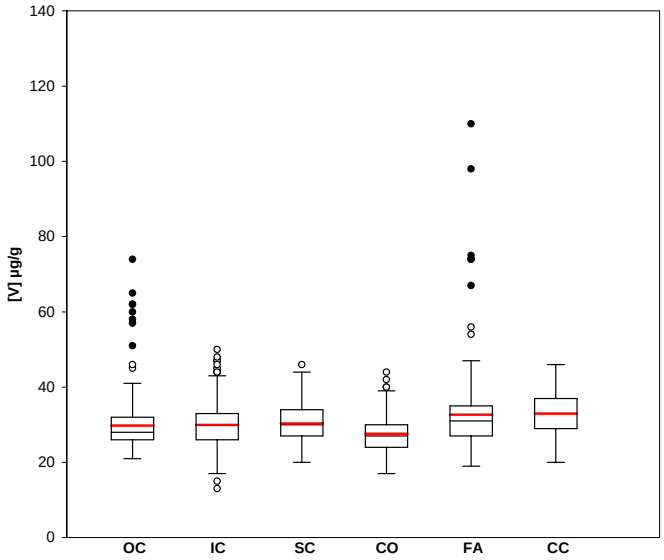


Figure 10.3.5.14b: Vanadium, 5 to 10 cm, by Communities

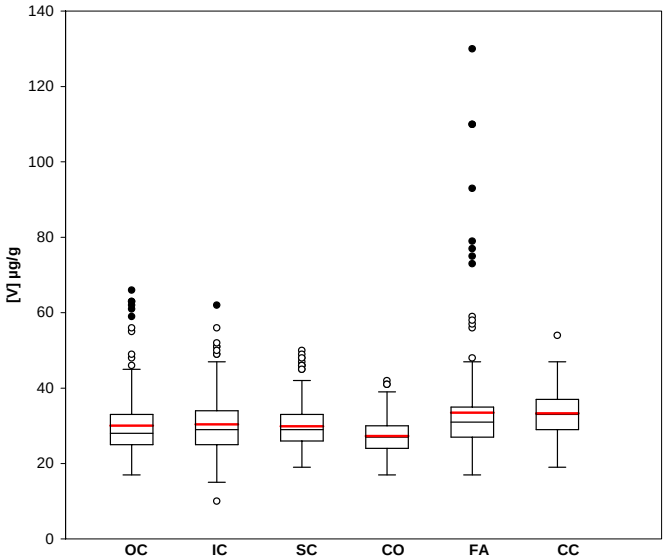


Figure 10.3.5.14c: Vanadium, 10 to 20 cm, by Communities

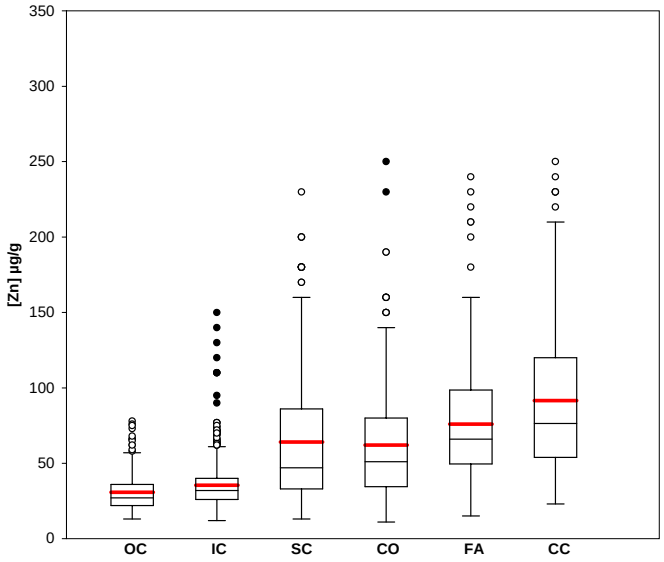


Figure 10.3.5.15: Zinc, 0 to 5 cm, by Communities

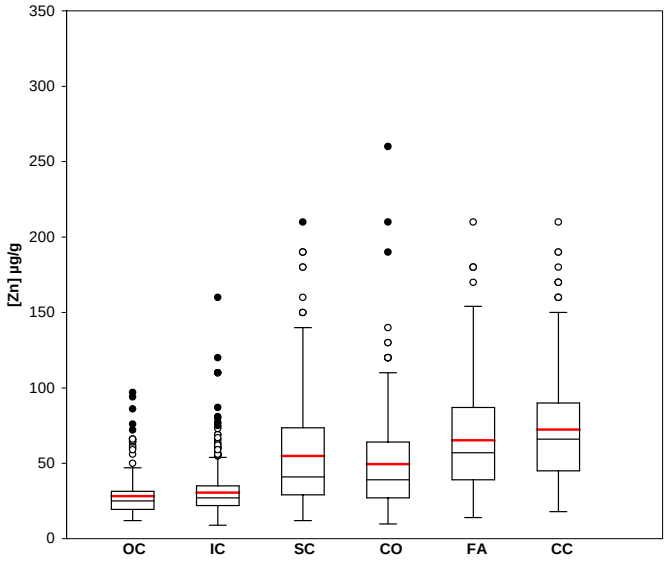


Figure 10.3.5.15b: Zinc, 5 to 10 cm, by Communities

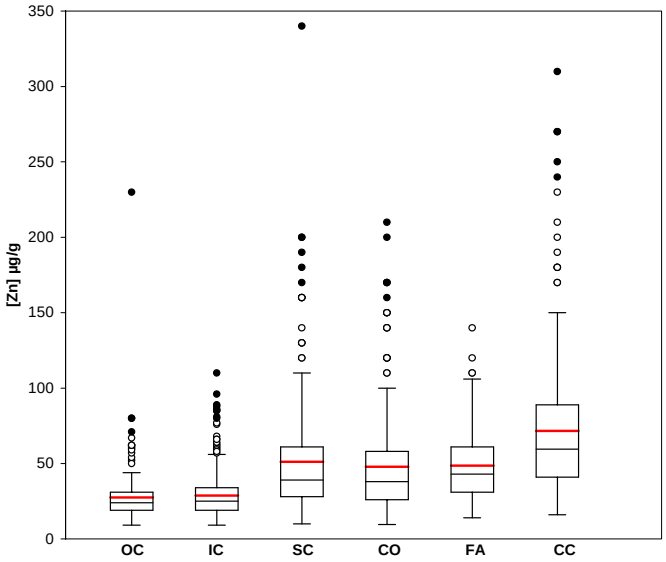


Figure 10.3.5.15c: Zinc, 10 to 20 cm, by Communities

10.3.6 pH, Electrical Conductivity and Total Organic Carbon Summaries

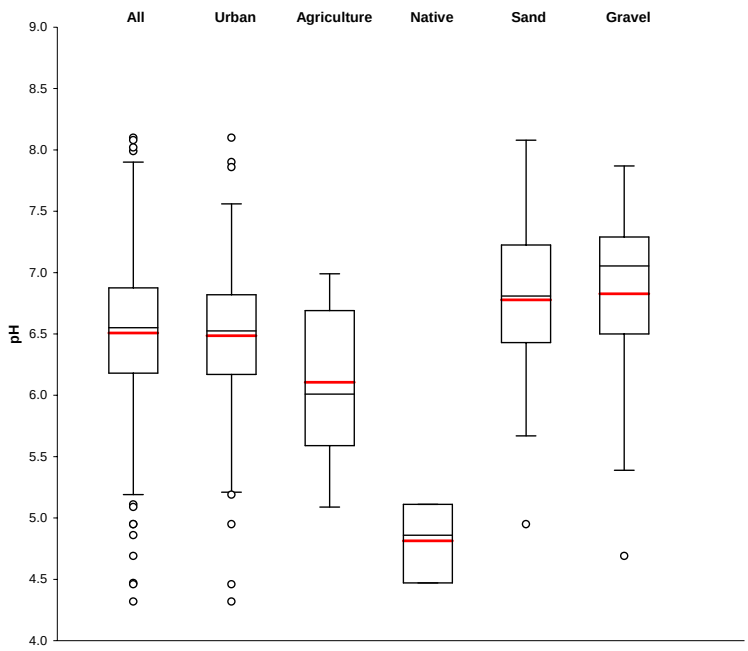


Figure 10.3.6.1: Box and Whisker Plots of Soil pH by sample type.

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

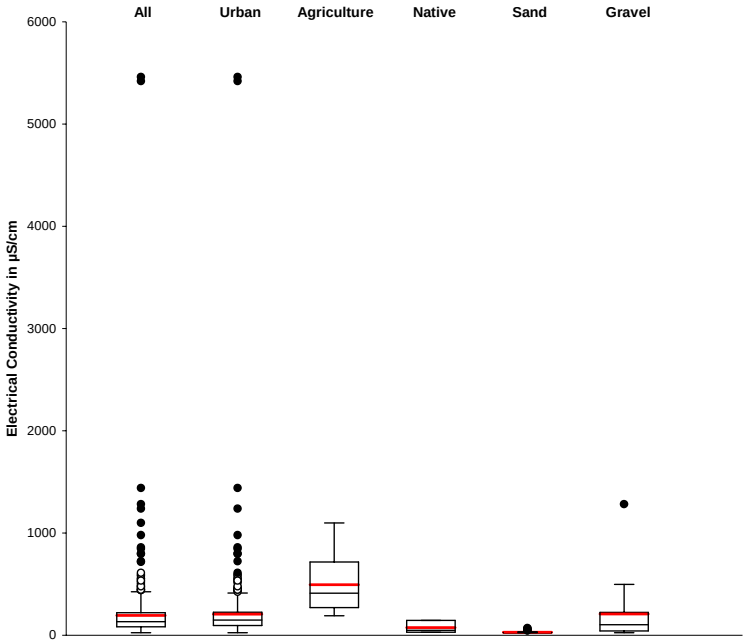


Figure 10.3.6.2: Box and Whisker Plots of Soil EC by Sample Type.

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

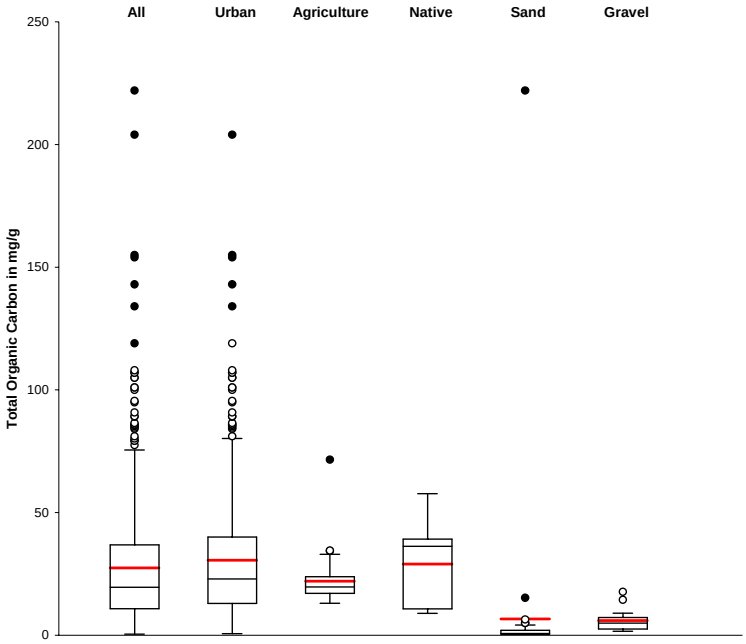


Figure 10.3.6.3: Box and Whisker Plots of Soil TOC by Sample Type.

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.)

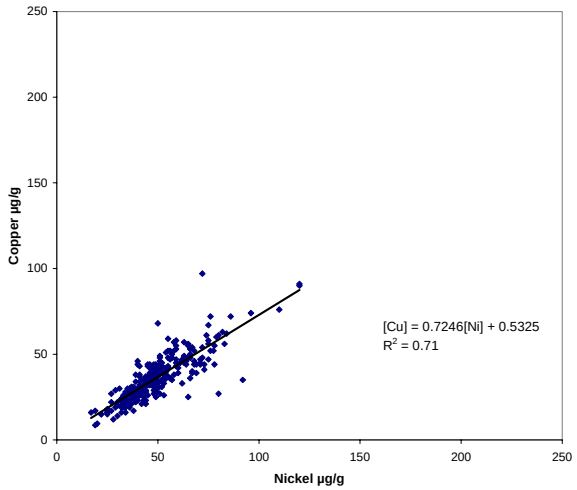


Fig. 10.4.1.1: Cu vs. Ni, 0-5 cm, Outer Com.

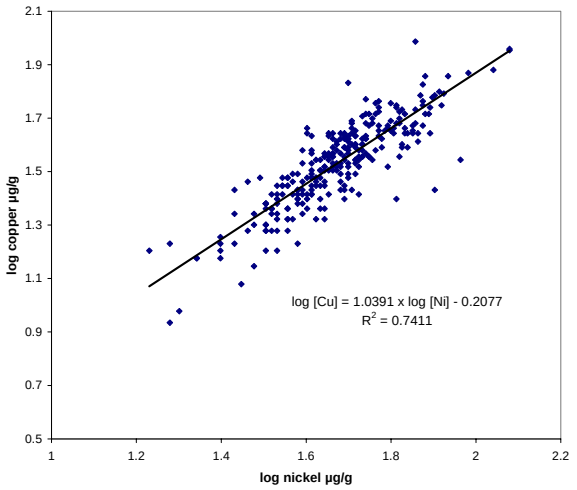


Fig. 10.4.1.1b: log Cu vs. log Ni, 0-5 cm, Outer Com.

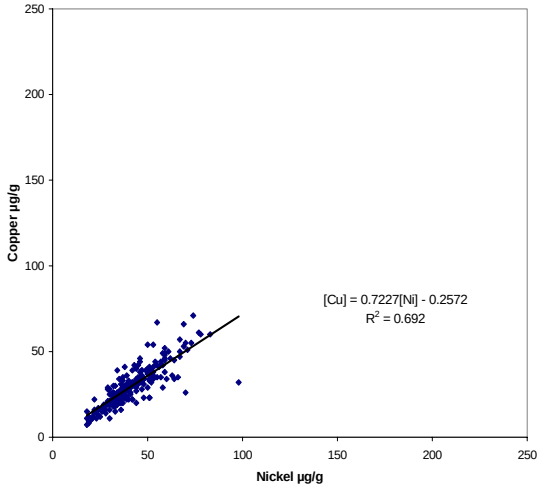


Fig. 10.4.1.2: Cu vs. Ni, 5-10 cm, Outer Com.

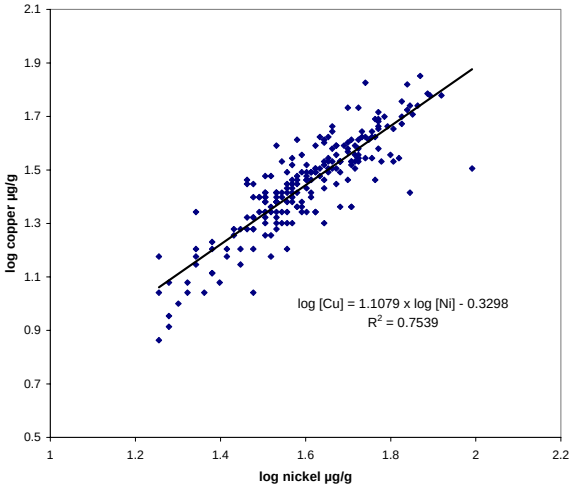


Fig. 10.4.1.2b: log Cu vs. log Ni, 5-10 cm, Outer Com.

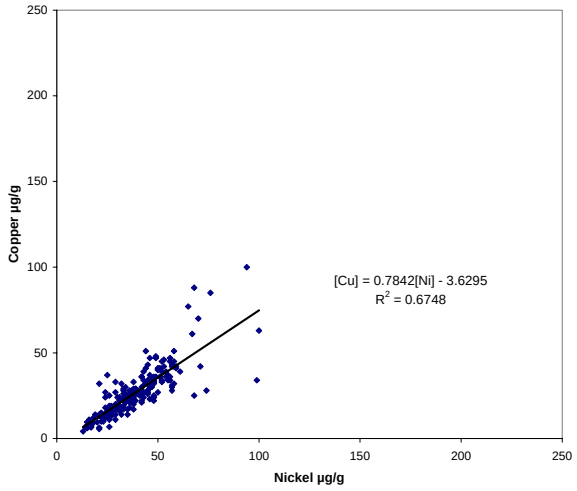


Fig. 10.4.1.3: Cu vs. Ni, 10-20 cm, Outer Com.

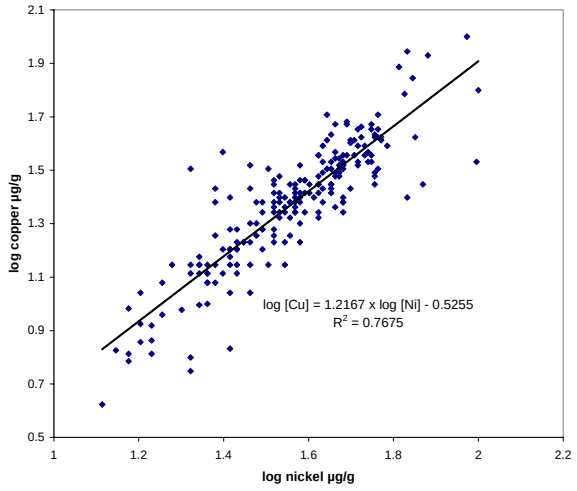


Fig. 10.4.1.3b: log Cu vs. log Ni, 10-20 cm, Outer Com.

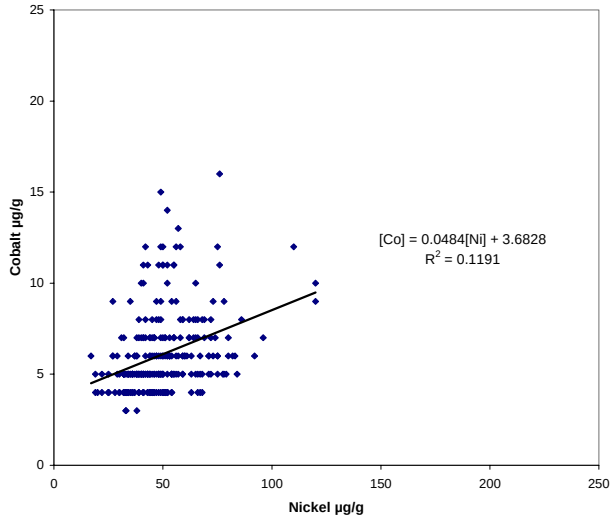


Fig 10.4.1.4: Co vs. Ni, 0-5 cm, Outer Com.

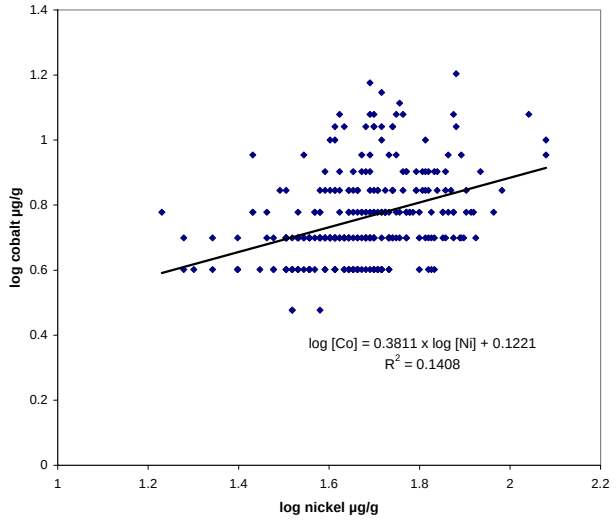


Fig. 10.4.1.4b: log Co vs. log Ni, 0-5 cm, Outer Com.

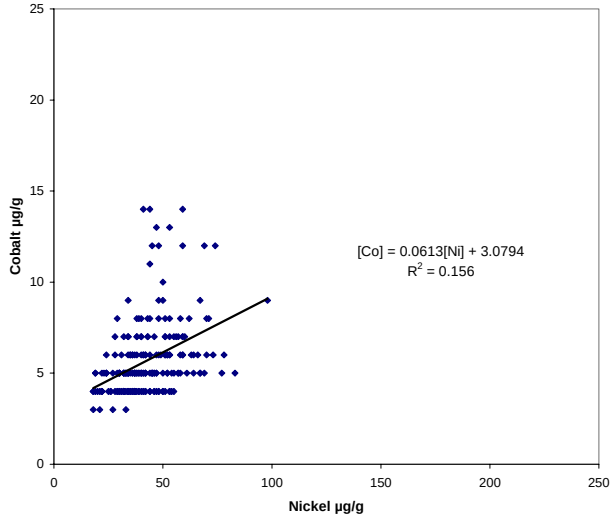


Fig 10.4.1.5: Co vs. Ni, 5-10 cm, Outer Com.

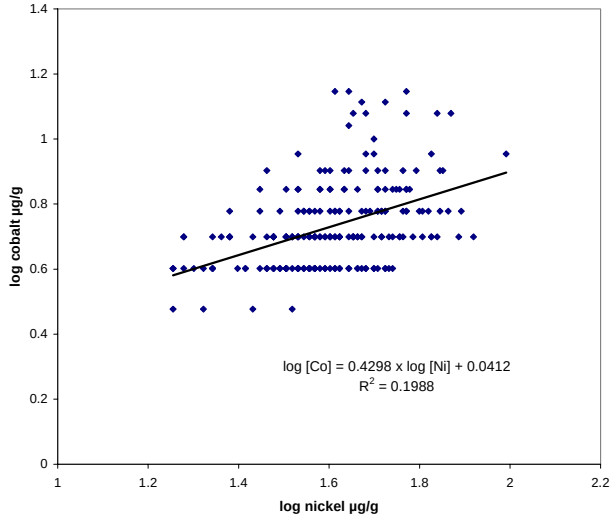


Fig. 10.4.1.5b: log Co vs. log Ni, 5-10 cm, Outer Com.

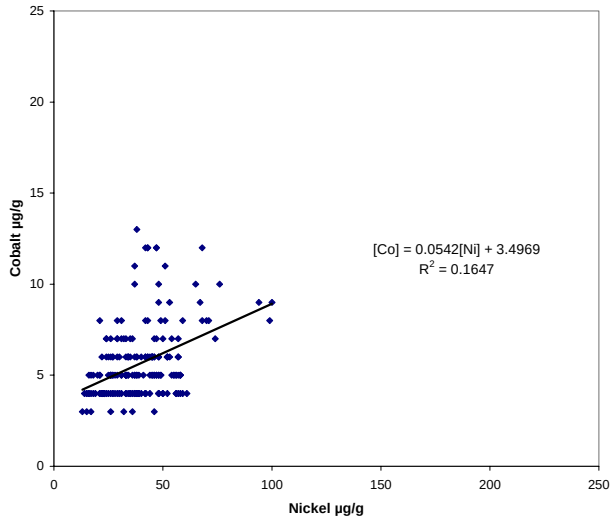


Fig. 10.4.1.6: Co vs. Ni, 10-20 cm, Outer Com.

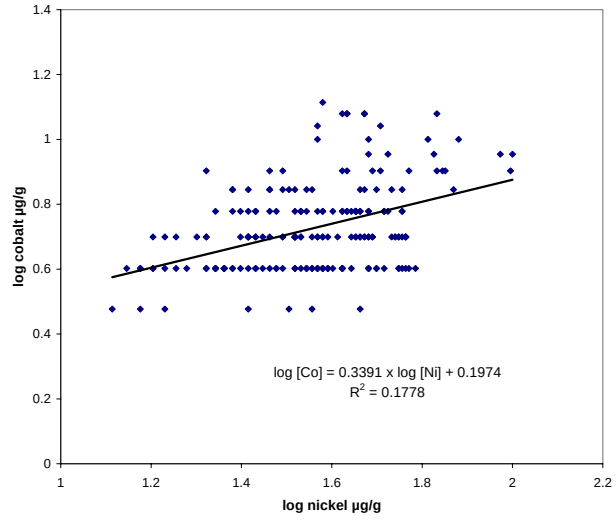


Fig. 10.4.1.6b: log Co vs. log Ni, 10-20 cm, Outer Com.

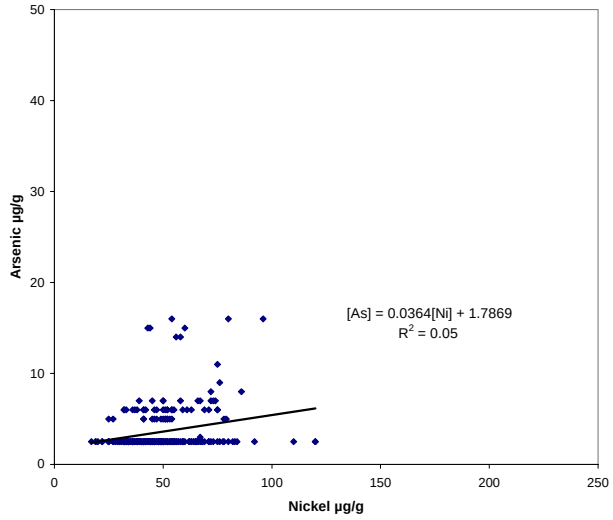


Fig. 10.4.1.7: As vs. Ni, 0-5 cm, Outer Com.

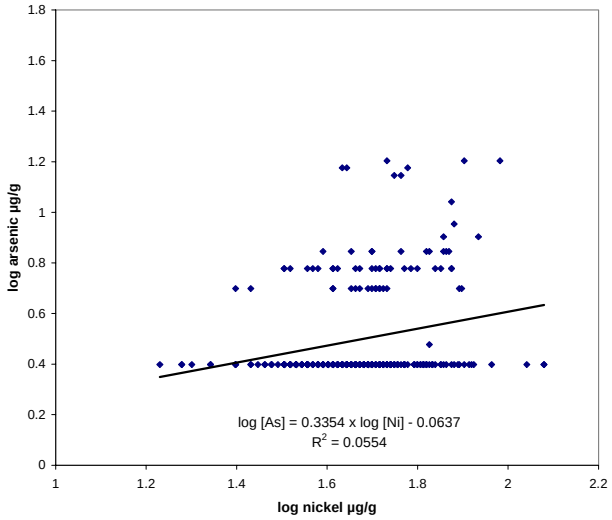


Fig. 10.4.1.7b: log As vs. log Ni, 0-5 cm, Outer Com.

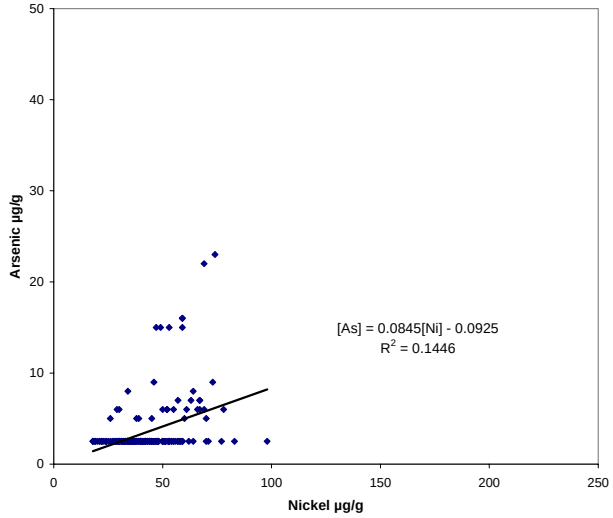


Fig. 10.4.1.8: As vs. Ni, 5-10 cm, Outer Com.

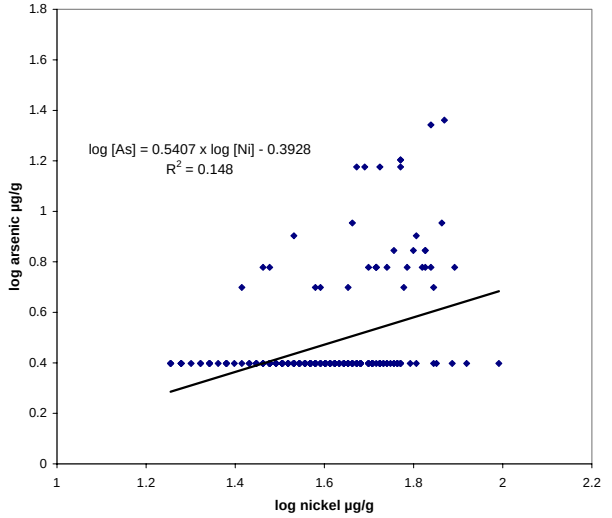


Fig 10.4.1.8b: log As vs. log Ni, 5-10 cm, Outer Com.

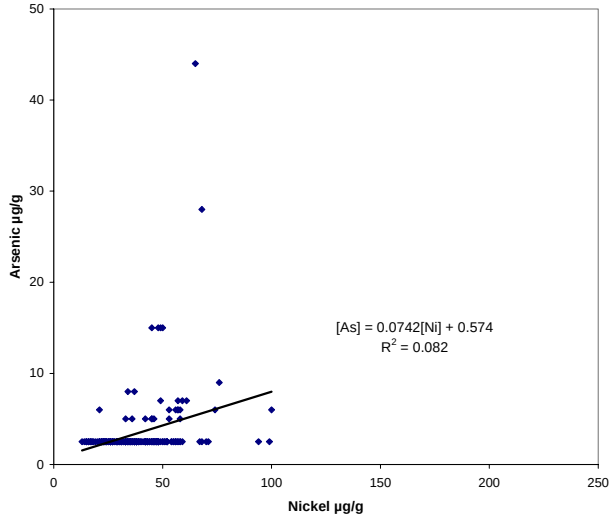


Fig. 10.4.1.9: As vs. Ni, 10-20 cm, Outer Com.

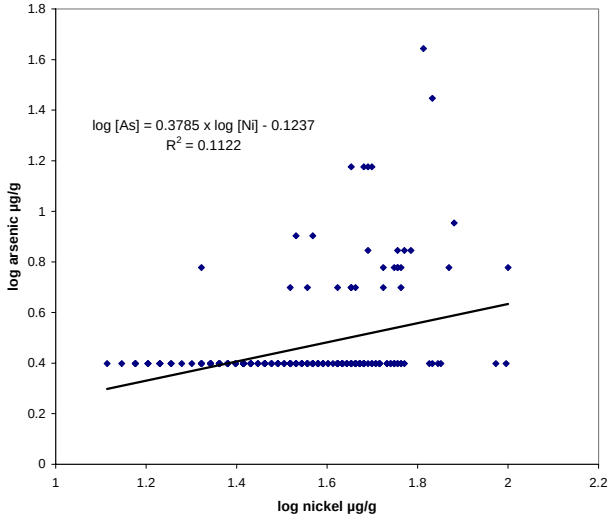


Fig. 10.4.1.9b: log As vs. log Ni, 10-20 cm, Outer Com.

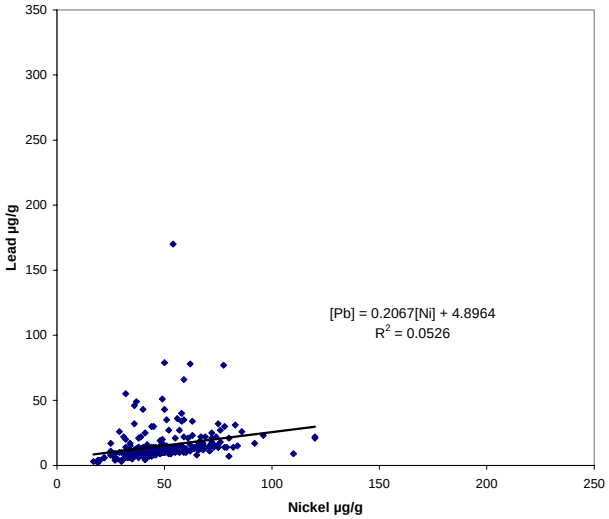


Fig. 10.4.1.10: Pb vs. Ni, 0-5 cm, Outer Com.

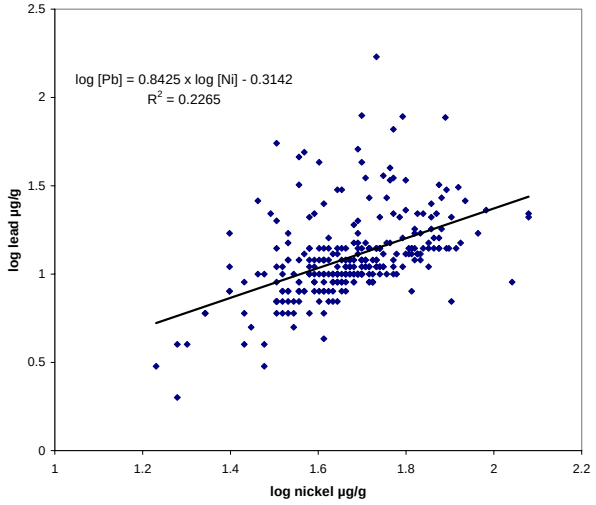


Fig. 10.4.1.10b: log Pb vs. log Ni, 0-5 cm, Outer Com.

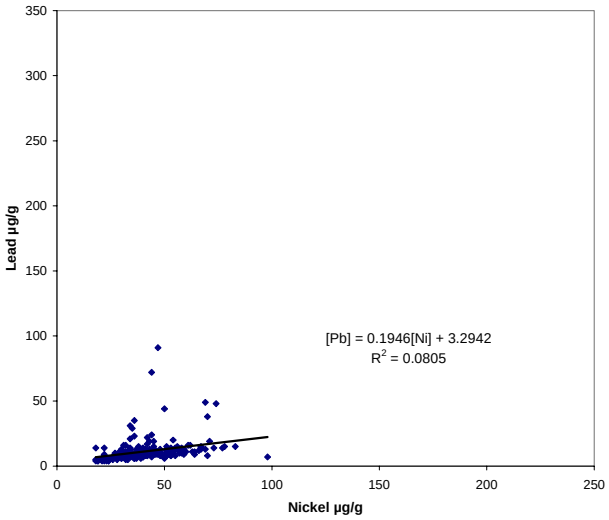


Fig. 10.4.1.11: Pb vs. Ni, 5-10 cm, Outer Com.

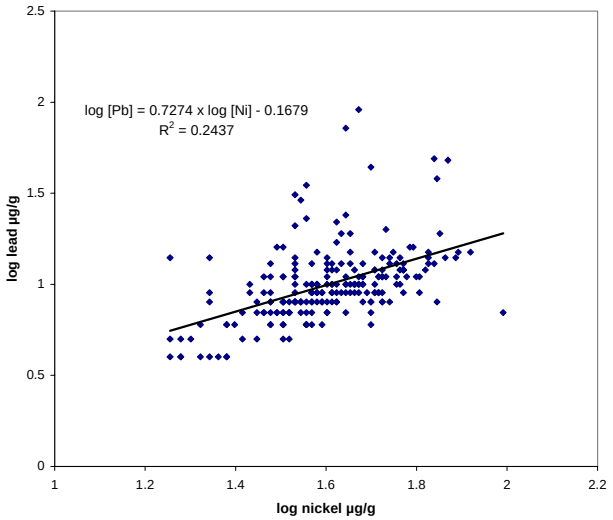


Fig. 10.4.1.11b: log Pb vs. log Ni, 5-10 cm, Outer Com.

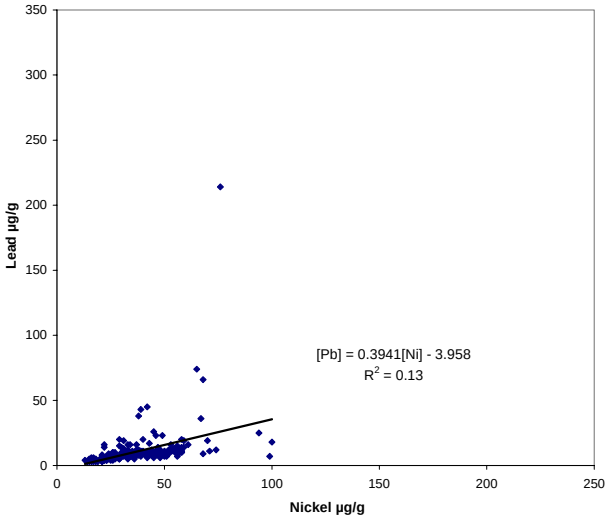


Fig. 10.4.1.12: Pb vs. Ni, 10-20 cm, Outer Com.

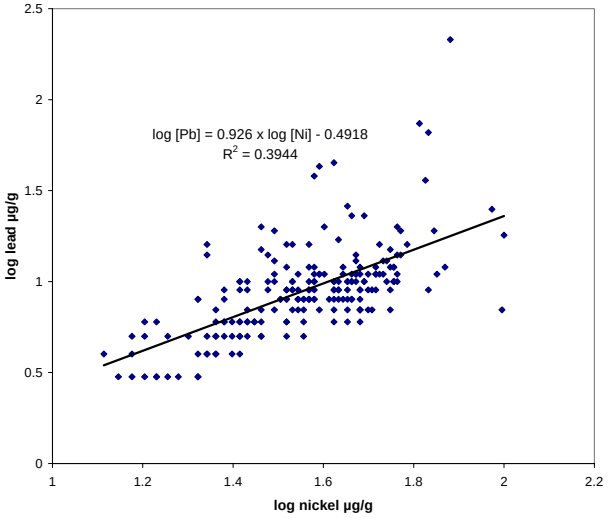


Fig. 10.4.1.12b: log Pb vs. log Ni, 10-20 cm, Outer Com.

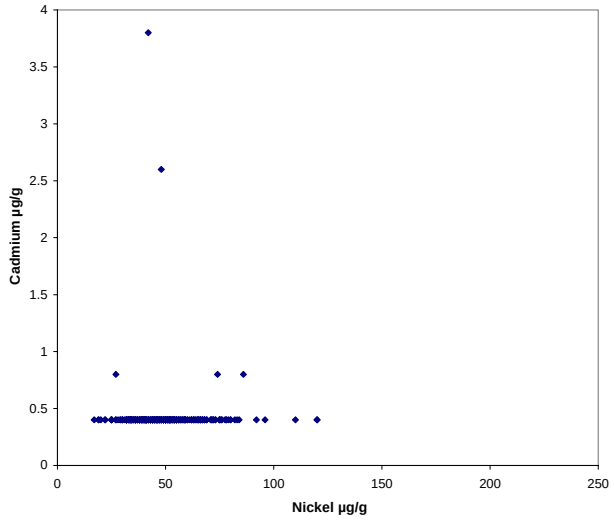


Fig. 10.4.1.13: Cd vs. Ni, 0-5 cm, Outer Com.

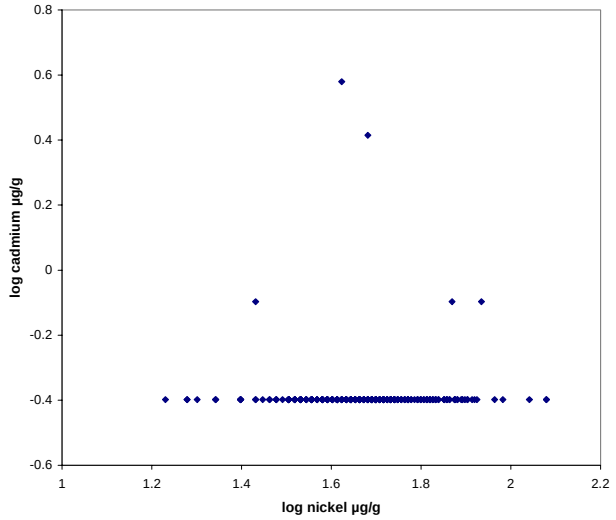


Fig. 10.4.1.13b: log Cd vs. log Ni, 0-5 cm, Outer Com.

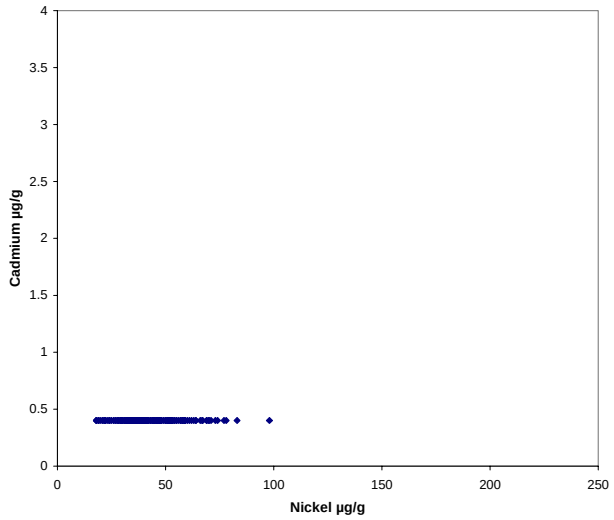


Fig. 10.4.1.14: Cd vs. Ni, 5-10 cm, Outer Com.

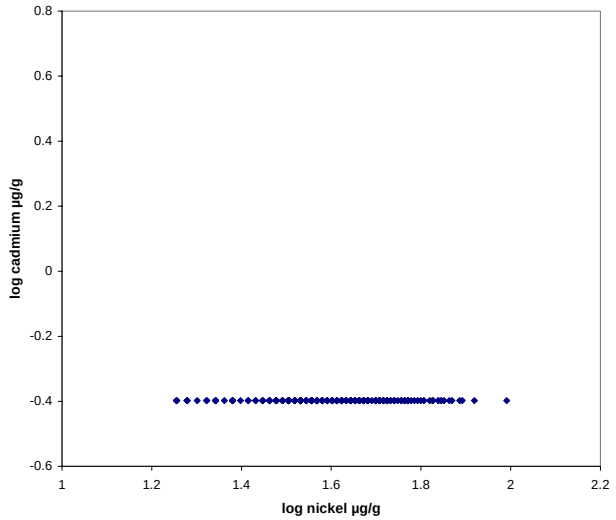


Fig. 10.4.1.14b: log Cd vs. log Ni, 5-10 cm, Outer Com.

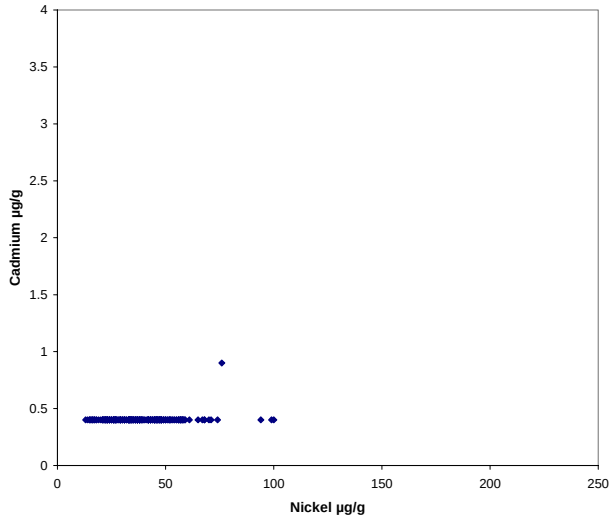


Fig. 10.4.1.15: Cd vs. Ni, 10-20 cm, Outer Com.

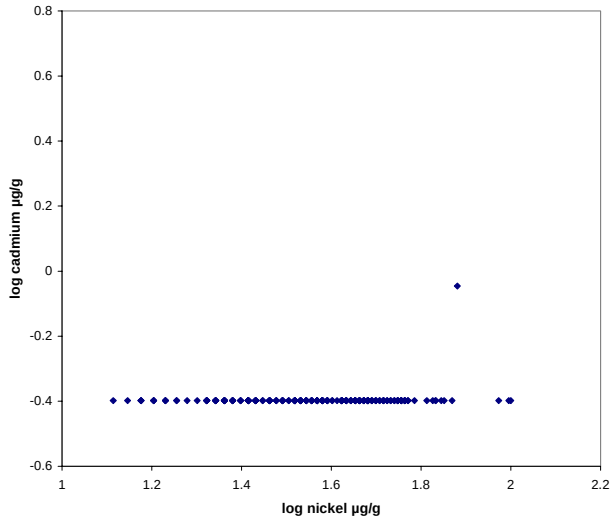


Fig. 10.4.1.15b: log Cd vs. log Ni, 10-20 cm, Outer Com.

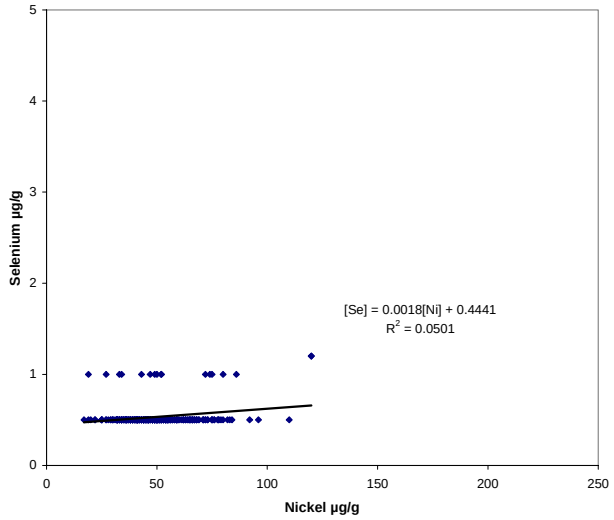


Fig. 10.4.1.16: Se vs. Ni, 0-5 cm, Outer Com.

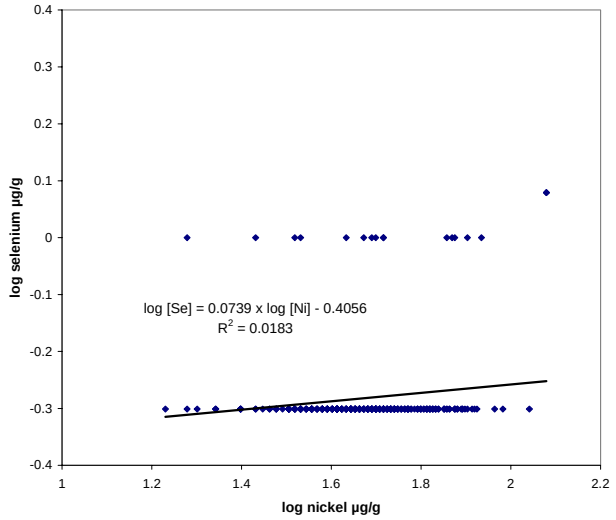


Fig. 10.4.1.16b: log Se vs. log Ni, 0-5 cm, Outer Com.

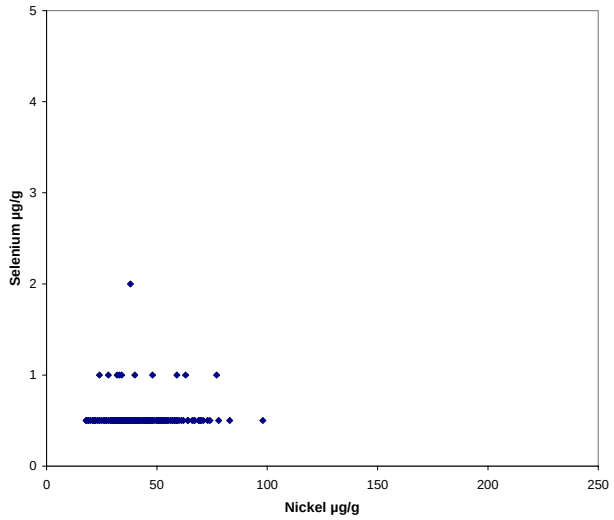


Fig. 10.4.1.17: Se vs. Ni, 5-10 cm, Outer Com.

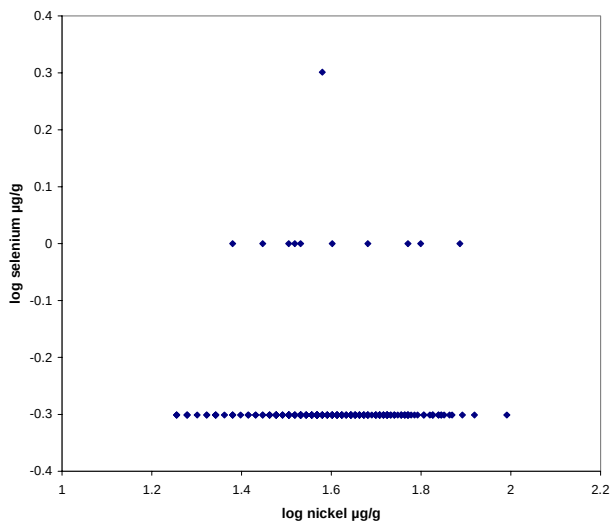


Fig 10.1.4.17b: log Se vs. log Ni, 5-10 cm, Outer Com.

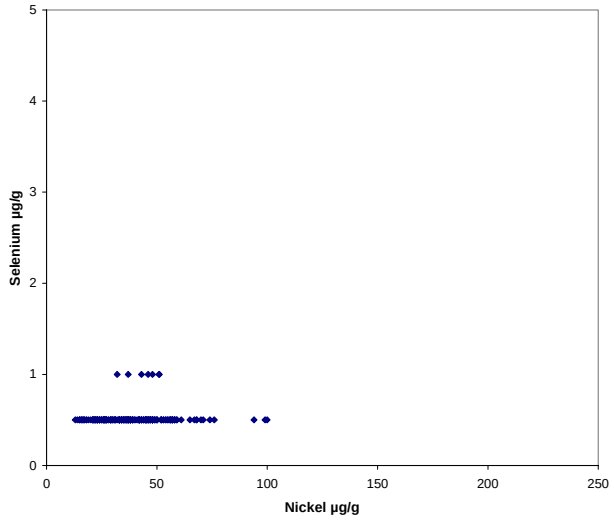


Fig. 10.4.1.18: Se vs. Ni, 10-20 cm, Outer Com.

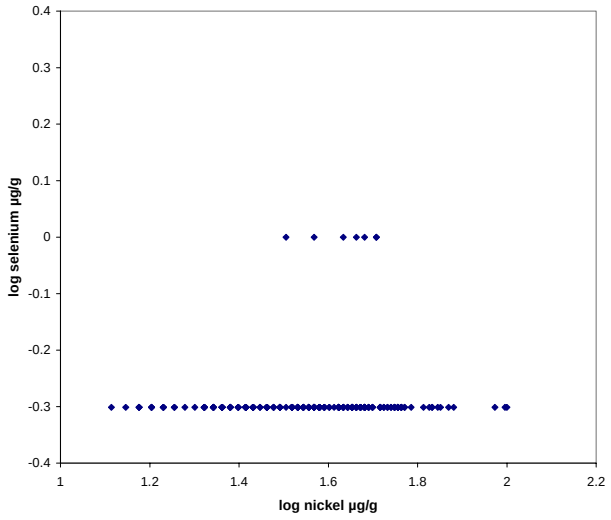


Fig. 10.4.1.18b: log Se vs. log Ni, 10-20 cm, Outer Com.

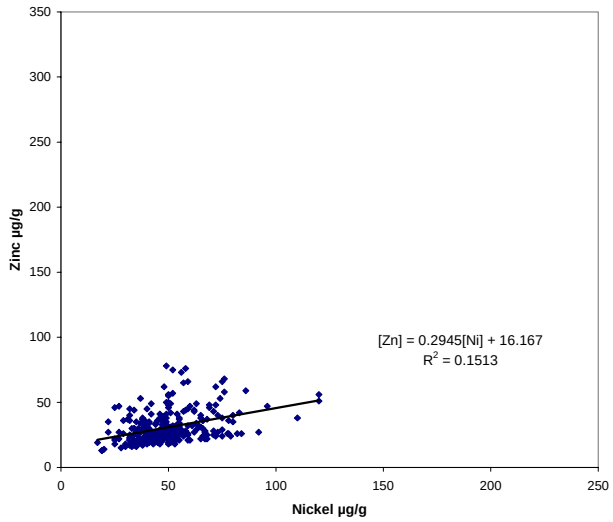


Fig. 10.4.1.19: Zn vs. Ni, 0-5 cm, Outer Com.

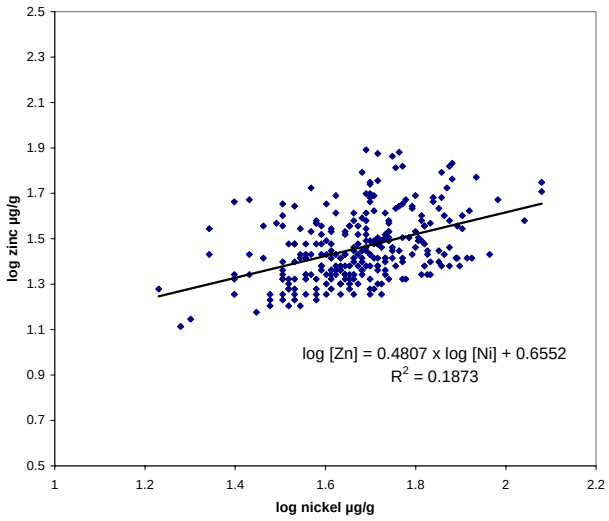


Fig. 10.4.1.19b: log Zn vs. log Ni, 0-5 cm, Outer Com.

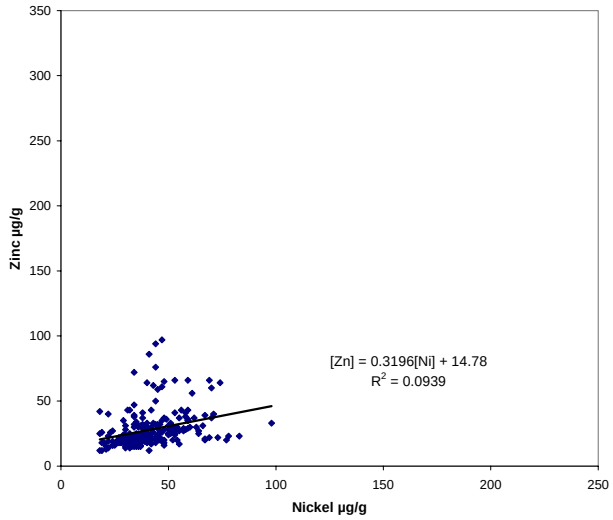


Fig. 10.4.1.20: Zn vs. Ni, 5-10 cm, Outer Com.

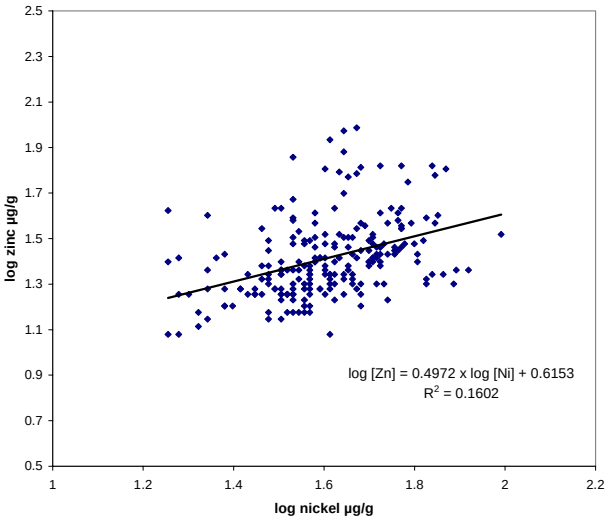


Fig. 10.4.1.20b: log Zn vs. log Ni, 5-10 cm, Outer Com.

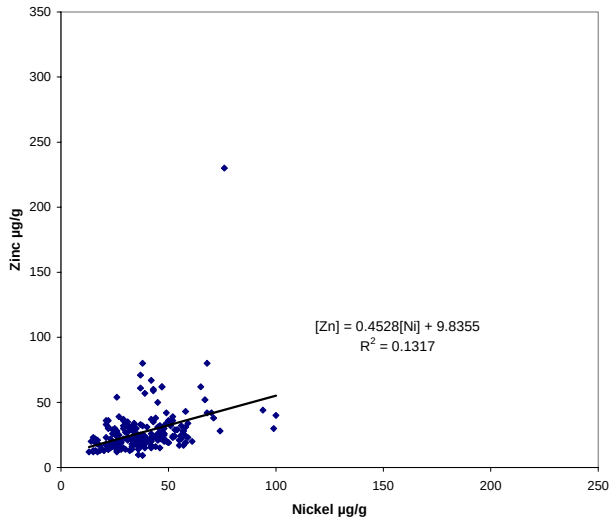


Fig. 10.4.1.21: Zn vs. Ni, 10-20 cm, Outer Com.

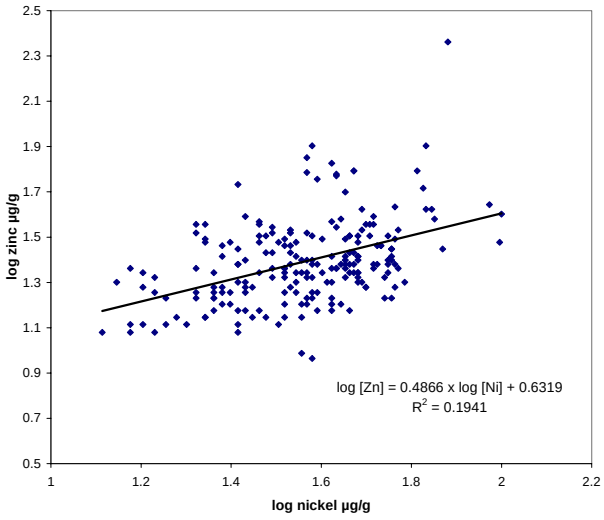


Fig. 10.4.1.21b: log Zn vs, log Ni, 10-20 cm, Outer com.

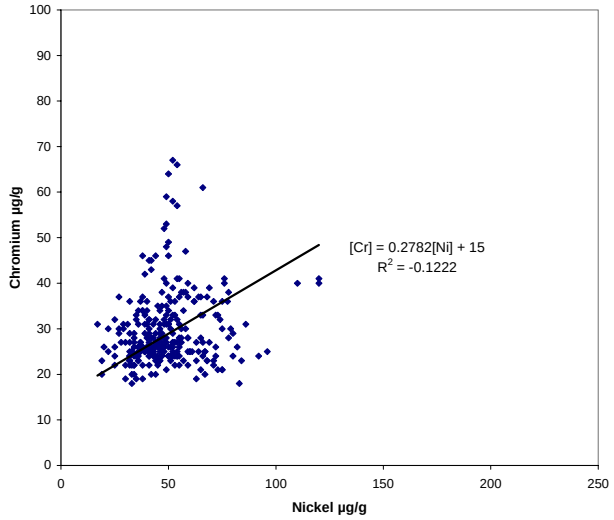


Fig. 10.4.1.22: Cr vs. Ni, 0-5 cm, Outer Com.

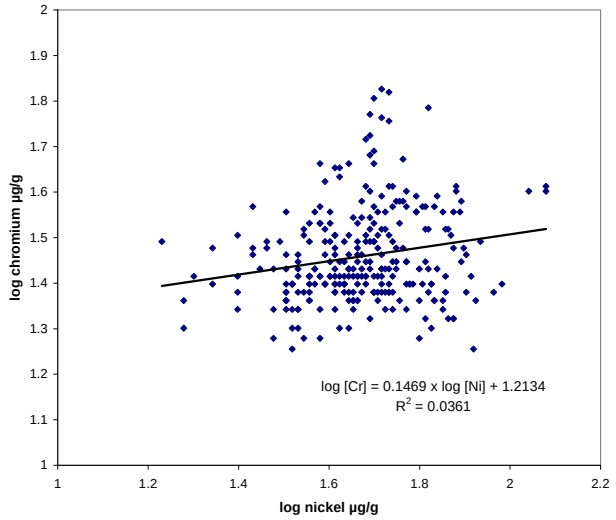


Fig. 10.4.1.22b: log Cr vs. log Ni, 0-5 cm, Outer Com.

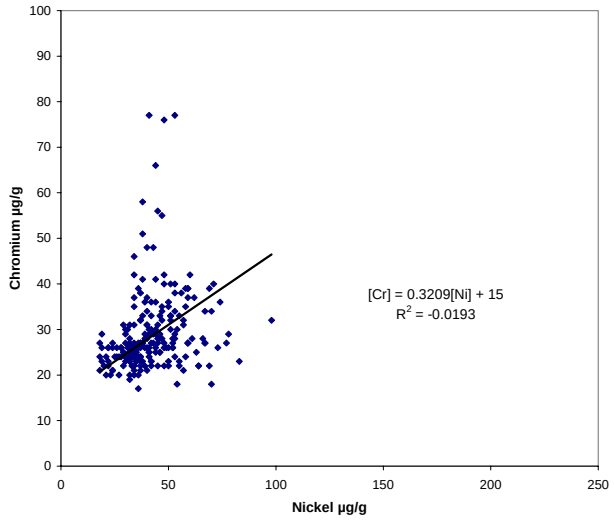


Fig. 10.4.1.23: Cr vs. Ni, 5-10 cm, Outer Com.

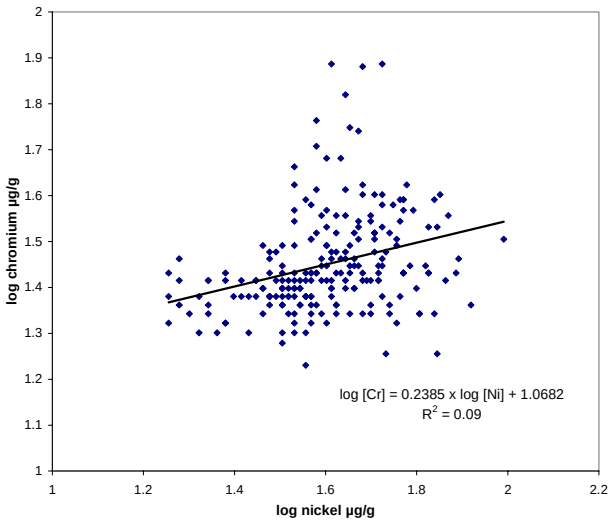


Fig. 10.4.1.23b: log Cr vs. log Ni, 5-10 cm, Outer Com.

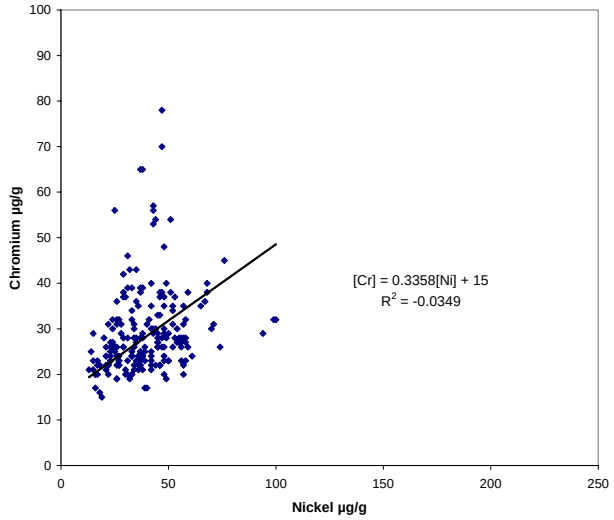


Fig. 10.4.1.24: Cr vs. Ni, 10-20 cm, Outer Com.

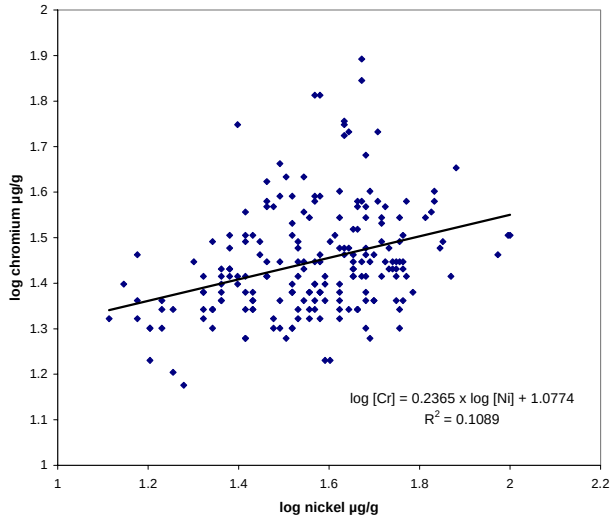


Fig. 10.4.1.24b: log Cr vs. log Ni, 10-20 cm, Outer Com.

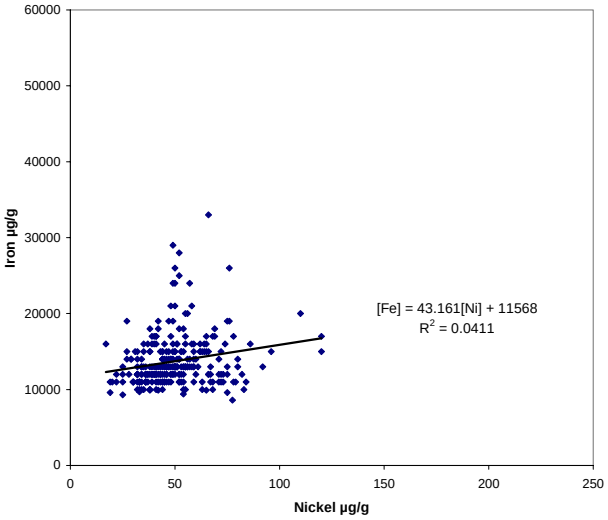


Fig. 10.4.1.25: Fe vs. Ni, 0-5 cm, Outer Com.

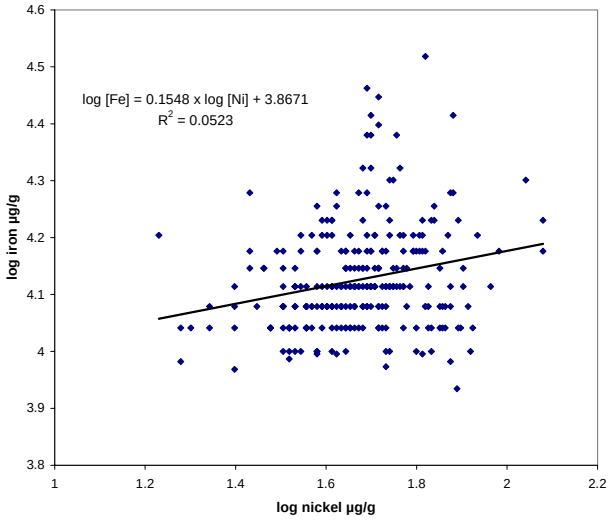


Fig. 10.4.1.25b: log Fe vs. log Ni, 0-5 cm, Outer Com.

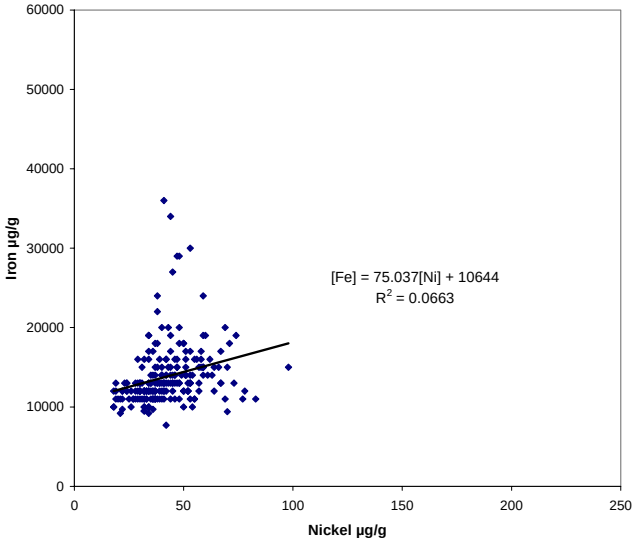


Fig. 10.4.1.26: Fe vs. Ni, 5-10 cm, Outer Com.

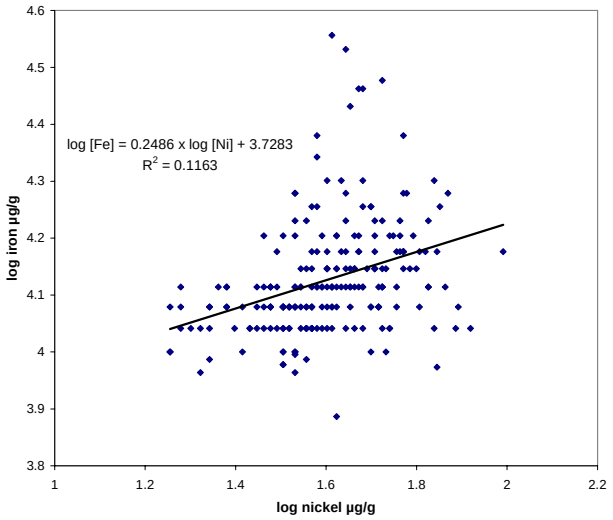


Fig. 10.4.1.26b: log Fe vs. log Ni, 5-10 cm, Outer Com.

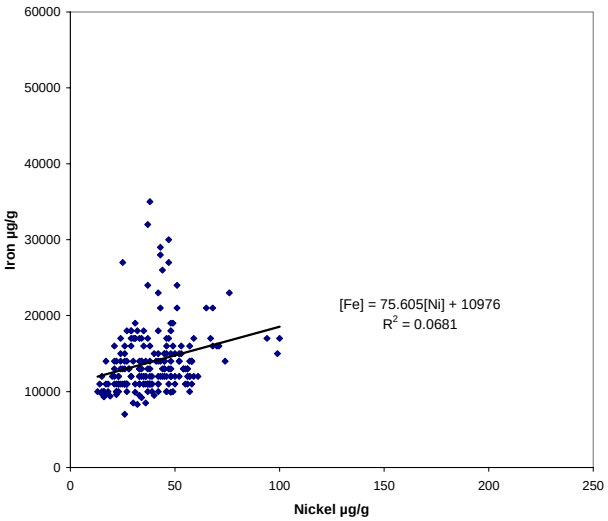


Fig. 10.4.1.27: Fe vs. Ni, 10-20 cm, Outer Com.

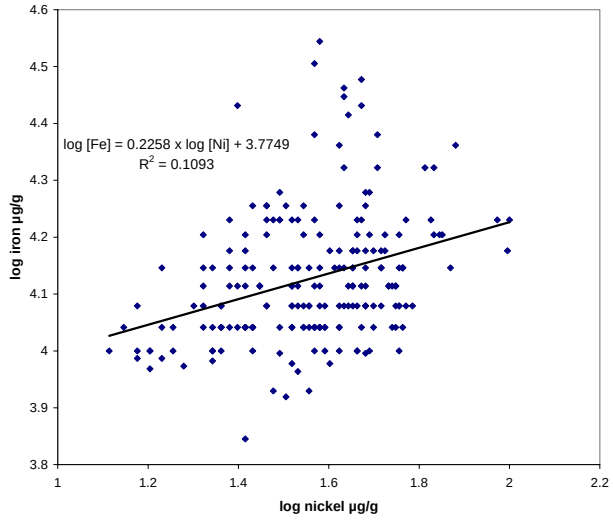


Fig. 10.4.1.27b: log Fe vs. log Ni, 10-20 cm, Outer Com.

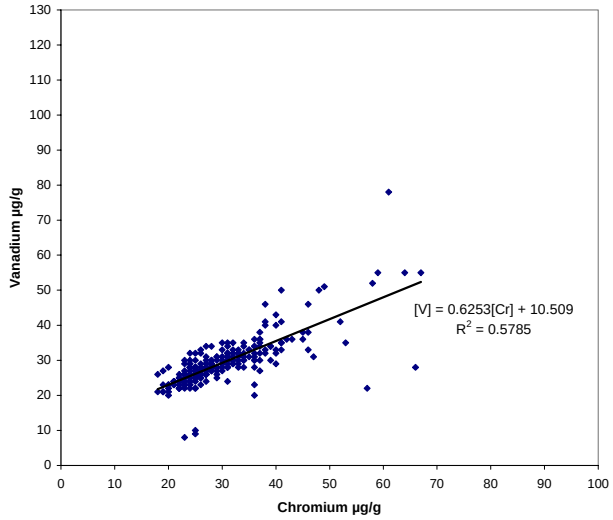


Fig. 10.4.1.28: V vs. Cr, 0-5 cm, Outer Com.

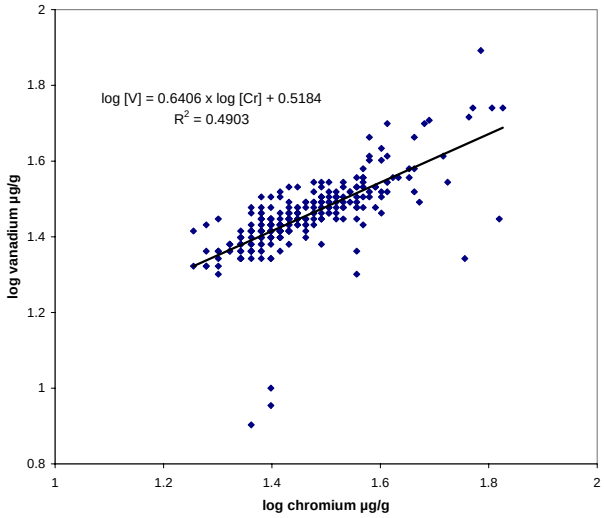


Fig. 10.4.1.28b: log V vs. Log Cr, 0-5 cm, Outer Com.

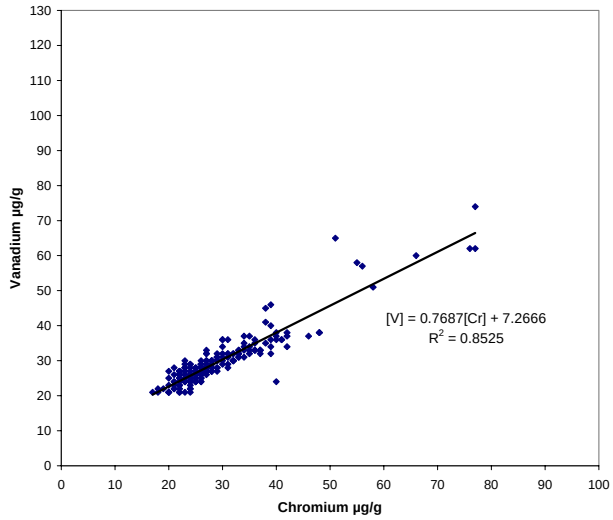


Fig. 10.4.1.29: V vs. Cr, 5-10 cm, Outer Com.

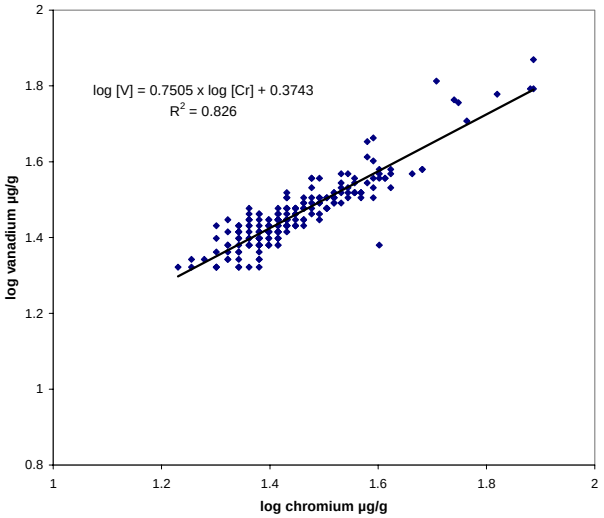


Fig. 10.4.1.29b: log V vs. log Cr, 5-10 cm, Outer Com.

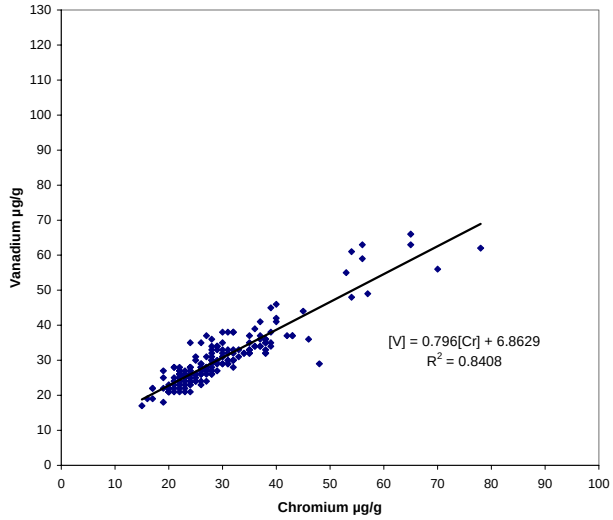


Fig. 10.4.1.30: V vs. Cr, 10-20 cm, Outer Com.

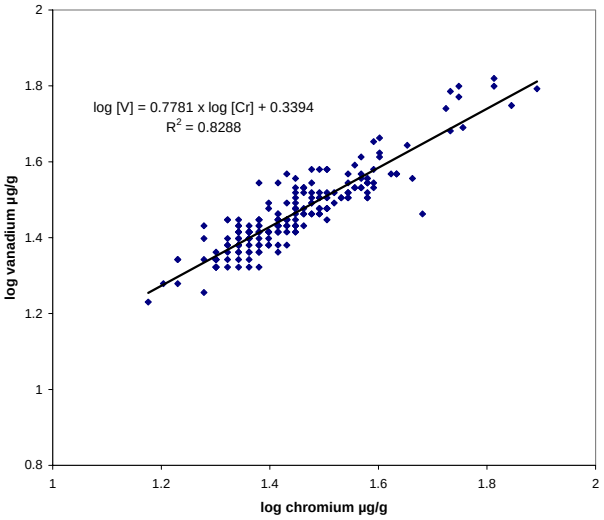


Fig. 10.4.1.30b: log V vs. log Cr, 10-20 cm, Outer Com.

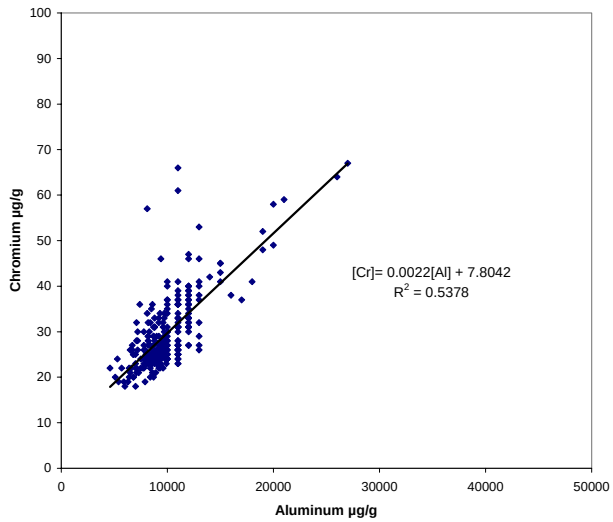


Fig. 10.4.1.31: Cr vs. Al, 0-5 cm, Outer Com.

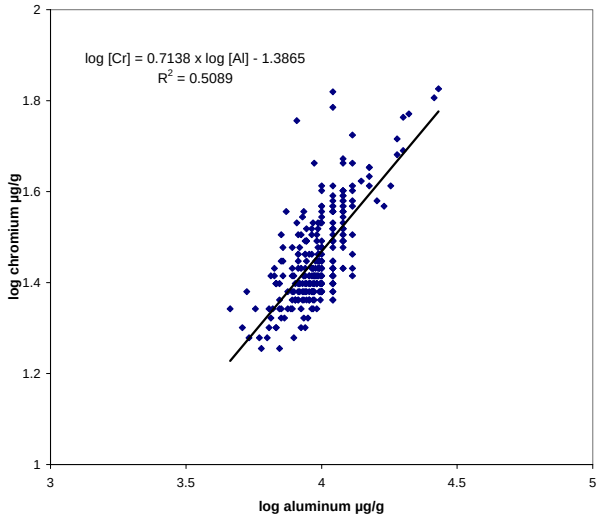


Fig. 10.4.1.31b: log Cr vs. log Al, 0-5 cm, Outer Com.

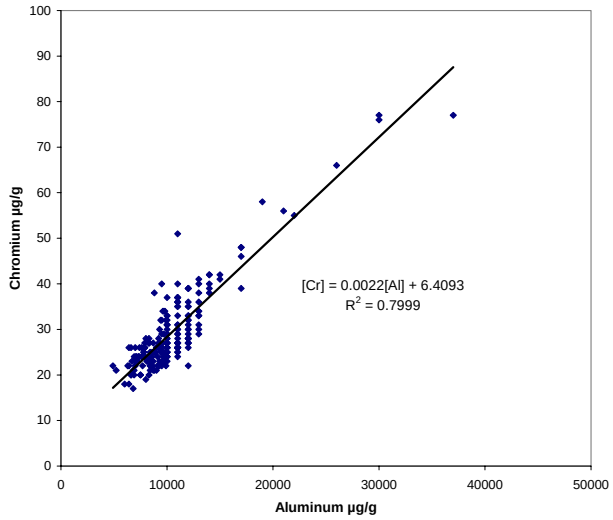


Fig. 10.4.1.32: Cr vs. Al, 5-10 cm, Outer Com.

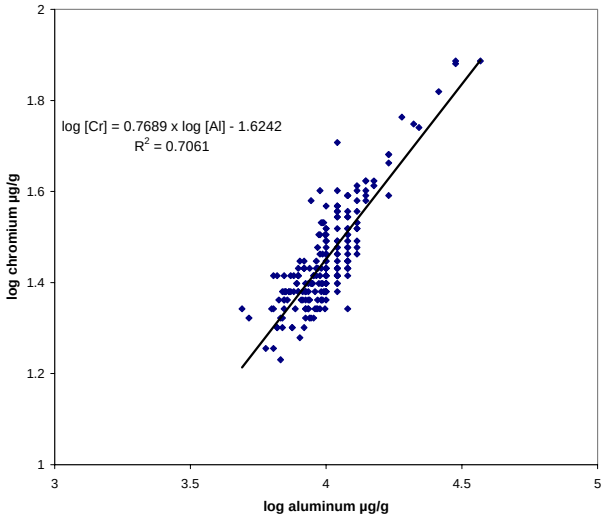


Fig. 10.4.1.32b: log Cr vs. log Al, 5-10 cm, Outer Com.

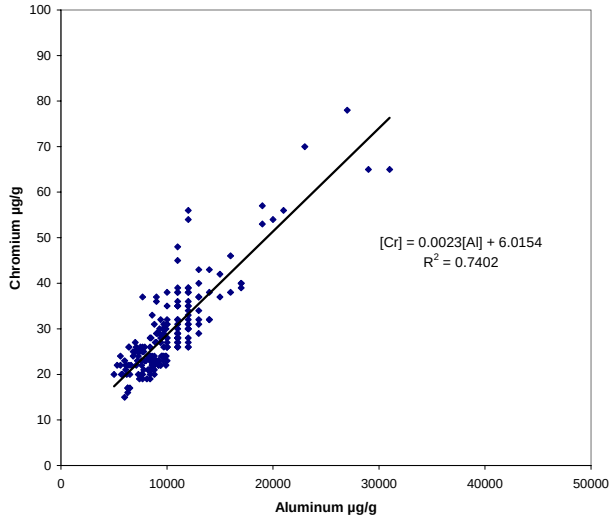


Fig. 10.4.1.33: Cr vs. Al, 10-20 cm, Outer Com.

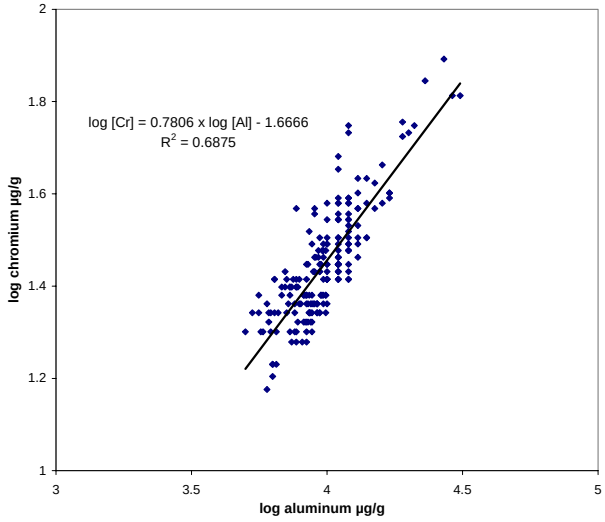


Fig. 10.4.1.33b: log Cr vs. log Al, 10-20 cm, Outer Com.

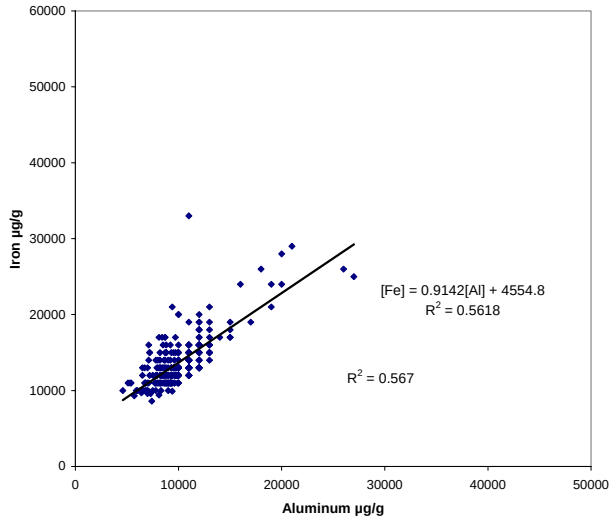


Fig. 10.4.1.34: Fe vs. Al, 0-5 cm, Outer Com.

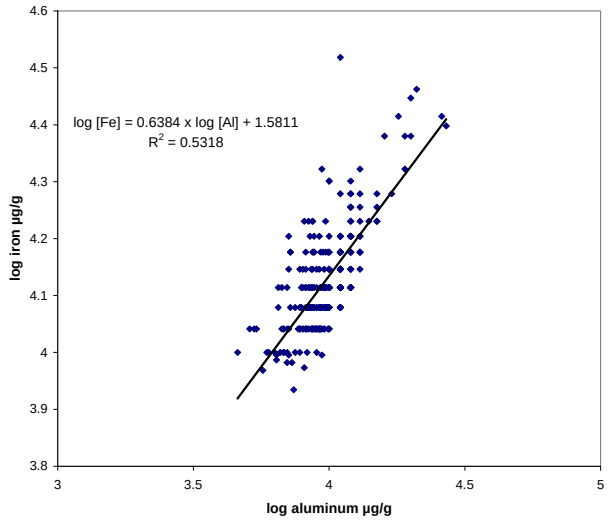


Fig. 10.4.1.34b: log Fe vs. log Al, 0-5 cm, Outer Com.

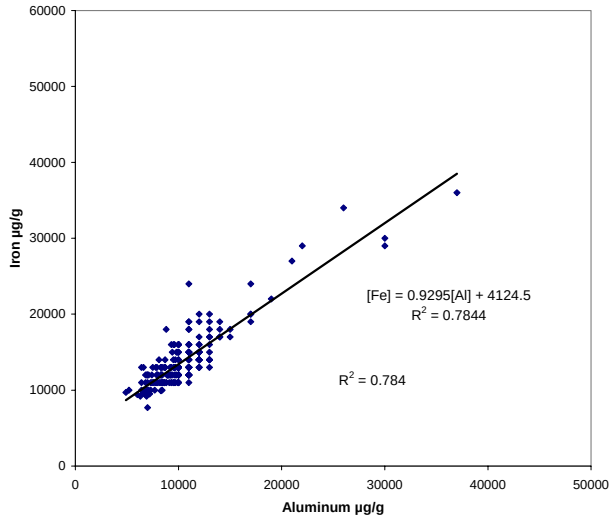


Fig. 10.4.1.35: Fe vs. Al, 5-10 cm, Outer Com.

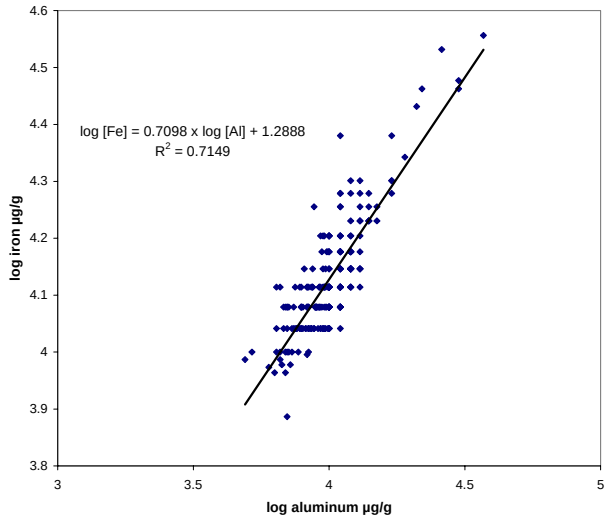


Fig. 10.4.1.35b: log Fe vs. log Al, 5-10 cm, Outer Com.

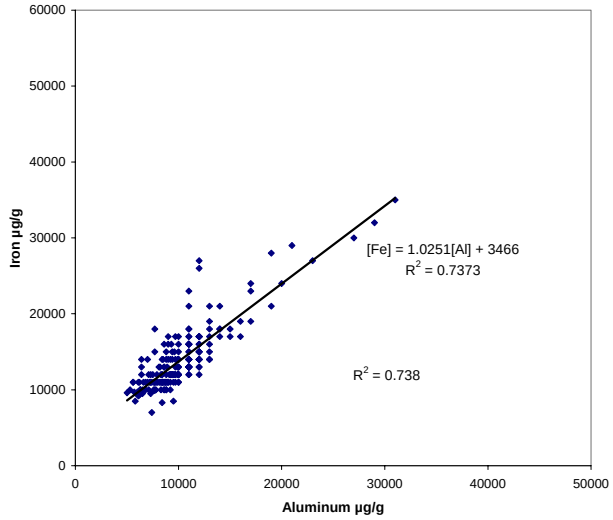


Fig. 10.4.1.36: Fe vs. Al, 10-20 cm, Outer Com.

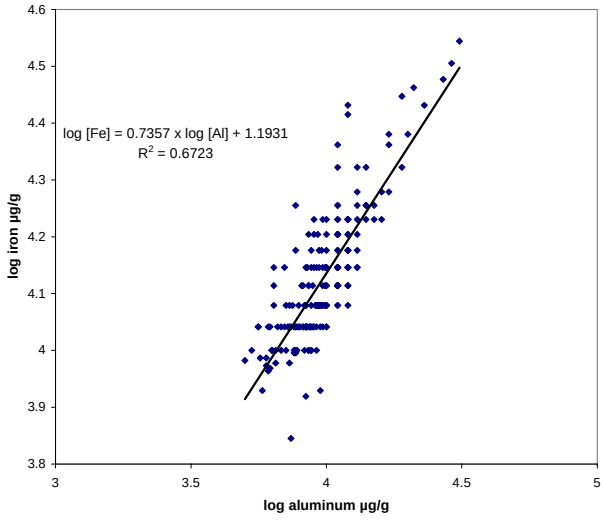


Fig. 10.4.1.36b: log Fe vs. log Al, 10-20 cm, Outer Com.

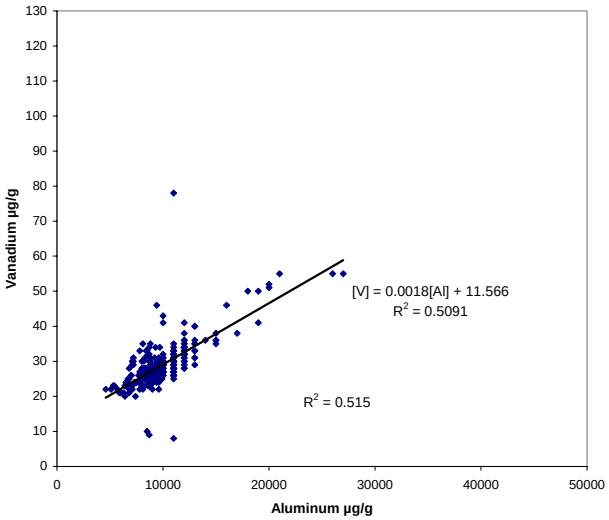


Fig. 10.4.1.37: V vs. Al, 0-5 cm, Outer Com.

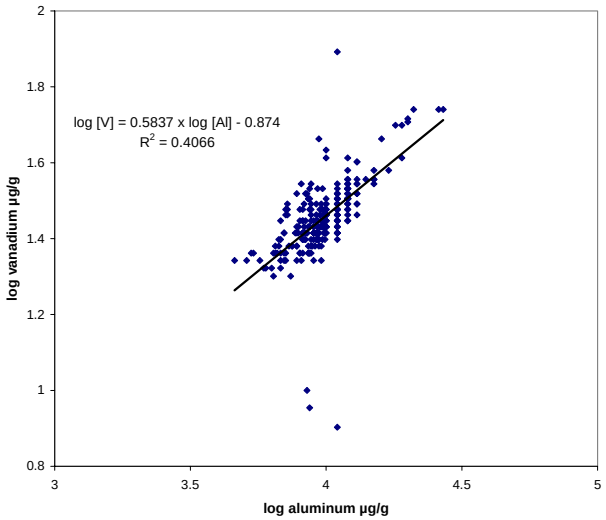


Fig. 10.4.1.37b: log V vs. log Al, 0-5 cm, Outer Com.

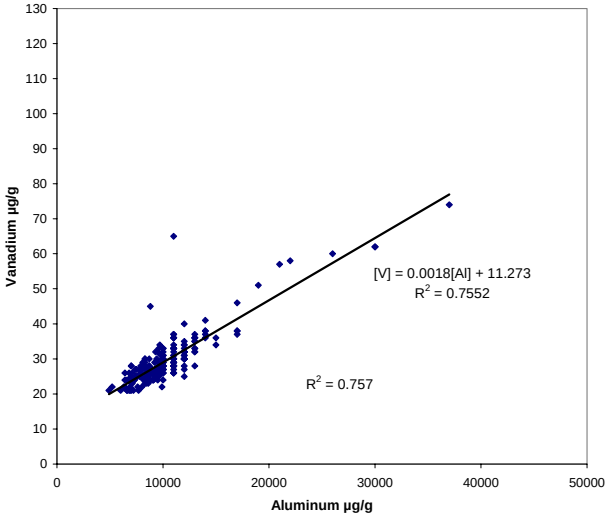


Fig. 10.4.1.38: V vs. Al, 5-10 cm, Outer Com.

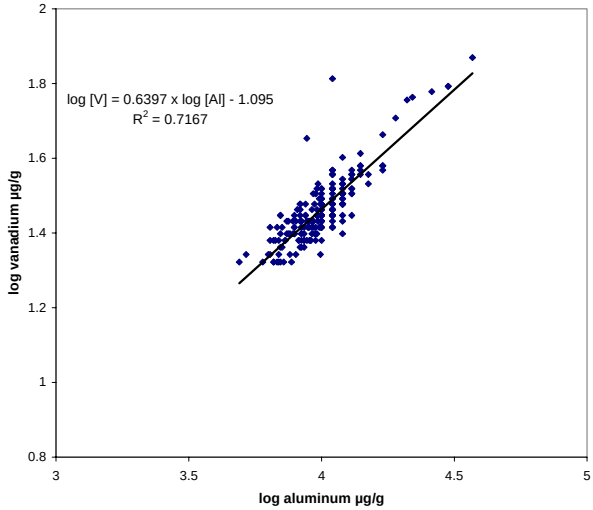


Fig. 10.4.1.38b: log V vs. log Al, 5-10 cm, Outer Com.

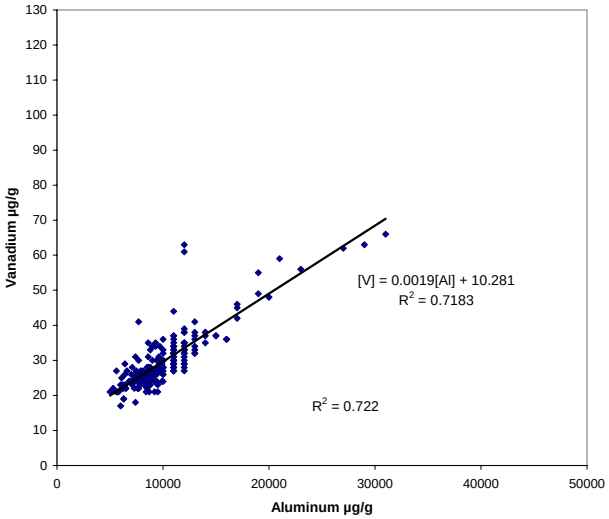


Fig. 10.4.1.39: V vs. Al, 10-20 cm, Outer Com.

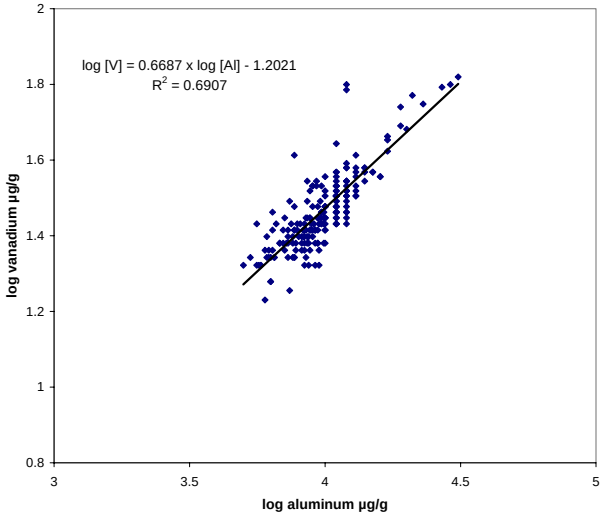


Fig. 10.4.1.39b: log V vs. log Al, 10-20 cm, Outer Com.

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.)

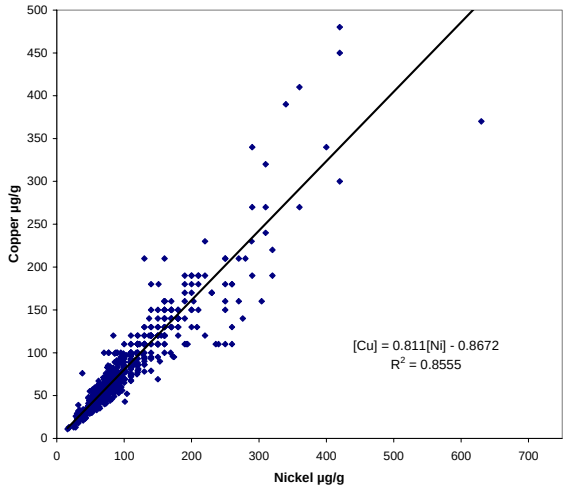


Fig. 10.4.2.1: Cu vs. Ni, 0-5 cm, Inner Com.

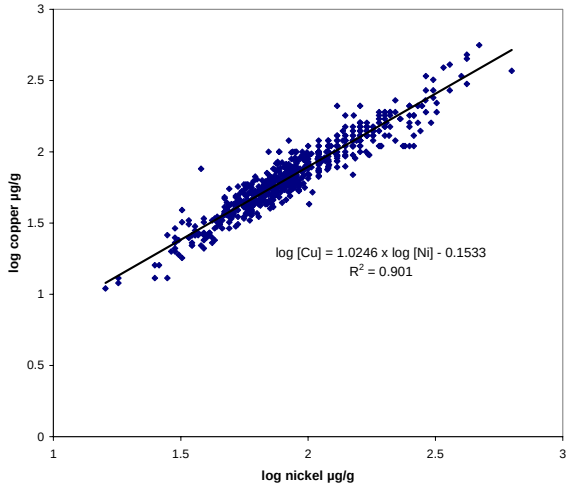


Fig. 10.4.2.1a: log Cu vs. log Ni, 0-5 cm, Inner Com.

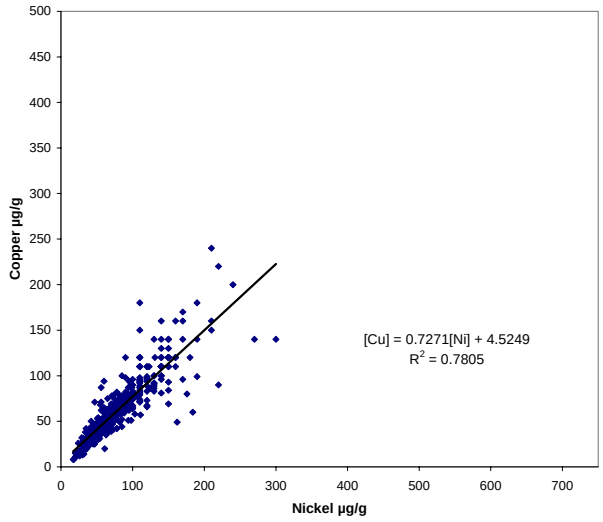


Fig. 10.4.2.2: Cu vs. Ni, 5-10 cm, Inner Com.

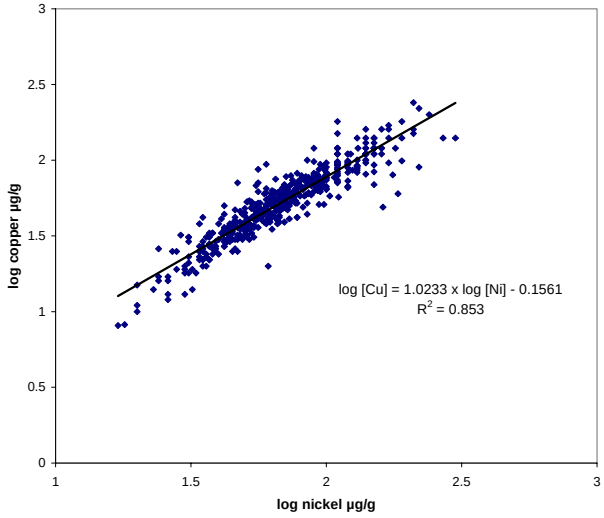


Fig. 10.4.2.2b: log Cu vs. log Ni, 5-10 cm, Inner Com.

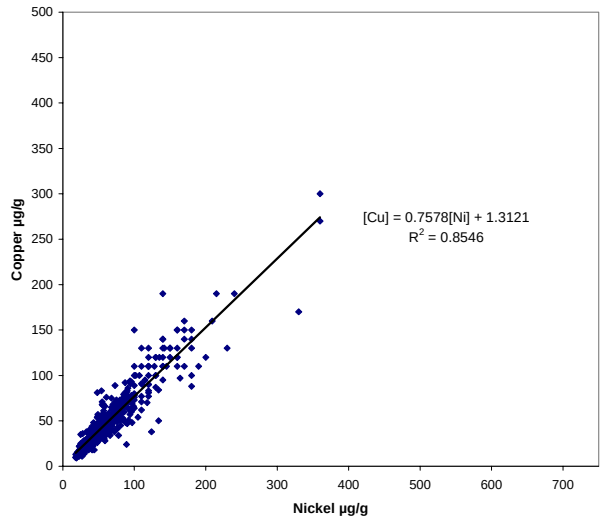


Fig. 10.4.2.3: Cu vs. Ni, 10-20 cm, Inner Com.

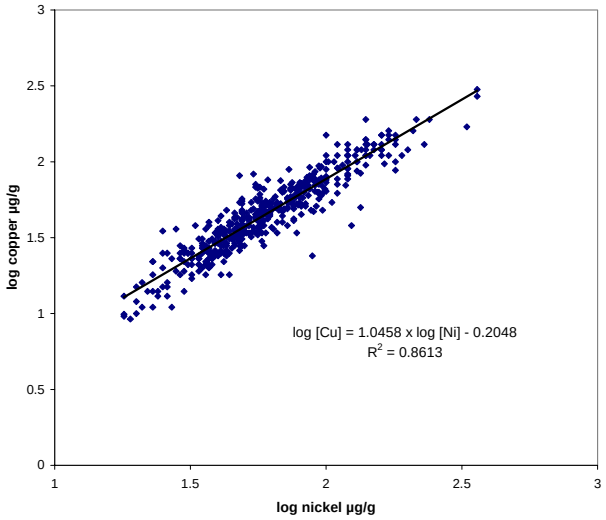


Fig. 10.4.2.3b: log Cu vs. log Ni, 10-20 cm, Inner Com.

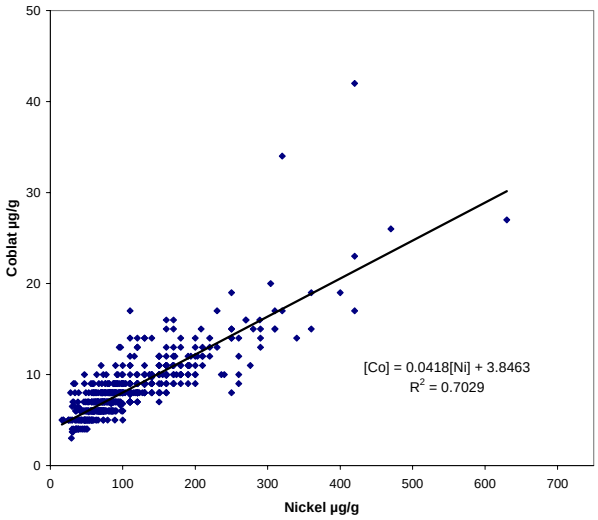


Fig. 10.4.2.4: Co vs. Ni, 0-5 cm, Inner Com.

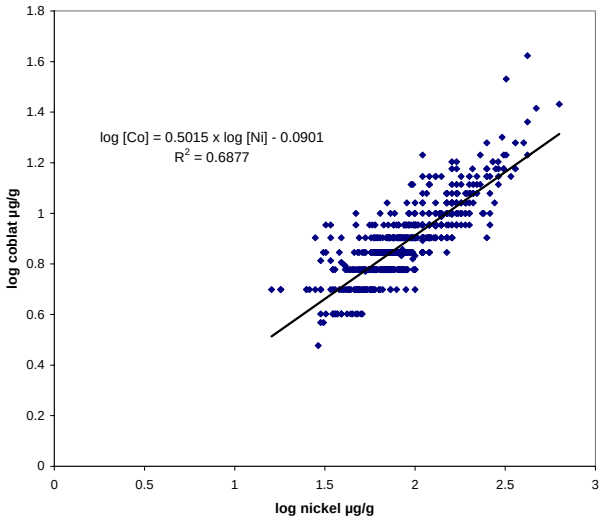


Fig. 10.4.2.4b: log Co vs. log Ni, 0-5 cm, Inner Com.

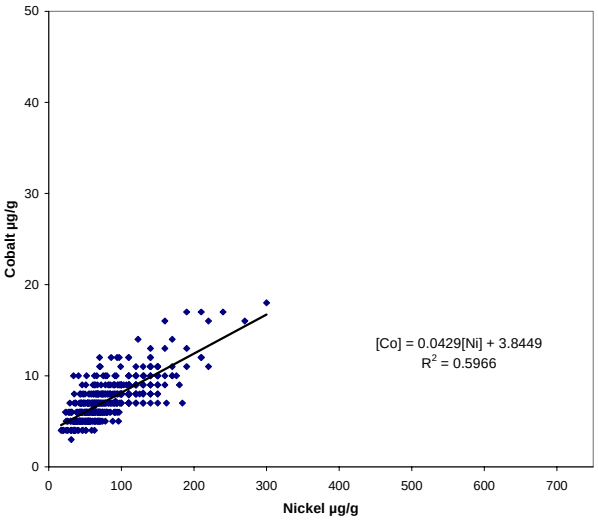


Fig. 10.4.2.5: Co vs. Ni, 5-10 cm, Inner Com.

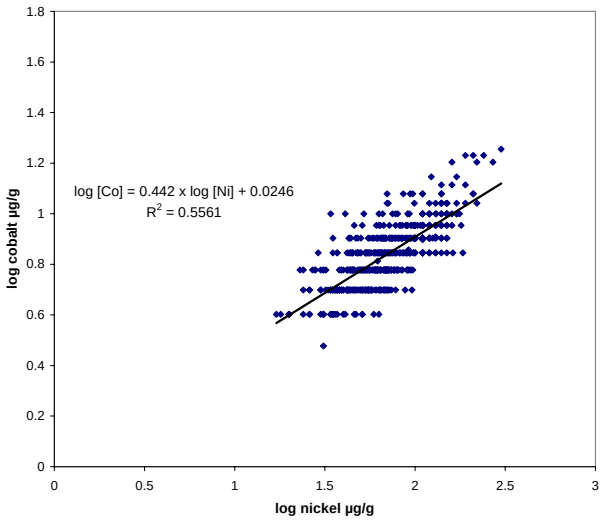


Fig. 10.4.2.5b: log Co vs. log Ni, 5-10 cm, Inner Com.

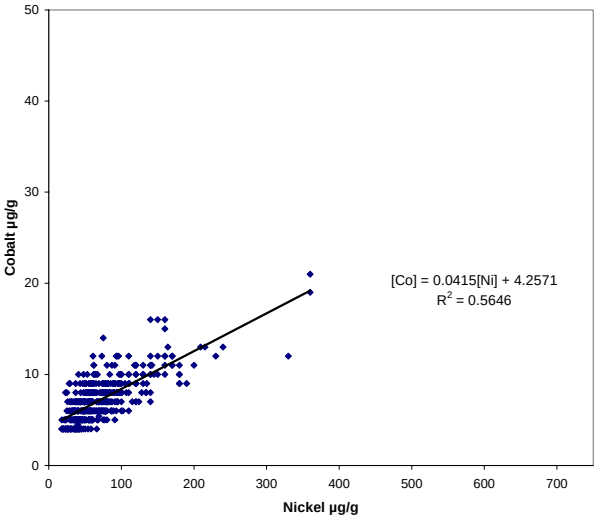


Fig. 10.4.2.6: Co vs. Ni, 10-20 cm, Inner Com.

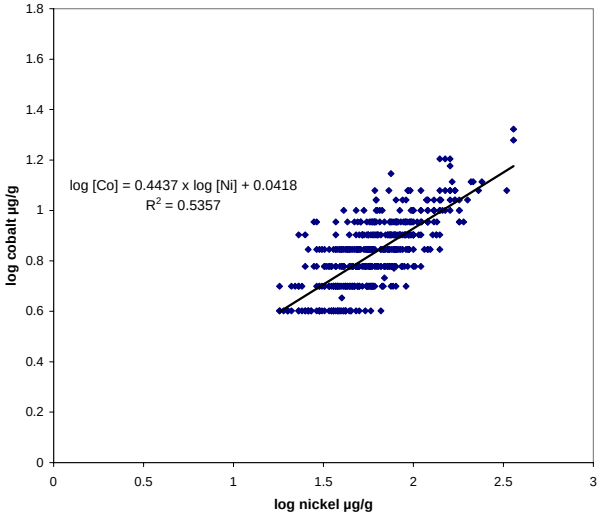


Fig. 10.4.2.6b: log Co vs. log Ni, 10-20 cm, Inner Com.

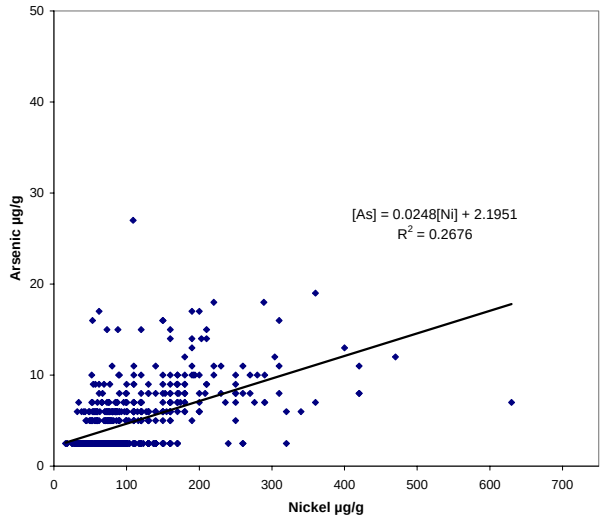


Fig. 10.4.2.7: As vs. Ni, 0-5 cm, Inner Com.

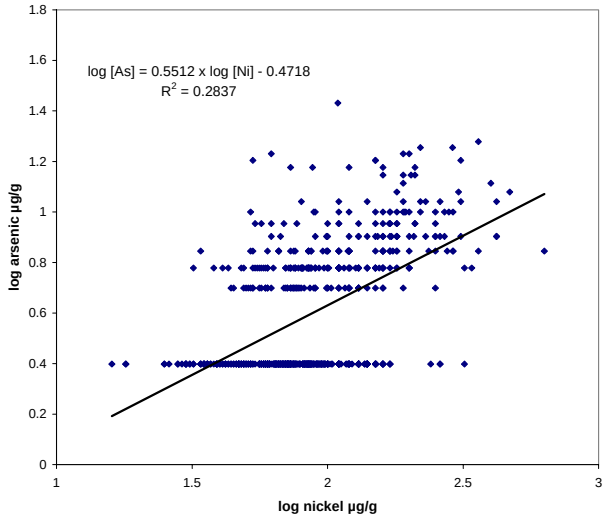


Fig. 10.4.2.7b: log As vs. log Ni, 0-5 cm, Inner Com.

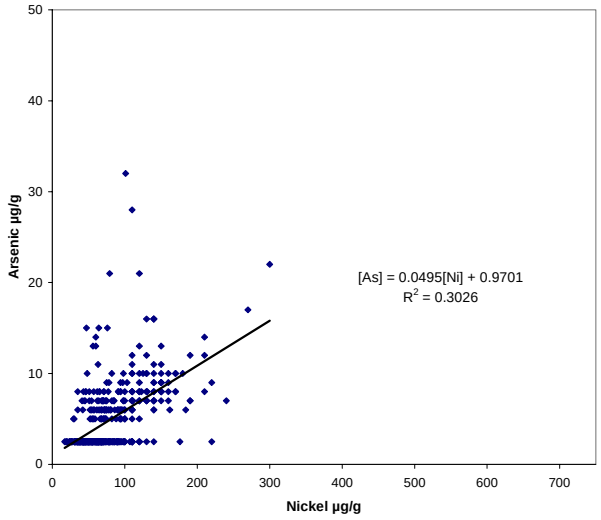


Fig. 10.4.2.8: As vs. Ni, 5-10 cm, Inner Com.

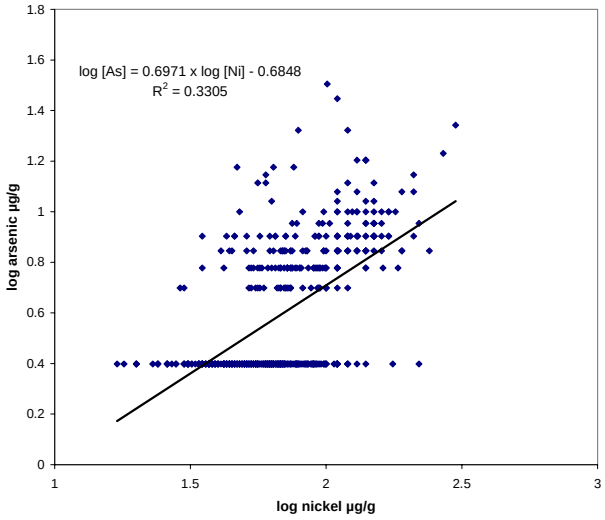


Fig. 10.4.2.8b: log As vs. log Ni, 5-10 cm, Inner Com.

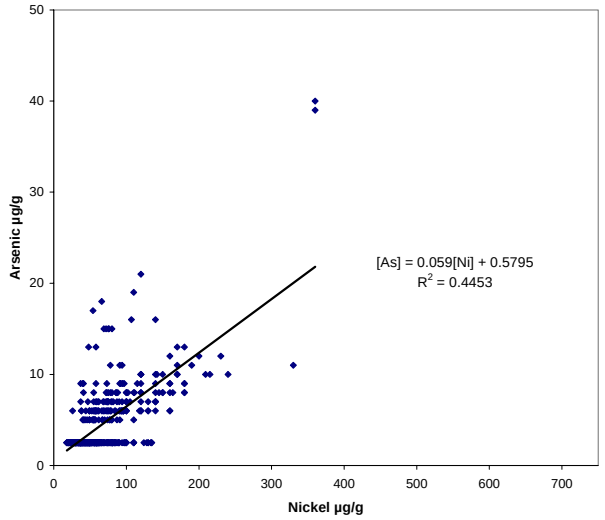


Fig. 10.4.2.9: As vs. Ni, 10-20 cm, Inner Com.

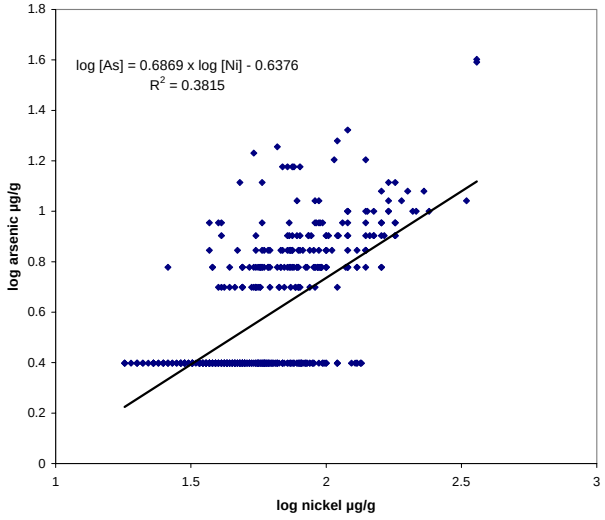


Fig. 10.4.2.9b: log As vs. log Ni, 10-20 cm, Inner Com.

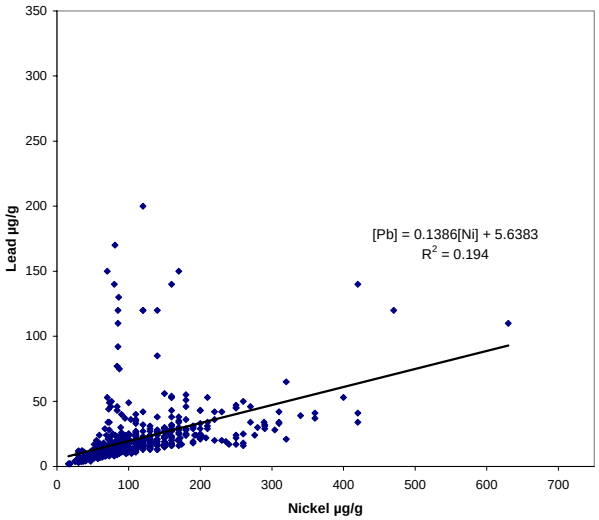


Fig. 10.4.2.10: Pb vs. Ni, 0-5 cm, Inner Com.

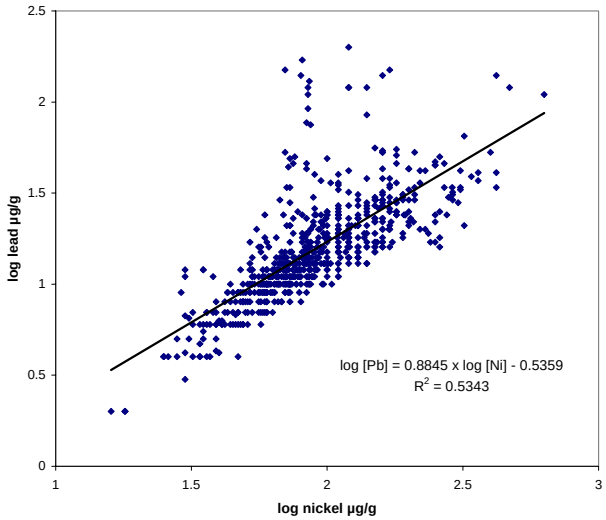


Fig. 10.4.2.10b: log Pb vs. log Ni, 0-5 cm, Inner Com.

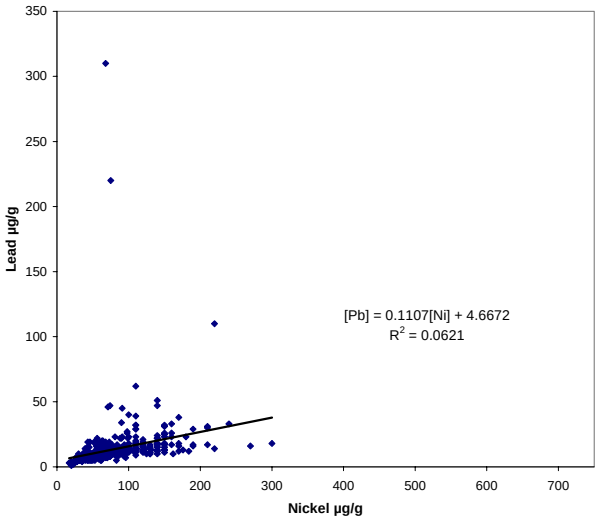


Fig. 10.4.2.11: Pb vs. Ni, 5-10 cm, Inner Com.

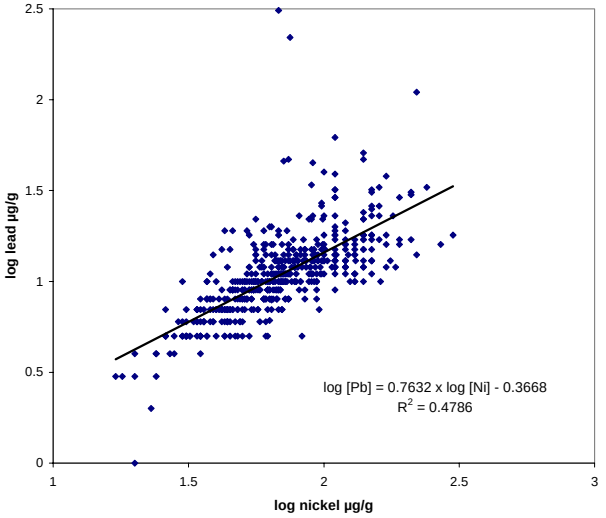


Fig. 10.4.2.11b: log Pb vs. log Ni, 5-10 cm, Inner Com.

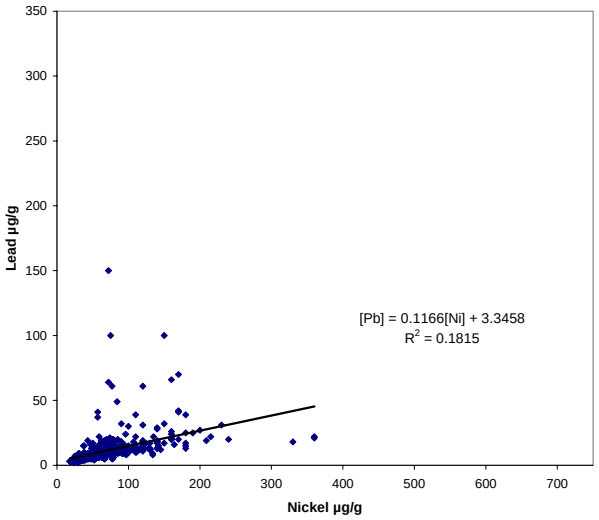


Fig. 10.4.2.12: Pb vs. Ni, 10-20 cm, Inner Com.

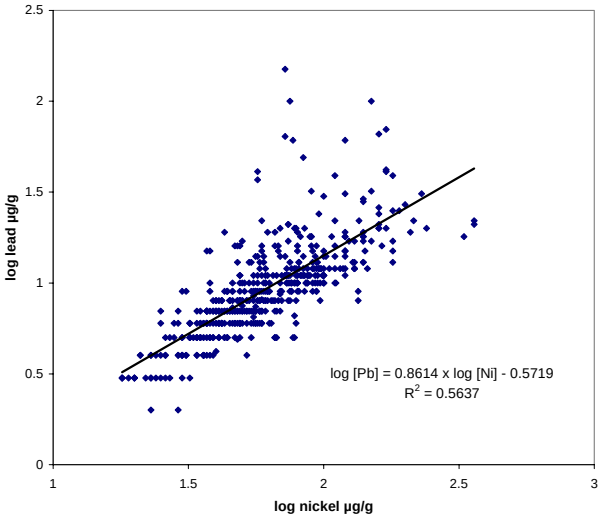


Fig. 10.4.2.12b: log Pb vs. log Ni, 10-20 cm, Inner Com.

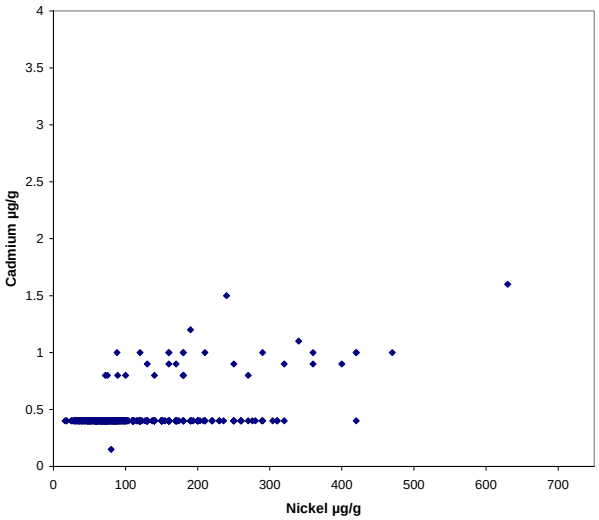


Fig. 10.4.2.13: Cd vs. Ni, 0-5 cm, Inner Com.

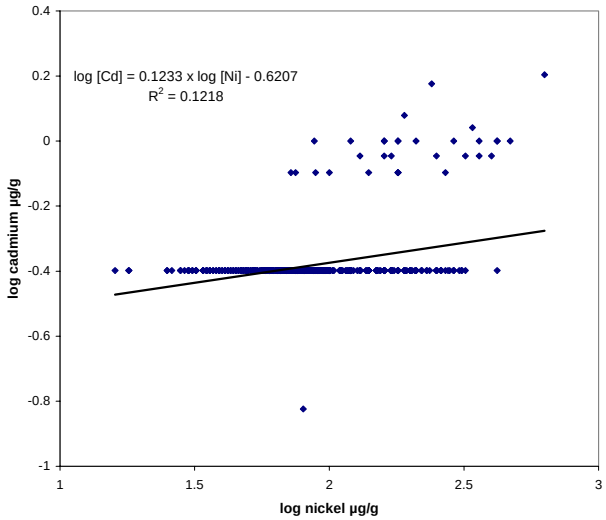


Fig. 10.4.2.13b: log Cd vs. log Ni, 0-5 cm, Inner Com.

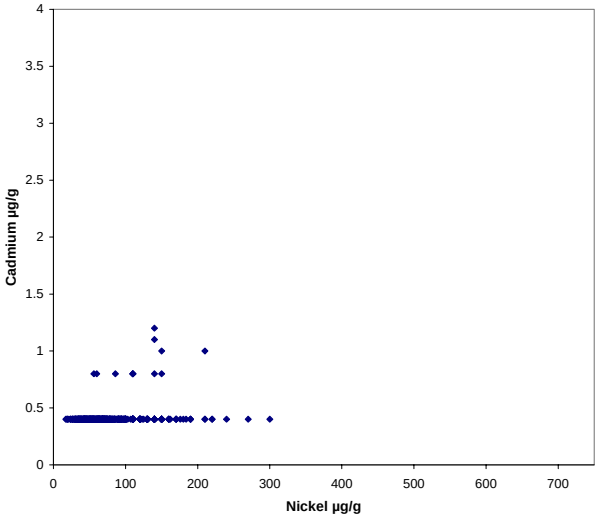


Fig. 10.4.2.14: Cd vs. Ni, 5-10 cm, Inner Com.

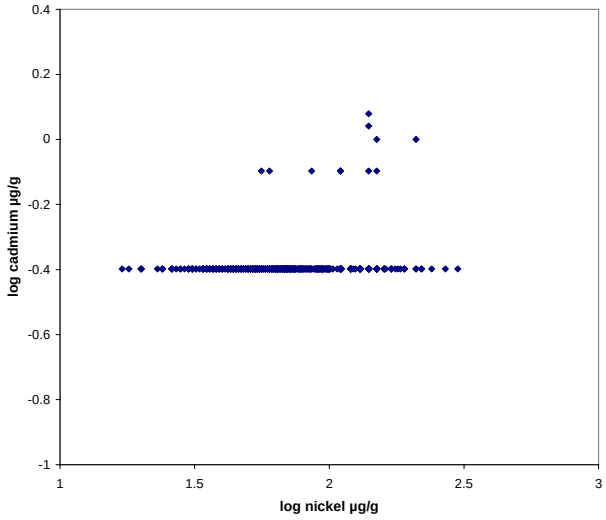


Fig. 10.4.2.14b: log Cd vs. log Ni, 5-10 cm, Inner Com.

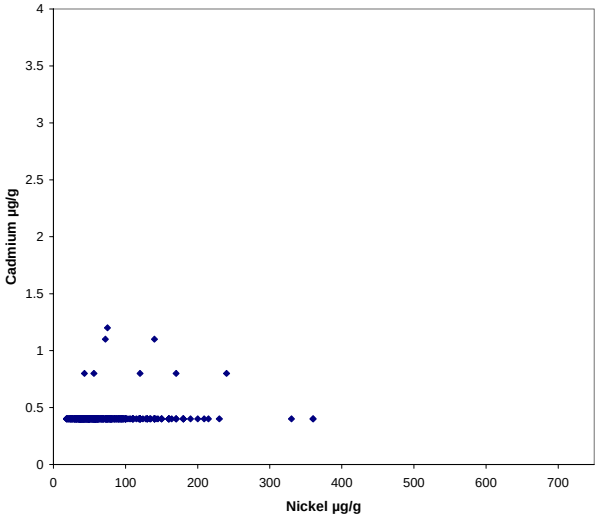


Fig. 10.4.2.15: Cd vs. Ni, 10-20 cm, Inner Com.

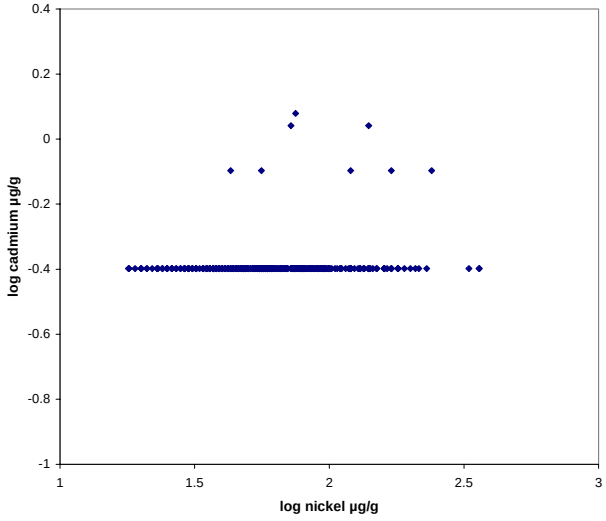


Fig. 10.4.2.15b: log Cd vs. log Ni, 10-20 cm, Inner Com.

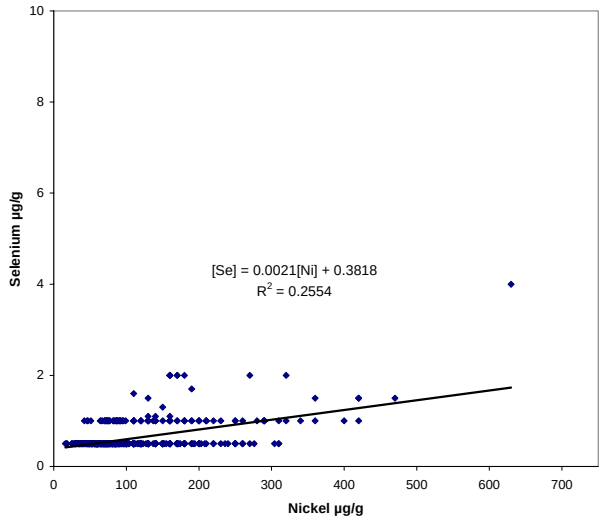


Fig. 10.4.2.16: Se vs. Ni, 0-5 cm, Inner Com.

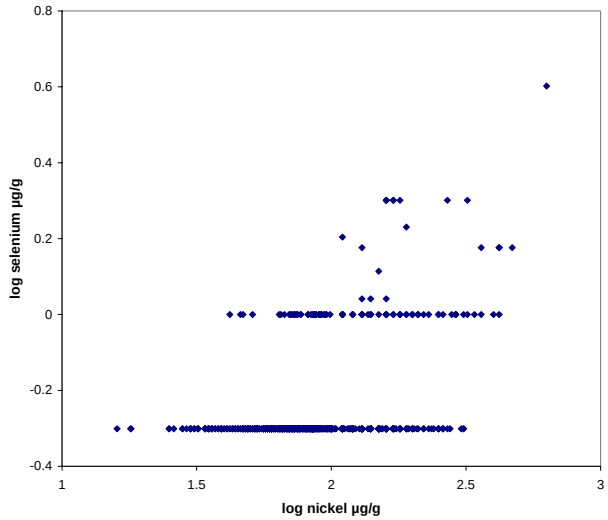


Fig. 10.4.2.16b: log Se vs. log Ni, 0-5 cm, Inner Com.

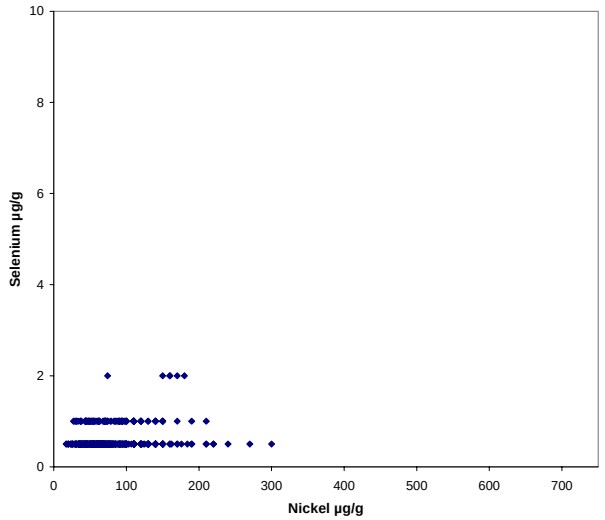


Fig. 10.4.2.17: Se vs. Ni, 5-10 cm, Inner Com.

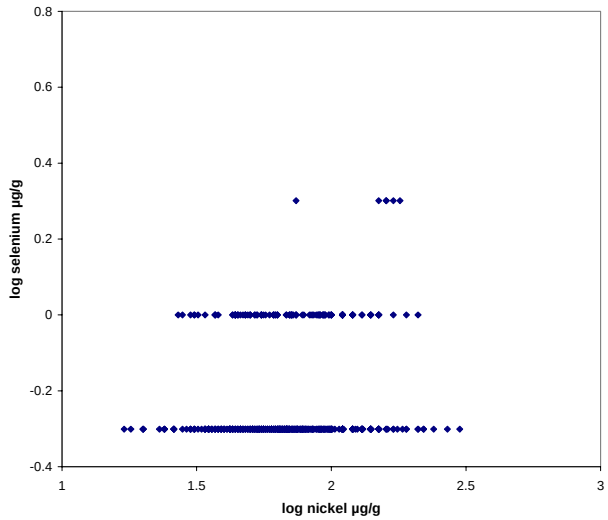


Fig. 10.4.2.17b: log Se vs. log Ni, 5-10 cm, Inner Com.

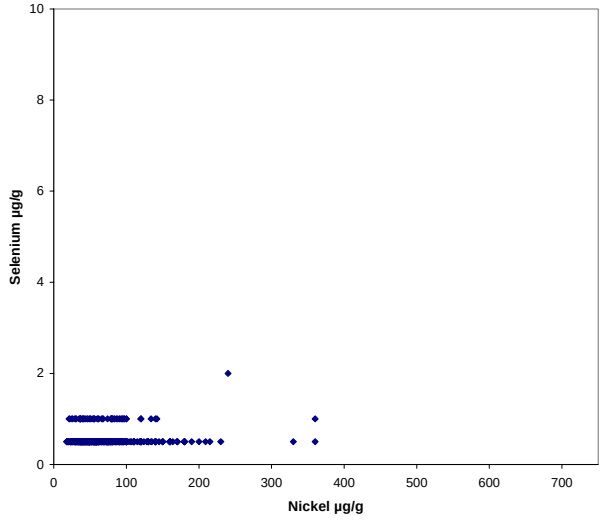


Fig. 10.4.2.18: Se vs. Ni, 10-20 cm, Inner Com.

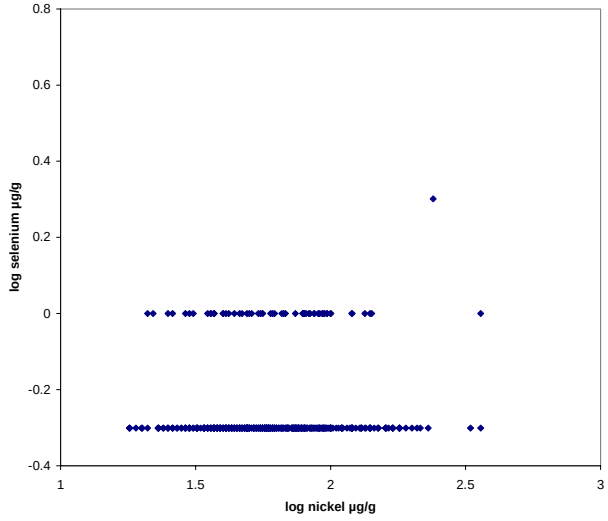


Fig. 10.4.2.18b: log Se vs. log Ni, 10-20 cm, Inner Com.

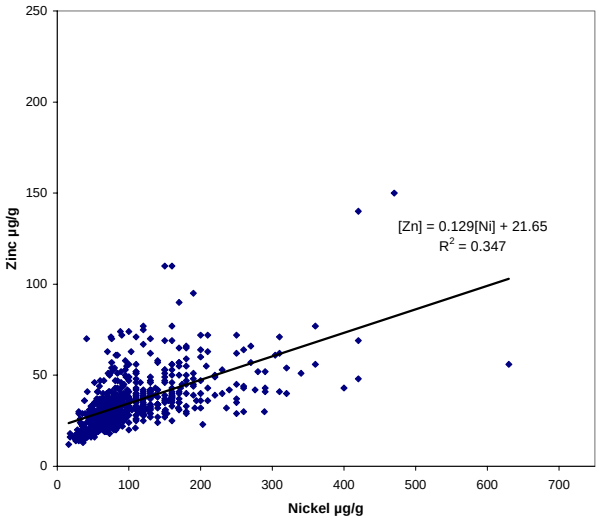


Fig. 10.4.2.19: Zn vs. Ni, 0-5 cm, Inner Com.

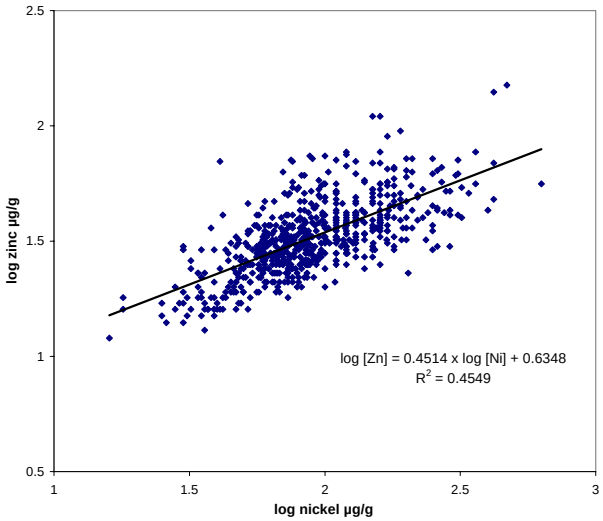


Fig. 10.4.2.19b: log Zn vs. log Ni, 0-5 cm, Inner Com.

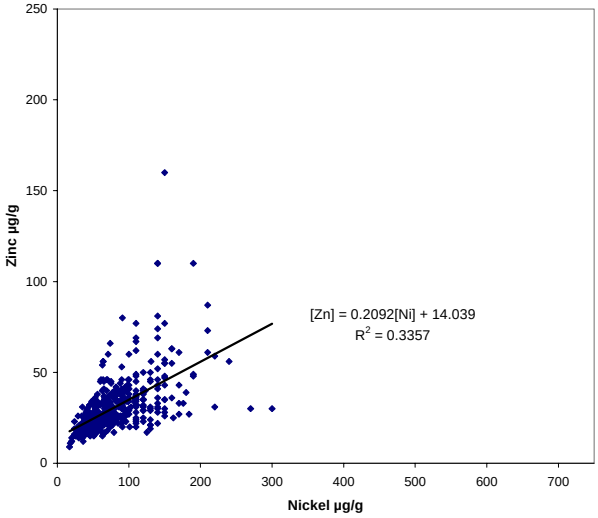


Fig. 10.4.2.20: Zn vs. Ni, 5-10 cm, Inner Com.

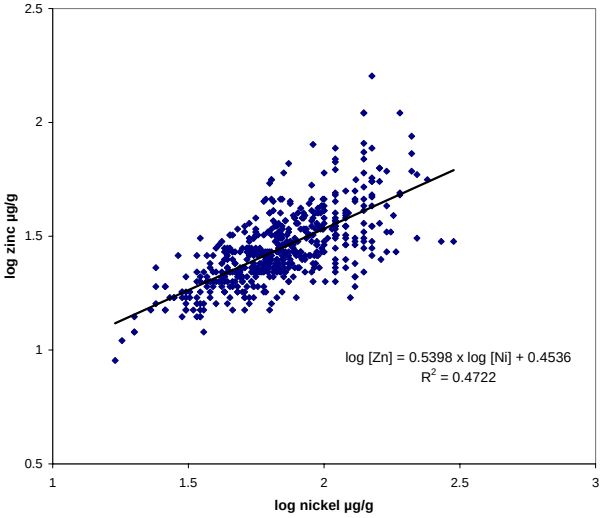


Fig. 10.4.2.20b: log Zn vs. log Ni, 5-10 cm, Inner Com.

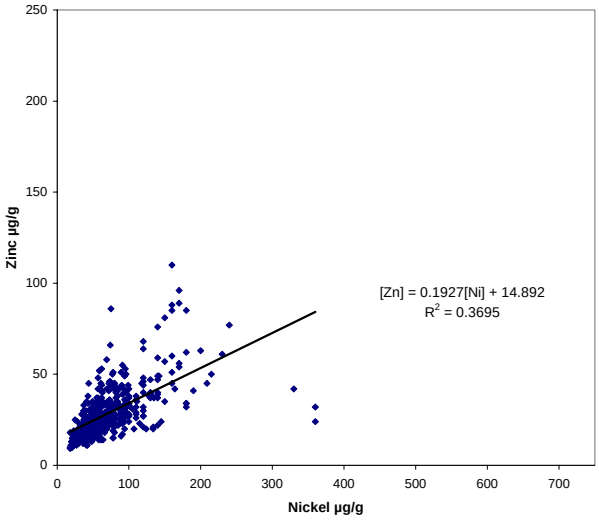


Fig. 10.4.2.21: Zn vs. Ni, 10-20 cm, Inner Com.

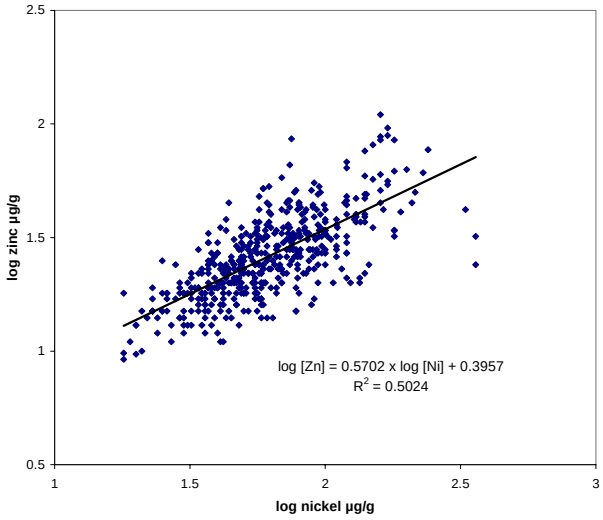


Fig. 10.4.2.21b: log Zn vs. log Ni, 10-20 cm, Inner Com.

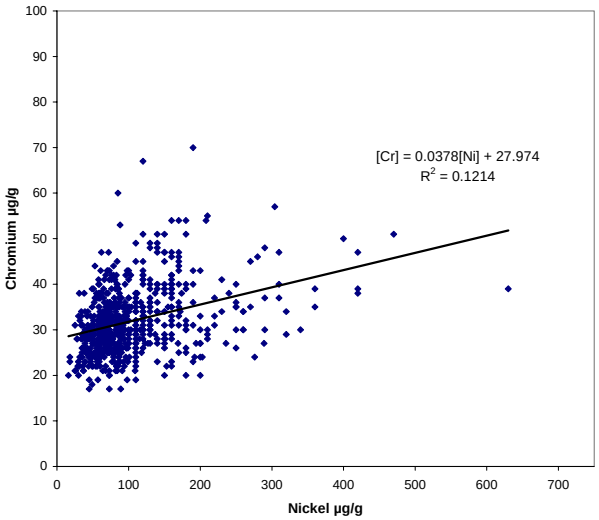


Fig. 10.4.2.22: Cr vs. Ni, 0-5 cm, Inner Com.

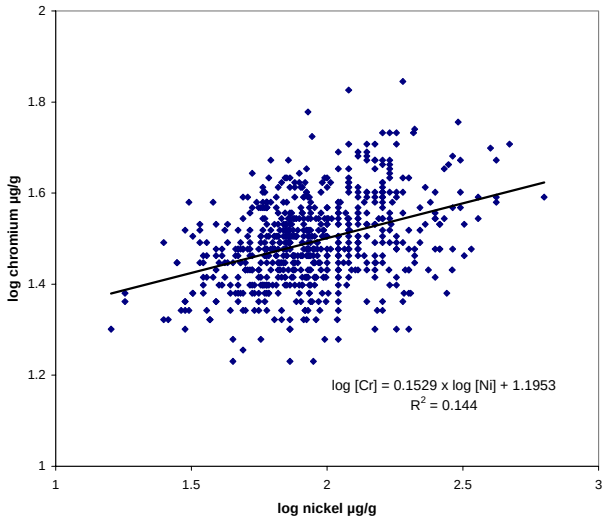


Fig. 10.4.2.22b: log Cr vs. log Ni, 0-5 cm, Inner Com.

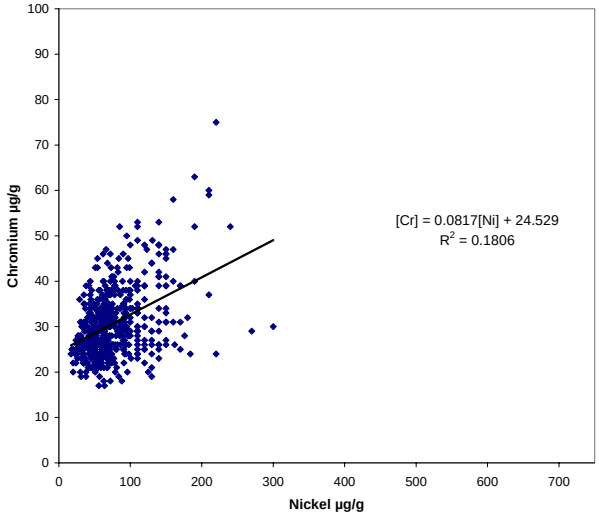


Fig. 10.4.2.23: Cr vs. Ni, 5-10 cm, Inner Com.

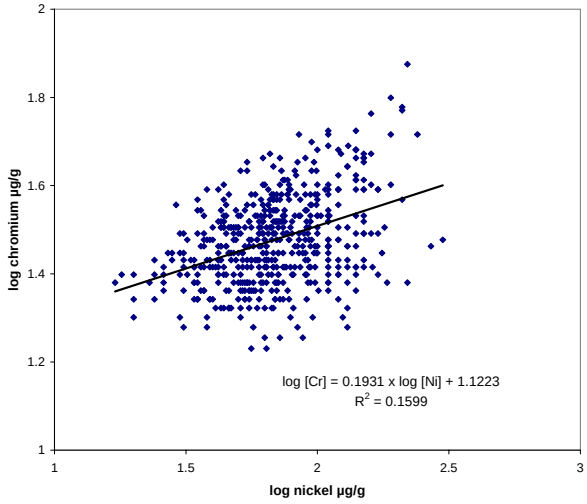


Fig. 10.4.2.23b: log Cr vs. log Ni, 5-10 cm, Inner Com.

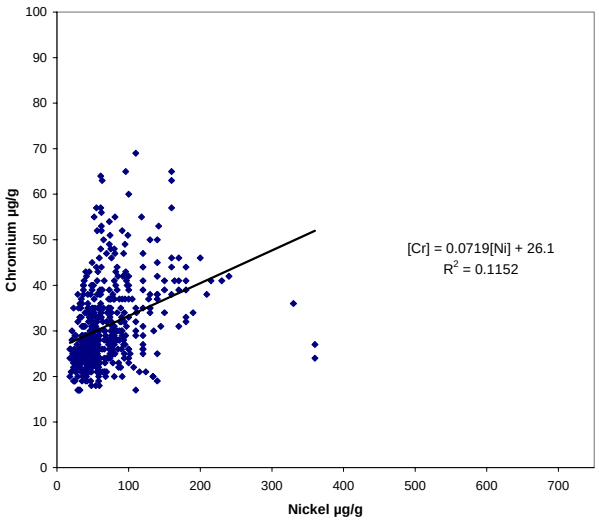


Fig. 10.4.2.24: Cr vs. Ni, 10-20 cm, Inner Com.

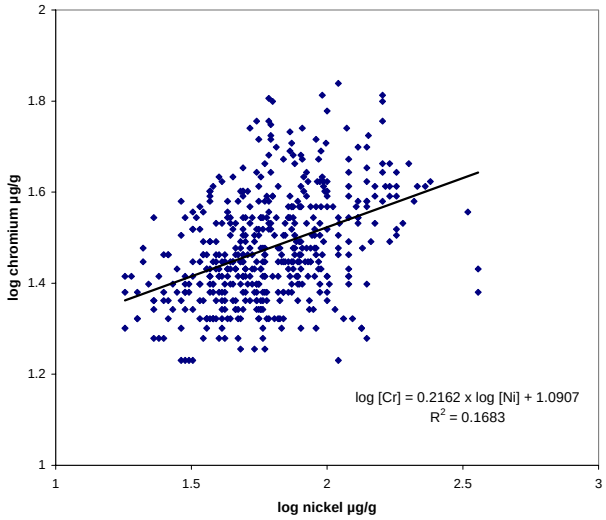


Fig. 10.4.2.24b: log Cr vs. log Ni, 10-20 cm, Inner Com.

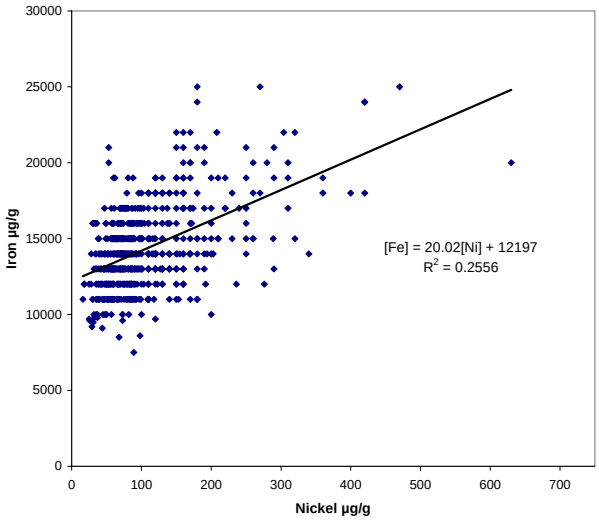


Fig. 10.4.2.25: Fe vs. Ni, 0-5 cm, Inner Com.

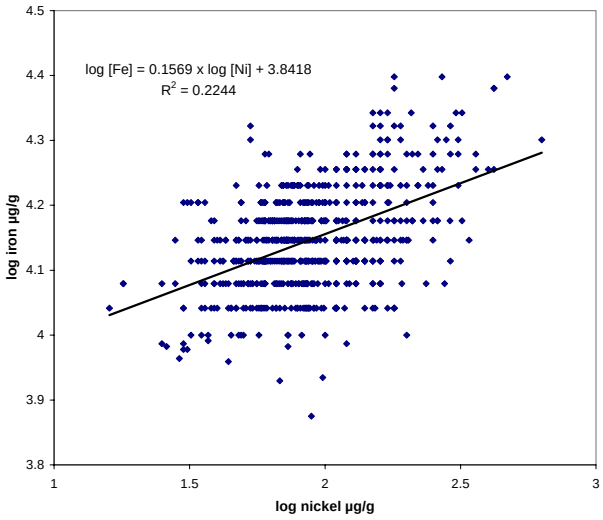


Fig. 10.4.2.25b: log Fe vs. log Ni, 0-5 cm, Inner Com.

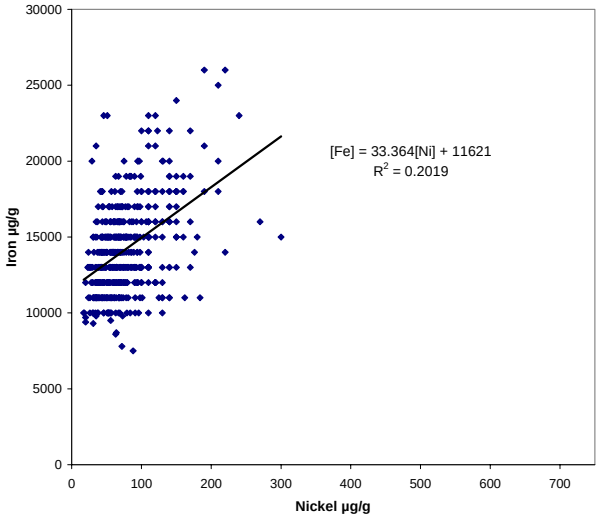


Fig. 10.4.2.26: Fe vs. Ni, 5-10 cm, Inner Com.

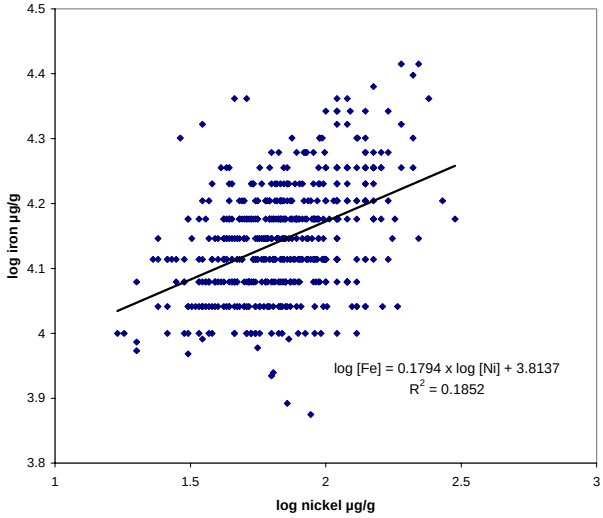


Fig. 10.4.2.26b: log Fe vs. log Ni, 5-10 cm, Inner Com.

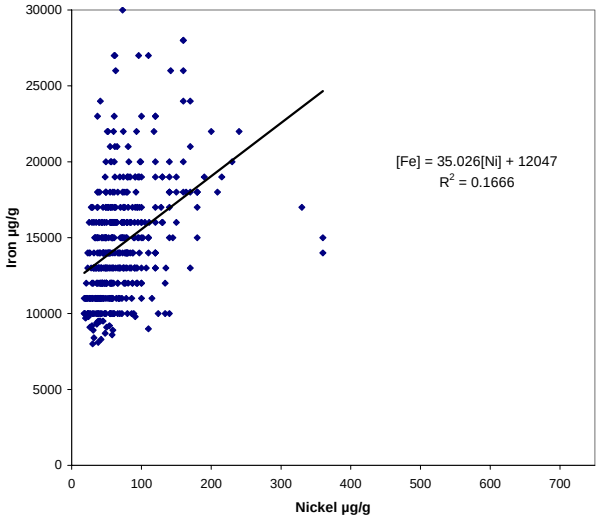


Fig. 10.4.2.27: Fe vs. Ni, 10-20 cm, Inner Com.

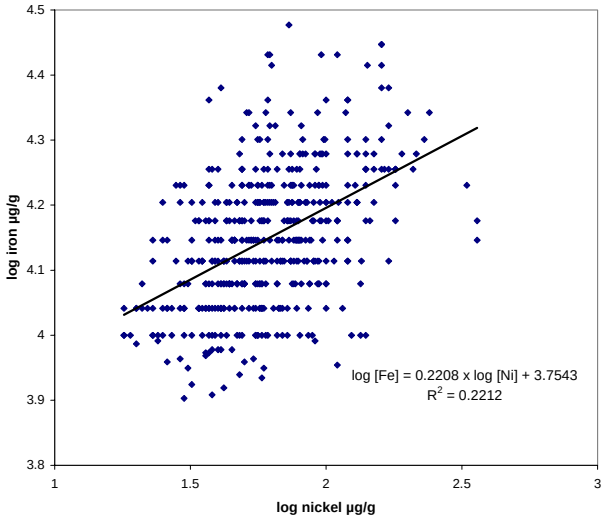


Fig. 10.4.2.27b: log Fe vs. log Ni, 10-20 cm, Inner Com.

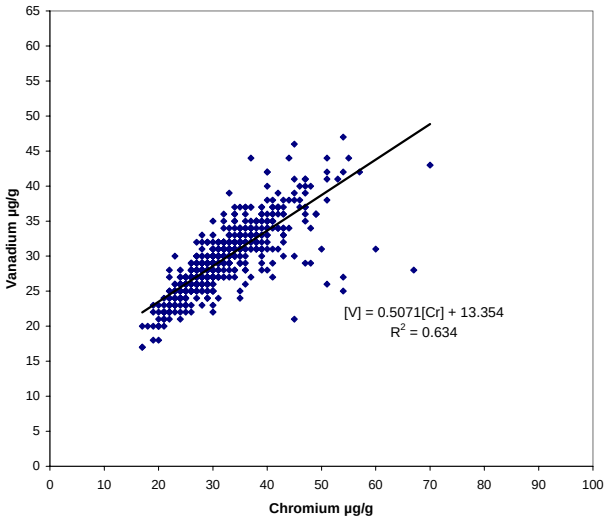


Fig. 10.4.2.28: V vs. Cr, 0-5 cm, Inner Com.

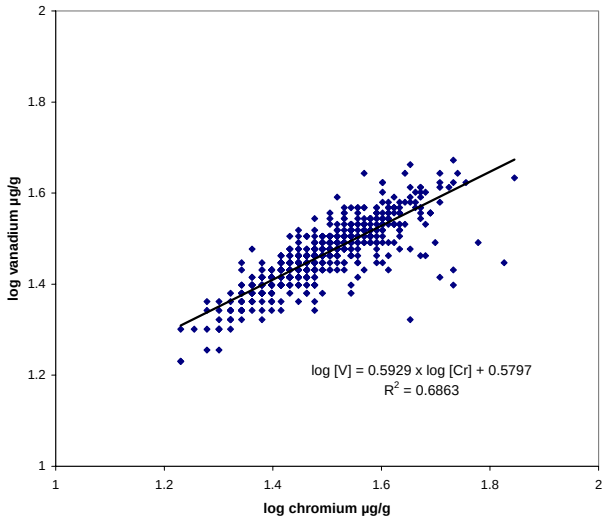


Fig. 10.4.2.28b: log V vs. log Cr, 0-5 cm, Inner Com.

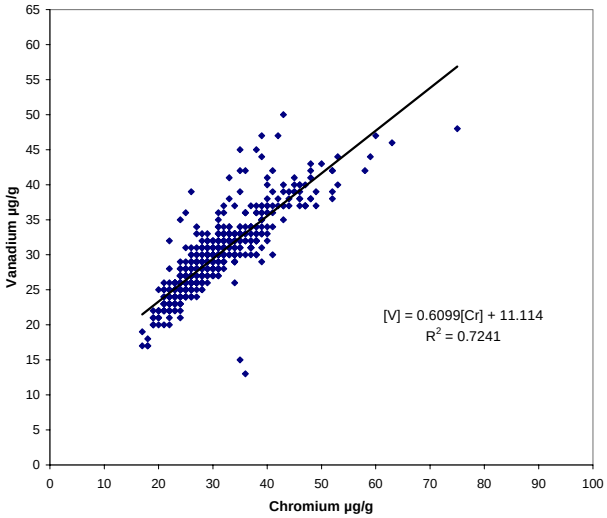


Fig. 10.4.2.29: V vs. Cr, 5-10 cm, Inner Com.

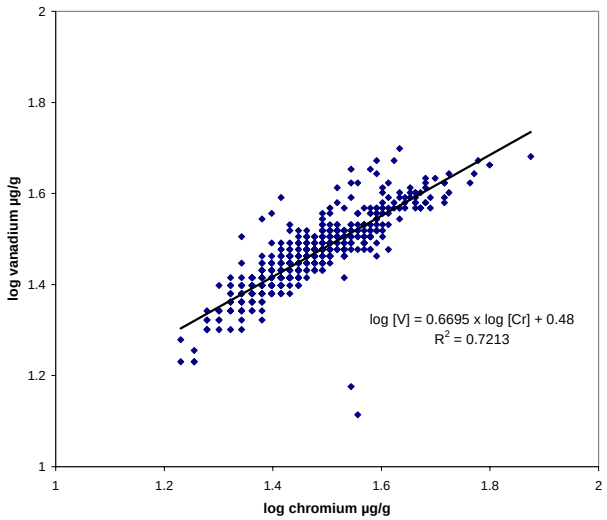


Fig. 10.4.2.29b: log V vs. log Cr, 5-10 cm, Inner Com.

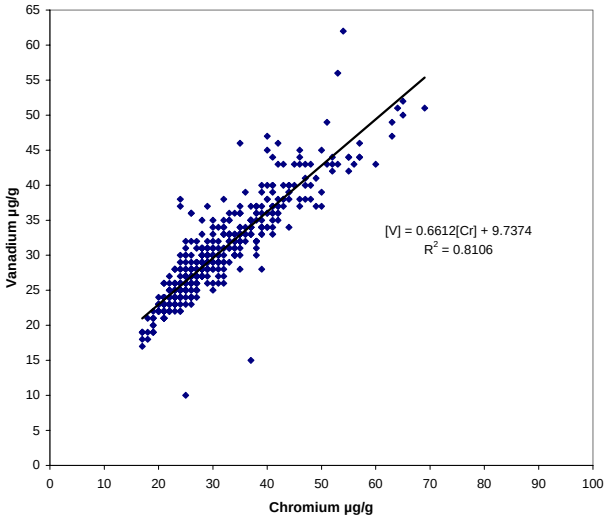


Fig. 10.4.2.30: V vs. Cr, 10-20 cm, Inner Com.

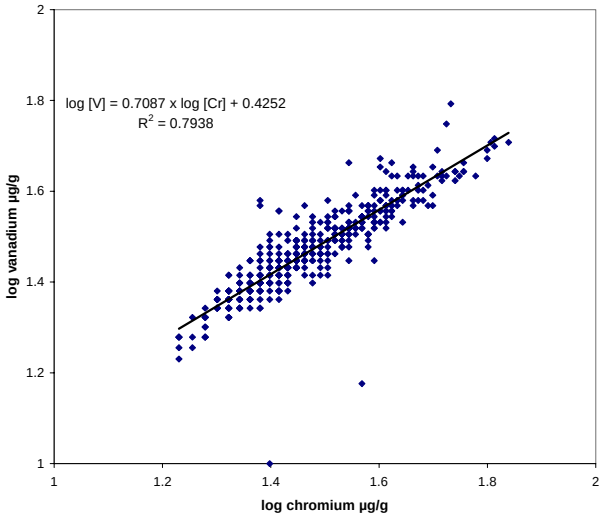


Fig. 10.4.2.30b: log V vs. log Cr, 10-20 cm, Inner Com.

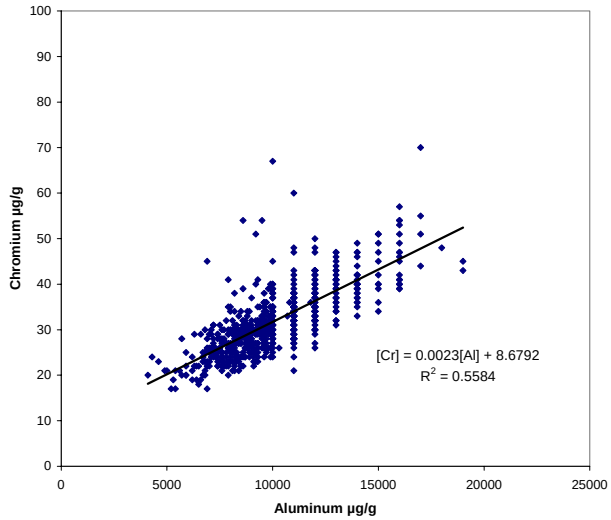


Fig. 10.4.2.31: Cr vs. Al, 0-5 cm, Inner Com.

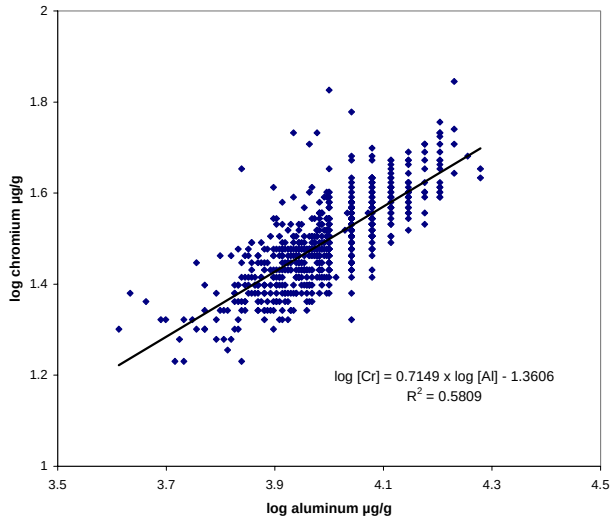


Fig. 10.4.2.31b: log Cr vs. log Al, 0-5 cm, Inner Com.

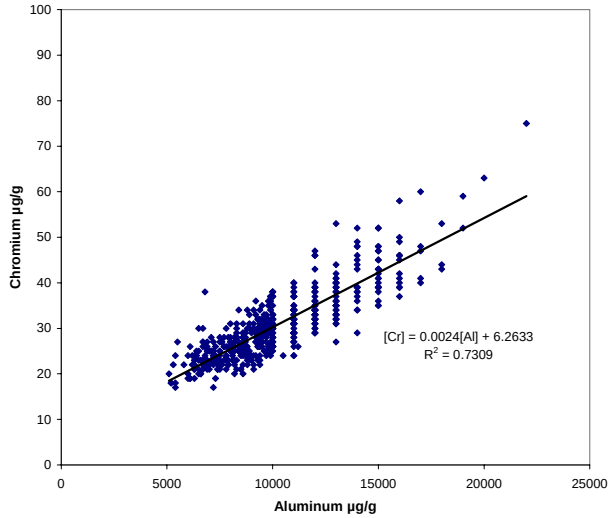


Fig. 10.4.2.32: Cr vs. Al, 5-10 cm, Inner Com.

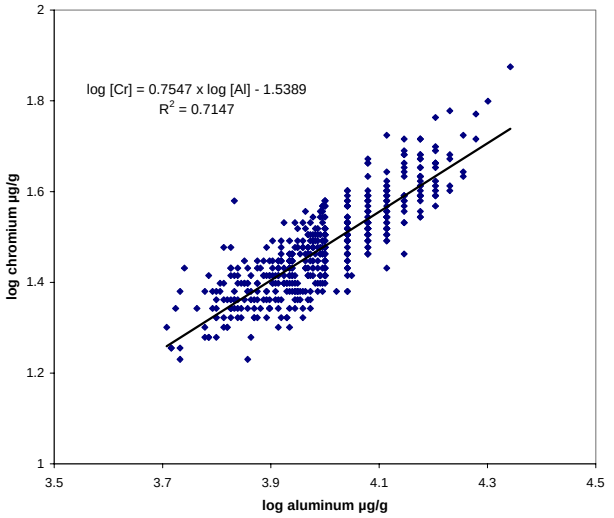


Fig. 10.4.2.32b: log Cr vs. log Al, 5-10 cm, Inner Com.

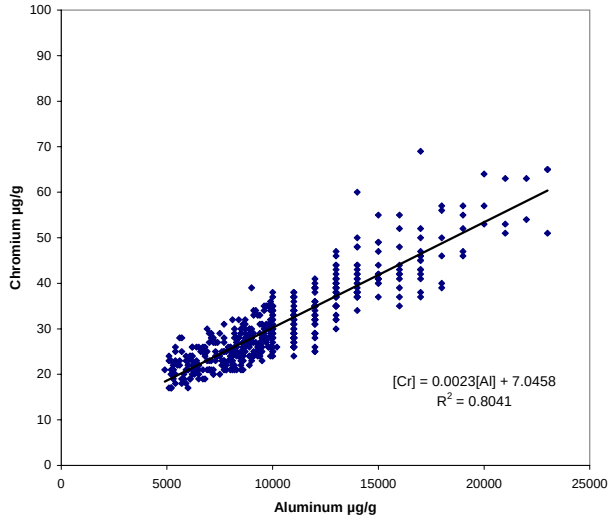


Fig. 10.4.2.33: Cr vs. Al, 10-20 cm, Inner Com.

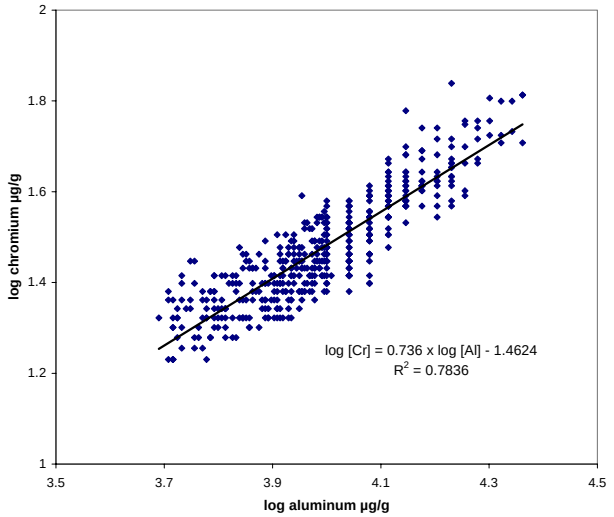


Fig. 10.4.2.33b: log Cr vs. log Al, 10-20 cm, Inner Com.

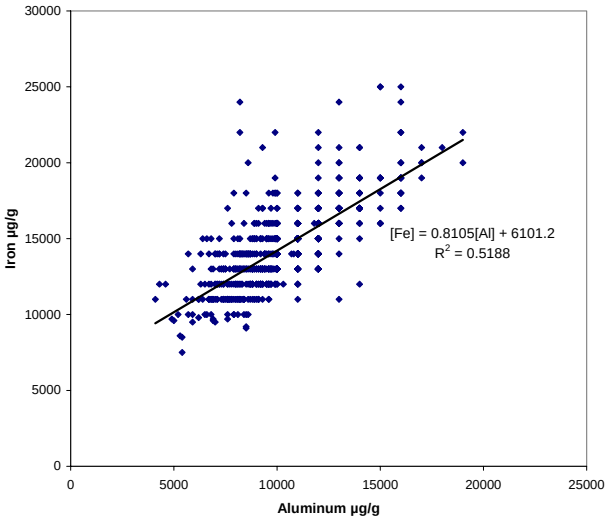


Fig. 10.4.2.34: Fe vs. Al, 0-5 cm, Inner Com.

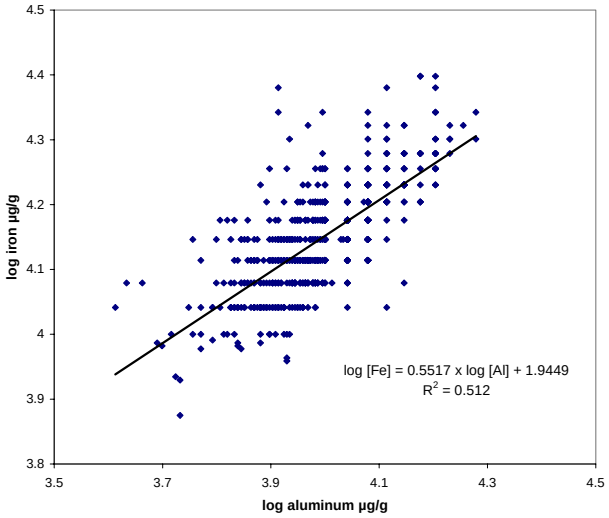


Fig. 10.4.2.34b: log Fe vs. log Al, 0-5 cm, Inner Com.

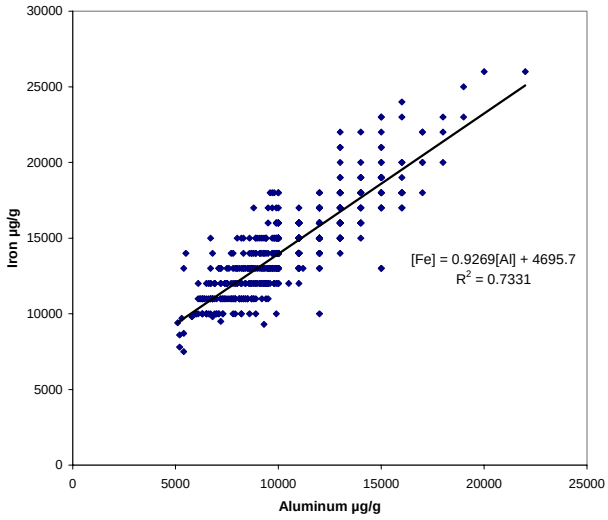


Fig. 10.4.2.35: Fe vs. Al, 5-10 cm, Inner Com.

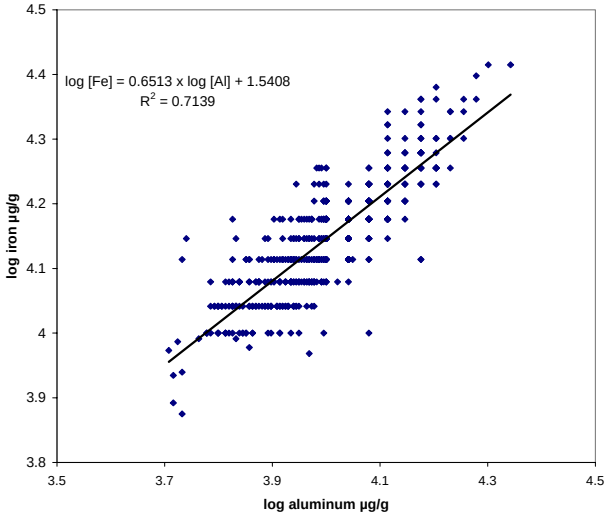


Fig. 10.4.2.35b: log Fe vs. log Al, 5-10 cm, Inner Com.

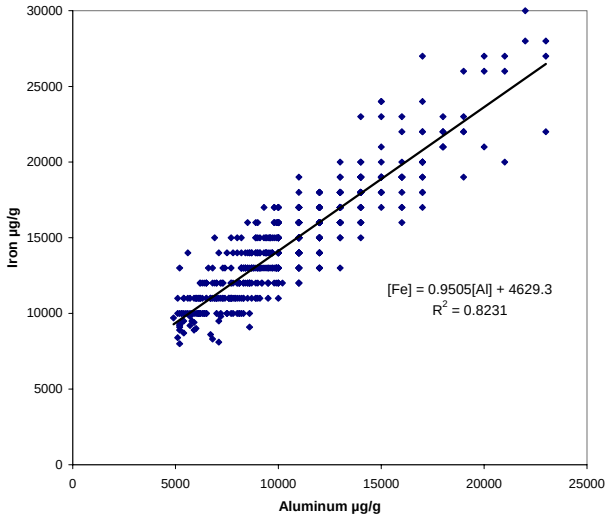


Fig. 10.4.2.36: Fe vs. Al, 10-20 cm, Inner Com.

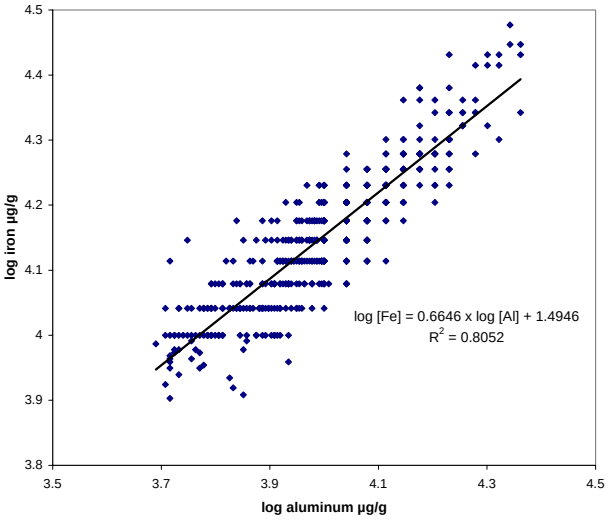


Fig. 10.4.2.36a: log Fe vs. log Al, 10-20 cm, Inner Com.

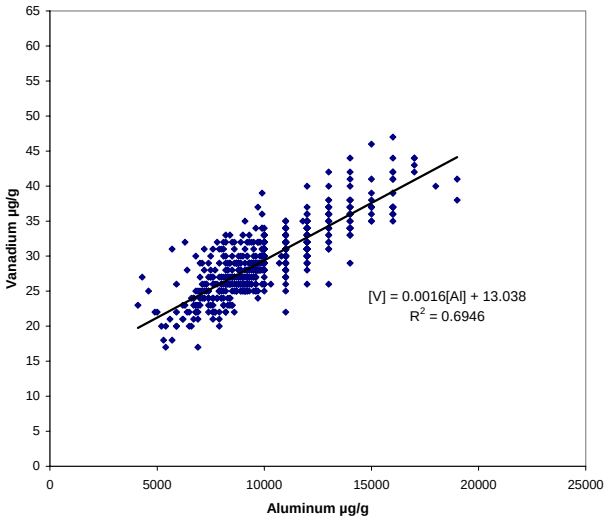


Fig. 10.4.2.37: V vs. Al, 0-5 cm, Inner Com.

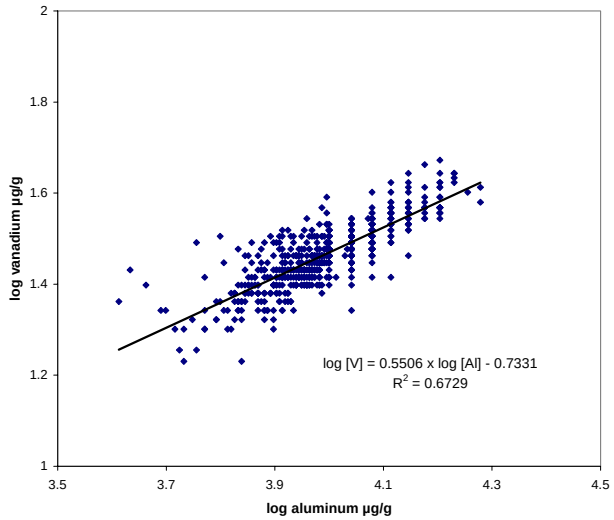


Fig. 10.4.2.37b: log V vs. log Al, 0-5 cm, Inner Com.

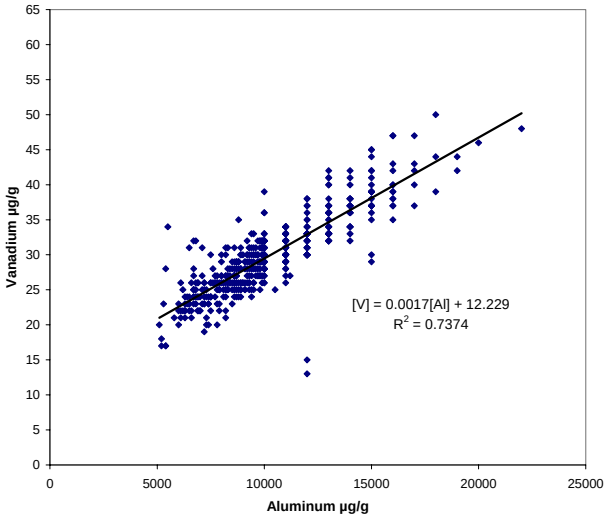


Fig. 10.4.2.38: V vs. Al, 5-10 cm, Inner Com.

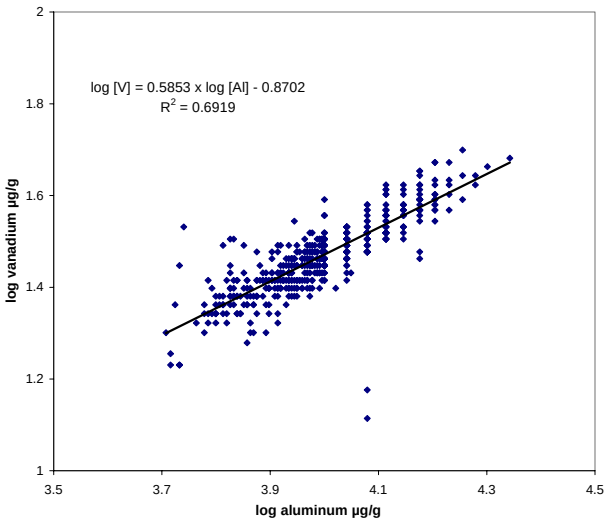


Fig. 10.4.2.38b: log V vs. log Al, 5-10 cm, Inner Com.

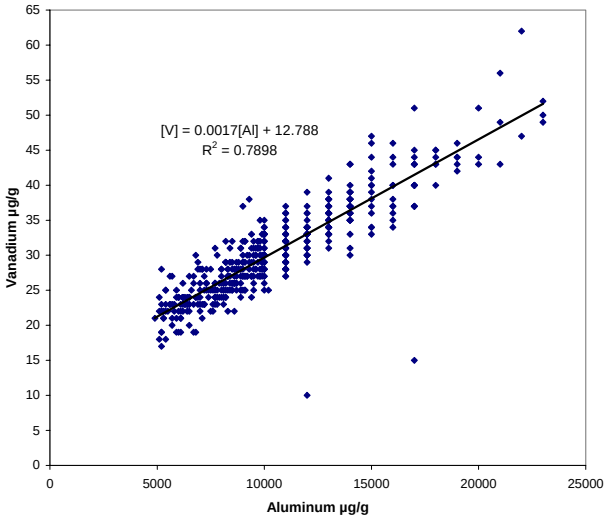


Fig. 10.4.2.39: V vs. Al, 10-20 cm, Inner Com.

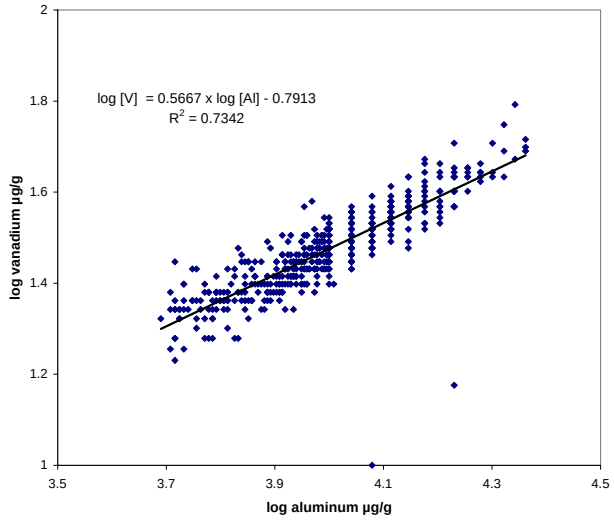


Fig. 10.4.2.39b: log V vs. log Al, 10-20 cm, Inner Com.

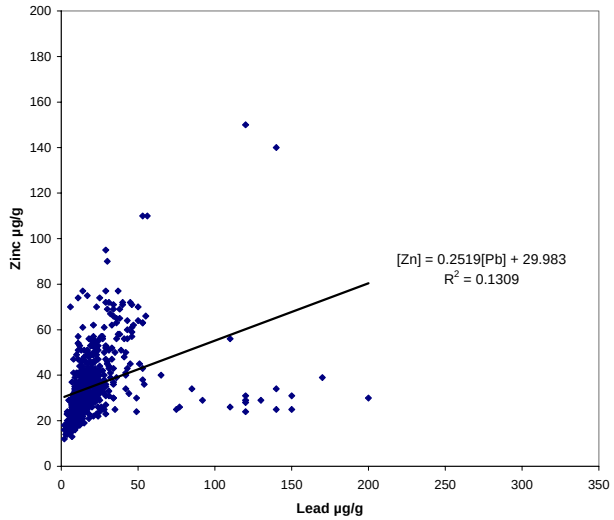


Fig. 10.4.2.40: Zn vs. Pb, 0-5 cm, Inner Com.

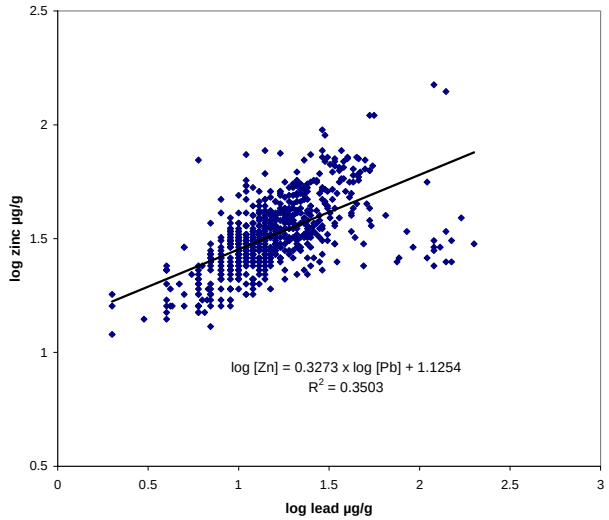


Fig. 10.4.2.40b: log Zn vs. log Pb, 0-5 cm, Inner Com.

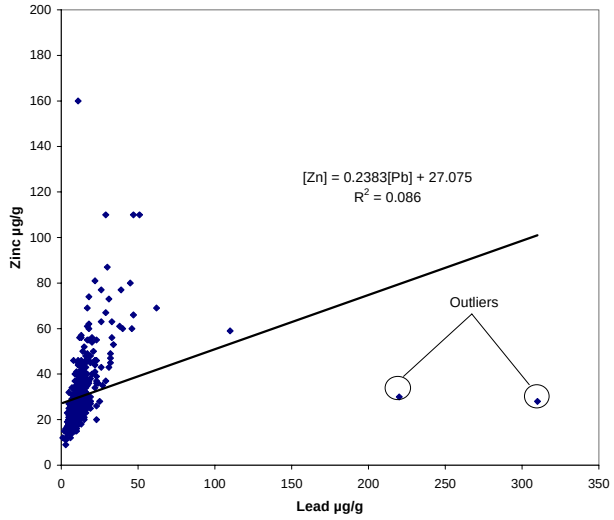


Fig. 10.4.2.41: Zn vs. Pb, 5-10 cm, Inner Com.

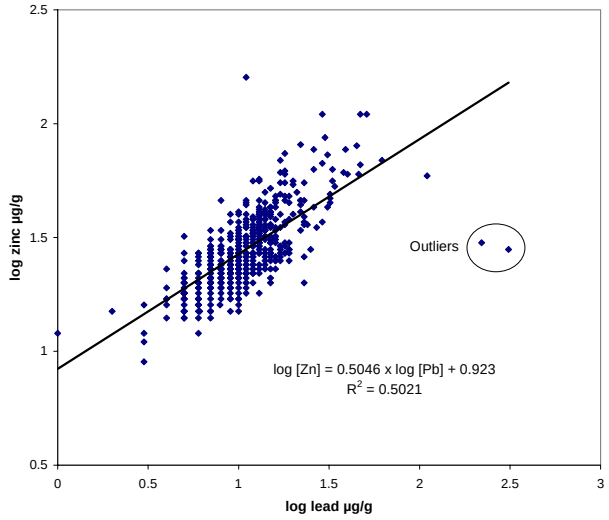


Fig. 10.4.2.41b: log Zn vs. log Pb, 5-10 cm, Inner Com.

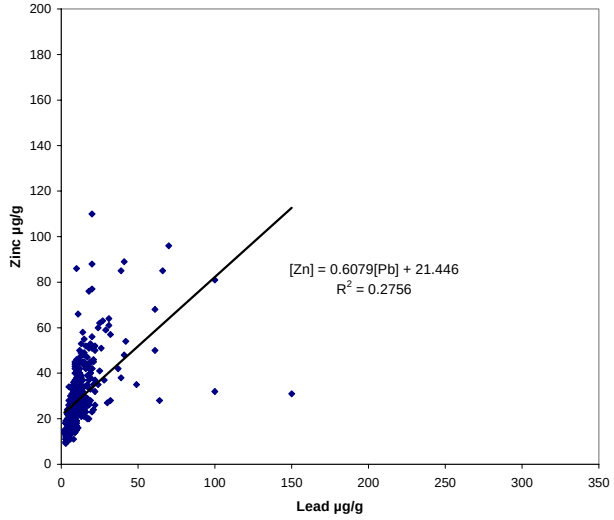


Fig. 10.4.2.42: Zn vs. Pb, 10-20 cm, Inner Com.

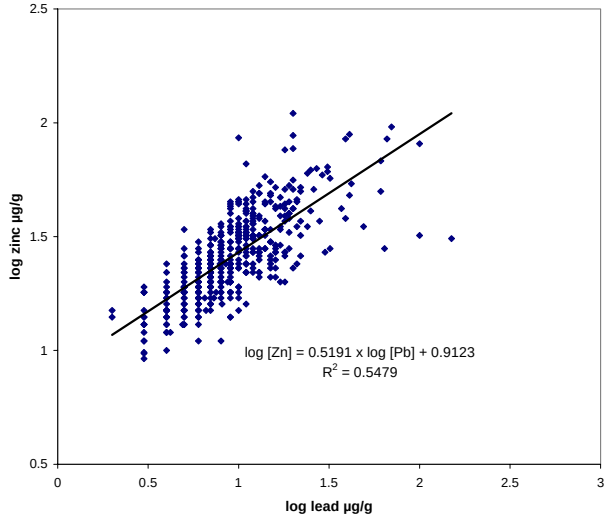


Fig. 10.4.2.42b: log Zn vs. log Pb, 10-20 cm, Inner Com.

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

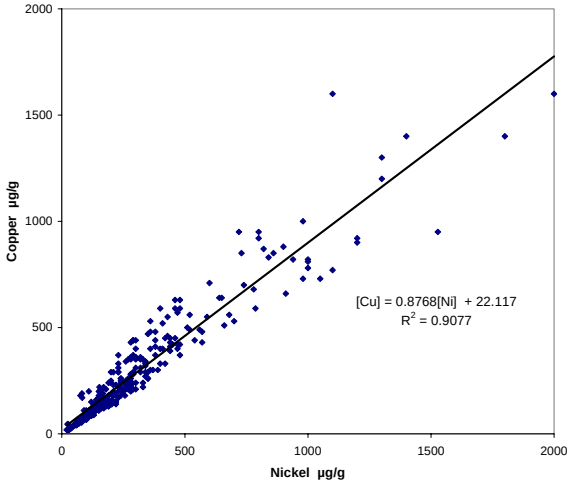


Fig. 10.4.3.1: Cu vs. Ni, 0-5 cm, Sudbury Core

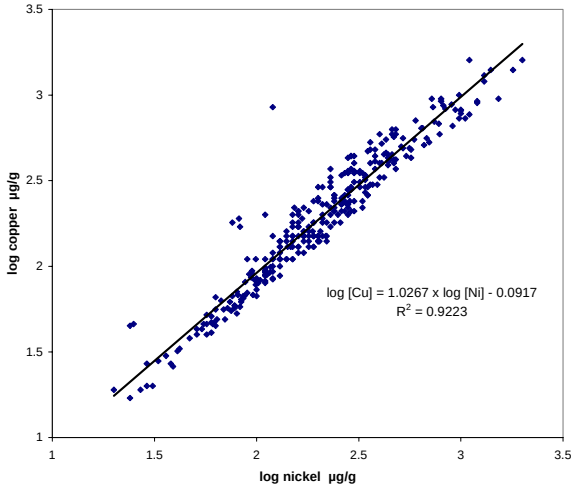


Fig. 10.4.3.1b: log Cu vs. log Ni, 0-5 cm, Sudbury Core

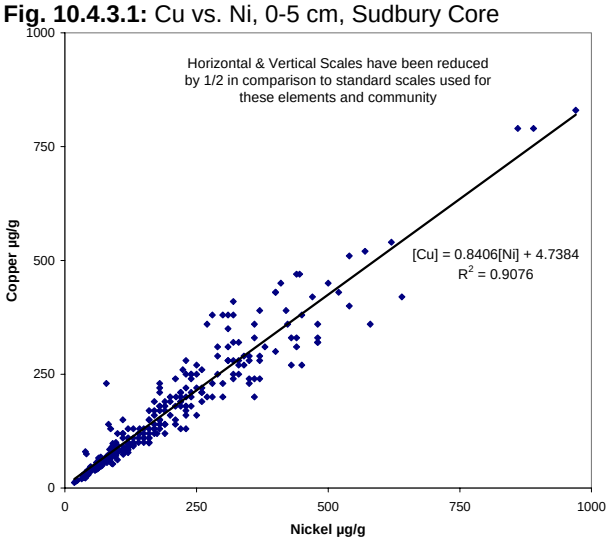


Fig. 10.4.3.2: Cu vs. Ni, 5-10 cm, Sudbury Core

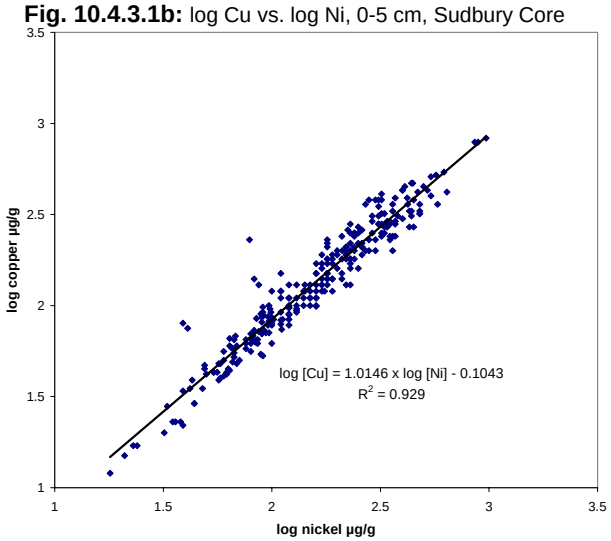


Fig. 10.4.3.2b: log Cu vs. log Ni, 5-10 cm, Sudbury Core

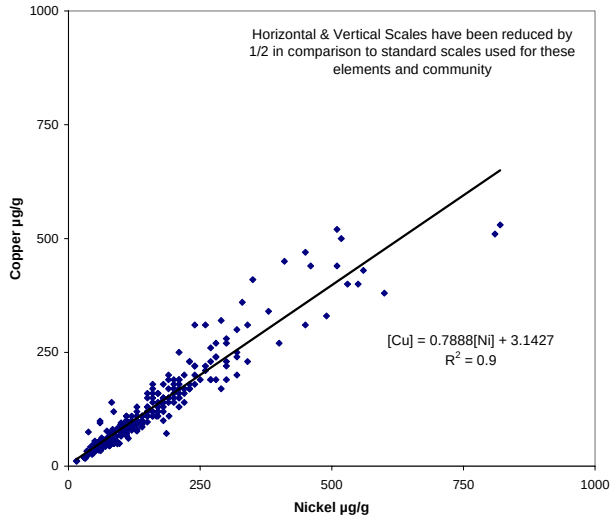


Fig. 10.4.3.3: Cu vs. Ni, 10-20 cm, Sudbury Core

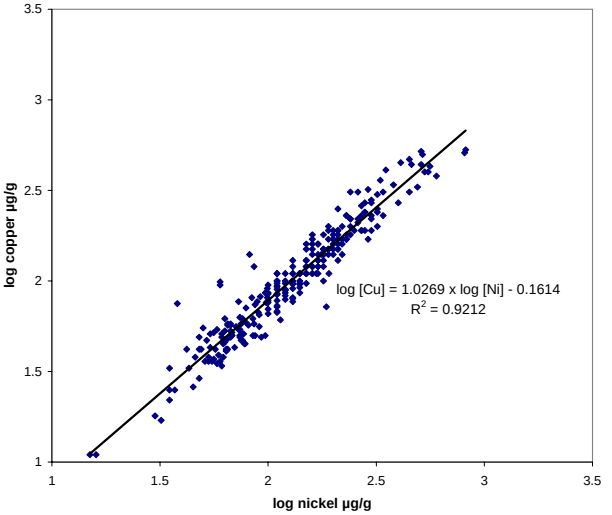


Fig. 10.4.3.3b: log Cu vs. log Ni, 10-20 cm, Sudbury Core

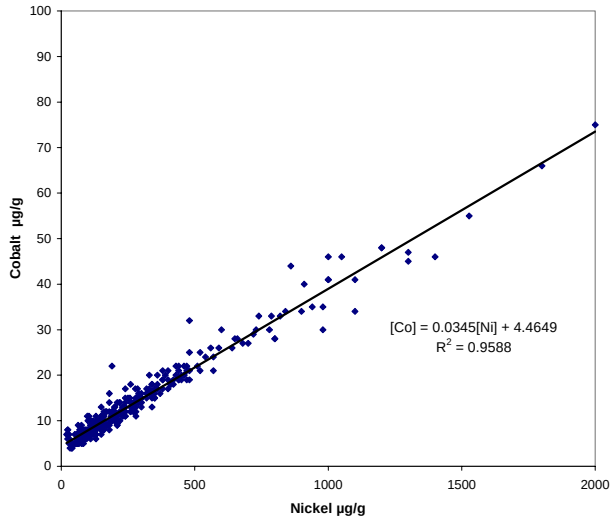


Fig. 10.4.3.4: Co vs. Ni, 0-5 cm, Sudbury Core

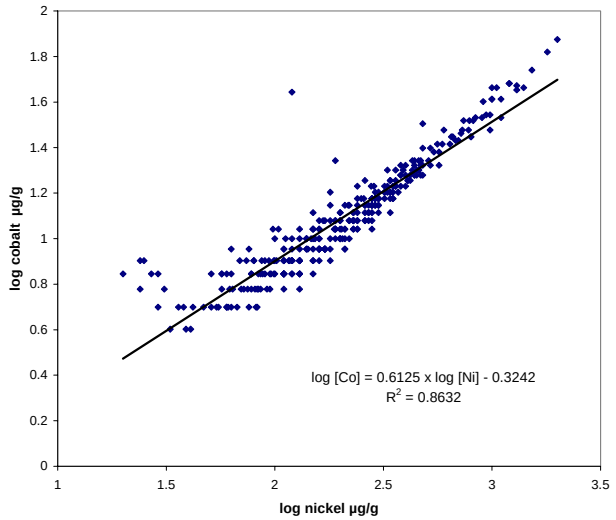


Fig. 10.4.3.4b: log Co vs. log Ni, 0-5 cm, Sudbury Core

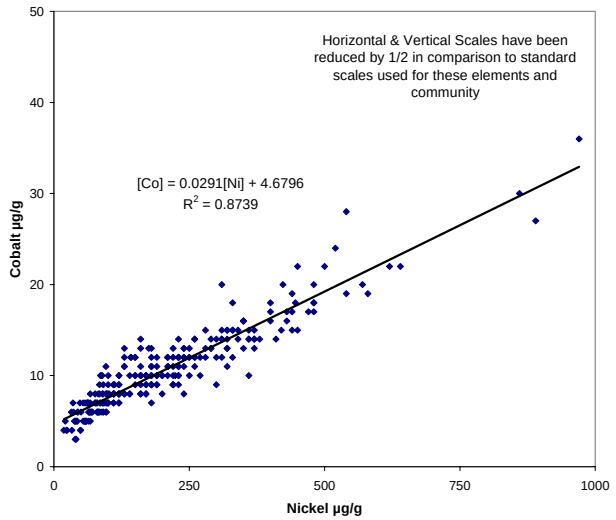


Fig. 10.4.3.5: Co vs. Ni, 5-10 cm, Sudbury Core

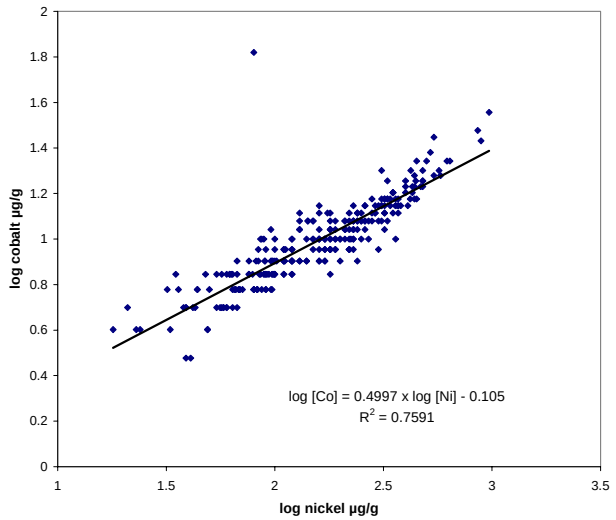


Fig. 10.4.3.5b: log Co vs. log Ni, 5-10 cm, Sudbury Core

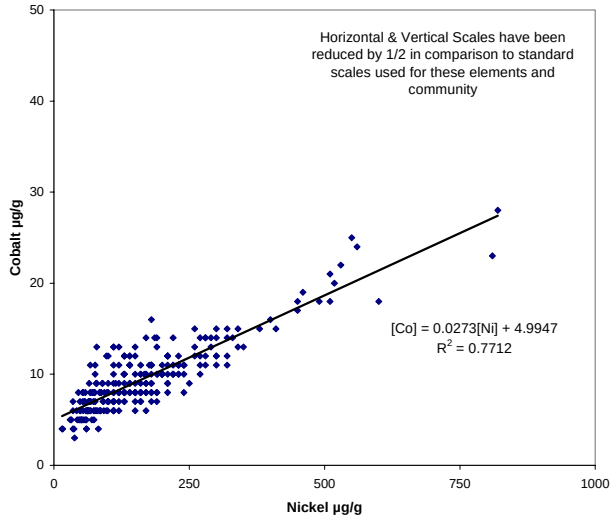


Fig. 10.4.3.6: Co vs. Ni, 10-20 cm, Sudbury Core

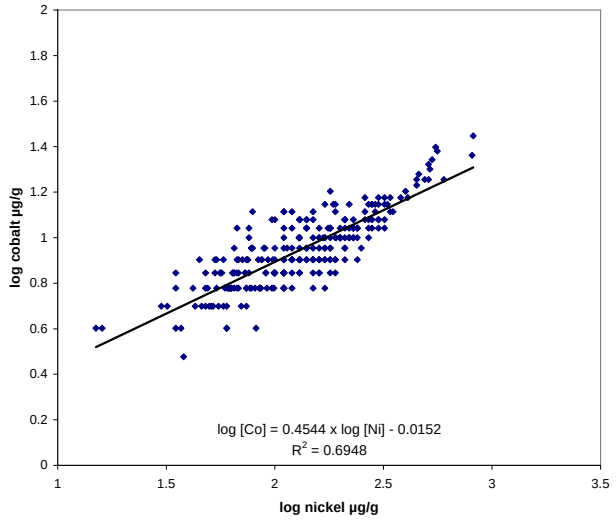


Fig. 10.4.3.6a: log Co vs. log Ni, 10-20 cm, Sudbury Core

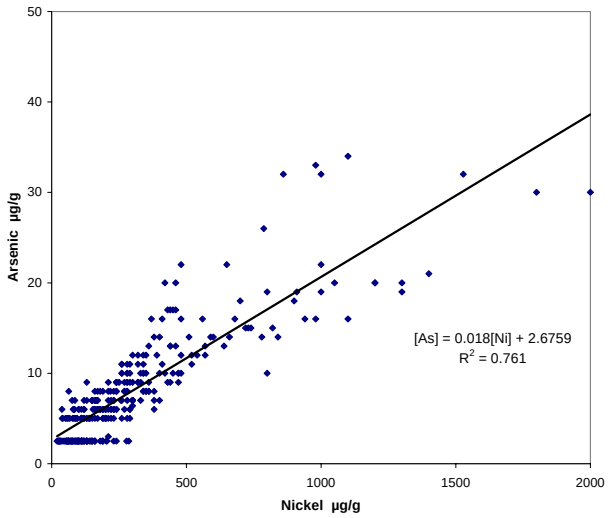


Fig. 10.4.3.7: As vs. Ni, 0-5 cm, Sudbury Core

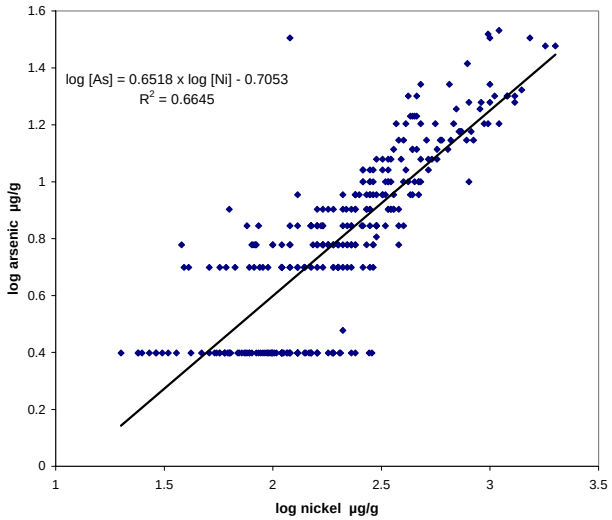


Fig. 10.4.3.7b: log As vs. log Ni, 0-5 cm, Sudbury Core

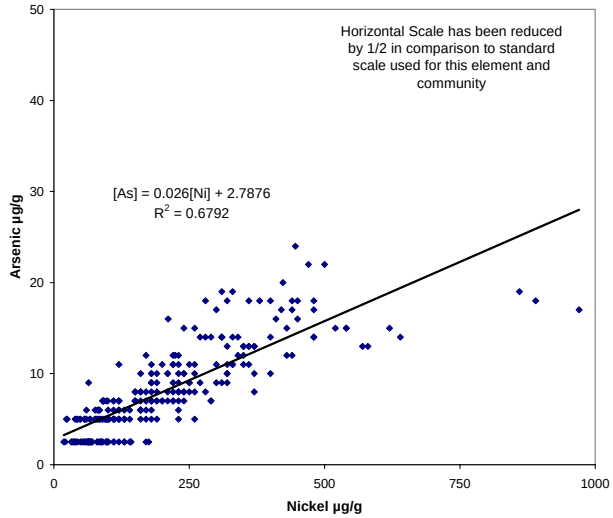


Fig. 10.4.3.8: As vs. Ni, 5-10 cm, Sudbury Core

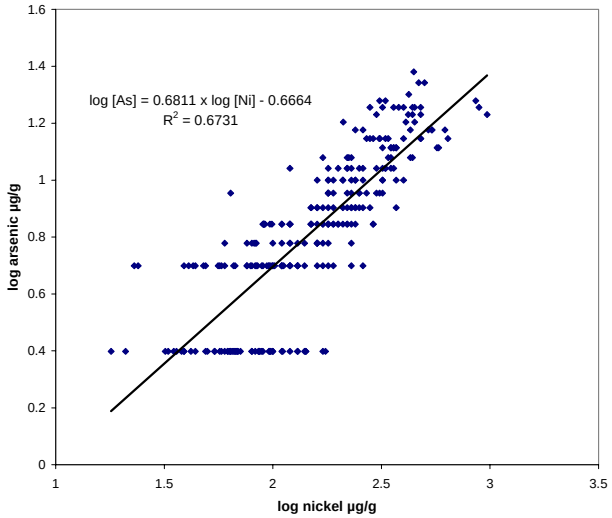


Fig. 10.4.3.8b: log As vs. log Ni, 5-10 cm, Sudbury Core

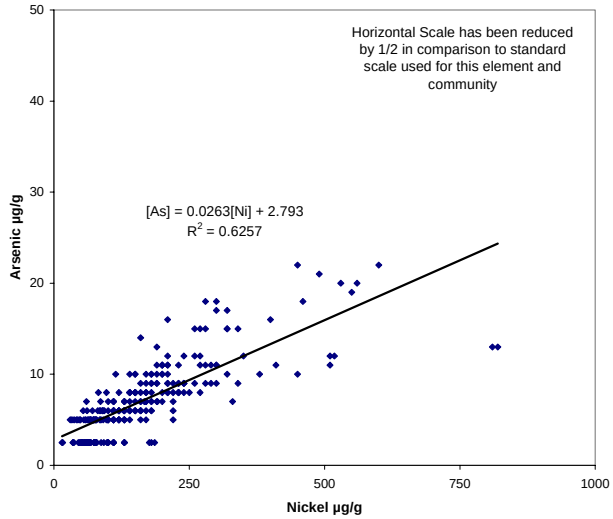


Fig. 10.4.3.9: As vs. Ni, 10-20 cm, Sudbury Core

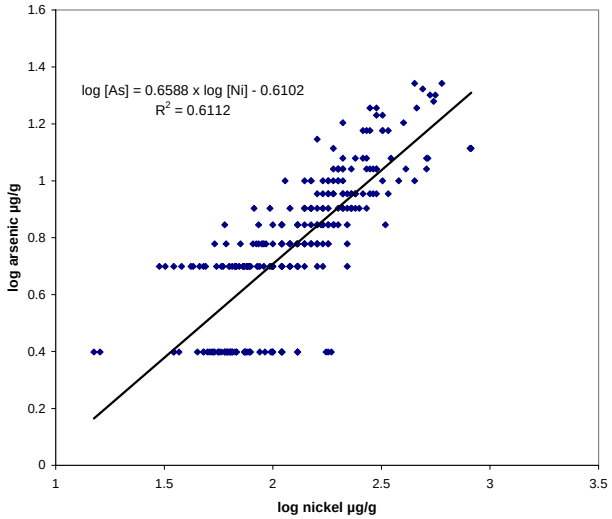


Fig. 10.4.3.9b: log As vs. log Ni, 10-20 cm, Sudbury Core

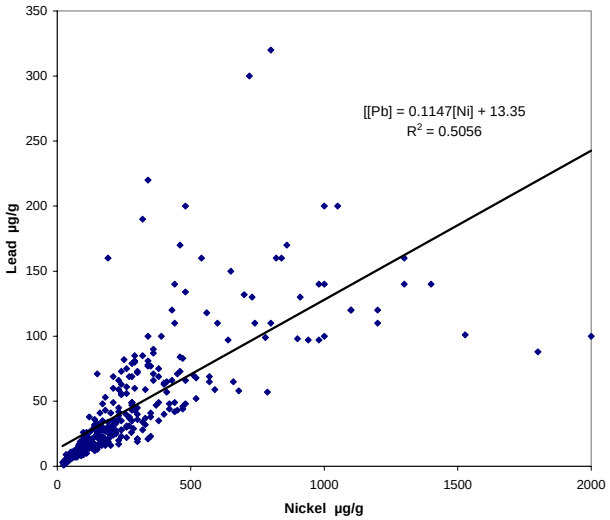


Fig. 10.4.3.10: Pb vs. Ni, 0-5 cm, Sudbury Core

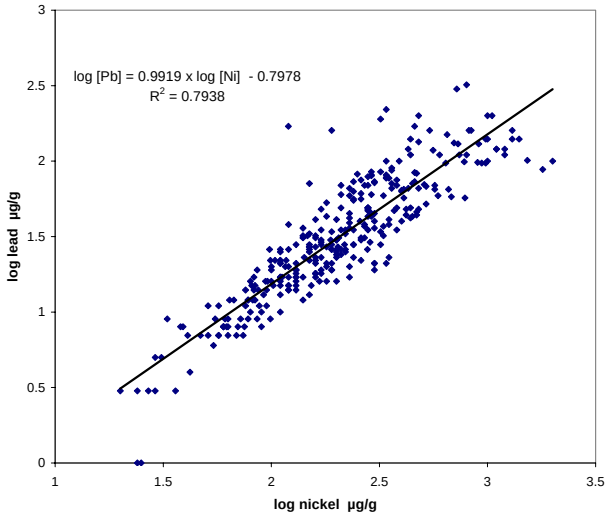


Fig. 10.4.3.10b: log Pb vs. log Ni, 0-5 cm, Sudbury Core

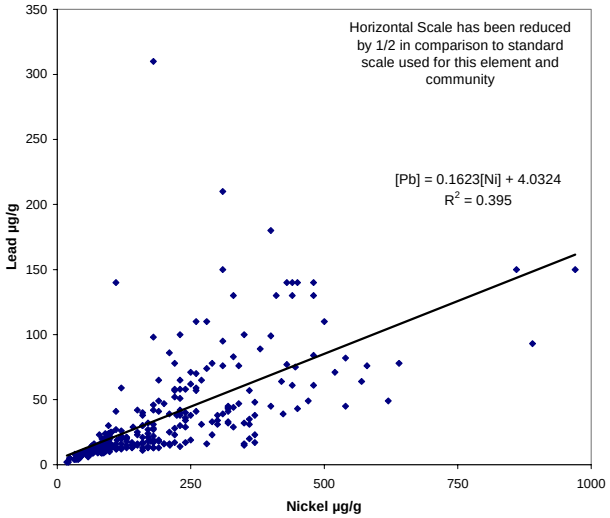


Fig. 10.4.3.11: Pb vs. Ni, 5-10 cm, Sudbury Core

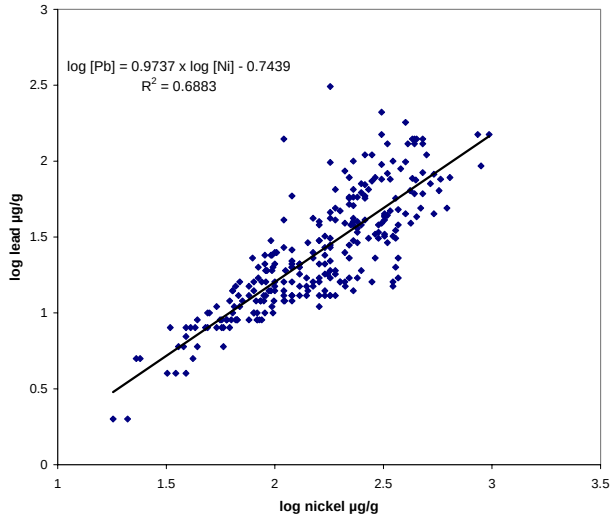


Fig. 10.4.3.11b: log Pb vs. log Ni, 5-10 cm, Sudbury Core

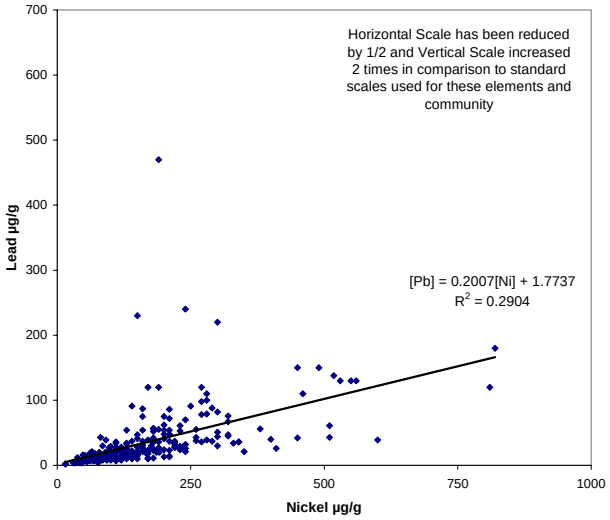


Fig. 10.4.3.12: Pb vs. Ni, 10-20 cm, Sudbury Core

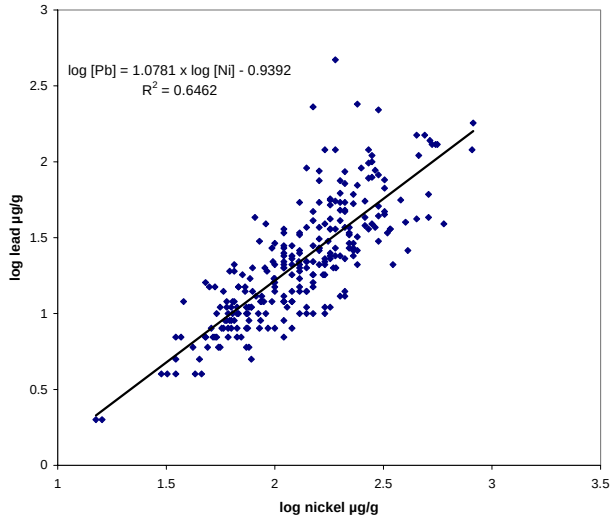


Fig. 10.4.3.12b: log Pb vs. log Ni,10-20 cm, Sudbury Core

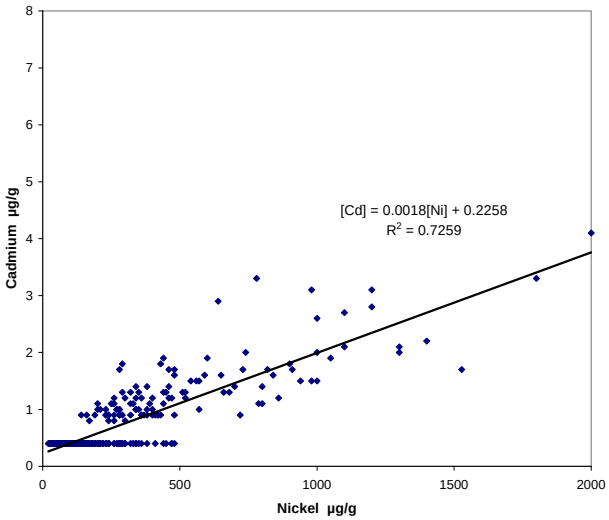


Fig. 10.4.3.13: Cd vs. Ni, 0-5 cm, Sudbury Core

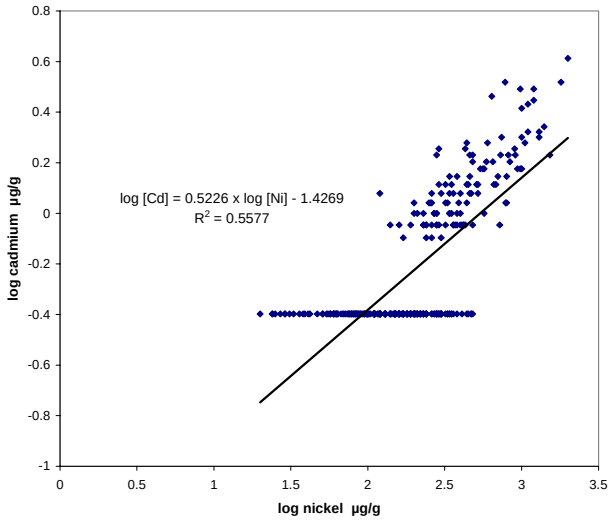


Fig. 10.4.3.13b:log Cd vs. log Ni, 0-5 cm, Sudbury Core

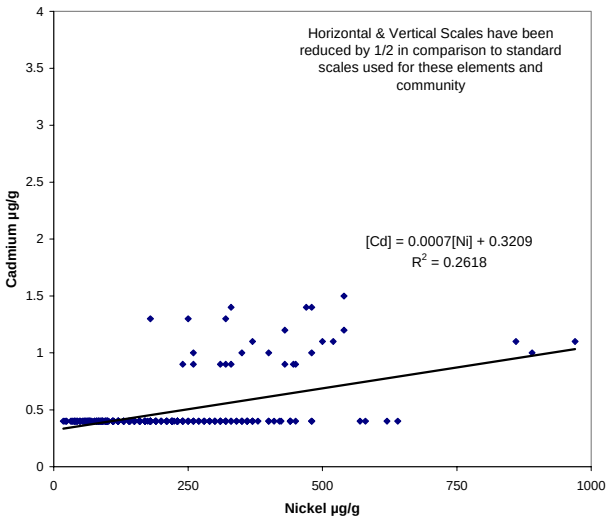


Fig. 10.4.3.14: Cd vs. Ni, 5-10 cm, Sudbury Core

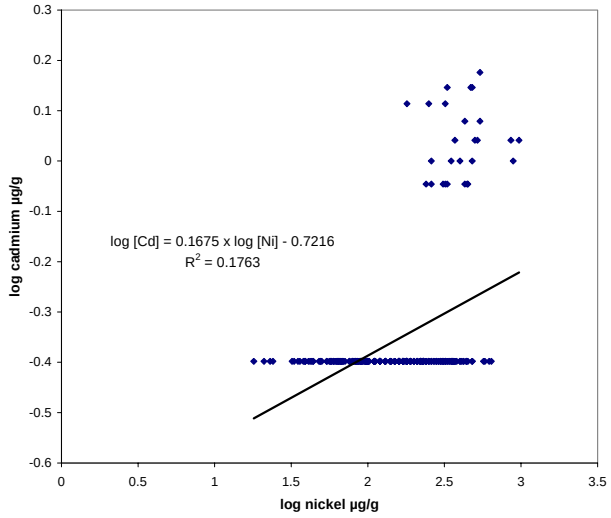


Fig. 10.4.3.14b: log Cd vs. log Ni, 5-10 cm, Sudbury Core

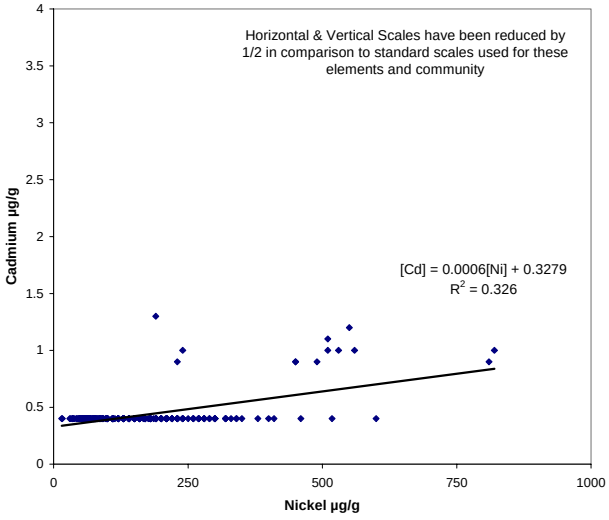


Fig. 10.4.3.15: Cd vs. Ni, 10-20 cm, Sudbury Core

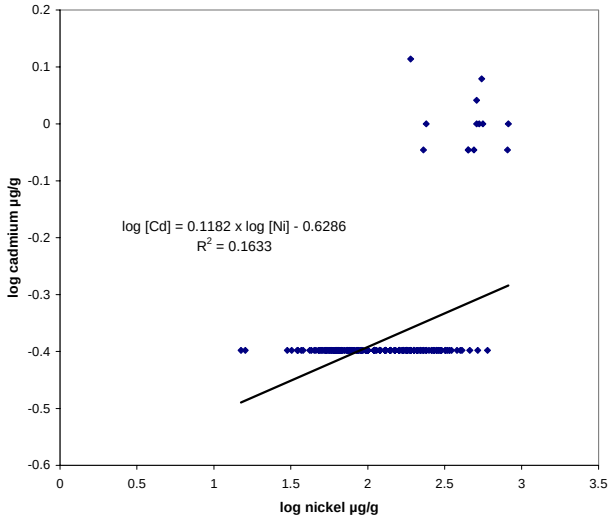


Fig. 10.4.3.15b: log Cd vs log Ni, 10-20 cm, Sudbury Core

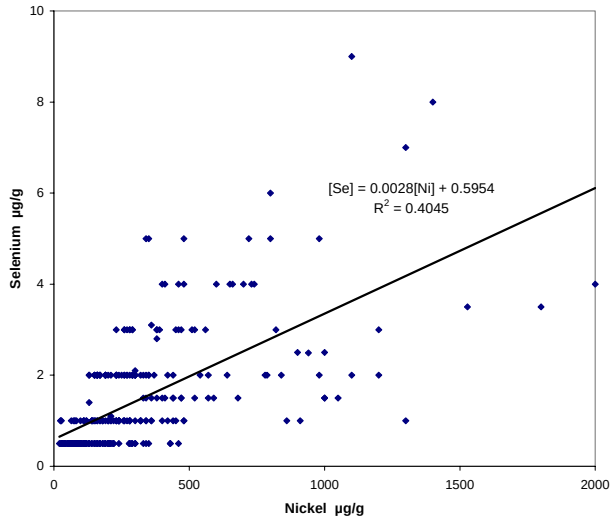


Fig. 10.4.3.16: Se vs. Ni, 0-5 cm, Sudbury Core

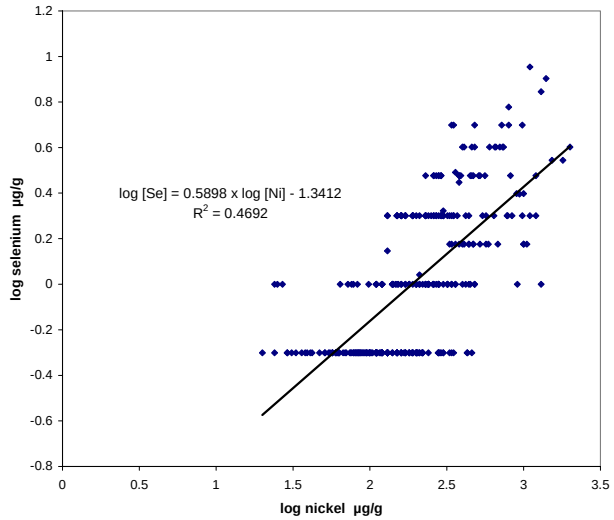


Fig. 10.4.3.16b: log Se vs. log Ni, 0-5 cm, Sudbury Core

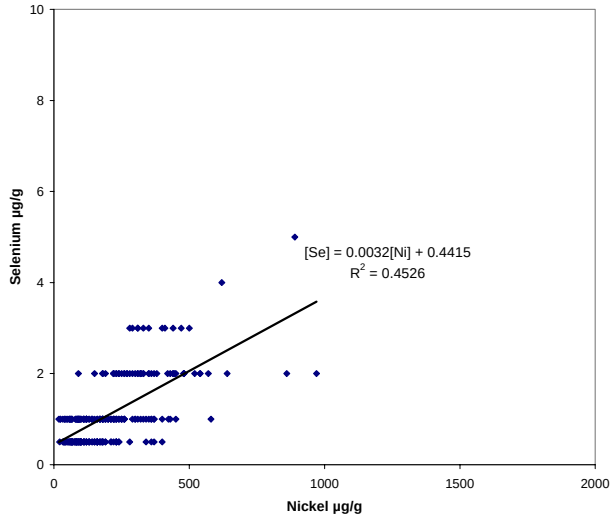


Fig. 10.4.3.17: Se vs. Ni, 5-10 cm, Sudbury Core

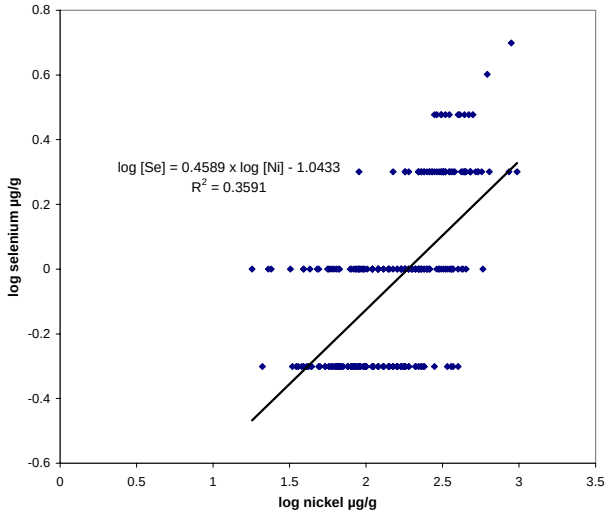


Fig. 10.4.3.17b: log Se vs. log Ni, 5-10 cm, Sudbury Core

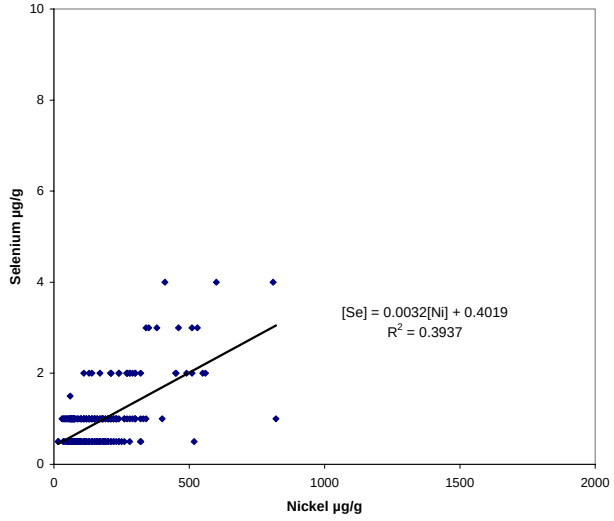


Fig. 10.4.3.18: Se vs. Ni, 10-20 cm, Sudbury Core

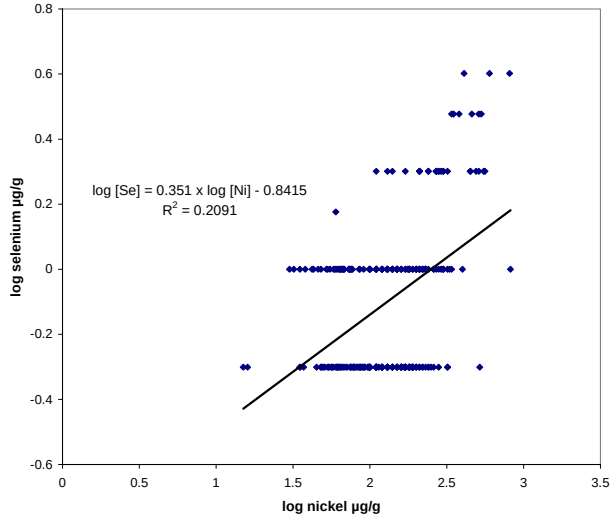


Fig. 10.4.3.18b: log Se vs log Ni, 10-20 cm, Sudbury Core

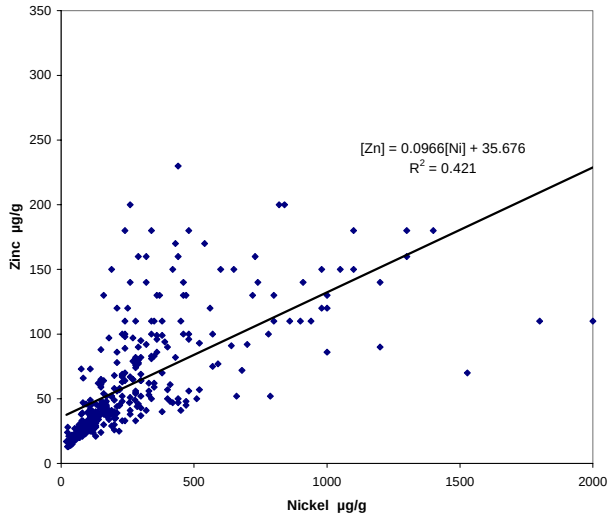


Fig. 10.4.3.19: Zn vs. Ni, 0-5 cm, Sudbury Core

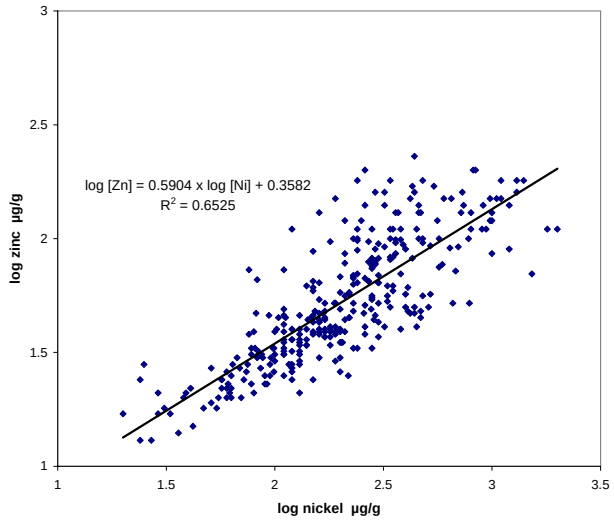


Fig. 10.4.3.19b: log Zn vs. log Ni, 0-5 cm, Sudbury Core

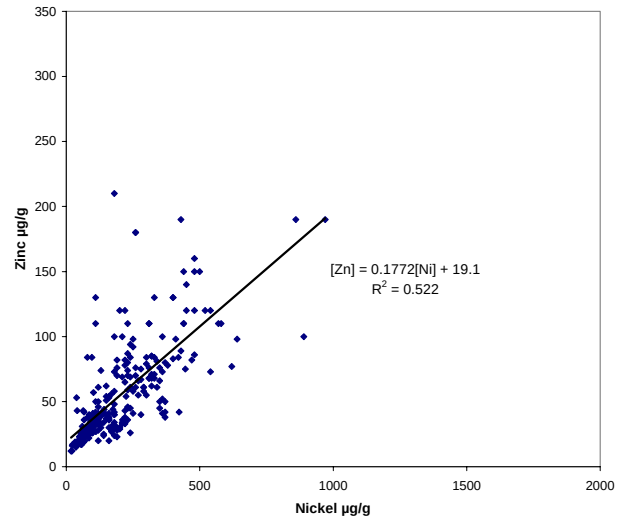


Fig. 10.4.3.20: Zn vs. Ni, 5-10 cm, Sudbury Core

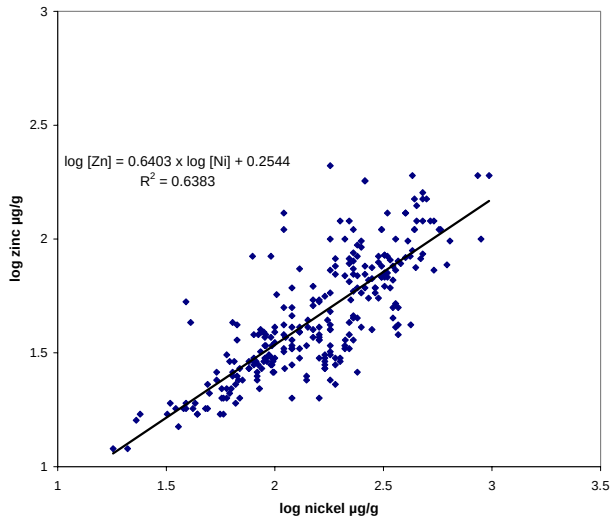


Fig. 10.4.3.20b: log Zn vs. log Ni, 5-10 cm, Sudbury Core

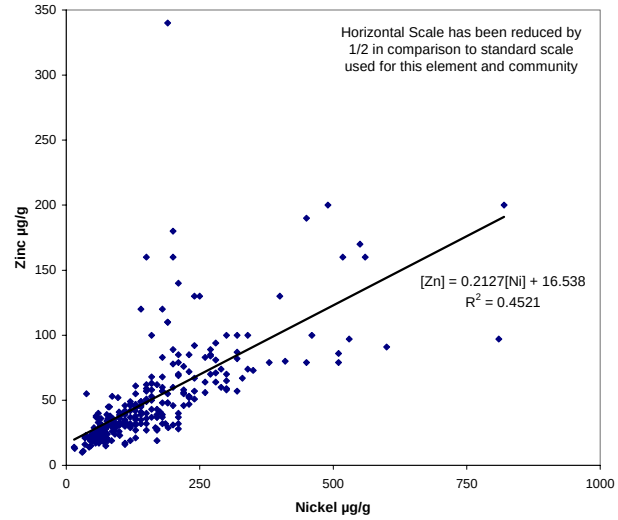


Fig. 10.4.3.21: Zn vs. Ni, 10-20 cm, Sudbury Core

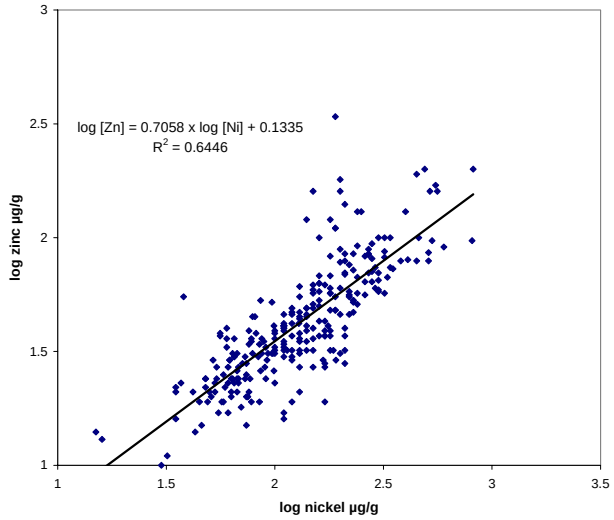


Fig. 10.4.3.21b: log Zn vs log Ni, 10-20 cm, Sudbury Core

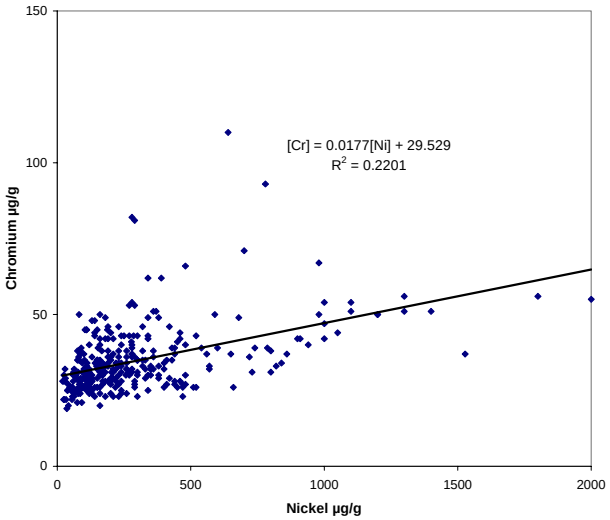


Fig. 10.4.3.22: Cr vs. Ni, 0-5 cm, Sudbury Core

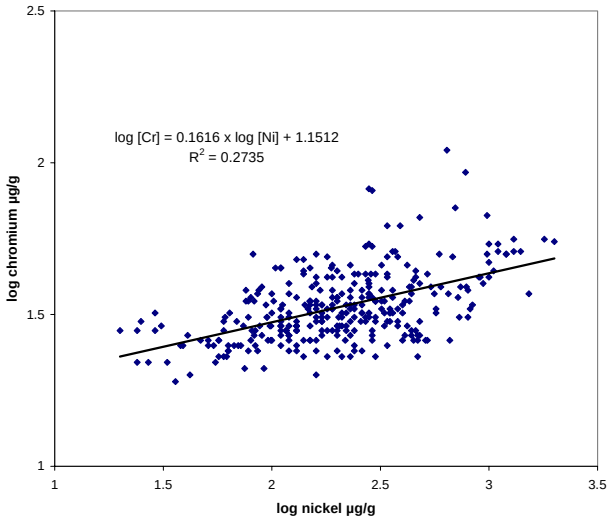


Fig. 10.4.3.22b: log Cr vs.log Ni, 0-5 cm, Sudbury Core

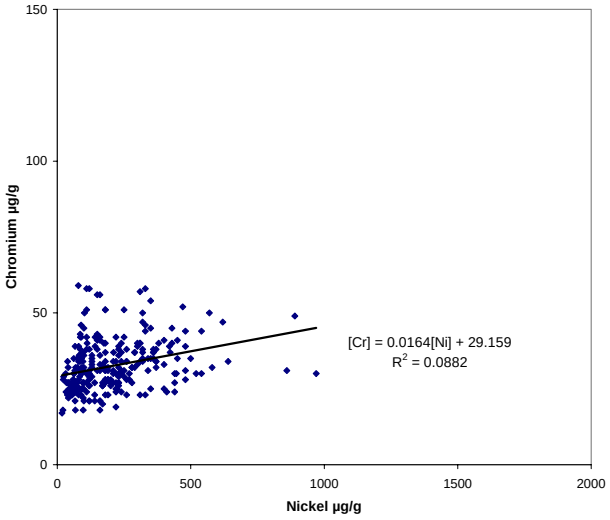


Fig. 10.4.3.23: Cr vs. Ni, 5-10 cm, Sudbury Core

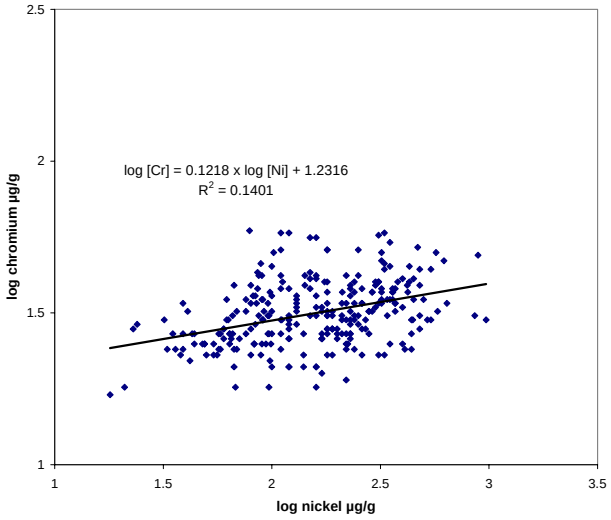


Fig. 10.4.3.23b: log Cr vs. log Ni, 5-10 cm, Sudbury Core

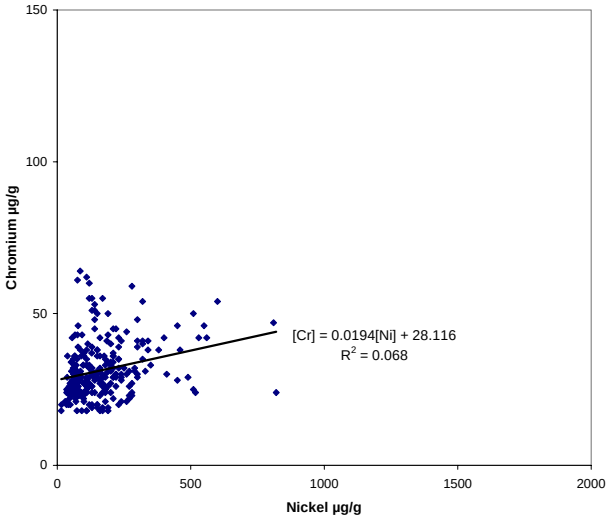


Fig. 10.4.3.24: Cr vs. Ni, 10-20 cm, Sudbury Core

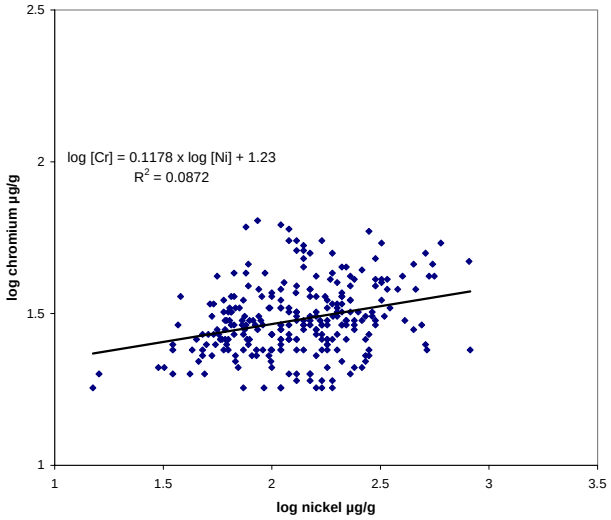


Fig. 10.4.3.24b: log Cr vs. log Ni, 10-20 cm, Sudbury Core

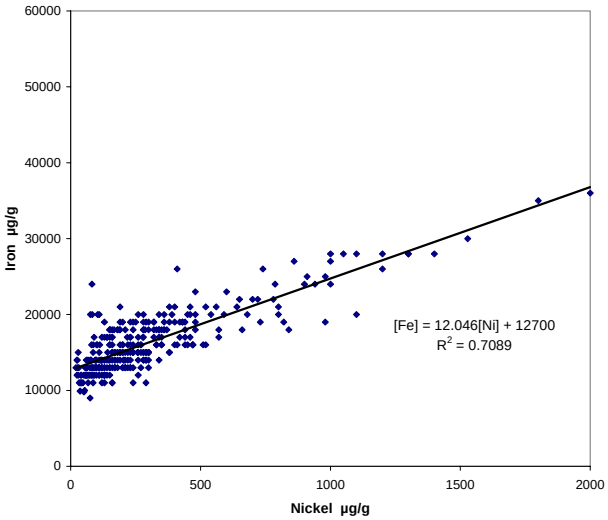


Fig. 10.4.3.25: Fe vs. Ni, 0-5 cm, Sudbury Core

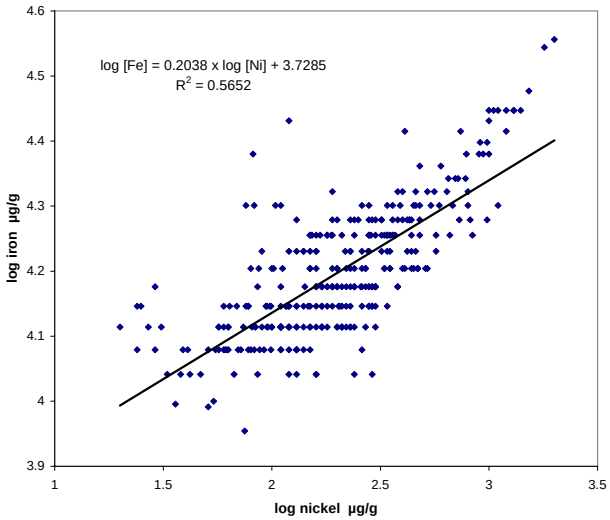


Fig. 10.4.3.25b: log Fe vs log Ni, 0-5 cm, Sudbury Core

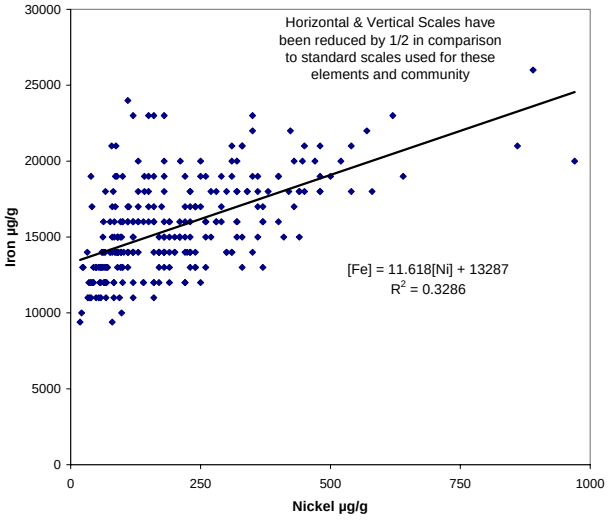


Fig. 10.4.3.26: Fe vs. Ni, 5-10 cm, Sudbury Core

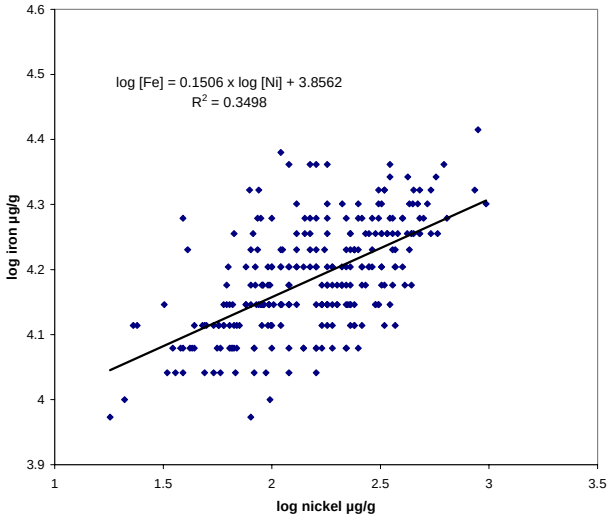


Fig. 10.4.3.26b: log Fe vs. log Ni, 5-10 cm, Sudbury Core

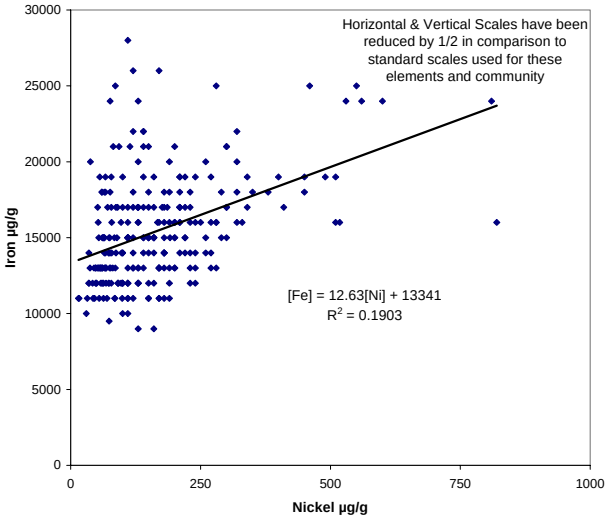


Fig. 10.4.3.27: Fe vs. Ni, 10-20 cm, Sudbury Core

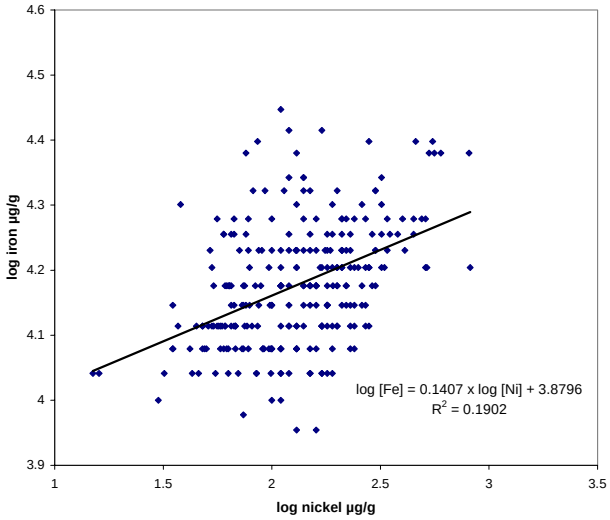


Fig. 10.4.3.27b:log Fe vs log Ni, 10-20 cm, Sudbury Core

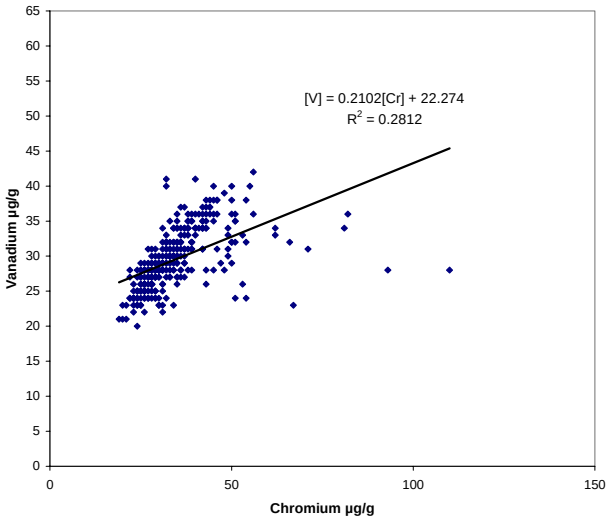


Fig. 10.4.3.28: V vs. Cr, 0-5 cm, Sudbury Core

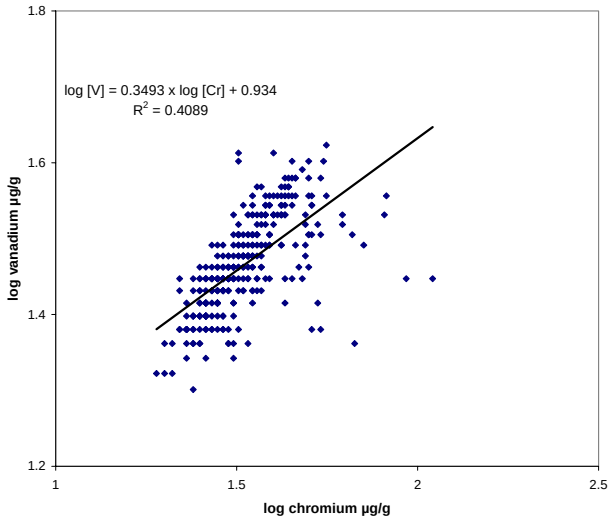


Fig. 10.4.3.28b: logV vs log Cr, 0-5 cm, Sudbury Core

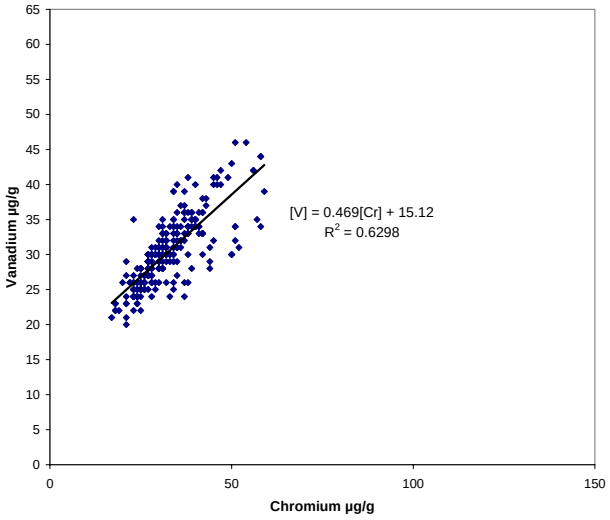


Fig. 10.4.3.29: V vs. Cr, 5-10 cm, Sudbury Core

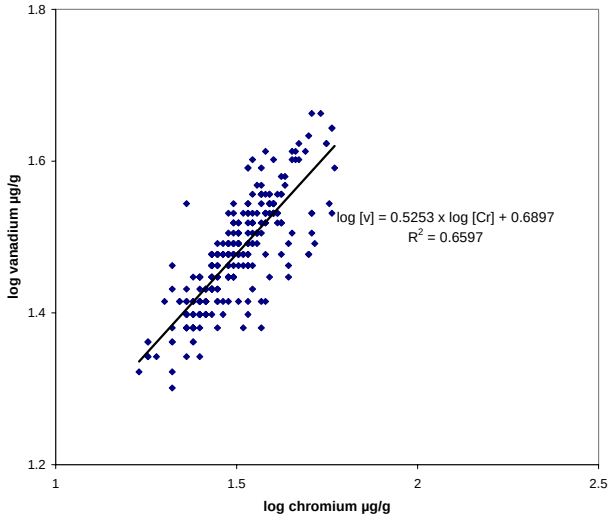


Fig. 10.4.3.29b: log V vs log Cr, 5-10 cm, Sudbury Core

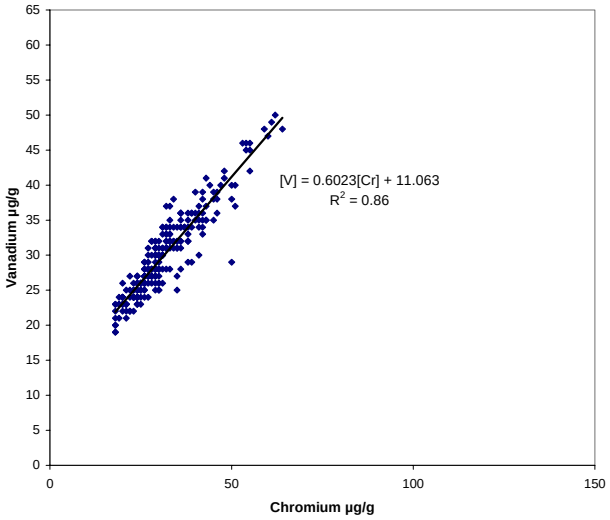


Fig. 10.4.3.30: V vs. Cr, 10-20 cm, Sudbury Core

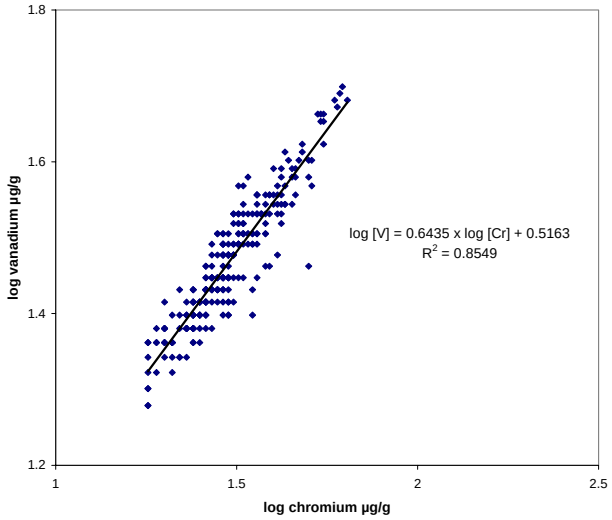


Fig. 10.4.3.30b: log V vs log Cr, 10-20 cm, Sudbury Core

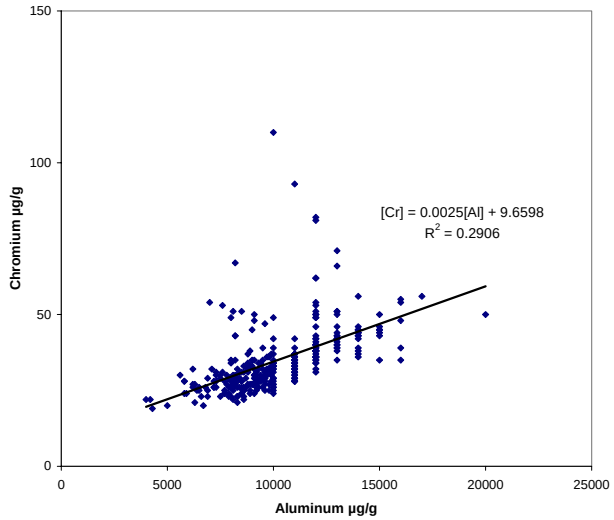


Fig. 10.4.3.31: Cr vs. Al, 0-5 cm, Sudbury Core

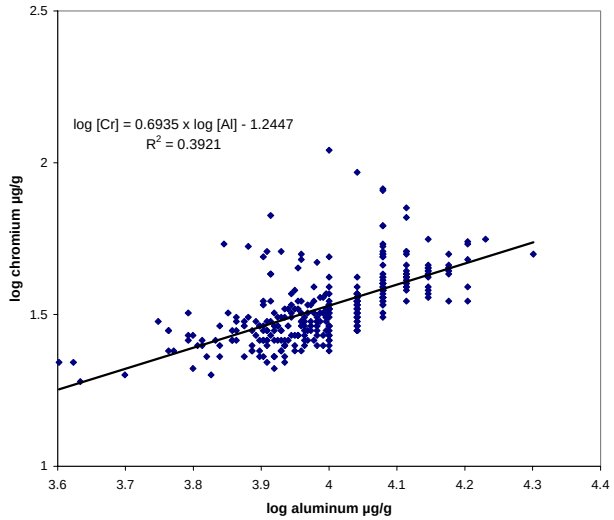


Fig. 10.4.3.31b: log Cr vs log Al, 0-5 cm, Sudbury Core

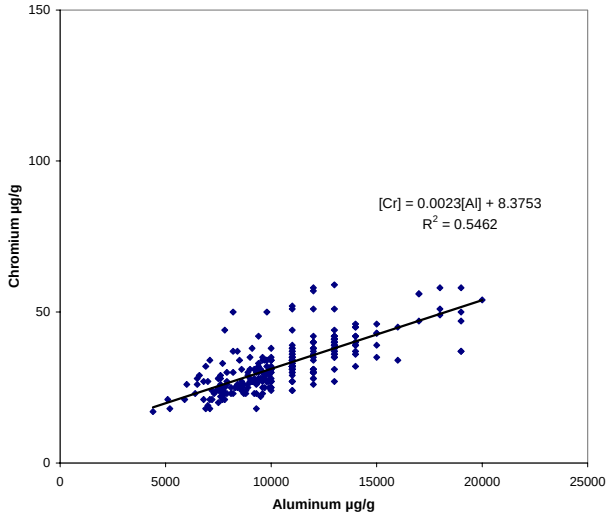


Fig. 10.4.3.32: Cr vs. Al, 5-10 cm, Sudbury Core

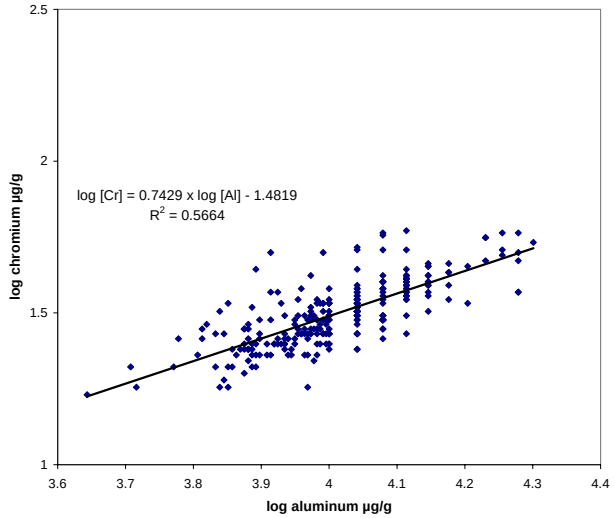


Fig. 10.4.3.32b: log Cr vs. log Al, 5-10 cm, Sudbury Core

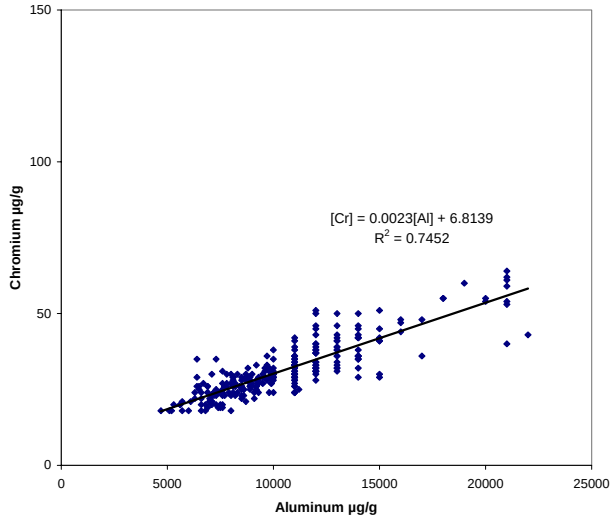


Fig. 10.4.3.33: Cr vs. Al, 10-20 cm, Sudbury Core

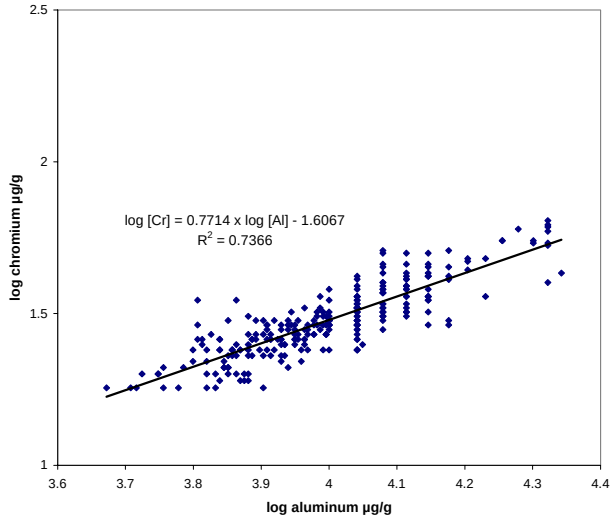


Fig. 10.4.3.33b: log Cr vs.log Al, 10-20 cm, Sudbury Core

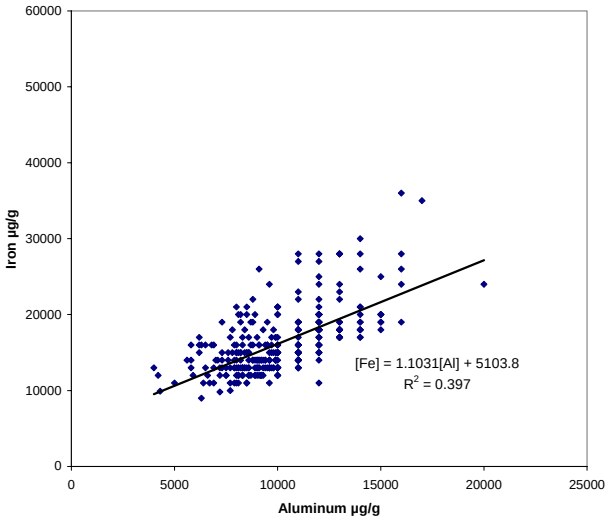


Fig. 10.4.3.34: Fe vs. Al, 0-5 cm, Sudbury Core

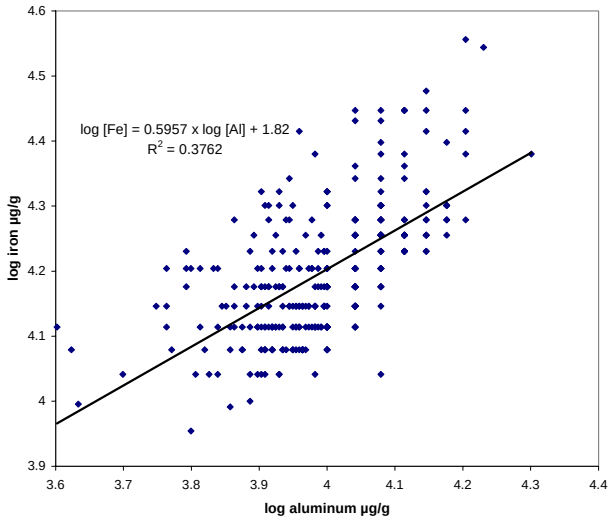


Fig. 10.4.3.34b: log Fe vs. log Al, 0-5 cm, Sudbury Core

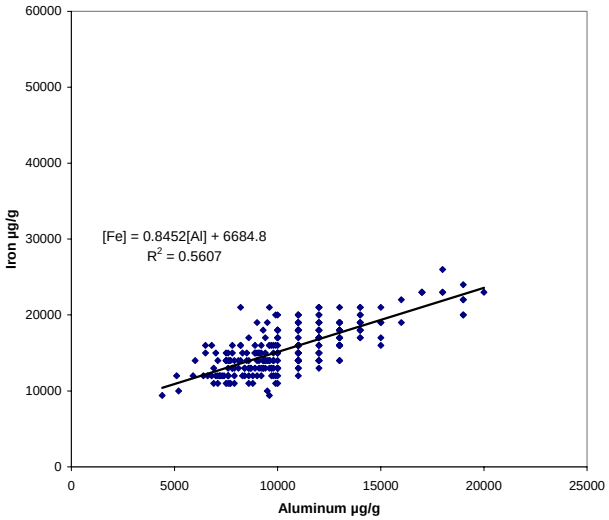


Fig. 10.4.3.35: Fe vs. Al, 5-10 cm, Sudbury Core

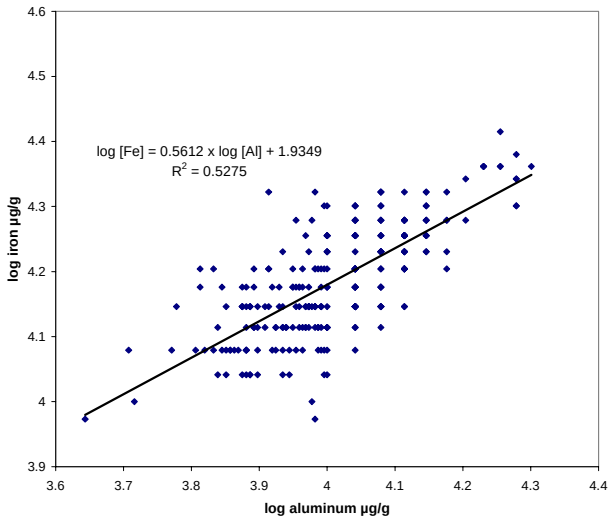


Fig. 10.4.3.35b: log Fe vs. log Al, 5-10 cm, Sudbury Core

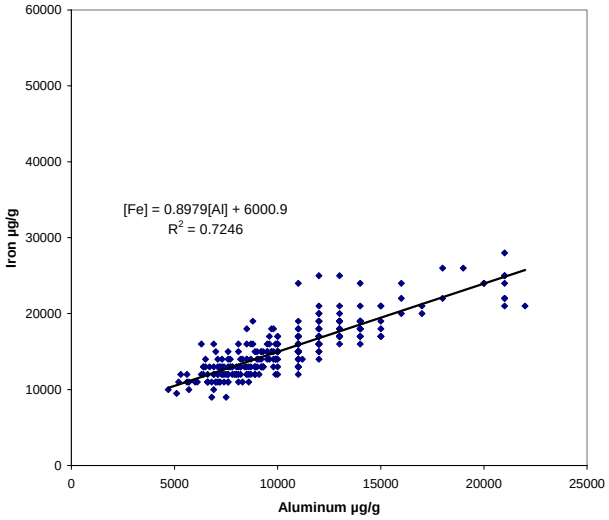


Fig. 10.4.3.36: Fe vs. Al, 10-20 cm, Sudbury Core

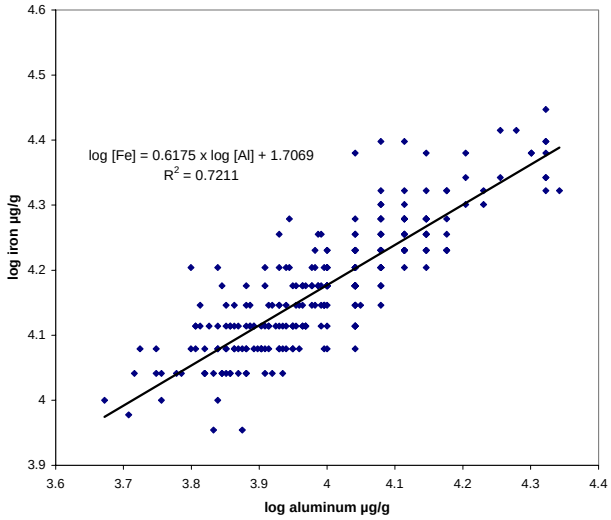


Fig. 10.4.3.36b: log Fe vs log Al, 10-20 cm, Sudbury Core

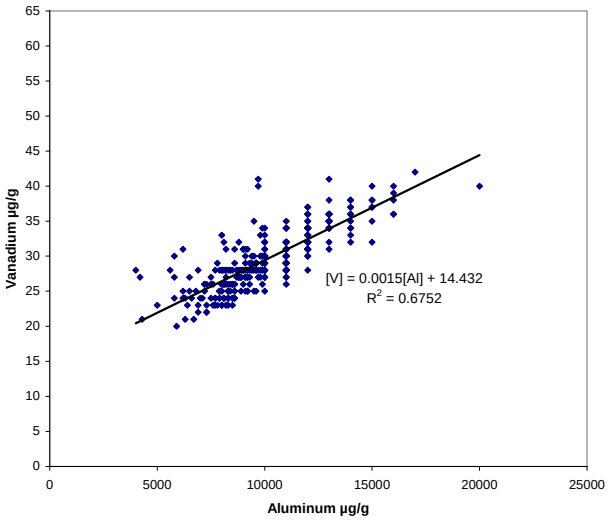


Fig. 10.4.3.37: V vs. Al, 10-20 cm, Sudbury Core

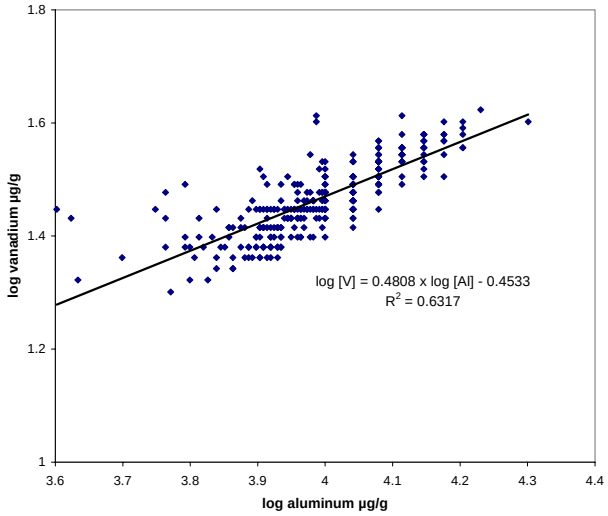


Fig. 10.4.3.37b:log V vs log Al, 10-20 cm, Sudbury Core

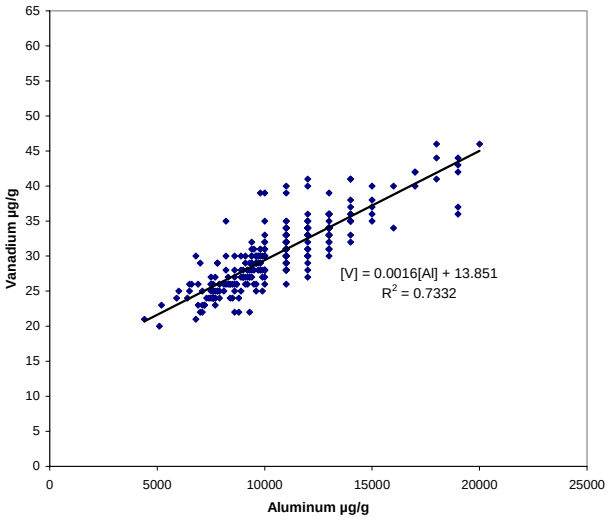


Fig. 10.4.3.38: V vs. Al, 5-10 cm, Sudbury Core

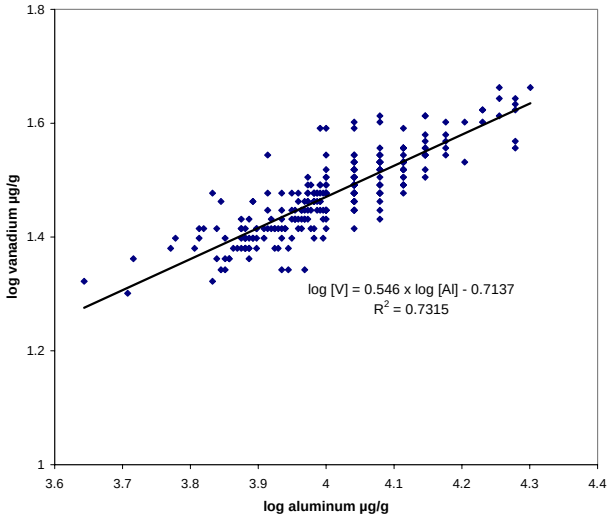


Fig. 10.4.3.38b: log V vs log Al, 5-10 cm, Sudbury Core

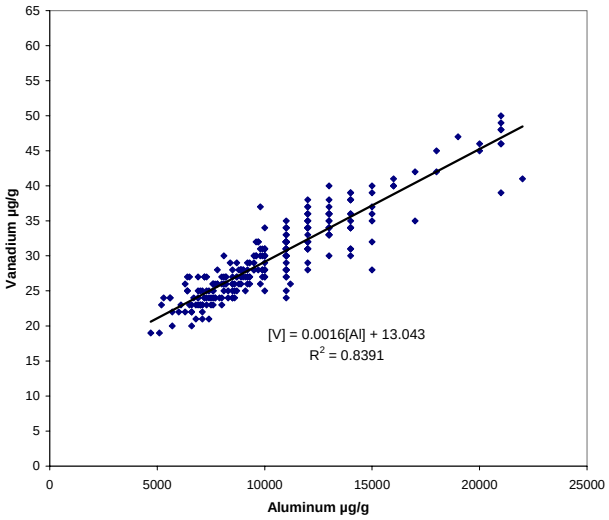


Fig. 10.4.3.39: V vs. Al, 10-20 cm, Sudbury Core

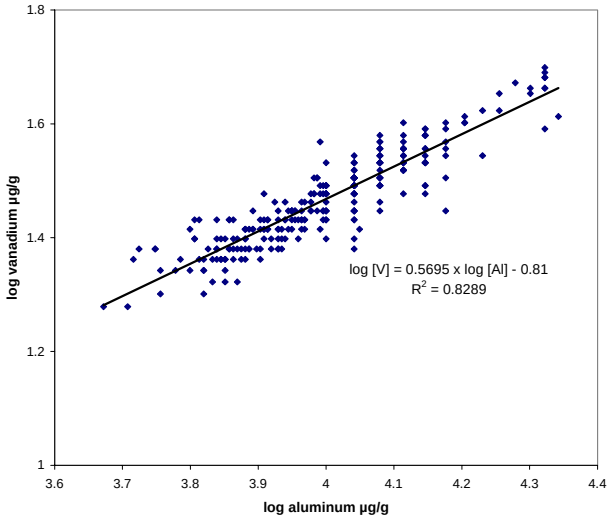


Fig. 10.4.3.39b: log V vs log Al, 10-20 cm, Sudbury Core

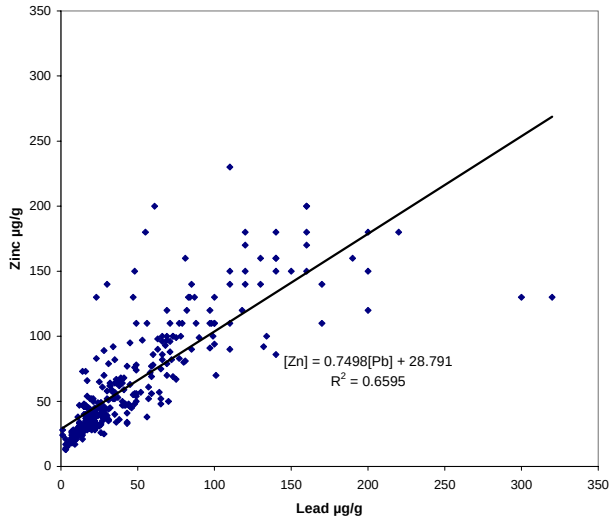


Fig. 10.4.3.40: Zn vs. Pb, 0-5 cm, Sudbury Core

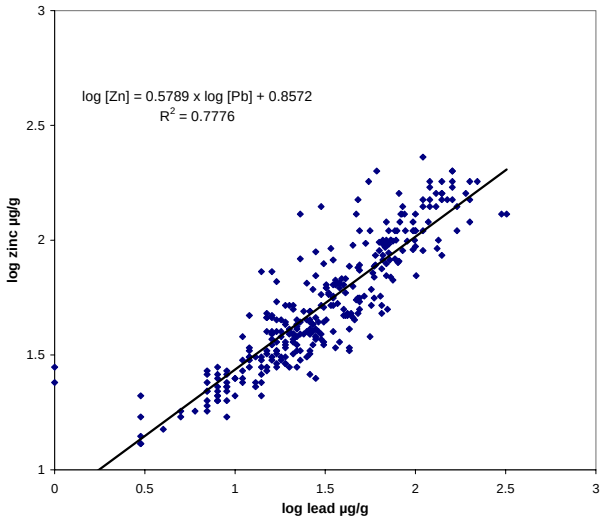


Fig. 10.4.3.40b: log Zn vs log Pb, 0-5 cm, Sudbury Core

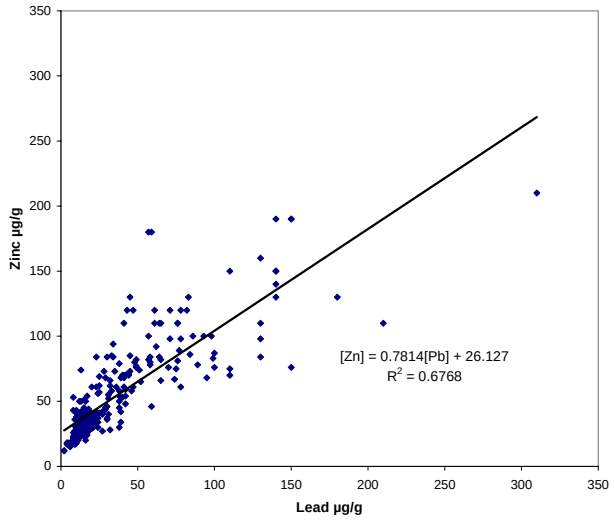


Fig. 10.4.3.41: Zn vs. Pb, 5-10 cm, Sudbury Core

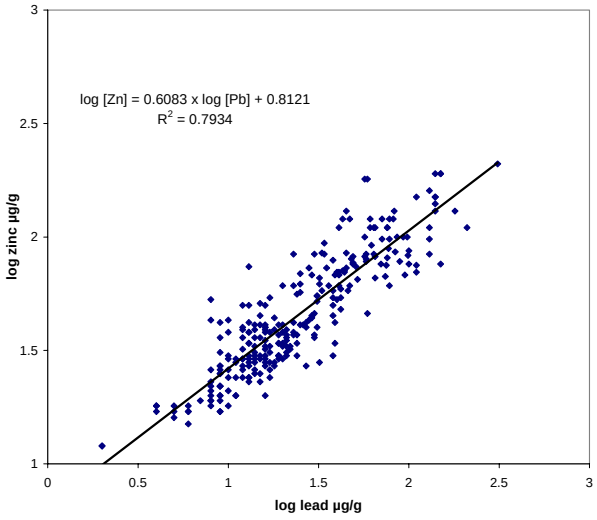


Fig. 10.4.3.41b: log Zn vs. log Pb, 5-10 cm, Sudbury Core

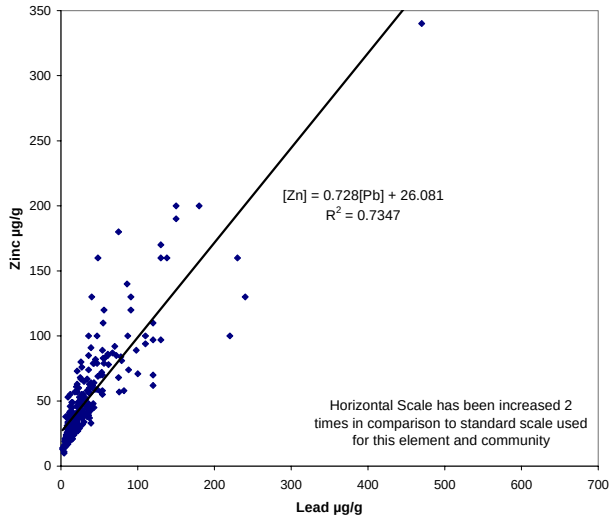


Fig. 10.4.3.42: Zn vs. Pb, 10-20 cm, Sudbury Core

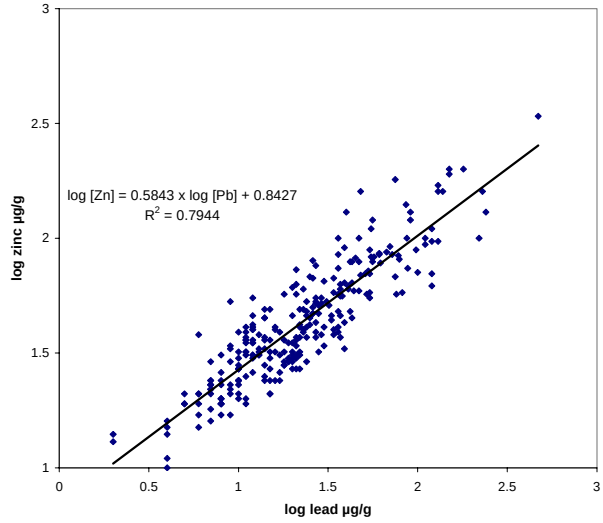


Fig. 10.4.3.42b: log Zn vs log Pb, 10-20cm, Sudbury Core

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

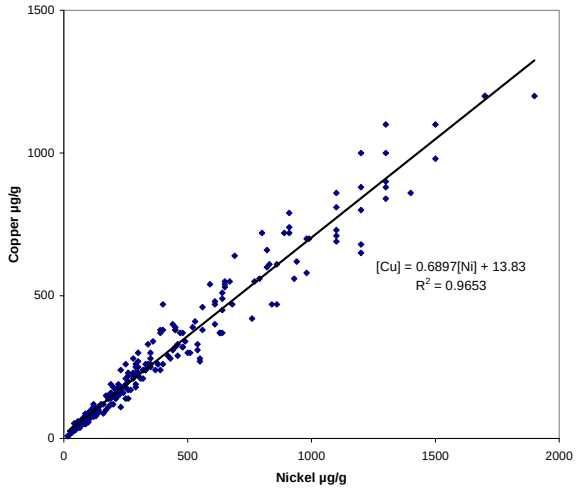


Fig. 10.4.4.1: Cu vs. Ni, 0-5 cm, Coniston

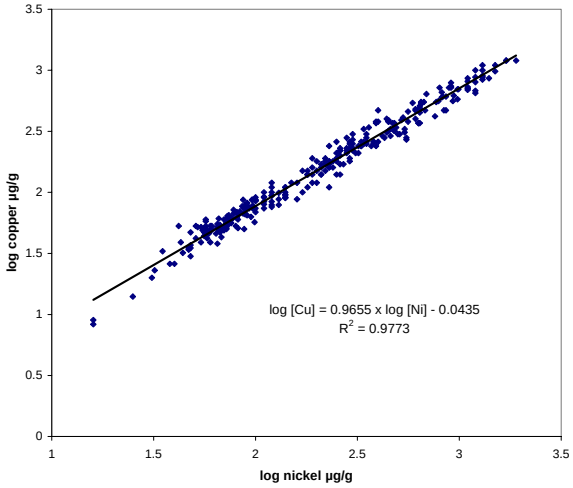


Fig. 10.4.4.1b: log Cu vs. log Ni, 0-5 cm, Coniston

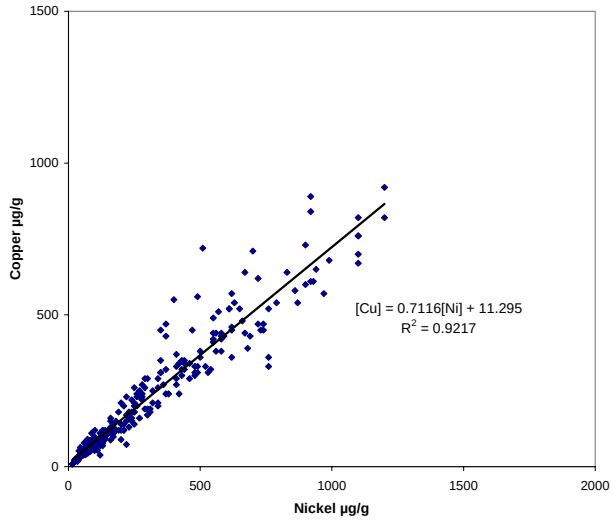


Fig. 10.4.4.2: Cu vs. Ni, 5-10 cm, Coniston

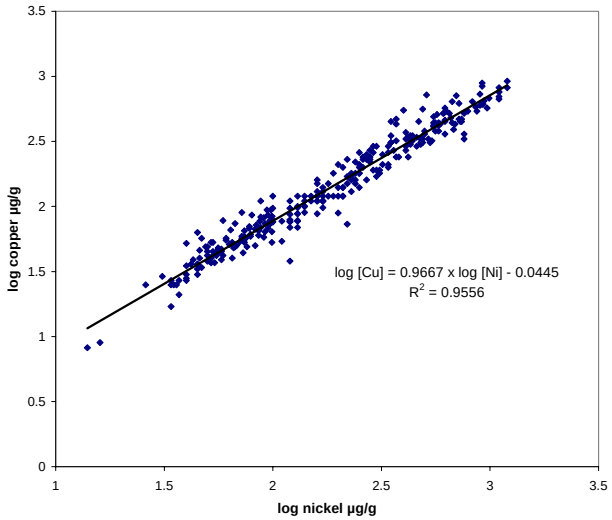


Fig. 10.4.4.2b: log Cu vs. log Ni, 5-10 cm, Coniston

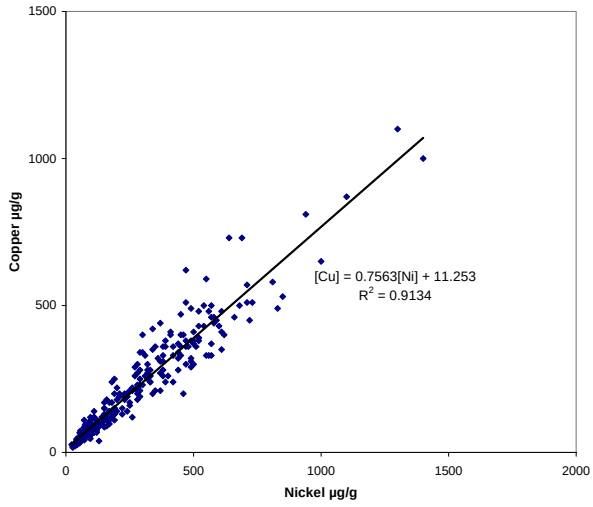


Fig. 10.4.4.3: Cu vs. Ni, 10-20 cm, Coniston

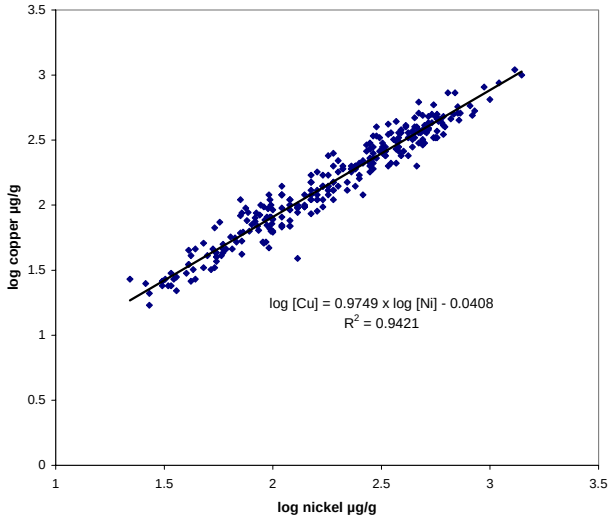


Fig. 10.4.4.3b: log Cu vs. log Ni, 10-20 cm, Coniston

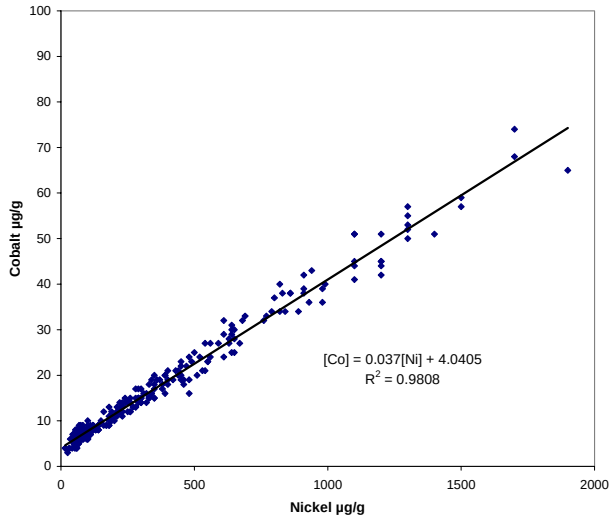


Fig. 10.4.4.4: Co vs. Ni, 0-5 cm, Coniston

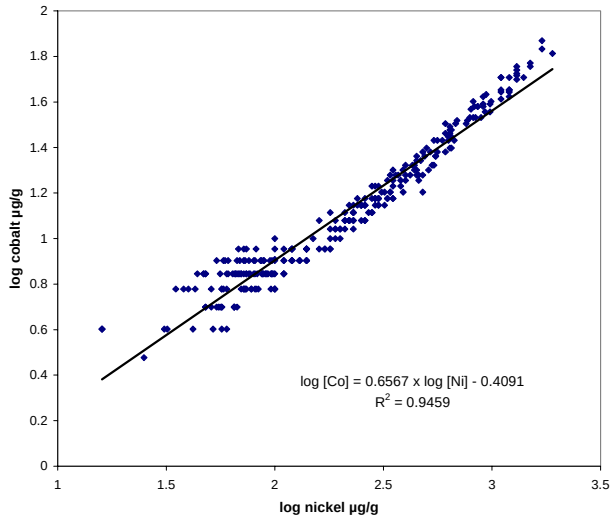


Fig. 10.4.4.4b: log Co vs. log Ni, 0-5 cm, Coniston

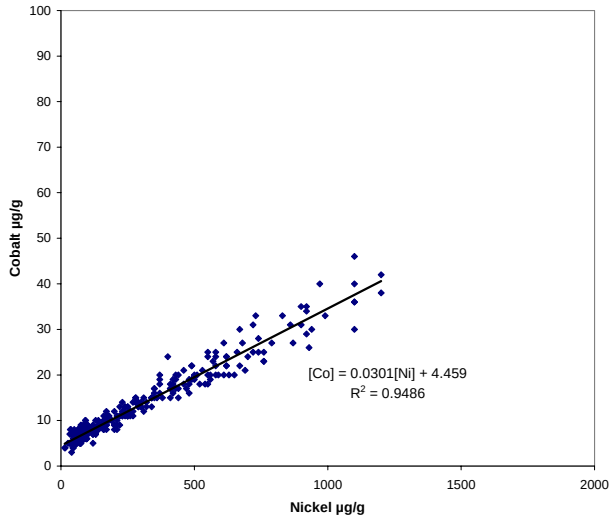


Fig. 10.4.4.5: Co vs. Ni, 5-10 cm, Coniston

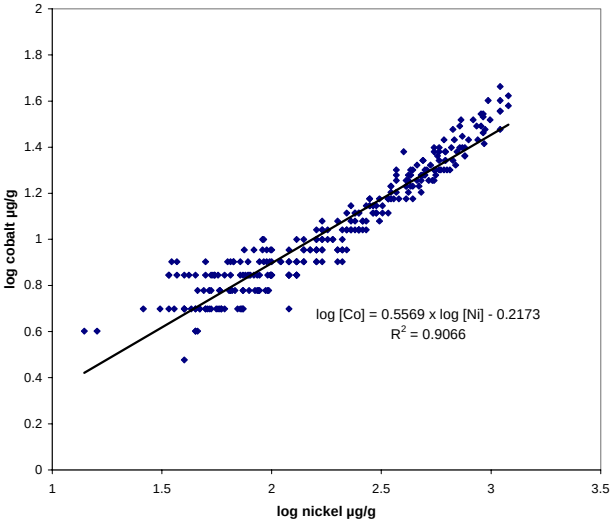


Fig. 10.4.4.5b: log Co vs. log Ni, 5-10 cm, Coniston

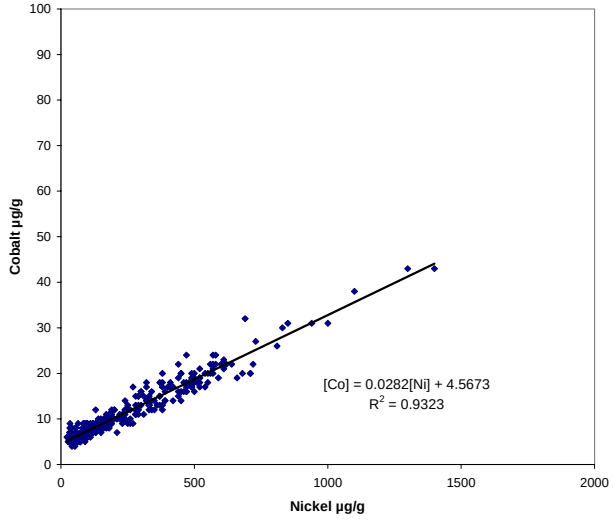


Fig. 10.4.4.6: Co vs. Ni, 10-20 cm, Coniston

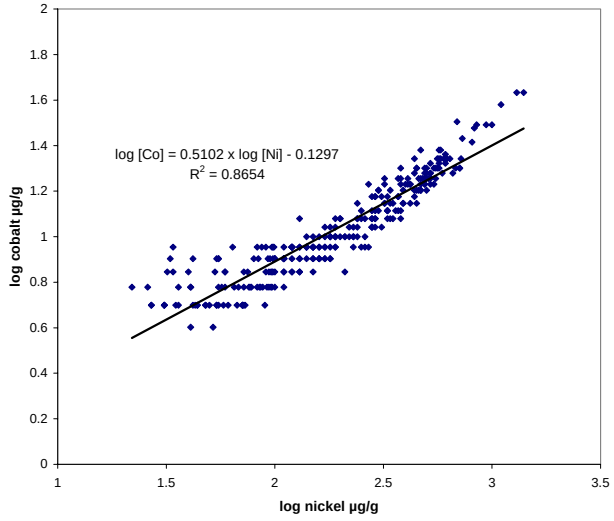


Fig. 10.4.4.6b: log Co vs. log Ni, 10-20 cm, Coniston

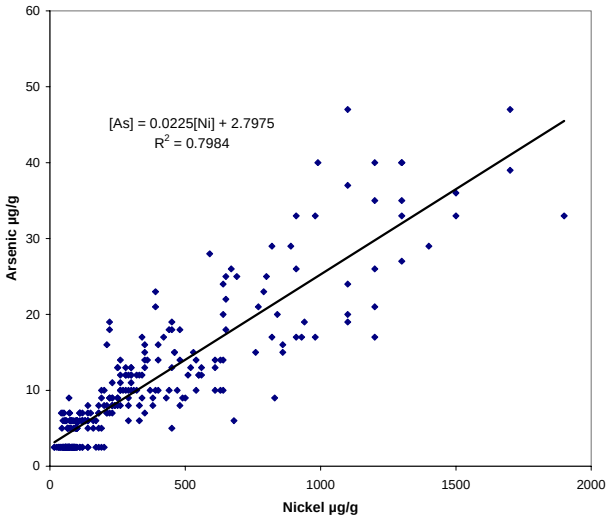


Fig. 10.4.4.7: As vs. Ni, 0-5 cm, Coniston

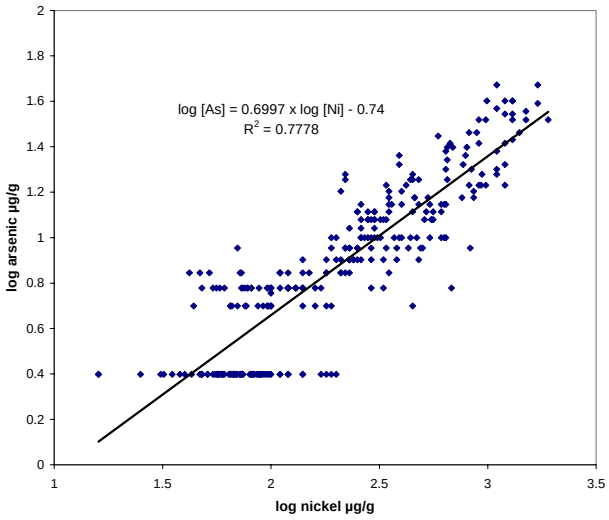


Fig. 10.4.4.7b: log As vs. log Ni, 0-5 cm, Coniston

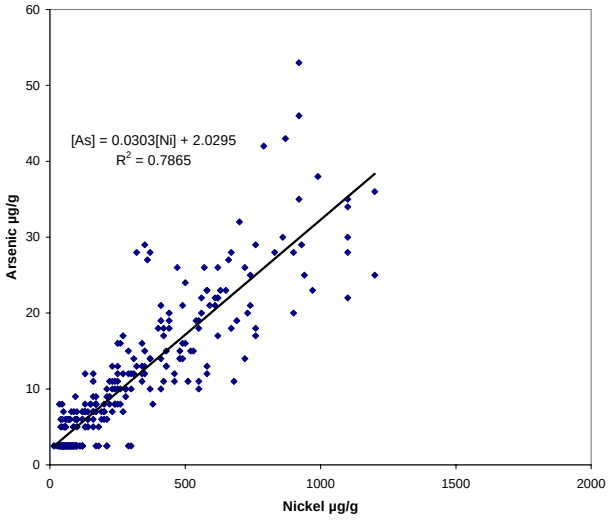


Fig. 10.4.4.8: As vs. Ni, 5-10 cm, Coniston

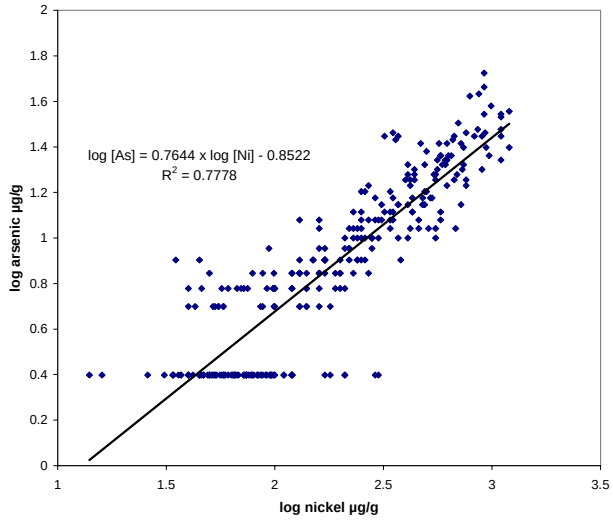


Fig. 10.4.4.8b: log As vs. log Ni, 5-10 cm, Coniston

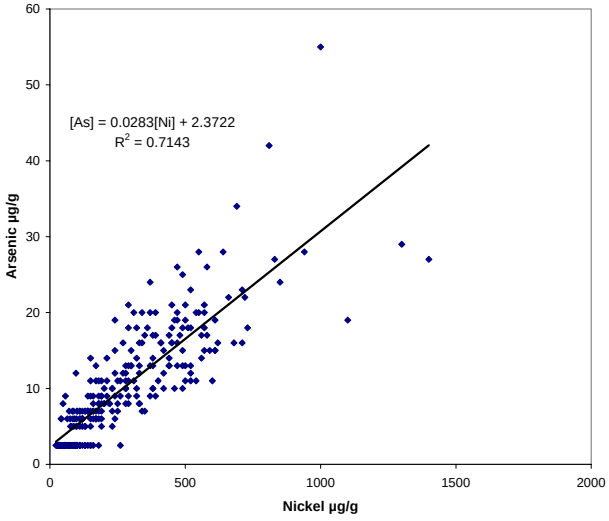


Fig. 10.4.4.9: As vs. Ni, 10-20 cm, Coniston

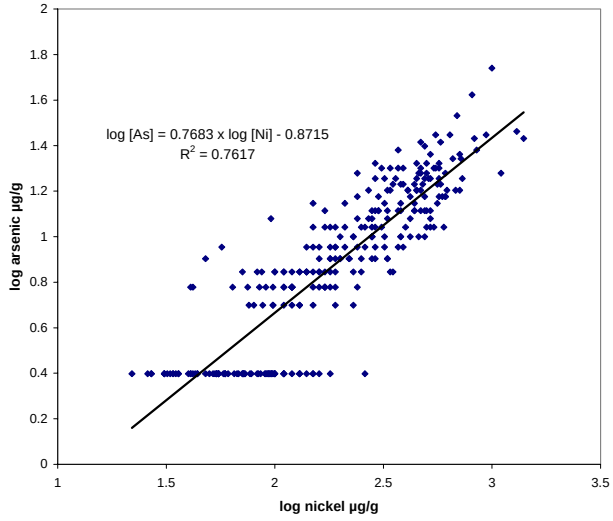


Fig. 10.4.4.9b: log As vs. log Ni, 10-20 cm, Coniston

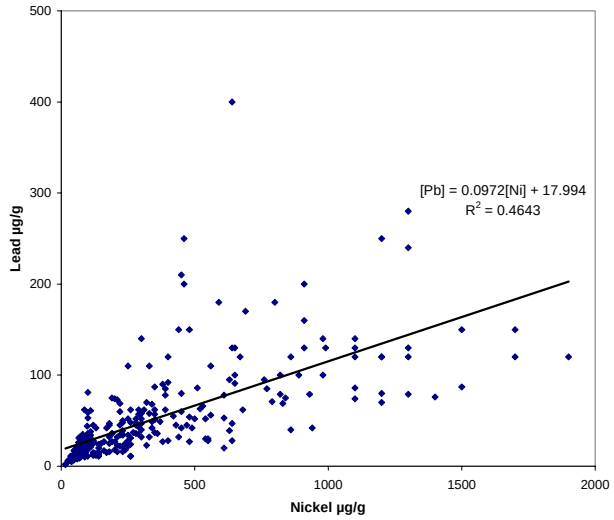


Fig. 10.4.4.10: Pb vs. Ni, 0-5 cm, Coniston

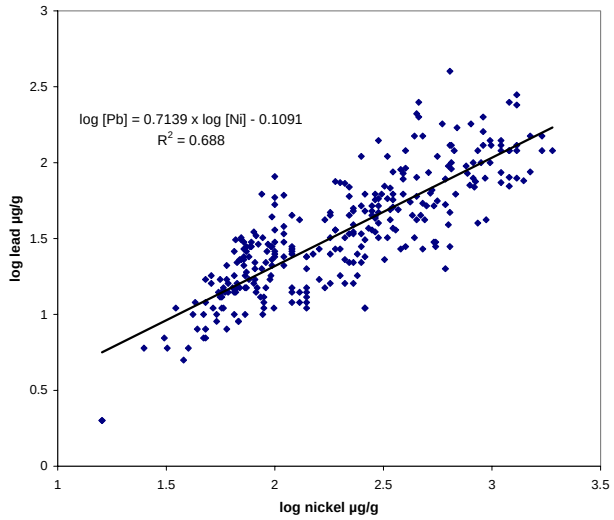


Fig. 10.4.4.10b: log Pb vs. log Ni, 0-5 cm, Coniston

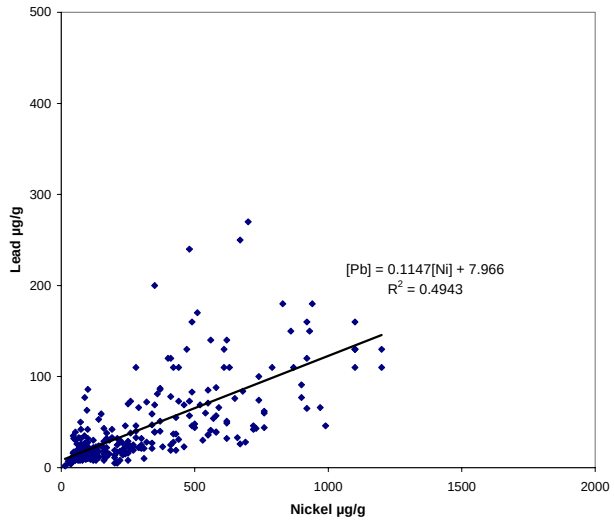


Fig. 10.4.4.11: Pb vs. Ni, 5-10 cm, Coniston

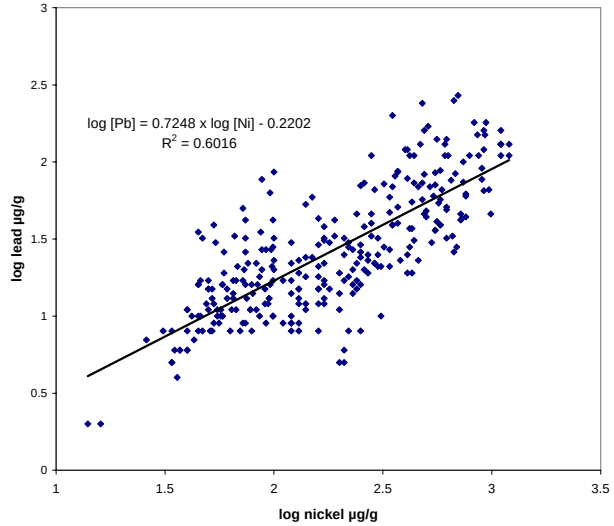


Fig. 10.4.4.11b: log Pb vs. log Ni, 5-10 cm, Coniston

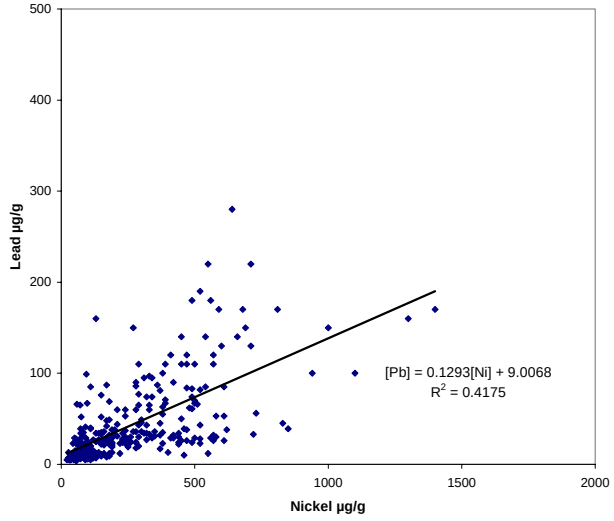


Fig. 10.4.4.12: Pb vs. Ni, 10-20 cm, Coniston

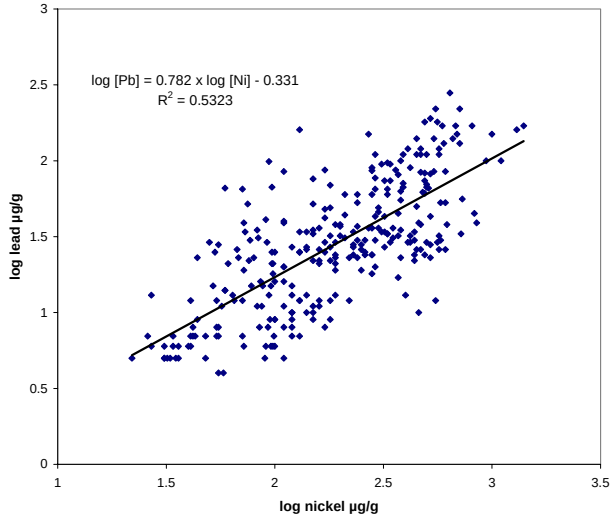


Fig. 10.4.4.12b: log Pb vs. log Ni, 10-20 cm, Coniston

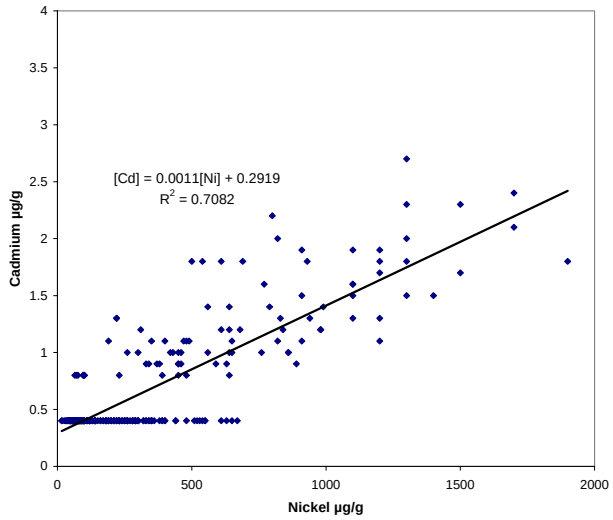


Fig. 10.4.4.13: Cd vs. Ni, 0-5 cm, Coniston

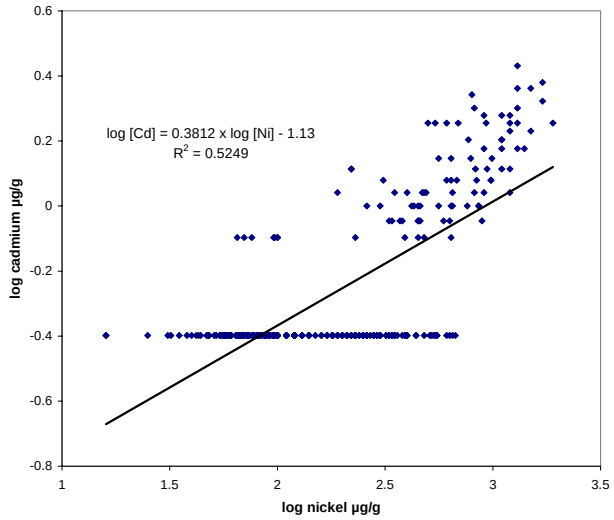


Fig. 10.4.4.13b: log Cd vs. log Ni, 0-5 cm, Coniston

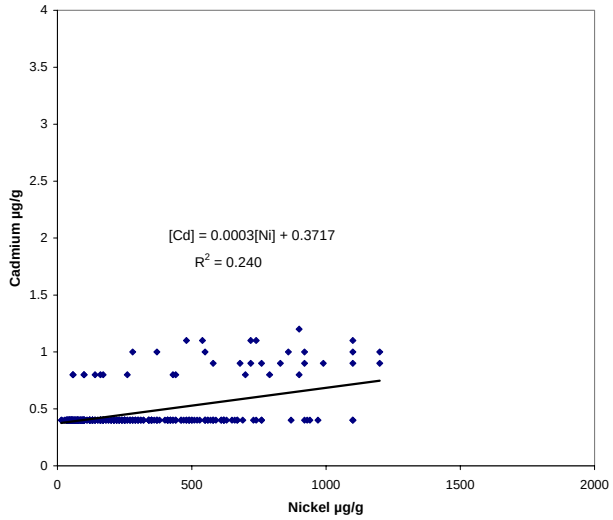


Fig. 10.4.4.14: Cd vs. Ni, 5-10 cm, Coniston

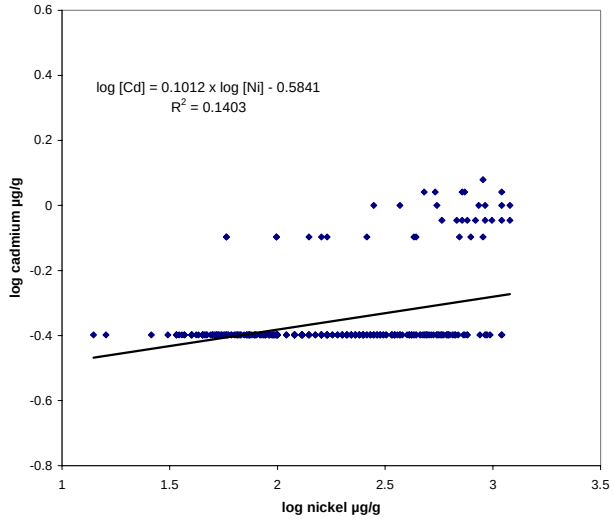


Fig. 10.4.4.14b: log Cd vs. log Ni, 5-10 cm, Coniston

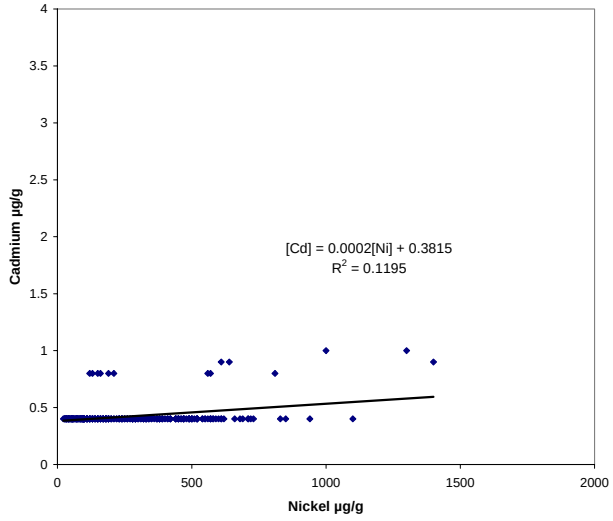


Fig. 10.4.4.15: Cd vs. Ni, 10-20 cm, Coniston

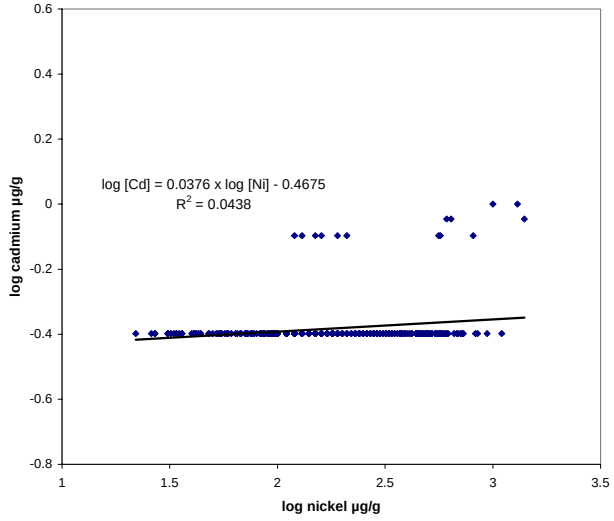


Fig. 10.4.4.15b: log Cd vs. log Ni, 10-20 cm, Coniston

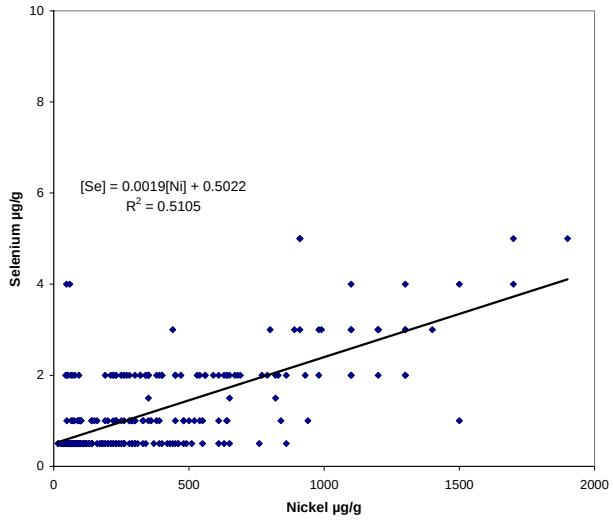


Fig. 10.4.4.16: Se vs. Ni, 0-5cm, Coniston

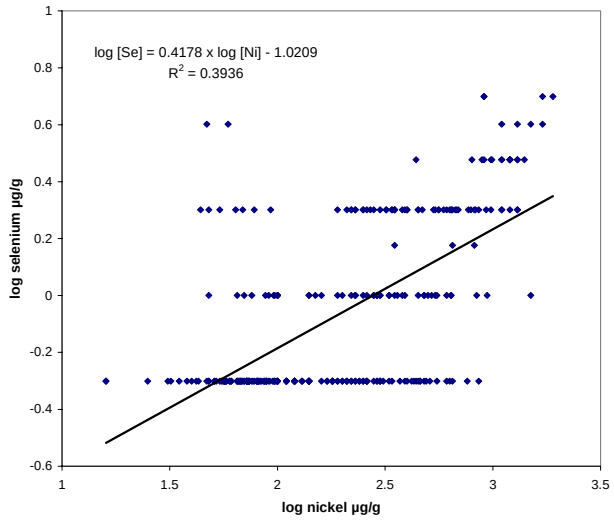


Fig. 10.4.4.16b: log Se vs. log Ni, 0-5cm, Coniston

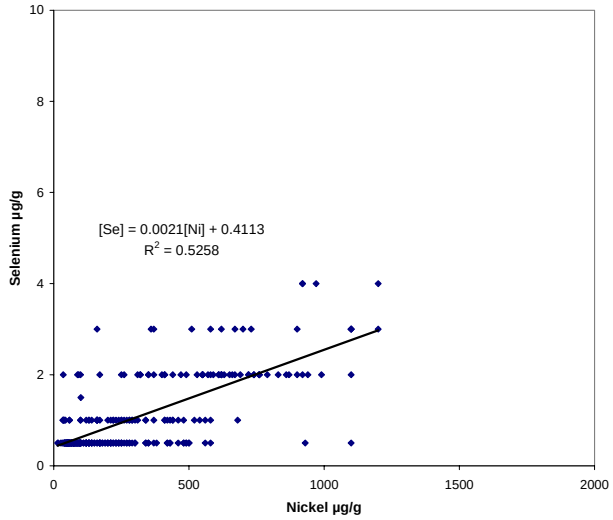


Fig. 10.4.4.17: Se vs. Ni, 5-10cm, Coniston

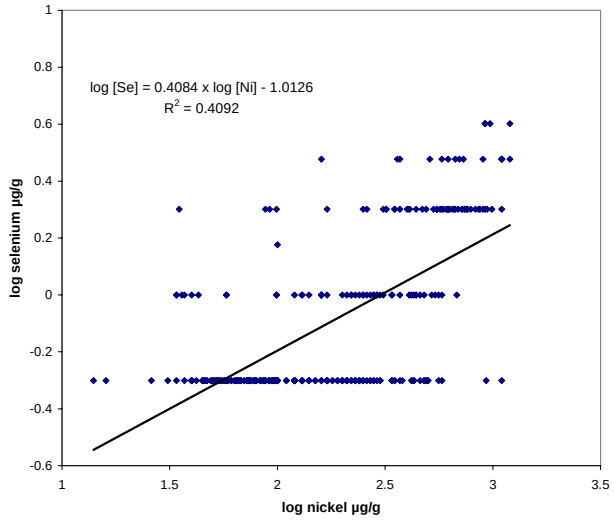


Fig. 10.4.4.17b: log Se vs. log Ni, 5-10cm, Coniston

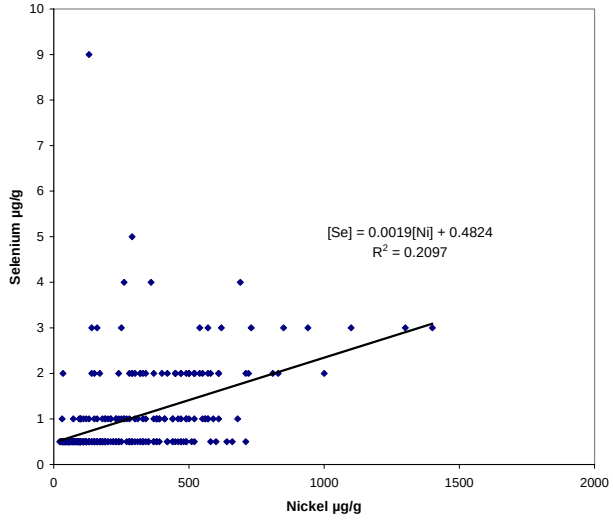


Fig. 10.4.4.18: Se vs. Ni, 10-20cm, Coniston

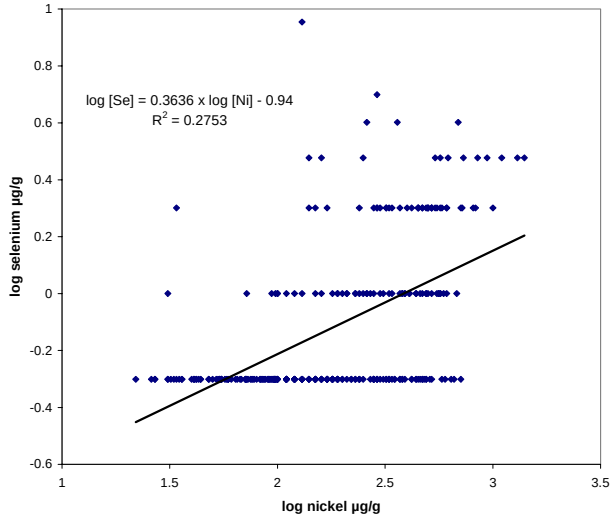


Fig. 10.4.4.18b: log Se vs. log Ni, 10-20cm, Coniston

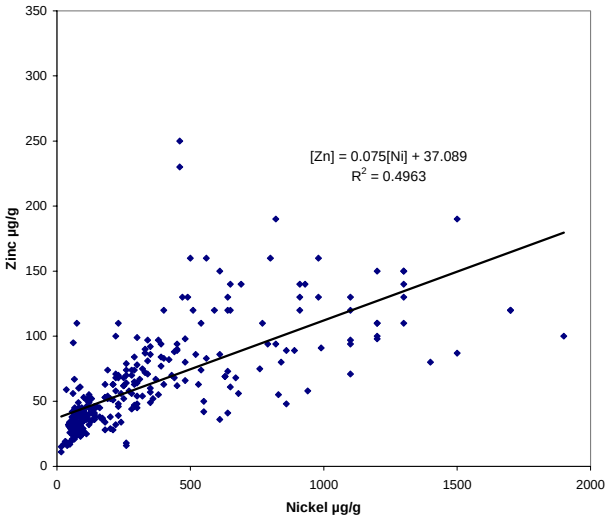


Fig. 10.4.4.19: Zn vs. Ni, 0-5cm, Coniston

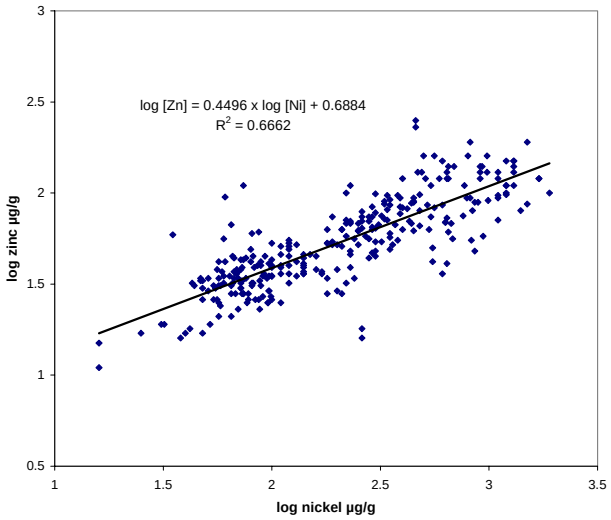


Fig. 10.4.4.19b: log Zn vs. log Ni, 0-5cm, Coniston

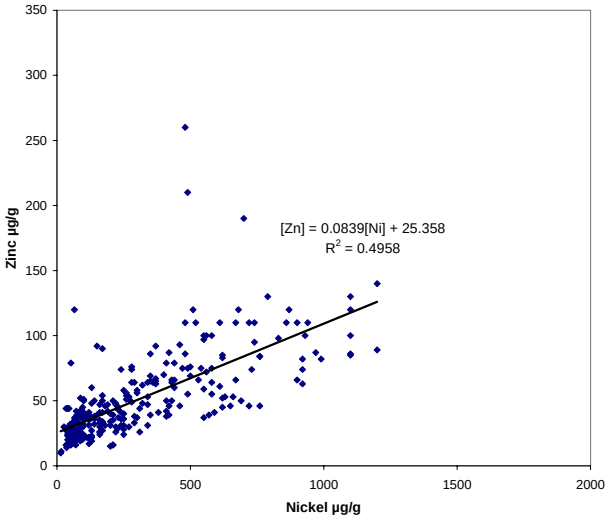


Fig. 10.4.4.20: Zn vs. Ni, 5-10cm, Coniston

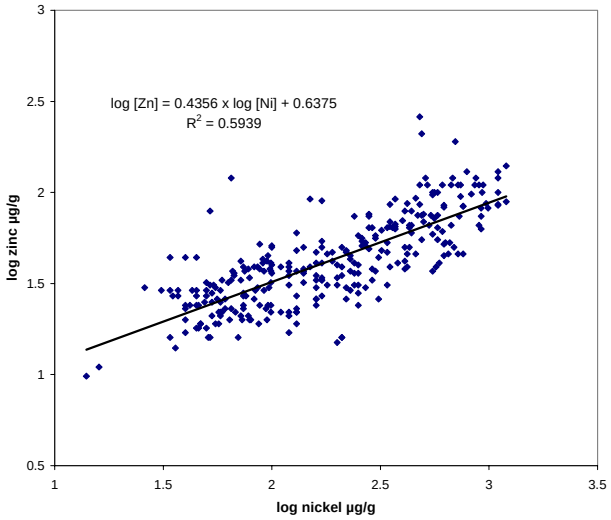


Fig. 10.4.4.20b: log Zn vs. log Ni, 5-10cm, Coniston

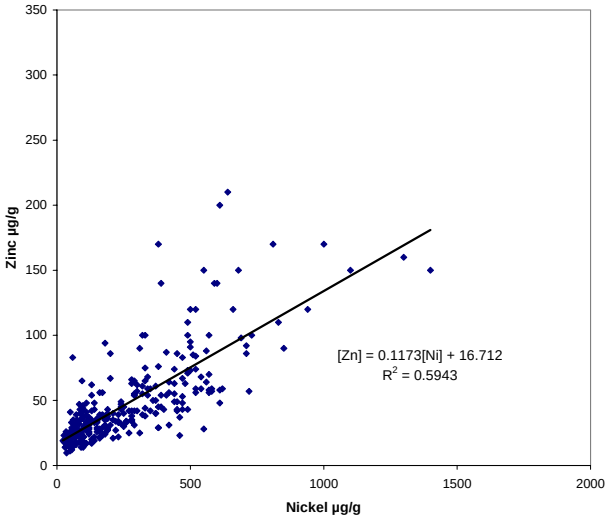


Fig. 10.4.4.21: Zn vs. Ni, 10-20cm, Coniston

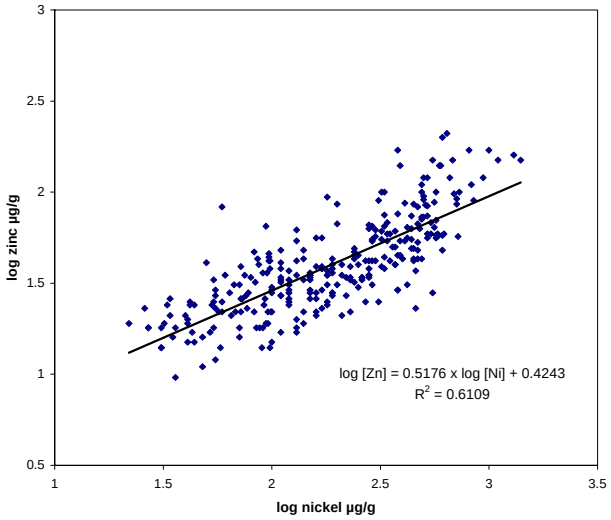


Fig. 10.4.4.21b: log Zn vs. log Ni, 10-20cm, Coniston

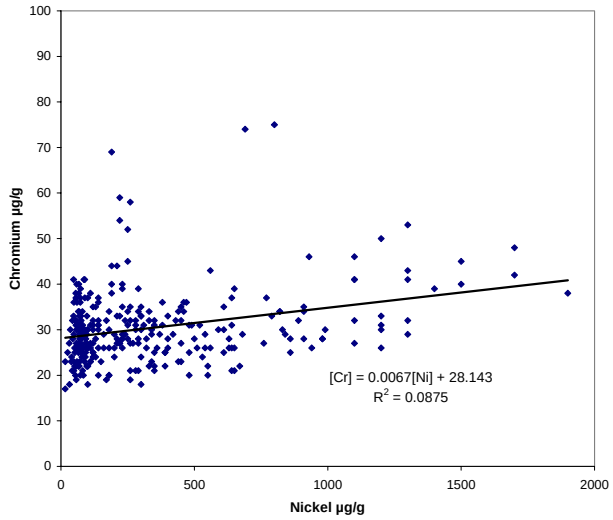


Fig. 10.4.4.22: Cr vs. Ni, 0-5cm, Coniston

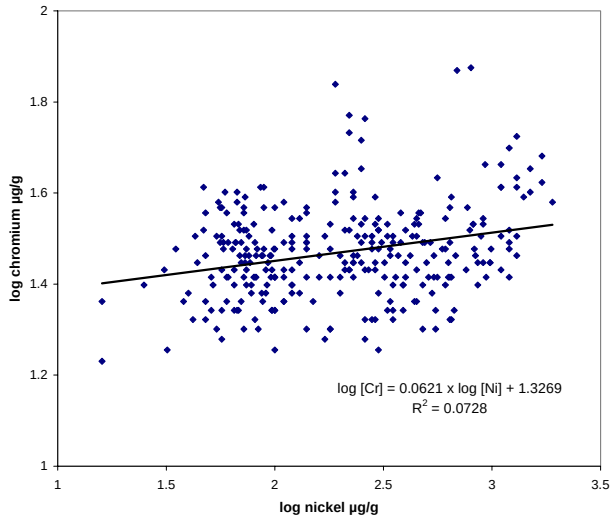


Fig. 10.4.4.22b: log Cr vs. log Ni, 0-5cm, Coniston

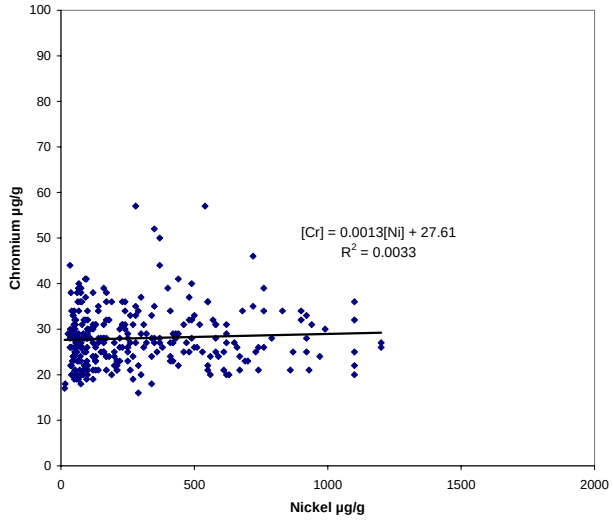


Fig. 10.4.4.23: Cr vs. Ni, 5-10cm, Coniston

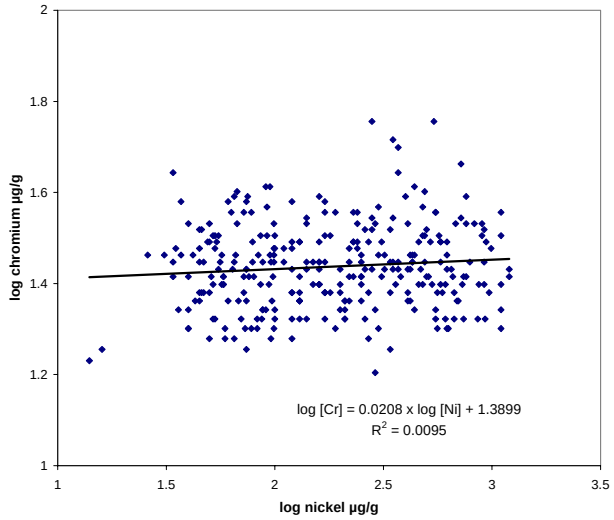


Fig. 10.4.4.23b: log Cr vs. log Ni, 5-10cm, Coniston

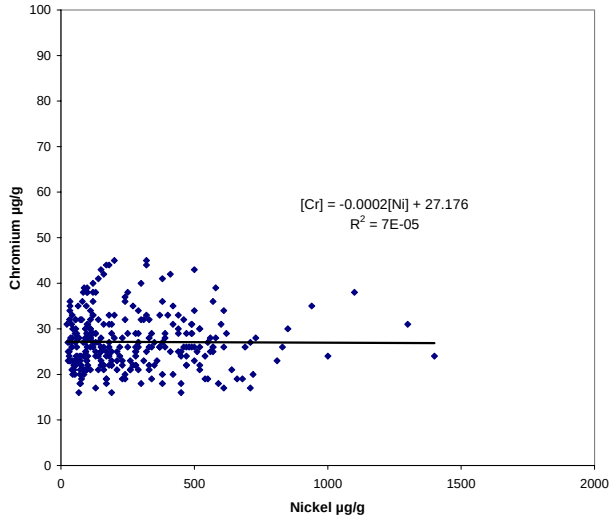


Fig. 10.4.4.24: Cr vs. Ni, 10-20cm, Coniston

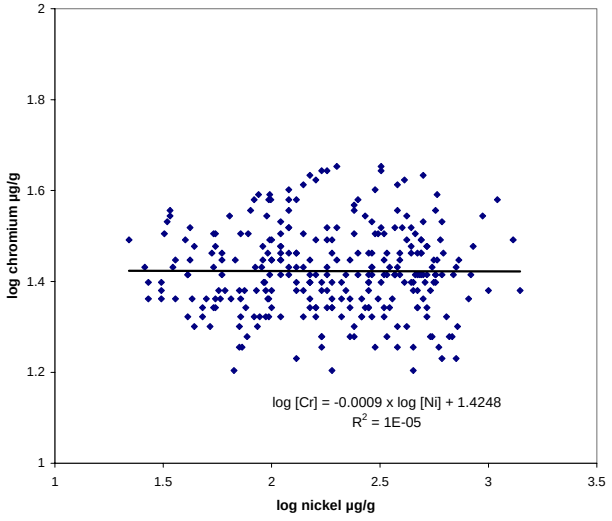


Fig. 10.4.4.24b: log Cr vs. log Ni, 10-20cm, Coniston

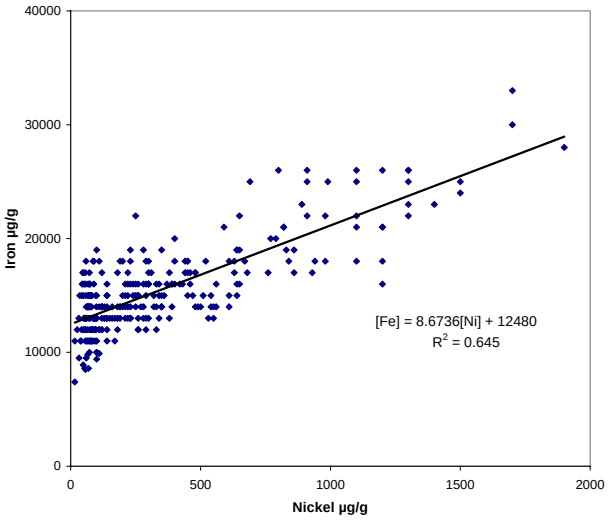


Fig. 10.4.4.25: Fe vs. Ni, 0-5cm, Coniston

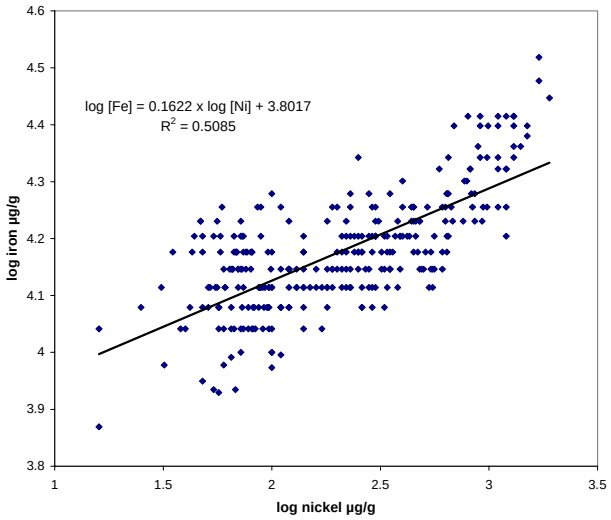


Fig. 10.4.4.25b: log Fe vs. log Ni, 0-5cm, Coniston

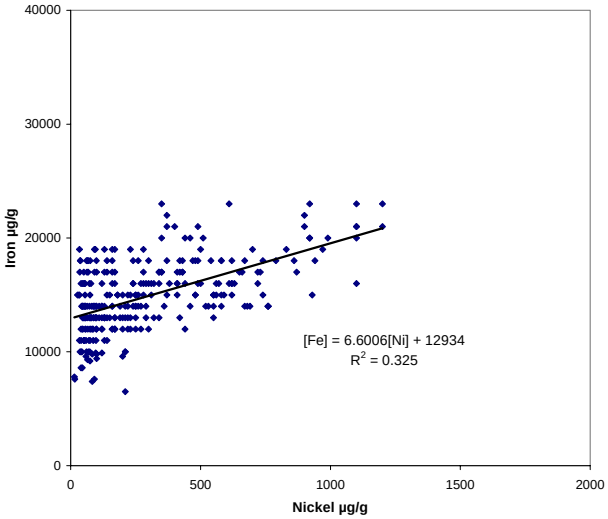


Fig. 10.4.4.26: Fe vs. Ni, 5-10cm, Coniston

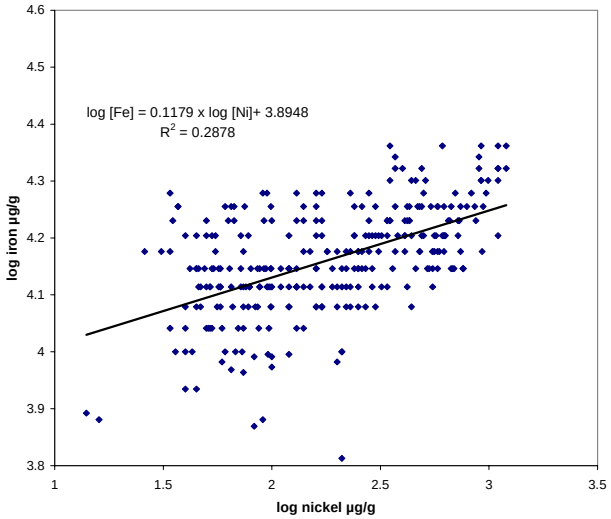


Fig. 10.4.4.26b: log Fe vs. log Ni, 5-10cm, Coniston

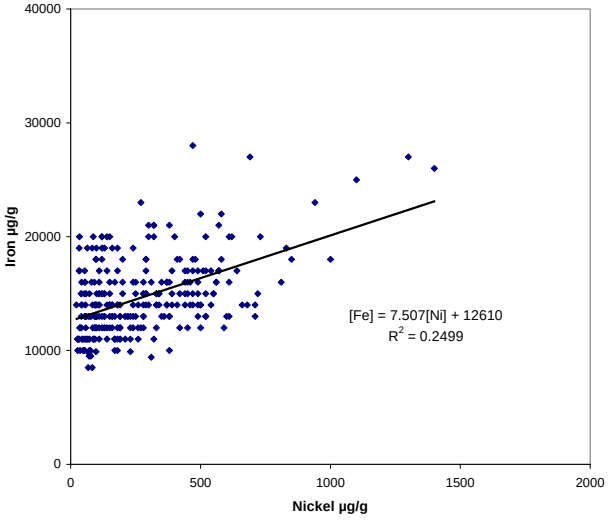


Fig. 10.4.4.27: Fe vs. Ni, 10-20cm, Coniston

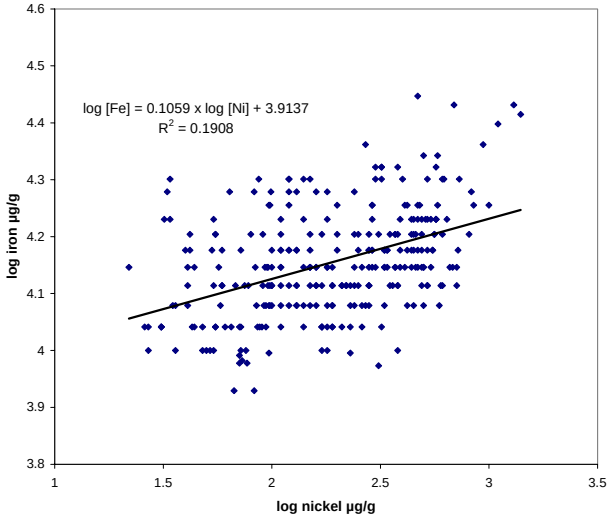


Fig. 10.4.4.27b: log Fe vs. log Ni, 10-20cm, Coniston

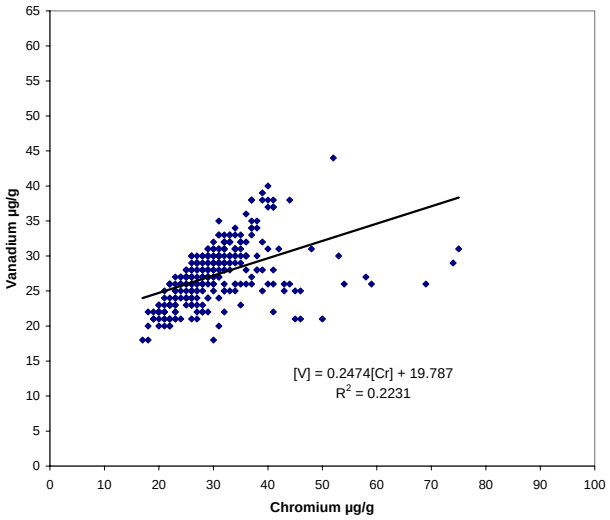


Fig. 10.4.4.28: V vs. Cr, 0-5 cm, Coniston

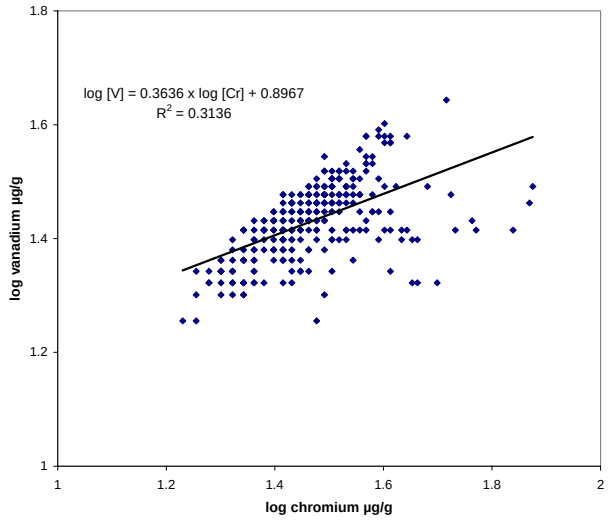


Fig. 10.4.4.28b: log V vs. log Cr, 0-5cm, Coniston

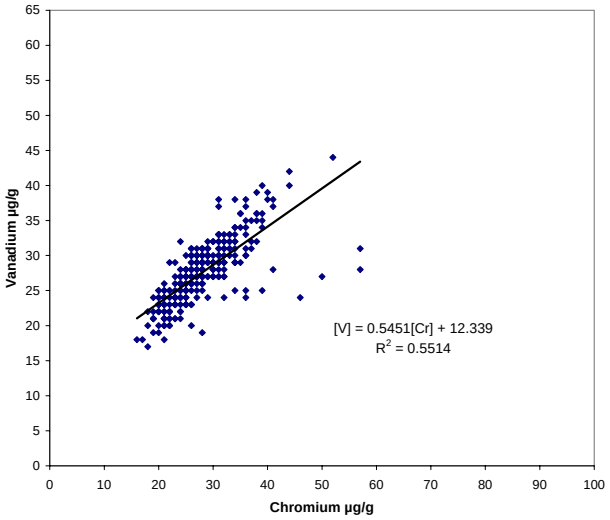


Fig. 10.4.4.29: V vs. Cr, 5-10cm, Coniston

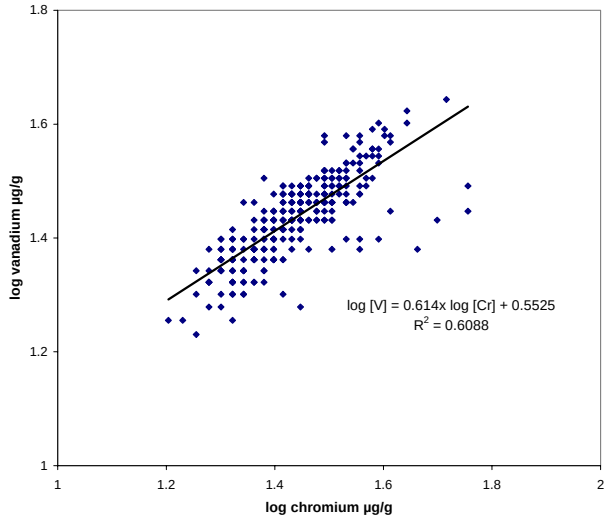


Fig. 10.4.4.29b: log V vs. log Cr, 5-10cm, Coniston

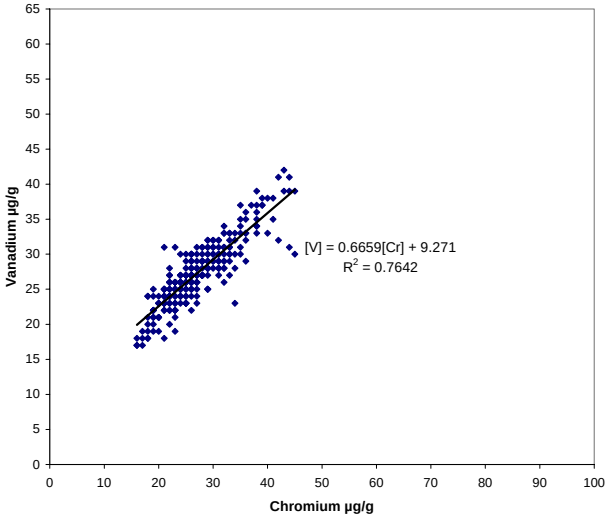


Fig. 10.4.4.30: V vs. Cr, 10-20cm, Coniston

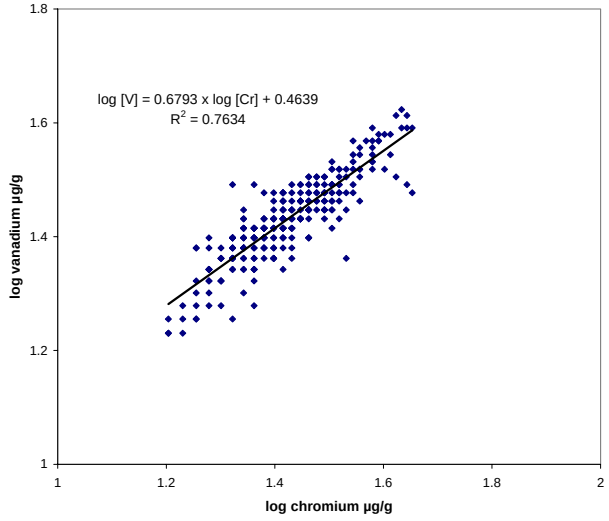


Fig. 10.4.4.30b: log V vs. log Cr, 10-20cm, Coniston

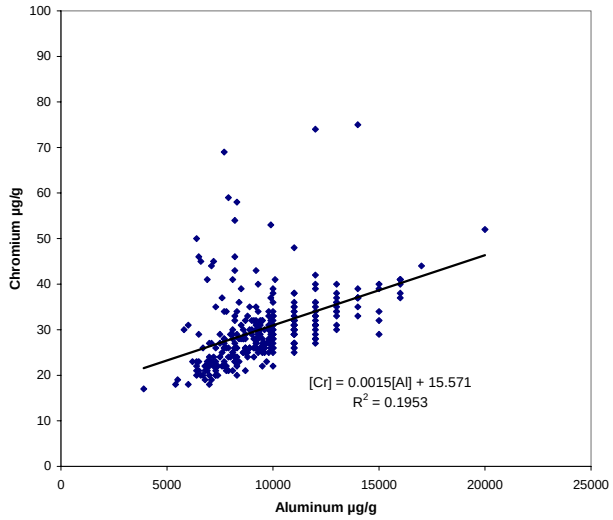


Fig. 10.4.4.31: Cr vs. Al, 0-5cm, Coniston

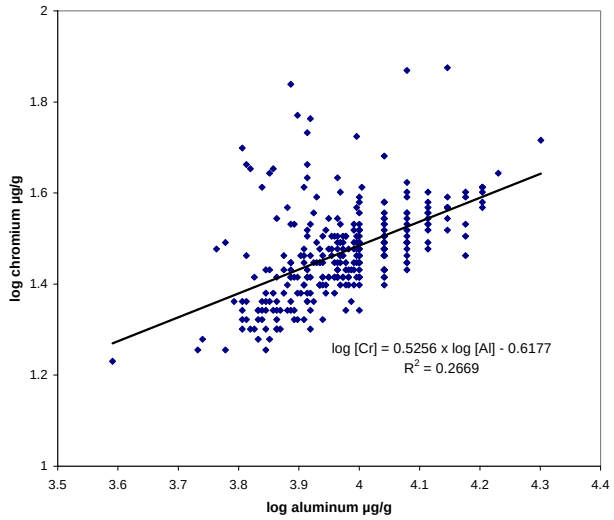


Fig. 10.4.4.31b: log Cr vs. log Al, 0-5cm, Coniston

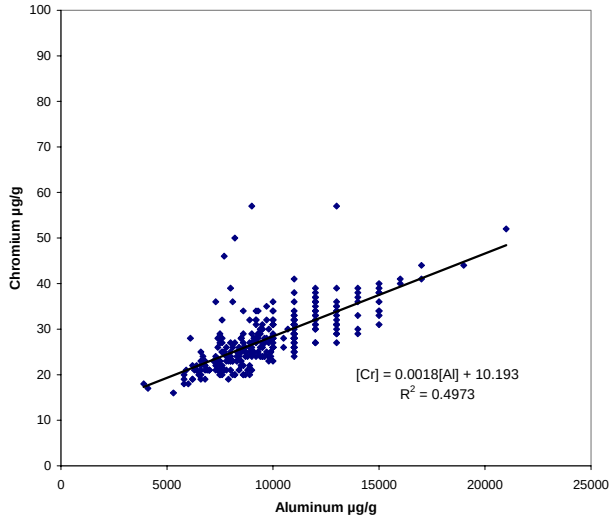


Fig. 10.4.4.32: Cr vs. Al, 5-10cm, Coniston

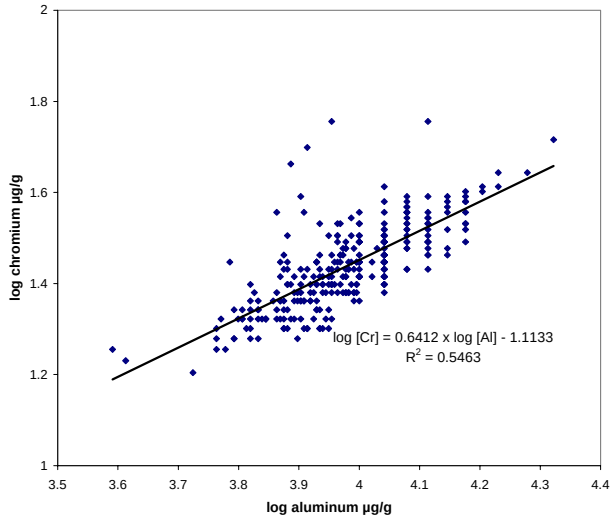


Fig. 10.4.4.32b: log Cr vs. log Al, 5-10cm, Coniston

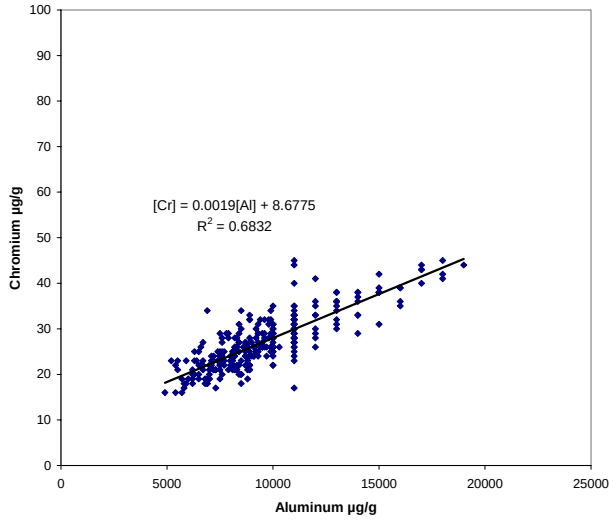


Fig. 10.4.4.33: Cr vs. Al, 10-20cm, Coniston

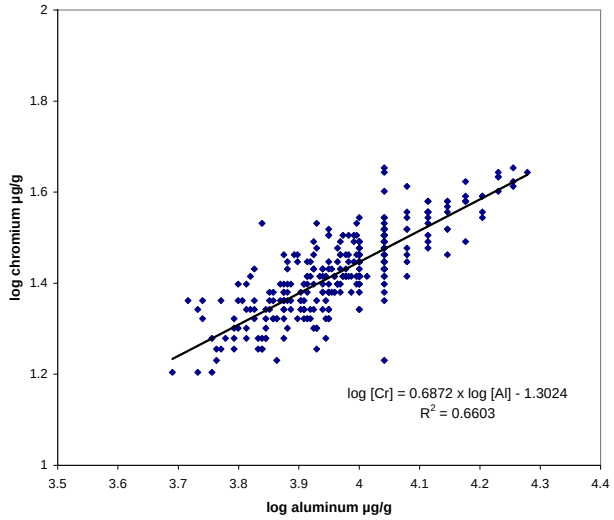


Fig. 10.4.4.33b: log Cr vs. log Al, 10-20cm, Coniston

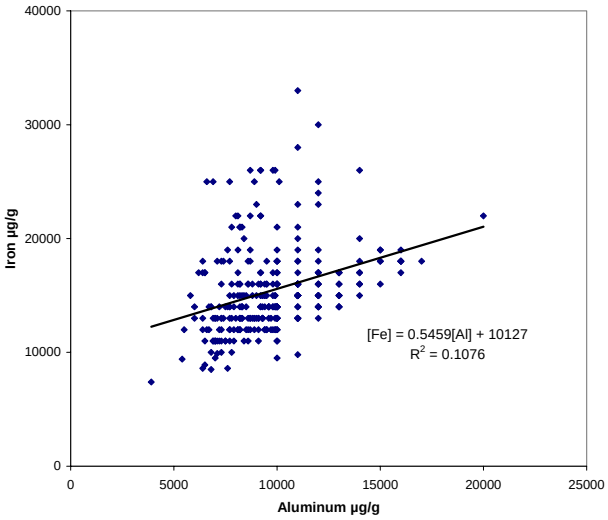


Fig. 10.4.4.34: Fe vs. Al, 0-5cm, Coniston

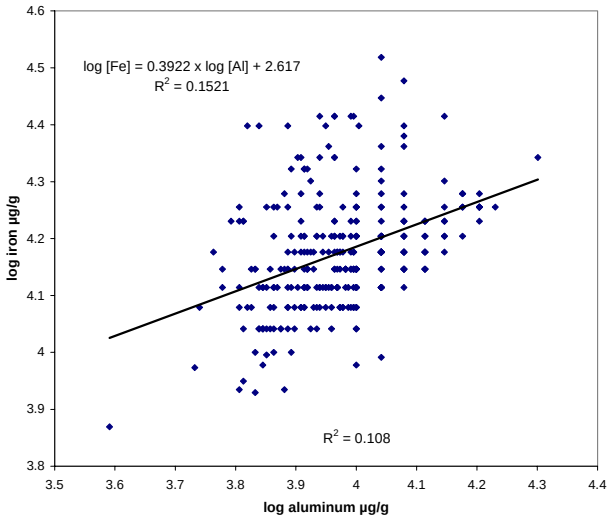


Fig. 10.4.4.34b: log Fe vs. log Al, 0-5cm, Coniston

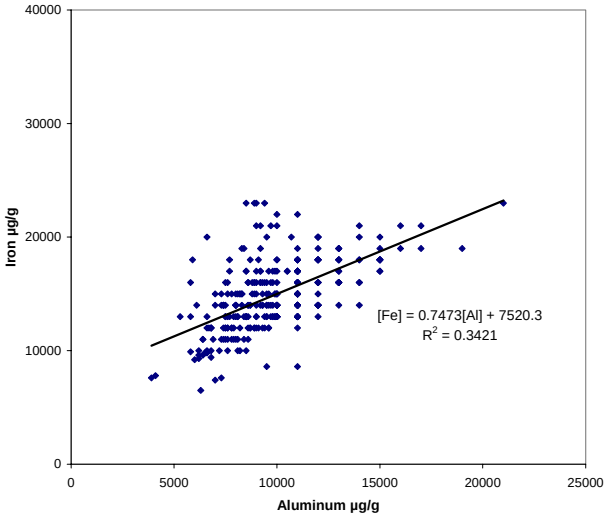


Fig. 10.4.4.35: Fe vs. Al, 5-10cm, Coniston

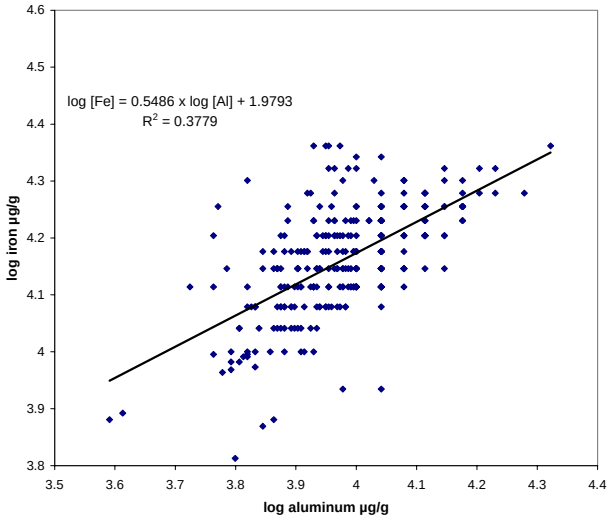


Fig. 10.4.4.35b: log Fe vs. log Al, 5-10cm, Coniston

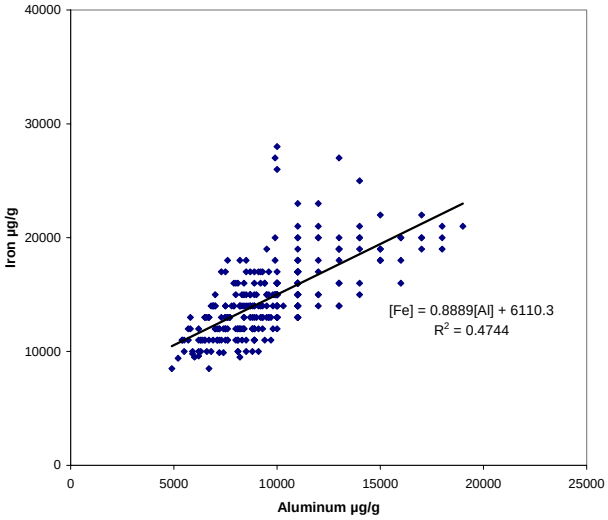


Fig. 10.4.4.36: Fe vs. Al, 10-20cm, Coniston

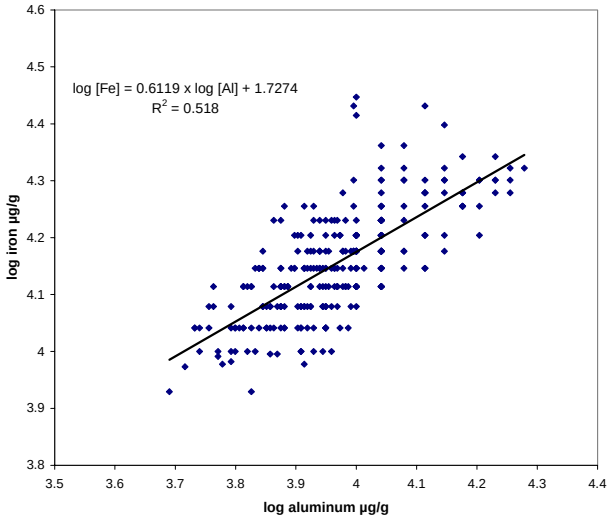


Fig. 10.4.4.36b: log Fe vs. log Al, 10-20cm, Coniston

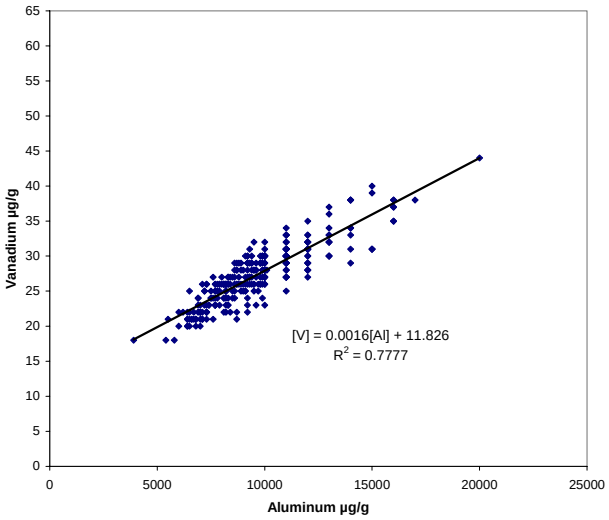


Fig. 10.4.4.37: V vs. Al, 0-5cm, Coniston

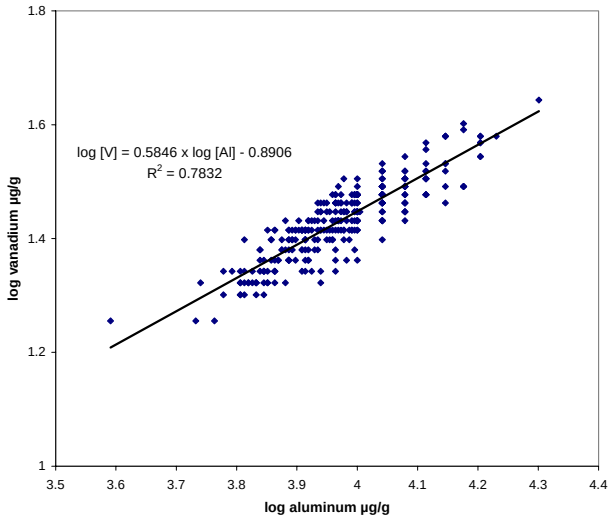


Fig. 10.4.4.37b: log V vs. log Al, 0-5cm, Coniston

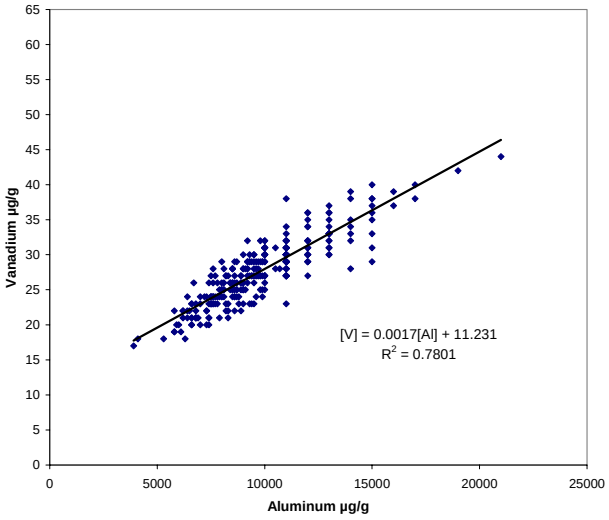


Fig. 10.4.4.38: V vs. Al, 5-10cm, Coniston

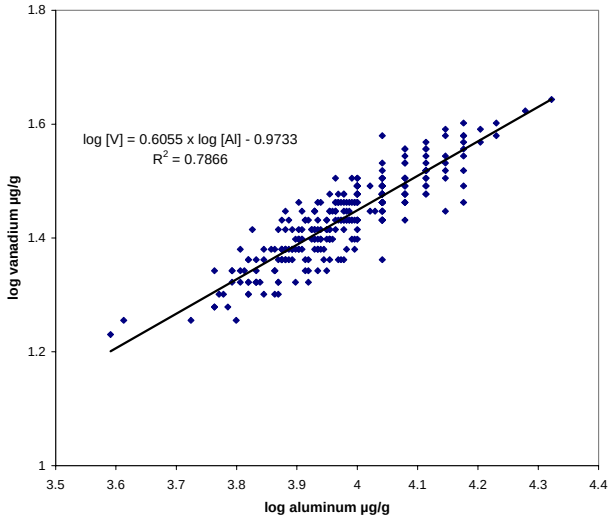


Fig. 10.4.4.38b: log V vs. log Al, 5-10cm, Coniston

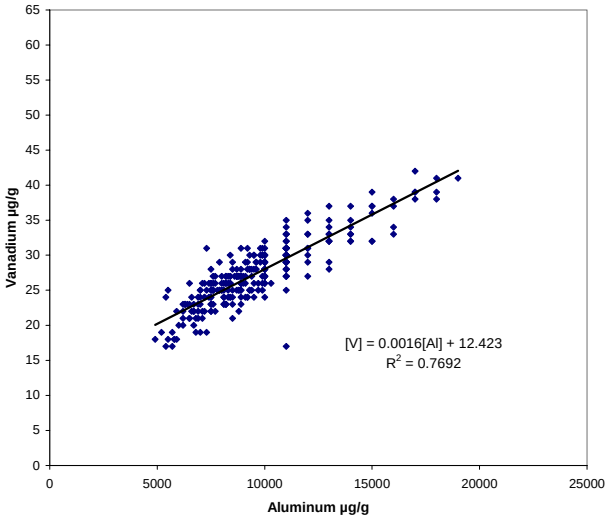


Fig. 10.4.4.39: V vs. Al, 10-20cm, Coniston

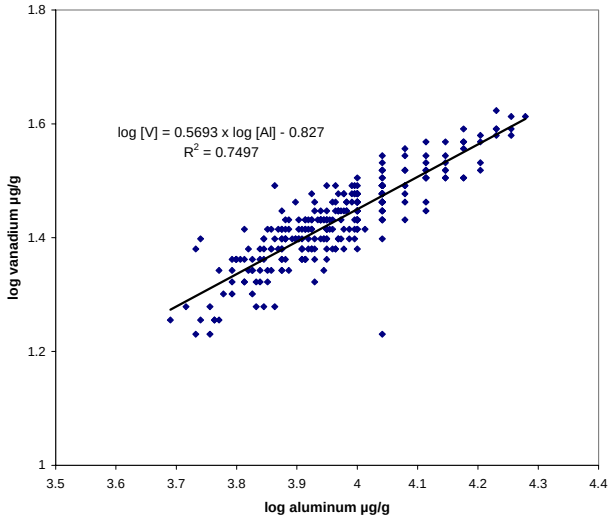


Fig. 10.4.4.39b: log V vs. log Al, 10-20cm, Coniston

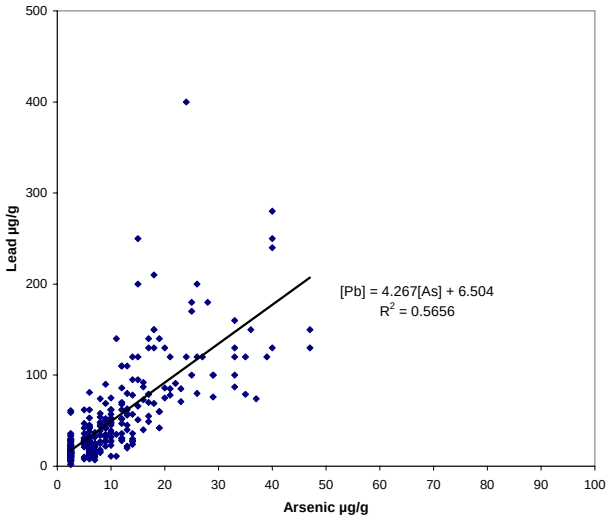


Fig. 10.4.4.40: Pb vs. As, 0-5cm, Coniston

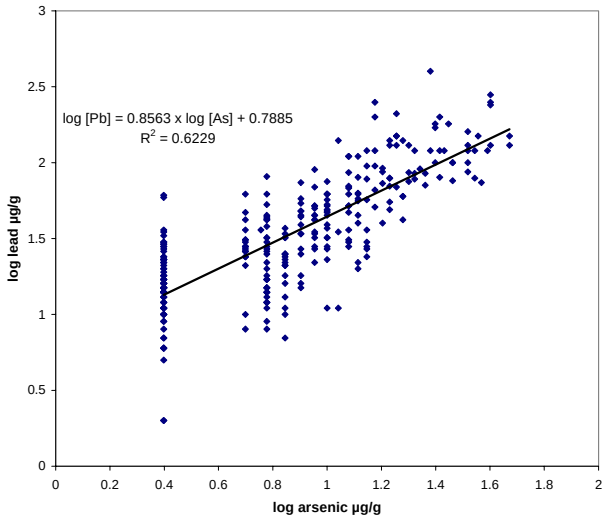


Fig. 10.4.4.40b: log Pb vs. log As, 0-5cm, Coniston

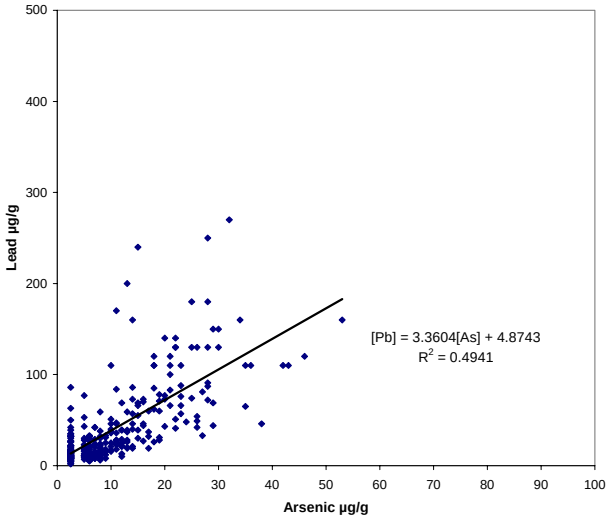


Fig. 10.4.4.41: Pb vs. As, 5-10cm, Coniston

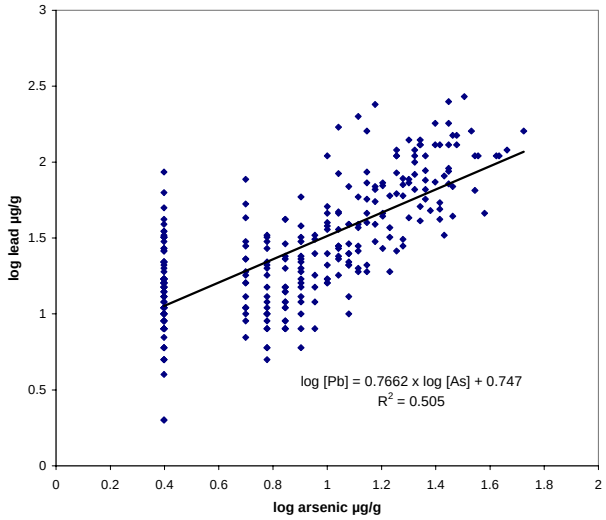


Fig. 10.4.4.41b: log Pb vs. log As, 5-10cm, Coniston

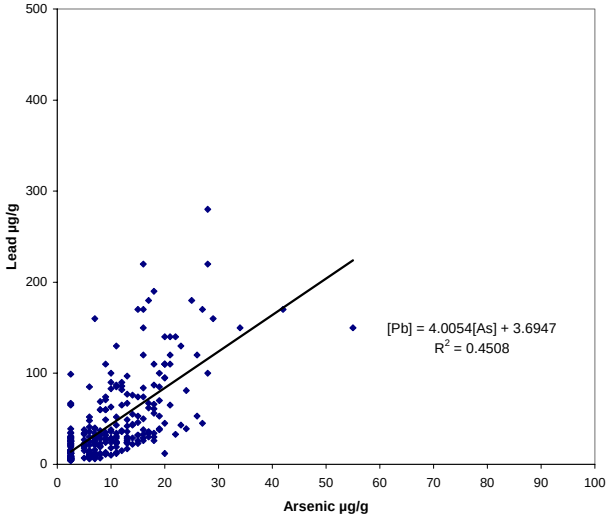


Fig. 10.4.4.42: Pb vs. As, 10-20cm, Coniston

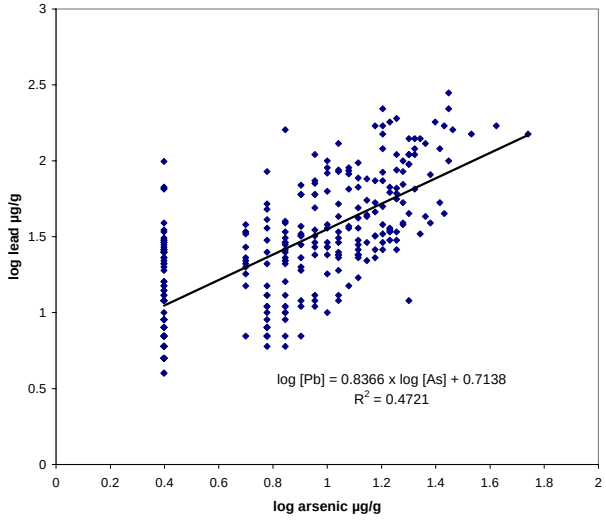


Fig. 10.4.4.42b: log Pb vs. log As, 10-20cm, Coniston

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

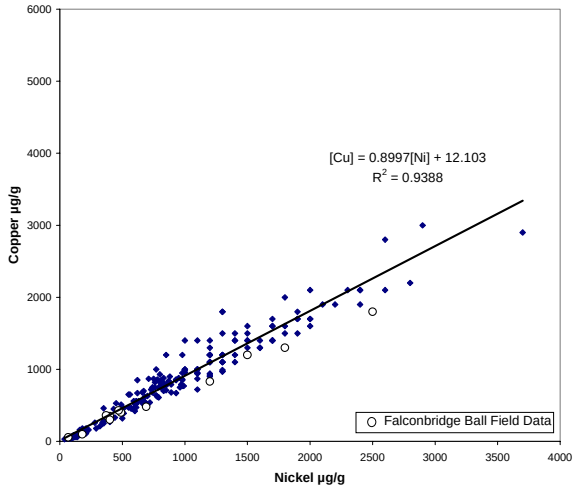


Fig. 10.4.5.1: Cu vs. Ni, 0-5cm, Falconbridge

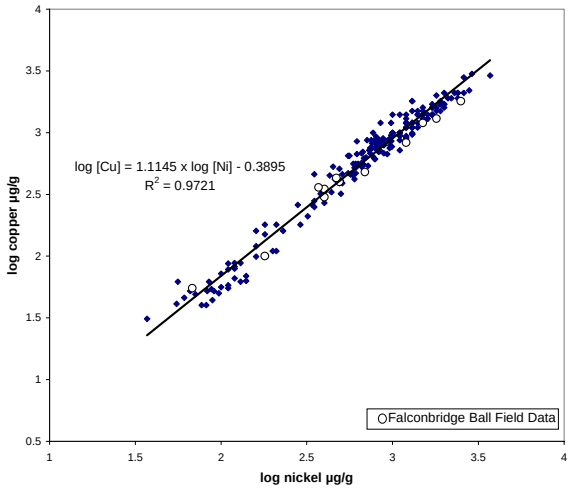


Fig. 10.4.5.1a: log Cu vs. log Ni, 0-5cm, Falconbridge

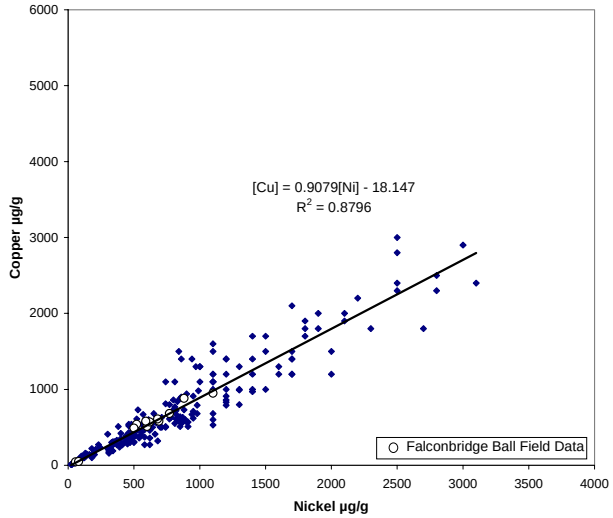


Fig. 10.4.5.2: Cu vs. Ni, 5-10cm, Falconbridge

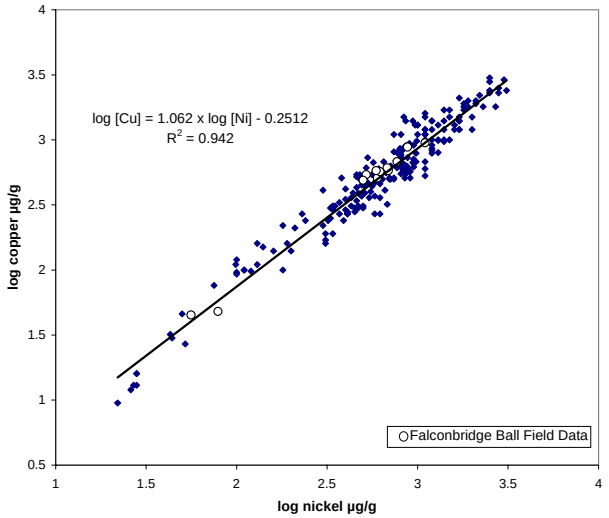


Fig. 10.4.5.2b: log Cu vs. log Ni, 5-10cm, Falconbridge

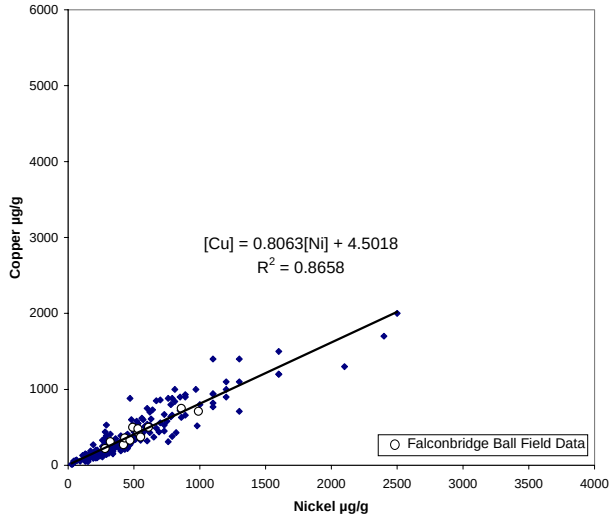


Fig. 10.4.5.3: Cu vs. Ni, 10-20cm, Falconbridge

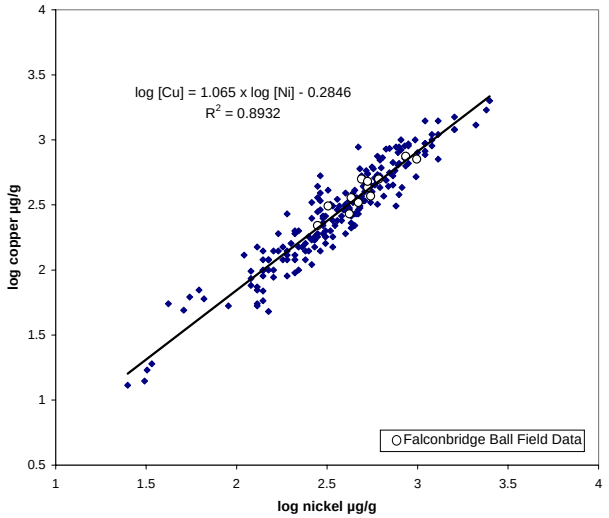


Fig. 10.4.5.3b: log Cu vs. log Ni, 10-20cm, Falconbridge

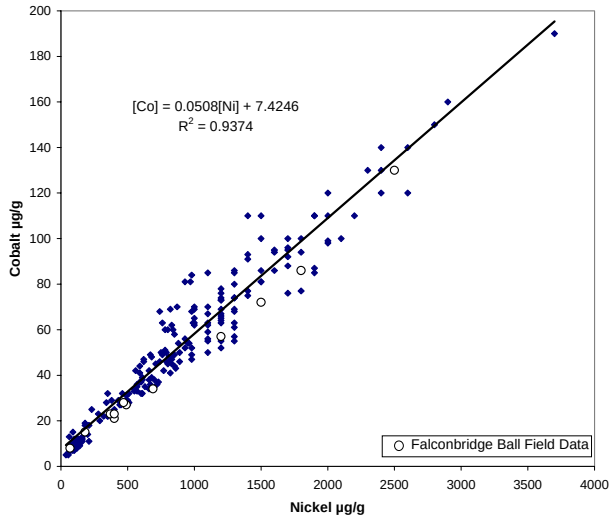


Fig. 10.4.5.4: Co vs. Ni, 0-5cm, Falconbridge

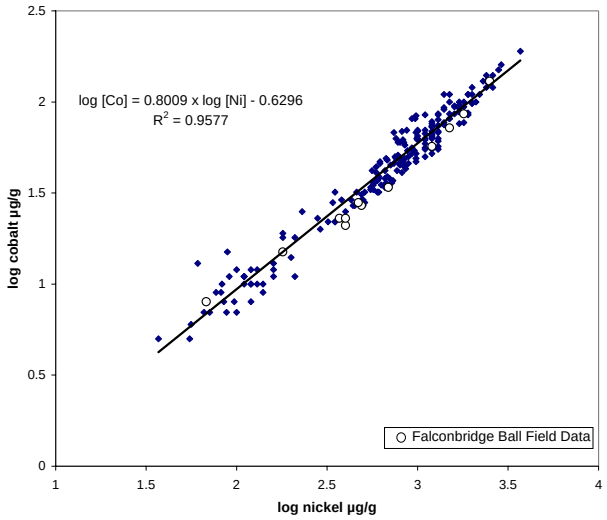


Fig. 10.4.5.4b: log Co vs. log Ni, 0-5cm, Falconbridge

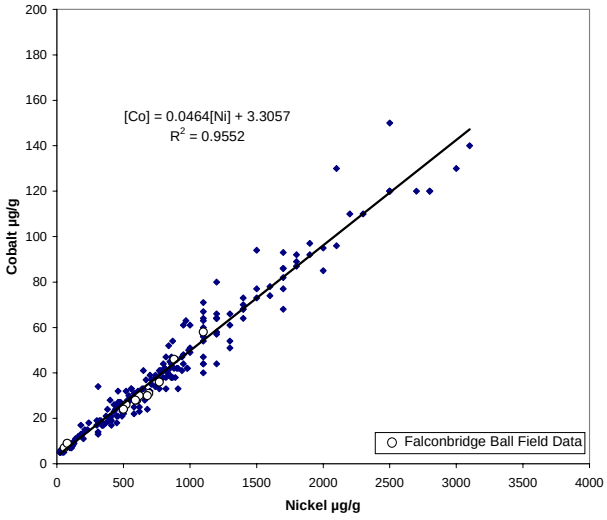


Fig. 10.4.5.5: Co vs. Ni, 5-10cm, Falconbridge

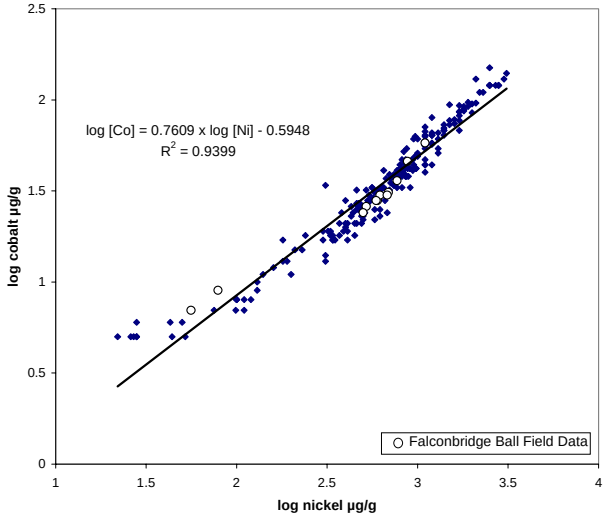


Fig. 10.4.5.5b: log Co vs. log Ni, 5-10cm, Falconbridge

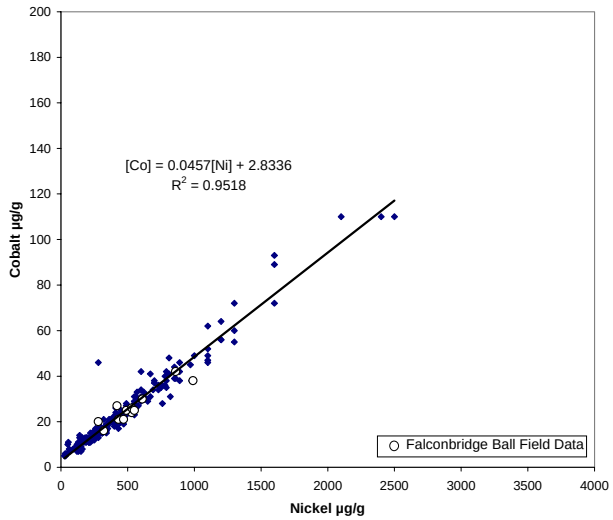


Fig. 10.4.5.6: Co vs. Ni, 10-20cm, Falconbridge

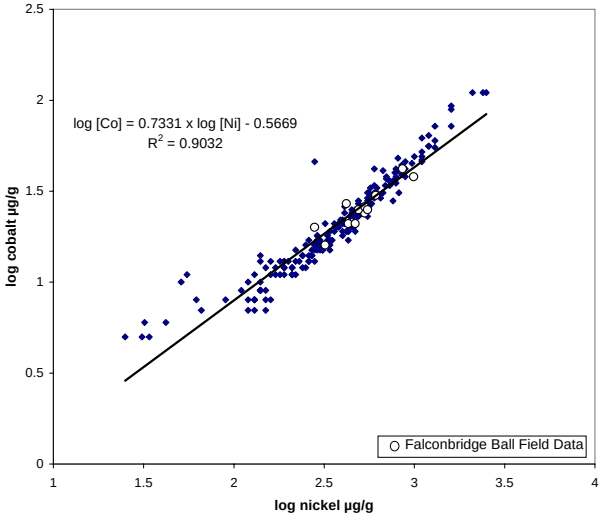


Fig. 10.4.5.6b: log Co vs. log Ni, 10-20cm, Falconbridge

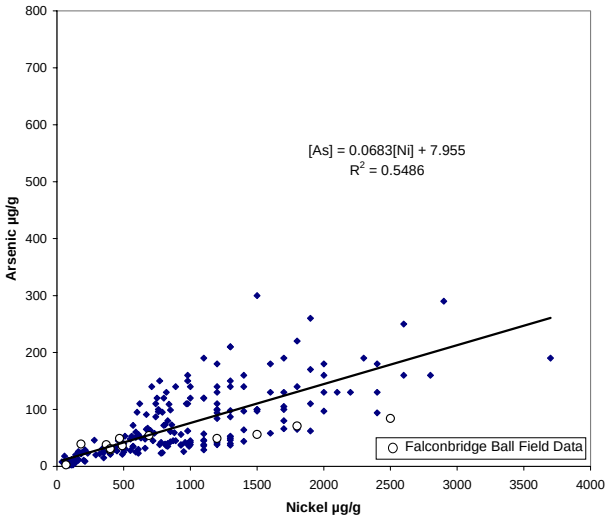


Fig. 10.4.5.7: As vs. Ni, 0-5cm, Falconbridge

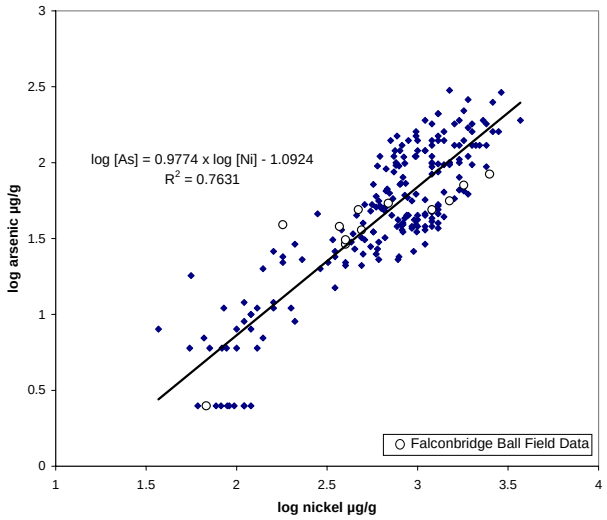


Fig. 10.4.5.7b: log As vs. log Ni, 0-5cm, Falconbridge

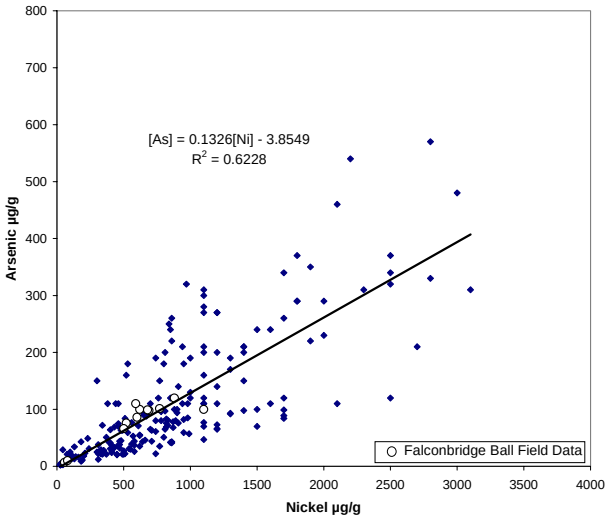


Fig. 10.4.5.8: As vs. Ni, 5-10cm, Falconbridge

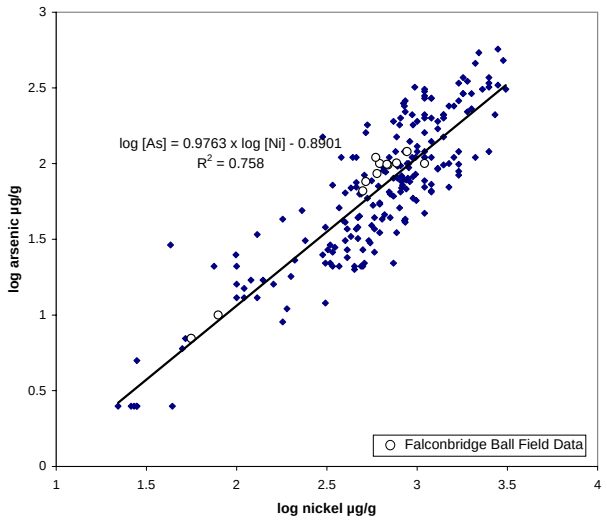


Fig. 10.4.5.8b: log As vs. log Ni, 5-10cm, Falconbridge

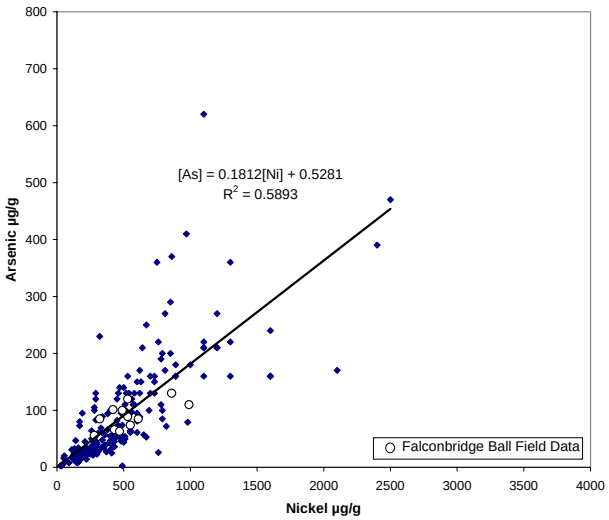


Fig. 10.4.5.9: As vs. Ni, 10-20cm, Falconbridge

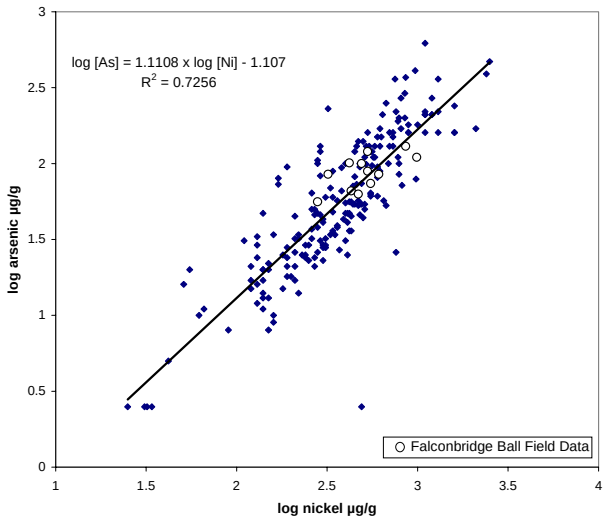


Fig. 10.4.5.9b: log As vs. log Ni, 10-20cm, Falconbridge

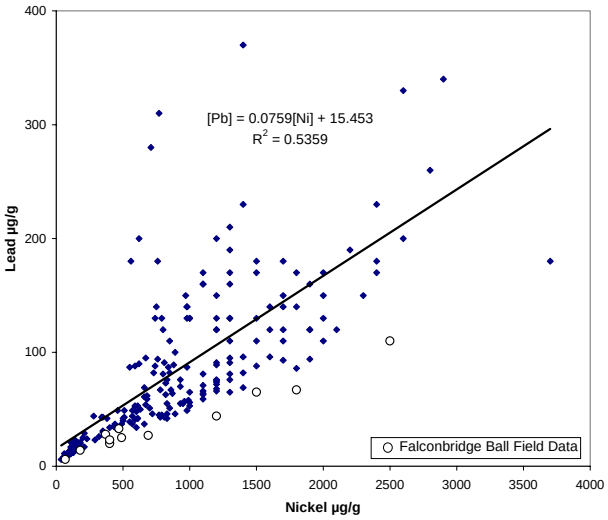


Fig. 10.4.5.10: Pb vs. Ni, 0-5cm, Falconbridge

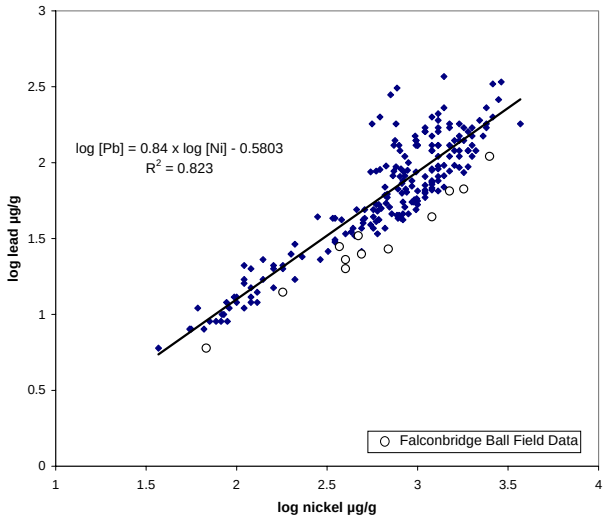


Fig. 10.4.5.10b: log Pb vs. log Ni, 0-5cm, Falconbridge

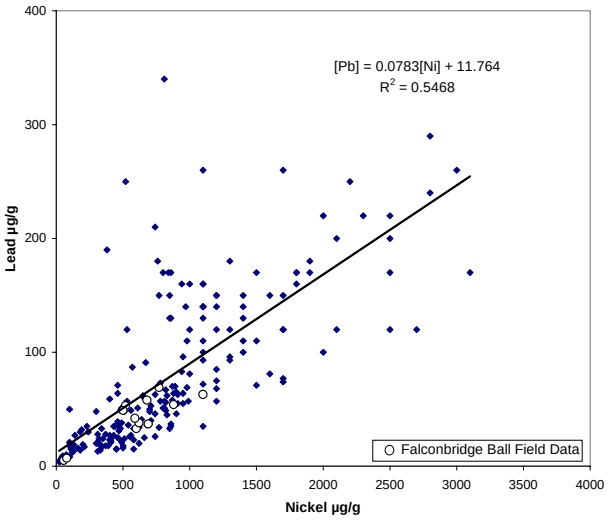


Fig. 10.4.5.11: Pb vs. Ni, 5-10cm, Falconbridge

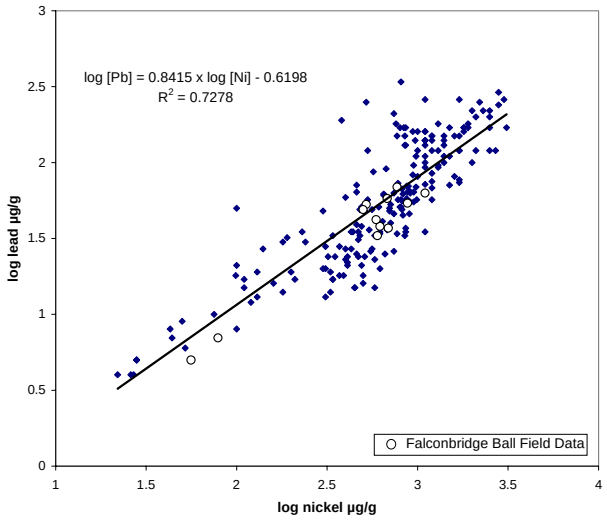


Fig. 10.4.5.11b: log Pb vs. log Ni, 5-10cm, Falconbridge

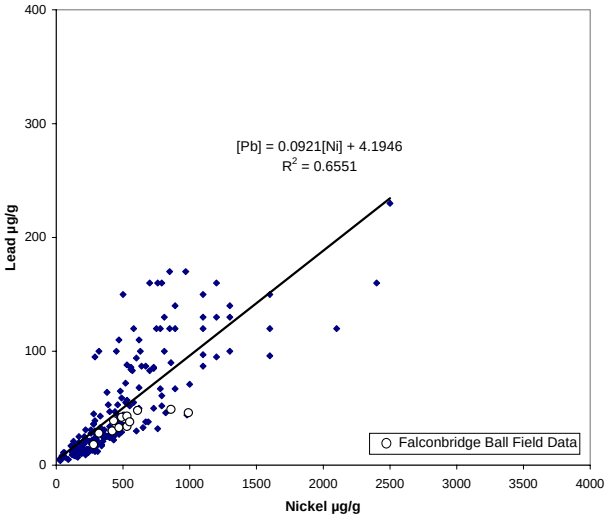


Fig. 10.4.5.12: Pb vs. Ni, 10-20cm, Falconbridge

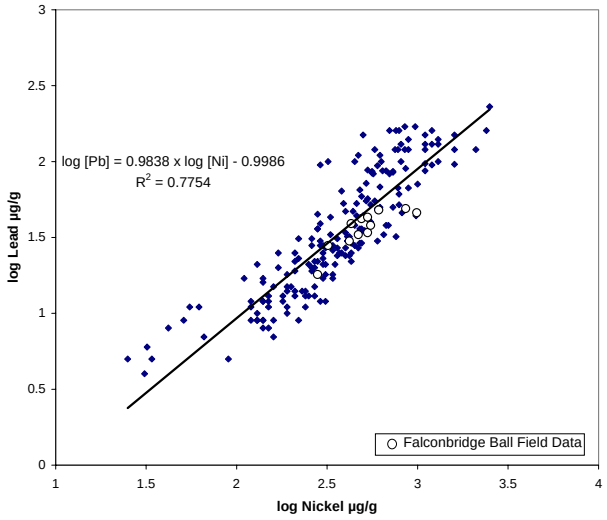


Fig. 10.4.5.12b: log Pb vs. log Ni, 10-20cm, Falconbridge

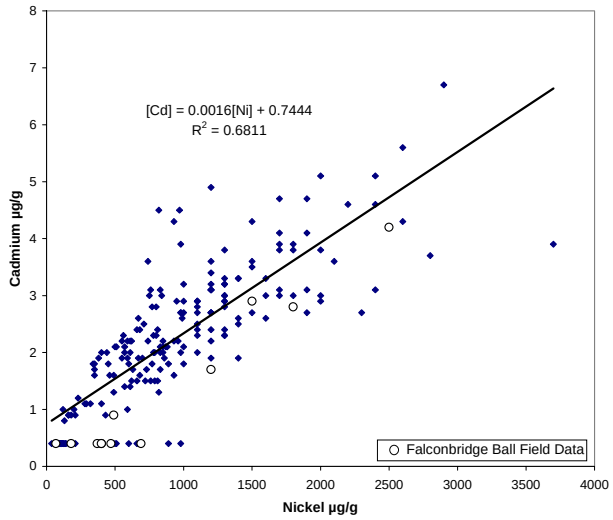


Fig. 10.4.5.13: Cd vs. Ni, 0-5cm, Falconbridge

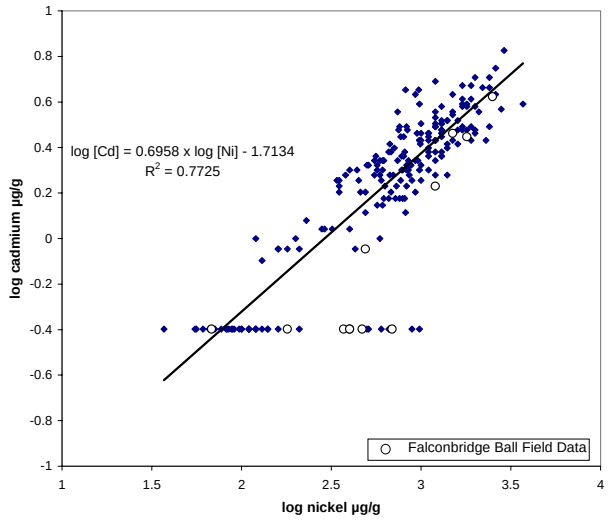


Fig. 10.4.5.13b: log Cd vs. log Ni, 0-5cm, Falconbridge

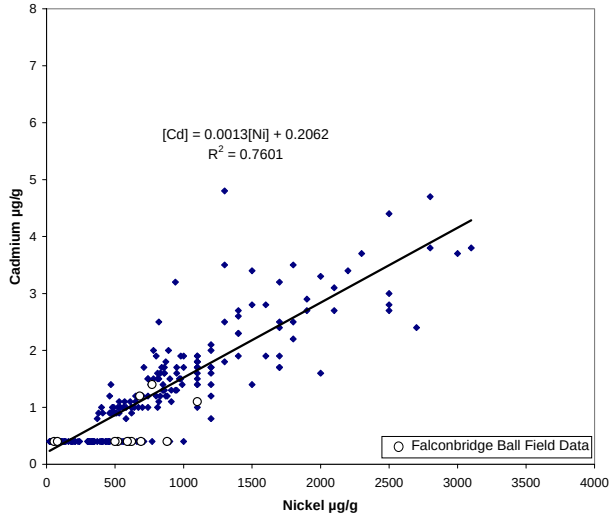


Fig. 10.4.5.14: Cd vs. Ni, 5-10cm, Falconbridge

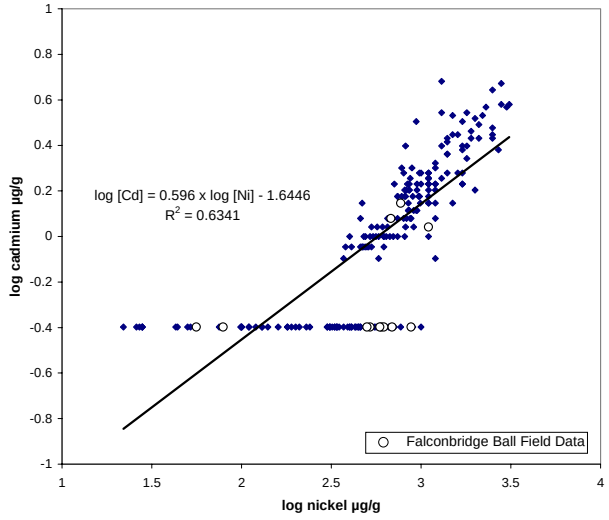


Fig. 10.4.5.14b: log Cd vs. log Ni, 5-10cm, Falconbridge

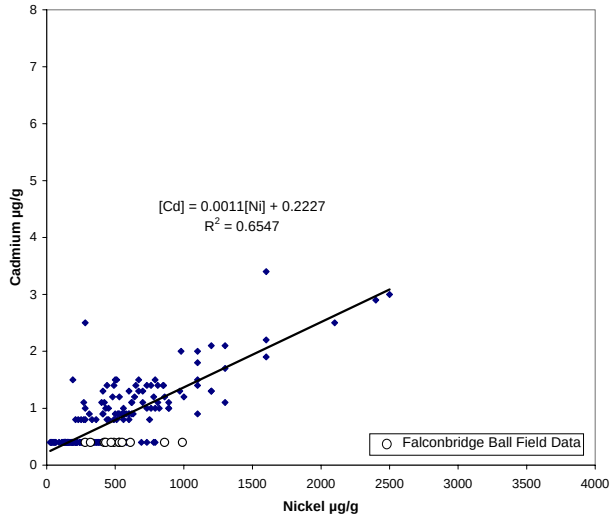


Fig. 10.4.5.15: Cd vs. Ni, 10-20cm, Falconbridge

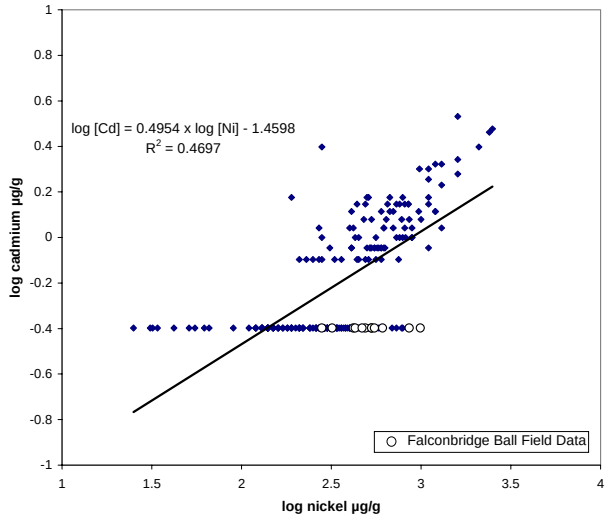


Fig. 10.4.5.15b: log Cd vs. log Ni, 10-20cm, Falconbridge

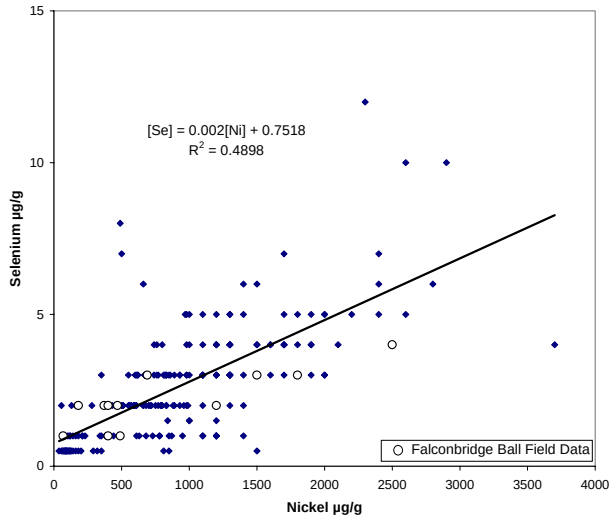


Fig. 10.4.5.16: Se vs. Ni, 0-5cm, Falconbridge

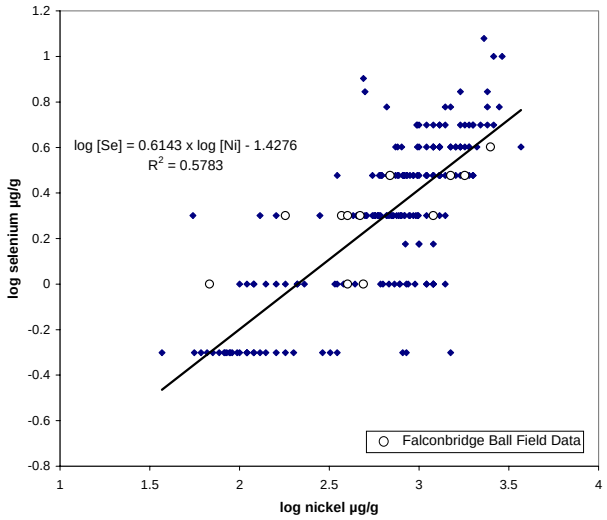


Fig. 10.4.5.16b: log Se vs. log Ni, 0-5cm, Falconbridge

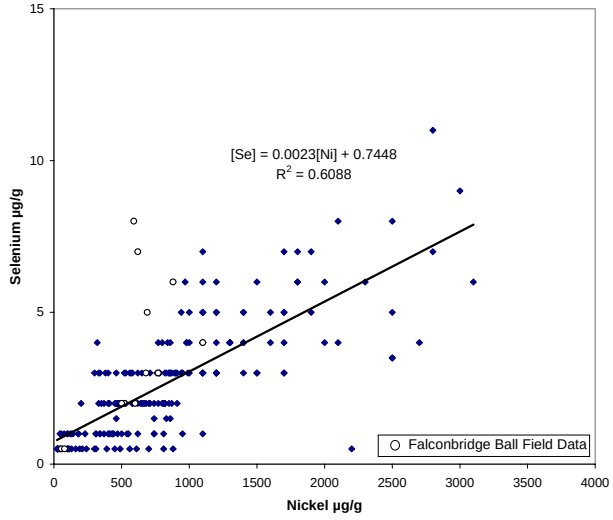


Fig. 10.4.5.17: Se vs. Ni, 5-10cm, Falconbridge

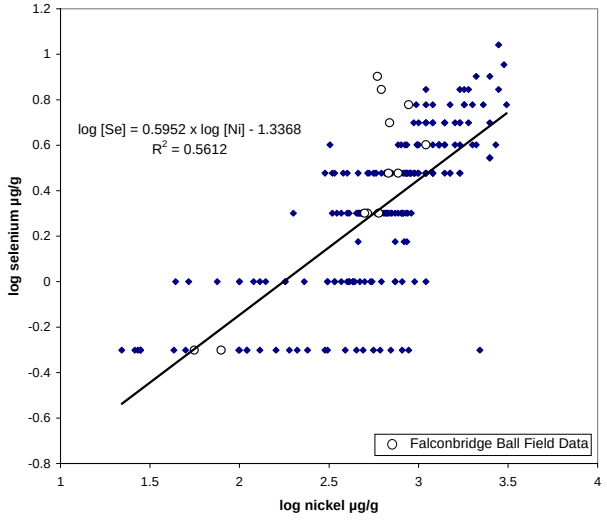


Fig. 10.4.5.17b: log Se vs. log Ni, 5-10cm, Falconbridge

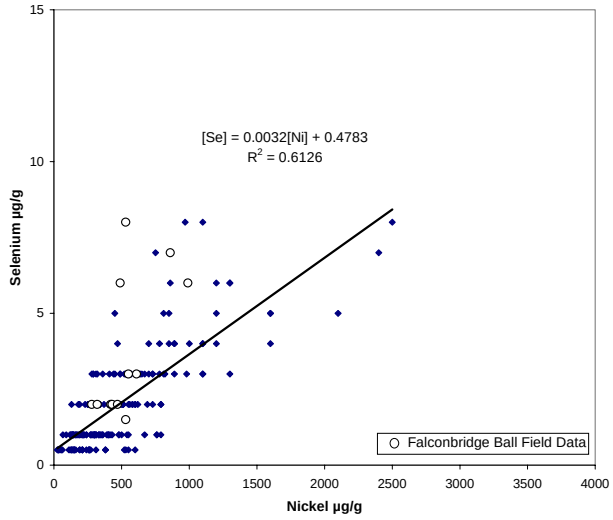


Fig. 10.4.5.18: Se vs. Ni, 10-20cm, Falconbridge

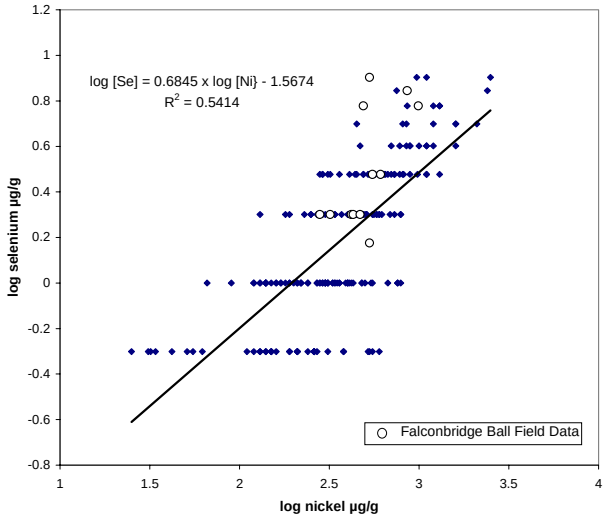


Fig. 10.4.5.18b: log Se vs. log Ni, 10-20cm, Falconbridge

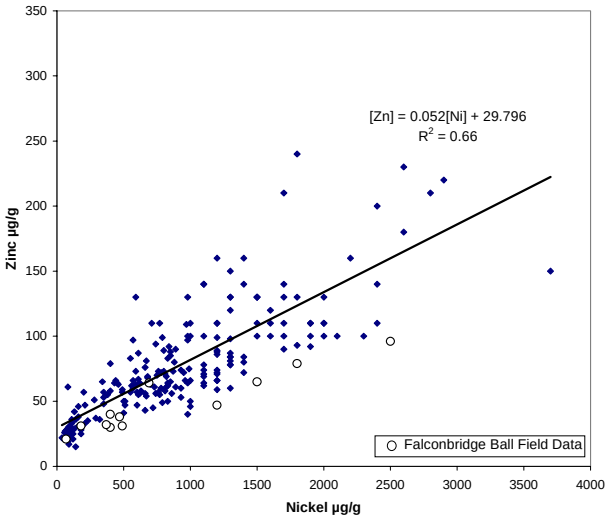


Fig. 10.4.5.19: Zn vs. Ni, 0-5cm, Falconbridge

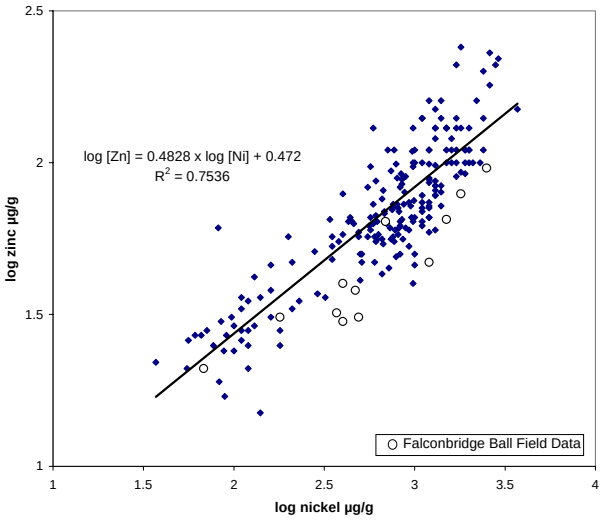


Fig. 10.4.5.19b: log Zn vs. log Ni, 0-5cm, Falconbridge

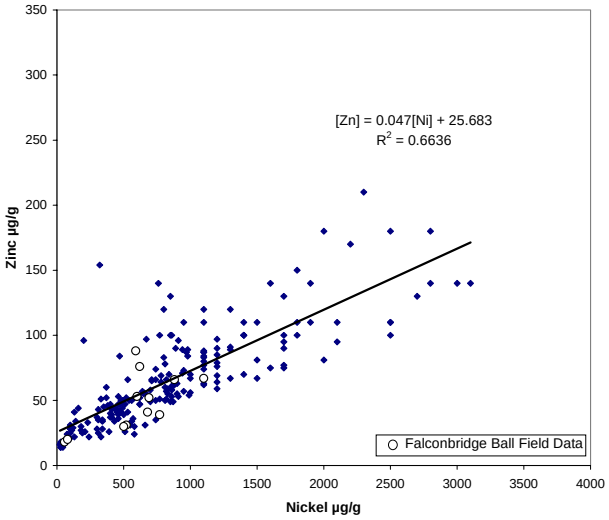


Fig. 10.4.5.20: Zn vs. Ni, 5-10cm, Falconbridge

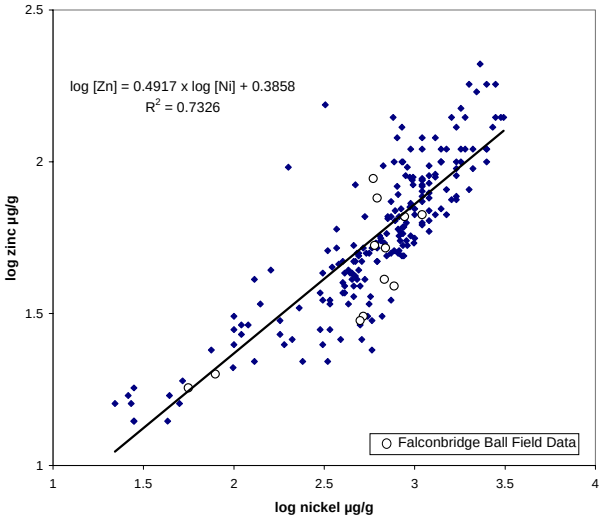


Fig. 10.4.5.20b: log Zn vs. log Ni, 5-10cm, Falconbridge

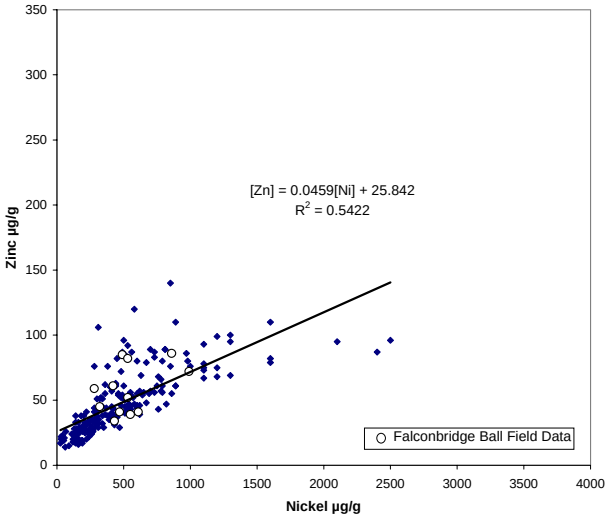


Fig. 10.4.5.21: Zn vs. Ni, 10-20cm, Falconbridge

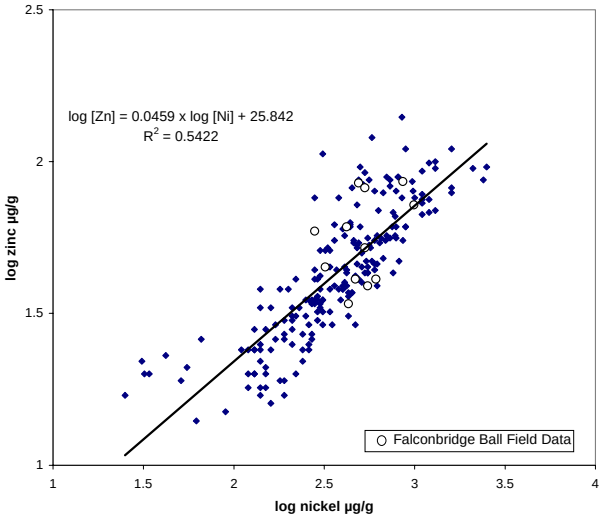


Fig. 10.4.5.21b: log Zn vs. log Ni, 10-20cm, Falconbridge

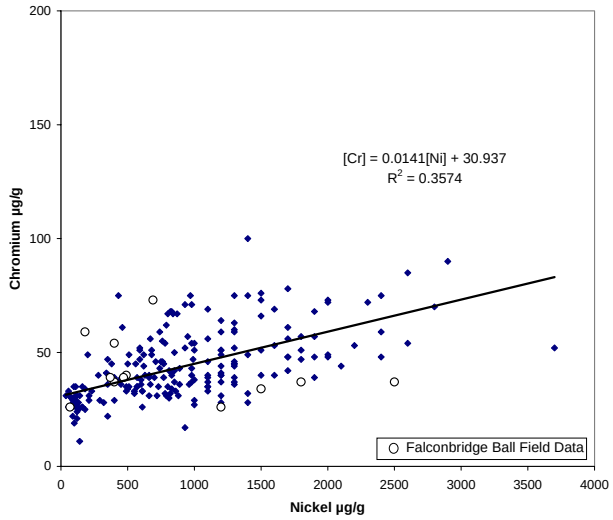


Fig. 10.4.5.22: Cr vs. Ni, 0-5cm, Falconbridge

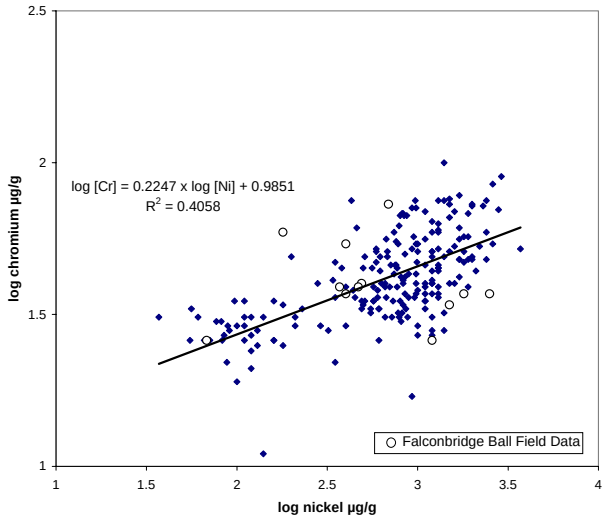


Fig. 10.4.5.22b: log Cr vs. log Ni, 0-5cm, Falconbridge

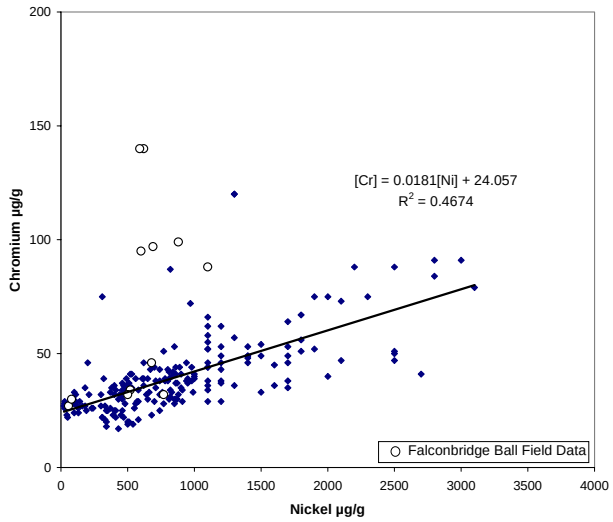


Fig. 10.4.5.23: Cr vs. Ni, 5-10cm, Falconbridge

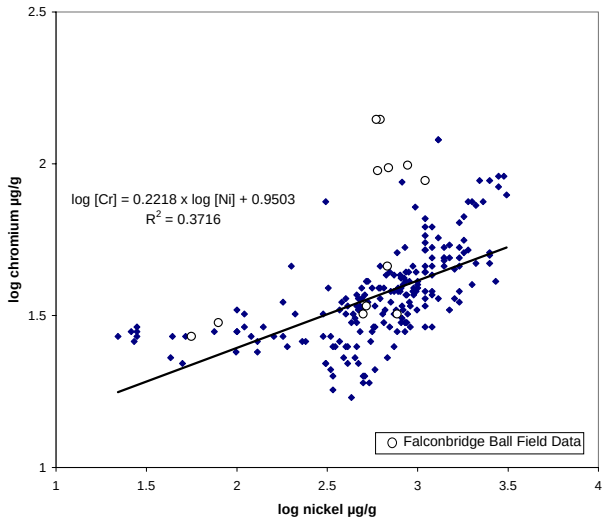


Fig. 10.4.5.23b: log Cr vs. log Ni, 5-10cm, Falconbridge

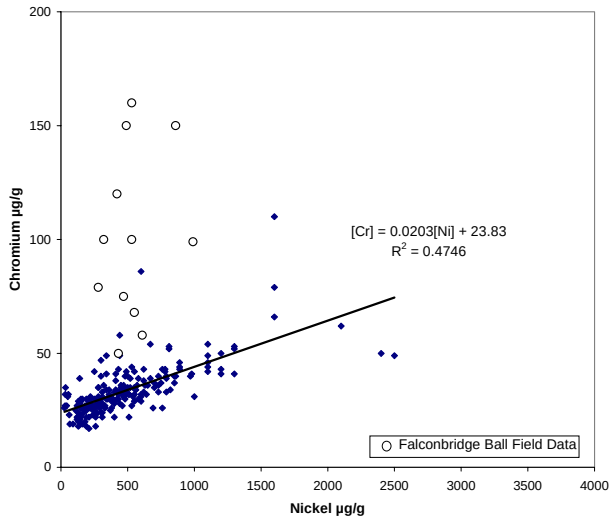


Fig. 10.4.5.24: Cr vs. Ni, 10-20cm, Falconbridge

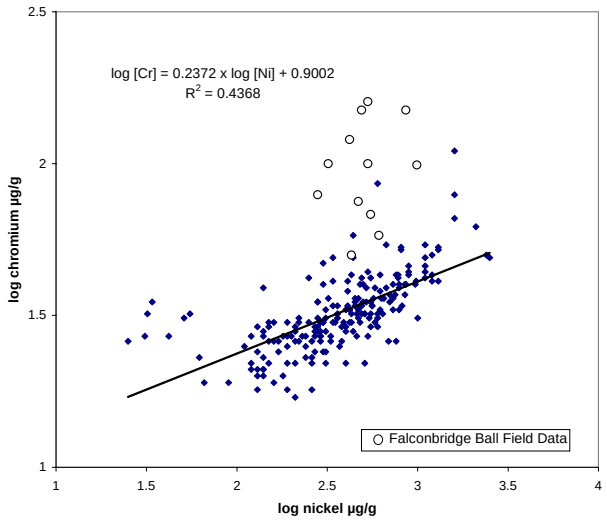


Fig. 10.4.5.24b: log Cr vs. log Ni, 10-20cm, Falconbridge

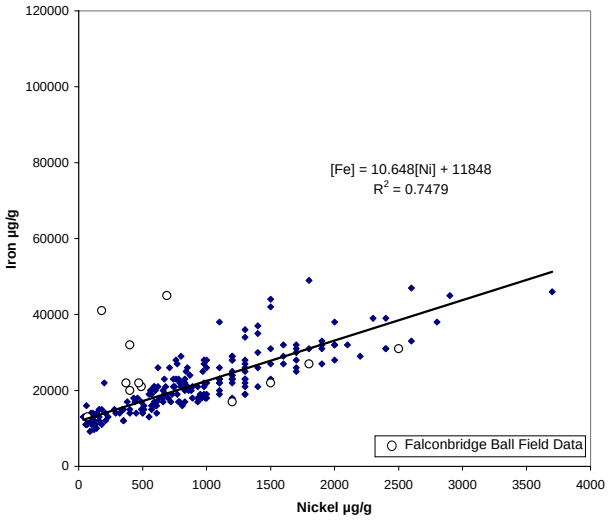


Fig. 10.4.5.25: Fe vs. Ni, 0-5cm, Falconbridge

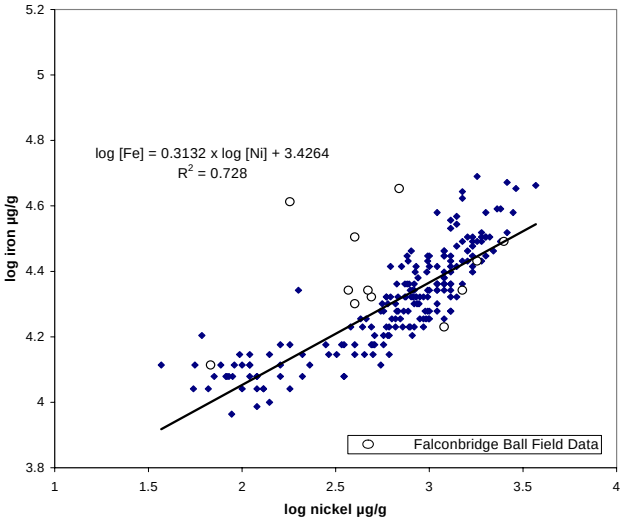


Fig. 10.4.5.25b: log Fe vs. log Ni, 0-5 cm, Falconbridge

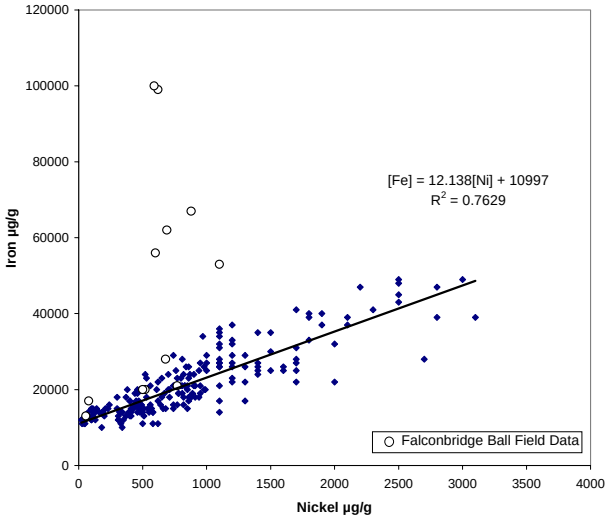


Fig. 10.4.5.26: Fe vs. Ni, 5-10cm, Falconbridge

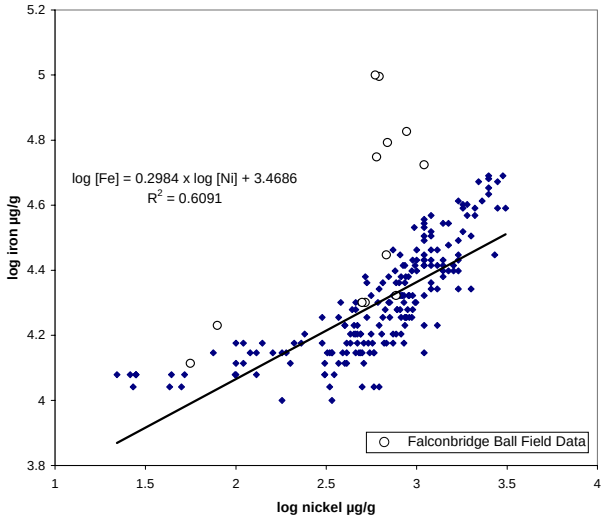


Fig. 10.4.5.26b: log Fe vs. log Ni, 5-10cm, Falconbridge

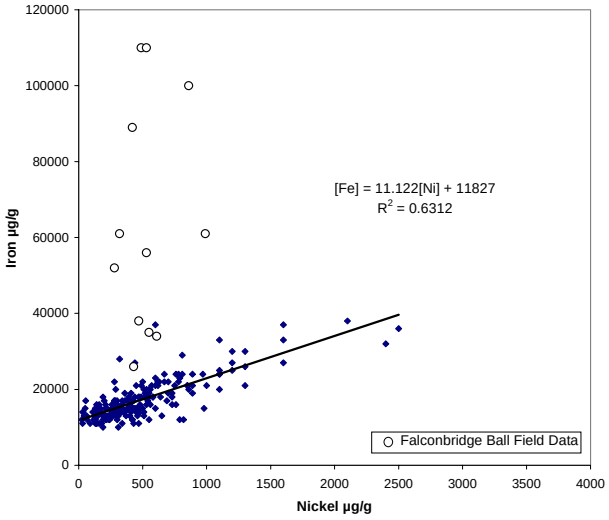


Fig. 10.4.5.27: Fe vs. Ni, 10-20cm, Falconbridge

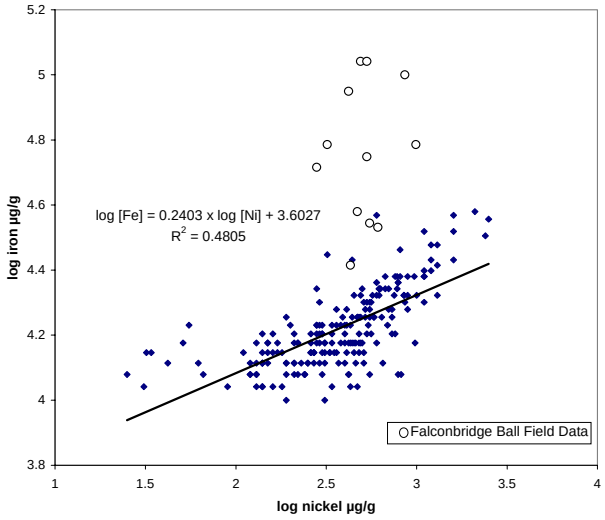


Fig. 10.4.5.27b: log Fe vs. log Ni, 10-20cm, Falconbridge

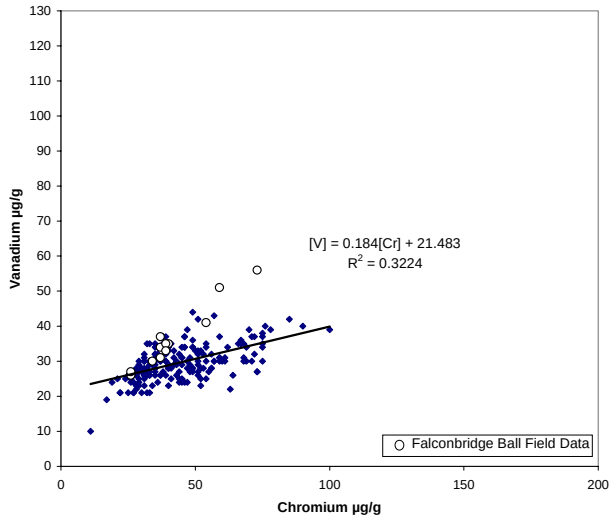


Fig. 10.4.5.28: V vs. Cr, 0-5cm, Falconbridge

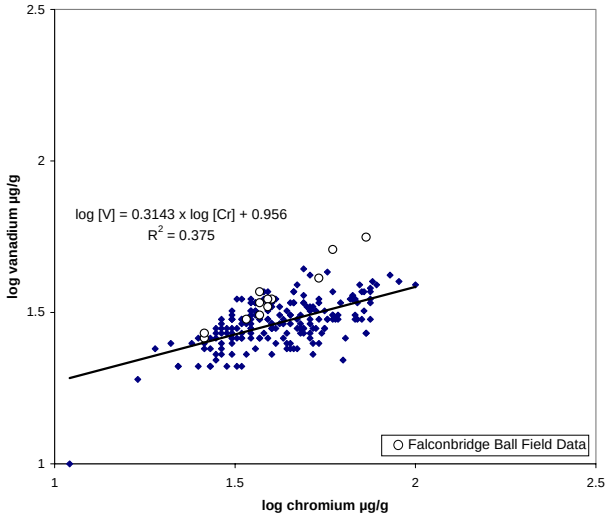


Fig. 10.4.5.28b: log V vs. log Cr, 0-5cm, Falconbridge

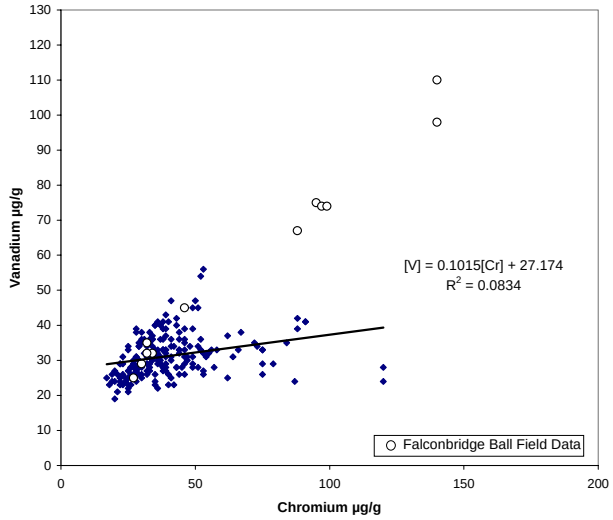


Fig. 10.4.5.29: V vs. Cr, 5-10cm, Falconbridge

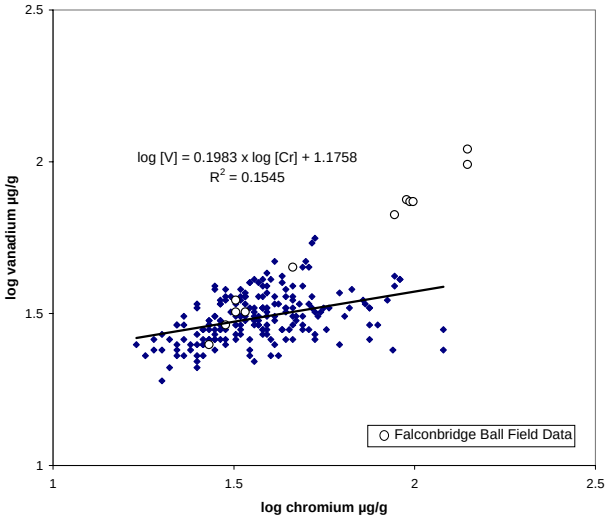


Fig. 10.4.5.29b: log V vs. log Cr, 5-10cm, Falconbridge

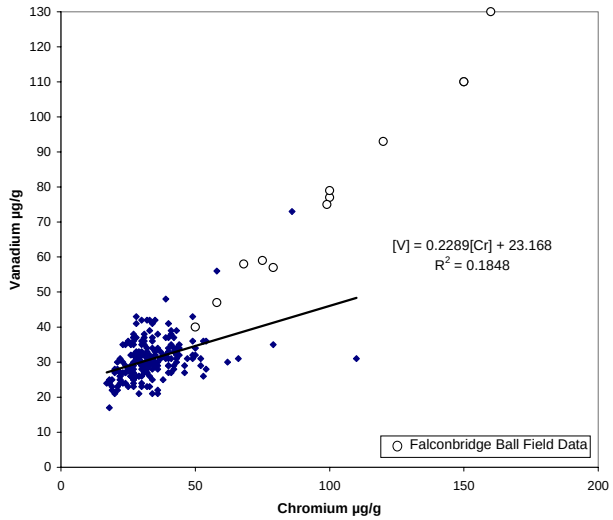


Fig. 10.4.5.30: V vs. Cr, 10-20cm, Falconbridge

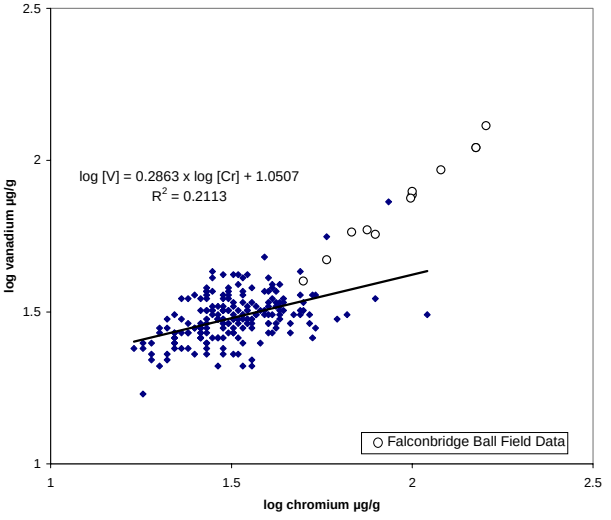


Fig. 10.4.5.30b: log V vs. log Cr, 10-20cm, Falconbridge

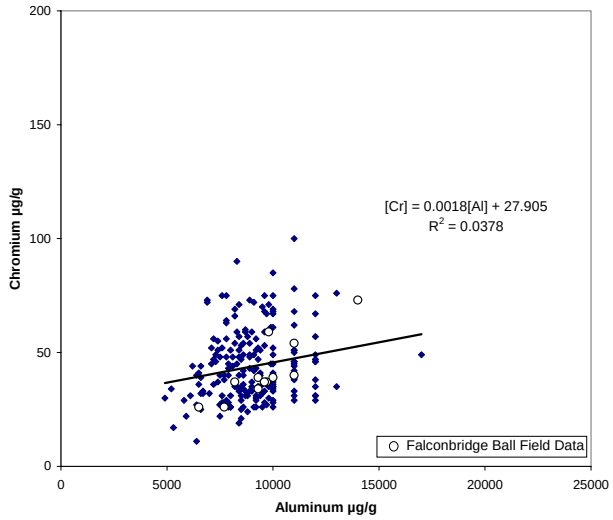


Fig. 10.4.5.31: Cr vs. Al, 0-5cm, Falconbridge

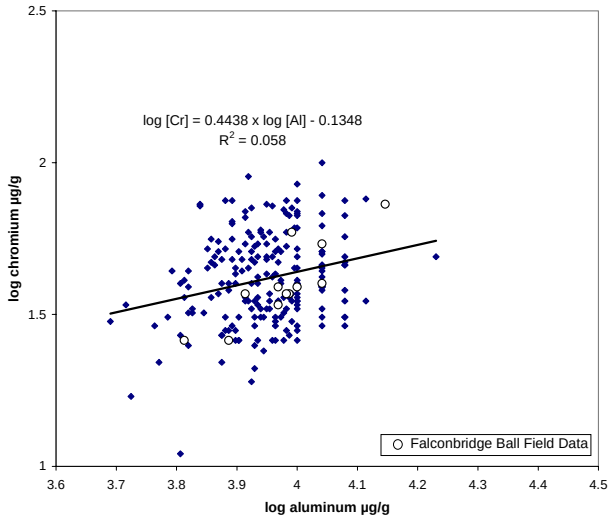


Fig. 10.4.5.31b:log Cr vs. log Al, 0-5cm, Falconbridge

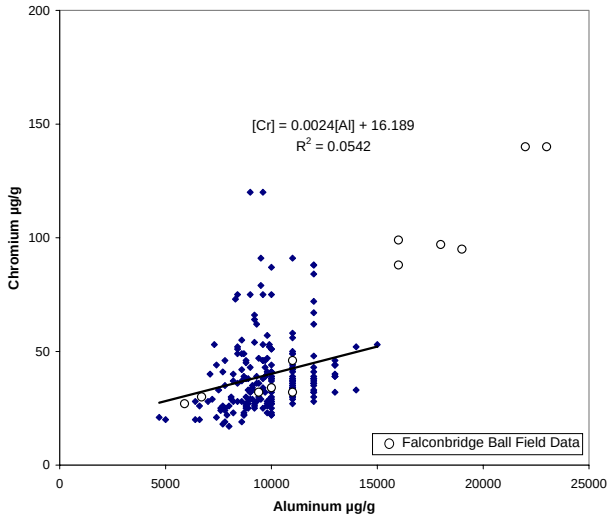


Fig. 10.4.5.32: Cr vs. Al, 5-10cm, Falconbridge

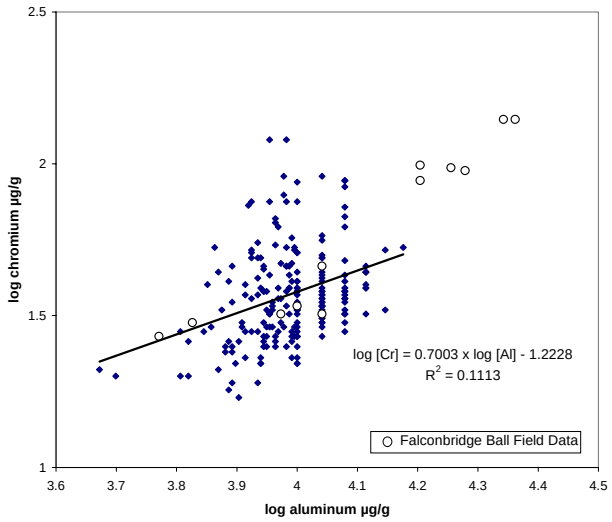


Fig. 10.4.5.32b: log Cr vs. log Al, 5-10cm, Falconbridge

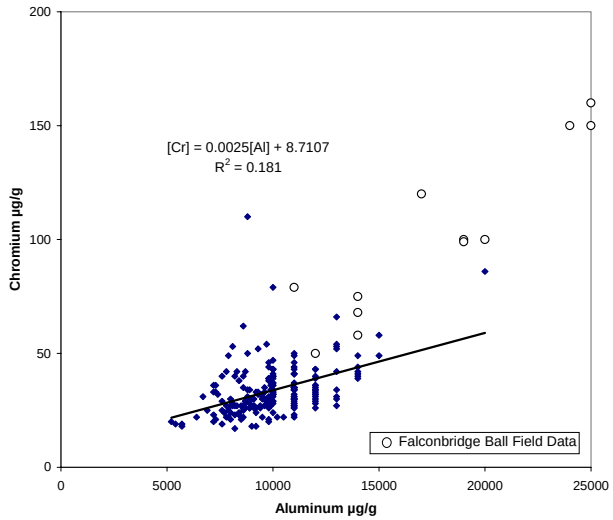


Fig. 10.4.5.33: Cr vs. Al, 10-20cm, Falconbridge

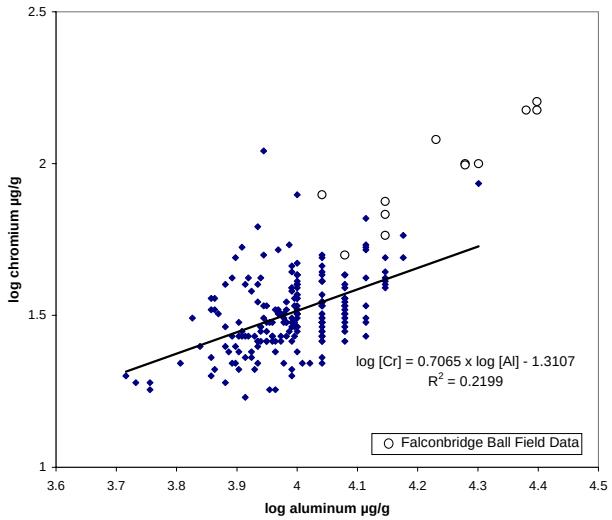


Fig. 10.4.5.33b: log Cr vs. log Al, 10-20cm, Falconbridge

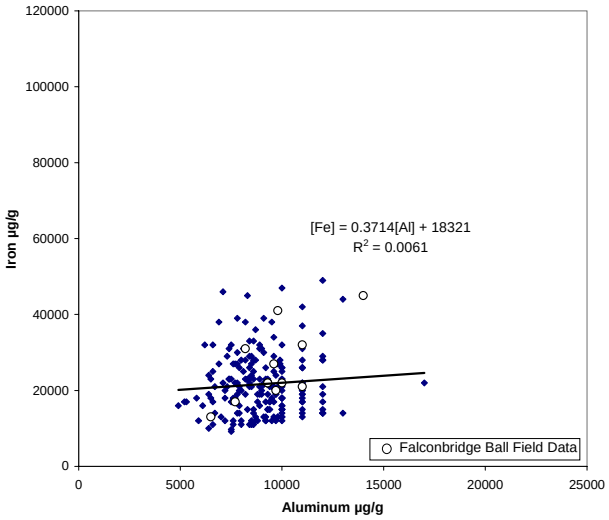


Fig. 10.4.5.34: Fe vs. Al, 0-5cm, Falconbridge

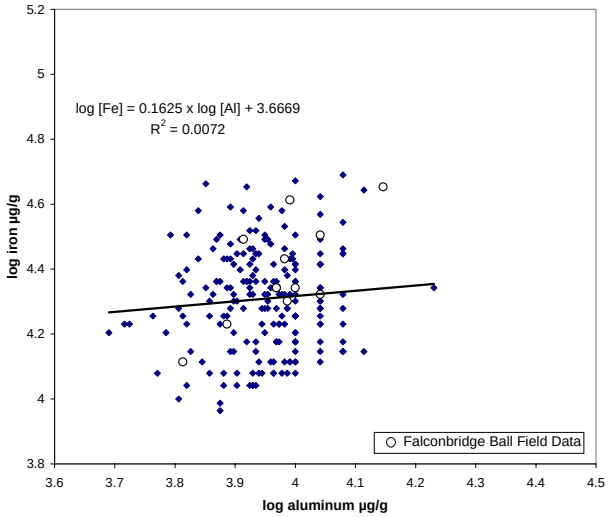


Fig. 10.4.5.34b: log Fe vs. log Al, 0-5cm, Falconbridge

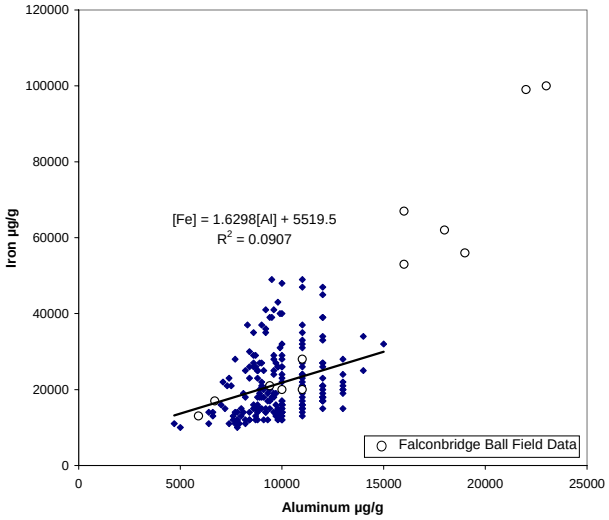


Fig. 10.4.5.35: Fe vs. Al, 5-10cm, Falconbridge

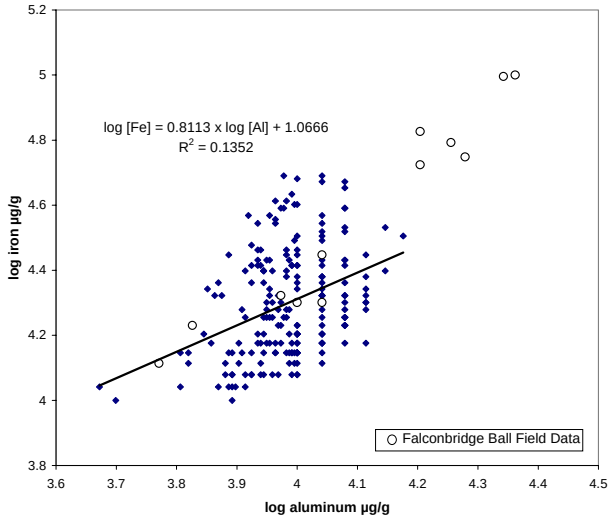


Fig. 10.4.5.35b: log Fe vs. log Al, 5-10cm, Falconbridge

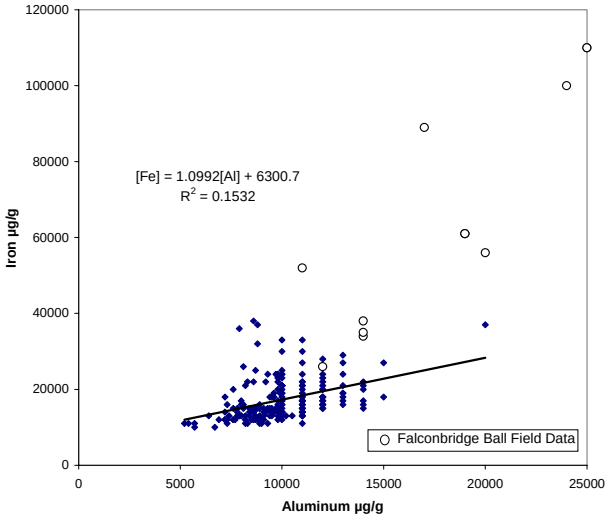


Fig. 10.4.5.36: Fe vs. Al, 10-20cm, Falconbridge

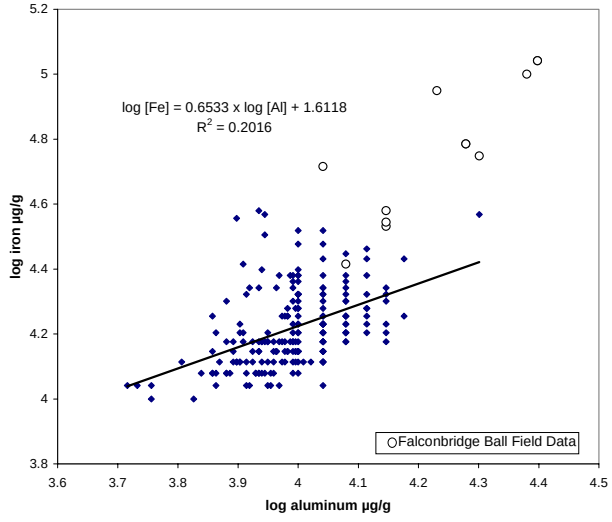


Fig. 10.4.5.36b: log Fe vs. log Al, 10-20cm, Falconbridge

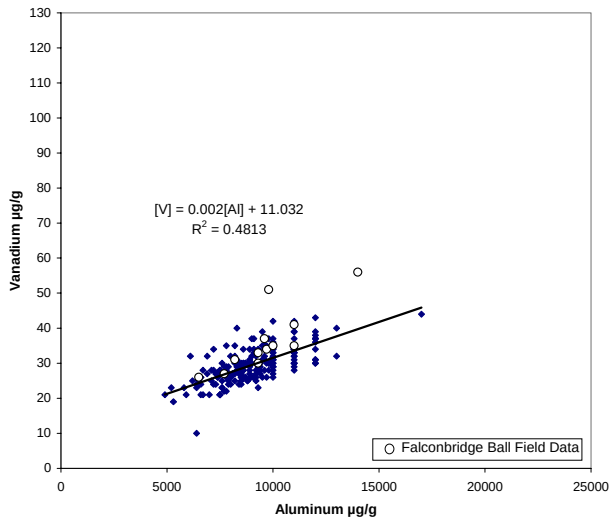


Fig. 10.4.5.37: V vs. Al, 0-5cm, Falconbridge

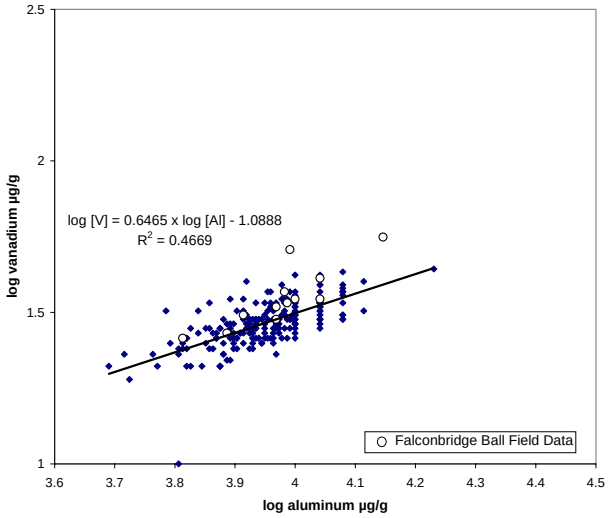


Fig. 10.4.5.37b: log V vs. log Al, 0-5cm, Falconbridge

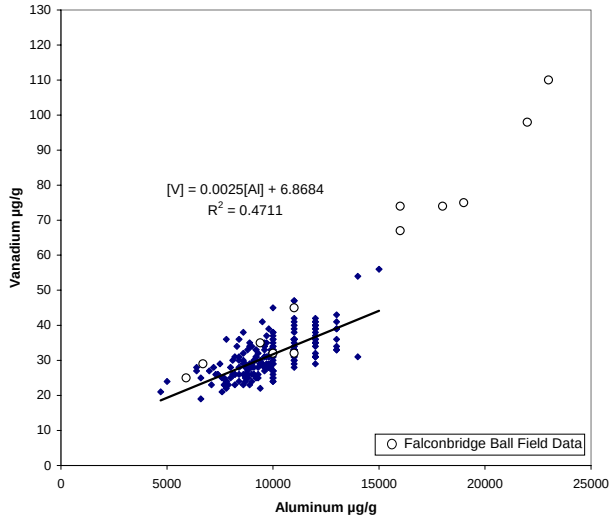


Fig. 10.4.5.38: V vs. Al, 5-10cm, Falconbridge

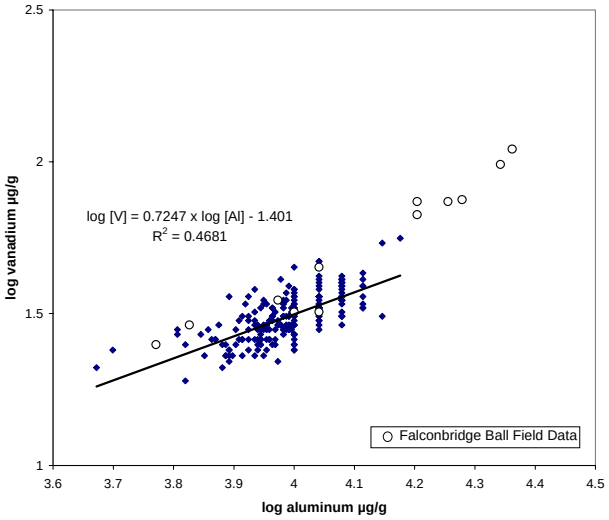


Fig. 10.4.5.38b: log V vs. log Al, 5-10cm, Falconbridge

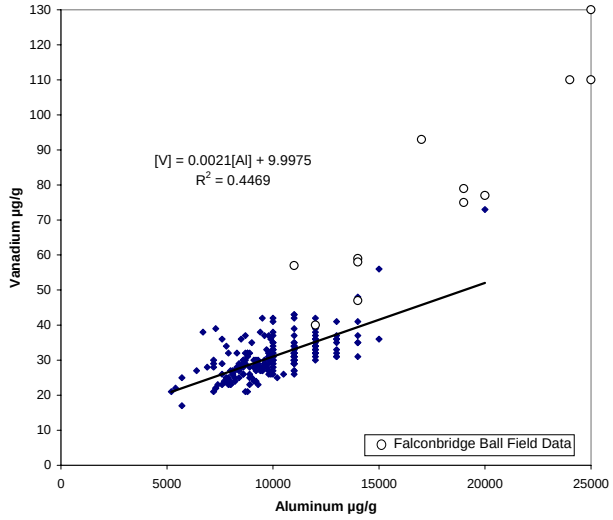


Fig. 10.4.5.39: V vs. Al, 10-20cm, Falconbridge

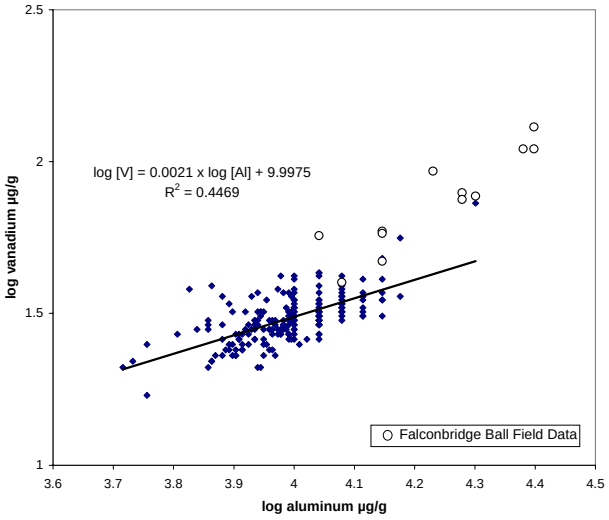


Fig. 10.4.5.39b: log V vs. log Al, 10-20cm, Falconbridge

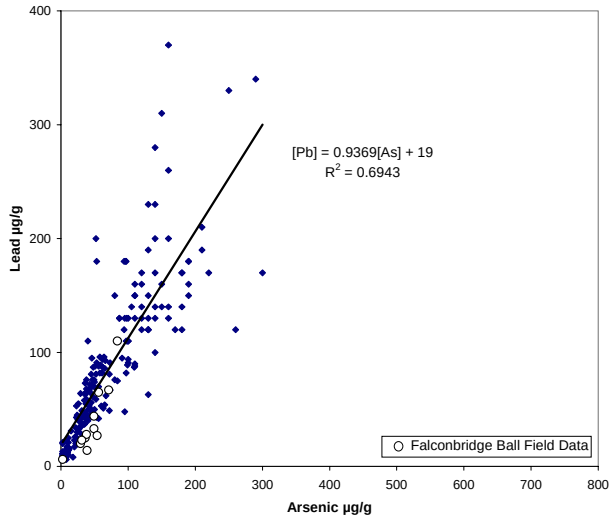


Fig. 10.4.5.40: Pb vs. As, 0-5cm, Falconbridge

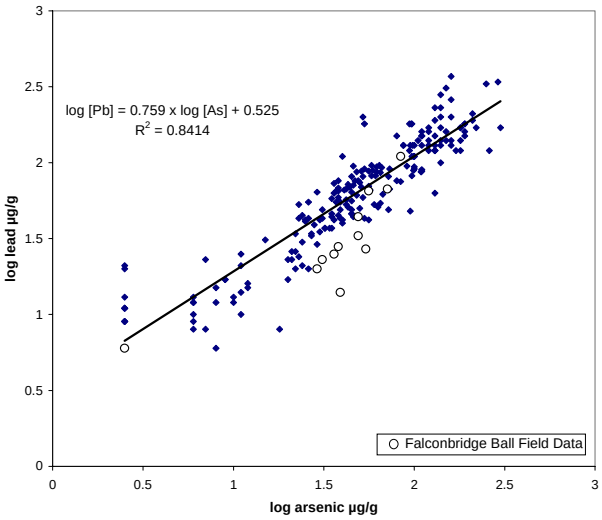


Fig. 10.4.5.40b: log Pb vs. log As, 0-5cm, Falconbridge

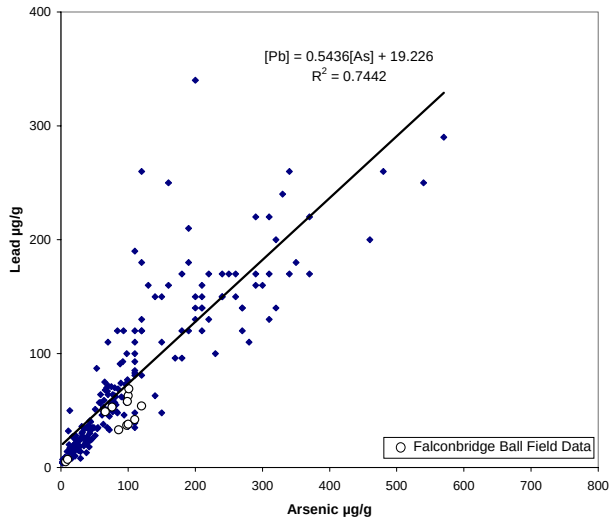


Fig. 10.4.5.41: Pb vs. As, 5-10cm, Falconbridge

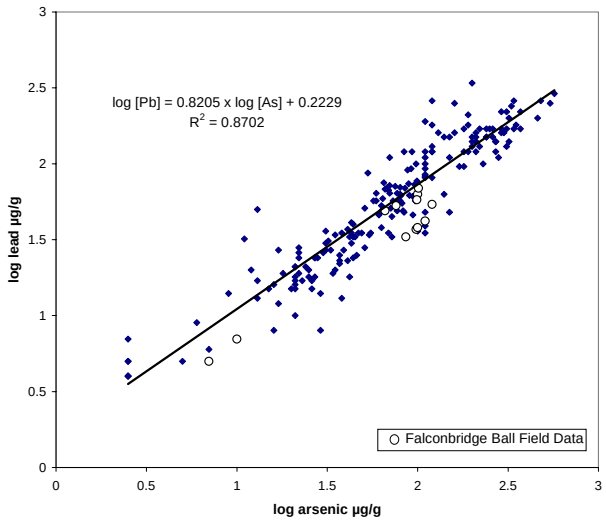


Fig. 10.4.5.41b: log Pb vs. log As, 5-10cm, Falconbridge

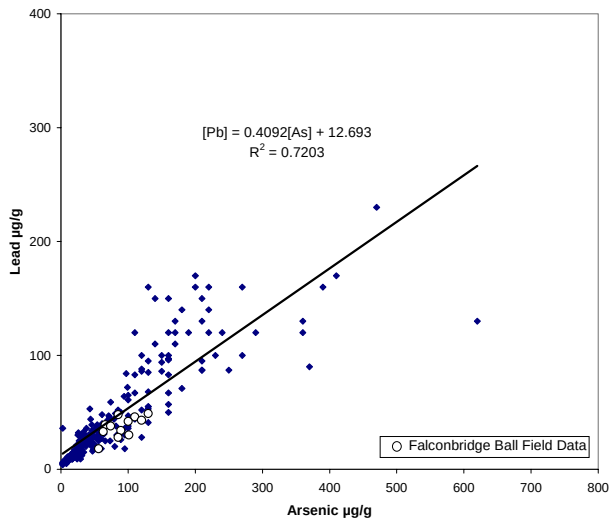


Fig. 10.4.5.42: Pb vs. As, 10-20cm, Falconbridge

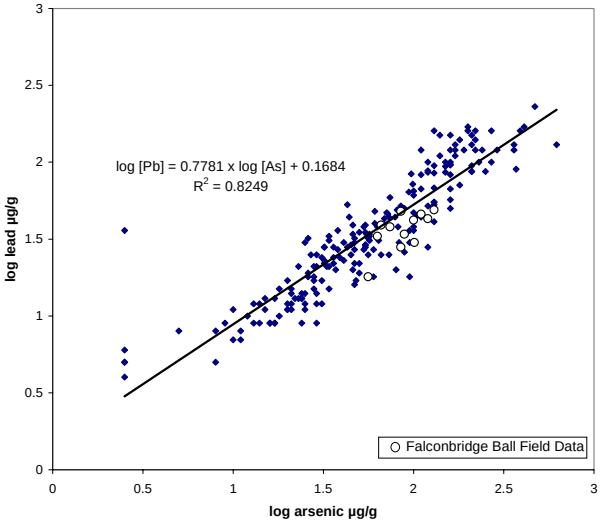


Fig. 10.4.5.42b: log Pb vs. log As, 10-20cm, Falconbridge

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

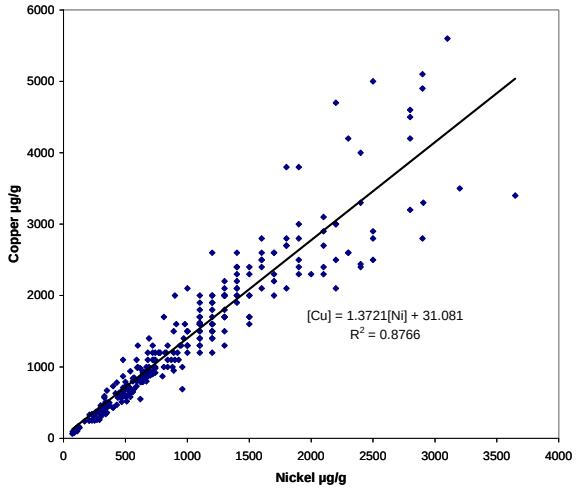


Fig. 10.4.6.1: Cu vs. Ni, 0-5cm, Copper Cliff

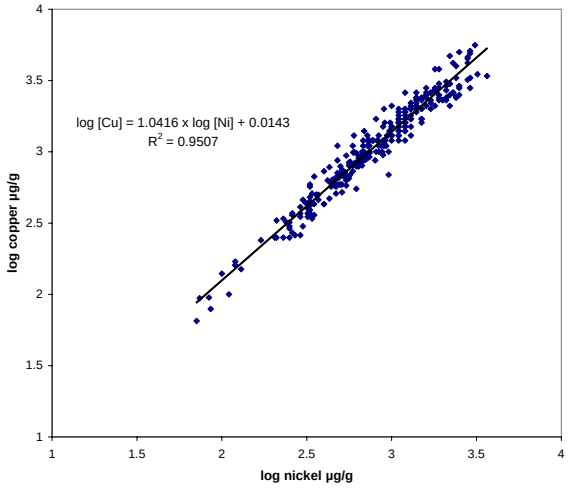


Fig. 10.4.6.1b: log Cu vs. log Ni, 0-5cm, Copper Cliff

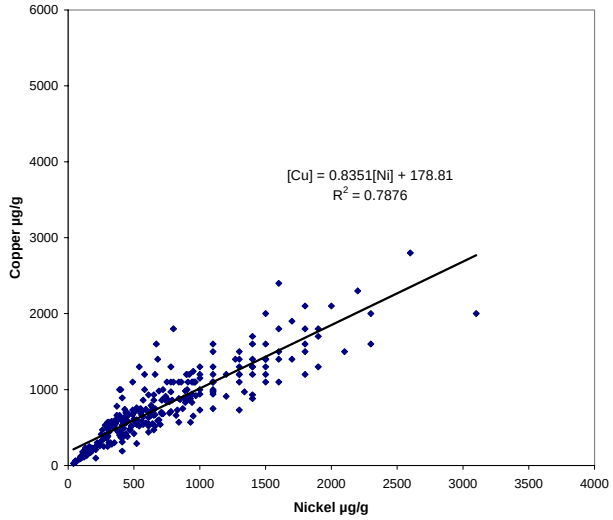


Fig. 10.4.6.2: Cu vs. Ni, 5-10cm, Copper Cliff

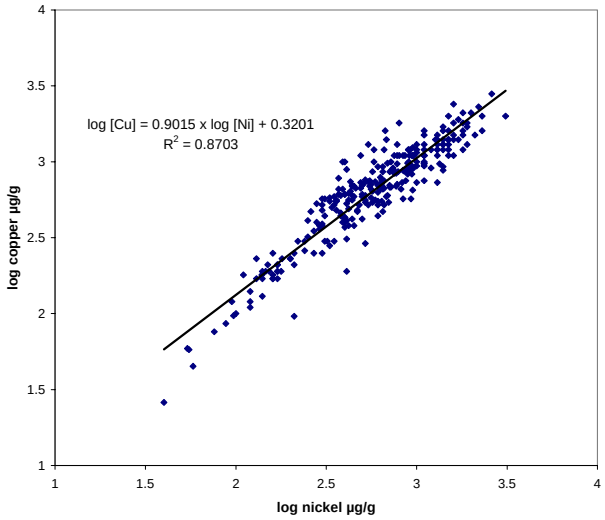


Fig. 10.4.6.2b: log Cu vs. log Ni, 5-10cm, Copper Cliff

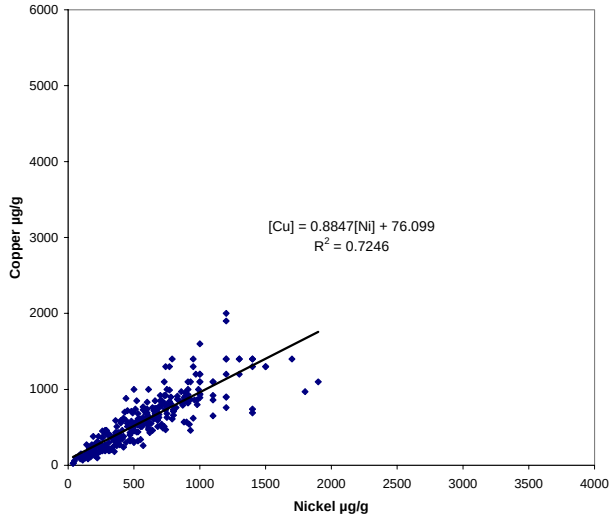


Fig. 10.4.6.3: Cu vs. Ni, 10-20cm, Copper Cliff

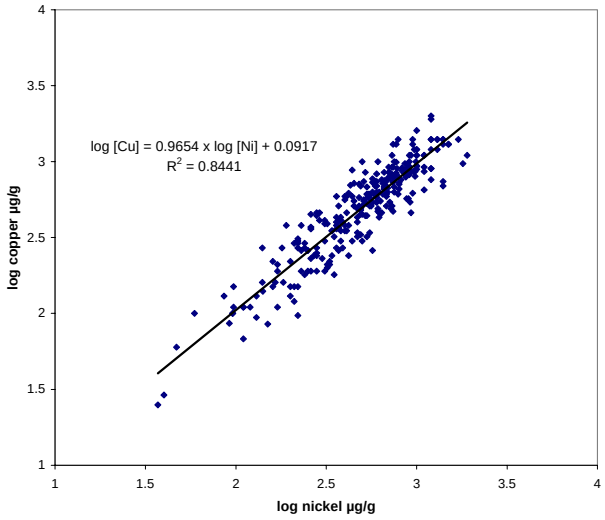


Fig. 10.4.6.3b: log Cu vs. log Ni, 10-20cm, Copper Cliff

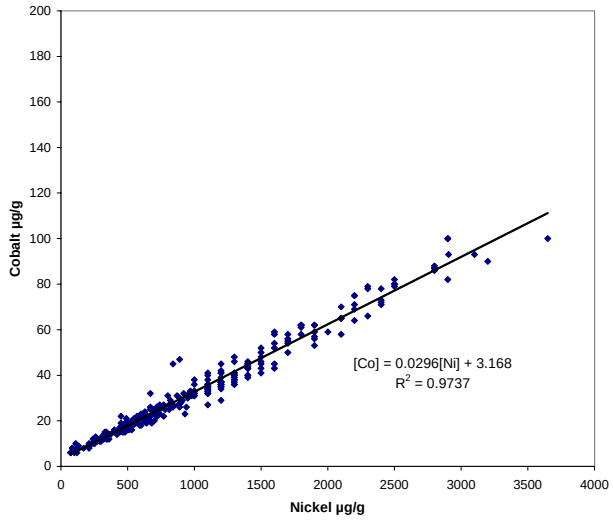


Fig. 10.4.6.4: Co vs. Ni, 0-5cm, Copper Cliff

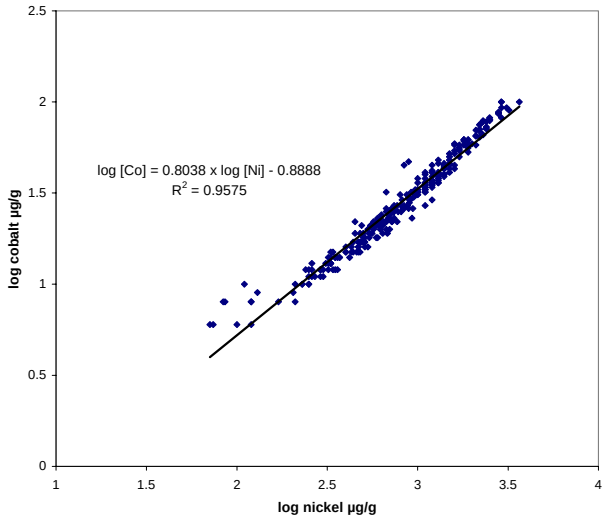


Fig. 10.4.6.4b: log Co vs. log Ni, 0-5cm, Copper Cliff

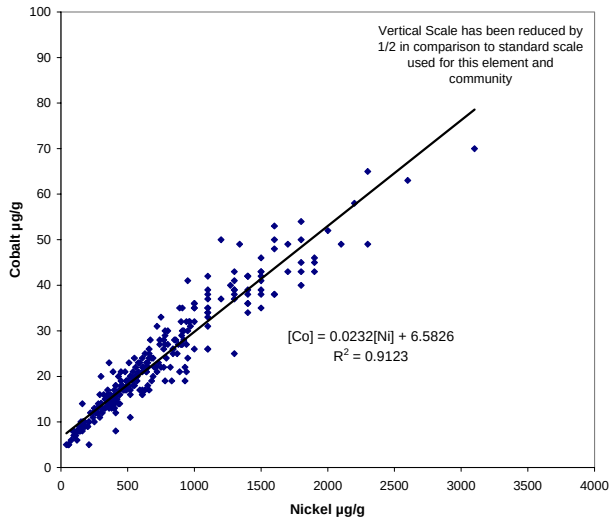


Fig. 10.4.6.5: Co vs. Ni, 5-10cm, Copper Cliff

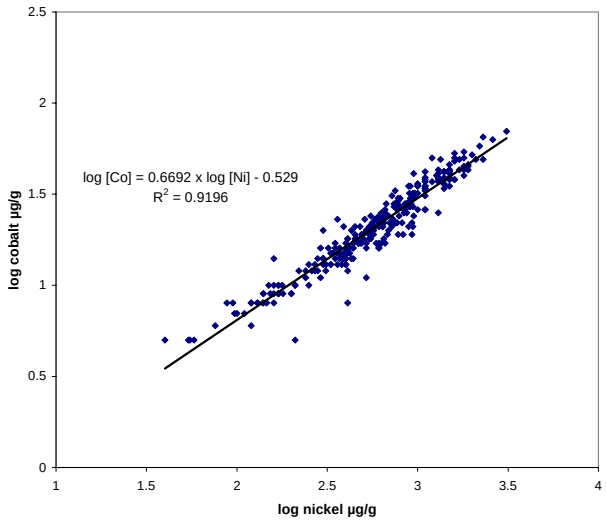


Fig. 10.4.6.5b: log Co vs. log Ni, 5-10cm, Copper Cliff

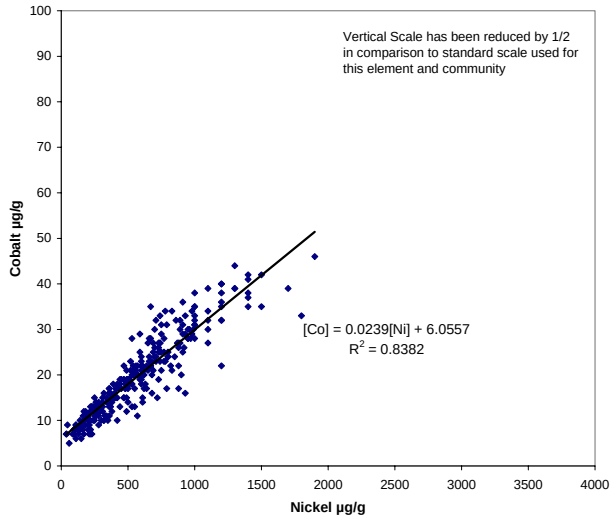


Fig. 10.4.6.6: Co vs. Ni, 10-20 cm, Copper Cliff

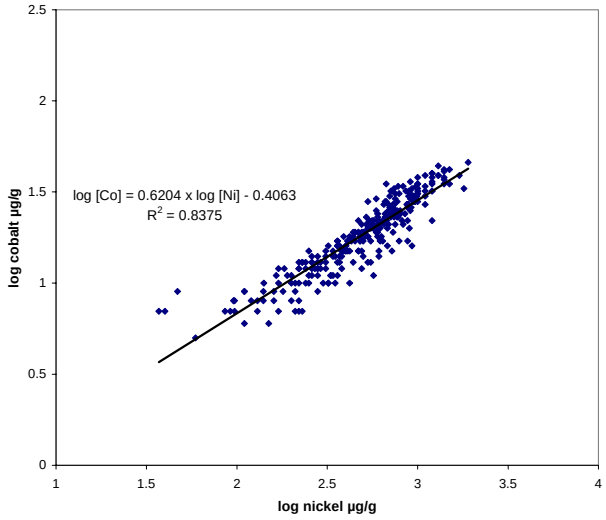


Fig. 10.4.6.6b: log Co vs. log Ni, 10-20cm, Copper Cliff

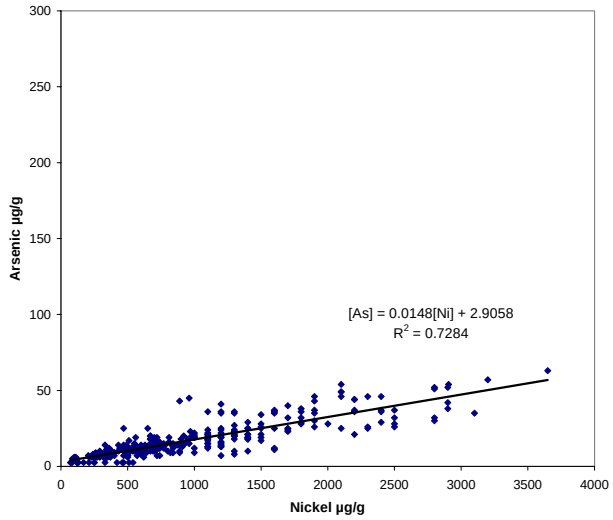


Fig. 10.4.6.7: As vs. Ni, 0-5cm, Copper Cliff

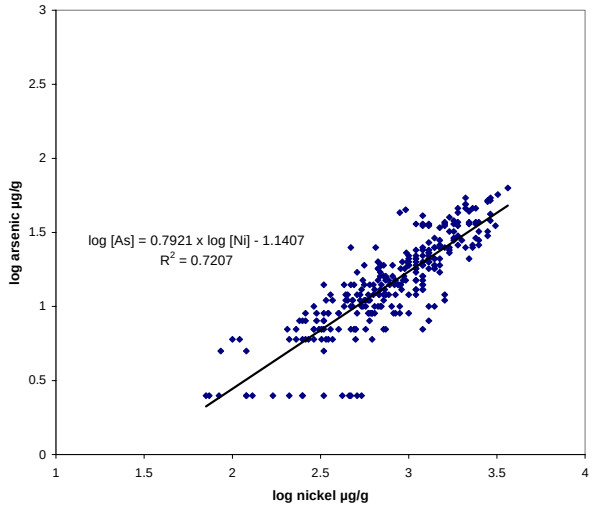


Fig. 10.4.6.7b: log As vs. log Ni, 0-5cm, Copper Cliff

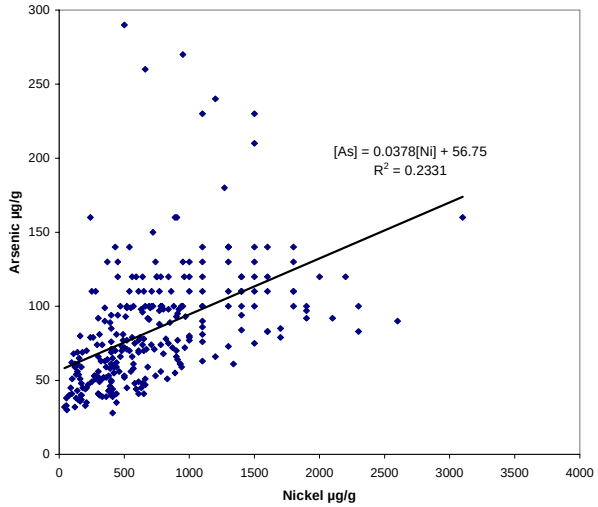


Fig. 10.4.6.8: As vs. Ni, 5-10cm, Copper Cliff

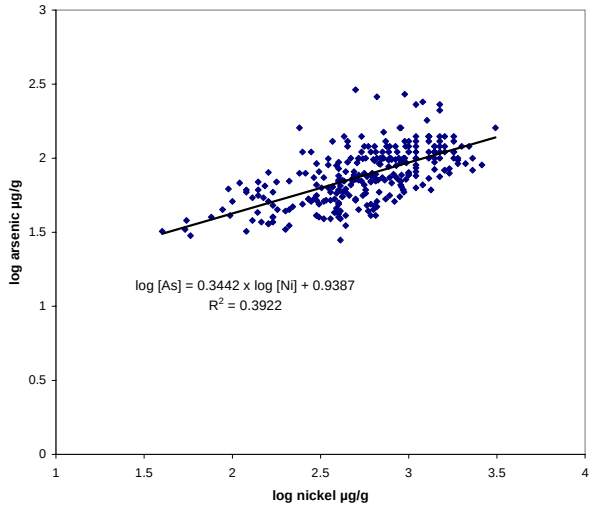


Fig. 10.4.6.8b: log As vs. log Ni, 5-10cm, Copper Cliff

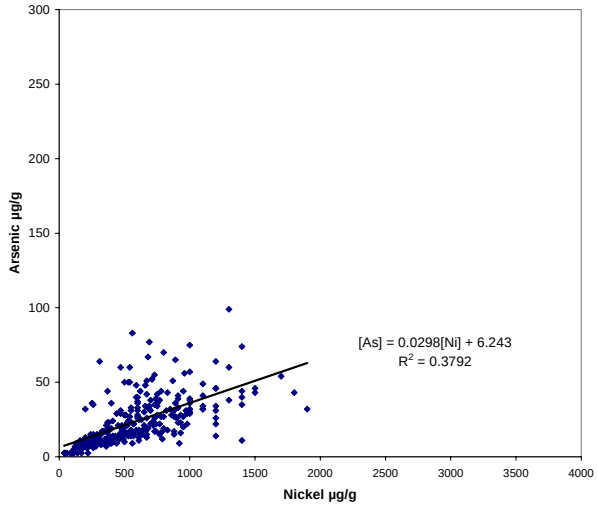


Fig. 10.4.6.9: As vs. Ni, 10-20cm, Copper Cliff

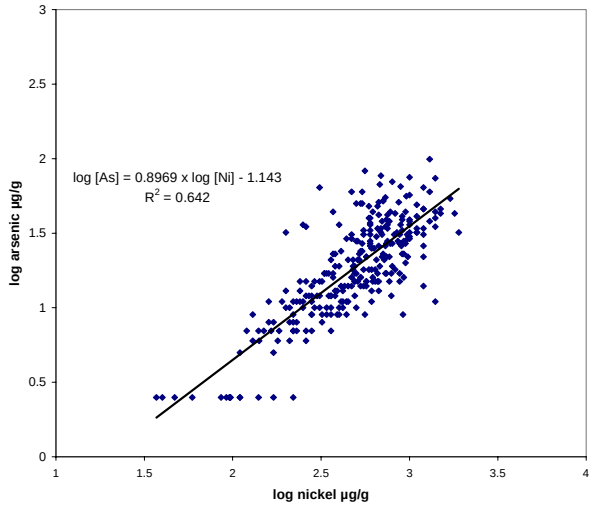


Fig. 10.4.6.9b: log As vs. log Ni, 10-20cm, Copper Cliff

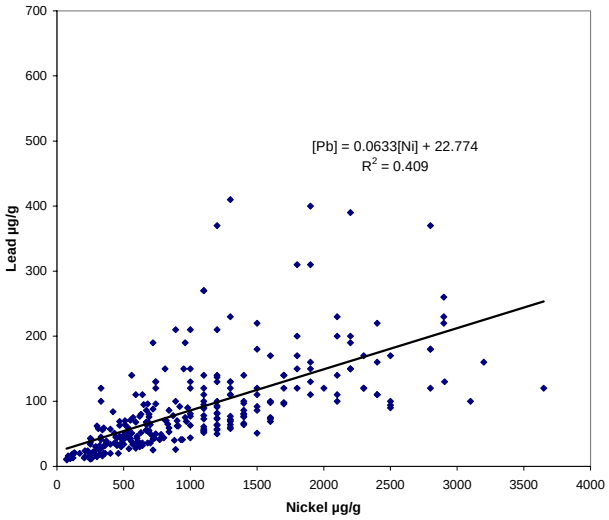


Fig. 10.4.6.10: Pb vs. Ni, 0-5cm, Copper Cliff

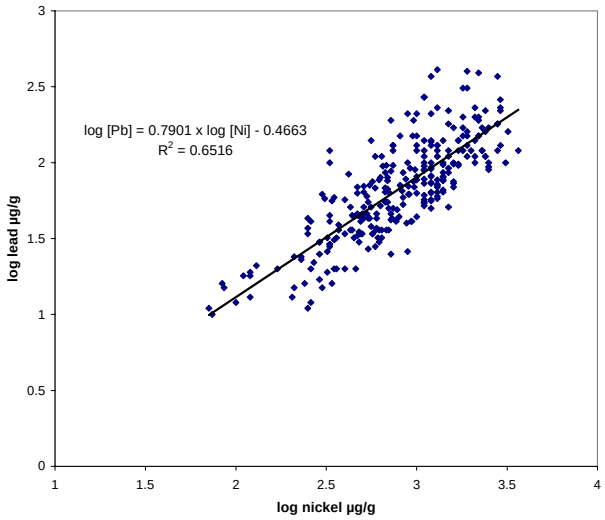


Fig. 10.4.6.10b: log Pb vs. log Ni, 0-5cm, Copper Cliff

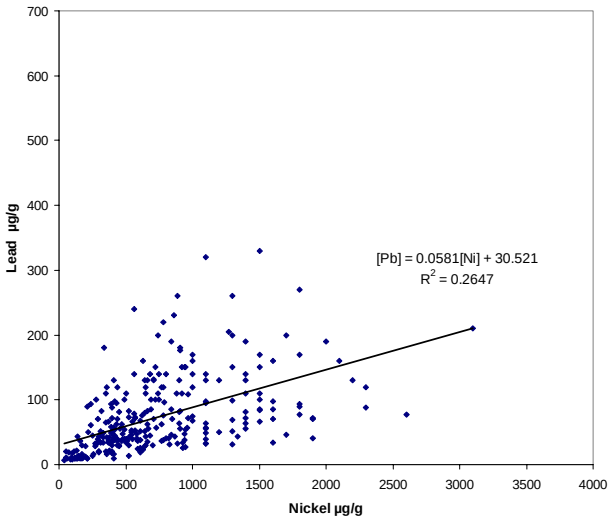


Fig. 10.4.6.11: Pb vs. Ni, 5-10cm, Copper Cliff

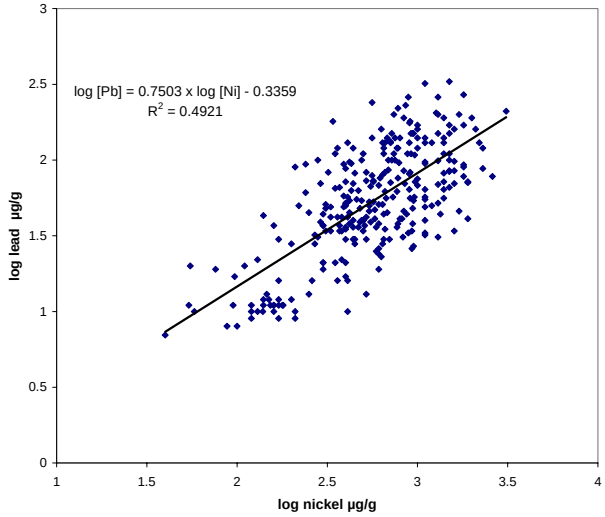


Fig. 10.4.6.11b: log Pb vs. log Ni, 5-10cm, Copper Cliff

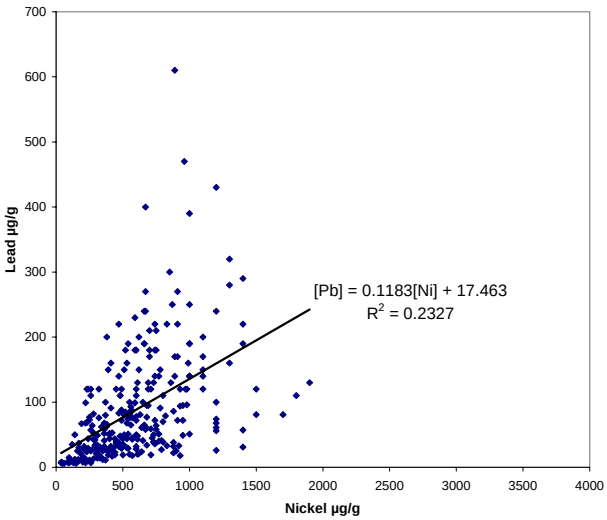


Fig. 10.4.6.12: Pb vs. Ni, 10-20cm, Copper Cliff

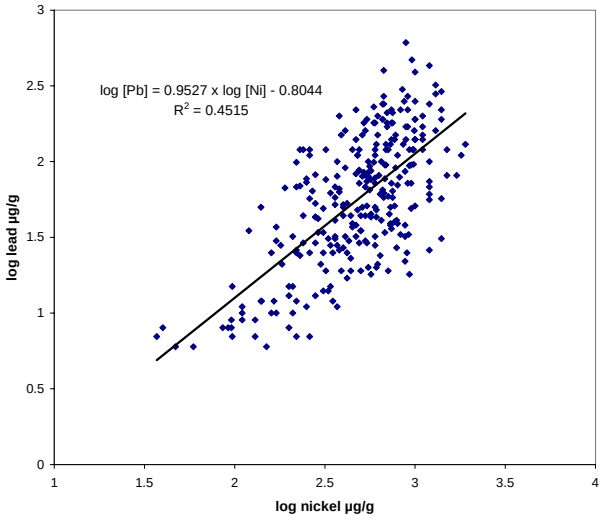


Fig. 10.4.6.12b: log Pb vs. log Ni, 10-20cm, Copper Cliff

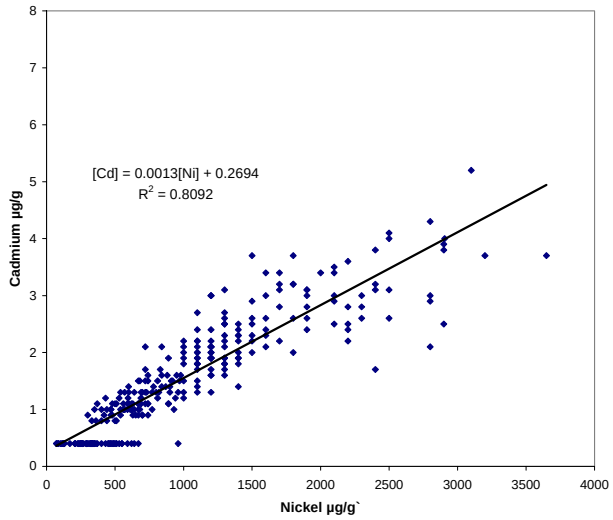


Fig. 10.4.6.13: Cd vs. Ni, 0-5cm, Copper Cliff

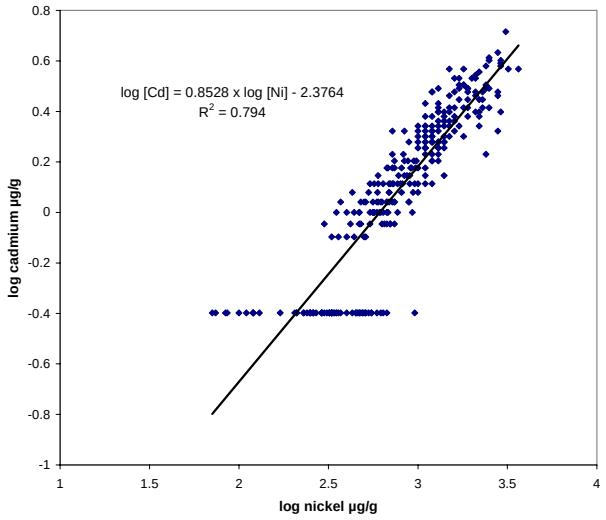


Fig. 10.4.6.13b: log Cd vs. log Ni, 0-5cm, Copper Cliff

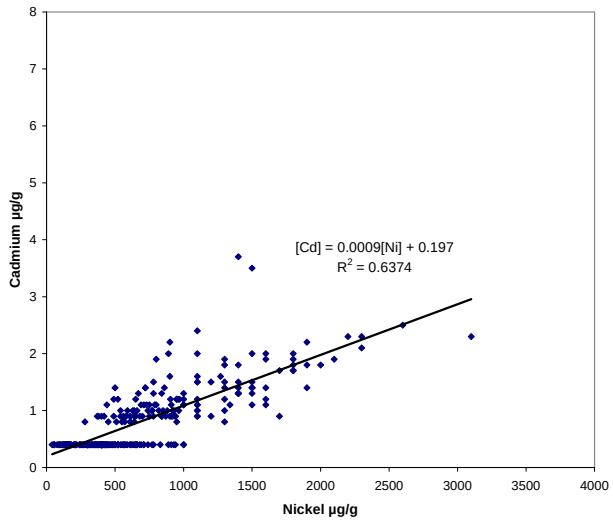


Fig. 10.4.6.14: Cd vs. Ni, 5-10cm, Copper Cliff

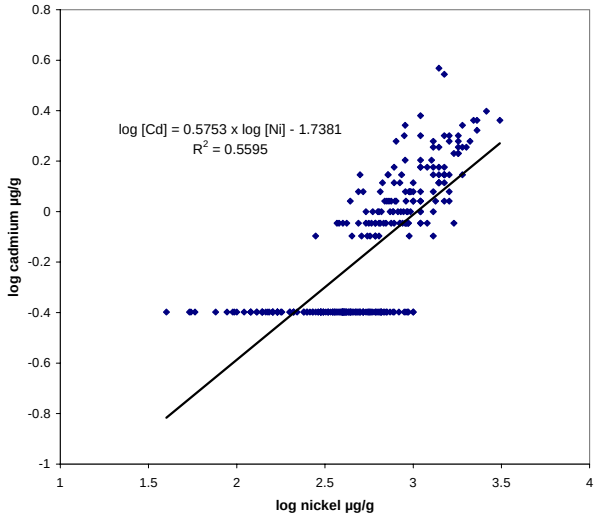


Fig. 10.4.6.14b: log Cd vs. log Ni, 5-10cm, Copper Cliff

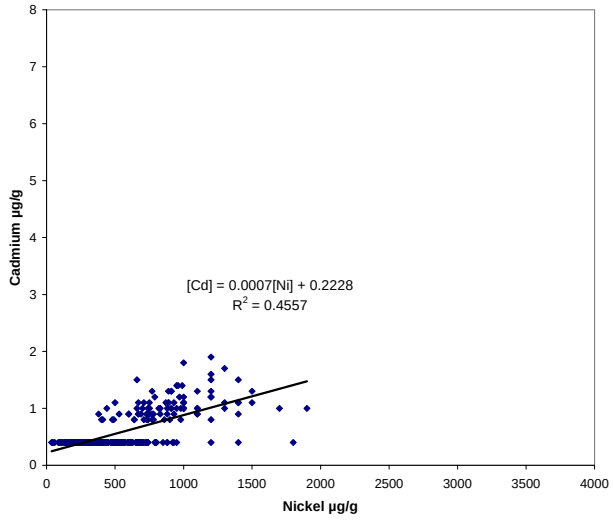


Fig. 10.4.6.15: Cd vs. Ni, 10-20cm, Copper Cliff

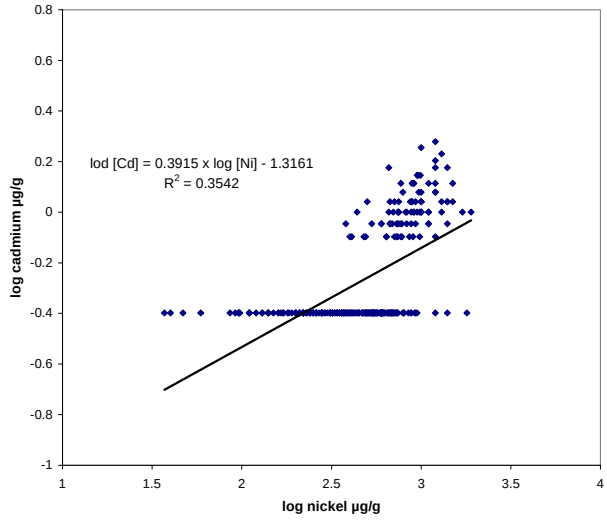


Fig. 10.4.6.15b: log Cd vs log Ni, 10-20cm, Copper Cliff

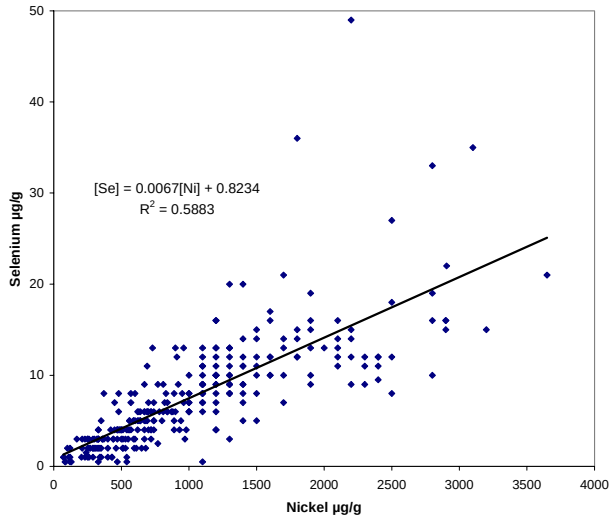


Fig. 10.4.6.16: Se vs. Ni, 0-5cm, Copper Cliff

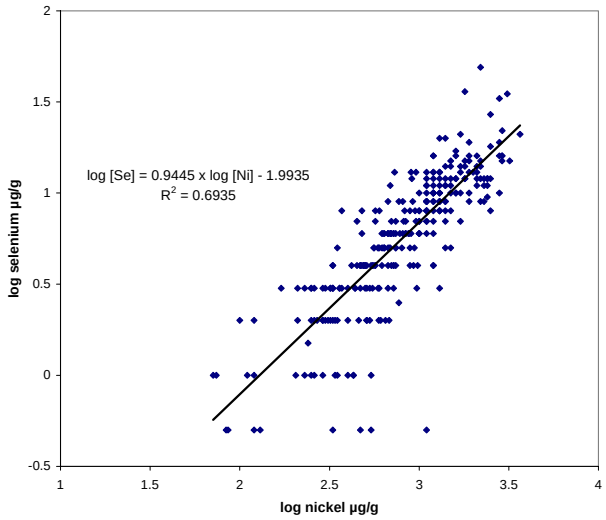


Fig. 10.4.6.16b: log Se vs. log Ni, 0-5cm, Copper Cliff

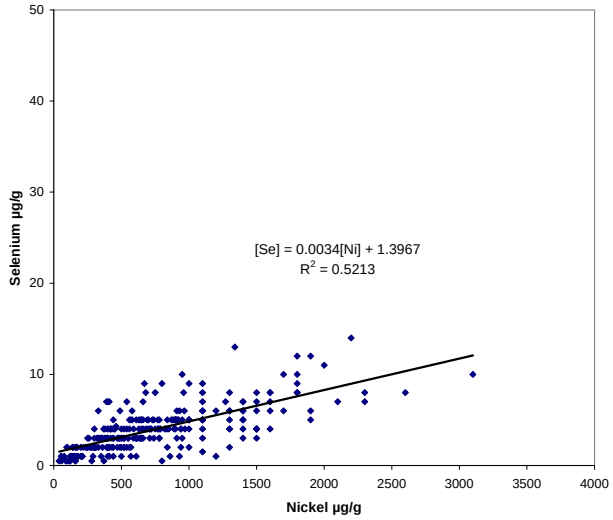


Fig. 10.4.6.17: Se vs. Ni, 5-10cm, Copper Cliff

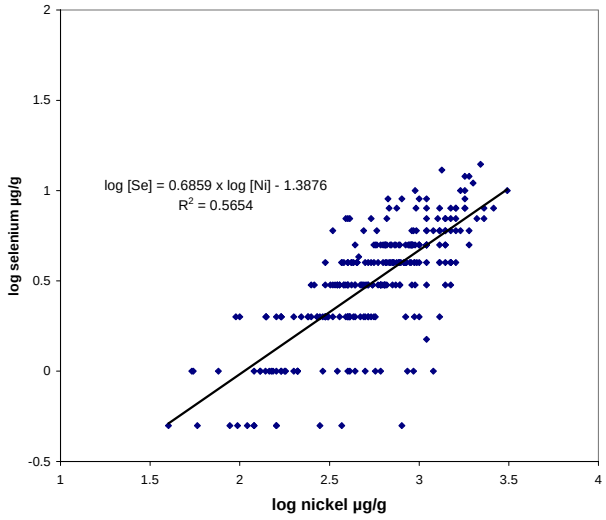


Fig. 10.4.6.17b: log Se vs. log Ni, 5-10cm, Copper Cliff

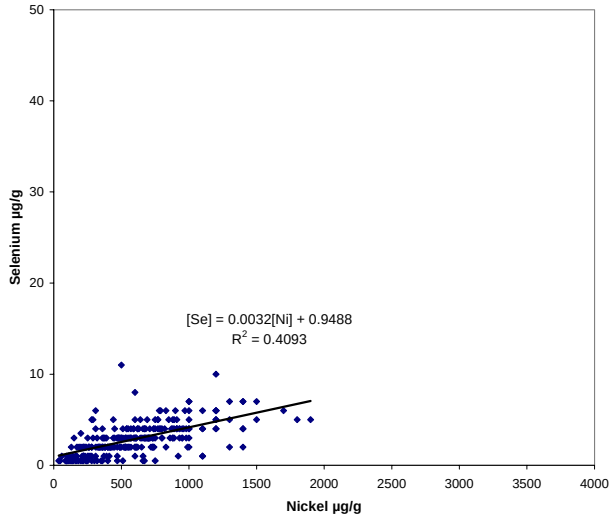


Fig. 10.4.6.18: Se vs. Ni, 10-20cm, Copper Cliff

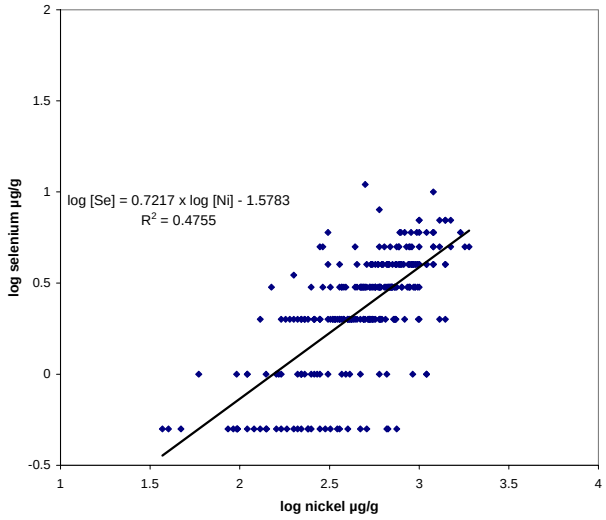


Fig. 10.4.6.18b: log Se vs. log Ni, 10-20cm, Copper Cliff

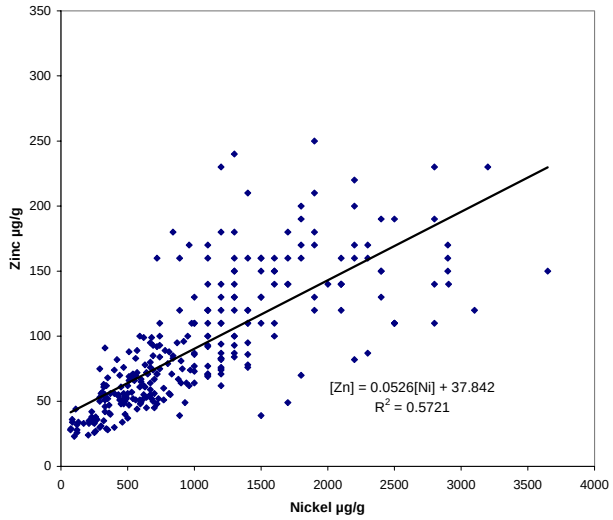


Fig. 10.4.6.19: Zn vs. Ni, 0-5cm, Copper Cliff

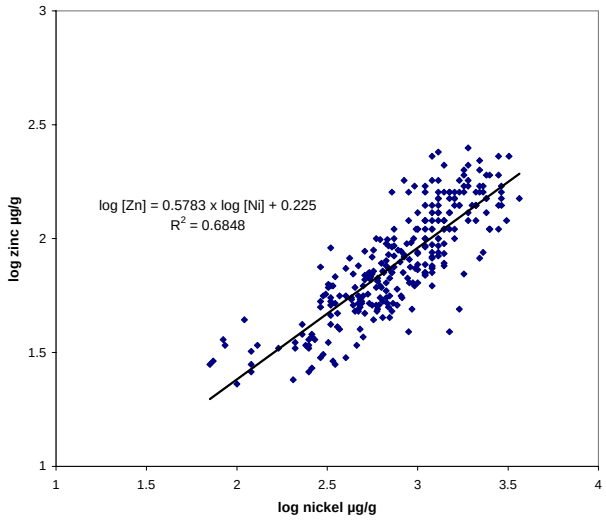


Fig. 10.4.6.19b: log Zn vs. log Ni, 0-5cm, Copper Cliff

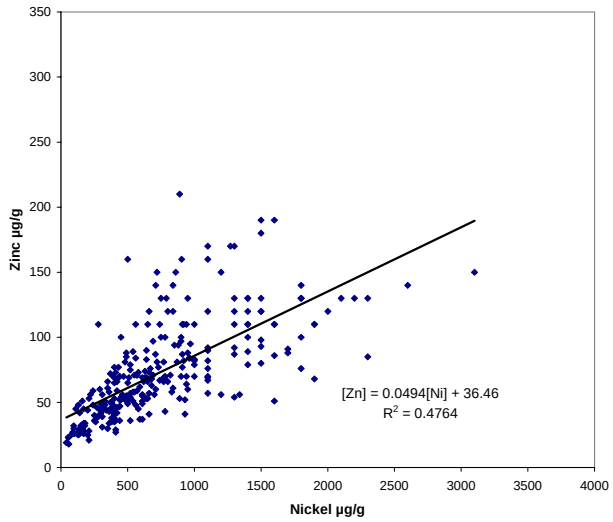


Fig. 10.4.6.20: Zn vs. Ni, 5-10cm, Copper Cliff

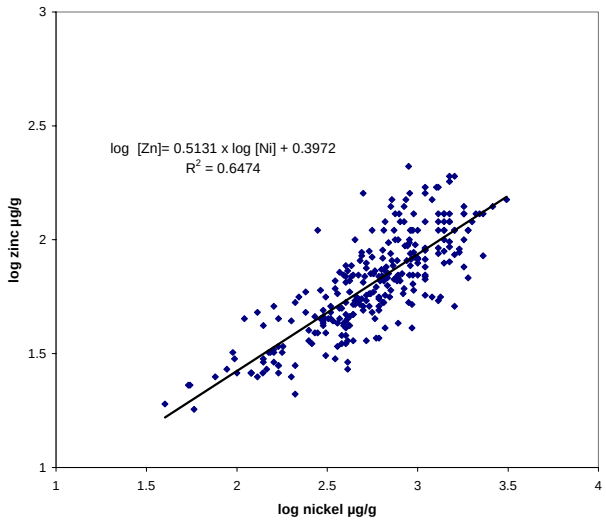


Fig. 10.4.6.20b: log Zn vs. log Ni, 5-10cm, Copper Cliff

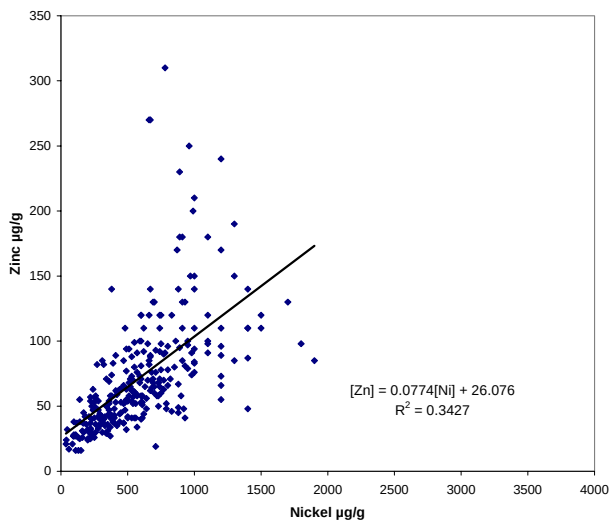


Fig. 10.4.6.21: Zn vs. Ni, 10-20cm, Copper Cliff

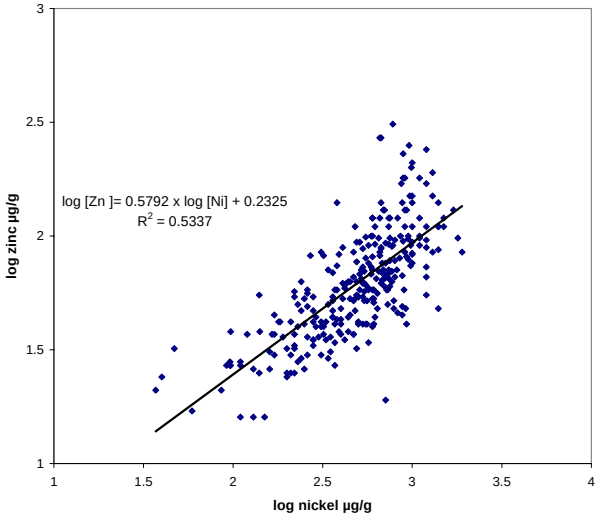


Fig. 10.4.6.21b: log Zn vs. log Ni, 10-20cm, Copper Cliff

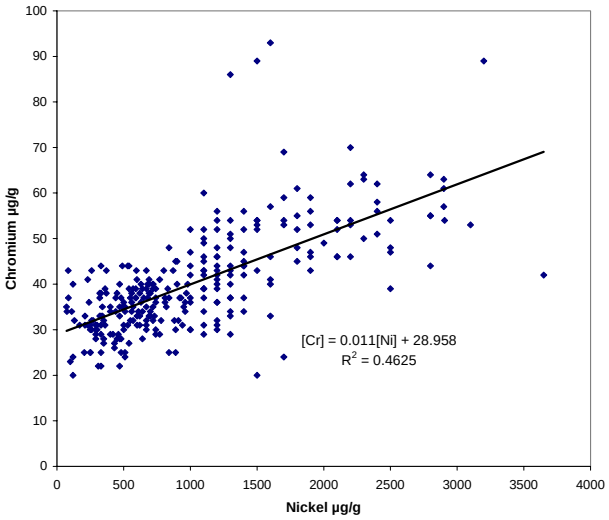


Fig. 10.4.6.22: Cr vs. Ni, 0-5cm, Copper Cliff

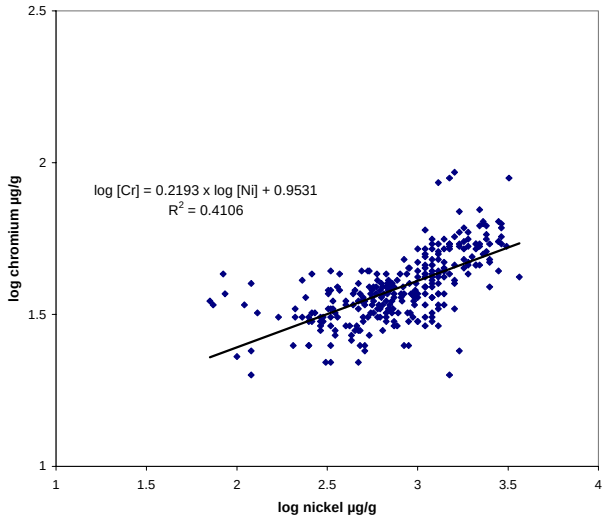


Fig. 10.4.6.22b: log Cr vs. log Ni, 0-5cm, Copper Cliff

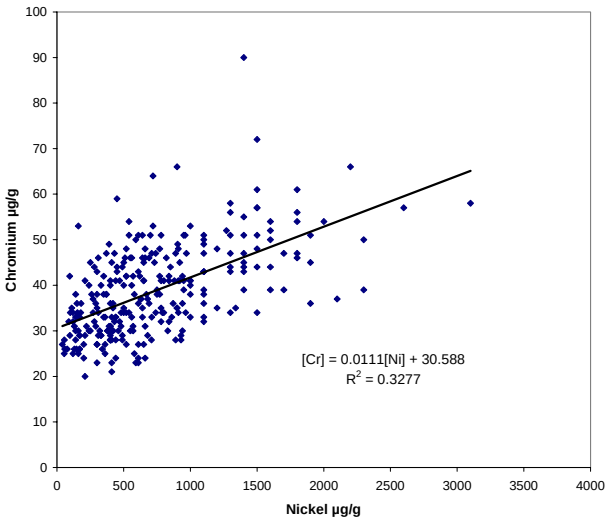


Fig. 10.4.6.23: Cr vs. Ni, 5-10cm, Copper Cliff

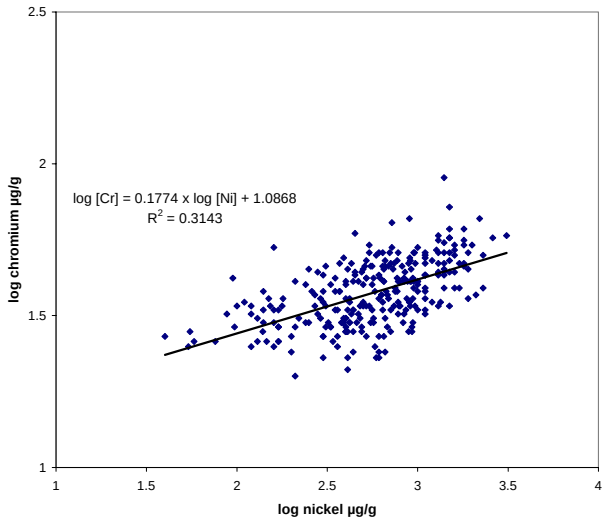


Fig. 10.4.6.23b: log Cr vs. log Ni, 5-10cm, Copper Cliff

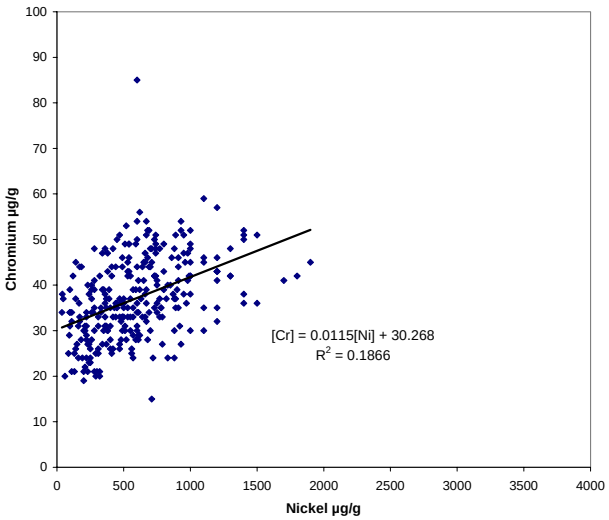


Fig. 10.4.6.24: Cr vs. Ni, 10-20cm, Copper Cliff

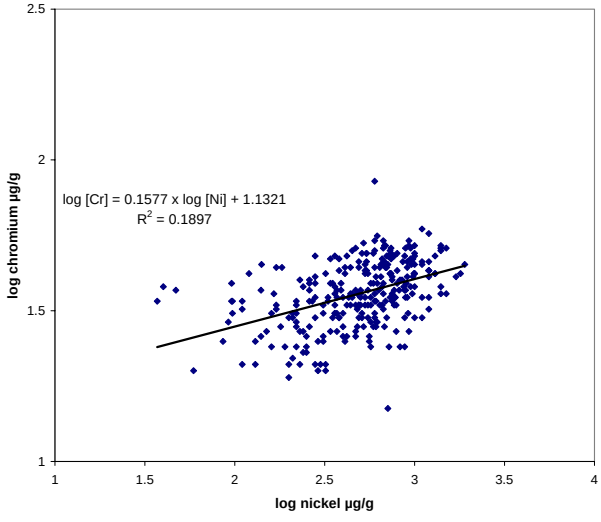


Fig. 10.4.6.24b: log Cr vs. log Ni, 10-20cm, Copper Cliff

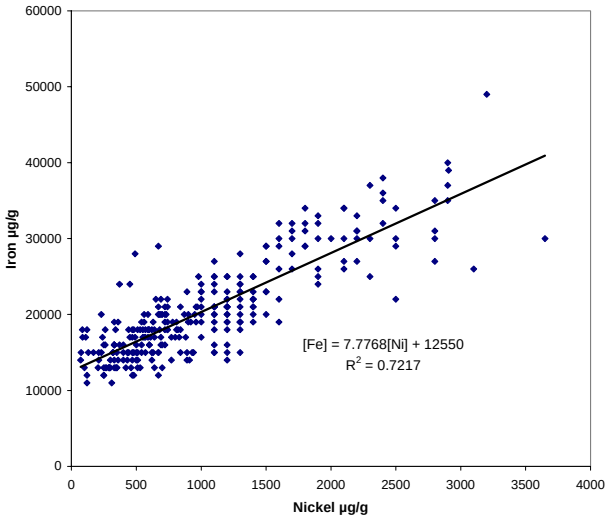


Fig. 10.4.6.25: Fe vs. Ni, 0-5cm, Copper Cliff

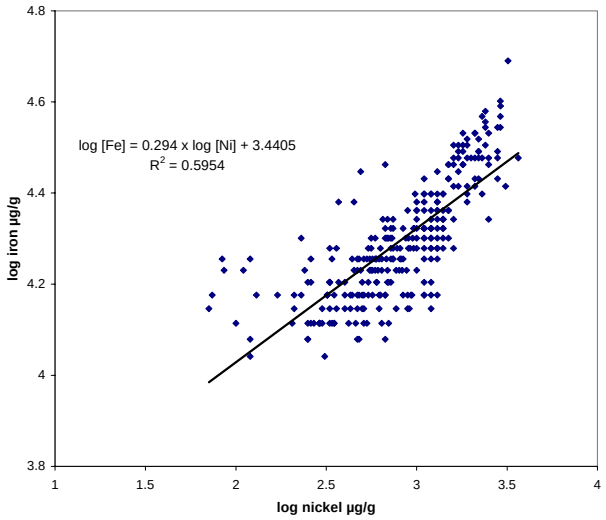


Fig. 10.4.6.25b: log Fe vs. log Ni, 0-5cm, Copper Cliff

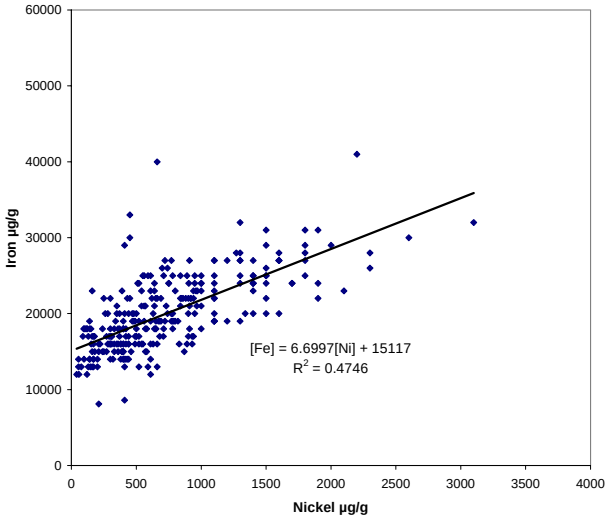


Fig. 10.4.6.26: Fe vs. Ni, 5-10cm, Copper Cliff

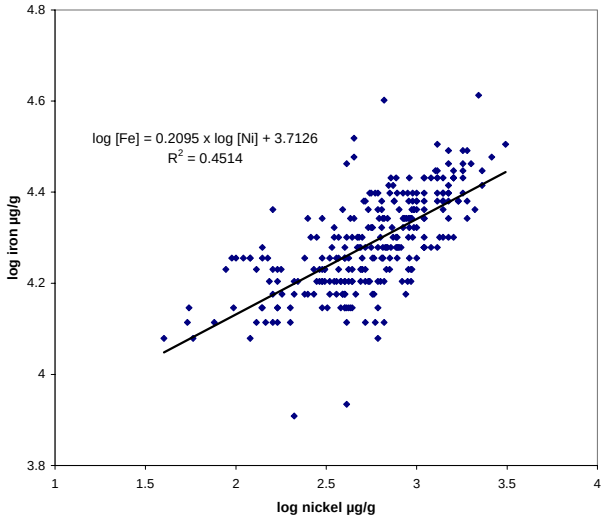


Fig. 10.4.6.26b: log Fe vs. log Ni, 5-10cm, Copper Cliff

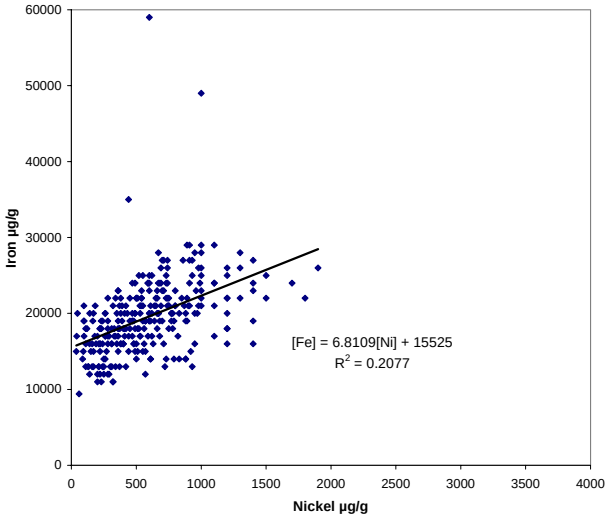


Fig. 10.4.6.27: Fe vs. Ni, 10-20cm, Copper Cliff

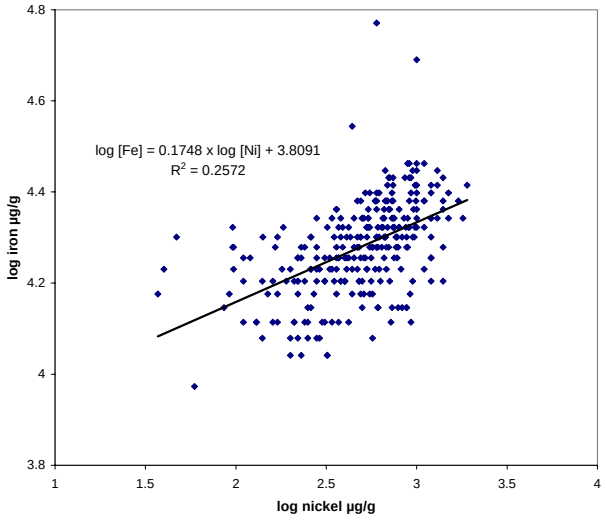


Fig. 10.4.6.27b: log Fe vs. log Ni, 10-20cm, Copper Cliff

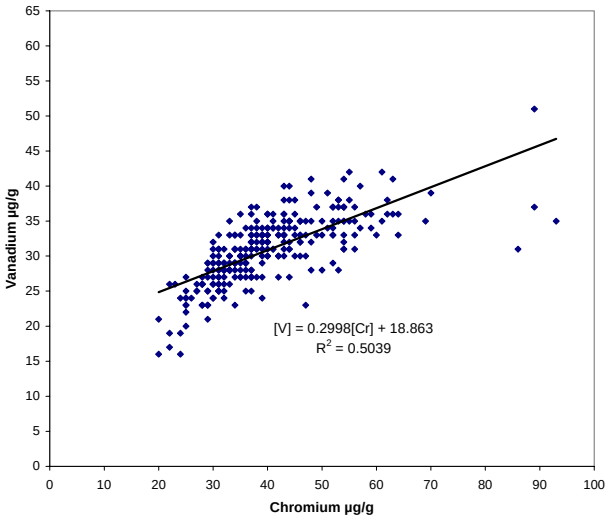


Fig. 10.4.6.28: V vs. Cr, 0-5cm, Copper Cliff

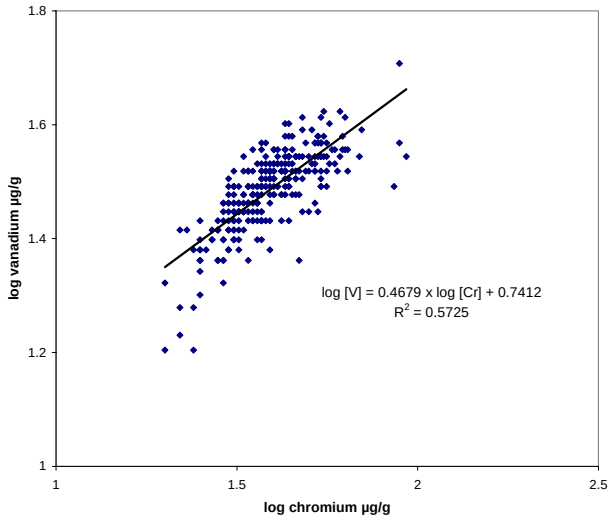


Fig. 10.4.6.28b: log V vs. log Cr, 0-5cm, Copper Cliff

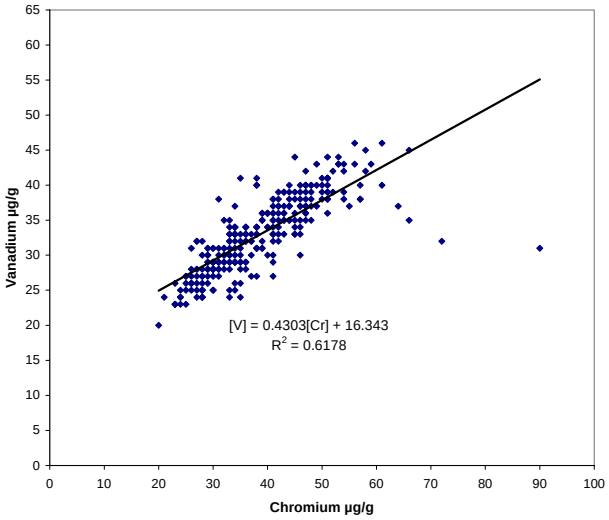


Fig. 10.4.6.29: V vs. Cr, 5-10cm, Copper Cliff

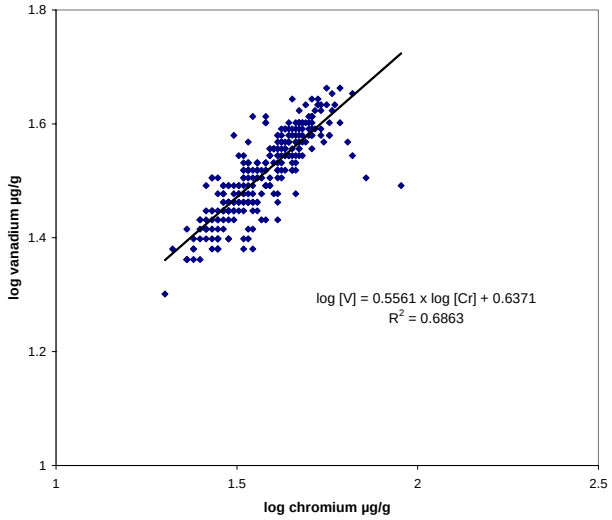


Fig. 10.4.6.29b:log V vs. log Cr, 5-10cm, Copper Cliff

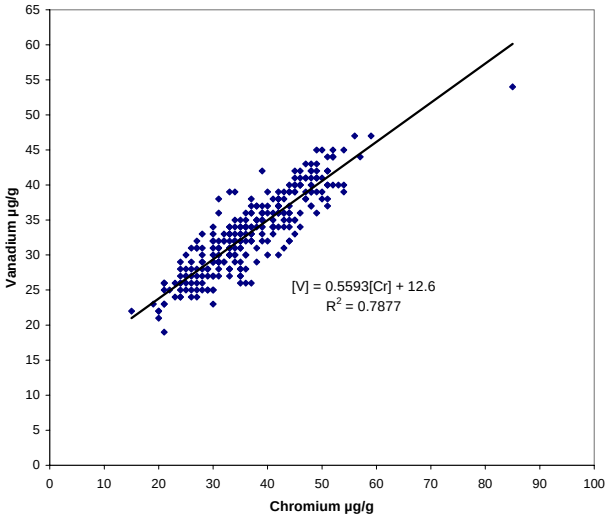


Fig. 10.4.6.30: V vs. Cr, 10-20cm, Copper Cliff

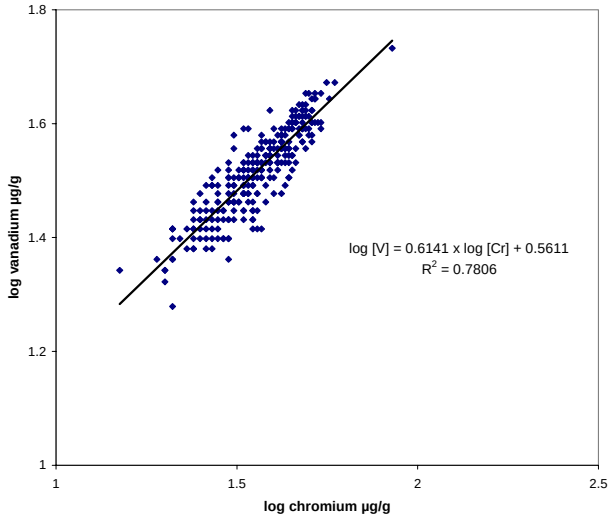


Fig. 10.4.6.30b: log V vs. log Cr, 10-20cm, Copper Cliff

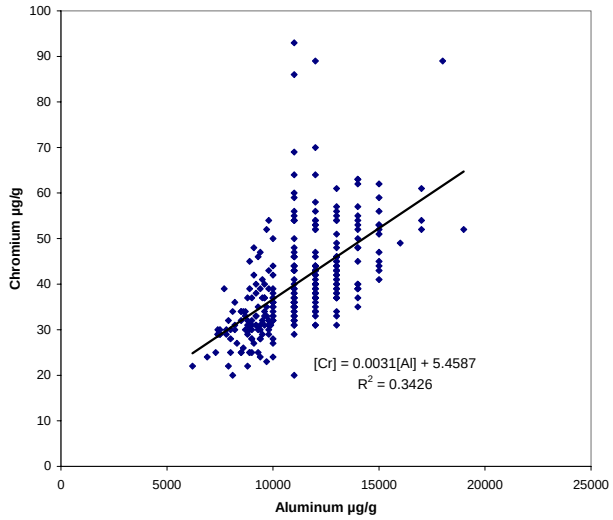


Fig. 10.4.6.31: Cr vs. Al, 0-5cm, Copper Cliff

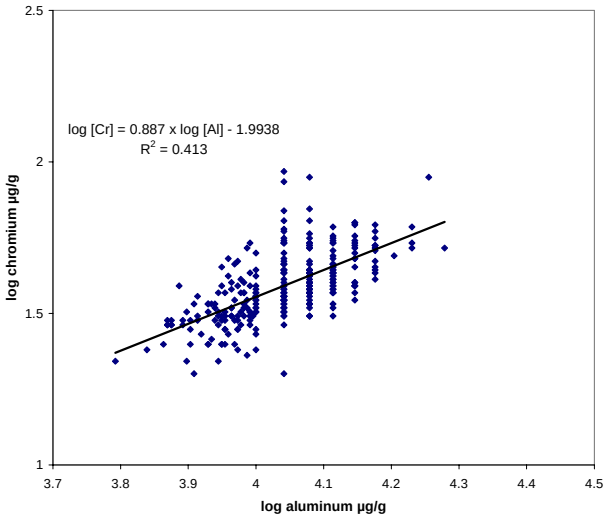


Fig. 10.4.6.31b: log Cr vs log Al, 0-5cm, Copper Cliff

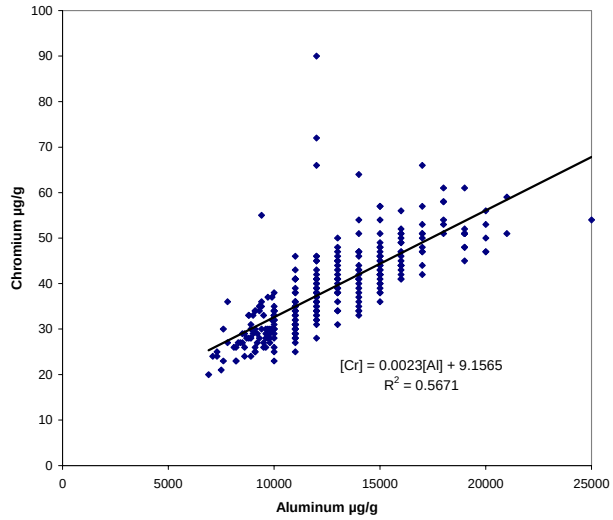


Fig. 10.4.6.32: Cr vs. Al, 5-10cm, Copper Cliff

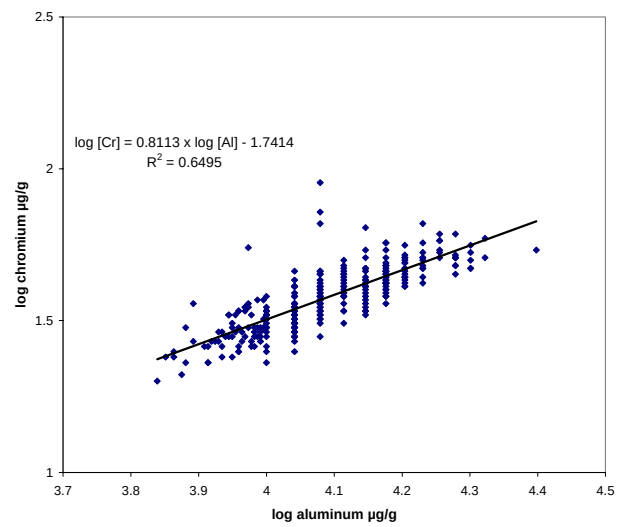


Fig. 10.4.6.32b: log Cr vs. log Al, 5-10cm, Copper Cliff

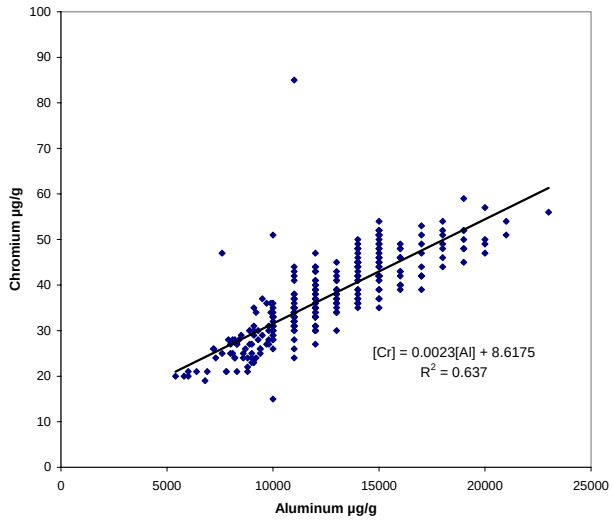


Fig. 10.4.6.33: Cr vs. Al, 10-20cm, Copper Cliff

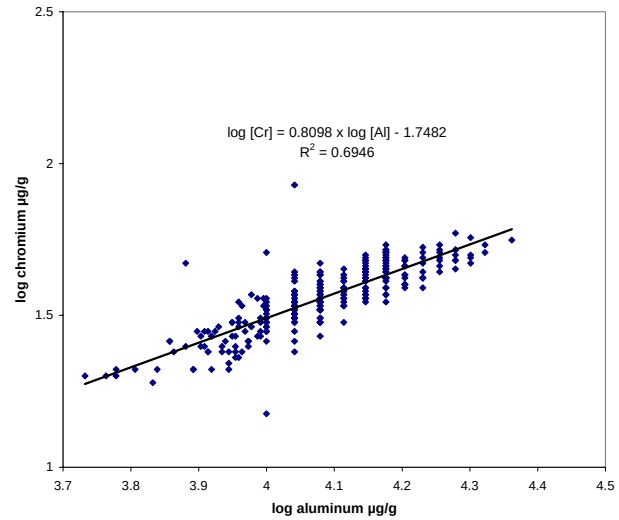


Fig. 10.4.6.33b: log Cr vs. log Al, 10-20cm, Copper Cliff

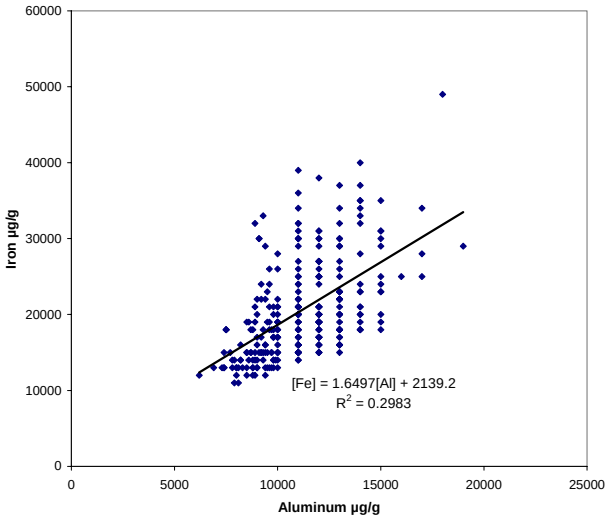


Fig. 10.4.6.34: Fe vs. Al, 0-5cm, Copper Cliff

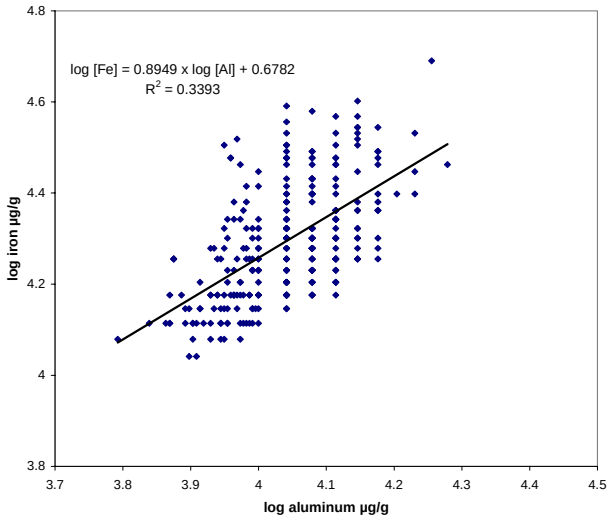


Fig. 10.4.6.34b: log Fe vs. log Al, 0-5cm, Copper Cliff

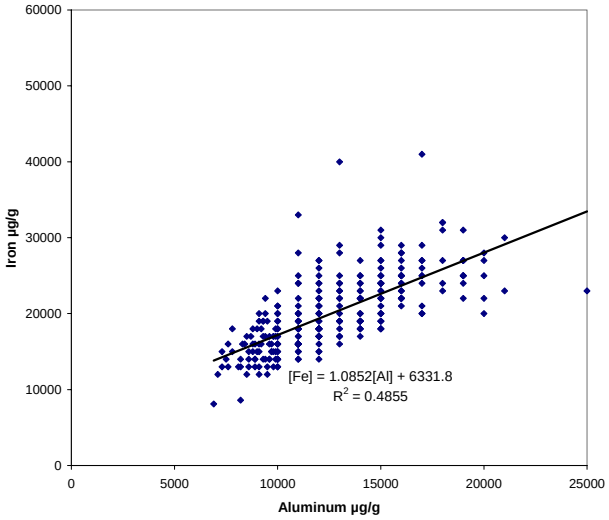


Fig. 10.4.6.35: Fe vs. Al, 5-10cm, Copper Cliff

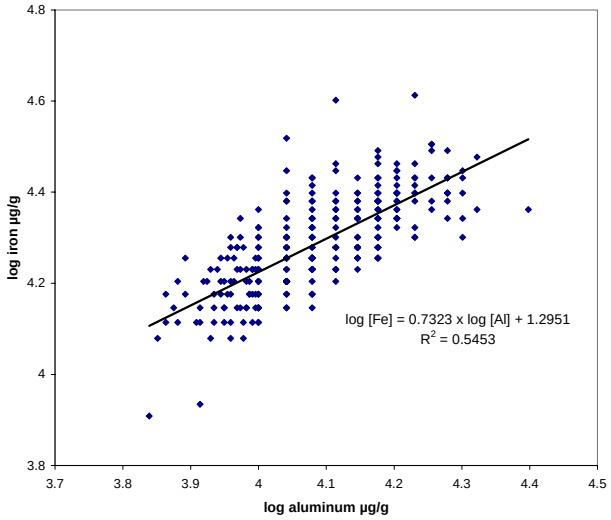


Fig. 10.4.6.35b: log Fe vs. log Al, 5-10cm, Copper Cliff

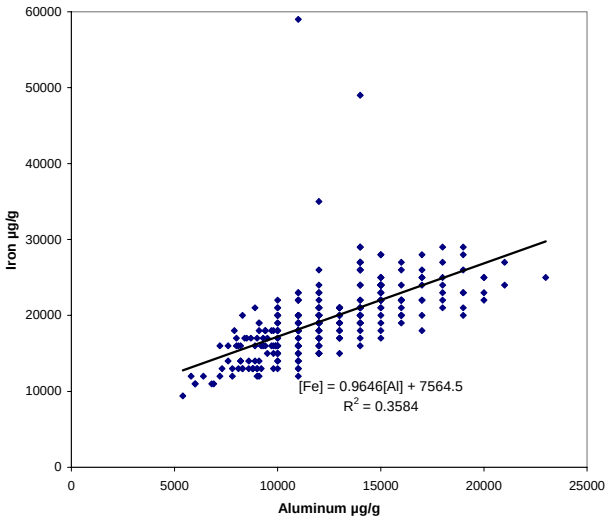


Fig. 10.4.6.36: Fe vs. Al, 10-20cm, Copper Cliff

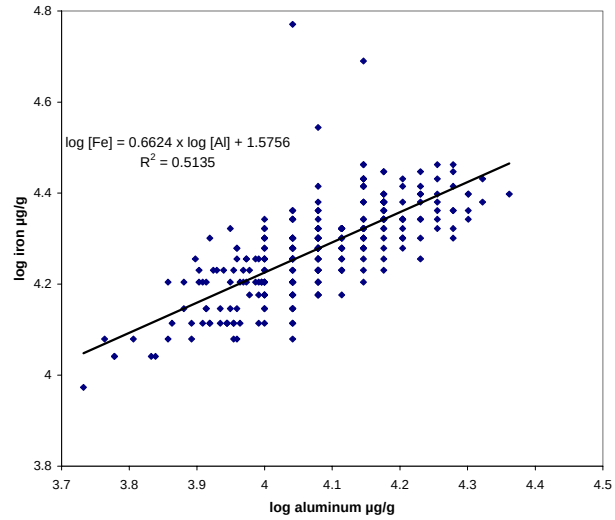


Fig. 10.4.6.36b: log Fe vs. log Al, 10-20cm, Copper Cliff

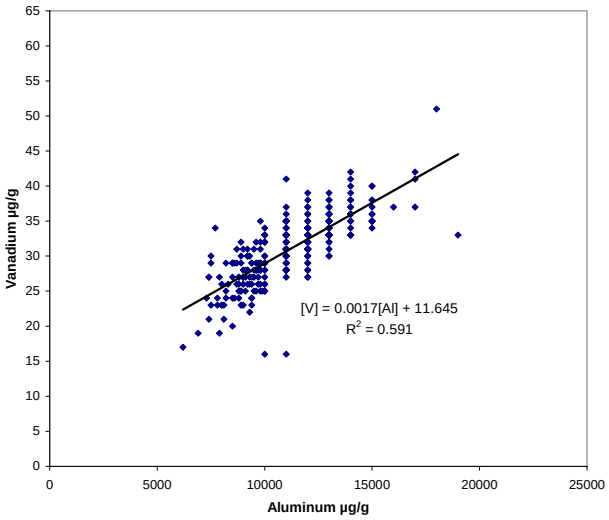


Fig. 10.4.6.37: V vs. Al, 0-5cm, Copper Cliff

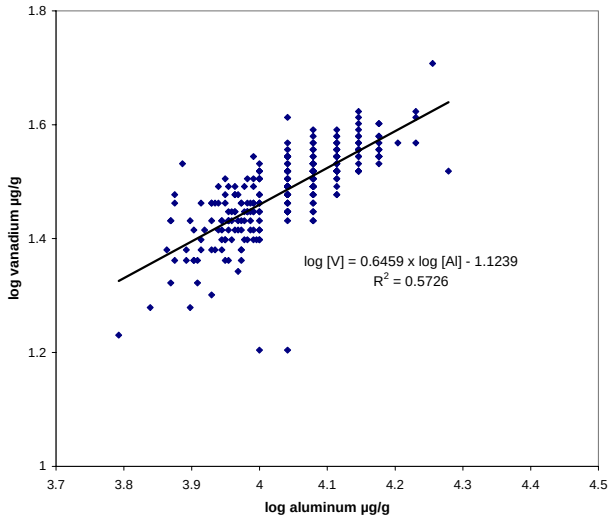


Fig. 10.4.6.37b: log V vs log Al, 0-5cm, Copper Cliff

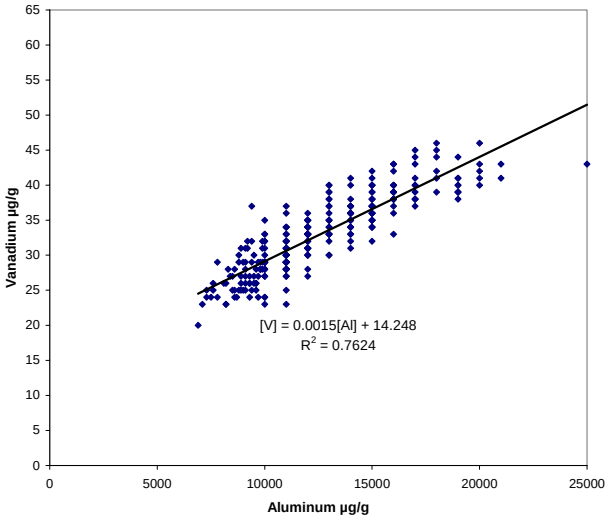


Fig. 10.4.6.38: V vs. Al, 5-10cm, Copper Cliff

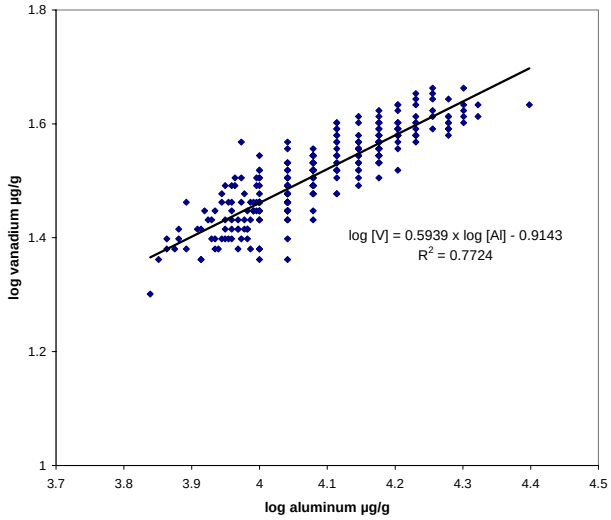


Fig. 10.4.6.38b: log V vs. log Al, 5-10cm, Copper Cliff

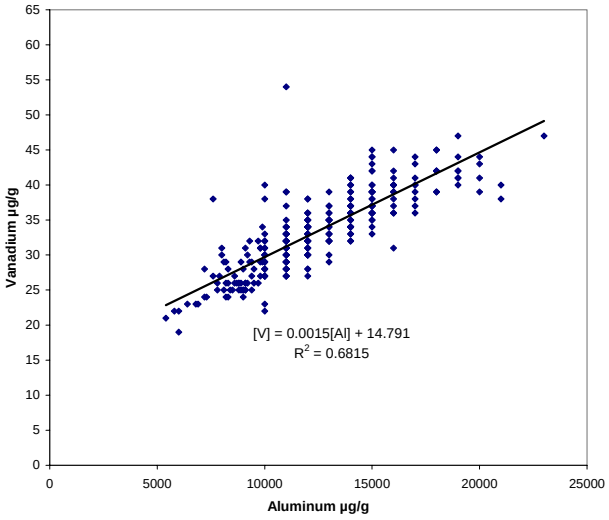


Fig. 10.4.6.39: V vs. Al, 10-20cm, Copper Cliff

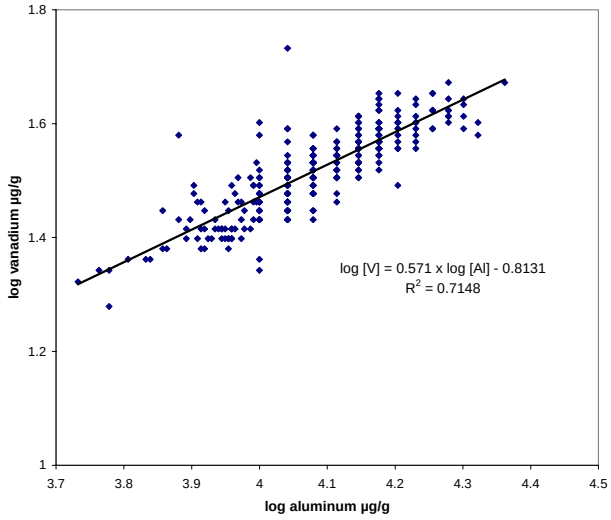


Fig. 10.4.6.39b: log V vs. log Al, 10-20cm, Copper Cliff

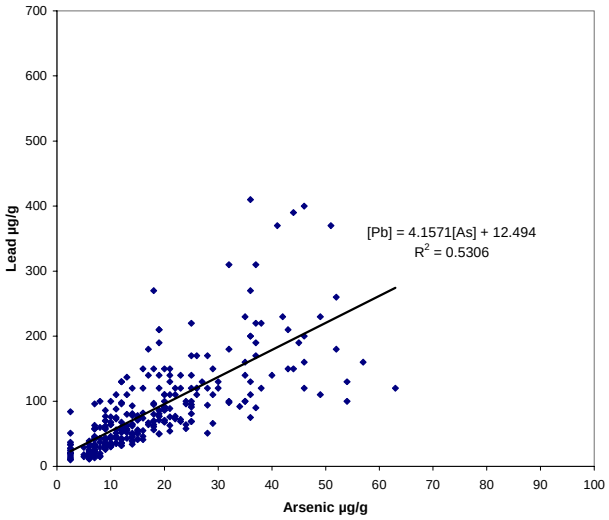


Fig. 10.4.6.40: Pb vs. As, 0-5cm, Copper Cliff

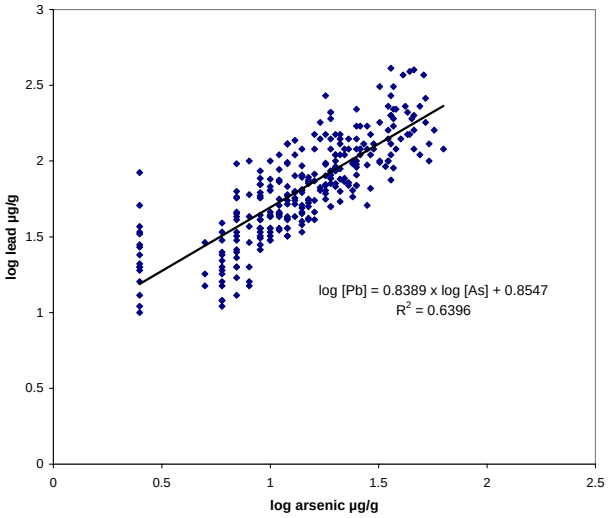


Fig. 10.4.6.40b: log Pb vs. log As, 0-5cm, Copper Cliff

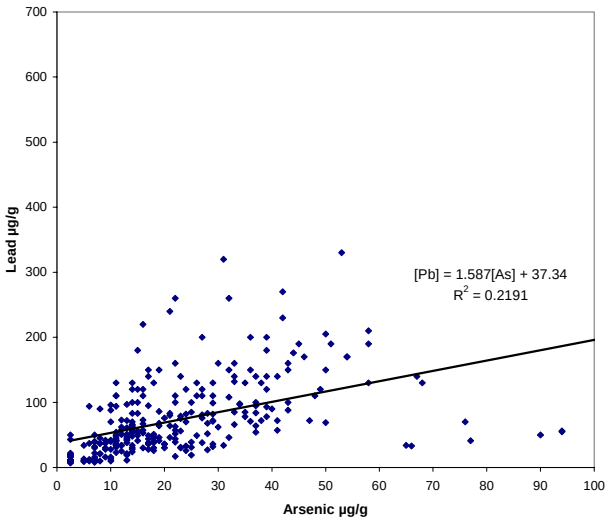


Fig. 10.4.6.41: Pb vs. As, 5-10cm, Copper Cliff

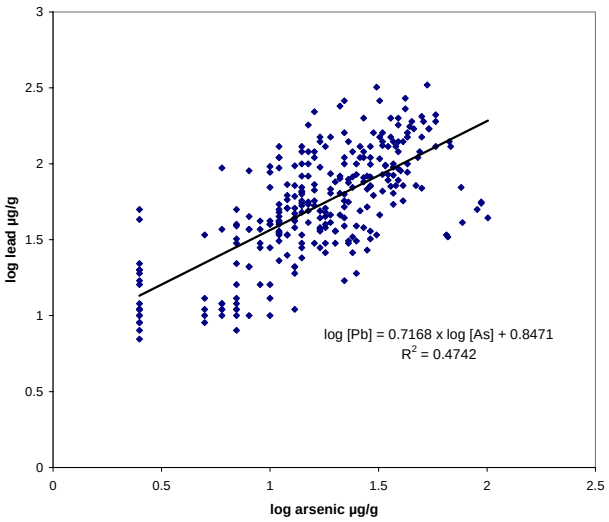


Fig. 10.4.6.41b: log Pb vs. log As, 5-10cm, Copper Cliff

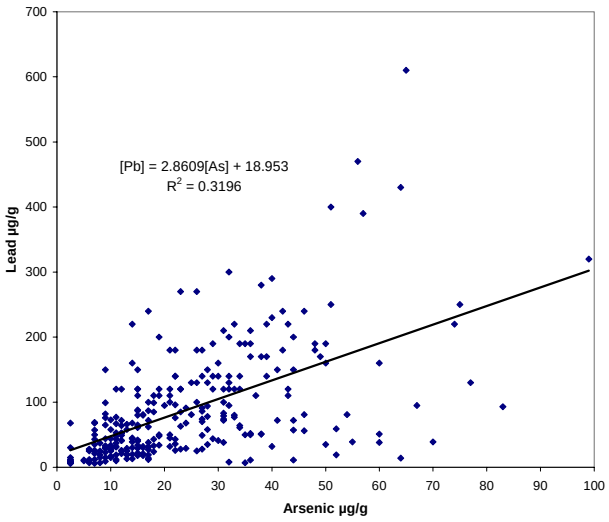


Fig. 10.4.6.42: Pb vs. As, 10-20cm, Copper Cliff

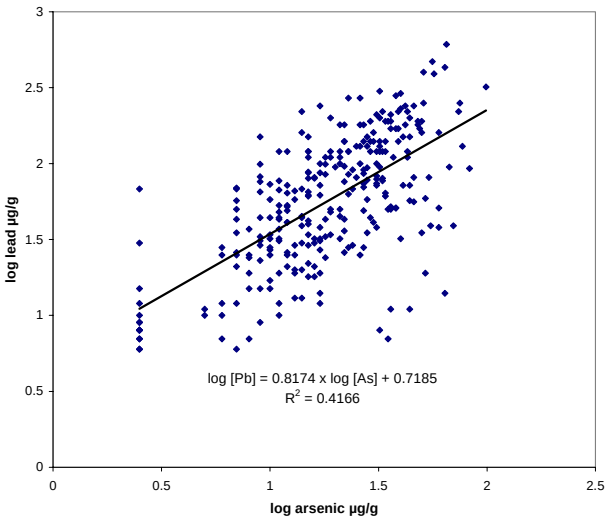


Fig. 10.4.6.42b: log Pb vs. log As, 10-20cm, Copper Cliff

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

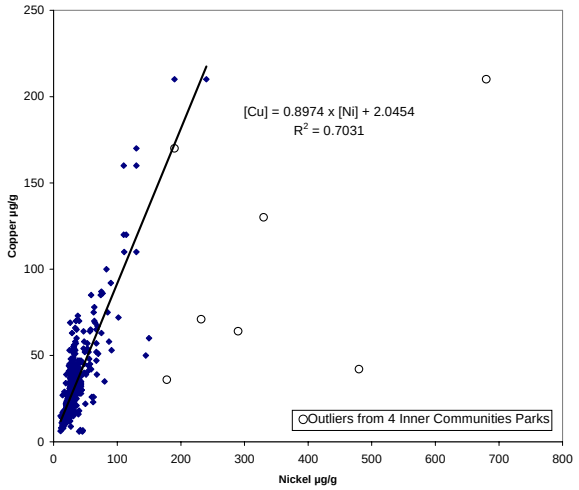


Fig. 10.4.7.1: Cu vs Ni, 0-5 cm, Play Sand

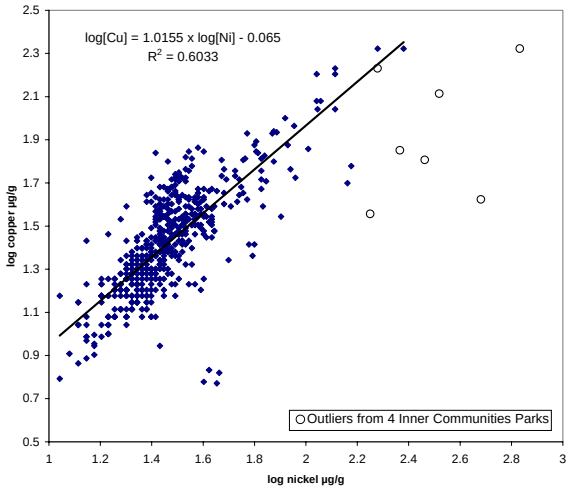


Fig. 10.4.7.1b: log Cu vs log Ni, 0-5 cm, Play Sand

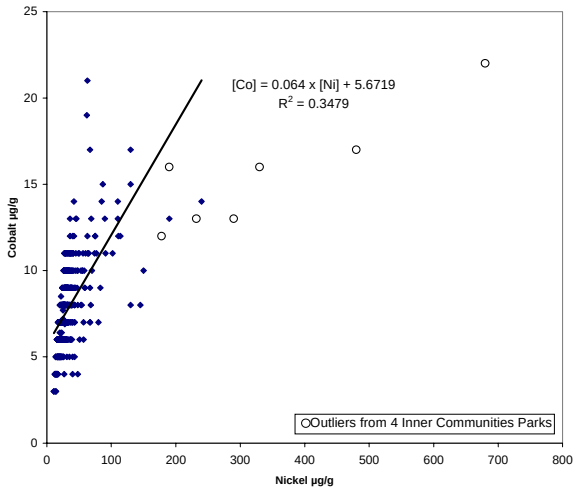


Fig. 10.4.7.2: Co vs Ni, 0-5 cm, Play Sand

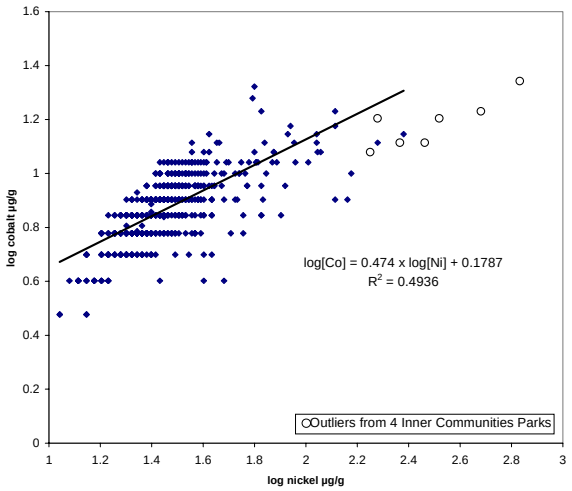


Fig. 10.4.7.2b: log Co vs log Ni, 0-5 cm, Play Sand

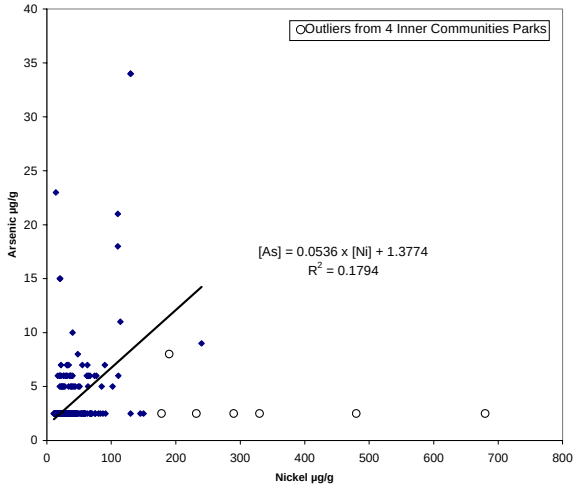


Fig. 10.4.7.3: As vs Ni, 0-5 cm, Play Sand

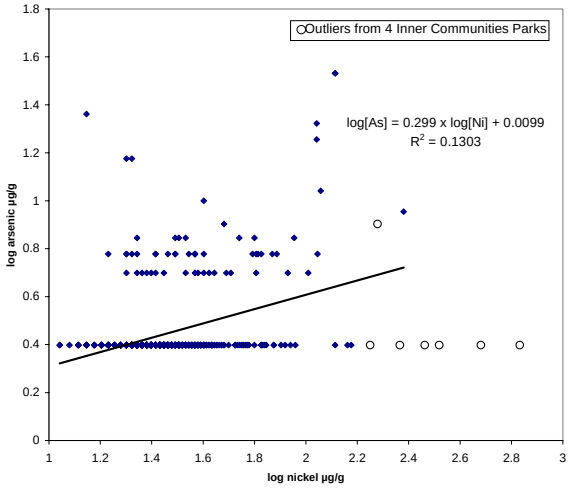


Fig. 10.4.7.3b: log As vs log Ni, 0-5 cm, Play Sand

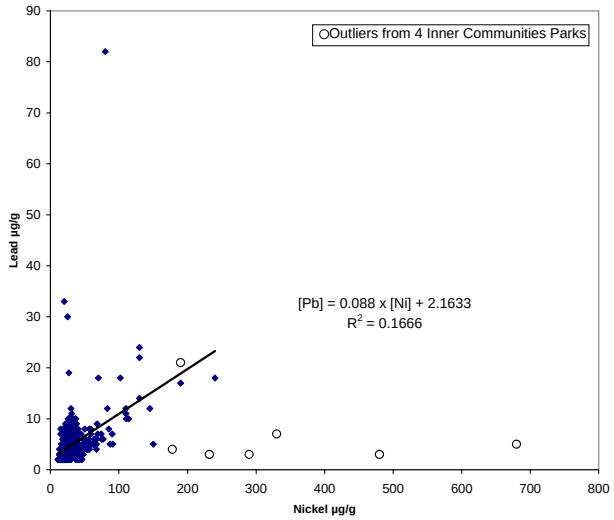


Fig. 10.4.7.4: Pb vs Ni, 0-5 cm, Play Sand

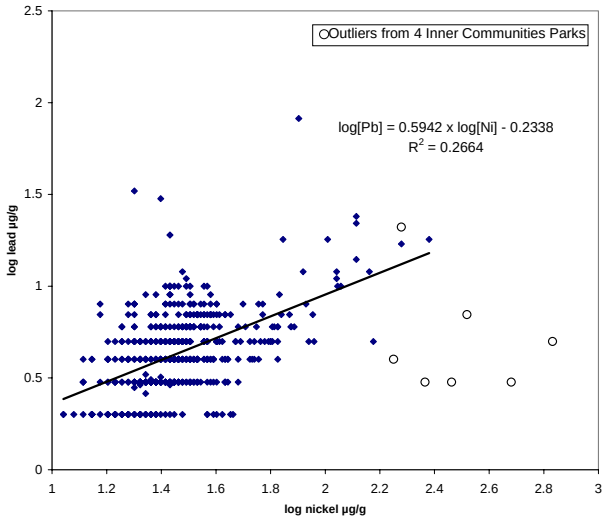


Fig. 10.4.7.4b: log Pb vs log Ni, 0-5 cm, Play Sand

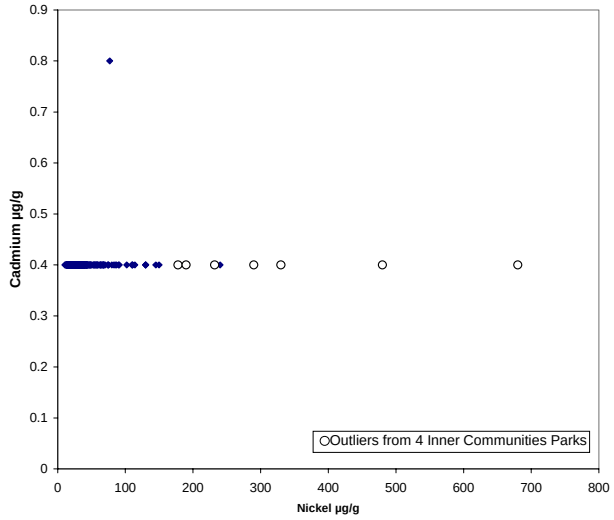


Fig. 10.4.7.5: Cd vs Ni, 0-5 cm, Play Sand

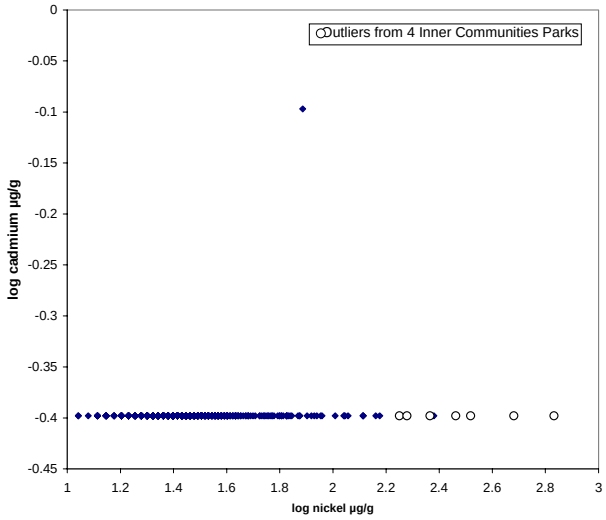


Fig. 10.4.7.5b: log Cd vs log Ni, 0-5 cm, Play Sand

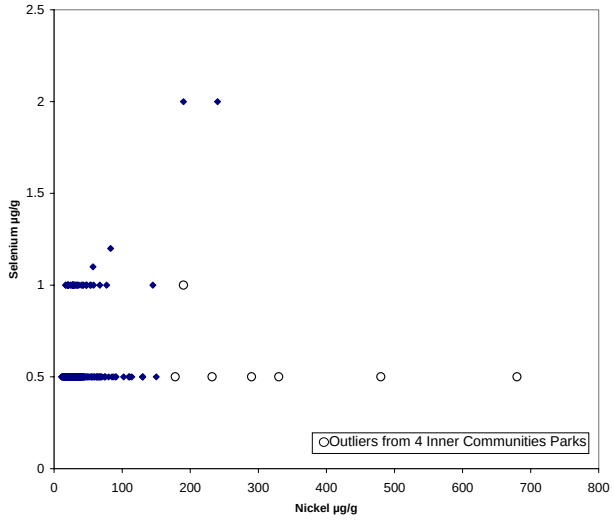


Fig. 10.4.7.6: Se vs Ni, 0-5 cm, Play Sand

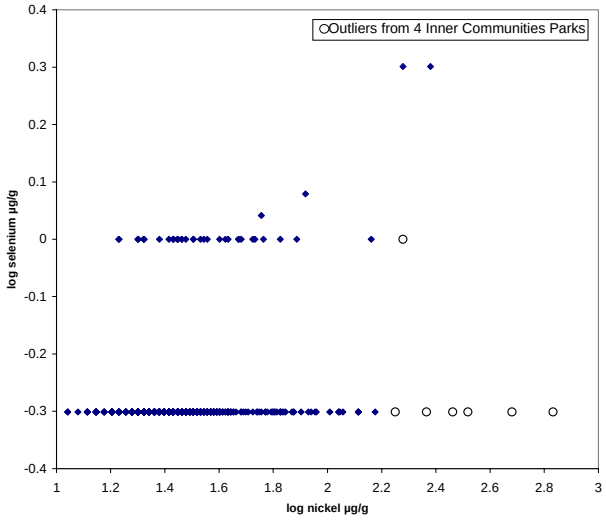


Fig. 10.4.7.6b: log Se vs log Ni, 0-5 cm, Play Sand

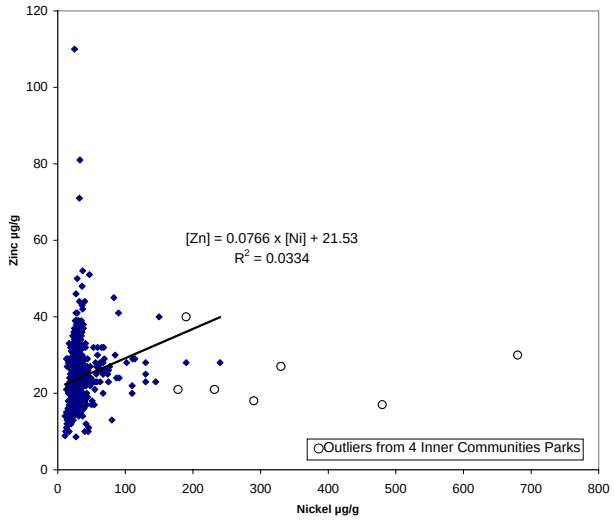


Fig. 10.4.7.7: Zn vs Ni, 0-5 cm, Play Sand

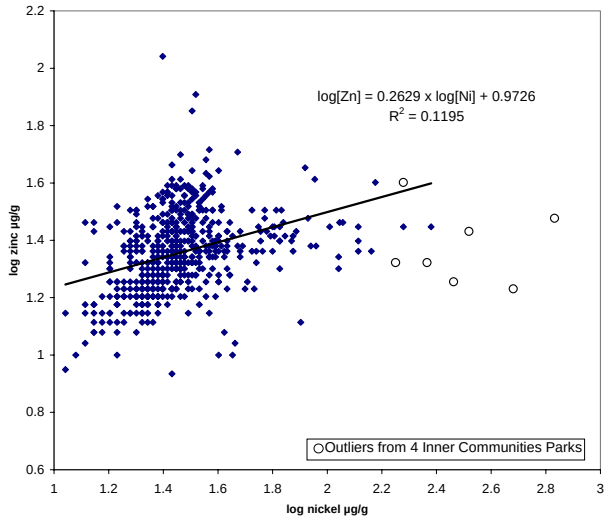


Fig. 10.4.7.7b: log Zn vs log Ni, 0-5 cm, Play Sand

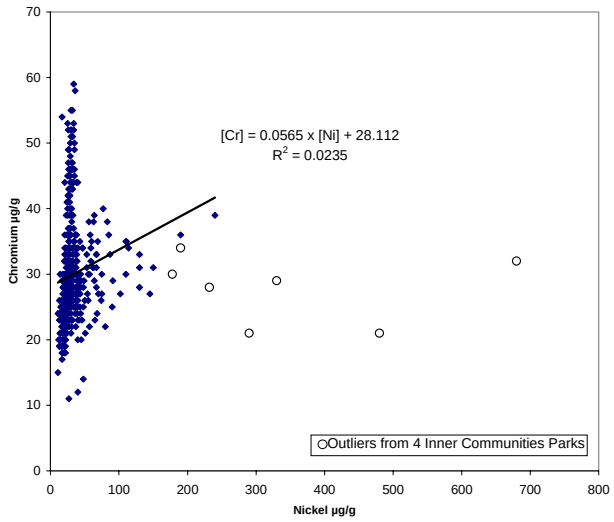


Fig. 10.4.7.8: Cr vs Ni, 0-5 cm, Play Sand

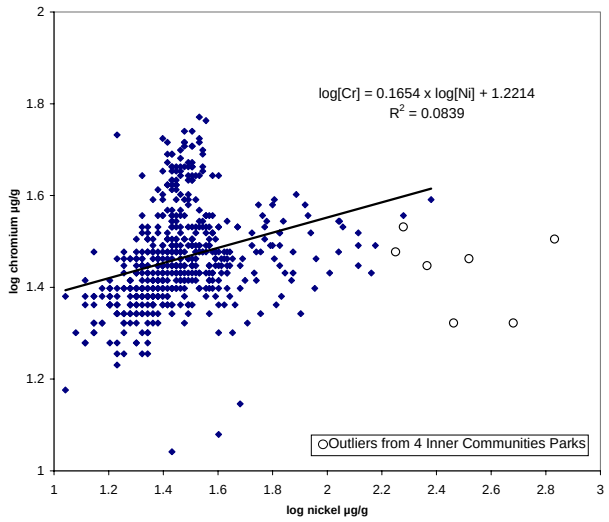


Fig. 10.4.7.8b: log Cr vs log Ni, 0-5 cm, Play Sand

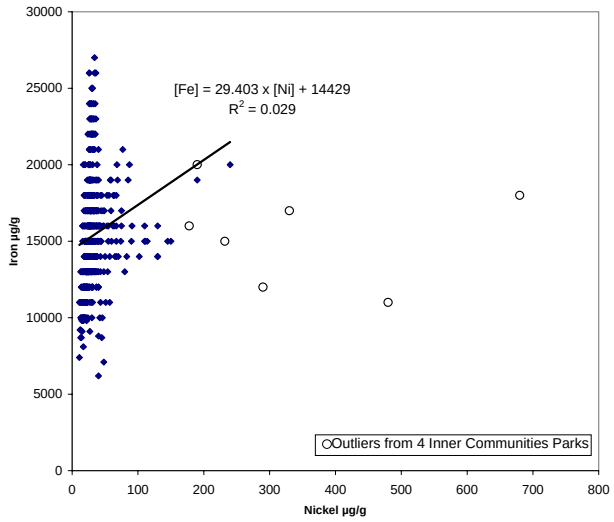


Fig. 10.4.7.9: Fe vs Ni, 0-5 cm, Play Sand

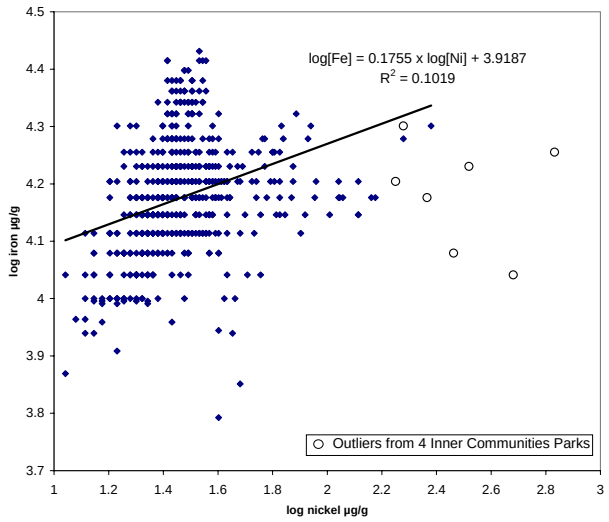


Fig. 10.4.7.9b: log Fe vs log Ni, 0-5 cm, Play Sand

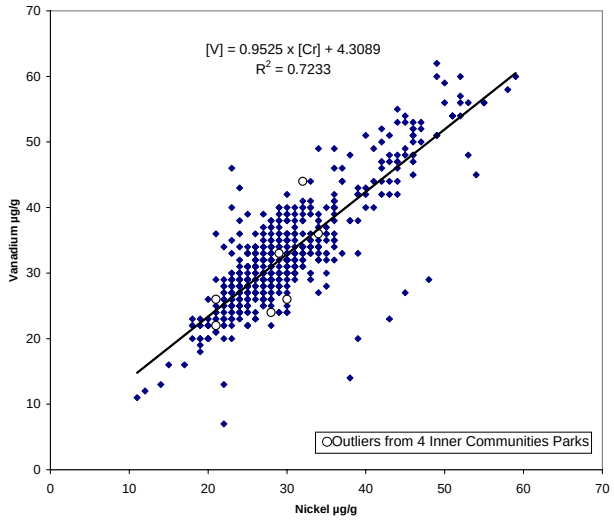


Fig. 10.4.7.10: V vs Cr, 0-5 cm, Play Sand

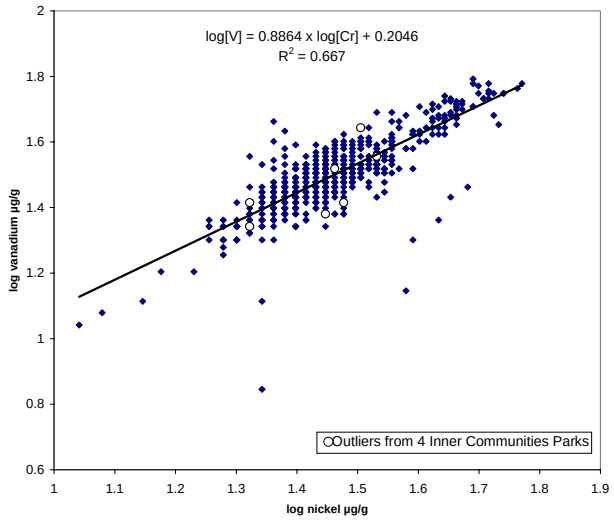


Fig. 10.4.7.10b: log V vs log Cr, 0-5 cm, Play Sand

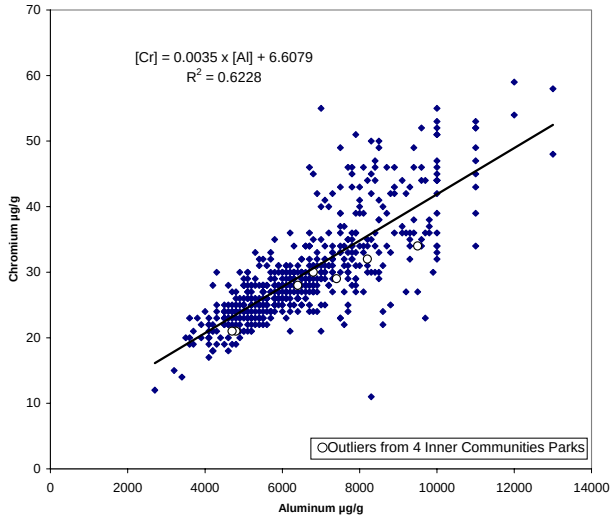


Fig. 10.4.7.11: Cr vs Al, 0-5 cm, Play Sand

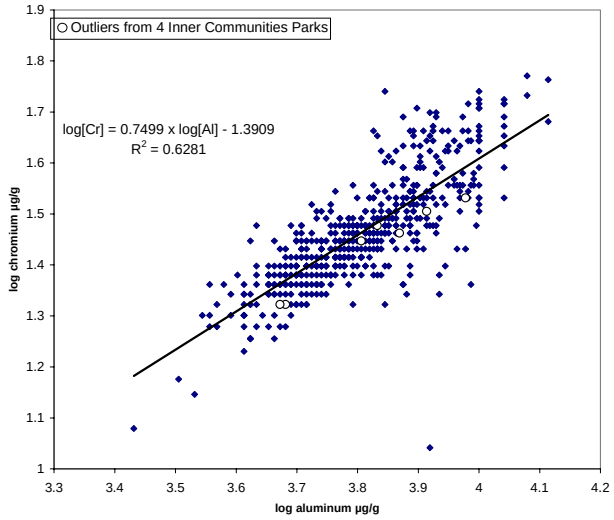


Fig. 10.4.7.11b: log Cr vs log Al, 0-5 cm, Play Sand

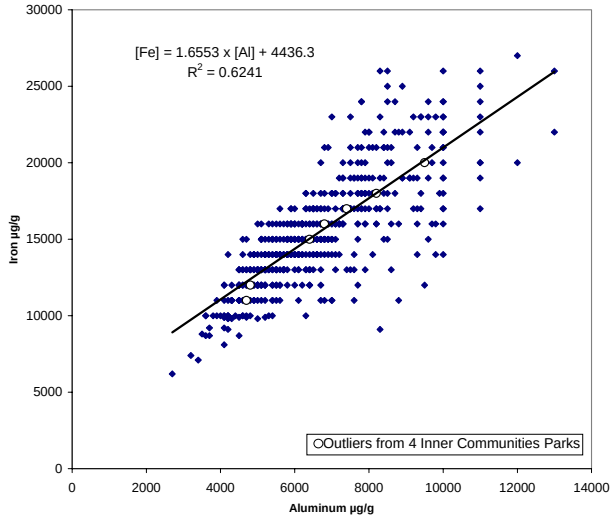


Fig. 10.4.7.12: Fe vs Al, 0-5 cm, Play Sand

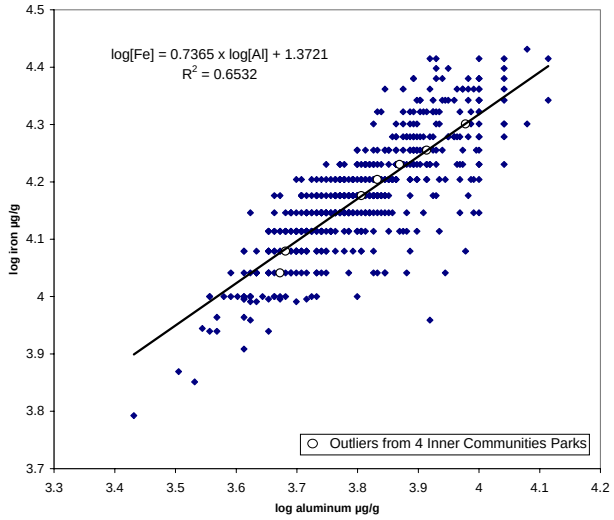


Fig. 10.4.7.12b: log Fe vs log Al, 0-5 cm, Play Sand

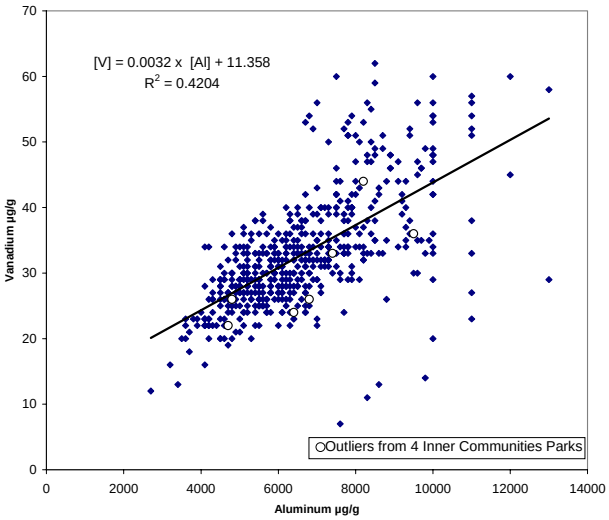


Fig. 10.4.7.13: V vs Al, 0-5 cm, Play Sand

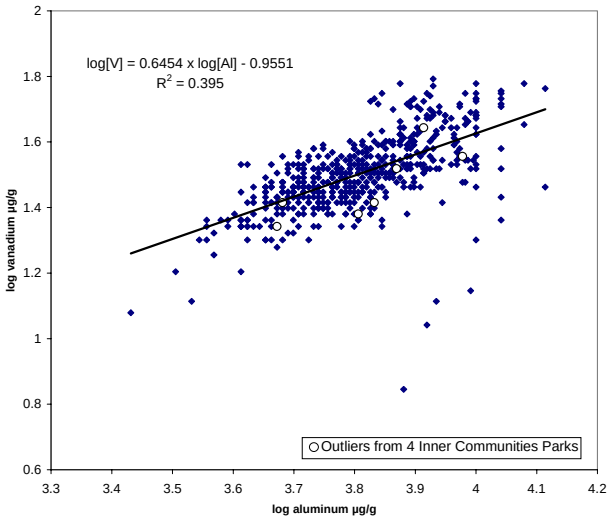


Fig. 10.4.7.13b: log V vs log Al, 0-5 cm, Play Sand

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

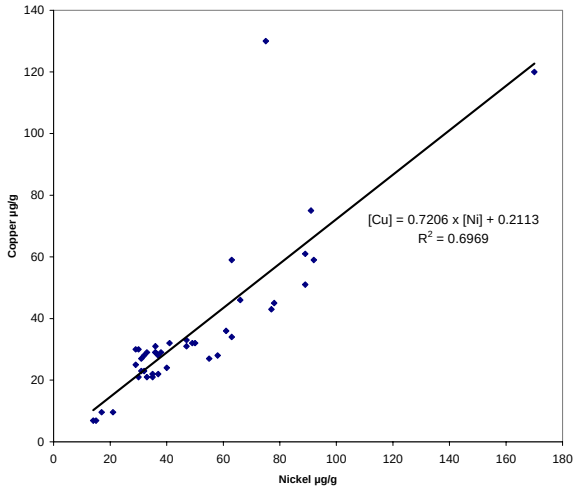


Fig. 10.4.8.1: Cu vs. Ni, 0-5 cm, Beach Sand

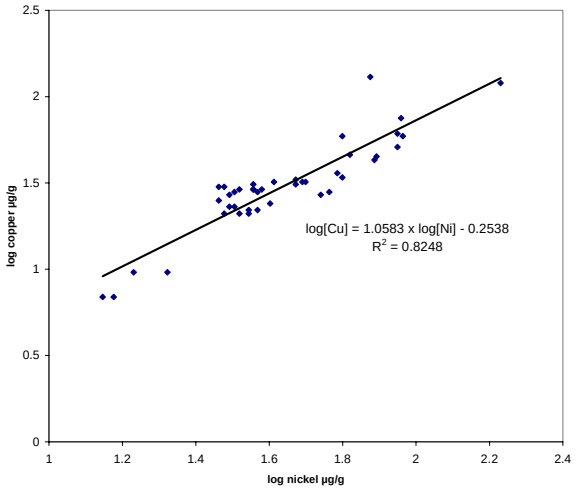


Fig. 10.4.8.1b: log Cu vs. log Ni, 0-5 cm, Beach Sand

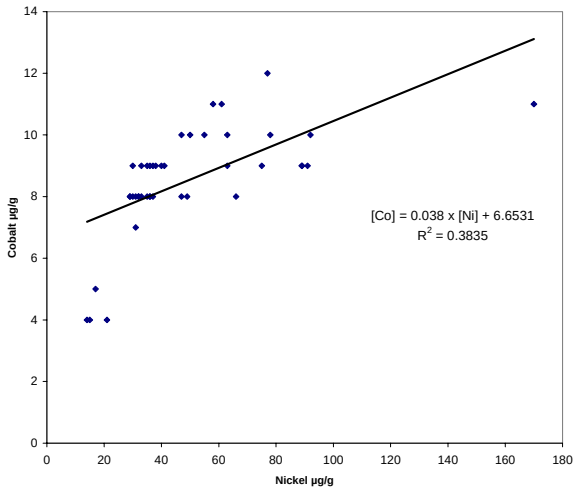


Fig. 10.4.8.2: Co vs. Ni, 0-5 cm, Beach Sand

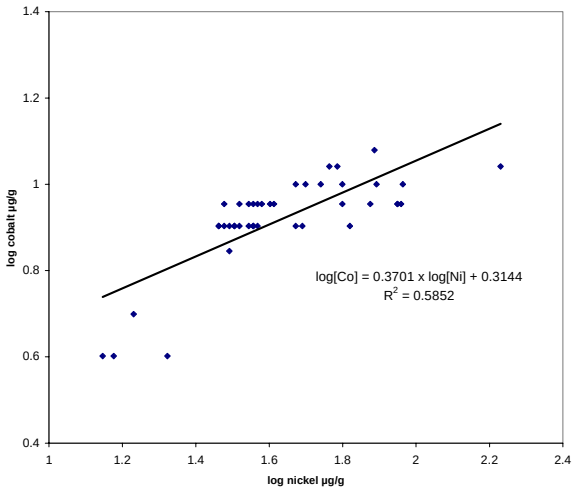


Fig. 10.4.8.2b: log Co vs. log Ni, 0-5 cm, Beach Sand

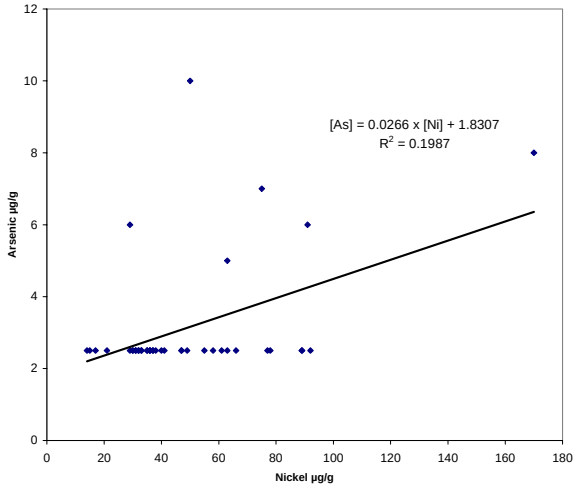


Fig. 10.4.8.3: As vs. Ni, 0-5 cm, Beach Sand

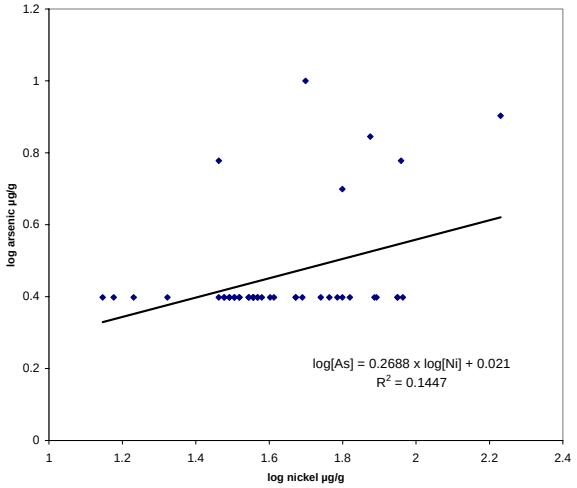


Fig. 10.4.8.3b: log As vs. log Ni, 0-5 cm, Beach Sand

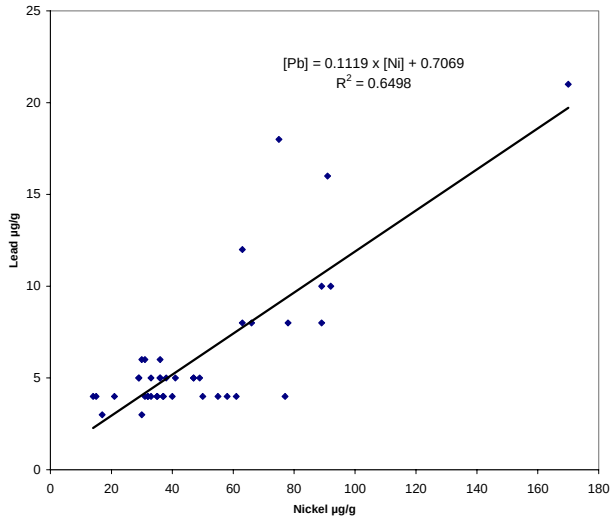


Fig. 10.4.8.4: Pb vs. Ni, 0-5 cm, Beach Sand

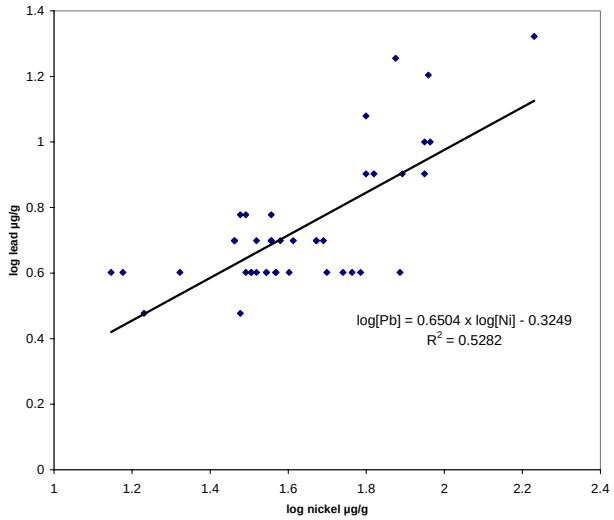


Fig. 10.4.8.4b: log Pb vs. log Ni, 0-5 cm, Beach Sand

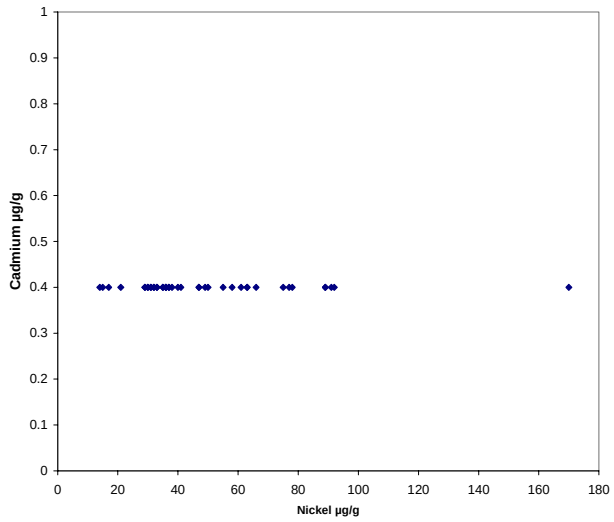


Fig. 10.4.8.5: Cd vs. Ni, 0-5 cm, Beach Sand

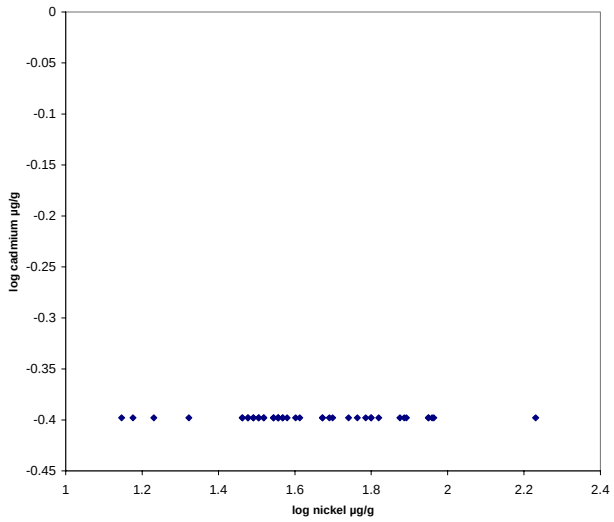


Fig. 10.4.8.5b: log Cd vs. log Ni, 0-5 cm, Beach Sand

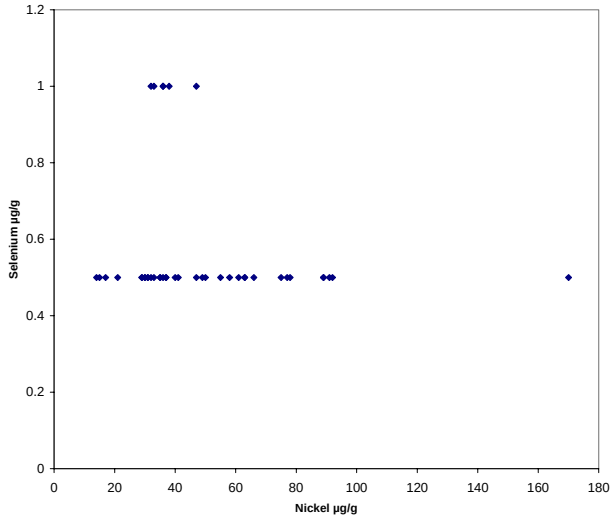


Fig. 10.4.8.6: Se vs. Ni, 0-5 cm, Beach Sand

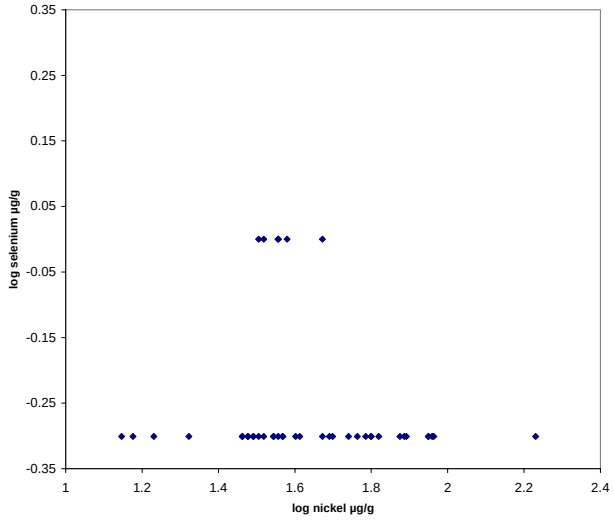


Fig. 10.4.8.6b: log Se vs. log Ni, 0-5 cm, Beach Sand

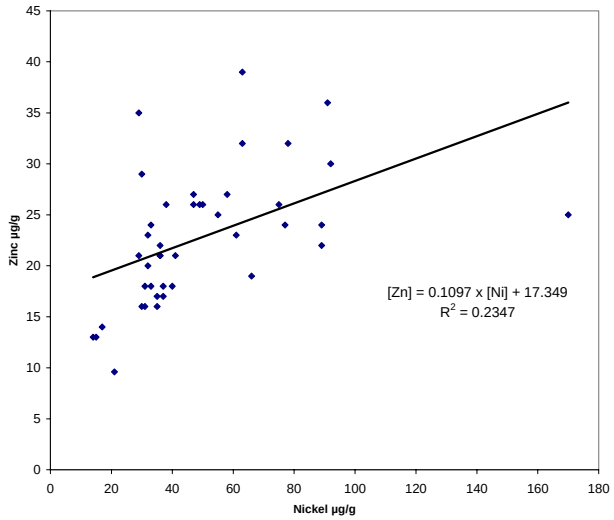


Fig. 10.4.8.7: Zn vs. Ni, 0-5 cm, Beach Sand

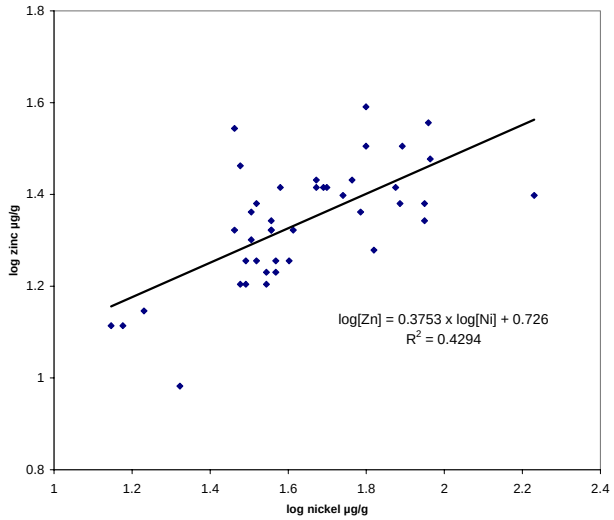


Fig. 10.4.8.7b: log Zn vs. log Ni, 0-5 cm, Beach Sand

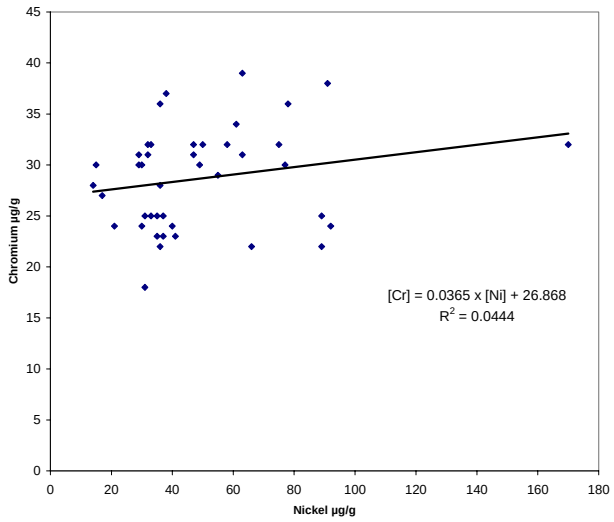


Fig. 10.4.8.8: Cr vs. Ni, 0-5 cm, Beach Sand

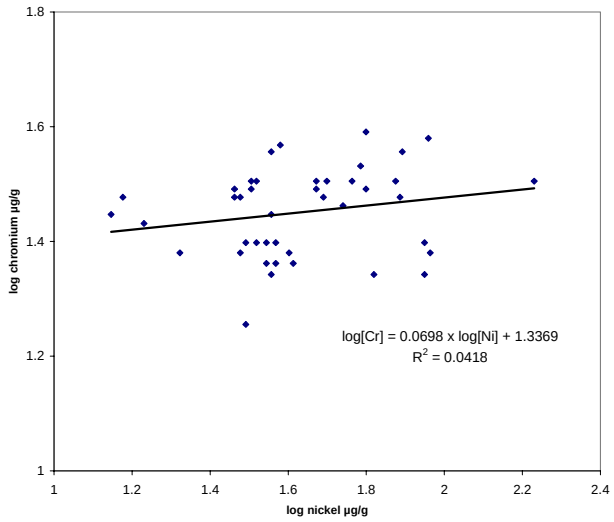


Fig. 10.4.8.8b: log Cr vs. log Ni, 0-5 cm, Beach Sand

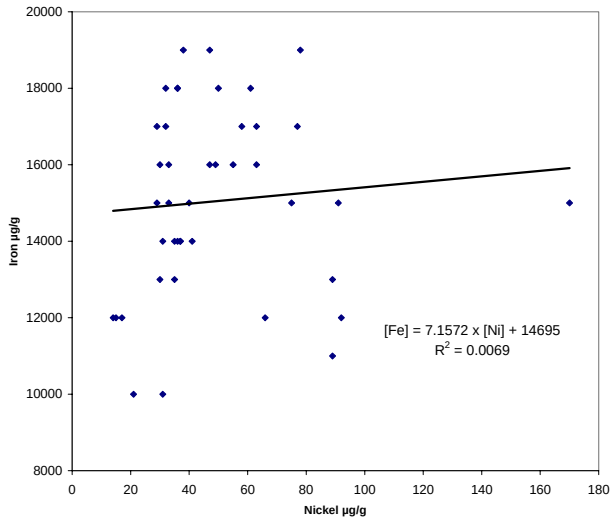


Fig. 10.4.8.9: Fe vs. Ni, 0-5 cm, Beach Sand

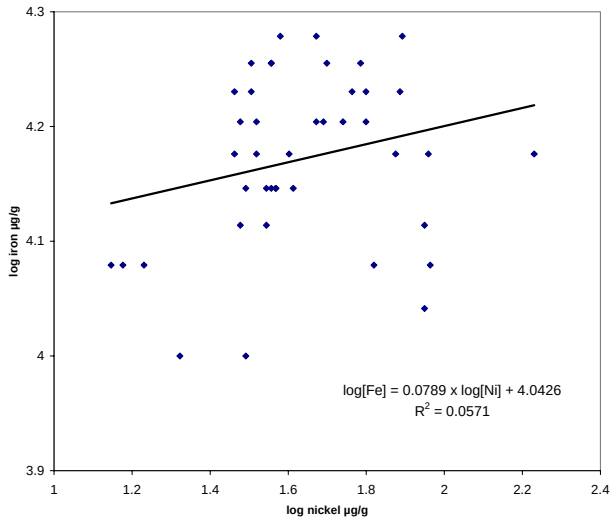


Fig. 10.4.8.9b: log Fe vs. log Ni, 0-5 cm, Beach Sand

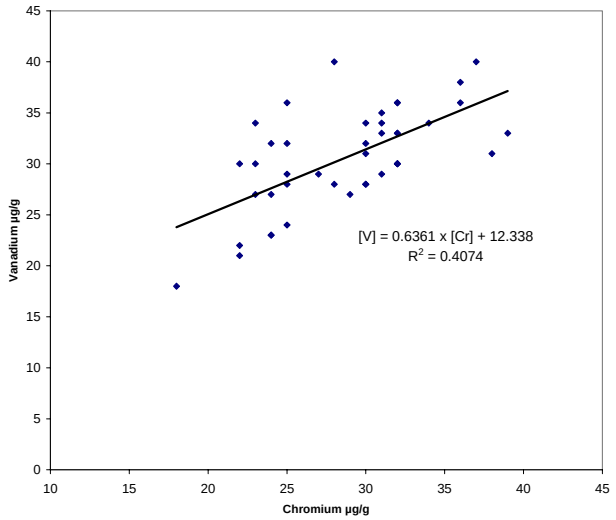


Fig. 10.4.8.10: V vs. Cr, 0-5 cm, Beach Sand

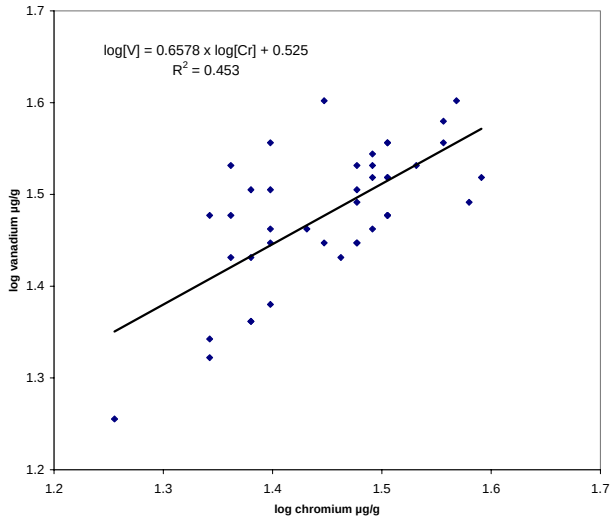


Fig. 10.4.8.10b: log V vs. log Cr, 0-5 cm, Beach Sand

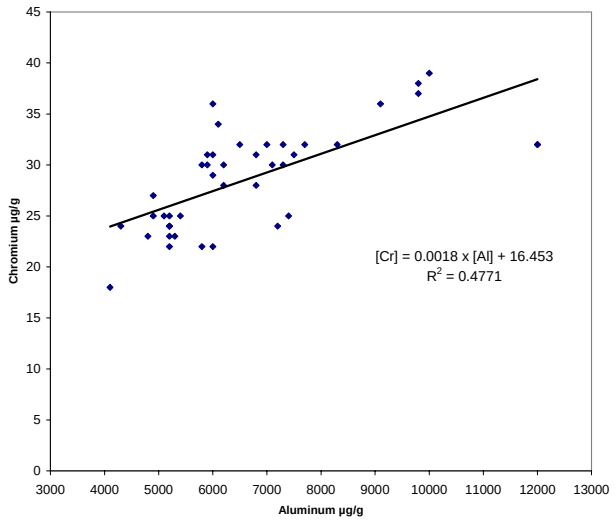


Fig. 10.4.8.11: Cr vs. Al, 0-5 cm, Beach Sand

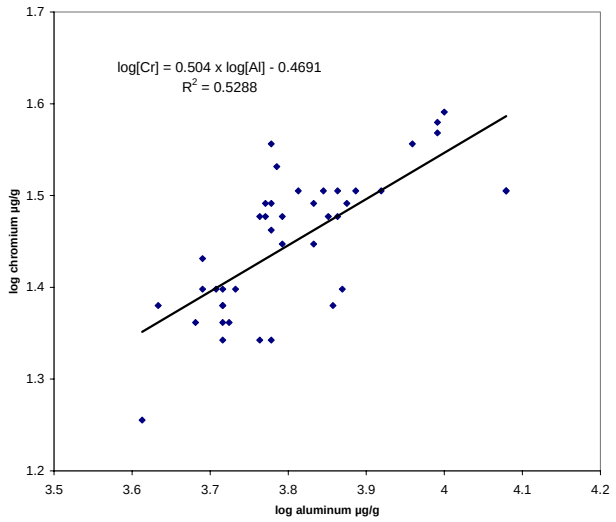


Fig. 10.4.8.11b: log Cr vs. log Al, 0-5 cm, Beach Sand

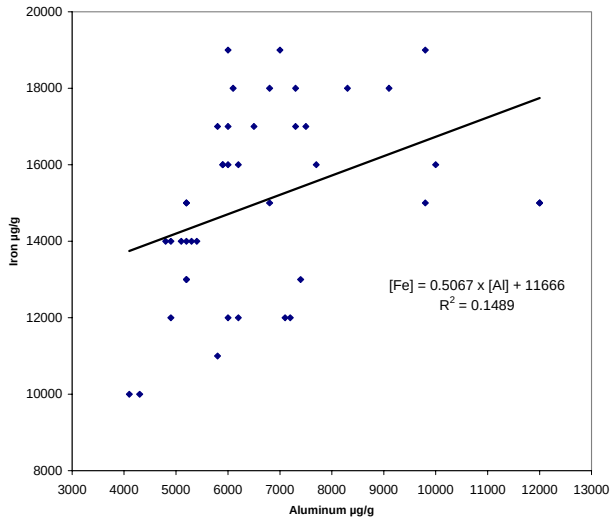


Fig. 10.4.8.12: Fe vs. Al, 0-5 cm, Beach Sand

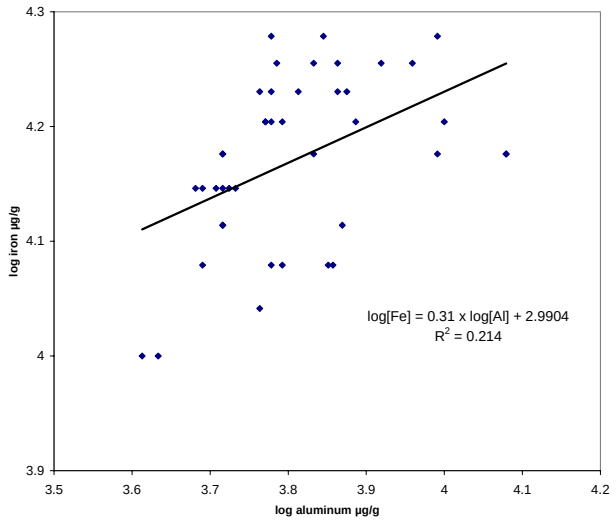


Fig. 10.4.8.12b: log Fe vs. log Al, 0-5 cm, Beach Sand

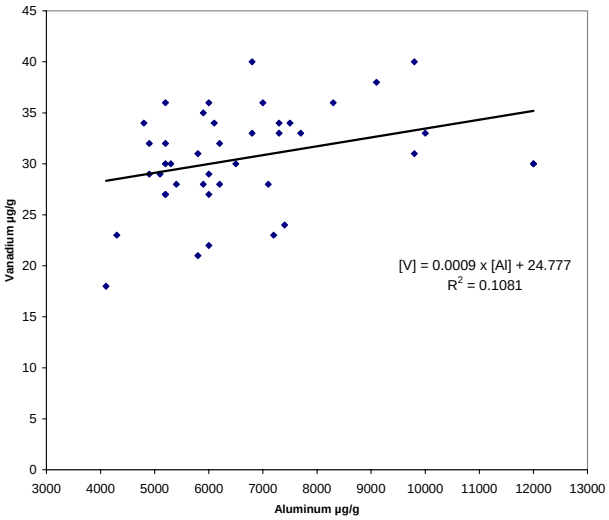


Fig. 10.4.8.13: V vs. Al, 0-5 cm, Beach Sand

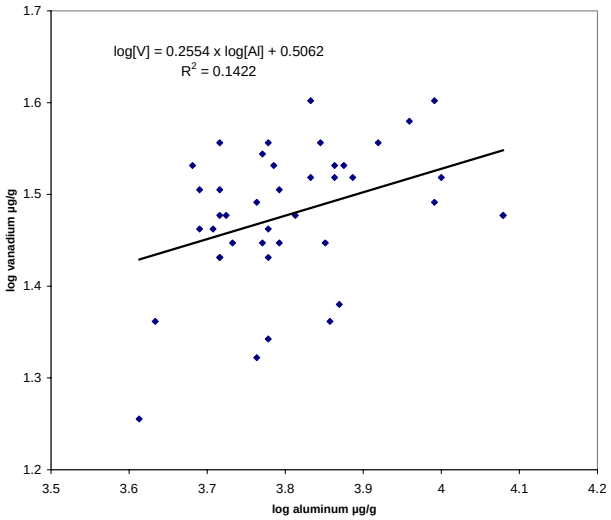


Fig. 10.4.8.13b: log V vs. log Al, 0-5 cm, Beach Sand

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

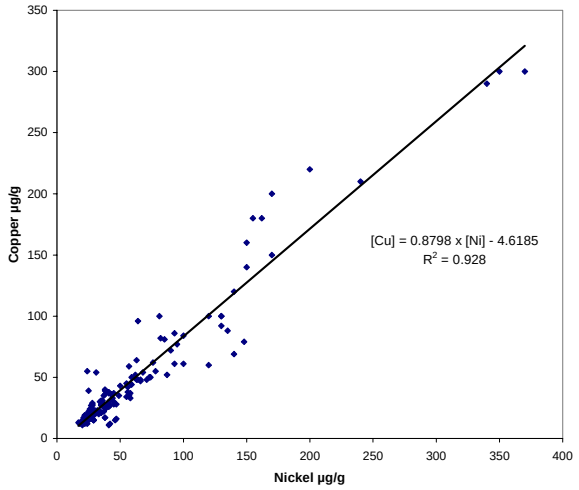


Fig. 10.4.9.1: Cu vs. Ni, 0-5 cm, Crushed Stone

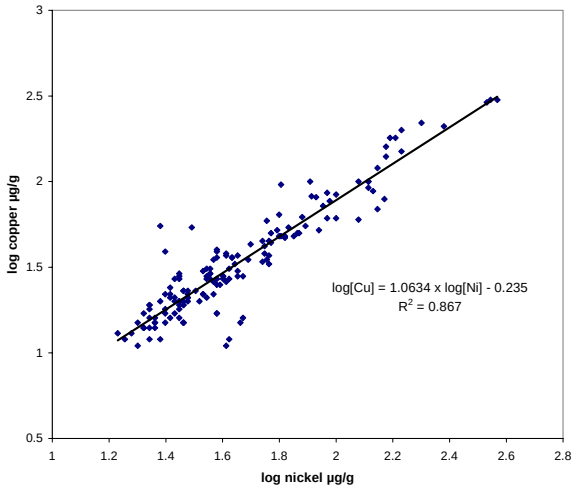


Fig. 10.4.9.1b: log Cu vs log Ni, 0-5 cm, Crushed Stone

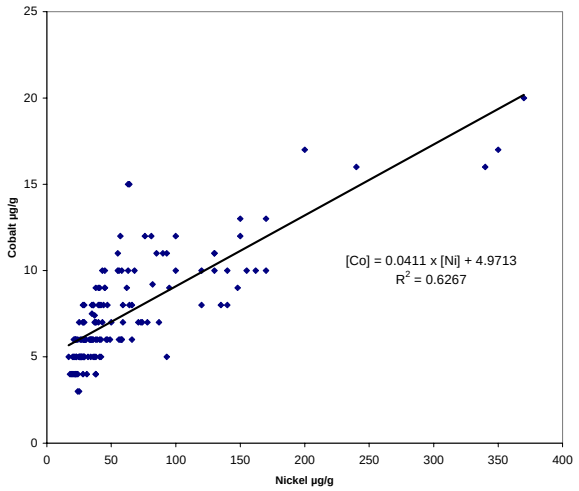


Fig. 10.4.9.2: Co vs. Ni, 0-5 cm, Crushed Stone

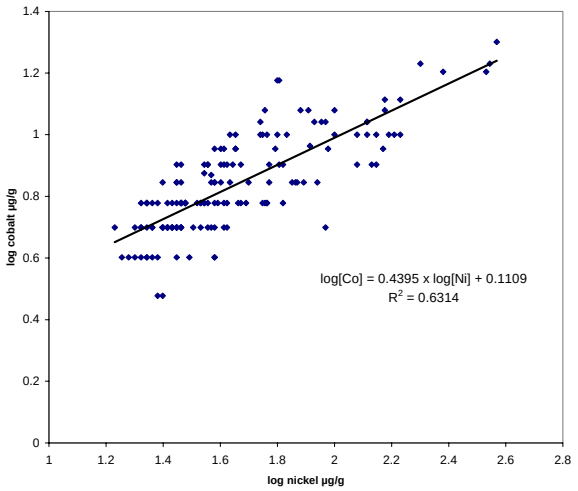


Fig. 10.4.9.2b: log Co vs log Ni, 0-5 cm, Crushed Stone

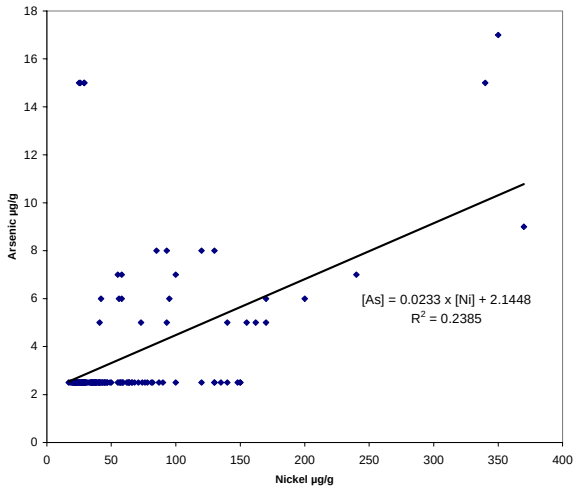


Fig. 10.4.9.3: As vs. Ni, 0-5 cm, Crushed Stone

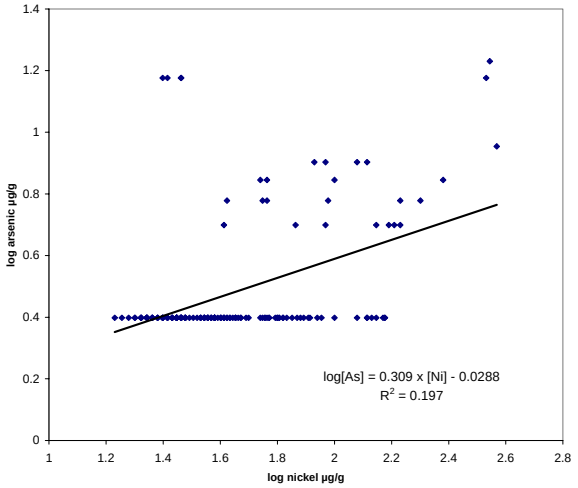


Fig. 10.4.9.3b: log As vs log Ni, 0-5 cm, Crushed Stone

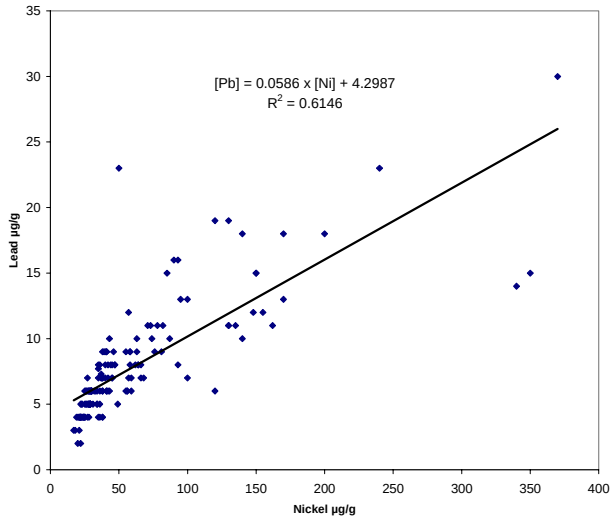


Fig. 10.4.9.4: Pb vs. Ni, 0-5 cm, Crushed Stone

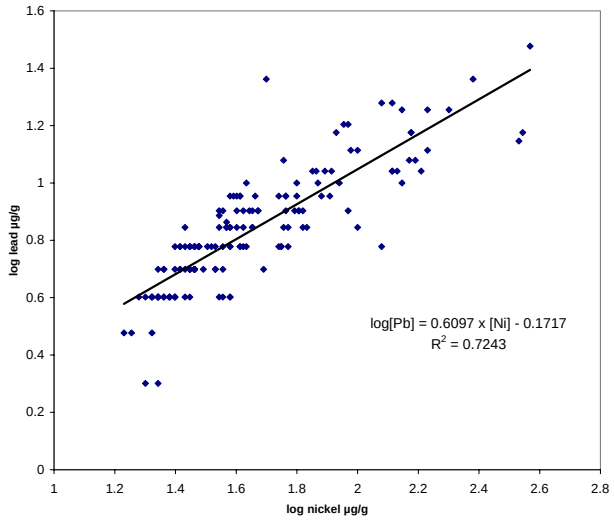


Fig. 10.4.9.4b: log Pb vs. log Ni, 0-5 cm, Crushed Stone

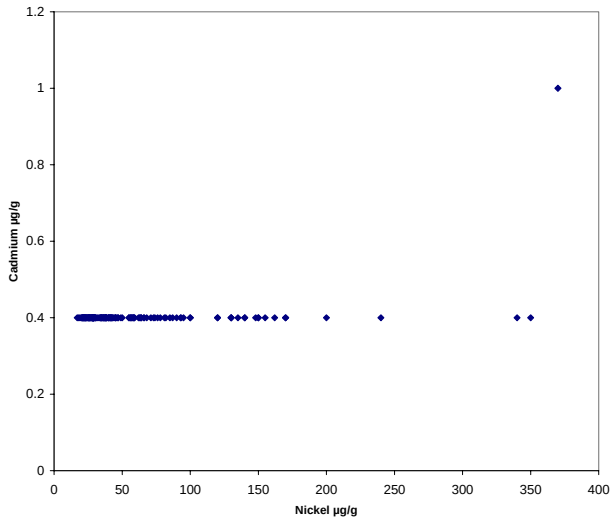


Fig. 10.4.9.5: Cd vs. Ni, 0-5 cm, Crushed Stone

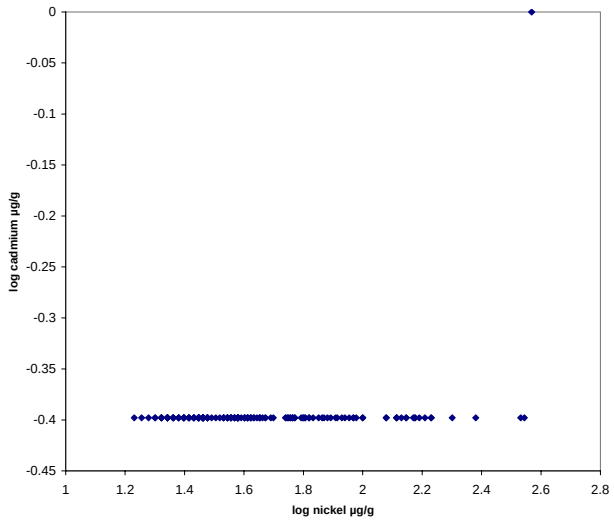


Fig. 10.4.9.5b: log Cd vs. log Ni, 0-5 cm, Crushed Stone

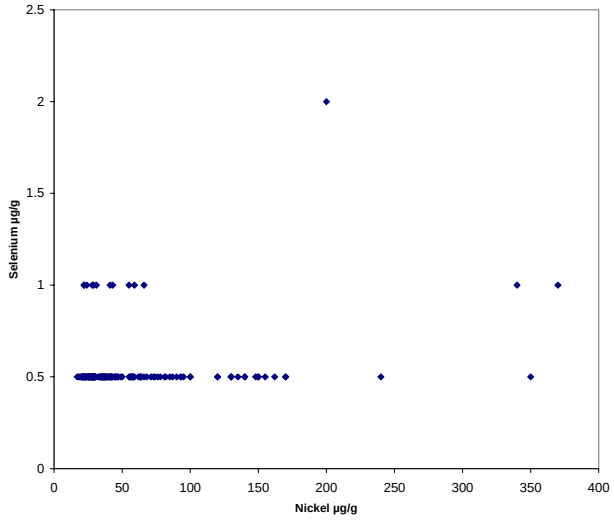


Fig. 10.4.9.6: Se vs. Ni, 0-5 cm, Crushed Stone

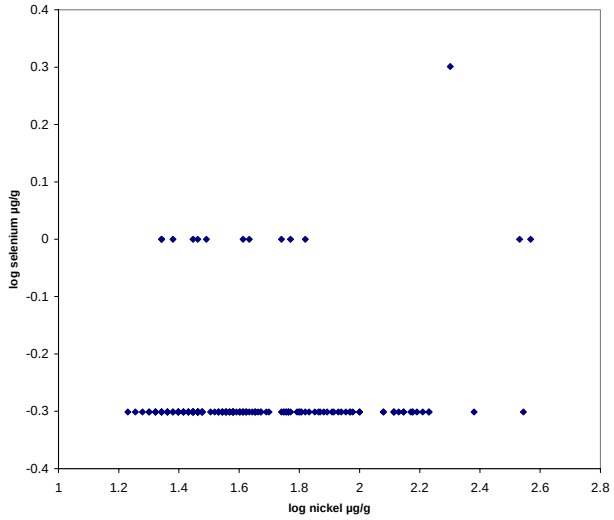


Fig. 10.4.9.6b: log Se vs. log Ni, 0-5 cm, Crushed Stone

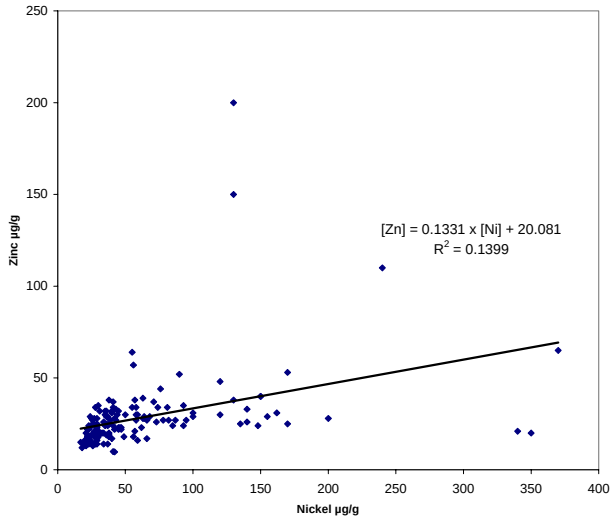


Fig. 10.4.9.7: Zn vs. Ni, 0-5 cm, Crushed Stone

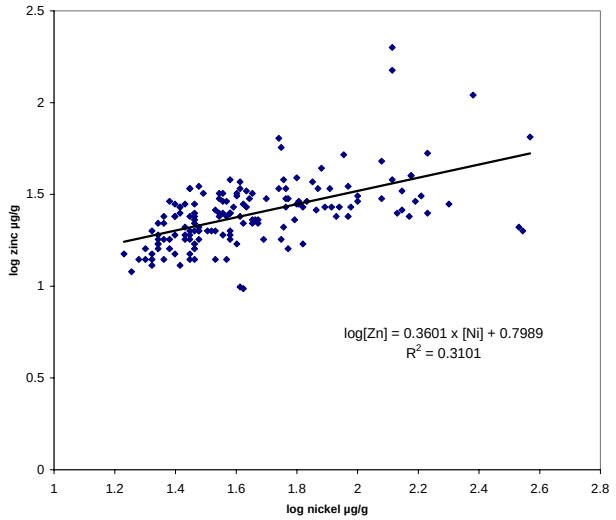


Fig. 10.4.9.7b: log Zn vs. log Ni, 0-5 cm, Crushed Stone

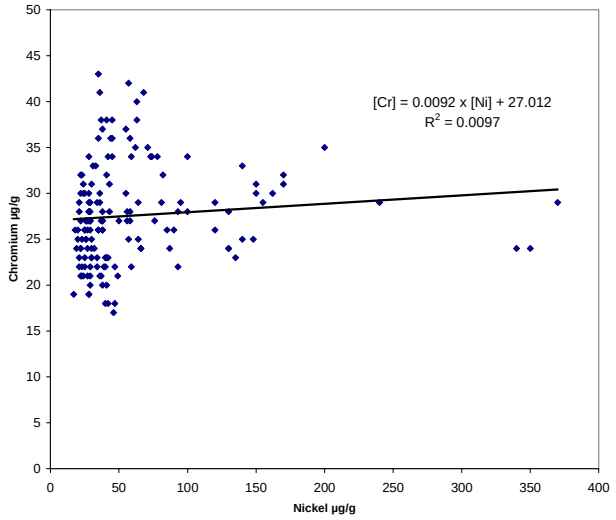


Fig. 10.4.9.8: Cr vs. Ni, 0-5 cm, Crushed Stone

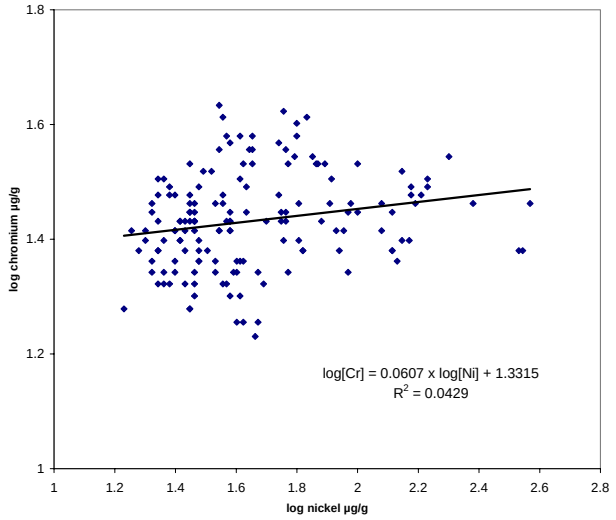


Fig. 10.4.9.8b: log Cr vs. log Ni, 0-5 cm, Crushed Stone

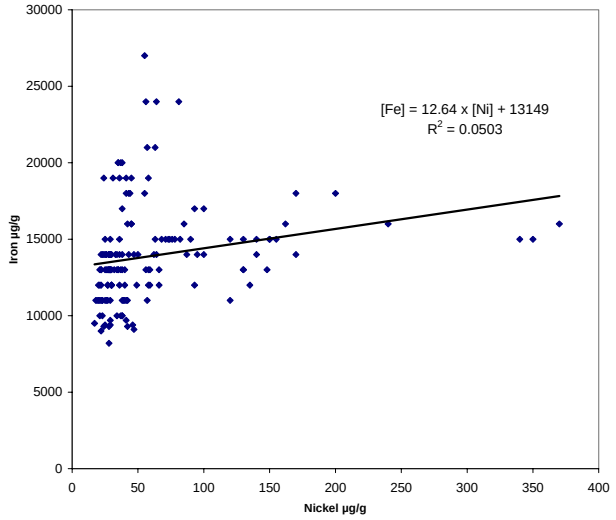


Fig. 10.4.9.9: Fe vs. Ni, 0-5 cm, Crushed Stone

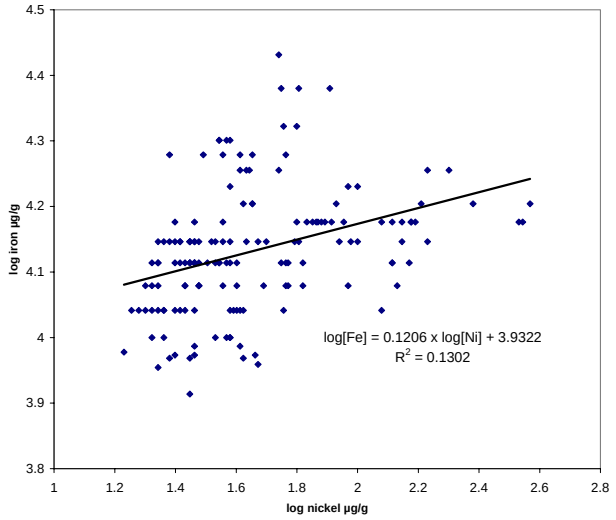


Fig. 10.4.9.9b: log Fe vs. og Ni, 0-5 cm, Crushed Stone

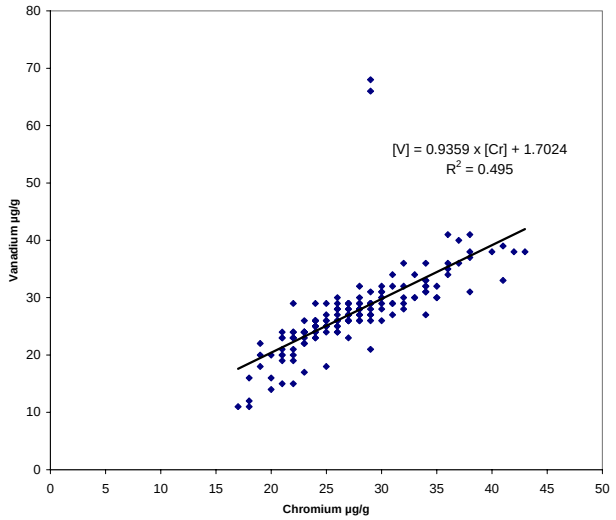


Fig. 10.4.9.10: V vs. Cr, 0-5 cm, Crushed Stone

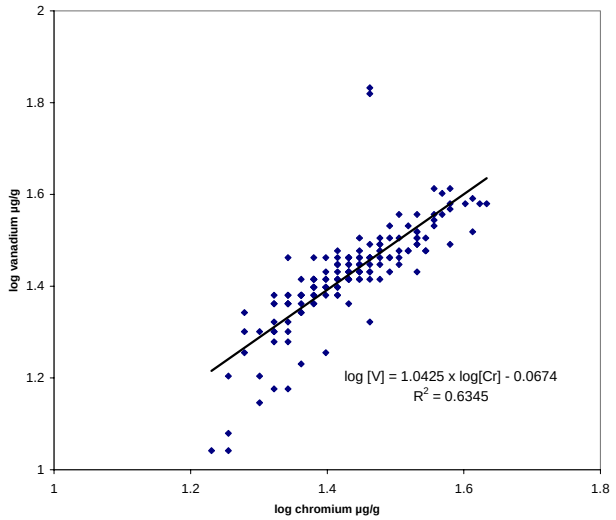


Fig. 10.4.9.10b: log V vs. log Cr, 0-5 cm, Crushed Stone

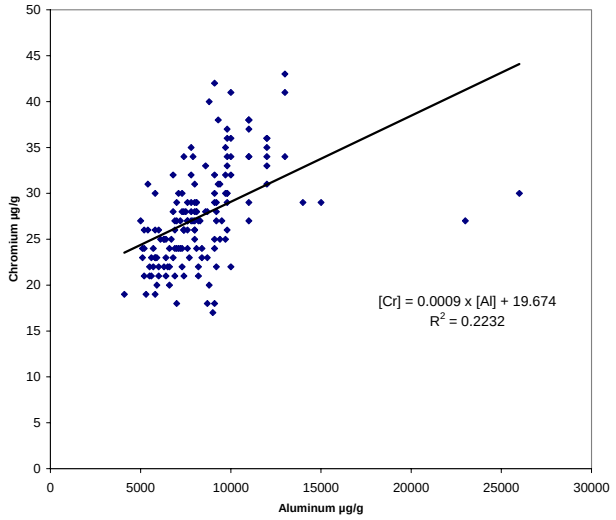


Fig. 10.4.9.11: Cr vs. Al, 0-5 cm, Crushed Stone

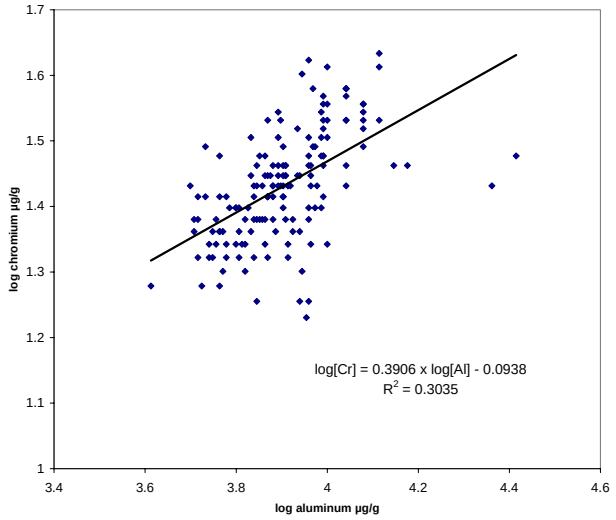


Fig. 10.4.9.11b: log Cr vs. log Al, 0-5 cm, Crushed Stone

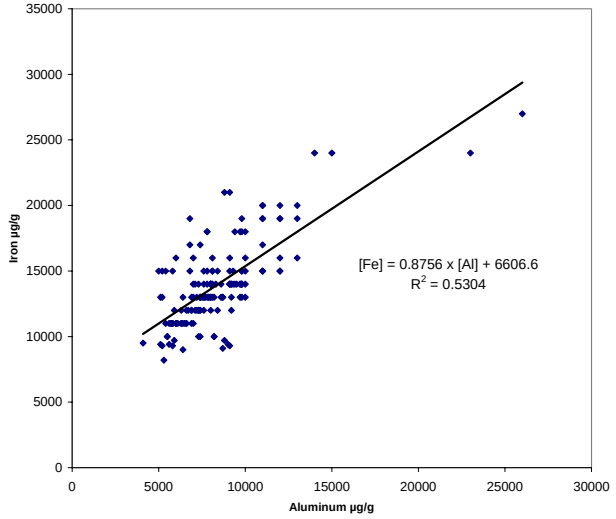


Fig. 10.4.9.12: Fe vs. Al, 0-5 cm, Crushed Stone

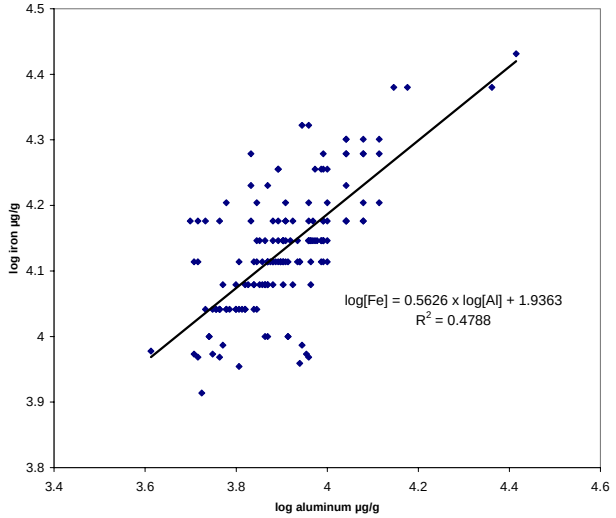


Fig. 10.4.9.12b: log Fe vs. log Al, 0-5 cm, Crushed Stone

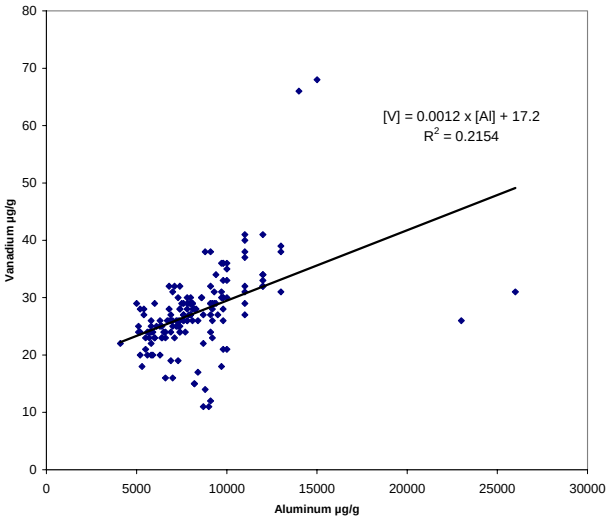


Fig. 10.4.9.13: V vs. Al, 0-5 cm, Crushed Stone

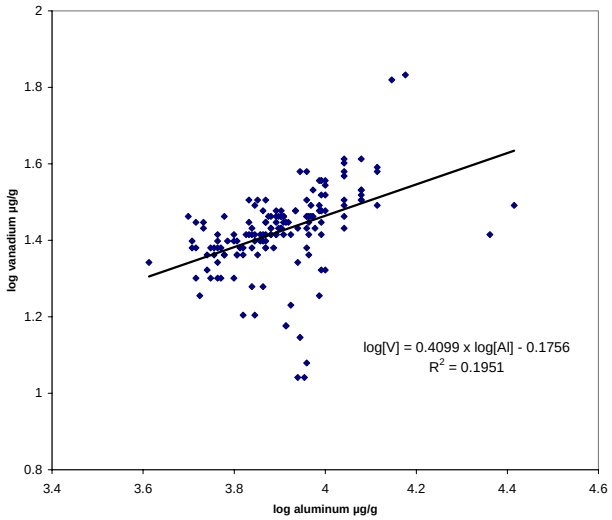


Fig. 10.4.9.13b: log V vs. log Al, 0-5 cm, Crushed Stone

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

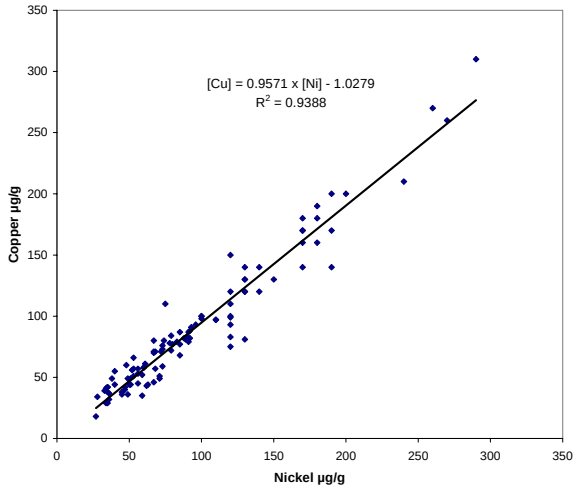


Fig. 10.4.10.1: Cu vs. Ni, 0-5 cm, Playground Gravel

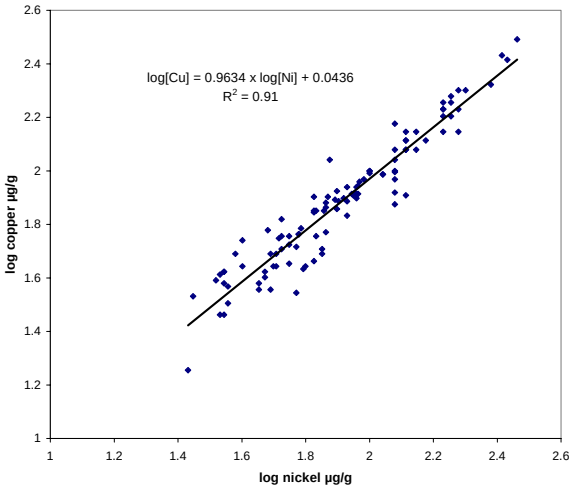


Fig. 10.4.10.1b: log Cu vs log Ni, 0-5 cm, Playground Gravel

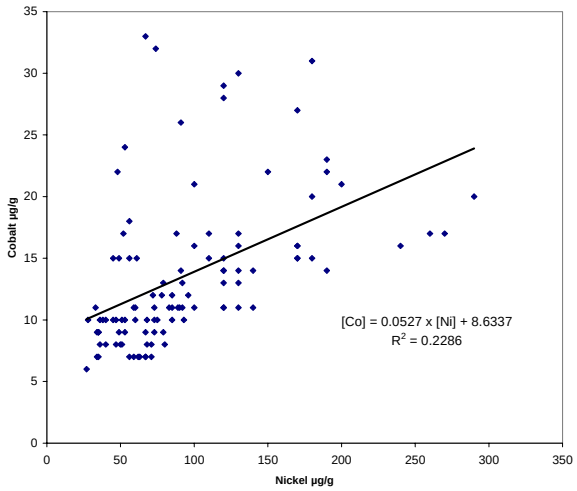


Fig. 10.4.10.2: Co vs. Ni, 0-5 cm, Playground Gravel

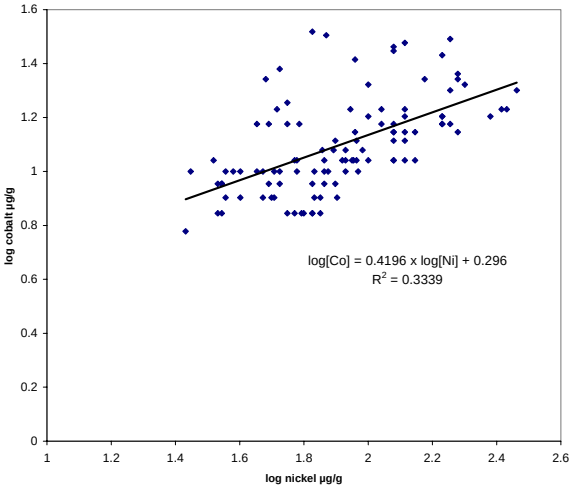


Fig. 10.4.10.2b: log Co vs. log Ni, 0-5 cm, Playground Gravel

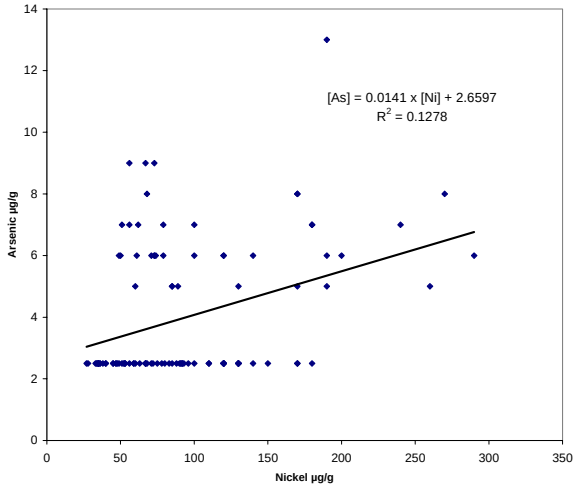


Fig. 10.4.10.3: As vs. Ni, 0-5 cm, Playground Gravel

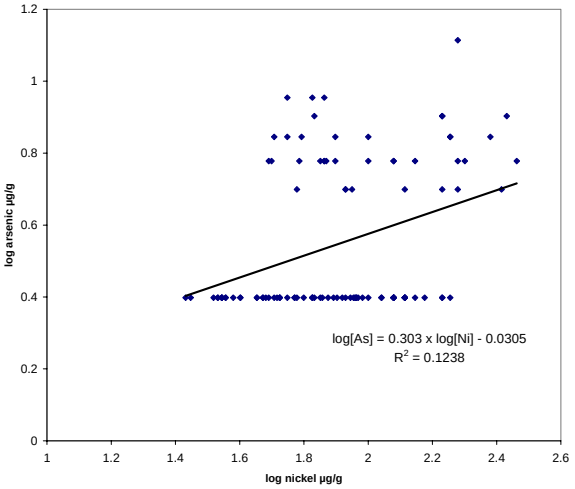


Fig. 10.4.10.3b: log As vs. log Ni, 0-5 cm, Playground Gravel

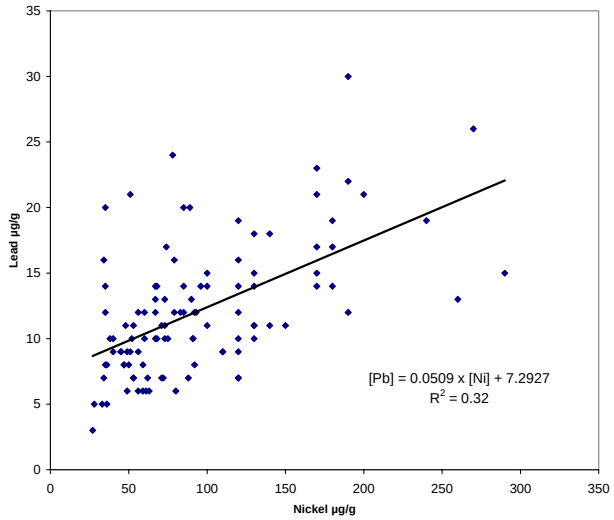


Fig. 10.4.10.4: Pb vs. Ni, 0-5 cm, Playground Gravel

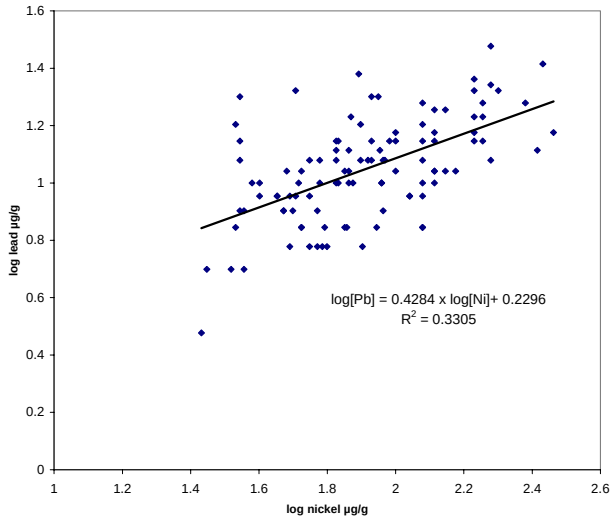


Fig. 10.4.10.4b: log Pb vs. log Ni, 0-5 cm, Playground Gravel

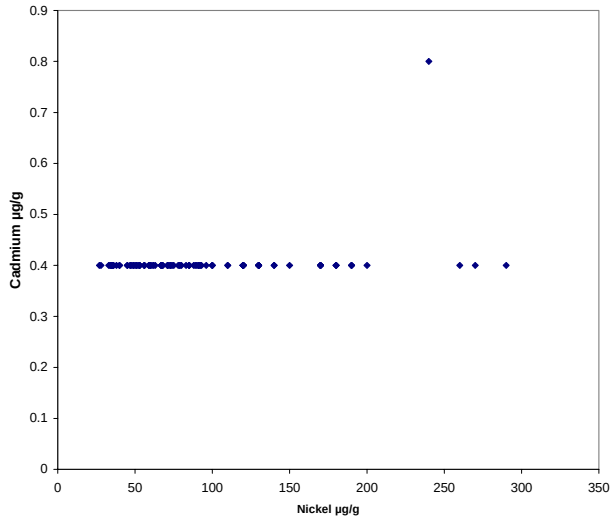


Fig. 10.4.10.5: Cd vs. Ni, 0-5 cm, Playground Gravel

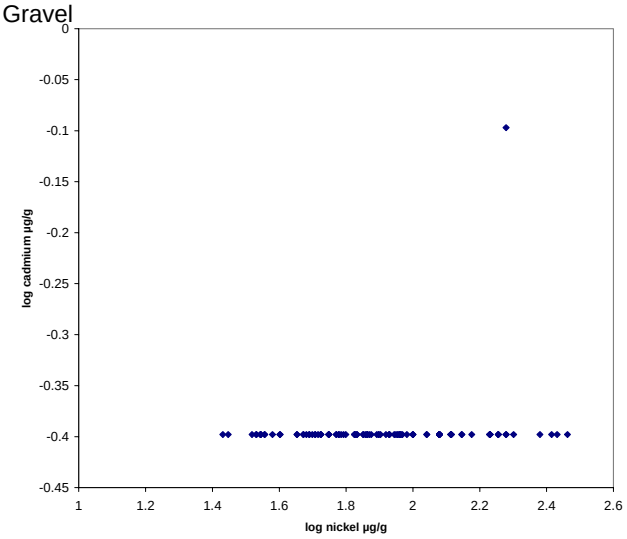


Fig. 10.4.10.5b: log Cd vs. log Ni, 0-5 cm, Playground Gravel

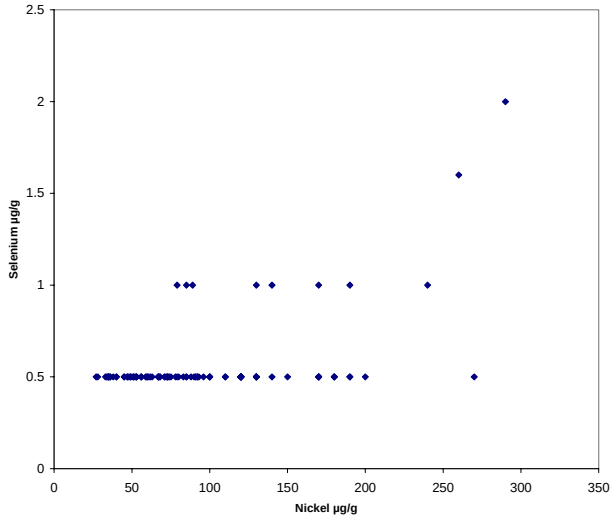


Fig. 10.4.10.6: Se vs. Ni, 0-5 cm, Playground Gravel

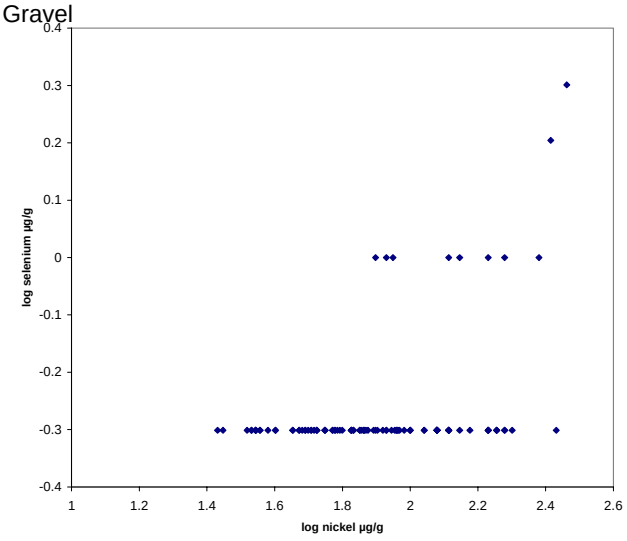


Fig. 10.4.10.6b: log Se vs. log Ni, 0-5 cm, Playground Gravel

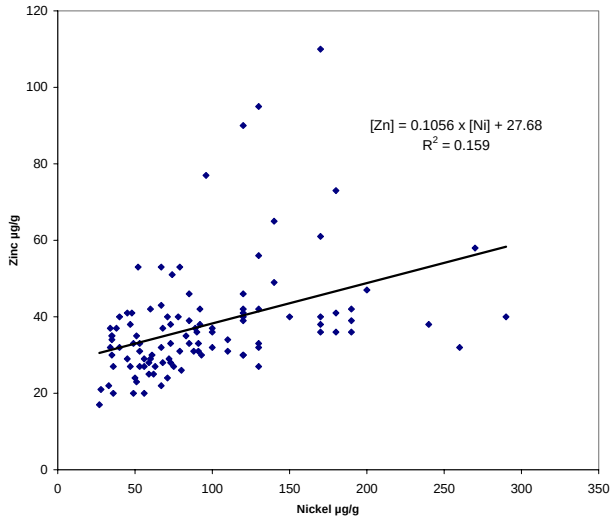


Fig. 10.4.10.7: Zn vs. Ni, 0-5 cm, Playground Gravel

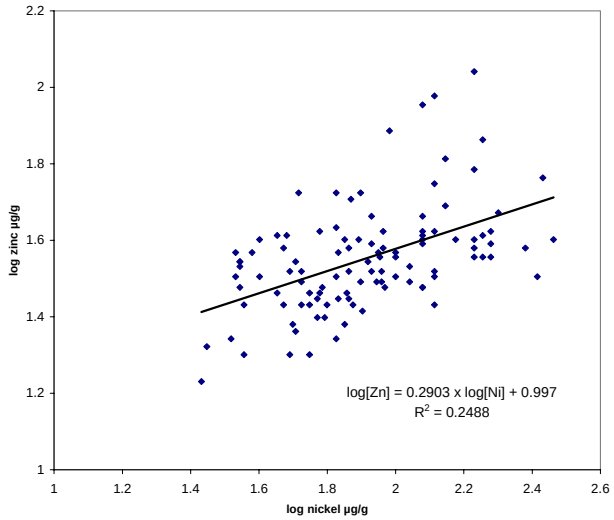


Fig. 10.4.10.7b: log Zn vs. log Ni, 0-5 cm, Playground Gravel

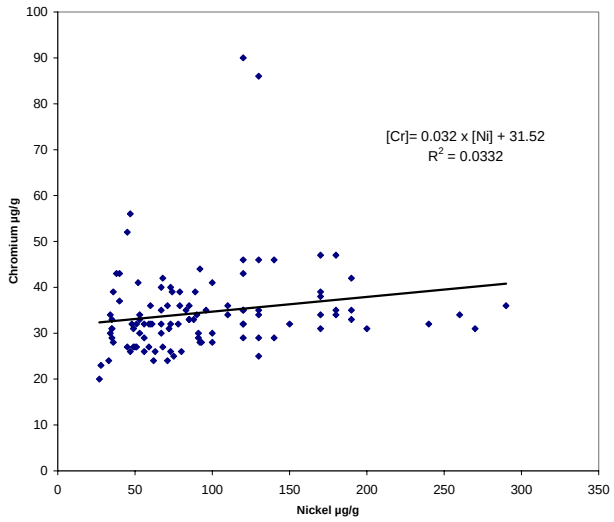


Fig. 10.4.10.8: Cr vs. Ni, 0-5 cm, Playground Gravel

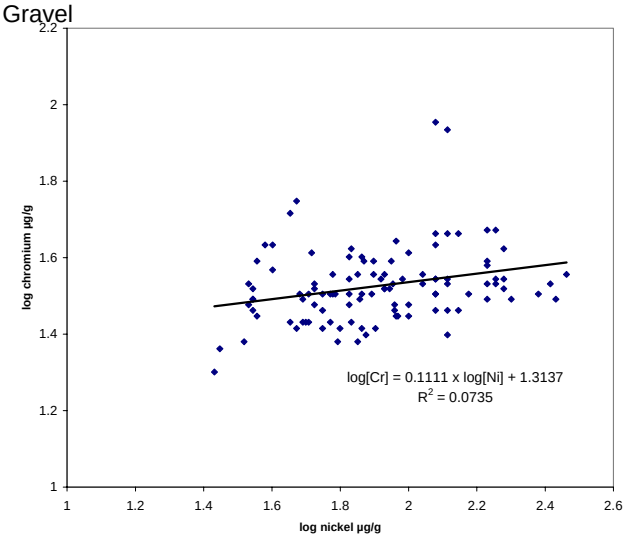


Fig. 10.4.10.8b: log Cr vs. log Ni, 0-5 cm, Playground Gravel

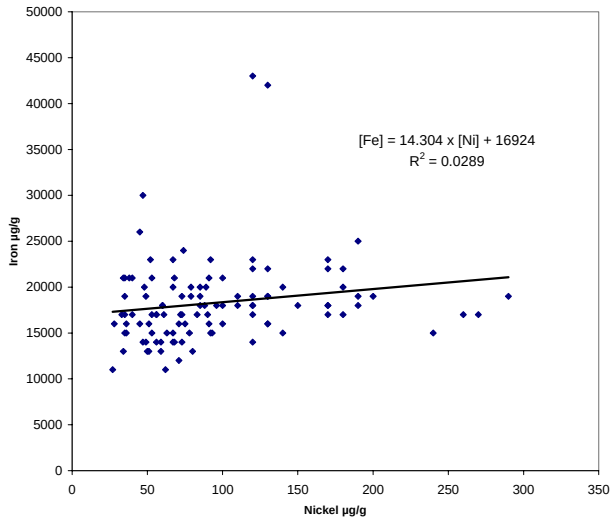


Fig. 10.4.10.9: Fe vs. Ni, 0-5 cm, Playground Gravel

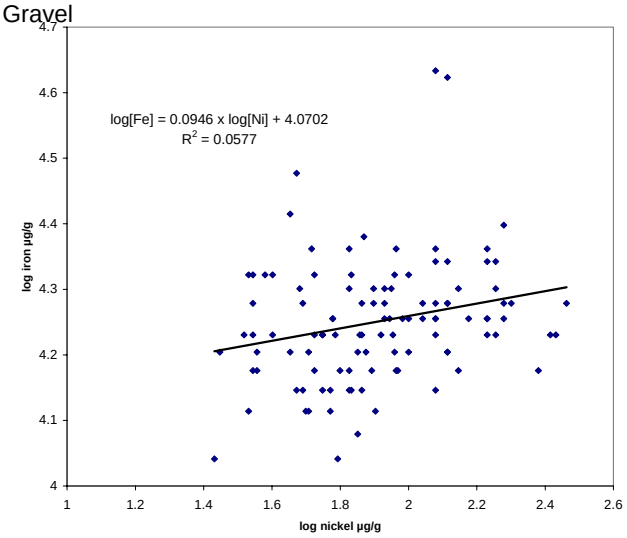


Fig. 10.4.10.9b: log Fe vs. log Ni, 0-5 cm, Playground Gravel

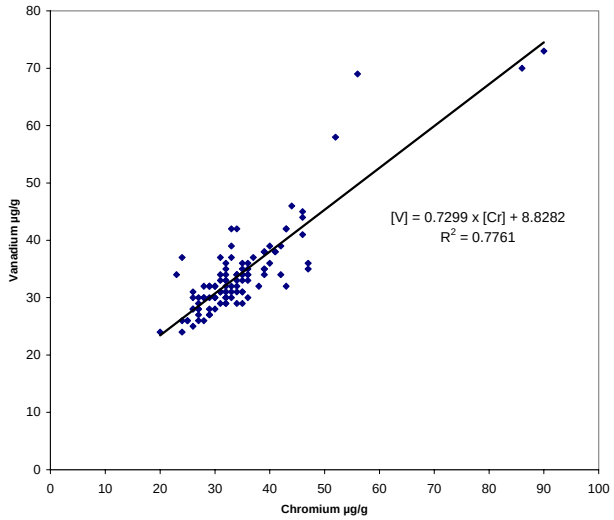


Fig. 10.4.10.10: V vs. Cr, 0-5 cm, Playground Gravel

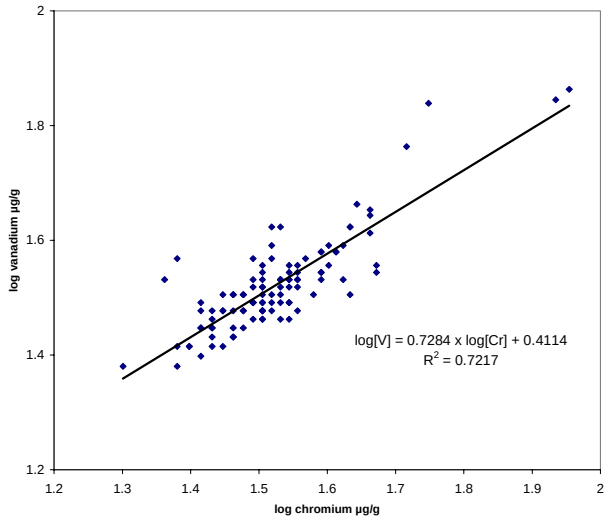


Fig. 10.4.10.10b: log V vs. log Cr, 0-5 cm, Playground Gravel

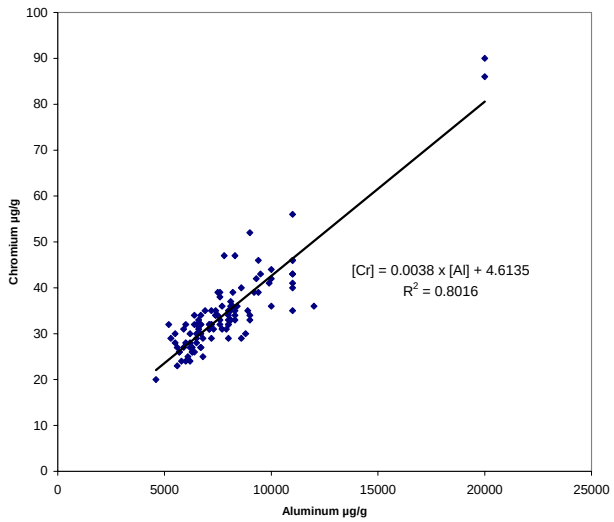


Fig. 10.4.10.11: Cr vs. Al, 0-5 cm, Playground Gravel

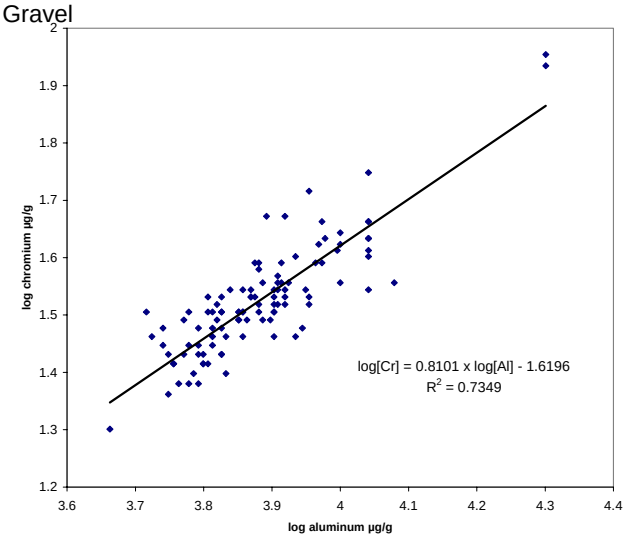


Fig. 10.4.10.11b: log Cr vs. log Al, 0-5 cm, Playground Gravel

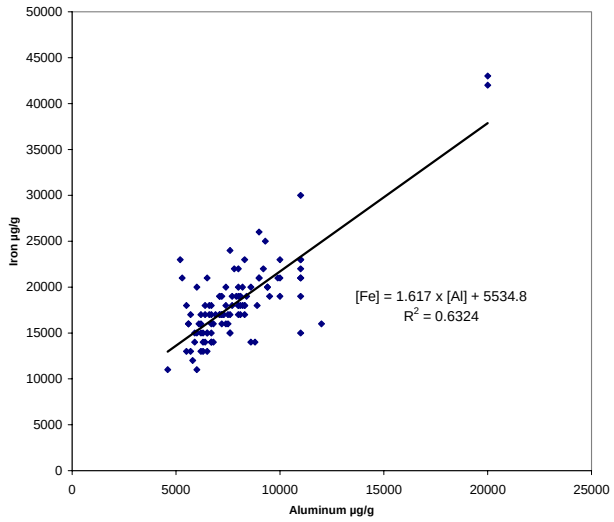


Fig. 10.4.10.12: Fe vs. Al, 0-5 cm, Playground Gravel

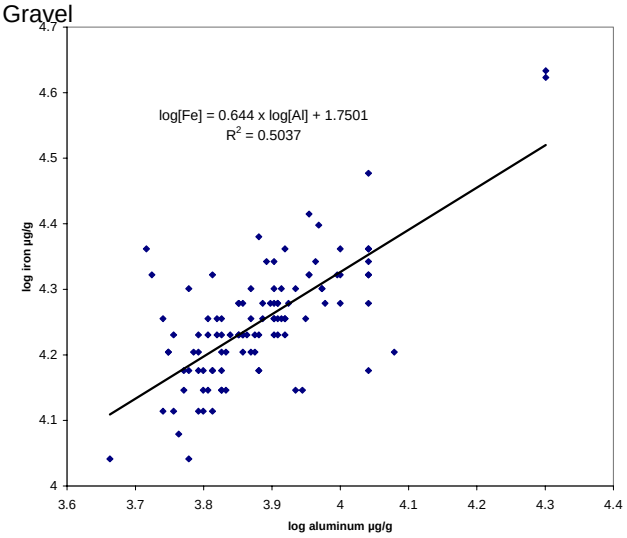


Fig. 10.4.10.12b: log Fe vs. log Al, 0-5 cm, Playground Gravel

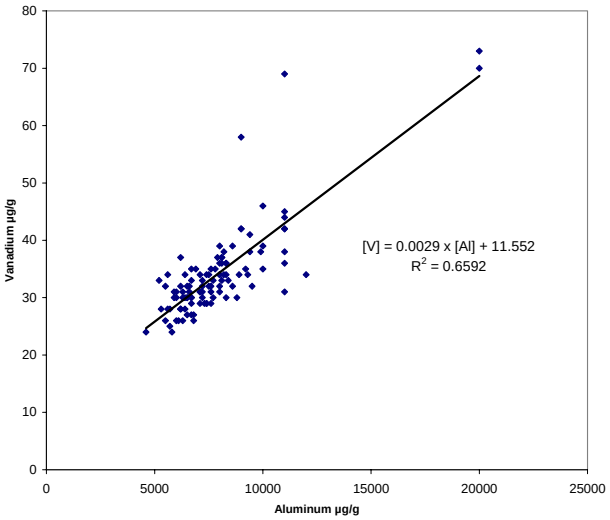


Fig. 10.4.10.13: V vs. Al, 0-5 cm, Playground Gravel

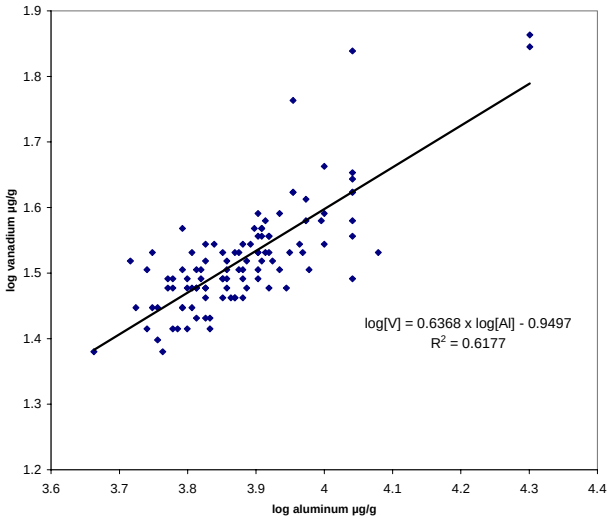


Fig. 10.4.10.13b: log V vs. log Al, 0-5 cm, Playground Gravel

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

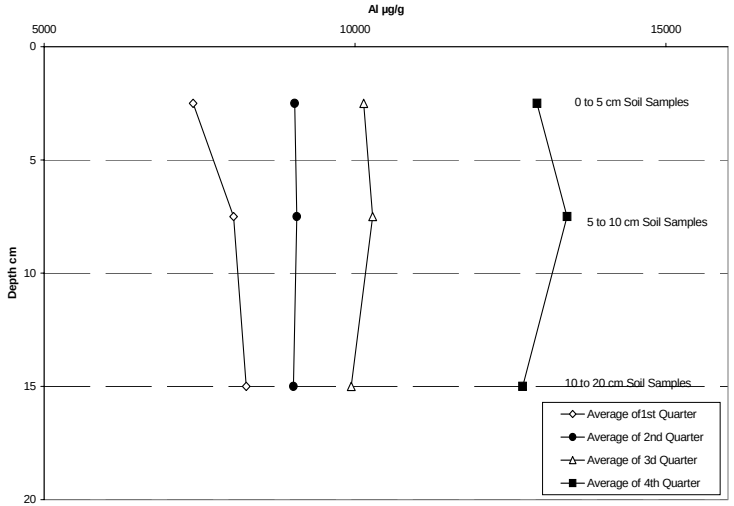


Figure 10.5.1.1: Outer Communities, Al depth profiles, all data.

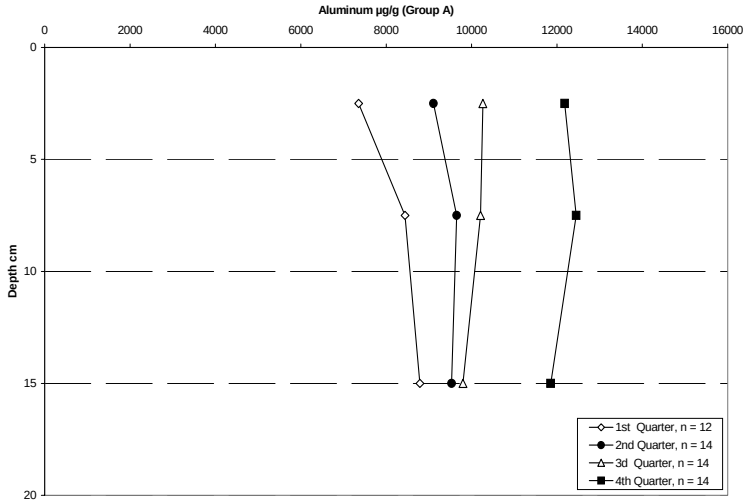


Figure 10.5.1.1a: Outer Communities, Al depth profiles, Group A data.

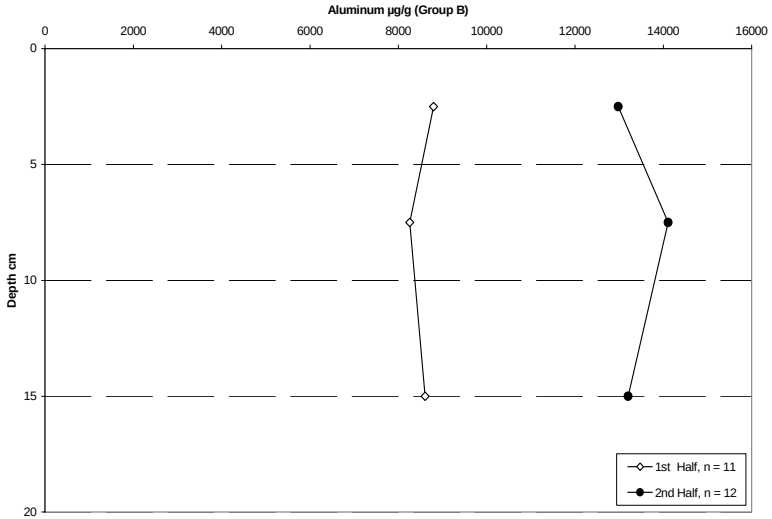


Figure 10.5.1.1b: Outer Communities, Al depth profiles, Group B data.

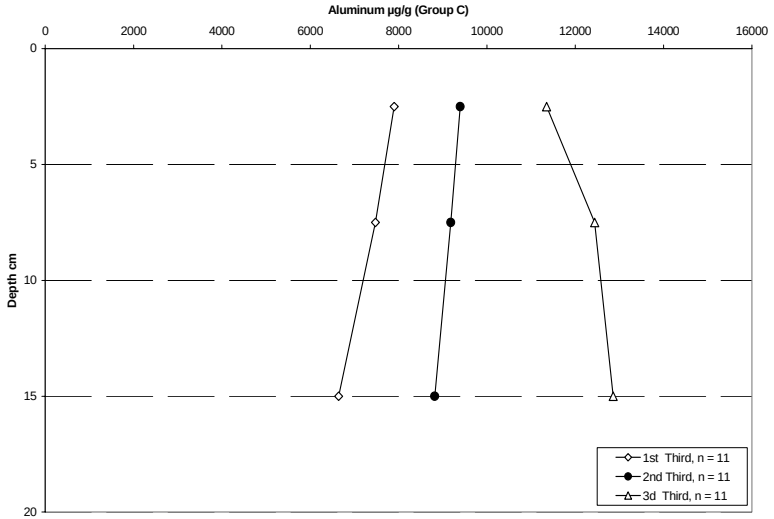


Figure 10.5.1.1c: Outer Communities, Al depth profiles, Group C data.

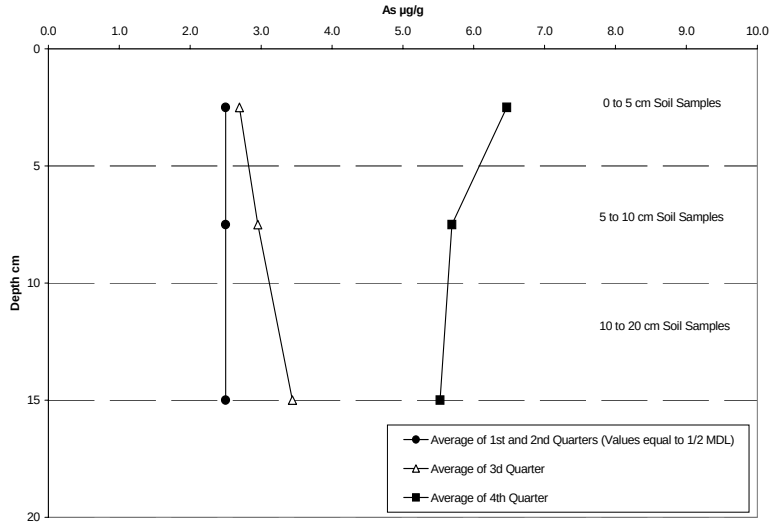


Figure 10.5.1.2: Outer Communities, As depth profiles, all data.

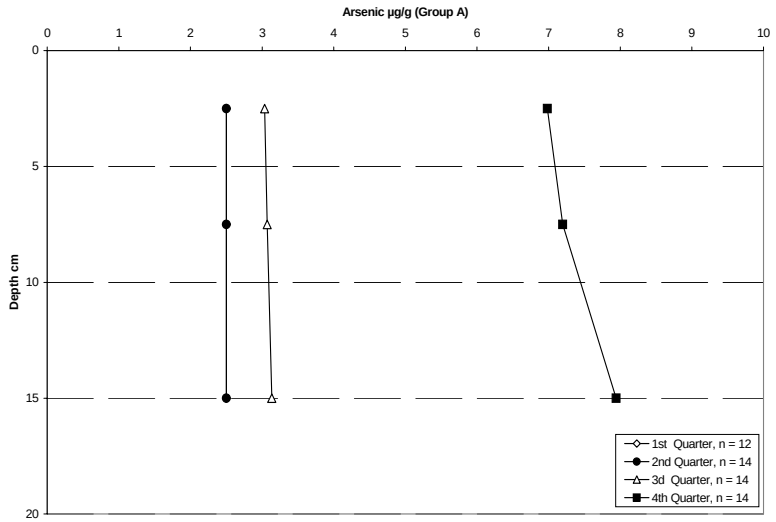


Figure 10.5.1.2a: Outer Communities, As depth profiles, Group A data.

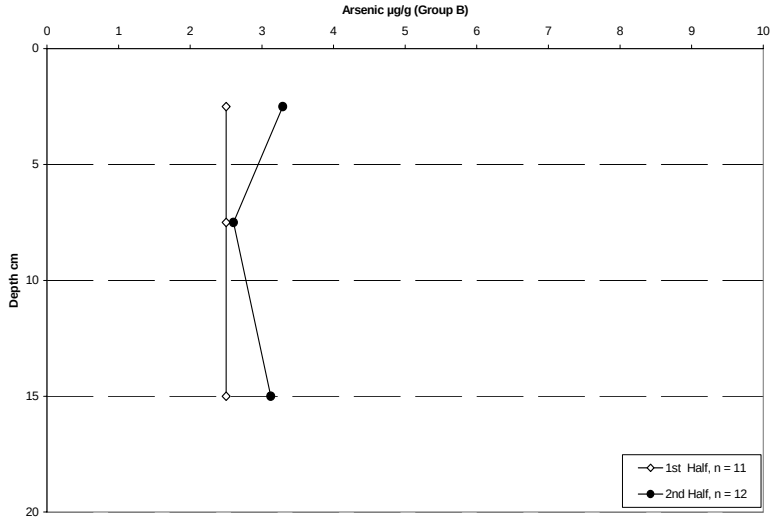


Figure 10.5.1.2b: Outer Communities, As depth profiles, Group B data.

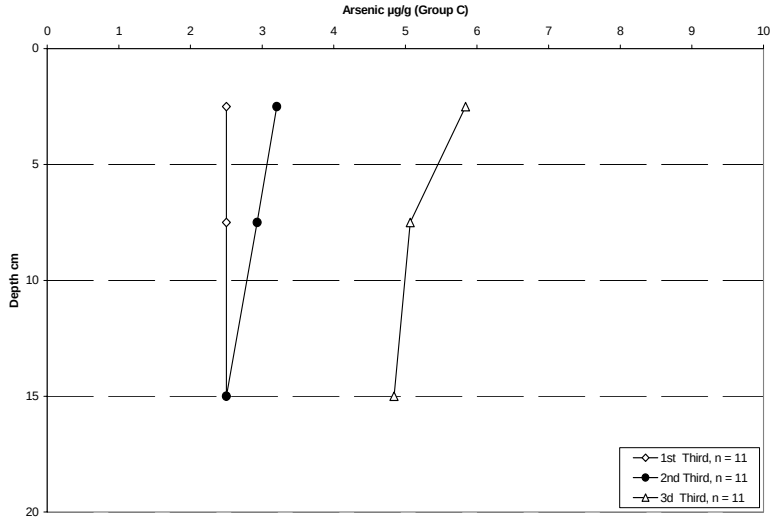


Figure 10.5.1.2c: Outer Communities, As depth profiles, Group C data.

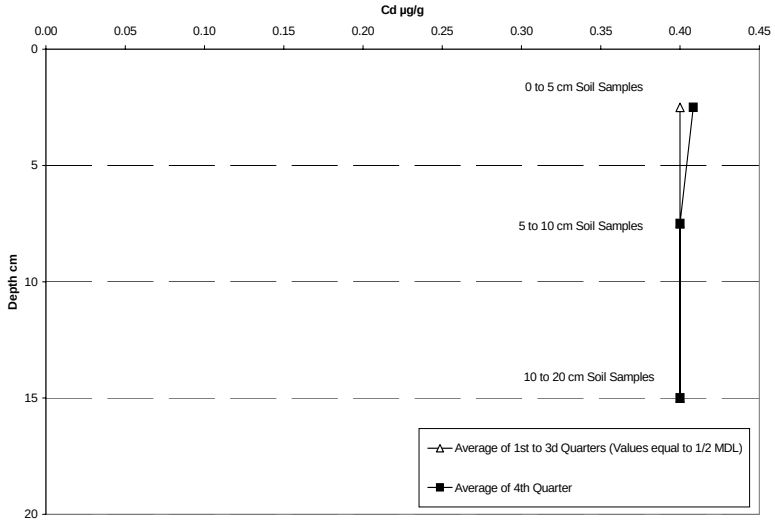


Figure 10.5.1.3: Outer Communities, Cd depth profiles, all data.

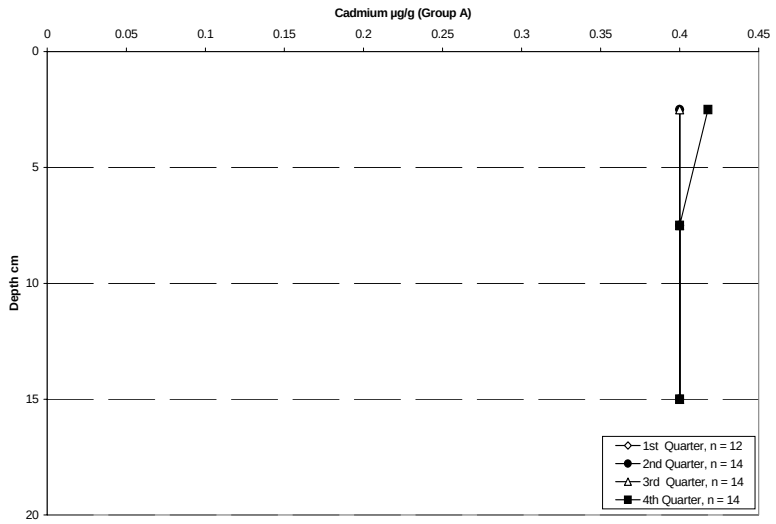


Figure 10.5.1.3a: Outer Communities, Cd depth profiles, Group A data.

Comment: Plots for Cd depth profiles for Group B & Group C equal 0.4 µg/g (½ MDL).

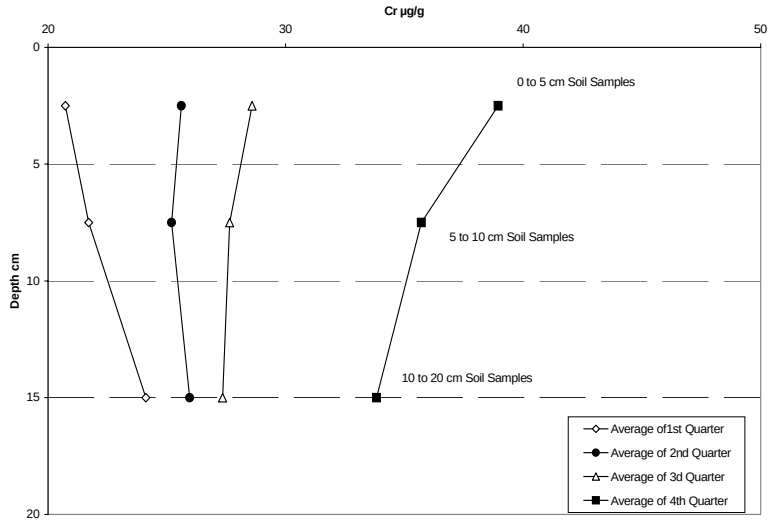


Figure 10.5.1.4: Outer Communities, Cr depth profiles, all data.

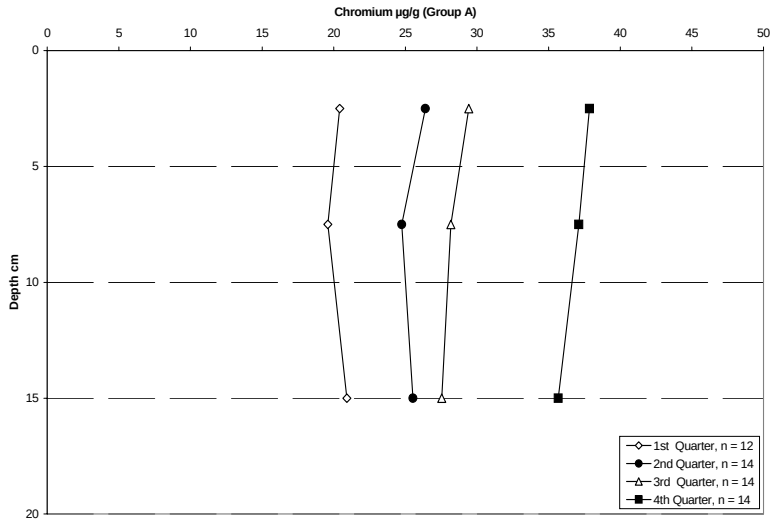


Figure 10.5.1.4a: Outer Communities, Cr depth profiles, Group A data.

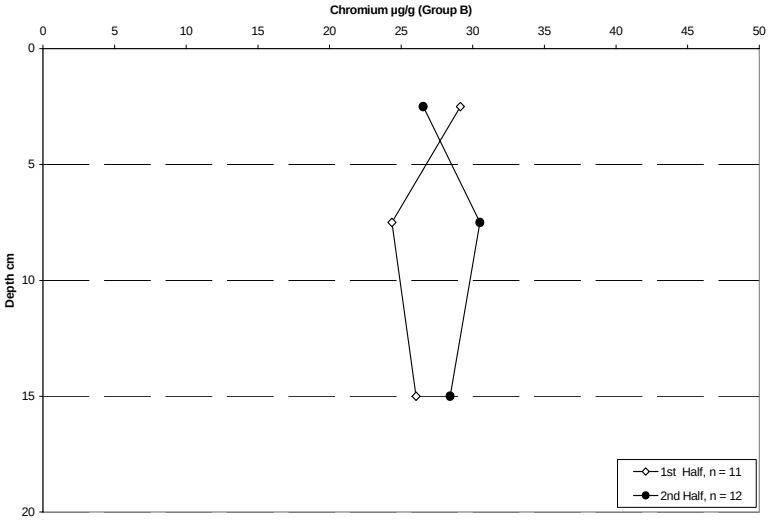


Figure 10.5.1.4b: Outer Communities, Cr depth profiles, Group B data.

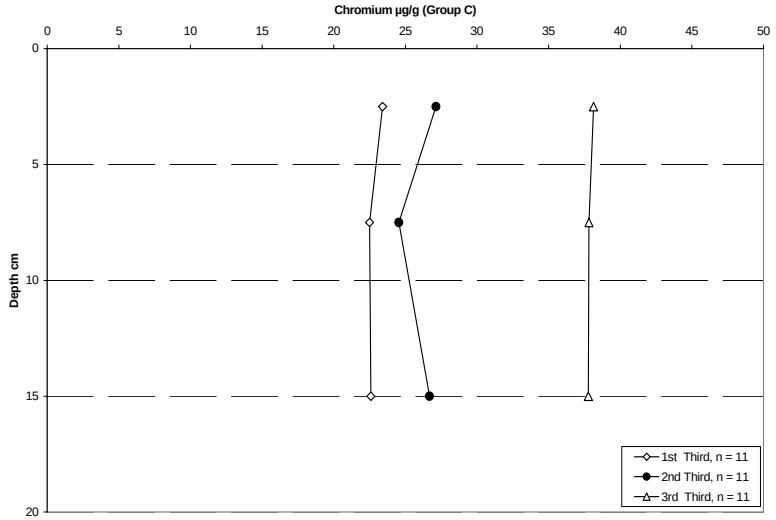


Figure 10.5.1.4c: Outer Communities, Cr depth profiles, Group C data.

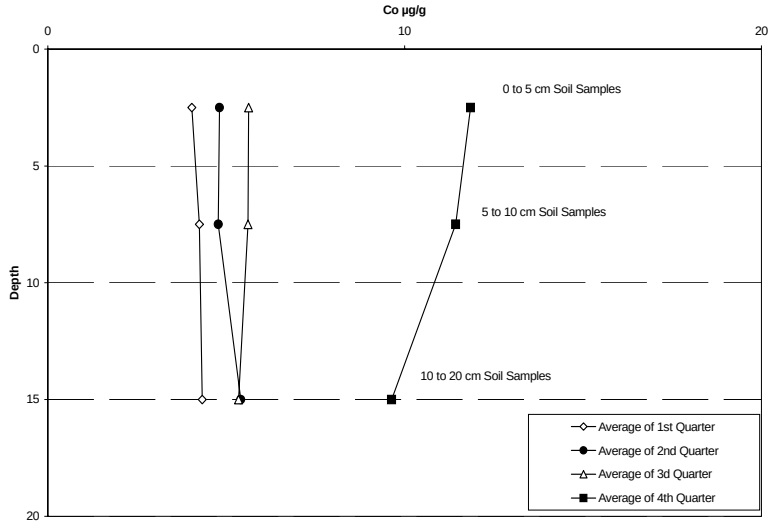


Figure 10.5.1.5: Outer Communities, Co depth profiles, all data.

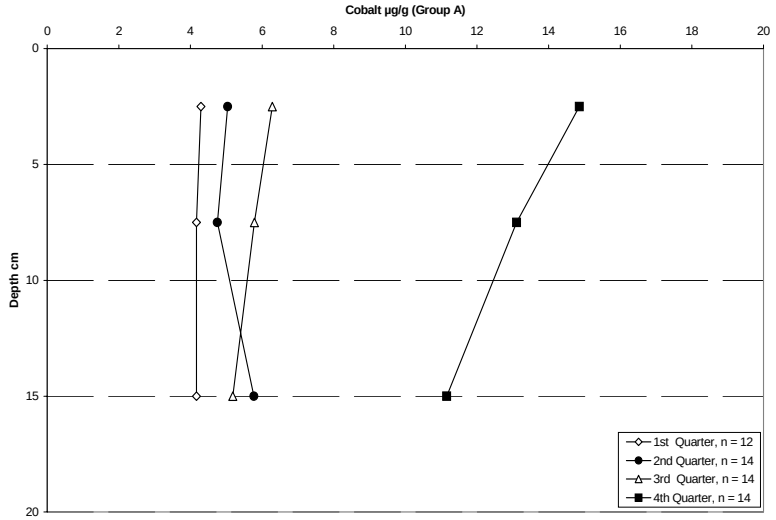


Figure 10.5.1.5a: Outer Communities, Co depth profiles, Group A data.

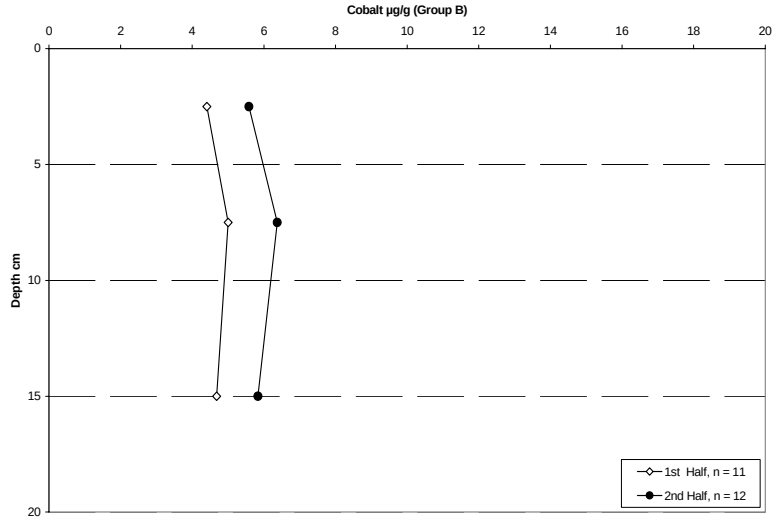


Figure 10.5.1.5b: Outer Communities, Co depth profiles, Group B data.

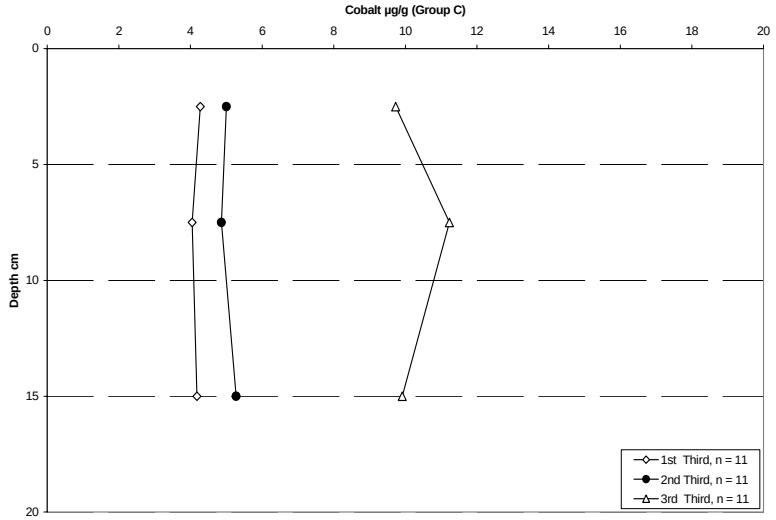


Figure 10.5.1.5c: Outer Communities, Co depth profiles, Group C data.

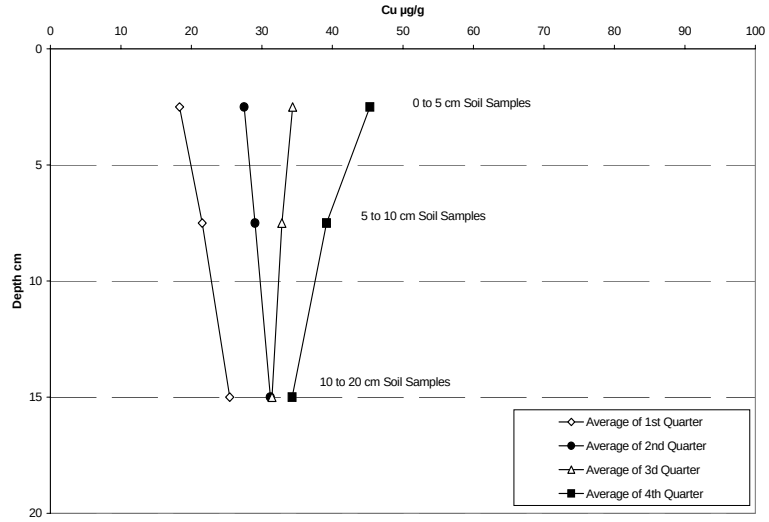


Figure 10.5.1.6: Outer Communities, Cu depth profiles, all data.

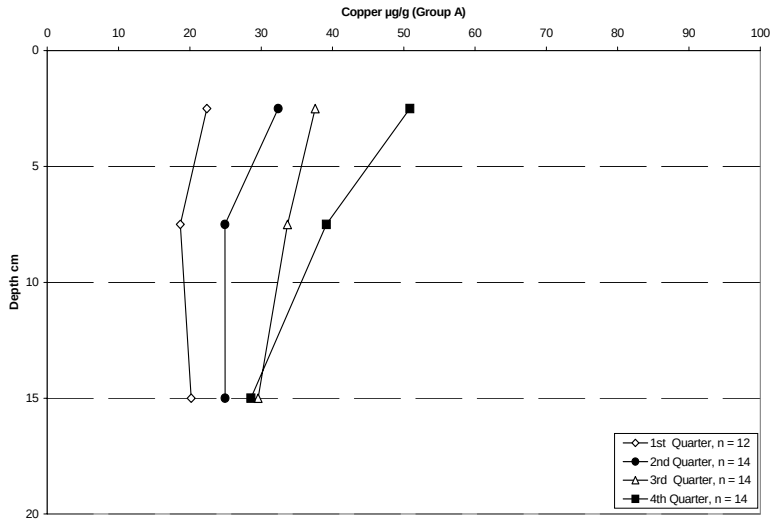


Figure 10.5.1.6a: Outer Communities, Cu depth profiles, Group A data.

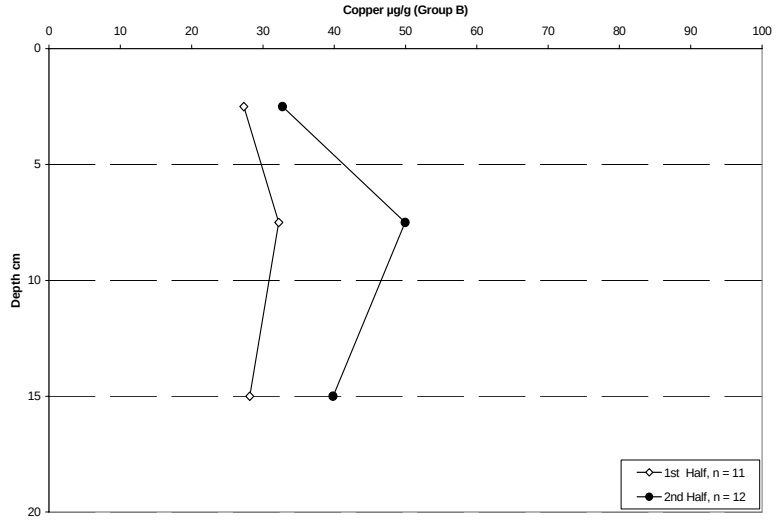


Figure 10.5.1.6b: Outer Communities, Cu depth profiles, Group B data.

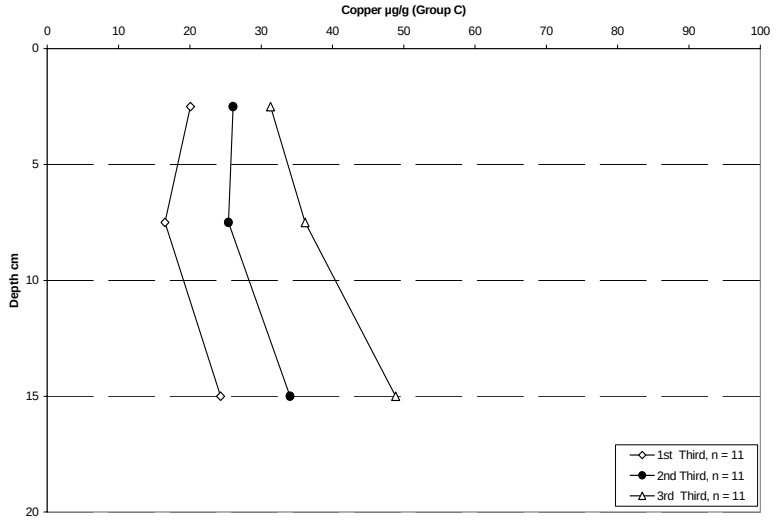


Figure 10.5.1.6c: Outer Communities, Cu depth profiles, Group C data.

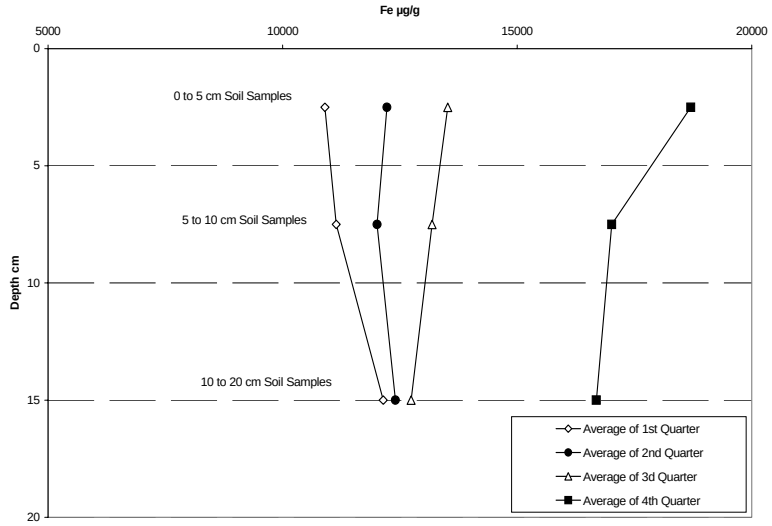


Figure 10.5.1.7: Outer Communities, Fe depth profiles, all data.

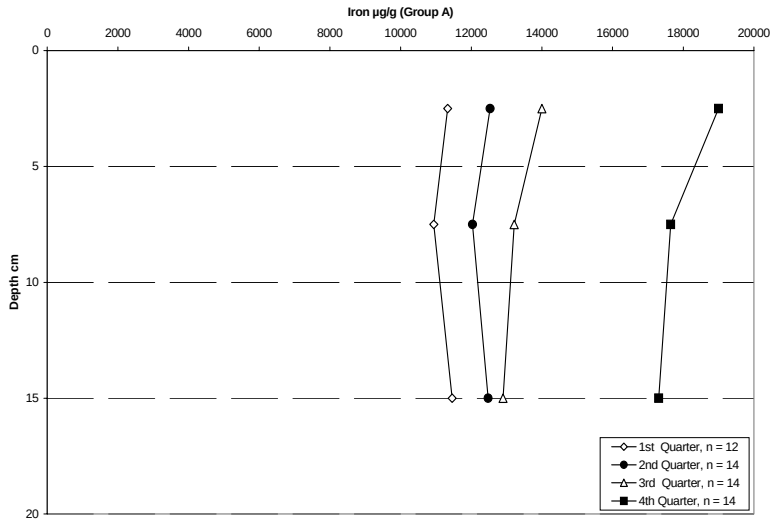


Figure 10.5.1.7a: Outer Communities, Fe depth profiles, Group A data.

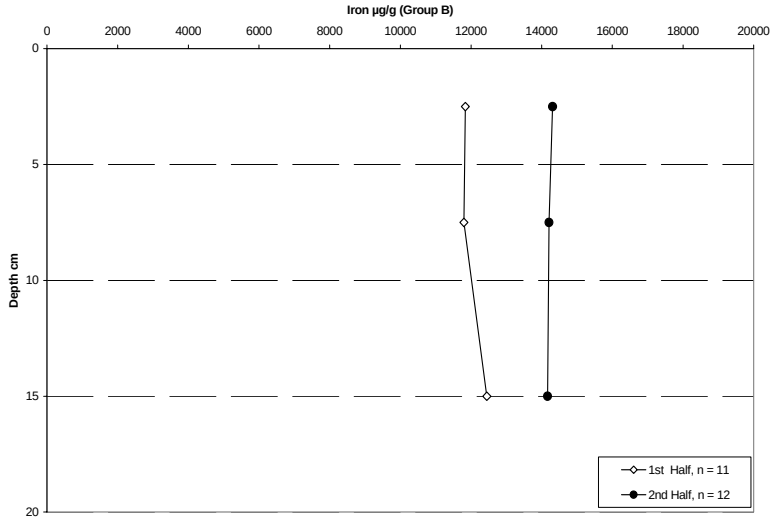


Figure 10.5.1.7b: Outer Communities, Fe depth profiles, Group B data.

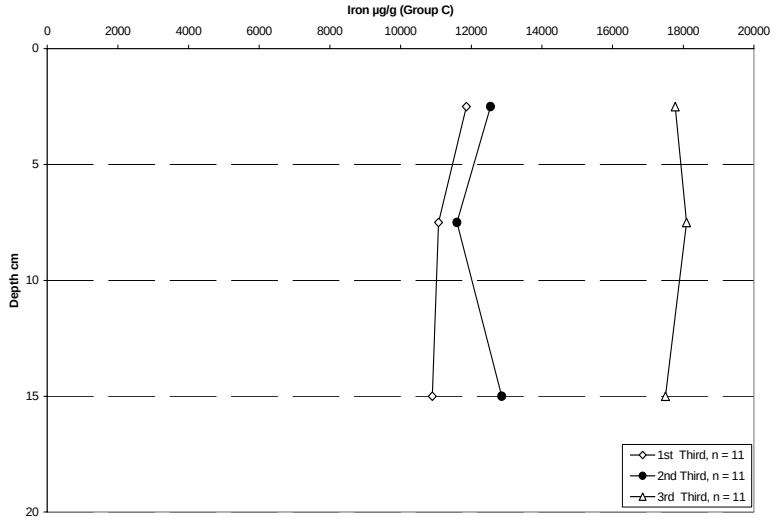


Figure 10.5.1.7c: Outer Communities, Fe depth profiles, Group C data.

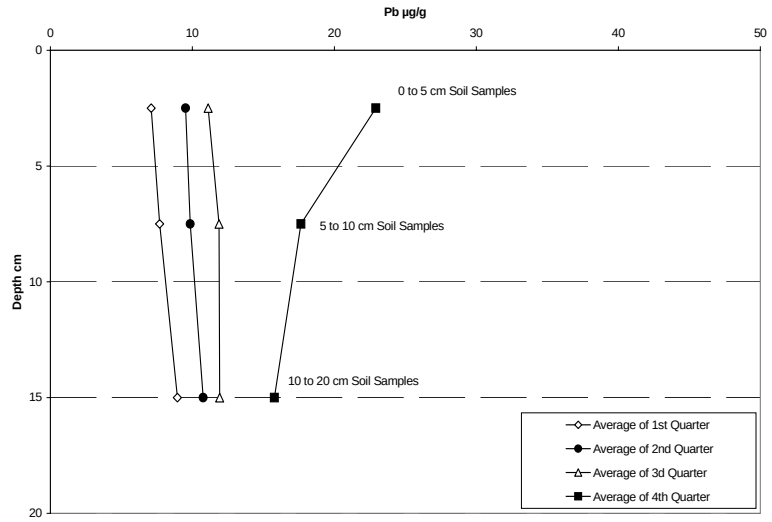


Figure 10.5.1.8: Outer Communities, Pb depth profiles, all data.

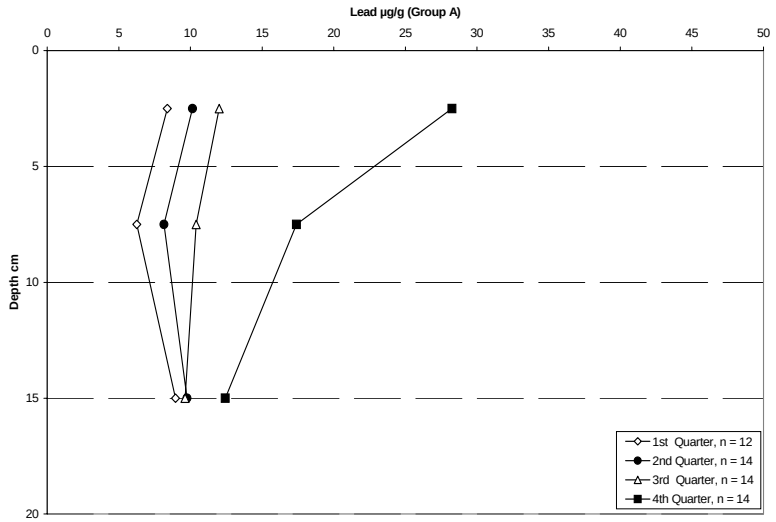


Figure 10.5.1.8a: Outer Communities, Pb depth profiles, Group A data.

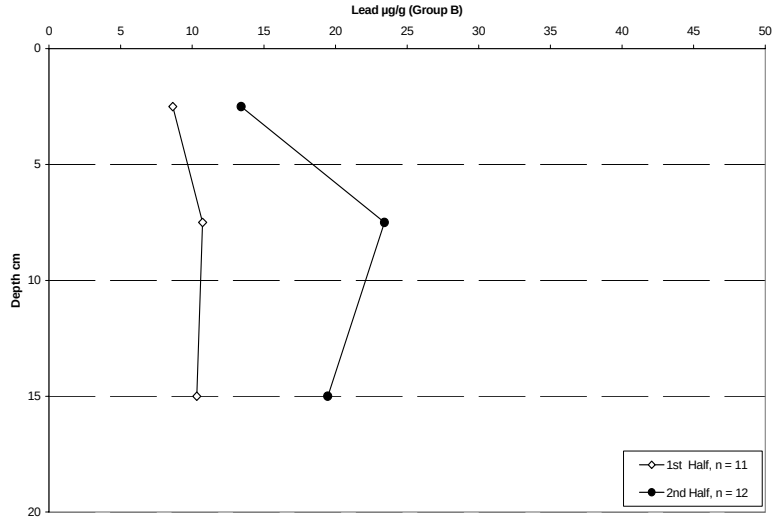


Figure 10.5.1.8b: Outer Communities, Pb depth profiles, Group B data.

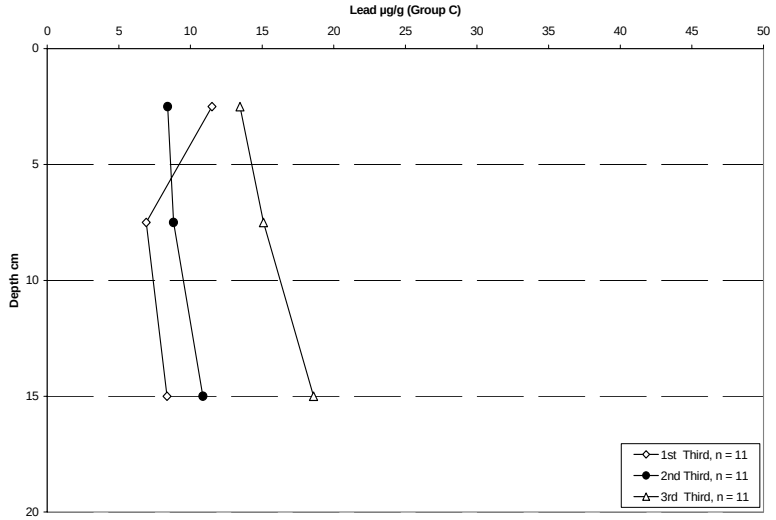


Figure 10.5.1.8c: Outer Communities, Pb depth profiles, Group C data.

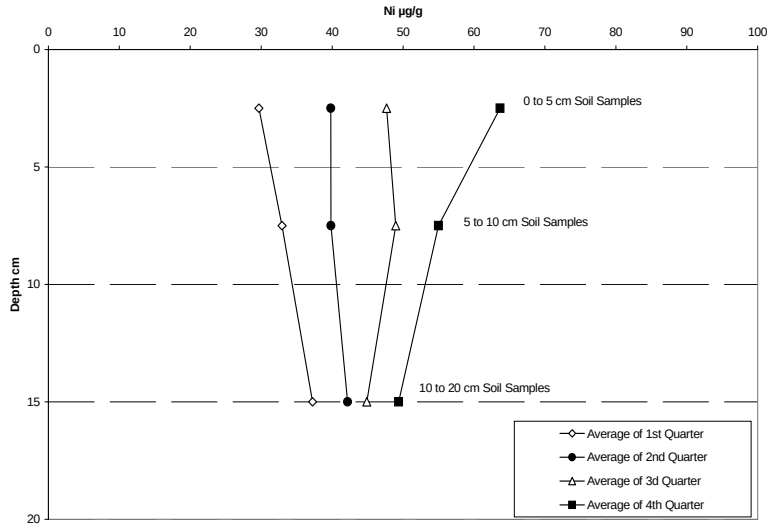


Figure 10.5.1.9: Outer Communities, Ni depth profiles, all data.

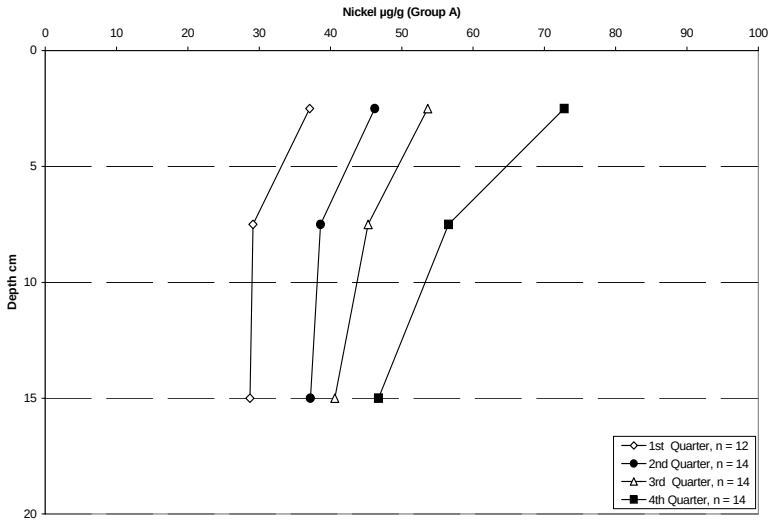


Figure 10.5.1.9a: Outer Communities, Ni depth profiles, Group A data.

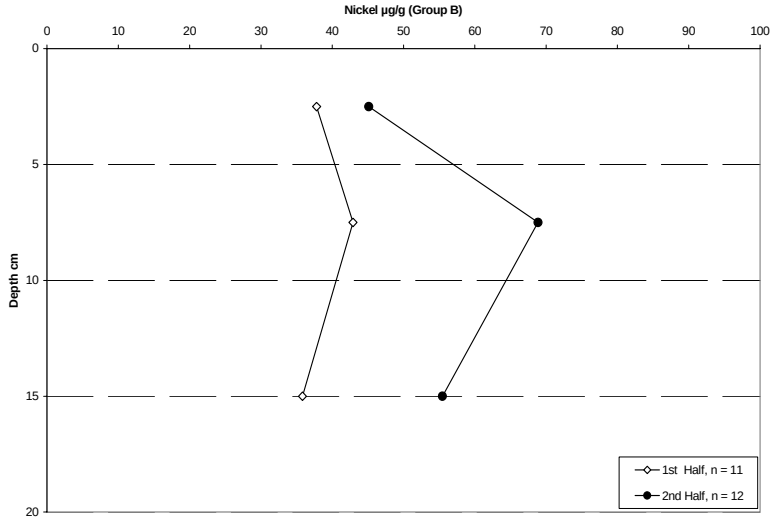


Figure 10.5.1.9b: Outer Communities, Ni depth profiles, Group B data.

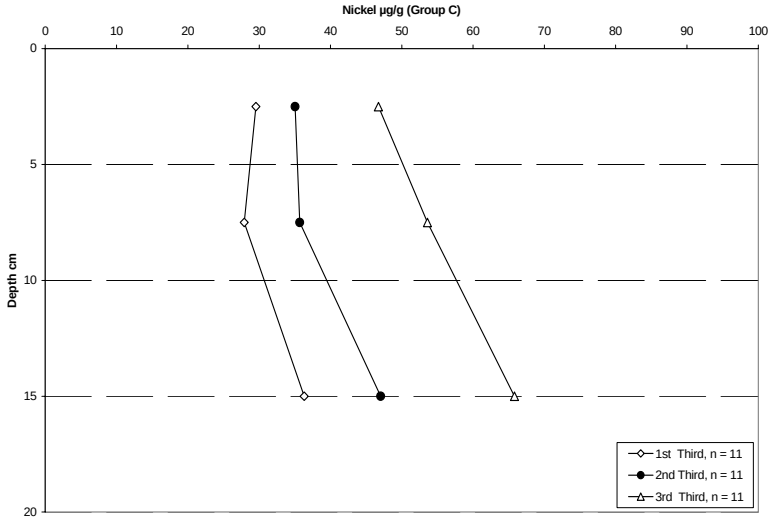


Figure 10.5.1.9c: Outer Communities, Ni depth profiles, Group C data.

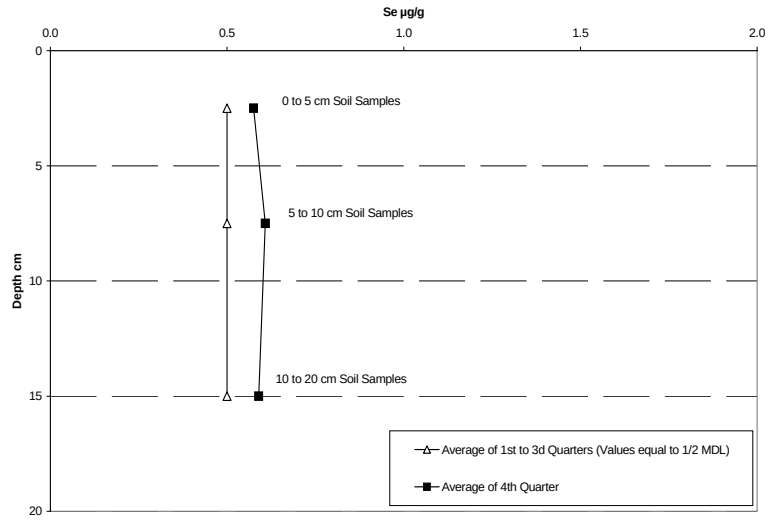


Figure 10.5.1.10: Outer Communities, Se depth profiles, all data.

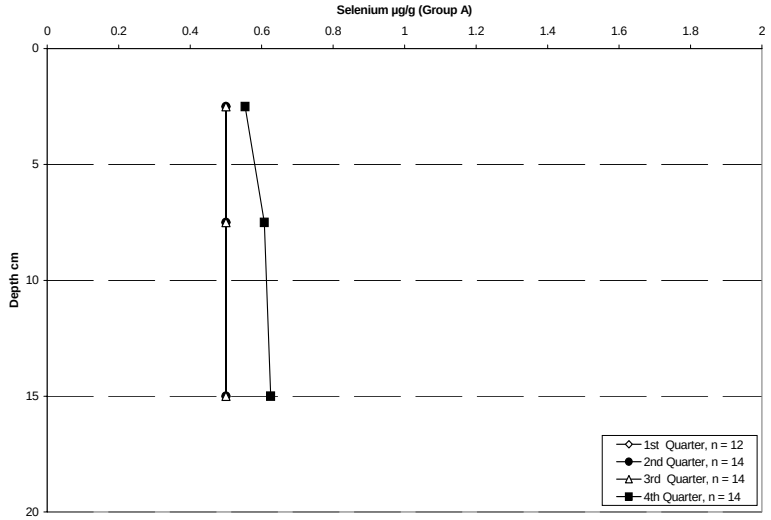


Figure 10.5.1.10a: Outer Communities, Se depth profiles, Group A data.

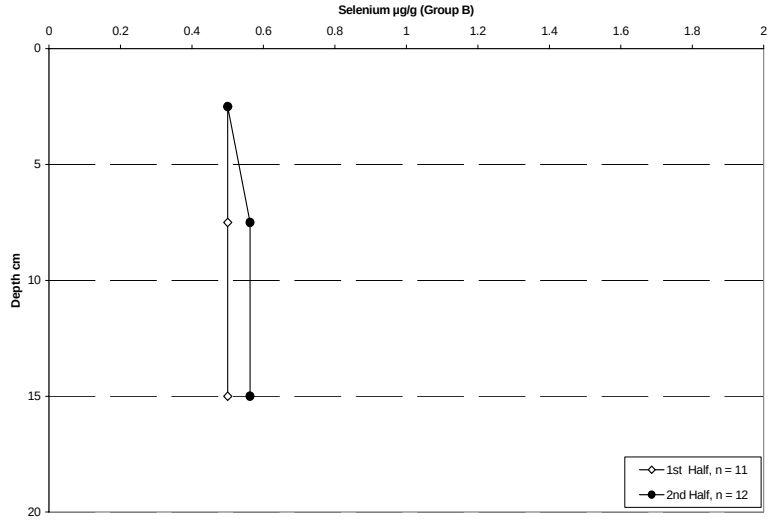


Figure 10.5.1.10b: Outer Communities, Se depth profiles, Group B data.

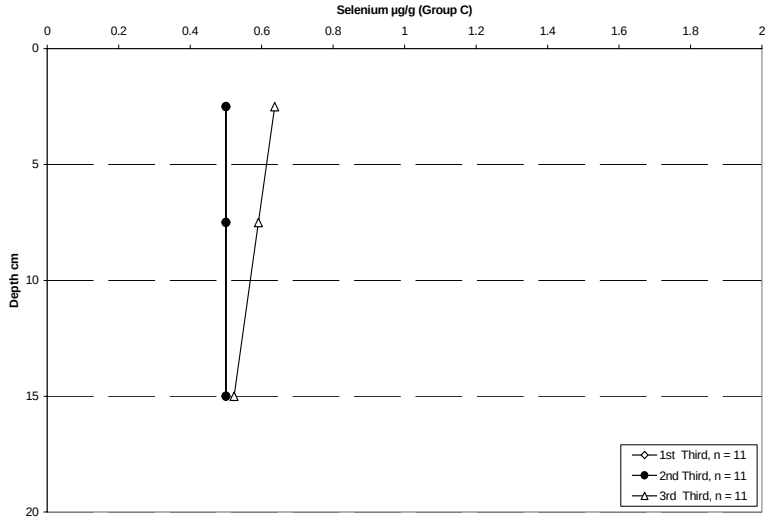


Figure 10.5.1.10c: Outer Communities, Se depth profiles, Group C data.

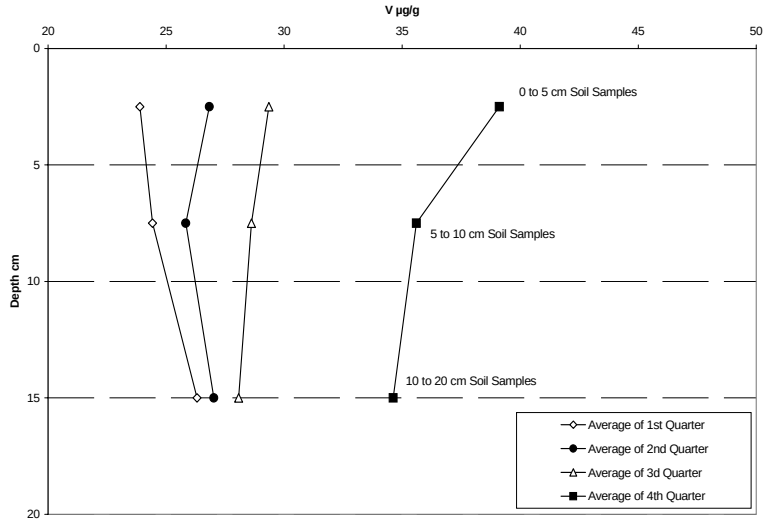


Figure 10.5.1.11: Outer Communities, V depth profiles, all data.

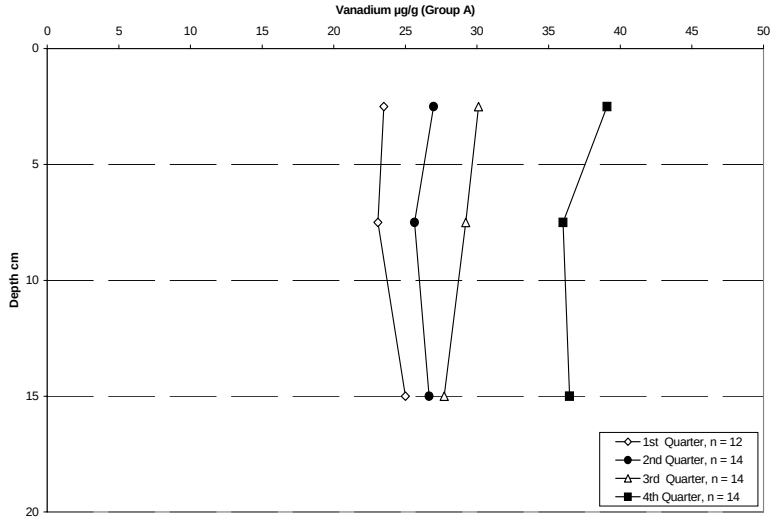


Figure 10.5.1.11a: Outer Communities, V depth profiles, Group A data.

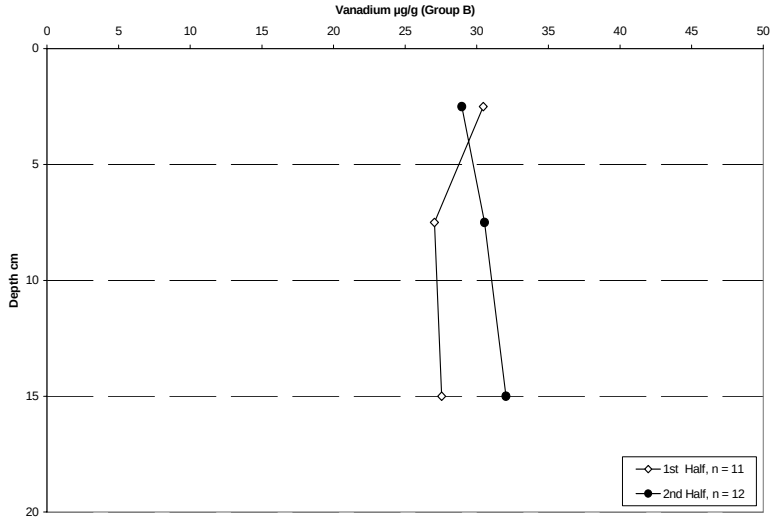


Figure 10.5.1.11b: Outer Communities, V depth profiles, Group B data.

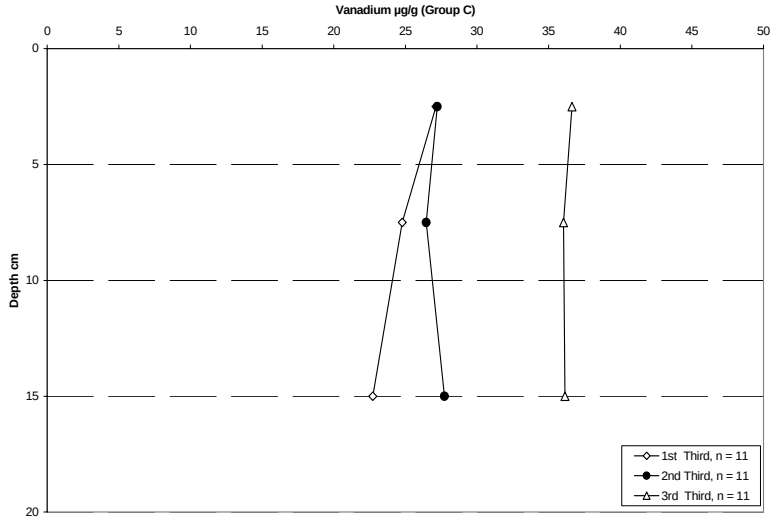


Figure 10.5.1.11c: Outer Communities, V depth profiles, Group C data.

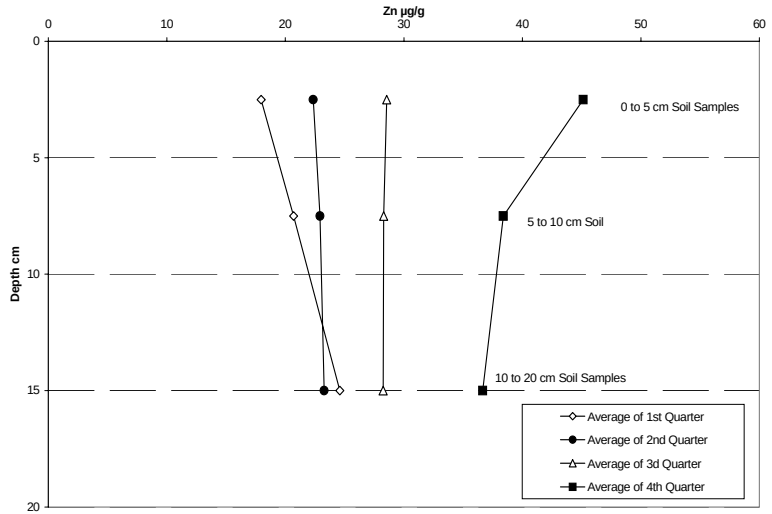


Figure 10.5.1.12: Outer Communities, Zn depth profiles, all data.

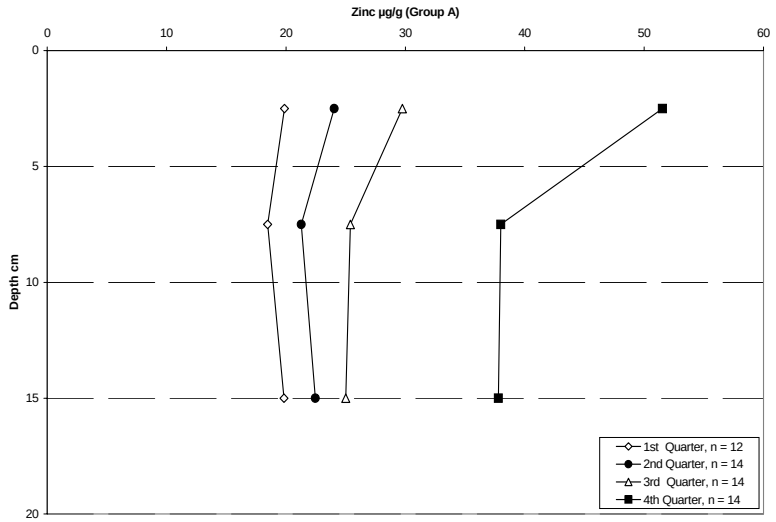


Figure 10.5.1.12a: Outer Communities, Zn depth profiles, Group A data.

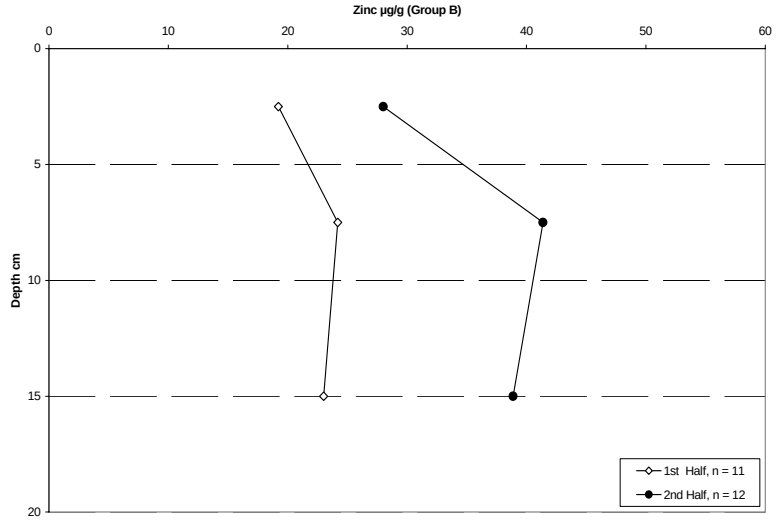


Figure 10.5.1.12b: Outer Communities, Zn depth profiles, Group B data.

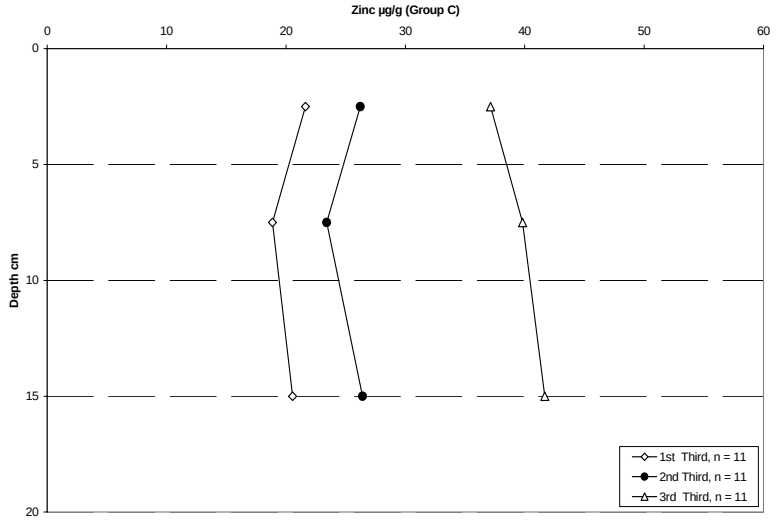


Figure 10.5.1.12c: Outer Communities, Zn depth profiles, Group C data.

10.5.2 Inner Sudbury Communities

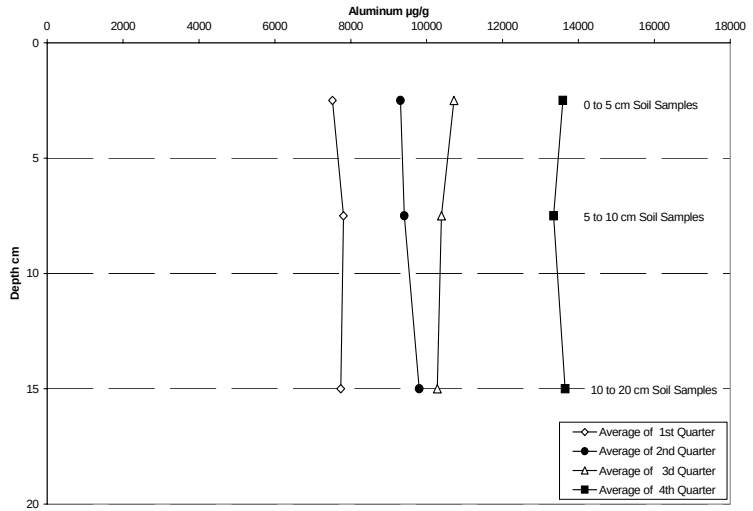


Figure 10.5.2.1: Inner Communities, Al depth profiles, all data.

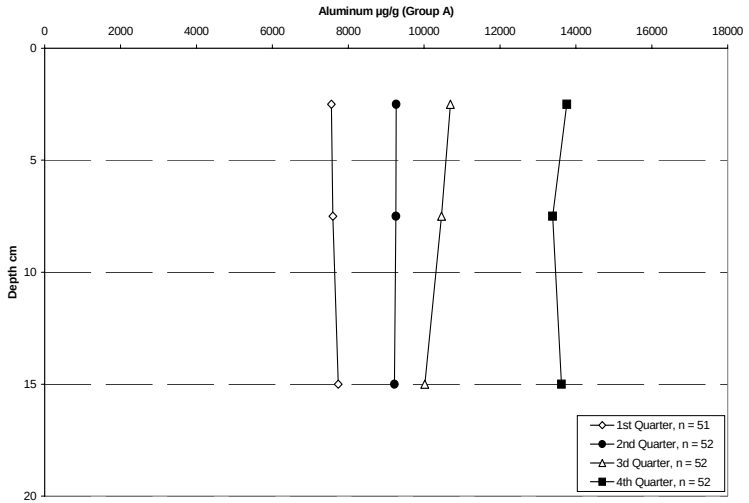


Figure 10.5.2.1a: Inner Communities, Al depth profiles, Group A data.

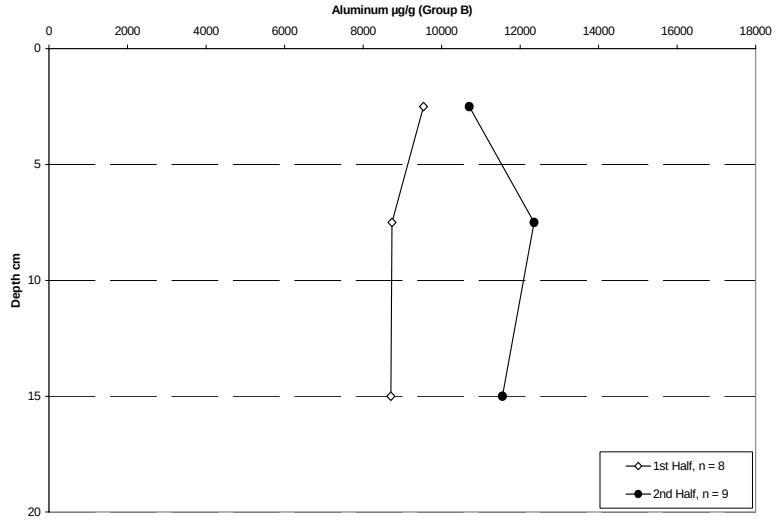


Figure 10.5.2.1b: Inner Communities, Al depth profiles, Group B data.

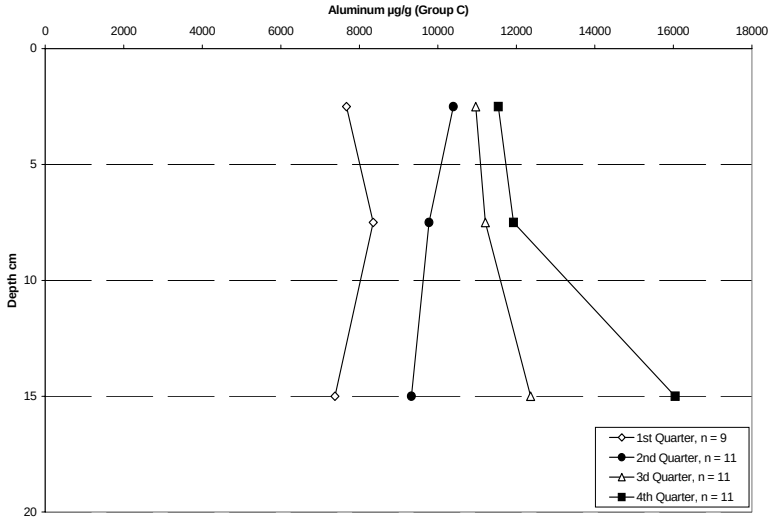


Figure 10.5.2.1c: Inner Communities, Al depth profiles, Group C data.

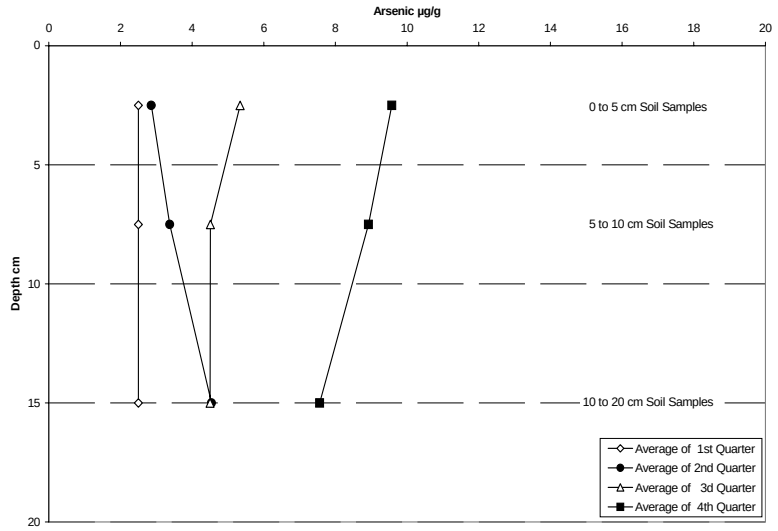


Figure 10.5.2.2: Inner Communities, As depth profiles, all data.

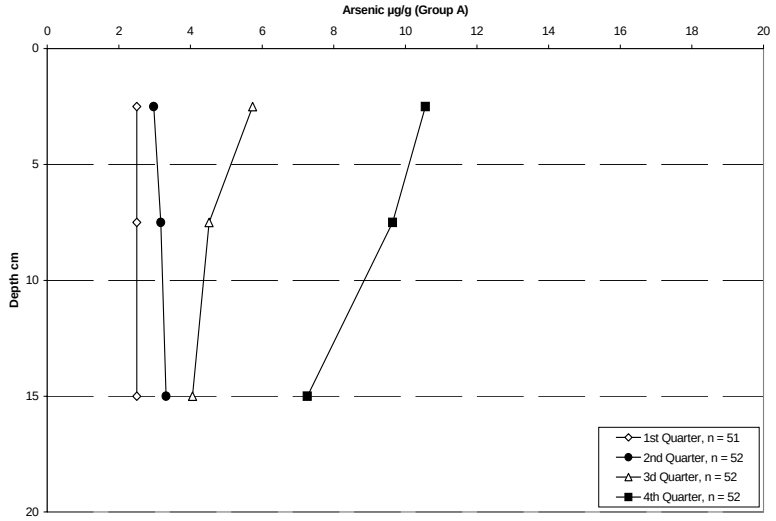


Figure 10.5.2.2a: Inner Communities, As depth profiles, Group A data.

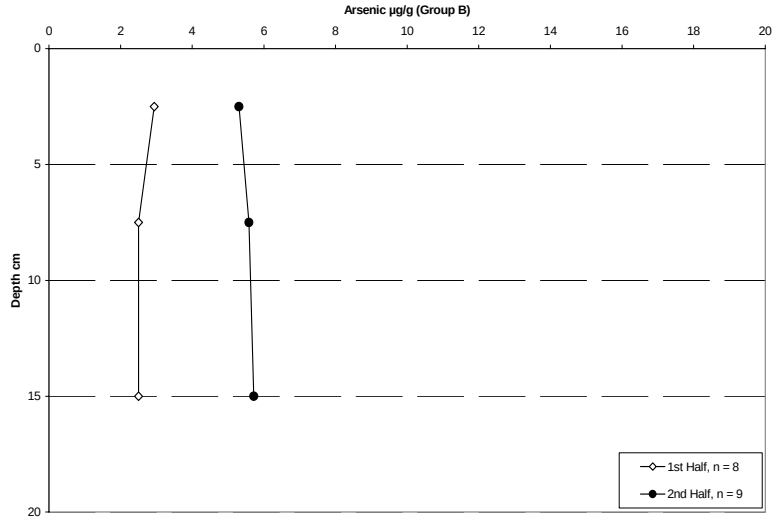


Figure 10.5.2.2b: Inner Communities, As depth profiles, Group B data.

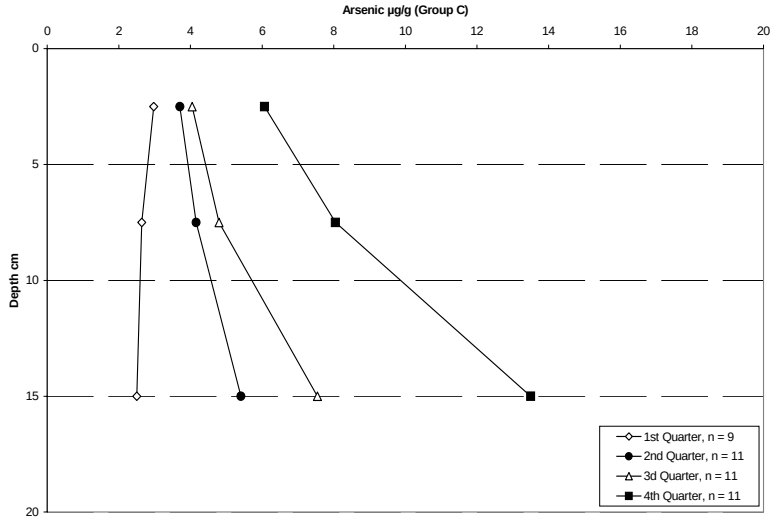


Figure 10.5.2.2c: Inner Communities, As depth profiles, Group C data.

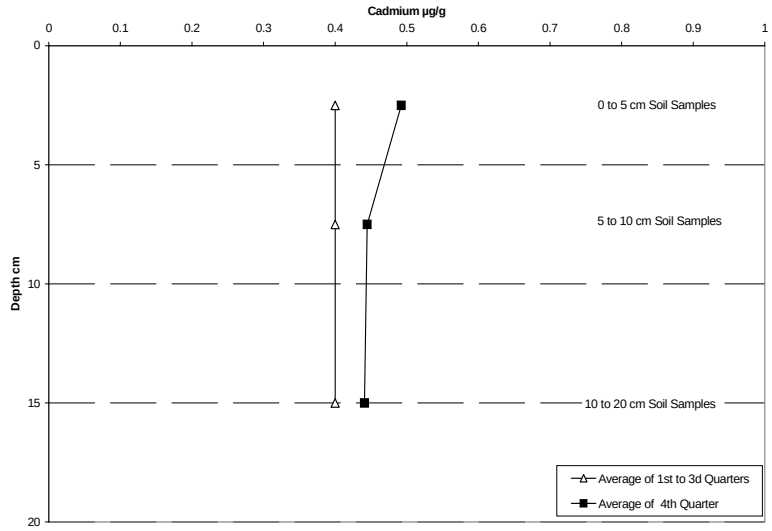


Figure 10.5.2.3: Inner Communities, Cd depth profiles, all data.

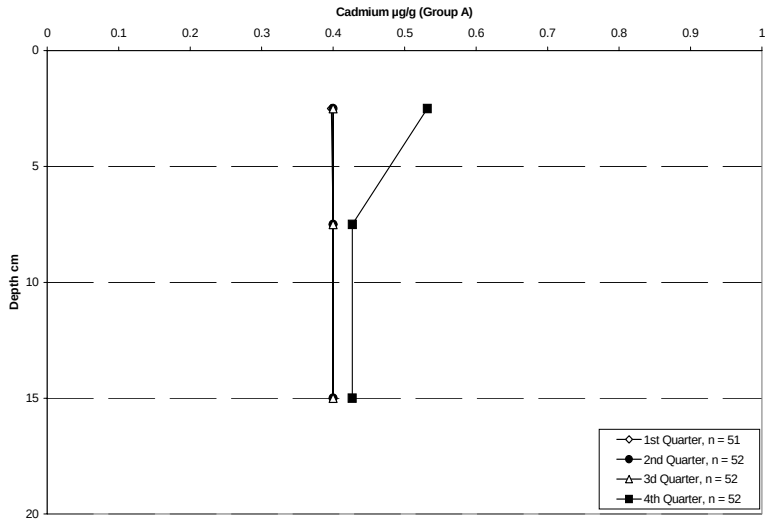


Figure 10.5.2.3a: Inner Communities, Cd depth profiles, Group A data.

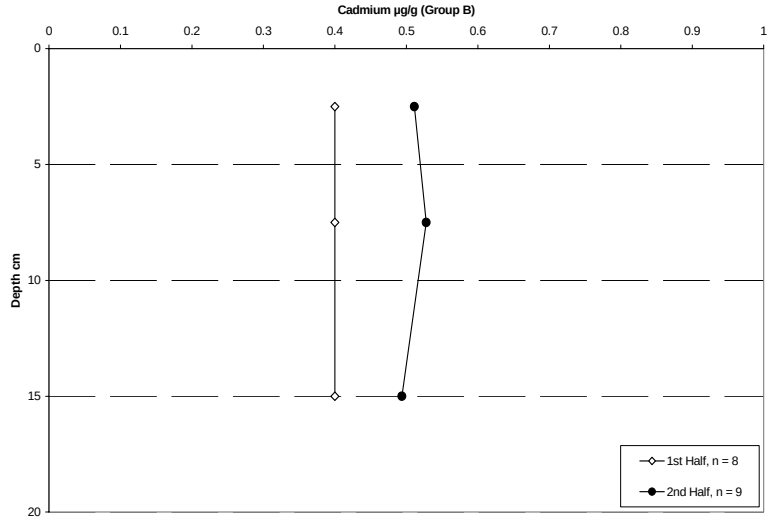


Figure 10.5.2.3b: Inner Communities, Cd depth profiles, Group B data.

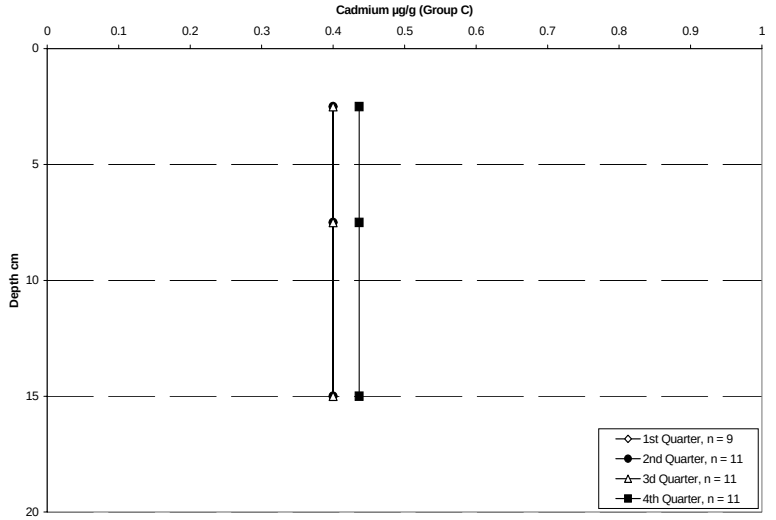


Figure 10.5.2.3c: Inner Communities, Cd depth profiles, Group C data.

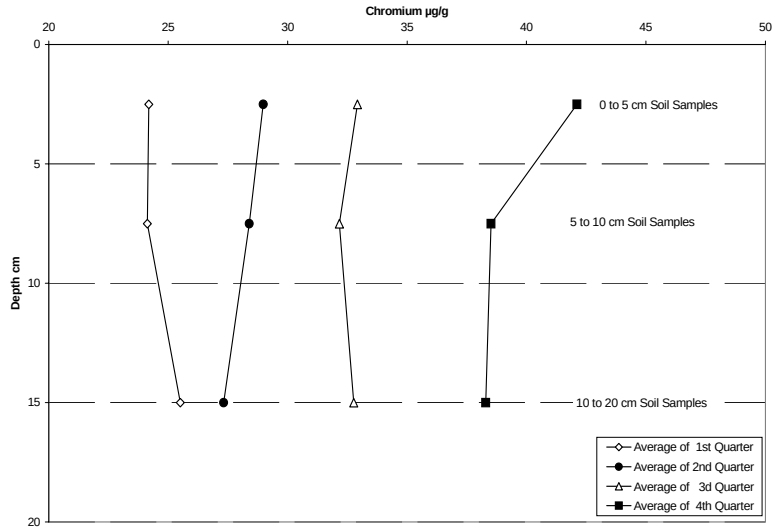


Figure 10.5.2.4: Inner Communities, Cr depth profiles, all data.

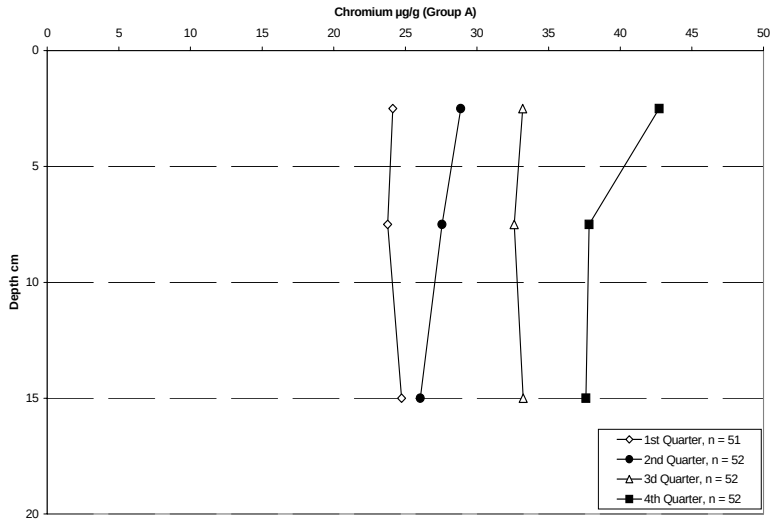


Figure 10.5.2.4a: Inner Communities, Cr depth profiles, Group A data.

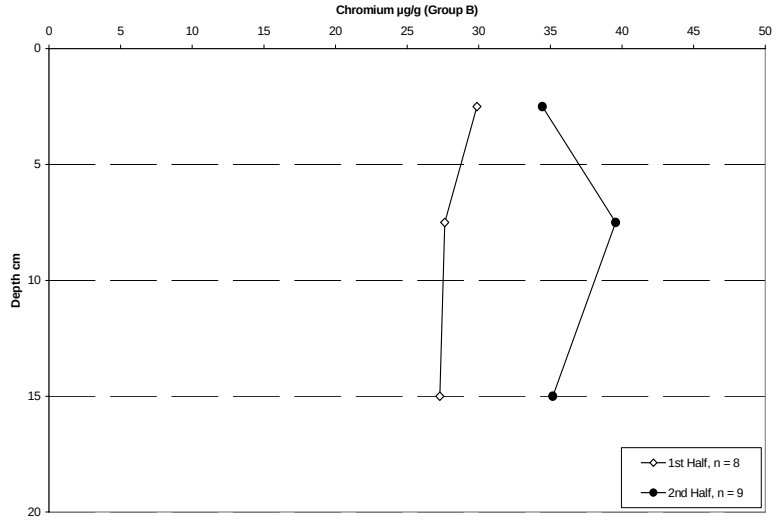


Figure 10.5.2.4b: Inner Communities, Cr depth profiles, Group B data.

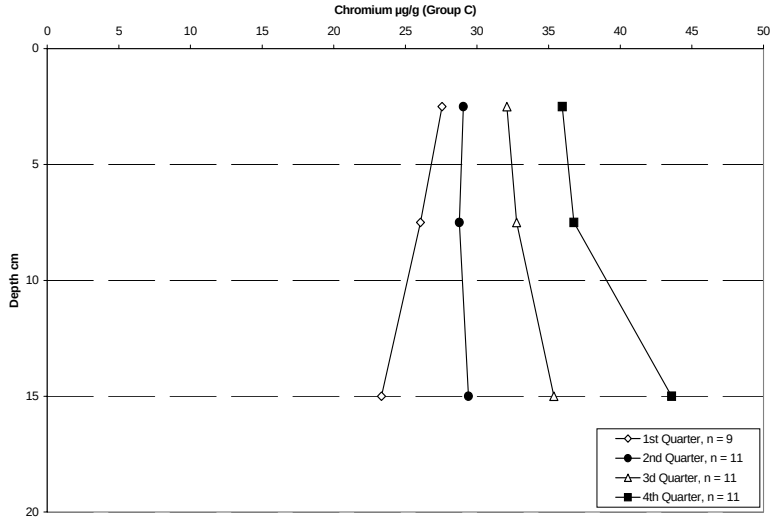


Figure 10.5.2.4c: Inner Communities, Cr depth profiles, Group C data.

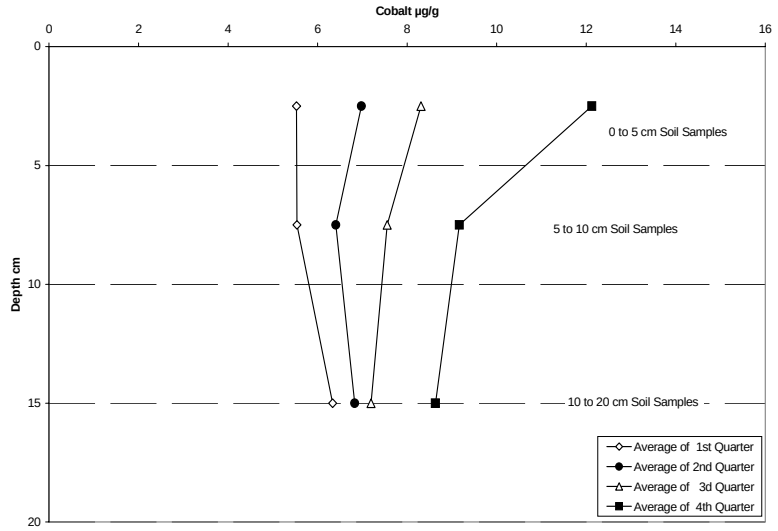


Figure 10.5.2.5: Inner Communities, Co depth profiles, all data.

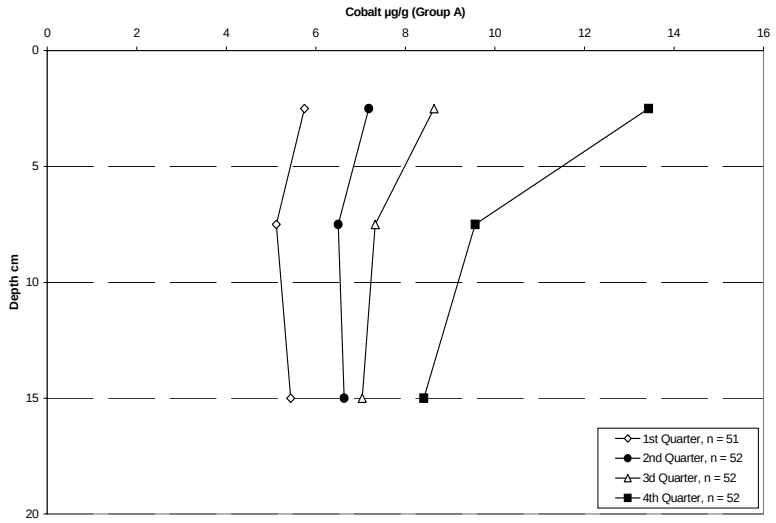


Figure 10.5.2.5a: Inner Communities, Co depth profiles, Group A data.

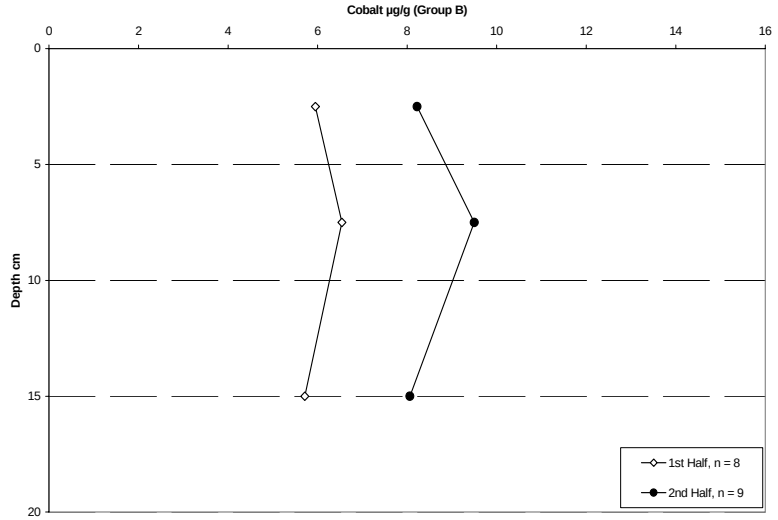


Figure 10.5.2.5b: Inner Communities, Co depth profiles, Group B data.

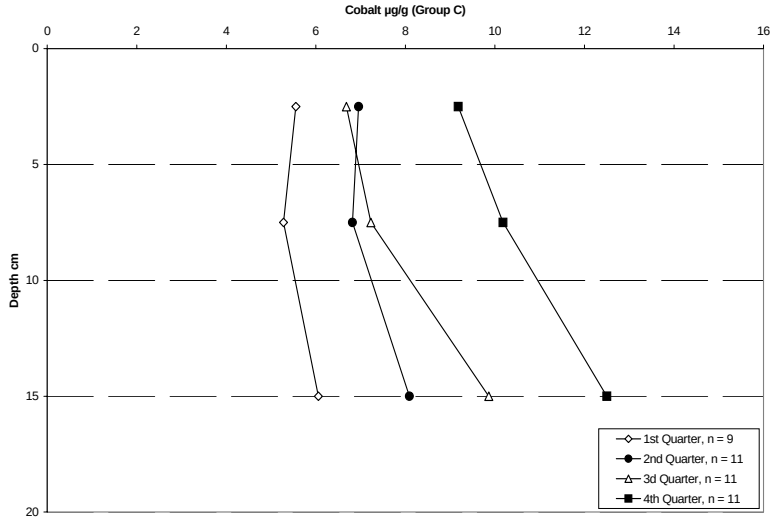


Figure 10.5.2.5c: Inner Communities, Co depth profiles, Group C data.

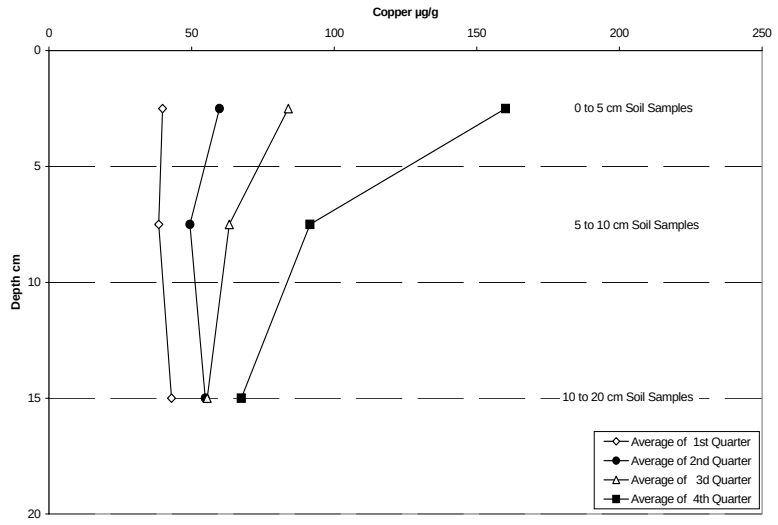


Figure 10.5.2.6: Inner Communities, Cu depth profiles, all data.

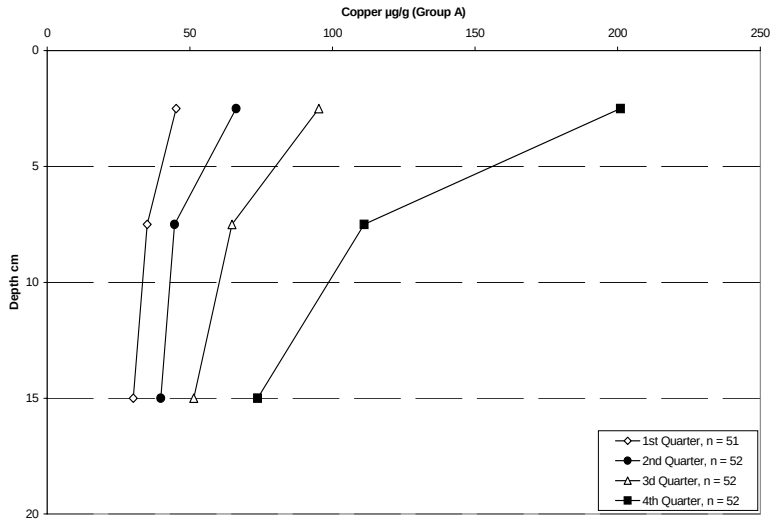


Figure 10.5.2.6a: Inner Communities, Cu depth profiles, Group A data.

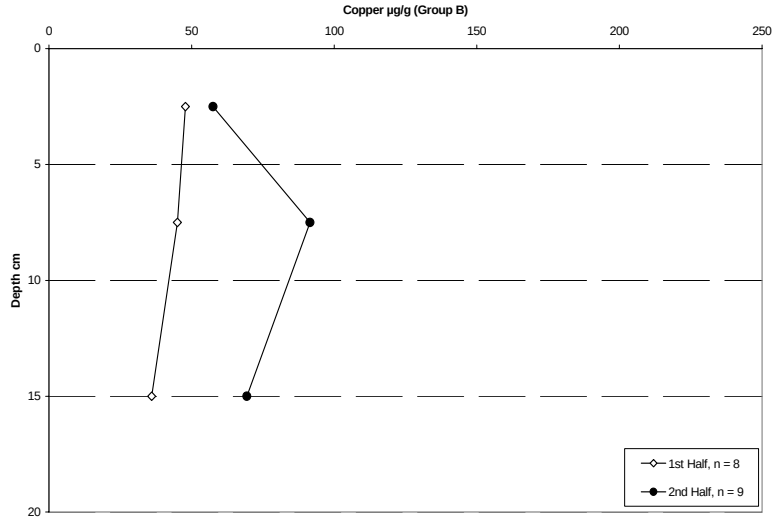


Figure 10.5.2.6b: Inner Communities, Cu depth profiles, Group B data.

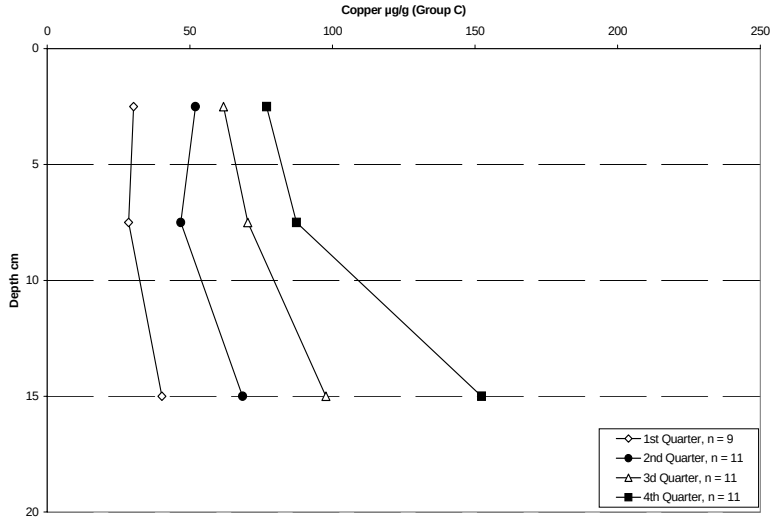


Figure 10.5.2.6c: Inner Communities, Cu depth profiles, Group C data.

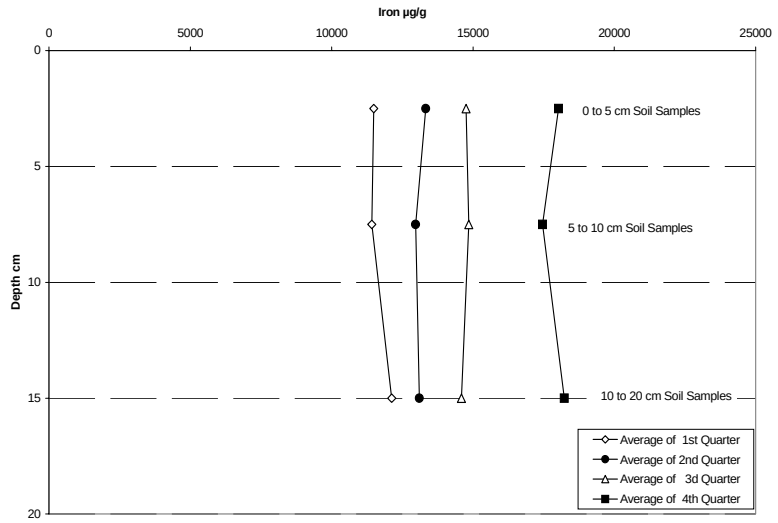


Figure 10.5.2.7: Inner Communities, Fe depth profiles, all data.

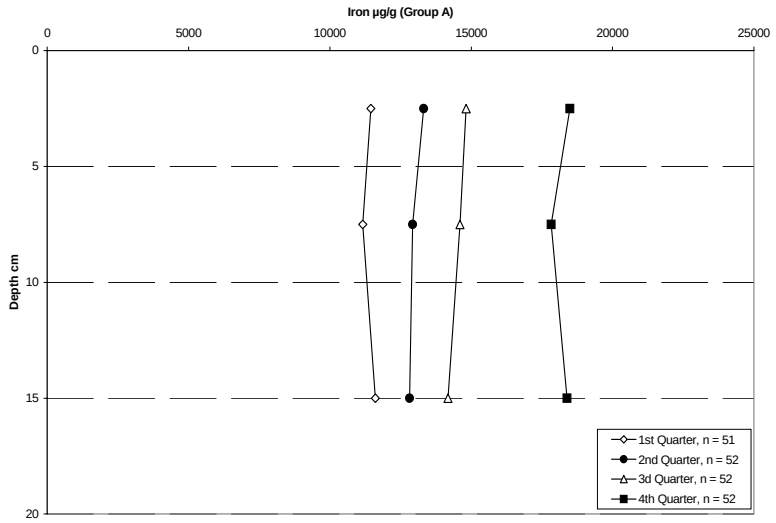


Figure 10.5.2.7a: Inner Communities, Fe depth profiles, Group A data.

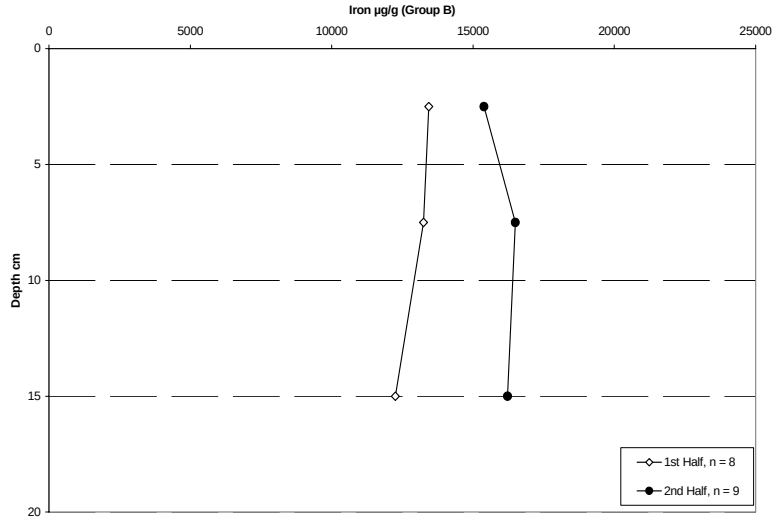


Figure 10.5.2.7b: Inner Communities, Fe depth profiles, Group B data.

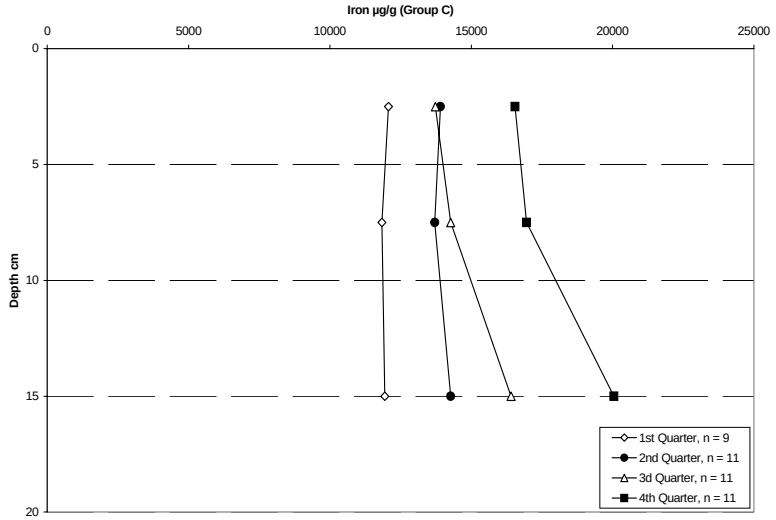


Figure 10.5.2.7c: Inner Communities, Fe depth profiles, Group C data.

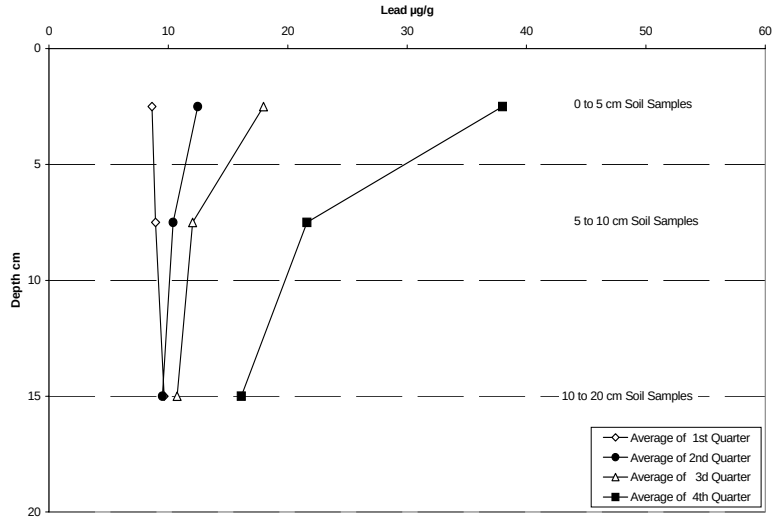


Figure 10.5.2.8: Inner Communities, Pb depth profiles, all data.

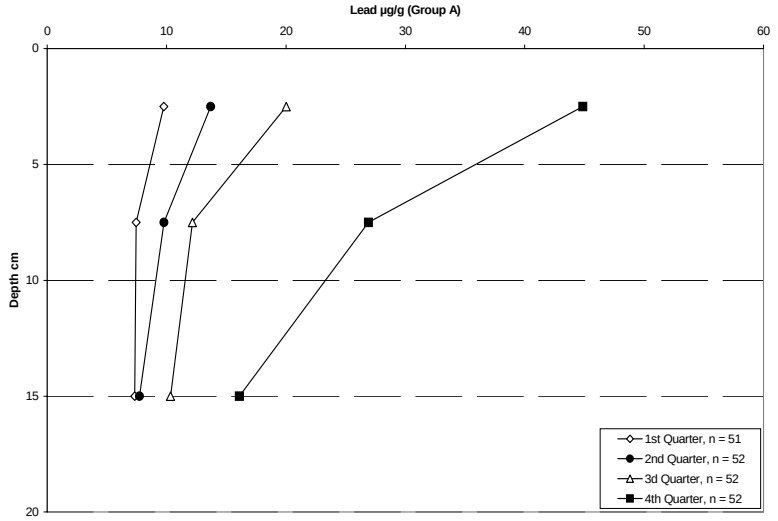


Figure 10.5.2.8a: Inner Communities, Pb depth profiles, Group A data.

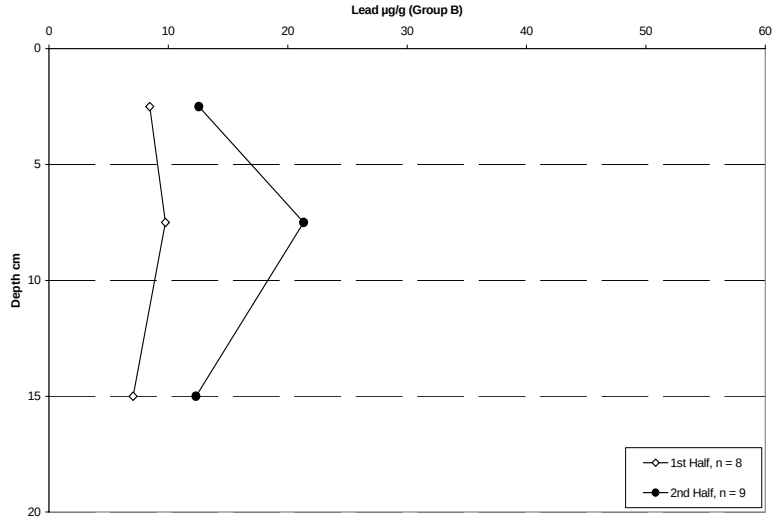


Figure 10.5.2.8b: Inner Communities, Pb depth profiles, Group B data.

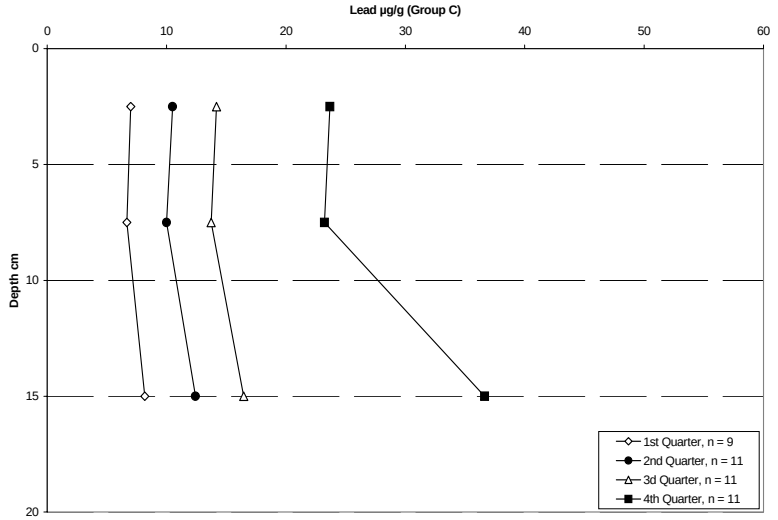


Figure 10.5.2.8c: Inner Communities, Pb depth profiles, Group C data.

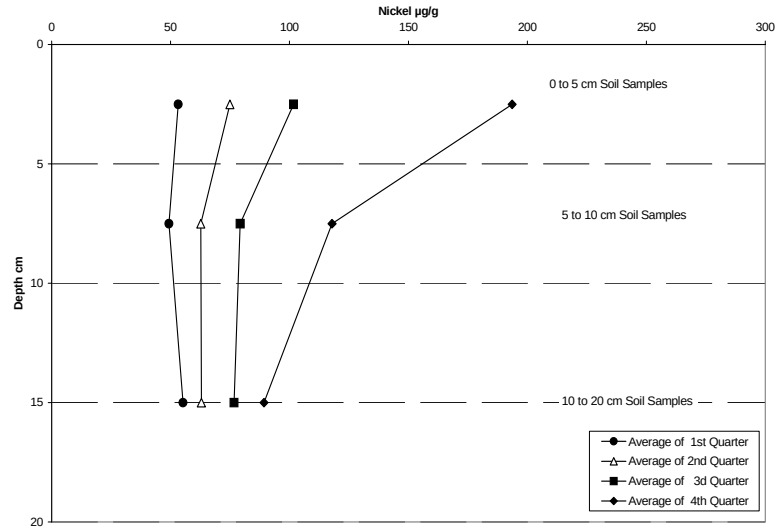


Figure 10.5.2.9: Inner Communities, Ni depth profiles, all data.

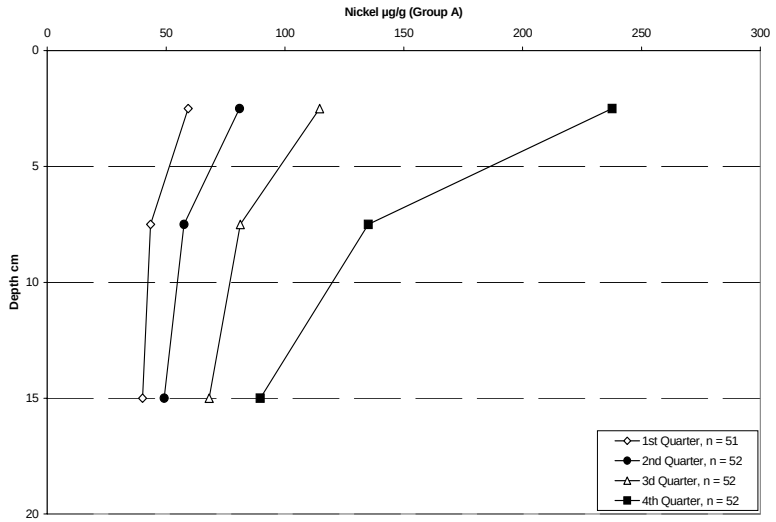


Figure 10.5.2.9a: Inner Communities, Ni depth profiles, Group A data.

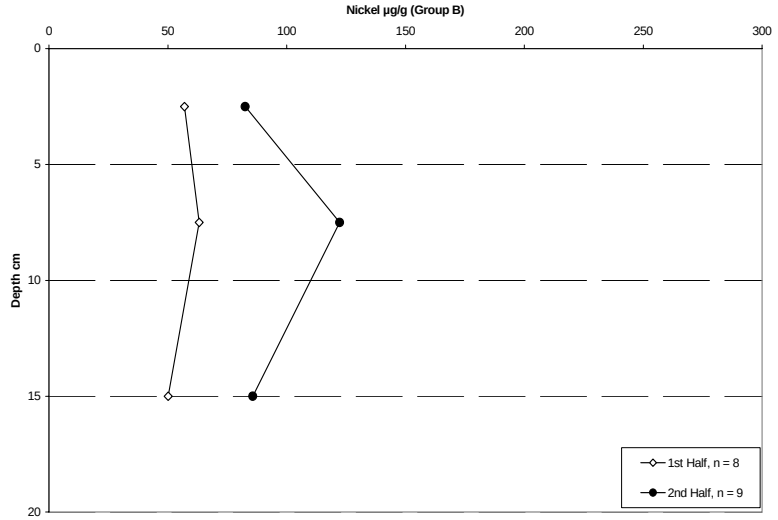


Figure 10.5.2.9b: Inner Communities, Ni depth profiles, Group B data.

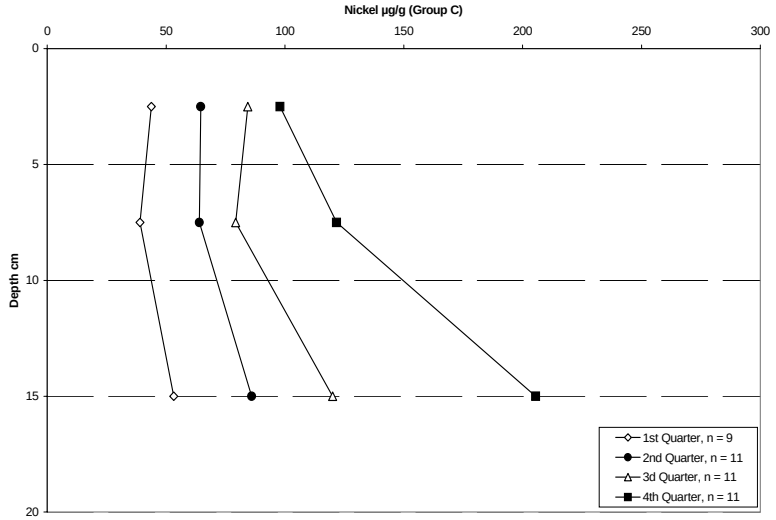


Figure 10.5.2.9c: Inner Communities, Ni depth profiles, Group C data.

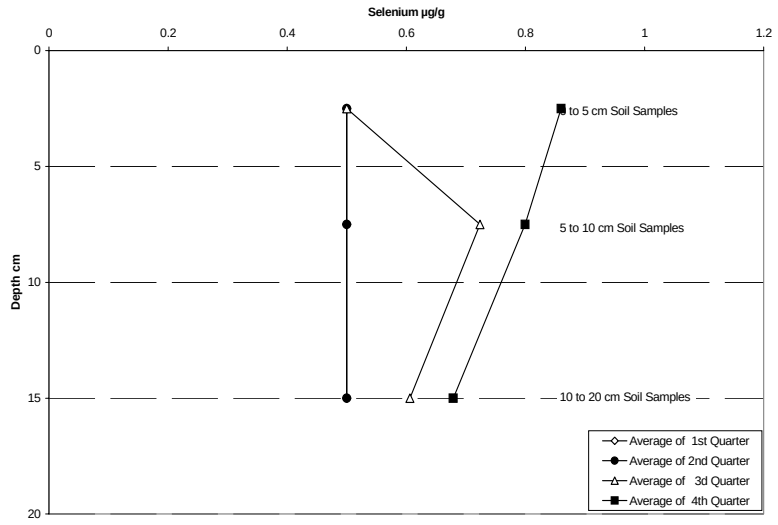


Figure 10.5.2.10: Inner Communities, Se depth profiles, all data.

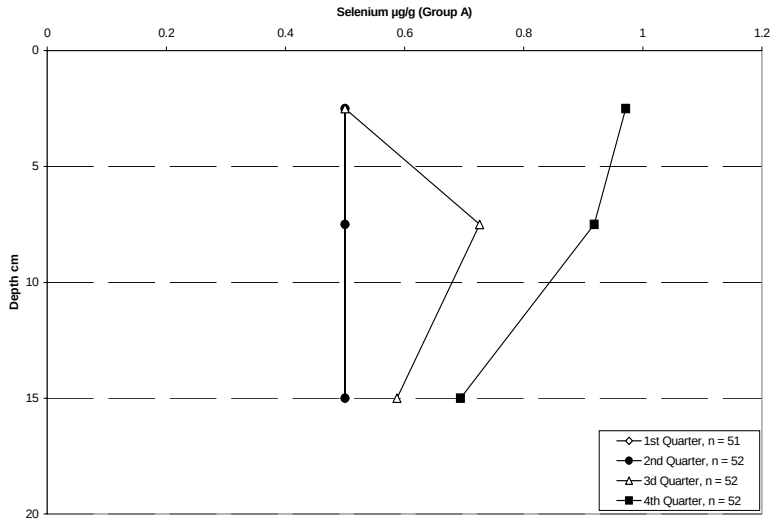


Figure 10.5.2.10a: Inner Communities, Se depth profiles, Group A data.

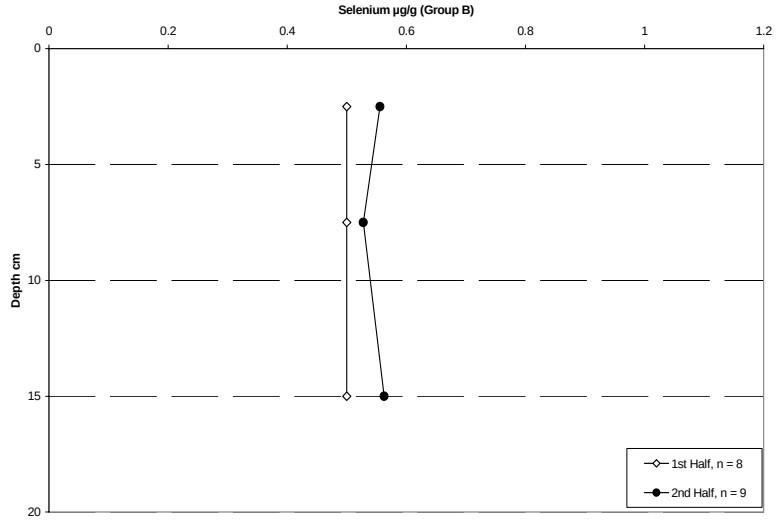


Figure 10.5.2.10b: Inner Communities, Se depth profiles, Group B data.

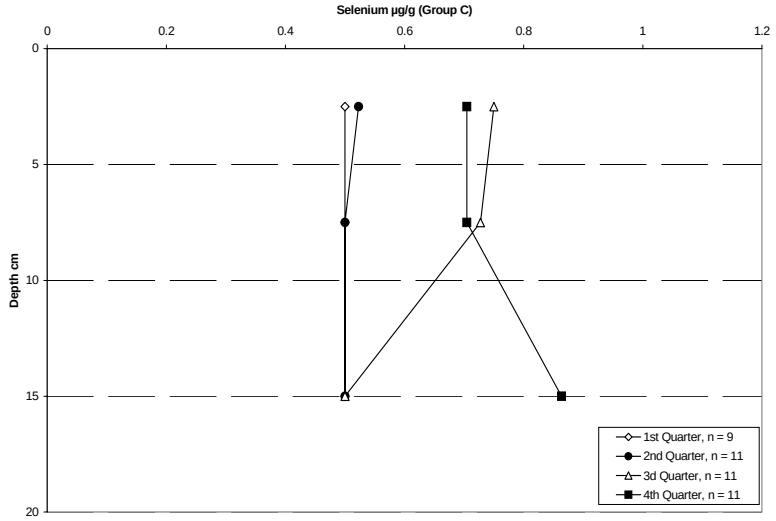


Figure 10.5.2.10c: Inner Communities, Se depth profiles, Group C data.

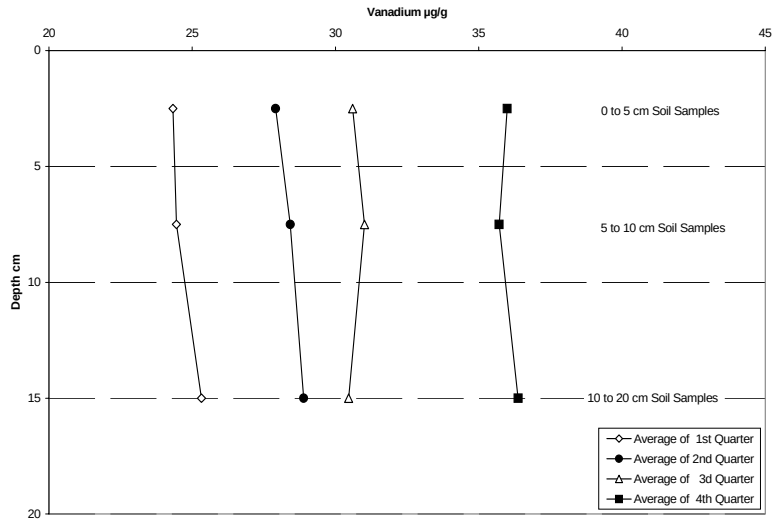


Figure 10.5.2.11: Inner Communities, V depth profiles, all data.

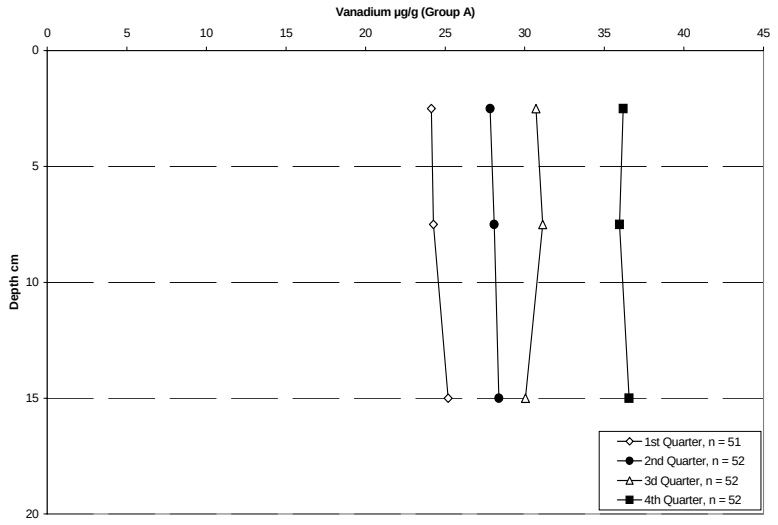


Figure 10.5.2.11a: Inner Communities, V depth profiles, Group A data.

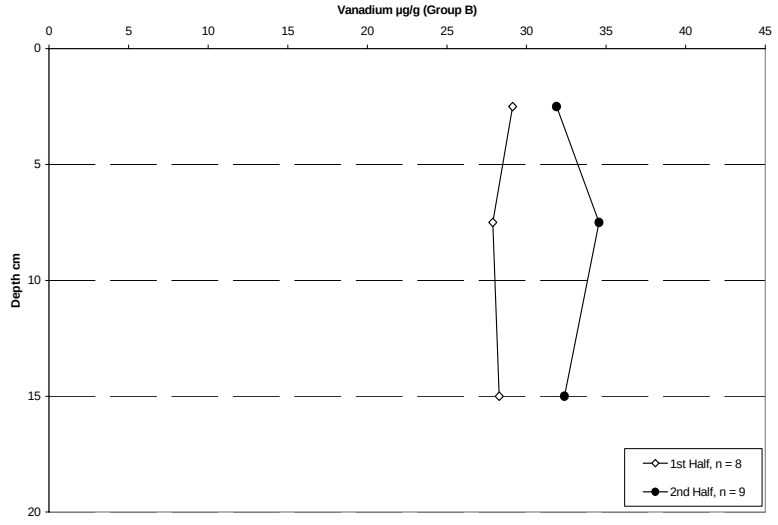


Figure 10.5.2.11b: Inner Communities, V depth profiles, Group B data.

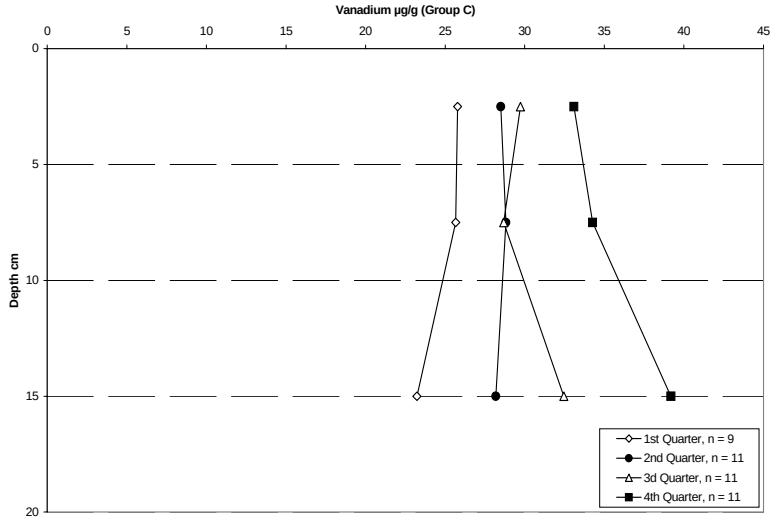


Figure 10.5.2.11c: Inner Communities, V depth profiles, Group C data.

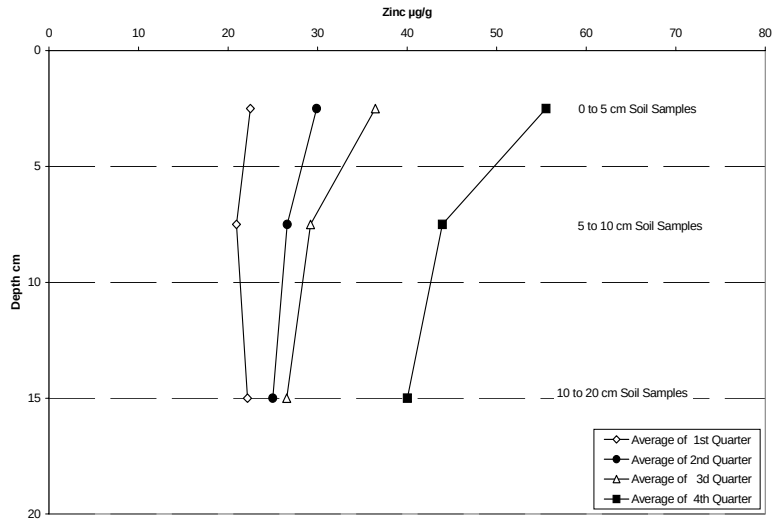


Figure 10.5.2.12: Inner Communities, Zn depth profiles, all data.

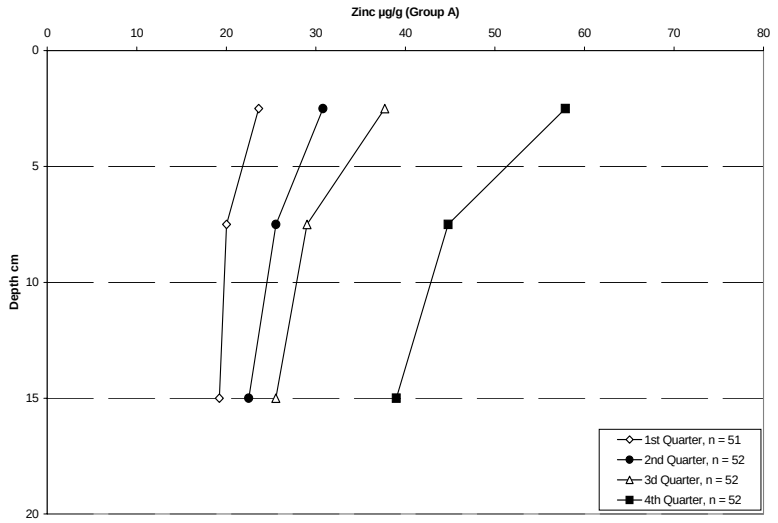


Figure 10.5.2.12a: Inner Communities, Zn depth profiles, Group A data.

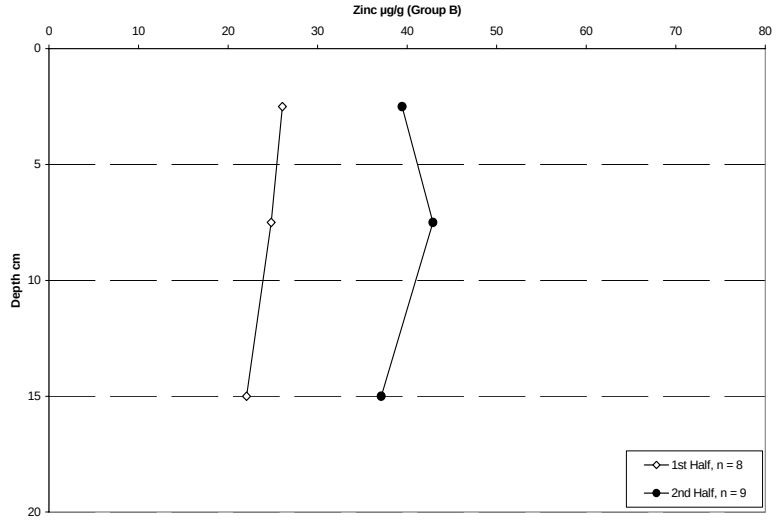


Figure 10.5.2.12b: Inner Communities, Zn depth profiles, Group B data.

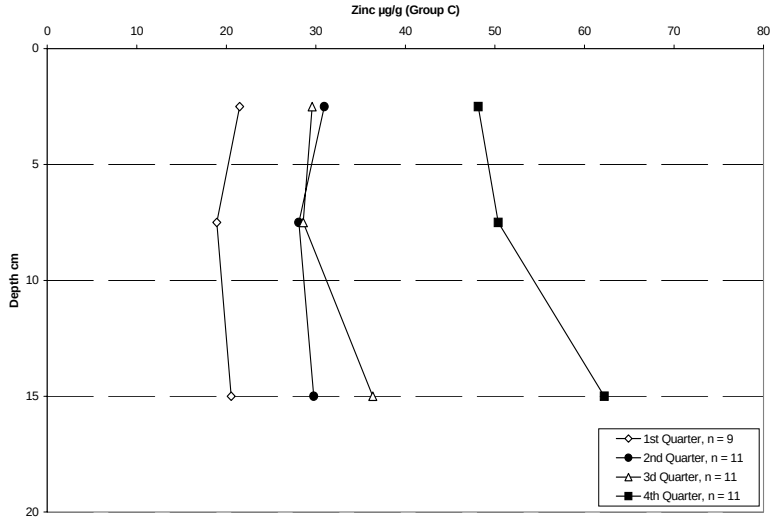


Figure 10.5.2.12c: Inner Communities, Zn depth profiles, Group C data.

10.5.3 Sudbury Core

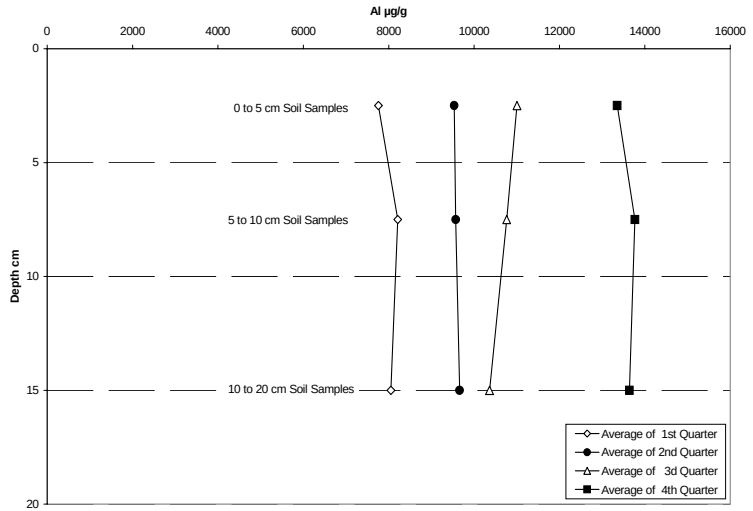


Figure 10.5.3.1: Sudbury Core, Al depth profiles, all data.

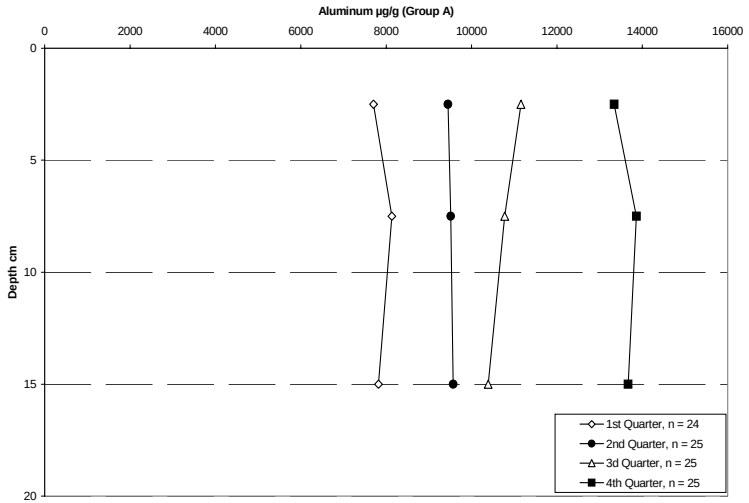


Figure 10.5.3.1a: Sudbury Core, Al depth profiles, Group A data.

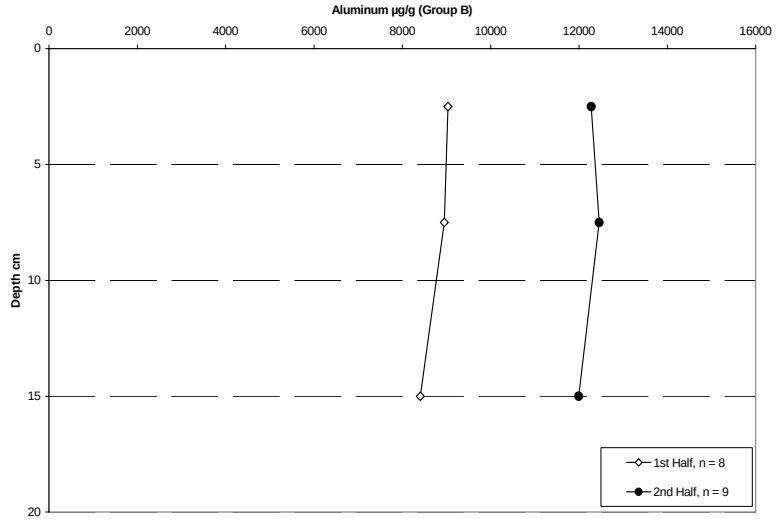


Figure 10.5.3.1b: Sudbury Core, Al depth profiles, Group B data.

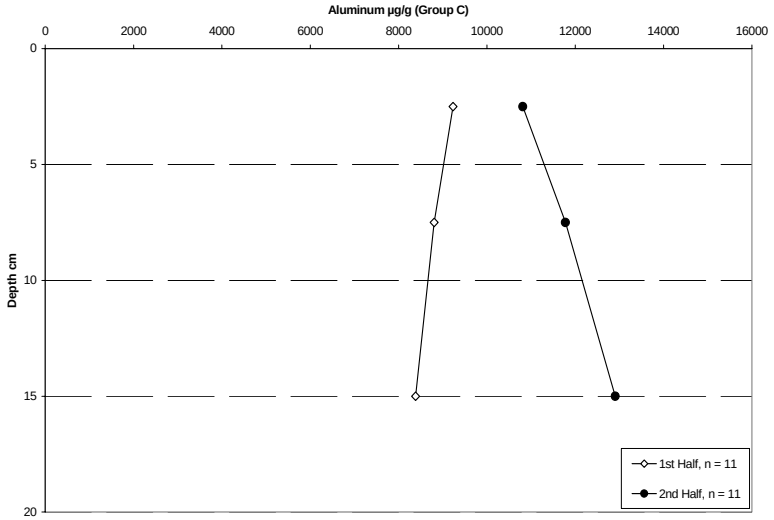


Figure 10.5.3.1c: Sudbury Core, Al depth profiles, Group C data.

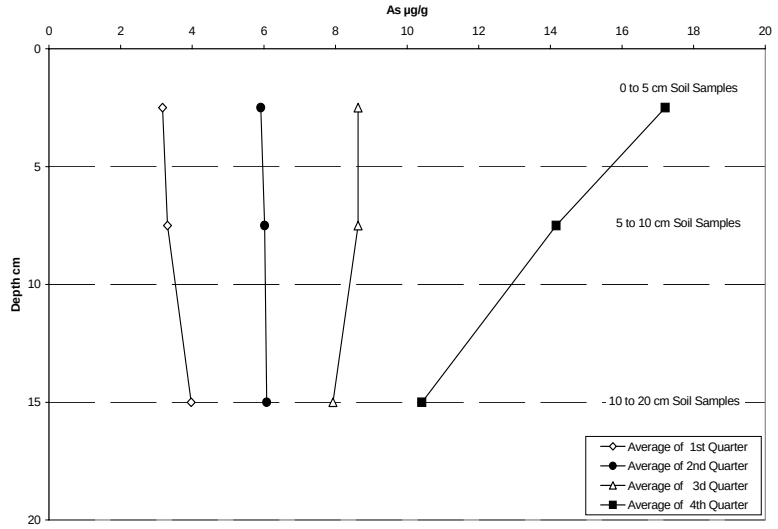


Figure 10.5.3.2: Sudbury Core, As depth profiles, all data.

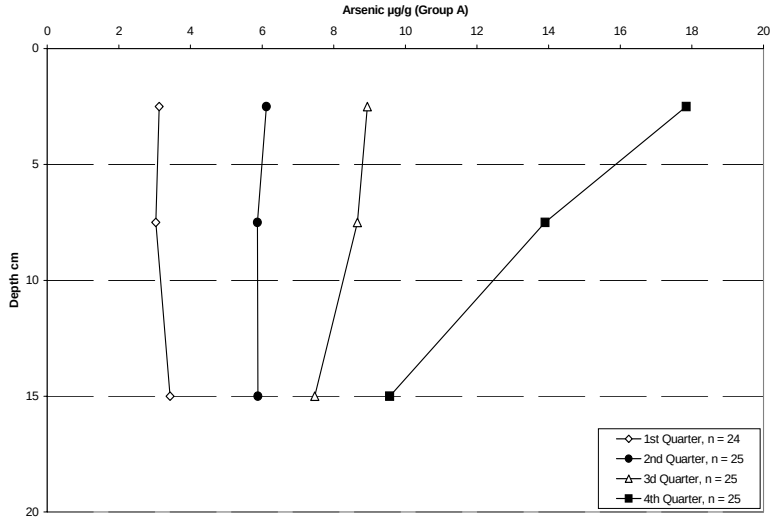


Figure 10.5.3.2a: Sudbury Core, As depth profiles, Group A data.

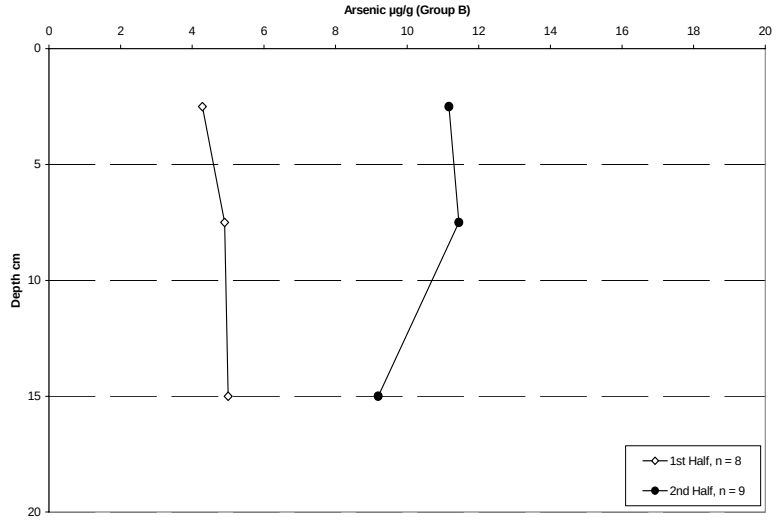


Figure 10.5.3.2b: Sudbury Core, As depth profiles, Group B data.

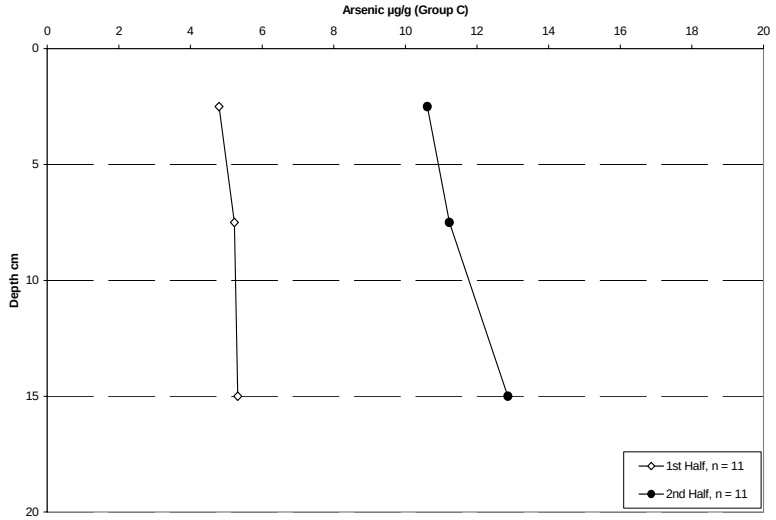


Figure 10.5.3.2c: Sudbury Core, As depth profiles, Group C data.

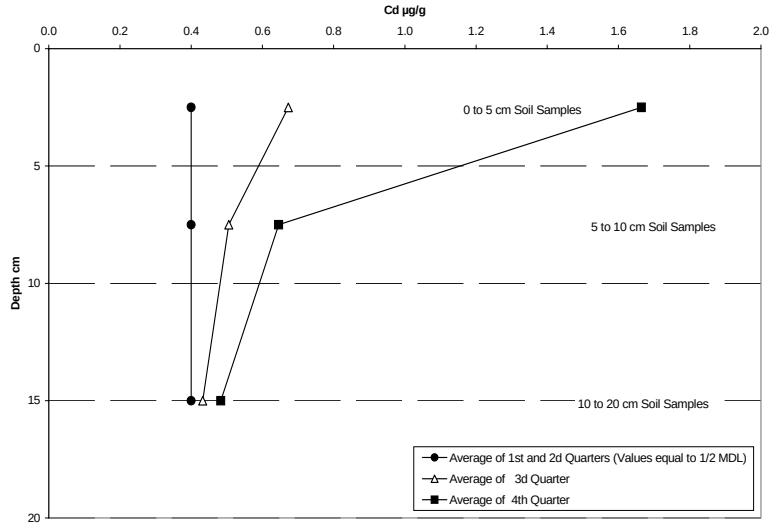


Figure 10.5.3.3: Sudbury Core, Cd depth profiles, all data.

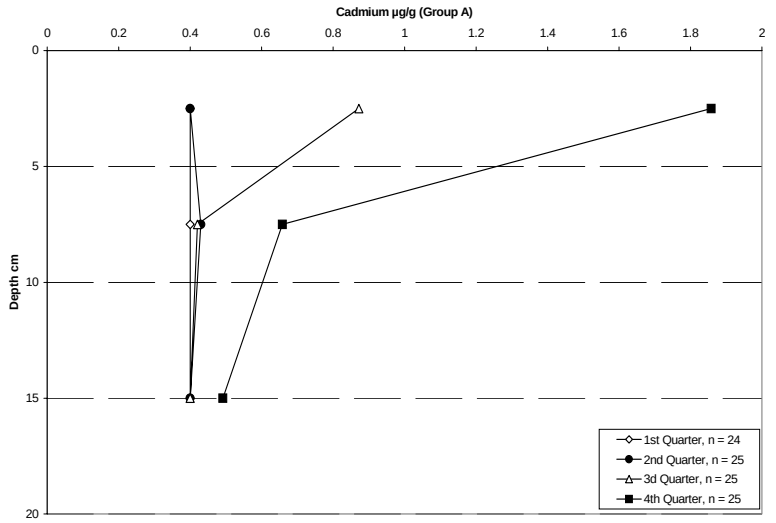


Figure 10.5.3.3a: Sudbury Core, Cd depth profiles, Group A data.

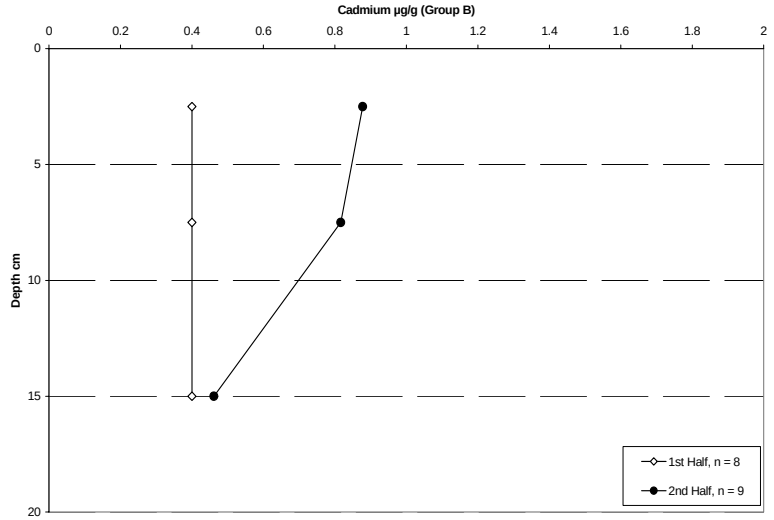


Figure 10.5.3.3b: Sudbury Core, Cd depth profiles, Group B data.

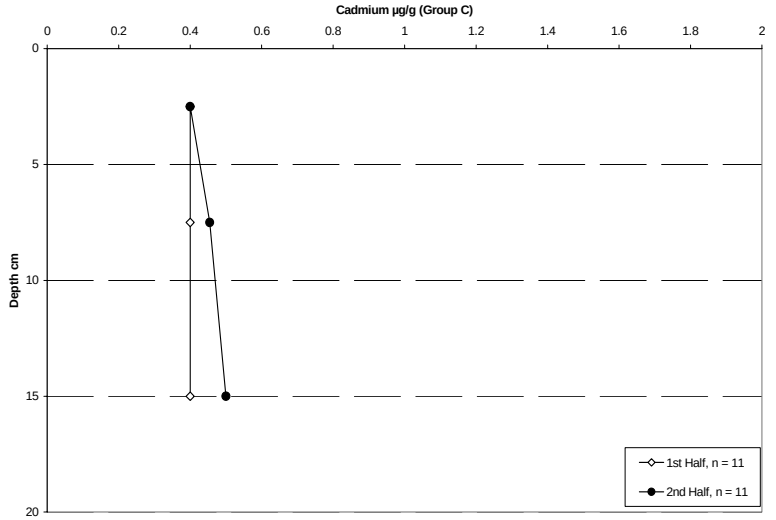


Figure 10.5.3.3c: Sudbury Core, Cd depth profiles, Group C data.

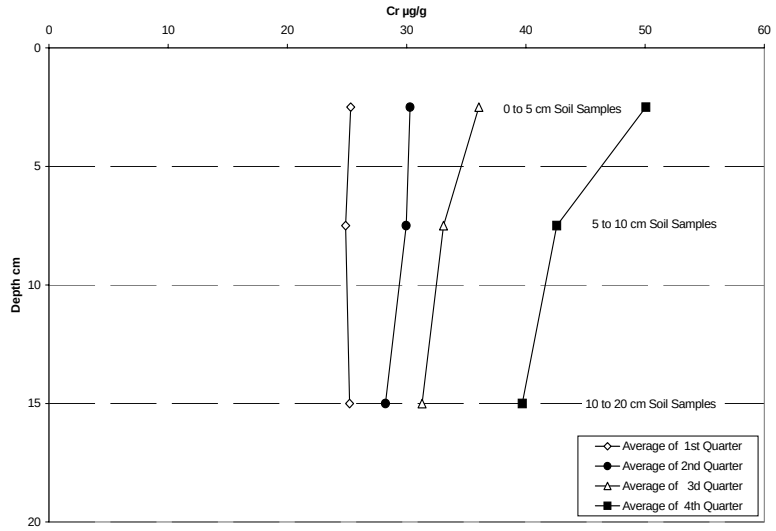


Figure 10.5.3.4: Sudbury Core, Cr depth profiles, all data.

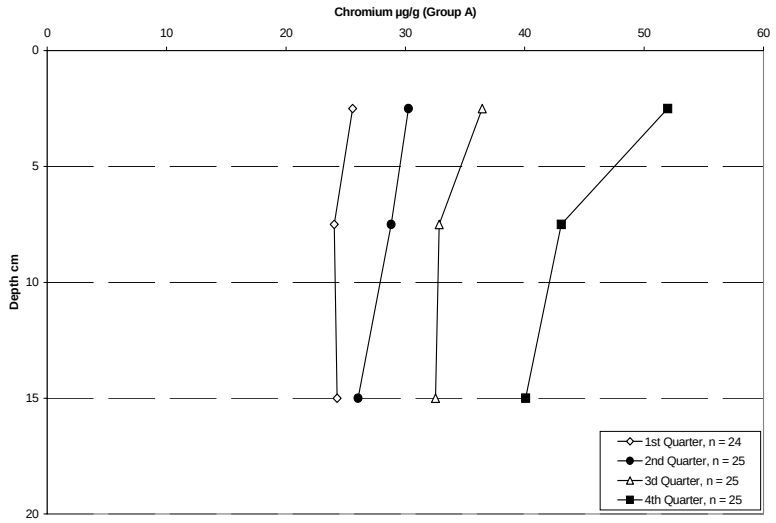


Figure 10.5.3.4a: Sudbury Core, Cr depth profiles, Group A data.

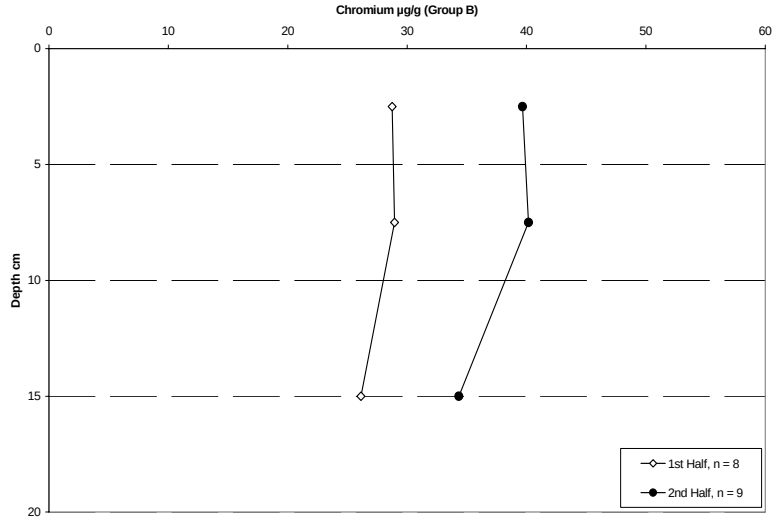


Figure 10.5.3.4b: Sudbury Core, Cr depth profiles, Group B data.

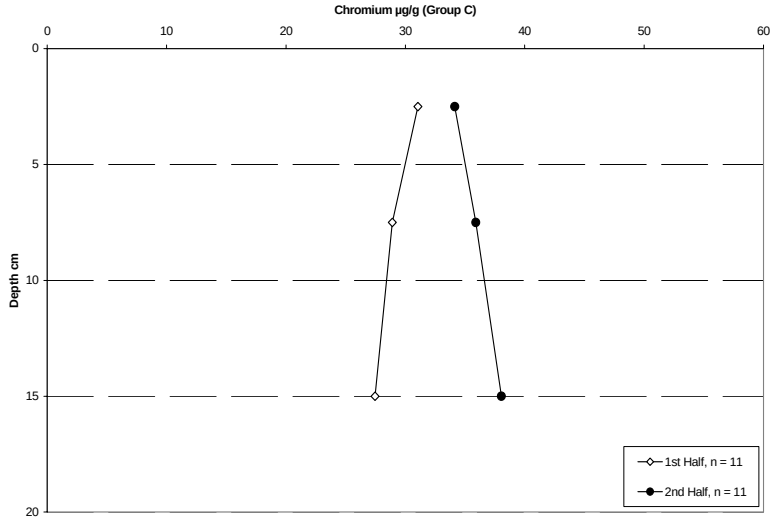


Figure 10.5.3.4c: Sudbury Core, Cr depth profiles, Group C data.

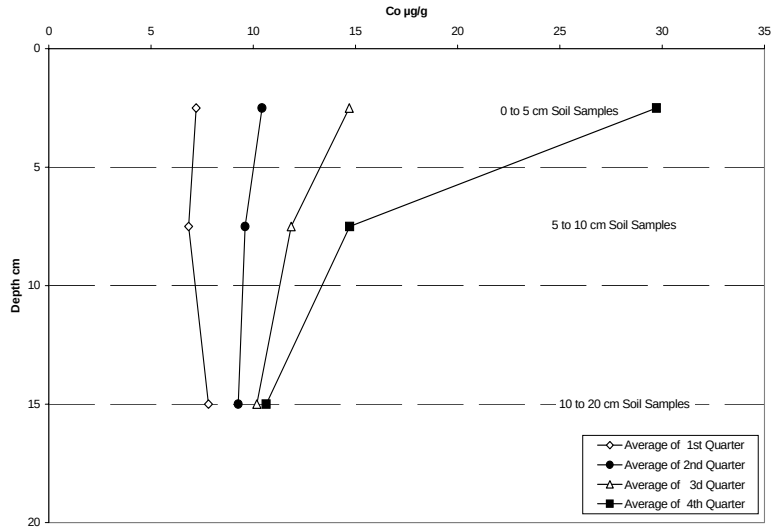


Figure 10.5.3.5: Sudbury Core, Co depth profiles, all data.

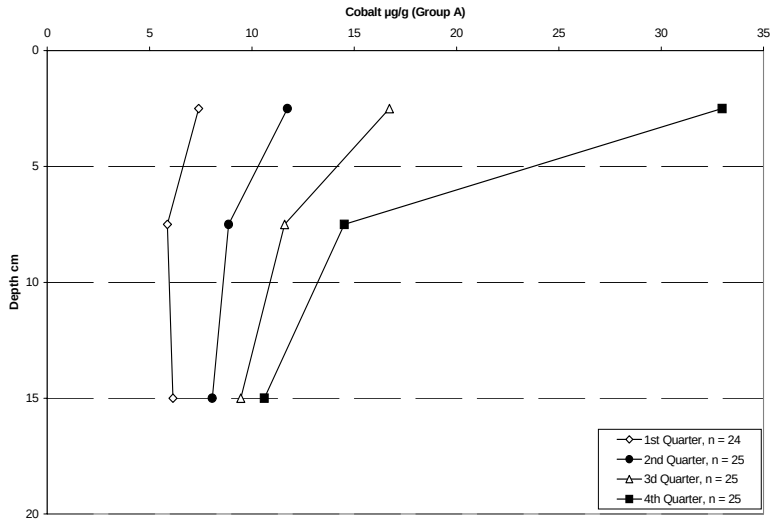


Figure 10.5.3.5a: Sudbury Core, Co depth profiles, Group A data.

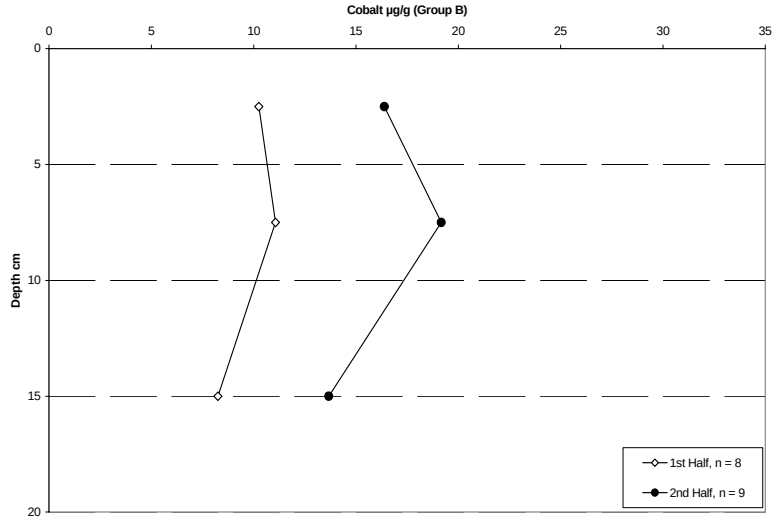


Figure 10.5.3.5b: Sudbury Core, Co depth profiles, Group B data.

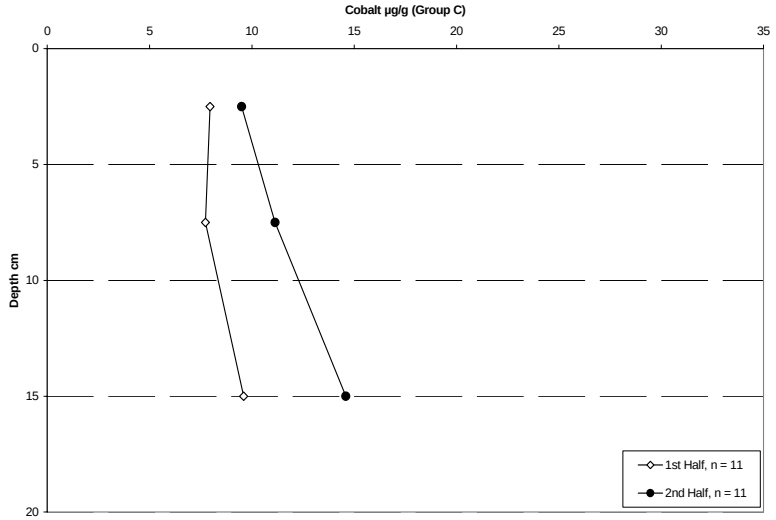


Figure 10.5.3.5c: Sudbury Core, Co depth profiles, Group C data.

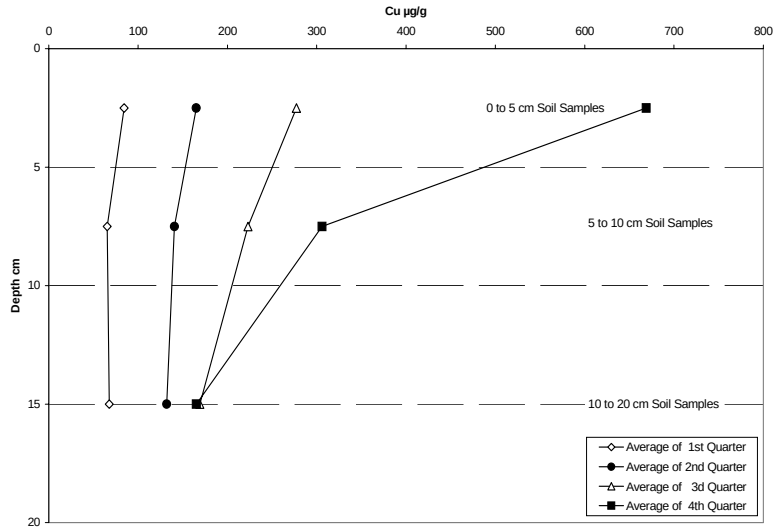


Figure 10.5.3.6: Sudbury Core, Cu depth profiles, all data.

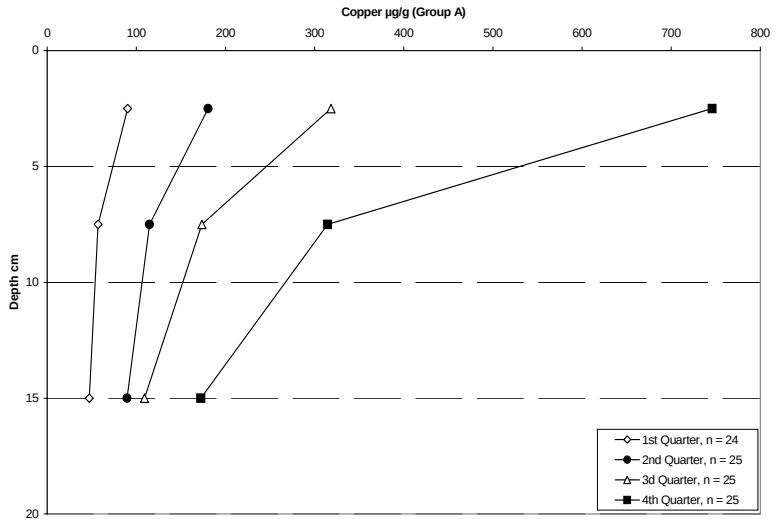


Figure 10.5.3.6a: Sudbury Core, Cu depth profiles, Group A data.

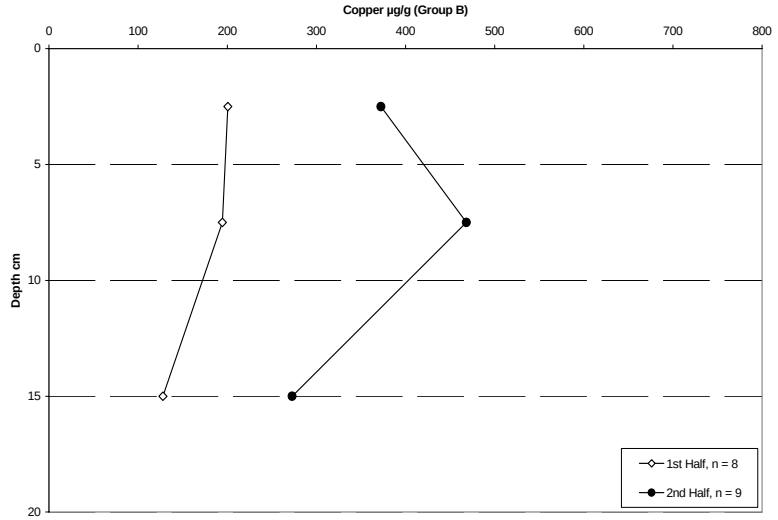


Figure 10.5.3.6b: Sudbury Core, Cu depth profiles, Group B data.

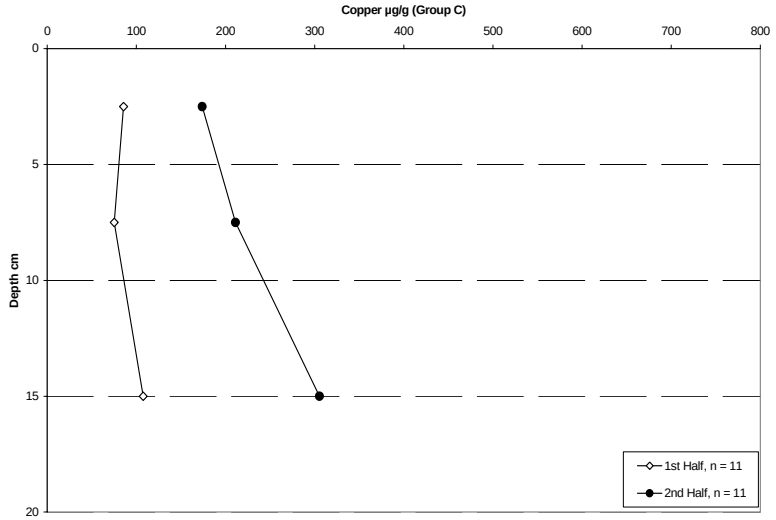


Figure 10.5.3.6c: Sudbury Core, Cu depth profiles, Group C data.

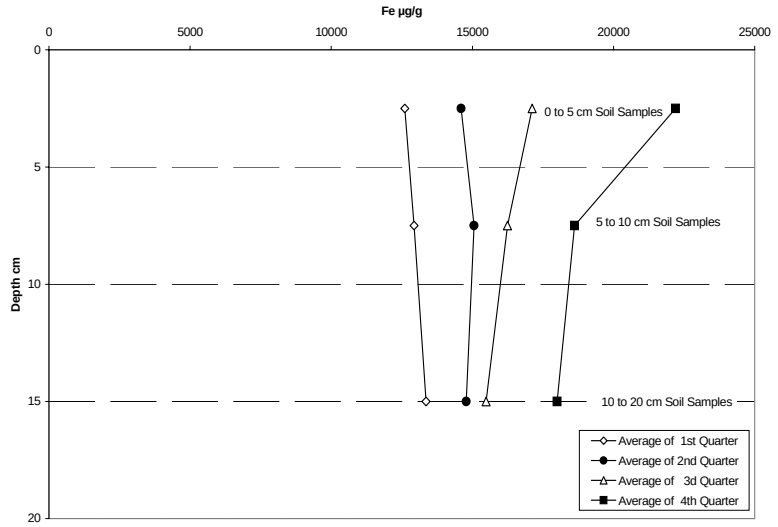


Figure 10.5.3.7: Sudbury Core, Fe depth profiles, all data.

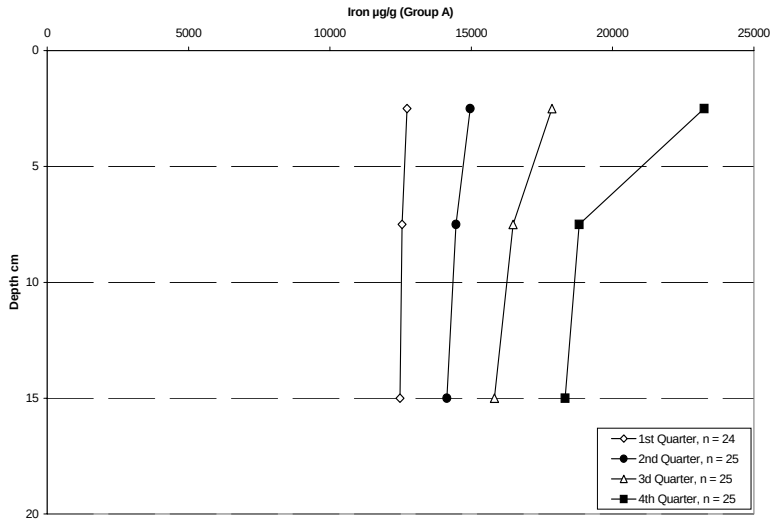


Figure 10.5.3.7a: Sudbury Core, Fe depth profiles, Group A data.

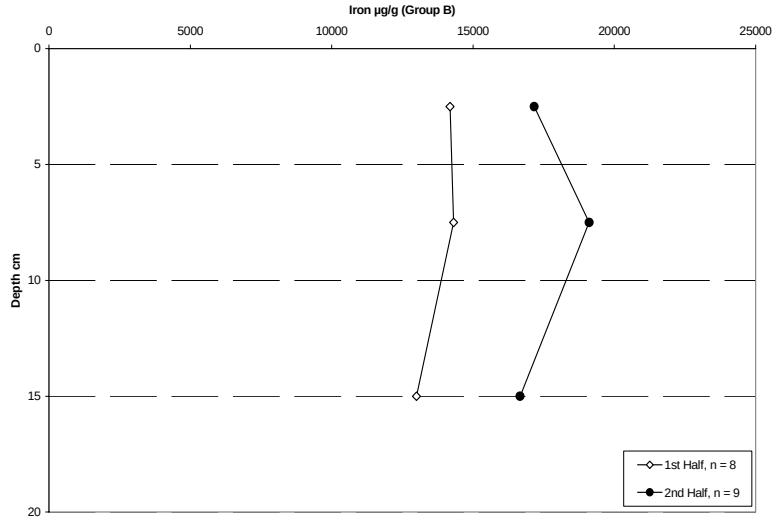


Figure 10.5.3.7b: Sudbury Core, Fe depth profiles, Group B data.

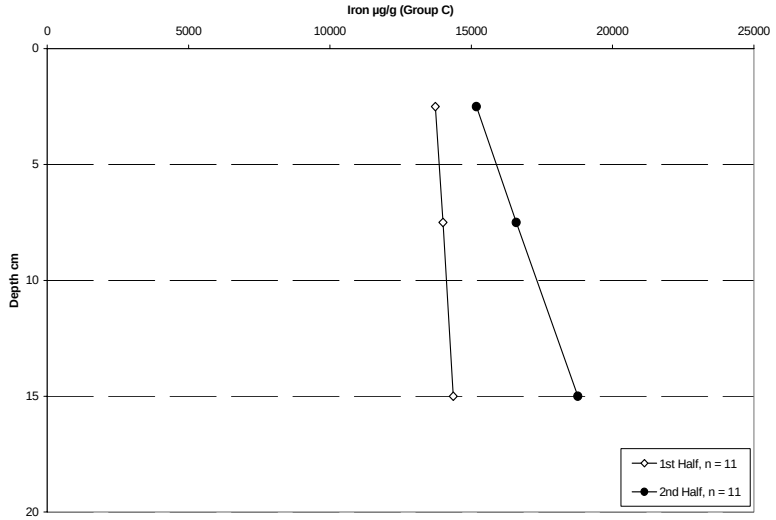


Figure 10.5.3.7c: Sudbury Core, Fe depth profiles, Group C data.

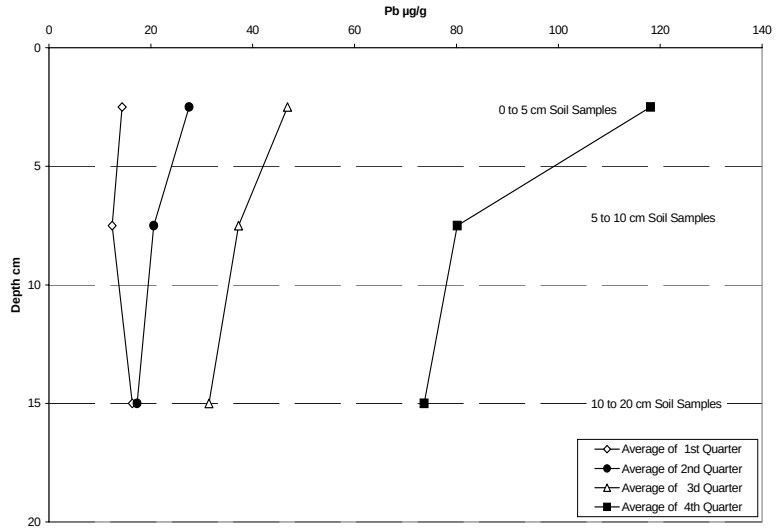


Figure 10.5.3.8: Sudbury Core, Pb depth profiles, all data.

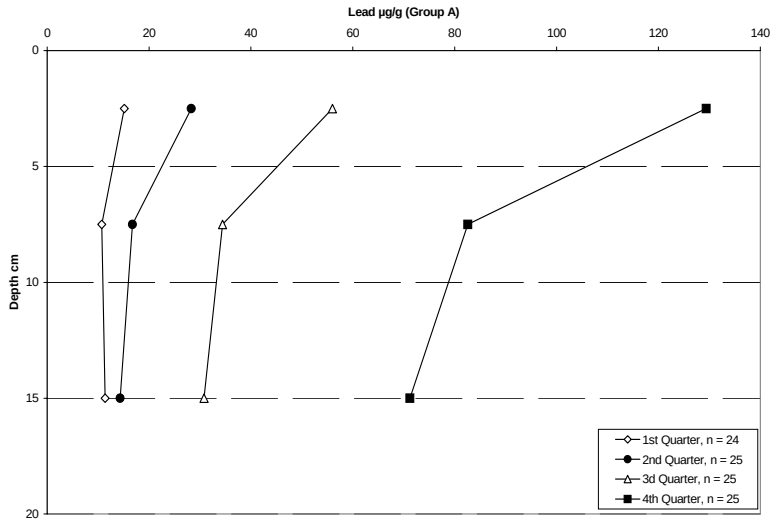


Figure 10.5.3.8a: Sudbury Core, Pb depth profiles, Group A data.

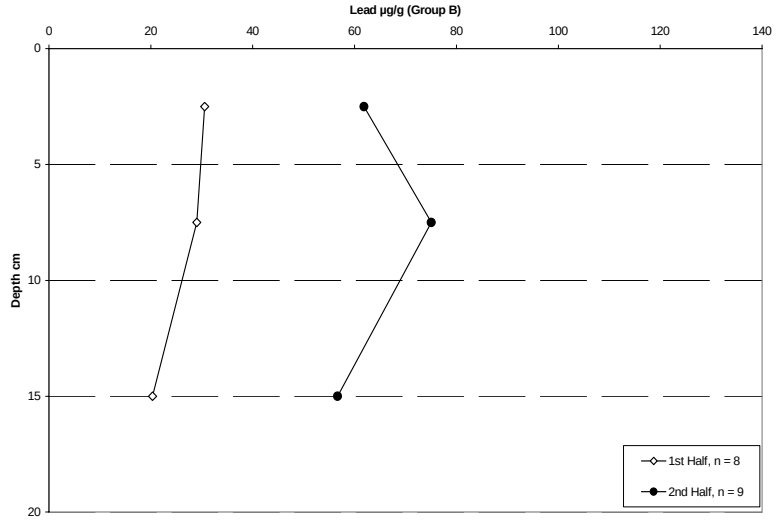


Figure 10.5.3.8b: Sudbury Core, Pb depth profiles, Group B data.

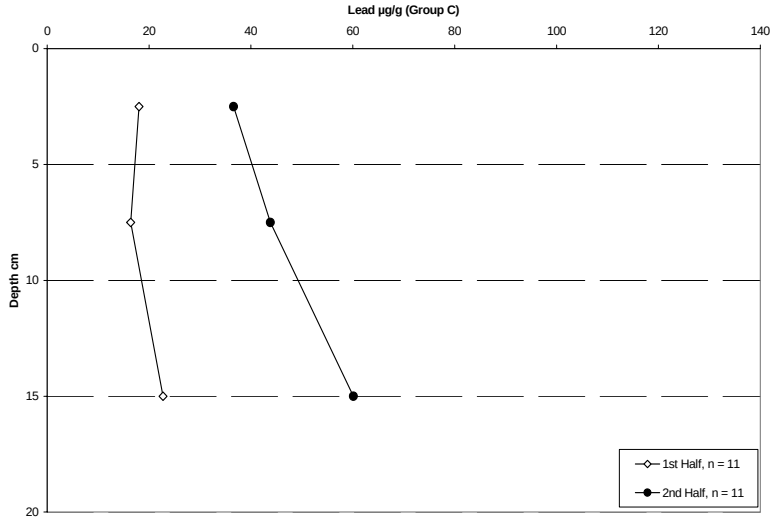


Figure 10.5.3.8c: Sudbury Core, Pb depth profiles, Group C data.

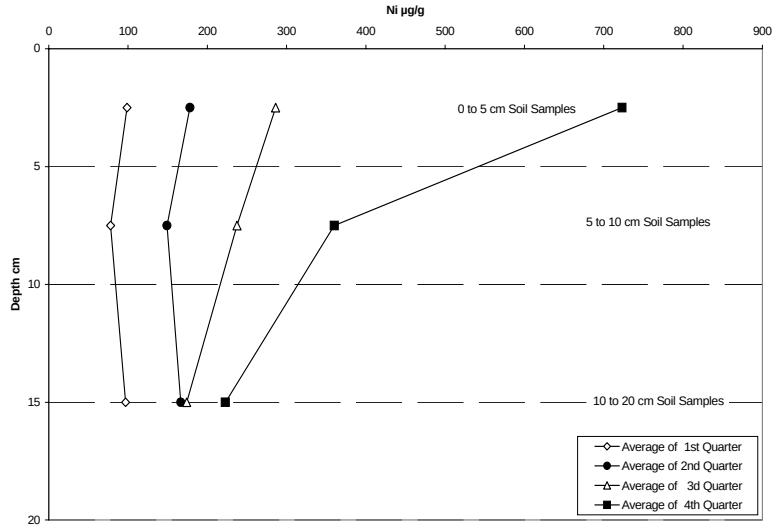


Figure 10.5.3.9: Sudbury Core, Ni depth profiles, all data.

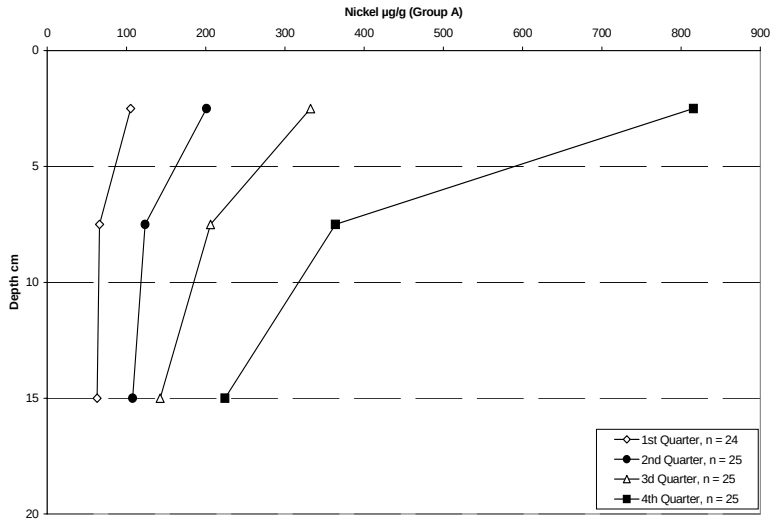


Figure 10.5.3.9a: Sudbury Core, Ni depth profiles, Group A data.

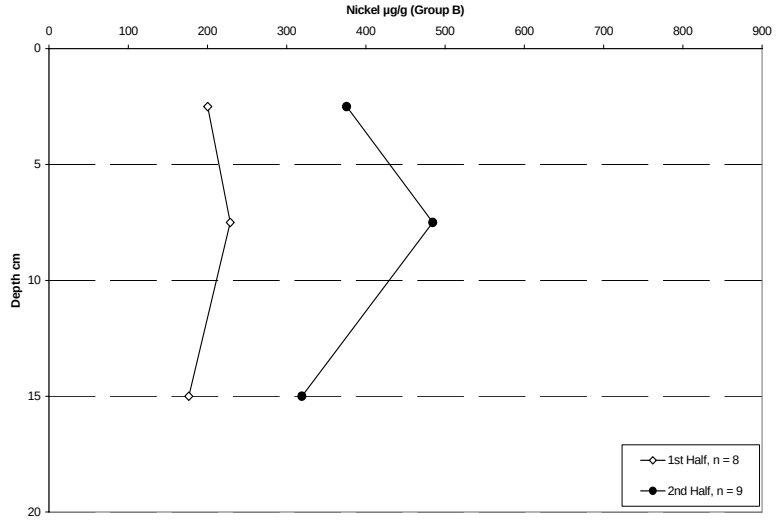


Figure 10.5.3.9b: Sudbury Core, Ni depth profiles, Group B data.

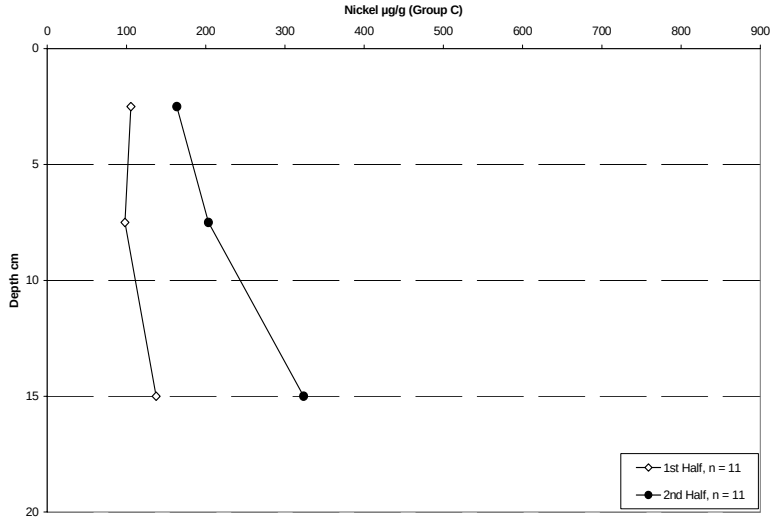


Figure 10.5.3.9c: Sudbury Core, Ni depth profiles, Group C data.

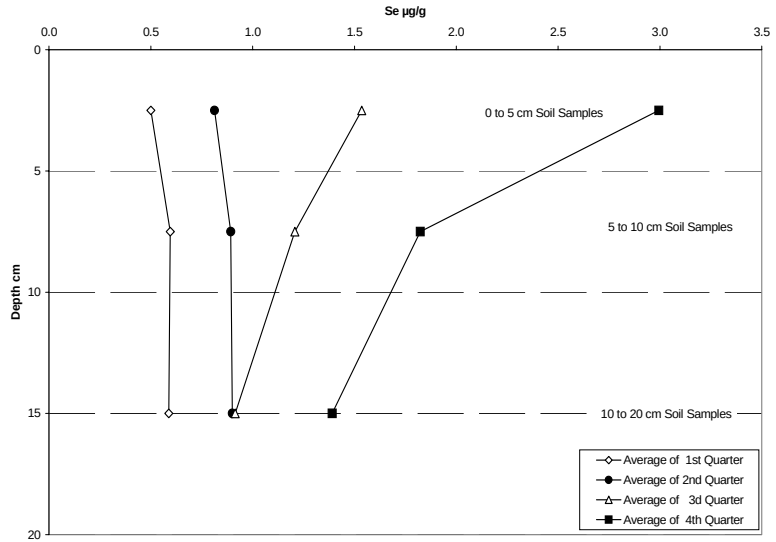


Figure 10.5.3.10: Sudbury Core, Se depth profiles, all data.

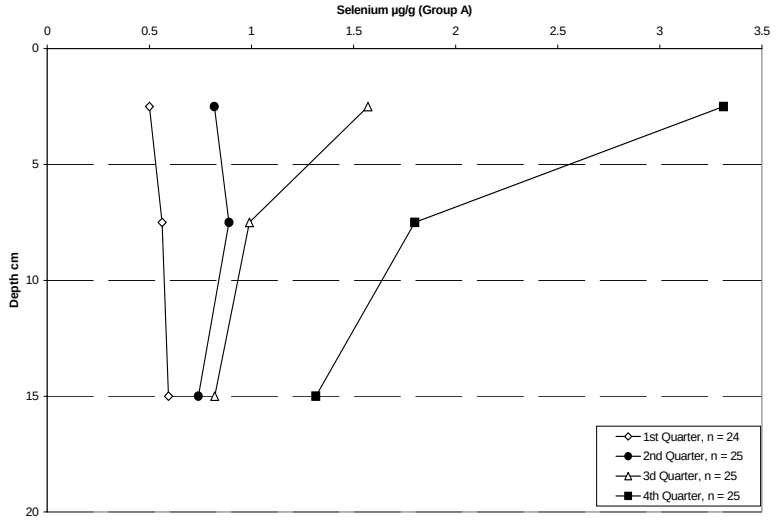


Figure 10.5.3.10a: Sudbury Core, Se depth profiles, Group A data.

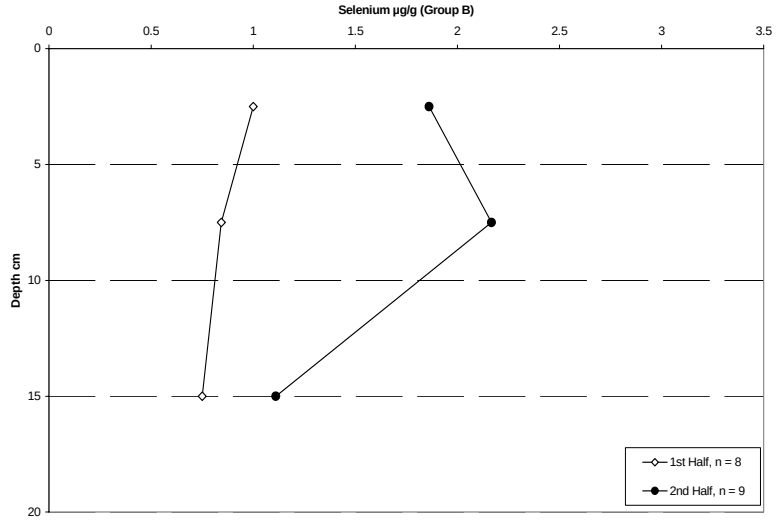


Figure 10.5.3.10b: Sudbury Core, Se depth profiles, Group B data.

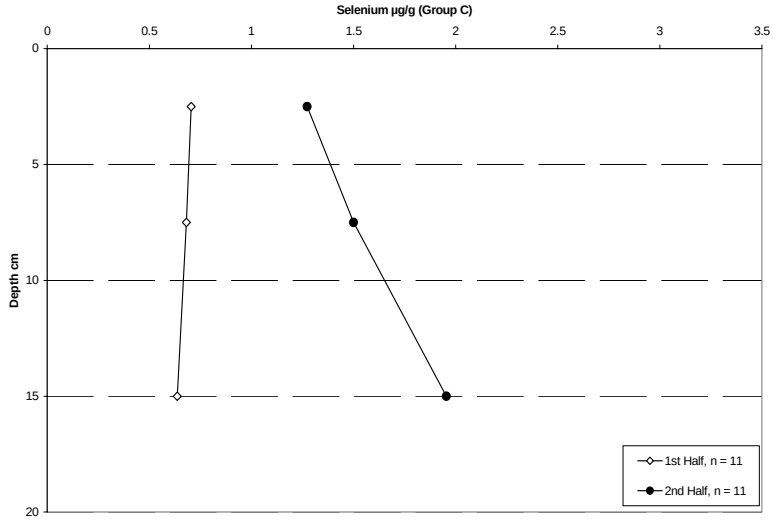


Figure 10.5.3.10c: Sudbury Core, Se depth profiles, Group C data.

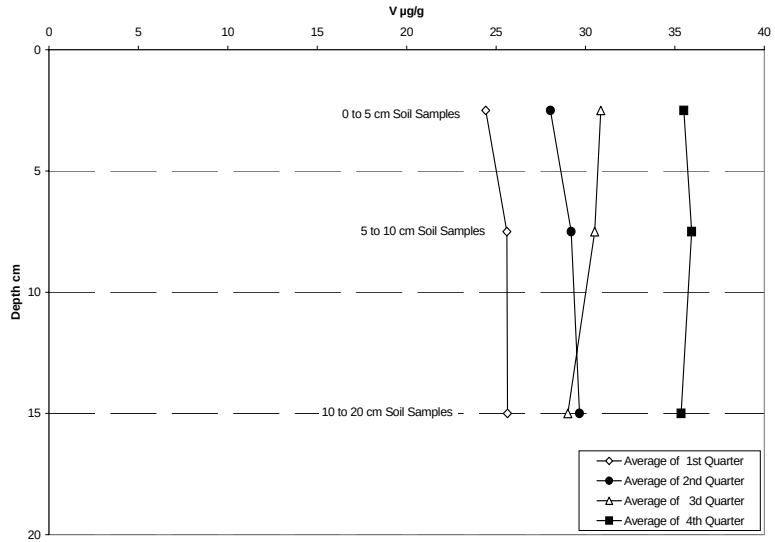


Figure 10.5.3.11: Sudbury Core, V depth profiles, all data.

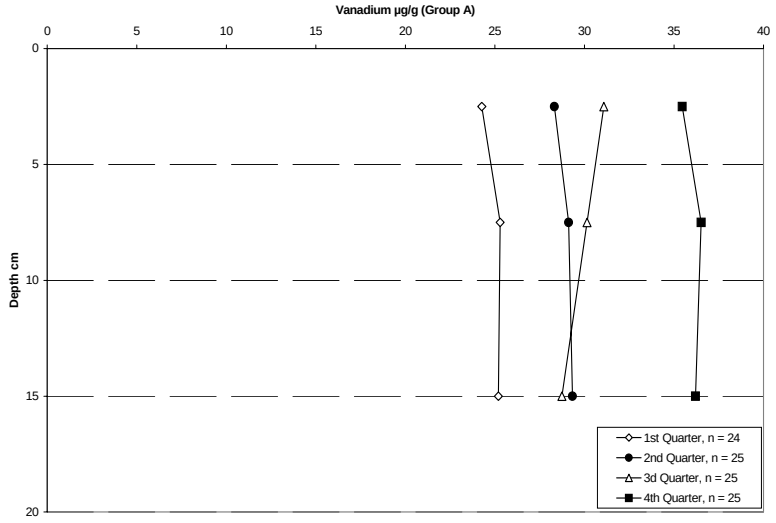


Figure 10.5.3.11a: Sudbury Core, V depth profiles, Group A data.

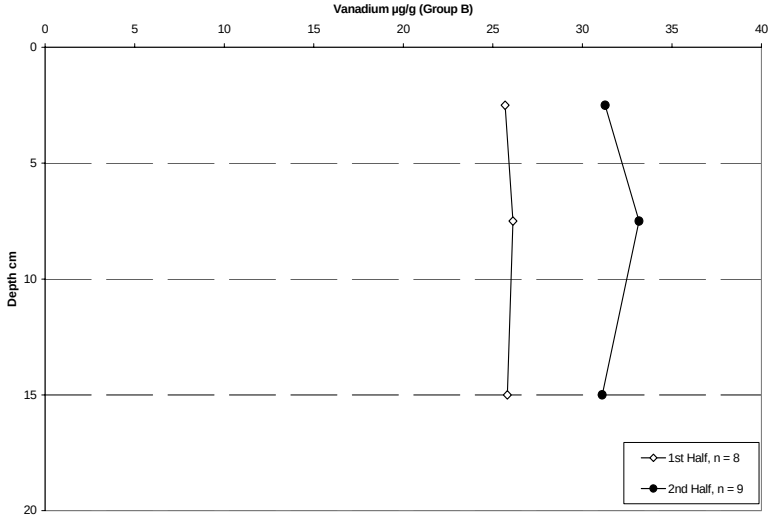


Figure 10.5.3.11b: Sudbury Core, V depth profiles, Group B data.

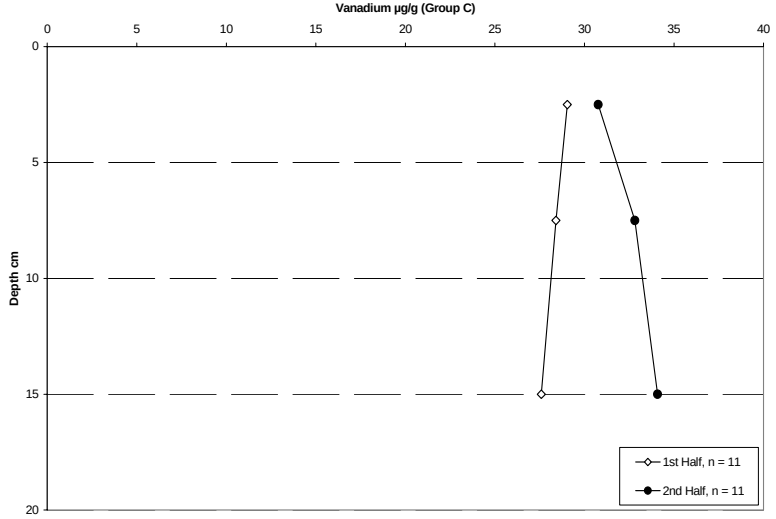


Figure 10.5.3.11c: Sudbury Core, V depth profiles, Group C data.

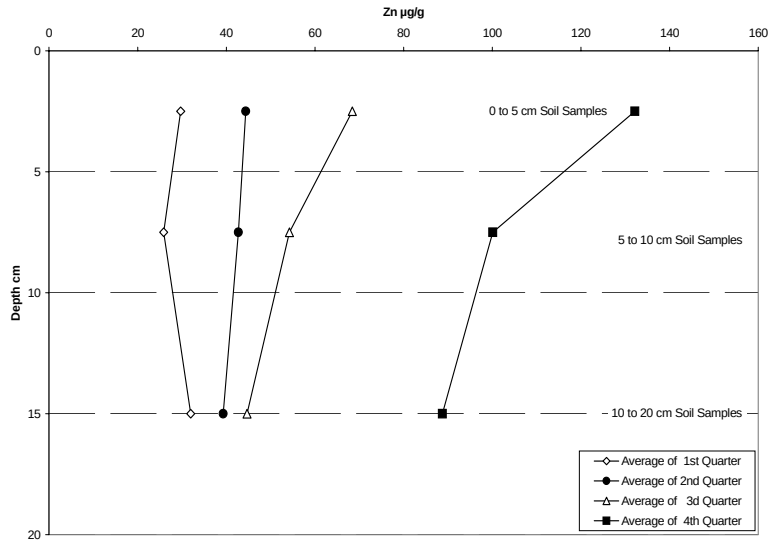


Figure 10.5.3.12: Sudbury Core, Zn depth profiles, all data.

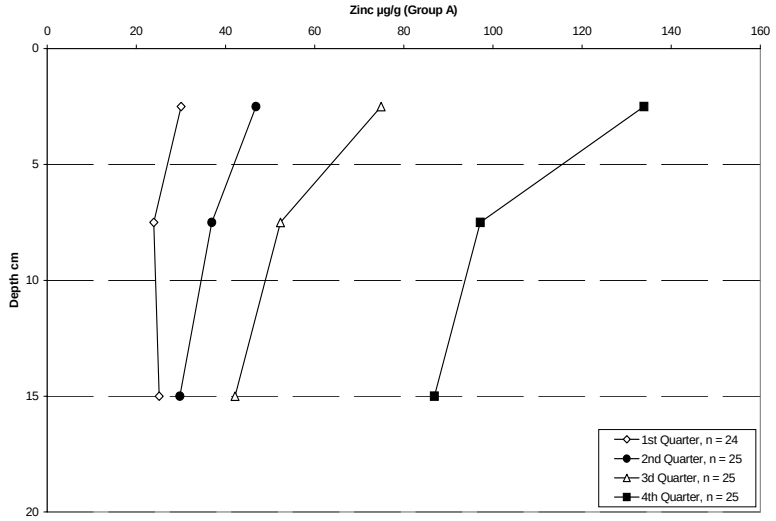


Figure 10.5.3.12a: Sudbury Core, Zn depth profiles, Group A data.

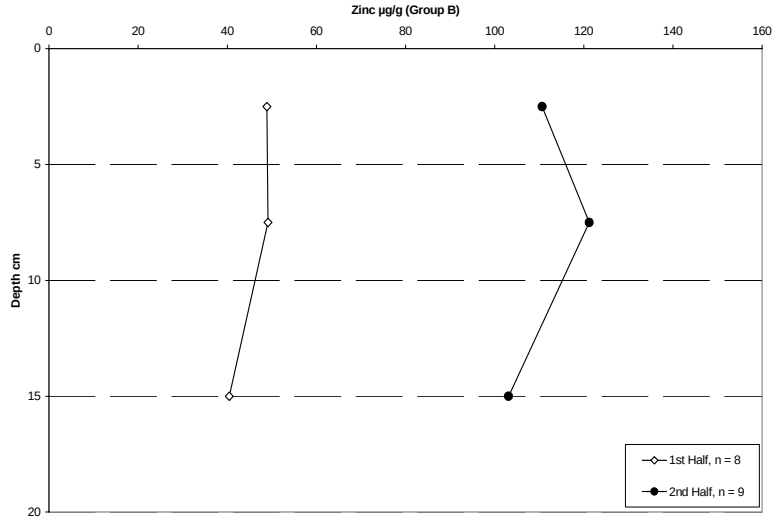


Figure 10.5.3.12b: Sudbury Core, Zn depth profiles, Group B data.

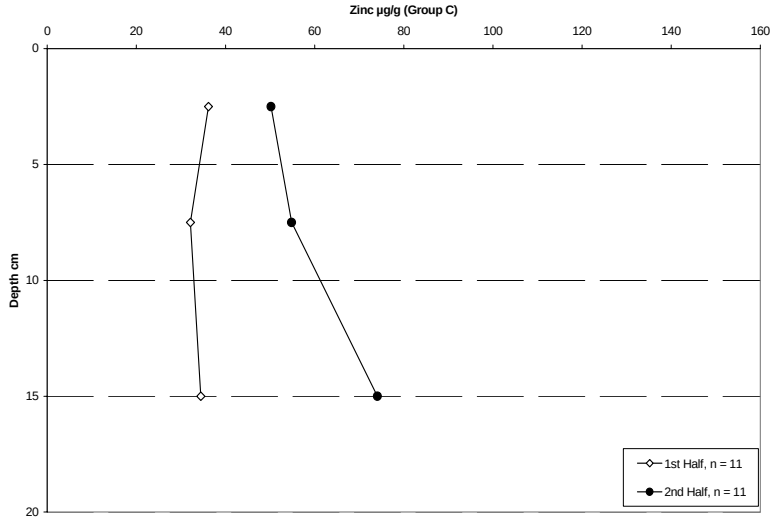


Figure 10.5.3.12c: Sudbury Core, Zn depth profiles, Group C data.

10.5.4 Coniston

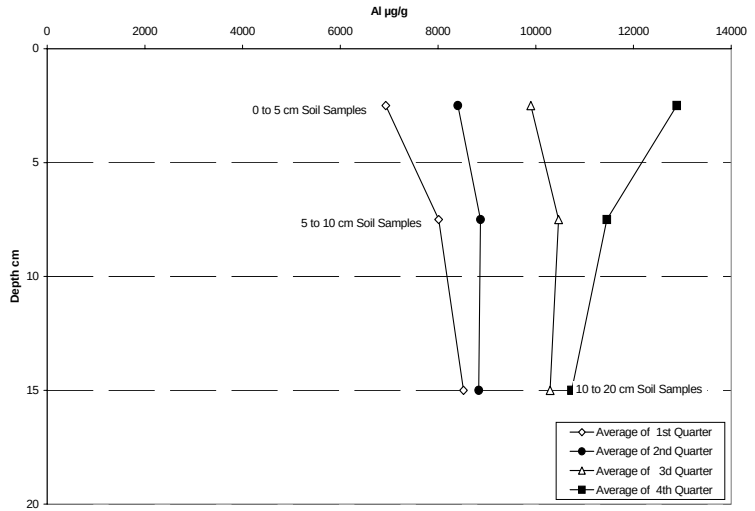


Figure 10.5.4.1: Coniston, Al depth profiles, all data.

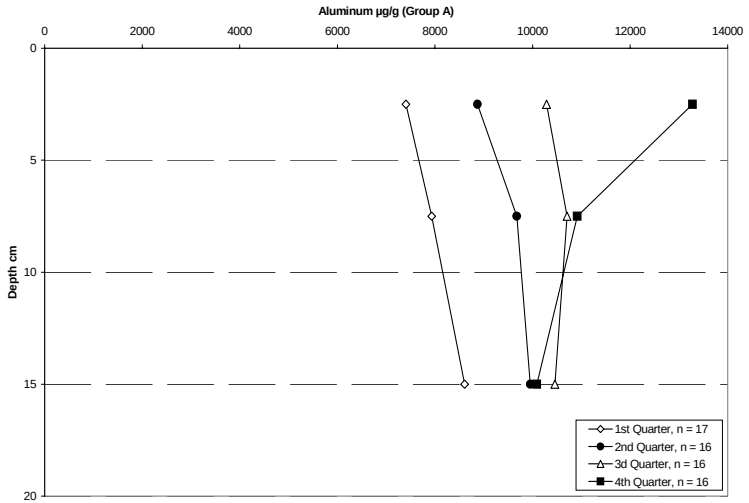


Figure 10.5.4.1a: Coniston, Al depth profiles, Group A data.

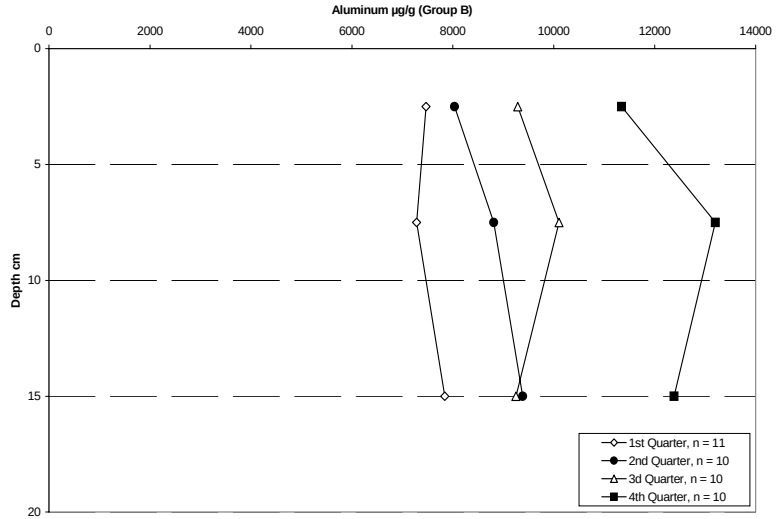


Figure 10.5.4.1b: Coniston, Al depth profiles, Group B data.

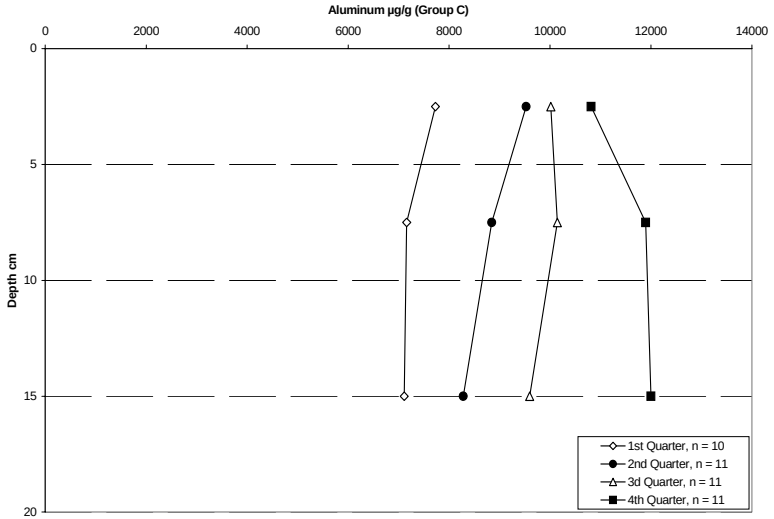


Figure 10.5.4.1c: Coniston, Al depth profiles, Group C data.

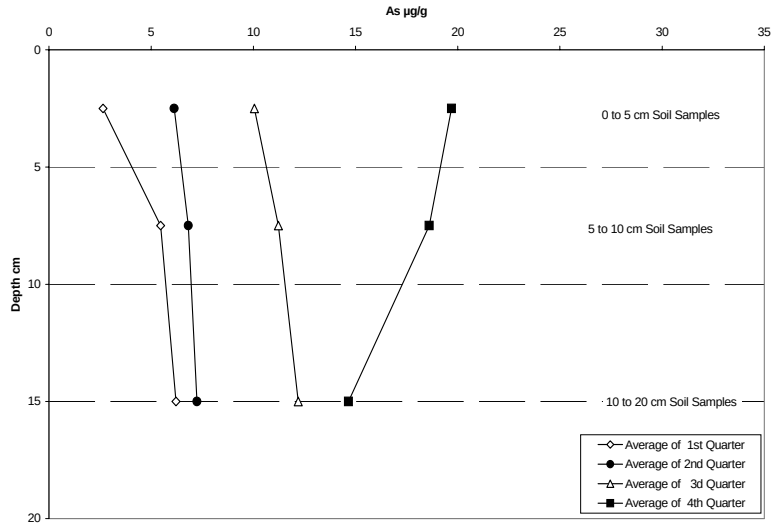


Figure 10.5.4.2: Coniston, As depth profiles, all data.

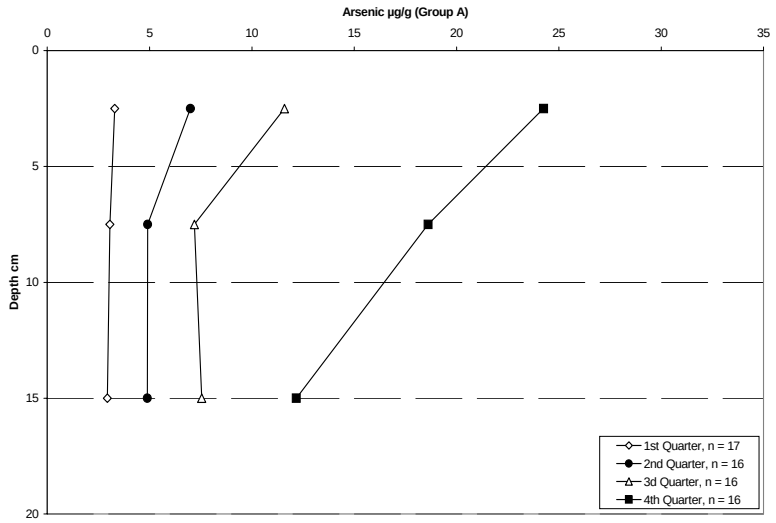


Figure 10.5.4.2a: Coniston, As depth profiles, Group A data.

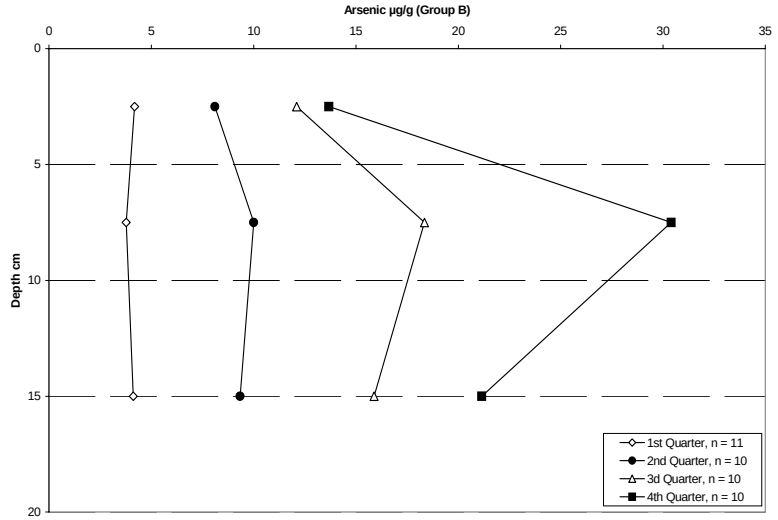


Figure 10.5.4.2b: Coniston, As depth profiles, Group B data.

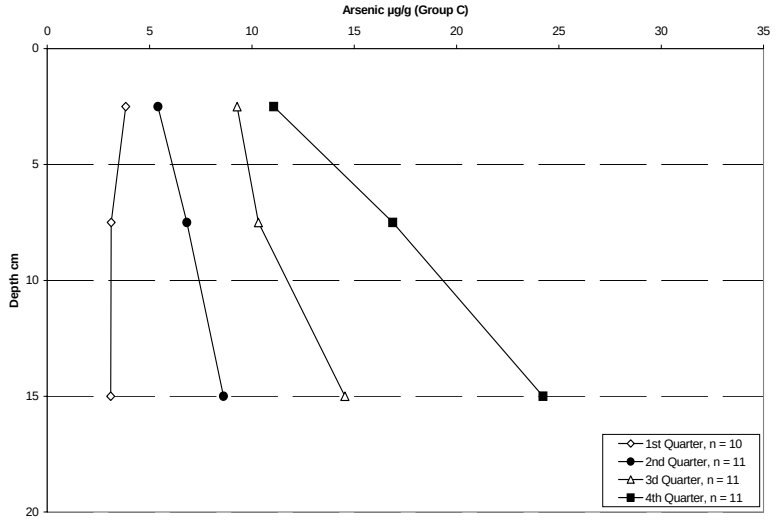


Figure 10.5.4.2c: Coniston, As depth profiles, Group C data.

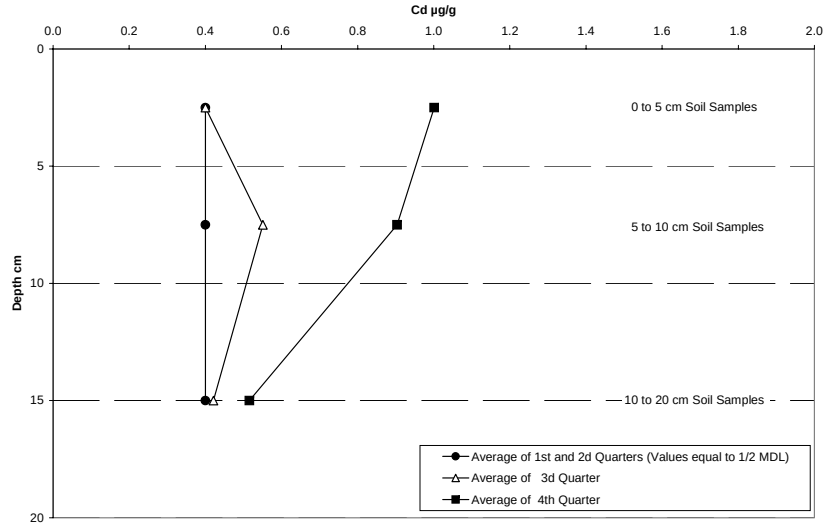


Fig. 10.5.4.3: Coniston, Cd depth profiles, all data.

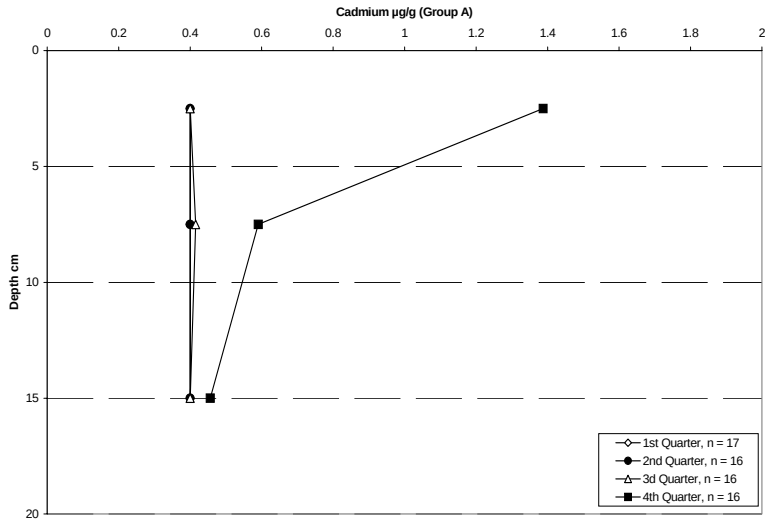


Figure 10.5.4.3a: Coniston, Cd depth profiles, Group A data.

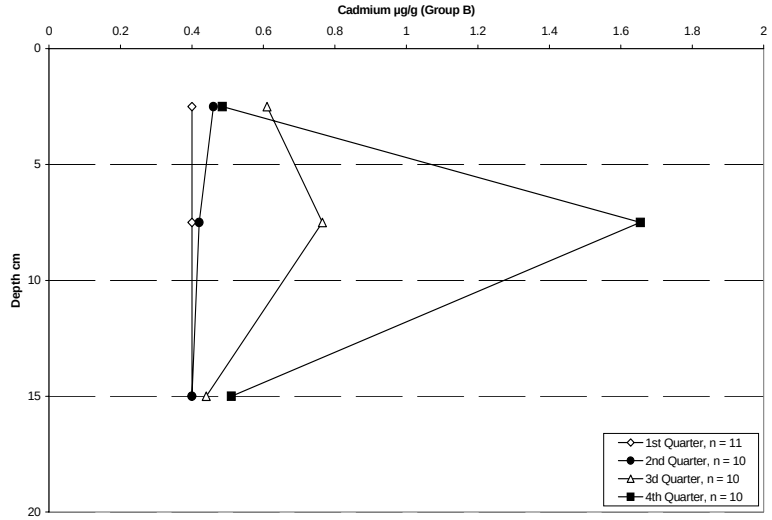


Figure 10.5.4.3b: Coniston, Cd depth profiles, Group B data.

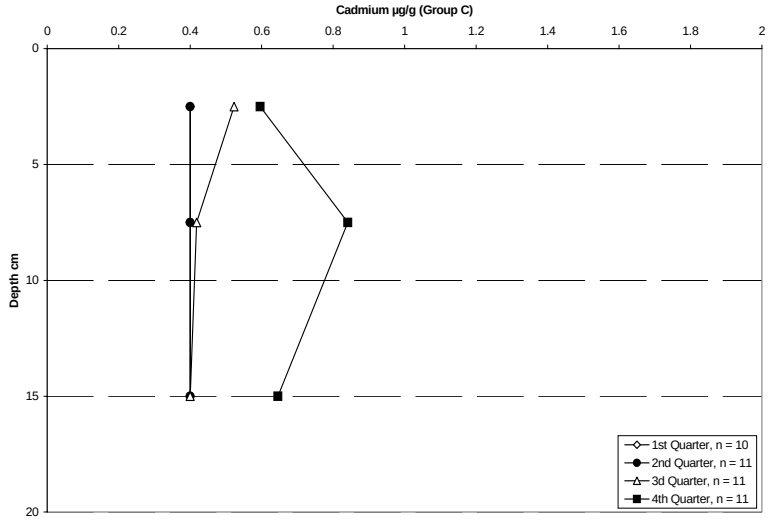


Figure 10.5.4.3c: Coniston, Cd depth profiles, Group C data.

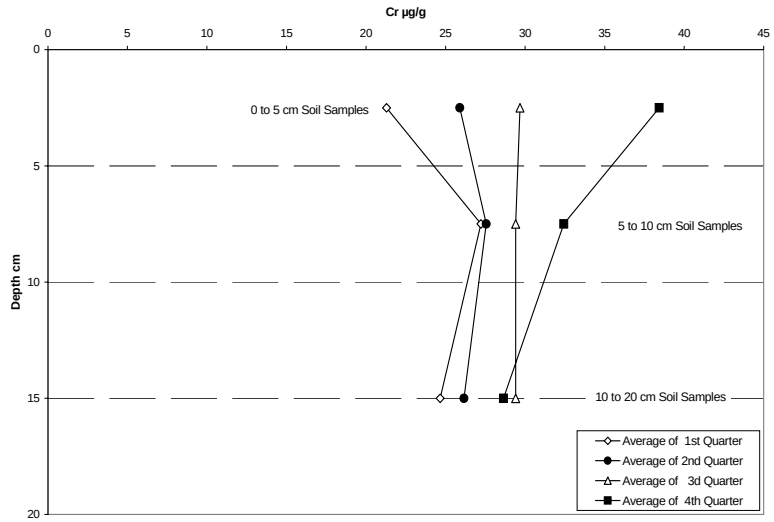


Figure 10.5.4.4: Coniston, Cr depth profiles, all data.

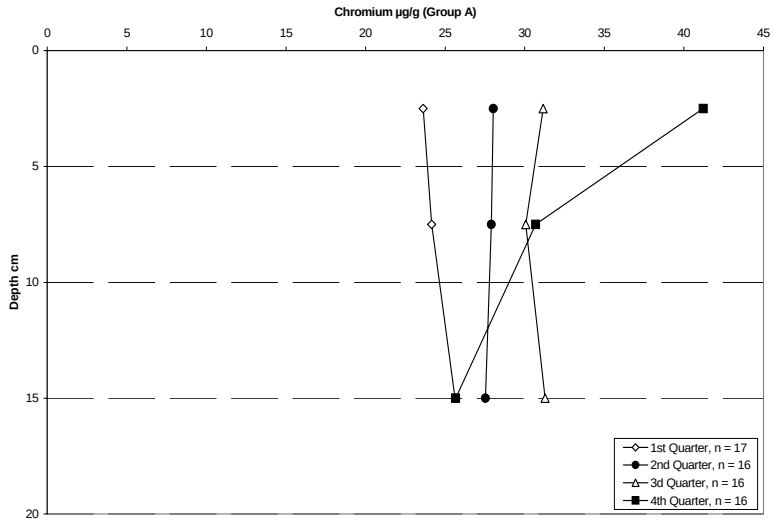


Figure 10.5.4.4a: Coniston, Cr depth profiles, Group A data.

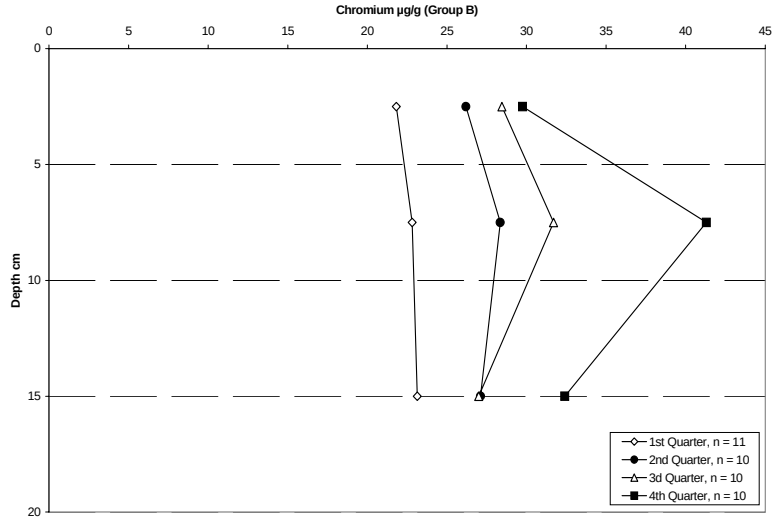


Figure 10.5.4.4b: Coniston, Cr depth profiles, Group B data.

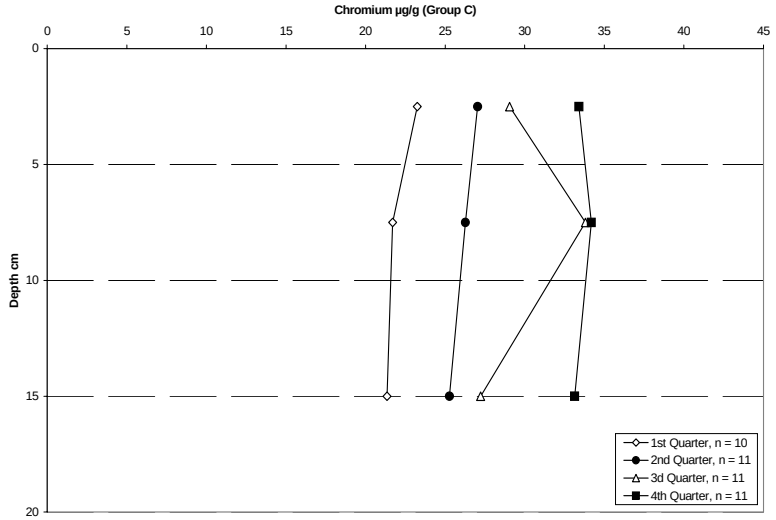


Figure 10.5.4.4c: Coniston, Cr depth profiles, Group C data.

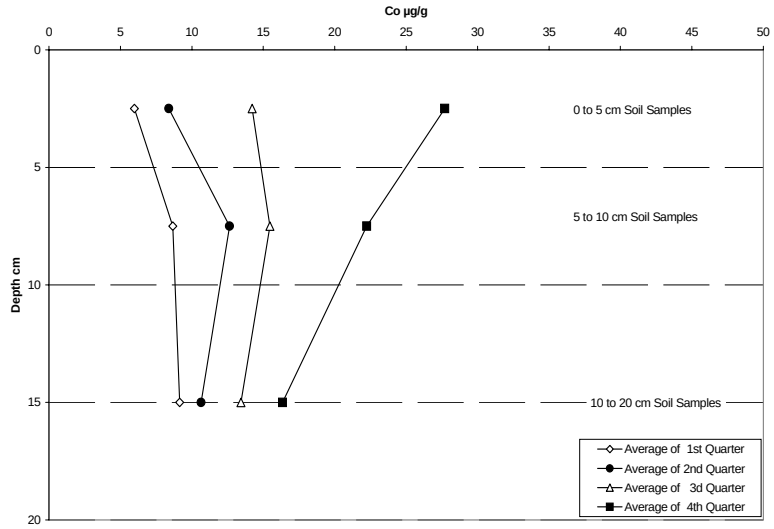


Figure 10.5.4.5: Coniston, Co depth profiles, all data.

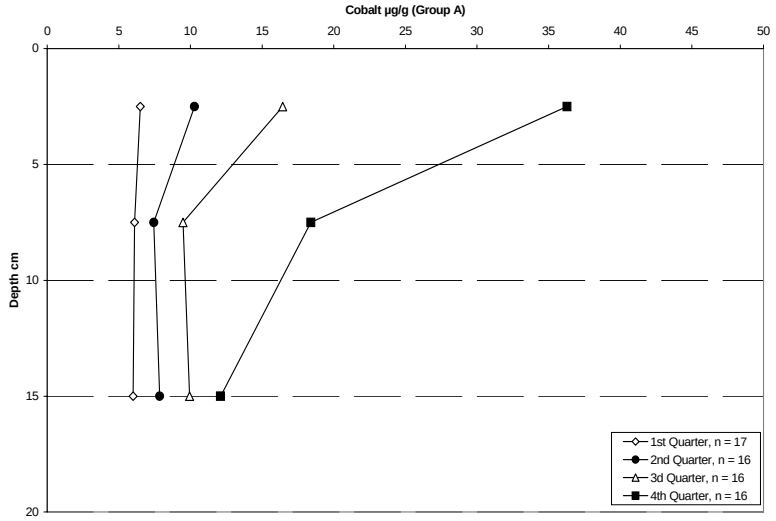


Figure 10.5.4.5a: Coniston, Co depth profiles, Group A data.

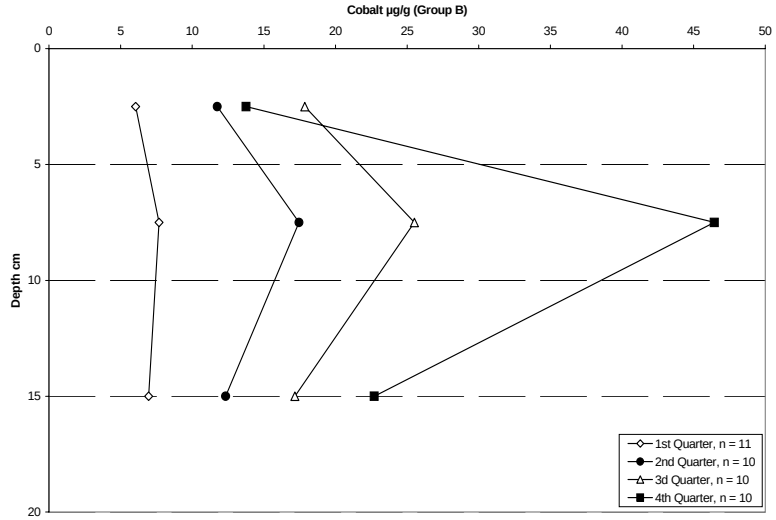


Figure 10.5.4.5b: Coniston, Co depth profiles, Group B data.

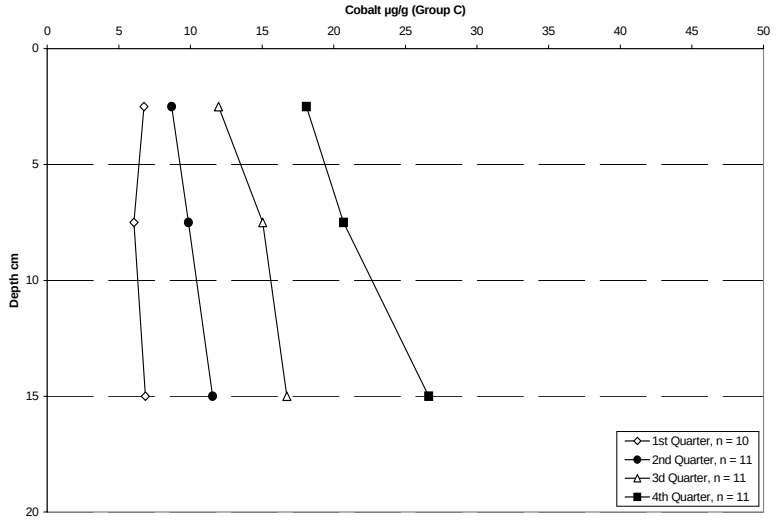


Figure 10.5.4.5c: Coniston, Co depth profiles, Group C data.

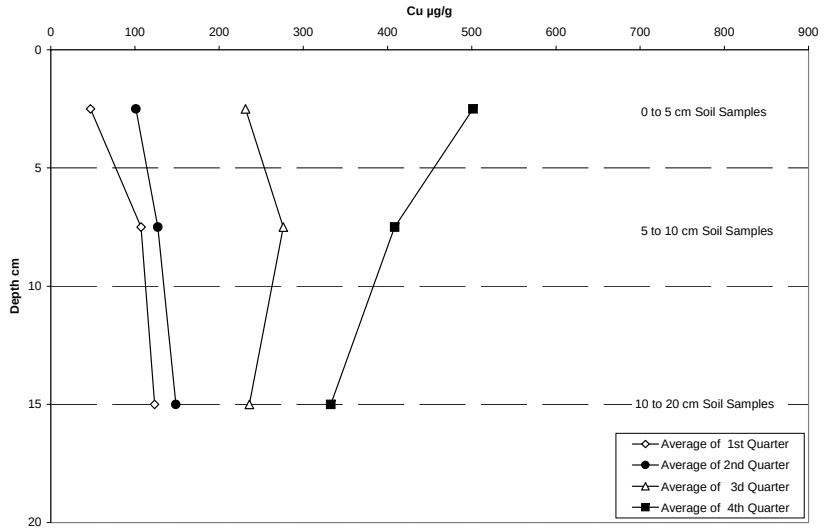


Figure 10.5.4.6: Coniston, Cu depth profiles, all data.

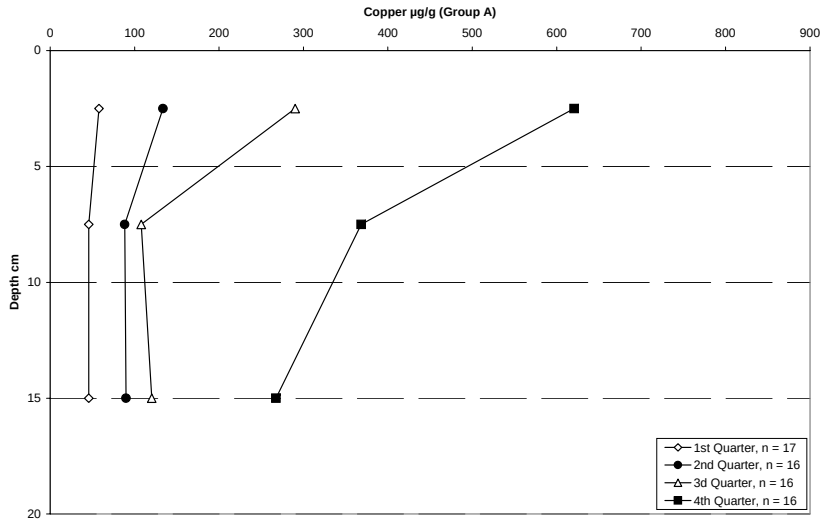


Figure 10.5.4.6a: Coniston, Cu depth profiles, Group A data.

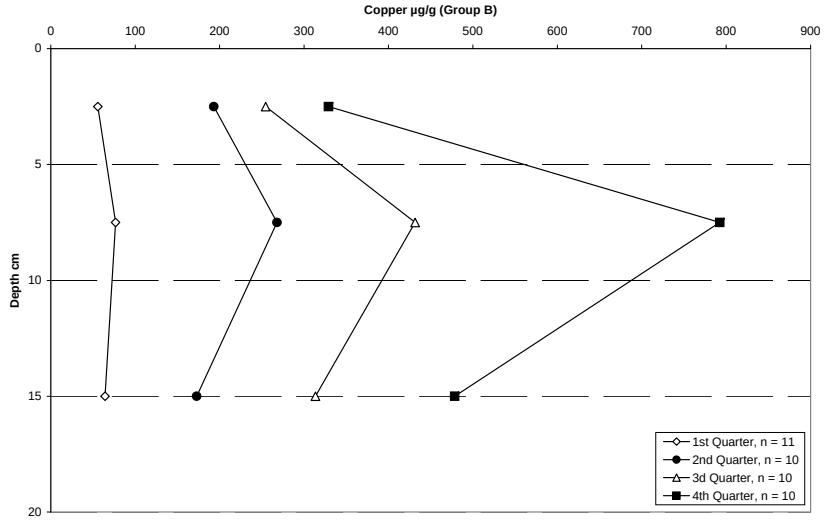


Figure 10.5.4.6b: Coniston, Cu depth profiles, Group B data.

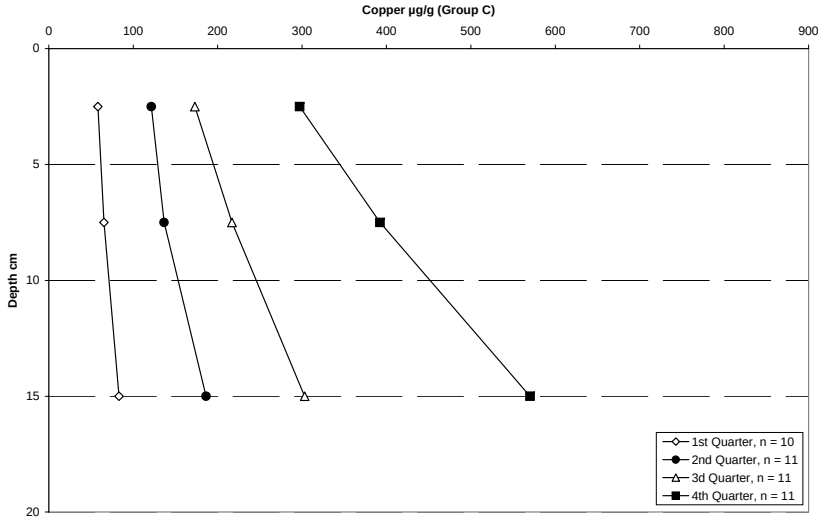


Figure 10.5.4.6c: Coniston, Cu depth profiles, Group C data.

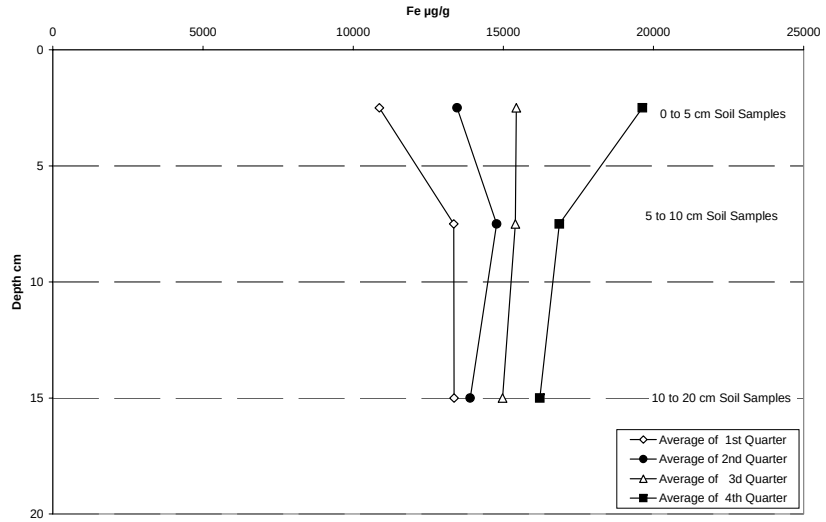


Figure 10.5.4.7: Coniston, Fe depth profiles, all data.

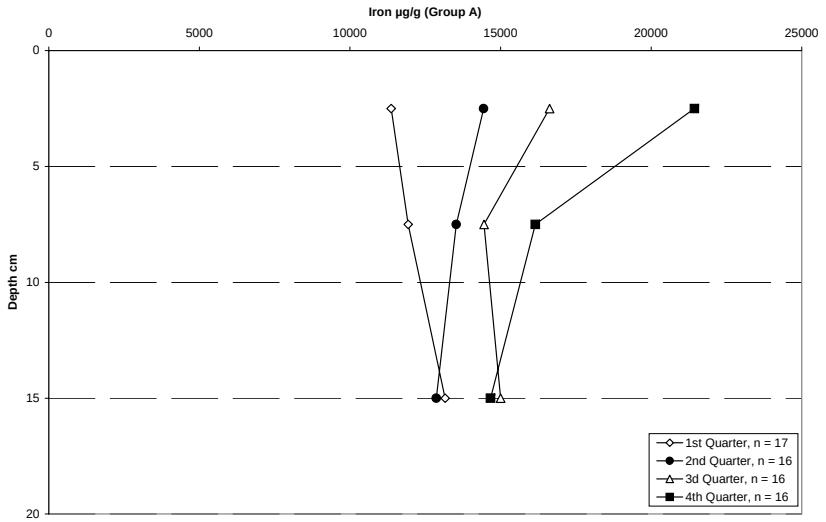


Figure 10.5.4.7a: Coniston, Fe depth profiles, Group A data.

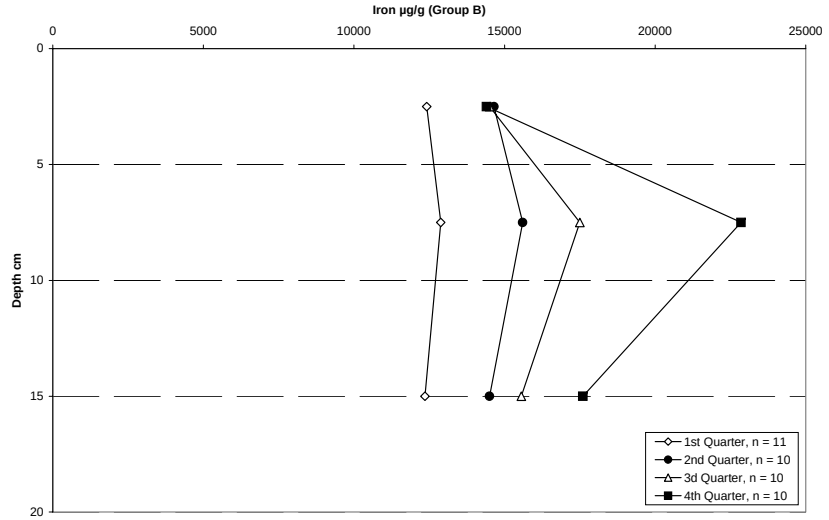


Figure 10.5.4.7b: Coniston, Fe depth profiles, Group B data.

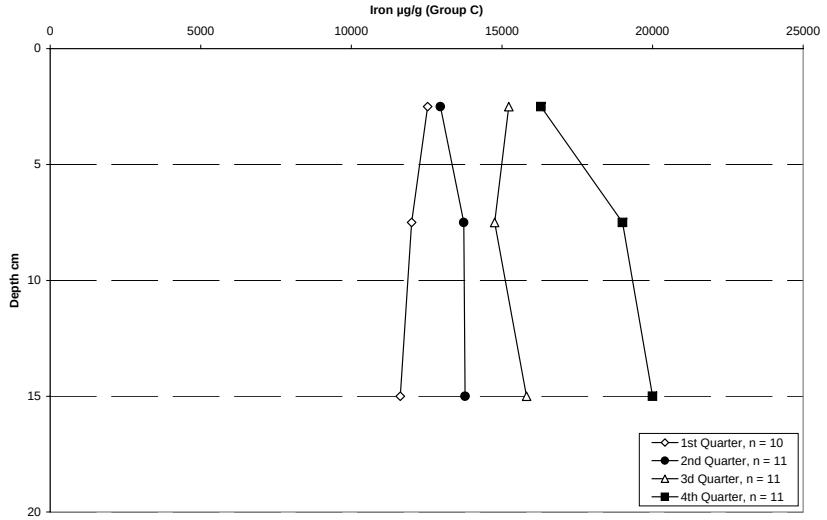


Figure 10.5.4.7c: Coniston, Fe depth profiles, Group C data.

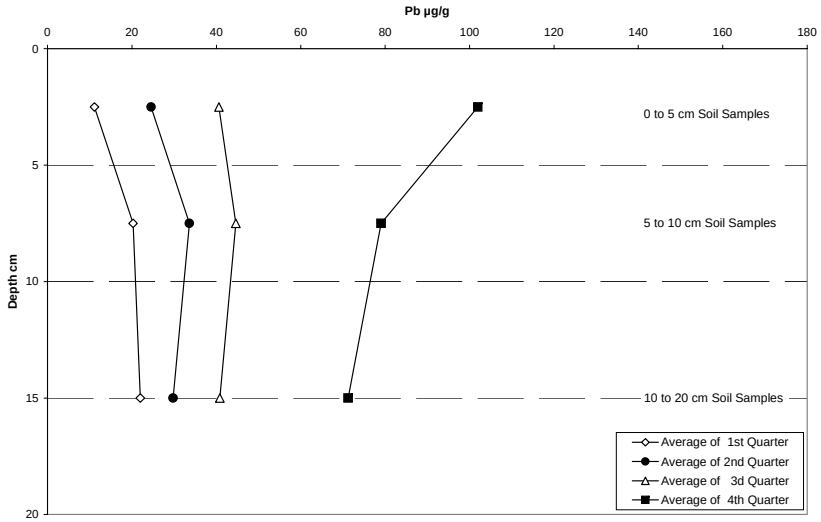


Figure 10.5.4.8: Coniston, Pb depth profiles, all data.

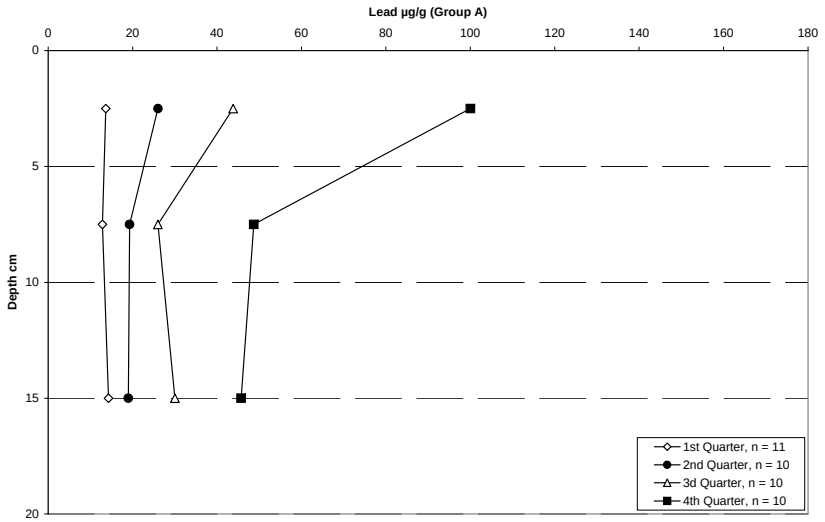


Figure 10.5.4.8a: Coniston, Pb depth profiles, Group A data.

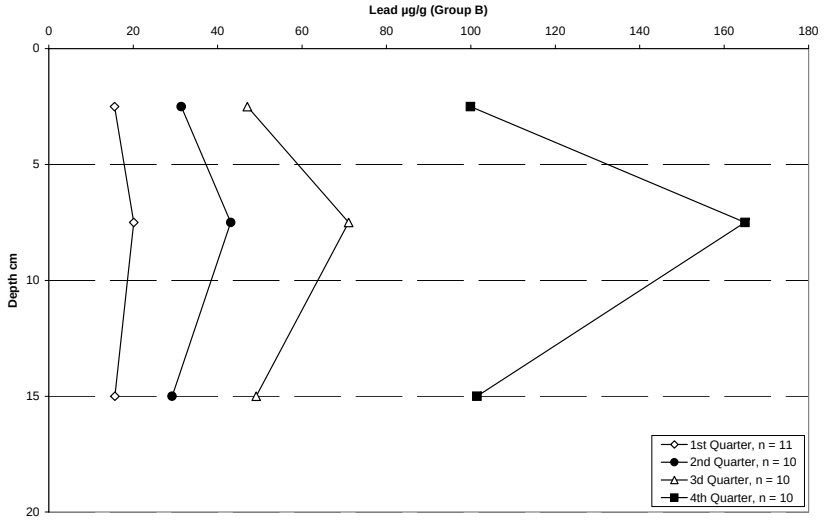


Figure 10.5.4.8b: Coniston, Pb depth profiles, Group B data.

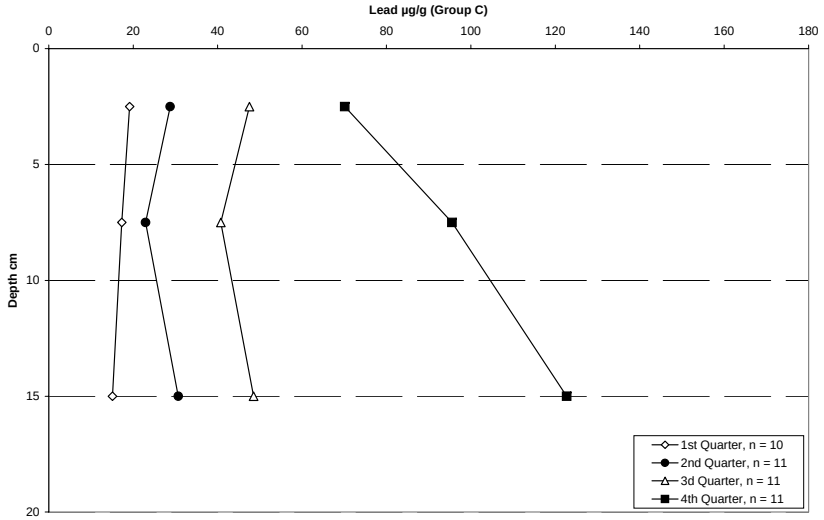


Figure 10.5.4.8c: Coniston, Pb depth profiles, Group C data.

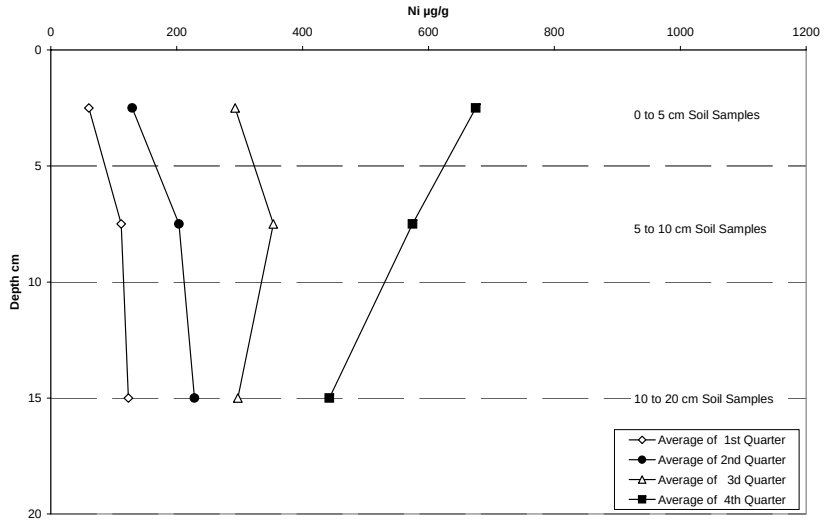


Figure 10.5.4.9: Coniston, Ni depth profiles, all data.

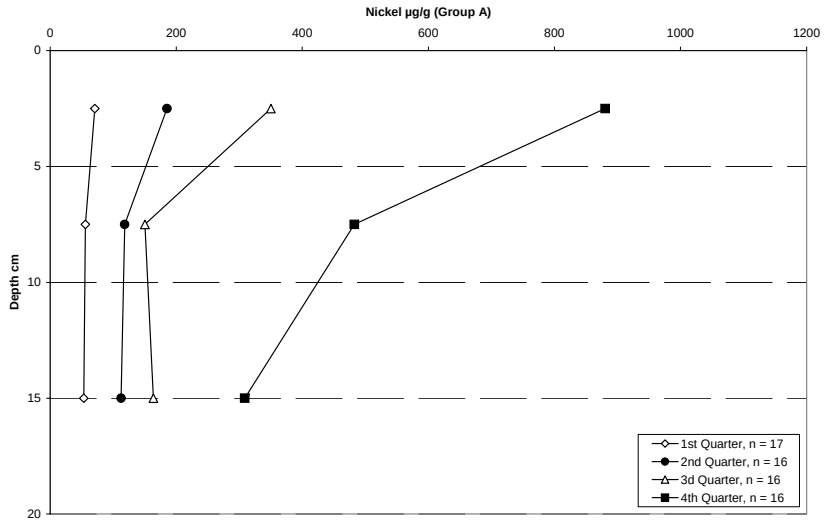


Figure 10.5.4.9a: Coniston, Ni depth profiles, Group A data.

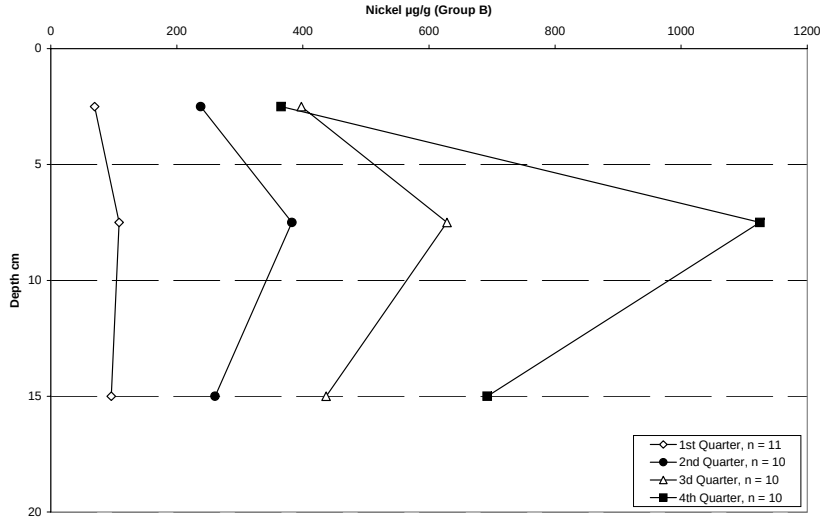


Figure 10.5.4.9b: Coniston, Ni depth profiles, Group B data.

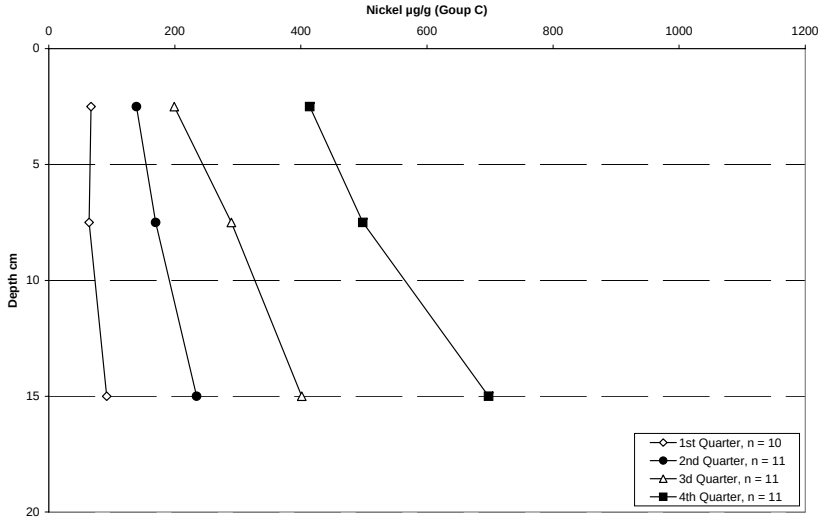


Figure 10.5.4.9c: Coniston, Ni depth profiles, Group C data.

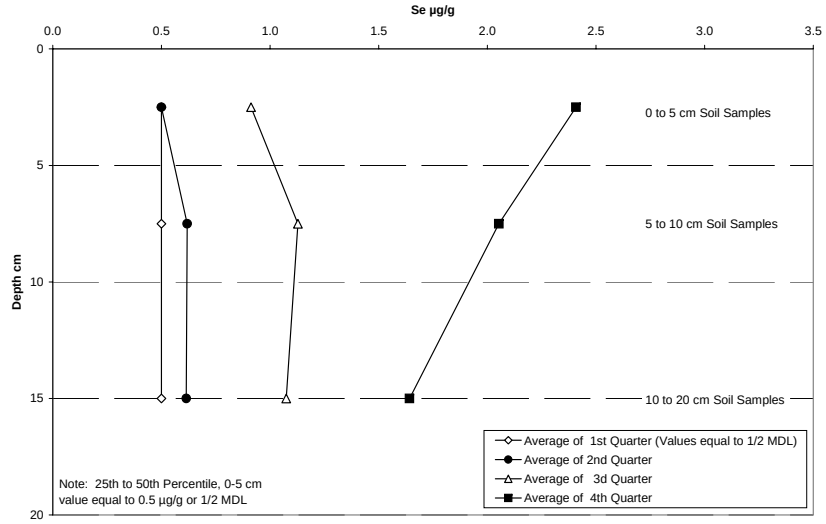


Figure 10.5.4.10: Coniston, Se depth profiles, all data.

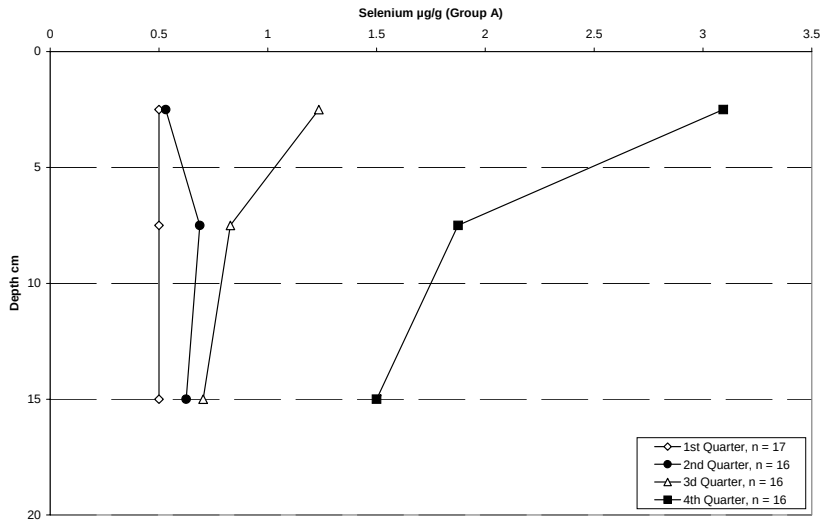


Figure 10.5.4.10a: Coniston, Se depth profiles, Group A data.

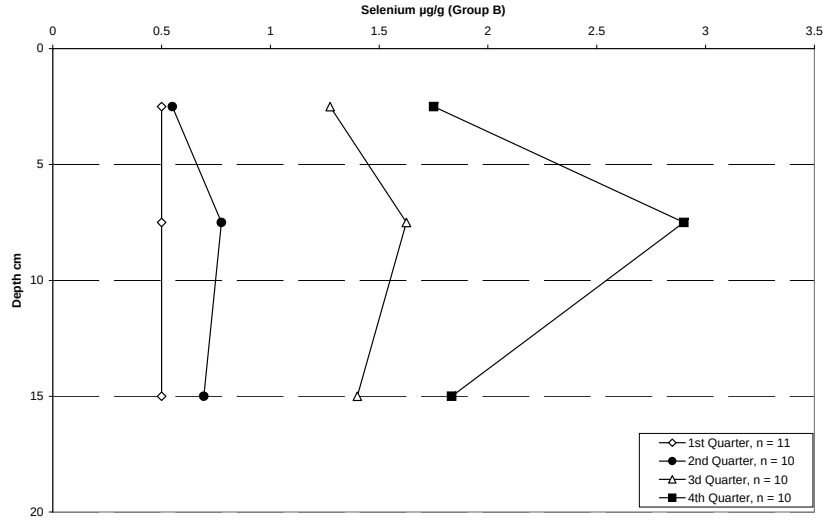


Figure 10.5.4.10b: Coniston, Se depth profiles, Group B data.

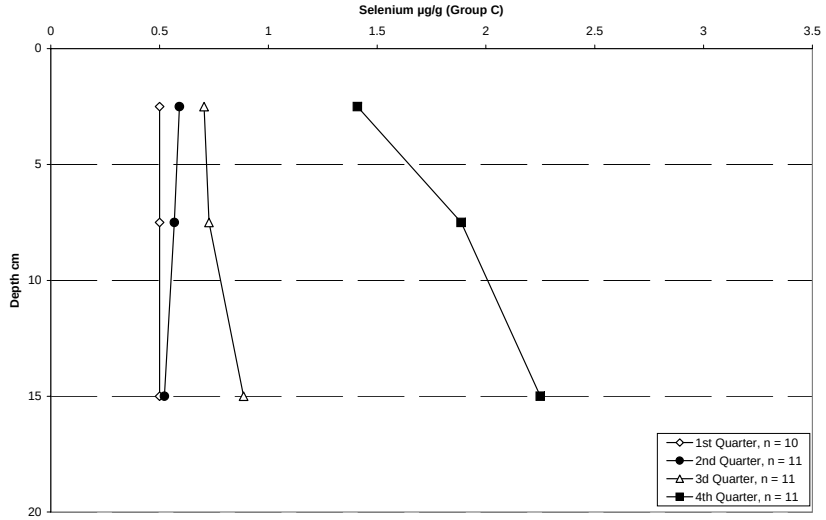


Figure 10.5.4.10c: Coniston, Se depth profiles, Group C data.

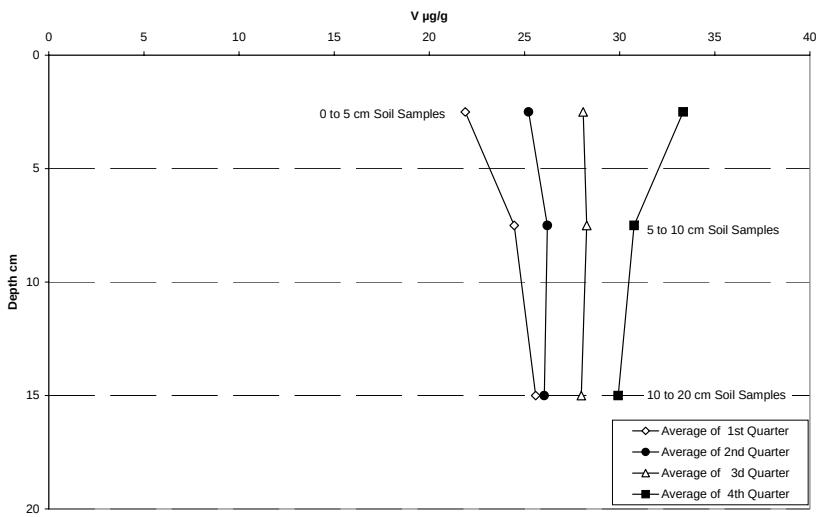


Figure 10.5.4.11: Coniston, V depth profiles, all data.

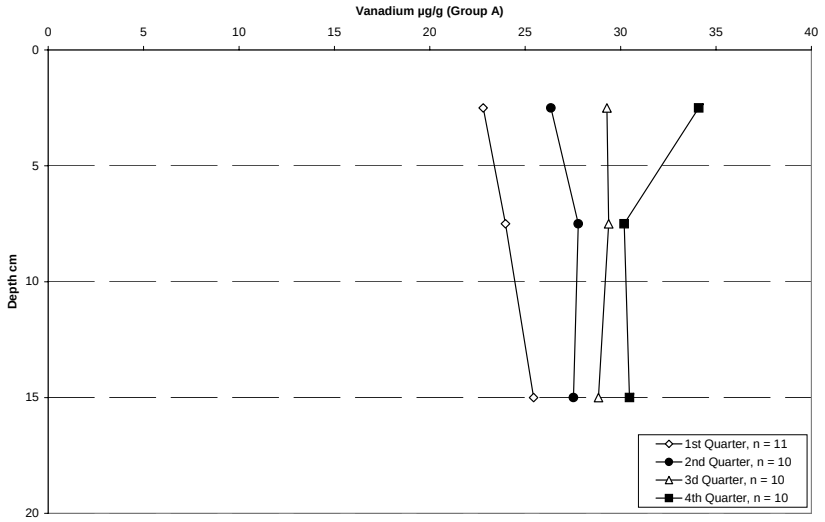


Figure 10.5.4.11a: Coniston, V depth profiles, Group A data.

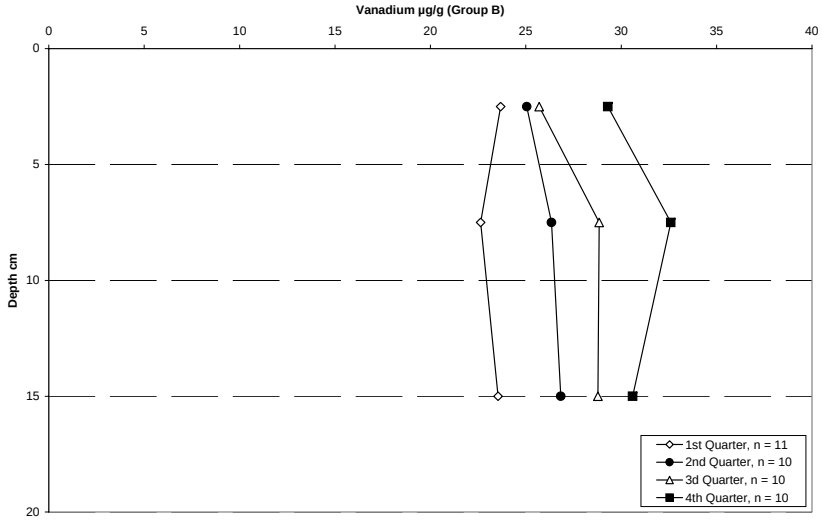


Figure 10.5.4.11b: Coniston, V depth profiles, Group B data.

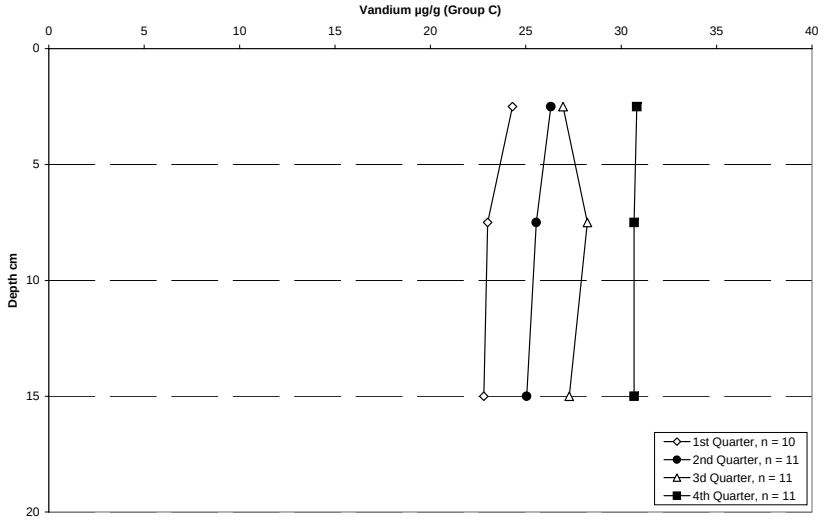


Figure 10.5.4.11c: Coniston, V depth profiles, Group C data.

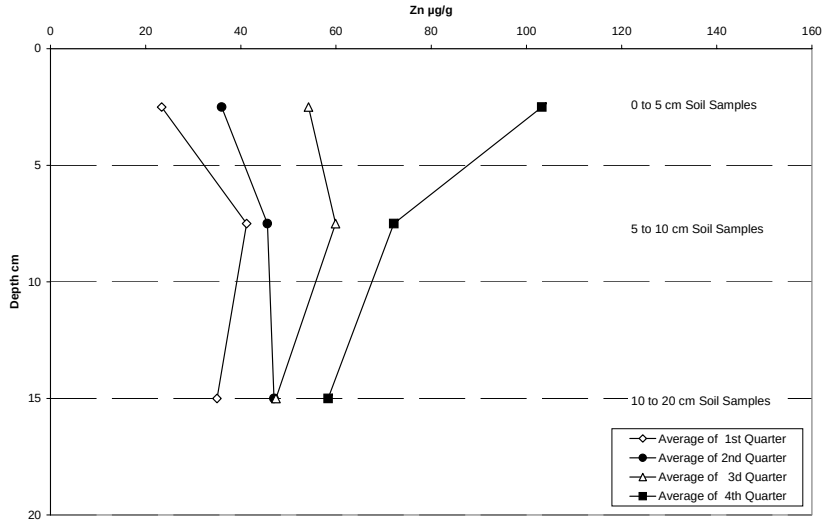


Figure 10.5.4.12: Coniston, Zn depth profiles, all data.

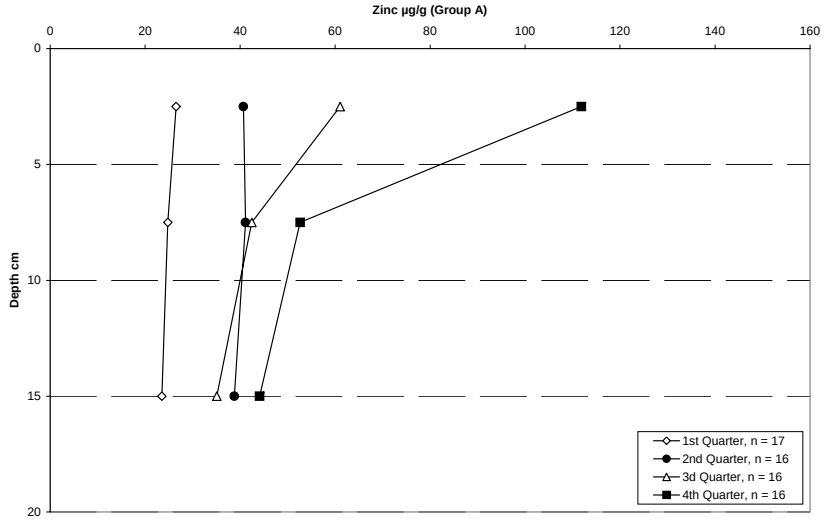


Figure 10.5.4.12a: Coniston, Zn depth profiles, Group A data.

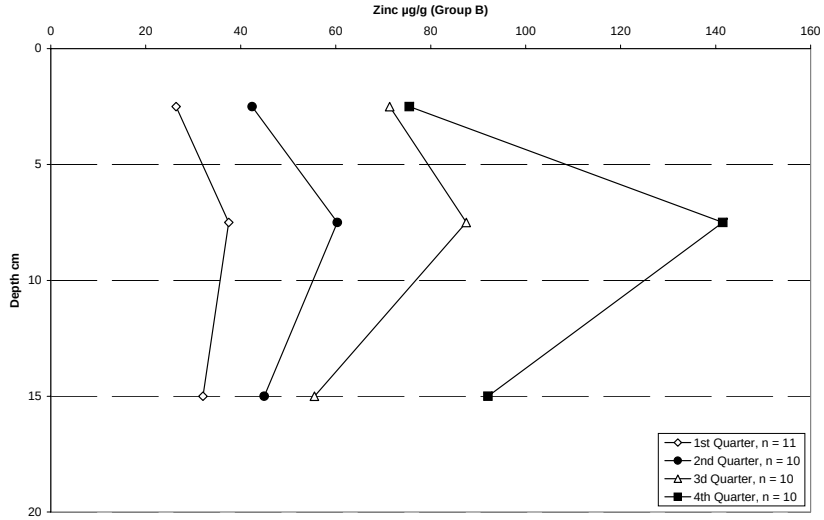


Figure 10.5.4.12b: Coniston, Zn depth profiles, Group B data.

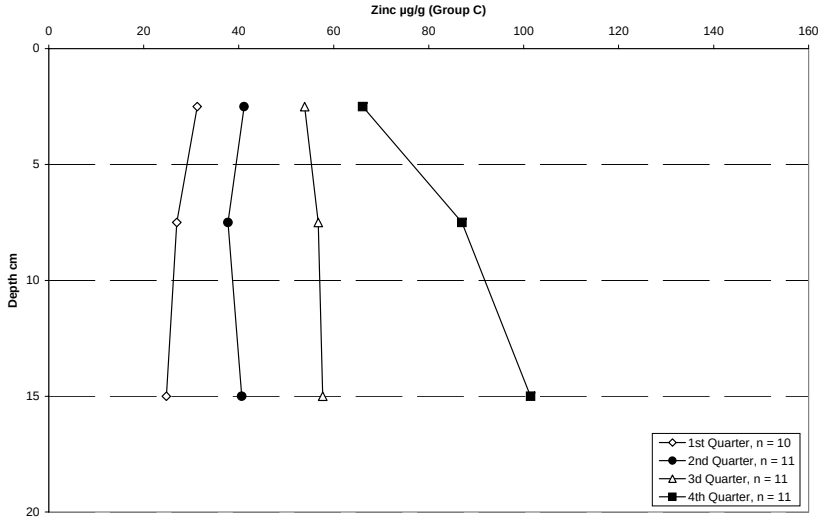


Figure 10.5.4.12c: Coniston, Zn depth profiles, Group C data.

10.5.5 Falconbridge

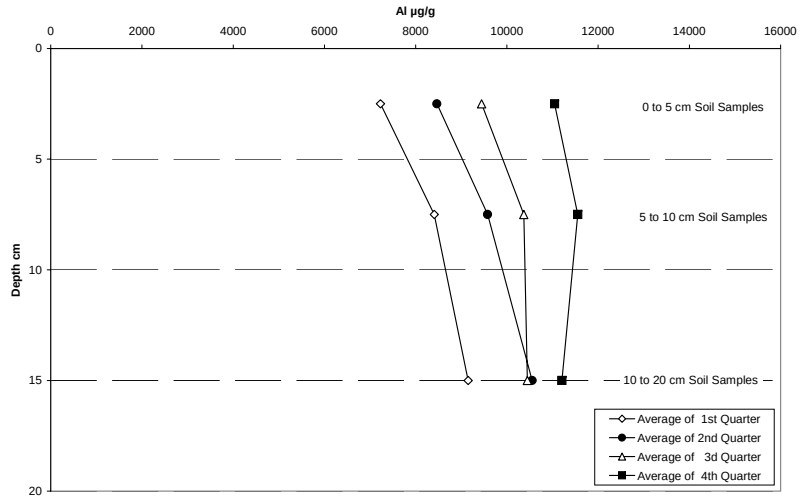


Figure 10.5.5.1: Falconbridge, Al depth profiles, all data.

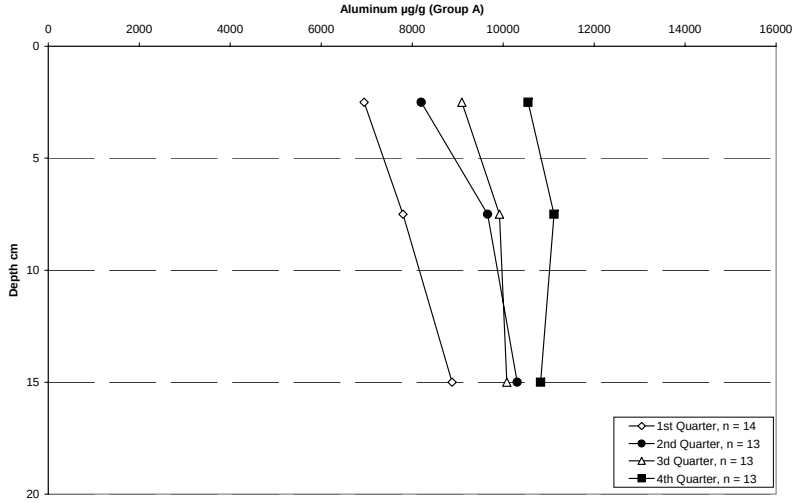


Figure 10.5.5.1a: Falconbridge, Al depth profiles, Group A data.

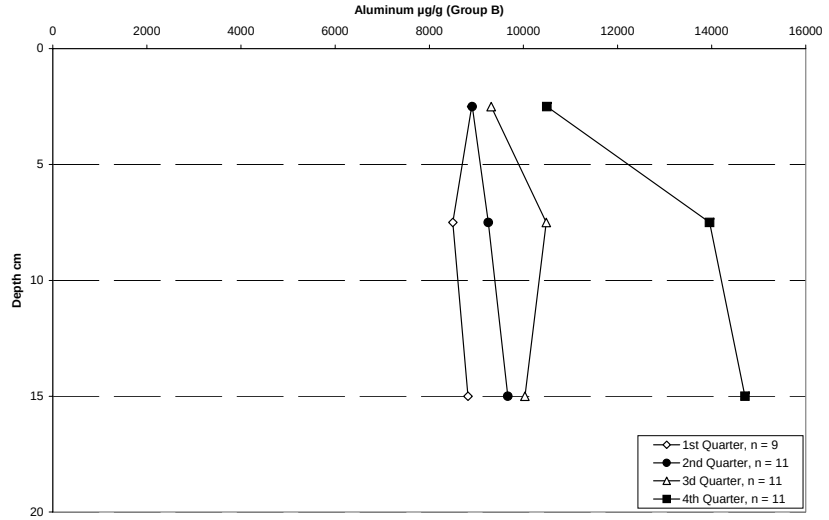


Figure 10.5.5.1b: Falconbridge, Al depth profiles, Group B data.

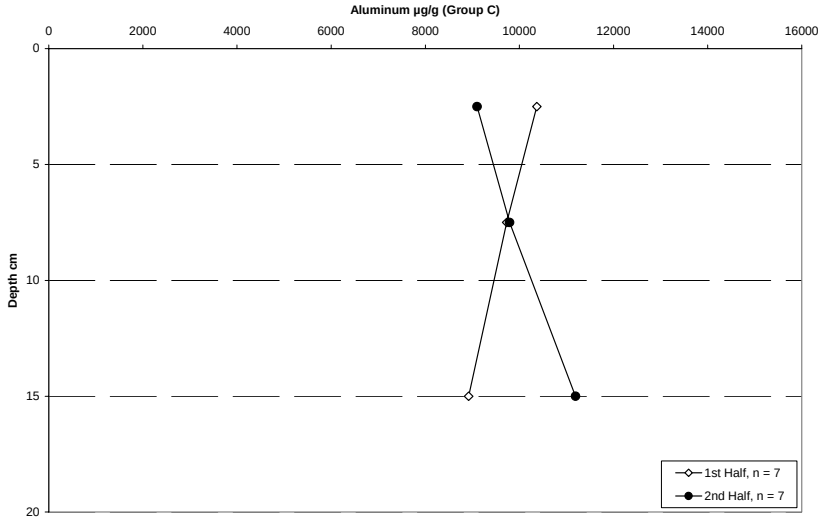


Figure 10.5.5.1c: Falconbridge, Al depth profiles, Group C data.

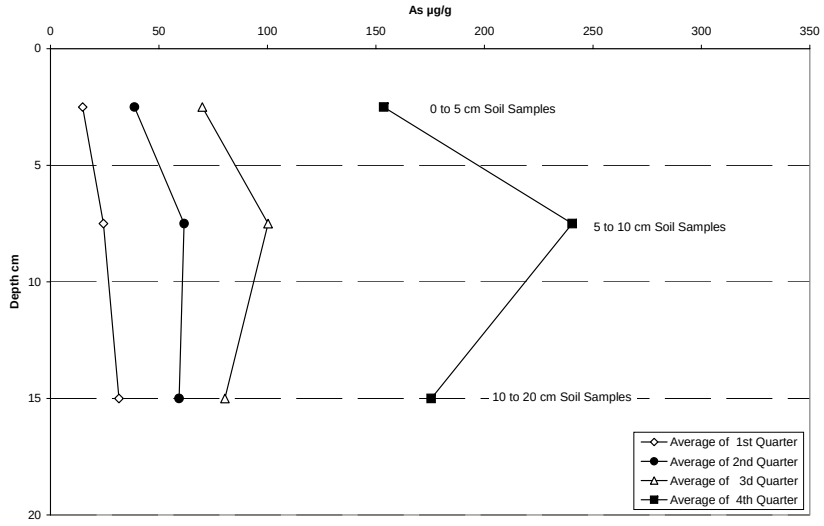


Figure 10.5.5.2: Falconbridge, As depth profiles, all data.

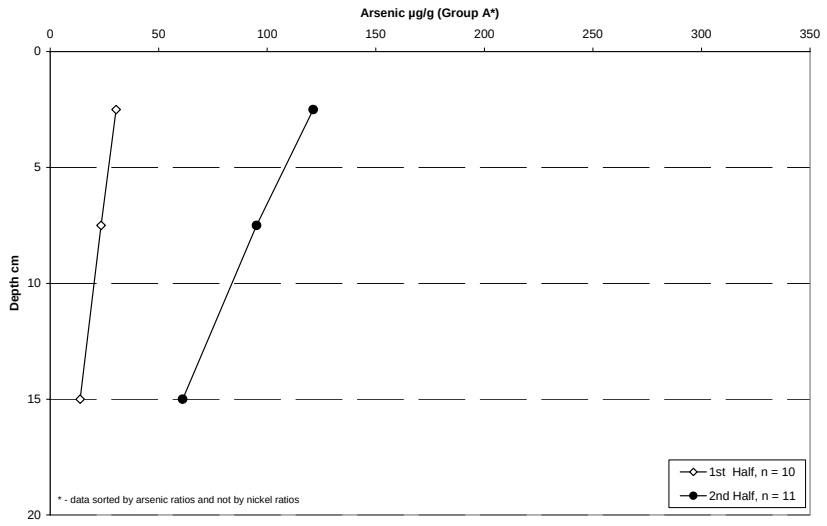


Figure 10.5.5.2a: Falconbridge, As depth profiles, Group A data.

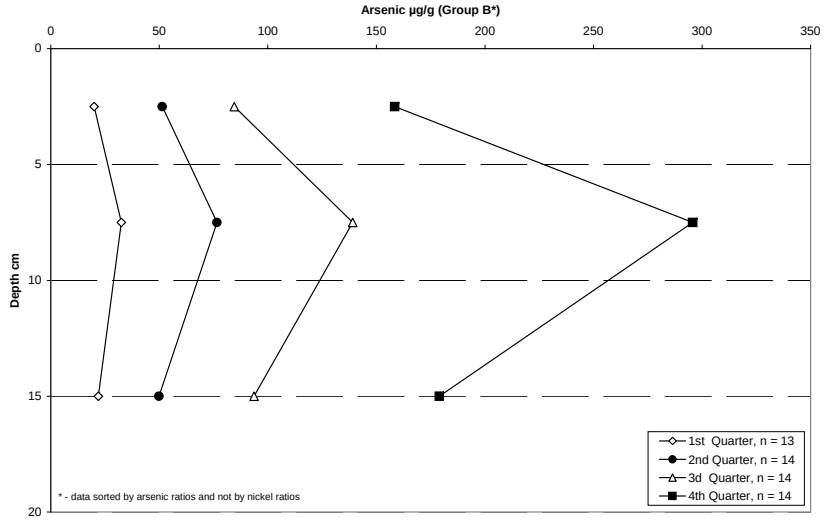


Figure 10.5.5.2b: Falconbridge, As depth profiles, Group B data.

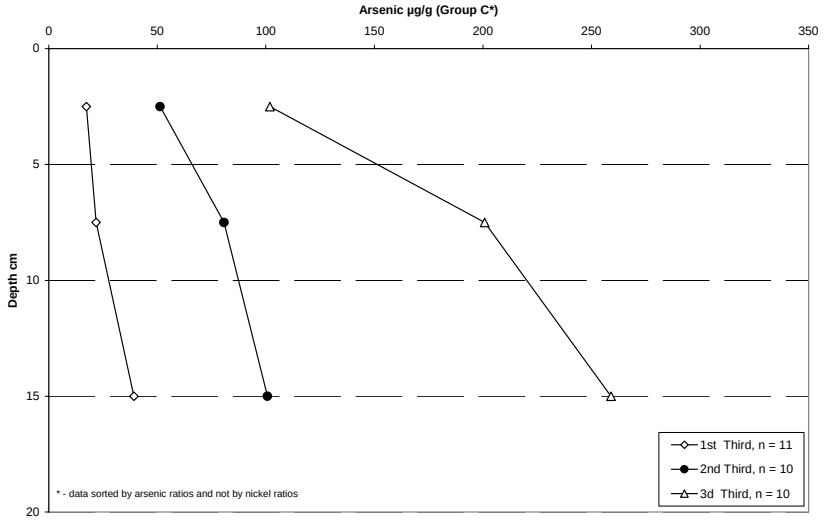


Figure 10.5.5.2c: Falconbridge, As depth profiles, Group C data.

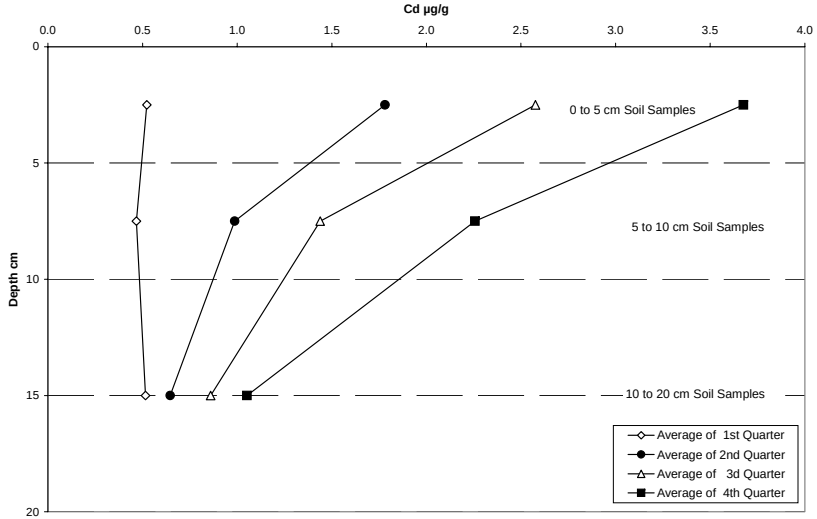


Figure 10.5.5.3: Falconbridge, Cd depth profiles, all data.

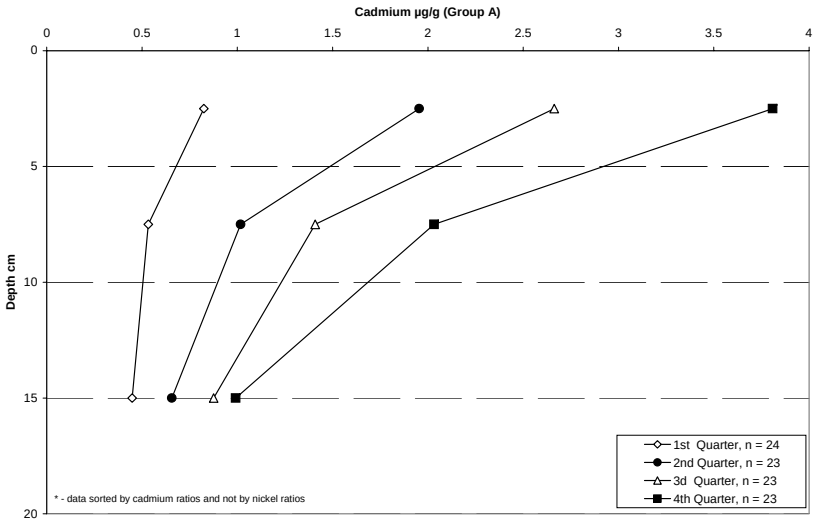


Fig. 10.5.5.3a: Falconbridge, Cd depth profiles, Group A data.

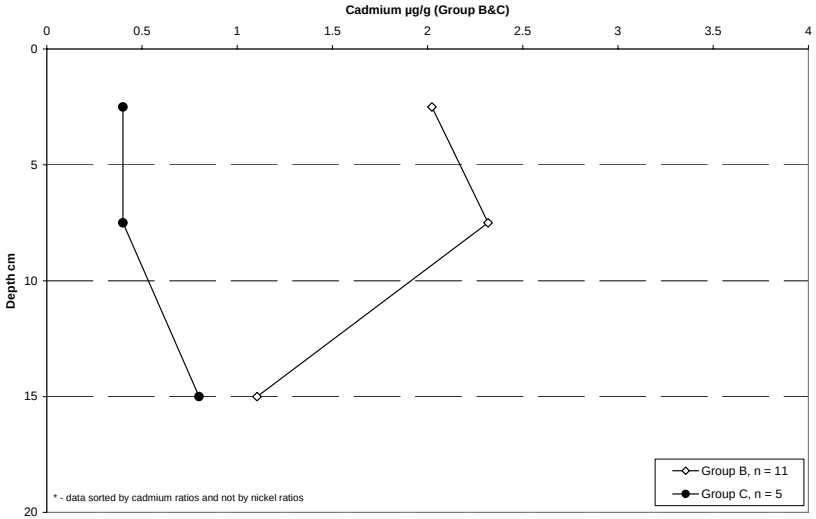


Figure 10.5.5.3b & 10.5.5.3c: Falconbridge, Cd depth profiles, Group B & C data.

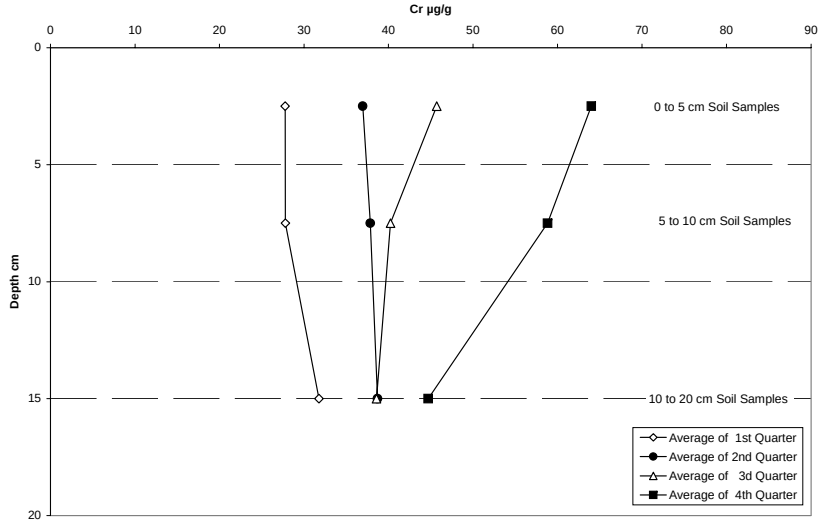


Figure 10.5.5.4: Falconbridge, Cr depth profiles, all data.

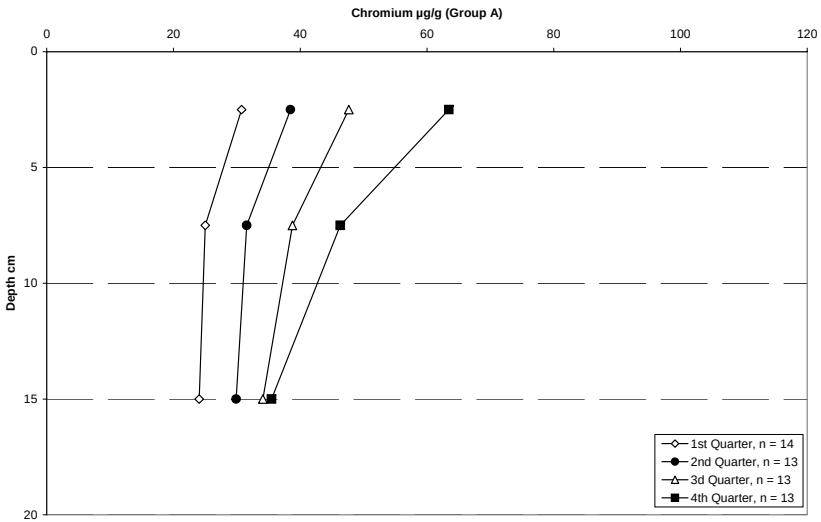


Fig. 10.5.5.4a: Falconbridge, Cr depth profiles, Group A data.

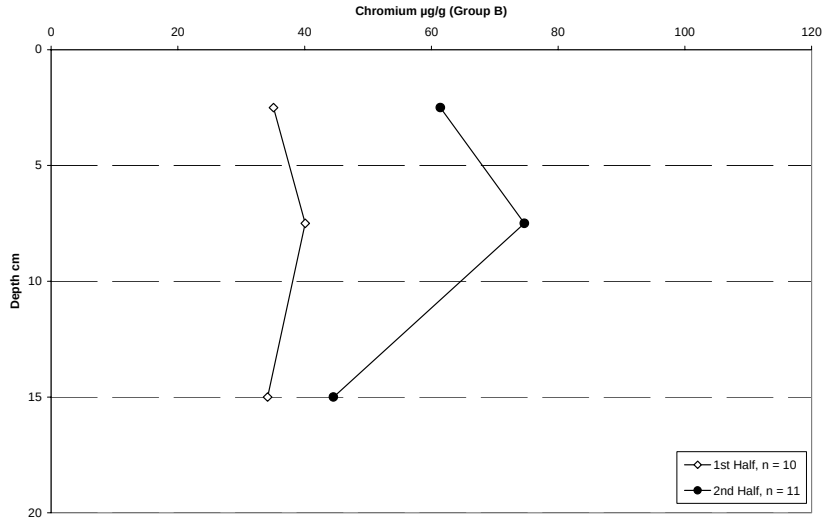


Fig. 10.5.5.4b: Falconbridge, Cr depth profiles, Group B data.

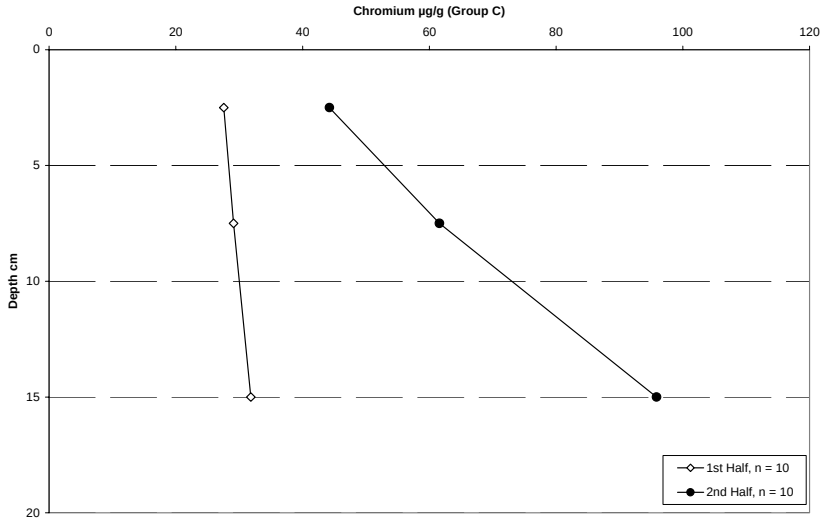


Fig. 10.5.5.4c: Falconbridge, Cr depth profiles, Group C data.

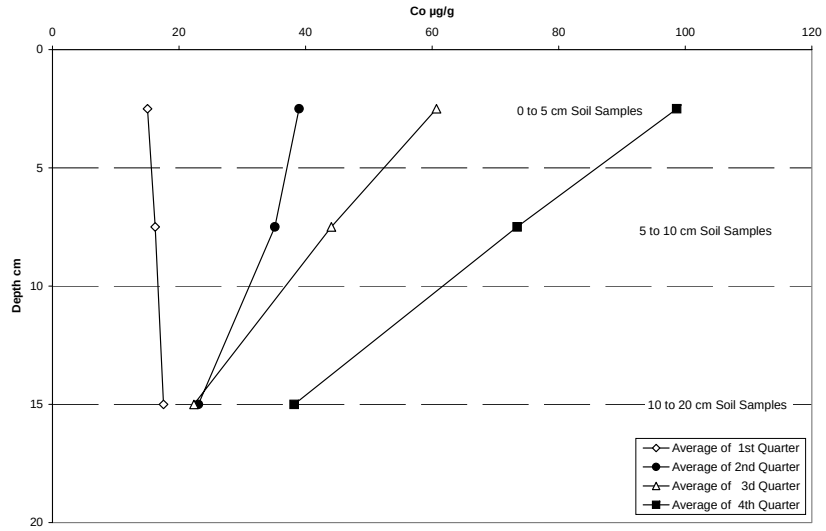


Figure 10.5.5.5: Falconbridge, Co depth profiles, all data.

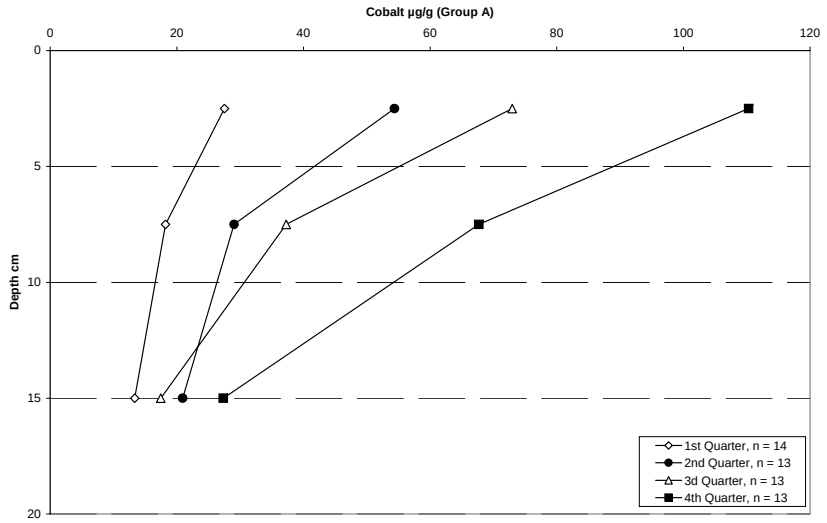


Figure 10.5.5.5a: Falconbridge, Co depth profiles, Group A data.

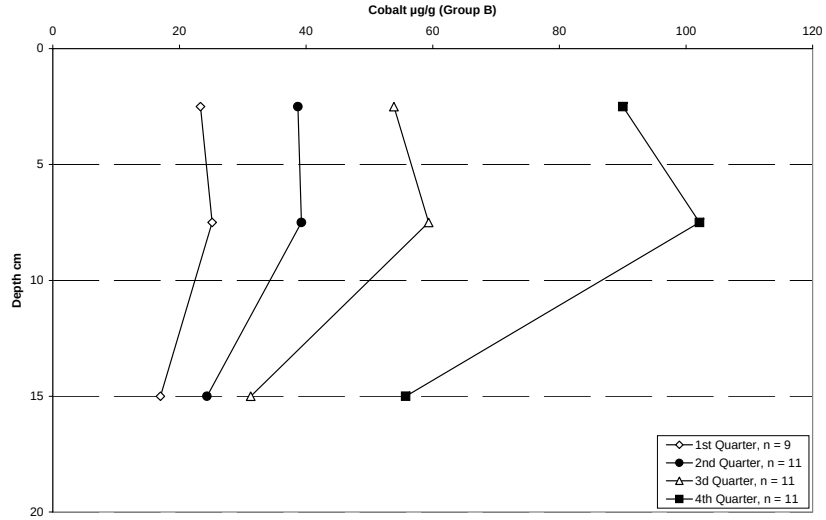


Figure 10.5.5.5b: Falconbridge, Co depth profiles, Group B data.

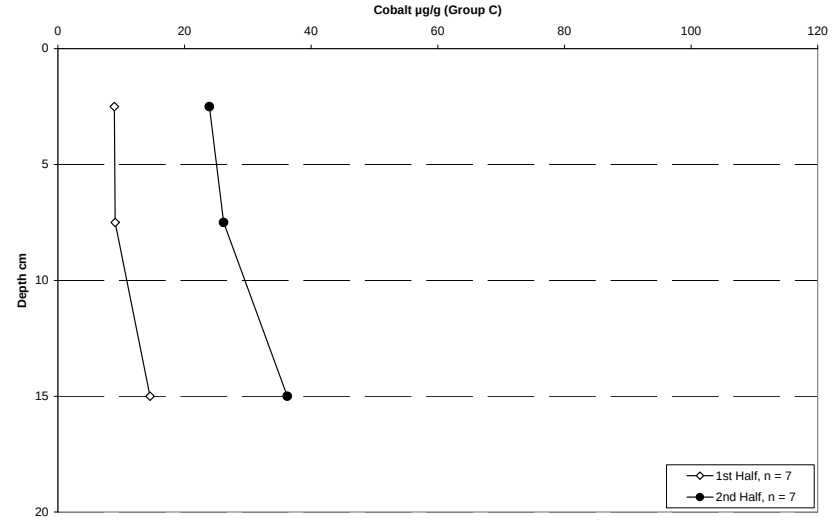


Figure 10.5.5.5c: Falconbridge, Co depth profiles, Group C data.

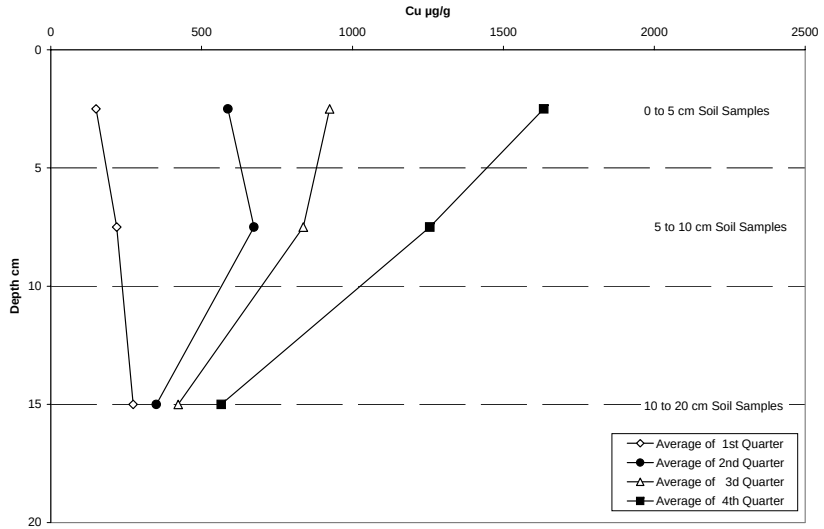


Figure 10.5.5.6: Falconbridge, Cu depth profiles, all data.

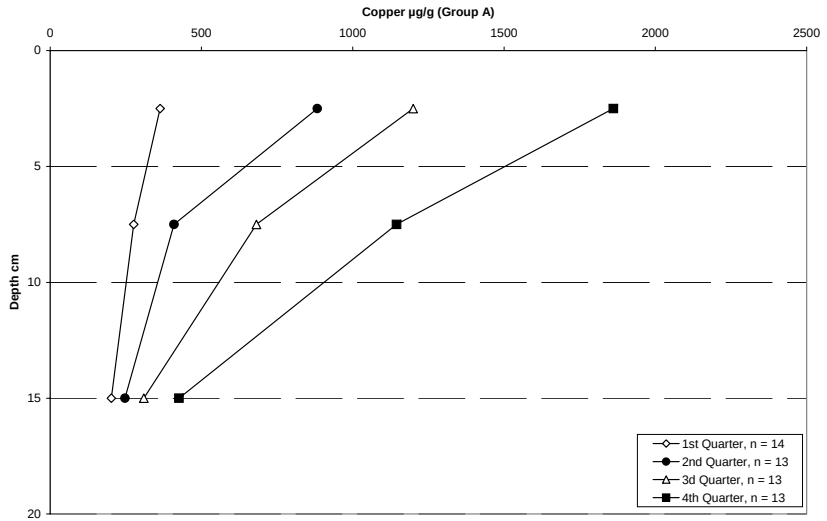


Figure 10.5.5.6a: Falconbridge, Cu depth profiles, Group A data.

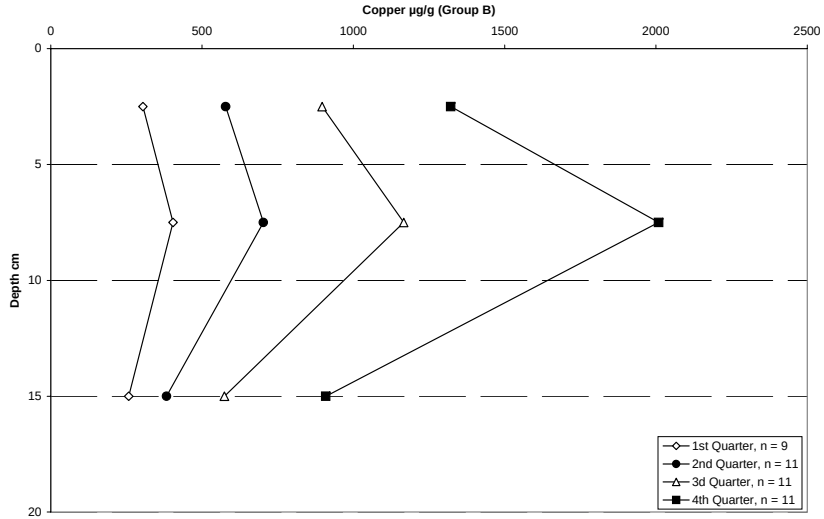


Figure 10.5.5.6b: Falconbridge, Cu depth profiles, Group B data.

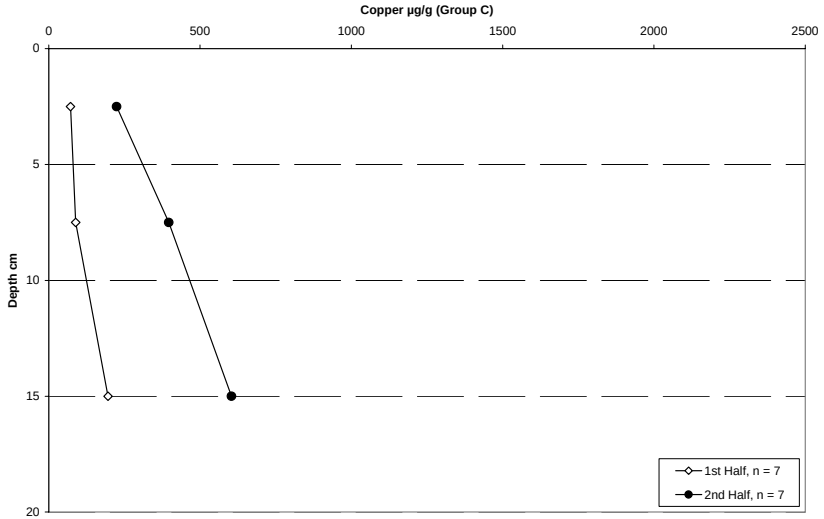


Figure 10.5.5.6c: Falconbridge, Cu depth profiles, Group C data.

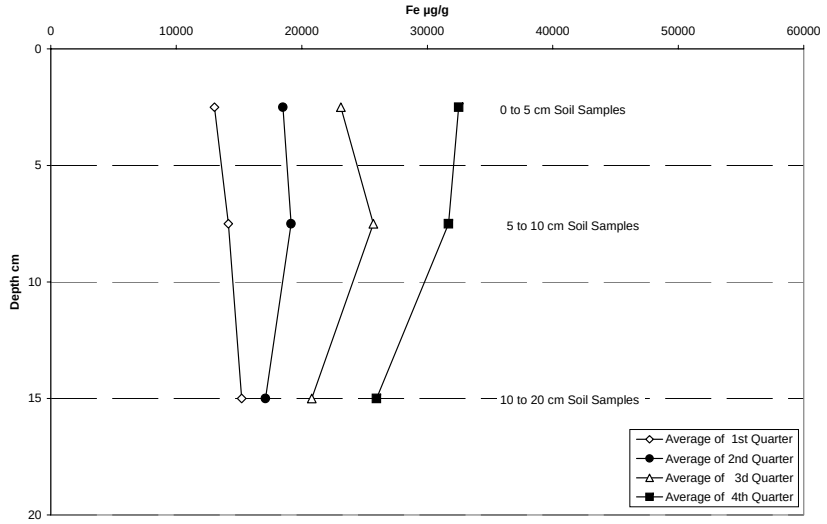


Figure 10.5.5.7: Falconbridge, Fe depth profiles, all data.

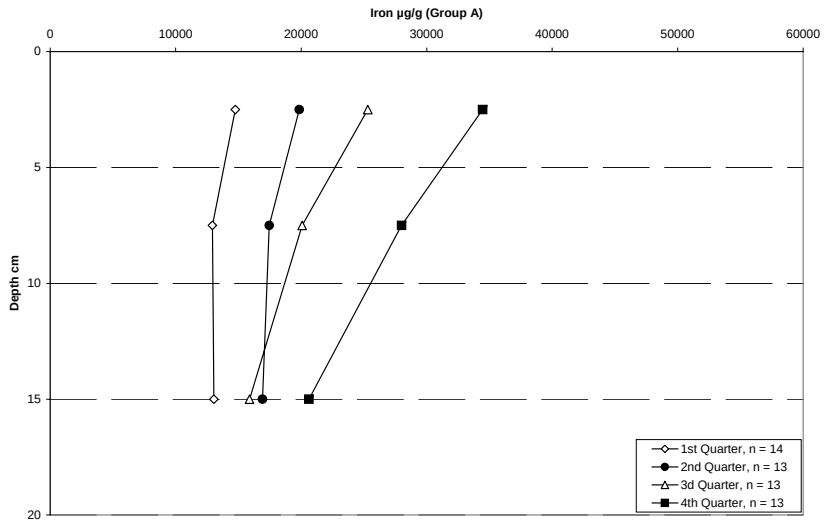


Figure 10.5.5.7a: Falconbridge, Fe depth profiles, Group A data.

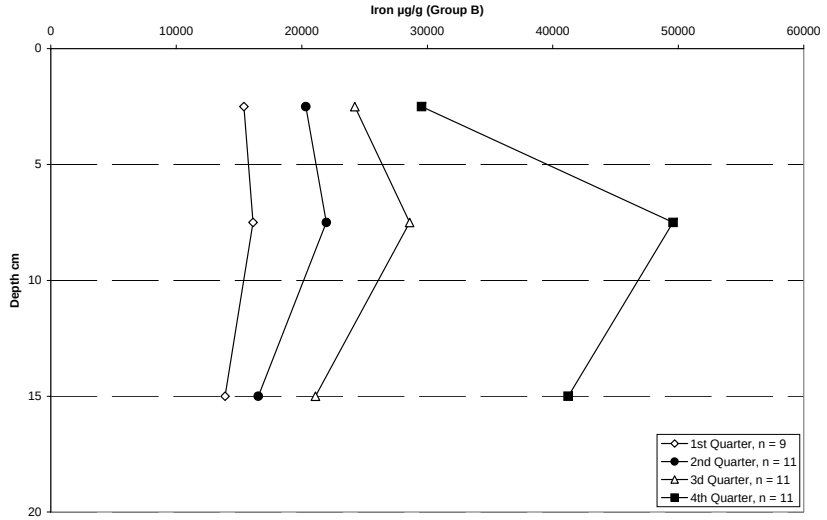


Figure 10.5.5.7b: Falconbridge, Fe depth profiles, Group B data.

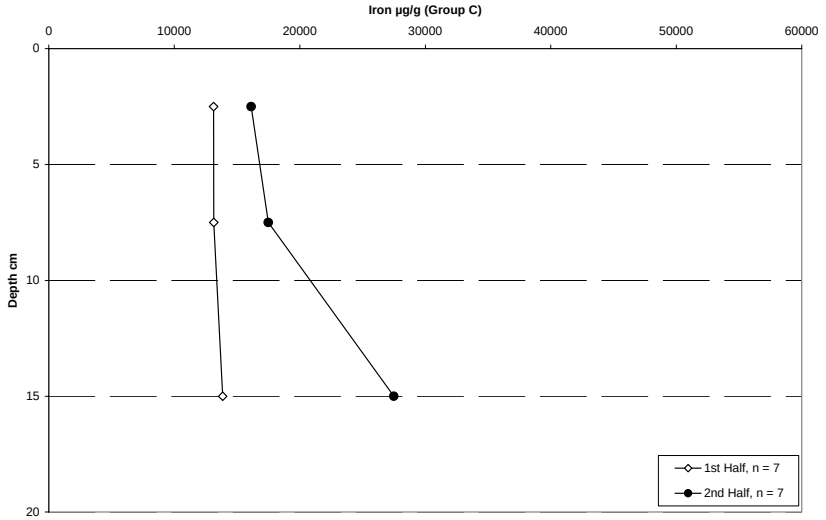


Figure 10.5.5.7c: Falconbridge, Fe depth profiles, Group C data.

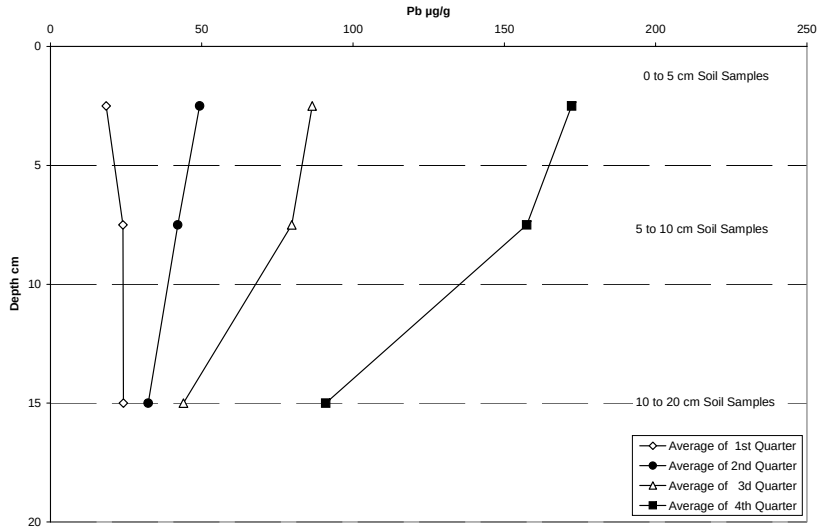


Figure 10.5.5.8: Falconbridge, Pb depth profiles, all data.

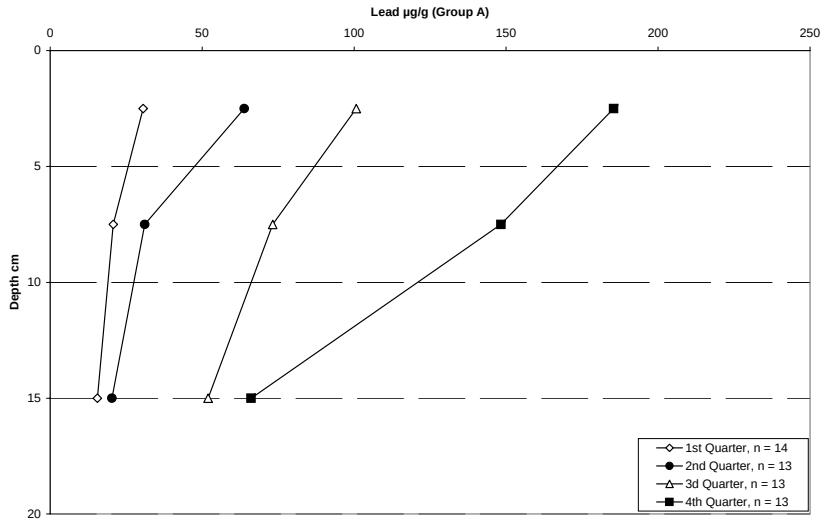


Figure 10.5.5.8a: Falconbridge, Pb depth profiles, Group A data.

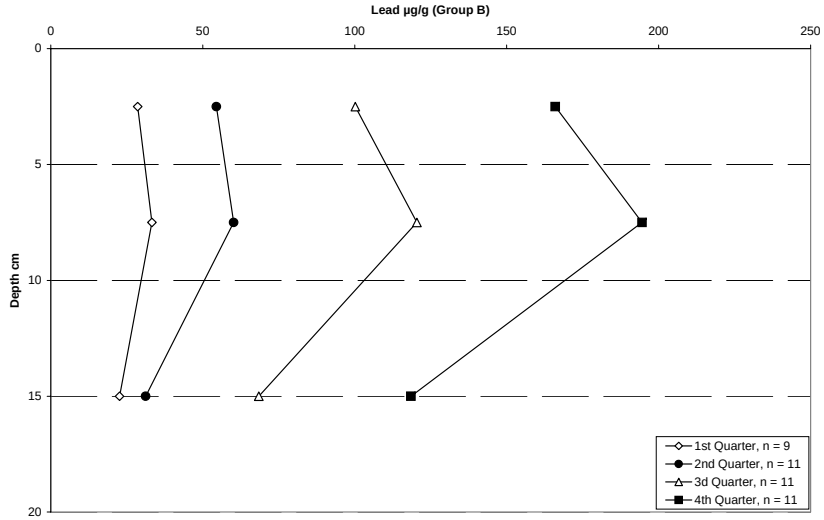


Figure 10.5.5.8b: Falconbridge, Pb depth profiles, Group B data.

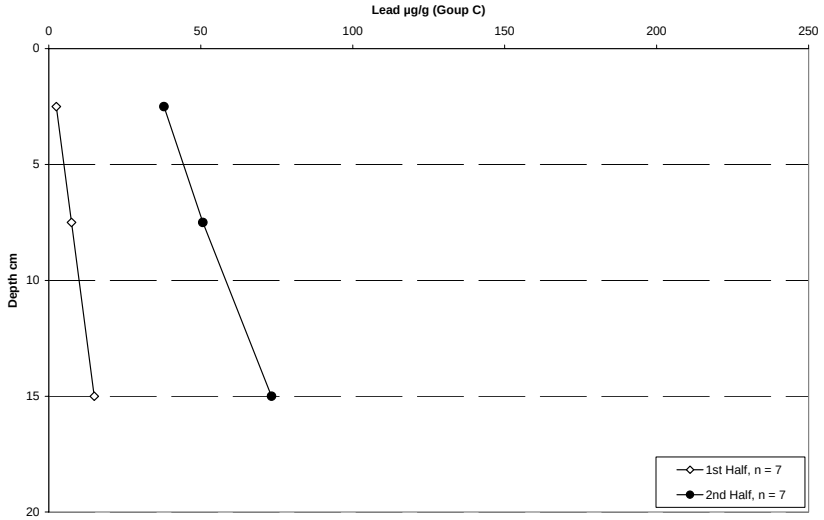


Figure 10.5.5.8c: Falconbridge, Pb depth profiles, Group C data.

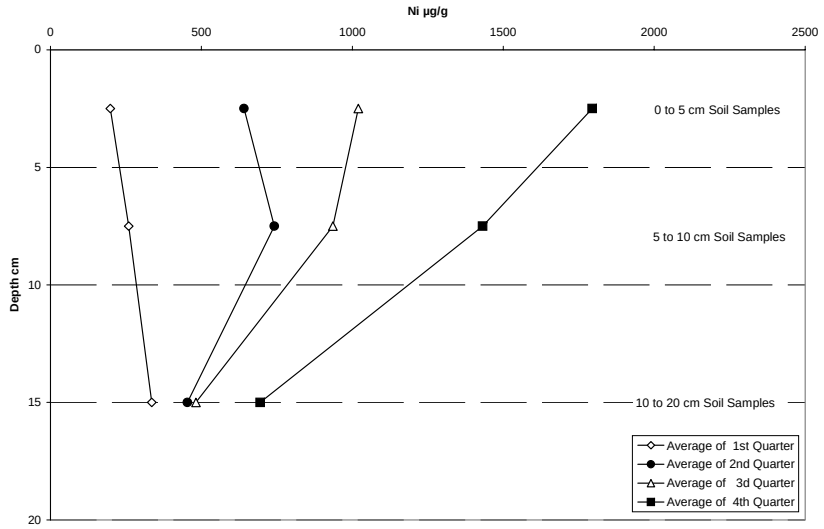


Figure 10.5.5.9: Falconbridge, Ni depth profiles, all data.

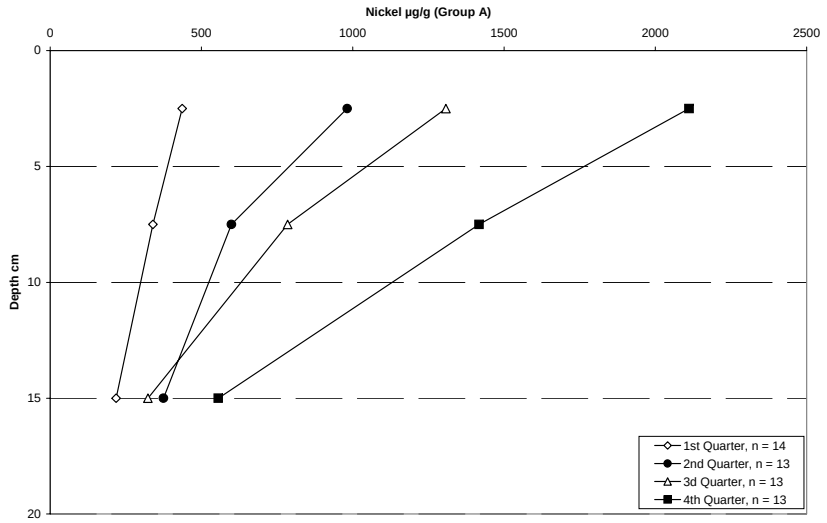


Figure 10.5.5.9a: Falconbridge, Ni depth profiles, Group A data.

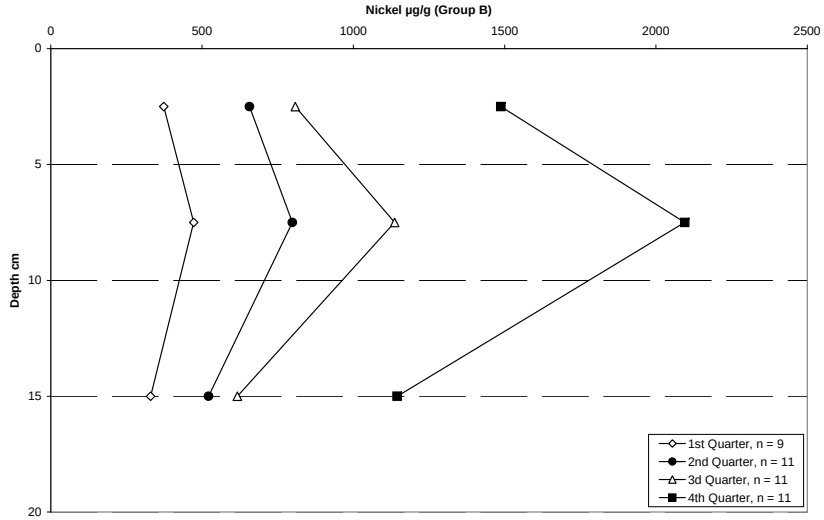


Figure 10.5.5.9b: Falconbridge, Ni depth profiles, Group B data.

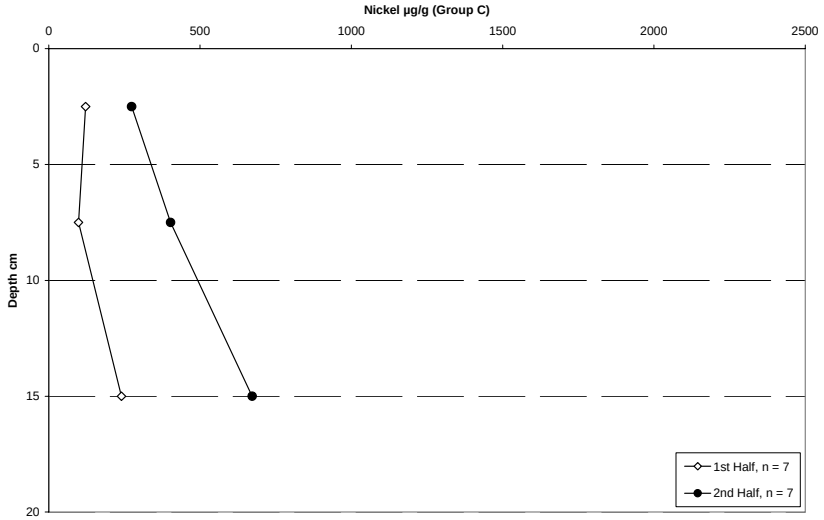


Figure 10.5.5.9c: Falconbridge, Ni depth profiles, Group C data.

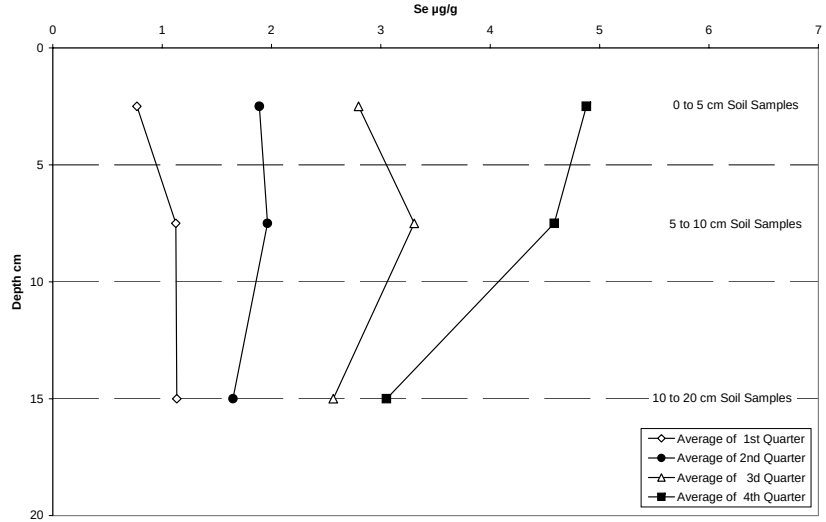


Figure 10.5.5.10: Falconbridge, Se depth profiles, all data.

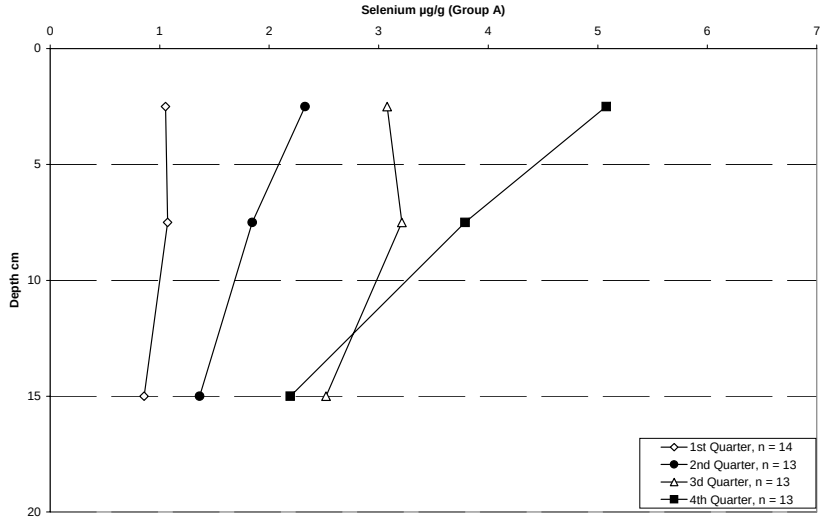


Figure 10.5.5.10a: Falconbridge, Se depth profiles, Group A data.

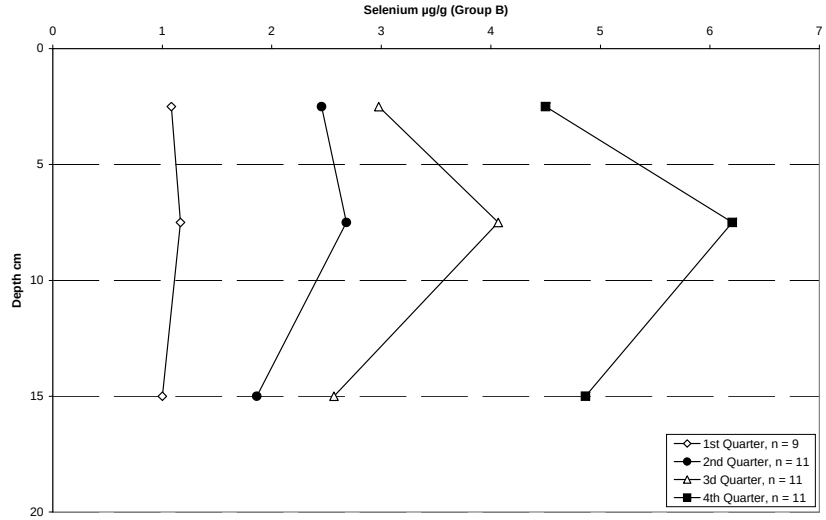


Figure 10.5.5.10b: Falconbridge, Se depth profiles, Group B data.

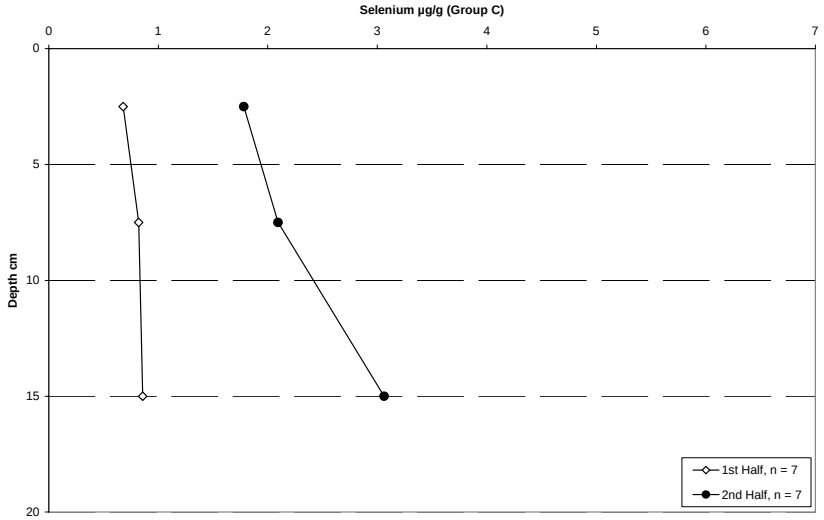


Figure 10.5.5.10c: Falconbridge, Se depth profiles, Group C data.

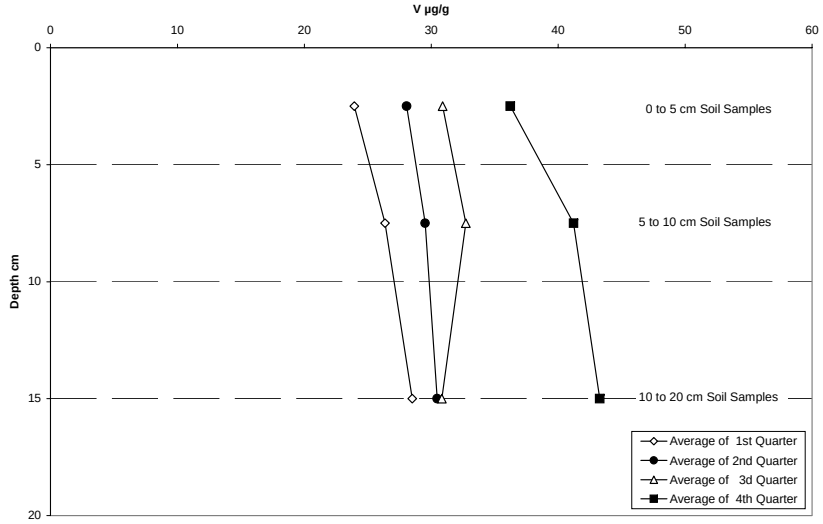


Figure 10.5.5.11: Falconbridge, V depth profiles, all data.

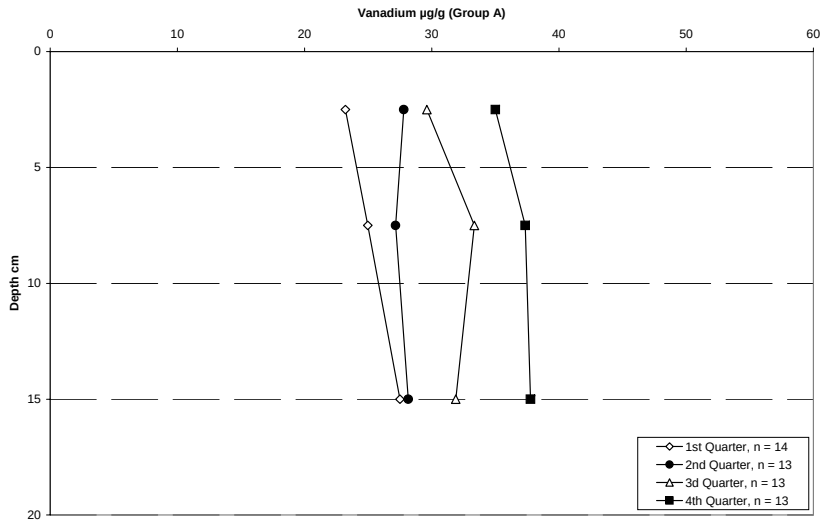


Figure 10.5.5.11a: Falconbridge, V depth profiles, Group A data.

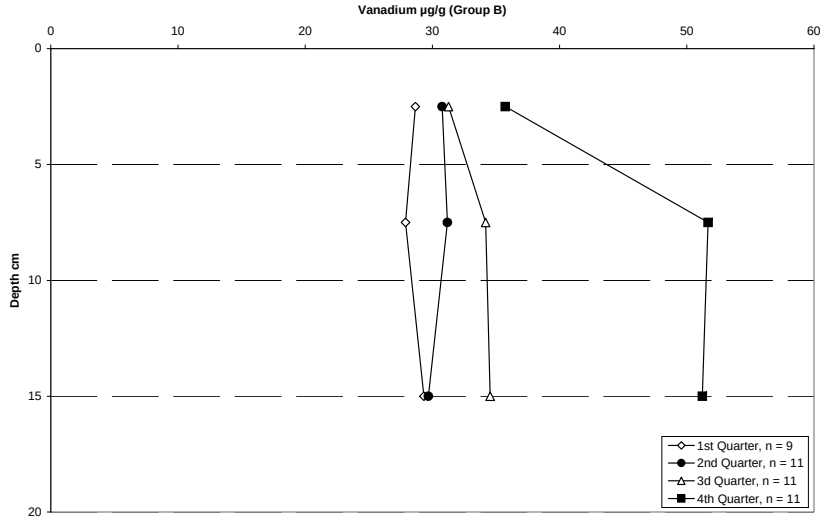


Figure 10.5.5.11b: Falconbridge, V depth profiles, Group B data.

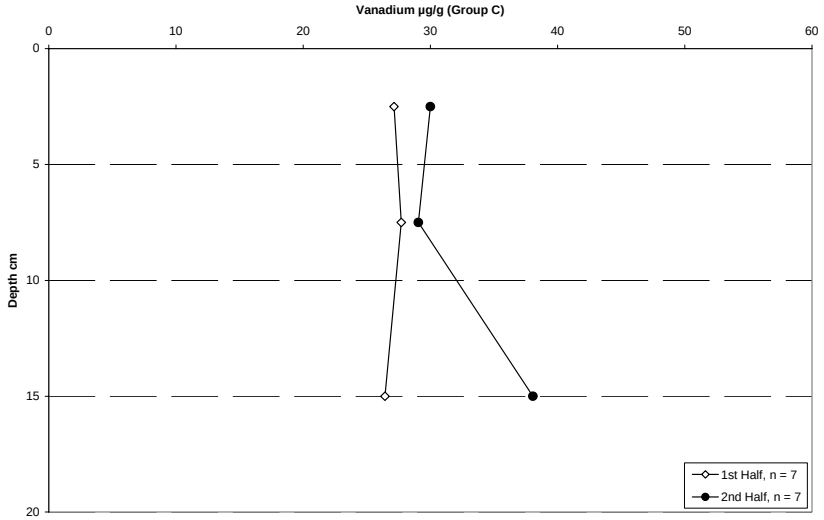


Figure 10.5.5.11c: Falconbridge, V depth profiles, Group C data.

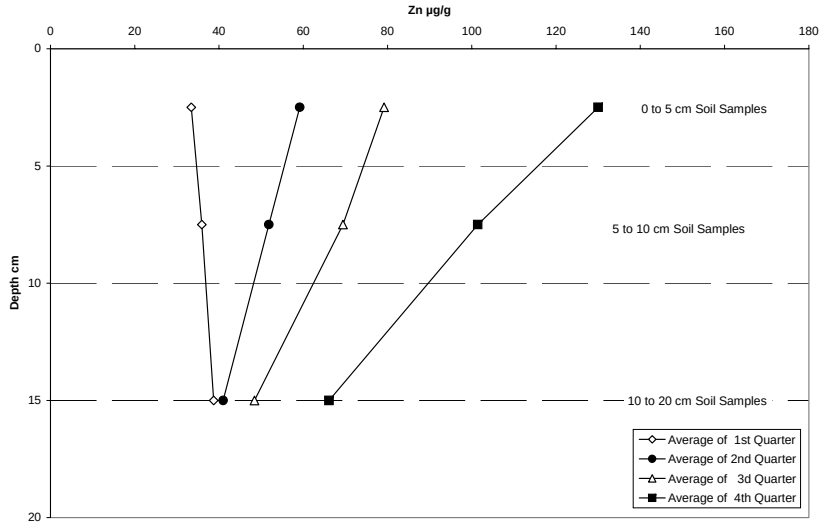


Figure 10.5.5.12: Falconbridge, Zn depth profiles, all data.

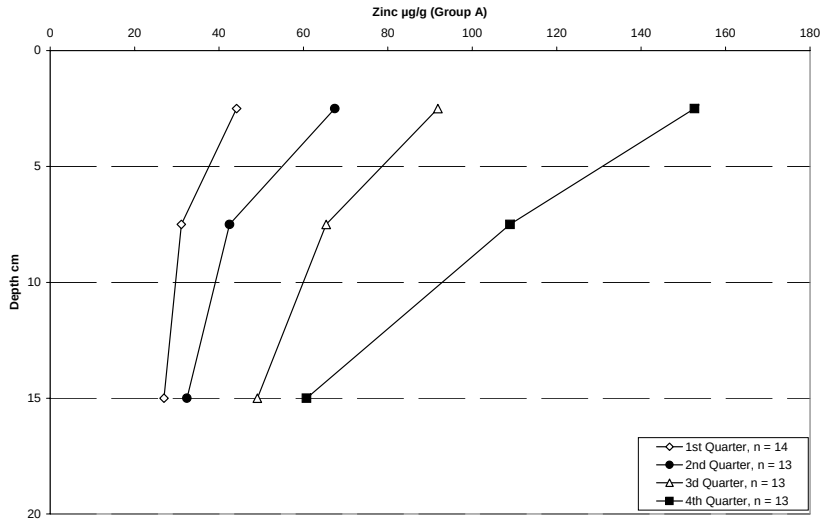


Figure 10.5.5.12a: Falconbridge, Zn depth profiles, Group A data.

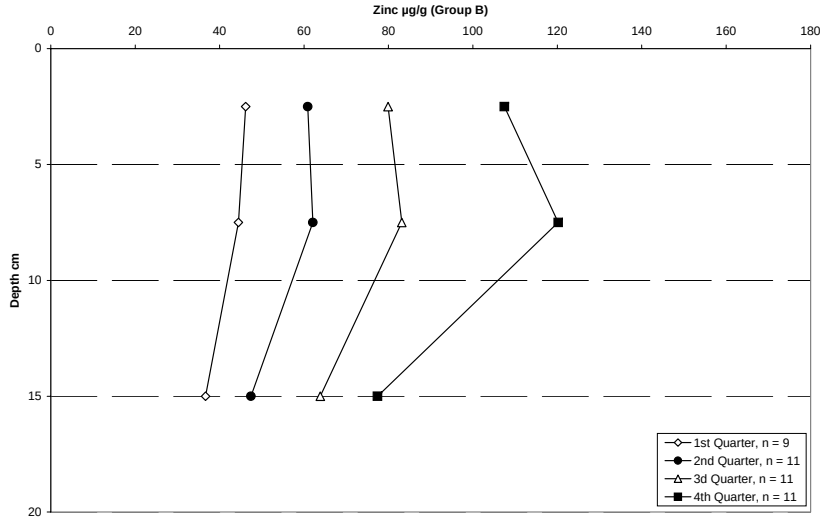


Figure 10.5.5.12b: Falconbridge, Zn depth profiles, Group B data.

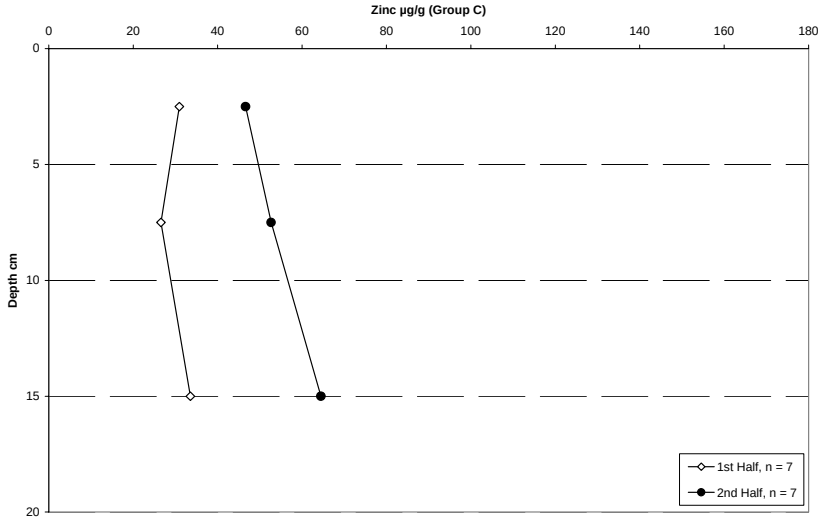


Figure 10.5.5.12c: Falconbridge, Zn depth profiles, Group C data.

10.5.6 Copper Cliff

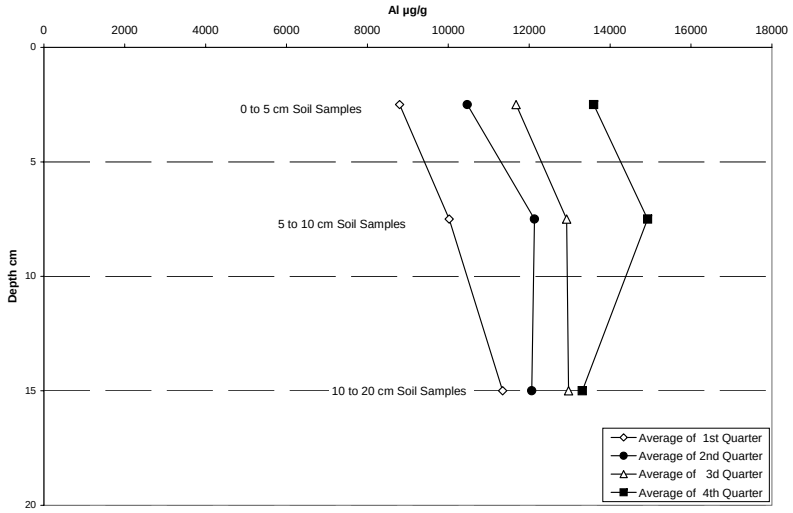


Figure 10.5.6.1: Copper Cliff, Al depth profiles, all data.

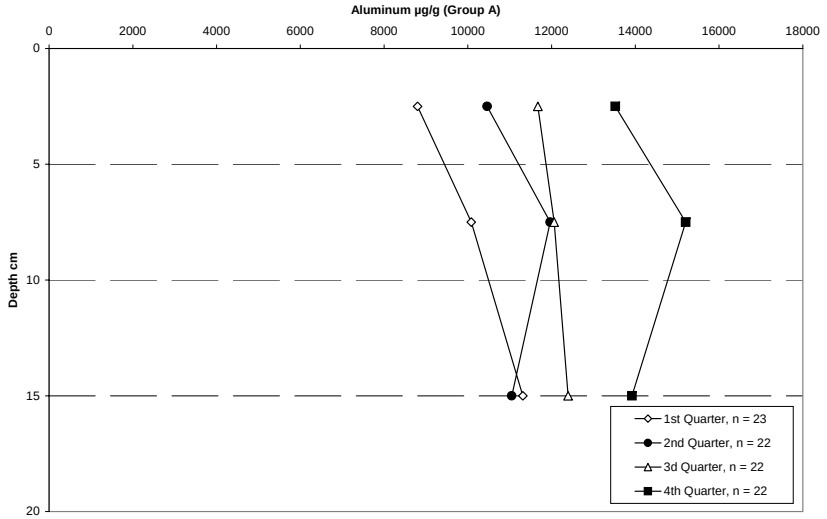


Fig. 10.5.6.1a: Copper Cliff, Al depth profiles, Group A data.

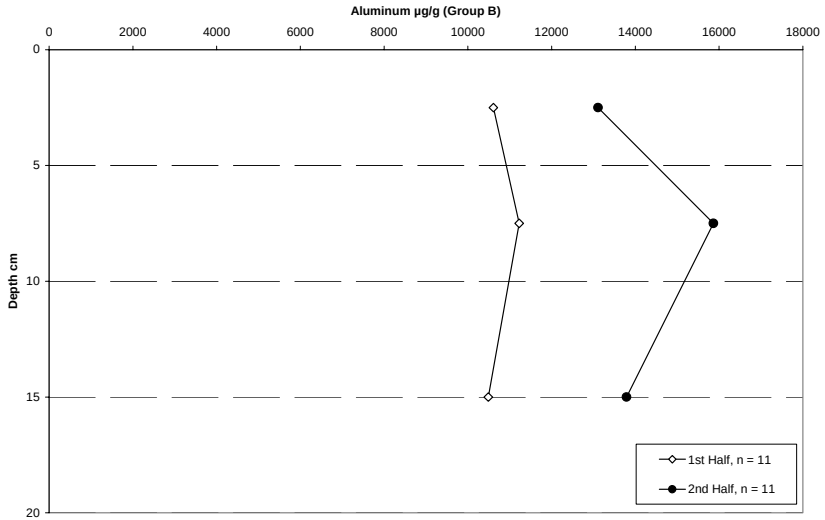


Fig. 10.5.6.1b: Copper Cliff, Al depth profiles, Group B data.

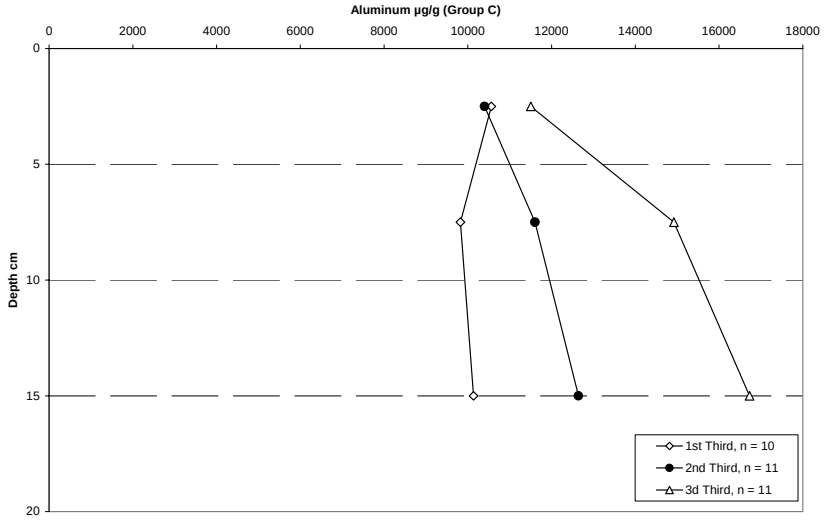


Fig. 10.5.6.1c: Copper Cliff, Al depth profiles, Group C data.

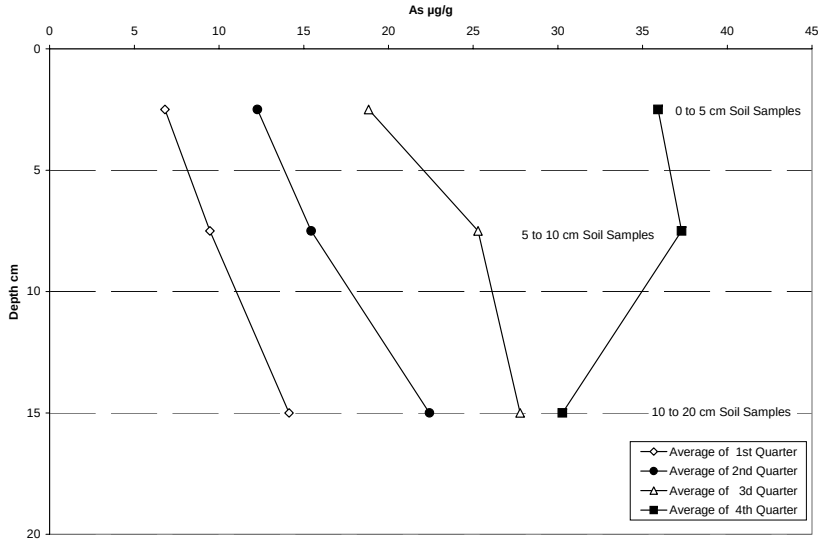


Figure 10.5.6.2: Copper Cliff, As depth profiles, all data.

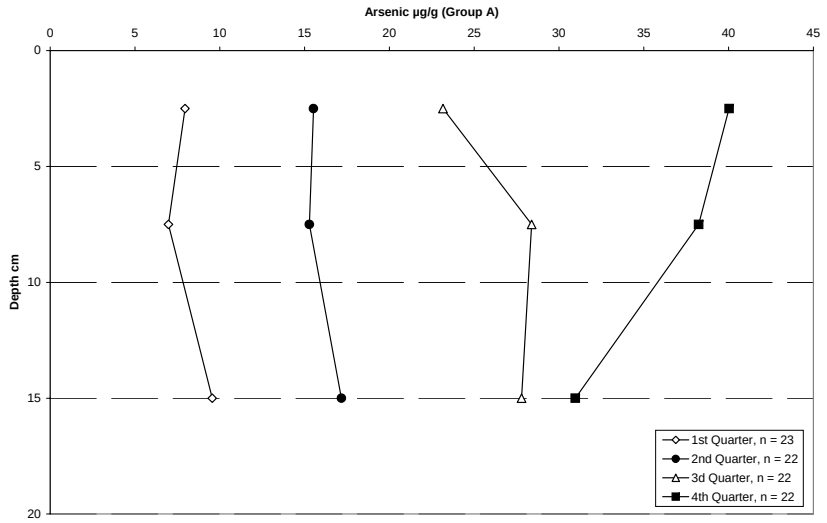


Figure 10.5.6.2a: Copper Cliff, As depth profiles, Group A data.

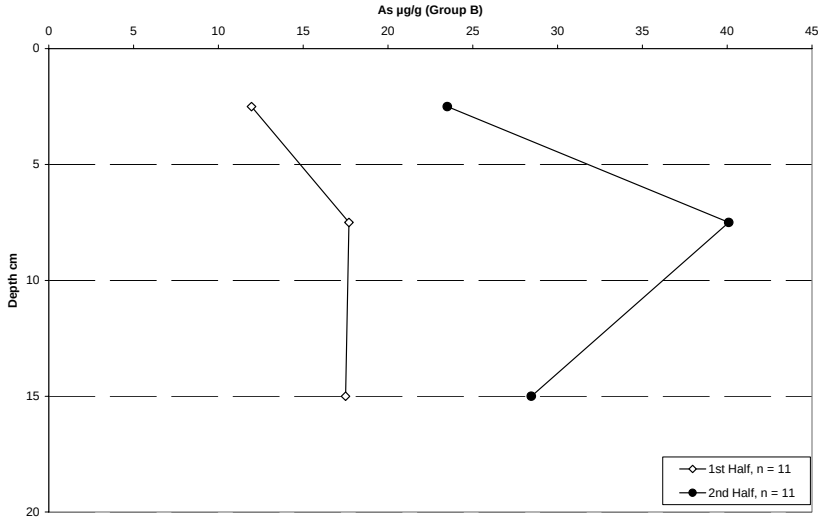


Figure 10.5.6.2b: Copper Cliff, As depth profiles, Group B data.

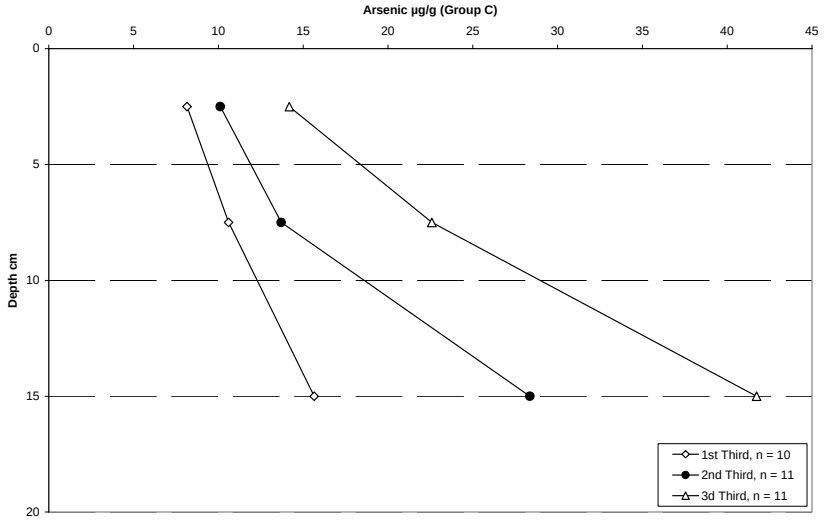


Figure 10.5.6.2c: Copper Cliff, As depth profiles, Group C data.

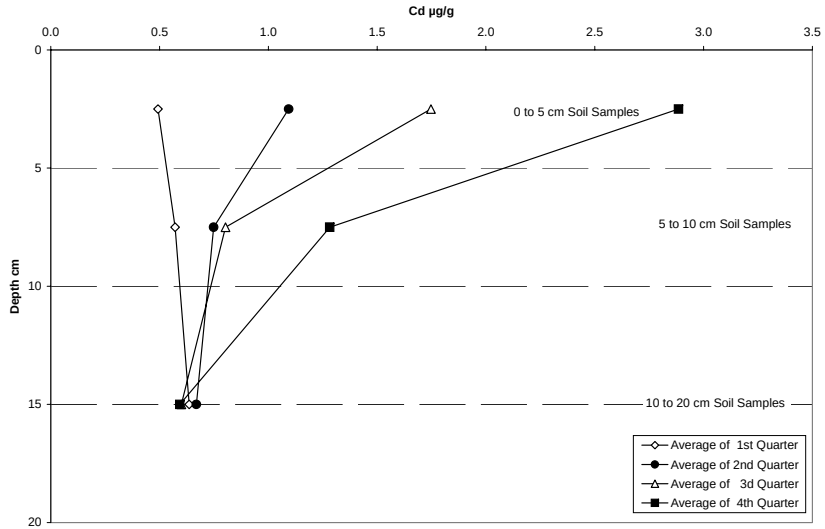


Figure 10.5.6.3: Copper Cliff, Cd depth profiles, all data.

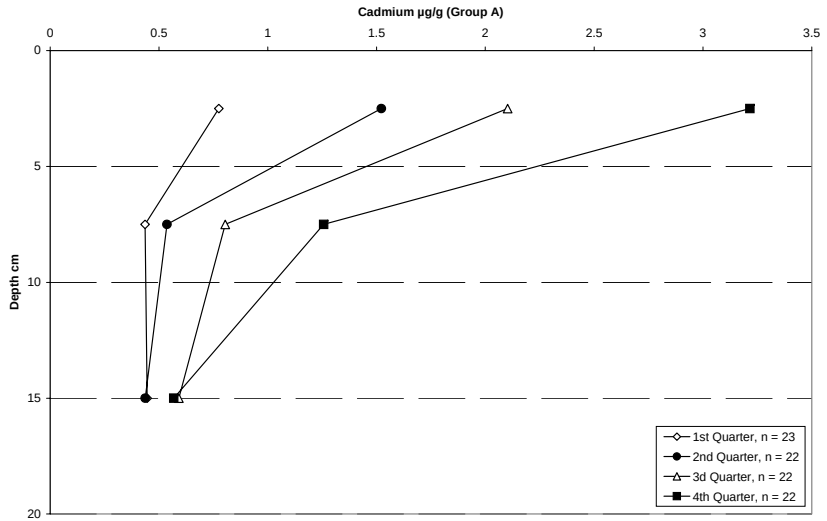


Figure 10.5.6.3a: Copper Cliff, Cd depth profiles, Group A data.

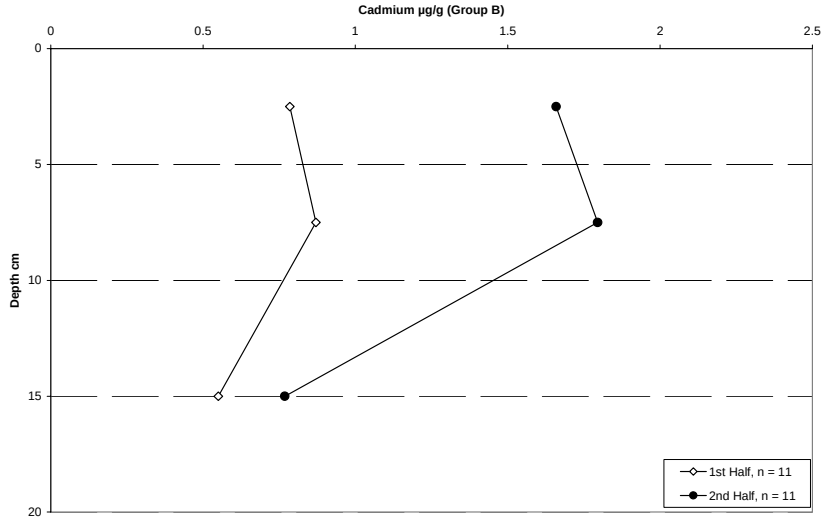


Figure 10.5.6.3b: Copper Cliff, Cd depth profiles, Group B data.

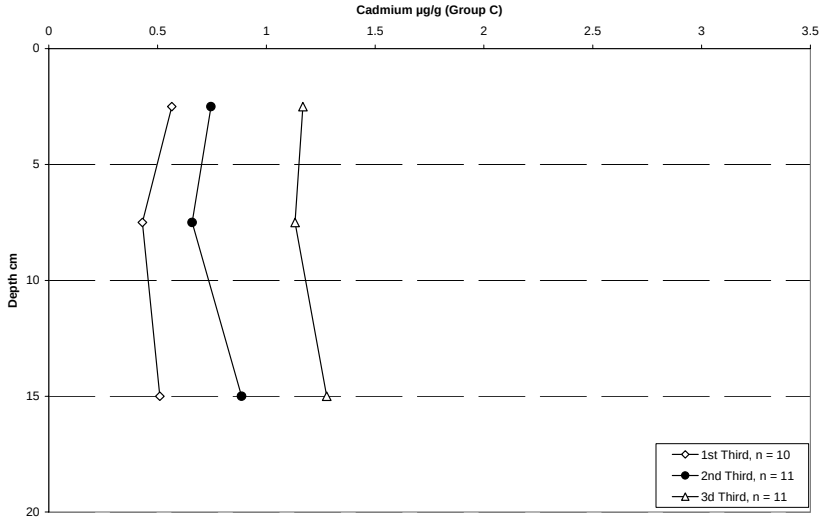


Figure 10.5.6.3c: Copper Cliff, Cd depth profiles, Group C data.

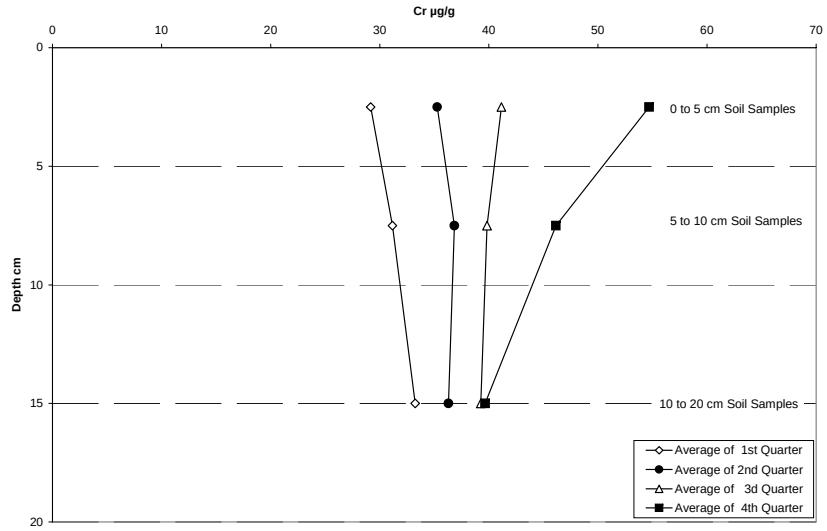


Figure 10.5.6.4: Copper Cliff, Cr depth profiles, all data.

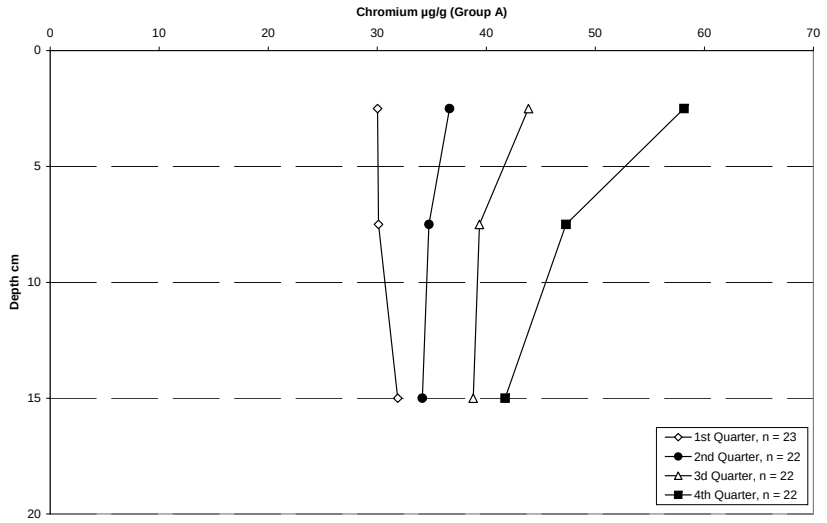


Figure 10.5.6.4a: Copper Cliff, Cr depth profiles, Group A data.

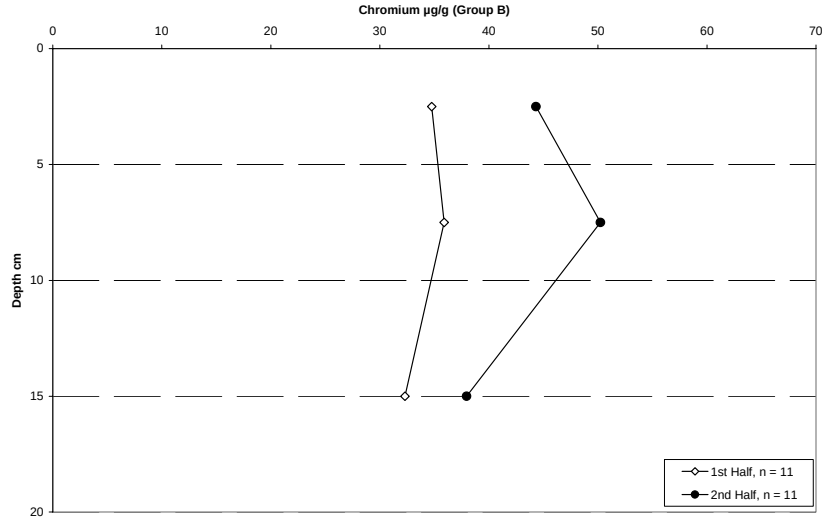


Figure 10.5.6.4b: Copper Cliff, Cr depth profiles, Group B data.

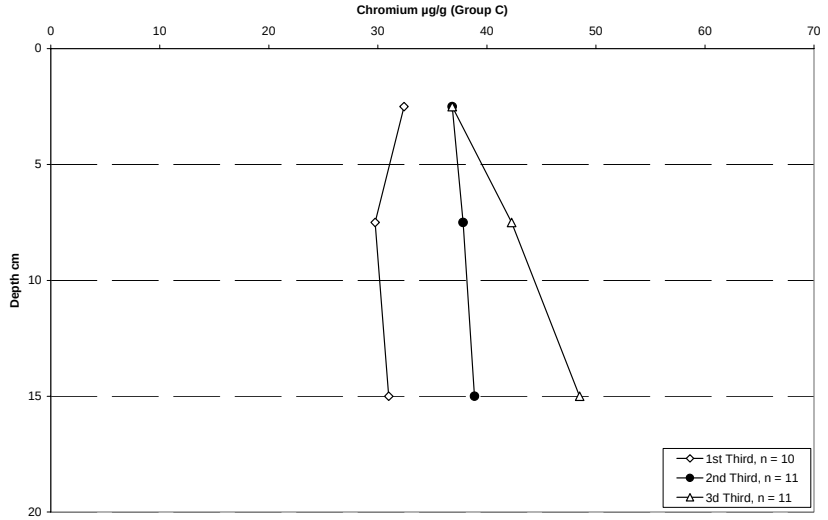


Figure 10.5.6.4c: Copper Cliff, Cr depth profiles, Group C data.

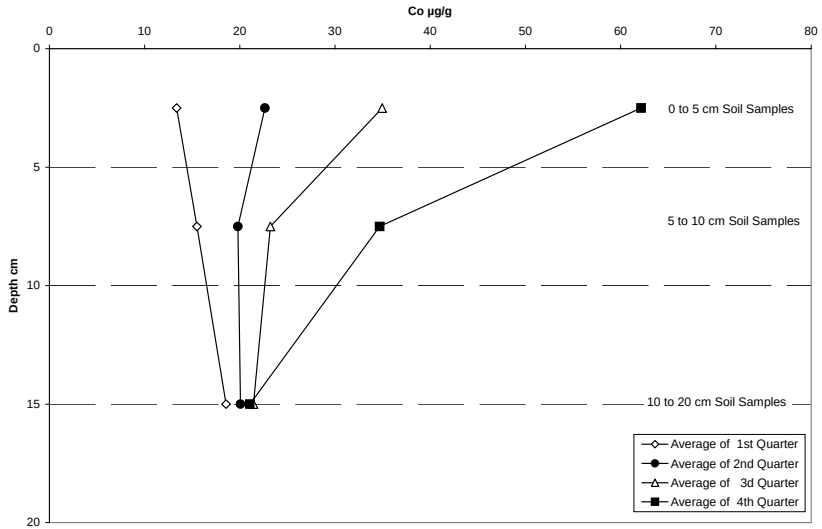


Figure 10.5.6.5: Copper Cliff, Co depth profiles, all data.

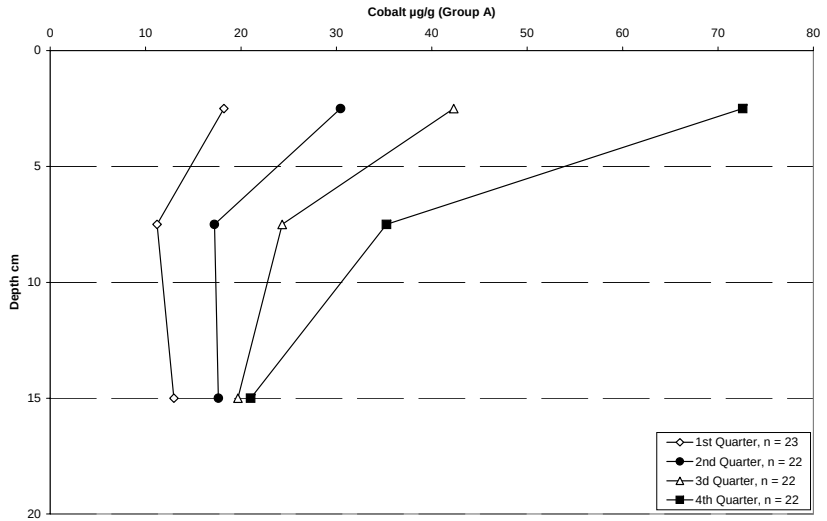


Figure 10.5.6.5a: Copper Cliff, Co depth profiles, Group A data.

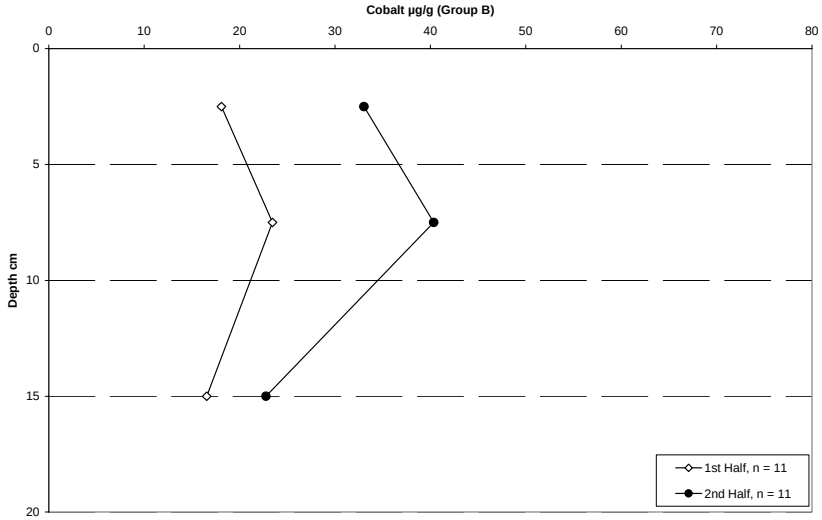


Figure 10.5.6.5b: Copper Cliff, Co depth profiles, Group B data.

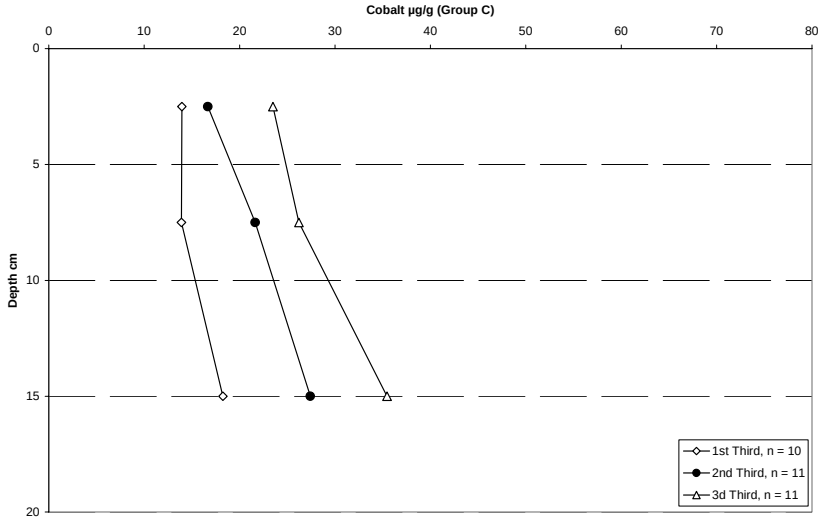


Figure 10.5.6.5c: Copper Cliff, Co depth profiles, Group C data.

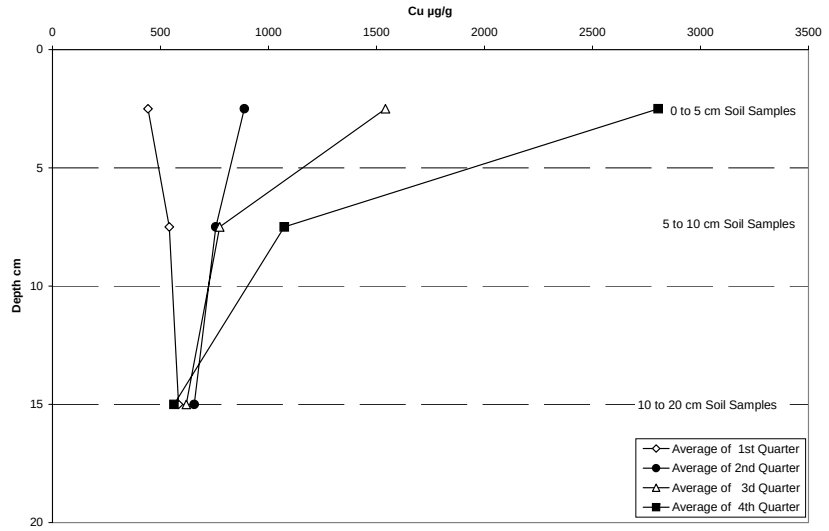


Figure 10.5.6.6: Copper Cliff, Cu depth profiles, all data.

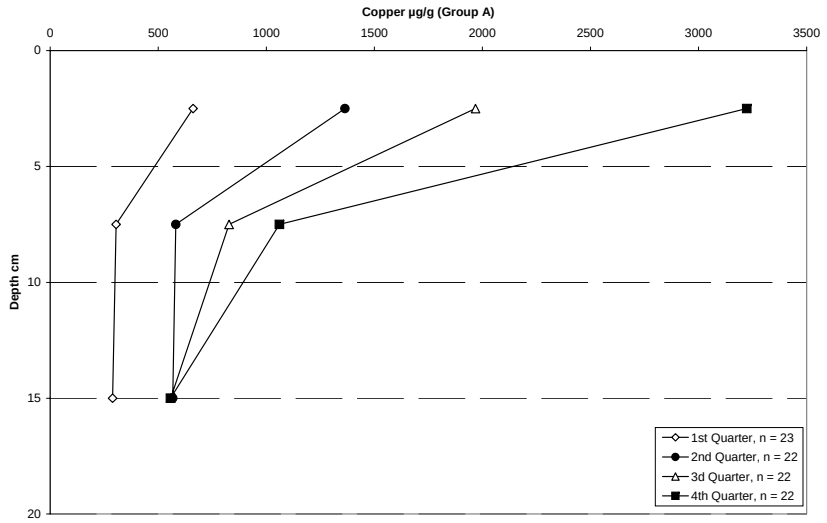


Figure 10.5.6.6a: Copper Cliff, Cu depth profiles, Group A data.

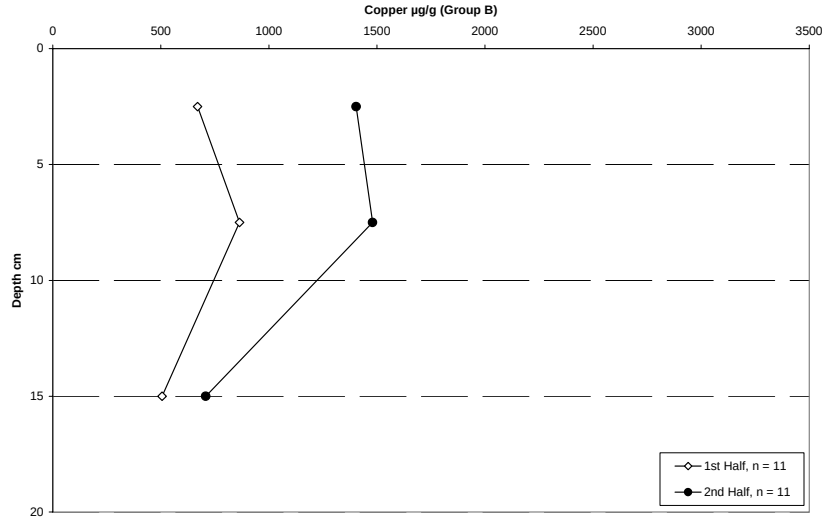


Figure 10.5.6.6b: Copper Cliff, Cu depth profiles, Group B data.

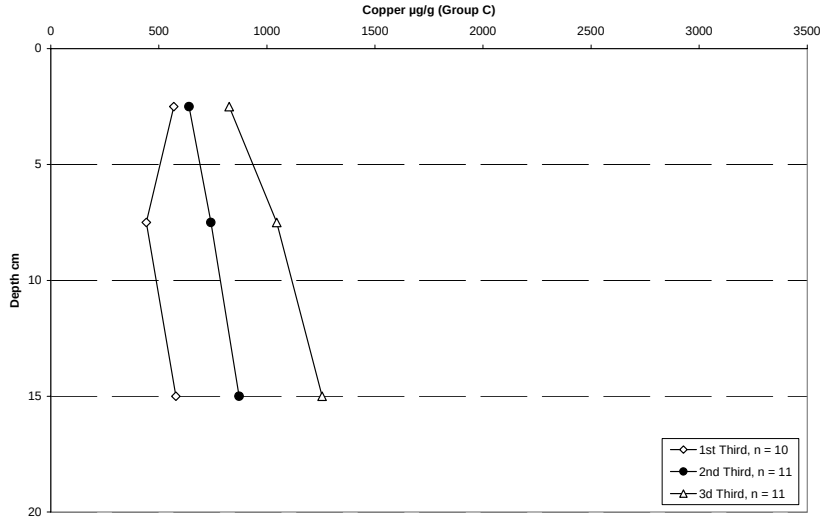


Figure 10.5.6.6c: Copper Cliff, Cu depth profiles, Group C data.

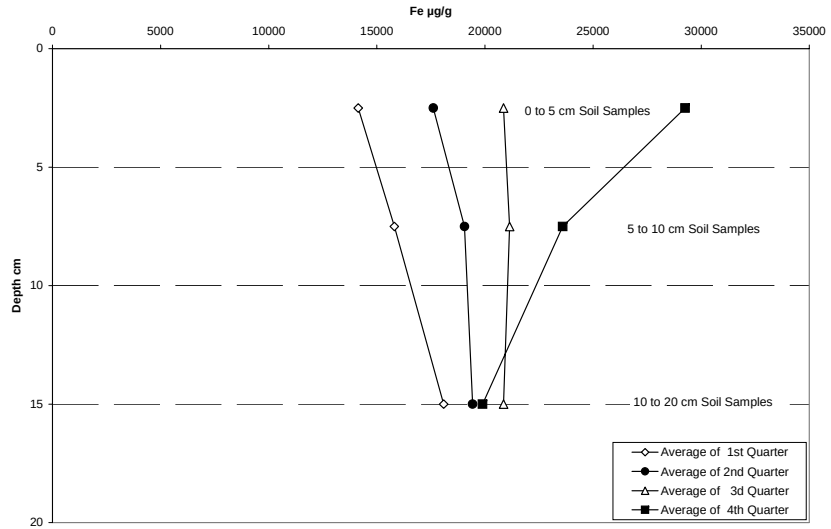


Figure 10.5.6.7: Copper Cliff, Fe depth profiles, all data.

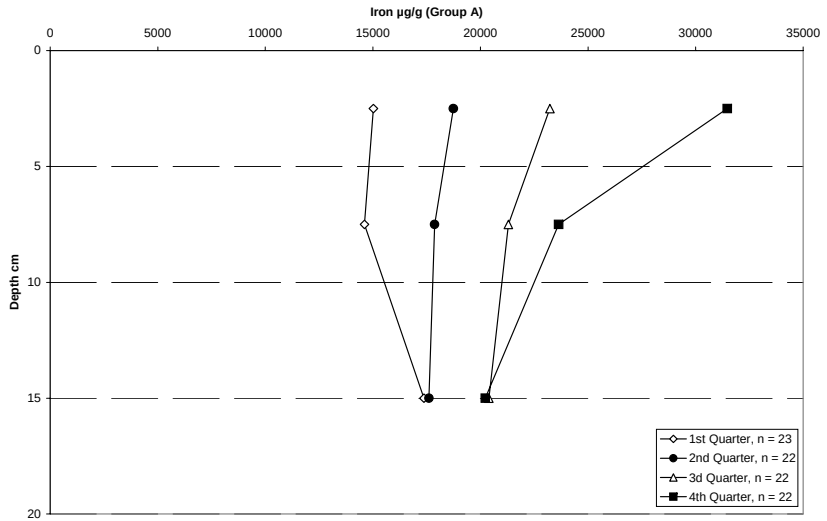


Figure 10.5.6.7a: Copper Cliff, Fe depth profiles, Group A data.

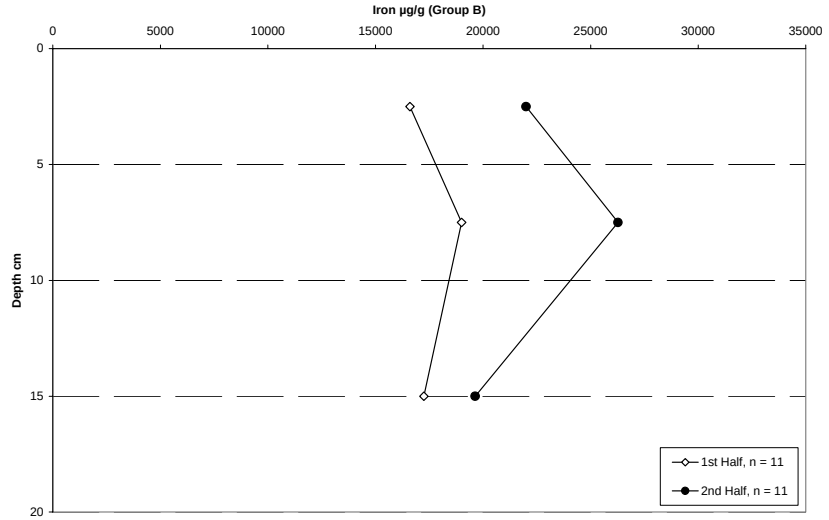


Figure 10.5.6.7b: Copper Cliff, Fe depth profiles, Group B data.

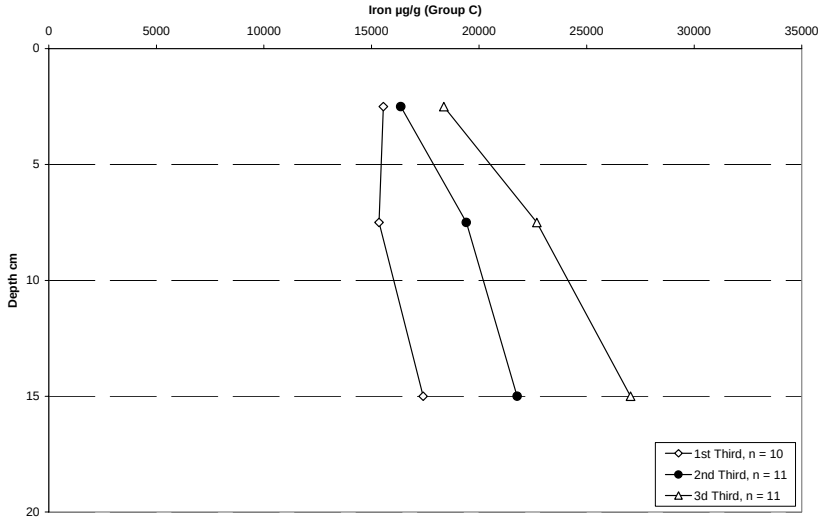


Figure 10.5.6.7c: Copper Cliff, Fe depth profiles, Group C data.

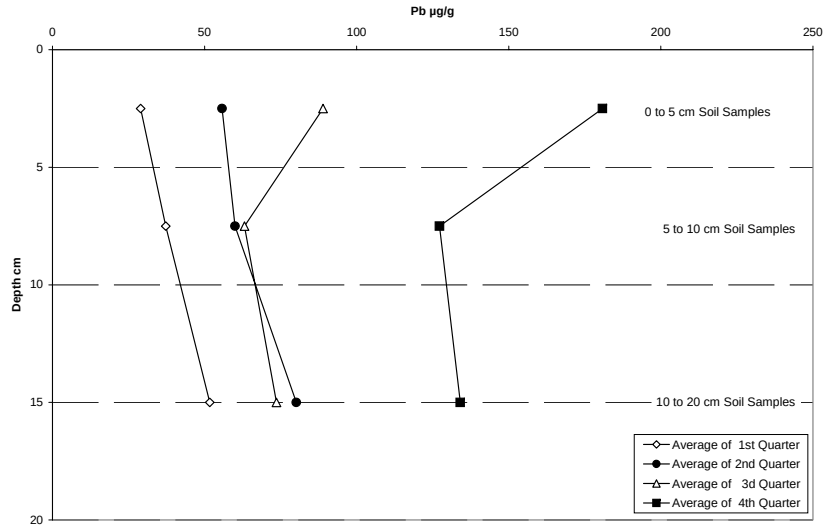


Figure 10.5.6.8: Copper Cliff, Pb depth profiles, all data.

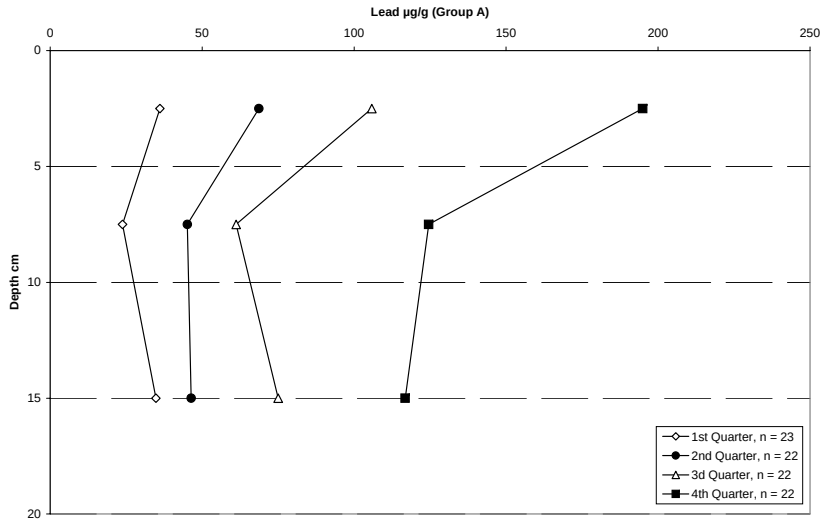


Figure 10.5.6.8a: Copper Cliff, Pb depth profiles, Group A data.

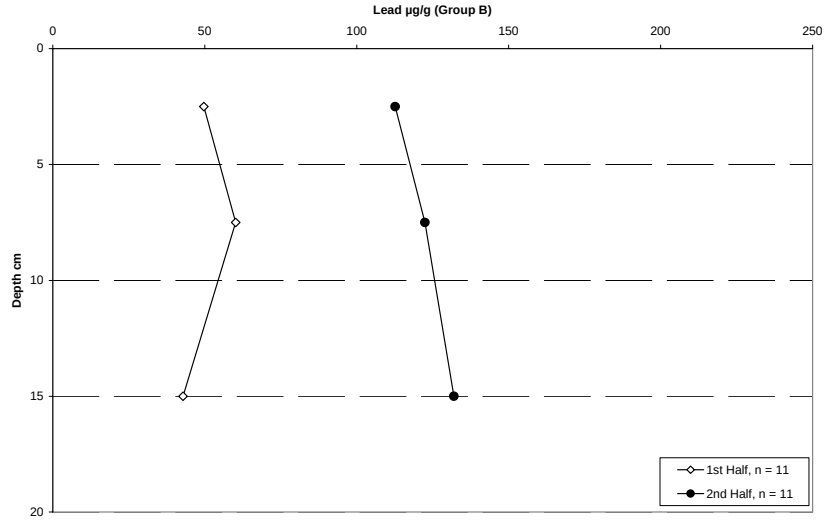


Figure 10.5.6.8b: Copper Cliff, Pb depth profiles, Group B data.

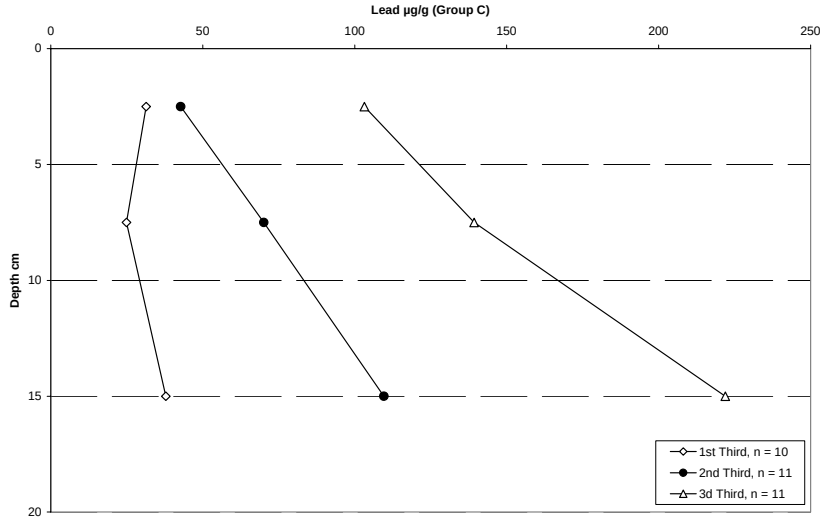


Figure 10.5.6.8c: Copper Cliff, Pb depth profiles, Group C data.

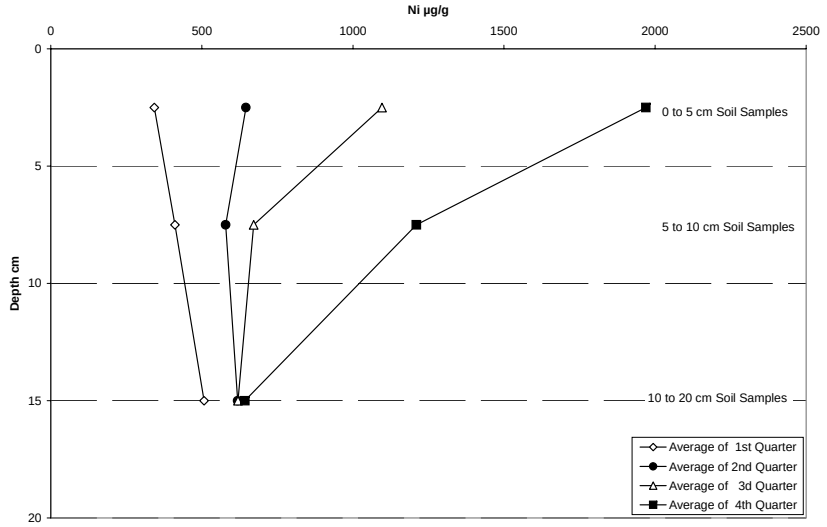


Figure 10.5.6.9: Copper Cliff, Ni depth profiles, all data.

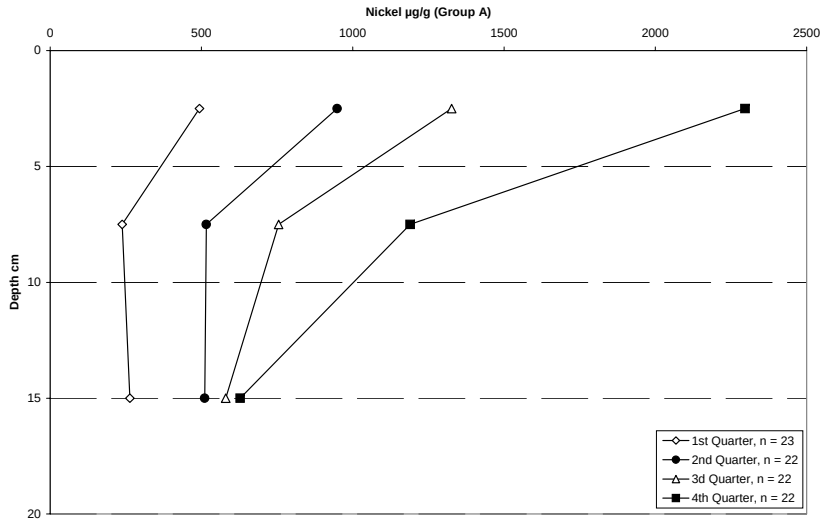


Figure 10.5.6.9a: Copper Cliff, Ni depth profiles, Group A data.

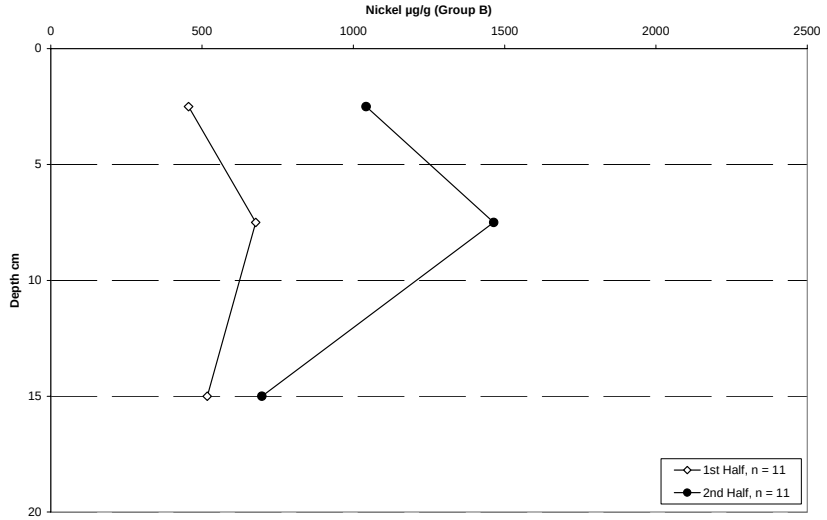


Figure 10.5.6.9b: Copper Cliff, Ni depth profiles, Group B data.

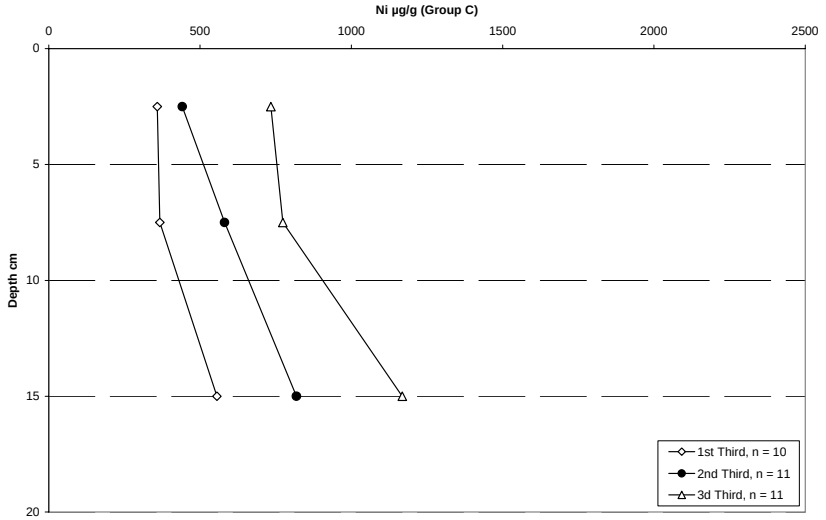


Figure 10.5.6.9c: Copper Cliff, Ni depth profiles, Group C data.

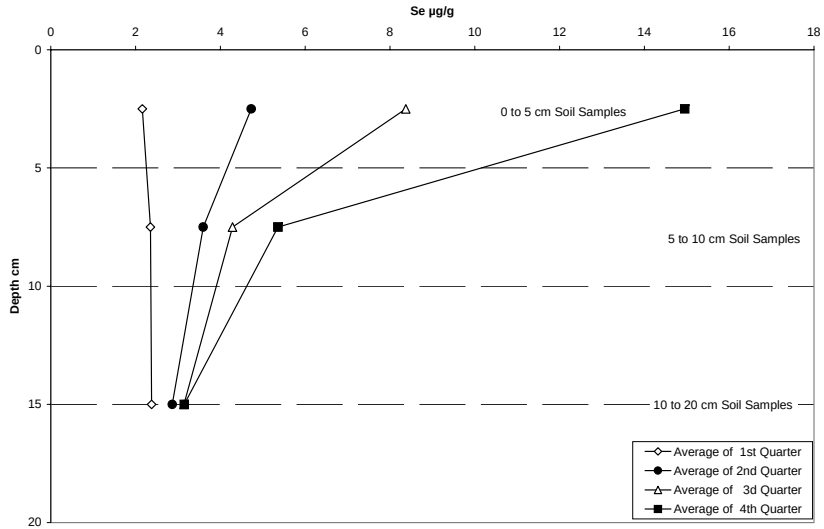


Figure 10.5.6.10: Copper Cliff, Se depth profiles, all data.

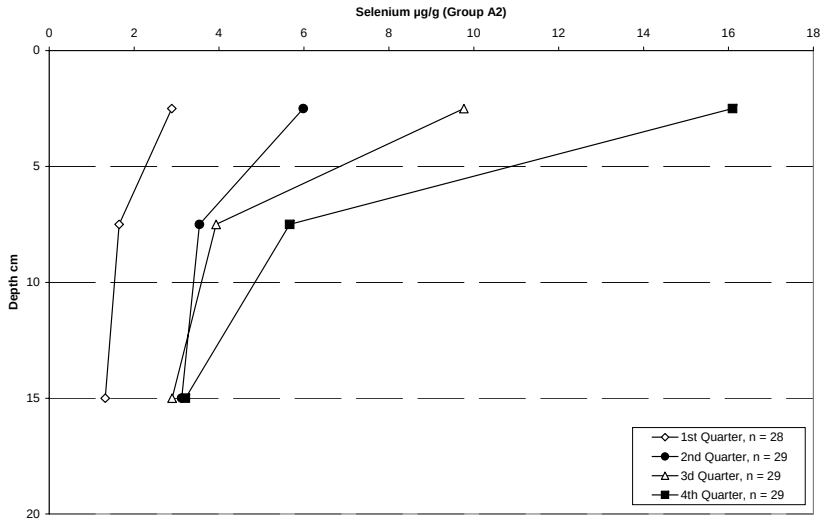


Figure 10.5.6.10a: Copper Cliff, Se depth profiles, Group A data.

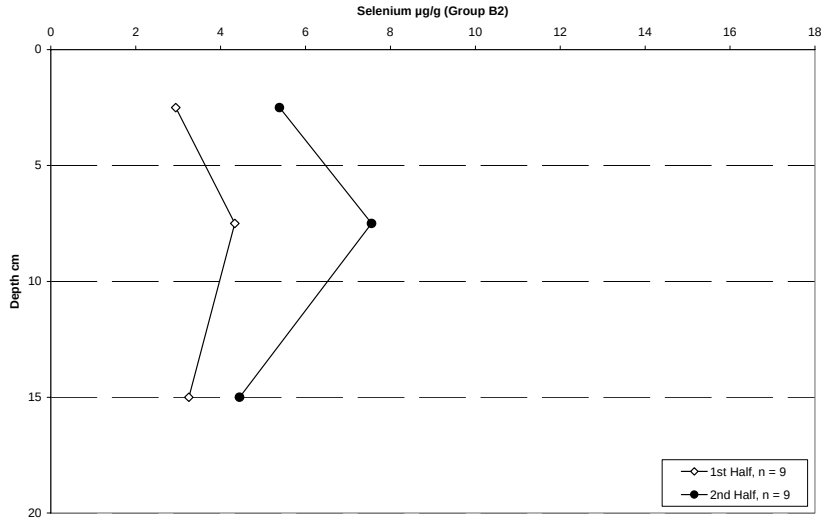


Figure 10.5.6.10b: Copper Cliff, Se depth profiles, Group B data.

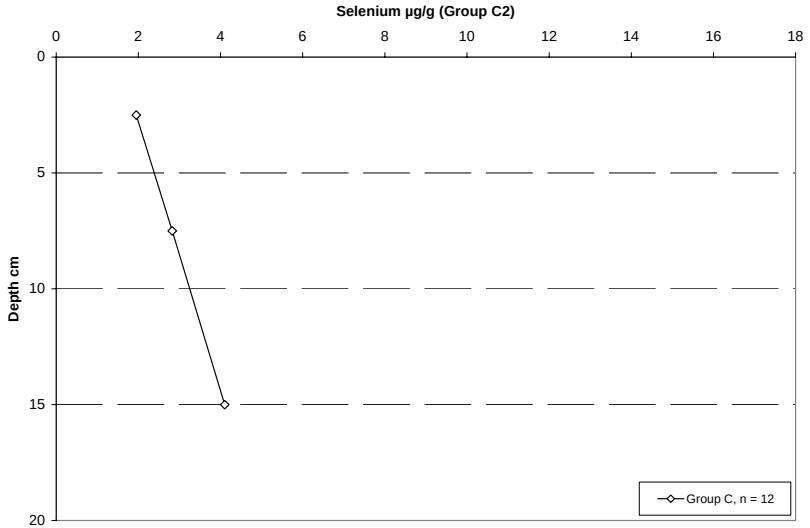


Figure 10.5.6.10c: Copper Cliff, Se depth profiles, Group C data.

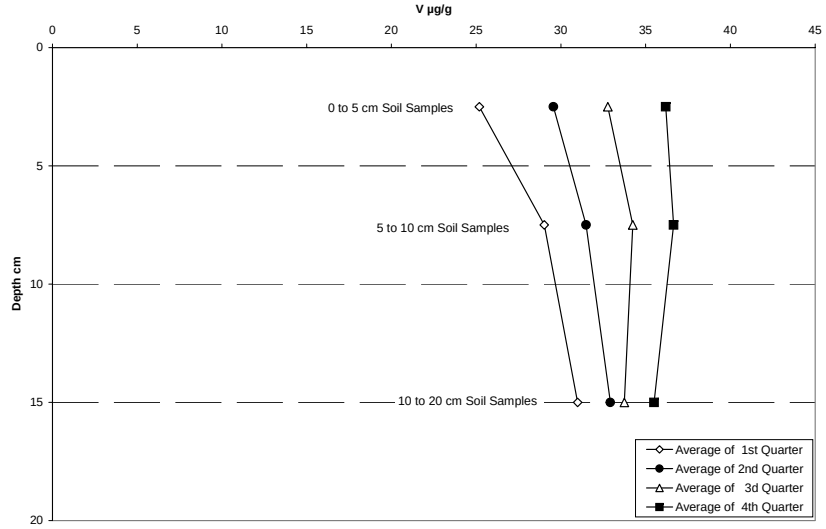


Figure 10.5.6.11: Copper Cliff, V depth profiles, all data.

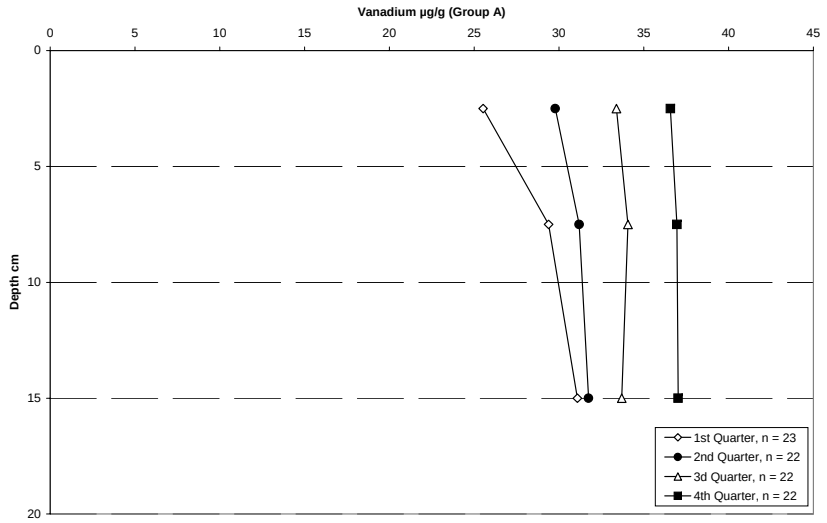


Figure 10.5.6.11a: Copper Cliff, V depth profiles, Group A data.

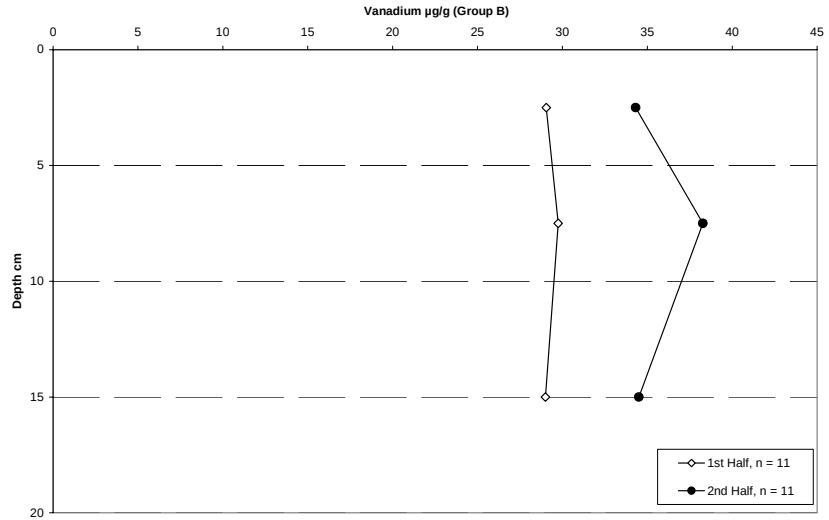


Fig. 10.5.6.11b: Copper Cliff, V depth profiles, Group B data.

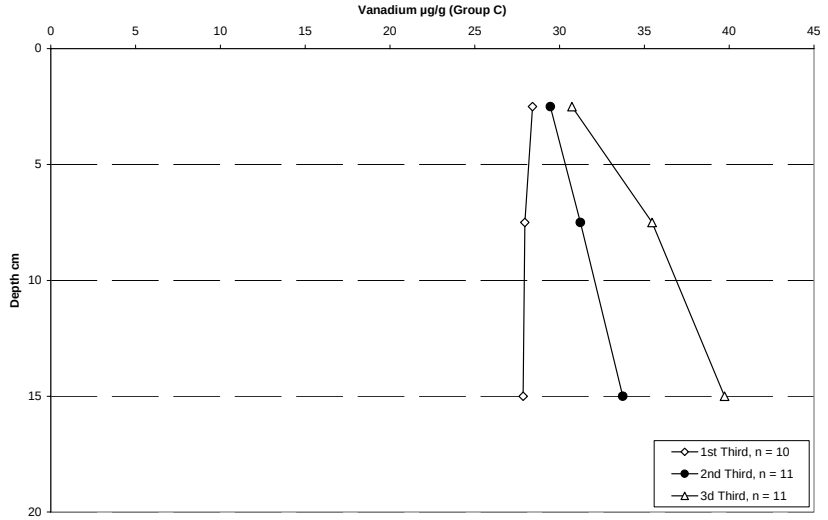


Figure 10.5.6.11c: Copper Cliff, V depth profiles, Group C data.

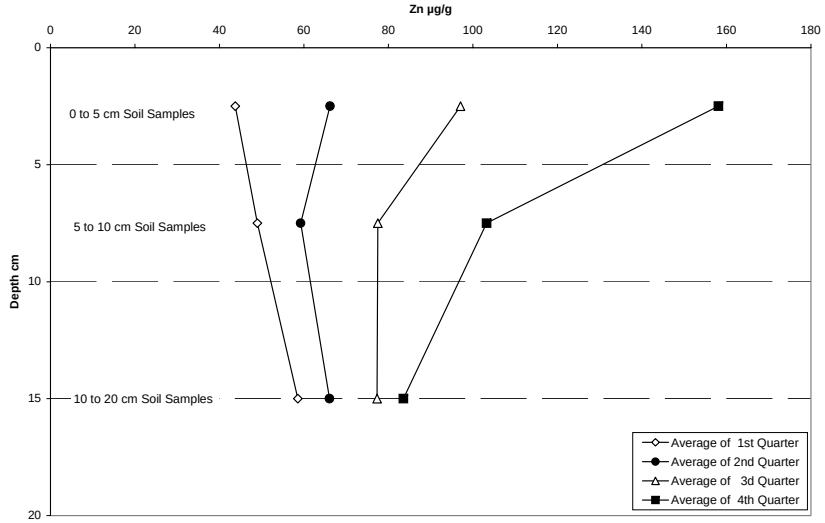


Figure 10.5.6.12: Copper Cliff, Zn depth profiles, all data.

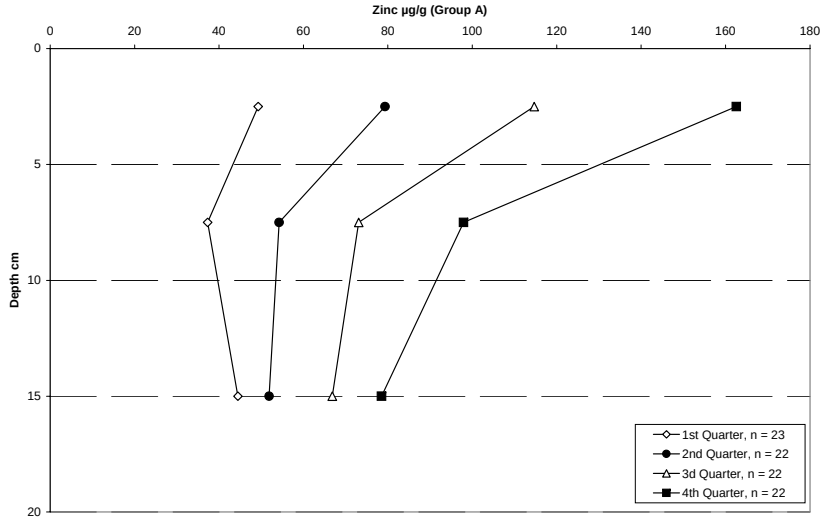


Figure 10.5.6.12a: Copper Cliff, Zn depth profiles, Group A data.

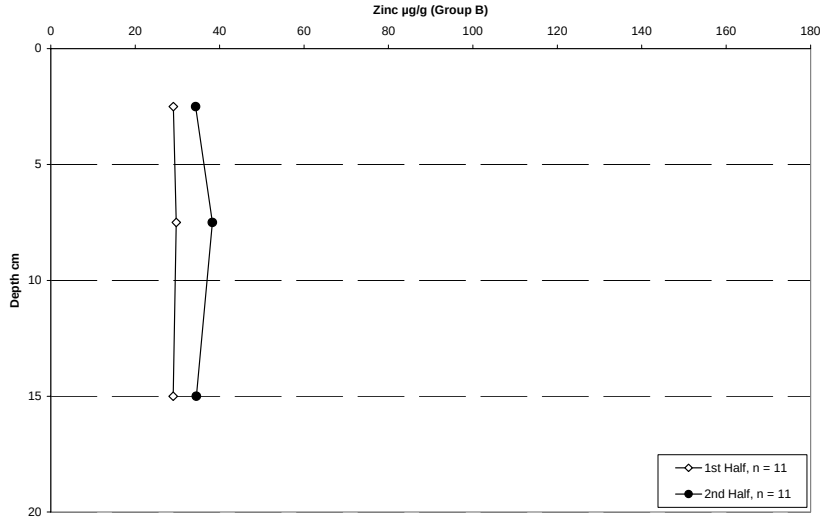


Figure 10.5.6.12b: Copper Cliff, Zn depth profiles, Group B data.

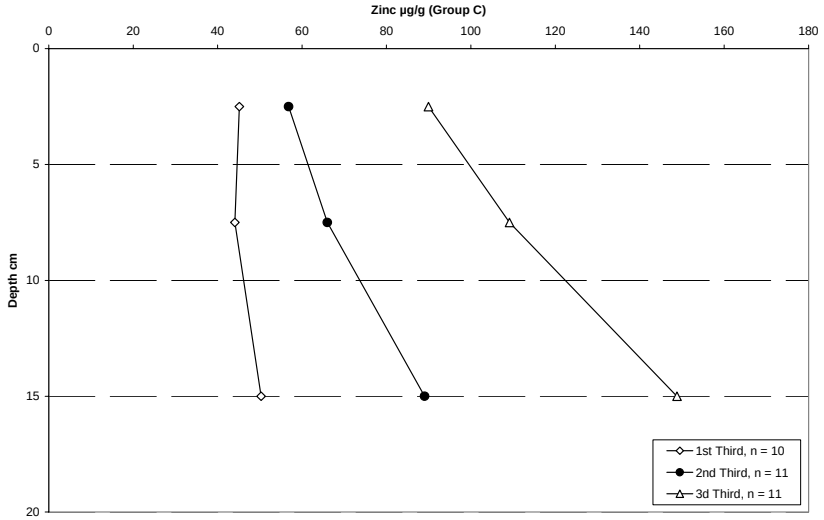


Figure 10.5.6.12c: Copper Cliff, Zn depth profiles, Group C data.

10.5.7 Undisturbed Natural Soil

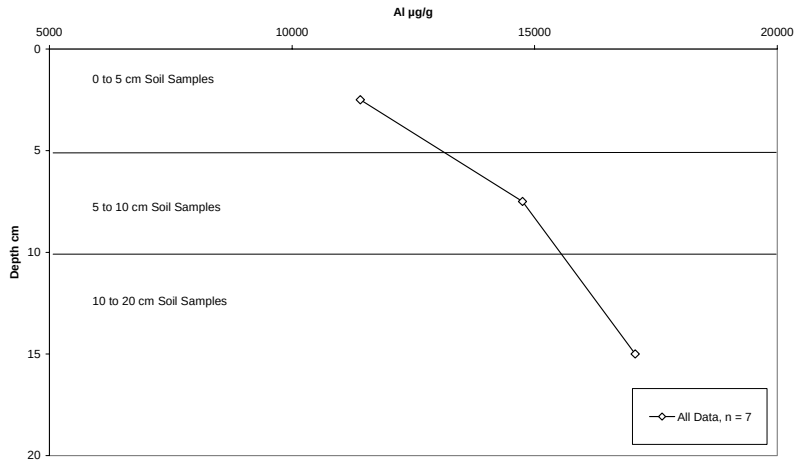


Figure 10.5.7.1: Undisturbed Natural Soil, Al depth profile, all data.

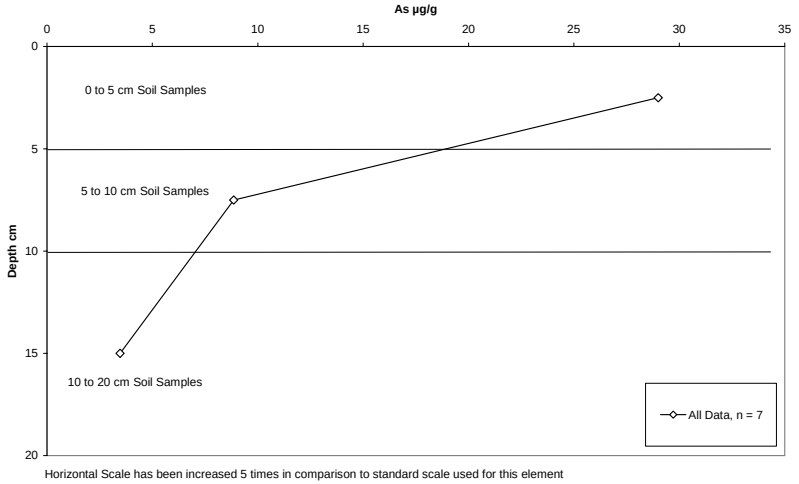


Figure 10.5.7.2: Undisturbed Natural Soil, As depth profile, all data.

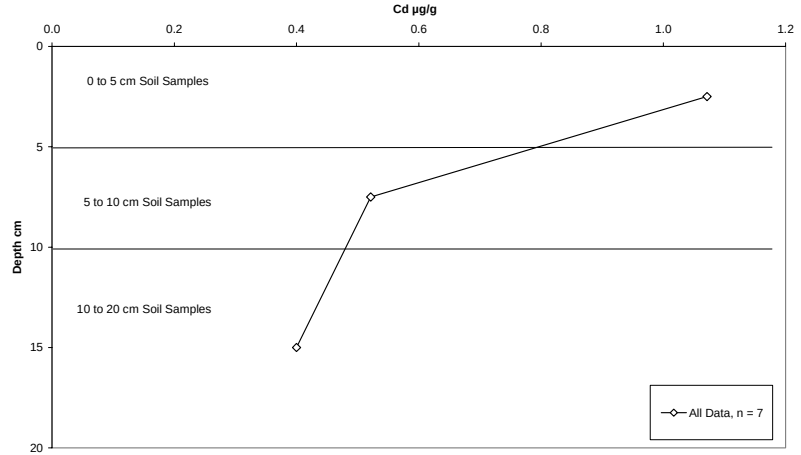


Figure 10.5.7.3: Undisturbed Natural Soil, Cd depth profile, all data.

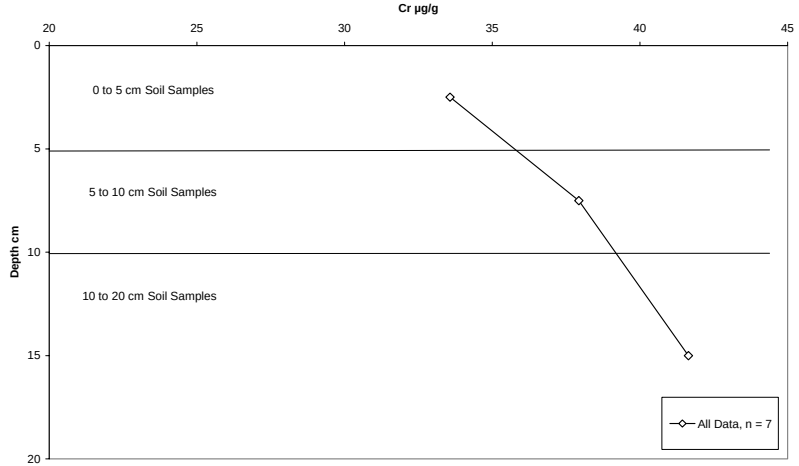


Figure 10.5.7.4: Undisturbed Natural Soil, Cr depth profile, all data.

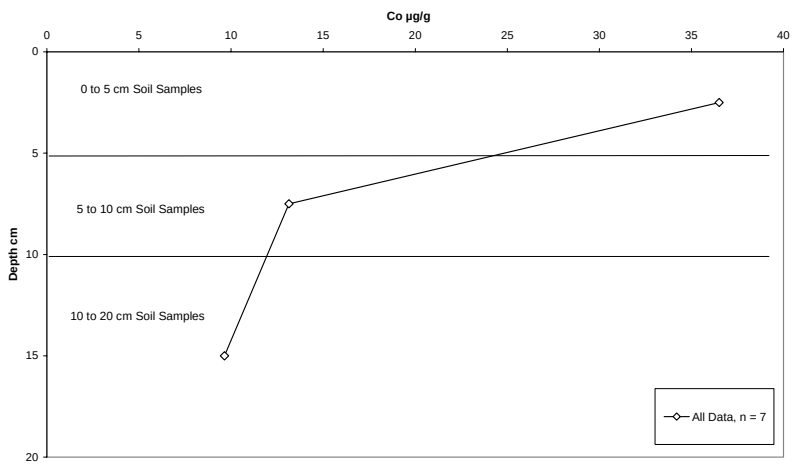


Figure 10.5.7.5: Undisturbed Natural Soil, Co depth profile, all data.

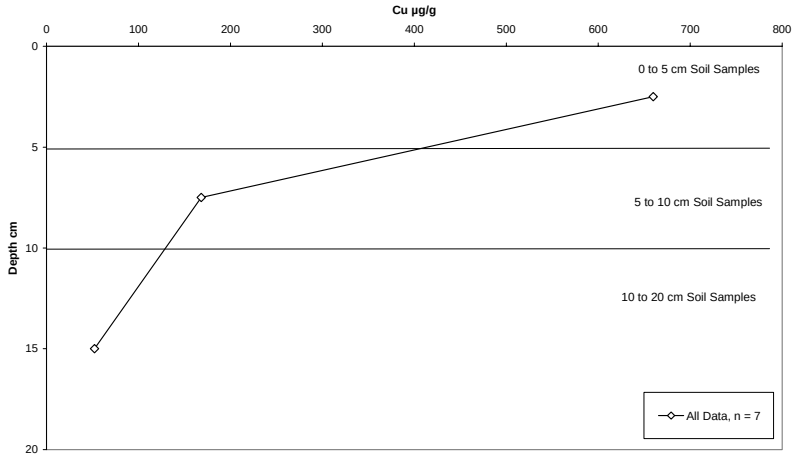


Figure 10.5.7.6: Undisturbed Natural Soil, Cu depth profile, all data.

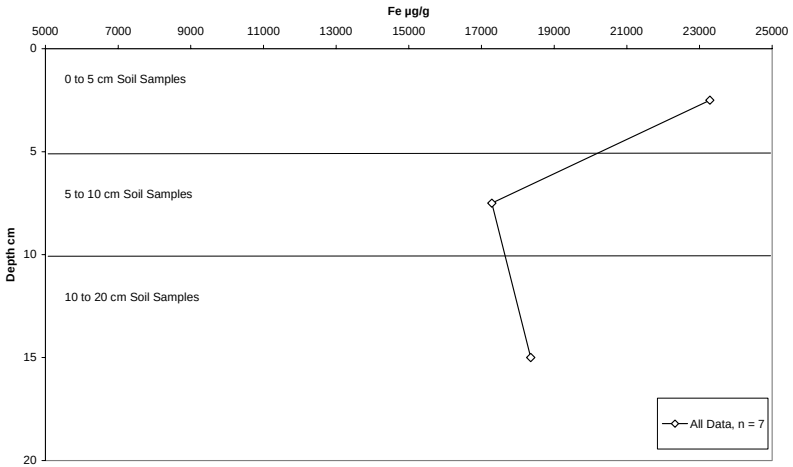


Figure 10.5.7.7: Undisturbed Natural Soil, Fe depth profile, all data.

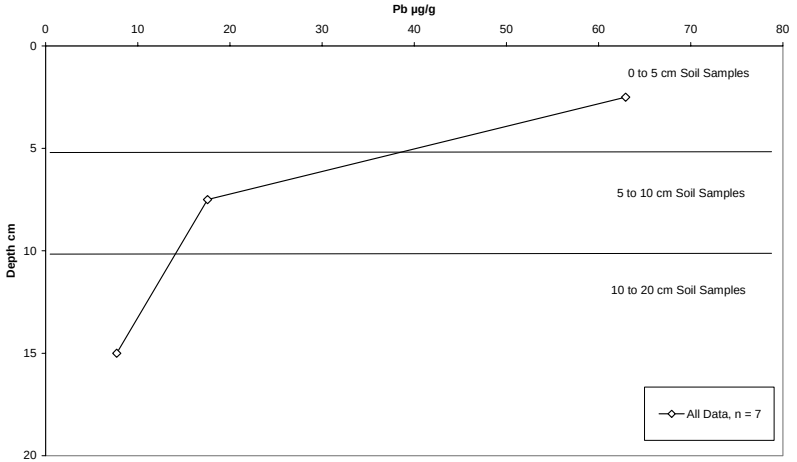


Figure 10.5.7.8: Undisturbed Natural Soil, Pb depth profile, all data.

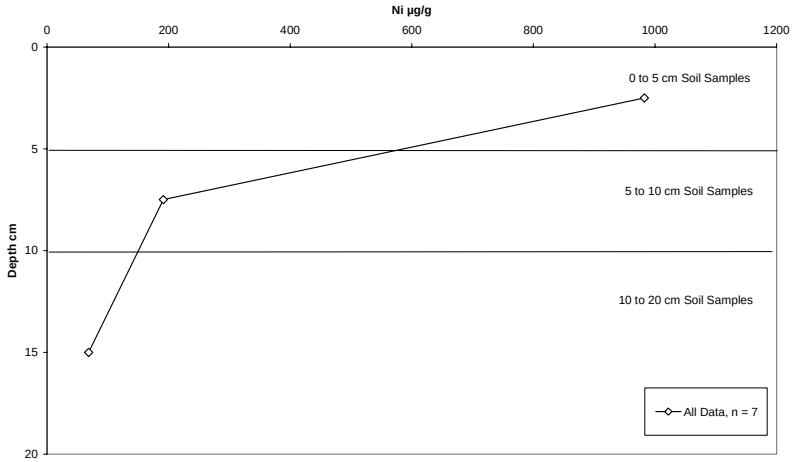


Figure 10.5.7.9: Undisturbed Natural Soil, Ni depth profile, all data.

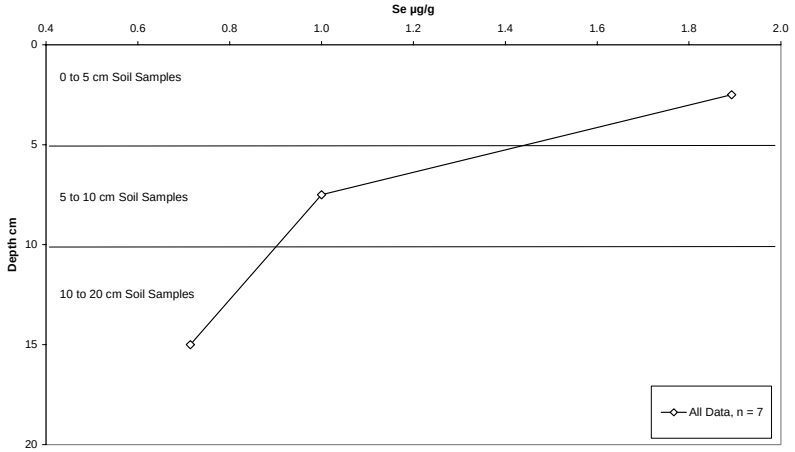


Figure 10.5.7.10: Undisturbed Natural Soil, Se depth profile, all data.

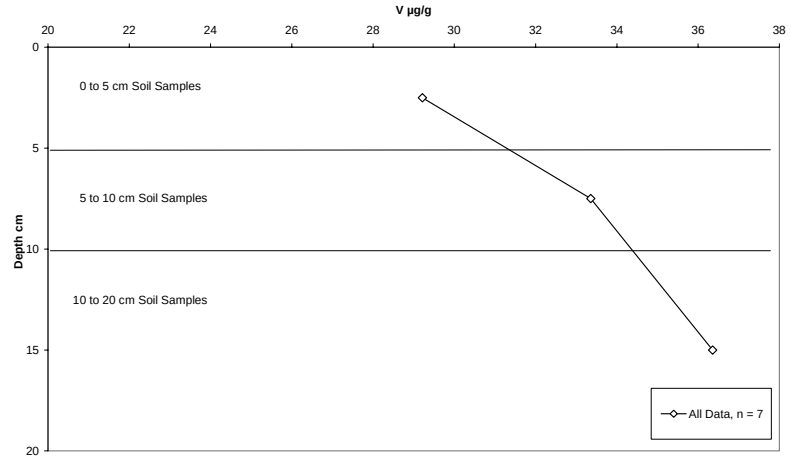


Figure 10.5.7.11: Undisturbed Natural Soil, V depth profile, all data.

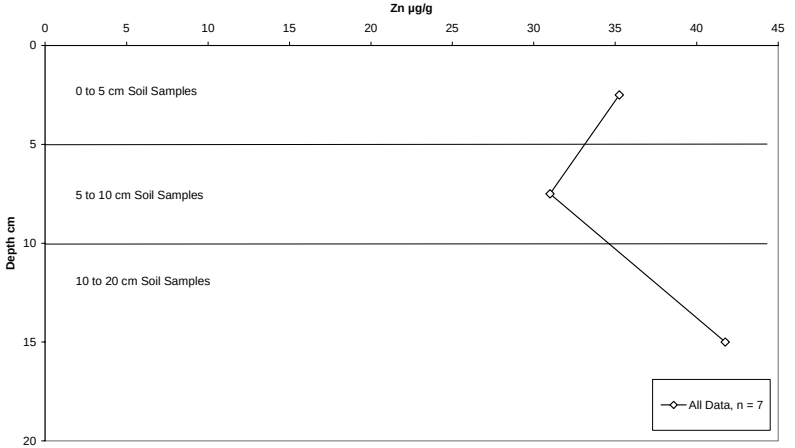


Figure 10.5.7.12: Undisturbed Natural Soil, Zn depth profile, all data.