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Analyse Service GmbH

GeoPT 35A, England - SdAR-H1, Metalliferous Sediment

Veranstalter: International Association of Geoanalysts and Geostandards Newsletter - GeoPT35a
Ringversuchsmaterial: SdAR-H1, (Metalliferous Sediment)
RV geschlossen: 2014 – 9
Literatur: Report - GeoPT35a Proficiency Testing Round (CRB Laborcode = L86)

Hauptelemente [MA%]

	CRB	RV	1sRV	Z-Score
Na_2O	0,98	1,102	0,022	-2,80
MgO	1,53	1,532	0,029	-0,03
Al_2O_3	11,84	11,83	0,163	0,03
SiO_2	65,45	65,45	0,70	0,00
P_2O5	0,189	0,185	0,005	0,37
K_2O	4,21	4,17	0,067	0,29
CaO	1,50	1,462	0,027	0,68
TiO_2	0,565	0,560	0,012	0,20
Fe_2O_3 tot	6,49	6,448	0,097	0,22
MnO	0,520	0,515	0,011	0,22
L.O.I.*	4,77	4,89	1,07	---

Spurenelemente [µg/g]

	CRB	RV	1sRV	Z-Score
Ag	66	76	3,2	-1,56
As *	430	386	61	---
Ba	852	866	25	-0,28
C-tot. *	9410	9560	2160	---
C-org. *	6430	5520	1870	---
Br*	2	2,2	1,1	---
Cd	27	25,2	1,2	0,73
Ce	76	89,3	3,6	-1,83
Co	58	55,6	2,4	0,50
Cl *	127	89	61	---
Cr *	211	219,6	46	---
Cu	1120	1159	32,1	-0,61
F *	1368	1517	583	---
Ga	17	15,6	0,8	0,82
Hf	7,0	6,9	0,4	0,18
Hg *	9,0	7,6	1,6	---
La	40	44,9	2,0	-1,21
Mo	61	64	2,7	-0,55
Nb	20	21,9	1,1	-0,84
Nd	32	36,2	1,7	-1,21
Ni	225	230	8,1	-0,31
Pb	4000	3893	89,7	0,60
Pr	12	10,0	0,6	1,80

Rb	142	152,3	5,7	-0,90
S *	2960	3890	1650	---
Sb *	432	478	153	---
Sm	6	6,4	0,4	-0,50
Sr	195	182	6,7	0,96
Th	8	17,7	0,9	-5,29
U	4,0	4,1	0,3	-0,13
V	79	73	3,1	0,95
Y	42	25	1,2	6,64
Zn	3790	3684	85,6	0,62

Legende

CRB: Ergebnisse CRB – **RV:** Ergebnisse Ringversuch -- **1s-RV:** Standardabweichung Ringversuch
Z-Score: Differenz des Messwertes vom Mittelwert des Ringversuchs -- ***** Wert nicht zertifiziert

Geo*PT*35A — AN INTERNATIONAL PROFICIENCY TEST FOR ANALYTICAL GEOCHEMISTRY LABORATORIES — REPORT ON SUPPLEMENTARY ROUND 35A (Metalliferous sediment, SdAR-H1) / August 2014

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*Keywords: proficiency testing, quality assurance, Geo*PT*, Geo*PT*35A, round 35, SdAR-H1, metalliferous sediment*

Abstract

Results are presented for Geo*PT*35A, a supplementary test material distributed with the routine test material in round thirty-five of the International Association of Geoanalysts' Proficiency Testing programme for analytical geochemistry laboratories. This test sample was a metalliferous sediment, SdAR-H1, supplied by Dr Stephen Wilson of the U.S. Geological Survey. In this report, the data contributed from 89 laboratories are listed, together with an assessment of consensus values, consequent *z*-scores and charts to show the distribution of contributed results and the overall performance of participating laboratories.

Introduction

This thirty-fifth round of the international proficiency testing programme, Geo*PT*, was conducted in a similar manner to earlier rounds. The programme is designed to be part of the routine quality assurance procedures employed by analytical geochemistry laboratories. The programme is organised by the International Association of Geoanalysts and is conducted in accordance with a published protocol available at (http://www.geoanalyst.org/documents/ GeoPT-protocol.pdf). The overall aim of the programme is to provide participating laboratories with *z*-score information for reported elemental determinations from which the laboratory can decide whether the quality of their data is satisfactory in relation both to their chosen fitness-for-purpose criteria and to the results submitted by other laboratories contributing to the round and can choose to take corrective action if this appears justified. This supplementary test sample was designed to provide more challenging analytical demands than the routine test material.

Steering Committee for Round 35A: P.C. Webb (system manager), M. Thompson (statistical advisor), P.J. Potts (analytical advisor), S.Wilson (provision of SdAR-H1).

Timetable for Round 35:

Distribution of sample: March 2014.

Deadline for submission of analytical results: 13th June 2014.

Distribution of report: August 2014

Test Material details

Geo*PT*35A: The metalliferous sediment test material, SdAR-H1, was produced at the U.S. Geological Survey under the direction of Stephen Wilson. It is a blended material designed to resemble sediment sampled when monitoring environmental contamination associated with discharges from mining operations. The test material was evaluated for homogeneity by the originator and as a result, the sample was considered suitable for use in this proficiency test.

On account of the unusually high levels of many constituents, participants were informed of the approximate compositional ranges of those constituents. The information provided was: Ag 50-150 ppm, As 200-500 ppm, Au 2-10 ppm, Be 10-40 ppm, Cd 10-40 ppm, Cu 500-1500 ppm, F 1000-2000 ppm, In 5-20 ppm, Hg 4-12 ppm, Mo 40-100 ppm, Pb 2000-6000 ppm, Sb 300-700 ppm, Te 5-15 ppm, Tl 5-20 ppm, Zn 2000-6000 ppm. A recommendation was also made for participants to adhere to good laboratory practice when analysing this sample on account of higher than normal levels of potentially toxic elements and the capacity for potential damage to laboratory equipment.

Submission of results

The results submitted for Geo*PT*35A (SdAR-H1) by 89 laboratories are listed in Table 1. Submission of data was by a new online system developed by KPMD (IT Solutions) Ltd, Sheffield, England. In Table 1 results designated as data quality 1 are shown in bold: results of data quality 2 are shown underlined. Results from all laboratories submitting were used to assess respective assigned values. However, in our Instructions to Analysts participants are instructed that values of '0', i.e. zero, should not be reported, but this was done by a number of laboratories. 11 such values were excluded from consideration.

It was observed that two laboratories, L6 and L18 had transposed their results for samples Geo*PT*35 and Geo*PT*35A. As a test of proficiency, results have to be processed as submitted, consequently *z*-scores for these laboratories probably do not reflect their analytical capabilities. We apologise if in any way the move to the new system was a contributory factor.

Assigned values

Following procedures described in earlier rounds, a robust statistical procedure was used to derive assigned concentration values [X_a], these being judged to be the best available estimates of the true composition of this sample. Values were assigned on the basis that: (i) sufficient laboratories had contributed data for an element, and (ii) the statistical assessment gave confidence that the results distribution showed a central portion approximating to a normal distribution. Part of this assessment involved examining a bar chart of contributed data for each element to judge the distribution of results.

Table 2 lists assigned and provisional values for 10 major components and 41 trace elements in Geo*PT*35A (SdAR-H1). Bar charts for the 51 elements/components of Geo*PT*35A that were judged to have satisfactory distributions for consensus values to be assigned or given provisional values are shown in Figure 1. These are: SiO_2, TiO_2, Al_2O_3, Fe_2O_3T, MnO, MgO, CaO, Na_2O*, K_2O, P_2O_5, Ag*, Ba, Be*, Bi*, Cd*, Ce, Co, Cs, Cu, Dy, Er, Eu, Ga, Gd, Hf*, Ho, In*, La, Li, Lu, Mo, Nb, Nd, Ni, Pb, Pr, Rb, Sc*, Sm, Sr, Ta, Tb, Th, Tl, Tm, U, V, Y*, Yb, Zn and Zr*. Of these, only provisional values were given to the 10 marked '*'. Instances of provisional status were recorded because either i) a relatively small number of measurements contributed to the consensus, or ii) the degree of consensus was less than ideal because results were significantly dispersed in relation to the target value or the distribution was in part non symmetrical. In 13 cases the robust mean was used to define the consensus value, but in 35 cases the median value was preferred.

In 3 cases a mode provided the most satisfactory consensus value. The procedure used to determine the mode was based on the analysis of mixed populations detailed in Thompson (2006) and first used for Geo*PT*23. Values obtained in this way were, in all cases, designated as provisional values.

Bar charts for the 18 elements/components: Fe(II)O, H_2O^+, LOI, As, Au, C(org), C(tot), Cl, Cr, F, Ge, Hg, S, Sb, Se, Sn, Te and W are plotted in Figure 2 for information only, as the data were insufficient or too variable for the reliable determination of a consensus.

In general the quality of results reported for this sample was not as good as that routinely supplied in Geo*PT*. This was not surprising, however, as the unusual composition of this sample meant that it would be a challenge for many analytical systems.

***Z*-score analysis**

As in previous rounds, laboratories were invited to choose one of two performance standards against which their analytical results would be judged:

Data quality 1 for laboratories working to a 'pure geochemistry' standard of performance, where analytical results are designed for geochemical research and where care is taken to provide data of high precision and accuracy, sometimes at the expense of a reduced sample throughput rate. For Geo*PT*35A, 1634 results of data quality 1 were submitted.

Data quality 2 for laboratories working to an 'applied geochemistry' standard of performance, where, although precision and accuracy are still important, the main objective is to provide results on large numbers of samples collected, for example, as part of geochemical mapping projects or geochemical exploration programmes. For Geo*PT*35A, 1780 results of data quality 2 were submitted.

The target standard deviation (H_a) for each element assessed was calculated from a modified form of the Horwitz function as follows:

$$H_a = k.X_a^{0.8495}$$

Where X_a is the concentration of the element expressed as a *fraction*; the factor k = 0.01 for pure geochemistry labs and k = 0.02 for applied geochemistry labs.

Z-scores were calculated for each elemental result submitted by each laboratory from:

$$z = [X - X_a] / H_a$$

where: X is the contributed result, X_a is the assigned value and H_a is the target standard deviation.

Z-score results for contributors to Geo*PT*35A are listed in Table 3. Participating laboratories are invited to assess their performance using the following criterion:–

Z-score results in the range $-2<z<2$ are considered to be 'satisfactory' (in the sense that no action is called for by the participant). If the *z*-score for any element falls outside this range, especially if it is outside the range $-3<z<3$, it would be advisable for the contributing laboratory to examine its procedures, and if necessary, take action to ensure that determinations are not subject to unsuspected analytical bias.

Overall performance

A summary of the overall performance of individual laboratories in this round is plotted in multiple *z*-score charts for Geo*PT*35A in Figure 3. In these charts, the *z*-score performance for each element is distinguished by symbols that make it simple to identify whether the results were satisfactory or gave *z*-scores that exceeded the action limits. This chart is designed to help individual laboratories to judge their overall performance in this proficiency testing round. Participants should always review their *z*-scores in accord with their own fitness-for-purpose criteria.

Participation in future rounds

The benefit from proficiency testing arises from regular participation and laboratories are invited to contribute to the Geo*PT*36 round, the test sample for which will be distributed during September 2014.

Reminder to participants

Participants are instructed (in our ***Instructions to Analysts***) that '0', i.e. zero, should not be reported as a result. For Geo*PT*35A, 11 zeros were reported and were disregarded. Participants are requested not to report zeros in future.

Acknowledgements

The authors thank Liz Lomas for much-valued assistance in distributing this sample. Thanks also to Mick Daniels and Ben Solway of KPMD (IT Solutions) Ltd for developing an efficient system for producing this report.

Reference

Thompson, M. (2006). Using mixture models for bump-hunting in the results of proficiency tests. Accred. Qual. Assur., 10, 501-505

Appendix 1

Publication status of proficiency testing reports. Previous reports are available for download from the IAG website (http://www.geoanalyst.org/).

Geo*PT*1
Thompson M., Potts P.J., Kane J.S. and Webb P.C. (1996)
Geo*PT*1. International proficiency test for analytical geochemistry laboratories - Report on round 1. Geostandards Newsletter: The Journal of Geostandards and Geoanalysis, 20, 295-325.

Geo*PT*2
Thompson M., Potts P.J., Kane J.S., Webb P.C. and Watson, J.S. (1998)
Geo*PT*2. International proficiency test for analytical geochemistry laboratories - Report on round 2. Geostandards Newsletter: The Journal of Geostandards and Geoanalysis, 22 127-156.

Geo*PT*3
Thompson M., Potts P.J., Kane J.S. and Chappell B.W. (1999a)
Geo*PT*3. International proficiency test for analytical geochemistry laboratories - Report on round 3. Geostandards Newsletter: The Journal of Geostandards and Geoanalysis, 23, 87-121.

Geo*PT*4
Thompson M., Potts P.J., Kane J.S., Webb P.C. and Watson J.S. (1999b)
Geo*PT*4. International proficiency test for analytical geochemistry laboratories - Report on round 4. Published in the electronic version of Geostandards Newsletter: The Journal of Geostandards and Geoanalysis (Summer 2000).

Geo*PT*5
Thompson M., Potts P.J., Kane J.S., and Wilson S. (1999c)
Geo*PT*5. International proficiency test for analytical geochemistry laboratories - Report on round 5. Published in the electronic version of Geostandards Newsletter: The Journal of Geostandards and Geoanalysis (Summer 2000).

Geo*PT*6
Potts P.J., Thompson M., Kane J.S., Webb P.C. and Carignan J. (2000)
GEO*PT*6 - an international proficiency test for analytical geochemistry laboratories - report on round 6 (OU-3: Nanhoron microgranite) and 6A (CAL-S: CRPG limestone). International Association of Geoanalysts: Unpublished report.

Geo*PT*7
Potts P.J., Thompson M., Kane J.S., and Petrov L.L. (2000)
GEO*PT*7 - an international proficiency test for analytical geochemistry laboratories - report on round 7 (GBPG-1 Garnet-biotite plagiogneiss). International Association of Geoanalysts: Unpublished report.

Geo*PT*8
Potts P.J., Thompson M., Kane J.S., Webb, P.C. and Watson J.S. (2000)
GEO*PT*8 - an international proficiency test for analytical geochemistry laboratories - report on round 8 / February 2001 (OU-4 Penmaenmawr microdiorite). International Association of Geoanalysts: Unpublished report.

Geo*PT*9
Potts P.J., Thompson M., Webb, P.C. and Watson J.S. (2001)
GEO*PT*9 - an international proficiency test for analytical geochemistry laboratories - report on round 9 / July 2001 (OU-6 Penrhyn slate). International Association of Geoanalysts: Unpublished report.

Geo*PT*10
Potts P.J., Thompson M., Webb, P.C., Watson J.S. and Wang Yimin (2001)
GEO*PT*10 - an international proficiency test for analytical geochemistry laboratories - report on round 10 / December 2001 (CH-1 Marine sediment). International Association of Geoanalysts: Unpublished report.

Geo*PT*11
Potts P.J., Thompson M., Chenery S.R., Webb, P.C. and Watson J.S. (2002)
GEO*PT*11 - an international proficiency test for analytical geochemistry laboratories - report on round 11 / July 2002 (OU-5 Leaton dolerite). International Association of Geoanalysts: Unpublished report.

Geo*PT*12
Potts P.J., Thompson M., Chenery S.R., Webb, P.C. and Batjargal B. (2003)
GEO*PT*12 - an international proficiency test for analytical geochemistry laboratories - report on round 12 / January 2003 (GAS Serpentinite). International Association of Geoanalysts: Unpublished report.

Geo*PT*13
Potts P.J., Thompson M., Chenery S.R., Webb, P.C. and Kaspar H.U. (2003)
GEO*PT*13 - an international proficiency test for analytical geochemistry laboratories - report on round 13 / July 2003 (Köln Loess). International Association of Geoanalysts: Unpublished report.

Geo*PT*14
Potts P.J., Thompson M., Chenery S.R., Webb, P.C. and B. Batjargal (2004)
Geo*PT*14 - an international proficiency test for analytical geochemistry laboratories - report on round 14 / January 2004 (OShBO - alkaline granite). International Association of Geoanalysts: Unpublished report.

Geo*PT*15
Potts P.J., Thompson M., Chenery S.R., Webb, P.C. and WANG Yimin (2004)
Geo*PT*15 - an international proficiency test for analytical geochemistry laboratories - report on round 15 / June 2004 (Ocean floor sediment MSAN). International Association of Geoanalysts: Unpublished report.

Geo*PT*16
Potts P.J., Thompson M., Webb, P.C. and S.Wilson (2005)
Geo*PT*16 - an international proficiency test for analytical geochemistry laboratories - report on round 16 / February 2005 (Nevada basalt, BNV-1). International Association of Geoanalysts: Unpublished report.

Geo*PT*17
Potts P.J., Thompson M., Webb, P.C. and J. Nicholas Walsh (2005) Geo*PT*17 - an international proficiency test for analytical geochemistry laboratories - report on round 17 / July 2005 (Calcareous sandstone, OU-8). International Association of Geoanalysts: Unpublished report.

Geo*PT*18
Webb, P.C., Thompson M., Potts P.J. and L. Paul Bedard (2006) Geo*PT*18 - an international proficiency test for analytical geochemistry laboratories - report on round 18 / Jan 2006 (Quartz Diorite, KPT-1). International Association of Geoanalysts: Unpublished report.

Geo*PT*19
Webb, P.C., Thompson M., Potts P.J. and B. Batjargal (2006) Geo*PT*19 - an international proficiency test for analytical geochemistry laboratories - report on round 19 / July 2006 (Gabbro, MGR-N). International Association of Geoanalysts: Unpublished report.

Geo*PT*20
Webb, P.C., Thompson M., Potts P.J. and M. Burnham (2007) Geo*PT*20 - an international proficiency test for analytical geochemistry laboratories - report on round 20 / Jan 2007 (Ultramafic rock, OPY-1). International Association of Geoanalysts: Unpublished report.

Geo*PT*21
Webb, P.C., Thompson M., Potts P.J. and B. Batjargal (2007) Geo*PT*21 - an international proficiency test for analytical geochemistry laboratories - report on round 21 / July 2007 (Granite, MGT-1). International Association of Geoanalysts: Unpublished report.

Geo*PT*22
Webb, P.C., Thompson, M., Potts, P.J. and Batjargal, B. (2008) Geo*PT*22 - an international proficiency test for analytical geochemistry laboratories - report on round 22 / January 2008 (Basalt, MBL-1). International Association of Geoanalysts: Unpublished report.

Geo*PT*23
Webb, P.C., Thompson, M., Potts, P.J., Watson, J.S. and Kriete, C. (2008)
Geo*PT*23 - an international proficiency test for analytical geochemistry laboratories - report on round 23 / September 2008 (Separation Lake pegmatite, OU-9) and 23A (Manganese nodule, FeMn-1). International Association of Geoanalysts: Unpublished report.

Geo*PT*24
Webb, P.C., Thompson, M., Potts, P.J. and Watson, J.S. (2009) Geo*PT*24 - an international proficiency test for analytical geochemistry laboratories - report on round 24 / January 2009 (Longmyndian greywacke, OU-10). International Association of Geoanalysts: Unpublished report.

Geo*PT*25
Webb, P.C., Thompson, M., Potts, P.J. and Enzweiler, J. (2009) Geo*PT*25 - an international proficiency test for analytical geochemistry laboratories - report on round 25 / July 2009 (Basalt, HTP-1). International Association of Geoanalysts: Unpublished report.

Geo*PT*26
Webb, P.C., Thompson, M., Potts, P.J. and Loubser, M. (2010) Geo*PT*26 - an international proficiency test for analytical geochemistry laboratories - report on round 26 / January 2010 (Ordinary Portland cement, OPC-1). International Association of Geoanalysts: Unpublished report.

Geo*PT*27
Webb, P.C., Thompson, M., Potts, P.J. and Batjargal, B. (2010) Geo*PT*27 - an international proficiency test for analytical geochemistry laboratories - report on round 27 / July 2010 (Andesite, MGL-AND). International Association of Geoanalysts: Unpublished report.

Geo*PT*28
Webb, P.C., Thompson, M., Potts, P.J. and Wilson, S. (2011) Geo*PT*28 - an international proficiency test for analytical geochemistry laboratories - report on round 28 / January 2011 (Shale, SBC-1). International Association of Geoanalysts: Unpublished report.

Geo*PT*29
Webb, P.C., Thompson, M., Potts, P.J. and Wilson, S. (2011) Geo*PT*29 - an international proficiency test for analytical geochemistry laboratories - report on round 29 / July 2011 (Nephelinite, NKT-1). International Association of Geoanalysts: Unpublished report.

Geo*PT*30
Webb, P.C., Thompson, M., Potts, P.J., Long, D. and Batjargal, B. (2012)
Geo*PT*30 - an international proficiency test for analytical geochemistry laboratories - report on round 30 / January 2012 (Syenite, CG-2) and 30A (Limestone, ML-2). International Association of Geoanalysts: Unpublished report.

Geo*PT*31
Webb, P.C., Thompson, M., Potts, P.J and Wilson, S. (2012) Geo*PT*31 - an international proficiency test for analytical geochemistry laboratories - report on round 31 / July 2012 (Modified river sediment, SdAR-1). International Association of Geoanalysts: Unpublished report.

Geo*PT*32
Webb, P.C., Thompson, M., Potts, P.J and Webber, E. (2013) Geo*PT*32 - an international proficiency test for analytical geochemistry laboratories - report on round 32 / January 2013 (Woodstock Basalt, WG-1). International Association of Geoanalysts: Unpublished report.

Geo*PT*33
Webb, P.C., Thompson, M., Potts, P.J., Prusisz, B., and Young, K. (2013)
Geo*PT*33 - an international proficiency test for analytical geochemistry laboratories - report on round 33 / July-August 2013 (Ball Clay, DBC-1). International Association of Geoanalysts: Unpublished report.

Geo*PT*34
Webb, P.C., Thompson, M., Potts, P.J and Wilson, S. (2014) Geo*PT*31 - an international proficiency test for analytical geochemistry laboratories - report on round 34 / January 2014 (Granite, GRI-1). International Association of Geoanalysts: Unpublished report.

Table 1 - GeoPT35A Contributed data for Metalliferous sediment, SdAR-H1. 13/06/2014

Lab Code		L1	L2	L3	L4	L6	L7	L9	L10	L11	L13	L14	L16	L17
SiO2	g 100g^{-1}	64.33	65.24	**65.17**	66.74		**65**	**65.5**	65.9	**67.92**		**65.22**	65	
TiO2	g 100g^{-1}	0.564	0.28	**0.56**	0.613	**0.853**	**0.586**	**0.568**	0.553	**0.55**		**0.52**	0.548	**0.549**
Al2O3	g 100g^{-1}	12.46	10.46	**11.69**	12.17	**17**	**12.34**	**11.83**	11.5	**11.97**		**11.61**	13.29	
Fe2O3T	g 100g^{-1}	6.63	6.41	**6.6**	6.304	**7.41**	**6.566**	**6.46**	6.36	**6.83**		**6.59**	5.72	
Fe(II)O	g 100g^{-1}			**2.89**	1.36						**4.63**		1.1	
MnO	g 100g^{-1}	0.513		**0.528**	0.666	**0.125**	**0.545**	**0.497**	0.506	**0.59**		**0.53**	0.683	**0.504**
MgO	g 100g^{-1}	1.58	1.56	**1.51**	1.458	**3.35**	**1.619**	**1.55**	1.51	**1.54**		**1.47**	1.63	
CaO	g 100g^{-1}	1.44	1.5	**1.48**	1.448	**6.92**	**1.481**	**1.47**	1.44	**1.47**		**1.44**	1.53	
Na2O	g 100g^{-1}	1.23	0.96	**1.08**	0.986	**2.94**	**1.186**	**1.08**	1.15	**0.88**		**1.03**	1.23	
K2O	g 100g^{-1}	4.18	4.12	**4.16**	4.426	**1.65**	**4.507**	**4.16**	3.98	**4.36**		**4.07**	4.23	
P2O5	g 100g^{-1}	0.181	0.15	**0.21**	0.178		**0.192**	**0.192**		**0.19**		**0.19**	0.196	
H2O+	g 100g^{-1}			**2.61**			**4.823**							
CO2	g 100g^{-1}													
LOI	g 100g^{-1}		4.33	**4.93**	4.79			**5.14**	4.98	**5.32**	**5.13**	**5.02**	1.1	
Ag	mg kg^{-1}				76.39	**0.093**	**72.55**		70.14	**70**		56	35.029	
As	mg kg^{-1}	399	421.7	**443.5**	348.5	**2.78**	**416**	534.6	356.080	**416**		266	143.951	
Au	mg kg^{-1}											65		
B	mg kg^{-1}			**120**										
Ba	mg kg^{-1}	752	888	**780.3**	873	**761**	**807.1**	855.1		**892**	**988**	**904.2**	319.839	**828**
Be	mg kg^{-1}		20.35	**23.17**	16.43	**0.84**	**21.47**					**26.3**	7.262	**22.3**
Bi	mg kg^{-1}	37	6.53	**5.388**	4.853		**5.299**						1.756	**5.14**
Br	mg kg^{-1}													
C(org)	mg kg^{-1}			**3700**										
C(tot)	mg kg^{-1}			**32500**	8650		**905.7**							
Cd	mg kg^{-1}	29	26.19	**25.55**	20.73	**0.22**	**26.28**		27.327	**15**		23	9.003	
Ce	mg kg^{-1}			**82.94**	88.4	**29.25**	**97.62**			**86**	**115**	**80.7**	28.247	**92.1**
Cl	mg kg^{-1}			**72**						**23**				
Co	mg kg^{-1}	54	62.14	**54.97**	58.12	**20.74**	**56.05**			**23**		**57.59**	20.104	**55.2**
Cr	mg kg^{-1}	228	61.06	**257.5**	214.8	**15.7**	**176.1**	209.4	230.477	**236**		**97.79**	60.934	**228**
Cs	mg kg^{-1}		6	**4.986**	4.896	**2.93**	**4.945**				**5.65**	**3.38**	1.894	**4.7**
Cu	mg kg^{-1}	1163	1227	**1058**	1099		**1204**	1332.100	1068.556	**1171**		**1167**	364.449	**1178**
Dy	mg kg^{-1}			**4.587**	4.559	**4.23**	**4.388**				**4.54**	**4.31**	1.272	**4.57**
Er	mg kg^{-1}			**2.698**	2.764	**2.48**	**2.502**				**2.43**	**2.41**	0.722	**2.72**
Eu	mg kg^{-1}			**1.254**	1.415	**1.11**	**1.279**				**1.23**	**1.27**	0.414	**1.26**
F	mg kg^{-1}			**1834**						**1574**				
Ga	mg kg^{-1}	8	17.94	**16.22**	16.53	**19.97**	**16.76**	15.1		**13**		**15.55**	5.885	**15.4**
Gd	mg kg^{-1}			**5.13**	5.199		**5.329**			**5**	**7.17**	**5.08**	1.924	**5.41**
Ge	mg kg^{-1}		2.29	**1.956**	1.157	**1.41**	**2.034**			**1**			0.695	
Hf	mg kg^{-1}	9		**6.714**	6.779	**4.53**	**3.717**			**4**	**4.7**	**3.48**	1.319	**6.85**
Hg	mg kg^{-1}		6.24	**6.183**					35.465					
Ho	mg kg^{-1}			**0.984**	0.94	**0.98**	**0.855**				**0.96**	**0.87**	0.245	**0.93**
I	mg kg^{-1}													
In	mg kg^{-1}			**10.33**	8.388		**10.78**							
La	mg kg^{-1}			**44.63**	46.03	**12.8**	**29.86**			**53**	**56.7**	**52.16**	14.205	**45.7**
Li	mg kg^{-1}		50.76	**55**	53.45		**52.75**					**60.44**	20.001	**50.5**
Lu	mg kg^{-1}			**0.421**	0.414	**0.42**	**0.365**				**0.4**	**0.35**	0.103	**0.42**
Mo	mg kg^{-1}	79	73.02	**65.74**	62.52	**0.74**	**69.31**	64.8	67.632	**111**	**80.8**	51.4	28.035	**62.2**
N	mg kg^{-1}													
Nb	mg kg^{-1}	24	53.57	**20.27**	23.02	**5.47**	**25.35**	24.5		**54**	**27.5**	**25.98**	9.009	**24.2**
Nd	mg kg^{-1}			**35.36**	34.85	**17.33**	**38.49**			**41**	**45.8**	**39.35**	11.645	**36.2**
Ni	mg kg^{-1}	248	243	**212.8**	216.8	**5.12**	**235.1**	284.1	254.741	**247**		**252.4**	77.358	**223**
Pb	mg kg^{-1}	3948	3944	**4212**	4020	**14.27**	**4214**	3748.400	4192.286		7758	**3924**	1405.636	**3870**
Pd	mg kg^{-1}													
Pr	mg kg^{-1}			**9.624**	9.692	**4.04**					**13.3**	**10.83**	3.187	**9.96**
Pt	mg kg^{-1}													
Rb	mg kg^{-1}	156	164	**156.2**	152.5	**61.6**	**159.7**	165.7		**167**	**167**	**159.3**	57.025	**152**
Re	mg kg^{-1}				0.017									
Rh	mg kg^{-1}													
S	mg kg^{-1}			**4700**	5100					**3215**				
Sb	mg kg^{-1}		535	**600.3**	549.3	**1.51**	**592.7**		461.641	**704**			187.714	
Sc	mg kg^{-1}		12.7	**8.63**	7.58		**8.083**			**7**	**9.65**	**8.01**	2.137	**8.49**
Se	mg kg^{-1}			**17.14**	14.34								4.909	
Sm	mg kg^{-1}			**6.37**	6.12	**4.37**	**6.536**				**7.96**	**6.89**	2.115	**6.39**
Sn	mg kg^{-1}			**4.09**	2.53	**2.44**	**3.335**						1.13	**3.17**
Sr	mg kg^{-1}	182	187.9	**176.6**	172.8	**306**	**186.6**	144	179.912	**194**	**206**	**178.2**	61.22	**185**
Ta	mg kg^{-1}			**1.513**	1.553	**0.45**	**1.982**				**1.49**	**1.54**	0.63	**1.44**
Tb	mg kg^{-1}			**0.758**	0.803		**0.746**				**0.77**	**0.75**	0.215	**0.8**
Te	mg kg^{-1}				12.99								3.308	
Th	mg kg^{-1}	18	20.17	**18.57**	17.78	**4.55**	**20.6**	54.5			**22.1**	**17.87**	6.205	**18.6**
Tl	mg kg^{-1}		21.74		10.62	**0.41**	**18.45**			**9**			4.193	**11.5**
Tm	mg kg^{-1}			**0.393**	0.386	**0.4**	**0.382**				**0.41**		0.106	**0.42**
U	mg kg^{-1}	4	4.8	**4.724**	4.068	**1.14**	**4.734**				**5.01**	**4.17**	1.599	**4.43**
V	mg kg^{-1}	71	81.47	**66.36**	74.89	**149.9**	**75.26**	52.5		**62**		**76.8**	27.866	**71.5**
W	mg kg^{-1}			**14.56**	8.309		**14.63**				**15.1**		5.48	
Y	mg kg^{-1}		19.25	**26.89**	25.36		**22.47**	10.4			**26.4**	**26.13**	6.195	**27.2**
Yb	mg kg^{-1}			**2.753**	2.489	**2.65**	**2.514**				**2.47**	**2.35**	0.701	**2.7**
Zn	mg kg^{-1}	3643	3070	**3398**	4548	**93.2**	**4010**	3693.800	4063.280	**3904**		**3968**	1470.850	**3708**
Zr	mg kg^{-1}	156		**258.3**	262.8	**151.6**	**135.8**	300.2		**104**	**167**	**136.2**	47.702	**257**

Bold entries are Data Quality 1 - Underlined entries are Data Quality 2

Table 1 - GeoPT35A Contributed data for Metalliferous sediment, SdAR-H1. 13/06/2014

Lab Code		L18	L20	L21	L22	L23	L24	L25	L26	L28	L29	L31	L32	L33
SiO2	g 100g^{-1}	58.01	**64.85**	**66.25**		**63.62**	65.623	**64.83**	65.44		66.997	**62.69**	65.8	**65.772**
TiO2	g 100g^{-1}	0.81	**0.55**	**0.55**		**0.54**	0.609	**0.51**	0.565		0.534	**0.54**	0.56	**0.576**
Al2O3	g 100g^{-1}	17.25	**11.59**	**11.87**		**11.46**	12.32	**11.66**	11.83		11.929	**13.66**	12.2	**11.857**
Fe2O3T	g 100g^{-1}	7.36	**6.39**	**6.4**		**6.38**	6.633	**6.35**	6.42		6.372	**6.96**	6.47	**6.448**
Fe(II)O	g 100g^{-1}		**1.9**											
MnO	g 100g^{-1}	0.114	**0.509**	**0.515**		**0.51**	0.556	**0.51**	0.504		0.513	**0.54**	0.51	**0.439**
MgO	g 100g^{-1}	3.3	**1.42**	**1.51**		**1.47**	1.54	**1.51**	1.49		1.519	**2.29**	1.56	**1.541**
CaO	g 100g^{-1}	6.65	**1.45**	**1.46**		**1.44**	1.466	**1.45**	1.45		1.397	**1.63**	1.46	**1.415**
Na2O	g 100g^{-1}	2.85	**0.91**	**1.12**		**1.05**	1.103	**1.2**	1.12		1.157	**1.11**	1.21	**1.161**
K2O	g 100g^{-1}	1.63	**4.13**	**4.16**		**3.97**	4.338	**4.08**	4.19		4.27	**4.57**	4.13	**4.256**
P2O5	g 100g^{-1}	0.13	**0.19**	**0.184**		**0.18**	0.2	**0.16**	0.175		0.167	**0.21**	0.19	**0.187**
H2O+	g 100g^{-1}				0.977		2.42							
CO2	g 100g^{-1}													
LOI	g 100g^{-1}	0.8	**4.97**	**4.87**	5.433	**5.29**	4.83	5.4	4.74		4.693	**5.59**	4.96	**4.73**
Ag	mg kg^{-1}				65.3			**75.5**	101.3			**56**		
As	mg kg^{-1}		**400**		391.4			**335.6**				**3550**		
Au	mg kg^{-1}													
B	mg kg^{-1}													
Ba	mg kg^{-1}	718	**811**		813.6	**866**	889.7	**866.6**	853.5	**845**		**887**		
Be	mg kg^{-1}						22.8			**22.9**				
Bi	mg kg^{-1}				9.4			**11.9**		**5.23**				
Br	mg kg^{-1}				4			**0.8**						
C(org)	mg kg^{-1}						0.55							
C(tot)	mg kg^{-1}			**8920**			0.97							**8800**
Cd	mg kg^{-1}				22.5			**26.3**				**9**		
Ce	mg kg^{-1}	35	**53**		85.1		89.75	**92.6**		**93.1**				
Cl	mg kg^{-1}							**0.9**						
Co	mg kg^{-1}		**52**		63.6	**56**	59.26	**56.4**		**55.8**		**8**		
Cr	mg kg^{-1}	21	**240**		230.4	**265**	255.1	**211.2**	204.1	**231**		**7**		
Cs	mg kg^{-1}				2.1		4.8	**3.2**		**4.74**				
Cu	mg kg^{-1}	21	1131	**1150**	1174.500	**1762**	1202.100	**1004.800**	1148	**1183**		**2220**		
Dy	mg kg^{-1}						4.77			**4.58**				
Er	mg kg^{-1}						2.75			**2.77**				
Eu	mg kg^{-1}						1.29			**1.27**				
F	mg kg^{-1}							3151.600						
Ga	mg kg^{-1}	27			12.3	**61**	16.17	**17.2**		**15.6**				
Gd	mg kg^{-1}						4.93			**5.41**				
Ge	mg kg^{-1}				1.9			**0.4**						
Hf	mg kg^{-1}				10.1		6.45	**12**		**7.01**				
Hg	mg kg^{-1}							27.1						
Ho	mg kg^{-1}						0.93			**0.95**				
I	mg kg^{-1}							**1.4**						
In	mg kg^{-1}				11.6									
La	mg kg^{-1}	6	**40**		44.2		46.46	**43.2**		**45.9**				
Li	mg kg^{-1}									**50**				
Lu	mg kg^{-1}						0.42			**0.42**				
Mo	mg kg^{-1}				62.6		65.64	**55.9**	59.7	**62.9**				
N	mg kg^{-1}						0.19							
Nb	mg kg^{-1}	8	**21**		20.1	**22**	20.5	**20.3**	21.1	**23.9**				
Nd	mg kg^{-1}		**23**		44.3		37.52	**34.7**		**36.4**				
Ni	mg kg^{-1}	4	**224**		245.2	**237**	229.8	**216.9**	234	**227**		**36**		
Pb	mg kg^{-1}	14	3743	**4740**	4049.700	**3526**	3931.700	**3623.900**	4062	**3795**		**3170**		
Pd	mg kg^{-1}													
Pr	mg kg^{-1}						10.25			**10**				
Pt	mg kg^{-1}													
Rb	mg kg^{-1}	55	**153**		150.2	**150**	153.920	**145.3**	153	**152**		**124**		
Re	mg kg^{-1}													
Rh	mg kg^{-1}													
S	mg kg^{-1}			**5930**			0.48	**2826**						
Sb	mg kg^{-1}				464.2			**489.3**						
Sc	mg kg^{-1}				16.3		8.3	**15.5**		**8.51**				
Se	mg kg^{-1}				13.4			**10.1**						
Sm	mg kg^{-1}				5.7		6.69	**8.2**		**6.49**				
Sn	mg kg^{-1}				1.3		3.58			**3.19**				
Sr	mg kg^{-1}	384	**191**		182.3	**191**	196.9	**172.1**	179.7	**186**		**168**		
Ta	mg kg^{-1}				1.6		1.45	**7.4**		**1.41**				
Tb	mg kg^{-1}						0.69			**0.81**				
Te	mg kg^{-1}				6.9			**10.8**						
Th	mg kg^{-1}		**25**		16.4		17.95	**10.8**		**18.2**				
Tl	mg kg^{-1}				16.2		10.34	**7.6**		**11.8**				
Tm	mg kg^{-1}						0.42			**0.42**				
U	mg kg^{-1}		**6**			**7**	4.38	**1.1**		**4.44**				
V	mg kg^{-1}	133	**69**		77.2	**82**	80.2	**137.2**	80.6	**72**		**12**		
W	mg kg^{-1}				18.9		14.5	**7.8**						
Y	mg kg^{-1}	32			33.8		24.26	**29.7**		**27.3**		**107**		
Yb	mg kg^{-1}				2.6		2.79	**6.1**		**2.72**				
Zn	mg kg^{-1}	102	3639	**3727**	3897.800	**3905**	3723.400	**3637.700**	3682	**3763**		**2530**		
Zr	mg kg^{-1}	154	**271**		261.9	**284**	250.650	**254.3**	258.8	**261**		**187**		

Bold entries are Data Quality 1 - Underlined entries are Data Quality 2

Table 1 - GeoPT35A Contributed data for Metalliferous sediment, SdAR-H1. 13/06/2014

Lab Code		L34	L35	L36	L37	L38	L39	L40	L41	L42	L43	L45	L46	L48
SiO2	g 100g^{-1}	65.92		65.2	66.03	64.8	66	64.71	64.9		66.7	65.26		
TiO2	g 100g^{-1}	0.556		0.55	0.57	0.563	0.54	0.57	0.56	0.556	0.57	0.556	0.025	
Al2O3	g 100g^{-1}	11.83		11.74	11.84	14.6	12	12.11	11.9	11.48	13.3	11.76	1.84	10.395
Fe2O3T	g 100g^{-1}	6.425		6.38	6.49	7.84	6.91	5.97	6.35	6.524	6.43	6.428	4.507	5.03
Fe(II)O	g 100g^{-1}						2.07		4.02					
MnO	g 100g^{-1}	0.511		0.53	0.51	0.615	0.55	0.35	0.52	0.516	0.51	0.528	0.417	0.489
MgO	g 100g^{-1}	1.546		1.53	1.48	1.98	1.54	1.39	1.46	1.553	1.55	1.44	0.851	1.307
CaO	g 100g^{-1}	1.474		1.48	1.4	1.79	1.41	1.48	1.47	1.304	1.51	1.436	0.892	1.199
Na2O	g 100g^{-1}	1.193		1.11	0.91	0.98	1.16	2.14		1.2	1.1	1.07	0.041	0.878
K2O	g 100g^{-1}	4.249		4.15	4.21	4.47	3.99	1.97	4.07	4.135	4.14	4.231	0.304	3.789
P2O5	g 100g^{-1}	0.183		0.186	0.186	0.281	0.21	0.21	0.18	0.165	0.201	0.182	0.116	
H2O+	g 100g^{-1}						3.39		2.95					
CO2	g 100g^{-1}										2.061			
LOI	g 100g^{-1}	5.223		5.63	4.86		4.63	5.79	4.67		4.91	4.95		
Ag	mg kg^{-1}	73.86	76	88		118	60.5			91.705	81.8		1.18	
As	mg kg^{-1}			398	400	440	487	388	338	414.120	398	500	66.69	
Au	mg kg^{-1}						3.4			0.794				
B	mg kg^{-1}									117.2			11.84	
Ba	mg kg^{-1}	865.7		870	865	829	825	9791	867	817.1	876	952	29.44	888.401
Be	mg kg^{-1}	19.74		21.6			22.4		20.3	23.99	22.99		3.82	17.316
Bi	mg kg^{-1}	4.88			12			12.3	4.49	5.161			0.93	4.353
Br	mg kg^{-1}													
C(org)	mg kg^{-1}								0.25		3757			
C(tot)	mg kg^{-1}								0.89		9270			7500
Cd	mg kg^{-1}	21.6	26	24.2			26.1	17.96	13.9	24.703	24.6		4.72	21.904
Ce	mg kg^{-1}	90.4		84.7	86.75		117.3	79.1	93.9	87.76	78.3		39	89.303
Cl	mg kg^{-1}					194					115			
Co	mg kg^{-1}	50.63		57.7	61.86		52.1		49.7	59.43	50.4		2.71	45.79
Cr	mg kg^{-1}			240	246	338	186	59	61	219.3	213	151	11	160.071
Cs	mg kg^{-1}			4.6					4.29	4.319				
Cu	mg kg^{-1}	1152	1185	1145	1205	1380	1090	1159	1159	1186.700	1141	1175	196.7	1201.950
Dy	mg kg^{-1}	4.96		4.62	3.51		5.6		4.58	4.664	2.8		0.36	4.628
Er	mg kg^{-1}	2.67		2.98	2.21		4.03		2.8	2.844	1.39		0.18	2.711
Eu	mg kg^{-1}	1.32		1.26	1.49		1.19		1.42	1.138	0.98		0.11	1.27
F	mg kg^{-1}					1570			0.18					
Ga	mg kg^{-1}			15.6					12.7	14.19				13.519
Gd	mg kg^{-1}	5.47		5.21	6.3		0.92		6.1	5.312	4.36		0.64	5.363
Ge	mg kg^{-1}							55.9	0.2				0.01	
Hf	mg kg^{-1}			7.1					1.36	6.63				
Hg	mg kg^{-1}	8.11		7.34			6.58			6.719				6.648
Ho	mg kg^{-1}	1.02		0.97	0.66		1.3		0.98	0.915	0.45		0.06	0.909
I	mg kg^{-1}													
In	mg kg^{-1}			9.6					8.29	9.169				
La	mg kg^{-1}	45.1		42.9			52	47.8	47.5	44.94	49.6		20	44.845
Li	mg kg^{-1}	44.9		56.3				73.3	55	53.8	53.1		7.73	39.282
Lu	mg kg^{-1}			0.43	0.25		0.54		0.57	0.396	0.14		0.02	0.426
Mo	mg kg^{-1}	60.52		71.1	55.36	71	54.1	52.6	51.6	63.463	56.7		13.17	51.914
N	mg kg^{-1}													
Nb	mg kg^{-1}			22.4	24	30			21.4	21.609	8.82		0.2	
Nd	mg kg^{-1}	35.6		33.9	36.85		36.2		49.5	34.026	31.1		3.61	37.555
Ni	mg kg^{-1}	196	230	220	226	255	227.6	182	176	233.020	228	236	39.33	160.362
Pb	mg kg^{-1}	3910	4090	3860	4160	5010	4344	4600	1477	4100	3757	4335	750.560	4221.785
Pd	mg kg^{-1}													
Pr	mg kg^{-1}	9.76		9.44	9.98		10.43		10.6	9.695	8.51		0.93	10.411
Pt	mg kg^{-1}													
Rb	mg kg^{-1}			148.5	160.3	192		196	128	142.8	150		19	155.591
Re	mg kg^{-1}			0.021										
Rh	mg kg^{-1}													
S	mg kg^{-1}			4900		4450	5487	10300	0.48	4852	4912	4378		1800
Sb	mg kg^{-1}	581		534	505	629	540		173	541.260	483			
Sc	mg kg^{-1}			7.8			8.03		6		7.3		0.44	
Se	mg kg^{-1}	14.7		19			14.5	34.9	12	21.08			3.07	
Sm	mg kg^{-1}	6.21		6.27			5.83		6.7	6.483	5.24		0.65	6.386
Sn	mg kg^{-1}	2.7		2.7				184.6	2.6	3.29			0.03	
Sr	mg kg^{-1}	185.8		187	182	225	185.9	146	189	169.9	186	313	40	174.647
Ta	mg kg^{-1}			1.3					0.26	1.24				
Tb	mg kg^{-1}	0.64		0.82	0.52		0.92		0.97	0.725	0.47		0.08	0.85
Te	mg kg^{-1}			10.05			7.8		5.2	9.663				8.494
Th	mg kg^{-1}	18.45		16.8					13	16.663	13.5		1.67	
Tl	mg kg^{-1}	11.74		10.95					9.06	10.867			1.88	10.391
Tm	mg kg^{-1}			0.43	0.27		0.59		0.57	0.391	0.14		0.02	0.409
U	mg kg^{-1}	3.93		4.59					3.14	4.415	2.83		0.36	3.331
V	mg kg^{-1}	65.4		74	82.46		68.7	111.6	73	75.2	72.8	72	22	61.243
W	mg kg^{-1}			12			41.6		8.1	13			0.1	
Y	mg kg^{-1}	23.78		25.8	19	45	25.2	31.5	25.6	23.213	22.99		8	
Yb	mg kg^{-1}	2.88			1.74		3.53		2.7	2.825	1.25		0.14	2.843
Zn	mg kg^{-1}	3648	3630	3710	3700	4390	3536	4450	3777	3744.400	3694	3960	634.350	3162.772
Zr	mg kg^{-1}			279	280	367	230	65	54.2	223.330	252		0.72	

Bold entries are Data Quality 1 - Underlined entries are Data Quality 2

Table 1 - GeoPT35A Contributed data for Metalliferous sediment, SdAR-H1. 13/06/2014

Lab Code		L49	L50	L51	L52	L54	L55	L56	L57	L58	L59	L60	L61	L62
SiO2	g 100g^{-1}	65.71	**66.14**	60	65.09	66.23	**63.393**		64.76	44.54		65.77		64.902
TiO2	g 100g^{-1}	0.56	**0.58**	0.527	0.54	0.57	**0.546**	**0.57**	0.56	0.51		0.57		0.542
Al2O3	g 100g^{-1}	11.71	**11.71**	16.2	11.56	12.02	**11.404**		11.77	8.25		11.82		11.571
Fe2O3T	g 100g^{-1}	6.29	**6.45**	5.55	6.3	6.75	**6.331**	**6.55**	6.44	6.1	6	6.4		6.393
Fe(II)O	g 100g^{-1}						**1.531**							
MnO	g 100g^{-1}	0.5	**0.48**	0.469	0.54		**0.49**	**0.48**	0.53	0.54	0.514	0.54		0.45
MgO	g 100g^{-1}	1.54	**1.56**		1.53	1.5	**1.494**		1.54	1.06	1.5	1.52		1.512
CaO	g 100g^{-1}	1.45	**1.37**	1.44	1.41	1.52	**1.398**		1.46	1.42	1.5	1.46		1.461
Na2O	g 100g^{-1}	1.17	**1.15**		1.09	0.98	**1.223**		1.1	0.61		1.04		1.242
K2O	g 100g^{-1}	4.11	**4.3**	4.1	4.17	4.14	**3.993**		4.15	3.8		4.16		4.152
P2O5	g 100g^{-1}	0.19	**0.19**		0.19	0.18	**0.179**	**0.18**	0.18	0.1		0.181		0.184
H2O+	g 100g^{-1}													
CO2	g 100g^{-1}			1.14										
LOI	g 100g^{-1}	5.15	**5.54**		4.35	5.94			4.7			5.62		4.92
Ag	mg kg^{-1}						**44.169**	**99.7**	79	**100**	86			
As	mg kg^{-1}		**43**	327		371	**338.515**	**321**	380	**364**	354			485
Au	mg kg^{-1}										4			
B	mg kg^{-1}													
Ba	mg kg^{-1}	848	**900**	961		868	**797.138**	**849**	794	**781**			**914.8**	893
Be	mg kg^{-1}	23.6				17		**21.5**						
Bi	mg kg^{-1}						**4.297**							
Br	mg kg^{-1}													
C(org)	mg kg^{-1}													
C(tot)	mg kg^{-1}								8800			9940		
Cd	mg kg^{-1}			20.9			**8.293**	**21.8**		**15.9**				
Ce	mg kg^{-1}	89.4		92.2			**82.526**	**92.2**	91	**82**				77
Cl	mg kg^{-1}						**106**							
Co	mg kg^{-1}	57.7	**37**			60.5	**51.285**	**58.4**	57	**50.7**			**58.5**	
Cr	mg kg^{-1}	201	**204**			369.7	**216**	**226**	225	**46.1**			**254.2**	221
Cs	mg kg^{-1}	4.66		10.2			**4.584**	**4.87**	4.99					
Cu	mg kg^{-1}	1121	**963**	1020		1169.700	**1192.855**	**1090**	1110	**1110**			**1072.800**	1152
Dy	mg kg^{-1}	4.43					**4.185**	**4.56**	4.34					
Er	mg kg^{-1}	2.63					**2.397**	**2.67**	2.51	**3**				
Eu	mg kg^{-1}	1.27					**1.109**	**1.33**	1.31	**4**				
F	mg kg^{-1}						**1495.500**							
Ga	mg kg^{-1}	15.8					**14.804**	**15.8**	15.4				**26**	13
Gd	mg kg^{-1}	5.39					**4.358**	**5.73**	5.43					
Ge	mg kg^{-1}	1.86					**1.983**							
Hf	mg kg^{-1}	6.39					**6.81**	**8.58**	6.4					
Hg	mg kg^{-1}													
Ho	mg kg^{-1}	0.893					**0.847**	**0.93**	0.87					
I	mg kg^{-1}			2.3										
In	mg kg^{-1}													
La	mg kg^{-1}	45.5		38.5			**41.218**	**49.9**	45.1	**45**				45
Li	mg kg^{-1}	54.4				39.5		**49**		**105**	61			
Lu	mg kg^{-1}	0.389					**0.378**	**0.42**	0.38	**2**				
Mo	mg kg^{-1}		57	64.7		44.3	**61.743**	**53.2**	63	**24.6**				
N	mg kg^{-1}													
Nb	mg kg^{-1}	23.9	**12**	15.7			**23.07**	**20**	24.1	**0.8**			**22.3**	22
Nd	mg kg^{-1}	36.2		42.3			**33.643**	**37**	36.7	**46**				
Ni	mg kg^{-1}	235	**261**	177		242	**239**	**228**	220	**220**			**391.8**	240
Pb	mg kg^{-1}	3624	**3951**	3480		3005	**3267.134**	**3829**	3800	**3750**			**3966.600**	3858
Pd	mg kg^{-1}													
Pr	mg kg^{-1}	9.92		9.2			**8.803**	**10.4**	10.1	**12**				
Pt	mg kg^{-1}													
Rb	mg kg^{-1}	146	**73**	145			**135.697**	**152**	152				**159.7**	162
Re	mg kg^{-1}													
Rh	mg kg^{-1}													
S	mg kg^{-1}			5250			**5267.262**		4700			4510		
Sb	mg kg^{-1}			630		467.5	**547.572**	**354**		**253**				
Sc	mg kg^{-1}	8.47	**22**				**12**	**8.36**		**8.6**			**4.9**	12
Se	mg kg^{-1}					64.5	**4**			**10.7**				
Sm	mg kg^{-1}	6.38					**5.503**	**6.62**	6.46	**7**				
Sn	mg kg^{-1}						**4.118**	**3.29**	4					
Sr	mg kg^{-1}	184	**161**	171		202	**193.272**	**181**	188	**169**			**190.5**	182
Ta	mg kg^{-1}	1.38					**1.292**	**1.22**	1.3					
Tb	mg kg^{-1}	0.756					**0.708**	**0.83**	0.79	**3**				
Te	mg kg^{-1}			10.3										
Th	mg kg^{-1}	17.5	5				**15.201**	**17.7**	18	**33.7**			**46.6**	22
Tl	mg kg^{-1}							**11.7**	8.6					
Tm	mg kg^{-1}	0.394						**0.41**	0.38	**1**				
U	mg kg^{-1}	4.26	**3**				**4.109**	**4.3**	4.43				**2.8**	5
V	mg kg^{-1}	72.5	**87**				**68.047**	**74.1**	72	**59.5**			**88.7**	74
W	mg kg^{-1}						**10.352**	**10.8**	12					
Y	mg kg^{-1}	26.4	**43**	32		16	**24.665**	**25.4**	23				**19.1**	5
Yb	mg kg^{-1}	2.59					**2.416**	**2.74**	2.53					
Zn	mg kg^{-1}	3549	**3743**	3240		2765	**3415.173**	**3393**	3650	**3110**			**3646.500**	3328
Zr	mg kg^{-1}	260	**212**	255			**257.701**	**290**	243				**283.7**	272

Bold entries are Data Quality 1 - Underlined entries are Data Quality 2

Table 1 - GeoPT35A Contributed data for Metalliferous sediment, SdAR-H1. 13/06/2014

Lab Code		L64	L65	L66	L68	L69	L70	L71	L72	L74	L75	L76	L77	L78
SiO2	g 100g^{-1}	65.790	66.15	65.64	63.7	65.8	66.02		64.8	66.041	66.05	65.95	65.28	59.51
TiO2	g 100g^{-1}	0.538	0.571	0.56	0.51	0.57	0.56		0.555	0.567	0.55	0.57	0.561	0.530
Al2O3	g 100g^{-1}	11.829	11.72	11.65	12.7	11.63	11.8		11.8	11.95	12.22	12.11	11.91	11.82
Fe2O3T	g 100g^{-1}	6.457	6.443	6.49	6.54	6.47	6.48		6.34	6.486	6.01	6.6	6.572	6.44
Fe(II)O	g 100g^{-1}										1.62			
MnO	g 100g^{-1}	0.527	0.51	0.52	0.535	0.54	0.52		0.515	0.112	0.47	0.536	0.533	0.524
MgO	g 100g^{-1}	1.533	1.516	1.45	1.67	1.52	1.53		1.47	3.279	1.53	1.56	1.546	1.97
CaO	g 100g^{-1}	1.449	1.388	1.44	1.37	1.52	1.46		1.44	6.76	1.51	1.57	1.47	1.511
Na2O	g 100g^{-1}	1.088	0.871	1.11	1.04	1.15	1.08		1.16	3.004	1.26	1.15	1.124	0.65
K2O	g 100g^{-1}	4.198	4.226	4.18	4.13	4.23	4.21		4.1	1.688	4.19	4.35	4.234	4.28
P2O5	g 100g^{-1}	0.185	0.183	0.564	0.188	0.19	0.187		0.181	0.127	0.18	0.204	0.195	0.180
H2O+	g 100g^{-1}													
CO2	g 100g^{-1}													
LOI	g 100g^{-1}	5.497	4.642	4.35	8.5	4.91	4.57		4.57	0.65	5.29	4.87	5.064	
Ag	mg kg^{-1}	81.715				77	75.2				121			215.3
As	mg kg^{-1}	398.072				380	376			381.430	279	324		404.4
Au	mg kg^{-1}	2.957				3.65					7.01			
B	mg kg^{-1}						117							
Ba	mg kg^{-1}	855.616	908	855	853	898	851			901.074	908	974		975
Be	mg kg^{-1}	25.396			21		18.8	0.89		10.17	20.6			
Bi	mg kg^{-1}	5.122			5		4.71				4.69	11		
Br	mg kg^{-1}	1.826												
C(org)	mg kg^{-1}								0.582				6967	
C(tot)	mg kg^{-1}	9002.952					0.87		0.937				9380	
Cd	mg kg^{-1}	27.532			26		24.48			24.94	25.3			66.1
Ce	mg kg^{-1}	92.560		100	91.5		90.6	25.98		94.865	73.5	125		91.9
Cl	mg kg^{-1}													
Co	mg kg^{-1}	55.203		56		55	55.6	21.61		55.594	54.5	66		
Cr	mg kg^{-1}	215.435		245	219		246			215.153	200	227		174.9
Cs	mg kg^{-1}				5		4.4				4.66	21		10.1
Cu	mg kg^{-1}	1158.828			1290	1254	1210			1149.173	1110	1176		1168
Dy	mg kg^{-1}	4.631					4.9	4.41			3.75			
Er	mg kg^{-1}	2.747			1.7		2.6	2.65			2.1			
Eu	mg kg^{-1}	1.268			0.85		1.2	1.05			1.02			
F	mg kg^{-1}	1481.314			1229									
Ga	mg kg^{-1}	13.064		37	15.3		15				14.8	19		14.1
Gd	mg kg^{-1}	5.703			3.53		5.6	4.57			4.62			
Ge	mg kg^{-1}	1.870					0.2							
Hf	mg kg^{-1}	7.305					7.2				74.4	9.4		41.7
Hg	mg kg^{-1}	6.628			8					12.54				
Ho	mg kg^{-1}	0.926			0.61		0.9	0.88			0.75			
I	mg kg^{-1}													
In	mg kg^{-1}						9.38				9.29			8.1
La	mg kg^{-1}	46.255			42.5		46.6	11.08		44.809	37.2	40		43.3
Li	mg kg^{-1}				48		48.4				51.2			
Lu	mg kg^{-1}	0.414					0.4	0.33			0.34			
Mo	mg kg^{-1}	65.402			64	64	64.2				76.7	66		69.7
N	mg kg^{-1}													
Nb	mg kg^{-1}	22.053			21	22	26					21		19.8
Nd	mg kg^{-1}	37.686		40	35.9		39.4	16.78			30.2	46		
Ni	mg kg^{-1}	242.138		213	249	254	241			238.069		237		232.8
Pb	mg kg^{-1}	3918.281		3800	3963	3992	3835			3866.147	4485	3889		3752
Pd	mg kg^{-1}										2.81			
Pr	mg kg^{-1}	10.219			9.97		10.1	3.78			8.57			
Pt	mg kg^{-1}													
Rb	mg kg^{-1}	144.666	146	155	154	165	149.3			156.665	164	155		
Re	mg kg^{-1}													
Rh	mg kg^{-1}										0.1			
S	mg kg^{-1}	4348.041			3766	4375	5132		0.387	968				4554
Sb	mg kg^{-1}				530	550	531				501			726.2
Sc	mg kg^{-1}	14.406			7	26	8	21.53				16		
Se	mg kg^{-1}	17.674					15			15.245		7		3.1
Sm	mg kg^{-1}	6.590			6.24		7	4.2			5.29			
Sn	mg kg^{-1}	4.251					2.6							13.3
Sr	mg kg^{-1}	191.768	171	180	176	187	176.6			182.406	206	190		173.2
Ta	mg kg^{-1}	1.323			1.2		1.4					16		
Tb	mg kg^{-1}	0.803					0.8	0.68			0.64			
Te	mg kg^{-1}	10.257			9.5		9.5				11			
Th	mg kg^{-1}	20.207			16.9		17.1	6.21			14.4	20		36.7
Tl	mg kg^{-1}	10.216			11.1		11.27	0.42		13.458	11.2			19.7
Tm	mg kg^{-1}	0.412			0.25		0.4	0.32			0.32			
U	mg kg^{-1}	4.775			3.7		4.5			2.974	3.49			
V	mg kg^{-1}	76.994		70	73.2	77	75	172.210		70.342	70.7	80		81.5
W	mg kg^{-1}	15.772			10		13				110	15		
Y	mg kg^{-1}	25.685		37		32	24.7	22.41			21.8	27		18.5
Yb	mg kg^{-1}	2.733			1.6		2.6	2.49			2.17	4.6		
Zn	mg kg^{-1}	3764.939		648	3910	3845	3736			3584.976	3680	3866		3586
Zr	mg kg^{-1}	271.637	274	198	219	269	268				275	273		258

Bold entries are Data Quality 1 - Underlined entries are Data Quality 2

Table 1 - GeoPT35A Contributed data for Metalliferous sediment, SdAR-H1. 13/06/2014

Lab Code		L80	L82	L83	L84	L85	L86	L87	L88	L89	L91	L92	L93	L94
SiO2	$g\ 100g^{-1}$			**65.25**	63.17		65.45	**65.464**	**65.64**	65.083	**67.9**	**66.25**	**65.02**	**65.43**
TiO2	$g\ 100g^{-1}$	0.58	**0.636**	**0.57**	0.54	**0.517**	0.565	**0.552**	**0.579**	0.554	**0.578**	**0.565**	**0.558**	**0.544**
Al2O3	$g\ 100g^{-1}$		**11.692**	**11.83**	11.59		11.84	**11.924**	**11.82**	11.747	**12.308**	**11.74**	**11.53**	**11.84**
Fe2O3T	$g\ 100g^{-1}$		**6.369**	**6.67**	6.36	**6.722**	6.49	**6.373**	**6.309**	6.334	**6.644**	**6.52**	**6.269**	**6.3**
Fe(II)O	$g\ 100g^{-1}$								**2.14**					
MnO	$g\ 100g^{-1}$	0.53	**0.519**	**0.51**	0.516	**0.465**	0.52	**0.532**	**0.543**	0.49	**0.494**	**0.52**	**0.522**	**0.512**
MgO	$g\ 100g^{-1}$	1.38	**1.887**	**1.47**	1.46		1.53	**1.491**	**1.56**	1.515	**1.58**	**1.57**	**1.554**	**1.55**
CaO	$g\ 100g^{-1}$	1.44	**1.409**	**1.45**	1.44		1.5	**1.429**	**1.65**	1.464	**1.514**	**1.81**	**1.471**	**1.47**
Na2O	$g\ 100g^{-1}$	1.08	**1.078**	**1.19**	1.06		0.98	**1.17**	**1.13**	1.157	**1.16**	**1.09**	**0.98**	**1.06**
K2O	$g\ 100g^{-1}$	4.07	**4.174**	**4.18**	4.24		4.21	**4.23**	**4.19**	4.169	**4.33**	**4.18**	**4.133**	**4.13**
P2O5	$g\ 100g^{-1}$	0.21		**0.17**	0.17		0.189	**0.19**	**0.189**	0.186	**0.194**	**0.189**	**0.159**	**0.181**
H2O+	$g\ 100g^{-1}$								**3.41**					
CO2	$g\ 100g^{-1}$								**1.047**					
LOI	$g\ 100g^{-1}$			**4.95**	5.24		4.77		**5.1**	5.468	**5.54**	**5.2**	**5.16**	**5.273**
Ag	$mg\ kg^{-1}$		**80.1**	**71**			66	**88.8**	73.38		**65.3**		**76.2**	**79.9**
As	$mg\ kg^{-1}$		**413**	**332**		**359**	430	**409**			**373**		**317**	**390**
Au	$mg\ kg^{-1}$		**8.79**											
B	$mg\ kg^{-1}$													
Ba	$mg\ kg^{-1}$	855	**810**	**951**	860	**786**	852	**902.7**	799.530		**818**	**828**		**850.8**
Be	$mg\ kg^{-1}$							**22.43**	19.12			**22.6**		
Bi	$mg\ kg^{-1}$							**5.183**						**7.4**
Br	$mg\ kg^{-1}$		**1.71**				2							
C(org)	$mg\ kg^{-1}$						6428		**6665**					
C(tot)	$mg\ kg^{-1}$				9150		9405		**9525**	9003				
Cd	$mg\ kg^{-1}$		21.4			**24**	27	**26.433**	23		**20.6**		**24.3**	**26.2**
Ce	$mg\ kg^{-1}$	75.7	**90.3**	**108**		**87.249**	76	**83.6**	**81.7**		**81.61**	**92.8**	100	**79**
Cl	$mg\ kg^{-1}$		74				127							
Co	$mg\ kg^{-1}$	48.3	**57.76**	**63**	58	**46**	58	**57.333**	49.27	51	**48.5**	**56.9**		**57.7**
Cr	$mg\ kg^{-1}$	144	**245**	**212**	240	**172**	211	**230.5**	199.160	106.7	**253**	**248.5**	**276**	**222.7**
Cs	$mg\ kg^{-1}$	4.31	**4.72**			**5.069**		**5.433**			**4.29**	**4.9**		
Cu	$mg\ kg^{-1}$	1033	**1352**	**1098**	1030	**1163**	1120	**1210**	1075.560	1182	**1020**	875.2	1148	**1199.700**
Dy	$mg\ kg^{-1}$	3.92	**4.35**			**3.401**		**4.94**	**4.36**		**4.35**	**4.5**	**4.67**	
Er	$mg\ kg^{-1}$	2.34				**1.667**		**3.107**	**2.55**		**2.606**	**2.7**	**2.83**	
Eu	$mg\ kg^{-1}$	1.06	**1.253**			**1.151**		**1**	**1.15**		**1.18**	**1.2**	**1.25**	
F	$mg\ kg^{-1}$						1368		**1690**	2721				1800
Ga	$mg\ kg^{-1}$		12.4	**17**		**10**	17	**15.9**	15		**15.1**	**15.6**	13	**14.9**
Gd	$mg\ kg^{-1}$	4.45				**4.525**		**6.107**	**5.28**		**4.88**	**5.7**	**5.5**	
Ge	$mg\ kg^{-1}$								2.82					
Hf	$mg\ kg^{-1}$		**7.975**	**7**		**8.945**	7	**4.627**	4.73		**5.93**	**7.2**	22.3	
Hg	$mg\ kg^{-1}$		**8.38**				9	**7.127**	**6.805**					
Ho	$mg\ kg^{-1}$	0.79				**0.616**		**1.05**	**0.82**		**0.888**	**0.9**	**0.95**	
I	$mg\ kg^{-1}$													
In	$mg\ kg^{-1}$		**9.88**											
La	$mg\ kg^{-1}$	39.2	**45.58**	**62**	45	**44.631**	40	**43.33**	**43.3**		**42.25**	**47.3**	57.2	**42.4**
Li	$mg\ kg^{-1}$	43.9				**51.107**		**53.37**	**51.4**		**48.26**		**29**	
Lu	$mg\ kg^{-1}$	0.34	**0.377**			**0.244**		**0.433**	**0.39**		**0.395**	**0.4**	**0.4**	
Mo	$mg\ kg^{-1}$		**74**	**54**		**67**	61	**66.4**		71.2	**51**	**71.9**	**65.8**	**73.4**
N	$mg\ kg^{-1}$													
Nb	$mg\ kg^{-1}$			**20**		**21.835**	20	**21.5**			**20.5**	**23.1**	22.7	**24.7**
Nd	$mg\ kg^{-1}$	31.6	**37.03**	**40**		**35.547**	32	**34.93**	**34.7**		**32.94**	**38.5**	**36.9**	**29.7**
Ni	$mg\ kg^{-1}$	188	211	**236**	230	**200**	225	**236**	193.170	179.2	**221**	**200.4**	**220**	**241.5**
Pb	$mg\ kg^{-1}$			**3820**		**3763**	4000	**4053.330**	4029.590	3598	**3663**	3253.500	4055	**4222.700**
Pd	$mg\ kg^{-1}$													
Pr	$mg\ kg^{-1}$	8.48				**10.14**	12	**10.5**	**9.36**		**9.165**	**10.6**	**9.89**	
Pt	$mg\ kg^{-1}$													
Rb	$mg\ kg^{-1}$	119	**164**	**155**		**154.7**	142	**157.670**	134.280		**134**	**154.2**	150	**158.6**
Re	$mg\ kg^{-1}$													
Rh	$mg\ kg^{-1}$													
S	$mg\ kg^{-1}$				4480		2955	**4733.330**	**4417**	4792		**6946**		
Sb	$mg\ kg^{-1}$		**565**	**485**		**477**	432	**582.330**			**433**		**573**	**445**
Sc	$mg\ kg^{-1}$		**8.19**	**13**		**10**		**7.8**			**14.4**	**8.1**	16.3	**8.2**
Se	$mg\ kg^{-1}$		**14.4**				7	**29.367**					**19.5**	**13.9**
Sm	$mg\ kg^{-1}$	5.49	**6.51**	**8**		**6.162**	6	**6.42**	**5.88**		**5.94**	**6.6**	**6.43**	
Sn	$mg\ kg^{-1}$					**6**	20					**2.6**	1.9	**2.9**
Sr	$mg\ kg^{-1}$	164	163	**184**		**178.1**	195	**188.670**	**170.3**		**167.7**	**188.1**	176	**187.9**
Ta	$mg\ kg^{-1}$		**1.35**			**1.321**	6				**1.49**	**1.4**		
Tb	$mg\ kg^{-1}$	0.63	**0.787**			**0.623**		**0.87**	**0.78**		**0.733**	**0.8**	**0.78**	
Te	$mg\ kg^{-1}$													**6.5**
Th	$mg\ kg^{-1}$	15.4	**18.9**	**11**		**16.851**	8	**16.6**	21.74		**17.37**	**19.2**	**12**	**30.2**
Tl	$mg\ kg^{-1}$					**11.693**	1	**12.9**			**11.1**	**12.1**	**10.1**	**11.3**
Tm	$mg\ kg^{-1}$	0.34				**0.282**		**0.463**	**0.37**		**0.389**	**0.4**	**0.4**	
U	$mg\ kg^{-1}$	3.72	**3.68**	**2**		**3.605**	4	**3.637**	2.47		**4.35**	**4.6**	**2.46**	**4.2**
V	$mg\ kg^{-1}$	65.9	**74.8**	**89**	68	**63**	79	**71.5**	71.52	79.3	**73.1**	**75.8**	**72.4**	**82.8**
W	$mg\ kg^{-1}$		**14**	**26**			19	**13.767**				**12.4**	20.2	**7.4**
Y	$mg\ kg^{-1}$	19.8		**35**	23	**21.604**	42	**25.6**	**23.86**		**23.6**	**28.6**	32	**26.4**
Yb	$mg\ kg^{-1}$	2.28	**2.705**			**1.578**		**2.957**	**2.63**		**2.586**	**2.7**	**2.74**	
Zn	$mg\ kg^{-1}$	3360	**3790**	**3757**	3470	**3457**	3790	**3713.330**	3981.810	3403	**3685**	3924	3908	**3685.100**
Zr	$mg\ kg^{-1}$		**320**	**261**	240	**249**	248	**252.5**	250.760		**275**	**270.1**	262	**262.8**

Bold entries are Data Quality 1 - Underlined entries are Data Quality 2

Table 1 - GeoPT35A Contributed data for Metalliferous sediment, SdAR-H1. 13/06/2014

Lab Code		L96	L99	L100	L103	L104	L105	L106	L108	L109	L110	L113	-	-
SiO2	g 100g⁻¹	79.12	61	**65.4**	65.6		65.57	65.54		65.448	65.57	65.95		
TiO2	g 100g⁻¹	0.48	0.569	**0.56**	0.58		0.56	0.56		0.543	0.56	0.57		
Al2O3	g 100g⁻¹	3.91	14	**11.84**	11.9		11.88	11.85		11.583	11.62	11.54		
Fe2O3T	g 100g⁻¹	7.51	6.75	**6.34**	6.62		6.45	6.46		6.455	6.55	6.57		
Fe(II)O	g 100g⁻¹			**2.34**										
MnO	g 100g⁻¹	0.058	0.598	**0.515**	0.53		0.531	0.54		0.509	0.46	0.523		
MgO	g 100g⁻¹	0.98	1.7	**1.62**	1.55		1.48	1.53		1.552	1.58	1.62		
CaO	g 100g⁻¹	1.57	1.69	**1.48**	1.5		1.47	1.48		1.453	1.6	1.54		
Na2O	g 100g⁻¹	1.98	0.917	**1.2**	1.07		0.91	1.05		1.07	1.08	1.23		
K2O	g 100g⁻¹	4.17	491	**4.14**	4.15		4.25	4.18		4.282	4.18	4.24		
P2O5	g 100g⁻¹	0.09	0.252	**0.18**			0.183	0.19		0.186	0.23	0.181		
H2O+	g 100g⁻¹			**3.26**							2.46			
CO2	g 100g⁻¹			**1.33**	3.72						1.25			
LOI	g 100g⁻¹		4.65	**5.34**			5.23	5.02		5.15	4.65	4.78		
Ag	mg kg⁻¹	75.8	0.007	**91.7**		36.35	88.6	83.6	**87.18**			69.9		
As	mg kg⁻¹	167.960	0.053	**436**		326.1	394	435	**311.7**		394	385.3		
Au	mg kg⁻¹						2.11		**1.981**					
B	mg kg⁻¹													
Ba	mg kg⁻¹		0.082	**866**	876.6	**872.5**	886	866	**869.2**	868	900	946.3		
Be	mg kg⁻¹			**23.3**			24.6	20.5			0.95			
Bi	mg kg⁻¹			**4.34**	4.5	5.05	4.08	4.92	**5.253**			8.8		
Br	mg kg⁻¹											2.8		
C(org)	mg kg⁻¹			**8400**										
C(tot)	mg kg⁻¹											17972		
Cd	mg kg⁻¹	26.12		**29.2**		25.93	23.6	24.4			40	25.3		
Ce	mg kg⁻¹	97.44		**92.4**	92.88	**89.32**	101	87.8	**92.22**		**93**	77.3		
Cl	mg kg⁻¹													
Co	mg kg⁻¹	67.45	0.004	**54.9**	48	**52.52**	64.7	55	**57.37**	53	62	75		
Cr	mg kg⁻¹	316.710	0.024	**223**		**168.060**	213	244	**67.8**	213	185	179.4		
Cs	mg kg⁻¹	6.79		**4.97**	5.3	**4.695**	4.55	3.02	**5.44**		5			
Cu	mg kg⁻¹	1472	0.129	**1166**	1093	**1090.900**	1166	1195	**1192**	797	1280	1102.800		
Dy	mg kg⁻¹			**4.29**	4.77	**4.336**	3.52		**4.024**		**4.23**			
Er	mg kg⁻¹			**2.57**	2.77	**2.36**	1.98		**2.537**		**2.42**			
Eu	mg kg⁻¹			**1.33**	1.29	**1.171**	1.64		**1.29**		**1.17**			
F	mg kg⁻¹		0.227	**1550**						1402				
Ga	mg kg⁻¹	20.05		**15.7**		**15.87**	16.3	17.5		20	16.8	14.6		
Gd	mg kg⁻¹			**5.76**	5.76	**5.534**	5.57		**6.657**		**5.35**			
Ge	mg kg⁻¹			**2.62**				1.3						
Hf	mg kg⁻¹			**8.42**	7.21	**7.563**			**3.231**		6.06	0.4		
Hg	mg kg⁻¹			**7.8**										
Ho	mg kg⁻¹			**0.9**	0.99	**0.834**	0.66		**0.861**		**0.91**			
I	mg kg⁻¹													
In	mg kg⁻¹			**9.72**			9.46	10.5						
La	mg kg⁻¹	25.83		**49.5**	48.75	**45.47**	48.8	42.2	**45.8**		**42.3**	44.6		
Li	mg kg⁻¹			**49.9**	0.43	64.23	48.5	46.5		50	58			
Lu	mg kg⁻¹			**0.43**		**0.361**	0.253		**0.329**		0.4			
Mo	mg kg⁻¹			**65.9**		70.55	63	66.8	**70.77**		68	60.1		
N	mg kg⁻¹													
Nb	mg kg⁻¹	29.86	0.003	**23**	24	**27.043**	19	22.8	**21.3**		20.8	20.1		
Nd	mg kg⁻¹	24.8		**41.6**	37.58	**36.088**	34.7		**36.64**		**32.4**	29.2		
Ni	mg kg⁻¹	329.3	0.026	**205**		**234.220**	239	230	**234.2**	208	280	239.9		
Pb	mg kg⁻¹	5085.760	0.451	**4236**	3926	**4183.900**	3897	4062	**3952**	3777	3780	3734.900		
Pd	mg kg⁻¹								**0.665**					
Pr	mg kg⁻¹			**11.1**	10.39	**9.929**	10	9.25	**10.16**		**9**			
Pt	mg kg⁻¹								**2.181**					
Rb	mg kg⁻¹	154.030	0.018	**149**	158.4	**148.030**	148	155	**154.1**		**140**	150.5		
Re	mg kg⁻¹													
Rh	mg kg⁻¹													
S	mg kg⁻¹		0.456	**4550**	4588							9352		
Sb	mg kg⁻¹		0.057	**548**		439.1	440	418	**559.1**			504.3		
Sc	mg kg⁻¹	0.34		**8.34**	13.79	**8.651**	9.52	4.28	**7.91**		8.5	9.3		
Se	mg kg⁻¹			**25.65**		17.48		21.2				18.3		
Sm	mg kg⁻¹			**6.99**	6.98	**6.3**	6.83		**6.427**		**5.97**	1.8		
Sn	mg kg⁻¹			**3.19**		2.78	3	2.18	**3.099**			3.5		
Sr	mg kg⁻¹	135.3	0.022	**183**	189.8	**181.950**	180	181	**187.1**	247	195	176.6		
Ta	mg kg⁻¹	0.76		**1.41**	1.53	**1.498**			**1.252**		1.8			
Tb	mg kg⁻¹			**0.81**	0.83	0.794	0.768		**0.907**		**0.77**			
Te	mg kg⁻¹			**9.4**			8.1	9023				14.2		
Th	mg kg⁻¹			**18.2**	19.46	**17.82**	16.2	14.2	**17.88**		15	11.8		
Tl	mg kg⁻¹			**12.5**		16.04	9.72	8.76	**12.29**		10.2	11.9		
Tm	mg kg⁻¹			**0.42**	0.42	**0.359**	0.259		**0.317**		0.42			
U	mg kg⁻¹			**4.1**	4.45	**4.239**	3.77	2.41	**4.303**		3.8	2.7		
V	mg kg⁻¹	59.9	0.009	**73**	78.6	**75.28**	81.5	72.8	**75.32**		72	67.7		
W	mg kg⁻¹			**11.7**				5.9	**10.53**			9		
Y	mg kg⁻¹	12.6		**25.5**	27.35	**32.41**	22	28	**20.2**	20	24	31.6		
Yb	mg kg⁻¹			**2.74**	2.78	**2.314**	1.74		**2.244**		**2.4**	3.1		
Zn	mg kg⁻¹	2060	0.391	**3679**	3527	**3092**	3666	3749	**3783**	3253	4100	3812.900		
Zr	mg kg⁻¹	265.610	0.032	**250**	269.2	**320.830**	255	268	**106.3**	274	263	255.1		

Bold entries are Data Quality 1 - Underlined entries are Data Quality 2

Table 2 - GeoPT35A Assigned values and statistical summary for Metalliferous sediment, SdAR-H1.

	Assigned Value	Uncertainty of assigned value	Horwitz Target Value	Uncertainty/ Target	Number of reported results	Robust Mean of results	Median of results	Status of consensus value	Type of consensus value
	X_a	*sdm*	H_a	*sdm/H* $_a$	*n*				
	g 100g⁻¹	g 100g⁻¹	g 100g⁻¹			g 100g⁻¹	g 100g⁻¹		
SiO2	65.45	0.08798	0.6977	0.1261	71	65.4	65.45	Assigned	Median
TiO2	0.56	0.001668	0.01222	0.1365	79	0.5574	0.56	Assigned	Median
Al2O3	11.83	0.03146	0.1631	0.1929	76	11.85	11.83	Assigned	Median
Fe2O3T	6.448	0.01701	0.09742	0.1747	79	6.457	6.448	Assigned	Median
MnO	0.515	0.002502	0.01138	0.2198	79	0.5143	0.515	Assigned	Median
MgO	1.532	0.007737	0.02873	0.2693	77	1.532	1.53	Assigned	Robust Mean
CaO	1.462	0.004113	0.02762	0.1489	78	1.469	1.462	Assigned	Median
Na2O	1.102	0.01347	0.02171	0.6203	75	1.102	1.103	Provisional	Robust Mean
K2O	4.171	0.01238	0.06729	0.1841	77	4.171	4.17	Assigned	Robust Mean
P2O5	0.1854	0.001489	0.00478	0.3116	72	0.1854	0.186	Assigned	Robust Mean
	mg kg⁻¹	mg kg⁻¹	mg kg⁻¹			mg kg⁻¹	mg kg⁻¹		
Ag	75.86	2.655	3.163	0.8394	45	75.86	76	Provisional	Robust Mean
Ba	865.9	5.886	25.02	0.2352	74	859.4	865.9	Assigned	Median
Be	22.07	0.61	1.108	0.5505	34	20.31	21.23	Provisional	Mode
Bi	5.131	0.1667	0.3209	0.5196	32	5.733	5.131	Provisional	Median
Cd	25.2	0.42	1.24	0.3387	48	23.54	24.44	Provisional	Mode
Ce	89.32	1.053	3.634	0.2897	61	87.5	89.32	Assigned	Median
Co	55.59	0.6609	2.429	0.2721	65	54.54	55.59	Assigned	Median
Cs	4.781	0.117	0.3022	0.3872	40	4.781	4.77	Assigned	Robust Mean
Cu	1159	8.078	32.06	0.252	76	1145	1159	Assigned	Median
Dy	4.41	0.04862	0.2821	0.1723	41	4.38	4.41	Assigned	Median
Er	2.603	0.03889	0.1803	0.2157	42	2.554	2.603	Assigned	Median
Eu	1.253	0.01741	0.09687	0.1797	43	1.217	1.253	Assigned	Median
Ga	15.64	0.3311	0.827	0.4004	52	15.64	15.6	Assigned	Robust Mean
Gd	5.35	0.08163	0.3325	0.2455	41	5.239	5.35	Assigned	Median
Hf	6.85	0.3635	0.4101	0.8864	41	6.727	6.85	Provisional	Median
Ho	0.9	0.01227	0.07314	0.1678	41	0.8821	0.9	Assigned	Median
In	9.53	0.23	0.5429	0.4237	14	9.567	9.53	Provisional	Median
La	44.89	0.4866	2.025	0.2403	60	44.32	44.89	Assigned	Median
Li	50.54	1.252	2.24	0.559	37	50.54	50.76	Assigned	Robust Mean
Lu	0.398	0.005978	0.03657	0.1635	40	0.3854	0.398	Assigned	Median
Mo	64	1.172	2.737	0.4283	60	62.98	64	Assigned	Median
Nb	21.85	0.4316	1.099	0.3929	60	21.85	21.92	Assigned	Robust Mean
Nd	36.2	0.4598	1.687	0.2726	55	35.75	36.2	Assigned	Median
Ni	230	2.078	8.115	0.2561	75	225.2	230	Assigned	Median
Pb	3893	36.94	89.73	0.4117	75	3893	3910	Assigned	Robust Mean
Pr	9.965	0.1106	0.5639	0.1962	44	9.813	9.965	Assigned	Median
Rb	152.3	1.124	5.716	0.1966	68	150.9	152.3	Assigned	Median
Sc	8.2	0.14	0.4778	0.293	48	9.548	8.48	Provisional	Mode
Sm	6.386	0.08348	0.3864	0.216	47	6.266	6.386	Assigned	Median
Sr	182.2	1.431	6.657	0.215	76	182.2	182.4	Assigned	Robust Mean
Ta	1.41	0.03857	0.1071	0.3602	34	1.41	1.405	Assigned	Robust Mean
Tb	0.78	0.01088	0.06476	0.168	41	0.7619	0.78	Assigned	Median
Th	17.74	0.4725	0.9204	0.5134	56	17.14	17.74	Assigned	Median
Tl	11.1	0.2567	0.618	0.4153	40	10.87	11.1	Assigned	Median
Tm	0.394	0.006173	0.03626	0.1703	39	0.3789	0.394	Assigned	Median
U	4.068	0.09429	0.2634	0.3579	53	3.838	4.068	Assigned	Median
V	73.15	0.8346	3.067	0.2722	72	73.8	73.15	Assigned	Median
Y	25.41	0.7428	1.249	0.5947	63	25.41	25.4	Provisional	Robust Mean
Yb	2.6	0.04067	0.1801	0.2258	45	2.56	2.6	Assigned	Median
Zn	3684	28.87	85.61	0.3373	78	3619	3684	Assigned	Median
Zr	257.9	2.697	8.942	0.3016	68	245.8	257.9	Provisional	Median

Table 3 - GeoPT35A Z-scores for Metalliferous sediment, SdAR-H1. 13/06/2014

Lab Code	L1	L2	L3	L4	L6	L7	L9	L10	L11	L13	L14	L16	L17
SiO2	-0.80	-0.15	**-0.40**	0.92	*	**-0.65**	**0.07**	0.32	**3.54**	*	**-0.33**	-0.32	*
TiO2	0.16	-11.46	**0.00**	2.17	**23.97**	**2.13**	**0.65**	-0.29	**-0.82**	*	**-3.27**	-0.49	**-0.90**
Al2O3	1.93	-4.20	**-0.86**	1.04	**31.69**	**3.13**	**0.00**	-1.01	**0.86**	*	**-1.35**	4.47	*
Fe2O3T	0.93	-0.20	**1.56**	-0.74	**9.88**	**1.21**	**0.12**	-0.45	**3.92**	*	**1.46**	-3.74	*
MnO	-0.09	*	**1.14**	6.63	**-34.27**	**2.65**	**-1.58**	-0.40	**6.59**	*	**1.32**	7.38	**-0.97**
MgO	0.84	0.49	**-0.75**	-1.28	**63.29**	**3.04**	**0.64**	-0.38	**0.29**	*	**-2.15**	1.71	*
CaO	-0.41	0.68	**0.63**	-0.26	**197.57**	**0.67**	**0.27**	-0.41	**0.27**	*	**-0.81**	1.22	*
Na2O	2.96	-3.26	**-0.99**	-2.66	**84.67**	**3.89**	**-0.99**	1.12	**-10.20**	*	**-3.30**	2.96	*
K2O	0.07	-0.38	**-0.16**	1.89	**-37.47**	**4.99**	**-0.16**	-1.42	**2.81**	*	**-1.50**	0.44	*
P2O5	-0.47	-3.71	**5.14**	-0.78	*	**1.29**	**1.37**	*	**0.95**	*	**0.95**	1.10	*
Ag	*	*	*	0.08	**-23.96**	**-1.05**	*	-0.90	**-1.85**	*	-3.14	-6.45	*
Ba	-2.27	0.44	**-3.42**	0.14	**-4.19**	**-2.35**	-0.21	*	**1.04**	**4.88**	**1.53**	-10.91	**-1.51**
Be	*	-0.78	**0.99**	-2.55	**-19.16**	**-0.54**	*	*	*	*	**3.82**	-6.68	**0.21**
Bi	49.66	2.18	**0.80**	-0.43	*	**0.52**	*	*	*	*	*	-5.26	**0.03**
Cd	1.53	0.40	**0.28**	-1.80	**-20.14**	**0.87**	*	0.86	**-8.22**	*	-0.89	-6.53	*
Ce	*	*	**-1.76**	-0.13	**-16.53**	**2.28**	*	*	**-0.91**	**7.07**	**-2.37**	-8.40	**0.77**
Co	-0.33	1.35	**-0.26**	0.52	**-14.35**	**0.19**	*	*	**-13.42**	*	**0.82**	-7.31	**-0.16**
Cs	*	2.02	**0.68**	0.19	**-6.13**	**0.54**	*	*	*	**2.87**	**-4.64**	-4.78	**-0.27**
Cu	0.06	1.06	**-3.15**	-0.93	*	**1.41**	2.70	-1.41	**0.38**	*	**0.25**	-12.39	**0.60**
Dy	*	*	**0.63**	0.26	**-0.64**	**-0.08**	*	*	*	**0.46**	**-0.35**	-5.56	**0.57**
Er	*	*	**0.53**	0.45	**-0.68**	**-0.56**	*	*	*	**-0.96**	**-1.07**	-5.22	**0.65**
Eu	*	*	**0.01**	0.84	**-1.48**	**0.27**	*	*	*	**-0.24**	**0.18**	-4.33	**0.07**
Ga	-4.62	1.39	**0.70**	0.54	**5.24**	**1.36**	-0.33	*	**-3.19**	*	**-0.11**	-5.90	**-0.29**
Gd	*	*	**-0.66**	-0.23	*	**-0.06**	*	*	**-1.05**	**5.47**	**-0.81**	-5.15	**0.18**
Hf	2.62	*	**-0.33**	-0.09	**-5.66**	**-7.64**	*	*	**-6.95**	**-5.24**	**-8.22**	-6.74	**0.00**
Ho	*	*	**1.15**	0.27	**1.09**	**-0.61**	*	*	*	**0.82**	**-0.41**	-4.48	**0.41**
In	*	*	**1.47**	-1.05	*	**2.30**	*	*	*	*	*	*	*
La	*	*	**-0.13**	0.28	**-15.84**	**-7.42**	*	*	**4.00**	**5.83**	**3.59**	-7.58	**0.40**
Li	*	0.05	**1.99**	0.65	*	**0.99**	*	*	*	*	**4.42**	-6.82	**-0.02**
Lu	*	*	**0.63**	0.22	**0.60**	**-0.91**	*	*	*	**0.05**	**-1.31**	-4.03	**0.60**
Mo	2.74	1.65	**0.64**	-0.27	**-23.11**	**1.94**	0.15	0.66	**17.17**	**6.14**	-2.30	-6.57	**-0.66**
Nb	0.98	14.44	**-1.44**	0.53	**-14.91**	**3.19**	1.21	*	**29.27**	**5.15**	**3.76**	-5.84	**2.14**
Nd	*	*	**-0.50**	-0.40	**-11.19**	**1.36**	*	*	**2.85**	**5.69**	**1.87**	-7.28	**0.00**
Ni	1.11	0.80	**-2.12**	-0.81	**-27.71**	**0.63**	3.33	1.52	**2.09**	*	**2.76**	-9.40	**-0.86**
Pb	0.31	0.28	**3.55**	0.71	**-43.23**	**3.58**	-0.81	1.67	*	21.54	**0.34**	-13.86	**-0.26**
Pr	*	*	**-0.60**	-0.24	**-10.51**	*	*	*	*	**5.91**	**1.53**	-6.01	**-0.01**
Rb	0.33	1.03	**0.69**	0.02	**-15.86**	**1.30**	1.18	*	**2.58**	**2.58**	**1.23**	-8.33	**-0.04**
Sc	*	4.71	**0.90**	-0.65	*	**-0.24**	*	*	**-2.51**	**3.03**	**-0.40**	-6.34	**0.61**
Sm	*	*	**-0.04**	-0.34	**-5.22**	**0.39**	*	*	*	**4.07**	**1.30**	-5.53	**0.01**
Sr	-0.01	0.43	**-0.84**	-0.71	**18.60**	**0.66**	-2.87	-0.17	**1.77**	**3.58**	**-0.60**	-9.09	**0.42**
Ta	*	*	**0.97**	0.67	**-8.96**	**5.35**	*	*	*	**0.75**	**1.22**	-3.64	**0.28**
Tb	*	*	**-0.34**	0.18	*	**-0.52**	*	*	*	**-0.15**	**-0.46**	-4.36	**0.31**
Th	0.14	1.32	**0.90**	0.02	**-14.33**	**3.11**	19.97	*	*	**4.74**	**0.14**	-6.27	**0.93**
Tl	*	8.61	*	-0.39	**-17.30**	**11.89**	*	*	**-3.40**	*	*	-5.59	**0.65**
Tm	*	*	**-0.03**	-0.11	**0.17**	**-0.33**	*	*	*	**0.44**	*	-3.97	**0.72**
U	-0.13	1.39	**2.49**	0.00	**-11.11**	**2.53**	*	*	*	**3.58**	**0.39**	-4.69	**1.37**
V	-0.35	1.36	**-2.21**	0.28	**25.03**	**0.69**	-3.37	*	**-3.64**	*	**1.19**	-7.38	**-0.54**
Y	*	-2.47	**1.18**	-0.02	*	**-2.36**	-6.01	*	*	**0.79**	**0.57**	-7.69	**1.43**
Yb	*	*	**0.85**	-0.31	**0.28**	**-0.48**	*	*	*	**-0.72**	**-1.39**	-5.27	**0.56**
Zn	-0.24	-3.58	**-3.33**	5.05	**-41.94**	**3.81**	0.06	2.22	**2.58**	*	**3.32**	-12.92	**0.29**
Zr	-5.69	*	**0.05**	0.28	**-11.88**	**-13.65**	2.37	*	**-17.20**	**-10.16**	**-13.60**	-11.75	**-0.10**

Bold entries are Data Quality 1 - Underlined entries are Data Quality 2

Table 3 - GeoPT35A Z-scores for Metalliferous sediment, SdAR-H1. 13/06/2014

Lab Code	L18	L20	L21	L22	L23	L24	L25	L26	L28	L29	L31	L32	L33
SiO2	-5.33	**-0.86**	**1.15**	*	**-2.62**	0.12	**-0.89**	-0.01	*	1.11	**-3.96**	0.25	**0.46**
TiO2	10.23	**-0.82**	**-0.82**	*	**-1.64**	2.00	**-4.09**	0.20	*	-1.06	**-1.64**	0.00	**1.31**
Al2O3	16.61	**-1.47**	**0.25**	*	**-2.27**	1.50	**-1.04**	0.00	*	0.30	**11.22**	1.13	**0.17**
Fe2O3T	4.68	**-0.60**	**-0.49**	*	**-0.70**	0.95	**-1.01**	-0.14	*	-0.39	**5.26**	0.11	**0.00**
MnO	-17.60	**-0.53**	**0.00**	*	**-0.44**	1.80	**-0.44**	-0.48	*	-0.09	**2.20**	-0.22	**-6.68**
MgO	30.78	**-3.89**	**-0.75**	*	**-2.15**	0.14	**-0.75**	-0.73	*	-0.22	**26.39**	0.49	**0.32**
CaO	93.90	**-0.45**	**-0.09**	*	**-0.81**	0.06	**-0.45**	-0.23	*	-1.19	**6.06**	-0.05	**-1.72**
Na2O	40.26	**-8.82**	**0.85**	*	**-2.37**	0.03	**4.53**	0.42	*	1.28	**0.39**	2.50	**2.74**
K2O	-18.88	**-0.61**	**-0.16**	*	**-2.99**	1.24	**-1.35**	0.14	*	0.74	**5.93**	-0.31	**1.26**
P2O5	-5.80	**0.95**	**-0.30**	*	**-1.14**	1.52	**-5.32**	-1.09	*	-1.93	**5.14**	0.48	**0.32**
Ag	*	*	*	-1.67	*	*	**-0.11**	4.02	*	*	**-6.28**	*	*
Ba	-2.95	**-2.19**	*	-1.04	**0.01**	0.48	**0.03**	-0.25	**-0.83**	*	**0.85**	*	*
Be	*	*	*	*	*	0.33	*	*	**0.75**	*	*	*	*
Bi	*	*	*	6.65	*	*	**21.10**	*	**0.31**	*	*	*	*
Cd	*	*	*	-1.09	*	*	**0.89**	*	*	*	**-13.06**	*	*
Ce	-7.47	**-10.00**	*	-0.58	*	0.06	**0.90**	*	**1.04**	*	*	*	*
Co	*	**-1.48**	*	1.65	**0.17**	0.75	**0.33**	*	**0.08**	*	**-19.60**	*	*
Cs	*	*	*	-4.44	*	0.03	**-5.23**	*	**-0.14**	*	*	*	*
Cu	-17.75	-0.44	**-0.28**	0.24	**18.81**	0.67	**-4.81**	-0.17	**0.75**	*	**33.10**	*	*
Dy	*	*	*	*	*	0.64	*	*	**0.60**	*	*	*	*
Er	*	*	*	*	*	0.41	*	*	**0.93**	*	*	*	*
Eu	*	*	*	*	*	0.19	*	*	**0.18**	*	*	*	*
Ga	6.87	*	*	-2.02	**54.85**	0.32	**1.89**	*	**-0.05**	*	*	*	*
Gd	*	*	*	*	*	-0.63	*	*	**0.18**	*	*	*	*
Hf	*	*	*	3.96	*	-0.49	**12.56**	*	**0.39**	*	*	*	*
Ho	*	*	*	*	*	0.21	*	*	**0.68**	*	*	*	*
In	*	*	*	1.91	*	*	*	*	*	*	*	*	*
La	-9.60	**-2.42**	*	-0.17	*	0.39	**-0.84**	*	**0.50**	*	*	*	*
Li	*	*	*	*	*	*	*	*	**-0.24**	*	*	*	*
Lu	*	*	*	*	*	0.30	*	*	**0.60**	*	*	*	*
Mo	*	*	*	-0.26	*	0.30	**-2.96**	-0.79	**-0.40**	*	*	*	*
Nb	-6.30	**-0.77**	*	-0.80	**0.14**	-0.61	**-1.41**	-0.34	**1.87**	*	*	*	*
Nd	*	**-7.82**	*	2.40	*	0.39	**-0.89**	*	**0.12**	*	*	*	*
Ni	-13.92	**-0.74**	*	0.94	**0.86**	-0.01	**-1.61**	0.25	**-0.37**	*	**-23.91**	*	*
Pb	-21.61	-0.84	**9.44**	0.87	**-4.09**	0.22	**-3.00**	0.94	**-1.09**	*	**-8.06**	*	*
Pr	*	*	*	*	*	0.25	*	*	**0.06**	*	*	*	*
Rb	-8.51	**0.13**	*	-0.18	**-0.39**	0.15	**-1.22**	0.07	**-0.04**	*	**-4.94**	*	*
Sc	*	*	*	8.48	*	0.10	**15.28**	*	**0.65**	*	*	*	*
Sm	*	*	*	-0.89	*	0.39	**4.69**	*	**0.27**	*	*	*	*
Sr	15.16	**1.32**	*	0.01	**1.32**	1.10	**-1.52**	-0.19	**0.57**	*	**-2.13**	*	*
Ta	*	*	*	0.89	*	0.19	**55.95**	*	**0.00**	*	*	*	*
Tb	*	*	*	*	*	-0.69	*	*	**0.46**	*	*	*	*
Th	*	**7.89**	*	-0.73	*	0.11	**-7.54**	*	**0.50**	*	*	*	*
Tl	*	*	*	4.13	*	-0.61	**-5.66**	*	**1.13**	*	*	*	*
Tm	*	*	*	*	*	0.36	*	*	**0.72**	*	*	*	*
U	*	**7.33**	*	*	**11.13**	0.59	**-11.27**	*	**1.41**	*	*	*	*
V	9.76	**-1.35**	*	0.66	**2.89**	1.15	**20.89**	1.21	**-0.38**	*	**-19.94**	*	*
Y	2.64	*	*	3.36	*	-0.46	**3.43**	*	**1.51**	*	**65.32**	*	*
Yb	*	*	*	0.00	*	0.53	**19.43**	*	**0.67**	*	*	*	*
Zn	-20.92	-0.26	**0.51**	1.25	**2.59**	0.23	**-0.53**	-0.01	**0.93**	*	**-13.47**	*	*
Zr	-5.81	**1.47**	*	0.23	**2.92**	-0.40	**-0.40**	0.05	**0.35**	*	**-7.92**	*	*

Bold entries are Data Quality 1 - Underlined entries are Data Quality 2

Table 3 - GeoPT35A Z-scores for Metalliferous sediment, SdAR-H1. 13/06/2014

Lab Code	L34	L35	L36	L37	L38	L39	L40	L41	L42	L43	L45	L46	L48
SiO2	0.34	*	-0.18	0.42	-0.47	**0.79**	-0.53	**-0.79**	*	0.90	-0.14	*	*
TiO2	-0.16	*	-0.41	0.41	0.12	**-1.64**	0.41	**0.00**	-0.16	0.41	-0.16	-21.89	*
Al2O3	0.00	*	-0.28	0.03	8.49	**1.04**	0.86	**0.43**	-1.07	4.51	-0.21	-30.62	**-8.80**
Fe2O3T	-0.12	*	-0.35	0.22	7.14	**4.74**	-2.45	**-1.01**	0.39	-0.09	-0.10	-9.96	**-14.56**
MnO	-0.18	*	0.66	-0.22	4.39	**3.08**	-7.25	**0.44**	0.04	-0.22	0.57	-4.31	**-2.28**
MgO	0.25	*	-0.03	-0.90	7.80	**0.29**	-2.47	**-2.50**	0.37	0.32	-1.60	-11.85	**-7.82**
CaO	0.21	*	0.32	-1.13	5.93	**-1.90**	0.32	**0.27**	-2.87	0.86	-0.48	-10.33	**-9.54**
Na2O	2.11	*	0.19	-4.41	-2.80	**2.69**	23.91	*	2.27	-0.04	-0.73	-24.42	**-10.30**
K2O	0.58	*	-0.16	0.29	2.22	**-2.69**	-16.36	**-1.50**	-0.27	-0.23	0.45	-28.74	**-5.68**
P2O5	-0.26	*	0.06	0.06	10.00	**5.14**	2.57	**-1.14**	-2.14	1.63	-0.36	-7.27	*
Ag	-0.32	0.02	1.92	*	6.66	**-4.86**	*	*	2.50	0.94	*	-11.81	*
Ba	-0.00	*	0.08	-0.02	-0.74	**-1.63**	178.33	**0.05**	-0.97	0.20	1.72	-16.71	**0.90**
Be	-1.05	*	-0.21	*	*	**0.30**	*	**-1.60**	0.87	0.42	*	-8.24	**-4.29**
Bi	-0.39	*	*	10.70	*	*	11.17	**-2.00**	0.05	*	*	-6.55	**-2.43**
Cd	-1.45	0.32	-0.40	*	*	**0.73**	-2.92	**-9.11**	-0.20	-0.24	*	-8.26	**-2.66**
Ce	0.15	*	-0.64	-0.35	*	**7.70**	-1.41	**1.26**	-0.21	-1.52	*	-6.92	**-0.00**
Co	-1.02	*	0.43	1.29	*	**-1.44**	*	**-2.43**	0.79	-1.07	*	-10.89	**-4.04**
Cs	*	*	-0.30	*	*	*	*	**-1.63**	-0.76	*	*	*	*
Cu	-0.11	0.41	-0.22	0.72	3.45	**-2.15**	0.00	**0.00**	0.43	-0.28	0.25	-15.01	**1.34**
Dy	0.97	*	0.37	-1.60	*	**4.22**	*	**0.60**	0.45	-2.85	*	-7.18	**0.77**
Er	0.19	*	1.05	-1.09	*	**7.92**	*	**1.09**	0.67	-3.36	*	-6.72	**0.60**
Eu	0.35	*	0.04	1.22	*	**-0.65**	*	**1.72**	-0.59	-1.41	*	-5.90	**0.18**
Ga	*	*	-0.02	*	*	*	*	**-3.55**	-0.88	*	*	*	**-2.56**
Gd	0.18	*	-0.21	1.43	*	**-13.32**	*	**2.26**	-0.06	-1.49	*	-7.08	**0.04**
Hf	*	*	0.30	*	*	*	*	**-13.39**	-0.27	*	*	*	*
Ho	0.82	*	0.48	-1.64	*	**5.47**	*	**1.09**	0.10	-3.08	*	-5.74	**0.12**
In	*	*	0.06	*	*	*	*	**-2.28**	-0.33	*	*	*	*
La	0.05	*	-0.49	*	*	**3.51**	0.72	**1.29**	0.01	1.16	*	-6.14	**-0.02**
Li	-1.26	*	1.28	*	*	*	5.08	**1.99**	0.73	0.57	*	-9.56	**-5.03**
Lu	*	*	0.44	-2.02	*	**3.88**	*	**4.70**	-0.03	-3.53	*	-5.17	**0.77**
Mo	-0.64	*	1.30	-1.58	1.28	**-3.62**	-2.08	**-4.53**	-0.10	-1.33	*	-9.28	**-4.42**
Nb	*	*	0.25	0.98	3.71	*	*	**-0.41**	-0.11	-5.93	*	-9.85	*
Nd	-0.18	*	-0.68	0.19	*	**0.00**	*	**7.88**	-0.64	-1.51	*	-9.66	**0.80**
Ni	-2.09	0.00	-0.62	-0.25	1.54	**-0.30**	-2.96	**-6.65**	0.19	-0.12	0.37	-11.75	**-8.58**
Pb	0.09	1.10	-0.18	1.49	6.22	**5.03**	3.94	**-26.92**	1.15	-0.76	2.46	-17.51	**3.66**
Pr	-0.18	*	-0.47	0.01	*	**0.82**	*	**1.13**	-0.24	-1.29	*	-8.01	**0.79**
Rb	*	*	-0.33	0.70	3.48	*	3.83	**-4.24**	-0.83	-0.20	*	-11.66	**0.58**
Sc	*	*	-0.42	*	*	**-0.36**	*	**-4.60**	*	-0.94	*	-8.12	*
Sm	-0.23	*	-0.15	*	*	**-1.44**	*	**0.81**	0.13	-1.48	*	-7.42	**0.00**
Sr	0.27	*	0.36	-0.01	3.22	**0.56**	-2.72	**1.02**	-0.92	0.29	9.82	-10.68	**-1.13**
Ta	*	*	-0.51	*	*	*	*	**-10.74**	-0.79	*	*	*	*
Tb	-1.08	*	0.31	-2.01	*	**2.16**	*	**2.93**	-0.42	-2.39	*	-5.40	**1.08**
Th	0.39	*	-0.51	*	*	*	*	**-5.15**	-0.59	-2.30	*	-8.73	*
Tl	0.52	*	-0.12	*	*	*	*	**-3.30**	-0.19	*	*	-7.46	**-1.15**
Tm	*	*	0.50	-1.71	*	**5.41**	*	**4.85**	-0.04	-3.50	*	-5.16	**0.41**
U	-0.26	*	0.99	*	*	*	*	**-3.52**	0.66	-2.35	*	-7.04	**-2.80**
V	-1.26	*	0.14	1.52	*	**-1.45**	6.27	**-0.05**	0.33	-0.06	-0.19	-8.34	**-3.88**
Y	-0.65	*	0.16	-2.57	7.84	**-0.17**	2.44	**0.15**	-0.88	-0.97	*	-6.97	*
Yb	0.78	*	*	-2.39	*	**5.16**	*	**0.56**	0.62	-3.75	*	-6.83	**1.35**
Zn	-0.21	-0.31	0.15	0.10	4.13	**-1.72**	4.48	**1.09**	0.36	0.06	1.61	-17.81	**-6.08**
Zr	*	*	1.18	1.24	6.10	**-3.11**	-10.78	**-22.77**	-1.93	-0.33	*	-14.38	*

Bold entries are Data Quality 1 - Underlined entries are Data Quality 2

Table 3 - GeoPT35A Z-scores for Metalliferous sediment, SdAR-H1. 13/06/2014

Lab Code	L49	L50	L51	L52	L54	L55	L56	L57	L58	L59	L60	L61	L62
SiO2	0.19	**0.99**	-3.91	-0.26	0.56	**-2.95**	*	-0.49	-14.99	*	0.23	*	-0.39
TiO2	0.00	**1.64**	-1.35	-0.82	0.41	**-1.15**	**0.82**	0.00	-2.05	*	0.41	*	-0.74
Al2O3	-0.37	**-0.74**	13.39	-0.83	0.58	**-2.61**	*	-0.18	-10.97	*	-0.03	*	-0.79
Fe2O3T	-0.81	**0.02**	-4.61	-0.76	1.55	**-1.20**	**1.05**	-0.04	-1.79	-2.30	-0.25	*	-0.28
MnO	-0.66	**-3.08**	-2.02	1.10	*	**-2.20**	**-3.08**	0.66	1.10	-0.04	1.10	*	-2.86
MgO	0.14	**0.99**	*	-0.03	-0.55	**-1.31**	*	0.14	-8.21	-0.55	-0.20	*	-0.34
CaO	-0.23	**-3.35**	-0.41	-0.95	1.04	**-2.33**	*	-0.05	-0.77	0.68	-0.05	*	-0.03
Na2O	1.58	**2.23**	*	-0.27	-2.80	**5.59**	*	-0.04	-11.32	*	-1.42	*	3.23
K2O	-0.45	**1.92**	-0.53	-0.01	-0.23	**-2.65**	*	-0.16	-2.76	*	-0.08	*	-0.14
P2O5	0.48	**0.95**	*	0.48	-0.57	**-1.35**	**-1.14**	-0.57	-8.94	*	-0.47	*	-0.15
Ag	*	*	*	*	*	**-10.02**	**7.54**	0.50	**7.63**	1.60	*	*	*
Ba	-0.36	**1.36**	1.90	*	0.04	**-2.75**	**-0.67**	-1.44	**-3.39**	*	*	**1.96**	0.54
Be	0.69	*	*	*	-2.29	*	**-0.51**	*	*	*	*	*	*
Bi	*	*	*	*	*	**-2.60**	*	*	*	*	*	*	*
Cd	*	*	-1.73	*	*	**-13.63**	**-2.74**	*	**-7.50**	*	*	*	*
Ce	0.01	*	0.40	*	*	**-1.87**	**0.79**	0.23	**-2.01**	*	*	*	-1.70
Co	0.43	**-7.66**	*	*	1.01	**-1.77**	**1.16**	0.29	**-2.01**	*	*	**1.20**	*
Cs	-0.20	*	8.97	*	*	**-0.65**	**0.29**	0.35	*	*	*	*	*
Cu	-0.59	**-6.11**	-2.17	*	0.17	**1.06**	**-2.15**	-0.76	**-1.53**	*	*	**-2.69**	-0.11
Dy	0.04	*	*	*	*	**-0.80**	**0.53**	-0.12	**-15.63**	*	*	*	*
Er	0.07	*	*	*	*	**-1.14**	**0.37**	-0.26	**2.20**	*	*	*	*
Eu	0.09	*	*	*	*	**-1.49**	**0.79**	0.29	**28.36**	*	*	*	*
Ga	0.10	*	*	*	*	**-1.01**	**0.19**	-0.14	*	*	*	**12.53**	-1.60
Gd	0.06	*	*	*	*	**-2.98**	**1.14**	0.12	**-16.09**	*	*	*	*
Hf	-0.56	*	*	*	*	**-0.10**	**4.22**	-0.55	-8.35	*	*	*	*
Ho	-0.05	*	*	*	*	**-0.72**	**0.41**	-0.21	*	*	*	*	*
La	0.15	*	-1.58	*	*	**-1.81**	**2.47**	0.05	**0.05**	*	*	*	0.03
Li	0.86	*	*	*	-2.46	*	**-0.69**	*	**24.31**	2.33	*	*	*
Lu	-0.12	*	*	*	*	**-0.55**	**0.60**	-0.25	**43.81**	*	*	*	*
Mo	*	-1.28	0.13	*	-3.60	**-0.82**	**-3.95**	-0.18	**-14.39**	*	*	*	*
Nb	0.93	**-8.96**	-2.80	*	*	**1.11**	**-1.68**	1.03	**-19.16**	*	*	**0.41**	0.07
Nd	0.00	*	1.81	*	*	**-1.52**	**0.47**	0.15	**5.81**	*	*	*	*
Ni	0.31	**3.82**	-3.27	*	0.74	**1.11**	**-0.25**	-0.62	**-1.23**	*	*	**19.94**	0.62
Pb	-1.50	**0.65**	-2.30	*	-4.95	**-6.98**	**-0.71**	-0.52	**-1.59**	*	*	**0.82**	-0.20
Pr	-0.04	*	-0.68	*	*	**-2.06**	**0.77**	0.12	**3.61**	*	*	*	*
Rb	-0.55	**-13.86**	-0.63	*	*	**-2.90**	**-0.04**	-0.02	*	*	*	**1.30**	0.85
Sc	0.28	**28.88**	*	*	*	**7.95**	**0.33**	*	**0.84**	*	*	**-6.91**	3.98
Sm	-0.01	*	*	*	*	**-2.29**	**0.61**	0.10	**1.59**	*	*	*	*
Sr	0.14	**-3.18**	-0.84	*	1.49	**1.67**	**-0.18**	0.44	**-1.98**	*	*	**1.25**	-0.01
Ta	-0.14	*	*	*	*	**-1.10**	**-1.77**	-0.51	**-13.17**	*	*	*	*
Tb	-0.19	*	*	*	*	**-1.11**	**0.77**	0.08	**34.28**	*	*	*	*
Th	-0.13	-6.92	*	*	*	**-2.76**	**-0.04**	0.14	**17.34**	*	*	**31.36**	2.31
Tl	*	*	*	*	*	*	**0.97**	-2.02	*	*	*	*	*
Tm	0.00	*	*	*	*	*	**0.44**	-0.19	**16.71**	*	*	*	*
U	0.36	**-4.05**	*	*	*	**0.16**	**0.88**	0.69	**-15.44**	*	*	**-4.81**	1.77
V	-0.11	**4.52**	*	*	*	**-1.66**	**0.31**	-0.19	**-4.45**	*	*	**5.07**	0.14
Y	0.40	**14.08**	2.64	*	-3.77	**-0.60**	**-0.01**	-0.97	*	*	*	**-5.05**	-8.17
Yb	-0.03	*	*	*	*	**-1.02**	**0.78**	-0.19	*	*	*	*	*
Zn	-0.79	**0.69**	-2.59	*	-5.36	**-3.13**	**-3.39**	-0.20	**-6.70**	*	*	**-0.43**	-2.08
Zr	0.12	**-5.13**	-0.16	*	*	**-0.02**	**3.60**	-0.83	-14.42	*	*	**2.89**	0.79

Bold entries are Data Quality 1 - Underlined entries are Data Quality 2

Table 3 - GeoPT35A Z-scores for Metalliferous sediment, SdAR-H1. 13/06/2014

Lab Code	L64	L65	L66	L68	L69	L70	L71	L72	L74	L75	L76	L77	L78
SiO2	0.24	0.50	**0.27**	-1.25	**0.50**	0.41	*	-0.47	**0.85**	**0.86**	**0.72**	-0.12	**-8.51**
TiO2	-0.88	0.45	**0.00**	-2.05	**0.82**	0.00	*	-0.20	**0.57**	**-0.82**	**0.82**	0.03	**-2.42**
Al2O3	-0.00	-0.34	**-1.10**	2.67	**-1.23**	-0.09	*	-0.09	**0.74**	**2.39**	**1.72**	0.25	**-0.06**
Fe2O3T	0.05	-0.03	**0.43**	0.47	**0.23**	0.16	*	-0.55	**0.39**	**-4.50**	**1.56**	0.64	**-0.08**
MnO	0.51	-0.22	**0.44**	0.88	**2.20**	0.22	*	0.00	**-35.41**	**-3.95**	**1.85**	0.77	**0.76**
MgO	0.03	-0.27	**-2.84**	2.41	**-0.41**	-0.03	*	-1.07	**60.82**	**-0.06**	**0.99**	0.25	**15.26**
CaO	-0.25	-1.35	**-0.81**	-1.67	**2.08**	-0.05	*	-0.41	**191.78**	**1.72**	**3.89**	0.14	**1.76**
Na2O	-0.31	-5.31	**0.39**	-1.42	**2.23**	-0.50	*	1.35	**87.62**	**7.30**	**2.23**	0.52	**-20.80**
K2O	0.20	0.41	**0.13**	-0.31	**0.88**	0.29	*	-0.53	**-36.90**	**0.28**	**2.66**	0.47	**1.62**
P2O5	-0.03	-0.26	**79.20**	0.27	**0.95**	0.16	*	-0.47	**-12.23**	**-1.14**	**3.88**	0.99	**-1.10**
Ag	0.93	*	*	*	**0.36**	-0.10	*	*	*	**14.27**	*	*	**44.09**
Ba	-0.20	0.84	**-0.43**	-0.26	**1.28**	-0.30	*	*	**1.41**	**1.68**	**4.32**	*	**4.36**
Be	1.50	*	*	-0.48	*	-1.48	-9.56	*	**-10.74**	**-1.33**	*	*	*
Bi	-0.01	*	*	-0.20	*	-0.66	*	*	*	**-1.37**	**18.29**	*	*
Cd	0.94	*	*	0.32	*	-0.29	*	*	**-0.21**	**0.08**	*	*	**32.98**
Ce	0.45	*	1.47	0.30	*	0.18	-8.72	*	**1.53**	**-4.35**	**9.82**	*	**0.71**
Co	-0.08	*	**0.17**	*	**-0.24**	0.00	-7.00	*	**0.00**	**-0.45**	**4.28**	*	*
Cs	*	*	*	0.36	*	-0.63	*	*	*	**-0.40**	**53.67**	*	**17.60**
Cu	-0.00	*	*	2.04	**2.97**	0.80	*	*	**-0.30**	**-1.53**	**0.53**	*	**0.28**
Dy	0.39	*	*	*	*	0.87	0.00	*	*	**-2.34**	*	*	*
Er	0.40	*	*	-2.50	*	-0.01	0.13	*	*	**-2.79**	*	*	*
Eu	0.08	*	*	-2.08	*	-0.27	-1.05	*	*	**-2.41**	*	*	*
Ga	-1.56	*	**25.83**	-0.21	*	-0.39	*	*	*	**-1.01**	**4.06**	*	**-1.86**
Gd	0.53	*	*	-2.74	*	0.38	-1.17	*	*	**-2.20**	*	*	*
Hf	0.55	*	*	*	*	0.43	*	*	*	**164.70**	**6.22**	*	**84.97**
Ho	0.18	*	*	-1.98	*	0.00	-0.14	*	*	**-2.05**	*	*	*
In	*	*	*	*	*	-0.14	*	*	*	**-0.44**	*	*	**-2.63**
La	0.34	*	*	-0.59	*	0.42	-8.35	*	**-0.04**	**-3.80**	**-2.42**	*	**-0.79**
Li	*	*	*	-0.57	*	-0.48	*	*	*	**0.29**	*	*	*
Lu	0.22	*	*	*	*	0.03	-0.93	*	*	**-1.59**	*	*	*
Mo	0.26	*	*	0.00	**0.00**	0.04	*	*	*	**4.64**	**0.73**	*	**2.08**
Nb	0.09	*	*	-0.39	**0.14**	1.89	*	*	*	*	**-0.77**	*	**-1.86**
Nd	0.44	*	1.13	-0.09	*	0.95	-5.76	*	*	**-3.56**	**5.81**	*	*
Ni	0.75	*	**-2.09**	1.17	**2.96**	0.68	*	*	**0.99**	*	**0.86**	*	**0.35**
Pb	0.14	*	-0.52	0.39	**1.10**	-0.32	*	*	**-0.30**	**6.60**	**-0.05**	*	**-1.57**
Pr	0.22	*	*	0.00	*	0.12	-5.48	*	*	**-2.47**	*	*	*
Rb	-0.66	-0.55	**0.48**	0.15	**2.23**	-0.26	*	*	**0.77**	**2.06**	**0.48**	*	*
Sc	6.49	*	*	-1.26	**37.25**	-0.21	13.95	*	*	*	**16.32**	*	*
Sm	0.26	*	*	-0.19	*	0.79	-2.83	*	*	**-2.84**	*	*	*
Sr	0.72	-0.84	**-0.33**	-0.46	**0.72**	-0.42	*	*	**0.03**	**3.58**	**1.17**	*	**-1.35**
Ta	-0.40	*	*	-0.98	*	-0.04	*	*	*	*	**136.27**	*	*
Tb	0.18	*	*	*	*	0.15	-0.77	*	*	**-2.16**	*	*	*
Th	1.34	*	*	-0.46	*	-0.35	-6.26	*	*	**-3.63**	**2.46**	*	**20.60**
Tl	-0.72	*	*	0.00	*	0.14	-8.64	*	**3.82**	**0.16**	*	*	**13.92**
Tm	0.25	*	*	-1.99	*	0.08	-1.02	*	*	**-2.04**	*	*	*
U	1.34	*	*	-0.70	*	0.82	*	*	**-4.15**	**-2.19**	*	*	*
V	0.63	*	**-1.03**	0.01	**1.26**	0.30	16.15	*	**-0.92**	**-0.80**	**2.23**	*	**2.72**
Y	0.11	*	4.64	*	**5.27**	-0.29	-1.20	*	*	**-2.89**	**1.27**	*	**-5.53**
Yb	0.37	*	*	-2.78	*	0.00	-0.31	*	*	**-2.39**	**11.10**	*	*
Zn	0.48	*	**-35.46**	1.32	**1.89**	0.31	*	*	**-1.15**	**-0.04**	**2.13**	*	**-1.14**
Zr	0.77	0.90	-3.35	-2.17	**1.25**	0.57	*	*	*	**1.92**	**1.69**	*	**0.02**

Bold entries are Data Quality 1 - Underlined entries are Data Quality 2

Table 3 - GeoPT35A Z-scores for Metalliferous sediment, SdAR-H1. 13/06/2014

Lab Code	L80	L82	L83	L84	L85	L86	L87	L88	L89	L91	L92	L93	L94
SiO2	*	*	**-0.29**	-1.63	*	0.00	**0.02**	**0.27**	-0.26	**3.51**	**1.15**	**-0.62**	**-0.03**
TiO2	0.82	**6.22**	**0.82**	-0.82	**-3.52**	0.20	**-0.65**	**1.55**	-0.25	**1.51**	**0.41**	**-0.16**	**-1.31**
Al2O3	*	**-0.85**	**0.00**	-0.74	*	0.03	**0.58**	**-0.06**	-0.25	**2.93**	**-0.55**	**-1.84**	**0.06**
Fe2O3T	*	**-0.81**	**2.28**	-0.45	**2.81**	0.22	**-0.77**	**-1.43**	-0.59	**2.01**	**0.74**	**-1.84**	**-1.52**
MnO	0.66	**0.35**	**-0.44**	0.04	**-4.39**	0.22	**1.49**	**2.46**	-1.10	**-1.89**	**0.44**	**0.62**	**-0.26**
MgO	-2.64	**12.37**	**-2.15**	-1.25	*	-0.03	**-1.42**	**0.99**	-0.29	**1.68**	**1.33**	**0.78**	**0.64**
CaO	-0.41	**-1.94**	**-0.45**	-0.41	*	0.68	**-1.21**	**6.79**	0.03	**1.86**	**12.58**	**0.31**	**0.27**
Na2O	-0.50	**-1.09**	**4.07**	-0.96	*	-2.80	**3.15**	**1.31**	1.28	**2.69**	**-0.53**	**-5.60**	**-1.91**
K2O	-0.75	**0.04**	**0.13**	0.51	*	0.29	**0.88**	**0.28**	-0.02	**2.36**	**0.13**	**-0.57**	**-0.61**
P2O5	2.57	*	**-3.23**	-1.62	*	0.37	**0.95**	**0.74**	0.06	**1.68**	**0.74**	**-5.53**	**-0.93**
Ag	*	**1.34**	**-1.54**	*	*	-1.56	**4.09**	-0.39	*	**-3.34**	*	**0.11**	**1.28**
Ba	-0.22	**-2.23**	**3.40**	-0.12	**-3.19**	-0.28	**1.47**	-1.33	*	**-1.91**	**-1.51**	*	**-0.60**
Be	*	*	*	*	*	*	**0.32**	-1.33	*	*	**0.48**	*	*
Bi	*	*	*	*	*	*	**0.16**	*	*	*	*	*	**7.07**
Cd	*	-1.53	*	*	**-0.97**	0.73	**0.99**	-0.89	*	**-3.71**	*	**-0.73**	**0.81**
Ce	-1.87	**0.27**	**5.14**	*	**-0.57**	-1.83	**-1.57**	**-2.10**	*	**-2.12**	**0.96**	1.47	**-2.84**
Co	-1.50	**0.89**	**3.05**	0.50	**-3.95**	0.50	**0.72**	-1.30	-0.95	**-2.92**	**0.54**	*	**0.87**
Cs	-0.78	**-0.20**	*	*	**0.95**	*	**2.16**	*	*	**-1.63**	**0.39**	*	*
Cu	-1.96	**6.02**	**-1.90**	-2.01	**0.13**	-0.61	**1.59**	-1.30	0.36	**-4.33**	-4.43	-0.17	**1.27**
Dy	-0.87	**-0.21**	*	*	**-3.58**	*	**1.88**	**-0.18**	*	**-0.21**	**0.32**	**0.92**	*
Er	-0.73	*	*	*	**-5.19**	*	**2.80**	**-0.29**	*	**0.02**	**0.54**	**1.26**	*
Eu	-1.00	**0.00**	*	*	**-1.05**	*	**-2.61**	**-1.06**	*	**-0.75**	**-0.55**	**-0.03**	*
Ga	*	-1.96	**1.65**	*	**-6.82**	0.82	**0.32**	-0.39	*	**-0.65**	**-0.05**	-1.60	**-0.89**
Gd	-1.35	*	*	*	**-2.48**	*	**2.28**	**-0.21**	*	**-1.41**	**1.05**	**0.45**	*
Hf	*	**2.74**	**0.37**	*	**5.11**	0.18	**-5.42**	-2.58	*	**-2.24**	**0.85**	18.84	*
Ho	-0.75	*	*	*	**-3.88**	*	**2.05**	**-1.09**	*	**-0.16**	**0.00**	**0.68**	*
In	*	**0.64**	*	*	*	*	*	*	*	*	*	*	*
La	-1.41	**0.34**	**8.45**	0.03	**-0.13**	-1.21	**-0.77**	**-0.79**	*	**-1.30**	**1.19**	3.04	**-1.23**
Li	-1.48	*	*	*	**0.25**	*	**1.26**	**0.38**	*	**-1.02**	*	**-9.62**	*
Lu	-0.79	**-0.57**	*	*	**-4.21**	*	**0.96**	**-0.22**	*	**-0.08**	**0.05**	**0.05**	*
Mo	*	**3.65**	**-3.65**	*	**1.10**	-0.55	**0.88**	*	1.32	**-4.75**	**2.89**	**0.66**	**3.43**
Nb	*	*	**-1.68**	*	**-0.01**	-0.84	**-0.32**	*	*	**-1.23**	**1.14**	0.39	**2.60**
Nd	-1.36	**0.49**	**2.25**	*	**-0.39**	-1.24	**-0.75**	**-0.89**	*	**-1.93**	**1.36**	**0.41**	**-3.85**
Ni	-2.59	-1.17	**0.74**	0.00	**-3.70**	-0.31	**0.74**	-2.27	-3.13	**-1.11**	**-3.65**	**-1.23**	**1.42**
Pb	*	*	**-0.81**	*	**-1.45**	0.60	**1.79**	0.76	-1.64	**-2.56**	-3.56	0.90	**3.67**
Pr	-1.32	*	*	*	**0.31**	1.80	**0.95**	**-1.07**	*	**-1.42**	**1.13**	**-0.13**	*
Rb	-2.91	**2.06**	**0.48**	*	**0.43**	-0.90	**0.95**	-1.57	*	**-3.19**	**0.34**	-0.20	**1.11**
Sc	*	**-0.02**	**10.05**	*	**3.77**	*	**-0.84**	*	*	**12.97**	**-0.21**	8.48	**0.00**
Sm	-1.16	**0.32**	**4.18**	*	**-0.58**	-0.50	**0.09**	**-1.31**	*	**-1.15**	**0.55**	**0.11**	*
Sr	-1.37	-1.44	**0.27**	*	**-0.61**	0.96	**0.97**	**-1.79**	*	**-2.18**	**0.89**	-0.46	**0.86**
Ta	*	**-0.56**	*	*	**-0.83**	21.44	*	*	*	**0.75**	**-0.09**	*	*
Tb	-1.16	**0.11**	*	*	**-2.42**	*	**1.39**	**0.00**	*	**-0.73**	**0.31**	**0.00**	*
Th	-1.27	**1.26**	**-7.32**	*	**-0.97**	-5.29	**-1.24**	2.17	*	**-0.40**	**1.59**	**-6.24**	**13.54**
Tl	*	*	*	*	**0.96**	-8.17	**2.91**	*	*	**0.00**	**1.62**	**-1.62**	**0.32**
Tm	-0.74	*	*	*	**-3.09**	*	**1.90**	**-0.66**	*	**-0.14**	**0.17**	**0.17**	*
U	-0.66	**-1.47**	**-7.85**	*	**-1.76**	-0.13	**-1.64**	-3.03	*	**1.07**	**2.02**	**-6.10**	**0.50**
V	-1.18	**0.54**	**5.17**	-0.84	**-3.31**	0.95	**-0.54**	-0.27	1.00	**-0.02**	**0.86**	**-0.24**	**3.15**
Y	-2.25	*	**7.68**	-0.97	**-3.05**	6.64	**0.15**	**-1.24**	*	**-1.45**	**2.55**	2.64	**0.79**
Yb	-0.89	**0.58**	*	*	**-5.67**	*	**1.98**	**0.17**	*	**-0.08**	**0.56**	**0.78**	*
Zn	-1.89	**1.24**	**0.86**	-1.25	**-2.65**	0.62	**0.35**	1.74	-1.64	**0.02**	1.40	1.31	**0.02**
Zr	*	**6.95**	**0.35**	-1.00	**-0.99**	-0.55	**-0.60**	-0.40	*	**1.92**	**1.37**	0.23	**0.55**

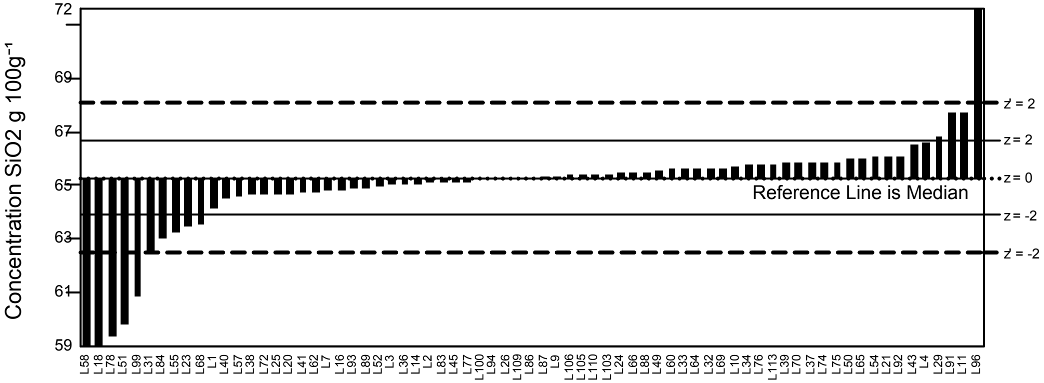
Bold entries are Data Quality 1 - Underlined entries are Data Quality 2

Table 3 - GeoPT35A Z-scores for Metalliferous sediment, SdAR-H1. 13/06/2014

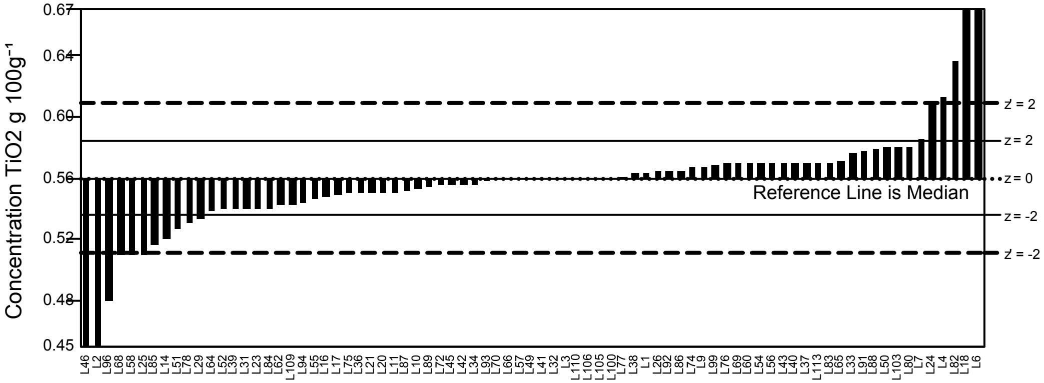
Lab Code	L96	L99	L100	L103	L104	L105	L106	L108	L109	L110	L113
SiO2	9.80	-3.19	**-0.07**	0.11	*	0.09	0.06	*	-0.00	0.09	0.36
TiO2	-3.27	0.37	**0.00**	0.82	*	0.00	0.00	*	-0.70	0.00	0.41
Al2O3	-24.28	6.65	**0.06**	0.21	*	0.15	0.06	*	-0.76	-0.64	-0.89
Fe2O3T	5.45	1.55	**-1.11**	0.88	*	0.01	0.06	*	0.04	0.52	0.63
MnO	-20.08	3.65	**0.00**	0.66	*	0.70	1.10	*	-0.26	-2.42	0.35
MgO	-9.60	2.93	**3.07**	0.32	*	-0.90	-0.03	*	0.35	0.84	1.54
CaO	1.95	4.12	**0.63**	0.68	*	0.14	0.32	*	-0.17	2.49	1.40
Na2O	20.23	-4.25	**4.53**	-0.73	*	-4.41	-1.19	*	-0.73	-0.50	2.96
K2O	-0.01	3617.58	**-0.46**	-0.16	*	0.59	0.07	*	0.82	0.07	0.51
P2O5	-9.99	6.96	**-1.14**	*	*	-0.26	0.48	*	0.06	4.66	-0.47
Ag	-0.01	-11.99	**5.01**	*	-6.25	2.01	1.22	**3.58**	*	*	-0.94
Ba	*	-17.30	**0.01**	0.21	**0.27**	0.40	0.00	**0.13**	0.04	0.68	1.61
Be	*	*	**1.11**	*	*	1.14	-0.71	*	*	-9.53	*
Bi	*	*	**-2.47**	-0.98	-0.13	-1.64	-0.33	**0.38**	*	*	5.72
Cd	0.37	*	**3.23**	*	0.29	-0.65	-0.32	*	*	5.97	0.04
Ce	1.12	*	**0.85**	0.49	**0.00**	1.61	-0.21	**0.80**	*	**1.01**	-1.65
Co	2.44	-11.44	**-0.29**	-1.56	**-1.27**	1.87	-0.12	**0.73**	-0.53	1.32	3.99
Cs	3.32	*	**0.62**	0.86	**-0.29**	-0.38	-2.91	**2.18**	*	0.36	-7.91
Cu	4.88	-18.07	**0.22**	-1.03	**-2.12**	0.11	0.56	**1.03**	-5.64	1.89	-0.88
Dy	*	*	**-0.43**	0.64	**-0.26**	-1.58	*	**-1.37**	*	**-0.64**	*
Er	*	*	**-0.18**	0.46	**-1.35**	-1.73	*	**-0.37**	*	**-1.02**	*
Eu	*	*	**0.79**	0.19	**-0.85**	2.00	*	**0.38**	*	**-0.86**	*
Ga	2.67	*	**0.07**	*	**0.28**	0.40	1.13	*	2.64	0.70	-0.63
Gd	*	*	**1.23**	0.62	**0.55**	0.33	*	**3.93**	*	**0.00**	*
Hf	*	*	**3.83**	0.44	**1.74**	*	*	**-8.82**	*	-0.96	-7.86
Ho	*	*	**0.00**	0.62	**-0.90**	-1.64	*	**-0.53**	*	**0.14**	*
In	*	*	**0.35**	*	*	-0.06	0.89	*	*	*	*
La	-4.71	*	**2.27**	0.95	**0.29**	0.96	-0.66	**0.45**	*	**-1.28**	-0.07
Li	*	*	**-0.29**	-11.19	3.06	-0.46	-0.90	*	-0.12	1.66	*
Lu	*	*	**0.88**	*	**-1.01**	-1.98	*	**-1.90**	*	0.03	*
Mo	*	*	**0.69**	*	1.20	-0.18	0.51	**2.47**	*	0.73	-0.71
Nb	3.65	-9.94	**1.05**	0.98	**4.73**	-1.30	0.43	**-0.50**	*	-0.48	-0.80
Nd	-3.38	*	**3.20**	0.41	**-0.07**	-0.44	*	**0.26**	*	**-2.25**	-2.07
Ni	6.12	-14.17	**-3.08**	*	**0.52**	0.55	0.00	**0.52**	-1.36	3.08	0.61
Pb	6.65	-21.69	**3.82**	0.18	**3.24**	0.02	0.94	**0.66**	-0.65	-0.63	-0.88
Pr	*	*	**2.01**	0.38	**-0.06**	0.03	-0.63	**0.35**	*	**-1.71**	*
Rb	0.16	-13.32	**-0.57**	0.54	**-0.74**	-0.37	0.24	**0.32**	*	**-2.14**	-0.15
Sc	-8.22	*	**0.29**	5.85	**0.94**	1.38	-4.10	**-0.61**	*	0.31	1.15
Sm	*	*	**1.56**	0.77	**-0.22**	0.57	*	**0.11**	*	**-1.08**	-5.93
Sr	-3.52	-13.68	**0.12**	0.57	**-0.04**	-0.16	-0.09	**0.74**	4.87	0.96	-0.42
Ta	-3.03	*	**0.00**	0.56	**0.83**	*	*	**-1.47**	*	1.82	-6.58
Tb	*	*	**0.46**	0.39	0.11	-0.09	*	**1.97**	*	**-0.15**	*
Th	*	*	**0.50**	0.93	**0.09**	-0.84	-1.92	**0.15**	*	-1.49	-3.23
Tl	*	*	**2.27**	*	4.00	-1.12	-1.89	**1.93**	*	-0.73	0.65
Tm	*	*	**0.72**	0.36	**-0.97**	-1.86	*	**-2.12**	*	0.36	*
U	*	*	**0.12**	0.73	**0.65**	-0.57	-3.15	**0.89**	*	-0.51	-2.60
V	-2.16	-11.93	**-0.05**	0.89	**0.69**	1.36	-0.06	**0.71**	*	-0.19	-0.89
Y	-5.13	*	**0.07**	0.78	**5.60**	-1.37	1.04	**-4.17**	-2.17	-0.57	2.48
Yb	*	*	**0.78**	0.50	**-1.59**	-2.39	*	**-1.98**	*	**-1.11**	1.39
Zn	-9.48	-21.51	**-0.05**	-0.91	**-6.91**	-0.10	0.38	**1.16**	-2.51	2.43	0.76
Zr	0.43	-14.42	**-0.88**	0.63	**7.04**	-0.16	0.57	**-16.95**	0.90	0.29	-0.15

Bold entries are Data Quality 1 - Underlined entries are Data Quality 2

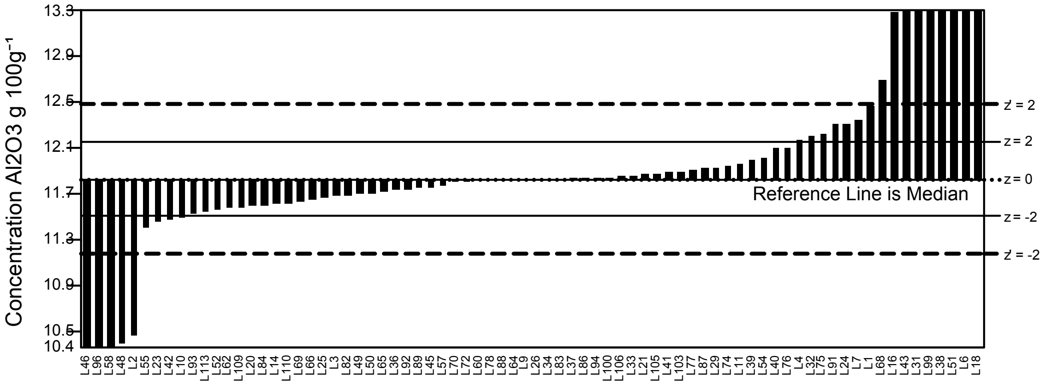
GeoPT35A - Barchart for SiO2



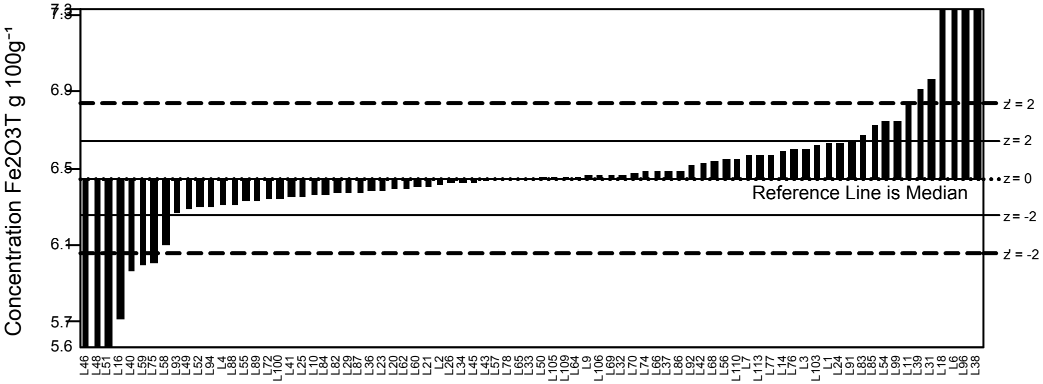
GeoPT35A - Barchart for TiO2



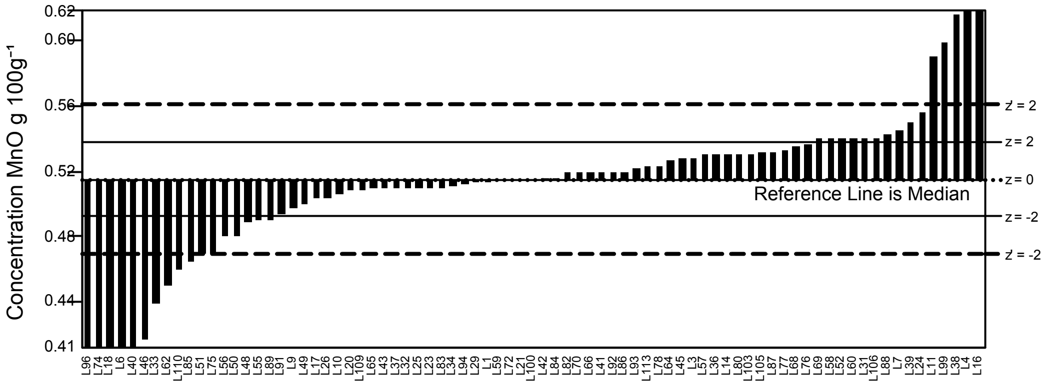
GeoPT35A - Barchart for Al2O3



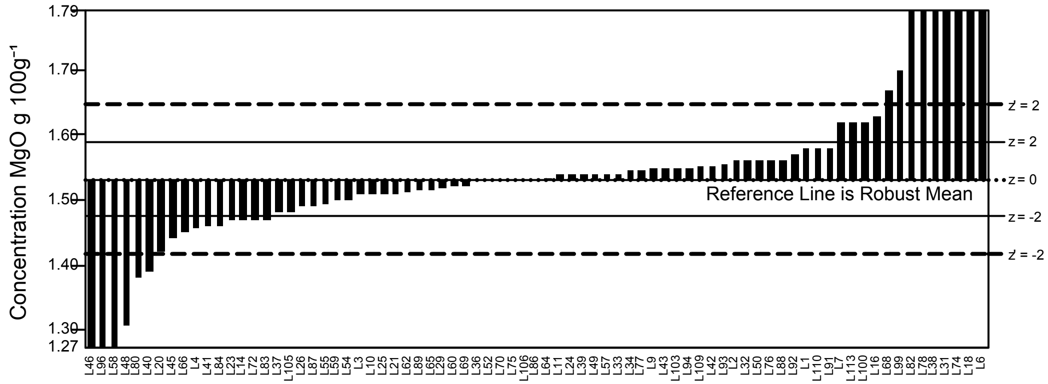
GeoPT35A - Barchart for Fe2O3T



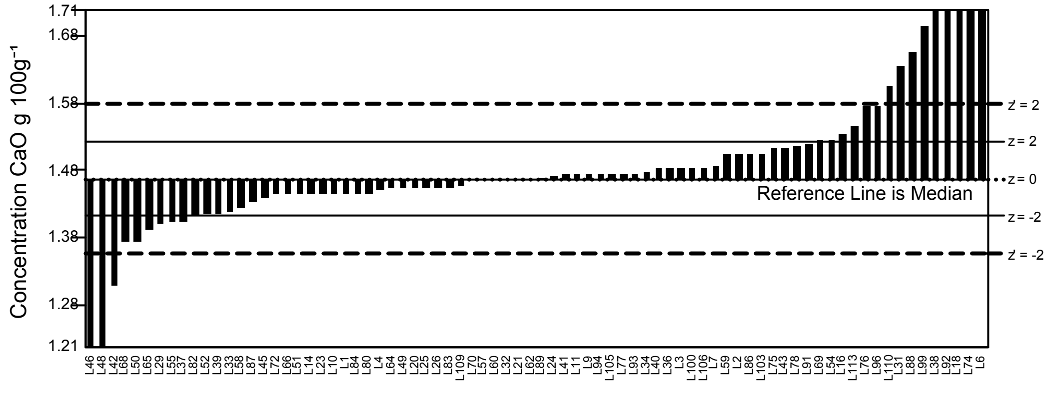
GeoPT35A - Barchart for MnO



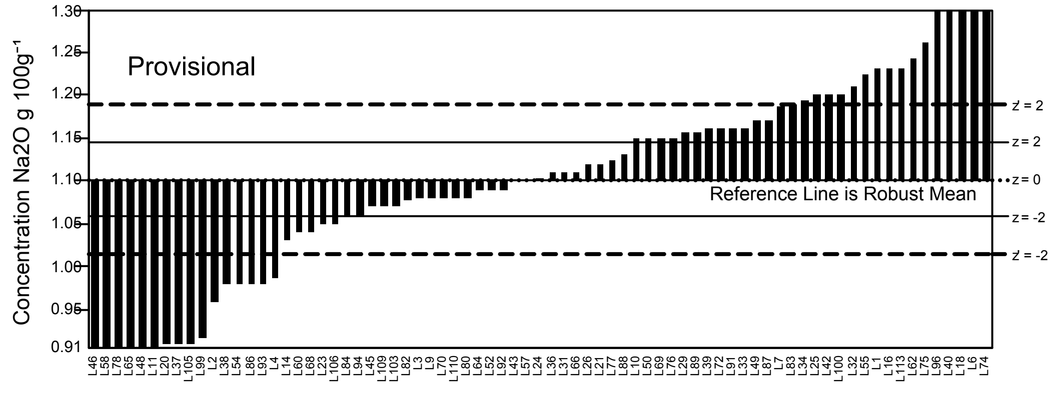
GeoPT35A - Barchart for MgO



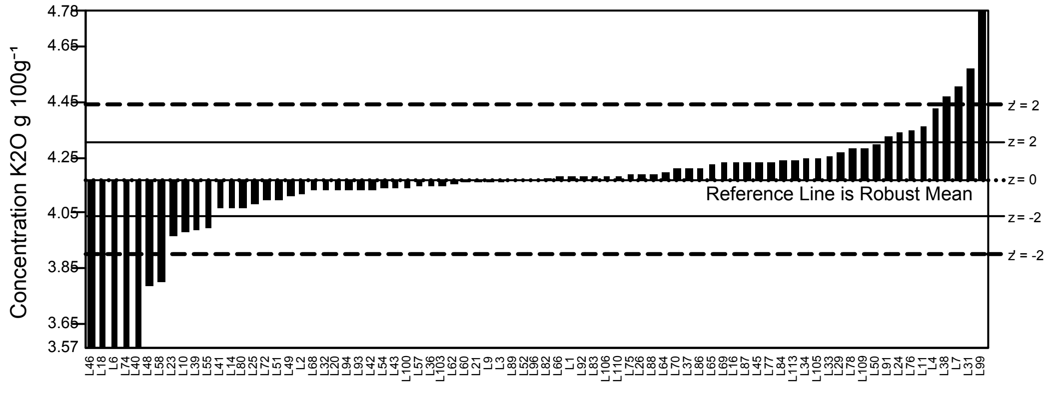
GeoPT35A - Barchart for CaO



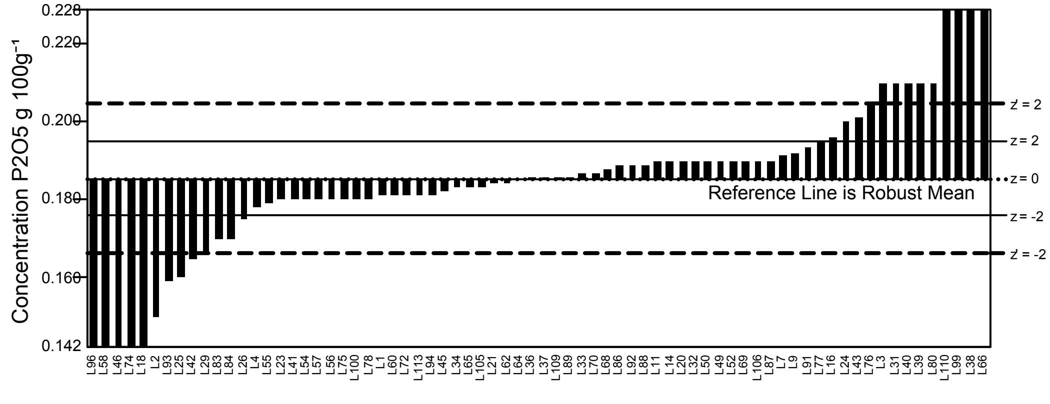
GeoPT35A - Barchart for Na2O



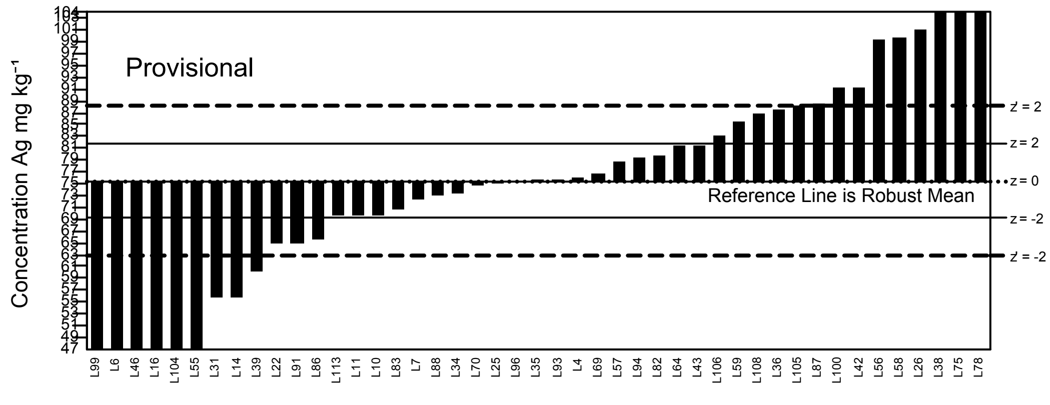
GeoPT35A - Barchart for K2O



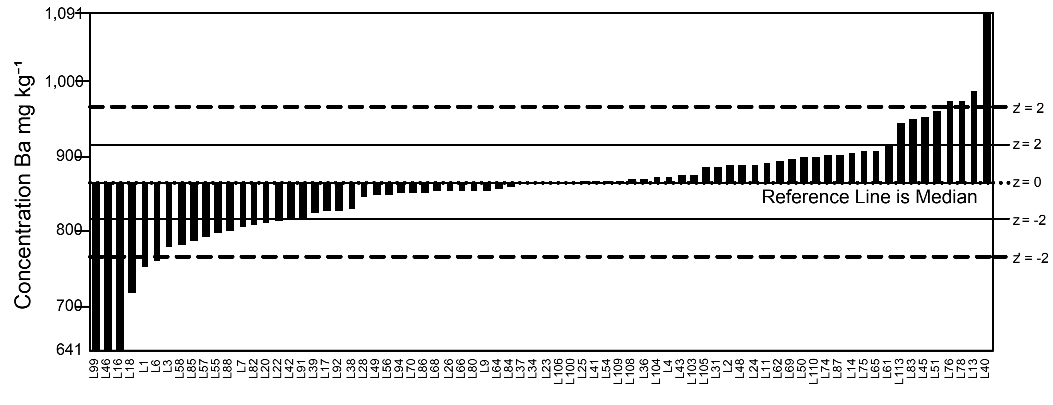
GeoPT35A - Barchart for P2O5



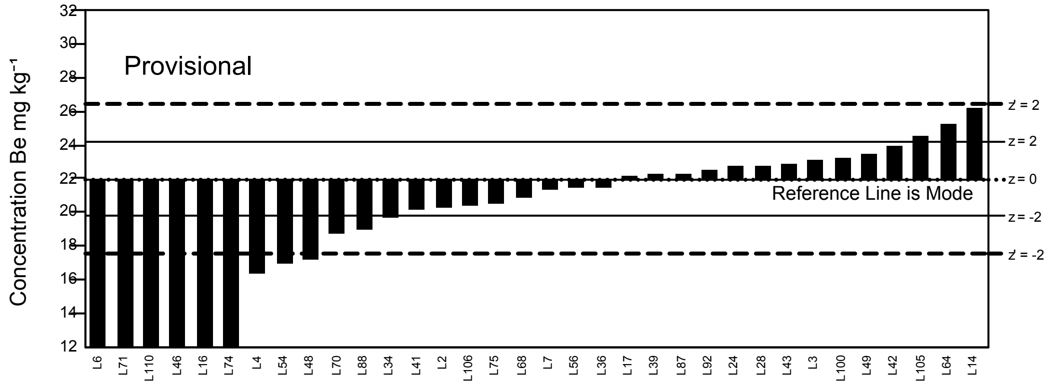
GeoPT35A - Barchart for Ag



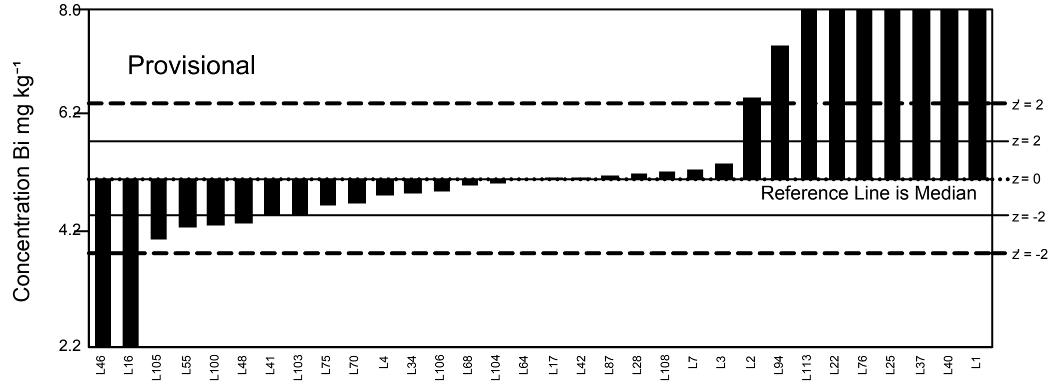
GeoPT35A - Barchart for Ba



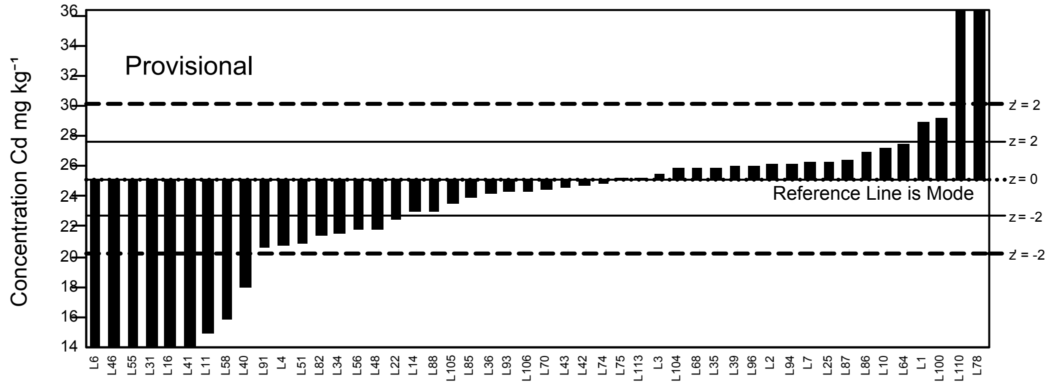
GeoPT35A - Barchart for Be



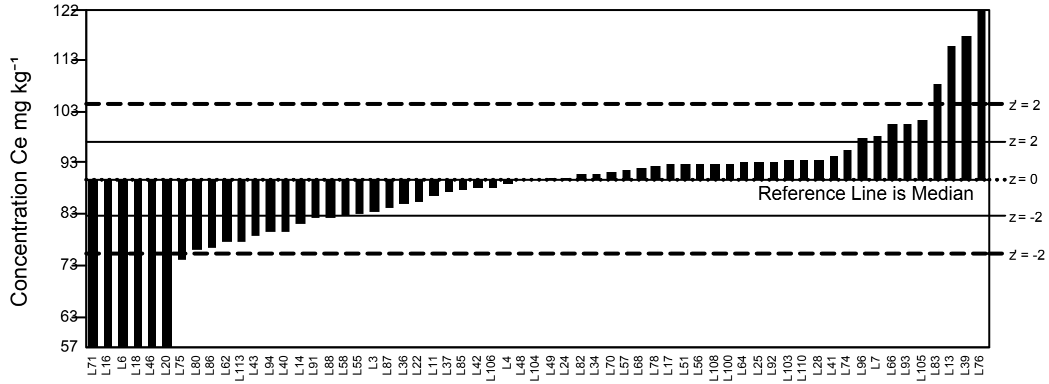
GeoPT35A - Barchart for Bi



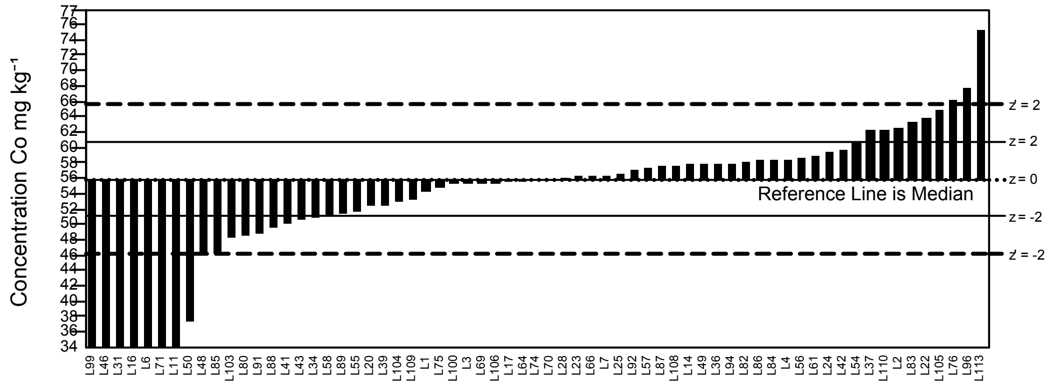
GeoPT35A - Barchart for Cd



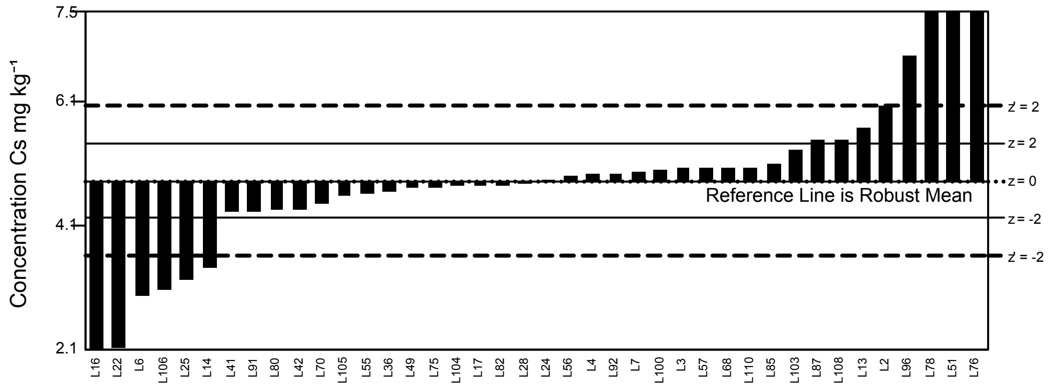
GeoPT35A - Barchart for Ce



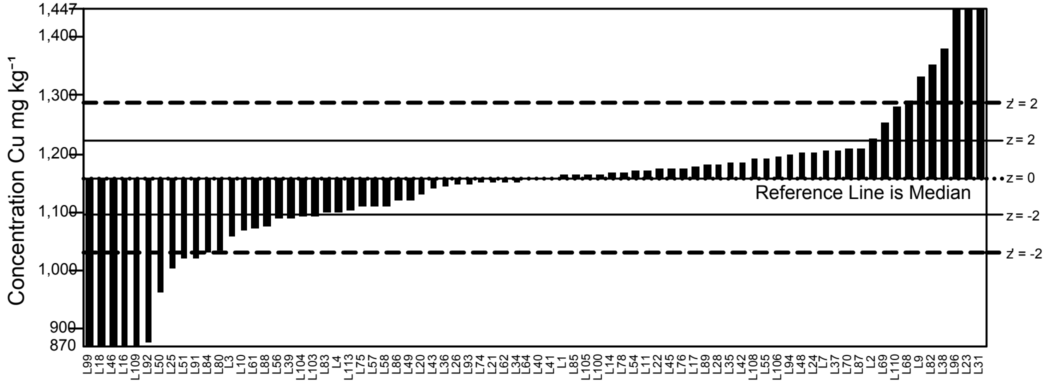
GeoPT35A - Barchart for Co



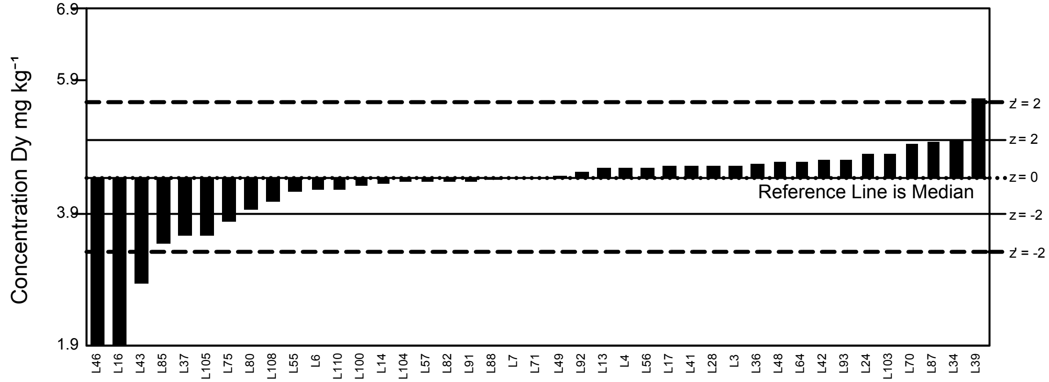
GeoPT35A - Barchart for Cs



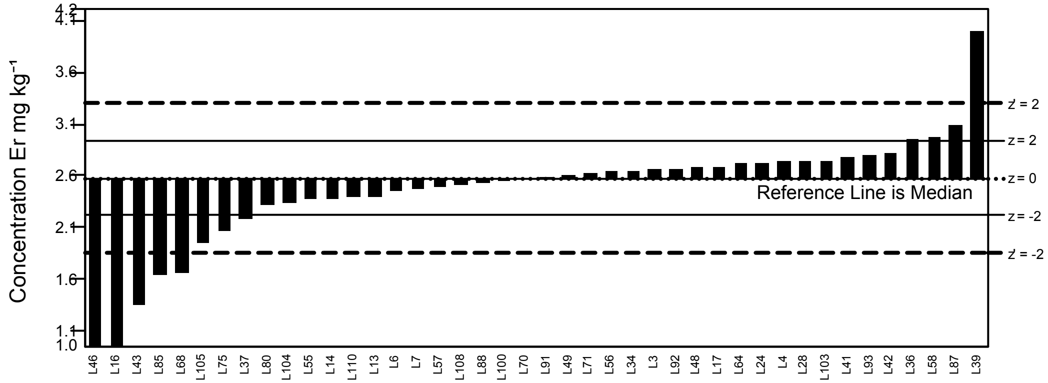
GeoPT35A - Barchart for Cu



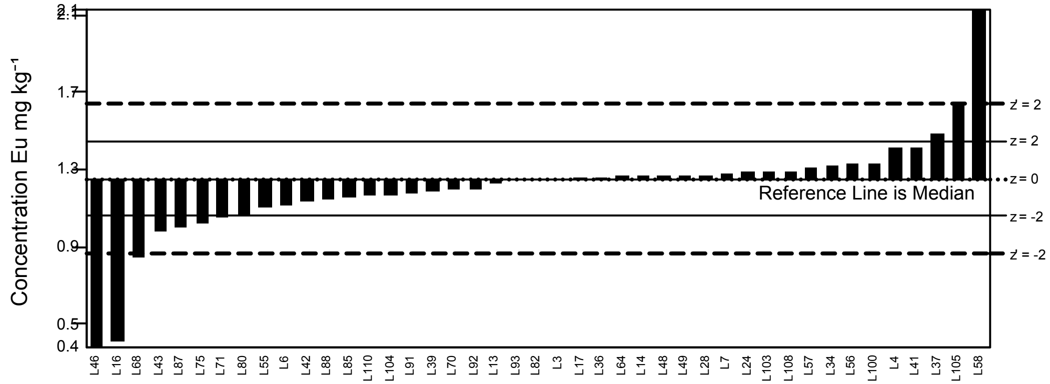
GeoPT35A - Barchart for Dy



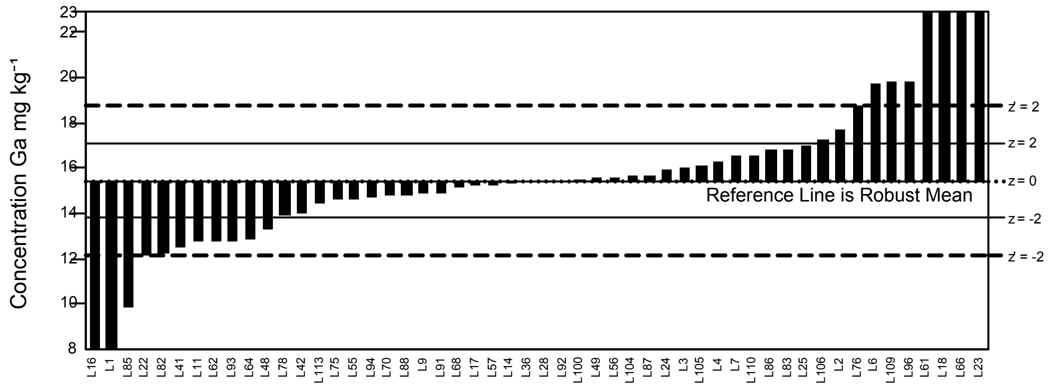
GeoPT35A - Barchart for Er



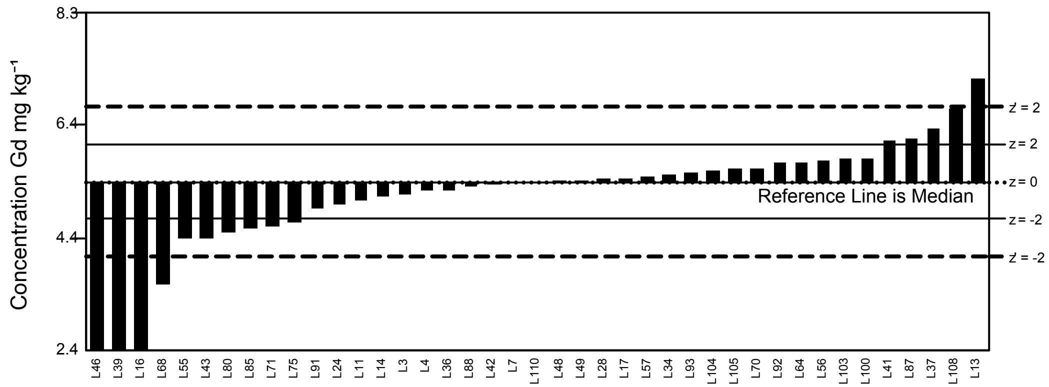
GeoPT35A - Barchart for Eu

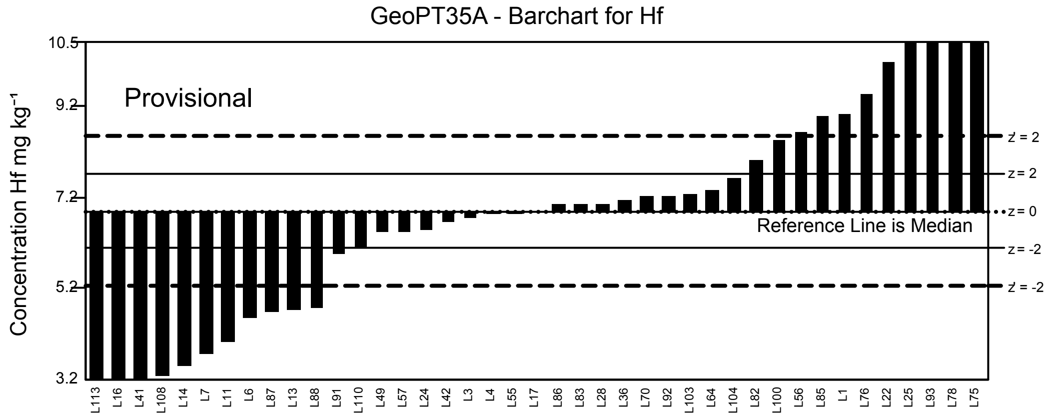


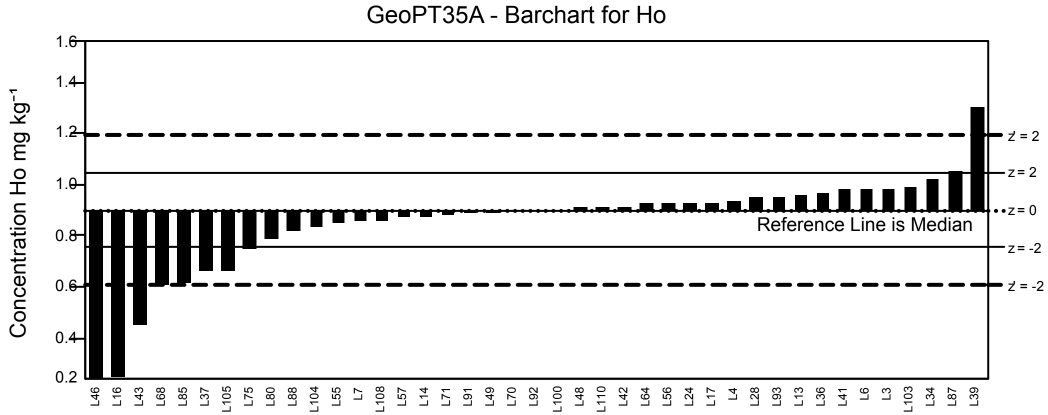
GeoPT35A - Barchart for Ga

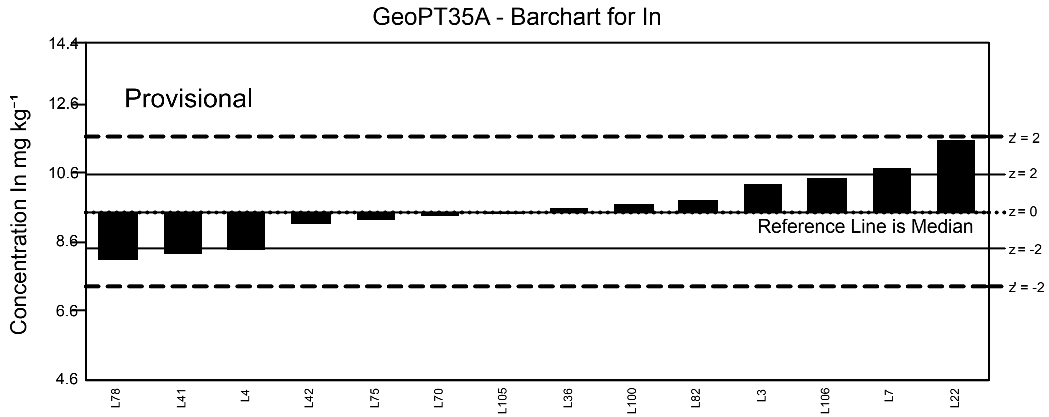


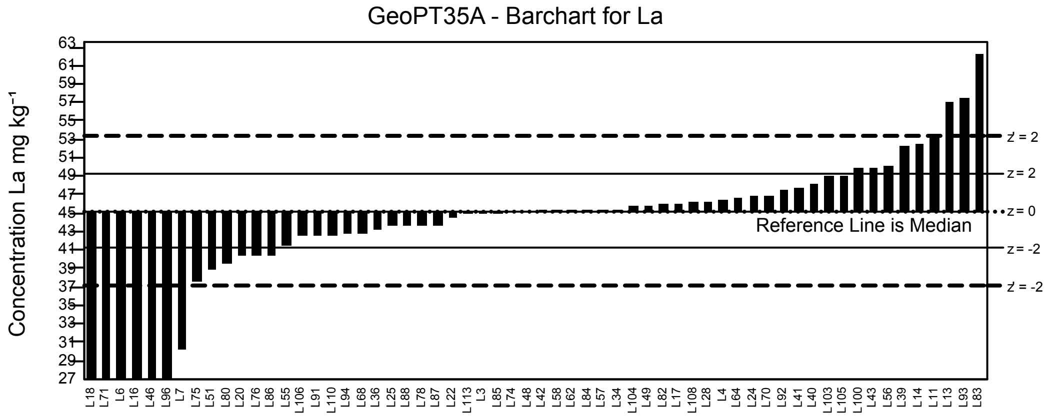
GeoPT35A - Barchart for Gd

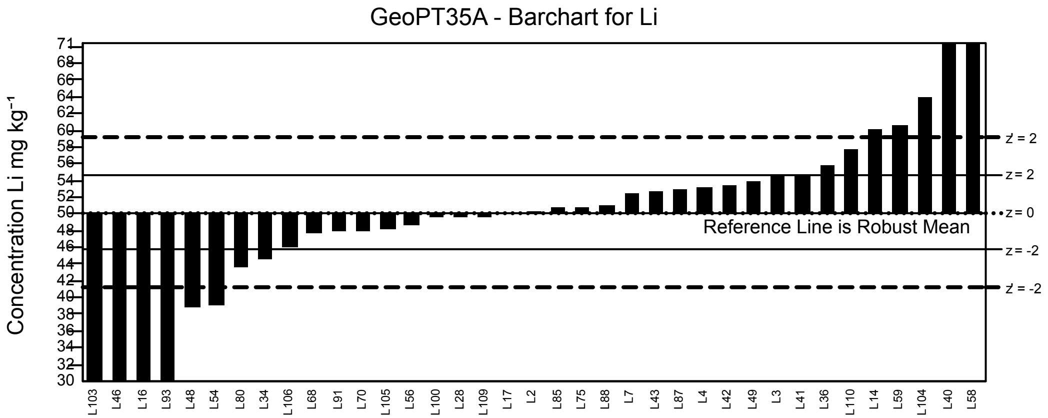



GeoPT35A - Barchart for Hf
Provisional
Concentration Hf mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z = 0
z = -2
z' = -2


GeoPT35A - Barchart for Ho
Concentration Ho mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z = 0
z = -2
z' = -2


GeoPT35A - Barchart for In
Provisional
Concentration In mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z = 0
z = -2
z' = -2


GeoPT35A - Barchart for La
Concentration La mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z = 0
z = -2
z' = -2


GeoPT35A - Barchart for Li
Concentration Li mg kg⁻¹
Reference Line is Robust Mean
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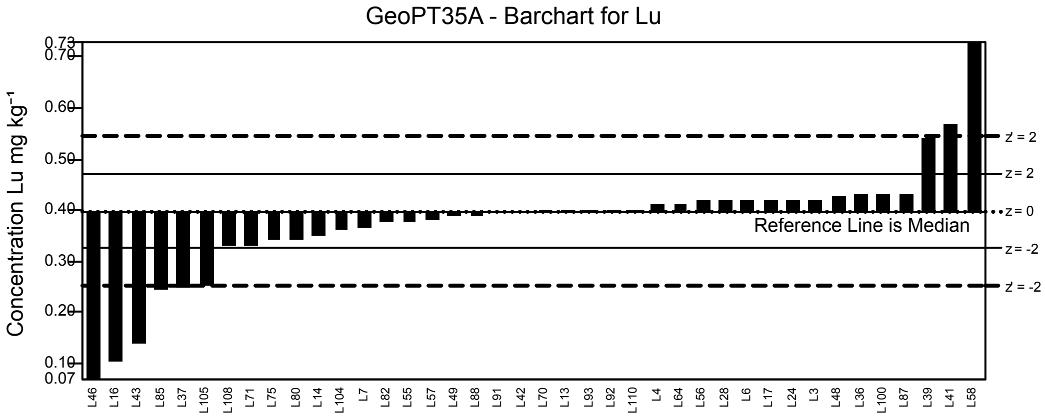
z = 2
z = 0
z = -2
z' = -2


GeoPT35A - Barchart for Lu
Concentration Lu mg kg⁻¹
Reference Line is Median
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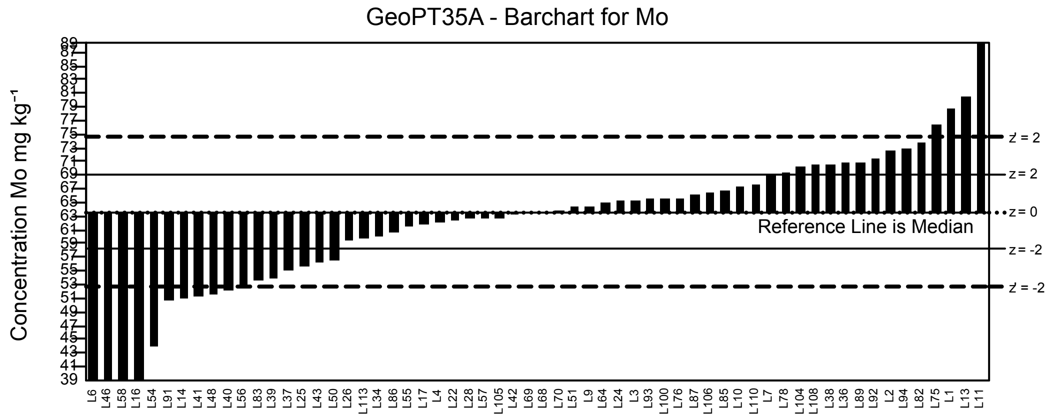
z = 2
z = 0
z = -2
z' = -2


GeoPT35A - Barchart for Mo
Concentration Mo mg kg⁻¹
Reference Line is Median
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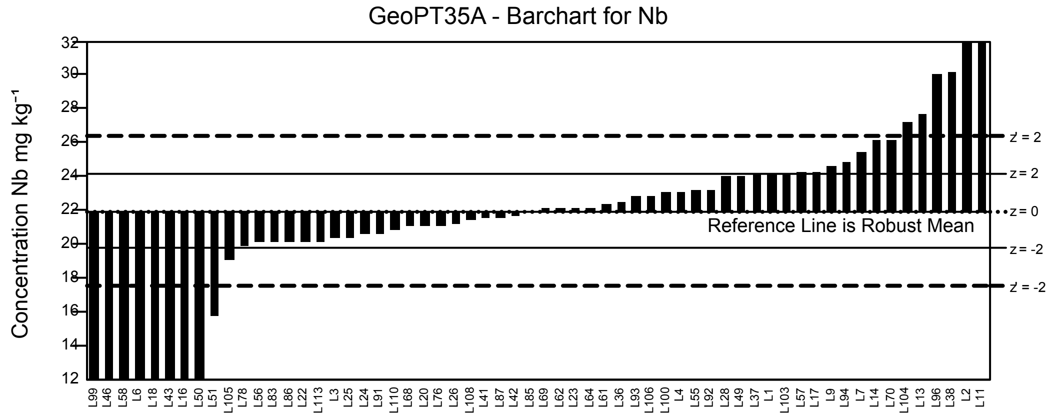
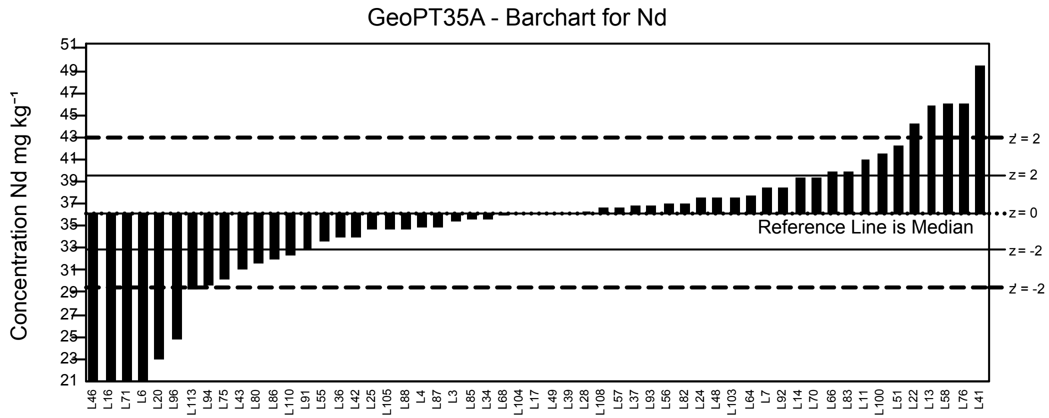
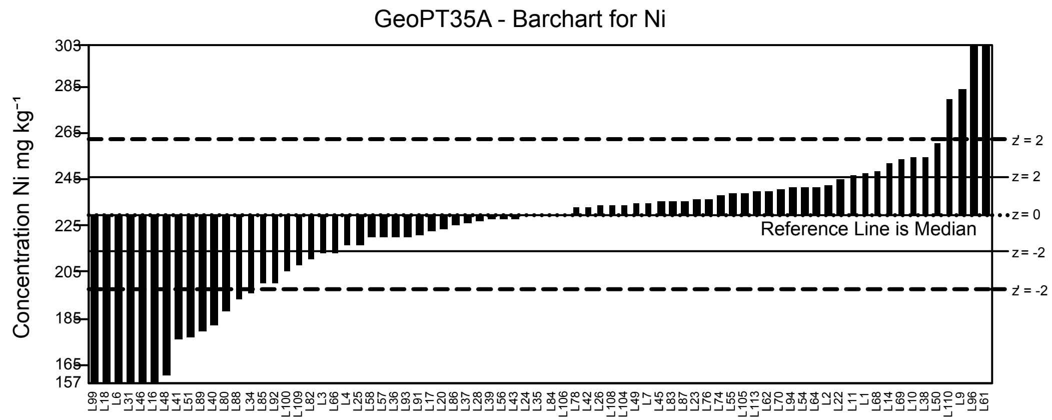
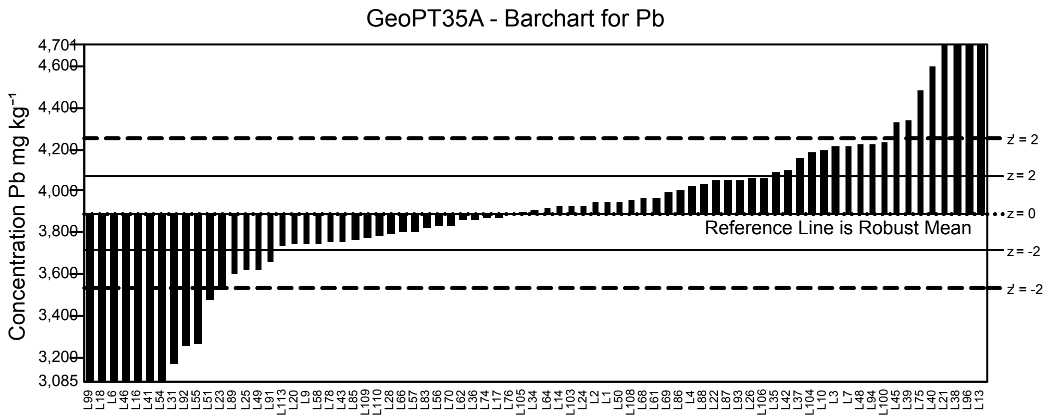
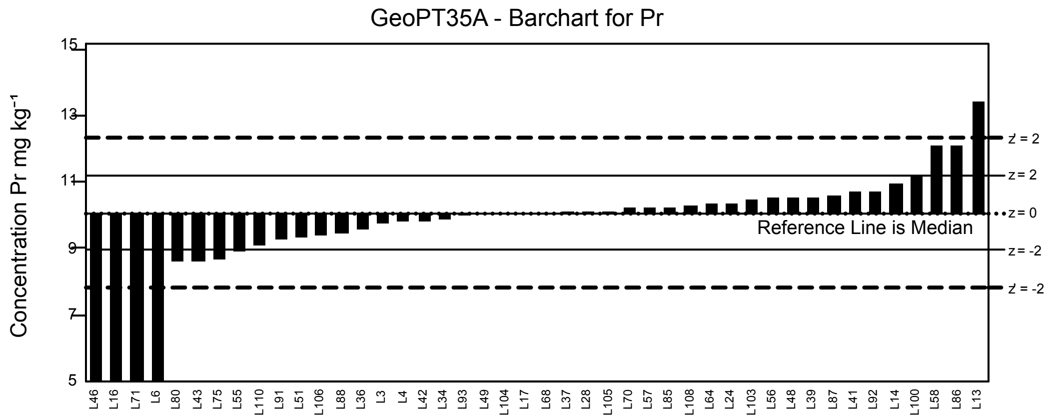
z = 2
z = 0
z = -2
z' = -2


GeoPT35A - Barchart for Nb
Concentration Nb mg kg⁻¹
Reference Line is Robust Mean
z' = 2
z = 2
z = 0
z = -2
z' = -2

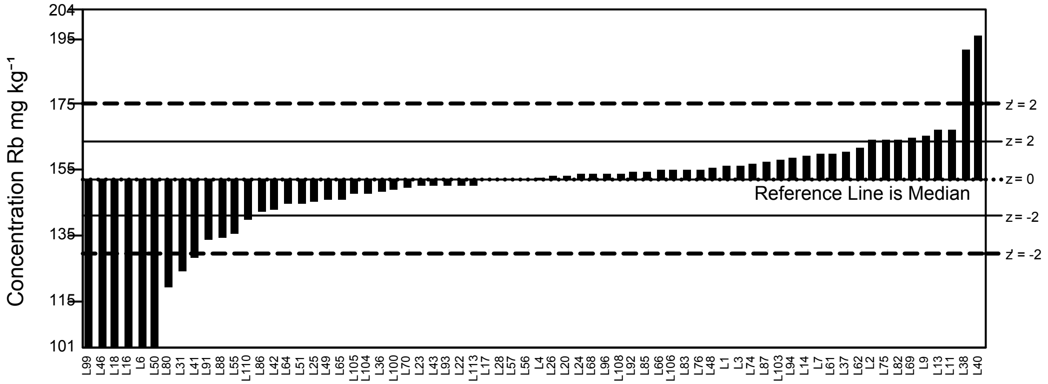

GeoPT35A - Barchart for Nd
Concentration Nd mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z = 0
z = -2
z' = -2


GeoPT35A - Barchart for Ni
Concentration Ni mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z = 0
z = -2
z' = -2

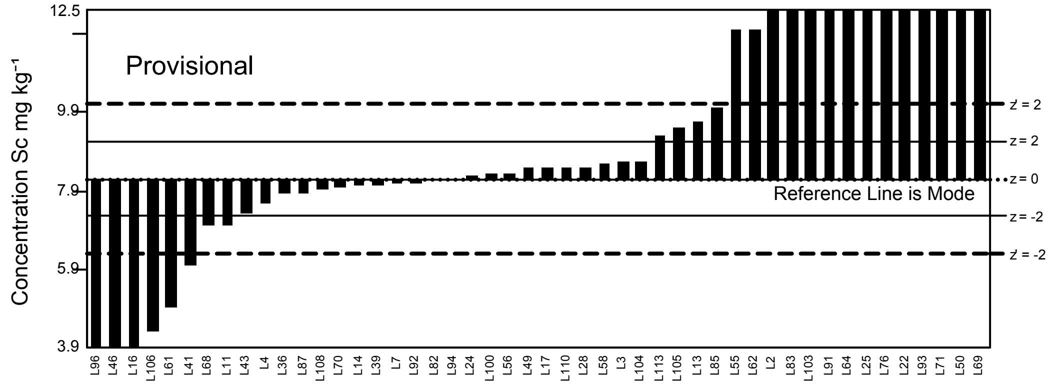

GeoPT35A - Barchart for Pb
Concentration Pb mg kg⁻¹
Reference Line is Robust Mean
z' = 2
z = 2
z = 0
z = -2
z' = -2


GeoPT35A - Barchart for Pr
Concentration Pr mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z = 0
z = -2
z' = -2

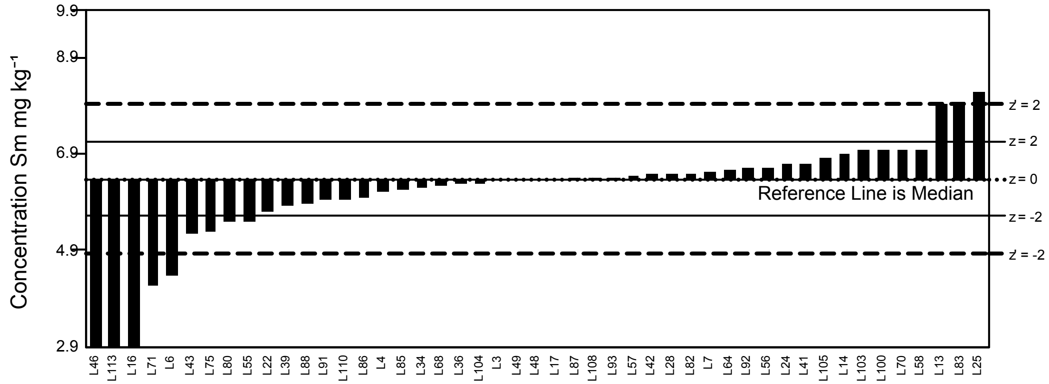
GeoPT35A - Barchart for Rb



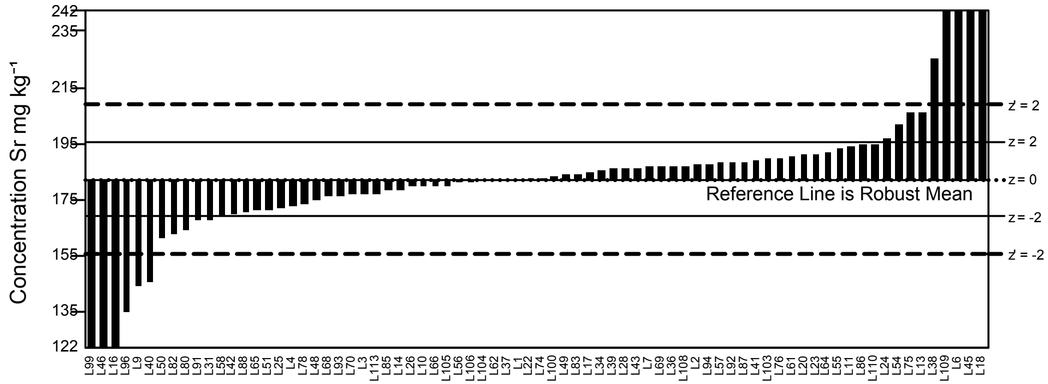
GeoPT35A - Barchart for Sc



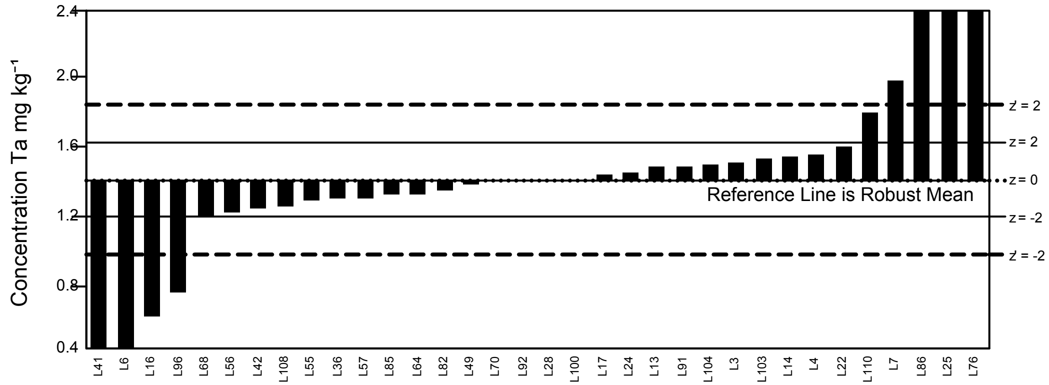
GeoPT35A - Barchart for Sm



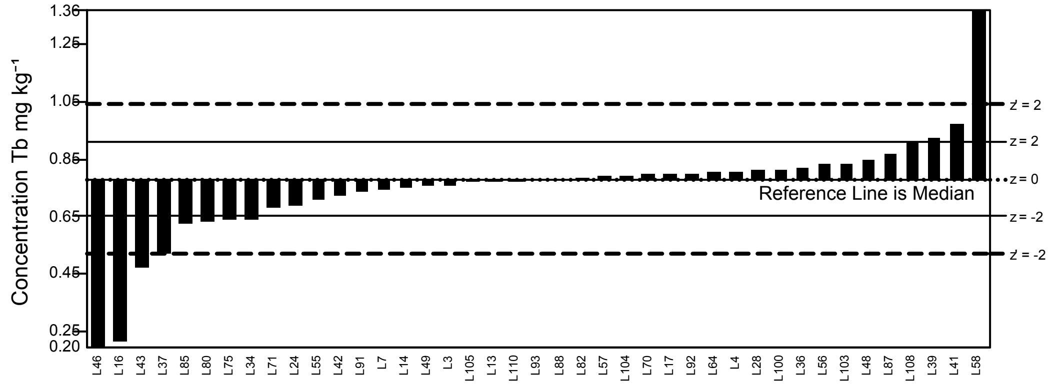
GeoPT35A - Barchart for Sr

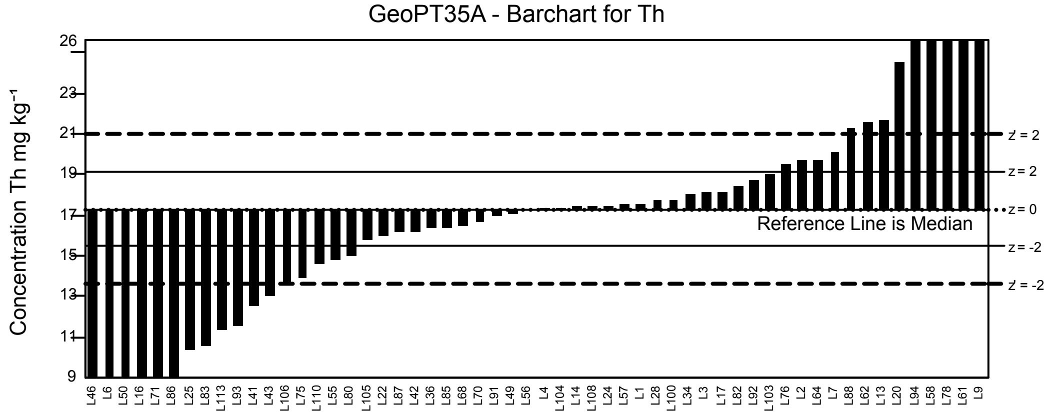


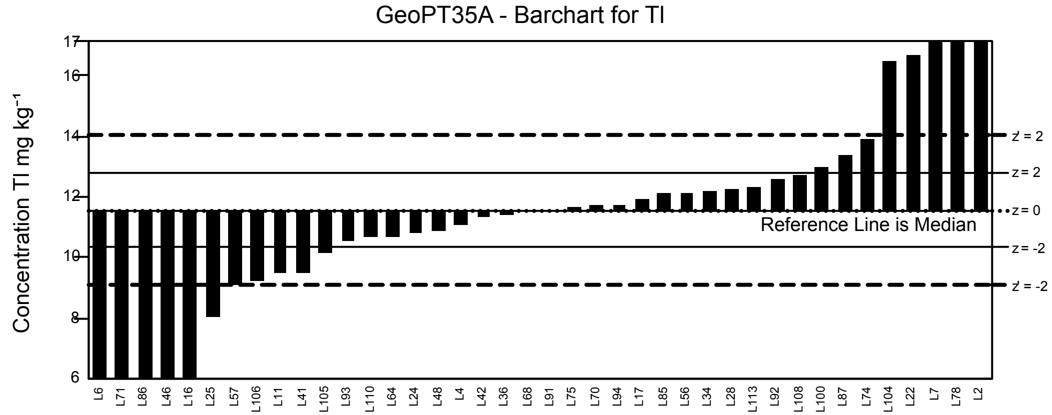
GeoPT35A - Barchart for Ta

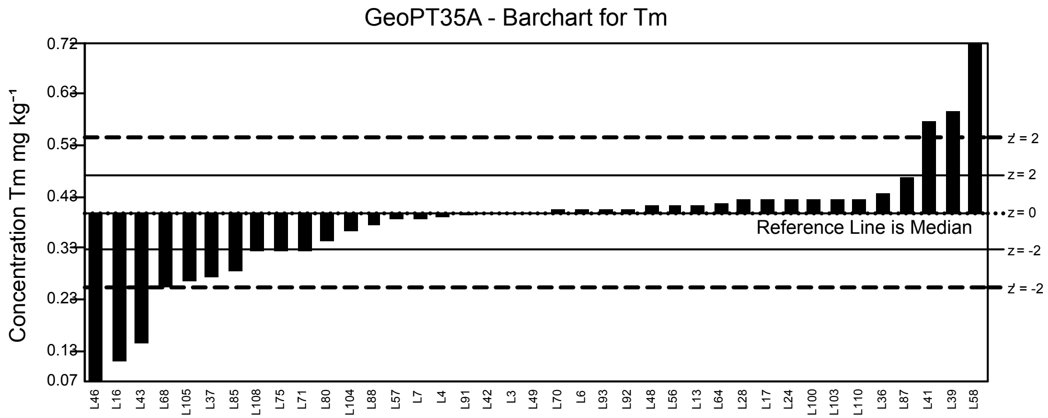


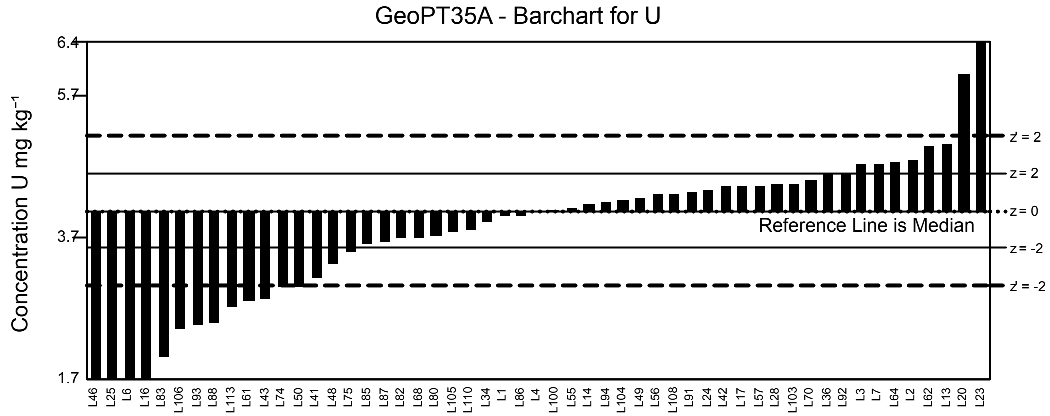
GeoPT35A - Barchart for Tb

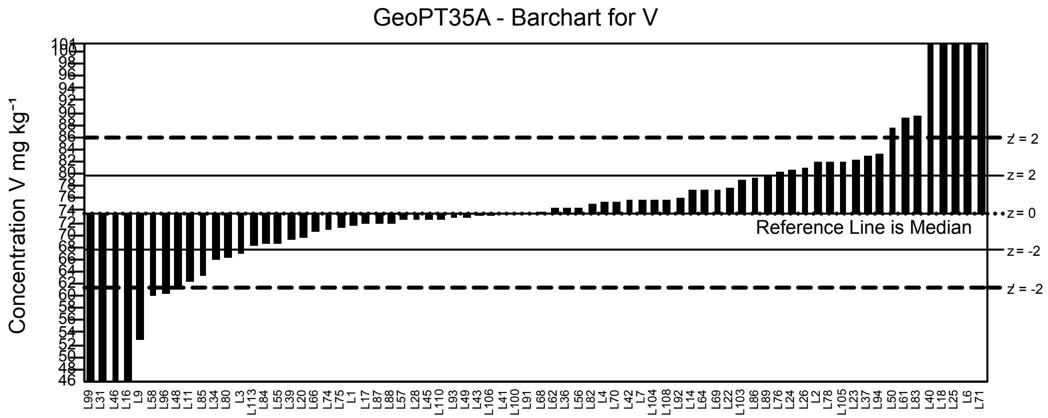


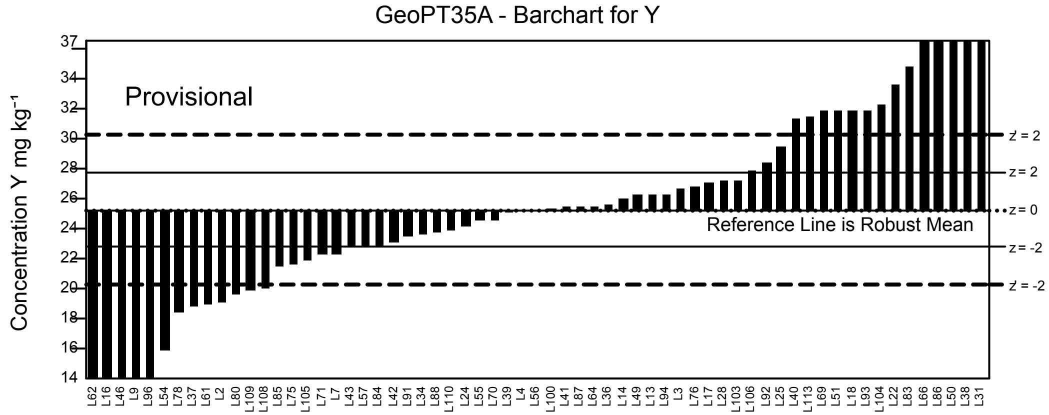

GeoPT35A - Barchart for Th
Concentration Th mg kg⁻¹
26 23 21 19 17 15 13 11 9
z' = 2
z = 2
z = 0
z = -2
z' = -2
Reference Line is Median
L46 L6 L50 L16 L71 L86 L25 L83 L113 L93 L41 L43 L106 L75 L110 L55 L80 L105 L22 L87 L42 L36 L85 L68 L70 L91 L49 L56 L4 L104 L14 L108 L24 L57 L1 L28 L100 L34 L3 L17 L82 L92 L103 L76 L2 L64 L7 L88 L62 L13 L20 L94 L58 L78 L61 L9

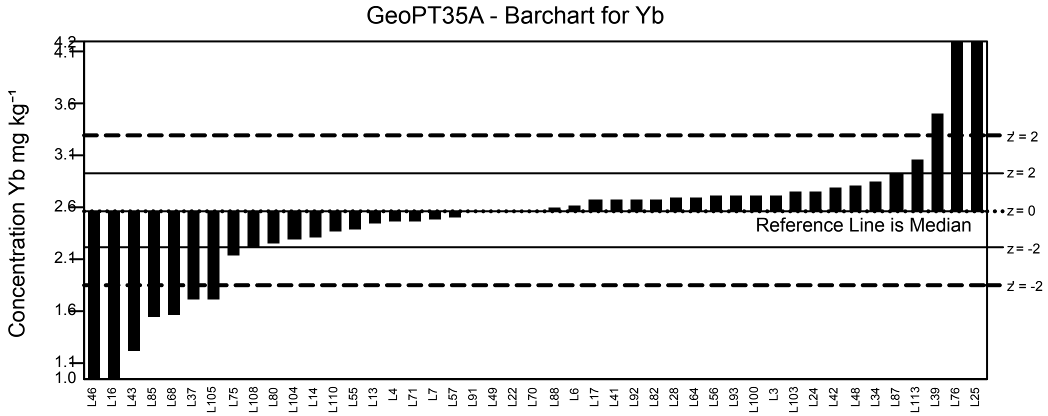

GeoPT35A - Barchart for Tl
Concentration Tl mg kg⁻¹
17 16 14 12 10 8 6
z' = 2
z = 2
z = 0
z = -2
z' = -2
Reference Line is Median
L6 L71 L86 L46 L16 L25 L57 L106 L11 L41 L105 L93 L110 L64 L24 L48 L4 L42 L36 L68 L91 L75 L70 L94 L17 L85 L56 L34 L28 L113 L92 L108 L100 L87 L74 L104 L22 L7 L78 L2

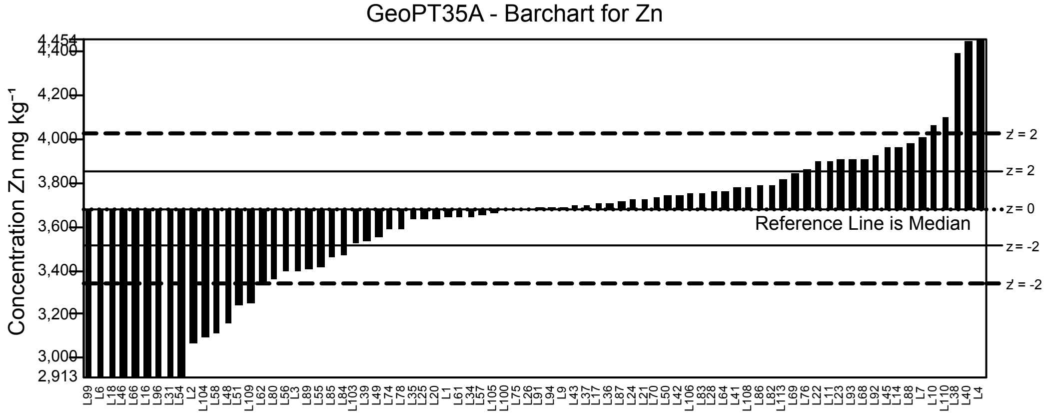

GeoPT35A - Barchart for Tm
Concentration Tm mg kg⁻¹
0.72 0.63 0.53 0.43 0.33 0.23 0.13 0.07
z' = 2
z = 2
z = 0
z = -2
z' = -2
Reference Line is Median
L46 L16 L43 L68 L105 L37 L85 L108 L75 L71 L80 L104 L88 L57 L7 L4 L91 L42 L3 L49 L70 L6 L93 L92 L48 L56 L13 L64 L28 L17 L24 L100 L103 L110 L36 L87 L41 L39 L58


GeoPT35A - Barchart for U
Concentration U mg kg⁻¹
6.4 5.7 3.7 1.7
z' = 2
z = 2
z = 0
z = -2
z' = -2
Reference Line is Median
L46 L25 L6 L16 L83 L106 L93 L88 L113 L61 L43 L74 L50 L41 L48 L75 L85 L87 L82 L68 L80 L105 L110 L34 L1 L86 L4 L100 L55 L14 L94 L104 L49 L56 L108 L91 L24 L42 L17 L57 L28 L103 L70 L36 L92 L3 L7 L64 L2 L62 L13 L20 L23


GeoPT35A - Barchart for V
Concentration V mg kg⁻¹
z' = 2
z = 2
z = 0
z = -2
z' = -2
Reference Line is Median
L99 L31 L46 L16 L9 L58 L96 L48 L11 L85 L34 L80 L3 L113 L84 L55 L39 L20 L66 L74 L75 L1 L17 L87 L88 L57 L28 L45 L110 L93 L49 L43 L106 L41 L100 L91 L68 L62 L36 L56 L82 L4 L70 L42 L7 L104 L108 L92 L14 L64 L69 L22 L103 L86 L89 L76 L24 L26 L2 L78 L105 L23 L37 L94 L50 L61 L83 L40 L18 L25 L6 L71


GeoPT35A - Barchart for Y
Concentration Y mg kg⁻¹
37 34 32 30 28 26 24 22 20 18 16 14
Provisional
z' = 2
z = 2
z = 0
z = -2
z' = -2
Reference Line is Robust Mean
L62 L16 L46 L9 L96 L54 L78 L37 L61 L2 L80 L109 L108 L85 L75 L105 L71 L7 L43 L57 L84 L42 L91 L34 L88 L110 L24 L55 L70 L39 L4 L56 L100 L41 L87 L64 L36 L14 L49 L13 L94 L3 L76 L17 L28 L103 L106 L92 L25 L40 L113 L69 L51 L18 L93 L104 L22 L83 L66 L86 L50 L38 L31





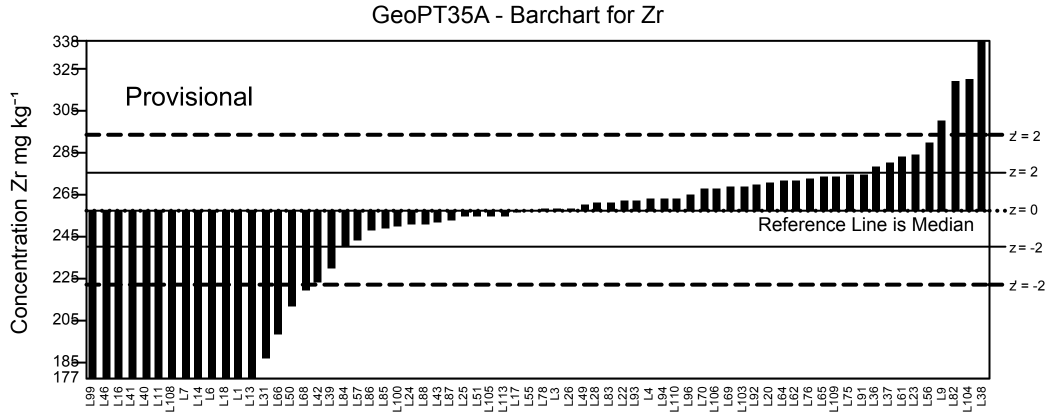
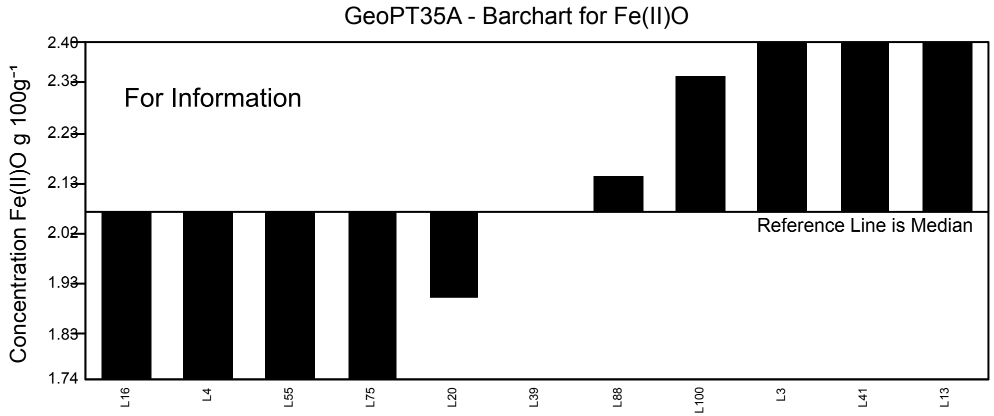
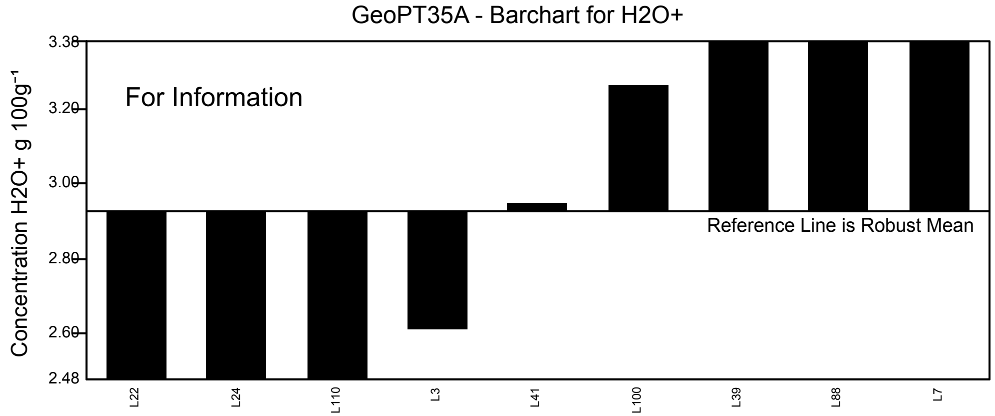
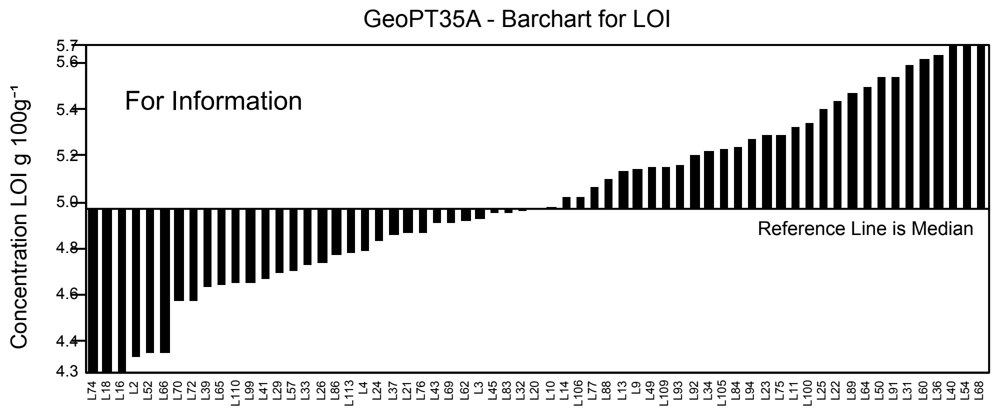
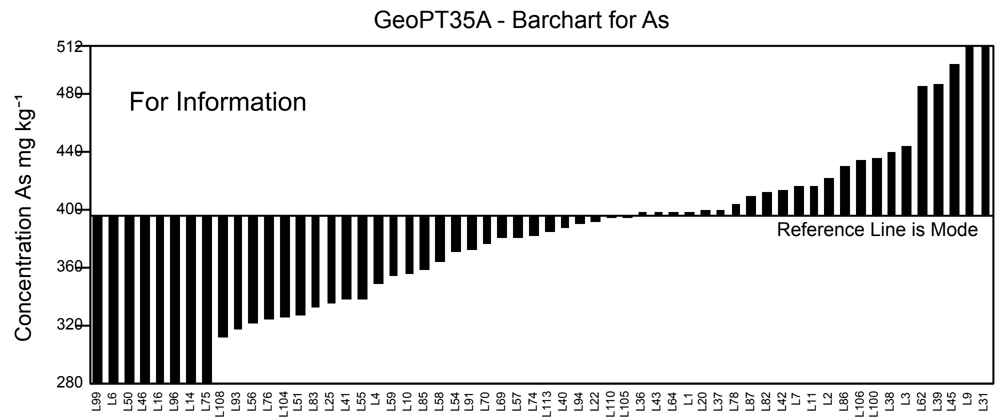


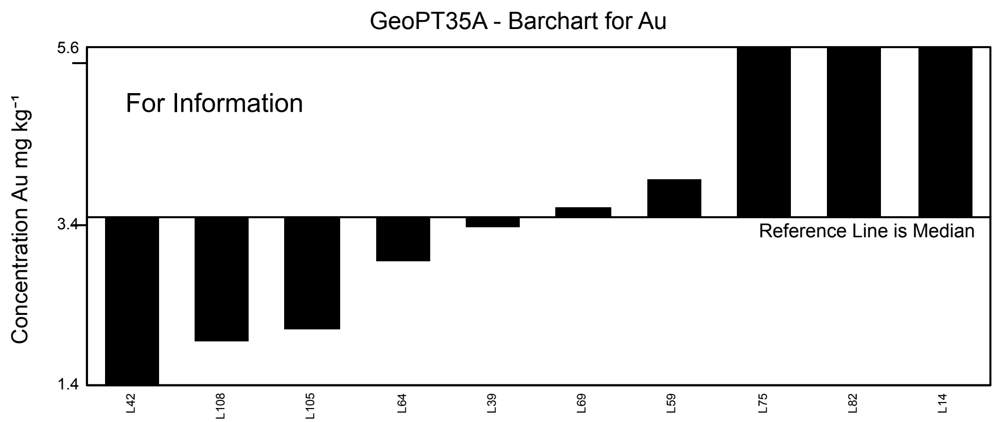
Figure 1: GeoPT35A - Metalliferous sediment, SdAR-H1. Data distribution charts for elements for which values were assigned or provisional values given for guidance. Horizontal lines show the limits for -2<z<2 for pure geochemistry labs (solid lines) and -2<z'<2 for applied geochemistry labs (pecked lines).

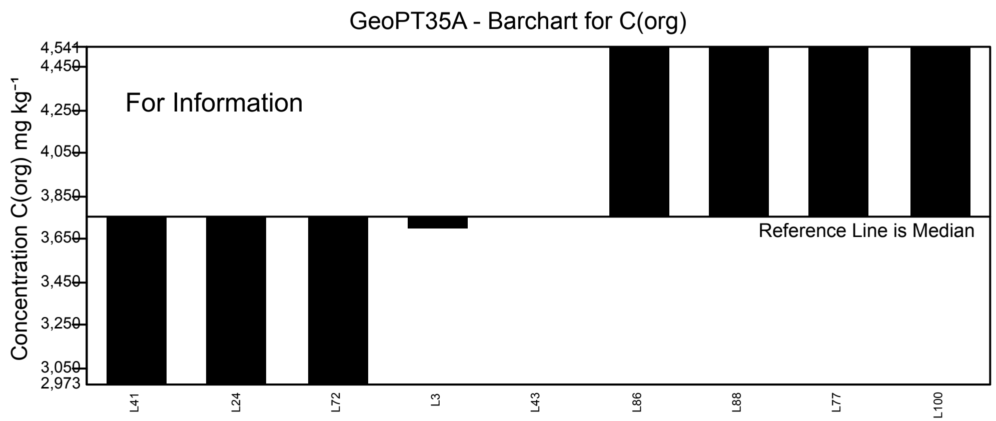

GeoPT35A - Barchart for Fe(II)O
Concentration Fe(II)O g 100g⁻¹
2.40
2.33
2.23
2.13
2.02
1.93
1.83
1.74
For Information
Reference Line is Median
L16 L4 L55 L75 L20 L39 L88 L100 L3 L41 L13


GeoPT35A - Barchart for H2O+
Concentration H2O+ g 100g⁻¹
3.38
3.20
3.00
2.80
2.60
2.48
For Information
Reference Line is Robust Mean
L22 L24 L110 L3 L41 L100 L39 L88 L7

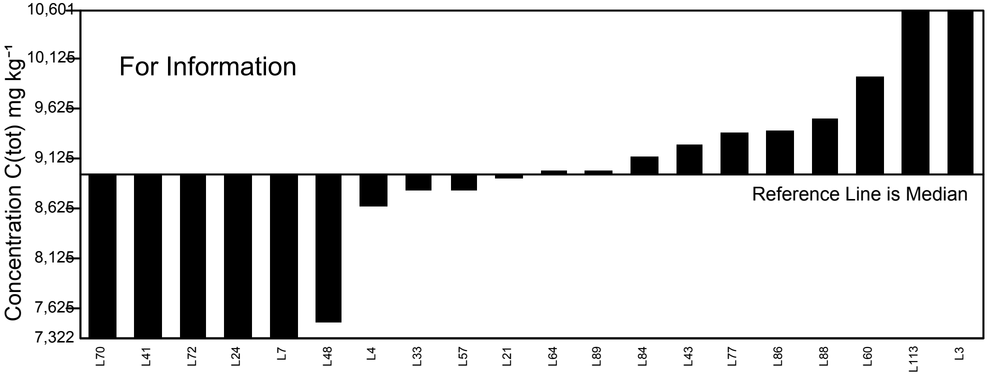

GeoPT35A - Barchart for LOI
Concentration LOI g 100g⁻¹
5.7
5.6
5.4
5.2
5.0
4.8
4.6
4.4
4.3
For Information
Reference Line is Median
L74 L18 L16 L2 L52 L66 L70 L72 L39 L65 L110 L99 L41 L29 L57 L33 L26 L86 L113 L4 L24 L37 L21 L76 L43 L69 L62 L3 L45 L83 L32 L20 L10 L14 L106 L77 L88 L13 L9 L49 L109 L93 L92 L34 L105 L84 L94 L23 L75 L11 L100 L25 L22 L89 L64 L50 L91 L31 L60 L36 L40 L54 L68


GeoPT35A - Barchart for As
Concentration As mg kg⁻¹
512
480
440
400
360
320
280
For Information
Reference Line is Mode
L99 L6 L50 L46 L16 L96 L14 L75 L108 L93 L56 L76 L104 L51 L83 L25 L41 L55 L4 L59 L10 L85 L58 L54 L91 L70 L69 L57 L74 L113 L40 L94 L22 L110 L105 L36 L43 L64 L1 L20 L37 L78 L87 L82 L42 L7 L11 L2 L86 L106 L100 L38 L3 L62 L39 L45 L9 L31

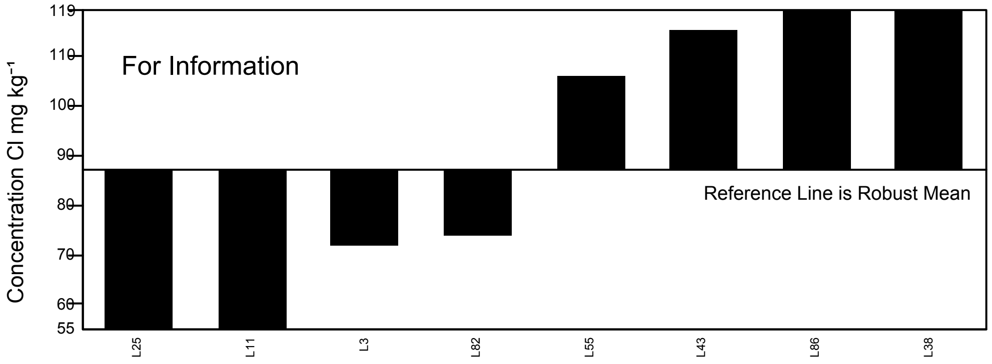

GeoPT35A - Barchart for Au
Concentration Au mg kg⁻¹
5.6
3.4
1.4
For Information
Reference Line is Median
L42 L108 L105 L64 L39 L69 L59 L75 L82 L14


GeoPT35A - Barchart for C(org)
Concentration C(org) mg kg⁻¹
4,541
4,450
4,250
4,050
3,850
3,650
3,450
3,250
3,050
2,973
For Information
Reference Line is Median
L41 L24 L72 L3 L43 L86 L88 L77 L100

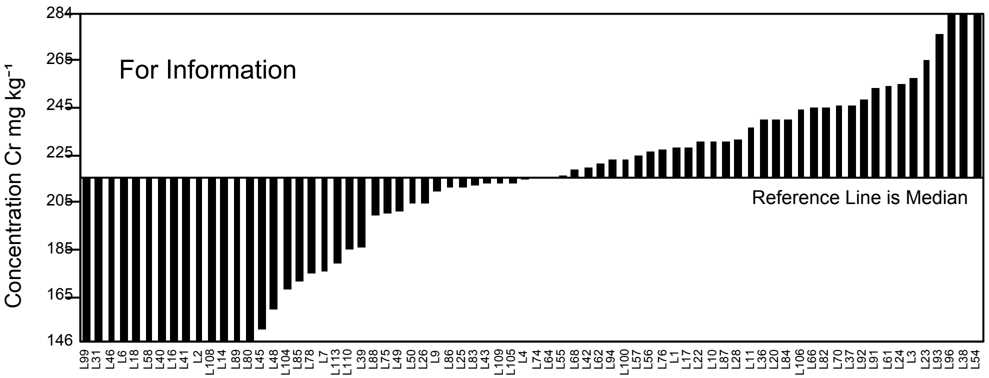
GeoPT35A - Barchart for C(tot)



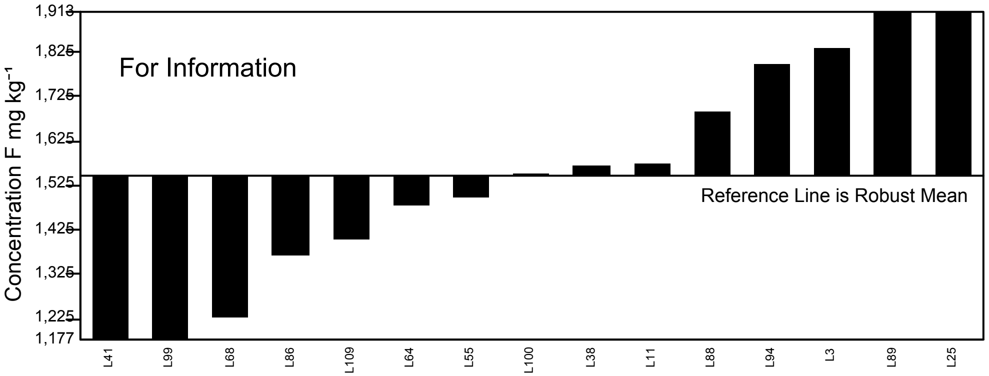
GeoPT35A - Barchart for Cl



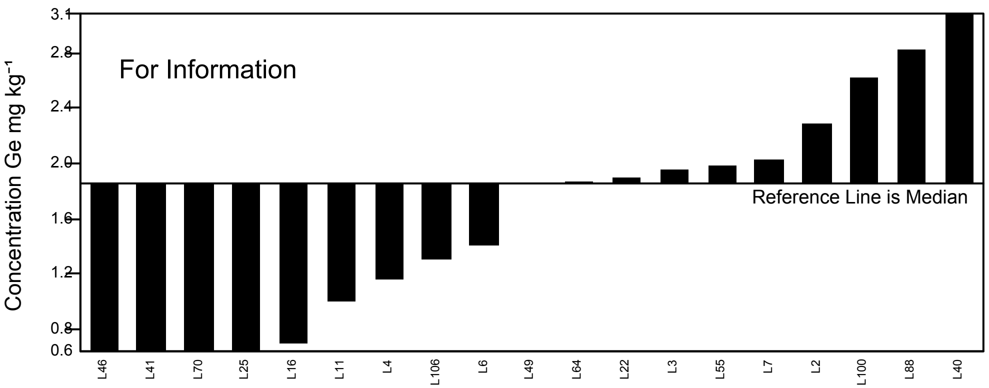
GeoPT35A - Barchart for Cr



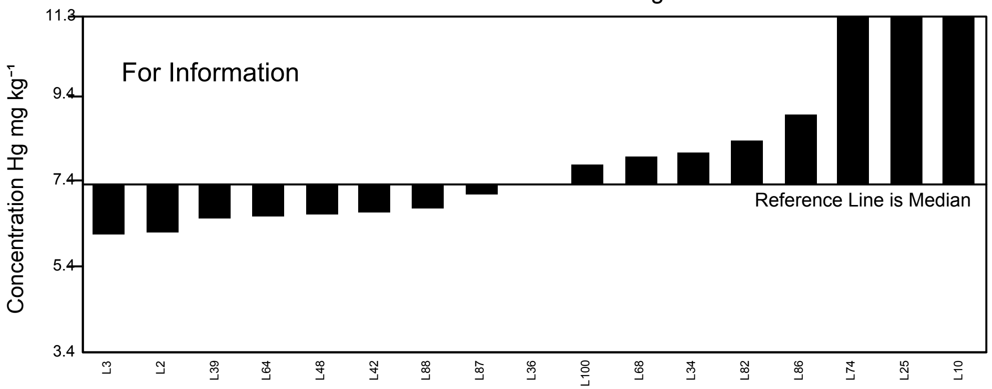
GeoPT35A - Barchart for F

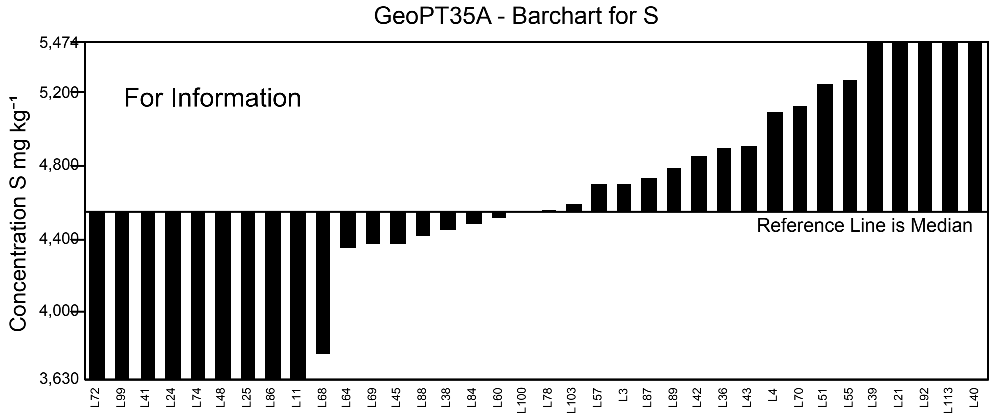


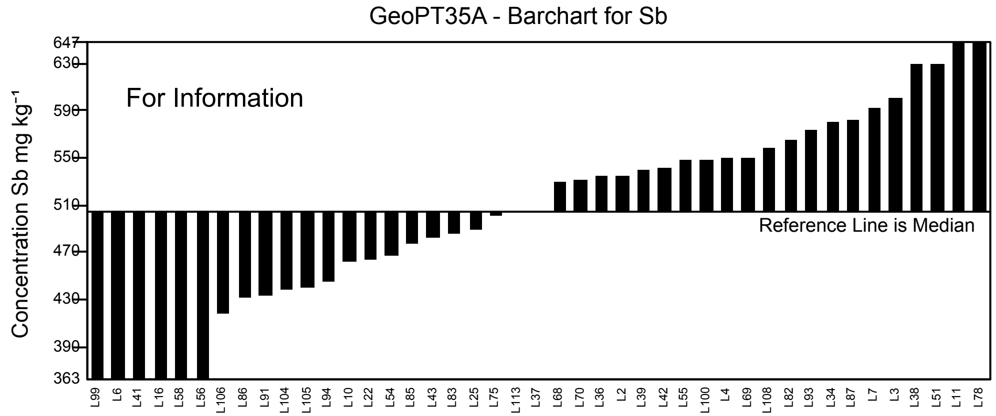
GeoPT35A - Barchart for Ge

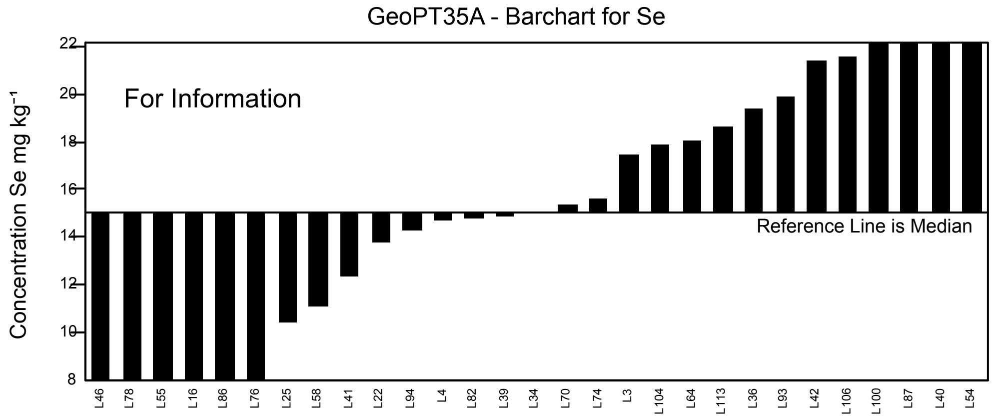


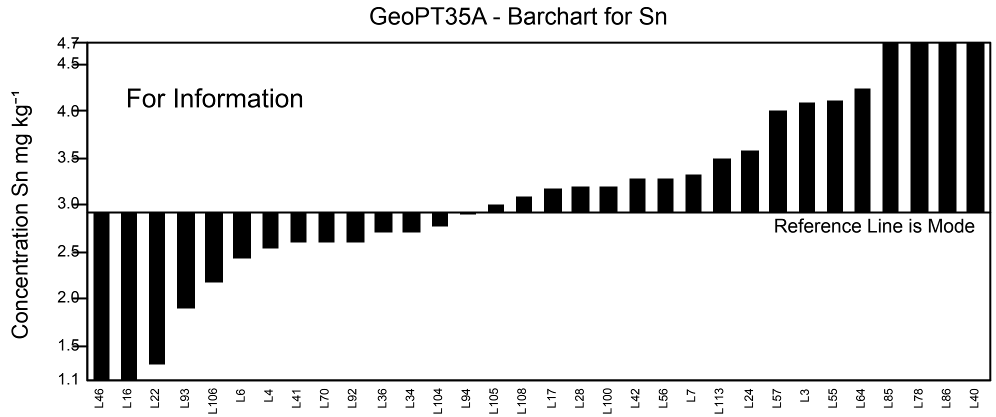
GeoPT35A - Barchart for Hg

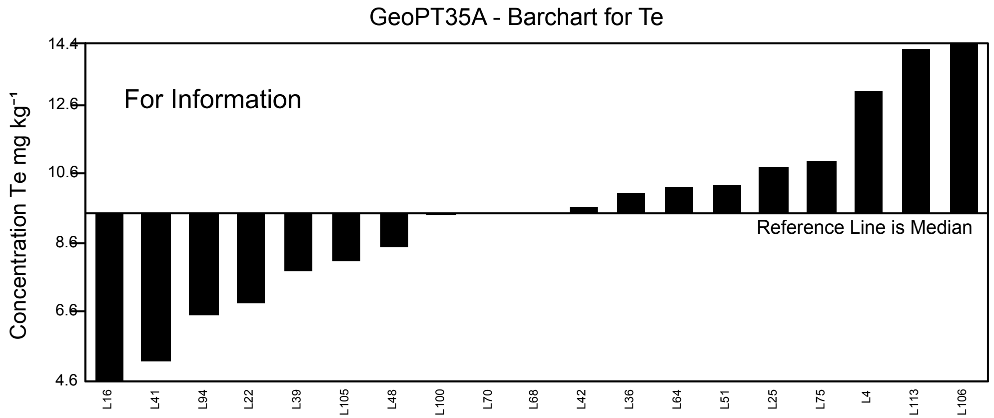












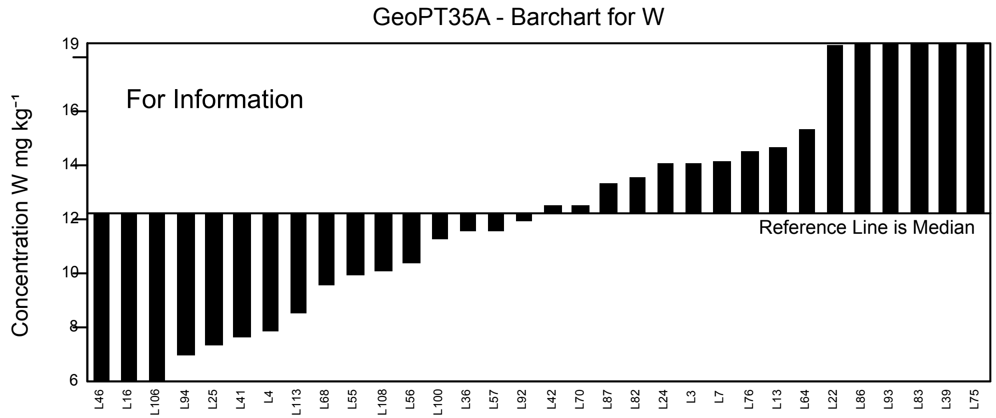


Figure 2: GeoPT35A - Metalliferous sediment, SdAR-H1. Data distribution charts provided for information only for elements for which values could not be assigned.

Multiple Z-Score Chart for GeoPT35A

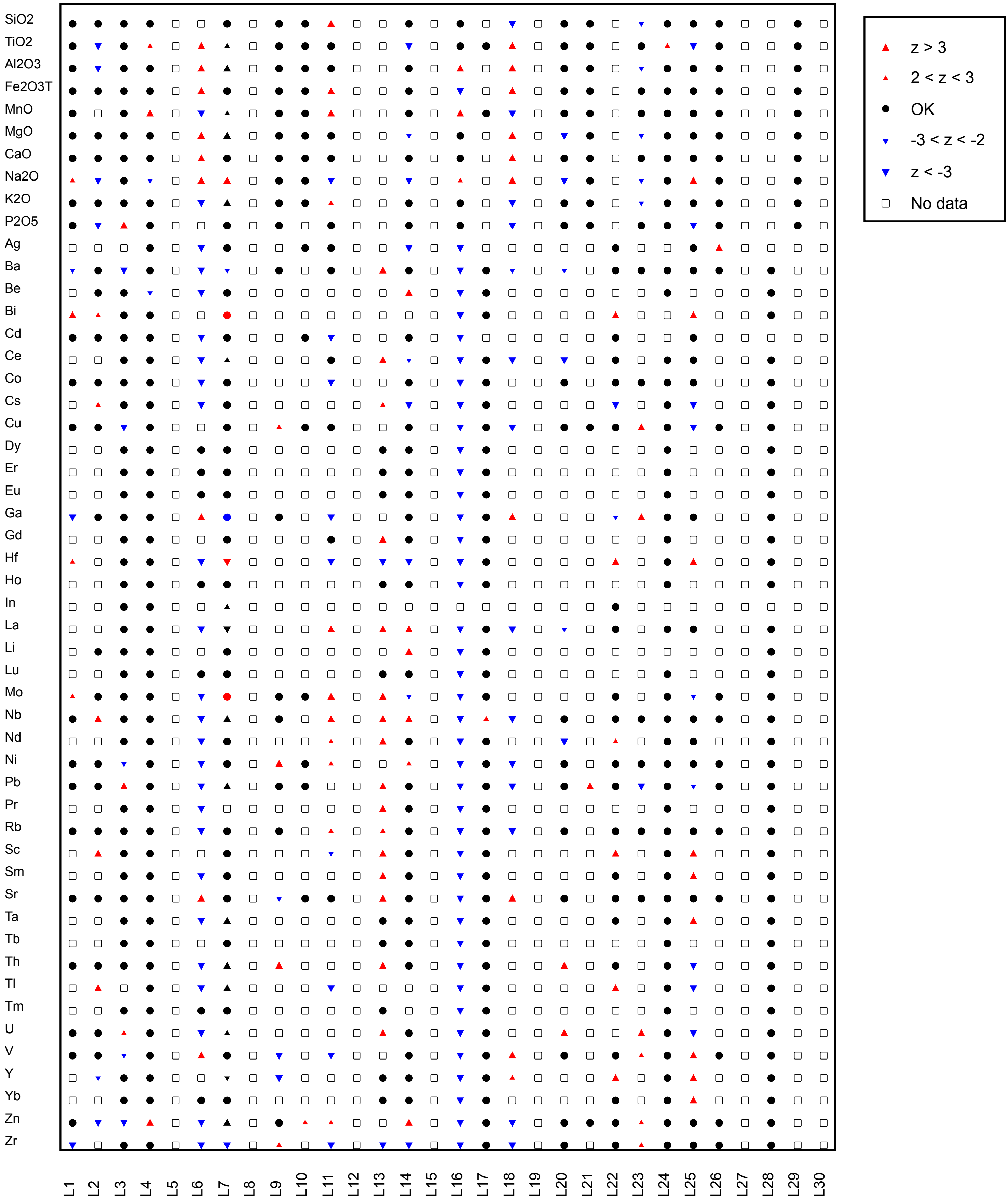


Figure 3: GeoPT35A - Metalliferous sediment, SdAR-H1. Multiple z-score charts for laboratories participating in the GeoPT35 A round. Symbols indicate whether or not an elemental result complies with the -2<z<+2 criteria (see key).

Multiple Z-Score Chart for GeoPT35A

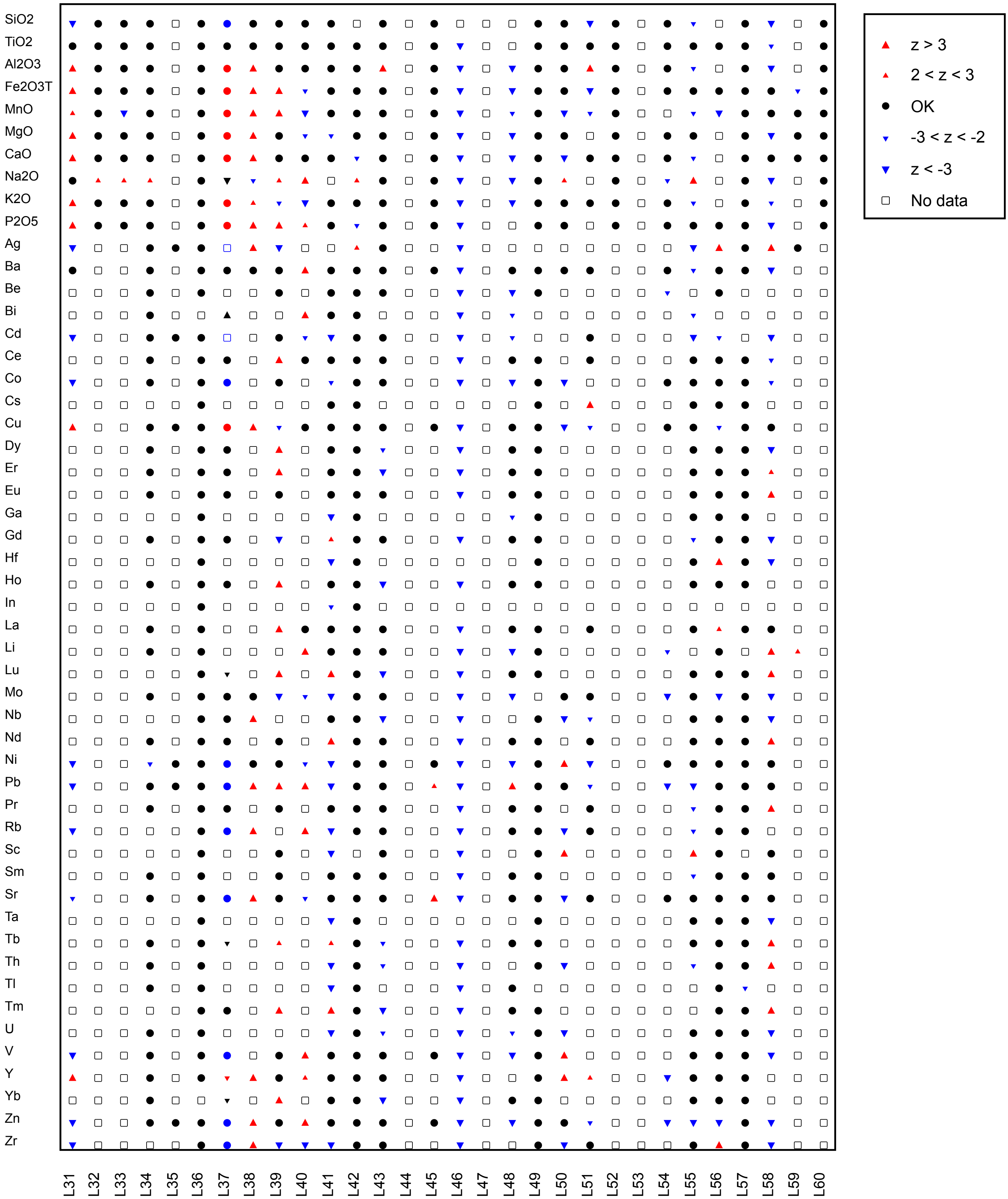


Figure 3: GeoPT35A - Metalliferous sediment, SdAR-H1. Multiple z-score charts for laboratories participating in the GeoPT35 A round. Symbols indicate whether or not an elemental result complies with the -2<z<+2 criteria (see key).

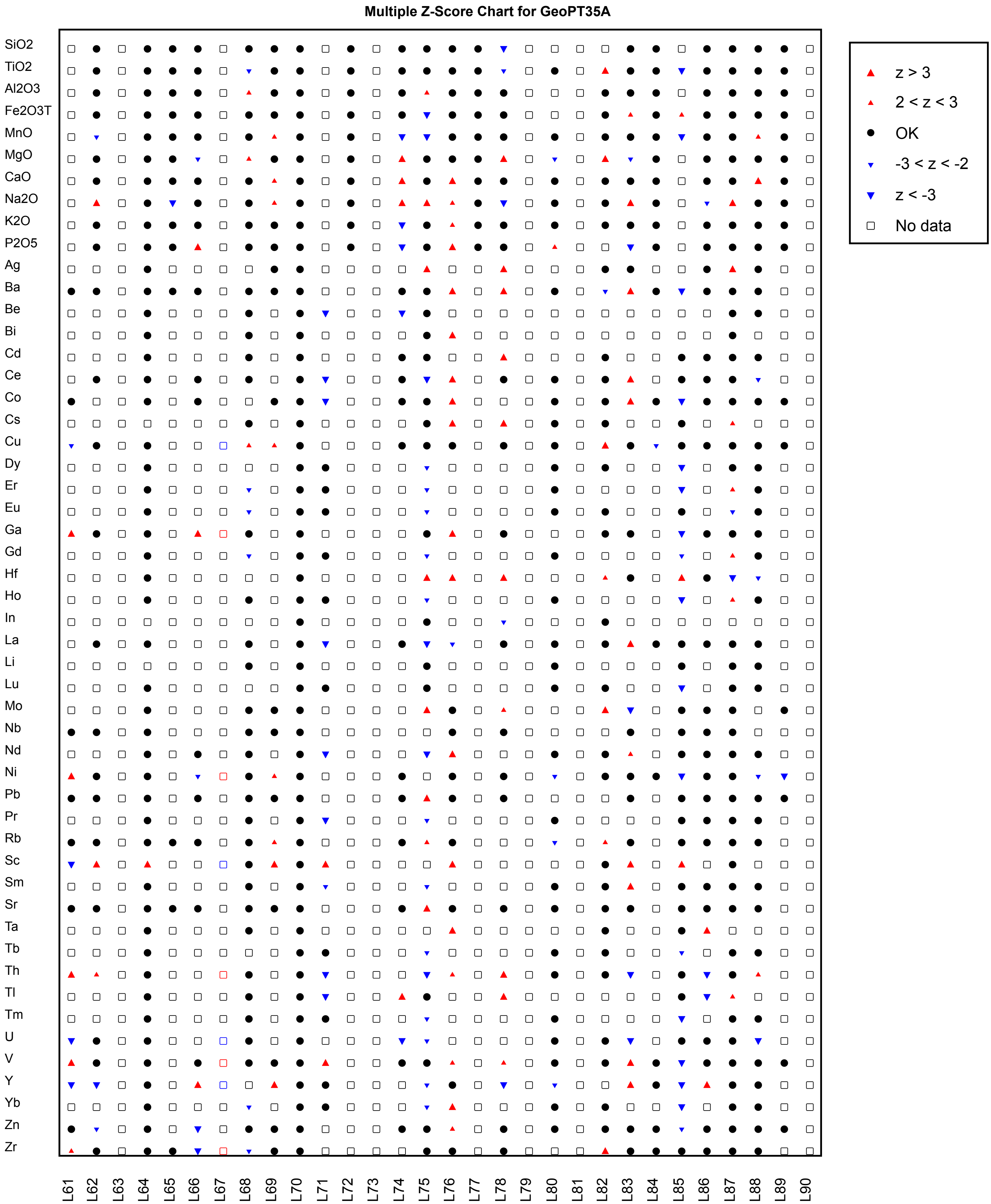


Figure 3: GeoPT35A - Metalliferous sediment, SdAR-H1. Multiple z-score charts for laboratories participating in the GeoPT35 A round. Symbols indicate whether or not an elemental result complies with the -2<z<+2 criteria (see key).

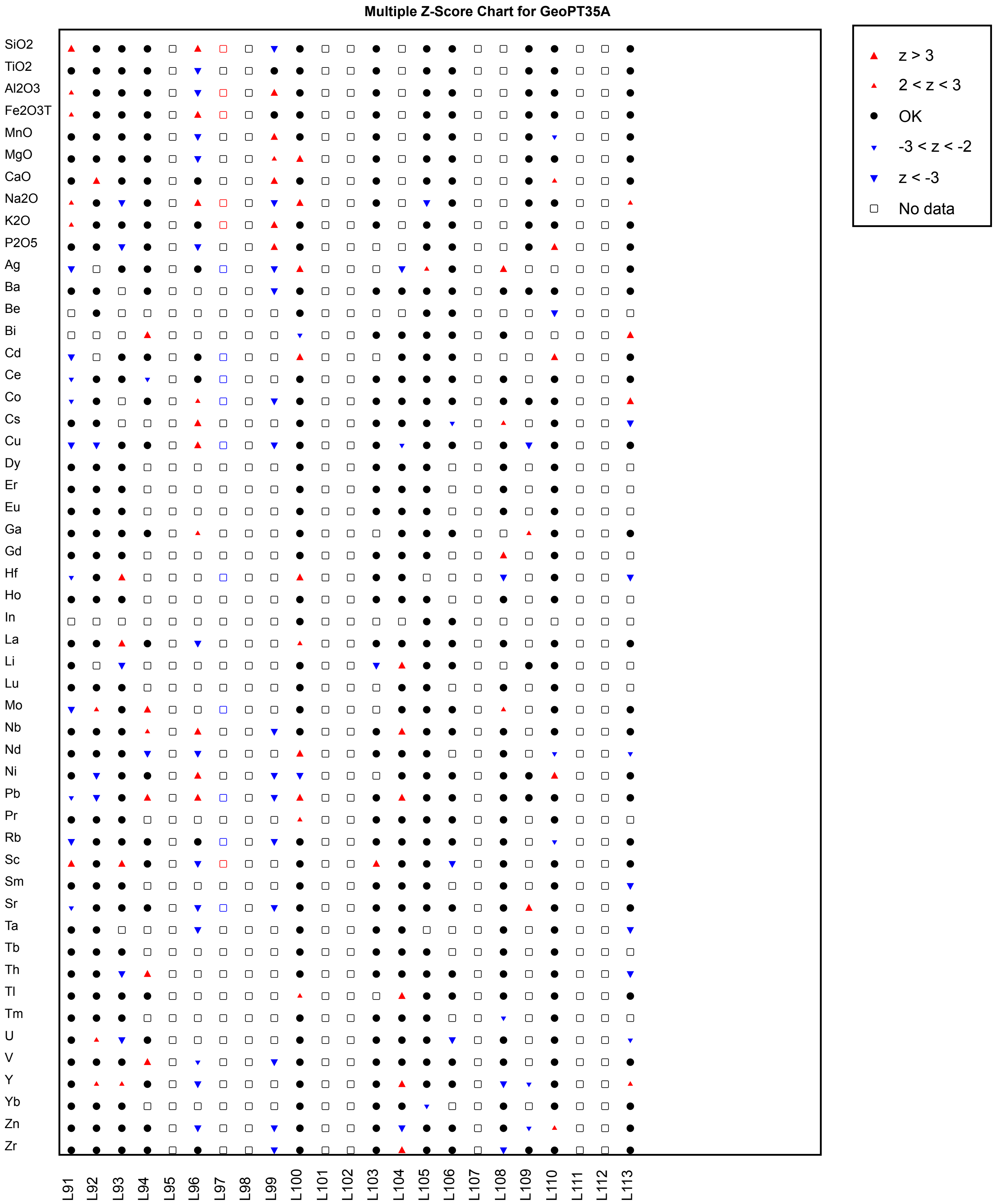


Figure 3: GeoPT35A - Metalliferous sediment, SdAR-H1. Multiple z-score charts for laboratories participating in the GeoPT35 A round. Symbols indicate whether or not an elemental result complies with the -2<z<+2 criteria (see key).