Geo*PT*37A — AN INTERNATIONAL PROFICIENCY TEST FOR ANALYTICAL GEOCHEMISTRY LABORATORIES — REPORT ON ROUND 37A (Blended sediment, SdAR-L2) / July 2015

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Abstract

Results are presented for Geo*PT*37A, the supplementary test material supplied in round thirty-seven of the International Association of Geoanalysts' Proficiency Testing programme for analytical geochemistry laboratories. The test material was a blended sediment, SdAR-L2, supplied by Dr Stephen Wilson of the U.S. Geological Survey. In this report, the data contributed from 95 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 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.

Steering Committee for Round 37A: P.C. Webb (results coordinator), M. Thompson (statistical advisor), P.J. Potts (analytical advisor), S. Wilson (provision of SdAR-L2).

Timetable for Round 37A:

Distribution of sample: March 2015.
Deadline for submission of analytical results: 12th June 2015.
Release of report: July 2015

Test Material details

Geo*PT*37A: The bended sediment test material, SdAR-L2, was produced at the U.S. Geological Survey under the direction of Stephen Wilson. 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.

Submission of results

3655 results were submitted for Geo*PT*37A (SdAR-L2) by 95 laboratories as listed in Table 1. Data were submitted by the recently introduced online system. 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 data were used

to assess respective assigned values. It is particularly gratifying that no laboratories reported values of '0' i.e. zero, for this round, following our reiteration that the **Instructions to Analysts** state that such values should not be reported.

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 46 trace elements in Geo*PT*37A (SdAR-L2). Bar charts for the 56 elements/components of Geo*PT*37A that were judged to have satisfactory distributions for consensus values to be designated as assigned or 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, As, Ba, Be, Bi, Cd*, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Ga, Gd, Ge*, Hf*, Hg*, Ho, In*, La, Li, Lu, Mo, Nb, Nd, Ni, Pb, Pr, Rb, Sb, Sc, Sm, Sr, Ta, Tb, Th, Tl, Tm, U, V, W*, Y, Yb, Zn and Zr. Of these, only provisional values were given to the 7 marked '*'. Instances of provisional status were recorded because either i) a relatively small number of measurements contributed to the consensus, or ii) the results were significantly dispersed in relation to the target value or the distribution was in part non-symmetrical.
In 11 cases the robust mean was used to define the consensus value, but in 45 cases the median value was preferred.

Bar charts for the 13 elements/components: Fe(II)O, H_2O^+, LOI, Ag, B, C(org), C(tot), Cl, F, S, Se, Sn and Te are plotted in Figure 2 for information only, as the data were insufficient, highly skewed or too variable for the reliable determination of a consensus.

***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*37A, 1587 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*37A, 2068 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*37A are listed in Table 3. Results designated as data quality 1 are shown in bold: results of data quality 2 are shown underlined. Where z-scores are derived from provisional values, they are shown in italics.

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 for this round is plotted in multiple *z*-score charts 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*38 round, the test sample for which will be distributed during September 2015.

Acknowledgements

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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*34 - an international proficiency test for analytical geochemistry laboratories - report on round 34 / January 2014 (Granite, GRI-1). International Association of Geoanalysts: Unpublished report.

Geo*PT*35
Webb, P.C., Thompson, M., Potts, P.J and Wilson, S. (2014)
Geo*PT*35 - an international proficiency test for analytical geochemistry laboratories - report on round 35 / August 2014 (Tonalite, TLM-1). International Association of Geoanalysts: Unpublished report.

Geo*PT*35A
Webb, P.C., Thompson, M., Potts, P.J and Wilson, S. (2014)
Geo*PT*35A - an international proficiency test for analytical geochemistry laboratories - report on round 35A / August 2014 (Metalliferous sediment, SdAR-H1). International Association of Geoanalysts: Unpublished report.

Geo*PT*36
Webb, P.C., Thompson, M., Potts, P.J and Wilson, S. (2015) Geo*PT*36 - an international proficiency test for analytical geochemistry laboratories - report on round 36 / January 2015 (Gabbro, GSM-1). International Association of Geoanalysts: Unpublished report.

Geo*PT*36A
Webb, P.C., Thompson, M., Potts, P.J and Wilson, S. (2015) Geo*PT*36A - an international proficiency test for analytical geochemistry laboratories - report on round 36A / January 2015 (Metal-rich sediment, SdAR-M2). International Association of Geoanalysts: Unpublished report.

Table 1 - GeoPT37A Contributed data for Blended sediment, SdAR-L2. 12/06/2015

Lab Code		P1	P2	P3	P4	P5	P7	P8	P9	P10	P11	P12	P13	P15
SiO2	g 100g-1	74.365	74.54	74.307	**74.33**	50.72	75.12	74.027	**74.78**	74.5	74.2	74.2	74.55	74.53
TiO2	g 100g-1	0.637	0.623	0.61	**0.62**	**0.623**	0.64	0.619	**0.62**	0.625	0.621	0.63	0.64	0.628
Al2O3	g 100g-1	11.636	11.56	11.396	**11.77**	**11.448**	11.16	11.45	**11.49**	11.4	11.54	11.5	11.68	11.64
Fe2O3T	g 100g-1	3.688	3.66	3.656	**3.68**	**3.666**	3.71	3.713	**3.79**	3.62	3.681	3.65	3.6	3.63
Fe(II)O	g 100g-1				**0.82**				**1.22**					
MnO	g 100g-1	0.102	0.101	0.089	**0.095**	**0.099**	0.09	0.096	**0.099**	0.102	0.098	0.1	0.076	0.092
MgO	g 100g-1	0.492	0.45	0.439	**0.41**	**0.596**	0.44	0.442	**0.43**	0.459	0.468	0.43	0.402	0.43
CaO	g 100g-1	1.068	1.067	1.062	**1.02**	**1.005**	1.1	1.086	**1.07**	1.04	1.042	1.05	1.05	1.06
Na2O	g 100g-1	2.745	2.58	2.639	**2.66**	**2.666**	2.68	2.579	**2.66**	2.62	2.702	2.66	2.54	2.59
K2O	g 100g-1	4.126	3.983	4.124	**4.1**	**4.022**	4.21	4.1	**4.12**	4.06	4.134	4.07	4.15	4.12
P2O5	g 100g-1	0.089	0.079	0.089	**0.087**		0.067	0.086	**0.07**	0.082	0.081	0.08	0.08	0.08
H2O+	g 100g-1								**0.69**					
CO2	g 100g-1													
LOI	g 100g-1	0.96	0.96	1.02	**0.98**		0.8	0.919	**0.96**	0.895	0.892	1.6	0.99	
Ag	mg kg-1		4			2.996	0.1							
As	mg kg-1		15	23		**17.79**	15.7		**18.2**	12	12.5		18	
Au	mg kg-1					**0.027**								
B	mg kg-1								**8**		2.75			
Ba	mg kg-1	814	853	815	**828**	**810**	766.8	774	**789**	765	844.3		783	
Be	mg kg-1		3.3		**3.59**				**3.27**					
Bi	mg kg-1		0.267		**0.28**		0.6		**0.26**					
Br	mg kg-1					**0.88**	0.9							
C(org)	mg kg-1								**833**	0.139				
C(tot)	mg kg-1						1700		**1494**	0.183		1600		
Cd	mg kg-1		1.7		**1**		1		**1.49**		1.71			
Ce	mg kg-1	134.8	147	141	**147**	**145.8**	133.8		**144**	123	64	129		
Cl	mg kg-1					**113**			**99**					
Co	mg kg-1	4.8	5.38		**8.12**	**5.583**	7	8	**5.4**	4.6	8.81			
Cr	mg kg-1	27	26	21	**29.7**	**26.05**	24.9	27	**30.3**	24.8	14.8		26	
Cs	mg kg-1	1.1	0.99		**1.03**	**1.035**	5.6		**1.05**					
Cu	mg kg-1	46.4	59	54	**51.2**		46.5	62	**52.2**	50.1	40.77		45	
Dy	mg kg-1	10.1	6.71		**9.91**	**10.52**			**9.93**			8.75		
Er	mg kg-1	6.4	4.13		**5.93**				**6.04**			5.7		
Eu	mg kg-1	1.4	0.96		**1.5**	**1.498**			**1.43**			1.38		
F	mg kg-1							745	**722**			531		
Ga	mg kg-1		17	16	**16.7**	**19.8**	15.5	16	**18.1**	15.3	17.88		15	
Gd	mg kg-1	11.3	6.99		**10.2**				**9.36**			9.87		
Ge	mg kg-1		3.54		**1.6**		0.1		**1.75**					
Hf	mg kg-1	13.3	11		**15.3**	**16.38**	18.7	13	**16.4**	16.5			13	
Hg	mg kg-1						0.34		**316**					
Ho	mg kg-1	2.1	1.37		**2.01**				**2.17**			1.97		
I	mg kg-1						0.1							
In	mg kg-1		0.47			**0.494**			**0.44**					
La	mg kg-1	64.8	68	73	**68.1**	**68.87**	74.9		**67.3**	57	52.6	66.1		
Li	mg kg-1				**12.5**			12	**12.1**		4.97		17.4	
Lu	mg kg-1	1	0.66		**0.97**	**0.817**			**0.972**			0.9		
Mo	mg kg-1	4	4.1		**1.33**		2.6		**3.66**		2.13			
Nb	mg kg-1	80.2	64	62	**69.6**		60.9		**62**	59.1	52.46		61	
Nd	mg kg-1	57	60		**61.7**	**60.35**	55.3		**59.2**	52		54.8		
Ni	mg kg-1	12.6	14	14	**11.6**		12	39	**16.4**	14.3	14.25		14	
Pb	mg kg-1	140.1	189	189	**152**		172.8	234	**183**	174	169.3		181	
Pr	mg kg-1	14.7	10.6		**15.8**				**16.2**			15.8		
Rb	mg kg-1	115.1	118	124	**165**	**125.6**	114.9		**126**	117			117	
Re	mg kg-1													
Rh	mg kg-1													
S	mg kg-1						350		**249**			230		
Sb	mg kg-1		21.5		**23.1**	**23.46**	23.6		**21.8**	16	21.8		18	
Sc	mg kg-1	5.5	5.6	4	**7.18**	**5.765**	4.9		**5.81**		3.96			
Se	mg kg-1		0.6				0.6		**0.719**					
Sm	mg kg-1	11.4	13		**11.7**	**11.48**	12.3		**11.4**	11		10.3		
Sn	mg kg-1	3.1	3		**3.68**		7.4		**5.26**		3.76			
Sr	mg kg-1	142.6	148	153	**155**	**176**	143.8	146	**155**	144	150.1		146	
Ta	mg kg-1	5.5	3.53		**4.65**	**3.813**	2.9		**4.26**					
Tb	mg kg-1	1.7	1.1		**1.67**	**1.514**			**1.53**			1.66		
Te	mg kg-1		0.43				3.6							
Th	mg kg-1	20.8	21	21	**24.5**	**23.44**	18.8		**22.3**	19.5		21.9	18	
Tl	mg kg-1		1.12		**0.97**		1							
Tm	mg kg-1	0.9	0.63		**0.9**				**0.917**			0.96		
U	mg kg-1	3	2.44	4	**3.75**	**3.004**	3.9		**3.22**			3.36		
V	mg kg-1	39	36	33	**32.1**	**38.04**	24.7		**33.3**	34.1	39.1		32	
W	mg kg-1		2.11		**1.79**	**1.43**	2.4		**1.85**	13.6				
Y	mg kg-1	56.7	56	60	**58**		51.5	55	**57.6**	56.2	26.6	51.3	55	
Yb	mg kg-1	6.4	1.1		**6.24**	**6.282**	5.6		**6.35**	5.7		5.75		
Zn	mg kg-1	218	201	197	**166**	**214**	191.7	243	**222**	197	204.2		199	
Zr	mg kg-1	592	644	623	**632**	**650**	601.6	606	**661**	564		525	602	

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

Table 1 - GeoPT37A Contributed data for Blended sediment, SdAR-L2. 12/06/2015

Lab Code		P16	P17	P18	P19	P22	P23	P24	P25	P26	P27	P28	P29	P30
SiO2	g 100g^{-1}	**74.09**	74.8	**75.15**	74.5	70.002	74.83	75.11	74.72		**74.54**	**75.19**	74.48	**73.99**
TiO2	g 100g^{-1}	**0.63**	0.63	**0.3**	0.62	0.587	0.62	0.628	0.690	0.71	**0.62**	**0.64**	0.63	**0.62**
Al2O3	g 100g^{-1}	**11.66**	11.56	**12.46**	12.25	11.268	11.52	11.56	11.42	12.1	**11.51**	**11.68**	11.56	**11.54**
Fe2O3T	g 100g^{-1}	**3.63**	3.7	**2.94**	3.44	3.666	3.61	3.65	3.663	3.8	**3.36**	**3.69**	3.6	**3.55**
Fe(II)O	g 100g^{-1}						1.12	1.28	1.41					
MnO	g 100g^{-1}	**0.1**	0.103	**0.05**	0.086	0.102	0.1	0.084	0.098	0.11	**0.099**	**0.096**	0.1	**0.09**
MgO	g 100g^{-1}	**0.4**	0.423	**0.49**	0.44	0.373	0.43	0.42	0.370	0.43	**0.46**	**0.29**	0.43	**0.46**
CaO	g 100g^{-1}	**1.05**	1.08	**1.14**	1.08	1.086	1.04	1.082	1.073	1.14	**1.07**	**1.08**	1.03	**1.03**
Na2O	g 100g^{-1}	**2.61**	2.62	**4.61**	2.9	2.632	2.68	2.586	2.704	2.88	**2.63**	**2.72**	2.68	**2.73**
K2O	g 100g^{-1}	**4.07**	4.09	**2.22**	4	4.191	4.02	4.112	4.049	4.46	**4.11**	**4.06**	4.1	**4.05**
P2O5	g 100g^{-1}	**0.08**	0.083	**0.06**	0.092	0.096	0.08	0.082	0.081		**0.078**	**0.083**	0.09	**0.07**
H2O+	g 100g^{-1}						0.6	0.8						
CO2	g 100g^{-1}													
LOI	g 100g^{-1}	**1.05**	0.98	**0.79**	0.82	1.016		1.152	1.06		**0.97**	**0.8**	0.79	**0.85**
Ag	mg kg^{-1}				2.56		3.47	3	2.606					
As	mg kg^{-1}				16.22	18.75	21.4	14				**17**		**14.9**
Au	mg kg^{-1}													
B	mg kg^{-1}						6.13							
Ba	mg kg^{-1}				795.6	894.6	897	817	765	848	**807**	**779**		**776**
Be	mg kg^{-1}				3.43		3.47	2.88	2.796					
Bi	mg kg^{-1}						0.25	0.3	0.192					
Br	mg kg^{-1}													
C(org)	mg kg^{-1}				1306									
C(tot)	mg kg^{-1}			**0.04**	1971			0.16						
Cd	mg kg^{-1}				1	0.825	1.22	1.1	0.567					**7**
Ce	mg kg^{-1}				150.6	143.580	130	139	130.3	147	**145.540**	**120**		**130**
Cl	mg kg^{-1}				181			160						
Co	mg kg^{-1}				4.13	5.42	5.71	5.5	5.224	5.66		**4.4**		**6.5**
Cr	mg kg^{-1}				24.5	16.58	26.1	30	32.23	27.8	**28**	**22**		**26**
Cs	mg kg^{-1}						1.15	1.2	1.019	1.24	**1.07**			**4.5**
Cu	mg kg^{-1}				51.53	51.74	49.8	48.4	53.9	52.9	**51**	**48**		**45**
Dy	mg kg^{-1}				10.69	13.26	10.5	8.66	9.259	10.2	**11.01**			
Er	mg kg^{-1}				6.66	8.3	6.16	5.84	5.873	6.27	**6.51**			
Eu	mg kg^{-1}				1.5	2.66	1.6	1.32	1.36	1.37	**1.56**			
F	mg kg^{-1}				656			720						
Ga	mg kg^{-1}					19.57	17.1	18	15.19		**17**	**17**		**15**
Gd	mg kg^{-1}				10.68	15.67	10.2	9.77	9.374	9.73	**10.08**			
Ge	mg kg^{-1}						1.47	2	1.477					
Hf	mg kg^{-1}				16.54	32.86	20	18	16.47		**16.31**	**23**		**13.5**
Hg	mg kg^{-1}					0.407	0.29	287						
Ho	mg kg^{-1}				2.21	2.78	2.2	1.97	1.953	2.12	**2.27**			
I	mg kg^{-1}													
In	mg kg^{-1}							0.5	0.356					
La	mg kg^{-1}				68.46	88.01	66.6	66	64.1	71.2	**69.74**	**57**		**77**
Li	mg kg^{-1}				8.71	15.98	12.5	10	9.825	12.2				
Lu	mg kg^{-1}				1.02	1.22	0.93	0.99	0.854	0.93	**0.97**			
Mo	mg kg^{-1}				3.07	3.25	3.34	4	3.504			**4.2**		**2.5**
Nb	mg kg^{-1}				46.29	71.38	68.8	68	73.11		**64.51**	**62**		**61**
Nd	mg kg^{-1}				63.8	78.43	56.8	60.5	54.52	64.5	**60.88**	**54**		**52**
Ni	mg kg^{-1}				14.89	11.77	14.3	14	15.79	14.6	**16**	**14**		**13**
Pb	mg kg^{-1}				177.7	165	215	197	199.2	182	**184.6**	**177**		**190**
Pr	mg kg^{-1}				17.09	20.57	15.6	16.4	15.25	17.3	**16.96**			
Rb	mg kg^{-1}				97.09	135.310	107	125	113.7		**121**	**113**		**121**
Re	mg kg^{-1}								0.003					
Rh	mg kg^{-1}													
S	mg kg^{-1}				249			0.02						
Sb	mg kg^{-1}				19.5	29.93	22.7	23.3	20.46					**22**
Sc	mg kg^{-1}				5.21		6.91		5.606		**5.8**	**4.2**		**9.5**
Se	mg kg^{-1}								2.231					
Sm	mg kg^{-1}				12.13	14.85	11.5	10.87	10.65	12.1	**11.96**			**8**
Sn	mg kg^{-1}						2.66	4	3.622					**13**
Sr	mg kg^{-1}				151.7	167.8	157	146	132.2	162	**156**	**143**		**149**
Ta	mg kg^{-1}				1.96	8.92	4.53	3.7	4.16		**3.84**			**6**
Tb	mg kg^{-1}				1.69	2.28	1.67	1.43	1.577	1.55	**1.76**			
Te	mg kg^{-1}								0.36					**5.5**
Th	mg kg^{-1}				28.17	28.08	23.8	22.7	20.92	21.6	**22.72**	**18**		**20**
Tl	mg kg^{-1}						1.03	1.1	1.068					
Tm	mg kg^{-1}				0.99	1.29	0.94	1	0.881	0.95	**0.99**			
U	mg kg^{-1}				3.12	4.47	3.32	3.71	3.331	4.15	**3.56**			**4.2**
V	mg kg^{-1}				35.19	33.2	36.1	34	31.95	35.7	**37**	**31**		**35**
W	mg kg^{-1}						1.5	2	1.507					**9.5**
Y	mg kg^{-1}				53.18	66.38	55.3	56.1	54.76	58	**58.46**	**54**		**55**
Yb	mg kg^{-1}				6.72	8.2	6.3	6.1	6.201	6.1	**6.26**	**5.3**		
Zn	mg kg^{-1}				205.1	185.2	201	201	211.7	194	**209**	**196**		**198**
Zr	mg kg^{-1}				618	155.8	623	645	664		**631**	**575**		**613**

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

Table 1 - GeoPT37A Contributed data for Blended sediment, SdAR-L2. 12/06/2015

Lab Code		P31	P32	P33	P34	P35	P37	P38	P39	P40	P42	P44	P46	P47
SiO2	g 100g-1	72.5	68.06	74.57		74.8	73.63	72.36		74.8	73.999	74.66	74.698	74.6
TiO2	g 100g-1	0.6	0.653	0.608		0.61	0.62	0.615	0.53	0.61	0.615	0.69	0.607	0.617
Al2O3	g 100g-1	12.66	10.62	11.55	11	11.7	11.36	12.08		11.45	11.58	11.71	11.623	11.8
Fe2O3T	g 100g-1	3.32	3.59	3.59	3.5	3.61	3.51	3.64		3.53	3.624	3.53	3.615	3.61
Fe(II)O	g 100g-1													
MnO	g 100g-1	0.08		0.097	0.14	0.1	0.1	0.098	0.1		0.1	0.1	0.093	0.105
MgO	g 100g-1	0.57	0.41	0.459	0.42	0.43	0.38	0.412		0.43	0.458	0.34	0.459	0.37
CaO	g 100g-1	1.24	1.06	1.05	1.8	1.08	1.03	1.01		1.05	1.043	1.08	1.081	1.03
Na2O	g 100g-1	2.84	2.53	2.63	2.9	2.65	2.42	2.65		2.63	2.648	2.65	2.726	2.58
K2O	g 100g-1	4.62	3.99	4.08	5.6	4.1	4.03	4.13		3.98	4.013	4.2	4.151	3.98
P2O5	g 100g-1	0.13	0.094	0.083		0.08	0.07	0.082			0.079	0.08	0.104	0.078
H2O+	g 100g-1		0.32											
CO2	g 100g-1										0.570			
LOI	g 100g-1	1		0.913			0.91			1.09	1.041	0.93	0.857	0.96
Ag	mg kg-1			2.69	1.3		2.55		2.86		3.785			
As	mg kg-1	14	14.85	15.9	21		14			19.1	17.343		18.7	
Au	mg kg-1										0.089			
B	mg kg-1								38.6					
Ba	mg kg-1	0.15	785	782	830		830	830	843	879	774.670		840.9	777
Be	mg kg-1		3.75	3.58	3		2.94		3.48	3.48	3.26		3.378	4.2
Bi	mg kg-1		0.27	0.24						0.26	0.256		0.261	
Br	mg kg-1													
C(org)	mg kg-1													
C(tot)	mg kg-1							100				2502		
Cd	mg kg-1		1.25	1.23	16		1.24		1.18	1.23	1.047		0.996	1.61
Ce	mg kg-1		138	145.3	150		149		136	148.5	131.939		152.6	138
Cl	mg kg-1													
Co	mg kg-1		5.08	5.36	81		4.48		5.45	5.4	5.546	9	4.914	6.38
Cr	mg kg-1		26.93	27.4	28		16.8	26	26.1	21	29.054	28	25.41	48
Cs	mg kg-1		1.05	1.13					1.16	1.14	1.138		1.13	1.39
Cu	mg kg-1		45.7	50.8	42		48.7	48	48.3	52.5	53.288		47.64	48
Dy	mg kg-1		9.96	10.26	11		10.6		10.2	10.15	9.827		9.767	13.23
Er	mg kg-1		6.03	6.33	6.7		6.56		6.31	6.26	6.119		6.136	11.16
Eu	mg kg-1		1.48	1.5	1.6		1.58		1.65	1.41	1.415		1.442	1.72
F	mg kg-1			360										
Ga	mg kg-1		15.31	15.5			16.7		17.6	19.3	16.745		17.88	19.37
Gd	mg kg-1		10.34	9.92	11		10.8		10.8	9.78	9.325		9.714	13.01
Ge	mg kg-1		1.45				1.2							1.83
Hf	mg kg-1		49	16.7			11.9		18.8	18.5	15.578		16.98	5.43
Hg	mg kg-1										0.331		0.301	
Ho	mg kg-1			2.16	2.1		2.18		2.24	2.16	1.989		2.175	2.95
I	mg kg-1													
In	mg kg-1									0.498	0.477			
La	mg kg-1			69.7	70		71	68	71.9	68.8	63.239		71.39	71.61
Li	mg kg-1		11.6	13.72			10		11.6	13.3	11.045		12.37	15.16
Lu	mg kg-1			0.95	1		1.03		1.13	0.94	0.926		0.953	2.65
Mo	mg kg-1		3.28	3.56	3.8		3.45			3.77	3.994		3.287	
Nb	mg kg-1			71.8			66	60		73.3	66.231		59.16	62.31
Nd	mg kg-1		57.94	62.62	60		65.1		62.9	60.8	59.458		61.79	66.65
Ni	mg kg-1			13.42	41		12.8		14	14.7	15.134	18	14.2	18.03
Pb	mg kg-1		184	199.4	170		189		185	184	178.342		180.6	
Pr	mg kg-1		16.16	17.03	17		17.6		17.7	16.75	15.957		16.73	17.3
Rb	mg kg-1		114	123.5			116.6		121	122.5	118.736		121.9	118
Re	mg kg-1													
Rh	mg kg-1		0.007											
S	mg kg-1	300		270				60			0.025	306		
Sb	mg kg-1		20.14	20.99	22		21.5			23.2	22.596		22.14	
Sc	mg kg-1			7.69			4.8		6.31	5.5	5.74		6.892	5.44
Se	mg kg-1				8.6		5.71				0.864			
Sm	mg kg-1		11.06	11.94	12		12.2		11.7	12	11.159		11.925	12.33
Sn	mg kg-1			2.78			4.4				3.179		3.314	2.82
Sr	mg kg-1		150.5	151.6			145		148	152.5	147.502		149.7	140
Ta	mg kg-1			3.98			7.6			3.8	3.926		4.11	2.8
Tb	mg kg-1		1.7	1.7	1.7		1.7		1.78	1.57	1.531		1.549	2.02
Te	mg kg-1			0.55							0.451			
Th	mg kg-1		23	22.62	22		23.4		21.6	22.6	20.651		24.45	22.82
Tl	mg kg-1		0.95	1.03	0.43		0.78				0.933			1.08
Tm	mg kg-1			0.97	1		1.01		1.13	0.95	0.929		0.917	1.9
U	mg kg-1		3.4	3.56	3.5		3.62		3.27	3.37	3.437		3.554	3.16
V	mg kg-1		36.4	36.7	33		31.3	36	36.4		34.912		34.65	43
W	mg kg-1		9.44	1.7			4.5				1.589		1.849	
Y	mg kg-1			54.7	55		55.8	50	57.3	54.3	56.093		56.37	50
Yb	mg kg-1			6.26	6.3		6.68		6.91	6.24	6.15		6.19	15.62
Zn	mg kg-1	200	192	212.7	170		203.7	200	201	212	196.218		202.5	206
Zr	mg kg-1	700	563	590.8			577	630	646	746	598.481	706	640.5	624

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

Table 1 - GeoPT37A Contributed data for Blended sediment, SdAR-L2. 12/06/2015

Lab Code		P48	P49	P50	P51	P52	P53	P54	P58	P59	P60	P61	P63	P65
SiO2	g 100g-1	74.47	74.07		74.9	74.03	74.829	74.252	74.73	74.9	75.6	74.36	74.29	74.45
TiO2	g 100g-1	0.62	0.65	0.561	0.625	0.58	0.5	0.626	0.59	0.59	0.56	0.53	0.64	0.63
Al2O3	g 100g-1	11.61	11.7		11.6	11.3	12.052	11.151	11.68	11.5	11.07	11.62	11.81	11.56
Fe2O3T	g 100g-1	3.63	3.91		3.61	3.65	3.846	3.546	4	3.62	3.28	3.79	3.68	3.64
Fe(II)O	g 100g-1										0.35			
MnO	g 100g-1	0.095	0.107	0.092	0.098	0.09	0.104	0.101	0.1	0.095	0.09	0.09	0.1	0.1
MgO	g 100g-1	0.42	0.47		0.39	0.44	0.953	0.431	0.45	0.42	0.26	0.5	0.48	0.43
CaO	g 100g-1	1.04	1.07		1.05	1.03	0.838	1.288	1.04	1.03	1.12	1.19	1.05	1.06
Na2O	g 100g-1	2.53	2.68		2.41	2.6	2.654	2.674	2.83	2.64	2.94	2.92	2.65	2.68
K2O	g 100g-1	4.07	4.14		4.15	4.07	5.097	4.14	3.94	4.06	4.1	4.2	4.19	4.11
P2O5	g 100g-1	0.083	0.086		0.08	0.08	0.089	0.082	0.07	0.077	0.08	0.09	0.08	0.081
H2O+	g 100g-1													
CO2	g 100g-1													
LOI	g 100g-1	1.14	1.07		0.96	0.86			1.32	0.87	1	0.89	0.99	0.76
Ag	mg kg-1			4.11							7.392			
As	mg kg-1	25		16.35	15.3	17					13.026			18
Au	mg kg-1													
B	mg kg-1	1.8									6.093			
Ba	mg kg-1	782	831.3	821.330	735.6	833		808.3	835		669.025	847	832	828
Be	mg kg-1		3.91					3.41			2.199		3.4	3.3
Bi	mg kg-1			0.69	0.231						0.178			0.24
Br	mg kg-1													
C(org)	mg kg-1													
C(tot)	mg kg-1									1410				1500
Cd	mg kg-1	0.8		1.26	1.19						1.015			1.2
Ce	mg kg-1	135.8	149.8	147.140	130.4	101		146.4	144		90.693	149.7	144	147.3
Cl	mg kg-1					70								
Co	mg kg-1	5.53	3.55	4.6	7.79	4		5.67			4.541	5.5	5.6	5.6
Cr	mg kg-1	24.3	6.12	22.06	24.5	23		31	24		19.852	187	28.2	23
Cs	mg kg-1	1.2	1.27	1.066	1.24			1.17			0.956	1.04	1.4	1.2
Cu	mg kg-1	35.9	47.91	45.99	54.9	49		47.9	53		45.085	54.8	50.2	51.6
Dy	mg kg-1	9.99	8.29	9.05	7.21			10	7.4		5.987	7.68	9.7	9.7
Er	mg kg-1	5.59	4.74	5.35	4.22			6.19	4.2		3.587	4.49	5.9	6.4
Eu	mg kg-1	1.33	1.41	1.365	1.69			1.59	1.3		1.127	1.48	1.45	1.5
F	mg kg-1					945								
Ga	mg kg-1	18.9	56.99	17.86	17.3	18		17.9			14.762		15.8	17.4
Gd	mg kg-1	9.3	8.69	10.14	10.1	9		10	10		7.457	9.46	9.6	9.3
Ge	mg kg-1					1					1.432			1.3
Hf	mg kg-1	14.8	5.88	7.78	13.6	19		15			7.422		17.1	17.9
Hg	mg kg-1				0.277									0.25
Ho	mg kg-1	1.829	1.66	1.856	1.42			2.38			1.2		2.1	2.2
I	mg kg-1													
In	mg kg-1				0.452									0.48
La	mg kg-1	64.71	67.77	69.16	64.1	64		69.1	70		42.452	69.9	67.8	69.4
Li	mg kg-1	8.02	12.71								10.169			12
Lu	mg kg-1	0.799	0.68	0.8	0.599			0.96			0.54	0.63	0.9	0.9
Mo	mg kg-1		3.27		4.3			3.97			3.916		3.9	3.5
Nb	mg kg-1	53.7	60.6	68.65	59.4	72		63	45		68.588	199	68.6	69.5
Nd	mg kg-1	56.31	60.54	61.25	78.2	66		59.3	61		41.317	64.5	60.7	63.3
Ni	mg kg-1	13.7	17.1	13.96	17.5	20		16			12.062	16.8	12.1	14.4
Pb	mg kg-1	160.4	187.2	181.970	210.3	196		192.2			136.042	201	104.1	197
Pr	mg kg-1	15.27	16.56	16.75	16.05			16.8	14		11.283	17.3	16.8	17.4
Rb	mg kg-1	120	121.3	118.320	115.2	125		122.4	122		91.74	120	121.1	122
Re	mg kg-1													
Rh	mg kg-1													
S	mg kg-1					188	220			251				251
Sb	mg kg-1			18.1	130						18.245			21.8
Sc	mg kg-1	5.01	5.73	3.48	6.91	7		5.42	5		5.478	6.5	5.5	5
Se	mg kg-1			1.04							1.164			
Sm	mg kg-1	10.45	11.18	11.46	110			11.6	12		7.927	12.9		11.5
Sn	mg kg-1	2.4		2.79				3.8			2.462		2.9	2.7
Sr	mg kg-1	139.6	150.1	146.310	136.6	155		152.1	150		94.569	165	155.1	159
Ta	mg kg-1	3.45	3.35	3.71				3.81			4.291	3.16	3.9	3.42
Tb	mg kg-1	1.264	1.42	1.608	1.43			1.74			0.994	1.24		1.6
Te	mg kg-1										0.273			0.5
Th	mg kg-1	20.34	17.49	22.04	23.5	14		22	18		15.186	20.1	22.7	22.1
Tl	mg kg-1	0.97		0.97	1.02			0.91			0.825		0.58	1.02
Tm	mg kg-1	0.816		0.839	0.589			0.98			0.548	0.597	0.9	0.9
U	mg kg-1	2.65	3.18	3.29	3.18	3		3.5			2.671	1.85	3.4	3.4
V	mg kg-1	34.3	39.7	32.49	30.6	33			32		30.35	36.3	36.4	33
W	mg kg-1	1.38									1.748		1.7	1.4
Y	mg kg-1	51.38	46.85	52.52	54.2	58		57.2	40		26.242	24.2	63.9	54.6
Yb	mg kg-1	5.52	4.68	5.41	4.02			6	3.8		3.577	4.15	6.1	6.2
Zn	mg kg-1	150.5	196.3	161.860	201.3	195		195.5	204		136.157	257	216.5	211
Zr	mg kg-1	616	208.1	262.110	576.1	628		661	632		238.205	353	635	647

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

Table 1 - GeoPT37A Contributed data for Blended sediment, SdAR-L2. 12/06/2015

Lab Code		P66	P67	P68	P69	P70	P71	P72	P73	P74	P75	P76	P77	P78
SiO2	g 100g-1	75.1	75.3	72.47		73.77	74.4	74.4	74.4	74.6	73.69	74.15	74.42	74.745
TiO2	g 100g-1	0.63	0.564	0.69	0.611	0.612	0.65	0.63	0.619	0.62	0.58	0.558	0.62	0.566
Al2O3	g 100g-1	11.69	11.1	12.17	11.29	11.6	11.81	11.4	12.1	11.58	11.16	11.58	11.66	10.612
Fe2O3T	g 100g-1	3.69	3.18	3.34	3.595	3.64	3.86	3.69	3.3	3.64	3.6	3.395	3.62	3.556
Fe(II)O	g 100g-1									1.04			1.15	
MnO	g 100g-1	0.11	0.100	0.106	0.096	0.096	0.11	0.097	0.099	0.1	0.1	0.085	0.097	0.091
MgO	g 100g-1	0.32	0.42	0.39	0.419	0.42	0.4	0.4	0.369	0.42	0.4	0.43	0.45	0.403
CaO	g 100g-1	1.08	1.04	1.12	1.069	1.03	1.09	1.07	1.08	1.06	1.06	1.04	1.05	1.017
Na2O	g 100g-1	2.71	2.86	2.62	2.551	2.655	2.36	2.53	2.85	2.67	0.6	2.72	2.65	2.651
K2O	g 100g-1	4.32	4.1	2.94	3.949	4.08	4.07	4.09	3.99	4.11	0.04	4.3	4.1	4.021
P2O5	g 100g-1	0.08	0.077	0.08	0.078	0.08	0.07	0.084	0.077	0.09	0.07	0.09	0.08	0.078
H2O+	g 100g-1													
CO2	g 100g-1			0.64										
LOI	g 100g-1	0.78	0.96				1.16	0.88	1.04	0.95	0.89	1	0.9	
Ag	mg kg-1			1.05							4.7			
As	mg kg-1	16		19.13		16.4	19				14.3	14.6	17.6	
Au	mg kg-1													
B	mg kg-1						18						12	
Ba	mg kg-1		814	741.630	795	829.3	1027	794	960	778	763.9	748	801	758.9
Be	mg kg-1		3		3.44	3.233	15						3.56	
Bi	mg kg-1		0.26	0.34		0.223						0.269		
Br	mg kg-1													
C(org)	mg kg-1												0.13	
C(tot)	mg kg-1												0.158	
Cd	mg kg-1	1	1.09	0.93		1.2								
Ce	mg kg-1		155	138.270	142	147.7		134			122.9	135.563	149	144.4
Cl	mg kg-1		81						250					
Co	mg kg-1	5	5.4	5.04	5.28	5.183	63				3.1			
Cr	mg kg-1	31	21	33.3	25.8	27.2	51			16.8	23.2	19	24	
Cs	mg kg-1		1.17	0.94	1.07	1.09		27.5				1.138		
Cu	mg kg-1	47	51.9	61.3	49.5	53.9	80	46.7	62		49.2	47.8	53	
Dy	mg kg-1		8	9.78	10.3	9.823						9.289	8.88	8.14
Er	mg kg-1		4.5	6.07	6.33	6.257						5.646	5	4.756
Eu	mg kg-1		1.44	1.39	1.45	1.387						1.29	1.34	1.301
F	mg kg-1		963								1920			
Ga	mg kg-1		17.6	59.43	17.3	17.03		18.4		18.1	15.2	15.8		
Gd	mg kg-1		9.4	9.88	9.63	9.72						9.327	8.15	8.552
Ge	mg kg-1			2.65							2.5			
Hf	mg kg-1			17.24	16.4	14.63					10.6	17.915		
Hg	mg kg-1		0.322			0.34								
Ho	mg kg-1		1.6		2.12	2.403						1.887	1.53	1.53
I	mg kg-1													
In	mg kg-1			0.45										
La	mg kg-1		72	66.4	67.3	70.57					54.9	65.644	74.5	63.47
Li	mg kg-1				11.2	11.4						11.024	12	
Lu	mg kg-1			0.94	0.99	0.967						0.846	0.93	0.686
Mo	mg kg-1		3.4	3.73		3.593					3.4	4.208		
Nb	mg kg-1		67	54.57	71.9	59.43	69	60.3	65	58.8	63.9	58.2	63.6	
Nd	mg kg-1		64	56.53	60.3	63.03		44			49.4	59.252	49.4	59.34
Ni	mg kg-1	14	14	32.47	14.3	13.77				14.3	14.6	20		
Pb	mg kg-1	59	183	163.5	184	188.7	185	166	189		171.4	179.1	180	
Pr	mg kg-1		17.3	15.14	16.4	15						15.692	12.8	15.51
Rb	mg kg-1		113	110.9	120	117.3		122	119		114.7	122.5	123	
Re	mg kg-1													
Rh	mg kg-1													
S	mg kg-1	360	412	307					324		192			
Sb	mg kg-1		21	17.09		22.8					20.2	22.6	21	
Sc	mg kg-1		5.4	6.47	5.89	5.62					6.3	3.6	5.7	5.921
Se	mg kg-1					0.85					0.9			
Sm	mg kg-1		11.7	11.08	11.4	10.83					9.1	10.097	10.1	10.97
Sn	mg kg-1		2.8	3.78	2.78							3.7		
Sr	mg kg-1		150	151.130	150	147.3	173	145	159	154	144.2	146.6	151	142.5
Ta	mg kg-1		3.4	3.36	3.83	4.363					5.8	3.479		
Tb	mg kg-1		1.34	1.53	1.64	1.707						1.472	1.46	1.347
Te	mg kg-1		0.39											
Th	mg kg-1		23.6	22.05	21.9	22.57					19.4	23.6		20.75
Tl	mg kg-1	1	1.01	0.04	1.07	1.007						1.023		
Tm	mg kg-1		0.65	0.91	0.98	1.017						0.851	0.79	0.674
U	mg kg-1	6	3.1	3.37	3.53	3.67					2.1	5.1		3.125
V	mg kg-1	35	37	64.2	34.5	32.8		40.5		45.3	31.2	35		
W	mg kg-1		1.37	2.61		1.607								
Y	mg kg-1		44	53.3	59.2		53	50.5			54	51.5	55	49.95
Yb	mg kg-1		4.5	6.31	6.45	6.473					3	6.032	5.12	4.441
Zn	mg kg-1	194	200	195.6	200	228.7		201	224	203	184	182.9	214	
Zr	mg kg-1		586	620	627	557		539	665	669	600	590.1	617	621

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

Table 1 - GeoPT37A Contributed data for Blended sediment, SdAR-L2. 12/06/2015

Lab Code		P79	P81	P82	P84	P85	P86	P87	P89	P90	P92	P95	P96	P97
SiO2	g 100g^{-1}	74.3	69.1		74.15	77.112	75.07	73.59	74.7	74.397			71.4	74.98
TiO2	g 100g^{-1}	0.627	0.534	0.501	0.63	0.647	0.648	0.61	0.63	0.611	0.603	0.061	0.484	0.64
Al2O3	g 100g^{-1}	11.591	10.7	12.51	11.59	11.562	11.69	11.7	11.4	11.678		0.905	12.6	11.83
Fe2O3T	g 100g^{-1}	3.647	3.307	3.556	3.86	3.656	3.63	3.83	3.65	3.587		1.396	3.39	3.63
Fe(II)O	g 100g^{-1}											1.256		0.915
MnO	g 100g^{-1}	0.102	0.085	0.101	0.1	0.1	0.097	0.11	0.097	0.1	0.094	0.05	0.981	0.1
MgO	g 100g^{-1}	0.423	0.65	0.469	0.47	0.423	0.426	0.36	0.38	0.409		0.246		0.5
CaO	g 100g^{-1}	1.058	1.05	1.109	1.14	1.08	1.136	0.98	0.96	1.058		0.322	1	1.06
Na2O	g 100g^{-1}	2.288	1.4	2.979	2.59	2.646	2.69	2.71	2.4	2.721		0.054		2.69
K2O	g 100g^{-1}	4.089	4.06	4.513	4.08	4.041	4.92	4.14	4.1	4.19		0.194	4.17	4.11
P2O5	g 100g^{-1}	0.086	0.075	0.076	0.1	0.081	0.085	0.09	0.08	0.079		0.068		0.09
H2O+	g 100g^{-1}													
CO2	g 100g^{-1}													
LOI	g 100g^{-1}	1.095			0.86	0.85	0.89	1.12	0.91	0.898				0.907
Ag	mg kg^{-1}			3.427			5.121			3.6		2.48		3.31
As	mg kg^{-1}		17	17.34			18.2			15.2		12.41		17.94
Au	mg kg^{-1}													
B	mg kg^{-1}											3.38		
Ba	mg kg^{-1}		903.6	837	814	814.5	873		800	771.7	777	79.84	812	807
Be	mg kg^{-1}			2.86		3.3	3.298				3.43	1.19		3.29
Bi	mg kg^{-1}			0.227			0.269					0.2		0.33
Br	mg kg^{-1}						1.15							
C(org)	mg kg^{-1}													
C(tot)	mg kg^{-1}													
Cd	mg kg^{-1}		4.5	1.166			1.153			0.6		0.9	3.4	1.29
Ce	mg kg^{-1}		142.8	142.2	162	139.080	141.810			132.8	141		133	121
Cl	mg kg^{-1}													79
Co	mg kg^{-1}			5.522		5.12	5.08			5	5.17	3.41		5.63
Cr	mg kg^{-1}		24.9	17.98		26.2	25			23	25.5		157	32.32
Cs	mg kg^{-1}		12.6	1.191		1.12	0.99				1.07			1.21
Cu	mg kg^{-1}		52.5	51.74	50	48.7	54			48	49.9	42.05	86	55.06
Dy	mg kg^{-1}			7.66		9.9	9.09				10.4	3.75		10.54
Er	mg kg^{-1}			4.202		6.33	5.34				6.39	2.06		6.48
Eu	mg kg^{-1}			1.471		1.44	1.41				1.43	0.5		1.53
F	mg kg^{-1}						750							281
Ga	mg kg^{-1}		15.7	16.08	15	17.38	15.7			15	17.1		11.6	18.39
Gd	mg kg^{-1}			8.663		9.48	10.05				9.72	6.58	64.2	10.15
Ge	mg kg^{-1}						1.62					0.13		1.61
Hf	mg kg^{-1}		13.2	4.646		15.55	18.35			16.8	17			17.83
Hg	mg kg^{-1}													
Ho	mg kg^{-1}			1.391		2.08	1.801				2.15	0.95		2.16
I	mg kg^{-1}									0.8				
In	mg kg^{-1}													
La	mg kg^{-1}		68.5	66.63		64.87	66.39			66.1	66.2		56.4	70.72
Li	mg kg^{-1}			10.96			19				11.5	6.76		
Lu	mg kg^{-1}			0.555		0.94	0.778				0.98	0.24		1
Mo	mg kg^{-1}			3.851		3.51	3.72			4		2.5	4.1	3.8
Nb	mg kg^{-1}			61.05	63	55.16	67.38			59.4	67.7	1.53	59	66.85
Nd	mg kg^{-1}			62.76		58.73	60.731			52.6	60	43.52	60.7	64.6
Ni	mg kg^{-1}		14.6	14.8	19	15	18			12.9	14.7	9.67		18.75
Pb	mg kg^{-1}		172.5	190.3	180	176.170	184			180.8	177	155.7	221	191
Pr	mg kg^{-1}			16.22		15.85	16.132				16.2	12.15	11	17.27
Rb	mg kg^{-1}		111	124.5	123	113.920	118			119.1	118		129	123
Re	mg kg^{-1}													
Rh	mg kg^{-1}													
S	mg kg^{-1}		320											609
Sb	mg kg^{-1}		29.9	23.18			21.55			19.7				22.41
Sc	mg kg^{-1}					5.2	5.36			6	5.76	1.72		1.64
Se	mg kg^{-1}			0.846								0.69		
Sm	mg kg^{-1}			11.39		11.08	11.34			8.1	11.3	6.76		11.87
Sn	mg kg^{-1}		6.3	2.525		2.99	3.845			3.2	2.83	0.44		3.68
Sr	mg kg^{-1}		133.5	153.6	147	151.9	157		150	145.7	149		156	150
Ta	mg kg^{-1}			3.421		3.47	4.107			1.1	3.81			3.84
Tb	mg kg^{-1}			1.221		1.58	1.449				1.65	0.79		1.68
Te	mg kg^{-1}													
Th	mg kg^{-1}		26.4	21.95		20.21	22			19.8	21.8	1.87	19.1	22.18
Tl	mg kg^{-1}			1.028		0.92	0.868				1.16	0.41		
Tm	mg kg^{-1}			0.571		0.95	0.780				0.99	0.25		
U	mg kg^{-1}			3.121		3.29	3.334			3	3.55	0.46		3.7
V	mg kg^{-1}		44.1	33.29	35	35.9	42			29.7	35.4		209	37.18
W	mg kg^{-1}			1.202			1.447			4		0.12		1.74
Y	mg kg^{-1}		51	36.26	60	50.99	46.06			53.5	60.2		54.6	56.61
Yb	mg kg^{-1}			4.034		6.35	5.29			4.6	6.55	1.66		6.63
Zn	mg kg^{-1}		203.3	227.4	205	202.3	170			198.4	190	156.480	209	209
Zr	mg kg^{-1}		550.4	137.1	625	628.2	640		610	605.4	650	7.51	636	578

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

Table 1 - GeoPT37A Contributed data for Blended sediment, SdAR-L2. 12/06/2015

Lab Code		P98	P99	P100	P102	P103	P104	P105	P106	P107	P109	P110	P111	P112
SiO2	g 100g-1	74.55	75	72.74	74.82	74.719	74.55	73.9	77.4	74.055			73.98	74.19
TiO2	g 100g-1	0.62	0.64	0.641	0.62	0.641	0.623	0.64	0.68	0.293			0.61	0.628
Al2O3	g 100g-1	11.79	11.5	12.93	11.47	11.418	11.57	11.65	11.6	12.444	9.687		11.6	11.39
Fe2O3T	g 100g-1	3.62	3.67	3.72	3.7	3.773	3.608	3.75	3.79	2.941	3.266		3.6	3.8
Fe(II)O	g 100g-1		1.28			1.132		1.13						
MnO	g 100g-1	0.096	0.1	0.099	0.1	0.090	0.094	0.11	0.05	0.059	0.106		0.09	0.097
MgO	g 100g-1	0.45	0.35	0.39	0.45	0.501	0.46	0.49	0.29	0.393	0.324		0.52	0.3
CaO	g 100g-1	1.05	1.1	1.05	1.04	1.263	1.071	1.06	0.78	0.943	0.906		1	1.03
Na2O	g 100g-1	2.56	2.81	2.8	2.65	2.776	2.67	2.61	0.91	4.362	2.062		2.6	2.69
K2O	g 100g-1	4.11	4.19	4.17	4.11	3.928	4.134	4.02	1.79	2.193	3.384		4.25	4.13
P2O5	g 100g-1	0.09	0.08	0.086	0.08	0.075	0.081	0.078	0.074	0.07			0.087	0.079
H2O+	g 100g-1		1.5			0.571				0.006			0.54	
CO2	g 100g-1										0.513		0.23	
LOI	g 100g-1	0.94	0.95		0.9	0.635	1.001	1.1	0.88	0.871			0.8	0.96
Ag	mg kg-1		3.2					5.11						
As	mg kg-1		26	24						60			15.7	
Au	mg kg-1													
B	mg kg-1													
Ba	mg kg-1	562	827	706	808		789	700			861.2		870	775
Be	mg kg-1		3		3.64			3.69			2.75		3.73	
Bi	mg kg-1		0.44								0.21			
Br	mg kg-1			3										
C(org)	mg kg-1		700			1725								
C(tot)	mg kg-1		1610			1752	1530				1400			
Cd	mg kg-1		0.97					0.96	1		1.27	1.04		
Ce	mg kg-1	86	157	181.5	139			135			151.620	138.2	124	155
Cl	mg kg-1								320					356
Co	mg kg-1	3	5.4	7	5.33		64.3	6.14	5		5.11		5.44	6
Cr	mg kg-1	19	16	26	26.7			24.8	16				30	30
Cs	mg kg-1		1.14		1.1							1.09	0.98	1.2
Cu	mg kg-1	33	48.2	67	50.2		58.9	57	51	49	54.27		56	53
Dy	mg kg-1		10.2	8.72	10			10.35			11.12	9.08	9.28	9.39
Er	mg kg-1		5.78	4.9	6.25			4.48			6.87	5.79	5.76	5.61
Eu	mg kg-1		1.82	1.59	1.43			1.3			1.65	1.33	1.26	1.52
F	mg kg-1					832	1355							919
Ga	mg kg-1	7	16.1	14	17.5					20	17.75	16.8	16.6	17
Gd	mg kg-1		10.2	9.72	9.95			8.16			10.98	9.09	9.21	9.65
Ge	mg kg-1		6.7		1.51							1.76		
Hf	mg kg-1		4.08	9	15.8								18.7	11
Hg	mg kg-1					0.301			0.5		0.252			
Ho	mg kg-1		2.71	1.68	2.07			1.65			2.3	1.91	1.82	2.04
I	mg kg-1													
In	mg kg-1		0.41											
La	mg kg-1	38	75.5	81.2	66.9			56.2			73.56	66.2	56.9	72.4
Li	mg kg-1		11		12.2			10			15.84		12.8	
Lu	mg kg-1		1.13	0.65	0.946			0.72			1.1	0.92	0.825	0.9
Mo	mg kg-1		6.06					5.9		14	3.29		3.6	3.3
Nb	mg kg-1	64	51.3	58	68.1					64		62.3	67	71.2
Nd	mg kg-1		63.8	68.6	60.4			52.5			67.56	56.98	58	62.1
Ni	mg kg-1	5	15.5	15	14.2		28.1	21.2	13	16	13.37		17	15
Pb	mg kg-1	254	168	183	183		155.3	273	160	211	173.940		160	189
Pr	mg kg-1		15.6	18.7	16.2			16.6			18.27	15.62	15.7	16.7
Rb	mg kg-1	93	107	119	117					125	118.280	120.6	130	128
Re	mg kg-1													
Rh	mg kg-1													
S	mg kg-1		180			193	183	346	1162		200			
Sb	mg kg-1		22.9					2.47	9			20.7		
Sc	mg kg-1		4.8	6.6	5.87			6.21				3.67	6.5	5
Se	mg kg-1								7					
Sm	mg kg-1		10.3	12.47	11.5			11.7			12.32	10.7	10.5	12
Sn	mg kg-1		2.5									3.24		
Sr	mg kg-1	300	134	151	147	152.2		153		150	138.420		163	157
Ta	mg kg-1		2.86		3.78							3.66	7.4	4.31
Tb	mg kg-1		2.04	1.51	1.6			1.43			1.98	1.58	1.48	1.63
Te	mg kg-1		0.25											
Th	mg kg-1		21.9	24.22	20.9					36	23.12	19.7	19.5	19.9
Tl	mg kg-1		0.87						5		0.8	0.89	0.855	
Tm	mg kg-1		1.12	0.66	0.947			0.6			1.1	0.92	0.82	0.9
U	mg kg-1		2.83		3.57					14	2.67	3.19	3.18	3.72
V	mg kg-1	29	30	36	34.5			34.8	28		34.97		39	37
W	mg kg-1		2.4							8		1.21	1.6	0.78
Y	mg kg-1	50	61.1	45.3	58.1			33.7		64	58.28	52.7	49	52.3
Yb	mg kg-1		5.6	4.34	6.29			4.54			7.1	5.84	5.4	5.95
Zn	mg kg-1	183	210	198	195		203	209	178	196	239.570		176	196
Zr	mg kg-1	476	118	528	648		790			592	661.230		640	610

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

Table 1 - GeoPT37A Contributed data for Blended sediment, SdAR-L2. 12/06/2015

Lab Code		P113	P114	P115	P117	-	-	-	-	-	-	-	-	-
SiO2	g 100g-1	74.29	74.57	74.57	**75.65**									
TiO2	g 100g-1	0.623	0.623	0.62	**0.63**									
Al2O3	g 100g-1	11.59	11.57	11.46	**11.68**									
Fe2O3T	g 100g-1	3.669	3.62	3.58	**3.65**									
Fe(II)O	g 100g-1													
MnO	g 100g-1	0.104	0.099	0.091	**0.1**									
MgO	g 100g-1	0.344	0.43	0.42	**0.45**									
CaO	g 100g-1	1.043	1.08	1.05	**1.08**									
Na2O	g 100g-1	2.78	2.68	2.71	**2.48**									
K2O	g 100g-1	4.136	4.09	4.13	**4.09**									
P2O5	g 100g-1	0.081	0.084	0.08	**0.08**									
H2O+	g 100g-1													
CO2	g 100g-1													
LOI	g 100g-1	0.94	0.8	0.89	**0.95**									
Ag	mg kg-1	3.95	3											
As	mg kg-1	13.6	18											
Au	mg kg-1													
B	mg kg-1													
Ba	mg kg-1	804.8	820	833	**812**									
Be	mg kg-1													
Bi	mg kg-1													
Br	mg kg-1													
C(org)	mg kg-1		1735											
C(tot)	mg kg-1		1897											
Cd	mg kg-1													
Ce	mg kg-1	134.4	130											
Cl	mg kg-1	123.1	160											
Co	mg kg-1	22.1	10		**6**									
Cr	mg kg-1	27.4	29		**22**									
Cs	mg kg-1													
Cu	mg kg-1	52.1	52		**56**									
Dy	mg kg-1													
Er	mg kg-1													
Eu	mg kg-1													
F	mg kg-1		823											
Ga	mg kg-1	18.1	15		**18**									
Gd	mg kg-1													
Ge	mg kg-1		1.6											
Hf	mg kg-1		14		**12**									
Hg	mg kg-1													
Ho	mg kg-1													
I	mg kg-1													
In	mg kg-1													
La	mg kg-1	71.7	57											
Li	mg kg-1													
Lu	mg kg-1													
Mo	mg kg-1		5											
Nb	mg kg-1	62	57		**63**									
Nd	mg kg-1	57.6	51											
Ni	mg kg-1	8.3	14		**13**									
Pb	mg kg-1	190.4	162		**181**									
Pr	mg kg-1		14											
Rb	mg kg-1	125.8	125		**121**									
Re	mg kg-1													
Rh	mg kg-1													
S	mg kg-1	477.5	115	280										
Sb	mg kg-1	17.7	22											
Sc	mg kg-1		6		**6**									
Se	mg kg-1													
Sm	mg kg-1	19.7	10											
Sn	mg kg-1													
Sr	mg kg-1	150.3	152	144	**156**									
Ta	mg kg-1													
Tb	mg kg-1													
Te	mg kg-1													
Th	mg kg-1	24.1	26		**22**									
Tl	mg kg-1		1											
Tm	mg kg-1													
U	mg kg-1		2											
V	mg kg-1	16.2	35		**40**									
W	mg kg-1													
Y	mg kg-1	57.3	45		**57**									
Yb	mg kg-1													
Zn	mg kg-1	210.8	208		**194**									
Zr	mg kg-1	628.6	600		**642**									

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

Table 2 - GeoPT37A Assigned values and statistical summary for Blended sediment, SdAR-L2.

	Assigned Value	Uncertainty of assigned value	Horwitz Target Value	Uncertainty/ Target	Number of reported results	Robust Mean of results	Robust SD 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}	g 100g^{-1}		
SiO2	74.48	0.05146	0.7786	0.06609	85	74.43	0.4744	74.48	Assigned	Median
TiO2	0.62	0.001546	0.01332	0.116	92	0.6178	0.01483	0.62	Assigned	Median
Al2O3	11.58	0.02479	0.1602	0.1548	91	11.58	0.2364	11.58	Assigned	Robust Mean
Fe2O3T	3.63	0.007771	0.0598	0.13	91	3.625	0.07413	3.63	Assigned	Median
MnO	0.099	0.0004637	0.002804	0.1654	92	0.09753	0.004448	0.099	Assigned	Median
MgO	0.43	0.004532	0.009765	0.4641	90	0.4257	0.043	0.43	Provisional	Median
CaO	1.059	0.003819	0.02099	0.1819	91	1.059	0.03643	1.06	Assigned	Robust Mean
Na2O	2.657	0.01235	0.04587	0.2693	90	2.657	0.1172	2.652	Assigned	Robust Mean
K2O	4.1	0.007771	0.06631	0.1172	91	4.094	0.07413	4.1	Assigned	Median
P2O5	0.08	0.0004824	0.00234	0.2062	85	0.08132	0.004448	0.08	Assigned	Median
	mg kg^{-1}	mg kg^{-1}	mg kg^{-1}			mg kg^{-1}	mg kg^{-1}	mg kg^{-1}		
As	16.92	0.4185	0.8843	0.4733	47	16.92	2.869	17	Assigned	Robust Mean
Ba	809.1	4.616	23.62	0.1954	78	806.2	40.77	809.1	Assigned	Median
Be	3.378	0.04924	0.225	0.2189	37	3.329	0.2995	3.378	Assigned	Median
Bi	0.26	0.007124	0.02547	0.2797	26	0.2631	0.03632	0.26	Assigned	Median
Cd	1.165	0.04217	0.09104	0.4632	41	1.165	0.27	1.166	Provisional	Robust Mean
Ce	139.8	1.296	5.316	0.2438	68	139.8	10.69	141	Assigned	Robust Mean
Co	5.41	0.07598	0.3356	0.2264	64	5.544	0.6079	5.41	Assigned	Median
Cr	26	0.5279	1.274	0.4145	71	25.5	4.448	26	Assigned	Median
Cs	1.137	0.01695	0.08918	0.1901	45	1.137	0.1137	1.138	Assigned	Robust Mean
Cu	50.78	0.5077	2.249	0.2257	75	50.78	4.397	50.8	Assigned	Robust Mean
Dy	9.827	0.1371	0.5573	0.2459	53	9.588	0.9978	9.827	Assigned	Median
Er	5.98	0.08224	0.3654	0.225	52	5.766	0.593	5.98	Assigned	Median
Eu	1.44	0.01629	0.109	0.1494	53	1.447	0.1186	1.44	Assigned	Median
Ga	17	0.2055	0.8877	0.2315	63	16.92	1.631	17	Assigned	Median
Gd	9.725	0.08474	0.5523	0.1534	54	9.747	0.6227	9.725	Assigned	Median
Ge	1.6	0.0629	0.1192	0.5276	22	1.64	0.295	1.6	Provisional	Median
Hf	16.31	0.4704	0.857	0.5489	53	15.23	3.425	16.31	Provisional	Median
Hg	0.3265	0.01704	0.03091	0.5513	14	0.3487	0.06375	0.3265	Provisional	Median
Ho	2.075	0.03531	0.1487	0.2375	48	1.994	0.2446	2.075	Assigned	Median
In	0.47	0.01073	0.04212	0.2547	11	0.4618	0.03558	0.47	Provisional	Median
La	67.9	0.5593	2.879	0.1943	66	67.59	4.544	67.9	Assigned	Median
Li	11.8	0.2162	0.651	0.3321	36	11.73	1.297	11.8	Assigned	Median
Lu	0.93	0.01468	0.0752	0.1952	50	0.8962	0.1038	0.93	Assigned	Median
Mo	3.66	0.07514	0.2408	0.312	45	3.663	0.5041	3.66	Assigned	Median
Nb	63	0.73	2.701	0.2703	66	63.56	5.93	63	Assigned	Median
Nd	60.33	0.5838	2.603	0.2242	64	59.56	4.67	60.33	Assigned	Median
Ni	14.3	0.232	0.7664	0.3028	69	14.86	1.927	14.3	Assigned	Median
Pb	182.5	1.485	6.667	0.2228	72	181.2	12.6	182.5	Assigned	Median
Pr	16.2	0.1463	0.8521	0.1717	54	16.19	1.075	16.2	Assigned	Median
Rb	120	0.5475	4.669	0.1172	66	119.7	4.448	120	Assigned	Median
Sb	21.8	0.302	1.097	0.2754	42	21.32	1.957	21.8	Assigned	Median
Sc	5.61	0.1281	0.3461	0.37	55	5.61	0.9498	5.62	Assigned	Robust Mean
Sm	11.46	0.1042	0.635	0.1641	59	11.39	0.8006	11.46	Assigned	Median
Sr	150	0.7659	5.645	0.1357	75	150	6.633	150	Assigned	Robust Mean
Ta	3.812	0.08739	0.2493	0.3506	44	3.857	0.5797	3.812	Assigned	Median
Tb	1.58	0.02491	0.118	0.2112	51	1.569	0.1779	1.58	Assigned	Median
Th	21.98	0.2637	1.104	0.2389	66	21.68	2.142	21.98	Assigned	Median
Tl	0.985	0.01952	0.07896	0.2472	36	0.9579	0.1171	0.985	Assigned	Median
Tm	0.917	0.01616	0.07431	0.2174	48	0.886	0.1119	0.917	Assigned	Median
U	3.342	0.06034	0.2229	0.2707	58	3.342	0.4595	3.347	Assigned	Robust Mean
V	35	0.3596	1.639	0.2193	68	34.95	2.965	35	Assigned	Median
W	1.72	0.08649	0.1268	0.6822	32	1.905	0.4893	1.72	Provisional	Median
Y	54.6	0.5455	2.392	0.228	71	53.87	4.596	54.6	Assigned	Median
Yb	6.1	0.09819	0.3717	0.2642	57	5.712	0.7413	6.1	Assigned	Median
Zn	201	1.183	7.237	0.1634	77	200.4	10.38	201	Assigned	Median
Zr	618	4.657	18.79	0.2478	75	608.8	40.33	618	Assigned	Median

Table 3 - GeoPT37A Z-scores for Blended sediment, SdAR-L2. 12/06/2015

Lab Code	P1	P2	P3	P4	P5	P7	P8	P9	P10	P11	P12	P13	P15
SiO2	-0.07	0.04	-0.11	**-0.19**	-15.26	0.41	-0.29	**0.39**	0.01	-0.18	-0.18	0.04	0.03
TiO2	0.64	0.11	-0.38	**0.00**	**0.20**	0.75	-0.04	**0.00**	0.19	0.04	0.38	0.75	0.30
Al2O3	0.18	-0.05	-0.56	**1.21**	**-0.80**	-1.30	-0.40	**-0.54**	-0.55	-0.12	-0.24	0.32	0.20
Fe2O3T	0.48	0.25	0.22	**0.84**	**0.60**	0.67	0.69	**2.68**	-0.08	0.43	0.17	-0.25	0.00
MnO	0.53	0.36	-1.78	**-1.43**	**-0.16**	-1.60	-0.53	**0.00**	0.53	-0.14	0.18	-4.10	-1.25
MgO	*3.17*	*1.02*	*0.46*	***-2.05***	***17.04***	*0.51*	*0.61*	***0.00***	*1.48*	*1.95*	*0.00*	*-1.43*	*0.00*
CaO	0.22	0.20	0.08	**-1.84**	**-2.56**	0.98	0.65	**0.54**	-0.45	-0.40	-0.21	-0.21	0.03
Na2O	0.96	-0.84	-0.20	**0.06**	**0.19**	0.25	-0.85	**0.06**	-0.40	0.49	0.03	-1.28	-0.73
K2O	0.20	-0.88	0.18	**0.00**	**-1.18**	0.83	0.00	**0.30**	-0.30	0.26	-0.23	0.38	0.15
P2O5	1.92	-0.21	1.92	**2.99**	*	-2.78	1.28	**-4.27**	0.43	0.11	0.00	0.00	0.00
As	*	-1.09	3.44	*	**0.98**	-0.69	*	**1.44**	-2.78	-2.50	*	0.61	*
Ba	0.10	0.93	0.12	**0.80**	**0.04**	-0.90	-0.74	**-0.85**	-0.93	0.74	*	-0.55	*
Be	*	-0.17	*	**0.94**	*	*	*	**-0.48**	*	*	*	*	*
Bi	*	0.14	*	**0.79**	*	6.67	*	**0.00**	*	*	*	*	*
Cd	*	*2.94*	*	***-1.81***	*	*-0.90*	*	***3.57***	*	*3.00*	*	*	*
Ce	-0.47	0.68	0.11	**1.36**	**1.13**	-0.56	*	**0.79**	-1.58	-7.13	-1.01	*	*
Co	-0.91	-0.04	*	**8.07**	**0.52**	2.37	3.86	**-0.03**	-1.21	5.07	*	*	*
Cr	0.39	0.00	-1.96	**2.91**	**0.04**	-0.43	0.39	**3.38**	-0.47	-4.40	*	0.00	*
Cs	-0.21	-0.82	*	**-1.20**	**-1.14**	25.02	*	**-0.97**	*	*	*	*	*
Cu	-0.97	1.83	0.72	**0.19**	*	-0.95	2.49	**0.63**	-0.15	-2.23	*	-1.29	*
Dy	0.24	-2.80	*	**0.15**	**1.24**	*	*	**0.18**	*	*	-0.97	*	*
Er	0.57	-2.53	*	**-0.14**	*	*	*	**0.16**	*	*	-0.38	*	*
Eu	-0.18	-2.20	*	**0.55**	**0.53**	*	*	**-0.09**	*	*	-0.28	*	*
Ga	*	0.00	-0.56	**-0.34**	**3.15**	-0.84	-0.56	**1.24**	-0.96	0.50	*	-1.13	*
Gd	1.43	-2.48	*	**0.86**	*	*	*	**-0.66**	*	*	0.13	*	*
Ge	*	*8.14*	*	***0.00***	*	*-6.29*	*	***1.26***	*	*	*	*	*
Hf	*-1.76*	*-3.10*	*	***-1.18***	***0.08***	*1.39*	*-1.93*	***0.11***	*0.11*	*	*	*-1.93*	*
Hg	*	*	*	*	*	*0.22*	*	***10213.96***	*	*	*	*	*
Ho	0.08	-2.37	*	**-0.44**	*	*	*	**0.64**	*	*	-0.35	*	*
In	*	*0.00*	*	*	***0.57***	*	*	***-0.71***	*	*	*	*	*
La	-0.54	0.02	0.89	**0.07**	**0.34**	1.22	*	**-0.21**	-1.89	-2.66	-0.31	*	*
Li	*	*	*	**1.08**	*	*	0.15	**0.46**	*	-5.25	*	4.30	*
Lu	0.47	-1.80	*	**0.53**	**-1.50**	*	*	**0.56**	*	*	-0.20	*	*
Mo	0.71	0.91	*	**-9.68**	*	-2.20	*	**0.00**	*	-3.18	*	*	*
Nb	3.18	0.19	-0.19	**2.44**	*	-0.39	*	**-0.37**	-0.72	-1.95	*	-0.37	*
Nd	-0.64	-0.06	*	**0.53**	**0.01**	-0.97	*	**-0.43**	-1.60	*	-1.06	*	*
Ni	-1.11	-0.20	-0.20	**-3.52**	*	-1.50	16.11	**2.74**	0.00	-0.03	*	-0.20	*
Pb	-3.18	0.49	0.49	**-4.57**	*	-0.73	3.86	**0.07**	-0.64	-0.99	*	-0.11	*
Pr	-0.88	-3.29	*	**-0.47**	*	*	*	**0.00**	*	*	-0.23	*	*
Rb	-0.52	-0.21	0.43	**9.64**	**1.20**	-0.55	*	**1.28**	-0.32	*	*	-0.32	*
Sb	*	-0.14	*	**1.19**	**1.51**	0.82	*	**0.00**	-2.64	0.00	*	-1.73	*
Sc	-0.16	-0.01	-2.33	**4.54**	**0.45**	-1.03	*	**0.58**	*	-2.38	*	*	*
Sm	-0.05	1.21	*	**0.38**	**0.03**	0.66	*	**-0.09**	-0.36	*	-0.91	*	*
Sr	-0.66	-0.18	0.26	**0.88**	**4.60**	-0.55	-0.36	**0.88**	-0.53	0.01	*	-0.36	*
Ta	3.39	-0.56	*	**3.36**	**0.01**	-1.83	*	**1.80**	*	*	*	*	*
Tb	0.51	-2.03	*	**0.76**	**-0.56**	*	*	**-0.42**	*	*	0.34	*	*
Th	-0.53	-0.44	-0.44	**2.29**	**1.33**	-1.44	*	**0.29**	-1.12	*	-0.03	-1.80	*
Tl	*	0.85	*	**-0.19**	*	0.09	*	*	*	*	*	*	*
Tm	-0.11	-1.93	*	**-0.23**	*	*	*	**0.00**	*	*	0.29	*	*
U	-0.77	-2.02	1.48	**1.83**	**-1.51**	1.25	*	**-0.55**	*	*	0.04	*	*
V	1.22	0.30	-0.61	**-1.77**	**1.85**	-3.14	*	**-1.04**	-0.27	1.25	*	-0.91	*
W	*	*1.54*	*	***0.55***	***-2.29***	*2.68*	*	***1.03***	*46.85*	*	*	*	*
Y	0.44	0.29	1.13	**1.42**	*	-0.65	0.08	**1.25**	0.33	-5.85	-0.69	0.08	*
Yb	0.40	-6.73	*	**0.38**	**0.49**	-0.67	*	**0.67**	-0.54	*	-0.47	*	*
Zn	1.17	0.00	-0.28	**-4.84**	**1.80**	-0.64	2.90	**2.90**	-0.28	0.22	*	-0.14	*
Zr	-0.69	0.69	0.13	**0.75**	**1.70**	-0.44	-0.32	**2.29**	-1.44	*	-2.47	-0.43	*

Bold entries are Data Quality 1 - Underlined entries are Data Quality 2 - *Entries in italics* are derived from Provisional Values.

Table 3 - GeoPT37A Z-scores for Blended sediment, SdAR-L2. 12/06/2015

Lab Code	P16	P17	P18	P19	P22	P23	P24	P25	P26	P27	P28	P29	P30
SiO2	**-0.50**	0.21	**0.86**	0.01	-2.88	0.22	0.40	0.15	*	**0.08**	0.91	0.00	-0.63
TiO2	**0.75**	0.38	**-24.02**	0.00	-1.24	0.00	0.30	2.64	3.38	**0.00**	1.50	0.38	0.00
Al2O3	**0.52**	-0.05	**5.51**	2.10	-0.96	-0.18	-0.05	-0.49	1.63	**-0.42**	0.64	-0.05	-0.23
Fe2O3T	**0.00**	0.59	**-11.54**	-1.59	0.30	-0.17	0.17	0.28	1.42	**-4.52**	1.00	-0.25	-1.34
MnO	**0.36**	0.71	**-17.47**	-2.32	0.53	0.18	-2.67	-0.12	1.96	**0.00**	-1.07	0.18	-3.21
MgO	***-3.07***	*-0.36*	***6.14***	*0.51*	*-2.92*	*0.00*	*-0.51*	*-3.09*	*0.00*	***3.07***	*-14.34*	*0.00*	*3.07*
CaO	**-0.42**	0.51	**3.87**	0.51	0.65	-0.45	0.55	0.34	1.94	**0.54**	1.01	-0.68	-1.37
Na2O	**-1.03**	-0.40	**42.57**	2.65	-0.27	0.25	-0.78	0.51	2.43	**-0.59**	1.37	0.25	1.59
K2O	**-0.45**	-0.08	**-28.35**	-0.75	0.69	-0.60	0.09	-0.38	2.71	**0.15**	-0.60	0.00	-0.75
P2O5	**0.00**	0.64	**-8.55**	2.56	3.42	0.00	0.43	0.11	*	**-0.85**	1.28	2.14	-4.27
As	*	*	*	-0.40	1.03	2.53	-1.65	*	*	*	0.09	*	-2.29
Ba	*	*	*	-0.29	1.81	1.86	0.17	-0.93	0.82	**-0.09**	-1.28	*	-1.40
Be	*	*	*	0.12	*	0.20	-1.11	-1.29	*	*	*	*	*
Bi	*	*	*	*	*	-0.20	0.79	-1.33	*	*	*	*	*
Cd	*	*	*	*-0.90*	*-1.87*	*0.30*	*-0.35*	*-3.28*	*	*	*	*	*64.10*
Ce	*	*	*	1.02	0.36	-0.92	-0.07	-0.89	0.68	**1.08**	-3.72	*	-1.84
Co	*	*	*	-1.91	0.01	0.45	0.13	-0.28	0.37	*	-3.01	*	3.25
Cr	*	*	*	-0.59	-3.70	0.04	1.57	2.45	0.71	**1.57**	-3.14	*	0.00
Cs	*	*	*	*	*	0.07	0.35	-0.66	0.58	**-0.75**	*	*	37.71
Cu	*	*	*	0.17	0.21	-0.22	-0.53	0.69	0.47	**0.10**	-1.24	*	-2.57
Dy	*	*	*	0.77	3.08	0.60	-1.05	-0.51	0.33	**2.12**	*	*	*
Er	*	*	*	0.93	3.17	0.25	-0.19	-0.15	0.40	**1.45**	*	*	*
Eu	*	*	*	0.28	5.60	0.73	-0.55	-0.37	-0.32	**1.10**	*	*	*
Ga	*	*	*	*	1.45	0.06	0.56	-1.02	*	**0.00**	0.00	*	-2.25
Gd	*	*	*	0.86	5.38	0.43	0.04	-0.32	0.00	**0.64**	*	*	*
Ge	*	*	*	*	*	*-0.55*	*1.68*	*-0.52*	*	*	*	*	*
Hf	*	*	*	*0.13*	*9.66*	*2.15*	*0.99*	*0.09*	*	***0.00***	*7.81*	*	*-3.28*
Hg	*	*	*	*	*1.30*	*-0.59*	*4637.82*	*	*	*	*	*	*
Ho	*	*	*	0.45	2.37	0.42	-0.35	-0.41	0.15	**1.31**	*	*	*
In	*	*	*	*	*	*	*0.36*	*-1.35*	*	*	*	*	*
La	*	*	*	0.10	3.49	-0.23	-0.33	-0.66	0.57	**0.64**	-3.79	*	3.16
Li	*	*	*	-2.37	3.21	0.54	-1.38	-1.52	0.31	*	*	*	*
Lu	*	*	*	0.60	1.93	0.00	0.40	-0.51	0.00	**0.53**	*	*	*
Mo	*	*	*	-1.23	-0.85	-0.66	0.71	-0.32	*	*	2.24	*	-4.82
Nb	*	*	*	-3.09	1.55	1.07	0.93	1.87	*	**0.56**	-0.37	*	-0.74
Nd	*	*	*	0.67	3.48	-0.68	0.03	-1.11	0.80	**0.21**	-2.43	*	-3.20
Ni	*	*	*	0.38	-1.65	0.00	-0.20	0.97	0.20	**2.22**	-0.39	*	-1.70
Pb	*	*	*	-0.36	-1.31	2.44	1.09	1.25	-0.04	**0.31**	-0.82	*	1.12
Pr	*	*	*	0.52	2.56	-0.35	0.12	-0.56	0.65	**0.89**	*	*	*
Rb	*	*	*	-2.45	1.64	-1.39	0.54	-0.67	*	**0.21**	-1.50	*	0.21
Sb	*	*	*	-1.05	3.71	0.41	0.68	-0.61	*	*	*	*	0.18
Sc	*	*	*	-0.58	*	1.88	*	-0.01	*	**0.55**	-4.07	*	11.24
Sm	*	*	*	0.53	2.67	0.03	-0.46	-0.64	0.50	**0.79**	*	*	-5.45
Sr	*	*	*	0.15	1.57	0.62	-0.36	-1.58	1.06	**1.06**	-1.25	*	-0.18
Ta	*	*	*	-3.71	10.25	1.44	-0.22	0.70	*	**0.11**	*	*	8.78
Tb	*	*	*	0.47	2.97	0.38	-0.64	-0.01	-0.13	**1.53**	*	*	*
Th	*	*	*	2.81	2.76	0.83	0.33	-0.48	-0.17	**0.67**	-3.60	*	-1.79
Tl	*	*	*	*	*	0.28	0.73	0.53	*	*	*	*	*
Tm	*	*	*	0.49	2.51	0.15	0.56	-0.24	0.22	**0.98**	*	*	*
U	*	*	*	-0.50	2.53	-0.05	0.83	-0.02	1.81	**0.98**	*	*	3.85
V	*	*	*	0.06	-0.55	0.34	-0.30	-0.93	0.21	**1.22**	-2.44	*	0.00
W	*	*	*	*	*	*-0.87*	*1.10*	*-0.84*	*	*	*	*	*61.36*
Y	*	*	*	-0.30	2.46	0.15	0.31	0.03	0.71	**1.61**	-0.25	*	0.17
Yb	*	*	*	0.83	2.83	0.27	0.00	0.14	0.00	**0.43**	-2.15	*	*
Zn	*	*	*	0.28	-1.09	0.00	0.00	0.74	-0.48	**1.11**	-0.69	*	-0.41
Zr	*	*	*	0.00	-12.30	0.13	0.72	1.22	*	**0.69**	-2.29	*	-0.27

Bold entries are Data Quality 1 - Underlined entries are Data Quality 2 - *Entries in italics* are derived from Provisional Values.

Table 3 - GeoPT37A Z-scores for Blended sediment, SdAR-L2. 12/06/2015

Lab Code	P31	P32	P33	P34	P35	P37	P38	P39	P40	P42	P44	P46	P47
SiO2	-2.54	-8.25	0.12	*	0.21	-1.09	-1.36	*	0.21	-0.31	0.23	0.28	0.15
TiO2	-1.50	2.48	-0.90	*	-0.38	0.00	-0.19	-6.75	-0.38	-0.19	5.25	-0.95	-0.23
Al2O3	6.76	-5.97	-0.17	-3.60	0.38	-1.35	1.57	*	-0.40	0.01	0.83	0.29	1.39
Fe2O3T	-5.18	-0.67	-0.67	-2.17	-0.17	-2.01	0.08	*	-0.84	-0.05	-1.67	-0.25	-0.33
MnO	-6.78	*	-0.71	14.62	0.18	0.36	-0.18	0.36	*	0.18	0.36	-2.32	2.14
MgO	*14.34*	*-2.05*	*2.97*	*-1.02*	*0.00*	*-5.12*	*-0.92*	*	*0.00*	*1.43*	*-9.22*	*2.97*	*-6.14*
CaO	8.64	0.06	-0.42	35.31	0.51	-1.37	-1.16	*	-0.21	-0.37	1.01	1.06	-1.37
Na2O	3.99	-2.77	-0.59	5.29	-0.08	-5.17	-0.08	*	-0.30	-0.10	-0.16	1.50	-1.68
K2O	7.84	-1.66	-0.30	22.62	0.00	-1.06	0.23	*	-0.90	-0.66	1.51	0.77	-1.81
P2O5	21.37	5.98	1.28	*	0.00	-4.27	0.43	*	*	-0.21	0.00	10.43	-0.85
As	-3.30	-2.34	-1.16	4.61	*	-3.30	*	*	1.23	0.24	*	2.01	*
Ba	-34.24	-1.02	-1.15	0.88	*	0.88	0.44	1.43	1.48	-0.73	*	1.34	-0.68
Be	*	1.65	0.90	-1.68	*	-1.95	*	0.45	0.23	-0.26	*	0.00	1.83
Bi	*	0.39	-0.79	*	*	*	*	*	0.00	-0.08	*	0.04	*
Cd	*	*0.94*	*0.72*	*162.96*	*	*0.83*	*	*0.17*	*0.36*	*-0.65*	*	*-1.85*	*2.45*
Ce	*	-0.34	1.04	1.92	*	1.73	*	-0.71	0.82	-0.74	*	2.41	-0.17
Co	*	-0.98	-0.15	225.22	*	-2.77	*	0.12	-0.01	0.20	10.70	-1.48	1.45
Cr	*	0.73	1.10	1.57	*	-7.22	0.00	0.08	-1.96	1.20	1.57	-0.46	8.64
Cs	*	-0.97	-0.08	*	*	*	*	0.26	0.02	0.01	*	-0.08	1.42
Cu	*	-2.26	0.01	-3.90	*	-0.46	-0.62	-1.10	0.38	0.56	*	-1.40	-0.62
Dy	*	0.24	0.78	2.10	*	1.39	*	0.67	0.29	0.00	*	-0.11	3.05
Er	*	0.14	0.96	1.97	*	1.59	*	0.90	0.38	0.19	*	0.43	7.09
Eu	*	0.37	0.55	1.47	*	1.28	*	1.93	-0.14	-0.11	*	0.02	1.28
Ga	*	-1.90	-1.69	*	*	-0.17	*	0.68	1.30	-0.14	*	0.99	1.33
Gd	*	1.11	0.35	2.31	*	1.95	*	1.95	0.05	-0.36	*	-0.02	2.97
Ge	*	*-1.26*	*	*	*	*-1.68*	*	*	*	*	*	*	*0.96*
Hf	*	*38.14*	*0.46*	*	*	*-2.57*	*	*2.91*	*1.28*	*-0.43*	*	*0.78*	*-6.35*
Hg	*	*	*	*	*	*	*	*	*	*0.07*	*	*-0.83*	*
Ho	*	*	0.57	0.17	*	0.71	*	1.11	0.29	-0.29	*	0.67	2.94
In	*	*	*	*	*	*	*	*	*0.33*	*0.08*	*	*	*
La	*	*	0.63	0.73	*	1.08	0.02	1.39	0.16	-0.81	*	1.21	0.64
Li	*	-0.31	2.95	*	*	-2.77	*	-0.31	1.15	-0.58	*	0.88	2.58
Lu	*	*	0.27	0.93	*	1.33	*	2.66	0.07	-0.03	*	0.31	11.44
Mo	*	-1.58	-0.42	0.58	*	-0.87	*	*	0.23	0.69	*	-1.55	*
Nb	*	*	3.26	*	*	0.56	-0.56	*	1.91	0.60	*	-1.42	-0.13
Nd	*	-0.92	0.88	-0.12	*	1.83	*	0.99	0.09	-0.17	*	0.56	1.21
Ni	*	*	-1.15	34.84	*	-1.96	*	-0.39	0.26	0.54	4.83	-0.13	2.43
Pb	*	0.22	2.53	-1.87	*	0.49	*	0.37	0.11	-0.31	*	-0.28	*
Pr	*	-0.05	0.97	0.94	*	1.64	*	1.76	0.32	-0.14	*	0.62	0.65
Rb	*	-1.28	0.75	*	*	-0.36	*	0.21	0.27	-0.14	*	0.41	-0.21
Sb	*	-1.51	-0.74	0.18	*	-0.27	*	*	0.64	0.36	*	0.31	*
Sc	*	*	6.01	*	*	-1.17	*	2.02	-0.16	0.19	*	3.71	-0.25
Sm	*	-0.63	0.76	0.85	*	1.17	*	0.38	0.43	-0.24	*	0.73	0.69
Sr	*	0.08	0.28	*	*	-0.45	*	-0.36	0.22	-0.22	*	-0.06	-0.89
Ta	*	*	0.68	*	*	7.60	*	*	-0.02	0.23	*	1.20	-2.03
Tb	*	1.02	1.02	1.02	*	1.02	*	1.70	-0.04	-0.21	*	-0.26	1.86
Th	*	0.93	0.58	0.02	*	1.29	*	-0.34	0.28	-0.60	*	2.24	0.38
Tl	*	-0.44	0.57	-7.03	*	-2.60	*	*	*	-0.33	*	*	0.60
Tm	*	*	0.71	1.12	*	1.25	*	2.87	0.22	0.08	*	0.00	6.61
U	*	0.26	0.98	0.71	*	1.25	*	-0.32	0.06	0.21	*	0.95	-0.41
V	*	0.85	1.04	-1.22	*	-1.13	0.30	0.85	*	-0.03	*	-0.21	2.44
W	*	*60.89*	*-0.16*	*	*	*10.96*	*	*	*	*-0.52*	*	*1.02*	*
Y	*	*	0.04	0.17	*	0.25	-0.96	1.13	-0.06	0.31	*	0.74	-0.96
Yb	*	*	0.43	0.54	*	1.56	*	2.18	0.19	0.07	*	0.24	12.81
Zn	-0.14	-1.24	1.62	-4.28	*	0.19	-0.07	0.00	0.76	-0.33	*	0.21	0.35
Zr	4.36	-2.93	-1.45	*	*	-1.09	0.32	1.49	3.41	-0.52	4.68	1.20	0.16

Bold entries are Data Quality 1 - Underlined entries are Data Quality 2 - *Entries in italics* are derived from Provisional Values.

Table 3 - GeoPT37A Z-scores for Blended sediment, SdAR-L2. 12/06/2015

Lab Code	P48	P49	P50	P51	P52	P53	P54	P58	P59	P60	P61	P63	P65
SiO2	-0.01	-0.53	*	0.27	-0.58	0.22	-0.15	0.32	0.54	0.72	-0.15	-0.12	-0.02
TiO2	0.00	2.25	-4.43	0.19	-3.00	-4.50	0.23	-2.25	-2.25	-2.25	-6.75	0.75	0.38
Al2O3	0.21	0.77	*	0.07	-1.73	1.48	-1.33	0.64	-0.48	-1.58	0.27	0.73	-0.05
Fe2O3T	0.00	4.68	*	-0.17	0.33	1.81	-0.70	6.19	-0.17	-2.93	2.68	0.42	0.08
MnO	-1.39	2.85	-2.50	-0.23	-3.21	0.89	0.41	0.36	-1.43	-1.60	-3.21	0.18	0.18
MgO	*-1.02*	*4.10*	*	*-2.05*	*1.02*	*26.78*	*0.06*	*2.05*	*-1.02*	*-8.70*	*7.17*	*2.56*	*0.00*
CaO	-0.89	0.54	*	-0.21	-1.37	-5.26	5.46	-0.89	-1.37	1.46	6.25	-0.21	0.03
Na2O	-2.77	0.50	*	-2.69	-1.25	-0.03	0.18	3.77	-0.37	3.08	5.73	-0.08	0.25
K2O	-0.45	0.60	*	0.38	-0.45	7.52	0.30	-2.41	-0.60	0.00	1.51	0.68	0.08
P2O5	1.20	2.56	*	0.00	0.00	1.92	0.43	-4.27	-1.28	0.00	4.27	0.00	0.21
As	9.13	*	-0.32	-0.92	0.09	*	*	*	*	-2.20	*	*	0.61
Ba	-1.15	0.94	0.52	-1.56	1.01	*	-0.02	1.09	*	-2.97	1.60	0.48	0.40
Be	*	2.36	*	*	*	*	0.07	*	*	-2.62	*	0.05	-0.17
Bi	*	*	8.44	-0.57	*	*	*	*	*	-1.61	*	*	-0.39
Cd	*-4.00*	*	*0.52*	*0.14*	*	*	*	*	*	*-0.82*	*	*	*0.19*
Ce	-0.75	1.88	1.38	-0.88	-7.30	*	0.62	0.79	*	-4.62	1.86	0.40	0.71
Co	0.36	-5.54	-2.41	3.55	-4.20	*	0.39	*	*	-1.29	0.27	0.28	0.28
Cr	-1.33	-15.61	-3.09	-0.59	-2.36	*	1.96	-1.57	*	-2.41	126.42	0.86	-1.18
Cs	0.71	1.49	-0.79	0.58	*	*	0.19	*	*	-1.01	-1.08	1.48	0.35
Cu	-6.62	-1.28	-2.13	0.92	-0.79	*	-0.64	0.99	*	-1.27	1.79	-0.13	0.18
Dy	0.29	-2.76	-1.39	-2.35	*	*	0.16	-4.36	*	-3.45	-3.85	-0.11	-0.11
Er	-1.07	-3.39	-1.72	-2.41	*	*	0.29	-4.87	*	-3.27	-4.08	-0.11	0.57
Eu	-1.01	-0.28	-0.69	1.15	*	*	0.69	-1.28	*	-1.44	0.37	0.05	0.28
Ga	2.14	45.05	0.97	0.17	1.13	*	0.51	*	*	-1.26	*	-0.68	0.23
Gd	-0.77	-1.87	0.75	0.34	-1.31	*	0.25	0.50	*	-2.05	-0.48	-0.11	-0.38
Ge	*	*	*	*	*-5.03*	*	*	*	*	*-0.70*	*	*	*-1.26*
Hf	*-1.76*	*-12.17*	*-9.95*	*-1.58*	*3.14*	*	*-0.76*	*	*	*-5.19*	*	*0.46*	*0.93*
Hg	*	*	*	*-0.80*	*	*	*	*	*	*	*	*	*-1.24*
Ho	-1.65	-2.79	-1.47	-2.20	*	*	1.03	*	*	-2.94	*	0.08	0.42
In	*	*	*	*-0.21*	*	*	*	*	*	*	*	*	*0.12*
La	-1.11	-0.05	0.44	-0.66	-1.35	*	0.21	0.73	*	-4.42	0.69	-0.02	0.26
Li	-5.81	1.40	*	*	*	*	*	*	*	-1.25	*	*	0.15
Lu	-1.74	-3.32	-1.73	-2.20	*	*	0.20	*	*	-2.59	-3.99	-0.20	-0.20
Mo	*	-1.62	*	1.33	*	*	0.64	*	*	0.53	*	0.50	-0.33
Nb	-3.44	-0.89	2.09	-0.67	3.33	*	0.00	-6.66	*	1.03	50.35	1.04	1.20
Nd	-1.54	0.08	0.36	3.43	2.18	*	-0.20	0.26	*	-3.65	1.60	0.07	0.57
Ni	-0.78	3.65	-0.44	2.09	7.44	*	1.11	*	*	-1.46	3.26	-1.44	0.07
Pb	-3.31	0.70	-0.08	2.08	2.02	*	0.73	*	*	-3.48	2.77	-5.88	1.09
Pr	-1.09	0.42	0.65	-0.09	*	*	0.35	-2.58	*	-2.89	1.29	0.35	0.70
Rb	0.00	0.28	-0.36	-0.51	1.07	*	0.26	0.43	*	-3.03	0.00	0.12	0.21
Sb	*	*	-1.69	49.34	*	*	*	*	*	-1.62	*	*	0.00
Sc	-1.73	0.35	-6.15	1.88	4.02	*	-0.27	-1.76	*	-0.19	2.57	-0.16	-0.88
Sm	-1.59	-0.44	0.00	77.59	*	*	0.11	0.85	*	-2.78	2.27	*	0.03
Sr	-1.85	0.01	-0.66	-1.19	0.88	*	0.18	-0.01	*	-4.91	2.65	0.45	0.79
Ta	-1.45	-1.85	-0.41	*	*	*	-0.00	*	*	0.96	-2.61	0.18	-0.79
Tb	-2.68	-1.36	0.24	-0.64	*	*	0.68	*	*	-2.48	-2.88	*	0.08
Th	-1.48	-4.06	0.06	0.69	-7.22	*	0.01	-3.60	*	-3.07	-1.70	0.33	0.06
Tl	-0.19	*	-0.09	0.22	*	*	-0.47	*	*	-1.01	*	-2.56	0.22
Tm	-1.36	*	-1.05	-2.21	*	*	0.42	*	*	-2.48	-4.31	-0.11	-0.11
U	-3.10	-0.73	-0.23	-0.36	-1.53	*	0.36	*	*	-1.50	-6.69	0.13	0.13
V	-0.43	2.87	-1.53	-1.34	-1.22	*	*	-1.83	*	-1.42	0.79	0.43	-0.61
W	*-2.68*	*	*	*	*	*	*	*	*	*0.11*	*	*-0.08*	*-1.26*
Y	-1.35	-3.24	-0.87	-0.08	1.42	*	0.54	-6.10	*	-5.93	-12.71	1.94	0.00
Yb	-1.56	-3.82	-1.86	-2.80	*	*	-0.13	-6.19	*	-3.39	-5.25	0.00	0.13
Zn	-6.98	-0.65	-5.41	0.02	-0.83	*	-0.38	0.41	*	-4.48	7.74	1.07	0.69
Zr	-0.11	-21.81	-18.94	-1.11	0.53	*	1.14	0.75	*	-10.11	-14.10	0.45	0.77

Bold entries are Data Quality 1 - Underlined entries are Data Quality 2 - *Entries in italics* are derived from Provisional Values.

Table 3 - GeoPT37A Z-scores for Blended sediment, SdAR-L2. 12/06/2015

Lab Code	P66	P67	P68	P69	P70	P71	P72	P73	P74	P75	P76	P77	P78
SiO2	0.40	0.53	-1.29	*	-0.91	-0.05	-0.10	-0.05	0.15	-1.01	-0.42	-0.04	0.34
TiO2	0.75	-2.10	2.63	-0.68	-0.60	1.13	0.75	-0.04	0.00	-3.00	-4.65	0.00	-4.04
Al2O3	0.71	-1.49	1.85	-1.79	0.14	0.73	-1.10	1.63	0.02	-2.60	0.02	0.26	-6.02
Fe2O3T	1.00	-3.76	-2.42	-0.59	0.17	1.92	1.00	-2.76	0.17	-0.50	-3.93	-0.08	-1.24
MnO	3.92	0.14	1.25	-1.07	-1.25	1.96	-0.71	-0.05	0.36	0.36	-4.99	-0.36	-2.85
MgO	*-11.27*	*-0.51*	*-2.05*	*-1.13*	*-1.02*	*-1.54*	*-3.07*	*-3.12*	*-1.02*	*-3.07*	*0.00*	*1.02*	*-2.74*
CaO	1.01	-0.45	1.46	0.49	-1.37	0.75	0.54	0.51	0.06	0.06	-0.89	-0.21	-1.99
Na2O	1.15	2.21	-0.40	-2.31	-0.05	-3.24	-2.77	2.10	0.28	-44.84	1.37	-0.08	-0.13
K2O	3.32	0.00	-8.75	-2.28	-0.30	-0.23	-0.15	-0.83	0.15	-61.23	3.02	0.00	-1.19
P2O5	0.00	-0.64	0.00	-0.85	0.00	-2.14	1.71	-0.58	4.27	-4.27	4.27	0.00	-0.81
As	-1.04	*	1.25	*	-0.59	1.17	*	*	*	-2.97	-2.63	0.38	*
Ba	*	0.10	-1.43	-0.60	0.85	4.61	-0.64	3.19	-1.32	-1.92	-2.59	-0.17	-2.13
Be	*	-0.84	*	0.28	-0.64	25.83	*	*	*	*	*	0.40	*
Bi	*	0.00	1.57	*	-1.44	*	*	*	*	*	0.35	*	*
Cd	*-1.81*	*-0.41*	*-1.29*	*	*0.39*	*	*	*	*	*	*	*	*
Ce	*	1.43	-0.14	0.42	1.49	*	-0.54	*	*	-3.18	-0.80	0.87	0.87
Co	-1.22	-0.01	-0.55	-0.39	-0.68	85.80	*	*	*	-6.88	*	*	*
Cr	3.93	-1.96	2.87	-0.16	0.94	9.81	*	*	-7.22	-2.20	-5.50	-0.79	*
Cs	*	0.19	-1.10	-0.75	-0.52	*	147.80	*	*	*	0.01	*	*
Cu	-1.68	0.25	2.34	-0.57	1.39	6.50	-1.81	2.49	*	-0.70	-1.33	0.49	*
Dy	*	-1.64	-0.04	0.85	-0.01	*	*	*	*	*	-0.97	-0.85	-3.03
Er	*	-2.02	0.12	0.96	0.76	*	*	*	*	*	-0.91	-1.34	-3.35
Eu	*	0.00	-0.23	0.09	-0.49	*	*	*	*	*	-1.38	-0.46	-1.27
Ga	*	0.34	23.90	0.34	0.03	*	0.79	*	1.24	-2.03	-1.35	*	*
Gd	*	-0.29	0.14	-0.17	-0.01	*	*	*	*	*	-0.72	-1.43	-2.12
Ge	*	*	*4.40*	*	*	*	*	*	*	*7.55*	*	*	*
Hf	*	*	*0.54*	*0.11*	*-1.96*	*	*	*	*	*-6.66*	*1.87*	*	*
Hg	*	*-0.07*	*	*	*0.44*	*	*	*	*	*	*	*	*
Ho	*	-1.60	*	0.30	2.21	*	*	*	*	*	-1.26	-1.83	-3.67
In	*	*	*-0.24*	*	*	*	*	*	*	*	*	*	*
La	*	0.71	-0.26	-0.21	0.93	*	*	*	*	-4.52	-0.78	1.15	-1.54
Li	*	*	*	-0.92	-0.61	*	*	*	*	*	-1.19	0.15	*
Lu	*	*	0.07	0.80	0.49	*	*	*	*	*	-1.12	0.00	-3.25
Mo	*	-0.54	0.15	*	-0.28	*	*	*	*	-1.08	2.28	*	*
Nb	*	0.74	-1.56	3.29	-1.32	1.11	-1.00	0.37	-1.55	0.33	-1.78	0.11	*
Nd	*	0.71	-0.73	-0.01	1.04	*	-3.14	*	*	-4.20	-0.41	-2.10	-0.38
Ni	-0.39	-0.20	11.85	0.00	-0.69	*	*	*	0.00	0.39	7.44	*	*
Pb	-18.52	0.04	-1.42	0.22	0.93	0.19	-2.47	0.49	*	-1.66	-0.51	-0.19	*
Pr	*	0.65	-0.62	0.23	-1.41	*	*	*	*	*	-0.60	-2.00	-0.81
Rb	*	-0.75	-0.97	0.00	-0.58	*	0.43	-0.11	*	-1.14	0.54	0.32	*
Sb	*	-0.36	-2.15	*	0.91	*	*	*	*	-1.46	0.73	-0.36	*
Sc	*	-0.30	1.24	0.81	0.03	*	*	*	*	1.99	-5.81	0.13	0.90
Sm	*	0.19	-0.30	-0.09	-0.99	*	*	*	*	-3.72	-2.15	-1.07	-0.77
Sr	*	-0.00	0.10	-0.01	-0.48	2.03	-0.89	0.79	0.70	-1.03	-0.61	0.09	-1.33
Ta	*	-0.83	-0.91	0.07	2.21	*	*	*	*	7.98	-1.33	*	*
Tb	*	-1.02	-0.21	0.51	1.08	*	*	*	*	*	-0.92	-0.51	-1.98
Th	*	0.74	0.03	-0.07	0.54	*	*	*	*	-2.33	1.47	*	-1.11
Tl	0.19	0.16	-5.98	1.08	0.28	*	*	*	*	*	0.48	*	*
Tm	*	-1.80	-0.05	0.85	1.35	*	*	*	*	*	-0.89	-0.85	-3.27
U	11.93	-0.54	0.06	0.84	1.47	*	*	*	*	-5.57	7.89	*	-0.97
V	0.00	0.61	8.91	-0.30	-1.34	*	3.35	*	6.28	-2.32	0.00	*	*
W	*	*-1.38*	*3.51*	*	*-0.89*	*	*	*	*	*	*	*	*
Y	*	-2.22	-0.27	1.92	*	-0.33	-0.86	*	*	-0.25	-1.30	0.08	-1.94
Yb	*	-2.15	0.28	0.94	1.00	*	*	*	*	-8.34	-0.18	-1.32	-4.46
Zn	-0.97	-0.07	-0.37	-0.14	3.83	*	0.00	1.59	0.28	-2.35	-2.50	0.90	*
Zr	*	-0.85	0.05	0.48	-3.25	*	-2.10	1.25	2.71	-0.96	-1.48	-0.03	0.16

Bold entries are Data Quality 1 - Underlined entries are Data Quality 2 - *Entries in italics* are derived from Provisional Values.

Table 3 - GeoPT37A Z-scores for Blended sediment, SdAR-L2. 12/06/2015

Lab Code	P79	P81	P82	P84	P85	P86	P87	P89	P90	P92	P95	P96	P97
SiO2	-0.23	-6.91	*	-0.42	1.69	0.76	-0.57	0.14	-0.05	*	*	-1.98	0.64
TiO2	0.53	-6.45	-4.47	0.75	1.01	2.10	-0.38	0.38	-0.34	-1.28	-20.98	-5.10	1.50
Al2O3	0.09	-5.48	2.91	0.08	-0.05	0.71	0.38	-0.55	0.32	*	-33.32	3.19	1.58
Fe2O3T	0.28	-5.40	-0.62	3.85	0.22	0.00	1.67	0.17	-0.36	*	-18.68	-2.01	0.00
MnO	1.07	-5.03	0.36	0.36	0.18	-0.36	1.96	-0.36	0.18	-1.78	-8.74	157.26	0.36
MgO	*-0.72*	*22.53*	*2.00*	*4.10*	*-0.36*	*-0.20*	*-3.58*	*-2.56*	*-1.08*	*	*-9.42*	*	*7.17*
CaO	-0.03	-0.42	1.20	3.87	0.51	1.84	-1.87	-2.35	-0.02	*	-17.55	-1.40	0.06
Na2O	-8.05	-27.40	3.51	-1.46	-0.12	0.72	0.58	-2.80	0.70	*	-28.37	*	0.72
K2O	-0.17	-0.60	3.11	-0.30	-0.44	12.37	0.30	0.00	0.68	*	-29.45	0.53	0.15
P2O5	2.56	-2.14	-0.85	8.55	0.21	2.14	2.14	0.00	-0.21	*	-2.56	*	4.27
As	*	0.09	0.24	*	*	0.72	*	*	-0.97	*	-2.55	*	1.15
Ba	*	4.00	0.59	0.21	0.11	1.35	*	-0.19	-0.79	-1.36	-15.44	0.06	-0.09
Be	*	*	-1.15	*	-0.17	-0.18	*	*	*	0.23	-4.86	*	-0.39
Bi	*	*	-0.65	*	*	0.17	*	*	*	*	-1.18	*	2.75
Cd	*	*36.64*	*0.01*	*	*	*-0.06*	*	*	*-3.10*	*	*-1.45*	*12.28*	*1.38*
Ce	*	0.57	0.23	2.09	-0.07	0.19	*	*	-0.66	0.23	*	-0.64	-3.53
Co	*	*	0.17	*	-0.43	-0.49	*	*	-0.61	-0.72	-2.98	*	0.66
Cr	*	-0.86	-3.15	*	0.08	-0.39	*	*	-1.18	-0.39	*	51.43	4.96
Cs	*	128.54	0.30	*	-0.09	-0.82	*	*	*	-0.75	*	*	0.82
Cu	*	0.76	0.21	-0.35	-0.46	0.72	*	*	-0.62	-0.39	-1.94	7.83	1.90
Dy	*	*	-1.94	*	0.07	-0.66	*	*	*	1.03	-5.45	*	1.28
Er	*	*	-2.43	*	0.48	-0.88	*	*	*	1.12	-5.36	*	1.37
Eu	*	*	0.14	*	0.00	-0.14	*	*	*	-0.09	-4.31	*	0.83
Ga	*	-1.46	-0.52	-1.13	0.21	-0.73	*	*	-1.13	0.11	*	-3.04	1.57
Gd	*	*	-0.96	*	-0.22	0.29	*	*	*	-0.01	-2.85	49.31	0.77
Ge	*	*	*	*	*	*0.08*	*	*	*	*	*-6.16*	*	*0.08*
Hf	*	*-3.63*	*-6.81*	*	*-0.44*	*1.19*	*	*	*0.29*	*0.81*	*	*	*1.77*
Hg	*	*	*	*	*	*	*	*	*	*	*	*	*
Ho	*	*	-2.30	*	0.02	-0.92	*	*	*	0.50	-3.78	*	0.57
In	*	*	*	*	*	*	*	*	*	*	*	*	*
La	*	0.21	-0.22	*	-0.53	-0.26	*	*	-0.31	-0.59	*	-2.00	0.98
Li	*	*	-0.65	*	*	11.06	*	*	*	-0.46	-3.87	*	*
Lu	*	*	-2.49	*	0.07	-1.01	*	*	*	0.66	-4.59	*	0.93
Mo	*	*	0.40	*	-0.31	0.12	*	*	0.71	*	-2.41	0.91	0.58
Nb	*	*	-0.36	0.00	-1.45	0.81	*	*	-0.67	1.74	-11.38	-0.74	1.43
Nd	*	*	0.47	*	-0.31	0.08	*	*	-1.48	-0.12	-3.23	0.07	1.64
Ni	*	0.39	0.33	6.13	0.46	2.41	*	*	-0.91	0.52	-3.02	*	5.81
Pb	*	-1.50	0.58	-0.37	-0.47	0.11	*	*	-0.13	-0.82	-2.01	2.89	1.27
Pr	*	*	0.01	*	-0.21	-0.04	*	*	*	0.00	-2.38	-3.05	1.26
Rb	*	-1.93	0.48	0.64	-0.65	-0.43	*	*	-0.10	-0.43	*	0.96	0.64
Sb	*	7.39	0.63	*	*	-0.11	*	*	-0.96	*	*	*	0.56
Sc	*	*	*	*	-0.59	-0.36	*	*	0.56	0.43	-5.62	*	-11.47
Sm	*	*	-0.06	*	-0.30	-0.09	*	*	-2.65	-0.25	-3.70	*	0.65
Sr	*	-2.93	0.32	-0.54	0.17	0.62	*	-0.00	-0.38	-0.18	*	0.53	-0.01
Ta	*	*	-0.78	*	-0.69	0.59	*	*	-5.44	-0.01	*	*	0.11
Tb	*	*	-1.52	*	0.00	-0.56	*	*	*	0.59	-3.35	*	0.85
Th	*	4.01	-0.01	*	-0.80	0.01	*	*	-0.99	-0.16	-9.11	-1.30	0.19
Tl	*	*	0.27	*	-0.41	-0.74	*	*	*	2.22	-3.64	*	*
Tm	*	*	-2.33	*	0.22	-0.92	*	*	*	0.98	-4.49	*	*
U	*	*	-0.50	*	-0.12	-0.02	*	*	-0.77	0.93	-6.46	*	1.61
V	*	5.55	-0.52	0.00	0.27	2.13	*	*	-1.62	0.24	*	53.07	1.33
W	*	*	*-2.04*	*	*	*-1.08*	*	*	*8.99*	*	*-6.31*	*	*0.16*
Y	*	-1.51	-3.83	2.26	-0.75	-1.79	*	*	-0.23	2.34	*	0.00	0.84
Yb	*	*	-2.78	*	0.34	-1.09	*	*	-2.02	1.21	-5.97	*	1.43
Zn	*	0.32	1.82	0.55	0.09	-2.14	*	*	-0.18	-1.52	-3.08	0.55	1.11
Zr	*	-3.60	-12.80	0.37	0.27	0.59	*	-0.21	-0.34	1.70	-16.24	0.48	-2.13

Bold entries are Data Quality 1 - Underlined entries are Data Quality 2 - *Entries in italics* are derived from Provisional Values.

Table 3 - GeoPT37A Z-scores for Blended sediment, SdAR-L2. 12/06/2015

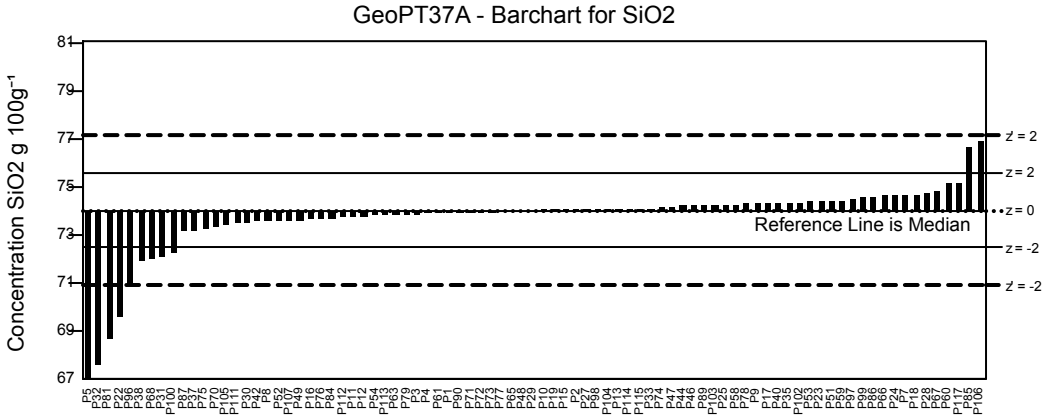
Lab Code	P98	P99	P100	P102	P103	P104	P105	P106	P107	P109	P110	P111	P112
SiO2	0.04	0.33	-1.12	0.22	**0.31**	0.04	**-0.74**	**3.75**	**-0.55**	*	*	-0.32	**-0.37**
TiO2	0.00	0.75	0.79	0.00	**1.58**	0.11	**1.50**	**4.50**	**-24.54**	*	*	-0.38	**0.60**
Al2O3	0.67	-0.24	4.22	-0.33	**-0.99**	-0.02	**0.46**	**0.14**	**5.41**	-5.90	*	0.07	**-1.17**
Fe2O3T	-0.08	0.33	0.75	0.59	**2.39**	-0.18	**2.01**	**2.68**	**-11.52**	-3.04	*	-0.25	**2.84**
MnO	-0.53	0.18	0.00	0.18	**-3.14**	-0.89	**3.92**	**-17.47**	**-14.26**	1.25	*	-1.60	**-0.71**
MgO	*1.02*	*-4.10*	*-2.05*	*1.02*	***7.27***	*1.54*	***6.14***	***-14.34***	***-3.79***	*-5.43*	*	*4.61*	***-13.31***
CaO	-0.21	0.98	-0.21	-0.45	**9.73**	0.29	**0.06**	**-13.28**	**-5.51**	-3.64	*	-1.40	**-1.37**
Na2O	-1.06	1.67	1.56	-0.08	**2.59**	0.14	**-1.03**	**-38.09**	**37.16**	-6.49	*	-0.62	**0.72**
K2O	0.08	0.68	0.53	0.08	**-2.59**	0.26	**-1.21**	**-34.84**	**-28.76**	-5.40	*	1.13	**0.45**
P2O5	2.14	0.00	1.28	0.00	**-2.31**	0.21	**-0.85**	**-2.78**	**-4.27**	*	*	1.50	**-0.43**
As	*	5.13	4.00	*	*	*	*	*	**48.72**	*	*	-0.69	*
Ba	-5.23	0.38	-2.18	-0.02	*	-0.43	**-4.62**	*	*	1.10	*	1.29	**-1.45**
Be	*	-0.84	*	0.58	*	*	**1.39**	*	*	-1.40	*	**1.56**	*
Bi	*	3.53	*	*	*	*	*	*	*	-0.98	*	*	*
Cd	*	*-1.07*	*	*	*	*	***-2.25***	***-1.81***	*	*0.58*	***-1.37***	*	*
Ce	-5.06	1.62	3.92	-0.07	*	*	**-0.90**	*	*	1.11	**-0.30**	**-2.97**	**2.86**
Co	-3.59	-0.01	2.37	-0.12	*	87.73	**2.18**	**-1.22**	*	-0.45	*	**0.09**	0.88
Cr	-2.75	-3.93	0.00	0.27	*	*	**-0.94**	**-7.85**	*	*	*	1.57	**3.14**
Cs	*	0.02	*	-0.21	*	*	*	*	*	*	**-0.52**	**-1.76**	**0.71**
Cu	-3.95	-0.57	3.61	-0.13	*	1.80	**2.77**	**0.10**	**-0.79**	0.78	*	1.16	**0.99**
Dy	*	0.33	-0.99	0.16	*	*	**0.94**	*	*	1.16	**-1.34**	**-0.98**	**-0.78**
Er	*	-0.27	-1.48	0.37	*	*	**-4.10**	*	*	1.22	**-0.52**	**-0.60**	**-1.01**
Eu	*	1.74	0.69	-0.05	*	*	**-1.28**	*	*	0.96	**-1.01**	**-1.65**	**0.73**
Ga	-5.63	-0.51	-1.69	0.28	*	*	*	*	**3.38**	0.42	**-0.23**	-0.23	**0.00**
Gd	*	0.43	-0.00	0.20	*	*	**-2.83**	*	*	1.14	**-1.15**	**-0.93**	**-0.14**
Ge	*	*21.39*	*	*-0.38*	*	*	*	*	*	*	***1.34***	*	*
Hf	*	*-7.14*	*-4.26*	*-0.30*	*	*	*	*	*	*	*	***2.79***	***-6.20***
Hg	*	*	*	*	***-0.83***	*	*	***5.61***	*	*-1.21*	*	*	*
Ho	*	2.14	-1.33	-0.02	*	*	**-2.86**	*	*	0.76	**-1.11**	**-1.71**	**-0.24**
In	*	*-0.71*	*	*	*	*	*	*	*	*	*	*	*
La	-5.19	1.32	2.31	-0.17	*	*	**-4.06**	*	*	0.98	**-0.59**	**-3.82**	**1.56**
Li	*	-0.61	*	0.31	*	*	**-2.77**	*	*	3.10	*	**1.54**	*
Lu	*	1.33	-1.86	0.11	*	*	**-2.79**	*	*	1.13	**-0.13**	**-1.40**	**-0.40**
Mo	*	4.98	*	*	*	*	**9.30**	*	**42.94**	-0.77	*	-0.12	**-1.49**
Nb	0.19	-2.17	-0.93	0.94	*	*	*	*	**0.37**	*	**-0.26**	**1.48**	**3.04**
Nd	*	0.67	1.59	0.01	*	*	**-3.01**	*	*	1.39	**-1.28**	**-0.89**	**0.68**
Ni	-6.07	0.78	0.46	-0.07	*	9.00	**9.00**	**-1.70**	**2.22**	-0.61	*	1.76	**0.91**
Pb	5.36	-1.09	0.04	0.04	*	-2.04	**13.57**	**-3.37**	**4.27**	-0.64	*	-1.69	**0.97**
Pr	*	-0.35	1.47	0.00	*	*	**0.47**	*	*	1.21	**-0.68**	**-0.59**	**0.59**
Rb	-2.89	-1.39	-0.11	-0.32	*	*	*	*	**1.07**	-0.18	**0.13**	**2.14**	**1.71**
Sb	*	0.50	*	*	*	*	**-17.63**	**-11.67**	*	*	**-1.00**	*	*
Sc	*	-1.17	1.43	0.38	*	*	**1.73**	*	*	*	**-5.60**	1.29	-0.88
Sm	*	-0.91	0.80	0.03	*	*	**0.38**	*	*	0.68	**-1.20**	**-1.51**	**0.85**
Sr	13.28	-1.42	0.09	-0.27	**0.38**	*	**0.53**	*	**-0.01**	-1.03	*	**2.30**	**1.23**
Ta	*	-1.91	*	-0.06	*	*	*	*	*	*	**-0.61**	7.20	**2.00**
Tb	*	1.95	-0.30	0.08	*	*	**-1.27**	*	*	1.70	**0.00**	**-0.85**	**0.42**
Th	*	-0.03	1.02	-0.49	*	*	*	*	**12.70**	0.52	**-2.06**	**-2.24**	**-1.88**
Tl	*	-0.73	*	*	*	*	*	**50.85**	*	-1.17	**-1.20**	**-1.65**	*
Tm	*	1.37	-1.73	0.20	*	*	**-4.27**	*	*	1.23	**0.04**	**-1.31**	**-0.23**
U	*	-1.15	*	0.51	*	*	*	*	**47.82**	-1.51	**-0.68**	**-0.73**	**1.70**
V	-1.83	-1.52	0.30	-0.15	*	*	**-0.12**	**-4.27**	*	-0.01	*	**2.44**	**1.22**
W	*	*2.68*	*	*	*	*	*	*	***49.53***	*	***-4.02***	*-0.47*	***-7.41***
Y	-0.96	1.36	-1.94	0.73	*	*	**-8.74**	*	**3.93**	0.77	**-0.79**	**-2.34**	**-0.96**
Yb	*	-0.67	-2.37	0.26	*	*	**-4.20**	*	*	1.35	**-0.70**	**-1.88**	**-0.40**
Zn	-1.24	0.62	-0.21	-0.41	*	0.14	**1.11**	**-3.18**	**-0.69**	2.66	*	-1.73	**-0.69**
Zr	-3.78	-13.30	-2.39	0.80	*	4.58	*	*	**-1.38**	1.15	*	0.59	**-0.43**

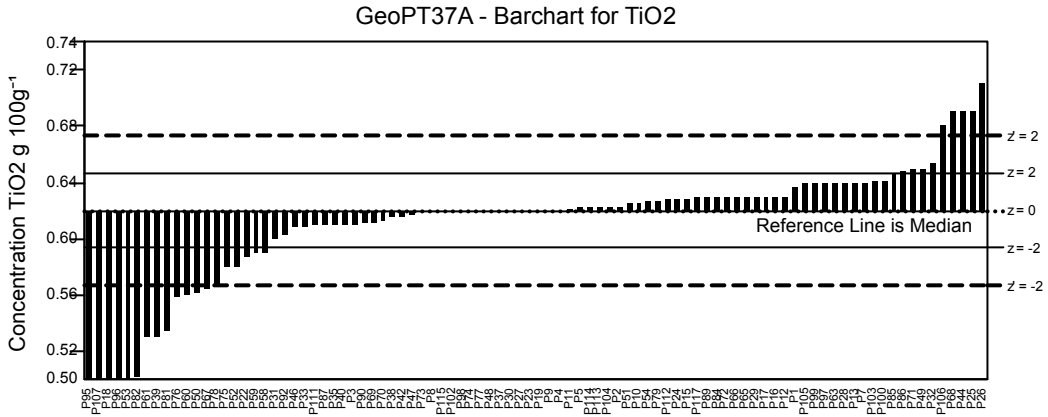
Bold entries are Data Quality 1 - Underlined entries are Data Quality 2 - *Entries in italics* are derived from Provisional Values.

Table 3 - GeoPT37A Z-scores for Blended sediment, SdAR-L2. 12/06/2015

Lab Code	P113	P114	P115	P117
SiO2	-0.12	0.06	0.06	**1.50**
TiO2	0.11	0.11	0.00	**0.75**
Al2O3	0.04	-0.02	-0.37	**0.64**
Fe2O3T	0.33	-0.08	-0.42	**0.33**
MnO	0.89	0.00	-1.43	**0.36**
MgO	*-4.40*	*0.00*	*-0.51*	***2.05***
CaO	-0.37	0.51	-0.21	**1.01**
Na2O	1.34	0.25	0.58	**-3.86**
K2O	0.27	-0.08	0.23	**-0.15**
P2O5	0.21	0.85	0.00	**0.00**
As	-1.88	0.61	*	*
Ba	-0.09	0.23	0.50	**0.12**
Be	*	*	*	*
Bi	*	*	*	*
Cd	*	*	*	*
Ce	-0.51	-0.92	*	*
Co	24.86	6.84	*	**1.76**
Cr	0.55	1.18	*	**-3.14**
Cs	*	*	*	*
Cu	0.29	0.27	*	**2.32**
Dy	*	*	*	*
Er	*	*	*	*
Eu	*	*	*	*
Ga	0.62	-1.13	*	**1.13**
Gd	*	*	*	*
Ge	*	*0.00*	*	*
Hf	*	*-1.35*	*	***-5.03***
Hg	*	*	*	*
Ho	*	*	*	*
In	*	*	*	*
La	0.66	-1.89	*	*
Li	*	*	*	*
Lu	*	*	*	*
Mo	*	2.78	*	*
Nb	-0.19	-1.11	*	**0.00**
Nd	-0.52	-1.79	*	*
Ni	-3.91	-0.20	*	**-1.70**
Pb	0.59	-1.54	*	**-0.22**
Pr	*	-1.29	*	*
Rb	0.62	0.54	*	**0.21**
Sb	-1.87	0.09	*	*
Sc	*	0.56	*	**1.13**
Sm	6.49	-1.15	*	*
Sr	0.02	0.17	-0.53	**1.06**
Ta	*	*	*	*
Tb	*	*	*	*
Th	0.96	1.82	*	**0.02**
Tl	*	0.09	*	*
Tm	*	*	*	*
U	*	-3.01	*	*
V	-5.73	0.00	*	**3.05**
W	*	*	*	*
Y	0.56	-2.01	*	**1.00**
Yb	*	*	*	*
Zn	0.68	0.48	*	**-0.97**
Zr	0.28	-0.48	*	**1.28**

Bold entries are Data Quality 1 - Underlined entries are Data Quality 2 - *Entries in italics* are derived from Provisional Values.


GeoPT37A - Barchart for SiO2
Concentration SiO2 g 100g⁻¹
Reference Line is Median
z = 2
z = 2
z = 0
z = -2
z = -2


GeoPT37A - Barchart for TiO2
Concentration TiO2 g 100g⁻¹
Reference Line is Median
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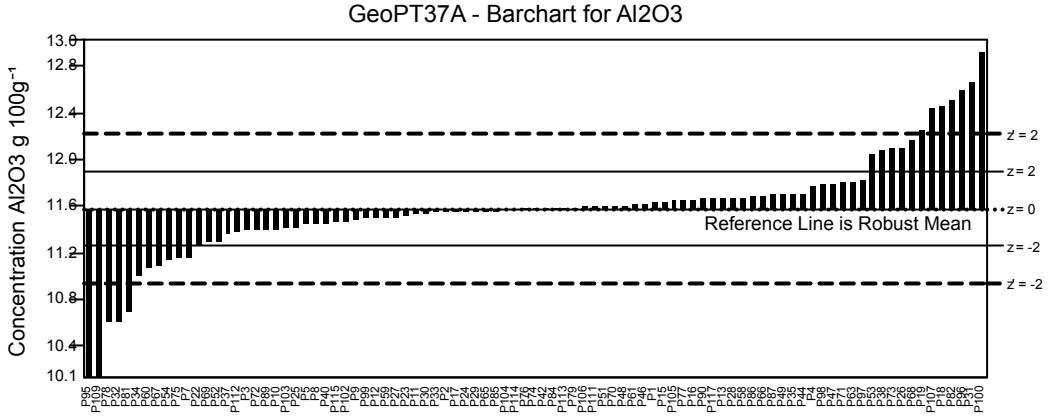
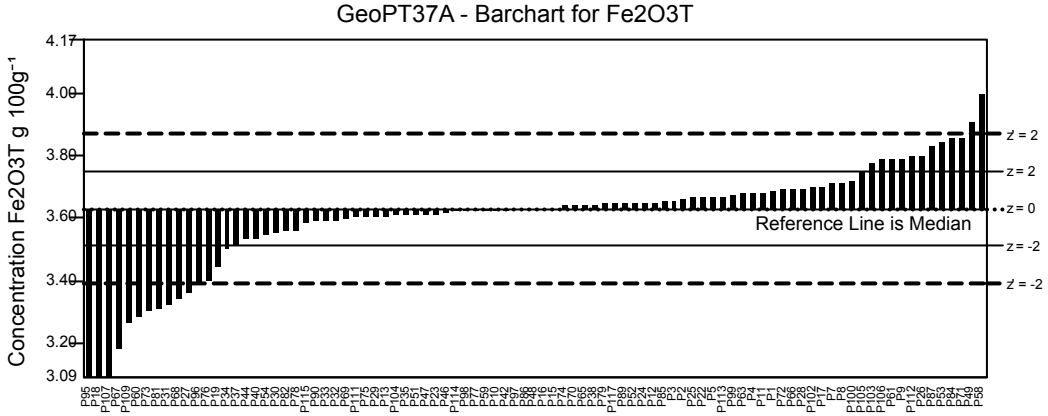
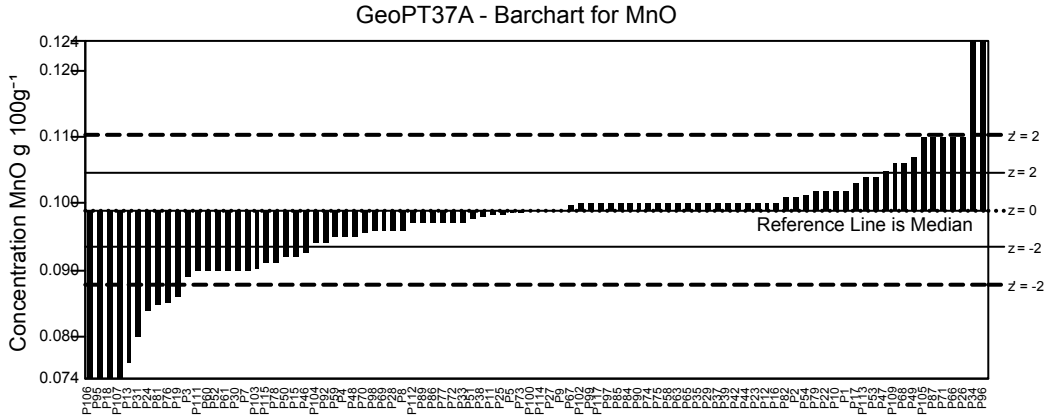
z = 2
z = 0
z = -2
z = -2


GeoPT37A - Barchart for Al2O3
Concentration Al2O3 g 100g⁻¹
Reference Line is Robust Mean
z = 2
z = 2
z = 0
z = -2
z = -2


GeoPT37A - Barchart for Fe2O3T
Concentration Fe2O3T g 100g⁻¹
Reference Line is Median
z = 2
z = 2
z = 0
z = -2
z = -2


GeoPT37A - Barchart for MnO
Concentration MnO g 100g⁻¹
Reference Line is Median
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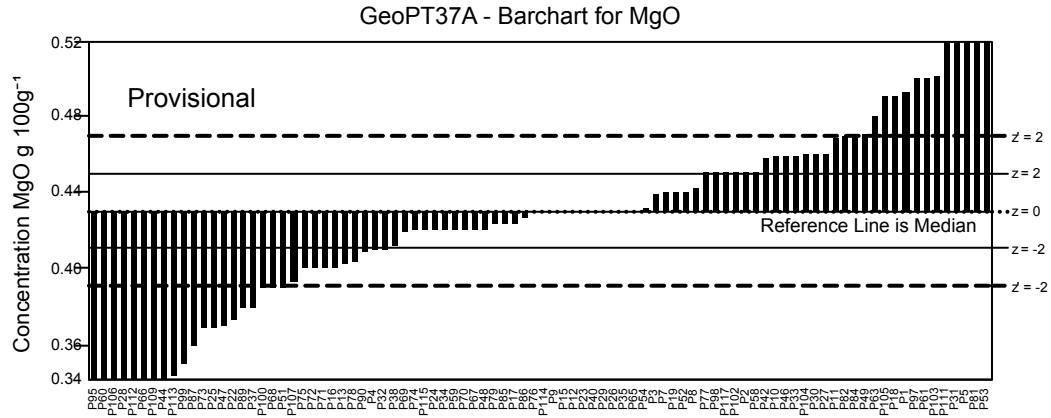
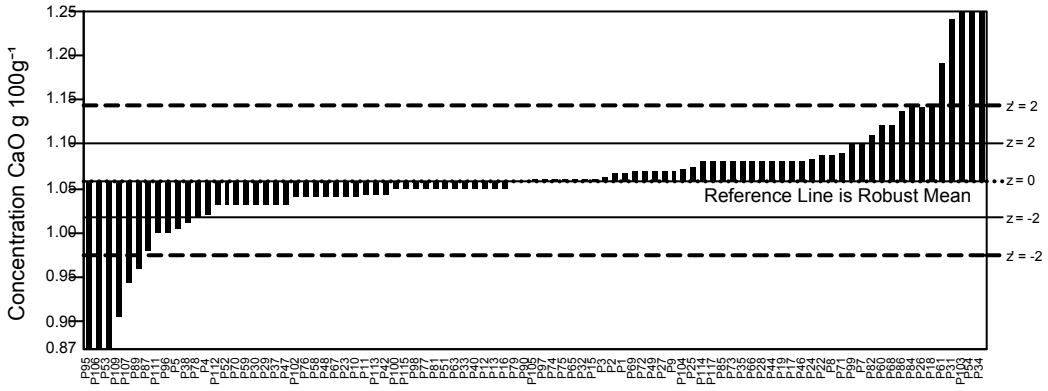
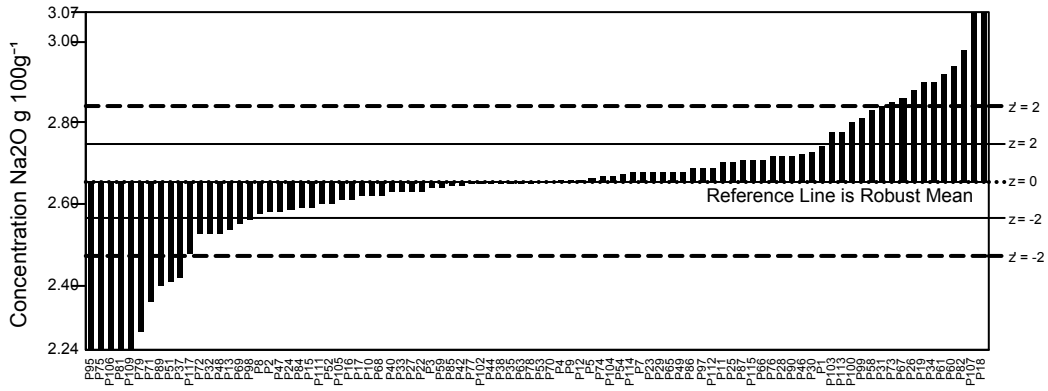
z = 2
z = 0
z = -2
z = -2


GeoPT37A - Barchart for MgO
Concentration MgO g 100g⁻¹
Provisional
Reference Line is Median
z = 2
z = 2
z = 0
z = -2
z = -2

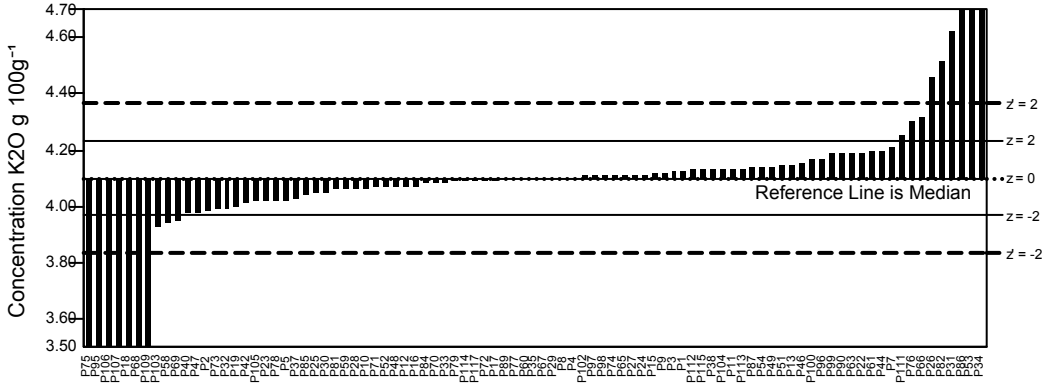
GeoPT37A - Barchart for CaO



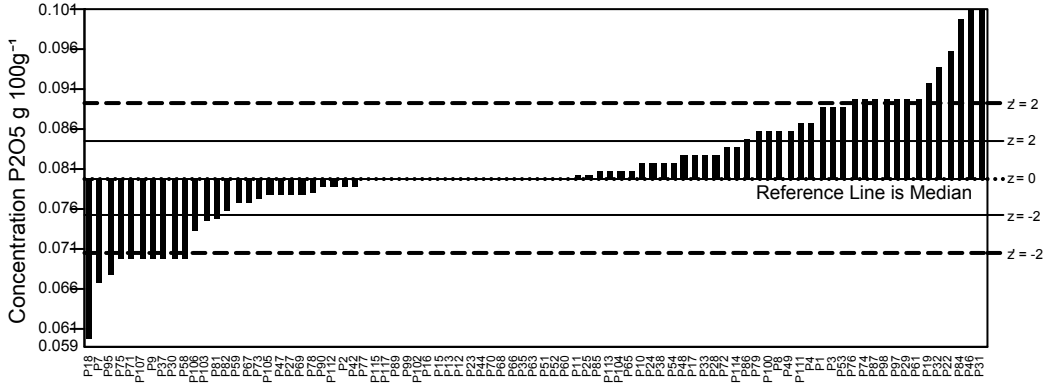
GeoPT37A - Barchart for Na2O



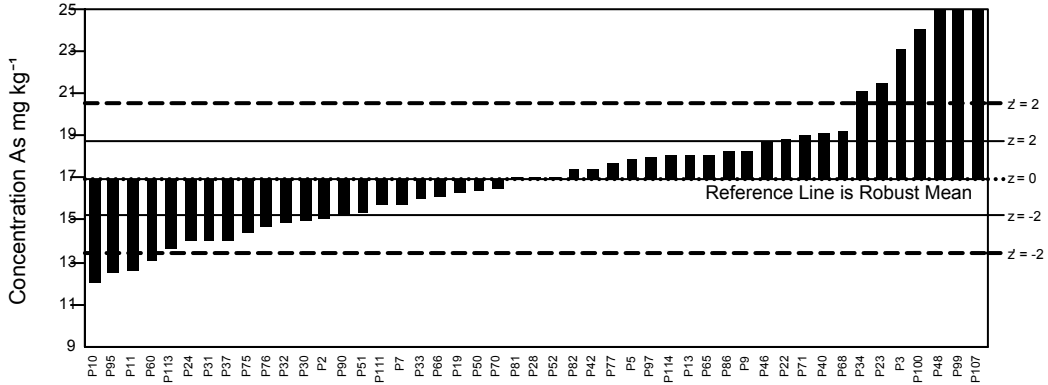
GeoPT37A - Barchart for K2O



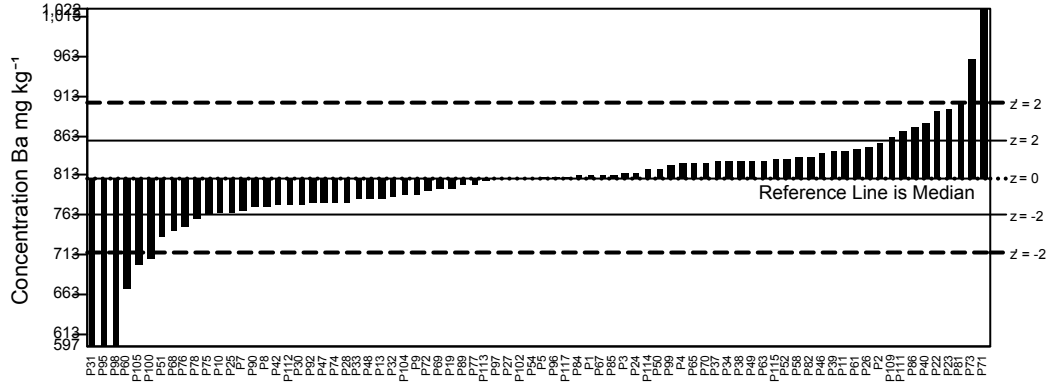
GeoPT37A - Barchart for P2O5



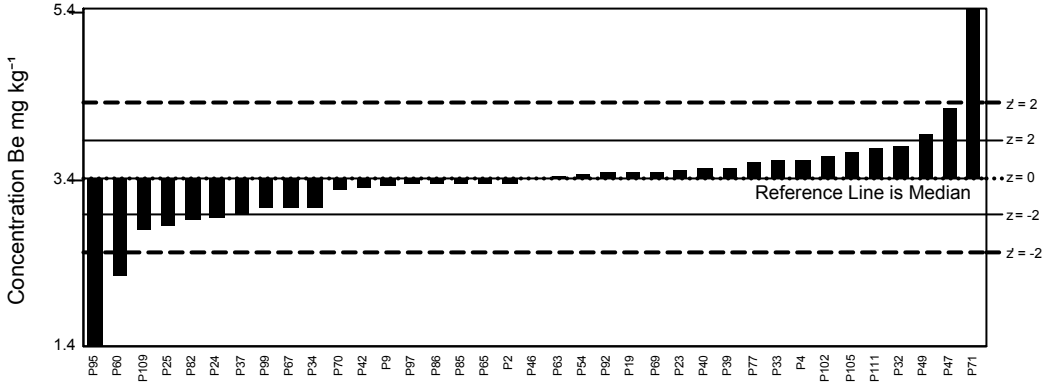
GeoPT37A - Barchart for As



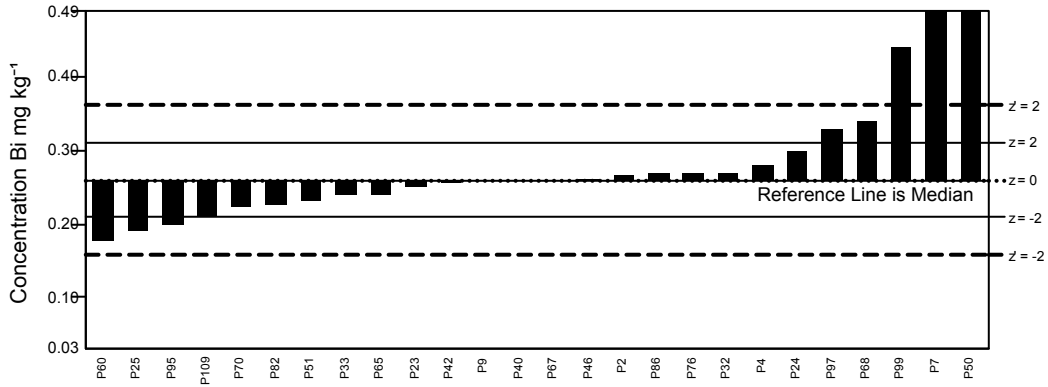
GeoPT37A - Barchart for Ba



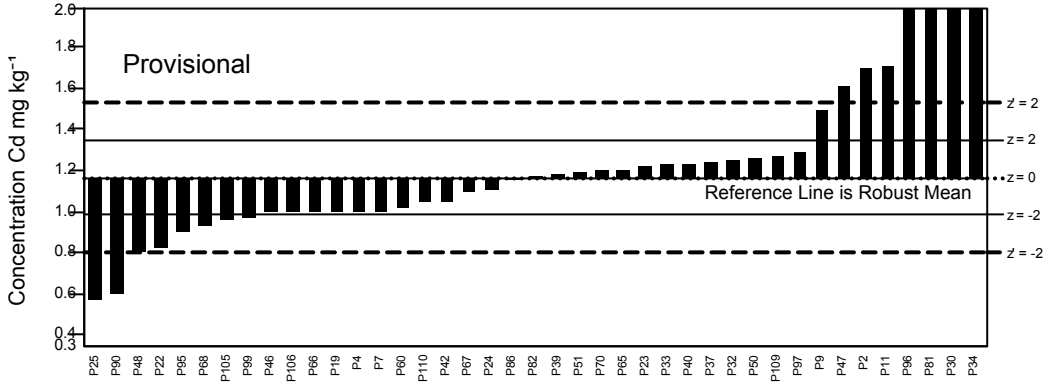
GeoPT37A - Barchart for Be



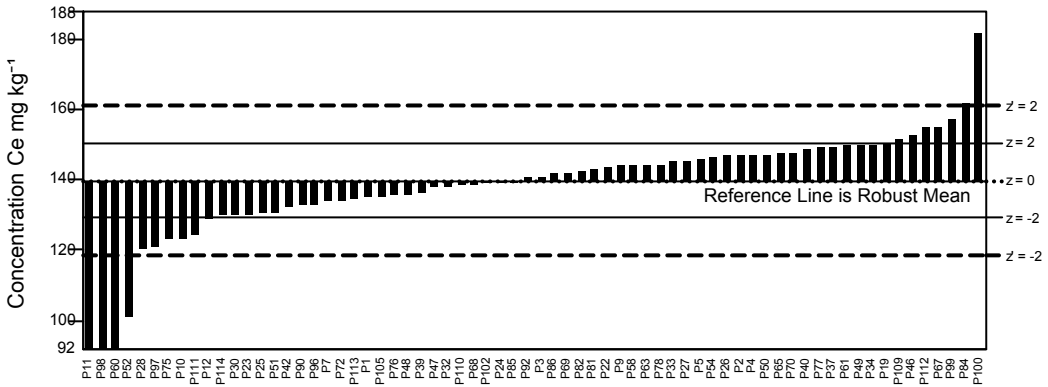
GeoPT37A - Barchart for Bi



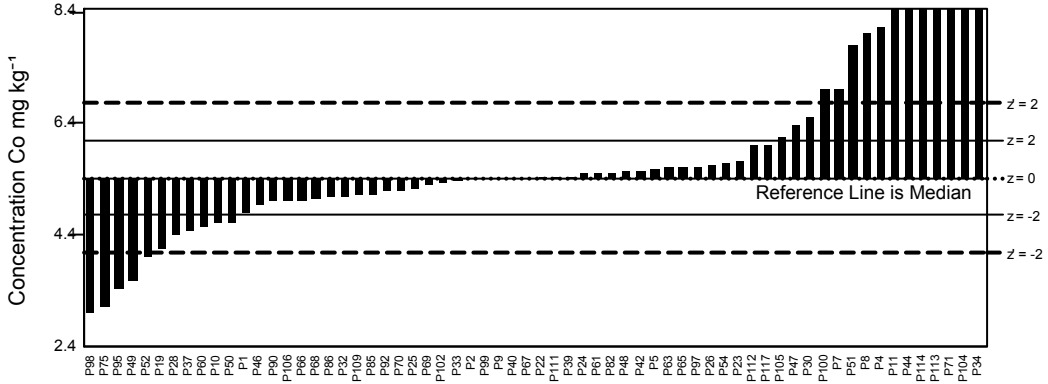
GeoPT37A - Barchart for Cd



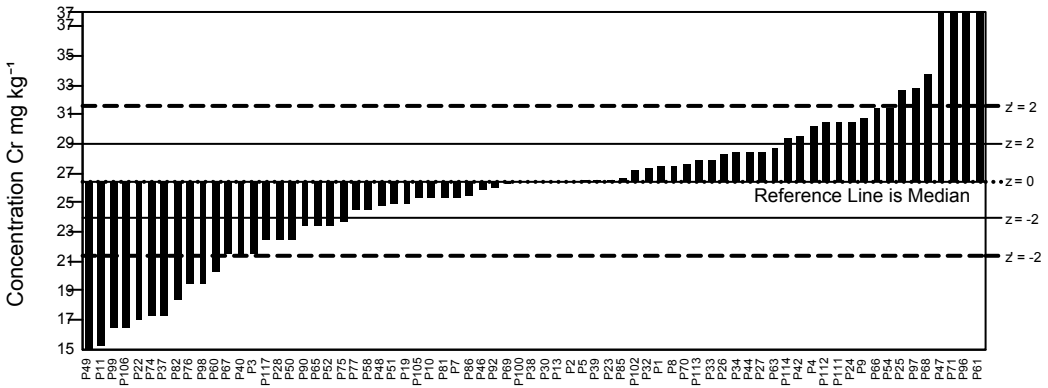
GeoPT37A - Barchart for Ce

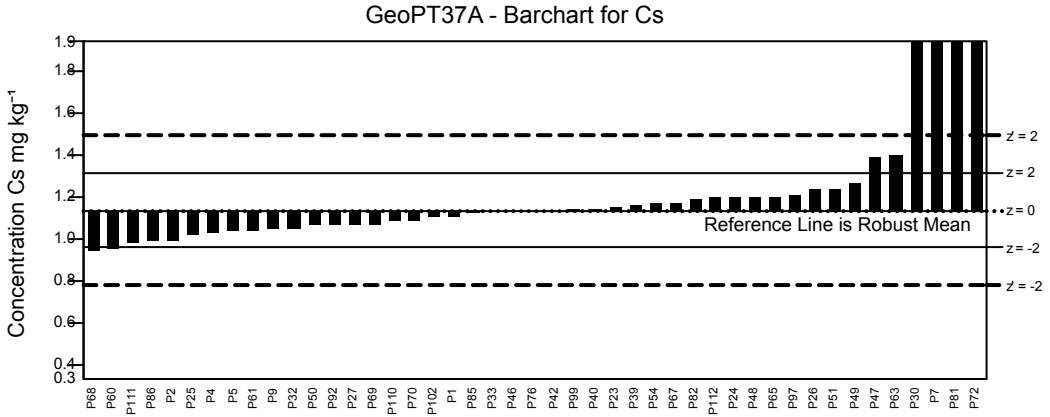


GeoPT37A - Barchart for Co



GeoPT37A - Barchart for Cr




GeoPT37A - Barchart for Cs
Concentration Cs mg kg⁻¹
Reference Line is Robust Mean
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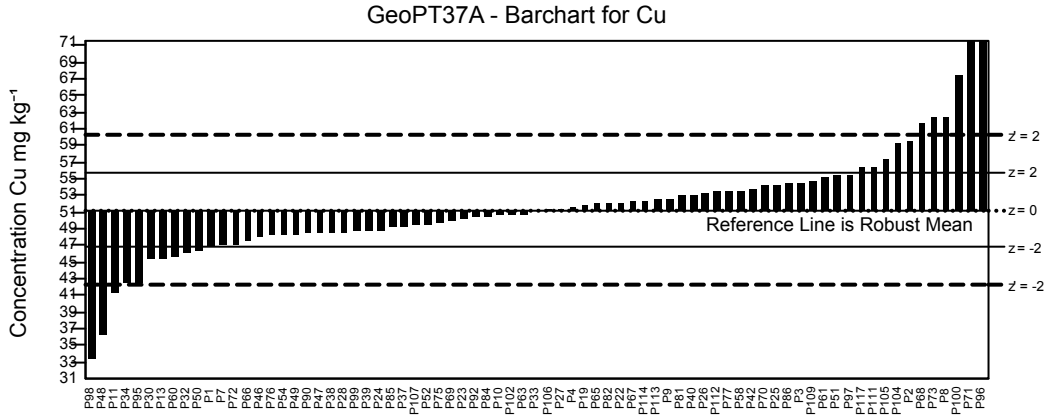
z = 2
z = 0
z = -2
z' = -2


GeoPT37A - Barchart for Cu
Concentration Cu mg kg⁻¹
Reference Line is Robust Mean
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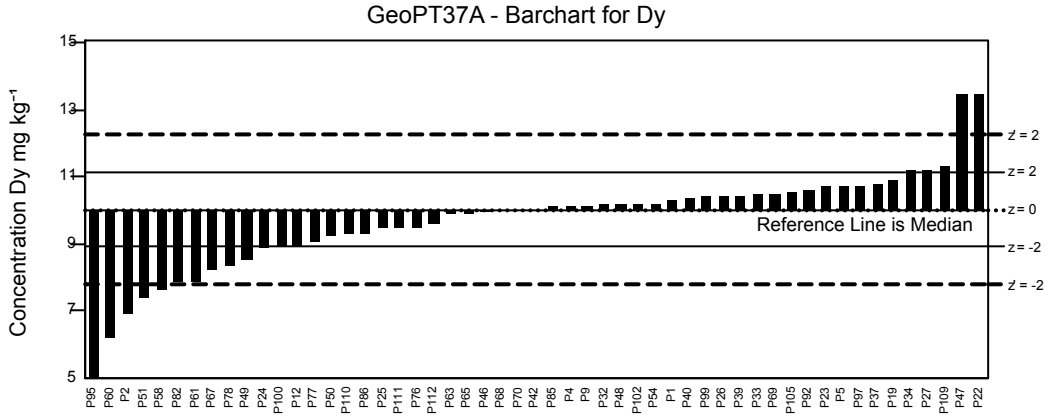
z' = -2


GeoPT37A - Barchart for Dy
Concentration Dy mg kg⁻¹
Reference Line is Median
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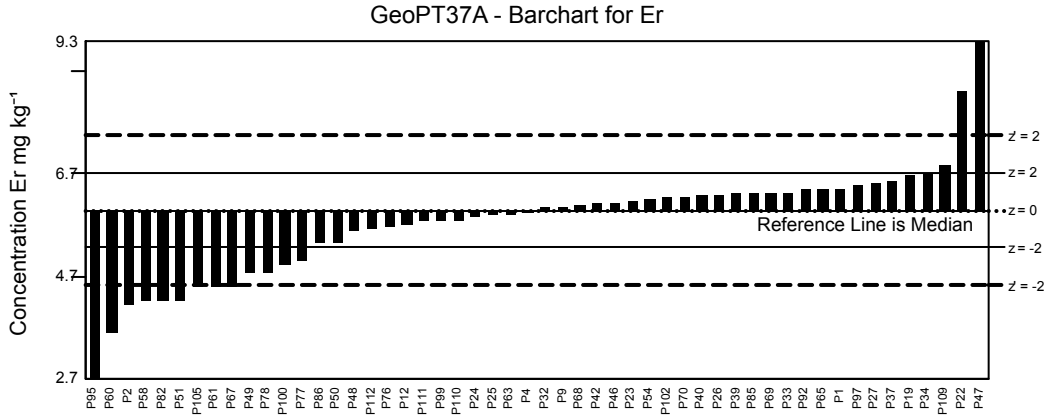
z = 2
z = 0
z = -2
z' = -2


GeoPT37A - Barchart for Er
Concentration Er mg kg⁻¹
Reference Line is Median
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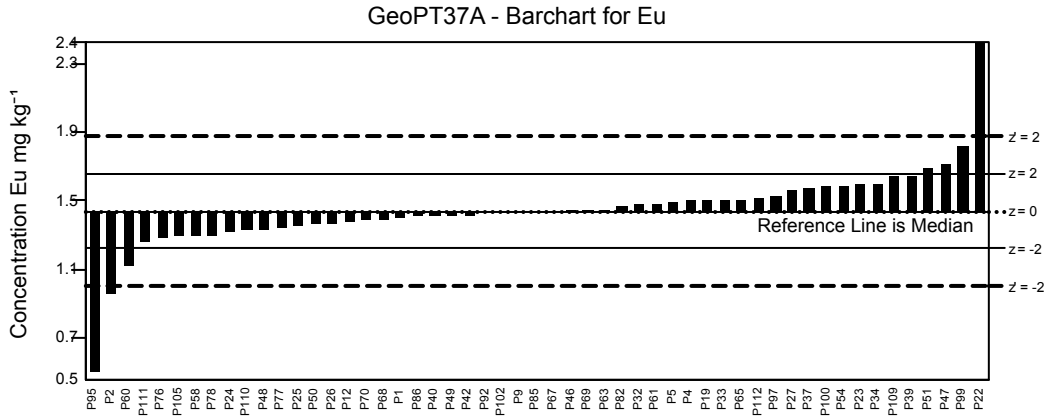
z = 2
z = 0
z = -2
z' = -2


GeoPT37A - Barchart for Eu
Concentration Eu mg kg⁻¹
Reference Line is Median
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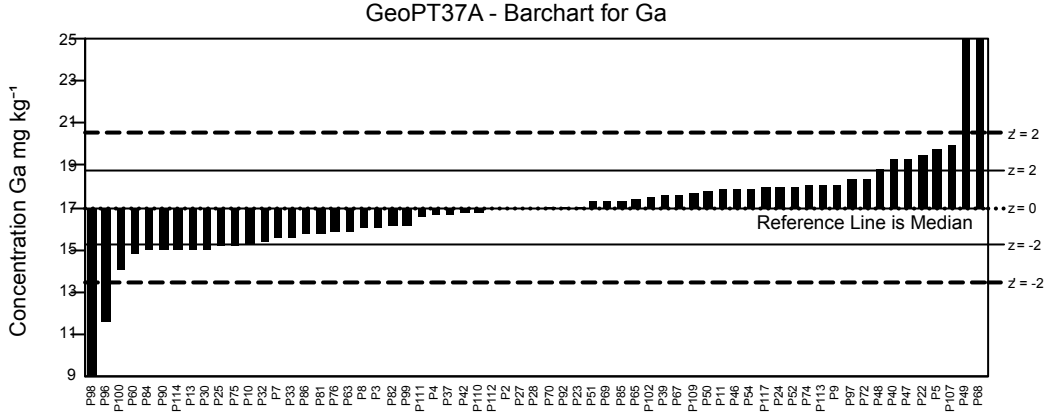
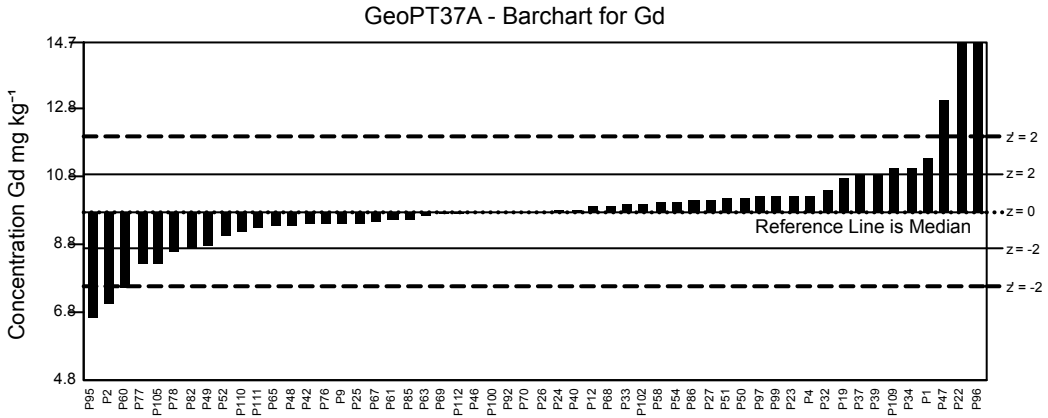
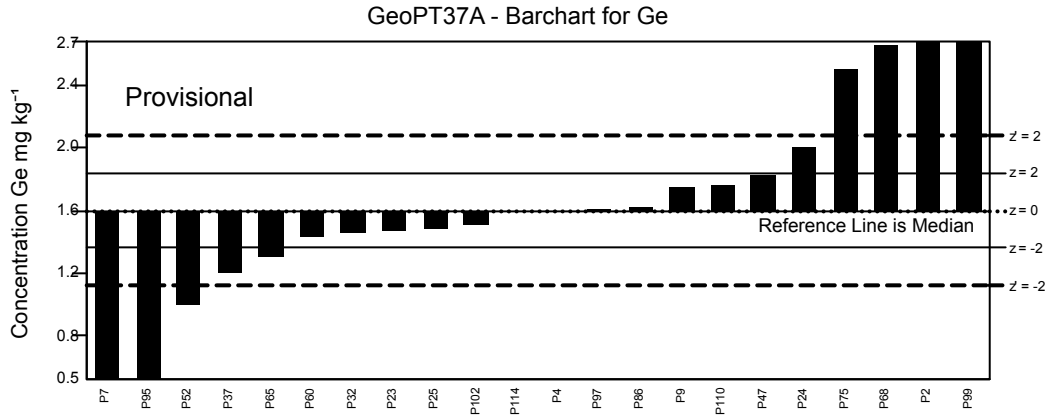
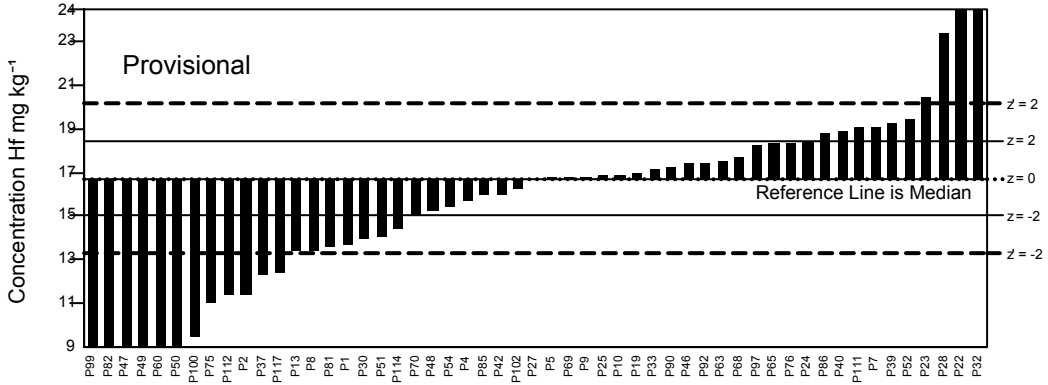
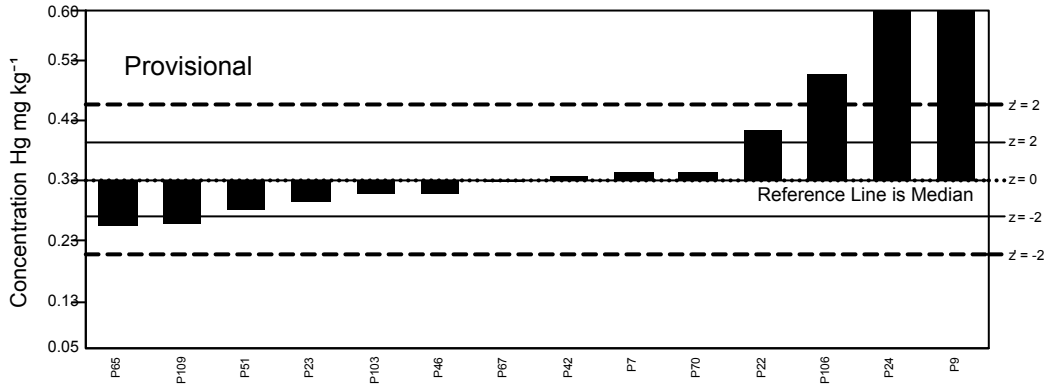
z = 2
z = 0
z = -2
z' = -2

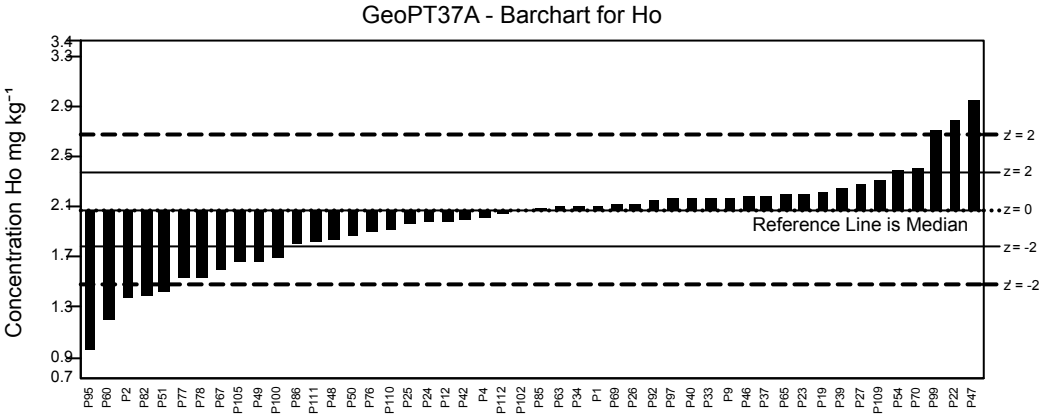

GeoPT37A - Barchart for Ga
Concentration Ga mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z = 0
z = -2
z' = -2

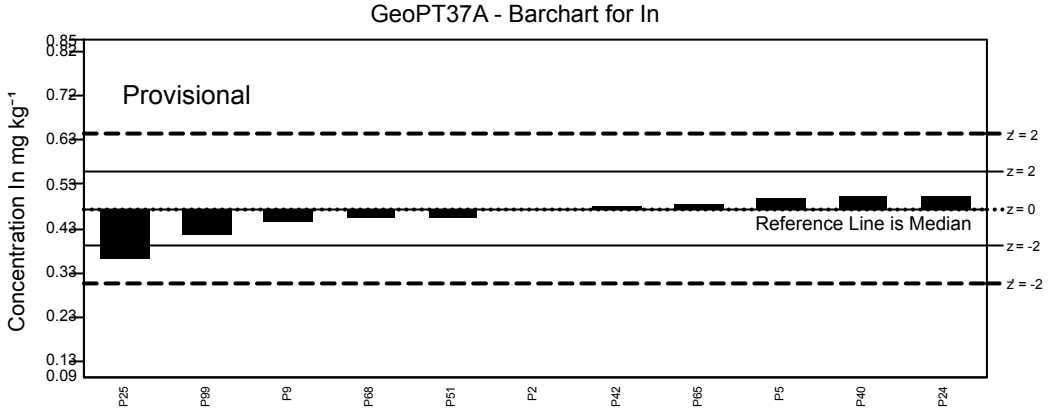

GeoPT37A - Barchart for Gd
Concentration Gd mg kg⁻¹
14.7
12.8
10.8
8.8
6.8
4.8
z' = 2
z = 2
z = 0
z = -2
z' = -2
Reference Line is Median
P95 P2 P60 P77 P105 P78 P82 P49 P52 P110 P111 P65 P48 P42 P76 P9 P25 P67 P61 P85 P63 P69 P112 P46 P100 P92 P70 P26 P24 P40 P12 P68 P33 P102 P58 P54 P86 P27 P51 P50 P97 P99 P23 P4 P32 P19 P37 P39 P109 P34 P1 P47 P22 P96


GeoPT37A - Barchart for Ge
Concentration Ge mg kg⁻¹
2.7
2.4
2.0
1.6
1.2
0.8
0.5
Provisional
z' = 2
z = 2
z = 0
z = -2
z' = -2
Reference Line is Median
P7 P95 P52 P37 P65 P60 P32 P23 P25 P102 P114 P4 P97 P86 P9 P110 P47 P24 P75 P68 P2 P99

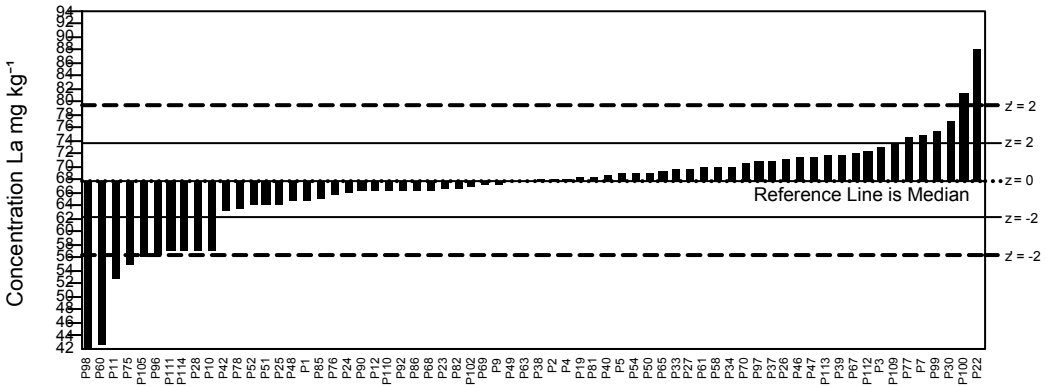

GeoPT37A - Barchart for Hf
Concentration Hf mg kg⁻¹
24
23
21
19
17
15
13
11
9
Provisional
z' = 2
z = 2
z = 0
z = -2
z' = -2
Reference Line is Median
P99 P82 P47 P49 P60 P50 P100 P75 P112 P2 P37 P117 P13 P8 P81 P1 P30 P51 P114 P70 P48 P54 P4 P85 P42 P102 P27 P5 P69 P9 P25 P10 P19 P33 P90 P46 P92 P63 P68 P97 P65 P76 P24 P86 P40 P111 P7 P39 P52 P23 P28 P22 P32


GeoPT37A - Barchart for Hg
Concentration Hg mg kg⁻¹
0.60
0.53
0.43
0.33
0.23
0.13
0.05
Provisional
z' = 2
z = 2
z = 0
z = -2
z' = -2
Reference Line is Median
P65 P109 P51 P23 P103 P46 P67 P42 P7 P70 P22 P106 P24 P9

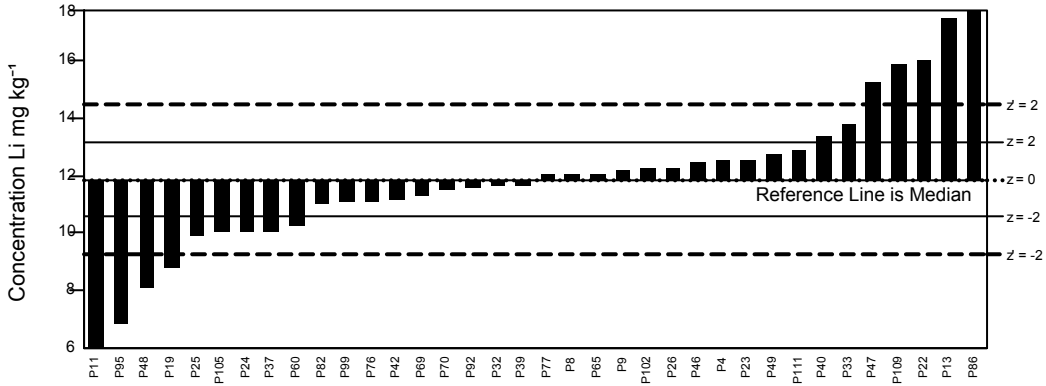

GeoPT37A - Barchart for Ho
Concentration Ho mg kg⁻¹
3.4
3.3
2.9
2.5
2.1
1.7
1.3
0.9
0.7
z' = 2
z = 2
z = 0
z = -2
z' = -2
Reference Line is Median
P95 P60 P2 P82 P51 P77 P78 P67 P105 P49 P100 P86 P111 P48 P50 P76 P110 P25 P24 P12 P42 P4 P112 P102 P85 P63 P34 P1 P69 P26 P92 P97 P40 P33 P9 P46 P37 P65 P23 P19 P39 P27 P109 P54 P70 P99 P22 P47


GeoPT37A - Barchart for In
Concentration In mg kg⁻¹
0.85
0.82
0.72
0.63
0.53
0.43
0.33
0.23
0.13
0.09
Provisional
z' = 2
z = 2
z = 0
z = -2
z' = -2
Reference Line is Median
P25 P99 P9 P68 P51 P2 P42 P65 P5 P40 P24

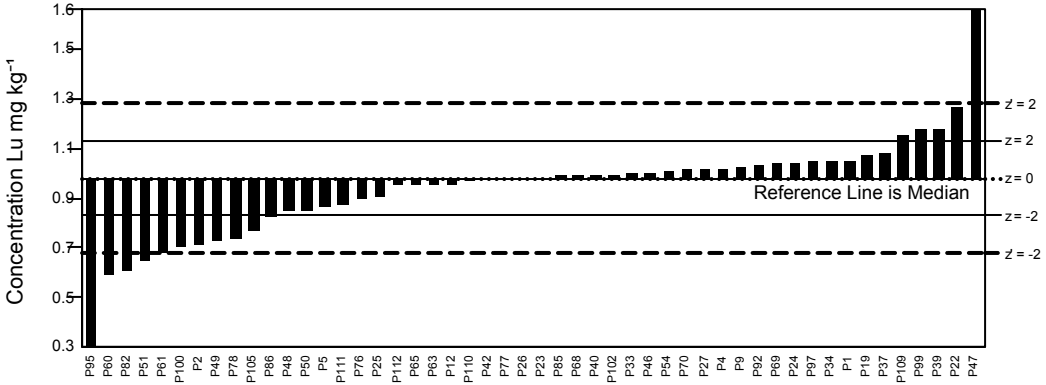
GeoPT37A - Barchart for La



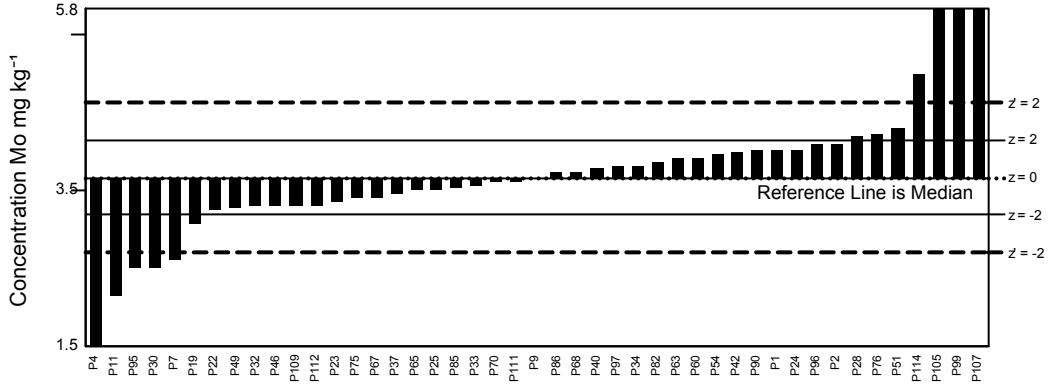
GeoPT37A - Barchart for Li



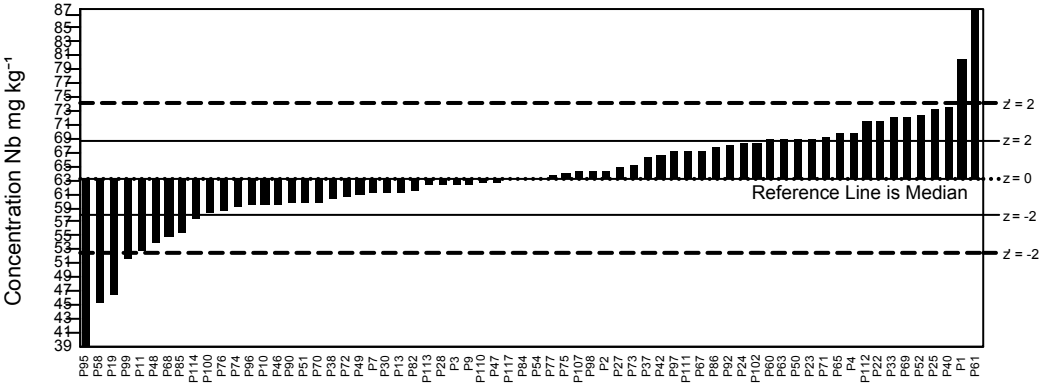
GeoPT37A - Barchart for Lu



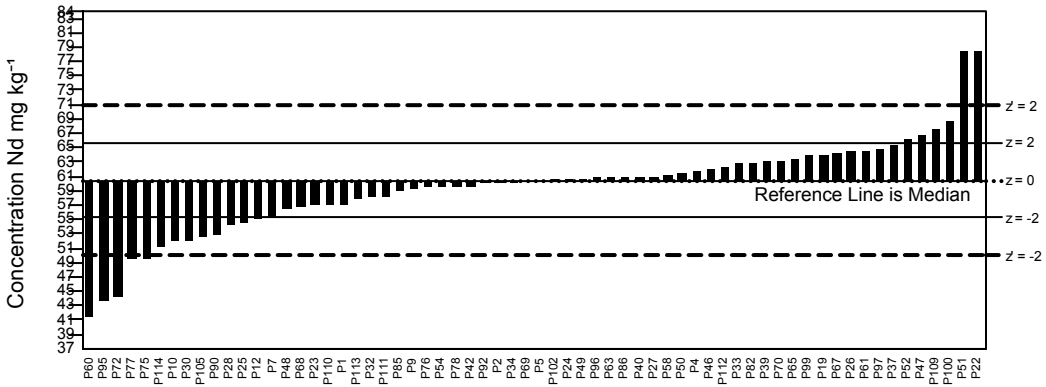
GeoPT37A - Barchart for Mo

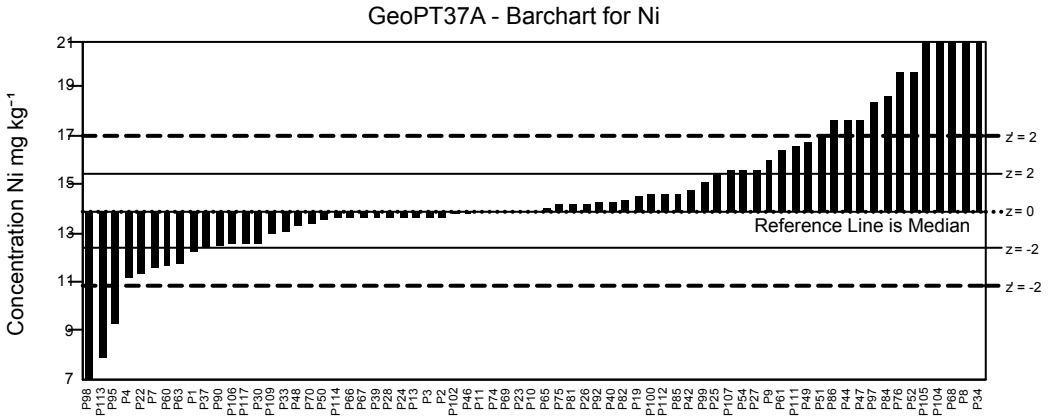


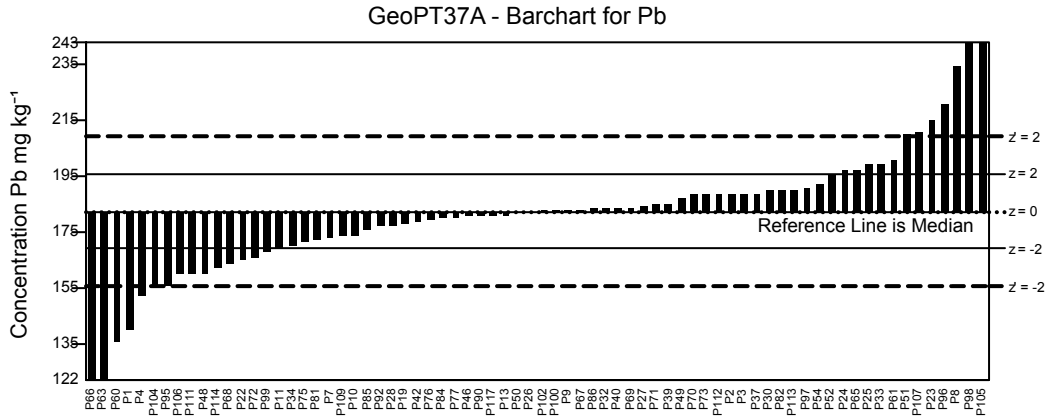
GeoPT37A - Barchart for Nb

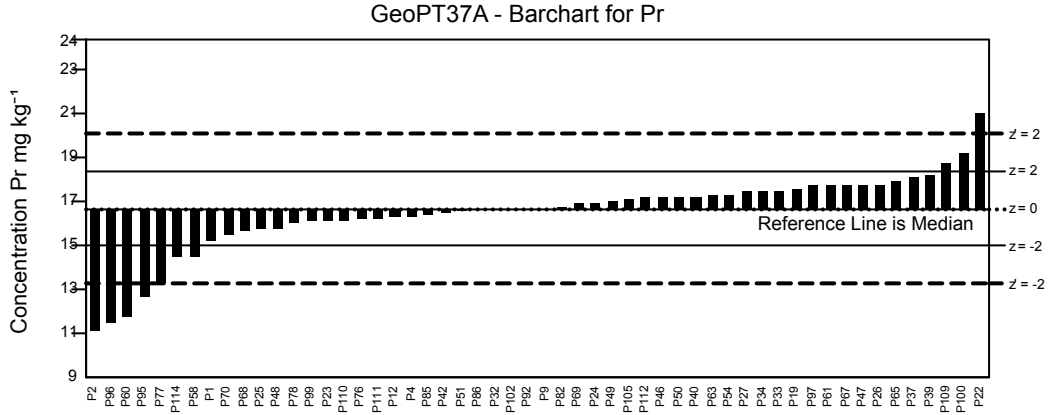


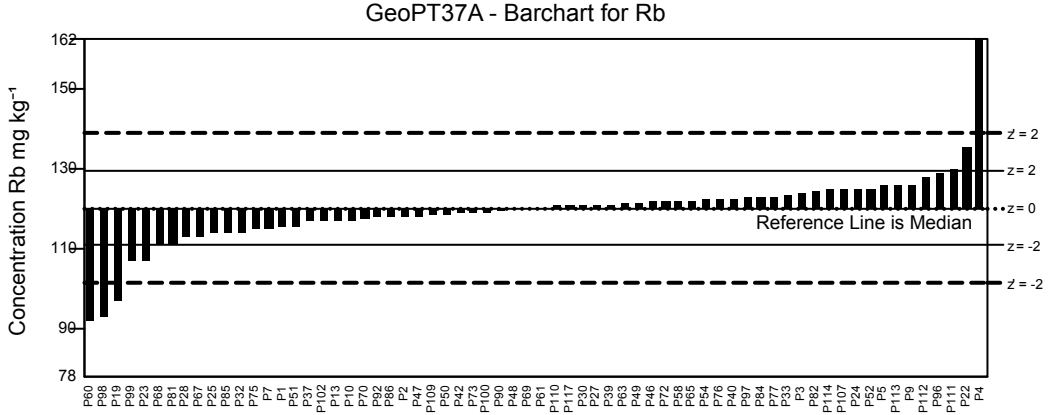
GeoPT37A - Barchart for Nd

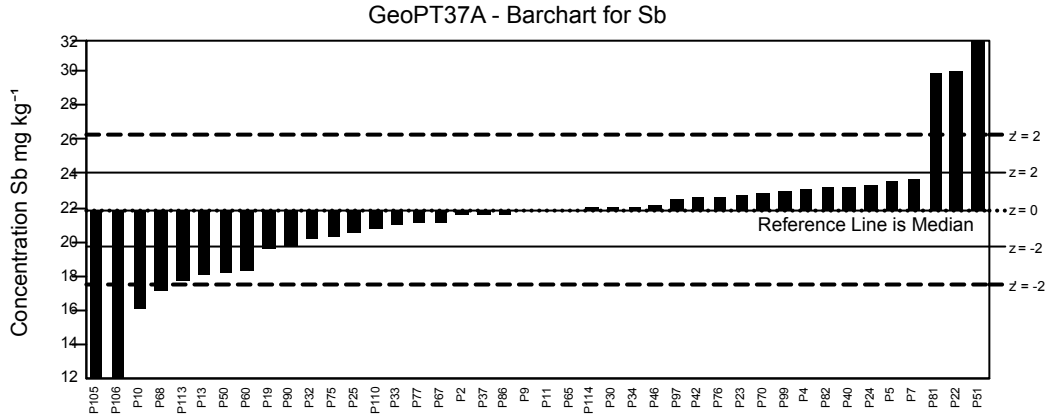


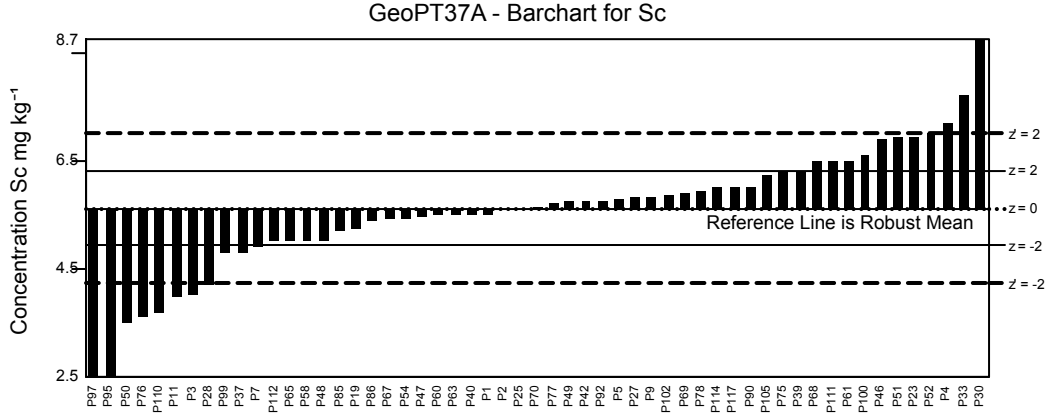

GeoPT37A - Barchart for Ni
Concentration Ni mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z = 0
z = -2
z' = -2

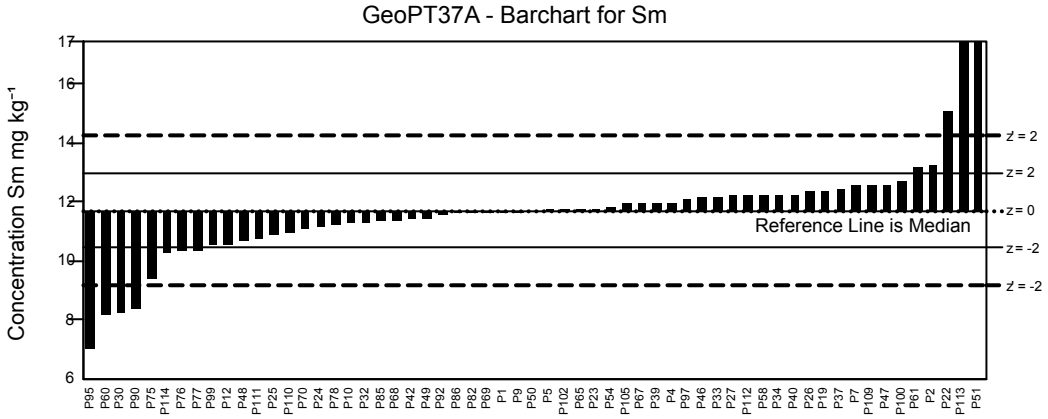

GeoPT37A - Barchart for Pb
Concentration Pb mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z = 0
z = -2
z' = -2

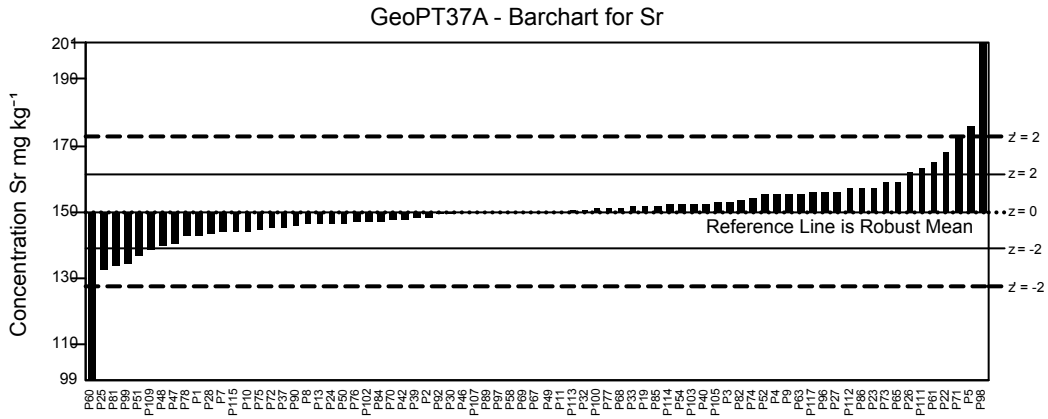

GeoPT37A - Barchart for Pr
Concentration Pr mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z = 0
z = -2
z' = -2

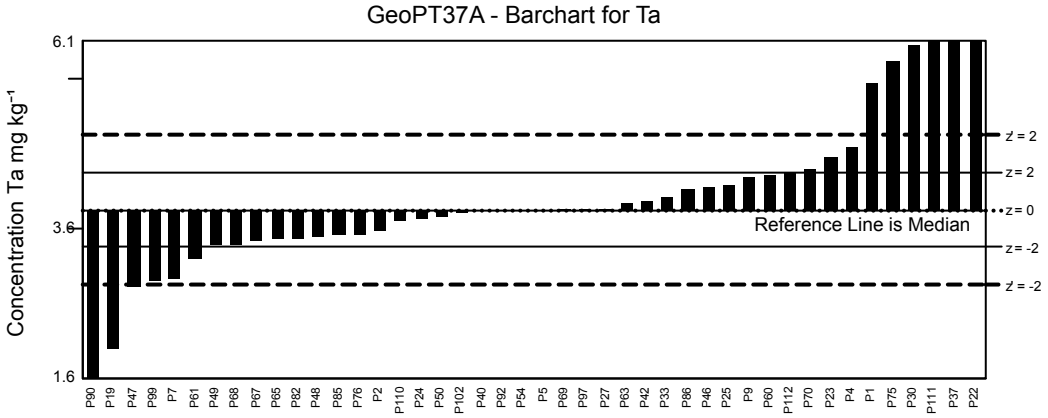

GeoPT37A - Barchart for Rb
Concentration Rb mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z = 0
z = -2
z' = -2

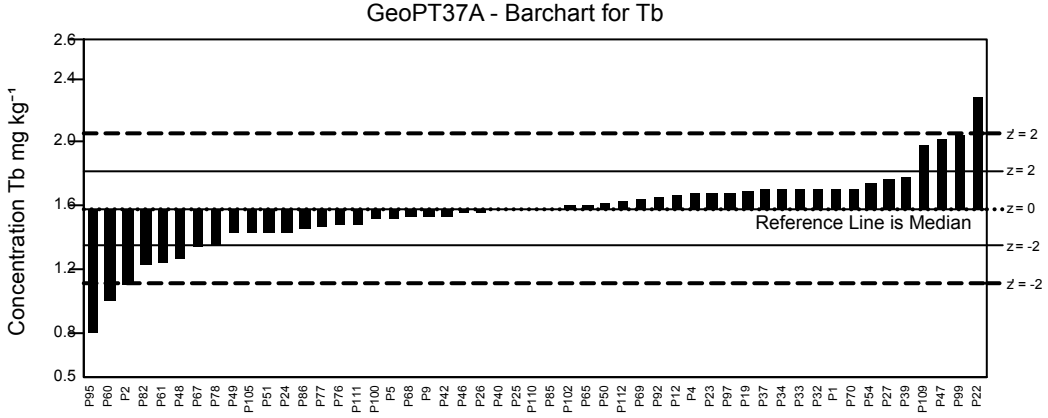

GeoPT37A - Barchart for Sb
Concentration Sb mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z = 0
z = -2
z' = -2

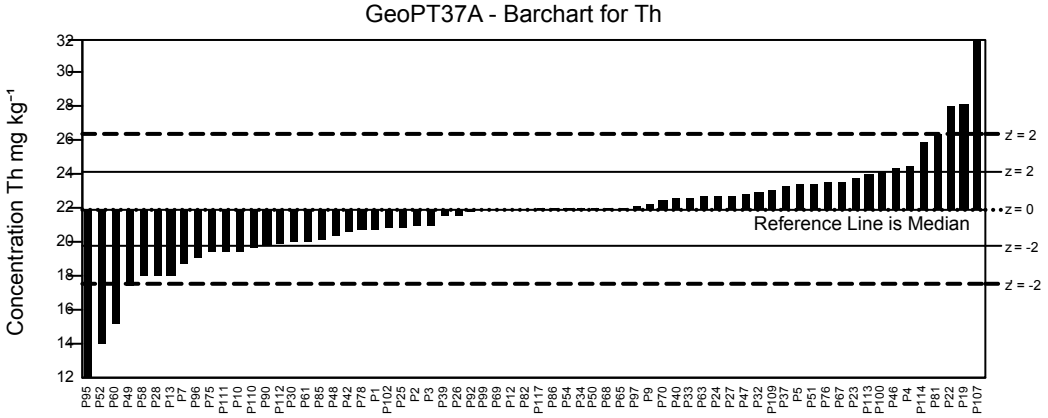

GeoPT37A - Barchart for Sc
Concentration Sc mg kg⁻¹
Reference Line is Robust Mean
z' = 2
z = 2
z = 0
z = -2
z' = -2

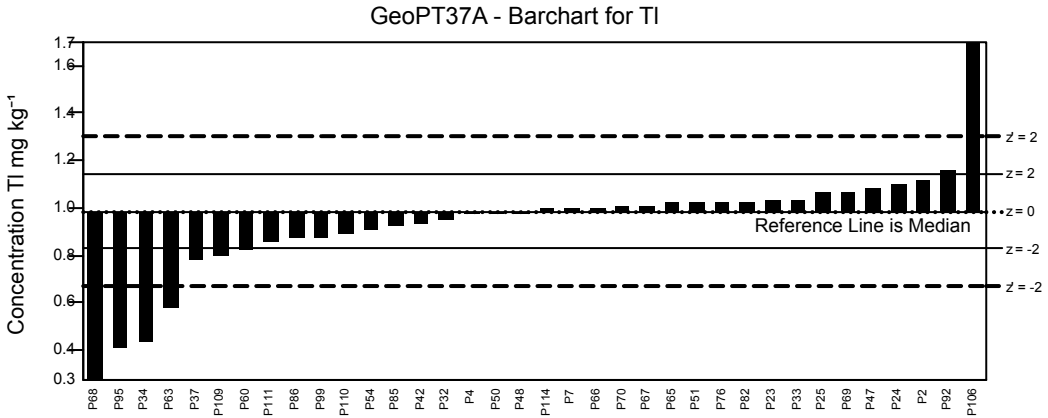

GeoPT37A - Barchart for Sm
Concentration Sm mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z= 0
z= -2
z' = -2

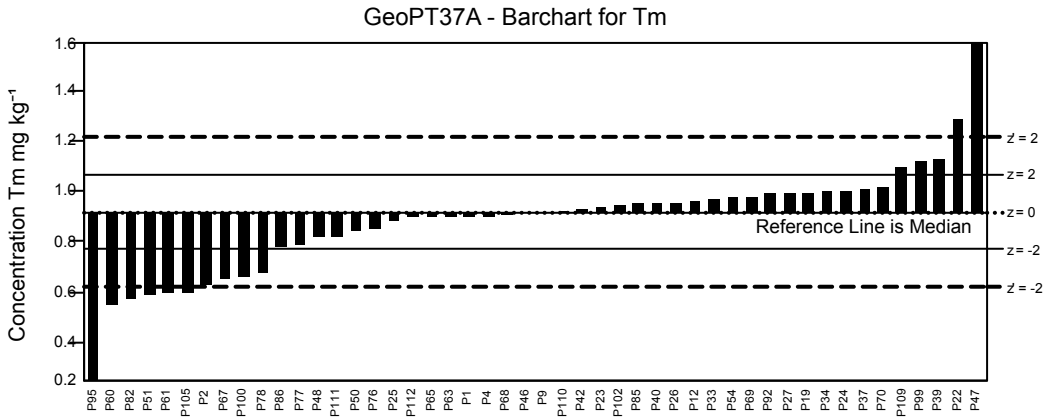

GeoPT37A - Barchart for Sr
Concentration Sr mg kg⁻¹
Reference Line is Robust Mean
z' = 2
z = 2
z= 0
z= -2
z' = -2

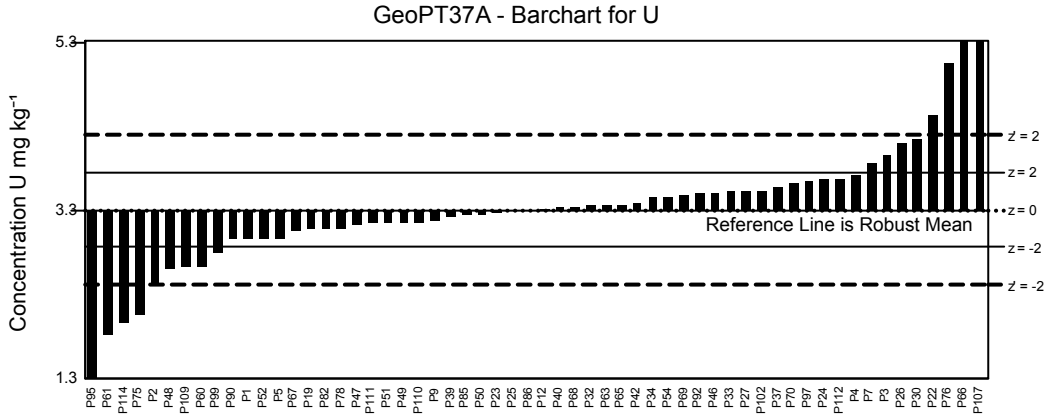

GeoPT37A - Barchart for Ta
Concentration Ta mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z= 0
z= -2
z' = -2

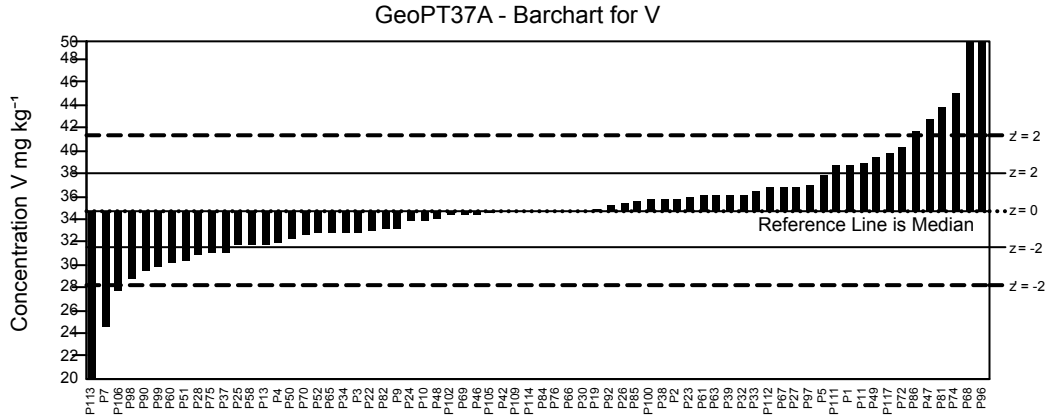

GeoPT37A - Barchart for Tb
Concentration Tb mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z= 0
z= -2
z' = -2

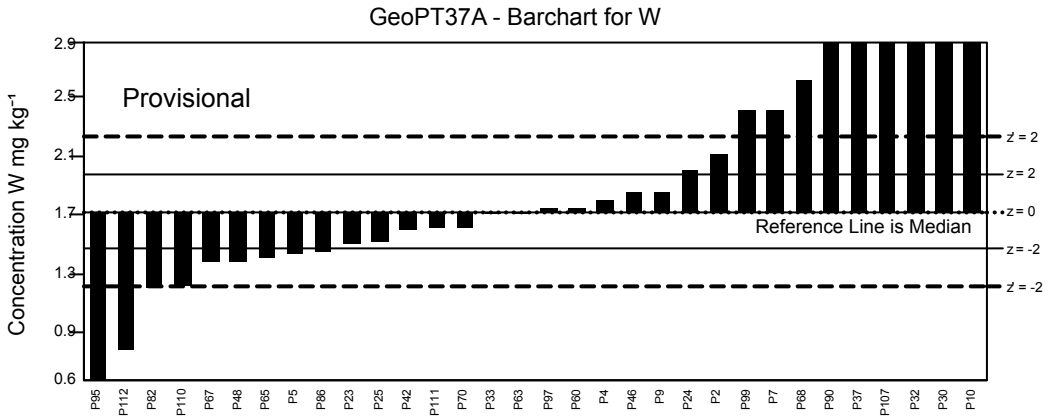

GeoPT37A - Barchart for Th
Concentration Th mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z= 0
z= -2
z' = -2

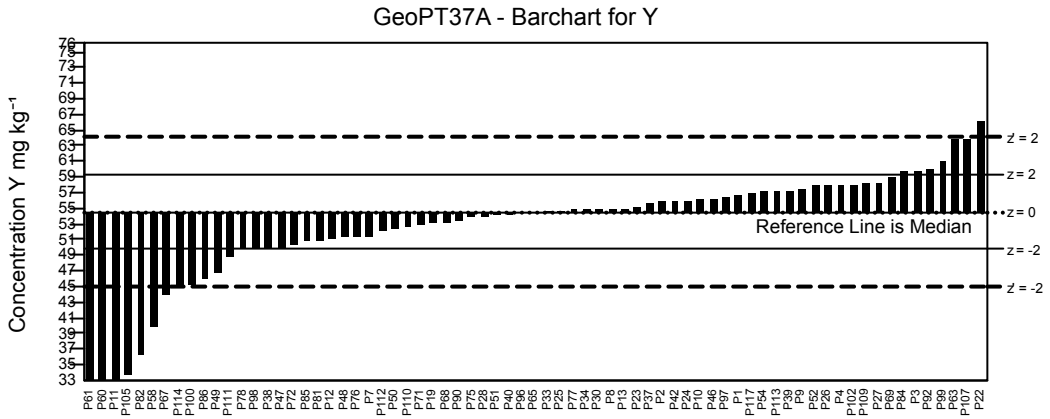

GeoPT37A - Barchart for Tl
Concentration Tl mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z= 0
z= -2
z' = -2

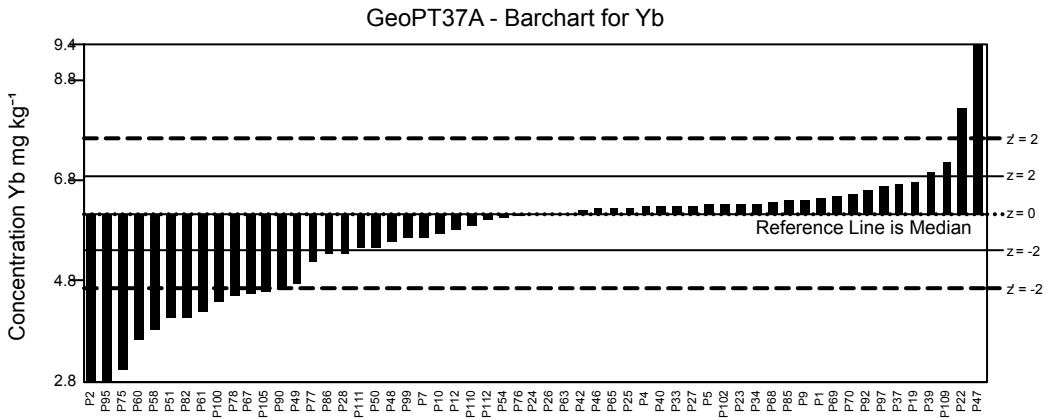

GeoPT37A - Barchart for Tm
Concentration Tm mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z = 0
z = -2
z' = -2

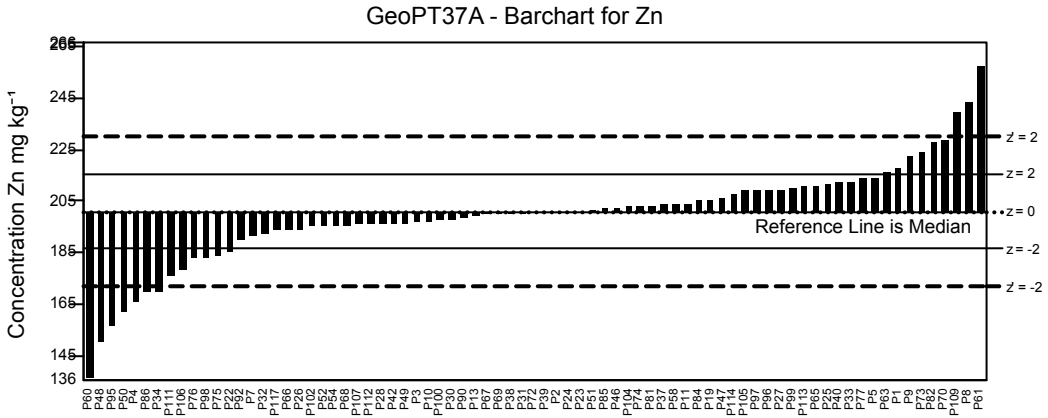

GeoPT37A - Barchart for U
Concentration U mg kg⁻¹
Reference Line is Robust Mean
z' = 2
z = 2
z = 0
z = -2
z' = -2


GeoPT37A - Barchart for V
Concentration V mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z = 0
z = -2
z' = -2


GeoPT37A - Barchart for W
Concentration W mg kg⁻¹
Provisional
Reference Line is Median
z' = 2
z = 2
z = 0
z = -2
z' = -2


GeoPT37A - Barchart for Y
Concentration Y mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z = 0
z = -2
z' = -2


GeoPT37A - Barchart for Yb
Concentration Yb mg kg⁻¹
Reference Line is Median
z' = 2
z = 2
z = 0
z = -2
z' = -2



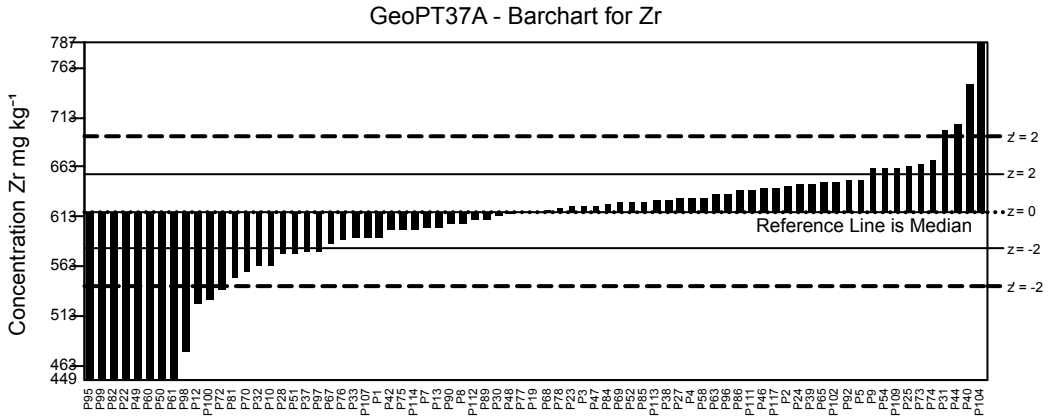
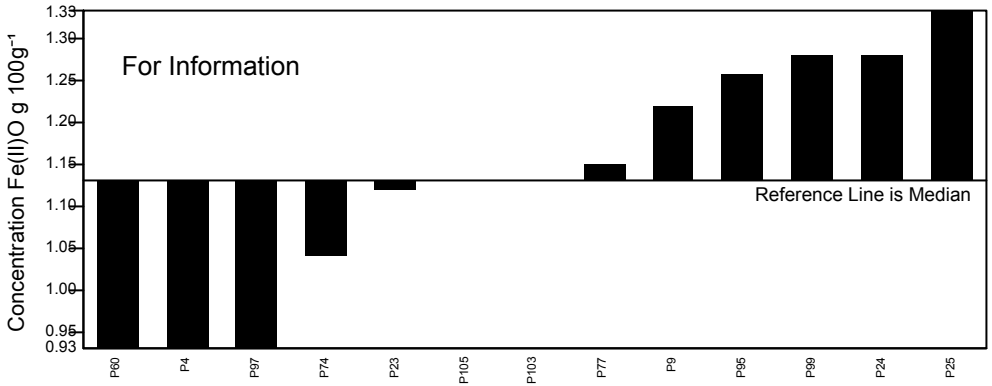
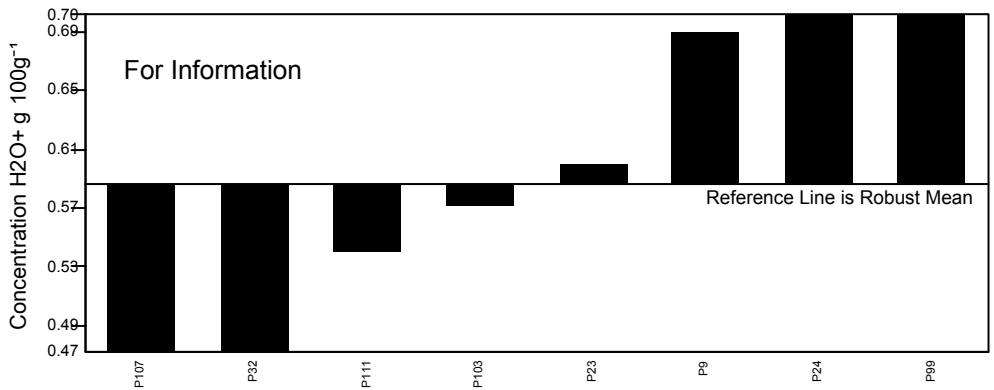


Figure 1: GeoPT37A - Blended sediment, SdAR-L2. Data distribution charts for elements for which values were assigned or provisional values given for guidance. Horizontal lines show the limits for -2<z<2 for pure geochemistry labs (solid lines) and -2<z'<2 for applied geochemistry labs (pecked lines).

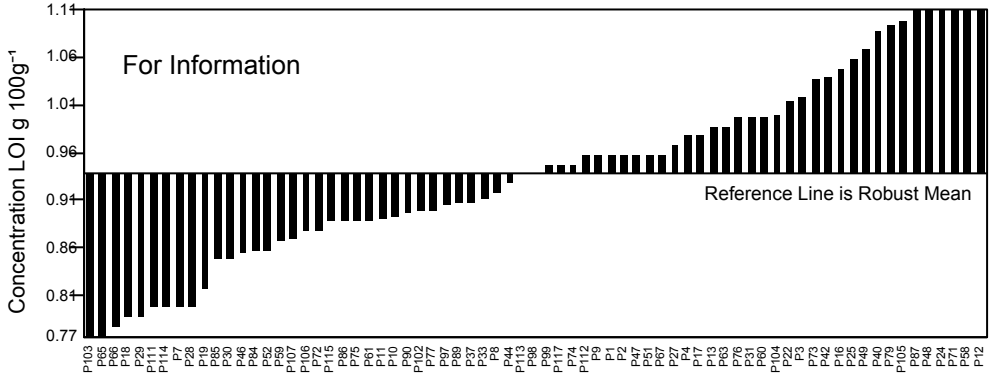
GeoPT37A - Barchart for Fe(II)O



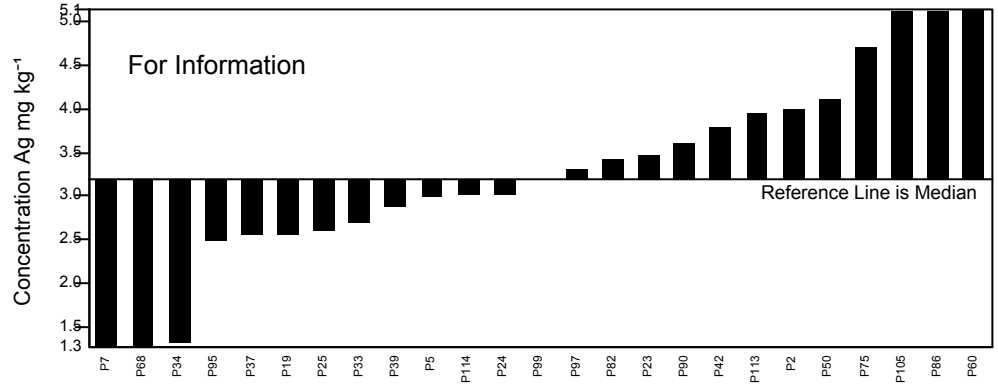
GeoPT37A - Barchart for H2O+



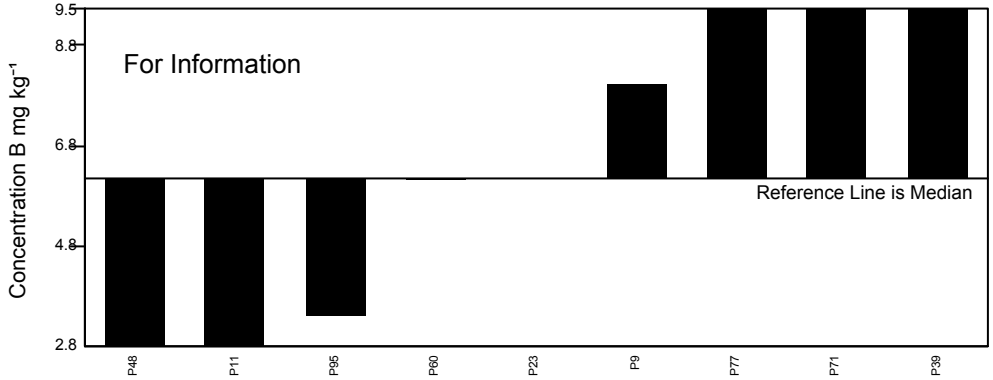
GeoPT37A - Barchart for LOI



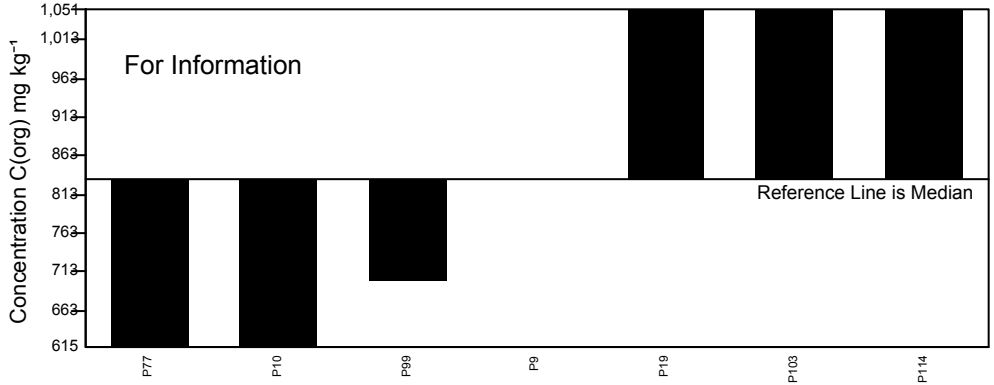
GeoPT37A - Barchart for Ag



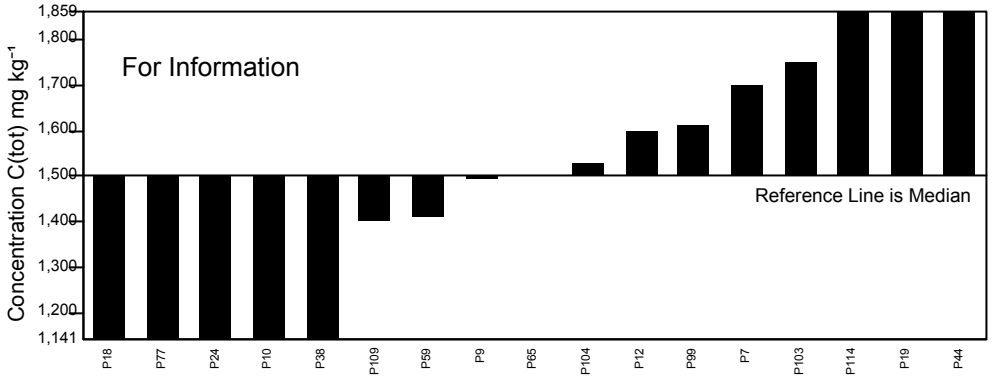
GeoPT37A - Barchart for B



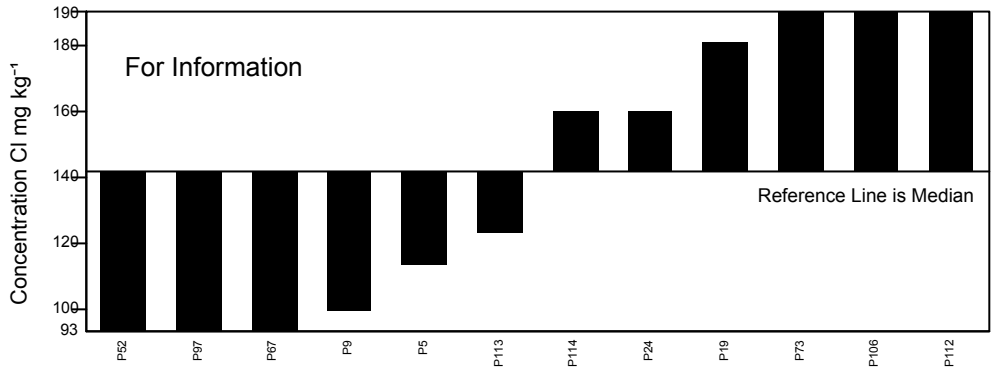
GeoPT37A - Barchart for C(org)



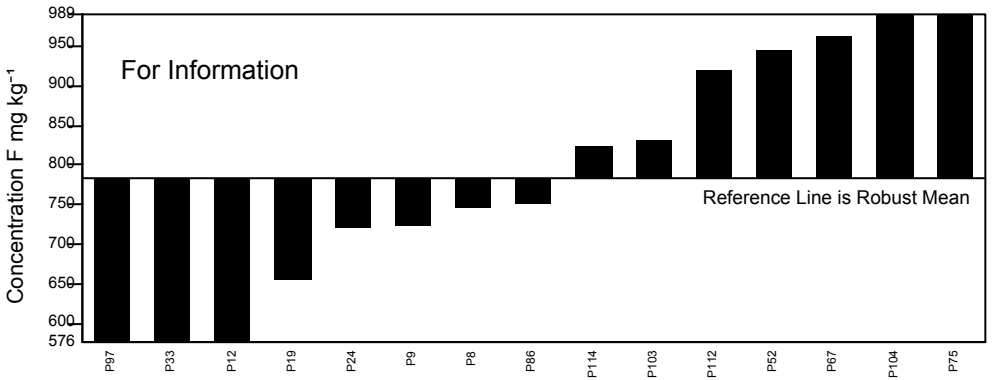
GeoPT37A - Barchart for C(tot)



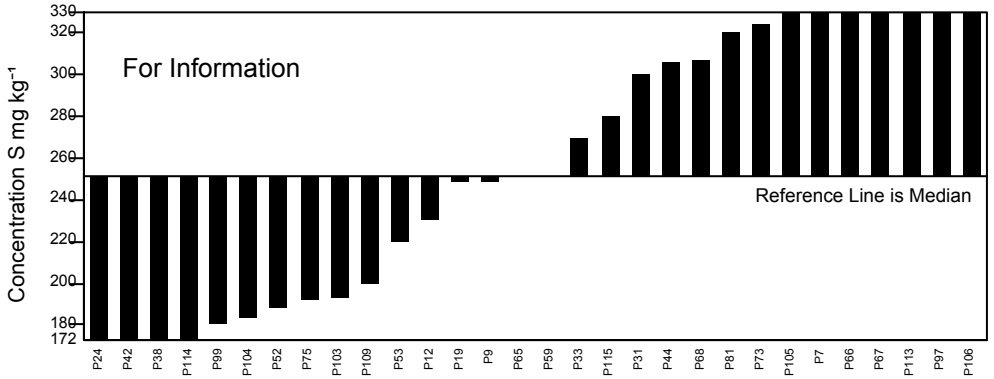
GeoPT37A - Barchart for Cl



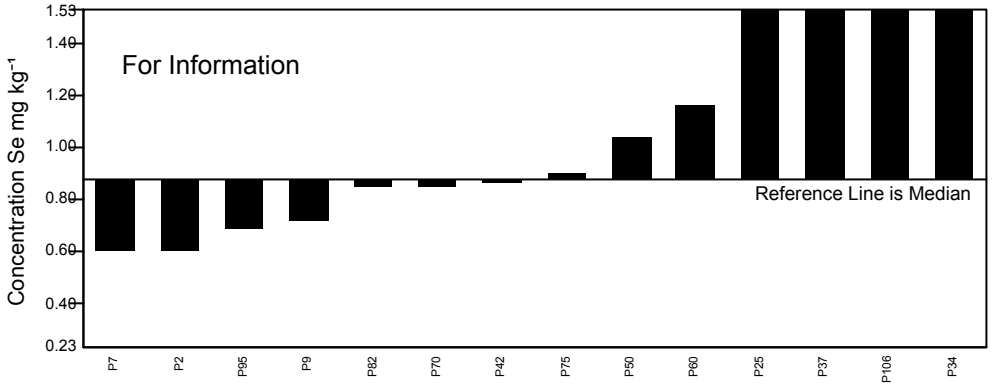
GeoPT37A - Barchart for F



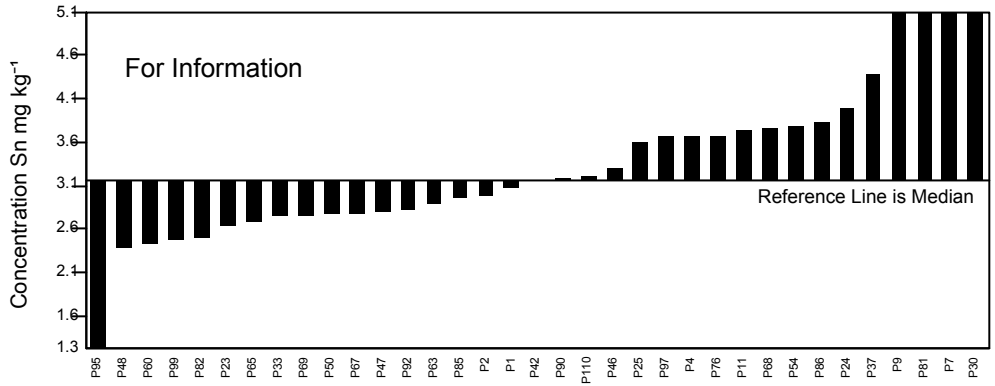
GeoPT37A - Barchart for S



GeoPT37A - Barchart for Se



GeoPT37A - Barchart for Sn



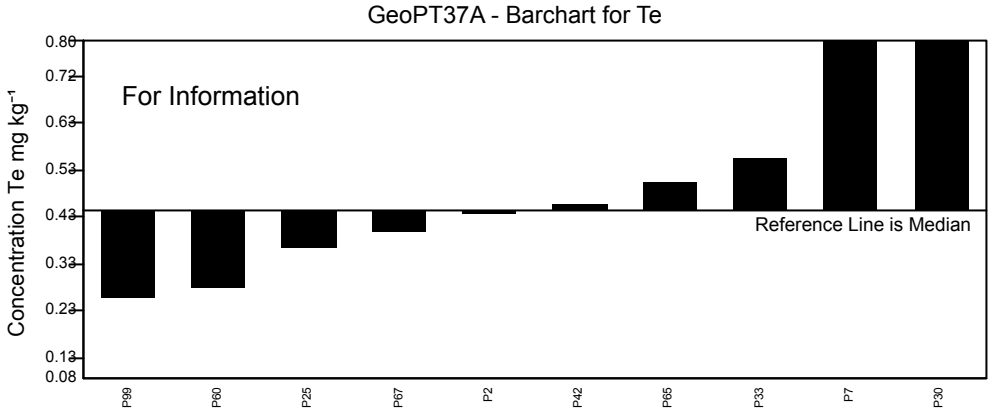


Figure 2: GeoPT37A - Blended sediment, SdAR-L2. Data distribution charts provided for information only for elements for which values could not be assigned.

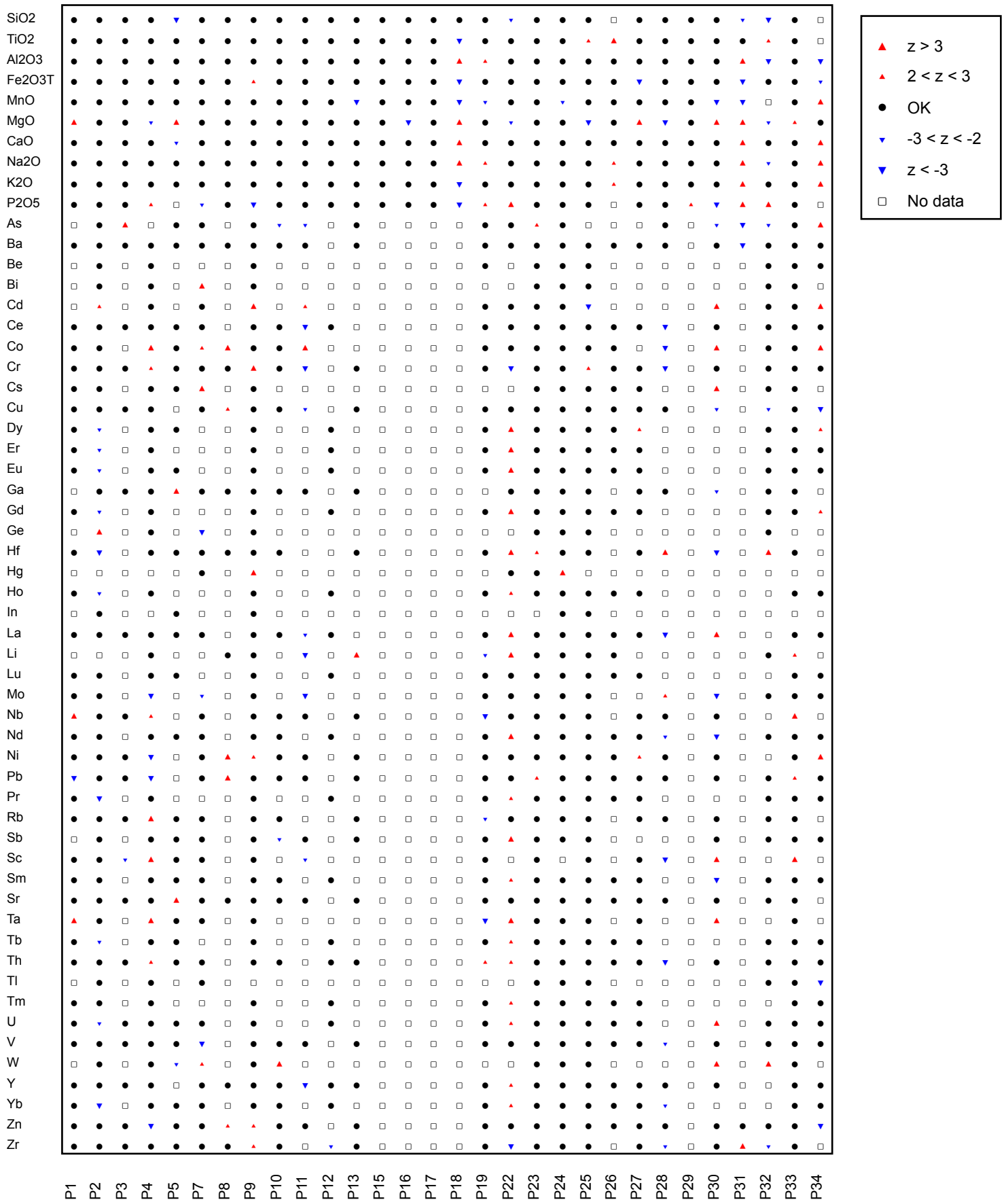


Figure 3: GeoPT37A - Blended sediment, SdAR-L2. Multiple z-score charts for laboratories participating in the GeoPT37 A round. Symbols indicate whether or not an elemental result complies with the -2<z<+2 criteria (see key).

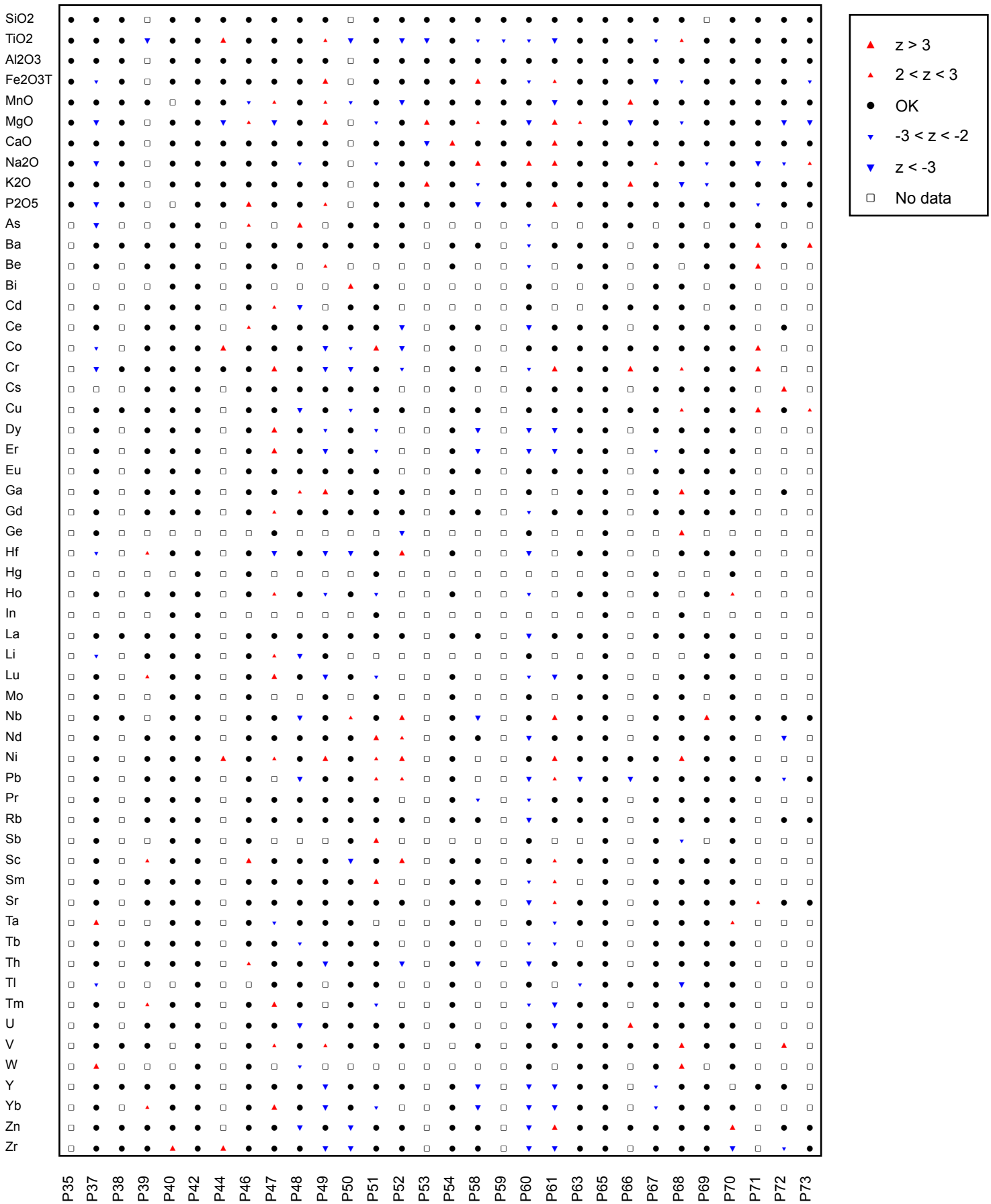


Figure 3: GeoPT37A - Blended sediment, SdAR-L2. Multiple z-score charts for laboratories participating in the GeoPT37 A round. Symbols indicate whether or not an elemental result complies with the -2<z<+2 criteria (see key).

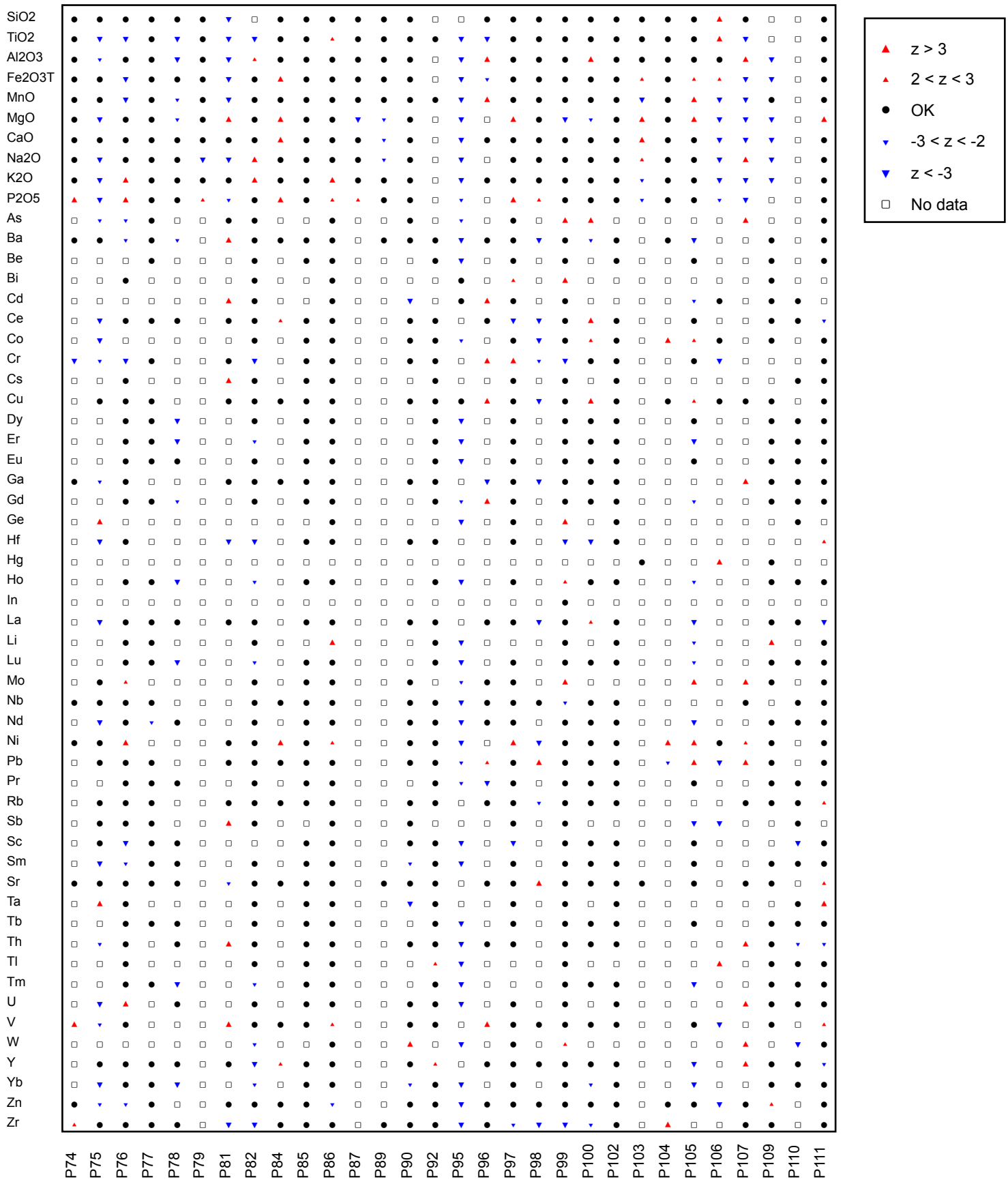


Figure 3: GeoPT37A - Blended sediment, SdAR-L2. Multiple z-score charts for laboratories participating in the GeoPT37 A round. Symbols indicate whether or not an elemental result complies with the -2<z<+2 criteria (see key).

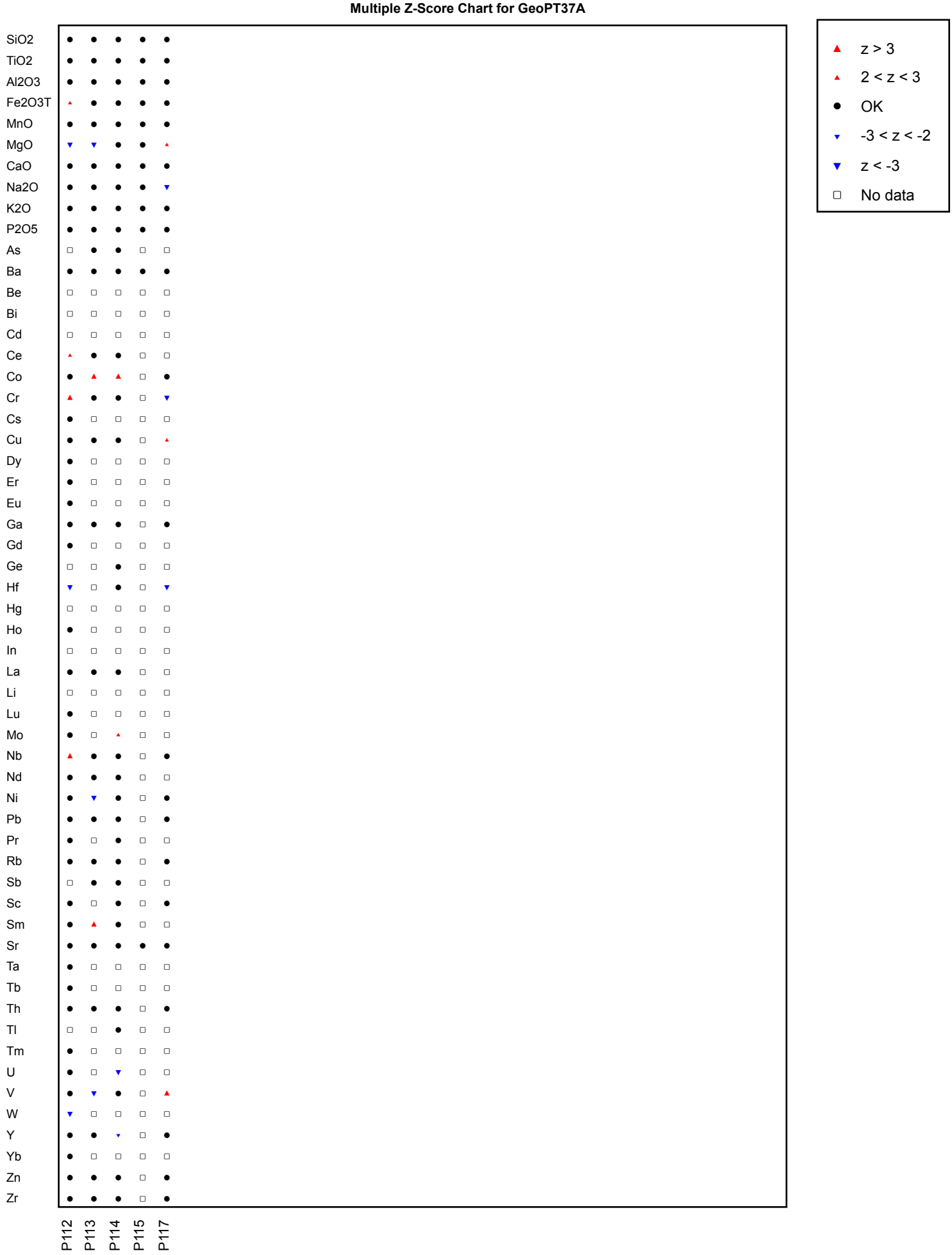


Figure 3: GeoPT37A - Blended sediment, SdAR-L2. Multiple z-score charts for laboratories participating in the GeoPT37 A round. Symbols indicate whether or not an elemental result complies with the -2<z<+2 criteria (see key).