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Analyse Service GmbH

GeoPT 30A, England - ML-2, Impure Limestone

Veranstalter: International Association of Geoanalysts and Geostandards Newsletter - GeoPT30A
Ringversuchsmaterial: ML-2, (Impure Limestone)
RV geschlossen: 2012 – 2
Literatur: Report - GeoPT30A Proficiency Testing Round (CRB Laborcode = E1)

Hauptelemente [MA%]

	CRB	RV	1sRV	Z-Score
MgO	1,36	1,39	0,026	-0,52
Al_2O_3	0,43	0,45	0,01	-0,79
SiO_2	2,79	2,86	0,05	-0,75
P_2O5	0,045	0,047	-0,66	
K_2O	0,01	0,011	0,003	-1,12
CaO	52,83	52,5	0,578	0,29
TiO_2*	0,02	0,021	---	---
Fe_2O_3 tot	0,12	0,14	0,004	-2,66
MnO	0,016	0,023	0,001	-4,13
L.O.I.*	42,13	41,89	0,478	0,25

Spurenelemente [µg/g]

	CRB	RV	1sRV	Z-Score
Ba	57	28	1,4	10,8
Ce	1,8	2,7	0,2	-2,50
Cr	12	6,2	0,9	---
F*	430	469	---	---
Ga	0,9	0,6	0,1	1,71
Hf*	1,1	1,1	---	---
Ni*	7	7,7	---	---
Sr	1023	1032	10,2	-0,15
S*	44	59	---	---
V	7	3	0,2	9,00
Y	4	2,1	0,2	---
Zn*	3	5,3	---	---

Legende

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

Geo*PT*30 — AN INTERNATIONAL PROFICIENCY TEST FOR ANALYTICAL GEOCHEMISTRY LABORATORIES — REPORT ON ROUND 30 (Syenite, CG-2) and 30A (Limestone, ML-2) / January 2012

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*Keywords: proficiency testing, quality assurance, Geo*PT*, Geo*PT*30, Geo*PT*30A, round 30, CG-2, syenite, ML-2, limestone*

Abstract

Results are presented for Geo*PT*30 and Geo*PT*30A, the subject of round thirty of the International Association of Geoanalysts' Proficiency Testing programme for analytical geochemistry laboratories. The two samples distributed for this round were:– i) the routine sample, CG-2, a syenite, supplied by D. Long of the Council for Geoscience, RSA, and ii) the supplementary sample, ML-2, a limestone supplied by Dr B. Batjargal of the Central Geological Laboratory, Mongolia. In this report, contributed data are listed, together with an assessment of consensus values, consequent *z*-scores and charts showing the distribution of contributed results and the overall performance of participating laboratories.

Introduction

This thirtieth 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 (www.geoanalyst.org/index.php/proficiency-testing-proficiency-testing/geopt-programme/overview). The overall aim of the programme is to provide participating laboratories with *z*-score information for each reported elemental determination, from which participating laboratories can decide whether the quality of their data is satisfactory in relation to both their chosen fitness-for-purpose criteria and 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 30: P.C. Webb (results coordinator), M. Thompson (statistical advisor), P.J. Potts (analytical advisor), D. Long (provision of CG-2), B. Batjargal (provision of ML-2).

Timetable for Round 30:

Distribution of sample: September 2012.
Deadline for submission of analytical results: 9th December 2011.
Distribution of draft report: February 2012

Sample details

(i) Geo*PT*30: CG-2, a syenite was supplied by D. Long of the Council for Geoscience, RSA. The test material was analysed by WDXRF at the Open University for a range of major and trace elements and the data tested for sufficient heterogenity using a range of tests. In none of the cases for which valid data were obtained was any significant lack of homogeneity found, therefore the sample was considered suitable for use in the Geo*PT* proficiency testing programme.

(ii) Geo*PT*30A: ML-2, a limestone, was supplied by Dr B. Batjargal of the Central Geological Laboratory, Mongolia. Testing for homogeneity was carried out by the originating laboratory and the material was considered suitable for use as a supplementary sample in this round of the Geo*PT* proficiency testing programme.

Submission of results

Results were submitted for Geo*PT*30 (CG-2) by 87 laboratories and are listed in Table 1. Results were submitted for Geo*PT*30A (ML-2) by 84 laboratories and are listed in Table 4. All of these data were used for the assessment of the respective assigned values.

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 estimates of the true composition of this sample. Values were assigned on the basis that: (i) sufficient laboratories had contributed data for an element, (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.

In this round, the supplementary sample, ML-2, has a carbonate matrix which is not as frequently analysed as silicate matrices in many geochemical laboratories. It has a relatively extreme composition with unusually high concentrations of several elements, whereas many others are at extremely low concentrations. Taking into consideration the likelihood of unexpected matrix effects; some elemental concentrations being outside the routine calibration ranges of many laboratories; many concentrations being very close to detection limits; and the potential for incompatibility with routine QA procedures, it would hardly be surprising if the contributed results for many elements were of poorer quality than usual in GeoPT assessments. This is reflected (see below) in distributions of results that exhibit greater dispersion than usual. Consequently, fewer values were assigned than is normal and a relatively large number of values were designated as provisional.

Geo*PT*30 values

Table 2 lists assigned and provisional values for 12 major components and 41 trace elements in Geo*PT*30 (CG-2). Bar charts for the 53 elements/components of Geo*PT*30 that were judged to have satisfactory distributions for consensus values to be assigned or provisional values given are shown in Figure 1, namely: SiO_2, TiO_2, Al_2O_3, Fe_2O_3T, MnO, *MgO, CaO, Na_2O, K_2O, *P_2O_5, *CO_2, LOI, Ba, Be, *Bi, Ce, *Co, *Cr, Cs, Dy, Er, Eu, Ga, Gd, *Ge, Hf, Ho, La, *Li, Lu, *Mo, Nb, Nd, Ni, Pb, Pr, Rb, Sb, Sm, *Sn, Sr, Ta, Tb, Th, Tl, Tm, U, V, W, Y, Yb, Zn and Zr. Of these, only provisional values could be given to the 10 marked '*'.

In 23 cases the robust mean was used to define the consensus value. In 26 cases the median value was preferred. In 4 cases a mode produced a baseline with better symmetry in relation to the normally distributed portion of the graph. The procedure used to determine the mode was based on the analysis of mixed populations detailed in Thompson (2006) and first used for Geo*PT*23. Confidence in modes defining a concensus for Be, Sm and Yb was sufficient for values to be assigned: the other value (for Co) obtained in this way was designated as a provisional value.

Bar charts for the 11 elements/components: Fe(II)O, H_2O^+, Ag, As, Cd, Cl, Cu, F, Hg, S and Sc are plotted in Figure 2 for information only, as the data were not amenable to the reliable determination of a consensus.

Some distributions, particularly for Cu and Sc, were characterised by a much greater dispersion of results than usual. This may have been a result of several factors, in these cases the most influential was probably that concentrations were near to detection limits for a contributing technique that was commonly used.

For most major elements consensus values were assigned (Table 2). Some distributions (Figure 1) had the appearance of multimodality, largely on account of truncation of data reported at low concentrations: this applies especially to MgO and P_2O_5 for which only provisional values could be given.

GeoPT30A

Table 5 lists assigned and provisional values for 9 major components and 27 trace elements. Bar charts for 36 elements/components of GeoPT30A that were judged to have satisfactory distributions for consensus values to be assigned or provisional values given are shown in Figure 4, namely: SiO_2, *Al_2O_3, *Fe_2O_3T, *MnO, MgO, CaO, *K_2O, *P_2O_5, LOI, *Ba, *Ce, Cs, Dy, Er, Eu, *Ga, Gd, Ho, La, Li, Lu, Nd, Pr, Rb, Sm, *Sn, Sr, *Ta, Tb, Th, Tm, U, *V, *W, Y and Yb. Of these, only provisional values could be given to the 13 marked '*'.

In 7 cases the robust mean was used to define the consensus value. In 21 cases the median value was preferred. In 8 cases a mode produced a baseline with better symmetry in relation to the normally distributed portion of the graph. This is particularly true of severely 'tailed' (upwards) distributions at relatively low concentrations and may indicate that some labs have difficulties in quantification (possibly associated with true blanks) close to detection limits. Confidence in modes defining a concensus for Nd, Rb and Th was sufficient for values to be assigned: the other values (for Ga, Sn, Tm and V) obtained in this way were designated as provisional values.

Bar charts for the 27 elements/components: TiO_2, Fe(II)O, Na_2O, CO_2, H_2O^+, Ag, As, Be, Bi, Cd, Co, Cr, Cu, F, Ge, Hf, Mo, Nb, Ni, Pb, S, Sb, Sc, Se, Tl and Zn, and Zr are plotted in Figure 5 for information only, where the data were not amenable to the reliable determination of the consensus.

Most 'major' elements were characterised by greater dispersion of results than usual, and most values were designated provisional. This is due to the unusually low concentrations of most of the 'major' elements, only for SiO_2 MgO, CaO and LOI at higher concentrations with smaller uncertainties were consensus values assigned. Some distributions (Figure 4) had the appearance of multimodality, largely on account of truncation of data reported at low concentrations: this applies especially to Fe_2O_3, MnO, K_2O and P_2O_5 for which only provisional values could be given. For TiO_2 and Na_2O there was no clear consensus and not even a provisional value could be justified. Although CO_2 was determined at a much higher concentration, the bimodal distribution of results meant that again no consensus could be justified.

***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*30, 1311 results of data quality 1 were submitted, and for Geo*PT*30A, 1060 results of data quality 1.

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*30, 1696 results of data quality 2 were submitted, and for Geo*PT*30A, 1175 results of data quality 2.

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*, and 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*30 are listed in Table 3 and for contributors to Geo*PT*30A in Table 6. Participating laboratories are invited to assess their performance using the following criterion:–

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

Overall performance

A summary of the overall performance of individual laboratories in this round is plotted in multiple *z*-score charts for GeoPT30 in Figure 3 and for GeoPT30A in Figure 6. 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.

It should be noted that in this round, the supplementary sample presented non-routine analytical problems for some analysts. It may have been widely thought that this sample would not be difficult and would be analysable using routine procedures and calibrations that in fact turned out to be unsuited to this particular matrix. While participants should always consider the reasons for having unsatisfactory *z*-scores, their performance in the analysis of Geo*PT*30A does not necessarily reflect their routine performance in the analysis of silicate samples.

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*31 round, the sample for which will be distributed during March 2012.

Acknowledgements

The authors thank Liz Lomas (OU) for valued assistance in distributing both the sample and the report, and John Watson (OU) for assistance with repackaging the CG-2 sample.

Reference

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

Appendix 1

Publication status of proficiency testing reports

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.

Cont'd.

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.

Table 1		GeoPT30 Contributed data for Syenite, CG-2 (December 2011)												
Lab Code		E01	E02	E03	E04	E05	E06	E07	E08	E09	E09	E10	E11	E12
Quality		2	1	1	2	1	2	1	2	1	2	1	1	1
SiO2	% m/m	59.65	59.570	59.54		59.46	59.924	59.8	59.74	59.03		59.48	59.27	57.48
TiO2	% m/m	0.63	0.6300	0.59	0.654	0.64	0.645	0.64	0.62	0.62		0.62	0.64	0.61
Al2O3	% m/m	18.81	18.920	18.70		19.08	18.957	18.9	18.83	18.81		18.70	18.81	18.8
Fe2O3T	% m/m	4.02	4.080	4.07	4.30	4.08	4.248	4.01	3.98	3.98		4.04	4.10	3.88
Fe(II)O	% m/m			1.78						1.69		1.86	1.61	
MnO	% m/m	0.164	0.15200	0.15	0.172	0.18	0.159	0.160	0.16	0.16		0.16	0.159	0.16
MgO	% m/m	0.38	0.2200	0.37		0.43	0.246	0.29	0.413	0.39		0.39	0.39	0.37
CaO	% m/m	2.18	2.3000	2.13	2.74	2.25	2.225	2.15	2.12	2.13		2.17	2.14	2.13
Na2O	% m/m	5.88	6.0400	5.94		5.61	5.701	6.03	6	5.88		5.91	6.13	6.03
K2O	% m/m	5.81	6.0900	5.59	5.77	5.77	5.573	5.83	5.77	5.75		5.73	5.80	5.7
P2O5	% m/m	0.044	0.0400	0.05	0.052	0.07	0.052	0.04	0.042	0.04		0.05	0.06	0.05
H2O+	% m/m									1.01		0.73	1.05	
CO2	% m/m									1.05		1.08	0.85	
LOI	% m/m	2.15	2.42	2.17	2.19	2.24	2.21	2.21	2.32	2.32		2.34	2.37	
Ag	mg kg^{-1}													
As	mg kg^{-1}	12	4.471			6		37			11		5.49	3.7
Au	mg kg^{-1}													
B	mg kg^{-1}												9	
Ba	mg kg^{-1}	693	794.3		682	771	614	944		674		678	657	670.3
Be	mg kg^{-1}		1.558					7.6					7.84	
Bi	mg kg^{-1}										4		0.15	
Br	mg kg^{-1}													
Cd	mg kg^{-1}	0.9	0.0716								6		0.33	
Ce	mg kg^{-1}	242	308.0					271		276			253	225.9
Cl	mg kg^{-1}	110									20		81	57.2
Co	mg kg^{-1}	4	5.5				6	4.3		3		6	2.42	
Cr	mg kg^{-1}	22	16.8		17		9	50		8		18	18.2	15.6
Cs	mg kg^{-1}							2.3		6			1.57	4.6
Cu	mg kg^{-1}	1	4.9				32	184		6			4.1	20
Dy	mg kg^{-1}										4		6.19	
Er	mg kg^{-1}										3		3.71	
Eu	mg kg^{-1}										2		2.33	
F	mg kg^{-1}	6340						0.55			6292		6410	
Ga	mg kg^{-1}	31			30			37		32		28	31.8	28.8
Gd	mg kg^{-1}										17		6.86	
Ge	mg kg^{-1}												1.14	
Hf	mg kg^{-1}	17						14		24		16	17.6	17.1
Hg	mg kg^{-1}	0.6	0.1798										0.0683	
Ho	mg kg^{-1}										4		1.23	
In	mg kg^{-1}													
La	mg kg^{-1}	145	182.0					150		162			154	139.5
Li	mg kg^{-1}							35					26.5	
Lu	mg kg^{-1}							0.5					0.629	
Mo	mg kg^{-1}	1						6.9		15			5.25	5
Nb	mg kg^{-1}	153		145	163	167	168	165		181		159	165	169.4
Nd	mg kg^{-1}	63								70			68.5	66.9
Ni	mg kg^{-1}	83	74.1		72	71	48	70		80		66	81.3	70.1
Pb	mg kg^{-1}	15	16.2		15	13	14	23		16		16	15.0	17.1
Pr	mg kg^{-1}	22								24			23.4	
Rb	mg kg^{-1}	243	265.8		257	264	239	171		258		243	239	246.7
Re	mg kg^{-1}													
S	mg kg^{-1}	110	100								44		225	
Sb	mg kg^{-1}										16		0.97	2.4
Sc	mg kg^{-1}	11						2.6		3		2		
Se	mg kg^{-1}													0.2
Sm	mg kg^{-1}	11									7		9.37	7.6
Sn	mg kg^{-1}	6						4.5		3			3.78	5.6
Sr	mg kg^{-1}	327	291.1		306	309	305	350		307		312	301	299
Ta	mg kg^{-1}							13.8		4			7.07	7.1
Tb	mg kg^{-1}							1.1			1		1.07	
Te	mg kg^{-1}													
Th	mg kg^{-1}	23			31		29	32.3		32		31	32.1	30.5
Tl	mg kg^{-1}		0.037					1						
Tm	mg kg^{-1}												0.594	
U	mg kg^{-1}	4						9.5		9			8.18	7.5
V	mg kg^{-1}	19	27.3		30	27	94	19		16		27	21.2	25.9
W	mg kg^{-1}	27						4.6					3.8	4.3
Y	mg kg^{-1}	43			37	43	55	29.5		46		44	38.8	35.8
Yb	mg kg^{-1}							3.5			5		4.05	3.8
Zn	mg kg^{-1}	54	67.8		63	61	60	133		42		55	65.3	58.6
Zr	mg kg^{-1}	814			795	836	831			784		781	839	819.7

Table 1		GeoPT30 Contributed data for Syenite, CG-2 (December 2011)												
Lab Code		E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22	E23	E24
Quality		2	2	1	2	1	2	2	1	2	2	2	1	1
SiO2	% m/m		58.956		59.6	57.965	59.39	59.74	59.11	59.24	59.62	58.79	59.31	59.15
TiO2	% m/m		0.617	0.59	0.66	0.581	0.65	0.61	0.55	0.667	0.606	0.62	0.31	0.649
Al2O3	% m/m		18.691		17.9	19.72	18.73	18.68	18.6	18.94	18.43	18.48	18.41	18.82
Fe2O3T	% m/m		3.970		4.8	4.585	3.9	4.06	4.15	4.060	3.96	4.06	3.89	4.05
Fe(II)O	% m/m					0.53	1.78							
MnO	% m/m		0.157		0.158	0.110	0.159	0.15	0.16	0.160	0.159	0.16	0.18	
MgO	% m/m		0.350		0.5	0.78	0.35	0.41	0.7	0.6514	0.31	0.37	0.42	
CaO	% m/m		2.158		2.6	3.01	2.13	2.11	2.08	2.355	2.10	2.23	2.4	
Na2O	% m/m		6.042		5.4	3.9	5.81	6	6.16	5.897	6.14	6.10	6.54	6.21
K2O	% m/m		5.814		5.9	5.905	5.86	5.79	5.42	5.611	5.68	5.95	5.68	5.86
P2O5	% m/m		0.037		0.04	0.05	0.064	0.05	0.09	0.0508	0.044	0.04	0.12	
H2O+	% m/m		0.252											
CO2	% m/m										0.99	1.14		
LOI	% m/m	2.5522	2.273		1.1	2.43	2.34	2.38	2.65	2.340	2.22		2.37	
Ag	mg kg^{-1}					4.303								
As	mg kg^{-1}		4.5			5.072				2.453				
Au	mg kg^{-1}													
B	mg kg^{-1}					2.322								
Ba	mg kg^{-1}		713.1	597.533	712	572.429	605	709		669.4	623	710	675	
Be	mg kg^{-1}				8.7	5.958		8.35		7.480				
Bi	mg kg^{-1}				0.34	0.103				0.160				
Br	mg kg^{-1}													
Cd	mg kg^{-1}				0.033	0.060				0.208				
Ce	mg kg^{-1}		254.9	190.383	273	207.158	228	249		246.7	240	260	242	269
Cl	mg kg^{-1}													
Co	mg kg^{-1}		2.9	3.000	2.81	2.627		2.96		3.101	4.2			
Cr	mg kg^{-1}		15.4	7.217	23	13.040	28	17		25.55	20		23	
Cs	mg kg^{-1}		1.8	1.513	1.73	1.440		1.65		1.686				
Cu	mg kg^{-1}		4.6	8.720	4.2	9.789		4.9		5.530	3.0		12	
Dy	mg kg^{-1}			6.187	6.36	5.051		6.37		6.927			5.6	6.80
Er	mg kg^{-1}			4.167	4.01	3.206		4.24		4.172			3.6	4.30
Eu	mg kg^{-1}			1.818	2.50	2.035		2.34		2.309			2.2	2.34
F	mg kg^{-1}				7500									
Ga	mg kg^{-1}		29.9		33	28.923	31	32.1		32.31	28.5	30		
Gd	mg kg^{-1}			9.540	9.06	6.844		8.2		8.023			7.3	7.0
Ge	mg kg^{-1}					0.923		1.25		1.401				
Hf	mg kg^{-1}		20.3	29.859	16.8	14.684	18	18.5		18.63		10		
Hg	mg kg^{-1}						0.066							
Ho	mg kg^{-1}			1.256	1.32	1.039		1.37		1.394			1.3	
In	mg kg^{-1}													
La	mg kg^{-1}		154.8	67.343	155	112.148	151	140		144.8	143.5	140	128	
Li	mg kg^{-1}				29.8	25.737		28.6		25.93			28	
Lu	mg kg^{-1}			0.725	0.60	0.481		0.64		0.665			0.6	0.70
Mo	mg kg^{-1}		5.2		6.34	5.328	6			4.975	6.4		7	
Nb	mg kg^{-1}		160.6	155.197	163	156.395	151	176		172.3	163	120	290	
Nd	mg kg^{-1}		70.0	57.413	73.9	57.569	68	69.9		71.69	69.9	50	67	
Ni	mg kg^{-1}		70.9	61.936	83.8	70.128	73	85.9		77.09	77	90	82	
Pb	mg kg^{-1}		15.1	15.322	16.5	12.916	14	15.9		18.69				
Pr	mg kg^{-1}			18.028	25.1	19.921		22.9		23.41			19	21.7
Rb	mg kg^{-1}		252.7	223.644	254	211.626	239	239		257.5	245		253	245
Re	mg kg^{-1}													
S	mg kg^{-1}													
Sb	mg kg^{-1}		0.8		1.07	0.855				1.100				
Sc	mg kg^{-1}		1.4	1.948	2.1	1.050		1.64		0.613	7.1			
Se	mg kg^{-1}					0.781								
Sm	mg kg^{-1}		9.7	7.639	10.0	7.716		9.47		9.435			10	
Sn	mg kg^{-1}		3.1		4.17	3.436				4.568				
Sr	mg kg^{-1}		309.3	260.720	302	263.393	313	303		282.1	289		285	
Ta	mg kg^{-1}		5.8	6.439	5.5	6.237		6.74		7.296				
Tb	mg kg^{-1}			1.355	1.15	0.847		1.15		1.209			1.7	
Te	mg kg^{-1}													
Th	mg kg^{-1}		32.8	30.053	46.0	26.879	35	31.5		32.58				
Tl	mg kg^{-1}		1.4		1.04	0.856				1.159				
Tm	mg kg^{-1}			0.754	0.609	0.468		0.66		0.663			0.6	
U	mg kg^{-1}		8.9	8.093	9.04	7.724	10	8.25		8.397	10.3		6.5	
V	mg kg^{-1}		25.0	19.996	23	21.873		23		29.78	27	20	28	
W	mg kg^{-1}		5.6	4.999	4.14	3.853				3.533	7			
Y	mg kg^{-1}		39.5	42.597	37	27.552	40	41.7		41.35	44.0	40	44	
Yb	mg kg^{-1}		3.8	4.396	4.03	3.301	4	4.38		4.327			3.6	
Zn	mg kg^{-1}		60.3	48.610	62.1	56.635	63	59.4		67.36	58	70	69	
Zr	mg kg^{-1}		847.9	85.194	890	615.583	809	889		890.2	840	740	675	

Table 1		GeoPT30 Contributed data for Syenite, CG-2 (December 2011)												
Lab Code		E24	E25	E26	E26	E27	E28	E28	E29	E29	E30	E31	E32	E32
Quality		2	1	1	2	2	1	2	1	2	2	2	1	2
SiO2	% m/m			59.60		59.66		59.450	59.36			59.67	58.06	
TiO2	% m/m			0.61		0.619		0.606	0.66			0.612	0.62	
Al2O3	% m/m			18.88		18.69		18.862	18.82			18.66	18.84	
Fe2O3T	% m/m			3.91		3.923		4.062	3.96			4.04	4.09	
Fe(II)O	% m/m								1.57				2.09	
MnO	% m/m	0.158		0.15		0.154		0.147	0.160			0.159	0.169	
MgO	% m/m	0.514		0.41		0.394		0.405	0.41			0.378	0.33	
CaO	% m/m	2.715		2.10		2.129		2.162	2.23			2.11	2.19	
Na2O	% m/m			5.77		6.029		5.899	5.70			5.83	5.85	
K2O	% m/m			6.03		5.847		5.845	5.57			5.51	5.61	
P2O5	% m/m	0.049		0.04		0.042		0.051	0.04			0.056	0.03	
H2O+	% m/m								1.56					
CO2	% m/m					1.110			1.13				1.04	
LOI	% m/m	1.70		2.10		2.31		2.295	2.39			2.31	2.24	
Ag	mg kg^{-1}	0.03												
As	mg kg^{-1}	7.50		3.6				7.0						
Au	mg kg^{-1}													
B	mg kg^{-1}	9.10												
Ba	mg kg^{-1}		677	671.8		401.3		718.0			701	733	712	
Be	mg kg^{-1}	7.80								8.0				7
Bi	mg kg^{-1}													
Br	mg kg^{-1}													
Cd	mg kg^{-1}	0.05							1.15					
Ce	mg kg^{-1}		247					275.0	264.4		236	250	281	
Cl	mg kg^{-1}					168								
Co	mg kg^{-1}	3.0	2.27	7.6					3.1		2.15	3		
Cr	mg kg^{-1}	15.2				29.7		18.0	20.4		15.6	20		
Cs	mg kg^{-1}	1.80	1.38								1.48		1.73	
Cu	mg kg^{-1}	4.0		2.0				4.0			3.76	35		
Dy	mg kg^{-1}		6.24								6.12		6.78	
Er	mg kg^{-1}		4.13						4.27		4.01		4.21	
Eu	mg kg^{-1}		2.35						2.42		2.14		2.46	
F	mg kg^{-1}	4450				8177			6030			5695		
Ga	mg kg^{-1}	28		18.8				30.0	32.4			18		
Gd	mg kg^{-1}		9.36						8.68		5.82		8.18	
Ge	mg kg^{-1}	1.10												
Hf	mg kg^{-1}	21.80	18.4						20.1			20	17.7	
Hg	mg kg^{-1}													
Ho	mg kg^{-1}	1.40	1.30						1.49		1.27		1.44	
In	mg kg^{-1}													
La	mg kg^{-1}	150	141	151.6				170.0	154.8		132	139	187	
Li	mg kg^{-1}	26								28	28.1	25		
Lu	mg kg^{-1}		0.61						0.66		0.6		0.67	
Mo	mg kg^{-1}	6.90			0.3				6.10					
Nb	mg kg^{-1}	135	152	163.1				160.0	165			38	212	
Nd	mg kg^{-1}	70.6	67.6						71.1		64.9	64	74.1	
Ni	mg kg^{-1}	72		70.9		74.0		76.0		93.8	60.8	81		42
Pb	mg kg^{-1}	15		20.8		17.0		17.0	20.57		13.7		17.0	
Pr	mg kg^{-1}		22.8						24.2		21.8		25.0	
Rb	mg kg^{-1}		229	254.0				261.0	204.2				326	
Re	mg kg^{-1}													
S	mg kg^{-1}					247								
Sb	mg kg^{-1}	0.90												
Sc	mg kg^{-1}	0.69									0.51		0.78	
Se	mg kg^{-1}													
Sm	mg kg^{-1}	9.10	9.17						9.73		8.87		10.20	
Sn	mg kg^{-1}	4.10							5.0					
Sr	mg kg^{-1}	310	298	310.6				314.0	342.4		309	300	305	
Ta	mg kg^{-1}	6.90	7.37										7.47	
Tb	mg kg^{-1}	1.05	1.17						1.36		1.01		1.20	
Te	mg kg^{-1}													
Th	mg kg^{-1}	31	32.8	36.3				35.0	32.28		32.7		34.1	
Tl	mg kg^{-1}	1.30												
Tm	mg kg^{-1}	0.60	0.63						0.66		0.6		0.67	
U	mg kg^{-1}	8.0	8.50	6.1				9.0	10.16		7.81		8.40	
V	mg kg^{-1}	26	21.5	22.8		29.7		23.0	26.8		24.1	30		20
W	mg kg^{-1}	2.10												
Y	mg kg^{-1}	38.5	33.2	43.8				45.0	39.97		38.2	40	41.3	
Yb	mg kg^{-1}	4.40	4.28						4.46		4.11		4.31	
Zn	mg kg^{-1}	60		62.8		56.7		64.0			58.8	65		61
Zr	mg kg^{-1}	585	792	808.3		962		867.0	888			1470	796	

Table 1		GeoPT30 Contributed data for Syenite, CG-2 (December 2011)												
Lab Code		E33	E34	E35	E36	E37	E38	E39	E40	E41	E42	E43	E44	E45
Quality		2	1	2	2	2	2	1	2	1	2	2	2	2
SiO2	% m/m	**59.5**	54	59.3	58.7	55.82		59.42	59.50		59.75		59.44	59.28
TiO2	% m/m	**0.638**	0.617	0.610	0.63			0.63	0.62	0.65	0.62	0.613	0.631	0.615
Al2O3	% m/m	**18.5**	16.3	19.1	18.4	15.72		18.75	18.92	6.81	18.75	18.81	18.72	18.78
Fe2O3T	% m/m	**3.95**	4.09	3.95	3.98	4.21		3.95	4.016	3.11	3.95	4.017	4.04	4.037
Fe(II)O	% m/m													
MnO	% m/m	**0.156**	0.168	0.160	0.158			0.16		0.12		0.169	0.158	0.161
MgO	% m/m	**0.462**	0.64	0.393	0.41	0.61		0.37		0.28	0.39	0.39	0.37	0.402
CaO	% m/m	**2.15**	2.66	2.03	2.07	2.47		2.14	2.106	1.89	2.11	1.909	2.13	2.135
Na2O	% m/m	**5.92**	3.4	6.00	5.8			6.18	5.739	5.20	5.84	6.505	5.78	5.957
K2O	% m/m	**5.82**	5.36	5.70	5.76	5.57		5.73	5.602	4.90	5.6	5.743	5.71	5.79
P2O5	% m/m	**0.048**	0.029	0.045	0.043			0.03		0.04		0.044	0.045	0.041
H2O+	% m/m													
CO2	% m/m													
LOI	% m/m	**2.26**		2.34	2.21			2.15	2.28				2.36	2.316
Ag	mg kg^{-1}													0.84
As	mg kg^{-1}		4.5					5.9		4.27		4.875	7	18.6
Au	mg kg^{-1}													
B	mg kg^{-1}											11		
Ba	mg kg^{-1}		748	699	680			660		696.9		701.3	713	668
Be	mg kg^{-1}									6.464		7.892		5.75
Bi	mg kg^{-1}									0.090		0.139		
Br	mg kg^{-1}													
Cd	mg kg^{-1}			0.06			0.14					0.113		
Ce	mg kg^{-1}		241.3	313			263	246		162.94	275	256.4	254	235
Cl	mg kg^{-1}													
Co	mg kg^{-1}			2.72				3		2.26	2.5	2.522		2.62
Cr	mg kg^{-1}		18.3	16.0				28		15.68		15.91	18	
Cs	mg kg^{-1}		7.6				1.9			1.16	1.74	1.769		
Cu	mg kg^{-1}		5.1					3		7.46		3.437	6	
Dy	mg kg^{-1}						7.07			6.23	6.92	7.124		6.29
Er	mg kg^{-1}						4.35			2.75	4.3	4.54		3.87
Eu	mg kg^{-1}						2.48			1.96	2.52	2.497		2
F	mg kg^{-1}													
Ga	mg kg^{-1}		28.2				29.5	29		36.65	32.7	27.45	32	
Gd	mg kg^{-1}						7			8.65	7.39	7.543		13.9
Ge	mg kg^{-1}						1.24			0.94				
Hf	mg kg^{-1}		14.2				19.7	15		19.84	19.8	19.9		
Hg	mg kg^{-1}													
Ho	mg kg^{-1}						1.44			0.75	1.36	1.49		1.16
In	mg kg^{-1}													
La	mg kg^{-1}		143.3				155	157		86.57	156	145.6	157	135
Li	mg kg^{-1}									24.76		30.14		26.4
Lu	mg kg^{-1}						0.67			0.44	0.7	0.702		
Mo	mg kg^{-1}							6		4.95	6.3	5.82		
Nb	mg kg^{-1}		155.7				161	160		192.8	178	166	152	
Nd	mg kg^{-1}		60				74.7	67		50.95	76.5	72.03	87	68
Ni	mg kg^{-1}		75.7	89.8				71		72.07	85	92.4	86	74.6
Pb	mg kg^{-1}		13.6	17.3				28		12.74		16.08	14	15.4
Pr	mg kg^{-1}						25.4			16.16	25.5	23.52		22.8
Rb	mg kg^{-1}		237.5		250		241	253		222.0	282	238.6	248	
Re	mg kg^{-1}									0.13				
S	mg kg^{-1}		163.8		270									
Sb	mg kg^{-1}						1			1.11	1.12	0.995		1.9
Sc	mg kg^{-1}							4		0.80				
Se	mg kg^{-1}									3.26				
Sm	mg kg^{-1}		12.6				9.9	8		7.11	10.35	9.84		9.09
Sn	mg kg^{-1}		4.5				4.1			1.44		3.97		3.7
Sr	mg kg^{-1}		276.7	301	300			303		245.2	337	298.6	278	288
Ta	mg kg^{-1}						7.24			2.48	6.38	6.224		
Tb	mg kg^{-1}						1.2			0.79	1.12	1.147		0.97
Te	mg kg^{-1}													
Th	mg kg^{-1}		30.8				34.1	32		29.42		31.01		32
Tl	mg kg^{-1}						1			0.86				1.06
Tm	mg kg^{-1}						0.67			0.52	0.64	0.699		
U	mg kg^{-1}		13.2				8.4	9		8.68	8.38	8.547	10	8.2
V	mg kg^{-1}		36.5	24.1				27		15.91		22.2	27	22.6
W	mg kg^{-1}						3.1			5.46		3.708		
Y	mg kg^{-1}		37.2				41.2	40		25.32	43.4	40.71	31	41.2
Yb	mg kg^{-1}		6.2				4.41			3.49	4.57	4.803		3.98
Zn	mg kg^{-1}		62.3	81				60		60.92	65	64.09	55	61.4
Zr	mg kg^{-1}		819.5	801	820			847		897.2		885.2	788	

Table 1		GeoPT30 Contributed data for Syenite, CG-2 (December 2011)												
Lab Code		E46	E47	E48	E48	E49	E50	E51	E52	E53	E54	E55	E56	E57
Quality		2	2	1	2	2	1	1	2	1	2	1	2	2
SiO2	% m/m	59.72	59.34	58.00		59.62	59.62		59.26		59.792	60.36	60.7	60
TiO2	% m/m	0.61	0.64	0.623		0.635	0.621		0.6408	0.58826	0.668	0.6	0.64	0.614
Al2O3	% m/m	18.7	18.98	18.49		18.77	18.88		18.63		18.86	18.88	18.9	18.3
Fe2O3T	% m/m	3.31	4.09	4.060		4.04	4.03		4.181		3.97	3.91		4.53
Fe(II)O	% m/m	1.81							3.762				3.527	
MnO	% m/m	0.15	0.17	0.159		0.168	0.162	0.1197	0.1675	0.15824	0.18	0.164	0.151	0.163
MgO	% m/m	0.39	0.38	0.38		0.38	0.39	0.0043	0.3695		0.438	0.408	0.376	0.4
CaO	% m/m	2.17	2.16	2.13		2.16	2.14		2.151		2.342	2.137	2.24	2.26
Na2O	% m/m	5.99	5.89	5.71		5.82	5.85		6.261		5.97	5.75	6.03	5.7
K2O	% m/m	6	5.77	5.77		5.52	5.76		5.827		5.7	6.04	5.62	4.93
P2O5	% m/m	0.05	0.04	0.037		0.05	0.045		0.0425		0.056	0.046	0.049	0.051
H2O+	% m/m	1.2					0.2						0.145	
CO2	% m/m		1.06								1.260		0.997	1.06
LOI	% m/m	2.3	2.36	2.12		2.31	2.22		2.375		2.376	2.45	2.22	2.42
Ag	mg kg^{-1}									0.227678				4.04
As	mg kg^{-1}	3.84				8	7.1			5.754967				
Au	mg kg^{-1}													
B	mg kg^{-1}													
Ba	mg kg^{-1}	710		700		701	681			693.1621	607		680	628
Be	mg kg^{-1}	7.11					10.06			7.310743	5.3			5.43
Bi	mg kg^{-1}	0.16					0.18			0.142936				
Br	mg kg^{-1}													
Cd	mg kg^{-1}						0.42			0.053034				
Ce	mg kg^{-1}	260			257	250	252			246.7294	256.9		238	276
Cl	mg kg^{-1}									30.08115			140	
Co	mg kg^{-1}	2.56					2.64	7.0		2.571714	2.8		3.08	2.7
Cr	mg kg^{-1}	16.4				15		14.0		16.60483	21			28
Cs	mg kg^{-1}	1.66					1.79			1.651083	1.44			1.52
Cu	mg kg^{-1}	8.37				13		3.0		3.65965	8			5
Dy	mg kg^{-1}	6.88					6.75			6.636512	6.52		6.44	6.54
Er	mg kg^{-1}	4.13					4.22			4.135853	4.09		3.82	3.98
Eu	mg kg^{-1}	2.36					2.49			2.448922	2.47		2.07	2.4
F	mg kg^{-1}										5410		6290	
Ga	mg kg^{-1}	31.7		28		31	30.2				30.02		30	30.3
Gd	mg kg^{-1}	8.3					7.83			7.395035	8.11		7.53	7.87
Ge	mg kg^{-1}	1.24									1.13			
Hf	mg kg^{-1}	20.1		24		17	18.65			19.26222	17.52		21.2	18
Hg	mg kg^{-1}	0.069												
Ho	mg kg^{-1}	1.47					1.41			1.339786	1.36		1.23	1.35
In	mg kg^{-1}													0.04
La	mg kg^{-1}	148			145	143	146.9			142.5311	146.29		132	154
Li	mg kg^{-1}	28.1					31.7			25.68819	26.5			21.3
Lu	mg kg^{-1}	0.64					0.663			0.643583	0.02		0.58	0.63
Mo	mg kg^{-1}	4.3				5				5.864051				7.4
Nb	mg kg^{-1}	182		161		164				163.7	178		175	189
Nd	mg kg^{-1}	74.2			66	60	70.4			70.91588	69.83		58	71.2
Ni	mg kg^{-1}	78.8		89		86	73.6	84.0		73.65366	76.23		80	72
Pb	mg kg^{-1}	16.6				21	14.36			16.4634	20			16
Pr	mg kg^{-1}	24.7			29		23.4			23.83597	23.55		18.8	24.7
Rb	mg kg^{-1}	258		250		232	265.5			245.0336	250		247	282
Re	mg kg^{-1}													
S	mg kg^{-1}							135.0			190		137	250
Sb	mg kg^{-1}	0.44					0.95			0.965225				
Sc	mg kg^{-1}	1.16					9.66			3.7			2.66	0.5
Se	mg kg^{-1}													
Sm	mg kg^{-1}	10			36		9.78			9.60	9.51		8.17	9.48
Sn	mg kg^{-1}	2.9								3.787029	4.19			
Sr	mg kg^{-1}	294		296		297	319			302.3615	290.1		310	288
Ta	mg kg^{-1}	4.94				7	6.60			6.729022	6.62		6.59	6.4
Tb	mg kg^{-1}	1.24					1.194			1.158384	1.17		1.13	1.2
Te	mg kg^{-1}									0.041022				
Th	mg kg^{-1}	32.6			30	38	33.26			31.91383	30		29.4	30.9
Tl	mg kg^{-1}	1.29					0.95			0.9455	0.63			
Tm	mg kg^{-1}	0.7								0.64881	0.61		0.59	0.64
U	mg kg^{-1}	8.58				8	8.38			8.138044	9		8	7.83
V	mg kg^{-1}	21.2		20		22	25.3	26.0		21.23963	36		23.8	24
W	mg kg^{-1}	2.69					3.7			3.799864				
Y	mg kg^{-1}	41.8		37		46	45.54			38.09825	45		33	37
Yb	mg kg^{-1}	4.4					4.52			4.28188	4.24		3.99	4.38
Zn	mg kg^{-1}	57.1		61		63	74.9			63.13334	60		60	64
Zr	mg kg^{-1}	883		736		856	904			844.431	785.03		880	961

Table 1		GeoPT30 Contributed data for Syenite, CG-2 (December 2011)												
Lab Code		E58	E59	E60	E61	E62	E63	E64	E65	E66	E67	E68	E69	E69
Quality		1	2	1	2	2	1	2	2	2	1	2	1	2
SiO2	% m/m		59.11	59.54	59.37	58.6		59.57	58.67	59.84	60.2	59.9		
TiO2	% m/m		0.63	0.623	0.61	0.62		0.624	0.633	0.64	0.61	0.62	0.617	
Al2O3	% m/m		18.73	18.75	18.32	17.8		18.65	19.1	18.71	18.8	18.76	18.328	
Fe2O3T	% m/m	3.19	4.02	4	4.09	3.88		3.98	4.02	4.06	4.2	3.99	3.975	
Fe(II)O	% m/m			1.787	1.76	1.6				1.6	1.68			
MnO	% m/m	0.12	0.16	0.162	0.17	0.16		0.156	0.159	0.16	0.04	0.16	0.1524	
MgO	% m/m		0.38	0.405	0.37	0.36		0.365	0.35	0.33	0.39	0.37		0.35
CaO	% m/m		2.15	2.16	2.19	2.11		2.14	2.11	2.07	2.03	2.14	2.38	
Na2O	% m/m		5.97	5.96	6.11	5.7		6.01	6.22	5.71	5.24	5.77	5.877	
K2O	% m/m		5.78	5.77	5.85	5.52		5.88	5.76	5.88	5.48	5.63	5.939	
P2O5	% m/m		0.045	0.05	0.04	0.046		0.04	0.051	0.05	0.15			
H2O+	% m/m				0.32	1.1								
CO2	% m/m				1.09	1.06						1.16		
LOI	% m/m		2.15	2.52	2.48	1.61				2.32	2.75	2.33		
Ag	mg kg^{-1}	1.38	0.1								0.056			
As	mg kg^{-1}		6	7		6.8			14	6.3	20	4.3	5.4	
Au	mg kg^{-1}										0.012			
B	mg kg^{-1}											8		
Ba	mg kg^{-1}	688	705	688	734.4305	690	713.1		480	667	702	731	710	
Be	mg kg^{-1}	7.22	6.6		7.3165	8					7.75	9.5		
Bi	mg kg^{-1}	0.18	0.13			0.18			4					
Br	mg kg^{-1}								4					
Cd	mg kg^{-1}	0.70			0.1186						0.68			
Ce	mg kg^{-1}	266	229	245	284.45	256	260.5		155.83		293	262	256	
Cl	mg kg^{-1}					110								
Co	mg kg^{-1}	3.12	3	4	2.6809	2.8	2.529				7.24		2.58	
Cr	mg kg^{-1}		13	16	19.6643	20	15.04		25	19	20.6		16	
Cs	mg kg^{-1}	1.78	1.6	11	1.7446	1.8	1.591						1.4	
Cu	mg kg^{-1}	5.91	6	3	4.131	3.3	5.814		11		14.5			
Dy	mg kg^{-1}	6.36	6		7.0416	7.3	7.164		4.997		8.33		7.5	
Er	mg kg^{-1}	3.93	3.9		4.4921	4.75	4.302		3.105		4.42			
Eu	mg kg^{-1}	2.28	2.3		2.5425	2.56	2.353		1.744		2.43		2.33	
F	mg kg^{-1}					5718.6								
Ga	mg kg^{-1}		28.2	30	28.5825	31	33.91		26	29		31	30	
Gd	mg kg^{-1}	7.01	6.8		7.5907	8.02	8.545		5.268		8.62			
Ge	mg kg^{-1}		1											
Hf	mg kg^{-1}		19.5		18.777	23	17.624		15	21			20.4	
Hg	mg kg^{-1}					73								
Ho	mg kg^{-1}	1.28	1.3		1.4546	1.55	1.4		1.026		1.42			
In	mg kg^{-1}				0.0398	0.04								
La	mg kg^{-1}	142	139	137	160.37	156	147.71		74.52		167	147	146.6	
Li	mg kg^{-1}	23.5	20		25.452	30						26		
Lu	mg kg^{-1}	0.58	0.64		0.6724	0.72	0.647		0.47		0.84		0.61	
Mo	mg kg^{-1}	5.82	6.1	10	5.8268	6	5.956		20		5			
Nb	mg kg^{-1}		167	172	171.13	169	178.62		156	163		167		
Nd	mg kg^{-1}	66.7	66	69	75.9351	74.5	73.293		47.59	72	73.3		81	
Ni	mg kg^{-1}	86.2	77	76	89.8169	83	81.139		71	76	94.5	77		110
Pb	mg kg^{-1}	15.6	16		15.3615	14.3	15.599		16	16	11	15.5		
Pr	mg kg^{-1}	23.9	22		26.0167	25.7	25.088		15.11		30.5			
Rb	mg kg^{-1}	241	250	250	251.04	259	256.57		243	244		247	255	
Re	mg kg^{-1}													
S	mg kg^{-1}		192			300					24.7			
Sb	mg kg^{-1}		1		1.1545	1.1							1.1	
Sc	mg kg^{-1}			3		0.7	1.772		1.29		1.2		0.63	
Se	mg kg^{-1}													
Sm	mg kg^{-1}	9.63	9		10.3649	10.1	9.838		6.872	10	11.18		9.5	
Sn	mg kg^{-1}		3.6		4.1147	5								
Sr	mg kg^{-1}	298	309	312	301.5826	310	312.55		307	300	314	297	430	
Ta	mg kg^{-1}		6		6.7509	7.5	6.232						6.7	
Tb	mg kg^{-1}	1.03	1.05		1.1702	1.19	1.284		0.799		1.16		1.06	
Te	mg kg^{-1}													
Th	mg kg^{-1}	36.4	31	34	35.3512	33.6	33.079		26.906	33			34.7	
Tl	mg kg^{-1}	1.04	1		0.9728	1.1								
Tm	mg kg^{-1}	0.55	0.57		0.6972	0.76	0.665		0.485		0.7			
U	mg kg^{-1}	8.72	8	10	9.0086	7.7	7.899		7	9			7.7	
V	mg kg^{-1}	22.9	21	23	22.7466	22	21.913		29	23	27.9		23	
W	mg kg^{-1}	4.2	3.8		3.9777	4								3.2
Y	mg kg^{-1}	35.4	39	45	42.7363	40.8	42.609		26.53	39	34.2	41		
Yb	mg kg^{-1}	3.78	4.3		4.6043	4.8	4.272		3.178		4.3		4.35	
Zn	mg kg^{-1}	66	59	63	61.9763	62	52.568		57	60	63.4	65	66	
Zr	mg kg^{-1}		837	842	967.48	841	802.63		838		849	874	920	

Table 1		GeoPT30 Contributed data for Syenite, CG-2 (December 2011)												
Lab Code		E70	E71	E72	E73	E74	E75	E76	E77	E78	E79	E79	E80	E81
Quality		1	2	2	1	2	1	1	1	2	1	2	1	2
SiO2	% m/m	59.264	60.562	60.87	60.605	59.1		59.77122	59.3	45.43	59.87		59.93	59.52
TiO2	% m/m	0.631	0.636	0.64	0.622	0.59	0.65	0.592453	0.63	0.5	0.625		0.61	0.79
Al2O3	% m/m	18.724	19.003	18.69	19.459	18.63	18.6	18.61946	18.7	16.91	18.77		18.69	20.89
Fe2O3T	% m/m	4.078	4.042	4.54	3.86	4	4.05	4.095106	4.11	3.51	4.027		3.902	5.14
Fe(II)O	% m/m													
MnO	% m/m	0.162	0.166	0.02	0.166	0.17	0.16	0.163532	0.16	0.143	0.159		0.158	0.17
MgO	% m/m	0.434	0.408	0.4	0.394	0.31	0.3	0.394923	0.4		0.259		0.372	1.95
CaO	% m/m	2.109	2.254	2.06	2.078	2.14	2.1	2.29996	2.21	1.9	2.15		2.139	2.9
Na2O	% m/m	6.193	6.111	5.44	6.215	6.08	5.9	5.974526	6.06		6.093		5.954	1.24
K2O	% m/m	5.743	5.973	5.74	6.084	5.77	5.4	5.759825	5.76	4.94	5.762		5.839	6.86
P2O5	% m/m	0.05	0.042	0.05	0.051	0.03		0.044575	0.04				0.04	0.12
H2O+	% m/m													
CO2	% m/m				1.282		0.95			1.58				
LOI	% m/m	2.32	2.28	2.29		2.11		2.226024	2.25		2.26		2.1	
Ag	mg kg^{-1}										0.19			
As	mg kg^{-1}				5.103		4.4	2.9		7	4.59			13.67
Au	mg kg^{-1}													
B	mg kg^{-1}													
Ba	mg kg^{-1}	674	680.8		682.7	670		661.1		695	512			480.3
Be	mg kg^{-1}		7.8		7.337						4.92			
Bi	mg kg^{-1}							1.4						
Br	mg kg^{-1}													
Cd	mg kg^{-1}									10.5				
Ce	mg kg^{-1}		232.04		267			233.9		240	249			
Cl	mg kg^{-1}		4667											
Co	mg kg^{-1}		2.39		2.42		1.6	7.2			1.73			16.97
Cr	mg kg^{-1}	19.2	17.7			20	13.2	17.7		67	9.06			11.83
Cs	mg kg^{-1}		1.54		1.59			2.8						
Cu	mg kg^{-1}	5.7						2.3		14.7	2.21			17.43
Dy	mg kg^{-1}		6.26		6.5		6				6.94			
Er	mg kg^{-1}		4.1		4						4.56			
Eu	mg kg^{-1}		2.21		2.32		2.45				2.43			
F	mg kg^{-1}		4896											
Ga	mg kg^{-1}	29.9	29.7		33.433			30.7		31.7		31		29.75
Gd	mg kg^{-1}		7.6		7.167						8.3			
Ge	mg kg^{-1}													
Hf	mg kg^{-1}		17.29		18.133			18.5						
Hg	mg kg^{-1}		0.103		0.07									
Ho	mg kg^{-1}		1.29		1.603						1.44			
In	mg kg^{-1}													
La	mg kg^{-1}		132.56		152.333		147	170.2		136	143			
Li	mg kg^{-1}				28.367						28			
Lu	mg kg^{-1}		0.61		0.658		0.61				0.68			
Mo	mg kg^{-1}		5.46		6.067			2.6			4.41			
Nb	mg kg^{-1}	158.4	148.16		166.667			169.6		143		175		46.92
Nd	mg kg^{-1}		65.04		70.333			74.4		64.5	69.1			
Ni	mg kg^{-1}	74.6	92.9			110		79.5		55	55			66.9
Pb	mg kg^{-1}	17	14.21		18.1	14		19.2		9.9	12.2			
Pr	mg kg^{-1}		21.61		25.133					14	23.7			
Rb	mg kg^{-1}	256.8	239.08		240.667			260.8		240		248		331.41
Re	mg kg^{-1}													
S	mg kg^{-1}		553				42							1300
Sb	mg kg^{-1}				1.167		0.9				0.83			
Sc	mg kg^{-1}						0.46	1.3						2.23
Se	mg kg^{-1}							1.5			4.39			
Sm	mg kg^{-1}		8.8		9.833		9.4	7			9.78			
Sn	mg kg^{-1}		3.49									3.6		
Sr	mg kg^{-1}	304.3	315.3		305	270	341	310.5		289		297		374.05
Ta	mg kg^{-1}		5.81		7.183			6.7						0.89
Tb	mg kg^{-1}		1.07		1.13						1.22			
Te	mg kg^{-1}													
Th	mg kg^{-1}	33.3	29.41		32.533	22	35.8	25.1		23.4	23.7			
Tl	mg kg^{-1}		0.84		1.02									
Tm	mg kg^{-1}		0.62		0.738						0.69			
U	mg kg^{-1}	8.9	7.34		8.407	8	9.2	9.7		3.2	5.39			
V	mg kg^{-1}		21.9		21.467		23	28.2			15.3			81.48
W	mg kg^{-1}				3.513			3.5						
Y	mg kg^{-1}	41.8	36.45		37.667			37.4		34.9		39		
Yb	mg kg^{-1}		4.11		4.467		4	3.8			4.53			
Zn	mg kg^{-1}	57.3	72.4		66.033	66		65.6		52.3	41.9			85
Zr	mg kg^{-1}	796.7	791.92	265	798.333			863.8		825		839		1289.4

Table 1		GeoPT30 Contributed data for Syenite, CG-2 (December 2011)								
Lab Code		E82	E83	E83	E84	E85	E86	E87		
Quality		2	1	2	2	2	2	1		
SiO2	% m/m	59.72		58.31	58.95	58.9	59.599	59.6		
TiO2	% m/m	0.628	0.69		0.63	0.64	0.474	0.65		
Al2O3	% m/m	18.892		19.67	18.75	18.88	19.032	18.51		
Fe2O3T	% m/m	4.11	4.57		4	4.21	3.761	4.08		
Fe(II)O	% m/m				1.6					
MnO	% m/m	0.163	0.19		0.16	0.15	0.147	0.178		
MgO	% m/m	0.392		0.75	0.39	0.65	0.37	0.45		
CaO	% m/m	2.193	2.88		2.15	2.61	1.092	2.22		
Na2O	% m/m	6.034		4.87	5.98	5.86	6.866	6.03		
K2O	% m/m	5.776		5.55	5.8	5.25	5.153	5.81		
P2O5	% m/m	0.042		0.04	0.05	0.05	0.035	0.03		
H2O+	% m/m					1.3				
CO2	% m/m					0.92	1.09	1.106		
LOI	% m/m	2.32			2.38	2.62	2.47	2.2		
Ag	mg kg^{-1}						8.52			
As	mg kg^{-1}					5.8	9.57	5.1		
Au	mg kg^{-1}									
B	mg kg^{-1}									
Ba	mg kg^{-1}	771	713.36		597.7	770	687.6	649.8		
Be	mg kg^{-1}	7.43				7.8	7.75			
Bi	mg kg^{-1}						0.17	0.2		
Br	mg kg^{-1}							0.2		
Cd	mg kg^{-1}						0.05	0.4		
Ce	mg kg^{-1}	251	251.416		244.3	248	259.96	235.6		
Cl	mg kg^{-1}									
Co	mg kg^{-1}	2.91				2.5	2.78	3.4		
Cr	mg kg^{-1}	24.42	20		18.7	19	15.53	15.9		
Cs	mg kg^{-1}	1.63	1.791			1.62	1.59	15.2		
Cu	mg kg^{-1}	7.29						5.4		
Dy	mg kg^{-1}	6.63	6.46			7.1	6.91			
Er	mg kg^{-1}	4.16	3.682			3.92	4.38			
Eu	mg kg^{-1}	2.37	2.301			2.41	2.4			
F	mg kg^{-1}									
Ga	mg kg^{-1}	28.14	25		29.6	28	37.37	29.8		
Gd	mg kg^{-1}	9.17	6.807			9.5	9.04			
Ge	mg kg^{-1}									
Hf	mg kg^{-1}	18.9	16.101			17.2		23.3		
Hg	mg kg^{-1}						0.061			
Ho	mg kg^{-1}	1.4	1.314			1.22	1.41			
In	mg kg^{-1}									
La	mg kg^{-1}	144.6	143.623		144.3	141	152.96	139.6		
Li	mg kg^{-1}		27.203				28.84			
Lu	mg kg^{-1}	0.617	0.542			0.69	0.67			
Mo	mg kg^{-1}	9.18	7.136			5	6.04	4.5		
Nb	mg kg^{-1}	151.25	196.876		157	160	155.12	161.8		
Nd	mg kg^{-1}		69.136		91.3	67	75.93	63.4		
Ni	mg kg^{-1}	82.5	74.07		83.6	79	97.62	66.9		
Pb	mg kg^{-1}		15.42		17.9	22	16.6	15.4		
Pr	mg kg^{-1}	23.45	23.617			23	25.79			
Rb	mg kg^{-1}	240	252.3		259.5	260	274.89	244.3		
Re	mg kg^{-1}									
S	mg kg^{-1}						144	170		
Sb	mg kg^{-1}						1.12	5.2		
Sc	mg kg^{-1}	0.42					1.89	0.9		
Se	mg kg^{-1}									
Sm	mg kg^{-1}	9.46	9.307			9.1	10.08	5.8		
Sn	mg kg^{-1}					3.3		5.6		
Sr	mg kg^{-1}	295	303.97		307.5	290	311.82	296.5		
Ta	mg kg^{-1}		5.873			5.85	7.3	7.3		
Tb	mg kg^{-1}		1.057			1.24	1.26			
Te	mg kg^{-1}						0.02	3.8		
Th	mg kg^{-1}	32.49	33.04		33.3	39	32.35	30.4		
Tl	mg kg^{-1}						0.91			
Tm	mg kg^{-1}		0.646			0.71	0.82			
U	mg kg^{-1}	7.95	11.08		11.2	10	8.45	9.5		
V	mg kg^{-1}		15		24.2	24	28.25	20		
W	mg kg^{-1}					2.7		4		
Y	mg kg^{-1}	42.4	36.397		45.1	37	40.31	35.8		
Yb	mg kg^{-1}		4.035			4.28	5.14	3.1		
Zn	mg kg^{-1}	57.2			61.3	63	60.48	58		
Zr	mg kg^{-1}	859	881.535		822.5	780	883.52	841.6		

Table 2 GeoPT30 Assigned values and statistical summary of contributed data for Syenite, CG-2

	Assigned value	Uncertainty of assigned value	Horwitz Target value	Uncertainty /Target	Number of reported results	Robust mean of results	Median of results	Status	Type of assigned value
	X_a % m/m	*sdm* % m/m	H_a % m/m	*sdm*/H_a	*n*	% m/m	% m/m		
SiO2	59.49	0.0431	0.6433	0.067	74	59.4173	59.49	**Assigned**	Median
TiO2	0.624	0.0024	0.0134	0.176	80	0.6243	0.6225	**Assigned**	Robust mean
Al2O3	18.75	0.0218	0.2412	0.091	78	18.7368	18.75	**Assigned**	Median
Fe2O3T	4.03	0.0128	0.0654	0.197	79	4.0314	4.037	**Assigned**	Robust mean
MnO	0.160	0.0009	0.0042	0.214	79	0.1595	0.16	**Assigned**	Robust mean
MgO	0.39	0.0034	0.0090	0.376	77	0.3898	0.39	**Provisional**	Median
CaO	2.15	0.0072	0.0383	0.187	79	2.1719	2.15	**Assigned**	Median
Na2O	5.92	0.0247	0.0906	0.273	76	5.9224	5.947	**Assigned**	Robust mean
K2O	5.76	0.0145	0.0885	0.164	79	5.7351	5.76	**Assigned**	Median
P2O5	0.045	0.0009	0.0014	0.613	71	0.0458	0.045	**Provisional**	Median
CO2	1.08	0.0162	0.0213	0.758	21	1.0797	1.08	**Provisional**	Median
LOI	2.31	0.0129	0.0407	0.316	65	2.2962	2.31	**Assigned**	Median
	mg kg^{-1}	mg kg^{-1}	mg kg^{-1}			mg kg^{-1}	mg kg^{-1}		
Ba	684.1	5.230	20.485	0.255	68	684.102	687.8	**Assigned**	Robust mean
Be	7.66	0.129	0.451	0.287	30	7.286	7.455	**Assigned**	Mode
Bi	0.17	0.011	0.018	0.608	17	0.199	0.17	**Provisional**	Median
Ce	252.4	2.347	8.781	0.267	61	252.393	251.4	**Assigned**	Robust mean
Co	2.75	0.104	0.189	0.551	51	3.0582	2.9	**Provisional**	Mode
Cr	18.0	0.463	0.932	0.497	59	18.1893	18	**Provisional**	Median
Cs	1.686	0.027	0.125	0.217	39	1.715	1.686	**Assigned**	Median
Dy	6.56	0.084	0.395	0.213	39	6.5596	6.52	**Assigned**	Robust mean
Er	4.13	0.045	0.267	0.168	38	4.0792	4.13	**Assigned**	Median
Eu	2.352	0.023	0.165	0.139	40	2.3324	2.352	**Assigned**	Median
Ga	30.0	0.289	1.438	0.201	56	30.1488	30	**Assigned**	Median
Gd	7.966	0.175	0.466	0.376	38	7.9657	7.945	**Assigned**	Robust mean
Ge	1.135	0.052	0.089	0.579	10	1.135	1.135	**Provisional**	Robust mean
Hf	18.58	0.371	0.957	0.388	47	18.5827	18.5	**Assigned**	Robust mean
Ho	1.354	0.020	0.104	0.189	38	1.3538	1.36	**Assigned**	Robust mean
La	145.3	1.186	5.493	0.216	62	146.294	145.3	**Assigned**	Median
Li	27.11	0.459	1.320	0.348	28	27.109	26.85	**Provisional**	Robust mean
Lu	0.633	0.010	0.054	0.186	39	0.6332	0.64	**Assigned**	Robust mean
Mo	5.91	0.213	0.362	0.590	40	5.8218	5.91	**Provisional**	Median
Nb	163.8	1.570	6.081	0.258	62	163.777	163.05	**Assigned**	Robust mean
Nd	68.8	0.776	2.912	0.267	56	68.8415	69.48	**Assigned**	Robust mean
Ni	77.8	1.161	3.232	0.359	69	77.81	77	**Assigned**	Robust mean
Pb	15.95	0.204	0.841	0.243	58	15.8979	15.95	**Assigned**	Median
Pr	23.52	0.352	1.170	0.301	41	23.2936	23.52	**Assigned**	Median
Rb	248.9	1.517	8.678	0.175	64	248.89	249	**Assigned**	Robust mean
Sb	1.05	0.039	0.084	0.463	25	1.0539	1.07	**Assigned**	Robust mean
Sm	9.68	0.098	0.550	0.178	49	9.3702	9.5	**Assigned**	Mode
Sn	4.02	0.167	0.261	0.642	26	4.0212	4.035	**Provisional**	Robust mean
Sr	302.7	1.538	10.248	0.150	70	302.716	303	**Assigned**	Robust mean
Ta	6.62	0.137	0.398	0.344	37	6.5451	6.62	**Assigned**	Median
Tb	1.15	0.019	0.090	0.211	39	1.1382	1.15	**Assigned**	Median
Th	32.28	0.286	1.531	0.187	59	32.0084	32.28	**Assigned**	Median
Tl	1.00	0.037	0.080	0.461	21	1.0004	1	**Assigned**	Robust mean
Tm	0.645	0.012	0.055	0.216	34	0.6454	0.647	**Assigned**	Robust mean
U	8.40	0.116	0.488	0.237	59	8.5286	8.4	**Assigned**	Median
V	23.0	0.552	1.148	0.481	65	24.0678	23	**Assigned**	Median
W	3.83	0.102	0.250	0.407	26	3.9664	3.827	**Assigned**	Median
Y	40.0	0.552	1.836	0.300	65	39.7238	40	**Assigned**	Median
Yb	4.34	0.034	0.278	0.123	46	4.2078	4.281	**Assigned**	Mode
Zn	61.6	0.603	2.651	0.228	67	61.6369	61.4	**Assigned**	Robust mean
Zr	838.5	7.811	24.351	0.321	64	835.432	838.5	**Assigned**	Median

Table 3 GeoPT30 *Z*-scores for contributed data for syenite, CG-2 (December 2011)

Lab Code	E01	E02	E03	E04	E05	E06	E07	E08	E09	E09	E10	E11	E12
	2	1	1	2	1	2	1	2	1	2	1	1	1
SiO2	0.12	0.12	0.08	*	-0.05	0.34	0.48	0.19	-0.72	*	-0.02	-0.34	-3.12
TiO2	0.21	0.42	-2.56	1.11	1.17	0.77	1.17	-0.16	-0.32	*	-0.32	1.17	-1.07
Al2O3	0.12	0.70	-0.21	*	1.37	0.43	0.62	0.17	0.25	*	-0.21	0.25	0.21
Fe2O3T	-0.09	0.74	0.59	2.05	0.74	1.66	-0.33	-0.39	-0.79	*	0.13	1.05	-2.32
MnO	0.53	-1.79	-2.27	1.48	4.86	-0.06	0.11	0.05	0.11	*	0.11	-0.13	0.11
MgO	-0.56	-18.92	-2.23	*	4.45	-8.01	-11.13	1.28	0.00	*	0.00	0.00	-2.23
CaO	0.39	3.91	-0.52	7.70	2.61	0.98	0.00	-0.39	-0.52	*	0.52	-0.26	-0.52
Na2O	-0.23	1.30	0.19	*	-3.45	-1.22	1.19	0.43	-0.47	*	-0.14	2.29	1.19
K2O	0.28	3.73	-1.92	0.06	0.11	-1.06	0.79	0.06	-0.11	*	-0.34	0.45	-0.68
P2O5	-0.35	-3.48	3.48	2.44	17.42	2.44	-3.48	-1.05	-3.48	*	3.48	10.45	3.48
CO2	*	*	*	*	*	*	*	*	-1.41	*	0.00	-10.77	*
LOI	-1.96	2.70	-3.44	-1.47	-1.72	-1.23	-2.46	0.12	0.25	*	0.74	1.47	*
Ba	0.22	5.38	*	-0.05	4.24	-1.71	12.69	*	-0.49	*	-0.30	-1.32	-0.67
Be	*	-13.53	*	*	*	*	-0.13	*	*	*	*	0.41	*
Bi	*	*	*	*	*	*	*	*	*	107.87	*	-1.13	*
Ce	-0.59	6.33	*	*	*	*	2.12	*	2.69	*	*	0.07	-3.02
Co	3.31	14.55	*	*	*	8.60	8.20	*	1.32	*	17.20	-1.75	*
Cr	2.15	-1.29	*	-0.54	*	-4.83	34.34	*	-10.73	*	0.00	0.21	-2.58
Cs	*	*	*	*	*	*	4.93	*	34.61	*	*	-0.93	23.38
Dy	*	*	*	*	*	*	*	*	*	-3.24	*	-0.93	*
Er	*	*	*	*	*	*	*	*	*	-2.12	*	-1.57	*
Eu	*	*	*	*	*	*	*	*	*	-1.06	*	-0.13	*
Ga	0.35	*	*	0.00	*	*	4.87	*	1.39	*	-1.39	1.25	-0.83
Gd	*	*	*	*	*	*	*	*	*	9.69	*	-2.37	*
Ge	*	*	*	*	*	*	*	*	*	*	*	0.06	*
Hf	-0.83	*	*	*	*	*	-4.79	*	5.66	*	-2.70	-1.03	-1.55
Ho	*	*	*	*	*	*	*	*	*	12.79	*	-1.20	*
La	-0.03	6.68	*	*	*	*	0.86	*	3.04	*	*	1.58	-1.06
Li	*	*	*	*	*	*	5.98	*	*	*	*	-0.46	*
Lu	*	*	*	*	*	*	-2.46	*	*	*	*	-0.08	*
Mo	-6.79	*	*	*	*	*	2.74	*	25.12	*	*	-1.82	-2.52
Nb	-0.89	*	-3.09	-0.06	0.53	0.35	0.20	*	2.83	*	-0.79	0.20	0.93
Nd	-1.00	*	*	*	*	*	*	*	0.40	*	*	-0.12	-0.67
Ni	0.80	-1.15	*	-0.90	-2.11	-4.61	-2.42	*	0.68	*	-3.65	1.08	-2.39
Pb	-0.56	0.30	*	-0.56	-3.51	-1.16	8.38	*	0.06	*	0.06	-1.13	1.37
Pr	-0.65	*	*	*	*	*	*	*	0.41	*	*	-0.10	*
Rb	-0.34	1.95	*	0.47	1.74	-0.57	-8.98	*	1.05	*	-0.68	-1.14	-0.25
Sb	*	*	*	*	*	*	*	*	*	89.36	*	-1.00	16.10
Sm	1.20	*	*	*	*	*	*	*	*	-2.43	*	-0.56	-3.78
Sn	3.79	*	*	*	*	*	1.84	*	-3.91	*	*	-0.92	6.05
Sr	1.19	-1.13	*	0.16	0.61	0.11	4.61	*	0.42	*	0.91	-0.17	-0.36
Ta	*	*	*	*	*	*	18.02	*	-6.58	*	*	1.13	1.20
Tb	*	*	*	*	*	*	-0.56	*	*	-0.83	*	-0.89	*
Th	-3.03	*	*	-0.42	*	-1.07	0.01	*	-0.18	*	-0.84	-0.12	-1.16
Tl	*	-12.04	*	*	*	*	-0.01	*	*	*	*	*	*
Tm	*	*	*	*	*	*	*	*	*	*	*	-0.93	*
U	-4.51	*	*	*	*	*	2.26	*	1.23	*	*	-0.45	-1.85
V	-1.74	3.75	*	3.05	3.49	30.93	-3.49	*	-6.10	*	3.49	-1.57	2.53
W	46.33	*	*	*	*	*	3.09	*	*	*	*	-0.11	1.89
Y	0.82	*	*	-0.82	1.63	4.08	-5.72	*	3.27	*	2.18	-0.65	-2.29
Yb	*	*	*	*	*	*	-3.02	*	*	1.18	*	-1.04	-1.94
Zn	-1.44	2.32	*	0.26	-0.24	-0.31	26.92	*	-7.41	*	-2.50	1.38	-1.15
Zr	-0.50	*	*	-0.89	-0.10	-0.15	*	*	-2.24	*	-2.36	0.02	-0.77

Table 3 GeoPT30 *Z*-scores for contributed data for syenite, CG-2 (December 2011)

Lab Code	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22	E23	E24
	2	2	1	2	1	2	2	1	2	2	2	1	1
SiO2	*	-0.42	*	0.09	-2.37	-0.08	0.19	-0.59	-0.19	0.10	-0.54	-0.28	-0.53
TiO2	*	-0.27	-2.56	1.33	-3.23	0.96	-0.54	-5.55	1.59	-0.68	-0.16	-23.45	1.84
Al2O3	*	-0.12	*	-1.76	4.02	-0.04	-0.15	-0.62	0.39	-0.66	-0.56	-1.41	0.29
Fe2O3T	*	-0.47	*	5.88	8.47	-1.01	0.22	1.81	0.22	-0.55	0.22	-2.16	0.28
MnO	*	-0.30	*	-0.18	-11.78	-0.06	-1.13	0.11	0.05	-0.06	0.05	4.86	*
MgO	*	-2.23	*	6.12	43.40	-2.23	1.11	34.49	14.54	-4.45	-1.11	3.34	*
CaO	*	0.10	*	5.87	22.44	-0.26	-0.52	-1.83	2.68	-0.65	1.04	6.52	*
Na2O	*	0.66	*	-2.88	-22.32	-0.62	0.43	2.62	-0.14	1.20	0.98	6.82	3.17
K2O	*	0.31	*	0.79	1.64	0.56	0.17	-3.84	-0.84	-0.45	1.07	-0.90	1.13
P2O5	*	-2.79	*	-1.74	3.48	6.62	1.74	31.36	2.02	-0.35	-1.74	52.26	*
CO2	*	*	*	*	*	*	*	*	*	-2.11	1.41	*	*
LOI	2.97	-0.45	*	-14.85	2.95	0.37	0.86	8.35	0.37	-1.10	*	1.47	*
Ba	*	0.71	-4.23	0.68	-5.45	-1.93	0.61	*	-0.36	-1.49	0.63	-0.44	*
Be	*	*	*	1.16	-3.77	*	0.77	*	-0.20	*	*	*	*
Bi	*	*	*	4.79	-3.77	*	*	*	-0.28	*	*	*	*
Ce	*	0.14	-7.06	1.17	-5.15	-1.39	-0.19	*	-0.32	-0.71	0.43	-1.18	1.89
Co	*	0.39	1.32	0.16	-0.66	*	0.55	*	0.93	3.84	*	*	*
Cr	*	-1.40	-11.57	2.68	-5.32	5.37	-0.54	*	4.05	1.07	*	5.37	*
Cs	*	0.46	-1.39	0.18	-1.97	*	-0.14	*	0.00	*	*	*	*
Dy	*	*	-0.94	-0.25	-3.82	*	-0.24	*	0.46	*	*	-2.43	0.61
Er	*	*	0.14	-0.22	-3.46	*	0.21	*	0.08	*	*	-1.99	0.64
Eu	*	*	-3.23	0.45	-1.91	*	-0.03	*	-0.13	*	*	-0.92	-0.07
Ga	*	-0.03	*	1.04	-0.75	0.35	0.73	*	0.80	-0.52	0.00	*	*
Gd	*	*	3.38	1.17	-2.41	*	0.25	*	0.06	*	*	-1.43	-2.07
Ge	*	*	*	*	-2.38	*	0.65	*	1.49	*	*	*	*
Hf	*	0.90	11.78	-0.93	-4.07	-0.30	-0.04	*	0.02	*	-4.48	*	*
Ho	*	*	-0.95	-0.16	-3.04	*	0.08	*	0.19	*	*	-0.52	*
La	*	0.87	-14.19	0.88	-6.04	0.52	-0.48	*	-0.05	-0.16	-0.48	-3.15	*
Li	*	*	*	1.02	-1.04	*	0.56	*	-0.45	*	*	0.68	*
Lu	*	*	1.69	-0.31	-2.81	*	0.06	*	0.29	*	*	-0.61	1.23
Mo	*	-0.98	*	0.59	-1.61	0.12	*	*	-1.29	0.68	*	3.01	*
Nb	*	-0.26	-1.41	-0.06	-1.21	-1.05	1.01	*	0.70	-0.06	-3.60	20.76	*
Nd	*	0.20	-3.92	0.87	-3.87	-0.14	0.18	*	0.49	0.18	-3.23	-0.63	*
Ni	*	-1.07	-4.91	0.93	-2.38	-0.74	1.25	*	-0.11	-0.13	1.89	1.30	*
Pb	*	-0.51	-0.75	0.33	-3.61	-1.16	-0.03	*	1.63	*	*	*	*
Pr	*	*	-4.70	0.68	-3.08	*	-0.27	*	-0.05	*	*	-3.86	-1.56
Rb	*	0.22	-2.91	0.29	-4.29	-0.57	-0.57	*	0.50	-0.22	*	0.47	-0.45
Sb	*	-1.52	*	0.10	-2.38	*	*	*	0.28	*	*	*	*
Sm	*	0.02	-3.71	0.29	-3.57	*	-0.19	*	-0.22	*	*	0.59	*
Sn	*	-1.77	*	0.29	-2.24	*	*	*	1.05	*	*	*	*
Sr	*	0.32	-4.10	-0.04	-3.84	0.50	0.01	*	-1.01	-0.67	*	-1.73	*
Ta	*	-1.03	-0.45	-1.41	-0.96	*	0.15	*	0.85	*	*	*	*
Tb	*	*	2.28	0.00	-3.36	*	0.00	*	0.33	*	*	6.11	*
Th	*	0.17	-1.46	4.48	-3.53	0.89	-0.25	*	0.10	*	*	*	*
Tl	*	2.50	*	0.25	-1.80	*	*	*	0.99	*	*	*	*
Tm	*	*	1.97	-0.33	-3.22	*	0.13	*	0.16	*	*	-0.82	*
U	*	0.51	-0.63	0.66	-1.39	1.64	-0.15	*	0.00	1.95	*	-3.90	*
V	*	0.87	-2.62	0.00	-0.98	*	0.00	*	2.95	1.74	-1.31	4.36	*
W	*	3.55	4.69	0.63	0.11	*	*	*	-0.59	6.34	*	*	*
Y	*	-0.14	1.41	-0.82	-6.78	0.00	0.46	*	0.37	1.09	0.00	2.18	*
Yb	*	-0.97	0.20	-0.56	-3.74	-0.61	0.07	*	-0.02	*	*	-2.66	*
Zn	*	-0.25	-4.91	0.09	-1.89	0.26	-0.42	*	1.08	-0.69	1.58	2.78	*
Zr	*	0.19	-30.94	1.06	-9.15	-0.61	1.04	*	1.06	0.03	-2.02	-6.71	*

Table 3 GeoPT30 Z-scores for contributed data for syenite, CG-2 (December 2011)

Lab Code	E24	E25	E26	E26	E27	E28	E29	E29	E30	E31	E32	E32	E33
	2	1	1	2	2	2	1	2	2	2	1	2	2
SiO2	*	*	0.17	*	0.13	-0.03	-0.20	*	*	0.14	-2.22	*	0.01
TiO2	*	*	-1.07	*	-0.20	-0.68	2.66	*	*	-0.46	-0.32	*	0.51
Al2O3	*	*	0.54	*	-0.12	0.23	0.29	*	*	-0.19	0.37	*	-0.52
Fe2O3T	*	*	-1.86	*	-0.83	0.23	-1.09	*	*	0.07	0.90	*	-0.62
MnO	-0.18	*	-2.27	*	-0.66	-1.49	0.11	*	*	-0.06	2.25	*	-0.42
MgO	6.90	*	2.23	*	0.22	0.83	2.23	*	*	-0.67	-6.68	*	4.01
CaO	7.37	*	-1.30	*	-0.27	0.16	2.09	*	*	-0.52	1.04	*	0.00
Na2O	*	*	-1.68	*	0.59	-0.13	-2.45	*	*	-0.51	-0.80	*	-0.01
K2O	*	*	3.05	*	0.49	0.48	-2.15	*	*	-1.41	-1.69	*	0.34
P2O5	1.39	*	-3.48	*	-1.05	2.09	-3.48	*	*	3.83	-10.45	*	1.05
CO2	*	*	*	*	0.70	*	2.34	*	*	*	-1.87	*	*
LOI	-7.49	*	-5.16	*	0.00	-0.18	1.96	*	*	0.00	-1.72	*	-0.61
Ba	*	-0.35	-0.60	*	-6.90	0.83	*	*	0.41	1.19	1.36	*	*
Be	0.16	*	*	*	*	*	*	0.38	*	*	*	-0.73	*
Bi	*	*	*	*	*	*	*	*	*	*	*	*	*
Ce	*	-0.61	*	*	*	1.29	1.37	*	-0.93	-0.14	3.26	*	*
Co	0.66	-2.54	25.67	*	*	*	1.85	*	-1.59	0.66	*	*	*
Cr	-1.50	*	*	*	6.28	0.00	2.58	*	-1.29	1.07	*	*	*
Cs	0.46	-2.46	*	*	*	*	*	*	-0.83	*	0.35	*	*
Dy	*	-0.81	*	*	*	*	*	*	-0.56	*	0.56	*	*
Er	*	0.00	*	*	*	*	0.52	*	-0.22	*	0.30	*	*
Eu	*	-0.01	*	*	*	*	0.41	*	-0.64	*	0.66	*	*
Ga	-0.70	*	-7.79	*	*	0.00	1.67	*	*	-4.17	*	*	*
Gd	*	2.99	*	*	*	*	1.53	*	-2.30	*	0.46	*	*
Ge	-0.20	*	*	*	*	*	*	*	*	*	*	*	*
Hf	1.68	-0.19	*	*	*	*	1.58	*	*	0.74	-0.92	*	*
Ho	0.22	-0.52	*	*	*	*	1.32	*	-0.41	*	0.83	*	*
La	0.43	-0.78	1.15	*	*	2.25	1.73	*	-1.21	-0.57	7.59	*	*
Li	-0.42	*	*	*	*	*	*	0.34	0.38	-0.80	*	*	*
Lu	*	-0.43	*	*	*	*	0.49	*	-0.31	*	0.68	*	*
Mo	1.37	*	*	-7.75	*	*	0.53	*	*	*	*	*	*
Nb	-2.37	-1.94	-0.11	*	*	-0.31	0.20	*	*	-10.34	7.93	*	*
Nd	0.30	-0.43	*	*	*	*	0.78	*	-0.68	-0.83	1.81	*	*
Ni	-0.90	*	-2.14	*	-0.59	-0.28	*	2.47	-2.63	0.49	*	-5.54	*
Pb	-0.56	*	5.77	*	0.62	0.62	5.49	*	-1.34	*	1.25	*	*
Pr	*	-0.62	*	*	*	*	0.58	*	-0.74	*	1.27	*	*
Rb	*	-2.29	0.59	*	*	0.70	-5.15	*	*	*	8.89	*	*
Sb	-0.92	*	*	*	*	*	*	*	*	*	*	*	*
Sm	-0.52	-0.92	*	*	*	*	0.10	*	-0.73	*	0.95	*	*
Sn	0.15	*	*	*	*	*	3.75	*	*	*	*	*	*
Sr	0.36	-0.46	0.77	*	*	0.55	3.87	*	0.31	-0.13	0.22	*	*
Ta	0.35	1.88	*	*	*	*	*	*	*	*	2.13	*	*
Tb	-0.56	0.22	*	*	*	*	2.33	*	-0.78	*	0.56	*	*
Th	-0.42	0.34	2.63	*	*	0.89	0.00	*	0.14	*	1.19	*	*
Tl	1.87	*	*	*	*	*	*	*	*	*	*	*	*
Tm	-0.41	-0.28	*	*	*	*	0.27	*	-0.41	*	0.45	*	*
U	-0.41	0.21	-4.72	*	*	0.62	3.61	*	-0.60	*	0.00	*	*
V	1.31	-1.31	-0.17	*	2.92	0.00	3.31	*	0.48	3.05	*	-1.31	*
W	-3.45	*	*	*	*	*	*	*	*	*	*	*	*
Y	-0.41	-3.70	2.07	*	*	1.36	-0.02	*	-0.49	0.00	0.71	*	*
Yb	0.11	-0.22	*	*	*	*	0.43	*	-0.41	*	-0.11	*	*
Zn	-0.31	*	0.44	*	-0.93	0.45	*	*	-0.54	0.63	*	-0.12	*
Zr	-5.21	-1.91	-1.24	*	2.54	0.59	2.03	*	*	12.97	-1.75	*	*

Table 3 GeoPT30 Z-scores for contributed data for syenite, CG-2 (December 2011)

Lab Code	E34	E35	E36	E37	E38	E39	E40	E41	E42	E43	E44	E45	E46
	1	2	2	2	2	1	2	1	2	2	2	2	2
SiO2	-8.53	-0.15	-0.61	-2.85	*	-0.11	0.01	*	0.20	*	-0.04	-0.16	0.18
TiO2	-0.55	-0.54	0.21	*	*	0.42	-0.16	1.91	-0.16	-0.42	0.25	-0.35	-0.54
Al2O3	-10.16	0.73	-0.73	-6.28	*	0.00	0.35	-49.50	0.00	0.12	-0.06	0.06	-0.10
Fe2O3T	0.90	-0.62	-0.39	1.37	*	-1.25	-0.12	-14.10	-0.62	-0.11	0.07	0.04	-5.52
MnO	2.01	0.05	-0.18	*	*	0.11	*	-9.40	*	1.12	-0.18	0.17	-1.13
MgO	27.82	0.17	1.11	12.24	*	-2.23	*	-12.24	0.00	0.00	-1.11	0.67	0.00
CaO	13.31	-1.57	-1.04	4.18	*	-0.26	-0.57	-6.79	-0.52	-3.14	-0.26	-0.20	0.26
Na2O	-27.83	0.43	-0.68	*	*	2.84	-1.01	-7.97	-0.45	3.21	-0.79	0.19	0.37
K2O	-4.52	-0.34	0.00	-1.07	*	-0.34	-0.89	-9.72	-0.90	-0.10	-0.28	0.17	1.36
P2O5	-11.15	0.00	-0.70	*	*	-10.45	*	-3.48	*	-0.35	0.00	-1.39	1.74
CO2	*	*	*	*	*	*	*	*	*	*	*	*	*
LOI	*	0.37	-1.23	*	*	-3.93	-0.37	*	*	*	0.61	0.07	-0.12
Ba	3.12	0.36	-0.10	*	*	-1.18	*	0.63	*	0.42	0.71	-0.39	0.63
Be	*	*	*	*	*	*	*	-2.65	*	0.26	*	-2.12	-0.61
Bi	*	*	*	*	*	*	*	-4.51	*	-0.87	*	*	-0.28
Ce	-1.26	3.45	*	*	0.60	-0.73	*	-10.19	1.29	0.23	0.09	-0.99	0.43
Co	*	-0.08	*	*	*	1.32	*	-2.60	-0.66	-0.61	*	-0.35	-0.51
Cr	0.32	-1.07	*	*	*	10.73	*	-2.49	*	-1.12	0.00	*	-0.86
Cs	47.44	*	*	*	0.86	*	*	-4.22	0.22	0.33	*	*	-0.10
Dy	*	*	*	*	0.65	*	*	-0.83	0.46	0.71	*	-0.34	0.41
Er	*	*	*	*	0.41	*	*	-5.17	0.32	0.77	*	-0.49	0.00
Eu	*	*	*	*	0.39	*	*	-2.37	0.51	0.44	*	-1.06	0.03
Ga	-1.25	*	*	*	-0.17	-0.70	*	4.62	0.94	-0.89	0.70	*	0.59
Gd	*	*	*	*	-1.04	*	*	1.47	-0.62	-0.45	*	6.36	0.36
Ge	*	*	*	*	0.59	*	*	-2.19	*	*	*	*	0.59
Hf	-4.58	*	*	*	0.58	-3.74	*	1.31	0.64	0.69	*	*	0.79
Ho	*	*	*	*	0.42	*	*	-5.84	0.03	0.66	*	-0.94	0.56
La	-0.36	*	*	*	0.88	2.13	*	-10.69	0.97	0.03	1.07	-0.94	0.25
Li	*	*	*	*	*	*	*	-1.78	*	1.15	*	-0.27	0.38
Lu	*	*	*	*	0.34	*	*	-3.56	0.62	0.63	*	*	0.06
Mo	*	*	*	*	*	0.25	*	-2.65	0.54	-0.12	*	*	-2.23
Nb	-1.33	*	*	*	-0.23	-0.62	*	4.77	1.17	0.18	-0.97	*	1.50
Nd	-3.04	*	*	*	1.01	-0.63	*	-6.14	1.31	0.55	3.12	-0.14	0.92
Ni	-0.65	1.86	*	*	*	-2.11	*	-1.78	1.11	2.26	1.27	-0.50	0.15
Pb	-2.79	0.80	*	*	*	14.33	*	-3.82	*	0.08	-1.16	-0.33	0.39
Pr	*	*	*	*	0.80	*	*	-6.29	0.85	0.00	*	-0.31	0.50
Rb	-1.31	*	0.06	*	-0.46	0.47	*	-3.10	1.91	-0.59	-0.05	*	0.53
Sb	*	*	*	*	-0.32	*	*	0.67	0.40	-0.35	*	5.06	-3.67
Sm	5.31	*	*	*	0.20	-3.05	*	-4.67	0.61	0.15	*	-0.53	0.29
Sn	1.84	*	*	*	0.15	*	*	-9.90	*	-0.10	*	-0.62	-2.15
Sr	-2.54	-0.08	-0.13	*	*	0.03	*	-5.61	1.67	-0.20	-1.21	-0.72	-0.43
Ta	*	*	*	*	0.78	*	*	-10.39	-0.30	-0.50	*	*	-2.11
Tb	*	*	*	*	0.28	*	*	-4.00	-0.17	-0.02	*	-1.00	0.50
Th	-0.97	*	*	*	0.59	-0.18	*	-1.87	*	-0.41	*	-0.09	0.10
Tl	*	*	*	*	0.00	*	*	-1.75	*	*	*	0.37	1.81
Tm	*	*	*	*	0.22	*	*	-2.27	-0.05	0.49	*	*	0.50
U	9.84	*	*	*	0.00	1.23	*	0.57	-0.02	0.15	1.64	-0.21	0.18
V	11.76	0.48	*	*	*	3.49	*	-6.18	*	-0.35	1.74	-0.17	-0.78
W	*	*	*	*	-1.45	*	*	6.53	*	-0.24	*	*	-2.27
Y	-1.52	*	*	*	0.33	0.00	*	-7.99	0.93	0.19	-2.45	0.33	0.49
Yb	6.68	*	*	*	0.12	*	*	-3.06	0.41	0.83	*	-0.65	0.11
Zn	0.25	3.65	*	*	*	-0.62	*	-0.27	0.63	0.46	-1.25	-0.04	-0.86
Zr	-0.78	-0.77	-0.38	*	*	0.35	*	2.41	*	0.96	-1.04	*	0.91

Table 3 GeoPT30 Z-scores for contributed data for syenite, CG-2 (December 2011)

Lab Code	E47	E48	E48	E49	E50	E51	E52	E53	E54	E55	E56	E57	E58
	2	1	2	2	1	1	2	1	2	1	2	2	1
SiO2	-0.12	-2.32	*	0.10	0.20	*	-0.18	*	0.23	1.35	0.94	0.40	*
TiO2	0.58	-0.10	*	0.40	-0.25	*	0.61	-2.69	1.63	-1.82	0.58	-0.39	*
Al2O3	0.48	-1.08	*	0.04	0.54	*	-0.25	*	0.23	0.54	0.31	-0.93	*
Fe2O3T	0.45	0.44	*	0.07	-0.02	*	1.14	*	-0.47	-1.86	*	3.81	-12.87
MnO	1.24	-0.13	*	1.01	0.58	-9.47	0.95	-0.31	2.43	1.06	-1.02	0.41	-9.40
MgO	-0.56	-1.11	*	-0.56	0.00	-42.92	-1.14	*	2.67	2.00	-0.78	0.56	*
CaO	0.13	-0.52	*	0.13	-0.26	*	0.01	*	2.51	-0.34	1.17	1.44	*
Na2O	-0.18	-2.34	*	-0.57	-0.80	*	1.87	*	0.26	-1.90	0.59	-1.23	*
K2O	0.06	0.11	*	-1.36	0.00	*	0.38	*	-0.34	3.16	-0.79	-4.69	*
P2O5	-1.74	-5.57	*	1.74	0.00	*	-0.87	*	3.83	0.70	1.39	2.09	*
CO2	-0.47	*	*	*	*	*	*	*	4.22	*	-1.94	-0.47	*
LOI	0.61	-4.67	*	0.00	-2.21	*	0.80	*	0.81	3.44	-1.10	1.35	*
Ba	*	0.78	*	0.41	-0.15	*	*	0.44	-1.88	*	-0.10	-1.37	0.19
Be	*	*	*	*	5.33	*	*	-0.77	-2.61	*	*	-2.47	-0.97
Bi	*	*	*	*	0.56	*	*	-1.52	*	*	*	*	0.56
Ce	*	*	0.26	-0.14	-0.05	*	*	-0.65	0.26	*	-0.82	1.34	1.55
Co	*	*	*	*	-0.59	22.49	*	-0.95	0.13	*	0.87	-0.13	1.95
Cr	*	*	*	-1.61	*	-4.29	*	-1.50	1.61	*	*	5.37	*
Cs	*	*	*	*	0.83	*	*	-0.28	-0.99	*	*	-0.67	0.75
Dy	*	*	*	*	0.48	*	*	0.19	-0.05	*	-0.15	-0.02	-0.50
Er	*	*	*	*	0.34	*	*	0.02	-0.08	*	-0.58	-0.28	-0.75
Eu	*	*	*	*	0.84	*	*	0.59	0.36	*	-0.85	0.15	-0.43
Ga	*	-1.39	*	0.35	0.14	*	*	*	0.01	*	0.00	0.10	*
Gd	*	*	*	*	-0.29	*	*	-1.22	0.15	*	-0.47	-0.10	-2.05
Ge	*	*	*	*	*	*	*	*	-0.03	*	*	*	*
Hf	*	5.66	*	-0.83	0.07	*	*	0.71	-0.56	*	1.37	-0.30	*
Ho	*	*	*	*	0.54	*	*	-0.14	0.03	*	-0.60	-0.02	-0.71
La	*	*	-0.03	-0.21	0.29	*	*	-0.50	0.09	*	-1.21	0.79	-0.60
Li	*	*	*	*	3.48	*	*	-1.08	-0.23	*	*	-2.20	-2.74
Lu	*	*	*	*	0.55	*	*	0.19	-5.65	*	-0.49	-0.03	-0.98
Mo	*	*	*	-1.26	*	*	*	-0.13	*	*	*	2.06	-0.25
Nb	*	-0.46	*	0.02	*	*	*	-0.01	1.17	*	0.92	2.07	*
Nd	*	*	-0.49	-1.52	0.54	*	*	0.71	0.17	*	-1.86	0.40	-0.74
Ni	*	3.46	*	1.27	-1.30	1.92	*	-1.29	-0.24	*	0.34	-0.90	2.60
Pb	*	*	*	3.00	-1.89	*	*	0.61	2.41	*	*	0.03	-0.42
Pr	*	*	2.34	*	-0.10	*	*	0.27	0.01	*	-2.02	0.50	0.32
Rb	*	0.13	*	-0.97	1.91	*	*	-0.44	0.06	*	-0.11	1.91	-0.91
Sb	*	*	*	*	-1.24	*	*	-1.06	*	*	*	*	*
Sm	*	*	23.93	*	0.19	*	*	-0.14	-0.15	*	-1.37	-0.18	-0.09
Sn	*	*	*	*	*	*	*	-0.90	0.32	*	*	*	*
Sr	*	-0.66	*	-0.28	1.59	*	*	-0.04	-0.62	*	0.36	-0.72	-0.46
Ta	*	*	*	0.48	-0.05	*	*	0.27	0.00	*	-0.04	-0.28	*
Tb	*	*	*	*	0.49	*	*	0.09	0.11	*	-0.11	0.28	-1.33
Th	*	*	-0.74	1.87	0.64	*	*	-0.24	-0.74	*	-0.94	-0.45	2.69
Tl	*	*	*	*	-0.63	*	*	-0.69	-2.31	*	*	*	0.49
Tm	*	*	*	*	*	*	*	0.06	-0.32	*	-0.50	-0.05	-1.73
U	*	*	*	-0.41	-0.04	*	*	-0.54	0.62	*	-0.41	-0.58	0.66
V	*	-2.61	*	-0.44	2.00	2.61	*	-1.53	5.66	*	0.35	0.44	-0.09
W	*	*	*	*	-0.51	*	*	-0.11	*	*	*	*	1.49
Y	*	-1.63	*	1.63	3.02	*	*	-1.04	1.36	*	-1.91	-0.82	-2.51
Yb	*	*	*	*	0.64	*	*	-0.21	-0.18	*	-0.63	0.07	-2.01
Zn	*	-0.24	*	0.26	5.00	*	*	0.56	-0.31	*	-0.31	0.45	1.65
Zr	*	-4.21	*	0.36	2.69	*	*	0.24	-1.10	*	0.85	2.52	*

Table 3 GeoPT30 Z-scores for contributed data for syenite, CG-2 (December 2011)

Lab Code	E59	E60	E61	E62	E63	E64	E65	E66	E67	E68	E69	E69	E70
	2	1	2	2	1	2	2	2	1	2	1	2	1
SiO2	-0.30	0.08	-0.09	-0.69	*	0.06	-0.64	0.27	1.10	0.32	*	*	-0.35
TiO2	0.21	-0.10	-0.54	-0.16	*	-0.01	0.32	0.58	-1.07	-0.16	-0.55	*	0.50
Al2O3	-0.04	0.00	-0.89	-1.97	*	-0.21	0.73	-0.08	0.21	0.02	-1.75	*	-0.11
Fe2O3T	-0.09	-0.48	0.45	-1.16	*	-0.39	-0.09	0.22	2.58	-0.32	-0.86	*	0.71
MnO	0.05	0.58	1.24	0.05	*	-0.42	-0.06	0.05	-28.42	0.05	-1.70	*	0.58
MgO	-0.56	1.67	-1.11	-1.67	*	-1.39	-2.23	-3.34	0.00	-1.11	*	-2.23	4.90
CaO	0.00	0.26	0.52	-0.52	*	-0.13	-0.52	-1.04	-3.13	-0.13	6.00	*	-1.07
Na2O	0.26	0.41	1.04	-1.23	*	0.48	1.64	-1.17	-7.53	-0.84	-0.50	*	2.99
K2O	0.11	0.11	0.51	-1.36	*	0.68	0.00	0.68	-3.16	-0.73	2.02	*	-0.19
P2O5	0.00	3.48	-1.74	0.35	*	-1.74	2.09	1.74	73.16	*	*	*	3.48
CO2	*	*	0.23	-0.47	*	*	*	*	*	1.87	*	*	*
LOI	-1.96	5.16	2.09	-8.59	*	*	*	0.12	10.80	0.25	*	*	0.25
Ba	0.51	0.19	1.23	0.14	1.42	*	-4.98	-0.42	0.87	1.15	1.26	*	-0.49
Be	-1.17	*	-0.38	0.38	*	*	*	*	0.21	2.04	*	*	*
Bi	-1.13	*	*	0.28	*	*	107.87	*	*	*	*	*	*
Ce	-1.33	-0.84	1.83	0.21	0.92	*	-5.50	*	4.62	0.55	0.41	*	*
Co	0.66	6.61	-0.19	0.13	-1.17	*	*	*	23.76	*	-0.90	*	*
Cr	-2.68	-2.15	0.89	1.07	-3.18	*	3.76	0.54	2.79	*	-2.15	*	1.29
Cs	-0.35	74.72	0.24	0.46	-0.76	*	*	*	*	*	-2.29	*	*
Dy	-0.71	*	0.61	0.94	1.53	*	-1.98	*	4.48	*	2.38	*	*
Er	-0.43	*	0.68	1.16	0.64	*	-1.92	*	1.09	*	*	*	*
Eu	-0.16	*	0.58	0.63	0.01	*	-1.84	*	0.47	*	-0.13	*	*
Ga	-0.63	0.00	-0.49	0.35	2.72	*	-1.39	-0.35	*	0.35	0.00	*	-0.07
Gd	-1.25	*	-0.40	0.06	1.24	*	-2.89	*	1.40	*	*	*	*
Ge	-0.76	*	*	*	*	*	*	*	*	*	*	*	*
Hf	0.48	*	0.10	2.31	-1.00	*	-1.87	1.26	*	*	1.90	*	*
Ho	-0.26	*	0.49	0.95	0.45	*	-1.58	*	0.64	*	*	*	*
La	-0.57	-1.51	1.37	0.97	0.44	*	-6.44	*	3.95	0.16	0.24	*	*
Li	-2.69	*	-0.63	1.10	*	*	*	*	*	-0.42	*	*	*
Lu	0.06	*	0.36	0.80	0.25	*	-1.50	*	3.81	*	-0.43	*	*
Mo	0.26	11.30	-0.12	0.12	0.13	*	19.47	*	-2.52	*	*	*	*
Nb	0.27	1.35	0.61	0.43	2.44	*	-0.64	-0.06	*	0.27	*	*	-0.88
Nd	-0.49	0.05	1.22	0.97	1.53	*	-3.65	0.54	1.53	*	4.17	*	*
Ni	-0.13	-0.56	1.86	0.80	1.03	*	-1.05	-0.28	5.16	-0.13	*	4.98	-0.99
Pb	0.03	*	-0.35	-0.98	-0.42	*	0.03	0.03	-5.89	-0.27	*	*	1.25
Pr	-0.65	*	1.07	0.93	1.34	*	-3.60	*	5.97	*	*	*	*
Rb	0.06	0.13	0.12	0.58	0.89	*	-0.34	-0.28	*	-0.11	0.70	*	0.91
Sb	-0.32	*	0.60	0.28	*	*	*	*	*	*	0.55	*	*
Sm	-0.62	*	0.63	0.38	0.29	*	-2.55	0.29	2.73	*	-0.32	*	*
Sn	-0.81	*	0.18	1.88	*	*	*	*	*	*	*	*	*
Sr	0.31	0.91	-0.06	0.36	0.96	*	0.21	-0.13	1.10	-0.28	12.42	*	0.16
Ta	-0.78	*	0.16	1.10	-0.97	*	*	*	*	*	0.20	*	*
Tb	-0.56	*	0.11	0.22	1.49	*	-1.95	*	0.11	*	-1.00	*	*
Th	-0.42	1.12	1.00	0.43	0.52	*	-1.76	0.24	*	*	1.58	*	0.67
Tl	0.00	*	-0.17	0.62	*	*	*	*	*	*	*	*	*
Tm	-0.68	*	0.47	1.04	0.36	*	-1.45	*	0.99	*	*	*	*
U	-0.41	3.28	0.62	-0.72	-1.03	*	-1.44	0.62	*	*	-1.44	*	1.03
V	-0.87	0.00	-0.11	-0.44	-0.95	*	2.61	0.00	4.27	*	0.00	*	*
W	-0.05	*	0.30	0.35	*	*	*	*	*	*	*	-1.25	*
Y	-0.27	2.72	0.75	0.22	1.42	*	-3.67	-0.27	-3.16	0.27	*	*	0.98
Yb	-0.07	*	0.47	0.82	-0.25	*	-2.09	*	-0.15	*	0.03	*	*
Zn	-0.50	0.51	0.06	0.07	-3.42	*	-0.87	-0.31	0.67	0.63	1.65	*	-1.64
Zr	-0.03	0.14	2.65	0.05	-1.47	*	-0.01	*	0.43	0.73	3.35	*	-1.72

Table 3 GeoPT30 Z-scores for contributed data for syenite, CG-2 (December 2011)

Lab Code	E71	E72	E73	E74	E75	E76	E77	E78	E79	E79	E80	E81	E82
	2	2	1	2	1	1	1	2	1	2	1	2	2
SiO2	0.83	1.07	1.73	-0.30	*	0.44	-0.30	-10.93	0.59	*	0.68	0.02	0.18
TiO2	0.43	0.58	-0.17	-1.28	1.91	-2.38	0.42	-4.64	0.05	*	-1.07	6.18	0.14
Al2O3	0.52	-0.12	2.94	-0.25	-0.62	-0.54	-0.21	-3.81	0.08	*	-0.25	4.44	0.29
Fe2O3T	0.08	3.89	-2.62	-0.24	0.28	0.97	1.20	-3.99	-0.07	*	-1.98	8.48	0.60
MnO	0.77	-16.59	1.54	1.24	0.11	0.95	0.11	-1.97	-0.13	*	-0.37	1.24	0.41
MgO	1.00	0.56	0.45	-4.45	-10.01	0.55	1.11	*	-14.58	*	-2.00	86.79	0.11
CaO	1.36	-1.17	-1.88	-0.13	-1.30	3.91	1.57	-3.26	0.00	*	-0.29	9.79	0.56
Na2O	1.04	-2.66	3.23	0.87	-0.25	0.58	1.52	*	1.88	*	0.35	-25.83	0.62
K2O	1.20	-0.11	3.66	0.06	-4.07	0.00	0.00	-4.63	0.02	*	0.89	6.21	0.09
P2O5	-1.05	1.74	4.18	-5.23	*	-0.30	-3.48	*	*	*	-3.48	26.13	-1.05
CO2	*	*	9.46	*	-6.09	*	*	11.71	*	*	*	*	*
LOI	-0.37	-0.25	*	-2.46	*	-2.06	-1.47	*	-1.23	*	-5.16	*	0.12
Ba	-0.08	*	-0.07	-0.34	*	-1.12	*	0.27	-8.40	*	*	-4.97	2.12
Be	0.16	*	-0.71	*	*	*	*	*	-6.07	*	*	*	-0.25
Bi	*	*	*	*	*	69.29	*	*	*	*	*	*	*
Ce	-1.16	*	1.66	*	*	-2.11	*	-0.71	-0.39	*	*	*	-0.08
Co	-0.95	*	-1.75	*	-6.09	23.55	*	*	-5.40	*	*	37.63	0.42
Cr	-0.16	*	*	1.07	-5.15	-0.32	*	26.29	-9.59	*	*	-3.31	3.44
Cs	-0.59	*	-0.77	*	*	8.94	*	*	*	*	*	*	-0.23
Dy	-0.38	*	-0.15	*	-1.42	*	*	*	0.96	*	*	*	0.09
Er	-0.06	*	-0.49	*	*	*	*	*	1.61	*	*	*	0.06
Eu	-0.43	*	-0.19	*	0.60	*	*	*	0.47	*	*	*	0.06
Ga	-0.10	*	2.39	*	*	0.49	*	0.59	*	0.35	*	-0.09	-0.65
Gd	-0.39	*	-1.71	*	*	*	*	*	0.72	*	*	*	1.29
Ge	*	*	*	*	*	*	*	*	*	*	*	*	*
Hf	-0.68	*	-0.47	*	*	-0.09	*	*	*	*	*	*	0.17
Ho	-0.31	*	2.41	*	*	*	*	*	0.83	*	*	*	0.22
La	-1.16	*	1.28	*	0.31	4.53	*	-0.85	-0.42	*	*	*	-0.06
Li	*	*	0.95	*	*	*	*	*	0.68	*	*	*	*
Lu	-0.21	*	0.46	*	-0.43	*	*	*	0.86	*	*	*	-0.15
Mo	-0.62	*	0.43	*	*	-9.15	*	*	-4.15	*	*	*	4.52
Nb	-1.28	*	0.48	*	*	0.96	*	-1.71	*	0.92	*	-9.61	-1.03
Nd	-0.65	*	0.51	*	*	1.91	*	-0.75	0.09	*	*	*	*
Ni	2.33	*	*	4.98	*	0.52	*	-3.53	-7.06	*	*	-1.69	0.73
Pb	-1.03	*	2.56	-1.16	*	3.86	*	-3.60	-4.46	*	*	*	*
Pr	-0.82	*	1.38	*	*	*	*	-4.07	0.15	*	*	*	-0.03
Rb	-0.57	*	-0.95	*	*	1.37	*	-0.51	*	-0.05	*	4.76	-0.51
Sb	*	*	1.35	*	-1.84	*	*	*	-2.68	*	*	*	*
Sm	-0.80	*	0.28	*	-0.50	-4.87	*	*	0.19	*	*	*	-0.20
Sn	-1.02	*	*	*	*	*	*	*	*	-0.81	*	*	*
Sr	0.61	*	0.22	-1.60	3.74	0.76	*	-0.67	*	-0.28	*	3.48	-0.38
Ta	-1.02	*	1.41	*	*	0.20	*	*	*	*	*	-7.19	*
Tb	-0.44	*	-0.22	*	*	*	*	*	0.78	*	*	*	*
Th	-0.94	*	0.17	-3.36	2.30	-4.69	*	-2.90	-5.61	*	*	*	0.07
Tl	-1.00	*	0.24	*	*	*	*	*	*	*	*	*	*
Tm	-0.23	*	1.68	*	*	*	*	*	0.81	*	*	*	*
U	-1.09	*	0.01	-0.41	1.64	2.67	*	-5.33	-6.17	*	*	*	-0.46
V	-0.48	*	-1.34	*	0.00	4.53	*	*	-6.71	*	*	25.48	*
W	*	*	-1.25	*	*	-1.31	*	*	*	*	*	*	*
Y	-0.97	*	-1.27	*	*	-1.42	*	-1.39	*	-0.27	*	*	0.65
Yb	-0.41	*	0.45	*	-1.22	-1.94	*	*	0.68	*	*	*	*
Zn	2.03	*	1.66	0.82	*	1.49	*	-1.76	-7.44	*	*	4.41	-0.84
Zr	-0.96	-11.78	-1.65	*	*	1.04	*	-0.28	*	0.01	*	9.26	0.42

Table 3 GeoPT30 Z-scores for contributed data for syenite, CG-2 (December 2011)

Lab Code	E83	E83	E84	E85	E86	E87
	1	2	2	2	2	1
SiO2	*	-0.92	-0.42	-0.46	0.08	0.17
TiO2	4.90	*	0.21	0.58	-5.61	1.91
Al2O3	*	1.91	0.00	0.27	0.58	-0.99
Fe2O3T	8.24	*	-0.24	1.37	-2.07	0.74
MnO	7.24	*	0.05	-1.13	-1.49	4.39
MgO	*	20.03	0.00	14.47	-1.11	6.68
CaO	19.05	*	0.00	6.00	-13.81	1.83
Na2O	*	-5.81	0.32	-0.34	5.21	1.19
K2O	*	-1.19	0.23	-2.88	-3.43	0.56
P2O5	*	-1.74	1.74	1.74	-3.48	-10.45
CO2	*	*	*	-3.75	0.23	1.22
LOI	*	*	0.86	3.81	1.96	-2.70
Ba	1.43	*	-2.11	2.10	0.09	-1.68
Be	*	*	*	0.16	0.10	*
Bi	*	*	*	*	0.00	1.69
Ce	-0.11	*	-0.46	-0.25	0.43	-1.91
Co	*	*	*	-0.66	0.08	3.44
Cr	2.15	*	0.38	0.54	-1.33	-2.25
Cs	0.84	*	*	-0.27	-0.39	108.41
Dy	-0.25	*	*	0.68	0.44	*
Er	-1.68	*	*	-0.39	0.47	*
Eu	-0.31	*	*	0.18	0.15	*
Ga	-3.48	*	-0.14	-0.70	2.56	-0.14
Gd	-2.49	*	*	1.65	1.15	*
Ge	*	*	*	*	*	*
Hf	-2.59	*	*	-0.72	*	4.93
Ho	-0.38	*	*	-0.65	0.27	*
La	-0.31	*	-0.09	-0.39	0.70	-1.04
Li	0.07	*	*	*	0.66	*
Lu	-1.68	*	*	0.52	0.34	*
Mo	3.39	*	*	-1.26	0.18	-3.90
Nb	5.44	*	-0.56	-0.31	-0.71	-0.33
Nd	0.10	*	3.86	-0.32	1.22	-1.87
Ni	-1.16	*	0.90	0.18	3.06	-3.38
Pb	-0.63	*	1.16	3.60	0.39	-0.65
Pr	0.08	*	*	-0.22	0.97	*
Rb	0.39	*	0.61	0.64	1.50	-0.53
Sb	*	*	*	*	0.40	49.58
Sm	-0.67	*	*	-0.52	0.37	-7.05
Sn	*	*	*	-1.38	*	6.05
Sr	0.12	*	0.23	-0.62	0.44	-0.61
Ta	-1.88	*	*	-0.97	0.85	1.71
Tb	-1.03	*	*	0.50	0.61	*
Th	0.50	*	0.33	2.20	0.02	-1.23
Tl	*	*	*	*	-0.57	*
Tm	0.01	*	*	0.59	1.58	*
U	5.49	*	2.87	1.64	0.05	2.26
V	-6.97	*	0.52	0.44	2.29	-2.61
W	*	*	*	-2.25	*	0.69
Y	-1.96	*	1.39	-0.82	0.08	-2.29
Yb	-1.10	*	*	-0.11	1.44	-4.46
Zn	*	*	-0.06	0.26	-0.22	-1.37
Zr	1.77	*	-0.33	-1.20	0.92	0.13

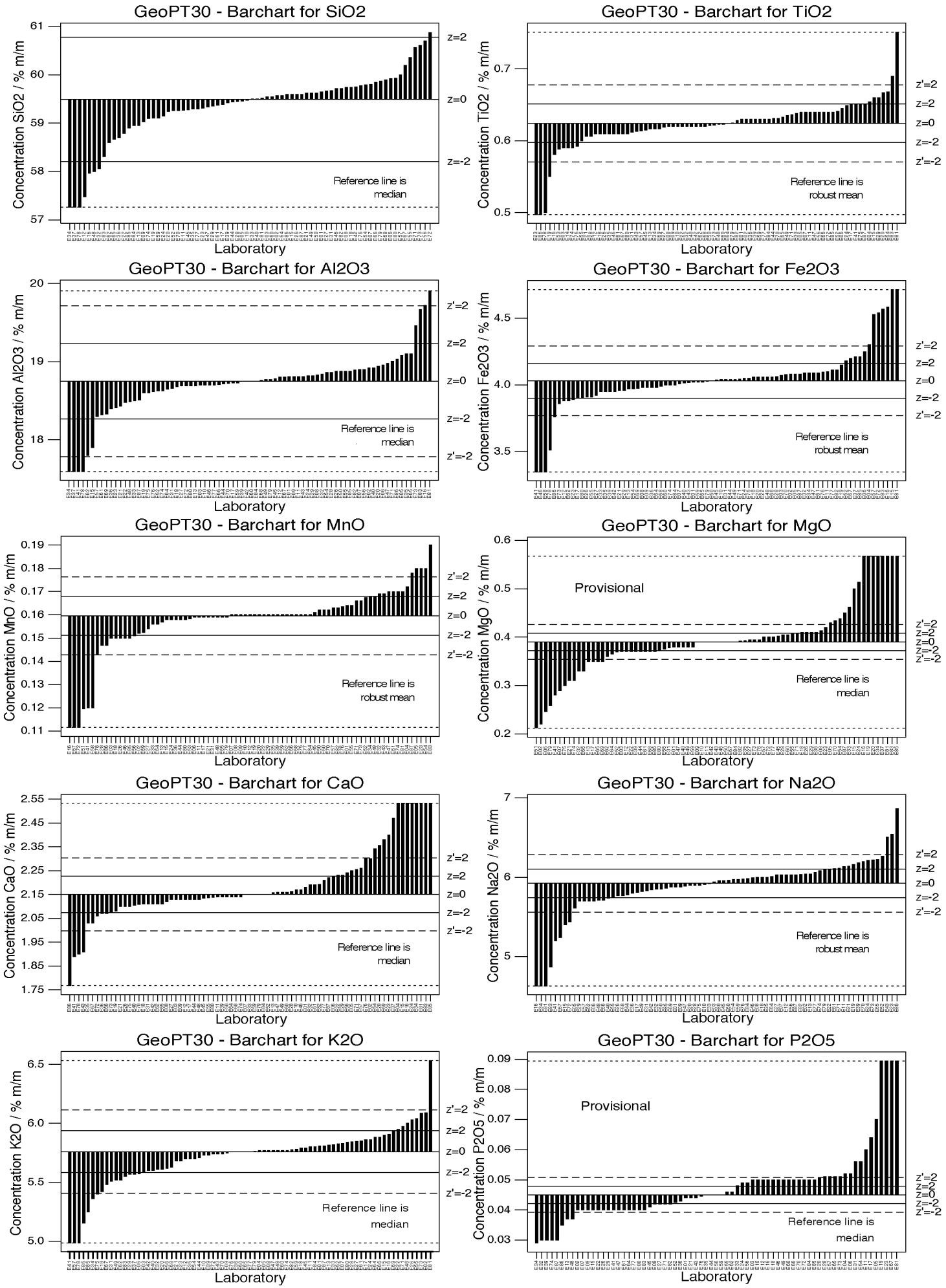


Figure 1.1: GeoPT30 – Syenite, CG-2. Data distribution charts for elements for which values were assigned or provisional values given for guidance. Horizontal lines show the limits for -2<z<2 for pure geochemistry labs (solid lines) and -2<z'<2 for applied geochemistry labs (pecked lines).

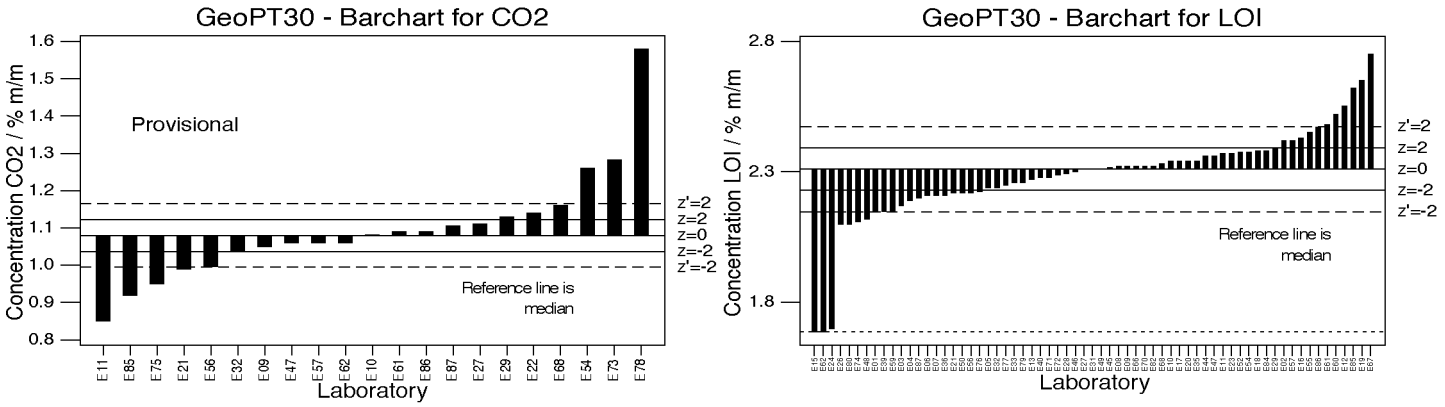


Figure 1.1(cont'd): GeoPT30 – Syenite, CG-2. Data distribution charts for elements for which values were assigned or provisional values given for guidance. Horizontal lines show the limits for -2<z<2 for pure geochemistry labs (solid lines) and -2<z'<2 for applied geochemistry labs (pecked lines).

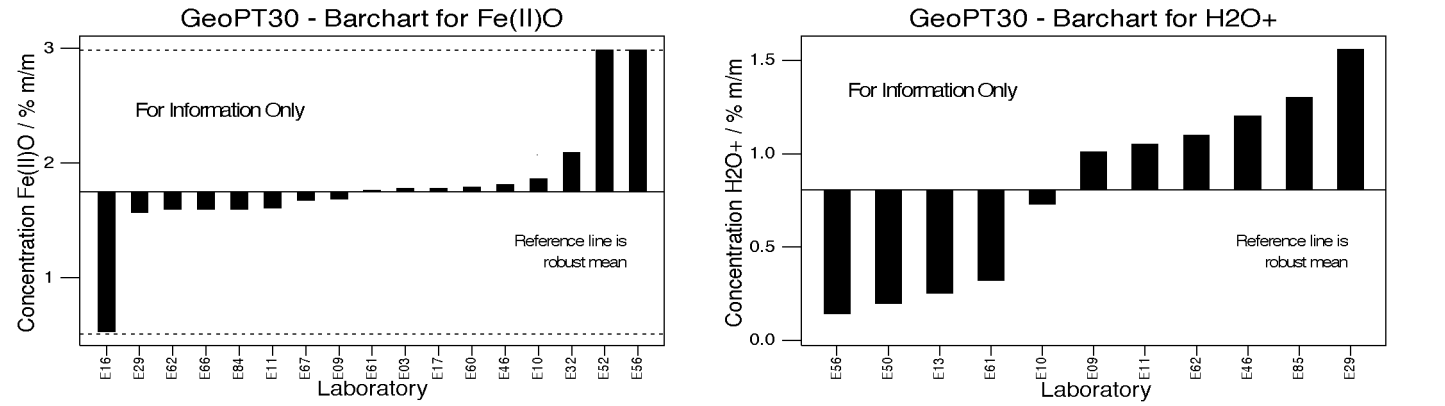


Figure 2.1: GeoPT30 – Syenite, CG-2. Data distribution charts for information only for elements for which values could not be assigned.

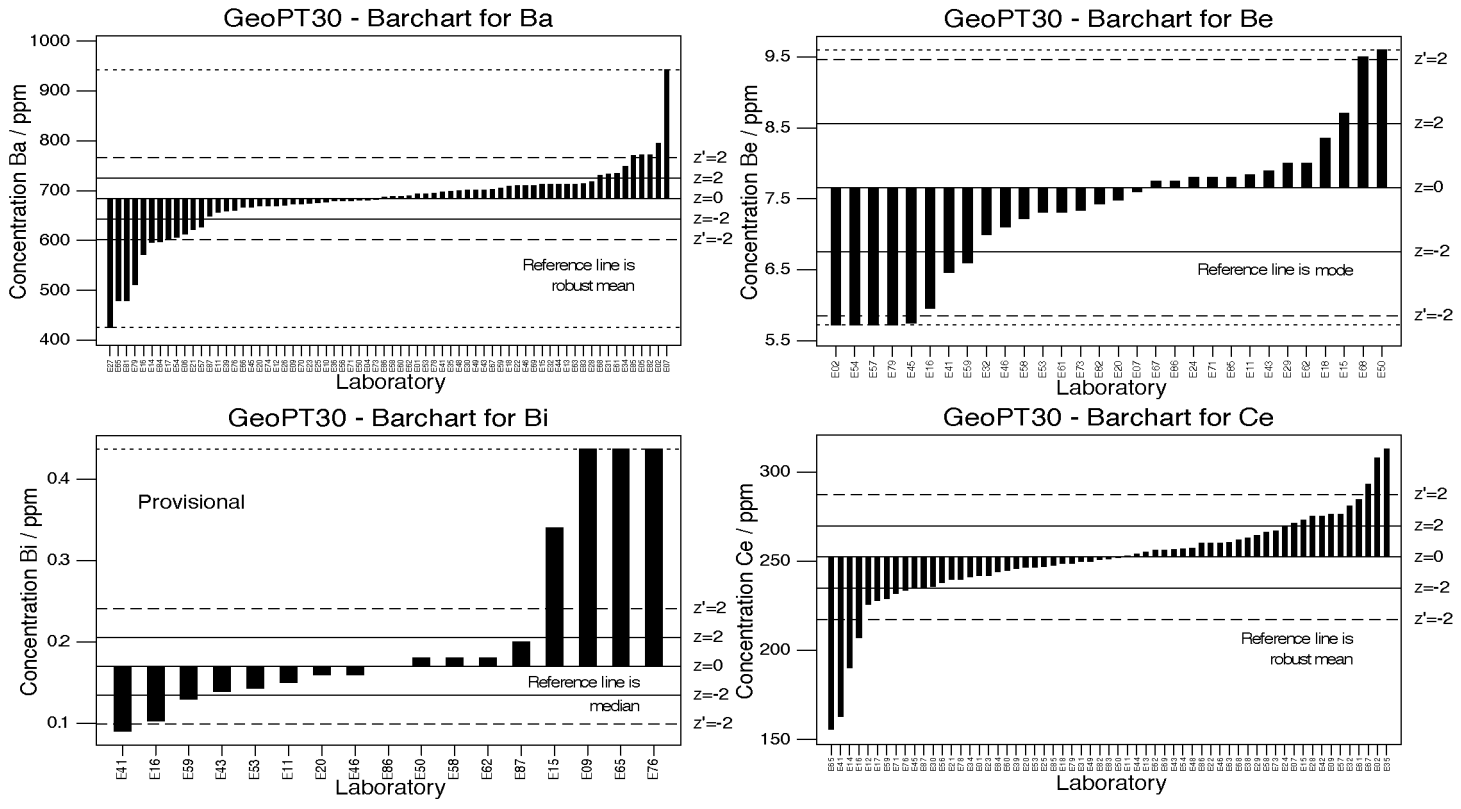


Figure 1.2: GeoPT30 – Syenite, CG-2. Data distribution charts for elements for which values were assigned or provisional values given for guidance. Horizontal lines show the limits for -2<z<2 for pure geochemistry labs (solid lines) and -2<z'<2 for applied geochemistry labs (pecked lines).

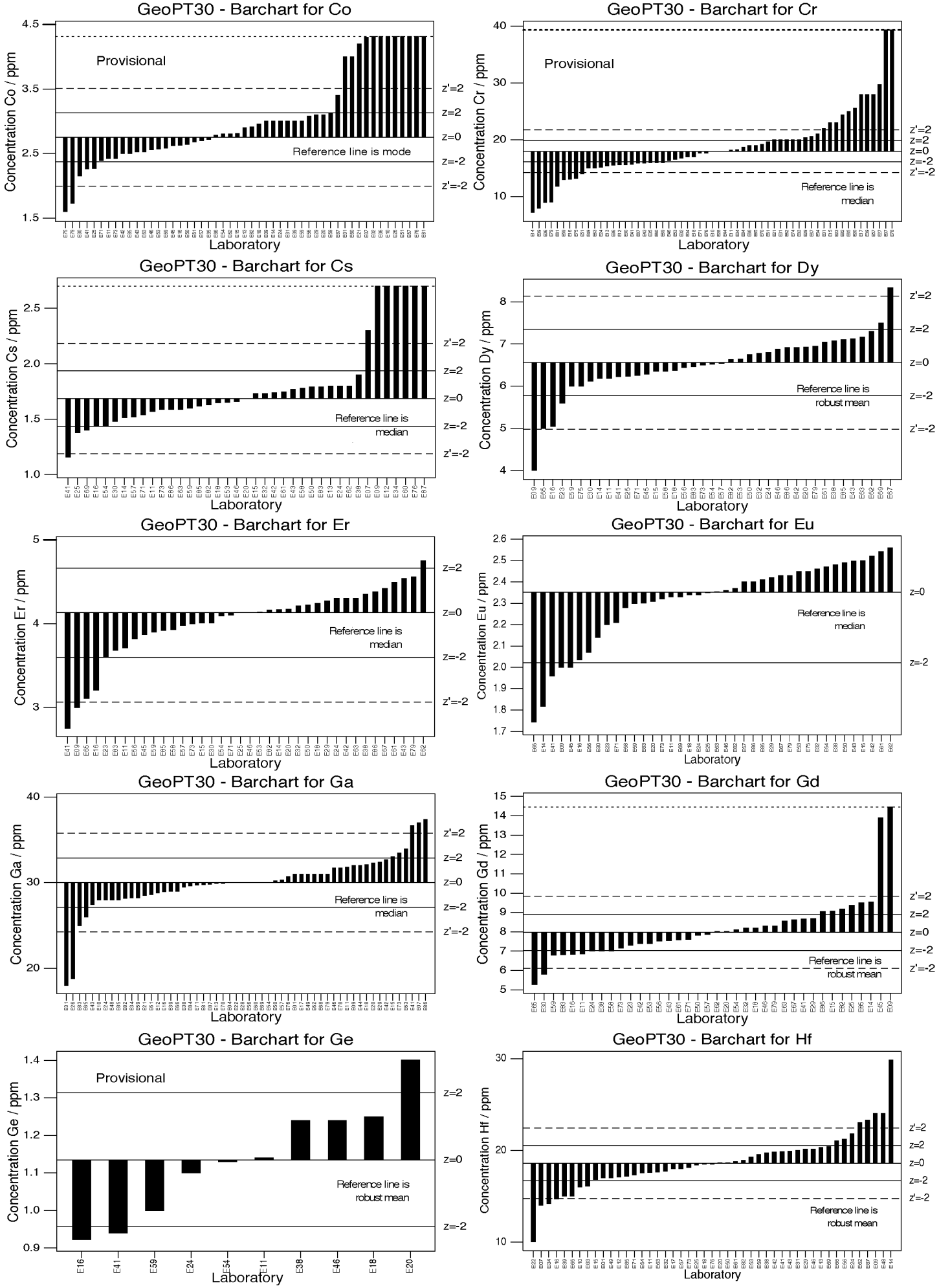


Figure 1.3: GeoPT30 – Syenite, CG-2. Data distribution charts for elements for which values were assigned or provisional values given for guidance. Horizontal lines show the limits for -2<z<2 for pure geochemistry labs (solid lines) and -2<z'<2 for applied geochemistry labs (pecked lines).

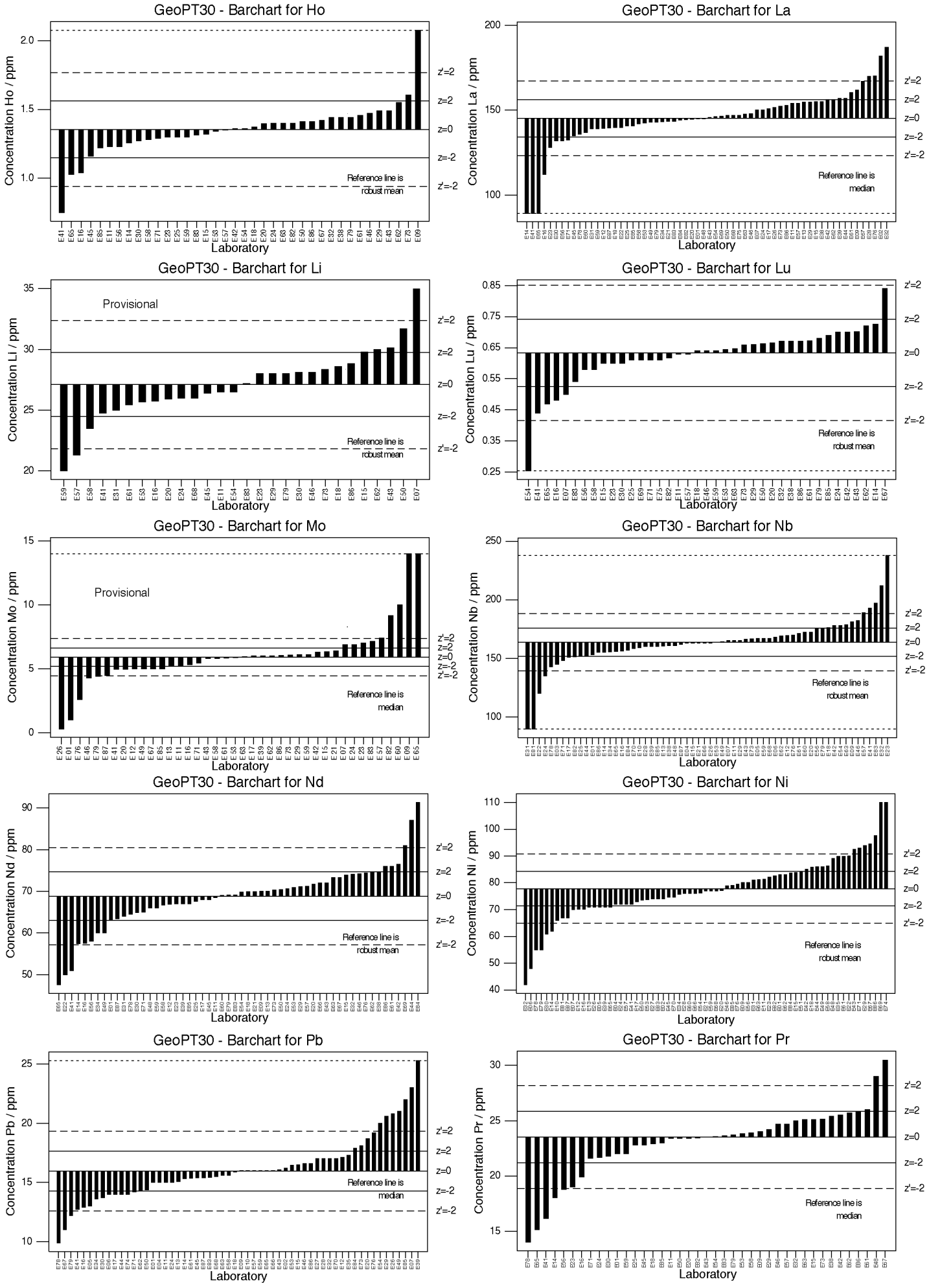


Figure 1.4: GeoPT30 – Syenite, CG-2. Data distribution charts for elements for which values were assigned or provisional values given for guidance. Horizontal lines show the limits for -2<z<2 for pure geochemistry labs (solid lines) and -2<z'<2 for applied geochemistry labs (pecked lines).

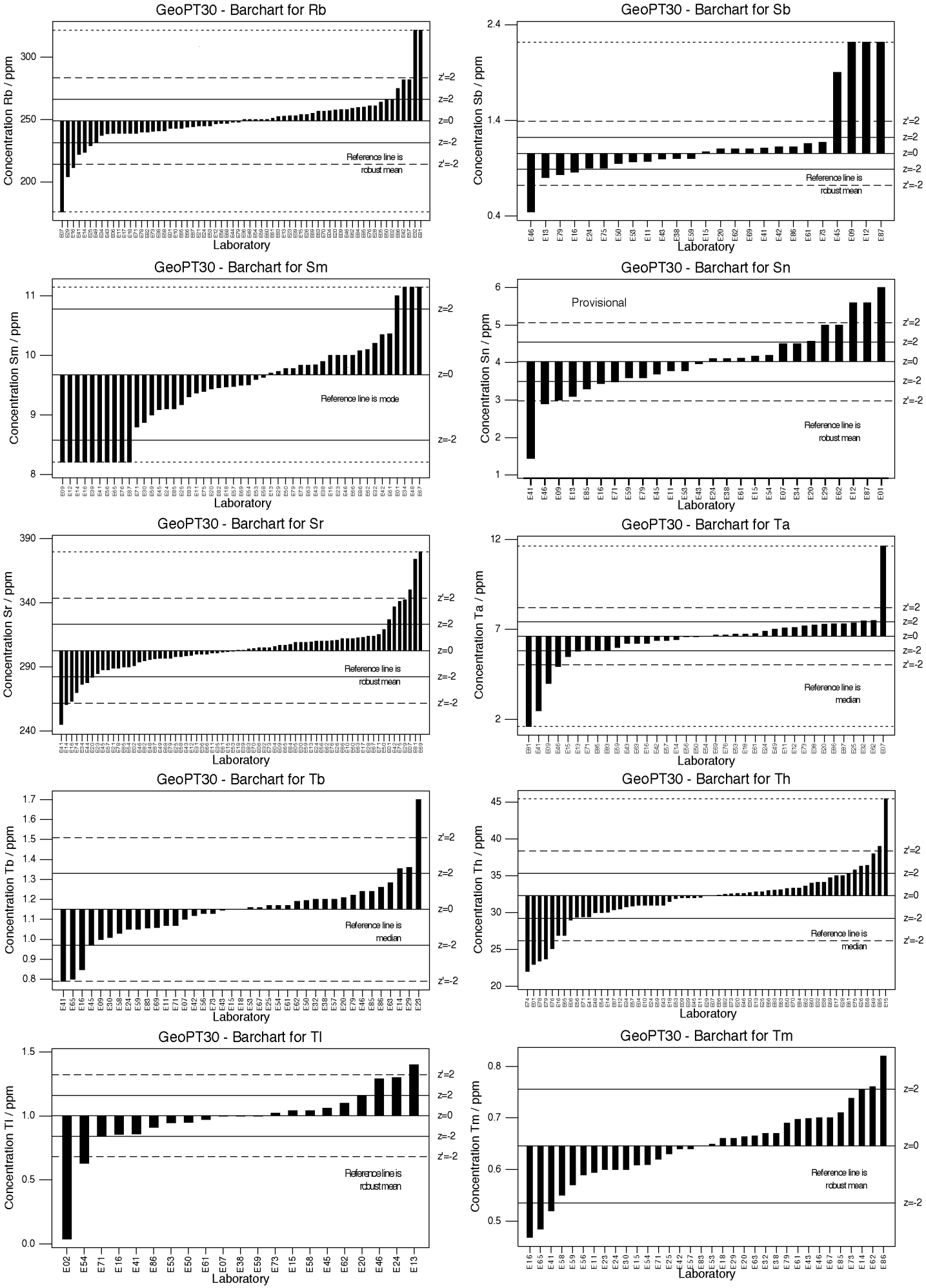


Figure 1.5: GeoPT30 – Syenite, CG-2. Data distribution charts for elements for which values were assigned or provisional values given for guidance. Horizontal lines show the limits for -2<z<2 for pure geochemistry labs (solid lines) and -2<z'<2 for applied geochemistry labs (pecked lines).

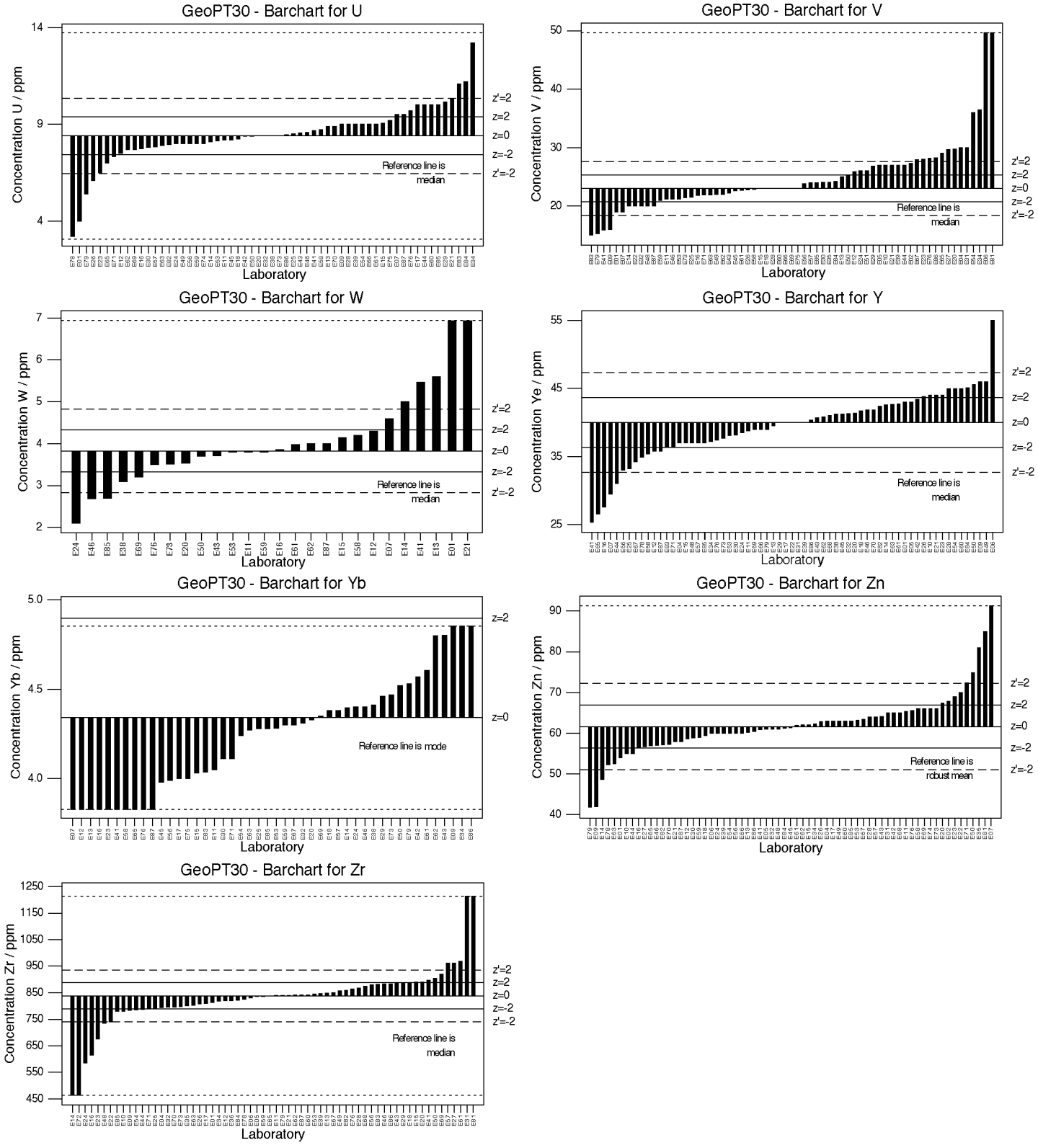


Figure 1.6: GeoPT30 – Syenite, CG-2. Data distribution charts for elements for which values were assigned or provisional values given for guidance. Horizontal lines show the limits for -2<z<2 for pure geochemistry labs (solid lines) and -2<z'<2 for applied geochemistry labs (pecked lines).

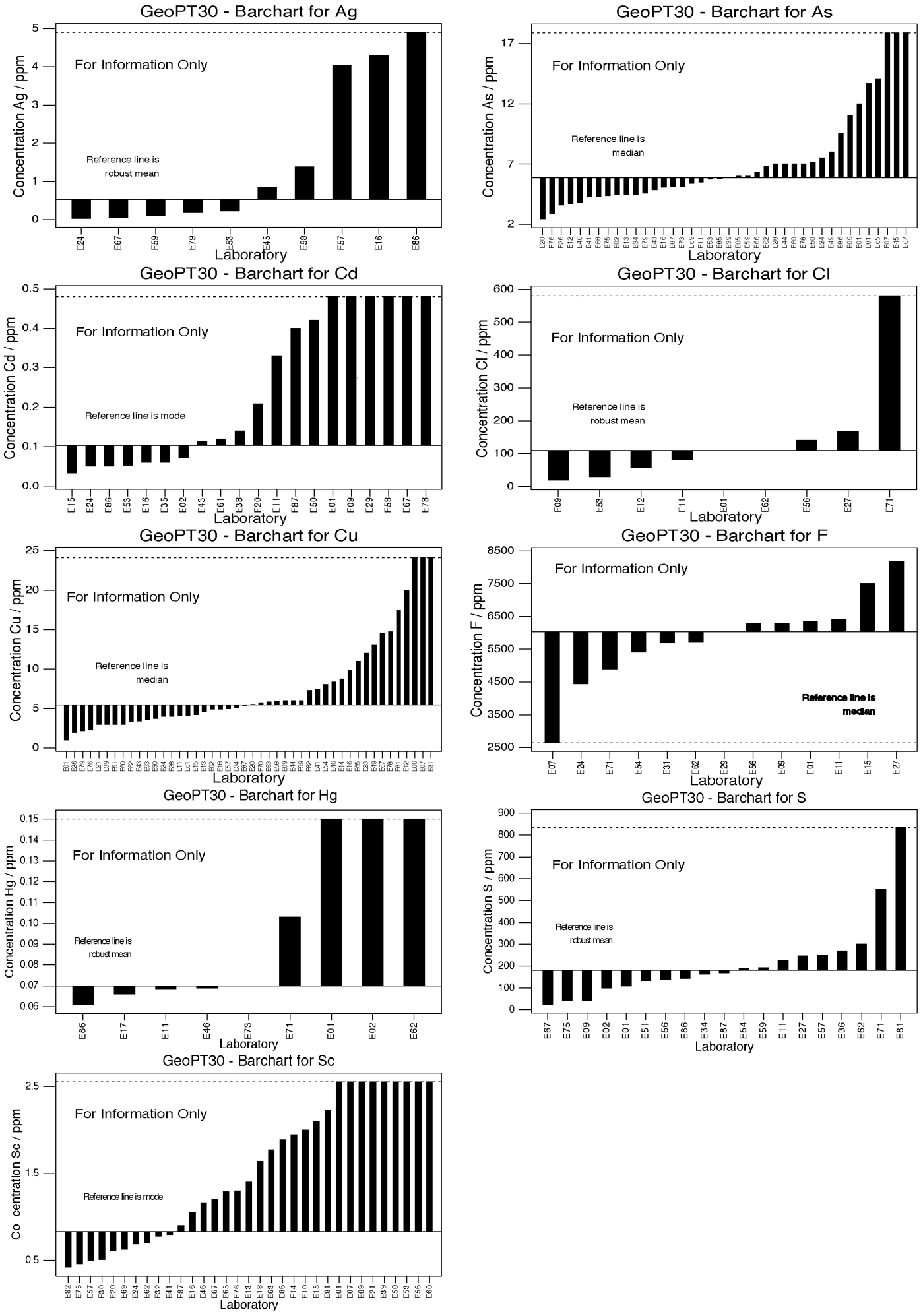


Figure 2.2: GeoPT30 – Syenite, CG-2. Data distribution charts for information only for elements for which values could not be assigned.

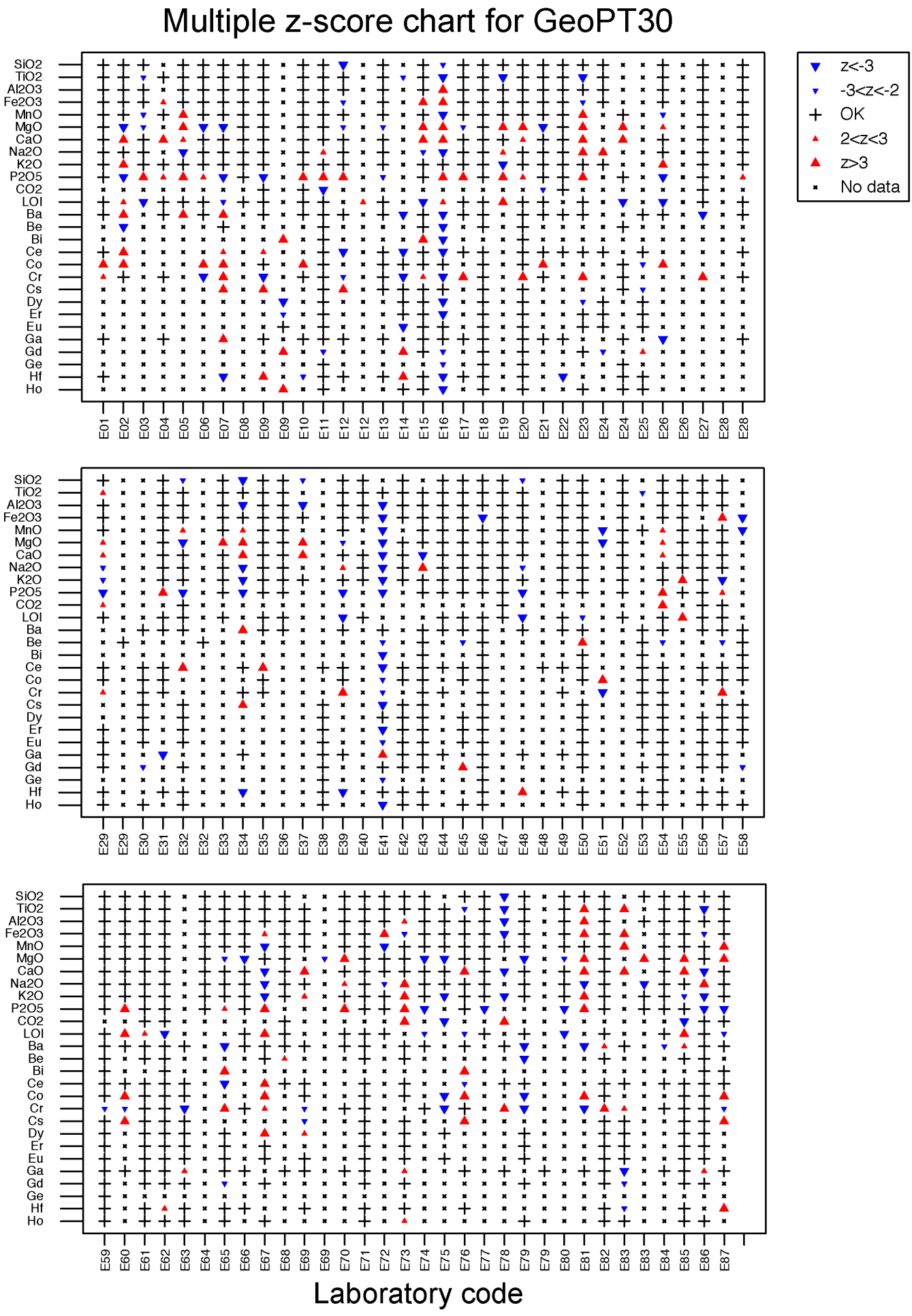


Figure 3.1: Geo*PT*30 – Syenite, CG-2. Multiple z-score charts for laboratories participating in the Geo*PT*30 round. Symbols indicate whether or not an elemental result complies with the -2<z<+2 criteria. Satisfactory data are plotted as '+'. Data for other categories are plotted as follows: z<-3 (▼), -3<z<-2 (▾), +2<z<+3 (▴), Z>+3 (▲).

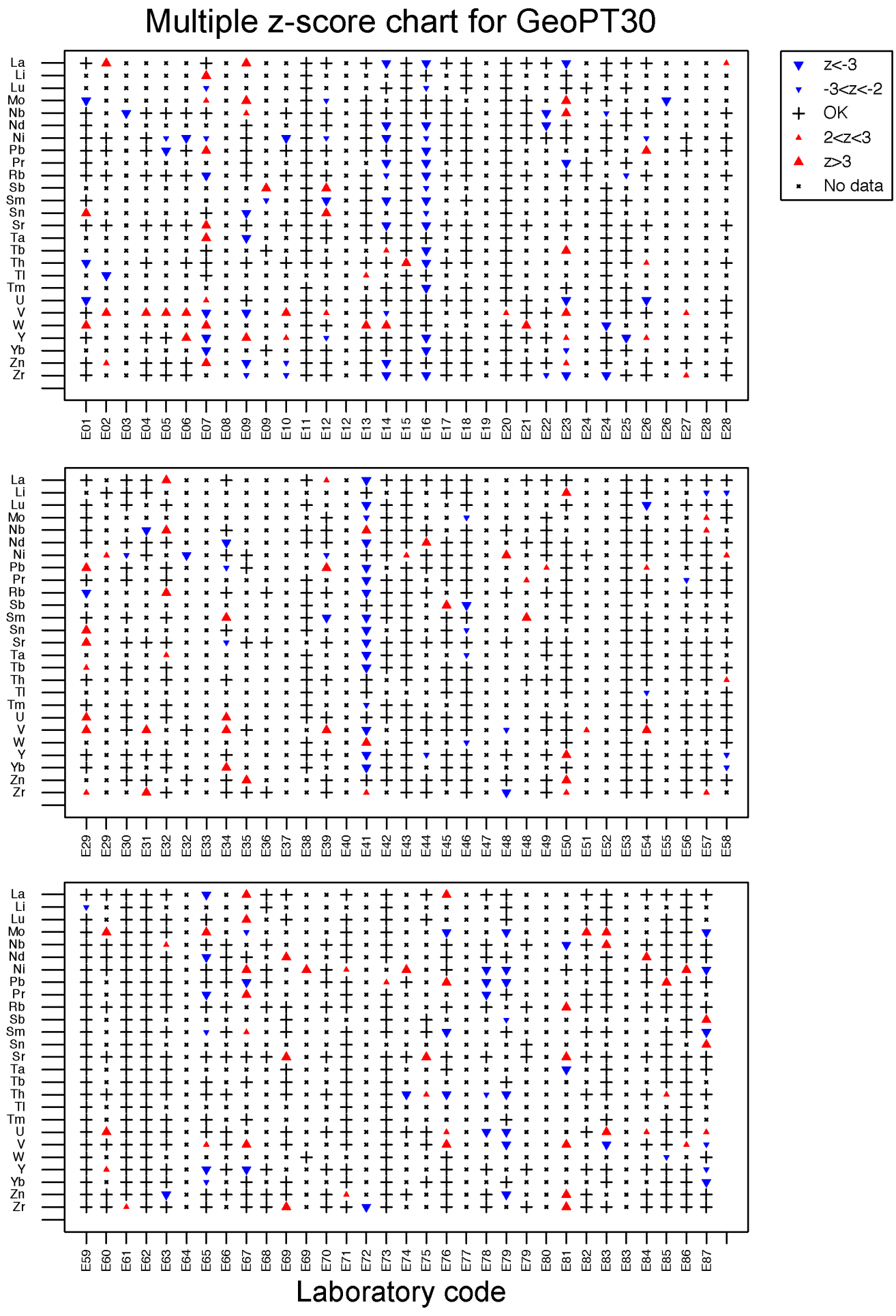


Figure 3.2: Geo*PT*30 – Syenite, CG-2. Multiple z-score charts for laboratories participating in the Geo*PT*30 round. Symbols indicate whether or not an elemental result complies with the -2<z<+2 criteria. Satisfactory data are plotted as '+'. Data for other categories are plotted as follows: z<-3 (▼), -3<z<-2 (▾), +2<z<+3 (▴), Z>+3 (▲).

Table 4		GeoPT30A Contributed data for Limestone, ML-2 (December 2011)												
Lab Code		E01	E02	E03	E04	E05	E06	E07	E08	E09	E09	E10	E11	E12
Quality		2	1	1	2	1	2	1	2	1	2	1	1	1
SiO2	% m/m	2.79	2.820	3.25	2.39	2.77	3.115	2.88	2.96	4.6		2.84	2.87	3.35
TiO2	% m/m	0.020	0.0200	0.04	0.017	0.03	0.009	0.03		0.06		0.02		
Al2O3	% m/m	0.43	0.430	0.43	0.37	0.58	0.454	0.54	0.4	1.12		0.43	0.48	1.29
Fe2O3T	% m/m	0.12	0.130	0.28	0.15		0.136	0.12	0.1	0.17		0.12	0.14	0.28
Fe(II)O	% m/m			0.06						0.17				
MnO	% m/m	0.016	0.04700	0.01	0.022	0.01	0.023	0.020		0.03		0.02	0.023	0.02
MgO	% m/m	1.36	1.4000	1.34	1.44	1.44	1.245	1.37	1.48	1.65		1.47	1.42	1.28
CaO	% m/m	52.83	52.1900	52.45	52.39	51.66	53.731	54.4	52.22	52.27		52.17	52.56	50.59
Na2O	% m/m	0.02	0.0600	0.16		0.09	0.113		0.32	0.34		0.09	0.09	0.06
K2O	% m/m	0.098	0.0700	0.12	0.077	0.10	0.12	0.22	5.77	0.13		0.10	0.12	0.1
P2O5	% m/m	0.045	0.0400	0.06	0.032	0.05	0.064	0.04		0.05		0.04	0.06	0.09
H2O+	% m/m									0.22			0.18	
CO2	% m/m									42.48		40.2	43.31	
LOI	% m/m	42.13	41.71	40.86		41.83	41.01	40.7	2.32	41.91		42.21	42.16	
Ag	mg kg^{-1}													6.1
As	mg kg^{-1}	1.8	0.253					22						0.3
Au	mg kg^{-1}													
B	mg kg^{-1}												2	
Ba	mg kg^{-1}	57					14	248		13			26.8	21.8
Be	mg kg^{-1}		0.299											
Bi	mg kg^{-1}													
Br	mg kg^{-1}													
Cd	mg kg^{-1}		0.0099								21			0.8
Ce	mg kg^{-1}	1.8	95.0					5					2.55	33.5
Cl	mg kg^{-1}													21.7
Co	mg kg^{-1}						6	1.8		7			0.77	
Cr	mg kg^{-1}	12						40					3.3	3.4
Cs	mg kg^{-1}							2		16			1.73	13.1
Cu	mg kg^{-1}		4.7				18	182		17		9		13.5
Dy	mg kg^{-1}												0.256	
Er	mg kg^{-1}										2		0.138	
Eu	mg kg^{-1}										1		0.07	
F	mg kg^{-1}	430									505		420	
Ga	mg kg^{-1}	0.9								3			0.71	2.7
Gd	mg kg^{-1}										1		0.298	
Ge	mg kg^{-1}												0.13	
Hf	mg kg^{-1}	1.1								20			0.16	0.1
Hg	mg kg^{-1}	0.2	0.0124										0.0007	
Ho	mg kg^{-1}												0.049	
In	mg kg^{-1}													
La	mg kg^{-1}	12								20			1.67	
Li	mg kg^{-1}							10					6.6	
Lu	mg kg^{-1}												0.020	
Mo	mg kg^{-1}									16				1.2
Nb	mg kg^{-1}	1						1.2		69		3	0.43	0.3
Nd	mg kg^{-1}									9			1.55	9.1
Ni	mg kg^{-1}	7	1.1				4	10		7		8		1.1
Pb	mg kg^{-1}	1	2.7			3	3			21		4	1.94	
Pr	mg kg^{-1}										4		0.343	
Rb	mg kg^{-1}	0.3	9.7			8	8	10		14		9	8.03	8.9
Re	mg kg^{-1}													
S	mg kg^{-1}	44												
Sb	mg kg^{-1}										62			
Sc	mg kg^{-1}	5						0.7		79				
Se	mg kg^{-1}													0.2
Sm	mg kg^{-1}	0.8											0.314	3
Sn	mg kg^{-1}	7						0.7		1			0.64	
Sr	mg kg^{-1}	1023	963.5		1030	992	900	959	499	1506		1047	1107	938.7
Ta	mg kg^{-1}							0.1					0.07	0.6
Tb	mg kg^{-1}										1		0.043	
Te	mg kg^{-1}							0.11						0.5
Th	mg kg^{-1}									4		5	0.31	4
Tl	mg kg^{-1}													
Tm	mg kg^{-1}												0.02	
U	mg kg^{-1}							1.4					0.94	2.7
V	mg kg^{-1}	7	2.0			15	49			5			3	3.3
W	mg kg^{-1}	16						0.6					0.34	0.1
Y	mg kg^{-1}	4					2	2.4					2.01	2.8
Yb	mg kg^{-1}										10		0.13	0.9
Zn	mg kg^{-1}	3	3.6					71				4		6.5
Zr	mg kg^{-1}	78				9	77					39	6.42	2.8

Table 4		GeoPT30A Contributed data for Limestone, ML-2 (December 2011)												
Lab Code		E12	E13	E14	E15	E16	E17	E18	E19	E20	E22	E23	E24	E24
Quality		2	2	1	2	1	2	2	1	2	2	1	1	2
SiO2	% m/m		2.807		2.6	2.25	3.22	2.88	3.59	2.825	3.13	3.05	2.5	
TiO2	% m/m		0.018	0.02	0.03	0.016	0.02	0.01	0.03	0.0162	0.013	0.02	0.01	
Al2O3	% m/m		0.414		0.4	0.05	0.51	0.46	0.55	0.5296	0.42	0.53	0.54	
Fe2O3T	% m/m		0.115		0.2	0.05	0.14	0.12	0.23	0.3107	0.12	0.15	0.17	
Fe(II)O	% m/m													
MnO	% m/m		0.024		0.0225	0.021	0.02	0.02	0.02	0.0352	0.022	0.02		0.011
MgO	% m/m		1.373		1.3	3.815	1.44	1.38	1.56	1.411	1.308	1.43		1.566
CaO	% m/m		52.886		52.9	51.47	52.66	52.71	51.37	52.73	53.23	51.41	54.476	
Na2O	% m/m		0.078		0.07	0.07	0.07	0.08	0.25	0.1073	0.07	0.23		
K2O	% m/m		0.101		0.12	0.08	0.09	0.11	0.16	0.1215	0.09	0.11		
P2O5	% m/m		0.040		0.03	0.049	0.059	0.06	0.05	0.0526	0.04	0.05		0.049
H2O+	% m/m		0.230											
CO2	% m/m													
LOI	% m/m	41.72	42.062		42.1	41.845	41.76	41.93	41.67	41.80		41.48		39.5
Ag	mg kg^{-1}					0.033								0.04
As	mg kg^{-1}									1.085				0.39
Au	mg kg^{-1}													
B	mg kg^{-1}													1.30
Ba	mg kg^{-1}		29.1	14.812	29	23.390		28.1		26.020	20	29		
Be	mg kg^{-1}				0.48	0.354		0.57		0.685				0.57
Bi	mg kg^{-1}				0.18	0.034				0.029				
Br	mg kg^{-1}													
Cd	mg kg^{-1}				0.017	0.019				0.521				
Ce	mg kg^{-1}		4.3	2.464	2.82	2.396		2.72		2.360		2.6		3.0
Cl	mg kg^{-1}													
Co	mg kg^{-1}			2.206	0.84	2.853		2.02		1.123				0.32
Cr	mg kg^{-1}		2.4	0.525	8	1.828		2.39		3.610				2.0
Cs	mg kg^{-1}		2.6	1.934	2.00	1.595		0.8		1.576				2.23
Cu	mg kg^{-1}			2.231	0.4	1.320		9.2		0.480		8		2.3
Dy	mg kg^{-1}			0.302	0.28	0.239		0.28		0.281		0.3		0.30
Er	mg kg^{-1}			0.178	0.17	0.146		0.16		0.142		0.2		0.18
Eu	mg kg^{-1}			0.066	0.07	0.060		0.07		0.068				0.09
F	mg kg^{-1}				480									450
Ga	mg kg^{-1}				0.67	0.597		0.68		0.790				0.62
Gd	mg kg^{-1}			0.324	0.32	0.307		0.32		0.281				0.35
Ge	mg kg^{-1}					0.111		0.13		0.182				0.14
Hf	mg kg^{-1}		1.0	0.223		0.094		0.16		0.175				0.14
Hg	mg kg^{-1}													
Ho	mg kg^{-1}			0.060	0.06	0.055		0.06		0.051				0.06
In	mg kg^{-1}													
La	mg kg^{-1}		2.7	1.801	1.93	1.499		1.73		1.581		1.3		1.96
Li	mg kg^{-1}				8.58	8.898		11.4		8.238				8.0
Lu	mg kg^{-1}				0.02	0.018		0.021		0.021		0.2		
Mo	mg kg^{-1}					0.056				0.291				0.19
Nb	mg kg^{-1}			0.638	1.3	0.526		0.48		0.579				
Nd	mg kg^{-1}		18.2	1.484	1.66	1.370	29	1.58		1.463		1.2		1.74
Ni	mg kg^{-1}			18.520		16.649		6.7		0.810		10		1.63
Pb	mg kg^{-1}		2.2	2.068	2.42	1.424		2.18		0.407				5.8
Pr	mg kg^{-1}			0.340	0.46	0.350		0.38		0.351				0.43
Rb	mg kg^{-1}		8.2	8.665	8.07	7.391	11	5.2		7.850		17		4.0
Re	mg kg^{-1}													
S	mg kg^{-1}													
Sb	mg kg^{-1}				0.23	0.206				0.080				0.10
Sc	mg kg^{-1}			1.827		0.738		0.68		0.227				0.34
Se	mg kg^{-1}					0.182								
Sm	mg kg^{-1}			0.285	0.35	0.298		0.33		0.333				0.34
Sn	mg kg^{-1}		0.6		0.66	0.604				0.872				1.60
Sr	mg kg^{-1}		998.1	1005.065	1006	1023.871	951	1146		1138.000		990		1050.00
Ta	mg kg^{-1}			0.100		1.088		0.06		0.047				0.06
Tb	mg kg^{-1}			0.058	0.048	0.040		0.048		0.052				0.05
Te	mg kg^{-1}					0.137								
Th	mg kg^{-1}			0.317	0.33	0.264		0.29		0.287				0.35
Tl	mg kg^{-1}				0.07	0.055				0.040				0.40
Tm	mg kg^{-1}			0.030	0.023	0.019		0.023		0.025				0.02
U	mg kg^{-1}		2.6	1.419	1.05	0.933	7	1.1		0.875		0.9		1.18
V	mg kg^{-1}		2.6	3.236	2.9	3.385		3.16		11.190		4		4.30
W	mg kg^{-1}			0.525	0.58	0.431				0.339				0.50
Y	mg kg^{-1}		3.8	2.620	2.0	1.787	2	2.34		2.124		1.7		2.04
Yb	mg kg^{-1}			0.159	0.14	0.127		0.14		0.129		0.9		0.15
Zn	mg kg^{-1}		5.2	1.297	5.6	3.238	10	3.5		2.590		8		20
Zr	mg kg^{-1}		6.8	5.241	16	3.389	7	6.6		7.440		31		

Table 4		GeoPT30A Contributed data for Limestone, ML-2 (December 2011)													
Lab Code		E25	E26	E26	E27	E28	E29	E29	E30	E31	E32	E33	E34	E35	E37
Quality		1	1	2	2	2	1	2	2	2	1	2	1	2	2
SiO2	% m/m		2.95		2.863	2.757					3.00	3.11	2.4	2.62	2.39
TiO2	% m/m		0.01		0.025	0.017					0.016	0.024	0.027		
Al2O3	% m/m		0.36		0.607	0.460					0.41	0.476	0.379	0.384	0.41
Fe2O3T	% m/m		0.14		0.197	0.142					0.15	0.13	0.13	0.161	0.15
Fe(II)O	% m/m														
MnO	% m/m		0.03		0.024	0.025					0.023	0.026	0.024	0.024	
MgO	% m/m		1.50		1.363	1.425					1.41	1.49	1.20	1.34	1.43
CaO	% m/m		52.86		52.50	52.368					52.32	55.0	54.4	53.1	52.56
Na2O	% m/m		0.10		0.054	0.054					0.13	0.0835	0.4		
K2O	% m/m		0.07		0.101	0.101					0.13	0.114	0.03	0.089	
P2O5	% m/m		0.05		0.041	0.051					0.031	0.0545	0.01		
H2O+	% m/m														
CO2	% m/m				44.04						43.60				
LOI	% m/m		41.71		42.08	42.080					41.89	41.7			
Ag	mg kg^{-1}							0.4							
As	mg kg^{-1}					2.0									
Au	mg kg^{-1}														
B	mg kg^{-1}														
Ba	mg kg^{-1}	28.4	56.1		15.7				20.8		24.6		23.5		
Be	mg kg^{-1}							1.00							
Bi	mg kg^{-1}														
Br	mg kg^{-1}														
Cd	mg kg^{-1}							0.15					1.2		
Ce	mg kg^{-1}	2.70				29.0	2.7		2.74		2.15				
Cl	mg kg^{-1}				32										
Co	mg kg^{-1}	0.95					1.30		0.53						
Cr	mg kg^{-1}				11.0			4.3	2.37						
Cs	mg kg^{-1}	1.37							1.75		1.83				
Cu	mg kg^{-1}		11.2			4.0			0.42						
Dy	mg kg^{-1}	0.28					0.29		0.28		0.24				
Er	mg kg^{-1}	0.17					0.17		0.14		0.14				
Eu	mg kg^{-1}	0.07					0.08		0.06		0.06				
F	mg kg^{-1}				636					378					
Ga	mg kg^{-1}					4.0	0.75						0.9		
Gd	mg kg^{-1}	0.33					0.24		0.28		0.28				
Ge	mg kg^{-1}														
Hf	mg kg^{-1}	0.50					1.15				0.09				
Hg	mg kg^{-1}														
Ho	mg kg^{-1}	0.06					0.06		0.05		0.05				
In	mg kg^{-1}														
La	mg kg^{-1}	1.10					2.2		1.84		1.61				
Li	mg kg^{-1}								9.55						
Lu	mg kg^{-1}	0.02					0.02		0.02		0.02				
Mo	mg kg^{-1}						0.62								
Nb	mg kg^{-1}	1.11		4							0.53		1.1		
Nd	mg kg^{-1}	1.64					1.6		1.53		1.49				
Ni	mg kg^{-1}		10.6			7.0			0.18						
Pb	mg kg^{-1}					37.0			1.71		1.33		2.5		
Pr	mg kg^{-1}	0.39					0.37		0.39		0.36				
Rb	mg kg^{-1}	7.34	8.1			12.0	5.3				7.59		7.8		
Re	mg kg^{-1}														
S	mg kg^{-1}				23.2								24.9		
Sb	mg kg^{-1}														
Sc	mg kg^{-1}					5.0			0.12		0.14				
Se	mg kg^{-1}														
Sm	mg kg^{-1}	0.31					0.31		0.32		0.30				
Sn	mg kg^{-1}												1.7		
Sr	mg kg^{-1}	908	1006.4			1385.0	1203		1080		1044		1076		
Ta	mg kg^{-1}	0.09									0.08				
Tb	mg kg^{-1}	0.05					0.05		0.04		0.04				
Te	mg kg^{-1}														
Th	mg kg^{-1}	0.39				2.0		1.3	0.22		0.28				
Tl	mg kg^{-1}														
Tm	mg kg^{-1}	0.02					0.02		0.02		0.02				
U	mg kg^{-1}	1.25						2.0	0.88		1.11				
V	mg kg^{-1}	2.85				7.0			2.59						
W	mg kg^{-1}														
Y	mg kg^{-1}	1.75				1.0	2.13		1.89		1.94		3.3		
Yb	mg kg^{-1}	0.15					0.15		0.13		0.12				
Zn	mg kg^{-1}		11.2		38.0	9.0			3.39				6.1		
Zr	mg kg^{-1}	8.25			39.5	2.0					3.05				

Table 4		GeoPT30A Contributed data for Limestone, ML-2 (December 2011)												
Lab Code		E38	E39	E40	E41	E42	E43	E44	E45	E46	E47	E48	E48	E49
Quality		2	1	2	1	2	2	2	2	2	2	1	2	2
SiO2	% m/m		2.75	3.104		3.08		2.89	2.852	2.82	2.86	2.79		2.85
TiO2	% m/m		0.03		0.23		0.017	0.019	0.019	0.02	0.02	0.021		0.015
Al2O3	% m/m		0.46		0.37	0.46	0.455	0.43	0.4	0.46	0.44	0.437		0.44
Fe2O3T	% m/m		0.23		0.13		0.146	0.15	0.116	0.18	0.14	0.120		0.14
Fe(II)O	% m/m									0.16				
MnO	% m/m		0.02		0.02		0.024	0.024		0.03	0.02	0.025		0.025
MgO	% m/m		1.25	1.341	1.12	1.41	1.43	1.36	1.436	1.5	1.37	1.47		1.43
CaO	% m/m		54.47	52.03	51.51		51.37	53.35	53.54	52.58	53.37	52.81		52.79
Na2O	% m/m				0.07		0.0826		0.075	0.12	0.1		0.006	0.07
K2O	% m/m		0.1		0.10		0.116	0.121	0.1	0.11	0.11	0.102		0.090
P2O5	% m/m		0.03		0.05		0.046	0.046	0.049	0.05	0.05	0.068		0.048
H2O+	% m/m									0.3				
CO2	% m/m										41.4			
LOI	% m/m		42.24	42.16		42		41.49	42.01	42.19	41.79	41.1		41.82
Ag	mg kg^{-1}													
As	mg kg^{-1}		1.1		14.71		0.367			0.31				
Au	mg kg^{-1}													
B	mg kg^{-1}													
Ba	mg kg^{-1}		53		27.7	28.4	26.68	33	25.1	25.7				
Be	mg kg^{-1}				0.355		0.292		0.3	0.48				
Bi	mg kg^{-1}				0.022					0.05				4
Br	mg kg^{-1}													
Cd	mg kg^{-1}													
Ce	mg kg^{-1}	2.6	25		3.32	2.9	2.781		3.4	2.7				
Cl	mg kg^{-1}													
Co	mg kg^{-1}		3		1.84		0.298			1.98				
Cr	mg kg^{-1}		9		2.63		2.402			2.55				
Cs	mg kg^{-1}	2			1.75	1.96	1.963			1.78				
Cu	mg kg^{-1}		3		0.77					1.03				7
Dy	mg kg^{-1}	0.27			0.36		0.301			0.29				
Er	mg kg^{-1}	0.15			0.14		0.178			0.14				
Eu	mg kg^{-1}				0.09		0.086			0.07				
F	mg kg^{-1}													
Ga	mg kg^{-1}	0.6			0.90	0.76	0.92			0.68				
Gd	mg kg^{-1}	0.3			0.39		0.317			0.3				
Ge	mg kg^{-1}	0.18			0.36					0.31				
Hf	mg kg^{-1}				0.14		0.184			0.3				
Hg	mg kg^{-1}													
Ho	mg kg^{-1}				0.05		0.074			0.052				
In	mg kg^{-1}													
La	mg kg^{-1}	1.8			2.12		1.71		1.88	1.76				
Li	mg kg^{-1}				8.90		9.298		8.4	9.24				
Lu	mg kg^{-1}				0.02		0.044			0.015				
Mo	mg kg^{-1}				0.08					0.05				
Nb	mg kg^{-1}	0.5			0.5		0.46			1.88				5
Nd	mg kg^{-1}	1.6	7		1.80	1.7	1.516			1.56				
Ni	mg kg^{-1}		2		39.38		4.18		3	13.9				
Pb	mg kg^{-1}		14		1.55		1.879		3.04	5.94				
Pr	mg kg^{-1}	0.4			0.45	0.4	0.394			0.4				
Rb	mg kg^{-1}	7.5	12		8.0		7.18	13		8.08				14
Re	mg kg^{-1}				0.10									
S	mg kg^{-1}													
Sb	mg kg^{-1}	0.1			0.11		0.128			0.21				
Sc	mg kg^{-1}				0.30					0.89				
Se	mg kg^{-1}				1.77									
Sm	mg kg^{-1}	0.3	7		0.37	0.37	0.279			0.28				
Sn	mg kg^{-1}	0.6			0.29		0.632			0.6				
Sr	mg kg^{-1}		986		1182.7		1046	951	953	1070		1018		1046
Ta	mg kg^{-1}				0.04					0.8				
Tb	mg kg^{-1}				0.05		0.06			0.046				
Te	mg kg^{-1}													
Th	mg kg^{-1}	0.5	2		0.35		0.326			0.3				
Tl	mg kg^{-1}				0.05									
Tm	mg kg^{-1}				0.03		0.039			0.019				
U	mg kg^{-1}	1.2	4.5		1.24	0.98	0.975		0.97	1.04				
V	mg kg^{-1}		3		4.32				3.8	1.48				
W	mg kg^{-1}	0.6			0.27		0.487			0.28				
Y	mg kg^{-1}	2.1	3		2.31		1.941		2.12	2.2				8
Yb	mg kg^{-1}	0.16			0.15		0.17			0.12				
Zn	mg kg^{-1}		5		5.26		3.45		4.7	6.74				
Zr	mg kg^{-1}		8		4.20		6.599			6.04				8

Table 4		GeoPT30A Contributed data for Limestone, ML-2 (December 2011)												
Lab Code		E50	E51	E52	E53	E54	E55	E56	E57	E58	E59	E60	E61	E62
Quality		1	1	2	1	2	1	2	2	1	2	1	2	2
SiO2	% m/m	2.88		2.737		3.518	2.759	2.77	3.33		2.81	2.87	2.64	2.6
TiO2	% m/m	0.020		0.0153	0.0164	0.018	0.01	0.01	0.017		0.02	0.01	0.02	
Al2O3	% m/m	0.44		0.4543		0.57	0.44	0.42	0.523		0.43	0.43	0.36	0.47
Fe2O3T	% m/m	0.14		0.1243		0.16	0.115		0.212	0.13	0.14	0.13	0.14	0.16
Fe(II)O	% m/m			0.1118				0.122					0.2	
MnO	% m/m	0.022	0.0223	0.0148	0.0232	0.024	0.024	0.009	0.023	0.02	0.02	0.02	0.03	0.023
MgO	% m/m	1.39		1.352		1.392	1.351	1.37	1.27		1.34	1.19	1.31	1.34
CaO	% m/m	52.49		53.26		52.617	52.11	50.13	51.8		52.65	51.31	52.65	51.6
Na2O	% m/m	0.04		0.0235		0.19	0.09	0.099			0.13	0.08		
K2O	% m/m	0.10		0.0660		0.1	0.12	0.095	0.102		0.11	0.09	0.12	
P2O5	% m/m	0.046		0.0378		0.032	0.04	0.044	0.046		0.045	0.04	0.04	0.046
H2O+	% m/m	0.2						0.0944					0.21	0.2
CO2	% m/m					41.254		43.3	43.97	11.8			43.1	42.2
LOI	% m/m	42.22		41.91		42.171	42.3	41.3	41.26		42.35	41.83	44.93	40.4
Ag	mg kg^{-1}										0.1			
As	mg kg^{-1}	1.51										0.3		1.1
Au	mg kg^{-1}													
B	mg kg^{-1}													
Ba	mg kg^{-1}	34.0			26.73271	39				27.1	29		27.501	30
Be	mg kg^{-1}	0.64			0.507975					0.43	0.5		0.3754	
Bi	mg kg^{-1}	0.03			0.029904					0.028				
Br	mg kg^{-1}													
Cd	mg kg^{-1}	0.01											0.0193	
Ce	mg kg^{-1}	6.28			2.586606	1.93		2.19		2.46	14.4	13.1	2.8448	2.8
Cl	mg kg^{-1}				0.628803									
Co	mg kg^{-1}	0.95			0.443541	1.19		0.68		2.21	1	0.35	0.7858	1.1
Cr	mg kg^{-1}		4.0		2.773125	7						4.55	3.1452	
Cs	mg kg^{-1}	1.99			1.84414	2.12				1.95	1.8	5.2	1.8526	1.7
Cu	mg kg^{-1}				0.351516	6				1.48	1			
Dy	mg kg^{-1}	0.290			0.27004	0.39		0.26		0.25	0.3		0.2879	0.28
Er	mg kg^{-1}	0.163			0.150267	0.19		0.17		0.14	0.2		0.1621	0.13
Eu	mg kg^{-1}	0.081			0.069745	0.13				0.059	0.1		0.0731	0.07
F	mg kg^{-1}							492						420
Ga	mg kg^{-1}	1.2				0.46					0.7	0.95	0.5649	
Gd	mg kg^{-1}	0.346			0.306099	0.40		0.32		0.28	0.3		0.3405	0.3
Ge	mg kg^{-1}					0.25								
Hf	mg kg^{-1}	0.24			0.137822	0.33					0.2		0.1648	
Hg	mg kg^{-1}													
Ho	mg kg^{-1}	0.060			0.054439	0.07				0.052			0.0577	
In	mg kg^{-1}												0.0042	
La	mg kg^{-1}	2.18			1.709302	1.78		1.38		1.60	4.9		1.815	1.8
Li	mg kg^{-1}	14.0			9.071622					8.00	8		7.3576	
Lu	mg kg^{-1}	0.023			0.020412	0.02				0.017			0.0208	
Mo	mg kg^{-1}										0.1	0.4		
Nb	mg kg^{-1}				0.5	0.73		0.54			0.6		0.542	
Nd	mg kg^{-1}	1.79			1.5311	1.78		1.32		1.33	1.8	20.65	1.6474	1.7
Ni	mg kg^{-1}	1.3	2.0		2.785124	11				7.54			10.1792	
Pb	mg kg^{-1}	1.97			1.75635	7.6				1.40	2	9.45	1.999	1.5
Pr	mg kg^{-1}	0.450			0.383101	0.44		0.32		0.39	0.49		0.4137	0.42
Rb	mg kg^{-1}	9.97			8.243382	9.10		7.27		7.92	8.2	7.85	7.3147	7.9
Re	mg kg^{-1}													
S	mg kg^{-1}		32.0											
Sb	mg kg^{-1}	0.04			0.08274						0.1		0.1805	
Sc	mg kg^{-1}	0.96			0.3			1.56				52	1.168	
Se	mg kg^{-1}													
Sm	mg kg^{-1}	0.351			0.31	0.42		0.28		0.29	0.4		0.329	0.3
Sn	mg kg^{-1}				0.54051	0.96					0.6		0.5848	
Sr	mg kg^{-1}	996			1088.272	1074.7		1010		1034	1100	989	1016.108	1050
Ta	mg kg^{-1}	0.084			0.077778	0.02					0.1		0.061	
Tb	mg kg^{-1}	0.051			0.050568	0.06				0.039			0.0479	
Te	mg kg^{-1}													
Th	mg kg^{-1}	0.45			0.294534	0.38				0.23	0.33		0.3333	
Tl	mg kg^{-1}	0.07			0.0623	0.09					0.07		0.0638	0.1
Tm	mg kg^{-1}				0.021671	0.02				0.019			0.0236	
U	mg kg^{-1}	1.18			1.181685	1.84		1.04		1.12	1.02		1.1898	1
V	mg kg^{-1}	6.2	2.9		2.929726	5		10.3		3.71	2		3.0053	
W	mg kg^{-1}	0.4			0.312257	0.47					0.4		0.3356	
Y	mg kg^{-1}	2.41			1.918456	2.54		1.77		1.93	2.2	2.9	2.0253	2.1
Yb	mg kg^{-1}	0.150			0.12733	0.11				0.13	0.1		0.1422	
Zn	mg kg^{-1}	17.1			3.214602	10				3.42	3	5.65		6
Zr	mg kg^{-1}	17.7			5.191061	41		12.8			3.1	37.7	6.2433	5.6

Table 4		GeoPT30A Contributed data for Limestone, ML-2 (December 2011)												
Lab Code		E63	E64	E65	E66	E67	E68	E69	E69	E70	E71	E72	E73	E74
Quality		1	2	2	2	1	2	1	2	1	2	2	1	2
SiO2	% m/m		2.85	2.95	2.89	2.8	3.02				2.752	2.87	3.408	2.93
TiO2	% m/m			0.017		0.06			0.017			0.01	0.014	0.017
Al2O3	% m/m		0.471	0.44	0.48	1.13		0.416			0.442	0.57	0.523	0.39
Fe2O3T	% m/m		0.142	0.15	0.14	0.21	0.12	0.139				0.13	0.138	0.147
Fe(II)O	% m/m				0.034									
MnO	% m/m			0.025	0.02	0.02		0.022				0.02	0.024	0.023
MgO	% m/m		1.4	1.45	1.36	1.45	1.41	1.26			1.39	1.44	1.416	1.42
CaO	% m/m		52.51	52.47	53.08	49.8	51.98	51.351			52.735	52.35	50.418	52.35
Na2O	% m/m		0.079	0.15		1.5		0.0754				0.04		0.08
K2O	% m/m		0.11	0.09	0.1	0.5		0.107				0.1	0.108	0.1
P2O5	% m/m		0.044	0.053	0.05	0.06						0.05	0.045	0.046
H2O+	% m/m													
CO2	% m/m					40.3	41.54						43.482	
LOI	% m/m				41.75	42.16	42.36				42.19	38.66		41.24
Ag	mg kg^{-1}					0.1								
As	mg kg^{-1}			3	0.065	5.25		0.36					0.317	
Au	mg kg^{-1}					0.005								
B	mg kg^{-1}													
Ba	mg kg^{-1}	27.066			30	61.1	28	32		18.1	25.5		26.2	23
Be	mg kg^{-1}					0.68	0.35				0.4			
Bi	mg kg^{-1}													
Br	mg kg^{-1}			4										
Cd	mg kg^{-1}					0.27							0.037	
Ce	mg kg^{-1}	2.856		2.67		4.43		2.4			2.12		2.46	
Cl	mg kg^{-1}										1676			
Co	mg kg^{-1}	1.496				1.29		0.25			0.6			
Cr	mg kg^{-1}	2.278						2.6		4.4	1.8		2.32	1.6
Cs	mg kg^{-1}	1.714						1.82			1.65		1.787	
Cu	mg kg^{-1}	0.47				24				7.2				
Dy	mg kg^{-1}	0.277		0.273		0.53		0.27			0.25		0.27	
Er	mg kg^{-1}	0.159		0.157		0.27							0.16	
Eu	mg kg^{-1}	0.0714		0.067		0.063		0.069					0.065	
F	mg kg^{-1}													
Ga	mg kg^{-1}	0.673								4.1				
Gd	mg kg^{-1}	0.349		0.313		0.54					0.26		0.295	
Ge	mg kg^{-1}													
Hf	mg kg^{-1}	0.0965						0.18						
Hg	mg kg^{-1}										0.0083			
Ho	mg kg^{-1}	0.0593		0.056		0.1							0.052	
In	mg kg^{-1}													
La	mg kg^{-1}	1.819		2.1		3.24		1.65			1.25		1.76	
Li	mg kg^{-1}						9.2						10.5	
Lu	mg kg^{-1}	0.0263		0.019		0.042		0.02						
Mo	mg kg^{-1}	0.0771				1								
Nb	mg kg^{-1}	0.783								1.9				
Nd	mg kg^{-1}	1.594		1.57	9	2.4			2.1		1.38		1.597	
Ni	mg kg^{-1}	18.13				11.2					1.7			
Pb	mg kg^{-1}	1.878				9.4				4.8				1
Pr	mg kg^{-1}	0.407		0.48									0.387	
Rb	mg kg^{-1}	8.154		8	10			10.3		5.9	7.42		7.21	
Re	mg kg^{-1}													
S	mg kg^{-1}					8.6					175			
Sb	mg kg^{-1}							0.1						
Sc	mg kg^{-1}	0.475		0.38		0.21		0.279					0.266	
Se	mg kg^{-1}												0.063	
Sm	mg kg^{-1}	0.331		0.32		0.4		0.291			0.28		0.345	
Sn	mg kg^{-1}										0.55			
Sr	mg kg^{-1}	1068.6		1012	965	1070	972	990		971.1	1041.6		1043.333	1070
Ta	mg kg^{-1}	0.0966						0.09						
Tb	mg kg^{-1}	0.0491		0.045		0.1		0.043					0.045	
Te	mg kg^{-1}													
Th	mg kg^{-1}	0.34		0.384				0.28			0.37		0.281	
Tl	mg kg^{-1}													
Tm	mg kg^{-1}	0.0251		0.022		0.044								
U	mg kg^{-1}	0.728						0.95			1.03		1.039	
V	mg kg^{-1}	3.104				7.24			1.9					
W	mg kg^{-1}							0.28						
Y	mg kg^{-1}	2.217		2.11	3	3.19				2.9	1.73		1.767	
Yb	mg kg^{-1}	0.1398		0.134		0.27		0.149					0.131	
Zn	mg kg^{-1}	2.897				21.6		4.2		5.6			5.033	6
Zr	mg kg^{-1}	3.993		25		116				10.4	4.91			

Table 4		GeoPT30A Contributed data for Limestone, ML-2 (December 2011)												
Lab Code		E75	E76	E77	E78	E79	E79	E81	E82	E83	E84	E85	E86	E87
Quality		1	1	1	2	1	2	2	2	1	2	2	2	1
SiO2	% m/m		2.863	3	2.9	2.97		0.257	3.122		2.77	2.62	2.738	3.069
TiO2	% m/m		0.004	0.01	0.0234	0.625			0.016		0.02	0.02	0.012	0.005
Al2O3	% m/m	0.45	0.538	0.4	1.58	0.5		2.802	0.512		0.44	0.6	0.427	0.388
Fe2O3T	% m/m	0.15	0.138	0.13	0.171	0.174		0.106	0.165		0.15	0.17	0.215	0.142
Fe(II)O	% m/m													
MnO	% m/m	0.023	0.0226	0.03	0.0258				0.023		0.025	0.02	0.019	0.017
MgO	% m/m	1.4	1.542	1.37		1.457		0.967	1.44		1.39	1.3	1.27	1.296
CaO	% m/m	51.1	53.712	52.5	52.6	54.07		51.741	52.41		52.93	52.29	48.563	52.847
Na2O	% m/m	0.08		0.08		0.135			0.076		0.09	0.08	0.093	
K2O	% m/m		0.027	0.11	0.0457	0.123		0.306	0.131		0.11	0.1	0.058	0.097
P2O5	% m/m		0.0478	0.05					0.052		0.05	0.05	0.04	0.043
H2O+	% m/m											0.5		
CO2	% m/m	45.13			41.4							41.6	40.07	43.42
LOI	% m/m		41.772	42.4		40.5		41.515	42.268		42.04	42.02	41.98	42
Ag	mg kg^{-1}													4.3
As	mg kg^{-1}	0.24	2.2			0.23							10.86	0.8
Au	mg kg^{-1}													
B	mg kg^{-1}													
Ba	mg kg^{-1}	40.2	44.4		32	25.8			86	26.756		72	29.78	42.5
Be	mg kg^{-1}					0.3			0.59				0.51	
Bi	mg kg^{-1}		0.2										0.03	
Br	mg kg^{-1}													
Cd	mg kg^{-1}				3.6								0.03	1
Ce	mg kg^{-1}	1.31	9.8		2.7	3.89			2.75	2.676		2.64	2.86	14.9
Cl	mg kg^{-1}													
Co	mg kg^{-1}	0.8	0.3			0.23			1.25				1.29	2.2
Cr	mg kg^{-1}	2.8	4.9											4.9
Cs	mg kg^{-1}		4.3						1.69	1.898		1.58	0.6	0.3
Cu	mg kg^{-1}				19	1.53			5.1		15.3			4.5
Dy	mg kg^{-1}					0.87			0.29	0.337		0.3	0.33	
Er	mg kg^{-1}					0.7			0.16	0.174		0.13	0.16	
Eu	mg kg^{-1}					0.11			0.075	0.053		0.087	0.07	
F	mg kg^{-1}													
Ga	mg kg^{-1}								0.755				0.77	
Gd	mg kg^{-1}					0.73			0.33	0.314		0.33	0.37	
Ge	mg kg^{-1}													
Hf	mg kg^{-1}								0.316	0.207				
Hg	mg kg^{-1}												0.001	
Ho	mg kg^{-1}					0.18			0.057	0.05			0.06	
In	mg kg^{-1}													
La	mg kg^{-1}	1.67	9.8		3.4	2.57			2.1	1.713		1.68	1.92	
Li	mg kg^{-1}					10				9.062			8.52	
Lu	mg kg^{-1}	0.014				0.13			0.026	0.021			0.03	
Mo	mg kg^{-1}								2.76	0.362				1
Nb	mg kg^{-1}		0.4						1.55	0.457			2.97	
Nd	mg kg^{-1}		4			2.48			1.57	1.453		1.57	1.85	1.7
Ni	mg kg^{-1}		1.5			1.09			12.1				21.93	0.8
Pb	mg kg^{-1}		6.2						1.51	1.977	8.8		1.85	0.8
Pr	mg kg^{-1}					0.6			0.39	0.424		0.38	0.44	
Rb	mg kg^{-1}		10.9		11		9.6		8.4	8.666		13	8.59	9.6
Re	mg kg^{-1}													
S	mg kg^{-1}													2
Sb	mg kg^{-1}	0.27											0.05	
Sc	mg kg^{-1}	0.29							0.38				0.34	
Se	mg kg^{-1}		2.1											0.2
Sm	mg kg^{-1}	0.26				0.41			0.37	0.288		0.32	0.39	4.9
Sn	mg kg^{-1}													
Sr	mg kg^{-1}	1242	1014.8		1200		962		1446	1047.62	1057.7	1050	1020.51	967
Ta	mg kg^{-1}		2.2						0.059				2.28	0.5
Tb	mg kg^{-1}					0.11				0.044		0.055	0.01	
Te	mg kg^{-1}												0.06	
Th	mg kg^{-1}	0.26				0.32			0.327	0.439		0.44	0.63	5.6
Tl	mg kg^{-1}									0.138			0.05	
Tm	mg kg^{-1}					0.08				0.032			0.03	
U	mg kg^{-1}	1.2	1.5		7.3	1.13			0.96	1.162		1.31	1.19	4.7
V	mg kg^{-1}	3.7	3.7			2.53			3.95			3.2	14.19	
W	mg kg^{-1}													1.7
Y	mg kg^{-1}		0.9			4.31			2.1	1.876			2.1	2.8
Yb	mg kg^{-1}	0.14	1.5			0.52			0.14	0.117		0.13	0.18	
Zn	mg kg^{-1}		5.1		12.7	2.35			7.1		4.1		7.55	4.2
Zr	mg kg^{-1}		1.5						8.6	3.854	15.4	30	3.99	

Table 5 GeoPT30A Assigned values and statistical summary of contributed data for Limestone, MI

	Assigned value	Uncertainty of assigned value	Horwitz Target value	Uncertainty /Target	Number of reported results	Robust mean of results	Median of results	Status	Type of assigned value
	X_a	*sdm*	H_a	*sdm*/H_a	*n*				
	% m/m	% m/m	% m/m			% m/m	% m/m		
SiO_2	2.863	0.0196	0.0489	0.401	68	2.87	2.863	**Assigned**	Median
Al_2O_3	0.446	0.0060	0.0100	0.633	70	0.463	0.446	**Provisional**	Median
Fe_2O_3T	0.14	0.0023	0.0038	0.614	68	0.146	0.14	**Provisional**	Median
MnO	0.023	0.0005	0.0008	0.598	65	0.0223	0.023	**Provisional**	Median
MgO	1.388	0.0100	0.0264	0.378	71	1.387	1.392	**Assigned**	Robust mean
CaO	52.5	0.0704	0.5785	0.122	71	52.46	52.5	**Assigned**	Median
K_2O	0.105	0.0020	0.0030	0.809	64	0.105	0.101	**Provisional**	Robust mean
P_2O_5	0.047	0.0010	0.0015	0.689	60	0.047	0.048	**Provisional**	Robust mean
LOI	41.89	0.0521	0.4775	0.109	59	41.81	41.89	**Assigned**	Median
	mg kg^{-1}	mg kg^{-1}	mg kg^{-1}			mg kg^{-1}	mg kg^{-1}		
Ba	27.85	0.761	1.350	0.563	52	29.28	27.85	**Provisional**	Median
Ce	2.74	0.059	0.188	0.315	49	3.162	2.74	**Provisional**	Median
Cs	1.83	0.039	0.134	0.292	37	1.855	1.83	**Assigned**	Median
Dy	0.281	0.005	0.027	0.175	35	0.2871	0.281	**Assigned**	Median
Er	0.16	0.005	0.017	0.271	34	0.163	0.16	**Assigned**	Median
Eu	0.07	0.002	0.008	0.188	32	0.0737	0.07	**Assigned**	Median
Ga	0.698	0.028	0.059	0.466	26	0.8193	0.758	**Provisional**	Mode
Gd	0.319	0.005	0.030	0.179	34	0.3214	0.319	**Assigned**	Median
Ho	0.057	0.001	0.007	0.177	27	0.0571	0.058	**Assigned**	Robust mean
La	1.801	0.040	0.132	0.304	42	1.909	1.801	**Assigned**	Median
Li	8.97	0.236	0.516	0.457	22	8.9722	8.981	**Assigned**	Robust mean
Lu	0.02	0.000	0.003	0.099	27	0.0218	0.02	**Assigned**	Median
Nd	1.591	0.026	0.119	0.223	45	1.777	1.64	**Assigned**	Mode
Pr	0.4	0.008	0.037	0.211	33	0.4053	0.4	**Assigned**	Median
Rb	7.97	0.120	0.467	0.257	55	8.6385	8.154	**Assigned**	Mode
Sm	0.325	0.008	0.031	0.259	40	0.336	0.325	**Assigned**	Median
Sn	0.608	0.011	0.052	0.214	19	0.7283	0.632	**Provisional**	Mode
Sr	1032	8.520	29.040	0.290	64	1031.84	1026.9	**Assigned**	Robust mean
Ta	0.074	0.006	0.009	0.691	23	0.204	0.09	**Provisional**	Mode
Tb	0.049	0.002	0.006	0.248	29	0.0492	0.049	**Assigned**	Robust mean
Th	0.318	0.011	0.030	0.368	38	0.39	0.337	**Assigned**	Mode
Tm	0.021	0.001	0.003	0.200	24	0.0242	0.023	**Provisional**	Mode
U	1.15	0.037	0.090	0.411	44	1.1895	1.146	**Assigned**	Median
V	3.17	0.147	0.213	0.691	39	4.084	3.385	**Provisional**	Mode
W	0.416	0.035	0.038	0.930	20	0.435	0.416	**Provisional**	Median
Y	2.11	0.050	0.151	0.329	49	2.2641	2.11	**Assigned**	Median
Yb	0.14	0.003	0.015	0.172	36	0.147	0.14	**Assigned**	Median

Table 6	GeoPT30A *Z*-scores for contributed data for Limestone, ML-2 (December 2011)												
Lab Code	**E01**	**E02**	**E03**	**E04**	**E05**	**E06**	**E07**	**E08**	**E09**	**E09**	**E10**	**E11**	**E12**
Quality	2	1	1	2	1	2	1	2	1	2	1	1	1
SiO_2	-0.75	-0.88	7.92	-4.84	-1.90	2.58	0.35	0.99	35.54	*	-0.47	0.14	9.96
Al_2O_3	-0.79	-1.59	-1.59	-3.77	13.30	0.40	9.33	-2.28	66.92	*	-1.59	3.38	83.80
Fe_2O_3T	-2.66	-2.66	37.20	1.33	*	-0.53	-5.31	-5.31	7.97	*	-5.31	0.00	37.20
MnO	-4.13	30.52	-15.76	-0.38	-15.76	0.25	-3.25	*	9.26	*	-3.25	0.50	-3.25
MgO	-0.52	0.47	-1.80	0.99	1.98	-2.70	-0.67	1.75	9.93	*	3.12	1.23	-4.07
CaO	0.29	-0.54	-0.09	-0.10	-1.45	1.06	3.28	-0.24	-0.40	*	-0.57	0.10	-3.30
K_2O	-1.12	-11.77	5.25	-4.69	-1.56	2.63	39.30	964.33	8.66	*	-1.56	5.25	-1.56
P_2O_5	-0.66	-4.68	8.76	-5.03	2.04	5.72	-4.68	*	2.04	*	-4.68	8.76	28.91
LOI	0.25	-0.38	-2.16	*	-0.13	-0.92	-2.49	-41.43	0.04	*	0.67	0.57	*
Ba	10.80	*	*	*	*	-5.13	163.06	*	-11.00	*	*	-0.78	-4.48
Ce	-2.50	489.94	*	*	*	*	12.00	*	*	*	*	-1.01	163.35
Cs	*	*	*	*	*	*	1.27	*	106.03	*	*	-0.75	84.33
Dy	*	*	*	*	*	*	*	*	*	*	*	-0.92	*
Er	*	*	*	*	*	*	*	*	*	54.56	*	-1.30	*
Eu	*	*	*	*	*	*	*	*	*	55.66	*	0.00	*
Ga	1.71	*	*	*	*	*	*	*	39.04	*	*	0.20	33.95
Gd	*	*	*	*	*	*	*	*	*	11.26	*	-0.68	*
Ho	*	*	*	*	*	*	*	*	*	*	*	-1.16	*
La	38.69	*	*	*	*	*	*	*	138.07	*	*	-0.99	*
Li	*	*	*	*	*	*	1.99	*	*	*	*	-4.60	*
Lu	*	*	*	*	*	*	*	*	*	*	*	0.00	*
Nd	*	*	*	*	*	*	*	*	62.46	*	*	-0.34	63.30
Pr	*	*	*	*	*	*	*	*	*	49.01	*	-1.55	*
Rb	-8.22	3.70	*	*	0.05	0.03	4.34	*	12.91	*	2.20	0.12	1.98
Sm	7.73	*	*	*	*	*	*	*	*	*	*	-0.34	87.02
Sn	61.02	*	*	*	*	*	1.77	*	7.49	*	*	0.62	*
Sr	-0.15	-2.35	*	-0.03	-1.37	-2.27	-2.51	-9.17	16.33	*	0.52	2.59	-3.21
Ta	*	*	*	*	*	*	3.04	*	*	*	*	-0.41	60.42
Tb	*	*	*	*	*	*	*	*	*	76.82	*	-1.00	*
Th	*	*	*	*	*	*	*	*	121.96	*	155.08	-0.25	121.96
Tm	*	*	*	*	*	*	*	*	*	*	*	-0.21	*
U	*	*	*	*	*	*	2.83	*	*	*	*	-2.29	17.31
V	9.00	-5.48	*	*	55.57	107.62	*	*	8.61	*	*	-0.78	0.63
W	205.44	*	*	*	*	*	4.86	*	*	*	*	-1.99	-8.32
Y	6.27	*	*	*	*	-0.36	1.92	*	*	*	*	-0.66	4.57
Yb	*	*	*	*	*	*	*	*	*	327.50	*	-0.66	50.49

Table 6	GeoPT30A *Z*-scores for contributed data for Limestone, ML-2 (December 2011)												
Lab Code	**E12**	**E13**	**E14**	**E15**	**E16**	**E17**	**E18**	**E19**	**E20**	**E22**	**E23**	**E24**	**E24**
Quality	2	2	1	2	1	2	2	1	2	2	1	1	2
SiO_2	*	-0.57	*	-2.69	-12.54	3.65	0.17	14.88	-0.39	2.73	3.83	-7.43	*
Al_2O_3	*	-1.59	*	-2.28	-39.32	3.18	0.70	10.33	4.15	-1.29	8.34	9.33	*
Fe_2O_3T	*	-3.32	*	7.97	-23.91	0.00	-2.66	23.91	22.68	-2.66	2.66	7.97	*
MnO	*	0.88	*	-0.06	-2.00	-1.63	-1.63	-3.25	7.88	-0.38	-3.25	*	-7.25
MgO	*	-0.28	*	-1.66	91.89	0.99	-0.14	6.53	0.44	-1.51	1.60	*	3.38
CaO	*	0.33	*	0.35	-1.78	0.14	0.18	-1.95	0.20	0.63	-1.88	3.42	*
K_2O	*	-0.61	*	2.63	-8.36	-2.48	0.93	18.87	2.88	-2.48	1.85	*	*
P_2O_5	*	-2.34	*	-5.70	1.37	4.04	4.38	2.04	1.89	-2.34	2.04	*	0.68
LOI	-0.18	0.18	*	0.22	-0.09	-0.14	0.04	-0.46	-0.09	*	-0.86	*	-2.50
Ba	*	0.46	-9.66	0.43	-3.30	*	0.09	*	-0.68	-2.91	0.85	*	*
Ce	*	4.14	-1.47	0.21	-1.83	*	-0.05	*	-1.01	*	-0.74	*	0.69
Cs	*	2.88	0.78	0.64	-1.76	*	-3.85	*	-0.95	*	*	*	1.50
Dy	*	*	0.77	-0.02	-1.54	*	-0.02	*	0.00	*	0.70	*	0.35
Er	*	*	1.07	0.30	-0.83	*	0.00	*	-0.53	*	2.37	*	0.59
Eu	*	*	-0.48	0.00	-1.20	*	0.00	*	-0.12	*	*	*	1.20
Ga	*	*	*	-0.24	-1.72	*	-0.16	*	0.78	*	*	*	-0.66
Gd	*	*	0.18	0.02	-0.38	*	0.02	*	-0.62	*	*	*	0.52
Ho	*	*	0.41	0.20	-0.30	*	0.20	*	-0.44	*	*	*	0.20
La	*	3.41	0.00	0.49	-2.29	*	-0.27	*	-0.83	*	-3.80	*	0.61
Li	*	*	*	-0.38	-0.14	*	2.35	*	-0.71	*	*	*	-0.94
Lu	*	*	*	0.00	-0.69	*	0.17	*	0.17	*	62.45	*	*
Nd	*	70.00	-0.90	0.29	-1.86	115.52	-0.04	*	-0.54	*	-3.29	*	0.63
Pr	*	*	-1.63	0.82	-1.36	*	-0.27	*	-0.67	*	*	*	0.41
Rb	*	0.24	1.48	0.10	-1.25	3.24	-2.97	*	-0.13	*	19.34	*	-4.26
Sm	*	*	-1.29	0.42	-0.86	*	0.09	*	0.14	*	*	*	0.25
Sn	*	-0.07	*	0.50	-0.07	*	*	*	2.52	*	*	*	9.47
Sr	*	-0.58	-0.92	-0.44	-0.27	-1.39	1.97	*	1.83	*	-1.44	*	0.31
Ta	*	*	3.04	*	116.43	*	-0.78	*	-1.52	*	*	*	-0.78
Tb	*	*	1.43	-0.09	-1.48	*	-0.09	*	0.23	*	*	*	0.07
Th	*	*	-0.02	0.20	-1.78	*	-0.46	*	-0.51	*	*	*	0.54
Tm	*	*	3.17	0.40	-0.55	*	0.40	*	0.74	*	*	*	-0.11
U	*	8.10	3.04	-0.53	-2.37	32.59	-0.26	*	-1.51	*	-2.74	*	0.19
V	*	-1.33	0.33	-0.63	1.03	*	-0.02	*	18.84	*	3.91	*	2.66
W	*	*	2.89	2.17	0.41	*	*	*	-1.01	*	*	*	1.11
Y	*	5.60	3.38	-0.36	-2.14	-0.36	0.76	*	0.05	*	-2.72	*	-0.23
Yb	*	*	1.26	0.00	-0.86	*	0.00	*	-0.37	*	50.49	*	0.33

Table 6	GeoPT30A *Z*-scores for contributed data for Limestone, ML-2 (December 2011)												
Lab Code	**E25**	**E26**	**E26**	**E27**	**E28**	**E29**	**E29**	**E30**	**E31**	**E32**	**E33**	**E34**	**E35**
Quality	1	1	2	2	2	1	2	2	2	1	2	1	2
SiO_2	*	1.78	*	0.00	-1.08	*	*	*	*	2.80	2.53	-9.47	-2.49
Al_2O_3	*	-8.54	*	7.99	0.70	*	*	*	*	-3.57	1.49	-6.65	-3.08
Fe_2O_3T	*	0.00	*	7.57	0.27	*	*	*	*	2.66	-1.33	-2.66	2.79
MnO	*	9.26	*	0.88	1.50	*	*	*	*	0.50	2.13	1.75	0.88
MgO	*	4.25	*	-0.47	0.71	*	*	*	*	0.85	1.94	-7.10	-0.90
CaO	*	0.62	*	0.00	-0.11	*	*	*	*	-0.31	2.16	3.28	0.52
K_2O	*	-11.77	*	-0.61	-0.61	*	*	*	*	8.66	1.61	-25.39	-2.65
P_2O_5	*	2.04	*	-2.00	1.35	*	*	*	*	-10.73	2.53	-24.84	*
LOI	*	-0.38	*	0.20	0.20	*	*	*	*	0.00	-0.20	*	*
Ba	0.41	20.92	*	-4.50	*	*	*	-2.61	*	-2.41	*	-3.22	*
Ce	-0.21	*	*	*	69.73	-0.21	*	0.00	*	-3.13	*	*	*
Cs	-3.44	*	*	*	*	*	*	-0.30	*	0.00	*	*	*
Dy	-0.04	*	*	*	*	0.33	*	-0.02	*	-1.51	*	*	*
Er	0.59	*	*	*	*	0.59	*	-0.59	*	-1.19	*	*	*
Eu	0.00	*	*	*	*	1.20	*	-0.60	*	-1.20	*	*	*
Ga	*	*	*	*	28.00	0.88	*	*	*	*	*	3.42	*
Gd	0.38	*	*	*	*	-2.59	*	-0.64	*	-1.27	*	*	*
Ho	0.41	*	*	*	*	0.41	*	-0.51	*	-1.02	*	*	*
La	-5.31	*	*	*	*	3.03	*	0.15	*	-1.45	*	*	*
Li	*	*	*	*	*	*	*	0.56	*	*	*	*	*
Lu	0.00	*	*	*	*	0.00	*	0.00	*	0.00	*	*	*
Nd	0.42	*	*	*	*	0.08	*	-0.26	*	-0.85	*	*	*
Pr	-0.27	*	*	*	*	-0.82	*	-0.14	*	-1.09	*	*	*
Rb	-1.36	0.27	*	*	4.31	-5.73	*	*	*	-0.82	*	-0.37	*
Sm	-0.47	*	*	*	*	-0.47	*	-0.07	*	-0.80	*	*	*
Sn	*	*	*	*	*	*	*	*	*	*	*	20.86	*
Sr	-4.26	-0.88	*	*	6.08	5.89	*	0.83	*	0.42	*	1.52	*
Ta	1.89	*	*	*	*	*	*	*	*	0.74	*	*	*
Tb	0.13	*	*	*	*	0.13	*	-0.74	*	-1.48	*	*	*
Th	2.40	*	*	*	27.86	*	16.27	-1.62	*	-1.25	*	*	*
Tm	-0.21	*	*	*	*	-0.21	*	-0.11	*	-0.21	*	*	*
U	1.16	*	*	*	*	*	4.76	-1.48	*	-0.40	*	*	*
V	-1.49	*	*	*	9.00	*	*	-1.35	*	*	*	*	*
W	*	*	*	*	*	*	*	*	*	*	*	*	*
Y	-2.39	*	*	*	-3.68	0.13	*	-0.73	*	-1.13	*	7.89	*
Yb	0.66	*	*	*	*	0.66	*	-0.33	*	-1.33	*	*	*

Table 6	GeoPT30A *Z*-scores for contributed data for Limestone, ML-2 (December 2011)												
Lab Code	**E37**	**E38**	**E39**	**E40**	**E41**	**E42**	**E43**	**E44**	**E45**	**E46**	**E47**	**E48**	**E48**
Quality	2	2	1	2	1	2	2	2	2	2	2	1	2
SiO_2	-4.84	*	-2.31	2.47	*	2.22	*	0.28	-0.11	-0.44	-0.03	-1.49	*
Al_2O_3	-1.79	*	1.39	*	-7.55	0.70	0.45	-0.79	-2.28	0.70	-0.30	-0.89	*
Fe_2O_3T	1.33	*	23.91	*	-2.66	*	0.80	1.33	-3.19	5.31	0.00	-5.31	*
MnO	*	*	-3.25	*	-3.25	*	0.88	0.88	*	4.63	-1.63	3.00	*
MgO	0.80	*	-5.21	-0.88	-10.13	0.42	0.80	-0.52	0.92	2.13	-0.33	3.12	*
CaO	0.05	*	3.41	-0.41	-1.71	*	-0.98	0.73	0.90	0.07	0.75	0.54	*
K_2O	*	*	-1.56	*	-1.56	*	1.95	2.80	-0.78	0.93	0.93	-0.87	*
P_2O_5	*	*	-11.40	*	2.04	*	-0.33	-0.33	0.68	1.02	1.02	14.13	*
LOI	*	*	0.73	0.28	*	0.12	*	-0.42	0.13	0.31	-0.10	-1.65	*
Ba	*	*	18.63	*	-0.11	0.20	-0.43	1.91	-1.02	-0.80	*	*	*
Ce	*	-0.37	118.21	*	3.08	0.43	0.11	*	1.75	-0.11	*	*	*
Cs	*	0.64	*	*	-0.60	0.49	0.50	*	*	-0.19	*	*	*
Dy	*	-0.20	*	*	2.90	*	0.37	*	*	0.17	*	*	*
Er	*	-0.30	*	*	-1.19	*	0.53	*	*	-0.59	*	*	*
Eu	*	*	*	*	2.39	*	0.96	*	*	0.00	*	*	*
Ga	*	-0.83	*	*	3.42	0.52	1.88	*	*	-0.16	*	*	*
Gd	*	-0.31	*	*	2.36	*	-0.02	*	*	-0.31	*	*	*
Ho	*	*	*	*	-1.02	*	1.20	*	*	-0.37	*	*	*
La	*	0.00	*	*	2.42	*	-0.34	*	0.30	-0.15	*	*	*
Li	*	*	*	*	-0.14	*	0.32	*	-0.55	0.26	*	*	*
Lu	*	*	*	*	0.00	*	4.16	*	*	-0.87	*	*	*
Nd	*	0.04	45.60	*	1.77	0.46	-0.31	*	*	-0.13	*	*	*
Pr	*	0.00	*	*	1.36	0.00	-0.08	*	*	0.00	*	*	*
Rb	*	-0.51	8.63	*	0.05	*	-0.85	5.38	*	0.11	*	*	*
Sm	*	-0.40	217.12	*	1.48	0.74	-0.74	*	*	-0.72	*	*	*
Sn	*	-0.07	*	*	-6.06	*	0.23	*	*	-0.07	*	*	*
Sr	*	*	-1.58	*	5.19	*	0.24	-1.39	-1.36	0.66	*	-0.48	*
Ta	*	*	*	*	-3.85	*	*	*	*	41.69	*	*	*
Tb	*	*	*	*	0.13	*	0.87	*	*	-0.26	*	*	*
Th	*	3.02	55.72	*	1.07	*	0.14	*	*	-0.29	*	*	*
Tm	*	*	*	*	3.17	*	3.11	*	*	-0.27	*	*	*
U	*	0.30	37.35	*	1.05	-0.92	-0.95	*	-0.98	-0.59	*	*	*
V	*	*	-0.78	*	5.42	*	*	*	1.49	-3.96	*	*	*
W	*	2.43	*	*	-3.84	*	0.94	*	*	-1.79	*	*	*
Y	*	-0.03	5.90	*	1.33	*	-0.56	*	0.03	0.30	*	*	*
Yb	*	0.66	*	*	0.66	*	1.00	*	*	-0.66	*	*	*

Table 6	GeoPT30A *Z*-scores for contributed data for Limestone, ML-2 (December 2011)												
Lab Code	**E49**	**E50**	**E51**	**E52**	**E53**	**E54**	**E55**	**E56**	**E57**	**E58**	**E59**	**E60**	**E61**
Quality	2	1	1	2	1	2	1	2	2	1	2	1	2
SiO_2	-0.13	0.35	*	-1.29	*	6.70	-2.13	-0.95	4.78	*	-0.54	0.14	-2.28
Al_2O_3	-0.30	-0.60	*	0.41	*	6.16	-0.60	-1.29	3.82	*	-0.79	-1.59	-4.27
Fe_2O_3T	0.00	0.00	*	-2.09	*	2.66	-6.64	*	9.56	-2.66	0.00	-2.66	0.00
MnO	1.50	-0.75	-0.38	-4.88	0.75	0.88	1.75	-8.51	0.25	-3.25	-1.63	-3.25	4.63
MgO	0.80	0.09	*	-0.67	*	0.08	-1.39	-0.33	-2.23	*	-0.90	-7.48	-1.47
CaO	0.25	-0.02	*	0.66	*	0.10	-0.67	-2.05	-0.61	*	0.13	-2.06	0.13
K_2O	-2.48	-1.56	*	-6.57	*	-0.78	5.25	-1.63	-0.44	*	0.93	-4.96	2.63
P_2O_5	0.35	-0.65	*	-3.08	*	-5.03	-4.68	-1.00	-0.33	*	-0.66	-4.68	-2.34
LOI	-0.07	0.69	*	0.02	*	0.29	0.86	-0.62	-0.66	*	0.48	-0.13	3.18
Ba	*	4.56	*	*	-0.83	4.13	*	*	*	-0.56	0.43	*	-0.13
Ce	*	18.80	*	*	-0.82	-2.15	*	-1.46	*	-1.49	30.96	55.02	0.28
Cs	*	1.20	*	*	0.11	1.09	*	*	*	0.90	-0.11	25.22	0.09
Dy	*	0.33	*	*	-0.40	2.00	*	-0.39	*	-1.14	0.35	*	0.13
Er	*	0.18	*	*	-0.58	0.89	*	0.30	*	-1.19	1.19	*	0.06
Eu	*	1.32	*	*	-0.03	3.59	*	*	*	-1.32	1.80	*	0.19
Ga	*	8.51	*	*	*	-2.02	*	*	*	*	0.01	4.27	-1.13
Gd	*	0.91	*	*	-0.41	1.35	*	0.02	*	-1.27	-0.31	*	0.36
Ho	*	0.41	*	*	-0.38	0.91	*	*	*	-0.73	*	*	0.04
La	*	2.88	*	*	-0.69	-0.08	*	-1.60	*	-1.52	11.76	*	0.06
Li	*	9.75	*	*	0.19	*	*	*	*	-1.88	-0.94	*	-1.57
Lu	*	1.04	*	*	0.14	0.00	*	*	*	-1.04	*	*	0.14
Nd	*	1.68	*	*	-0.50	0.80	*	-1.14	*	-2.20	0.88	160.66	0.24
Pr	*	1.36	*	*	-0.46	0.54	*	-1.09	*	-0.27	1.23	*	0.19
Rb	6.46	4.28	*	*	0.58	1.21	*	-0.76	*	-0.12	0.24	-0.27	-0.71
Sm	*	0.86	*	*	-0.47	1.55	*	-0.72	*	-1.12	1.23	*	0.07
Sn	*	*	*	*	-1.28	3.36	*	*	*	*	-0.07	*	-0.22
Sr	0.24	-1.23	*	*	1.94	0.74	*	-0.38	*	0.07	1.17	-1.47	-0.27
Ta	*	1.20	*	*	0.49	-3.07	*	*	*	*	1.52	*	-0.72
Tb	*	0.30	*	*	0.23	0.87	*	*	*	-1.64	*	*	-0.10
Th	*	4.38	*	*	-0.77	1.03	*	*	*	-2.90	0.20	*	0.26
Tm	*	*	*	*	0.35	-0.11	*	*	*	-0.55	*	*	0.50
U	*	0.38	*	*	0.40	3.86	*	-0.59	*	-0.29	-0.70	*	0.24
V	*	14.25	-1.25	*	-1.11	4.31	*	16.75	*	2.55	-2.74	*	-0.38
W	*	-0.41	*	*	-2.72	0.72	*	*	*	*	-0.20	*	-1.05
Y	19.53	1.99	*	*	-1.27	1.43	*	-1.13	*	-1.19	0.30	5.24	-0.28
Yb	*	0.66	*	*	-0.84	-1.00	*	*	*	-0.66	-1.33	*	0.07

Table 6	GeoPT30A *Z*-scores for contributed data for Limestone, ML-2 (December 2011)												
Lab Code	**E62**	**E63**	**E64**	**E65**	**E66**	**E67**	**E68**	**E69**	**E69**	**E70**	**E71**	**E72**	**E73**
Quality	2	1	2	2	2	1	2	1	2	1	2	2	1
SiO_2	-2.69	*	-0.13	0.89	0.28	-1.29	1.61	*	*	*	-1.14	0.07	11.15
Al_2O_3	1.19	*	1.24	-0.30	1.69	67.91	*	-2.98	*	*	-0.20	6.16	7.65
Fe_2O_3T	2.66	*	0.27	1.33	0.00	18.60	-2.66	-0.27	*	*	*	-1.33	-0.53
MnO	0.25	*	*	1.50	-1.63	-3.25	*	-0.75	*	*	*	-1.63	1.75
MgO	-0.90	*	0.23	1.18	-0.52	2.36	0.42	-4.83	*	*	0.05	0.99	1.07
CaO	-0.78	*	0.01	-0.03	0.50	-4.67	-0.45	-1.99	*	*	0.20	-0.13	-3.60
K_2O	*	*	0.93	-2.48	-0.78	134.62	*	0.83	*	*	*	-0.78	1.17
P_2O_5	-0.33	*	-1.00	2.03	1.02	8.76	*	*	*	*	*	1.02	-1.32
LOI	-1.56	*	*	*	-0.15	0.57	0.49	*	*	*	0.31	-3.38	*
Ba	0.80	-0.58	*	*	0.80	24.63	0.06	3.07	*	-7.22	-0.87	*	-1.22
Ce	0.16	0.62	*	-0.19	*	8.98	*	-1.81	*	*	-1.65	*	-1.49
Cs	-0.49	-0.87	*	*	*	*	*	-0.08	*	*	-0.67	*	-0.32
Dy	-0.02	-0.15	*	-0.15	*	9.15	*	-0.40	*	*	-0.57	*	-0.40
Er	-0.89	-0.06	*	-0.09	*	6.52	*	*	*	*	*	*	0.00
Eu	0.00	0.17	*	-0.18	*	-0.84	*	-0.12	*	*	*	*	-0.60
Ga	*	-0.43	*	*	*	*	*	*	*	57.70	*	*	*
Gd	-0.31	1.01	*	-0.09	*	7.32	*	*	*	*	-0.97	*	-0.78
Ho	*	0.31	*	-0.08	*	6.10	*	*	*	*	*	*	-0.73
La	0.00	0.14	*	1.14	*	10.92	*	-1.14	*	*	-2.09	*	-0.31
Li	*	*	*	*	*	*	0.22	*	*	*	*	*	2.96
Lu	*	2.19	*	-0.17	*	7.63	*	0.00	*	*	*	*	*
Nd	0.46	0.03	*	-0.09	31.23	6.82	*	*	2.15	*	-0.89	*	0.05
Pr	0.27	0.19	*	1.09	*	*	*	*	*	*	*	*	-0.35
Rb	-0.08	0.38	*	0.03	2.17	*	*	4.98	*	-4.45	-0.59	*	-1.64
Sm	-0.40	0.21	*	-0.07	*	2.46	*	-1.09	*	*	-0.72	*	0.67
Sn	*	*	*	*	*	*	*	*	*	*	-0.55	*	*
Sr	0.31	1.27	*	-0.34	-1.15	1.31	-1.03	-1.44	*	-2.09	0.17	*	0.40
Ta	*	2.65	*	*	*	*	*	1.89	*	*	*	*	*
Tb	*	-0.01	*	-0.34	*	8.21	*	-1.00	*	*	*	*	-0.67
Th	*	0.74	*	1.10	*	*	*	-1.25	*	*	0.87	*	-1.21
Tm	*	1.51	*	0.23	*	7.90	*	*	*	*	*	*	*
U	-0.81	-4.65	*	*	*	*	*	-2.18	*	*	-0.65	*	-1.19
V	*	-0.29	*	*	*	19.13	*	*	-2.97	*	*	*	*
W	*	*	*	*	*	*	*	-3.57	*	*	*	*	*
Y	-0.03	0.71	*	0.00	2.95	7.16	*	*	*	5.24	-1.26	*	-2.27
Yb	*	-0.01	*	-0.20	*	8.64	*	0.60	*	*	*	*	-0.60

Table 6	GeoPT30A *Z*-scores for contributed data for Limestone, ML-2 (December 2011)													
Lab Code	**E74**	**E75**	**E76**	**E77**	**E78**	**E79**	**E79**	**E81**	**E82**	**E83**	**E84**	**E85**	**E86**	**E87**
Quality	2	1	1	1	2	1	2	2	2	1	2	2	2	1
SiO_2	0.69	*	0.00	2.80	0.38	2.19	*	-26.66	2.65	*	-0.95	-2.49	-1.28	4.22
Al_2O_3	-2.78	0.40	9.13	-4.57	56.30	5.36	*	116.96	3.28	*	-0.30	7.65	-0.94	-5.76
Fe_2O_3T	0.93	2.66	-0.53	-2.66	4.12	9.03	*	-4.52	3.32	*	1.33	3.99	9.96	0.53
MnO	0.25	0.50	0.00	9.26	2.00	*	*	*	0.25	*	1.50	-1.63	-2.25	-7.00
MgO	0.61	0.47	5.84	-0.67	*	2.63	*	-7.96	0.99	*	0.05	-1.66	-2.23	-3.47
CaO	-0.13	-2.42	2.10	0.00	0.09	2.71	*	-0.66	-0.08	*	0.37	-0.18	-3.40	0.60
K_2O	-0.78	*	-26.41	1.85	-10.02	6.28	*	34.29	4.50	*	0.93	-0.78	-7.93	-2.58
P_2O_5	-0.33	*	0.56	2.04	*	*	*	*	1.69	*	1.02	1.02	-2.34	-2.67
LOI	-0.68	*	-0.25	1.07	*	-2.91	*	-0.39	0.40	*	0.16	0.14	0.09	0.23
Ba	-1.80	9.15	12.26	*	1.54	-1.52	*	*	21.54	-0.81	*	16.35	0.72	10.85
Ce	*	-7.59	37.49	*	-0.11	6.11	*	*	0.03	-0.34	*	-0.27	0.32	64.58
Cs	*	*	18.48	*	*	*	*	*	-0.52	0.51	*	-0.94	-4.60	-11.45
Dy	*	*	*	*	*	21.65	*	*	0.17	2.06	*	0.35	0.90	*
Er	*	*	*	*	*	32.03	*	*	0.00	0.83	*	-0.89	0.00	*
Eu	*	*	*	*	*	4.79	*	*	0.30	-2.03	*	1.02	0.00	*
Ga	*	*	*	*	*	*	*	*	0.48	*	*	*	0.61	*
Gd	*	*	*	*	*	13.60	*	*	0.19	-0.15	*	0.19	0.85	*
Ho	*	*	*	*	*	17.47	*	*	-0.01	-1.02	*	*	0.20	*
La	*	-0.99	60.69	*	6.07	5.84	*	*	1.14	-0.66	*	-0.46	0.45	*
Li	*	*	*	*	*	1.99	*	*	*	0.17	*	*	-0.44	*
Lu	*	-2.08	*	*	*	38.17	*	*	1.04	0.35	*	*	1.73	*
Nd	*	*	20.31	*	*	7.50	*	*	-0.09	-1.16	*	-0.09	1.09	0.92
Pr	*	*	*	*	*	5.45	*	*	-0.14	0.65	*	-0.27	0.54	*
Rb	*	*	6.27	*	3.24	*	1.74	*	0.46	1.48	*	5.38	0.66	3.48
Sm	*	-2.10	*	*	*	2.78	*	*	0.74	-1.19	*	-0.07	1.07	148.82
Sn	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Sr	0.66	7.24	-0.59	*	2.89	*	-1.20	*	7.13	0.54	0.45	0.31	-0.19	-2.23
Ta	*	*	244.06	*	*	*	*	*	-0.84	*	*	*	126.62	48.95
Tb	*	*	*	*	*	9.83	*	*	*	-0.84	*	0.47	-3.16	*
Th	*	-1.91	*	*	*	0.08	*	*	0.16	4.02	*	2.03	5.17	174.95
Tm	*	*	*	*	*	20.07	*	*	*	3.84	*	*	1.58	*
U	*	0.60	3.94	*	34.27	-0.18	*	*	-1.04	0.18	*	0.91	0.25	39.58
V	*	2.50	2.50	*	*	-2.99	*	*	1.84	*	*	0.08	25.88	*
W	*	*	*	*	*	*	*	*	*	*	*	*	*	33.87
Y	*	*	-8.02	*	*	14.59	*	*	-0.03	-1.55	*	*	-0.03	4.57
Yb	*	0.00	90.35	*	*	25.24	*	*	0.00	-1.53	*	-0.33	1.33	*

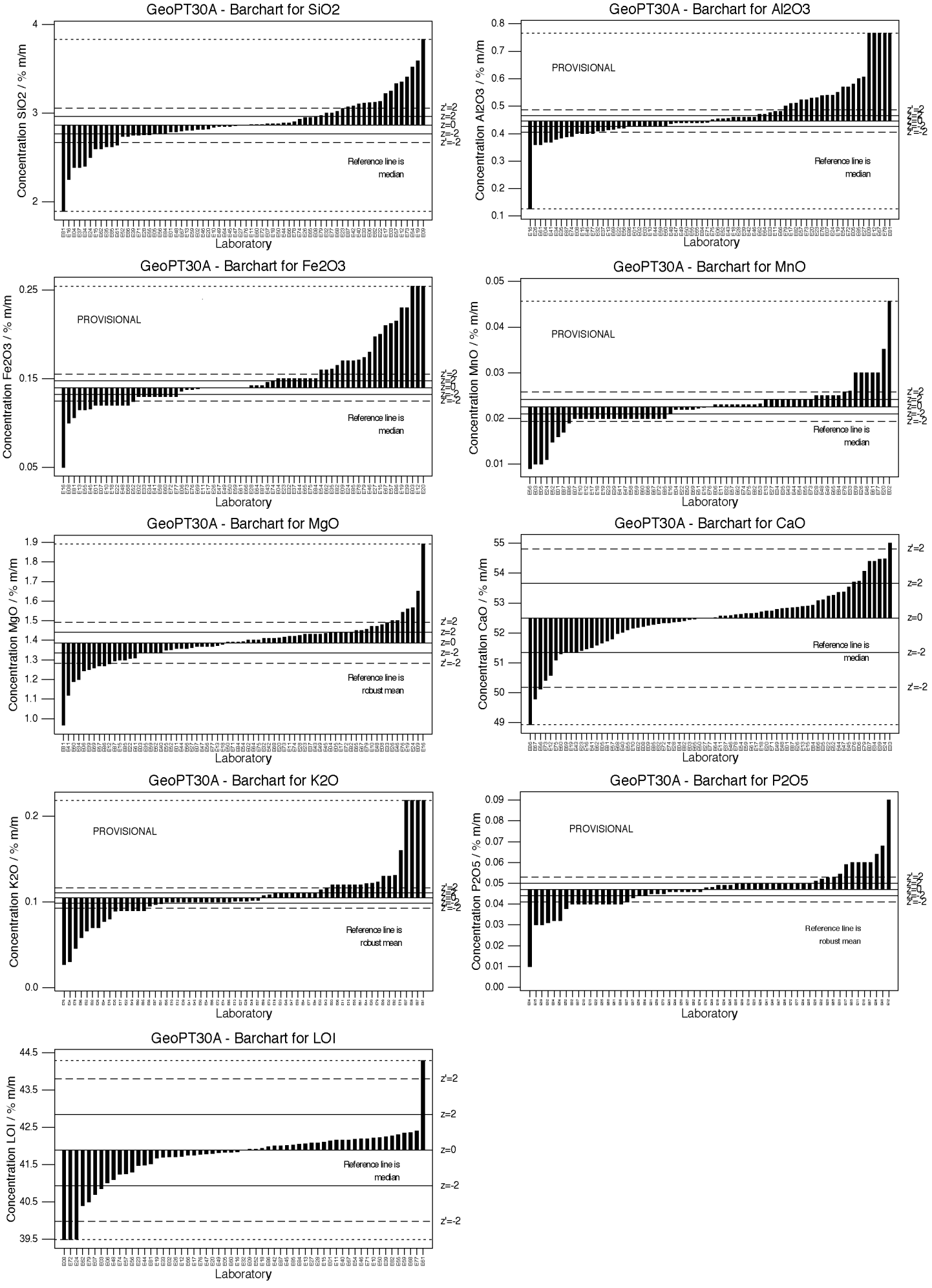
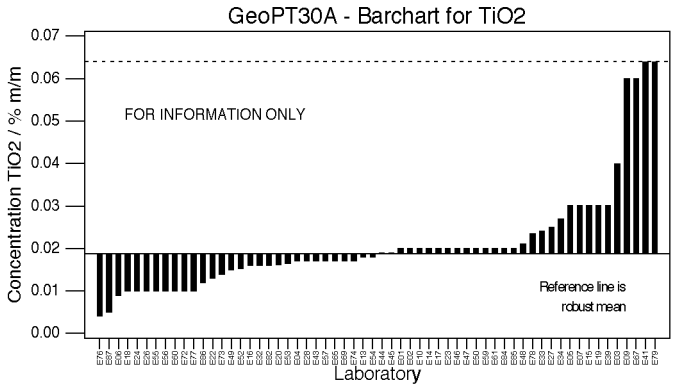
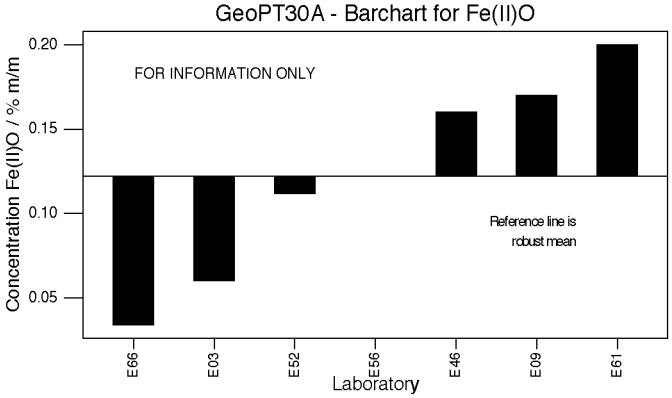
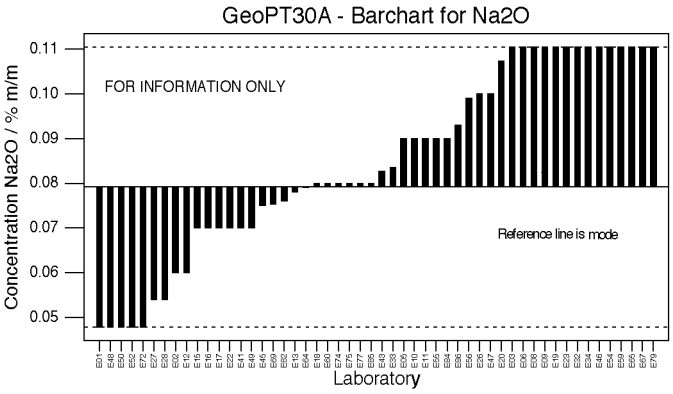
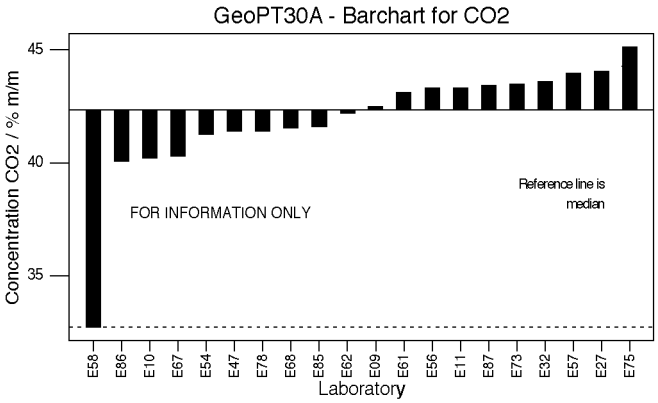


Figure 4.1: GeoPT30A – Limestone, ML-2. Data distribution charts for elements for which values were assigned or provisional values given for guidance. Horizontal lines show the limits for -2<z<2 for pure geochemistry labs (solid lines) and -2<z'<2 for applied geochemistry labs (pecked lines).









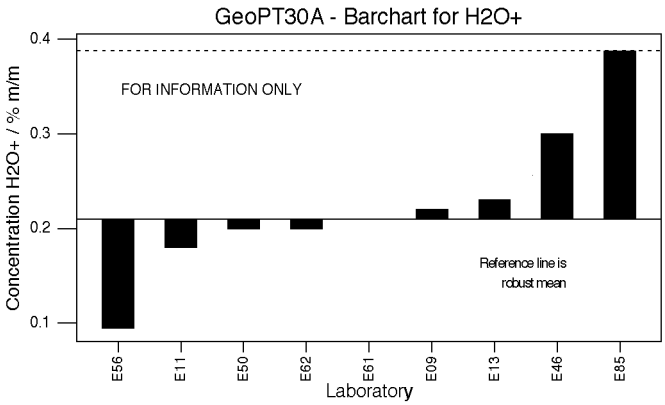
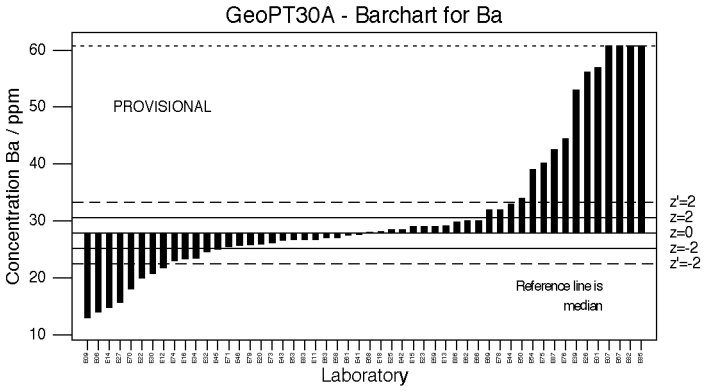
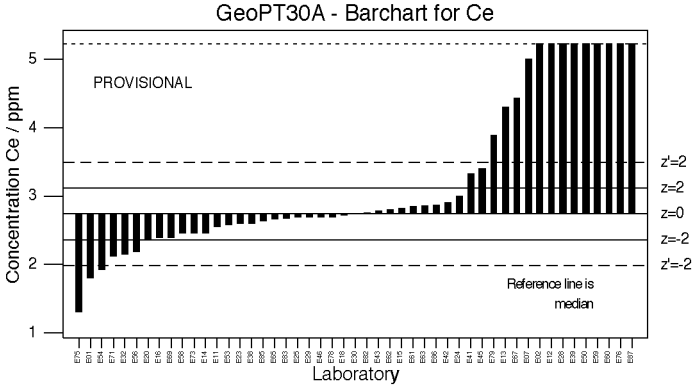


Figure 5.1: GeoPT30A – Limestone, ML-2. Data distribution charts for information only for elements for which values could not be assigned.





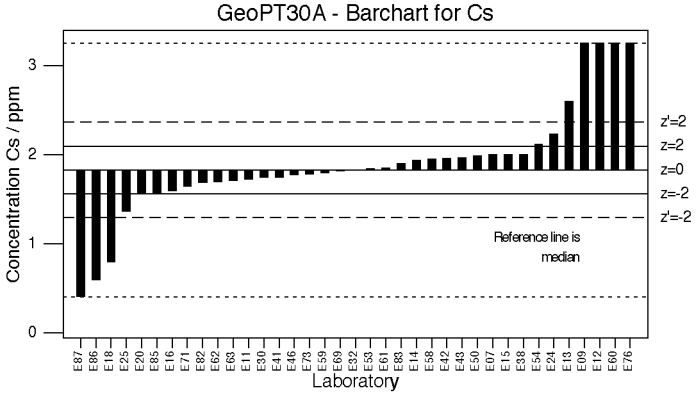


Figure 4.2: GeoPT30A – Limestone, ML-2. Data distribution charts for elements for which values were assigned or provisional values given for guidance. Horizontal lines show the limits for -2<z<2 for pure geochemistry labs (solid lines) and -2<z'<2 for applied geochemistry labs (pecked lines).

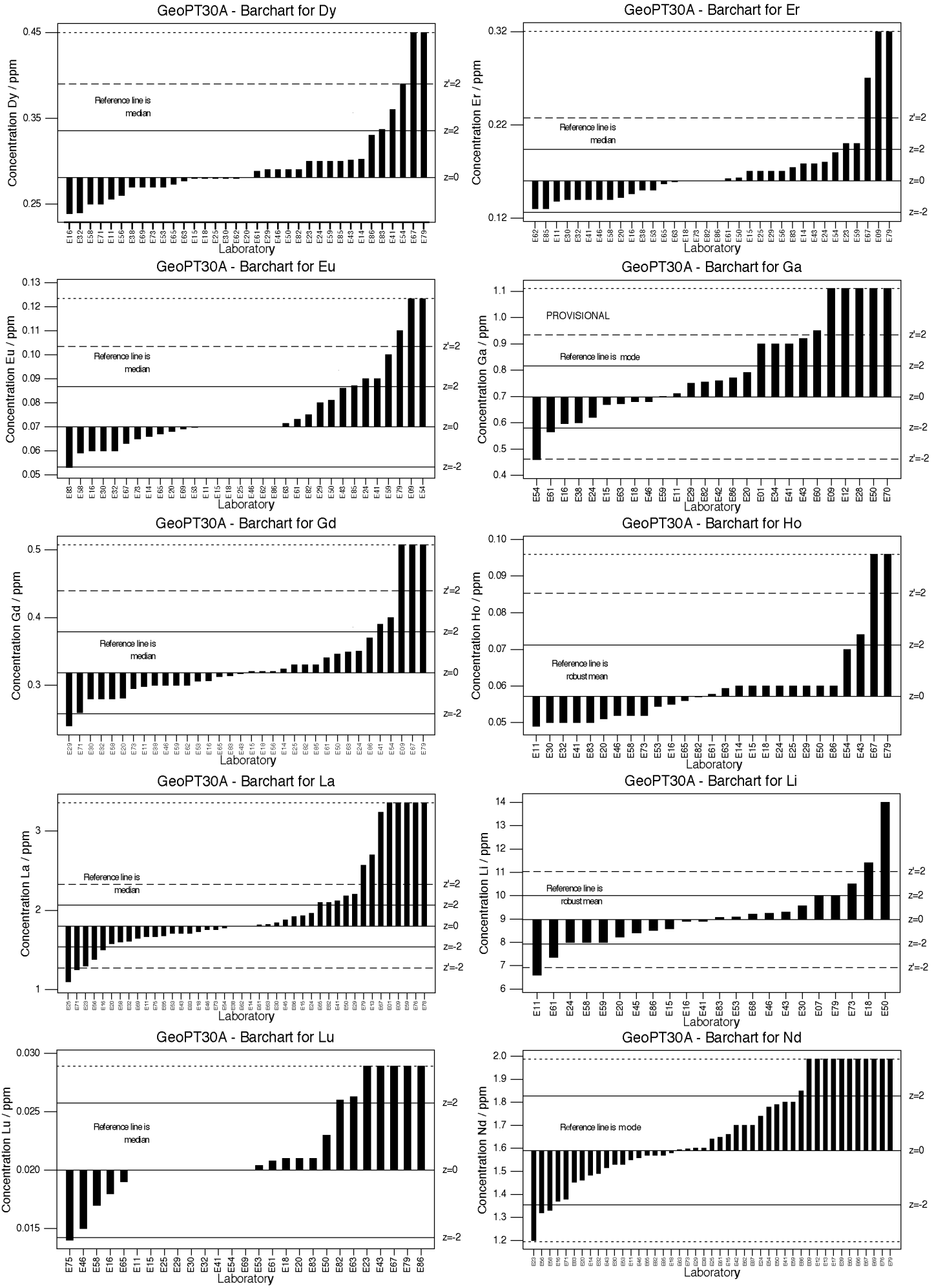


Figure 4.3: GeoPT30A – Limestone, ML-2. Data distribution charts for elements for which values were assigned or provisional values given for guidance. Horizontal lines show the limits for -2<z<2 for pure geochemistry labs (solid lines) and -2<z'<2 for applied geochemistry labs (pecked lines).

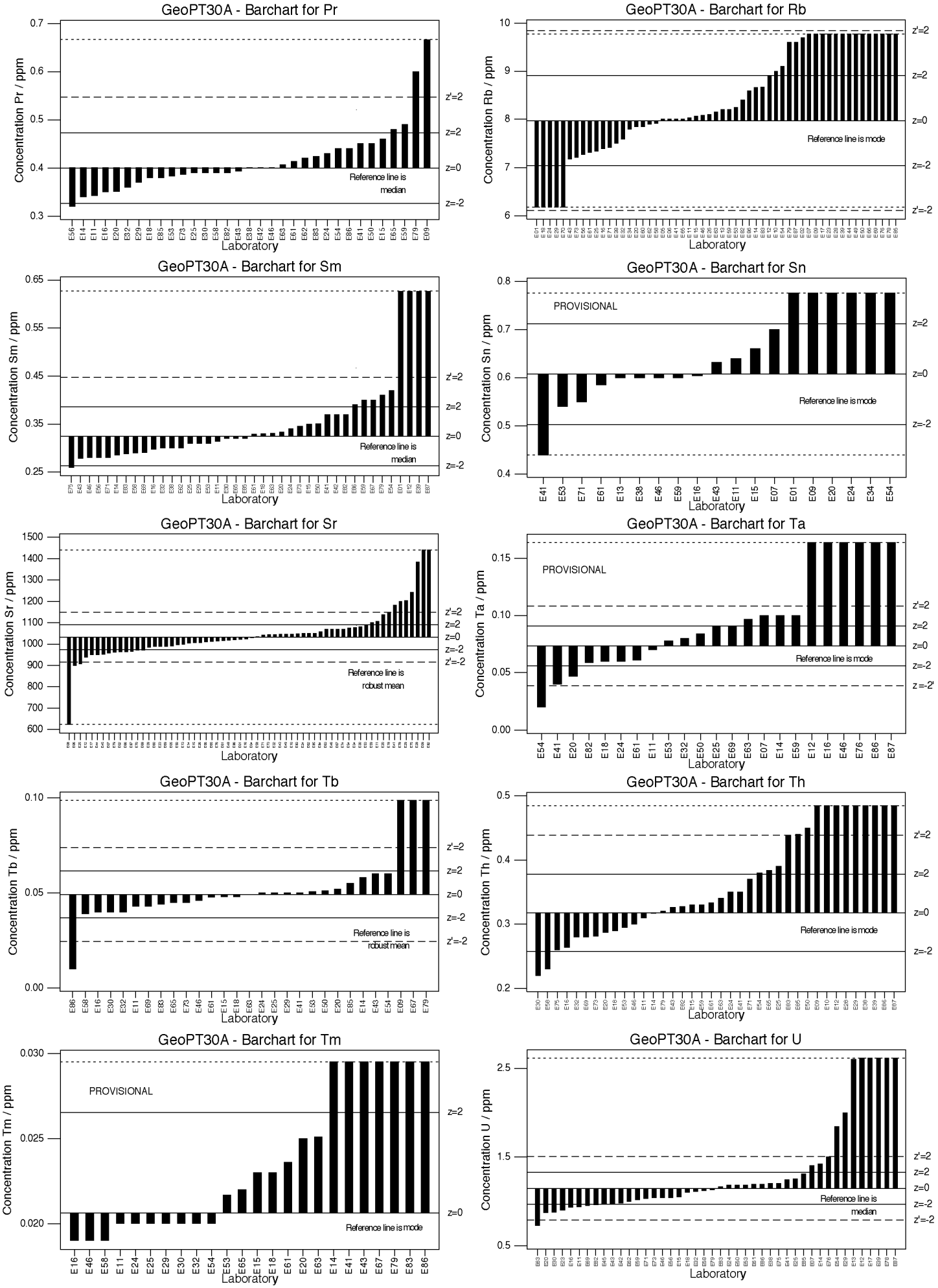


Figure 4.4: GeoPT30A – Limestone, ML-2. Data distribution charts for elements for which values were assigned or provisional values given for guidance. Horizontal lines show the limits for -2<z<2 for pure geochemistry labs (solid lines) and -2<z'<2 for applied geochemistry labs (pecked lines).

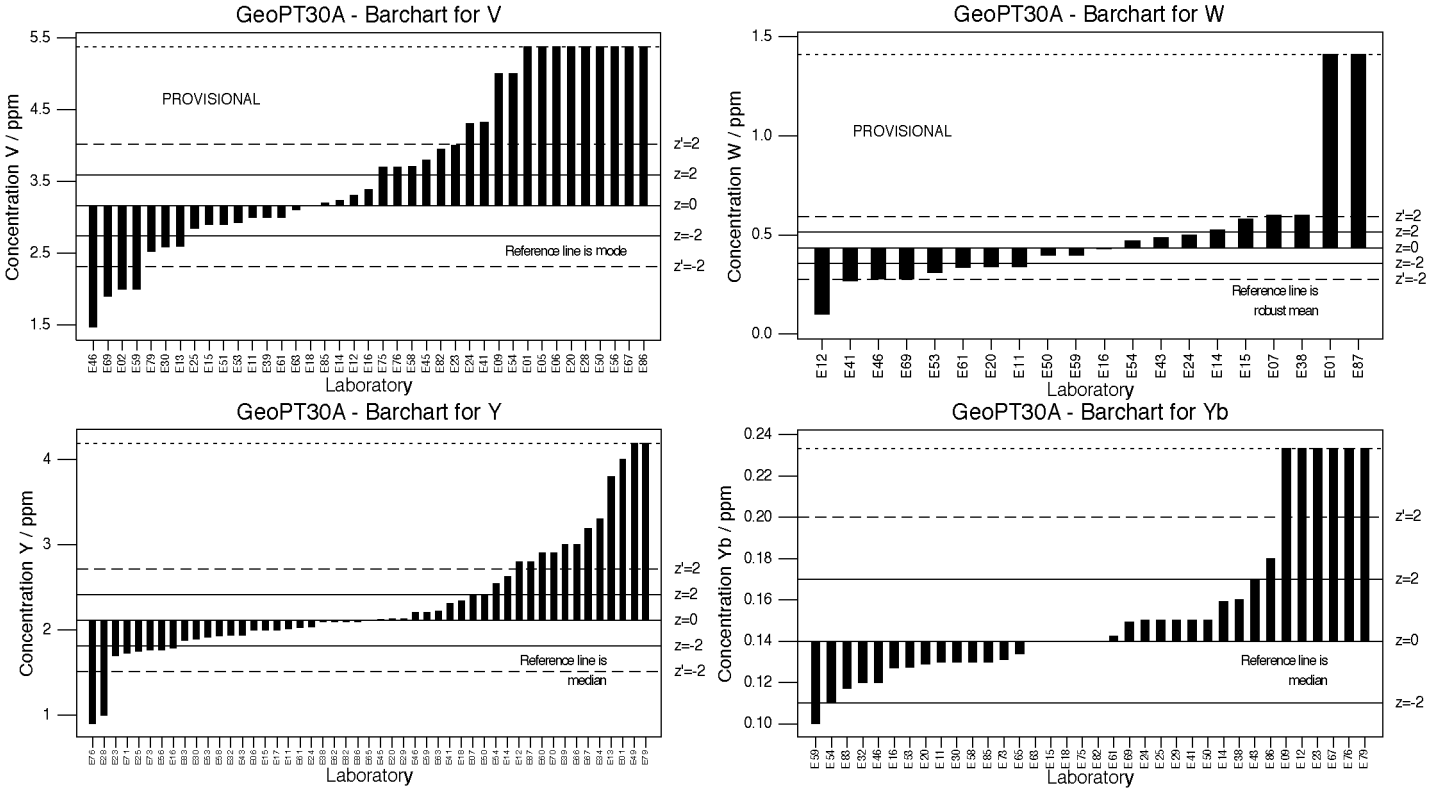


Figure 4.5: GeoPT30A – Limestone, ML-2. Data distribution charts for elements for which values were assigned or provisional values given for guidance. Horizontal lines show the limits for -2<z<2 for pure geochemistry labs (solid lines) and -2<z'<2 for applied geochemistry labs (pecked lines).

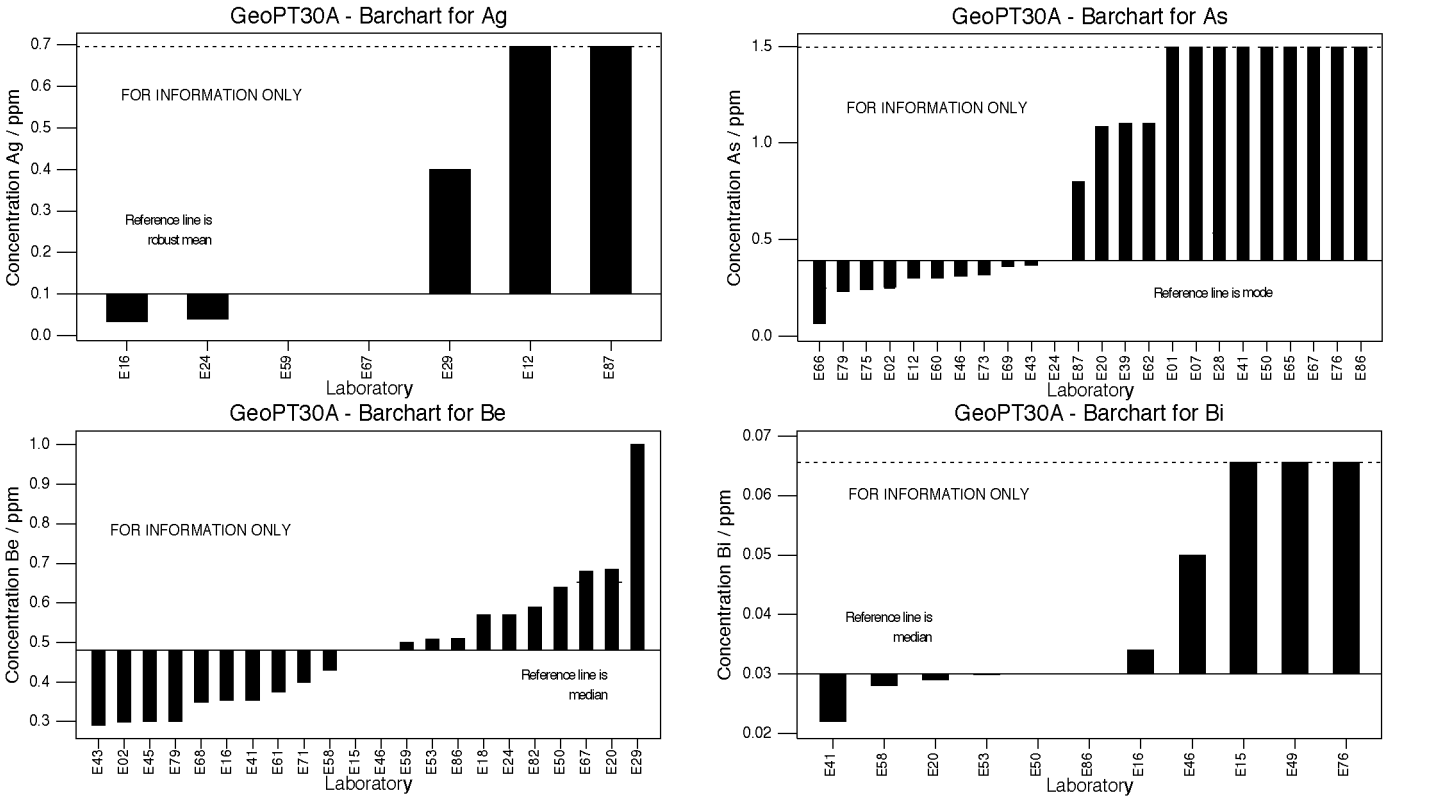


Figure 5.2: GeoPT30A – Limestone, ML-2. Data distribution charts for information only for elements for which values could not be assigned.

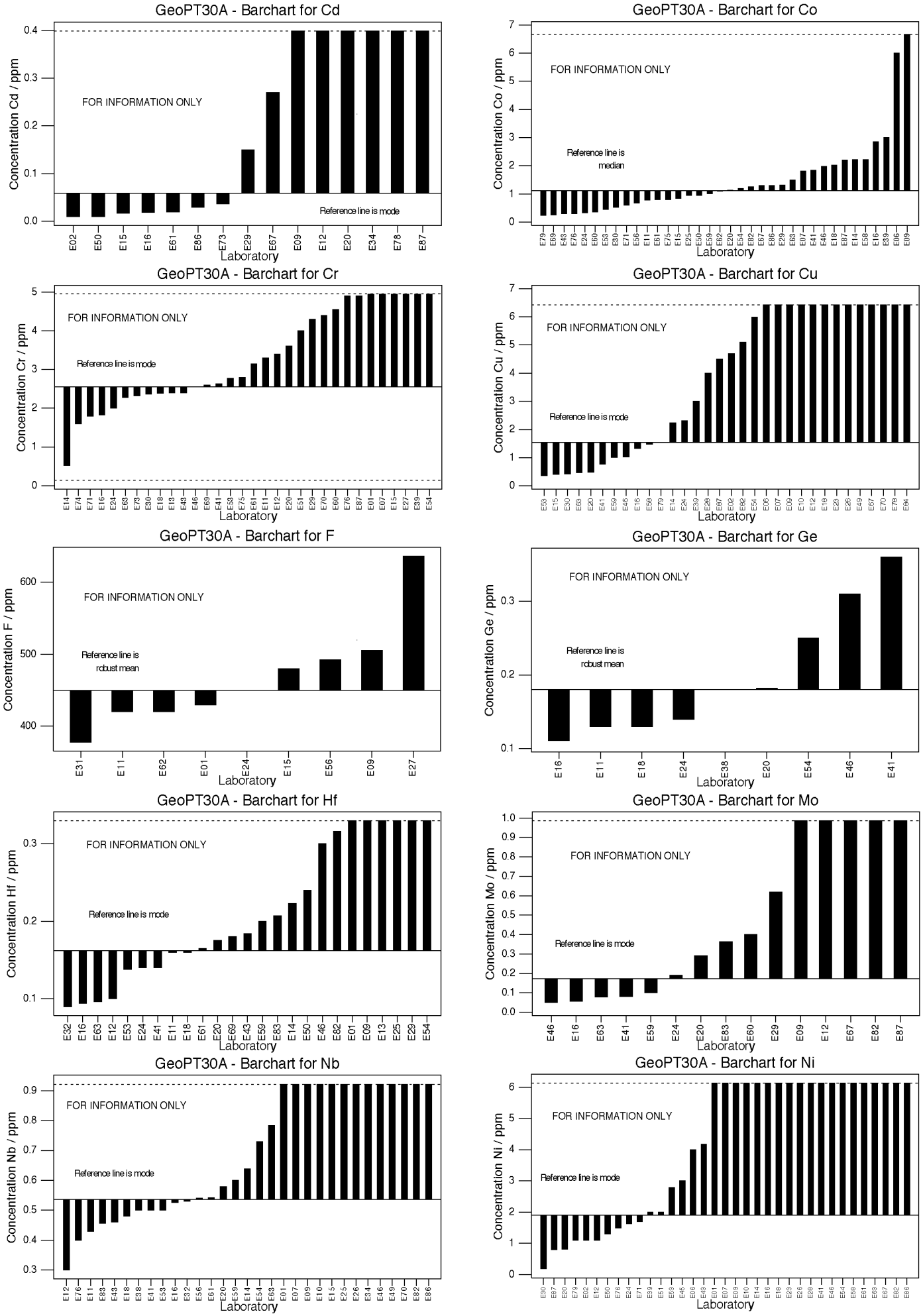


Figure 5.3: GeoPT30A – Limestone, ML-2. Data distribution charts for information only for elements for which values could not be assigned.

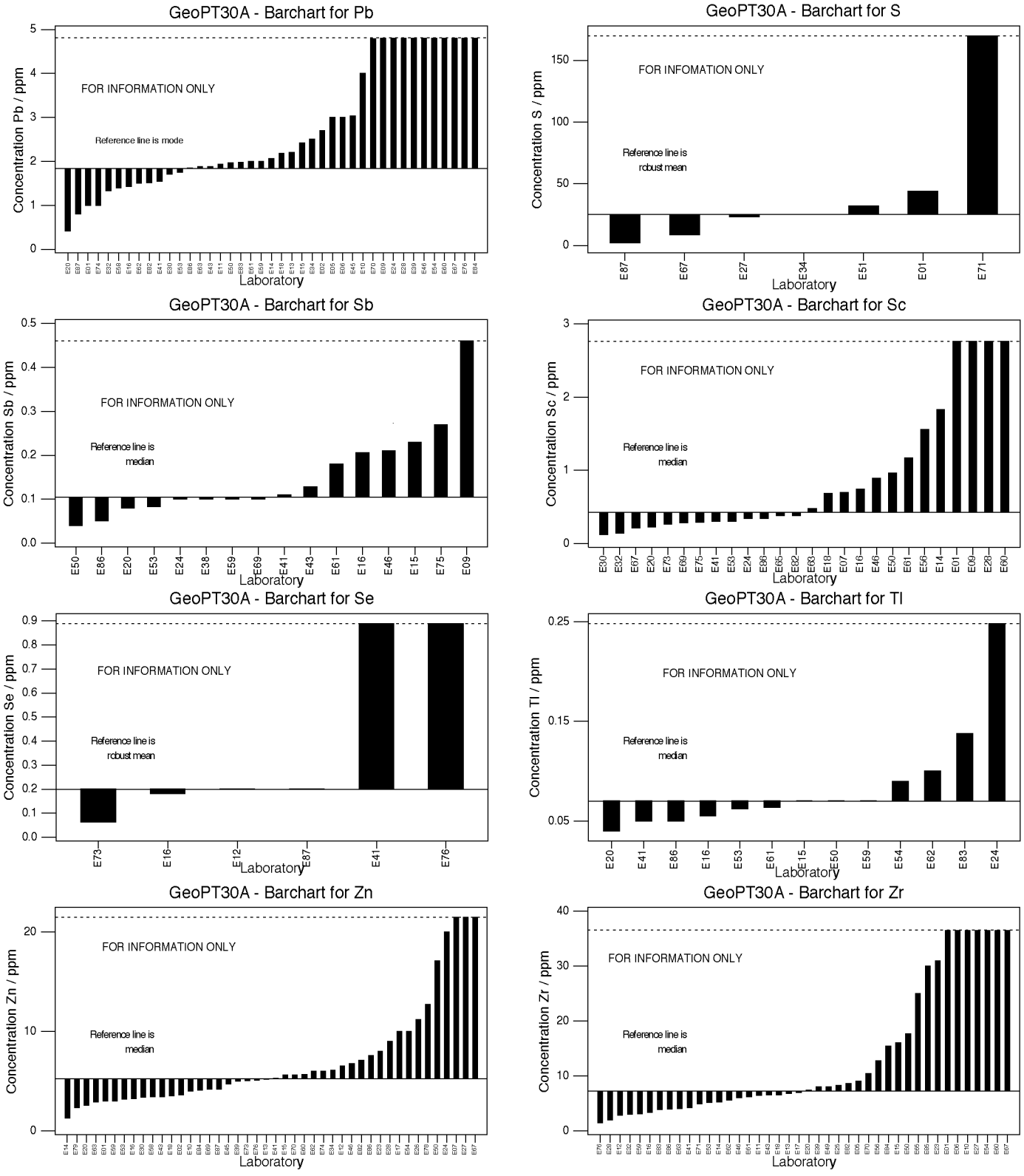


Figure 5.2: GeoPT30 – Syenite, CG-2. Data distribution charts for information only for elements for which values could not be assigned.

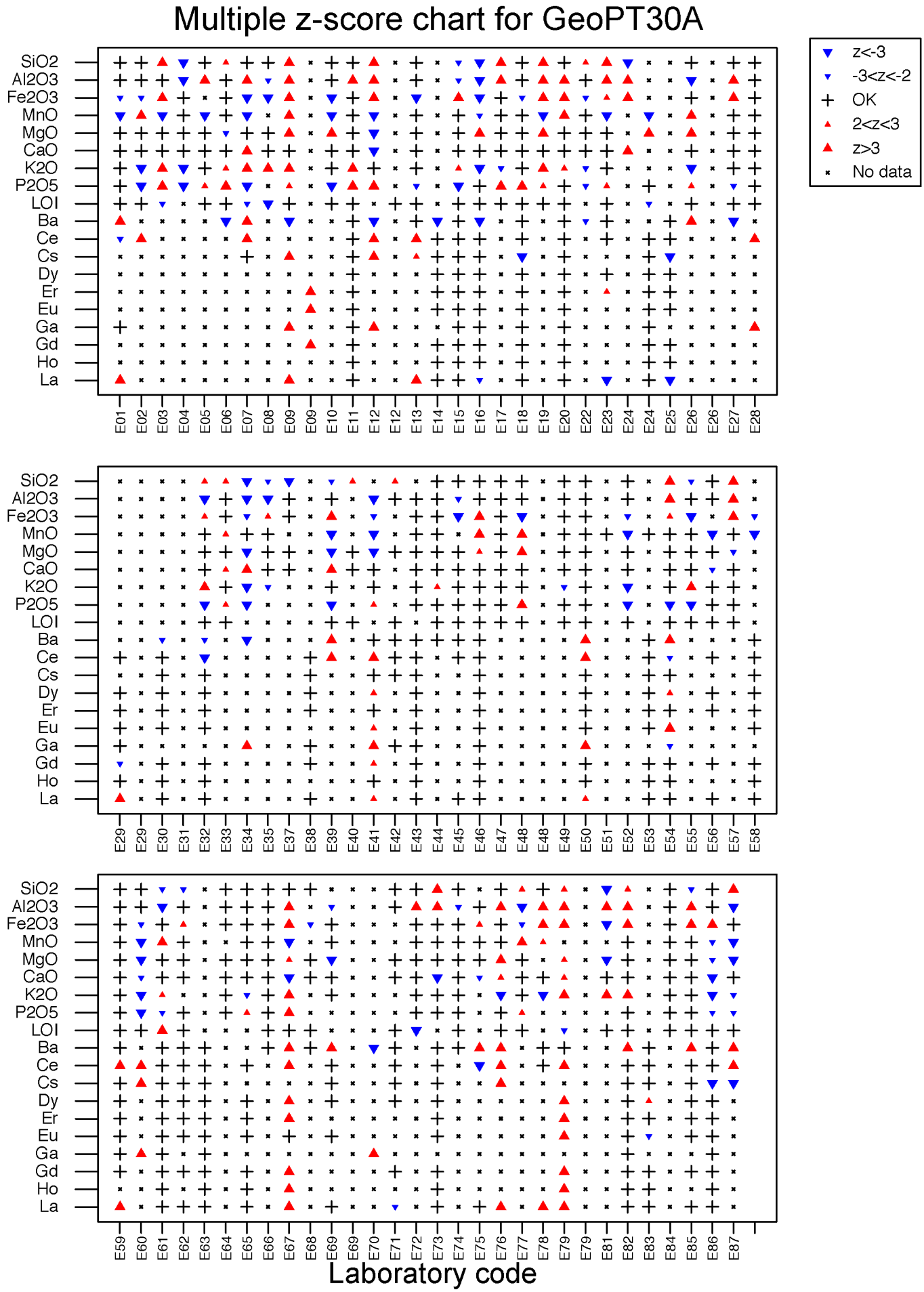


Figure 6.1: Geo*PT*30A – Limestone, ML-2. Multiple z-score charts for laboratories participating in the Geo*PT*30 round. Symbols indicate whether or not an elemental result complies with the -2<z<+2 criteria. Satisfactory data are plotted as '+'. Data for other categories are plotted as follows: z<-3 (▼), -3<z<-2 (▾), +2<z<+3 (▴), Z>+3 (▲).

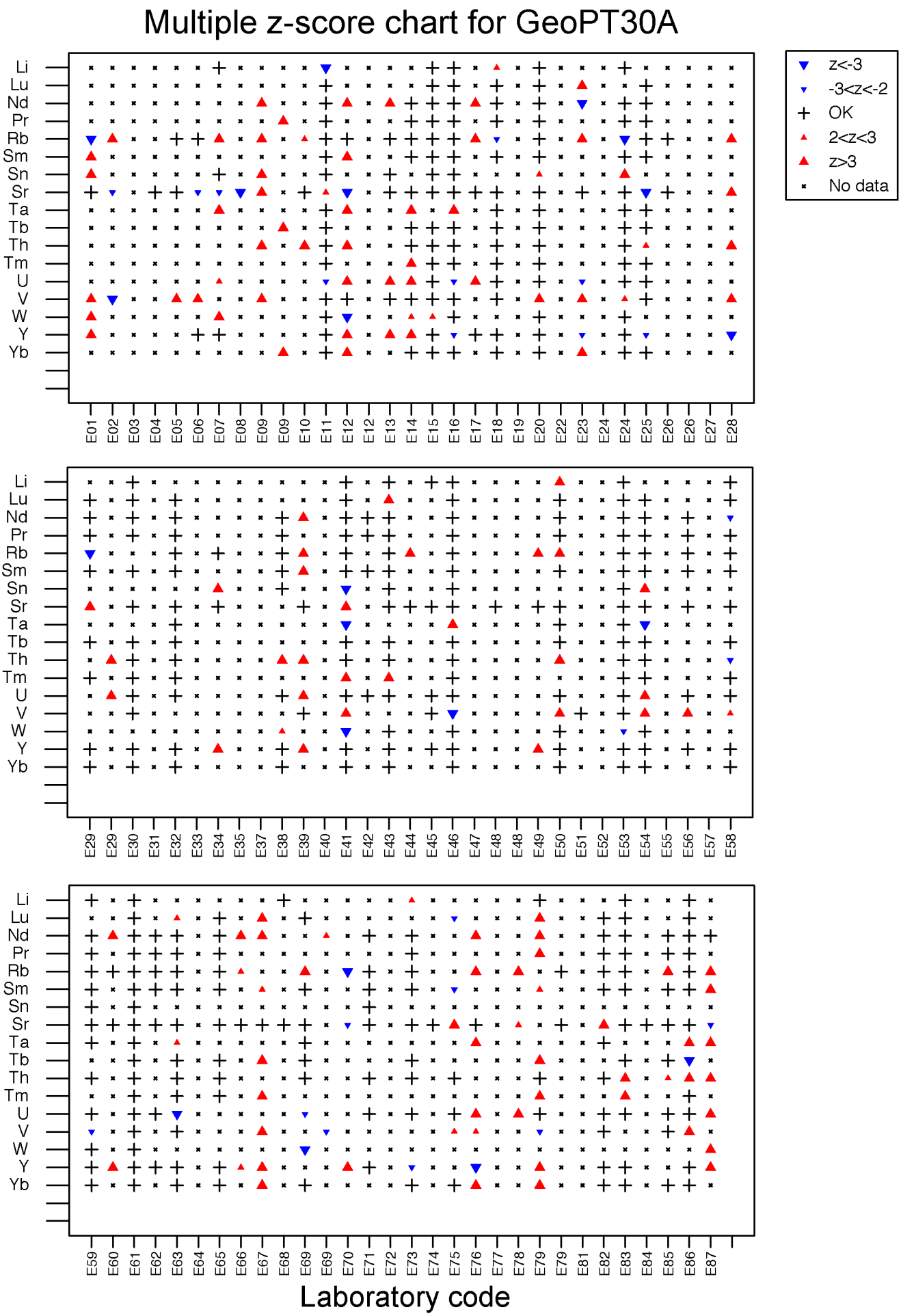


Figure 6.2: Geo*PT*30A – Limestone, ML-2. Multiple z-score charts for laboratories participating in the Geo*PT*30 round. Symbols indicate whether or not an elemental result complies with the -2<z<+2 criteria. Satisfactory data are plotted as '+'. Data for other categories are plotted as follows: z<-3 (▼), -3<z<-2 (▾), +2<z<+3 (▴), Z>+3 (▲).