APPENDICES

COLOUR VERSIONS OF THESE APPENDICES MAY BE PRINTED FROM THE DVD

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Appendix 1: 0-10 m regolith sections

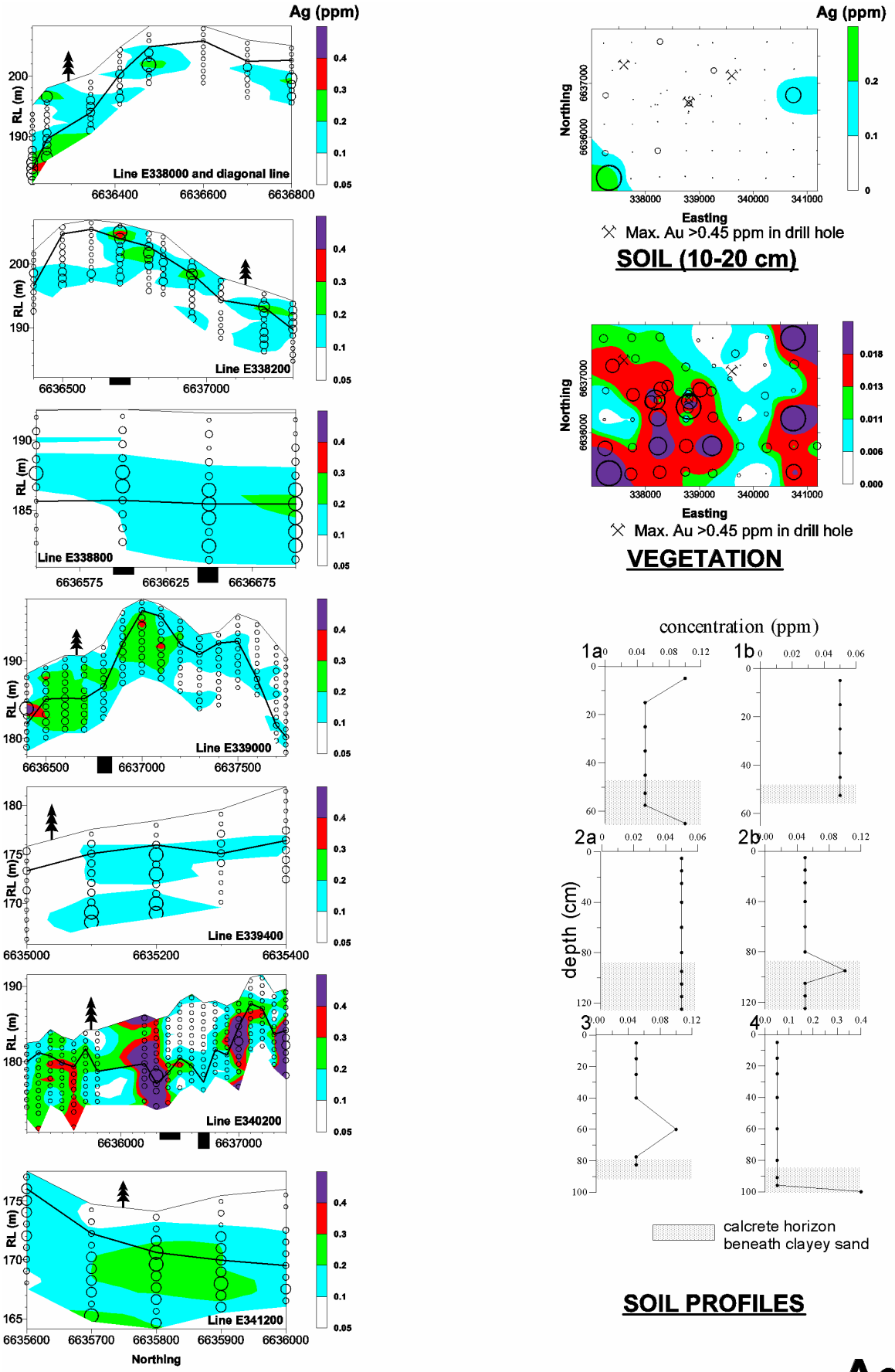


Figure A1.1: Geochemical data for Ag at ET Prospect.

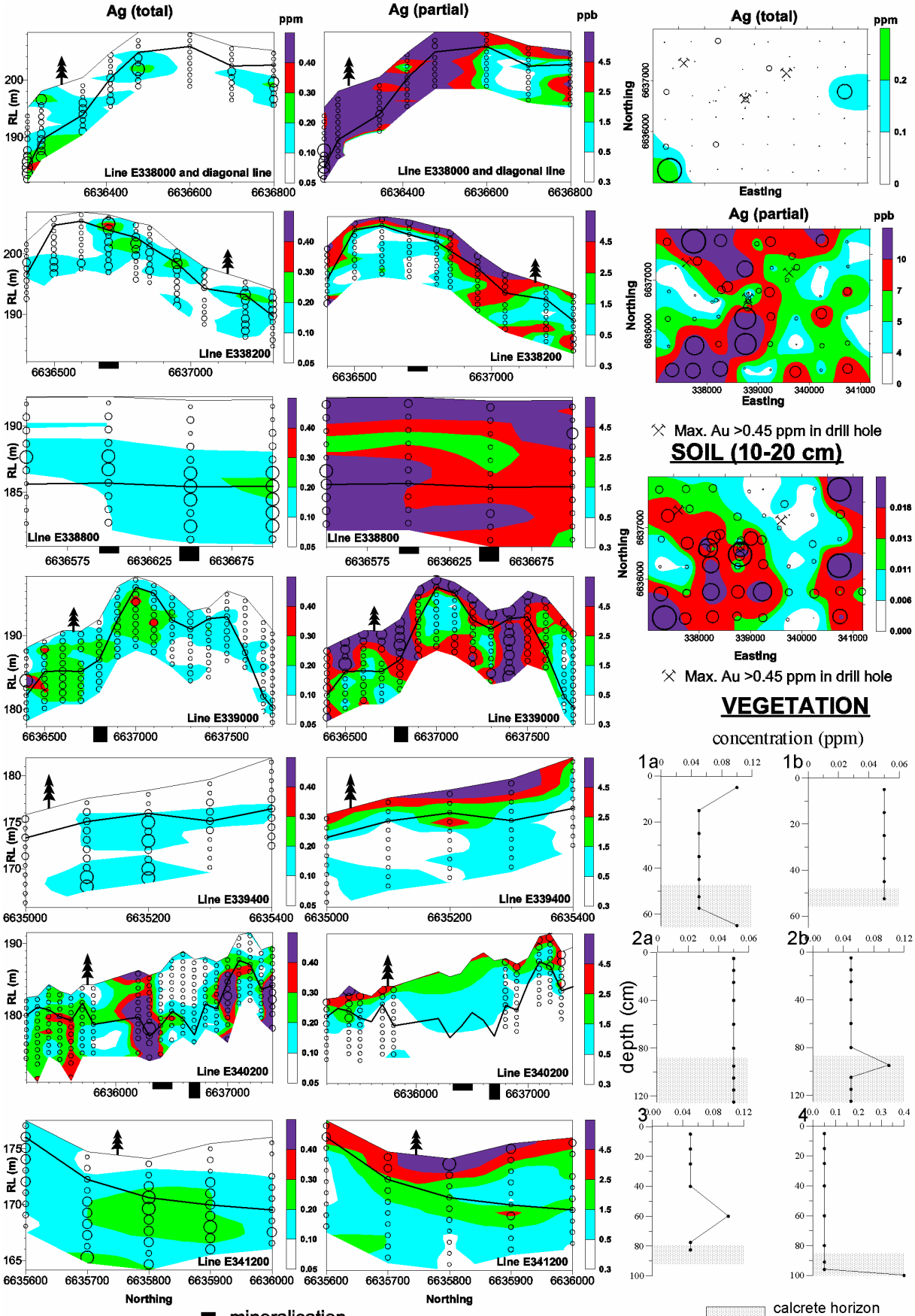


Figure A1.1b: Geochemical data for Ag (partial and total) at ET Prospect.

Ag

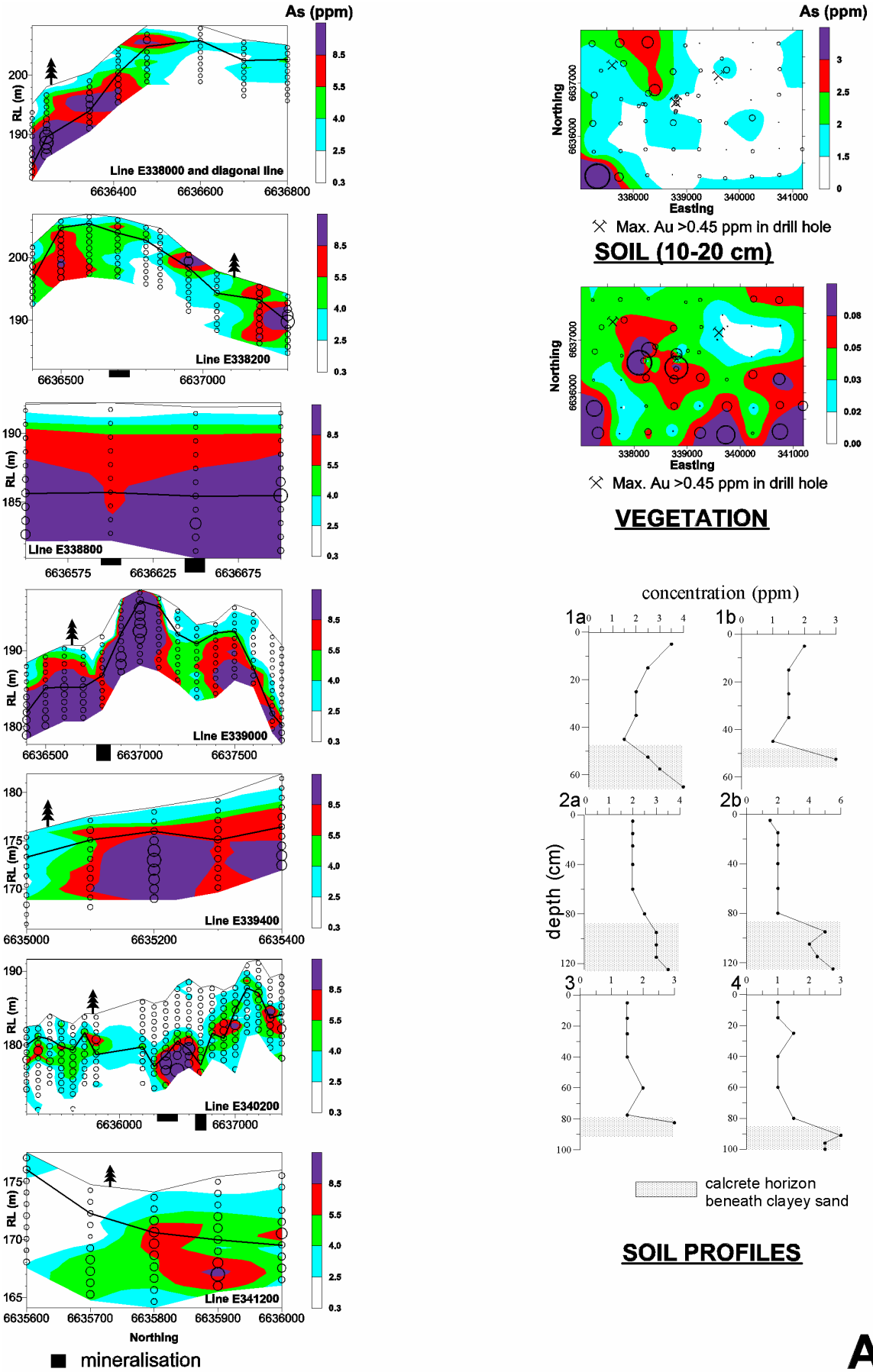
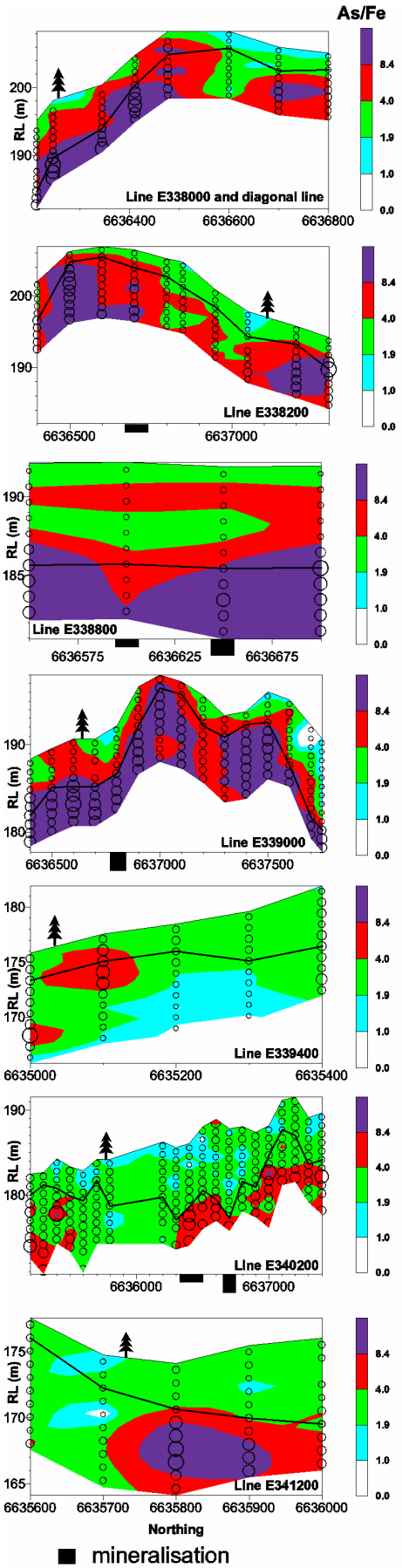
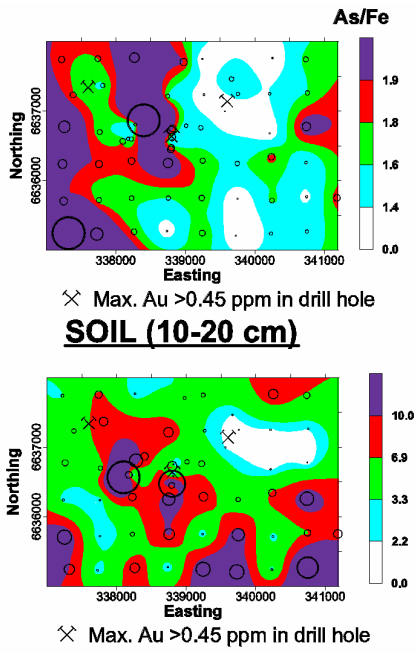


Figure A1.2: Geochemical data for As at ET Prospect.

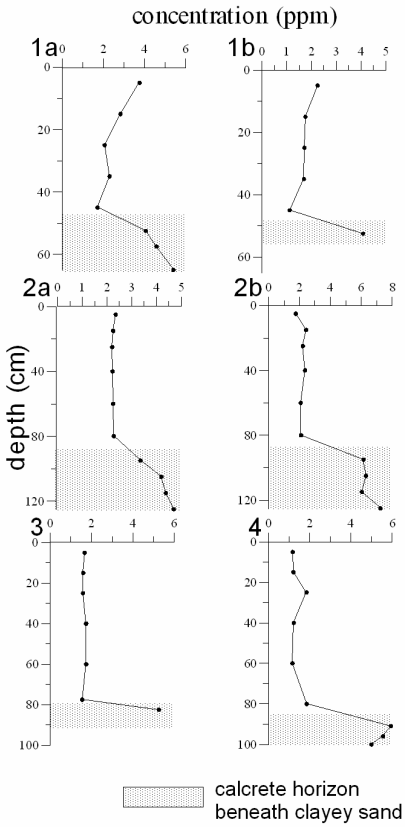


REGOLITH SECTIONS (0-~10 m)



SOIL (10-20 cm)

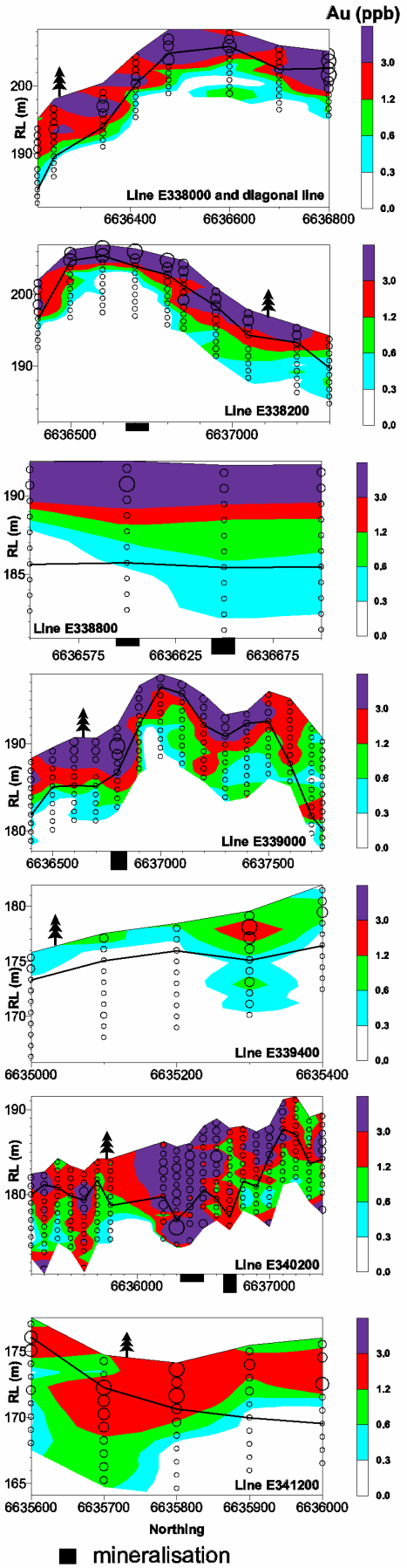
VEGETATION



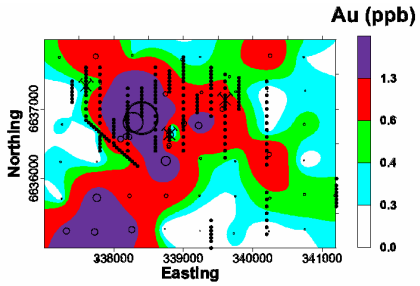
SOIL PROFILES

As/Fe

Figure A1.2b: Geochemical data for As/Fe at ET Prospect.

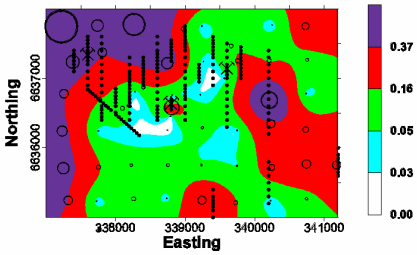


REGOLITH SECTIONS (0-~10 m)



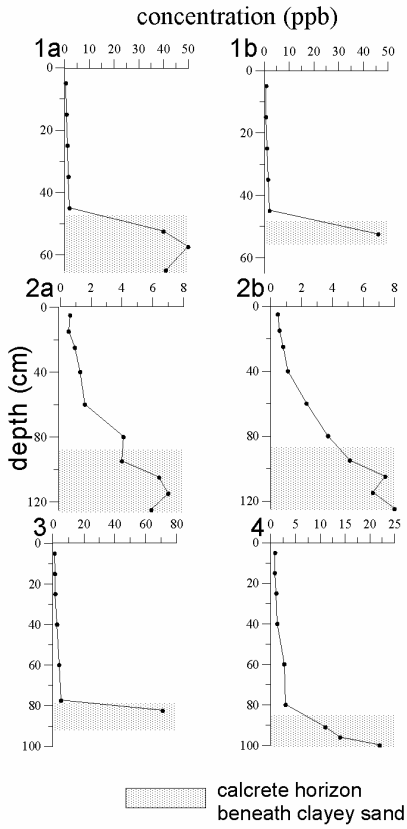
Max. Au >0.45 ppm in drill hole

SOIL (10-20 cm)



Max. Au >0.45 ppm in drill hole

VEGETATION



SOIL PROFILES

Au

Figure A1.3: Geochemical data for Au at ET Prospect.

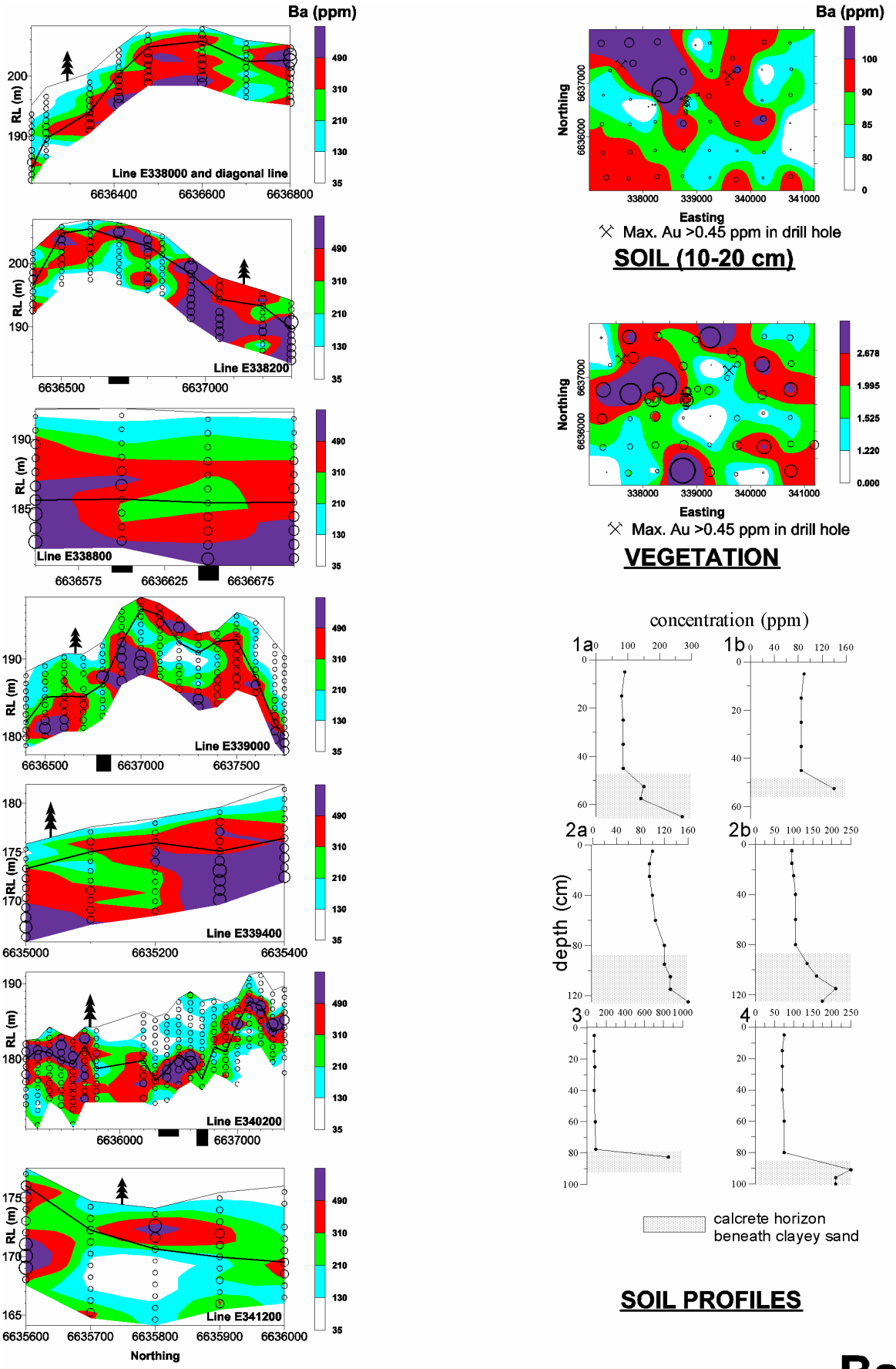


Figure A1.4: Geochemical data for Ba at ET Prospect.

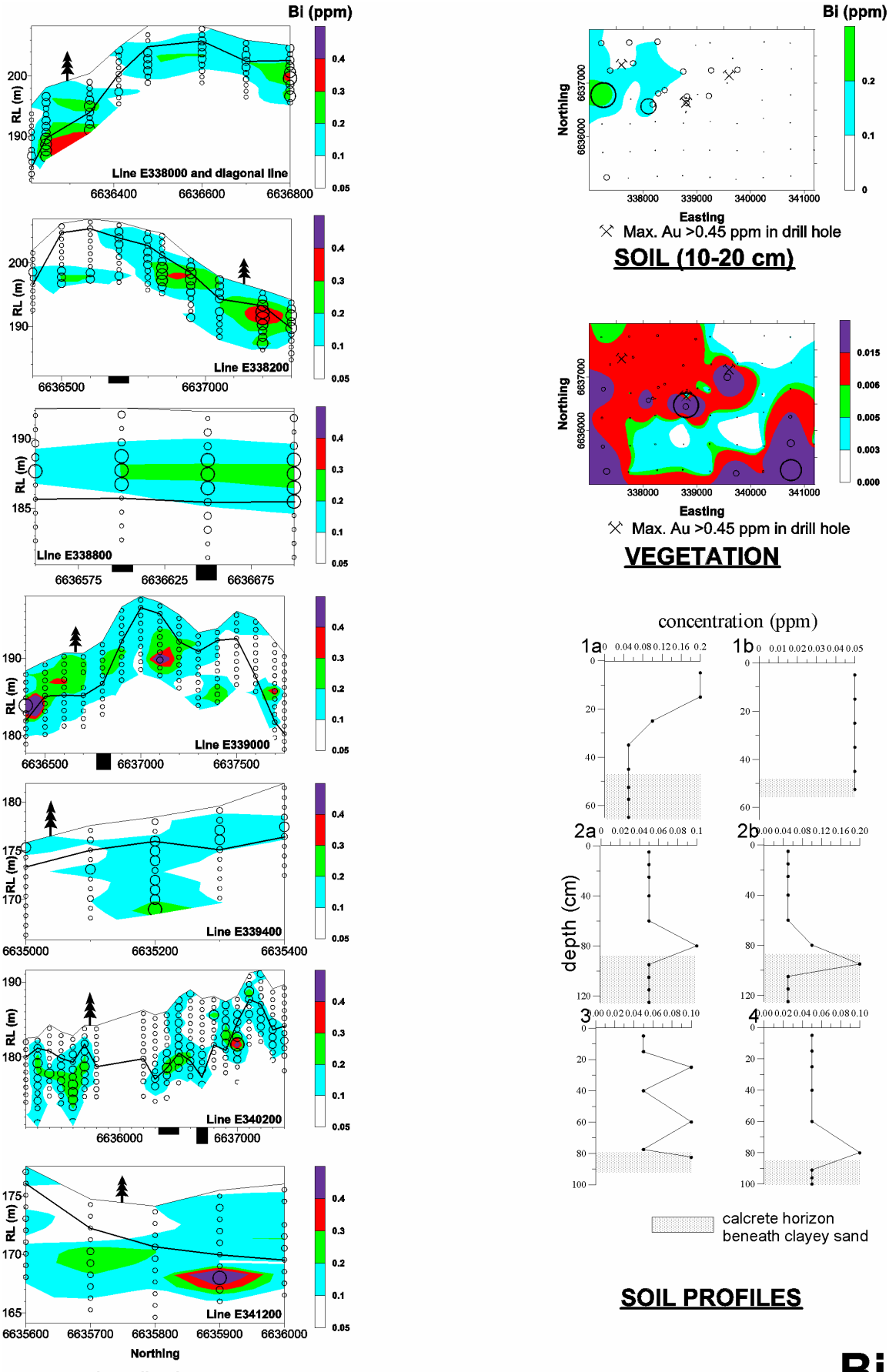


Figure A1.5: Geochemical data for Bi at ET Prospect.

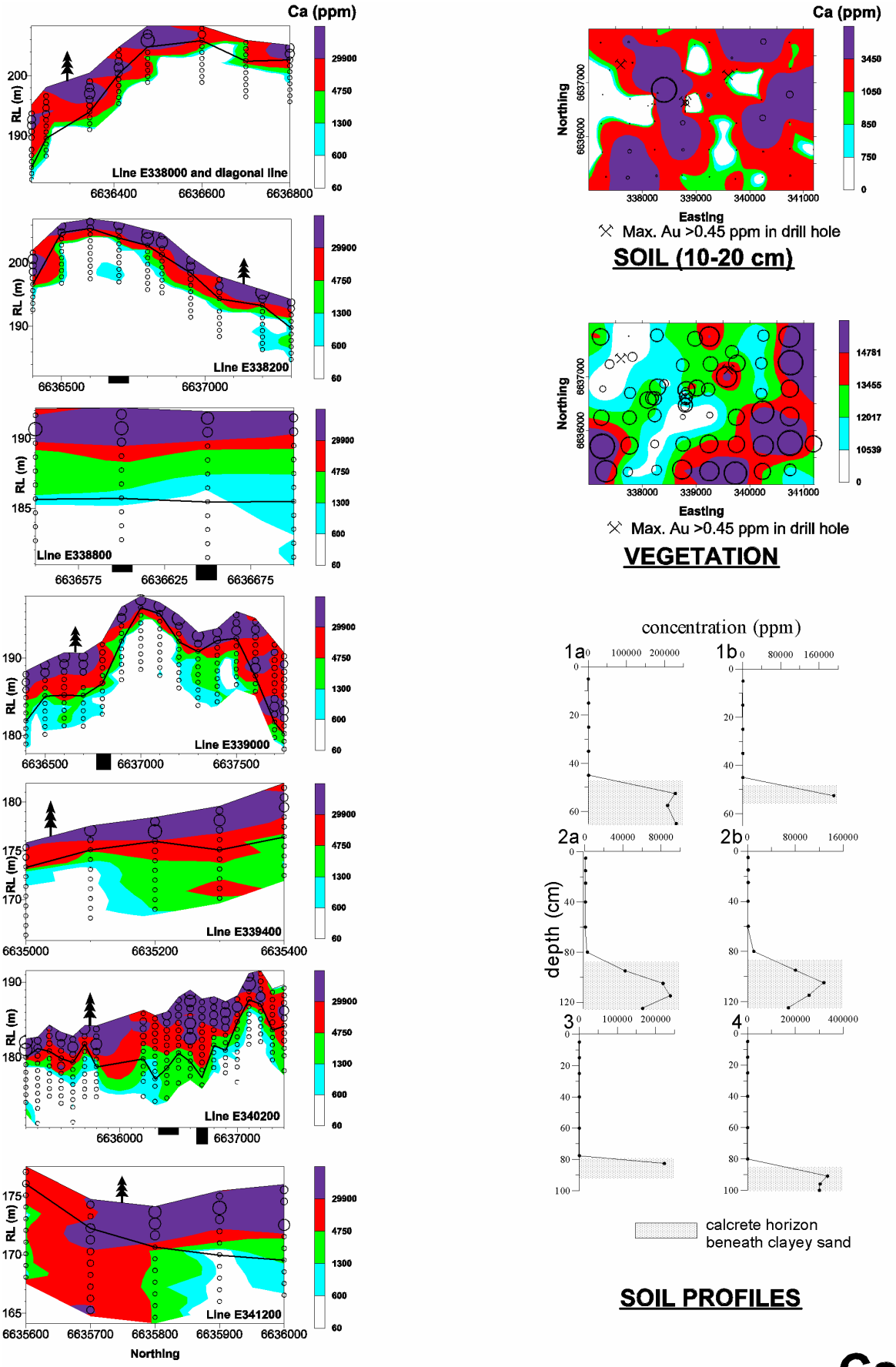
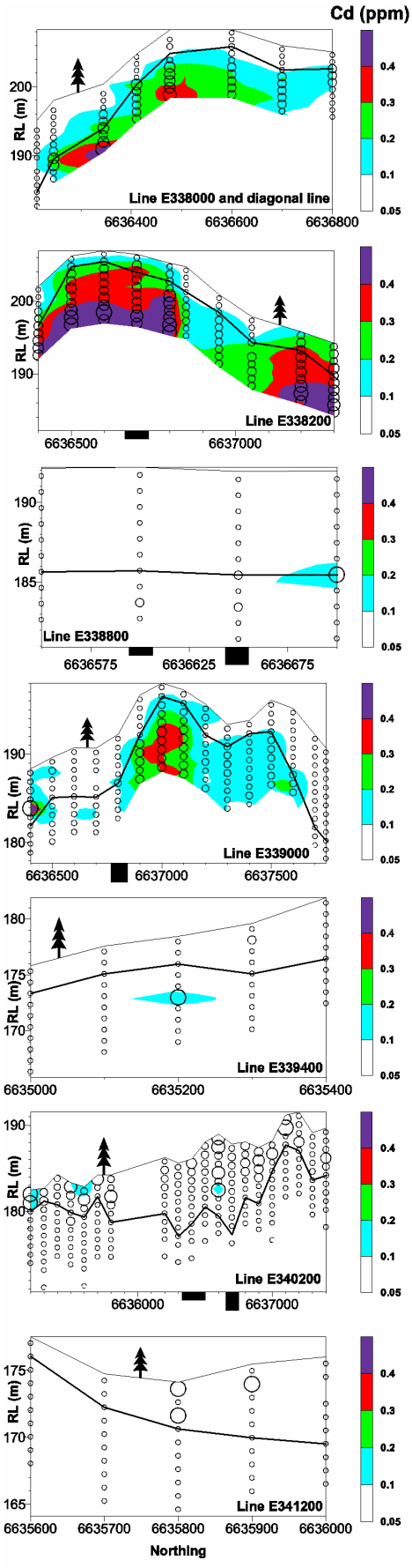


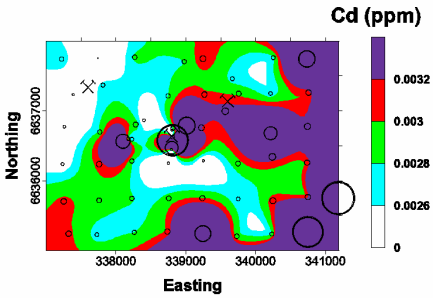
Figure A1.6: Geochemical data for Ca at ET Prospect.



REGOLITH SECTIONS (0-~10 m)

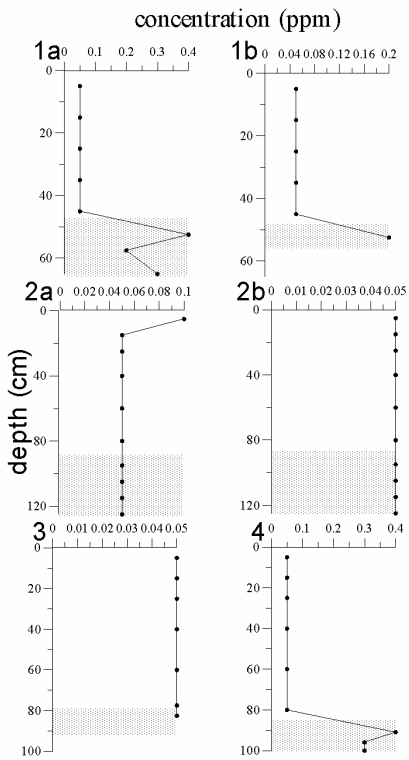
All Cd data for soil is near or below detection limits

SOIL (10-20 cm)



Max. Au >0.45 ppm in drill hole

VEGETATION



SOIL PROFILES

Cd

Figure A1.7: Geochemical data for Cd at ET Prospect.

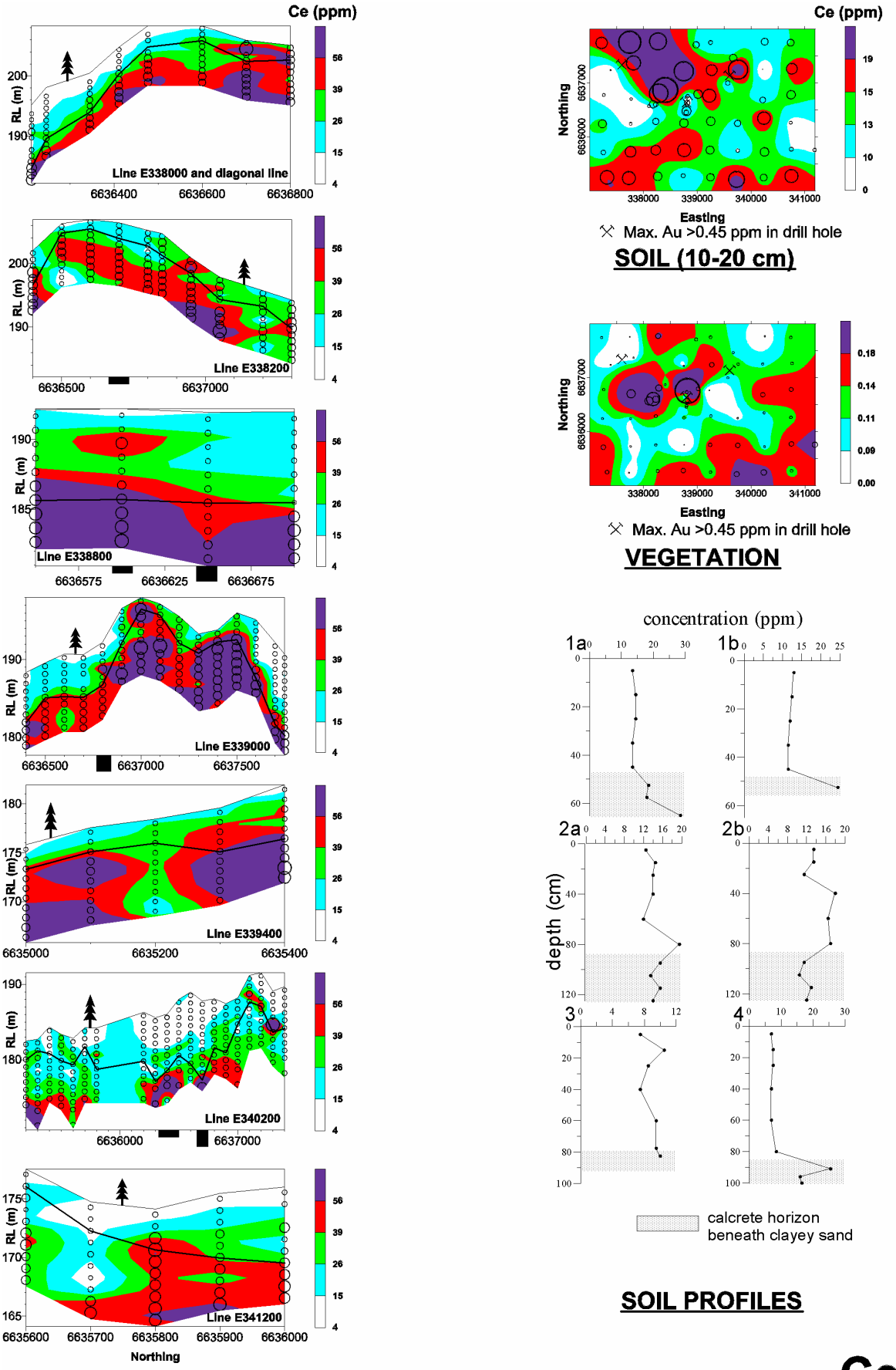


Figure A1.8: Geochemical data for Ce at ET Prospect.

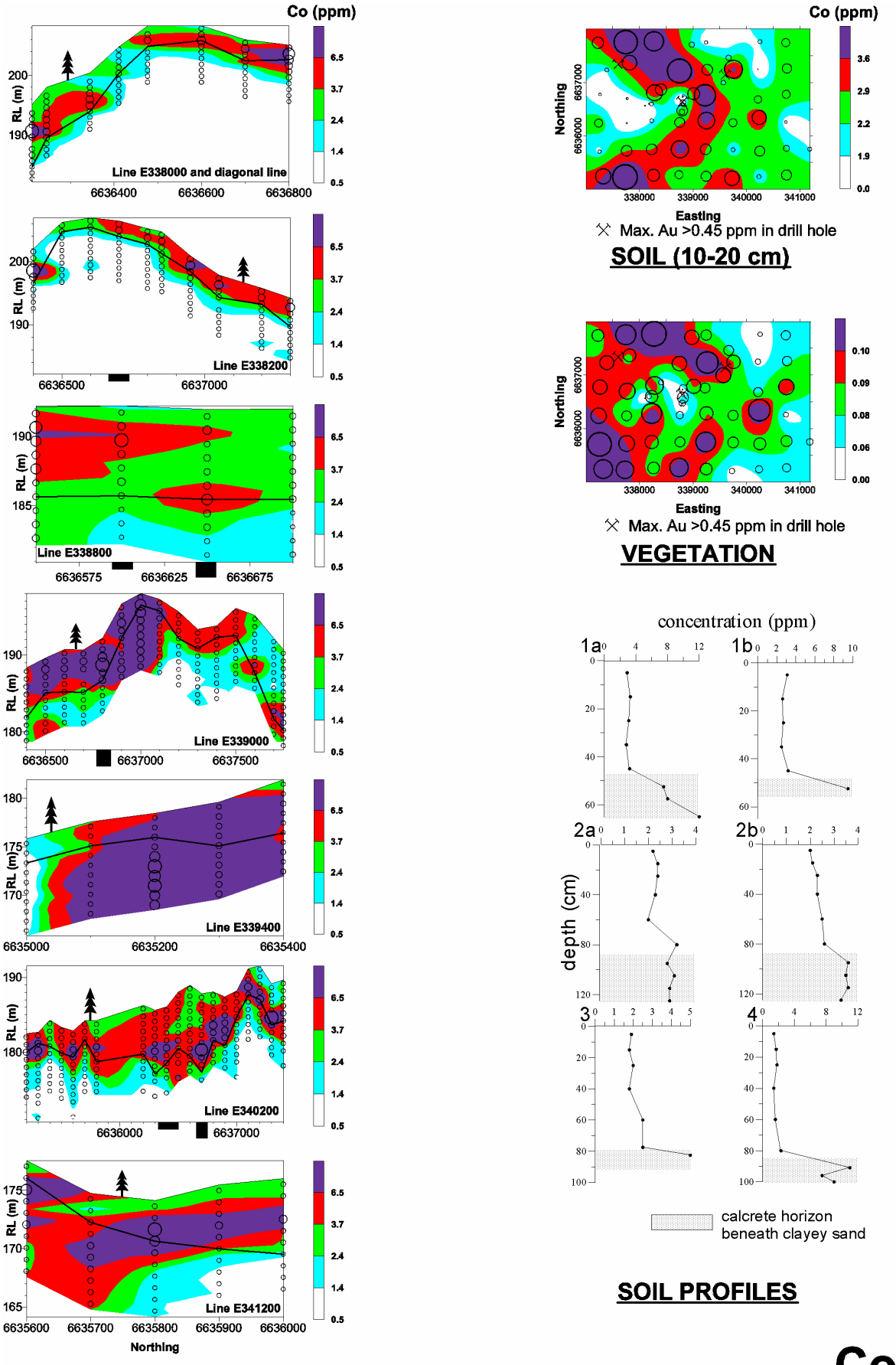


Figure A1.9: Geochemical data for Co at ET Prospect.

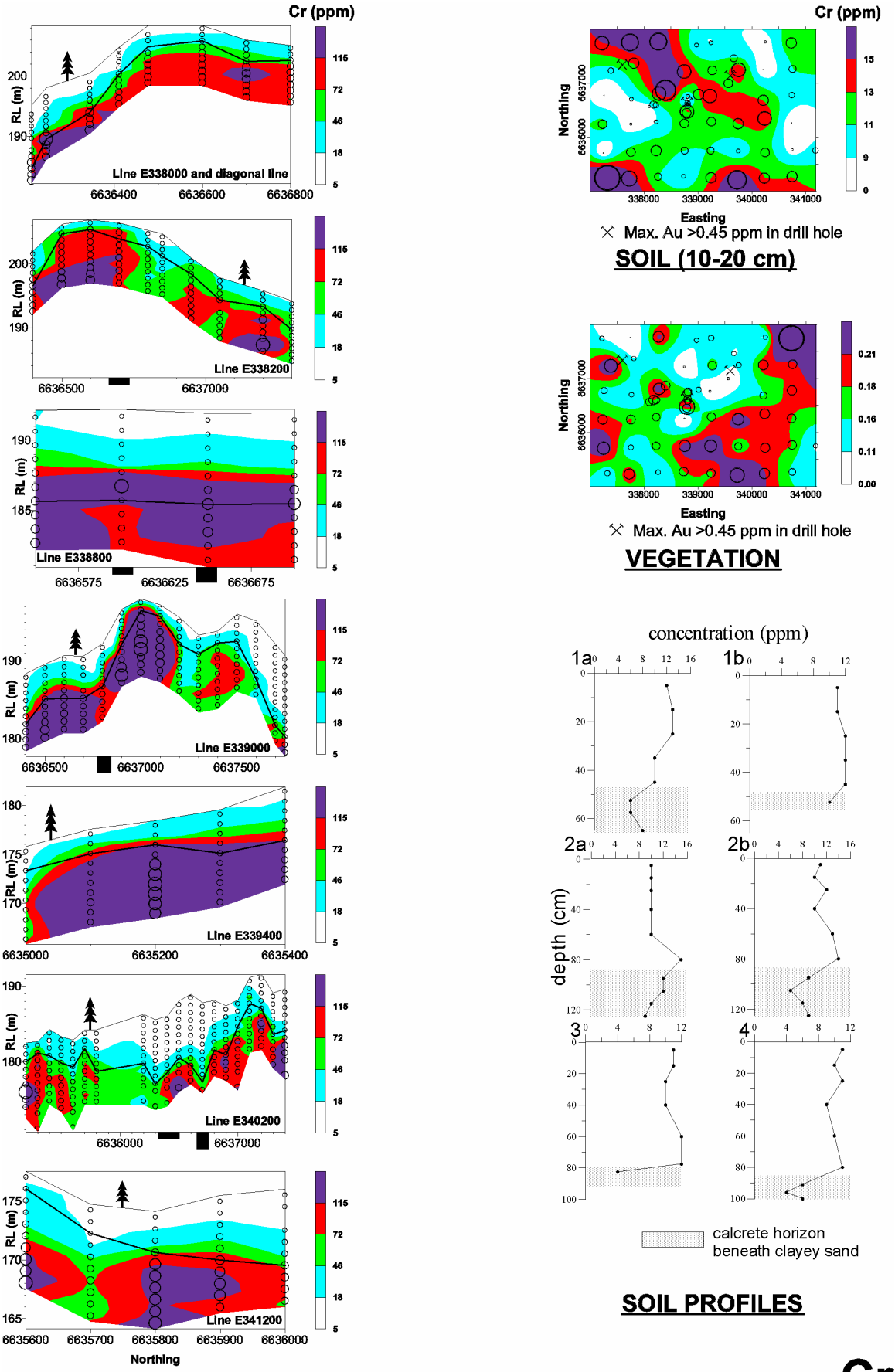


Figure A1.10: Geochemical data for Cr at ET Prospect.

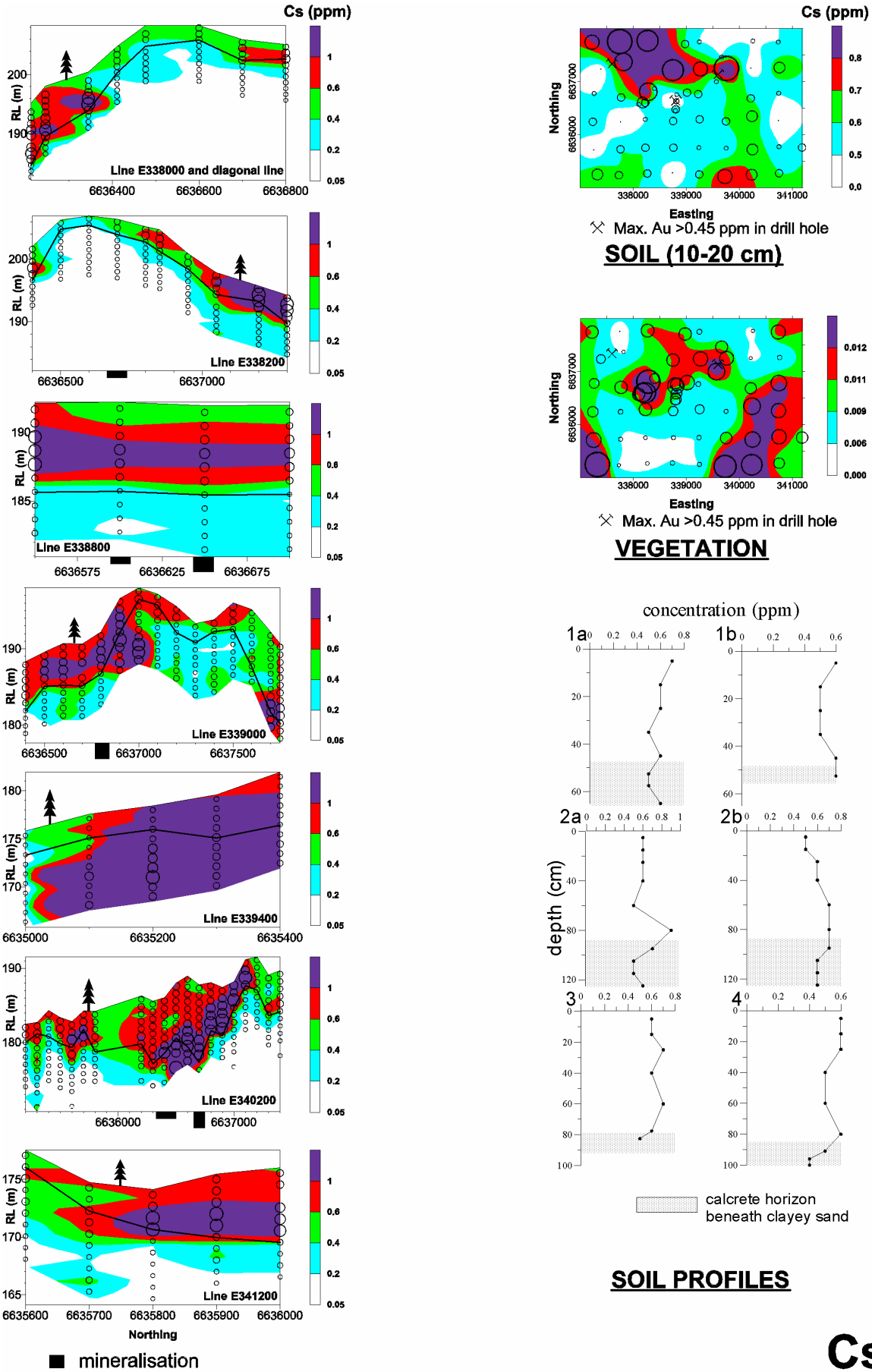


Figure A1.11: Geochemical data for Cs at ET Prospect.

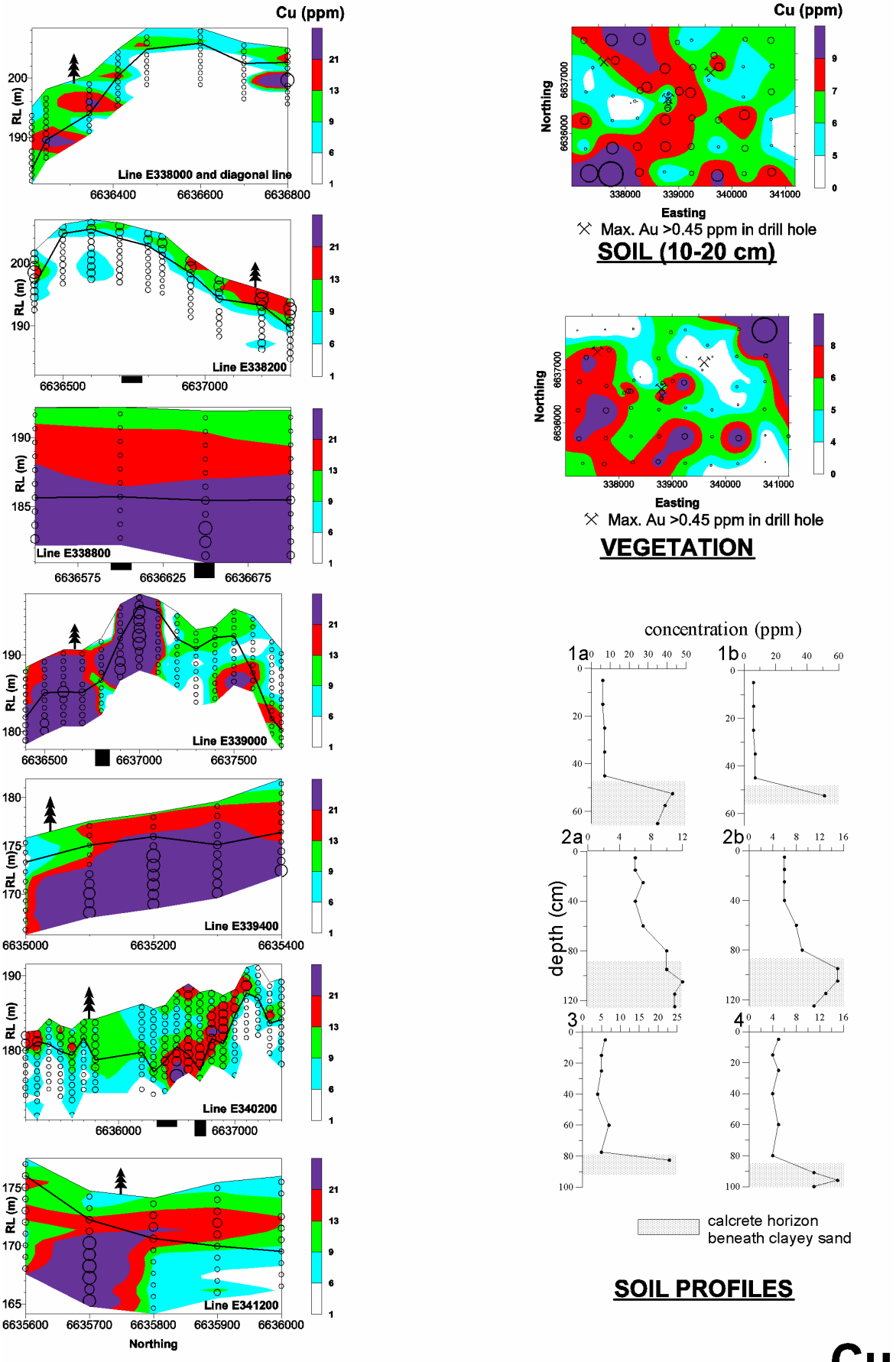


Figure A1.12: Geochemical data for Cu at ET Prospect.

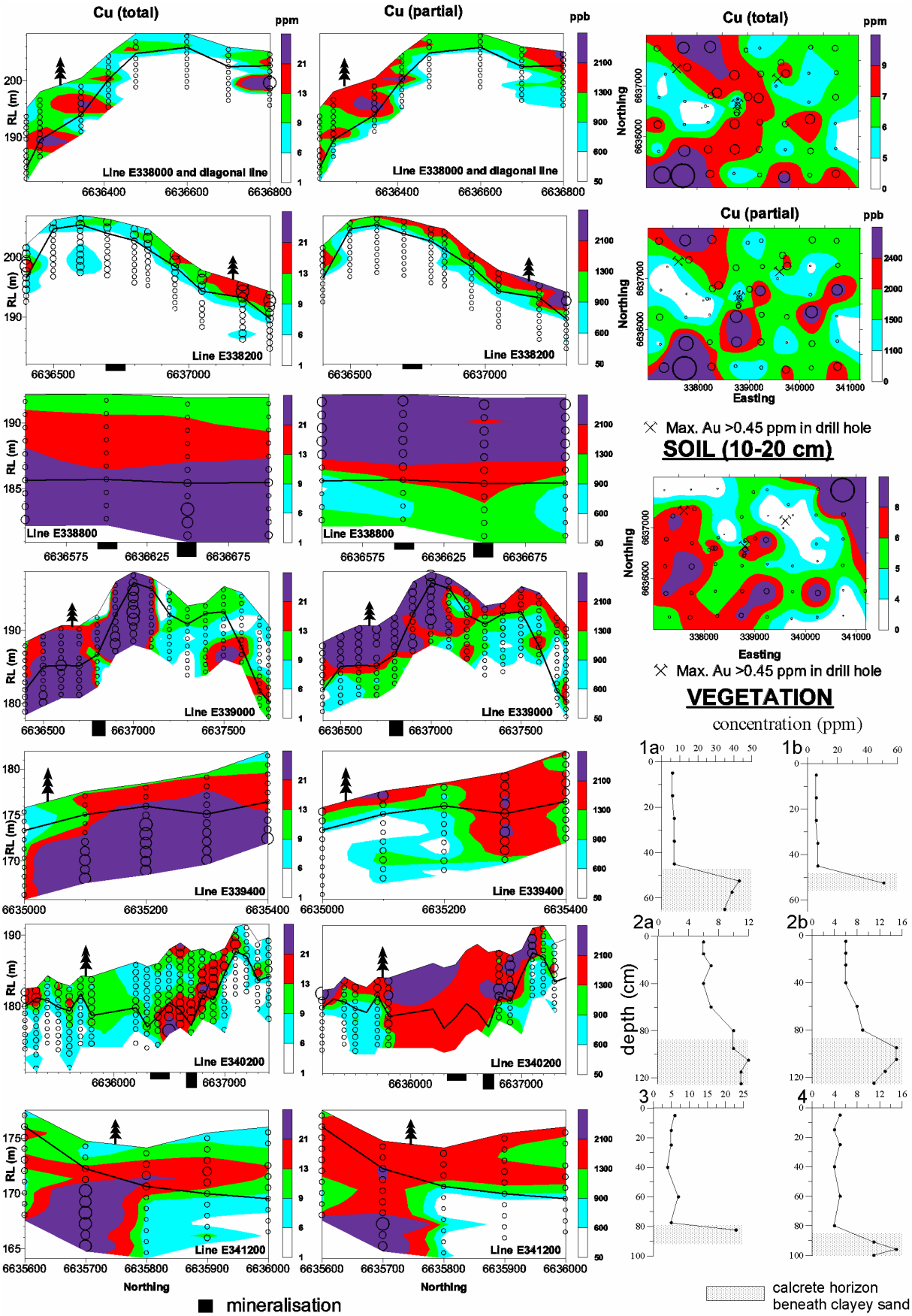


Figure A1.12b: Geochemical data for Cu (partial and total) at ET Prospect.

Cu

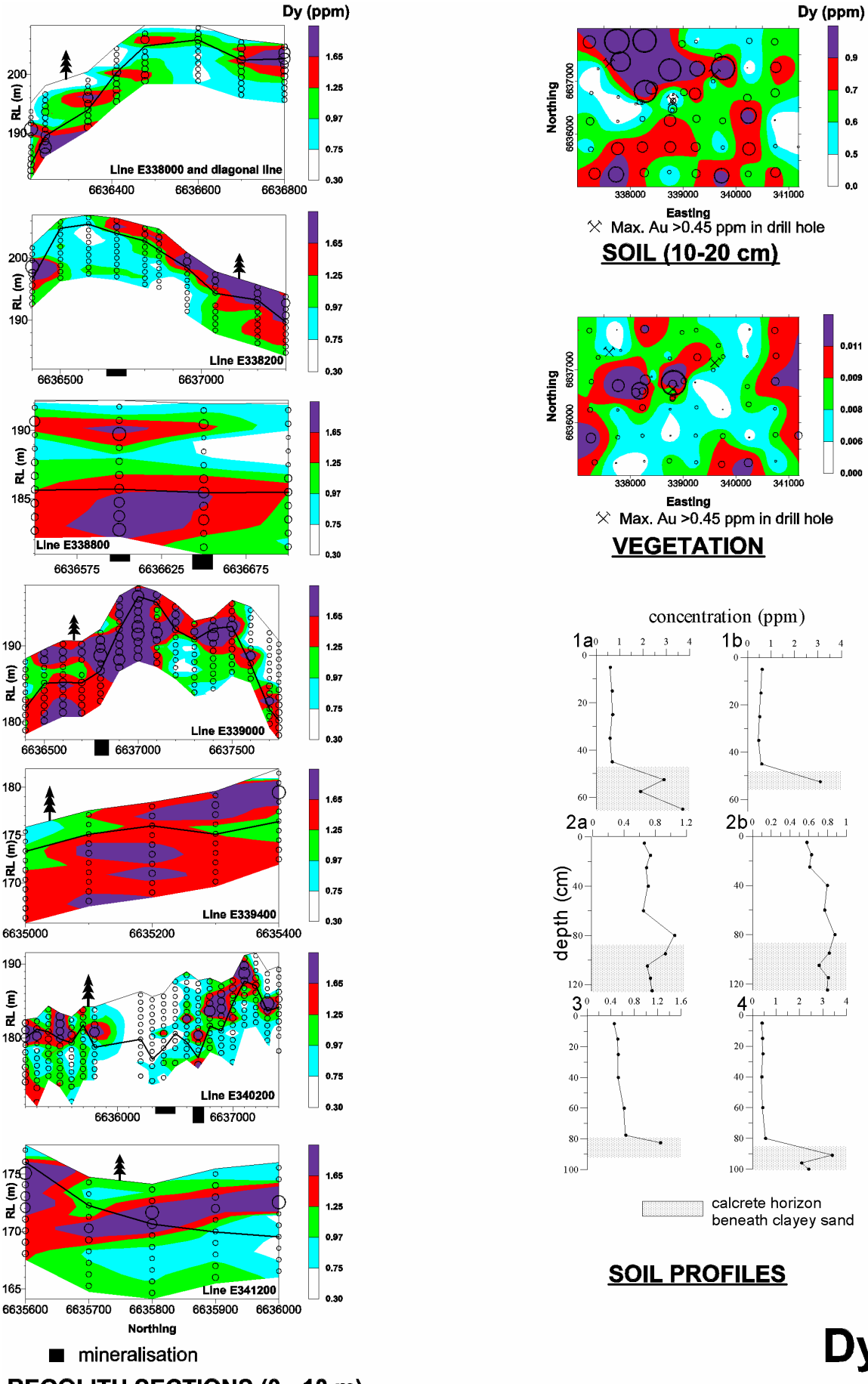


Figure A1.13: Geochemical data for Dy at ET Prospect.

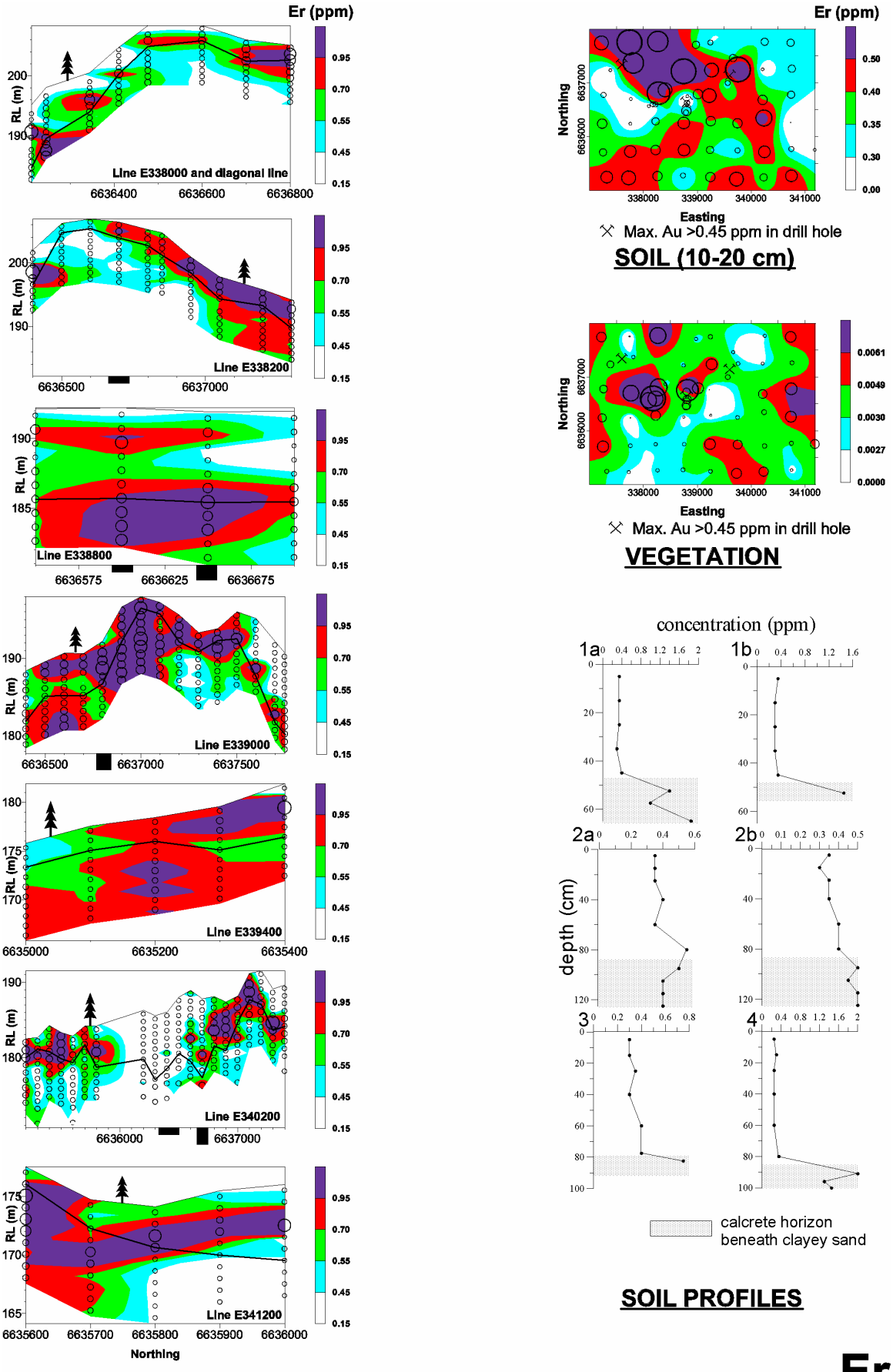


Figure A1.14: Geochemical data for Er at ET Prospect.

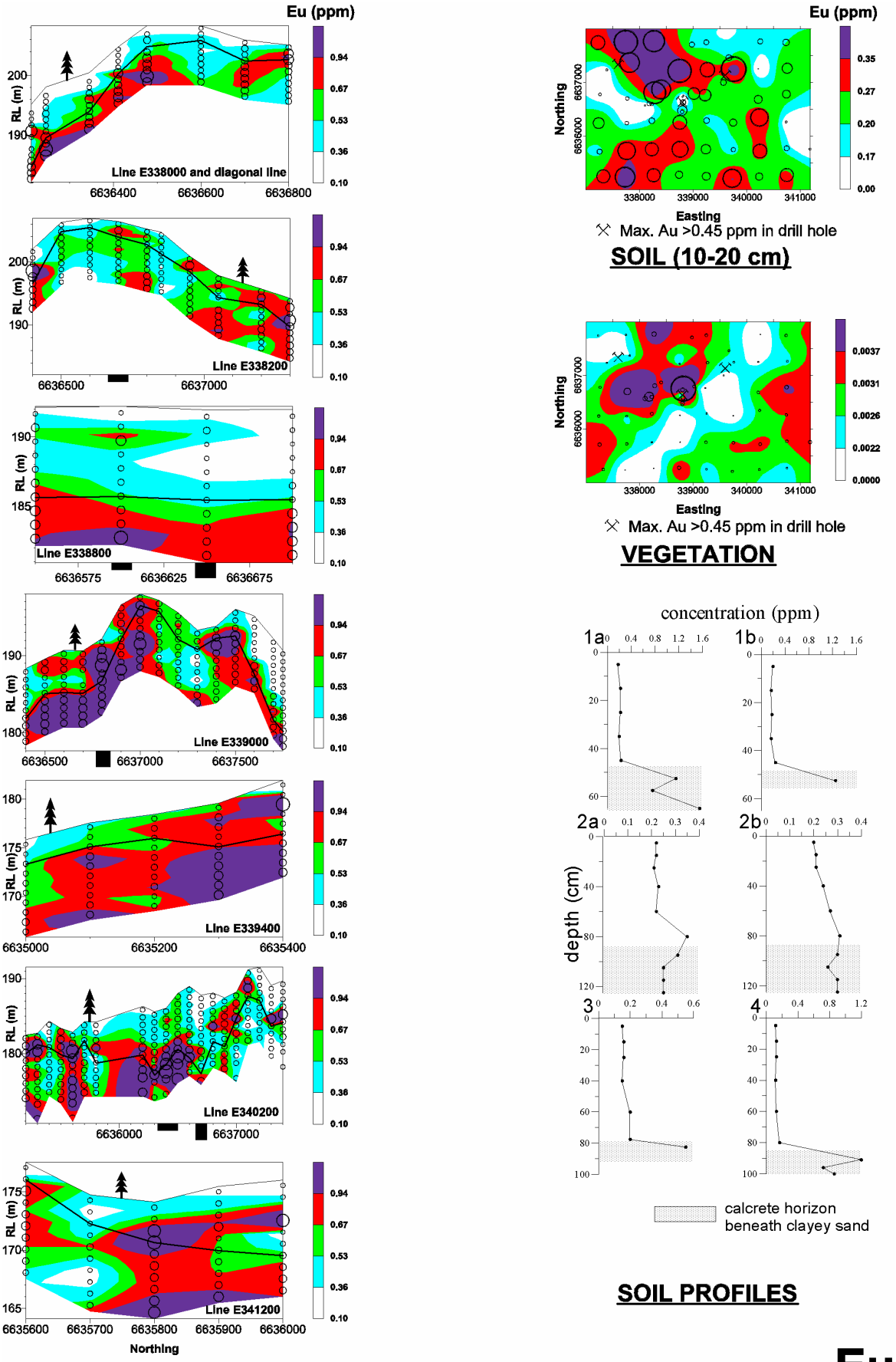


Figure A1.15: Geochemical data for Eu at ET Prospect.

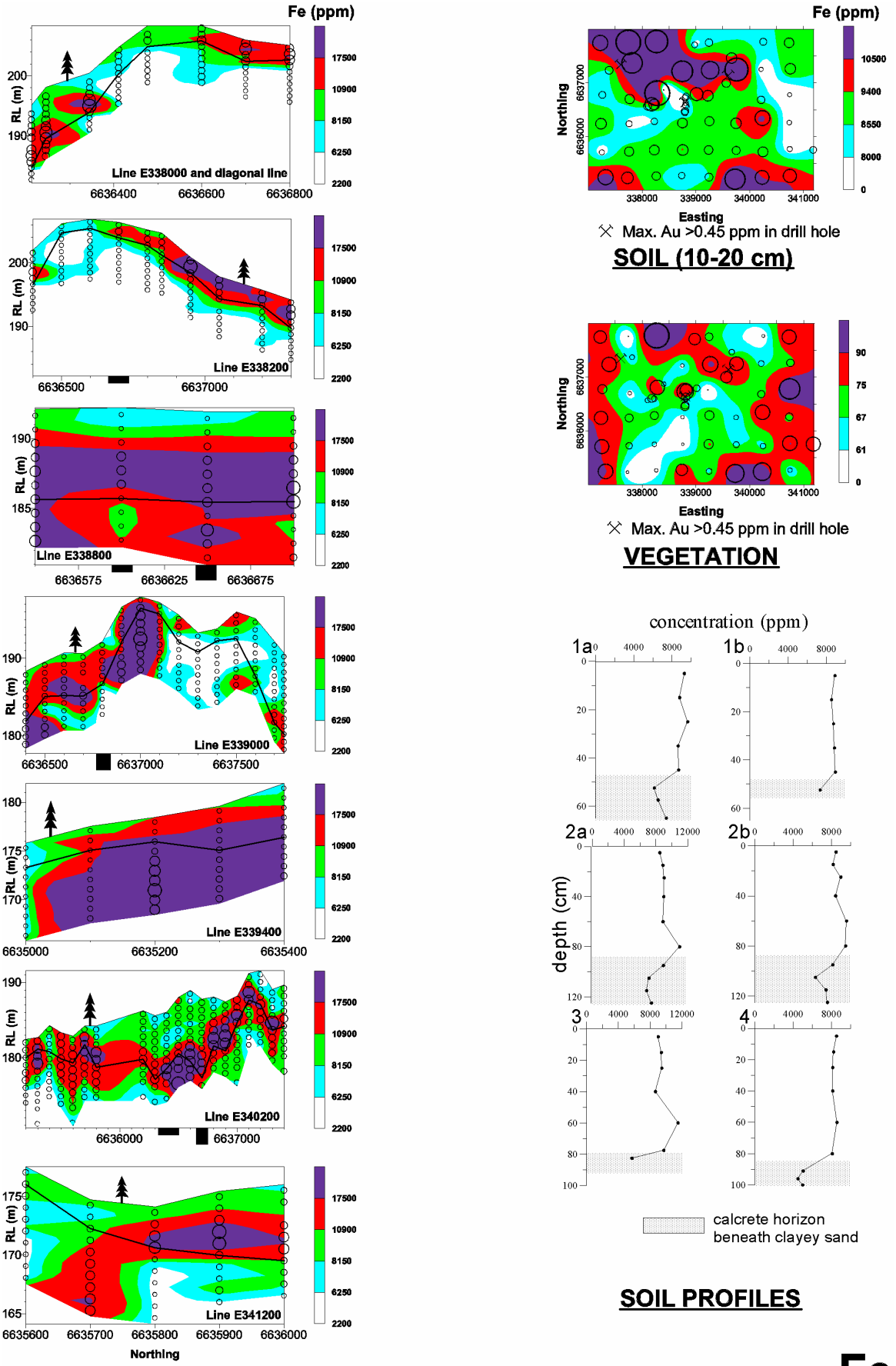
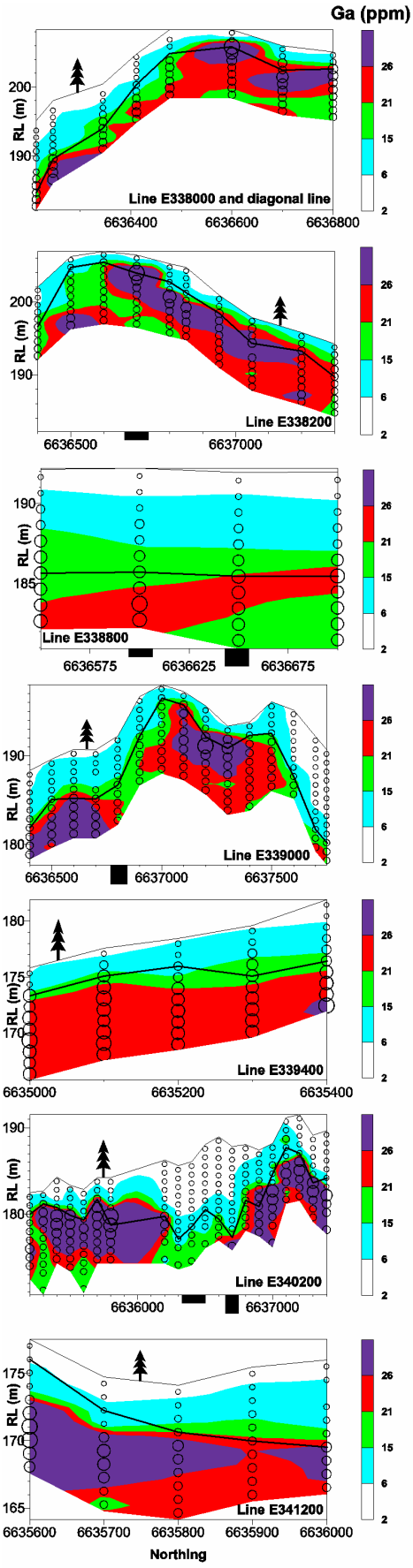
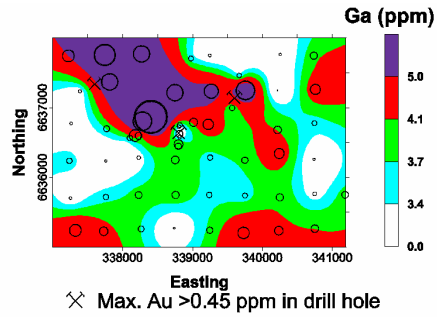


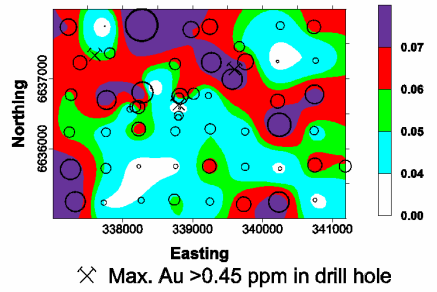
Figure A1.16: Geochemical data for Fe at ET Prospect.



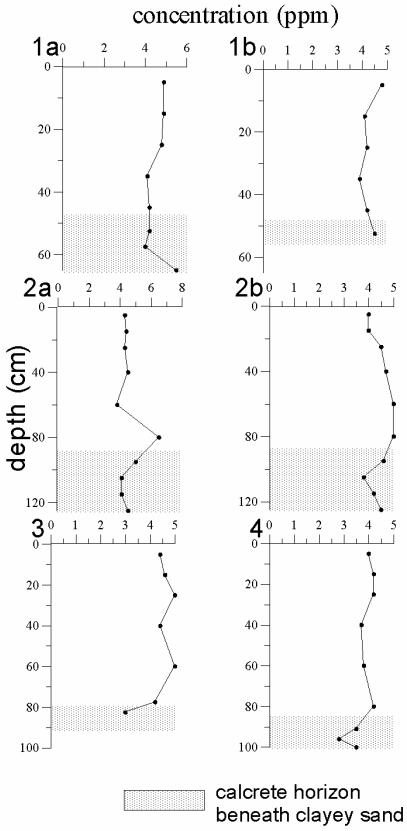
REGOLITH SECTIONS (0-~10 m)



SOIL (10-20 cm)



VEGETATION



SOIL PROFILES

Ga

Figure A1.17: Geochemical data for Ga at ET Prospect.

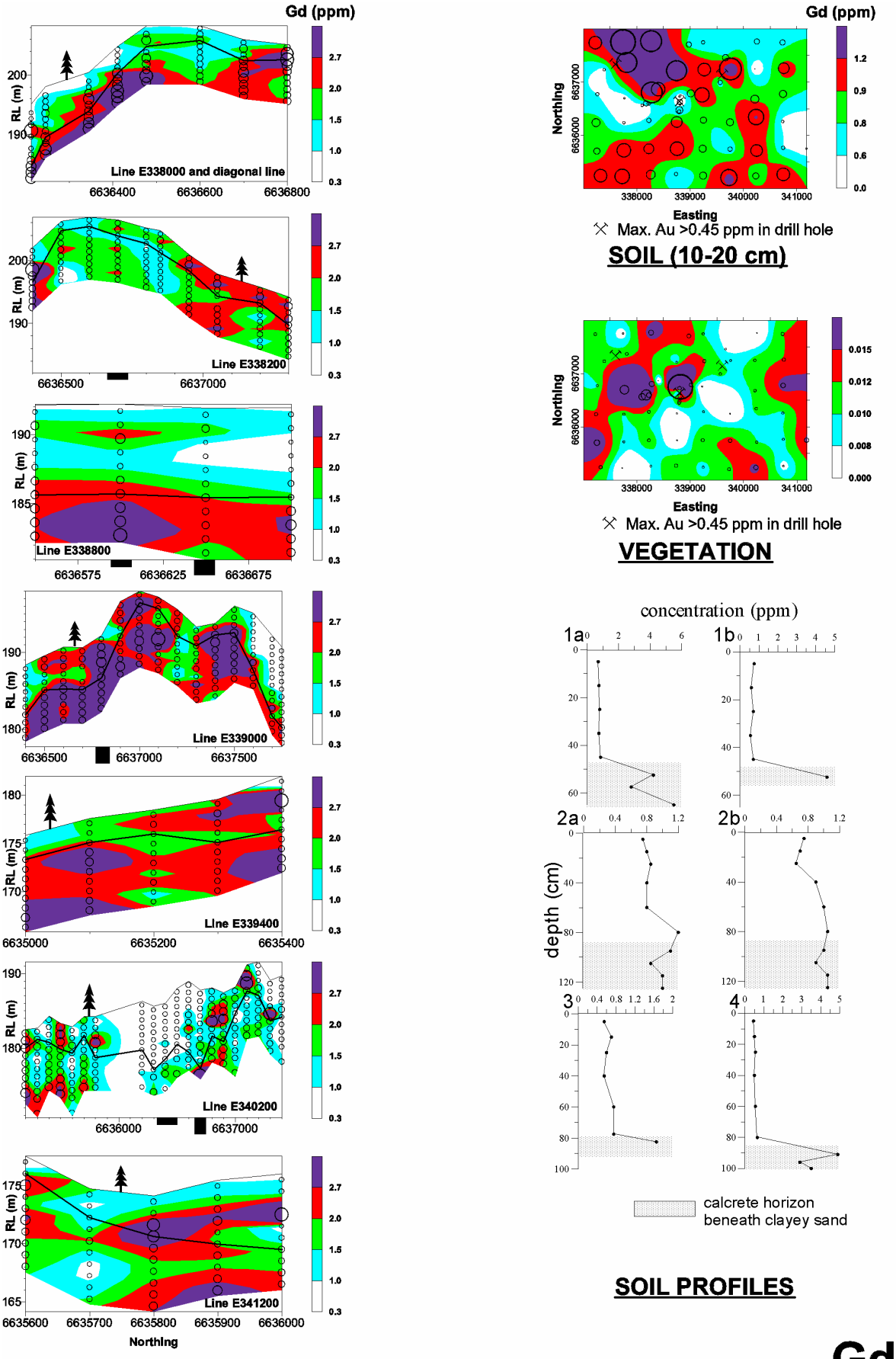
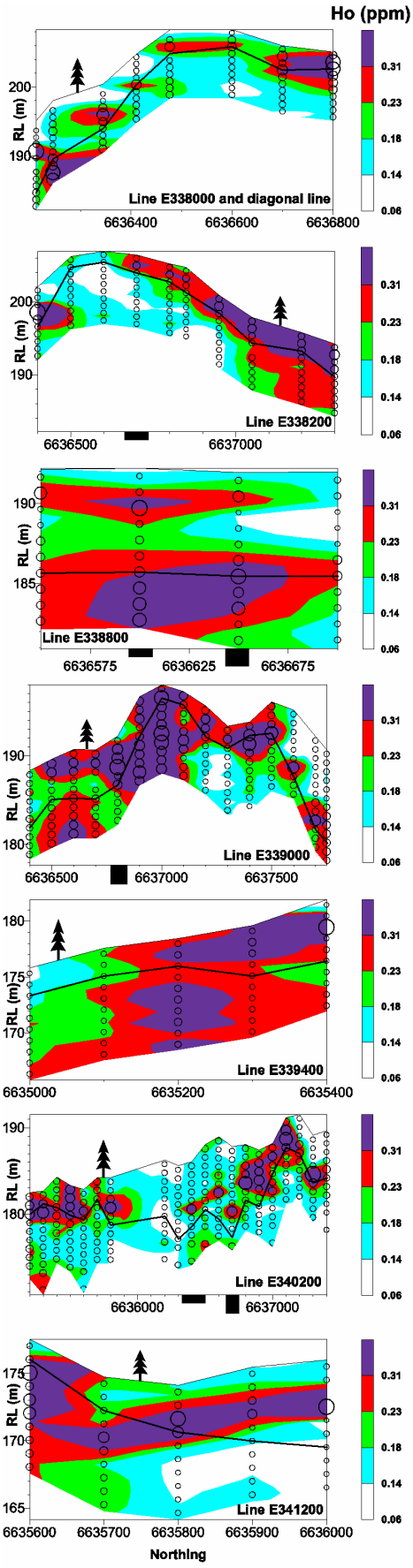
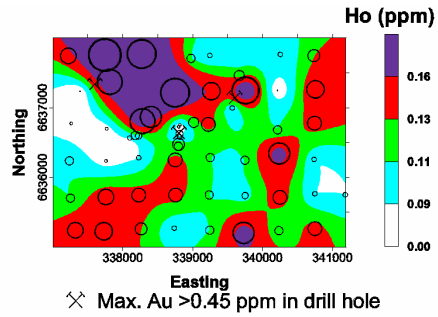


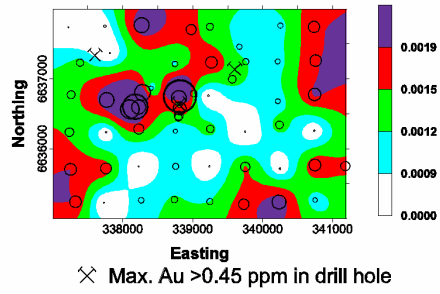
Figure A1.18: Geochemical data for Gd at ET Prospect.



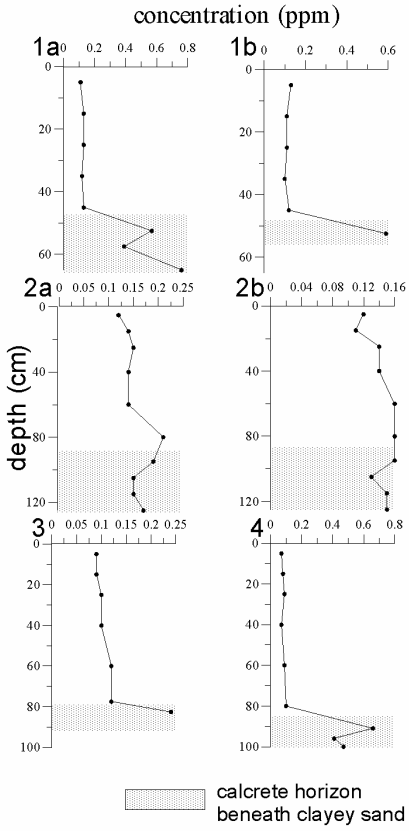
REGOLITH SECTIONS (0-~10 m)



SOIL (10-20 cm)



VEGETATION



SOIL PROFILES

Ho

Figure A1.19: Geochemical data for Ho at ET Prospect.

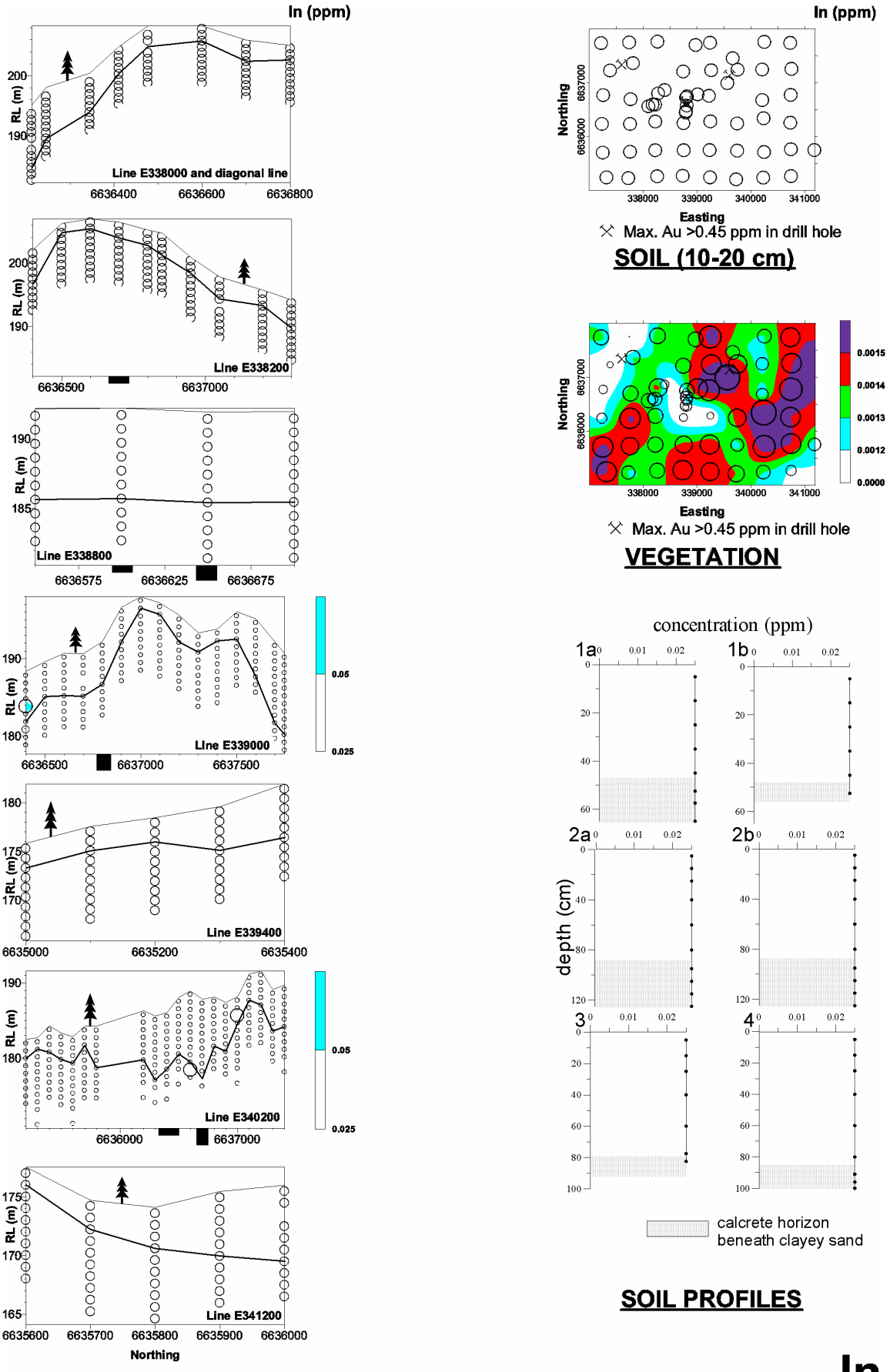
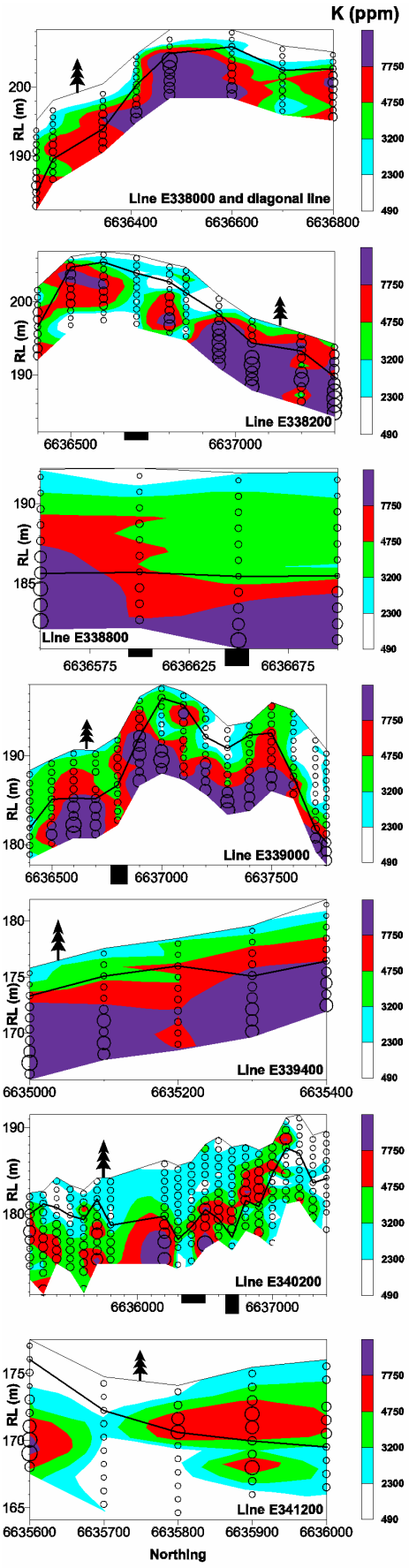
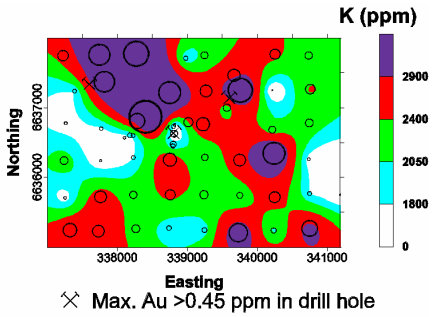


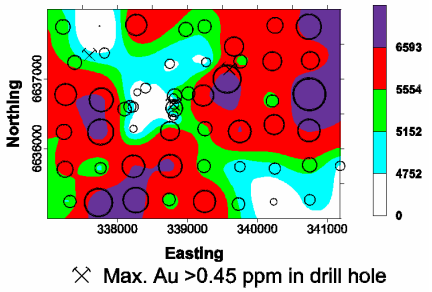
Figure A1.20: Geochemical data for In at ET Prospect.



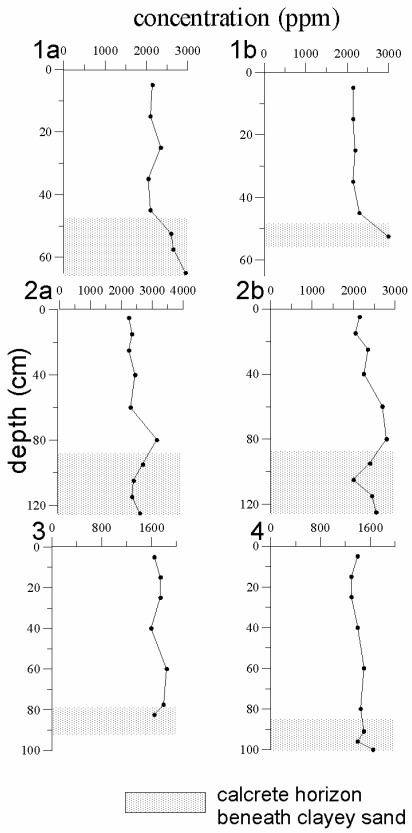
REGOLITH SECTIONS (0-~10 m)



SOIL (10-20 cm)



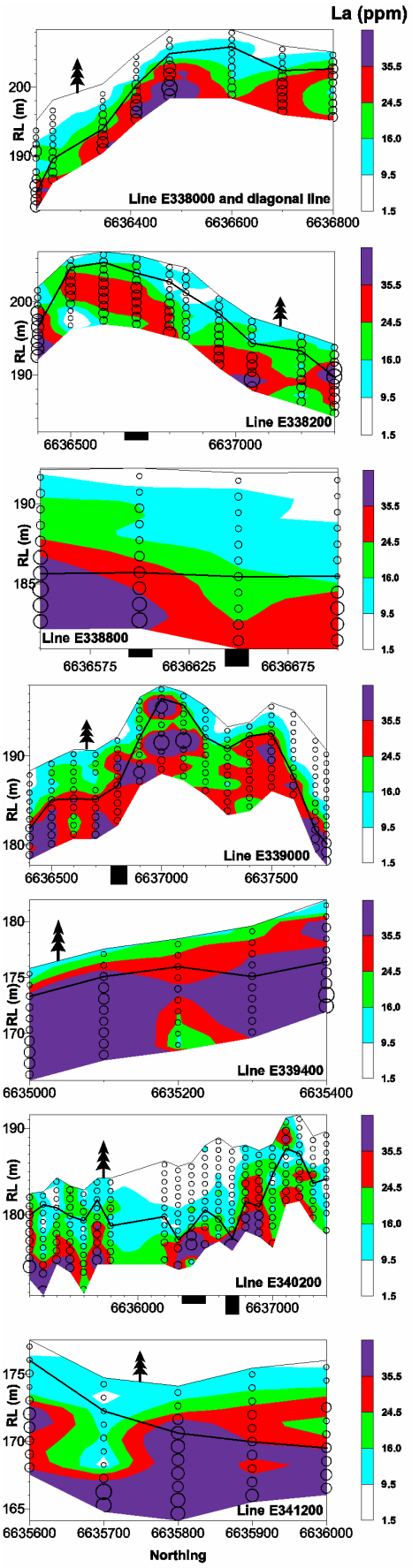
VEGETATION



SOIL PROFILES

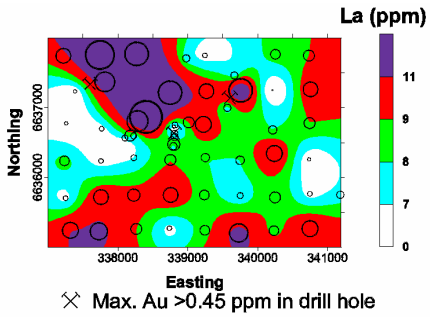
K

Figure A1.21: Geochemical data for K at ET Prospect.



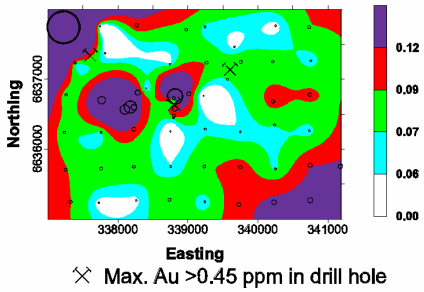
■ mineralisation

REGOLITH SECTIONS (0-~10 m)



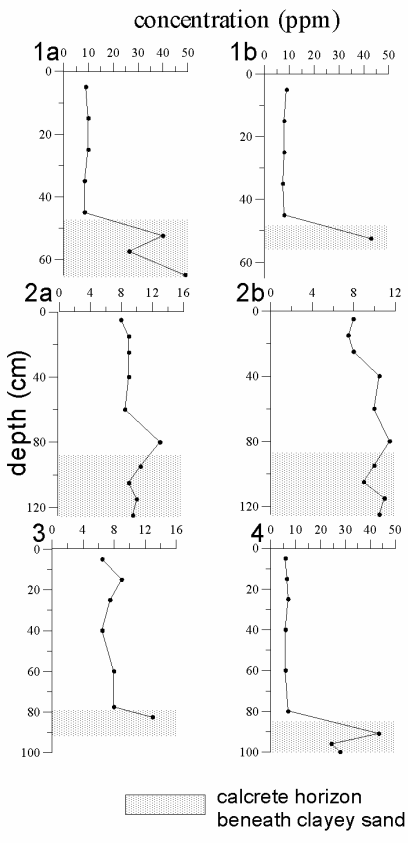
⛌ Max. Au >0.45 ppm in drill hole

SOIL (10-20 cm)



⛌ Max. Au >0.45 ppm in drill hole

VEGETATION



SOIL PROFILES

La

Figure A1.22: Geochemical data for La at ET Prospect.

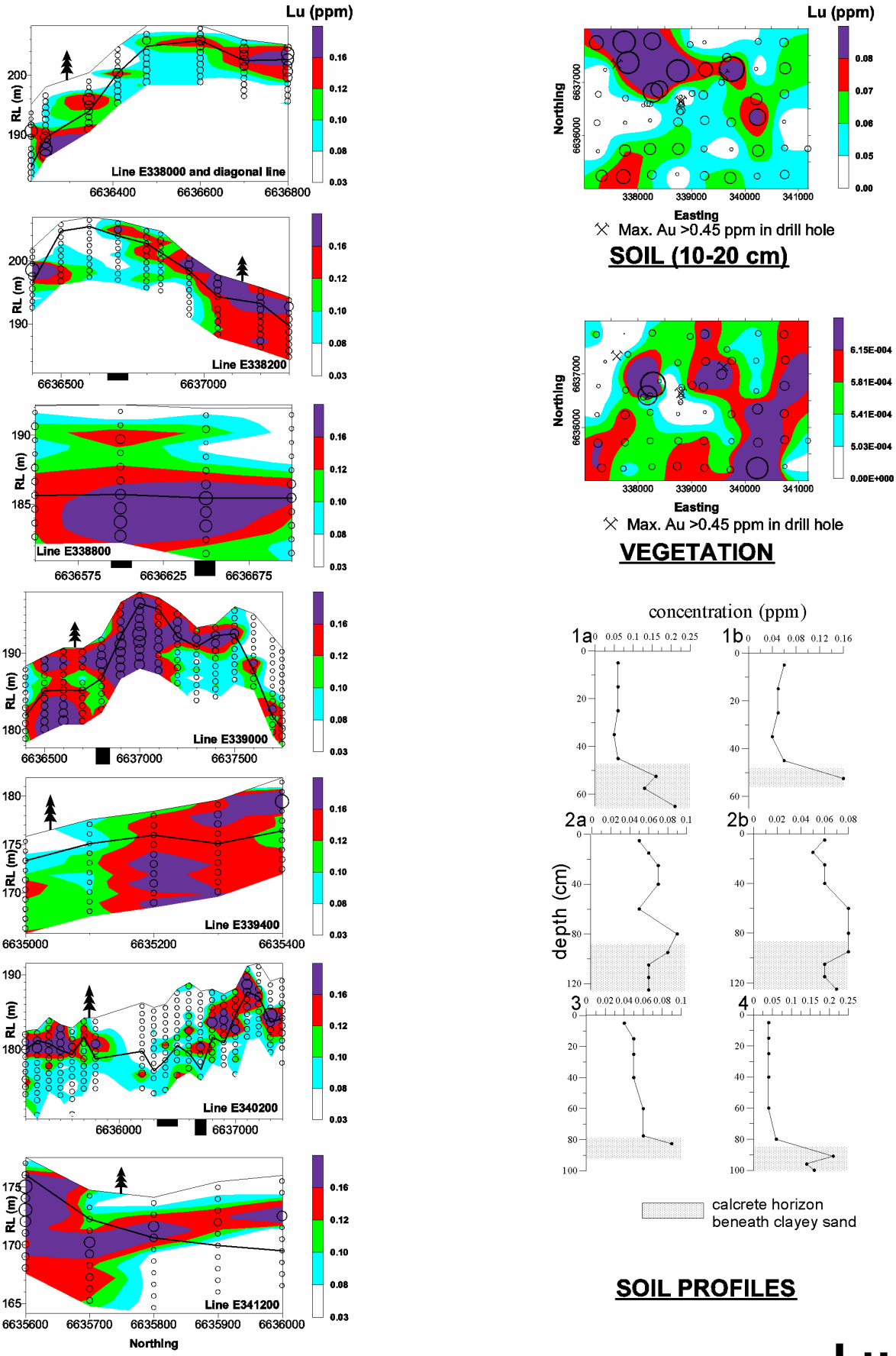


Figure A1.23: Geochemical data for Lu at ET Prospect.

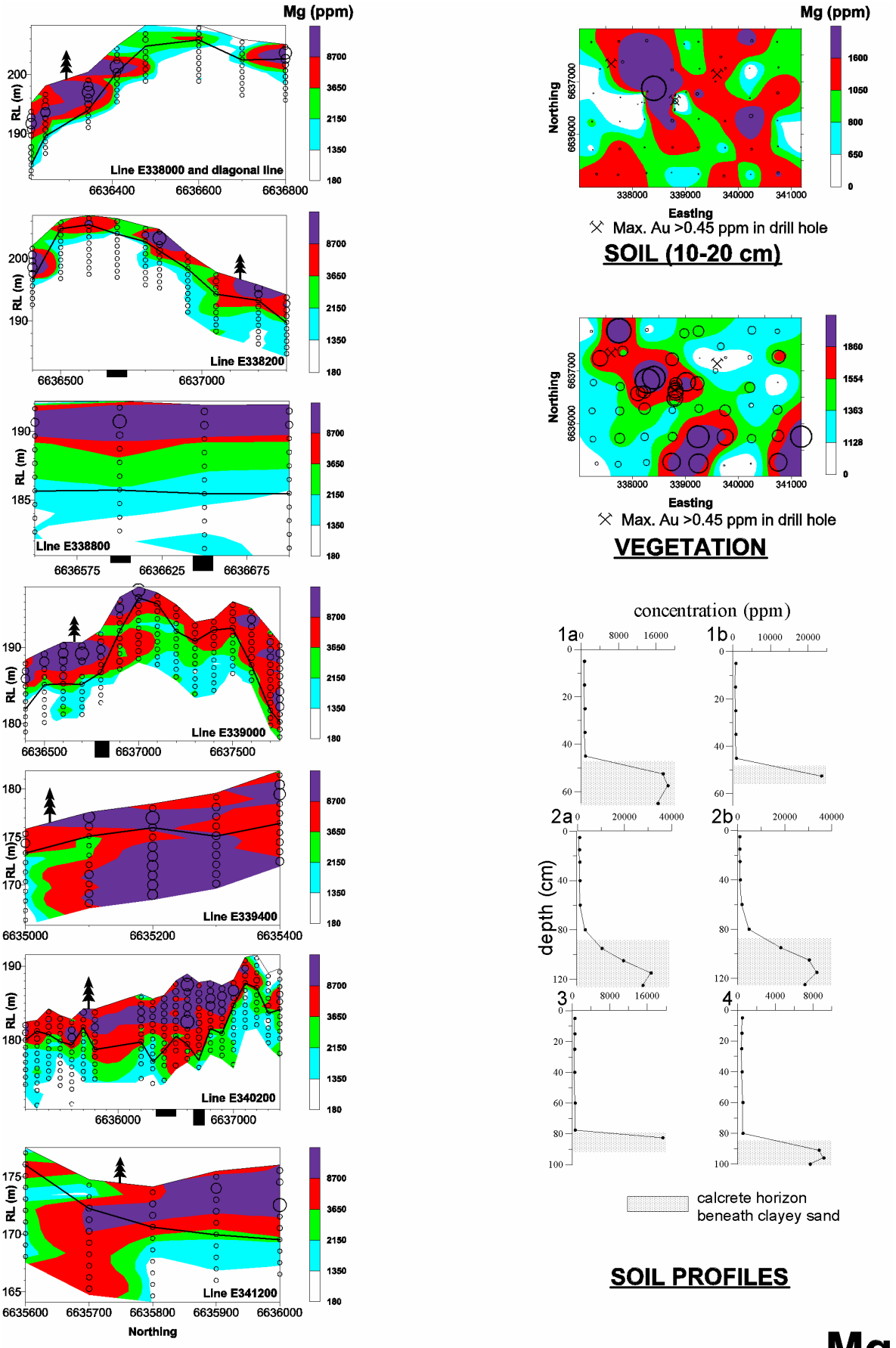


Figure A1.24: Geochemical data for Mg at ET Prospect.

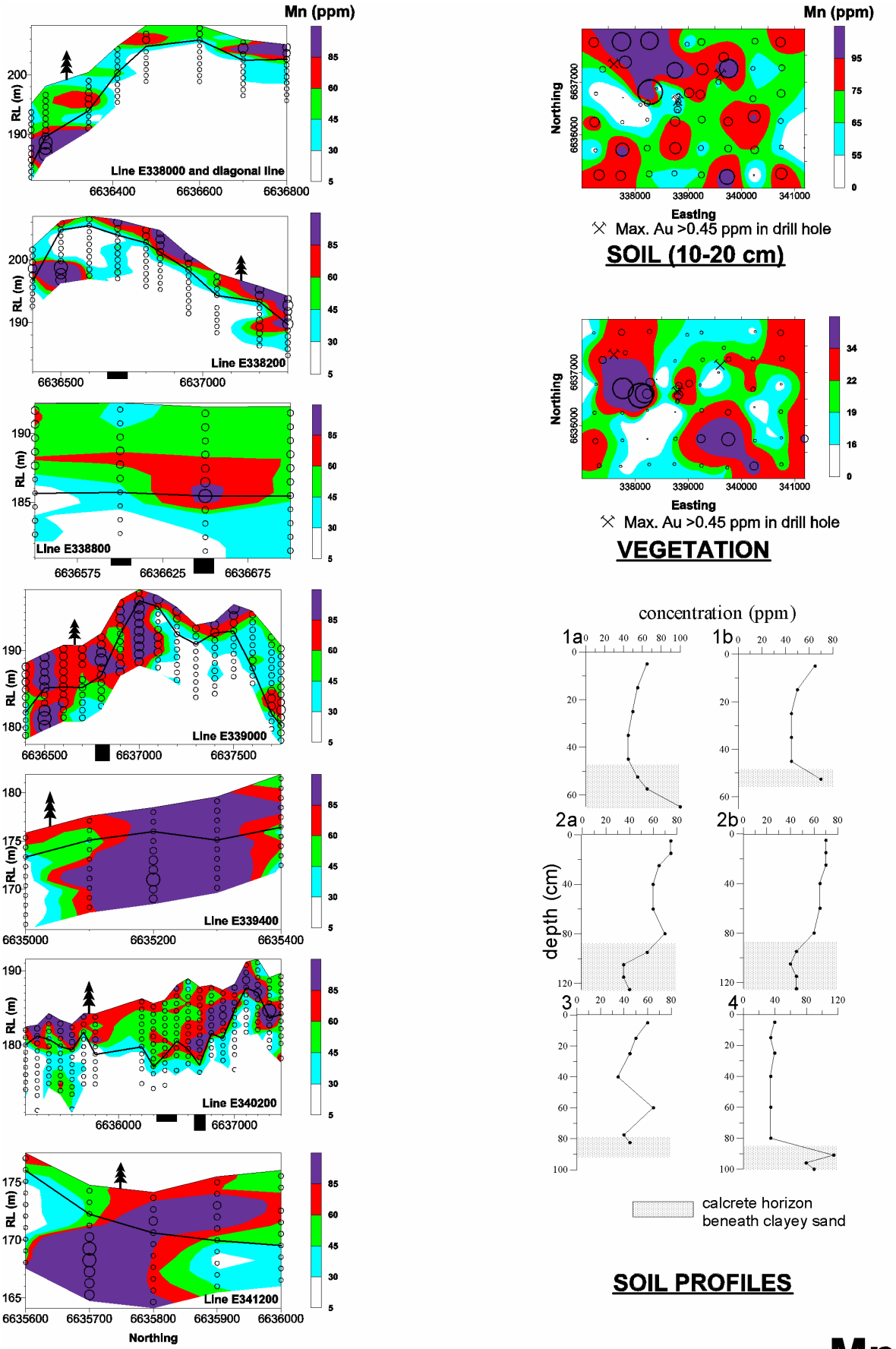


Figure A1.25: Geochemical data for Mn at ET Prospect.

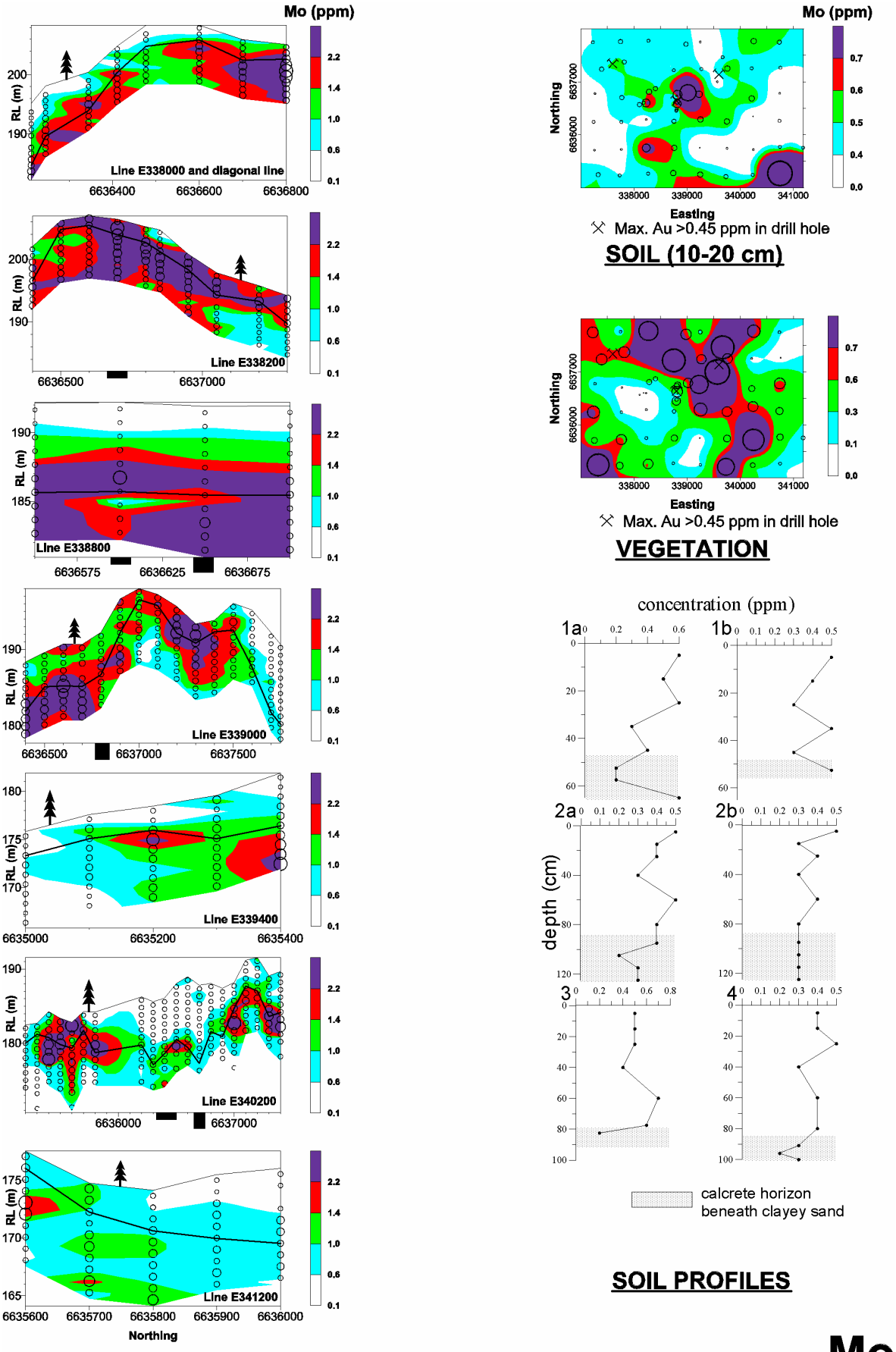


Figure A1.26: Geochemical data for Mo at ET Prospect.

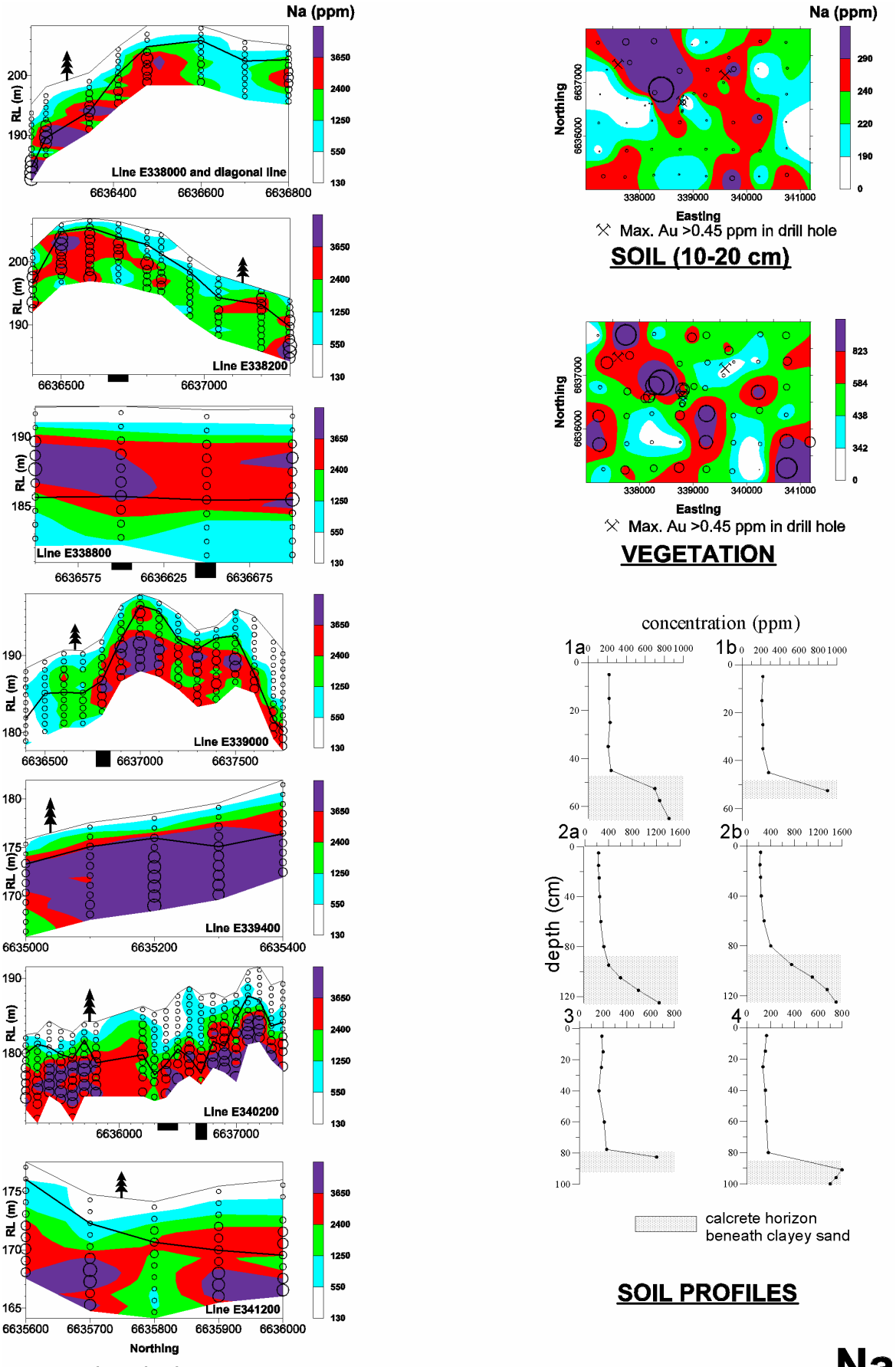
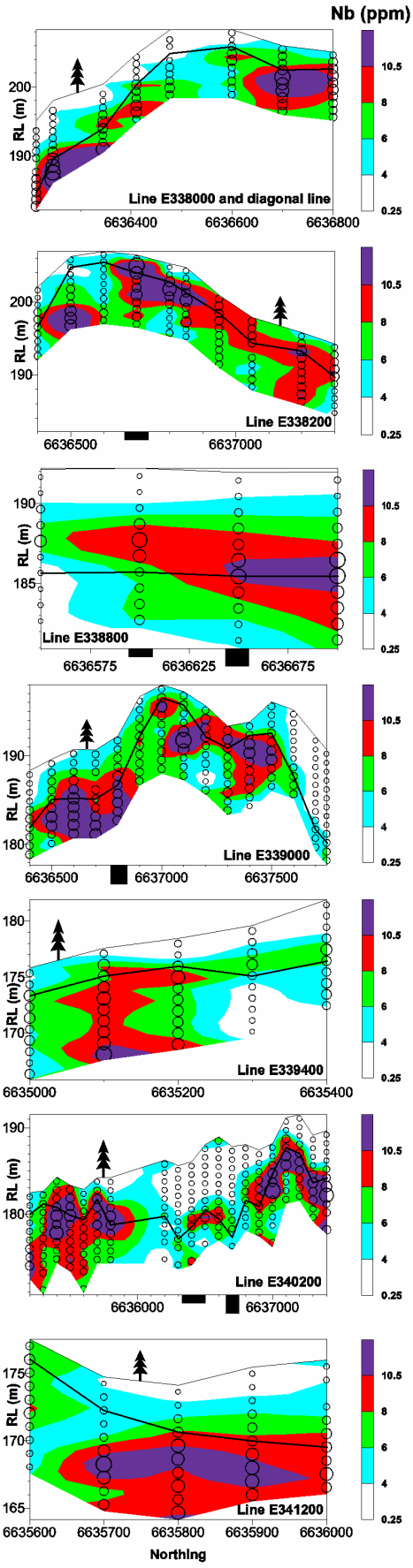
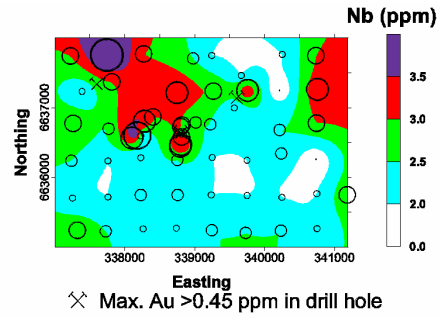


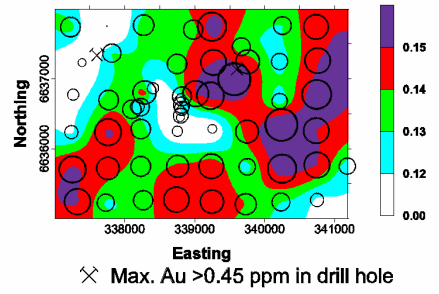
Figure A1.27: Geochemical data for Na at ET Prospect.



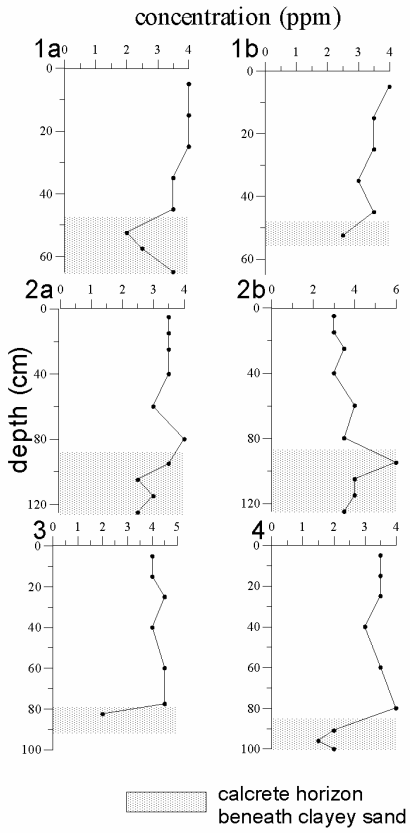
REGOLITH SECTIONS (0-~10 m)



SOIL (10-20 cm)



VEGETATION



SOIL PROFILES

Nb

Figure A1.28: Geochemical data for Nb at ET Prospect.

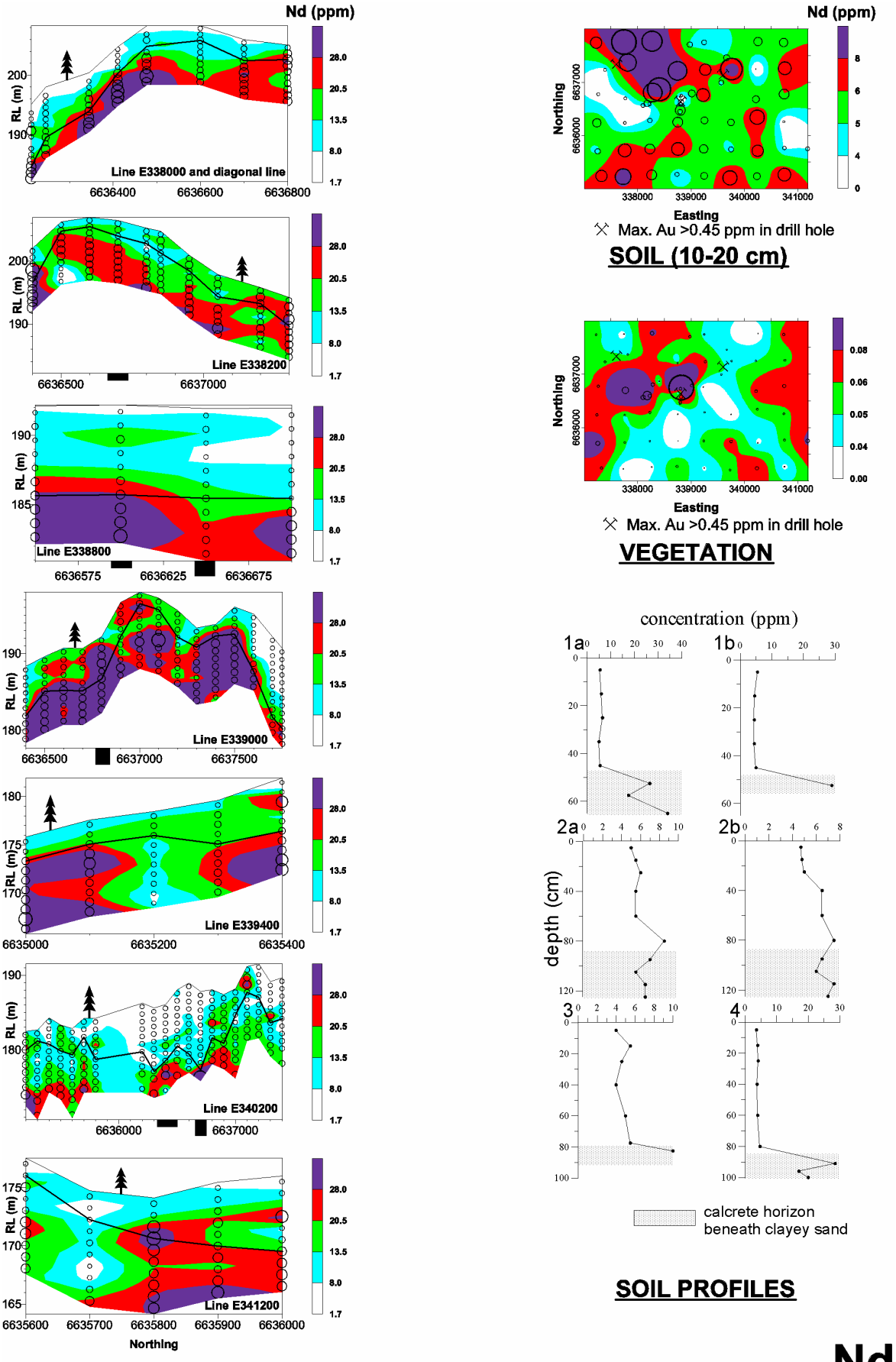


Figure A1.29: Geochemical data for Nd at ET Prospect.

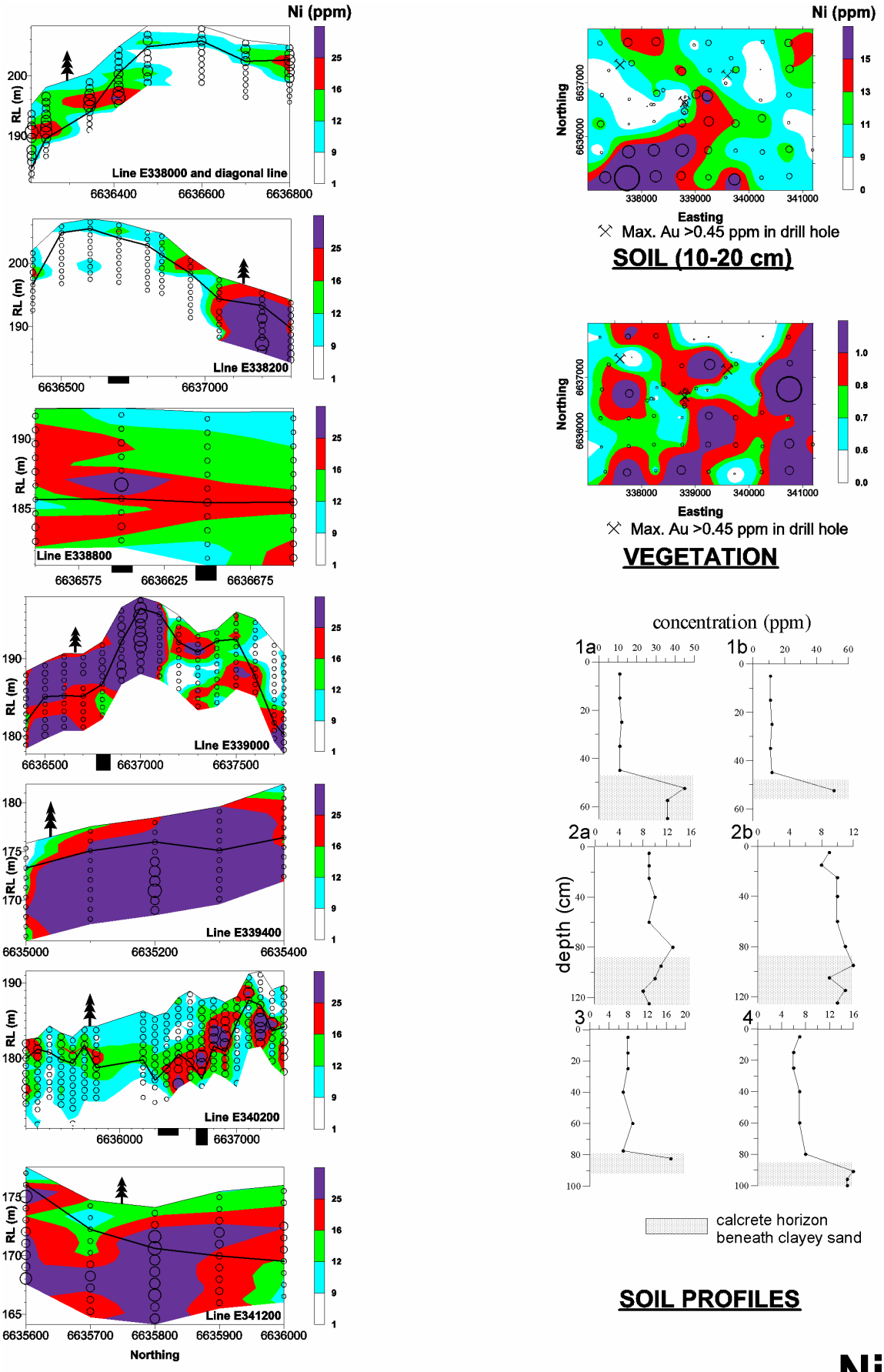


Figure A1.30: Geochemical data for Ni at ET Prospect.

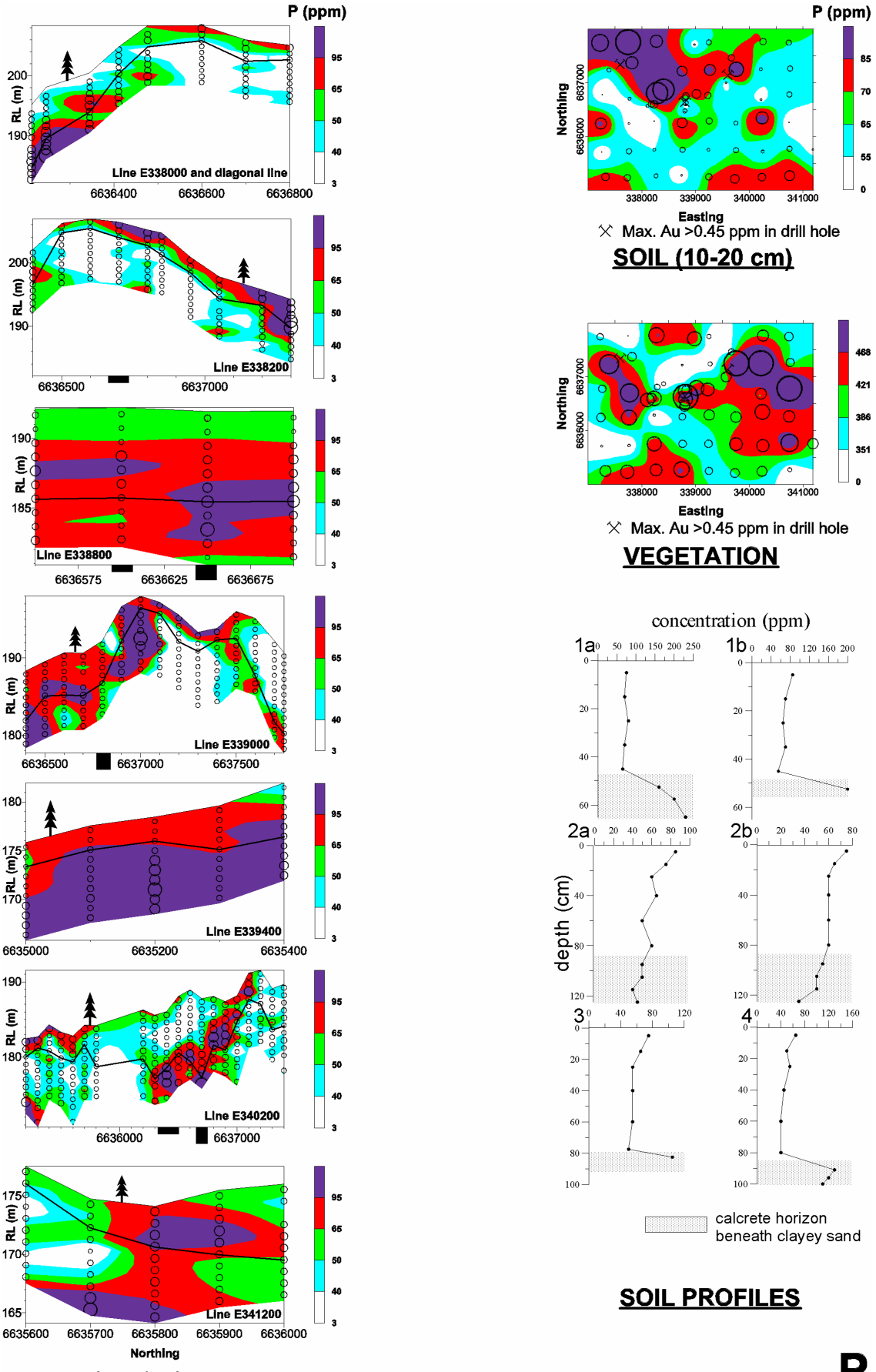


Figure A1.31: Geochemical data for P at ET Prospect.

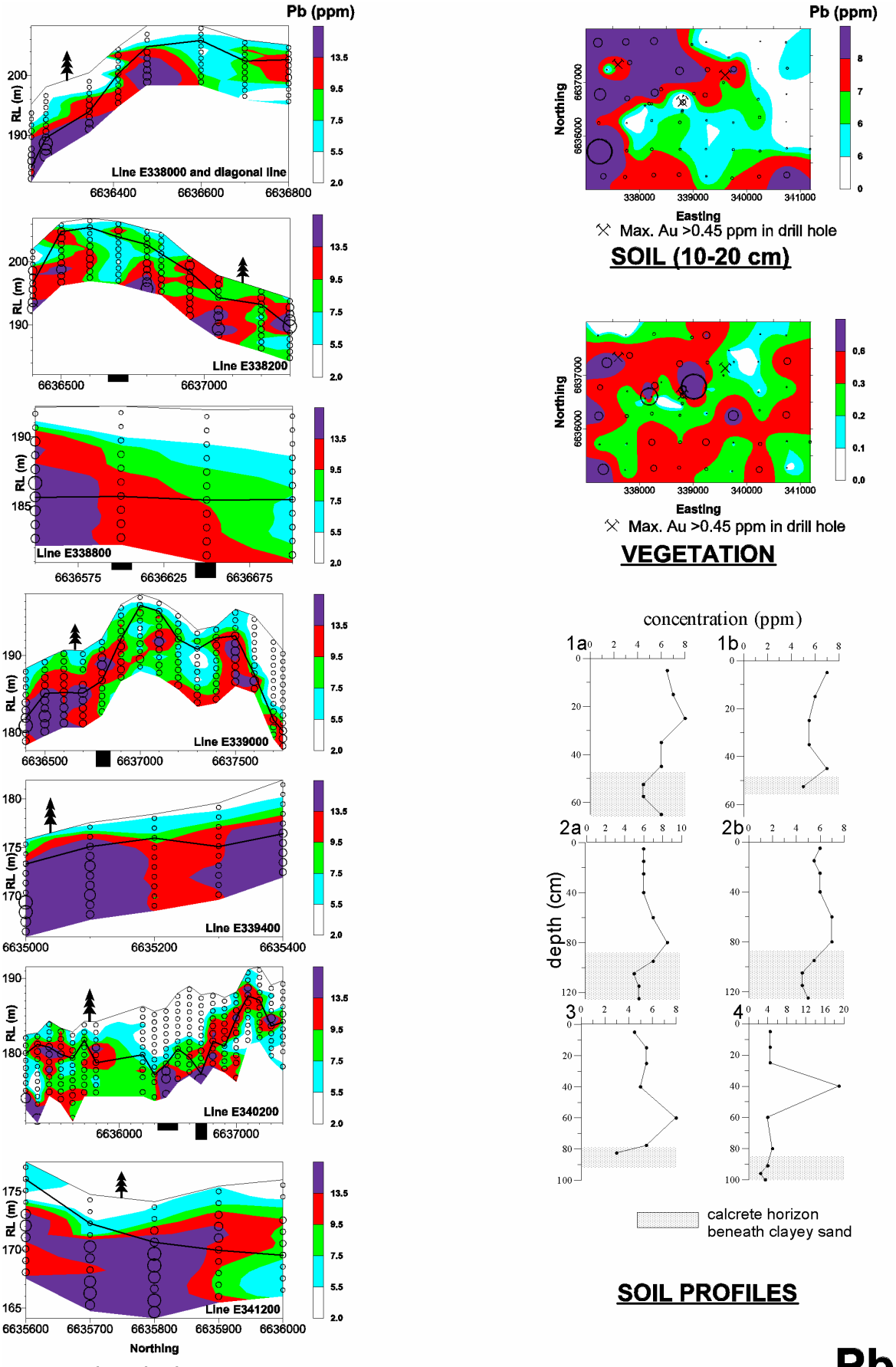


Figure A1.32: Geochemical data for Pb at ET Prospect.

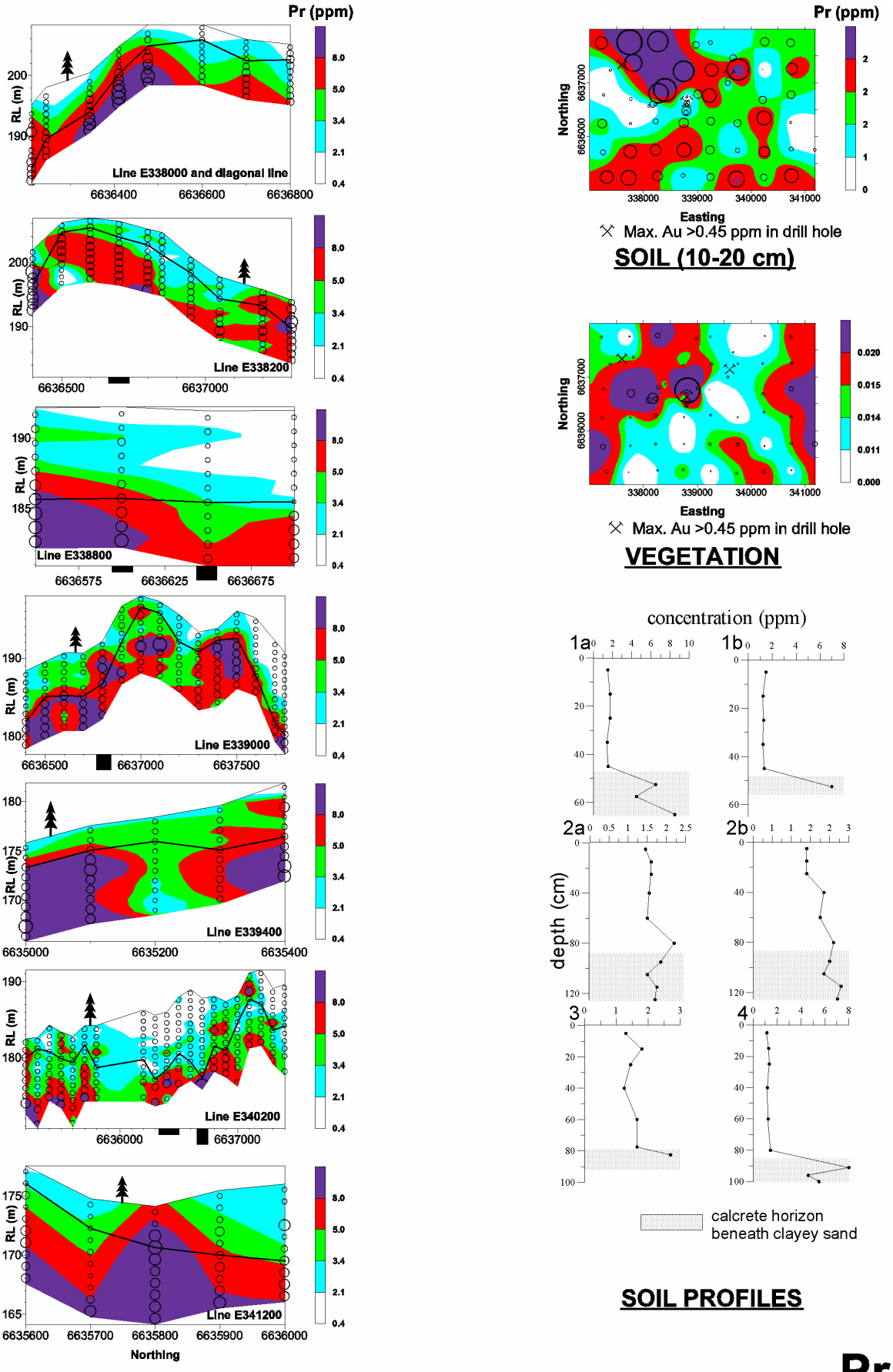


Figure A1.33: Geochemical data for Pr at ET Prospect.

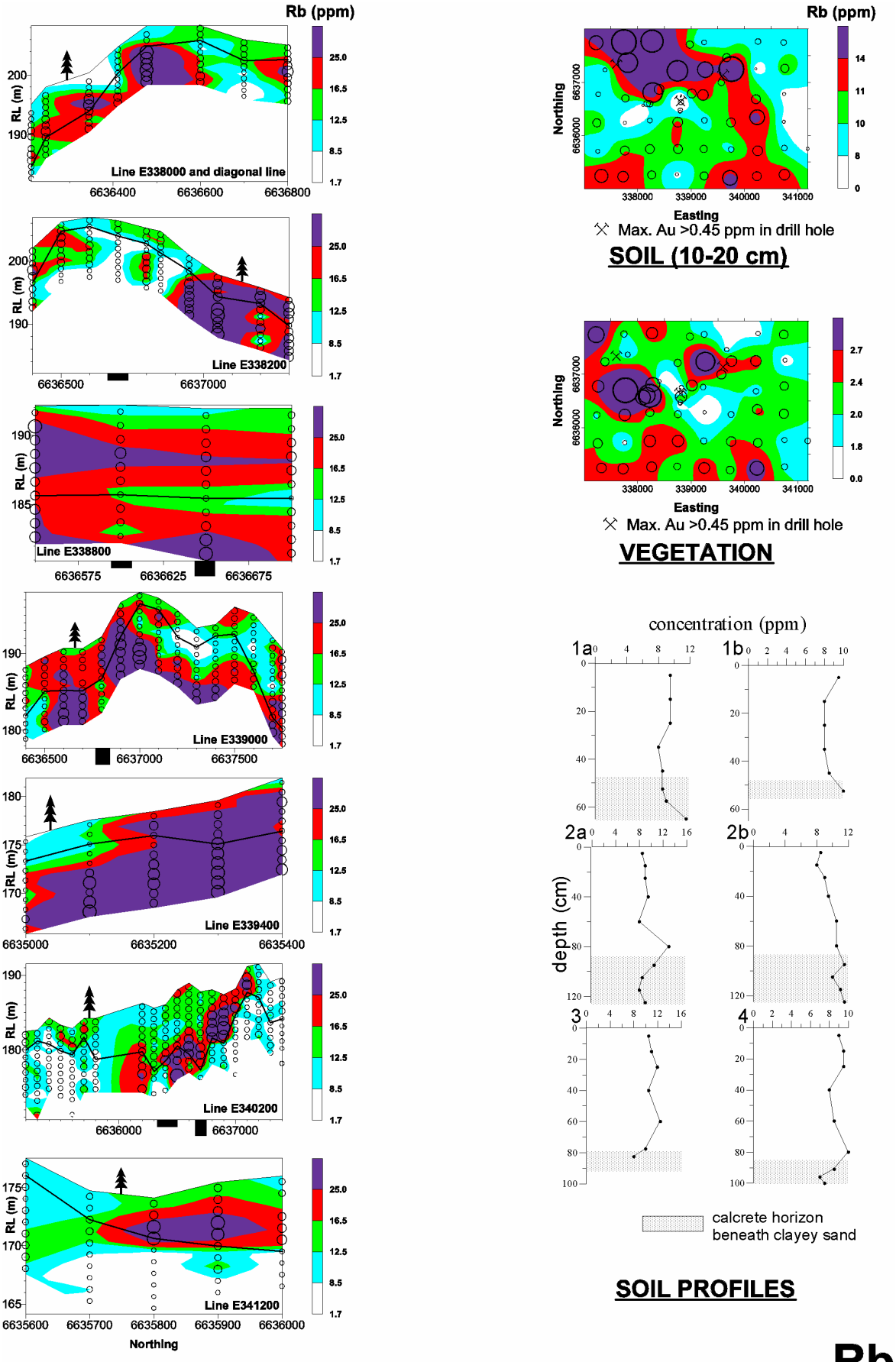


Figure A1.34: Geochemical data for Rb at ET Prospect.

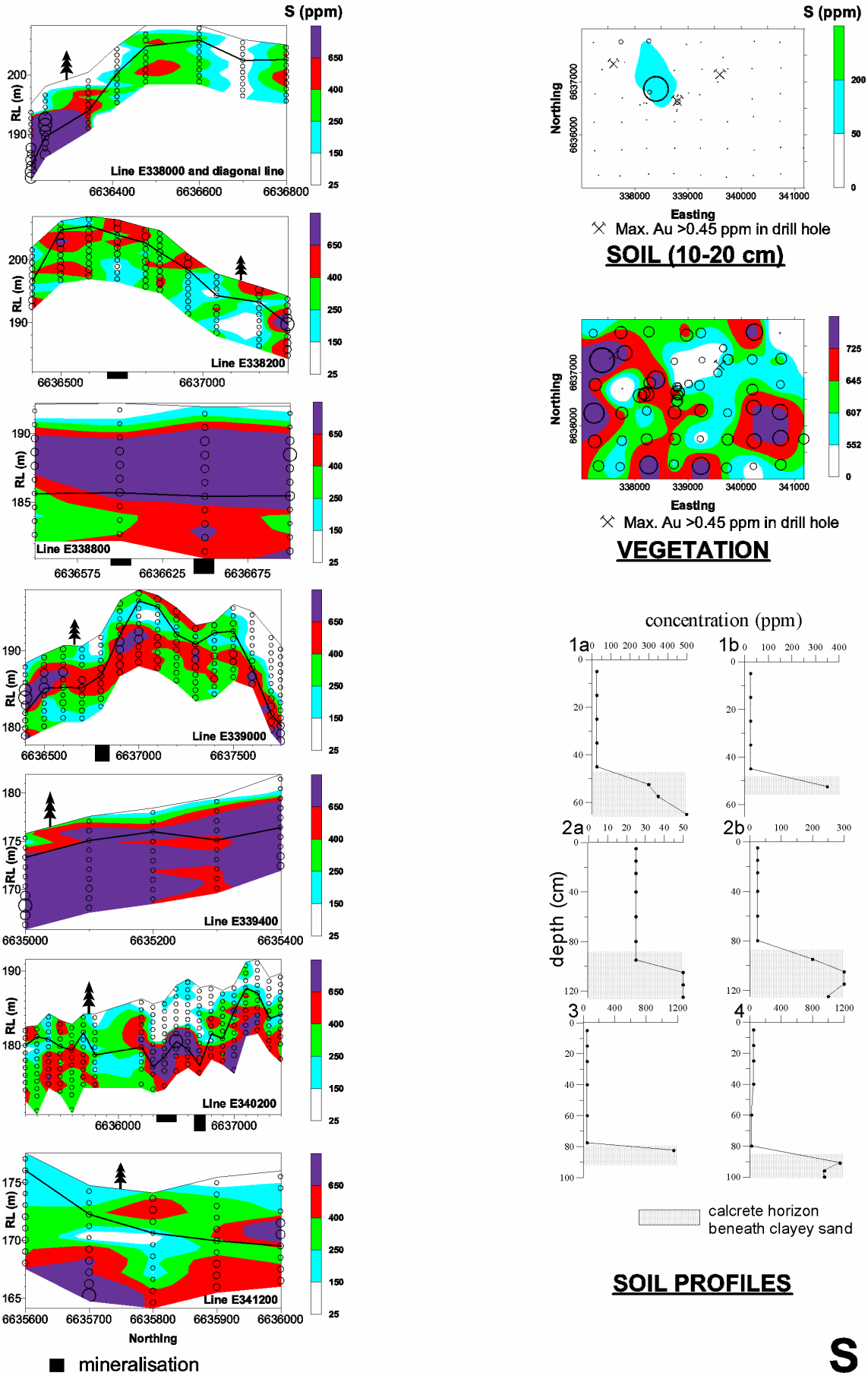


Figure A1.35: Geochemical data for S at ET Prospect.

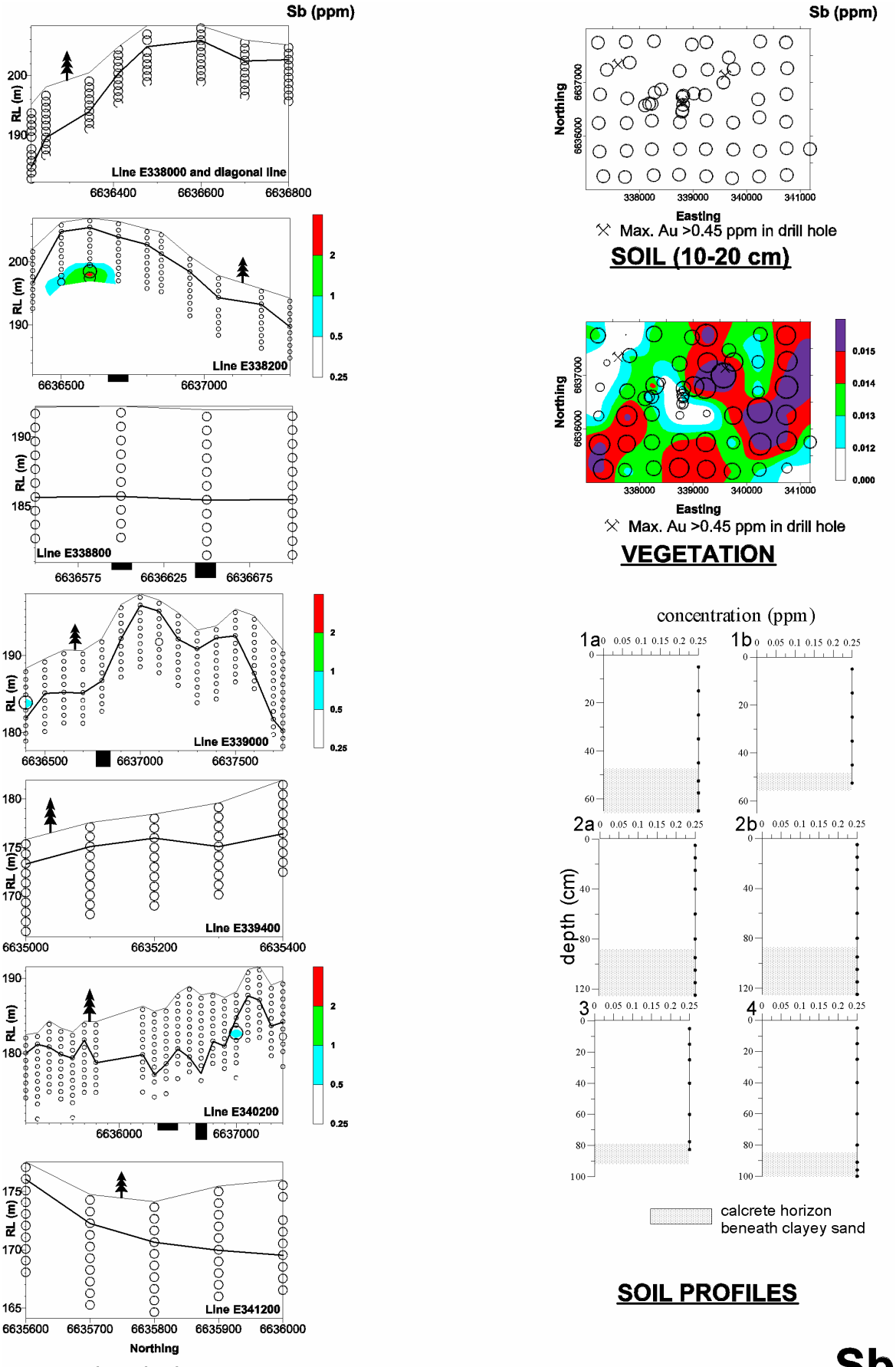


Figure A1.36: Geochemical data for Sb at ET Prospect.

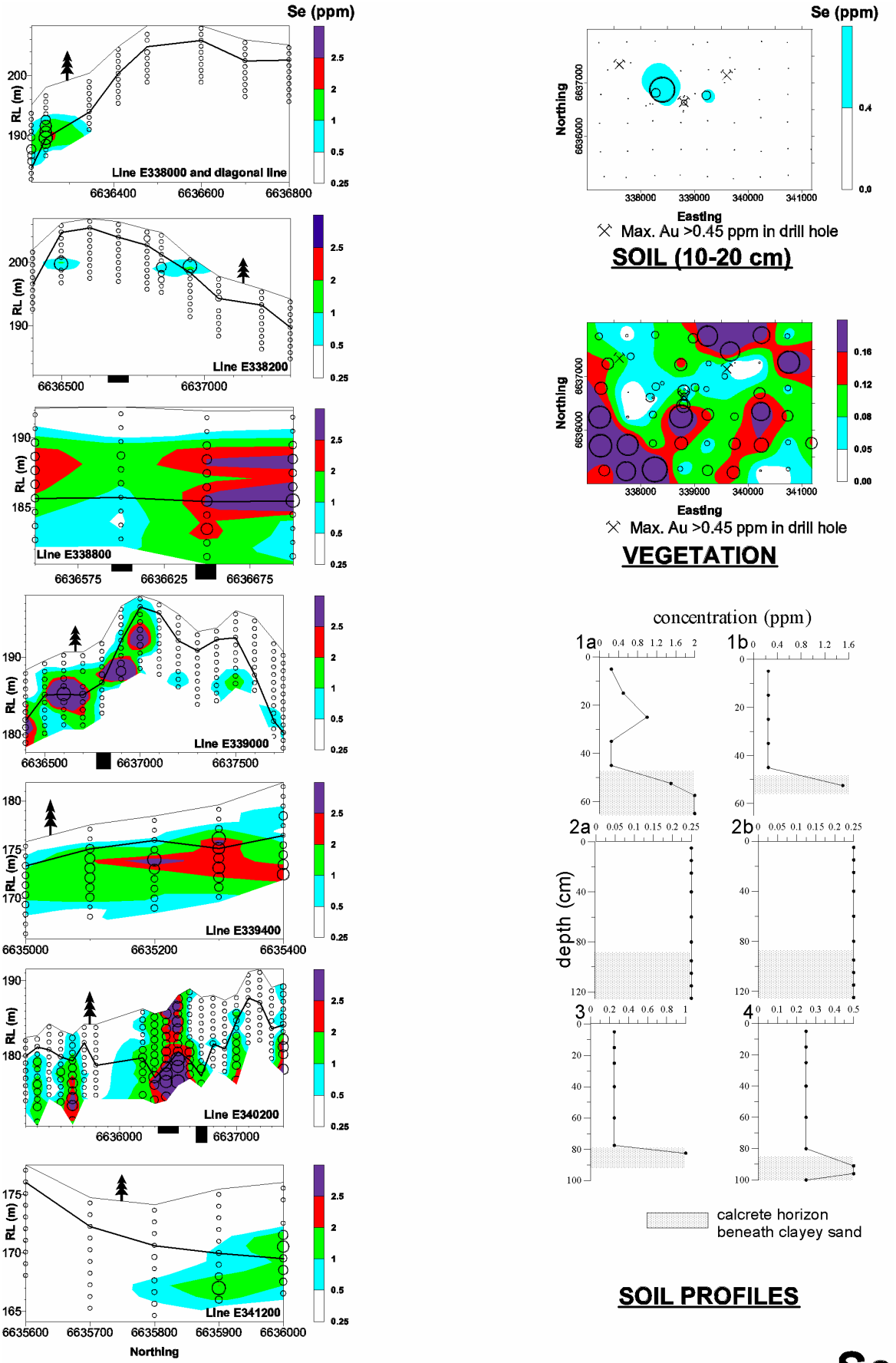
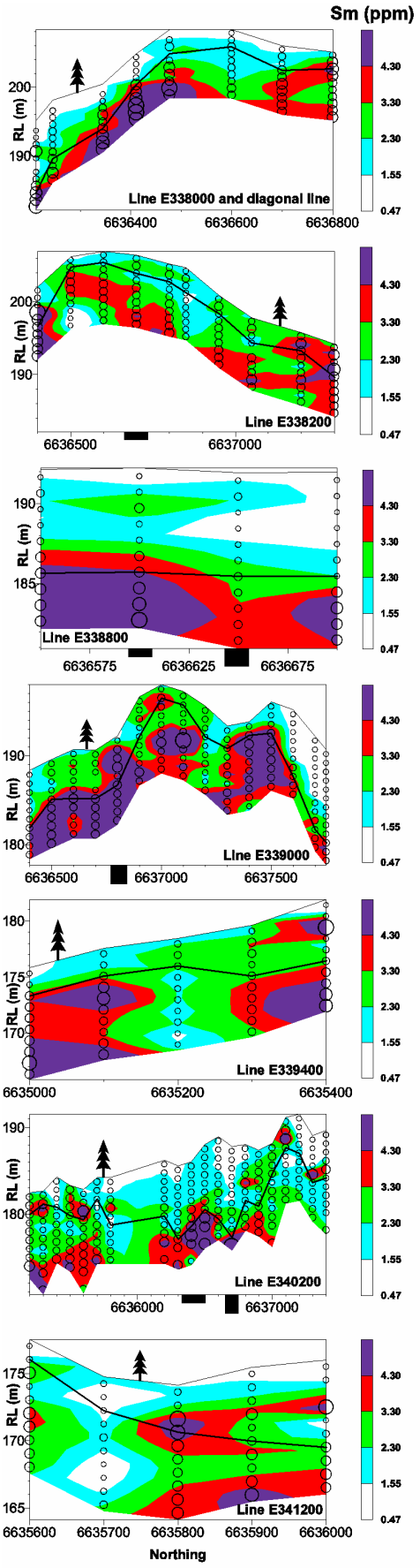
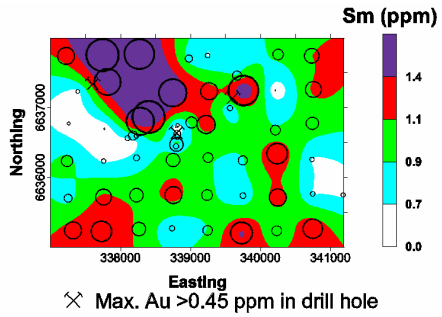
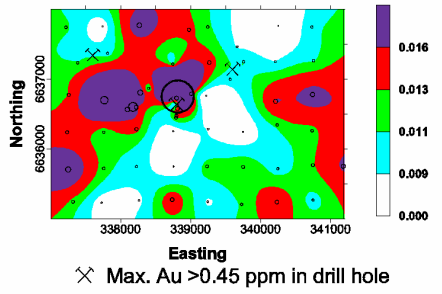
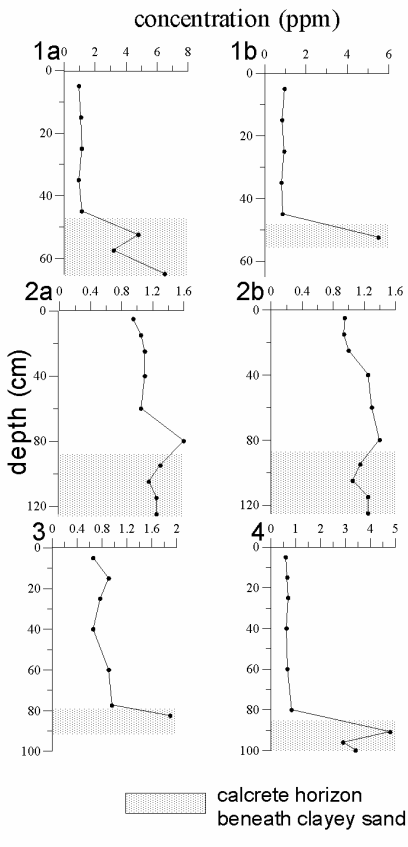


Figure A1.37: Geochemical data for Se at ET Prospect.



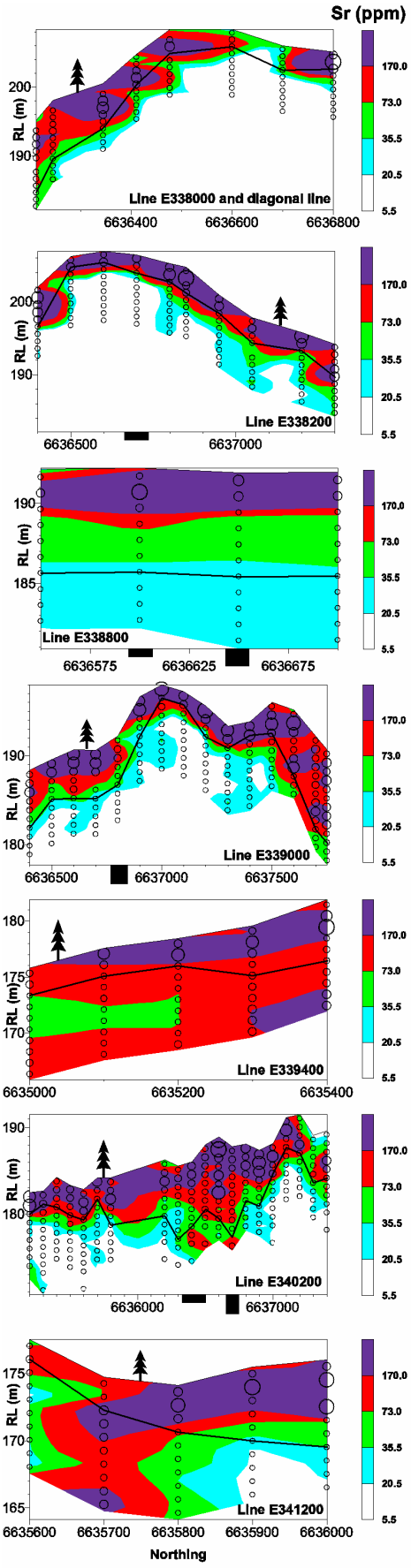




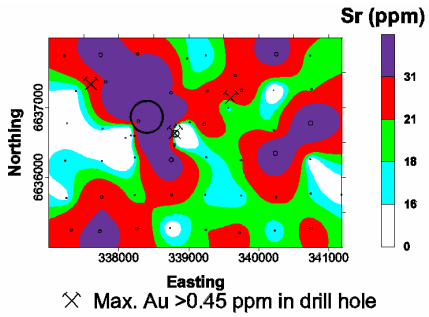


Sm

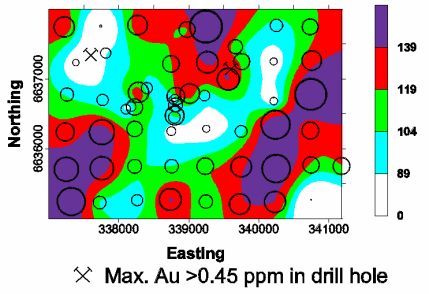
Figure A1.38: Geochemical data for Sm at ET Prospect.



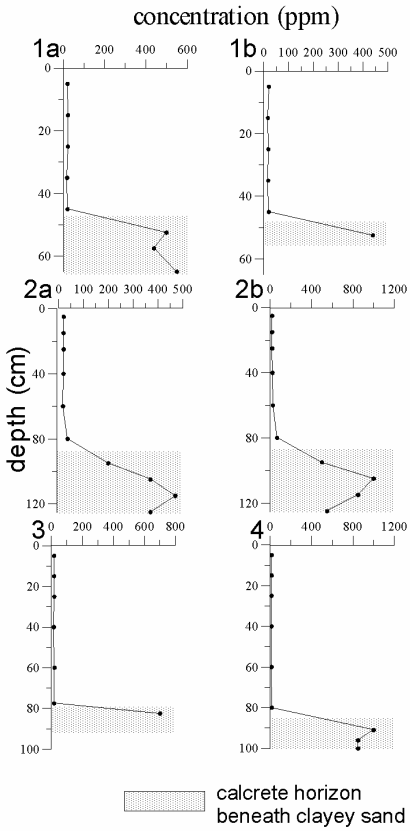
REGOLITH SECTIONS (0-~10 m)



SOIL (10-20 cm)



VEGETATION



SOIL PROFILES

Sr

Figure A1.39: Geochemical data for Sr at ET Prospect.

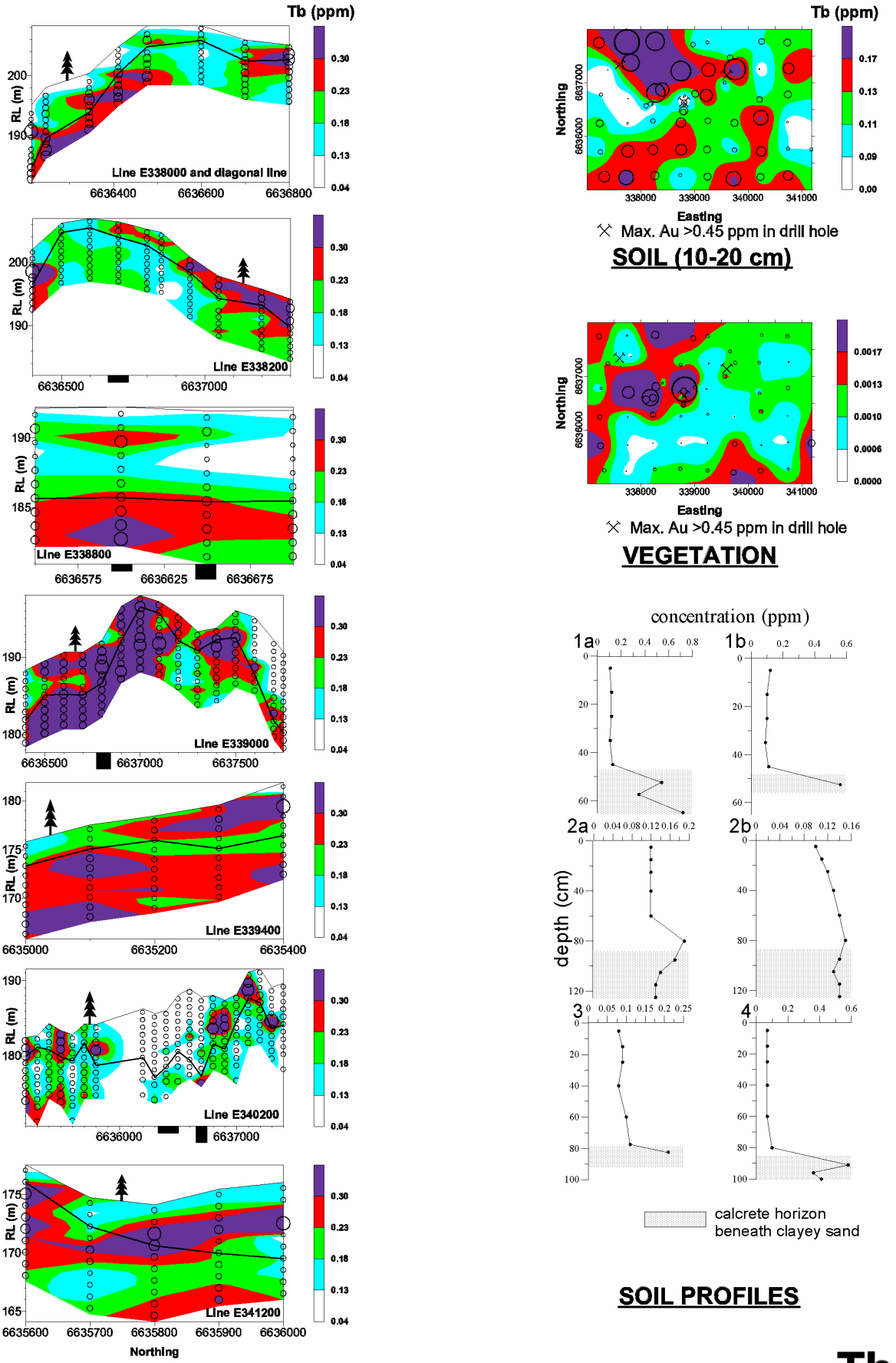


Figure A1.40: Geochemical data for Tb at ET Prospect.

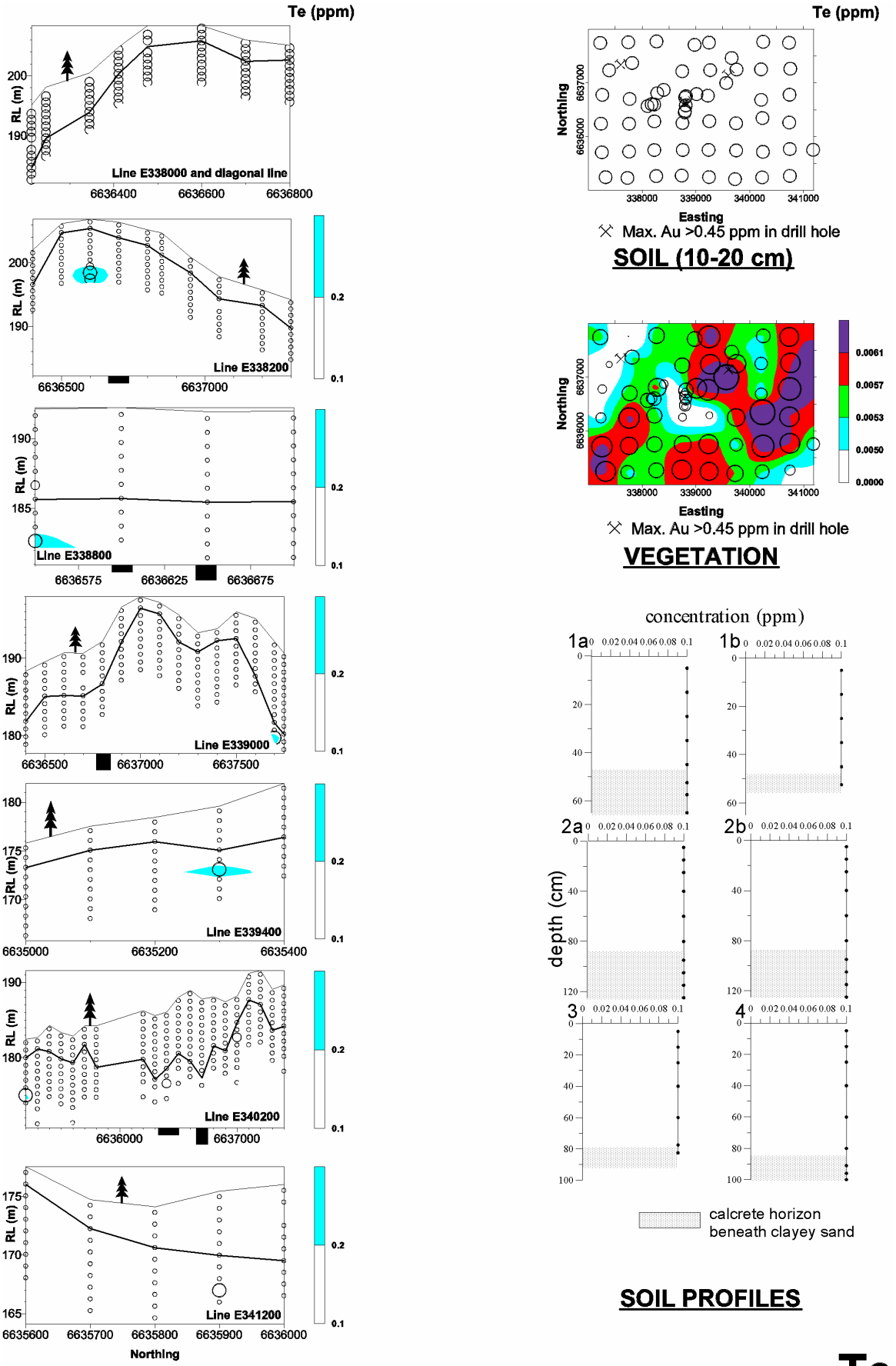


Figure A1.41: Geochemical data for Te at ET Prospect.

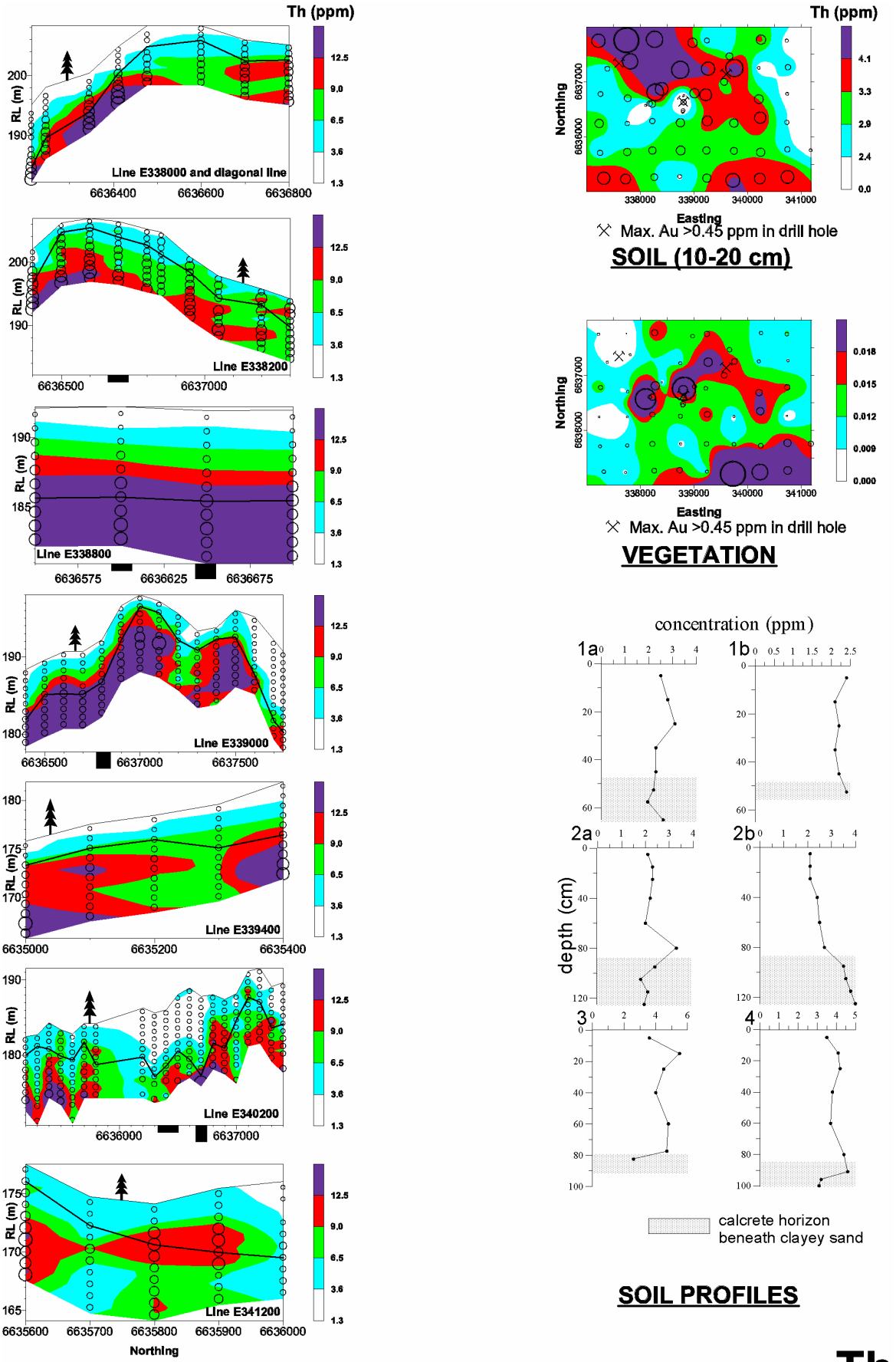
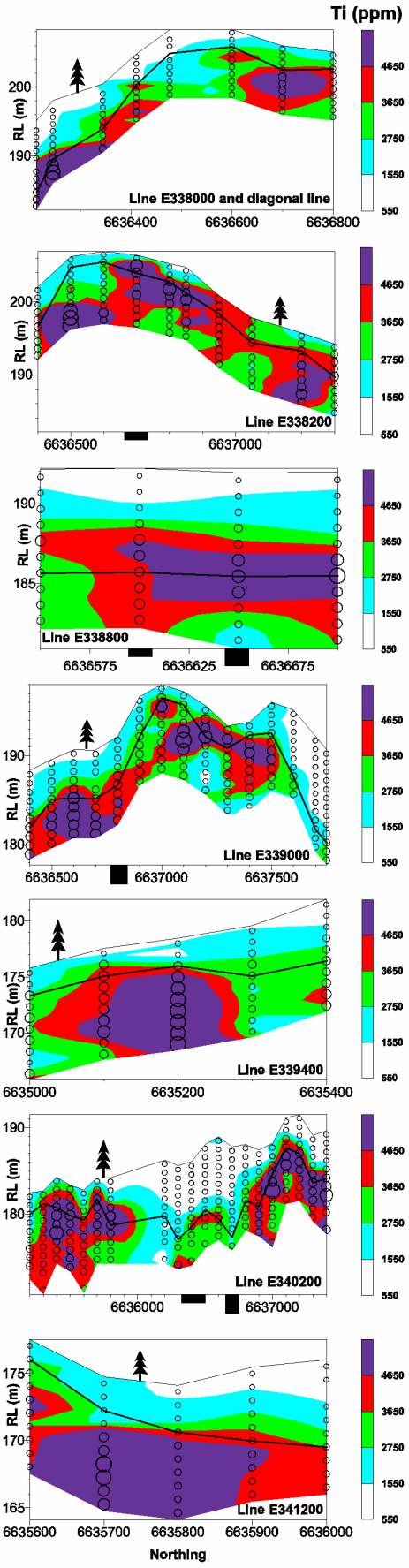
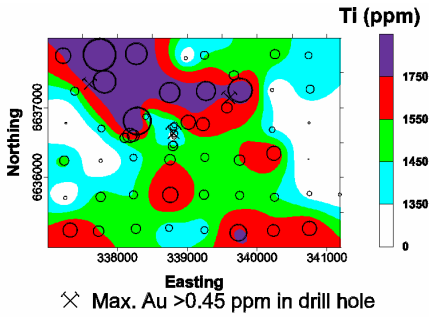


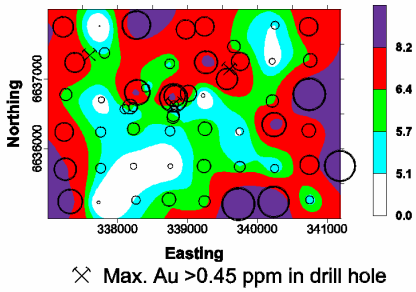
Figure A1.42: Geochemical data for Th at ET Prospect.



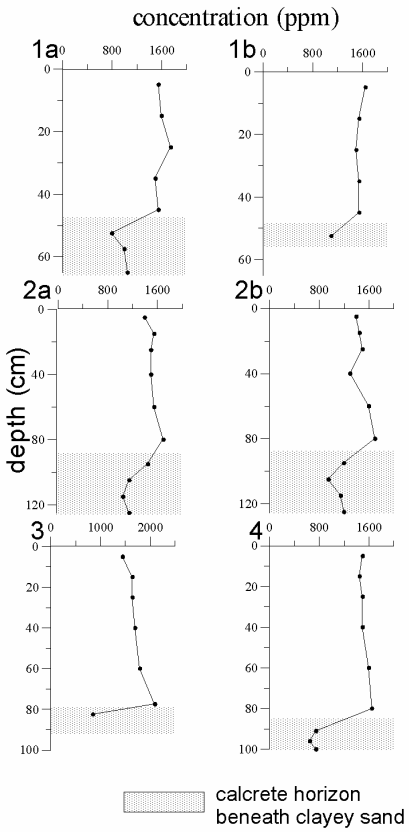
REGOLITH SECTIONS (0-~10 m)



SOIL (10-20 cm)



VEGETATION



SOIL PROFILES

Ti

Figure A1.43: Geochemical data for Ti at ET Prospect.

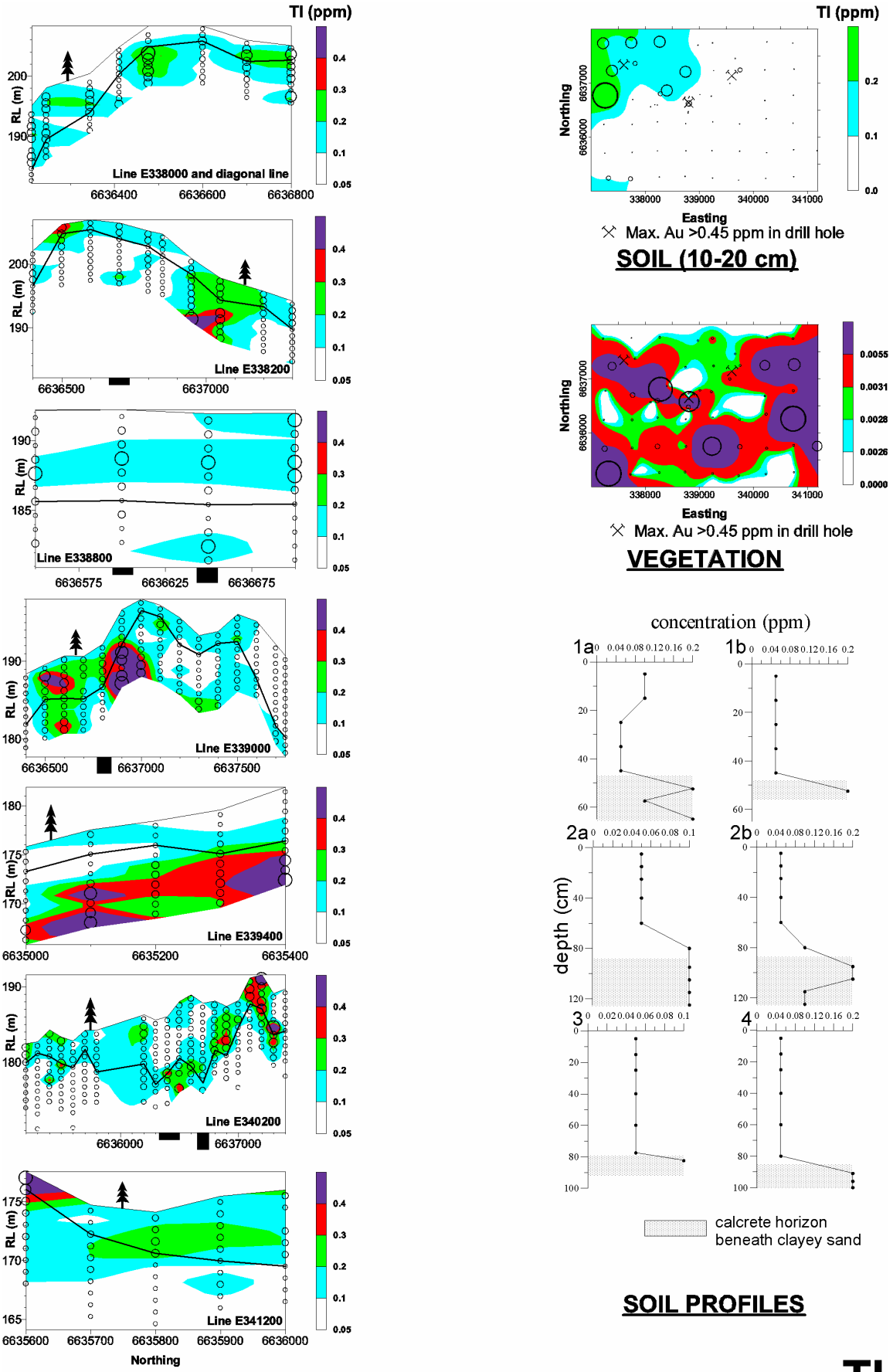


Figure A1.44: Geochemical data for Tl at ET Prospect.

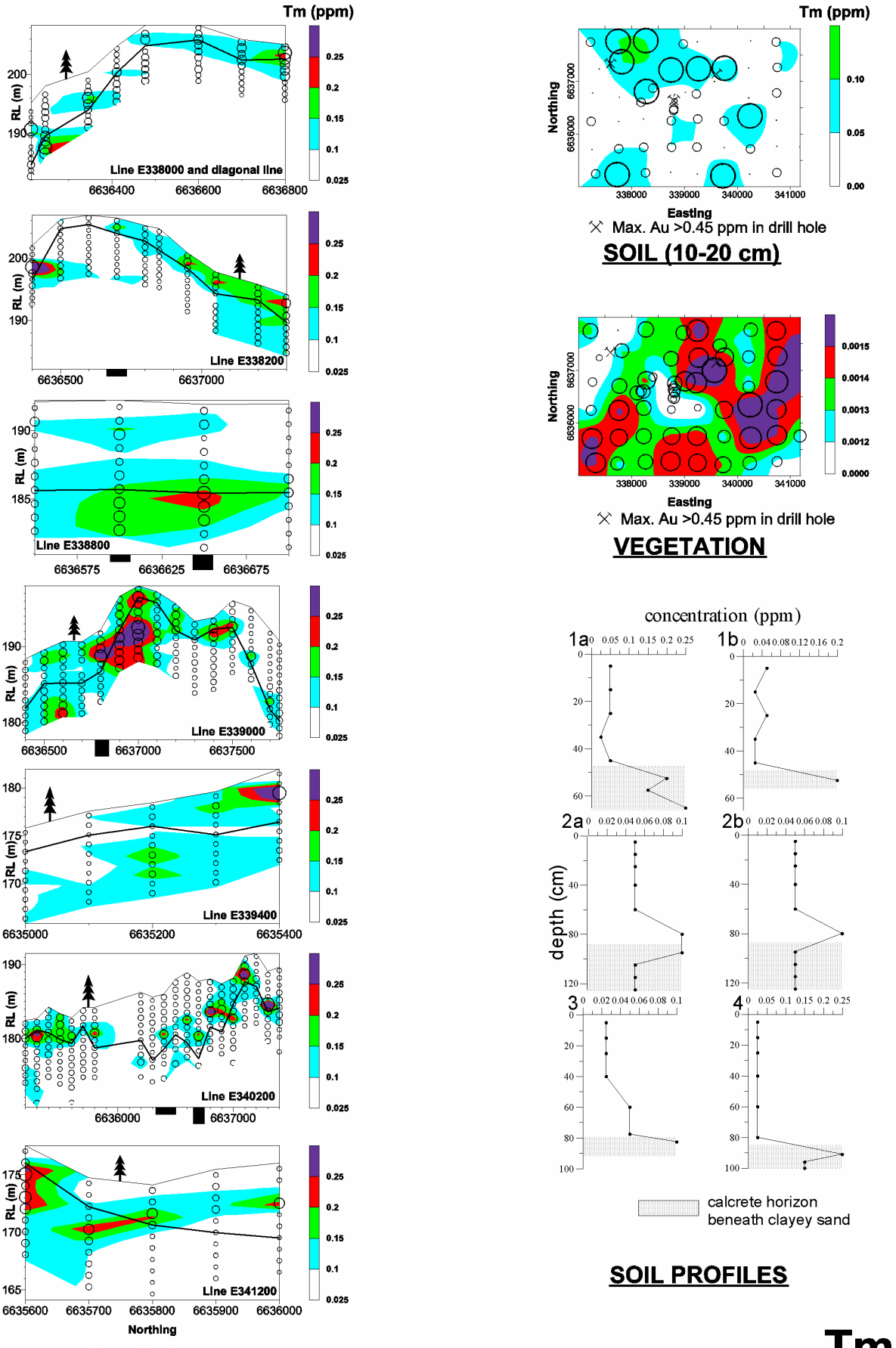


Figure A1.45: Geochemical data for Tm at ET Prospect.

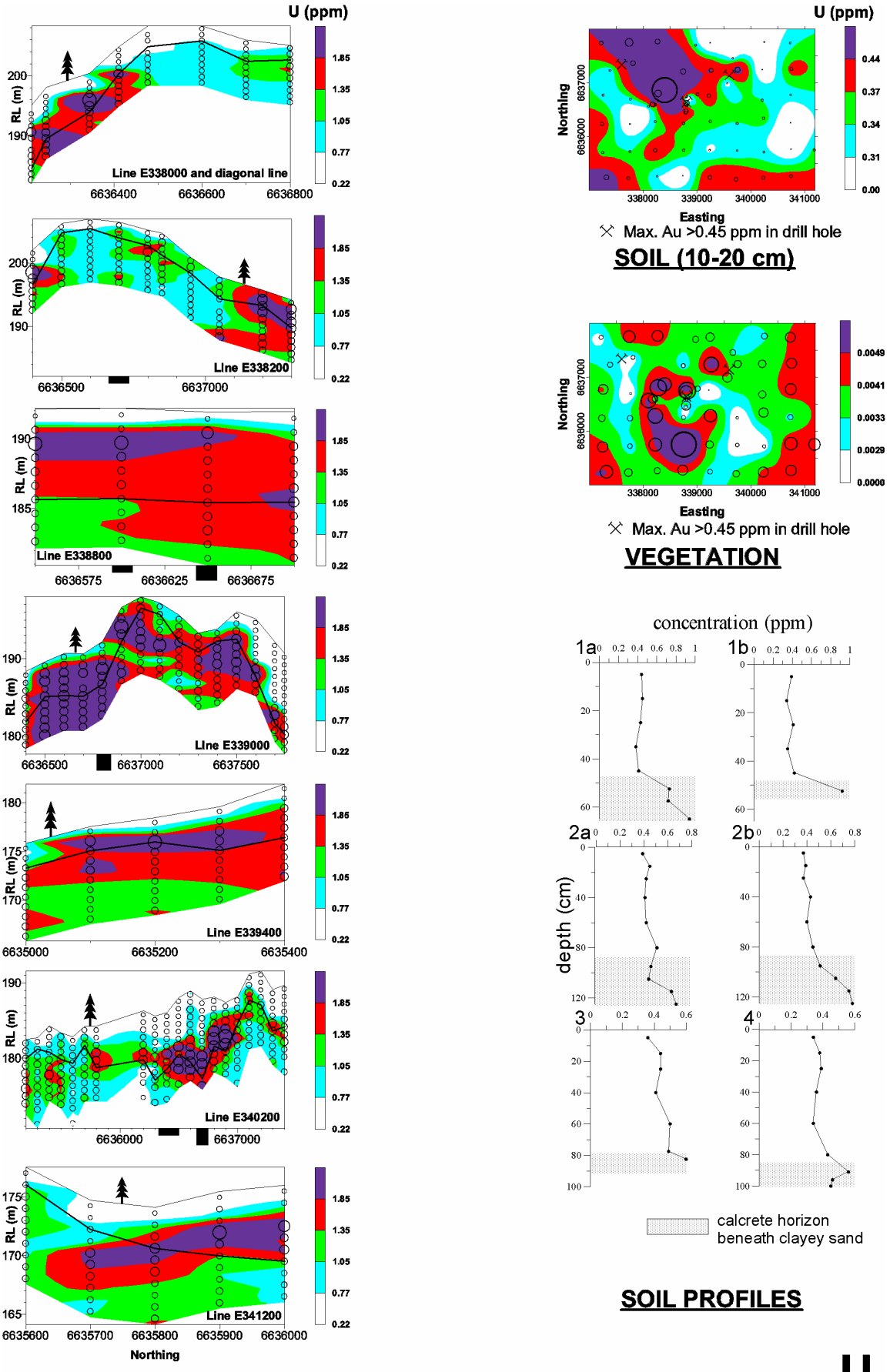


Figure A1.46: Geochemical data for U at ET Prospect.

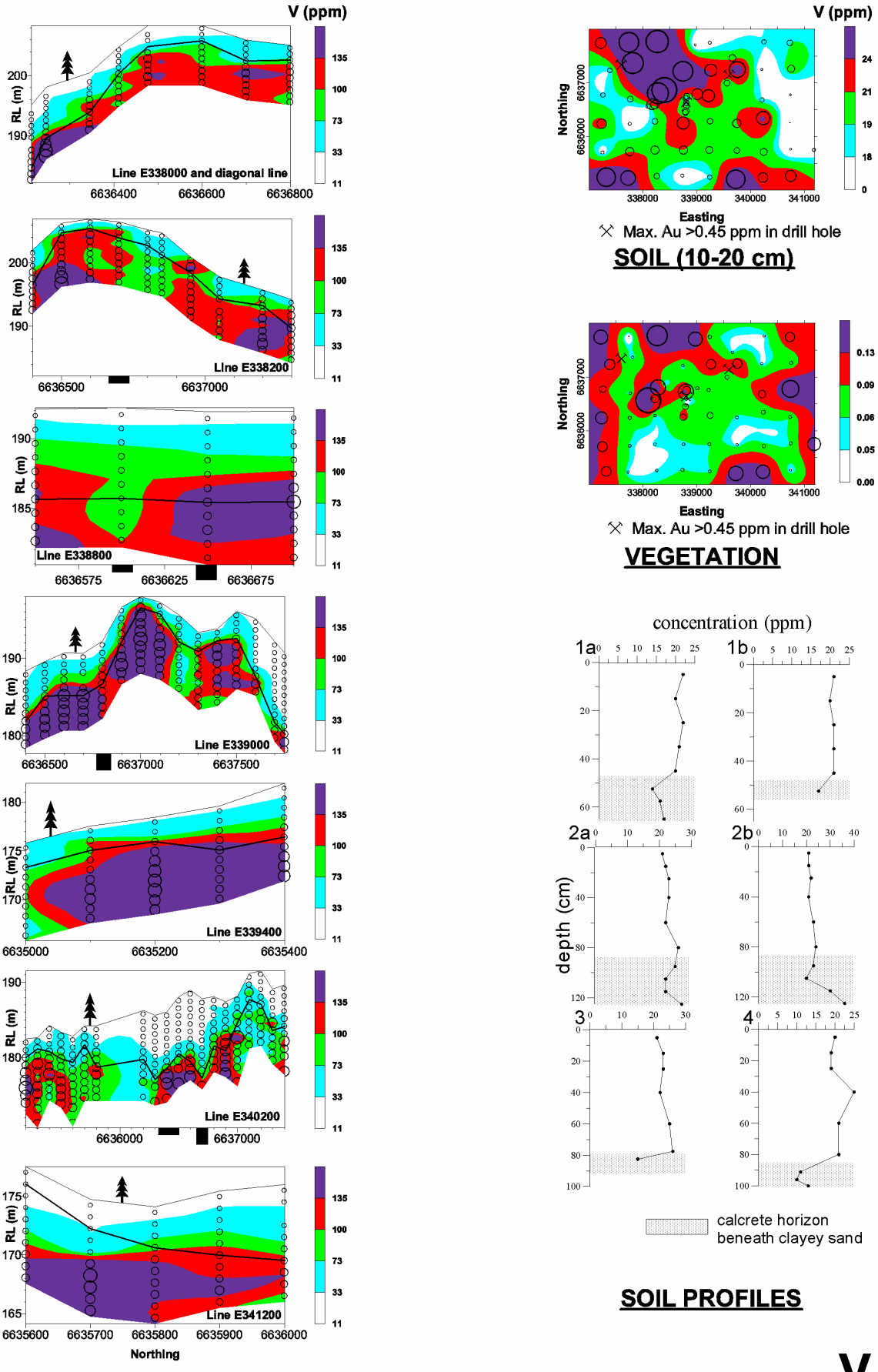


Figure A1.47: Geochemical data for V at ET Prospect.

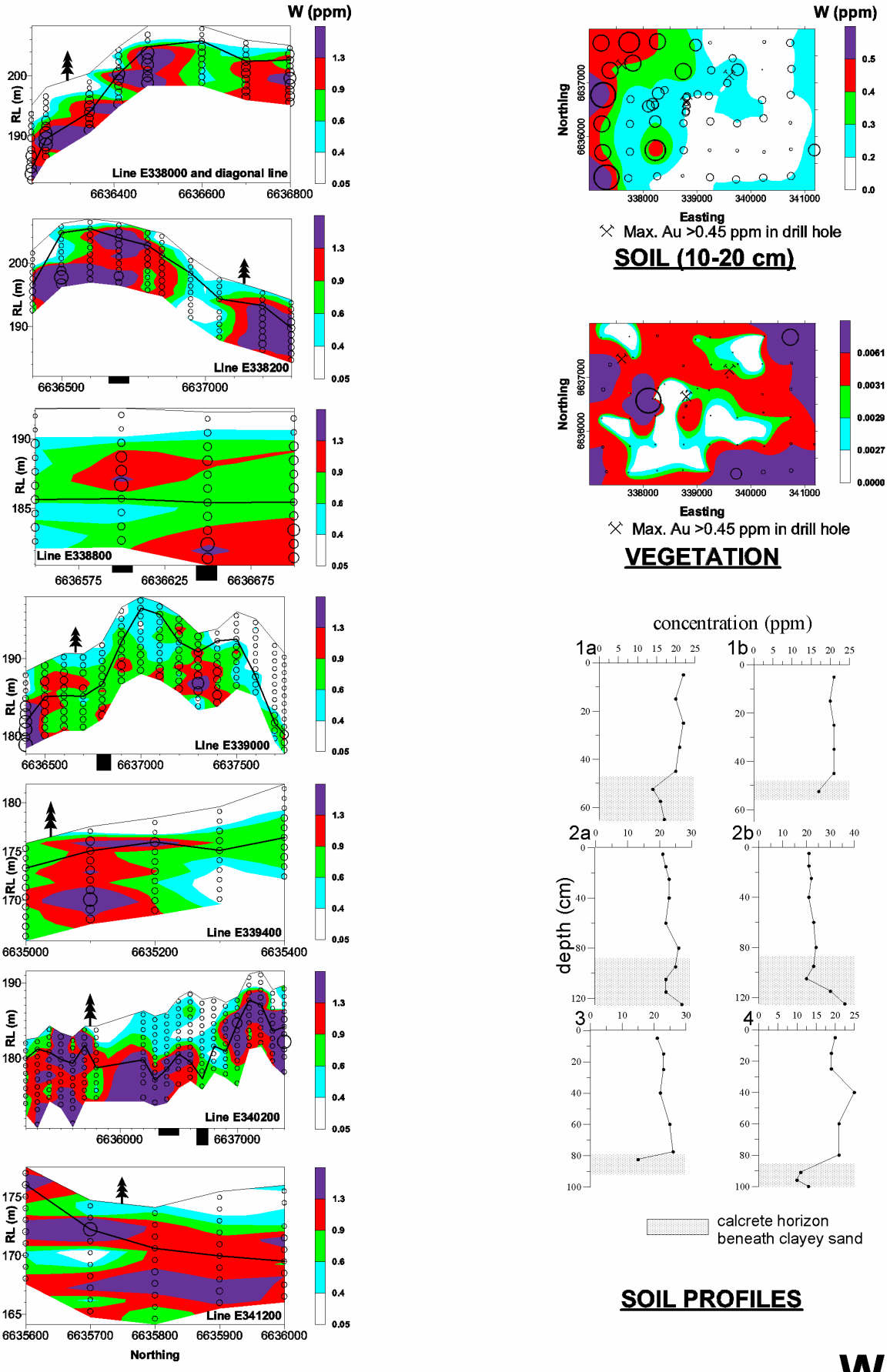


Figure A1.48: Geochemical data for W at ET Prospect.

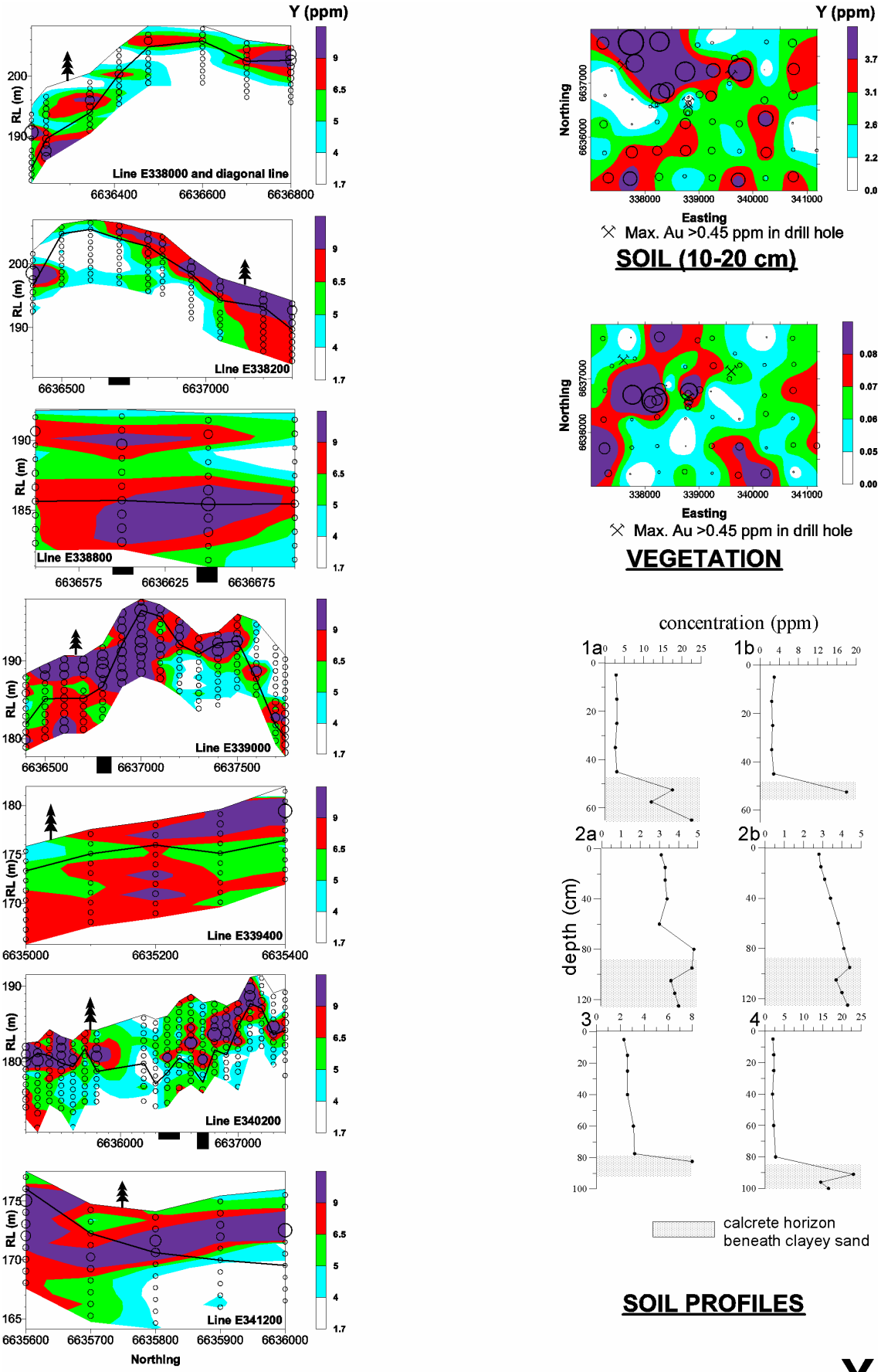


Figure A1.49: Geochemical data for Y at ET Prospect.

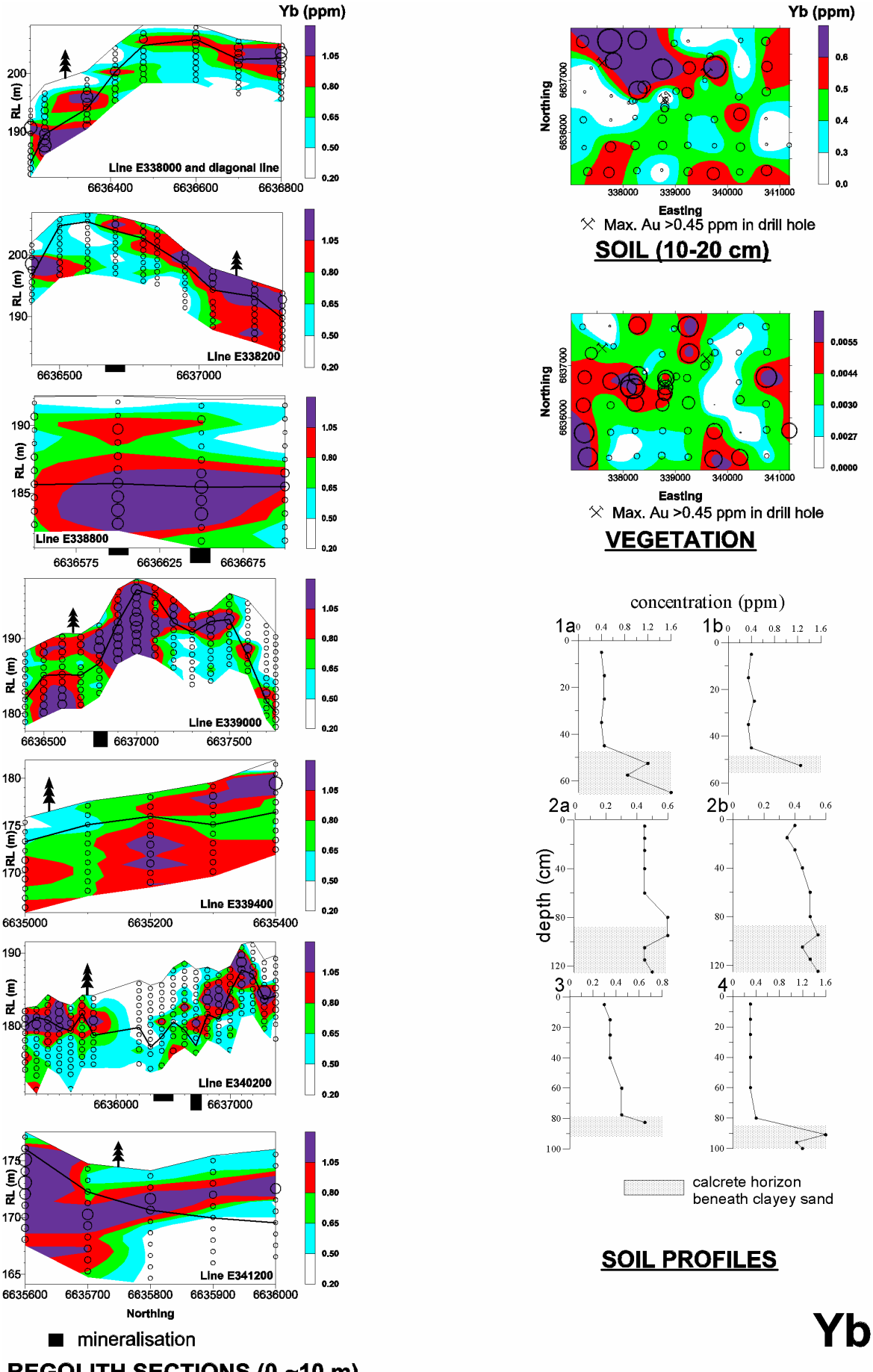


Figure A1.50: Geochemical data for Yb at ET Prospect.

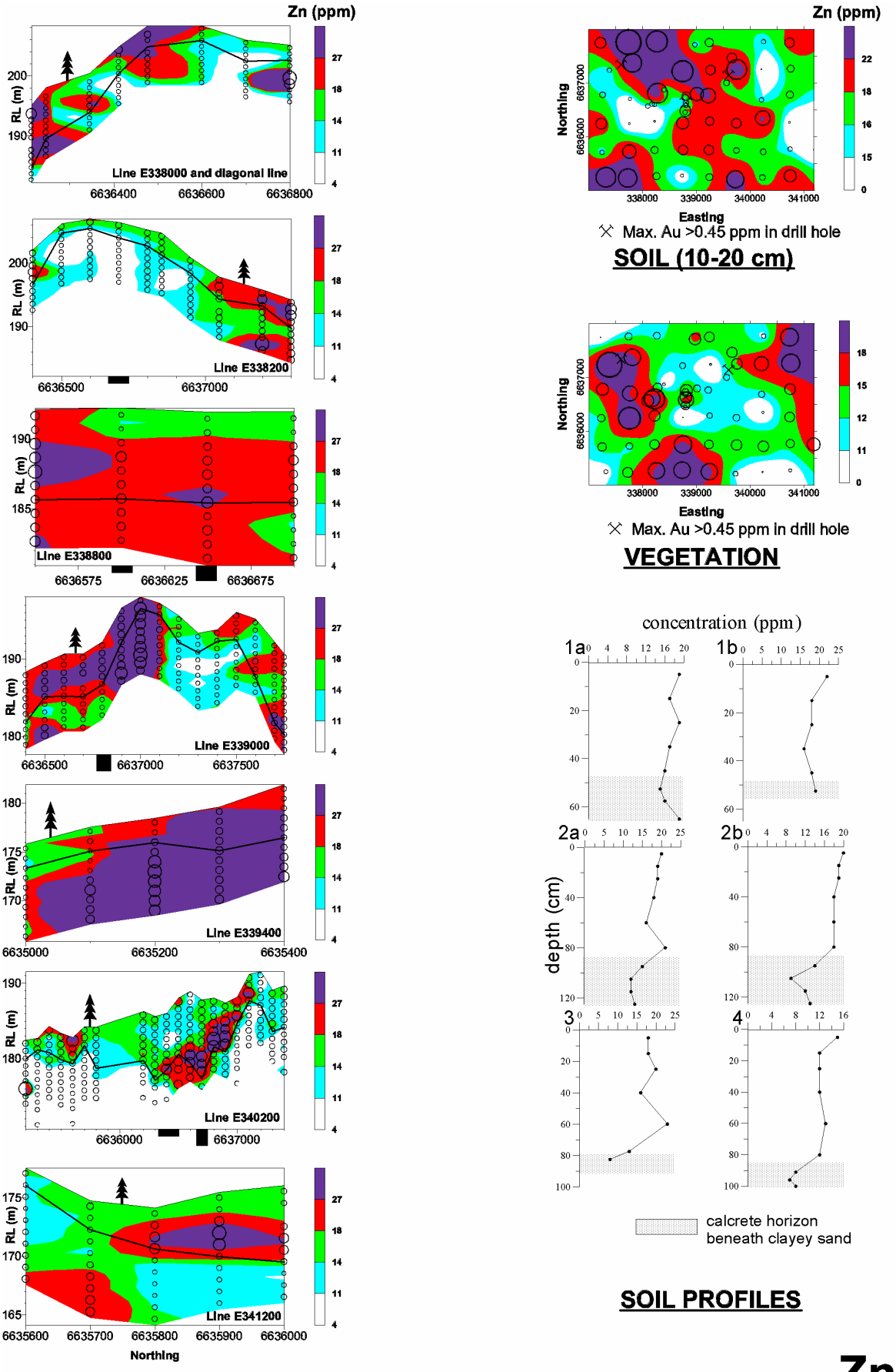


Figure A1.51: Geochemical data for Zn at ET Prospect.

Appendix 2: Box-whisker plots

Appendix 2a: Box-Whisker Plots. Units in ppm except for Au (ppb)

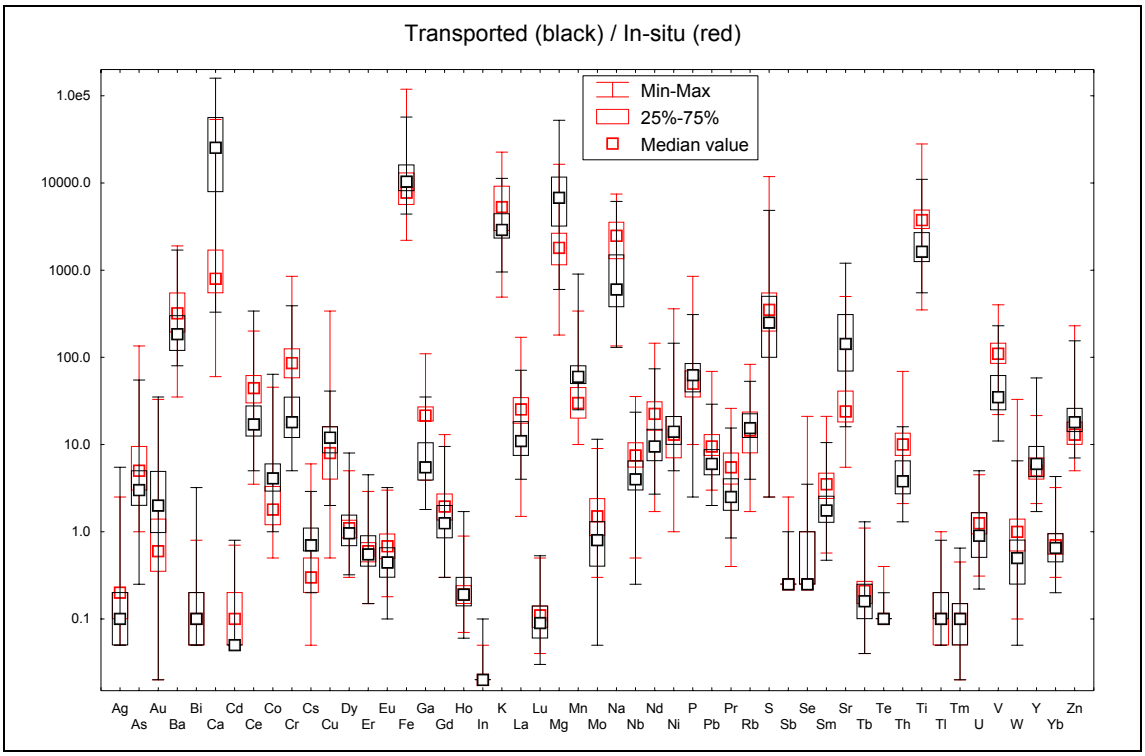


Figure A2a.1 Box-Whisker plot for transported and *in situ* regolith RAB samples

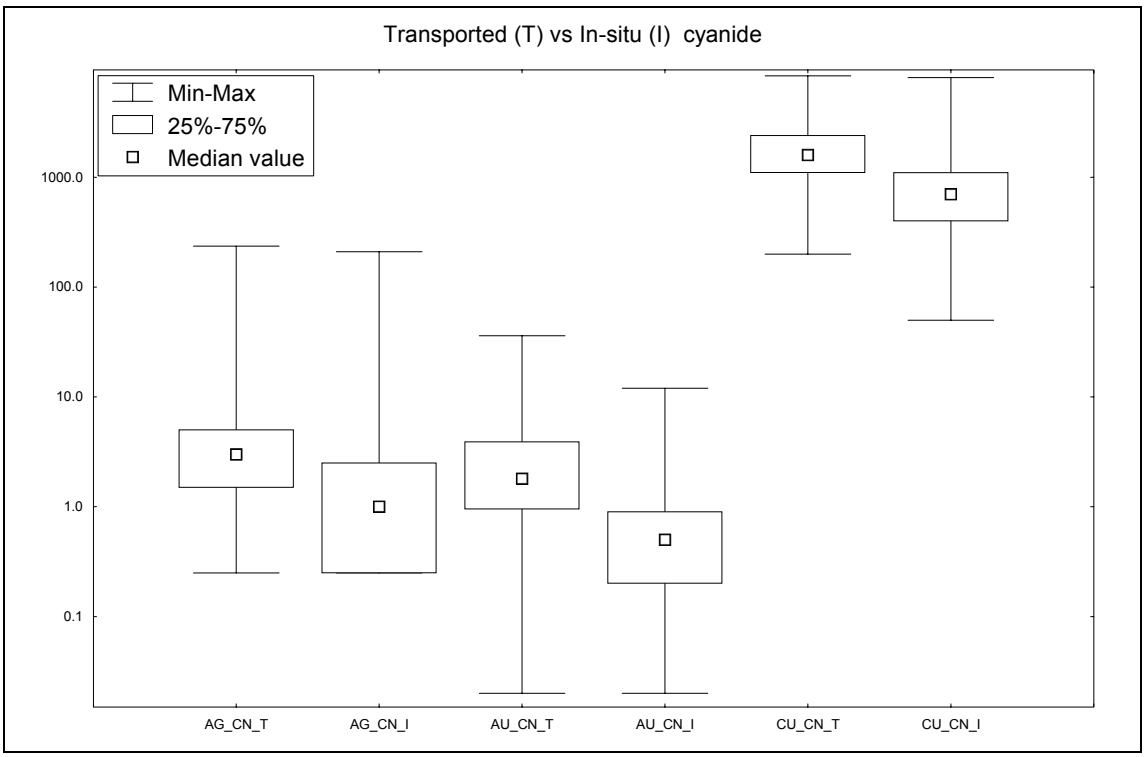


Figure A2a.2 Box-Whisker plot for partial leached transported (T) and *in situ* (I) regolith RAB samples

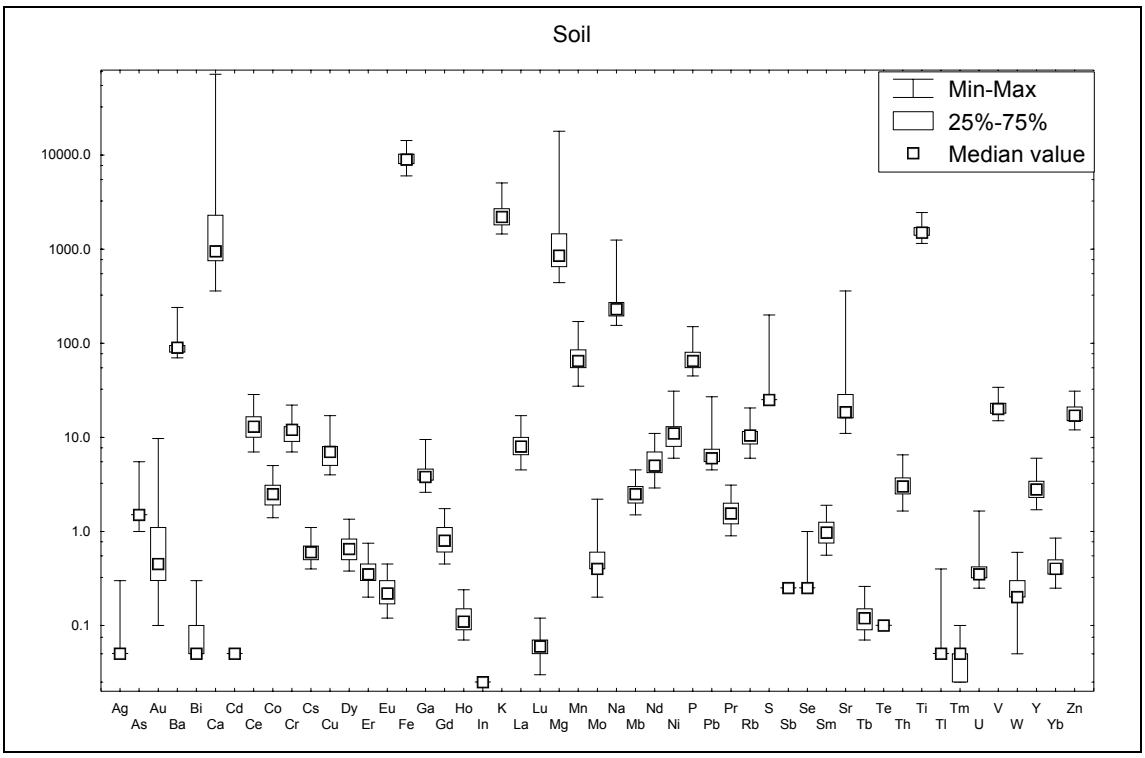


Figure A2a.3 Box-Whisker plot for soil samples

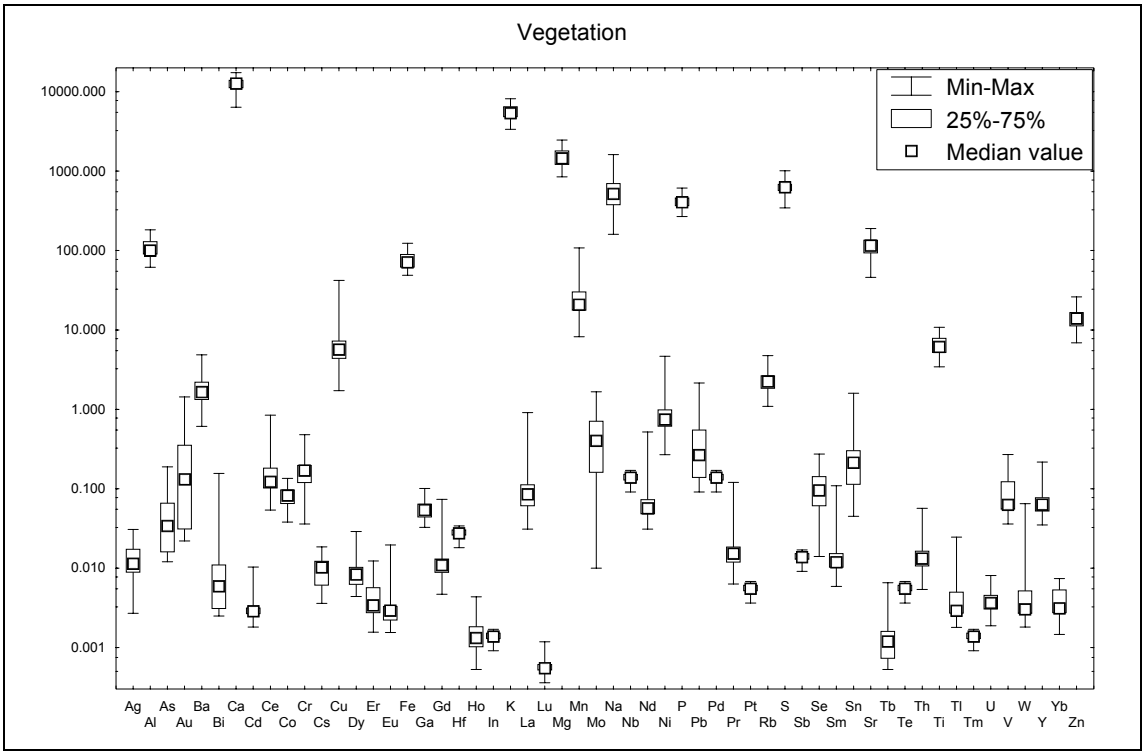


Figure A2a.4 Box-Whisker plot for vegetation samples

Appendix 3: Histograms, principal component analysis

Appendix 3a: Histograms

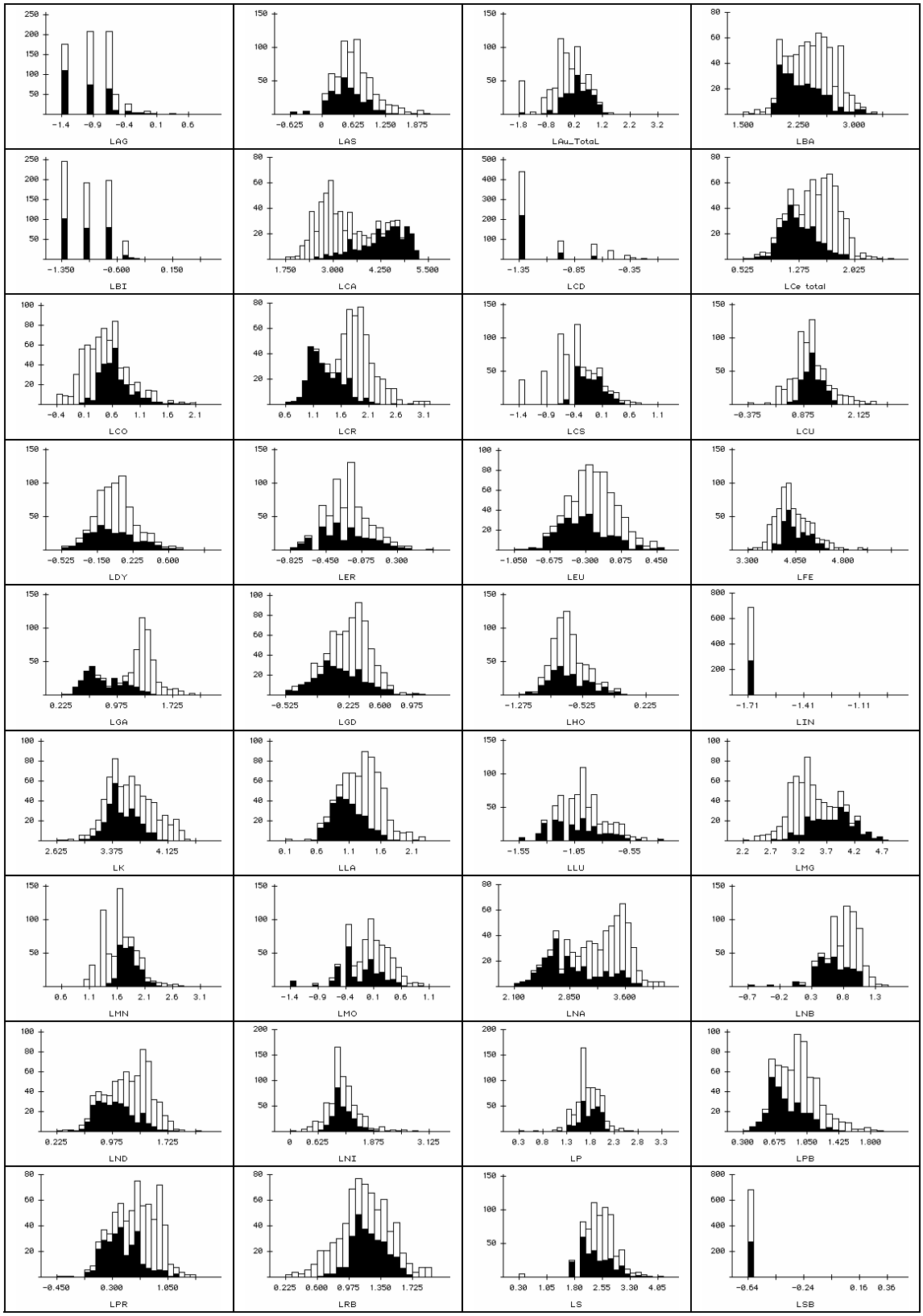


Figure A3a.1: Log transformed 0-10m RAB data. Transported data in black.

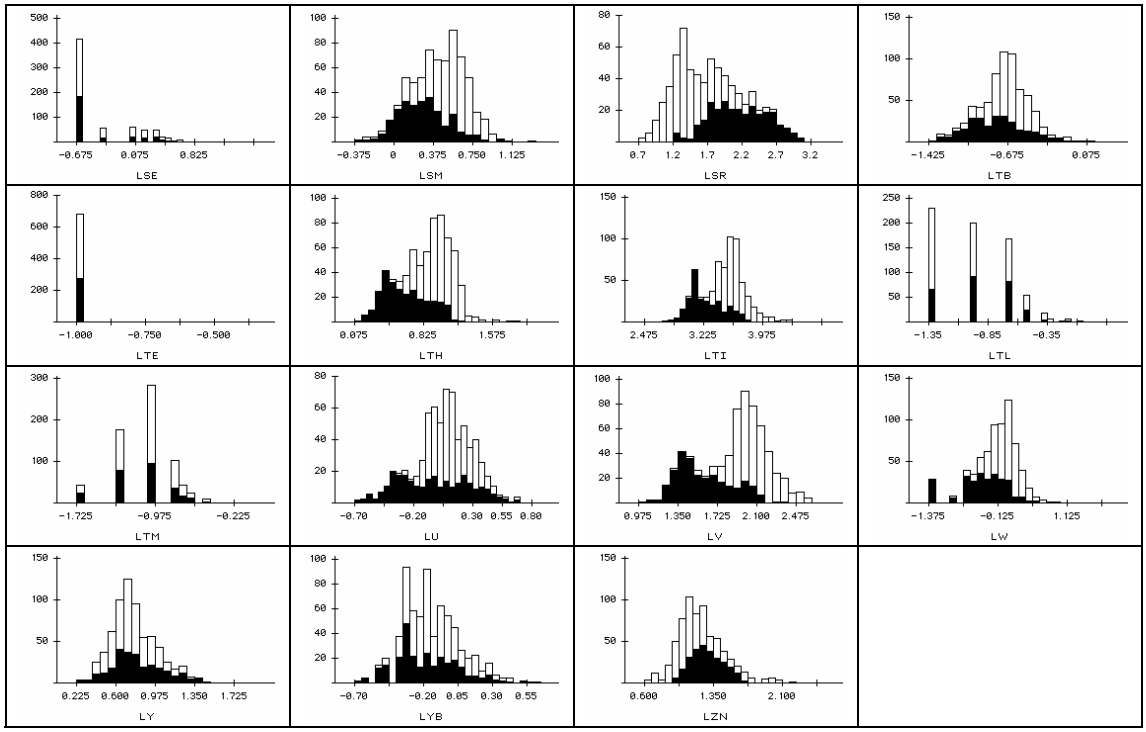


Figure A3a.1 (continued): Log transformed 0-10m RAB data. Transported data in black.

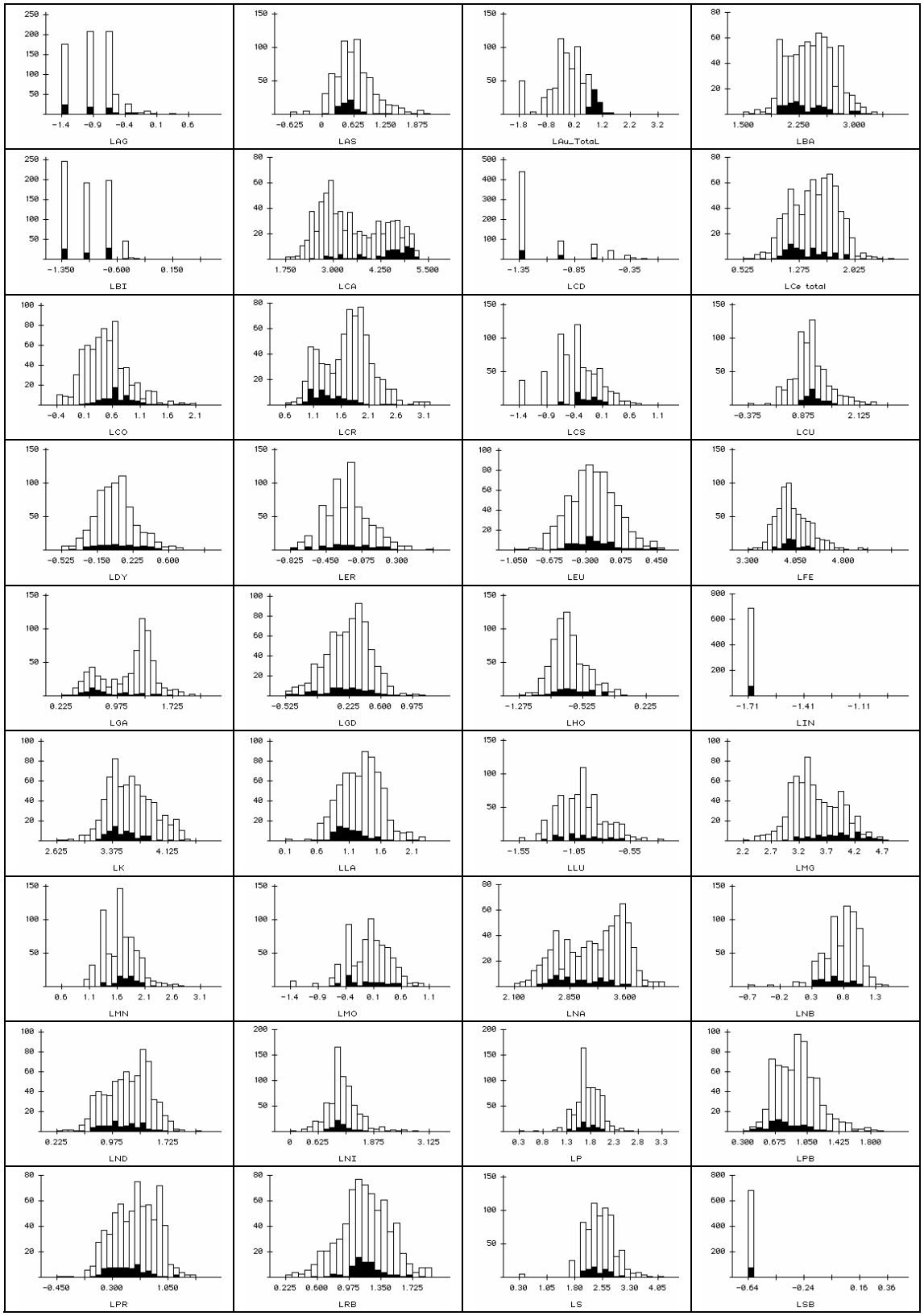


Figure A3a.2: Log transformed 0-10m RAB data. Top 10% Au data in black

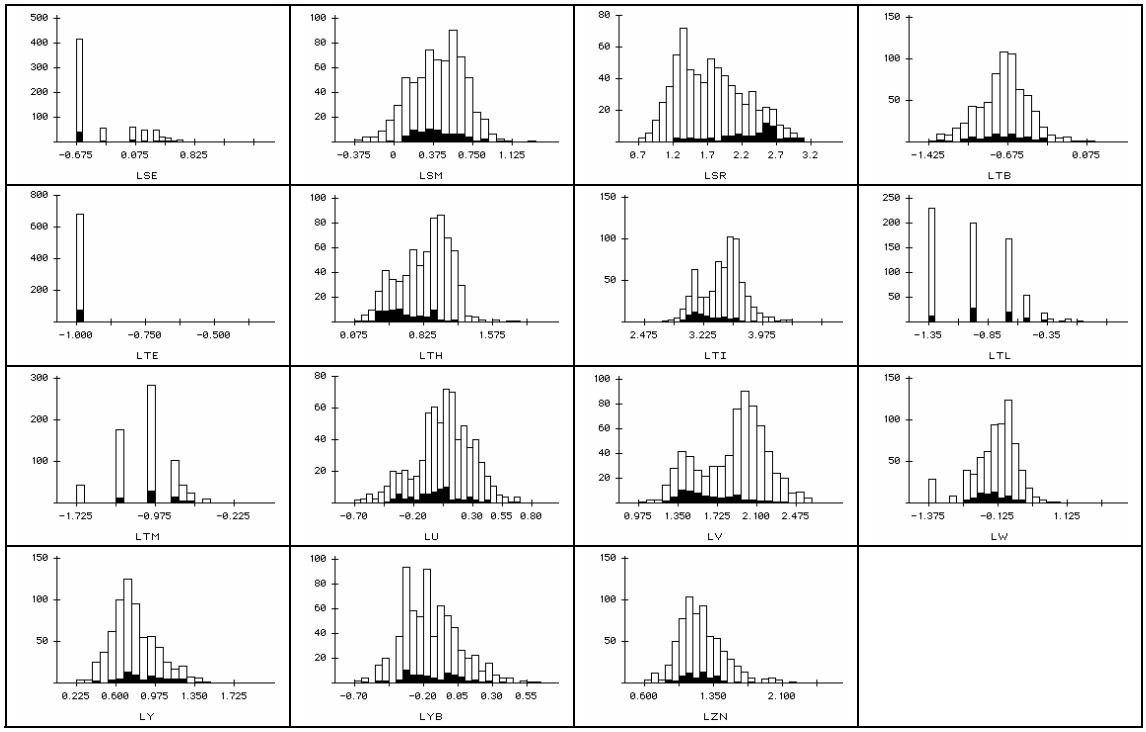


Figure A3a.2 (continued): Log transformed 0-10m RAB data. Top 10% Au data in black.

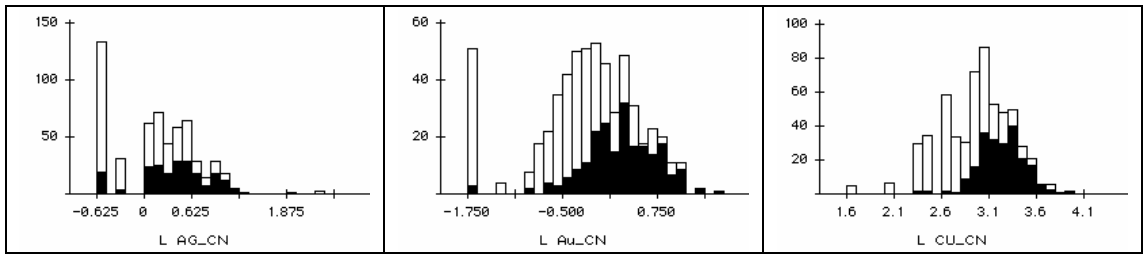


Figure A3a.3: Log transformed 0-10m RAB partial leach data. Transported data in black.

Appendix 3b: Principal Component Analysis: Transported data

Table A3b.1: Eigenvalues

	EIGENVAL	% TOTAL	CUMUL_E	CUMUL_%
1	25.28451	52.67606	25.28451	52.67606
2	6.97436	14.52991	32.25887	67.20597
3	2.40256	5.00534	34.66143	72.21131
4	1.95972	4.08275	36.62115	76.29406
5	1.49002	3.10421	38.11117	79.39827
6	1.27091	2.64773	39.38208	82.04600

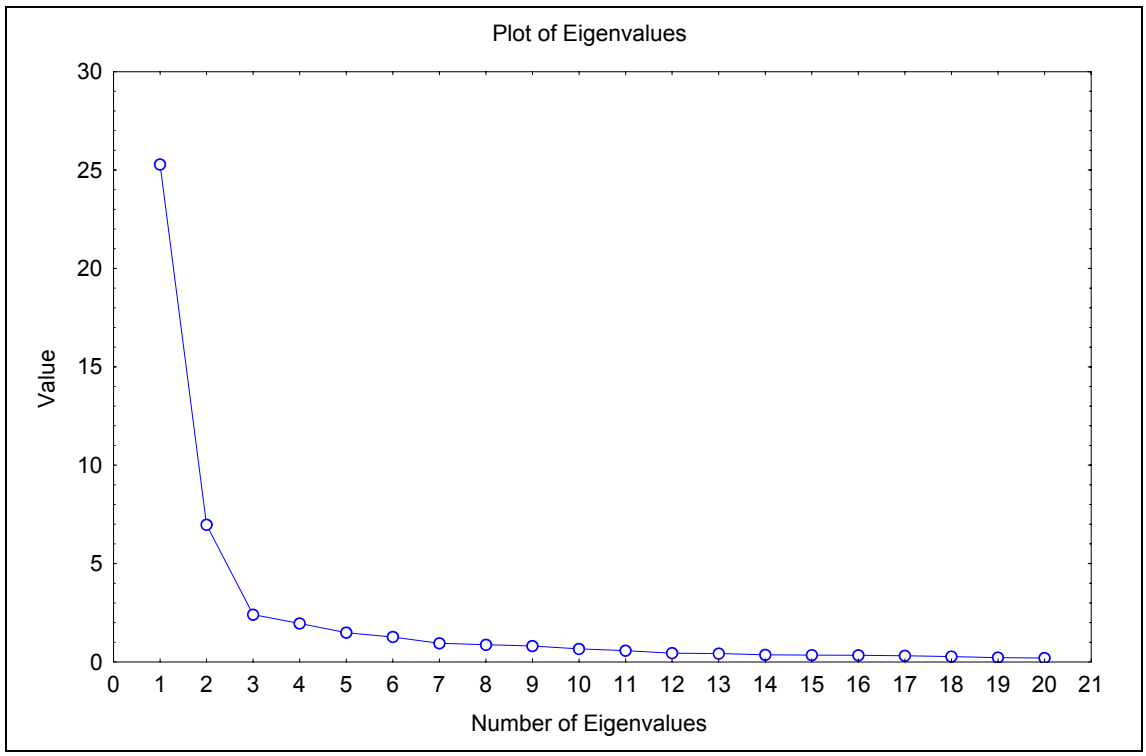


Figure A3b.1: Scree Test

The Scree Test indicates that the number of factors worth considering is about 3, since this is where the plot of eigenvalues and factors flattens out (Cattell, 1966). However, the criterion of Kaiser (1960) suggests that all eigenvalues (in any analysis) greater than 1 should be considered. The more conservative Kaiser criterion was chosen to consider the relationships between factors in the subsequent scatter plots.

Table A3b.2: Factor Loadings: unrotated

	FACTOR_1	FACTOR_2	FACTOR_3	FACTOR_4	FACTOR_5	FACTOR_6
AG	0.42011178	-0.38270376	0.29807491	-0.24667036	-0.39783953	0.01028139
AS	0.71898458	-0.37185179	0.09172431	-0.10859768	0.24611957	0.02066844
AU	0.16788906	0.47758472	0.24259032	-0.45752468	-0.33466435	0.08745659
BA	0.79313536	-0.07432012	0.16052038	-0.19721589	0.288122	-0.14261454
BI	0.53428929	-0.35873037	0.11920784	-0.14911086	-0.02577209	0.22004249
CA	0.05280581	0.83230435	0.03294604	-0.2999562	0.23989589	0.21106708
CD	0.32798337	0.10973815	0.24303877	-0.27826238	0.19623582	0.44542155
CE	0.85892558	0.10248068	-0.03333202	0.14717482	0.01904721	-0.22499299
CO	0.81941029	0.18991608	-0.11212873	-0.09400896	-0.36636183	0.00759444
CR	0.8022753	-0.46300382	0.06706476	0.14543544	0.09376605	-0.02344711
CS	0.73634277	-0.23244344	-0.49836169	-0.09225519	-0.16301719	0.10203306
CU	0.79065993	-0.07940328	-0.17193886	-0.23593694	0.03931574	0.06987464
DY	0.83638456	0.4908366	0.06793394	0.17158936	0.06051411	-0.0149068
ER	0.82605151	0.44651913	0.1059885	0.2403833	0.1156198	0.0063704
EU	0.81185692	0.32586848	0.05027991	-0.1576648	-0.27811965	-0.14937319
FE	0.83128503	-0.39845043	-0.13550165	0.04302748	-0.04815768	0.03455567
GA	0.87442216	-0.32712677	-0.03170636	0.11521951	0.13972194	-0.02805804
GD	0.82862682	0.45673899	0.04428278	0.21890208	0.11962375	0.00720391
HO	0.83381161	0.49987497	0.07078142	0.10097559	-0.06154942	-0.07945561
K	0.77806328	-0.25486221	-0.44110514	-0.12903444	0.02912101	0.03000989
LA	0.90327518	0.08927706	-0.15131338	0.12409198	0.03782992	-0.10200352
LU	0.90907937	0.29473129	0.12171973	0.07544717	-0.0249302	-0.08434114
MG	0.23370972	0.64955665	-0.28176186	-0.48751901	0.12626362	-0.12384433
MN	0.65944736	0.14420026	-0.13741107	0.12688069	-0.30476526	0.36792074
MO	0.52337563	-0.36026399	0.58637763	-0.0146962	0.1653168	0.1056042
NA	0.70360391	-0.37361801	-0.26369822	-0.25225268	0.09327998	-0.23734133
NB	0.70965683	-0.40277581	0.44768677	-0.01455823	-0.00656201	-0.02539984
ND	0.90420557	0.31122652	0.01399882	0.0616952	-0.02858731	-0.04418364
NI	0.81126179	-0.06358762	-0.21058949	-0.00394768	-0.1283214	0.15050923
P	0.68932353	-0.27756065	-0.05188003	-0.01009198	0.08586985	0.43187922
PB	0.83148256	-0.29022342	0.05579266	0.18207419	-0.00511349	0.04528711
PR	0.89546948	0.27105318	-0.08571063	0.09098618	-0.02469492	-0.03374762
RB	0.73604234	-0.10506325	-0.52972304	-0.02083759	0.0292619	0.06296427
S	0.57506717	-0.4218997	-0.01029654	-0.30644978	0.34843457	-0.00093703
SE	0.12222611	-0.5810931	-0.06294005	-0.43815672	-0.24404394	-0.2899313
SM	0.87064561	0.32090346	0.04061786	-0.08021313	-0.18384706	-0.11513232
SR	0.17165224	0.74302324	-0.02993305	-0.45159297	0.35506958	0.07221123
TB	0.83088413	0.45429971	0.07166109	0.22015655	0.10112664	0.02477222
TH	0.85619765	-0.33482709	-0.0191111	0.09401533	0.08868515	-0.06074207
TI	0.76062185	-0.42055725	0.34045509	0.13479571	0.07753579	-0.0675165
TL	0.46099368	-0.01165804	0.16168192	-0.03727048	-0.19852272	0.36742421
TM	0.73780913	0.39225841	0.1252809	0.1285743	-0.19158228	-0.09159181
U	0.86202138	-0.1498635	-0.0713887	-0.15637653	0.05959915	-0.1946871
V	0.86463737	-0.37059085	0.03130151	-0.04039929	0.13242868	-0.12405327
W	0.56250327	-0.40189509	0.36697969	-0.28287578	-0.17863178	0.02828135
Y	0.80643916	0.54301431	0.07343951	0.0257896	-0.07200719	-0.05116321
YB	0.89915109	0.33110889	0.15302337	0.10105142	-0.00849426	-0.06237247
ZN	0.53452103	-0.3221891	-0.42827722	0.20015508	0.0188738	0.28751627
Expl.Var	25.2845101	6.97435553	2.40256283	1.95971901	1.49002182	1.27091025
Prp.Totl	0.52676063	0.14529907	0.05005339	0.04082748	0.03104212	0.0264773

Table A3b.3: Factor Loadings: varimax raw

	FACTOR_1	FACTOR_2	FACTOR_3	FACTOR_4	FACTOR_5	FACTOR_6
AG	0.08627205	0.48088444	0.15100065	-0.20159914	0.56738746	0.0834766
AS	0.25708495	0.69430728	0.43237944	0.01811888	-0.03074224	0.00638557
AU	0.31690739	-0.07519214	-0.19851731	0.41019618	0.55960937	0.13109103
BA	0.48408506	0.64002039	0.30140395	0.21643505	0.00477178	-0.14465683
BI	0.12273143	0.5273964	0.34695732	-0.04312391	0.18030795	0.22742032
CA	0.38275051	-0.27144075	-0.22940765	0.76458212	-0.05892274	0.16677498
CD	0.1650143	0.3478602	0.0285727	0.40761255	0.043559	0.41943292
CE	0.75504012	0.30754101	0.35829277	-0.07263461	-0.00606534	-0.15381227
CO	0.70678856	0.10249584	0.43283681	0.00751646	0.39849787	0.08324858
CR	0.35928505	0.66969016	0.4818521	-0.28478465	-0.04229756	0.01912345
CS	0.32302541	0.13822764	0.85367521	-0.06907919	0.16824475	0.06927825
CU	0.42832004	0.36671609	0.590439	0.17981605	0.14929947	0.04386689
DY	0.94902449	0.1533173	0.15125434	0.14577153	-0.06712256	0.07493644
ER	0.93118989	0.20117854	0.12517275	0.1013081	-0.14349072	0.1002901
EU	0.79205114	0.1634947	0.24505263	0.12566686	0.39818674	-0.06228897
FE	0.37271614	0.49908888	0.65142322	-0.22416644	0.08774103	0.05669683
GA	0.46677419	0.59398929	0.54816819	-0.17024096	-0.07773831	-0.00115022
GD	0.92530927	0.16633168	0.17364317	0.12719811	-0.14599466	0.0892441
HO	0.9542214	0.11968198	0.1472221	0.13403071	0.07404291	0.02100463
K	0.32525018	0.2774419	0.8344498	0.02098739	0.05680575	-0.02395713
LA	0.74064576	0.27631344	0.49416412	-0.02667592	-0.03280081	-0.05582006
LU	0.88472013	0.31271919	0.22172882	0.06704131	0.08508114	0.01071154
MG	0.37753437	-0.27300831	0.15445851	0.72369775	0.12881217	-0.20888836
MN	0.56854436	0.0159653	0.40202282	-0.08747675	0.18129574	0.43960475
MO	0.20047173	0.83769916	-0.0523379	-0.09711018	0.04435773	0.17373182
NA	0.21578787	0.45739369	0.68961839	0.0277987	0.12330542	-0.2924469
NB	0.33318129	0.80841425	0.14490996	-0.20881261	0.18525007	0.06084578
ND	0.86955378	0.23984227	0.30347347	0.09570978	0.0722256	0.03316952
NI	0.52320946	0.24418582	0.60012583	-0.04195913	0.14046791	0.17508379
P	0.26318025	0.46807845	0.53049885	-0.0067963	-0.02015569	0.422671
PB	0.49167336	0.54135954	0.44555858	-0.26091402	0.00465521	0.1118065
PR	0.83546596	0.19569876	0.38754227	0.06396451	0.03452184	0.03058354
RB	0.39899819	0.10564171	0.81630276	0.02544918	-0.03322202	0.01402833
S	0.04555461	0.66684857	0.48561371	0.18440338	-0.02997934	-0.08148827
SE	-0.31741192	0.33179727	0.34736939	-0.12091064	0.48611565	-0.33126383
SM	0.8387225	0.20653488	0.2755875	0.117693	0.28161121	-0.0304119
SR	0.3729817	-0.13524034	-0.08529671	0.86616851	-0.05106244	-0.0115323
TB	0.9284944	0.17769923	0.15647495	0.11793129	-0.12789255	0.11302026
TH	0.45426331	0.58333415	0.53152433	-0.18848103	-0.02220923	-0.02778542
TI	0.38871696	0.78252987	0.23151412	-0.2867364	0.02338407	0.01570281
TL	0.30674172	0.24798926	0.15489473	-0.01440764	0.23030993	0.42633469
TM	0.85151689	0.11462461	0.09164164	-0.00431434	0.16728209	0.03047204
U	0.50864762	0.49198982	0.52886932	0.04978229	0.13481656	-0.18818102
V	0.40988504	0.67599714	0.5218257	-0.10158499	0.0347362	-0.10801742
W	0.14978248	0.68032182	0.18162907	-0.0827197	0.44014356	0.0806285
Y	0.93475616	0.09470699	0.13090994	0.20855636	0.11877901	0.03987132
YB	0.90477362	0.30744134	0.17849812	0.07554781	0.05924586	0.03848642
ZN	0.17159865	0.14234936	0.71264709	-0.21566092	-0.15803758	0.25877208
Expl.Var	16.05607	8.57254823	8.41213493	3.02746936	1.92275627	1.39110074
Prp.Totl	0.33450146	0.17859475	0.17525281	0.06307228	0.04005742	0.02898127

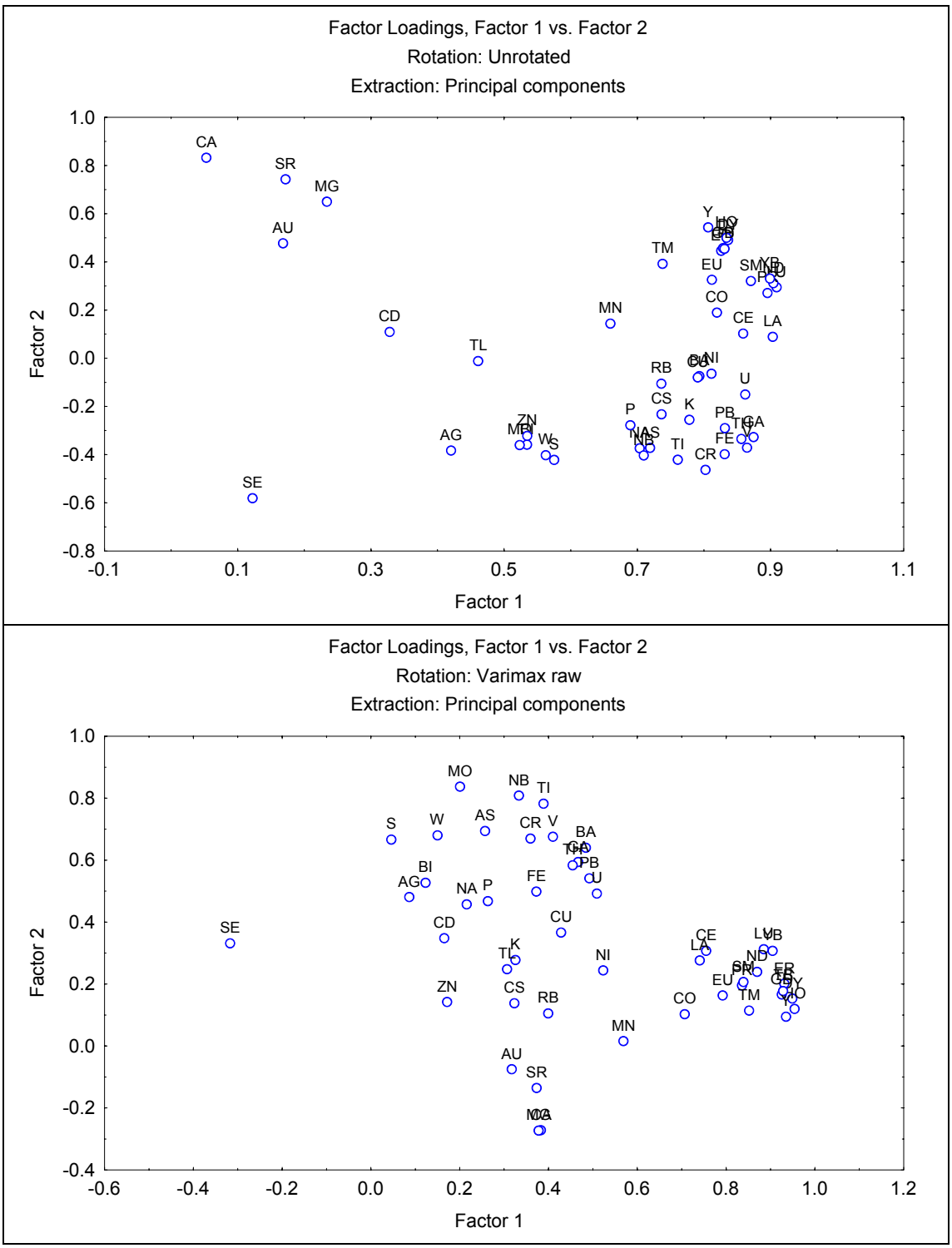


Figure A3b.2: unrotated and rotated Factor 1 vs Factor 2

Factor 1 and Factor 2 account for 53 % and 15% of the variance of the data, respectively. Factor 1 is dominated by the rare earth elements that cluster into two groups, light and heavy. Factor 2 is dominated by the alkaline earth metals and Au. Rotation of the factors helps to separate the two REE clusters from the other elements. The analyses confirms relationships already identified during preliminary examination of the data.

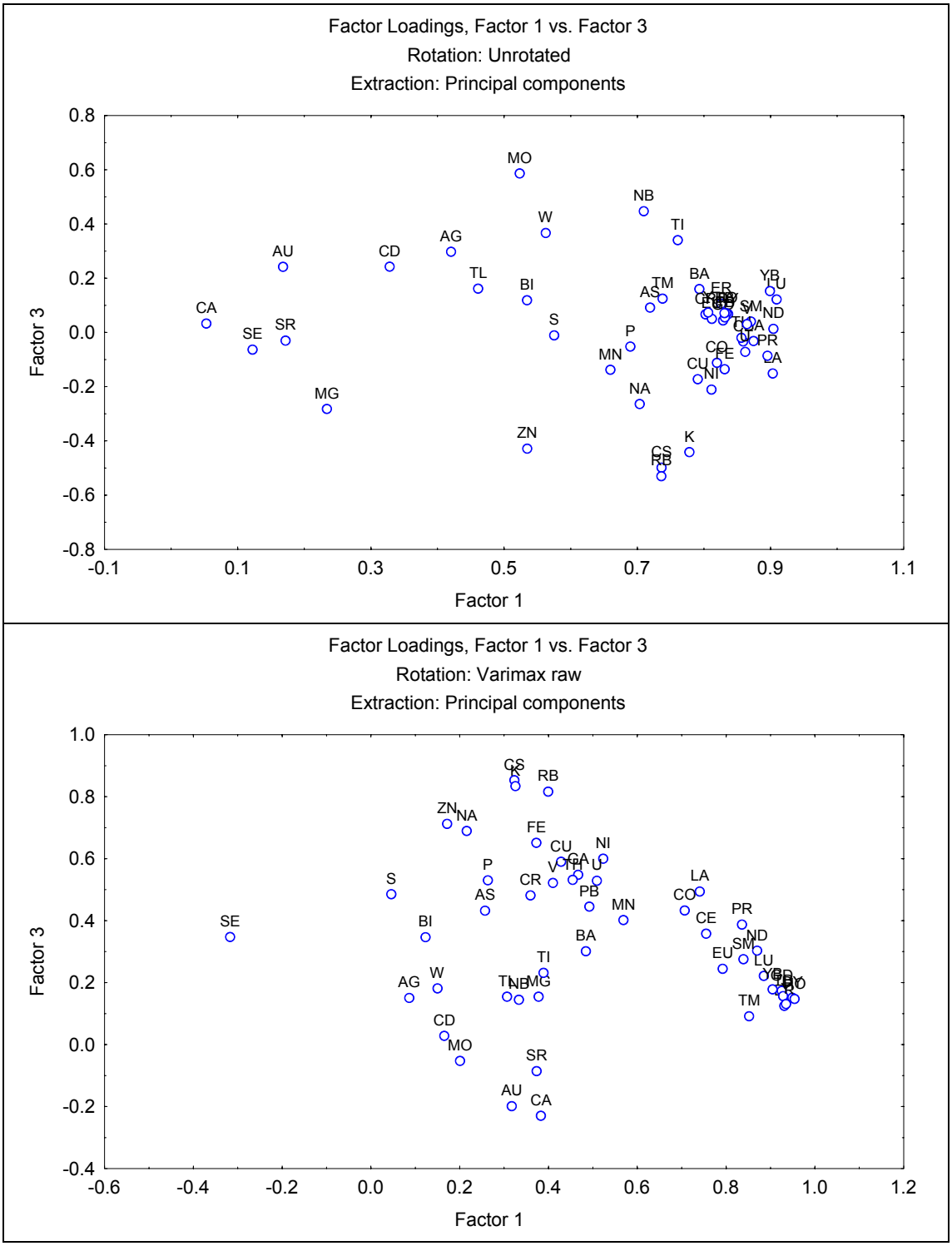


Figure A3b.3: unrotated and rotated Factor 1 vs Factor 3

Factor 1 and Factor 3 account for 53 % and 5% of the variance of the data, respectively. Factor 1 has already been discussed. Factor 3 appears to mostly represent the alkali metals.

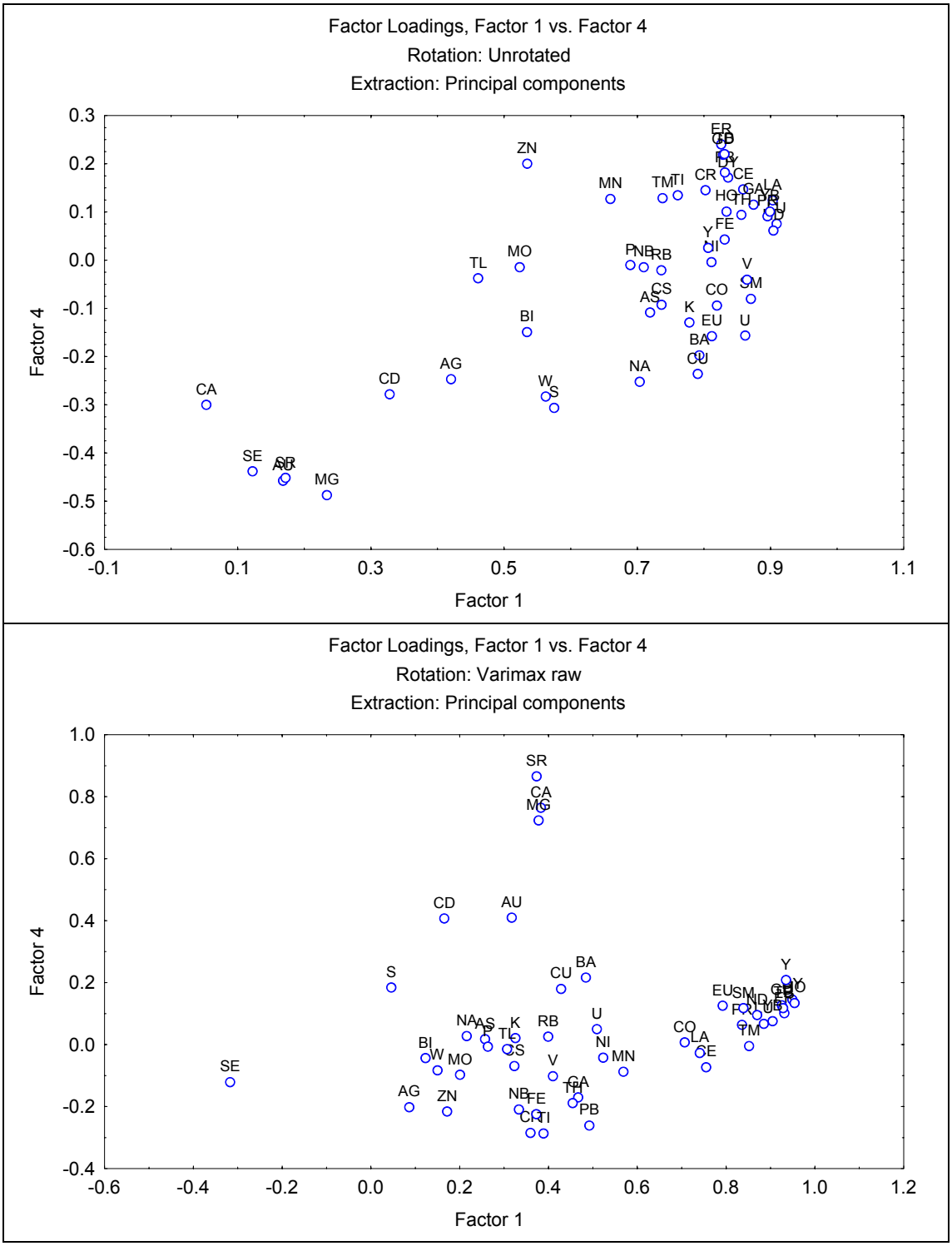


Figure A3b.4: unrotated and rotated Factor 1 vs Factor 4

Factor 4 represents the alkaline earth metals without the influence of Au, as for Factor 1. It may represent calcareous samples that are below detection for Au. This factor represents only 4% of the observed variation.

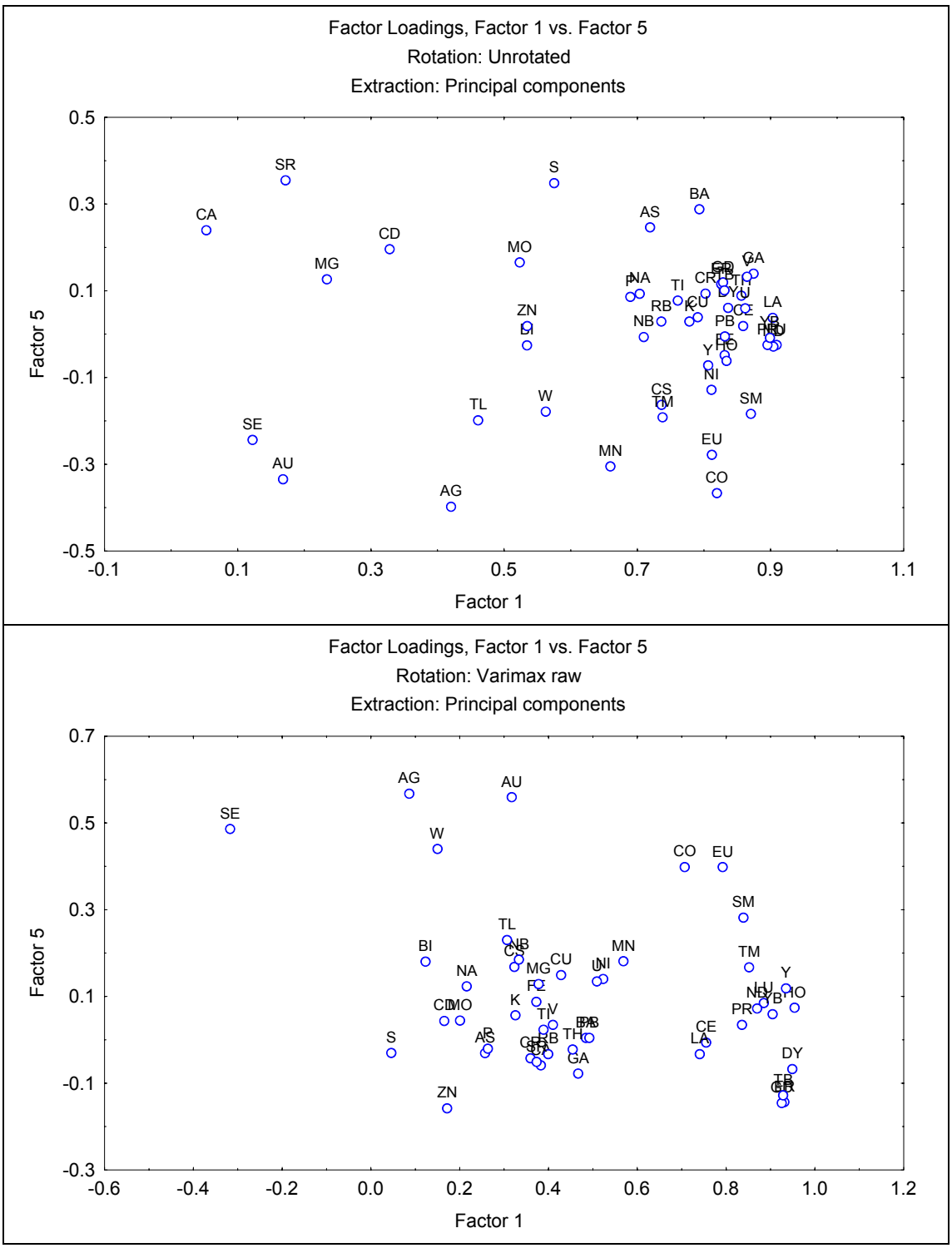


Figure A3b.5: unrotated and rotated Factor 1 vs Factor 5

Factor 5 represents 3.1 % of the observed variation. Gold, Ag and possibly W best represent this factor after it is rotated with respect to Factor 1.

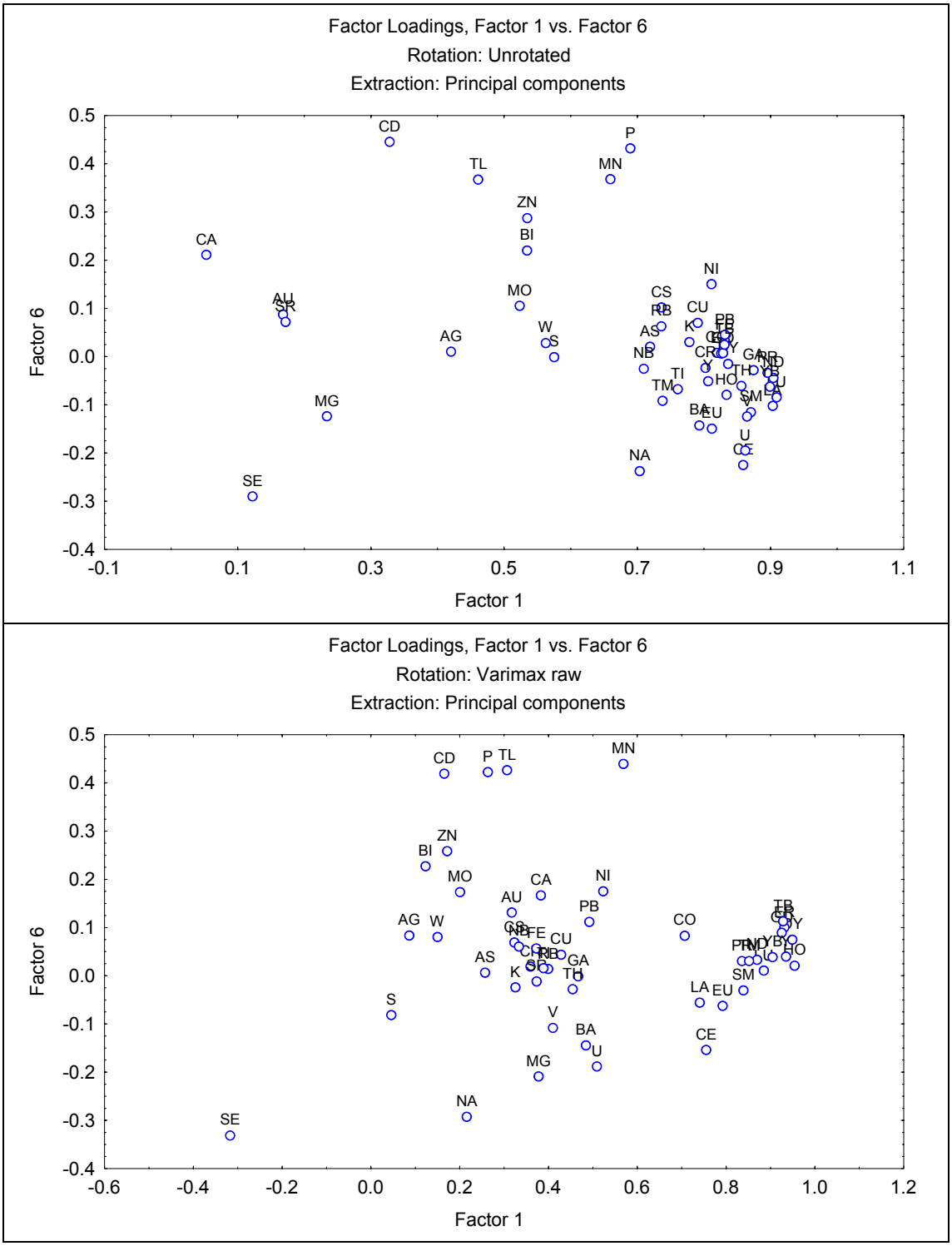


Figure A3b.6: unrotated and rotated Factor 1 vs Factor 6

Factor 6 is responsible for 2.6% of the observed variation. Cadmium, Tl and P form a group after rotation versus Factor 1. The significance of this group is not clearly explained.

Appendix 3c: Principal Component Analysis: *In situ* data

Table A3c.1: Eigenvalues

Eigenvalues (*in situ* transformed factor analysis.sta)				
	EIGENVAL	% TOTAL	CUMUL__E	CUMUL__%
1	13.53140	28.19042	13.53140	28.19042
2	6.91561	14.40753	20.44702	42.59796
3	4.55424	9.48801	25.00126	52.08596
4	3.52926	7.35263	28.53053	59.43860
5	2.30280	4.79751	30.83333	64.23610
6	1.93426	4.02971	32.76759	68.26581
7	1.57208	3.27517	34.33967	71.54098
8	1.50878	3.14329	35.84845	74.68426
9	1.23944	2.58216	37.08788	77.26643
10	1.05785	2.20385	38.14573	79.47028

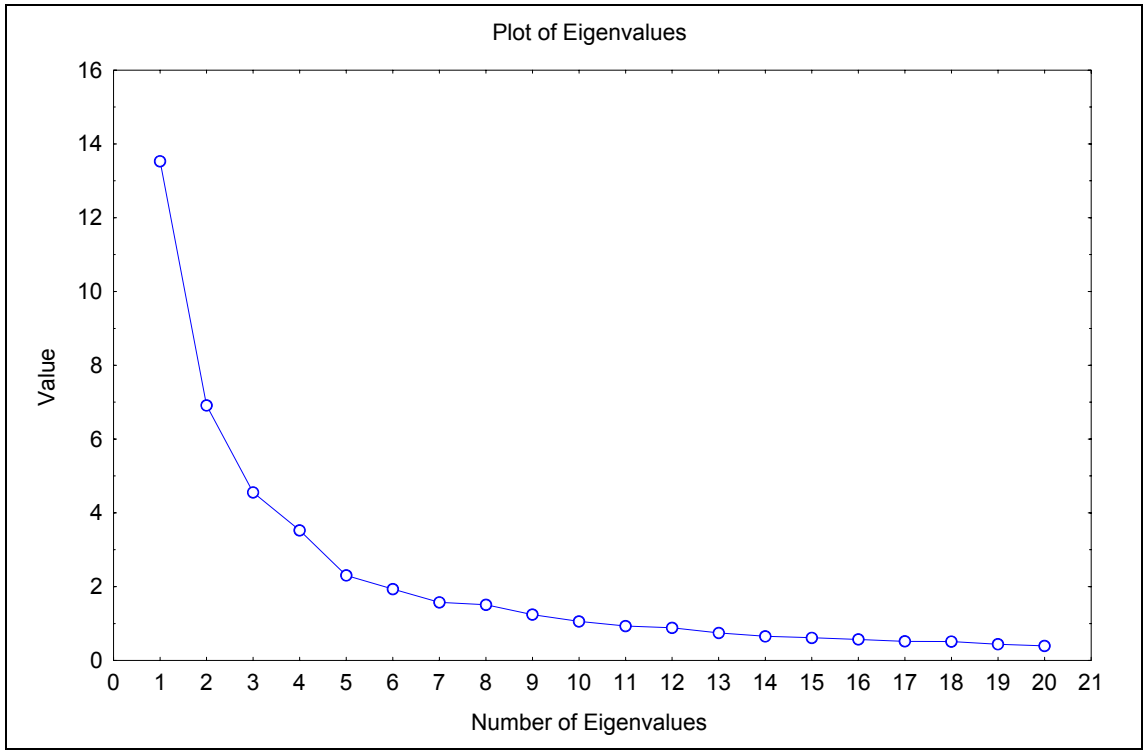


Figure A3c.1: Scree Test

The Scree Test indicates that the number of factors worth considering is about 5, since this is where the plot of eigenvalues and factors flattens out (Cattell, 1966). However, the criterion of Kaiser (1960) suggests that all eigenvalues (in any analysis) greater than 1 should be considered. The more conservative Kaiser criterion was chosen to consider the relationships between factors in the subsequent scatter plots.

Table A3c.2: Factor Loadings: unrotated

	Factor_1	Factor_2	Factor_3	Factor_4	Factor_5	Factor_6	Factor_7	Factor_8	Factor_9	Factor_10
AG	-0.065977	-0.333468	0.1832983	-0.217212	-0.382568	0.2691575	0.0136426	-0.178512	-0.414037	-0.121372
AS	0.6237277	-0.082716	0.0109522	-0.421872	0.1590497	0.3634353	-0.224903	-0.047261	0.1598684	-0.040443
AU	-0.186607	-0.346487	-0.050764	0.3624538	-0.145998	0.3184331	-0.302408	0.2024913	-0.286046	-0.136029
BA	0.3467254	0.1030318	-0.445401	0.3835234	-0.018082	0.2213534	0.2072085	-0.373685	-0.031113	0.1226418
BI	-0.013558	-0.183348	0.044812	-0.104896	0.174368	0.112767	0.0450057	0.0437265	-0.308659	-0.29467
CA	0.269328	-0.516614	-0.187875	0.2096585	-0.317382	0.3054625	0.0107835	0.4075485	0.1264111	-0.116003
CD	0.0283787	0.1094047	0.2684616	0.2972935	0.4715135	0.3982532	-0.06478	0.0519859	0.1799237	-0.437115
CE	0.4847795	0.7384393	-0.005122	0.0427529	-0.087744	0.0966936	-0.045079	0.1304898	-0.067751	-0.023116
CO	0.5882	-0.548484	-0.266084	-0.101847	-0.036986	0.0109794	-0.151871	0.2146643	-0.075493	0.1991508
CR	0.4867016	0.0537836	0.0619391	-0.586476	0.4440399	-0.025136	-0.089861	-0.068059	-0.10332	-0.02384
CS	0.5593805	-0.36432	-0.499551	0.0991618	0.0434376	0.1926499	-0.021819	0.0637362	-0.070289	0.0275335
CU	0.6876196	-0.238796	-0.239327	-0.249972	-0.038153	-0.024193	-0.291378	0.0527205	0.0476778	0.1486226
DY	0.8670227	-0.041867	0.357396	0.2157236	-0.038066	-0.168635	-0.053091	0.0144825	-0.026657	-0.031828
ER	0.794357	-0.246901	0.3619547	0.2769473	0.0543179	-0.22423	0.0278812	-0.008435	0.0055558	-0.002509
EU	0.5867111	0.305968	-0.144606	0.0559254	-0.335227	0.2216062	-0.144639	-0.239533	-0.08509	0.0024083
FE	0.5468738	-0.433223	-0.388207	-0.309065	0.0067817	0.0139922	-0.079987	-0.032491	0.0096356	0.2269429
GA	-0.003498	-0.046346	0.2545363	-0.218535	0.2848629	0.0431221	0.3634395	0.1506234	-0.510089	0.3564936
GD	0.6888837	0.5817014	0.278656	0.1125406	0.0020666	0.0171783	-0.055691	0.2045193	-0.015001	0.0090315
HO	0.833527	-0.271101	0.2781416	0.2699728	-0.038339	-0.172712	-0.024451	-0.115197	-0.033297	-0.045515
K	0.3866101	0.4315919	-0.47689	0.2403012	0.3275236	0.1487615	0.1534858	-0.30735	-0.151165	-0.027427
LA	0.4926046	0.7294452	-0.094922	-0.139441	-0.203597	-0.089636	0.1278723	0.1371268	-0.074565	0.0634798
LU	0.7374187	-0.404486	0.2693986	0.2928829	0.0570743	-0.160018	-0.041882	-0.185247	-0.028362	-0.034685
MG	0.4744876	-0.400345	-0.54402	0.1033554	-0.04945	-0.014319	0.09079	0.3614098	-0.155512	-0.113383
MN	0.5410078	-0.38981	0.0169848	-0.326874	-0.024322	0.0323007	0.0381452	0.1006593	0.219613	-0.031092
MO	0.0430976	-0.289244	0.353051	0.0296295	0.1474331	0.6306744	0.0729634	-0.020966	0.1447076	0.1300109
NA	0.274018	-0.007077	-0.374064	-0.356011	0.098457	-0.31676	0.2164543	0.194225	-0.273069	-0.422807
NB	0.0979744	-0.360098	0.6482774	-0.186583	-0.094802	0.2782326	0.2949267	0.0464597	-0.157544	0.0496891
ND	0.4886856	0.7876066	0.1683257	0.0618795	-0.056363	0.1416483	-0.111318	0.1827407	-0.090929	-0.012938
NI	0.6307629	-0.275417	-0.283215	-0.22974	0.107948	-0.226633	-0.125061	0.1562193	-0.09851	0.0724148
P	0.6727101	0.1497901	-0.075672	-0.428624	-0.253767	-0.061111	0.0539091	-0.158863	0.1805398	-0.085307
PB	0.4862341	0.266538	-0.007827	-0.069862	-0.300662	0.0701611	0.4644648	-0.171375	0.18651	0.1377791
PR	0.4505045	0.8077623	0.0728258	-0.028831	-0.211962	0.0061014	0.0286532	0.1647265	-0.071702	0.015137
RB	0.5590417	0.167753	-0.540761	0.2547716	0.3603546	0.1470059	0.1085131	-0.196352	-0.052871	-0.056098
S	0.2437951	0.1372592	-0.263106	-0.394116	-0.241627	-0.132148	0.3134837	-0.12405	0.08403	-0.368014
SE	0.2576912	-0.08228	-0.292161	-0.508209	-0.250102	0.1353086	-0.400183	-0.314457	-0.142774	0.0558785
SM	0.5192002	0.7182573	0.0810033	0.058757	-0.210267	0.2108796	-0.159714	0.0152877	-0.126268	-0.044054
SR	0.4995989	-0.231431	-0.390175	0.2088514	-0.417984	0.128749	0.3502815	0.1989548	0.1783722	-0.008767
TB	0.8128512	0.3157	0.3410164	0.1455751	-0.008845	-0.086948	-0.047841	0.1459654	0.0102666	-0.001301
TH	0.5685339	0.5014228	0.3077278	-0.132553	0.1356796	0.0107239	-0.039355	-0.038422	-0.043892	0.0636772
TI	0.184669	-0.418854	0.6190125	-0.328794	-0.03867	0.0911669	0.3775866	0.052518	-0.002667	0.0208052
TL	0.4722257	-0.103504	-0.368084	0.3108729	0.2048653	0.2413621	0.2537538	-0.051149	-0.120677	0.0924818
TM	0.6881749	-0.407927	0.2273685	0.3175865	-0.03297	-0.14045	-0.086124	-0.222118	-0.068743	-0.108379
U	0.6352746	-0.046243	0.2951488	-0.107735	-0.018685	0.2183896	-0.073138	0.1844193	0.1435289	0.0241037
V	0.5423761	0.014022	0.1856096	-0.55053	0.3455228	0.143682	0.0279577	-0.055843	0.0622594	-0.100203
W	-0.243648	-0.279515	0.1942177	-0.228317	-0.401608	0.1536536	0.0050116	-0.297975	-0.051125	-0.200408
Y	0.7958773	-0.306218	0.2720487	0.2685791	-0.12341	-0.20445	-0.040998	-0.124284	-0.061944	-0.00375
YB	0.7113332	-0.435805	0.3049549	0.2976765	0.0163842	-0.21794	-0.00518	-0.173343	-0.040459	-0.041661
ZN	0.6876764	-0.129973	-0.235313	-0.110192	0.3282641	-0.024722	0.1133613	0.0500085	0.271882	-0.017616
Expl.Var	13.531404	6.915615	4.5542445	3.5292641	2.3028025	1.934259	1.5720806	1.5087779	1.2394373	1.0578486
Prp.Totl	0.2819042	0.1440753	0.0948801	0.0735263	0.0479751	0.0402971	0.0327517	0.0314329	0.0258216	0.0220385

Table A3c.3: Factor Loadings: rotated

	Factor_1	Factor_2	Factor_3	Factor_4	Factor_5	Factor_6	Factor_7	Factor_8	Factor_9	Factor_10
AG	0.0488156	-0.16338	-0.169284	0.0203874	0.7008842	-0.060379	0.2669352	0.0890654	-0.029652	0.0157324
AS	0.2087994	0.2176589	0.0618892	0.7954349	0.1149991	0.1930563	0.0142741	0.1308654	0.0655851	-0.108251
AU	0.0163042	-0.205539	-0.032826	-0.226737	0.3114508	0.1606068	-0.054559	0.3717554	-0.52108	-0.117563
BA	0.1467956	0.1096261	0.7576798	-0.081322	0.0948935	-0.087363	-0.102946	0.17569	0.1713405	-0.14999
BI	0.0207453	-0.134107	0.0228529	0.0803815	0.1975276	0.2333165	0.2149038	0.0103868	-0.178165	0.2812182
CA	0.2136941	-0.137929	-0.080938	0.0285073	0.0945032	0.1296953	-0.046831	0.8372072	-0.029016	-0.081318
CD	0.0757222	0.0797373	0.1161737	-0.020133	-0.093579	0.8407037	-0.026137	-0.096115	-0.148882	-0.104313
CE	0.0208804	0.8831552	0.1752571	0.0447418	-0.041391	0.0261797	-0.06995	-0.005632	0.0286193	0.0461799
CO	0.4178448	-0.125942	0.0766674	0.4862869	-0.032404	-0.270552	0.0564605	0.5533184	-0.162515	0.0341278
CR	0.1466276	0.1826389	0.0688447	0.7537887	-0.071974	0.0432392	0.2195547	-0.250062	-0.012592	0.2521455
CS	0.287202	-0.068902	0.4499875	0.3472801	0.0267511	-0.075393	-0.048616	0.5681699	-0.08906	0.0664953
CU	0.3727416	0.1255172	0.0795433	0.6398785	-0.008223	-0.263066	-0.135566	0.3197874	-0.052683	0.0232261
DY	0.8690035	0.413944	-0.003472	0.1456966	-0.056636	0.0274878	0.0451997	0.0866121	0.0290706	0.0167053
ER	0.9325991	0.1776866	0.0127445	0.1047634	-0.134852	0.0392259	0.1034475	0.0970527	0.0376299	0.008831
EU	0.2373257	0.5504787	0.3051447	0.1687582	0.3560034	-0.129989	-0.201802	0.1381469	0.1095721	-0.111899
FE	0.2609069	-0.151098	0.2092907	0.6324462	0.0116307	-0.337471	0.0102637	0.3732949	0.0467123	0.0437934
GA	-0.028391	0.0146213	0.0326606	0.0455257	-0.075538	-0.154067	0.811476	-0.134069	-0.155086	0.0751403
GD	0.3570886	0.8778426	0.0314158	0.0928577	-0.164383	0.1081275	0.0435116	-0.014743	0.000744	-0.015279
HO	0.9446591	0.1710703	0.0815094	0.1365339	0.0172623	0.0030329	0.023346	0.1288289	0.0488637	0.0095308
K	0.0106515	0.3377916	0.8608848	0.0623368	-0.060495	0.0589628	-0.078259	-0.071665	0.0297241	0.1158845
LA	-0.028109	0.8596553	0.1275818	0.0705012	-0.08119	-0.215403	-0.002212	0.0146066	0.2179098	0.1889354
LU	0.9422384	-0.014583	0.115562	0.1443562	0.0146489	0.0351974	0.0321591	0.0849559	0.0026911	-0.027582
MG	0.2421566	-0.079378	0.2725898	0.176578	-0.070869	-0.115419	-0.015119	0.7320298	-0.11998	0.3624128
MN	0.3613658	-0.056732	-0.130086	0.5422137	-0.027532	0.0141732	0.0725021	0.3228376	0.2364738	0.0558047
MO	0.0782973	-0.142333	-0.019861	0.1735735	0.1237227	0.4149594	0.3598279	0.1288307	0.0171586	-0.532313
NA	-0.002609	0.061478	0.1055021	0.2401994	-0.021136	-0.057237	0.0461272	0.1583918	0.0718589	0.8252439
NB	0.2784493	-0.092256	-0.357156	0.0522821	0.271926	0.187351	0.6486952	0.0361163	0.1346386	-0.17764
ND	0.0593753	0.9678873	0.0780283	0.0341844	-0.043811	0.104343	-0.011665	-0.067978	-0.054489	-0.025332
NI	0.3803104	0.0375769	0.1142775	0.5323565	-0.148124	-0.277331	-0.007929	0.291556	-0.098822	0.2975208
P	0.259548	0.3993908	0.0128078	0.5045319	0.1446493	-0.16085	-0.122227	0.0872042	0.4736009	0.1591751
PB	0.1747326	0.412503	0.1991956	0.0405028	0.0376027	-0.146445	0.1308365	0.1281616	0.6332852	-0.084445
PR	-0.007122	0.9526389	0.0481347	-0.019943	-0.037474	-0.072351	-0.021517	-0.036792	0.123293	0.0769233
RB	0.1852645	0.2078598	0.8375215	0.2110494	-0.136918	0.0960066	-0.11829	0.1517797	0.0066495	0.1310995
S	-0.063527	0.1498193	0.0558436	0.192015	0.1839559	-0.048526	-0.110937	0.089707	0.5358478	0.4740031
SE	-0.04887	0.0474002	0.0657836	0.5997466	0.4928621	-0.34735	-0.216337	0.0207882	-0.026135	0.0080567
SM	0.0876697	0.9203472	0.1510679	0.0554499	0.1740927	0.0380231	-0.104638	-0.026217	-0.008864	-0.060788
SR	0.2515872	0.0896088	0.2227873	-0.035218	0.0106135	-0.114565	-0.053432	0.7807411	0.3685073	0.0287787
TB	0.6163354	0.7036444	-0.009526	0.1391053	-0.15595	0.074941	0.0504139	0.0334165	0.0346012	0.0004306
TH	0.2708721	0.6799124	0.0562399	0.2701709	-0.080554	0.0593962	0.1346288	-0.263996	0.0665681	-0.019436
TI	0.3423004	-0.158618	-0.416031	0.1814252	0.118409	0.1457951	0.6128578	0.015963	0.3074077	-0.049481
TL	0.2471893	0.051451	0.6594352	0.0725899	-0.078189	0.0453844	0.147813	0.3494355	0.0015713	-0.01352
TM	0.9127582	-0.027782	0.1155081	0.0920445	0.128476	0.0330674	-0.041792	0.1059778	-0.017003	-0.002223
U	0.4178004	0.3592602	-0.142523	0.3925977	-0.021403	0.1770004	0.1381017	0.228123	0.0695072	-0.164969
V	0.1990711	0.2086542	0.0023272	0.7265456	-0.017739	0.2225842	0.25254	-0.136531	0.172048	0.1297465
W	-0.042961	-0.277455	-0.276581	-0.027404	0.5838383	0.0153736	0.0065794	-0.049837	0.2033243	-0.052775
Y	0.9411289	0.1412866	0.0422009	0.1001067	0.0611646	-0.083897	0.0140749	0.1451354	0.0423166	-0.004783
YB	0.9663145	-0.043607	0.0627378	0.0917034	0.0164891	0.007138	0.052421	0.0835917	0.0258129	0.0027571
ZN	0.3608966	0.0818572	0.3065025	0.5292859	-0.342181	0.0979235	-0.021314	0.2375923	0.2090911	0.1300838
Expl.Var	8.457436	7.6081426	3.6888768	5.0779023	1.8668503	1.8652341	2.1164557	3.7228244	1.8834627	1.8585484
Prp.Totl	0.1761966	0.158503	0.0768516	0.1057896	0.0388927	0.038859	0.0440928	0.0775588	0.0392388	0.0387198

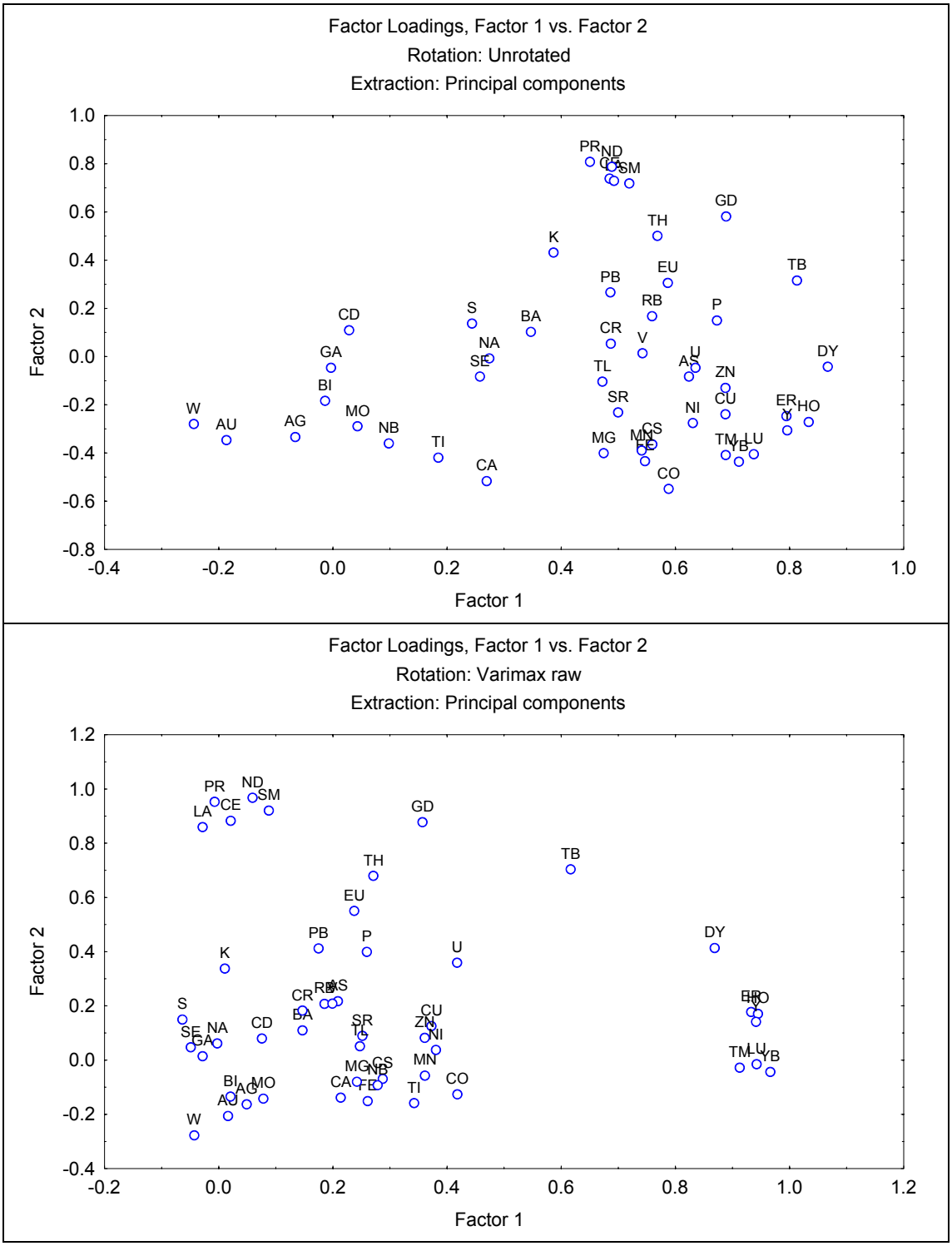


Figure A3c.2: unrotated and rotated Factor 1 vs Factor 2

Factor 1 and Factor 2 account for 28 % and 14% of the variance of the data, respectively. Factor 1 is dominated by the heavy REE although Dy, Tb and Gd fall outside the main cluster. Light rare earth metals dominate factor 2 but with Eu falling outside the group. Rotation of the factors helps to separate the two REE clusters from the other elements.

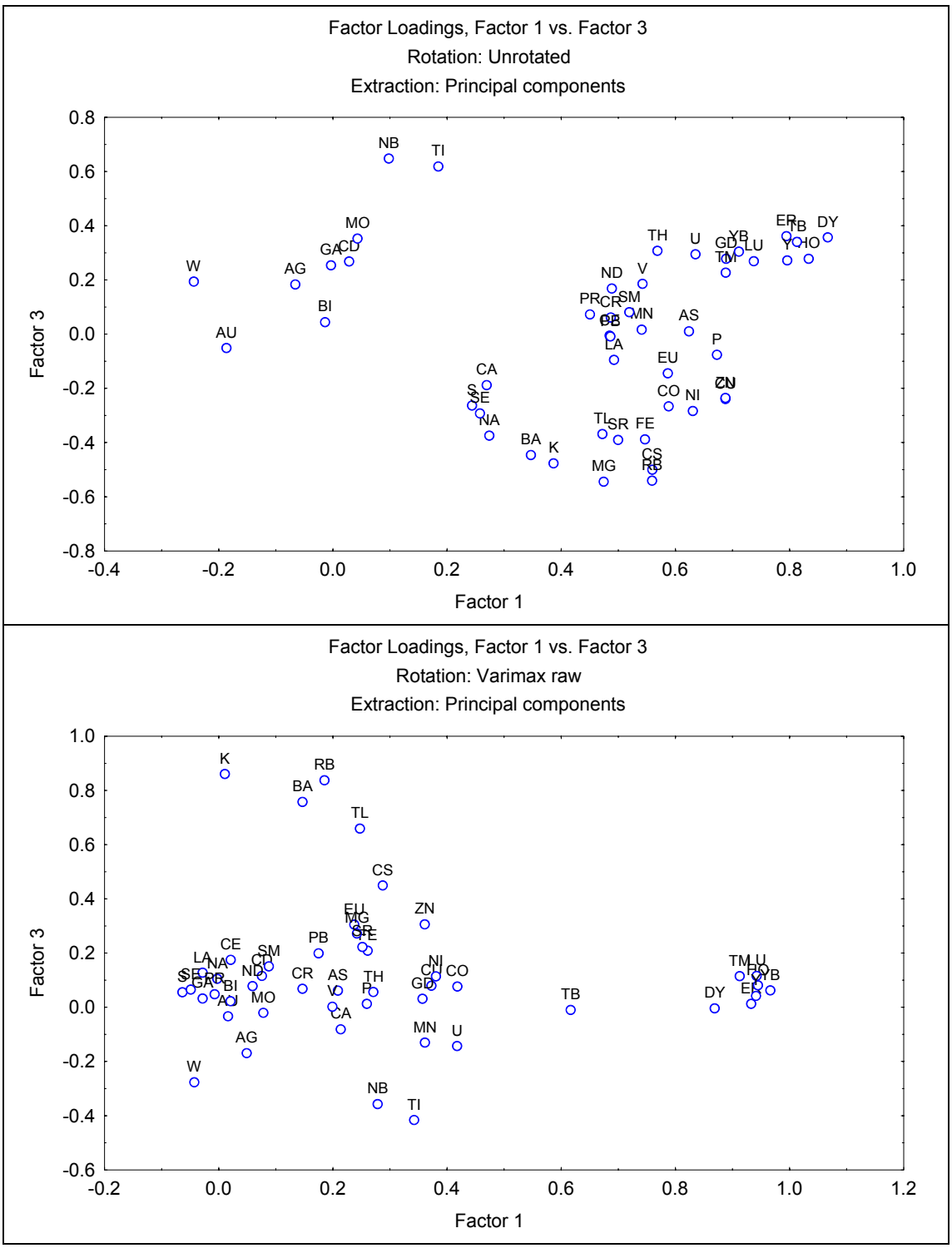


Figure A3c.3: unrotated and rotated Factor 1 vs Factor 3

Factor 3 (unrotated) is dominated by Nb and Ti and accounts for 9% of the observed variation of the data. Rotated against Factor 1 creates a clustering of the alkali metals and Tl, the latter has similar ionic radii to the former.

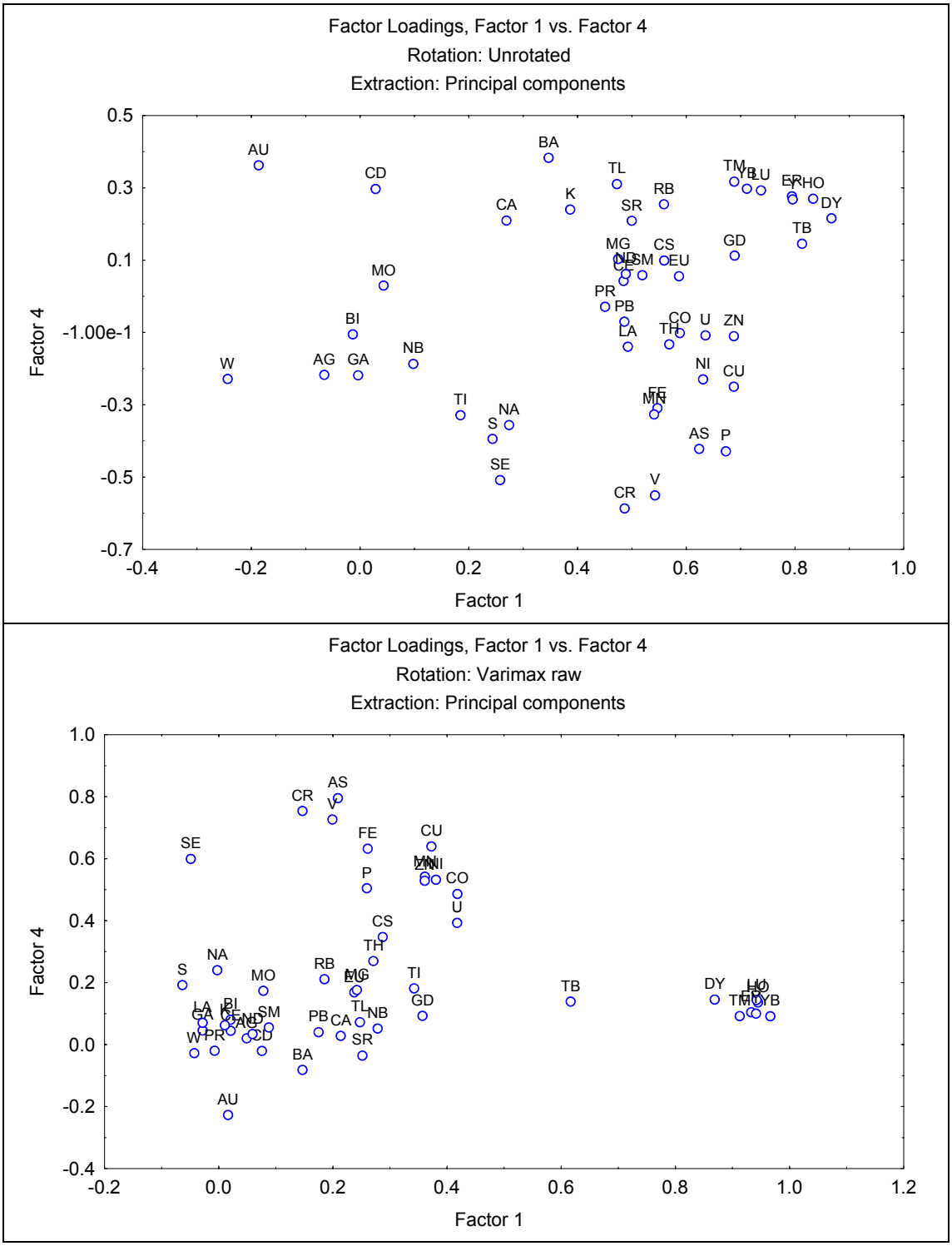


Figure A3c.4: unrotated and rotated Factor 1 vs Factor 4

Factor 4 best describes Cr, V and As with Fe, and more transition metals (Cu, Zn, Ni, Mn and Co) clustering close by. Factor 4 (unrotated) accounts for 7% of the variation.

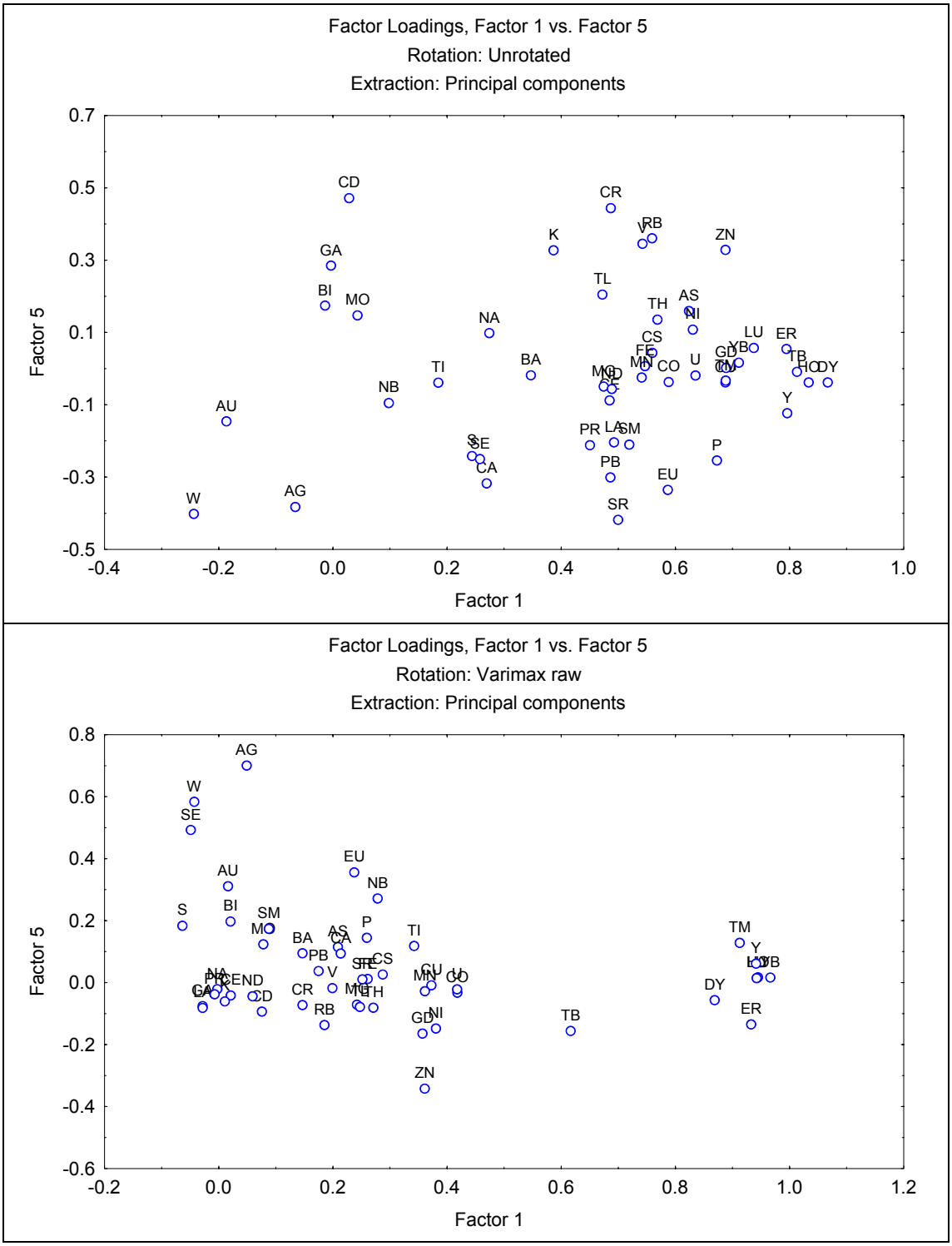


Figure A3c.5: unrotated and rotated Factor 1 vs Factor 5

Rotating Factor 5 against Factor 1 separates out Ag, W and Se. These metals may be associated with sulphides and/or mineralisation. Factor 5 accounts for 5% of the variation.

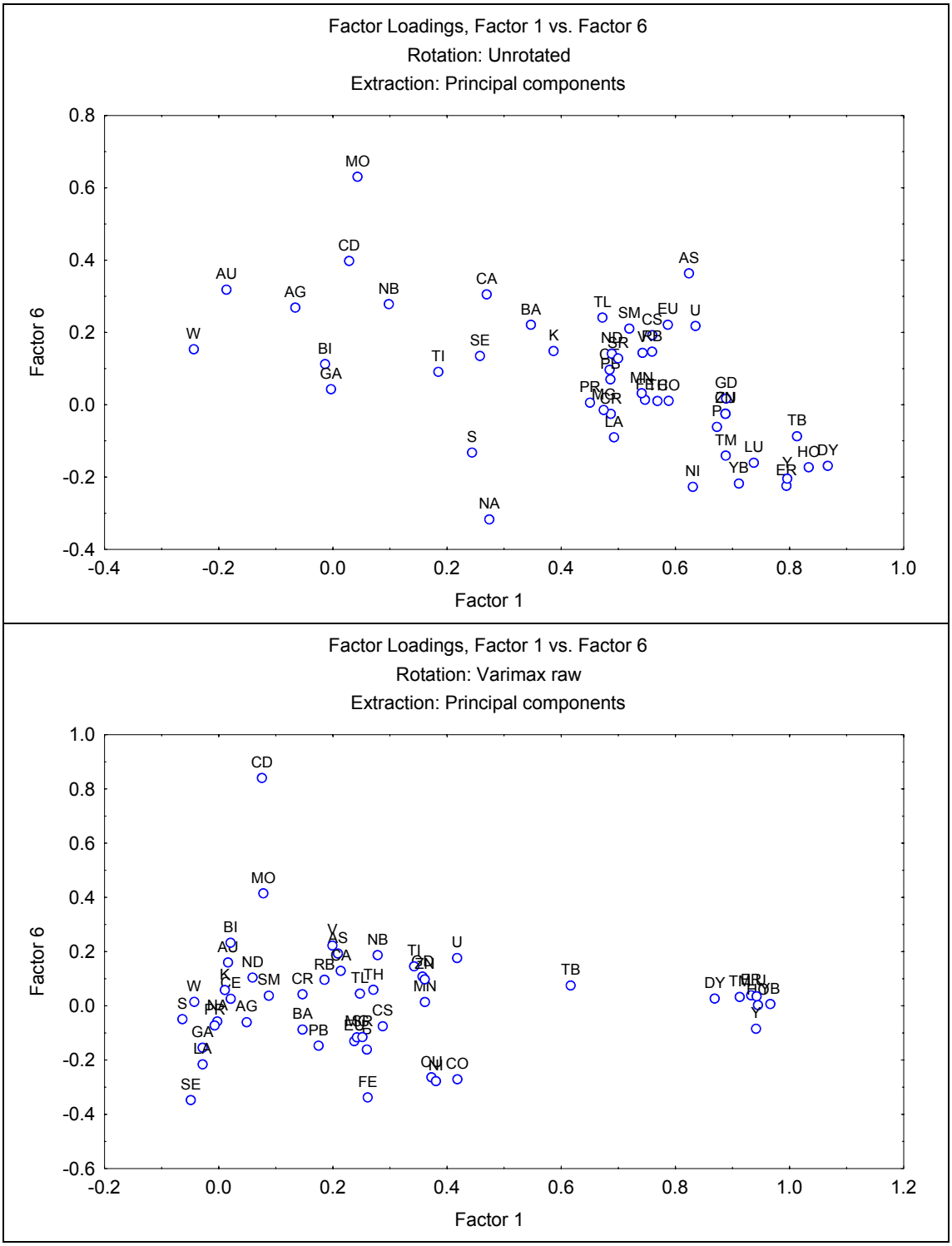


Figure A3c.6: unrotated and rotated Factor 1 vs Factor 6

Factor 6 represents 4% of the variation and is solely represented by Mo or by Cd when rotated.

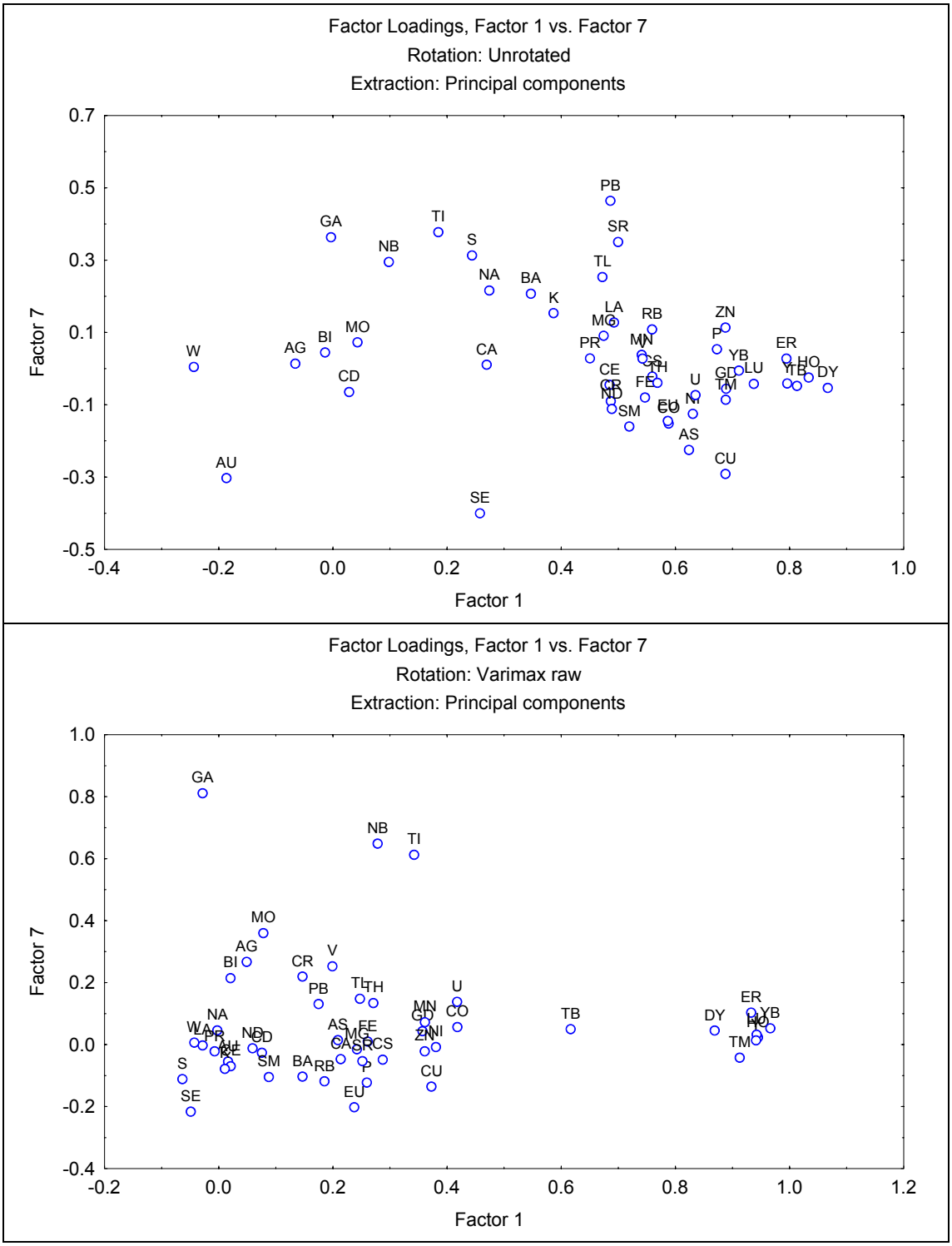


Figure A3c.7: unrotated and rotated Factor 1 vs Factor 7

Factor 7 represents 3.3 % of the variation of the data. Gallium and Nb-Ti form clusters.

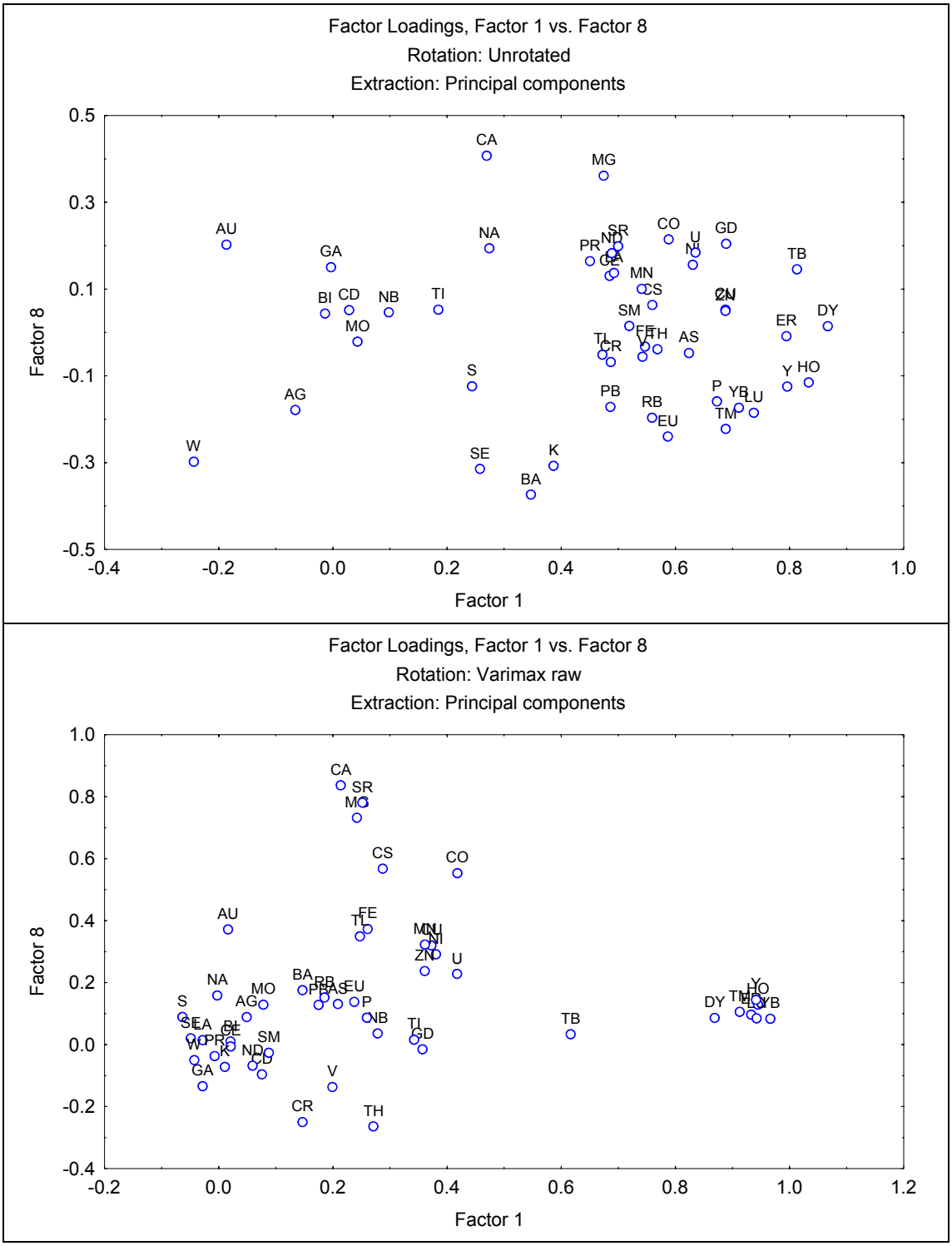


Figure A3c.8: unrotated and rotated Factor 1 vs Factor 8

Factor 8 represents the alkaline earth metals cluster and accounts for 3.2% of the observed variation. This cluster is less significant compared with the transported group where the alkaline earth group represents 15% (Factor 2) and Factor 4 (4%) of the variation.

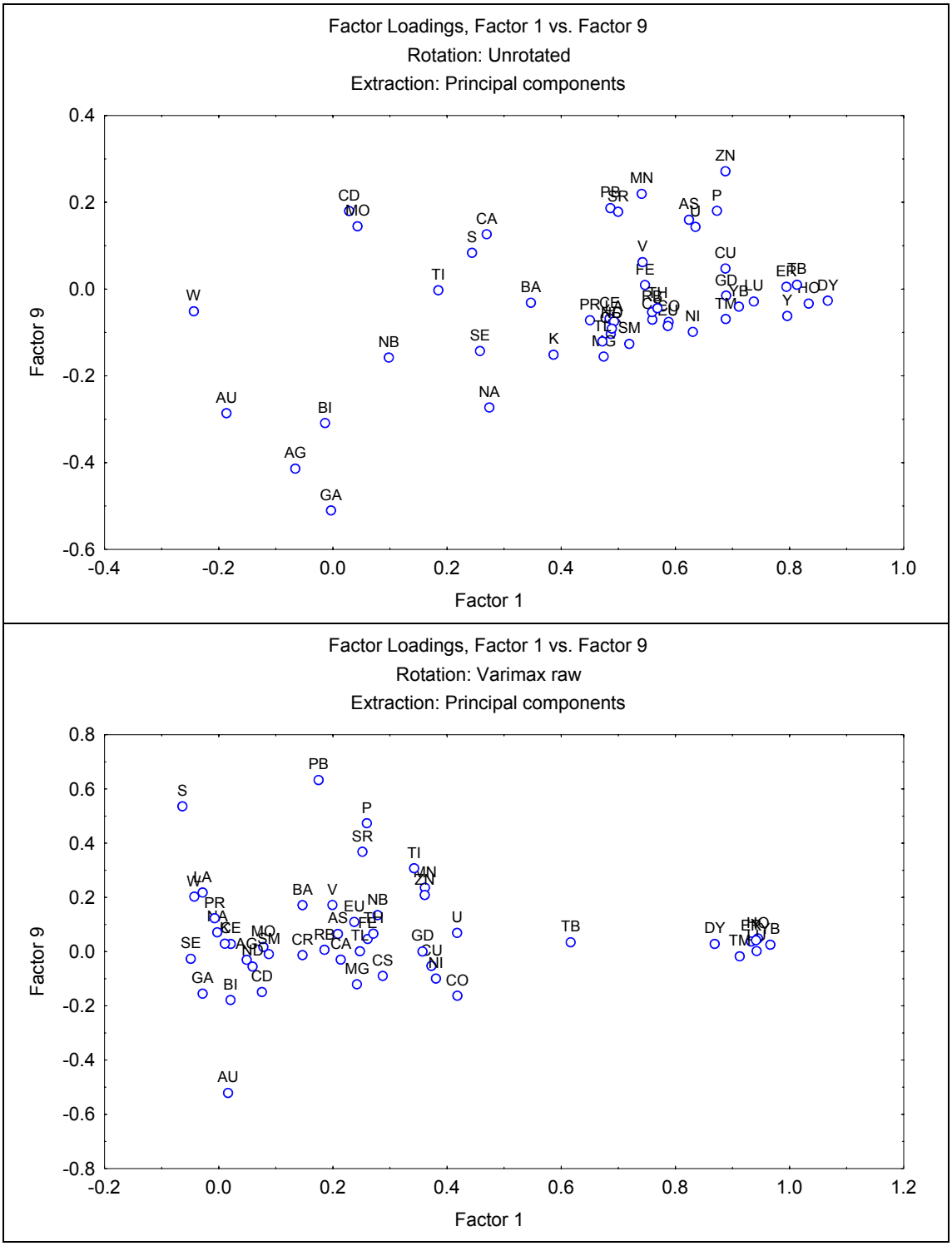


Figure A3c.9: unrotated and rotated Factor 1 vs Factor 9

Factor 9 represents only 2.6% of the variation. Lead and S form two separated one-member clusters.

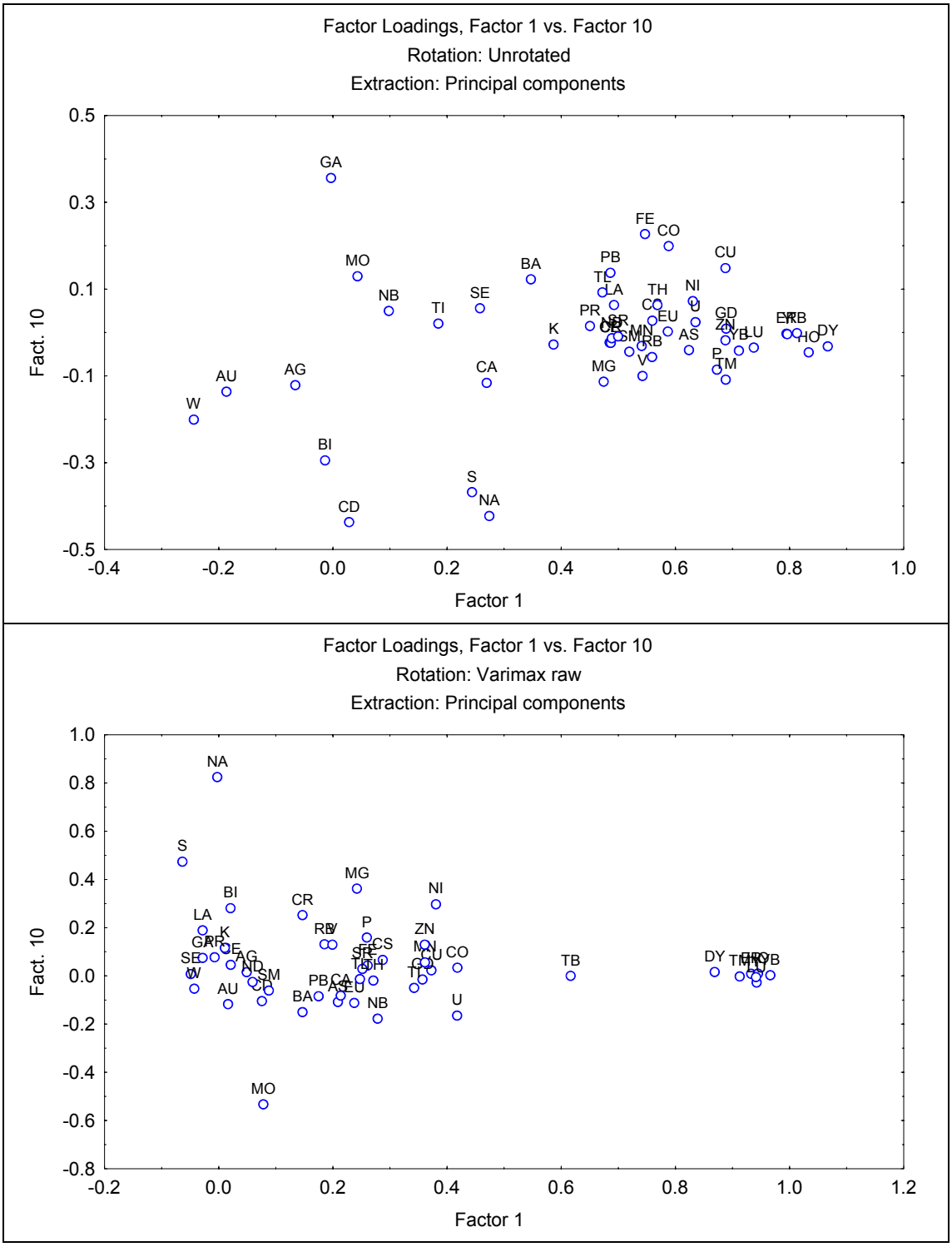


Figure A3c.10: unrotated and rotated Factor 1 vs Factor 10

Factor 10 represents only 2.2% of the variation. Gallium is a one-member cluster in the unrotated factor and Na another once the factor has been rotated.

REFERENCES

Cattell, R.B., 1966: The scree test for the number of factors. *Multivariate Behavioral Research,* 1:245-276.

Kaiser, H.F., 1960: The application of electronic computers to factor analysis. *Educational and Psychological Measurement,* 20:141-151.

Appendix 4: Regolith study logs.

In-Field Descriptions of pre-existing RAB drilling samples.

Appendix 4.1: Regolith logging of holes at E.T. Prospect.

Table A4.1: An example of detailed regolith logs contained on the CD.

Drillhole / Depth	1st and 2nd LEVEL (NS = no sample)			3rd LEVEL	4th LEVEL
	Transported (T) / *In situ* (I)	Colours [wet] (Munsell Hue, CULD&N word colors)	Description	Description	Description
95ETAR004					
00-02	T	5YR 5/7, brownish orange	sand-rich	dune sand, orange	aeolian dune sand (silty) with nodular calcrete, CO3 acid value = 2
02-04	T	5YR 5/7, brownish orange	sand-rich	dune sand, orange	aeolian dune sand with nodular calcrete, CO3 acid value = 2
04-06	T	5YR 5/7, brownish orange	sand-rich	dune sand, orange + hardpan, reddish	aeolian dune sand + clay-rich gritty hardpan, CO3 acid value = 2
06-08	T	2.5YR 4/8, strong brown	sand-clay	hardpan, reddish	clay-rich gritty hardpan, CO3 acid value = 1
08-10	T + I	2.5YR 4/8 + 10YR 6/4, browns	sand-clay	hardpan, reddish + pedolith, brownish	clay-rich gritty hardpan + pallid pedolith & thin pale silcrete + quartz, CO3 acid value = 0
10-12	I	10YR 6/4, light yellowish brown	clay-rich	pedolith pallid	clayey pedolith, weakly bound, pallid, streaky white & some quartz grit
12-14	I	2.5Y 7/2, yellowish gray	clay-rich	pedolith, pallid	clayey pedolith, weakly bound, pallid, streaky white & some quartz grit
14-16	I	2.5Y 7/3, grayish yellow	clay-rich	pedolith, pallid	clayey pedolith, weakly bound, pallid, streaky white & some quartz grit
16-18	I	2.5Y 7/4, grayish yellow	clay-rich	pedolith, yellowish	clayey pedolith, weakly bound, pallid - pale yellowish
18-20	I	2.5Y 7/4, grayish yellow	clay-rich	pedolith, yellowish	clayey pedolith, weakly bound, pallid - pale yellowish
20-22	I	2.5Y 6/4, dark grayish yellow	clay-rich	pedolith, yellowish	clayey pedolith, weakly bound, pallid - pale yellowish
22-24	I	2.5Y 6/3, light olive brown	clay-rich	pedolith, yellowish + white streaks	clayey pedolith, weakly bound, yellowish + white streaks & lamellae
24-26	I	10YR 6/5, light yellowish brown	clay-rich	pedolith, yellowish	clayey pedolith, weakly bound, yellowish
26-28	I	10YR 6/3, light grayish yellowish brown	clay-rich	? saprolith, pallid	clayey ? saprolite-pedolith, transition zone
28-30	I	2.5Y 7/3, grayish yellow	clay-rich	saprolith, pallid	clayey saprolite, with white streaks
30-32	I	2.5Y 7/2, yellowish gray	clay-rich	saprolith, pallid	clayey saprolite, with white streaks
32-34	I	10YR 7/2, yellowish gray	clay-rich	saprolith, pallid - pinkish	clayey saprolite, with white streaks
34-36	I	7.5YR 6/3, grayish brown	clay-rich	saprolith, pallid - pinkish	clayey saprolite, with white streaks
36-38	I	7.5YR 6/3, grayish brown	clay-rich	saprolith, pallid - pinkish	clayey saprolite, with white streaks

Appendix 4.2: Regolith logging of reconnaissance line at E.T.

Hole: 96 ETAR 178 **Pilot Regolith Line, E.T. Prospect. <u>In-Field Descriptions</u>**
Location: 340215.4 E, 6637341 N, **AHD:** 192.168 m.
Site:
Vegetation : Low Open *Acacia aneura* Woodland over *Acacia aneura* Shrubland. (Logged by S. Lintern)
Soil: Um (sandy)
Calcrete: nodular
Logged by: M.J. Sheard

Depth (m)	Description of RAB cuttings
0 – 3	Reddish dune siliceous sand
3 – 4	Reddish dune siliceous sand with calcrete
4 – 5	Silcrete with calcrete down hole contamination
5 – 8	Pale brown saprolite with calcrete & silcrete down hole contamination
8 – 18	Pallid zone, saprolite, quartz + kaolin, yellowish grey from 17 m
18 – 22	Cream to pale yellow saprolite
22 – 25	Bright yellow to orange saprolite
25 – 32	Pale creamy brown saprolite, greyish vein quartz @ 27-28 m
32 – 41	Strong yellowish khaki saprolite, greyish vein quartz @ 35-36 m
41 – 45	Pale greyish brown to pale medium brown saprolite with relic lithic fragments.

Hole: 96 ETAR 182 **Pilot Regolith Line, E.T. Prospect. <u>In-Field Descriptions</u>**
Location: 340219 E, 6636949 N, **AHD:** 188.482 m.
Site:
Vegetation: Open *Casuarina pauper* Woodland over *Acacia aneura* Low Open Woodland over *Acacia aneura* and *Senna artemisioides* subsp. *petiolaris* Shrubland over *Maireana pentatropis, Maireana georgei* and *Sclerolaena* Low Shrubland. (Logged by S. Lintern)
Soil: Um (sandy)
Calcrete: nodular & platy
Logged by: M.J. Sheard

Depth (m)	Description of RAB cuttings
0 – 3	Reddish dune siliceous sand, redder @ 3 m, 2 calcrete zones, 1st @ 1 m is nodular, 2nd @ 2 m is platy
3 – 4	Brownish grey silcrete with calcrete down hole contamination
4 – 5	Creamy brown saprolite with calcrete & silcrete down hole contamination
6 – 18	Pallid saprolite, mostly kaolin + some quartz & vein quartz (very thin veins)
18 – 23	Cream to pale yellow saprolite, quartz + kaolin, Fe oxide segregations @ 19-22 m.
23 – 35	Pale yellow-olive clay-rich saprolite, ?smectitic
35 – 40	Brown saprolite, clay + quartz + relic lithic fragments (?mafic)
40 – 55	Khaki saprolite, clay + quartz + relic lithic fragments (?mafic & still highly weathered @ 55 m).

Hole: 96 ETAR 185 **Pilot Regolith Line, E.T. Prospect. <u>In-Field Descriptions</u>**
Location: 340228.6 E, 6636654 N, **AHD:** 191.171 m.
Site:
Vegetation: Low *Acacia aneura* Woodland over *Senna artemisioides* subsp. *petiolaris* Open Shrubland over *Atriplex vesicaria* Low Open Shrubland. (Logged by S. Lintern)
Soil: Um (sandy)
Calcrete: nodular & platy
Logged by: M.J. Sheard

Depth (m)	Description of RAB cuttings
0 – 8	Reddish dune siliceous sand, redder @ 3 m (?palaeosol), 2 calcrete zones, 1st @ 2 m is nodular, 2nd @ 8 m is platy, Fe & Mn oxide segregations @ 4-6 m
8 – 11	Red hard-pan palaeosol
11 – 12	Silcrete, yellowish & grey
13 – 23	Pallid saprolite, very pale pinky browns to white & then to pale grey-brown, clay + quartz
23 – 29	Pale brown saprolite, clay + quartz & grey vein quartz @ 27-28 m
23 – 33	Bright yellow saprolite, clay-rich
33 – 39	Pallid clay-rich saprolite with pink stains & smears
39 – 50	Brown saprolite, clay-rich (?mafic)
50 – 56	Pale brown saprolite, clay + quartz.

Hole: 96 ETAR 186 **Pilot Regolith Line, E.T. Prospect. <u>In-Field Descriptions</u>**
Location: 340226.8 E, 6636545 N, **AHD:** 189.436 m.
Site:
Vegetation: *Casuarina pauper* Open Woodland over *Senna cardiosperma* subsp. *gawlerensis* and *Senna artemisioides* subsp. *petiolaris* Open Shrubland over *Ptilotus obovatus*, *Atriplex vesicaria* and *Senna artemisioides* subsp. *petiolaris* Low Open Shrubland. (Logged by S. Lintern)
Soil: Um (sandy)
Calcrete: nodular, multiple zones
Logged by: M.J. Sheard

Depth (m)	Description of RAB cuttings
0 – 6.5	Reddish dune siliceous sand, 4 calcrete zones @ 1, 2, 4-5, ~6.5 m, sand is cemented between 3-4 m
6.5 – >9	Red hard-pan palaeosol
>9 – 12	Silcrete, Fe-silcrete & silicified pallid saprolite
12 – 14	Brown saprolite, clay-rich
13 – 23	Saprolite, browns to pink-browns, clay-rich (?mafic)
23 – >26	Yellowish saprolite, clay-rich (?mafic)
>26 – 32	Pink-brown saprolite, clay-rich (?mafic)
32 – 39	khaki clay-rich saprolite (?mafic)
39 – 49	Bright yellowish saprolite, clay-rich with some yellow-olive to olive-grey relic lithic fragments (?mafic)
49 – 56	Pale brown saprolite, clay + quartz with hard relic lithic fragments, ?silicified (?mafic).

Hole: 96 ETAR 187 **Pilot Regolith Line, E.T. Prospect. <u>In-Field Descriptions</u>**
Location: 340237.3 E, 6636441 N, **AHD:** 187.830 m.
Site:
Vegetation: *Acacia aneura* and *Alectryon oleifolius* subsp. *canescens* Tall Shrubland over *Senna artemisioides* subsp. *petiolaris* and *Acacia aneura* Open Shrubland over *Acacia aneura* and *Sclerolaena* Low Open Shrubland. (vehicle track disturbance). (Logged by S. Lintern)
Soil: Um (sandy)
Calcrete: nodular
Logged by: M.J. Sheard

Depth (m)	Description of RAB cuttings
0 – >6	Reddish dune siliceous sand, 2 calcrete zones @ ~1, 6 m
>6 – 8	Red hard-pan palaeosol
8 – 9	Silcrete + quartz on/in saprolite
9 – 11	Silicified saprolite, cream to brown
11 – 14	Brown clay-rich saprolite (?mafic) grey vein quartz @ 11-12 m
14 – 17	Bright yellow saprolite, relic granulite texture, quartz + clays + FeOH (?mafic)
17 – >18	Pale reddish brown, clays + quartz (?mafic)
>18 – 24	Brown to pale saprolite with white kaolin flecks, clays + quartz (?mafic)
24 – 30	Yellow-brown saprolite with white kaolin flecks, clay-rich (?mafic)
30 – 34	khaki clay-rich saprolite with darker coloured relic lithic fragments (?mafic).

Hole: 96 ETAR 188 **Pilot Regolith Line, E.T. Prospect. <u>In-Field Descriptions</u>**
Location: 340240 E, 6636344 N, **AHD:** 188.181 m.
Site:
Vegetation: *Casuarina pauper* Open Woodland over *Senna cardiosperma* subsp. *gawlerensis* Open Shrubland over *Cratystylis conocephala* and *Atriplex vesicaria* Low Shrubland. (Logged by S. Lintern)
Soil: Um (sandy)
Calcrete: nodular
Logged by: M.J. Sheard

Depth (m)	Description of RAB cuttings
0 – 5	Reddish dune siliceous sand, 2 calcrete zones @ 1, 4-5 m
5 – ~8	Red hard-pan palaeosol, sandy
~8 – 10	Silcrete, brownish to grey, + quartz on saprolite
10 – 12	Pallid saprolite, kaolin + quartz
12 – 14	Very pale brown saprolite, clay-rich
14 – 17	Brown clay-rich saprolite (?mafic)
17 – 18	Yellow to yellow-brown saprolite (mafic)
18 – 29	Variably reddish brown, clay-rich (?mafic)
29 – 34	Khaki-grey saprolite, clay-rich (?mafic)
34 – 39	Pale reddish brown saprolite, clay-rich (?mafic)
39 – 55	Khaki clay-rich saprolite (?mafic)
55 – 60	Pale yellowish grey saprolite, clay-rich.

Hole: 96 ETAR 189 **Pilot Regolith Line, E.T. Prospect. <u>In-Field Descriptions</u>**
Location: 340239 E, 6636246 N, **AHD:** 188.833 m.
Site:
Vegetation: *Senna artemisioides* subsp. *petiolaris* Open Shrubland over *Atriplex vesicaria* Low Open Shrubland. (Logged by S. Lintern)
Soil: Um (sandy)
Calcrete: nodular
Logged by: M.J. Sheard

Depth (m)	Description of RAB cuttings
0 – >5	Reddish dune siliceous sand & calcretes @ ~1 & 2-4 m
>5 – 8	Dark red sandy hard-pan palaeosol
8 – <9	Thin silcrete & Fe-silcrete with abundant greyish vein quartz, on pallid saprolite
<9 – 10	Pallid silicified saprolite, quartz fragment-rich
10 – 21	Pallid saprolite, pinkish between 10-14 m, kaolin + quartz
21 – 26	Yellowish clay-rich saprolite (?mafic)
26 – 31	Khaki saprolite ?smectitic (mafic)
31 – 39	Pale khaki-grey saprolite, clay-rich (?mafic)
39 – 44	Pale brown saprolite, clay-rich.

Hole: 96 ETAR 190 **Pilot Regolith Line, E.T. Prospect. <u>In-Field Descriptions</u>**
Location: 340245.2 E, 6636148 N, **AHD:** 187.436 m.
Site:
Vegetation: *Casuarina paupe*r Open Woodland over *Eucalyptus* Very Open Tree Mallee over Tall Open Shrubland over *Senna artemisioides* subsp. *petiolaris* Open Shrubland over *Atriplex vesicaria* Low Open Shrubland. (Logged by S. Lintern)
Soil: Um (sandy)
Calcrete: nodular
Logged by: M.J. Sheard

Depth (m)	Description of RAB cuttings
0 – <5	Reddish dune siliceous sand & calcretes @ 2 & 4 m
<5 – ~6	Dark red sandy hard-pan palaeosol
~6 – 7	Thin silcrete & Fe-silcrete + quartz on pallid saprolite
7 – 10	Pale creamy to very pale brown saprolite, clays + quartz.
10 - 18	Pallid saprolite, clays + quartz
18 – 22	Pale brown saprolite, vein quartz @ 19-20 m, kaolin + quartz
22 – 27	Yellowish brown clay-rich saprolite (?mafic)
27 – 31	Pale brown saprolite ?smectitic (mafic)
31 – 39	Yellow-brown saprolite, clay-rich, ?smectitic, dark greenish lithic relics (?mafic)
39 – 44	Pale khaki saprolite, clay-rich.

Hole: 96 ETAR 193 **Pilot Regolith Line, E.T. Prospect. <u>In-Field Descriptions</u>**
Location: 340259.4 E, 6635573 N, **AHD:** 186.895 m.
Site:
Vegetation: *Casuarina paupe*r Woodland over *Acacia aneura* and *Acacia* sp. Tall Open Shrubland over *Senna cardiosperma* subsp. *gawlerensis* Shrubland over Low Open Shrubland. (Logged by S. Lintern)
Soil: Um (sandy)
Calcrete: massive
Logged by: M.J. Sheard

Depth (m)	Description of RAB cuttings
0 – 2	Reddish dune siliceous sand & nodular calcrete @ ~1 m & massive @ ~2 m
2 – 3	Calcrete – massive, on silcrete
3 – 4	Silcrete on saprolite
4 – 6	Saprolite, very pale brownish grey, partly silicified
6 – 10	Pale pink (6-8) to stronger pink (8-10) saprolite, clays + quartz.
10 – >22	Pallid saprolite, clays + quartz
>22 – >25	Cream to pale yellow saprolite, kaolin + quartz
>25 – 44	Pale khaki saprolite, clay-rich. ?smectitic (?mafic)

Hole: 96 ETAR 196 **Pilot Regolith Line, E.T. Prospect. <u>In-Field Descriptions</u>**
Location: 340267.2 E, 6635267 N, **AHD:** 185.135 m.
Site: Outcrop area with surface lag
Vegetation: *Casuarina paupe*r Woodland over *Acacia aneura* Tall Shrubland over *Eremophila latrobei* and *Senna cardiosperma* subsp. *gawlerensis* Low Open Shrubland. (Logged by S. Lintern)
Soil: Um (sandy)
Calcrete: nodular
Logged by: M.J. Sheard

Depth (m)	Description of RAB cuttings
0	Outcrop area with surface lag, rounded quartz clasts observed, silcrete is greenish with granule quartz clasts
0 – 1	Thin red sandy soil skin on silcrete with calcrete coatings & joint infill
1 – 2	Silcrete on/in saprolite
2 – 5	Variably partly silicified pallid saprolite
5 – 12	Pallid saprolite, kaolin-rich + some quartz
12 – 14	Creamy saprolite, ?partly silicified, has a faint greenish tint
14 – 20	Yellow & becoming a strong yellow with depth, clay-rich saprolite
20 – >23	Strong brown saprolite, clays + quartz
25 – 32	Pale khaki saprolite, ?smectitic
32 – 44	Khaki to brown ?mafic (Fe-rich) saprolite with dark grey fragment coatings @ 34-35 m.

Appendix 5: Quality control

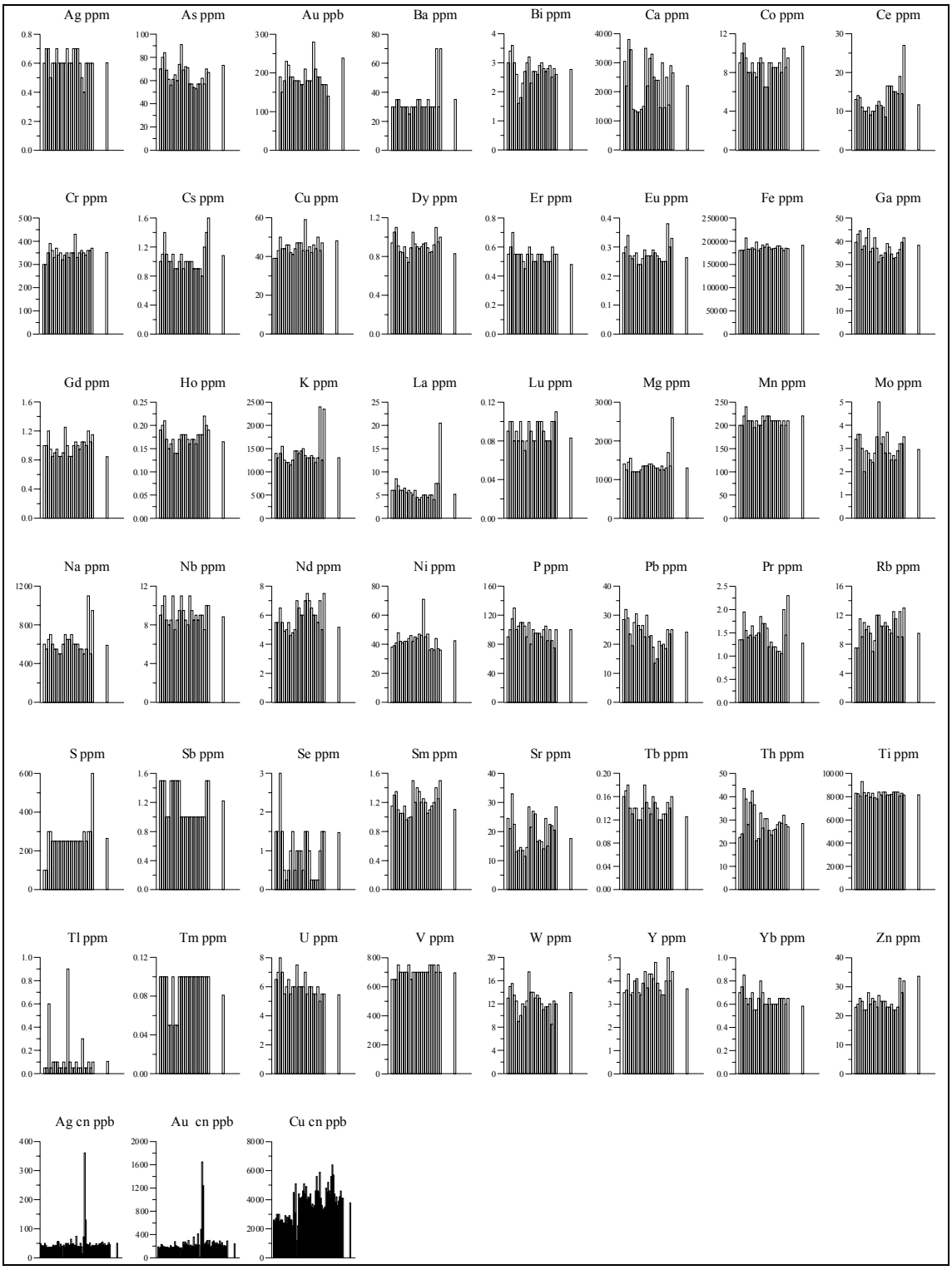


Fig A5.1: Elemental abundancies for a series of CRC LEME STANDARD 7 samples submitted "blind" with regolith samples during this project. Bar on far right are means of data previously generated on all projects using the same standard. Eight-one samples were used for all elements except Co (71), Ag cyanide (69), Cu cyanide (67) and Au (117). Gold analysed by 2 methods (cyanide and aqua regia).

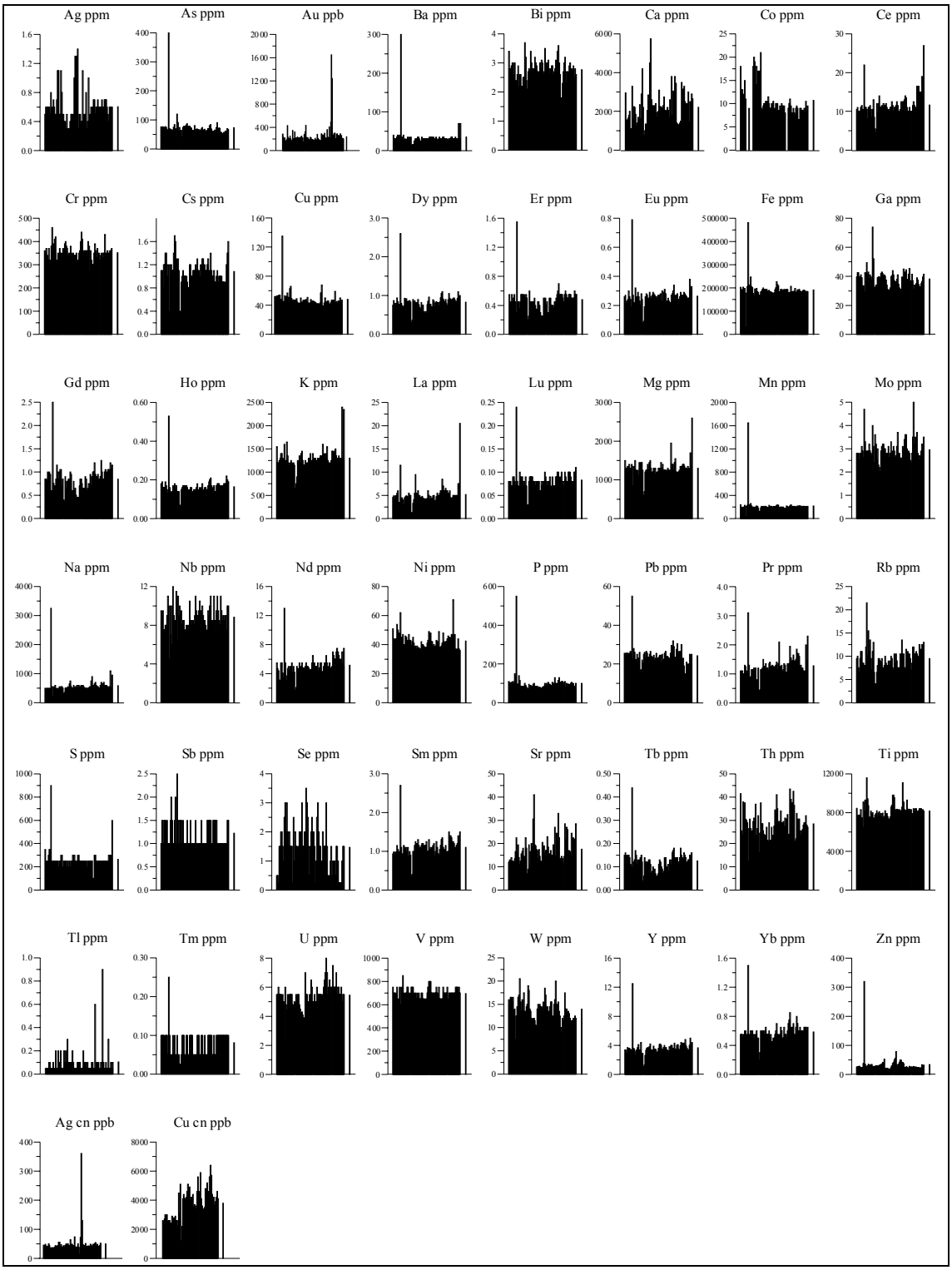


Fig A5.2: Elemental abundancies for all CRC LEME STANDARD 7 samples used in all projects. Bar on far right are means of data. Eight-one samples were used for all elements except Co (71), Ag cyanide (69), Cu cyanide (67) and Au (117). Gold analysed by 2 methods (data combined).

Appendix 6: The use of PIMA at ET

6.1 Introduction

All PIMA data (raw and processed) can be found on the CD provided with this report

6.2 Methods

Short Wave Infra Red (SWIR) spectra of selected RAB/RC cuttings was performed by PIRSA using an Integrated Spectronics PIMA II spectrometer. PIMA Acquisition Software (version 1.1 Revision B) using Petri Dish Calibration mode was used to acquire the data. A new calibration was performed approximately every hour unless prompted earlier by the software. Each sample was deposited in a petri dish and placed on the PIMA scanning window and scanned with the default Integration setting set to 1. An integration setting of 2 was used on occasion where the sample was too dark to give a relatively noise-free spectra.
Mineralogical compositions were determined using The Spectral Geologist v2.0 software (Ausspec International Pty. Ltd.) by comparison with the reference library of spectra within the software package.

6.3 Kaolinite Crystallinity Index (KCI)

Investigative work by Pontual *et al*. (1996), Mauger *et al.* (1997) and van der Wielen (1999) have demonstrated that kaolin developed in a weathering profile is markedly more crystalline than kaolin within a sediment. Pontual *et al*. (1997c) have subsequently developed a measure of this crystallinity difference, now known as the Kaolinite Crystallinity Index.

Calculating the crystallinity of Kaolinite from PIMA (Portable Infrared Mineral Analyser) derived spectra can be useful in determining the boundary between transported and *in situ* materials. This is especially the case where RAB drill samples are involved as visually determining such transitions can prove difficult due to downhole contamination. Coarse material such as silcrete, calcrete and quartz often are found at lower levels in the profile than they actually occur. Fine and often moist material is less prone to be moved down the hole, so that analysis of the clay material can give a truer representation of *in situ* material in its correct location.

Kaolinite can be identified by the following PIMA spectral features within the overall broader spectral trace (Pontual, *et al*, 1997a):
1. A doublet composed of two peaks at ~1400nm and 1412nm
2. A second diagnostic doublet at ~2160nm and 2206nm
3. A feature near 1850nm
4. A triplet near 2320nm, 2350nm and 2380nm

The variations in the doublet at 2160-2206nm were used to determine kaolinite crystallinity.

Kaolinite Crystallinity Index (KCI) can be calculated by combining the 2160 and 2180 slope parameters using the following formula (Pontual *et al*. 1997c):

KCI = (2180 slope – (2160 slope – 2180 slope))

Figure A6.1 illustrates an idealised model of the transition from poorly crystalline to highly crystalline kaolinite and how the KCI formula is applied to the spectra (Pontual *et al*. 1997a). It is important to note that the actual wavelengths will vary slightly from site to site due to compositional differences of kaolin at each site. The KCI calculations should be tailored to each site to allow for these compositional differences. This can be achieved by running an orientation survey to determine actual parameter ranges prior to carrying out major analyses. A reconnaissance survey carried out over the project area (Lintern *et al*. 2001, in prep.) indicated that no modification of the parameters was necessary as compositional wavelength shifts were minimal. Therefore the parameters used to calculate KCI operated as required.

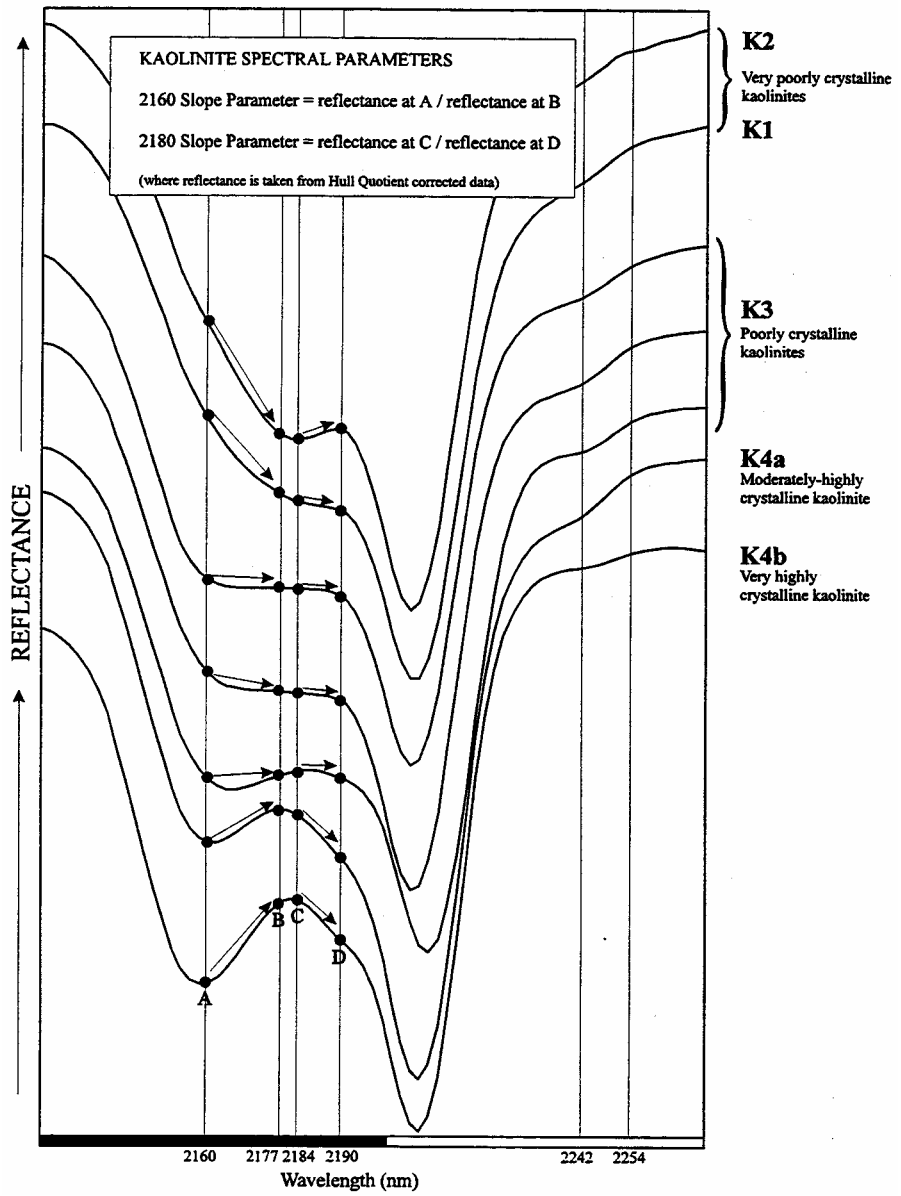


Figure A6.1: Determination of kaolinite spectral parameters (Pontual *et al*. 1997a).

Table A6.1: Kaolinite crystallinity characteristics (modified after Pontual *et al*. 1997c).

Kaolinite Crystallinity type	Description	Spectral Slope Parameters	KCI
K2 Kaolinite	Extremely poorly crystalline	2160 slope > 1.02 2180 slope <1.01 and >1.00	<0.98
K1 Kaolinite	Very Poorly Crystalline	2160 slope > 1.02 2180 slope <1.00	<0.98 K1 > K2
K3 Kaolinite	Poorly Crystalline	2160 slope >1.00 and <1.03 2180 slope >0.99 and <1.02	<1.00
K4a Kaolinite	Moderately well Crystalline	2160 slope <1.00 2180 slope >1.01 (often >1.02)	>1.00
K4b Kaolinite	Highly Crystalline	2160 slope <1.00 (often <0.99) 2180 slope >1.01 (often >1.02)	>1.04

Table A6.1 illustrates how the KCI values increase with increasing kaolinite crystallinity. This table was used as a rough guide whilst overviewing large data sets. Crystallinity however, should be assigned on the basis of each individual spectra. Generally the KCI value >1.04 is taken as a reasonable indicator that *in situ* derived kaolin has been encountered in a sample.

The advantage of using KCI is that it produces numerical values that can be used in quantitative analyses. Figure A6.2 demonstrates that the contact between transported and *in situ* can be quite obvious as in hole 96ETAR178, but less so for hole 96ETAR187. This may be due to downhole contamination or the presence of another mineral like smectite that is modifying or masking the spectral response.

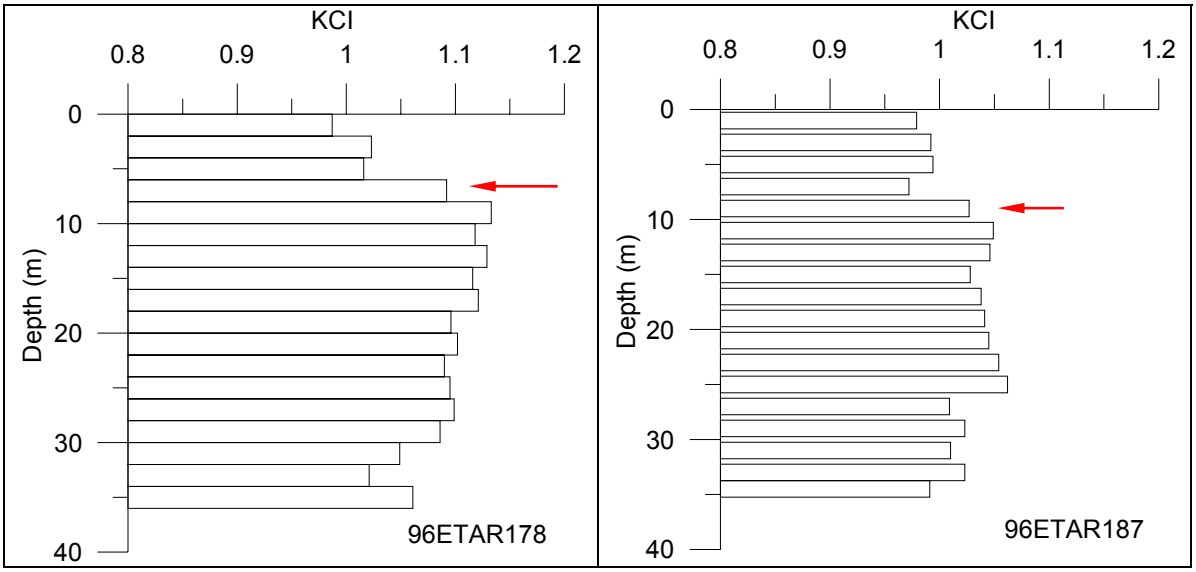


Figure A6.2: Bar charts showing transported / *in situ* contact (red arrow).

The top profile in Figure A6.3 (96ETAR178) shows an obvious transported/*in situ* boundary at a depth of 6-8m (4th spectrum from the top). A doublet appears at 2158nm and 2206nm and also at 1398nm and 1414nm. The KCI value also jumps from 1.01 to 1.09 (Figure A6.2).

The bottom profile (96ETAR187) shows a less pronounced doublet appearing from 8-10m (5th spectrum from the top) at 2162nm and 2208nm. The KCI values also jump from 0.98 to 1.03. This doublet however, has also shifted to longer wavelengths due to the presence of other minerals (smectites). As a result, the KCI values could be misleading if this wavelength shift is not taken into account. The doublet at 1398nm and 1414nm seem to be masked possibly due to the presence of smectite in the profile.

6.4 Smectites

The Smectite group of minerals include montomorillinte, nontronite and Saponite. Montomrillinite is the most common of these within the project area and can be identified by (Pontual, *et al*, 1997a):

- Deep asymmetrical water absorptions at ~1411nm and ~1904nm
- A single absorption peak that may vary in wavelength from 2205-2212nm. This peak however, is relatively small when compared to the water features (Figure A6.4)

Within the project area, smectites are generally found in transported material however, it can be found all the way through the profile.

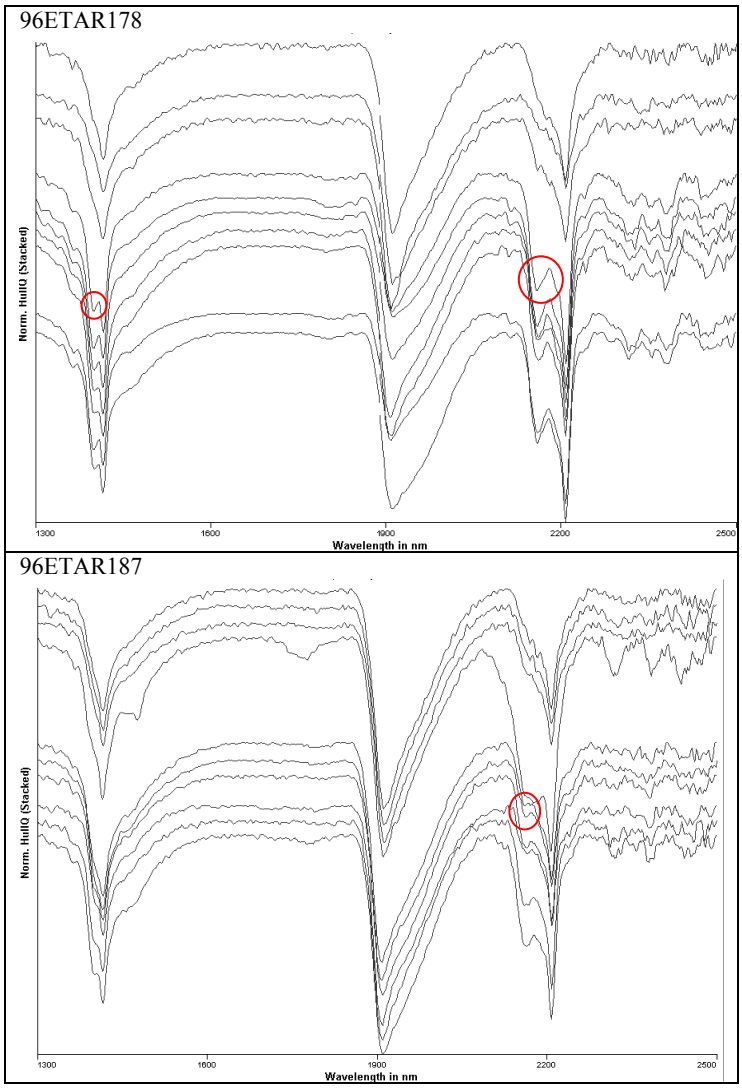


Figure A6.3: Top 20 metres of PIMA profiles for holes 96ETAR178 (top) and 96ETAR187 (bottom). The red circles indicate the first appearance of features indicative of highly crystalline kaolinite. Samples were two metre composites.

The relative proportion of smectites (all smectites) within a sample can be calculated using the following formula (Pontual, *et al*, 1997b):

Smectite Proportion (SP) = Depth of water feature / Depth of deepest absorption feature between 2150nm and 2370nm

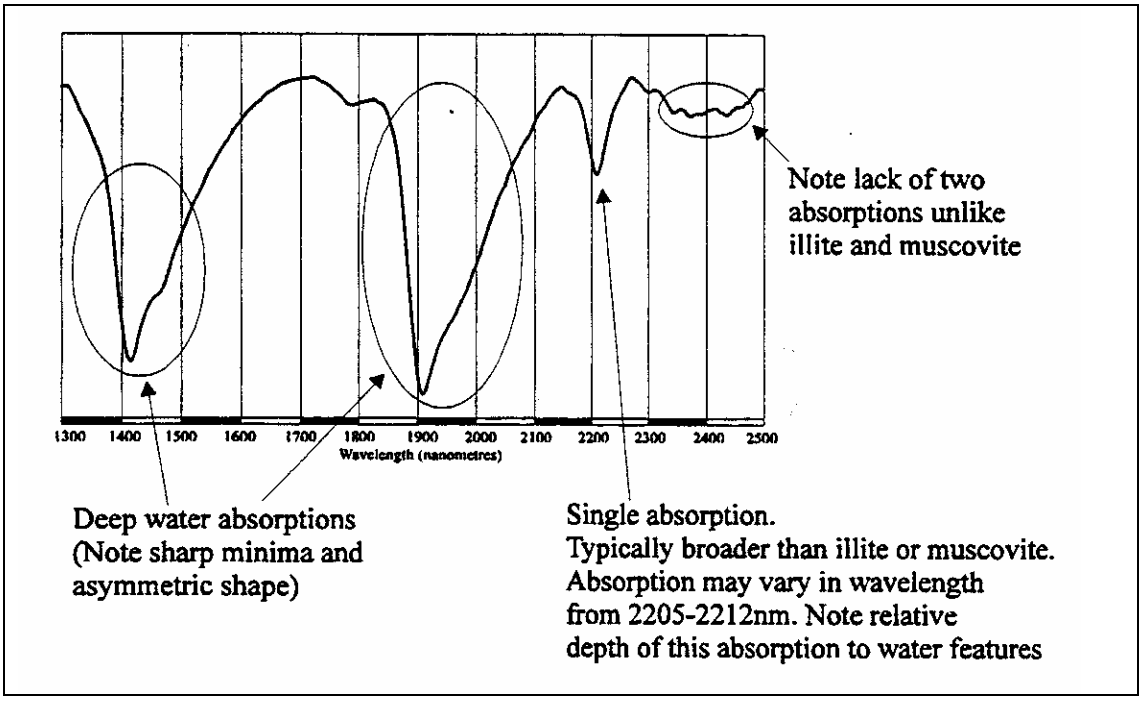


Figure A6.4: Distinctive features of montmorillinite (Pontual *et al*. 1997a).

The SP value increases with increasing smectite content. This value can be influenced by high water content in the sample (ie. wet samples or fluid inclusions). As a result, the SP value can be misleading if this is not taken into account. Visual confirmation of the spectral profile is recommended.

The top profile in Figure A6.5 (96ETAR084) demonstrates clearly the presence of smectite in the top 4 metres of the profile (1st and 2nd spectrum from the top) followed by a complete absence of smectite in the rest of the profile. Note the relative proportions of the large asymetrical water peak at 1912nm and the smaller peak at 2208nm. This is a diagnostic feature of smectites. The bottom profile also shows smectites are present in the top 4 metres (1st and 2nd spectrum). However, from 6-10 metres (3rd, 4th and 5th spectra) the water feature at 1912nm is still prominent but proportionately smaller compared to the 2208nm peak. The water peak also shifts to 1920nm due to compositional changes (increasing kaolinite). The reduced relative size and the more rounded shape of the ~1912nm peak seem to indicate the presence of free water (ie. wet sample) or interstitial water within the sample. This is also the case lower down the profile (4th, 3rd and 2nd to last spectra).

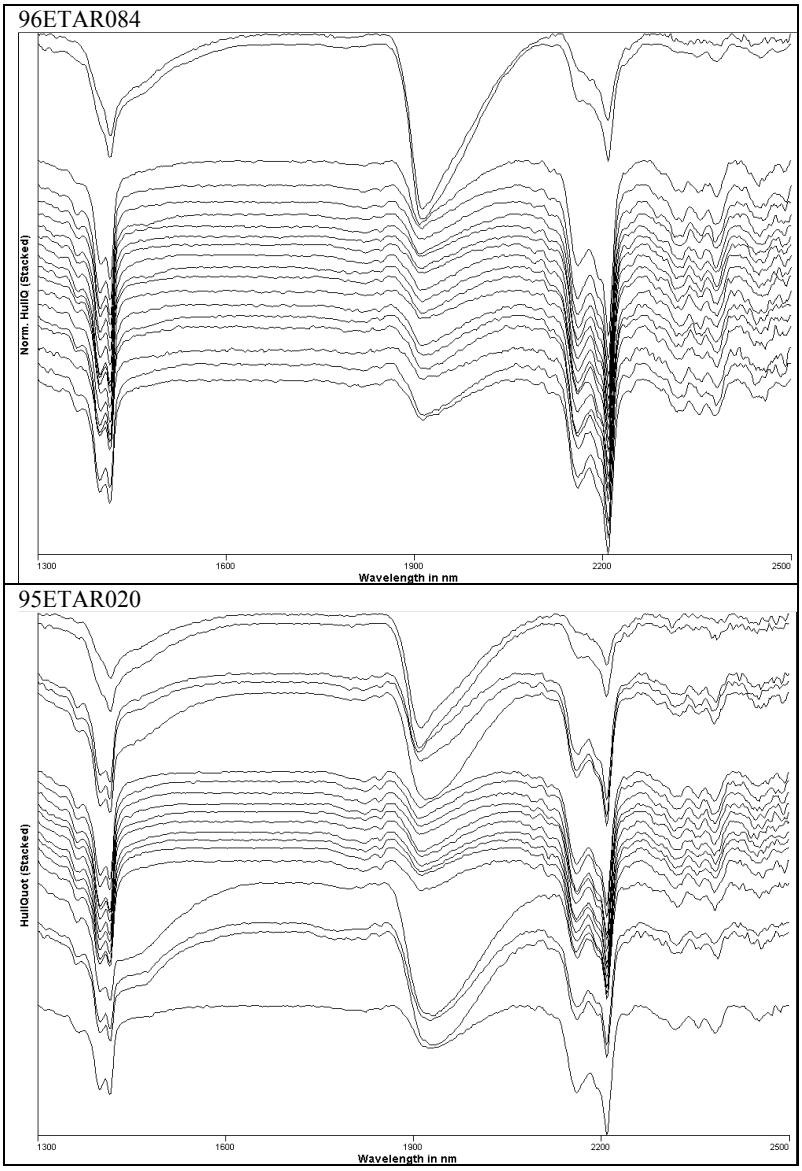


Figure A6.5: Top 38 metres of PIMA profiles for holes 96ETAR084 (top) and 95ETAR020 (bottom). Samples were two metre composites.

6.5 Fe2+ Response

Ferrous iron has an absorption feature at around 1000nm (Pontual, 1997a). Although out of the range of the PIMA, it does influence the appearance of the reflectance spectra (Fig A6.6)

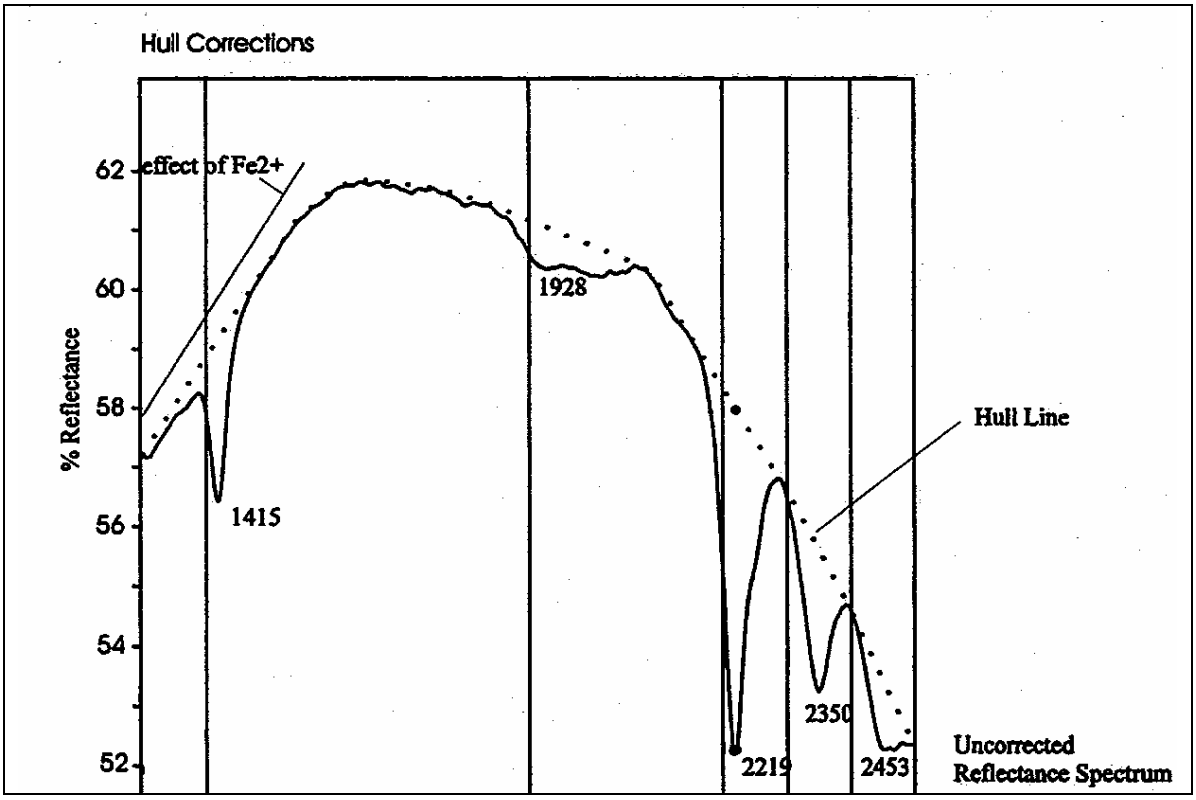


Figure A6.6: The effect of Fe2+ on uncorrected reflectance spectrum (Pontual, 1997a)

The relative proportion of iron-bearing minerals can be calculated by measuring the slope between 1310nm and 1600nm using the following formula (Pontual, 1997b):

Fe2+ Response = r1600/r1300
where r is the reflectance (y-axis value)

This parameter should be calculated from the reflectance spectrum only (no hull correction). The greater the Fe2+ response, the higher the proportion of iron-bearing minerals. Within the project area, iron-bearing minerals appear at various depths through to BOH.

6.6 Micas

6.6.1 Muscovite

Muscovite can be identified by the following spectral features (Pontual 1997a):

- A peak at ~1410nm
- An intense peak between 2180-2228nm (variations due to compositional changes)
- Two diagnostic absorptions at ~2342nm and ~2435nm that persist in mixed spectra.
- Weak or absent water feature at ~1910nm that distinguishes it from illite.

Muscovite occurs throughout the project area at various depths within *in situ* materials.

6.6.2 Biotite

The PIMA can distinguish between three different varieties: biotite, Fe-Biotite and Deep FeOH Biotite. Typical biotite can be identified by the following spectral features (Pontual 1997a):

- A broad rounded peak from 1300nm to ~1900nm (artefact of strong Fe2+ response and hull quotient processing)
- A peak at ~2255nm
- A peak at ~2340nm

These features vary depending on the type of biotite. Biotite occurs throughout the project area at various depths within *in situ* materials.

6.6.3 Phlogopite

Phlogopite has a similar spectral profile to biotite. Typical phlogopite can be identified by the following spectral features (Pontual 1997a):

- A large peak at ~2330nm (slightly shorter wavelength than that of biotite)
- A smaller peak at ~2380nm
- Minor peaks at ~1380nm and ~2430nm

As iron content increases, the spectral profile of phlogopite tends toward that of biotite.

Distinguishing between phlogopite and biotite can be extremely difficult if it occurs as a minor fraction within a mixture of minerals. Phlogopite appears to occur mostly on the line along E339000 ranging in depths from 30m to BOH.

6.7 Other minerals

Other less-common minerals were identified by PIMA including chlorite, alunite, palygorskite, hectorite/saponite and talc. Descriptions and data for these can be found on the CD.

6.8 CD Data Sets

The CD provided with this report contains all the raw PIMA output as well as derived data such as KCI, SP and Fe^{2+} response calculations (Table A6.2).

Table A6.2: A small sub-set of PIMA data available on the CD containing derived data as well mineral interpretations. 1 in each column denotes the presence of each particular mineral.

Hole No	from (m)	to (m)	Kaolinite	Halloysite	Montmorillinite	KX_Index	Fe2+ Response	Smectite Proportion
96ETAR315	0	2	1	1	1	0.997	1.003	2.032
	2	4	1		1	1.005	0.994	2.022
	4	6	1		1	1.021	1.019	1.41
	6	8	1		1	1.101	1.005	0.68
	8	10	1	1		1.132	0.988	0.473
	10	12	1	1		1.097	1	0.498
	12	14	1			1.113	0.995	0.438
	14	16	1			1.066	0.99	0.49
	16	18	1			1.079	1.124	0.61
	18	20	1	1		1.095	1.073	0.722
	20	22	1		1	1.086	1.011	0.971
	22	24	1		1	1.036	0.963	1.526
	24	26	1			1.041	1.143	0.944
	26	28	1		1	1.033	1.113	3.247
	28	30	1		1	1.016	1.165	2.059
	30	32	1		1	1.032	1.202	1.946
	32	34			1	0.99	1.139	3.586
	34	35		1		1.023	1.071	5.629
	35	36	1			1.029	1.214	1.709
	42	43	1			1.015	1.222	1.243

References

Lintern, M.J., Sheard, M.J. and Gouthas, G., 2002. Preliminary Regolith studies at ET, Monsoon, Jumbuck, South Hilga and Golf Bore gold prospects, Gawler Craton, South Australia. CRC LEME Open File Report 115 / CSIRO Exploration and Mining Report 864R /PIRSA Office of Minerals and Energy Resources South Australia, Report Book RB 2002_004.

Mauger, A.J., Keeling, J.L., Luong, L. and Scott, K.M., 1997. Poona Copper Mine, Moonta South Australia: Investigation of alteration mineralogy using short wave infra red analysis. South Australia. Department of Primary Industries & Resources. Minerals Group. Report Book, RB97/51.

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van der Wielen, S.E., 1999. An investigation of the regolith stratigraphy at the Challenger gold deposit, South Australia. University of South Australia. School of Geoscience, Minerals and Civil Engineering. Honours thesis (unpublished).

Appendix 7: Geochemical data - vegetation samples

7.1 List of plants at E.T. Prospect

Naturalised species: Plants collected randomly in November 1999 by Suzie Lintern. Thanks to Suzie Lintern, Helen Vonow at the Plant Biodiversity Centre - Adelaide and the Herbarium of WA for their help and guidance.

POACEAE
Enneapogon polyphyllus
Eragrostis eriopoda?
Monachather paradoxa
Stipa nitida

CASUARINACEAE
Casuarina pauper

SANTALACEAE
Santalum acuminatum
Santalum lanceolatum
Santalum spicatum

CHENOPODIACEAE
Atriplex acutibractea
Atriplex vesicaria
Chenopodium curvispicatum
Enchylaena tomentosa
Eriochiton sclerolaenoides
Maireana georgei
Maireana pentatropis
Maireana sedifolia
Mairearia radiata
Mairearia trichoptera
Rhagodia spinescens
Rhagodia ulicina
Salsola kali
Sclerolaena eriacantha?
Sclerolaena obliquicuspis
Sclerolaena diacantha.

AMARANTHACEAE
Ptilotus obovatus

BRASSICACEAE
Arabidella trisecta

PITTOSPORACEAE
Pittosporum phylliraeoides

MIMOSACEAE
Acacia aneura
Acacia nyssophylla
Acacia oswaldii

CAESALPINIACEAE
Senna artemisioides subsp. *coriacea*
Senna artemisioides subsp. *petiolaris*
Senna cardiosperma subsp. *gawlerensis*
Senna cardiosperma subsp. *microphylla*

FABACEAE
Templetonia egena

ZYGOPHYLLACEAE
Zygophyllum aurantiacum

SAPINDACEAE
Dodonaea microzyga
Alectryon oleifolius subsp. *canescens*

MALVACEAE
Sida corrugata var. *A*

THYMELAEACEAE
Pimelia microcephala

MYRTACEAE
Eucalyptus concinna
Eucalyptus gracilis
Eucalyptus sp. *N*
Eucalyptus striaticalyx

ASCLEPIADACEAE
Leichahardtia australis
Rhyncharrhena linearis

SOLANACEAE
Lycium australe
Solanum orbiculatum

MYOPORACEAE
Eremophila arachnoides subsp. *tenera*
Eremophila deserti
Eremophila glabra
Eremophila latrobei
Eremophila scoparia
Eremophila serrulata
Myoporum platycarpum

GOODENIACEAE
Scaevola spinescens

ASTERACEAE
Brachycome trachycarpa
Cratystylis conocephala
Olearia muelleri

7.2 Species Distribution

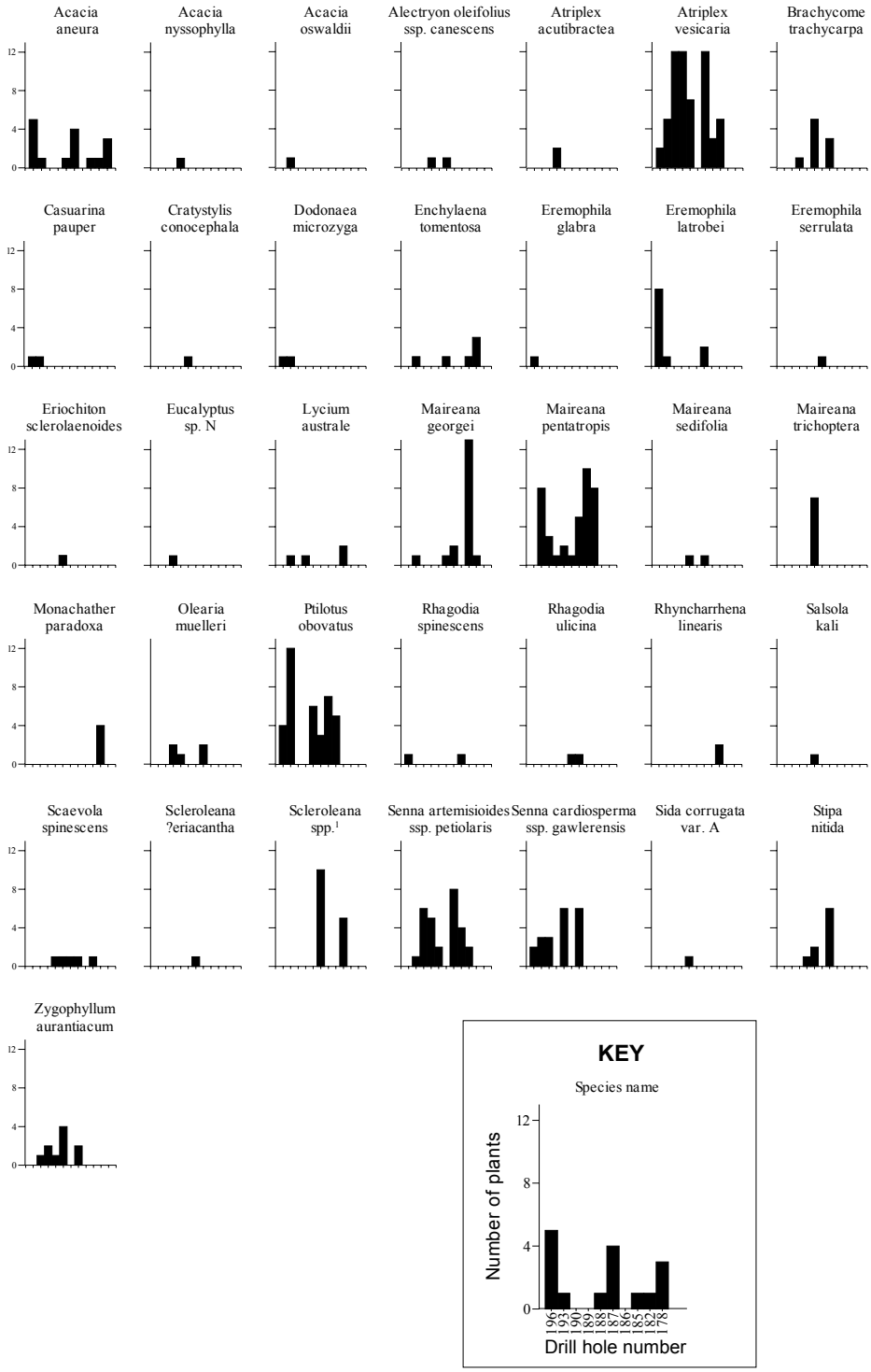


Figure A7.2.1: Species diversity and density at ET Prospect.
1 Sclerolaena spp. Includes S. obliquicuspis and S. diacantha

7.3 Tabulated data

Table A7.3.1: Tabulated geochemical data for vegetation.

MESA-no	Sample_id	Zone	E (AMG66)	N (AMG66)	Plant Type	Weight (g)	Dry Weight (g)	Height (m)	Diameter (m)
R435892	PS 1	53	337325	6635240	acacia	208.1	168.9	5	0.3
R435893	PS 2	53	337255	6635702	acacia	212.9	205	3	0.3
R435894	PS 3	53	337239	6636236	acacia	131.8	128.7	5	0.3
R435895	PS 4	53	337264	6636772	acacia	156.2	151.8	3	0.2
R435896	PS 5	53	337391	6637231	acacia	111.8	108.5	3	0.3
R435897	PS 6	53	337225	6637740	acacia	134.7	144	2.5	0.1
R435898	PS 7	53	337746	6637753	casuarina	145.5	139.4	5	0.3
R435899	PS 8	53	338272	6637768	acacia	109.1	107.1	4	0.15
R435900	PS 9	53	338980	6637704	acacia	112.2	109	4	0.3
R435901	PS 10	53	338750	6637212	acacia	134.7	120.7	4	0.4
R435902	PS 11	53	337817	6637367	acacia	122.1	119.6	4	0.3
R435903	PS 12	53	337772	6636696	acacia	128.2	123.7	3	0.2
R435904	PS 13	53	337762	6636235	acacia	126.1	119.2	3	0.2
R435905	PS 14	53	337762	6635717	acacia	132.2	124.2	3	0.2
R435906	PS 15	53	337731	6635226	acacia	125.9	121.6	4	0.4
R435907	PS 16	53	338266	6635260	acacia	150.4	143.7	5	0.4
R435908	PS 17	53	338231	6635745	acacia	126.9	118.2	4	0.3
R435909	PS 18	53	338231	6636280	acacia	146.3	135.8	4	0.3
R435910	PS 19	53	338229	6636594	acacia	149.7	143.5	3	0.2
R435911	PS 20	53	338285	6636804	acacia	196.5	173.9	3	0.1
R435912	PS 21	53	339017	6636787	acacia	249.2	220.7	4	0.4
R435913	PS 22	53	338754	6636249	acacia	219.9	198.8	5	0.3
R435914	PS 23	53	338759	6635746	acacia	160.6	146	2	0.2
R435915	PS 24	53	338740	6635270	acacia	135.2	131.6	4	0.4
R435916	PS 25	53	339248	6635241	acacia	196.2	172.5	4	0.3
R435917	PS 26	53	339240	6635747	acacia	187.7	168.9	5	0.3
R435918	PS 27	53	339254	6636283	acacia	184.1	176.2	5	0.3
R435919	PS 28	53	339227	6636758	acacia	206.9	186.4	4	0.2
R435920	PS 29	53	339270	6637234	acacia	170.8	192.4	4	0.2
R435921	PS 30	53	339248	6637746	acacia	180.9	175.3	5	0.3
R435922	PS 31	53	339669	6637459	acacia	182.3	177.1	3	0.1
R435923	PS 32	53	339569	6636994	acacia	162.7	135.8	6	0.4
R435924	PS 33	53	339751	6636244	acacia	191.8	175.3	3	0.2
R435925	PS 34	53	340256	6637762	acacia	181.6	171.7	4	0.4
R435926	PS 35	53	340216	6637248	acacia	191.8	170.8	4	0.2
R435927	PS 36	53	339760	6637245	acacia	151.7	148.2	6	0.4
R435928	PS 37	53	340218	6636679	acacia	160.2	143.2	6	0.4
R435929	PS 38	53	340242	6636341	acacia	180.2	161.4	6	0.4
R435930	PS 39	53	340251	6635712	acacia	199.6	188.8	4	0.3
R435931	PS 40	53	339753	6635738	acacia	229.3	190.9	4	0.3
R435932	PS 41	53	339732	6635203	acacia	168.1	161.9	6	0.4
R435933	PS 42	53	340236	6635235	acacia	170.1	162.7	4	0.3
R435934	PS 43	53	340752	6635264	casuarina	233.9	212.5	6	0.4
R435935	PS 44	53	340750	6635764	acacia	183.4	176.5	4	0.3
R435936	PS 45	53	340740	6636257	acacia	173.9	165.2	5	0.4
R435937	PS 46	53	340746	6636776	acacia	151.4	143.8	6	0.4
R435938	PS 47	53	341185	6635749	acacia	214.5	190.3	5	0.4
R435939	PS 48	53	340737	6637743	acacia	176.9	173.4	3	0.3
R435940	PS 49	53	340760	6637260	acacia	216.7	194.6	4	0.3
R435941	PS 50	53	338820	6636749	acacia	240.3	212.7	3	0.3
R435942	PS 51	53	338804	6636725	acacia	226.2	211.1	5	0.4
R435943	PS 52	53	338814	6636623	acacia	220.1	200.5	5	0.3
R435944	PS 53	53	338815	6636577	acacia	207.1	189.2	3	0.2
R435945	PS 54	53	338802	6636471	acacia	171.8	158.3	5	0.4
R435946	PS 55	53	338797	6636446	acacia	208.8	194.1	4	0.3
R435947	PS 56	53	338181	6636599	acacia	207.9	193.4	3	0.2
R435948	PS 57	53	338405	6636865	casuarina	235.7	226.3	7	0.5
R435949	PS 58	53	338104	6636563	acacia	269.3	205.6	4	0.4

Table A7.3.1 (continued): Tabulated geochemical data for vegetation.

MESA-no	Ash % Dry Wt	Ag dry	Al dry	As dry	Au dry	Ba dry	Bi dry	Ca dry	Cd dry	Ce dry	Co dry	Cr dry
R435892	6.2	0.0308	144.6	0.092	0.369	0.62	0.0369	15810	0.00308	0.154	0.111	0.123
R435893	6.2	0.0186	139.9	0.124	0.497	1.55	0.0186	17217	0.00311	0.186	0.131	0.249
R435894	4.9	0.0049	126.7	0.024	0.439	2.19	0.0097	13106	0.00244	0.097	0.097	0.195
R435895	4.7	0.0093	97.9	0.047	0.373	3.03	0.0233	8861	0.00233	0.117	0.093	0.140
R435896	4.3	0.0174	132.5	0.043	0.565	1.09	0.0087	10125	0.00217	0.087	0.091	0.261
R435897	5.5	0.0110	143.5	0.028	1.435	0.83	0.0055	13636	0.00276	0.110	0.083	0.110
R435898	3.6	0.0109	61.6	0.036	0.508	2.90	0.0073	6381	0.00181	0.054	0.116	0.036
R435899	5.6	0.0112	182.2	0.028	0.953	1.96	0.0112	11832	0.00280	0.196	0.135	0.224
R435900	5.5	0.0055	131.5	0.027	0.164	1.64	0.0110	12817	0.00274	0.137	0.093	0.110
R435901	5.5	0.0110	90.8	0.055	0.495	1.93	0.0110	11836	0.00275	0.083	0.094	0.055
R435902	5.4	0.0108	96.9	0.054	0.377	2.42	0.0108	10179	0.00269	0.081	0.086	0.108
R435903	5.5	0.0166	80.0	0.028	0.166	4.14	0.0055	11149	0.00276	0.304	0.099	0.110
R435904	6.2	0.0062	90.2	0.016	0.031	1.24	0.0062	12258	0.00311	0.093	0.075	0.187
R435905	5.8	0.0116	95.9	0.015	0.174	1.45	0.0058	13896	0.00291	0.087	0.099	0.116
R435906	5.3	0.0158	68.6	0.013	0.026	1.58	0.0053	10345	0.00264	0.079	0.106	0.211
R435907	5.5	0.0165	85.1	0.055	0.165	1.10	0.0055	10539	0.00274	0.137	0.082	0.110
R435908	5.5	0.0222	80.4	0.028	0.111	1.66	0.0055	9650	0.00277	0.111	0.089	0.166
R435909	5.5	0.0220	99.2	0.055	0.028	2.20	0.0055	12017	0.00276	0.138	0.116	0.165
R435910	5.3	0.0106	95.7	0.013	0.027	1.59	0.0053	12278	0.00266	0.239	0.085	0.159
R435911	5.9	0.0177	144.2	0.118	0.029	2.35	0.0118	13480	0.00294	0.235	0.106	0.235
R435912	6.1	0.0184	95.0	0.031	0.031	1.53	0.0061	13427	0.00613	0.153	0.092	0.123
R435913	4.6	0.0091	89.2	0.069	0.023	0.91	0.0046	8322	0.00229	0.114	0.064	0.046
R435914	5.8	0.0173	72.1	0.058	0.115	2.02	0.0029	12685	0.00288	0.058	0.075	0.231
R435915	6.1	0.0122	106.4	0.015	0.030	4.87	0.0061	14781	0.00304	0.182	0.109	0.182
R435916	5.9	0.0118	97.1	0.088	0.353	2.06	0.0029	14834	0.00589	0.118	0.082	0.177
R435917	6.0	0.0241	102.6	0.015	0.060	1.21	0.0060	14247	0.00302	0.151	0.115	0.241
R435918	4.4	0.0133	108.5	0.066	0.089	0.66	0.0044	8857	0.00221	0.111	0.089	0.177
R435919	6.3	0.0125	72.1	0.031	0.031	1.88	0.0031	12096	0.00313	0.063	0.075	0.063
R435920	6.1	0.0061	143.6	0.031	0.031	0.61	0.0061	12768	0.00305	0.183	0.122	0.183
R435921	6.4	0.0032	109.1	0.032	0.032	4.17	0.0032	15011	0.00321	0.128	0.077	0.128
R435922	5.3	0.0107	98.9	0.013	0.160	2.14	0.0027	11978	0.00267	0.107	0.075	0.107
R435923	6.8	0.0068	129.1	0.017	0.034	1.36	0.0408	15420	0.00340	0.102	0.095	0.068
R435924	5.8	0.0058	78.8	0.029	0.029	1.46	0.0029	13433	0.00292	0.088	0.076	0.234
R435925	5.3	0.0053	85.4	0.053	0.027	1.33	0.0027	11206	0.00267	0.080	0.053	0.107
R435926	5.2	0.0052	80.1	0.013	0.155	3.10	0.0026	11375	0.00259	0.103	0.057	0.207
R435927	5.9	0.0030	124.8	0.015	0.178	1.49	0.0030	13669	0.00297	0.119	0.089	0.119
R435928	5.1	0.0102	99.5	0.013	0.714	2.04	0.0026	11070	0.00510	0.179	0.071	0.153
R435929	6.8	0.0068	152.7	0.068	0.339	1.02	0.0034	16155	0.00339	0.102	0.122	0.204
R435930	6.4	0.0128	83.4	0.016	0.256	2.89	0.0032	15262	0.00321	0.096	0.083	0.192
R435931	5.2	0.0104	91.2	0.078	0.052	2.08	0.0026	13542	0.00260	0.182	0.078	0.156
R435932	5.7	0.0057	175.9	0.142	0.170	1.13	0.0340	16283	0.00284	0.199	0.057	0.284
R435933	5.3	0.0027	162.9	0.027	0.027	0.80	0.0107	13455	0.00267	0.214	0.064	0.214
R435934	4.9	0.0195	97.4	0.122	0.097	2.68	0.1315	11442	0.00974	0.122	0.068	0.146
R435935	6.1	0.0123	128.6	0.061	0.368	1.53	0.0429	17396	0.00306	0.184	0.080	0.184
R435936	6.1	0.0305	100.6	0.091	0.244	1.22	0.0183	14578	0.00305	0.122	0.055	0.183
R435937	6.5	0.0065	181.4	0.016	0.032	2.91	0.0065	13927	0.00324	0.162	0.097	0.194
R435938	5.2	0.0103	139.6	0.078	0.362	2.07	0.0026	13496	0.01034	0.207	0.062	0.103
R435939	6.0	0.0301	123.4	0.060	0.301	1.50	0.0030	15645	0.00602	0.120	0.072	0.481
R435940	6.1	0.0122	100.6	0.015	0.122	1.52	0.0030	17200	0.00305	0.122	0.073	0.183
R435941	5.5	0.0109	125.5	0.014	0.055	1.91	0.0109	13804	0.00273	0.846	0.065	0.164
R435942	4.4	0.0089	155.1	0.089	0.022	1.99	0.0044	9619	0.00222	0.133	0.040	0.177
R435943	5.2	0.0103	98.3	0.013	0.026	2.07	0.0026	12155	0.00259	0.103	0.047	0.155
R435944	5.0	0.0198	76.8	0.012	0.645	2.73	0.0025	11155	0.00992	0.174	0.079	0.149
R435945	5.0	0.0302	100.6	0.176	0.025	1.51	0.1559	12525	0.00503	0.126	0.060	0.302
R435946	4.3	0.0130	100.0	0.043	0.022	1.30	0.0348	10044	0.00217	0.109	0.043	0.174
R435947	4.9	0.0246	110.9	0.049	0.049	3.20	0.0148	11973	0.00246	0.468	0.054	0.197
R435948	4.7	0.0140	86.2	0.047	0.140	4.66	0.0093	10017	0.00233	0.093	0.056	0.186
R435949	5.4	0.0162	97.3	0.189	0.162	1.35	0.0270	13567	0.00541	0.297	0.038	0.162

Table A7.3.1 (continued): Tabulated geochemical data for vegetation.

MESA-no	Cs dry	Cu dry	Dy dry	Er dry	Eu dry	Fe dry	Ga dry	Gd dry	Hf dry	Ho dry	In dry	K dry
R435892	0.0185	4.98	0.0092	0.00308	0.00308	92.3	0.0738	0.0123	0.0308	0.00185	0.00154	5118
R435893	0.0124	8.08	0.0137	0.00622	0.00373	90.1	0.0746	0.0186	0.0311	0.00186	0.00155	5675
R435894	0.0097	6.82	0.0088	0.00487	0.00292	87.7	0.0536	0.0122	0.0244	0.00146	0.00122	5554
R435895	0.0093	7.46	0.0084	0.00466	0.00280	74.6	0.0560	0.0093	0.0233	0.00140	0.00117	6529
R435896	0.0087	8.04	0.0078	0.00435	0.00217	91.3	0.0608	0.0109	0.0217	0.00130	0.00109	5345
R435897	0.0110	2.76	0.0088	0.00552	0.00221	85.6	0.0662	0.0110	0.0276	0.00055	0.00138	5460
R435898	0.0036	2.76	0.0044	0.00181	0.00218	48.9	0.0326	0.0073	0.0181	0.00073	0.00091	3368
R435899	0.0112	3.53	0.0118	0.00841	0.00449	123.4	0.1009	0.0168	0.0280	0.00224	0.00140	6449
R435900	0.0110	5.75	0.0077	0.00274	0.00329	82.2	0.0657	0.0137	0.0274	0.00164	0.00137	5373
R435901	0.0110	5.78	0.0072	0.00275	0.00220	57.8	0.0551	0.0083	0.0275	0.00110	0.00138	4657
R435902	0.0054	7.27	0.0059	0.00269	0.00215	61.9	0.0539	0.0108	0.0269	0.00054	0.00135	4772
R435903	0.0110	6.35	0.0160	0.00828	0.00607	58.0	0.0718	0.0276	0.0276	0.00221	0.00138	6844
R435904	0.0062	9.96	0.0062	0.00156	0.00249	71.6	0.0498	0.0093	0.0311	0.00062	0.00156	7156
R435905	0.0058	6.40	0.0076	0.00291	0.00291	66.9	0.0523	0.0087	0.0291	0.00174	0.00145	4971
R435906	0.0053	7.65	0.0053	0.00264	0.00158	55.4	0.0422	0.0053	0.0264	0.00053	0.00132	7495
R435907	0.0055	6.31	0.0055	0.00274	0.00165	57.6	0.0439	0.0082	0.0274	0.00110	0.00137	7081
R435908	0.0055	4.94	0.0072	0.00277	0.00222	61.0	0.0388	0.0111	0.0277	0.00055	0.00139	6656
R435909	0.0110	6.06	0.0099	0.00551	0.00331	71.7	0.0606	0.0110	0.0276	0.00165	0.00138	4327
R435910	0.0159	7.97	0.0106	0.00797	0.00372	63.8	0.0585	0.0159	0.0266	0.00213	0.00133	4794
R435911	0.0177	5.24	0.0141	0.00883	0.00412	91.2	0.0765	0.0177	0.0294	0.00235	0.00147	4303
R435912	0.0123	6.44	0.0098	0.00613	0.00307	67.4	0.0552	0.0123	0.0307	0.00123	0.00153	5236
R435913	0.0091	5.26	0.0059	0.00229	0.00183	57.2	0.0503	0.0069	0.0229	0.00091	0.00114	6127
R435914	0.0058	6.63	0.0052	0.00288	0.00173	54.8	0.0404	0.0058	0.0288	0.00115	0.00144	6804
R435915	0.0061	8.21	0.0085	0.00304	0.00365	82.1	0.0547	0.0122	0.0304	0.00122	0.00152	5152
R435916	0.0059	5.36	0.0071	0.00294	0.00235	64.8	0.0471	0.0088	0.0294	0.00118	0.00147	6593
R435917	0.0060	9.96	0.0072	0.00604	0.00302	75.5	0.0604	0.0121	0.0302	0.00060	0.00151	5204
R435918	0.0089	4.43	0.0071	0.00221	0.00221	75.3	0.0531	0.0089	0.0221	0.00133	0.00111	5403
R435919	0.0063	9.40	0.0050	0.00157	0.00188	50.1	0.0439	0.0063	0.0313	0.00063	0.00157	6456
R435920	0.0122	2.44	0.0110	0.00611	0.00305	94.7	0.0733	0.0122	0.0305	0.00183	0.00153	4619
R435921	0.0064	4.30	0.0077	0.00321	0.00321	70.6	0.0642	0.0096	0.0321	0.00128	0.00160	5248
R435922	0.0107	4.76	0.0080	0.00267	0.00267	64.2	0.0535	0.0080	0.0267	0.00107	0.00134	6149
R435923	0.0136	3.46	0.0075	0.00340	0.00204	81.5	0.0747	0.0102	0.0340	0.00136	0.00170	7472
R435924	0.0058	4.38	0.0047	0.00292	0.00175	61.3	0.0467	0.0058	0.0292	0.00058	0.00146	6658
R435925	0.0053	5.28	0.0053	0.00267	0.00160	56.0	0.0480	0.0053	0.0267	0.00107	0.00133	5657
R435926	0.0052	5.02	0.0057	0.00259	0.00207	64.6	0.0362	0.0103	0.0259	0.00103	0.00129	6101
R435927	0.0119	3.09	0.0077	0.00297	0.00238	89.1	0.0654	0.0089	0.0297	0.00119	0.00149	5254
R435928	0.0102	4.49	0.0082	0.00510	0.00306	68.9	0.0612	0.0102	0.0255	0.00102	0.00128	5101
R435929	0.0136	3.67	0.0088	0.00339	0.00272	91.6	0.0815	0.0102	0.0339	0.00136	0.00170	6272
R435930	0.0128	10.26	0.0051	0.00321	0.00321	64.1	0.0385	0.0096	0.0321	0.00064	0.00160	4944
R435931	0.0104	5.10	0.0089	0.00521	0.00313	65.1	0.0469	0.0130	0.0260	0.00156	0.00130	4813
R435932	0.0170	3.97	0.0102	0.00567	0.00284	102.1	0.0624	0.0113	0.0284	0.00170	0.00142	5152
R435933	0.0160	4.43	0.0123	0.00534	0.00267	101.4	0.0748	0.0160	0.0267	0.00214	0.00133	4255
R435934	0.0097	2.34	0.0058	0.00243	0.00243	60.9	0.0390	0.0073	0.0243	0.00097	0.00122	4869
R435935	0.0123	3.25	0.0086	0.00306	0.00306	91.9	0.0613	0.0092	0.0306	0.00184	0.00153	5421
R435936	0.0122	5.61	0.0067	0.00610	0.00305	70.1	0.0488	0.0091	0.0305	0.00061	0.00152	6649
R435937	0.0130	4.86	0.0117	0.00648	0.00389	110.1	0.0713	0.0162	0.0324	0.00194	0.00162	8162
R435938	0.0103	5.95	0.0114	0.00517	0.00362	90.5	0.0569	0.0155	0.0259	0.00155	0.00129	4669
R435939	0.0120	42.12	0.0102	0.00602	0.00301	90.3	0.0602	0.0120	0.0301	0.00181	0.00150	7040
R435940	0.0061	7.32	0.0098	0.00305	0.00244	70.1	0.0427	0.0122	0.0305	0.00183	0.00152	5935
R435941	0.0109	6.82	0.0289	0.01091	0.01964	84.6	0.0655	0.0737	0.0273	0.00436	0.00136	5456
R435942	0.0133	4.12	0.0120	0.00443	0.00399	97.5	0.0532	0.0133	0.0222	0.00222	0.00111	4477
R435943	0.0052	4.34	0.0062	0.00259	0.00155	72.4	0.0362	0.0078	0.0259	0.00103	0.00129	4536
R435944	0.0099	9.42	0.0089	0.00496	0.00397	57.0	0.0347	0.0149	0.0248	0.00198	0.00124	5801
R435945	0.0101	7.04	0.0096	0.00503	0.00402	70.4	0.0503	0.0126	0.0251	0.00151	0.00126	4688
R435946	0.0087	6.74	0.0091	0.00435	0.00261	71.7	0.0435	0.0109	0.0217	0.00130	0.00109	4126
R435947	0.0148	8.38	0.0207	0.01232	0.00788	71.4	0.0542	0.0320	0.0246	0.00345	0.00123	5075
R435948	0.0093	1.72	0.0051	0.00233	0.00326	60.6	0.0326	0.0047	0.0233	0.00093	0.00116	4752
R435949	0.0108	5.68	0.0124	0.00811	0.00432	62.2	0.0432	0.0216	0.0270	0.00270	0.00135	5275

Table A7.3.1 (continued): Tabulated geochemical data for vegetation.

MESA-no	La dry	Lu dry	Mg dry	Mn dry	Mo dry	Na dry	Nb dry	Nd dry	Ni dry	P dry	Pb dry	Pd dry	Pr dry
R435892	0.092	0.00062	1027	22.8	1.48	323	0.154	0.0677	0.677	415	0.923	0.154	0.0185
R435893	0.093	0.00062	1206	27.3	0.37	945	0.155	0.0995	0.559	289	0.155	0.155	0.0249
R435894	0.073	0.00049	1218	19.5	0.80	823	0.122	0.0658	0.731	380	0.731	0.122	0.0171
R435895	0.070	0.00047	1245	15.9	0.14	338	0.117	0.0676	0.746	364	0.466	0.117	0.0163
R435896	0.065	0.00043	1860	34.8	0.72	834	0.109	0.0587	0.782	530	0.869	0.109	0.0152
R435897	0.911	0.00055	972	16.0	0.72	246	0.138	0.0552	0.552	351	0.138	0.138	0.0138
R435898	0.036	0.00036	2469	30.8	0.15	1356	0.091	0.0381	1.088	268	0.091	0.091	0.0091
R435899	0.112	0.00056	1021	24.1	1.29	342	0.140	0.0897	1.009	477	0.280	0.140	0.0252
R435900	0.082	0.00055	1430	18.6	0.68	657	0.137	0.0657	0.383	457	0.274	0.137	0.0164
R435901	0.055	0.00055	1668	17.1	1.54	438	0.138	0.0473	0.881	286	0.551	0.138	0.0138
R435902	0.054	0.00054	1481	23.7	0.73	592	0.135	0.0495	0.269	382	0.539	0.135	0.0135
R435903	0.221	0.00055	1363	91.1	0.09	541	0.138	0.1490	1.545	516	0.138	0.138	0.0386
R435904	0.062	0.00062	1363	18.0	0.14	454	0.156	0.0498	0.747	473	0.311	0.156	0.0124
R435905	0.087	0.00058	1483	18.0	0.67	375	0.145	0.0529	0.756	297	0.145	0.145	0.0116
R435906	0.053	0.00053	1209	15.3	0.45	628	0.132	0.0343	1.478	449	0.132	0.132	0.0079
R435907	0.055	0.00055	1219	17.6	0.63	532	0.137	0.0390	0.604	425	0.549	0.137	0.0110
R435908	0.083	0.00055	1320	10.5	0.17	322	0.139	0.0516	0.721	460	0.555	0.139	0.0139
R435909	0.110	0.00055	1588	14.9	0.10	358	0.138	0.0634	0.772	295	0.276	0.138	0.0165
R435910	0.159	0.00053	1642	45.2	0.06	460	0.133	0.0850	0.532	465	0.133	0.133	0.0213
R435911	0.147	0.00118	2467	41.2	0.32	1213	0.147	0.0883	0.530	341	0.589	0.147	0.0206
R435912	0.123	0.00061	2066	33.7	0.61	494	0.153	0.0736	0.674	472	2.146	0.153	0.0184
R435913	0.046	0.00046	1257	9.1	0.21	686	0.114	0.0361	0.549	357	0.229	0.114	0.0091
R435914	0.058	0.00058	1407	20.8	0.40	248	0.144	0.0311	0.692	366	0.288	0.144	0.0086
R435915	0.091	0.00061	1995	17.6	0.15	699	0.152	0.0639	1.703	477	0.304	0.152	0.0152
R435916	0.059	0.00059	2102	20.6	0.13	530	0.147	0.0389	0.765	362	0.294	0.147	0.0088
R435917	0.091	0.00060	2294	39.2	0.04	930	0.151	0.0561	1.087	368	0.604	0.151	0.0151
R435918	0.066	0.00044	1342	21.7	0.86	1103	0.111	0.0487	1.417	407	0.111	0.111	0.0133
R435919	0.031	0.00063	1717	15.0	1.22	423	0.157	0.0345	0.501	442	0.157	0.157	0.0063
R435920	0.092	0.00061	849	20.8	0.61	428	0.153	0.0672	2.016	318	0.305	0.153	0.0153
R435921	0.064	0.00064	1527	18.6	0.24	529	0.160	0.0481	0.321	321	0.642	0.160	0.0128
R435922	0.053	0.00053	1267	19.8	1.55	626	0.134	0.0449	0.321	348	0.134	0.134	0.0107
R435923	0.068	0.00068	1128	13.2	1.66	312	0.170	0.0509	0.611	401	0.170	0.170	0.0136
R435924	0.058	0.00058	1554	29.2	0.64	403	0.146	0.0327	0.993	409	0.876	0.146	0.0088
R435925	0.053	0.00053	1345	14.9	0.83	430	0.133	0.0347	0.374	416	0.133	0.133	0.0080
R435926	0.078	0.00052	1070	22.2	0.09	318	0.129	0.0512	0.620	610	0.129	0.129	0.0129
R435927	0.089	0.00059	963	25.0	0.65	267	0.149	0.0499	0.773	612	0.149	0.149	0.0119
R435928	0.102	0.00051	1490	24.0	0.38	969	0.128	0.0714	0.663	413	0.128	0.128	0.0153
R435929	0.068	0.00068	1100	11.9	0.64	506	0.170	0.0570	0.815	468	0.170	0.170	0.0136
R435930	0.064	0.00064	1385	18.0	1.44	337	0.160	0.0385	0.705	433	0.321	0.160	0.0096
R435931	0.104	0.00052	1896	59.9	0.44	409	0.130	0.0703	0.990	440	0.130	0.130	0.0182
R435932	0.113	0.00057	908	18.7	1.13	426	0.142	0.0556	0.454	386	0.142	0.142	0.0142
R435933	0.133	0.00107	892	40.0	0.29	160	0.133	0.0854	0.748	400	0.534	0.133	0.0187
R435934	0.146	0.00049	2011	19.5	0.18	1344	0.122	0.0370	1.655	316	0.122	0.122	0.0097
R435935	0.123	0.00061	1587	15.9	0.40	949	0.153	0.0570	1.776	505	0.153	0.153	0.0153
R435936	0.061	0.00061	1409	20.7	0.46	354	0.152	0.0555	0.671	421	0.610	0.152	0.0152
R435937	0.097	0.00065	855	14.3	0.71	496	0.162	0.0842	4.664	612	0.162	0.162	0.0227
R435938	0.129	0.00052	2249	36.2	0.24	750	0.129	0.0905	0.724	406	0.259	0.129	0.0259
R435939	0.090	0.00060	1119	30.1	0.16	542	0.150	0.0692	0.842	379	0.150	0.150	0.0181
R435940	0.061	0.00061	1690	25.6	0.04	622	0.152	0.0573	1.159	375	0.610	0.152	0.0152
R435941	0.436	0.00055	1642	32.7	0.38	584	0.136	0.5183	0.982	374	0.546	0.136	0.1200
R435942	0.089	0.00044	1427	19.1	0.33	944	0.111	0.0754	0.887	452	0.665	0.111	0.0199
R435943	0.052	0.00052	1836	21.7	0.70	621	0.129	0.0486	0.569	610	0.517	0.129	0.0129
R435944	0.149	0.00050	1829	42.1	0.01	330	0.124	0.0843	0.942	456	0.124	0.124	0.0223
R435945	0.101	0.00050	1871	20.1	0.21	493	0.126	0.0729	0.956	400	0.251	0.126	0.0201
R435946	0.065	0.00043	1518	21.7	0.54	396	0.109	0.0565	0.652	400	0.109	0.109	0.0152
R435947	0.345	0.00099	1572	83.8	0.01	818	0.123	0.1872	0.690	392	1.478	0.123	0.0517
R435948	0.047	0.00047	2348	8.2	0.26	1617	0.116	0.0410	0.839	317	0.116	0.116	0.0116
R435949	0.270	0.00054	1795	108.1	0.05	622	0.135	0.1054	0.703	451	0.135	0.135	0.0297

Table A7.3.1 (continued): Tabulated geochemical data for vegetation.

MESA-no	Pt dry	Rb dry	S dry	Sb dry	Se dry	Sm dry	Sn dry	Sr dry	Tb dry	Te dry	Th dry	Ti dry	Tl dry
R435892	0.00615	2.46	621	0.0154	0.123	0.0123	0.172	169	0.00123	0.00615	0.0117	8.92	0.0246
R435893	0.00622	2.39	684	0.0155	0.249	0.0205	0.062	152	0.00186	0.00622	0.0106	8.39	0.0062
R435894	0.00487	1.95	887	0.0122	0.244	0.0132	0.058	124	0.00146	0.00487	0.0078	7.55	0.0024
R435895	0.00466	2.75	667	0.0117	0.140	0.0131	0.135	103	0.00093	0.00466	0.0131	6.06	0.0023
R435896	0.00435	2.22	1012	0.0109	0.130	0.0113	0.282	72	0.00130	0.00435	0.0091	7.82	0.0087
R435897	0.00552	3.42	552	0.0138	0.083	0.0116	0.265	135	0.00166	0.00552	0.0094	8.01	0.0028
R435898	0.00363	1.96	660	0.0091	0.036	0.0080	0.058	53	0.00073	0.00363	0.0054	3.44	0.0018
R435899	0.00561	2.69	617	0.0140	0.084	0.0191	0.045	132	0.00224	0.00561	0.0174	9.81	0.0028
R435900	0.00548	2.08	663	0.0137	0.110	0.0137	0.110	115	0.00164	0.00548	0.0121	7.67	0.0027
R435901	0.00551	2.06	509	0.0138	0.138	0.0105	0.099	118	0.00110	0.00551	0.0105	5.51	0.0028
R435902	0.00539	1.75	743	0.0135	0.081	0.0102	0.113	89	0.00054	0.00539	0.0086	5.66	0.0027
R435903	0.00552	4.75	345	0.0138	0.014	0.0270	0.359	94	0.00331	0.00552	0.0094	4.69	0.0055
R435904	0.00622	2.74	660	0.0156	0.031	0.0112	0.137	156	0.00062	0.00622	0.0081	5.60	0.0031
R435905	0.00581	1.63	593	0.0145	0.233	0.0122	0.070	148	0.00058	0.00581	0.0110	5.52	0.0029
R435906	0.00528	2.56	565	0.0132	0.211	0.0079	0.290	100	0.00053	0.00528	0.0090	3.96	0.0026
R435907	0.00549	2.50	823	0.0137	0.274	0.0088	0.203	93	0.00110	0.00549	0.0143	5.21	0.0027
R435908	0.00555	2.75	632	0.0139	0.083	0.0105	0.610	105	0.00055	0.00555	0.0150	4.71	0.0055
R435909	0.00551	2.23	568	0.0138	0.083	0.0138	0.303	113	0.00165	0.00551	0.0149	6.06	0.0028
R435910	0.00532	4.46	728	0.0133	0.027	0.0159	0.229	117	0.00213	0.00532	0.0175	5.32	0.0053
R435911	0.00589	3.12	648	0.0147	0.088	0.0194	0.559	135	0.00235	0.00589	0.0218	9.12	0.0235
R435912	0.00613	2.64	540	0.0153	0.092	0.0147	0.644	132	0.00123	0.00613	0.0129	7.05	0.0031
R435913	0.00457	2.06	681	0.0114	0.251	0.0078	0.123	82	0.00091	0.00457	0.0128	5.49	0.0023
R435914	0.00577	2.71	646	0.0144	0.144	0.0069	0.317	104	0.00058	0.00577	0.0086	4.32	0.0029
R435915	0.00608	2.01	587	0.0152	0.061	0.0152	0.255	143	0.00122	0.00608	0.0158	6.39	0.0030
R435916	0.00589	2.65	801	0.0147	0.118	0.0088	0.471	103	0.00118	0.00589	0.0106	5.89	0.0029
R435917	0.00604	1.93	504	0.0151	0.060	0.0121	0.223	118	0.00060	0.00604	0.0139	6.34	0.0181
R435918	0.00443	1.51	673	0.0111	0.133	0.0093	0.465	75	0.00089	0.00443	0.0168	6.42	0.0022
R435919	0.00627	1.82	592	0.0157	0.063	0.0069	0.194	91	0.00063	0.00627	0.0119	4.07	0.0031
R435920	0.00611	3.85	492	0.0153	0.061	0.0147	0.269	141	0.00061	0.00611	0.0220	8.55	0.0031
R435921	0.00642	1.89	597	0.0160	0.225	0.0115	0.212	189	0.00128	0.00642	0.0154	7.70	0.0032
R435922	0.00535	1.66	535	0.0134	0.214	0.0091	0.102	107	0.00107	0.00535	0.0139	6.15	0.0027
R435923	0.00679	2.38	554	0.0170	0.068	0.0102	0.543	143	0.00136	0.00679	0.0163	8.15	0.0034
R435924	0.00584	1.90	552	0.0146	0.088	0.0070	0.204	96	0.00058	0.00584	0.0088	4.96	0.0029
R435925	0.00534	1.65	784	0.0133	0.187	0.0059	0.112	99	0.00107	0.00534	0.0112	5.07	0.0027
R435926	0.00517	2.59	589	0.0129	0.026	0.0093	0.186	75	0.00103	0.00517	0.0109	4.65	0.0103
R435927	0.00594	2.59	612	0.0149	0.015	0.0113	0.101	116	0.00119	0.00594	0.0160	7.43	0.0030
R435928	0.00510	1.84	633	0.0128	0.128	0.0163	0.112	77	0.00102	0.00510	0.0179	6.12	0.0026
R435929	0.00679	2.44	733	0.0170	0.204	0.0115	0.054	173	0.00136	0.00679	0.0197	8.82	0.0034
R435930	0.00641	2.31	725	0.0160	0.160	0.0103	0.109	170	0.00064	0.00641	0.0141	5.13	0.0032
R435931	0.00521	2.42	641	0.0130	0.130	0.0130	0.099	135	0.00156	0.00521	0.0120	5.73	0.0052
R435932	0.00567	2.16	607	0.0142	0.142	0.0113	0.272	136	0.00170	0.00567	0.0567	10.78	0.0028
R435933	0.00534	3.10	513	0.0133	0.027	0.0155	0.320	139	0.00160	0.00534	0.0374	10.41	0.0027
R435934	0.00487	1.90	628	0.0122	0.049	0.0102	0.243	46	0.00097	0.00487	0.0204	5.11	0.0024
R435935	0.00613	1.78	760	0.0153	0.061	0.0129	0.141	116	0.00061	0.00613	0.0196	7.66	0.0031
R435936	0.00610	2.38	756	0.0152	0.122	0.0122	0.579	119	0.00061	0.00610	0.0073	6.40	0.0244
R435937	0.00648	2.27	547	0.0162	0.065	0.0175	0.311	185	0.00130	0.00648	0.0155	10.69	0.0032
R435938	0.00517	1.84	615	0.0129	0.129	0.0165	0.217	119	0.00207	0.00517	0.0150	10.34	0.0103
R435939	0.00602	2.32	361	0.0150	0.060	0.0108	1.595	114	0.00120	0.00602	0.0120	7.52	0.0030
R435940	0.00610	1.59	628	0.0152	0.244	0.0110	0.335	131	0.00061	0.00610	0.0091	6.40	0.0122
R435941	0.00546	1.66	480	0.0136	0.027	0.1091	0.235	123	0.00655	0.00546	0.0535	8.18	0.0027
R435942	0.00443	1.09	581	0.0111	0.133	0.0160	0.288	75	0.00177	0.00443	0.0235	9.75	0.0022
R435943	0.00517	1.42	703	0.0129	0.078	0.0103	0.212	106	0.00103	0.00517	0.0134	5.17	0.0026
R435944	0.00496	2.73	615	0.0124	0.050	0.0159	0.178	77	0.00149	0.00496	0.0164	4.71	0.0198
R435945	0.00503	1.74	639	0.0126	0.101	0.0136	0.241	128	0.00151	0.00503	0.0151	6.04	0.0050
R435946	0.00435	1.48	596	0.0109	0.152	0.0130	0.213	96	0.00130	0.00435	0.0117	6.09	0.0022
R435947	0.00493	3.40	645	0.0123	0.099	0.0320	0.345	86	0.00443	0.00493	0.0118	6.65	0.0025
R435948	0.00466	1.58	820	0.0116	0.047	0.0098	0.130	93	0.00093	0.00466	0.0070	5.12	0.0023
R435949	0.00541	3.24	703	0.0135	0.014	0.0184	0.151	86	0.00216	0.00541	0.0476	5.41	0.0027

Table A7.3.1 (continued): Tabulated geochemical data for vegetation.

MESA-no	Tm dry	U dry	V dry	W dry	Y dry	Yb dry	Zn dry
R435892	0.00154	0.00492	0.123	0.00615	0.080	0.00615	9.5
R435893	0.00155	0.00435	0.124	0.00622	0.112	0.00622	13.1
R435894	0.00122	0.00341	0.146	0.00244	0.071	0.00487	12.2
R435895	0.00117	0.00420	0.093	0.00933	0.061	0.00466	15.9
R435896	0.00109	0.00304	0.130	0.00869	0.059	0.00435	26.1
R435897	0.00138	0.00276	0.166	0.00276	0.063	0.00276	6.9
R435898	0.00091	0.00471	0.036	0.00181	0.036	0.00181	12.0
R435899	0.00140	0.00449	0.224	0.00561	0.104	0.00561	11.8
R435900	0.00137	0.00329	0.164	0.00274	0.068	0.00274	15.3
R435901	0.00138	0.00275	0.055	0.00551	0.055	0.00275	11.0
R435902	0.00135	0.00269	0.054	0.00269	0.057	0.00269	19.4
R435903	0.00138	0.00221	0.055	0.00276	0.171	0.00552	18.2
R435904	0.00156	0.00311	0.062	0.00311	0.050	0.00311	23.6
R435905	0.00145	0.00291	0.058	0.00291	0.058	0.00291	11.6
R435906	0.00132	0.00369	0.053	0.00264	0.040	0.00264	14.3
R435907	0.00137	0.00329	0.055	0.00274	0.049	0.00274	19.2
R435908	0.00139	0.00499	0.055	0.00277	0.055	0.00277	13.9
R435909	0.00138	0.00551	0.055	0.00276	0.072	0.00551	14.9
R435910	0.00133	0.00319	0.106	0.00266	0.106	0.00532	22.3
R435911	0.00147	0.00589	0.177	0.00294	0.112	0.00589	13.5
R435912	0.00153	0.00307	0.061	0.00307	0.080	0.00307	12.0
R435913	0.00114	0.00274	0.091	0.00457	0.046	0.00457	6.9
R435914	0.00144	0.00807	0.058	0.00288	0.037	0.00288	20.2
R435915	0.00152	0.00426	0.061	0.00304	0.067	0.00304	19.5
R435916	0.00147	0.00294	0.059	0.00294	0.047	0.00294	19.4
R435917	0.00151	0.00362	0.060	0.00302	0.069	0.00302	13.3
R435918	0.00111	0.00487	0.089	0.00221	0.055	0.00443	10.6
R435919	0.00157	0.00188	0.063	0.00313	0.038	0.00313	11.6
R435920	0.00153	0.00550	0.122	0.00305	0.076	0.00611	7.9
R435921	0.00160	0.00385	0.064	0.00321	0.064	0.00642	14.1
R435922	0.00134	0.00321	0.053	0.00267	0.053	0.00267	14.4
R435923	0.00170	0.00408	0.068	0.00340	0.065	0.00340	11.2
R435924	0.00146	0.00234	0.058	0.00292	0.044	0.00146	11.7
R435925	0.00133	0.00320	0.053	0.00267	0.040	0.00267	9.9
R435926	0.00129	0.00362	0.052	0.00259	0.054	0.00259	17.6
R435927	0.00149	0.00357	0.119	0.00297	0.062	0.00297	14.9
R435928	0.00128	0.00357	0.102	0.00510	0.059	0.00255	11.2
R435929	0.00170	0.00407	0.068	0.00339	0.068	0.00339	8.1
R435930	0.00160	0.00256	0.064	0.00321	0.048	0.00160	14.7
R435931	0.00130	0.00260	0.052	0.00260	0.086	0.00521	14.6
R435932	0.00142	0.00340	0.170	0.02837	0.077	0.00567	10.2
R435933	0.00133	0.00427	0.160	0.01068	0.096	0.00534	7.5
R435934	0.00122	0.00438	0.049	0.00974	0.041	0.00243	8.8
R435935	0.00153	0.00490	0.061	0.00613	0.064	0.00306	12.9
R435936	0.00152	0.00305	0.061	0.00305	0.052	0.00305	14.0
R435937	0.00162	0.00453	0.194	0.00648	0.078	0.00648	14.9
R435938	0.00129	0.00465	0.155	0.00517	0.075	0.00517	16.5
R435939	0.00150	0.00421	0.120	0.04212	0.063	0.00301	20.5
R435940	0.00152	0.00427	0.061	0.00610	0.061	0.00305	20.7
R435941	0.00136	0.00600	0.109	0.00273	0.158	0.00546	15.8
R435942	0.00111	0.00488	0.177	0.00222	0.073	0.00443	11.5
R435943	0.00129	0.00310	0.052	0.00259	0.044	0.00259	15.5
R435944	0.00124	0.00248	0.050	0.00248	0.092	0.00496	18.3
R435945	0.00126	0.00402	0.050	0.00503	0.075	0.00503	13.1
R435946	0.00109	0.00261	0.087	0.00435	0.057	0.00435	9.1
R435947	0.00123	0.00394	0.049	0.00246	0.217	0.00739	19.2
R435948	0.00116	0.00512	0.047	0.00233	0.035	0.00233	8.6
R435949	0.00135	0.00541	0.270	0.06486	0.119	0.00541	15.7

Appendix 8: Geochemical data - mineral samples (from Excel file)

Note that all RAB geochemical data can be found on the CD.

Table A8.1: Tabulated geochemical data for soil materials. .

MESA-no	Sample_id	Type Code	Zone	E (AMG66)	N (AMG66)	from	to	Weight (kg)	Carbonate
units									
method									
who									
detn limit									
R435775	SS01	Soil	53	337325	6635240	0.10	0.20	1.695	0
R435776	SS02	Soil	53	337255	6635702	0.10	0.20	1.772	0
R435777	SS03	Soil	53	337239	6636236	0.10	0.20	1.337	0
R435778	SS04	Soil	53	337264	6636772	0.10	0.20	1.418	0
R435779	SS05	Soil	53	337391	6637231	0.10	0.20	1.104	0
R435780	SS06	Soil	53	337225	6637740	0.10	0.20	0.989	0
R435781	SS07	Soil	53	337746	6637753	0.10	0.20	0.966	1
R435782	SS08	Soil	53	338272	6637768	0.10	0.20	1.041	0
R435783	SS09	Soil	53	338980	6637704	0.10	0.20	1.172	0
R435784	SS10	Soil	53	338750	6637212	0.10	0.20	1.271	0
R435785	SS11	Soil	53	337817	6637367	0.10	0.20	1.787	0
R435786	SS12	Soil	53	337772	6636696	0.10	0.20	1.623	0
R435787	SS13	Soil	53	337762	6636235	0.10	0.20	1.719	0
R435788	SS14	Soil	53	337762	6635717	0.10	0.20	1.168	1
R435789	SS15	Soil	53	337731	6635226	0.10	0.20	1.422	1
R435790	SS16	Soil	53	338266	6635260	0.10	0.20	1.561	0.5
R435791	SS17	Soil	53	338231	6635745	0.10	0.20	1.609	0
R435792	SS18	Soil	53	338231	6636280	0.10	0.20	1.49	0
R435793	SS19	Soil	53	338229	6636594	0.10	0.20	1.096	0
R435794	SS20	Soil	53	338285	6636804	0.10	0.20	1.345	0
R435795	SS21	Soil	53	339017	6636787	0.10	0.20	1.635	0
R435796	SS22	Soil	53	338754	6636249	0.10	0.20	1.403	1.5
R435797	SS23	Soil	53	338759	6635746	0.10	0.20	1.207	1
R435798	SS24	Soil	53	338740	6635270	0.10	0.20	1.261	0
R435799	SS25	Soil	53	339248	6635241	0.10	0.20	1.469	0
R435800	SS26	Soil	53	339240	6635747	0.10	0.20	1.39	0
R435801	SS27	Soil	53	339254	6636283	0.10	0.20	1.239	0
R435802	SS28	Soil	53	339227	6636758	0.10	0.20	1.606	1
R435803	SS29	Soil	53	339270	6637234	0.10	0.20	1.699	0
R435804	SS30	Soil	53	339248	6637746	0.10	0.20	1.88	0
R435805	SS31	Soil	53	339669	6637459	0.10	0.20	1.8	1
R435806	SS32	Soil	53	339569	6636994	0.10	0.20	1.879	0
R435807	SS33	Soil	53	339751	6636244	0.10	0.20	1.984	0
R435808	SS34	Soil	53	340256	6637762	0.10	0.20	1.589	1.5
R435809	SS35	Soil	53	340216	6637248	0.10	0.20	1.689	0
R435810	SS36	Soil	53	339760	6637245	0.10	0.20	1.613	0
R435811	SS37	Soil	53	340218	6636679	0.10	0.20	1.478	0
R435812	SS38	Soil	53	340242	6636341	0.10	0.20	1.459	1
R435813	SS39	Soil	53	340251	6635712	0.10	0.20	1.823	0
R435814	SS40	Soil	53	339753	6635738	0.10	0.20	1.554	0
R435815	SS41	Soil	53	339732	6635203	0.10	0.20	1.543	0
R435816	SS42	Soil	53	340236	6635235	0.10	0.20	1.551	0
R435817	SS43	Soil	53	340752	6635264	0.10	0.20	1.691	1
R435818	SS44	Soil	53	340750	6635764	0.10	0.20	1.648	0
R435819	SS45	Soil	53	340740	6636257	0.10	0.20	1.755	0
R435820	SS46	Soil	53	340746	6636776	0.10	0.20	1.775	1.5
R435821	SS47	Soil	53	341185	6635749	0.10	0.20	1.824	0
R435822	SS48	Soil	53	340737	6637743	0.10	0.20	1.573	0
R435823	SS49	Soil	53	340760	6637260	0.10	0.20	1.847	0
R435824	SS50	Soil	53	338820	6636749	0.10	0.20	1.549	0
R435825	SS51	Soil	53	338804	6636725	0.10	0.20	1.429	0
R435826	SS52	Soil	53	338814	6636623	0.10	0.20		
R435827	SS53	Soil	53	338815	6636577	0.10	0.20	1.398	0
R435828	SS54	Soil	53	338802	6636471	0.10	0.20	1.279	0
R435829	SS55	Soil	53	338797	6636446	0.10	0.20	1.366	0
R435830	SS56	Soil	53	338181	6636599	0.10	0.20	1.732	0
R435831	SS57	Soil	53	338405	6636865	0.10	0.20	0.859	2
R435832	SS58	Soil	53	338104	6636563	0.10	0.20	1.699	0

Table A8.1 (continued): Tabulated geochemical data for soil materials.

MESA-no	Ag	Au	AuDup	Cu	Ag	As	Ba	Bi	Ca	Cd	Ce
units	PPB	PPB	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	BLEG1C	BLEG1C	BLEG1C	BLEG1C	IC3M	IC3M	IC3E	IC3M	IC3E	IC3M	IC3R
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	0.5	0.05	0.05	100	0.1	1.5	5	0.1	10	0.1	0.5
R435775	12	1.6		2700	0.3	5.5	100	0.1	2300	<0.1	18.5
R435776	3.5	0.2		1000	0.1	1.5	90	<0.1	750	<0.1	10.5
R435777	5.5	0.35		2000	<0.1	2	90	<0.1	950	<0.1	13.5
R435778	4	0.3		1000	0.1	2	80	0.3	650	<0.1	9
R435779	2.5	0.15		900	<0.1	1.5	85	0.1	750	<0.1	7.5
R435780	7.5	0.5		2100	<0.1	2	110	0.1	1700	<0.1	16.5
R435781	20	1.3		3000	<0.1	2.5	130	0.1	4350	<0.1	26
R435782	11	0.35		2400	0.1	3	110	0.1	1250	<0.1	21.5
R435783	5	0.35		1300	<0.1	1.5	75	<0.1	850	<0.1	12
R435784	14	1.1		1900	<0.1	2	110	0.1	1750	<0.1	23.5
R435785	8	0.45		2000	<0.1	2	110	0.1	1850	<0.1	19
R435786	3	0.3		900	<0.1	1.5	80	<0.1	700	<0.1	8.5
R435787	4.5	0.2		1100	<0.1	1.5	85	<0.1	850	<0.1	9
R435788	16	2		3700	<0.1	1.5	95	<0.1	9450	<0.1	16
R435789	13	1.7		5800	<0.1	2.5	90	<0.1	7850	<0.1	18
R435790	13	1.6		2200	<0.1	1.5	95	<0.1	3900	<0.1	14
R435791	6	0.85		1700	0.1	1.5	85	<0.1	900	<0.1	15
R435792	4	0.45		1000	<0.1	1.5	85	<0.1	850	<0.1	12
R435793	2.5	1.3		900	<0.1	1.5	75	<0.1	950	<0.1	10.5
R435794	7.5	5.4		2000	<0.1	2	110	0.1	1700	<0.1	23
R435795	5.5	1.3	1.1	1900	<0.1	1.5	90	<0.1	600	<0.1	14
R435796	18	2.3	2.4	3200	<0.1	2	105	<0.1	11700	<0.1	14
R435797	18	0.85		2800	<0.1	1.5	90	<0.1	5950	<0.1	18
R435798	3	0.1		1200	<0.1	1	85	<0.1	750	<0.1	10
R435799	3	0.1		1300	<0.1	1.5	80	<0.1	900	<0.1	13
R435800	5.5	0.35		2000	<0.1	1.5	80	<0.1	1000	<0.1	13.5
R435801	7.5	0.45		1700	<0.1	1.5	85	<0.1	950	<0.1	14
R435802	9	1.7		2800	<0.1	1.5	100	0.1	4500	<0.1	18
R435803	4	0.65		1500	0.1	1.5	85	0.1	1000	<0.1	16
R435804	9	0.3		1400	<0.1	1	85	<0.1	1450	<0.1	10
R435805	6.5	0.55		2000	<0.1	1.5	95	<0.1	4300	<0.1	13
R435806	4.5	1.2		1000	<0.1	1	90	<0.1	950	<0.1	10.5
R435807	4	0.3		1600	<0.1	1.5	100	<0.1	1050	<0.1	12
R435808	11	0.85		2000	<0.1	1	95	<0.1	14400	<0.1	12.5
R435809	3	0.15		900	<0.1	1	75	<0.1	470	<0.1	7
R435810	6	0.4		2200	<0.1	2	105	0.1	1050	<0.1	23.5
R435811	3	0.2		1200	<0.1	1	80	<0.1	800	<0.1	11.5
R435812	9.5	1.1		3200	<0.1	2	105	<0.1	15900	<0.1	17.5
R435813	5	0.5		1900	<0.1	1.5	85	<0.1	2850	<0.1	14
R435814	2.5	0.25		1000	<0.1	1	80	<0.1	800	<0.1	9.5
R435815	10	0.3		2200	<0.1	1.5	100	<0.1	1350	<0.1	20.5
R435816	3.5	0.15		1500	<0.1	1.5	80	<0.1	500	<0.1	12.5
R435817	9	0.25		2300	<0.1	1.5	95	<0.1	3450	<0.1	18
R435818	5	0.55		1200	<0.1	1	75	<0.1	1150	<0.1	10
R435819	3	0.15		1000	<0.1	1	75	<0.1	750	<0.1	9
R435820	7.5	0.45		2900	0.2	1.5	90	<0.1	18800	<0.1	14
R435821	2	0.45		700	<0.1	1.5	70	<0.1	490	<0.1	9.5
R435822	3.5	0.25		1700	<0.1	1.5	85	<0.1	1050	<0.1	12.5
R435823	3.5	0.3		1500	<0.1	1.5	85	<0.1	800	<0.1	16
R435824	2.5	0.15		900	<0.1	1.5	85	0.1	750	<0.1	9.5
R435825	3.5	0.4		1100	<0.1	1.5	90	<0.1	800	<0.1	9
R435827	5	0.3		1400	<0.1	1	80	<0.1	600	<0.1	9
R435828	8	1.1		1700	<0.1	1.5	90	<0.1	750	<0.1	14.5
R435829	3.5	0.7		1500	<0.1	1.5	90	<0.1	800	<0.1	10.5
R435830	4.5	1.4		1200	<0.1	1.5	75	0.1	360	<0.1	13
R435831	9.5	9.7	8	2300	<0.1	3	240	0.1	72300	<0.1	28.5
R435832	3.5	1.5		900	<0.1	1.5	70	0.2	550	<0.1	9

Table A8.1 (continued): Tabulated geochemical data for soil materials.

MESA-no	Co	Cr	Cs	Cu	Dy	Er	Eu	Fe	Ga	Gd	Ho
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3M	IC3E	IC3M	IC3E	IC3R	IC3R	IC3R	IC3E	IC3M	IC3R	IC3R
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	0.2	2	0.1	1	0.02	0.05	0.02	100	0.1	0.05	0.02
R435775	3.6	22	0.7	13	0.81	0.45	0.29	11000	5	1.1	0.15
R435776	1.8	7	0.4	5	0.55	0.35	0.18	7550	3	0.75	0.11
R435777	2.5	12	0.6	8	0.66	0.4	0.26	9450	3.6	0.85	0.11
R435778	1.7	7	0.5	5	0.49	0.3	0.15	8150	3	0.6	0.08
R435779	1.9	10	0.4	5	0.44	0.25	0.14	8450	3.1	0.55	0.07
R435780	3	15	0.8	7	0.86	0.5	0.3	11000	5	1.1	0.15
R435781	4.8	17	1.1	10	1.35	0.75	0.43	14200	7	1.75	0.24
R435782	4.2	17	1	10	1.3	0.65	0.4	13500	6	1.55	0.22
R435783	2.1	9	0.6	6	0.63	0.35	0.18	7750	3.5	0.7	0.11
R435784	4.9	15	1	9	1.25	0.75	0.43	12900	6	1.5	0.22
R435785	3.5	13	0.9	8	1.15	0.65	0.38	12800	6	1.5	0.2
R435786	1.6	9	0.6	5	0.46	0.25	0.16	9000	3.7	0.5	0.08
R435787	1.5	8	0.4	5	0.45	0.25	0.16	7850	2.9	0.55	0.08
R435788	2.9	12	0.6	10	0.85	0.45	0.35	8950	3.6	1.15	0.15
R435789	5	16	0.6	17	0.97	0.5	0.38	9800	4.3	1.2	0.16
R435790	3.1	11	0.6	8	0.7	0.4	0.29	8650	3.7	0.9	0.13
R435791	2.9	13	0.6	8	0.78	0.4	0.29	9150	3.9	0.95	0.14
R435792	1.9	9	0.5	5	0.56	0.35	0.19	8000	3.2	0.65	0.09
R435793	1.9	10	0.6	4	0.52	0.3	0.16	9450	3.9	0.6	0.1
R435794	3.7	15	0.9	7	1.25	0.7	0.41	14300	6.5	1.55	0.2
R435795	3.1	13	0.6	8	0.64	0.4	0.27	10200	4.2	0.8	0.12
R435796	2.8	12	0.6	9	0.83	0.45	0.3	9100	4.1	1	0.14
R435797	3.9	11	0.6	9	0.8	0.45	0.33	9450	4	1.15	0.14
R435798	2.5	9	0.4	5	0.5	0.3	0.21	7950	2.8	0.6	0.09
R435799	2.8	13	0.6	6	0.69	0.4	0.22	8500	3.8	0.8	0.11
R435800	2.9	11	0.5	7	0.72	0.35	0.24	8750	3.6	0.8	0.11
R435801	3.8	12	0.6	7	0.65	0.4	0.19	8900	3.6	0.75	0.11
R435802	4.5	15	0.6	9	0.82	0.5	0.27	9450	4.7	1.2	0.14
R435803	2.9	12	0.8	7	0.96	0.5	0.31	11800	5.5	1.1	0.16
R435804	1.8	9	0.5	5	0.48	0.3	0.18	8350	3	0.6	0.09
R435805	2.1	11	0.5	7	0.65	0.35	0.19	9400	3.4	0.75	0.12
R435806	2	12	0.5	5	0.5	0.3	0.19	8700	3.6	0.65	0.09
R435807	2.5	13	0.6	7	0.6	0.4	0.21	9400	3.8	0.8	0.11
R435808	1.9	8	0.5	6	0.58	0.35	0.18	8200	2.9	0.7	0.09
R435809	1.4	7	0.4	5	0.38	0.25	0.12	7250	2.6	0.45	0.07
R435810	4	15	1.1	8	1.3	0.75	0.45	13700	6.5	1.6	0.21
R435811	2.4	13	0.6	5	0.66	0.4	0.22	8350	4.1	0.85	0.11
R435812	3.4	15	0.7	9	0.98	0.55	0.35	10900	4.6	1.25	0.18
R435813	2.8	12	0.7	7	0.86	0.45	0.3	9150	4	1.05	0.14
R435814	1.9	9	0.5	5	0.5	0.3	0.17	8550	3.5	0.65	0.1
R435815	3.5	18	0.8	10	0.95	0.5	0.36	12700	4.9	1.3	0.18
R435816	1.9	13	0.7	6	0.59	0.35	0.21	10500	4.3	0.75	0.11
R435817	2.8	13	0.6	8	0.75	0.45	0.29	10300	4.1	1.1	0.14
R435818	2.2	8	0.5	5	0.5	0.3	0.18	7550	3.2	0.6	0.09
R435819	1.7	7	0.4	5	0.41	0.2	0.14	7350	2.9	0.55	0.09
R435820	2.5	10	0.5	7	0.69	0.35	0.22	7200	3.5	0.8	0.14
R435821	1.9	10	0.6	4	0.44	0.25	0.14	8100	3.9	0.5	0.09
R435822	2.5	13	0.5	7	0.62	0.35	0.2	9050	4	0.7	0.13
R435823	2.7	11	0.7	6	0.78	0.35	0.25	9400	4.6	1	0.16
R435824	1.6	9	0.5	5	0.43	0.25	0.13	7900	3.5	0.5	0.08
R435825	1.4	8	0.4	5	0.39	0.2	0.13	7650	3.2	0.5	0.08
R435827	1.8	10	0.4	6	0.45	0.25	0.14	7950	3.2	0.5	0.09
R435828	2.9	15	0.6	7	0.71	0.4	0.24	8250	4.4	0.8	0.13
R435829	2.1	12	0.5	6	0.51	0.3	0.16	8000	3.8	0.6	0.11
R435830	1.5	11	0.7	5	0.57	0.3	0.17	10400	5	0.7	0.11
R435831	3	19	0.5	9	0.84	0.5	0.37	6000	9.5	1.15	0.18
R435832	1.5	8	0.5	4	0.45	0.25	0.13	8500	3.6	0.55	0.09

Table A8.1 (continued): Tabulated geochemical data for soil materials.

MESA-no	In	K	La	Lu	Mg	Mn	Mo	Na	Nb	Nd	Ni
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3M	IC3E	IC3R	IC3R	IC3E	IC3E	IC3M	IC3E	IC3M	IC3R	IC3E
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	0.05	10	0.5	0.02	10	5	0.1	10	0.5	0.02	2
R435775	<0.05	2900	10.5	0.07	1400	90	0.5	290	3	6.5	17
R435776	<0.05	1650	6	0.04	600	50	0.3	180	2	4.5	8
R435777	<0.05	2250	8	0.05	850	85	0.4	220	2.5	5.5	12
R435778	<0.05	1700	5.5	0.05	650	50	0.3	165	3	3.7	9
R435779	<0.05	1800	5.5	0.04	650	65	0.5	195	2	3.7	8
R435780	<0.05	2550	10	0.08	1000	85	0.4	270	3	6.5	10
R435781	<0.05	3750	15.5	0.11	1550	135	0.5	420	4.5	11	14
R435782	<0.05	4200	13.5	0.09	1900	130	0.4	370	3	9.5	14
R435783	<0.05	1850	7	0.05	750	55	0.5	180	2.5	4.5	8
R435784	<0.05	3850	13.5	0.11	1750	120	0.4	360	3.5	9	14
R435785	<0.05	3700	12	0.11	1850	100	0.5	330	3	8.5	11
R435786	<0.05	1750	6	0.05	550	35	0.5	185	2.5	3.7	8
R435787	<0.05	1600	6	0.04	550	50	0.4	180	2	3.6	7
R435788	<0.05	2700	10	0.07	1400	105	0.3	260	2	7	18
R435789	<0.05	2700	11	0.08	1450	85	0.4	250	2.5	8	31
R435790	<0.05	2250	8.5	0.06	1050	65	0.4	220	2	6	17
R435791	<0.05	2200	9	0.07	800	65	0.8	230	2.5	6	17
R435792	<0.05	1800	6.5	0.04	650	50	0.3	195	2	4.2	8
R435793	<0.05	1800	6.5	0.05	650	65	0.8	200	2	3.9	8
R435794	<0.05	3100	12.5	0.1	1050	170	0.6	330	3.5	9	12
R435795	<0.05	2400	8.5	0.05	850	85	1.5	230	2.5	5	14
R435796	<0.05	2850	8.5	0.06	2000	85	0.5	270	2.5	6	13
R435797	<0.05	2500	10	0.07	1250	95	0.6	230	2.5	7	18
R435798	<0.05	1900	6	0.04	700	60	0.6	195	2	4.1	14
R435799	<0.05	1900	8	0.06	700	65	0.6	210	2.5	5	11
R435800	<0.05	2300	8	0.05	1100	60	0.2	230	2	5.5	13
R435801	<0.05	2100	7.5	0.06	850	70	0.6	210	2	5	15
R435802	<0.05	2850	10.5	0.06	1950	80	0.7	280	2.5	7	16
R435803	<0.05	2700	10	0.08	900	95	0.4	270	3	6.5	9
R435804	<0.05	2150	6	0.04	950	70	0.3	200	2	4.3	11
R435805	<0.05	2750	7	0.06	1600	85	0.4	250	2	4.7	9
R435806	<0.05	2200	7	0.05	1050	60	0.3	220	2	4.3	8
R435807	<0.05	2700	7.5	0.06	1150	80	0.6	260	2	4.9	13
R435808	<0.05	2500	8	0.05	1800	65	0.6	250	2	5.5	9
R435809	<0.05	1450	4.5	0.04	440	55	0.4	160	1.5	2.9	6
R435810	<0.05	4100	13.5	0.12	1350	135	0.6	350	3.5	10	12
R435811	<0.05	2150	7.5	0.07	800	65	0.6	230	2.5	5	8
R435812	<0.05	3850	10.5	0.09	2650	100	0.2	310	2.5	7.5	13
R435813	<0.05	2600	8.5	0.07	1500	75	0.3	240	2	6.5	10
R435814	<0.05	2050	6.5	0.04	650	70	0.3	230	2	4.4	9
R435815	<0.05	3450	11.5	0.07	1600	115	0.5	340	2.5	7.5	17
R435816	<0.05	1950	8	0.05	600	40	0.4	190	2.5	5	9
R435817	<0.05	3150	10.5	0.06	1700	95	2.2	280	2	7	11
R435818	<0.05	1800	6	0.05	800	55	0.4	195	2	3.9	12
R435819	<0.05	1650	5.5	0.04	650	60	0.4	175	1.5	3.4	8
R435820	<0.05	2250	8.5	0.06	1650	75	0.3	220	3	6	10
R435821	<0.05	1500	7	0.05	500	35	0.4	155	3	4	8
R435822	<0.05	2200	8.5	0.06	850	85	0.5	230	3	5.5	13
R435823	<0.05	2450	10	0.07	900	65	0.4	230	3.5	7	13
R435824	<0.05	1650	6.5	0.03	650	50	0.9	185	3	3.6	7
R435825	<0.05	1800	5.5	0.04	750	55	0.3	190	3	3.4	7
R435827	<0.05	1550	7	0.05	500	55	0.8	175	3	4	9
R435828	<0.05	2050	9	0.06	750	70	0.4	220	3.5	6	12
R435829	<0.05	1850	7	0.05	700	50	0.4	220	3.5	4.3	8
R435830	<0.05	1900	8.5	0.05	550	40	0.4	170	4	4.8	8
R435831	<0.05	5050	17	0.09	17900	45	0.5	1250	3	10.5	9
R435832	<0.05	1650	6.5	0.04	480	50	0.5	185	3.5	4	6

Table A8.1 (continued): Tabulated geochemical data for soil materials.

MESA-no	P	Pb	Pr	Rb	S	Sb	Se	Sm	Sr	Tb	Te
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3E	IC3M	IC3R	IC3M	IC3E	IC3M	IC3M	IC3R	IC3E	IC3R	IC3M
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	5	0.5	0.05	0.1	500	0.5	0.5	0.02	2	0.02	0.2
R435775	75	9	2	13.5	<50	<0.5	<0.5	1.25	28.5	0.15	<0.2
R435776	45	27	1.3	8	<50	<0.5	<0.5	0.86	15	0.1	<0.2
R435777	90	6.5	1.65	10.5	<50	<0.5	<0.5	1	18	0.12	<0.2
R435778	45	14.5	1.05	8.5	<50	<0.5	<0.5	0.65	14	0.09	<0.2
R435779	60	5	1.05	8	<50	<0.5	<0.5	0.68	15.5	0.07	<0.2
R435780	115	12	1.95	14	<50	<0.5	<0.5	1.25	27	0.15	<0.2
R435781	150	10	3.1	20.5	50	<0.5	<0.5	1.9	41	0.26	<0.2
R435782	95	10.5	2.7	19	50	<0.5	<0.5	1.8	28.5	0.21	<0.2
R435783	50	6	1.45	10	<50	<0.5	<0.5	0.83	18.5	0.1	<0.2
R435784	85	11	2.7	18	<50	<0.5	<0.5	1.7	30.5	0.22	<0.2
R435785	95	8	2.4	17.5	<50	<0.5	<0.5	1.65	31	0.2	<0.2
R435786	55	8.5	1.1	10	<50	<0.5	<0.5	0.59	17	0.07	<0.2
R435787	50	5	1.05	7.5	<50	<0.5	<0.5	0.71	16	0.08	<0.2
R435788	65	6.5	2	11	<50	<0.5	<0.5	1.2	30.5	0.16	<0.2
R435789	70	7	2.2	12	<50	<0.5	<0.5	1.4	34	0.18	<0.2
R435790	60	7.5	1.75	10.5	<50	<0.5	<0.5	1.1	27.5	0.13	<0.2
R435791	55	6.5	1.8	11	<50	<0.5	<0.5	1.1	18.5	0.14	<0.2
R435792	45	6	1.3	8.5	<50	<0.5	<0.5	0.78	15.5	0.1	<0.2
R435793	75	6	1.15	9.5	<50	<0.5	<0.5	0.71	18	0.08	<0.2
R435794	135	10.5	2.6	17.5	50	<0.5	0.5	1.7	32.5	0.21	<0.2
R435795	80	6.5	1.6	11	<50	<0.5	<0.5	1	18.5	0.12	<0.2
R435796	85	6.5	1.7	11.5	<50	<0.5	<0.5	1.1	46.5	0.14	<0.2
R435797	65	6	2.1	11	<50	<0.5	<0.5	1.25	25	0.15	<0.2
R435798	50	7.5	1.2	7.5	<50	<0.5	<0.5	0.75	13.5	0.09	<0.2
R435799	70	5.5	1.5	10.5	<50	<0.5	<0.5	0.93	21	0.12	<0.2
R435800	55	5.5	1.6	10	<50	<0.5	<0.5	0.98	17.5	0.12	<0.2
R435801	70	5.5	1.55	9	<50	<0.5	<0.5	0.94	17.5	0.11	<0.2
R435802	70	8	2.1	12	<50	<0.5	0.5	1.3	30.5	0.16	<0.2
R435803	90	8	2	15	<50	<0.5	<0.5	1.25	24	0.17	<0.2
R435804	65	5	1.2	8.5	<50	<0.5	<0.5	0.72	16	0.09	<0.2
R435805	70	5.5	1.45	10.5	<50	<0.5	<0.5	0.91	23	0.11	<0.2
R435806	50	6	1.3	9.5	<50	<0.5	<0.5	0.75	17	0.09	<0.2
R435807	60	5.5	1.5	11	<50	<0.5	<0.5	0.91	20	0.12	<0.2
R435808	70	5	1.6	9	<50	<0.5	<0.5	0.97	40	0.11	<0.2
R435809	55	4.5	0.9	7	<50	<0.5	<0.5	0.56	11	0.07	<0.2
R435810	105	9	2.8	20.5	<50	<0.5	<0.5	1.8	30	0.23	<0.2
R435811	50	6	1.5	11	<50	<0.5	<0.5	0.94	18.5	0.11	<0.2
R435812	95	6.5	2.1	14.5	<50	<0.5	<0.5	1.4	48.5	0.18	<0.2
R435813	55	6	1.8	11.5	<50	<0.5	<0.5	1.25	22.5	0.14	<0.2
R435814	65	6	1.25	9	<50	<0.5	<0.5	0.77	16.5	0.1	<0.2
R435815	80	6.5	2.3	14.5	<50	<0.5	<0.5	1.45	23	0.18	<0.2
R435816	75	7	1.45	11	<50	<0.5	<0.5	0.94	16	0.12	<0.2
R435817	85	9.5	2.1	12	<50	<0.5	<0.5	1.35	23.5	0.14	<0.2
R435818	65	5.5	1.2	9	<50	<0.5	<0.5	0.72	17.5	0.09	<0.2
R435819	45	4.5	1.05	7.5	<50	<0.5	<0.5	0.71	13.5	0.08	<0.2
R435820	65	5	1.55	7.5	<50	<0.5	<0.5	1.05	48.5	0.12	<0.2
R435821	50	5.5	1.1	7.5	<50	<0.5	<0.5	0.7	14.5	0.09	<0.2
R435822	65	5.5	1.55	9	<50	<0.5	<0.5	1.15	18	0.12	<0.2
R435823	65	6	1.85	10.5	<50	<0.5	<0.5	1.2	20	0.15	<0.2
R435824	70	5	1	6.5	<50	<0.5	<0.5	0.66	17	0.08	<0.2
R435825	65	4.5	1	6	<50	<0.5	<0.5	0.61	14.5	0.07	<0.2
R435827	50	4.5	1.15	6	<50	<0.5	<0.5	0.73	12.5	0.08	<0.2
R435828	60	6	1.65	8.5	<50	<0.5	<0.5	1.1	18.5	0.13	<0.2
R435829	50	6	1.25	7.5	<50	<0.5	<0.5	0.75	19	0.11	<0.2
R435830	70	6.5	1.4	9.5	<50	<0.5	<0.5	0.91	15	0.1	<0.2
R435831	135	7	2.9	11.5	200	<0.5	1	1.9	360	0.17	<0.2
R435832	55	5.5	1.05	7	<50	<0.5	<0.5	0.73	12.5	0.1	<0.2

Table A8.1 (continued): Tabulated geochemical data for soil materials.

MESA-no	Th	Ti	Tl	Tm	U	V	W	Y	Yb	Zn
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3M	IC3E	IC3M	IC3R	IC3M	IC3E	IC3M	IC3M	IC3R	IC3E
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	0.02	10	0.1	0.05	0.02	2	0.1	0.05	0.05	2
R435775	4	1700	0.1	0.05	0.49	29	0.6	3.4	0.45	27
R435776	2.6	1250	<0.1	<0.05	0.35	17	0.4	2.3	0.35	15
R435777	3.2	1500	<0.1	0.05	0.41	22	0.4	2.9	0.4	20
R435778	2.5	1200	0.4	<0.05	0.33	18	0.6	2	0.3	16
R435779	2.5	1450	0.2	<0.05	0.32	18	0.4	1.85	0.3	15
R435780	4.2	1750	0.2	0.05	0.44	23	0.4	3.7	0.55	20
R435781	6.5	2450	0.2	0.1	0.66	30	0.5	6	0.85	31
R435782	4.8	2000	0.2	0.1	0.49	32	0.4	5	0.7	28
R435783	3.4	1250	<0.1	0.05	0.33	16	0.3	2.4	0.4	15
R435784	5	1950	0.2	0.1	0.52	30	0.4	5	0.75	28
R435785	4.6	2050	0.1	0.1	0.49	31	0.4	4.7	0.65	26
R435786	2.9	1400	<0.1	<0.05	0.33	19	0.2	1.85	0.3	14
R435787	2.4	1250	<0.1	<0.05	0.27	17	0.2	1.9	0.3	13
R435788	3	1500	<0.1	0.05	0.34	21	0.2	3.6	0.5	22
R435789	3.5	1550	0.1	0.1	0.39	26	0.2	4	0.5	26
R435790	2.9	1500	<0.1	0.05	0.31	19	0.2	2.9	0.4	17
R435791	3	1450	<0.1	0.05	0.42	21	0.5	3.2	0.45	17
R435792	2.6	1400	<0.1	<0.05	0.34	19	0.3	2.3	0.35	13
R435793	2.9	1600	<0.1	<0.05	0.34	21	0.2	2.3	0.35	15
R435794	4.9	2250	0.1	0.1	0.6	31	0.3	5	0.7	27
R435795	3.4	1700	<0.1	<0.05	0.39	23	0.2	2.8	0.4	22
R435796	3.2	1550	<0.1	0.05	0.37	24	0.2	3.4	0.45	21
R435797	3.3	1750	<0.1	0.05	0.36	21	0.2	3.4	0.45	19
R435798	2.3	1400	<0.1	<0.05	0.27	17	0.1	2.2	0.3	14
R435799	3.2	1400	<0.1	<0.05	0.43	18	0.2	2.7	0.45	17
R435800	3	1500	<0.1	0.05	0.3	20	0.1	2.8	0.4	19
R435801	3.5	1450	<0.1	0.05	0.36	19	0.2	2.6	0.4	18
R435802	3.9	1650	<0.1	0.05	0.41	24	0.2	3.4	0.5	23
R435803	4.2	1900	<0.1	0.1	0.45	24	0.2	4	0.55	19
R435804	2.5	1450	<0.1	<0.05	0.25	17	0.1	2.1	0.3	18
R435805	2.9	1500	<0.1	<0.05	0.3	20	0.2	2.7	0.4	19
R435806	2.9	1550	<0.1	<0.05	0.29	19	0.2	2.3	0.35	16
R435807	3.2	1550	<0.1	0.05	0.34	21	0.2	2.7	0.4	19
R435808	3.4	1500	<0.1	<0.05	0.28	18	0.1	2.3	0.35	15
R435809	2.1	1250	<0.1	<0.05	0.25	16	<0.1	1.7	0.25	12
R435810	5	2100	0.1	0.1	0.5	27	0.3	5.5	0.8	27
R435811	3.3	1350	<0.1	<0.05	0.34	18	0.2	2.8	0.4	15
R435812	3.8	1700	<0.1	0.1	0.36	25	0.2	4.2	0.55	23
R435813	3.2	1450	<0.1	0.05	0.32	20	0.1	3.4	0.45	16
R435814	2.9	1450	<0.1	<0.05	0.31	19	0.1	2.3	0.35	16
R435815	4.3	1800	<0.1	0.1	0.43	29	0.2	4	0.55	25
R435816	3.7	1600	<0.1	<0.05	0.39	22	0.2	2.5	0.4	16
R435817	4.1	1700	<0.1	0.05	0.39	23	0.2	3.4	0.5	21
R435818	2.6	1300	<0.1	<0.05	0.26	16	0.1	2.2	0.3	15
R435819	2.4	1150	<0.1	<0.05	0.26	15	0.1	1.9	0.3	13
R435820	2.1	1200	<0.1	0.05	0.32	16	0.2	3.1	0.45	17
R435821	2.1	1250	<0.1	<0.05	0.35	17	0.3	2.1	0.35	12
R435822	2.2	1400	<0.1	0.05	0.33	19	0.2	3	0.45	19
R435823	2.6	1450	<0.1	0.05	0.39	20	0.2	3.6	0.5	17
R435824	1.85	1350	<0.1	<0.05	0.31	19	0.2	1.85	0.3	18
R435825	1.65	1400	<0.1	<0.05	0.27	18	0.2	1.9	0.25	16
R435827	1.65	1300	<0.1	<0.05	0.35	19	0.2	2.1	0.3	15
R435828	2.3	1400	<0.1	0.05	0.48	20	0.2	3.1	0.45	20
R435829	2.1	1500	<0.1	0.05	0.39	19	0.2	2.4	0.4	15
R435830	2.6	1700	<0.1	0.05	0.49	23	0.3	2.6	0.4	15
R435831	4.1	1350	0.2	0.05	1.65	34	0.2	4.3	0.55	15
R435832	1.95	1500	<0.1	<0.05	0.32	18	0.3	2.1	0.3	15

Table A8.2: Tabulated geochemical data for pit profile materials.

MESA-no	Sample_id	Type Code	Zone	E (AMG66)	N (AMG66)	Sample Depths (cm)	Original Weight (g)	Sub-weight before (g)	dry Sub-weight (g)
units									
method									
who									
detn limit									
R435835	ETP01	Pit	53	339010	6636800	0-10	435.3	323.11	322.7
R435836	ETP02	Pit	53	339010	6636800	10-20	536.4	485.2	484.4
R435837	ETP03	Pit	53	339010	6636800	20-30	545.8	485.4	484.6
R435838	ETP04	Pit	53	339010	6636800	30-40	544.3	379.7	379.1
R435839	ETP05	Pit	53	339010	6636800	40-50	352.5	432.8	432.1
R435840	ETP06	Pit	53	339010	6636800	50-55	941.6	514.9	
R435841	ETP07	Pit	53	339010	6636800	55-60	805.4	312.6	
R435842	ETP08	Pit	53	339010	6636800	55-75 (Rim calc)	3986.7	1660.4	
R435843	ETP09	Pit	53	339011	6636800	0-10	440.8	392.1	391.5
R435844	ETP10	Pit	53	339011	6636800	10-20	480.6	519.1	518.3
R435845	ETP11	Pit	53	339011	6636800	20-30	427.2	419.7	418.9
R435846	ETP12	Pit	53	339011	6636800	30-40	336	233.6	233.2
R435847	ETP13	Pit	53	339011	6636800	40-50	494.7	440.9	440
R435848	ETP14	Pit	53	339011	6636800	50-55	1688.9	841.4	
R435849	ETP15	Pit	53	338800	6636640	0-10	1238.4	234.5	232
R435850	ETP16	Pit	53	338800	6636640	10-20	1104.3	196.3	195
R435851	ETP17	Pit	53	338800	6636640	20-30	1196.3	215.7	213.8
R435852	ETP18	Pit	53	338800	6636640	30-50	1338.4	221.7	219.8
R435853	ETP19	Pit	53	338800	6636640	50-70	1692.5	217.9	215.4
R435854	ETP20	Pit	53	338800	6636640	70-90	1660.4	221.2	214.1
R435855	ETP21	Pit	53	338800	6636640	90-100	1394.6	221.3	211.6
R435856	ETP22	Pit	53	338800	6636640	100-110	1767.6	867.7	
R435857	ETP23	Pit	53	338800	6636640	110-120	1441.4	887.2	
R435858	ETP24	Pit	53	338800	6636640	120-130	1700.7	219.7	205.5
R435859	ETP25	Pit	53	338800	6636641	0-10	1601.3	243.6	241.3
R435860	ETP26	Pit	53	338800	6636641	10-20	1497.1	208.8	207.4
R435861	ETP27	Pit	53	338800	6636641	20-30	1447.3	284.7	282.9
R435862	ETP28	Pit	53	338800	6636641	30-50	1676.1	272.4	270.6
R435863	ETP29	Pit	53	338800	6636641	50-70	2153.4	244.6	241.5
R435864	ETP30	Pit	53	338800	6636641	70-90	1348.5	223.8	218.8
R435866	ETP31	Pit	53	338800	6636641	90-100	1716.4	839.5	
R435867	ETP32	Pit	53	338800	6636641	100-110	1379.9	216.3	198.1
R435868	ETP33	Pit	53	338800	6636641	110-120	1624.6	200.9	186.9
R435869	ETP34	Pit	53	338800	6636641	120-130	1445	231.5	217.6
R435870	ETP35	Pit	53	338111	6636570	0-10	1350.8	228.5	226.7
R435871	ETP36	Pit	53	338111	6636570	10-20	1735.3	210.8	209.3
R435872	ETP37	Pit	53	338111	6636570	20-30	1622.7	231.8	230
R435873	ETP38	Pit	53	338111	6636570	30-50	1378.8	261.1	258.9
R435874	ETP39	Pit	53	338111	6636570	50-70	1819.6	209	207.3
R435875	ETP40	Pit	53	338111	6636570	70-85	1464.9	225.7	223.8
R435876	ETP41	Pit	53	338111	6636570	86	1223.8	558.1	
R435877	ETP42	Pit	53	338111	6636570	87	1181.6	478.7	
R435878	ETP43	Pit	53	338111	6636570	88	1050.3	432.1	
R435879	ETP44	Pit	53	338205	6636645	0-10	1287.2	228.3	227.1
R435880	ETP45	Pit	53	338205	6636645	10-20	1597	219.8	218.6
R435881	ETP46	Pit	53	338205	6636645	20-30	1958.6	225.6	224
R435882	ETP47	Pit	53	338205	6636645	30-50	1756.6	218.6	216.7
R435883	ETP48	Pit	53	338205	6636645	50-70	1847.4	214.3	212.9
R435884	ETP49	Pit	53	338205	6636645	70-90	2187.1	247.7	245.8
R435885	ETP50	Pit	53	338205	6636645	90-92	1198.6	520.2	
R435886	ETP51	Pit	53	338205	6636645	92-100	1360.6	614.5	
R435887	ETP52	Pit	53	338205	6636646	100	1456.5	653.5	
R435888	ETP53	Pit	53	338205	6636646	100	1603.7	653.5	
R435889	ETP54	Pit	53	338205	6636646	100	1790.8	785.8	
R435890	ETP55	Pit	53	338205	6636646	100	529.6	203	

Table A8.2 (continued): Tabulated geochemical data for pit profile materials.
Carbonate results ranking: 2 = Stong reaction, 1 = Moderate reaction, 0 = no reaction.

MESA-no	Carbonate	Profile	from (cm)	to (cm)	Ag	Au	AuDup	Cu	Ag
units					PPB	PPB	ppb	ppb	ppm
method					BLEG1C	BLEG1C	BLEG1C	BLEG1C	IC3M
who					AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit					0.5	0.05	0.05	100	0.1
R435835	0	Profile 1a	0	10	2	0.5		1200	0.1
R435836	0	Profile 1a	10	20	3	0.8		1200	<0.1
R435837	0	Profile 1a	20	30	3.5	1.2		1400	<0.1
R435838	0	Profile 1a	30	40	4	1.6		1500	<0.1
R435839	0	Profile 1a	40	50	4.5	2		1700	<0.1
R435840	2	Profile 1a	50	55	52	40		11500	<0.1
R435841	2	Profile 1a	55	60	58	52	47	12000	<0.1
R435842	2	Profile 1a	55	75	45	41		9300	0.1
R435843	0	Profile 1b	0	10	3	0.7		1300	<0.1
R435844	0	Profile 1b	10	20	2.5	0.6		1300	<0.1
R435845	0	Profile 1b	20	30	2.5	1.1		1400	<0.1
R435846	0	Profile 1b	30	40	3	1.5		1500	<0.1
R435847	0	Profile 1b	40	50	4.5	2.1		1600	<0.1
R435848	2	Profile 1b	50	55	65	49	42	15000	<0.1
R435849	0	Profile 2a	0	10	4.5	0.65		1400	<0.1
R435850	0	Profile 2a	10	20	3.5	0.55		1300	<0.1
R435851	0	Profile 2a	20	30	4.5	0.95		1400	<0.1
R435852	0	Profile 2a	30	50	3.5	1.3		1300	<0.1
R435853	0	Profile 2a	50	70	4	1.6		1400	<0.1
R435854	1	Profile 2a	10	90	6	4.1		1900	<0.1
R435855	2	Profile 2a	90	100	4.5	4		2400	<0.1
R435856	2	Profile 2a	100	110	2.5	6.4		2500	<0.1
R435857	2	Profile 2a	110	120	1	7		1800	<0.1
R435858	2	Profile 2a	120	130	1	5.9		1700	<0.1
R435859	0	Profile 2b	0	10	3.5	0.45		1200	<0.1
R435860	0	Profile 2b	10	20	3.5	0.55		1200	<0.1
R435861	0	Profile 2b	20	30	3.5	0.8		1300	<0.1
R435862	0	Profile 2b	30	50	4	1.1		1300	<0.1
R435863	0	Profile 2b	50	70	6	2.3		1700	<0.1
R435864	1	Profile 2b	70	90	11	3.7		2200	<0.1
R435866	2	Profile 2b	90	100	5	5.1		2500	0.1
R435867	2	Profile 2b	100	110	6.5	7.4		2800	<0.1
R435868	2	Profile 2b	110	120	1.5	6.6		2200	<0.1
R435869	2	Profile 2b	120	130	<0.5	8		1500	<0.1
R435870	0	Profile 3	0	10	1.5	1.1		900	<0.1
R435871	0	Profile 3	10	20	5	1.3		800	<0.1
R435872	0	Profile 3	20	30	1.5	1.6		800	<0.1
R435873	0	Profile 3	30	50	1	2.7		700	<0.1
R435874	0	Profile 3	50	70	1.5	4		700	0.1
R435875	0	Profile 3	70	85	1.5	5.2		700	<0.1
R435876	2	Profile 3	86		47	71		5000	<0.1
R435877	2	Profile 3	87		65	76	74	5200	<0.1
R435878	2	Profile 3	88		57	72		6800	<0.1
R435879	0	Profile 4	0	10	1	0.85		700	<0.1
R435880	0	Profile 4	10	20	1.5	0.8		600	<0.1
R435881	0	Profile 4	20	30	1	1.1		600	<0.1
R435882	0	Profile 4	30	50	1.5	1.3		600	<0.1
R435883	0	Profile 4	50	70	1	2.7		600	<0.1
R435884	0	Profile 4	70	90	0.5	3		500	<0.1
R435885	2	Profile 4	90	92	11	11		2800	<0.1
R435886	2	Profile 4	92	100	12	14		4500	<0.1
R435887	2	Profile 4	100		17	22		3200	0.4
R435888	2	Profile 4	100		23	36	35	2800	<0.1
R435889	2	Profile 4	100		18	32		3300	<0.1
R435890	0	Profile 4	100		4	1.6		900	0.2

Table A8.2 (continued): Tabulated geochemical data for pit profile materials.

MESA-no	As	Ba	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Dy
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3M	IC3E	IC3M	IC3E	IC3M	IC3R	IC3M	IC3E	IC3M	IC3E	IC3R
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	1.5	5	0.1	10	0.1	0.5	0.2	2	0.1	1	0.02
R435835	3.5	90	0.2	900	<0.1	13.5	2.9	12	0.7	6	0.61
R435836	2.5	80	0.2	1200	<0.1	14.5	3.3	13	0.6	6	0.69
R435837	2	85	0.1	1350	<0.1	14.5	3.1	13	0.6	7	0.71
R435838	2	85	<0.1	1150	<0.1	13.5	2.8	10	0.5	7	0.6
R435839	1.5	85	<0.1	1250	<0.1	13.5	3.2	10	0.6	7	0.69
R435840	2.5	150	<0.1	228000	0.4	18.5	7.5	6	0.5	43	2.9
R435841	3	140	<0.1	208000	0.2	18	8	6	0.5	39	1.9
R435842	4	270	<0.1	231000	0.3	28.5	12	8	0.6	35	3.7
R435843	2	90	<0.1	1050	<0.1	13	3.1	11	0.6	6	0.62
R435844	1.5	85	<0.1	700	<0.1	12.5	2.6	11	0.5	6	0.57
R435845	1.5	85	<0.1	850	<0.1	12	2.7	12	0.5	6	0.52
R435846	1.5	85	<0.1	800	<0.1	11.5	2.5	12	0.5	7	0.47
R435847	1	85	<0.1	800	<0.1	11.5	3.2	12	0.6	7	0.6
R435848	3	140	<0.1	191000	0.2	24.5	9.5	10	0.6	51	3.1
R435849	2	100	<0.1	1100	0.1	12.5	2.2	10	0.6	6	0.66
R435850	2	95	<0.1	850	<0.1	14.5	2.4	10	0.6	6	0.74
R435851	2	95	<0.1	950	<0.1	14	2.4	10	0.6	7	0.69
R435852	2	100	<0.1	800	<0.1	14	2.3	10	0.6	6	0.71
R435853	2	105	<0.1	800	<0.1	12	2	10	0.5	7	0.65
R435854	2.5	120	0.1	2900	<0.1	19.5	3.2	15	0.9	10	1.05
R435855	3	120	<0.1	42300	<0.1	15.5	2.8	12	0.7	10	0.93
R435856	3	130	<0.1	82000	<0.1	13.5	3.1	12	0.5	12	0.7
R435857	3	130	<0.1	89700	<0.1	15.5	2.9	10	0.5	11	0.74
R435858	3.5	160	<0.1	60800	<0.1	14	2.9	9	0.6	11	0.76
R435859	1.5	95	<0.1	950	<0.1	13.5	2	11	0.5	6	0.58
R435860	2	95	<0.1	1100	<0.1	13.5	2.1	10	0.5	6	0.63
R435861	2	100	<0.1	1100	<0.1	11.5	2.3	12	0.6	6	0.61
R435862	2	105	<0.1	900	<0.1	18	2.3	10	0.6	6	0.8
R435863	2	105	<0.1	1250	<0.1	16.5	2.5	13	0.7	8	0.77
R435864	2	105	0.1	10400	<0.1	17	2.6	14	0.7	9	0.88
R435866	5	135	0.2	80300	<0.1	11.5	3.6	9	0.7	15	0.82
R435867	4	160	<0.1	128000	<0.1	10.5	3.5	6	0.6	15	0.71
R435868	4.5	210	<0.1	103000	<0.1	13	3.6	8	0.6	13	0.81
R435869	5.5	175	<0.1	68600	<0.1	12	3.3	9	0.6	11	0.8
R435870	1.5	75	<0.1	850	<0.1	7.5	1.9	11	0.6	6	0.46
R435871	1.5	75	<0.1	800	<0.1	10.5	1.8	11	0.6	5	0.52
R435872	1.5	80	0.1	600	<0.1	8.5	2	10	0.7	5	0.53
R435873	1.5	75	<0.1	600	<0.1	7.5	1.8	10	0.6	4	0.53
R435874	2	85	0.1	750	<0.1	9.5	2.5	12	0.7	7	0.63
R435875	1.5	90	<0.1	800	<0.1	9.5	2.5	12	0.6	5	0.66
R435876	3	850	0.1	223000	<0.1	10	5	4	0.5	23	1.25
R435877	3	360	<0.1	248000	0.2	11.5	7	7	0.6	21	1.25
R435878	4	320	<0.1	232000	<0.1	10	6	9	0.4	29	1
R435879	1	75	<0.1	750	<0.1	7	1.4	11	0.6	5	0.41
R435880	1	70	<0.1	550	<0.1	7.5	1.7	10	0.6	4	0.43
R435881	1.5	70	<0.1	320	<0.1	7.5	1.8	11	0.6	5	0.45
R435882	1	70	<0.1	600	<0.1	7	1.4	9	0.5	4	0.4
R435883	1	75	<0.1	600	<0.1	7	1.6	10	0.5	5	0.44
R435884	1.5	75	0.1	550	<0.1	8.5	2.3	11	0.6	4	0.56
R435885	3	250	<0.1	335000	0.4	25.5	11	6	0.5	11	3.4
R435886	2.5	210	<0.1	304000	0.3	16	7.5	4	0.4	15	2.1
R435887	2.5	210	<0.1	301000	0.3	16.5	9	6	0.4	11	2.4
R435888	5.5	220	0.3	297000	0.2	11	7	6	0.3	12	1.25
R435889	3.5	220	<0.1	299000	0.2	12.5	7.5	7	0.3	11	1.4
R435890	<0.5	140	0.2	5400	<0.1	15.5	3.7	56	<0.1	5	2.3

Table A8.2 (continued): Tabulated geochemical data for pit profile materials.

MESA-no	Er	Eu	Fe	Ga	Gd	Ho	In	K	La	Lu	Mg
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3R	IC3R	IC3E	IC3M	IC3R	IC3R	IC3M	IC3E	IC3R	IC3R	IC3E
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	0.05	0.02	100	0.1	0.05	0.02	0.05	10	0.5	0.02	10
R435835	0.35	0.18	9300	4.9	0.7	0.11	<0.05	2150	9	0.06	750
R435836	0.35	0.22	8800	4.9	0.75	0.13	<0.05	2100	10	0.06	750
R435837	0.35	0.22	9650	4.8	0.8	0.13	<0.05	2350	10	0.06	850
R435838	0.3	0.2	8650	4.1	0.75	0.12	<0.05	2050	8.5	0.05	850
R435839	0.4	0.23	8700	4.2	0.85	0.13	<0.05	2100	8.5	0.06	950
R435840	1.4	1.15	6150	4.2	4.2	0.57	<0.05	2600	40	0.16	17500
R435841	1	0.76	6550	4	2.8	0.39	<0.05	2650	26.5	0.13	18500
R435842	1.85	1.55	7400	5.5	5.5	0.76	<0.05	2950	49	0.21	16400
R435843	0.35	0.2	8900	4.8	0.75	0.13	<0.05	2150	9	0.06	800
R435844	0.3	0.17	8550	4.1	0.6	0.11	<0.05	2150	8	0.05	700
R435845	0.3	0.18	8750	4.2	0.7	0.11	<0.05	2200	8	0.05	750
R435846	0.3	0.17	8850	3.9	0.55	0.1	<0.05	2150	7.5	0.04	800
R435847	0.35	0.24	8950	4.2	0.7	0.12	<0.05	2300	8	0.06	950
R435848	1.45	1.25	7350	4.5	4.6	0.59	<0.05	3000	43	0.16	23600
R435849	0.35	0.22	8500	4.3	0.75	0.12	<0.05	2250	8	0.05	850
R435850	0.35	0.22	8900	4.4	0.8	0.14	<0.05	2350	9	0.06	850
R435851	0.35	0.21	9050	4.3	0.85	0.15	<0.05	2250	9	0.07	950
R435852	0.4	0.23	9000	4.5	0.8	0.14	<0.05	2450	9	0.07	1000
R435853	0.35	0.22	8900	3.8	0.8	0.14	<0.05	2300	8.5	0.05	1100
R435854	0.55	0.35	11000	6.5	1.2	0.21	<0.05	3150	13	0.09	3300
R435855	0.5	0.31	8950	5	1.1	0.19	<0.05	2700	10.5	0.08	10400
R435856	0.4	0.25	7150	4.1	0.85	0.15	<0.05	2400	9	0.06	19500
R435857	0.4	0.25	6850	4.1	1	0.15	<0.05	2350	10	0.06	31300
R435858	0.4	0.25	7450	4.5	1	0.17	<0.05	2600	9.5	0.06	27800
R435859	0.35	0.2	8500	4	0.75	0.12	<0.05	2150	8	0.06	850
R435860	0.3	0.21	8200	4	0.7	0.11	<0.05	2050	7.5	0.05	850
R435861	0.35	0.21	9000	4.5	0.65	0.14	<0.05	2350	8	0.06	950
R435862	0.35	0.24	8450	4.7	0.9	0.14	<0.05	2250	10.5	0.06	1100
R435863	0.4	0.27	9600	5	1	0.16	<0.05	2700	10	0.08	1800
R435864	0.4	0.31	9500	5	1.05	0.16	<0.05	2800	11.5	0.08	4800
R435866	0.5	0.3	8150	4.6	1	0.16	<0.05	2400	10	0.08	18300
R435867	0.45	0.26	6350	3.8	0.9	0.13	<0.05	2000	9	0.06	30400
R435868	0.5	0.3	7450	4.2	1.05	0.15	<0.05	2450	11	0.06	33600
R435869	0.5	0.3	7600	4.5	1.05	0.15	<0.05	2550	10.5	0.07	28600
R435870	0.3	0.15	9000	4.4	0.55	0.09	<0.05	1650	6.5	0.04	600
R435871	0.3	0.16	9400	4.6	0.7	0.09	<0.05	1750	9	0.05	600
R435872	0.35	0.16	9450	5	0.6	0.1	<0.05	1750	7.5	0.05	550
R435873	0.3	0.15	8650	4.4	0.55	0.1	<0.05	1600	6.5	0.05	550
R435874	0.4	0.2	11500	5	0.75	0.12	<0.05	1850	8	0.06	650
R435875	0.4	0.2	9700	4.2	0.75	0.12	<0.05	1800	8	0.06	650
R435876	0.75	0.55	5700	3	1.65	0.24	<0.05	1650	13	0.09	19300
R435877	0.75	0.48	6300	3.5	1.75	0.24	<0.05	1650	15	0.09	11800
R435878	0.6	0.39	4950	2.8	1.4	0.19	<0.05	1450	10	0.07	24200
R435879	0.25	0.12	8550	4	0.45	0.07	<0.05	1400	6	0.04	490
R435880	0.3	0.13	8250	4.2	0.5	0.08	<0.05	1300	6.5	0.04	440
R435881	0.25	0.13	8150	4.2	0.55	0.09	<0.05	1300	7	0.04	410
R435882	0.25	0.12	8150	3.7	0.5	0.07	<0.05	1400	6	0.04	470
R435883	0.25	0.13	8600	3.8	0.55	0.09	<0.05	1500	6	0.04	550
R435884	0.35	0.17	8100	4.2	0.65	0.1	<0.05	1450	7	0.06	550
R435885	2	1.2	5050	3.5	4.9	0.66	<0.05	1500	43.5	0.21	8650
R435886	1.3	0.72	4500	2.8	2.9	0.41	<0.05	1400	24.5	0.14	9150
R435887	1.45	0.86	5000	3.5	3.5	0.47	<0.05	1650	28	0.16	7700
R435888	0.8	0.45	4200	2.9	1.7	0.24	<0.05	1500	15	0.09	7050
R435889	0.85	0.51	4200	3.2	1.95	0.28	<0.05	1500	17	0.1	7250
R435890	1.65	0.65	15800	6.5	2	0.46	<0.05	200	12	0.29	400

Table A8.2 (continued): Tabulated geochemical data for pit profile materials.

MESA-no	Mn	Mo	Na	Nb	Nd	Ni	P	Pb	Pr	Rb	S
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3E	IC3M	IC3E	IC3M	IC3R	IC3E	IC3E	IC3M	IC3R	IC3M	IC3E
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	5	0.1	10	0.5	0.02	2	5	0.5	0.05	0.1	500
R435835	65	0.6	220	4	5.5	11	75	6.5	1.5	9.5	<50
R435836	55	0.5	220	4	6	11	70	7	1.75	9.5	<50
R435837	50	0.6	230	4	6.5	12	80	8	1.75	9.5	<50
R435838	45	0.3	210	3.5	5	11	70	6	1.45	8	<50
R435839	45	0.4	240	3.5	5.5	11	65	6	1.55	8.5	<50
R435840	55	0.2	700	2	26.5	45	160	4.5	6.5	8.5	300
R435841	65	0.2	750	2.5	17.5	36	200	4.5	4.5	9	350
R435842	100	0.6	850	3.5	34	36	230	6	8.5	11.5	500
R435843	65	0.5	220	4	5.5	11	85	7	1.5	9.5	<50
R435844	50	0.4	210	3.5	4.6	11	70	6	1.25	8	<50
R435845	45	0.3	220	3.5	4.5	12	65	5.5	1.3	8	<50
R435846	45	0.5	220	3	4.5	11	70	5.5	1.25	8	<50
R435847	45	0.3	280	3.5	5	12	55	7	1.35	8.5	<50
R435848	70	0.5	900	2.5	29	51	200	5	7	10	350
R435849	75	0.5	230	3.5	5	9	85	6	1.45	8.5	<50
R435850	75	0.4	230	3.5	5.5	9	75	6	1.6	9	<50
R435851	65	0.4	240	3.5	6	9	60	6	1.6	9	<50
R435852	60	0.3	250	3.5	5.5	10	65	6	1.55	9.5	<50
R435853	60	0.5	270	3	5.5	9	50	7	1.5	8	<50
R435854	70	0.4	320	4	8.5	13	60	8.5	2.2	13	<50
R435855	55	0.4	400	3.5	7	11	50	7	1.85	10.5	<50
R435856	35	0.2	600	2.5	5.5	10	50	5	1.5	8.5	50
R435857	35	0.3	900	3	6.5	8	40	5.5	1.75	8	50
R435858	40	0.3	1250	2.5	6.5	9	45	5.5	1.7	9	50
R435859	70	0.5	230	3	4.7	9	75	6	1.4	8.5	<50
R435860	70	0.3	220	3	4.8	8	65	5.5	1.4	8	<50
R435861	70	0.4	230	3.5	5	10	60	6	1.4	9	<50
R435862	65	0.3	240	3	6.5	10	60	6	1.85	9.5	<50
R435863	65	0.4	290	4	6.5	10	60	7	1.75	10.5	<50
R435864	60	0.3	400	3.5	7.5	11	60	7	2.1	10.5	<50
R435866	45	0.3	750	6	6.5	12	55	5.5	2	11.5	200
R435867	40	0.3	1100	4	6	9	50	4.5	1.85	10	300
R435868	45	0.3	1350	4	7.5	11	50	4.5	2.3	11	300
R435869	45	0.3	1500	3.5	7	10	35	5	2.2	11.5	250
R435870	60	0.5	190	4	4	8	75	4.5	1.3	10.5	50
R435871	50	0.5	200	4	5.5	8	65	5.5	1.8	11	50
R435872	45	0.5	185	4.5	4.6	8	55	5.5	1.45	12	50
R435873	35	0.4	165	4	4	7	55	5	1.25	10.5	50
R435874	65	0.7	210	4.5	5	9	55	8	1.65	12.5	50
R435875	40	0.6	230	4.5	5.5	7	50	5.5	1.65	10	50
R435876	45	0.2	650	2	10	17	105	3	2.7	8	1150
R435877	45	0.3	550	2.5	10.5	18	145	3	2.9	10	1100
R435878	45	1.3	550	2	8	20	100	2.5	2.3	7	1050
R435879	40	0.4	165	3.5	3.6	7	65	4.5	1.15	9	50
R435880	35	0.4	155	3.5	4	6	50	4.5	1.3	9.5	50
R435881	40	0.5	135	3.5	4.1	6	55	4.5	1.35	9.5	50
R435882	35	0.3	155	3	3.8	7	45	19	1.2	8	50
R435883	35	0.4	165	3.5	4	7	40	4	1.25	8.5	<50
R435884	35	0.4	180	4	4.7	8	40	5	1.45	10	<50
R435885	115	0.3	800	2	28.5	16	130	4	8	8.5	1150
R435886	80	0.2	750	1.5	17	15	120	2.5	4.6	7	950
R435887	90	0.3	700	2	20	15	110	3.5	5.5	7.5	950
R435888	65	0.3	700	1.5	10	13	115	3.5	2.8	6	1000
R435889	75	0.3	650	1.5	11.5	14	110	2.5	3.2	6.5	1000
R435890	60	9	175	11	10.5	8	10	9.5	3.1	1	<50

Table A8.2 (continued): Tabulated geochemical data for pit profile materials.

MESA-no	Sb	Se	Sm	Sr	Tb	Te	Th	Ti	Tl	Tm	U
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3M	IC3M	IC3R	IC3E	IC3R	IC3M	IC3M	IC3E	IC3M	IC3R	IC3M
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	0.5	0.5	0.02	2	0.02	0.2	0.02	10	0.1	0.05	0.02
R435835	<0.5	<0.5	0.97	22	0.11	<0.2	2.5	1550	0.1	0.05	0.44
R435836	<0.5	0.5	1.1	24	0.12	<0.2	2.8	1600	0.1	0.05	0.45
R435837	<0.5	1	1.15	23.5	0.12	<0.2	3.1	1750	<0.1	0.05	0.43
R435838	<0.5	<0.5	0.95	20	0.11	<0.2	2.3	1500	<0.1	<0.05	0.38
R435839	<0.5	<0.5	1.15	22	0.13	<0.2	2.3	1550	<0.1	0.05	0.41
R435840	<0.5	1.5	4.8	500	0.54	<0.2	2.2	800	0.2	0.2	0.73
R435841	<0.5	2	3.2	440	0.35	<0.2	1.95	1000	0.1	0.15	0.72
R435842	<0.5	2	6.5	550	0.72	<0.2	2.6	1050	0.2	0.25	0.94
R435843	<0.5	<0.5	0.97	21.5	0.12	<0.2	2.4	1650	<0.1	0.05	0.39
R435844	<0.5	<0.5	0.85	17	0.1	<0.2	2.1	1550	<0.1	<0.05	0.34
R435845	<0.5	<0.5	0.95	18.5	0.1	<0.2	2.2	1500	<0.1	0.05	0.41
R435846	<0.5	<0.5	0.82	18	0.09	<0.2	2.1	1550	<0.1	<0.05	0.35
R435847	<0.5	<0.5	0.87	20.5	0.11	<0.2	2.2	1550	<0.1	<0.05	0.42
R435848	<0.5	1.5	5.5	440	0.56	<0.2	2.4	1100	0.2	0.2	0.92
R435849	<0.5	<0.5	0.95	21	0.12	<0.2	2.1	1400	<0.1	0.05	0.39
R435850	<0.5	<0.5	1.05	20	0.12	<0.2	2.3	1550	<0.1	0.05	0.45
R435851	<0.5	<0.5	1.1	20.5	0.12	<0.2	2.3	1500	<0.1	0.05	0.42
R435852	<0.5	<0.5	1.1	20	0.12	<0.2	2.2	1500	<0.1	0.05	0.41
R435853	<0.5	<0.5	1.05	18	0.12	<0.2	2	1550	<0.1	0.05	0.42
R435854	<0.5	<0.5	1.6	36.5	0.19	<0.2	3.3	1700	0.1	0.1	0.51
R435855	<0.5	<0.5	1.3	200	0.17	<0.2	2.4	1450	0.1	0.1	0.46
R435856	<0.5	<0.5	1.15	370	0.14	<0.2	1.8	1150	0.1	0.05	0.44
R435857	<0.5	<0.5	1.25	470	0.13	<0.2	2.1	1050	0.1	0.05	0.63
R435858	<0.5	<0.5	1.25	370	0.13	<0.2	1.95	1150	0.1	0.05	0.67
R435859	<0.5	<0.5	0.95	19.5	0.1	<0.2	2.1	1400	<0.1	0.05	0.37
R435860	<0.5	<0.5	0.94	19.5	0.11	<0.2	2.1	1450	<0.1	0.05	0.39
R435861	<0.5	<0.5	1	20.5	0.12	<0.2	2.1	1500	<0.1	0.05	0.37
R435862	<0.5	<0.5	1.25	22.5	0.13	<0.2	2.4	1300	<0.1	0.05	0.43
R435863	<0.5	<0.5	1.3	26	0.14	<0.2	2.5	1600	<0.1	0.05	0.4
R435864	<0.5	<0.5	1.4	67	0.15	<0.2	2.7	1700	0.1	0.1	0.45
R435866	<0.5	<0.5	1.15	500	0.14	<0.2	3.5	1200	0.2	0.05	0.51
R435867	<0.5	<0.5	1.05	1000	0.13	<0.2	3.6	950	0.2	0.05	0.64
R435868	<0.5	<0.5	1.25	850	0.14	<0.2	3.8	1150	0.1	0.05	0.75
R435869	<0.5	<0.5	1.25	550	0.14	<0.2	4	1200	0.1	0.05	0.78
R435870	<0.5	<0.5	0.66	18	0.08	<0.2	3.6	1450	<0.1	<0.05	0.36
R435871	<0.5	<0.5	0.91	18	0.09	<0.2	5.5	1650	<0.1	<0.05	0.44
R435872	<0.5	<0.5	0.77	19	0.09	<0.2	4.5	1650	<0.1	<0.05	0.44
R435873	<0.5	<0.5	0.66	16	0.08	<0.2	4	1700	<0.1	<0.05	0.41
R435874	<0.5	<0.5	0.91	20.5	0.1	<0.2	4.8	1800	<0.1	0.05	0.5
R435875	<0.5	<0.5	0.96	17.5	0.11	<0.2	4.7	2100	<0.1	0.05	0.49
R435876	<0.5	1	1.9	700	0.21	<0.2	2.6	850	0.1	0.1	0.6
R435877	<0.5	1.5	1.85	850	0.21	<0.2	3.2	850	0.2	0.1	0.54
R435878	<0.5	1.5	1.5	650	0.17	<0.2	2.5	900	0.1	0.05	0.59
R435879	<0.5	<0.5	0.59	14.5	0.07	<0.2	3.5	1500	<0.1	<0.05	0.34
R435880	<0.5	<0.5	0.65	14.5	0.07	<0.2	4.1	1450	<0.1	<0.05	0.38
R435881	<0.5	<0.5	0.69	13	0.07	<0.2	4.2	1500	<0.1	<0.05	0.39
R435882	<0.5	<0.5	0.62	13.5	0.07	<0.2	3.8	1500	<0.1	<0.05	0.36
R435883	<0.5	<0.5	0.66	14.5	0.07	<0.2	3.7	1600	<0.1	<0.05	0.34
R435884	<0.5	<0.5	0.83	16.5	0.1	<0.2	4.4	1650	<0.1	<0.05	0.43
R435885	<0.5	0.5	4.8	1000	0.58	<0.2	4.6	750	0.2	0.25	0.56
R435886	<0.5	0.5	2.9	850	0.36	<0.2	3.2	650	0.2	0.15	0.46
R435887	<0.5	<0.5	3.4	850	0.41	<0.2	3.1	750	0.2	0.15	0.45
R435888	<0.5	0.5	1.75	700	0.21	<0.2	2.8	650	0.2	0.1	0.5
R435889	<0.5	0.5	1.95	750	0.24	<0.2	2.9	650	0.2	0.1	0.48
R435890	<0.5	<0.5	2	23.5	0.33	<0.2	9	7550	<0.1	0.25	1.55

Table A8.2 (continued): Tabulated geochemical data for pit profile materials.

MESA-no	V	W	Y	Yb	Zn
units	ppm	ppm	ppm	ppm	ppm
method	IC3E	IC3M	IC3M	IC3R	IC3E
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	2	0.1	0.05	0.05	2
R435835	22	0.7	2.8	0.4	19
R435836	20	0.4	3	0.45	17
R435837	22	0.4	3	0.45	19
R435838	21	0.3	2.6	0.4	17
R435839	20	0.2	3	0.45	16
R435840	14	0.2	17.5	1.2	15
R435841	16	0.2	12	0.85	16
R435842	17	0.4	22.5	1.6	19
R435843	21	0.3	2.9	0.4	22
R435844	20	0.2	2.4	0.35	18
R435845	21	0.3	2.6	0.45	18
R435846	21	0.3	2.4	0.35	16
R435847	21	0.2	2.8	0.4	18
R435848	17	0.2	18	1.25	19
R435849	21	0.3	3.1	0.45	20
R435850	22	0.2	3.3	0.45	19
R435851	23	0.2	3.3	0.45	19
R435852	23	0.3	3.4	0.45	18
R435853	22	0.2	3	0.45	16
R435854	26	0.3	4.8	0.6	21
R435855	25	0.3	4.7	0.6	15
R435856	22	0.2	3.6	0.45	12
R435857	22	0.2	3.8	0.45	12
R435858	27	0.2	4	0.5	13
R435859	21	0.2	2.8	0.4	20
R435860	21	0.2	2.9	0.35	19
R435861	22	0.2	3.1	0.4	19
R435862	21	0.2	3.4	0.45	18
R435863	23	0.3	3.8	0.5	18
R435864	24	0.3	4.1	0.5	18
R435866	23	0.6	4.4	0.55	14
R435867	20	0.4	3.7	0.45	9
R435868	30	0.3	4	0.5	12
R435869	36	0.3	4.3	0.55	13
R435870	21	0.3	2.3	0.3	18
R435871	23	0.3	2.6	0.35	18
R435872	23	0.3	2.6	0.35	20
R435873	22	0.3	2.6	0.35	16
R435874	25	0.3	3.1	0.45	23
R435875	26	0.3	3.2	0.45	13
R435876	15	0.2	8	0.65	8
R435877	16	0.2	8	0.7	15
R435878	14	0.2	6	0.55	7
R435879	20	0.2	2	0.3	15
R435880	19	0.3	2.2	0.3	12
R435881	19	0.2	2.2	0.3	12
R435882	25	0.2	1.9	0.3	12
R435883	21	0.3	2.2	0.3	13
R435884	21	0.3	2.7	0.4	12
R435885	11	0.2	23	1.6	8
R435886	10	0.2	14.5	1.1	7
R435887	13	0.2	16.5	1.2	8
R435888	12	0.4	8.5	0.7	7
R435889	12	0.3	9.5	0.75	8
R435890	71	0.2	12.5	2.2	7

Table A8.3: Tabulated geochemical data for lag materials.

MESA-no	Sample_id	Type Code	Drill Hole	Zone	E (AMG66)	N (AMG66)	Original Weight (g)	Drillhole Unit No	Notes
units									
method									
who									
detn limit									
R435950	LS06	Lag		53	337225	6637740	539.2		
R435951	LS07	Lag		53	337746	6637753	547.5		
R435952	LS20	Lag		53	338285	6636804	824		
R435953	LS29	Lag		53	339270	6637234	744.6		
R435954	LS42	Lag		53	340236	6635235	770.7		
R435955	LS56	Lag		53	338181	6636599	451.2		(near hole 58)
R435956	LS57	Lag		53	338405	6636865	400.1		
R435957	NS01	Lag	96ETAR151	53	338800	6636650	208.9	5537-219	
R435958	NS02	Lag	96ETAR151	53	338800	6636650	116.1	5537-219	
R435959	NS03	Lag	96ETAR150	53	338800	6636700	318.7	5537-218	Hole 150 (7-13m)
R435960	NS04	Lag	96ETAR150	53	338800	6636700	244.5	5537-218	Hole 150 (30-35m)
R435961	NS57	Lag		53	338405	6636865	2058.4		

MESA-no	from (m)	to (m)	Ag	Au	AuDup	Cu	Ag	As	Ba
units			PPB	PPB	ppb	ppb	ppm	ppm	ppm
method			BLEG1C	BLEG1C	BLEG1C	BLEG1C	IC3M	IC3M	IC3E
who			AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit			0.5	0.05	0.05	100	0.1	1.5	5
R435950			7	0.55	0.55	800	0.5	9.5	410
R435951			7.5	0.3		1100	0.4	<0.5	110
R435952			5.5	0.8		600	0.2	<0.5	220
R435953			3.5	0.45		700	0.2	<0.5	210
R435954			9.5	0.5		1000	0.3	0.5	130
R435955			5	2.2	2.2	1300	0.4	<0.5	310
R435956			4.5	0.8		500	0.3	<0.5	500
R435957			1.5	0.4		900	0.2	145	270
R435958			10	0.75		1700	0.2	115	260
R435959	7	13	<0.5	1.7		400	0.2	160	390
R435960	30	35	7	0.85		800	0.2	69	310
R435961			3	2.4		800	0.4	3.5	1150

MESA-no	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Dy
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3M	IC3E	IC3M	IC3R	IC3M	IC3E	IC3M	IC3E	IC3R
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	0.1	10	0.1	0.5	0.2	2	0.1	1	0.02
R435950	0.4	1950	<0.1	11	4.9	115	<0.1	10	2.1
R435951	0.3	1050	<0.1	21.5	2.8	105	<0.1	11	3.6
R435952	0.2	700	<0.1	9	1.4	62	<0.1	6	1.65
R435953	<0.1	3400	<0.1	13	1.5	29	<0.1	6	1.8
R435954	0.2	700	<0.1	6	1.7	76	<0.1	6	1.2
R435955	0.3	4100	<0.1	11	2	77	<0.1	6	1.95
R435956	0.3	3550	<0.1	15	4.6	105	<0.1	7	2.5
R435957	0.2	410	<0.1	36.5	13	750	0.2	440	2.5
R435958	0.1	3750	0.1	300	33.5	430	2.6	380	7
R435959	0.1	2100	<0.1	56	6.5	270	0.2	250	1.3
R435960	<0.1	1400	<0.1	93	30.5	480	2.2	260	4.8
R435961	0.2	4000	<0.1	24.5	2.5	130	0.1	4	2.7

MESA-no	Er	Eu	Fe	Ga	Gd	Ho	In	K	La
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3R	IC3R	IC3E	IC3M	IC3R	IC3R	IC3M	IC3E	IC3R
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	0.05	0.02	100	0.1	0.05	0.02	0.05	10	0.5
R435950	1.55	0.5	41300	11.5	1.45	0.42	<0.05	300	7.5
R435951	2.6	0.85	19900	9	2.9	0.74	<0.05	330	14
R435952	1.25	0.43	17200	5.5	1.15	0.34	<0.05	260	5.5
R435953	1.4	0.4	6950	2.3	1.35	0.39	<0.05	250	6.5
R435954	0.9	0.26	24600	4.9	0.85	0.24	<0.05	140	3.5
R435955	1.55	0.49	20700	5.5	1.35	0.41	<0.05	210	7
R435956	1.75	0.72	34100	12	2	0.49	<0.05	290	11.5
R435957	2	0.73	93100	34	2.7	0.55	0.05	5000	31
R435958	3.6	4.5	117000	23.5	11.5	1.15	<0.05	25000	210
R435959	0.8	1	53700	29	2.7	0.22	<0.05	7200	51
R435960	3.1	1.55	93900	13	7.5	0.9	<0.05	22400	82
R435961	2	1.05	6450	15.5	2.4	0.55	<0.05	3350	21.5

Table A8.3 (continued): Tabulated geochemical data for lag materials.

MESA-no	Lu	Mg	Mn	Mo	Na	Nb	Nd	Ni	P	Pb	Pr	Rb	S	Sb
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3R	IC3E	IC3E	IC3M	IC3E	IC3M	IC3R	IC3E	IC3E	IC3M	IC3R	IC3M	IC3E	IC3M
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	0.02	10	5	0.1	10	0.5	0.02	2	5	0.5	0.05	0.1	500	0.5
R435950	0.28	360	40	7	170	26	6	15	105	14.5	1.9	1.1	150	<0.5
R435951	0.42	460	105	5	170	18	12	10	5	15.5	3.5	1.5	<50	<0.5
R435952	0.24	220	40	3.7	210	12.5	4.5	6	45	12.5	1.35	1.1	100	<0.5
R435953	0.25	410	60	6	150	11.5	5.5	5	10	6.5	1.65	1.1	100	<0.5
R435954	0.16	130	30	3.2	90	15	3.5	7	65	9.5	1.05	0.5	100	<0.5
R435955	0.29	320	30	7.5	125	19	6	6	35	12.5	1.75	1.2	100	<0.5
R435956	0.32	1150	155	11	185	19.5	9.5	12	45	16	2.9	1	150	<0.5
R435957	0.36	750	165	10.5	600	12	20.5	54	400	15	6	11.5	950	<0.5
R435958	0.48	12600	500	7	5800	8	97	170	1150	86	35	59	19800	<0.5
R435959	0.15	650	65	8.5	1050	7.5	29.5	42	145	15.5	9.5	14.5	600	<0.5
R435960	0.54	17900	220	8	950	4.5	61	120	270	34.5	18.5	77	500	<0.5
R435961	0.36	2850	145	10	460	24.5	14	9	90	13	4.4	8	350	<0.5

MESA-no	Se	Sm	Sr	Tb	Te	Th	Ti	Tl	Tm	U	V	W	Y	Yb
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3M	IC3R	IC3E	IC3R	IC3M	IC3M	IC3E	IC3M	IC3R	IC3M	IC3E	IC3M	IC3M	IC3R
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	0.5	0.02	2	0.02	0.2	0.02	10	0.1	0.05	0.02	2	0.1	0.05	0.05
R435950	<0.5	1.45	19	0.28	<0.2	19	14700	<0.1	0.25	2.2	220	1.7	10	2.1
R435951	<0.5	2.6	14	0.5	<0.2	13.5	11400	<0.1	0.35	2.3	74	0.4	19.5	3.1
R435952	<0.5	1.1	13.5	0.22	<0.2	12	8550	<0.1	0.2	1.5	73	0.3	8.5	1.75
R435953	<0.5	1.25	16	0.24	<0.2	7.5	8050	<0.1	0.2	1.15	41	0.3	10	1.9
R435954	<0.5	0.85	8.5	0.16	<0.2	11.5	9700	<0.1	0.15	1.3	90	1	6	1.2
R435955	<0.5	1.4	24.5	0.27	<0.2	14.5	11800	<0.1	0.25	1.8	95	0.7	10	2.2
R435956	<0.5	2.2	43	0.35	<0.2	17	13200	<0.1	0.25	2.6	160	0.4	12	2.3
R435957	22.5	3.4	11.5	0.38	0.4	45	7500	0.1	0.3	3	550	0.2	17	2.6
R435958	2	13.5	380	1.35	<0.2	19	3950	1.2	0.45	7.5	300	0.5	25.5	3.6
R435959	7.5	4.5	22.5	0.29	<0.2	27	3700	0.1	0.1	2.5	320	0.4	5.5	1
R435960	<0.5	10.5	15.5	0.86	<0.2	34	2650	0.8	0.45	4.8	190	0.2	22.5	4
R435961	<0.5	3	68	0.4	<0.2	8	17900	0.4	0.3	2.9	145	1	14	2.5

MESA-no	Zn
units	ppm
method	IC3E
who	AMDEL
detn limit	2
R435950	10
R435951	15
R435952	11
R435953	9
R435954	7
R435955	9
R435956	11
R435957	65
R435958	250
R435959	39
R435960	230
R435961	9

Table A8.4: Tabulated geochemical data for selected drill hole materials.

MESA-no	Sample_id	Type Code	Drill Hole	Drillhole Unit No	Date of completion/collection	Zone	E (AMG66)	N (AMG66)	From (m)
units									
method									
who									
detn limit									
R436504	ETDH 9	RC/RAB	96ETAR150	5537-218	1/01/1996	53	338800	6636700	10
R436505	ETDH 10	RC/RAB	96ETAR150	5537-218	1/01/1996	53	338800	6636700	13
R436506	ETDH 11	RC/RAB	96ETAR150	5537-218	1/01/1996	53	338800	6636700	17
R436507	ETDH 12	RC/RAB	96ETAR150	5537-218	1/01/1996	53	338800	6636700	22
R436508	ETDH 13	RC/RAB	96ETAR150	5537-218	1/01/1996	53	338800	6636700	26
R436509	ETDH 14	RC/RAB	96ETAR150	5537-218	1/01/1996	53	338800	6636700	30
R436510	ETDH 15	RC/RAB	96ETAR150	5537-218	1/01/1996	53	338800	6636700	38
R436511	ETDH 1	RC/RAB	96ETAR151	5537-219	1/01/1996	53	338800	6636650	10
R436512	ETDH 2	RC/RAB	96ETAR151	5537-219	1/01/1996	53	338800	6636650	11
R436513	ETDH 3	RC/RAB	96ETAR151	5537-219	1/01/1996	53	338800	6636650	12
R436514	ETDH 4	RC/RAB	96ETAR151	5537-219	1/01/1996	53	338800	6636650	17
R436515	ETDH 5	RC/RAB	96ETAR151	5537-219	1/01/1996	53	338800	6636650	21
R436516	ETDH 6	RC/RAB	96ETAR151	5537-219	1/01/1996	53	338800	6636650	24
R436517	ETDH 7	RC/RAB	96ETAR151	5537-219	1/01/1996	53	338800	6636650	30
R436518	ETDH 8	RC/RAB	96ETAR151	5537-219	1/01/1996	53	338800	6636650	34

MESA-no	To (m)	Av. depth (m)	Weight (g)	Carbonate	Ag	Au	AuDup	Cu	Ag
units					PPB	PPB	ppb	ppb	ppm
method					BLEG1C	BLEG1C	BLEG1C	BLEG1C	IC3M
who					AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit					0.5	0.05	0.05	100	0.1
R436504	11	10.5	322.1	0	2	0.05		1000	0.1
R436505	14	13.5	412.9	0	2.5	0.1		1800	0.1
R436506	18	17.5	322.7	0	1.5	<0.05		1200	0.1
R436507	23	22.5	303.7	0	3	<0.05		900	0.1
R436508	27	26.5	332.4	0	10	1.4		900	0.3
R436509	31	30.5	328.2	0	7	0.15		900	0.1
R436510	39	38.5	319.5	0	7.5	<0.05		2200	0.2
R436511	11	10.5	340	0	3.5	<0.05		1200	0.1
R436512	12	11.5	284.3	0	3	<0.05		1200	<0.1
R436513	13	12.5	314.2	0	3.5	0.1		900	<0.1
R436514	18	17.5	276.9	0	5	0.05	<0.05	1300	0.1
R436515	22	21.5	333.5	0	4	<0.05		500	0.2
R436516	25	24.5	296.5	0	9	<0.05		900	0.3
R436517	31	30.5	338.7	0	2	<0.05		1200	0.2
R436518	35	34.5	337.4	0	13	<0.05		1300	0.2

MESA-no	As	Ba	Bi	Ca	Cd	Ce	Co	Cr	Cs
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3M	IC3E	IC3M	IC3E	IC3M	IC3R	IC3M	IC3E	IC3M
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	1.5	5	0.1	10	0.1	0.5	0.2	2	0.1
R436504	26	490	<0.1	800	<0.1	78	2.2	100	0.2
R436505	40.5	420	<0.1	490	<0.1	87	2.9	115	0.3
R436506	12	600	<0.1	155	<0.1	68	9	185	2.2
R436507	10	750	<0.1	240	<0.1	84	11	160	1
R436508	6	700	0.1	1000	<0.1	110	11	155	0.9
R436509	14.5	750	<0.1	250	<0.1	105	9	135	1.1
R436510	21	650	<0.1	550	<0.1	290	22.5	135	0.8
R436511	11.5	700	<0.1	220	<0.1	50	1.7	69	0.4
R436512	12	600	<0.1	160	<0.1	80	1.9	80	0.3
R436513	15	600	<0.1	70	<0.1	86	1.5	78	0.3
R436514	18	115	<0.1	65	<0.1	88	1.4	105	0.2
R436515	13.5	410	<0.1	75	<0.1	100	1.4	57	0.1
R436516	14.5	600	<0.1	90	<0.1	130	9	135	0.4
R436517	14.5	700	<0.1	150	<0.1	145	27	210	2.4
R436518	13	750	<0.1	550	<0.1	150	18	195	1.6

Table A8.4 (continued): Tabulated geochemical data for selected drill hole materials.

MESA-no	Cu	Dy	Er	Eu	Fe	Ga	Gd	Ho	In	K	La	Lu	Mg
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3E	IC3R	IC3R	IC3R	IC3E	IC3M	IC3R	IC3R	IC3M	IC3E	IC3R	IC3R	IC3E
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	1	0.02	0.05	0.02	100	0.1	0.05	0.02	0.05	10	0.5	0.02	10
R436504	65	1	0.5	0.94	16100	19	2.4	0.16	<0.05	9000	31.5	0.1	950
R436505	140	1.2	0.6	0.87	27900	19.5	2.8	0.19	<0.05	9600	34.5	0.11	900
R436506	105	1.3	0.7	0.99	33500	17.5	2.9	0.23	<0.05	16500	26.5	0.14	7000
R436507	91	1.55	0.85	1.1	40900	23.5	3.4	0.27	<0.05	22000	32.5	0.18	9550
R436508	110	2	1.25	1.6	34400	20.5	2.9	0.4	<0.05	22000	50	0.26	3850
R436509	57	1.95	1.25	1.4	34500	20	2.9	0.41	<0.05	20000	46.5	0.23	6900
R436510	82	3.7	2.2	2.1	31000	19.5	4.7	0.76	<0.05	17500	54	0.38	9350
R436511	69	1.15	0.65	0.78	13200	18.5	1.6	0.23	<0.05	16600	25.5	0.12	1850
R436512	84	1.2	0.6	0.89	16800	17.5	2.3	0.21	<0.05	13800	40	0.12	1400
R436513	64	1.15	0.65	1	14600	17.5	2.3	0.21	<0.05	12400	41	0.13	1050
R436514	50	1	0.5	0.46	27000	18.5	2.2	0.18	<0.05	7250	42	0.1	550
R436515	45	1.25	0.6	1	11700	18.5	2.8	0.21	<0.05	7500	48.5	0.11	500
R436516	44	1.65	0.85	1.65	22500	33.5	3.6	0.29	<0.05	11400	66	0.15	850
R436517	195	2.1	1	1.6	56200	30	4.7	0.36	<0.05	28100	73	0.18	17600
R436518	70	4.6	2.2	3.1	35300	19.5	7	0.85	<0.05	23200	73	0.35	13400

MESA-no	Mn	Mo	Na	Nb	Nd	Ni	P	Pb	Pr	Rb	S	Sb	Se
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3E	IC3M	IC3E	IC3M	IC3R	IC3E	IC3E	IC3M	IC3R	IC3M	IC3E	IC3M	IC3M
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	5	0.1	10	0.5	0.02	2	5	0.5	0.05	0.1	500	0.5	0.5
R436504	40	3.5	1150	7.5	30.5	23	70	9.5	6.5	18.5	800	<0.5	1
R436505	45	3.3	850	7.5	34.5	30	85	10.5	7	21.5	650	<0.5	1
R436506	180	3.5	1300	8.5	31	31	50	17.5	6	72	300	<0.5	<0.5
R436507	135	3.5	1300	8	37	34	75	19.5	7.5	74	450	<0.5	<0.5
R436508	75	3.2	750	6	34	36	95	33	11	71	750	<0.5	1
R436509	140	3.2	1000	3.5	33	31	95	25.5	10.5	58	250	<0.5	<0.5
R436510	700	2.9	3700	5	45	51	110	46	14.5	47	350	<0.5	<0.5
R436511	25	3	800	3.5	17	6	50	11.5	5.5	39	500	<0.5	1.5
R436512	25	3.7	750	3	27.5	9	70	14.5	9	27.5	1850	<0.5	2
R436513	25	3.7	750	3.5	29.5	8	75	15	9.5	22	1300	<0.5	2
R436514	25	2.6	400	5.5	28	6	75	25.5	9	10	8650	<0.5	3
R436515	35	3	650	5.5	34	9	70	7.5	11	12.5	500	<0.5	<0.5
R436516	60	3.4	1100	11	43.5	9	115	37.5	14	23.5	500	<0.5	<0.5
R436517	250	4.3	1850	13.5	52	65	240	40	18	82	4950	<0.5	<0.5
R436518	230	1.3	3700	7.5	60	60	190	27	18.5	71	1250	<0.5	<0.5

MESA-no	Sm	Sr	Tb	Te	Th	Ti	Tl	Tm	U	V	W	Y	Yb
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3R	IC3E	IC3R	IC3M	IC3M	IC3E	IC3M	IC3R	IC3M	IC3E	IC3M	IC3M	IC3R
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	0.02	2	0.02	0.2	0.02	10	0.1	0.05	0.02	2	0.1	0.05	0.05
R436504	4.6	21.5	0.21	<0.2	13	3600	<0.1	0.05	1.45	130	1.1	4.2	0.65
R436505	5.5	18.5	0.24	<0.2	14	3550	0.1	0.1	1.7	165	0.8	5	0.7
R436506	5	17	0.26	<0.2	10.5	3850	1.6	0.1	1.25	135	1.3	5.5	0.9
R436507	6	23	0.31	<0.2	15	4150	0.8	0.15	1.6	175	0.8	6	1.15
R436508	5.5	70	0.32	0.4	15.5	3000	0.8	0.2	1.35	150	1.9	9	1.7
R436509	5	25.5	0.31	<0.2	14.5	2350	0.4	0.2	1.35	145	1.1	10.5	1.55
R436510	7	31	0.57	<0.2	13	2950	0.3	0.35	3.5	135	1	18.5	2.6
R436511	2.8	24	0.18	<0.2	12.5	2250	0.1	0.1	1	92	1.2	5.5	0.8
R436512	4.3	22.5	0.21	<0.2	16.5	2350	<0.1	0.1	1.3	92	1.4	5.5	0.75
R436513	4.6	19	0.21	<0.2	17.5	2650	<0.1	0.1	1.4	97	1.4	4.8	0.8
R436514	4.2	15	0.2	<0.2	14.5	3700	<0.1	0.1	1.25	95	0.9	3.9	0.65
R436515	5	10	0.25	<0.2	15	3250	<0.1	0.1	1.45	90	1.1	5	0.7
R436516	7	21.5	0.32	<0.2	22	5800	<0.1	0.1	1.8	180	0.2	7	0.9
R436517	8	115	0.44	0.3	18.5	6050	1.2	0.15	1.55	220	0.5	7.5	1.15
R436518	10	43	0.81	<0.2	15	3950	0.4	0.3	2.3	180	1.5	21.5	2.3

Table A8.4 (continued): Tabulated geochemical data for selected drill hole materials.

MESA-no	Zn
units	ppm
method	IC3E
who	AMDEL
detn limit	2
R436504	20
R436505	33
R436506	89
R436507	94
R436508	100
R436509	77
R436510	105
R436511	23
R436512	25
R436513	23
R436514	22
R436515	24
R436516	91
R436517	210
R436518	110

Table A8.5: Tabulated geochemical data for highly mineralised materials.

MESA-no	Sample_id	Type Code	Drill Hole	Weight (g)	Carbonate	Date of completion/collection	Drillhole Unit No	Zone
units								
method								
who								
detn limit								
R436519	HM 96ETAR070	RC/RAB	96ETAR070	362.1	0	1/01/1995	5537-200	53
R436520	HM 96ETAR119	RC/RAB	96ETAR119	374.4	0	1/01/1996	5537-213	53
R436521	HM 96ETAR119	RC/RAB	96ETAR119	368.8	0	1/01/1996	5537-213	53
R436522	HM 96ETAR167	RC/RAB	96ETAR167	338.5	0	1/01/1996	5537-224	53
R436523	HM 96ETAR185	RC/RAB	96ETAR185	436.7	0	1/01/1996	5537-231	53
R436524	HM 96ETAR151	RC/RAB	96ETAR151	398.6	0	1/01/1996	5537-219	53
R436525	HM 96ETAR151	RC/RAB	96ETAR151	380.6	0	1/01/1996	5537-219	53
R436526	HM 96ETAR125	RC/RAB	96ETAR125	352.7	0	1/01/1996	5537-214	53
R436527	HM 96ETAR170	RC/RAB	96ETAR170	310.1	0	1/01/1996	5537-225	53
R436528	HM 96ETAR125	RC/RAB	96ETAR125	435.7	0	1/01/1996	5537-214	53
MESA-no	**E (AMG66)**	**N (AMG66)**	**from (cm)**	**to (cm)**	**av depth**	**Ag**	**Au**	**AuDup**
units						ppb	ppb	ppb
method						BLEG1C	BLEG1C	BLEG1C
who						AMDEL	AMDEL	AMDEL
detn limit						0.5	0.05	0.05
R436519	339000	6636800	25	26	25.5	4.5	330	--
R436520	337600	6637350	51	52	51.5	553	220	210
R436521	337600	6637350	50	51	50.5	3100	290	--
R436522	339600	6637150	43	44	43.5	14	150	--
R436523	340227	6636654	47	48	47.5	63	390	--
R436524	338800	6636650	39	40	39.5	31	170	170
R436525	338800	6636650	40	41	40.5	162	470	480
R436526	337600	6636900	61	62	61.5	254	140	--
R436527	339600	6637000	50	51	50.5	14	84	--
R436528	337600	6636900	63	64	63.5	37	260	--
MESA-no	**Cu**	**Ag**	**As**	**Ba**	**Bi**	**Ca**	**Cd**	**Ce**
units	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	BLEG1C	IC3M	IC3M	IC3E	IC3M	IC3E	IC3M	IC3R
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	100	0.1	1.5	5	0.1	10	0.1	0.5
R436519	2300	0.3	23	550	<0.1	430	<0.1	150
R436520	24000	1.1	21	500	<0.1	260	<0.1	95
R436521	93500	4.9	54	300	0.2	950	<0.1	75
R436522	1000	0.2	110	460	0.7	8150	0.1	74
R436523	3000	0.2	105	190	<0.1	2550	0.2	77
R436524	1300	0.3	85	370	<0.1	2900	0.2	110
R436525	600	1.2	350	300	<0.1	2000	0.6	69
R436526	3500	1.4	105	175	0.2	195	0.3	240
R436527	3000	0.2	15.5	1000	<0.1	3850	0.2	100
R436528	1700	0.4	63	195	0.1	950	0.1	140
MESA-no	Co	Cr	Cs	Cu	Dy	Er	Eu	Fe
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3M	IC3E	IC3M	IC3E	IC3R	IC3R	IC3R	IC3E
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	0.2	2	0.1	1	0.02	0.05	0.02	100
R436519	38	370	2.5	96	2.7	1.5	1.55	67300
R436520	42.5	440	1.2	125	2.8	1.3	1.6	45200
R436521	45.5	950	0.3	300	2.8	1.35	1.55	60100
R436522	56	1500	12.5	70	16.5	8.5	5.5	52200
R436523	200	900	1.3	180	29.5	16.5	8	127000
R436524	77	550	5.5	78	4	1.95	2.4	48400
R436525	98	1300	9.5	115	4.9	2.4	2.2	70500
R436526	140	220	0.7	300	5	2.2	4.2	28000
R436527	28.5	260	1.1	115	4	2.2	2	67400
R436528	42.5	210	1.2	160	5	2.4	3.9	41300

Table A8.5 (continued): Tabulated geochemical data for highly mineralised materials.

MESA-no	Ga	Gd	Ho	In	K	La	Lu	Mg	Mn	Mo	Na	Nb
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3M	IC3R	IC3R	IC3M	IC3E	IC3R	IC3R	IC3E	IC3E	IC3M	IC3E	IC3M
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	0.1	0.05	0.02	0.05	10	0.5	0.02	10	5	0.1	10	0.5
R436519	32	4.5	0.52	<0.05	22600	49.5	0.26	10000	280	6.5	1700	9.5
R436520	28.5	4.4	0.5	<0.05	15000	35	0.21	13300	250	3.4	1250	11.5
R436521	25.5	4	0.53	<0.05	3450	34.5	0.21	9600	60	2	1200	9.5
R436522	27.5	17	3.4	<0.05	17000	32	1.05	26700	1000	2.8	8150	6.5
R436523	16.5	26	6.5	<0.05	5850	53	1.65	38900	950	2.2	7900	2
R436524	17.5	5.5	0.78	<0.05	18000	51	0.25	40600	700	1.9	12400	5
R436525	14	6.5	0.91	<0.05	26200	31.5	0.29	85700	1000	2	6750	3.5
R436526	22.5	8	0.87	<0.05	6250	75	0.29	3250	370	7	600	7
R436527	21.5	4.6	0.8	<0.05	26800	51	0.32	10200	400	8.5	11800	3.5
R436528	20.5	7.5	0.93	<0.05	7150	70	0.33	3000	170	4.1	500	6.5
MESA-no	**Nd**	**Ni**	**P**	**Pb**	**Pr**	**Rb**	**S**	**Sb**	**Se**	**Sm**	**Sr**	**Tb**
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3R	IC3E	IC3E	IC3M	IC3R	IC3M	IC3E	IC3M	IC3M	IC3R	IC3E	IC3R
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	0.02	2	5	0.5	0.05	0.1	500	0.5	0.5	0.02	2	0.02
R436519	45.5	140	95	39.5	14	80	400	<0.5	<0.5	7.5	27.5	0.47
R436520	40.5	135	105	74	12.5	24.5	9600	<0.5	1	7	11	0.49
R436521	30	230	110	155	9	3.5	12000	<0.5	5.5	5.5	18	0.47
R436522	63	230	240	9.5	15	160	650	4.5	<0.5	15	91	2.4
R436523	98	700	330	21	25	26	700	1	1.5	21	43	4
R436524	41.5	260	270	23	12.5	67	1100	<0.5	<0.5	7	140	0.65
R436525	35	390	340	5	9.5	77	1950	1.5	<0.5	7.5	46	0.79
R436526	71	390	110	35.5	22	20	400	<0.5	2.5	12	10	0.89
R436527	33.5	165	155	29.5	11	80	750	<0.5	3.5	6	180	0.61
R436528	65	200	100	51	20	26.5	350	<0.5	6	11	14.5	0.86
MESA-no	**Te**	**Th**	**Ti**	**Tl**	**Tm**	**U**	**V**	**W**	**Y**	**Yb**	**Zn**	
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
method	IC3M	IC3M	IC3E	IC3M	IC3R	IC3M	IC3E	IC3M	IC3M	IC3R	IC3E	
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	
detn limit	0.2	0.02	10	0.1	0.05	0.02	2	0.1	0.05	0.05	2	
R436519	<0.2	19.5	5350	0.7	0.2	2.9	260	0.5	12	1.65	155	
R436520	<0.2	14	6150	1	0.2	9.5	250	1.7	10	1.35	145	
R436521	<0.2	12	6500	1.1	0.2	13.5	280	1.2	13.5	1.35	150	
R436522	0.2	9	4350	1.1	1.1	2.6	270	0.3	99	7.5	110	
R436523	<0.2	15	2500	0.2	2	2.4	155	0.8	185	11	380	
R436524	<0.2	9.5	2950	0.5	0.25	1.85	145	0.7	23.5	1.75	230	
R436525	0.2	8	2650	0.5	0.3	2.2	135	<0.1	26	2.1	390	
R436526	<0.2	14	4100	0.4	0.3	11	165	0.6	21.5	2.1	210	
R436527	0.4	15.5	3650	0.5	0.3	2.5	155	0.7	23	2.2	155	
R436528	<0.2	11.5	4450	2.6	0.3	11.5	190	1.7	23.5	2.3	160	

Table A8.6: Tabulated geochemical data for Phase I standards materials.

MESA-no	Sample_id	Zone	E (AMG66)	N (AMG66)	Ag	As	Au	Ba	Bi	Ca	Cd
units					ppm	ppm	ppb	ppm	ppm	ppm	ppm
method					IC3M	IC3M	BLEG1C	IC3E	IC3M	IC3E	IC3M
who					AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit					0.1	1.5	0.05	5	0.1	10	0.1
R435833	STD 7	50	692500	6464000	0.6	70	190	30	3	3050	<0.1
R435834	STD 7	50	692500	6464000	0.7	80	150	30	3.4	2200	<0.1
R435865	STD 7	50	692500	6464000	0.7	84	180	35	3.6	3800	<0.1
R435891	STD 7	50	692500	6464000	0.5	69	230	35	3	3450	<0.1
R435992	STD 7	50	692500	6464000	0.6	61	220	30	2.6	1400	<0.1
R436023	STD 7	50	692500	6464000	0.6	56	190	30	1.6	1350	<0.1
R436054	STD 7	50	692500	6464000	0.7	61	190	30	1.8	1300	<0.1
R436085	STD 7	50	692500	6464000	0.6	65	180	30	2.3	1300	<0.1
R436116	STD 7	50	692500	6464000	0.6	60	180	25	2.7	1400	<0.1
R436147	STD 7	50	692500	6464000	0.6	74	180	30	3	1500	<0.1
R436178	STD 7	50	692500	6464000	0.6	91	170	30	3.2	3500	0.2
R436209	STD 7	50	692500	6464000	0.7	69	170	30	2.3	2200	0.3
R436240	STD 7	50	692500	6464000	0.6	72	210	35	2.7	3150	0.3
R436271	STD 7	50	692500	6464000	0.6	71	180	35	2.7	3300	0.3
R436302	STD 7	50	692500	6464000	0.7	57	180	30	2.6	2500	<0.1
R436333	STD 7	50	692500	6464000	0.7	57	180	30	2.9	2400	0.2
R436364	STD 7	50	692500	6464000	0.7	54	280	30	3	2400	0.1
R436395	STD 7	50	692500	6464000	0.6	53	210	35	2.8	1450	0.1
R436426	STD 7	50	692500	6464000	0.5	57	190	30	2.7	3000	0.1
R436457	STD 7	50	692500	6464000	0.4	57	190	30	2.8	1450	0.1
R436488	STD 7	50	692500	6464000	0.6	62	170	30	2.9	2500	<0.1
R436529	STD 7	50	692500	6464000	0.6	57	170	70	2.5	1550	<0.1
R436560	STD 7	50	692500	6464000	0.6	70	170	30	2.8	2900	<0.1
R440020	STD 7	50	692500	6464000	0.6	67	140	70	2.6	2650	<0.1

MESA-no	Ce	Co	Cr	Cs	Cu	Dy	Er	Eu	Fe	Ga	Gd
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3R	IC3M	IC3E	IC3M	IC3E	IC3R	IC3R	IC3R	IC3E	IC3M	IC3R
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	0.5	0.2	2	0.1	1	0.02	0.05	0.02	100	0.1	0.05
R435833	13	9	300	1	39	0.94	0.55	0.28	180000	39.5	1
R435834	14	10	300	1.1	39	1.05	0.6	0.3	181000	43	1
R435865	13.5	11	350	1.4	43	1.1	0.7	0.34	181000	44.5	1.2
R435891	11	9.5	390	1.1	50	0.91	0.55	0.27	207000	36.5	0.95
R435992	10	8	360	1	44	0.85	0.55	0.26	183000	38	0.85
R436023	10	8	330	1	44	0.84	0.55	0.27	183000	41.5	0.9
R436054	11	9	370	1.1	46	0.9	0.55	0.28	186000	45.5	0.95
R436085	9	8	340	0.9	46	0.79	0.5	0.24	183000	35.5	0.85
R436116	10	7.5	350	0.9	42	0.74	0.45	0.24	198000	37	0.85
R436147	10	9	320	1	41	0.89	0.55	0.26	180000	41.5	0.9
R436178	11.5	9.5	340	1.1	44	1.05	0.6	0.29	184000	37	1.25
R436209	12.5	9	350	0.9	47	0.93	0.55	0.27	192000	31	1
R436240	11.5	6.5	330	1	47	0.9	0.5	0.27	187000	34	0.85
R436271	11	6.5	350	1	47	0.88	0.5	0.27	194000	33	0.85
R436302	8.5	9	350	1	43	0.9	0.55	0.29	187000	35	1
R436333	16.5	9	430	1	59	0.93	0.55	0.28	183000	39	1.05
R436364	16.5	8.5	330	0.9	43	0.94	0.55	0.27	184000	37.5	1
R436395	16.5	8.5	350	0.9	45	0.89	0.5	0.26	185000	34.5	0.95
R436426	15	8.5	360	0.9	42	0.84	0.5	0.25	190000	32.5	1.05
R436457	15	9	350	0.9	46	0.85	0.5	0.25	190000	33	1.05
R436488	14.5	8	340	0.8	44	0.92	0.5	0.25	185000	35	1
R436529	19	10.5	360	1.2	50	1.1	0.6	0.38	180000	36.5	1.2
R436560	14.5	8.5	360	1.4	43	0.95	0.55	0.3	185000	39.5	1.05
R440020	27	9.5	370	1.6	47	1	0.55	0.33	184000	41.5	1.15

Table A8.6 (continued): Tabulated geochemical data for Phase I standards materials.

MESA-no	Ho	In	K	La	Lu	Mg	Mn	Mo	Na	Nb	Nd
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3R	IC3M	IC3E	IC3R	IC3R	IC3E	IC3E	IC3M	IC3E	IC3M	IC3R
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	0.02	0.05	10	0.5	0.02	10	5	0.1	10	0.5	0.02
R435833	0.19	0.05	1400	6	0.09	1400	200	3.4	600	9	5.5
R435834	0.2	0.05	1300	6	0.1	1250	200	3.6	550	10	5.5
R435865	0.21	0.05	1400	8.5	0.1	1450	220	3.6	650	11	6.5
R435891	0.17	<0.05	1550	7	0.08	1550	240	3	700	8.5	5.5
R435992	0.15	0.05	1250	6	0.09	1200	210	2	600	8	4.9
R436023	0.16	<0.05	1200	6	0.08	1200	210	2.9	550	8.5	5
R436054	0.17	0.05	1200	6.5	0.1	1200	210	2.8	550	11	5.5
R436085	0.14	<0.05	1150	5.5	0.08	1200	195	2.5	500	7.5	4.6
R436116	0.14	<0.05	1250	6	0.07	1250	210	2.4	500	8.5	4.8
R436147	0.17	<0.05	1450	5.5	0.08	1350	200	2.8	600	9.5	5
R436178	0.18	<0.05	1450	5	0.1	1350	200	3.5	700	11	7
R436209	0.18	<0.05	1400	6	0.09	1350	220	5	650	9.5	6.5
R436240	0.18	<0.05	1450	4.5	0.08	1400	210	3.2	650	8.5	6
R436271	0.17	<0.05	1500	4	0.08	1400	220	3.5	700	8	6
R436302	0.16	<0.05	1350	4.5	0.1	1350	220	2.8	600	11	7
R436333	0.17	<0.05	1300	5	0.1	1300	210	3.7	600	9.5	7.5
R436364	0.17	<0.05	1300	5	0.1	1300	210	2.8	600	8.5	7
R436395	0.16	<0.05	1350	4.5	0.09	1250	210	2.5	550	9	6.5
R436426	0.18	<0.05	1300	5	0.08	1350	210	2.7	550	8.5	6
R436457	0.18	<0.05	1200	5	0.08	1250	210	2.5	500	9	6
R436488	0.18	<0.05	1300	4	0.08	1300	200	2.9	550	9	5.5
R436529	0.22	<0.05	2400	7.5	0.1	1700	210	3.2	1100	7.5	7
R436560	0.2	<0.05	1250	7.5	0.1	1350	200	3.2	500	10	5
R440020	0.19	<0.05	2350	20.5	0.11	2600	210	3.5	950	10	7.5

MESA-no	Ni	P	Pb	Pr	Rb	S	Sb	Se	Sm	Sr	Tb
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3E	IC3E	IC3M	IC3R	IC3M	IC3E	IC3M	IC3M	IC3R	IC3E	IC3R
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	2	5	0.5	0.05	0.1	500	0.5	0.5	0.02	2	0.02
R435833	38	90	28.5	1.35	7.5	100	1.5	1.5	1.15	24.5	0.16
R435834	39	100	32	1.35	7.5	100	1.5	1.5	1.3	21	0.17
R435865	41	115	29	1.95	11.5	300	1.5	3	1.35	33	0.18
R435891	48	130	23.5	1.55	9	300	1	1.5	1.1	22.5	0.14
R435992	42	100	19.5	1.4	11	250	1	0.5	1.05	13	0.13
R436023	41	105	27.5	1.45	10	250	1.5	<0.5	1.05	13.5	0.14
R436054	42	110	30.5	1.65	10.5	250	1.5	0.5	1.15	14.5	0.14
R436085	42	110	26.5	1.4	9.5	250	1.5	1	0.96	13.5	0.12
R436116	44	105	25	1.45	7	250	1.5	1.5	0.99	11.5	0.12
R436147	46	90	26.5	1.5	8.5	250	1.5	0.5	1	14.5	0.14
R436178	42	110	22.5	1.85	12	250	1	1	1.5	28.5	0.18
R436209	45	80	30	1.7	12	250	1	1	1.2	21.5	0.15
R436240	44	100	22.5	1.7	10.5	250	1	1	1.4	27	0.14
R436271	47	95	23	1.6	10.5	250	1	0.5	1.35	26	0.13
R436302	46	95	19	1.2	11	250	1	1.5	1.2	16.5	0.16
R436333	71	95	13.5	1.3	10.5	250	1	1.5	1.25	17	0.15
R436364	45	90	15	1.2	10	250	1	1	1.2	16.5	0.14
R436395	47	100	21	1.2	9.5	250	1	<0.5	1.05	14	0.12
R436426	36	105	19.5	1.1	12.5	250	1	<0.5	1.1	24.5	0.12
R436457	37	85	20	1.1	11.5	300	1	<0.5	1.15	15	0.13
R436488	36	100	18.5	1.05	9	250	1	<0.5	1.2	22.5	0.13
R436529	44	85	25	2	12.5	300	1	1	1.4	22	0.15
R436560	37	75	23.5	1.45	9	300	1.5	1.5	1.25	20.5	0.14
R440020	36	100	25	2.3	13	600	1.5	1.5	1.5	28.5	0.16

Table A8.6 (continued): Tabulated geochemical data for Phase I standards materials.

MESA-no	Te	Th	Ti	Tl	Tm	U	V	W	Y	Yb	Zn
units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
method	IC3M	IC3M	IC3E	IC3M	IC3R	IC3M	IC3E	IC3M	IC3M	IC3R	IC3E
who	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL	AMDEL
detn limit	0.2	0.02	10	0.1	0.05	0.02	2	0.1	0.05	0.05	2
R435833	0.3	22.5	8300	<0.1	0.1	6.5	650	13	3.5	0.7	23
R435834	0.3	24	8250	<0.1	0.1	7	650	15	3.6	0.75	24
R435865	0.3	43.5	8050	0.6	0.1	8	650	15.5	4.3	0.85	26
R435891	0.2	39	9300	<0.1	0.1	7	750	13.5	3.4	0.65	25
R435992	0.2	28	8350	0.1	0.05	5.5	700	12.5	3.5	0.6	22
R436023	0.3	37.5	8100	0.1	0.05	6	700	9	4	0.65	22
R436054	0.3	42.5	8350	0.1	0.1	6.5	700	10	4.1	0.7	28
R436085	0.2	36.5	7950	<0.1	0.05	5.5	700	12	3.5	0.55	24
R436116	0.2	21	8300	<0.1	0.05	6	750	11.5	3.4	0.55	26
R436147	0.2	22	7900	0.1	0.1	6	650	12.5	3.9	0.65	25
R436178	0.2	33	7800	<0.1	0.1	7.5	700	17.5	4.4	0.8	23
R436209	0.2	26.5	8400	0.9	0.1	6	700	14	3.7	0.7	27
R436240	<0.2	30.5	8150	0.1	0.1	6	700	14	4.3	0.6	25
R436271	0.2	30.5	8400	<0.1	0.1	6	700	13	4.3	0.6	25
R436302	<0.2	25.5	8400	<0.1	0.1	7	700	13.5	4.1	0.65	25
R436333	<0.2	23.5	8150	0.1	0.1	5.5	700	13	4.8	0.6	23
R436364	<0.2	25.5	8150	<0.1	0.1	6	700	12	3.9	0.6	23
R436395	<0.2	26	8200	<0.1	0.1	6	700	11	3.6	0.6	24
R436426	<0.2	28	8400	0.3	0.1	5.5	750	11.5	3.4	0.6	22
R436457	<0.2	29	8400	<0.1	0.1	5.5	750	11.5	3.4	0.65	22
R436488	<0.2	28.5	8400	<0.1	0.1	6	750	12	4	0.65	23
R436529	<0.2	32	8050	0.1	0.1	5	700	8.5	5	0.65	33
R436560	<0.2	28	8300	<0.1	0.1	5.5	750	12.5	4	0.6	28
R440020	<0.2	27	8150	0.1	0.1	5.5	700	12	4.4	0.65	32

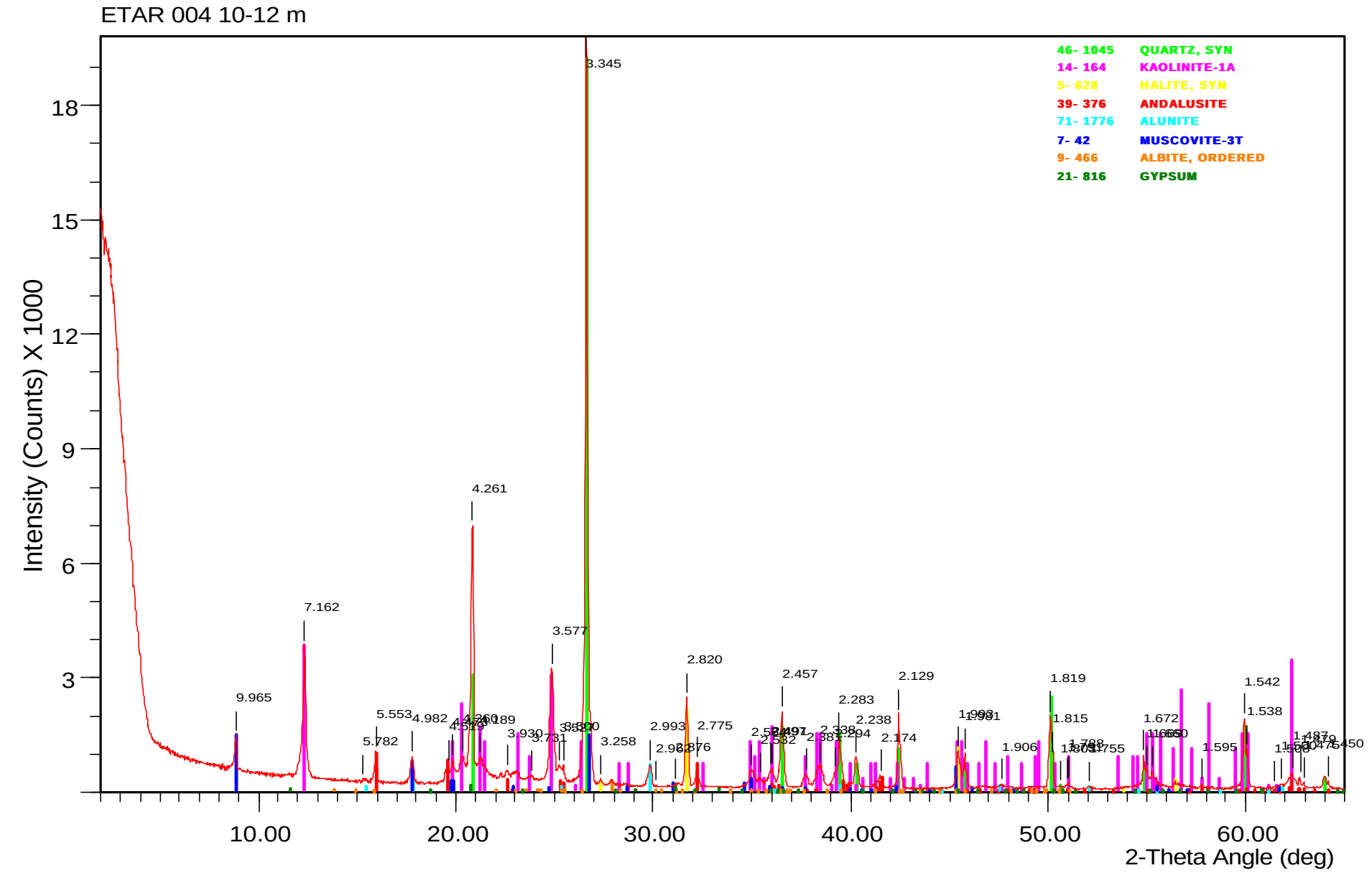
Table A8.7: Tabulated geochemical data for Phase II standards materials.

MESA-no	Sample_id	Zone	E (AMG66)	N (AMG66)	Ag	Au	AuDup	Cu
units					ppb	ppb	ppb	ppb
method					BLEG1C	BLEG1C	BLEG1C	BLEG1C
who					AMDEL	AMDEL	AMDEL	AMDEL
detn limit					0.5	0.05	0.05	100
R435833	STD 7	50	692500	6464000	48	190		2600
R435834	STD 7	50	692500	6464000	40	150		2500
R435865	STD 7	50	692500	6464000	42	180		2700
R435891	STD 7	50	692500	6464000	38	230		3000
R435992	STD 7	50	692500	6464000	50	220		2900
R436023	STD 7	50	692500	6464000	43	190		3000
R436054	STD 7	50	692500	6464000	36	190		2500
R436085	STD 7	50	692500	6464000	35	180		2600
R436116	STD 7	50	692500	6464000	37	180		2600
R436147	STD 7	50	692500	6464000	36	180		2400
R436178	STD 7	50	692500	6464000	36	170		2400
R436209	STD 7	50	692500	6464000	38	170		2900
R436240	STD 7	50	692500	6464000	44	210		2300
R436271	STD 7	50	692500	6464000	40	180		2800
R436302	STD 7	50	692500	6464000	43	180		2700
R436333	STD 7	50	692500	6464000	42	180		2900
R436364	STD 7	50	692500	6464000	56	280		2600
R436395	STD 7	50	692500	6464000	56	210		2600
R436426	STD 7	50	692500	6464000	36	190		2200
R436457	STD 7	50	692500	6464000	47	190		4500
R436488	STD 7	50	692500	6464000	38	170		3100
R436529	STD 7	50	692500	6464000	40	170	180	5100
R436560	STD 7	50	692500	6464000	44	170		1200
R440020	STD 7	50	692500	6464000	37	140		2200
R440030	STD 7	50	692500	6464000	50	270		4400
R440061	STD 7	50	692500	6464000	45	230		4100
R440092	STD 7	50	692500	6464000	50	270		4100
R440123	STD 7	50	692500	6464000	42	240		4200
R440154	STD 7	50	692500	6464000	44	210		4600
R440185	STD 7	50	692500	6464000	64	300		5100
R440216	STD 7	50	692500	6464000	46	190	I.S.	4400
R440247	STD 7	50	692500	6464000	49	220		4900
R440278	STD 7	50	692500	6464000	43	200		4000
R440309	STD 7	50	692500	6464000	43	200		4200
R440340	STD 7	50	692500	6464000	74	360		4100
R440371	STD 7	50	692500	6464000	38	170		4400
R440402	STD 7	50	692500	6464000	39	230		3500
R440433	STD 7	50	692500	6464000	37	210		3700
R440464	STD 7	50	692500	6464000	50	410		3400
R440495	STD 7	50	692500	6464000	38	220		3600
R440526	STD 7	50	692500	6464000	13	4.5		4600
R440557	STD 7	50	692500	6464000	72	490		5600
R440588	STD 7	50	692500	6464000	361	1650		4600
R440619	STD 7	50	692500	6464000	130	1240		4500
R440650	STD 7	50	692500	6464000	47	220		5900
R440681	STD 7	50	692500	6464000	44	250		4100
R440712	STD 7	50	692500	6464000	44	270		3600
R440743	STD 7	50	692500	6464000	51	300		3300
R440774	STD 7	50	692500	6464000	36	220		3400
R440805	STD 7	50	692500	6464000	41	300		3500
R440836	STD 7	50	692500	6464000	43	180		4800
R440867	STD 7	50	692500	6464000	39	200		4500
R440898	STD 7	50	692500	6464000	42	270		5200
R440929	STD 7	50	692500	6464000	48	290		4600
R440960	STD 7	50	692500	6464000	38	260		4300
R440991	STD 7	50	692500	6464000	43	230		5600
R446080	STD 7	50	692500	6464000	48	260		6400
R446111	STD 7	50	692500	6464000	46	230		5700
R446142	STD 7	50	692500	6464000	51	230		4400
R446173	STD 7	50	692500	6464000	54	290		3800
R446204	STD 7	50	692500	6464000	43	220		4200
R446235	STD 7	50	692500	6464000	48	260		3600
R446266	STD 7	50	692500	6464000	41	180		3900
R446465	STD 7	50	692500	6464000	42	210		4200
R446496	STD 7	50	692500	6464000	44	200		4600
R446527	STD 7	50	692500	6464000	52	200		4100
R447879	STD 7	50	692500	6464000	45	290		4100

Appendix 9: Regolith map

Regolith map can be found in the plastic sleeve of the report.

Appendix 10: Selected XRD



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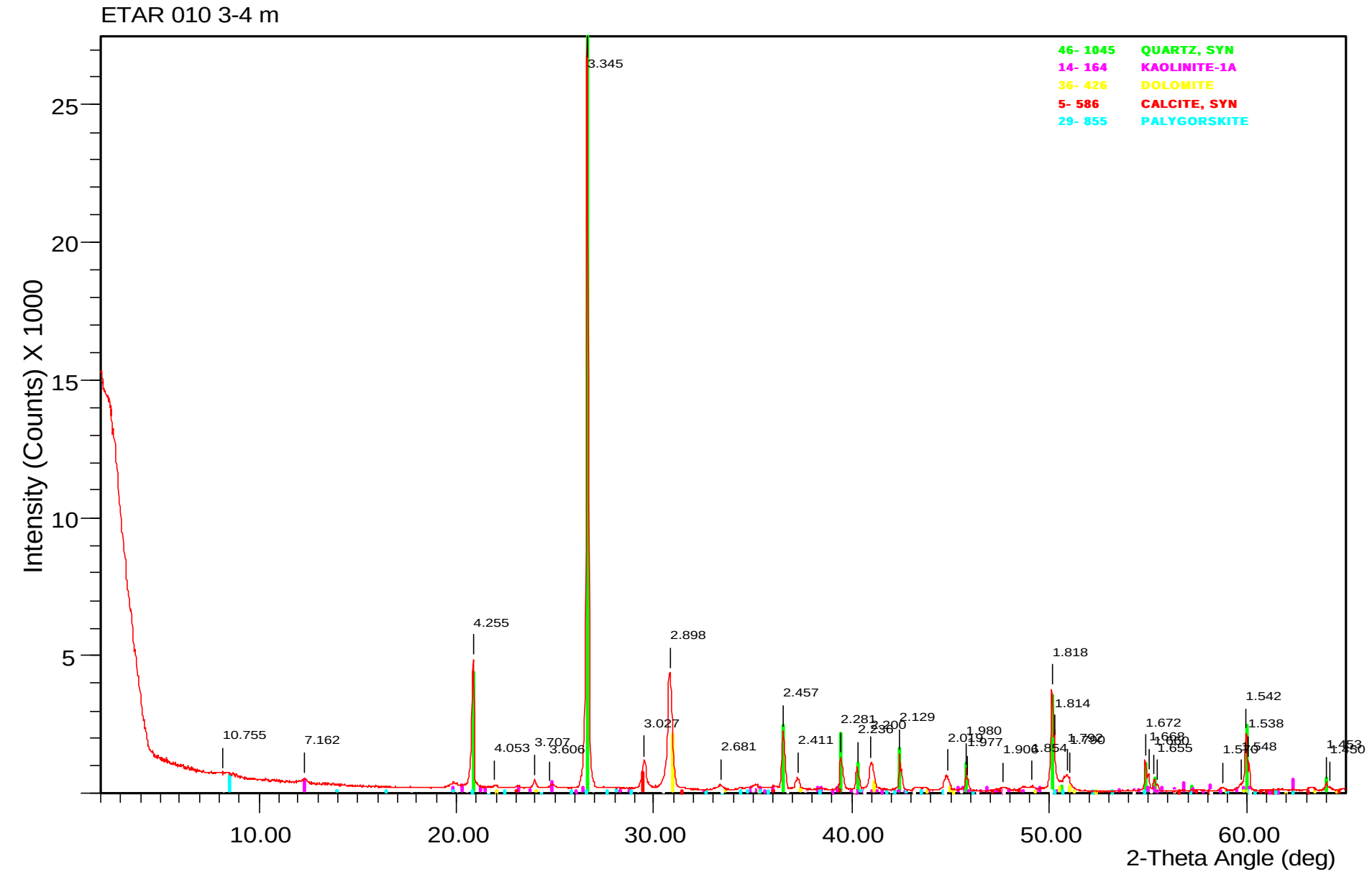

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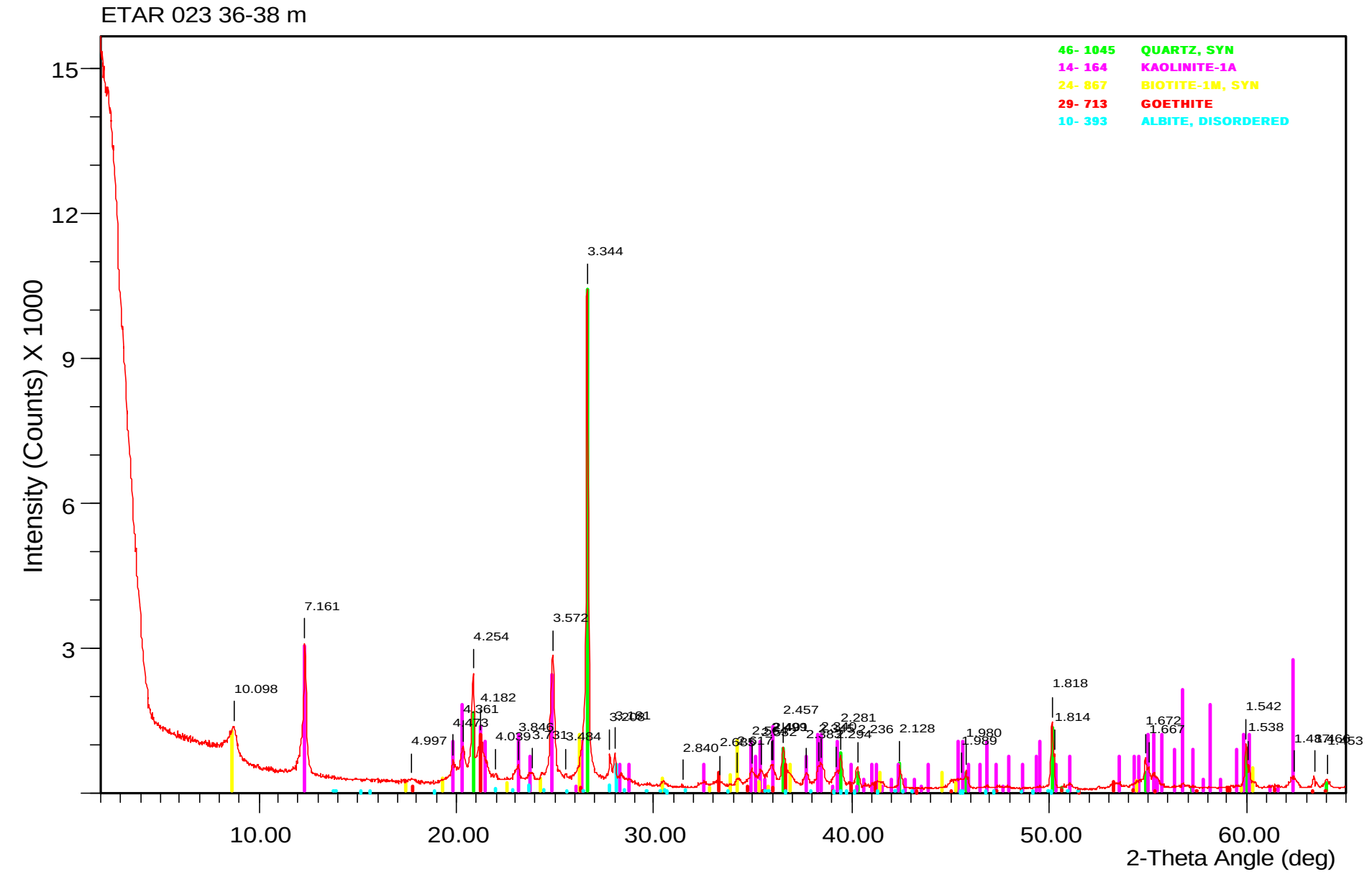

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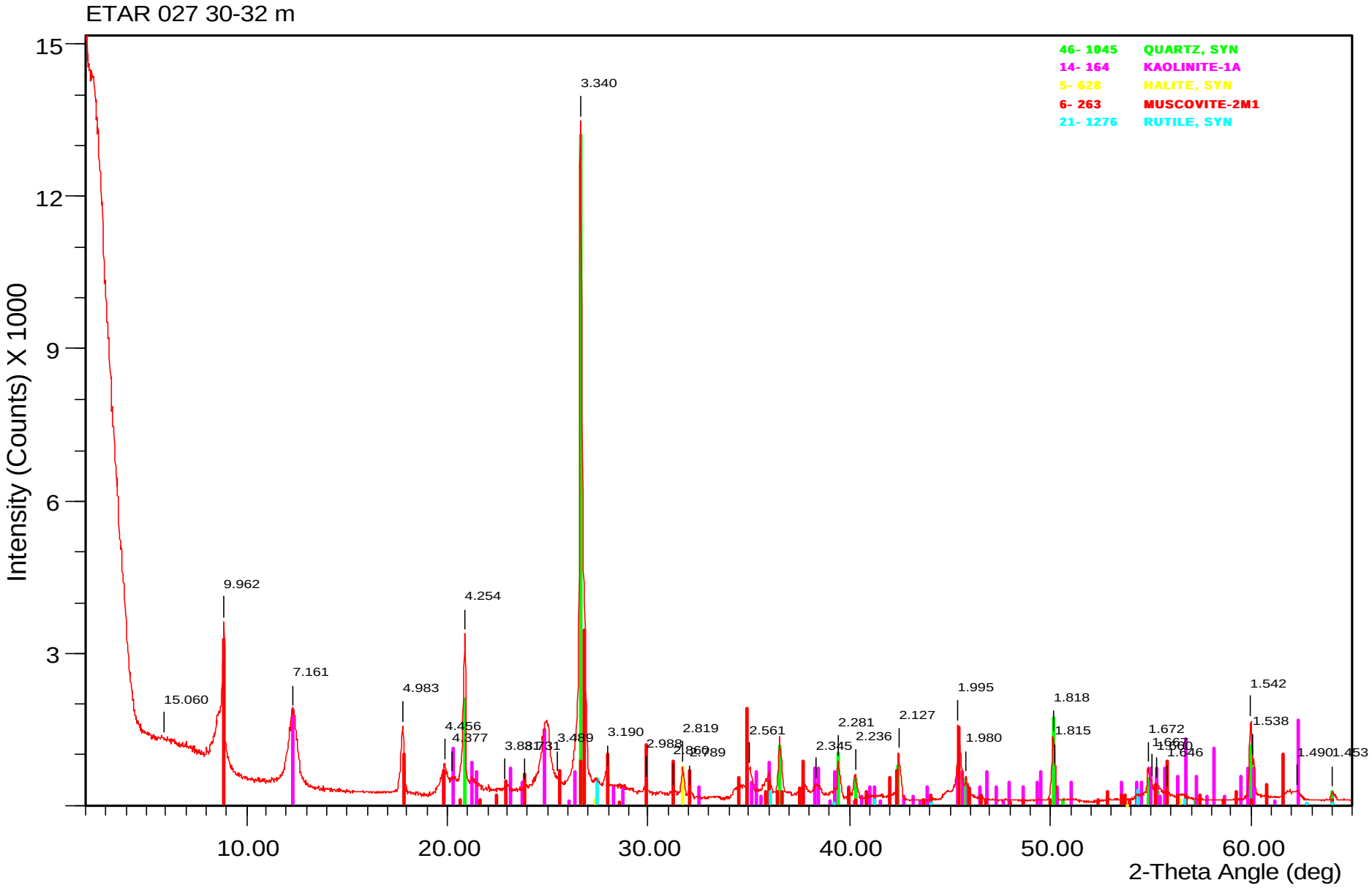

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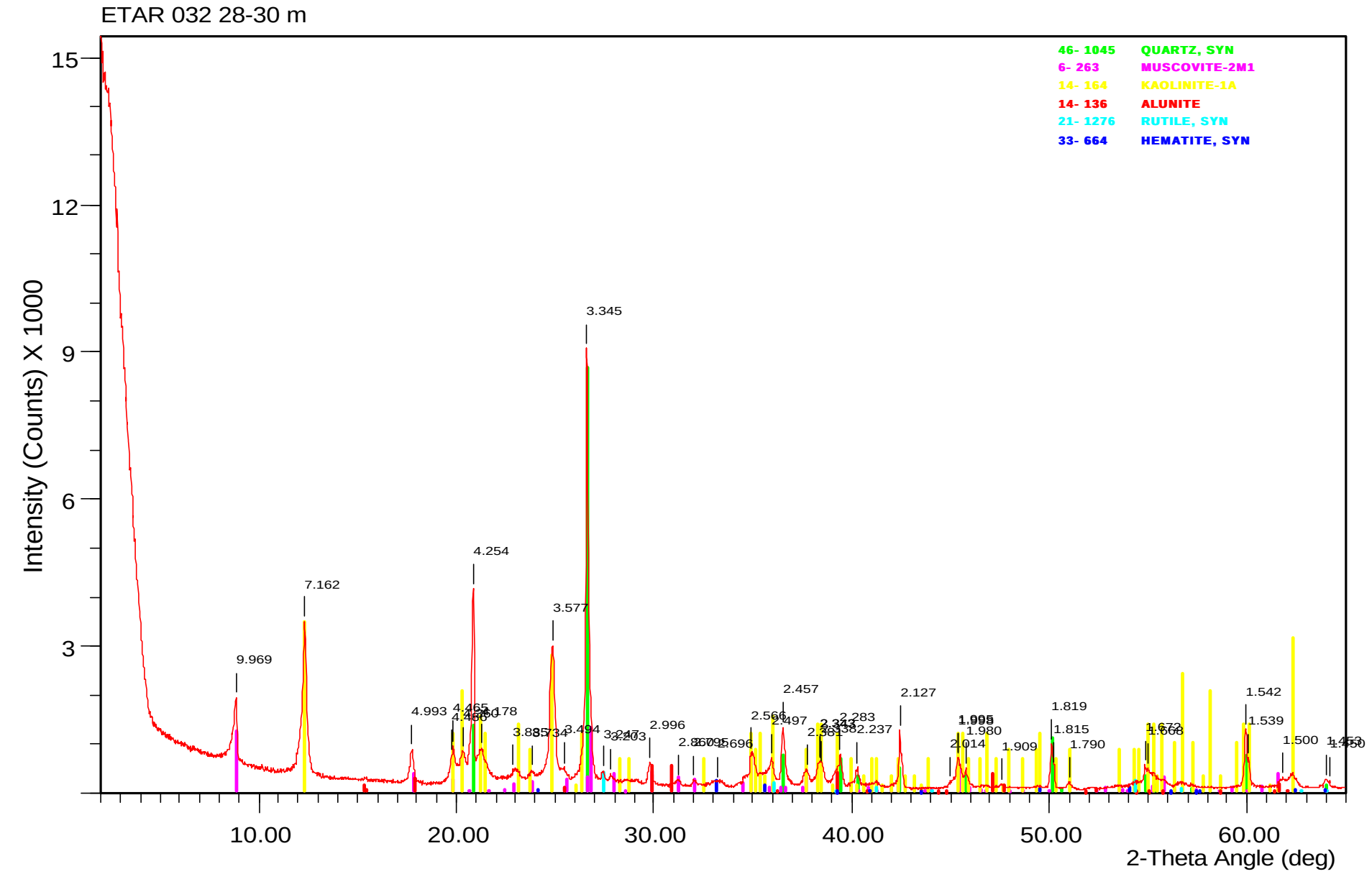

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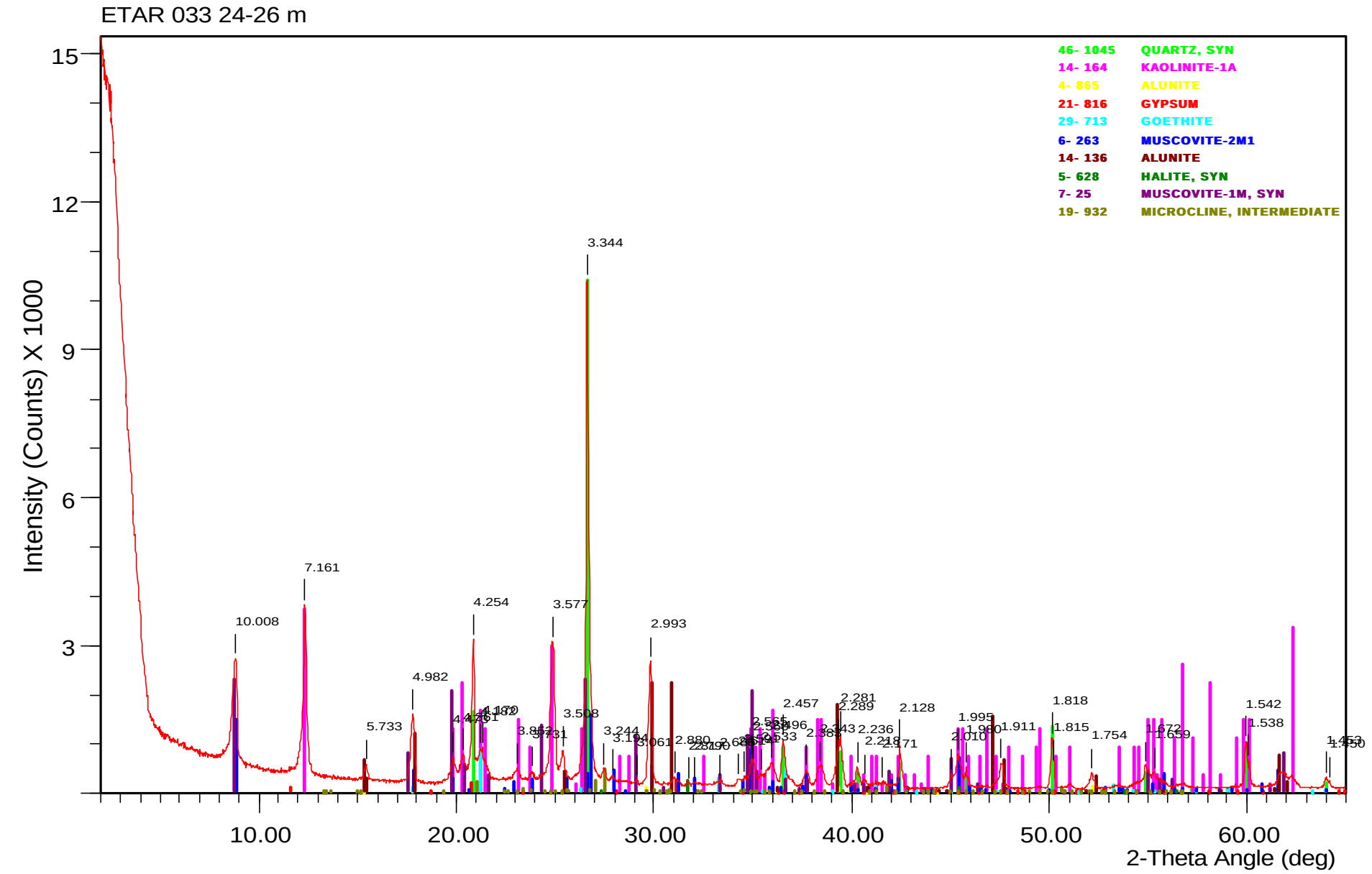

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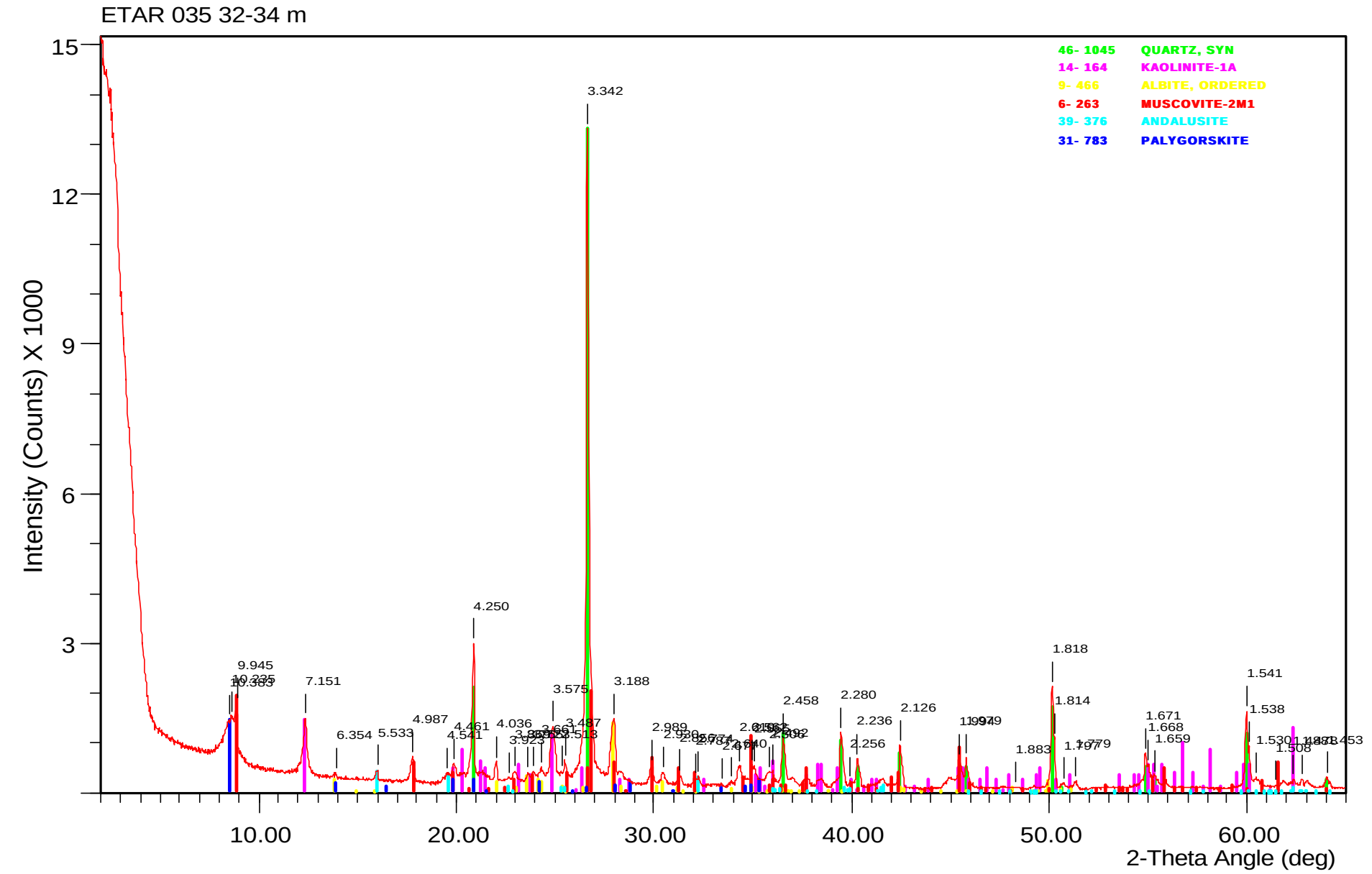

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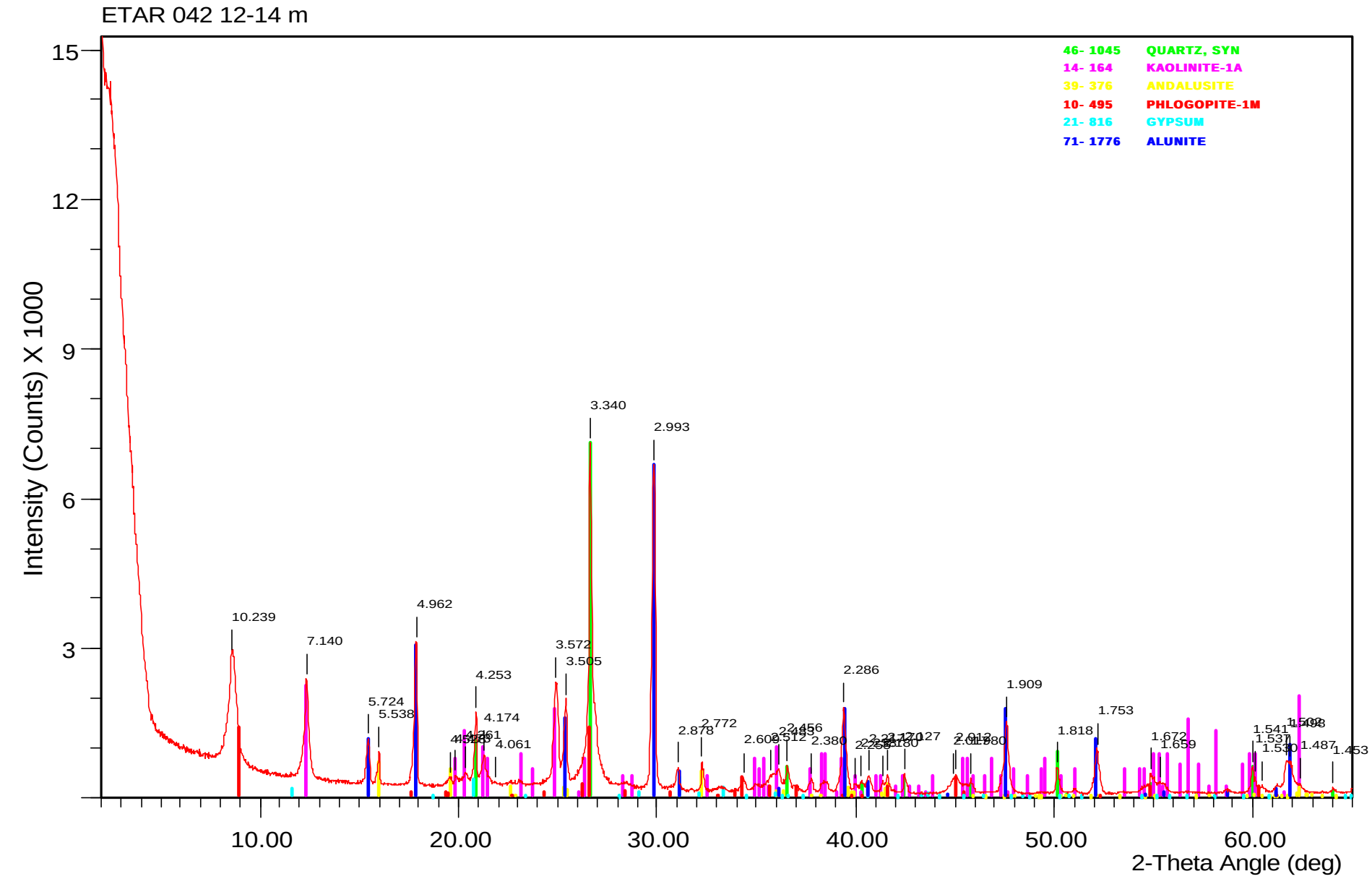

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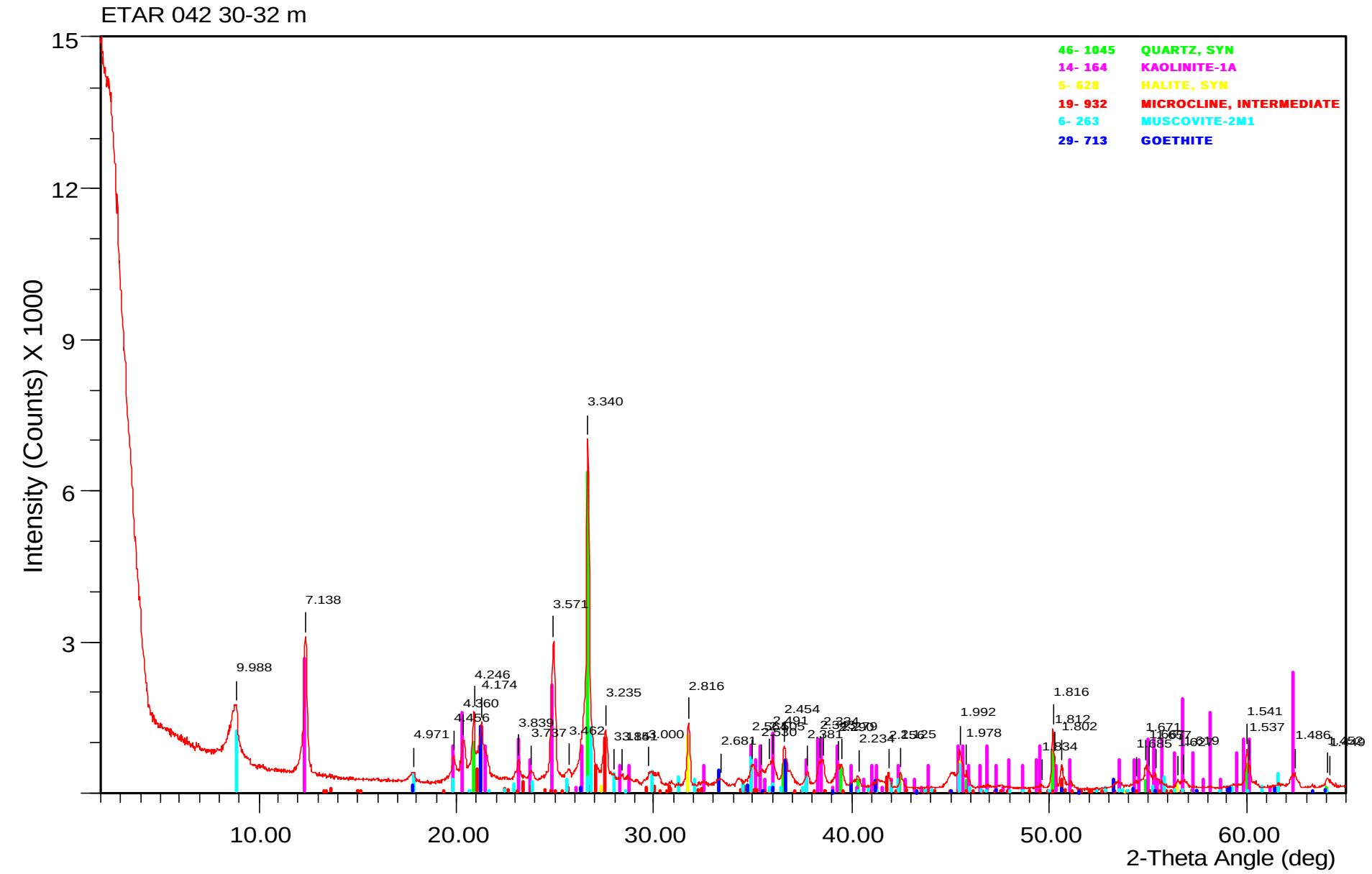

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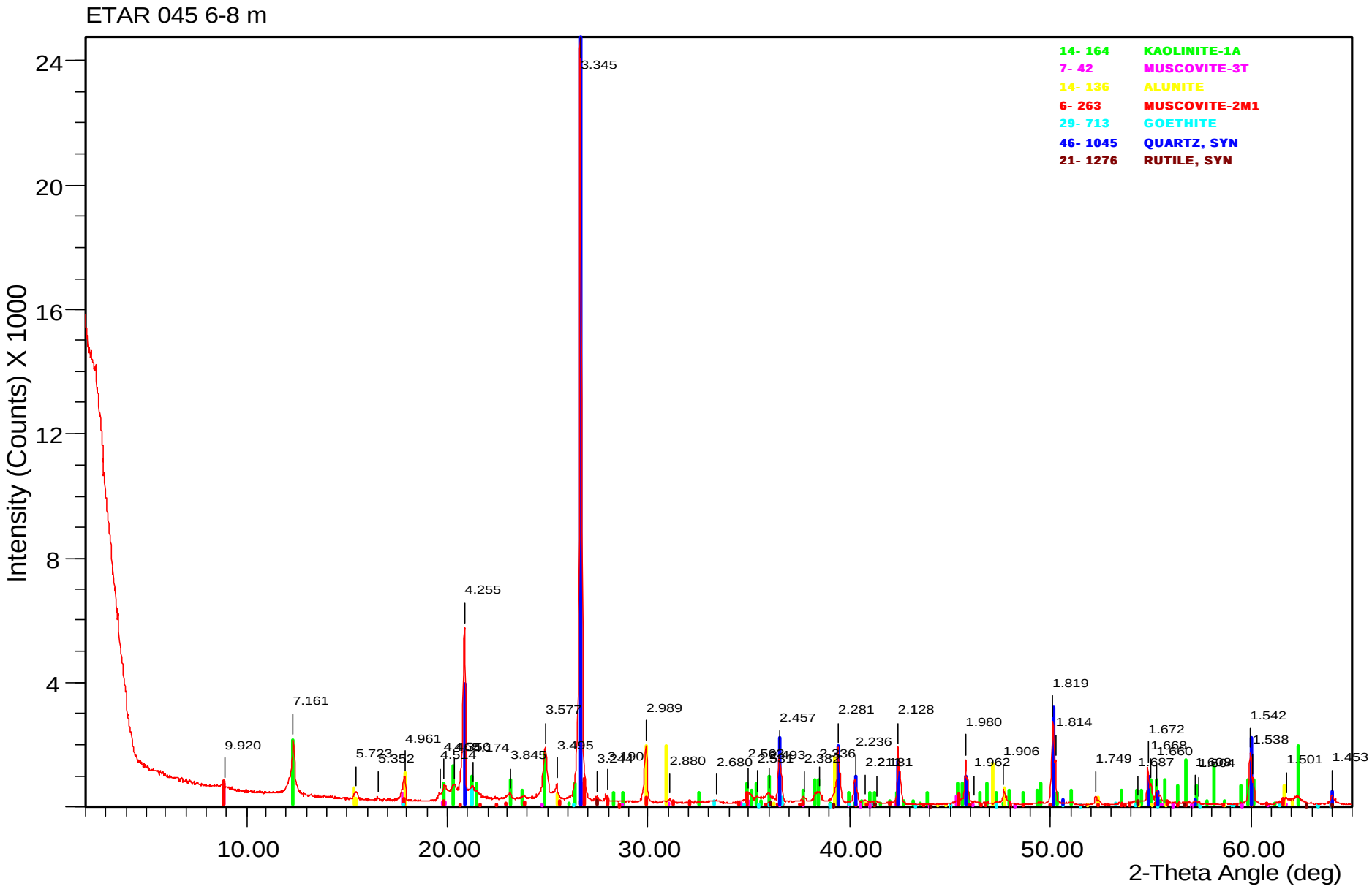

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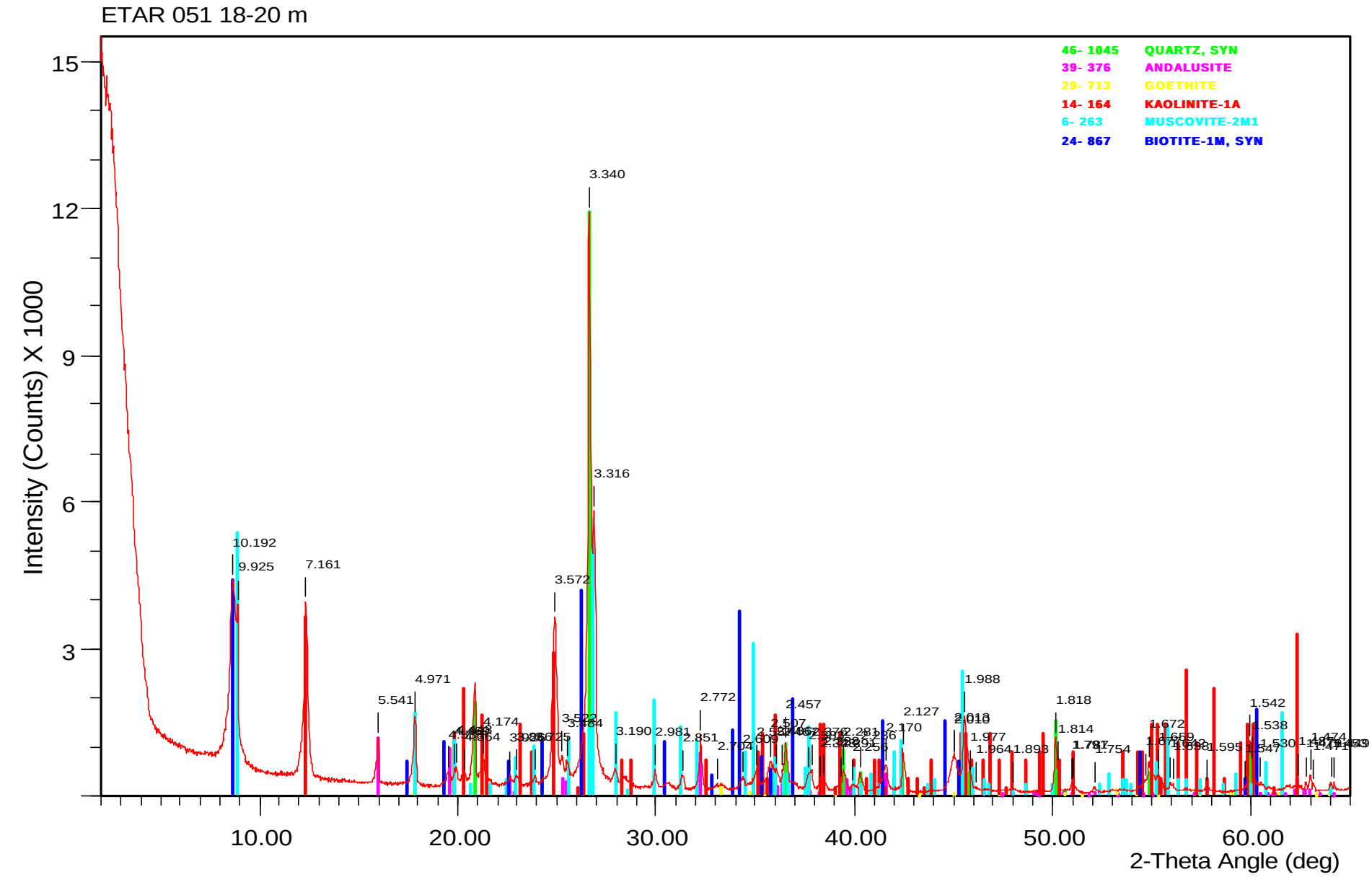

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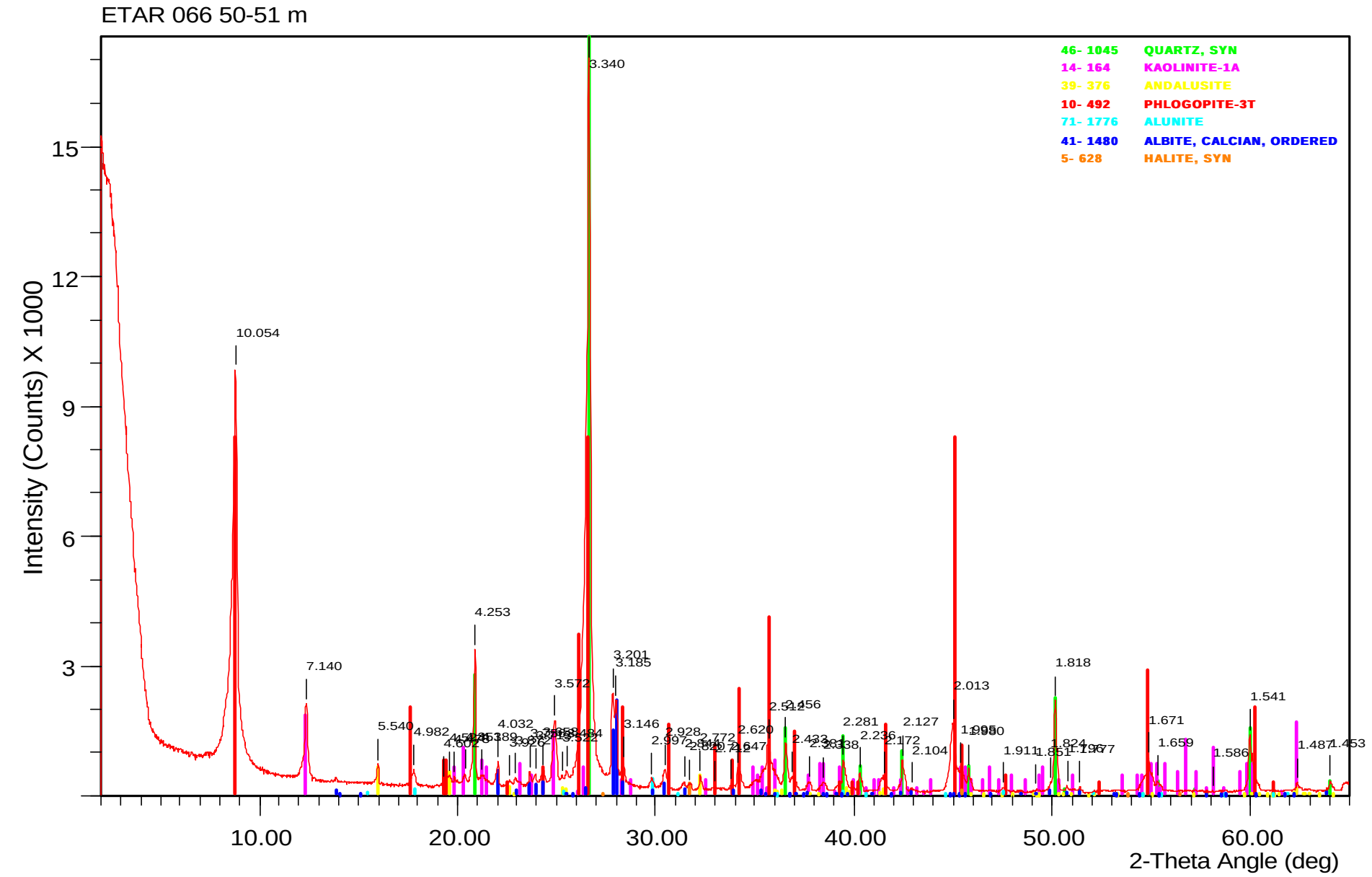

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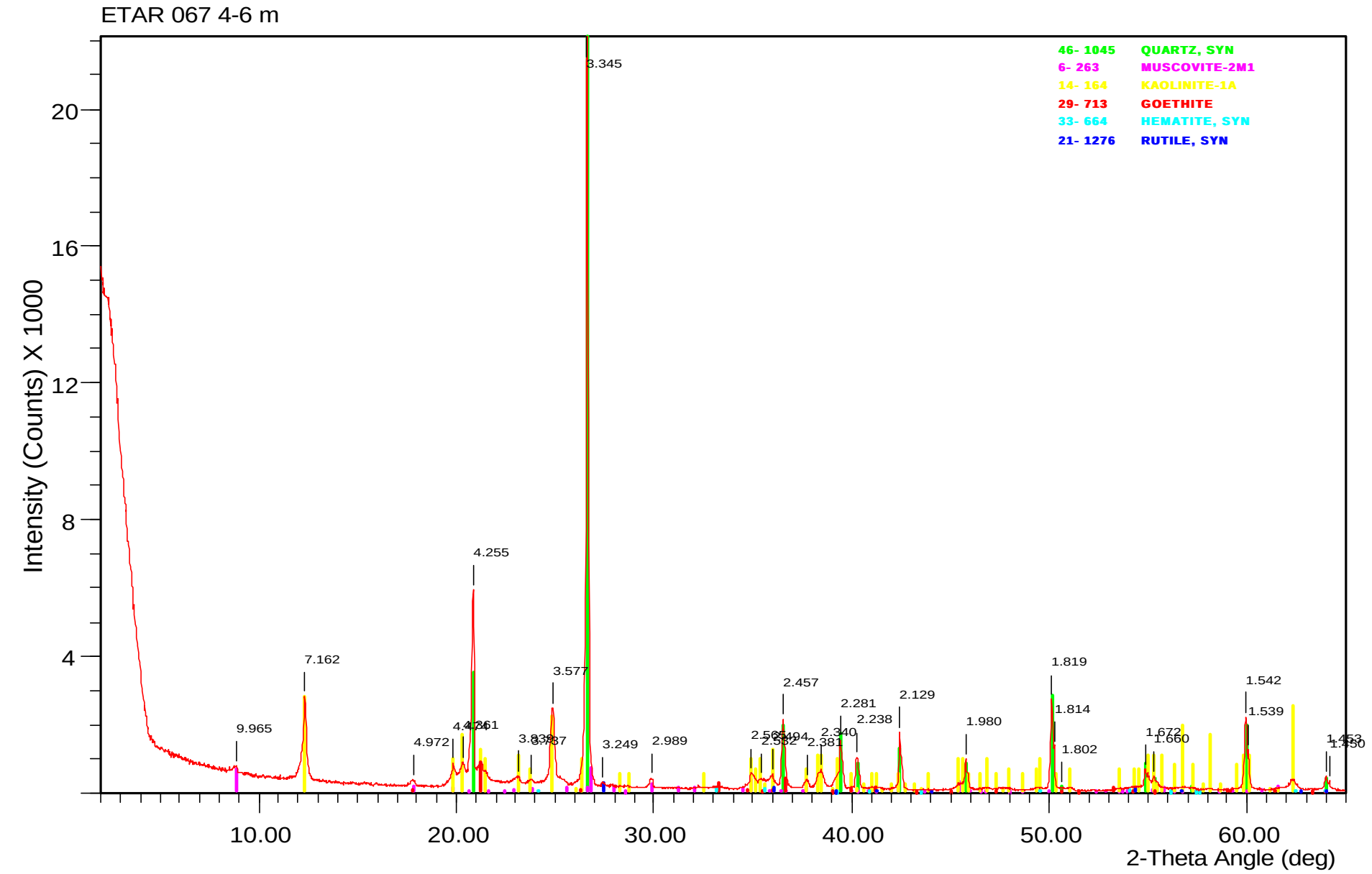

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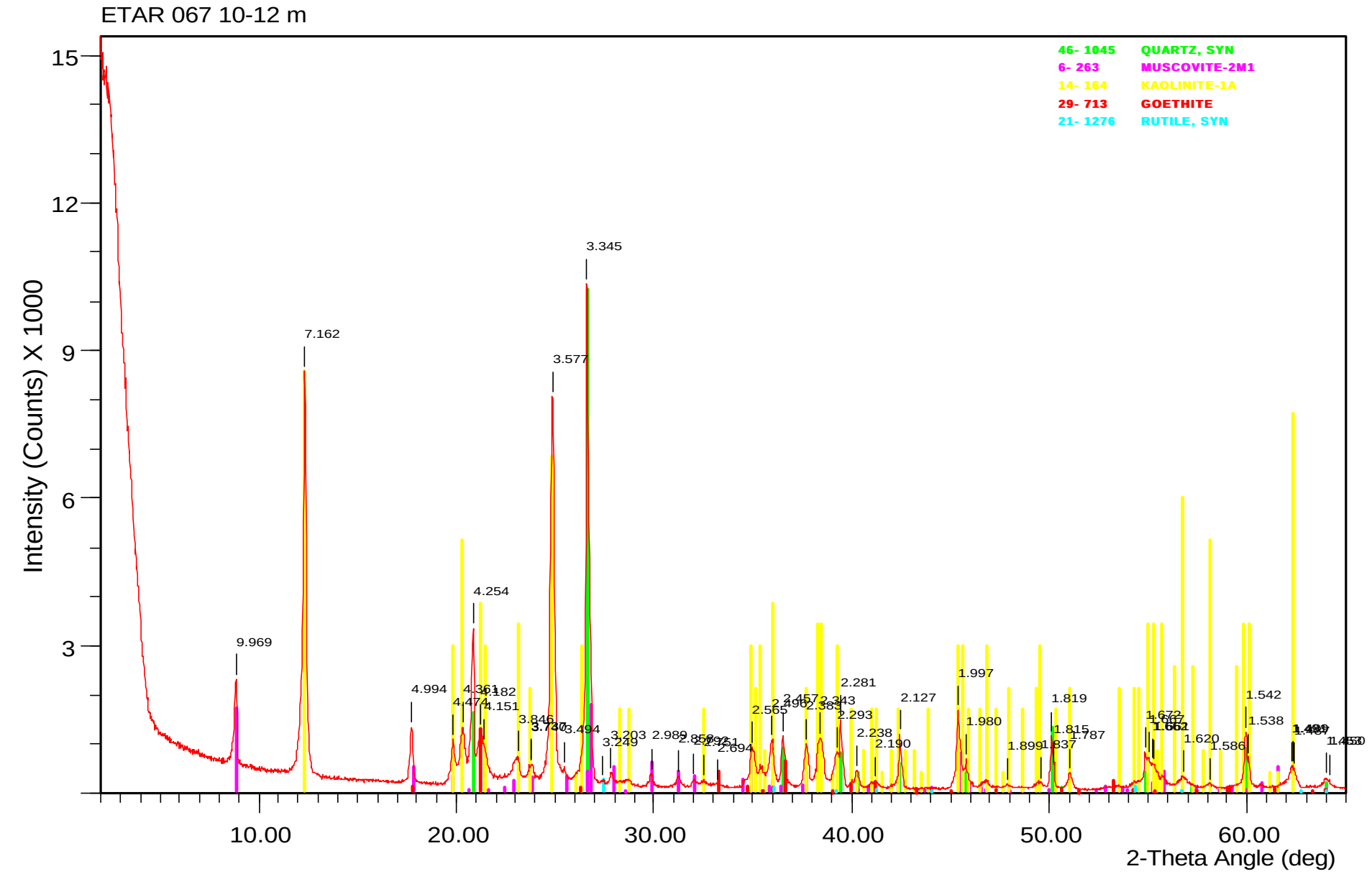

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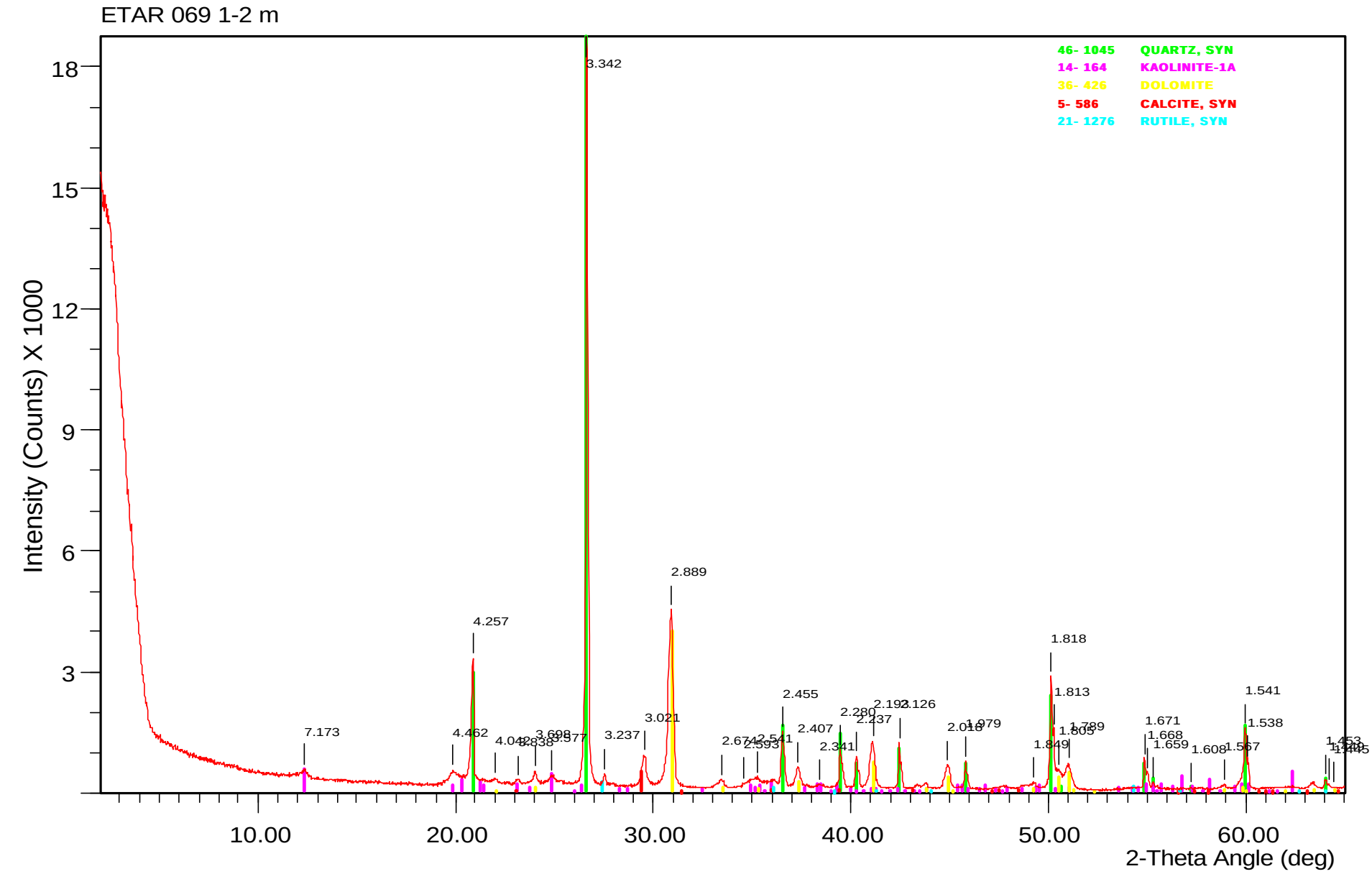

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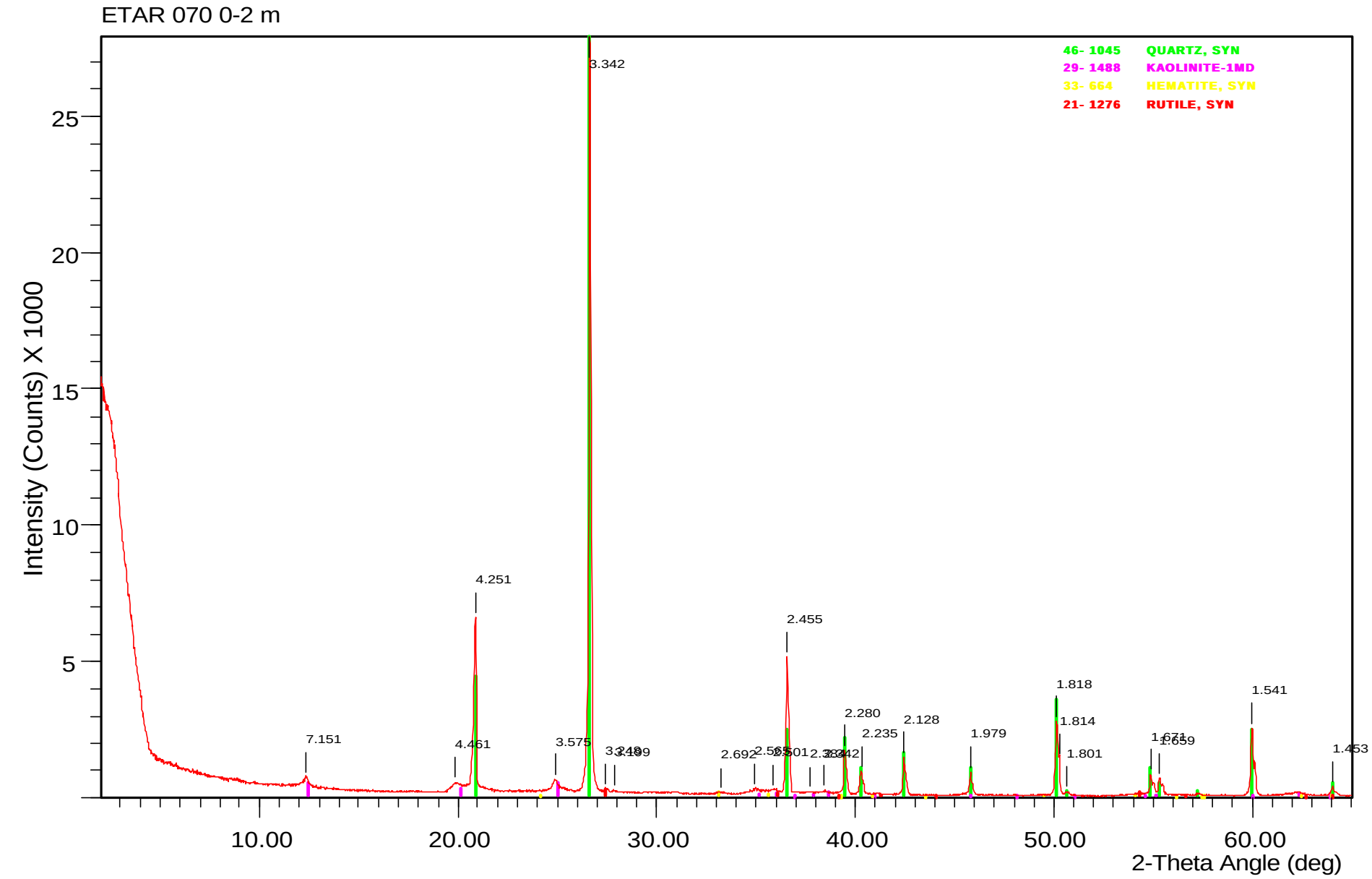

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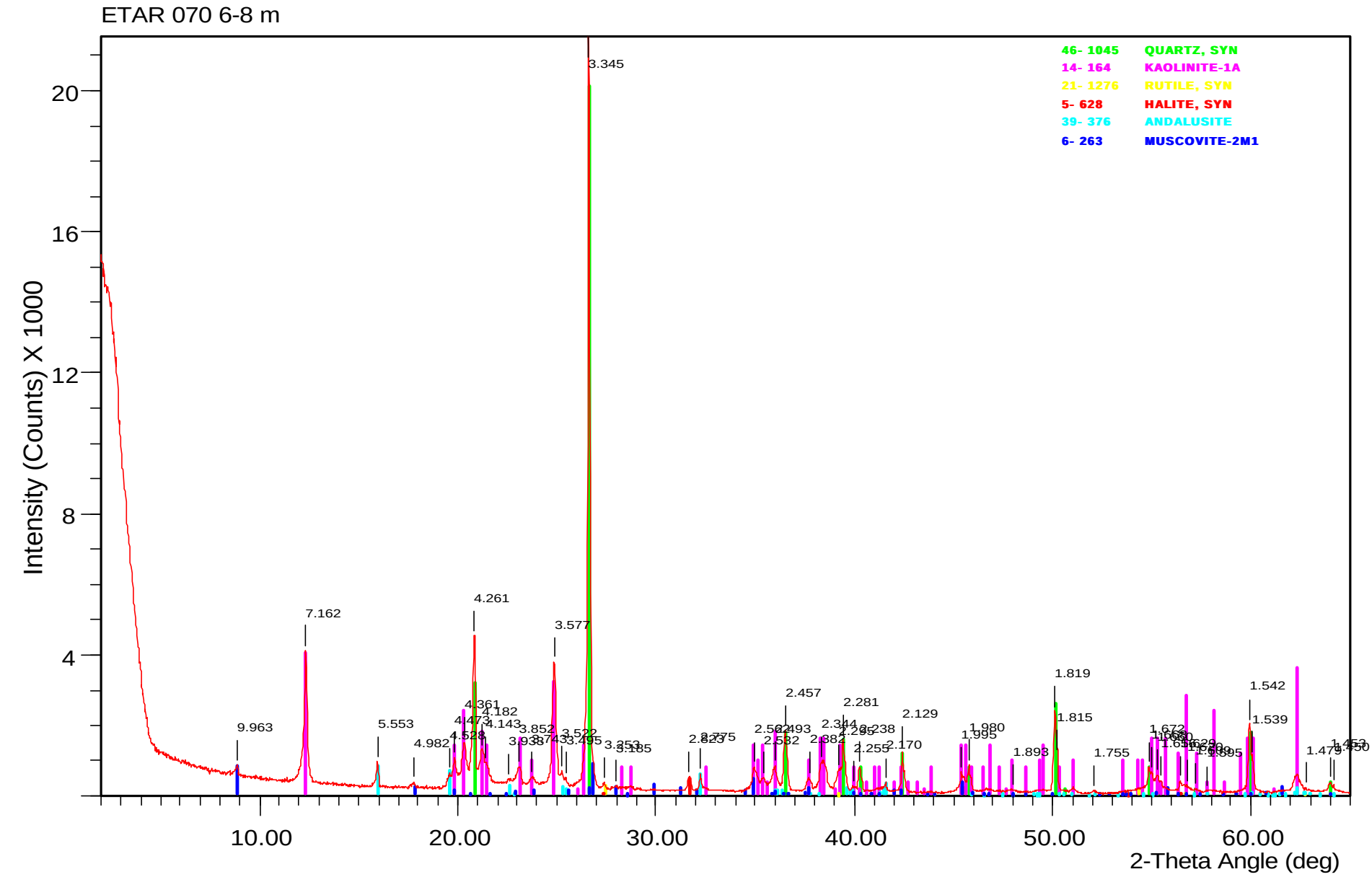

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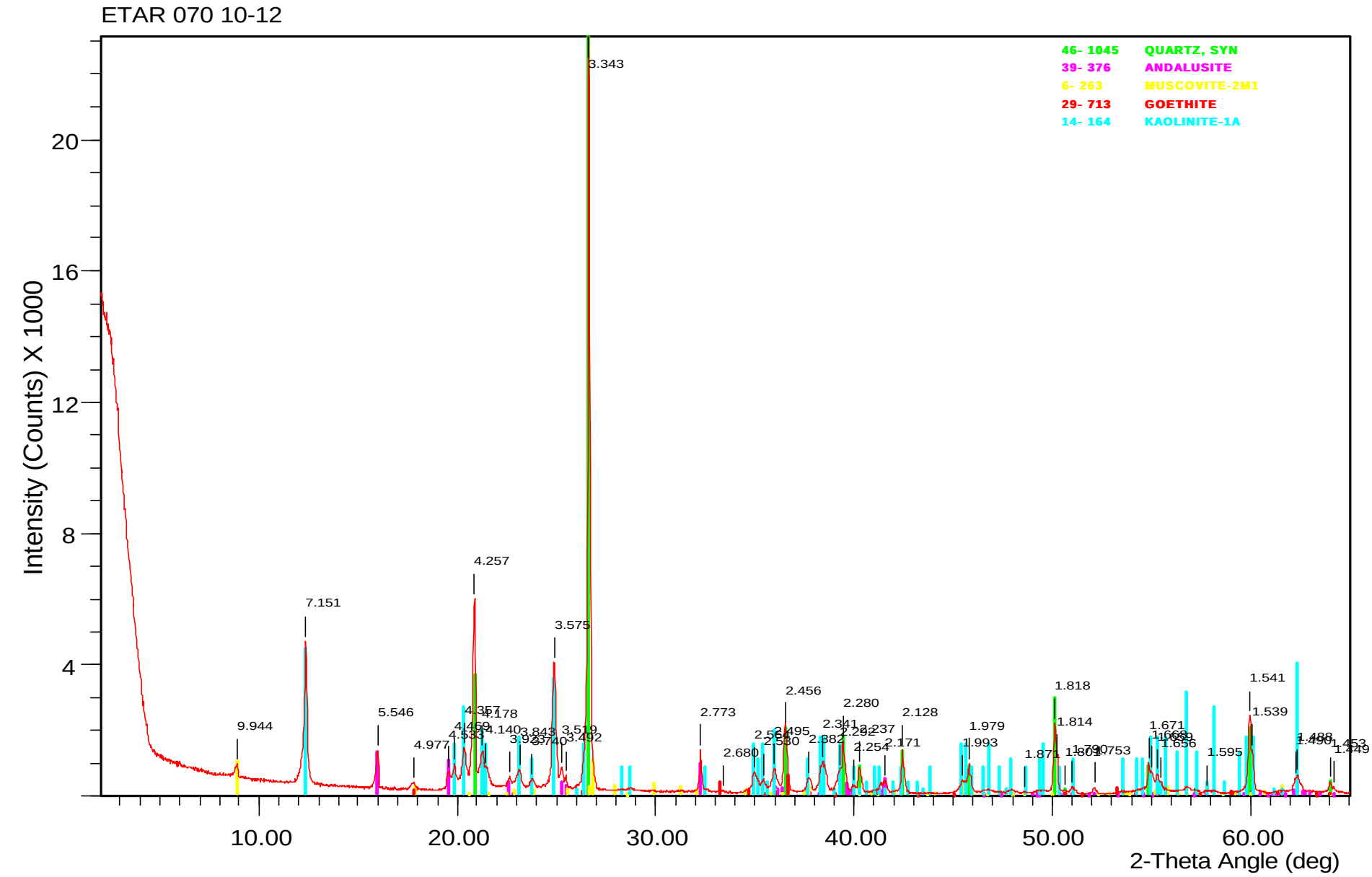

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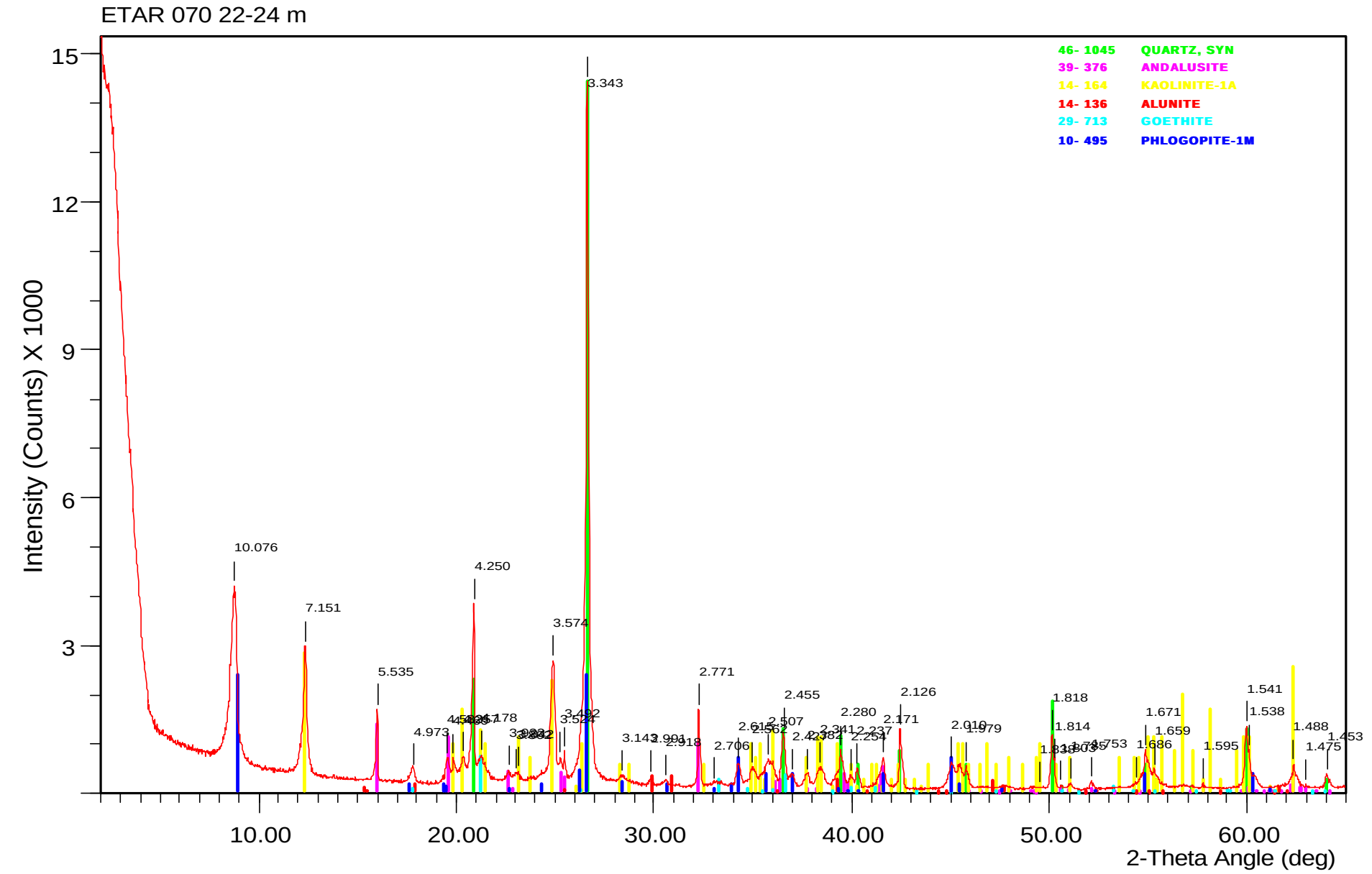

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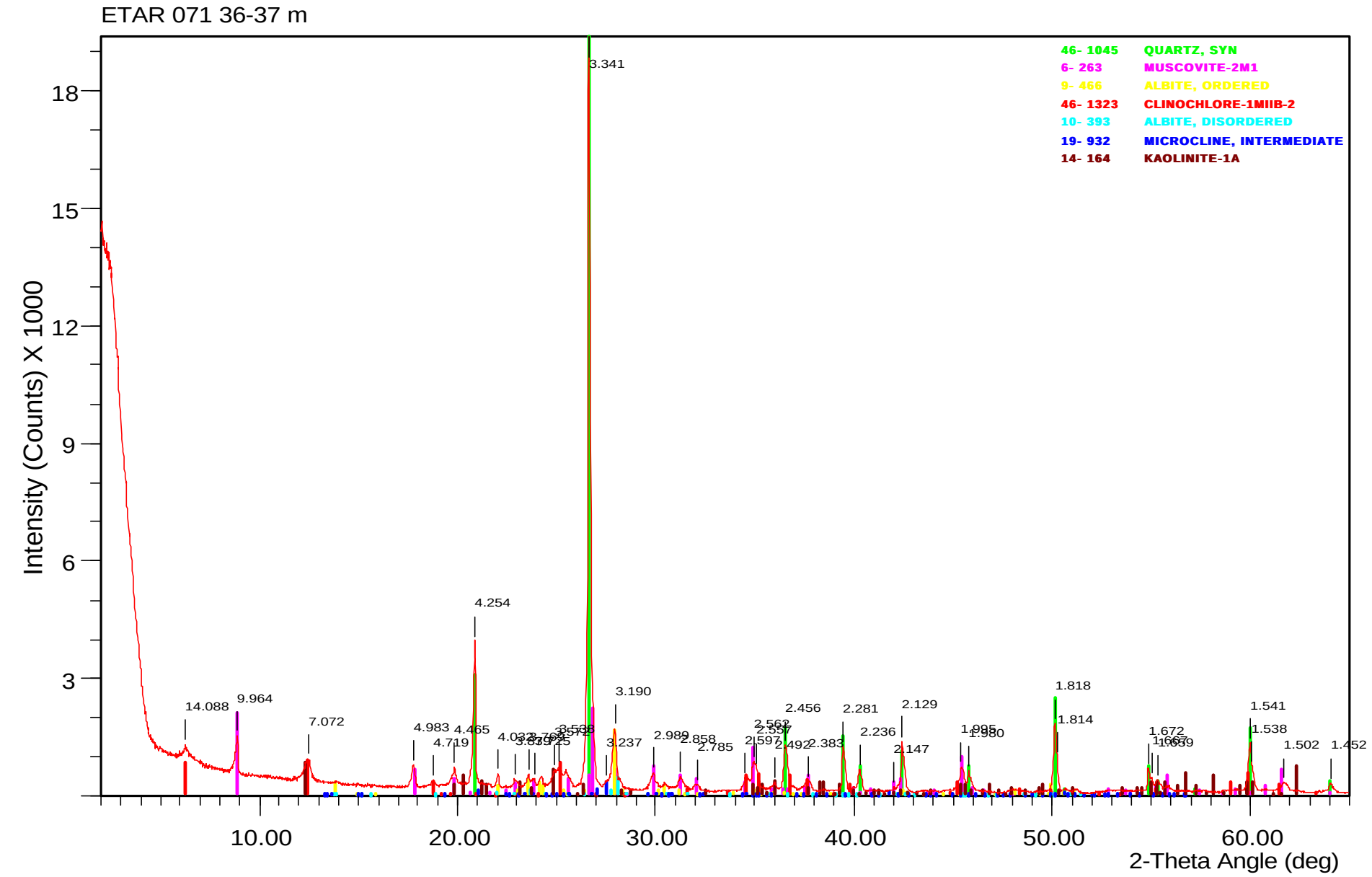

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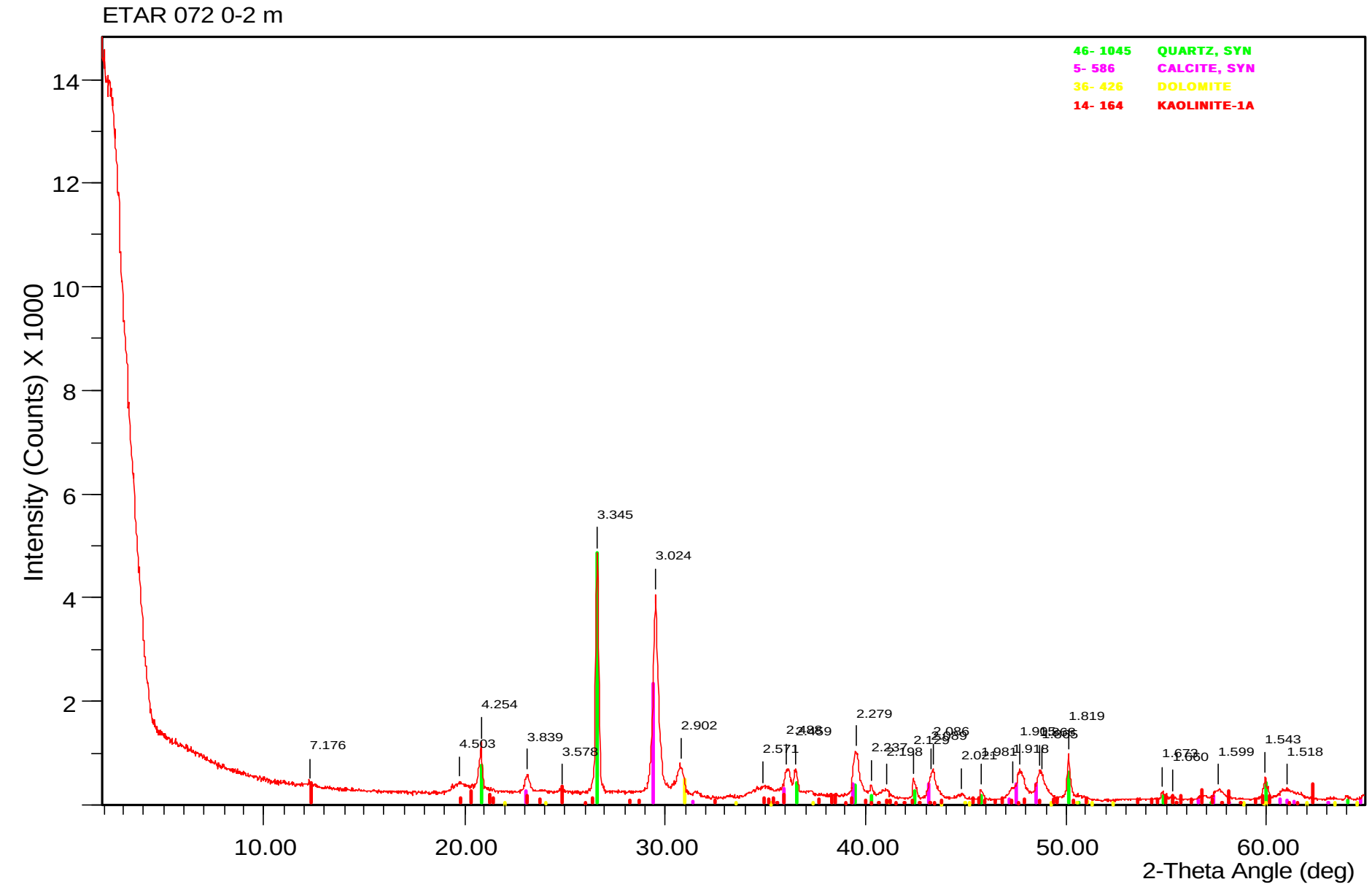

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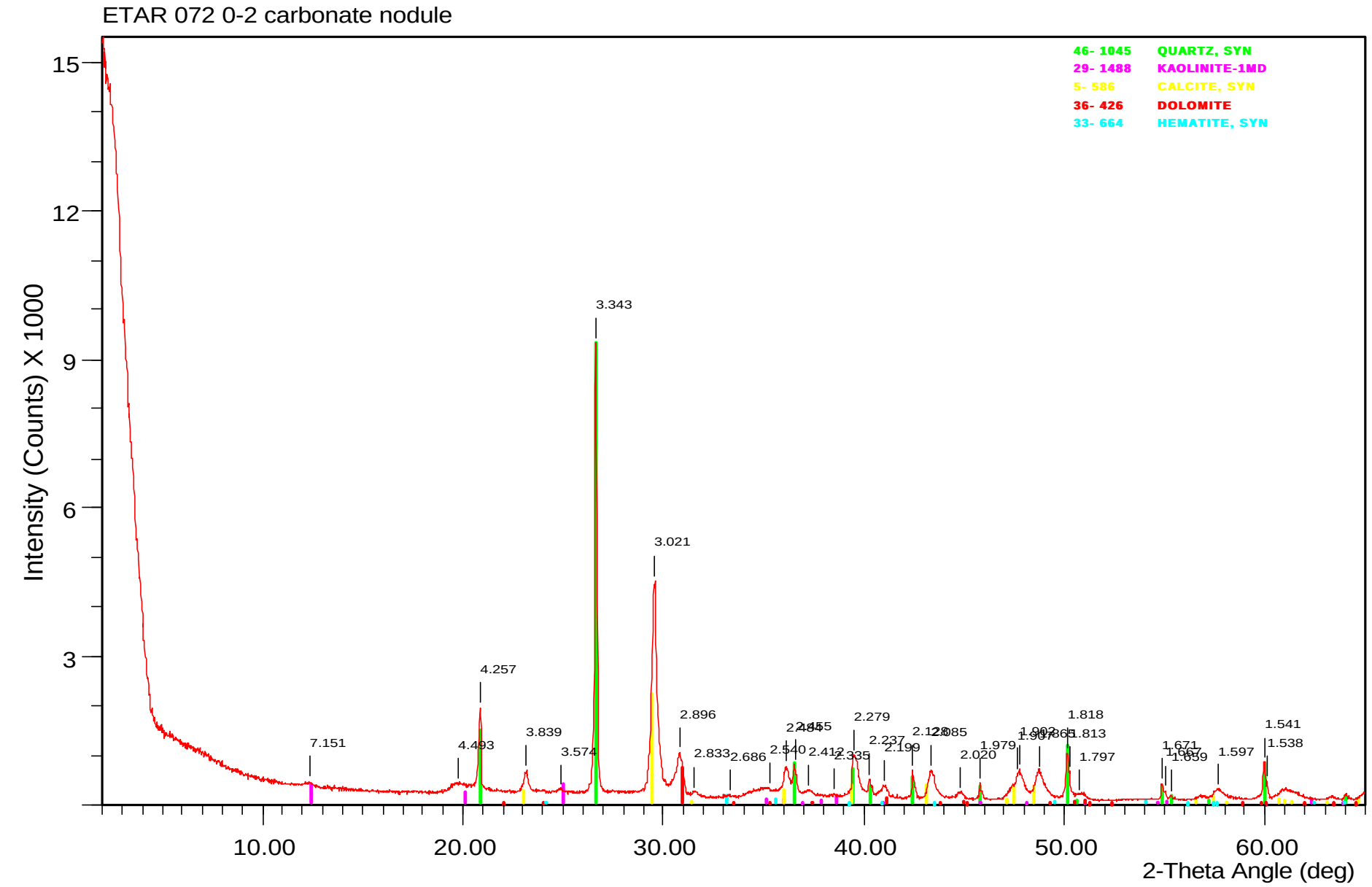

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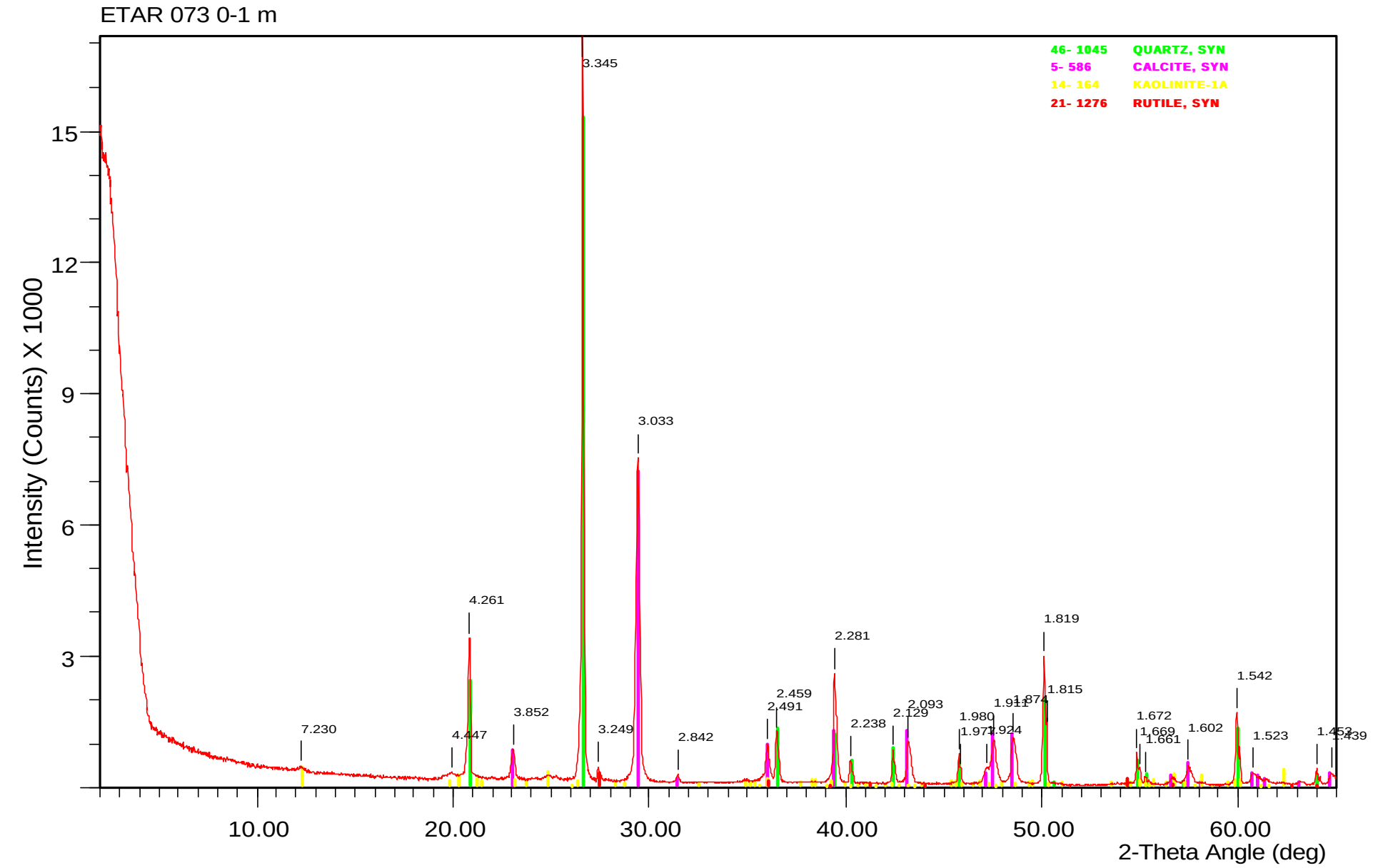

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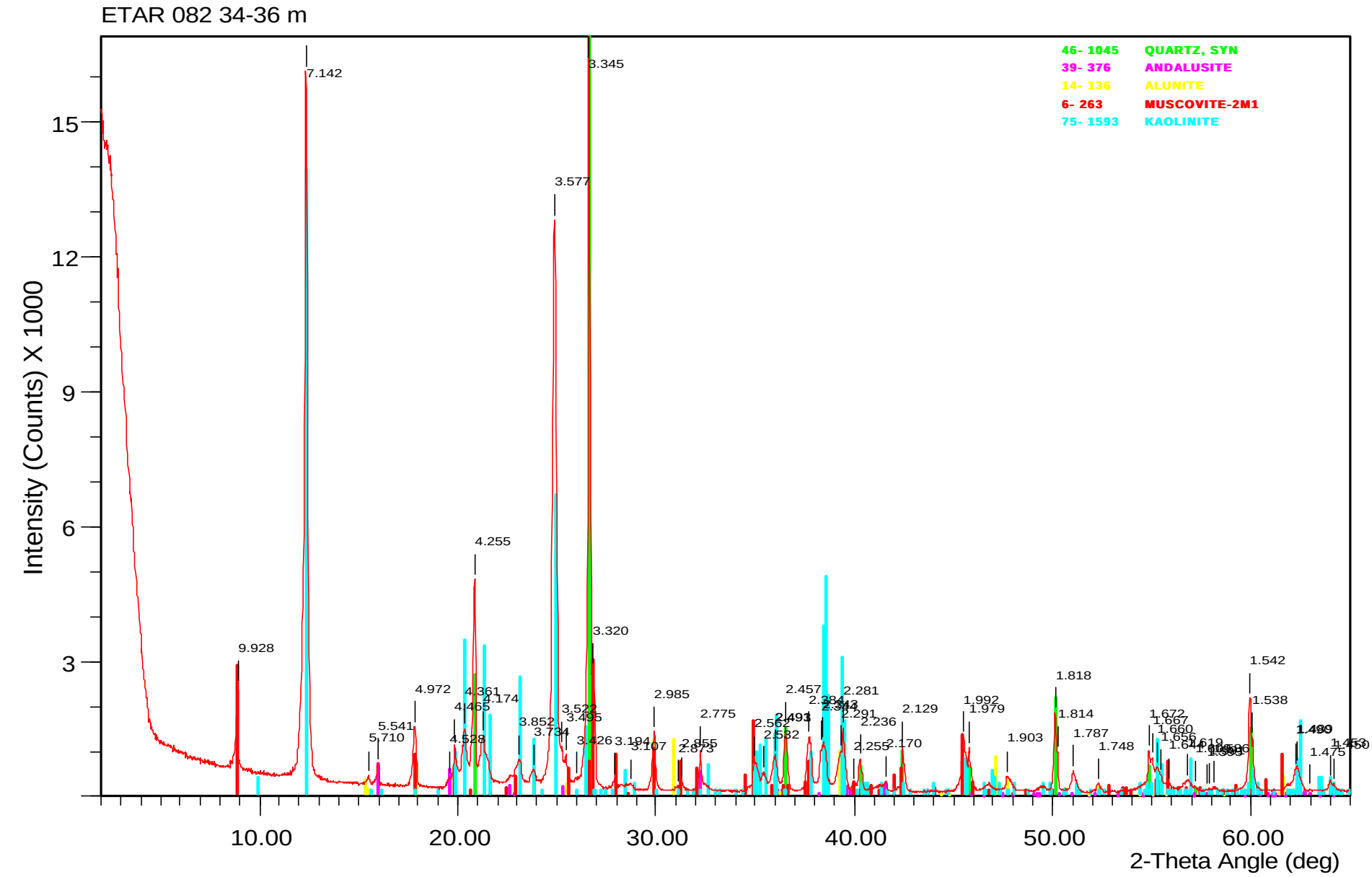

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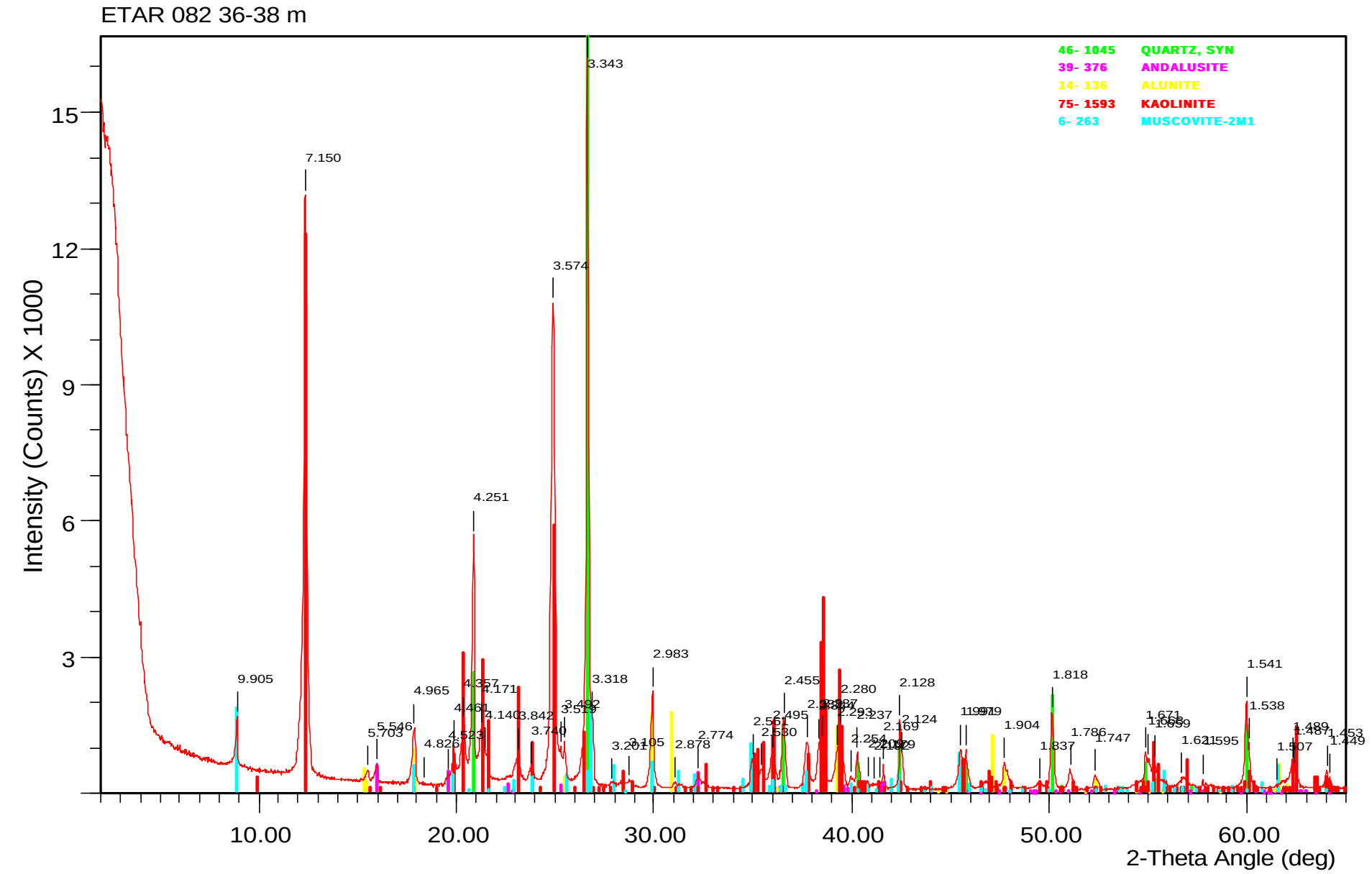

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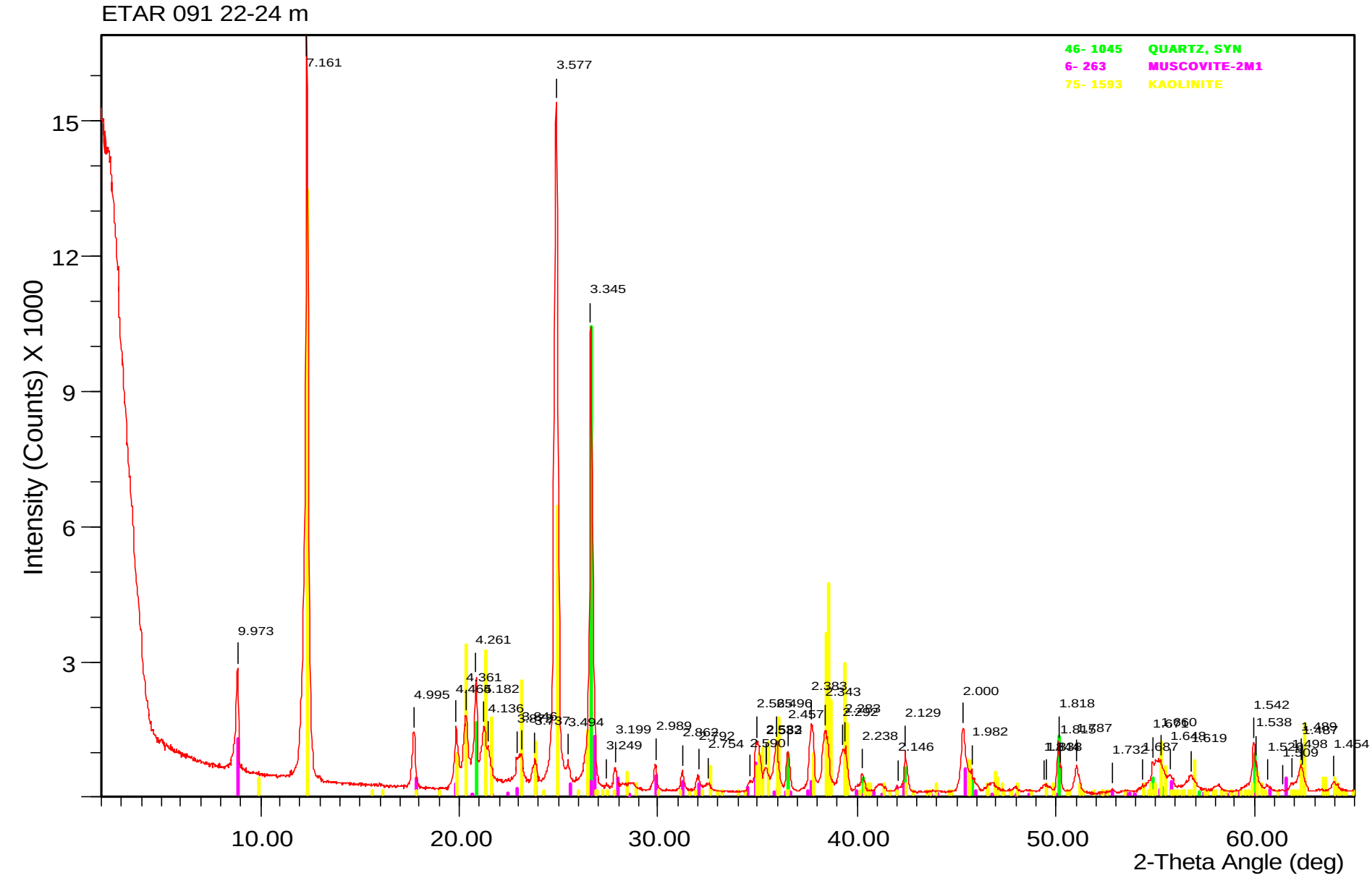

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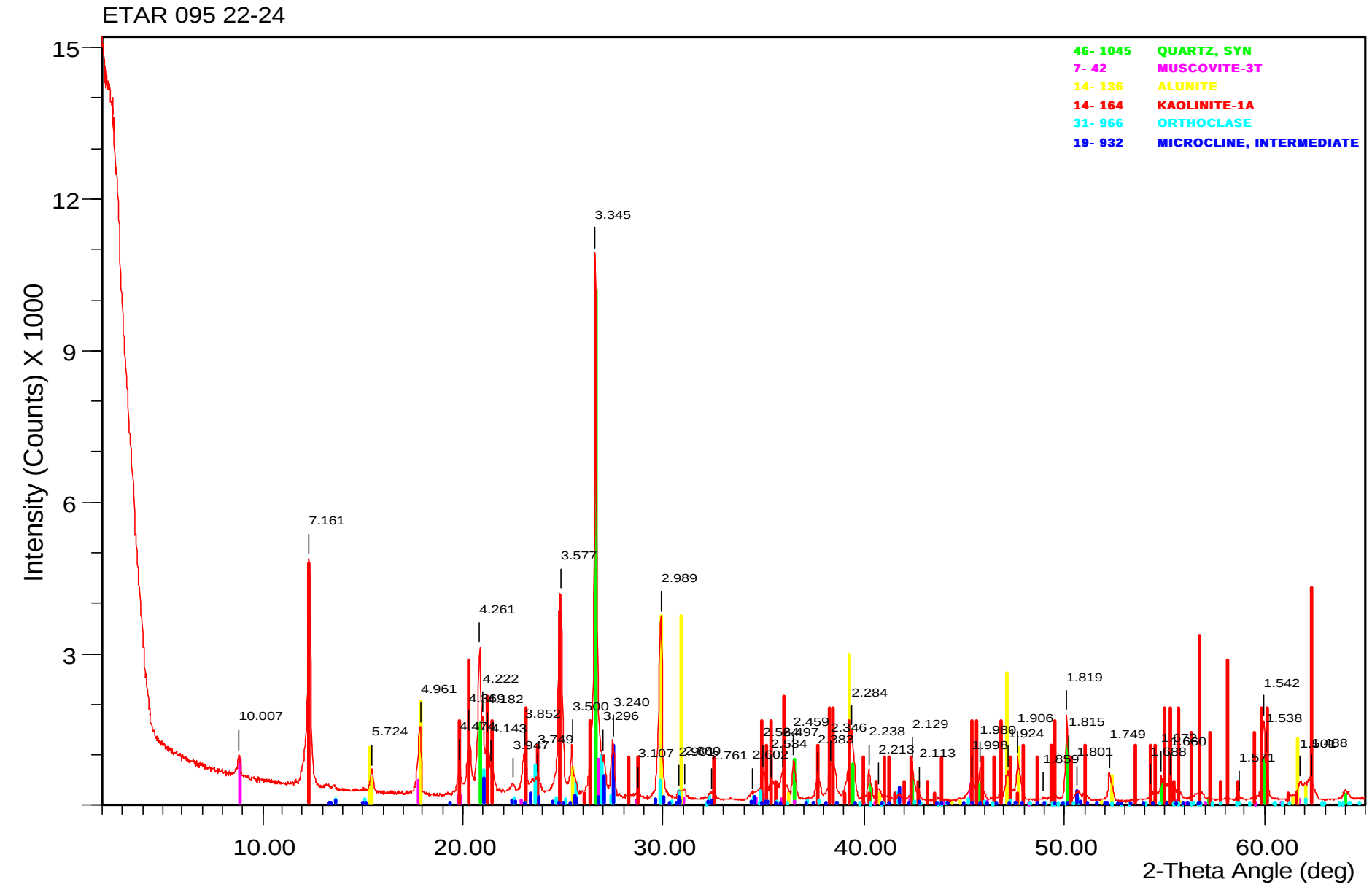

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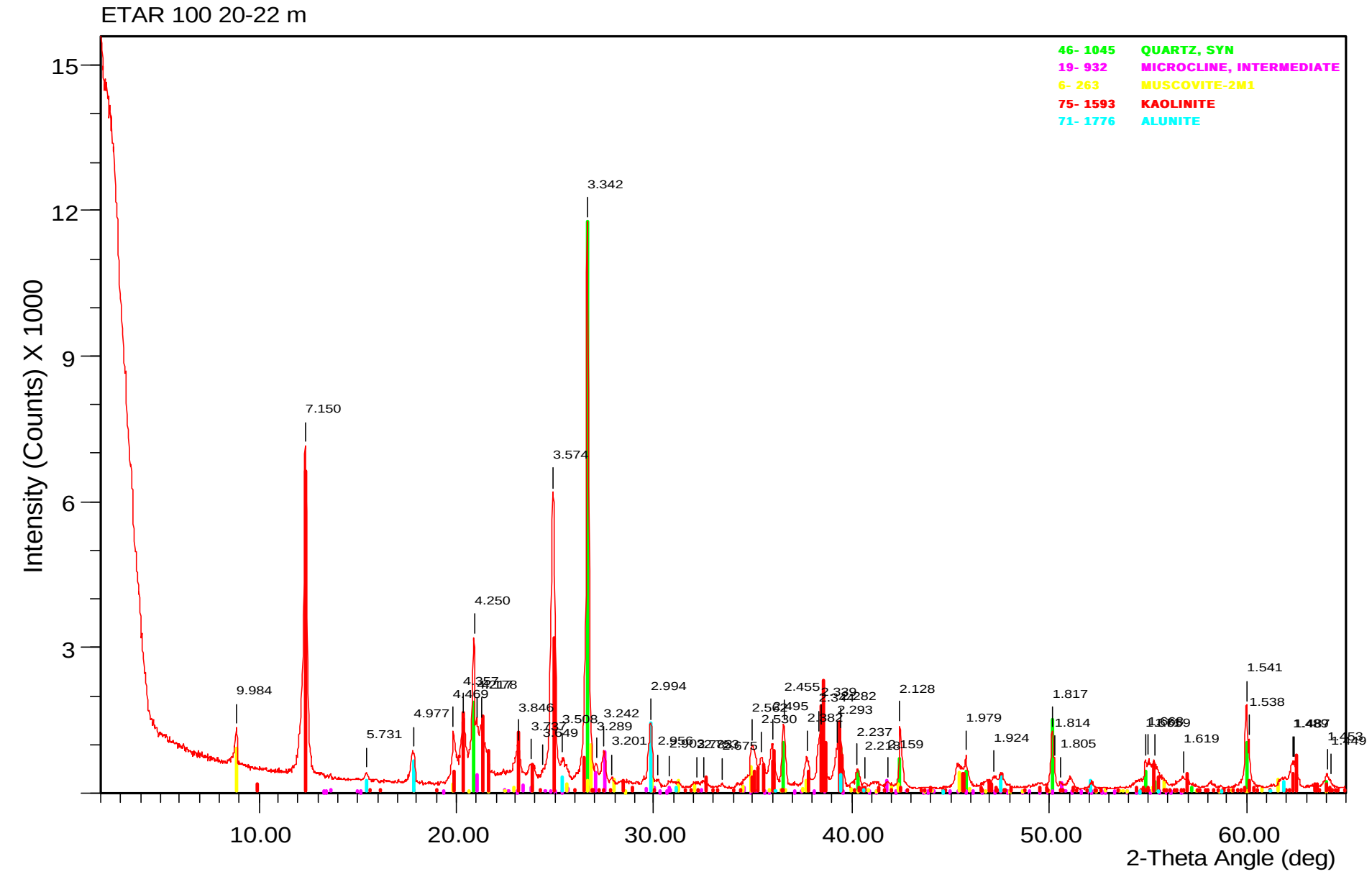

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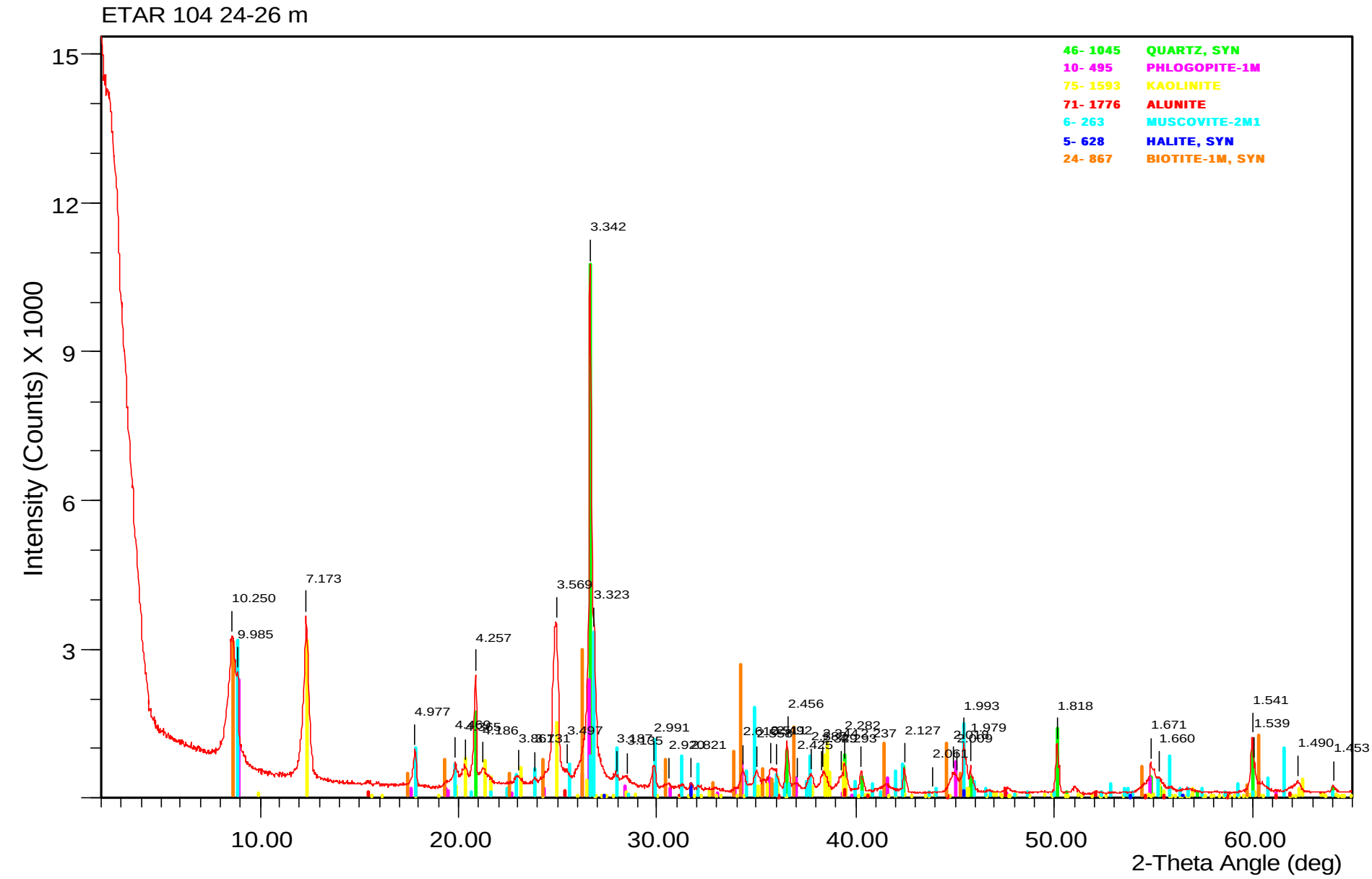

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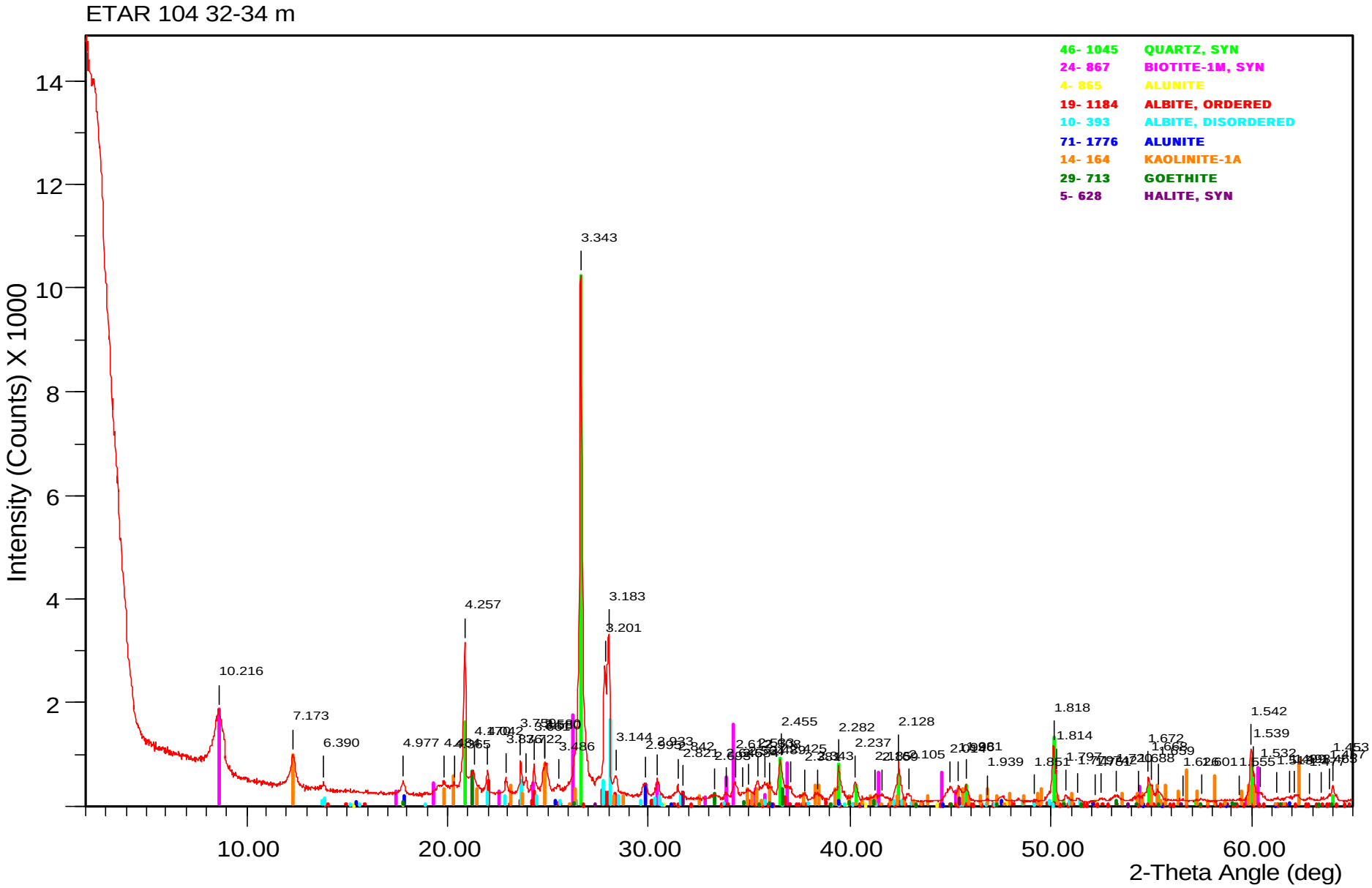

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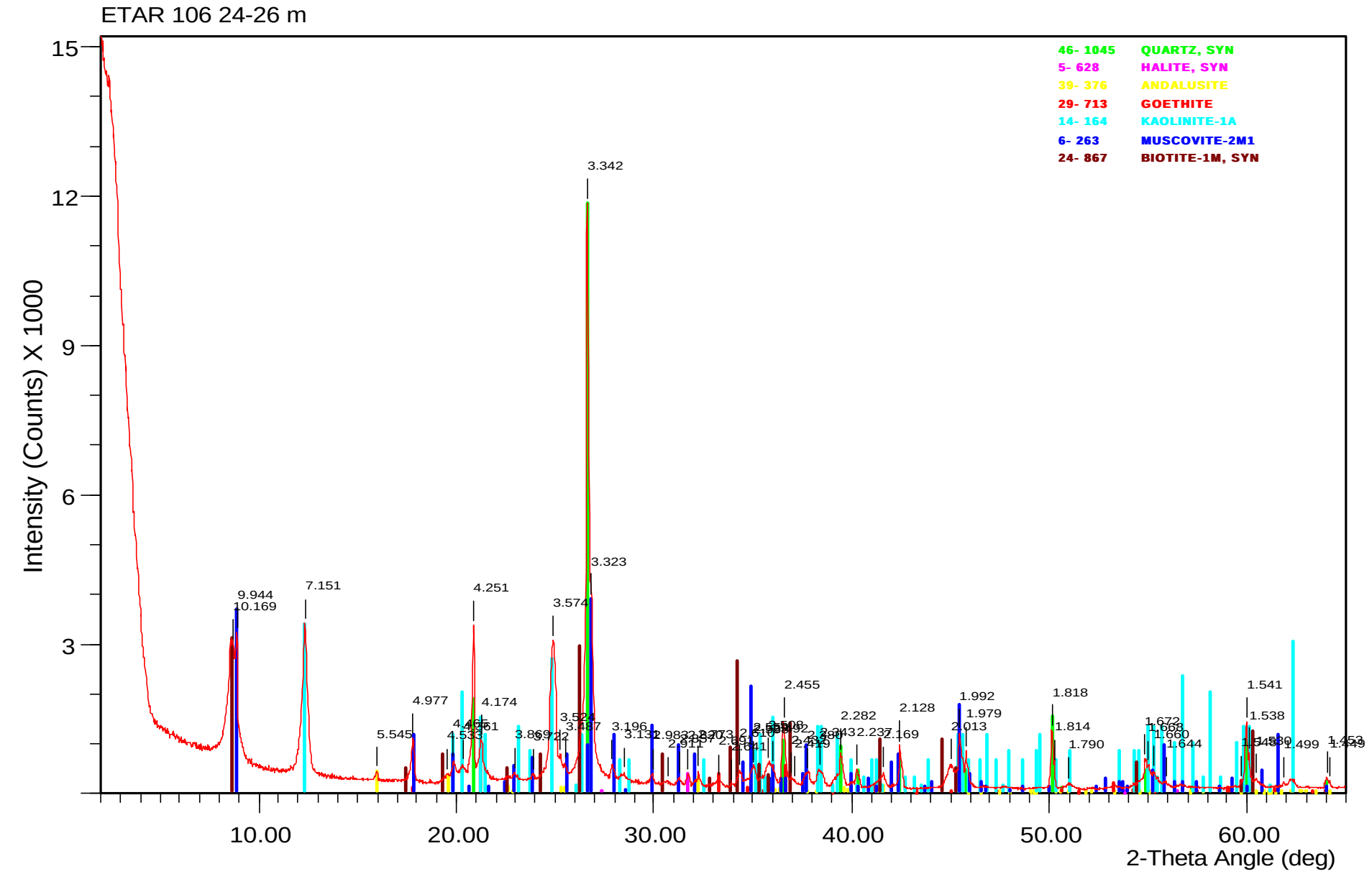

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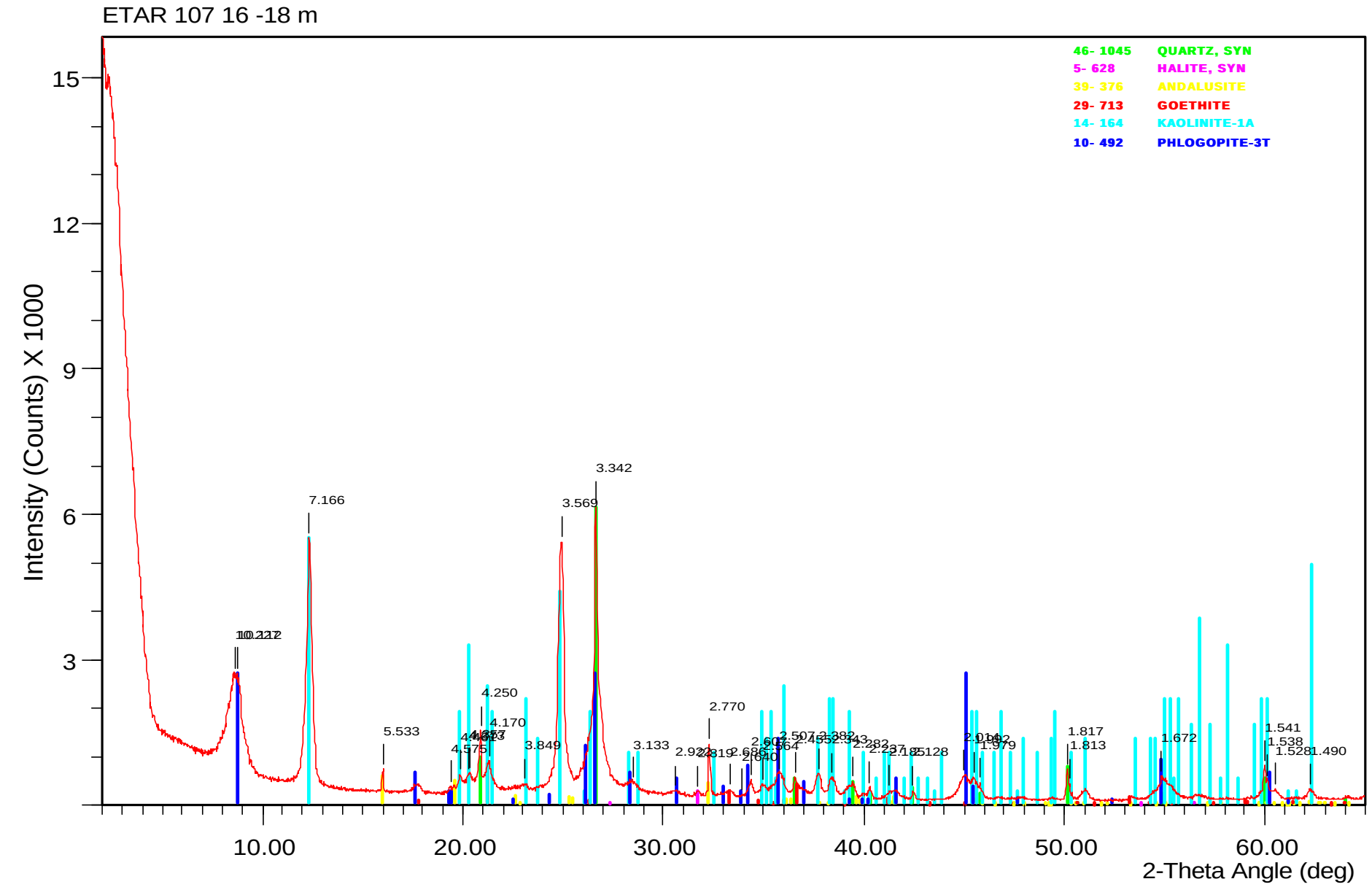

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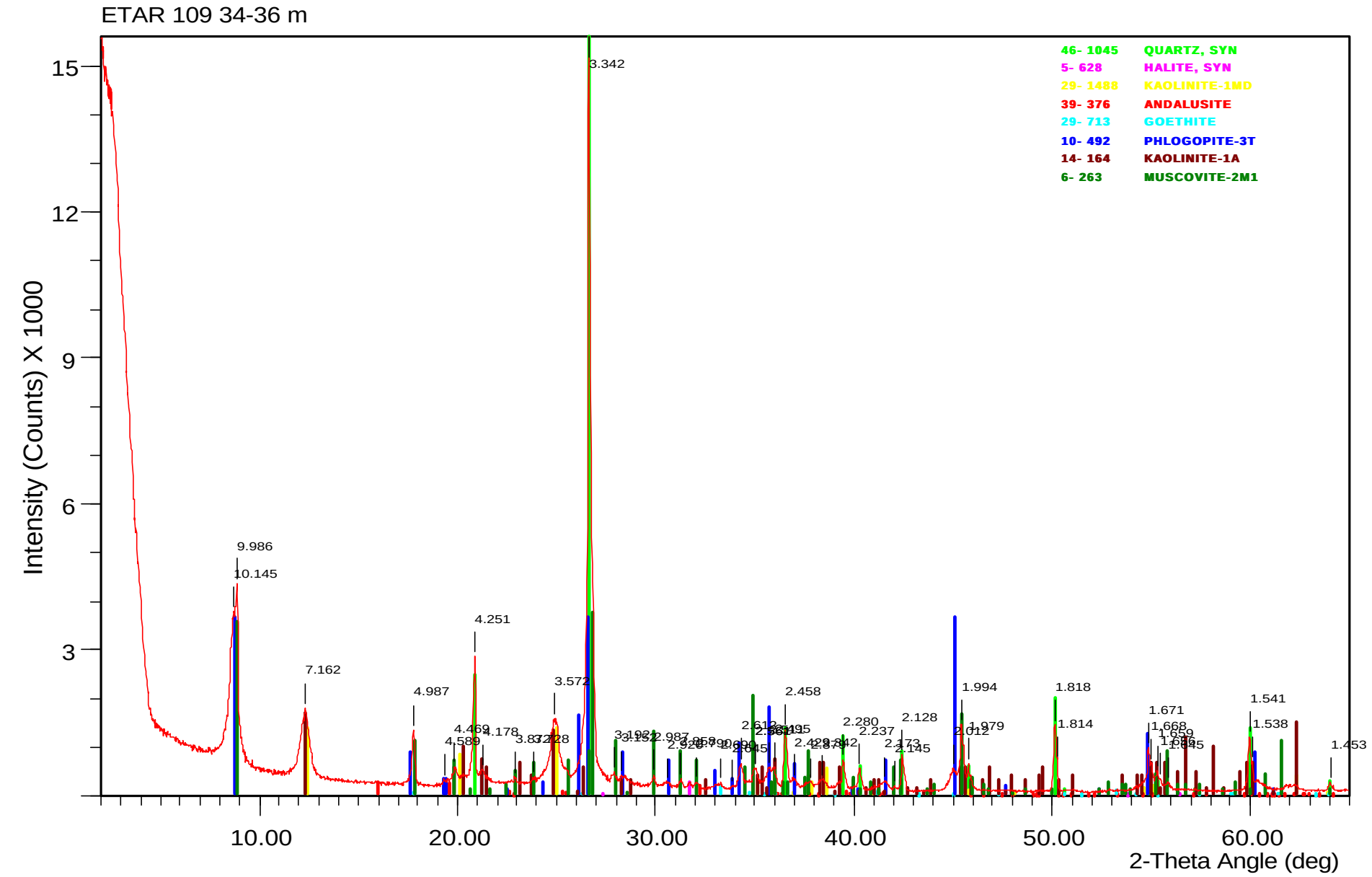

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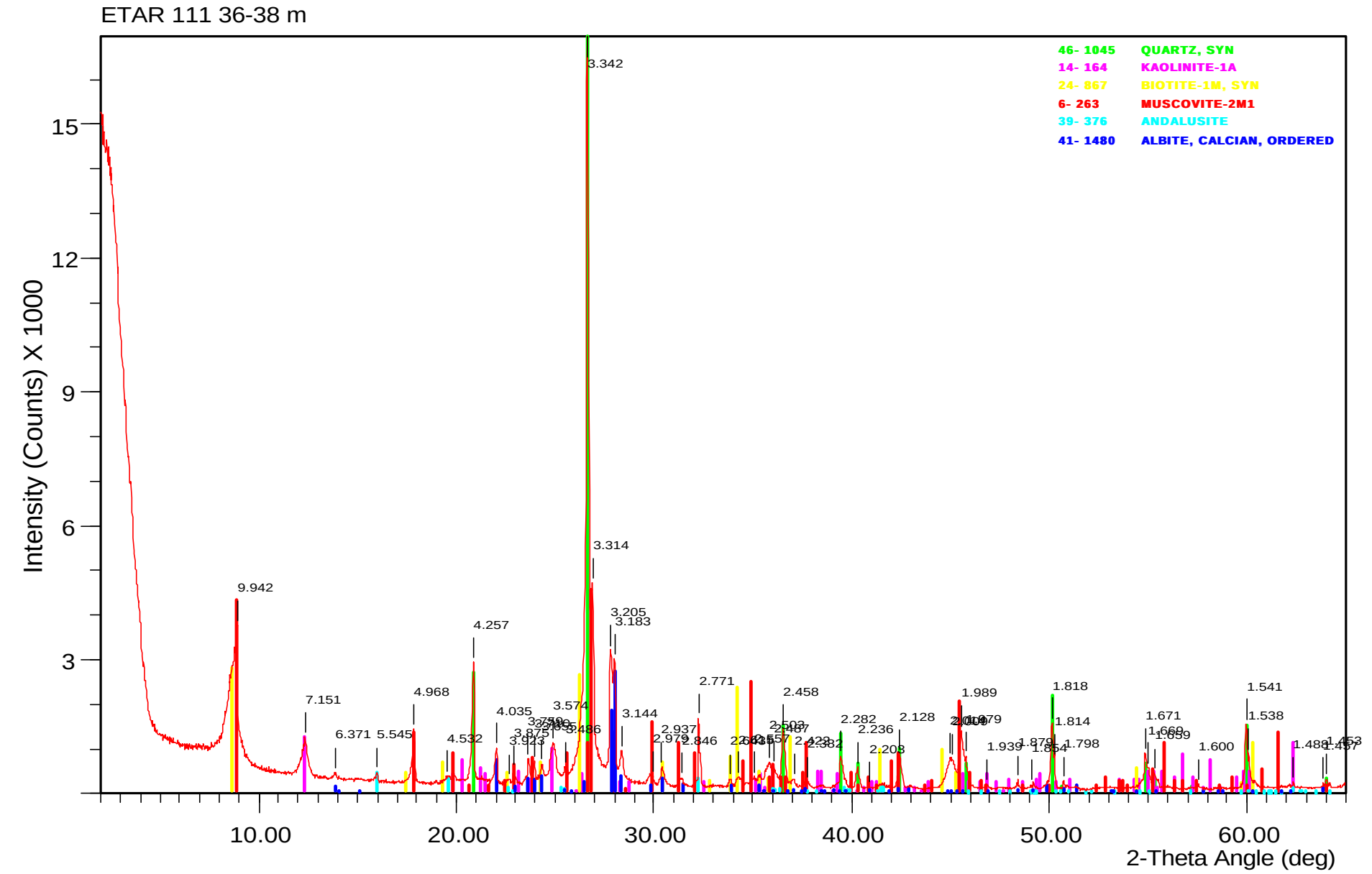

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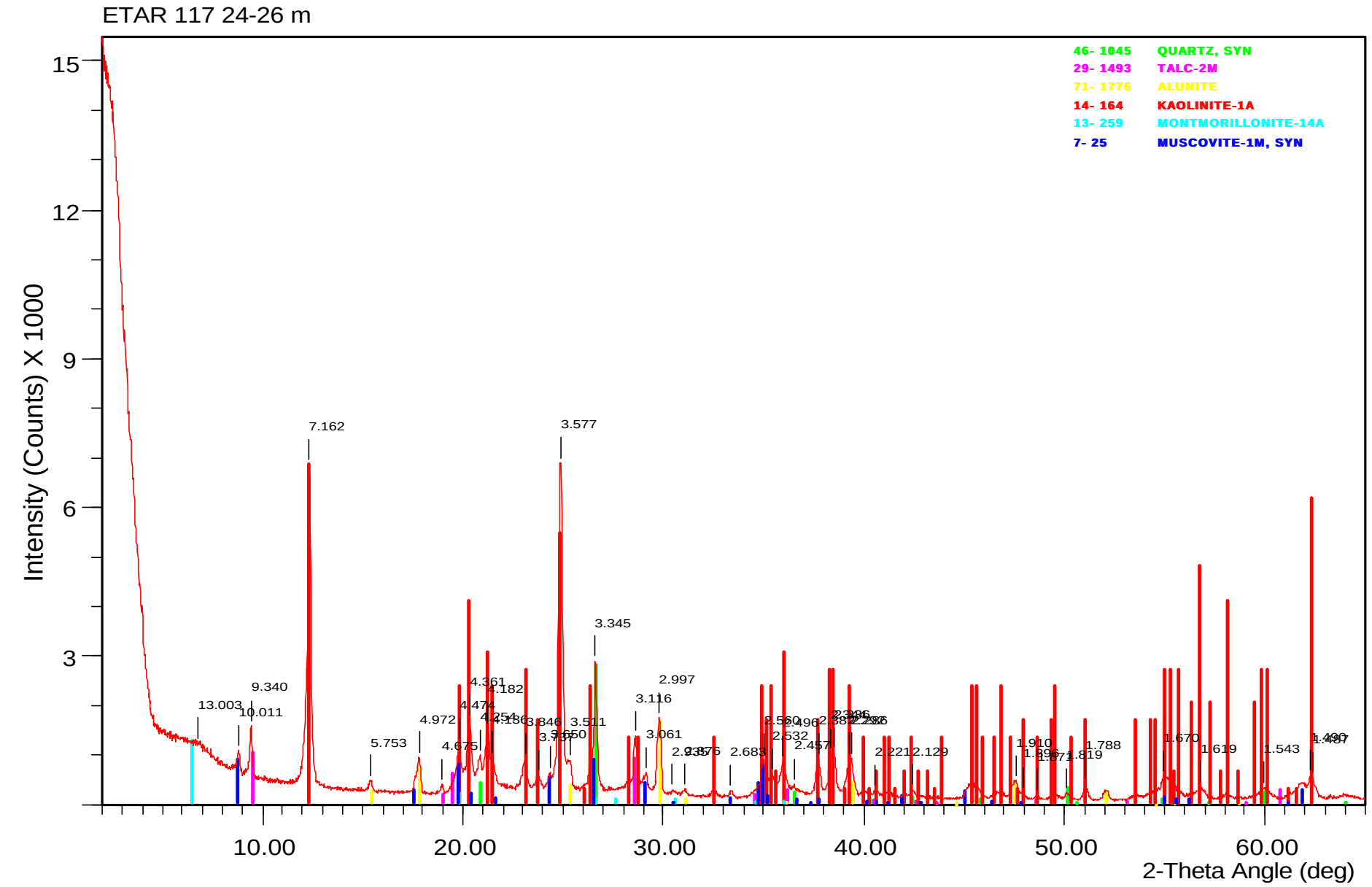

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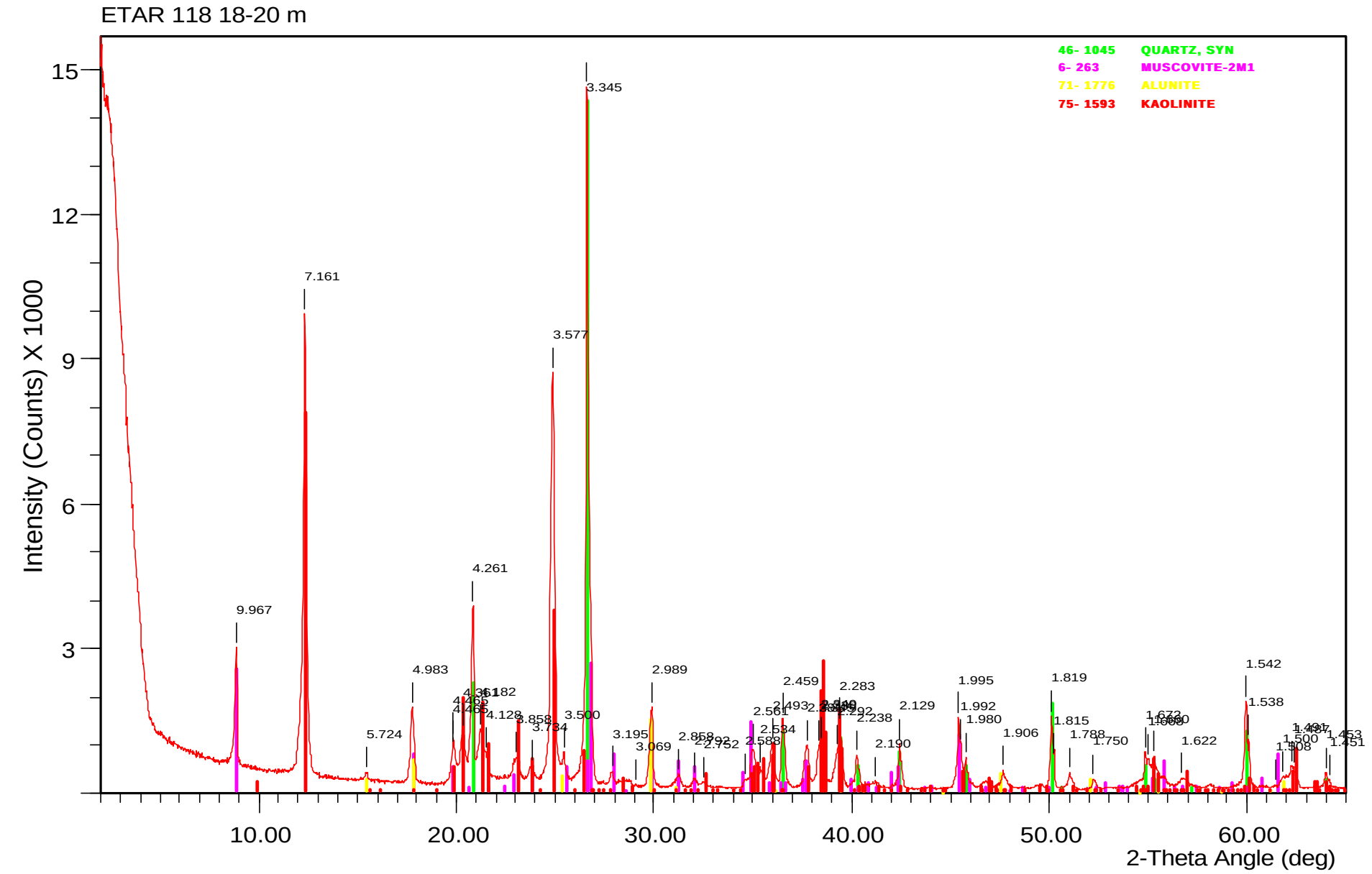

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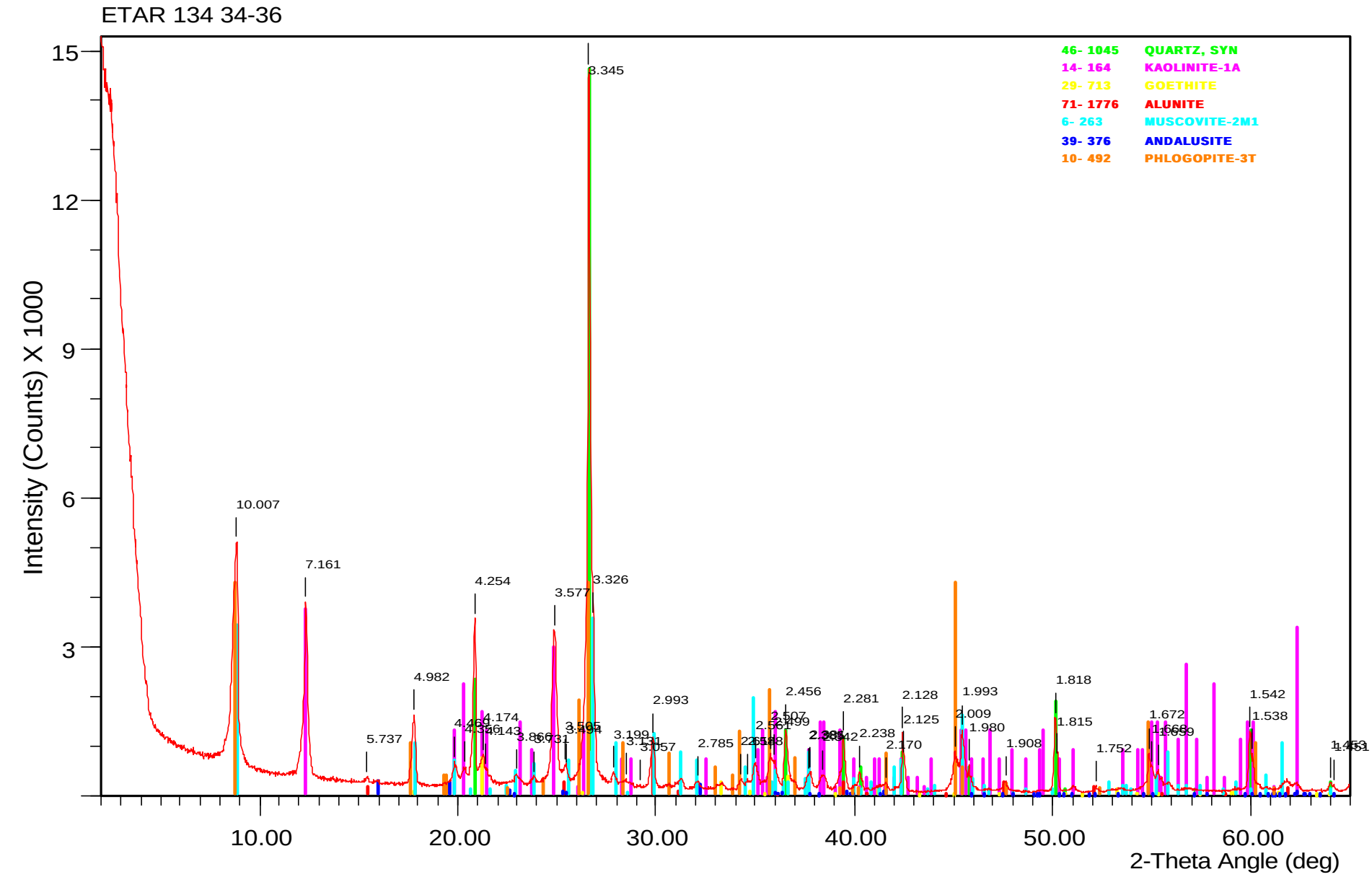

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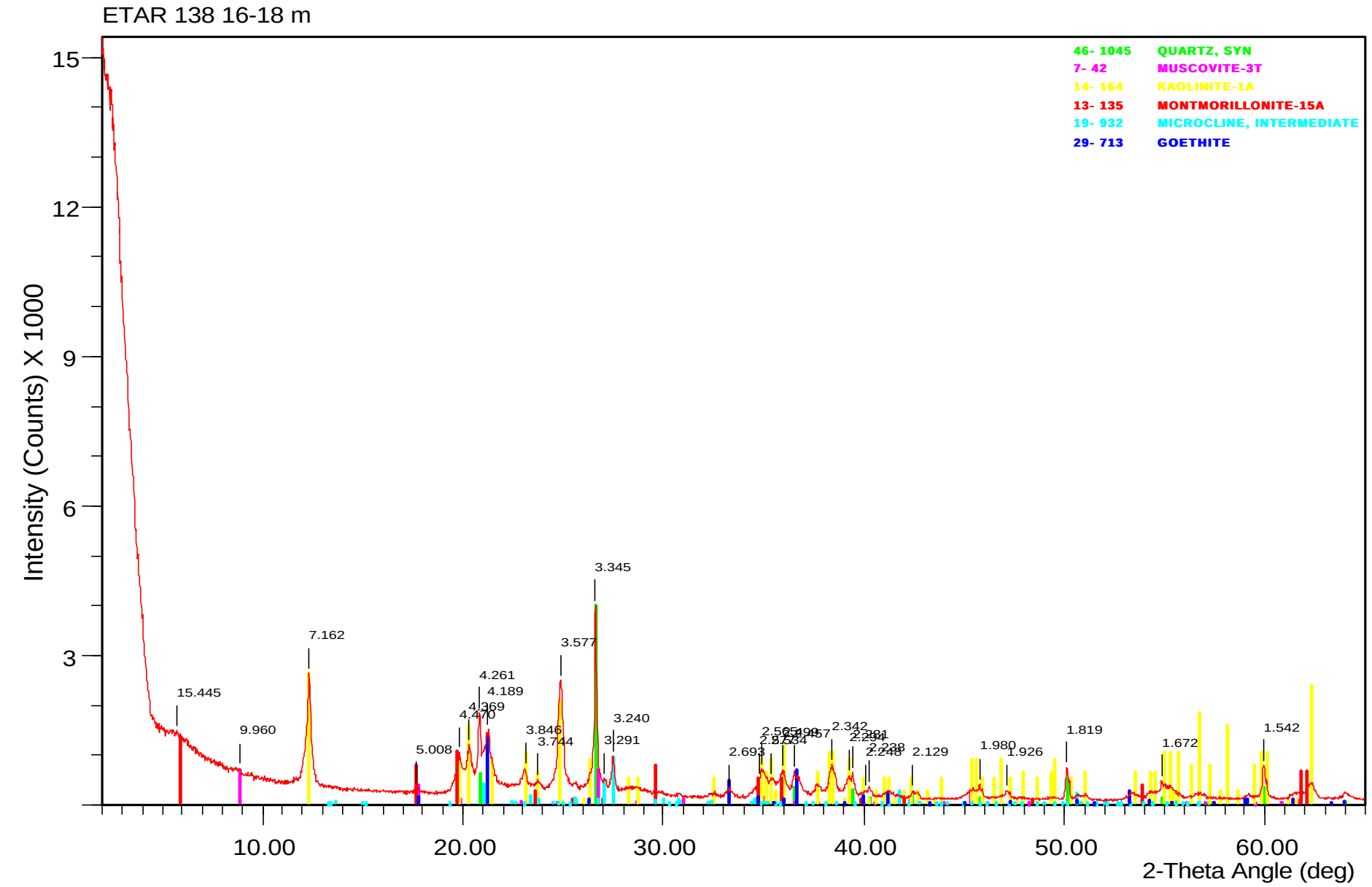

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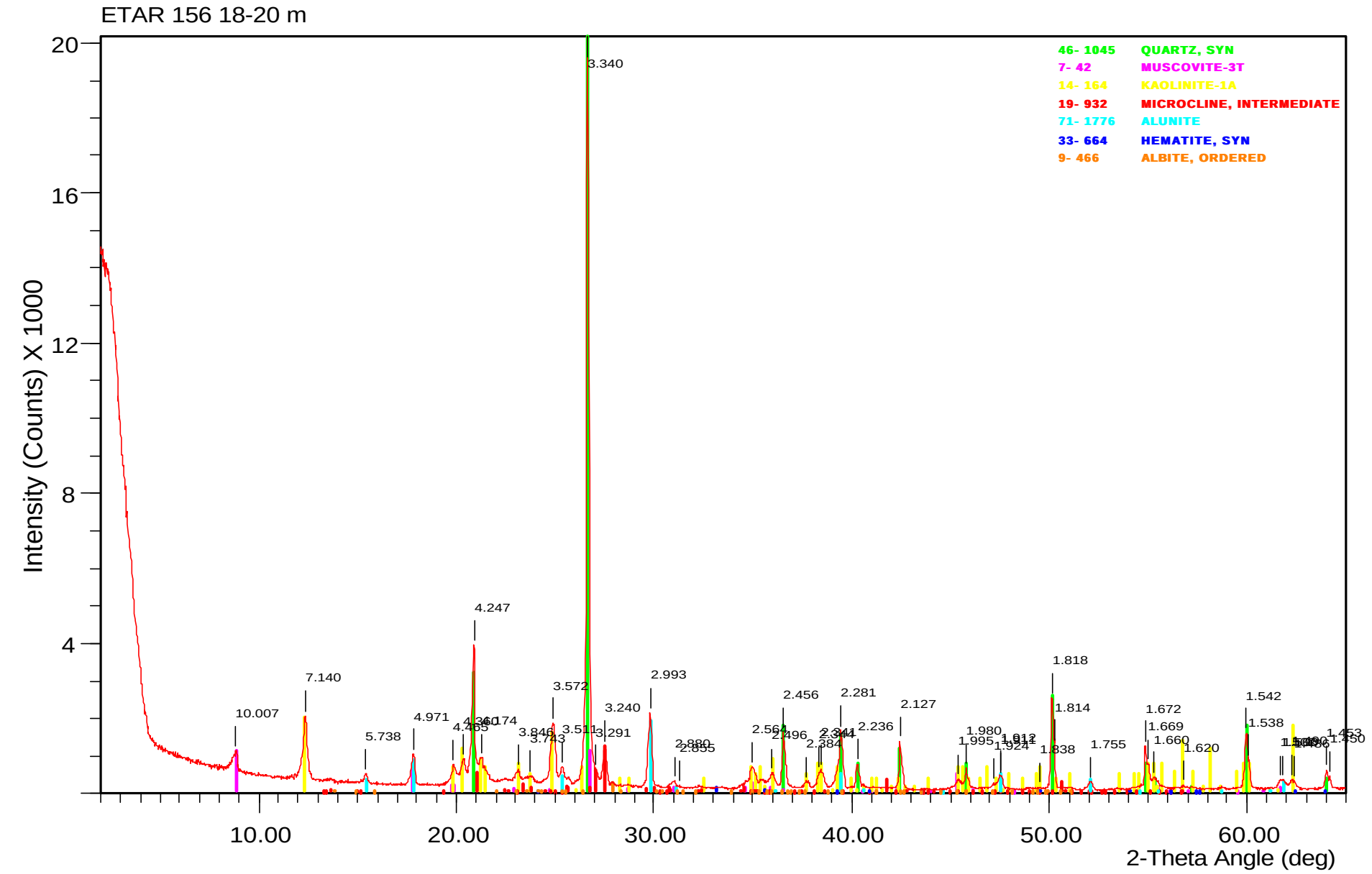

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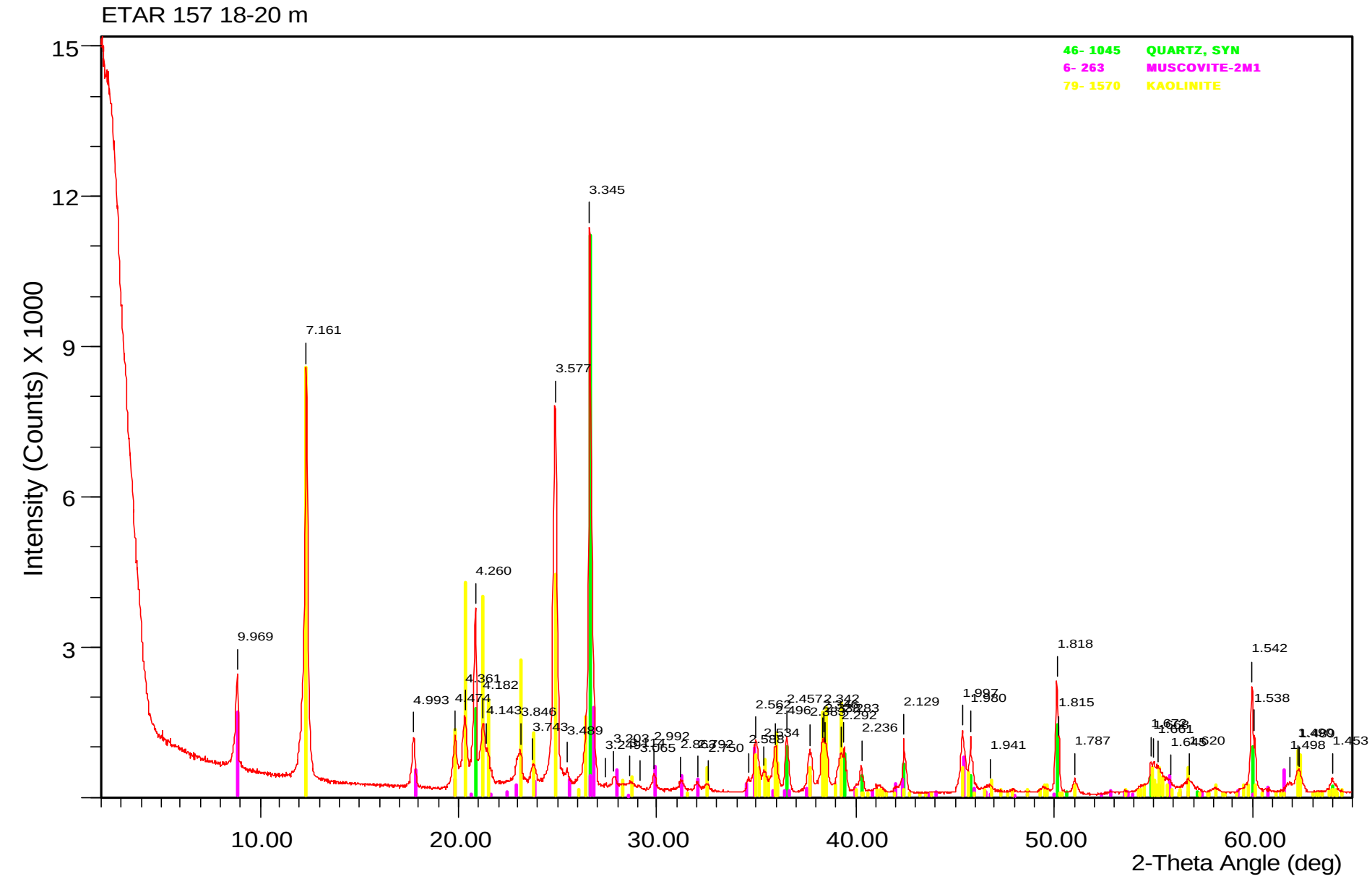

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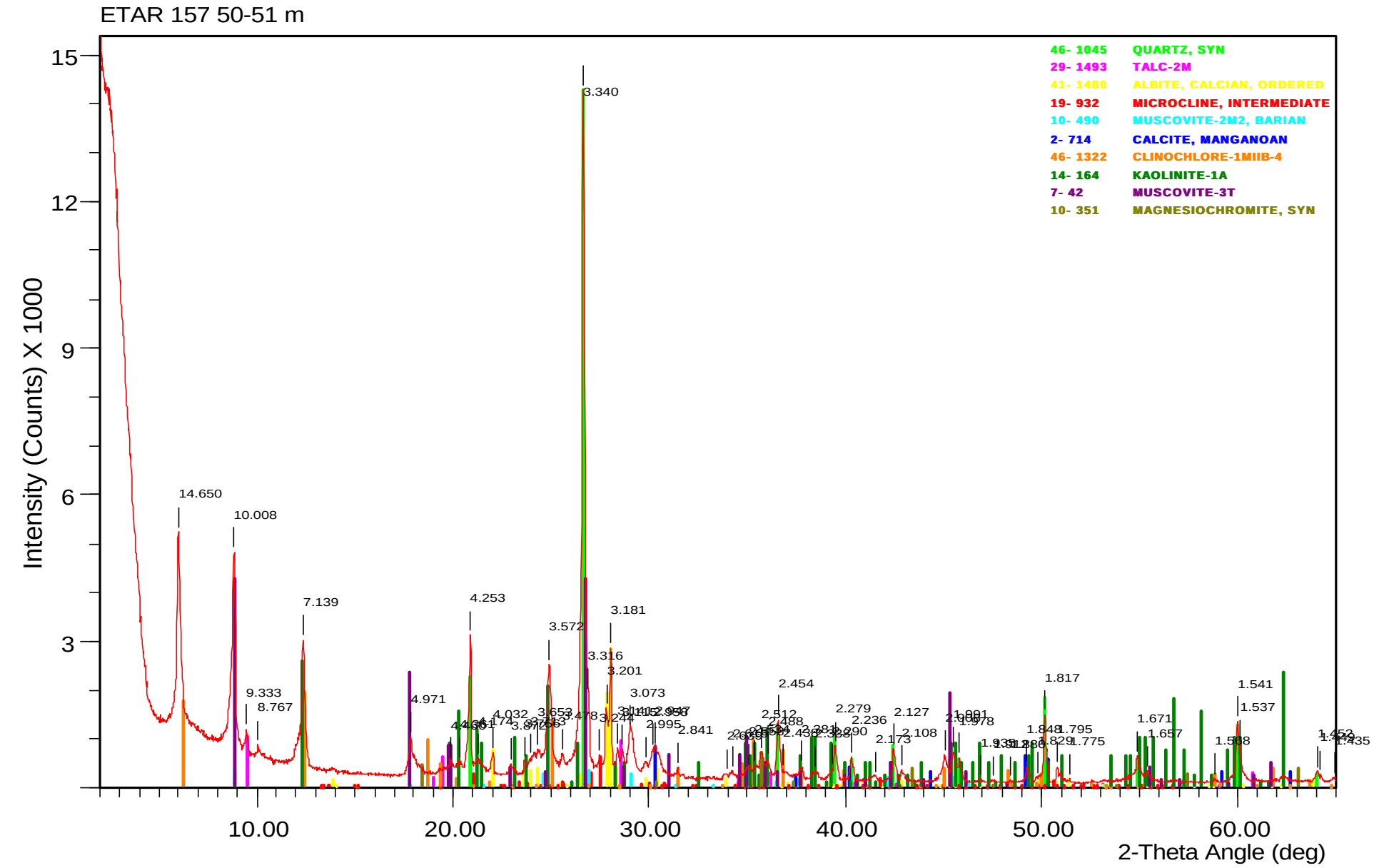

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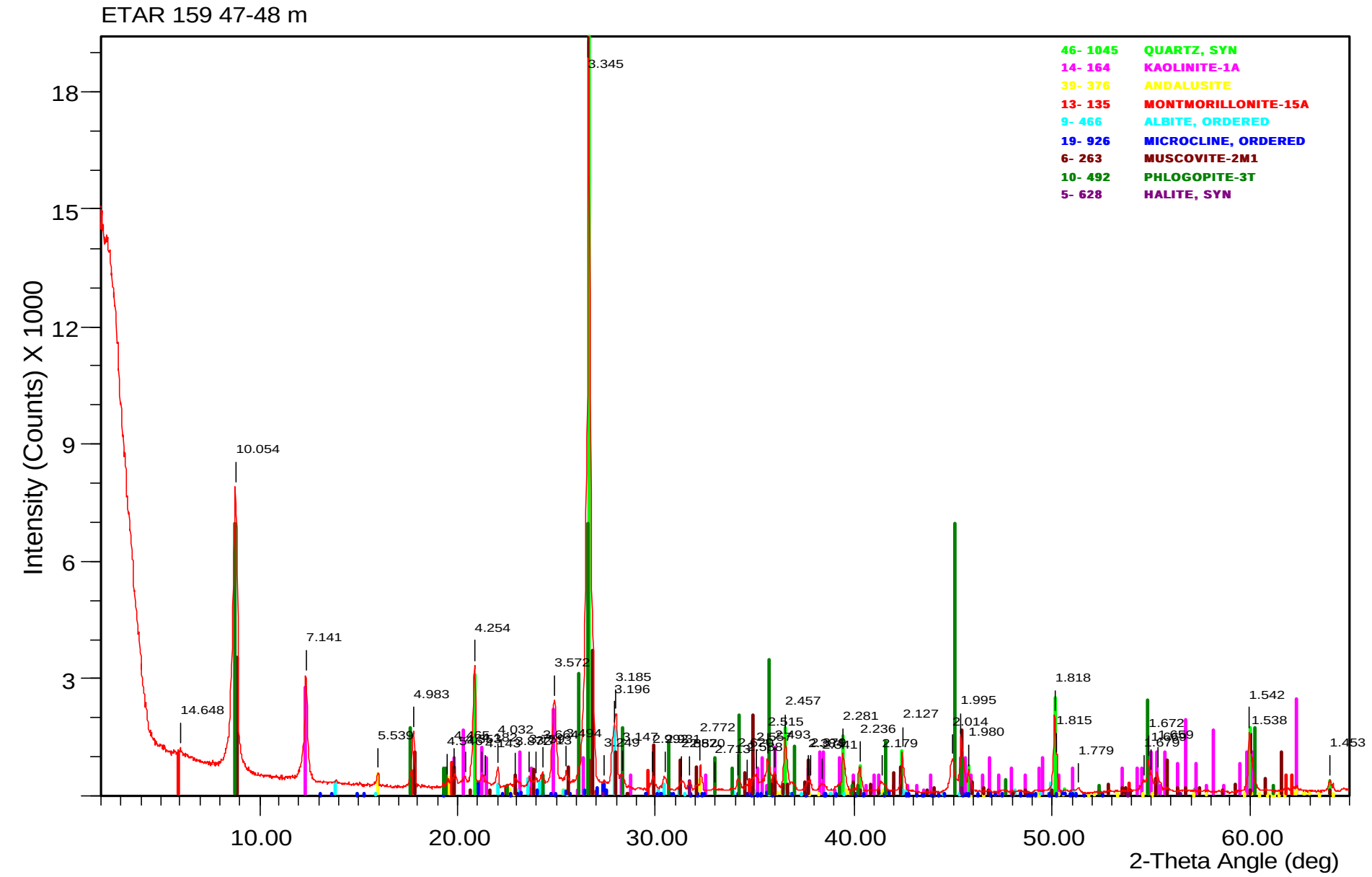

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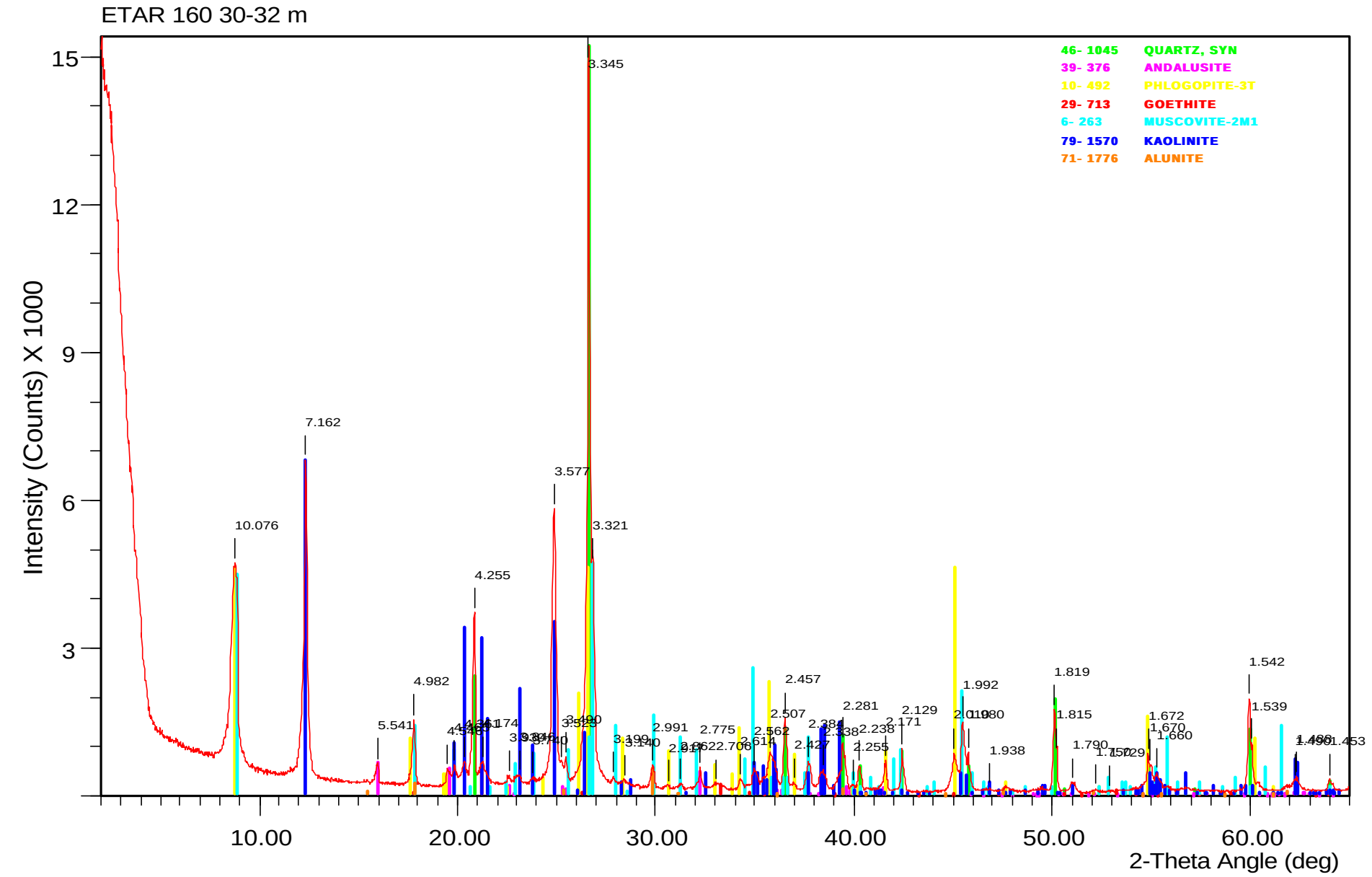

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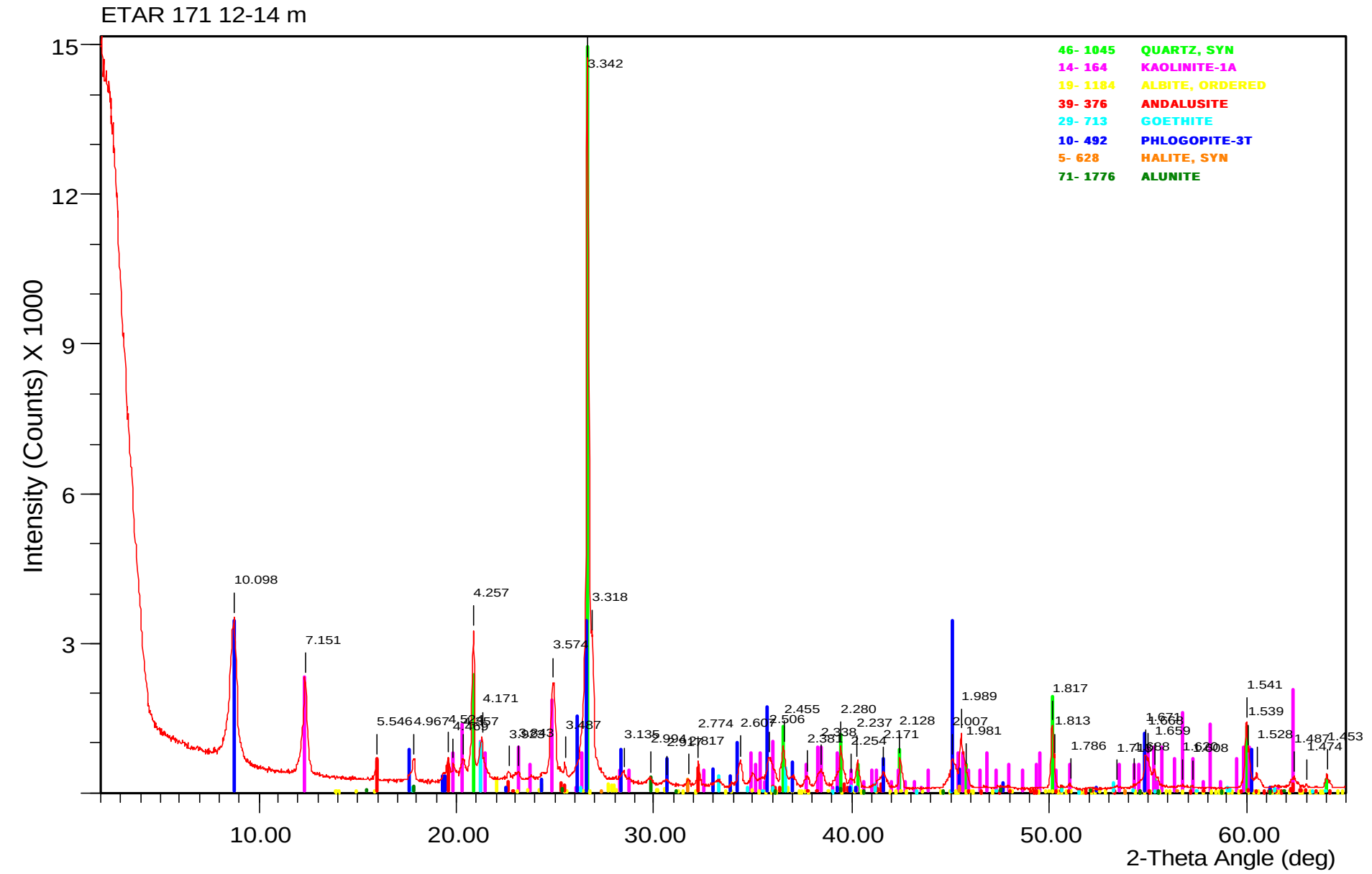

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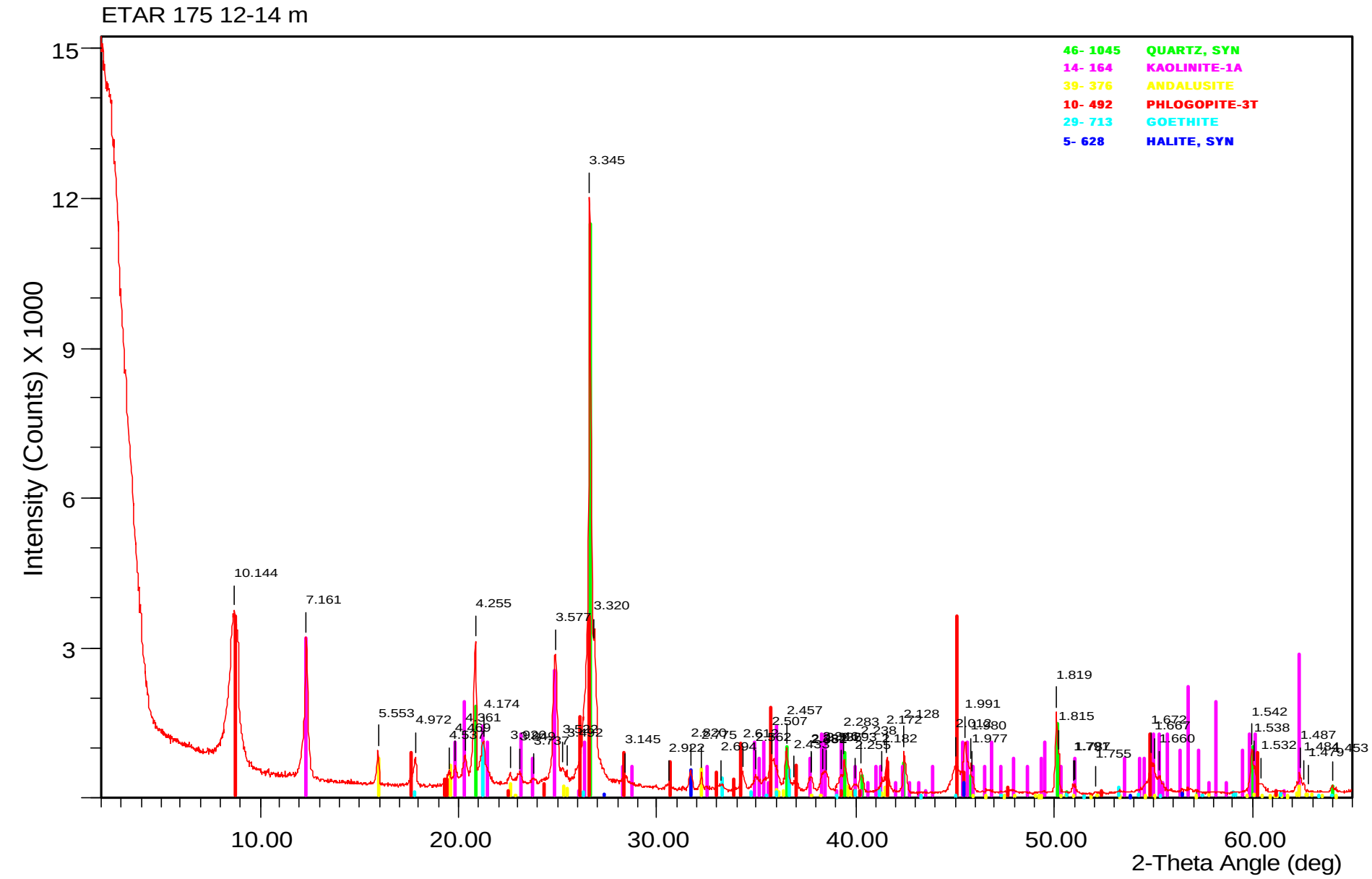

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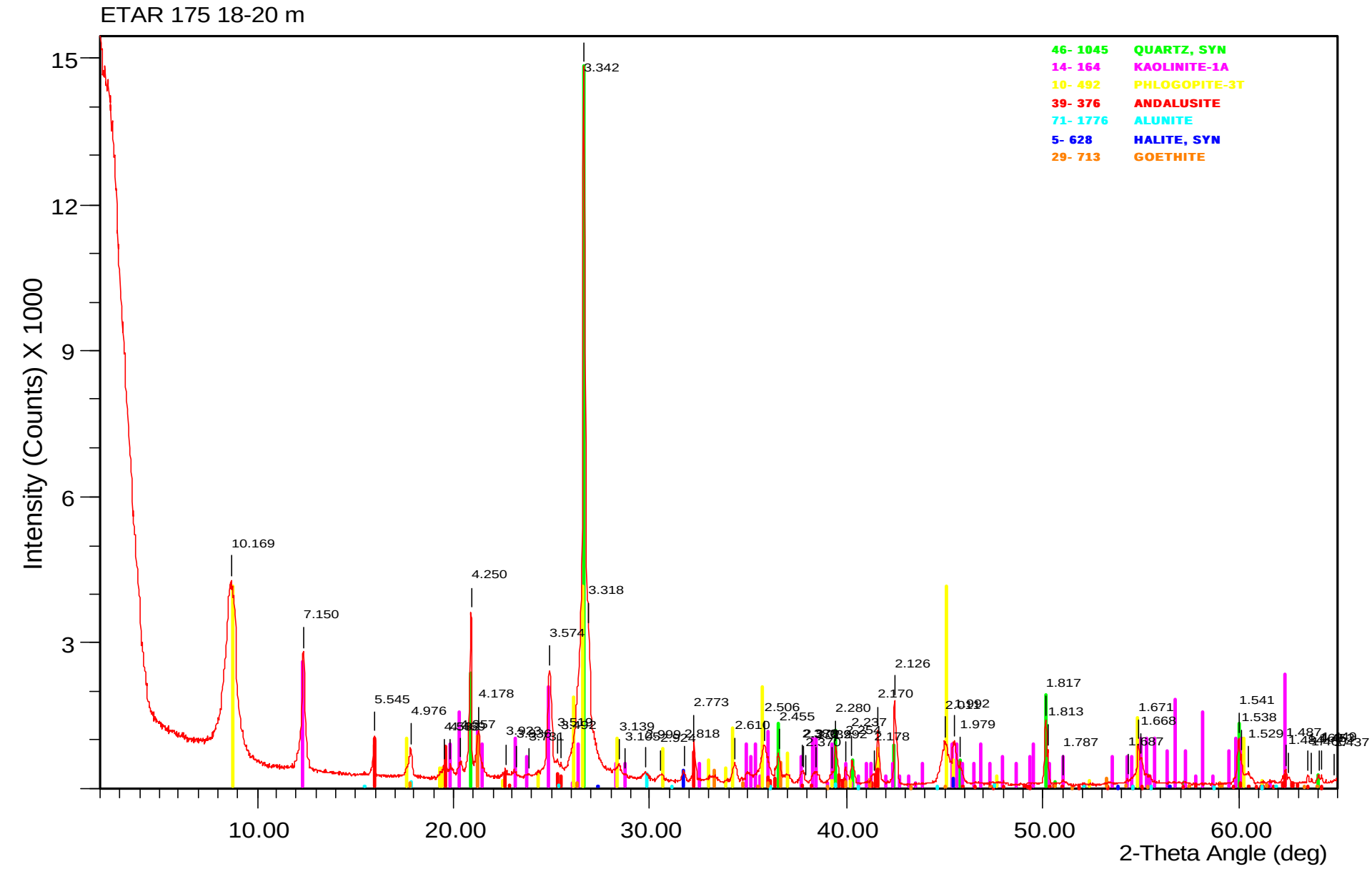

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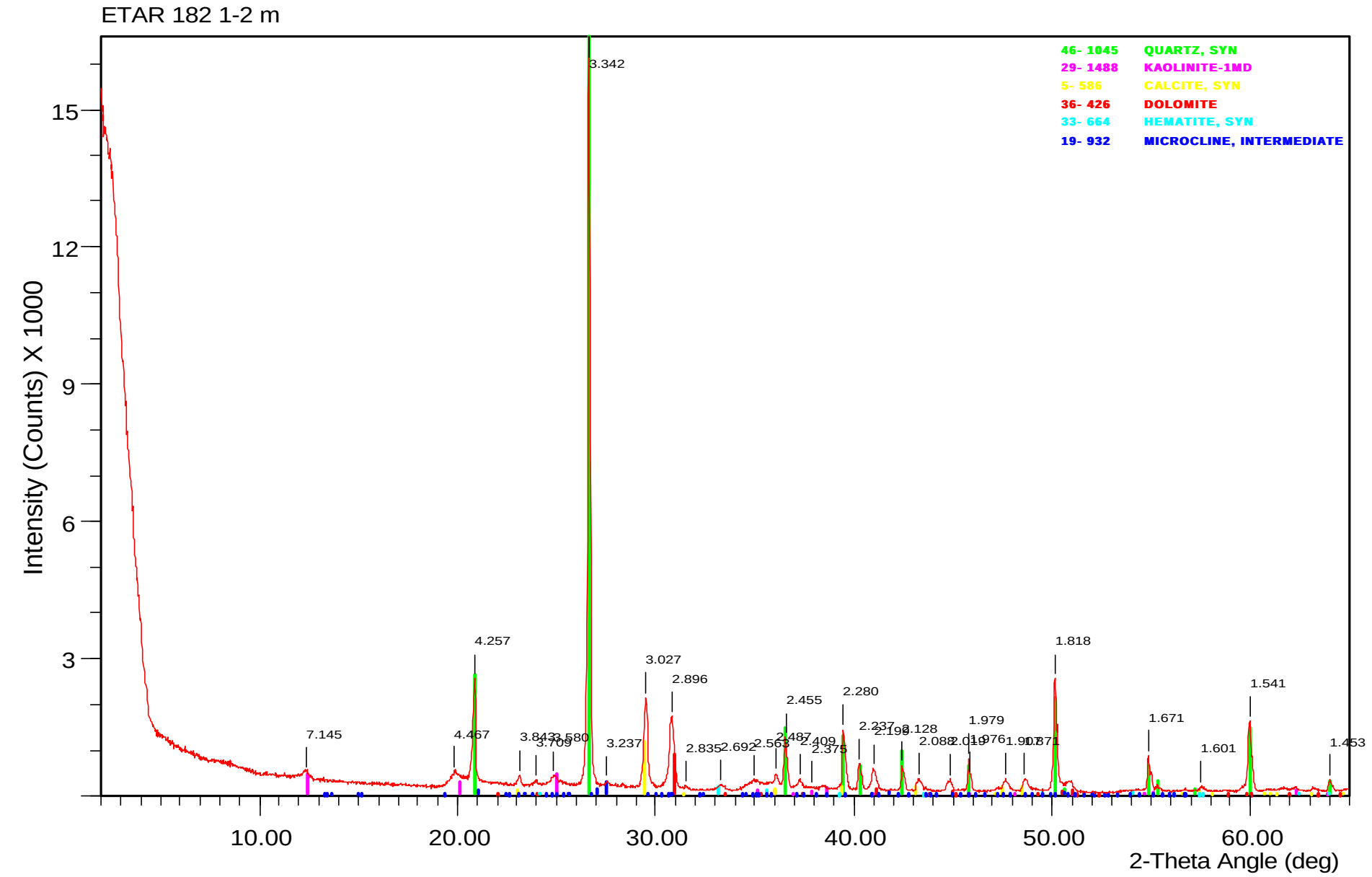

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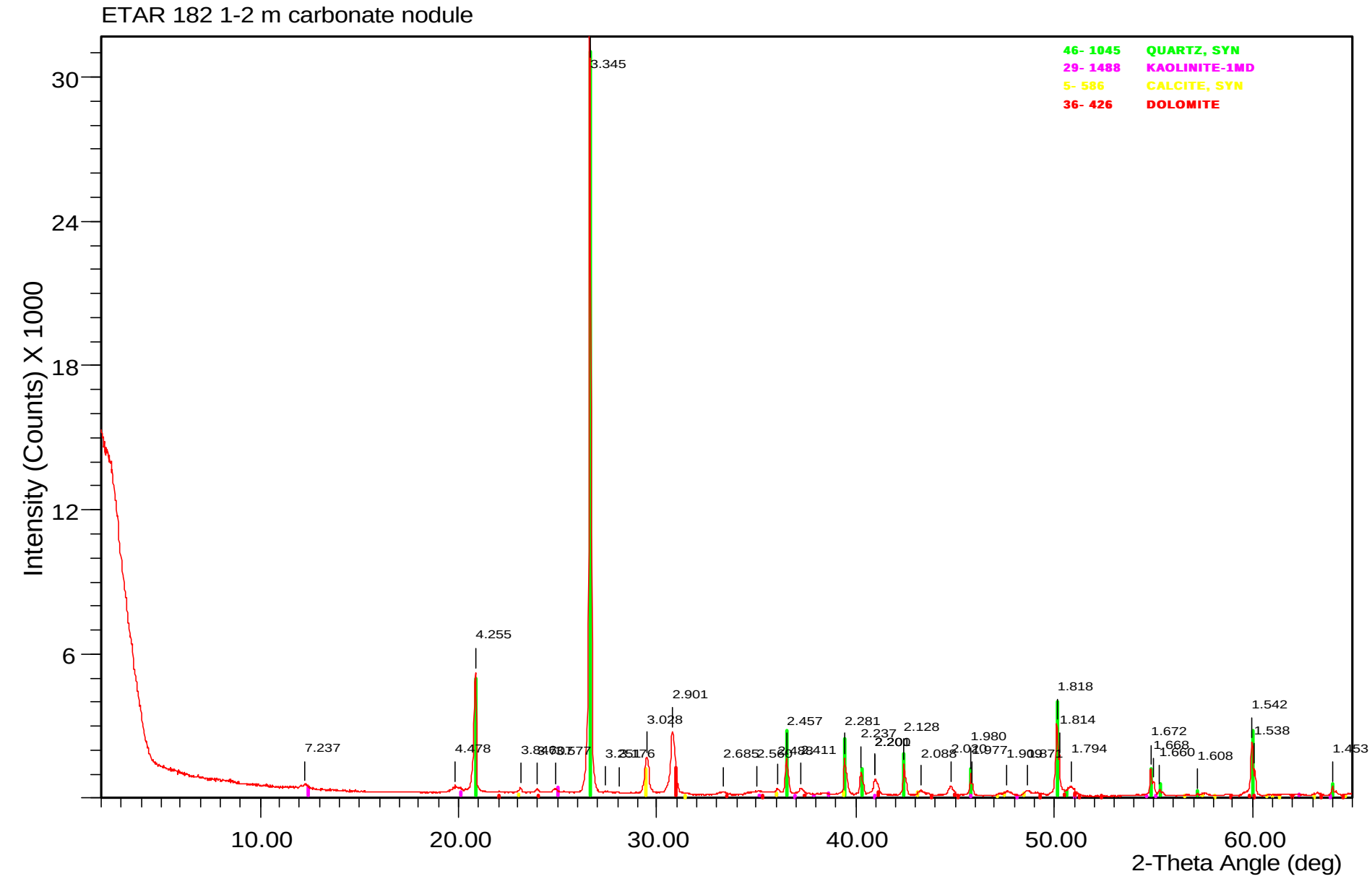

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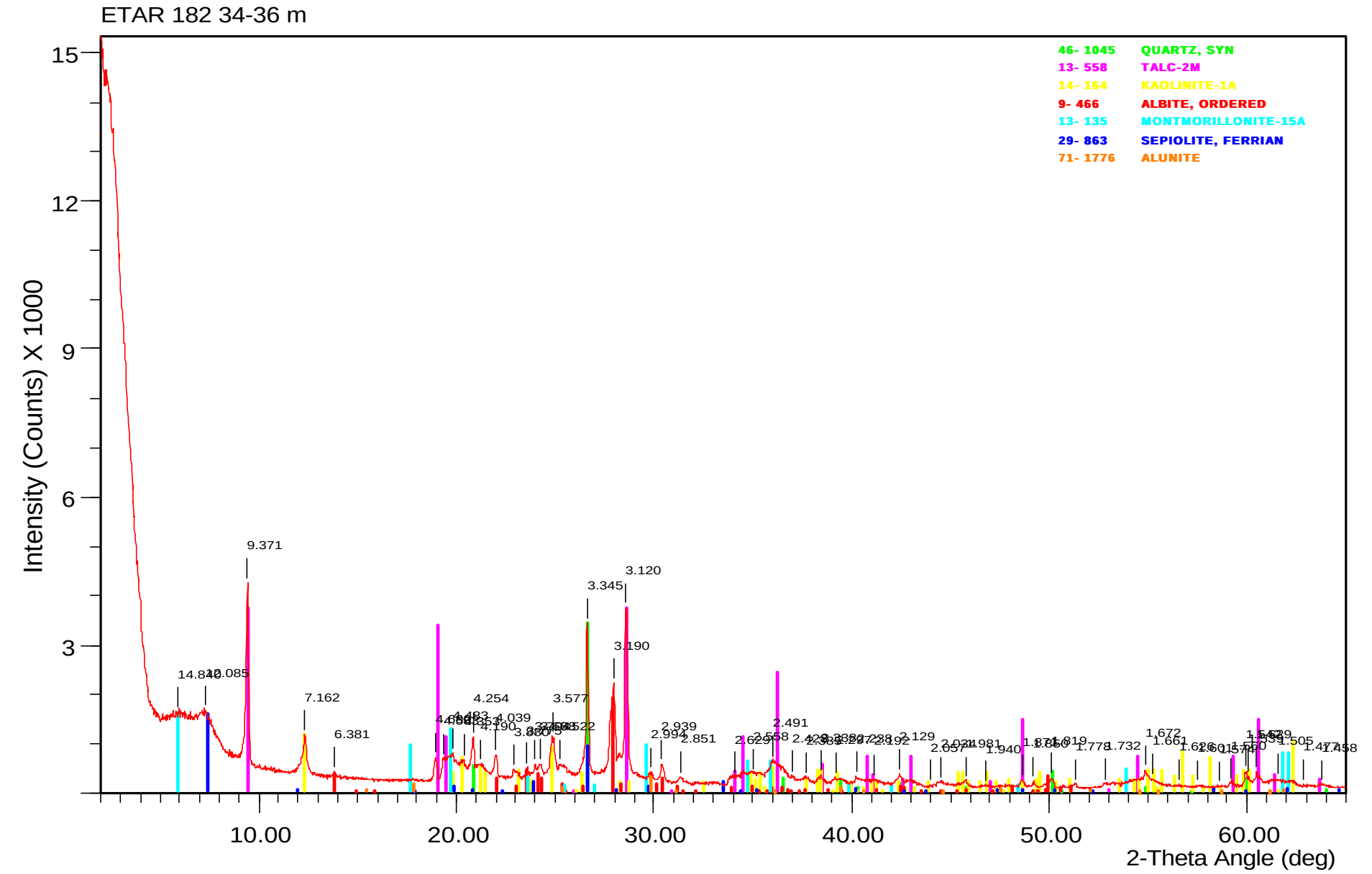

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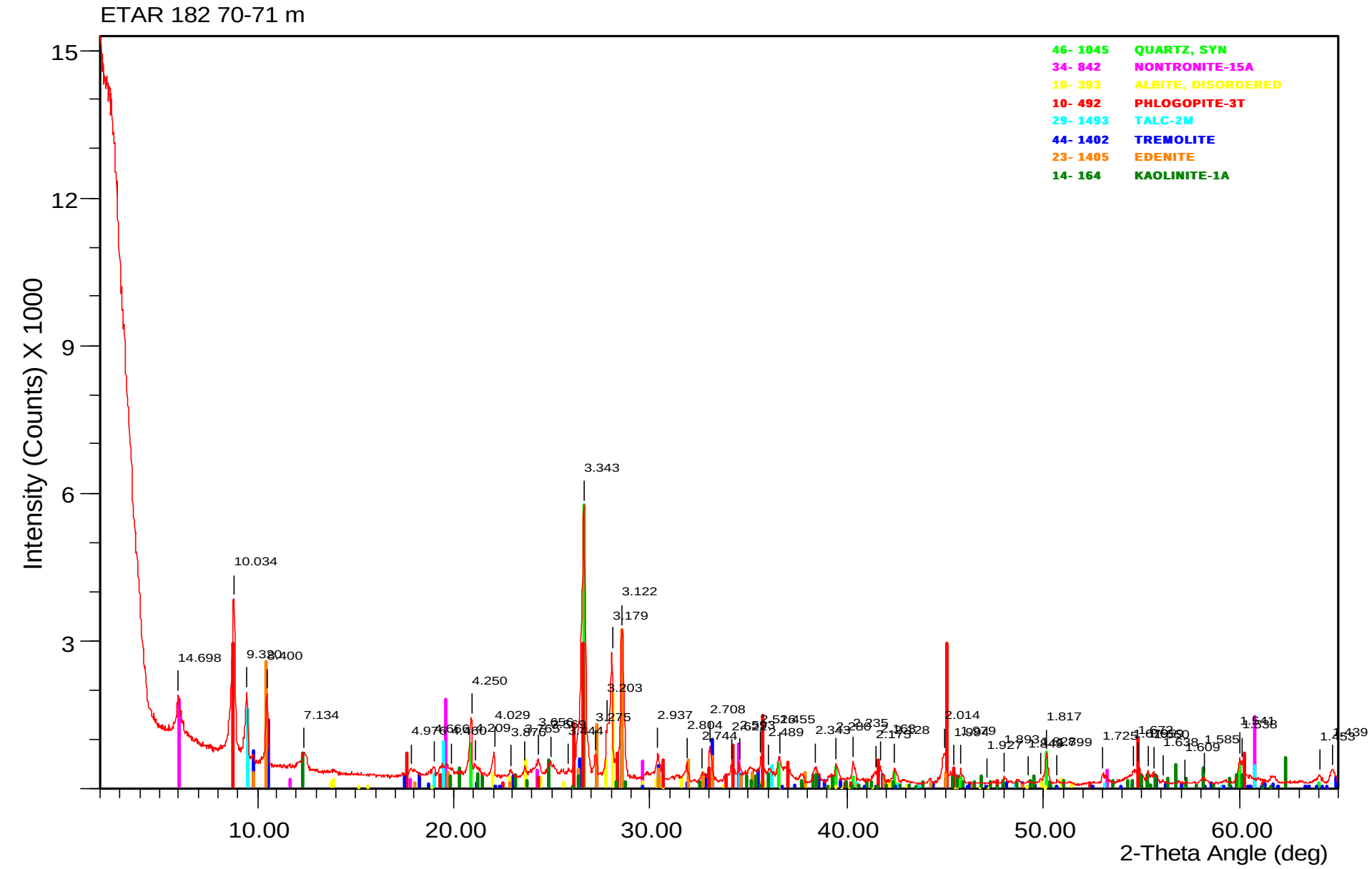

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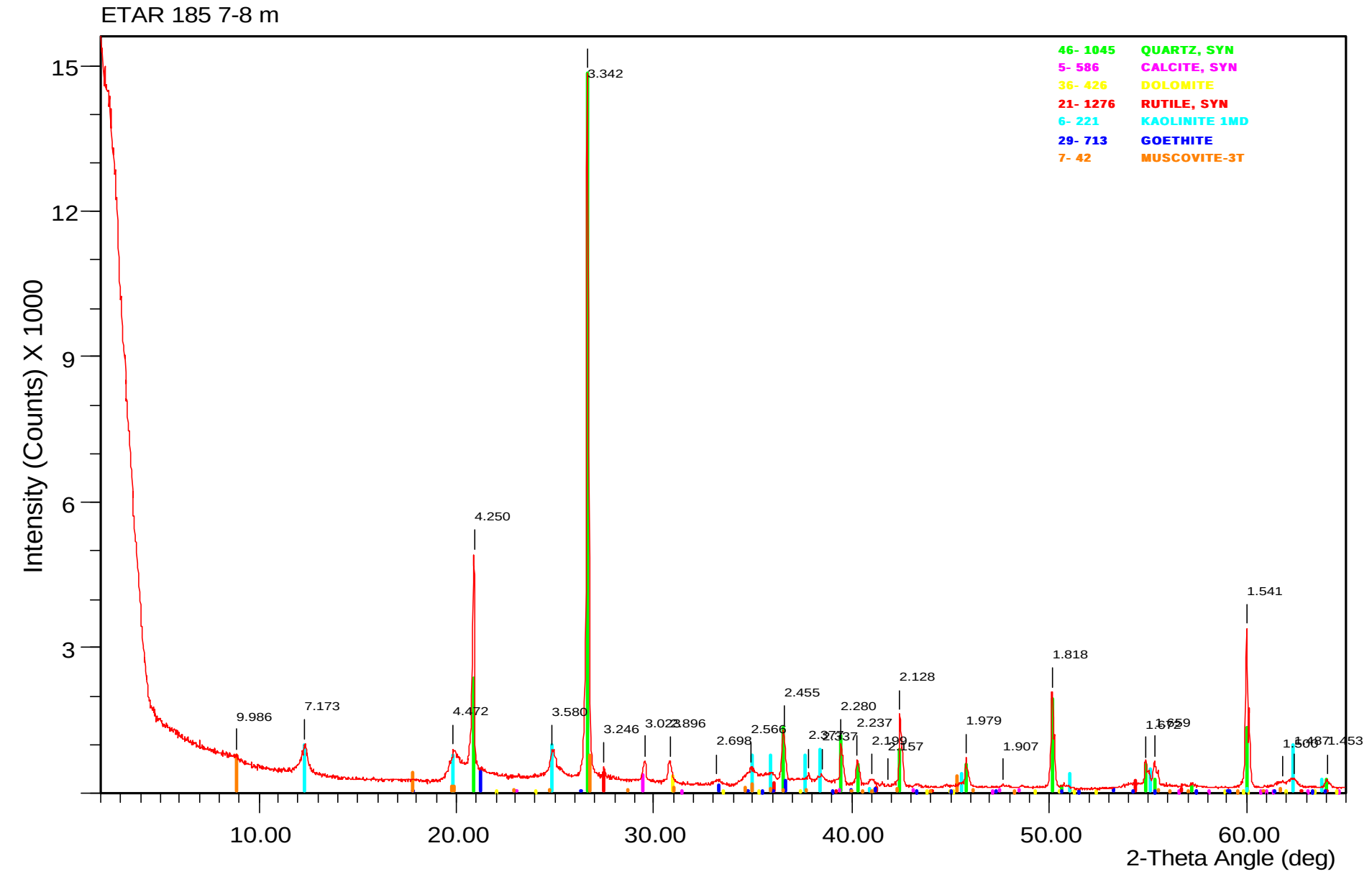

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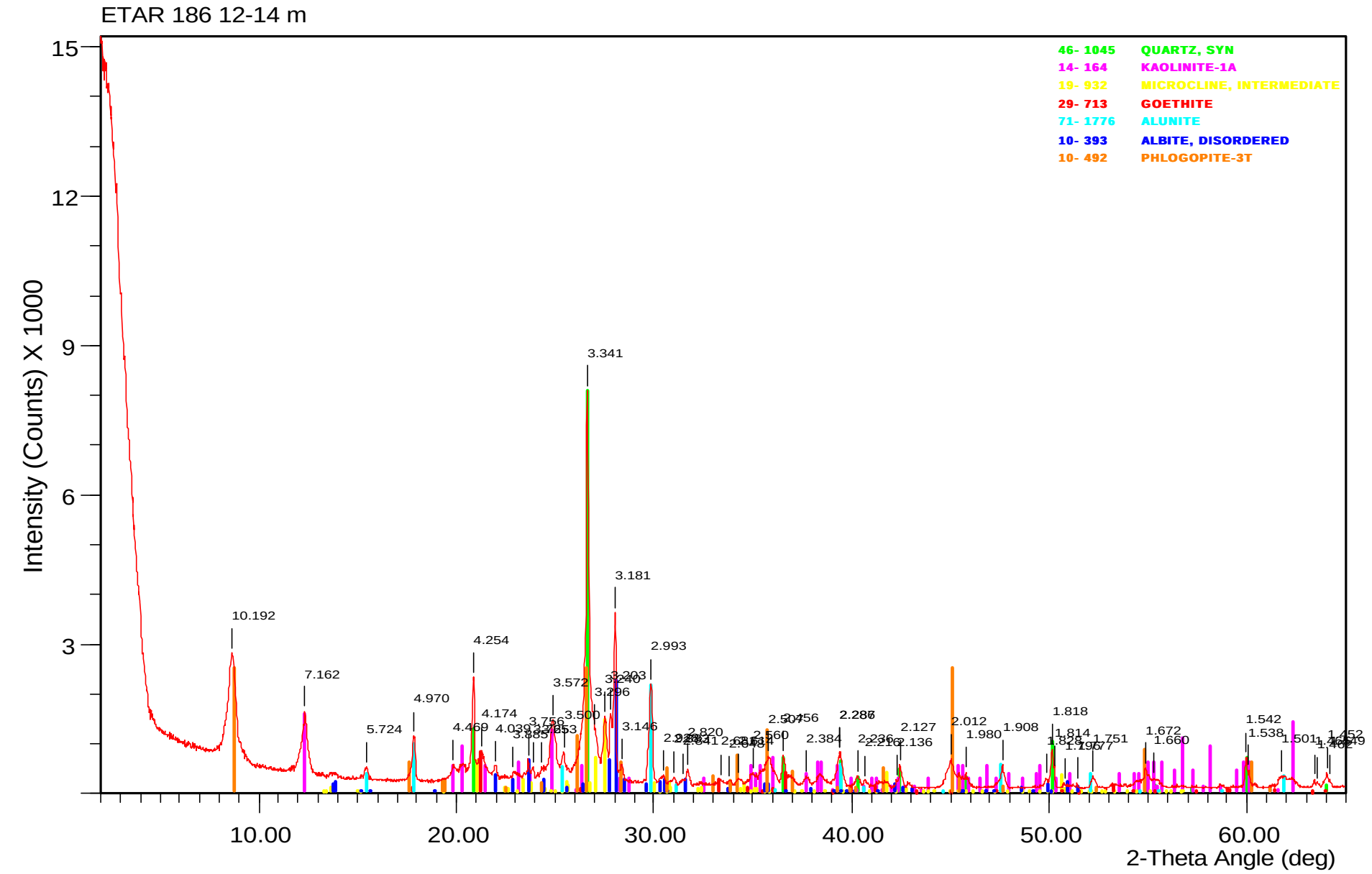

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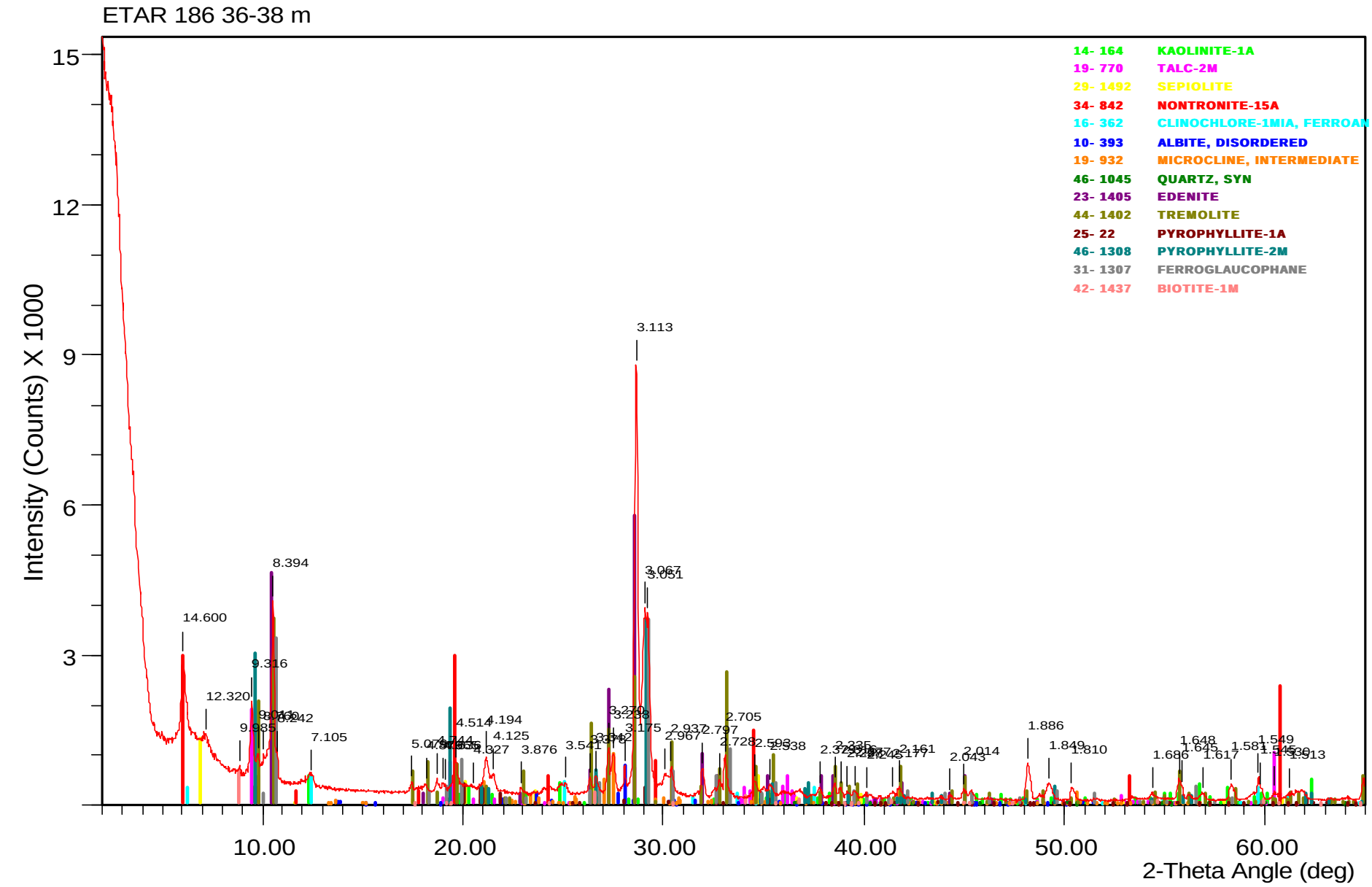

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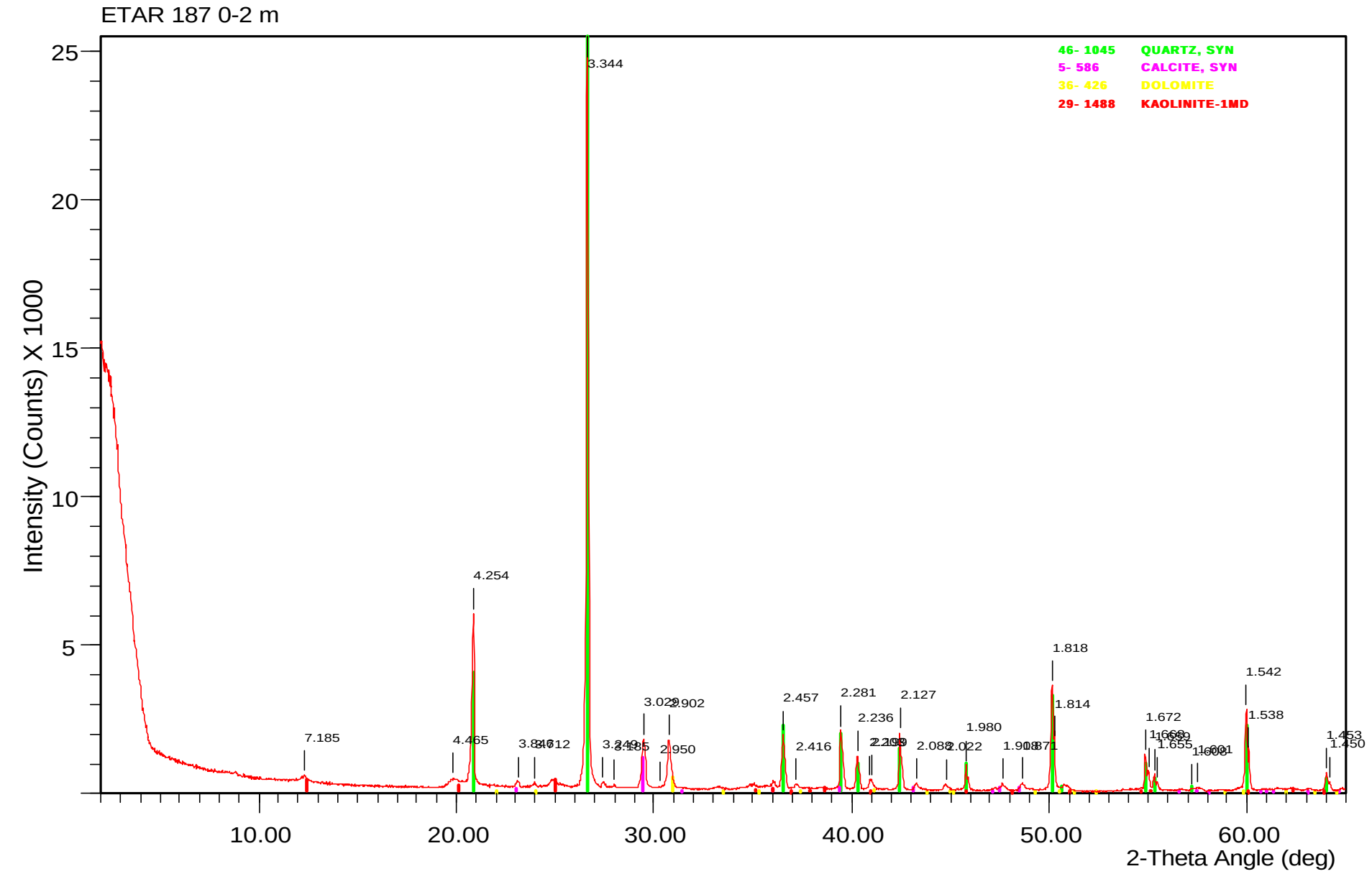

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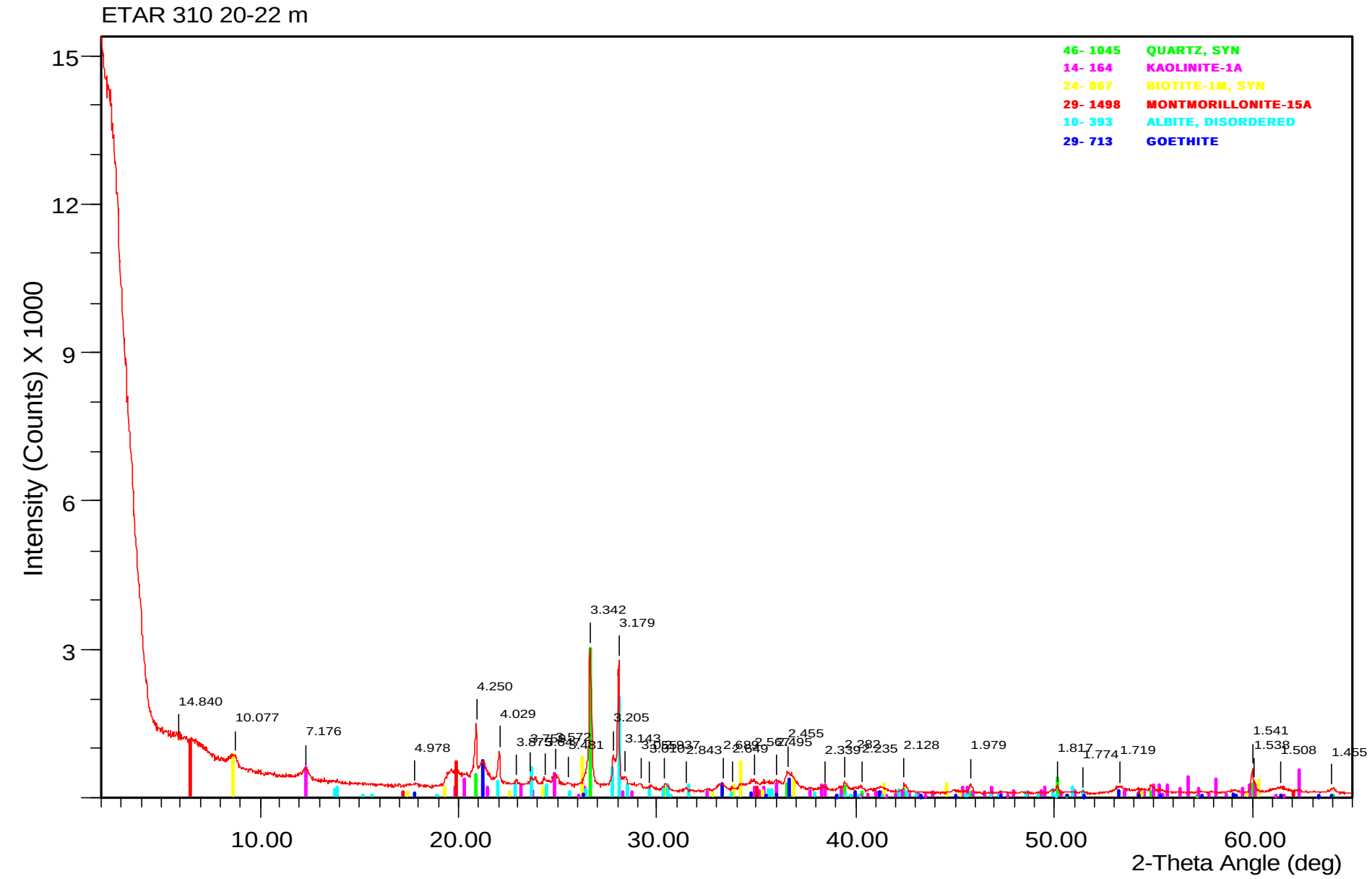

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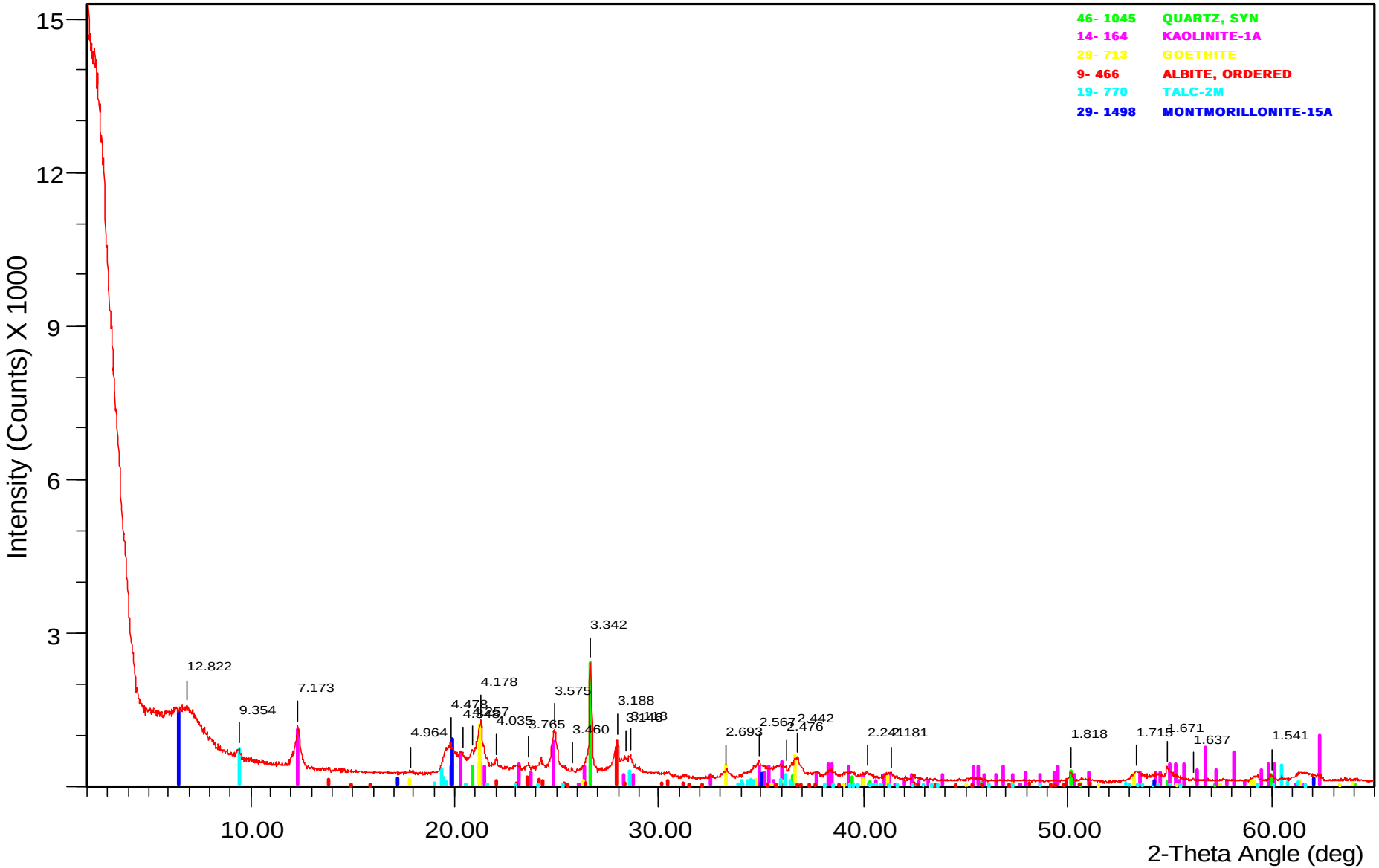
ETAR 319 8-10 m



File Name: c:\...\319-08.xpt

Appendix 11: MVS kriging methodology – animations

189 drill holes were subset from the ET area. Surface elevation values for each hole were extracted from an AGSO generated digital elevation model (DEM). Elevation values for each sample down hole were then calculated based on the dip, azimuth and a derived variable based on the halfway point between the from and to interval.

Geochemical values for Au, As, Ag, Cu, and Au in calcrete were then subset from the above dataset and values below detection limits were set to half the detection limit for that element.

Au and Ag values were normalized using Box-Cox transformations with Lambda values of –0.11494253 and –0.24137931 respectively. As, Cu and Au_in_calcrete results were normalized using base 10 log transformations.

Normalized values for each element were kriged in 3D using a 'best fit' model based on Ordinary kriging with a Spherical variogram and a zero nugget with Mining Visualization System (MVS) software. MVS is a geostatistical and visualisation tool for 3D interpolation of drill hole logging and geochemical data.

The Au, Ag, Cu and As models were gridded at a vertical/horizontal anisotropy of 10, while Au_in_calcrete was gridded at a vertical/horizontal anisotropy of 2.5. For more specific kriging parameters, please refer to MVS_log.xls accompanying this report.

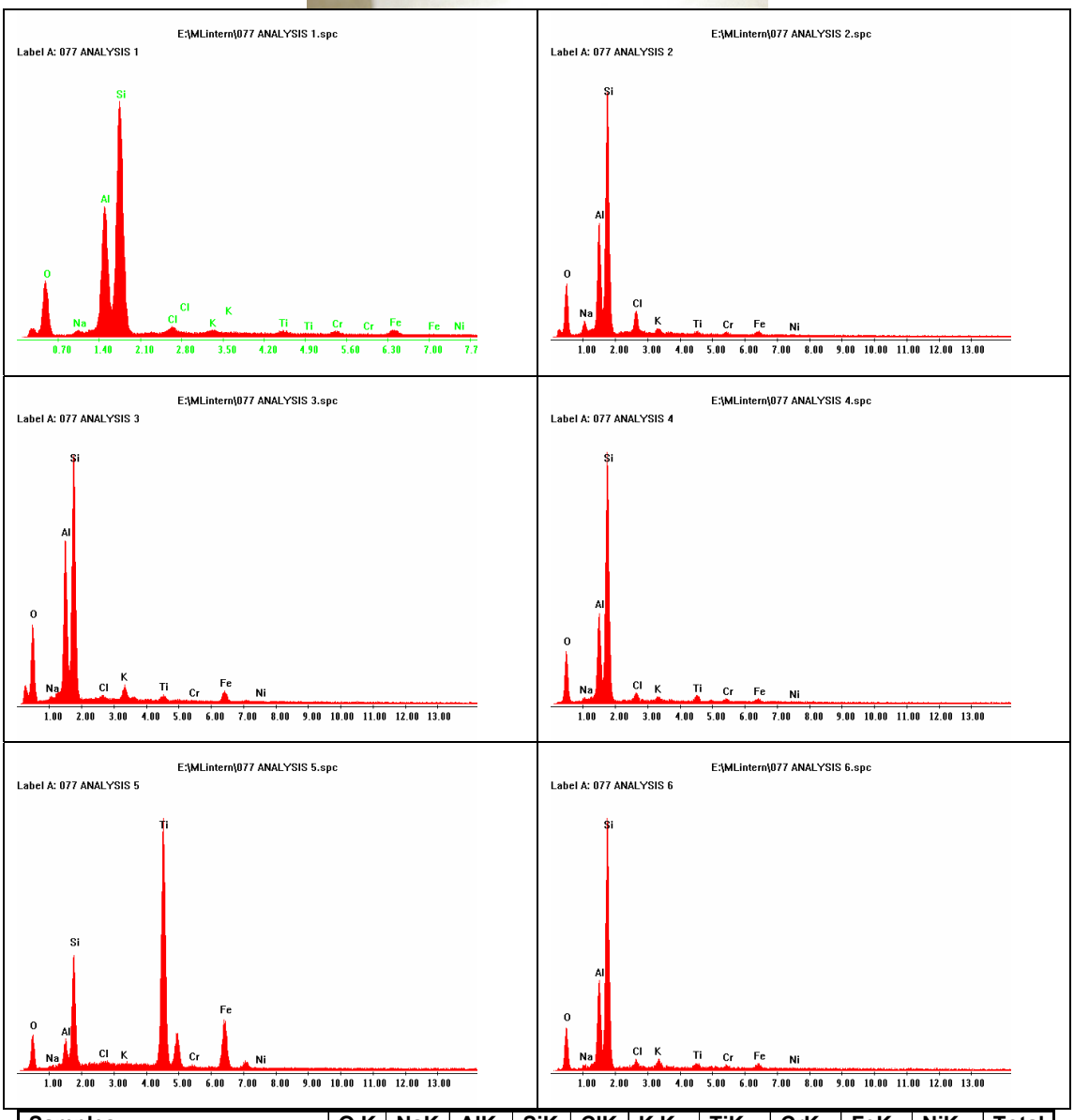
Appendix 12: SEM studies

Investigation of elemental content of selected green coloured material from drill cuttings

Photograph of all samples showing approximate location of analyses

ETAR077 06-08m

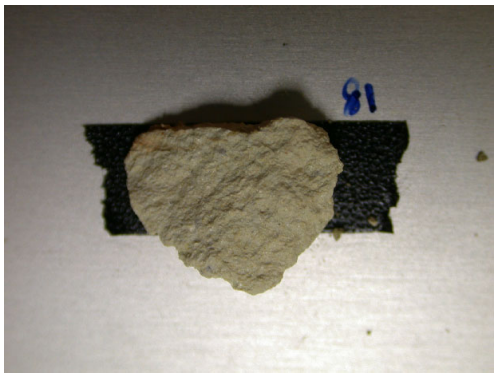
Field of view of photograph is approximately 2cm

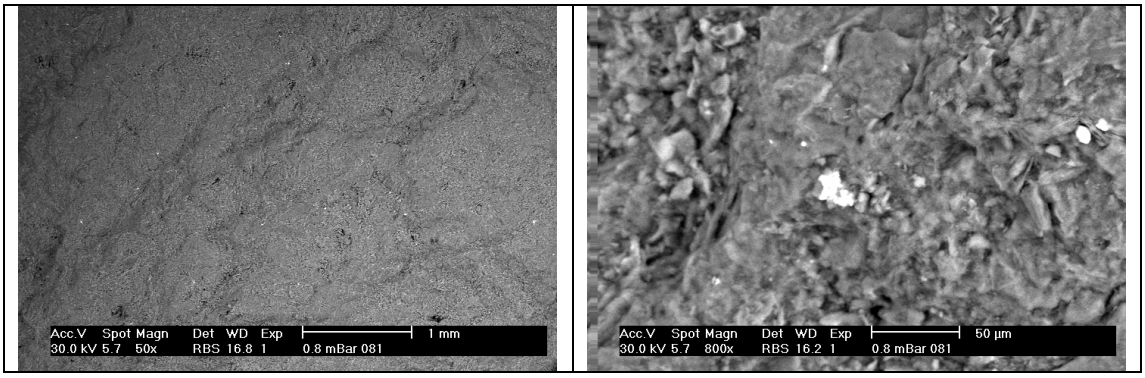


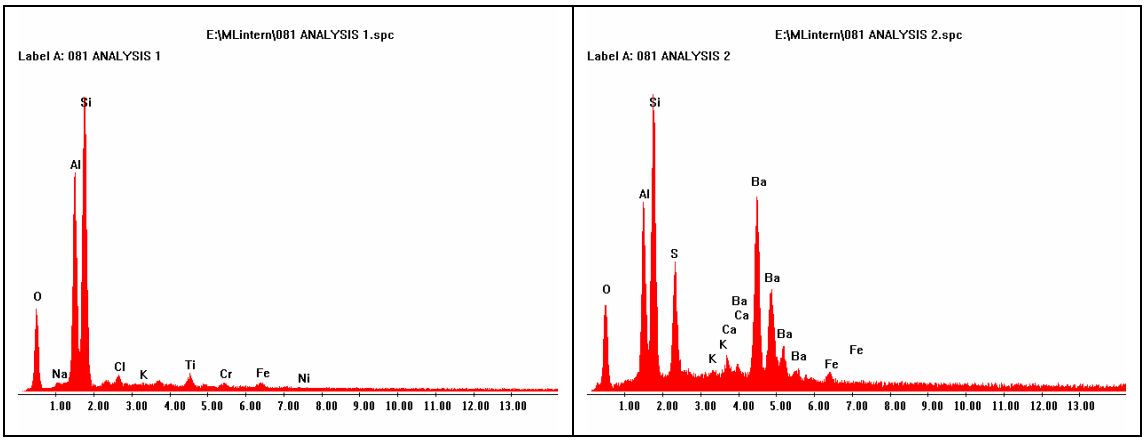
Samples	O K	NaK	AlK	SiK	ClK	K K	TiK	CrK	FeK	NiK	Total
077 ANALYSIS 2.spc	40.4	4.4	14.9	35.6	3.2	0.6	0.2	0.2	0.4	0.1	100.0
077 ANALYSIS 3.spc	46.2	1.7	17.4	31.8	0.5	1.1	0.4	0.0	0.9	0.1	100.0
077 ANALYSIS 4.spc	43.5	1.9	13.2	38.4	1.2	0.4	0.6	0.3	0.4	0.1	100.0
077 ANALYSIS 5.spc	45.6	1.5	6.0	19.3	0.4	0.2	20.5	0.1	6.5	0.0	100.0
077 ANALYSIS 6.spc	40.0	2.0	13.6	40.4	1.4	1.0	0.6	0.3	0.6	0.2	100.0
081 ANALYSIS 1.spc	43.0	1.5	19.2	33.9	0.9	0.1	0.7	0.2	0.4	0.1	100.0

ETAR081 06-08m

Field of view of colour photograph is approximately 2cm



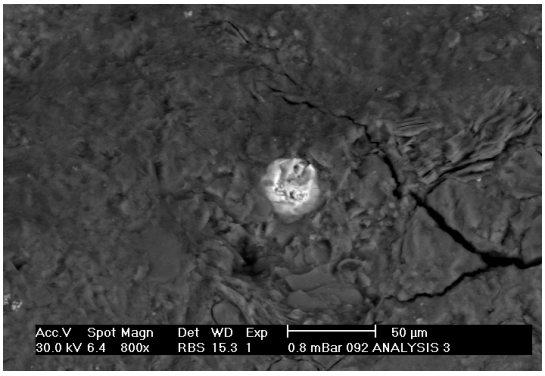


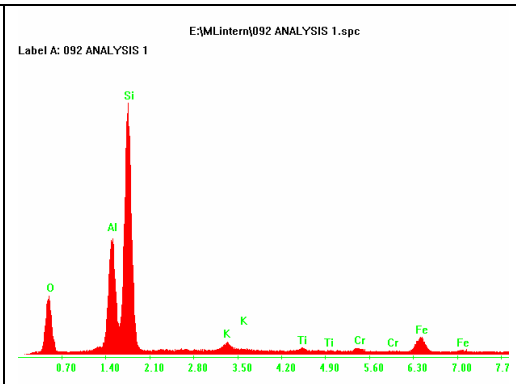


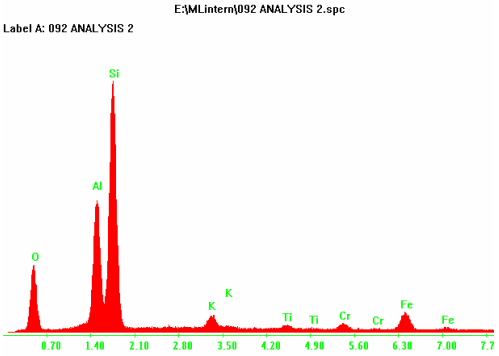
Samples	O K	AlK	SiK	S K	K K	CaK	BaL	FeK	Total
081 ANALYSIS 2.spc	29.9	15.0	24.1	8.3	0.4	0.8	21.1	0.5	100.0

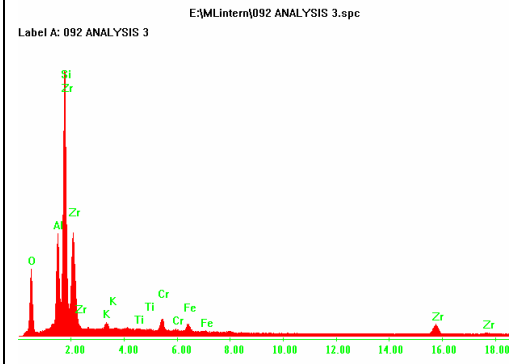
ETAR092 06-08m

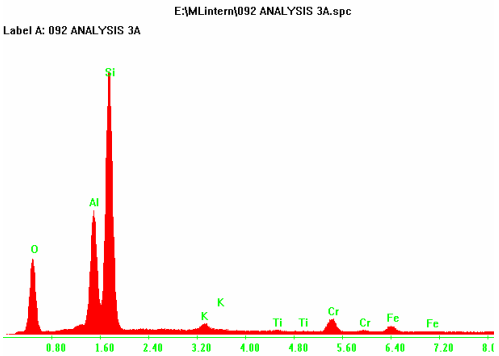
Field of view of colour photograph is approximately 2cm

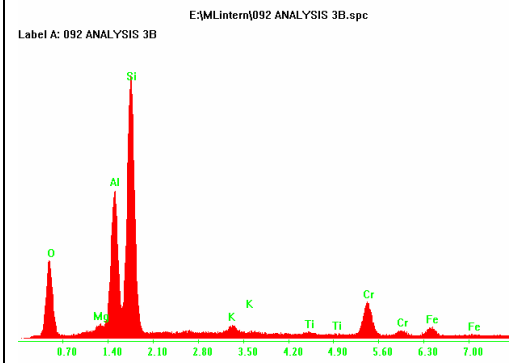








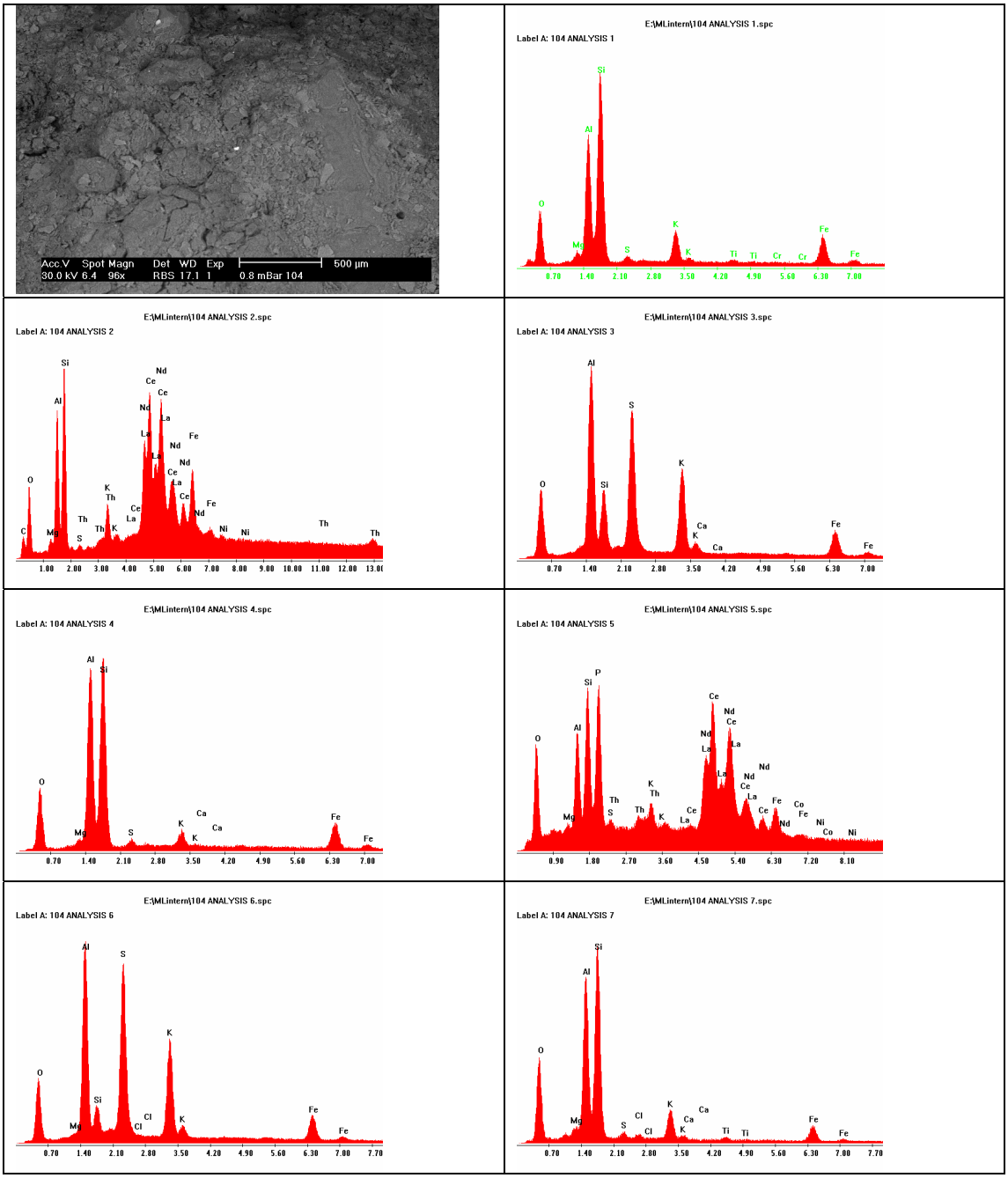




Samples	O K	AlK	SiK	K K	TiK	CrK	FeK	ZrK	MgK	Total
092 ANALYSIS 1.spc	43.8	15.7	37.7	0.8	0.2	0.3	1.6			100.0
092 ANALYSIS 2.spc	44.4	16.3	35.5	1.3	0.3	0.5	1.8			100.0
092 ANALYSIS 3.spc	45.8	11.6	30.5	0.6	0.1	0.9	0.7	9.8		100.0
092 ANALYSIS 3A.spc	47.7	14.6	35.1	0.6	0.1	1.1	0.6	0.3		100.0
092 ANALYSIS 3B.spc	44.5	16.2	33.5	0.7	0.2	2.4	0.7	0.6	1.2	100.0

ETAR104 24-26m

Field of view of colour photograph is approximately 2cm



Samples	O K	MgK	AlK	SiK	S K	K K	TiK	CrK	FeK	ZrK	Total				
104 ANALYSIS 1.spc	41.5	2.1	17.4	31.0	0.9	3.1	0.3	0.1	2.8	0.7	100				
Samples	C K	O K	MgK	AlK	SiK	S K	K K	LaL	CeL	NdL	FeK	NiK	ThL	Total	
104 ANALYSIS 2.spc	26.3	20.3	1.3	10.5	11.6	0.0	1.0	6.7	10.8	5.1	2.7	0.2	3.48	100	
Samples	O K	AlK	SiK	S K	K K	CaK	FeK	Total							
104 ANALYSIS 3.spc	46.7	21.3	8.9	14.4	6.6	0.0	2.1	100							
Samples	O K	MgK	AlK	SiK	S K	K K	CaK	FeK	Total						
104 ANALYSIS 4.spc	40.9	1.5	22.0	30.5	1.1	1.5	0.1	2.5	100						
Samples	O K	MgK	AlK	SiK	P K	S K	ThM	K K	LaL	CeL	NdL	FeK	CoK	NiK	Total
104 ANALYSIS 5.spc	30.8	2.7	10.4	12.4	13.0	1.5	3.3	1.3	7.2	12.4	4.0	1	0	0	100
Samples	O K	MgK	AlK	SiK	S K	ClK	K K	FeK	Total						
104 ANALYSIS 6.spc	44.7	1.5	22.4	5.2	16.2	0.6	7.4	2.0	100						
Samples	O K	MgK	AlK	SiK	S K	ClK	K K	CaK	TiK	FeK	Total				
104 ANALYSIS 7.spc	47.7	2.4	18.7	26.0	1.0	0.5	2.3	0.0	0.2	1.3	100				

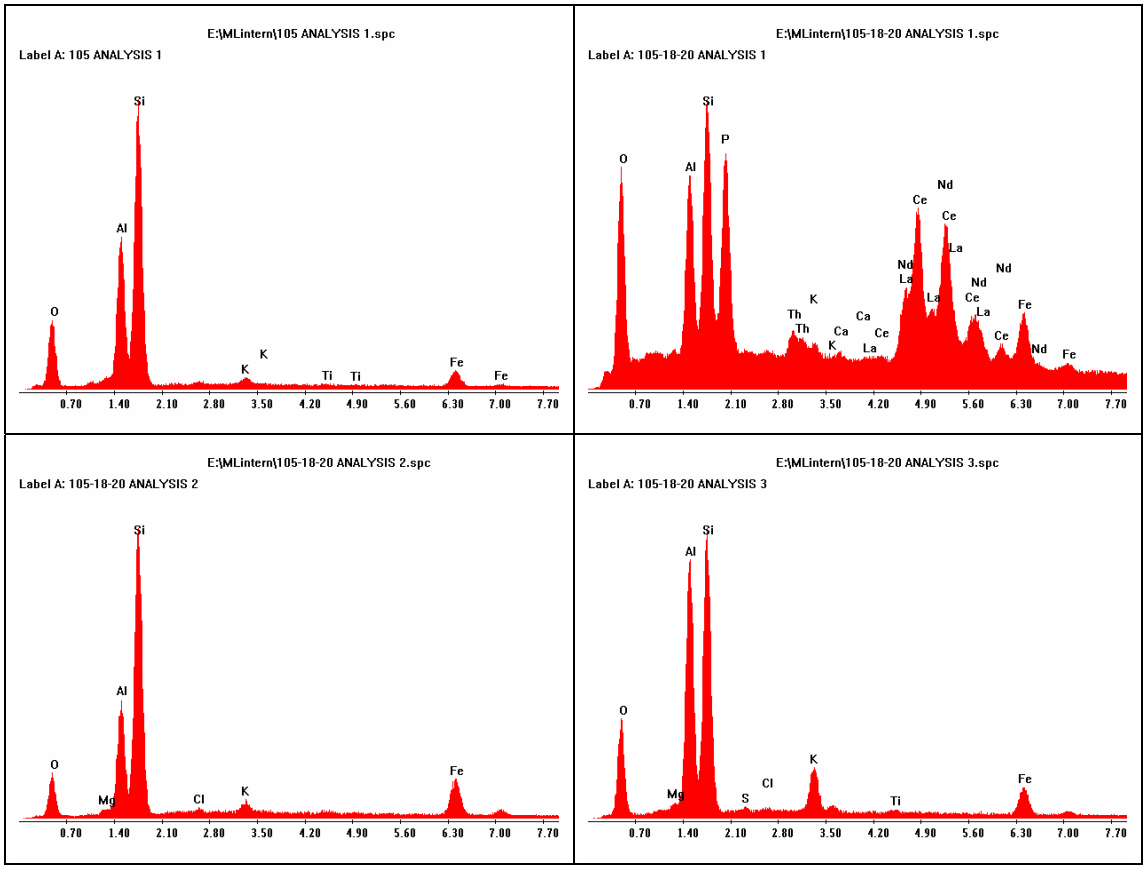
ETAR105 16-18m

Field of view of colour photograph is approximately 2cm

Samples	O K	AlK	SiK	K K	TiK	FeK	Total
105 ANALYSIS 1.spc	41.5	17.1	38.3	0.8	0.1	2.2	100

ETAR105 18-20m

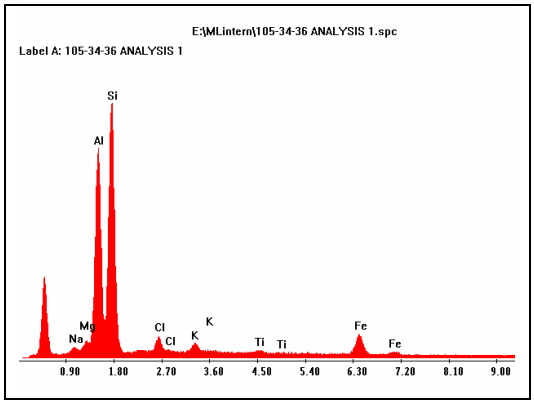
Field of view of colour photograph is approximately 2cm



Samples	O K	AlK	SiK	P K	K K	CaK	LaL	CeL	NdL	FeK	ThL	Total
105-18-20 ANALYSIS 1.spc	35.8	11.9	14.5	12.6	0.6	0.2	5.1	12.3	5.3	1.7	0.0	100
Samples	O K	MgK	AlK	SiK	ClK	K K	FeK	Total				
105-18-20 ANALYSIS 2.spc	33.1	1.4	15.1	43.4	0.7	1.3	4.9	100				
Samples	O K	MgK	AlK	SiK	S K	ClK	K K	TiK	FeK	Total		
105-18-20 ANALYSIS 3.spc	42.2	1.2	21.0	29.5	0.5	0.3	3.0	0.2	2.2	100		

ETAR105 34-36m

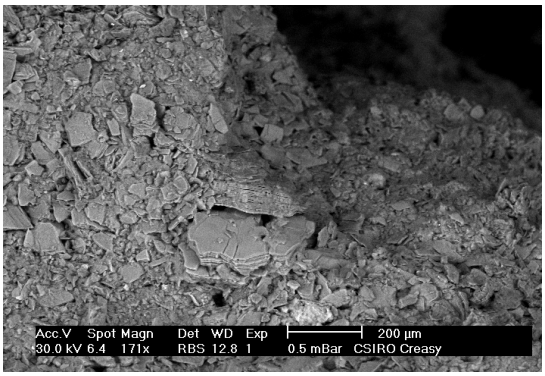
Field of view of colour photograph is approximately 2cm

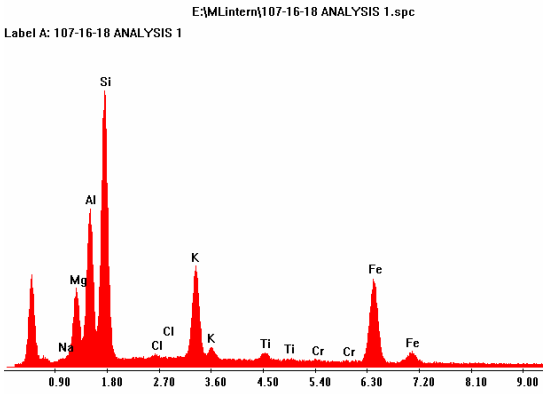


Samples	O K	NaK	MgK	AlK	SiK	ClK	K K	TiK	FeK	Total
105-34-36 ANALYSIS 1.spc	40.0	2.1	2.0	20.3	31.3	1.6	0.7	0.2	1.8	100

ETAR107 16-18m

Field of view of colour photograph is approximately 2cm

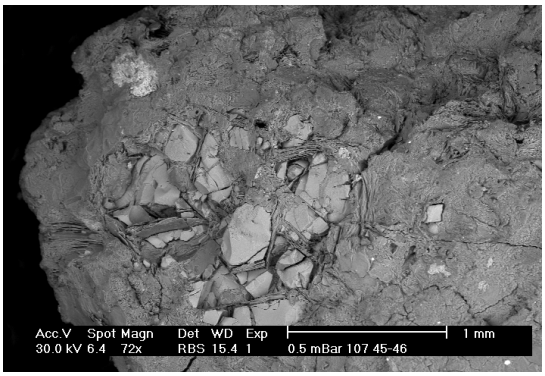


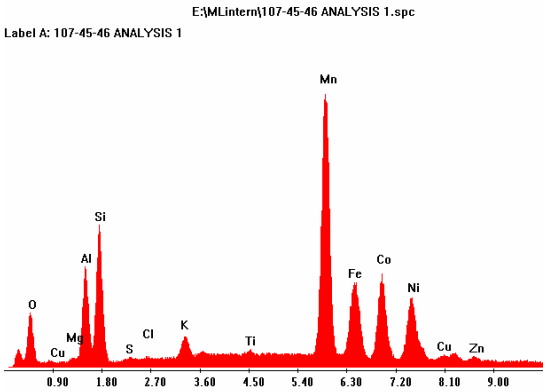


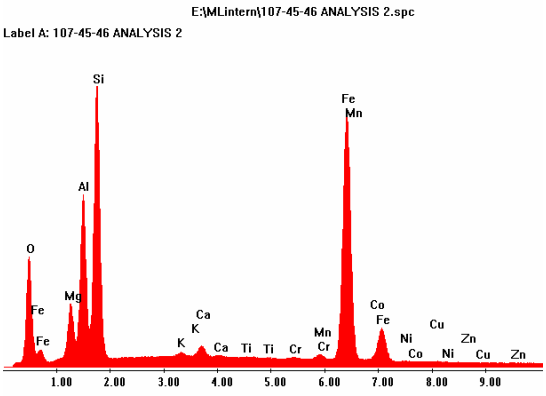
Samples	O K	NaK	MgK	AlK	SiK	ClK	K K	TiK	CrK	FeK	Total
107-16-18 ANALYSIS 1.spc	36.7	1.0	8.0	15.0	26.7	0.3	5.4	0.5	0.1	6.5	100

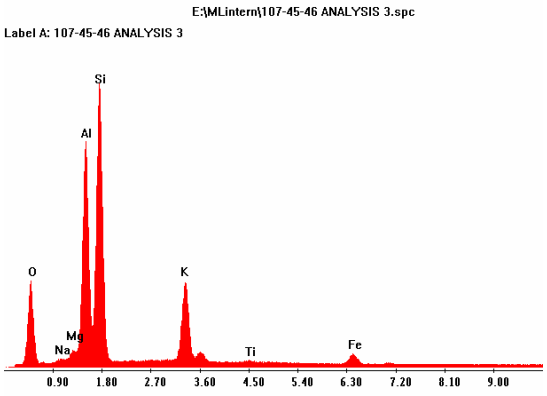
ETAR107 45-46m

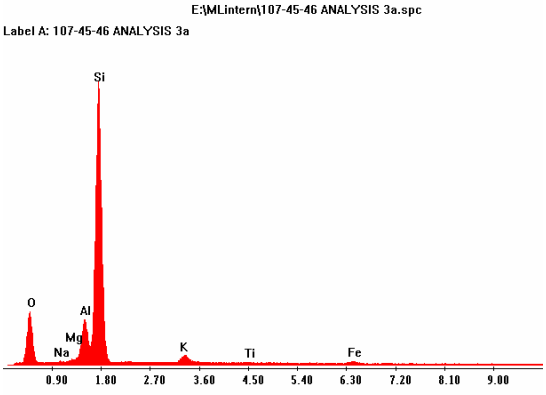
Field of view of colour photograph is approximately 2cm







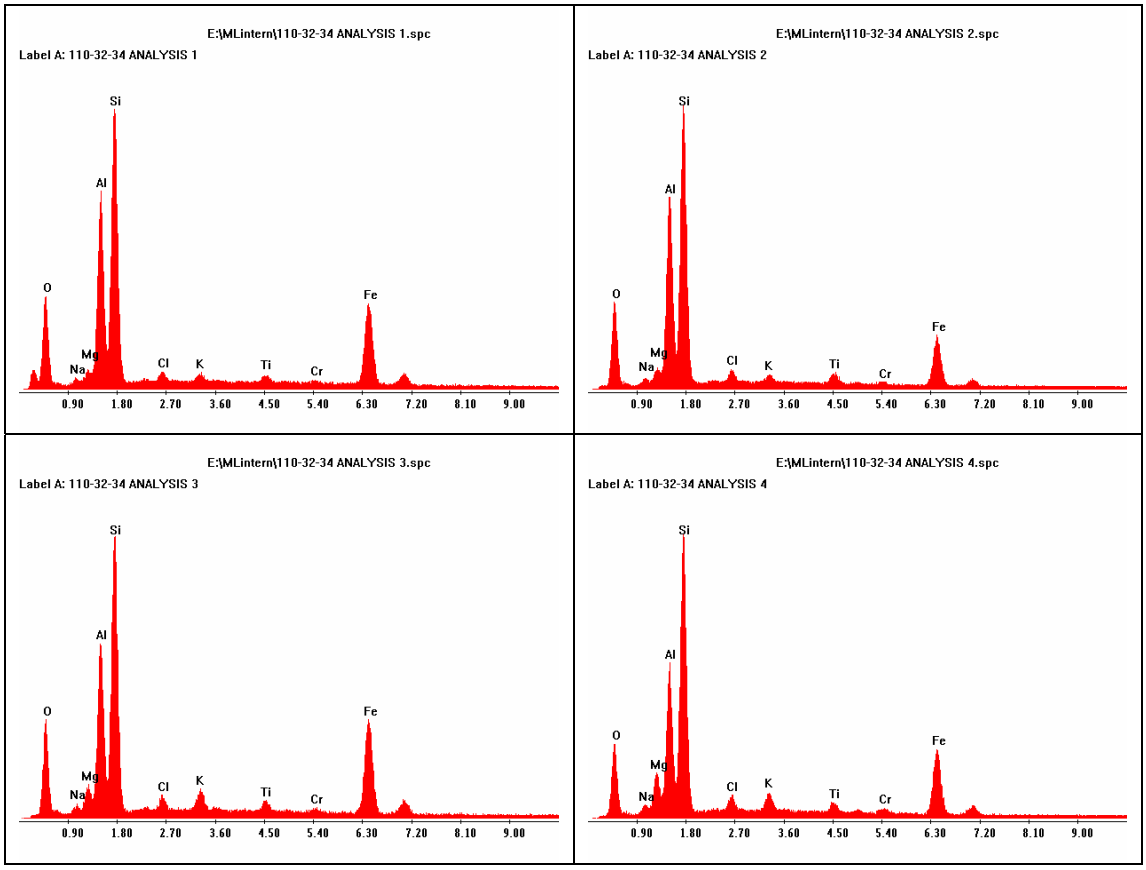




Samples	O K	MgK	AlK	SiK	S K	ClK	K K	TiK	MnK	FeK	CoK	NiK	CuK	ZnK	Total
107-45-46 ANALYSIS 1.spc	19.6	1.4	13.9	17.7	0.3	0.2	1.4	0.2	21.7	4.9	9.2	7.89	0.66	0.8	100
Samples	O K	MgK	AlK	SiK	K K	CaK	TiK	CrK	MnK	FeK	CoK	NiK	CuK	ZnK	Total
107-45-46 ANALYSIS 2.spc	32.8	6.8	15.7	25.7	0.3	0.6	0.1	0.1	0.3	17.4	0.1	0.01	0.04	0	100
Samples	O K	NaK	MgK	AlK	SiK	K K	TiK	FeK	Total						
107-45-46 ANALYSIS 3.spc	41.2	1.4	1.8	19.4	29.5	5.6	0.2	0.9	100						
107-45-46 ANALYSIS 3a.spc	45.5	1.4	1.2	7.8	42.6	1.0	0.1	0.5	100						
107-45-46 ANALYSIS 3.spc	55.4	1.3	1.62	15.5	22.6	3.1	0.07	0.4	100						
107-45-46 ANALYSIS 3a.spc	59.4	1.3	0.98	6	31.6	0.5	0.02	0.2	100						

ETAR110 32-34m

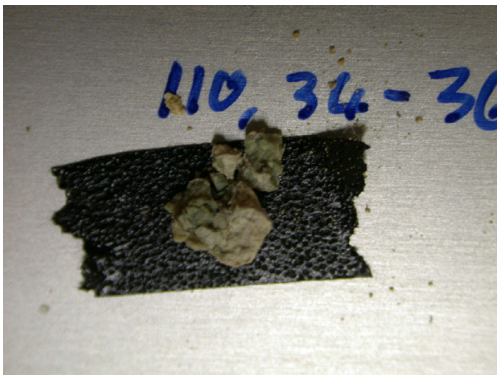
Field of view of colour photograph is approximately 2cm

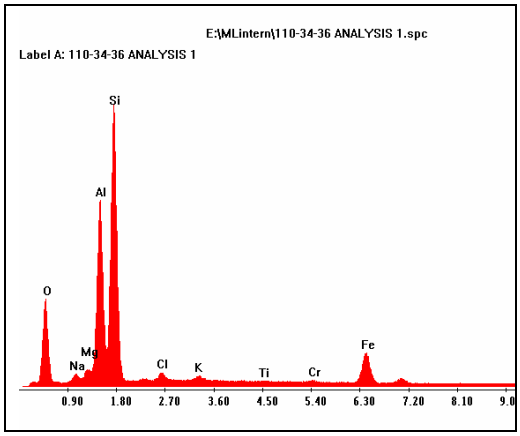


Samples	O K	NaK	MgK	AlK	SiK	ClK	K K	TiK	CrK	FeK	Total
110-32-34 ANALYSIS 1.spc	37.2	1.5	1.9	18.2	30.7	0.9	0.6	0.6	0.2	8.2	100
110-32-34 ANALYSIS 2.spc	37.9	2.1	2.5	18.6	31.2	1.3	0.6	0.7	0.2	5.0	100
110-32-34 ANALYSIS 3.spc	37.5	2.2	3.7	16.6	29.0	1.1	1.3	0.7	0.3	7.7	100
110-32-34 ANALYSIS 4.spc	34.2	2.5	5.7	15.9	31.7	1.4	1.4	0.8	0.5	6.0	100

ETAR110 34-36m

Field of view of colour photograph is approximately 2cm

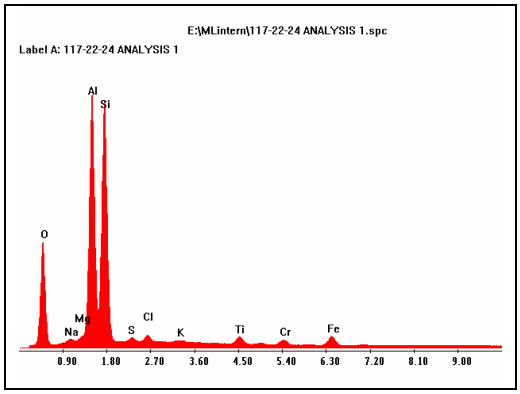




Samples	O K	NaK	MgK	AlK	SiK	ClK	K K	TiK	CrK	FeK	Total
110-34-36 ANALYSIS 1.spc	39.6	2.5	2.2	18.5	32.5	0.8	0.4	0.1	0.2	3.3	100

ETAR117 22-24m

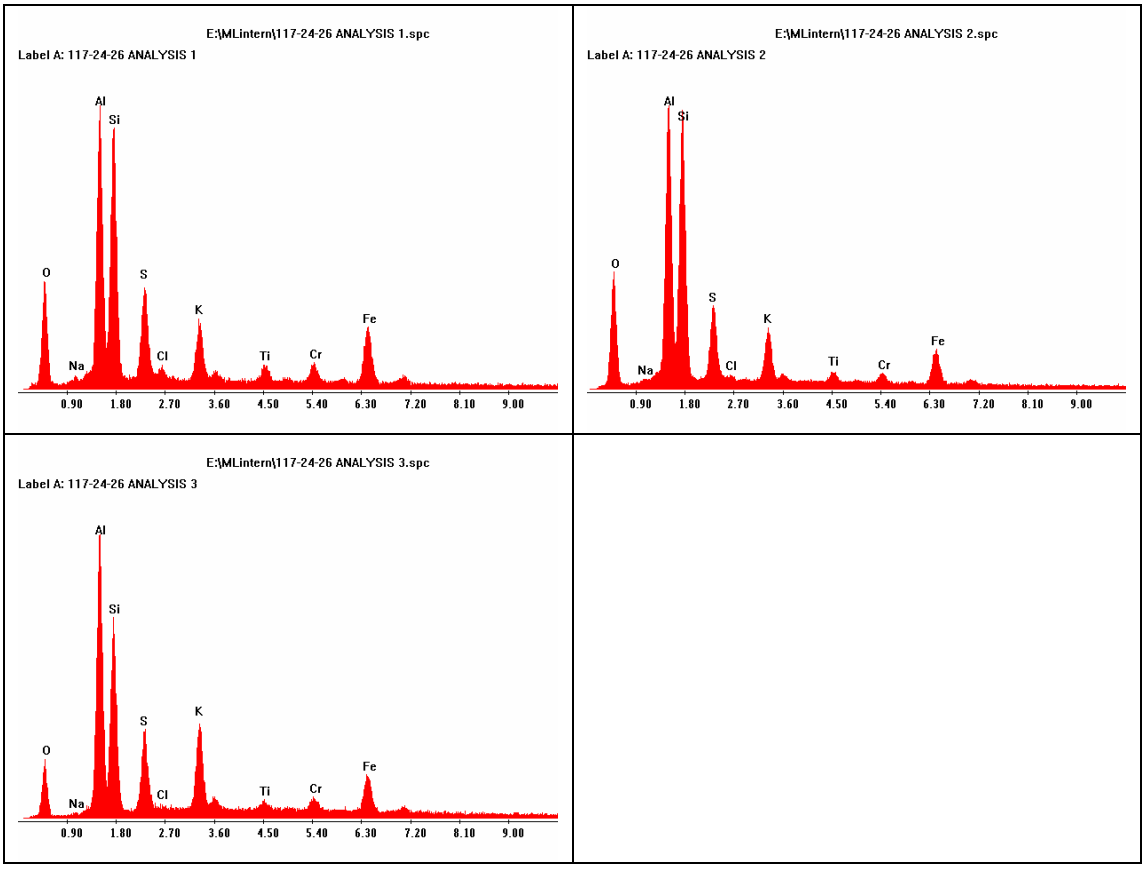
Field of view of colour photograph is approximately 2cm



Samples	O K	NaK	MgK	AlK	SiK	S K	ClK	K K	TiK	CrK	FeK	Total
117-22-24 ANALYSIS 1.spc	43.9	1.6	1.2	22.2	28.0	0.5	0.7	0.2	0.5	0.4	0.9	100

ETAR117 24-26m

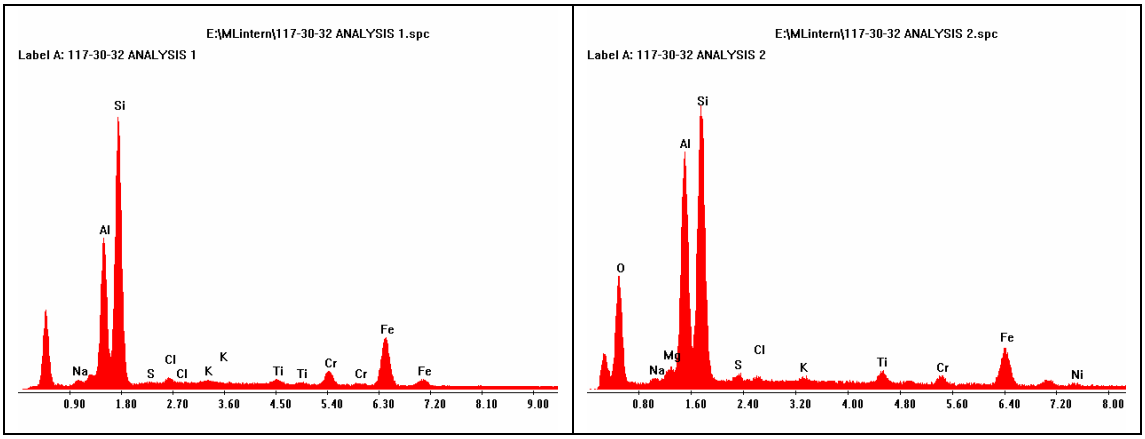
Field of view of colour photograph is approximately 2cm



Samples	O K	NaK	AlK	SiK	S K	ClK	K K	TiK	CrK	FeK	Total
117-24-26 ANALYSIS 1.spc	40.3	1.1	19.2	21.5	7.5	1.0	3.3	0.9	1.1	4.1	100
117-24-26 ANALYSIS 2.spc	43.6	1.7	19.5	22.6	6.2	0.6	2.8	0.5	0.5	2.1	100
117-24-26 ANALYSIS 3.spc	32.7	0.7	23.9	22.7	8.6	0.3	6.4	0.6	1.0	3.2	100

ETAR117 30-32m

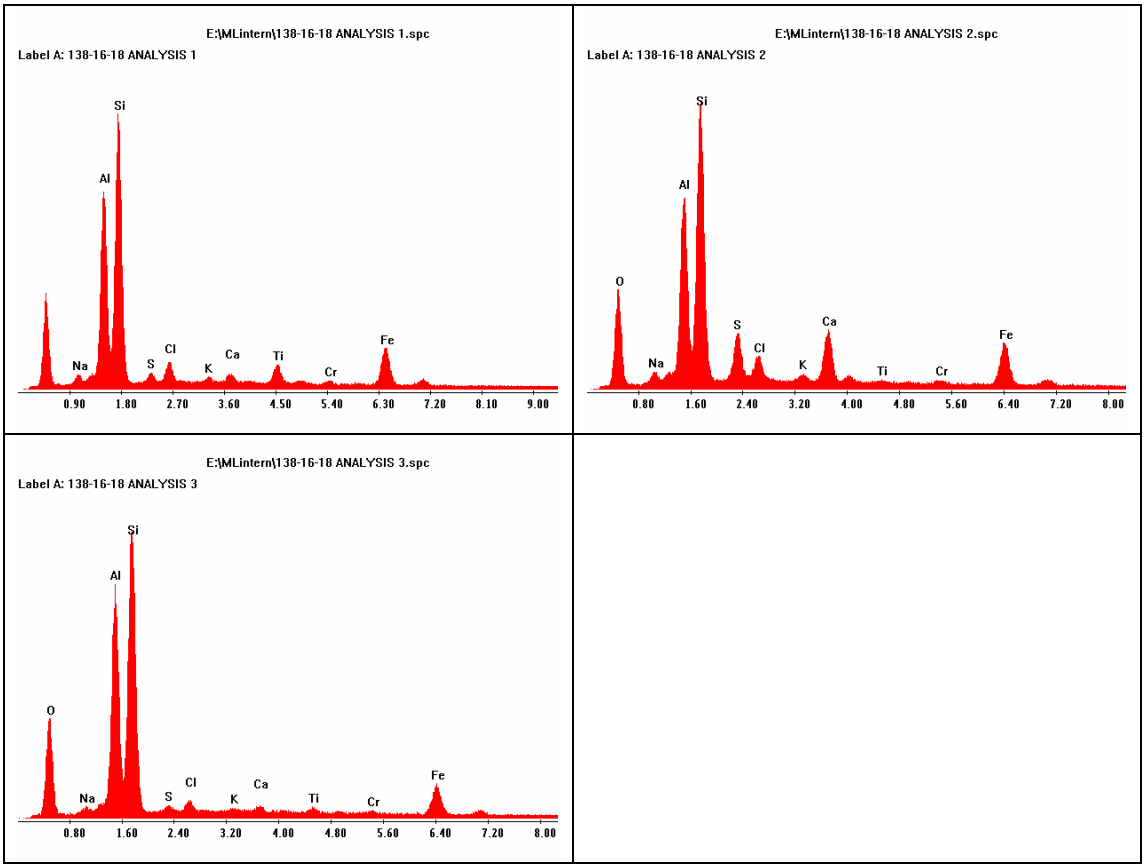
Field of view of colour photograph is approximately 2cm



Samples	O K	NaK	MgK	AlK	SiK	S K	ClK	K K	TiK	CrK	FeK	NiK	Total
117-30-32 ANALYSIS 1.spc	39.9	1.5	1.8	16.3	33.3	0.2	0.6	0.3	0.4	1.1	4.6		100
117-30-32 ANALYSIS 2.spc	43.2	1.9	2.3	19.4	27.7	0.9	0.4	0.3	0.7	0.5	2.5	0.2	100

ETAR138 16-18m

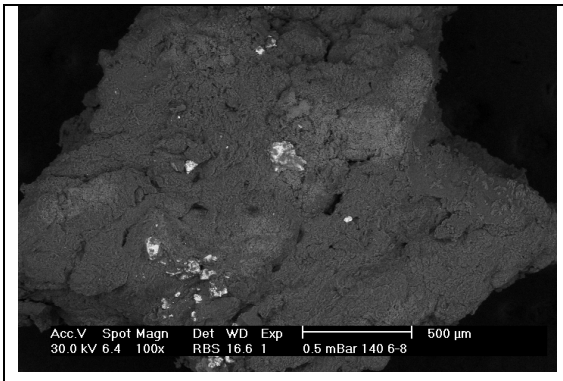
Field of view of colour photograph is approximately 2cm

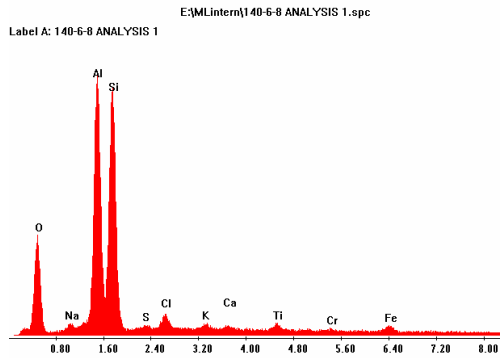


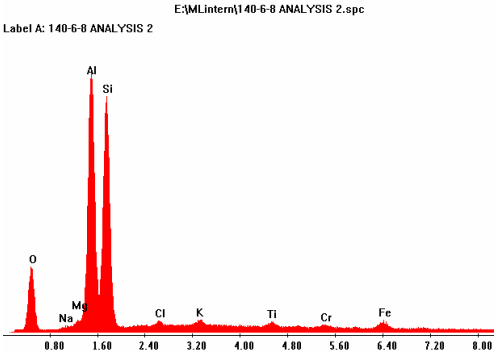
Samples	O K	NaK	AlK	SiK	S K	ClK	K K	CaK	TiK	CrK	FeK	Total
138-16-18 ANALYSIS 1.spc	41.7	2.9	17.9	28.6	1.2	1.9	0.4	0.6	1.3	0.2	3.3	100
138-16-18 ANALYSIS 2.spc	41.7	3.2	15.8	25.1	4.8	2.4	0.6	2.9	0.2	0.2	3.2	100
138-16-18 ANALYSIS 3.spc	43.2	2.1	19.2	29.9	0.9	1.1	0.2	0.3	0.4	0.2	2.5	100

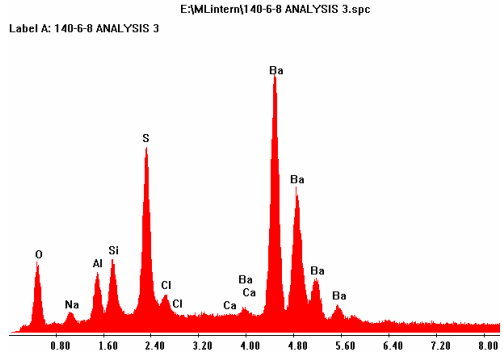
ETAR140 06-08m

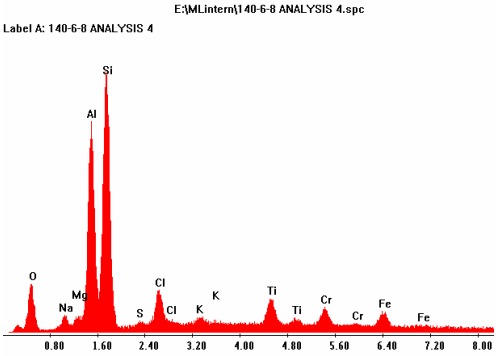
Field of view of colour photograph is approximately 2cm







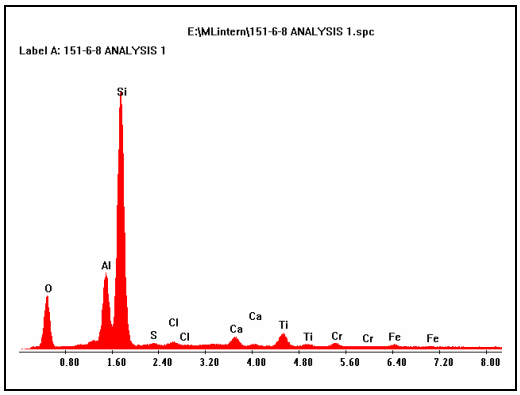




Samples	O K	NaK	AlK	SiK	S K	ClK	K K	CaK	TiK	CrK	FeK	MgK	BaL	Total
140-6-8 ANALYSIS 1.spc	43.3	2.2	22.5	28.2	0.5	1.4	0.4	0.3	0.5	0.2	0.6			100
140-6-8 ANALYSIS 2.spc	36.4	1.0	25.6	32.9		0.6	0.6		0.5	0.3	0.8	1.4		100
140-6-8 ANALYSIS 3.spc	23.6	2.8	7.3	7.3	14.4	2.3		0.4					41.8	100
140-6-8 ANALYSIS 4.spc	28.8	3.2	21.0	33.8	0.7	4.1	0.6		2.4	1.7	1.7	2.0		100

ETAR151 06-08m

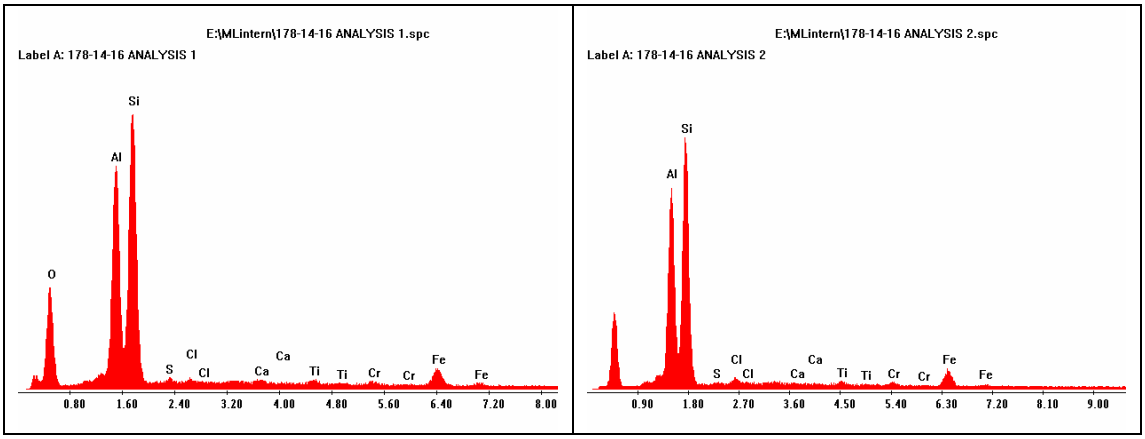
Field of view of colour photograph is approximately 2cm



Samples	O K	AlK	SiK	S K	ClK	CaK	TiK	CrK	FeK	Total
151-6-8 ANALYSIS 1.spc	44.4	11.01	39.8	0.4	0.5	1.0	1.8	0.5	0.5	100

ETAR178 14-16m

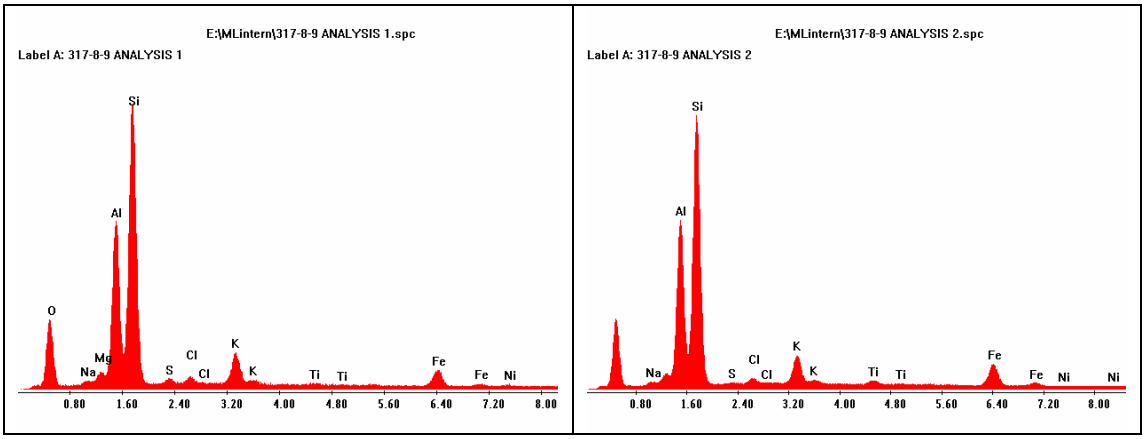
Field of view of colour photograph is approximately 2cm



Samples	O K	AlK	SiK	S K	ClK	CaK	TiK	CrK	FeK	NaK	MgK	Total
178-14-16 ANALYSIS 1.spc	46.5	19.6	31.2	0.3	0.3	0.2	0.3	0.2	1.3			100
178-14-16 ANALYSIS 2.spc	41.7	20.6	32.6	0.1	0.6	0.1	0.2	0.2	1.3	1.0	1.6	100

ETAR317 08-09m

Field of view of colour photograph is approximately 2cm



Samples	O K	NaK	MgK	AlK	SiK	S K	ClK	K K	TiK	FeK	NiK	Total
317-8-9 ANALYSIS 1.spc	39.0	1.6	2.2	17.2	34.1	0.7	0.8	2.5	0.2	1.5	0.2	100
317-8-9 ANALYSIS 2.spc	39.4	1.6	2.1	17.8	33.5	0.2	0.6	2.4	0.3	2.1		100

Appendix 13: CD containing report and data

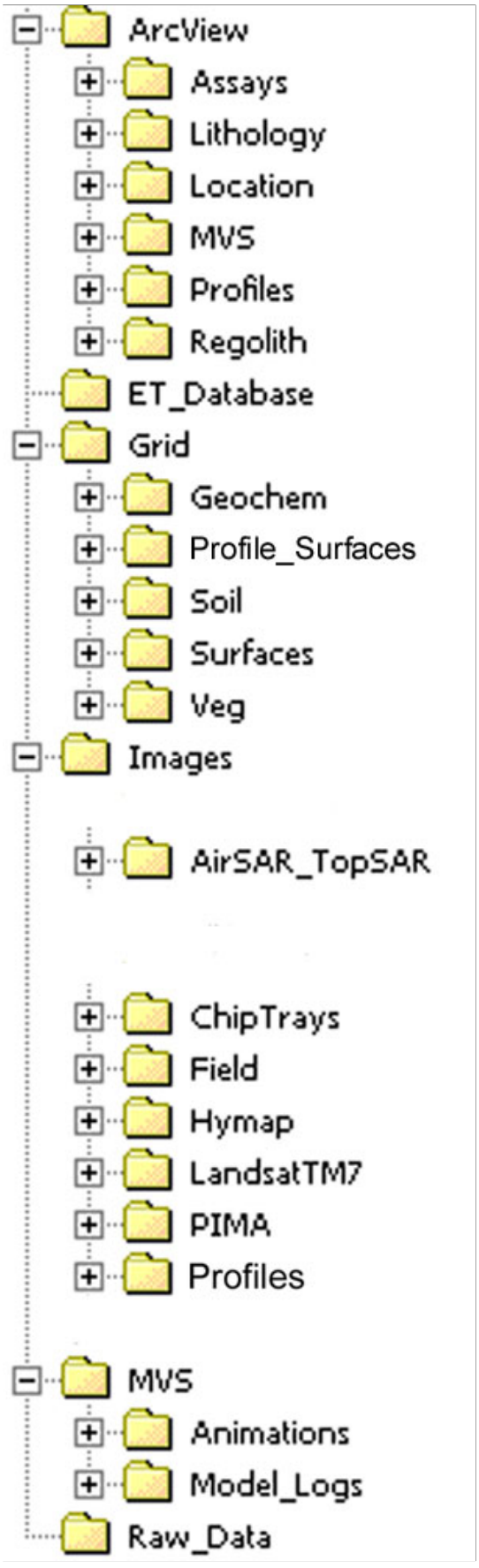


Figure A13.1: Directory Tree of data located on the report CD