

Appendix 1 Description of thin sections in the western Erdenet area

Appendix 2 Description of polished thin sections in the western Erdenet area

Ser. No.	Sample No.	Area	Coordinates		Rock Name	Description	Phenocrysts, crystals														Secondary Minerals														Ore Minerals														Remarks					
			N	E			quartz	K-feldspar	plagioclase	biotite	hornblende	orthopyroxene	clinopyroxene	epidote	zircon	opaque minerals	quartz	K-feldspar	muscovite	biotite	sericite	chlorite	epidote	actinolite	kaolinite	andalusite	carbonate	pyrite	pyrrhotite	hematite	limonite	magnetite	chalcocopyrite	chalcocite	covellite	bornite	azurite	pyrrhotite																
29	MA2226	Mogoin gol	5448738	410479	Brecciated andesite	silicification and agglutination																																						qtz veinlets										
30	MA2232	Mogoin gol	5449194	409582	Specularite vein	in silicified rock																																							qtz veinlets									
31	MA2238	Mogoin gol	5449171	410345	Secondary quartzite	many azurite spots and malachite, specularite																																																
32	MB2004	Under/Shand	5408209	441683	Bl. ho.Gd.	Kf porph., strong sili. and kait.																																																
33	MB2005	Under/Shand	5408209	441683	Granite	strong sili. and bi., generate sec. bi. along fractures																																																
34	MB2020	Under/Shand	5400895	441223	Ho. bi. Gd. (with malachite)	strong sili., with malachite																																																
35	MB2021	Under/Shand	5400892	441206	Ho. bi. Gd. (with malachite)	strong sili., with malachite and molybdenite?																																																
36	MB2022	Under/Shand	5400895	441223	Hg.gabbro	boulder, cumulate of Gd.?																																																
37	MB2032	Under/Shand	5406150	440463	Quartz vein	boulder, with epi. in fractures																																																
38	MB2034	Under/Shand	5407185	442459	Quartz vein in Gd.	silicified and bleached zone in kf. porph. Gd., chl.-epi.																																																
39	MB2036	Under/Shand	5406827	442305	Quartz vein	silicified and bleached zone in kf. porph. Gd.																																																
40	MB2072	Under/Shand	5404574	443726	Quartz vein	in oxidized zone of andesite																																																
41	MB2074	Under/Shand	5404580	443750	Strong oxidized Ad.	in strong oxidized zone of andesite																																																
42	MB2075	Under/Shand	5404632	443784	Oxidized Ad.	py. diss., in strong oxidized zone of andesite																																																
43	MB2085	Under/Shand	5404584	438531	Quartz vein	with epi.																																																
44	MB2095	Under/Shand	5400869	441206	Strong oxidized Gd. with Cpl	strong sili., mod. to strong sili.																																																
45	MB2104	Under/Shand	5404527	443756	Strong sili. and oxidized Ad.	with oxidized Fe.																																																
46	MB2013	Under/Shand	5401102	441582	Quartz vein	w:1-2cm, smoky																																																
47	MB2025	Under/Shand	5406382	442346	Quartz vein	with epi. or Cu.?, in silicified zone																																																
48	MB2048	Under/Shand	5404527	443756	Oxidized Gd. po.	with magnetite																																																
49	MD2049	Under/Shand	5404609	443803	Oxidized Ad.	py. diss.																																																
50	MD2068	Under/Shand	5403259	440212	Quartz vein	with oxidized Cu.																																																
51	MD2059	Under/Shand	5403492	440422	Quartz vein	in kait. Gd. with epi.																																																

Appendix 3 Results of X-ray diffraction analyses in the western Erdenet area

Ser. No.	Sample No.	Area	Coordinates		Rock Name	Geological Unit	Description	Silicate Minerals											Other Minerals						
			N	E				Quartz	Feldspar		Clay minerals					Other				pyrite	goethite	hematite			
									plagioclase	K-feldspar	smectite	Chlorite/Smectite	chlorite	sericite	kaolin	alunite	hornblende	biotite	epidote				andalusite	clinoptilolite	
1	MA2002	Mogoin gol	5441809	410705	Pl-andesite	α β anT2-J1	with limonite films and veins	3	6	3	1														
2	MA2014	Mogoin gol	5442801	410927	Argi.-sil.-rock	α β anT2-J1	with limonite veinlets	31				16													
3	MA2015	Mogoin gol	5442794	410600	Argi.-sil.-rock	α β rT2-J1	with pyrite holes and limonite films	30					20												
4	MA2016	Mogoin gol	5443386	409896	Pl-andesite	α β anT2-J1	spotted epidote minerals and limonite films	1	11	2	1														
5	MA2019	Mogoin gol	5444345	410108	Ho-diorite	δ J1	weathering, kaolinite, limonite films		10	1			2				3								
6	MA2020	Mogoin gol	5444620	410247	Ho-andesite	α β anT2-J1	with silicifications.	15	5							1									
7	MA2028	Mogoin gol	5443999	408549	granodiorite	δ TT1s	weathered	10	8	6							0								
8	MA2029	Mogoin gol	5447077	408233	Ho-bi-granodiorite	δ TT1s		1	10	2							7								
9	MA2032	Mogoin gol	5445872	408097	Aphanitic andesite	α β anP2		0	5	1							2								
10	MA2034	Mogoin gol	5447016	408216	Micro-diorite porphyry	δ TT1s		4	8	1							6								
11	MA2040	Mogoin gol	5449385	408100	Aphanitic andesite	D α		3	8	3			1				4	1							
12	MA 2041	Mogoin gol	5448919	409134	Aphanitic andesite	α β anP2		2	11				1	1			6								
13	MA2042	Mogoin gol	5446882	409667	Secondary quartzite	AZ	with muscovite, granular with limonite, pyrite holes.	64								1									
14	MA2045	Mogoin gol	5445777	409266	Aphanitic andesite	α β anP2	moderate chloritization	4	5	1			1				2	0							
15	MA2046	Mogoin gol	5446343	410626	Basalt	α β anP2		6	9	1			1				1	0							
16	MA2049	Mogoin gol	5447383	410380	Aphanitic andesite	α β anP2	strong magnetization, disseminated	4	3	1			1				4	0							
17	MA2053	Mogoin gol	5448319	410495	Aphanitic andesite	α β anP2	weak silicification and chloritization	14	6	2			1				1								
18	MA2057	Mogoin gol	5449375	409532	Silicified rock	AZ	with pyrite holes, limonite, hematite, disseminated and films in fractures	45																	1
19	MA 2058	Mogoin gol	5448160	409766	Andesitic tuff	α β anP2	weak silicification, chloritization and epidotezation	5	9	3			1	1			4								
20	MA2060	Mogoin gol	5447182	410113	Fine granodiorite	γ δ π 3T1s	white silicification and chloritization	11	7	3			1				0								
21	MA2061	Mogoin gol	5446640	409935	Sil.-argi.-rock	AZ	pyrite holes with limonite films	17								2	9								1
22	MA2062	Mogoin gol	5446208	410054	Argi.-sil.-rock	AZ	pyrite holes with limonite films, muscovite, azulite and malacite minerals spotted.	30							1	6									3
23	MA2063	Mogoin gol	5447190	408885	Andesite	α β anP2			7	2							9								
24	MA2066	Mogoin gol	5448427	408730	Aphanitic andesite	α β anP2	silicification, chloritization with weak pyrite dissemination.	1	6	3				0			7								
25	MA2068	Mogoin gol	5446852	409308	Secondary quartzite	AZ	boxwork structure with hematite and limonite, pyrite holes, muscovite.	48									0								

Ser. No.	Sample No.	Area	Coordinates		Rock Name	Geological Unit	Description	Silicate Minerals										Other Minerals									
			N	E				Quartz	plagioclase	K-feldspar	smectite	Chlorite/Smectite	kaolin	alunite	hornblende	biotite	epidote	andalusite	clinochloite	pyrite	goethite	hematite					
51	MA2144	Erdenet SE	5428600	444146	Heterogeneous granodiorite	δ 3P2-T1s		14						1			17										
52	MA2145	Erdenet SE	5427934	444904	Micro diorite	δ 3P2-T1s		13						1			15										
53	MA2146	Erdenet SE	5427970	445302	Micro diorite	δ 3P2-T1s		17	10					2			5										
54	MA2147	Erdenet SE	5427906	445493	Micro diorite	δ 3P2-T1s		16	4					4			5										
55	MA2207	Mogoin gol	5448787	410970	Fine diorite	δ T1s		12	9	2				2			5	2									
56	MA2209	Mogoin gol	5447909	410971	Liparite	λ J1	silicification	24	15	3																	
57	MA2215	Mogoin gol	5450802	410200	Secondary quartzite	AZ	with azulite dissemination and films	54	0	1					1	1											4
58	MA2228	Mogoin gol	5447943	410370	Rhyorite porphyry	γ π J1		17	10	6																	
59	MB2001	Under/Shand	5401236	442146	Px.ho.bi.Gd.	γδ 2P2-T1s	med.grain, massive, pinkish color	9	26	9							2	2									
60	MB2006	Under/Shand	5402203	440810	Px.ho.bi.Gd.	γδ 1P2-T1s	med.grain, massive	16	23	7				1			5	3									
61	MB2007	Under/Shand	5402615	441174	Ho.bi.Gd.	γδ 1P2-T1s	mod. to strong sili. and kalt. with epi., bi segregate	25	17	8				1	1		1										
62	MB2010	Under/Shand	5401282	443433	Ho.bi.Gr.	γδ 2P2-T1s	zoned pl.porph., ho.seggregate and bi. remain	20	23	10					1		2										
63	MB2011	Under/Shand	5401030	442707	Ho.bi.Gr.	γδ 2P2-T1s	zoned pl.porph., ho.weak segregate and bi. remain	18	16	13							2	2									
64	MB2013	Under/Shand	5401463	442635	Ho.bi.Gd.	γδ 2P2-T1s	zoned pl.porph., ho.seggregate	22	17	9				0	1		1										
65	MB2015A	Under/Shand	5401722	442229	Ho.bi.Gd.	γδ 2P2-T1s	zoned pl.porph., ho.seggregate and bi. remain	17	18	10					3	1											
66	MB2015B	Under/Shand	5401102	441582	Ho.bi.Gd.	γδ 2P2-T1s	zoned pl.porph., epi.chl. generate along fracture	29	23	7					3	1											
67	MB2017	Under/Shand	5400698	439973	Aplite	γδ 2P2-T1s	w. 1m. kalt., with epidote, along sheared zone, pinkish color	33	14	13																	
68	MB2019	Under/Shand	5400919	440656	Ho.bi.Gd.	γδ 2P2-T1s	zoned pl.porph., chl.-epi. generate along joint	25	18	12					2	1		1									
69	MB2023	Under/Shand	5401208	441201	Ho.bi.Gd.	γδ 2P2-T1s	zoned pl.porph., chl.-epi.alt.	19	17	11					2		1										
70	MB2025	Under/Shand	5407271	439371	Ho.bi.Gd.	γδ 2P2-T1s	med.grain, mod. to weak kalt., ho.seggregate and chl. replace	22	14	7						1		1									
71	MB2026	Under/Shand	5407203	439666	Px.ho.Di.	δ 2P2-T1s	mod.sili., intrude to kalt. and sili. Gd.		9	1					2		6	1									
72	MB2028	Under/Shand	5407365	439074	Bi.ho.Gd.	γδ 2P2-T1s	zoned pl.porph., ho.seggregate with chl.alt.	20	11	7					1		1										
73	MB2037	Under/Shand	5406248	442397	Ho.bi.Gd.	γδ 1P2-T1s	melanocratic, weak sili.and epi.-chl.alt., ho.bi.seggregate.	28	15	4					0		2										
74	MB2038	Under/Shand	5406009	442514	Px.ho.Di.	γδ 1P2-T1s	mod.to strong sili.and glass.	15	13	4					1	1											
75	MB2039	Under/Shand	5407628	442600	Ho.bi.Gd.	ξ 3P2-T1s	med. to kf.porph, euhedral ho. inc.	22	21	3					0		2										

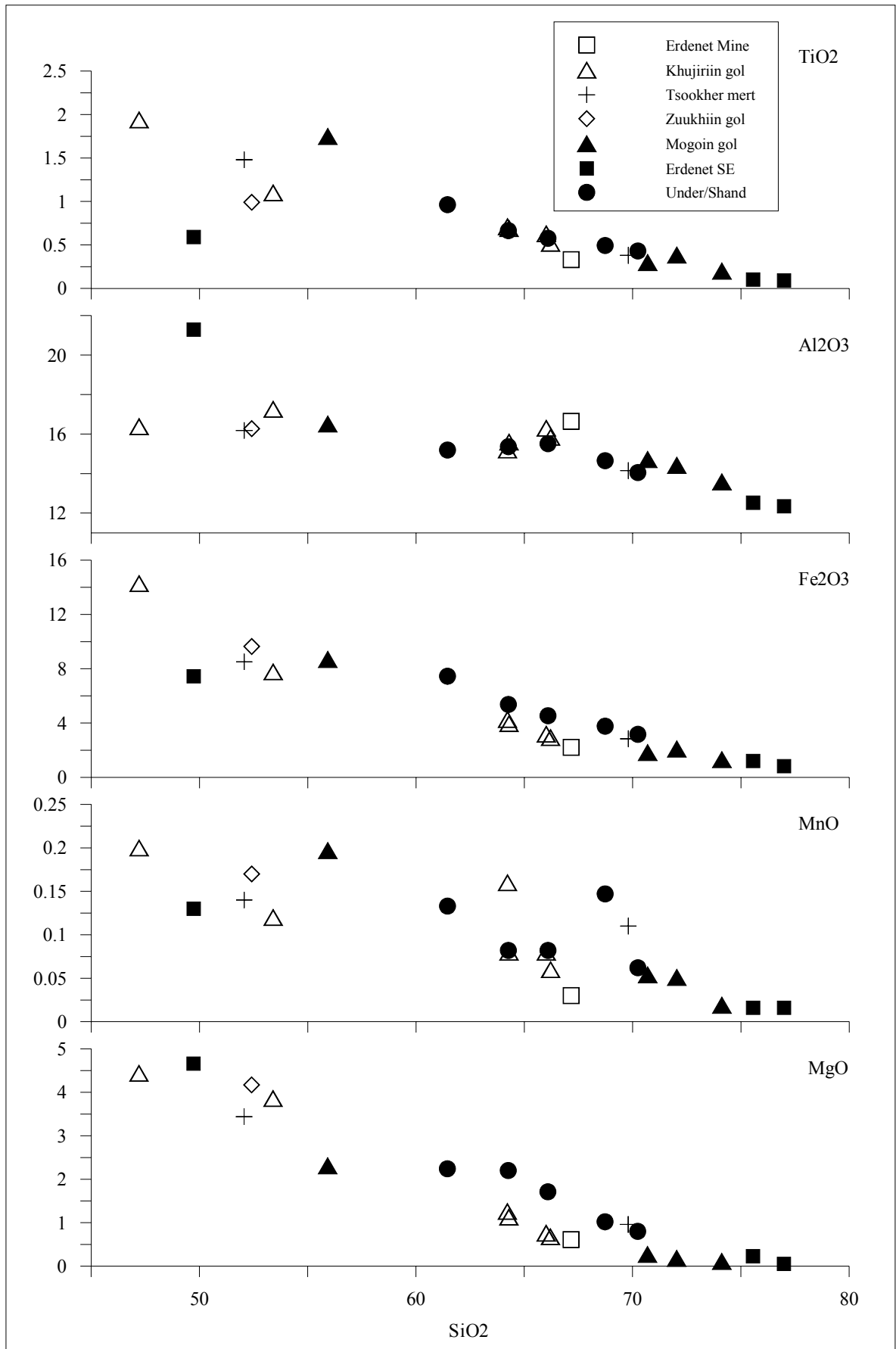
Ser. No.	Sample No.	Area	Coordinates		Rock Name	Geological Unit	Description	Silicate Minerals													Other Minerals						
			N	E				Quartz	plagioclase	K-feldspar	Clay minerals				Other				Other Minerals								
											smectite	chlorite/Smectite	chlorite	sercite	kaolin	alunite	hornblende	biotite	epidote	andalusite	clinochloite	pyrite	goethite	hematite			
76	MB2041	Under/Shand	5408603	443260	Ho.bi.Gd.	yō1P2-T1s	med.grain, euhedral ho.inc., weak sili.and chl.	9	12	3	1	1						4									
77	MB2042A	Under/Shand	5409158	443212	Ho.bi.Gd.	yō1P2-T1s	med.grain, euhedral ho.inc., mod.epi.-chl.	13	12	4	1	1						3									
78	MB2042B	Under/Shand	5409592	442130	Rhyolitic ignimbrite	αtP1hn1	vitic-crystalline ff, kf show pink color	26	13	3	2	1															
79	MB2044	Under/Shand	5409916	441999	Rhyolitic lapilli tuff	αtP1hn1	strong to moderate sili., include essential lense	28	14	2	1	1															
80	MB2046	Under/Shand	5408594	442089	Ho.bi.Gd.	ξt3P2-T1s	med.grain, moderate sili.and kalt., ho.and bi. segregate	25	20	4	1	1															
81	MB2047	Under/Shand	5408123	442083	Ho.bi.Gd.	ξt3P2-T1s	med.grain and kf.porph., weak kalt.,	30	22	6			1	1													
82	MB2049	Under/Shand	5407183	441956	Ho.bi.Gd.	yōr2P2-T1s	strong sili.and bleaching	41	24	5																	
83	MB2050	Under/Shand	5407270	441905	Bleached Gd.	λπP1hn1	strong bleached and oxidized to reddish brown color	33	26	7			0	1			3										
84	MB2051	Under/Shand	5407691	441967	Ho.bi.Gd.	yōr2P2-T1s	pl.porph., mod.to strong sili.and kalt., ho.bi.segregate	35	25	7					1	1											
85	MB2053	Under/Shand	5406985	441760	Ho.bi.Gd.	yōr2P2-T1s	pl.porph., strong sili., moderate kalt., heterogeneous	35	25	8					1	1											
86	MB2054	Under/Shand	5406220	442012	Ho.bi.Gd.	yōr2P2-T1s	pl.porph., strong kalt., gm show pink color	38	25	11					0	1											
87	MB2060	Under/Shand	5405992	441916	Silicified Bi.Gr.	λπP1hn1	marginal facies of pl.porph.Gd., heterogeneous	14	40	4							2										
88	MB2062	Under/Shand	5405918	442172	Andesite	Dα	dYe, pl.porph.(max0.2*2cm)	3	18	2				1			4										
89	MB2065	Under/Shand	5405520	442455	Bi.ho.Gd.	yōr2P2-T1s	pl.and kf.porph., Gd.Po.like, ho.remain(max0.1*0.8cm)	21	22	7					1												
90	MB2066	Under/Shand	5405199	442285	Ho.bi.Gd.	yōr2P2-T1s	pl.and kf.porph, strong kalt.and sili., bi.and ho.seg	15	27	10																	
91	MB2067	Under/Shand	5405254	442807	Ho.bi.Gd.	yōr2P2-T1s	kf.porph., weak sili.with epi.	22	14	6							2										
92	MB2068	Under/Shand	5406736	443045	Ho.bi.Gd.	yō1P2-T1s	med.grain, moderate sili.with epi.chl., euhedral ho.inc.	20	16	8					1	1											
93	MB2069	Under/Shand	5406406	443052	Ho.bi.Gd.	yō1P2-T1s	med.grain, euhedral ho.inc., bi.segregate	23	20	8					1	1											
94	MB2070	Under/Shand	5405713	443316	Px.bi.ho.Gd.	yō1P2-T1s	med.grain, mod.sili., melanoclastic, ho.bi.segregate	16	26	12					1	1											
95	MB2071	Under/Shand	5405529	443056	Px.bi.ho.Gz.Gd.	yō1P2-T1s	med.grain, mod.sili., melanoclastic, ho.bi.segregate	11	24	10					1	1											
96	MB2076	Under/Shand	5404835	442750	Px.ho.Gz.Di.	δP2-T1s	fine grain, a facies of pl.porph.Gd.		12							1											
97	MB2077	Under/Shand	5404917	442893	Ho.bi.Gd.	yōr2P2-T1s	fine grain, a facies of pl.porph.Gd.	20	23	3						2											
98	MB2078	Under/Shand	5408679	440307	Ho.bi.Gd.	yōr2P2-T1s	med.grain, moderate kalt., show pink color	26	21	7						2										2	
99	MB2079	Under/Shand	5408234	439888	Ho.bi.Gd.	yōr2P2-T1s	kf->pl.porph., ho. remain	26	21	6						1										2	
100	MB2080	Under/Shand	5407808	440172	Ho.bi.Gd.	yōr2P2-T1s	pl.porph., weak sili.	28	22	5						2											2

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			N	E				Quartz	plagioclase	K-feldspar	smectite	Chlorite/Smectite	kaolin	alunite	hornblende	biotite	epidote	andalusite	clinophyllite	pyrite	goethite	hematite										
101	MB2081	Under/Shand	5408145	440578	Ho.bi.Gd.	yōr2P2-T1s	pl.porph., weak sili.	23	14	2	1																					
102	MB2082	Under/Shand	5408865	439832	Ho.bi.Gd.	yōr2P2-T1s	pl.andKf porph., strong to mod.sili.and kalt. with epi.	28	32	9	2																					
103	MB2083	Under/Shand	5408131	439592	Ho.bi.Gd.	yōr2P2-T1s	med.grain, pl.porph., ho.remaining, bi.segregated	25	14	4	1																					
104	MB2084	Under/Shand	5409523	438627	Ho.bi.trachyAd.	Dα	hematite inc., light brown to gray color	4	13		1															0						
105	MB2086	Under/Shand	5404804	438494	Ho.bi.Gr.	yōiP2-T1s	mod.to strong sili.and kalt., pl.porph.in place	38	39	8										1												
106	MB2087	Under/Shand	5404971	438362	Ho.bi.Gr.	yōiP2-T1s	mod.to strong sili.and kalt.	42	36	11	0																					
107	MB2088	Under/Shand	5401828	438601	Ho.bi.Gd.	yōiP2-T1s	coarse grain, massive	35	28	6	1																					
108	MB2089	Under/Shand	5402732	439602	Ho.bi.Gd.with oxidized Cu	yōiP2-T1s	with oxidized Cu., med.to coarse and kf.porph., ho.bi.seg.	4	92		6															1						
109	MB2091	Under/Shand	5403492	440422	Ho.bi.Gd.	yōiP2-T1s	kf.porph. med.to coar.grain, moderate kalt.	6	42	7	3																2					
110	MB2092	Under/Shand	5403921	440755	Ho.bi.Gd.	AlP1hn1	kf.pl.porph., strong kalt.and sili., ho.remaining	22	22	5	0																3	1				
111	MB2093	Under/Shand	5402063	439700	Ho.bi.Gd.	yōiP2-T1s	coarse to med.grain, mod. kalt., ho.bi.remaining	29	24	10	4																	3				
112	MB2094	Under/Shand	5400872	441253	Ho.bi.Gd.	yōr2P2-T1s	pl.porph., bi.remaining	21	37	17	1																	0				
113	MB2096	Under/Shand	5401747	443169	Ho.bi.Gd.	yōr2P2-T1s	pl.porph., moderate to strong kalt.and epi.alt., bi.remaining	25	26	11	0																	1				
114	MB2097	Under/Shand	5401261	441860	Ho.bi.Gd.	yō2P2-T1s	pl.porph.in place, med.to coar.grain, ho.bi.remaining	24	31	16																		3				
115	MB2098	Under/Shand	5406114	439905	Ho.bi.Gr.	yō3P2-T1s	med.grain, weak to no.sili., bi.remaining	33	8	7																		3				
116	MB2099	Under/Shand	5406951	439649	Ho.bi.Gd.	yō2P2-T1s	med.garain, strong sili.and mod.kalt.	25	7	6																		0	1			
117	MB2101	Under/Shand	5407568	439770	Ho.bi.Gd.	yō2P2-T1s	pl.porph.n place, strong kalt.and mod.sili.	25	14	3	1																		2			
118	MB2103	Under/Shand	5407345	440036	Strong silicified Gr.	yō2P2-T1s	pl.porph.in place, chl.alt.	34	17	9																		1				
119	MB2105	Under/Shand	5403259	440212	Ho.bi.Gd. with oxidized Cu	yōiP2-T1s	med.grain, mod.sili.and kalt.	1	29		10																		2			
120	MB2006	Under/Shand	5402899	442949	Ho.bi.Gr.po.	yōr2P2-T1s	kf.porph., matrix show pink color, mod.to strong sili.	25	23	5	1																	0				
121	MB2007	Under/Shand	5402461	442854	Ho.bi.Gd.	yōr2P2-T1s	pl.porph., mod.to strong sili.and kalt., bi.segregated	30	36	2	1																	1			0	
122	MB2008	Under/Shand	5402603	443100	Ho.bi.Gd.	yōr2P2-T1s	resemble to Gr.po., bi. and ho.segregated, magnetic	18	30	2	2																	1				
123	MB2009	Under/Shand	5401056	442822	Ho.bi.Gr.	yō2P2-T1s	pl.porph., weak sili., ho.weak segregated	24	34																			1				
124	MB2011	Under/Shand	5401796	442141	Strong sili. and kalt.Gd.	yōr2P2-T1s	marginal facies of pl.porph.Gd.	26	23	4	3	0																				
125	MB2012	Under/Shand	5400921	442117	Ho.bi.Gd.	yō2P2-T1s	massive, ho.weak segregated	23	44	8																		2	2			1

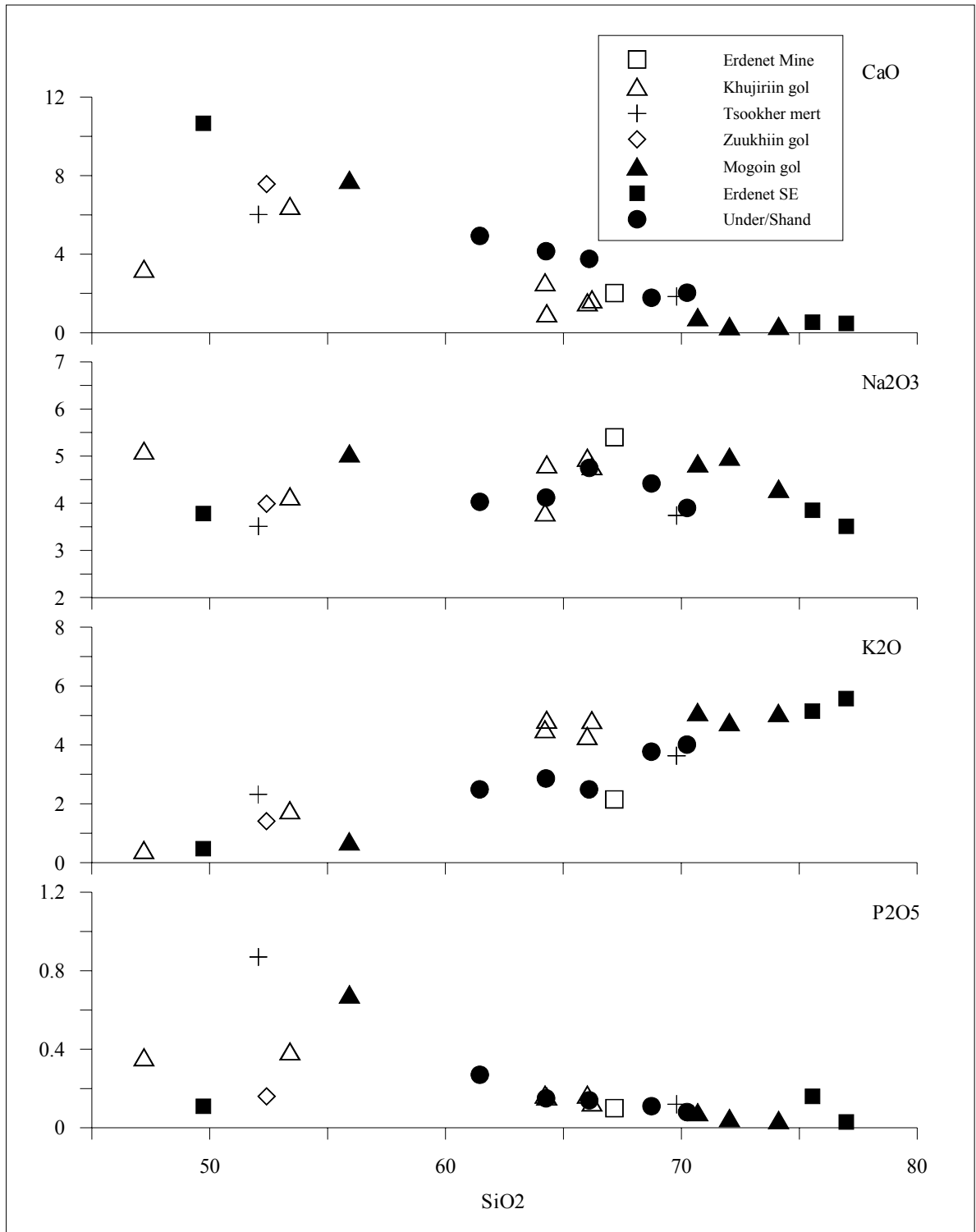
Ser. No.	Sample No.	Area	Coordinates		Rock Name	Geological Unit	Description	Silicate Minerals										Other Minerals																					
			N	E				Quartz	plagioclase	K-feldspar	smeectite	Chlorite/Smeectite	chlorite	sericite	kaolin	alunite	hornblende	biotite	epidote	andalusite	clinochloite	pyrite	goethite	hematite															
126	MD2014	Under/Shand	5401220	441181	Aplite	γδr2P2-T1s	strong kalt.and sili., generate quartz	36	29					3	0																								
127	MD2015	Under/Shand	5401446	440762	Strong kalt. and sili.Gd.	γδr2P2-T1s	epi.-chl.ait. along fractures	34	28				11																				2						
128	MD2016	Under/Shand	5402615	440808	Aplite	γδr2P2-T1s	w:1m, strong kalt.	39	21	6																													
129	MD2019	Under/Shand	5407675	439279	Dactite	ΔA	strong sili., fracture develop	30	12					2																									
130	MD2020	Under/Shand	5406777	439713	Bi.ho.Gd.	γδ2P2-T1s	med.grain, stong to mod.sili., ho.and bi.segregated	25	18	3	2									1																			
131	MD2021	Under/Shand	5405319	439616	Bi.Gr.	ξπ2P2-T1s	kf.porph., mod.silicified, resemble to apilite	44	38	3										1																			
132	MD2022	Under/Shand	5407260	442640	Ho.bi.Gd.	γδr2P2-T1s	kf.porph., med.grain, mod.sili.	32	29	2						1																							
133	MD2023	Under/Shand	5407052	442389	Ho.bi.Gd.	γδr2P2-T1s	kf.porph., med.grain, mod.to strong sili., ho.bi.segregated	43	20	2							1				1																		
134	MD2024	Under/Shand	5406526	442297	Strong silicified Gd.	γδr2P2-T1s	in silicified and bleached zone in Gd., hybrid of Gd.	73											10		1																		
135	MD2026	Under/Shand	5408236	442935	Oxidized Gd.	ξπ3P2-T1s	in oxidized zone of Gd.with silicified and bleaching	54	25							1																							
136	MD2027	Under/Shand	5408358	442962	Dactite	ΔA	moderate sili.and bleaching	62																															
137	MD2028	Under/Shand	5409739	443125	Ho.bi.Gd.	γδ1P2-T1s	med.grain, mod.to strong kalt., sili., epi.-chl.ait., ho.segregated	14	16	4																										1			
138	MD2029	Under/Shand	5409132	442938	Bsaltic Ad.	αP1hm1	dyke?, magnetic, dark gray color	2	12												1														1				
139	MD2030	Under/Shand	5410020	442710	Ho.bi.Gd.	γδ1P2-T1s	kf.porph., med.grain, strong to mod.sili., kalt., chl.	13	24	3											2														3				
140	MD2031	Under/Shand	5408600	442374	Ho.bi.Gd.	ξπ3P2-T1s	med.grain, strong to mod.kalt. and sili., ho. and bi. segregated	31	35	3	1																												
141	MD2033	Under/Shand	5408012	442286	Ho.bi.Gd.	ξπ3P2-T1s	med.grained, kf.porph.in part, mod. sili., ho. and bi. segregated	27		5																													
142	MD2034	Under/Shand	5407388	441924	Oxidized Gd.	γδr2P2-T1s	in oxidized zone of Gd.with silicified and bleaching	44		1																										6			
143	MD2035	Under/Shand	5407440	441374	Ho.bi.Gd.	ξπ2P2-T1s	kf.pl.porph., mod. sili., resemble to apilite	28		6											0															0			
144	MD2039	Under/Shand	5406194	441646	Bi.monzonite	ξπ2P2-T1s	strong kalt.and sili., shallow facies of Gd.	27		8											0															0			
145	MD2041	Under/Shand	5405948	442070	Ho.bi.Gd.	γδr2P2-T1s	strong sili.and kalt.with epi.ait.	11		7											0															0			
146	MD2042	Under/Shand	5406009	442793	Ho.bi.Gd.	γδ1P2-T1s	med.grain, mod.sili., bi. segregated	17	14	5																										3	1		
147	MD2043	Under/Shand	5405261	443214	Bi.ho.Gd.	γδ1P2-T1s	med.to fine grained, melanoclastic	12	23	7																										4	0		
148	MD2044	Under/Shand	5405047	443243	Ho.bi.Gd.	γδr2P2-T1s	med.grain, pl.porph., resemble to Gd.porph.	15	11	4																										3			
149	MD2045	Under/Shand	5404852	443656	Ho.bi.Gd.	γδr2P2-T1s	pl.porph., kf.porph.in part, bi.segregated	17		3																										1			
150	MD2046	Under/Shand	5404568	443737	Silicified and bleached Ad.	αtP1hn1	light gray color	47		0																										2	1	2	1

Ser. No.	Sample No.	Area	Coordinates		Rock Name	Geological Unit	Description	Silicate Minerals											Other Minerals																			
			N	E				Quartz	plagioclase	K-feldspar	Chlorite/Smectite	smectite	chlorite	sepcite	kaolin	alunite	hornblende	biotite	epidote	andalusite	clinoptilolite	pyrite	goethite	hematite														
151	MD2047	Under/Shand	5404527	443756	Gd.porphry	γδπ2P2-T1s	strong kalt.sili.	53		1							1	3	0	4																		
152	MD2050	Under/Shand	5409054	440598	Bi.Gr.	ξπ2P2-T1s	fine grain, strong to mod.sili.and kalt.with epi.along fractures	23		4				1					0																			
153	MD2051	Under/Shand	5408572	440124	Ho.bi.Gd.	γδπ2P2-T1s	med.grain, pl.and kf.porph.in place, mod.kalt., ho.and bi.segregated	19		5				2										1														
154	MD2052	Under/Shand	5407872	439960	Ho.bi.Gd.	γδπ2P2-T1s	med.grain, pl.porph., weak sili., ho.and bi.segregated	24		3				1									1															
155	MD2053	Under/Shand	5408362	439753	Ho.bi.Gd.	γδπ2P2-T1s	med.grain, pl.porph., weak to mod.sili., ho.and bi.segregated	17		4										0			1															
156	MD2054	Under/Shand	5407560	438418	Ho.bi.Gd.	γδπ2P2-T1s	med.grain, pl.porph., mod.kalt., ho.and bi.segregated	21		6				1						0			0															
157	MD2055	Under/Shand	5404891	438505	Ho.bi.Gd.	γδ1P2-T1s	med.to coar.grain, pl.porph., weathered, show pink color	31		9				0						0	0																	
158	MD2056	Under/Shand	5404064	439080	Ho.bi.Gd.	γδ1P2-T1s	med.to coar.grain, pl.porph., weathered, show pink color	22		11				1						2																		
159	MD2057	Under/Shand	5402834	440302	Ho.bi.Gd.	γδ1P2-T1s	med.to coar.grain, strong to mod.kalt.and sili., show pink color	12		3				6											1													
160	MD2060	Under/Shand	5403362	439811	Ho.bi.Gd.	γδ1P2-T1s	with oxidized Cu.? kf.porph.,med.to coarse grain, kalt.	1		14				2																								
161	MD2061	Under/Shand	5400895	441221	Ho.bi.Gd.	γδπ2P2-T1s	pl.porph., mod.kalt.	7																														

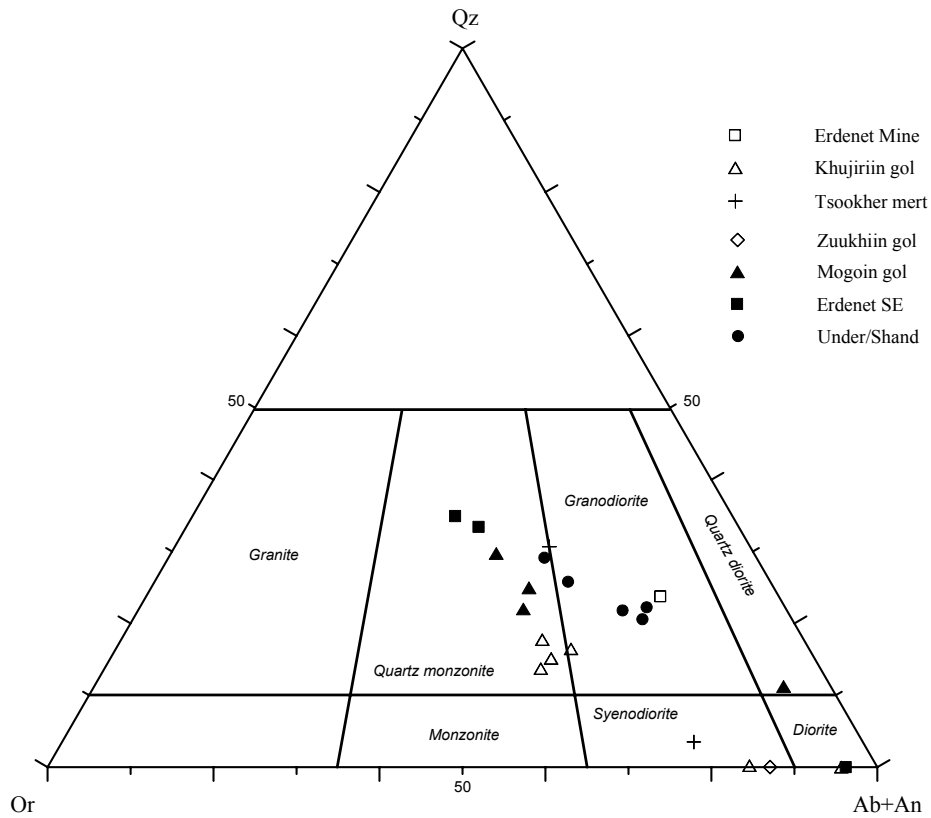
Appendix 4 Petrological chemical analyses, CIPW norms and petrological diagram for the rocks of Selenge granitic rocks and basalt in the western Erdenet area



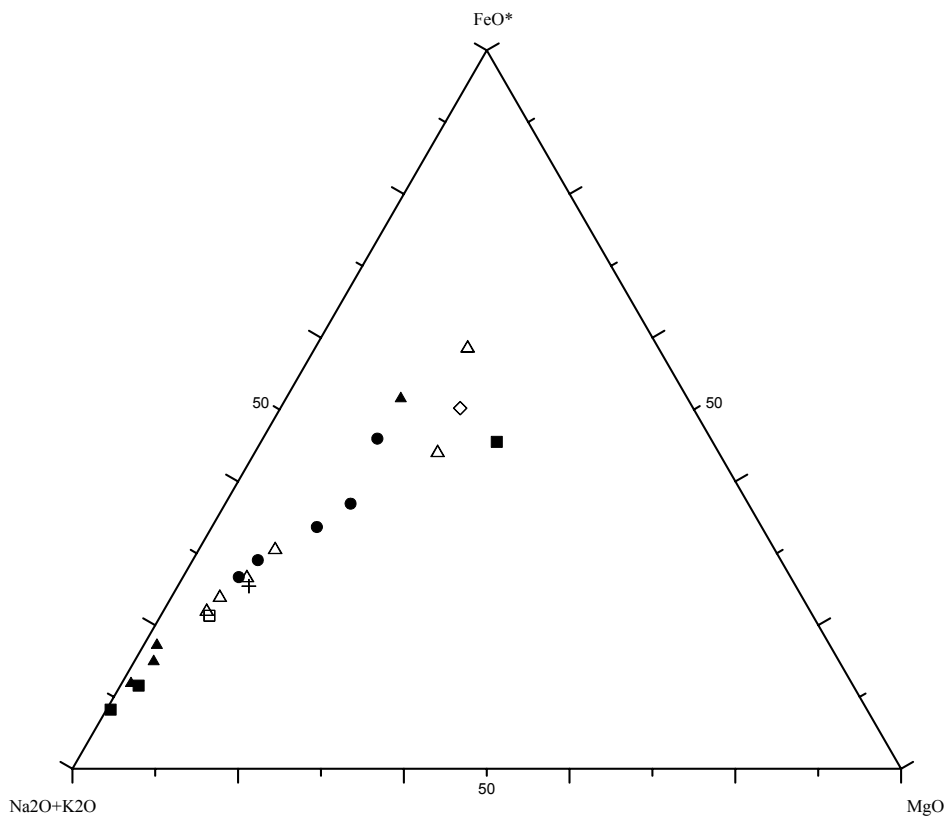
Harker diagrams of SiO₂ versus major oxides in the western Erdenet area (1/2).



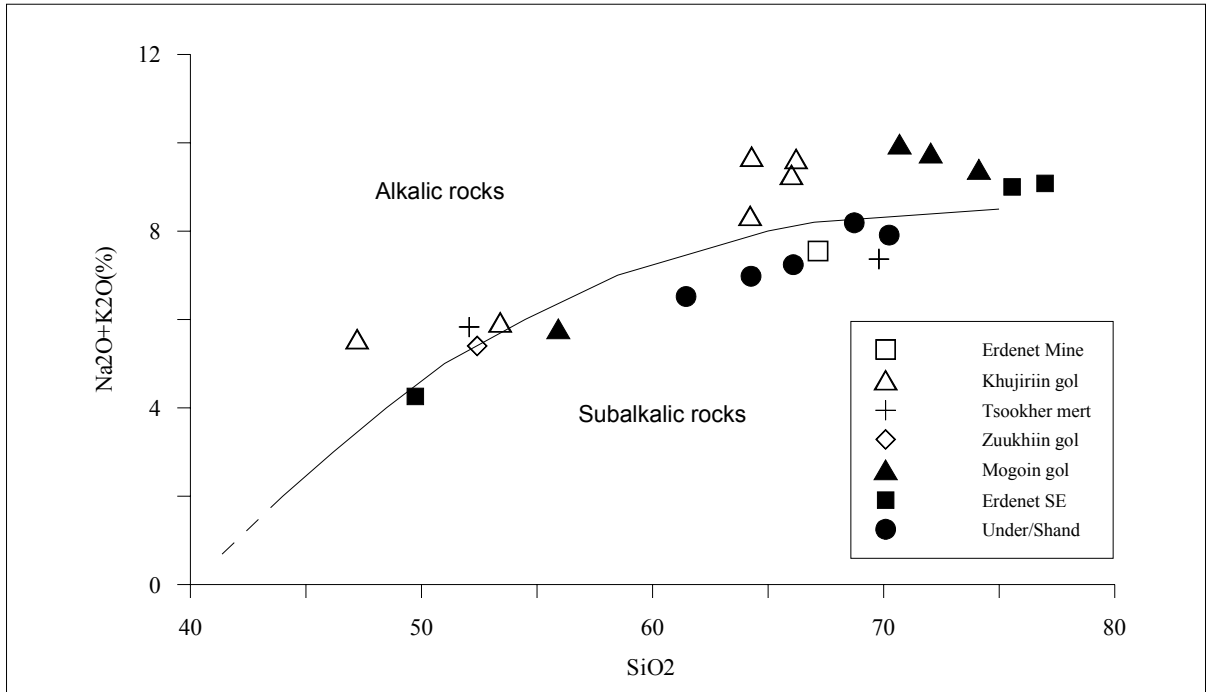
Harker diagrams of SiO₂ versus major oxides in the western Erdenet area (2/2).



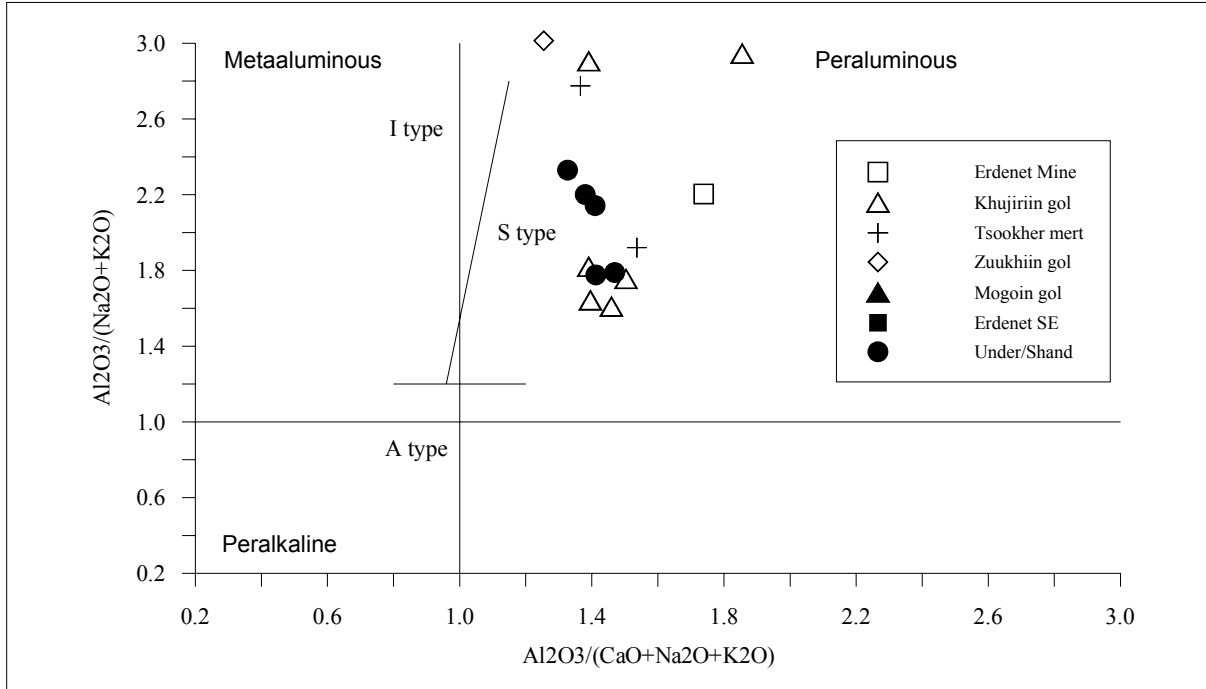
Normative Q-Or-(Ab+An) diagram for granitic rocks in survey area.



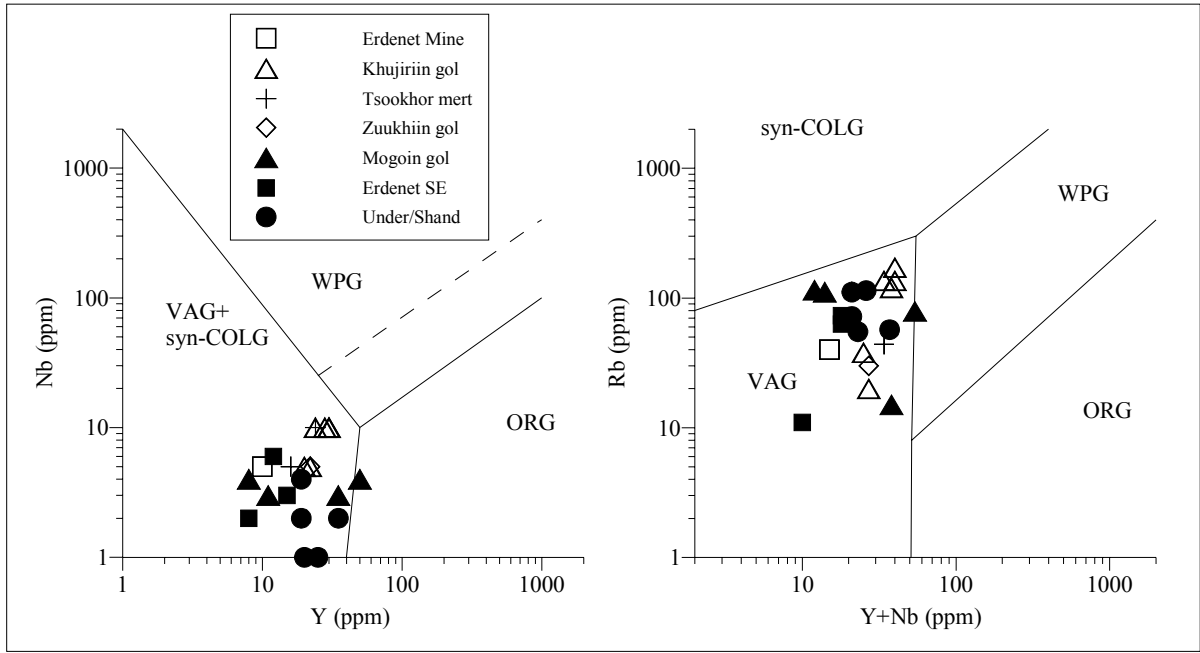
FeO* -(Na2O+K2O)-MgO diagram for all rocks in survey area.



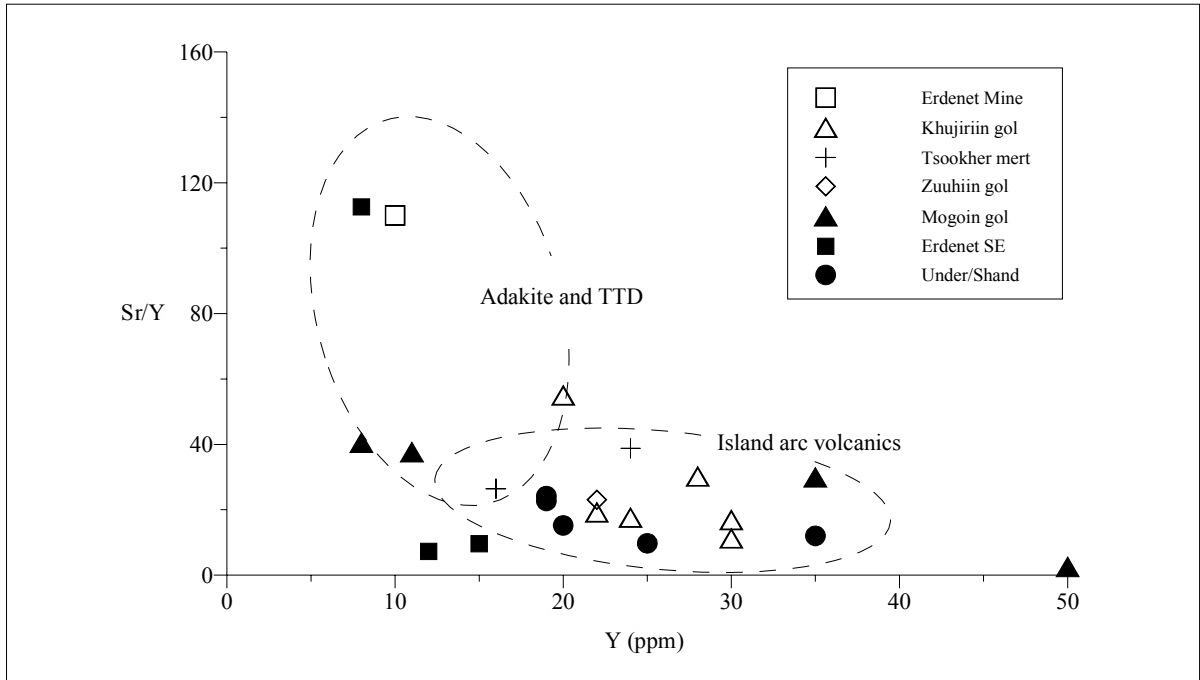
Alkali (Na₂O+K₂O) - silica (SiO₂) diagram for the western Erdenet area.



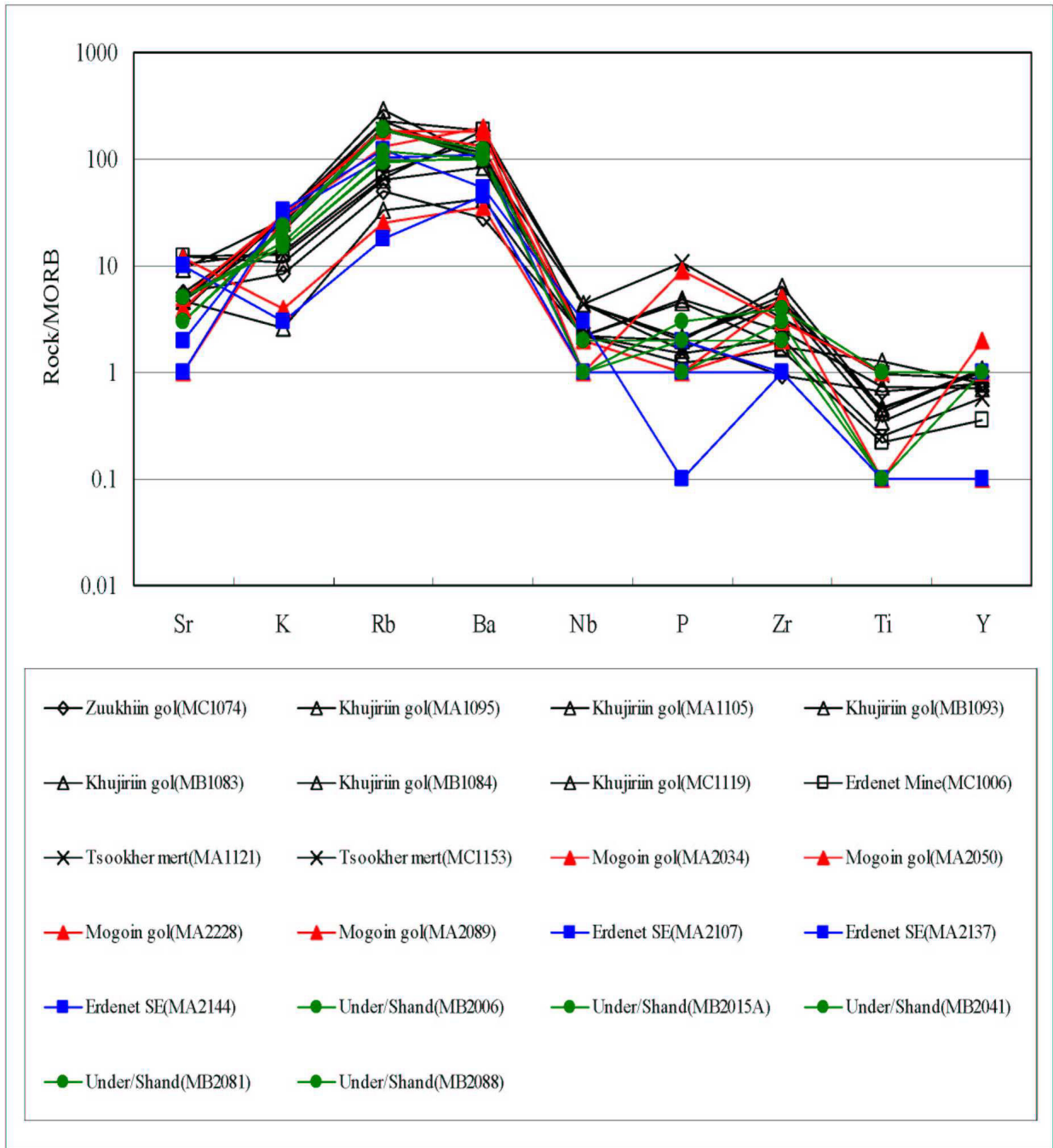
A/NK(Al₂O₃/Na₂O+K₂O) versus A/CNK(Al₂O₃/CaO+Na₂O+K₂O) diagram for the western Erdenet area.



Discriminant diagrams by minor elements for granites of the western Erdenet area.
Discriminant boundaries are from Pearce, et al.(1984)



Y versus Sr/Y of granitic rocks for the western Erdenet area.
Boundaries are from Defant, et al.(1991)



MORB normalized geochemical pattern for the western Erdenet.

Appendix 5 Ore grade assay results in the western Erdenet area

Table with columns: Ser. No., Sample No., Area, Coordinates (N, E), Rock Name, Description, Au (g/t), Ag (ppm), Al (%), Ba (%), Be (%), Bi (%), Ca (%), Cd (%), Co (%), Cr (%), Cu (%), Fe (%), K (%), Mg (%), Mn (%), Mo (%), Na (%), Ni (%), Pb (%), Sr (%), Ti (%), V (%), Zn (%). Rows 36-66.

Appendix 6 Results of chemical analysis for rock samples in the western Erdenet area

Appendix 7 Statistical data of rock chemical samples, histogram, EDA and cumulative frequency for each element in the cumulative in the Erdenet SE area and the Under/Shand area

***** Base Statistics *****

File:rock_list.dat

----- Geological Code(Ncd:2) -----

1:ErdeSE 2:UndSh

----- Elements(Nel:28) -----

1:Au	(ppb)	2:As	(ppm)	3:Sb	(ppm)
4:Hg	(ppb)	5:Ag	(ppm)	6:Al	(%)
7:Ba	(ppm)	8:Be	(ppm)	9:Bi	(ppm)
10:Ca	(%)	11:Cd	(ppm)	12:Co	(ppm)
13:Cr	(ppm)	14:Cu	(ppm)	15:Fe	(%)
16:K	(%)	17:Mg	(%)	18:Mn	(ppm)
19:Mo	(ppm)	20:Na	(%)	21:Ni	(ppm)
22:P	(ppm)	23:Pb	(ppm)	24:Sr	(ppm)
25:Ti	(%)	26:V	(ppm)	27:W	(ppm)
28:Zn	(ppm)				

Number of datas : 176 (279)

===== Base Statistics =====

Elements	Mean	Var.	S. D.	Min	Max	Mean+2SD
Au	0.633	0.067*	0.259*	0.500	26.000	2.084 (LOG)
As	1.265	0.311*	0.557*	0.500	29.000	16.477 (LOG)
Sb	9.092	0.156*	0.395*	0.100	25.400	56.087 (LOG)
Hg	7.181	0.089*	0.298*	5.000	134.000	28.333 (LOG)
Ag	0.288	0.091*	0.302*	0.250	134.000	1.157 (LOG)
Al	7.788	0.003*	0.056*	4.280	11.670	10.097 (LOG)
Ba	589.018	0.053*	0.230*	45.000	1576.000	1702.475 (LOG)
Be	11.438	0.030*	0.173*	1.800	24.200	25.379 (LOG)
Bi	1.217	0.035*	0.186*	1.000	5.000	2.866 (LOG)
Ca	1.326	0.306*	0.553*	0.010	8.560	16.926 (LOG)
Cd	0.257	0.012*	0.111*	0.250	3.400	0.428 (LOG)
Co	4.968	0.305*	0.552*	0.500	38.000	63.233 (LOG)
Cr	202.626	0.026*	0.162*	69.000	981.000	426.695 (LOG)
Cu	16.821	0.395*	0.628*	0.500	7024.000	303.822 (LOG)
Fe	2.672	0.085*	0.291*	0.390	11.020	10.223 (LOG)
K	1.593	0.051*	0.225*	0.250	3.860	4.488 (LOG)
Mg	0.427	0.515*	0.718*	0.005	3.940	11.635 (LOG)
Mn	564.186	0.138*	0.372*	25.000	3856.000	3122.501 (LOG)
Mo	0.684	0.065*	0.255*	0.500	6.000	2.214 (LOG)
Na	2.302	0.059*	0.242*	0.160	6.010	7.013 (LOG)
Ni	14.888	0.108*	0.329*	4.000	541.000	67.807 (LOG)
P	632.279	0.107*	0.327*	78.000	4286.000	2844.976 (LOG)
Pb	47.007	0.025*	0.159*	26.000	977.000	97.572 (LOG)
Sr	283.679	0.142*	0.377*	20.000	2217.000	1606.877 (LOG)
Ti	0.274	0.097*	0.311*	0.030	1.010	1.146 (LOG)
V	42.573	0.238*	0.488*	4.000	355.000	403.334 (LOG)
W	5.000	0.000*	0.000*	5.000	5.000	5.000 (LOG)
Zn	54.966	0.127*	0.357*	4.000	2091.000	284.035 (LOG)

*:LOG

==== Detection Limit =====

Elements	B. D. L	A. D. L (%)
Au	80.682	0.000
As	63.068	0.000
Sb	2.273	0.000
Hg	73.295	0.000
Ag	93.750	0.000
Al	0.000	0.000
Ba	0.000	0.000
Be	0.000	0.000
Bi	81.250	0.000
Ca	0.000	0.000
Cd	98.864	0.000
Co	13.636	0.000
Cr	0.000	0.000
Cu	1.136	0.000
Fe	0.000	0.000
K	0.000	0.000
Mg	4.545	0.000
Mn	0.000	0.000
Mo	74.432	0.000
Na	0.000	0.000
Ni	0.000	0.000
P	0.000	0.000
Pb	0.000	0.000
Sr	0.000	0.000
Ti	0.000	0.000
V	0.000	0.000
W	100.000	0.000
Zn	0.000	0.000

==== Correlation Matrix =====

	Au	As	Sb	Hg	Ag	Al	Ba	Be	Bi	Ca	Cd	Co
Au	1.000											
As	0.067	1.000										
Sb	-0.109	-0.124	1.000									
Hg	0.118	0.058	0.048	1.000								
Ag	0.403	0.149	-0.229	0.202	1.000							
Al	0.060	-0.323	0.393	0.019	0.090	1.000						
Ba	-0.145	-0.021	0.047	0.021	-0.356	-0.150	1.000					
Be	-0.043	0.129	0.120	0.118	-0.088	-0.171	0.440	1.000				
Bi	-0.107	-0.299	0.181	0.086	-0.094	0.569	-0.218	-0.202	1.000			
Ca	-0.044	-0.306	0.672	-0.048	-0.107	0.745	-0.112	-0.038	0.468	1.000		
Cd	0.390	0.130	-0.055	0.282	0.847	0.125	-0.331	-0.088	-0.049	0.011	1.000	
Co	0.069	-0.276	0.436	-0.132	0.084	0.676	-0.292	-0.296	0.487	0.740	0.104	1.000
Cr	-0.075	0.205	0.144	0.065	-0.122	-0.322	0.202	0.376	-0.429	-0.088	-0.145	-0.277
Cu	0.191	0.004	0.162	-0.041	0.461	0.427	-0.284	-0.257	0.164	0.391	0.414	0.608
Fe	0.066	-0.365	0.425	0.039	0.093	0.816	-0.245	-0.226	0.575	0.863	0.154	0.776
K	-0.038	0.087	0.057	-0.148	-0.240	-0.458	0.570	0.515	-0.529	-0.199	-0.213	-0.354
Mg	-0.001	-0.327	0.562	0.002	0.046	0.762	-0.104	-0.137	0.475	0.865	0.086	0.806
Mn	0.054	-0.251	0.519	0.111	0.133	0.696	-0.148	0.092	0.361	0.803	0.232	0.594
Mo	-0.046	0.241	-0.304	-0.005	-0.019	-0.357	0.008	0.060	-0.246	-0.510	-0.057	-0.338
Na	0.017	-0.120	0.353	-0.054	0.061	0.310	0.053	0.453	-0.010	0.573	0.123	0.169
Ni	-0.055	-0.238	0.291	0.064	-0.030	0.426	-0.097	-0.099	0.447	0.474	0.006	0.592
P	0.020	-0.374	0.367	0.163	0.036	0.708	0.057	-0.029	0.536	0.673	0.100	0.589
Pb	0.328	-0.012	0.118	0.146	0.531	0.299	-0.220	0.002	0.042	0.214	0.511	0.242
Sr	-0.028	-0.359	0.484	0.150	-0.125	0.705	-0.017	-0.192	0.605	0.799	-0.005	0.656
Ti	-0.027	-0.365	0.554	0.064	-0.041	0.803	-0.072	-0.034	0.562	0.865	0.029	0.717
V	0.049	-0.349	0.478	-0.062	0.039	0.745	-0.276	-0.433	0.552	0.767	0.096	0.871
W	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000
Zn	0.174	-0.197	0.361	0.162	0.444	0.615	-0.233	0.081	0.278	0.637	0.468	0.559

	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sr
Cr	1.000											
Cu	-0.214	1.000										
Fe	-0.248	0.506	1.000									
K	0.372	-0.240	-0.422	1.000								
Mg	-0.165	0.482	0.870	-0.261	1.000							
Mn	-0.060	0.308	0.812	-0.261	0.815	1.000						
Mo	0.110	-0.169	-0.539	0.140	-0.535	-0.532	1.000					
Na	0.205	0.088	0.375	0.222	0.399	0.592	-0.300	1.000				
Ni	0.046	0.322	0.526	-0.200	0.511	0.358	-0.207	0.107	1.000			
P	-0.242	0.340	0.809	-0.321	0.725	0.650	-0.409	0.267	0.532	1.000		
Pb	-0.029	0.412	0.318	-0.139	0.250	0.325	-0.051	0.216	0.122	0.249	1.000	
Sr	-0.273	0.357	0.811	-0.385	0.748	0.605	-0.488	0.228	0.595	0.823	0.132	1.000
Ti	-0.162	0.402	0.914	-0.316	0.874	0.819	-0.480	0.404	0.520	0.879	0.244	0.818
V	-0.348	0.601	0.840	-0.445	0.850	0.590	-0.434	0.106	0.521	0.685	0.239	0.767
W	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000
Zn	-0.092	0.494	0.722	-0.307	0.688	0.842	-0.411	0.552	0.361	0.619	0.546	0.508

	Ti	V	W	Zn
Ti	1.000			
V	0.794	1.000		
W	? .000	? .000	1.000	
Zn	0.707	0.535	? .000	1.000

===== EDA Analysis =====

Elements	L. Fence	L. Whisker	L. Hinge	Median	U. Hinge	U. Whisker	U. Fence
Au	0.500	0.500	0.500	0.500	0.500	1.000	0.500
As	0.016	0.500	0.500	0.500	5.000	7.000	158.114
Sb	2.382	5.600	7.300	12.300	15.400	16.100	47.186
Hg	1.768	5.000	5.000	5.000	10.000	14.000	28.284
Ag	0.250	0.250	0.250	0.250	0.250	0.250	0.250
Al	5.517	6.980	7.120	7.780	8.440	8.820	10.893
Ba	341.301	518.000	563.000	657.500	786.000	831.000	1296.563
Be	5.044	9.200	9.700	11.800	15.000	15.700	28.845
Bi	1.000	1.000	1.000	1.000	1.000	2.000	1.000
Ca	0.077	0.420	0.750	1.755	3.420	3.950	33.302
Cd	0.250	0.250	0.250	0.250	0.250	0.250	0.250
Co	0.108	2.000	2.000	7.000	14.000	17.000	259.284
Cr	89.281	153.000	166.000	206.000	251.000	268.000	466.683
Cu	0.292	4.000	6.000	19.494	45.000	51.000	924.282
Fe	0.347	1.380	1.640	2.710	4.620	5.440	21.844
K	0.624	1.180	1.340	1.805	2.230	2.390	4.787
Mg	0.007	0.130	0.170	0.605	1.410	1.770	33.680
Mn	106.111	335.000	403.000	612.441	981.000	1133.000	3725.761
Mo	0.177	0.500	0.500	0.500	1.000	1.000	2.828
Na	1.270	2.000	2.110	2.445	2.960	3.030	4.918
Ni	2.717	8.000	9.000	13.491	20.000	25.000	66.254
P	121.137	352.000	427.000	549.000	989.000	1297.000	3486.173
Pb	27.784	39.000	40.000	46.000	51.000	53.000	73.424
Sr	52.889	139.000	187.000	278.993	434.000	587.000	1534.482
Ti	0.035	0.140	0.170	0.300	0.490	0.580	2.398
V	0.888	12.000	16.000	51.498	110.000	127.000	1982.904
W	5.000	5.000	5.000	5.000	5.000	5.000	5.000
Zn	8.631	30.000	35.000	59.992	89.000	95.000	360.888

***** Factor Analysis *****

File:erde_us.dat

----- Geological Code(Ncd:2) -----

1:ErdeSE 2:UndSh

----- Elements(Nel:27) -----

1:Au	(ppb)	2:As	(ppm)	3:Sb	(ppm)
4:Hg	(ppb)	5:Ag	(ppm)	6:Al	(%)
7:Ba	(ppm)	8:Be	(ppm)	9:Bi	(ppm)
10:Ca	(%)	11:Cd	(ppm)	12:Co	(ppm)
13:Cr	(ppm)	14:Cu	(ppm)	15:Fe	(%)
16:K	(%)	17:Mg	(%)	18:Mn	(ppm)
19:Mo	(ppm)	20:Na	(%)	21:Ni	(ppm)
22:P	(ppm)	23:Pb	(ppm)	24:Sr	(ppm)
25:Ti	(%)	26:V	(ppm)	27:Zn	(ppm)

Number of datas : 176 (176)

===== Eigen Value =====

Trace(Max. of Correlation Coefficient): 18.504

Number of factors : 7

N fact	EigenValue	%	Cum%
1	10.576	57.155	57.155
2	3.074	16.614	73.769
3	2.399	12.966	86.735
4	0.960	5.189	91.924
5	0.704	3.802	95.727
6	0.593	3.204	98.931
7	0.424	2.293	101.224

===== Factor Loading =====

(before rotation)

Elements	1	2	3	4	5	6	7	Comm.
Au	0.059	-0.443	0.141	-0.007	-0.083	0.186	-0.111	0.273
As	-0.358	-0.211	0.143	0.133	-0.065	-0.227	-0.087	0.274
Sb	0.523	0.342	0.263	0.225	-0.056	-0.230	-0.247	0.627
Hg	0.058	-0.174	0.139	-0.411	-0.158	-0.238	-0.193	0.341
Ag	0.123	-0.882	0.233	-0.047	-0.051	0.064	0.017	0.856
Al	0.847	-0.002	-0.077	-0.089	0.064	0.069	0.141	0.759
Ba	-0.223	0.502	0.295	-0.187	-0.316	0.301	-0.057	0.618
Be	-0.181	0.273	0.657	-0.173	-0.062	-0.027	0.155	0.598
Bi	0.587	0.090	-0.405	-0.282	0.048	-0.116	0.124	0.628
Ca	0.889	0.255	0.154	0.162	0.108	-0.044	-0.035	0.921
Cd	0.196	-0.817	0.278	-0.094	-0.053	-0.007	-0.145	0.815
Co	0.833	-0.035	-0.193	0.345	-0.131	0.012	0.099	0.878
Cr	-0.259	0.209	0.461	0.152	-0.125	-0.309	-0.020	0.457
Cu	0.533	-0.419	-0.027	0.324	-0.237	0.096	0.042	0.632
Fe	0.959	0.005	-0.033	-0.022	0.073	0.042	0.014	0.928
K	-0.422	0.352	0.496	0.200	-0.201	0.238	0.004	0.685
Mg	0.918	0.120	0.069	0.134	0.000	0.055	-0.064	0.887
Mn	0.830	0.031	0.352	-0.062	0.252	-0.067	-0.019	0.886
Mo	-0.521	-0.118	-0.103	0.045	-0.206	-0.181	0.326	0.480
Na	0.379	0.151	0.646	0.058	0.241	0.034	0.145	0.667
Ni	0.570	0.118	-0.100	0.020	-0.361	-0.242	0.132	0.555
P	0.827	0.122	0.011	-0.348	-0.226	0.109	0.044	0.885
Pb	0.341	-0.498	0.299	0.016	-0.115	0.002	0.113	0.480
Sr	0.846	0.216	-0.149	-0.184	-0.158	-0.016	-0.148	0.865
Ti	0.933	0.197	0.072	-0.099	-0.020	-0.007	0.045	0.927
V	0.885	-0.013	-0.293	0.218	-0.089	0.071	-0.096	0.939
Zn	0.771	-0.289	0.401	-0.074	0.103	-0.041	0.107	0.868

==== Factor Loading ====
 (after rotation:Varimax)

Elements	1	2	3	4	5	6	7	Comm.
Au	-0.034	-0.505	0.027	-0.015	-0.059	0.052	-0.098	0.273
As	-0.371	-0.143	-0.031	-0.056	-0.033	-0.329	0.054	0.274
Sb	0.606	0.125	0.085	-0.021	0.135	-0.436	-0.167	0.627
Hg	0.027	-0.176	0.005	-0.554	0.003	-0.047	0.004	0.341
Ag	-0.092	-0.891	-0.193	-0.092	0.060	0.051	0.039	0.856
Al	0.784	-0.122	-0.194	0.015	0.152	0.260	0.019	0.759
Ba	-0.051	0.259	0.732	-0.095	0.004	0.042	-0.027	0.618
Be	-0.125	0.056	0.515	-0.165	0.500	-0.168	0.089	0.598
Bi	0.560	0.164	-0.345	-0.191	-0.053	0.338	0.120	0.628
Ca	0.894	0.025	-0.072	0.112	0.265	-0.102	-0.149	0.921
Cd	-0.003	-0.853	-0.179	-0.214	0.053	-0.036	-0.075	0.815
Co	0.826	-0.161	-0.231	0.299	-0.114	-0.023	0.115	0.878
Cr	-0.173	0.103	0.271	-0.077	0.233	-0.522	0.101	0.457
Cu	0.466	-0.537	-0.142	0.244	-0.171	-0.061	0.119	0.632
Fe	0.899	-0.154	-0.206	0.014	0.142	0.159	-0.087	0.928
K	-0.283	0.113	0.682	0.204	0.140	-0.255	-0.023	0.685
Mg	0.910	-0.110	-0.066	0.104	0.117	-0.010	-0.133	0.887
Mn	0.742	-0.181	-0.113	-0.080	0.492	-0.022	-0.204	0.886
Mo	-0.495	0.039	-0.009	0.027	-0.107	-0.072	0.465	0.480
Na	0.337	-0.117	0.209	0.093	0.674	-0.137	-0.119	0.667
Ni	0.634	0.018	-0.049	-0.109	-0.105	-0.104	0.340	0.555
P	0.836	-0.096	0.107	-0.265	0.050	0.298	0.066	0.885
Pb	0.217	-0.619	-0.052	-0.036	0.171	-0.037	0.126	0.480
Sr	0.884	0.060	-0.047	-0.213	-0.096	0.134	-0.070	0.865
Ti	0.930	-0.020	-0.040	-0.077	0.206	0.109	-0.020	0.927
V	0.877	-0.123	-0.255	0.181	-0.219	0.069	-0.071	0.939
Zn	0.630	-0.494	-0.119	-0.091	0.452	0.013	-0.021	0.868

N fact	Contribution	%	Cum%
1	9.779	52.850	52.850
2	3.035	16.401	69.251
3	1.857	10.035	79.286
4	0.849	4.586	83.872
5	1.580	8.540	92.412
6	1.055	5.704	98.116
7	0.575	3.108	101.224

===== Factor Score =====

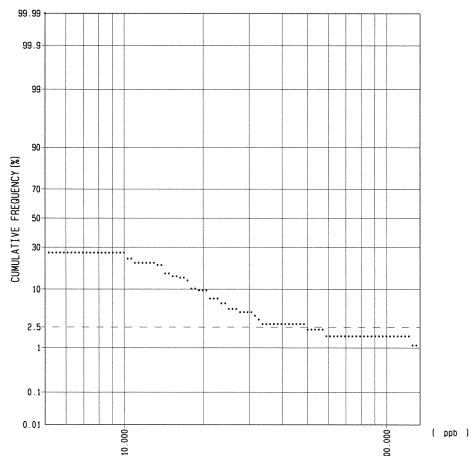
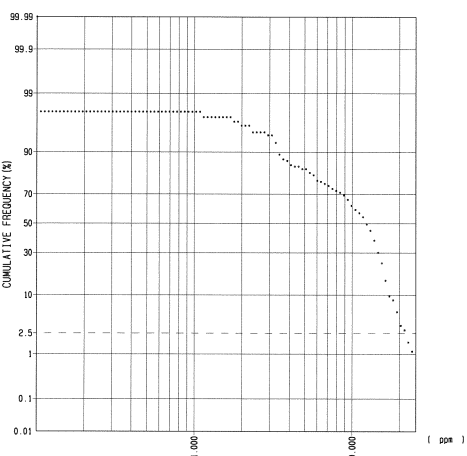
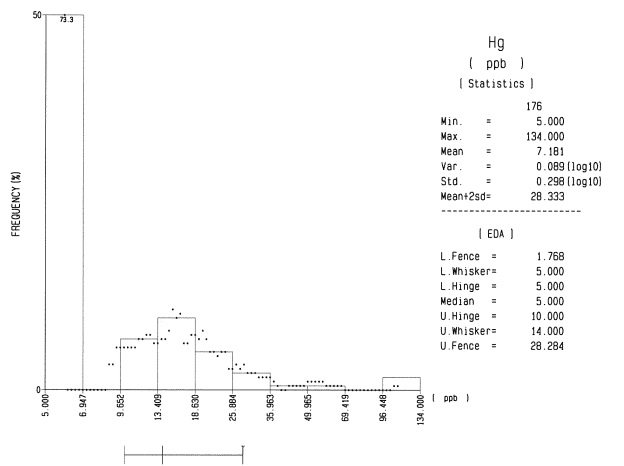
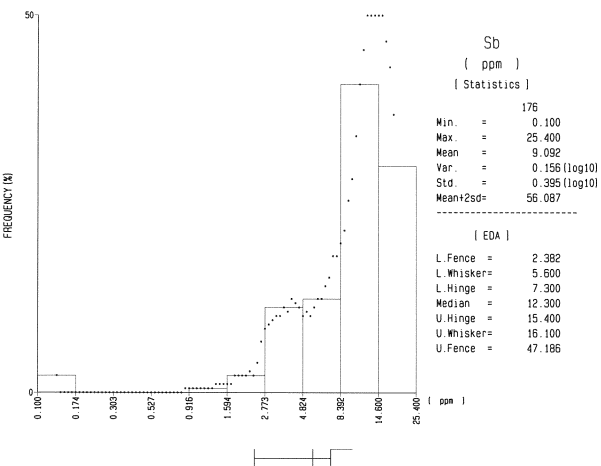
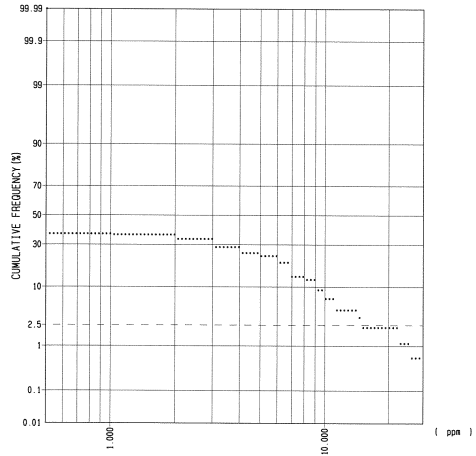
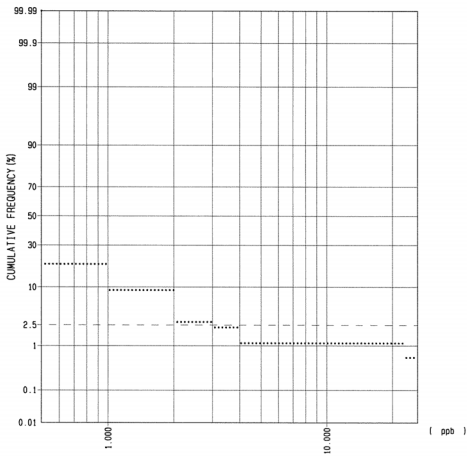
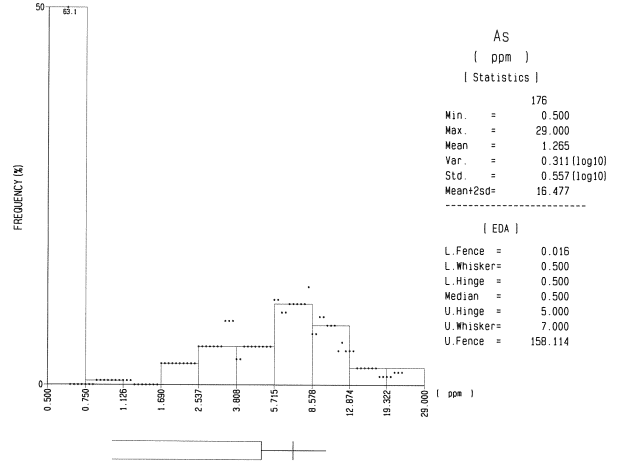
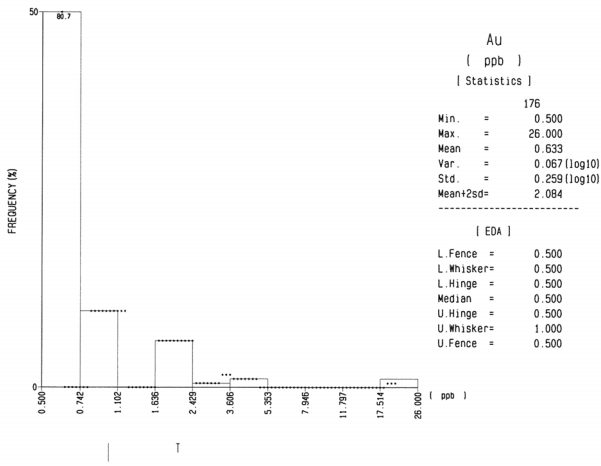
Elements	<Weight>						
	1	2	3	4	5	6	7
Au	-0.013	-0.103	0.096	-0.010	-0.019	0.006	-0.103
As	0.002	-0.036	-0.046	-0.055	-0.055	-0.149	0.037
Sb	0.057	0.016	0.003	-0.180	-0.108	-0.338	-0.101
Hg	0.008	0.013	-0.009	-0.125	-0.009	-0.081	0.054
Ag	-0.062	-0.399	-0.067	0.003	0.000	0.069	0.015
Al	0.031	-0.026	-0.008	0.055	0.126	0.404	0.234
Ba	0.031	-0.041	0.303	0.089	-0.061	0.010	-0.062
Be	0.036	-0.045	0.088	-0.017	0.000	-0.065	-0.050
Bi	-0.008	0.088	-0.136	-0.205	0.064	0.223	0.166
Ca	0.055	0.207	-0.086	0.534	0.908	-0.542	-0.200
Cd	0.006	-0.316	0.008	-0.279	-0.162	-0.147	-0.189
Co	0.155	-0.088	0.038	0.444	-0.261	-0.013	0.619
Cr	0.030	-0.030	0.040	-0.140	-0.068	-0.183	0.124
Cu	-0.001	-0.068	0.114	0.096	-0.023	-0.086	0.123
Fe	0.099	-0.192	-0.316	0.204	-0.146	0.278	-0.332
K	0.036	-0.113	0.351	0.084	-0.015	0.145	0.053
Mg	0.154	0.010	0.254	-0.011	-0.087	-0.151	-0.251
Mn	-0.066	0.095	-0.201	-0.316	0.267	-0.018	-0.419
Mo	-0.010	-0.014	-0.078	-0.016	0.021	-0.052	0.302
Na	-0.012	-0.013	0.100	0.131	0.026	0.099	0.106
Ni	0.062	0.083	-0.032	-0.070	0.053	-0.268	0.298
P	0.087	-0.043	0.542	-0.271	0.014	0.472	0.270
Pb	0.009	-0.101	0.058	0.006	-0.001	-0.052	0.139
Sr	0.182	-0.045	0.074	-0.703	-0.637	0.094	-0.174
Ti	0.175	0.200	-0.005	-0.194	0.212	-0.200	0.421
V	0.147	-0.175	-0.197	0.372	-0.740	-0.030	-0.506
Zn	0.021	-0.186	-0.073	0.069	0.496	0.060	0.204

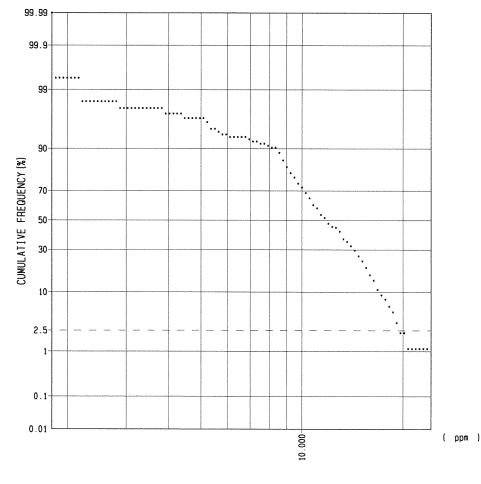
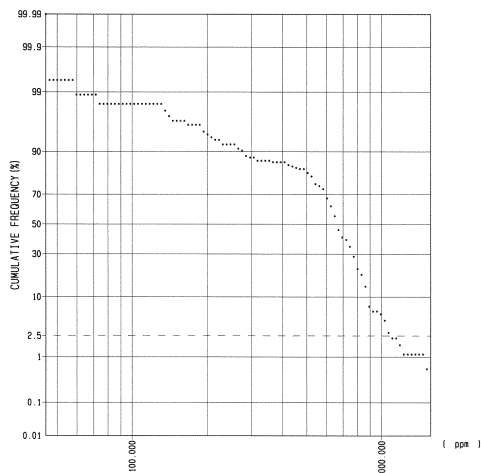
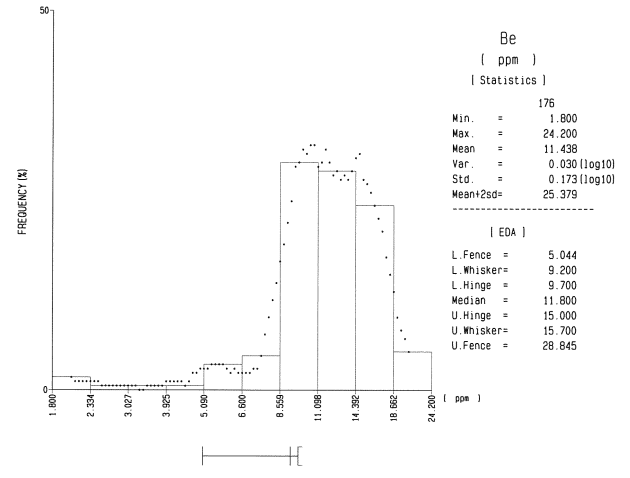
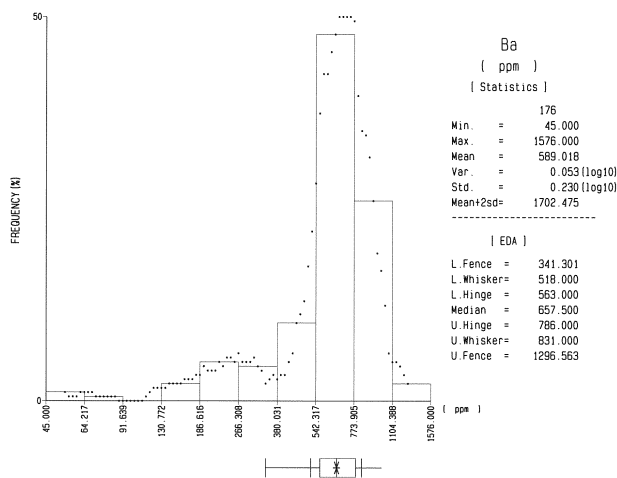
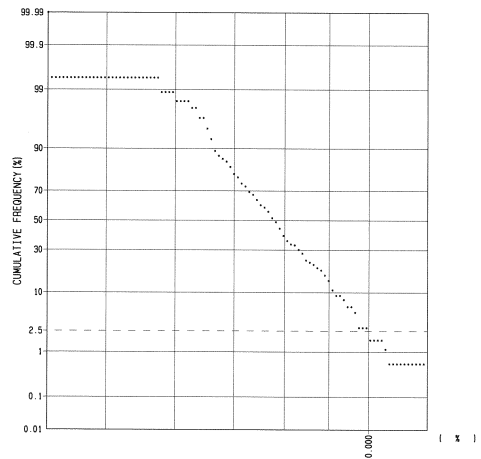
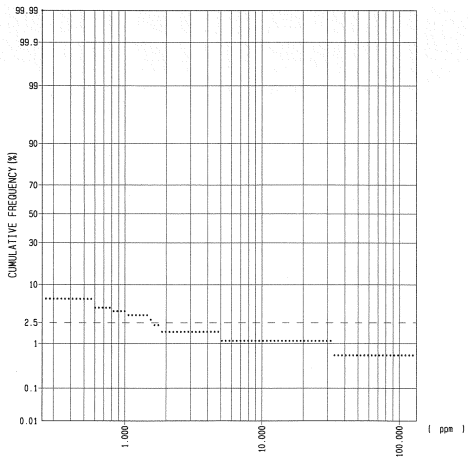
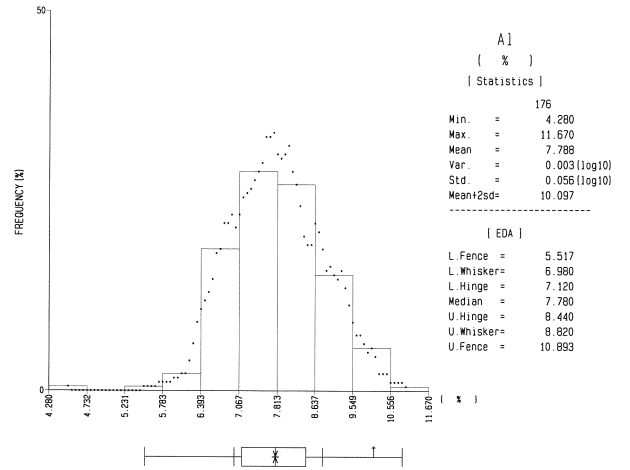
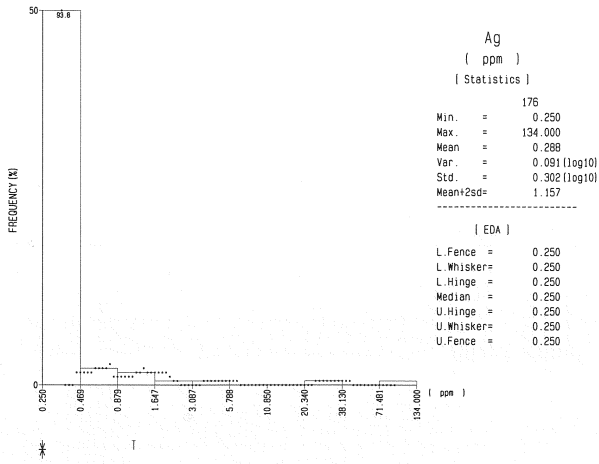
Sample	<Score>								
	X (m)	Y (m)	1	2	3	4	5	6	7
MA2096	443999.00	5426859.00	-0.705	0.215	0.019	-0.804	-0.180	-2.014	-0.267
MA2097	444379.00	5426791.00	0.098	0.401	-0.270	-1.205	1.495	1.223	-1.060
MA2098	444419.00	5426337.00	-0.008	0.762	-0.093	-2.379	1.889	1.306	-0.788
MA2099	444655.00	5426331.00	0.014	0.534	-0.352	-1.784	1.362	-0.731	-0.253
MA2100	444738.00	5426330.00	-0.302	0.616	0.428	-1.980	1.134	0.814	-1.014
MA2101	444972.00	5426233.00	-0.917	-0.055	0.004	-1.263	0.223	0.015	-0.608
MA2102	445037.00	5426316.00	-1.084	0.320	-0.099	-0.863	-0.188	-0.372	0.369
MA2103	445261.00	5427649.00	1.481	0.313	-0.001	-1.013	-0.443	0.811	0.554
MA2104	445261.00	5427649.00	1.195	0.602	-1.666	-0.540	-0.316	0.656	0.398
MA2105	445261.00	5427649.00	1.054	0.587	-2.895	0.631	-0.286	0.978	-0.489
MA2106	445557.00	5428119.00	1.657	0.326	0.091	-0.987	-0.801	0.281	0.686
MA2107	446154.00	5429904.00	-1.918	0.594	-0.285	0.337	-0.042	-0.383	-0.151
MA2108	445746.00	5429990.00	1.397	0.084	1.069	-1.158	-0.441	0.786	0.882
MA2109	445466.00	5430121.00	0.839	0.076	-0.525	-0.185	-0.475	-0.453	-0.247
MA2110	445882.00	5429644.00	0.809	0.587	-3.269	0.497	0.012	0.641	-0.538
MA2111	445792.00	5429305.00	-0.474	0.279	0.277	-0.150	-0.525	-0.590	-1.041
MA2113	445668.00	5428938.00	1.319	-0.044	1.231	-0.802	-0.564	0.436	0.240
MA2114	445757.00	5428593.00	1.006	0.441	-2.355	0.400	-0.160	1.074	-0.931
MA2115	445515.00	5428139.00	1.761	-0.037	1.314	-0.986	-0.873	0.817	0.686
MA2116	446750.00	5429536.00	1.420	0.204	0.647	-1.228	-0.627	0.730	0.649
MA2117	446765.00	5429478.00	-0.692	0.512	0.757	-1.460	-1.268	-0.998	-1.639
MA2118	446232.00	5429002.00	-0.908	0.650	0.220	-0.873	-0.774	-1.004	-1.212
MA2120	447305.00	5428119.00	1.511	0.652	-0.740	-1.544	-0.530	0.300	0.237
MA2125	447782.00	5428348.00	1.534	0.369	-0.102	-1.129	-0.353	0.979	1.047
MA2126	446677.00	5429593.00	-0.893	0.188	0.664	-0.401	-0.367	-1.024	-0.925
MA2127	444591.00	5429268.00	1.433	0.264	0.053	-0.598	-0.545	0.868	0.917
MA2128	444544.00	5429191.00	1.421	0.274	0.203	-0.627	-0.539	0.909	0.765
MA2129	444550.00	5428881.00	1.504	0.034	0.799	-0.714	-0.740	0.520	0.954
MA2130	444573.00	5428469.00	1.143	0.348	-1.421	0.252	0.057	1.147	-0.029

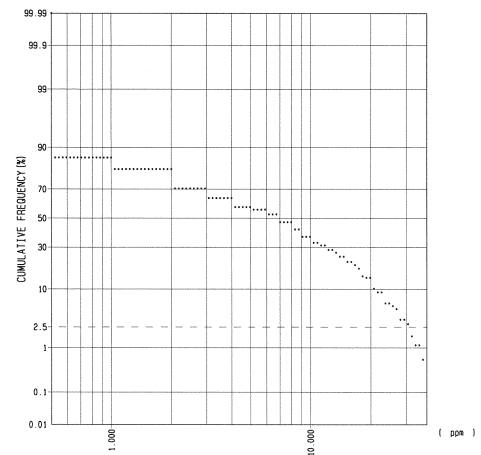
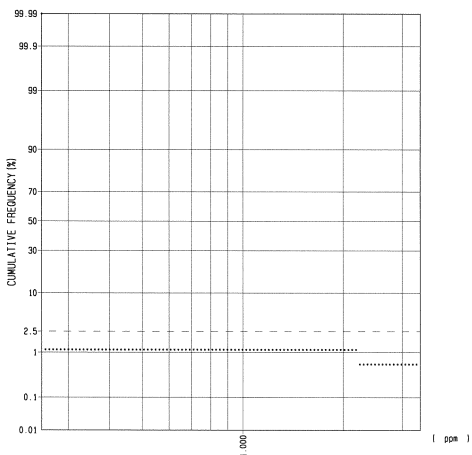
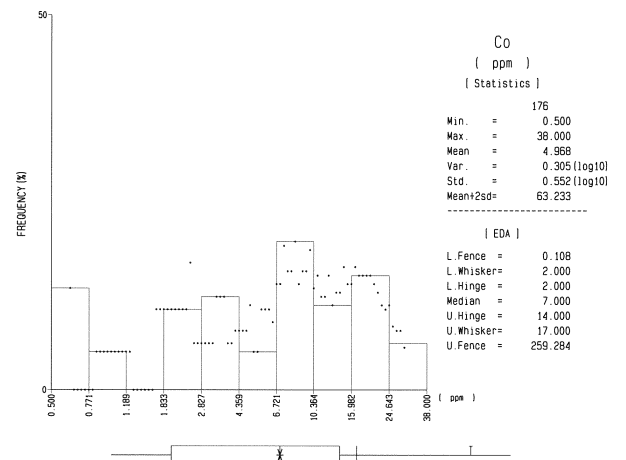
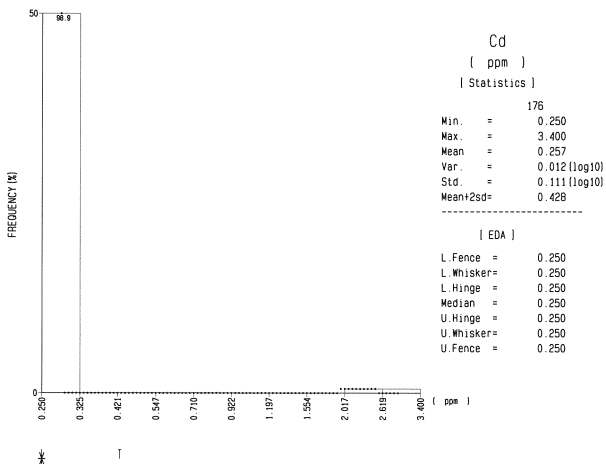
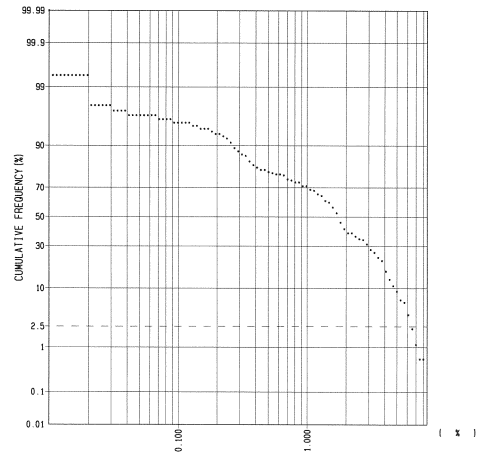
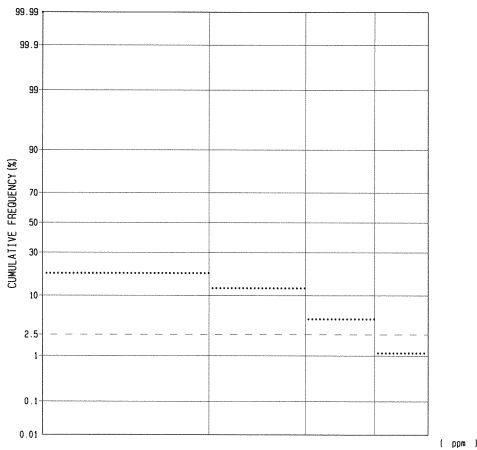
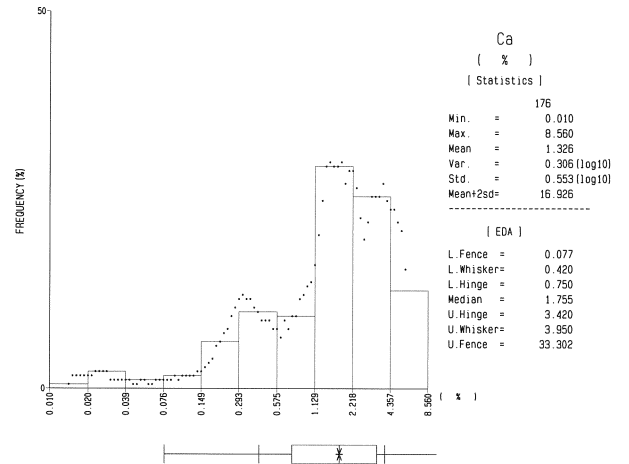
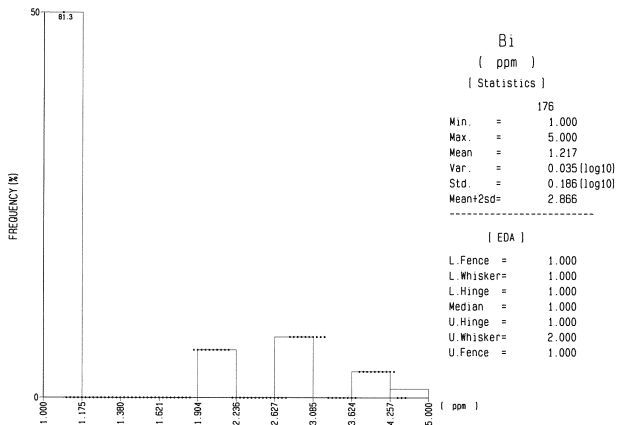
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MA2134	445387.00	5429099.00	1.141	0.617	-2.032	0.130	0.270	0.735	0.025
MA2135	445204.00	5428426.00	1.632	0.210	0.495	-0.907	-0.438	0.594	1.056
MA2136	447246.00	5427448.00	1.575	-0.104	1.120	-0.669	-0.435	1.832	0.414
MA2137	447309.00	5427557.00	-1.266	0.344	0.444	-0.117	-0.422	0.302	-1.530
MA2138	447309.00	5427557.00	0.911	0.554	-2.269	-0.025	-0.198	-0.155	-0.450
MA2139	443956.00	5428696.00	1.293	0.543	-2.144	0.163	0.044	-0.160	0.553
MA2141	443599.00	5428310.00	1.037	0.238	-0.839	0.247	0.114	1.070	-0.111
MA2145	444904.00	5427934.00	1.172	0.675	-2.339	0.158	0.122	0.576	-0.045
MA2146	445302.00	5427970.00	1.703	-0.246	1.932	-0.489	-0.789	1.182	0.196
MA2147	445493.00	5427906.00	1.777	0.117	0.604	-0.752	-0.594	0.415	1.392
MA2148	445208.00	5425704.00	-0.686	0.146	0.108	-1.495	0.614	-0.711	0.413
MA2149	444914.00	5425768.00	-0.268	0.282	0.231	-0.585	-0.030	-1.229	-0.475
MA2211	444805.00	5426024.00	-1.021	0.275	-0.570	0.249	0.944	1.141	-1.126
MD2038	443203.00	5426399.00	-0.094	0.357	0.758	-2.072	1.522	-0.642	-0.223
MB2001	442146.00	5401236.00	0.038	-0.017	0.812	0.192	0.260	-0.400	-0.492
MB2003	441854.00	5408212.00	-1.411	0.209	0.533	-0.315	0.405	0.210	1.256
MB2006	440810.00	5402203.00	0.725	0.038	0.251	0.660	-0.375	-0.591	-0.207
MB2007	441174.00	5402615.00	0.455	-0.294	0.248	0.722	0.132	-0.461	-0.568
MB2008	443348.00	5403109.00	0.903	0.218	-0.799	0.577	0.257	0.382	-0.178
MB2010	443433.00	5401282.00	0.673	0.100	0.904	0.145	-0.559	-2.308	2.489
MB2011	442707.00	5401030.00	0.067	-0.056	0.716	0.531	0.054	-0.257	-0.533
MB2013	442635.00	5401463.00	0.053	-0.514	0.917	0.642	0.092	-0.536	-0.082
MB2015A	442229.00	5401722.00	0.146	-0.510	0.671	0.213	0.308	-0.252	-0.631
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MB2017	439973.00	5400698.00	-1.609	-0.005	-0.108	0.118	-0.564	-1.185	-0.899
MB2019	440656.00	5400919.00	-0.025	-0.188	0.859	0.511	-0.442	0.268	0.006
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MB2025	439371.00	5407271.00	0.025	-0.295	0.763	0.972	-0.180	-0.264	-0.628
MB2026	439666.00	5407203.00	0.894	0.612	-2.352	0.656	0.439	-0.079	0.139
MB2027	439156.00	5407319.00	0.124	0.236	0.023	0.077	-0.410	-1.404	0.150
MB2028	439074.00	5407365.00	0.019	0.178	0.322	0.816	-0.275	0.102	-1.076
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MB2030	439734.00	5406621.00	-0.141	0.134	0.667	-0.427	-0.073	-0.396	-0.627
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MB2035	442400.00	5407052.00	-1.003	0.226	1.275	-0.904	0.386	0.398	0.951
MB2037	442397.00	5406248.00	-0.100	0.083	0.453	0.676	-0.501	0.185	-1.024
MB2038	442514.00	5406009.00	0.656	0.021	0.230	0.759	-0.278	-0.370	-0.100
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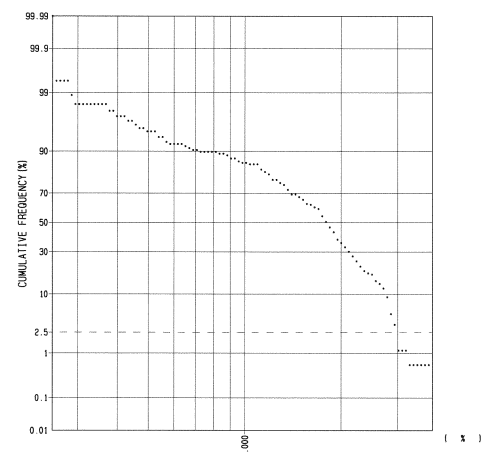
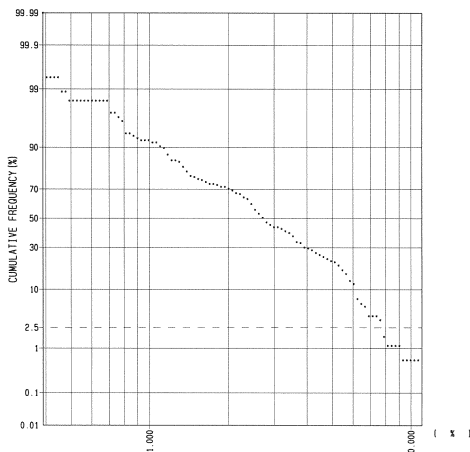
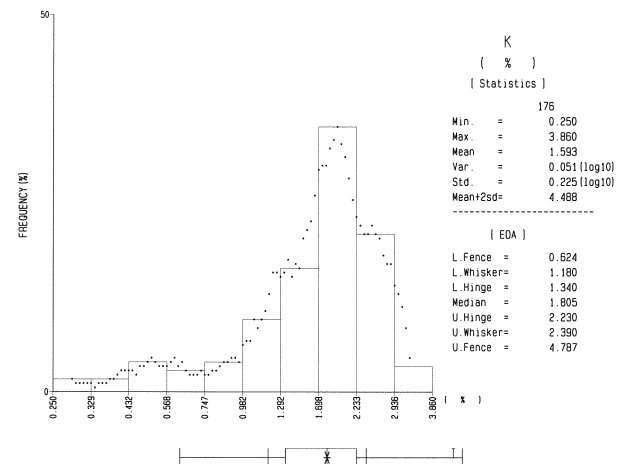
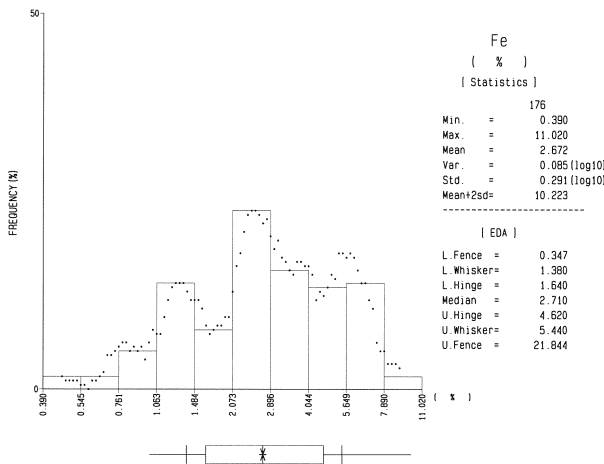
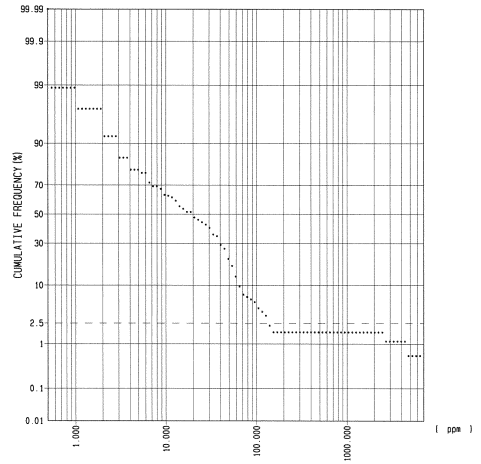
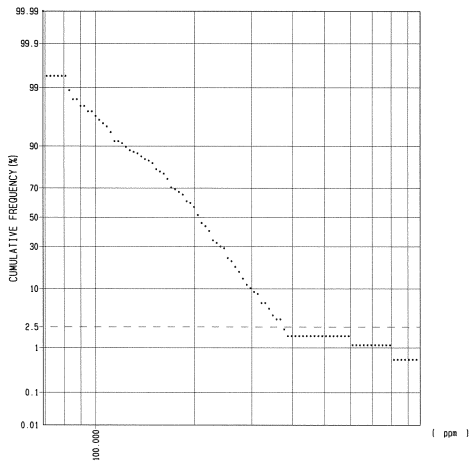
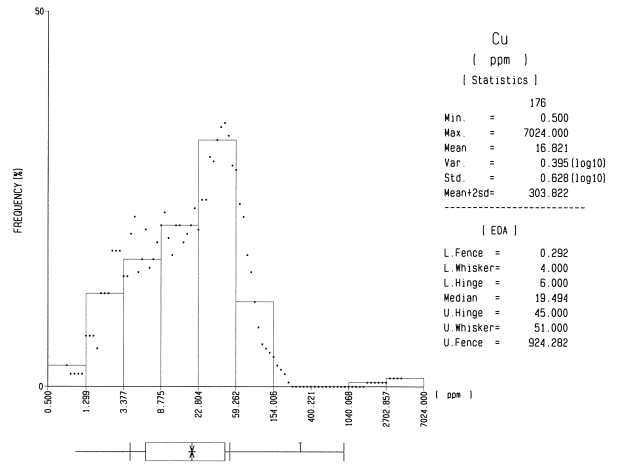
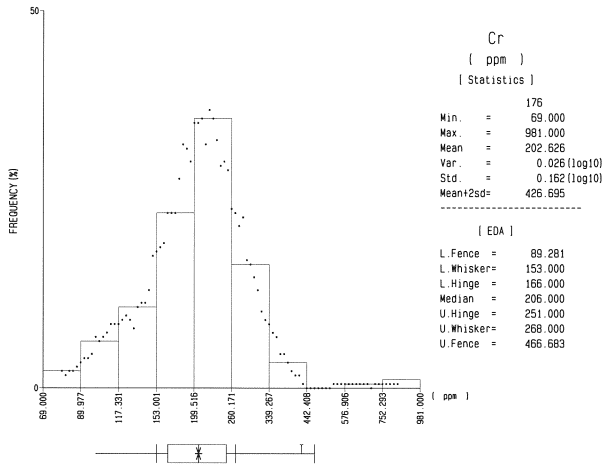
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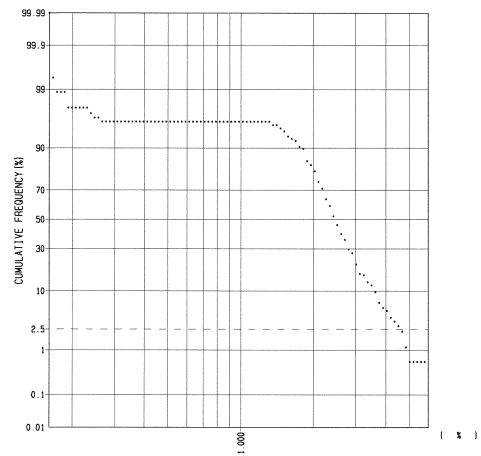
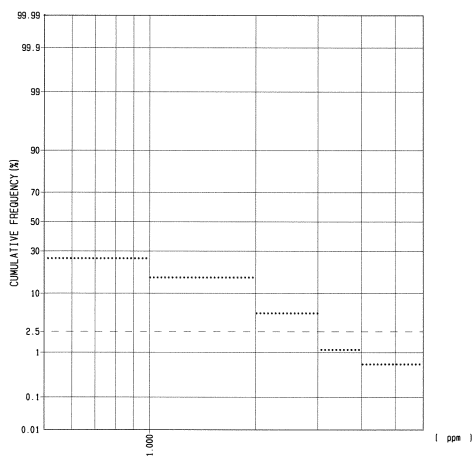
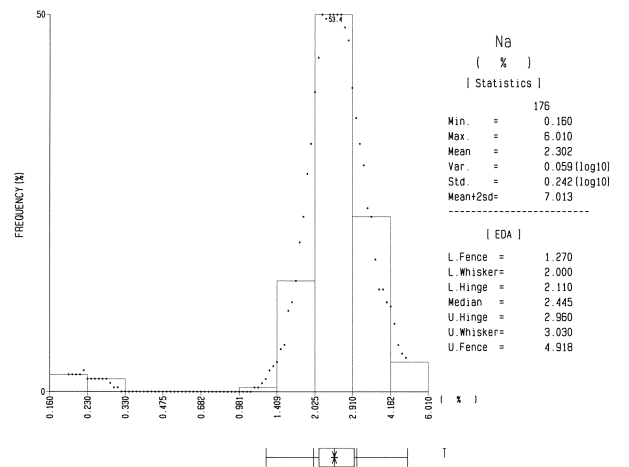
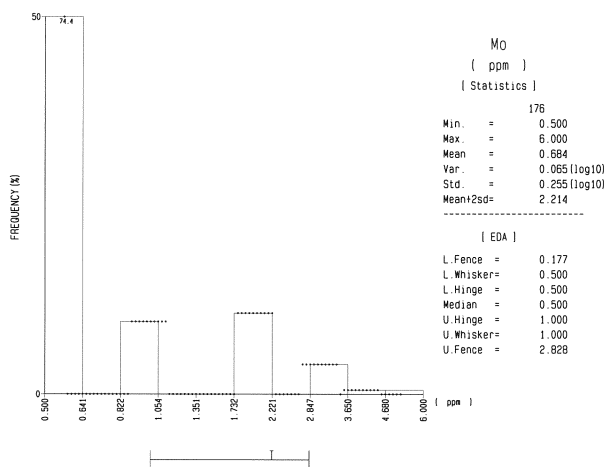
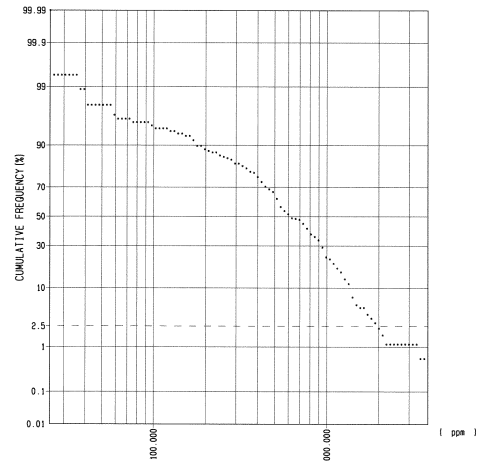
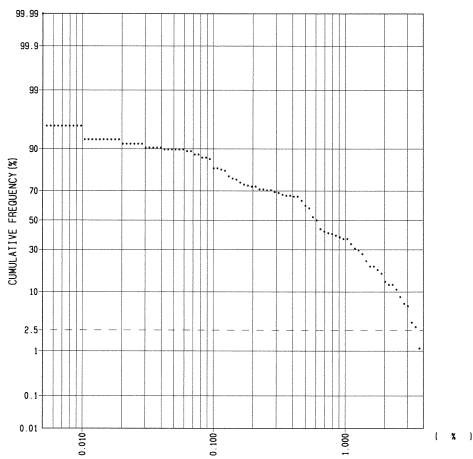
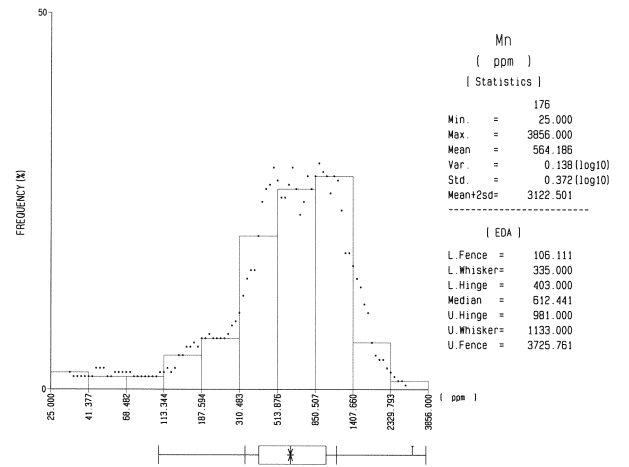
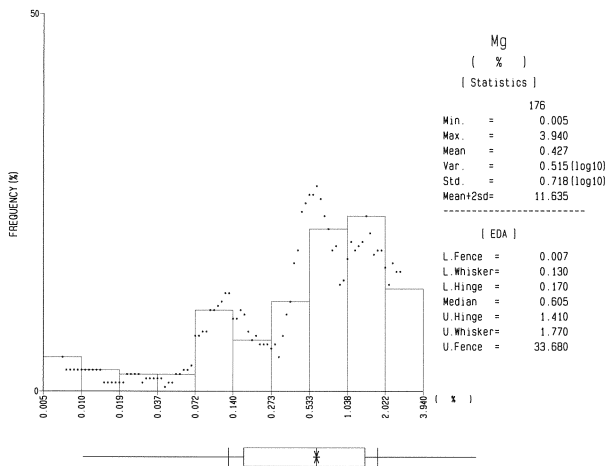
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MD2042	442793.00	5406009.00	0.732	0.094	0.047	0.762	-0.241	-0.319	0.005
MD2043	443214.00	5405261.00	0.995	-0.163	-0.082	0.503	0.065	-0.428	0.111
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MD2053	439753.00	5408362.00	0.139	0.163	-0.195	0.574	-0.579	-0.897	0.467
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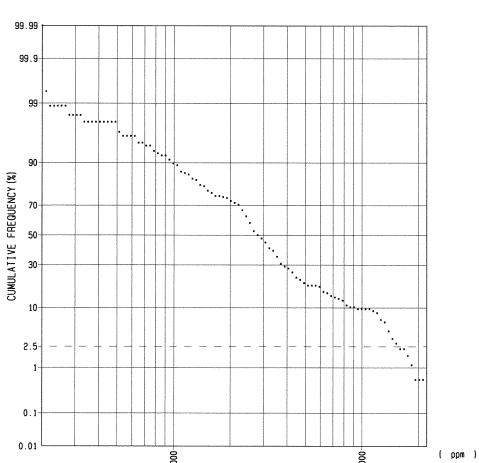
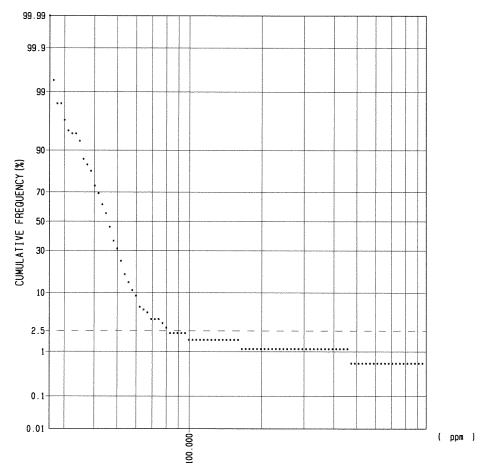
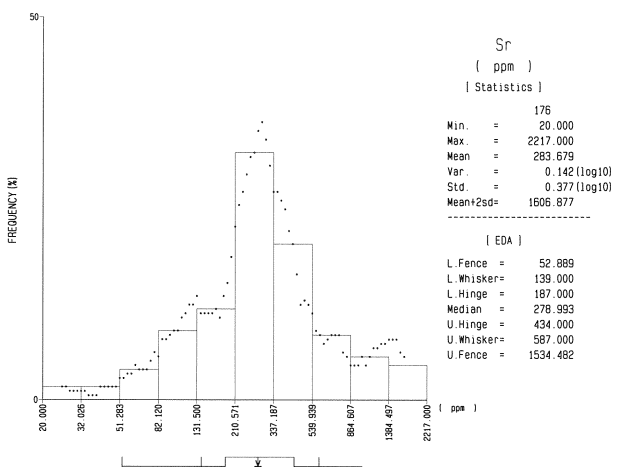
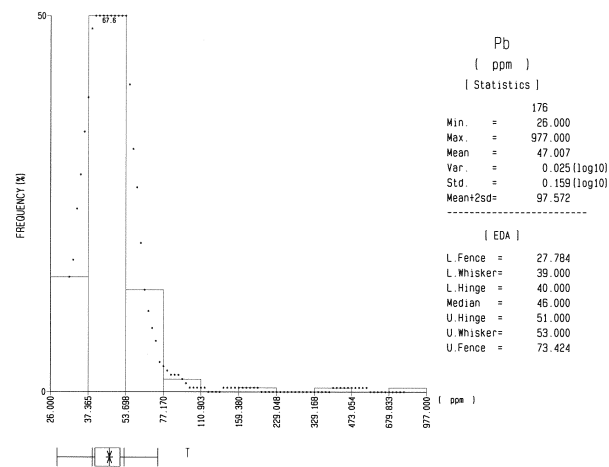
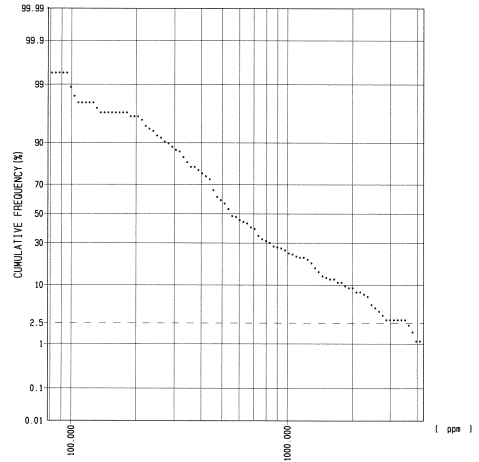
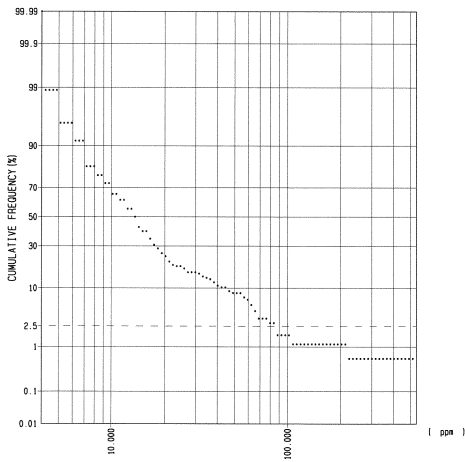
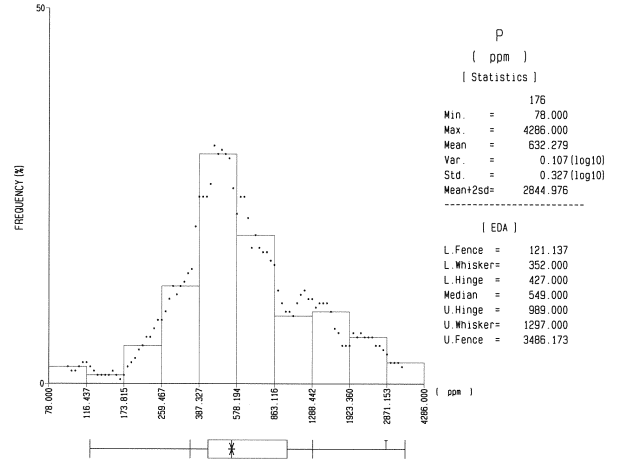
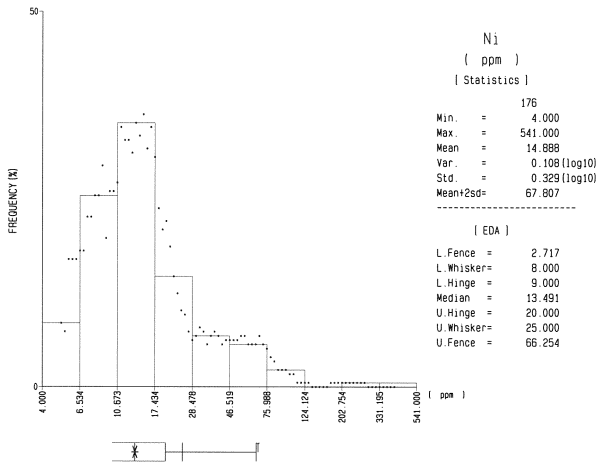


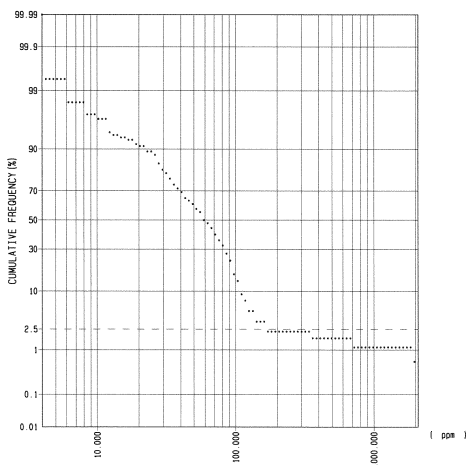
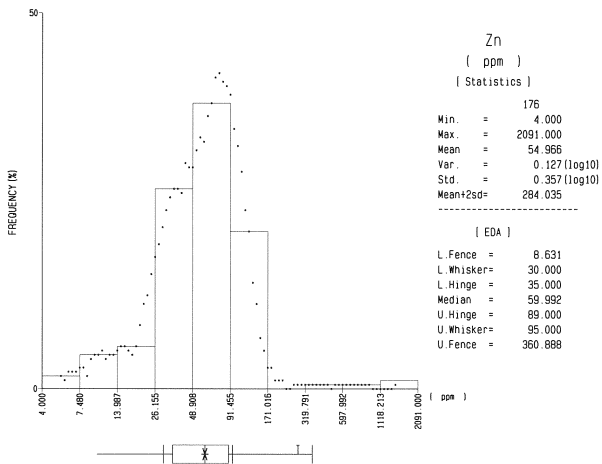
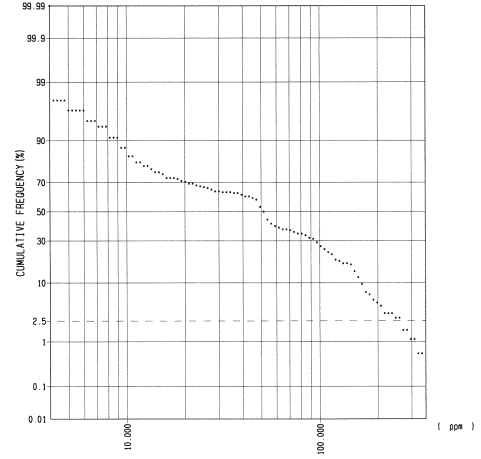
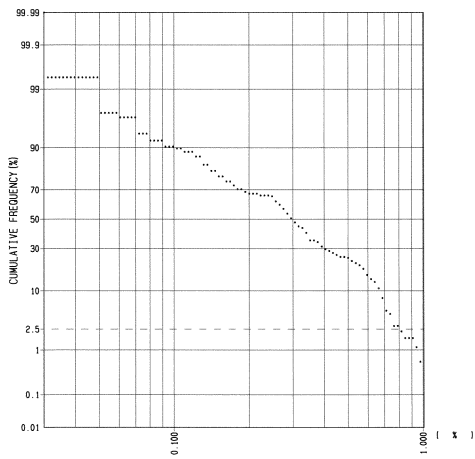
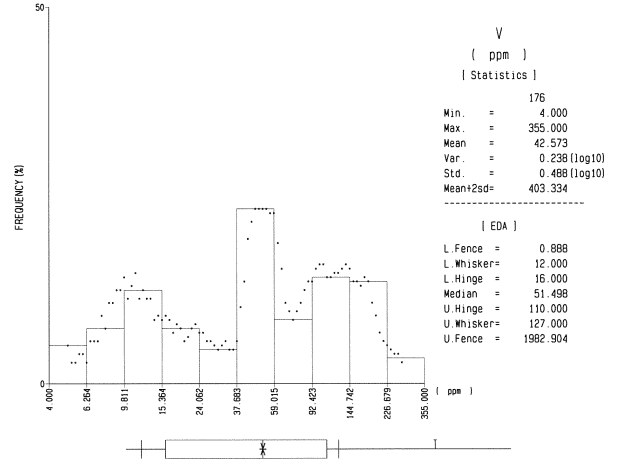
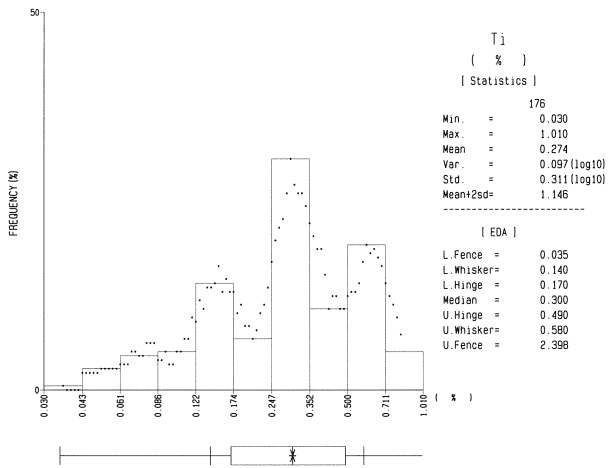


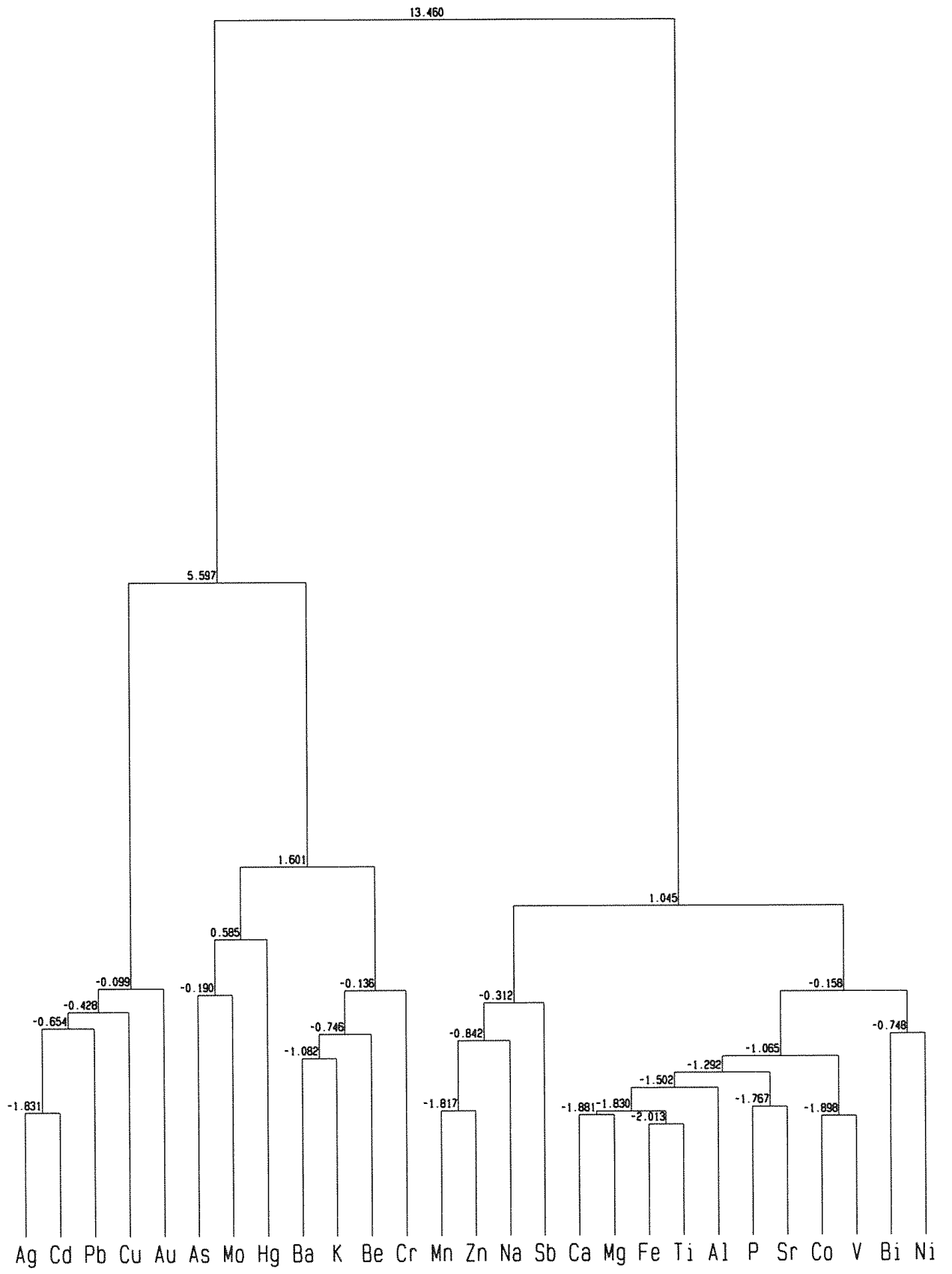












Data : erde_us.dat
Method: Ward

Cluster Dendrogram