

Appendix 9 Statistical data of rock chemical samples, histogram, EDA and cumulative frequency for each element in the cumulative in the Mogoin gol area

\*\*\*\*\* Base Statistics \*\*\*\*\*

File:rock\_list.dat

----- Geological Code(Ncd:1) -----

1:Mogo

----- 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 : 103 ( 279)

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

Elements	Mean	Var.	S. D.	Min	Max	Mean+2SD
Au	1.126	0.248*	0.498*	0.500	65.000	11.143 (LOG)
As	1.822	0.499*	0.706*	0.500	121.000	47.123 (LOG)
Sb	4.122	0.750*	0.866*	0.100	30.900	222.489 (LOG)
Hg	21.701	0.146*	0.382*	5.000	615.000	126.256 (LOG)
Ag	0.273	0.019*	0.137*	0.250	1.200	0.514 (LOG)
Al	6.619	0.124*	0.353*	0.150	13.960	33.587 (LOG)
Ba	480.407	0.131*	0.362*	41.000	2137.000	2541.756 (LOG)
Be	7.884	0.267*	0.516*	0.250	37.900	85.001 (LOG)
Bi	1.462	0.056*	0.236*	1.000	5.000	4.339 (LOG)
Ca	1.070	0.552*	0.743*	0.005	7.540	32.773 (LOG)
Cd	0.250	0.000*	0.000*	0.250	0.250	0.250 (LOG)
Co	4.116	0.408*	0.639*	0.500	46.000	78.101 (LOG)
Cr	149.921	0.035*	0.187*	63.000	470.000	355.365 (LOG)
Cu	13.473	0.276*	0.525*	0.500	165.000	151.206 (LOG)
Fe	3.759	0.084*	0.290*	0.370	12.370	14.268 (LOG)
K	0.930	0.156*	0.395*	0.080	4.170	5.723 (LOG)
Mg	0.308	0.870*	0.933*	0.005	3.460	22.550 (LOG)
Mn	552.976	0.275*	0.525*	26.000	2618.000	6197.650 (LOG)
Mo	0.704	0.131*	0.362*	0.500	35.000	3.727 (LOG)
Na	1.116	0.277*	0.526*	0.040	3.590	12.591 (LOG)
Ni	11.907	0.105*	0.325*	3.000	104.000	53.100 (LOG)
P	1100.443	0.103*	0.322*	34.000	3715.000	4841.370 (LOG)
Pb	52.332	0.065*	0.254*	1.000	272.000	168.804 (LOG)
Sr	418.929	0.161*	0.402*	20.000	1905.000	2665.556 (LOG)
Ti	0.371	0.114*	0.338*	0.020	1.010	1.762 (LOG)
V	69.299	0.196*	0.443*	5.000	330.000	532.097 (LOG)
W	5.000	0.000*	0.000*	5.000	5.000	5.000 (LOG)
Zn	52.086	0.185*	0.430*	4.000	304.000	376.937 (LOG)

\*:LOG

==== Detection Limit =====

Elements	B. D. L	A. D. L (%)
Au	55.340	0.000
As	57.282	0.000
Sb	20.388	0.000
Hg	11.650	0.000
Ag	92.233	0.000
Al	0.000	0.000
Ba	0.000	0.000
Be	5.825	0.000
Bi	64.078	0.000
Ca	1.942	0.000
Cd	100.000	0.000
Co	23.301	0.000
Cr	0.000	0.000
Cu	3.883	0.000
Fe	0.000	0.000
K	0.000	0.000
Mg	15.534	0.000
Mn	0.000	0.000
Mo	82.524	0.000
Na	0.000	0.000
Ni	0.000	0.000
P	0.000	0.000
Pb	0.971	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	-0.008	1.000										
Sb	0.148	0.035	1.000									
Hg	0.062	0.120	-0.186	1.000								
Ag	0.328	0.154	0.011	-0.016	1.000							
Al	0.052	-0.168	0.379	-0.300	0.060	1.000						
Ba	0.043	-0.145	0.323	-0.093	0.024	0.566	1.000					
Be	0.099	-0.196	0.500	-0.186	0.089	0.759	0.651	1.000				
Bi	-0.023	-0.109	0.152	-0.129	-0.197	0.201	-0.074	-0.094	1.000			
Ca	-0.022	-0.134	0.699	-0.104	-0.171	0.653	0.490	0.643	0.374	1.000		
Cd	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000	1.000	
Co	0.123	-0.123	0.617	0.072	-0.270	0.360	0.254	0.385	0.439	0.802	? .000	1.000
Cr	-0.072	0.137	-0.243	-0.033	-0.013	-0.560	-0.509	-0.581	0.005	-0.407	-? .000	-0.283
Cu	0.164	-0.078	0.041	0.173	-0.119	0.041	0.090	0.014	0.221	0.207	? .000	0.403
Fe	0.007	-0.289	0.086	-0.134	-0.330	0.430	0.227	0.162	0.627	0.560	? .000	0.531
K	0.110	-0.151	0.390	-0.112	0.097	0.594	0.779	0.842	-0.254	0.458	? .000	0.188
Mg	0.072	-0.194	0.649	-0.022	-0.200	0.577	0.519	0.657	0.311	0.901	? .000	0.825
Mn	0.045	-0.055	0.635	-0.064	-0.136	0.495	0.520	0.640	0.221	0.851	? .000	0.727
Mo	0.003	0.194	-0.264	-0.007	0.205	-0.446	-0.344	-0.450	-0.290	-0.571	-? .000	-0.411
Na	0.124	-0.111	0.676	-0.095	-0.007	0.686	0.678	0.820	0.131	0.790	? .000	0.585
Ni	0.378	-0.192	0.376	0.021	-0.018	0.088	0.038	0.121	0.215	0.379	? .000	0.616
P	-0.051	-0.182	0.304	-0.085	-0.263	0.530	0.232	0.233	0.319	0.623	? .000	0.447
Pb	0.130	-0.020	0.227	0.024	0.124	0.740	0.552	0.536	0.079	0.509	? .000	0.328
Sr	0.093	-0.250	0.350	-0.130	-0.117	0.633	0.413	0.290	0.422	0.627	? .000	0.494
Ti	0.079	-0.159	0.577	-0.135	-0.193	0.426	0.366	0.501	0.361	0.706	? .000	0.712
V	0.081	-0.285	0.208	-0.167	-0.290	0.401	0.015	0.070	0.625	0.513	? .000	0.621
W	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000
Zn	0.072	-0.127	0.568	-0.050	-0.085	0.549	0.586	0.667	0.195	0.854	? .000	0.744

	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sr
Cr	1.000											
Cu	-0.057	1.000										
Fe	-0.234	0.298	1.000									
K	-0.612	0.032	-0.012	1.000								
Mg	-0.497	0.287	0.525	0.549	1.000							
Mn	-0.433	0.143	0.436	0.523	0.879	1.000						
Mo	0.199	-0.084	-0.511	-0.354	-0.508	-0.422	1.000					
Na	-0.555	0.018	0.260	0.736	0.775	0.792	-0.512	1.000				
Ni	0.133	0.427	0.256	0.002	0.460	0.361	-0.125	0.230	1.000			
P	-0.191	0.220	0.594	0.123	0.479	0.349	-0.481	0.295	0.236	1.000		
Pb	-0.408	0.150	0.341	0.468	0.430	0.406	-0.322	0.501	0.140	0.523	1.000	
Sr	-0.233	0.110	0.610	0.179	0.476	0.400	-0.532	0.525	0.311	0.688	0.562	1.000
Ti	-0.436	0.137	0.470	0.381	0.788	0.760	-0.403	0.684	0.364	0.292	0.282	0.367
V	-0.126	0.352	0.786	-0.114	0.480	0.325	-0.455	0.193	0.465	0.618	0.313	0.638
W	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000	? .000
Zn	-0.509	0.255	0.529	0.558	0.907	0.899	-0.446	0.757	0.394	0.452	0.510	0.455

	Ti	V	W	Zn
Ti	1.000			
V	0.535	1.000		
W	? .000	? .000	1.000	
Zn	0.712	0.393	? .000	1.000

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

Elements	L. Fence	L. Wisker	L. Hinge	Median	U. Hinge	U. Wisker	U. Fence
Au	0.062	0.500	0.500	0.500	2.000	4.000	16.000
As	0.007	0.500	0.500	0.500	9.000	11.000	687.308
Sb	0.217	0.100	2.800	10.900	15.400	17.100	198.639
Hg	2.601	12.000	13.000	19.000	38.000	44.000	189.908
Ag	0.250	0.250	0.250	0.250	0.250	0.250	0.250
Al	4.939	6.840	7.150	8.270	9.150	9.400	13.246
Ba	99.075	264.000	358.000	610.000	843.000	915.000	3046.102
Be	2.075	3.900	7.200	11.200	16.500	17.700	57.242
Bi	0.354	1.000	1.000	1.000	2.000	3.000	5.657
Ca	0.004	0.220	0.280	1.730	4.400	4.880	274.091
Cd	0.250	0.250	0.250	0.250	0.250	0.250	0.250
Co	0.017	0.500	1.000	5.000	15.000	19.000	871.421
Cr	46.605	108.000	110.000	143.000	195.000	217.000	460.254
Cu	0.830	5.000	7.000	18.000	29.000	32.000	244.539
Fe	0.715	2.180	2.570	4.500	6.030	6.820	21.672
K	0.077	0.410	0.520	1.170	1.850	2.070	12.414
Mg	0.001	0.030	0.100	0.670	1.720	1.810	122.693
Mn	39.818	165.000	333.000	823.000	1372.000	1466.000	11474.108
Mo	0.500	0.500	0.500	0.500	0.500	0.500	0.500
Na	0.091	0.230	0.680	1.870	2.600	2.720	19.439
Ni	1.565	6.000	7.000	11.000	19.000	25.000	84.964
P	288.225	535.000	830.000	1393.000	1680.000	1824.000	4837.891
Pb	29.578	43.000	47.000	55.000	64.000	66.000	101.696
Sr	64.799	255.000	278.000	550.000	734.000	805.000	3149.002
Ti	0.071	0.210	0.260	0.500	0.620	0.650	2.283
V	3.371	28.000	33.000	90.000	151.000	169.000	1477.990
W	5.000	5.000	5.000	5.000	5.000	5.000	5.000
Zn	3.297	20.000	26.000	76.000	103.000	109.000	812.144

\*\*\*\*\* Factor Analysis \*\*\*\*\*  
 File:mogoin.dat

----- Geological Code(Ncd:1) -----  
 1:Mogo

----- Elements(Nel:26) -----

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:Co	(ppm )	12:Cr	(ppm )
13:Cu	(ppm )	14:Fe	(% )	15:K	(% )
16:Mg	(% )	17:Mn	(ppm )	18:Mo	(ppm )
19:Na	(% )	20:Ni	(ppm )	21:P	(ppm )
22:Pb	(ppm )	23:Sr	(ppm )	24:Ti	(% )
25:V	(ppm )	26:Zn	(ppm )		

Number of datas : 103 ( 103)

===== Eigen Value =====  
 Trace(Max. of Correlation Coefficient): 17.808  
 Number of factors : 7

N fact	EigenValue	%	Cum%
1	10.367	58.215	58.215
2	3.203	17.986	76.201
3	1.685	9.460	85.661
4	1.087	6.102	91.763
5	0.814	4.572	96.335
6	0.636	3.572	99.908
7	0.500	2.805	102.713

===== Factor Loading =====  
 (before rotation)

Elements	1	2	3	4	5	6	7	Comm.
Au	-0.104	-0.038	-0.193	-0.550	0.081	-0.190	-0.081	0.401
As	0.218	-0.126	-0.166	-0.008	0.108	0.379	-0.253	0.310
Sb	-0.635	-0.118	-0.372	0.025	0.393	0.118	0.072	0.730
Hg	0.123	0.020	-0.176	-0.140	-0.406	0.273	-0.037	0.307
Ag	0.145	-0.344	-0.029	-0.402	0.227	-0.030	-0.192	0.391
Al	-0.748	-0.210	0.431	-0.107	0.174	-0.036	-0.098	0.841
Ba	-0.621	-0.471	0.191	-0.051	-0.176	-0.024	0.091	0.687
Be	-0.733	-0.540	0.057	-0.005	0.040	-0.142	0.084	0.861
Bi	-0.344	0.611	0.077	0.113	0.136	-0.096	-0.240	0.596
Ca	-0.933	0.072	-0.081	0.122	0.096	0.192	0.045	0.946
Co	-0.785	0.333	-0.372	-0.029	-0.067	0.082	-0.010	0.878
Cr	0.534	0.372	-0.143	-0.059	0.238	0.126	0.292	0.605
Cu	-0.244	0.306	-0.167	-0.311	-0.370	-0.020	0.022	0.415
Fe	-0.610	0.554	0.290	0.081	-0.155	-0.136	-0.116	0.826
K	-0.593	-0.695	0.065	-0.028	-0.136	-0.145	0.138	0.898
Mg	-0.926	0.016	-0.247	0.092	-0.116	-0.002	0.015	0.941
Mn	-0.853	-0.102	-0.307	0.178	-0.015	0.091	-0.081	0.879
Mo	0.596	-0.116	-0.223	-0.117	0.038	-0.024	-0.212	0.479
Na	-0.847	-0.356	-0.084	0.059	0.126	0.000	0.013	0.872
Ni	-0.403	0.355	-0.424	-0.427	0.049	-0.108	0.204	0.706
P	-0.595	0.349	0.358	-0.061	0.020	0.263	0.160	0.703
Pb	-0.611	-0.169	0.377	-0.367	-0.048	0.258	-0.147	0.769
Sr	-0.670	0.276	0.368	-0.159	0.175	0.091	0.092	0.734
Ti	-0.769	0.081	-0.269	0.205	0.049	-0.202	-0.163	0.783
V	-0.570	0.684	0.167	-0.079	0.037	-0.164	-0.047	0.857
Zn	-0.893	-0.081	-0.198	0.036	-0.152	0.067	-0.068	0.876

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

Elements	1	2	3	4	5	6	7	Comm.
Au	-0.046	-0.011	-0.078	-0.617	-0.092	-0.056	-0.018	0.401
As	0.126	-0.080	-0.002	-0.011	-0.053	0.509	0.162	0.310
Sb	-0.131	0.169	-0.781	-0.149	0.211	0.070	0.056	0.730
Hg	0.047	-0.055	0.045	0.028	-0.518	0.134	0.111	0.307
Ag	-0.119	-0.065	0.143	-0.483	0.129	0.240	0.211	0.391
Al	-0.642	0.507	-0.210	-0.114	0.264	-0.018	-0.213	0.841
Ba	-0.733	0.245	-0.233	-0.001	-0.023	-0.136	0.129	0.687
Be	-0.750	0.166	-0.432	-0.092	0.186	-0.153	0.134	0.861
Bi	0.160	0.189	-0.213	0.048	0.078	-0.029	-0.693	0.596
Ca	-0.342	0.435	-0.757	0.103	0.008	-0.024	-0.234	0.946
Co	-0.086	0.218	-0.777	-0.062	-0.264	-0.104	-0.368	0.878
Cr	0.741	0.012	0.159	-0.020	0.038	-0.047	0.166	0.605
Cu	0.011	0.096	-0.150	-0.189	-0.506	-0.197	-0.230	0.415
Fe	-0.152	0.375	-0.190	0.144	-0.098	-0.249	-0.731	0.826
K	-0.823	0.068	-0.290	-0.062	0.068	-0.184	0.298	0.898
Mg	-0.433	0.190	-0.779	0.036	-0.148	-0.155	-0.250	0.941
Mn	-0.428	0.109	-0.804	0.074	-0.059	0.031	-0.166	0.879
Mo	0.263	-0.427	0.299	-0.195	-0.027	0.257	0.183	0.479
Na	-0.611	0.220	-0.650	-0.051	0.157	-0.031	0.007	0.872
Ni	0.202	0.160	-0.507	-0.457	-0.245	-0.301	-0.151	0.706
P	-0.101	0.722	-0.224	0.129	-0.068	-0.108	-0.297	0.703
Pb	-0.552	0.597	-0.096	-0.208	-0.117	0.168	-0.113	0.769
Sr	-0.191	0.694	-0.249	-0.066	0.100	-0.138	-0.347	0.734
Ti	-0.330	-0.028	-0.699	0.008	0.073	-0.112	-0.407	0.783
V	0.066	0.415	-0.266	-0.061	-0.037	-0.284	-0.724	0.857
Zn	-0.513	0.200	-0.702	0.008	-0.186	-0.044	-0.207	0.876

N fact	Contribution	%	Cum%
1	4.544	25.517	25.517
2	2.691	15.114	40.631
3	5.510	30.942	71.573
4	1.061	5.958	77.531
5	0.973	5.467	82.997
6	0.870	4.888	87.885
7	2.641	14.828	102.713

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

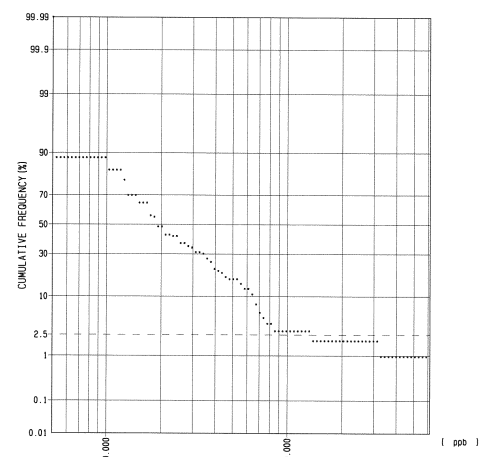
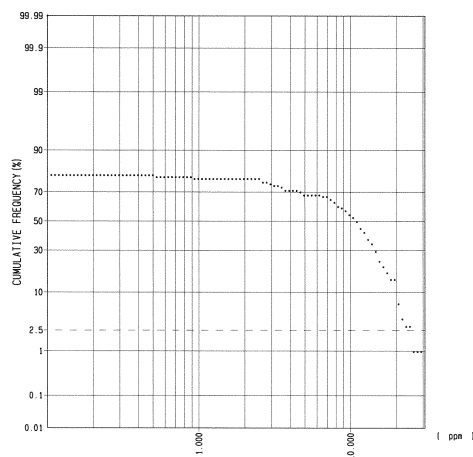
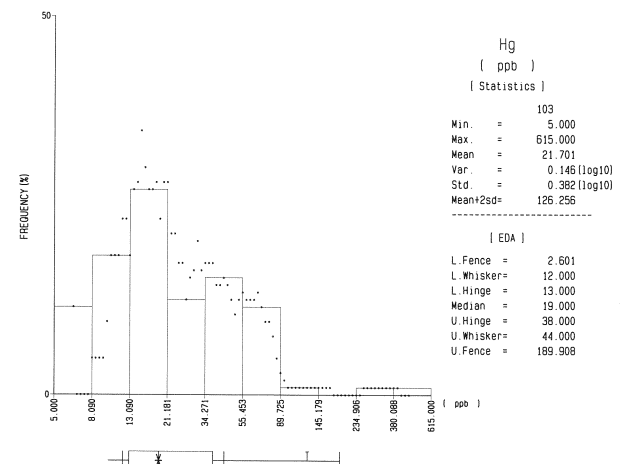
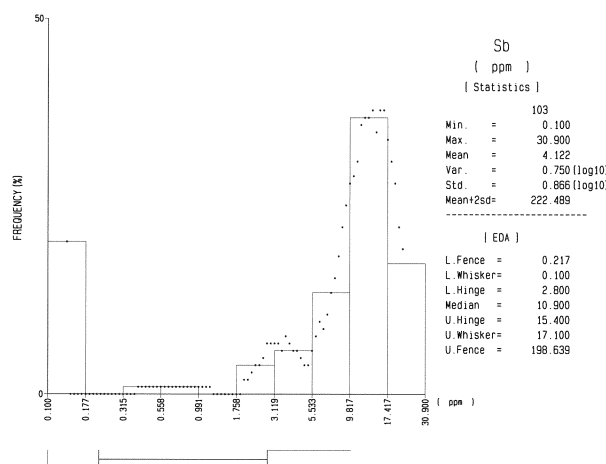
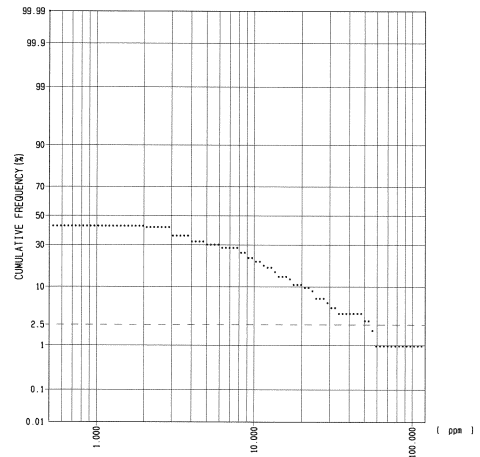
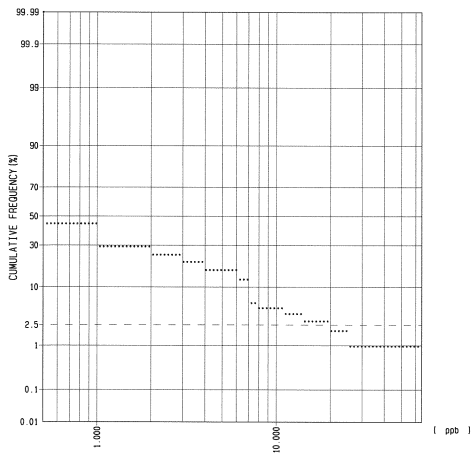
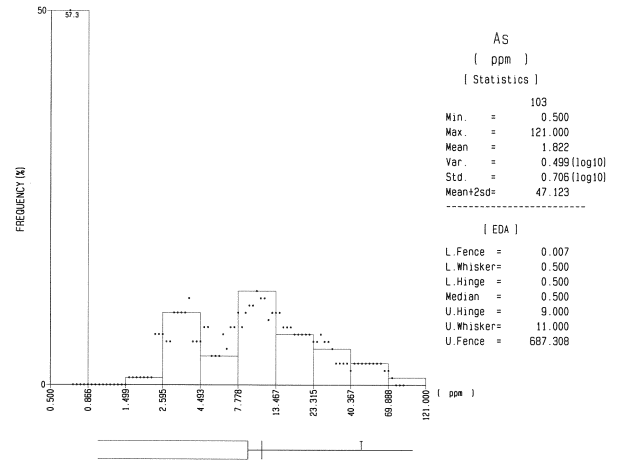
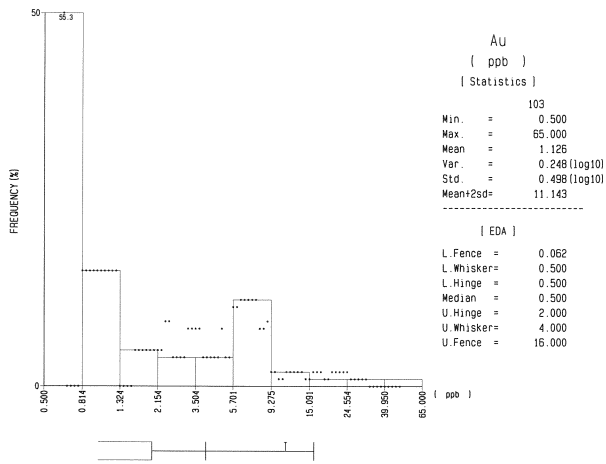
Elements	<Weight>						
	1	2	3	4	5	6	7
Au	0.016	0.031	-0.034	-0.269	-0.017	0.107	-0.009
As	-0.017	-0.001	-0.008	-0.015	-0.027	0.067	0.017
Sb	0.114	0.003	-0.141	-0.261	0.369	0.149	0.033
Hg	-0.075	0.013	0.070	-0.034	-0.043	0.030	-0.019
Ag	-0.013	-0.055	0.002	-0.203	-0.016	-0.004	-0.040
Al	-0.150	0.114	0.174	-0.222	0.466	0.693	-0.343
Ba	-0.109	0.121	0.040	0.086	-0.063	-0.093	0.100
Be	-0.242	-0.174	0.017	-0.123	0.306	-0.902	0.229
Bi	-0.037	-0.094	0.036	-0.086	0.140	0.087	-0.227
Ca	0.332	0.779	-0.338	0.530	0.328	0.529	0.308
Co	0.090	-0.116	-0.175	-0.035	-0.545	-0.011	-0.059
Cr	0.189	0.115	-0.100	-0.022	0.152	-0.218	0.138
Cu	-0.004	-0.029	0.005	-0.078	-0.211	0.008	-0.028
Fe	-0.146	-0.082	0.261	0.062	0.018	-0.420	-0.418
K	-0.358	-0.079	0.153	-0.073	0.016	-0.547	0.187
Mg	-0.030	-0.304	-0.304	0.246	-0.669	-0.652	0.028
Mn	0.024	-0.232	-0.291	0.161	0.030	0.325	-0.032
Mo	-0.065	-0.132	0.010	-0.132	0.106	-0.144	-0.052
Na	-0.006	0.085	-0.144	-0.025	0.040	0.041	0.020
Ni	0.149	0.087	-0.028	-0.389	-0.022	-0.204	0.098
P	0.056	0.244	0.031	0.145	-0.115	-0.149	0.102
Pb	-0.091	0.314	0.104	-0.158	-0.396	0.419	0.030
Sr	-0.032	0.115	0.042	-0.081	0.117	-0.360	0.083
Ti	-0.092	-0.332	-0.069	-0.004	0.312	0.085	-0.268
V	0.064	0.153	0.001	-0.124	0.179	-0.421	-0.233
Zn	-0.250	-0.053	0.014	-0.236	-0.100	0.510	-0.121

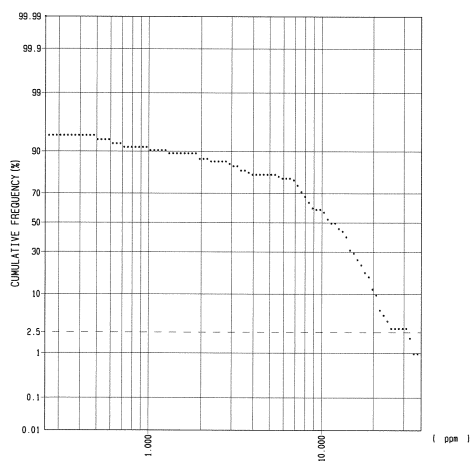
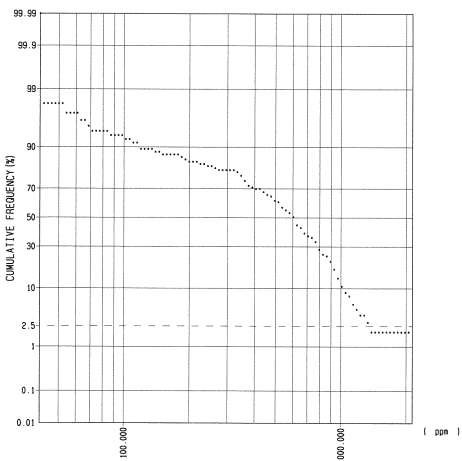
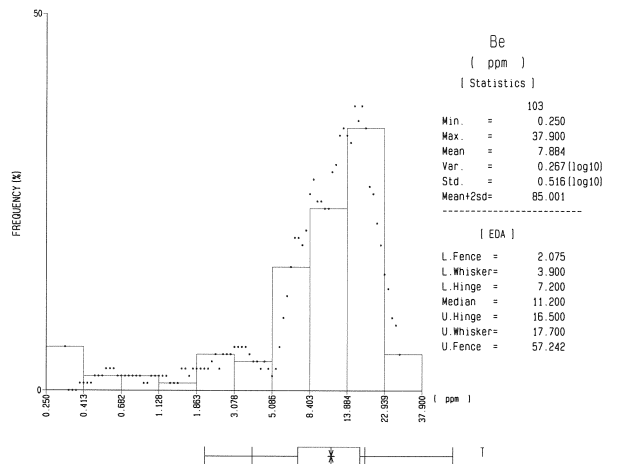
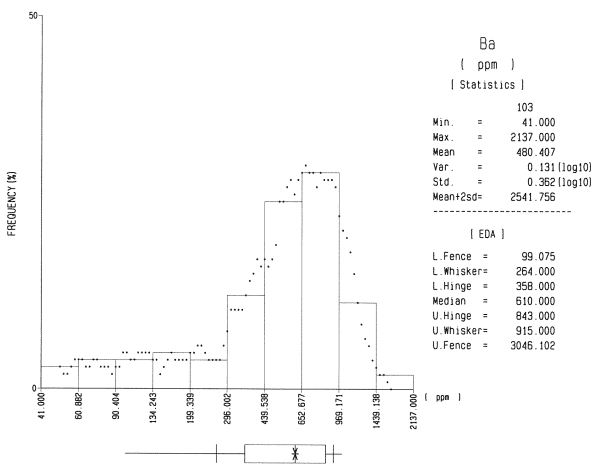
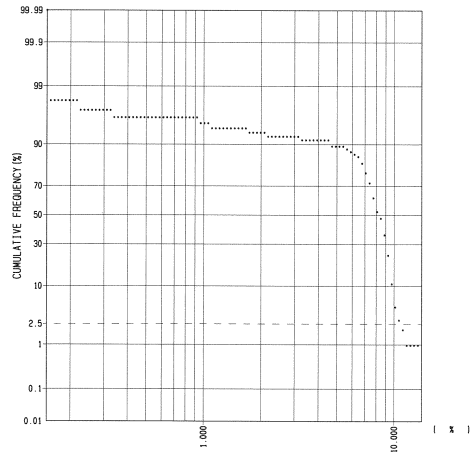
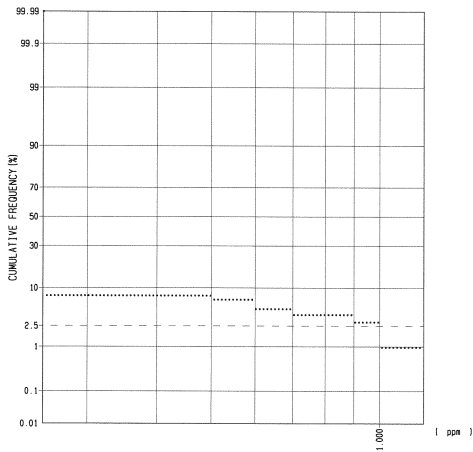
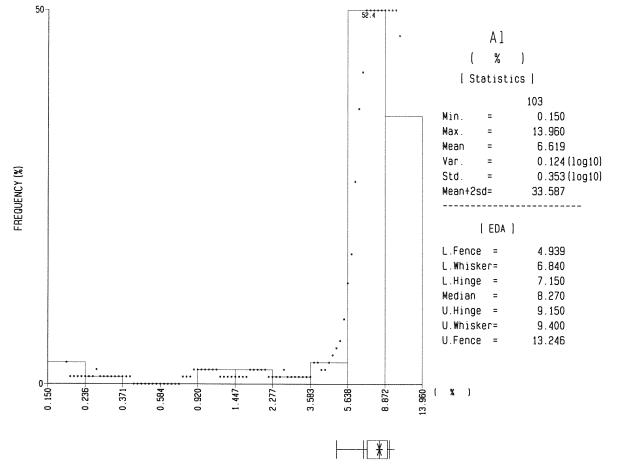
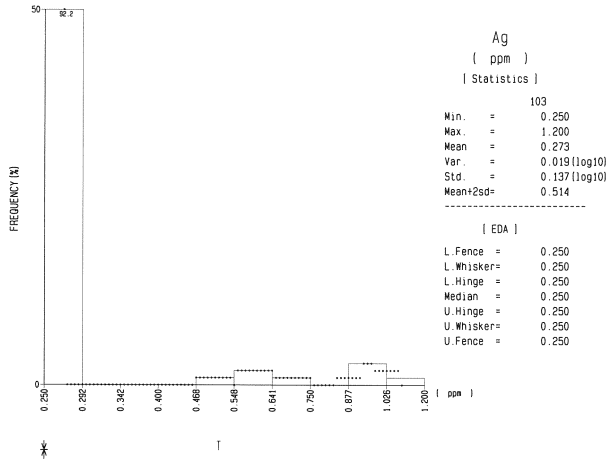
Sample	<Score>								
	X (m)	Y (m)	1	2	3	4	5	6	7
MA1069	409756.64	5445949.07	0.553	0.718	-0.552	0.755	-0.367	-0.084	-0.023
MA1070	409551.08	5445767.19	-0.272	-0.277	-0.114	-1.468	0.294	0.614	1.621
MA1076	410726.99	5447076.15	0.620	0.264	-1.004	0.017	-0.358	0.084	-0.912
MA1077	410356.31	5447947.02	-0.647	-0.145	0.449	-1.129	-0.075	0.758	1.421
MA1078	410100.83	5447178.94	-1.314	-1.086	0.787	0.692	-0.428	1.720	1.084
MA1079	409772.80	5446937.22	2.330	1.666	2.073	0.999	-0.754	0.154	-0.422
MA1080	409731.84	5446906.97	1.903	1.066	1.016	-0.660	-0.169	1.359	0.756
MA1081	409467.10	5446818.68	1.851	0.483	1.312	0.933	-1.664	0.147	1.065
MA1082	408885.98	5447198.86	0.504	0.324	-1.095	-0.468	-0.980	0.577	-0.655
MA1083	408407.20	5447639.22	0.044	0.472	-0.608	0.129	-0.449	-0.021	0.521
MA1085	409523.77	5446570.68	1.768	0.362	1.639	0.871	-1.687	-1.048	0.576
MB1064	411761.60	5450982.20	-1.559	-1.159	1.054	1.151	-0.384	0.083	0.942
MB1067	409337.21	5451237.71	-0.739	-0.248	0.061	0.102	-0.478	-0.549	0.800
MB1069	410348.42	5449954.77	-0.884	0.149	0.212	0.283	-0.372	-0.643	-0.205
MB1070	410218.50	5449431.82	-0.858	-0.218	-0.080	0.327	-0.120	-0.099	0.032
MB1073	410011.06	5449126.30	0.951	2.354	2.195	-0.314	-1.165	1.937	0.433
MB1074	409507.12	5449258.09	1.973	-1.957	0.363	0.620	-2.049	0.584	0.161
MB1075	409197.91	5448923.47	-0.361	0.086	-0.452	0.668	0.080	0.391	-1.159
MC1095	410944.81	5450531.99	-0.797	-0.069	-0.159	0.738	-1.103	1.414	-0.006
MC1096	411486.68	5450245.28	-1.616	-0.298	0.469	1.407	-1.079	-0.064	0.099
MC1098	409034.22	5451273.61	-0.538	0.039	-0.295	0.570	-0.355	0.130	0.079
MC1100	409023.51	5450625.19	-1.021	-0.117	0.022	0.826	0.071	0.266	0.533
MC1101	409152.31	5448615.32	0.920	-0.686	-0.011	0.595	-1.044	0.189	1.214
MC1103	409198.51	5450189.86	-0.722	-0.659	0.138	0.305	-1.049	-0.017	-0.484
MC1109	442638.26	5448690.47	0.031	0.037	1.891	1.025	-0.128	-0.257	-1.494
MC1110	483769.12	5456012.81	-0.641	-0.461	-0.209	0.329	-0.277	0.064	0.892
MC1111	412060.26	5449402.15	-0.743	-0.885	0.363	0.259	-0.664	-0.081	1.714
MC1112	411839.08	5449498.30	2.644	-2.411	0.306	0.610	-0.845	0.411	0.182
MA2001	410731.00	5442040.00	-0.888	1.320	-0.193	-0.840	-1.455	0.406	0.267

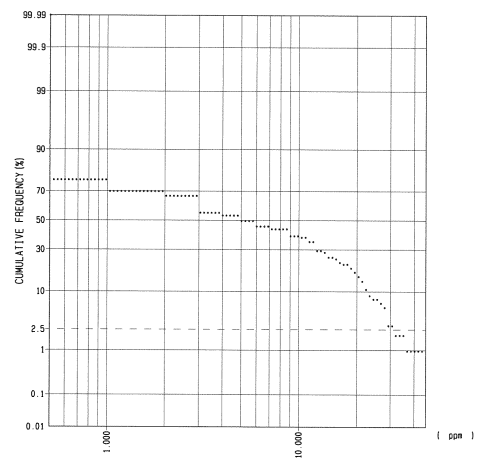
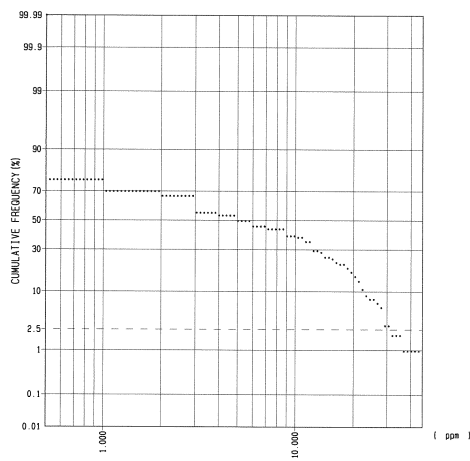
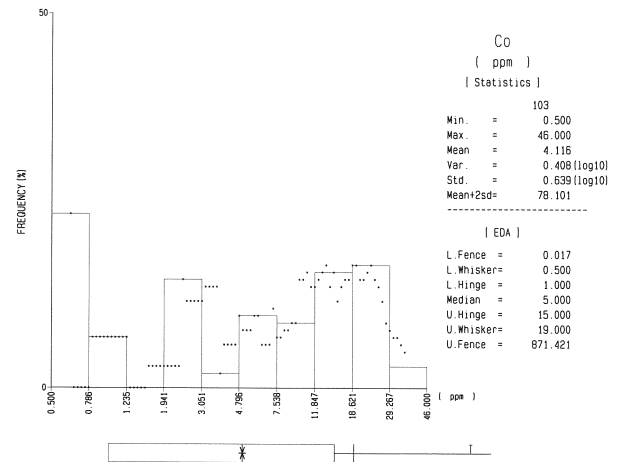
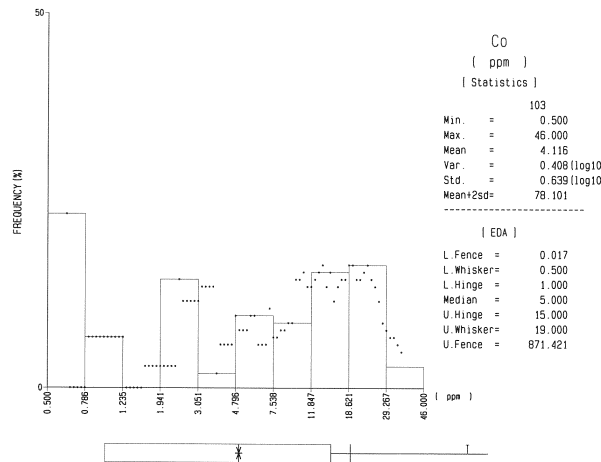
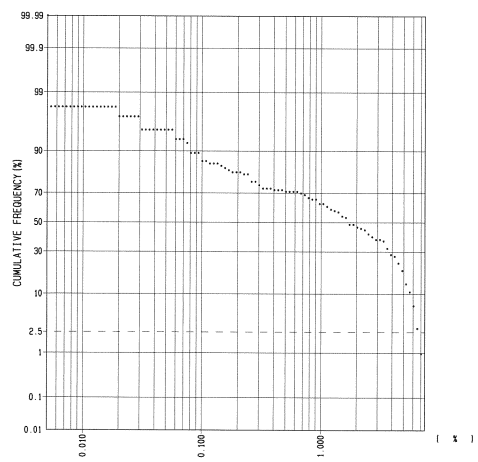
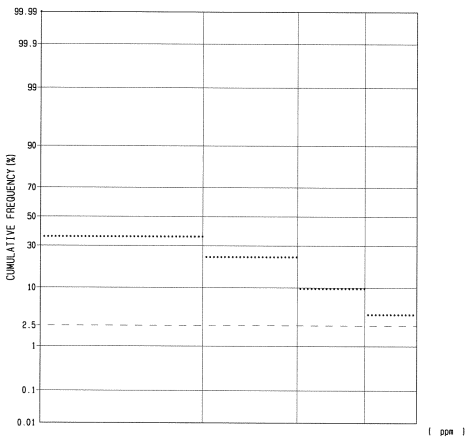
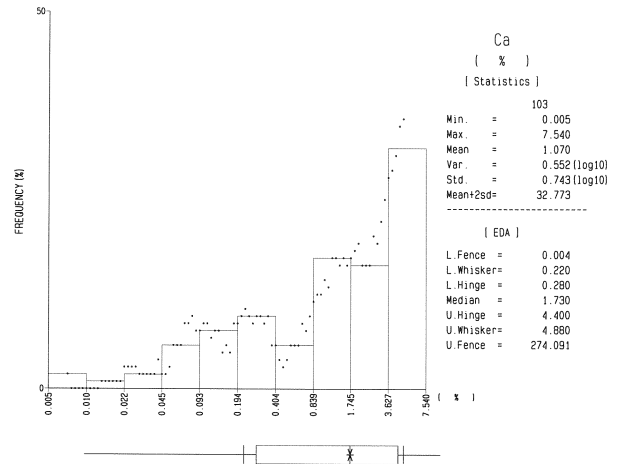
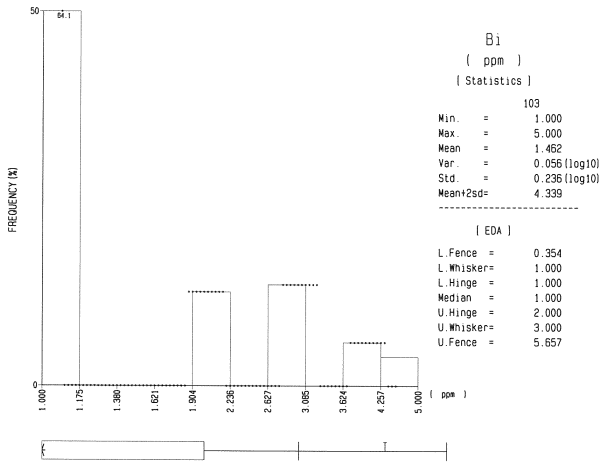
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MA2003	410237.00	5441872.00	-0.401	0.658	-0.294	-0.829	-1.044	-0.757	0.387
MA2004	409901.00	5441963.00	-0.225	0.074	-0.383	-0.868	-0.623	-1.221	0.302
MA2007	409112.00	5442316.00	0.199	0.531	-0.901	-1.630	-0.379	-0.639	-0.374
MA2008	409004.00	5442290.00	-0.534	0.113	-0.353	-0.395	-0.548	-1.259	0.426
MA2009	408628.00	5442077.00	-1.353	-0.401	0.157	-2.134	0.377	0.148	0.690
MA2010	408657.00	5442661.00	-1.217	-0.035	0.107	-1.928	0.856	0.311	0.870
MA2012	408190.00	5442977.00	-0.318	0.538	-0.540	-0.601	-0.439	-0.423	0.518
MA2013	410853.00	5442092.00	-0.299	0.482	-0.556	-0.033	-0.284	-1.518	0.258
MA2014	410927.00	5442601.00	0.320	-0.742	1.514	-1.958	1.525	3.163	-0.997
MA2015	410600.00	5442794.00	0.143	-0.838	1.704	-2.705	0.973	1.366	0.100
MA2016	409896.00	5443386.00	-0.030	0.676	-0.765	-1.152	-0.689	-1.054	0.185
MA2017	410005.00	5443643.00	0.312	0.727	-0.849	-0.665	0.057	-0.625	0.154
MA2018	410078.00	5444039.00	0.489	0.329	-1.056	-0.565	-0.041	0.149	-1.369
MA2019	410108.00	5444345.00	0.291	0.246	-0.722	0.017	-0.937	0.670	-1.762
MA2020	410247.00	5444620.00	1.114	0.219	-1.239	-0.331	0.607	1.159	0.635
MA2021	410518.00	5444902.00	0.397	0.505	-0.989	-0.416	0.163	0.341	-1.040
MA2022	410918.00	5445178.00	0.451	0.375	-0.890	0.424	0.255	-0.701	-0.957
MA2023	410751.00	5444200.00	0.511	0.582	-1.059	-1.411	-0.018	-1.593	0.019
MA2024	408993.00	5443928.00	-0.768	-0.140	-0.110	-1.551	-0.020	0.013	0.668
MA2025	409288.00	5444326.00	-0.222	0.579	-0.342	-0.591	-0.403	-1.026	0.948
MA2026	409497.00	5444533.00	-0.762	0.159	-0.157	0.818	0.808	-0.395	0.386
MA2027	409472.00	5443688.00	-0.354	0.323	-0.537	-0.125	-0.275	-0.165	-0.273
MA2028	408549.00	5443999.00	-0.708	-0.098	0.050	-0.821	0.459	-0.618	0.985
MA2029	408233.00	5447077.00	-0.300	0.052	-0.595	0.762	0.211	0.130	-1.235
MA2030	408200.00	5446971.00	-0.719	0.426	-0.515	-0.345	-0.607	0.388	-0.661
MA2031	408024.00	5446331.00	-0.252	-0.389	0.038	-0.928	-0.390	-0.082	0.763
MA2032	408097.00	5445872.00	0.636	-0.032	-1.030	0.072	-0.025	-0.276	-1.606
MA2033	408552.00	5445551.00	-0.449	-0.078	-0.565	-0.074	-0.226	-0.076	-1.406
MA2036	407892.00	5448234.00	-0.359	0.039	-0.761	0.481	0.017	1.294	-0.720
MA2037	407715.00	5448842.00	-0.708	0.180	-0.145	1.242	1.099	0.486	0.365
MA2038	407583.00	5449093.00	-0.482	0.411	-0.289	1.235	1.139	0.212	0.325
MA2039	407707.00	5449368.00	0.154	0.097	-0.235	0.457	0.171	0.024	0.812
MA2040	408100.00	5449385.00	0.705	0.369	-1.044	-0.220	0.343	0.047	-1.165
MA2041	409134.00	5448919.00	0.279	0.160	-0.951	0.681	0.915	0.493	-1.097
MA2043	409513.00	5446631.00	0.050	1.322	3.069	0.079	0.001	-0.346	-1.451
MA2045	409266.00	5445777.00	0.097	0.217	-0.774	0.004	-0.209	-0.253	-0.542
MA2046	410626.00	5446343.00	0.620	0.091	-0.903	0.245	0.280	0.633	-1.430
MA2047	410690.00	5446935.00	1.295	0.488	-1.461	-0.388	0.439	0.892	-1.176
MA2048	410562.00	5447175.00	0.566	0.013	-1.034	0.737	0.905	0.646	-0.810
MA2052	410339.00	5447956.00	-0.781	-0.879	0.470	0.073	1.495	1.714	1.303
MA2053	410495.00	5448319.00	-0.825	-0.371	-0.193	1.120	1.131	0.438	0.305
MA2054	410333.00	5448898.00	-1.311	-0.587	0.887	-1.587	-0.886	-0.737	-0.892
MA2055	410050.00	5449118.00	2.693	-5.105	-0.445	0.294	1.042	-1.139	0.393
MA2056	409747.00	5449421.00	2.568	-3.054	-0.193	-1.036	-1.371	0.550	1.601
MA2058	409766.00	5448160.00	0.393	0.701	-1.132	-0.883	0.420	-1.399	0.645
MA2059	410135.00	5447531.00	0.478	0.608	-0.745	0.588	0.783	0.028	-0.285
MA2060	410113.00	5447182.00	-0.356	0.033	-0.326	0.742	0.618	-0.373	0.736
MA2061	409935.00	5446640.00	0.745	1.219	2.016	-0.390	1.205	-0.776	0.693
MA2062	410054.00	5446208.00	1.829	1.537	0.912	-0.010	1.713	0.613	1.473
MA2063	408885.00	5447190.00	0.245	0.162	-0.973	0.038	-0.153	-0.212	-0.465
MA2064	408422.00	5447573.00	-0.069	0.278	-0.734	0.686	0.290	0.014	-0.049
MA2065	408300.00	5448358.00	-0.728	0.580	-0.499	0.447	-0.683	2.487	-0.215
MA2066	408730.00	5448427.00	0.701	0.480	-1.252	0.159	0.165	-0.257	-0.366
MA2067	408573.00	5447734.00	-0.698	0.123	-0.150	1.200	1.562	0.842	0.914
MA2075	410185.00	5449349.00	-0.189	-0.050	-0.646	-0.200	-0.533	-0.032	-0.992
MA2076	410485.00	5449617.00	-0.692	0.010	0.900	0.396	-0.425	-1.386	-0.662
MA2077	410946.00	5449215.00	-1.081	-1.851	0.717	-0.573	-2.132	-0.261	-1.767
MA2078	410496.00	5449045.00	1.559	1.003	1.521	0.686	-0.548	0.105	-0.133
MA2079	410811.00	5448255.00	-0.300	-0.147	0.211	0.298	1.940	0.333	1.753
MA2080	410840.00	5447902.00	-0.772	-0.267	-0.125	0.740	-0.326	1.076	0.336
MA2088	409721.00	5446153.00	0.714	0.011	1.874	0.256	1.489	-1.075	-0.757
MA2091	409713.00	5446100.00	0.303	-0.440	2.603	-0.706	1.871	-1.425	-2.216

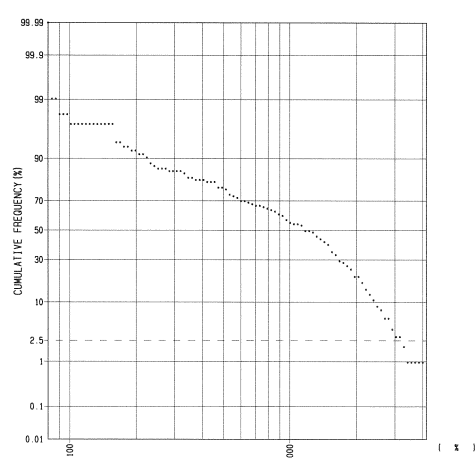
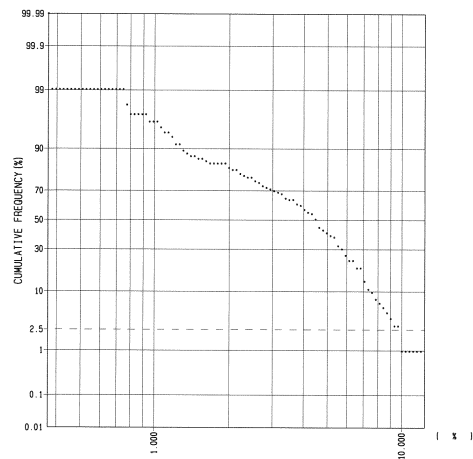
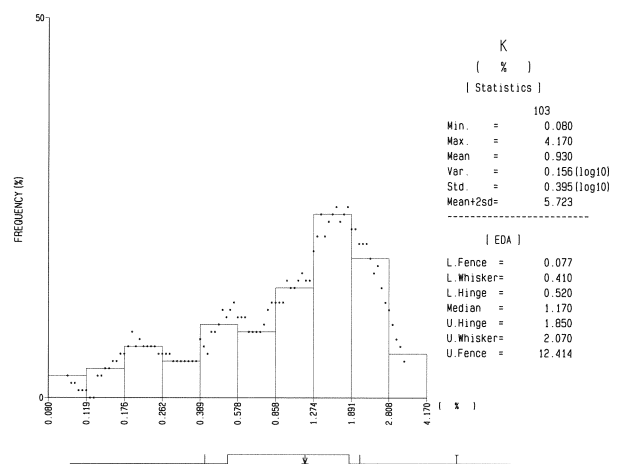
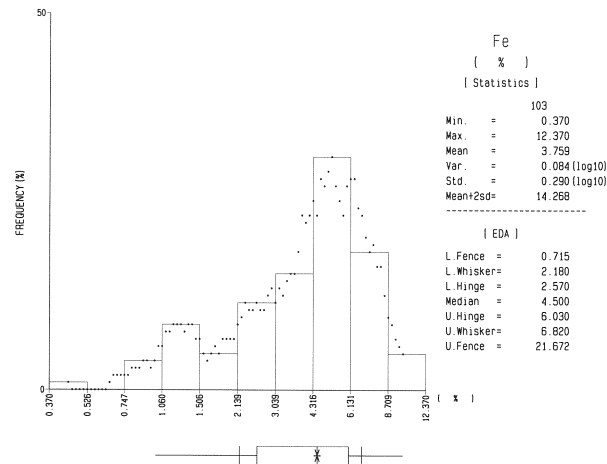
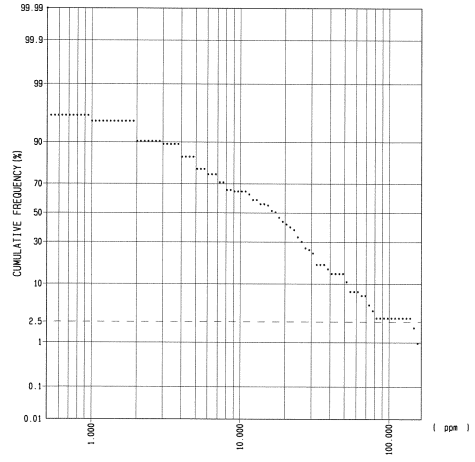
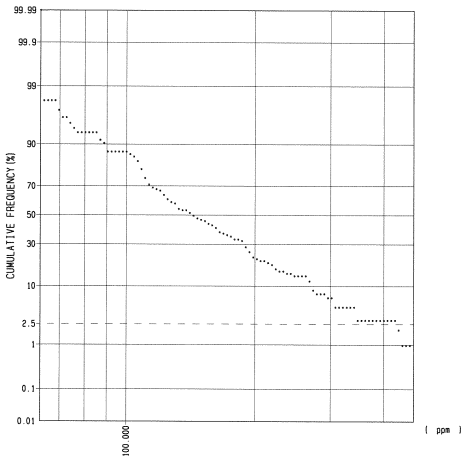
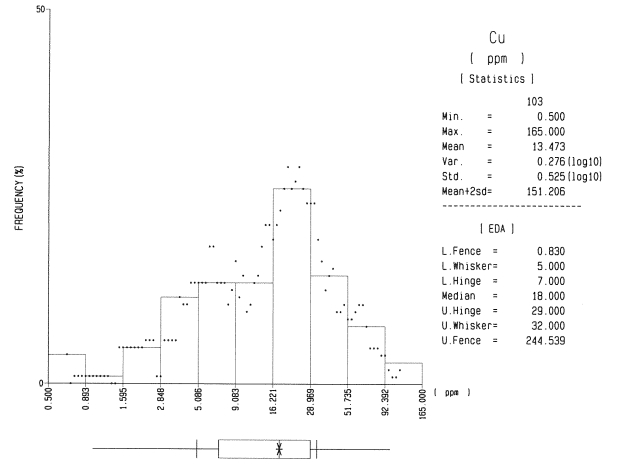
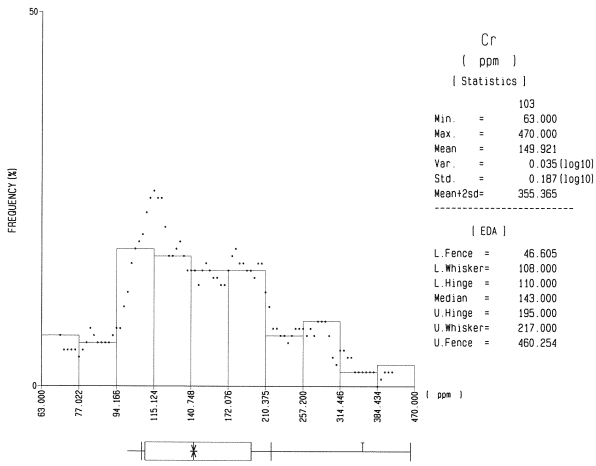


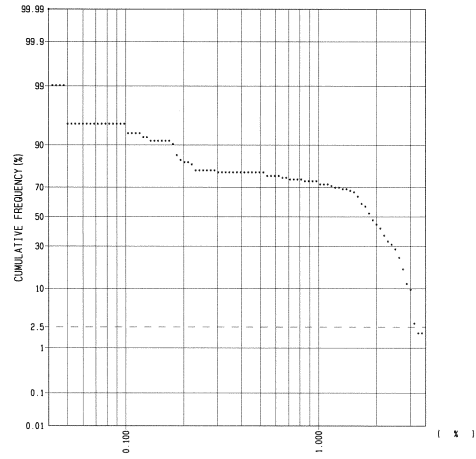
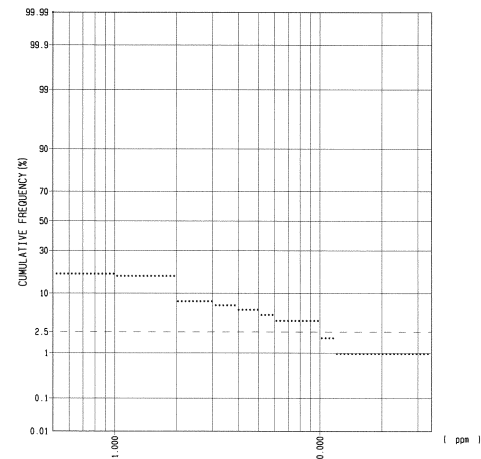
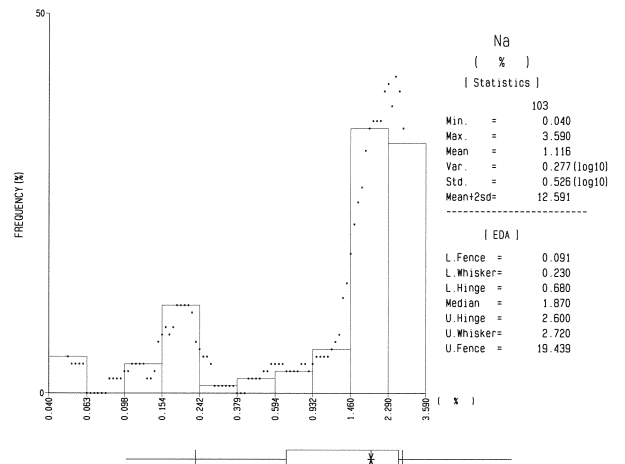
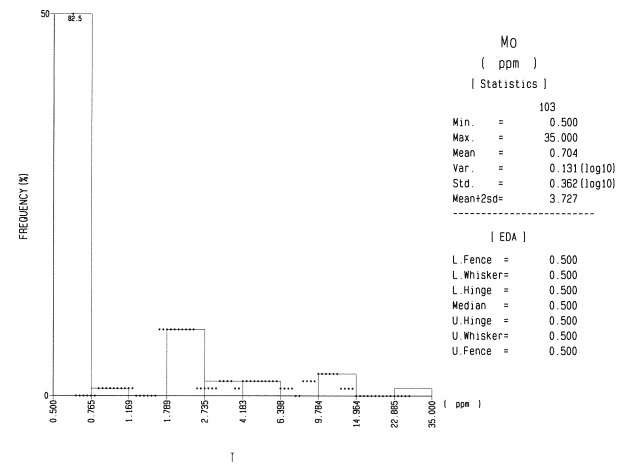
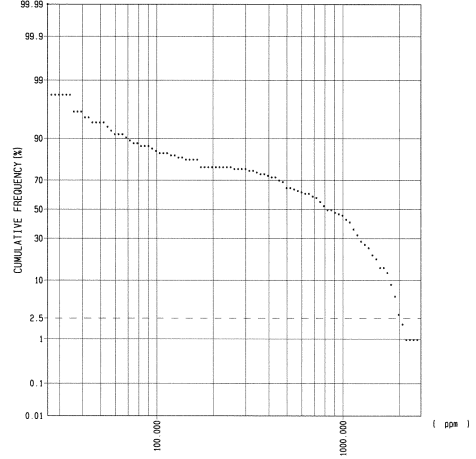
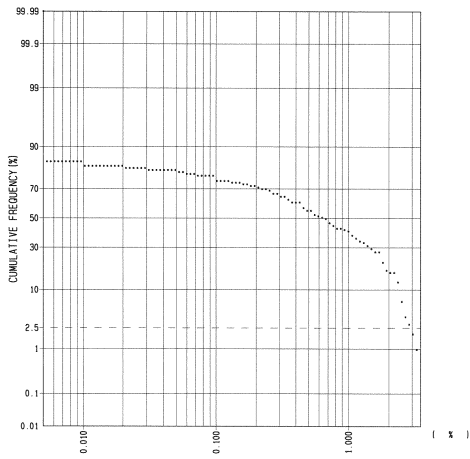
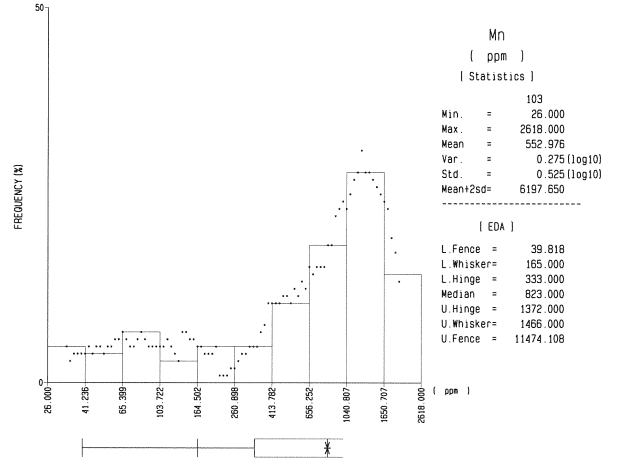
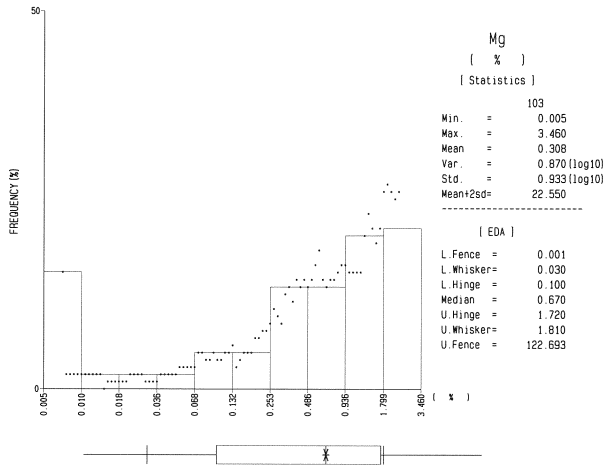
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MA2203	411116.00	5449309.00	-0.166	-0.300	-0.792	-0.222	0.271	-0.939	-0.597
MA2204	411076.00	5449134.00	-0.754	-0.004	1.276	0.001	0.411	-1.486	-0.170
MA2205	410957.00	5449007.00	-1.731	-1.493	1.631	0.442	-0.542	-1.400	-0.104
MA2206	410850.00	5448914.00	-0.056	0.376	-0.734	0.878	-0.060	0.400	-0.632
MA2207	410970.00	5448787.00	-0.159	0.071	-0.821	0.700	0.504	-0.249	-0.363
MA2208	410682.00	5447684.00	-0.394	-0.009	-0.701	0.863	0.280	-0.339	-0.845
MA2209	410971.00	5447909.00	-1.274	-0.001	-0.095	1.224	1.312	-0.354	0.884
MA2210	410870.00	5448219.00	-0.631	-0.251	0.178	-0.055	1.260	0.001	1.750
MA2224	409098.00	5450196.00	-0.361	0.135	-0.458	0.800	0.586	-0.274	0.303
MA2225	409190.00	5450401.00	0.617	-0.181	-0.116	0.326	0.614	-0.555	1.020

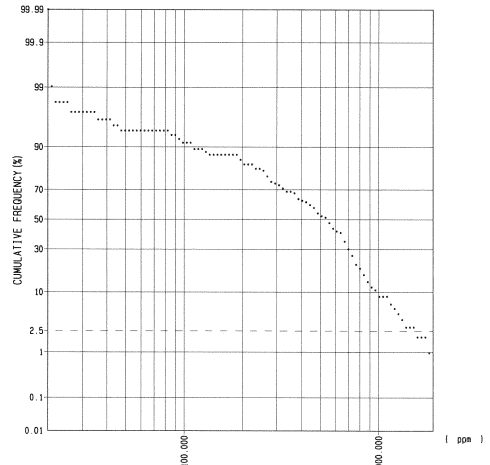
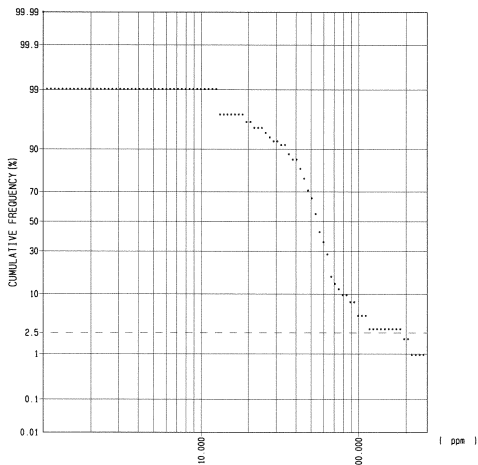
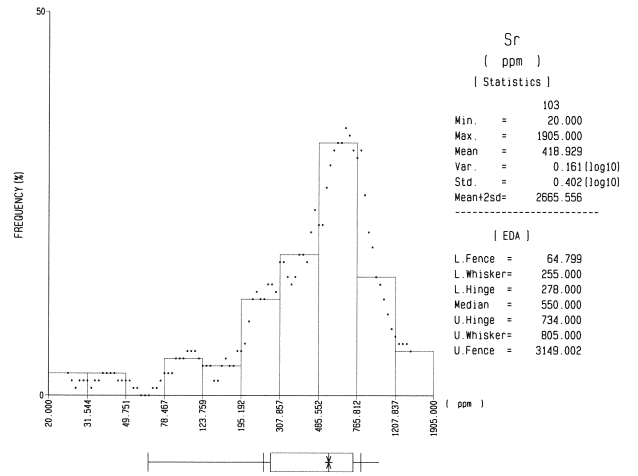
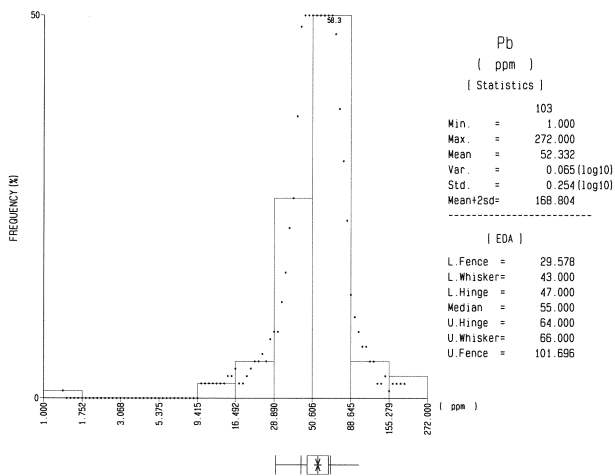
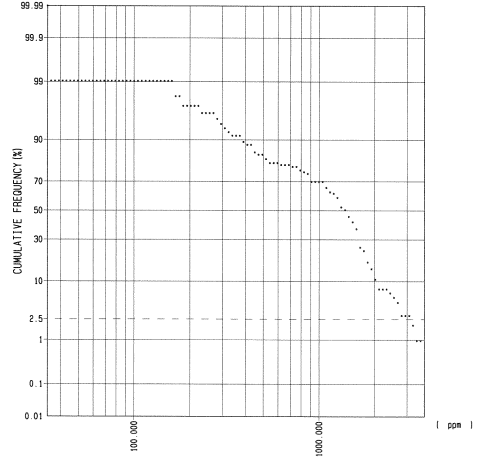
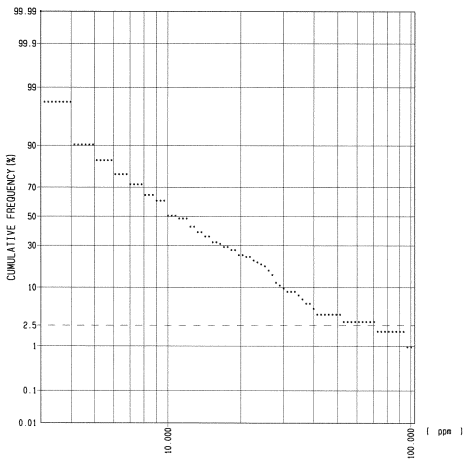
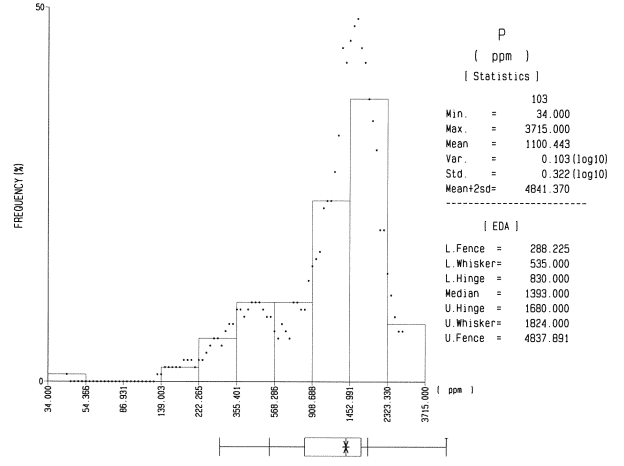
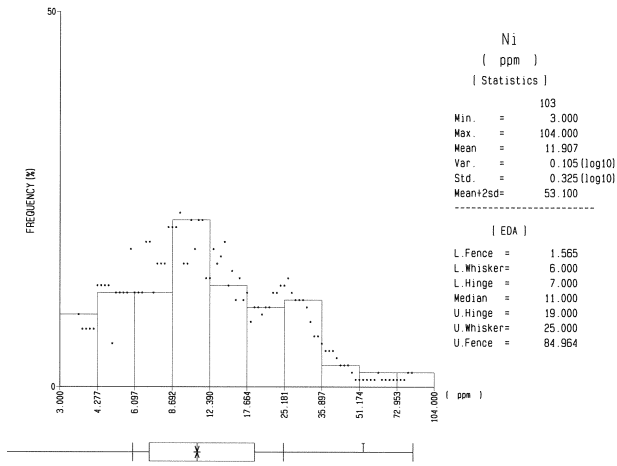


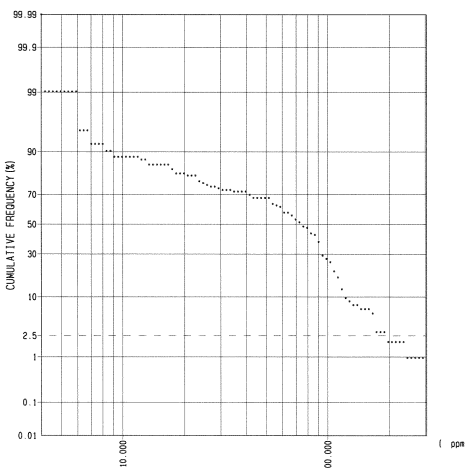
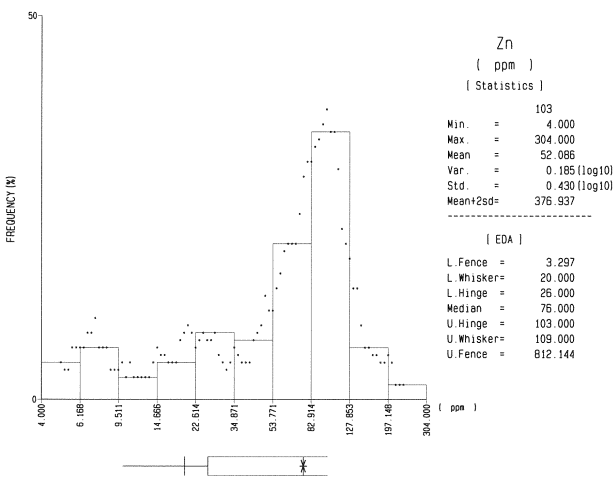
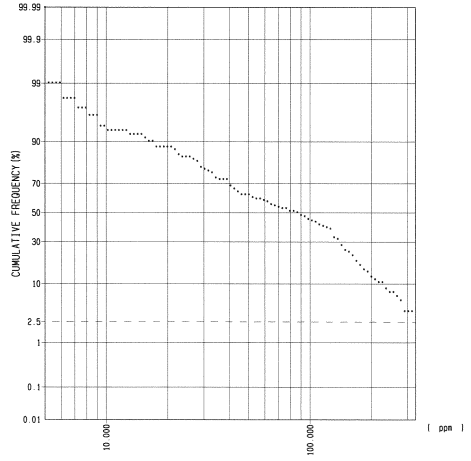
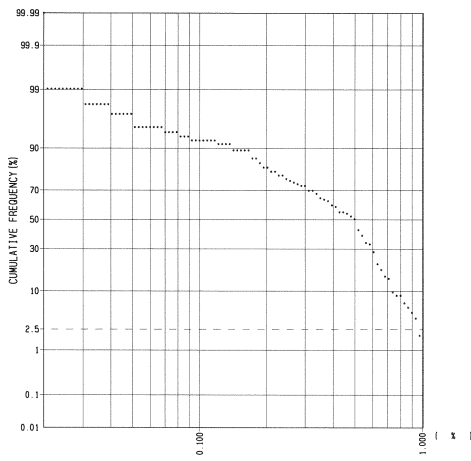
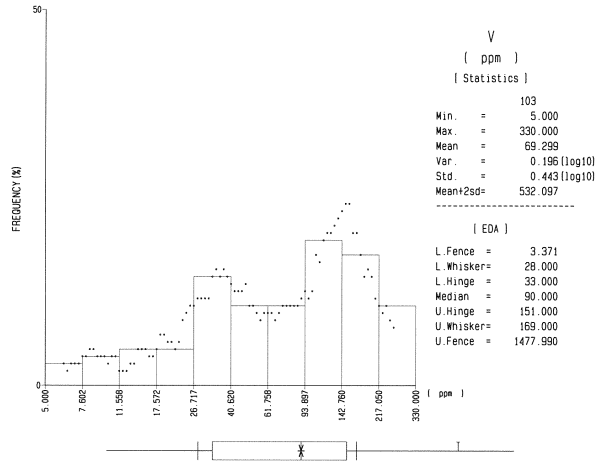
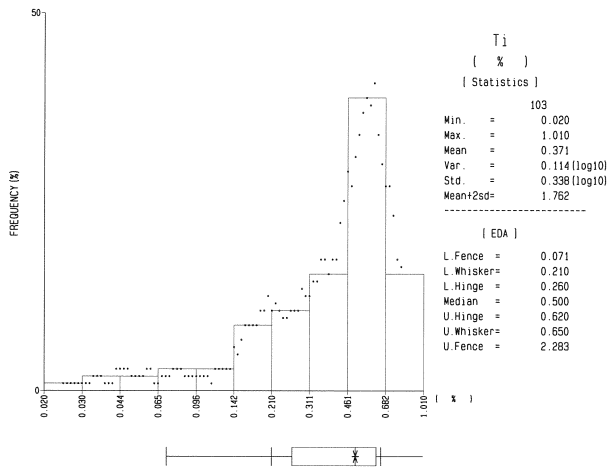




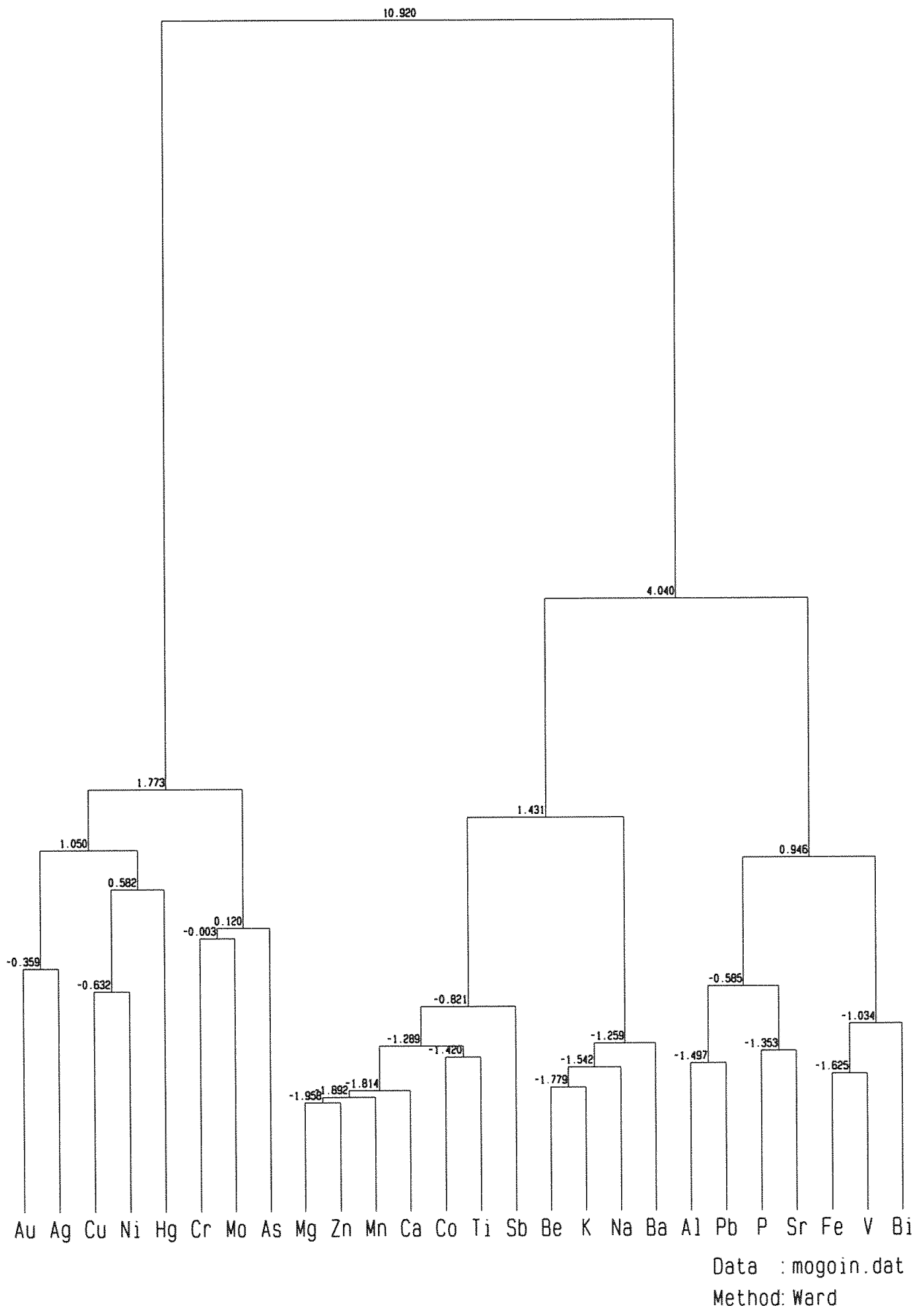






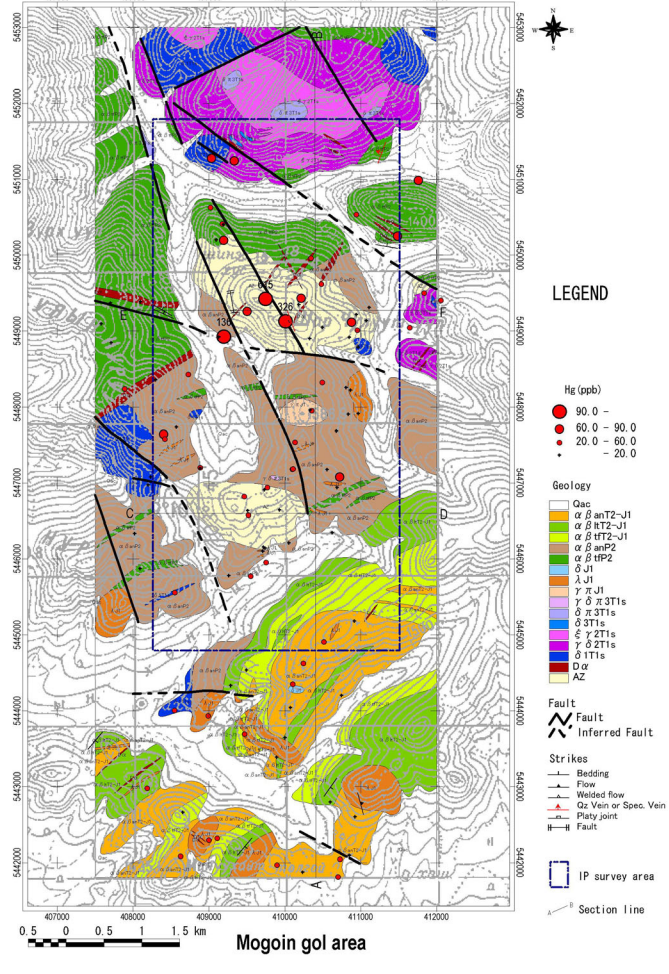
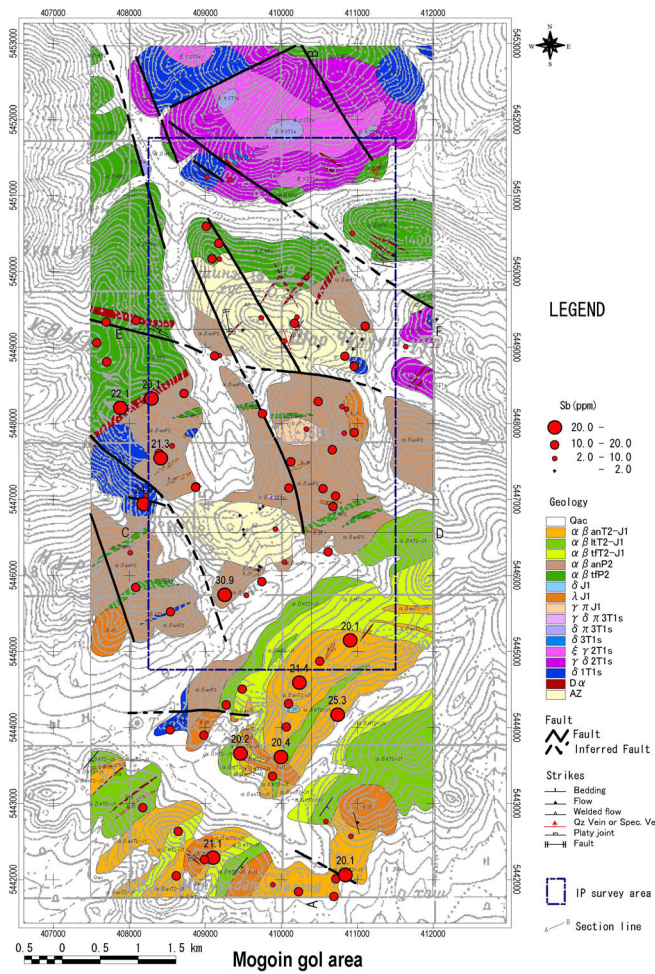
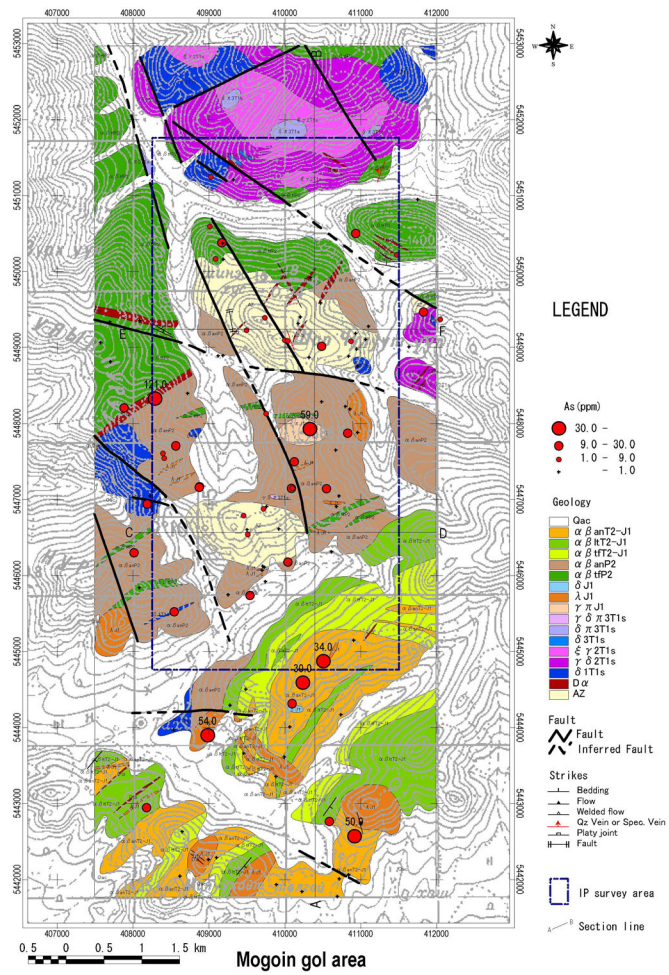
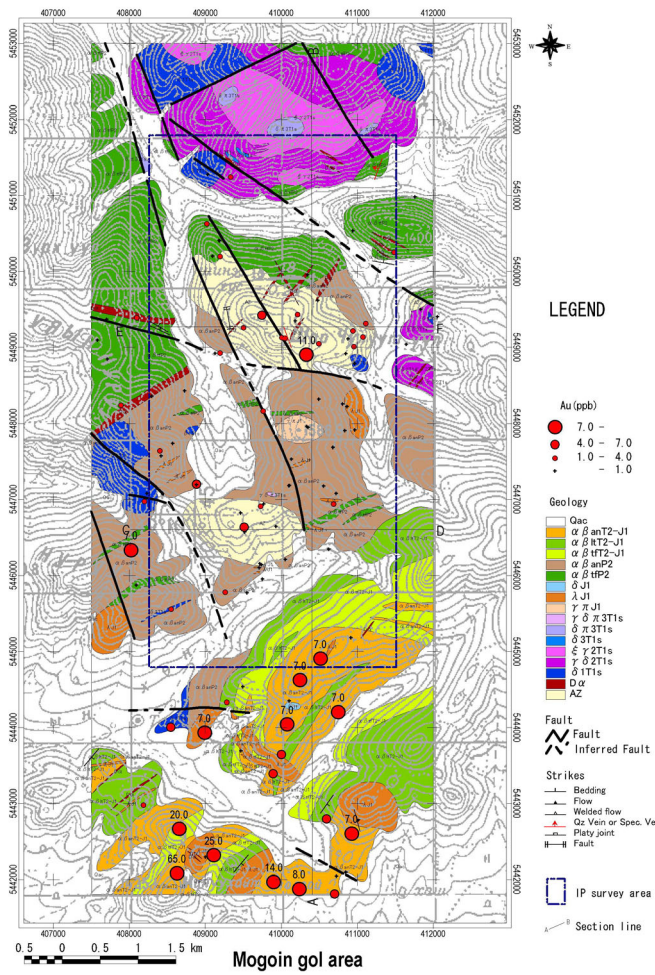


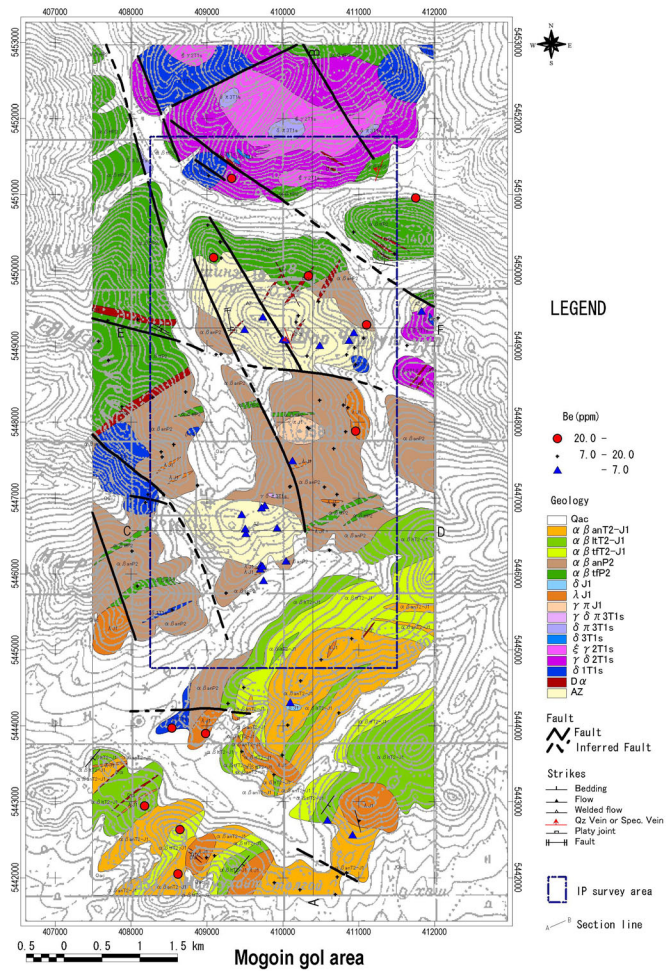
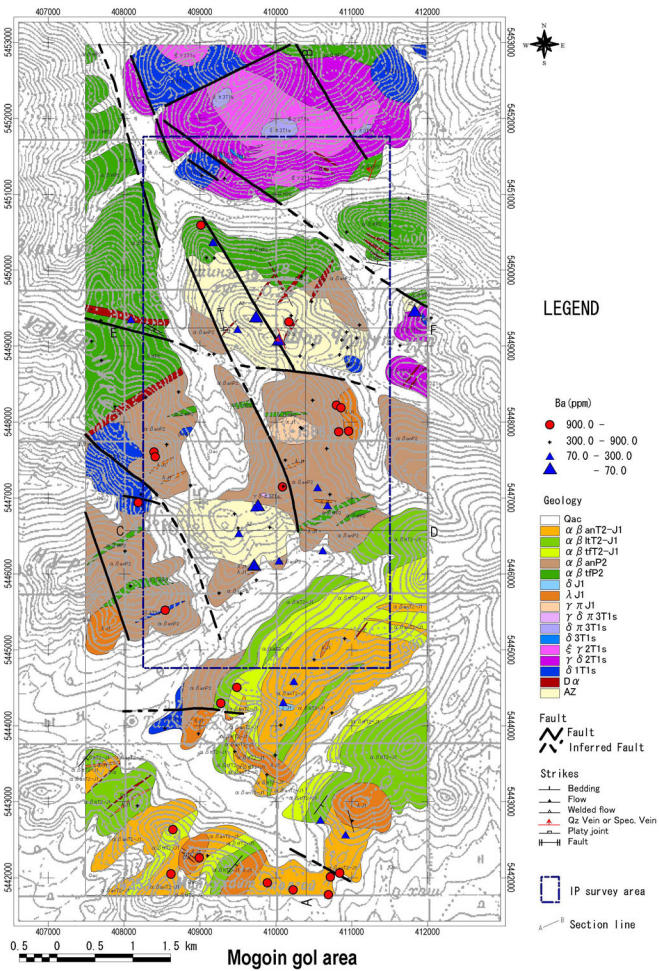
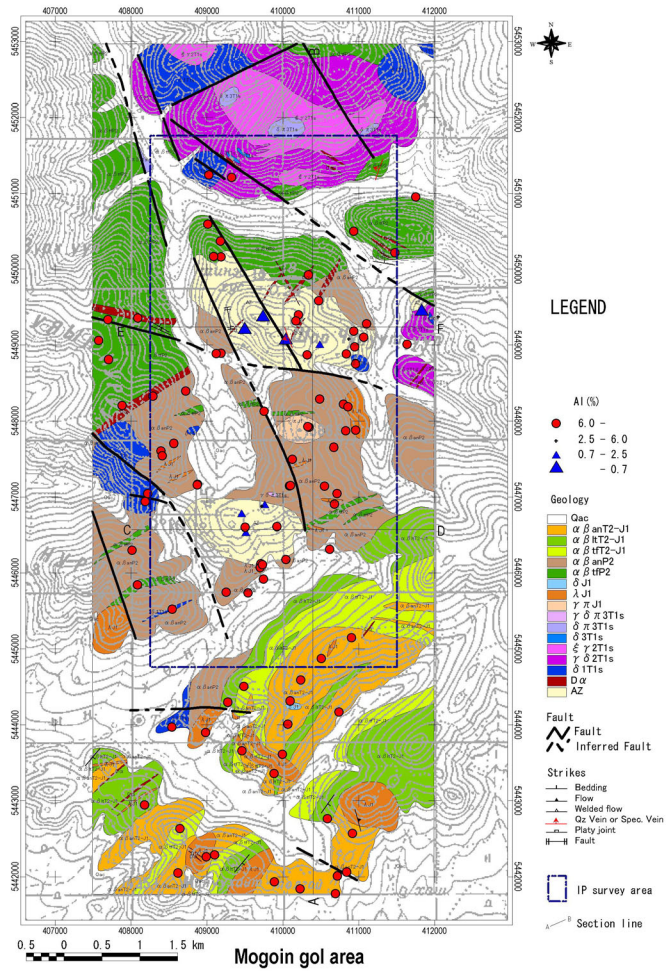
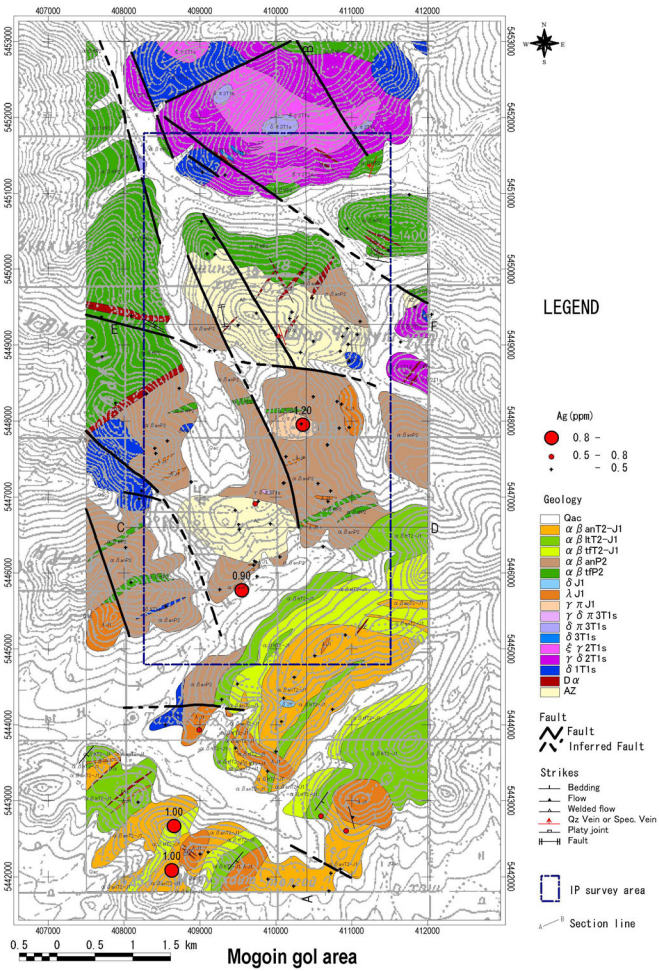


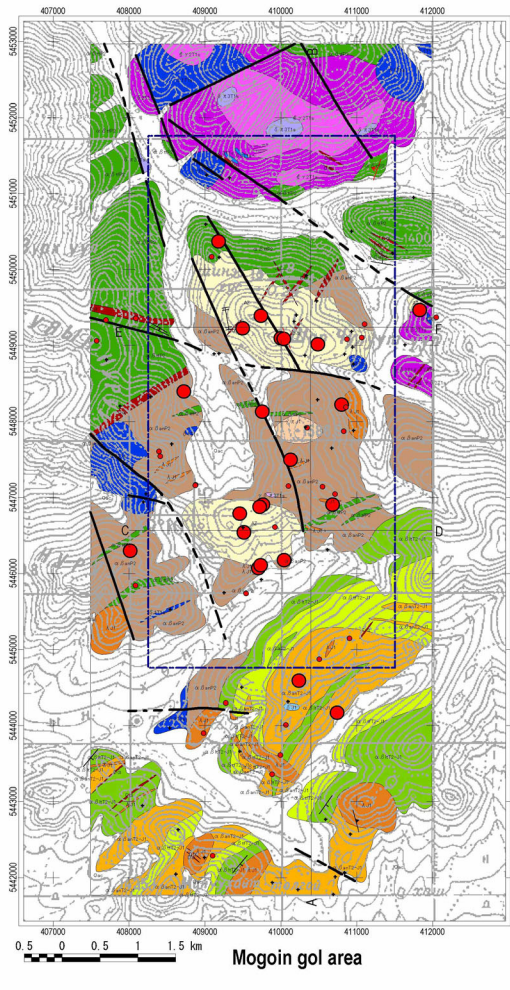
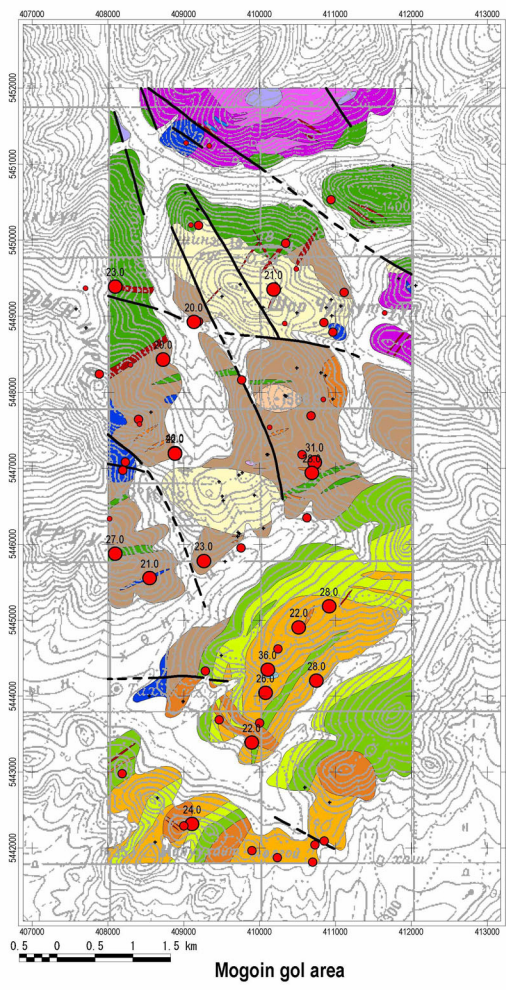
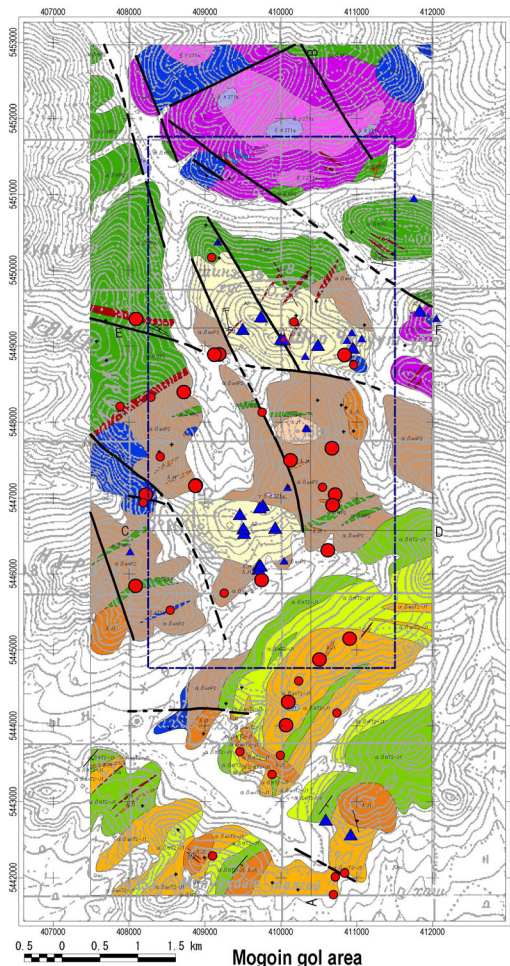
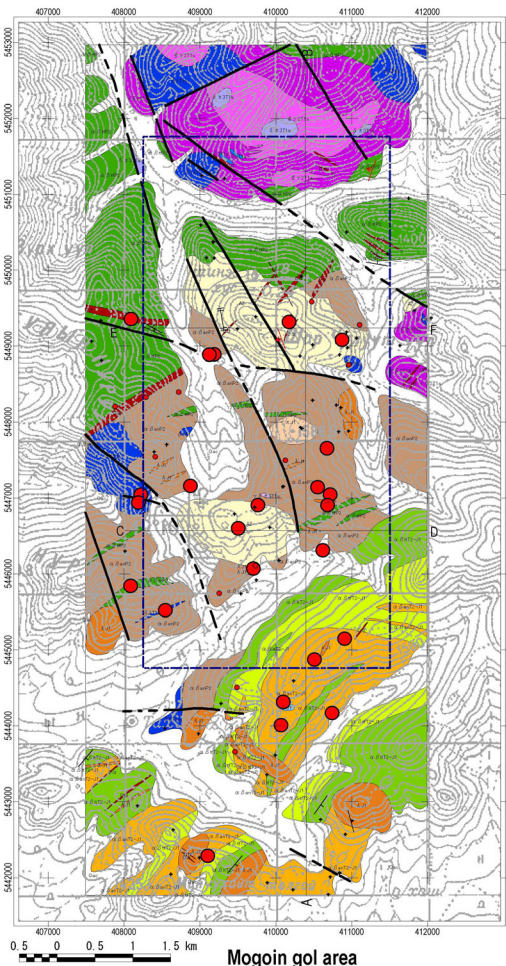


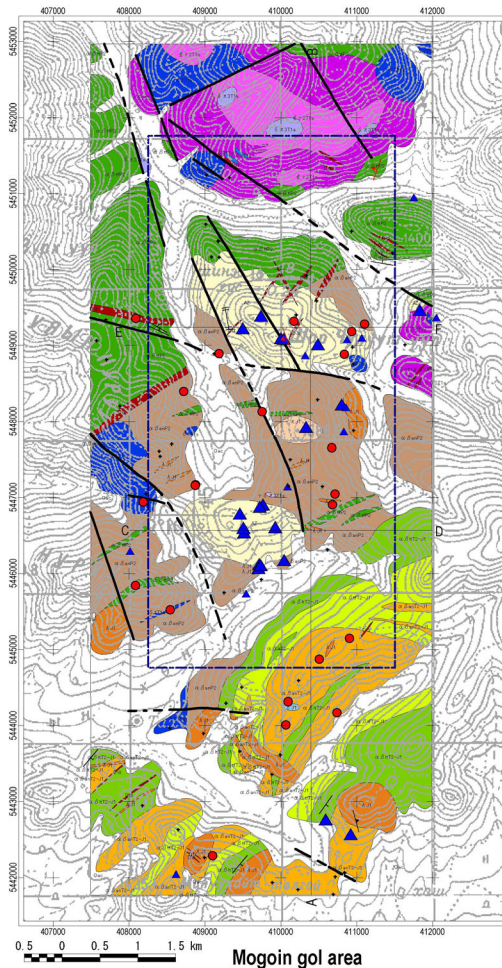
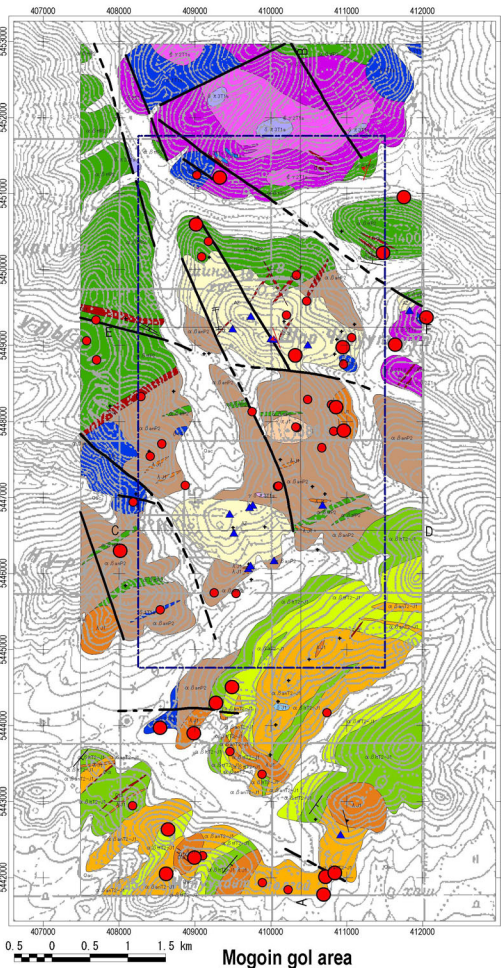
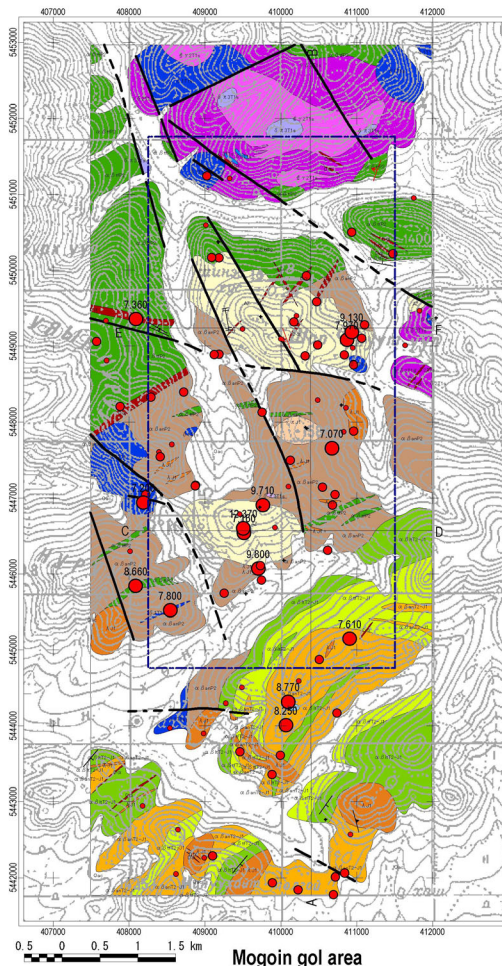
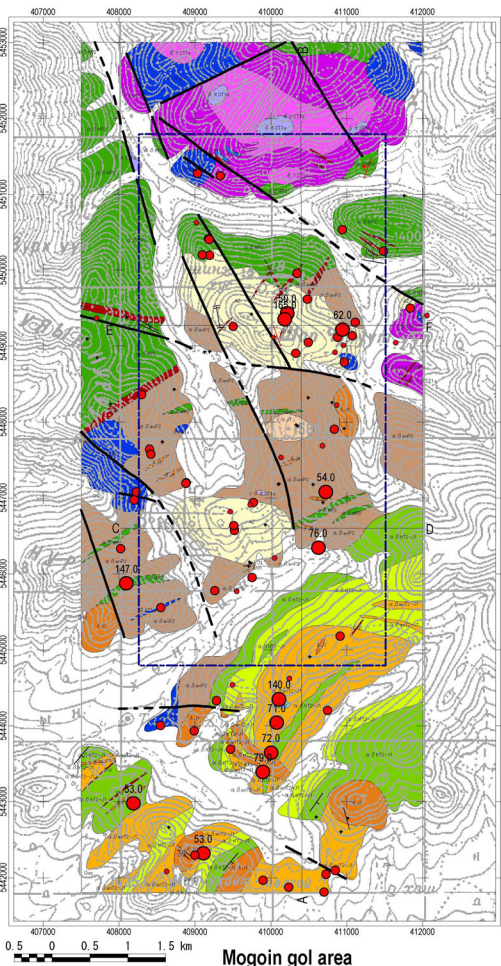
Cluster Dendrogram

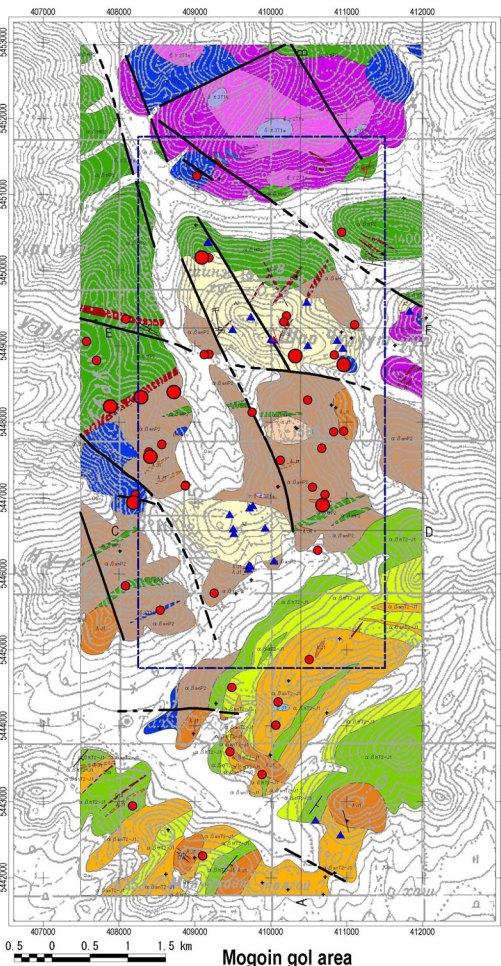
Appendix 10 Distribution map of statistical data of rock chemical samples for the Mogoin gol area



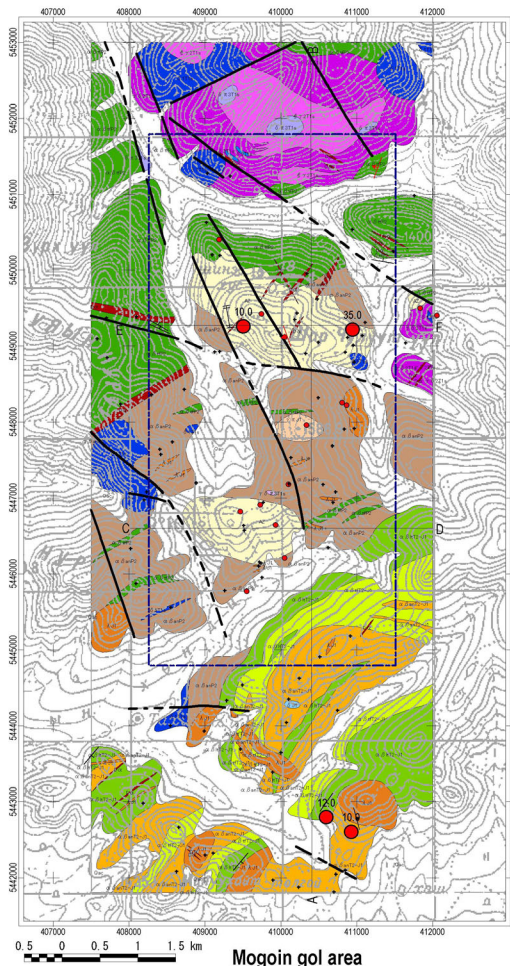




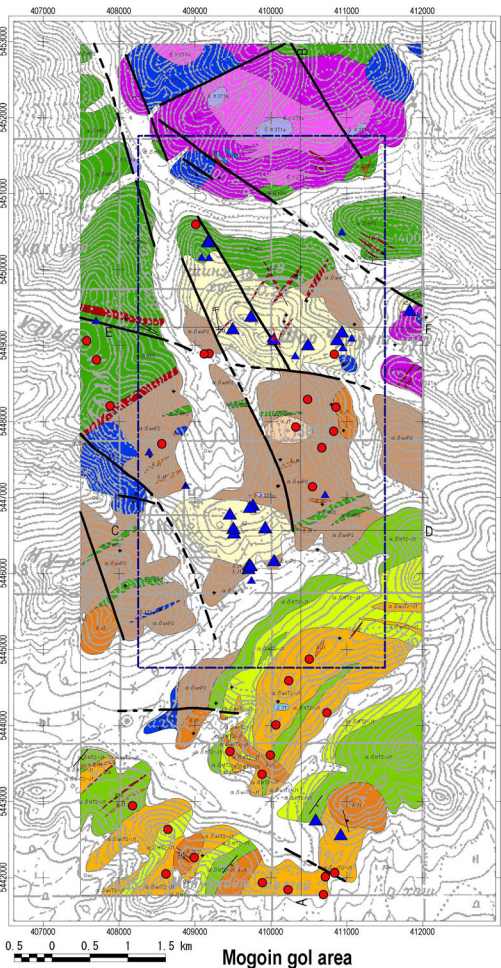




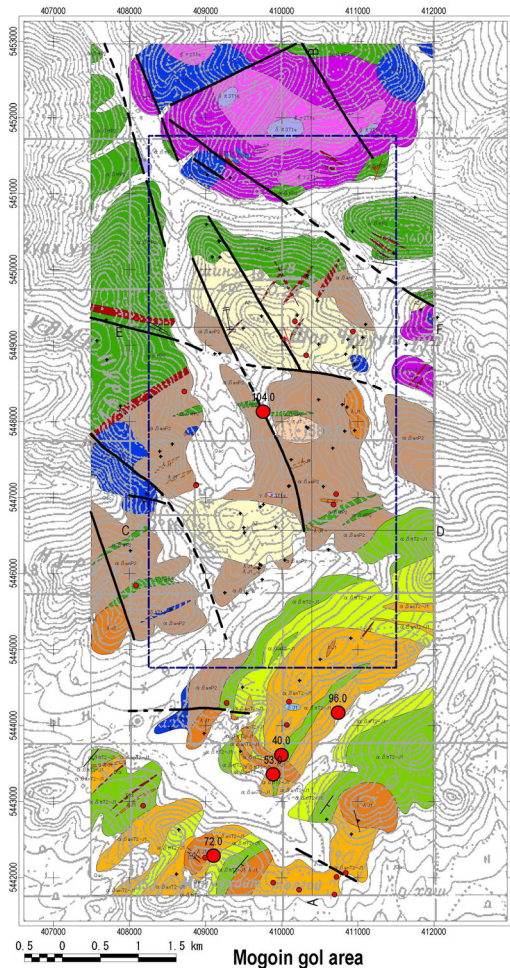
Mogoin gol area



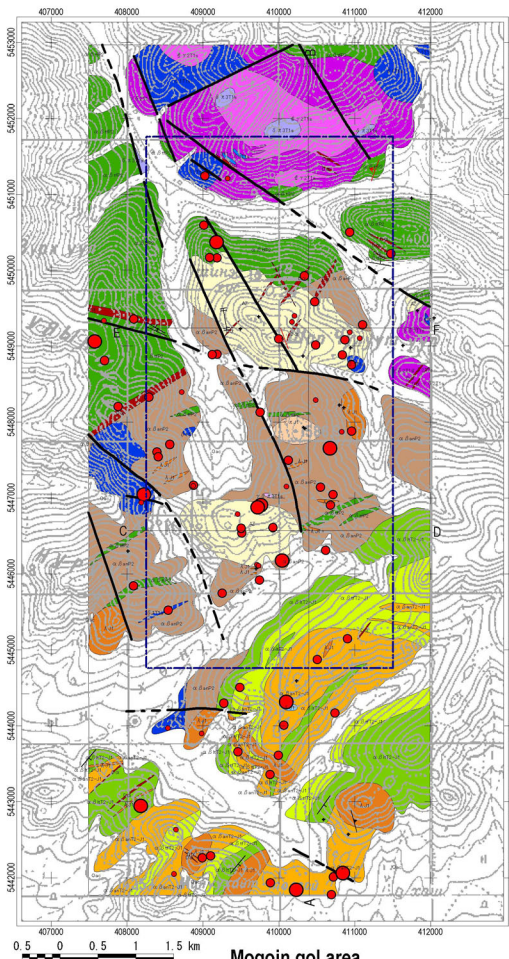
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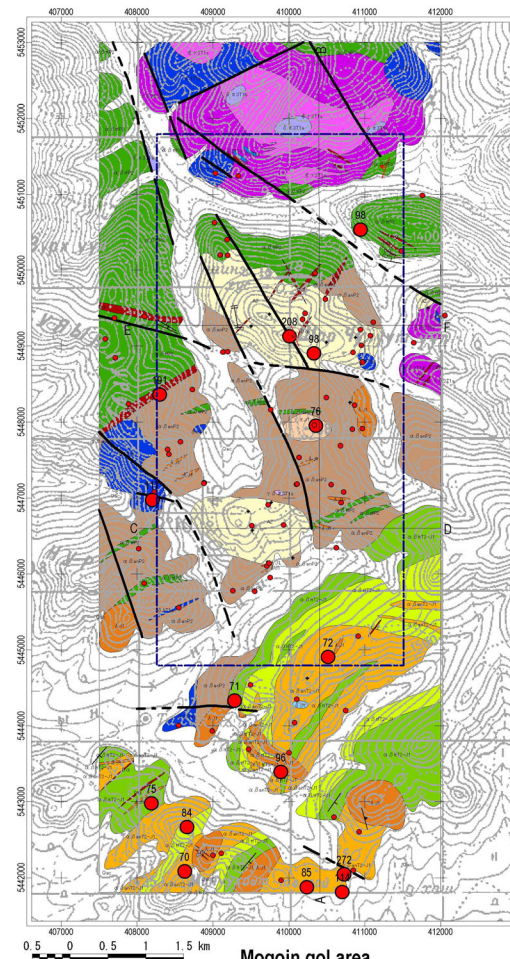
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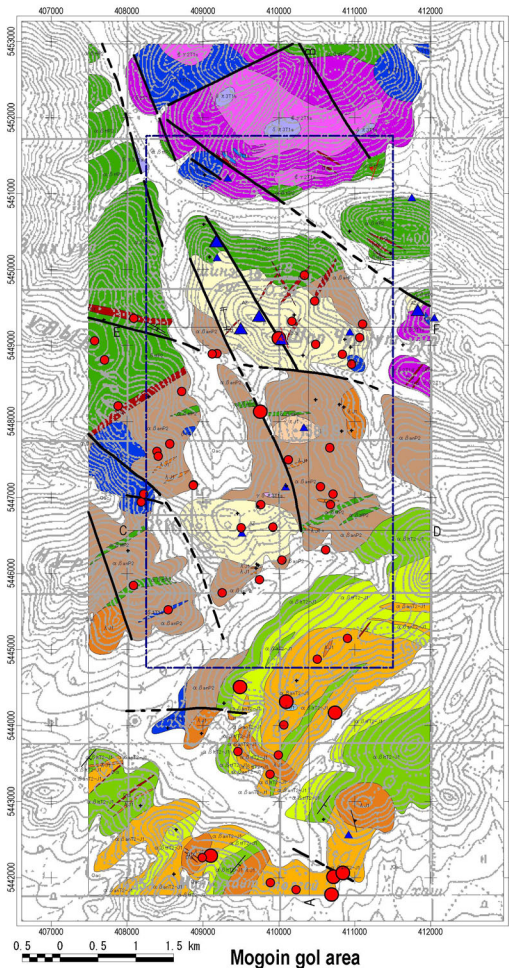
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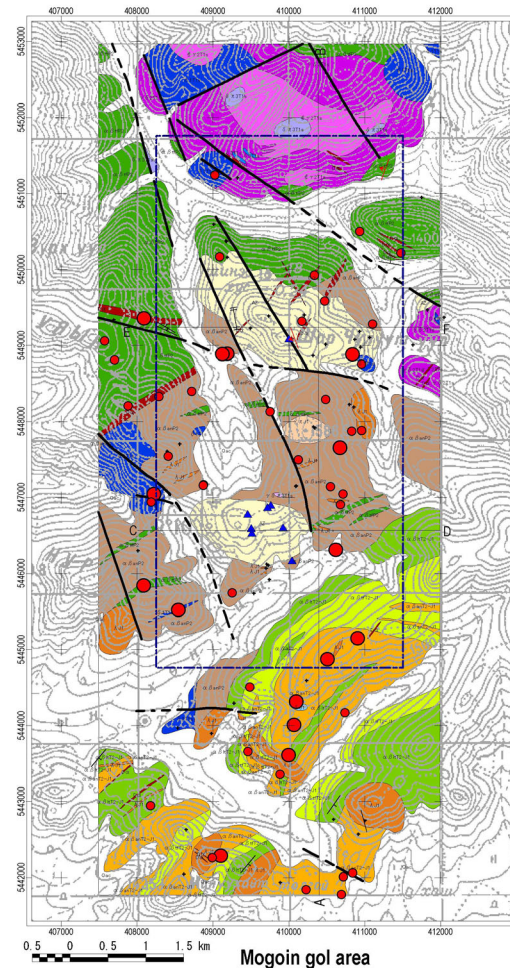
Mogoin gol area



Mogoin gol area

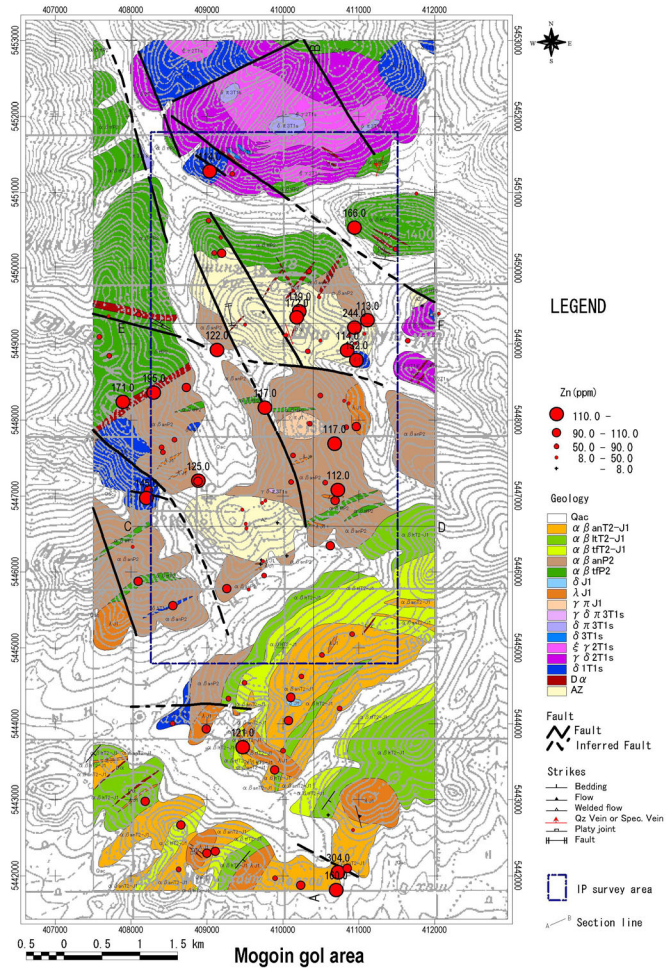
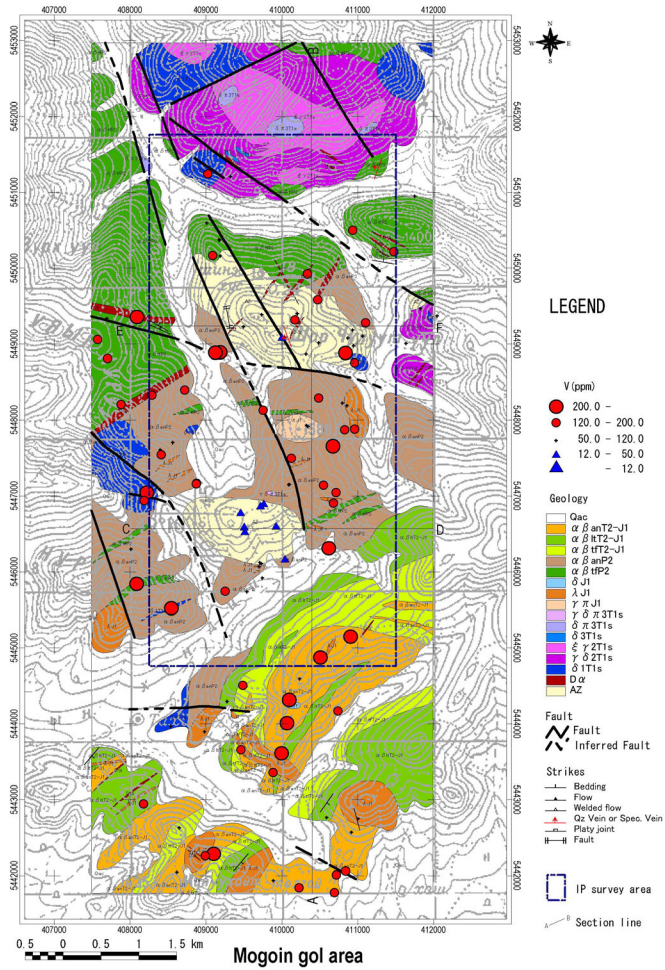


Mogoin gol area



Mogoin gol area

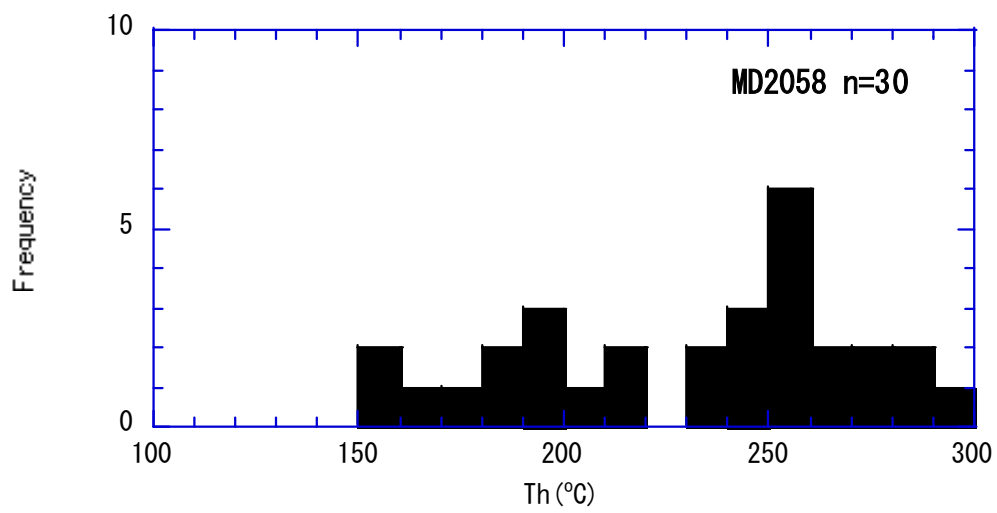
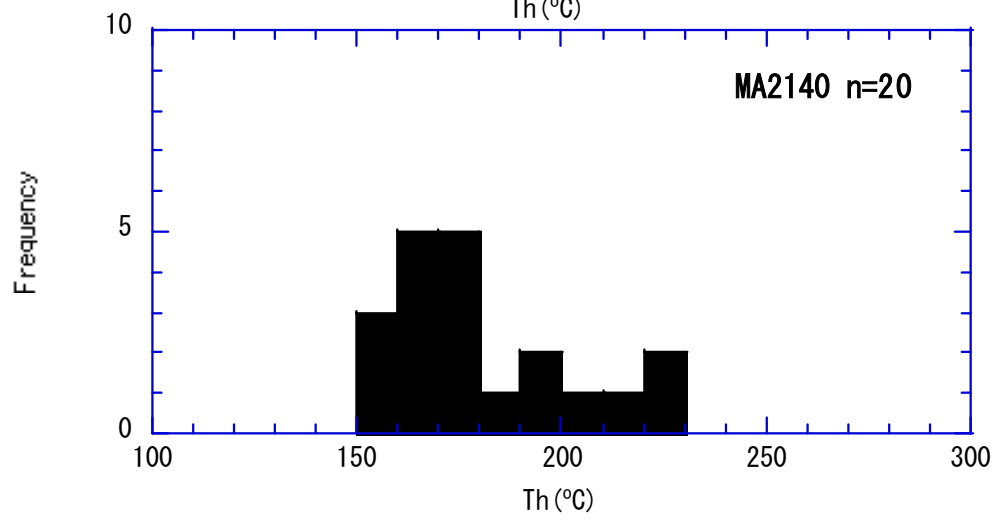
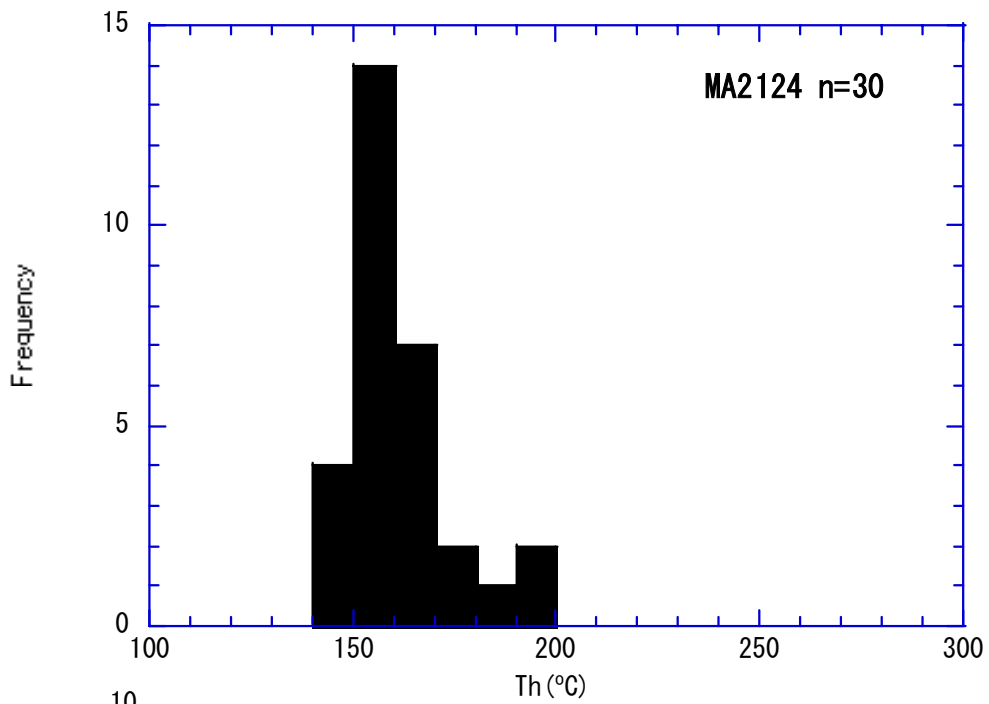


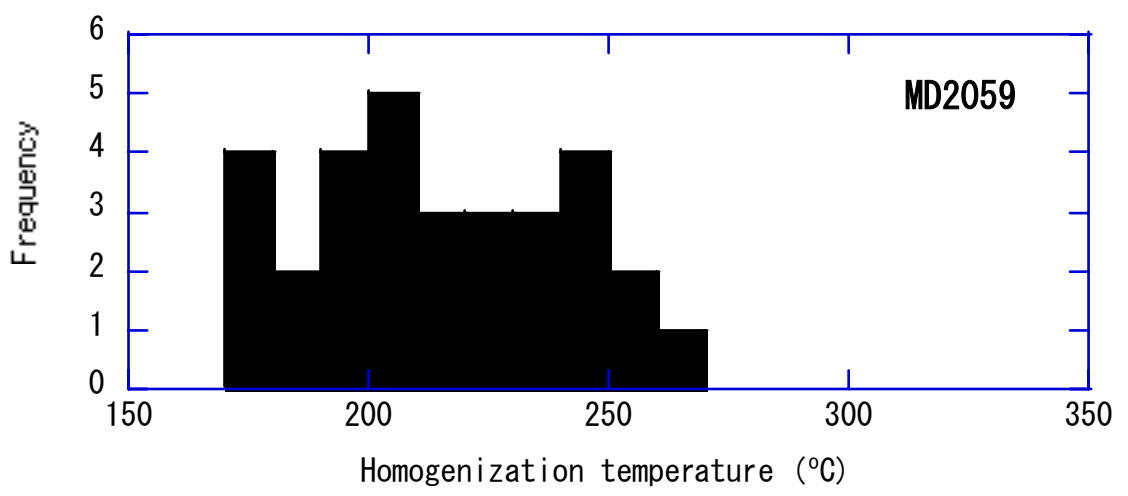
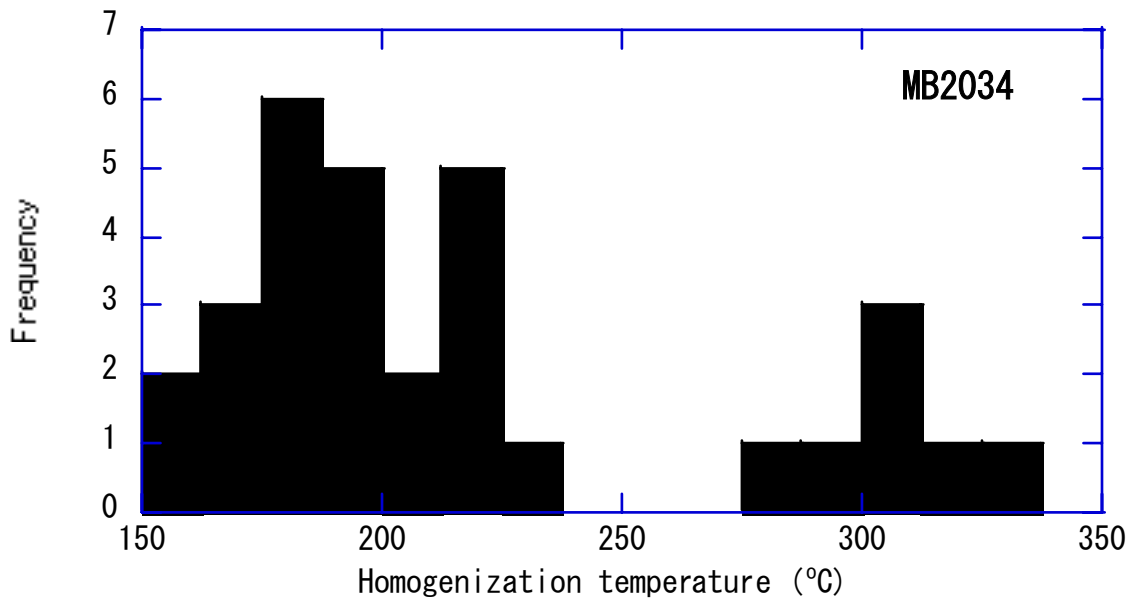


Appendix 11 Homogenization temperature and salinity of fluid inclusion of quartz samples in the western Erdenet area

Temperatures and Salinities of Fluid Inclusions in the Western Erdenet area, Mongolia

Ser. No.	Sample No.	Area	Coordinates		Rock Name	Description	Type of fluid inclusion	Th: L+V			Tm: Ice			Salinity(%) (NaCl eq.)
			N	E				Num.	Range	Ave.	Num.	Range	Ave.	
1	MA2124	Erdenet SE	5428464	447478	Silicified rock		H <sub>2</sub> O	30	146.3 - 194.0	161.1	10	-6.2 - -4.3	-5.1	8.0
2	MD2088	Under/Shand	5403259	440212	Quartz vein	with oxidized Cu.	H <sub>2</sub> O	30	153.0 - 297.8	230.9	10	-6.4 - -3.5	-5.3	8.3
3	MB2034	Under/Shand	5407185	442459	Quartz vein	silicified and bleached zone in kf porph Gd., chl.-epi.	H <sub>2</sub> O	31	153.7 - 326.1	217.6	10	-10.4 - -2.4	-6.3	9.6
4	MD2089	Under/Shand	5403492	440422	Quartz vein	in kalt.Gd. with epi.	H <sub>2</sub> O	31	171.0 - 266.0	214.9	10	-6.9 - -6.2	-6.5	9.9
								Th: CO <sub>2</sub> +H <sub>2</sub> O			Th: CO <sub>2</sub> (L)+CO <sub>2</sub> (V)			
								Num.	Range	Ave.	Num.	Range	Ave.	
5	MA2140	Erdenet SE	5428428	443592	Quartz vein	N60W, W=40cm, L=5m+	H <sub>2</sub> O-CO <sub>2</sub>	20	154.2 - 229.6	180.8	5	15.8 - 28.9	23.2	
								Num.	Range	Ave.	Num.	Range	Ave.	
											Tm: Dryice			
											Num.	Range	Ave.	
											5	4.7 - 6.6	5.8	
											5	38.9 - 58.	-58.7	7.7
6	MA2122	Erdenet SE	5428273	447377	Sil. epidote rock	with quartz veins, pyrite dissemination, ilimonite-hematite								
7	MB2072	Under/Shand	5404574	443726	Quartz vein	in oxidized zone of andesite								





## Appendix 12 K-Ar radiometric age in the western Erdenet area

Ser. No.	Sample No.	Area	Coordinates		Rock Name	Geological Unit	Description	Sample type	Potassium (K wt%)	Rad. <sup>40</sup> Ar (nl/g)	K-Ar age (Ma)	Air Cont. (%)
			N	E								
1	MA2035	Mogoin gol	5447645	408167	Micro-diorite	δ1T1s		whole rock	1.12	9.42	208.0 ± 5.2	31.5
2	MA2228	Mogoin gol	5447943	410370	Rhyolite porphyry	γπJ1		whole rock	3.82	32.37	209.6 ± 6.3	12.8
3	MA2107	Erdenet SE	5429904	446154	Fine granite	γδ2P2-T1s	epidote veins and spots	whole rock	4.2	33.153	196.0 ± 7.8	12.5
4	MB2006	Under/Shand	5402203	440810	Px-ho-bi granodiorite	γδ1P2-T1s	med.grain, massive	whole rock	2.21	21.12	234.7 ± 9.1	14.7
5	MB2015A	Under/Shand	5401722	442229	Ho-bi granodiorite	γδπ2P2-T1s	zoned pl.porph., ho.seggregate and bi.remain	whole rock	2.93	28.6	239.4 ± 9.5	9.5

The K concentration was performed by ICP.

The argon analysis was performed using the isotope dilution procedure on noble gas mass spectrometry.