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National Geochemical Survey of Australia: Data Quality Assessment

Volume 2 of 2

Patrice de Caritat, Michelle Cooper

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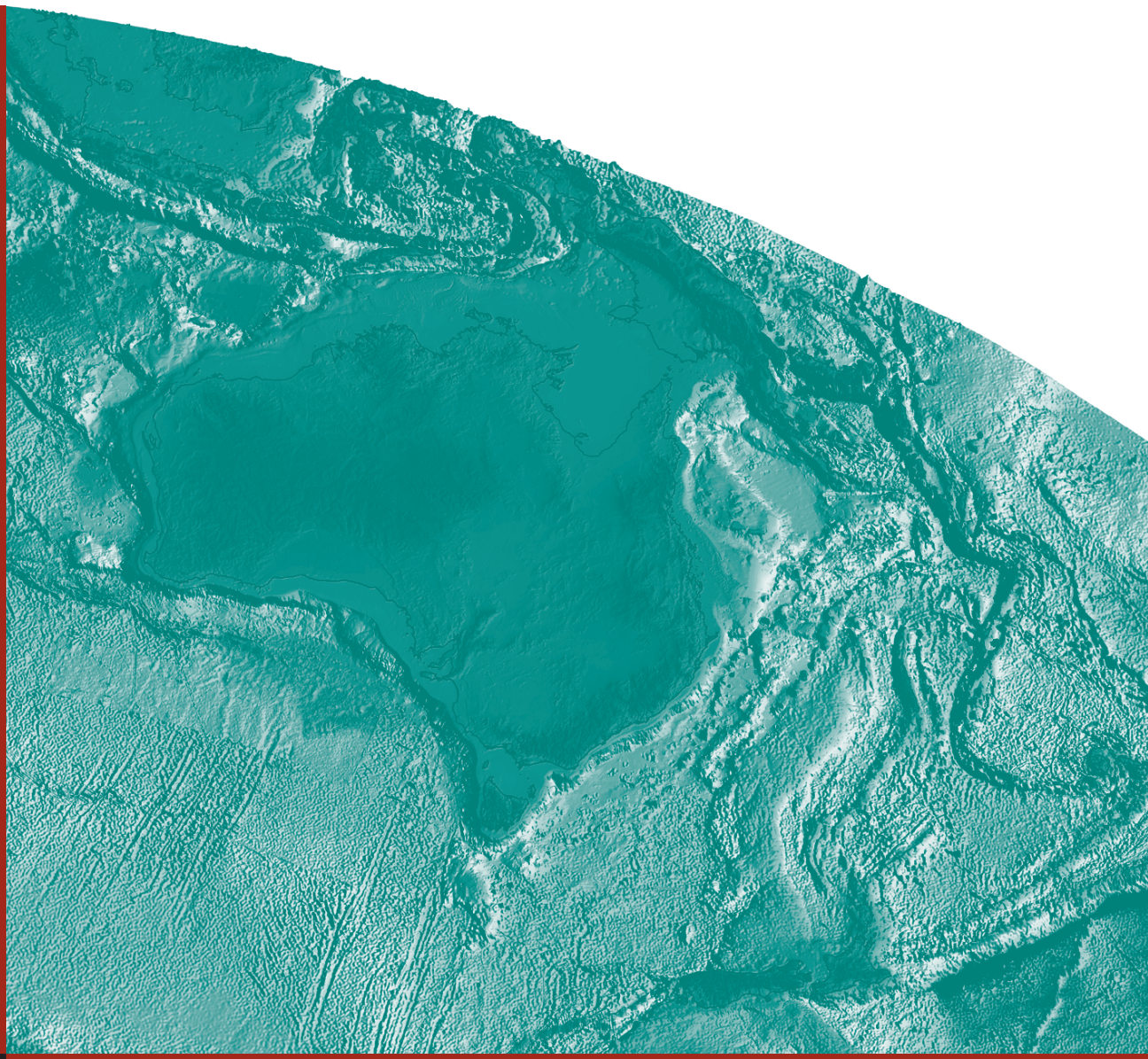

National Geochemical Survey of Australia: Data Quality Assessment

Volume 2

GEOSCIENCE AUSTRALIA
RECORD 2011/21

by

Patrice de Caritat[1], Michelle Cooper[1]

Australian Government
Geoscience Australia

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Appendix 17. Field duplicates analysis for Au + multi-elements by Aqua Regia digestion ICP-MS

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Ag (ppm)	Ag (ppm)	Al (ppm)	Al (ppm)	As (ppm)	As (ppm)	Au (ppm)	Au (ppm)
METHOD:	METHOD:	SIZE	SIZE			AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					0.002	0.002	100	100	0.1	0.1	0.0001	0.0001
ULD:	ULD:							100000	100000				
2007190003	2007190213	Coarse	Coarse	TOS	TOS	0.0130	0.0130	7000	4000	1.60	0.90	0.00060	0.00030
2007190003	2007190213	Fine	Fine	TOS	TOS	0.0400	0.0250	12900	6800	3.20	2.20	0.00040	0.00060
2007190003	2007190213	Coarse	Coarse	BOS	BOS	0.0150	0.0170	8500	4500	1.80	2.20	0.00040	0.00020
2007190003	2007190213	Fine	Fine	BOS	BOS	0.0260	0.0240	14700	6300	3.20	2.80	0.00070	0.00060
2007190005	2007191059	Coarse	Coarse	TOS	TOS	0.0010	0.0030	8300	8500	1.40	1.60	0.00020	0.00070
2007190005	2007191059	Fine	Fine	TOS	TOS	0.0010	0.0080	15500	13300	1.90	2.00	0.00110	0.00005
2007190005	2007191059	Coarse	Coarse	BOS	BOS	0.0010	0.0110	7200	8200	1.00	1.00	0.00040	0.00010
2007190005	2007191059	Fine	Fine	BOS	BOS	0.0010	0.0220	15800	12500	2.20	1.60	0.00100	0.00040
2007190032	2007190632	Coarse	Coarse	TOS	TOS	0.0310	0.0250	12700	10900	10.00	9.90	0.02730	0.02320
2007190032	2007190632	Fine	Fine	TOS	TOS	0.0360	0.0310	13800	12400	12.60	8.60	0.02310	0.01770
2007190032	2007190632	Coarse	Coarse	BOS	BOS	0.0360	0.0480	15500	15400	3.90	5.30	0.00230	0.00260
2007190032	2007190632	Fine	Fine	BOS	BOS	0.0290	0.0300	20000	16300	4.10	4.30	0.00200	0.00310
2007190035	2007190876	Coarse	Coarse	TOS	TOS	0.0140	0.0220	3600	4800	0.70	0.60	0.00050	0.00005
2007190035	2007190876	Fine	Fine	TOS	TOS	0.0260	0.0230	5800	7900	1.00	0.30	0.00200	0.01650
2007190035	2007190876	Coarse	Coarse	BOS	BOS	0.0120	0.0270	16400	15500	3.50	3.20	0.00080	0.00140
2007190035	2007190876	Fine	Fine	BOS	BOS	0.0220	0.0340	23000	24600	4.60	3.90	0.00590	0.00090
2007190039	2007190984	Coarse	Coarse	TOS	TOS	0.0160	0.0010	6200	5300	1.90	1.70	0.00005	0.00005
2007190039	2007190984	Fine	Fine	TOS	TOS	0.0280	0.0040	11900	16700	2.10	2.20	0.00050	0.00040
2007190039	2007190984	Coarse	Coarse	BOS	BOS	0.0010	0.0010	17500	26100	3.90	3.60	0.00090	0.00100
2007190039	2007190984	Fine	Fine	BOS	BOS	0.0220	0.0030	23300	36100	4.60	5.00	0.00130	0.00170
2007190050	2007191481	Coarse	Coarse	TOS	TOS	0.0080	0.0040	3400	1800	1.40	1.70	0.00010	0.00060
2007190050	2007191481	Fine	Fine	TOS	TOS	0.0270	0.0160	8500	4700	2.90	2.80	0.00010	0.00030
2007190050	2007191481	Coarse	Coarse	BOS	BOS	0.0510	0.0040	5400	6000	2.80	2.30	0.00060	0.00060
2007190050	2007191481	Fine	Fine	BOS	BOS	0.0600	0.0090	13400	5400	3.90	3.60	0.00070	0.00120
2007190067	2007191121	Coarse	Coarse	TOS	TOS	0.0100	0.0060	4600	5400	3.50	3.00	0.00110	0.00070
2007190067	2007191121	Fine	Fine	TOS	TOS	0.0130	0.0140	10700	14900	2.90	3.60	0.00410	0.00220
2007190067	2007191121	Coarse	Coarse	BOS	BOS	0.0050	0.0090	10200	11700	5.70	6.40	0.00760	0.00450
2007190067	2007191121	Fine	Fine	BOS	BOS	0.0090	0.0110	23300	33500	7.40	9.50	0.01390	0.01420
2007190071	2007190289	Coarse	Coarse	TOS	TOS	0.0010	0.0010	3100	2900	0.60	0.05	0.00020	0.00060
2007190071	2007190289	Fine	Fine	TOS	TOS	0.0060	0.0160	10100	9900	0.50	0.20	0.00040	0.00070
2007190071	2007190289	Coarse	Coarse	BOS	BOS	0.0040	0.0010	23000	24400	0.90	0.30	0.00230	0.00180
2007190071	2007190289	Fine	Fine	BOS	BOS	0.0110	0.0070	47900	57000	1.50	1.00	0.00430	0.00350
2007190074	2007190389	Coarse	Coarse	TOS	TOS	0.0240	0.0080	6800	4000	1.70	0.50	0.00040	0.00005
2007190074	2007190389	Fine	Fine	TOS	TOS	0.0080	0.0060	10600	13500	1.90	2.00	0.00030	0.00005
2007190074	2007190389	Coarse	Coarse	BOS	BOS	0.0010	0.0050	2400	5600	1.00	0.70	0.00010	0.00005
2007190074	2007190389	Fine	Fine	BOS	BOS	0.0060	0.0270	7500	13700	1.60	1.70	0.00006	0.00890
2007190091	2007191053	Coarse	Coarse	TOS	TOS	0.0020	0.0120	3200	5100	0.70	0.05	0.00005	0.00005
2007190091	2007191053	Fine	Fine	TOS	TOS	0.0180	0.0170	7300	9300	1.00	1.40	0.00050	0.00130
2007190091	2007191053	Coarse	Coarse	BOS	BOS	0.0070	0.0010	3500	3600	0.05	0.05	0.00020	0.00060
2007190091	2007191053	Fine	Fine	BOS	BOS	0.0170	0.0080	5900	5900	0.05	0.70	0.00005	0.00060
2007190107	2007190913	Coarse	Coarse	TOS	TOS	0.0060	0.0010	4400	6200	0.70	1.10	0.00005	0.00005
2007190107	2007190913	Fine	Fine	TOS	TOS	0.0080	0.0180	14300	18600	1.90	1.80	0.00060	0.00080
2007190107	2007190913	Coarse	Coarse	BOS	BOS	0.0090	0.0040	4600	9300	1.20	0.90	0.00010	0.00050
2007190107	2007190913	Fine	Fine	BOS	BOS	0.0130	0.0120	8900	28900	1.70	2.40	0.00060	0.00290
2007190110	2007191182	Coarse	Coarse	TOS	TOS	0.0220	0.0040	8600	10000	2.30	2.30	0.00050	0.00060
2007190110	2007191182	Fine	Fine	TOS	TOS	0.0240	0.0220	11600	14900	3.40	3.80	0.00080	0.00200
2007190110	2007191182	Coarse	Coarse	BOS	BOS	0.0330	0.0290	21700	14400	3.90	3.70	0.00020	0.00040
2007190110	2007191182	Fine	Fine	BOS	BOS	0.0320	0.0490	20600	18500	4.10	5.00	0.00050	0.00005
2007190114	2007191045	Coarse	Coarse	TOS	TOS	0.0370	0.0410	15600	24200	4.40	3.50	0.00040	0.00070
2007190114	2007191045	Fine	Fine	TOS	TOS	0.0840	0.0460	18700	22000	4.30	3.40	0.00040	0.00070
2007190114	2007191045	Coarse	Coarse	BOS	BOS	0.0370	0.0340	15200	17700	4.70	2.90	0.00090	0.00020
2007190114	2007191045	Fine	Fine	BOS	BOS	0.0540	0.0170	18100	18200	4.10	2.90	0.00170	0.00150
2007190118	2007191552	Coarse	Coarse	TOS	TOS	0.0410	0.0400	20500	28000	2.50	2.70	0.00060	0.00170
2007190118	2007191552	Fine	Fine	TOS	TOS	0.0360	0.0150	20400	26400	3.10	2.10	0.00050	0.00160
2007190118	2007191552	Coarse	Coarse	BOS	BOS	0.0550	0.0330	16400	35700	3.50	3.20	0.00090	0.00190
2007190118	2007191552	Fine	Fine	BOS	BOS	0.0210	0.0610	22400	32200	2.60	2.80	0.00090	0.00220
2007190121	2007191545	Coarse	Coarse	TOS	TOS	0.0130	0.0010	9300	7500	2.00	0.50	0.00090	0.00005
2007190121	2007191545	Fine	Fine	TOS	TOS	0.0010	0.0100	5900	40000	1.70	2.40	0.00070	0.00050
2007190121	2007191545	Coarse	Coarse	BOS	BOS	0.0040	0.0010	7300	20400	2.20	2.60	0.00100	0.00005
2007190121	2007191545	Fine	Fine	BOS	BOS	0.0230	0.0010	11200	43000	3.00	5.10	0.00190	0.00110
2007190125	2007191532	Coarse	Coarse	TOS	TOS	0.0390	0.0050	10100	10600	2.10	1.70	0.00040	0.00100
2007190125	2007191532	Fine	Fine	TOS	TOS	0.0120	0.0490	11600	12900	2.50	1.90	0.00070	0.00210
2007190125	2007191532	Coarse	Coarse	BOS	BOS	0.0110	0.0210	9600	13100	2.40	1.90	0.00060	0.00120
2007190125	2007191532	Fine	Fine	BOS	BOS	0.0120	0.0100	11600	18700	2.40	2.70	0.00100	0.00290
2007190145	2007191105	Coarse	Coarse	TOS	TOS	0.0300	0.0130	31200	23200	2.00	0.90	0.00130	0.00020
2007190145	2007191105	Fine	Fine	TOS	TOS	0.0560	0.0180	33300	25300	2.20	0.90	0.00040	0.00060
2007190145	2007191105	Coarse	Coarse	BOS	BOS	0.0120	0.0010	32200	20800	2.40	1.80	0.00110	0.00630
2007190145	2007191105	Fine	Fine	BOS	BOS	0.0100	0.0010	31000	22000	2.30	1.90	0.00070	0.00110
2007190154	2007190568	Coarse	Coarse	TOS	TOS	0.0090	0.0080	87100	66700	0.20	0.40	0.00140	0.00060
2007190154	2007190568	Fine	Fine	TOS	TOS	0.0150	0.0010	94500	70600	0.40	0.30	0.00160	0.00100
2007190154	2007190568	Coarse	Coarse	BOS	BOS	0.0350	0.0200	200000	97100	0.10	0.30	0.00470	0.00100
2007190154	2007190568	Fine	Fine	BOS	BOS	0.0410	0.0160	200000	200000	0.30	0.05	0.00450	0.00050
2007190155	2007191031	Coarse	Coarse	TOS	TOS	0.0380	0.0010	10700	28300	0.50	1.80	0.00110	0.00080
2007190155	2007191031	Fine	Fine	TOS	TOS	0.0150	0.0050	32300	40900	2.00	2.30	0.00040	0.00080
2007190155	2007191031	Coarse	Coarse	BOS	BOS	0.0050	0.0010	21900	20500	2.70	1.50	0.00110	0.00030
2007190155	2007191031	Fine	Fine	BOS	BOS	0.0290	0.0030	33100	40100	2.50	2.20	0.01880	0.00150
2007190161	2007191413	Coarse	Coarse	TOS	TOS	0.0120	0.0110	19600	21300	5.70	4.60	0.00370	0.00430
2007190161	2007191413	Fine	Fine	TOS	TOS	0.0250	0.0080	29600	30300	7.80	5.60	0.00580	0.00940
2007190161	2007191413	Coarse	Coarse	BOS	BOS	0.0400	0.0130	22400	14800	5.20	6.00	0.00510	0.00690
2007190161	2007191413	Fine	Fine	BOS	BOS	0.0130	0.0140	29700	19500	6.90	6.40	0.00530	0.00850
2007190176	2007191566	Coarse	Coarse	TOS	TOS	0.0150	0.0060	2700	2200	2.00	0.90	0.00080	0.00050
2007190176	2007191566	Fine	Fine	TOS	TOS	0.0110	0.0120	10400	14700	5.10	5.10	0.00080	0.00090
2007190176	2007191566	Coarse	Coarse	BOS	BOS	0.0030	0.0050	3900	3100	3.60	1.20	0.00020	0.00005
2007190176	2007191566	Fine	Fine	BOS	BOS	0.0110	0.0240	9900	16900	4.90	5.80	0.00140	0.00030

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	B (ppm)	B (ppm)	Ba (ppm)	Ba (ppm)	Be (ppm)	Be (ppm)	Bi (ppm)	Bi (ppm)	Ca (ppm)	Ca (ppm)	Cd (ppm)	Cd (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	1	1	0.5	0.5	0.1	0.1	0.02	0.02	100	100	0.01	0.01
ULD:	ULD:												
2007190003	2007190213	1	1	46.20	40.00	0.50	0.40	0.210	0.190	1000	1000	0.030	0.040
2007190003	2007190213	1	0.5	88.20	76.30	1.00	0.70	0.370	0.400	2200	2000	0.070	0.110
2007190003	2007190213	1	1	47.90	38.00	0.50	0.50	0.210	0.230	1300	1200	0.030	0.020
2007190003	2007190213	2	2	77.00	55.10	1.10	0.80	0.340	0.340	2500	1900	0.060	0.020
2007190005	2007191059	0.5	0.5	91.10	108.00	0.70	0.70	0.050	0.060	2800	3700	0.080	0.050
2007190005	2007191059	0.5	0.5	145.00	135.00	0.80	1.20	0.070	0.090	6100	6200	0.100	0.030
2007190005	2007191059	0.5	0.5	70.30	91.90	0.60	0.50	0.040	0.030	2200	2500	0.070	0.090
2007190005	2007191059	0.5	0.5	144.00	125.00	1.00	1.20	0.070	0.070	5600	5100	0.120	0.020
2007190032	2007190632	0.5	2	113.00	124.00	0.80	0.60	0.190	0.210	2400	2800	0.050	0.140
2007190032	2007190632	1	2	152.00	144.00	1.10	0.80	0.230	0.190	3100	3100	0.040	0.190
2007190032	2007190632	1	3	131.00	158.00	1.20	1.00	0.180	0.200	2600	3200	0.020	0.130
2007190032	2007190632	2	5	159.00	190.00	1.30	1.30	0.230	0.200	3600	3400	0.030	0.080
2007190035	2007190876	0.5	0.5	37.90	38.10	0.40	0.50	0.130	0.120	700	1100	0.010	0.060
2007190035	2007190876	0.5	0.5	59.30	64.70	0.60	0.50	0.180	0.190	1400	1900	0.020	0.080
2007190035	2007190876	0.5	0.5	63.30	53.80	1.20	0.90	0.320	0.260	1400	1900	0.005	0.030
2007190035	2007190876	0.5	0.5	94.80	82.80	1.60	1.20	0.450	0.370	2100	3300	0.005	0.080
2007190039	2007190984	2	0.5	146.00	202.00	0.50	0.30	0.160	0.090	800	500	0.080	0.020
2007190039	2007190984	3	1	78.30	69.70	0.70	0.80	0.280	0.230	1300	1200	0.170	0.080
2007190039	2007190984	6	2	158.00	103.00	1.00	1.10	0.230	0.200	2400	8000	0.050	0.020
2007190039	2007190984	8	3	92.00	117.00	1.50	1.50	0.290	0.240	3600	8800	0.090	0.080
2007190050	2007191481	0.5	2	21.50	18.10	0.20	0.30	0.070	0.070	400	50	0.005	0.005
2007190050	2007191481	0.5	1	59.10	52.10	0.90	0.80	0.180	0.170	1500	1300	0.010	0.020
2007190050	2007191481	0.5	0.5	20.70	14.60	0.40	0.30	0.120	0.090	400	200	0.005	0.005
2007190050	2007191481	0.5	1	47.30	33.90	0.90	0.80	0.220	0.210	1200	900	0.005	0.005
2007190067	2007191121	2	1	121.00	233.00	0.20	0.10	0.170	0.150	200	300	0.005	0.080
2007190067	2007191121	6	3	66.10	73.60	0.30	0.40	0.270	0.300	700	100	0.010	0.060
2007190067	2007191121	10	8	212.00	192.00	0.30	0.20	0.160	0.190	11800	19800	0.020	0.005
2007190067	2007191121	24	20	83.10	45.90	0.80	0.80	0.200	0.230	25400	62100	0.020	0.030
2007190071	2007190289	0.5	0.5	20.50	12.90	0.20	0.20	0.010	0.010	100	300	0.005	0.005
2007190071	2007190289	4	3	12.60	11.00	0.70	0.40	0.080	0.080	700	500	0.005	0.005
2007190071	2007190289	16	12	128.00	55.60	1.40	1.40	0.070	0.070	10800	4300	0.005	0.005
2007190071	2007190289	30	21	189.00	116.00	2.80	3.40	0.140	0.150	14600	7800	0.005	0.005
2007190074	2007190389	0.5	0.5	66.30	33.60	0.30	0.05	0.140	0.090	2200	500	0.070	0.005
2007190074	2007190389	0.5	0.5	104.00	101.00	0.40	0.60	0.200	0.190	3100	2300	0.090	0.050
2007190074	2007190389	0.5	0.5	21.80	43.30	0.10	0.20	0.080	0.110	800	1200	0.040	0.005
2007190074	2007190389	0.5	0.5	47.50	90.20	0.40	0.70	0.160	0.210	2600	4800	0.060	0.050
2007190091	2007191053	0.5	0.5	32.00	57.70	0.20	0.60	0.020	0.030	1000	900	0.005	0.050
2007190091	2007191053	0.5	0.5	86.50	96.20	0.60	0.70	0.070	0.080	3100	2300	0.040	0.060
2007190091	2007191053	0.5	0.5	38.00	36.00	0.30	0.30	0.030	0.030	900	200	0.030	0.030
2007190091	2007191053	0.5	0.5	70.90	59.70	0.60	0.70	0.070	0.060	1800	1000	0.030	0.070
2007190107	2007190913	0.5	0.5	13.10	25.00	0.30	0.40	0.090	0.110	2500	700	0.040	0.040
2007190107	2007190913	0.5	0.5	43.10	51.90	0.80	1.20	0.230	0.250	2800	2000	0.090	0.090
2007190107	2007190913	0.5	0.5	10.60	27.80	0.20	0.60	0.080	0.130	700	700	0.020	0.040
2007190107	2007190913	0.5	0.5	39.80	64.60	0.50	1.80	0.180	0.290	1300	2400	0.030	0.060
2007190110	2007191182	0.5	0.5	59.70	69.70	0.60	0.70	0.240	0.230	1900	2200	0.060	0.080
2007190110	2007191182	0.5	0.5	79.10	103.00	0.90	1.00	0.370	0.460	3000	3500	0.110	0.170
2007190110	2007191182	0.5	0.5	170.00	135.00	1.80	1.40	0.550	0.410	5100	3800	0.100	0.090
2007190110	2007191182	0.5	0.5	165.00	195.00	1.60	1.90	0.540	0.590	5300	5800	0.100	0.140
2007190114	2007191045	0.5	0.5	114.00	138.00	1.00	1.20	0.230	0.230	3900	7700	0.050	0.060
2007190114	2007191045	0.5	0.5	138.00	127.00	1.10	1.10	0.300	0.230	5200	7200	0.030	0.060
2007190114	2007191045	0.5	0.5	136.00	103.00	0.90	0.80	0.230	0.190	4200	4000	0.040	0.040
2007190114	2007191045	1	0.5	148.00	115.00	1.10	0.80	0.270	0.190	5700	4400	0.030	0.060
2007190118	2007191552	0.5	1	134.00	134.00	1.60	1.80	0.290	0.230	500	800	0.005	0.030
2007190118	2007191552	0.5	0.5	143.00	131.00	1.20	1.70	0.280	0.250	700	600	0.080	0.010
2007190118	2007191552	0.5	0.5	183.00	251.00	1.70	2.40	0.320	0.370	500	1700	0.040	0.050
2007190118	2007191552	0.5	0.5	204.00	173.00	1.60	2.20	0.330	0.290	600	1900	0.010	0.030
2007190121	2007191545	0.5	0.5	37.20	22.70	0.50	0.40	0.200	0.110	3100	1500	0.060	0.030
2007190121	2007191545	0.5	0.5	14.30	56.50	0.20	1.40	0.120	0.320	1100	6600	0.040	0.080
2007190121	2007191545	0.5	0.5	17.10	29.30	0.20	0.60	0.110	0.140	6900	45100	0.005	0.060
2007190121	2007191545	0.5	2	49.10	55.10	0.40	1.10	0.190	0.220	34100	114000	0.100	0.090
2007190125	2007191532	0.5	0.5	144.00	70.80	0.80	0.70	0.110	0.110	5800	2900	0.050	0.040
2007190125	2007191532	0.5	0.5	149.00	80.70	1.00	1.10	0.140	0.150	5700	4600	0.050	0.040
2007190125	2007191532	0.5	0.5	105.00	76.10	0.70	1.10	0.110	0.090	5400	5100	0.005	0.050
2007190125	2007191532	0.5	0.5	120.00	130.00	1.10	1.40	0.130	0.150	7500	6500	0.020	0.060
2007190145	2007191105	0.5	0.5	78.50	67.30	0.70	0.90	0.220	0.180	106000	100000	0.210	0.180
2007190145	2007191105	0.5	0.5	77.40	68.40	0.80	0.80	0.250	0.220	91500	94100	0.250	0.200
2007190145	2007191105	0.5	1	74.50	69.20	0.80	0.70	0.210	0.180	119000	138000	0.130	0.150
2007190145	2007191105	0.5	1	72.20	70.30	0.80	0.70	0.210	0.180	130000	128000	0.110	0.130
2007190154	2007190568	0.5	0.5	43.00	53.00	2.50	0.80	0.220	0.240	200	400	0.060	0.020
2007190154	2007190568	0.5	2	41.40	49.20	2.30	0.80	0.190	0.260	200	200	0.070	0.005
2007190154	2007190568	0.5	2	39.20	35.00	1.60	0.70	0.370	0.340	100	50	0.050	0.040
2007190154	2007190568	0.5	2	40.00	33.80	1.90	0.60	0.380	0.290	200	100	0.050	0.050
2007190155	2007191031	0.5	0.5	106.00	148.00	0.40	1.00	0.110	0.120	3400	3300	0.005	0.030
2007190155	2007191031	2	0.5	182.00	182.00	1.40	1.30	0.170	0.160	4200	4900	0.070	0.070
2007190155	2007191031	1	0.5	149.00	135.00	0.80	0.70	0.120	0.090	3100	3000	0.070	0.050
2007190155	2007191031	2	0.5	201.00	195.00	1.60	1.30	0.160	0.160	4800	5800	0.100	0.060
2007190161	2007191413	15	7	171.00	32.30	0.50	0.60	0.240	0.170	20100	138000	0.010	0.040
2007190161	2007191413	22	10	76.40	53.20	1.00	0.80	0.240	0.210	31100	81100	0.040	0.030
2007190161	2007191413	43	8	32.70	22.30	0.90	0.40	0.190	0.170	34400	63400	0.050	0.040
2007190161	2007191413	61	13	54.90	37.60	1.10	0.60	0.260	0.210	28300	47700	0.040	0.070
2007190176	2007191566	0.5	2	1.30	2.20	0.05	0.05	0.100	0.050	50	50	0.005	0.005
2007190176	2007191566	0.5	0.5	5.40	8.60	0.40	0.40	0.270	0.250	600	50	0.005	0.005
2007190176	2007191566	0.5	2	1.40	1.90	0.05	0.05	0.120	0.060	50	50	0.005	0.005
2007190176	2007191566	0.5	1	3.20	9.70	0.30	0.50	0.260	0.280	50	50	0.010	0.005

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Ce (ppm)	Ce (ppm)	Co (ppm)	Co (ppm)	Cr (ppm)	Cr (ppm)	Cs (ppm)	Cs (ppm)	Cu (ppm)	Cu (ppm)	Dy (ppm)	Dy (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.01	0.01	0.1	0.1	0.5	0.5	0.02	0.02	0.01	0.01	0.1	0.1
ULD:	ULD:												
2007190003	2007190213	41.700	26.000	5.50	4.90	30.90	29.10	1.280	0.720	11.800	10.700	1.20	0.90
2007190003	2007190213	81.700	52.400	10.80	9.50	55.70	51.10	2.230	1.140	25.600	22.000	2.60	1.80
2007190003	2007190213	36.700	28.500	6.00	5.90	33.50	31.20	1.540	0.960	14.400	13.400	1.20	1.00
2007190003	2007190213	59.900	40.300	9.40	8.20	52.40	44.40	2.450	1.400	24.300	19.900	2.10	1.50
2007190005	2007191059	26.300	40.000	10.00	14.50	19.90	22.30	0.590	0.550	17.700	9.740	1.70	1.90
2007190005	2007191059	41.600	53.100	18.10	20.20	41.70	34.80	0.750	0.540	42.300	15.400	3.10	2.80
2007190005	2007191059	26.700	37.900	9.40	13.10	26.50	20.30	0.630	0.560	14.200	7.840	1.30	1.60
2007190005	2007191059	53.800	58.100	20.90	22.80	51.40	44.20	0.970	0.640	32.200	14.500	3.40	2.80
2007190032	2007190632	67.200	37.800	12.10	10.00	43.90	27.30	1.270	1.130	12.700	12.700	2.20	1.90
2007190032	2007190632	81.200	40.900	11.10	9.50	48.90	32.50	1.430	1.110	15.900	15.300	2.60	2.00
2007190032	2007190632	65.500	41.000	14.90	13.00	50.00	44.30	1.500	1.340	13.200	18.300	2.50	2.50
2007190032	2007190632	82.100	40.600	15.30	11.70	62.50	45.00	1.680	1.560	16.600	18.200	3.10	2.60
2007190035	2007190876	28.200	33.000	4.40	4.60	13.60	16.00	0.800	0.740	3.670	19.900	1.10	1.40
2007190035	2007190876	56.600	60.100	6.50	7.50	17.70	22.70	1.120	1.080	6.250	33.900	2.10	2.60
2007190035	2007190876	47.200	32.100	8.00	6.30	26.60	27.10	2.040	1.710	12.400	28.900	2.00	1.80
2007190035	2007190876	72.600	53.400	13.30	10.90	37.50	38.30	2.920	2.500	19.000	45.800	3.20	2.70
2007190039	2007190984	47.100	17.900	6.30	3.30	56.40	43.10	0.590	0.340	13.400	7.170	1.50	0.80
2007190039	2007190984	92.400	57.300	11.30	9.00	88.80	91.40	1.110	1.100	26.000	18.500	2.90	2.40
2007190039	2007190984	57.700	48.300	8.60	10.60	73.80	77.40	1.790	1.900	25.000	24.000	2.30	2.10
2007190039	2007190984	80.600	71.600	13.20	18.50	93.30	99.60	2.410	2.440	33.600	31.600	3.10	2.90
2007190050	2007191481	17.300	13.800	3.10	3.40	44.20	39.20	0.540	0.410	4.840	4.290	0.50	0.50
2007190050	2007191481	55.500	39.100	9.60	9.80	76.20	73.50	1.280	0.750	16.000	14.100	1.80	1.50
2007190050	2007191481	20.900	13.500	5.00	3.80	53.50	44.00	0.860	0.510	9.160	5.230	0.70	0.50
2007190050	2007191481	52.500	34.900	9.10	8.30	91.80	84.00	1.910	1.100	20.800	13.500	1.70	1.30
2007190067	2007191121	10.800	12.800	4.80	3.50	375.00	389.00	0.300	0.190	6.500	4.220	0.70	0.50
2007190067	2007191121	22.900	28.400	9.50	8.30	435.00	429.00	0.750	0.650	16.000	12.100	1.60	1.40
2007190067	2007191121	12.900	13.900	7.10	5.40	405.00	477.00	0.700	0.470	16.500	10.500	0.80	0.70
2007190067	2007191121	27.200	35.200	14.40	13.90	408.00	458.00	1.540	1.370	36.100	28.700	1.80	1.90
2007190071	2007190289	22.200	15.600	1.30	0.70	6.20	4.50	0.100	0.100	0.580	1.580	0.70	0.40
2007190071	2007190289	89.600	76.900	4.40	2.50	19.70	15.40	0.350	0.320	4.480	4.230	3.10	1.80
2007190071	2007190289	102.000	269.000	21.60	21.30	35.90	31.70	0.800	0.780	14.400	13.300	4.40	8.00
2007190071	2007190289	229.000	654.000	54.30	49.20	74.40	71.60	1.680	1.710	31.000	29.900	8.90	19.90
2007190074	2007190389	16.800	16.200	4.90	1.10	34.10	24.20	0.430	0.260	17.400	5.230	1.20	0.50
2007190074	2007190389	28.000	33.500	5.20	4.70	34.00	32.50	0.640	1.000	14.500	23.100	1.90	2.10
2007190074	2007190389	5.990	17.400	1.20	1.90	24.50	28.50	0.170	0.400	10.300	8.130	0.40	0.90
2007190074	2007190389	23.700	31.900	3.70	5.00	25.40	29.10	0.450	1.100	14.700	19.400	1.50	2.20
2007190091	2007191053	23.300	30.500	4.10	6.40	7.20	11.00	0.420	0.650	2.960	4.340	0.70	0.90
2007190091	2007191053	59.100	51.100	11.10	9.90	26.00	26.90	0.550	0.910	9.040	9.230	2.00	1.80
2007190091	2007191053	25.200	26.700	4.90	3.90	8.70	6.90	0.480	0.580	3.360	2.740	0.80	0.70
2007190091	2007191053	53.100	56.100	8.40	6.70	21.90	22.20	0.640	0.910	7.070	4.770	1.80	1.50
2007190107	2007190913	10.700	12.900	1.90	2.50	16.00	15.80	0.200	0.240	7.300	5.470	0.80	1.00
2007190107	2007190913	46.900	41.400	7.80	7.30	40.50	37.70	0.520	0.500	19.600	17.300	3.40	4.30
2007190107	2007190913	10.900	18.200	1.90	3.30	16.20	18.00	0.180	0.380	5.740	7.560	0.80	1.50
2007190107	2007190913	30.000	54.500	5.40	10.50	65.10	40.10	0.340	0.850	14.700	21.300	2.80	4.60
2007190110	2007191182	41.400	37.300	6.10	7.10	20.20	25.60	1.720	2.070	8.240	10.300	1.50	1.50
2007190110	2007191182	71.300	61.300	9.80	10.70	32.10	39.30	2.200	2.830	13.400	17.300	2.50	2.60
2007190110	2007191182	95.900	52.700	19.30	9.20	59.80	36.10	3.660	3.070	24.300	12.800	4.30	2.40
2007190110	2007191182	95.500	71.100	18.10	12.50	57.00	46.50	3.160	3.680	24.200	19.100	4.30	3.50
2007190114	2007191045	57.300	48.100	15.60	15.20	53.10	42.40	1.560	1.440	17.300	23.400	3.00	3.70
2007190114	2007191045	67.100	45.500	18.00	14.10	52.40	39.90	1.600	1.400	24.100	21.900	3.90	3.60
2007190114	2007191045	59.700	36.900	16.50	11.40	57.90	36.60	1.690	1.440	16.900	15.700	2.80	2.60
2007190114	2007191045	67.000	41.500	16.60	12.00	52.90	35.90	1.850	1.460	19.100	16.400	3.40	3.00
2007190118	2007191552	82.600	56.600	16.50	20.60	49.50	49.50	1.540	1.880	19.200	23.200	2.70	2.50
2007190118	2007191552	65.300	55.800	16.70	15.80	34.10	47.20	1.750	1.780	19.800	21.200	2.60	2.50
2007190118	2007191552	108.000	63.200	16.00	14.20	53.90	65.10	1.210	2.300	25.600	33.900	3.30	3.50
2007190118	2007191552	74.900	48.700	17.00	13.00	37.90	55.70	1.590	2.060	26.000	29.000	3.60	3.00
2007190121	2007191545	19.500	10.800	4.90	2.50	43.10	25.20	0.370	0.450	13.100	5.010	1.30	0.80
2007190121	2007191545	5.950	42.000	1.50	10.50	37.00	59.50	0.200	2.590	5.120	21.700	0.40	2.70
2007190121	2007191545	6.330	14.800	1.60	4.00	34.10	31.60	0.230	1.400	5.590	9.050	0.50	1.10
2007190121	2007191545	16.700	29.600	4.50	8.60	41.90	46.00	0.440	2.980	18.400	19.600	1.50	2.20
2007190125	2007191532	54.300	36.500	12.60	8.50	31.30	27.90	1.160	0.840	30.800	30.300	2.50	2.20
2007190125	2007191532	68.800	52.000	13.90	12.50	38.10	37.50	1.190	0.980	35.700	36.500	3.10	2.90
2007190125	2007191532	60.800	46.000	12.60	11.80	34.80	34.10	1.140	0.950	31.500	32.600	2.80	2.60
2007190125	2007191532	80.700	79.900	13.90	13.70	46.20	48.00	1.230	1.240	41.500	48.300	3.60	4.90
2007190145	2007191105	39.000	36.300	8.40	8.20	46.70	40.20	1.380	0.770	21.400	18.800	2.90	2.70
2007190145	2007191105	37.000	35.800	8.20	7.80	52.50	45.70	1.400	0.860	24.900	21.900	2.70	2.50
2007190145	2007191105	36.100	34.700	8.40	8.80	48.10	35.90	1.420	0.740	24.200	17.000	2.60	2.70
2007190145	2007191105	37.600	31.100	8.90	7.50	45.70	38.20	1.390	0.820	23.700	19.400	2.80	2.20
2007190154	2007190568	17.200	19.800	8.00	6.80	53.40	52.80	0.560	0.540	4.500	2.390	1.30	1.30
2007190154	2007190568	21.700	21.000	8.30	7.40	53.70	55.20	0.530	0.530	5.600	2.570	1.50	1.30
2007190154	2007190568	16.800	11.500	5.70	7.50	73.80	80.40	0.590	0.900	2.950	2.040	2.10	0.80
2007190154	2007190568	19.900	14.900	5.70	8.00	79.00	81.70	0.620	0.970	4.150	1.860	2.50	1.10
2007190155	2007191031	22.300	26.800	5.30	7.50	14.90	26.50	0.520	1.910	13.300	21.600	1.93	2.70
2007190155	2007191031	40.400	39.400	9.70	11.70	33.80	37.30	2.710	2.690	24.800	32.100	3.30	3.80
2007190155	2007191031	29.300	21.500	6.40	6.30	27.10	29.30	1.860	1.480	16.500	16.800	2.40	2.10
2007190155	2007191031	44.200	41.600	10.80	15.10	50.90	70.80	2.690	2.710	26.000	33.000	3.50	4.00
2007190161	2007191413	28.100	25.100	11.70	8.40	196.00	88.30	0.810	0.880	32.700	22.800	1.50	1.40
2007190161	2007191413	38.600	43.600	17.10	12.80	200.00	117.00	1.220	1.160	45.900	32.800	2.10	2.20
2007190161	2007191413	28.900	31.900	12.90	10.30	150.00	95.60	0.980	0.770	32.700	24.000	1.50	1.40
2007190161	2007191413	40.100	48.900	18.80	14.20	188.00	117.00	1.250	0.990	46.200	33.300	2.10	2.00
2007190176	2007191566	5.670	5.230	0.60	0.40	41.10	26.20	0.270	0.260	4.670	2.170	0.20	0.20
2007190176	2007191566	34.500	44.200	1.80	2.80	92.80	89.00	0.830	1.310	13.900	15.500	1.20	1.90
2007190176	2007191566	8.230	10.900	0.60	1.60	50.60	32.90	0.370	0.360	5.190	2.630	0.30	0.50
2007190176	2007191566	33.100	75.600	1.50	10.60	97.00	93.50	0.780	1.540	12.200	14.600	1.40	3.00

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Er (ppm)	Er (ppm)	Eu (ppm)	Eu (ppm)	Fe (ppm)	Fe (ppm)	Ga (ppm)	Ga (ppm)	Gd (ppm)	Gd (ppm)	Ge (ppm)	Ge (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1	100	100	0.02	0.02	0.1	0.1	0.1	0.1
ULD:	ULD:												
2007190003	2007190213	0.50	0.30	0.40	0.40	20000	19800	2.950	1.900	2.30	1.70	0.05	0.05
2007190003	2007190213	1.10	0.70	0.90	0.70	41100	38700	5.570	3.540	4.90	3.30	0.05	0.05
2007190003	2007190213	0.50	0.40	0.50	0.40	22200	21400	3.540	2.250	2.30	2.00	0.05	0.05
2007190003	2007190213	0.90	0.70	0.70	0.60	38100	32700	6.250	3.250	3.90	2.80	0.05	0.05
2007190005	2007191059	0.60	0.70	0.60	0.70	20000	20100	3.310	3.080	2.50	2.70	0.05	0.05
2007190005	2007191059	1.20	1.10	1.10	1.00	38100	29000	6.160	4.570	4.40	4.00	0.05	0.05
2007190005	2007191059	0.50	0.60	0.50	0.60	17800	18100	2.930	2.830	2.00	2.40	0.05	0.05
2007190005	2007191059	1.30	1.10	1.10	0.90	39700	32300	6.790	4.790	4.60	3.90	0.05	0.05
2007190032	2007190632	0.90	0.90	0.90	0.80	21900	15200	4.560	3.440	4.50	3.60	0.05	0.10
2007190032	2007190632	1.10	1.00	1.10	0.90	26400	16900	5.300	4.180	5.50	4.00	0.05	0.05
2007190032	2007190632	1.10	1.20	1.00	1.00	25600	22600	5.620	5.350	4.70	4.40	0.05	0.05
2007190032	2007190632	1.50	1.30	1.40	1.00	31800	21600	7.330	5.420	6.10	4.60	0.05	0.05
2007190035	2007190876	0.50	0.60	0.30	0.40	9400	11500	1.520	1.490	2.00	2.00	0.05	0.05
2007190035	2007190876	1.00	1.00	0.60	0.70	13900	16900	2.510	2.540	4.00	3.60	0.05	0.05
2007190035	2007190876	1.10	0.80	0.70	0.60	22600	21900	5.790	4.470	3.50	2.40	0.05	0.05
2007190035	2007190876	1.60	1.30	1.00	1.00	33700	33400	8.660	6.890	5.30	3.70	0.05	0.05
2007190039	2007190984	0.80	0.40	0.50	0.30	21800	14100	3.740	3.030	2.60	0.90	0.05	0.05
2007190039	2007190984	1.50	1.00	0.90	0.70	37100	30900	7.140	6.580	5.00	3.30	0.10	0.05
2007190039	2007190984	1.20	1.10	0.70	0.70	38300	40500	9.340	9.410	3.70	2.90	0.05	0.10
2007190039	2007190984	1.60	1.40	1.00	0.90	51200	55400	12.800	13.800	5.10	3.40	0.10	0.10
2007190050	2007191481	0.30	0.20	0.10	0.05	10500	11300	1.610	1.130	1.00	0.80	0.05	0.05
2007190050	2007191481	0.80	0.60	0.50	0.40	26700	24900	4.080	2.950	3.50	2.40	0.05	0.05
2007190050	2007191481	0.30	0.20	0.20	0.05	14700	12500	2.620	1.680	1.30	0.80	0.05	0.05
2007190050	2007191481	0.80	0.60	0.50	0.30	30500	27700	5.990	3.470	3.20	2.10	0.05	0.05
2007190067	2007191121	0.30	0.20	0.20	0.10	35600	30700	2.850	2.870	0.90	0.60	0.05	0.05
2007190067	2007191121	0.80	0.70	0.50	0.40	50600	38500	5.230	4.980	2.30	1.70	0.05	0.05
2007190067	2007191121	0.40	0.40	0.30	0.20	38700	35800	4.640	4.240	1.20	1.00	0.05	0.10
2007190067	2007191121	1.00	0.90	0.60	0.60	43800	37400	8.830	8.510	2.60	2.40	0.10	0.10
2007190071	2007190289	0.30	0.10	0.20	0.05	2600	2000	1.020	0.810	1.20	0.70	0.05	0.05
2007190071	2007190289	1.50	0.70	0.90	0.40	8900	7600	3.240	2.860	5.10	3.40	0.05	0.05
2007190071	2007190289	2.50	3.50	1.30	2.90	14400	13000	6.920	5.990	6.60	14.10	0.10	0.10
2007190071	2007190289	4.90	8.90	2.70	7.30	30000	28700	14.300	13.500	13.10	35.70	0.20	0.30
2007190074	2007190389	0.60	0.20	0.40	0.10	40600	15100	2.990	1.390	1.60	0.90	0.20	0.05
2007190074	2007190389	0.80	0.90	0.50	0.60	28000	30800	4.370	5.140	2.60	2.80	0.05	0.05
2007190074	2007190389	0.20	0.40	0.10	0.20	13000	18600	1.270	2.020	0.50	1.30	0.05	0.05
2007190074	2007190389	0.70	1.00	0.40	0.70	22100	28300	3.250	4.730	2.00	3.10	0.05	0.05
2007190091	2007191053	0.20	0.40	0.40	0.40	5700	6900	1.230	1.520	1.10	1.70	0.05	0.05
2007190091	2007191053	0.80	0.70	0.80	0.80	16400	14300	3.000	2.710	3.00	3.00	0.05	0.05
2007190091	2007191053	0.30	0.20	0.40	0.30	5900	4300	1.370	1.210	1.20	1.30	0.05	0.05
2007190091	2007191053	0.70	0.60	0.80	0.60	11900	9900	2.360	2.040	2.60	2.80	0.05	0.05
2007190107	2007190913	0.30	0.50	0.20	0.30	10600	11600	1.510	1.890	1.10	1.30	0.05	0.05
2007190107	2007190913	1.50	1.90	1.10	1.40	29500	29900	5.290	5.750	4.50	5.80	0.05	0.05
2007190107	2007190913	0.40	0.70	0.30	0.40	10400	14100	1.490	2.840	1.10	1.90	0.05	0.05
2007190107	2007190913	1.20	2.20	0.90	1.40	22200	37300	3.370	8.750	3.90	5.90	0.05	0.05
2007190110	2007191182	0.60	0.60	0.40	0.40	14600	17100	3.360	4.110	2.60	2.20	0.05	0.05
2007190110	2007191182	1.00	1.00	0.60	0.60	22700	25400	4.790	6.000	4.50	3.70	0.05	0.05
2007190110	2007191182	1.90	1.00	1.20	0.60	37600	24000	8.900	6.030	6.90	3.50	0.05	0.05
2007190110	2007191182	1.90	1.40	1.30	0.90	36400	29100	8.500	7.480	7.10	4.80	0.05	0.05
2007190114	2007191045	1.20	1.60	1.10	1.20	31200	32800	6.300	7.910	4.70	4.70	0.05	0.10
2007190114	2007191045	1.70	1.60	1.40	1.10	34500	30400	7.690	7.450	5.90	4.50	0.05	0.10
2007190114	2007191045	1.20	1.20	1.00	0.80	31800	26600	6.270	5.820	4.20	3.30	0.05	0.05
2007190114	2007191045	1.40	1.40	1.10	0.90	32800	26100	7.160	5.950	5.20	3.80	0.05	0.05
2007190118	2007191552	1.20	1.10	0.90	0.70	35600	36800	9.330	9.190	4.90	3.30	0.05	0.05
2007190118	2007191552	1.10	1.00	0.90	0.70	25000	30600	8.270	7.900	4.60	3.80	0.05	0.05
2007190118	2007191552	1.40	1.50	1.10	1.10	35600	39400	8.350	7.010	6.30	6.50	0.05	0.05
2007190118	2007191552	1.60	1.30	1.10	0.90	35600	40500	9.350	9.110	6.60	4.70	0.05	0.10
2007190121	2007191545	0.60	0.40	0.40	0.20	30000	15900	4.060	2.990	1.70	0.90	0.05	0.05
2007190121	2007191545	0.20	1.40	0.10	0.80	15800	48200	2.000	13.000	0.50	3.50	0.05	0.05
2007190121	2007191545	0.20	0.50	0.10	0.30	15100	20900	2.200	6.460	0.60	1.30	0.05	0.05
2007190121	2007191545	0.70	1.00	0.40	0.60	27300	36700	4.290	13.000	1.90	2.70	0.05	0.20
2007190125	2007191532	1.30	1.00	0.80	0.50	33600	26900	5.430	3.490	3.80	3.00	0.05	0.05
2007190125	2007191532	1.50	1.50	0.90	0.90	40500	46500	6.580	4.520	4.50	4.50	0.10	0.10
2007190125	2007191532	1.40	1.30	0.80	0.60	37400	39800	5.760	5.650	4.10	3.00	0.10	0.10
2007190125	2007191532	1.80	2.10	1.10	1.10	48100	56400	6.910	6.980	5.50	6.20	0.20	0.20
2007190145	2007191105	1.40	1.30	0.80	0.70	29400	26800	8.570	7.460	3.70	3.20	0.05	0.05
2007190145	2007191105	1.30	1.20	0.80	0.70	33300	30000	9.310	8.470	3.30	3.10	0.05	0.05
2007190145	2007191105	1.30	1.30	0.70	0.70	33100	24600	9.090	6.610	3.30	3.30	0.05	0.05
2007190145	2007191105	1.30	1.00	0.80	0.60	29500	25800	8.680	7.050	3.60	2.90	0.05	0.05
2007190154	2007190568	0.50	0.50	0.50	0.60	13000	8000	22.600	24.600	1.60	1.80	0.05	0.05
2007190154	2007190568	0.60	0.50	0.60	0.70	16200	8500	22.900	25.300	1.90	2.00	0.05	0.10
2007190154	2007190568	0.70	0.30	0.80	0.40	11000	7600	36.600	35.200	2.20	1.10	0.05	0.05
2007190154	2007190568	0.90	0.40	1.10	0.50	10700	8000	35.200	35.200	3.10	1.60	0.05	0.05
2007190155	2007191031	1.10	1.20	0.70	0.70	10600	29000	2.970	9.510	3.50	3.20	0.05	0.05
2007190155	2007191031	1.60	1.80	1.10	1.10	38600	44500	11.900	13.800	3.10	4.60	0.10	0.10
2007190155	2007191031	1.10	1.00	0.80	0.60	27200	23000	7.910	7.350	2.10	2.50	0.05	0.10
2007190155	2007191031	1.70	1.90	1.20	1.10	40200	43400	12.000	13.800	3.10	4.60	0.05	0.10
2007190161	2007191413	0.70	0.70	0.50	0.50	60900	39200	9.090	5.880	2.20	1.60	0.05	0.05
2007190161	2007191413	1.00	1.10	0.80	0.80	62400	50600	11.500	8.110	3.30	2.50	0.05	0.05
2007190161	2007191413	0.80	0.70	0.50	0.50	49800	42300	8.650	6.120	2.30	1.70	0.05	0.05
2007190161	2007191413	1.00	1.00	0.70	0.80	62200	51900	10.800	7.880	2.90	2.50	0.05	0.05
2007190176	2007191566	0.05	0.10	0.05	0.05	13700	7800	2.150	1.330	0.30	0.40	0.05	0.05
2007190176	2007191566	0.50	0.80	0.40	0.60	45400	45400	8.820	9.370	2.00	3.10	0.05	0.05
2007190176	2007191566	0.10	0.20	0.10	0.10	19100	10200	3.100	1.700	0.50	0.70	0.05	0.05
2007190176	2007191566	0.60	1.30	0.50	0.90	44700	45500	8.340	9.400	2.20	4.60	0.05	0.05

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Hf (ppm)	Hf (ppm)	Hg (ppm)	Hg (ppm)	Ho (ppm)	Ho (ppm)	In (ppm)	In (ppm)	K (ppm)	K (ppm)	La (ppm)	La (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.01	0.01	0.1	0.1	0.02	0.02	100	100	0.5	0.5
ULD:	ULD:												
2007190003	2007190213	0.10	0.05	0.005	0.005	0.20	0.20	0.010	0.010	2000	2000	21.20	15.00
2007190003	2007190213	0.20	0.10	0.030	0.020	0.40	0.30	0.030	0.020	3700	3600	40.90	29.10
2007190003	2007190213	0.10	0.05	0.020	0.005	0.20	0.20	0.010	0.010	2500	2400	19.30	16.30
2007190003	2007190213	0.10	0.05	0.010	0.005	0.40	0.30	0.030	0.010	4100	3500	32.00	23.40
2007190005	2007191059	0.05	0.05	0.005	0.010	0.30	0.30	0.030	0.030	1100	1800	11.80	18.00
2007190005	2007191059	0.05	0.05	0.030	0.060	0.50	0.50	0.040	0.030	1700	2400	19.70	24.90
2007190005	2007191059	0.05	0.05	0.030	0.005	0.20	0.30	0.020	0.010	700	1200	11.70	16.90
2007190005	2007191059	0.05	0.20	0.040	0.050	0.60	0.50	0.040	0.030	1400	1400	24.90	26.50
2007190032	2007190632	0.05	0.05	0.160	0.080	0.40	0.30	0.020	0.030	1300	900	32.40	25.50
2007190032	2007190632	0.05	0.05	0.170	0.090	0.40	0.40	0.020	0.020	1600	1000	38.00	27.50
2007190032	2007190632	0.05	0.20	0.030	0.050	0.40	0.40	0.030	0.030	1100	1000	31.10	27.20
2007190032	2007190632	0.10	0.20	0.050	0.005	0.50	0.50	0.040	0.030	1400	900	39.70	27.90
2007190035	2007190876	0.05	0.05	0.005	0.005	0.20	0.30	0.010	0.010	1000	1200	14.30	19.30
2007190035	2007190876	0.05	0.05	0.005	0.050	0.40	0.60	0.010	0.010	1500	1800	28.80	33.70
2007190035	2007190876	0.20	0.10	0.005	0.020	0.40	0.40	0.030	0.010	2200	1900	22.90	19.70
2007190035	2007190876	0.20	0.20	0.005	0.040	0.60	0.70	0.050	0.010	3400	3000	34.40	30.50
2007190039	2007190984	0.20	0.05	0.005	0.030	0.30	0.20	0.010	0.010	2600	1100	18.80	8.90
2007190039	2007190984	0.30	0.20	0.005	0.030	0.60	0.50	0.030	0.010	5000	3600	37.80	30.80
2007190039	2007190984	0.30	0.20	0.005	0.020	0.40	0.40	0.050	0.030	8000	6600	25.90	25.70
2007190039	2007190984	0.20	0.20	0.005	0.050	0.60	0.60	0.060	0.040	11100	9500	34.00	34.60
2007190050	2007191481	0.05	0.05	0.005	0.005	0.05	0.05	0.010	0.010	500	500	8.00	7.10
2007190050	2007191481	0.05	0.05	0.020	0.020	0.30	0.30	0.020	0.010	1400	1300	26.70	20.30
2007190050	2007191481	0.05	0.05	0.020	0.005	0.10	0.05	0.010	0.010	800	600	10.00	6.70
2007190050	2007191481	0.20	0.05	0.020	0.005	0.30	0.20	0.020	0.010	2000	1500	25.20	18.30
2007190067	2007191121	0.20	0.20	0.005	0.005	0.10	0.10	0.010	0.010	1100	1000	5.80	6.60
2007190067	2007191121	0.30	0.20	0.020	0.040	0.30	0.20	0.030	0.030	3100	3700	13.90	17.40
2007190067	2007191121	0.20	0.20	0.030	0.005	0.20	0.10	0.020	0.010	3000	2500	7.10	8.40
2007190067	2007191121	0.30	0.30	0.020	0.060	0.30	0.40	0.030	0.030	7100	7700	14.00	20.60
2007190071	2007190289	0.05	0.05	0.005	0.005	0.10	0.05	0.010	0.010	300	200	9.30	7.80
2007190071	2007190289	0.10	0.05	0.010	0.005	0.60	0.30	0.020	0.020	1100	600	36.20	38.00
2007190071	2007190289	0.20	0.20	0.020	0.005	0.90	1.40	0.040	0.040	4000	2600	37.30	123.00
2007190071	2007190289	0.40	0.40	0.020	0.005	1.80	3.60	0.090	0.090	8500	6100	73.90	298.00
2007190074	2007190389	0.05	0.05	0.020	0.005	0.20	0.05	0.010	0.010	1100	500	7.50	8.50
2007190074	2007190389	0.05	0.10	0.005	0.020	0.30	0.30	0.020	0.020	1800	2600	12.70	15.60
2007190074	2007190389	0.05	0.05	0.005	0.020	0.05	0.10	0.010	0.010	400	900	3.00	9.30
2007190074	2007190389	0.05	0.05	0.005	0.005	0.30	0.40	0.010	0.030	1400	2800	10.50	14.60
2007190091	2007191053	0.05	0.05	0.010	0.020	0.10	0.20	0.010	0.010	600	600	10.50	17.70
2007190091	2007191053	0.05	0.05	0.040	0.050	0.30	0.30	0.010	0.020	1200	1200	28.30	30.90
2007190091	2007191053	0.05	0.05	0.030	0.040	0.10	0.10	0.010	0.010	700	500	11.40	15.80
2007190091	2007191053	0.05	0.05	0.030	0.030	0.30	0.30	0.010	0.030	1100	800	25.10	33.30
2007190107	2007190913	0.05	0.10	0.005	0.030	0.10	0.20	0.010	0.010	1000	1500	5.30	6.90
2007190107	2007190913	0.10	0.20	0.020	0.040	0.60	0.70	0.030	0.040	2900	4200	20.90	24.60
2007190107	2007190913	0.05	0.10	0.010	0.005	0.10	0.30	0.010	0.010	900	3100	6.10	10.20
2007190107	2007190913	0.05	0.20	0.020	0.020	0.50	0.80	0.020	0.050	2000	10100	18.00	27.60
2007190110	2007191182	0.05	0.05	0.005	0.020	0.20	0.30	0.010	0.020	2600	3300	19.90	20.40
2007190110	2007191182	0.05	0.05	0.005	0.030	0.40	0.40	0.020	0.030	3500	4800	33.60	33.30
2007190110	2007191182	0.10	0.05	0.030	0.010	0.80	0.50	0.040	0.020	4400	4000	45.90	30.20
2007190110	2007191182	0.10	0.05	0.005	0.020	0.80	0.60	0.040	0.040	3700	4600	46.90	41.30
2007190114	2007191045	0.05	0.05	0.010	0.030	0.50	0.60	0.030	0.040	2100	1800	23.10	23.00
2007190114	2007191045	0.10	0.05	0.060	0.030	0.70	0.60	0.040	0.040	2400	1700	29.60	22.10
2007190114	2007191045	0.10	0.10	0.010	0.030	0.50	0.40	0.040	0.030	1800	1100	22.90	16.80
2007190114	2007191045	0.10	0.05	0.020	0.040	0.60	0.50	0.040	0.030	2000	1100	27.90	19.10
2007190118	2007191552	0.05	0.05	0.020	0.020	0.50	0.40	0.040	0.030	1800	2300	36.40	27.70
2007190118	2007191552	0.05	0.05	0.040	0.030	0.40	0.40	0.050	0.020	1700	2100	34.40	28.00
2007190118	2007191552	0.10	0.05	0.030	0.030	0.60	0.50	0.040	0.040	1600	2400	47.60	41.20
2007190118	2007191552	0.10	0.05	0.005	0.010	0.60	0.50	0.050	0.030	1800	2800	49.30	34.30
2007190121	2007191545	0.05	0.10	0.030	0.005	0.20	0.10	0.010	0.010	2000	1400	9.00	5.30
2007190121	2007191545	0.05	0.40	0.010	0.050	0.05	0.50	0.010	0.060	700	6500	3.10	19.60
2007190121	2007191545	0.05	0.10	0.020	0.010	0.05	0.20	0.010	0.030	800	3000	3.20	7.40
2007190121	2007191545	0.05	0.20	0.060	0.040	0.30	0.40	0.030	0.050	2200	6600	9.40	14.30
2007190125	2007191532	0.10	0.10	0.005	0.005	0.50	0.30	0.030	0.010	3400	1800	28.00	20.10
2007190125	2007191532	0.10	0.10	0.005	0.005	0.50	0.50	0.030	0.010	3700	2300	36.10	26.70
2007190125	2007191532	0.05	0.05	0.005	0.020	0.50	0.40	0.020	0.010	2900	2800	31.50	24.30
2007190125	2007191532	0.10	0.10	0.005	0.020	0.70	0.80	0.040	0.020	3300	3400	44.10	43.70
2007190145	2007191105	0.05	0.05	0.020	0.030	0.50	0.50	0.040	0.030	12100	10200	18.10	16.50
2007190145	2007191105	0.05	0.10	0.030	0.040	0.50	0.40	0.040	0.040	13000	11300	17.00	16.00
2007190145	2007191105	0.10	0.05	0.040	0.020	0.50	0.50	0.040	0.030	12900	8900	16.40	16.10
2007190145	2007191105	0.05	0.05	0.030	0.050	0.50	0.40	0.040	0.030	12300	9300	17.70	13.90
2007190154	2007190568	0.60	0.80	0.090	0.020	0.20	0.20	0.060	0.080	100	100	6.80	9.80
2007190154	2007190568	0.60	0.80	0.080	0.050	0.30	0.20	0.070	0.090	200	100	8.00	10.40
2007190154	2007190568	1.00	1.00	0.160	0.010	0.30	0.10	0.090	0.140	100	200	4.60	5.30
2007190154	2007190568	1.10	1.10	0.220	0.005	0.40	0.20	0.100	0.120	100	200	5.60	6.60
2007190155	2007191031	0.05	0.20	0.005	0.010	0.40	0.40	0.010	0.030	3800	6100	11.50	13.10
2007190155	2007191031	0.40	0.20	0.005	0.020	0.60	0.70	0.040	0.050	9700	9300	20.30	18.80
2007190155	2007191031	0.30	0.20	0.030	0.010	0.40	0.40	0.030	0.030	6000	4700	15.10	10.50
2007190155	2007191031	0.50	0.20	0.010	0.020	0.60	0.70	0.050	0.050	9000	8900	21.60	19.10
2007190161	2007191413	0.30	0.30	0.005	0.010	0.30	0.30	0.040	0.020	4500	3400	13.80	12.10
2007190161	2007191413	0.30	0.30	0.010	0.010	0.40	0.50	0.040	0.030	7000	4900	18.60	19.70
2007190161	2007191413	0.30	0.30	0.005	0.005	0.30	0.30	0.040	0.010	5200	4500	13.00	13.90
2007190161	2007191413	0.30	0.30	0.040	0.005	0.40	0.40	0.050	0.030	7000	6100	16.80	19.30
2007190176	2007191566	0.05	0.05	0.005	0.005	0.05	0.05	0.010	0.010	100	200	2.00	2.70
2007190176	2007191566	0.10	0.20	0.040	0.020	0.20	0.30	0.050	0.050	500	500	12.10	22.30
2007190176	2007191566	0.20	0.10	0.005	0.005	0.05	0.05	0.010	0.010	200	200	2.40	4.00
2007190176	2007191566	0.30	0.30	0.020	0.050	0.20	0.50	0.050	0.050	400	500	9.30	26.30

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Li (ppm)	Li (ppm)	Lu (ppm)	Lu (ppm)	Mg (ppm)	Mg (ppm)	Mn (ppm)	Mn (ppm)	Mo (ppm)	Mo (ppm)	Na (ppm)	Na (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1	100	100	1	1	0.01	0.01	10	10
ULD:	ULD:												
2007190003	2007190213	6.70	4.10	0.05	0.05	1600	1400	337	344	0.190	0.230	80	50
2007190003	2007190213	13.90	6.80	0.10	0.05	3100	2600	599	638	0.350	0.490	110	70
2007190003	2007190213	9.00	3.80	0.05	0.05	2200	1800	300	310	0.180	0.220	90	50
2007190003	2007190213	14.70	5.50	0.20	0.05	3700	2700	415	425	0.300	0.340	130	70
2007190005	2007191059	4.40	3.70	0.05	0.20	2100	2500	389	400	0.330	0.340	240	80
2007190005	2007191059	7.20	4.80	0.10	0.20	4300	4000	627	539	0.600	0.710	410	130
2007190005	2007191059	4.10	3.30	0.05	0.05	1600	2400	339	309	0.570	0.370	230	90
2007190005	2007191059	9.10	4.70	0.10	0.10	3500	4200	829	692	1.010	0.620	380	130
2007190032	2007190632	16.20	10.30	0.05	0.05	2200	2300	325	214	0.320	0.300	290	210
2007190032	2007190632	15.80	9.80	0.10	0.10	2700	2600	321	206	0.420	0.570	400	270
2007190032	2007190632	17.80	13.90	0.10	0.10	3000	3600	499	296	0.270	0.400	470	490
2007190032	2007190632	21.30	14.40	0.10	0.10	3800	3900	507	247	0.380	0.450	590	560
2007190035	2007190876	1.50	2.60	0.05	0.05	500	500	453	477	0.100	0.140	40	150
2007190035	2007190876	2.70	4.30	0.10	0.05	800	800	670	800	0.140	0.200	50	170
2007190035	2007190876	7.60	8.50	0.10	0.05	1800	1500	255	184	0.140	0.250	150	190
2007190035	2007190876	11.80	14.40	0.20	0.10	2800	2400	400	303	0.330	0.200	200	230
2007190039	2007190984	3.10	2.90	0.05	0.05	1100	600	418	188	0.490	0.360	120	190
2007190039	2007190984	6.20	8.50	0.20	0.10	2000	2200	728	606	0.700	0.610	220	380
2007190039	2007190984	8.90	13.70	0.10	0.10	4100	5300	397	428	0.580	0.700	300	3900
2007190039	2007190984	11.00	19.20	0.20	0.20	5500	7200	673	849	1.130	1.670	410	5280
2007190050	2007191481	2.90	2.00	0.05	0.05	500	500	188	229	0.160	0.160	30	60
2007190050	2007191481	8.40	5.80	0.05	0.05	1400	1200	549	586	0.390	0.380	60	70
2007190050	2007191481	5.60	2.30	0.05	0.05	700	500	171	161	1.450	0.150	40	60
2007190050	2007191481	13.80	6.30	0.05	0.05	1400	1200	337	341	0.500	0.350	80	80
2007190067	2007191121	4.50	3.10	0.05	0.05	1200	500	324	159	0.170	0.190	3560	1420
2007190067	2007191121	12.10	11.20	0.05	0.05	3000	1800	507	303	0.310	0.430	4740	2520
2007190067	2007191121	9.90	7.20	0.05	0.05	10300	7700	227	122	0.240	0.350	4620	4010
2007190067	2007191121	23.30	22.00	0.05	0.10	25900	24900	415	282	0.340	0.600	10100	7430
2007190071	2007190289	2.30	1.40	0.05	0.05	300	300	24	19	0.040	0.050	900	690
2007190071	2007190289	8.00	4.90	0.10	0.05	900	800	110	93	0.170	0.160	2530	1610
2007190071	2007190289	19.90	15.60	0.30	0.40	3400	2600	319	171	0.050	0.020	3830	3580
2007190071	2007190289	40.20	34.70	0.60	1.00	7100	5900	785	393	0.120	0.170	7950	7810
2007190074	2007190389	2.40	1.50	0.05	0.05	900	400	383	107	0.200	0.040	750	130
2007190074	2007190389	3.40	5.20	0.05	0.05	1600	1600	279	291	0.230	0.190	2100	270
2007190074	2007190389	0.90	1.80	0.05	0.05	300	600	88	185	0.050	0.050	250	130
2007190074	2007190389	2.60	5.20	0.05	0.10	1000	1900	239	330	0.160	0.170	250	270
2007190091	2007191053	2.90	1.60	0.05	0.05	600	600	154	184	0.080	0.190	30	30
2007190091	2007191053	3.50	2.90	0.05	0.05	1600	1300	430	269	0.360	0.380	110	70
2007190091	2007191053	1.40	1.10	0.05	0.05	500	300	218	102	0.120	0.240	20	30
2007190091	2007191053	2.70	1.90	0.05	0.05	900	600	352	176	0.490	0.530	80	50
2007190107	2007190913	2.10	3.90	0.05	0.05	500	600	86	104	0.080	0.050	1230	110
2007190107	2007190913	7.40	12.00	0.20	0.20	1300	2000	313	311	0.490	0.170	1230	110
2007190107	2007190913	1.80	6.00	0.05	0.05	500	1900	55	86	0.070	0.050	1100	860
2007190107	2007190913	4.00	17.30	0.10	0.30	1000	6500	163	261	0.860	0.140	860	3000
2007190110	2007191182	10.00	12.30	0.05	0.05	2600	3100	295	350	0.280	0.330	150	120
2007190110	2007191182	13.70	17.80	0.05	0.20	3700	4400	414	519	0.440	0.580	280	190
2007190110	2007191182	24.10	20.30	0.20	0.10	5900	4800	890	521	0.400	0.300	430	160
2007190110	2007191182	22.00	24.60	0.20	0.20	5400	5800	860	681	0.410	0.460	460	210
2007190114	2007191045	9.20	9.90	0.10	0.20	3100	4400	889	887	0.500	0.230	180	1380
2007190114	2007191045	11.30	9.10	0.20	0.20	3500	4000	935	812	2.090	0.220	210	1380
2007190114	2007191045	9.10	7.70	0.10	0.10	3100	3200	943	594	0.710	0.180	230	200
2007190114	2007191045	10.90	8.00	0.20	0.10	3300	3300	1010	657	0.800	0.290	270	200
2007190118	2007191552	17.40	23.80	0.10	0.05	1100	1200	432	687	0.630	0.940	70	290
2007190118	2007191552	12.90	19.70	0.10	0.05	1000	1200	331	562	0.620	0.640	50	250
2007190118	2007191552	18.70	27.50	0.20	0.20	1800	3500	371	310	0.550	0.420	830	1820
2007190118	2007191552	15.60	28.20	0.20	0.10	1800	3200	274	235	0.590	0.500	670	1630
2007190121	2007191545	3.80	4.60	0.05	0.05	1200	1100	238	194	0.240	0.005	250	1650
2007190121	2007191545	2.00	27.00	0.05	0.20	400	4900	73	640	0.110	0.260	250	2400
2007190121	2007191545	1.30	13.60	0.05	0.05	700	5300	59	152	0.080	0.005	250	1780
2007190121	2007191545	3.70	29.00	0.10	0.10	1900	11100	162	288	0.270	0.180	250	1860
2007190125	2007191532	5.40	6.50	0.10	0.10	3800	2600	484	286	0.310	0.470	120	220
2007190125	2007191532	6.30	7.70	0.20	0.20	4100	3200	503	379	0.380	0.640	130	260
2007190125	2007191532	5.30	8.80	0.20	0.10	3800	3500	405	365	0.260	0.460	120	300
2007190125	2007191532	6.40	10.90	0.20	0.20	4500	4600	416	527	0.310	0.480	140	260
2007190145	2007191105	9.80	8.90	0.20	0.10	9600	10600	544	501	0.220	0.050	3940	1780
2007190145	2007191105	11.40	9.30	0.20	0.10	10000	11300	488	486	0.220	0.090	1820	1970
2007190145	2007191105	10.20	8.30	0.20	0.10	9900	10500	315	339	0.190	0.005	4050	3740
2007190145	2007191105	9.30	8.50	0.20	0.10	9900	11200	321	291	0.150	0.110	3700	3950
2007190154	2007190568	26.00	34.80	0.05	0.05	300	400	21	76	1.460	1.190	210	80
2007190154	2007190568	25.80	38.40	0.05	0.05	300	400	26	85	1.740	1.510	240	90
2007190154	2007190568	39.80	55.20	0.05	0.05	300	400	18	20	1.820	1.770	230	130
2007190154	2007190568	39.10	62.20	0.20	0.05	300	400	18	23	1.820	2.040	220	150
2007190155	2007191031	2.90	9.40	0.30	0.10	2600	4200	183	305	0.270	0.005	150	190
2007190155	2007191031	16.40	14.00	0.20	0.20	5500	6100	330	426	0.120	0.005	170	190
2007190155	2007191031	10.20	6.60	0.20	0.05	4000	3300	206	267	0.550	0.690	130	100
2007190155	2007191031	15.80	12.60	0.20	0.20	6000	6300	362	583	2.140	2.950	200	190
2007190161	2007191413	11.00	5.40	0.05	0.05	24500	34700	660	1050	0.560	1.020	300	160
2007190161	2007191413	18.10	8.30	0.10	0.05	37700	54200	911	1670	0.770	1.550	460	230
2007190161	2007191413	14.40	9.50	0.05	0.05	36600	44400	1090	1190	1.350	1.500	7540	5300
2007190161	2007191413	20.30	9.30	0.10	0.05	50700	66100	1600	1750	3.260	1.990	10300	7520
2007190176	2007191566	0.90	1.10	0.05	0.05	50	50	48	26	0.430	0.180	5	50
2007190176	2007191566	4.20	7.50	0.05	0.05	200	300	190	174	1.220	0.930	5	50
2007190176	2007191566	2.10	2.00	0.05	0.05	50	50	51	135	0.490	0.220	10	50
2007190176	2007191566	5.20	12.50	0.05	0.20	50	200	134	758	1.080	0.900	30	70

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Nb (ppm)	Nb (ppm)	Nd (ppm)	Nd (ppm)	Ni (ppm)	Ni (ppm)	Pb (ppm)	Pb (ppm)	Pr (ppm)	Pr (ppm)	Rb (ppm)	Rb (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.02	0.02	0.1	0.1	0.01	0.01	0.1	0.1	0.1	0.1
ULD:	ULD:												
2007190003	2007190213	0.30	0.40	16.800	11.500	9.50	9.30	7.600	6.680	4.40	3.30	19.50	16.20
2007190003	2007190213	0.50	0.50	33.200	22.900	21.30	18.10	15.300	12.900	9.00	6.40	35.90	27.60
2007190003	2007190213	0.20	0.30	16.100	12.500	11.60	10.70	8.460	8.270	4.30	3.50	24.00	19.00
2007190003	2007190213	0.40	0.40	26.500	18.800	19.30	15.90	14.600	12.200	7.00	5.30	38.30	27.50
2007190005	2007191059	0.70	0.60	12.200	13.200	14.50	16.70	5.360	5.100	3.10	4.30	7.60	8.10
2007190005	2007191059	1.10	1.00	22.000	19.000	29.60	25.70	9.720	7.850	5.20	6.00	10.70	9.70
2007190005	2007191059	0.60	0.50	13.100	12.400	15.30	15.20	4.740	4.080	3.20	4.00	8.40	7.00
2007190005	2007191059	0.90	1.00	27.200	19.100	29.70	28.50	11.100	7.820	6.70	6.10	14.70	8.60
2007190032	2007190632	0.70	0.50	27.800	18.400	23.50	19.00	18.900	14.600	7.30	4.40	14.40	12.20
2007190032	2007190632	1.10	0.50	34.800	20.700	28.80	21.00	23.900	18.000	8.80	4.80	16.30	13.20
2007190032	2007190632	0.80	0.50	28.700	20.800	29.80	31.10	12.800	7.880	7.30	4.80	14.30	11.90
2007190032	2007190632	1.00	0.60	37.300	21.500	38.70	31.00	16.600	9.140	9.40	5.00	16.90	13.90
2007190035	2007190876	0.50	0.50	12.000	14.100	4.80	7.50	4.740	5.040	3.20	3.70	10.70	10.50
2007190035	2007190876	0.80	0.80	24.300	24.100	8.00	12.70	7.790	8.250	6.30	6.20	16.60	17.00
2007190035	2007190876	0.20	0.05	20.300	15.000	11.60	15.80	12.400	10.100	5.30	3.80	25.80	20.60
2007190035	2007190876	0.20	0.05	30.600	25.500	17.90	22.40	19.300	15.700	7.90	6.20	39.70	31.50
2007190039	2007190984	0.20	0.05	16.300	6.790	10.10	7.60	9.820	5.900	4.30	1.90	14.30	7.40
2007190039	2007190984	0.20	0.05	31.300	20.600	18.40	20.30	18.800	17.000	8.20	5.70	27.10	25.20
2007190039	2007190984	0.05	0.05	22.100	19.600	22.00	27.60	15.400	15.900	5.70	5.20	43.20	42.00
2007190039	2007190984	0.05	0.05	29.600	26.400	30.80	38.30	20.000	22.300	7.80	7.30	59.50	60.80
2007190050	2007191481	0.30	0.30	6.390	5.240	10.40	10.40	3.600	3.570	1.70	1.50	6.00	5.60
2007190050	2007191481	0.50	0.50	21.900	15.700	29.30	26.20	11.300	9.630	5.80	4.40	15.60	13.60
2007190050	2007191481	0.20	0.40	8.460	5.180	17.90	12.60	122.000	3.890	2.20	1.40	9.70	6.70
2007190050	2007191481	0.30	0.40	19.500	14.100	37.90	30.60	14.500	8.550	5.30	4.00	21.40	15.90
2007190067	2007191121	0.10	0.10	5.100	3.460	32.60	23.20	4.580	4.300	1.30	1.30	3.80	3.20
2007190067	2007191121	0.20	0.20	12.400	9.950	63.00	50.50	8.110	6.800	3.20	3.50	9.70	10.80
2007190067	2007191121	0.05	0.10	6.220	4.950	53.20	37.00	6.090	5.050	1.60	1.60	8.70	7.30
2007190067	2007191121	0.10	0.20	13.600	12.100	99.60	89.00	8.510	7.490	3.40	4.20	20.30	22.90
2007190071	2007190289	0.10	0.10	7.250	4.530	2.90	2.60	9.410	6.430	2.00	1.50	2.40	2.00
2007190071	2007190289	0.40	0.40	30.000	22.600	10.20	7.40	31.600	21.200	8.10	7.00	7.50	6.40
2007190071	2007190289	0.05	0.05	34.100	96.300	28.40	22.90	41.600	70.500	9.10	27.10	20.70	20.00
2007190071	2007190289	0.05	0.05	69.600	233.000	62.40	52.30	91.900	165.000	18.20	66.10	43.80	46.00
2007190074	2007190389	0.20	0.30	8.770	6.700	7.80	1.70	7.910	3.320	2.10	1.80	7.70	3.80
2007190074	2007190389	0.20	0.30	13.800	15.600	12.60	9.20	7.700	7.920	3.40	3.90	12.10	16.80
2007190074	2007190389	0.20	0.40	3.290	8.340	3.60	3.00	3.560	4.110	0.80	2.10	2.70	6.40
2007190074	2007190389	0.20	0.20	12.000	16.300	6.40	10.70	6.300	7.920	2.90	3.90	9.20	18.00
2007190091	2007191053	0.20	0.20	9.230	11.100	4.70	8.20	3.270	3.380	2.60	3.30	4.30	5.70
2007190091	2007191053	0.50	0.40	23.200	17.900	15.20	16.90	8.740	5.830	6.80	5.40	7.20	8.00
2007190091	2007191053	0.20	0.05	9.850	9.170	6.00	4.90	3.890	2.560	2.90	2.70	4.80	4.90
2007190091	2007191053	0.30	0.40	21.300	18.900	12.80	10.20	7.280	5.440	5.90	5.70	7.20	6.90
2007190107	2007190913	0.10	0.05	6.230	8.390	3.30	5.70	4.160	4.860	1.60	2.10	4.40	6.50
2007190107	2007190913	0.20	0.30	28.500	32.100	10.40	14.30	12.600	12.700	6.80	7.70	13.30	18.20
2007190107	2007190913	0.10	0.05	6.930	11.300	2.60	8.80	3.870	5.860	1.80	2.90	3.90	10.90
2007190107	2007190913	0.20	0.10	23.400	34.600	13.10	25.00	9.670	15.000	5.60	8.30	8.50	32.10
2007190110	2007191182	1.60	2.00	16.700	15.000	10.60	13.60	7.920	9.060	4.70	4.30	25.90	32.10
2007190110	2007191182	2.60	3.20	28.400	24.800	17.60	20.90	14.200	14.500	8.00	7.00	36.80	45.40
2007190110	2007191182	2.40	1.30	40.000	22.600	40.90	17.80	16.900	14.000	11.00	6.40	46.60	41.60
2007190110	2007191182	2.50	1.50	40.900	31.300	40.60	24.20	17.000	19.200	11.10	8.80	39.30	49.20
2007190114	2007191045	0.30	0.60	24.500	23.200	20.70	25.10	13.300	15.000	6.40	6.10	16.10	21.50
2007190114	2007191045	0.40	0.70	31.800	22.500	25.70	23.70	169.000	14.700	8.20	6.00	18.20	19.60
2007190114	2007191045	0.20	0.60	24.500	16.900	20.70	19.20	22.700	11.300	6.30	4.50	15.70	14.90
2007190114	2007191045	0.30	0.70	28.300	19.000	22.80	18.40	16.900	12.200	7.60	5.00	17.50	14.60
2007190118	2007191552	0.50	0.50	32.600	26.200	21.70	27.60	17.000	19.600	9.20	6.60	34.80	39.90
2007190118	2007191552	0.40	0.40	21.200	22.400	19.70	22.60	20.100	18.400	6.90	6.20	34.00	37.50
2007190118	2007191552	0.20	0.10	40.500	32.500	27.30	40.50	21.000	23.500	11.50	7.50	27.90	50.50
2007190118	2007191552	0.30	0.20	28.700	31.100	22.80	38.20	21.800	18.200	9.50	7.80	32.90	44.30
2007190121	2007191545	0.30	0.10	8.960	4.900	9.00	6.90	8.590	5.200	2.30	1.30	11.90	14.40
2007190121	2007191545	0.40	0.20	2.910	17.900	3.80	24.00	4.840	16.200	0.80	4.90	4.90	72.90
2007190121	2007191545	0.30	0.20	3.040	6.430	3.30	10.60	4.250	6.950	0.80	1.80	5.80	33.80
2007190121	2007191545	0.50	0.40	9.750	12.800	11.10	22.70	10.000	11.900	2.40	3.50	13.70	73.50
2007190125	2007191532	1.60	0.50	22.900	14.200	17.10	21.90	6.690	7.220	6.40	3.70	30.60	17.60
2007190125	2007191532	1.70	0.50	28.300	26.200	19.60	25.20	7.510	7.040	8.20	6.60	31.80	18.00
2007190125	2007191532	0.80	0.80	24.900	21.600	17.80	22.20	3.330	4.740	7.20	5.60	27.90	25.00
2007190125	2007191532	0.90	0.70	35.000	31.800	21.80	29.60	4.400	6.980	10.00	9.10	32.40	30.40
2007190145	2007191105	0.40	0.30	18.500	16.500	18.70	18.90	12.400	12.300	4.50	4.50	30.10	25.30
2007190145	2007191105	0.40	0.30	17.800	15.600	20.90	19.80	13.200	13.200	4.30	4.20	33.40	28.20
2007190145	2007191105	0.30	0.20	17.100	15.300	21.40	18.60	13.100	10.700	4.30	4.10	31.30	22.10
2007190145	2007191105	0.30	0.30	17.600	13.400	20.30	19.80	11.800	10.700	4.30	3.70	31.00	24.00
2007190154	2007190568	0.20	0.30	9.750	8.830	25.40	21.90	0.010	10.300	2.20	2.20	1.00	1.40
2007190154	2007190568	0.20	0.30	12.200	9.730	24.30	22.00	0.010	9.910	2.80	2.40	1.10	1.40
2007190154	2007190568	0.20	0.20	11.100	5.630	23.70	28.20	0.010	10.800	2.50	1.30	1.10	2.40
2007190154	2007190568	0.20	0.20	14.500	7.290	24.30	28.50	0.010	11.300	2.90	1.70	1.20	2.50
2007190155	2007191031	0.05	0.10	10.900	13.800	8.80	15.20	6.360	6.830	3.30	3.50	10.10	32.00
2007190155	2007191031	0.05	0.10	18.600	20.200	18.50	23.10	8.830	9.550	4.90	5.30	38.40	45.70
2007190155	2007191031	0.05	0.05	13.600	11.100	14.10	18.70	6.380	6.170	3.70	3.00	25.80	24.30
2007190155	2007191031	0.05	0.10	19.700	20.300	28.10	47.50	9.570	10.600	5.20	5.20	38.70	46.90
2007190161	2007191413	0.05	0.05	13.500	9.480	39.70	25.40	8.740	5.990	3.60	2.40	16.00	14.80
2007190161	2007191413	0.05	0.05	18.400	15.500	55.70	37.60	10.000	9.070	5.00	4.20	24.40	20.80
2007190161	2007191413	0.05	0.05	13.200	11.300	39.60	29.10	8.620	6.060	3.50	3.20	18.00	9.90
2007190161	2007191413	0.05	0.05	17.000	15.800	54.70	40.70	21.300	8.200	4.60	4.60	22.70	16.40
2007190176	2007191566	0.10	0.10	1.940	2.340	2.90	1.20	3.520	1.890	0.60	0.60	2.10	2.30
2007190176	2007191566	0.50	0.50	12.400	20.200	7.70	12.20	9.540	12.000	3.30	5.60	7.60	13.90
2007190176	2007191566	0.10	0.10	3.310	4.230	2.90	1.60	3.970	2.450	0.90	1.10	2.60	2.50
2007190176	2007191566	0.30	0.20	13.600	27.900	6.60	11.20	9.100	13.800	3.50	7.40	5.80	12.20

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Re (ppm)	Re (ppm)	Sb (ppm)	Sb (ppm)	Sc (ppm)	Sc (ppm)	Se (ppm)	Se (ppm)	Sm (ppm)	Sm (ppm)	Sn (ppm)	Sn (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.001	0.001	0.02	0.02	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.05
ULD:	ULD:												
2007190003	2007190213	0.0020	0.0005	0.130	0.170	2.80	2.10	0.10	0.10	2.90	2.10	0.300	0.320
2007190003	2007190213	0.0020	0.0005	0.270	0.380	5.50	4.00	0.30	0.30	6.00	4.20	0.860	0.590
2007190003	2007190213	0.0020	0.0005	0.310	0.250	3.40	2.20	0.05	0.50	2.80	2.30	0.360	0.330
2007190003	2007190213	0.0290	0.0005	0.290	0.340	5.50	3.40	0.30	0.05	4.70	3.40	0.760	0.530
2007190005	2007191059	0.0005	0.0050	0.070	0.110	4.80	4.70	0.40	0.05	2.60	3.60	0.630	0.730
2007190005	2007191059	0.0005	0.0030	0.110	0.140	8.30	6.90	0.40	0.20	4.80	5.40	0.990	0.760
2007190005	2007191059	0.0005	0.0005	0.070	0.080	4.30	4.50	0.20	0.10	2.60	3.20	0.540	0.610
2007190005	2007191059	0.0005	0.0030	0.130	0.130	8.40	7.10	0.70	0.05	5.20	5.30	1.150	1.080
2007190032	2007190632	0.0005	0.0005	0.560	0.420	4.20	2.30	0.50	1.30	5.30	4.30	0.550	0.530
2007190032	2007190632	0.0005	0.0030	0.750	0.460	5.20	3.40	0.40	0.90	7.40	5.10	1.220	0.770
2007190032	2007190632	0.0005	0.0040	0.260	0.360	5.70	5.30	0.70	1.10	6.30	4.90	0.810	0.700
2007190032	2007190632	0.0005	0.0040	0.320	0.410	6.90	5.10	0.90	2.20	7.90	5.20	0.960	0.970
2007190035	2007190876	0.0005	0.0005	0.130	0.220	1.70	1.20	0.05	0.30	2.50	2.70	0.450	0.650
2007190035	2007190876	0.0005	0.0020	0.140	0.240	3.00	2.70	0.40	0.05	5.10	4.80	1.010	0.950
2007190035	2007190876	0.0005	0.0005	0.190	0.270	6.10	5.30	0.30	0.20	4.40	3.20	1.110	0.970
2007190035	2007190876	0.0005	0.0005	0.320	0.440	9.20	9.40	0.40	0.05	6.70	5.00	1.590	1.500
2007190039	2007190984	0.0005	0.0005	0.080	0.140	4.00	2.10	0.30	0.30	3.30	1.20	0.620	0.690
2007190039	2007190984	0.0005	0.0005	0.150	0.160	7.40	6.20	0.60	0.50	6.30	3.60	1.290	1.210
2007190039	2007190984	0.0005	0.0005	0.120	0.170	8.50	9.20	0.30	0.40	4.60	3.40	1.310	1.460
2007190039	2007190984	0.0005	0.0005	0.180	0.300	11.80	12.50	0.40	0.90	6.20	4.70	1.840	2.220
2007190050	2007191481	0.0005	0.0005	0.100	0.060	1.30	0.80	0.10	0.20	1.30	1.00	0.340	0.340
2007190050	2007191481	0.0005	0.0010	0.260	0.260	4.10	3.20	0.30	0.05	4.50	3.00	0.920	0.860
2007190050	2007191481	0.0005	0.0005	0.150	0.130	2.30	1.30	0.30	0.20	1.70	0.90	0.630	0.420
2007190050	2007191481	0.0030	0.0005	0.290	0.240	5.20	3.50	0.50	0.50	4.10	2.60	1.270	1.030
2007190067	2007191121	0.0005	0.0005	0.270	0.290	3.60	4.30	0.10	0.30	1.10	0.80	0.250	0.290
2007190067	2007191121	0.0005	0.0020	0.270	0.300	6.80	8.10	0.10	0.05	2.50	2.20	0.760	0.630
2007190067	2007191121	0.0005	0.0010	0.220	0.290	5.90	7.30	0.50	0.60	1.30	1.20	0.430	0.310
2007190067	2007191121	0.0005	0.0005	0.180	0.260	10.50	12.60	0.40	0.30	2.70	3.10	0.820	0.860
2007190071	2007190289	0.0005	0.0070	0.010	0.080	0.90	0.40	0.30	0.05	1.30	0.80	0.070	0.025
2007190071	2007190289	0.0005	0.0040	0.020	0.090	3.00	1.90	0.50	0.05	5.70	3.70	0.360	0.250
2007190071	2007190289	0.0005	0.0040	0.030	0.090	6.40	5.80	0.40	0.70	7.10	16.00	0.540	0.390
2007190071	2007190289	0.0005	0.0060	0.070	0.120	13.40	14.20	0.90	1.80	14.00	40.20	1.070	1.090
2007190074	2007190389	0.0020	0.0005	0.120	0.080	2.40	1.10	0.70	0.05	1.70	1.10	0.900	0.850
2007190074	2007190389	0.0020	0.0040	0.150	0.140	3.90	4.40	0.90	0.70	2.70	3.00	1.050	1.190
2007190074	2007190389	0.0020	0.0005	0.070	0.100	1.30	1.80	0.60	0.05	0.70	1.40	0.660	1.400
2007190074	2007190389	0.0010	0.0005	0.090	0.140	3.10	3.70	1.00	0.05	2.30	3.30	0.920	0.970
2007190091	2007191053	0.0010	0.0005	0.030	0.010	1.50	2.50	0.05	0.05	1.80	2.10	0.025	0.290
2007190091	2007191053	0.0005	0.0005	0.060	8.170	3.40	4.30	0.05	0.50	4.80	3.70	0.310	0.480
2007190091	2007191053	0.0005	0.0030	0.010	0.010	1.60	1.60	0.05	0.05	1.90	1.70	0.025	0.080
2007190091	2007191053	0.0020	0.0005	0.050	0.010	3.00	3.40	0.30	0.05	4.20	3.60	0.270	0.490
2007190107	2007190913	0.0020	0.0005	0.100	0.090	1.50	2.20	0.20	0.80	1.10	1.60	0.490	1.830
2007190107	2007190913	0.0020	0.0005	0.190	0.120	5.20	5.60	0.90	0.60	5.50	6.50	1.140	1.230
2007190107	2007190913	0.0020	0.0020	0.370	0.090	1.40	2.80	0.80	0.05	1.30	2.20	0.420	0.830
2007190107	2007190913	0.0050	0.0040	0.150	0.110	3.20	8.80	1.00	0.60	4.40	6.80	0.890	1.290
2007190110	2007191182	0.0005	0.0020	0.110	0.130	2.60	3.10	0.20	0.30	3.10	2.70	0.740	1.770
2007190110	2007191182	0.0005	0.0010	0.200	0.140	3.80	4.90	0.20	0.60	5.40	4.70	1.230	1.460
2007190110	2007191182	0.0005	0.0010	0.190	0.140	8.90	4.70	0.50	0.70	7.60	4.20	2.140	1.550
2007190110	2007191182	0.0005	0.0030	0.200	0.160	8.20	5.70	0.20	1.30	7.90	6.10	1.950	1.940
2007190114	2007191045	0.0005	0.0005	0.310	0.300	6.40	8.10	0.30	0.05	5.20	5.00	0.760	1.110
2007190114	2007191045	0.0005	0.0005	0.280	0.250	7.90	7.40	0.50	0.05	6.50	4.90	1.140	1.080
2007190114	2007191045	0.0005	0.0020	0.330	0.260	6.30	5.70	0.30	0.10	4.90	3.60	0.600	1.060
2007190114	2007191045	0.0005	0.0005	0.320	0.300	7.30	6.00	0.40	0.90	6.10	4.00	0.920	1.010
2007190118	2007191552	0.0005	0.0005	0.380	0.350	7.90	10.10	0.70	0.40	6.20	4.90	1.140	1.280
2007190118	2007191552	0.0005	0.0005	0.360	0.330	8.50	7.90	0.70	0.30	4.50	3.80	1.520	1.200
2007190118	2007191552	0.0005	0.0020	0.380	0.370	9.60	13.10	0.50	0.50	7.60	6.50	1.240	1.200
2007190118	2007191552	0.0005	0.0005	0.380	0.440	10.90	13.60	0.50	0.70	6.20	5.90	1.610	1.320
2007190121	2007191545	0.0005	0.0005	0.160	0.130	3.90	2.30	0.90	0.05	1.90	1.00	1.090	0.630
2007190121	2007191545	0.0030	0.0005	0.160	0.240	1.40	10.10	0.40	0.05	0.60	3.50	0.680	2.000
2007190121	2007191545	0.0005	0.0005	0.090	0.120	1.30	4.30	0.80	0.05	0.60	1.30	0.960	0.950
2007190121	2007191545	0.0060	0.0005	2.340	0.190	2.90	8.60	1.00	0.05	1.90	2.60	1.370	1.610
2007190125	2007191532	0.0005	0.0005	0.100	0.110	6.10	4.70	0.20	0.10	4.30	2.80	1.590	0.870
2007190125	2007191532	0.0005	0.0010	0.130	0.260	7.00	7.60	0.70	0.05	5.20	5.00	2.100	1.170
2007190125	2007191532	0.0005	0.0020	0.110	0.160	6.10	7.50	0.50	0.70	4.60	3.90	1.320	1.510
2007190125	2007191532	0.0010	0.0010	0.150	0.310	7.40	8.70	0.60	0.40	6.30	5.60	1.720	1.500
2007190145	2007191105	0.0005	0.0005	0.250	0.180	6.80	6.30	1.10	1.80	3.80	3.30	1.310	1.130
2007190145	2007191105	0.0040	0.0005	0.420	0.160	7.60	7.00	1.60	1.90	3.50	3.20	1.390	1.130
2007190145	2007191105	0.0030	0.0005	1.020	0.230	7.40	5.80	1.20	0.30	3.30	3.10	1.420	1.130
2007190145	2007191105	0.0010	0.0005	0.200	0.200	6.90	6.10	1.60	2.70	3.60	2.80	1.250	1.100
2007190154	2007190568	0.0010	0.0020	0.010	0.010	16.50	11.40	0.30	0.40	2.30	2.70	2.970	1.820
2007190154	2007190568	0.0020	0.0005	0.010	0.010	19.80	12.60	0.90	0.60	2.70	3.00	2.900	2.090
2007190154	2007190568	0.0010	0.0005	0.010	0.010	33.00	19.50	0.60	0.40	3.40	1.70	4.480	3.220
2007190154	2007190568	0.0030	0.0005	0.010	0.010	37.40	21.90	0.40	0.40	4.40	2.40	4.000	3.650
2007190155	2007191031	0.0030	0.0005	0.110	0.090	4.40	8.10	0.20	0.05	2.80	3.00	0.380	0.980
2007190155	2007191031	0.0005	0.0005	0.160	0.140	11.00	12.30	0.10	0.05	4.20	4.50	1.440	1.340
2007190155	2007191031	0.0020	0.0030	0.120	0.150	7.70	6.40	0.60	0.05	3.10	2.50	0.940	0.780
2007190155	2007191031	0.0040	0.0005	0.150	0.150	11.30	11.90	0.10	0.05	4.40	4.50	1.510	1.270
2007190161	2007191413	0.0005	0.0005	0.210	0.100	11.20	10.90	0.70	1.10	2.80	2.00	0.860	0.660
2007190161	2007191413	0.0020	0.0005	0.330	0.140	15.10	14.80	0.60	1.50	3.70	3.40	1.220	1.110
2007190161	2007191413	0.0020	0.0005	0.170	0.130	11.40	11.00	0.20	0.70	2.70	2.40	0.840	0.780
2007190161	2007191413	0.0040	0.0020	0.190	0.160	15.10	13.90	0.90	0.60	3.40	3.50	1.270	1.220
2007190176	2007191566	0.0020	0.0005	0.140	0.080	1.20	0.80	0.40	0.05	0.40	0.50	0.390	0.400
2007190176	2007191566	0.0020	0.0005	0.390	0.340	6.30	6.80	0.20	0.40	2.50	3.80	1.440	1.590
2007190176	2007191566	0.0020	0.0005	0.260	0.120	3.40	1.50	0.40	0.05	0.80	0.80	0.610	0.470
2007190176	2007191566	0.0030	0.0005	0.340	0.550	13.40	11.20	0.70	0.60	3.30	5.90	1.380	1.690

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Sr (ppm)	Sr (ppm)	Ta (ppm)	Ta (ppm)	Tb (ppm)	Tb (ppm)	Te (ppm)	Te (ppm)	Th (ppm)	Th (ppm)	Tl (ppm)	Tl (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.5	0.5	0.05	0.05	0.1	0.1	0.02	0.02	0.1	0.1	0.02	0.02
ULD:	ULD:	1000	1000										
2007190003	2007190213	9.90	7.10	0.025	0.025	0.20	0.20	0.030	0.010	7.70	5.30	0.140	0.130
2007190003	2007190213	19.20	13.90	0.025	0.025	0.50	0.30	0.040	0.040	16.70	10.50	0.220	0.210
2007190003	2007190213	10.40	7.90	0.025	0.025	0.20	0.20	0.030	0.010	7.10	5.40	0.150	0.160
2007190003	2007190213	17.90	11.70	0.025	0.025	0.40	0.30	0.050	0.050	13.40	8.30	0.260	0.220
2007190005	2007191059	33.70	36.50	0.025	0.025	0.30	0.30	0.030	0.010	1.90	1.50	0.050	0.050
2007190005	2007191059	58.10	49.50	0.025	0.025	0.50	0.60	0.010	0.050	3.70	2.30	0.070	0.080
2007190005	2007191059	25.40	34.40	0.025	0.025	0.20	0.30	0.040	0.130	2.30	1.80	0.040	0.040
2007190005	2007191059	56.70	47.70	0.025	0.025	0.50	0.50	0.030	0.090	5.30	2.90	0.090	0.060
2007190032	2007190632	37.00	45.50	0.025	0.025	0.40	0.50	0.030	0.010	4.40	3.30	0.080	0.050
2007190032	2007190632	45.10	51.50	0.025	0.025	0.50	0.50	0.010	0.010	5.50	4.00	0.080	0.050
2007190032	2007190632	45.00	58.70	0.025	0.025	0.50	0.60	0.010	0.030	5.40	6.30	0.060	0.060
2007190032	2007190632	57.70	67.30	0.025	0.025	0.70	0.70	0.100	0.020	6.90	6.60	0.070	0.060
2007190035	2007190876	8.60	10.10	0.025	0.025	0.20	0.30	0.030	0.010	3.70	6.70	0.060	0.070
2007190035	2007190876	15.90	17.80	0.025	0.025	0.40	0.50	0.020	0.010	8.80	14.90	0.090	0.100
2007190035	2007190876	20.30	17.10	0.025	0.025	0.40	0.30	0.050	0.010	9.50	8.30	0.150	0.120
2007190035	2007190876	30.70	27.00	0.025	0.025	0.60	0.50	0.010	0.010	13.10	14.60	0.220	0.180
2007190039	2007190984	11.80	9.50	0.025	0.025	0.30	0.20	0.010	0.010	10.60	5.50	0.100	0.050
2007190039	2007190984	18.90	18.20	0.025	0.025	0.60	0.40	0.010	0.030	20.80	20.90	0.180	0.170
2007190039	2007190984	28.50	30.60	0.025	0.025	0.40	0.30	0.040	0.040	14.90	15.00	0.250	0.240
2007190039	2007190984	37.00	47.90	0.025	0.025	0.60	0.50	0.130	0.080	20.00	21.40	0.340	0.350
2007190050	2007191481	5.00	4.50	0.025	0.025	0.05	0.05	0.010	0.010	3.40	2.70	0.050	0.040
2007190050	2007191481	14.90	14.60	0.025	0.025	0.40	0.20	0.050	0.090	9.00	5.20	0.130	0.090
2007190050	2007191481	5.50	4.70	0.025	0.025	0.10	0.05	0.030	0.030	4.50	3.10	0.090	0.050
2007190050	2007191481	14.40	12.20	0.025	0.025	0.30	0.20	0.010	0.030	10.60	6.80	0.190	0.130
2007190067	2007191121	6.70	8.20	0.025	0.025	0.10	0.05	0.020	0.110	3.00	2.90	0.030	0.010
2007190067	2007191121	11.40	12.30	0.025	0.025	0.30	0.20	0.060	0.120	6.50	7.10	0.060	0.050
2007190067	2007191121	19.70	22.20	0.025	0.025	0.10	0.10	0.070	0.070	3.50	3.60	0.060	0.050
2007190067	2007191121	39.40	44.80	0.025	0.025	0.30	0.30	0.040	0.110	5.70	6.70	0.110	0.130
2007190071	2007190289	3.20	3.00	0.025	0.025	0.10	0.05	0.010	0.010	4.40	2.80	0.010	0.010
2007190071	2007190289	10.10	9.00	0.025	0.025	0.60	0.20	0.060	0.010	18.00	12.70	0.040	0.040
2007190071	2007190289	29.20	16.80	0.025	0.025	0.70	1.40	0.010	0.040	17.50	18.80	0.160	0.120
2007190071	2007190289	46.60	34.00	0.025	0.025	1.50	3.60	0.030	0.030	36.30	40.40	0.350	0.280
2007190074	2007190389	20.30	6.30	0.025	0.025	0.20	0.05	0.030	0.010	3.80	5.10	0.070	0.030
2007190074	2007190389	29.70	32.00	0.025	0.025	0.30	0.40	0.030	0.040	7.20	7.60	0.110	0.110
2007190074	2007190389	6.00	12.70	0.025	0.025	0.05	0.20	0.040	0.010	2.10	4.80	0.020	0.040
2007190074	2007190389	22.40	41.00	0.025	0.025	0.30	0.40	0.060	0.030	4.80	4.10	0.070	0.120
2007190091	2007191053	15.40	23.60	0.025	0.025	0.20	0.20	0.060	0.020	2.50	2.10	0.050	0.060
2007190091	2007191053	39.00	42.30	0.025	0.025	0.50	0.30	0.020	0.050	7.80	5.00	0.080	0.100
2007190091	2007191053	14.30	14.90	0.025	0.025	0.20	0.10	0.010	0.090	2.70	2.60	0.060	0.080
2007190091	2007191053	28.00	27.10	0.025	0.025	0.40	0.30	0.050	0.040	6.90	7.50	0.100	0.110
2007190107	2007190913	13.10	9.00	0.025	0.025	0.10	0.20	0.050	0.010	2.20	2.60	0.040	0.060
2007190107	2007190913	24.90	29.30	0.025	0.025	0.60	0.70	0.070	0.010	7.10	7.90	0.150	0.190
2007190107	2007190913	8.70	16.10	0.025	0.025	0.10	0.20	0.030	0.010	2.20	3.10	0.050	0.100
2007190107	2007190913	22.70	53.10	0.025	0.025	0.50	0.70	0.030	0.010	5.60	8.10	0.100	0.300
2007190110	2007191182	17.40	18.40	0.025	0.025	0.30	0.20	0.010	0.010	3.40	3.80	0.130	0.140
2007190110	2007191182	27.50	30.40	0.025	0.025	0.40	0.40	0.020	0.070	7.00	5.80	0.180	0.200
2007190110	2007191182	55.60	37.20	0.025	0.025	0.80	0.40	0.010	0.040	8.60	3.30	0.210	0.140
2007190110	2007191182	57.40	57.40	0.025	0.025	0.80	0.60	0.040	0.060	9.40	4.00	0.190	0.140
2007190114	2007191045	38.20	60.70	0.025	0.025	0.50	0.60	0.040	0.010	3.60	3.00	0.100	0.100
2007190114	2007191045	50.80	55.90	0.025	0.025	0.70	0.60	0.020	0.010	4.00	2.80	0.110	0.100
2007190114	2007191045	38.20	34.60	0.025	0.025	0.50	0.40	0.040	0.010	3.60	2.80	0.100	0.090
2007190114	2007191045	48.30	36.40	0.025	0.025	0.60	0.50	0.030	0.030	4.50	3.40	0.110	0.090
2007190118	2007191552	8.60	7.60	0.025	0.025	0.50	0.40	0.010	0.030	7.50	7.00	0.270	0.270
2007190118	2007191552	7.70	6.70	0.025	0.025	0.50	0.40	0.030	0.030	8.50	8.40	0.200	0.300
2007190118	2007191552	12.40	18.40	0.025	0.025	0.60	0.70	0.020	0.030	10.50	15.00	0.250	0.340
2007190118	2007191552	11.70	19.20	0.025	0.025	0.60	0.50	0.010	0.050	11.60	10.80	0.220	0.310
2007190121	2007191545	23.30	23.90	0.025	0.025	0.20	0.10	0.020	0.010	5.80	2.70	0.110	0.060
2007190121	2007191545	8.40	90.50	0.025	0.025	0.05	0.50	0.010	0.010	2.40	8.80	0.040	0.290
2007190121	2007191545	24.30	155.00	0.025	0.025	0.05	0.20	0.010	0.010	2.00	3.10	0.050	0.160
2007190121	2007191545	91.90	399.00	0.025	0.025	0.20	0.30	0.030	0.010	3.20	5.20	0.130	0.330
2007190125	2007191532	19.80	9.20	0.025	0.025	0.50	0.30	0.040	0.050	9.70	9.20	0.100	0.100
2007190125	2007191532	21.80	11.50	0.025	0.025	0.50	0.40	0.010	0.030	10.80	13.30	0.100	0.100
2007190125	2007191532	15.70	12.80	0.025	0.025	0.50	0.40	0.010	0.030	10.80	13.60	0.090	0.100
2007190125	2007191532	19.80	18.40	0.025	0.025	0.70	0.80	0.110	0.030	16.20	23.60	0.110	0.140
2007190145	2007191105	173.00	135.00	0.025	0.025	0.50	0.40	0.030	0.010	4.20	3.90	0.230	0.210
2007190145	2007191105	156.00	126.00	0.025	0.025	0.40	0.40	0.010	0.010	4.40	4.20	0.230	0.230
2007190145	2007191105	229.00	233.00	0.025	0.025	0.40	0.40	0.090	0.010	4.80	3.50	0.280	0.210
2007190145	2007191105	241.00	241.00	0.025	0.025	0.50	0.40	0.060	0.010	4.60	3.60	0.290	0.200
2007190154	2007190568	7.50	19.20	0.025	0.025	0.20	0.30	0.080	0.010	12.60	6.10	0.250	0.010
2007190154	2007190568	7.50	15.50	0.025	0.025	0.20	0.30	0.090	0.050	12.40	6.30	0.250	0.010
2007190154	2007190568	3.50	4.20	0.025	0.025	0.30	0.10	0.040	0.010	19.50	11.20	0.250	0.010
2007190154	2007190568	3.80	4.50	0.025	0.025	0.40	0.20	0.110	0.030	19.80	12.10	0.250	0.010
2007190155	2007191031	37.70	55.30	0.025	0.025	0.40	0.40	0.100	0.010	4.50	3.70	0.080	0.160
2007190155	2007191031	79.30	81.30	0.025	0.025	0.60	0.60	0.010	0.010	6.20	5.70	0.260	0.230
2007190155	2007191031	56.40	43.60	0.025	0.025	0.40	0.30	0.090	0.010	4.60	3.10	0.190	0.120
2007190155	2007191031	84.80	81.50	0.025	0.025	0.70	0.60	0.020	0.010	6.70	5.70	0.260	0.250
2007190161	2007191413	45.60	148.00	0.025	0.025	0.30	0.20	0.010	0.050	6.00	4.30	0.100	0.070
2007190161	2007191413	60.00	102.00	0.025	0.025	0.40	0.40	0.040	0.080	7.40	6.50	0.130	0.110
2007190161	2007191413	130.00	164.00	0.025	0.025	0.30	0.20	0.050	0.050	5.90	4.90	0.100	0.080
2007190161	2007191413	137.00	199.00	0.025	0.025	0.40	0.30	0.100	0.060	7.50	6.60	0.130	0.120
2007190176	2007191566	0.80	0.90	0.025	0.025	0.05	0.05	0.030	0.060	2.30	1.80	0.020	0.010
2007190176	2007191566	3.60	3.60	0.025	0.025	0.20	0.30	0.060	0.040	10.20	10.70	0.080	0.110
2007190176	2007191566	0.50	0.80	0.025	0.025	0.05	0.05	0.070	0.060	4.00	2.10	0.030	0.040
2007190176	2007191566	1.20	4.10	0.025	0.025	0.30	0.50	0.080	0.060	13.50	13.20	0.060	0.160

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Tm (ppm)	Tm (ppm)	U (ppm)	U (ppm)	V (ppm)	V (ppm)	W (ppm)	W (ppm)	Y (ppm)	Y (ppm)	Yb (ppm)	Yb (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1	1	1	0.1	0.1	0.01	0.01	0.1	0.1
ULD:	ULD:							200	200				
2007190003	2007190213	0.05	0.05	1.30	1.00	31	30	0.05	0.05	6.190	4.590	0.40	0.30
2007190003	2007190213	0.10	0.10	2.50	1.70	58	54	0.05	0.30	12.900	9.600	0.80	0.70
2007190003	2007190213	0.05	0.05	1.60	1.10	35	35	0.05	0.10	6.510	5.400	0.40	0.40
2007190003	2007190213	0.10	0.05	2.70	1.60	56	51	0.10	0.20	11.300	8.180	0.70	0.60
2007190005	2007191059	0.10	0.10	0.30	0.30	26	37	0.05	0.05	6.290	8.280	0.50	0.60
2007190005	2007191059	0.20	0.10	0.60	0.50	56	57	0.05	0.05	12.300	12.900	1.00	1.00
2007190005	2007191059	0.05	0.05	0.30	0.20	25	36	0.05	0.05	5.480	7.000	0.40	0.60
2007190005	2007191059	0.20	0.20	0.70	0.50	53	74	0.05	0.05	13.800	13.000	0.90	0.90
2007190032	2007190632	0.10	0.10	1.40	1.00	37	29	0.05	0.05	11.000	10.800	0.70	0.70
2007190032	2007190632	0.20	0.10	1.60	1.20	45	33	0.05	0.10	11.800	12.300	0.90	0.80
2007190032	2007190632	0.10	0.20	1.60	1.50	41	41	0.05	0.05	11.300	14.500	0.90	1.10
2007190032	2007190632	0.20	0.20	2.20	1.50	50	40	0.05	0.05	15.000	16.100	1.10	1.20
2007190035	2007190876	0.05	0.05	0.60	0.60	18	18	0.05	0.05	5.620	6.060	0.40	0.40
2007190035	2007190876	0.10	0.10	1.20	1.40	27	29	0.05	0.05	10.600	11.200	0.80	0.90
2007190035	2007190876	0.20	0.05	1.20	1.00	46	38	0.10	0.05	10.700	7.690	1.00	0.70
2007190035	2007190876	0.20	0.10	1.80	1.60	67	59	0.05	0.05	16.700	12.700	1.40	1.20
2007190039	2007190984	0.10	0.20	1.90	1.10	51	35	0.05	0.05	7.590	3.740	0.70	0.30
2007190039	2007190984	0.20	0.30	3.10	3.50	79	75	0.05	0.05	14.200	10.400	1.20	1.00
2007190039	2007190984	0.20	0.30	2.70	4.90	81	89	0.05	0.05	11.600	11.400	1.00	1.00
2007190039	2007190984	0.20	0.40	3.60	6.70	98	112	0.05	0.05	15.800	15.400	1.30	1.20
2007190050	2007191481	0.05	0.05	0.60	0.40	15	16	0.10	0.05	2.550	2.120	0.20	0.20
2007190050	2007191481	0.10	0.05	1.60	1.30	36	37	0.05	0.10	8.570	7.070	0.70	0.60
2007190050	2007191481	0.05	0.05	0.80	0.50	21	20	0.05	0.05	3.380	2.220	0.30	0.20
2007190050	2007191481	0.10	0.05	1.90	1.50	44	44	0.05	0.20	8.300	6.070	0.70	0.50
2007190067	2007191121	0.05	0.05	0.40	0.40	63	79	0.05	0.20	3.310	2.200	0.30	0.20
2007190067	2007191121	0.10	0.10	1.00	1.00	88	91	0.05	0.20	8.220	6.200	0.60	0.50
2007190067	2007191121	0.05	0.05	1.30	0.90	83	102	1.00	0.20	4.530	3.680	0.40	0.40
2007190067	2007191121	0.10	0.10	2.60	2.20	102	119	0.05	0.20	10.200	9.450	0.80	0.80
2007190071	2007190289	0.05	0.05	0.40	0.20	6	4	0.05	0.05	3.250	1.880	0.30	0.05
2007190071	2007190289	0.20	0.05	1.80	0.90	18	15	0.05	0.05	15.400	9.260	1.10	0.50
2007190071	2007190289	0.30	0.50	0.90	0.80	20	20	0.05	0.05	28.500	40.100	1.90	2.80
2007190071	2007190289	0.60	1.20	1.80	2.00	38	41	0.05	0.05	57.200	98.700	3.60	7.00
2007190074	2007190389	0.05	0.05	0.40	0.20	50	44	0.05	0.05	5.800	2.160	0.40	0.20
2007190074	2007190389	0.10	0.10	0.70	0.60	65	74	0.05	0.05	8.910	9.920	0.70	0.70
2007190074	2007190389	0.05	0.05	0.10	0.20	38	61	0.05	0.05	1.880	3.700	0.20	0.30
2007190074	2007190389	0.05	0.10	0.50	1.20	56	63	0.05	0.05	7.510	10.800	0.50	0.80
2007190091	2007191053	0.05	0.05	0.20	0.30	10	15	0.05	0.05	3.030	4.690	0.20	0.30
2007190091	2007191053	0.10	0.10	0.80	0.60	32	34	0.05	0.05	9.200	9.290	0.60	0.60
2007190091	2007191053	0.05	0.05	0.30	0.20	10	10	0.05	0.05	3.570	3.080	0.30	0.20
2007190091	2007191053	0.05	0.05	0.80	0.70	21	29	0.05	0.05	7.700	6.850	0.50	0.50
2007190107	2007190913	0.05	0.05	0.30	0.30	20	21	0.05	0.05	3.310	4.540	0.30	0.40
2007190107	2007190913	0.20	0.30	1.10	1.00	60	58	0.05	0.05	15.500	19.400	1.20	1.50
2007190107	2007190913	0.05	0.05	0.30	0.30	20	25	0.05	0.05	3.410	6.470	0.30	0.60
2007190107	2007190913	0.20	0.30	0.70	0.80	51	61	0.05	0.05	12.100	21.800	1.00	1.80
2007190110	2007191182	0.05	0.05	1.10	1.20	24	27	0.10	0.20	6.560	7.700	0.50	0.50
2007190110	2007191182	0.10	0.10	2.00	2.20	37	41	0.20	0.60	12.100	12.800	0.80	0.80
2007190110	2007191182	0.30	0.20	4.10	2.30	65	37	0.10	0.30	22.600	13.500	1.60	0.80
2007190110	2007191182	0.30	0.20	4.20	3.50	62	47	0.10	0.30	23.200	19.800	1.60	1.20
2007190114	2007191045	0.20	0.20	0.70	1.10	62	66	0.05	0.05	14.700	19.100	1.10	1.20
2007190114	2007191045	0.20	0.20	0.90	0.90	62	64	0.05	0.05	20.100	17.900	1.40	1.30
2007190114	2007191045	0.20	0.10	0.70	0.70	69	59	0.05	0.05	14.000	12.200	1.00	0.90
2007190114	2007191045	0.20	0.20	0.90	0.80	66	58	0.05	0.05	17.300	13.600	1.20	1.00
2007190118	2007191552	0.10	0.10	2.70	3.00	57	55	0.05	0.05	12.600	12.000	0.90	0.70
2007190118	2007191552	0.10	0.05	2.50	3.50	53	49	0.05	0.05	11.200	10.100	1.00	0.60
2007190118	2007191552	0.20	0.20	3.00	6.20	60	70	0.05	0.05	17.500	13.200	1.10	1.20
2007190118	2007191552	0.20	0.20	2.80	4.40	57	63	0.05	0.05	17.900	15.200	1.40	1.00
2007190121	2007191545	0.05	0.05	0.30	0.10	69	33	0.05	0.05	6.320	3.560	0.50	0.30
2007190121	2007191545	0.05	0.20	0.30	0.50	39	91	0.05	0.05	1.990	13.700	0.20	1.20
2007190121	2007191545	0.05	0.05	0.10	0.40	39	49	0.05	0.05	2.270	4.770	0.20	0.40
2007190121	2007191545	0.05	0.10	0.60	0.80	67	85	0.05	0.05	7.000	10.500	0.50	0.90
2007190125	2007191532	0.20	0.10	1.50	1.50	62	52	0.05	0.05	12.700	9.200	1.10	0.80
2007190125	2007191532	0.20	0.20	1.70	1.80	74	80	0.05	0.05	14.500	14.400	1.30	1.20
2007190125	2007191532	0.20	0.20	1.60	1.90	73	60	0.05	0.05	13.500	15.400	1.20	0.90
2007190125	2007191532	0.30	0.20	2.20	3.50	94	91	0.05	0.05	17.300	21.900	1.50	1.50
2007190145	2007191105	0.20	0.20	0.30	0.40	37	33	0.05	0.05	14.900	14.000	1.10	1.00
2007190145	2007191105	0.20	0.10	0.50	0.40	41	37	0.05	0.05	13.700	12.800	1.10	1.00
2007190145	2007191105	0.20	0.20	1.20	1.20	39	35	0.05	0.05	13.300	13.000	1.00	1.00
2007190145	2007191105	0.20	0.10	1.00	1.30	37	39	0.05	0.05	14.100	11.300	1.10	0.90
2007190154	2007190568	0.10	0.05	6.30	2.60	35	36	0.05	0.05	4.150	4.260	0.50	0.40
2007190154	2007190568	0.10	0.05	6.70	2.90	33	37	0.05	0.05	5.330	4.840	0.50	0.40
2007190154	2007190568	0.10	0.05	11.20	3.40	45	53	0.05	0.05	3.810	2.540	0.70	0.30
2007190154	2007190568	0.10	0.05	11.70	3.70	48	54	0.05	0.05	4.460	3.330	0.90	0.40
2007190155	2007191031	0.10	0.20	0.50	0.70	41	65	0.05	0.05	10.200	14.800	0.90	1.00
2007190155	2007191031	0.20	0.20	0.70	1.00	85	97	0.05	0.05	18.800	21.900	1.50	1.50
2007190155	2007191031	0.20	0.10	0.50	0.60	64	50	0.05	0.05	13.200	11.700	1.00	0.80
2007190155	2007191031	0.20	0.20	0.80	1.10	91	90	0.05	0.05	19.900	22.100	1.60	1.60
2007190161	2007191413	0.05	0.05	4.20	7.00	132	93	0.05	0.05	8.800	6.160	0.70	0.60
2007190161	2007191413	0.20	0.20	5.80	9.70	141	123	0.05	0.10	12.800	9.800	0.90	0.90
2007190161	2007191413	0.10	0.05	6.10	7.50	110	92	0.05	0.05	8.900	7.600	0.60	0.70
2007190161	2007191413	0.10	0.10	8.00	9.90	141	109	0.05	0.05	12.400	10.700	0.90	0.90
2007190176	2007191566	0.05	0.05	0.20	0.05	29	12	0.05	0.05	0.870	1.060	0.05	0.05
2007190176	2007191566	0.05	0.05	1.10	0.70	94	77	0.10	0.05	4.910	7.940	0.40	0.60
2007190176	2007191566	0.05	0.05	0.40	0.10	40	16	0.05	0.05	1.350	2.120	0.10	0.20
2007190176	2007191566	0.05	0.20	1.40	1.00	94	79	0.10	0.05	5.100	12.800	0.50	1.20

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Zn (ppm)	Zn (ppm)	Zr (ppm)	Zr (ppm)
METHOD:	METHOD:	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1
ULD:	ULD:				
2007190003	2007190213	40.70	19.90	5.70	4.10
2007190003	2007190213	79.70	36.60	10.50	6.40
2007190003	2007190213	163.00	16.20	5.10	2.70
2007190003	2007190213	58.50	25.10	7.30	3.40
2007190005	2007191059	27.50	69.50	4.40	2.50
2007190005	2007191059	60.20	92.80	10.50	5.30
2007190005	2007191059	15.20	57.00	3.20	5.00
2007190005	2007191059	45.50	95.10	6.70	12.60
2007190032	2007190632	33.10	59.90	3.10	1.50
2007190032	2007190632	47.80	62.20	4.80	2.10
2007190032	2007190632	36.70	37.20	5.00	8.40
2007190032	2007190632	47.70	34.20	6.30	7.10
2007190035	2007190876	15.60	17.80	0.90	1.10
2007190035	2007190876	21.90	23.40	1.60	1.80
2007190035	2007190876	33.00	25.20	5.80	5.30
2007190035	2007190876	41.10	41.00	6.90	7.80
2007190039	2007190984	25.60	13.70	7.70	5.30
2007190039	2007190984	38.40	29.70	12.80	9.90
2007190039	2007190984	37.50	37.80	11.50	12.30
2007190039	2007190984	49.40	62.80	11.50	14.90
2007190050	2007191481	5.20	0.05	1.90	1.00
2007190050	2007191481	23.50	9.60	4.10	1.90
2007190050	2007191481	8.20	3.10	4.30	2.30
2007190050	2007191481	36.40	7.30	8.30	4.70
2007190067	2007191121	11.70	8.30	7.40	6.70
2007190067	2007191121	32.70	29.20	11.60	9.10
2007190067	2007191121	20.70	15.20	10.10	9.70
2007190067	2007191121	47.40	51.50	14.00	12.50
2007190071	2007190289	1.10	1.60	1.50	0.70
2007190071	2007190289	10.90	6.20	4.70	2.80
2007190071	2007190289	6.60	2.50	10.70	9.90
2007190071	2007190289	18.30	14.70	20.20	17.50
2007190074	2007190389	37.30	26.30	3.40	3.70
2007190074	2007190389	39.70	49.00	4.40	5.20
2007190074	2007190389	27.20	29.60	2.60	1.80
2007190074	2007190389	36.80	42.80	2.60	0.90
2007190091	2007191053	11.50	19.90	1.90	0.90
2007190091	2007191053	34.80	12.80	4.80	3.80
2007190091	2007191053	14.80	25.90	2.30	1.50
2007190091	2007191053	29.20	2.90	3.00	3.70
2007190107	2007190913	30.50	21.20	2.70	4.50
2007190107	2007190913	85.60	40.30	5.60	8.70
2007190107	2007190913	25.00	24.60	2.80	4.70
2007190107	2007190913	35.50	51.10	4.80	8.70
2007190110	2007191182	38.40	48.40	1.70	2.00
2007190110	2007191182	52.50	68.80	3.20	2.80
2007190110	2007191182	68.90	61.20	6.20	0.50
2007190110	2007191182	66.30	81.00	6.20	0.60
2007190114	2007191045	43.10	67.30	4.10	3.00
2007190114	2007191045	56.50	60.50	5.60	2.90
2007190114	2007191045	40.00	45.70	7.30	5.90
2007190114	2007191045	49.30	50.30	5.90	4.90
2007190118	2007191552	21.50	36.60	2.60	1.70
2007190118	2007191552	25.70	35.40	2.20	1.50
2007190118	2007191552	41.20	38.00	6.20	5.70
2007190118	2007191552	34.90	33.20	6.00	7.90
2007190121	2007191545	34.90	24.30	5.10	5.50
2007190121	2007191545	30.80	74.30	4.20	16.20
2007190121	2007191545	21.40	34.40	0.70	5.40
2007190121	2007191545	59.60	63.60	1.10	8.30
2007190125	2007191532	15.90	23.60	5.10	5.60
2007190125	2007191532	25.20	13.50	5.90	8.00
2007190125	2007191532	10.60	21.90	4.80	7.40
2007190125	2007191532	38.20	27.80	5.90	7.90
2007190145	2007191105	63.50	59.90	3.10	3.70
2007190145	2007191105	122.00	61.20	3.40	4.10
2007190145	2007191105	109.00	49.30	3.60	3.20
2007190145	2007191105	62.00	48.60	3.40	3.70
2007190154	2007190568	0.05	4.20	13.10	15.00
2007190154	2007190568	6.00	1.50	13.40	15.80
2007190154	2007190568	6.30	4.70	20.20	23.20
2007190154	2007190568	0.05	6.60	19.30	24.30
2007190155	2007191031	29.00	59.50	4.30	9.30
2007190155	2007191031	65.50	76.20	15.60	12.40
2007190155	2007191031	42.40	48.30	11.20	8.20
2007190155	2007191031	65.50	77.50	16.80	11.90
2007190161	2007191413	55.30	44.00	11.80	11.60
2007190161	2007191413	92.20	57.70	12.50	11.80
2007190161	2007191413	50.20	40.10	14.00	13.40
2007190161	2007191413	67.00	51.90	15.30	13.90
2007190176	2007191566	4.00	0.05	2.80	1.50
2007190176	2007191566	13.70	19.50	7.00	7.50
2007190176	2007191566	8.60	3.40	6.20	4.00
2007190176	2007191566	11.00	14.20	12.60	14.70

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Ag (ppm)	Ag (ppm)	Al (ppm)	Al (ppm)	As (ppm)	As (ppm)	Au (ppm)	Au (ppm)
METHOD:	METHOD:	SIZE	SIZE			AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					0.002	0.002	100	100	0.1	0.1	0.0001	0.0001
ULD:	ULD:							100000	100000				
2007190181	2007191396	Coarse	Coarse	TOS	TOS	0.0390	0.0120	23100	27400	1.80	2.70	0.00220	0.00110
2007190181	2007191396	Fine	Fine	TOS	TOS	0.0390	0.0140	21100	23900	3.00	2.30	0.00220	0.00030
2007190181	2007191396	Coarse	Coarse	BOS	BOS	0.0380	0.0140	21600	25100	2.40	2.40	0.00120	0.00040
2007190181	2007191396	Fine	Fine	BOS	BOS	0.0440	0.0220	25000	29600	2.40	2.20	0.00130	0.00110
2007190183	2007190471	Coarse	Coarse	TOS	TOS	0.0210	0.0020	4000	3900	0.50	1.10	0.00010	0.00005
2007190183	2007190471	Fine	Fine	TOS	TOS	0.0240	0.0070	10500	12400	1.00	1.00	0.00050	0.00040
2007190183	2007190471	Coarse	Coarse	BOS	BOS	0.0240	0.0190	15000	11600	3.60	3.70	0.00100	0.00060
2007190183	2007190471	Fine	Fine	BOS	BOS	0.0300	0.0310	18500	17200	4.00	3.80	0.00100	0.00180
2007190185	2007191253	Coarse	Coarse	TOS	TOS	0.0370	0.0220	14100	7000	5.70	4.20	0.00090	0.00060
2007190185	2007191253	Fine	Fine	TOS	TOS	0.0380	0.0280	16500	8000	6.00	4.60	0.00070	
2007190185	2007191253	Coarse	Coarse	BOS	BOS	0.0390	0.0220	18100	9300	7.00	6.20	0.00170	0.00130
2007190185	2007191253	Fine	Fine	BOS	BOS	0.0360	0.0260	17100	9900	6.30	4.60	0.00210	0.00230
2007190189	2007191542	Coarse	Coarse	TOS	TOS	0.0460	0.0600	34200	17400	1.50	0.40	0.00110	0.00210
2007190189	2007191542	Fine	Fine	TOS	TOS	0.0070	0.0550	27000	14900	1.40	0.70	0.00070	0.00210
2007190189	2007191542	Coarse	Coarse	BOS	BOS	0.0010	0.0350	32900	15200	1.40	1.80	0.00060	0.00190
2007190189	2007191542	Fine	Fine	BOS	BOS	0.0350	0.0640	28000	15200	1.50	1.20	0.00040	0.00280
2007190193	2007190788	Coarse	Coarse	TOS	TOS	0.0510	0.0520	15800	22000	1.30	2.00	0.00010	0.00160
2007190193	2007190788	Fine	Fine	TOS	TOS	0.0700	0.0580	14800	17200	1.40	2.70	0.00040	0.00170
2007190193	2007190788	Coarse	Coarse	BOS	BOS	0.0190	0.0620	21100	15600	2.30	2.40	0.00100	0.00140
2007190193	2007190788	Fine	Fine	BOS	BOS	0.0120	0.0620	18000	18200	1.40	2.20	0.00060	0.00100
2007190194	2007190704	Coarse	Coarse	TOS	TOS	0.0310	0.0220	15300	6200	1.10	0.80	0.00070	0.00110
2007190194	2007190704	Fine	Fine	TOS	TOS	0.0250	0.0350	15300	6900	0.90	1.40	0.00070	0.00220
2007190194	2007190704	Coarse	Coarse	BOS	BOS	0.0530	0.0220	15400	10700	1.40	1.30	0.00070	0.00060
2007190194	2007190704	Fine	Fine	BOS	BOS	0.0640	0.0160	14300	10100	0.60	1.80	0.00070	0.00110
2007190197	2007190962	Coarse	Coarse	TOS	TOS	0.0170	0.0070	1400	2100	0.20	0.40	0.00040	0.00020
2007190197	2007190962	Fine	Fine	TOS	TOS	0.0170	0.0120	3800	7100	0.70	0.20	0.00010	0.00005
2007190197	2007190962	Coarse	Coarse	BOS	BOS	0.0210	0.0220	7700	5800	3.20	3.10	0.00070	0.00005
2007190197	2007190962	Fine	Fine	BOS	BOS	0.0320	0.0150	17900	11500	4.40	3.40	0.00220	0.00080
2007190208	2007191593	Coarse	Coarse	TOS	TOS	0.0010	0.0010	1100	2400	0.40	0.50	0.00070	0.00140
2007190208	2007191593	Fine	Fine	TOS	TOS	0.0010	0.0080	1500	2800	0.05	0.20	0.00020	0.00005
2007190208	2007191593	Coarse	Coarse	BOS	BOS	0.0030	0.0210	7100	10300	0.20	0.80	0.00040	0.00090
2007190208	2007191593	Fine	Fine	BOS	BOS	0.0010	0.0380	10000	15500	0.20	0.30	0.00050	0.00110
2007190209	2007191254	Coarse	Coarse	TOS	TOS	0.0280	0.0160	6900	8400	0.60	0.30	0.00080	0.00070
2007190209	2007191254	Fine	Fine	TOS	TOS	0.0340	0.0220	7700	11700	0.70	0.70	0.00080	0.00070
2007190209	2007191254	Coarse	Coarse	BOS	BOS	0.0210	0.0250	7200	7100	0.70	0.05	0.00020	0.00060
2007190209	2007191254	Fine	Fine	BOS	BOS	0.0170	0.0890	8500	21000	0.05	1.00	0.00040	0.00040
2007190212	2007190747	Coarse	Coarse	TOS	TOS	0.0010	0.0010	1800	2300	0.70	0.30	0.00070	0.00005
2007190212	2007190747	Fine	Fine	TOS	TOS	0.0130	0.0120	11400	13700	10.80	1.70	0.00070	0.00060
2007190212	2007190747	Coarse	Coarse	BOS	BOS	0.0010	0.0010	3000	2300	0.50	0.20	0.00020	0.00005
2007190212	2007190747	Fine	Fine	BOS	BOS	0.0350	0.0060	16200	6900	2.00	1.30	0.00080	0.00040
2007190218	2007191348	Coarse	Coarse	TOS	TOS	0.0210	0.0060	2600	5600	1.80	1.80	0.00050	0.00050
2007190218	2007191348	Fine	Fine	TOS	TOS	0.0400	0.0240	6200	17100	2.40	3.60	0.00100	0.00130
2007190218	2007191348	Coarse	Coarse	BOS	BOS	0.0440	0.0150	3600	9300	2.40	2.60	0.00060	0.00140
2007190218	2007191348	Fine	Fine	BOS	BOS	0.0170	0.0290	6900	18000	3.20	4.00	0.00160	0.00220
2007190241	2007190978	Coarse	Coarse	TOS	TOS	0.0270	0.0060	17200	19200	1.60	0.50	0.00060	0.00130
2007190241	2007190978	Fine	Fine	TOS	TOS	0.0350	0.0170	26600	31600	1.20	1.40	0.00190	
2007190241	2007190978	Coarse	Coarse	BOS	BOS	0.0290	0.0120	19400	24500	1.60	0.80	0.00480	0.00060
2007190241	2007190978	Fine	Fine	BOS	BOS	0.0010	0.0200	33900	37200	1.30	1.20	0.00090	0.00100
2007190248	2007191198	Coarse	Coarse	TOS	TOS	0.0010	0.0010	3300	3000	0.50	0.50	0.00120	0.00005
2007190248	2007191198	Fine	Fine	TOS	TOS	0.0010	0.0010	9800	5800	1.10	0.30	0.00150	0.00030
2007190248	2007191198	Coarse	Coarse	BOS	BOS	0.0010	0.0010	2800	4900	0.80	0.70	0.00060	0.00005
2007190248	2007191198	Fine	Fine	BOS	BOS	0.0010	0.0010	6800	12900	1.00	1.40	0.00160	0.00030
2007190256	2007190875	Coarse	Coarse	TOS	TOS	0.0370	0.0110	4500	1200	10.30	5.50	0.00005	0.00040
2007190256	2007190875	Coarse	Coarse	BOS	BOS	0.0180	0.1770	12400	31400	4.50	4.40	0.00070	0.00005
2007190256	2007190875	Fine	Fine	BOS	BOS	0.0230	0.0050	13300	10800	3.70	2.60	0.00060	0.00005
2007190258	2007191176	Coarse	Coarse	TOS	TOS	0.0230	0.0150	7700	6500	3.70	2.90	0.00140	0.00710
2007190258	2007191176	Fine	Fine	TOS	TOS	0.0400	0.0180	10600	9000	5.50	4.10	0.00250	0.00030
2007190258	2007191176	Coarse	Coarse	BOS	BOS	0.0100	0.0110	4200	6100	3.10	3.40	0.00060	0.00100
2007190258	2007191176	Fine	Fine	BOS	BOS	0.0130	0.0180	9000	12300	4.90	5.40	0.02410	0.00490
2007190266	2007191458	Coarse	Coarse	TOS	TOS	0.0030	0.0190	12000	3400	2.90	3.30	0.00005	0.00070
2007190266	2007191458	Fine	Fine	TOS	TOS	0.0170	0.0240	22200	9100	5.20	6.30	0.00060	0.00005
2007190266	2007191458	Coarse	Coarse	BOS	BOS	0.0010	0.0010	7500	900	1.40	1.50	0.00030	0.00040
2007190285	2007190406	Coarse	Coarse	TOS	TOS	0.0740	0.0660	26900	16300	1.80	0.50	0.00040	0.00210
2007190285	2007190406	Fine	Fine	TOS	TOS	0.0840	0.0700	29800	16800	1.00	1.40	0.00080	0.00104
2007190285	2007190406	Coarse	Coarse	BOS	BOS	0.0330	0.0970	26300	15600	0.80	0.80	0.00140	0.00050
2007190285	2007190406	Fine	Fine	BOS	BOS	0.0870	0.1180	29800	14100	1.70	0.80	0.00100	0.00030
2007190296	2007190758	Coarse	Coarse	TOS	TOS	0.0010	0.0010	3700	1800	1.00	0.60	0.00090	0.00060
2007190296	2007190758	Fine	Fine	TOS	TOS	0.0150	0.0070	9700	7500	1.40	1.40	0.00010	0.00060
2007190296	2007190758	Coarse	Coarse	BOS	BOS	0.0030	0.0010	4400	2900	1.50	1.30	0.00010	0.00080
2007190296	2007190758	Fine	Fine	BOS	BOS	0.0080	0.0010	8700	5200	0.90	1.50	0.00010	0.00110
2007190311	2007191259	Coarse	Coarse	TOS	TOS	0.0010	0.0010	700	200	0.05	0.05	0.00005	0.00030
2007190311	2007191259	Fine	Fine	TOS	TOS	0.0010	0.0010	2500	1500	0.30	0.20	0.00005	0.00030
2007190311	2007191259	Coarse	Coarse	BOS	BOS	0.0010	0.0010	3900	800	0.30	0.05	0.00005	0.00005
2007190311	2007191259	Fine	Fine	BOS	BOS	0.0010	0.0010	14000	4900	0.05	0.50	0.00040	0.00090
2007190328	2007191598	Coarse	Coarse	TOS	TOS	0.0020	0.0010	2200	3700	1.50	0.60	0.00090	0.00030
2007190328	2007191598	Fine	Fine	TOS	TOS	0.0040	0.0010	6300	9400	1.30	1.50	0.00060	0.00060
2007190328	2007191598	Coarse	Coarse	BOS	BOS	0.0130	0.0010	5000	7800	1.70	1.40	0.00030	0.00120
2007190328	2007191598	Fine	Fine	BOS	BOS	0.0240	0.0010	14800	19700	2.40	2.70	0.00110	0.00080
2007190335	2007190692	Coarse	Coarse	TOS	TOS	0.0230	0.0240	26600	15100	2.40	2.30	0.00020	0.00080
2007190335	2007190692	Fine	Fine	TOS	TOS	0.0180	0.0270	31500	20100	3.20	2.60	0.00030	0.00100
2007190335	2007190692	Coarse	Coarse	BOS	BOS	0.0330	0.0180	32100	21300	3.50	1.90	0.00170	0.00260
2007190335	2007190692	Fine	Fine	BOS	BOS	0.0380	0.0500	40600	26900	4.10	2.40	0.00300	0.00340
2007190342	2007190989	Coarse	Coarse	TOS	TOS	0.0010	0.0410	8700	5500	2.90	2.80	0.00030	0.00150
2007190342	2007190989	Fine	Fine	TOS	TOS	0.0140	0.0060	12800	7500	4.40	3.90	0.00100	0.00040

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	B (ppm)	B (ppm)	Ba (ppm)	Ba (ppm)	Be (ppm)	Be (ppm)	Bi (ppm)	Bi (ppm)	Ca (ppm)	Ca (ppm)	Cd (ppm)	Cd (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	1	1	0.5	0.5	0.1	0.1	0.02	0.02	100	100	0.01	0.01
ULD:	ULD:												
2007190181	2007191396	0.5	0.5	132.00	119.00	1.00	1.20	0.140	0.140	6700	6400	0.005	0.030
2007190181	2007191396	0.5	0.5	141.00	112.00	1.30	1.10	0.140	0.130	6800	5600	0.005	0.030
2007190181	2007191396	0.5	0.5	97.70	142.00	1.20	1.10	0.140	0.130	5500	6900	0.005	0.030
2007190181	2007191396	0.5	1	130.00	143.00	1.20	1.10	0.150	0.160	6900	8400	0.020	0.040
2007190183	2007190471	4	0.5	18.10	42.40	0.20	0.20	0.070	0.070	10700	5700	0.030	0.005
2007190183	2007190471	7	3	29.90	43.80	0.50	0.80	0.160	0.160	22800	24300	0.020	0.005
2007190183	2007190471	7	2	75.50	55.60	1.30	0.80	0.280	0.200	47300	43900	0.005	0.020
2007190183	2007190471	8	4	67.70	72.60	1.40	1.30	0.340	0.240	41400	65300	0.040	0.050
2007190185	2007191253	3	0.5	88.20	62.30	1.10	0.60	0.290	0.220	5000	2700	0.140	0.160
2007190185	2007191253	4	0.5	104.00	66.50	1.10	0.60	0.330	0.250	6600	2800	0.130	0.190
2007190185	2007191253	5	0.5	131.00	88.90	1.10	0.80	0.350	0.240	6600	6400	0.150	0.160
2007190185	2007191253	5	0.5	139.00	102.00	1.20	0.80	0.360	0.270	9200	7900	0.150	0.150
2007190189	2007191542	5	0.5	166.00	131.00	1.50	0.90	0.220	0.190	6400	7200	0.080	0.080
2007190189	2007191542	5	0.5	138.00	120.00	1.10	1.00	0.180	0.160	5400	6900	0.070	0.080
2007190189	2007191542	7	0.5	170.00	85.00	1.30	1.00	0.200	0.170	5600	9300	0.060	0.050
2007190189	2007191542	8	0.5	158.00	124.00	1.10	1.00	0.200	0.170	5800	8200	0.030	0.030
2007190193	2007190788	4	2	120.00	142.00	1.00	1.50	0.290	0.410	5900	2800	0.080	0.050
2007190193	2007190788	4	1	101.00	156.00	0.80	1.50	0.300	0.370	4600	2400	0.080	0.060
2007190193	2007190788	4	1	135.00	103.00	1.60	1.30	0.390	0.380	5800	2200	0.050	0.030
2007190193	2007190788	4	2	164.00	193.00	1.30	1.70	0.370	0.460	6700	2600	0.005	0.020
2007190194	2007190704	3	1	61.80	57.70	0.80	0.60	0.180	0.140	2200	2200	0.040	0.020
2007190194	2007190704	2	0.5	73.70	68.40	0.80	0.30	0.190	0.130	1900	2000	0.005	0.005
2007190194	2007190704	2	1	105.00	92.60	0.90	0.70	0.190	0.170	3800	3400	0.030	0.005
2007190194	2007190704	1	0.5	114.00	147.00	1.00	0.50	0.220	0.150	4300	3200	0.040	0.005
2007190197	2007190962	2	0.5	7.50	7.90	0.20	0.10	0.060	0.040	50	300	0.020	0.005
2007190197	2007190962	2	0.5	22.00	28.90	0.30	0.60	0.110	0.100	300	600	0.020	0.040
2007190197	2007190962	2	0.5	81.10	25.30	0.60	0.70	0.110	0.080	200	11000	0.005	0.030
2007190197	2007190962	0.5	0.5	303.00	71.90	1.50	1.00	0.250	0.170	600	600	0.030	0.030
2007190208	2007191593	0.5	0.5	10.00	10.40	0.05	0.05	0.040	0.060	100	300	0.020	0.005
2007190208	2007191593	0.5	0.5	14.20	10.70	0.10	0.10	0.060	0.070	50	300	0.020	0.010
2007190208	2007191593	0.5	0.5	183.00	182.00	0.30	0.60	0.120	0.090	50	300	0.040	0.020
2007190208	2007191593	0.5	0.5	368.00	424.00	0.50	0.60	0.150	0.090	50	300	0.020	0.005
2007190209	2007191254	0.5	0.5	432.00	107.00	0.60	0.50	0.090	0.090	5300	3000	0.050	0.050
2007190209	2007191254	0.5	0.5	170.00	135.00	0.70	0.60	0.140	0.100	7000	4500	0.060	0.050
2007190209	2007191254	0.5	0.5	156.00	67.10	0.70	0.40	0.110	0.080	7700	2900	0.040	0.030
2007190209	2007191254	0.5	0.5	375.00	144.00	0.80	0.80	0.160	0.140	7500	5400	0.030	0.150
2007190212	2007190747	0.5	0.5	12.80	13.80	0.05	0.10	0.060	0.040	300	400	0.030	0.020
2007190212	2007190747	0.5	0.5	78.60	109.00	1.20	0.70	0.290	0.210	3700	4100	0.180	0.040
2007190212	2007190747	0.5	0.5	11.90	13.50	0.20	0.05	0.040	0.050	11400	300	0.050	0.005
2007190212	2007190747	0.5	0.5	68.80	52.00	1.20	0.40	0.340	0.160	45500	1400	0.190	0.020
2007190218	2007191348	2	0.5	2.40	4.10	0.10	0.20	0.140	0.140	100	50	0.020	0.010
2007190218	2007191348	2	0.5	5.30	8.70	0.30	0.40	0.260	0.350	200	300	0.005	0.020
2007190218	2007191348	2	2	5.50	13.90	0.50	0.90	0.190	0.210	200	600	0.005	0.005
2007190218	2007191348	1	0.5	10.90	28.10	0.90	1.50	0.300	0.380	600	1400	0.070	0.005
2007190241	2007190978	0.5	0.5	233.00	265.00	0.90	0.70	0.050	0.110	8400	6600	0.050	0.090
2007190241	2007190978	0.5	0.5	203.00	211.00	1.30	1.50	0.070	0.120	12400	10600	0.090	0.100
2007190241	2007190978	1	0.5	171.00	219.00	1.00	1.10	0.040	0.100	10500	11100	0.090	0.080
2007190241	2007190978	1	0.5	208.00	209.00	1.60	1.70	0.070	0.130	20600	19000	0.050	0.090
2007190248	2007191198	0.5	0.5	36.70	51.50	0.20	0.20	0.030	0.030	3600	600	0.040	0.005
2007190248	2007191198	0.5	0.5	76.30	49.60	0.50	0.20	0.070	0.080	4300	1100	0.040	0.040
2007190248	2007191198	0.5	0.5	28.80	45.40	0.20	0.10	0.020	0.030	1000	1400	0.030	0.005
2007190248	2007191198	0.5	1	68.50	87.60	0.50	0.50	0.090	0.080	3600	9700	0.060	0.005
2007190256	2007190875	2	1	318.00	273.00	0.60	0.20	0.100	0.090	1600	700	0.040	0.030
2007190256	2007190875	4	2	184.00	178.00	0.80	0.80	0.120	0.210	3600	3000	0.050	0.100
2007190256	2007190875	5	0.5	228.00	308.00	0.80	0.40	0.150	0.110	4100	3200	0.050	0.040
2007190258	2007191176	0.5	0.5	83.10	65.70	0.80	0.60	0.150	0.120	2500	1900	0.110	0.040
2007190258	2007191176	0.5	0.5	109.00	90.70	0.90	0.80	0.230	0.160	3500	2800	0.250	0.080
2007190258	2007191176	0.5	0.5	51.90	60.70	0.50	0.60	0.070	0.110	1200	1700	0.100	0.020
2007190258	2007191176	0.5	0.5	108.00	102.00	0.90	0.80	0.210	0.300	2700	3300	0.050	0.030
2007190266	2007191458	6	2	276.00	128.00	0.60	0.30	0.080	0.040	11400	18200	0.040	0.005
2007190266	2007191458	9	1	407.00	177.00	1.20	0.70	0.170	0.180	14600	21800	0.060	0.040
2007190266	2007191458	6	2	186.00	90.40	0.30	0.05	0.050	0.010	11200	6600	0.020	0.005
2007190285	2007190406	0.5	0.5	117.00	67.90	1.20	0.60	0.230	0.200	5900	2100	0.020	0.005
2007190285	2007190406	0.5	0.5	115.00	69.60	1.30	0.80	0.250	0.220	6300	2200	0.030	0.005
2007190285	2007190406	3	0.5	144.00	125.00	1.20	0.70	0.210	0.210	6800	2700	0.030	0.005
2007190285	2007190406	5	0.5	151.00	213.00	1.30	0.70	0.210	0.200	5800	3000	0.010	0.020
2007190296	2007190758	0.5	0.5	18.70	12.30	0.20	0.05	0.100	0.100	100	300	0.030	0.005
2007190296	2007190758	0.5	0.5	66.30	40.00	0.70	0.40	0.210	0.240	600	700	0.050	0.020
2007190296	2007190758	0.5	0.5	19.20	14.10	0.30	0.20	0.130	0.120	300	300	0.030	0.005
2007190296	2007190758	0.5	0.5	50.70	32.20	0.40	0.30	0.220	0.180	900	600	0.005	0.005
2007190311	2007191259	0.5	0.5	45.30	2.70	0.05	0.05	0.010	0.010	500	700	0.005	0.005
2007190311	2007191259	0.5	0.5	29.70	14.40	0.05	0.05	0.050	0.030	3400	3400	0.020	0.050
2007190311	2007191259	0.5	0.5	31.30	3.90	0.30	0.05	0.030	0.010	500	500	0.005	0.030
2007190311	2007191259	3	0.5	16.10	15.50	0.80	0.20	0.100	0.010	2000	2600	0.005	0.020
2007190328	2007191598	0.5	0.5	7.40	6.10	0.05	0.10	0.050	0.050	200	300	0.020	0.010
2007190328	2007191598	0.5	0.5	24.50	20.50	0.40	0.50	0.120	0.110	800	900	0.005	0.020
2007190328	2007191598	0.5	0.5	5.60	5.60	0.10	0.30	0.080	0.070	100	300	0.020	0.005
2007190328	2007191598	0.5	0.5	18.20	15.10	0.40	0.60	0.200	0.170	400	500	0.005	0.020
2007190335	2007190692	3	0.5	105.00	72.40	1.30	0.90	0.210	0.160	3800	3500	0.080	0.050
2007190335	2007190692	3	0.5	118.00	96.90	1.40	1.10	0.240	0.230	4300	4500	0.030	0.080
2007190335	2007190692	5	0.5	110.00	101.00	1.30	0.90	0.180	0.180	27300	19600	0.005	0.020
2007190335	2007190692	6	0.5	140.00	128.00	1.70	1.10	0.220	0.220	25000	20100	0.040	0.050
2007190342	2007190989	2	0.5	86.10	64.40	0.70	0.80	0.240	0.290	900	1200	0.120	0.150
2007190342	2007190989	0.5	0.5	97.30	86.20	1.10	1.00	0.350	0.410	1400	1500	0.190	0.180

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Ce (ppm)	Ce (ppm)	Co (ppm)	Co (ppm)	Cr (ppm)	Cr (ppm)	Cs (ppm)	Cs (ppm)	Cu (ppm)	Cu (ppm)	Dy (ppm)	Dy (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.01	0.01	0.1	0.1	0.5	0.5	0.02	0.02	0.01	0.01	0.1	0.1
ULD:	ULD:												
2007190181	2007191396	44.800	47.500	14.60	15.60	38.90	41.40	1.090	2.080	26.100	25.800	2.60	2.90
2007190181	2007191396	44.200	42.600	14.00	14.00	35.00	35.80	0.990	1.670	25.500	23.500	2.70	2.60
2007190181	2007191396	41.700	46.900	13.00	18.40	34.70	37.00	1.430	2.310	21.800	22.700	2.40	2.60
2007190181	2007191396	51.800	52.600	18.20	20.50	41.40	44.40	1.640	2.510	26.900	27.000	2.90	3.10
2007190183	2007190471	8.430	7.580	1.10	1.30	13.00	13.10	0.330	0.310	3.270	3.320	0.50	0.50
2007190183	2007190471	27.700	23.100	3.30	4.50	29.90	26.40	0.930	1.110	8.010	9.360	1.40	1.70
2007190183	2007190471	66.100	30.700	12.70	7.40	79.00	26.90	2.560	1.630	10.500	7.250	2.80	1.90
2007190183	2007190471	81.800	51.600	13.50	11.80	41.40	30.90	3.090	2.720	13.800	10.200	3.40	3.20
2007190185	2007191253	42.300	25.300	14.20	9.60	90.10	76.40	2.010	0.960	37.900	57.700	1.80	1.40
2007190185	2007191253	55.000	32.100	16.70	12.40	91.60	70.00	2.180	0.890	42.300	59.000	2.10	1.50
2007190185	2007191253	52.900	32.900	19.40	14.20	106.00	80.60	2.460	1.130	43.200	56.800	2.20	1.80
2007190185	2007191253	58.100	38.000	20.70	14.30	97.40	73.60	2.690	1.060	45.500	53.900	2.40	2.00
2007190189	2007191542	52.500	42.400	14.50	9.80	47.00	15.20	2.930	1.000	23.200	17.500	2.90	2.40
2007190189	2007191542	48.100	38.700	11.80	7.90	38.70	14.10	2.610	0.820	20.300	17.000	2.50	2.30
2007190189	2007191542	54.400	42.300	14.30	9.20	47.00	14.10	2.740	0.910	22.100	16.500	2.90	2.70
2007190189	2007191542	49.200	38.200	12.80	9.10	42.10	14.90	2.580	0.860	21.300	17.500	2.80	2.30
2007190193	2007190788	66.400	85.500	8.60	9.20	26.50	38.00	2.480	3.330	19.000	17.600	2.70	4.00
2007190193	2007190788	61.000	76.900	6.90	7.90	24.20	31.50	2.330	2.840	16.300	15.100	2.40	3.40
2007190193	2007190788	75.000	83.400	11.00	10.80	36.20	29.50	3.840	2.820	16.200	13.700	3.30	3.60
2007190193	2007190788	70.400	99.200	7.50	12.60	33.40	35.40	3.770	3.180	15.800	15.800	3.30	4.50
2007190194	2007190704	43.800	26.000	4.70	2.90	25.90	11.70	1.250	0.340	16.300	13.800	2.10	1.50
2007190194	2007190704	44.100	24.500	4.90	2.50	26.70	11.10	1.370	0.330	16.000	10.700	2.10	1.40
2007190194	2007190704	68.800	46.700	10.80	9.90	28.50	15.20	1.410	0.770	17.600	13.000	2.90	2.50
2007190194	2007190704	69.000	40.900	9.90	9.50	27.00	13.70	1.460	0.680	20.100	19.300	3.40	2.40
2007190197	2007190962	11.100	10.100	0.90	1.30	26.10	21.80	0.320	0.370	2.370	6.000	0.40	0.50
2007190197	2007190962	40.100	48.900	2.20	4.30	12.60	15.20	0.780	1.020	3.640	17.000	1.70	2.30
2007190197	2007190962	43.300	17.600	10.50	3.60	31.80	29.30	1.320	0.720	7.980	6.970	1.20	1.00
2007190197	2007190962	135.000	59.500	30.60	9.80	30.10	30.40	2.760	1.470	14.400	12.000	3.30	2.70
2007190208	2007191593	7.650	9.680	1.20	1.30	4.70	6.90	0.210	0.310	0.880	0.990	0.30	0.50
2007190208	2007191593	12.800	11.100	1.50	1.70	3.90	3.60	0.250	0.380	0.830	0.670	0.60	0.50
2007190208	2007191593	19.400	16.200	0.40	1.30	8.50	6.70	0.630	0.780	1.100	0.830	1.20	1.10
2007190208	2007191593	23.100	23.000	0.60	1.50	12.50	10.20	0.790	0.890	1.110	1.860	1.50	1.60
2007190209	2007191254	92.600	28.100	26.10	8.10	11.30	16.20	0.470	0.590	8.580	8.980	2.40	1.70
2007190209	2007191254	49.400	39.100	10.00	9.90	12.00	19.30	0.570	0.700	10.300	10.900	2.70	2.60
2007190209	2007191254	44.900	24.800	9.80	5.60	14.60	17.10	0.520	0.500	7.930	6.970	2.40	1.70
2007190209	2007191254	66.400	48.000	16.50	14.20	17.70	35.30	0.650	1.390	11.300	23.400	2.90	2.90
2007190212	2007190747	5.140	7.950	1.10	0.80	10.10	8.90	0.220	0.260	3.440	2.940	0.30	0.30
2007190212	2007190747	30.400	63.400	11.60	7.10	31.90	30.10	0.750	1.590	22.200	24.900	1.80	4.00
2007190212	2007190747	5.100	5.790	1.20	0.80	8.30	10.10	0.300	0.290	3.000	4.500	0.30	0.40
2007190212	2007190747	39.600	34.100	6.80	4.10	35.20	21.40	1.420	0.870	16.600	15.800	2.60	2.40
2007190218	2007191348	10.200	13.300	1.00	0.90	80.70	63.80	0.200	0.450	5.500	5.770	0.50	0.70
2007190218	2007191348	33.100	39.000	2.50	3.10	77.40	90.00	0.380	0.970	12.000	17.400	1.70	2.10
2007190218	2007191348	21.800	27.800	7.20	5.60	71.60	73.70	0.270	0.860	6.180	9.850	0.60	1.20
2007190218	2007191348	51.600	61.900	14.20	11.40	84.00	91.80	0.450	1.430	11.200	18.200	1.70	2.80
2007190241	2007190978	33.900	28.000	20.20	23.10	57.50	50.70	0.390	0.190	23.000	25.900	2.00	2.20
2007190241	2007190978	51.600	51.200	34.60	41.90	117.00	104.00	0.580	0.250	39.800	45.600	3.30	4.00
2007190241	2007190978	33.400	34.600	18.40	25.20	53.90	58.70	0.560	0.470	23.800	31.200	2.10	2.80
2007190241	2007190978	57.800	55.800	34.60	38.80	107.00	98.60	0.790	0.620	45.800	51.300	3.90	4.60
2007190248	2007191198	9.290	9.810	1.50	1.20	6.60	4.80	0.350	0.280	5.980	2.620	0.60	0.70
2007190248	2007191198	25.300	33.700	5.40	4.00	15.20	18.30	0.810	0.430	22.600	5.650	1.50	1.70
2007190248	2007191198	9.710	8.520	1.70	1.70	6.90	6.30	0.300	0.360	8.680	3.670	0.70	0.60
2007190248	2007191198	37.700	27.000	4.60	5.60	17.20	17.90	0.620	0.910	50.900	9.320	2.10	1.60
2007190256	2007190875	22.100	9.630	3.80	3.00	19.20	14.70	0.490	0.160	6.890	4.560	1.70	0.80
2007190256	2007190875	31.100	45.000	6.30	112.00	21.20	1100.00	1.240	1.140	10.700	670.000	1.70	2.50
2007190256	2007190875	44.800	45.100	6.30	5.90	25.20	15.10	1.370	1.020	10.700	9.510	2.20	2.60
2007190258	2007191176	28.600	25.900	9.80	7.10	22.10	17.20	1.880	1.070	9.950	6.690	1.40	1.20
2007190258	2007191176	38.200	39.200	12.90	10.40	28.00	29.10	2.080	1.340	13.200	11.100	2.00	1.70
2007190258	2007191176	23.700	22.100	5.20	6.80	9.30	18.40	1.050	1.320	5.350	6.730	0.80	1.10
2007190258	2007191176	53.300	46.700	11.60	11.80	24.70	32.70	1.540	1.860	11.800	13.200	2.00	2.20
2007190266	2007191458	21.300	15.400	4.10	2.40	14.20	4.20	1.910	0.450	7.780	3.750	1.20	0.90
2007190266	2007191458	36.800	36.100	7.00	6.10	26.50	12.00	3.130	1.210	13.700	9.150	2.10	2.00
2007190266	2007191458	17.800	7.530	2.30	0.60	8.40	1.10	1.530	0.250	4.500	1.090	0.80	0.40
2007190285	2007190406	60.400	61.000	25.50	23.70	99.90	75.30	1.790	0.970	20.300	15.300	3.00	2.90
2007190285	2007190406	58.900	63.600	24.50	22.90	106.00	73.60	1.950	0.890	21.900	16.100	3.30	3.00
2007190285	2007190406	58.900	60.200	26.50	23.30	99.50	77.60	1.660	0.930	20.900	16.300	2.90	2.90
2007190285	2007190406	63.000	60.900	29.80	25.20	110.00	74.30	1.870	0.890	23.500	18.000	3.00	3.20
2007190296	2007190758	5.940	5.000	1.70	1.40	30.20	28.00	0.320	0.230	2.250	4.020	0.40	0.40
2007190296	2007190758	26.600	20.600	6.80	4.10	22.60	18.50	0.700	0.550	8.620	10.100	1.70	1.70
2007190296	2007190758	6.420	5.410	1.70	1.90	30.00	27.70	0.410	0.340	2.120	4.230	0.40	0.40
2007190296	2007190758	20.100	15.100	4.20	3.50	21.80	20.30	0.690	0.640	5.260	8.490	1.40	1.10
2007190311	2007191259	1.740	2.220	0.10	0.10	3.30	1.50	0.070	0.030	0.900	0.180	0.05	0.05
2007190311	2007191259	9.920	10.200	0.70	0.40	13.80	8.10	0.260	0.100	2.680	0.930	0.30	0.20
2007190311	2007191259	16.700	2.460	0.90	0.05	13.40	4.60	0.630	0.150	0.960	0.020	0.60	0.05
2007190311	2007191259	48.700	9.000	3.00	0.40	46.30	22.80	2.000	0.540	1.310	0.530	2.10	0.40
2007190328	2007191598	10.200	8.140	1.20	1.00	21.30	18.80	0.230	0.320	1.700	2.480	0.40	0.30
2007190328	2007191598	41.700	38.900	3.20	3.20	20.00	22.30	0.560	0.720	5.520	8.450	1.60	1.80
2007190328	2007191598	10.700	9.080	1.40	2.00	33.20	24.60	0.460	0.580	2.270	3.920	0.40	0.40
2007190328	2007191598	41.500	35.500	4.30	4.70	33.10	38.10	1.260	1.350	7.580	9.430	1.60	1.60
2007190335	2007190692	42.600	34.500	9.10	7.00	35.70	26.80	2.130	1.200	18.500	14.700	3.00	2.50
2007190335	2007190692	50.700	47.300	10.70	9.40	40.60	32.90	2.610	1.510	23.100	19.300	3.60	3.60
2007190335	2007190692	32.600	29.400	7.40	5.70	38.40	33.00	2.590	1.800	14.900	14.700	2.40	2.60
2007190335	2007190692	40.000	34.800	8.70	6.80	45.20	37.60	3.340	2.340	19.000	19.000	2.90	3.20
2007190342	2007190989	59.500	47.200	12.30	13.40	78.70	64.00	0.780	1.090	24.600	22.700	2.30	2.20
2007190342	2007190989	95.600	67.100	20.10	19.40	82.50	69.70	0.980	1.320	38.700	33.300	4.00	3.70

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Er (ppm)	Er (ppm)	Eu (ppm)	Eu (ppm)	Fe (ppm)	Fe (ppm)	Ga (ppm)	Ga (ppm)	Gd (ppm)	Gd (ppm)	Ge (ppm)	Ge (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1	100	100	0.02	0.02	0.1	0.1	0.1	0.1
ULD:	ULD:												
2007190181	2007191396	1.20	1.40	0.90	0.90	39100	36500	7.180	8.580	3.80	4.00	0.05	0.05
2007190181	2007191396	1.30	1.20	0.90	0.80	34300	30800	6.460	7.270	3.80	3.60	0.05	0.05
2007190181	2007191396	1.10	1.20	0.80	0.80	29800	32600	6.570	7.870	3.50	3.70	0.05	0.05
2007190181	2007191396	1.40	1.50	1.00	0.90	34800	37500	7.900	9.370	4.30	4.40	0.05	0.05
2007190183	2007190471	0.20	0.30	0.10	0.10	9000	8800	1.490	1.590	0.70	0.60	0.05	0.05
2007190183	2007190471	0.60	0.90	0.40	0.40	23000	19400	3.950	4.970	2.30	2.40	0.05	0.05
2007190183	2007190471	1.20	0.90	0.80	0.50	28500	20100	6.290	5.400	4.90	2.80	0.05	0.05
2007190183	2007190471	1.60	1.60	1.00	0.80	34700	23000	8.030	7.430	6.20	4.60	0.05	0.05
2007190185	2007191253	0.90	0.70	0.70	0.60	60500	55300	6.150	3.550	3.30	2.00	0.10	0.05
2007190185	2007191253	0.90	0.80	0.80	0.60	67400	67300	6.990	4.270	3.90	2.10	0.10	0.05
2007190185	2007191253	1.00	0.80	0.80	0.60	67400	67800	7.750	4.830	3.90	2.00	0.05	0.05
2007190185	2007191253	1.10	0.80	0.90	0.70	67000	56900	7.400	4.730	4.10	2.50	0.10	0.05
2007190189	2007191542	1.30	1.30	1.00	0.90	33600	11100	9.730	4.600	4.60	3.60	0.05	0.05
2007190189	2007191542	1.20	1.10	0.90	0.80	28200	9800	8.070	4.460	4.10	3.40	0.05	0.05
2007190189	2007191542	1.30	1.30	1.10	1.00	33100	10200	9.840	4.330	4.80	3.90	0.05	0.05
2007190189	2007191542	1.20	1.30	0.90	0.90	29600	10000	8.390	4.090	4.40	3.40	0.10	0.05
2007190193	2007190788	1.10	1.80	0.90	1.30	16800	23800	4.500	6.890	4.60	6.40	0.05	0.10
2007190193	2007190788	1.00	1.50	0.80	1.10	15600	20100	4.390	5.220	4.30	5.80	0.05	0.05
2007190193	2007190788	1.40	1.60	1.10	1.10	23000	19100	6.300	5.010	5.60	5.90	0.05	0.10
2007190193	2007190788	1.50	2.10	1.00	1.40	20100	21400	5.600	5.730	5.70	7.30	0.05	0.10
2007190194	2007190704	0.90	0.80	0.80	0.60	16100	6500	4.600	2.120	3.50	2.70	0.05	0.05
2007190194	2007190704	0.90	0.70	0.70	0.60	17200	7300	4.730	2.260	3.60	2.40	0.05	0.05
2007190194	2007190704	1.30	1.20	1.10	0.90	18300	12200	4.630	3.380	5.40	4.20	0.05	0.05
2007190194	2007190704	1.50	1.20	1.20	0.80	17400	11100	4.360	3.260	5.70	3.90	0.05	0.05
2007190197	2007190962	0.20	0.20	0.20	0.20	4900	5000	1.160	0.920	0.80	0.60	0.05	0.05
2007190197	2007190962	0.70	1.00	0.60	0.80	6400	8700	1.980	2.460	3.20	3.10	0.05	0.05
2007190197	2007190962	0.50	0.40	0.40	0.30	15800	14900	3.670	2.210	2.00	1.00	0.05	0.05
2007190197	2007190962	1.50	1.10	1.10	0.90	31400	24500	8.050	4.660	6.10	3.80	0.05	0.05
2007190208	2007191593	0.05	0.10	0.10	0.10	3300	3600	0.420	0.670	0.40	0.80	0.05	0.05
2007190208	2007191593	0.20	0.20	0.20	0.20	2000	2000	0.420	0.590	0.80	1.00	0.05	0.05
2007190208	2007191593	0.50	0.50	0.30	0.30	6600	8000	1.890	3.100	1.40	1.30	0.05	0.05
2007190208	2007191593	0.70	0.70	0.50	0.40	8600	8200	0.940	4.480	2.00	2.00	0.05	0.05
2007190209	2007191254	1.10	0.90	0.90	0.70	8400	12100	1.820	2.390	4.30	2.30	0.05	0.05
2007190209	2007191254	1.20	1.30	0.90	0.90	8800	17400	2.240	4.410	4.50	3.00	0.05	0.05
2007190209	2007191254	1.10	0.70	0.90	0.60	8300	9500	2.030	2.120	3.90	2.00	0.05	0.05
2007190209	2007191254	1.40	1.50	1.10	1.10	9900	25800	2.410	6.040	5.10	3.70	0.05	0.05
2007190212	2007190747	0.10	0.10	0.05	0.05	6900	4500	0.760	0.470	0.50	0.50	0.05	0.05
2007190212	2007190747	0.70	1.70	0.60	1.00	30400	25500	4.450	5.390	2.30	4.40	0.05	0.10
2007190212	2007190747	0.10	0.10	0.05	0.05	4900	4600	0.940	0.540	0.40	0.40	0.05	0.05
2007190212	2007190747	1.10	1.00	0.60	0.60	21300	15000	5.410	2.400	3.00	2.90	0.05	0.05
2007190218	2007191348	0.20	0.30	0.20	0.20	21200	21100	2.430	3.770	0.80	1.00	0.05	0.05
2007190218	2007191348	0.80	0.90	0.60	0.70	38100	46900	5.480	9.350	2.60	2.80	0.05	0.05
2007190218	2007191348	0.30	0.60	0.20	0.40	27600	30500	3.230	5.390	1.00	1.50	0.05	0.05
2007190218	2007191348	0.80	1.40	0.60	0.90	42700	49700	6.080	9.860	2.70	3.60	0.05	0.10
2007190241	2007190978	1.00	1.00	0.80	0.70	37000	38900	5.480	5.630	2.00	2.70	0.05	0.10
2007190241	2007190978	1.60	1.90	1.40	1.30	64100	71000	9.030	10.100	3.10	4.70	0.10	0.20
2007190241	2007190978	0.90	1.30	0.90	0.90	35700	43700	5.940	6.640	1.90	3.40	0.05	0.10
2007190241	2007190978	2.00	2.10	1.70	1.50	63400	65900	10.700	10.500	3.80	5.40	0.10	0.20
2007190248	2007191198	0.20	0.30	0.30	0.30	5200	4300	0.860	0.980	1.10	0.90	0.05	0.05
2007190248	2007191198	0.60	0.60	0.50	0.50	19200	20200	3.720	1.960	1.90	2.60	0.05	0.05
2007190248	2007191198	0.30	0.30	0.20	0.30	6200	5600	0.950	1.220	0.90	1.00	0.05	0.05
2007190248	2007191198	0.80	0.80	0.50	0.60	19900	20100	2.500	3.950	2.70	2.30	0.05	0.05
2007190256	2007190875	0.80	0.40	0.60	0.30	33700	16900	2.890	1.320	1.90	1.10	0.05	0.05
2007190256	2007190875	0.80	1.20	0.70	1.00	20700	192000	4.710	18.000	2.00	3.20	0.05	0.20
2007190256	2007190875	1.00	1.10	0.80	0.70	21300	21000	4.960	3.150	2.70	3.60	0.05	0.05
2007190258	2007191176	0.70	0.50	0.50	0.30	18600	14600	3.230	2.750	2.50	1.60	0.05	0.05
2007190258	2007191176	1.00	0.70	0.70	0.50	25000	21200	4.370	3.900	3.40	2.60	0.05	0.05
2007190258	2007191176	0.40	0.50	0.30	0.30	11500	14200	1.800	2.620	1.60	1.50	0.05	0.05
2007190258	2007191176	0.80	1.00	0.70	0.60	24600	24700	3.750	5.020	3.50	3.00	0.05	0.05
2007190266	2007191458	0.60	0.40	0.40	0.30	13700	5300	4.100	0.950	1.30	1.10	0.10	0.05
2007190266	2007191458	1.00	1.00	0.80	0.80	29300	14600	7.330	2.860	2.30	2.50	0.20	0.05
2007190266	2007191458	0.40	0.20	0.30	0.10	8200	1800	2.510	0.360	1.00	0.50	0.10	0.05
2007190285	2007190406	1.40	1.20	1.30	0.70	39400	24400	10.100	5.670	3.40	3.70	0.05	0.05
2007190285	2007190406	1.50	1.40	1.40	0.80	42500	25400	11.100	6.050	3.60	3.90	0.05	0.05
2007190285	2007190406	1.40	1.30	1.20	0.70	38600	25400	9.710	5.810	3.30	3.80	0.10	0.05
2007190285	2007190406	1.40	1.50	1.30	0.80	43800	25100	10.900	5.660	3.50	4.20	0.10	0.05
2007190296	2007190758	0.20	0.20	0.10	0.10	6600	7400	1.800	0.830	0.40	0.40	0.05	0.05
2007190296	2007190758	0.80	0.80	0.60	0.50	15200	15500	4.590	3.360	1.70	1.70	0.05	0.05
2007190296	2007190758	0.20	0.20	0.10	0.10	8200	9600	2.310	1.500	0.40	0.40	0.05	0.05
2007190296	2007190758	0.60	0.50	0.50	0.30	16400	14700	4.980	2.710	1.30	1.30	0.05	0.05
2007190311	2007191259	0.05	0.05	0.05	0.05	2200	500	0.270	0.200	0.05	0.05	0.05	0.05
2007190311	2007191259	0.10	0.10	0.05	0.05	7100	2900	1.020	0.960	0.50	0.40	0.05	0.05
2007190311	2007191259	0.30	0.05	0.10	0.05	11800	1900	1.270	0.340	1.10	0.10	0.05	0.05
2007190311	2007191259	0.90	0.20	0.60	0.05	38000	9800	4.510	2.050	3.40	0.50	0.05	0.05
2007190328	2007191598	0.20	0.10	0.10	0.10	4600	5800	1.340	1.400	0.40	0.60	0.05	0.05
2007190328	2007191598	0.70	0.80	0.60	0.50	11500	18200	3.680	4.340	1.70	2.50	0.05	0.05
2007190328	2007191598	0.20	0.10	0.10	0.05	7900	12400	2.860	3.250	0.40	0.50	0.05	0.05
2007190328	2007191598	0.70	0.70	0.60	0.40	21300	31500	7.860	8.230	1.70	2.40	0.05	0.05
2007190335	2007190692	1.30	1.10	1.10	0.70	32200	24600	9.250	4.900	2.70	2.60	0.05	0.05
2007190335	2007190692	1.70	1.60	1.40	1.10	38400	31200	11.200	6.850	3.10	3.80	0.05	0.10
2007190335	2007190692	1.20	1.20	0.90	0.80	33700	23200	11.300	5.870	2.20	2.80	0.05	0.05
2007190335	2007190692	1.40	1.50	1.10	1.00	40500	28000	14.100	6.620	2.60	3.60	0.05	0.05
2007190342	2007190989	1.00	1.00	0.70	0.70	37000	27700	5.560	4.060	3.70	3.40	0.05	0.05
2007190342	2007190989	1.80	1.60	1.30	1.10	53800	51600	8.170	5.400	6.20	5.20	0.05	0.05

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Hf (ppm)	Hf (ppm)	Hg (ppm)	Hg (ppm)	Ho (ppm)	Ho (ppm)	In (ppm)	In (ppm)	K (ppm)	K (ppm)	La (ppm)	La (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.01	0.01	0.1	0.1	0.02	0.02	100	100	0.5	0.5
ULD:	ULD:												
2007190181	2007191396	0.20	0.20	0.340	0.020	0.50	0.50	0.250	0.040	4300	5200	21.10	23.50
2007190181	2007191396	0.20	0.20	0.030	0.030	0.50	0.50	0.110	0.030	4000	4500	21.00	20.30
2007190181	2007191396	0.10	0.20	0.005	0.005	0.40	0.50	0.030	0.030	3100	4100	20.20	21.30
2007190181	2007191396	0.10	0.20	0.020	0.005	0.60	0.60	0.040	0.040	3700	4800	23.60	24.20
2007190183	2007190471	0.05	0.05	0.005	0.005	0.05	0.05	0.010	0.010	1800	1300	4.80	4.60
2007190183	2007190471	0.05	0.05	0.005	0.005	0.30	0.40	0.010	0.020	4900	3900	14.80	13.90
2007190183	2007190471	0.40	0.30	0.005	0.005	0.50	0.40	0.030	0.030	9000	4900	32.10	16.80
2007190183	2007190471	0.40	0.40	0.005	0.005	0.60	0.60	0.050	0.040	10600	7500	41.00	28.00
2007190185	2007191253	0.20	0.30	0.010	0.030	0.30	0.40	0.030	0.010	3100	1700	22.60	14.90
2007190185	2007191253	0.20	0.20	0.020	0.020	0.40	0.50	0.040	0.010	3700	2200	27.60	16.00
2007190185	2007191253	0.20	0.20	0.010	0.020	0.40	0.50	0.040	0.010	3600	2300	26.40	16.60
2007190185	2007191253	0.10	0.20	0.030	0.030	0.40	0.50	0.040	0.010	3700	2400	28.40	19.30
2007190189	2007191542	0.30	0.05	0.005	0.005	0.50	0.50	0.040	0.030	10300	4200	26.20	23.00
2007190189	2007191542	0.20	0.10	0.020	0.010	0.50	0.50	0.030	0.020	8900	3800	23.60	20.60
2007190189	2007191542	0.30	0.10	0.005	0.030	0.50	0.60	0.040	0.030	9100	3600	25.90	23.10
2007190189	2007191542	0.20	0.10	0.020	0.020	0.50	0.50	0.040	0.010	8500	3700	24.10	20.00
2007190193	2007190788	0.05	0.20	0.110	0.050	0.50	0.70	0.030	0.040	4400	4500	31.40	37.00
2007190193	2007190788	0.05	0.10	0.090	0.060	0.40	0.60	0.020	0.030	4200	3500	29.80	33.60
2007190193	2007190788	0.10	0.20	0.020	0.010	0.60	0.60	0.030	0.020	4900	2900	38.60	34.60
2007190193	2007190788	0.05	0.20	0.010	0.020	0.60	0.90	0.030	0.030	4600	3400	38.00	42.70
2007190194	2007190704	0.05	0.05	0.005	0.030	0.40	0.30	0.010	0.010	3500	1900	20.80	13.00
2007190194	2007190704	0.05	0.05	0.020	0.020	0.40	0.30	0.020	0.010	3500	2000	20.80	12.70
2007190194	2007190704	0.05	0.05	0.005	0.010	0.50	0.40	0.010	0.010	3000	2500	30.00	23.00
2007190194	2007190704	0.05	0.05	0.030	0.010	0.60	0.40	0.020	0.010	3000	2300	32.00	20.70
2007190197	2007190962	0.05	0.05	0.005	0.020	0.05	0.10	0.010	0.010	200	300	6.00	5.90
2007190197	2007190962	0.05	0.05	0.005	0.060	0.30	0.60	0.010	0.010	600	700	22.10	27.50
2007190197	2007190962	0.10	0.05	0.010	0.005	0.20	0.70	0.020	0.010	600	400	12.60	7.60
2007190197	2007190962	0.20	0.05	0.010	0.010	0.60	0.60	0.050	0.010	1000	600	34.80	24.10
2007190208	2007191593	0.05	0.05	0.005	0.030	0.05	0.05	0.010	0.010	200	200	3.30	4.70
2007190208	2007191593	0.05	0.05	0.020	0.010	0.10	0.05	0.010	0.010	200	200	5.60	5.80
2007190208	2007191593	0.05	0.05	0.040	0.010	0.20	0.20	0.020	0.010	200	300	8.00	6.90
2007190208	2007191593	0.05	0.05	0.020	0.030	0.30	0.20	0.020	0.010	200	400	9.90	10.20
2007190209	2007191254	0.05	0.05	0.005	0.020	0.40	0.50	0.010	0.010	700	700	19.80	11.80
2007190209	2007191254	0.05	0.05	0.005	0.005	0.50	0.70	0.010	0.010	800	1000	20.40	17.10
2007190209	2007191254	0.05	0.05	0.020	0.020	0.40	0.50	0.010	0.010	700	600	18.60	10.60
2007190209	2007191254	0.05	0.10	0.010	0.005	0.60	0.80	0.010	0.010	900	1400	22.90	20.50
2007190212	2007190747	0.05	0.05	0.005	0.010	0.05	0.05	0.010	0.010	400	500	2.30	4.10
2007190212	2007190747	0.05	0.05	0.160	0.050	0.30	0.60	0.030	0.010	3200	3100	13.70	29.10
2007190212	2007190747	0.05	0.05	0.005	0.005	0.05	0.05	0.010	0.010	1000	500	2.50	2.80
2007190212	2007190747	0.10	0.05	0.030	0.005	0.40	0.40	0.030	0.010	4800	1400	18.80	16.60
2007190218	2007191348	0.10	0.05	0.005	0.020	0.05	0.10	0.010	0.020	300	600	4.60	6.20
2007190218	2007191348	0.10	0.10	0.060	0.020	0.30	0.40	0.040	0.060	700	1300	13.70	17.80
2007190218	2007191348	0.20	0.20	0.020	0.020	0.10	0.20	0.020	0.030	400	900	5.70	10.10
2007190218	2007191348	0.20	0.30	0.020	0.030	0.30	0.50	0.050	0.060	900	1400	13.60	22.60
2007190241	2007190978	0.20	0.30	0.005	0.005	0.40	0.40	0.020	0.020	2100	3200	17.90	14.10
2007190241	2007190978	0.20	0.50	0.020	0.005	0.60	0.70	0.040	0.040	3100	5000	27.20	25.90
2007190241	2007190978	0.20	0.20	0.005	0.010	0.40	0.50	0.030	0.030	1500	1500	17.70	18.60
2007190241	2007190978	0.30	0.40	0.010	0.010	0.70	0.80	0.050	0.040	2400	2200	32.10	29.60
2007190248	2007191198	0.05	0.05	0.020	0.020	0.10	0.20	0.010	0.010	900	1000	4.90	5.50
2007190248	2007191198	0.10	0.30	0.030	0.005	0.30	0.30	0.010	0.010	3000	1800	12.00	20.10
2007190248	2007191198	0.05	0.10	0.005	0.005	0.10	0.20	0.010	0.010	800	1100	4.70	5.10
2007190248	2007191198	0.20	0.20	0.020	0.030	0.40	0.30	0.010	0.010	1800	3700	18.50	14.10
2007190256	2007190875	0.05	0.05	0.010	0.005	0.30	0.10	0.010	0.010	900	200	13.30	5.50
2007190256	2007190875	0.20	0.50	0.005	0.040	0.30	0.40	0.010	0.090	2600	700	15.10	21.90
2007190256	2007190875	0.20	0.20	0.030	0.005	0.40	0.40	0.010	0.010	2600	1600	21.10	21.50
2007190258	2007191176	0.05	0.05	0.040	0.020	0.30	0.20	0.010	0.010	800	600	14.10	13.10
2007190258	2007191176	0.05	0.05	0.110	0.020	0.40	0.30	0.050	0.010	1100	800	18.70	19.70
2007190258	2007191176	0.05	0.05	0.010	0.050	0.20	0.20	0.010	0.010	600	600	11.00	11.30
2007190258	2007191176	0.05	0.05	0.020	0.020	0.40	0.40	0.010	0.030	800	1000	26.10	24.00
2007190266	2007191458	0.20	0.05	0.020	0.005	0.20	0.20	0.010	0.010	2700	1300	10.70	6.60
2007190266	2007191458	0.30	0.05	0.020	0.005	0.40	0.40	0.030	0.010	5000	3200	17.40	15.00
2007190266	2007191458	0.10	0.05	0.005	0.005	0.20	0.05	0.010	0.010	2300	300	9.10	4.10
2007190285	2007190406	0.20	0.05	0.010	0.020	0.60	0.50	0.040	0.040	1200	900	25.00	20.80
2007190285	2007190406	0.20	0.05	0.020	0.040	0.60	0.60	0.050	0.030	1200	900	26.60	22.20
2007190285	2007190406	0.30	0.20	0.030	0.005	0.50	0.50	0.040	0.030	1000	500	22.00	20.90
2007190285	2007190406	0.30	0.10	0.010	0.020	0.60	0.60	0.040	0.030	1100	500	22.60	22.40
2007190296	2007190758	0.05	0.05	0.010	0.005	0.05	0.05	0.010	0.010	300	300	3.80	2.70
2007190296	2007190758	0.10	0.05	0.030	0.040	0.30	0.20	0.030	0.010	800	600	16.00	10.80
2007190296	2007190758	0.05	0.05	0.005	0.020	0.05	0.05	0.010	0.010	400	300	4.00	2.80
2007190296	2007190758	0.10	0.05	0.005	0.040	0.30	0.10	0.030	0.010	800	500	13.00	8.10
2007190311	2007191259	0.05	0.05	0.005	0.010	0.05	0.05	0.010	0.010	200	50	1.00	1.00
2007190311	2007191259	0.05	0.05	0.005	0.030	0.05	0.05	0.010	0.010	500	300	5.30	4.40
2007190311	2007191259	0.05	0.05	0.005	0.040	0.05	0.05	0.010	0.010	1200	200	9.20	1.40
2007190311	2007191259	0.20	0.05	0.020	0.050	0.40	0.05	0.030	0.010	4600	1300	29.20	5.20
2007190328	2007191598	0.05	0.05	0.010	0.020	0.05	0.05	0.010	0.010	50	200	4.60	4.10
2007190328	2007191598	0.05	0.05	0.005	0.020	0.30	0.30	0.010	0.010	300	400	17.60	17.10
2007190328	2007191598	0.20	0.10	0.020	0.010	0.05	0.05	0.010	0.010	200	300	4.60	4.50
2007190328	2007191598	0.30	0.20	0.020	0.030	0.30	0.20	0.040	0.020	600	600	17.90	16.30
2007190335	2007190692	0.20	0.10	0.005	0.020	0.50	0.40	0.040	0.010	6100	4600	18.50	13.50
2007190335	2007190692	0.20	0.10	0.040	0.030	0.70	0.50	0.040	0.010	7400	6100	23.20	19.70
2007190335	2007190692	0.30	0.10	0.030	0.030	0.40	0.40	0.050	0.010	8900	6700	17.60	14.80
2007190335	2007190692	0.30	0.10	0.020	0.070	0.50	0.50	0.060	0.010	10600	8000	19.90	17.60
2007190342	2007190989	0.20	0.05	0.040	0.070	0.40	0.40	0.030	0.030	2500	2000	27.80	19.90
2007190342	2007190989	0.20	0.05	0.040	0.050	0.70	0.60	0.050	0.040	3700	2900	43.70	30.30

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Li (ppm)	Li (ppm)	Lu (ppm)	Lu (ppm)	Mg (ppm)	Mg (ppm)	Mn (ppm)	Mn (ppm)	Mo (ppm)	Mo (ppm)	Na (ppm)	Na (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1	100	100	1	1	0.01	0.01	10	10
ULD:	ULD:												
2007190181	2007191396	13.80	12.60	0.10	0.10	4700	5300	747	771	0.260	0.330	240	310
2007190181	2007191396	12.60	11.10	0.10	0.05	4300	4600	748	705	0.260	0.290	220	290
2007190181	2007191396	12.50	10.80	0.10	0.05	4300	4800	688	1180	0.180	0.370	510	440
2007190181	2007191396	14.40	12.90	0.20	0.10	5100	5700	1030	1090	0.380	0.490	560	530
2007190183	2007190471	4.40	3.00	0.05	0.05	1500	1500	63	69	0.180	2.900	5040	1850
2007190183	2007190471	12.60	11.60	0.05	0.10	4200	5200	170	175	0.450	1.990	7970	3230
2007190183	2007190471	34.50	18.20	0.10	0.10	24300	17600	846	245	2.140	1.040	9050	5620
2007190183	2007190471	43.00	30.30	0.20	0.20	30800	30400	735	408	1.810	1.010	4680	5250
2007190185	2007191253	11.60	6.20	0.05	0.05	5000	3100	636	379	0.630	0.600	150	140
2007190185	2007191253	13.80	7.70	0.05	0.05	5500	3400	781	512	0.570	0.680	160	140
2007190185	2007191253	14.90	8.40	0.05	0.05	6600	4300	969	618	0.580	0.660	200	150
2007190185	2007191253	14.50	8.80	0.10	0.05	6700	4700	1060	689	0.770	0.620	190	170
2007190189	2007191542	15.70	6.10	0.10	0.10	6200	7300	714	641	0.120	0.100	860	2730
2007190189	2007191542	13.20	5.40	0.10	0.10	5100	6400	603	389	0.180	0.100	720	2390
2007190189	2007191542	15.50	5.70	0.20	0.20	6200	6800	675	655	0.210	0.330	4350	7350
2007190189	2007191542	13.80	5.50	0.10	0.10	5500	6600	598	402	0.290	0.410	3920	6810
2007190193	2007190788	11.40	17.90	0.10	0.20	2100	2500	1200	382	0.310	0.310	230	310
2007190193	2007190788	10.20	14.70	0.05	0.20	1900	2100	873	365	0.280	0.280	200	230
2007190193	2007190788	14.80	14.50	0.20	0.20	3300	2100	723	740	0.200	0.310	390	420
2007190193	2007190788	13.10	16.30	0.20	0.20	2900	2300	505	864	0.260	0.500	360	460
2007190194	2007190704	6.40	2.40	0.05	0.20	1400	1000	204	107	0.140	0.090	160	50
2007190194	2007190704	8.10	2.40	0.05	0.05	1400	1000	215	93	0.170	0.180	160	5
2007190194	2007190704	7.50	3.40	0.10	0.10	1400	1600	670	463	0.240	0.200	190	400
2007190194	2007190704	7.10	3.40	0.20	0.20	1400	1500	655	464	0.360	0.200	190	150
2007190197	2007190962	1.40	3.00	0.05	0.05	50	100	84	60	0.120	0.160	50	110
2007190197	2007190962	4.20	10.50	0.05	0.05	300	300	254	295	0.140	0.160	70	130
2007190197	2007190962	14.70	10.00	0.05	0.30	300	300	541	116	0.260	0.400	290	200
2007190197	2007190962	36.70	19.80	0.20	0.10	900	500	1780	353	0.810	0.920	650	210
2007190208	2007191593	0.40	0.90	0.05	0.05	100	100	69	137	0.440	0.440	170	190
2007190208	2007191593	0.50	1.10	0.05	0.05	100	100	100	158	0.200	0.200	150	190
2007190208	2007191593	1.40	4.50	0.05	0.05	700	600	15	45	0.480	0.500	720	650
2007190208	2007191593	2.20	5.90	0.05	0.05	900	600	19	72	0.750	0.400	850	540
2007190209	2007191254	1.60	2.80	0.05	0.05	1500	1500	2130	389	0.220	0.130	120	120
2007190209	2007191254	1.90	4.50	0.10	0.05	1800	2100	630	505	0.130	0.190	130	150
2007190209	2007191254	1.60	2.60	0.05	0.05	1700	1200	569	286	0.260	0.250	550	170
2007190209	2007191254	2.20	8.30	0.10	0.10	2100	2800	988	715	0.720	0.700	690	270
2007190212	2007190747	1.30	1.20	0.05	0.05	300	200	52	32	0.050	0.080	120	5
2007190212	2007190747	21.10	9.30	0.05	0.20	3700	1500	627	413	1.150	0.350	300	10
2007190212	2007190747	3.60	1.30	0.05	0.05	1200	200	67	27	0.080	0.080	220	5
2007190212	2007190747	18.00	4.90	0.10	0.10	6300	800	369	150	0.430	0.220	670	5
2007190218	2007191348	0.80	1.80	0.05	0.05	50	100	57	66	0.250	0.280	50	30
2007190218	2007191348	2.30	7.00	0.05	0.10	100	400	156	171	0.720	0.890	50	50
2007190218	2007191348	3.70	7.40	0.05	0.05	100	400	209	243	0.350	0.400	50	90
2007190218	2007191348	7.00	15.10	0.05	0.10	200	700	432	455	0.710	0.730	70	140
2007190241	2007190978	3.80	3.20	0.10	0.10	5900	4900	652	644	0.550	0.350	430	360
2007190241	2007190978	6.20	5.60	0.20	0.20	9100	8100	1110	1180	0.900	0.660	830	480
2007190241	2007190978	4.60	4.40	0.10	0.10	6200	6500	665	710	0.340	0.290	460	370
2007190241	2007190978	8.60	6.90	0.30	0.30	11200	9400	1180	1160	0.720	0.470	960	600
2007190248	2007191198	1.50	1.70	0.05	0.05	800	600	71	47	0.040	0.060	170	260
2007190248	2007191198	6.10	3.20	0.05	0.05	2400	1400	255	236	0.120	0.160	260	320
2007190248	2007191198	1.60	2.40	0.05	0.05	600	900	85	60	0.050	0.050	240	1280
2007190248	2007191198	4.10	7.90	0.05	0.10	1600	2900	310	239	0.110	0.100	360	3610
2007190256	2007190875	2.90	0.05	0.05	0.05	900	300	124	380	0.600	0.780	80	80
2007190256	2007190875	10.00	9.10	0.05	0.10	3100	1000	213	1200	0.250	1.420	230	170
2007190256	2007190875	11.80	8.50	0.05	0.10	3200	2600	237	294	0.290	0.005	270	290
2007190258	2007191176	6.00	4.50	0.05	0.05	1800	1200	416	293	0.240	0.220	90	60
2007190258	2007191176	8.00	6.30	0.10	0.05	2400	1800	570	456	0.410	0.360	130	80
2007190258	2007191176	2.80	5.40	0.05	0.05	1100	1400	219	291	0.150	0.220	120	60
2007190258	2007191176	5.40	9.30	0.10	0.05	2000	2400	505	540	0.350	0.460	170	110
2007190266	2007191458	10.10	8.20	0.05	0.05	3600	2700	171	110	0.260	0.150	970	220
2007190266	2007191458	17.50	18.10	0.05	0.05	5800	5100	310	282	0.560	0.410	1800	550
2007190266	2007191458	10.00	2.60	0.05	0.05	3000	800	99	29	0.120	0.040	5920	50
2007190285	2007190406	6.50	3.90	0.10	0.20	3600	2000	1070	971	0.470	0.390	410	340
2007190285	2007190406	7.60	4.30	0.10	0.20	3800	2100	993	980	0.640	0.390	440	380
2007190285	2007190406	6.60	4.20	0.10	0.20	3900	2500	1080	987	0.580	0.230	1530	1610
2007190285	2007190406	7.60	3.30	0.10	0.20	4300	2600	1200	1050	0.800	0.580	1710	1660
2007190296	2007190758	1.60	0.70	0.05	0.05	100	100	80	85	0.130	0.150	5	10
2007190296	2007190758	4.30	2.30	0.05	0.05	400	300	296	304	0.300	0.330	20	10
2007190296	2007190758	2.60	1.60	0.05	0.05	200	200	54	65	0.160	0.150	10	5
2007190296	2007190758	5.60	3.00	0.05	0.05	500	300	156	140	0.270	0.360	20	5
2007190311	2007191259	0.50	0.05	0.05	0.05	500	200	13	5	0.005	0.020	2410	1110
2007190311	2007191259	2.40	1.10	0.05	0.05	2400	800	59	25	0.250	0.190	20100	4370
2007190311	2007191259	3.90	0.40	0.05	0.05	2000	600	29	0.5	0.040	0.090	3580	1470
2007190311	2007191259	14.00	3.10	0.05	0.05	7200	4000	88	5	0.180	0.380	10500	7580
2007190328	2007191598	0.90	1.50	0.05	0.05	50	50	64	37	0.090	0.080	10	190
2007190328	2007191598	3.00	4.40	0.05	0.05	100	200	199	156	0.240	0.250	20	190
2007190328	2007191598	2.40	3.60	0.05	0.05	50	50	36	43	0.190	0.130	20	190
2007190328	2007191598	7.90	9.00	0.05	0.05	200	200	106	113	0.670	0.360	30	190
2007190335	2007190692	19.40	9.70	0.20	0.10	3200	1900	857	451	0.450	0.360	60	40
2007190335	2007190692	23.30	13.50	0.20	0.20	3800	2400	955	621	0.550	0.480	70	50
2007190335	2007190692	20.40	10.90	0.20	0.20	9000	5700	287	237	0.290	0.230	520	120
2007190335	2007190692	28.10	15.60	0.20	0.20	10300	7600	346	253	0.310	0.340	680	170
2007190342	2007190989	4.00	2.70	0.90	0.20	1500	1400	784	762	0.520	1.000	60	50
2007190342	2007190989	6.20	3.00	1.30	0.30	2200	2100	1250	1400	0.730	1.250	80	30

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Nb (ppm)	Nb (ppm)	Nd (ppm)	Nd (ppm)	Ni (ppm)	Ni (ppm)	Pb (ppm)	Pb (ppm)	Pr (ppm)	Pr (ppm)	Rb (ppm)	Rb (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.02	0.02	0.1	0.1	0.01	0.01	0.1	0.1	0.1	0.1
ULD:	ULD:												
2007190181	2007191396	0.80	0.50	20.600	22.100	27.30	30.00	10.100	9.620	5.40	5.60	21.00	28.90
2007190181	2007191396	0.90	0.60	20.200	19.300	26.20	26.90	15.500	8.400	5.20	4.90	18.70	25.00
2007190181	2007191396	0.20	0.20	19.600	20.500	23.90	33.40	8.140	8.720	5.10	5.10	21.10	29.40
2007190181	2007191396	0.20	0.30	22.900	23.200	32.40	37.20	9.700	10.700	6.00	5.90	25.20	33.80
2007190183	2007190471	0.30	0.30	4.170	3.510	3.20	3.30	2.680	2.260	1.10	0.90	5.40	5.40
2007190183	2007190471	0.60	0.50	13.100	11.200	7.60	9.40	6.480	5.890	3.60	2.90	15.30	18.70
2007190183	2007190471	0.70	0.50	28.700	14.700	20.40	12.80	14.200	7.680	8.00	3.80	39.40	25.70
2007190183	2007190471	0.60	0.60	37.000	23.700	24.70	21.50	14.800	10.500	10.20	6.20	46.80	41.20
2007190185	2007191253	0.20	0.30	18.500	11.600	33.40	33.40	11.600	9.710	5.10	2.80	20.20	10.70
2007190185	2007191253	0.20	0.30	23.200	15.100	35.40	35.60	13.500	10.500	6.30	3.50	22.40	11.20
2007190185	2007191253	0.10	0.20	22.400	13.900	38.10	34.30	13.700	10.400	6.10	3.50	25.60	13.40
2007190185	2007191253	0.20	0.10	23.400	14.700	39.90	35.80	14.400	11.100	6.60	3.60	25.70	13.60
2007190189	2007191542	0.20	0.05	24.000	18.800	25.60	15.40	11.700	6.800	6.30	4.30	41.30	26.10
2007190189	2007191542	0.20	0.05	21.900	17.400	21.20	13.40	10.800	6.320	5.80	4.20	35.70	24.00
2007190189	2007191542	0.20	0.05	25.100	19.800	26.20	14.80	11.600	7.070	6.50	4.50	39.00	24.20
2007190189	2007191542	0.20	0.05	22.500	17.400	23.80	14.30	10.400	6.380	5.80	4.10	36.50	24.70
2007190193	2007190788	0.50	0.80	27.200	37.200	13.90	17.30	40.900	23.200	7.50	9.80	35.70	43.30
2007190193	2007190788	0.50	0.60	25.300	32.800	12.40	14.30	33.900	21.000	6.90	8.90	34.10	36.50
2007190193	2007190788	0.20	0.30	32.200	34.100	17.60	15.00	14.900	19.900	8.90	9.10	52.90	35.90
2007190193	2007190788	0.30	0.30	31.400	43.000	15.20	18.30	12.200	20.500	8.60	11.60	48.90	40.50
2007190194	2007190704	0.20	0.05	19.300	10.900	10.70	5.60	11.500	9.440	5.20	2.90	20.70	9.40
2007190194	2007190704	0.20	0.05	19.200	9.760	11.00	5.00	12.300	10.200	5.20	2.70	21.40	9.50
2007190194	2007190704	0.10	0.05	27.800	17.600	15.00	11.40	12.900	12.000	7.50	4.70	21.70	16.10
2007190194	2007190704	0.10	0.05	30.300	16.300	15.00	10.70	13.200	10.700	7.90	4.30	22.00	15.60
2007190197	2007190962	0.05	0.10	5.360	5.350	1.60	2.70	2.070	1.930	1.50	1.20	4.50	4.40
2007190197	2007190962	0.20	0.30	19.600	25.000	2.30	5.40	5.890	6.690	5.50	6.10	12.70	16.30
2007190197	2007190962	0.05	0.05	12.000	6.430	7.60	5.50	7.300	4.890	3.30	1.70	12.40	7.10
2007190197	2007190962	0.05	0.10	33.400	22.200	16.90	13.00	20.500	13.400	8.90	5.00	29.10	16.00
2007190208	2007191593	0.05	0.10	3.520	3.810	1.20	1.40	0.020	4.290	0.90	1.00	2.60	2.90
2007190208	2007191593	0.05	0.10	5.290	5.920	0.70	1.10	0.040	5.570	1.40	1.40	3.00	3.20
2007190208	2007191593	0.05	0.05	7.870	8.120	2.30	2.00	0.080	7.080	2.00	2.00	4.60	5.20
2007190208	2007191593	0.05	0.40	11.300	10.900	4.40	4.20	0.090	9.160	2.50	2.70	6.00	8.40
2007190209	2007191254	0.05	0.05	21.500	13.300	13.40	7.20	11.600	8.680	5.50	2.90	7.20	8.10
2007190209	2007191254	0.05	0.05	22.200	18.800	6.80	8.40	11.800	10.400	5.80	4.20	8.60	11.40
2007190209	2007191254	0.05	0.05	20.500	10.300	6.90	6.10	10.600	7.140	5.30	2.50	8.10	6.40
2007190209	2007191254	0.05	0.05	25.600	21.000	11.70	18.30	16.400	14.300	6.50	4.70	10.20	17.70
2007190212	2007190747	0.10	0.05	2.640	3.620	2.10	2.70	0.020	1.970	0.60	1.00	3.90	4.10
2007190212	2007190747	0.40	0.60	16.500	30.800	41.70	15.80	0.130	10.600	3.80	7.60	18.30	27.70
2007190212	2007190747	0.10	0.05	2.600	2.760	3.00	2.80	0.030	2.170	0.70	0.70	6.40	4.40
2007190212	2007190747	0.60	0.30	17.700	17.900	16.70	10.10	0.190	6.940	4.60	4.50	32.90	14.40
2007190218	2007191348	0.20	0.20	4.620	6.270	3.70	2.90	4.950	6.260	1.30	1.60	3.10	5.70
2007190218	2007191348	0.50	0.30	14.800	17.500	5.80	9.40	10.500	15.200	3.90	4.60	6.90	15.60
2007190218	2007191348	0.20	0.20	5.580	9.660	5.20	7.50	7.130	8.240	1.50	2.50	3.90	10.70
2007190218	2007191348	0.40	0.20	14.600	21.700	8.80	14.90	12.100	15.100	3.80	5.80	7.60	19.40
2007190241	2007190978	2.90	5.20	12.600	12.900	55.20	61.80	4.720	5.770	3.60	3.10	8.20	7.00
2007190241	2007190978	3.50	8.70	20.000	23.200	85.90	102.00	7.480	9.450	5.60	5.80	13.30	11.50
2007190241	2007190978	2.70	3.70	12.800	16.700	53.70	82.00	4.280	6.000	3.60	4.00	8.80	8.10
2007190241	2007190978	3.10	5.10	24.200	26.700	97.60	111.00	7.480	9.100	6.70	6.60	14.20	11.80
2007190248	2007191198	0.10	0.05	6.040	6.210	2.50	4.20	0.020	2.010	1.50	1.50	3.90	3.20
2007190248	2007191198	0.40	1.00	13.600	15.400	8.10	30.70	0.060	4.620	3.40	4.00	11.90	5.30
2007190248	2007191198	0.20	0.05	6.080	5.570	2.60	5.70	0.010	2.490	1.50	1.30	3.70	4.10
2007190248	2007191198	0.80	0.20	16.200	14.700	6.30	18.50	0.050	5.510	4.70	3.60	8.20	10.90
2007190256	2007190875	0.10	0.05	11.500	5.630	5.80	3.20	7.000	4.020	3.10	1.40	4.40	1.50
2007190256	2007190875	0.05	0.50	13.700	14.900	8.50	261.00	6.250	16.600	3.70	4.60	13.10	10.60
2007190256	2007190875	0.20	0.10	18.700	20.400	9.20	8.50	7.590	7.540	5.20	5.70	14.20	11.20
2007190258	2007191176	0.60	0.60	12.800	11.200	16.60	10.50	8.550	6.130	3.40	3.00	12.50	10.90
2007190258	2007191176	1.00	0.90	17.400	16.500	21.50	16.80	11.500	8.990	4.50	4.40	16.00	13.90
2007190258	2007191176	0.30	0.50	9.470	9.630	6.50	10.30	5.580	5.480	2.60	2.60	6.70	11.10
2007190258	2007191176	0.70	0.70	21.700	19.900	15.60	19.40	11.800	10.800	6.00	5.50	10.80	16.80
2007190266	2007191458	0.05	0.05	8.990	6.630	5.90	2.50	4.010	2.120	2.40	1.80	16.60	5.50
2007190266	2007191458	0.10	0.05	15.100	14.300	10.90	6.50	8.150	6.010	4.20	3.90	28.30	12.80
2007190266	2007191458	0.05	0.05	7.080	3.030	4.90	0.05	2.130	0.640	2.00	0.90	13.90	2.00
2007190285	2007190406	0.30	0.30	20.500	16.200	43.40	29.40	12.100	12.800	5.80	4.20	21.50	13.00
2007190285	2007190406	0.40	0.30	22.400	17.700	44.40	29.20	12.400	13.800	6.00	4.60	23.70	13.80
2007190285	2007190406	0.20	0.20	19.000	16.000	45.00	32.60	10.900	12.500	5.30	4.30	19.50	11.70
2007190285	2007190406	0.40	0.20	20.100	17.900	49.90	33.30	12.200	13.300	5.40	4.70	22.00	10.90
2007190296	2007190758	0.10	0.10	2.750	2.980	1.60	2.70	2.620	2.490	0.70	0.70	5.00	3.80
2007190296	2007190758	0.20	0.20	12.500	12.200	4.90	5.40	7.920	7.180	3.50	3.00	12.70	9.90
2007190296	2007190758	0.10	0.10	2.920	2.770	2.20	2.80	3.030	3.100	0.80	0.70	7.00	5.60
2007190296	2007190758	0.20	0.20	10.100	8.300	4.90	5.50	6.850	5.810	2.80	2.10	13.50	10.20
2007190311	2007191259	0.10	0.05	0.650	0.600	1.30	0.05	1.370	1.200	0.20	0.20	1.30	0.40
2007190311	2007191259	0.40	0.05	3.240	2.880	2.60	0.05	5.960	4.180	1.10	0.80	5.50	2.30
2007190311	2007191259	0.05	0.05	6.460	1.010	2.70	0.05	4.480	1.070	1.90	0.30	24.90	3.10
2007190311	2007191259	0.20	0.05	20.700	3.700	6.40	1.00	12.500	4.320	6.10	1.10	87.00	13.70
2007190328	2007191598	0.10	0.20	3.120	3.200	2.80	3.40	2.800	3.150	0.90	0.80	3.40	4.00
2007190328	2007191598	0.30	0.30	13.500	16.100	5.50	7.30	7.600	9.040	4.00	4.20	9.50	10.60
2007190328	2007191598	0.10	0.10	2.930	3.400	8.90	6.10	3.640	3.950	0.90	0.90	6.40	7.70
2007190328	2007191598	0.10	0.20	13.400	13.000	8.80	11.90	11.900	10.100	3.90	3.60	17.10	17.90
2007190335	2007190692	0.30	0.20	18.100	17.600	17.30	14.10	12.600	10.800	4.80	4.30	30.90	20.90
2007190335	2007190692	0.30	0.20	22.100	24.300	21.80	18.60	14.900	14.500	6.00	5.90	37.70	28.20
2007190335	2007190692	0.05	0.05	15.600	16.600	19.90	17.50	9.800	9.020	4.20	4.00	38.40	32.40
2007190335	2007190692	0.05	0.05	17.700	21.600	25.10	25.70	11.500	11.300	4.80	5.10	49.80	40.10
2007190342	2007190989	0.20	0.30	17.600	16.100	15.30	14.70	12.400	13.100	5.90	5.00	19.90	23.70
2007190342	2007190989	0.20	0.40	28.600	25.300	23.10	19.30	19.200	18.700	9.50	7.70	29.60	34.80

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Re (ppm)	Re (ppm)	Sb (ppm)	Sb (ppm)	Sc (ppm)	Sc (ppm)	Se (ppm)	Se (ppm)	Sm (ppm)	Sm (ppm)	Sn (ppm)	Sn (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.001	0.001	0.02	0.02	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.05
ULD:	ULD:												
2007190181	2007191396	0.0050	0.0005	0.180	0.200	7.80	10.40	1.30	0.20	4.40	4.60	73.200	1.220
2007190181	2007191396	0.0020	0.0005	0.200	0.160	7.40	9.00	0.50	0.30	4.30	4.20	22.600	1.000
2007190181	2007191396	0.0020	0.0010	0.160	0.180	7.80	9.50	0.05	0.40	4.10	4.40	1.040	1.060
2007190181	2007191396	0.0020	0.0005	0.170	2.320	9.40	10.60	0.20	0.70	4.90	5.00	1.250	1.360
2007190183	2007190471	0.0010	0.0005	0.040	0.040	1.30	1.60	0.30	0.05	0.80	0.80	0.440	0.490
2007190183	2007190471	0.0050	0.0005	0.170	0.100	3.10	4.10	0.40	0.70	2.60	2.40	0.890	1.130
2007190183	2007190471	0.0060	0.0005	0.250	0.140	6.70	5.00	1.00	0.40	5.50	3.00	1.080	0.990
2007190183	2007190471	0.0010	0.0005	0.280	0.210	8.20	7.80	1.30	0.05	7.00	4.90	1.330	1.520
2007190185	2007191253	0.0005	0.0005	0.980	1.020	7.10	4.30	0.40	0.05	3.70	2.50	0.750	0.800
2007190185	2007191253	0.0005	0.0010	0.940	1.170	8.80	5.80	0.20	0.05	4.40	2.90	1.020	1.010
2007190185	2007191253	0.0005	0.0005	0.780	1.130	8.90	5.80	0.70	0.60	4.50	2.60	0.960	1.030
2007190185	2007191253	0.0050	0.0030	1.060	1.010	8.70	5.70	0.40	0.10	4.70	3.20	0.960	1.040
2007190189	2007191542	0.0010	0.0005	0.180	0.180	10.10	5.20	0.50	0.05	5.10	3.80	1.290	0.680
2007190189	2007191542	0.0050	0.0005	0.180	0.150	8.00	4.70	0.10	0.20	4.60	3.40	1.050	0.890
2007190189	2007191542	0.0010	0.0005	0.170	0.120	10.00	5.50	0.30	0.05	5.30	4.00	1.190	0.740
2007190189	2007191542	0.0030	0.0020	0.180	0.140	8.80	5.50	0.20	0.30	4.70	3.40	1.200	0.650
2007190193	2007190788	0.0050	0.0020	0.130	0.190	4.50	6.90	0.40	0.50	5.40	7.10	2.650	2.070
2007190193	2007190788	0.0010	0.0005	0.190	0.140	4.30	5.80	0.40	0.60	4.90	6.20	3.450	1.990
2007190193	2007190788	0.0060	0.0010	0.160	0.160	6.80	5.40	0.60	0.40	6.40	6.50	1.520	1.360
2007190193	2007190788	0.0020	0.0005	0.200	0.170	6.00	6.60	0.50	0.50	6.50	8.30	1.330	1.530
2007190194	2007190704	0.0020	0.0010	0.150	0.120	4.70	2.10	0.30	0.90	4.00	2.50	0.860	0.570
2007190194	2007190704	0.0005	0.0020	0.190	0.110	4.80	2.30	0.10	0.30	3.90	2.40	0.920	0.910
2007190194	2007190704	0.0005	0.0005	0.150	0.110	5.50	5.00	0.70	0.80	5.70	4.10	0.750	0.520
2007190194	2007190704	0.0030	0.0005	0.160	0.080	5.60	4.50	0.70	0.20	6.30	3.70	0.790	0.680
2007190197	2007190962	0.0030	0.0020	0.050	0.210	1.10	0.05	0.05	0.05	1.00	1.00	0.330	0.410
2007190197	2007190962	0.0010	0.0005	0.030	0.100	3.10	4.00	0.40	0.40	3.80	4.60	0.600	0.940
2007190197	2007190962	0.0030	0.0090	0.070	3.400	3.80	2.40	0.05	0.10	2.30	1.20	0.670	0.930
2007190197	2007190962	0.0005	0.0020	0.190	0.590	10.60	6.30	0.30	0.20	6.50	4.50	1.940	1.340
2007190208	2007191593	0.0020	0.0005	0.040	0.050	0.40	0.05	0.05	0.05	0.60	0.80	0.210	0.260
2007190208	2007191593	0.0010	0.0020	0.010	0.050	0.40	0.05	0.20	0.05	1.00	1.20	0.210	0.160
2007190208	2007191593	0.0005	0.0020	0.030	0.100	2.40	2.10	0.05	0.10	1.60	1.80	0.420	0.420
2007190208	2007191593	0.0005	0.0020	0.030	0.070	3.00	2.20	0.05	0.05	2.30	2.30	0.490	1.120
2007190209	2007191254	0.0030	0.0005	0.060	0.170	2.50	2.60	0.20	0.10	4.50	2.90	0.490	0.820
2007190209	2007191254	0.0020	0.0040	0.080	0.130	2.70	4.40	0.05	0.60	4.80	3.90	0.500	1.170
2007190209	2007191254	0.0005	0.0010	0.020	0.120	2.80	1.80	0.30	0.20	4.30	2.20	0.410	0.750
2007190209	2007191254	0.0005	0.0005	0.070	0.160	3.30	7.40	0.20	0.30	5.40	4.50	0.510	1.590
2007190212	2007190747	0.0005	0.0005	0.040	0.030	0.90	0.60	0.10	0.40	0.50	0.70	0.350	0.510
2007190212	2007190747	0.0010	0.0020	1.480	0.110	5.00	5.90	0.50	0.80	3.30	6.00	2.270	1.510
2007190212	2007190747	0.0005	0.0005	0.030	0.050	1.00	0.50	0.05	0.20	0.40	0.50	0.360	0.310
2007190212	2007190747	0.0005	0.0005	0.140	0.090	5.60	2.80	0.40	0.60	3.60	3.70	1.320	0.870
2007190218	2007191348	0.0160	0.0020	0.120	0.100	2.70	3.70	0.20	0.80	0.90	1.10	0.490	0.620
2007190218	2007191348	0.0030	0.0005	0.290	0.270	8.30	10.90	0.70	0.80	3.00	3.40	1.390	2.010
2007190218	2007191348	0.0020	0.0020	0.150	0.240	4.40	6.50	0.20	0.50	1.10	1.70	0.670	1.090
2007190218	2007191348	0.0020	0.0005	0.280	0.250	10.20	12.80	0.20	0.70	3.00	4.30	1.440	2.080
2007190241	2007190978	0.0030	0.0040	0.110	0.550	6.70	6.60	0.05	0.05	2.70	2.70	0.560	0.690
2007190241	2007190978	0.0040	0.0005	0.130	0.140	11.50	11.80	0.40	0.20	4.20	4.70	0.950	1.340
2007190241	2007190978	0.0030	0.0020	0.100	0.160	8.00	8.80	0.60	0.05	2.70	3.50	0.680	0.880
2007190241	2007190978	0.0020	0.0005	0.110	0.170	14.50	13.40	0.20	0.05	5.00	5.60	1.110	1.380
2007190248	2007191198	0.0005	0.0020	0.030	0.100	1.20	0.10	0.05	0.05	1.20	1.00	0.190	0.400
2007190248	2007191198	0.0005	0.0005	0.050	0.110	4.70	2.10	0.05	0.30	2.60	2.90	0.600	0.960
2007190248	2007191198	0.0005	0.0005	0.040	0.080	1.40	0.60	0.50	0.05	1.20	1.10	0.270	0.390
2007190248	2007191198	0.0005	0.0010	0.060	0.120	3.40	4.20	0.05	0.05	3.00	2.70	0.770	0.780
2007190256	2007190875	0.0030	0.0040	0.040	0.100	2.70	1.60	0.60	0.80	2.70	1.20	0.200	0.110
2007190256	2007190875	0.0040	0.0040	0.010	0.590	4.90	64.20	0.20	0.50	3.00	3.40	0.540	1.950
2007190256	2007190875	0.0005	0.0005	0.030	0.100	5.20	3.60	0.40	0.05	3.90	4.00	0.780	0.710
2007190258	2007191176	0.0070	0.0005	0.150	0.130	2.80	2.30	0.05	0.30	3.00	2.20	0.530	0.530
2007190258	2007191176	0.0030	0.0020	0.270	0.200	3.80	3.60	0.50	0.30	4.00	3.30	0.720	0.760
2007190258	2007191176	0.0070	0.0010	0.260	0.170	1.60	2.40	0.05	0.50	2.10	1.90	0.200	0.630
2007190258	2007191176	0.0030	0.0010	0.390	0.270	3.80	4.50	0.50	0.80	4.50	4.00	0.600	1.180
2007190266	2007191458	0.0010	0.0050	0.010	0.040	3.90	1.50	0.40	0.50	2.00	1.60	0.320	0.180
2007190266	2007191458	0.0010	0.0040	0.040	0.100	7.10	3.60	0.10	0.10	3.50	3.40	0.820	0.500
2007190266	2007191458	0.0010	0.0030	0.010	0.030	2.10	0.05	0.05	0.05	1.50	0.70	0.340	0.025
2007190285	2007190406	0.0005	0.0060	0.120	0.200	11.60	11.90	0.40	0.20	4.70	3.80	1.200	1.020
2007190285	2007190406	0.0005	0.0020	0.110	0.120	12.10	11.80	0.20	0.20	5.00	4.40	1.300	1.180
2007190285	2007190406	0.0020	0.0050	0.090	0.210	11.30	12.20	0.40	0.05	4.60	3.90	1.170	1.030
2007190285	2007190406	0.0005	0.0040	0.090	0.150	12.20	12.20	0.20	0.20	4.80	4.30	1.430	1.020
2007190296	2007190758	0.0005	0.0005	0.010	0.080	1.40	1.30	0.10	0.30	0.50	0.60	0.460	0.590
2007190296	2007190758	0.0005	0.0020	0.070	0.170	5.50	4.60	0.20	0.50	2.50	2.20	1.270	1.280
2007190296	2007190758	0.0005	0.0005	0.060	0.330	2.10	1.70	0.70	0.30	0.60	0.50	0.610	0.780
2007190296	2007190758	0.0005	0.0005	0.140	0.130	4.90	4.00	0.30	0.30	2.00	1.60	1.330	1.180
2007190311	2007191259	0.0050	0.0005	0.070	0.030	0.20	0.05	0.10	0.05	0.05	0.10	0.025	0.025
2007190311	2007191259	0.0060	0.0030	0.120	0.010	0.70	0.10	0.40	0.20	0.60	0.60	0.200	0.025
2007190311	2007191259	0.0040	0.0005	0.070	0.010	1.20	0.05	0.05	0.05	1.10	0.20	0.025	0.025
2007190311	2007191259	0.0080	0.0005	0.060	0.010	4.40	1.60	0.30	0.20	3.60	0.70	0.420	0.120
2007190328	2007191598	0.0010	0.0005	0.010	0.090	1.00	0.90	0.90	0.05	0.60	0.60	0.320	0.300
2007190328	2007191598	0.0005	0.0005	0.050	0.120	3.70	5.00	0.60	0.05	2.60	3.00	0.780	0.840
2007190328	2007191598	0.0040	0.0005	0.020	0.100	1.80	2.30	0.40	0.05	0.60	0.60	0.570	0.580
2007190328	2007191598	0.0005	0.0005	0.100	0.160	5.70	7.20	0.05	0.20	2.70	2.40	1.530	1.480
2007190335	2007190692	0.0030	0.0005	0.150	0.230	8.60	5.90	0.40	0.40	4.00	3.60	1.370	1.130
2007190335	2007190692	0.0005	0.0020	0.190	0.270	10.60	7.70	0.30	0.60	4.90	5.00	1.610	1.490
2007190335	2007190692	0.0030	0.0005	0.140	0.200	9.40	6.10	0.60	0.60	3.30	3.40	1.360	1.160
2007190335	2007190692	0.0005	0.0005	0.170	0.180	11.30	8.20	0.70	0.80	3.80	4.60	1.580	1.260
2007190342	2007190989	0.0030	0.0005	0.270	0.330	7.70	5.10	0.05	0.40	4.00	3.60	1.090	0.740
2007190342	2007190989	0.0040	0.0020	0.430	0.340	11.20	7.80	0.70	0.60	6.70	5.40	1.570	1.260

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Sr (ppm)	Sr (ppm)	Ta (ppm)	Ta (ppm)	Tb (ppm)	Tb (ppm)	Te (ppm)	Te (ppm)	Th (ppm)	Th (ppm)	Tl (ppm)	Tl (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.5	0.5	0.05	0.05	0.1	0.1	0.02	0.02	0.1	0.1	0.02	0.02
ULD:	ULD:	1000	1000										
2007190181	2007191396	75.60	72.90	0.025	0.025	0.50	0.40	0.120	0.010	3.60	5.50	0.110	0.130
2007190181	2007191396	75.40	64.20	0.025	0.025	0.50	0.40	0.080	0.040	3.30	4.00	0.110	0.090
2007190181	2007191396	60.20	76.10	0.025	0.025	0.40	0.40	0.040	0.040	3.90	4.50	0.110	0.120
2007190181	2007191396	76.10	86.50	0.025	0.025	0.50	0.50	0.030	0.010	4.30	5.30	0.130	0.130
2007190183	2007190471	61.70	33.90	0.025	0.025	0.05	0.05	0.010	0.030	1.90	2.30	0.040	0.030
2007190183	2007190471	121.00	109.00	0.025	0.025	0.30	0.30	0.010	0.010	6.90	6.40	0.100	0.110
2007190183	2007190471	562.00	321.00	0.025	0.025	0.50	0.40	0.090	0.040	10.00	7.30	0.200	0.120
2007190183	2007190471	479.00	2000.00	0.025	0.025	0.70	0.60	0.040	0.030	12.80	11.00	0.250	0.210
2007190185	2007191253	20.10	13.60	0.025	0.025	0.30	0.30	0.050	0.010	6.80	5.80	0.140	0.080
2007190185	2007191253	23.60	14.10	0.025	0.025	0.40	0.30	0.040	0.090	8.20	6.10	0.160	0.080
2007190185	2007191253	34.00	21.80	0.025	0.025	0.40	0.30	0.080	0.070	8.10	6.00	0.180	0.100
2007190185	2007191253	36.30	24.70	0.025	0.025	0.40	0.40	0.080	0.080	8.60	7.10	0.190	0.110
2007190189	2007191542	81.20	106.00	0.025	0.025	0.50	0.50	0.040	0.050	6.40	4.10	0.210	0.110
2007190189	2007191542	69.80	101.00	0.025	0.025	0.50	0.50	0.050	0.040	6.30	3.70	0.200	0.110
2007190189	2007191542	83.60	106.00	0.025	0.025	0.50	0.50	0.030	0.080	6.60	5.20	0.220	0.140
2007190189	2007191542	83.80	113.00	0.025	0.025	0.50	0.50	0.030	0.010	6.10	4.70	0.190	0.110
2007190193	2007190788	40.30	35.40	0.025	0.025	0.50	0.70	0.010	0.030	6.60	9.20	0.190	0.260
2007190193	2007190788	33.30	31.20	0.025	0.025	0.40	0.60	0.040	0.030	6.70	7.90	0.190	0.200
2007190193	2007190788	43.80	28.00	0.025	0.025	0.60	0.60	0.120	0.270	11.20	10.20	0.270	0.230
2007190193	2007190788	44.80	36.30	0.025	0.025	0.60	0.80	0.050	0.030	11.20	12.20	0.260	0.250
2007190194	2007190704	25.80	23.30	0.025	0.025	0.40	0.30	0.010	0.040	4.00	2.70	0.130	0.050
2007190194	2007190704	25.00	21.30	0.025	0.025	0.40	0.30	0.040	0.010	4.40	3.00	0.120	0.060
2007190194	2007190704	40.90	36.90	0.025	0.025	0.60	0.50	0.060	0.010	6.00	6.60	0.120	0.110
2007190194	2007190704	45.90	36.60	0.025	0.025	0.60	0.50	0.040	0.040	6.00	6.30	0.130	0.090
2007190197	2007190962	2.20	2.30	0.025	0.025	0.10	0.05	0.010	0.030	1.90	1.90	0.030	0.030
2007190197	2007190962	6.70	8.40	0.025	0.025	0.30	0.40	0.030	0.010	6.00	5.80	0.070	0.100
2007190197	2007190962	8.90	8.60	0.025	0.025	0.20	0.20	0.050	0.010	4.70	3.30	0.180	0.080
2007190197	2007190962	24.30	10.80	0.025	0.025	0.60	0.50	0.040	0.010	12.80	8.60	0.460	0.190
2007190208	2007191593	2.70	2.70	0.025	0.025	0.05	0.05	0.040	0.040	3.11	1.60	0.250	0.050
2007190208	2007191593	3.40	2.40	0.025	0.025	0.05	0.05	0.020	0.010	4.38	1.70	0.250	0.050
2007190208	2007191593	3.70	5.70	0.025	0.025	0.20	0.10	0.010	0.050	6.84	2.00	0.250	0.090
2007190208	2007191593	4.70	8.60	0.025	0.025	0.20	0.20	0.010	0.030	17.00	2.80	0.250	0.120
2007190209	2007191254	44.00	19.50	0.025	0.025	0.40	0.30	0.010	0.010	3.90	3.60	0.220	0.070
2007190209	2007191254	51.90	30.00	0.025	0.025	0.50	0.40	0.040	0.010	4.40	4.50	0.080	0.090
2007190209	2007191254	54.50	19.00	0.025	0.025	0.50	0.30	0.050	0.010	4.80	3.50	0.070	0.060
2007190209	2007191254	82.60	37.00	0.025	0.025	0.60	0.50	0.070	0.010	6.00	5.70	0.110	0.140
2007190212	2007190747	2.80	3.70	0.025	0.025	0.05	0.05	0.010	0.010	2.16	1.90	0.250	0.020
2007190212	2007190747	22.30	30.70	0.025	0.025	0.20	0.60	0.040	0.050	14.60	11.10	0.250	0.170
2007190212	2007190747	31.10	3.60	0.025	0.025	0.05	0.05	0.020	0.010	3.59	1.40	0.250	0.030
2007190212	2007190747	135.00	13.80	0.025	0.025	0.30	0.40	0.030	0.030	24.90	5.80	0.250	0.110
2007190218	2007191348	0.80	1.50	0.025	0.025	0.05	0.05	0.050	0.010	3.50	4.10	0.040	0.040
2007190218	2007191348	1.80	4.90	0.025	0.025	0.30	0.30	0.180	0.010	8.50	10.80	0.110	0.130
2007190218	2007191348	3.80	5.90	0.025	0.025	0.10	0.10	0.010	0.010	5.40	6.80	0.090	0.130
2007190218	2007191348	4.10	11.20	0.025	0.025	0.30	0.40	0.100	0.090	10.10	12.70	0.200	0.220
2007190241	2007190978	367.00	395.00	0.025	0.025	0.30	0.30	0.020	0.010	3.00	1.90	0.050	0.030
2007190241	2007190978	264.00	282.00	0.025	0.025	0.60	0.60	0.010	0.010	3.90	3.00	0.060	0.050
2007190241	2007190978	255.00	314.00	0.025	0.025	0.40	0.40	0.050	0.010	2.30	2.30	0.030	0.030
2007190241	2007190978	288.00	275.00	0.025	0.025	0.70	0.70	0.050	0.010	3.90	3.30	0.070	0.050
2007190248	2007191198	20.30	10.30	0.025	0.025	0.05	0.10	0.010	0.020	1.84	1.30	0.250	0.020
2007190248	2007191198	43.20	17.40	0.025	0.025	0.20	0.30	0.040	0.040	4.46	10.20	0.250	0.040
2007190248	2007191198	10.60	17.10	0.025	0.025	0.05	0.10	0.040	0.010	1.95	1.60	0.250	0.030
2007190248	2007191198	30.00	74.10	0.025	0.025	0.30	0.30	0.020	0.010	5.16	6.40	0.250	0.080
2007190256	2007190875	84.80	47.60	0.025	0.025	0.30	0.10	0.060	0.030	3.10	1.50	0.030	0.020
2007190256	2007190875	76.10	16.10	0.025	0.025	0.30	0.50	0.050	0.050	4.10	7.30	0.080	0.120
2007190256	2007190875	85.40	74.70	0.025	0.025	0.40	0.40	0.080	0.010	6.80	8.00	0.080	0.060
2007190258	2007191176	26.20	16.30	0.025	0.025	0.30	0.10	0.080	0.030	3.80	3.60	0.090	0.070
2007190258	2007191176	36.10	24.50	0.025	0.025	0.40	0.20	0.010	0.070	5.80	9.40	0.120	0.100
2007190258	2007191176	11.70	15.50	0.025	0.025	0.20	0.10	0.010	0.030	4.10	4.90	0.050	0.070
2007190258	2007191176	26.60	29.40	0.025	0.025	0.40	0.30	0.010	0.010	10.40	14.10	0.080	0.110
2007190266	2007191458	119.00	130.00	0.025	0.025	0.20	0.20	0.050	0.020	3.10	1.70	0.120	0.050
2007190266	2007191458	166.00	218.00	0.025	0.025	0.40	0.30	0.040	0.030	6.20	4.10	0.230	0.130
2007190266	2007191458	90.60	58.20	0.025	0.025	0.10	0.05	0.060	0.040	2.60	1.00	0.070	0.010
2007190285	2007190406	62.60	32.30	0.025	0.025	0.60	0.50	0.060	0.050	6.70	4.40	0.160	0.100
2007190285	2007190406	69.30	34.60	0.025	0.025	0.60	0.50	0.010	0.010	7.00	4.60	0.170	0.110
2007190285	2007190406	74.90	43.40	0.025	0.025	0.50	0.50	0.020	0.060	6.40	5.10	0.170	0.110
2007190285	2007190406	83.70	49.30	0.025	0.025	0.60	0.60	0.070	0.010	6.60	5.20	0.180	0.100
2007190296	2007190758	2.40	2.20	0.025	0.025	0.05	0.05	0.040	0.010	2.10	1.70	0.030	0.030
2007190296	2007190758	7.10	6.40	0.025	0.025	0.30	0.20	0.040	0.050	6.40	4.50	0.090	0.080
2007190296	2007190758	3.30	3.10	0.025	0.025	0.05	0.05	0.010	0.010	2.50	2.60	0.050	0.050
2007190296	2007190758	7.90	7.00	0.025	0.025	0.20	0.20	0.030	0.040	6.20	4.90	0.130	0.090
2007190311	2007191259	7.70	4.60	0.025	0.025	0.05	0.05	0.010	0.010	0.40	0.20	0.010	0.010
2007190311	2007191259	37.20	24.20	0.025	0.025	0.05	0.05	0.020	0.010	1.70	0.60	0.010	0.010
2007190311	2007191259	7.10	3.00	0.025	0.025	0.05	0.05	0.020	0.010	2.80	1.20	0.030	0.010
2007190311	2007191259	20.40	18.30	0.025	0.025	0.20	0.05	0.010	0.010	10.50	4.30	0.090	0.010
2007190328	2007191598	2.20	2.20	0.025	0.025	0.05	0.05	0.010	0.010	2.10	2.30	0.030	0.030
2007190328	2007191598	7.50	7.50	0.025	0.025	0.30	0.30	0.010	0.020	6.80	6.50	0.050	0.050
2007190328	2007191598	3.00	3.20	0.025	0.025	0.05	0.05	0.040	0.010	2.80	2.90	0.040	0.050
2007190328	2007191598	8.20	7.20	0.025	0.025	0.30	0.30	0.080	0.030	9.10	9.70	0.120	0.110
2007190335	2007190692	40.90	34.80	0.025	0.025	0.50	0.40	0.010	0.050	5.50	4.10	0.200	0.140
2007190335	2007190692	47.60	47.40	0.025	0.025	0.70	0.60	0.040	0.040	7.20	6.00	0.260	0.190
2007190335	2007190692	124.00	118.00	0.025	0.025	0.40	0.40	0.010	0.070	5.40	5.20	0.270	0.220
2007190335	2007190692	135.00	130.00	0.025	0.025	0.50	0.50	0.010	0.070	6.50	5.60	0.330	0.270
2007190342	2007190989	9.90	7.70	0.025	0.025	0.30	0.40	0.050	0.060	9.90	8.40	0.180	0.140
2007190342	2007190989	14.60	11.30	0.025	0.025	0.60	0.60	0.010	0.070	14.80	11.50	0.260	0.220

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Tm (ppm)	Tm (ppm)	U (ppm)	U (ppm)	V (ppm)	V (ppm)	W (ppm)	W (ppm)	Y (ppm)	Y (ppm)	Yb (ppm)	Yb (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1	1	1	0.1	0.1	0.01	0.01	0.1	0.1
ULD:	ULD:							200	200				
2007190181	2007191396	0.20	0.20	0.90	0.90	57	57	0.05	0.05	15.400	13.000	1.00	1.10
2007190181	2007191396	0.20	0.20	0.90	0.80	57	50	0.40	0.05	15.300	12.100	1.10	0.90
2007190181	2007191396	0.20	0.20	0.70	0.60	52	53	0.05	0.05	13.500	12.800	0.90	1.00
2007190181	2007191396	0.20	0.20	0.90	0.80	62	62	0.05	0.05	17.500	15.100	1.20	1.20
2007190183	2007190471	0.05	0.05	0.40	0.30	18	21	0.05	0.05	2.360	2.520	0.20	0.20
2007190183	2007190471	0.05	0.10	1.30	0.90	49	47	0.05	0.05	7.830	8.810	0.60	0.80
2007190183	2007190471	0.20	0.10	1.20	0.90	51	60	0.20	0.20	14.600	9.550	1.00	0.80
2007190183	2007190471	0.20	0.20	1.40	1.30	60	72	0.20	0.30	19.200	16.000	1.30	1.30
2007190185	2007191253	0.10	0.10	1.00	0.70	90	79	0.05	0.20	9.820	6.400	0.70	0.50
2007190185	2007191253	0.10	0.20	1.10	0.70	95	79	0.05	0.10	11.400	7.690	0.80	0.60
2007190185	2007191253	0.10	0.10	1.40	1.00	101	82	0.05	0.05	12.400	8.030	0.90	0.50
2007190185	2007191253	0.20	0.20	1.40	1.10	94	73	0.05	0.05	12.300	7.570	0.90	0.60
2007190189	2007191542	0.20	0.20	0.50	0.30	57	40	0.05	0.05	16.000	14.200	1.10	1.00
2007190189	2007191542	0.20	0.20	0.50	0.30	48	35	0.05	0.05	13.600	13.300	1.10	1.00
2007190189	2007191542	0.20	0.20	0.60	0.50	59	42	0.05	0.05	16.000	14.400	1.20	1.10
2007190189	2007191542	0.20	0.20	0.60	0.50	53	40	0.05	0.05	15.000	13.800	1.10	1.10
2007190193	2007190788	0.20	0.20	0.70	3.30	23	36	0.05	0.05	13.800	19.900	0.90	1.50
2007190193	2007190788	0.10	0.20	0.70	3.20	20	33	0.05	0.05	12.000	18.300	0.80	1.30
2007190193	2007190788	0.20	0.20	0.90	1.50	35	32	0.05	0.05	18.100	17.900	1.30	1.30
2007190193	2007190788	0.20	0.30	0.90	2.00	30	37	0.05	0.05	18.200	23.500	1.30	1.60
2007190194	2007190704	0.10	0.10	0.50	0.30	32	26	0.05	0.05	11.100	7.420	0.70	0.60
2007190194	2007190704	0.10	0.05	0.50	0.40	35	28	0.05	0.05	11.100	6.940	0.80	0.50
2007190194	2007190704	0.20	0.20	0.60	0.40	32	39	0.05	0.05	15.700	12.300	1.10	0.90
2007190194	2007190704	0.20	0.20	0.70	0.40	31	36	0.05	0.05	17.600	11.600	1.20	0.90
2007190197	2007190962	0.05	0.05	0.20	0.10	16	14	0.05	0.05	2.330	2.090	0.10	0.10
2007190197	2007190962	0.05	0.05	0.60	0.70	16	16	0.05	0.05	8.380	9.970	0.50	0.70
2007190197	2007190962	0.05	0.05	0.50	0.60	33	27	0.05	0.05	5.960	3.270	0.50	0.30
2007190197	2007190962	0.20	0.10	1.40	1.00	56	40	0.05	0.05	17.000	9.220	1.30	1.00
2007190208	2007191593	0.05	0.05	0.80	0.20	11	11	0.05	0.05	1.680	1.690	0.05	0.05
2007190208	2007191593	0.05	0.05	1.40	0.20	7	6	0.05	0.05	2.410	2.100	0.10	0.10
2007190208	2007191593	0.10	0.05	3.20	0.40	12	12	0.05	0.05	5.860	5.620	0.40	0.40
2007190208	2007191593	0.10	0.05	4.20	0.50	14	10	0.05	0.05	7.140	7.420	0.60	0.50
2007190209	2007191254	0.10	0.20	0.30	0.20	44	25	0.05	0.05	12.800	6.900	0.80	0.70
2007190209	2007191254	0.20	0.20	0.30	0.30	37	30	0.05	0.05	15.000	10.500	1.00	0.80
2007190209	2007191254	0.20	0.10	0.30	0.20	35	23	0.05	0.05	13.100	5.740	0.80	0.60
2007190209	2007191254	0.20	0.20	0.40	0.40	44	45	0.30	0.05	16.100	11.600	1.10	1.10
2007190212	2007190747	0.05	0.05	1.50	0.20	11	9	0.05	0.05	1.770	1.480	0.10	0.05
2007190212	2007190747	0.10	0.20	3.20	1.60	27	41	0.05	0.05	8.770	19.100	0.50	1.40
2007190212	2007190747	0.05	0.05	0.90	0.20	7	11	0.05	0.05	1.770	1.570	0.05	0.10
2007190212	2007190747	0.20	0.05	5.50	1.00	34	32	0.05	0.05	11.500	11.100	0.90	0.80
2007190218	2007191348	0.05	0.05	0.20	0.30	44	41	0.05	0.05	2.690	3.880	0.20	0.20
2007190218	2007191348	0.10	0.10	0.60	0.90	79	92	0.10	0.05	8.750	10.800	0.70	0.70
2007190218	2007191348	0.05	0.05	0.30	0.50	60	61	0.05	0.05	3.410	6.780	0.30	0.50
2007190218	2007191348	0.10	0.20	0.80	1.10	91	97	0.20	0.05	9.640	15.100	0.70	1.10
2007190241	2007190978	0.10	0.10	0.50	0.40	80	87	0.05	0.05	11.200	10.200	0.90	0.80
2007190241	2007190978	0.20	0.30	0.70	0.70	147	161	0.05	0.05	17.700	19.500	1.50	1.50
2007190241	2007190978	0.10	0.20	0.40	0.60	68	94	0.05	0.05	11.300	13.400	0.90	1.10
2007190241	2007190978	0.30	0.30	0.70	0.90	124	144	0.05	0.05	22.000	22.200	1.80	1.70
2007190248	2007191198	0.05	0.20	1.40	0.10	11	11	0.05	0.05	3.090	2.870	0.20	0.20
2007190248	2007191198	0.10	0.30	4.30	0.70	29	61	0.05	0.05	8.080	6.740	0.50	0.60
2007190248	2007191198	0.05	0.20	1.20	0.10	13	18	0.05	0.05	3.720	3.010	0.20	0.30
2007190248	2007191198	0.10	0.30	8.90	0.50	43	57	0.05	0.05	7.860	7.880	0.60	0.70
2007190256	2007190875	0.10	0.05	0.60	0.20	73	45	0.05	0.05	10.900	3.830	0.60	0.30
2007190256	2007190875	0.10	0.20	0.60	1.20	54	227	0.05	0.05	10.400	8.190	0.80	1.20
2007190256	2007190875	0.10	0.10	0.70	0.80	59	47	0.05	0.05	13.000	11.300	0.90	0.80
2007190258	2007191176	0.05	0.05	1.30	1.00	27	24	0.05	0.05	8.240	5.910	0.60	0.40
2007190258	2007191176	0.10	0.10	1.80	1.90	37	35	0.10	0.05	11.800	9.340	0.80	0.60
2007190258	2007191176	0.05	0.05	1.10	1.10	19	25	0.05	0.05	4.690	5.610	0.40	0.40
2007190258	2007191176	0.10	0.20	2.50	2.50	42	42	0.40	0.05	11.400	11.700	0.80	0.90
2007190266	2007191458	0.05	0.05	0.60	0.30	38	16	0.05	0.05	7.520	4.750	0.50	0.40
2007190266	2007191458	0.10	0.10	1.00	0.80	71	40	0.05	0.05	13.600	10.400	1.00	0.80
2007190266	2007191458	0.05	0.05	0.30	0.10	22	4	0.05	0.05	5.050	1.990	0.30	0.10
2007190285	2007190406	0.20	0.20	0.60	0.60	78	62	0.05	0.05	18.200	14.000	1.30	1.00
2007190285	2007190406	0.20	0.20	0.60	0.70	83	63	0.05	0.05	19.900	15.100	1.30	1.20
2007190285	2007190406	0.20	0.20	0.70	0.60	76	64	0.05	0.05	17.400	14.600	1.20	1.10
2007190285	2007190406	0.20	0.20	0.70	0.70	86	65	0.05	0.05	18.900	16.200	1.20	1.20
2007190296	2007190758	0.05	0.05	0.10	0.10	17	19	0.05	0.05	2.100	1.900	0.10	0.10
2007190296	2007190758	0.10	0.05	0.60	0.50	37	32	0.05	0.10	9.570	8.280	0.70	0.60
2007190296	2007190758	0.05	0.05	0.20	0.20	21	22	0.05	0.05	2.350	1.760	0.10	0.10
2007190296	2007190758	0.05	0.05	0.50	0.40	40	39	0.05	0.10	7.760	5.030	0.50	0.40
2007190311	2007191259	0.05	0.05	0.05	0.05	5	4	0.05	0.05	0.270	0.310	0.05	0.05
2007190311	2007191259	0.05	0.05	0.20	0.20	11	9	0.05	0.05	1.460	1.660	0.05	0.05
2007190311	2007191259	0.05	0.05	0.05	0.05	9	4	0.05	0.05	3.320	0.480	0.20	0.05
2007190311	2007191259	0.10	0.05	0.10	0.05	20	8	0.05	0.05	11.500	2.330	0.70	0.20
2007190328	2007191598	0.05	0.05	0.10	0.20	15	14	0.05	0.05	1.790	1.510	0.10	0.05
2007190328	2007191598	0.05	0.05	0.60	0.60	35	34	0.05	0.05	8.030	8.570	0.50	0.50
2007190328	2007191598	0.05	0.05	0.20	0.20	25	25	0.05	0.05	1.640	1.900	0.10	0.10
2007190328	2007191598	0.05	0.05	0.70	0.70	67	60	0.05	0.05	7.540	7.240	0.60	0.50
2007190335	2007190692	0.20	0.05	0.30	0.20	57	43	0.05	0.05	15.800	12.800	1.20	0.90
2007190335	2007190692	0.20	0.20	0.40	0.30	67	52	0.05	0.05	19.600	17.800	1.60	1.30
2007190335	2007190692	0.20	0.10	0.20	0.20	60	45	0.05	0.05	13.600	12.300	1.20	1.00
2007190335	2007190692	0.20	0.20	0.30	0.20	72	61	0.05	0.05	16.200	15.100	1.30	1.40
2007190342	2007190989	0.10	0.10	1.60	1.40	70	74	0.05	0.20	11.200	12.500	0.80	0.90
2007190342	2007190989	0.30	0.20	2.50	2.20	96	107	0.05	0.20	19.000	19.900	1.30	1.40

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Zn (ppm)	Zn (ppm)	Zr (ppm)	Zr (ppm)
METHOD:	METHOD:	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1
ULD:	ULD:				
2007190181	2007191396	54.30	48.70	7.80	8.00
2007190181	2007191396	48.80	42.10	7.00	8.70
2007190181	2007191396	39.60	42.90	5.90	6.40
2007190181	2007191396	47.90	57.60	6.40	9.40
2007190183	2007190471	7.50	20.90	2.30	2.70
2007190183	2007190471	22.30	37.70	4.20	5.80
2007190183	2007190471	61.80	57.20	17.50	14.40
2007190183	2007190471	75.60	69.30	17.50	19.60
2007190185	2007191253	64.10	59.50	12.60	10.10
2007190185	2007191253	73.40	61.00	12.40	11.20
2007190185	2007191253	66.90	60.80	13.20	10.80
2007190185	2007191253	79.90	57.90	8.20	7.80
2007190189	2007191542	65.80	26.90	11.00	3.30
2007190189	2007191542	53.70	26.40	8.40	3.00
2007190189	2007191542	63.40	28.50	11.70	4.50
2007190189	2007191542	54.00	25.00	9.80	4.50
2007190193	2007190788	102.00	52.70	2.70	6.40
2007190193	2007190788	92.50	53.10	2.50	4.40
2007190193	2007190788	44.30	38.70	5.50	6.60
2007190193	2007190788	39.80	40.50	4.90	7.00
2007190194	2007190704	35.70	16.60	3.30	1.90
2007190194	2007190704	35.20	19.10	2.90	2.20
2007190194	2007190704	29.40	15.80	3.10	4.40
2007190194	2007190704	30.80	9.90	2.50	4.20
2007190197	2007190962	0.05	14.60	0.70	0.60
2007190197	2007190962	0.60	18.70	1.00	1.00
2007190197	2007190962	3.60	225.00	4.40	2.80
2007190197	2007190962	17.40	17.90	7.20	2.80
2007190208	2007191593	2.00	8.70	0.40	0.50
2007190208	2007191593	0.05	1.90	0.30	0.50
2007190208	2007191593	10.10	8.80	2.50	2.40
2007190208	2007191593	3.50	14.00	2.90	3.40
2007190209	2007191254	11.20	16.70	1.50	2.20
2007190209	2007191254	12.50	24.40	1.40	2.40
2007190209	2007191254	10.70	18.50	2.90	2.20
2007190209	2007191254	12.20	37.30	3.00	6.80
2007190212	2007190747	0.05	0.05	1.50	1.40
2007190212	2007190747	78.00	31.40	1.30	3.70
2007190212	2007190747	34.70	6.60	0.90	1.50
2007190212	2007190747	53.80	15.10	4.10	1.80
2007190218	2007191348	9.30	0.05	7.00	5.00
2007190218	2007191348	6.30	13.50	9.00	8.00
2007190218	2007191348	1.90	1.90	10.00	10.60
2007190218	2007191348	10.00	8.90	13.30	13.20
2007190241	2007190978	63.10	70.10	14.80	18.80
2007190241	2007190978	95.70	107.00	20.90	32.60
2007190241	2007190978	64.40	234.00	13.00	16.60
2007190241	2007190978	86.30	91.60	24.00	26.30
2007190248	2007191198	0.05	8.30	2.00	2.60
2007190248	2007191198	8.50	20.20	7.90	10.40
2007190248	2007191198	6.70	3.90	2.80	3.60
2007190248	2007191198	0.05	20.10	14.10	10.30
2007190256	2007190875	20.70	21.10	5.20	4.50
2007190256	2007190875	33.20	127.00	9.00	25.10
2007190256	2007190875	44.40	40.10	10.50	8.80
2007190258	2007191176	39.70	24.40	1.60	0.90
2007190258	2007191176	53.20	39.90	2.50	1.90
2007190258	2007191176	13.80	23.20	1.20	1.30
2007190258	2007191176	37.90	46.20	2.80	2.70
2007190266	2007191458	22.50	7.50	8.30	3.20
2007190266	2007191458	51.30	22.70	13.60	6.30
2007190266	2007191458	13.40	2.50	5.00	1.30
2007190285	2007190406	43.70	23.70	9.70	4.00
2007190285	2007190406	47.80	23.50	11.70	3.60
2007190285	2007190406	31.70	25.10	11.00	9.60
2007190285	2007190406	46.90	24.10	14.70	7.40
2007190296	2007190758	2.60	0.05	2.40	2.30
2007190296	2007190758	5.90	5.10	4.70	3.20
2007190296	2007190758	0.05	7.70	3.40	3.50
2007190296	2007190758	7.00	3.50	5.10	4.00
2007190311	2007191259	0.20	6.50	0.05	0.05
2007190311	2007191259	1.10	1.60	2.40	0.20
2007190311	2007191259	1.60	6.30	2.50	0.60
2007190311	2007191259	1.40	1.30	7.80	2.40
2007190328	2007191598	0.05	4.80	1.50	1.60
2007190328	2007191598	8.80	4.80	3.20	4.00
2007190328	2007191598	0.05	7.40	5.20	6.60
2007190328	2007191598	0.30	9.70	12.30	12.40
2007190335	2007190692	38.10	17.30	8.50	5.50
2007190335	2007190692	51.10	32.20	9.30	6.50
2007190335	2007190692	43.20	20.60	9.90	4.70
2007190335	2007190692	54.20	22.20	15.20	5.50
2007190342	2007190989	40.50	41.10	7.60	2.50
2007190342	2007190989	66.90	47.00	9.60	3.00

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Ag (ppm)	Ag (ppm)	Al (ppm)	Al (ppm)	As (ppm)	As (ppm)	Au (ppm)	Au (ppm)
METHOD:	METHOD:	SIZE	SIZE			AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					0.002	0.002	100	100	0.1	0.1	0.0001	0.0001
ULD:	ULD:							100000	100000				
2007190342	2007190989	Coarse	Coarse	BOS	BOS	0.0040	0.0100	8900	7000	3.20	1.70	0.00005	0.00040
2007190342	2007190989	Fine	Fine	BOS	BOS	0.0100	0.0010	15400	8600	4.50	2.80	0.00040	0.00260
2007190349	2007191436	Coarse	Coarse	TOS	TOS	0.0060	0.0010	13000	12900	7.70	6.50	0.00120	0.00040
2007190349	2007191436	Fine	Fine	TOS	TOS	0.0260	0.0530	17300	17300	10.20	8.40	0.00090	0.00240
2007190349	2007191436	Coarse	Coarse	BOS	BOS	0.0010	0.0130	16800	15800	9.90	6.90	0.00350	0.00270
2007190349	2007191436	Fine	Fine	BOS	BOS	0.0150	0.0220	25700	22500	14.50	8.90	0.00970	0.00440
2007190352	2007190611	Coarse	Coarse	TOS	TOS	0.0720	0.0800	23800	39900	7.30	6.70	0.00020	0.00010
2007190352	2007190611	Fine	Fine	TOS	TOS	0.0950	0.1000	24900	38800	11.60	11.10	0.00005	0.00030
2007190352	2007190611	Coarse	Coarse	BOS	BOS	0.0030	0.0070	27200	50200	21.50	16.80	0.00040	0.00005
2007190352	2007190611	Fine	Fine	BOS	BOS	0.0050	0.0320	28000	45100	30.80	23.50	0.00040	0.00190
2007190355	2007191257	Coarse	Coarse	TOS	TOS	0.0080	0.0070	22500	9700	5.70	4.00	0.00030	0.00230
2007190355	2007191257	Fine	Fine	TOS	TOS	0.0060	0.0050	25700	9600	5.80	3.80	0.00040	0.00240
2007190355	2007191257	Coarse	Coarse	BOS	BOS	0.0100	0.0010	26700	9800	11.70	10.30	0.00290	0.00440
2007190355	2007191257	Fine	Fine	BOS	BOS	0.0010	0.0010	29900	10900	12.90	11.30	0.00100	0.00360
2007190357	2007190856	Coarse	Coarse	TOS	TOS	0.0020	0.0120	1900	1300	0.60	1.10	0.00100	0.00005
2007190357	2007190856	Coarse	Coarse	BOS	BOS	0.0010	0.0010	5000	4500	0.80	0.80	0.00050	0.00060
2007190357	2007190856	Fine	Fine	BOS	BOS	0.0080	0.0240	11800	8300	1.30	1.30	0.00060	0.00100
2007190361	2007191094	Coarse	Coarse	TOS	TOS	0.0290	0.0420	30300	38300	1.10	1.20	0.00060	0.00090
2007190361	2007191094	Fine	Fine	TOS	TOS	0.0140	0.0390	23300	40400	1.40	1.20	0.00040	0.00100
2007190361	2007191094	Coarse	Coarse	BOS	BOS	0.0060	0.0110	12500	21900	4.70	3.20	0.00170	0.00180
2007190361	2007191094	Fine	Fine	BOS	BOS	0.0080	0.0100	13000	25800	5.40	3.70	0.00320	0.00180
2007190383	2007191416	Coarse	Coarse	TOS	TOS	0.0440	0.0060	15600	7400	1.30	1.20	0.00040	0.00150
2007190383	2007191416	Fine	Fine	TOS	TOS	0.0570	0.0090	15800	18700	1.50	2.00	0.00030	0.00220
2007190383	2007191416	Coarse	Coarse	BOS	BOS	0.0020	0.0210	5300	10500	1.20	1.20	0.00005	0.00100
2007190383	2007191416	Fine	Fine	BOS	BOS	0.0050	0.0370	10900	13900	2.00	1.80	0.00090	0.00170
2007190393	2007191050	Coarse	Coarse	TOS	TOS	0.0290	0.0170	15900	20500	2.30	1.10	0.00160	0.00230
2007190393	2007191050	Fine	Fine	TOS	TOS	0.0250	0.1140	15200	17100	2.40	1.90	0.00005	0.00160
2007190393	2007191050	Coarse	Coarse	BOS	BOS	0.0120	0.0240	11200	20400	3.90	1.40	0.00100	0.00160
2007190393	2007191050	Fine	Fine	BOS	BOS	0.0010	0.0280	8600	16700	2.70	1.60	0.00005	0.00130
2007190414	2007191386	Coarse	Coarse	TOS	TOS	0.0290	0.0050	6800	10500	5.60	5.10	0.00210	0.00360
2007190414	2007191386	Fine	Fine	TOS	TOS	0.0230	0.0010	5900	10800	4.30	4.30	0.00290	0.00290
2007190414	2007191386	Coarse	Coarse	BOS	BOS	0.0290	0.0030	7500	12900	3.50	3.60	0.00310	0.00470
2007190414	2007191386	Fine	Fine	BOS	BOS	0.0280	0.0060	6700	15500	3.40	3.30	0.00340	0.00470
2007190419	2007190974	Coarse	Coarse	TOS	TOS	0.0370	0.0340	16000	17400	1.10	0.20	0.00005	0.00010
2007190419	2007190974	Fine	Fine	TOS	TOS	0.0240	0.0470	6100	18200	0.80	1.00	0.00030	0.00005
2007190419	2007190974	Coarse	Coarse	BOS	BOS	0.0350	0.0280	14800	14700	0.40	0.30	0.00030	0.00005
2007190419	2007190974	Fine	Fine	BOS	BOS	0.1830	0.0270	19600	22700	0.70	0.30	0.00040	0.00005
2007190425	2007190768	Coarse	Coarse	TOS	TOS	0.1010	0.0410	14600	15700	1.80	2.80	0.00140	0.00060
2007190425	2007190768	Fine	Fine	TOS	TOS	0.0260	0.0370	16100	11200	1.20	2.20	0.00140	0.00130
2007190425	2007190768	Coarse	Coarse	BOS	BOS	0.0070	0.0440	15500	15400	1.00	2.80	0.00130	0.00170
2007190425	2007190768	Fine	Fine	BOS	BOS	0.0170	0.0300	13700	13800	1.10	2.80	0.00060	0.00086
2007190434	2007191027	Coarse	Coarse	TOS	TOS	0.0010	0.0100	24400	26000	1.40	1.90	0.00120	0.00060
2007190434	2007191027	Fine	Fine	TOS	TOS	0.0290	0.0350	49300	51900	2.30	2.50	0.00260	0.00160
2007190434	2007191027	Coarse	Coarse	BOS	BOS	0.0010	0.0130	24100	23000	2.80	2.60	0.00520	0.00440
2007190434	2007191027	Fine	Fine	BOS	BOS	0.0010	0.0320	43200	41300	4.90	3.50	0.00750	0.00580
2007190457	2007191004	Coarse	Coarse	TOS	TOS	0.0160	0.0070	10700	6300	1.20	1.20	0.00050	0.00140
2007190457	2007191004	Fine	Fine	TOS	TOS	0.0200	0.0050	12300	10200	2.00	1.60	0.00005	0.00150
2007190457	2007191004	Coarse	Coarse	BOS	BOS	0.0050	0.0010	4100	3900	0.60	0.05	0.00005	0.00160
2007190457	2007191004	Fine	Fine	BOS	BOS	0.0030	0.0010	6700	6000	0.70	0.30	0.00005	0.00170
2007190458	2007190774	Coarse	Coarse	TOS	TOS	0.0390	0.0200	23800	15800	3.50	3.10	0.00080	0.00130
2007190458	2007190774	Fine	Fine	TOS	TOS	0.0420	0.0280	21700	17200	3.40	3.00	0.00080	0.00110
2007190458	2007190774	Coarse	Coarse	BOS	BOS	0.0420	0.0230	23300	17000	3.60	3.00	0.00070	0.00100
2007190458	2007190774	Fine	Fine	BOS	BOS	0.0320	0.0220	25400	18600	4.50	3.10	0.00050	0.00070
2007190472	2007191312	Coarse	Coarse	TOS	TOS	0.0120	0.0510	16600	36900	1.20	0.90	0.00090	0.00480
2007190472	2007191312	Fine	Fine	TOS	TOS	0.0090	0.0450	17400	41600	1.20	0.90	0.00210	0.00330
2007190472	2007191312	Coarse	Coarse	BOS	BOS	0.0170	0.0480	14600	38000	3.60	1.70	0.00230	0.00150
2007190472	2007191312	Fine	Fine	BOS	BOS	0.0310	0.0540	16700	43600	2.30	1.20	0.00150	0.00200
2007190481	2007191594	Coarse	Coarse	TOS	TOS	0.0010	0.0050	6000	9000	1.00	1.20	0.00005	0.00060
2007190481	2007191594	Fine	Fine	TOS	TOS	0.0010	0.0010	6000	7900	1.30	1.20	0.00005	0.00130
2007190481	2007191594	Coarse	Coarse	BOS	BOS	0.0010	0.0010	7600	10500	1.80	2.10	0.00005	0.00120
2007190481	2007191594	Fine	Fine	BOS	BOS	0.0010	0.0500	7900	10800	1.70	2.30	0.00005	0.00005
2007190495	2007191318	Coarse	Coarse	TOS	TOS	0.0010	0.0010	4400	2200	1.40	1.10	0.00050	0.00060
2007190495	2007191318	Fine	Fine	TOS	TOS	0.0010	0.0150	9200	6900	2.20	1.60	0.00100	0.00110
2007190495	2007191318	Coarse	Coarse	BOS	BOS	0.0010	0.0170	3500	8400	1.40	3.10	0.00070	0.00110
2007190495	2007191318	Fine	Fine	BOS	BOS	0.0010	0.0010	6200	2900	2.20	1.50	0.00120	0.00110
2007190497	2007190586	Coarse	Coarse	TOS	TOS	0.0050	0.0040	11100	7500	1.10	1.80	0.00005	0.00005
2007190497	2007190586	Fine	Fine	TOS	TOS	0.0120	0.0280	20200	11100	2.20	2.80	0.00005	0.00070
2007190497	2007190586	Coarse	Coarse	BOS	BOS	0.0180	0.0350	24000	13700	2.10	1.80	0.00090	0.00140
2007190497	2007190586	Fine	Fine	BOS	BOS	0.0440	0.0470	33500	21000	2.60	2.60	0.00180	0.00190
2007190506	2007190631	Coarse	Coarse	TOS	TOS	0.0010	0.0300	23800	17300	1.60	2.90	0.00100	0.00070
2007190506	2007190631	Fine	Fine	TOS	TOS	0.0010	0.0150	20800	12400	1.30	1.50	0.00110	0.00040
2007190506	2007190631	Coarse	Coarse	BOS	BOS	0.0010	0.0130	23200	20300	1.00	1.50	0.00140	0.00060
2007190506	2007190631	Fine	Fine	BOS	BOS	0.0060	0.0760	23900	18200	1.40	1.90	0.00130	0.00010
2007190508	2007191119	Coarse	Coarse	TOS	TOS	0.0290	0.0280	29000	24700	1.70	1.70	0.00110	0.00140
2007190508	2007191119	Fine	Fine	TOS	TOS	0.0350	0.0160	24500	23600	2.10	2.10	0.00090	0.00050
2007190508	2007191119	Coarse	Coarse	BOS	BOS	0.0280	0.0230	20400	19600	3.20	2.70	0.00130	0.00040
2007190508	2007191119	Fine	Fine	BOS	BOS	0.0280	0.0200	19700	18600	3.10	2.50	0.00110	0.00060
2007190526	2007191599	Coarse	Coarse	TOS	TOS	0.0370	0.0150	16100	17100	6.90	5.70	0.00470	0.00200
2007190526	2007191599	Fine	Fine	TOS	TOS	0.0290	0.1410	17600	19600	7.00	7.40	0.00150	0.00560
2007190526	2007191599	Coarse	Coarse	BOS	BOS	0.0320	0.0360	18900	17500	8.20	6.90	0.00250	0.00150
2007190526	2007191599	Fine	Fine	BOS	BOS	0.0340	0.0190	19600	19300	6.80	7.70	0.00180	0.00170
2007190527	2007190609	Coarse	Coarse	TOS	TOS	0.0080	0.0260	17100	14700	2.00	2.40	0.00005	0.00120
2007190527	2007190609	Fine	Fine	TOS	TOS	0.0100	0.0130	12500	13900	2.50	1.50	0.00050	0.00070
2007190527	2007190609	Coarse	Coarse	BOS	BOS	0.0030	0.0010	7100	7000	2.10	2.00	0.00005	0.00005

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	B (ppm)	B (ppm)	Ba (ppm)	Ba (ppm)	Be (ppm)	Be (ppm)	Bi (ppm)	Bi (ppm)	Ca (ppm)	Ca (ppm)	Cd (ppm)	Cd (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	1	1	0.5	0.5	0.1	0.1	0.02	0.02	100	100	0.01	0.01
ULD:	ULD:												
2007190342	2007190989	0.5	1	85.10	102.00	0.70	1.00	0.240	0.250	1200	2200	0.070	7.520
2007190342	2007190989	0.5	0.5	96.20	128.00	1.30	1.40	0.350	0.360	2100	3000	0.080	0.080
2007190349	2007191436	4	0.5	56.00	40.10	0.60	0.70	0.160	0.130	3600	2900	0.050	0.040
2007190349	2007191436	0.5	0.5	76.70	56.80	0.70	0.90	0.220	0.170	3300	3800	0.070	0.100
2007190349	2007191436	2	0.5	67.50	51.00	0.80	0.80	0.180	0.170	3400	3100	0.020	0.100
2007190349	2007191436	0.5	0.5	103.00	72.50	1.10	1.10	0.290	0.260	5200	4200	0.080	0.090
2007190352	2007190611	0.5	4	38.10	48.20	1.80	2.20	0.130	0.160	2700	2700	0.180	0.110
2007190352	2007190611	2	4	39.20	56.20	2.20	2.50	0.160	0.180	3000	2900	0.130	0.140
2007190352	2007190611	2	6	26.50	35.50	0.60	1.40	0.150	0.210	1100	1200	0.005	0.005
2007190352	2007190611	1	5	30.20	37.50	0.60	1.30	0.150	0.200	1300	1200	0.005	0.020
2007190355	2007191257	11	7	122.00	18.00	0.70	0.50	0.220	0.200	2800	1000	0.060	0.030
2007190355	2007191257	12	6	67.60	23.50	0.80	0.50	0.280	0.250	3000	1900	0.050	0.050
2007190355	2007191257	35	8	34.30	20.00	0.80	0.40	0.200	0.240	17500	12800	0.030	0.010
2007190355	2007191257	39	9	48.30	36.60	0.80	0.50	0.250	0.250	17000	13900	0.040	0.060
2007190357	2007190856	0.5	3	7.60	10.40	0.10	0.05	0.050	0.060	50	200	0.030	0.005
2007190357	2007190856	0.5	0.5	102.00	211.00	0.80	0.70	0.090	0.090	400	1500	0.005	0.005
2007190357	2007190856	2	0.5	482.00	425.00	1.60	1.30	0.190	0.170	1400	3400	0.030	0.005
2007190361	2007191094	5	14	99.90	101.00	1.00	1.20	0.230	0.200	122000	59200	0.120	0.005
2007190361	2007191094	0.5	14	55.50	112.00	0.80	1.30	0.200	0.230	75100	57100	0.150	0.180
2007190361	2007191094	10	18	59.60	80.70	0.40	0.60	0.110	0.140	186000	172000	0.100	0.100
2007190361	2007191094	12	20	70.40	95.60	0.40	0.70	0.130	0.150	186000	166000	0.090	0.100
2007190383	2007191416	1	0.5	150.00	65.90	0.80	0.40	0.130	0.070	2800	1000	0.020	0.005
2007190383	2007191416	1	0.5	239.00	156.00	1.00	1.30	0.170	0.190	3300	3200	0.010	0.020
2007190383	2007191416	0.5	0.5	19.60	118.00	0.30	0.90	0.080	0.120	600	3600	0.005	0.010
2007190383	2007191416	0.5	0.5	42.20	174.00	0.70	1.00	0.180	0.160	1300	3800	0.020	0.020
2007190393	2007191050	2	0.5	182.00	144.00	1.20	1.20	0.310	0.290	6000	2700	0.080	0.040
2007190393	2007191050	2	0.5	229.00	154.00	1.10	1.00	0.280	0.300	4700	2300	0.060	0.120
2007190393	2007191050	0.5	0.5	88.30	120.00	1.00	1.10	0.320	0.280	1900	2400	0.005	0.040
2007190393	2007191050	0.5	0.5	122.00	234.00	0.80	1.00	0.270	0.250	1600	1400	0.040	0.030
2007190414	2007191386	0.5	0.5	83.70	74.60	0.90	0.70	0.210	0.210	1900	1900	0.020	0.030
2007190414	2007191386	0.5	0.5	74.80	69.20	0.80	0.70	0.200	0.200	1500	1700	0.040	0.005
2007190414	2007191386	0.5	0.5	75.30	80.80	0.90	0.70	0.230	0.240	2700	2300	0.030	0.010
2007190414	2007191386	0.5	0.5	82.00	94.60	0.90	0.90	0.210	0.260	2800	2700	0.020	0.005
2007190419	2007190974	0.5	0.5	113.00	103.00	0.60	0.60	0.110	0.100	3400	2400	0.040	0.060
2007190419	2007190974	3	0.5	155.00	150.00	0.50	0.90	0.110	0.120	4900	4100	0.090	0.070
2007190419	2007190974	0.5	0.5	74.60	84.30	0.70	0.80	0.110	0.100	2900	3200	0.005	0.030
2007190419	2007190974	0.5	0.5	166.00	144.00	0.80	0.90	0.170	0.160	4300	4500	0.040	0.050
2007190425	2007190768	0.5	2	74.70	92.80	0.90	0.90	0.170	0.210	3100	2600	0.050	0.030
2007190425	2007190768	0.5	0.5	78.80	77.70	1.00	0.70	0.190	0.170	2200	1700	0.030	0.005
2007190425	2007190768	0.5	1	35.60	69.70	0.70	1.00	0.160	0.210	1300	1800	0.005	0.010
2007190425	2007190768	0.5	1	35.60	100.00	0.60	1.10	0.150	0.190	1400	1700	0.005	0.020
2007190434	2007191027	0.5	8	52.20	70.40	1.00	1.20	0.080	0.110	4400	18600	0.040	0.030
2007190434	2007191027	1	15	114.00	134.00	2.40	2.50	0.200	0.210	7700	26200	0.050	0.030
2007190434	2007191027	1	11	74.20	84.70	1.20	1.10	0.100	0.100	86000	63600	0.005	0.040
2007190434	2007191027	2	19	126.00	145.00	2.00	2.10	0.150	0.170	152000	91000	0.060	0.040
2007190457	2007191004	1	0.5	54.90	27.70	0.80	0.30	0.090	0.050	1800	200	0.120	0.070
2007190457	2007191004	3	0.5	59.50	48.00	0.90	0.60	0.130	0.090	2100	700	0.090	0.070
2007190457	2007191004	0.5	1	19.80	17.60	0.20	0.05	0.050	0.030	300	50	0.030	0.030
2007190457	2007191004	2	0.5	34.80	27.30	0.30	0.30	0.080	0.040	500	200	0.005	0.060
2007190458	2007190774	2	1	152.00	130.00	1.40	0.90	0.190	0.150	5800	4800	0.190	0.130
2007190458	2007190774	3	1	139.00	140.00	0.80	0.90	0.160	0.150	5500	5000	0.180	0.120
2007190458	2007190774	2	1	145.00	123.00	1.10	1.00	0.160	0.140	5700	4600	0.170	0.090
2007190458	2007190774	2	1	164.00	142.00	1.30	1.00	0.180	0.150	6500	5100	0.190	0.140
2007190472	2007191312	0.5	1	128.00	126.00	0.90	1.00	0.160	0.170	7400	5800	0.005	0.060
2007190472	2007191312	0.5	1	148.00	138.00	1.20	1.30	0.190	0.180	9000	7200	0.030	0.070
2007190472	2007191312	0.5	1	124.00	144.00	0.90	1.00	0.140	0.170	34900	5900	0.030	0.060
2007190472	2007191312	0.5	1	145.00	151.00	1.20	1.40	0.190	0.180	32900	7400	0.030	0.070
2007190481	2007191594	0.5	0.5	14.90	19.60	0.40	0.40	0.070	0.090	17500	18300	0.005	0.040
2007190481	2007191594	0.5	0.5	14.20	17.70	0.30	0.50	0.070	0.080	25700	19100	0.005	0.030
2007190481	2007191594	0.5	0.5	14.30	19.30	0.40	0.50	0.080	0.080	26600	28200	0.005	0.030
2007190481	2007191594	0.5	0.5	15.90	18.70	0.40	0.50	0.080	0.090	31000	31300	0.005	0.060
2007190495	2007191318	0.5	0.5	29.40	16.60	0.20	0.10	0.020	0.010	326000	245000	0.110	0.110
2007190495	2007191318	1	1	41.70	33.60	0.40	0.20	0.050	0.050	263000	233000	0.050	0.180
2007190495	2007191318	1	2	23.80	37.80	0.20	0.30	0.010	0.050	320000	331000	0.040	0.120
2007190495	2007191318	2	0.5	30.40	20.30	0.30	0.20	0.030	0.020	371000	268000	0.030	0.100
2007190497	2007190586	2	0.5	34.20	49.50	0.30	0.40	0.120	0.140	1600	1900	0.005	0.080
2007190497	2007190586	2	0.5	64.80	83.60	0.70	0.70	0.210	0.210	3400	3500	0.030	0.090
2007190497	2007190586	0.5	0.5	44.30	35.80	0.70	0.70	0.160	0.160	3600	2800	0.005	0.100
2007190497	2007190586	0.5	1	84.90	72.10	1.30	0.90	0.270	0.230	5100	5000	0.020	0.030
2007190506	2007190631	0.5	2	137.00	149.00	0.90	0.80	0.130	0.130	4300	2500	0.050	0.190
2007190506	2007190631	0.5	3	129.00	116.00	1.00	0.50	0.130	0.150	3300	1700	0.060	0.005
2007190506	2007190631	0.5	5	133.00	152.00	1.00	1.00	0.160	0.150	3900	3000	0.070	0.060
2007190506	2007190631	0.5	3	225.00	250.00	1.20	0.90	0.150	0.140	4500	2700	0.040	0.110
2007190508	2007191119	0.5	0.5	127.00	108.00	1.00	1.00	0.180	0.160	12400	10700	0.020	0.060
2007190508	2007191119	0.5	0.5	112.00	110.00	0.80	1.00	0.180	0.190	12200	11100	0.030	0.060
2007190508	2007191119	0.5	0.5	117.00	115.00	1.40	1.10	0.250	0.240	8100	10000	0.070	0.070
2007190508	2007191119	0.5	0.5	117.00	114.00	1.40	0.80	0.270	0.240	7900	9800	0.040	0.060
2007190526	2007191599	0.5	0.5	111.00	82.00	1.50	1.60	0.410	0.300	3400	3400	0.160	0.210
2007190526	2007191599	0.5	0.5	121.00	95.50	1.30	1.50	0.460	0.360	3900	4400	0.180	0.250
2007190526	2007191599	0.5	0.5	93.90	77.10	1.60	1.90	0.440	0.350	1800	2500	0.060	0.100
2007190526	2007191599	0.5	0.5	93.30	82.60	1.30	2.40	0.480	0.370	1900	3000	0.040	0.070
2007190527	2007190609	0.5	0.5	173.00	187.00	1.00	0.90	0.150	0.130	3900	3400	0.080	0.090
2007190527	2007190609	0.5	0.5	167.00	151.00	0.80	0.90	0.130	0.120	3500	2900	0.100	0.050
2007190527	2007190609	0.5	0.5	103.00	126.00	0.50	0.50	0.070	0.050	1000	1200	0.040	0.020

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Ce (ppm)	Ce (ppm)	Co (ppm)	Co (ppm)	Cr (ppm)	Cr (ppm)	Cs (ppm)	Cs (ppm)	Cu (ppm)	Cu (ppm)	Dy (ppm)	Dy (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.01	0.01	0.1	0.1	0.5	0.5	0.02	0.02	0.01	0.01	0.1	0.1
ULD:	ULD:												
2007190342	2007190989	47.100	38.600	10.30	10.70	82.10	61.80	0.790	1.050	20.900	21.500	2.00	2.10
2007190342	2007190989	78.400	46.800	17.80	13.70	86.80	62.80	1.220	1.250	36.500	26.100	3.50	2.60
2007190349	2007191436	30.300	18.100	18.10	15.50	111.00	89.90	0.890	0.960	37.200	34.300	1.30	1.10
2007190349	2007191436	47.100	32.900	25.40	22.70	136.00	120.00	0.810	0.930	54.000	52.400	2.20	1.90
2007190349	2007191436	32.400	20.700	18.90	15.90	115.00	103.00	1.150	1.070	43.100	41.200	1.50	1.40
2007190349	2007191436	45.400	27.500	28.90	21.90	173.00	144.00	1.490	1.270	66.800	59.500	2.30	1.90
2007190352	2007190611	74.700	72.000	7.70	9.40	26.50	46.20	0.800	1.130	18.000	23.500	3.70	4.50
2007190352	2007190611	87.400	78.300	8.70	9.60	27.90	45.90	0.820	1.280	19.500	25.000	4.30	4.90
2007190352	2007190611	36.300	43.000	4.30	8.50	39.20	61.10	0.640	1.250	11.800	18.100	1.80	2.60
2007190352	2007190611	42.400	47.300	4.60	7.70	41.60	57.70	0.580	1.290	14.000	19.000	2.10	3.00
2007190355	2007191257	44.400	54.200	21.50	15.40	190.00	134.00	0.840	0.490	39.700	30.500	2.30	1.90
2007190355	2007191257	58.000	67.100	27.80	19.00	237.00	158.00	0.940	0.520	51.400	35.400	3.10	2.50
2007190355	2007191257	44.900	60.700	21.70	18.70	186.00	149.00	1.160	0.650	43.000	32.900	1.70	1.60
2007190355	2007191257	65.300	86.900	34.50	28.00	193.00	145.00	1.230	0.670	47.500	33.600	1.70	1.70
2007190357	2007190856	3.770	3.030	0.90	1.10	10.10	12.30	0.270	0.230	1.090	1.300	0.20	0.20
2007190357	2007190856	26.700	18.400	3.20	4.50	10.40	11.20	0.710	0.680	2.650	3.420	1.00	0.50
2007190357	2007190856	68.400	50.600	11.10	11.90	20.80	16.80	1.690	1.140	6.470	8.630	2.20	1.50
2007190361	2007191094	44.400	50.100	10.60	11.70	77.20	102.00	2.380	2.450	21.900	22.700	2.50	2.50
2007190361	2007191094	39.400	45.800	6.80	10.40	61.30	106.00	0.490	2.580	26.100	24.000	2.40	2.60
2007190361	2007191094	26.200	30.400	8.70	9.00	39.00	64.20	0.350	1.330	21.600	24.100	1.40	1.50
2007190361	2007191094	24.300	30.600	5.40	8.60	41.00	71.70	0.310	1.610	23.400	25.900	1.40	1.60
2007190383	2007191416	44.300	25.700	9.60	5.40	21.00	11.60	1.370	0.700	8.070	4.380	2.50	1.30
2007190383	2007191416	51.100	62.100	10.80	12.80	23.30	28.20	1.530	1.380	9.880	11.700	3.00	3.40
2007190383	2007191416	11.400	52.400	2.60	10.30	22.80	17.60	0.590	0.900	2.890	7.350	0.60	2.50
2007190383	2007191416	33.700	76.300	4.60	15.60	27.20	22.20	1.210	1.160	7.680	10.100	1.80	3.70
2007190393	2007191050	51.800	54.100	5.90	6.40	27.40	25.90	2.580	2.170	14.900	15.700	2.30	2.50
2007190393	2007191050	49.400	51.000	5.00	10.30	25.30	26.00	2.360	2.130	12.700	23.200	2.10	2.30
2007190393	2007191050	54.800	60.600	6.50	7.00	23.10	26.10	2.110	2.130	9.730	14.100	2.10	2.80
2007190393	2007191050	47.900	62.100	6.20	5.90	17.90	22.30	1.460	1.970	6.050	12.500	1.90	2.90
2007190414	2007191386	56.700	56.400	9.00	10.60	16.30	17.70	0.690	1.120	8.100	10.700	2.00	2.40
2007190414	2007191386	48.400	57.000	6.60	9.60	14.30	17.40	0.710	1.140	8.230	10.100	1.80	2.40
2007190414	2007191386	64.600	60.000	12.00	11.30	17.40	20.20	0.910	1.450	9.520	11.000	2.50	2.90
2007190414	2007191386	59.300	64.500	10.90	12.40	16.20	23.10	0.980	1.710	9.560	12.700	2.40	3.00
2007190419	2007190974	62.800	33.200	11.30	8.60	23.90	28.00	0.980	1.160	9.940	18.900	2.40	1.80
2007190419	2007190974	59.500	52.300	13.00	14.00	10.30	25.20	0.050	0.770	12.400	14.000	3.10	2.80
2007190419	2007190974	53.900	37.200	10.10	9.00	25.80	27.40	1.240	1.070	8.870	14.000	2.20	2.20
2007190419	2007190974	96.300	59.500	20.70	15.50	28.40	35.40	1.510	1.670	12.200	21.000	3.70	3.40
2007190425	2007190768	44.800	54.400	5.90	8.10	24.00	30.10	1.330	1.370	18.700	17.900	3.00	2.60
2007190425	2007190768	42.200	43.700	5.20	6.20	24.50	23.80	1.610	1.020	19.300	13.800	2.90	2.10
2007190425	2007190768	31.600	49.200	4.50	8.90	23.40	31.90	1.560	1.360	17.100	16.500	1.90	2.50
2007190425	2007190768	37.000	47.100	4.30	8.30	21.30	29.20	1.450	1.280	16.300	16.100	2.30	2.40
2007190434	2007191027	37.000	48.400	7.80	8.50	74.40	94.00	1.230	1.470	16.300	17.300	2.00	2.00
2007190434	2007191027	69.900	91.000	15.50	15.80	149.00	181.00	2.710	2.840	34.700	35.700	4.30	4.00
2007190434	2007191027	38.300	46.400	7.40	8.00	73.50	82.40	1.320	1.250	22.600	24.900	2.30	2.10
2007190434	2007191027	70.000	81.700	14.00	14.40	125.00	149.00	2.220	2.120	39.300	38.600	4.20	3.70
2007190457	2007191004	64.800	32.300	4.70	2.50	19.40	8.80	1.560	0.740	7.050	2.340	1.60	0.80
2007190457	2007191004	79.200	49.600	4.90	4.40	22.90	16.40	1.830	1.290	8.600	4.630	2.00	1.40
2007190457	2007191004	34.300	19.400	1.40	1.20	7.90	5.60	0.630	0.550	2.950	1.180	0.70	0.40
2007190457	2007191004	78.300	26.900	1.70	1.60	11.60	8.50	0.930	0.930	3.790	3.170	1.30	0.50
2007190458	2007190774	63.700	43.200	17.20	15.00	33.00	26.50	1.550	1.110	22.100	17.800	2.80	2.30
2007190458	2007190774	65.700	47.600	15.60	15.00	29.90	28.90	1.490	1.240	21.300	19.100	2.80	2.60
2007190458	2007190774	60.300	41.300	15.80	13.50	30.90	28.10	1.580	1.230	20.800	18.000	2.70	2.20
2007190458	2007190774	72.200	47.800	21.20	17.10	34.20	31.30	1.730	1.360	22.900	19.200	3.00	2.50
2007190472	2007191312	40.200	36.300	4.60	6.70	18.00	46.80	0.300	2.120	13.500	31.100	2.40	2.80
2007190472	2007191312	44.000	37.900	5.10	8.50	19.20	52.40	0.320	2.550	17.900	37.400	2.80	3.00
2007190472	2007191312	36.700	37.300	4.10	7.20	16.30	52.40	0.300	2.300	12.500	31.000	2.20	2.80
2007190472	2007191312	42.200	42.100	5.00	7.40	19.50	53.10	0.320	2.490	16.100	35.000	2.50	3.30
2007190481	2007191594	16.400	20.000	5.30	7.00	14.80	18.20	0.690	0.830	12.700	9.220	1.30	1.40
2007190481	2007191594	17.900	19.000	6.60	7.20	14.70	15.80	0.780	0.800	15.500	7.790	1.40	1.30
2007190481	2007191594	20.900	21.400	8.40	9.60	17.70	20.60	0.910	0.940	17.900	9.530	1.60	1.50
2007190481	2007191594	23.700	23.300	8.20	32.50	19.30	821.00	0.890	0.940	19.200	39.200	1.80	1.80
2007190495	2007191318	9.950	7.230	1.00	0.50	20.60	21.10	0.340	0.150	2.600	1.990	0.90	0.70
2007190495	2007191318	8.930	8.890	1.90	1.60	27.90	29.60	0.740	0.460	6.840	9.990	0.70	0.70
2007190495	2007191318	7.070	10.900	1.10	2.00	16.30	32.90	0.280	0.480	2.190	9.020	0.60	0.80
2007190495	2007191318	6.760	8.290	1.80	0.80	20.50	21.20	0.480	0.190	4.380	3.010	0.50	0.80
2007190497	2007190586	22.100	24.700	6.20	7.10	22.60	19.30	0.960	0.630	14.600	12.100	1.60	1.40
2007190497	2007190586	44.200	44.400	11.70	12.20	26.80	26.90	1.760	0.960	29.000	21.500	3.50	2.90
2007190497	2007190586	30.300	22.200	9.40	6.90	32.10	27.90	1.810	1.230	21.400	12.600	1.80	1.40
2007190497	2007190586	65.800	53.800	17.40	16.00	39.80	38.70	3.010	1.850	109.000	17.900	3.30	2.50
2007190506	2007190631	43.800	31.000	11.90	9.10	29.40	20.00	2.050	1.540	23.900	14.700	3.10	2.40
2007190506	2007190631	39.000	24.600	8.00	5.90	26.10	12.90	1.870	1.270	22.100	11.100	3.00	1.80
2007190506	2007190631	39.100	32.100	10.70	10.30	32.80	24.00	2.140	1.940	24.100	15.500	3.00	2.40
2007190506	2007190631	42.600	32.500	13.90	11.10	36.50	26.40	2.320	1.850	26.600	15.100	2.90	2.50
2007190508	2007191119	38.900	40.600	22.00	19.50	71.30	53.70	2.160	1.500	33.000	30.900	2.90	3.00
2007190508	2007191119	35.300	41.100	17.60	17.90	58.60	50.00	2.170	1.810	30.500	32.900	2.70	3.30
2007190508	2007191119	46.900	51.300	15.80	15.70	42.20	37.80	2.690	2.120	27.600	28.300	2.80	3.30
2007190508	2007191119	43.800	44.600	14.50	14.00	41.30	37.00	2.790	2.170	27.500	30.100	2.80	3.30
2007190526	2007191599	65.800	45.100	11.90	11.20	24.90	27.20	2.760	2.320	16.700	15.800	3.20	3.00
2007190526	2007191599	75.400	60.600	12.60	12.90	27.80	32.50	3.100	2.710	17.900	20.600	3.70	3.90
2007190526	2007191599	76.400	51.300	12.00	10.80	29.40	30.40	3.050	2.680	17.400	18.300	3.80	3.30
2007190526	2007191599	79.800	63.300	10.80	10.50	29.70	35.10	3.230	3.120	19.100	19.700	4.20	3.90
2007190527	2007190609	44.600	48.300	13.70	14.80	19.50	22.30	1.200	1.100	19.700	20.800	3.60	4.10
2007190527	2007190609	43.500	46.400	12.40	11.90	15.10	20.40	0.980	1.120	17.000	19.300	3.40	3.80
2007190527	2007190609	21.400	22.400	4.70	5.10	14.10	14.20	0.600	0.650	9.030	8.670	1.50	1.70

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Er (ppm)	Er (ppm)	Eu (ppm)	Eu (ppm)	Fe (ppm)	Fe (ppm)	Ga (ppm)	Ga (ppm)	Gd (ppm)	Gd (ppm)	Ge (ppm)	Ge (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1	100	100	0.02	0.02	0.1	0.1	0.1	0.1
ULD:	ULD:												
2007190342	2007190989	0.90	1.00	0.60	0.70	38200	28200	6.100	4.690	3.20	3.10	0.05	0.05
2007190342	2007190989	1.60	1.20	1.20	0.90	58800	34700	10.200	5.350	5.50	3.70	0.05	0.05
2007190349	2007191436	0.60	0.50	0.40	0.30	35800	35200	6.100	4.970	2.00	1.30	0.05	0.05
2007190349	2007191436	1.00	0.80	0.70	0.50	46800	47500	8.060	6.710	3.20	2.50	0.05	0.05
2007190349	2007191436	0.70	0.60	0.40	0.40	39700	37700	7.540	5.740	2.20	1.80	0.05	0.05
2007190349	2007191436	1.10	0.80	0.70	0.60	58700	45800	11.200	7.640	3.40	2.80	0.05	0.05
2007190352	2007190611	1.50	1.80	1.30	1.60	37600	35100	7.510	12.500	5.80	6.80	0.10	0.05
2007190352	2007190611	1.80	2.00	1.50	1.80	49300	45900	7.720	12.200	6.80	7.50	0.10	0.05
2007190352	2007190611	0.70	1.10	0.70	1.00	41600	56000	9.350	16.400	3.00	4.10	0.10	0.05
2007190352	2007190611	0.80	1.20	0.80	1.20	49900	66800	10.000	15.100	3.50	4.60	0.10	0.10
2007190355	2007191257	1.10	0.80	0.70	0.60	49400	42200	10.300	5.180	3.20	2.70	0.10	0.05
2007190355	2007191257	1.50	1.00	1.00	0.80	63400	49400	12.200	5.950	4.20	3.60	0.10	0.05
2007190355	2007191257	0.80	0.70	0.50	0.50	52500	47300	11.400	5.530	2.50	2.50	0.10	0.05
2007190355	2007191257	0.80	0.70	0.50	0.60	56400	50400	12.400	5.840	2.50	2.90	0.10	0.05
2007190357	2007190856	0.05	0.05	0.05	0.05	3700	3500	1.010	0.820	0.20	0.30	0.05	0.05
2007190357	2007190856	0.40	0.30	0.30	0.20	6600	9600	2.020	1.450	1.00	0.90	0.05	0.05
2007190357	2007190856	1.10	0.70	0.70	0.50	15500	20400	5.520	2.870	3.30	2.30	0.05	0.05
2007190361	2007191094	1.40	1.30	0.80	0.90	26300	36200	11.100	12.700	3.70	3.30	0.05	0.10
2007190361	2007191094	1.20	1.20	0.80	0.90	21400	38100	5.590	13.400	3.70	3.20	0.05	0.10
2007190361	2007191094	0.80	0.80	0.50	0.60	11700	22900	3.020	7.580	2.10	2.00	0.05	0.05
2007190361	2007191094	0.80	0.70	0.60	0.60	13200	24900	3.250	8.670	1.90	2.00	0.10	0.05
2007190383	2007191416	1.20	0.60	0.80	0.40	14800	10500	5.920	2.510	3.60	2.00	0.05	0.05
2007190383	2007191416	1.60	1.50	0.90	1.10	16900	25200	6.760	6.000	4.40	5.10	0.05	0.05
2007190383	2007191416	0.30	1.20	0.10	0.80	9200	15100	2.390	3.300	0.90	4.00	0.05	0.05
2007190383	2007191416	0.90	1.70	0.50	1.20	19700	19900	5.360	4.340	2.70	5.70	0.05	0.05
2007190393	2007191050	1.20	1.10	0.70	0.80	14500	17800	6.070	6.100	3.90	4.00	0.05	0.05
2007190393	2007191050	1.00	1.00	0.70	0.70	13700	15800	5.560	5.290	3.60	3.70	0.05	0.05
2007190393	2007191050	1.00	1.30	0.70	0.90	16800	19100	4.700	6.240	3.70	4.30	0.05	0.05
2007190393	2007191050	0.90	1.30	0.60	0.90	13100	16400	3.510	5.190	3.40	4.40	0.05	0.05
2007190414	2007191386	0.80	1.00	0.70	0.80	12700	15500	1.900	3.530	3.60	3.80	0.05	0.05
2007190414	2007191386	0.80	1.00	0.60	0.80	11200	16400	1.670	3.720	3.40	3.60	0.05	0.05
2007190414	2007191386	1.10	1.30	0.80	0.90	14200	18600	2.150	4.260	4.50	4.20	0.05	0.05
2007190414	2007191386	1.10	1.40	0.80	1.10	13400	21200	1.970	5.010	4.50	4.80	0.05	0.05
2007190419	2007190974	1.20	0.80	0.60	0.80	13100	17000	4.960	4.540	3.40	2.50	0.05	0.05
2007190419	2007190974	1.40	1.30	1.20	1.00	7100	22700	1.620	5.460	5.40	3.30	0.05	0.05
2007190419	2007190974	1.00	0.90	0.60	0.80	13100	18300	4.890	4.460	3.10	2.60	0.05	0.05
2007190419	2007190974	1.90	1.50	0.80	1.30	17800	24800	6.130	6.750	5.10	4.30	0.05	0.05
2007190425	2007190768	1.10	1.20	0.80	0.80	18400	20900	5.240	4.540	3.40	4.20	0.05	0.05
2007190425	2007190768	1.00	0.90	0.80	0.60	16600	17400	4.870	3.540	3.70	3.40	0.05	0.05
2007190425	2007190768	0.70	1.20	0.60	0.80	17200	23100	4.540	4.840	2.40	3.80	0.05	0.05
2007190425	2007190768	0.80	1.20	0.70	0.70	17300	20600	4.580	4.370	2.60	3.80	0.05	0.05
2007190434	2007191027	0.80	0.90	0.50	0.70	19100	20600	6.740	7.580	2.10	2.70	0.05	0.10
2007190434	2007191027	2.00	2.00	1.40	1.50	36900	38600	11.800	14.800	5.60	5.70	0.10	0.10
2007190434	2007191027	0.90	1.00	0.80	0.80	16100	18000	5.670	6.730	3.20	2.80	0.05	0.05
2007190434	2007191027	1.70	1.70	1.10	1.30	34700	31700	12.500	12.200	4.40	5.10	0.10	0.10
2007190457	2007191004	0.60	0.30	0.60	0.40	12800	5900	3.680	1.570	2.80	1.40	0.05	0.05
2007190457	2007191004	0.70	0.60	0.60	0.50	14900	10000	4.260	2.620	3.40	2.20	0.05	0.05
2007190457	2007191004	0.20	0.10	0.40	0.10	4800	3000	1.500	0.950	1.40	0.70	0.05	0.05
2007190457	2007191004	0.40	0.20	0.60	0.20	6500	4300	2.210	1.620	3.00	1.00	0.05	0.05
2007190458	2007190774	1.20	1.10	0.70	0.80	28300	25700	7.770	5.050	3.80	3.60	0.10	0.05
2007190458	2007190774	1.30	1.20	0.70	0.80	25800	28100	7.100	5.450	3.80	4.00	0.10	0.05
2007190458	2007190774	1.30	1.00	0.70	0.70	26000	24700	7.440	5.140	3.70	3.40	0.10	0.05
2007190458	2007190774	1.40	1.10	0.70	0.90	33600	27800	8.240	5.940	4.20	4.00	0.10	0.05
2007190472	2007191312	1.10	1.20	0.70	0.80	13800	35800	4.180	11.700	3.80	2.90	0.05	0.20
2007190472	2007191312	1.30	1.50	0.90	1.00	14700	41200	4.590	12.200	4.60	3.30	0.05	0.20
2007190472	2007191312	1.00	1.20	0.70	0.90	12300	33300	3.650	11.800	3.50	3.10	0.05	0.20
2007190472	2007191312	1.10	1.40	0.80	0.90	13900	41300	4.200	14.700	4.20	3.30	0.05	0.30
2007190481	2007191594	0.50	0.60	0.30	0.40	12000	13300	1.940	2.780	1.50	1.90	0.05	0.05
2007190481	2007191594	0.60	0.60	0.40	0.40	14100	13600	2.000	2.370	1.70	1.80	0.05	0.05
2007190481	2007191594	0.70	0.70	0.40	0.40	19000	18500	3.080	3.420	1.60	1.90	0.05	0.05
2007190481	2007191594	0.70	0.70	0.40	0.40	18900	19300	3.140	3.430	2.00	2.30	0.05	0.20
2007190495	2007191318	0.40	0.40	0.20	0.20	4700	2600	1.080	0.070	0.90	0.80	0.05	0.05
2007190495	2007191318	0.30	0.40	0.20	0.20	9000	8200	2.410	1.080	0.80	0.80	0.05	0.05
2007190495	2007191318	0.30	0.50	0.20	0.20	3900	9900	0.750	1.840	0.70	0.70	0.05	0.05
2007190495	2007191318	0.20	0.40	0.10	0.20	7500	3600	2.110	0.390	0.50	0.70	0.05	0.05
2007190497	2007190586	0.70	0.70	0.50	0.50	14400	11800	3.370	2.810	2.10	2.40	0.05	0.05
2007190497	2007190586	1.50	1.60	1.00	1.10	23200	20000	6.300	4.910	4.70	4.60	0.05	0.10
2007190497	2007190586	0.80	0.80	0.50	0.50	25200	17400	7.170	5.300	2.30	2.10	0.05	0.05
2007190497	2007190586	1.50	1.40	1.00	0.90	36500	28000	10.200	7.740	4.30	3.80	0.05	0.05
2007190506	2007190631	1.40	1.40	0.80	0.80	30400	18100	9.130	5.720	3.20	3.20	0.10	0.05
2007190506	2007190631	1.20	1.00	0.80	0.60	23400	13300	6.880	4.700	3.20	2.70	0.10	0.05
2007190506	2007190631	1.30	1.40	0.90	0.80	24700	20100	6.750	6.850	3.60	3.60	0.10	0.05
2007190506	2007190631	1.50	1.40	1.00	0.80	28900	19200	7.720	6.500	3.50	3.60	0.10	0.05
2007190508	2007191119	1.50	1.30	0.90	0.90	45300	36100	10.500	8.150	3.90	3.60	0.20	0.05
2007190508	2007191119	1.40	1.40	0.90	1.00	38700	35400	8.760	8.150	3.70	4.00	0.10	0.05
2007190508	2007191119	1.30	1.40	0.80	0.90	33900	30500	7.850	7.130	4.10	4.10	0.05	0.05
2007190508	2007191119	1.40	1.40	0.80	0.90	33500	29800	7.560	6.830	4.00	4.30	0.05	0.05
2007190526	2007191599	1.60	1.30	1.10	0.80	22300	22700	6.380	4.760	5.30	4.40	0.05	0.05
2007190526	2007191599	1.80	1.60	1.30	1.00	24100	28600	6.840	6.170	5.80	5.40	0.05	0.05
2007190526	2007191599	1.90	1.60	1.40	1.00	26200	26400	7.240	4.800	6.30	5.10	0.05	0.05
2007190526	2007191599	2.10	1.80	1.50	1.10	24600	29200	7.320	5.650	6.60	6.00	0.05	0.05
2007190527	2007190609	1.90	1.90	1.10	1.00	22200	24500	6.120	5.380	4.50	5.20	0.05	0.05
2007190527	2007190609	1.80	1.70	1.10	1.00	18100	21800	4.820	5.290	4.50	5.00	0.05	0.05
2007190527	2007190609	0.80	0.90	0.50	0.40	10600	12400	2.680	2.600	2.00	2.20	0.05	0.05

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Hf (ppm)	Hf (ppm)	Hg (ppm)	Hg (ppm)	Ho (ppm)	Ho (ppm)	In (ppm)	In (ppm)	K (ppm)	K (ppm)	La (ppm)	La (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.01	0.01	0.1	0.1	0.02	0.02	100	100	0.5	0.5
ULD:	ULD:												
2007190342	2007190989	0.20	0.20	0.005	0.040	0.40	0.40	0.040	0.030	2900	2800	21.50	19.40
2007190342	2007190989	0.20	0.20	0.010	0.005	0.70	0.50	0.060	0.040	5200	3500	35.80	22.60
2007190349	2007191436	0.20	0.10	0.020	0.020	0.20	0.20	0.030	0.010	2000	1700	17.90	9.40
2007190349	2007191436	0.20	0.10	0.130	0.050	0.40	0.30	0.030	0.010	2600	2200	27.40	18.20
2007190349	2007191436	0.20	0.10	0.020	0.020	0.30	0.20	0.040	0.010	1800	1700	18.50	11.60
2007190349	2007191436	0.20	0.10	0.020	0.020	0.40	0.30	0.050	0.030	2600	2200	28.10	17.00
2007190352	2007190611	0.05	0.20	0.080	0.050	0.60	0.80	0.030	0.050	1700	3900	40.60	38.20
2007190352	2007190611	0.05	0.20	0.120	0.080	0.80	0.80	0.040	0.060	1700	3800	46.60	41.50
2007190352	2007190611	0.20	0.20	0.040	0.070	0.30	0.50	0.050	0.070	2700	4400	17.80	22.10
2007190352	2007190611	0.20	0.20	0.060	0.140	0.40	0.50	0.050	0.070	2900	4000	20.60	22.90
2007190355	2007191257	0.20	0.05	0.030	0.020	0.40	0.30	0.040	0.040	7800	4400	19.40	19.10
2007190355	2007191257	0.20	0.05	0.020	0.010	0.60	0.40	0.060	0.030	9300	4400	26.00	23.20
2007190355	2007191257	0.30	0.30	0.020	0.030	0.30	0.30	0.050	0.030	8000	3600	16.50	17.80
2007190355	2007191257	0.40	0.30	0.010	0.005	0.30	0.30	0.050	0.030	9100	4100	17.20	19.60
2007190357	2007190856	0.05	0.05	0.010	0.010	0.05	0.05	0.010	0.010	200	100	1.80	1.20
2007190357	2007190856	0.10	0.05	0.010	0.010	0.20	0.10	0.010	0.010	700	500	5.10	4.90
2007190357	2007190856	0.20	0.20	0.005	0.010	0.40	0.30	0.040	0.010	1800	1000	12.90	10.40
2007190361	2007191094	0.10	0.20	0.040	0.030	0.50	0.50	0.050	0.050	14000	15800	23.30	22.90
2007190361	2007191094	0.10	0.20	0.030	0.050	0.40	0.50	0.040	0.050	9300	16600	24.80	22.00
2007190361	2007191094	0.05	0.20	0.020	0.030	0.30	0.30	0.010	0.030	5200	9000	15.50	14.10
2007190361	2007191094	0.10	0.20	0.020	0.030	0.30	0.30	0.010	0.030	5700	10000	14.70	14.50
2007190383	2007191416	0.20	0.05	0.040	0.005	0.40	0.20	0.030	0.010	1500	900	19.40	10.10
2007190383	2007191416	0.20	0.05	0.030	0.020	0.50	0.60	0.030	0.030	1500	2300	22.40	25.10
2007190383	2007191416	0.05	0.05	0.010	0.005	0.05	0.40	0.010	0.020	1000	1200	6.40	19.90
2007190383	2007191416	0.05	0.05	0.020	0.040	0.30	0.70	0.020	0.020	2100	1600	19.20	29.30
2007190393	2007191050	0.05	0.10	0.040	0.030	0.40	0.40	0.030	0.030	3000	2600	26.70	25.90
2007190393	2007191050	0.05	0.05	0.030	0.040	0.40	0.40	0.020	0.030	2800	2300	25.90	24.30
2007190393	2007191050	0.05	0.05	0.005	0.020	0.40	0.50	0.020	0.030	1400	1900	29.00	29.10
2007190393	2007191050	0.05	0.05	0.005	0.030	0.30	0.50	0.010	0.020	1100	1700	24.90	28.60
2007190414	2007191386	0.05	0.05	0.040	0.030	0.30	0.40	0.020	0.010	1900	2000	24.10	23.60
2007190414	2007191386	0.05	0.05	0.020	0.030	0.30	0.40	0.010	0.010	1700	2000	21.10	24.40
2007190414	2007191386	0.05	0.05	0.010	0.010	0.40	0.50	0.010	0.020	2100	2100	26.80	25.10
2007190414	2007191386	0.05	0.05	0.030	0.030	0.40	0.50	0.010	0.020	2100	2400	25.30	28.20
2007190419	2007190974	0.10	0.20	0.020	0.100	0.40	0.50	0.020	0.010	2300	1500	20.30	15.50
2007190419	2007190974	0.05	0.10	0.030	0.050	0.60	0.70	0.010	0.010	1400	1900	23.80	20.30
2007190419	2007190974	0.05	0.05	0.005	0.020	0.40	0.60	0.020	0.010	600	700	18.70	16.30
2007190419	2007190974	0.05	0.05	0.010	0.020	0.70	0.80	0.030	0.010	900	1000	29.20	24.70
2007190425	2007190768	0.05	0.05	0.020	0.040	0.50	0.50	0.010	0.030	3200	3500	25.00	24.90
2007190425	2007190768	0.05	0.05	0.005	0.030	0.40	0.40	0.020	0.010	3000	2700	25.40	19.60
2007190425	2007190768	0.10	0.20	0.005	0.030	0.30	0.40	0.010	0.020	2200	2900	17.70	21.70
2007190425	2007190768	0.05	0.10	0.005	0.020	0.30	0.50	0.010	0.020	2200	2700	20.30	20.60
2007190434	2007191027	0.10	0.10	0.020	0.030	0.30	0.40	0.020	0.030	7200	6700	20.00	21.50
2007190434	2007191027	0.30	0.30	0.050	0.060	0.70	0.80	0.050	0.070	13300	13500	39.20	43.50
2007190434	2007191027	0.20	0.20	0.005	0.040	0.30	0.40	0.030	0.030	6800	6400	22.10	21.70
2007190434	2007191027	0.20	0.20	0.030	0.070	0.70	0.70	0.050	0.040	14100	11500	36.80	37.20
2007190457	2007191004	0.05	0.05	0.005	0.005	0.30	0.20	0.010	0.010	2800	1900	27.00	19.90
2007190457	2007191004	0.05	0.05	0.005	0.050	0.30	0.20	0.010	0.010	3300	3400	33.80	30.10
2007190457	2007191004	0.05	0.05	0.010	0.005	0.05	0.05	0.010	0.010	900	1000	14.80	12.80
2007190457	2007191004	0.05	0.05	0.100	0.020	0.20	0.05	0.010	0.010	1400	1700	34.60	17.80
2007190458	2007190774	0.10	0.10	0.005	0.005	0.50	0.40	0.040	0.020	3500	2800	23.40	17.10
2007190458	2007190774	0.10	0.10	0.010	0.010	0.50	0.50	0.040	0.030	3200	3000	23.70	18.90
2007190458	2007190774	0.20	0.20	0.005	0.020	0.50	0.40	0.030	0.030	3000	2600	22.20	16.70
2007190458	2007190774	0.10	0.10	0.005	0.005	0.50	0.50	0.040	0.030	3200	2800	25.30	18.50
2007190472	2007191312	0.05	0.50	0.020	0.030	0.40	0.80	0.010	0.010	8500	14000	21.30	21.00
2007190472	2007191312	0.05	0.40	0.030	0.010	0.50	0.80	0.030	0.020	9700	16200	25.30	21.80
2007190472	2007191312	0.05	0.40	0.020	0.010	0.40	0.70	0.010	0.010	7500	13500	19.50	21.20
2007190472	2007191312	0.05	0.40	0.020	0.010	0.50	0.90	0.020	0.030	8800	16200	22.30	24.40
2007190481	2007191594	0.10	0.05	0.005	0.020	0.10	0.20	0.010	0.010	1200	1400	9.80	9.90
2007190481	2007191594	0.05	0.05	0.005	0.030	0.20	0.20	0.010	0.010	1200	1300	10.60	9.40
2007190481	2007191594	0.10	0.05	0.005	0.020	0.20	0.30	0.010	0.010	1900	2200	11.50	10.40
2007190481	2007191594	0.10	0.05	0.005	0.010	0.30	0.30	0.010	0.010	1800	2000	13.30	11.60
2007190495	2007191318	0.05	0.05	0.005	0.010	0.10	0.20	0.010	0.010	1400	600	5.50	3.70
2007190495	2007191318	0.05	0.05	0.020	0.005	0.05	0.30	0.010	0.010	2700	2000	5.00	4.30
2007190495	2007191318	0.05	0.05	0.005	0.005	0.05	0.30	0.010	0.010	1300	3100	3.90	5.20
2007190495	2007191318	0.05	0.05	0.020	0.005	0.05	0.30	0.010	0.010	2800	1100	3.60	4.20
2007190497	2007190586	0.05	0.05	0.005	0.020	0.30	0.30	0.010	0.010	1400	1300	11.20	13.80
2007190497	2007190586	0.05	0.05	0.020	0.050	0.60	0.50	0.030	0.020	2800	2600	23.30	27.10
2007190497	2007190586	0.20	0.20	0.030	0.030	0.30	0.20	0.020	0.010	2400	1900	12.40	12.80
2007190497	2007190586	0.20	0.20	0.010	0.005	0.60	0.50	0.040	0.040	3900	3300	22.40	22.60
2007190506	2007190631	0.20	0.20	0.005	0.040	0.50	0.50	0.030	0.030	4200	3200	24.00	17.30
2007190506	2007190631	0.20	0.20	0.005	0.005	0.50	0.40	0.030	0.020	3600	2100	22.40	13.80
2007190506	2007190631	0.30	0.30	0.005	0.020	0.50	0.50	0.030	0.030	3300	3500	22.10	17.70
2007190506	2007190631	0.20	0.20	0.005	0.005	0.50	0.40	0.030	0.020	3800	3500	22.40	16.80
2007190508	2007191119	0.20	0.05	0.005	0.020	0.60	0.50	0.040	0.030	4300	3800	22.40	19.80
2007190508	2007191119	0.05	0.05	0.010	0.040	0.50	0.60	0.030	0.030	4100	4300	22.20	21.90
2007190508	2007191119	0.10	0.05	0.020	0.020	0.50	0.60	0.030	0.030	4100	3700	26.50	25.90
2007190508	2007191119	0.10	0.05	0.005	0.040	0.50	0.50	0.030	0.030	4200	3700	25.70	24.90
2007190526	2007191599	0.05	0.05	0.030	0.020	0.60	0.50	0.030	0.010	2200	1900	45.80	27.90
2007190526	2007191599	0.05	0.05	0.020	0.040	0.70	0.60	0.040	0.010	2400	2600	51.50	34.10
2007190526	2007191599	0.05	0.05	0.020	0.040	0.70	0.60	0.040	0.010	2300	2200	51.80	31.40
2007190526	2007191599	0.05	0.05	0.040	0.020	0.70	0.60	0.040	0.010	2300	2600	54.60	35.00
2007190527	2007190609	0.10	0.20	0.030	0.010	0.70	0.70	0.030	0.020	2100	2800	25.20	23.00
2007190527	2007190609	0.05	0.20	0.030	0.020	0.60	0.70	0.010	0.030	1600	2500	23.60	22.50
2007190527	2007190609	0.05	0.05	0.010	0.005	0.30	0.30	0.010	0.010	800	600	13.20	11.10

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Li (ppm)	Li (ppm)	Lu (ppm)	Lu (ppm)	Mg (ppm)	Mg (ppm)	Mn (ppm)	Mn (ppm)	Mo (ppm)	Mo (ppm)	Na (ppm)	Na (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1	100	100	1	1	0.01	0.01	10	10
ULD:	ULD:												
2007190342	2007190989	3.30	1.90	0.10	0.10	2000	3900	562	548	0.460	0.530	70	90
2007190342	2007190989	5.80	2.30	0.20	0.20	3500	5100	978	734	0.780	0.710	100	100
2007190349	2007191436	13.30	15.10	0.05	0.05	6700	5100	435	343	1.070	0.400	150	160
2007190349	2007191436	17.40	21.40	0.05	0.05	8600	6600	595	535	0.460	0.900	100	200
2007190349	2007191436	14.20	17.30	0.05	0.05	7800	5700	436	327	0.470	0.520	100	200
2007190349	2007191436	21.50	24.80	0.10	0.05	11600	7600	615	447	0.910	0.780	130	200
2007190352	2007190611	18.10	39.80	0.05	0.20	2200	3600	100	121	1.950	1.620	840	1450
2007190352	2007190611	18.60	37.10	0.10	0.20	2200	3600	118	124	2.740	2.050	900	1410
2007190352	2007190611	19.40	43.30	0.05	0.10	2800	4200	49	87	1.800	1.430	4010	3350
2007190352	2007190611	19.60	38.80	0.05	0.10	2900	3700	52	82	2.000	1.600	4180	3030
2007190355	2007191257	7.20	1.80	0.10	0.05	10500	11100	854	395	0.470	1.340	2220	6740
2007190355	2007191257	8.10	1.90	0.20	0.05	9100	8800	1020	657	0.460	1.250	2350	6190
2007190355	2007191257	8.80	1.90	0.05	0.05	20400	16700	589	396	1.420	2.950	9780	9270
2007190355	2007191257	9.70	2.10	0.05	0.05	23500	20300	979	970	2.050	4.080	10900	10300
2007190357	2007190856	1.00	0.20	0.05	0.05	100	100	10	12	0.160	0.090	5	30
2007190357	2007190856	5.10	0.60	0.05	0.05	50	1700	74	44	0.250	0.150	150	60
2007190357	2007190856	13.70	3.60	0.20	0.05	2500	4100	252	138	0.930	0.560	430	120
2007190361	2007191094	19.30	22.60	0.20	0.10	14300	15400	530	630	0.310	0.220	3310	7330
2007190361	2007191094	15.60	24.20	0.10	0.10	14300	15500	352	532	0.140	0.220	4510	6590
2007190361	2007191094	8.00	14.10	0.05	0.05	13200	11700	243	285	0.130	0.150	8750	5790
2007190361	2007191094	7.90	16.60	0.05	0.05	13900	12500	162	271	0.100	0.150	7810	5820
2007190383	2007191416	9.60	4.50	0.20	0.05	2100	1000	832	411	0.030	0.140	250	80
2007190383	2007191416	10.40	12.20	0.20	0.50	2200	2100	910	899	0.005	0.240	260	140
2007190383	2007191416	3.60	5.60	0.05	0.10	500	1300	68	926	0.005	0.150	5	1780
2007190383	2007191416	8.80	7.50	0.10	0.10	1300	1800	146	1460	0.180	0.310	5	2400
2007190393	2007191050	13.60	14.00	0.10	0.20	3100	2200	436	452	0.390	0.020	410	190
2007190393	2007191050	13.20	12.40	0.10	0.10	2700	1900	346	471	0.300	2.100	340	190
2007190393	2007191050	9.70	10.20	0.05	0.10	2000	1900	207	150	0.160	0.040	1040	380
2007190393	2007191050	7.10	9.10	0.05	0.10	1300	1600	173	153	0.230	0.040	880	280
2007190414	2007191386	4.20	5.90	0.05	0.10	1200	1600	459	492	0.170	0.040	250	180
2007190414	2007191386	3.40	6.00	0.05	0.10	1100	1600	327	434	0.230	0.050	230	180
2007190414	2007191386	4.10	7.60	0.10	0.10	1800	2300	537	314	0.060	0.005	1480	1480
2007190414	2007191386	4.10	8.80	0.10	0.20	1700	2800	511	333	0.130	0.005	1480	1730
2007190419	2007190974	7.80	11.20	0.10	0.05	2000	1600	520	392	0.030	0.180	10	150
2007190419	2007190974	1.50	9.00	0.05	0.10	1500	2000	760	720	0.580	0.230	40	160
2007190419	2007190974	6.80	8.20	0.20	0.05	1500	1600	405	470	0.140	0.180	90	160
2007190419	2007190974	8.30	13.20	0.20	0.20	2600	2400	1120	739	0.150	0.280	150	190
2007190425	2007190768	7.20	9.40	0.05	0.10	2100	1900	309	431	0.320	0.200	250	140
2007190425	2007190768	7.20	6.50	0.05	0.05	2000	1400	267	372	0.310	0.190	250	100
2007190425	2007190768	5.30	9.90	0.05	0.10	1900	2000	78	349	0.340	0.240	540	270
2007190425	2007190768	5.30	9.70	0.05	0.10	1700	1800	86	368	0.350	0.310	510	250
2007190434	2007191027	26.40	32.70	0.05	0.05	2800	3800	275	298	0.170	0.100	290	1160
2007190434	2007191027	50.10	64.80	0.20	0.20	6300	7500	454	510	0.610	0.160	460	2250
2007190434	2007191027	22.30	28.30	0.05	0.05	5900	5200	236	244	0.240	0.080	3950	2520
2007190434	2007191027	45.60	52.30	0.10	0.20	9200	8600	433	428	0.510	0.180	6480	4750
2007190457	2007191004	12.50	3.10	0.05	0.05	2700	800	307	77	0.240	0.280	170	60
2007190457	2007191004	14.60	6.70	0.05	0.05	3200	2300	272	125	0.350	0.360	200	110
2007190457	2007191004	5.00	2.40	0.05	0.05	800	500	67	35	0.150	0.270	240	70
2007190457	2007191004	7.10	4.40	0.05	0.05	1100	800	96	48	0.200	0.300	350	100
2007190458	2007190774	21.60	11.30	0.10	0.10	4900	3100	692	601	0.450	0.300	170	110
2007190458	2007190774	19.60	12.80	0.10	0.10	4300	3300	670	628	0.560	0.430	160	130
2007190458	2007190774	20.70	11.90	0.10	0.10	4500	3100	649	543	0.500	0.400	170	140
2007190458	2007190774	21.90	13.50	0.20	0.10	4900	3300	1130	709	0.720	0.670	180	140
2007190472	2007191312	5.00	25.10	0.10	0.10	3400	5500	194	252	0.020	0.050	50	180
2007190472	2007191312	6.10	26.80	0.10	0.10	3700	6200	193	241	0.040	0.060	60	180
2007190472	2007191312	4.40	25.50	0.10	0.10	3100	5600	202	289	0.060	0.290	60	180
2007190472	2007191312	5.30	29.60	0.10	0.10	3700	6500	187	310	0.140	0.140	70	190
2007190481	2007191594	4.90	8.10	0.05	0.05	3800	3100	201	210	0.190	0.280	750	340
2007190481	2007191594	5.00	7.60	0.05	0.05	4400	3100	222	190	0.170	0.070	860	340
2007190481	2007191594	6.90	11.30	0.05	0.05	5400	4600	284	265	0.270	0.060	3070	1810
2007190481	2007191594	6.80	11.00	0.05	0.05	5500	4800	321	472	0.190	45.100	2210	1580
2007190495	2007191318	4.20	3.30	0.05	0.05	9200	6700	89	60	0.150	0.110	2740	16600
2007190495	2007191318	7.90	9.10	0.05	0.05	11400	7400	112	158	0.240	0.280	2090	22200
2007190495	2007191318	3.90	12.50	0.05	0.05	10900	11600	56	146	0.110	0.230	4660	8050
2007190495	2007191318	7.60	4.70	0.05	0.05	16000	7600	77	68	0.210	0.130	5500	11300
2007190497	2007190586	5.10	6.80	0.05	0.05	900	900	451	432	0.310	0.150	130	50
2007190497	2007190586	10.40	9.10	0.20	0.20	1800	1500	849	778	0.170	0.340	130	40
2007190497	2007190586	17.60	13.80	0.05	0.05	2000	1800	673	358	0.040	0.120	130	50
2007190497	2007190586	31.70	21.70	0.20	0.10	3100	2900	1440	1000	0.190	0.300	260	60
2007190506	2007190631	9.80	6.90	0.05	0.10	4000	3700	495	309	0.180	0.310	310	170
2007190506	2007190631	8.10	6.10	0.10	0.05	3500	2800	381	203	0.180	0.170	290	140
2007190506	2007190631	8.70	10.60	0.10	0.10	4500	5100	431	329	0.590	0.560	1990	2590
2007190506	2007190631	9.80	8.90	0.10	0.10	4600	5300	523	384	1.150	1.150	2230	2420
2007190508	2007191119	19.20	8.30	0.20	0.20	9700	7800	828	704	0.005	0.070	140	2320
2007190508	2007191119	18.70	9.40	0.20	0.20	8100	7500	709	661	0.005	0.050	130	2320
2007190508	2007191119	24.10	10.10	0.20	0.20	6200	5900	778	708	0.005	0.100	180	1260
2007190508	2007191119	25.70	10.10	0.20	0.20	6200	5700	571	587	0.005	0.160	170	2330
2007190526	2007191599	21.40	22.20	0.20	0.10	3100	3100	509	381	0.110	0.550	110	270
2007190526	2007191599	24.00	27.70	0.20	0.20	3400	3700	530	469	0.180	1.300	120	270
2007190526	2007191599	25.80	26.50	0.20	0.10	3400	3100	323	311	1.090	0.850	110	270
2007190526	2007191599	27.30	30.20	0.20	0.20	3500	3400	236	275	0.360	1.370	110	310
2007190527	2007190609	7.80	6.50	0.20	0.30	2300	2200	537	600	0.360	0.410	110	140
2007190527	2007190609	5.60	6.20	0.20	0.30	1800	2000	505	507	0.200	0.380	80	130
2007190527	2007190609	3.20	3.20	0.05	0.10	700	900	162	186	0.260	0.410	50	120

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Nb (ppm)	Nb (ppm)	Nd (ppm)	Nd (ppm)	Ni (ppm)	Ni (ppm)	Pb (ppm)	Pb (ppm)	Pr (ppm)	Pr (ppm)	Rb (ppm)	Rb (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.02	0.02	0.1	0.1	0.01	0.01	0.1	0.1	0.1	0.1
ULD:	ULD:												
2007190342	2007190989	0.10	0.20	14.300	15.500	15.00	16.00	12.100	11.100	4.80	4.80	21.90	25.70
2007190342	2007190989	0.10	0.20	23.600	18.400	26.10	18.90	17.800	14.200	8.10	5.60	37.10	29.30
2007190349	2007191436	0.40	0.20	9.790	8.020	70.10	56.40	8.240	7.580	3.40	2.00	12.30	11.30
2007190349	2007191436	0.30	0.40	14.900	16.200	83.80	71.30	11.500	12.300	5.20	4.10	13.90	13.70
2007190349	2007191436	0.20	0.20	10.200	9.000	71.10	64.90	8.980	9.660	3.60	2.50	12.20	11.90
2007190349	2007191436	0.20	0.30	15.700	13.800	105.00	86.00	13.500	13.000	5.40	3.30	17.10	15.20
2007190352	2007190611	0.40	0.70	23.900	32.200	23.00	27.30	13.800	18.900	7.80	8.60	16.30	30.00
2007190352	2007190611	0.40	0.70	29.600	36.100	25.40	27.70	17.000	26.800	9.40	9.50	17.10	30.00
2007190352	2007190611	0.30	0.50	12.800	21.000	11.80	24.70	11.100	16.600	4.10	5.40	17.80	33.80
2007190352	2007190611	0.40	0.70	15.300	23.700	12.50	22.80	12.400	17.900	4.80	5.90	18.00	31.80
2007190355	2007191257	0.05	0.10	13.400	18.500	66.40	38.00	10.100	7.870	4.50	5.00	22.40	9.70
2007190355	2007191257	0.05	0.10	18.300	23.400	85.40	44.70	12.600	9.850	5.90	6.30	26.70	10.70
2007190355	2007191257	0.05	0.20	10.800	16.500	73.10	47.10	10.400	8.700	3.60	4.80	25.50	11.50
2007190355	2007191257	0.05	0.10	10.800	18.400	86.50	53.30	11.600	9.630	3.80	5.20	27.80	11.40
2007190357	2007190856	0.05	0.05	1.280	1.190	0.90	0.70	1.450	1.540	0.30	0.30	3.30	2.40
2007190357	2007190856	0.05	0.05	5.800	4.660	3.20	2.20	3.310	2.970	1.00	1.30	12.40	6.10
2007190357	2007190856	0.05	0.05	14.600	10.800	6.50	5.70	8.460	9.450	3.60	2.90	29.20	11.70
2007190361	2007191094	0.40	0.40	17.800	20.500	36.00	45.60	11.400	14.300	4.60	5.60	39.70	41.60
2007190361	2007191094	0.20	0.40	17.900	19.500	24.40	46.40	12.100	13.800	4.30	5.40	18.40	43.30
2007190361	2007191094	0.20	0.30	11.100	12.700	17.30	30.30	6.780	8.100	2.70	3.40	10.20	23.00
2007190361	2007191094	0.20	0.30	10.800	12.800	14.20	32.40	6.890	8.390	2.60	3.40	10.30	26.60
2007190383	2007191416	0.05	0.05	17.500	11.200	9.30	4.80	8.730	5.640	4.40	2.90	26.10	12.60
2007190383	2007191416	0.10	0.05	20.700	27.900	10.50	11.50	10.400	13.600	5.10	7.10	29.10	28.90
2007190383	2007191416	0.20	0.05	4.590	21.700	3.40	11.10	2.700	10.800	1.10	5.40	11.60	19.20
2007190383	2007191416	0.30	0.05	14.200	31.100	7.80	16.40	6.650	16.300	3.80	7.70	26.10	24.90
2007190393	2007191050	0.90	0.70	20.200	22.100	13.50	15.40	11.400	19.000	5.30	6.30	44.70	37.70
2007190393	2007191050	0.90	0.60	20.100	20.600	12.90	23.20	11.000	49.500	5.20	5.90	41.50	34.10
2007190393	2007191050	0.40	0.40	21.800	25.000	10.60	13.80	9.700	15.300	5.70	7.20	24.10	35.30
2007190393	2007191050	0.40	0.40	18.900	25.800	7.80	12.20	7.970	14.600	5.00	7.30	18.90	30.20
2007190414	2007191386	0.30	0.50	20.500	21.200	8.10	10.80	16.600	14.800	5.80	5.80	12.60	19.60
2007190414	2007191386	0.20	0.50	18.400	21.900	7.30	10.10	11.200	13.900	5.00	6.10	11.40	20.00
2007190414	2007191386	0.05	0.30	24.300	23.000	9.90	11.70	13.700	15.800	6.50	6.40	14.20	22.90
2007190414	2007191386	0.10	0.30	23.000	26.300	9.70	13.30	12.400	17.100	6.20	7.10	14.00	26.40
2007190419	2007190974	0.10	0.10	15.900	14.100	6.30	10.70	14.800	11.000	4.30	3.30	19.50	14.80
2007190419	2007190974	0.05	0.20	22.300	21.100	5.70	9.10	22.100	16.600	5.20	4.90	4.50	13.20
2007190419	2007190974	0.05	0.05	14.500	14.500	6.30	8.80	12.500	11.100	4.00	3.60	12.40	11.90
2007190419	2007190974	0.05	0.05	24.100	22.500	10.20	13.60	24.900	18.500	6.30	5.10	15.80	18.00
2007190425	2007190768	0.50	0.60	19.300	24.400	12.60	13.90	11.200	13.100	5.20	6.50	25.30	24.60
2007190425	2007190768	0.50	0.50	19.200	19.300	12.80	10.10	11.800	15.500	4.80	5.30	24.80	18.90
2007190425	2007190768	0.20	0.20	15.200	22.100	12.30	14.10	10.800	14.400	3.90	5.70	23.10	24.20
2007190425	2007190768	0.30	0.20	17.200	21.300	10.70	13.50	10.700	10.800	4.60	5.60	22.00	22.60
2007190434	2007191027	0.10	0.20	16.800	19.100	42.40	55.70	8.500	9.940	4.40	5.40	34.00	34.40
2007190434	2007191027	0.10	0.30	36.600	39.600	93.90	105.00	21.600	19.500	9.00	11.20	65.10	67.30
2007190434	2007191027	0.05	0.05	18.300	20.700	48.40	48.90	9.250	8.990	4.40	5.60	32.00	29.80
2007190434	2007191027	0.20	0.10	31.900	35.100	83.00	86.70	14.100	15.600	8.50	9.90	61.30	54.00
2007190457	2007191004	0.40	0.20	16.900	10.300	7.30	2.60	8.660	3.920	4.80	3.00	30.00	16.70
2007190457	2007191004	0.50	0.30	21.500	15.500	9.10	5.40	9.560	6.060	6.00	4.80	35.20	30.40
2007190457	2007191004	0.20	0.20	9.340	5.830	2.60	2.30	3.050	1.790	2.70	1.80	12.20	11.70
2007190457	2007191004	0.40	0.20	20.300	8.110	3.10	3.30	4.760	3.160	5.80	2.50	18.70	19.90
2007190458	2007190774	0.20	0.20	18.300	19.500	21.60	16.50	12.800	10.200	4.70	5.00	24.10	15.30
2007190458	2007190774	0.20	0.20	18.100	21.100	21.30	17.30	12.100	10.700	4.80	5.50	22.20	17.50
2007190458	2007190774	0.05	0.10	17.200	18.000	21.00	16.70	12.200	10.200	4.50	4.80	22.80	17.00
2007190458	2007190774	0.20	0.20	19.900	20.700	23.50	19.60	14.700	12.200	5.10	5.20	25.40	18.80
2007190472	2007191312	0.05	0.05	19.600	16.100	8.00	16.20	9.580	11.800	5.30	4.40	10.90	38.80
2007190472	2007191312	0.05	0.05	23.800	20.100	9.50	21.10	11.000	12.500	6.40	4.80	11.80	42.20
2007190472	2007191312	0.05	0.05	18.400	16.200	6.90	20.00	8.570	12.000	4.90	3.90	10.20	40.20
2007190472	2007191312	0.05	0.05	20.900	18.900	8.90	19.20	9.640	12.700	5.60	5.00	11.30	44.50
2007190481	2007191594	0.30	0.50	7.860	8.860	9.80	12.50	4.130	5.200	1.90	2.30	9.40	11.30
2007190481	2007191594	0.40	0.50	9.590	9.590	11.20	13.60	4.540	5.180	2.30	2.40	9.50	9.80
2007190481	2007191594	0.30	0.40	10.700	10.400	13.70	16.20	5.670	5.670	2.60	2.60	12.70	13.90
2007190481	2007191594	0.40	0.40	10.800	10.400	14.20	1210.00	4.820	6.860	2.90	2.70	13.30	13.20
2007190495	2007191318	0.10	0.05	4.590	3.510	5.00	2.60	2.090	1.500	1.20	0.80	6.60	2.50
2007190495	2007191318	0.20	0.20	4.150	4.280	9.90	9.60	3.390	3.280	1.00	1.00	13.60	7.40
2007190495	2007191318	0.10	0.30	4.090	4.620	4.50	9.10	1.780	3.080	0.90	1.10	4.70	9.70
2007190495	2007191318	0.20	0.05	3.360	3.380	8.70	3.70	2.950	1.590	0.80	0.80	9.30	3.40
2007190497	2007190586	0.10	0.05	11.100	11.200	8.90	7.50	12.800	5.120	2.70	2.60	21.60	17.90
2007190497	2007190586	0.20	0.10	25.000	22.600	11.30	11.30	13.400	8.500	6.10	5.10	41.40	29.50
2007190497	2007190586	0.10	0.05	13.000	10.900	11.50	11.20	9.300	5.190	3.20	2.50	38.60	25.50
2007190497	2007190586	0.10	0.05	22.800	19.200	19.70	16.20	19.000	9.820	5.70	4.50	61.80	37.90
2007190506	2007190631	0.05	0.05	21.000	15.100	16.70	10.10	9.780	6.100	5.40	3.40	35.00	24.90
2007190506	2007190631	0.10	0.05	18.500	12.700	14.20	7.50	8.890	4.580	4.70	2.70	28.90	19.80
2007190506	2007190631	0.05	0.05	19.500	16.100	18.70	13.80	10.800	6.530	4.80	3.60	30.90	31.40
2007190506	2007190631	0.10	0.05	21.700	14.900	22.20	15.50	11.500	7.050	5.40	3.50	32.20	29.70
2007190508	2007191119	0.80	0.80	17.100	18.100	61.00	52.10	7.220	9.230	4.40	4.90	30.20	28.40
2007190508	2007191119	1.00	0.90	16.800	19.800	47.80	48.20	6.160	9.830	4.40	5.30	30.30	33.10
2007190508	2007191119	0.60	0.40	19.600	21.300	33.40	33.30	8.270	12.100	5.30	6.00	37.80	36.50
2007190508	2007191119	0.70	0.50	20.100	20.900	31.60	32.20	7.910	11.600	5.20	5.70	40.10	37.00
2007190526	2007191599	1.00	0.90	25.600	24.000	15.80	17.10	16.500	16.200	6.50	5.70	33.80	25.40
2007190526	2007191599	1.20	1.10	28.700	27.000	16.50	23.80	16.500	20.900	7.40	7.40	37.40	30.80
2007190526	2007191599	0.80	0.50	30.000	28.700	17.20	21.70	16.900	19.400	7.50	7.00	31.80	26.60
2007190526	2007191599	0.80	0.50	32.200	34.500	18.00	27.70	14.600	18.800	8.10	8.60	32.00	28.60
2007190527	2007190609	0.20	0.20	17.500	21.000	11.20	12.80	7.320	8.280	4.10	5.50	18.70	16.20
2007190527	2007190609	0.20	0.20	16.600	20.800	10.30	11.60	6.400	9.080	4.00	5.40	14.50	15.50
2007190527	2007190609	0.05	0.05	8.180	9.690	7.20	6.20	3.090	3.810	2.10	2.60	7.90	7.00

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Re (ppm)	Re (ppm)	Sb (ppm)	Sb (ppm)	Sc (ppm)	Sc (ppm)	Se (ppm)	Se (ppm)	Sm (ppm)	Sm (ppm)	Sn (ppm)	Sn (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.001	0.001	0.02	0.02	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.05
ULD:	ULD:												
2007190342	2007190989	0.0030	0.0070	0.210	0.300	8.00	5.90	0.20	0.50	3.40	3.20	1.060	1.030
2007190342	2007190989	0.0005	0.0005	0.250	0.500	14.00	7.90	0.30	0.50	5.50	3.80	1.710	1.340
2007190349	2007191436	0.0010	0.0010	0.580	0.770	6.00	5.70	0.20	0.05	2.20	1.50	0.790	0.670
2007190349	2007191436	0.0020	0.0005	0.620	0.850	8.50	9.20	0.05	0.05	3.60	3.10	1.060	0.800
2007190349	2007191436	0.0020	0.0005	0.570	0.650	7.40	6.50	0.20	0.05	2.30	1.80	1.000	0.620
2007190349	2007191436	0.0005	0.0010	0.760	0.830	12.00	10.60	0.05	0.20	3.70	2.90	1.440	0.870
2007190352	2007190611	0.0010	0.0005	0.060	0.120	3.60	7.60	0.70	1.20	5.40	6.30	0.790	0.830
2007190352	2007190611	0.0030	0.0020	0.070	0.480	4.30	7.80	1.20	1.30	6.70	7.00	0.800	0.700
2007190352	2007190611	0.0010	0.0030	0.140	0.130	8.50	11.90	0.05	1.10	3.30	4.30	0.890	1.060
2007190352	2007190611	0.0030	0.0040	0.100	0.130	8.90	11.80	0.30	0.60	3.90	5.00	1.120	1.310
2007190355	2007191257	0.0020	0.0005	0.190	0.290	14.30	10.10	0.30	0.10	3.30	3.70	1.170	0.890
2007190355	2007191257	0.0020	0.0005	0.270	0.290	17.40	11.00	0.30	0.30	4.30	4.80	1.510	0.890
2007190355	2007191257	0.0005	0.0005	0.210	0.280	16.10	11.50	0.70	0.30	2.50	3.50	1.280	0.960
2007190355	2007191257	0.0020	0.0005	0.230	0.340	18.10	11.50	0.60	0.30	2.60	3.80	1.360	0.940
2007190357	2007190856	0.0030	0.0005	0.050	0.090	0.30	1.00	0.20	0.50	0.30	0.30	0.230	0.120
2007190357	2007190856	0.0040	0.0005	0.180	0.060	1.20	2.10	0.20	0.30	1.00	0.90	0.430	0.130
2007190357	2007190856	0.0090	0.0005	0.130	0.090	5.00	3.10	0.40	0.40	3.70	2.30	1.090	0.260
2007190361	2007191094	0.0070	0.0005	0.420	0.130	11.40	11.50	0.40	0.80	3.60	4.10	0.920	1.190
2007190361	2007191094	0.0005	0.0005	0.130	0.110	4.80	12.00	1.80	0.50	3.60	4.00	0.970	0.990
2007190361	2007191094	0.0020	0.0005	0.160	0.160	3.10	6.50	1.60	1.00	2.20	2.50	0.420	0.690
2007190361	2007191094	0.0005	0.0010	0.170	0.270	3.40	7.40	1.40	0.60	2.10	2.50	0.500	0.970
2007190383	2007191416	0.0080	0.0005	0.060	0.030	5.70	2.40	0.60	0.05	3.80	2.40	0.830	0.470
2007190383	2007191416	0.0090	0.0030	0.170	0.070	6.30	6.30	0.30	0.40	4.40	6.10	1.140	1.110
2007190383	2007191416	0.0090	0.0010	0.060	0.030	2.20	4.50	0.20	0.30	0.90	4.50	0.680	0.590
2007190383	2007191416	0.0090	0.0005	0.110	0.050	5.80	5.70	0.20	0.80	2.90	6.50	1.510	0.810
2007190393	2007191050	0.0050	0.0005	0.430	0.520	5.60	5.00	0.80	1.00	4.20	4.50	1.510	1.430
2007190393	2007191050	0.0060	0.0005	0.340	0.580	5.20	4.40	0.40	0.30	4.00	4.10	1.530	1.190
2007190393	2007191050	0.0060	0.0005	0.330	0.300	3.90	5.40	0.50	0.70	4.40	4.90	1.060	1.320
2007190393	2007191050	0.0080	0.0005	0.270	0.330	3.30	4.80	0.05	0.90	3.70	5.20	0.980	1.220
2007190414	2007191386	0.0005	0.0005	0.360	0.330	2.20	3.20	0.50	0.05	4.00	4.20	3.830	0.750
2007190414	2007191386	0.0005	0.0005	0.260	0.300	2.10	3.30	0.20	0.05	3.60	4.30	0.670	0.730
2007190414	2007191386	0.0010	0.0005	0.270	0.300	2.90	3.90	0.40	0.05	4.80	4.50	0.720	0.800
2007190414	2007191386	0.0010	0.0005	0.290	0.330	2.80	4.60	0.60	0.05	4.60	5.20	0.710	0.910
2007190419	2007190974	0.0030	0.0010	0.040	0.110	9.50	5.00	0.30	0.05	3.70	3.00	0.830	0.870
2007190419	2007190974	0.0005	0.0005	0.020	0.110	1.40	5.90	0.30	0.30	4.40	4.40	0.490	1.030
2007190419	2007190974	0.0040	0.0010	0.100	0.080	9.20	4.50	0.40	0.05	3.40	3.00	0.860	0.960
2007190419	2007190974	0.0060	0.0005	0.110	0.100	10.80	7.20	0.50	0.20	5.50	4.90	1.280	1.230
2007190425	2007190768	0.0005	0.0005	0.170	0.170	4.80	5.30	0.60	0.60	3.70	4.50	1.070	0.850
2007190425	2007190768	0.0005	0.0010	0.140	0.120	4.50	4.10	0.40	0.30	4.00	3.60	0.970	0.740
2007190425	2007190768	0.0005	0.0010	0.130	0.170	4.80	5.70	0.10	0.30	3.20	4.10	0.980	0.890
2007190425	2007190768	0.0005	0.0010	0.120	0.180	5.00	5.30	0.50	0.40	3.50	4.10	0.910	0.930
2007190434	2007191027	0.0005	0.0005	0.100	0.050	8.00	7.40	0.50	0.50	2.80	3.50	0.790	0.790
2007190434	2007191027	0.0005	0.0020	0.510	0.160	16.20	15.00	0.60	0.10	6.60	7.40	1.310	1.320
2007190434	2007191027	0.0005	0.0020	0.100	0.180	7.00	7.00	0.30	0.30	3.40	3.70	0.650	0.630
2007190434	2007191027	0.0005	0.0030	0.180	0.110	13.50	13.10	1.10	0.90	5.50	6.40	1.270	1.060
2007190457	2007191004	0.0010	0.0005	0.090	0.010	2.50	1.50	0.90	0.50	3.60	1.80	0.800	0.180
2007190457	2007191004	0.0130	0.0005	0.060	0.010	3.20	2.60	0.60	0.10	4.40	3.00	0.900	0.740
2007190457	2007191004	0.0005	0.0005	0.010	0.430	0.50	1.20	0.05	0.05	2.00	1.00	0.420	0.160
2007190457	2007191004	0.0030	0.0005	0.030	0.010	1.10	1.50	0.40	0.05	4.00	1.50	0.620	0.280
2007190458	2007190774	0.0030	0.0005	0.160	0.450	8.10	6.00	0.60	0.30	4.30	3.80	0.880	0.670
2007190458	2007190774	0.0020	0.0010	0.150	0.110	7.80	6.50	0.70	0.40	4.40	4.10	0.930	0.820
2007190458	2007190774	0.0010	0.0010	0.150	0.110	8.00	6.20	0.70	0.20	4.10	3.60	0.980	0.750
2007190458	2007190774	0.0005	0.0005	0.220	0.170	8.90	6.50	0.90	0.40	4.60	4.10	1.030	0.770
2007190472	2007191312	0.0010	0.0005	0.080	0.290	3.90	9.80	0.30	0.40	4.10	3.20	1.050	1.990
2007190472	2007191312	0.0010	0.0010	0.160	0.300	4.10	12.40	0.30	0.60	4.80	4.20	1.490	1.920
2007190472	2007191312	0.0030	0.0005	0.120	0.260	3.60	9.40	0.60	0.40	3.70	3.50	0.970	1.840
2007190472	2007191312	0.0010	0.0020	0.140	0.340	4.10	10.80	0.10	0.20	4.20	3.90	1.070	2.190
2007190481	2007191594	0.0005	0.0005	0.050	0.080	2.90	3.80	0.40	0.05	1.50	1.90	0.400	0.540
2007190481	2007191594	0.0005	0.0020	0.050	0.170	3.20	3.50	0.60	0.30	1.90	2.00	0.400	0.370
2007190481	2007191594	0.0005	0.0005	0.080	0.090	4.90	5.80	0.50	0.05	2.00	2.10	0.580	0.590
2007190481	2007191594	0.0005	0.0050	0.060	0.440	4.40	4.60	0.70	0.05	2.00	2.10	0.670	1.320
2007190495	2007191318	0.0005	0.0030	0.280	0.210	1.20	0.05	1.10	0.50	0.90	0.80	0.290	0.290
2007190495	2007191318	0.0005	0.0005	0.100	0.260	1.30	0.90	1.20	0.70	0.80	0.90	0.440	0.600
2007190495	2007191318	0.0005	0.0020	0.070	0.290	0.80	1.00	0.70	1.50	0.80	0.90	0.180	0.770
2007190495	2007191318	0.0005	0.0010	0.100	0.170	1.10	0.05	1.40	0.50	0.60	0.80	0.360	0.430
2007190497	2007190586	0.0005	0.0100	0.130	0.080	2.60	3.90	0.05	0.60	2.20	2.60	0.680	0.680
2007190497	2007190586	0.0020	0.0005	0.160	0.130	5.70	5.90	0.50	0.70	5.00	5.50	1.340	1.200
2007190497	2007190586	0.0040	0.0020	0.150	0.110	5.90	5.40	0.05	0.40	2.60	2.40	1.260	0.850
2007190497	2007190586	0.0020	0.0060	0.150	0.100	8.50	9.10	0.30	0.50	4.60	4.60	1.980	1.450
2007190506	2007190631	0.0005	0.0020	0.090	0.060	8.00	5.10	0.80	0.70	3.80	3.90	1.130	0.960
2007190506	2007190631	0.0005	0.0005	0.080	0.180	6.10	3.00	0.60	0.40	3.50	3.10	1.100	0.730
2007190506	2007190631	0.0010	0.0005	0.080	0.060	7.20	5.00	0.40	0.50	4.00	4.00	1.000	1.190
2007190506	2007190631	0.0005	0.0005	0.100	0.030	8.50	4.70	0.50	0.05	4.30	3.80	1.180	1.150
2007190508	2007191119	0.0005	0.0005	0.080	0.130	11.30	7.60	0.40	0.05	3.80	3.80	1.300	1.250
2007190508	2007191119	0.0005	0.0005	0.100	0.140	9.40	7.50	0.80	0.90	3.80	4.00	1.170	1.240
2007190508	2007191119	0.0005	0.0005	0.200	0.210	8.20	6.60	0.05	0.05	4.30	4.20	1.430	1.450
2007190508	2007191119	0.0005	0.0005	0.220	0.170	8.40	6.40	0.05	0.05	4.20	4.20	1.340	1.410
2007190526	2007191599	0.0010	0.0005	0.490	0.410	4.10	4.10	0.50	0.30	5.40	4.80	1.170	0.790
2007190526	2007191599	0.0040	0.0020	0.460	0.580	4.50	4.80	1.00	0.40	6.30	5.70	1.270	1.320
2007190526	2007191599	0.0030	0.0010	0.680	0.550	4.60	4.30	0.50	0.70	6.90	6.10	1.190	1.960
2007190526	2007191599	0.0020	0.0010	0.580	0.600	5.10	5.30	0.80	0.60	7.00	7.10	1.230	2.930
2007190527	2007190609	0.0070	0.0050	0.120	0.090	6.80	6.20	0.20	0.40	4.20	4.60	0.810	0.850
2007190527	2007190609	0.0030	0.0010	0.100	0.090	5.40	5.50	0.50	0.10	4.10	4.40	0.600	0.780
2007190527	2007190609	0.0030	0.0020	0.070	0.070	2.50	2.30	0.40	0.30	1.90	2.10	0.350	0.440

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Sr (ppm)	Sr (ppm)	Ta (ppm)	Ta (ppm)	Tb (ppm)	Tb (ppm)	Te (ppm)	Te (ppm)	Th (ppm)	Th (ppm)	Tl (ppm)	Tl (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.5	0.5	0.05	0.05	0.1	0.1	0.02	0.02	0.1	0.1	0.02	0.02
ULD:	ULD:	1000	1000										
2007190342	2007190989	12.50	17.80	0.025	0.025	0.30	0.40	0.060	0.070	9.30	9.70	0.180	0.130
2007190342	2007190989	21.40	22.60	0.025	0.025	0.60	0.50	0.060	0.080	13.60	11.40	0.300	0.210
2007190349	2007191436	18.70	13.30	0.025	0.025	0.20	0.20	0.030	0.030	5.70	3.30	0.110	0.100
2007190349	2007191436	23.60	19.60	0.025	0.025	0.30	0.30	0.010	0.050	5.70	5.70	0.100	0.100
2007190349	2007191436	22.40	16.00	0.025	0.025	0.20	0.20	0.040	0.030	4.30	4.30	0.110	0.110
2007190349	2007191436	36.20	22.70	0.025	0.025	0.30	0.30	0.060	0.050	6.50	6.70	0.160	0.120
2007190352	2007190611	34.40	35.40	0.025	0.025	0.60	0.70	0.040	0.030	1.00	2.20	0.110	0.110
2007190352	2007190611	37.00	36.30	0.025	0.025	0.70	0.70	0.080	0.010	1.10	2.40	0.100	0.120
2007190352	2007190611	21.90	25.00	0.025	0.025	0.20	0.40	0.040	0.030	4.00	4.70	0.100	0.150
2007190352	2007190611	25.80	24.30	0.025	0.025	0.30	0.50	0.040	0.010	4.30	4.80	0.100	0.140
2007190355	2007191257	25.80	11.70	0.025	0.025	0.30	0.40	0.010	0.010	6.90	6.40	0.140	0.100
2007190355	2007191257	25.80	14.10	0.025	0.025	0.40	0.40	0.070	0.010	9.40	7.80	0.170	0.100
2007190355	2007191257	44.00	36.10	0.025	0.025	0.20	0.30	0.060	0.020	8.50	7.80	0.230	0.140
2007190355	2007191257	55.30	46.00	0.025	0.025	0.20	0.30	0.060	0.040	9.00	8.30	0.250	0.180
2007190357	2007190856	1.80	1.00	0.025	0.025	0.05	0.05	0.010	0.060	0.80	0.60	0.010	0.010
2007190357	2007190856	5.80	11.60	0.025	0.025	0.20	0.10	0.010	0.040	2.00	1.70	0.050	0.030
2007190357	2007190856	21.80	25.60	0.025	0.025	0.40	0.30	0.030	0.090	5.10	3.70	0.150	0.060
2007190361	2007191094	129.00	134.00	0.025	0.025	0.50	0.50	0.070	0.070	7.60	7.00	0.340	0.310
2007190361	2007191094	138.00	136.00	0.025	0.025	0.40	0.50	0.040	0.070	4.60	7.00	0.170	0.330
2007190361	2007191094	387.00	316.00	0.025	0.025	0.30	0.30	0.070	0.120	3.40	4.40	0.170	0.240
2007190361	2007191094	388.00	308.00	0.025	0.025	0.30	0.30	0.040	0.080	3.40	4.80	0.140	0.270
2007190383	2007191416	39.50	18.30	0.025	0.025	0.50	0.20	0.010	0.060	6.50	2.70	0.150	0.060
2007190383	2007191416	48.90	45.20	0.025	0.025	0.60	0.50	0.060	0.010	7.70	5.70	0.180	0.130
2007190383	2007191416	5.80	43.50	0.025	0.025	0.05	0.40	0.010	0.040	3.40	6.00	0.080	0.080
2007190383	2007191416	13.50	62.20	0.025	0.025	0.40	0.60	0.020	0.060	9.70	8.30	0.170	0.100
2007190393	2007191050	47.90	27.20	0.025	0.025	0.50	0.40	0.010	0.010	7.50	7.00	0.220	0.210
2007190393	2007191050	40.70	23.90	0.025	0.025	0.40	0.40	0.010	0.010	7.30	6.90	0.200	0.180
2007190393	2007191050	19.80	24.00	0.025	0.025	0.50	0.50	0.010	0.010	9.40	8.10	0.170	0.190
2007190393	2007191050	17.80	19.60	0.025	0.025	0.40	0.50	0.060	0.010	7.90	8.00	0.140	0.170
2007190414	2007191386	26.60	23.20	0.025	0.025	0.40	0.40	0.030	0.010	4.70	5.70	0.090	0.130
2007190414	2007191386	24.50	22.20	0.025	0.025	0.40	0.40	0.040	0.010	4.60	6.10	0.090	0.130
2007190414	2007191386	36.70	30.60	0.025	0.025	0.50	0.50	0.010	0.010	6.20	7.50	0.110	0.170
2007190414	2007191386	39.10	35.90	0.025	0.025	0.50	0.50	0.010	0.010	6.20	8.20	0.100	0.160
2007190419	2007190974	26.50	17.70	0.025	0.025	0.40	0.30	0.030	0.030	4.60	4.30	0.120	0.110
2007190419	2007190974	40.20	24.30	0.025	0.025	0.50	0.50	0.010	0.030	2.70	4.80	0.040	0.110
2007190419	2007190974	21.70	19.10	0.025	0.025	0.40	0.40	0.040	0.010	4.10	4.10	0.110	0.110
2007190419	2007190974	33.50	27.70	0.025	0.025	0.70	0.60	0.010	0.010	6.00	6.00	0.170	0.160
2007190425	2007190768	28.10	28.70	0.025	0.025	0.50	0.50	0.030	0.010	4.70	4.70	0.130	0.140
2007190425	2007190768	23.70	20.30	0.025	0.025	0.50	0.40	0.050	0.030	5.60	4.00	0.130	0.110
2007190425	2007190768	18.20	25.10	0.025	0.025	0.30	0.40	0.010	0.020	6.10	5.90	0.140	0.140
2007190425	2007190768	19.20	24.80	0.025	0.025	0.30	0.40	0.030	0.040	6.60	5.80	0.130	0.120
2007190434	2007191027	20.80	43.20	0.025	0.025	0.30	0.40	0.050	0.010	8.10	8.70	0.140	0.170
2007190434	2007191027	35.80	83.70	0.025	0.025	0.70	0.70	0.060	0.020	19.20	17.10	0.290	0.320
2007190434	2007191027	80.10	101.00	0.025	0.025	0.40	0.40	0.020	0.070	9.50	8.60	0.160	0.170
2007190434	2007191027	142.00	148.00	0.025	0.025	0.60	0.70	0.040	0.070	14.30	15.10	0.280	0.300
2007190457	2007191004	14.50	5.80	0.025	0.025	0.30	0.10	0.060	0.080	3.50	2.20	0.190	0.100
2007190457	2007191004	15.90	9.90	0.025	0.025	0.40	0.20	0.010	0.070	4.90	3.20	0.210	0.200
2007190457	2007191004	5.30	4.60	0.025	0.025	0.10	0.05	0.010	0.030	3.90	2.00	0.080	0.060
2007190457	2007191004	8.20	6.90	0.025	0.025	0.30	0.05	0.010	0.010	8.80	2.80	0.100	0.090
2007190458	2007190774	61.10	49.70	0.025	0.025	0.50	0.40	0.020	0.050	6.50	4.90	0.160	0.100
2007190458	2007190774	56.80	54.60	0.025	0.025	0.50	0.50	0.010	0.030	6.20	4.80	0.150	0.100
2007190458	2007190774	60.90	53.80	0.025	0.025	0.50	0.40	0.040	0.030	5.60	4.30	0.180	0.110
2007190458	2007190774	68.00	58.30	0.025	0.025	0.50	0.50	0.010	0.050	7.30	5.00	0.160	0.110
2007190472	2007191312	51.90	52.30	0.025	0.025	0.40	0.50	0.050	0.010	5.30	7.10	0.090	0.240
2007190472	2007191312	61.80	58.50	0.025	0.025	0.50	0.50	0.050	0.010	6.00	7.10	0.090	0.230
2007190472	2007191312	70.10	48.40	0.025	0.025	0.40	0.50	0.010	0.010	4.90	7.20	0.090	0.240
2007190472	2007191312	76.70	55.70	0.025	0.025	0.50	0.60	0.030	0.010	5.20	7.80	0.100	0.280
2007190481	2007191594	105.00	91.00	0.025	0.025	0.20	0.20	0.040	0.010	3.10	3.80	0.040	0.060
2007190481	2007191594	138.00	84.30	0.025	0.025	0.20	0.20	0.020	0.010	3.50	3.70	0.040	0.050
2007190481	2007191594	146.00	131.00	0.025	0.025	0.20	0.20	0.030	0.020	3.40	3.70	0.050	0.060
2007190481	2007191594	178.00	152.00	0.025	0.025	0.30	0.30	0.050	0.020	4.10	4.40	0.050	0.060
2007190495	2007191318	2000.00	750.00	0.025	0.025	0.10	0.10	0.010	0.010	1.00	0.90	0.070	0.040
2007190495	2007191318	996.00	650.00	0.025	0.025	0.05	0.10	0.040	0.030	0.80	0.80	0.100	0.070
2007190495	2007191318	2000.00	2000.00	0.025	0.025	0.05	0.20	0.020	0.010	0.70	0.70	0.070	0.090
2007190495	2007191318	2000.00	850.00	0.025	0.025	0.05	0.10	0.070	0.010	0.60	0.90	0.120	0.050
2007190497	2007190586	13.30	14.40	0.025	0.025	0.30	0.30	0.010	0.070	3.30	3.20	0.100	0.090
2007190497	2007190586	26.60	25.90	0.025	0.025	0.50	0.70	0.020	0.080	5.70	5.30	0.170	0.140
2007190497	2007190586	22.50	13.80	0.025	0.025	0.30	0.30	0.060	0.010	4.70	4.30	0.170	0.130
2007190497	2007190586	30.30	23.40	0.025	0.025	0.60	0.50	0.060	0.010	8.00	6.90	0.330	0.210
2007190506	2007190631	49.50	35.80	0.025	0.025	0.50	0.50	0.070	0.010	6.30	8.80	0.190	0.170
2007190506	2007190631	41.20	28.50	0.025	0.025	0.50	0.40	0.010	0.020	6.40	4.80	0.180	0.130
2007190506	2007190631	46.80	47.90	0.025	0.025	0.50	0.50	0.010	0.060	6.20	6.60	0.180	0.190
2007190506	2007190631	55.40	53.60	0.025	0.025	0.40	0.50	0.040	0.070	6.20	6.10	0.200	0.150
2007190508	2007191119	83.60	69.60	0.025	0.025	0.50	0.50	0.010	0.010	6.70	3.60	0.140	0.140
2007190508	2007191119	79.00	71.10	0.025	0.025	0.50	0.50	0.010	0.010	5.30	4.00	0.170	0.170
2007190508	2007191119	56.80	65.80	0.025	0.025	0.50	0.50	0.040	0.010	8.40	6.20	0.200	0.200
2007190508	2007191119	56.50	64.30	0.025	0.025	0.50	0.50	0.090	0.010	10.20	6.20	0.170	0.220
2007190526	2007191599	23.20	17.80	0.025	0.025	0.70	0.50	0.110	0.010	5.20	3.80	0.160	0.130
2007190526	2007191599	26.00	22.60	0.025	0.025	0.80	0.60	0.070	0.060	5.90	4.70	0.160	0.160
2007190526	2007191599	17.40	14.50	0.025	0.025	0.80	0.60	0.030	0.050	6.50	4.40	0.160	0.150
2007190526	2007191599	17.60	16.30	0.025	0.025	0.90	0.60	0.050	0.050	7.80	5.60	0.160	0.160
2007190527	2007190609	65.50	46.20	0.025	0.025	0.70	0.60	0.010	0.010	7.60	6.20	0.120	0.110
2007190527	2007190609	49.70	41.10	0.025	0.025	0.60	0.50	0.030	0.020	6.80	6.40	0.100	0.100
2007190527	2007190609	28.80	23.90	0.025	0.025	0.30	0.20	0.060	0.010	3.90	3.10	0.050	0.060

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Tm (ppm)	Tm (ppm)	U (ppm)	U (ppm)	V (ppm)	V (ppm)	W (ppm)	W (ppm)	Y (ppm)	Y (ppm)	Yb (ppm)	Yb (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1	1	1	0.1	0.1	0.01	0.01	0.1	0.1
ULD:	ULD:							200	200				
2007190342	2007190989	0.10	0.10	1.60	1.20	73	78	0.05	0.20	9.540	11.800	0.70	0.80
2007190342	2007190989	0.20	0.20	2.80	1.50	107	101	0.05	0.20	18.300	14.400	1.30	1.20
2007190349	2007191436	0.05	0.05	0.60	0.60	59	54	0.05	0.05	6.050	4.870	0.50	0.40
2007190349	2007191436	0.20	0.05	0.90	0.80	75	70	0.05	0.05	10.100	9.770	0.70	0.60
2007190349	2007191436	0.10	0.05	0.60	0.70	69	63	0.05	0.05	7.240	5.820	0.50	0.40
2007190349	2007191436	0.10	0.10	0.90	1.10	101	88	0.10	0.05	11.400	8.210	0.80	0.70
2007190352	2007190611	0.20	0.20	2.20	2.90	42	60	0.05	0.05	19.800	22.800	1.00	1.20
2007190352	2007190611	0.20	0.30	2.50	3.30	54	75	0.05	0.05	22.800	23.500	1.20	1.40
2007190352	2007190611	0.10	0.20	2.10	2.60	69	78	0.05	0.05	7.780	11.800	0.60	0.80
2007190352	2007190611	0.10	0.20	2.40	3.00	84	94	0.05	0.05	8.800	12.700	0.60	0.90
2007190355	2007191257	0.20	0.10	2.50	2.50	109	104	0.05	0.20	11.400	11.000	0.90	0.90
2007190355	2007191257	0.20	0.20	3.30	3.40	128	112	0.05	0.20	15.400	13.800	1.20	1.10
2007190355	2007191257	0.10	0.10	1.20	1.00	205	212	0.05	0.20	7.670	8.580	0.70	0.80
2007190355	2007191257	0.10	0.10	1.30	1.10	219	225	0.05	0.20	7.380	8.640	0.80	0.80
2007190357	2007190856	0.05	0.05	0.10	0.10	13	15	0.05	0.05	0.930	0.990	0.05	0.10
2007190357	2007190856	0.05	0.05	0.40	0.20	16	17	0.05	0.05	3.390	2.950	0.40	0.20
2007190357	2007190856	0.10	0.05	1.00	0.40	38	31	0.05	0.05	9.040	7.380	0.90	0.60
2007190361	2007191094	0.20	0.20	0.20	0.20	35	35	0.05	0.05	14.200	13.600	1.10	1.10
2007190361	2007191094	0.05	0.20	0.10	0.20	33	36	0.05	0.05	11.900	13.300	1.10	1.00
2007190361	2007191094	0.05	0.10	0.40	0.30	50	39	0.05	0.05	6.840	8.270	0.80	0.60
2007190361	2007191094	0.05	0.10	0.40	0.30	57	44	0.05	0.05	6.870	8.140	0.80	0.70
2007190383	2007191416	0.20	0.05	0.90	0.40	41	26	0.05	0.05	13.300	6.070	0.90	0.50
2007190383	2007191416	0.20	0.20	1.00	1.10	47	59	0.05	0.05	16.200	15.700	1.20	1.10
2007190383	2007191416	0.05	0.20	0.30	0.80	23	37	0.05	0.05	2.750	12.100	0.20	0.80
2007190383	2007191416	0.10	0.20	1.00	1.10	46	51	0.05	0.05	9.600	18.100	0.80	1.20
2007190393	2007191050	0.10	0.10	1.60	1.80	31	33	0.05	0.05	12.900	10.700	0.90	0.80
2007190393	2007191050	0.10	0.10	1.50	1.70	30	31	0.05	0.05	11.100	9.880	0.70	0.80
2007190393	2007191050	0.10	0.20	1.50	1.80	29	34	0.05	0.05	10.500	13.200	0.70	0.90
2007190393	2007191050	0.10	0.20	1.30	1.90	23	30	0.05	0.05	8.950	13.200	0.60	1.00
2007190414	2007191386	0.10	0.10	0.80	0.80	24	29	0.05	0.05	9.710	9.970	0.60	0.80
2007190414	2007191386	0.10	0.10	0.70	0.80	22	29	0.05	0.05	8.750	10.100	0.60	0.80
2007190414	2007191386	0.20	0.20	0.40	0.60	29	38	0.05	0.05	12.500	10.700	0.80	1.00
2007190414	2007191386	0.20	0.20	0.40	0.70	27	40	0.05	0.05	13.000	12.600	0.90	1.10
2007190419	2007190974	0.20	0.05	0.30	0.20	35	31	0.05	0.05	12.500	7.150	0.90	0.80
2007190419	2007190974	0.05	0.10	0.40	0.30	36	40	0.05	0.05	13.800	11.000	0.90	1.00
2007190419	2007190974	0.20	0.05	0.30	0.20	36	33	0.05	0.05	11.800	7.910	1.00	0.70
2007190419	2007190974	0.30	0.20	0.50	0.40	52	48	0.05	0.05	18.500	11.300	1.50	1.20
2007190425	2007190768	0.05	0.20	0.80	0.90	31	34	0.05	0.05	12.800	13.200	0.90	1.00
2007190425	2007190768	0.05	0.10	0.80	0.70	32	29	0.05	0.05	11.100	10.700	0.90	0.70
2007190425	2007190768	0.05	0.20	0.60	0.90	29	39	0.05	0.05	7.280	12.900	0.60	1.00
2007190425	2007190768	0.05	0.20	1.10	0.80	25	35	0.05	0.05	8.520	12.700	0.60	1.00
2007190434	2007191027	0.05	0.10	0.30	0.30	32	27	0.05	0.05	9.290	10.300	0.60	0.70
2007190434	2007191027	0.20	0.30	0.60	0.60	70	50	0.05	0.05	18.600	21.000	1.60	1.60
2007190434	2007191027	0.05	0.10	0.70	0.60	40	28	0.05	0.05	9.870	11.000	0.80	0.80
2007190434	2007191027	0.10	0.20	1.60	0.90	61	49	0.05	0.05	20.500	18.700	1.30	1.30
2007190457	2007191004	0.05	0.05	1.00	0.60	26	16	0.05	0.05	7.170	3.940	0.60	0.30
2007190457	2007191004	0.10	0.05	1.20	1.00	31	25	0.05	0.05	8.390	6.760	0.60	0.50
2007190457	2007191004	0.05	0.05	0.40	0.20	11	10	0.05	0.05	2.720	1.720	0.20	0.05
2007190457	2007191004	0.05	0.05	0.80	0.30	15	14	6.30	0.05	4.870	2.220	0.20	0.10
2007190458	2007190774	0.20	0.10	1.10	1.00	90	58	0.05	0.05	13.800	11.700	1.10	0.80
2007190458	2007190774	0.20	0.20	1.10	1.00	80	63	0.05	0.05	13.800	13.500	1.10	0.90
2007190458	2007190774	0.20	0.10	1.10	0.90	84	59	0.05	0.05	12.700	10.900	1.10	0.80
2007190458	2007190774	0.20	0.10	1.20	1.00	96	66	0.05	0.05	14.700	13.000	1.10	0.90
2007190472	2007191312	0.20	0.20	0.20	0.20	29	67	0.05	0.05	12.900	9.960	0.90	1.00
2007190472	2007191312	0.20	0.20	0.20	0.20	31	82	0.05	0.05	15.500	11.700	1.00	1.20
2007190472	2007191312	0.10	0.20	0.10	0.20	36	67	0.05	0.05	11.800	9.520	0.80	1.00
2007190472	2007191312	0.20	0.20	0.20	0.20	35	68	0.90	0.05	13.800	11.800	1.00	1.10
2007190481	2007191594	0.05	0.05	0.30	0.60	26	26	0.05	0.05	5.390	6.510	0.40	0.50
2007190481	2007191594	0.05	0.05	0.40	0.40	28	25	0.05	0.05	6.700	6.510	0.50	0.50
2007190481	2007191594	0.05	0.05	0.40	0.40	33	30	0.05	0.05	8.400	8.270	0.50	0.50
2007190481	2007191594	0.05	0.05	0.40	0.50	36	93	0.05	0.30	9.290	8.260	0.50	0.60
2007190495	2007191318	0.05	0.10	0.50	0.80	10	6	0.05	0.05	5.380	3.200	0.30	0.30
2007190495	2007191318	0.05	0.10	0.50	0.30	18	13	0.05	0.05	3.830	3.460	0.30	0.20
2007190495	2007191318	0.05	0.10	0.40	0.30	7	14	0.05	0.05	4.100	3.930	0.30	0.20
2007190495	2007191318	0.05	0.05	0.30	0.70	12	7	0.05	0.05	3.740	3.350	0.20	0.20
2007190497	2007190586	0.05	0.10	0.50	0.40	32	35	0.05	0.05	7.120	8.340	0.50	0.60
2007190497	2007190586	0.20	0.20	1.00	0.80	54	57	0.05	0.05	16.800	16.400	1.20	1.20
2007190497	2007190586	0.10	0.10	0.40	0.20	57	55	0.05	0.05	9.440	8.250	0.70	0.70
2007190497	2007190586	0.20	0.20	0.50	0.40	82	91	0.05	0.05	15.200	15.900	1.20	1.00
2007190506	2007190631	0.05	0.20	0.90	1.00	47	35	0.05	0.05	16.000	14.100	1.00	0.90
2007190506	2007190631	0.05	0.10	0.80	0.70	44	27	0.05	0.05	13.100	11.400	1.00	0.80
2007190506	2007190631	0.05	0.20	0.90	1.30	49	39	0.05	0.05	12.800	15.000	1.10	1.00
2007190506	2007190631	0.10	0.20	0.90	1.30	52	36	0.05	0.05	15.200	14.200	1.20	1.00
2007190508	2007191119	0.20	0.20	0.70	0.60	69	64	0.05	0.05	14.500	14.200	1.20	1.00
2007190508	2007191119	0.20	0.20	0.80	0.80	61	63	0.05	0.05	14.200	15.900	1.20	1.10
2007190508	2007191119	0.20	0.20	1.00	0.90	57	58	0.05	0.05	13.700	15.000	1.20	1.10
2007190508	2007191119	0.20	0.20	1.10	0.90	57	57	0.05	0.05	14.500	15.000	1.20	1.10
2007190526	2007191599	0.20	0.20	2.80	2.40	42	36	0.10	0.05	18.500	14.100	1.20	1.00
2007190526	2007191599	0.30	0.20	3.10	2.90	45	44	0.10	0.05	20.900	19.500	1.50	1.20
2007190526	2007191599	0.30	0.20	2.80	2.30	45	34	0.10	0.05	22.300	16.900	1.50	1.20
2007190526	2007191599	0.30	0.20	2.90	2.60	40	37	0.10	0.05	24.900	19.400	1.60	1.30
2007190527	2007190609	0.30	0.30	1.60	1.60	63	57	0.05	0.05	22.000	20.000	1.60	1.50
2007190527	2007190609	0.30	0.30	1.70	1.50	52	51	0.05	0.05	19.600	18.000	1.50	1.30
2007190527	2007190609	0.10	0.10	0.80	0.80	36	36	0.05	0.05	8.880	8.310	0.80	0.70

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Zn (ppm)	Zn (ppm)	Zr (ppm)	Zr (ppm)
METHOD:	METHOD:	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1
ULD:	ULD:				
2007190342	2007190989	27.70	33.60	7.40	6.30
2007190342	2007190989	46.60	34.80	8.80	6.50
2007190349	2007191436	88.80	46.30	8.10	6.90
2007190349	2007191436	63.90	48.40	9.90	9.30
2007190349	2007191436	44.90	42.10	9.20	5.60
2007190349	2007191436	63.60	53.60	11.00	6.20
2007190352	2007190611	39.10	70.80	1.50	5.30
2007190352	2007190611	43.00	67.70	1.60	5.50
2007190352	2007190611	35.00	70.00	5.60	8.60
2007190352	2007190611	42.80	64.80	6.50	8.20
2007190355	2007191257	53.00	28.10	9.00	6.00
2007190355	2007191257	63.20	33.20	11.30	6.20
2007190355	2007191257	52.20	34.40	14.00	12.50
2007190355	2007191257	59.20	28.90	16.50	12.80
2007190357	2007190856	0.05	7.40	1.10	1.00
2007190357	2007190856	9.10	9.30	4.10	3.10
2007190357	2007190856	1.50	17.40	7.60	7.10
2007190361	2007191094	59.80	55.90	6.80	10.10
2007190361	2007191094	27.60	57.30	5.00	10.40
2007190361	2007191094	6.00	25.90	4.00	7.60
2007190361	2007191094	11.00	31.70	4.30	8.30
2007190383	2007191416	38.50	5.20	7.00	0.70
2007190383	2007191416	53.40	24.90	7.30	0.80
2007190383	2007191416	15.00	15.00	3.00	2.90
2007190383	2007191416	13.10	18.90	4.00	3.30
2007190393	2007191050	50.70	55.40	4.30	5.00
2007190393	2007191050	45.50	60.40	4.00	3.30
2007190393	2007191050	77.00	50.70	2.50	4.10
2007190393	2007191050	26.80	48.30	2.50	3.90
2007190414	2007191386	12.60	38.70	1.80	2.90
2007190414	2007191386	11.00	35.80	1.40	2.80
2007190414	2007191386	15.60	33.10	2.60	4.00
2007190414	2007191386	14.40	38.20	2.60	4.50
2007190419	2007190974	21.00	29.00	6.70	7.00
2007190419	2007190974	30.30	30.10	1.60	5.40
2007190419	2007190974	16.70	24.60	3.50	3.50
2007190419	2007190974	23.30	34.80	2.90	3.80
2007190425	2007190768	64.40	39.10	3.20	3.60
2007190425	2007190768	53.40	29.10	2.80	2.50
2007190425	2007190768	46.90	34.80	5.00	7.20
2007190425	2007190768	49.40	34.90	4.20	6.10
2007190434	2007191027	43.50	25.40	6.70	6.40
2007190434	2007191027	60.80	53.80	11.50	12.30
2007190434	2007191027	37.00	22.70	6.50	7.40
2007190434	2007191027	61.20	40.50	11.00	10.80
2007190457	2007191004	27.80	18.60	0.40	0.40
2007190457	2007191004	33.60	9.10	0.50	0.50
2007190457	2007191004	19.70	18.10	1.00	0.40
2007190457	2007191004	24.00	13.20	1.20	0.30
2007190458	2007190774	73.80	39.10	5.90	4.30
2007190458	2007190774	77.30	43.90	5.40	4.90
2007190458	2007190774	68.40	43.30	6.70	6.30
2007190458	2007190774	76.00	45.90	7.60	5.70
2007190472	2007191312	4.20	39.80	2.30	14.30
2007190472	2007191312	13.80	38.70	4.40	17.90
2007190472	2007191312	3.80	44.50	2.30	13.00
2007190472	2007191312	5.10	49.30	2.00	14.90
2007190481	2007191594	32.00	19.90	3.90	3.60
2007190481	2007191594	28.20	13.40	4.80	3.90
2007190481	2007191594	48.90	19.40	6.60	6.20
2007190481	2007191594	41.70	38.30	7.00	5.80
2007190495	2007191318	30.40	12.90	1.00	0.90
2007190495	2007191318	32.60	33.30	1.50	2.20
2007190495	2007191318	23.90	20.80	0.90	1.20
2007190495	2007191318	29.20	13.80	1.50	0.70
2007190497	2007190586	26.80	23.90	1.60	1.60
2007190497	2007190586	46.50	24.70	1.80	2.00
2007190497	2007190586	32.20	12.70	7.90	7.10
2007190497	2007190586	45.60	13.10	7.20	8.00
2007190506	2007190631	53.60	209.00	11.80	8.20
2007190506	2007190631	54.10	11.00	9.40	6.60
2007190506	2007190631	55.60	41.90	11.00	11.90
2007190506	2007190631	53.30	25.80	11.40	9.40
2007190508	2007191119	69.90	63.60	7.50	4.20
2007190508	2007191119	60.70	61.40	4.70	3.50
2007190508	2007191119	77.90	58.10	6.90	3.60
2007190508	2007191119	71.70	57.80	5.90	3.60
2007190526	2007191599	71.50	55.70	0.20	0.80
2007190526	2007191599	75.70	70.60	0.30	0.90
2007190526	2007191599	63.50	56.30	0.20	0.40
2007190526	2007191599	67.90	51.90	0.20	0.40
2007190527	2007190609	41.10	38.60	5.80	6.00
2007190527	2007190609	28.30	40.00	3.40	6.10
2007190527	2007190609	16.00	15.00	2.90	3.70

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Ag (ppm)	Ag (ppm)	Al (ppm)	Al (ppm)	As (ppm)	As (ppm)	Au (ppm)	Au (ppm)
METHOD:	METHOD:	SIZE	SIZE			AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					0.002	0.002	100	100	0.1	0.1	0.0001	0.0001
ULD:	ULD:							100000	100000				
2007190527	2007190609	Fine	Fine	BOS	BOS	0.0070	0.0050	17800	16300	4.00	1.90	0.00130	0.00030
2007190531	2007190703	Coarse	Coarse	TOS	TOS	0.0200	0.0140	29800	23100	3.50	2.60	0.00020	0.00090
2007190531	2007190703	Fine	Fine	TOS	TOS	0.0070	0.0060	24000	20100	3.10	2.50	0.00050	0.00050
2007190531	2007190703	Coarse	Coarse	BOS	BOS	0.0190	0.0150	29200	23400	3.80	2.80	0.00060	0.00070
2007190531	2007190703	Fine	Fine	BOS	BOS	0.0090	0.0120	25600	20900	3.00	2.90	0.00210	0.00050
2007190534	2007191522	Coarse	Coarse	TOS	TOS	0.0120	0.0270	5500	9300	1.80	2.30	0.00005	0.00030
2007190534	2007191522	Fine	Fine	TOS	TOS	0.0190	0.0140	7100	12900	2.10	3.30	0.00020	0.00220
2007190534	2007191522	Coarse	Coarse	BOS	BOS	0.0060	0.0010	3900	5000	1.10	1.40	0.00005	0.00090
2007190534	2007191522	Fine	Fine	BOS	BOS	0.0150	0.0020	8400	11200	2.80	2.00	0.00005	0.00160
2007190536	2007190909	Coarse	Coarse	TOS	TOS	0.0010	0.0180	6100	4600	1.30	1.20	0.00005	0.00005
2007190536	2007190909	Fine	Fine	TOS	TOS	0.0010	0.0200	11200	7900	1.60	0.70	0.00210	0.00005
2007190536	2007190909	Coarse	Coarse	BOS	BOS	0.0010	0.0140	9400	9000	2.80	2.70	0.00090	0.00005
2007190536	2007190909	Fine	Fine	BOS	BOS	0.0010	0.0250	23100	20800	5.10	4.40	0.00130	0.00170
2007190548	2007191236	Coarse	Coarse	TOS	TOS	0.0050	0.0100	13700	12400	3.00	3.00	0.00630	0.00005
2007190548	2007191236	Fine	Fine	TOS	TOS	0.0350	0.0100	14600	16300	3.40	3.20	0.00030	0.00005
2007190548	2007191236	Coarse	Coarse	BOS	BOS	0.0360	0.0190	12500	12500	2.80	2.80	0.00650	0.00070
2007190548	2007191236	Fine	Fine	BOS	BOS	0.0300	0.0300	16800	18000	5.10	4.50	0.00160	0.00260
2007190549	2007191507	Coarse	Coarse	TOS	TOS	0.0130	0.0030	4600	3800	1.30	2.30	0.00190	0.00060
2007190549	2007191507	Fine	Fine	TOS	TOS	0.0080	0.0140	12400	8200	1.40	3.50	0.00030	0.00090
2007190549	2007191507	Coarse	Coarse	BOS	BOS	0.0070	0.0030	6100	4800	1.70	2.70	0.00005	0.00090
2007190549	2007191507	Fine	Fine	BOS	BOS	0.0150	0.0070	14900	11300	1.60	4.60	0.00110	0.00450
2007190552	2007190675	Coarse	Coarse	TOS	TOS	0.0010	0.0010	4400	3700	0.80	0.50	0.00180	0.00030
2007190552	2007190675	Fine	Fine	TOS	TOS	0.0010	0.0180	18600	15000	1.70	1.70	0.00050	0.00080
2007190552	2007190675	Coarse	Coarse	BOS	BOS	0.0010	0.0050	19600	14400	1.30	1.00	0.00170	0.00090
2007190552	2007190675	Fine	Fine	BOS	BOS	0.0010	0.0250	48200	43300	4.40	3.40	0.00220	0.00190
2007190554	2007190752	Coarse	Coarse	TOS	TOS	0.0680	0.0030	4800	7700	0.90	0.80	0.00040	0.00040
2007190554	2007190752	Fine	Fine	TOS	TOS	0.0040	0.0020	12500	14300	2.10	1.00	0.00080	0.00100
2007190554	2007190752	Coarse	Coarse	BOS	BOS	0.0010	0.0010	3000	14200	0.40	1.70	0.00020	0.00040
2007190554	2007190752	Fine	Fine	BOS	BOS	0.0120	0.0110	13000	23700	1.50	2.20	0.00070	0.00150
2007190583	2007191063	Coarse	Coarse	TOS	TOS	0.0100	0.0090	4400	2600	1.80	1.30	0.00005	0.00010
2007190583	2007191063	Fine	Fine	TOS	TOS	0.0110	0.0160	5200	3000	1.60	0.40	0.00080	0.00110
2007190583	2007191063	Coarse	Coarse	BOS	BOS	0.0240	0.0160	7800	7400	2.60	2.40	0.00100	0.00080
2007190583	2007191063	Fine	Fine	BOS	BOS	0.0460	0.0220	14700	7800	2.90	3.30	0.00100	0.00240
2007190618	2007191166	Coarse	Coarse	TOS	TOS	0.0300	0.0180	25000	19600	1.00	1.90	0.00140	0.00060
2007190618	2007191166	Fine	Fine	TOS	TOS	0.0080	0.0120	27100	27200	1.10	1.70	0.00040	0.00060
2007190618	2007191166	Coarse	Coarse	BOS	BOS	0.0280	0.0140	30500	21000	0.50	1.10	0.00020	0.00090
2007190618	2007191166	Fine	Fine	BOS	BOS	0.0180	0.0130	35700	28800	0.90	1.40	0.00030	0.00005
2007190647	2007191525	Coarse	Coarse	TOS	TOS	0.0170	0.0010	3600	1200	4.20	3.60	0.00005	0.00030
2007190647	2007191525	Fine	Fine	TOS	TOS	0.0180	0.0200	7000	3500	6.00	8.40	0.00070	0.00070
2007190647	2007191525	Coarse	Coarse	BOS	BOS	0.0120	0.0080	5800	1200	4.10	3.10	0.00130	0.00100
2007190647	2007191525	Fine	Fine	BOS	BOS	0.0240	0.0160	8700	3200	6.30	5.10	0.00300	0.00050
2007190659	2007190739	Coarse	Coarse	TOS	TOS	0.0050	0.0180	11700	7200	0.40	0.80	0.00110	0.00070
2007190659	2007190739	Fine	Fine	TOS	TOS	0.0190	0.0390	33900	19700	1.00	0.70	0.00225	0.00070
2007190659	2007190739	Coarse	Coarse	BOS	BOS	0.0060	0.0120	15000	16400	0.90	0.50	0.00190	0.00050
2007190659	2007190739	Fine	Fine	BOS	BOS	0.0170	0.0170	43700	41200	1.80	0.90	0.00190	0.00210
2007190661	2007191334	Coarse	Coarse	TOS	TOS	0.0100	0.0090	4800	5900	0.60	0.05	0.00040	0.00040
2007190661	2007191334	Fine	Fine	TOS	TOS	0.0130	0.0130	9300	11000	0.80	0.40	0.00060	0.00020
2007190661	2007191334	Coarse	Coarse	BOS	BOS	0.0170	0.0130	13200	12200	0.90	0.30	0.00060	0.00020
2007190661	2007191334	Fine	Fine	BOS	BOS	0.0450	0.0130	19300	31200	1.00	0.20	0.00070	0.00010
2007190686	2007191430	Coarse	Coarse	TOS	TOS	0.0060	0.0130	4200	3300	0.05	1.70	0.00020	0.00005
2007190686	2007191430	Fine	Fine	TOS	TOS	0.0170	0.0120	12400	7400	0.30	0.80	0.00030	0.00050
2007190686	2007191430	Coarse	Coarse	BOS	BOS	0.0030	0.0060	19900	4700	0.50	2.40	0.00230	0.00090
2007190686	2007191430	Fine	Fine	BOS	BOS	0.0010	0.0200	8600	9700	0.20	1.20	0.00050	0.00270
2007190695	2007190924	Coarse	Coarse	TOS	TOS	0.0040	0.0010	2600	2800	1.60	1.00	0.00005	0.00160
2007190695	2007190924	Fine	Fine	TOS	TOS	0.0050	0.0070	5200	6400	2.40	2.20	0.00010	0.00020
2007190695	2007190924	Coarse	Coarse	BOS	BOS	0.0010	0.0180	11800	12200	3.30	3.90	0.00060	0.00050
2007190695	2007190924	Fine	Fine	BOS	BOS	0.0060	0.0120	16500	16700	3.90	5.90	0.00140	0.00170
2007190698	2007190813	Coarse	Coarse	TOS	TOS	0.0630	0.0670	38500	26800	3.00	1.70	0.00230	0.00090
2007190698	2007190813	Fine	Fine	TOS	TOS	0.0500	0.0490	34700	23800	3.00	2.30	0.00140	0.00010
2007190698	2007190813	Coarse	Coarse	BOS	BOS	0.0320	0.0320	36200	30600	2.80	2.70	0.00100	0.00120
2007190698	2007190813	Fine	Fine	BOS	BOS	0.0080	0.0010	32500	27200	2.80	2.80	0.00100	0.00090
2007190732	2007191450	Coarse	Coarse	TOS	TOS	0.0080	0.0080	10300	10400	0.80	1.20	0.00050	0.00180
2007190732	2007191450	Fine	Fine	TOS	TOS	0.0170	0.0080	12200	12300	1.30	1.90	0.00310	0.00170
2007190732	2007191450	Coarse	Coarse	BOS	BOS	0.0140	0.0060	15200	10000	1.30	1.70	0.00100	0.00270
2007190732	2007191450	Fine	Fine	BOS	BOS	0.0280	0.0170	20100	14300	1.30	1.70	0.00060	0.00260
2007190735	2007191549	Coarse	Coarse	TOS	TOS	0.0150	0.0010	27800	34400	2.60	1.70	0.00110	0.00005
2007190735	2007191549	Fine	Fine	TOS	TOS	0.0280	0.0010	21600	24900	2.10	1.10	0.00180	0.00005
2007190735	2007191549	Coarse	Coarse	BOS	BOS	0.0360	0.0320	25100	32100	2.30	1.60	0.00140	0.00080
2007190735	2007191549	Fine	Fine	BOS	BOS	0.0230	0.0390	22400	29900	2.50	1.60	0.00190	0.00020
2007190743	2007190906	Coarse	Coarse	TOS	TOS	0.0130	0.0310	20500	24500	3.90	5.40	0.00050	0.00020
2007190743	2007190906	Fine	Fine	TOS	TOS	0.0200	0.0460	24600	27800	4.60	4.60	0.00060	0.00090
2007190743	2007190906	Coarse	Coarse	BOS	BOS	0.0060	0.0550	18600	21400	5.30	5.70	0.00130	0.00005
2007190743	2007190906	Fine	Fine	BOS	BOS	0.0110	0.0420	30000	38200	5.80	7.20	0.00100	0.00140
2007190746	2007191241	Coarse	Coarse	TOS	TOS	0.0050	0.0010	1800	3400	0.60	1.30	0.00005	0.00005
2007190746	2007191241	Fine	Fine	TOS	TOS	0.0170	0.0010	4600	6900	1.20	1.50	0.00030	0.00005
2007190746	2007191241	Coarse	Coarse	BOS	BOS	0.0040	0.0010	5300	4800	1.40	1.40	0.00005	0.00005
2007190746	2007191241	Fine	Fine	BOS	BOS	0.0080	0.0010	8700	8500	1.70	1.40	0.00020	0.00005
2007190753	2007191299	Coarse	Coarse	TOS	TOS	0.0390	0.0270	41500	25200	2.10	1.90	0.00090	0.00200
2007190753	2007191299	Fine	Fine	TOS	TOS	0.0310	0.0260	38700	29200	2.50	2.10	0.00270	0.00170
2007190753	2007191299	Coarse	Coarse	BOS	BOS	0.0190	0.0220	39200	28100	2.50	1.90	0.00190	0.00260
2007190753	2007191299	Fine	Fine	BOS	BOS	0.0320	0.1130	38500	27900	3.60	1.90	0.00130	0.00170
2007190798	2007191229	Coarse	Coarse	TOS	TOS	0.0110	0.0010	1100	1100	0.05	0.05	0.00005	0.00030
2007190798	2007191229	Fine	Fine	TOS	TOS	0.0770	0.0010	2000	3200	0.40	0.05	0.00020	0.00005
2007190798	2007191229	Coarse	Coarse	BOS	BOS	0.0020	0.0010	600	700	0.20	0.05	0.00005	0.00005

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	B (ppm)	B (ppm)	Ba (ppm)	Ba (ppm)	Be (ppm)	Be (ppm)	Bi (ppm)	Bi (ppm)	Ca (ppm)	Ca (ppm)	Cd (ppm)	Cd (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	1	1	0.5	0.5	0.1	0.1	0.02	0.02	100	100	0.01	0.01
ULD:	ULD:												
2007190527	2007190609	0.5	0.5	158.00	153.00	1.00	0.90	0.140	0.120	2900	2900	0.060	0.060
2007190531	2007190703	0.5	0.5	170.00	182.00	0.90	0.70	0.200	0.170	18400	25200	0.050	0.030
2007190531	2007190703	0.5	0.5	145.00	159.00	1.00	0.80	0.170	0.160	14300	20100	0.050	0.020
2007190531	2007190703	1	0.5	169.00	175.00	1.00	0.80	0.190	0.180	17900	22100	0.060	0.060
2007190531	2007190703	0.5	0.5	167.00	176.00	0.90	0.80	0.160	0.150	14900	18600	0.090	0.040
2007190534	2007191522	0.5	0.5	95.20	99.60	0.70	0.90	0.110	0.120	2400	3200	0.060	0.070
2007190534	2007191522	0.5	0.5	125.00	125.00	0.90	1.70	0.160	0.140	3400	4800	0.080	0.060
2007190534	2007191522	0.5	0.5	64.10	38.10	0.40	0.50	0.070	0.040	1600	1400	0.050	0.020
2007190534	2007191522	0.5	0.5	149.00	93.40	1.10	1.00	0.180	0.130	4500	3400	0.060	0.060
2007190536	2007190909	0.5	0.5	40.20	41.10	0.20	0.05	0.060	0.050	1400	700	0.005	0.040
2007190536	2007190909	0.5	0.5	57.90	46.00	0.50	0.20	0.090	0.070	1700	1400	0.010	0.030
2007190536	2007190909	0.5	0.5	60.70	59.50	0.50	0.30	0.070	0.070	4200	5200	0.005	0.040
2007190536	2007190909	0.5	0.5	138.00	139.00	0.80	0.60	0.110	0.100	23000	22400	0.010	0.060
2007190548	2007191236	0.5	0.5	152.00	108.00	1.00	0.90	0.200	0.200	5100	4400	0.070	0.020
2007190548	2007191236	0.5	0.5	163.00	141.00	1.10	1.10	0.230	0.380	6000	6100	0.080	0.070
2007190548	2007191236	0.5	0.5	121.00	110.00	1.00	0.70	0.210	0.180	4300	3700	0.080	0.040
2007190548	2007191236	0.5	0.5	166.00	156.00	1.30	1.30	0.320	0.320	6600	6500	0.070	0.050
2007190549	2007191507	0.5	0.5	29.90	21.10	0.20	0.05	0.110	0.090	100	100	0.005	0.005
2007190549	2007191507	0.5	0.5	35.40	17.70	0.50	0.10	0.200	0.200	200	200	0.020	0.005
2007190549	2007191507	0.5	1	56.70	21.80	0.30	0.05	0.100	0.120	200	100	0.005	0.005
2007190549	2007191507	1	0.5	171.00	21.70	0.60	0.40	0.200	0.250	700	300	0.020	0.020
2007190552	2007190675	0.5	1	16.20	13.90	0.50	0.40	0.030	0.040	700	1100	0.005	0.040
2007190552	2007190675	1	2	46.70	45.80	2.60	1.80	0.170	0.160	3100	4000	0.270	0.480
2007190552	2007190675	3	4	26.80	22.90	3.60	1.90	0.090	0.100	1600	700	0.005	0.005
2007190552	2007190675	8	10	55.50	61.10	10.40	6.30	0.250	0.260	4800	2400	0.005	0.030
2007190554	2007190752	0.5	0.5	9.40	20.20	0.20	0.40	0.060	0.120	50	100	0.005	0.030
2007190554	2007190752	0.5	0.5	27.30	39.80	0.60	0.80	0.160	0.210	50	100	0.005	0.040
2007190554	2007190752	0.5	0.5	4.60	34.50	0.10	1.00	0.060	0.170	50	50	0.005	0.030
2007190554	2007190752	0.5	0.5	20.00	53.50	0.70	1.70	0.200	0.260	50	200	0.005	0.040
2007190583	2007191063	0.5	0.5	38.00	23.50	0.30	0.50	0.110	0.130	400	800	0.060	0.005
2007190583	2007191063	0.5	0.5	43.00	23.70	0.40	0.50	0.160	0.140	400	700	0.060	0.030
2007190583	2007191063	0.5	0.5	55.40	48.10	1.10	0.90	0.190	0.190	600	50	0.020	0.020
2007190583	2007191063	0.5	0.5	87.50	58.90	1.00	1.30	0.290	0.250	700	200	0.040	0.010
2007190618	2007191166	0.5	0.5	110.00	100.00	0.90	0.80	0.090	0.080	11900	11600	0.420	0.280
2007190618	2007191166	0.5	0.5	107.00	110.00	0.90	0.80	0.070	0.070	13900	15400	0.340	0.340
2007190618	2007191166	0.5	0.5	142.00	107.00	1.00	0.80	0.090	0.070	10800	9300	0.040	0.030
2007190618	2007191166	0.5	0.5	152.00	131.00	1.30	1.10	0.080	0.100	13200	13200	0.050	0.070
2007190647	2007191525	0.5	1	49.10	13.20	0.30	0.30	0.280	0.150	900	300	0.040	0.020
2007190647	2007191525	1	0.5	84.50	47.40	0.50	0.90	0.430	0.450	1300	400	0.060	0.050
2007190647	2007191525	0.5	1	58.50	15.00	0.70	0.20	0.330	0.170	400	50	0.005	0.030
2007190647	2007191525	0.5	0.5	93.10	40.30	1.10	0.70	0.440	0.350	800	200	0.010	0.030
2007190659	2007190739	16	11	8.00	5.60	0.50	0.30	0.050	0.060	500	1300	0.005	0.020
2007190659	2007190739	40	26	22.00	13.80	1.50	0.70	0.170	0.180	2200	4500	0.005	0.020
2007190659	2007190739	28	26	9.90	9.40	0.60	0.40	0.110	0.070	6500	1900	0.010	0.005
2007190659	2007190739	70	65	25.00	23.00	1.70	1.40	0.250	0.190	14900	5800	0.030	0.030
2007190661	2007191334	0.5	2	40.00	48.90	0.20	0.30	0.030	0.010	800	1500	0.005	0.005
2007190661	2007191334	0.5	2	79.70	105.00	0.40	0.50	0.060	0.040	1900	4000	0.030	0.030
2007190661	2007191334	0.5	2	56.10	48.60	0.50	0.50	0.040	0.010	2300	2200	0.010	0.005
2007190661	2007191334	1	0.5	97.90	107.00	0.90	0.90	0.070	0.070	4400	4600	0.005	0.005
2007190686	2007191430	0.5	1	28.30	24.50	0.50	0.30	0.110	0.120	100	50	0.005	0.005
2007190686	2007191430	0.5	0.5	83.70	57.90	1.40	1.10	0.310	0.280	100	50	0.020	0.005
2007190686	2007191430	0.5	0.5	65.80	28.70	0.40	0.20	0.280	0.170	100	50	0.005	0.005
2007190686	2007191430	0.5	0.5	28.50	55.50	0.20	0.50	0.150	0.300	50	200	0.005	0.005
2007190695	2007190924	0.5	0.5	16.40	14.20	0.20	0.30	0.130	0.100	500	1000	0.010	0.030
2007190695	2007190924	0.5	0.5	38.20	39.30	0.40	0.70	0.180	0.190	1300	1800	0.005	0.010
2007190695	2007190924	0.5	0.5	34.20	33.60	0.60	0.60	0.150	0.190	1900	2400	0.010	0.005
2007190695	2007190924	0.5	0.5	52.40	55.60	0.90	0.80	0.240	0.200	2500	3700	0.040	0.040
2007190698	2007190813	4	2	143.00	90.70	1.70	1.50	0.330	0.280	4400	3700	0.030	0.030
2007190698	2007190813	3	1	179.00	86.20	1.50	1.20	0.300	0.270	3800	3300	0.060	0.030
2007190698	2007190813	5	4	206.00	237.00	1.60	1.80	0.320	0.330	4300	5500	0.005	0.020
2007190698	2007190813	5	3	287.00	310.00	1.60	1.50	0.320	0.340	4500	5800	0.030	0.040
2007190732	2007191450	0.5	0.5	60.60	54.20	0.40	0.70	0.110	0.080	1000	1900	0.040	0.030
2007190732	2007191450	0.5	0.5	67.10	58.80	0.40	0.60	0.110	0.070	1400	2300	0.060	0.050
2007190732	2007191450	0.5	0.5	116.00	108.00	0.50	0.70	0.110	0.070	2000	2400	0.050	0.040
2007190732	2007191450	0.5	0.5	236.00	248.00	0.80	1.20	0.150	0.120	3000	3100	0.060	0.040
2007190735	2007191549	3	3	186.00	192.00	1.10	1.10	0.160	0.170	5300	6200	0.050	0.040
2007190735	2007191549	2	3	153.00	145.00	0.90	0.90	0.190	0.120	4000	4500	0.060	0.040
2007190735	2007191549	4	5	176.00	207.00	1.10	1.10	0.180	0.160	5900	5200	0.050	0.020
2007190735	2007191549	3	5	194.00	195.00	1.20	0.80	0.170	0.170	6100	4900	0.040	0.020
2007190743	2007190906	1	1	125.00	175.00	0.80	0.90	0.200	0.200	3800	7800	0.050	0.140
2007190743	2007190906	1	0.5	149.00	176.00	0.90	1.00	0.240	0.240	6600	9500	0.080	0.130
2007190743	2007190906	2	1	173.00	195.00	0.80	0.80	0.190	0.170	13900	14100	0.040	0.100
2007190743	2007190906	2	2	394.00	383.00	1.00	1.40	0.280	0.270	18200	19500	0.110	0.140
2007190746	2007191241	0.5	0.5	22.40	54.90	0.05	0.20	0.030	0.050	300	700	0.005	0.005
2007190746	2007191241	0.5	0.5	39.80	61.30	0.05	0.30	0.060	0.070	800	1100	0.010	0.005
2007190746	2007191241	0.5	0.5	31.90	69.20	0.10	0.20	0.050	0.070	600	800	0.005	0.005
2007190746	2007191241	0.5	0.5	35.80	57.80	0.30	0.40	0.070	0.080	1000	1400	0.010	0.020
2007190753	2007191299	3	0.5	205.00	161.00	1.30	1.10	0.170	0.140	5700	5400	0.040	0.080
2007190753	2007191299	2	0.5	201.00	176.00	1.30	1.10	0.190	0.140	5300	5900	0.030	0.060
2007190753	2007191299	5	0.5	209.00	146.00	1.30	0.90	0.170	0.150	4400	4700	0.050	0.040
2007190753	2007191299	5	1	245.00	176.00	1.30	0.90	0.180	0.150	5200	5100	0.060	0.090
2007190798	2007191229	0.5	0.5	7.80	9.20	0.05	0.05	0.050	0.010	500	200	0.040	0.020
2007190798	2007191229	0.5	0.5	20.10	25.50	0.20	0.20	0.090	0.070	600	400	0.030	0.005
2007190798	2007191229	0.5	0.5	7.70	6.60	0.10	0.05	0.040	0.010	200	100	0.030	0.005

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Ce (ppm)	Ce (ppm)	Co (ppm)	Co (ppm)	Cr (ppm)	Cr (ppm)	Cs (ppm)	Cs (ppm)	Cu (ppm)	Cu (ppm)	Dy (ppm)	Dy (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.01	0.01	0.1	0.1	0.5	0.5	0.02	0.02	0.01	0.01	0.1	0.1
ULD:	ULD:												
2007190527	2007190609	50.600	51.900	13.10	12.50	40.70	37.00	1.400	1.330	19.400	18.200	3.70	3.70
2007190531	2007190703	30.800	29.900	13.10	12.60	26.90	18.70	1.350	0.540	18.700	24.900	2.20	2.10
2007190531	2007190703	26.400	28.100	10.70	11.10	22.30	16.50	1.180	0.430	16.700	17.000	1.90	2.10
2007190531	2007190703	30.000	31.600	13.20	13.40	26.50	19.80	1.240	0.570	18.800	18.900	2.10	2.20
2007190531	2007190703	29.400	28.900	11.90	12.00	24.50	19.10	1.210	0.550	17.600	17.100	2.00	2.00
2007190534	2007191522	31.900	26.300	6.90	8.10	6.00	13.70	0.840	1.130	7.060	10.800	1.30	1.50
2007190534	2007191522	51.400	46.500	8.30	11.40	8.10	14.80	1.040	1.230	9.420	13.100	2.00	2.30
2007190534	2007191522	23.500	20.900	4.60	4.30	4.00	7.00	0.720	0.780	5.780	3.860	0.80	0.70
2007190534	2007191522	72.000	124.000	9.50	7.80	9.90	15.60	1.260	1.220	11.500	9.730	2.90	3.90
2007190536	2007190909	8.020	10.300	1.30	1.10	12.20	11.50	0.500	0.350	5.440	8.950	0.60	0.50
2007190536	2007190909	38.800	48.200	2.90	3.00	20.00	20.70	0.970	0.620	18.200	50.700	2.00	1.70
2007190536	2007190909	11.200	11.700	1.90	2.00	15.30	17.50	0.760	0.610	8.450	12.000	0.70	0.70
2007190536	2007190909	43.400	43.000	5.60	4.80	35.60	37.70	1.700	1.270	22.600	39.800	2.40	2.00
2007190548	2007191236	50.100	45.300	10.90	8.70	33.30	28.80	1.660	1.430	22.700	17.000	2.70	1.90
2007190548	2007191236	72.000	82.800	11.50	9.80	35.60	38.90	1.620	1.440	25.500	23.600	3.50	3.60
2007190548	2007191236	44.100	45.500	9.50	6.70	54.00	30.30	1.640	1.490	22.000	16.400	2.30	2.10
2007190548	2007191236	75.100	77.600	12.10	11.00	39.40	41.20	2.050	1.870	31.400	27.000	3.80	3.20
2007190549	2007191507	2.810	5.510	1.00	0.70	44.40	32.20	0.350	0.330	6.080	2.800	0.10	0.20
2007190549	2007191507	16.100	25.900	3.00	1.80	67.50	49.20	0.890	0.730	7.600	6.760	0.80	0.80
2007190549	2007191507	4.990	9.310	1.70	1.40	47.80	32.80	0.520	0.420	2.980	3.600	0.20	0.30
2007190549	2007191507	17.300	32.900	5.30	4.10	71.80	53.00	1.150	1.120	8.480	10.200	0.80	1.00
2007190552	2007190675	26.800	21.700	2.70	3.80	8.10	7.90	0.520	0.460	2.980	3.540	1.30	1.00
2007190552	2007190675	136.000	89.500	11.40	13.40	27.90	29.70	2.120	1.550	12.700	15.200	8.40	4.80
2007190552	2007190675	71.700	44.000	8.50	9.10	22.70	21.00	2.350	1.840	8.320	8.670	4.40	2.60
2007190552	2007190675	184.000	142.000	23.90	32.80	54.80	54.50	5.690	5.250	20.100	23.200	11.80	8.00
2007190554	2007190752	22.300	31.300	5.20	6.20	15.70	13.40	0.910	1.380	3.470	4.140	0.80	1.10
2007190554	2007190752	75.400	67.200	15.30	12.00	24.80	18.30	2.380	2.410	11.300	7.270	3.00	2.40
2007190554	2007190752	13.600	47.700	1.90	6.60	23.00	21.10	0.490	1.950	3.420	7.050	0.60	2.30
2007190554	2007190752	67.300	86.600	9.70	10.90	56.20	23.40	2.040	2.840	11.800	10.300	4.00	4.20
2007190583	2007191063	19.000	26.400	4.70	2.70	17.00	15.20	0.580	0.340	7.750	5.160	0.70	1.00
2007190583	2007191063	29.300	28.400	5.30	3.00	14.50	12.60	0.710	0.420	9.820	5.900	1.30	0.90
2007190583	2007191063	27.400	40.800	6.70	7.80	18.10	20.70	0.670	0.840	13.500	12.500	1.50	1.80
2007190583	2007191063	41.600	53.600	11.70	9.40	29.20	25.00	1.810	0.860	22.000	14.900	2.10	2.00
2007190618	2007191166	37.900	31.500	19.70	15.90	42.00	36.10	0.750	0.640	36.900	30.700	3.20	2.30
2007190618	2007191166	34.300	32.700	18.70	18.20	42.80	41.90	0.730	0.700	35.700	34.500	2.80	2.50
2007190618	2007191166	37.700	35.000	22.90	18.40	51.30	40.10	0.840	0.730	40.400	28.900	3.60	2.60
2007190618	2007191166	43.300	45.200	26.70	22.50	60.50	52.90	0.930	0.730	48.700	40.800	4.10	3.40
2007190647	2007191525	32.200	10.800	2.70	0.80	7.40	4.80	1.750	0.390	6.260	2.230	1.30	0.30
2007190647	2007191525	65.200	47.300	4.30	3.10	10.90	5.20	3.140	0.800	10.300	6.620	2.40	1.40
2007190647	2007191525	46.200	12.600	2.30	0.60	10.30	5.00	2.450	0.470	8.320	2.460	2.10	0.30
2007190647	2007191525	70.600	39.100	4.40	1.40	13.00	7.40	3.830	1.080	12.500	5.620	3.20	1.00
2007190659	2007190739	12.100	16.500	2.70	2.00	33.60	17.80	0.980	0.360	0.730	1.230	0.60	0.60
2007190659	2007190739	40.700	55.200	8.90	5.90	99.80	50.80	2.360	0.830	2.910	3.010	1.90	2.00
2007190659	2007190739	33.500	14.600	4.60	3.90	45.70	39.10	1.070	1.170	2.380	3.230	1.50	0.50
2007190659	2007190739	79.200	41.000	12.10	10.20	125.00	98.40	2.850	2.810	4.440	8.570	3.50	1.50
2007190661	2007191334	23.500	27.300	6.60	5.50	17.10	16.50	0.360	0.330	4.910	4.430	1.10	1.10
2007190661	2007191334	42.300	51.200	13.40	13.00	36.70	33.80	0.490	0.430	11.100	9.940	2.20	2.20
2007190661	2007191334	30.200	30.700	11.40	6.30	32.30	24.90	0.630	0.620	7.200	4.300	1.70	1.30
2007190661	2007191334	53.800	47.300	22.80	20.90	61.00	49.60	0.820	1.170	13.900	12.800	2.90	3.10
2007190686	2007191430	26.700	35.400	0.60	0.40	4.90	4.40	1.540	1.500	1.190	0.840	0.80	0.80
2007190686	2007191430	88.500	95.400	1.50	0.80	9.30	5.50	3.930	3.130	2.460	1.670	2.70	2.20
2007190686	2007191430	108.000	59.500	0.90	0.20	13.50	5.00	4.340	1.790	1.600	0.470	3.50	1.20
2007190686	2007191430	43.800	125.000	0.50	0.40	7.20	5.70	2.360	3.220	0.910	2.230	1.40	2.50
2007190695	2007190924	9.960	8.960	1.60	1.50	18.90	19.60	0.310	0.240	5.420	3.920	0.60	0.50
2007190695	2007190924	28.500	29.600	4.50	3.90	18.80	19.40	0.580	0.620	12.800	10.800	1.80	1.80
2007190695	2007190924	16.200	16.300	4.70	4.00	28.30	27.70	1.350	1.030	12.000	10.700	1.00	0.90
2007190695	2007190924	28.300	30.000	6.90	6.70	35.60	34.60	1.760	1.550	18.400	17.100	1.80	1.70
2007190698	2007190813	90.500	67.500	14.00	12.50	49.80	40.20	3.860	3.040	20.400	17.300	3.80	3.50
2007190698	2007190813	89.300	73.100	12.50	11.50	43.00	34.90	3.510	2.600	19.700	15.800	3.60	3.80
2007190698	2007190813	87.300	72.600	13.20	13.70	47.00	48.10	3.610	3.660	18.500	19.600	3.60	3.70
2007190698	2007190813	83.000	72.200	14.40	14.90	45.20	48.00	3.570	3.420	19.100	20.100	3.60	4.00
2007190732	2007191450	28.300	22.000	7.30	8.60	13.50	16.70	0.750	0.810	7.110	8.490	1.90	1.60
2007190732	2007191450	37.800	28.700	8.00	9.40	15.40	20.30	0.890	0.770	9.030	10.200	2.60	2.20
2007190732	2007191450	31.900	24.300	10.00	7.10	20.50	22.10	1.050	0.760	11.700	7.540	2.20	1.80
2007190732	2007191450	42.800	30.800	13.40	10.60	29.90	29.70	1.320	1.050	12.000	11.100	3.00	2.50
2007190735	2007191549	50.700	49.600	13.50	12.90	37.20	48.10	2.400	3.240	17.000	20.200	2.40	2.80
2007190735	2007191549	42.900	41.200	19.50	9.30	38.80	36.30	1.840	2.390	29.800	15.500	1.90	2.30
2007190735	2007191549	51.400	48.800	16.60	12.90	37.90	46.30	2.300	3.010	19.400	20.100	2.70	2.80
2007190735	2007191549	49.900	45.300	19.00	12.90	34.90	42.80	2.000	2.830	16.800	17.900	2.40	2.40
2007190743	2007190906	28.800	33.900	7.40	7.90	25.80	37.30	2.060	1.920	20.300	29.000	1.80	1.90
2007190743	2007190906	36.800	37.200	9.50	9.30	32.90	44.00	2.570	2.240	24.800	33.000	2.60	2.20
2007190743	2007190906	28.000	28.300	7.80	7.80	25.70	31.90	1.970	1.580	19.300	25.900	1.90	1.60
2007190743	2007190906	37.700	45.500	9.90	11.50	40.30	52.90	2.910	2.900	28.200	41.700	2.80	2.70
2007190746	2007191241	5.270	7.150	0.60	1.20	8.40	6.30	0.190	0.290	3.560	2.990	0.40	0.40
2007190746	2007191241	23.800	22.300	2.20	2.10	10.30	12.00	0.600	0.660	18.200	5.580	1.20	1.10
2007190746	2007191241	9.170	8.040	1.50	1.20	10.00	8.90	0.550	0.470	5.860	4.290	0.60	0.50
2007190746	2007191241	21.200	17.200	2.70	2.50	14.40	13.50	1.020	0.810	15.400	6.730	1.20	0.90
2007190753	2007191299	56.100	33.900	13.90	13.30	42.30	34.50	2.480	1.570	21.200	24.800	3.10	2.40
2007190753	2007191299	58.400	39.800	14.70	15.50	40.10	38.70	2.420	1.550	20.400	26.800	2.90	2.90
2007190753	2007191299	56.100	36.200	13.70	11.00	41.70	38.60	2.680	1.620	21.300	26.900	2.80	2.80
2007190753	2007191299	56.100	34.900	15.20	12.90	41.50	37.90	2.610	1.750	27.000	27.900	2.90	2.50
2007190798	2007191229	1.900	2.600	0.40	0.50	4.40	3.20	0.150	0.190	2.160	0.780	0.10	0.10
2007190798	2007191229	9.840	10.500	0.80	1.30	6.00	6.20	0.310	0.470	2.510	2.020	0.70	0.60
2007190798	2007191229	1.780	1.700	0.40	0.30	4.00	2.50	0.100	0.130	1.280	0.400	0.05	0.05

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Er (ppm)	Er (ppm)	Eu (ppm)	Eu (ppm)	Fe (ppm)	Fe (ppm)	Ga (ppm)	Ga (ppm)	Gd (ppm)	Gd (ppm)	Ge (ppm)	Ge (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1	100	100	0.02	0.02	0.1	0.1	0.1	0.1
ULD:	ULD:												
2007190527	2007190609	1.90	1.80	1.10	0.90	21900	22800	6.260	5.920	4.80	5.20	0.10	0.10
2007190531	2007190703	1.00	1.00	0.90	1.00	40300	27000	10.100	7.640	3.20	3.90	0.05	0.05
2007190531	2007190703	0.80	0.90	0.80	0.80	26600	23400	8.390	6.820	2.80	3.50	0.05	0.05
2007190531	2007190703	1.00	1.00	0.90	1.00	39800	34100	10.000	7.950	3.10	3.90	0.05	0.05
2007190531	2007190703	0.90	0.90	0.90	0.90	32000	25900	9.010	7.300	3.10	3.60	0.05	0.05
2007190534	2007191522	0.50	0.60	0.60	0.60	9400	11100	2.450	1.920	2.30	2.90	0.05	0.05
2007190534	2007191522	0.80	1.00	0.80	0.80	12100	17600	3.120	4.380	3.80	3.90	0.05	0.05
2007190534	2007191522	0.30	0.20	0.40	0.20	6500	7500	1.820	1.960	1.70	1.10	0.05	0.05
2007190534	2007191522	1.00	1.10	1.00	0.80	13400	15100	3.750	3.930	5.20	7.20	0.05	0.10
2007190536	2007190909	0.20	0.20	0.20	0.20	8700	7300	1.840	1.090	0.70	0.70	0.05	0.05
2007190536	2007190909	0.60	0.70	0.50	0.60	15400	17100	3.550	2.300	3.00	3.10	0.05	0.05
2007190536	2007190909	0.30	0.30	0.20	0.30	11400	12900	2.630	2.640	1.00	0.80	0.05	0.05
2007190536	2007190909	1.00	0.80	0.60	0.60	28500	28500	8.870	7.000	2.80	2.70	0.10	0.20
2007190548	2007191236	1.10	0.90	0.80	0.60	21900	22400	7.450	5.350	4.00	2.70	0.20	0.05
2007190548	2007191236	1.50	1.60	1.10	0.90	26400	26800	7.880	6.720	5.60	4.90	0.10	0.10
2007190548	2007191236	1.00	0.80	0.70	0.60	20300	17200	6.580	4.470	3.30	3.30	0.05	0.05
2007190548	2007191236	1.60	1.60	1.20	1.10	32100	28500	9.010	6.320	6.10	5.60	0.10	0.10
2007190549	2007191507	0.05	0.05	0.05	0.05	12400	8700	2.210	1.870	0.20	0.20	0.05	0.05
2007190549	2007191507	0.30	0.30	0.20	0.30	26200	18000	5.560	4.040	1.20	1.10	0.05	0.05
2007190549	2007191507	0.10	0.10	0.05	0.05	14000	9900	2.850	2.300	0.30	0.40	0.05	0.05
2007190549	2007191507	0.40	0.50	0.20	0.40	30000	28900	6.700	5.460	1.30	1.30	0.05	0.05
2007190552	2007190675	0.50	0.40	0.40	0.20	4600	4700	0.920	0.700	1.50	1.00	0.05	0.05
2007190552	2007190675	2.90	2.00	2.30	1.20	17400	16500	4.590	3.520	10.60	5.10	0.20	0.10
2007190552	2007190675	1.80	1.20	1.40	0.70	15700	12300	4.210	3.070	5.90	2.90	0.05	0.05
2007190552	2007190675	4.90	3.90	3.60	2.20	42300	42900	12.400	10.700	14.60	8.60	0.20	0.20
2007190554	2007190752	0.30	0.40	0.20	0.30	7100	10600	1.830	2.660	1.00	1.60	0.05	0.10
2007190554	2007190752	1.10	0.90	0.80	0.60	18000	17600	4.960	5.070	4.00	3.30	0.05	0.10
2007190554	2007190752	0.20	1.00	0.20	0.70	6400	19300	1.330	4.930	0.90	3.40	0.05	0.10
2007190554	2007190752	1.60	1.80	1.20	1.20	21500	28100	5.870	8.190	5.60	5.80	0.05	0.20
2007190583	2007191063	0.30	0.40	0.40	0.30	9700	7400	2.070	1.610	1.40	1.70	0.05	0.05
2007190583	2007191063	0.60	0.50	0.50	0.30	10700	8300	2.450	1.800	2.60	1.60	0.05	0.05
2007190583	2007191063	0.70	0.80	0.60	0.60	23200	18500	5.040	3.900	2.60	2.60	0.05	0.05
2007190583	2007191063	1.00	0.90	0.80	0.70	30600	21300	7.330	3.940	3.20	3.00	0.05	0.05
2007190618	2007191166	1.50	1.20	0.70	0.60	36100	30600	7.960	6.490	3.80	2.70	0.05	0.05
2007190618	2007191166	1.40	1.30	0.80	0.60	35800	35000	8.310	8.320	3.60	2.90	0.05	0.05
2007190618	2007191166	1.80	1.40	0.80	0.70	42600	34500	8.990	6.660	4.50	3.00	0.05	0.05
2007190618	2007191166	2.10	1.80	1.00	0.90	48600	43800	11.000	9.390	5.00	3.90	0.05	0.05
2007190647	2007191525	0.50	0.10	0.30	0.05	8200	3500	0.840	0.810	1.80	0.50	0.05	0.05
2007190647	2007191525	0.90	0.60	0.60	0.30	13800	8900	2.710	1.930	3.20	2.10	0.10	0.05
2007190647	2007191525	0.80	0.20	0.40	0.05	9300	3400	1.480	0.920	2.60	0.50	0.05	0.05
2007190647	2007191525	1.40	0.50	0.80	0.30	14500	6800	2.150	2.060	4.20	1.70	0.05	0.05
2007190659	2007190739	0.30	0.30	0.20	0.20	12000	6200	3.880	2.090	0.90	0.90	0.05	0.05
2007190659	2007190739	0.90	0.90	0.60	0.60	34300	17100	11.700	5.580	2.80	3.10	0.05	0.05
2007190659	2007190739	0.70	0.20	0.50	0.10	16300	13700	5.160	4.530	2.10	0.70	0.05	0.05
2007190659	2007190739	1.60	0.70	1.10	0.40	43700	33800	15.000	12.100	5.10	2.20	0.05	0.05
2007190661	2007191334	0.40	0.50	0.40	0.50	9500	5800	1.840	1.700	1.80	1.90	0.05	0.05
2007190661	2007191334	0.90	1.00	0.80	0.90	18800	11700	3.550	3.250	3.40	3.40	0.05	0.05
2007190661	2007191334	0.70	0.60	0.70	0.60	18300	9800	4.590	3.450	2.70	2.10	0.05	0.05
2007190661	2007191334	1.20	1.30	1.10	1.10	30300	37200	7.140	9.770	4.20	4.30	0.05	0.10
2007190686	2007191430	0.20	0.30	0.20	0.30	1600	1300	1.480	1.600	1.10	1.30	0.05	0.05
2007190686	2007191430	0.90	0.80	0.70	0.80	3400	1700	5.590	3.400	3.60	3.50	0.05	0.05
2007190686	2007191430	1.30	0.50	1.00	0.50	6400	4000	8.800	3.220	4.60	2.10	0.10	0.05
2007190686	2007191430	0.50	1.10	0.50	1.00	2800	8200	3.250	6.170	2.00	4.60	0.05	0.05
2007190695	2007190924	0.30	0.20	0.20	0.10	6700	5500	0.890	1.150	0.70	0.80	0.05	0.05
2007190695	2007190924	0.90	0.80	0.60	0.60	14600	11200	2.090	2.740	2.10	2.50	0.05	0.05
2007190695	2007190924	0.50	0.40	0.30	0.30	23500	15500	5.480	4.730	1.10	1.20	0.05	0.05
2007190695	2007190924	0.80	0.80	0.50	0.50	30300	30000	7.100	7.040	1.90	2.20	0.05	0.05
2007190698	2007190813	1.70	1.60	1.10	1.10	31800	25600	11.400	8.630	5.90	5.50	0.05	0.05
2007190698	2007190813	1.70	1.70	1.10	1.20	28700	22700	9.660	7.510	5.70	5.70	0.05	0.10
2007190698	2007190813	1.70	1.70	1.00	1.20	30700	31300	10.200	10.400	5.60	6.00	0.10	0.05
2007190698	2007190813	1.70	2.00	1.10	1.20	28900	29900	9.590	9.100	5.70	6.00	0.10	0.05
2007190732	2007191450	0.80	0.80	0.60	0.60	11200	13700	2.920	2.860	2.60	2.20	0.10	0.05
2007190732	2007191450	1.20	1.00	0.80	0.60	13900	17800	3.680	4.270	3.50	2.70	0.10	0.05
2007190732	2007191450	1.00	0.70	0.70	0.50	14900	13400	4.220	2.910	3.10	2.30	0.10	0.05
2007190732	2007191450	1.40	1.00	0.90	0.70	19600	17200	5.560	3.080	4.10	3.30	0.20	0.05
2007190735	2007191549	1.10	1.30	0.80	0.80	28700	36100	8.450	11.400	3.80	4.30	0.05	0.05
2007190735	2007191549	0.90	1.00	0.70	0.70	22400	27200	6.600	8.250	3.00	3.40	0.05	0.05
2007190735	2007191549	1.20	1.20	0.80	0.80	28300	34500	7.850	10.400	3.80	4.00	0.05	0.05
2007190735	2007191549	1.10	1.20	0.80	0.80	25700	31000	7.110	9.430	3.50	3.60	0.05	0.10
2007190743	2007190906	0.80	0.80	0.60	0.80	24200	34200	5.220	8.570	2.20	2.50	0.10	0.10
2007190743	2007190906	1.20	1.00	0.80	1.00	35700	39000	7.320	9.210	2.80	3.00	0.10	0.05
2007190743	2007190906	0.80	0.70	0.60	0.60	27800	32100	6.560	7.400	2.00	2.00	0.10	0.05
2007190743	2007190906	1.20	1.10	0.90	1.00	35000	47600	7.500	12.000	3.00	3.50	0.20	0.20
2007190746	2007191241	0.10	0.20	0.10	0.20	2800	6000	0.090	1.220	0.40	0.60	0.05	0.05
2007190746	2007191241	0.50	0.40	0.40	0.40	9900	10100	1.290	2.020	1.50	1.70	0.05	0.05
2007190746	2007191241	0.30	0.20	0.20	0.20	6900	6600	1.310	1.330	0.70	0.80	0.05	0.05
2007190746	2007191241	0.50	0.40	0.40	0.40	11000	10800	2.210	2.130	1.50	1.60	0.05	0.05
2007190753	2007191299	1.40	1.20	1.00	1.00	39300	38400	12.000	8.920	4.50	2.80	0.05	0.05
2007190753	2007191299	1.40	1.40	1.00	1.00	38100	43300	11.300	10.100	4.50	3.10	0.05	0.05
2007190753	2007191299	1.40	1.20	1.00	1.00	37700	34700	11.900	9.230	4.40	3.20	0.05	0.05
2007190753	2007191299	1.40	1.30	1.00	1.10	38200	35400	11.700	7.840	4.40	3.30	0.05	0.05
2007190798	2007191229	0.05	0.05	0.05	0.05	1400	1900	0.390	0.480	0.20	0.20	0.05	0.05
2007190798	2007191229	0.30	0.30	0.20	0.20	2100	3800	0.820	1.370	0.80	0.80	0.10	0.05
2007190798	2007191229	0.05	0.05	0.05	0.05	1400	1200	0.220	0.260	0.10	0.10	0.10	0.05

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Hf (ppm)	Hf (ppm)	Hg (ppm)	Hg (ppm)	Ho (ppm)	Ho (ppm)	In (ppm)	In (ppm)	K (ppm)	K (ppm)	La (ppm)	La (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.01	0.01	0.1	0.1	0.02	0.02	100	100	0.5	0.5
ULD:	ULD:												
2007190527	2007190609	0.05	0.10	0.030	0.005	0.60	0.70	0.030	0.030	1800	1600	28.80	25.00
2007190531	2007190703	0.10	0.05	0.020	0.005	0.40	0.40	0.050	0.050	3500	2400	16.90	14.90
2007190531	2007190703	0.05	0.05	0.010	0.020	0.30	0.40	0.050	0.030	2900	2200	14.70	14.30
2007190531	2007190703	0.10	0.05	0.020	0.010	0.40	0.40	0.050	0.040	3200	2200	16.70	15.90
2007190531	2007190703	0.05	0.05	0.020	0.005	0.30	0.40	0.040	0.040	3000	2000	15.90	14.40
2007190534	2007191522	0.05	0.05	0.030	0.040	0.20	0.20	0.010	0.010	1500	1500	18.20	13.90
2007190534	2007191522	0.05	0.05	0.030	0.040	0.30	0.30	0.030	0.030	1900	2500	30.20	21.40
2007190534	2007191522	0.05	0.05	0.020	0.005	0.10	0.05	0.010	0.010	800	1000	13.60	9.10
2007190534	2007191522	0.05	0.05	0.020	0.030	0.40	0.50	0.030	0.010	1500	1800	45.00	61.30
2007190536	2007190909	0.05	0.10	0.005	0.120	0.05	0.10	0.010	0.010	1300	1200	5.10	5.90
2007190536	2007190909	0.20	0.20	0.005	0.010	0.20	0.40	0.010	0.010	2200	2200	25.20	27.50
2007190536	2007190909	0.05	0.05	0.005	0.010	0.05	0.20	0.010	0.010	1600	1900	7.20	6.70
2007190536	2007190909	0.05	0.05	0.005	0.040	0.40	0.50	0.030	0.010	4400	4300	25.80	23.30
2007190548	2007191236	0.05	0.05	0.040	0.010	0.50	0.40	0.040	0.010	3800	2600	28.90	25.80
2007190548	2007191236	0.05	0.05	0.005	0.040	0.60	0.60	0.050	0.030	3400	2600	41.90	46.80
2007190548	2007191236	0.05	0.05	0.005	0.040	0.40	0.40	0.040	0.010	2400	2000	25.50	28.10
2007190548	2007191236	0.05	0.05	0.005	0.010	0.70	0.60	0.060	0.020	2800	2300	44.90	45.10
2007190549	2007191507	0.10	0.05	0.010	0.005	0.05	0.05	0.010	0.010	500	400	1.80	3.00
2007190549	2007191507	0.30	0.10	0.010	0.005	0.10	0.10	0.030	0.020	900	1100	9.00	12.30
2007190549	2007191507	0.20	0.10	0.005	0.005	0.05	0.05	0.010	0.010	500	900	3.10	4.50
2007190549	2007191507	0.30	0.20	0.020	0.005	0.20	0.20	0.040	0.030	1500	2500	9.70	14.10
2007190552	2007190675	0.05	0.05	0.005	0.005	0.20	0.05	0.010	0.010	1100	1400	11.10	7.60
2007190552	2007190675	0.05	0.10	0.050	0.050	1.30	0.70	0.020	0.010	4400	4900	55.90	31.80
2007190552	2007190675	0.20	0.10	0.005	0.030	0.70	0.40	0.010	0.010	5200	4900	27.50	16.20
2007190552	2007190675	0.30	0.30	0.010	0.050	2.10	1.30	0.060	0.030	14700	15900	68.50	45.30
2007190554	2007190752	0.05	0.05	0.050	0.005	0.10	0.20	0.010	0.010	100	200	5.30	7.80
2007190554	2007190752	0.05	0.05	0.080	0.005	0.50	0.40	0.030	0.030	200	300	18.00	16.80
2007190554	2007190752	0.05	0.20	0.030	0.005	0.05	0.40	0.010	0.030	50	200	4.40	18.10
2007190554	2007190752	0.05	0.30	0.070	0.020	0.60	0.70	0.040	0.040	200	300	22.70	31.40
2007190583	2007191063	0.05	0.05	0.060	0.020	0.20	0.20	0.010	0.010	600	600	11.10	11.50
2007190583	2007191063	0.05	0.05	0.005	0.040	0.20	0.20	0.010	0.010	800	700	18.50	12.50
2007190583	2007191063	0.30	0.20	0.020	0.040	0.30	0.30	0.030	0.020	800	1200	11.80	15.50
2007190583	2007191063	0.30	0.20	0.005	0.070	0.40	0.40	0.040	0.020	2000	1300	20.50	18.60
2007190618	2007191166	0.05	0.05	0.030	0.040	0.60	0.40	0.040	0.030	1000	600	20.30	16.40
2007190618	2007191166	0.10	0.05	0.050	0.050	0.50	0.50	0.040	0.030	1000	900	18.50	17.60
2007190618	2007191166	0.10	0.05	0.030	0.010	0.70	0.50	0.040	0.030	700	800	20.80	18.50
2007190618	2007191166	0.10	0.05	0.020	0.020	0.80	0.70	0.050	0.040	800	600	24.10	24.00
2007190647	2007191525	0.05	0.05	0.020	0.005	0.10	0.05	0.010	0.010	800	200	14.60	4.20
2007190647	2007191525	0.05	0.05	0.020	0.040	0.30	0.30	0.010	0.020	1700	600	30.40	18.10
2007190647	2007191525	0.05	0.05	0.020	0.080	0.20	0.05	0.010	0.010	900	200	21.40	4.70
2007190647	2007191525	0.10	0.05	0.005	0.040	0.50	0.20	0.010	0.010	1500	400	31.00	14.20
2007190659	2007190739	0.10	0.05	0.005	0.005	0.10	0.10	0.010	0.010	6400	4900	7.30	6.90
2007190659	2007190739	0.30	0.20	0.030	0.020	0.30	0.40	0.050	0.020	21600	15400	23.50	23.20
2007190659	2007190739	0.20	0.20	0.010	0.010	0.30	0.05	0.010	0.010	10600	10400	14.60	6.30
2007190659	2007190739	0.30	0.20	0.020	0.005	0.60	0.30	0.060	0.050	26900	29500	34.30	17.30
2007190661	2007191334	0.05	0.05	0.005	0.005	0.20	0.20	0.010	0.010	1600	1200	11.30	14.30
2007190661	2007191334	0.20	0.05	0.010	0.020	0.40	0.40	0.010	0.010	2900	2500	20.80	24.80
2007190661	2007191334	0.20	0.05	0.005	0.010	0.30	0.30	0.010	0.010	1400	1400	14.80	16.30
2007190661	2007191334	0.20	0.30	0.010	0.020	0.50	0.50	0.030	0.040	2200	2300	24.40	20.20
2007190686	2007191430	0.05	0.05	0.005	0.005	0.05	0.10	0.010	0.010	300	200	10.40	14.50
2007190686	2007191430	0.05	0.05	0.030	0.030	0.30	0.30	0.010	0.010	700	500	33.60	38.60
2007190686	2007191430	0.20	0.05	0.050	0.040	0.50	0.20	0.010	0.010	400	100	43.30	28.20
2007190686	2007191430	0.05	0.10	0.010	0.040	0.20	0.40	0.010	0.030	200	200	17.50	56.40
2007190695	2007190924	0.05	0.05	0.020	0.005	0.05	0.10	0.010	0.010	600	600	4.30	4.80
2007190695	2007190924	0.05	0.05	0.030	0.040	0.30	0.40	0.010	0.020	1100	2000	11.60	15.70
2007190695	2007190924	0.20	0.20	0.030	0.050	0.10	0.20	0.010	0.020	2500	3100	6.10	7.10
2007190695	2007190924	0.20	0.20	0.020	0.005	0.30	0.30	0.010	0.040	3100	4300	10.20	12.80
2007190698	2007190813	0.40	0.30	0.020	0.020	0.70	0.70	0.040	0.040	9900	5200	41.30	30.90
2007190698	2007190813	0.30	0.30	0.010	0.020	0.60	0.70	0.040	0.030	8600	4900	38.80	33.00
2007190698	2007190813	0.40	0.40	0.005	0.010	0.70	0.70	0.040	0.040	5900	4300	40.30	33.90
2007190698	2007190813	0.30	0.30	0.005	0.030	0.70	0.80	0.040	0.040	5700	4000	38.90	33.00
2007190732	2007191450	0.05	0.05	0.010	0.020	0.30	0.30	0.010	0.010	900	1100	11.80	9.20
2007190732	2007191450	0.05	0.05	0.005	0.030	0.40	0.40	0.010	0.010	1200	1400	16.30	13.70
2007190732	2007191450	0.20	0.05	0.005	0.005	0.40	0.30	0.010	0.010	1000	900	13.50	10.80
2007190732	2007191450	0.20	0.05	0.005	0.020	0.50	0.40	0.030	0.010	1400	1200	18.60	13.40
2007190735	2007191549	0.30	0.40	0.005	0.020	0.40	0.50	0.030	0.040	6300	8400	22.40	24.90
2007190735	2007191549	0.20	0.40	0.030	0.020	0.40	0.40	0.030	0.030	4900	6200	17.90	20.40
2007190735	2007191549	0.20	0.40	0.010	0.005	0.50	0.50	0.040	0.040	5800	7000	21.20	23.70
2007190735	2007191549	0.20	0.40	0.005	0.010	0.40	0.40	0.030	0.040	5100	6400	19.70	21.70
2007190743	2007190906	0.20	0.20	0.010	0.060	0.20	0.50	0.010	0.010	4800	6200	14.20	18.60
2007190743	2007190906	0.20	0.30	0.010	0.020	0.40	0.60	0.010	0.010	7100	7500	17.40	20.70
2007190743	2007190906	0.20	0.20	0.020	0.020	0.30	0.40	0.010	0.010	4900	5200	13.30	15.10
2007190743	2007190906	0.30	0.30	0.010	0.050	0.40	0.70	0.010	0.010	6800	8900	18.00	23.90
2007190746	2007191241	0.05	0.05	0.005	0.020	0.05	0.20	0.010	0.010	400	900	2.80	4.40
2007190746	2007191241	0.10	0.10	0.010	0.005	0.10	0.30	0.010	0.010	1400	1800	11.50	13.50
2007190746	2007191241	0.10	0.05	0.020	0.030	0.05	0.20	0.010	0.010	1100	1100	4.80	5.20
2007190746	2007191241	0.20	0.10	0.005	0.005	0.10	0.20	0.010	0.010	1700	1900	10.60	10.50
2007190753	2007191299	0.40	0.20	0.005	0.040	0.50	0.70	0.050	0.010	9900	6300	24.40	16.30
2007190753	2007191299	0.40	0.20	0.005	0.005	0.50	0.90	0.050	0.010	10000	7000	24.00	18.80
2007190753	2007191299	0.30	0.20	0.005	0.005	0.50	0.80	0.050	0.010	11500	6900	23.70	18.50
2007190753	2007191299	0.30	0.20	0.005	0.050	0.50	0.70	0.050	0.010	11700	6800	23.20	17.40
2007190798	2007191229	0.05	0.05	0.005	0.005	0.05	0.05	0.010	0.010	50	50	0.90	1.20
2007190798	2007191229	0.05	0.05	0.005	0.020	0.10	0.10	0.010	0.010	200	200	4.40	4.70
2007190798	2007191229	0.05	0.05	0.005	0.020	0.05	0.05	0.010	0.010	50	50	0.80	0.80

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Li (ppm)	Li (ppm)	Lu (ppm)	Lu (ppm)	Mg (ppm)	Mg (ppm)	Mn (ppm)	Mn (ppm)	Mo (ppm)	Mo (ppm)	Na (ppm)	Na (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1	100	100	1	1	0.01	0.01	10	10
ULD:	ULD:												
2007190527	2007190609	7.60	7.60	0.20	0.20	1900	1900	478	483	3.450	1.640	100	250
2007190531	2007190703	29.20	28.00	0.05	0.20	5900	5400	456	545	0.990	0.210	460	200
2007190531	2007190703	25.40	25.00	0.05	0.05	5000	5000	354	445	0.890	0.150	400	5
2007190531	2007190703	29.10	31.00	0.05	0.05	5900	5600	452	513	0.800	0.220	1340	1000
2007190531	2007190703	27.50	27.90	0.05	0.05	5400	5100	415	446	0.930	0.270	1260	1100
2007190534	2007191522	4.20	6.10	0.05	0.05	700	1000	317	268	0.110	0.630	40	190
2007190534	2007191522	5.00	9.10	0.05	0.05	900	1500	388	431	0.090	0.420	30	230
2007190534	2007191522	3.00	4.30	0.05	0.05	500	500	205	148	0.800	0.120	20	190
2007190534	2007191522	6.10	7.40	0.05	0.05	1000	1200	451	337	0.100	0.300	50	190
2007190536	2007190909	3.10	3.70	0.05	0.05	900	600	61	51	0.110	0.050	160	120
2007190536	2007190909	5.00	5.80	0.05	0.05	2000	1200	147	151	0.200	0.180	200	140
2007190536	2007190909	4.00	6.80	0.05	0.05	1900	1600	56	55	0.180	0.120	220	170
2007190536	2007190909	10.50	13.60	0.05	0.05	5100	4000	193	160	0.660	0.350	310	250
2007190548	2007191236	12.00	9.70	0.10	0.10	4000	3300	410	340	0.230	0.240	90	300
2007190548	2007191236	11.80	11.20	0.20	0.20	3800	3500	432	445	0.190	0.290	100	300
2007190548	2007191236	11.40	9.20	0.10	0.10	3500	3000	337	302	2.910	0.260	70	240
2007190548	2007191236	13.30	12.40	0.20	0.20	4100	3900	468	468	0.440	0.450	120	300
2007190549	2007191507	2.10	1.10	0.05	0.05	200	100	32	26	0.110	0.220	5	5
2007190549	2007191507	6.40	3.30	0.05	0.05	500	400	116	75	0.270	0.510	20	5
2007190549	2007191507	4.90	2.40	0.05	0.05	400	400	56	61	0.150	0.230	80	260
2007190549	2007191507	12.70	6.50	0.05	0.05	1000	1300	193	193	0.280	0.680	230	1030
2007190552	2007190675	6.10	5.40	0.05	0.05	500	600	217	322	0.150	0.220	640	910
2007190552	2007190675	25.40	21.50	0.30	0.20	2500	2400	906	1130	0.520	0.580	2540	3330
2007190552	2007190675	29.50	27.60	0.20	0.20	3400	2900	298	391	0.230	0.270	2980	3010
2007190552	2007190675	79.90	83.40	0.50	0.50	9000	8900	852	1330	0.630	0.630	7780	8560
2007190554	2007190752	2.30	3.80	0.05	0.05	50	50	109	137	0.050	0.120	130	350
2007190554	2007190752	6.90	7.90	0.10	0.05	200	200	344	279	0.940	0.170	130	5
2007190554	2007190752	1.30	8.70	0.05	0.05	50	100	27	59	0.050	0.160	130	5
2007190554	2007190752	5.70	15.30	0.20	0.20	100	200	163	106	0.550	0.250	130	90
2007190583	2007191063	4.10	0.80	0.05	0.05	300	200	242	52	0.260	0.300	40	5
2007190583	2007191063	4.60	1.40	0.05	0.05	300	200	292	50	0.370	0.280	30	5
2007190583	2007191063	4.80	3.60	0.20	0.05	700	600	223	192	0.620	0.710	710	10
2007190583	2007191063	10.80	3.90	0.10	0.05	1000	600	330	247	1.190	1.160	90	10
2007190618	2007191166	11.50	9.70	0.20	0.10	3400	3000	708	645	0.580	0.400	1080	870
2007190618	2007191166	10.80	10.80	0.20	0.10	3500	3400	641	734	0.550	0.400	1570	1540
2007190618	2007191166	12.60	10.70	0.30	0.10	4000	3000	828	631	0.420	0.290	1210	870
2007190618	2007191166	14.90	13.50	0.30	0.20	4600	3900	947	793	0.440	0.400	1590	1380
2007190647	2007191525	3.40	1.60	0.05	0.05	500	100	113	48	0.250	0.040	30	50
2007190647	2007191525	7.00	3.30	0.05	0.05	1000	500	208	185	0.310	0.250	1110	40
2007190647	2007191525	5.30	1.50	0.05	0.05	800	200	59	11	0.190	0.160	1630	40
2007190647	2007191525	8.90	3.80	0.20	0.05	1300	500	101	32	0.330	0.440	2150	40
2007190659	2007190739	9.80	5.00	0.05	0.05	2000	1200	22	18	0.010	0.160	1200	900
2007190659	2007190739	27.80	15.20	0.05	0.20	6400	3600	64	39	0.040	0.240	4150	2750
2007190659	2007190739	13.50	11.10	0.05	0.05	3100	2500	28	36	0.160	0.140	3350	2930
2007190659	2007190739	35.50	30.30	0.20	0.05	8000	7000	72	89	0.080	0.140	7330	8160
2007190661	2007191334	1.00	1.00	0.05	0.05	700	700	360	221	0.090	0.140	60	60
2007190661	2007191334	2.30	1.60	0.10	0.05	1200	1500	730	525	0.200	0.260	70	90
2007190661	2007191334	3.50	1.30	0.05	0.05	1700	1200	334	96	0.270	0.220	220	110
2007190661	2007191334	5.10	6.60	0.10	0.20	2800	3700	702	354	0.970	0.330	330	200
2007190686	2007191430	3.50	3.50	0.05	0.05	100	100	11	7	0.110	0.040	20	30
2007190686	2007191430	11.20	7.60	0.05	0.05	400	300	29	16	0.170	0.070	50	40
2007190686	2007191430	10.70	2.30	0.20	0.05	400	100	11	4	0.160	0.140	40	30
2007190686	2007191430	4.80	5.40	0.05	0.05	200	400	5	9	0.090	0.310	20	50
2007190695	2007190924	1.40	0.90	0.05	0.05	300	200	53	41	0.230	0.140	5	20
2007190695	2007190924	3.00	2.30	0.05	0.05	500	600	142	116	0.450	0.260	5	20
2007190695	2007190924	7.10	4.80	0.05	0.05	1000	800	132	93	0.470	0.320	20	20
2007190695	2007190924	10.10	6.70	0.10	0.10	1300	1200	201	163	0.640	0.800	5	10
2007190698	2007190813	19.70	16.40	0.20	0.20	4900	4500	707	645	0.220	0.140	1160	590
2007190698	2007190813	17.10	14.40	0.20	0.20	4300	3800	682	598	0.270	0.240	990	530
2007190698	2007190813	18.20	20.40	0.20	0.20	5800	6600	636	616	0.180	0.160	2880	2880
2007190698	2007190813	17.40	15.00	0.20	0.20	5600	6300	688	686	0.320	0.430	2860	2720
2007190732	2007191450	3.70	6.40	0.05	0.05	900	1200	368	400	0.050	0.140	800	240
2007190732	2007191450	4.60	7.80	0.10	0.05	1100	1300	401	459	0.050	0.180	540	240
2007190732	2007191450	4.90	5.10	0.10	0.05	1800	1400	491	404	0.190	0.620	890	280
2007190732	2007191450	7.00	8.20	0.10	0.10	2400	1900	686	583	0.580	0.980	1160	320
2007190735	2007191549	9.90	13.50	0.10	0.10	5100	6700	710	653	0.210	0.130	1280	1100
2007190735	2007191549	7.70	10.20	0.05	0.05	3900	4800	571	509	4.790	0.100	1160	810
2007190735	2007191549	8.70	12.80	0.10	0.10	5400	6700	842	640	1.090	0.180	4830	3440
2007190735	2007191549	8.20	12.90	0.10	0.10	5000	6100	1060	646	0.640	0.220	4730	3090
2007190743	2007190906	15.00	20.90	0.05	0.05	6500	6300	269	373	0.330	0.280	370	540
2007190743	2007190906	18.20	26.10	0.10	0.05	9200	8000	353	390	0.390	0.320	530	610
2007190743	2007190906	14.60	20.70	0.05	0.05	7100	6400	319	333	0.400	0.270	2810	2710
2007190743	2007190906	21.50	35.70	0.10	0.05	10400	10500	422	522	0.500	0.360	3800	4540
2007190746	2007191241	0.90	1.70	0.05	0.05	300	500	25	40	0.190	0.180	10	240
2007190746	2007191241	2.50	3.70	0.05	0.05	900	1200	102	100	0.190	0.150	80	300
2007190746	2007191241	2.50	2.10	0.05	0.05	800	800	60	46	0.190	0.160	610	370
2007190746	2007191241	4.30	4.10	0.05	0.05	1600	1400	108	84	0.220	0.180	1180	480
2007190753	2007191299	17.20	14.40	0.20	0.05	4800	3900	543	496	0.090	0.240	380	310
2007190753	2007191299	12.40	17.30	0.10	0.05	4500	4100	605	637	0.130	0.170	430	320
2007190753	2007191299	17.20	16.30	0.10	0.05	5500	4300	529	498	0.200	0.100	3580	1910
2007190753	2007191299	16.80	15.70	0.20	0.05	5500	4300	574	495	0.270	0.150	3850	1980
2007190798	2007191229	0.80	0.80	0.05	0.05	50	100	4	9	0.005	0.005	5	1950
2007190798	2007191229	1.40	2.70	0.05	0.05	200	300	10	32	0.005	0.005	5	1840
2007190798	2007191229	0.30	0.70	0.05	0.05	50	50	5	6	0.005	0.005	5	1540

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Nb (ppm)	Nb (ppm)	Nd (ppm)	Nd (ppm)	Ni (ppm)	Ni (ppm)	Pb (ppm)	Pb (ppm)	Pr (ppm)	Pr (ppm)	Rb (ppm)	Rb (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.02	0.02	0.1	0.1	0.01	0.01	0.1	0.1	0.1	0.1
ULD:	ULD:												
2007190527	2007190609	0.10	0.05	19.000	23.600	23.60	21.50	7.410	7.850	4.60	6.00	19.30	15.60
2007190531	2007190703	0.05	0.05	12.500	13.800	18.40	18.90	9.290	11.300	3.00	3.40	19.50	9.50
2007190531	2007190703	0.05	0.05	11.200	13.100	16.20	17.20	8.040	9.990	2.70	3.40	15.40	8.10
2007190531	2007190703	0.05	0.05	12.500	14.100	18.50	20.40	9.160	11.500	2.80	3.60	17.40	9.50
2007190531	2007190703	0.05	0.05	12.000	13.000	17.00	19.70	8.710	10.400	2.80	3.30	16.20	8.80
2007190534	2007191522	0.10	0.20	12.000	14.500	5.70	9.10	7.600	16.000	3.00	3.10	10.60	11.80
2007190534	2007191522	0.20	0.30	19.500	25.900	7.00	12.20	10.500	14.800	4.80	5.90	13.50	15.60
2007190534	2007191522	0.05	0.10	8.240	10.200	4.30	5.20	5.210	4.990	2.20	2.40	8.00	8.10
2007190534	2007191522	0.20	0.20	26.800	52.800	9.60	9.80	11.700	11.800	7.00	14.20	13.80	15.10
2007190536	2007190909	0.05	0.05	3.950	4.690	4.40	4.10	2.870	2.610	1.10	1.10	6.40	4.40
2007190536	2007190909	0.20	0.30	18.600	22.100	10.60	12.40	5.230	4.030	4.60	5.40	12.30	8.60
2007190536	2007190909	0.05	0.05	6.030	5.790	6.90	7.70	3.840	3.070	1.50	1.40	9.00	7.60
2007190536	2007190909	0.20	0.20	20.900	19.400	19.00	17.30	6.750	5.600	5.40	4.70	23.90	17.80
2007190548	2007191236	1.40	1.10	21.300	21.200	17.80	20.50	13.200	12.500	5.40	5.70	43.30	29.20
2007190548	2007191236	1.30	1.10	29.700	34.100	18.10	22.80	15.300	16.600	7.90	9.60	39.00	30.80
2007190548	2007191236	0.90	0.70	17.400	18.700	29.20	18.60	11.000	11.700	4.60	5.00	33.20	24.70
2007190548	2007191236	0.90	1.00	32.500	36.400	20.50	28.50	17.900	19.700	8.60	9.50	39.30	29.80
2007190549	2007191507	0.05	0.10	1.170	1.570	3.20	1.40	2.860	2.190	0.30	0.50	3.90	4.00
2007190549	2007191507	0.20	0.20	6.870	7.860	8.00	4.30	6.920	4.930	1.90	2.40	11.50	9.40
2007190549	2007191507	0.05	0.10	2.140	2.800	3.80	2.60	3.260	2.720	0.60	0.80	6.20	6.10
2007190549	2007191507	0.10	0.20	7.360	9.570	10.80	8.00	7.360	6.530	2.00	2.90	15.60	15.60
2007190552	2007190675	0.10	0.20	10.900	7.970	4.30	4.30	4.440	6.630	2.80	2.10	8.90	9.90
2007190552	2007190675	0.40	0.40	58.400	36.000	18.60	14.30	19.800	25.000	15.10	9.30	35.50	35.00
2007190552	2007190675	0.05	0.10	34.900	19.800	19.40	15.40	11.300	15.000	8.50	5.00	40.70	41.20
2007190552	2007190675	0.10	0.10	96.900	63.500	49.80	44.00	28.300	43.700	23.50	16.10	104.00	124.00
2007190554	2007190752	0.50	0.05	5.810	7.620	2.20	4.10	4.740	7.430	1.40	2.00	3.60	5.30
2007190554	2007190752	0.60	0.20	20.000	16.600	6.40	7.00	13.300	14.300	5.10	4.40	9.70	10.00
2007190554	2007190752	0.30	0.05	4.560	17.700	1.00	7.00	4.830	10.700	1.10	4.50	1.70	5.80
2007190554	2007190752	0.40	0.05	29.300	30.800	5.50	9.50	14.900	18.100	6.90	8.00	7.20	9.10
2007190583	2007191063	0.10	0.05	8.210	8.530	6.60	1.50	3.980	3.530	2.00	2.90	10.40	7.10
2007190583	2007191063	0.20	0.05	14.400	8.900	5.70	1.60	4.560	4.080	3.60	3.00	13.10	8.50
2007190583	2007191063	0.10	0.10	11.500	12.800	9.60	8.80	5.940	6.140	2.80	4.10	15.40	15.60
2007190583	2007191063	0.10	0.10	17.400	15.300	15.50	10.40	8.000	7.420	4.20	5.00	34.50	16.20
2007190618	2007191166	2.10	1.90	17.200	14.000	33.10	27.10	9.270	19.800	4.60	3.80	11.30	7.90
2007190618	2007191166	2.10	2.30	15.900	15.000	33.20	31.90	9.230	22.500	4.20	4.00	11.20	10.40
2007190618	2007191166	0.90	0.90	18.400	16.300	41.60	29.60	7.220	7.030	4.90	4.40	10.40	7.20
2007190618	2007191166	1.10	1.20	20.800	20.600	48.00	38.60	8.010	9.270	5.60	5.50	11.40	8.80
2007190647	2007191525	0.30	0.05	15.100	3.160	4.20	0.80	10.800	3.190	3.90	0.70	15.20	5.80
2007190647	2007191525	0.40	0.20	27.600	11.700	6.90	2.60	17.000	11.800	7.50	3.10	30.30	16.60
2007190647	2007191525	0.20	0.05	19.900	3.320	5.70	1.10	13.300	3.700	5.30	0.80	19.00	7.00
2007190647	2007191525	0.20	0.20	31.800	9.350	8.80	3.20	20.100	9.060	8.10	3.90	30.50	18.70
2007190659	2007190739	0.05	0.05	4.640	6.280	9.90	6.20	4.660	4.920	1.40	1.70	24.00	11.80
2007190659	2007190739	0.05	0.10	15.500	20.800	31.30	19.30	16.300	14.200	4.40	5.70	66.80	32.60
2007190659	2007190739	0.05	0.05	11.000	5.000	15.60	14.10	8.650	6.570	3.10	1.40	29.50	27.80
2007190659	2007190739	0.05	0.05	25.200	13.700	42.60	37.00	21.600	17.500	7.20	4.00	77.40	75.90
2007190661	2007191334	0.70	0.20	9.000	9.450	7.40	6.30	2.490	1.690	2.40	2.60	8.60	6.50
2007190661	2007191334	1.30	0.30	17.600	17.100	15.30	13.70	5.320	3.860	4.50	4.60	15.30	11.00
2007190661	2007191334	0.20	0.05	12.400	11.700	20.00	10.20	3.660	2.040	3.20	3.10	13.50	12.20
2007190661	2007191334	0.40	0.20	19.800	21.000	41.60	34.00	7.060	8.100	5.20	5.40	21.40	31.40
2007190686	2007191430	0.05	0.05	10.200	9.740	1.10	0.05	7.920	5.800	2.70	2.90	8.00	9.00
2007190686	2007191430	0.20	0.10	30.700	26.600	2.50	0.60	21.700	13.600	8.70	8.30	21.60	19.50
2007190686	2007191430	0.05	0.05	40.400	17.900	2.60	0.05	19.100	6.780	10.70	5.50	18.80	6.40
2007190686	2007191430	0.05	0.05	17.300	37.600	1.80	6.50	9.050	12.800	4.50	11.30	9.10	11.80
2007190695	2007190924	0.05	0.05	4.950	4.060	3.50	2.30	4.290	3.000	1.30	1.10	5.80	5.70
2007190695	2007190924	0.10	0.10	14.700	12.400	7.00	4.50	9.620	7.140	3.60	3.60	12.50	16.10
2007190695	2007190924	0.05	0.05	6.800	5.690	9.60	6.80	8.160	5.640	1.70	1.70	27.20	27.50
2007190695	2007190924	0.05	0.05	11.600	10.200	11.70	11.50	10.800	9.340	2.90	3.10	36.50	40.70
2007190698	2007190813	0.30	0.20	37.800	28.700	27.80	23.80	18.400	15.900	9.60	7.40	61.70	48.00
2007190698	2007190813	0.30	0.30	37.100	31.600	26.40	22.00	15.300	15.000	9.50	8.10	54.40	41.40
2007190698	2007190813	0.10	0.10	37.200	30.900	26.40	28.70	17.900	17.500	9.40	8.00	53.20	48.40
2007190698	2007190813	0.10	0.10	35.800	31.200	25.80	30.00	15.300	16.700	9.20	8.00	50.20	45.20
2007190732	2007191450	0.05	0.10	12.600	11.700	7.10	7.00	7.420	8.490	3.10	2.70	15.10	13.90
2007190732	2007191450	0.10	0.20	18.400	16.300	8.60	8.20	8.410	7.820	4.60	3.90	18.40	18.10
2007190732	2007191450	0.05	0.05	14.600	10.300	13.00	9.90	9.020	7.490	3.60	2.70	15.50	11.10
2007190732	2007191450	0.05	0.05	19.700	14.300	21.00	15.80	11.900	10.500	4.80	3.20	20.60	15.00
2007190735	2007191549	0.05	0.10	22.600	23.100	21.30	23.60	9.990	10.900	5.80	6.00	32.30	37.00
2007190735	2007191549	0.05	0.10	18.700	19.100	33.40	17.50	21.800	8.600	4.70	5.00	24.40	27.60
2007190735	2007191549	0.05	0.05	22.200	22.400	24.40	23.60	18.900	10.500	5.60	5.90	28.90	34.30
2007190735	2007191549	0.05	0.05	21.400	20.400	23.20	21.60	13.800	9.710	5.20	5.30	26.80	30.60
2007190743	2007190906	0.05	0.05	15.300	14.900	17.70	19.20	9.660	10.700	3.70	3.60	27.30	26.20
2007190743	2007190906	0.05	0.05	20.200	18.200	21.40	22.70	12.000	11.900	5.00	4.20	35.40	30.20
2007190743	2007190906	0.05	0.05	14.300	13.500	16.40	17.70	9.670	8.580	3.50	3.20	25.40	21.20
2007190743	2007190906	0.05	0.05	19.400	19.900	22.10	27.40	13.300	14.000	4.80	5.00	38.60	37.90
2007190746	2007191241	0.05	0.05	3.170	4.030	2.60	3.60	1.470	2.540	0.80	1.00	2.10	3.70
2007190746	2007191241	0.30	0.10	12.500	10.400	9.40	6.90	3.040	3.760	3.20	2.80	7.00	7.70
2007190746	2007191241	0.05	0.05	5.020	4.080	4.30	4.20	2.640	2.850	1.20	1.00	6.70	5.30
2007190746	2007191241	0.10	0.05	11.100	9.590	8.50	8.10	3.870	3.960	2.80	2.30	11.60	9.40
2007190753	2007191299	0.05	0.05	26.300	18.000	21.40	20.30	12.200	10.500	6.60	4.00	35.90	22.80
2007190753	2007191299	0.05	0.10	26.300	20.200	21.10	20.10	12.600	11.300	6.70	4.60	35.30	25.00
2007190753	2007191299	0.05	0.05	26.300	16.800	21.50	20.10	11.700	10.700	6.40	4.00	37.30	24.10
2007190753	2007191299	0.05	0.05	25.300	18.200	59.10	22.40	12.100	11.600	6.50	4.00	37.50	24.50
2007190798	2007191229	0.05	0.40	0.760	1.000	2.70	0.05	1.940	1.780	0.20	0.30	1.30	1.50
2007190798	2007191229	0.05	0.40	4.160	4.130	2.40	2.00	3.990	4.220	1.10	1.20	3.10	4.10
2007190798	2007191229	0.05	0.20	0.740	0.600	1.50	0.05	1.520	1.700	0.20	0.20	0.90	1.30

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Re (ppm)	Re (ppm)	Sb (ppm)	Sb (ppm)	Sc (ppm)	Sc (ppm)	Se (ppm)	Se (ppm)	Sm (ppm)	Sm (ppm)	Sn (ppm)	Sn (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.001	0.001	0.02	0.02	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.05
ULD:	ULD:												
2007190527	2007190609	0.0030	0.0020	0.110	0.070	6.30	5.60	0.70	0.30	4.50	4.70	0.720	0.810
2007190531	2007190703	0.0020	0.0020	0.120	0.110	9.60	5.70	0.60	0.05	3.30	3.50	1.050	0.650
2007190531	2007190703	0.0030	0.0040	0.080	0.080	7.50	4.90	0.90	0.60	2.80	3.30	0.840	0.520
2007190531	2007190703	0.0005	0.0005	0.130	0.100	8.90	5.90	0.05	0.40	3.10	3.70	0.960	0.660
2007190531	2007190703	0.0010	0.0005	0.150	0.070	8.20	5.40	0.30	0.40	3.00	3.40	0.920	0.720
2007190534	2007191522	0.0050	0.0005	0.120	0.140	1.80	2.40	0.20	0.05	2.60	3.10	0.540	0.510
2007190534	2007191522	0.0020	0.0005	0.140	0.190	2.40	4.80	0.80	0.20	4.40	5.20	0.680	0.700
2007190534	2007191522	0.0040	0.0005	0.080	0.080	1.30	1.60	0.40	0.20	1.90	1.90	0.380	0.440
2007190534	2007191522	0.0040	0.0010	0.200	4.980	3.20	3.50	0.80	0.40	5.90	8.50	0.750	0.860
2007190536	2007190909	0.0005	0.0020	0.070	0.080	1.10	0.30	0.40	0.20	0.70	0.90	0.380	0.360
2007190536	2007190909	0.0005	0.0020	0.070	0.110	2.90	2.40	0.70	0.05	3.50	4.30	0.660	0.670
2007190536	2007190909	0.0005	0.0005	1.270	0.100	2.00	1.70	0.30	0.05	1.20	1.10	0.420	0.520
2007190536	2007190909	0.0020	0.0005	0.140	0.120	6.40	5.60	0.30	0.10	3.70	3.60	1.110	1.090
2007190548	2007191236	0.0005	0.0005	0.080	0.230	6.60	4.40	0.05	0.50	5.00	3.70	0.940	1.090
2007190548	2007191236	0.0020	0.0005	0.100	0.410	6.90	5.50	0.40	0.80	7.00	5.70	1.110	1.330
2007190548	2007191236	0.0005	0.0005	0.010	0.230	5.80	3.20	0.05	0.30	4.30	3.50	0.970	0.990
2007190548	2007191236	0.0005	0.0005	0.120	0.290	7.70	6.20	0.30	0.80	7.90	6.70	1.370	1.180
2007190549	2007191507	0.0005	0.0020	0.070	1.520	1.10	0.80	0.10	0.05	0.20	0.40	0.490	0.400
2007190549	2007191507	0.0005	0.0030	0.090	0.150	3.50	3.50	0.05	0.05	1.30	1.60	0.990	1.040
2007190549	2007191507	0.0005	0.0010	0.070	0.120	1.50	1.40	0.20	0.30	0.40	0.60	0.570	0.470
2007190549	2007191507	0.0005	0.0040	0.110	0.250	4.30	5.20	0.40	0.40	1.40	2.00	1.190	1.290
2007190552	2007190675	0.0005	0.0030	0.060	0.050	0.70	1.10	0.50	0.40	1.90	1.50	0.310	0.350
2007190552	2007190675	0.0005	0.0005	0.110	0.120	4.60	4.10	1.30	0.90	11.20	6.80	0.820	0.850
2007190552	2007190675	0.0005	0.0005	0.060	0.070	4.70	4.00	0.80	0.70	6.60	3.90	0.640	0.600
2007190552	2007190675	0.0005	0.0005	0.160	0.170	14.60	14.50	1.80	1.60	18.00	12.30	1.730	1.830
2007190554	2007190752	0.0020	0.0005	0.110	0.080	1.20	2.30	0.60	0.05	1.20	1.60	0.630	0.670
2007190554	2007190752	0.0030	0.0005	0.170	0.090	4.50	4.50	1.20	0.05	4.20	3.30	1.190	1.110
2007190554	2007190752	0.0005	0.0005	0.090	0.230	0.90	5.30	0.05	0.05	0.90	3.50	0.570	0.880
2007190554	2007190752	0.0005	0.0005	0.260	0.100	7.10	8.90	0.40	0.05	6.40	6.10	1.000	1.480
2007190583	2007191063	0.0040	0.0005	0.190	0.140	1.50	2.20	0.70	0.70	1.80	2.10	0.650	0.400
2007190583	2007191063	0.0050	0.0005	0.120	0.090	2.20	2.40	0.60	0.30	3.30	2.40	0.630	0.350
2007190583	2007191063	0.0005	0.0005	0.180	0.150	4.80	5.50	0.90	0.05	2.60	3.60	1.000	0.850
2007190583	2007191063	0.0040	0.0020	0.680	0.330	6.10	5.70	0.60	0.20	4.10	4.00	1.140	0.960
2007190618	2007191166	0.0005	0.0020	0.100	0.070	9.80	8.10	0.70	0.80	3.50	3.00	0.890	0.790
2007190618	2007191166	0.0005	0.0020	0.100	0.060	9.60	9.30	0.05	0.20	3.20	3.20	0.830	0.940
2007190618	2007191166	0.0005	0.0005	0.110	0.070	14.10	11.10	0.40	0.30	3.80	3.40	0.850	0.790
2007190618	2007191166	0.0005	0.0005	0.110	0.120	17.10	14.70	0.70	0.50	4.40	4.40	1.180	1.010
2007190647	2007191525	0.0005	0.0005	0.460	0.220	1.10	1.00	0.10	0.10	2.80	0.60	0.610	0.190
2007190647	2007191525	0.0020	0.0005	0.600	0.380	2.10	1.70	0.60	0.20	5.00	2.20	1.130	0.690
2007190647	2007191525	0.0005	0.0005	0.430	0.270	1.60	0.80	0.30	0.30	3.70	0.60	0.880	0.160
2007190647	2007191525	0.0005	0.0005	0.530	0.430	3.30	1.70	0.70	0.20	6.00	1.70	1.310	0.570
2007190659	2007190739	0.0005	0.0005	0.010	0.020	4.00	2.30	0.50	0.40	0.90	1.20	0.510	0.310
2007190659	2007190739	0.0005	0.0010	0.090	0.090	11.90	6.40	1.00	0.50	3.00	3.90	1.450	0.880
2007190659	2007190739	0.0005	0.0005	0.060	0.080	5.50	4.60	0.80	0.50	2.30	0.90	0.740	0.660
2007190659	2007190739	0.0005	0.0010	0.100	0.120	14.70	12.20	1.10	0.30	5.40	2.60	1.760	1.570
2007190661	2007191334	0.0005	0.0040	0.010	0.010	1.90	2.00	0.70	0.10	1.90	2.10	0.200	0.180
2007190661	2007191334	0.0005	0.0005	0.010	0.010	3.90	4.60	1.10	1.60	3.70	3.60	0.500	0.450
2007190661	2007191334	0.0005	0.0005	0.010	0.010	4.00	3.20	0.90	0.60	2.80	2.50	0.460	0.350
2007190661	2007191334	0.0005	0.0005	0.030	0.080	7.10	8.00	0.80	0.05	4.40	4.50	1.670	0.980
2007190686	2007191430	0.0005	0.0005	0.010	0.010	1.40	1.90	0.10	0.10	1.90	2.10	0.530	0.280
2007190686	2007191430	0.0005	0.0005	0.090	0.030	4.00	5.00	0.40	0.20	5.70	5.50	1.420	0.710
2007190686	2007191430	0.0005	0.0020	0.040	0.030	8.40	4.70	0.90	0.10	7.20	3.50	2.000	0.550
2007190686	2007191430	0.0005	0.0005	0.010	0.130	3.70	9.40	0.30	0.70	3.20	7.10	0.930	1.230
2007190695	2007190924	0.0005	0.0010	0.120	0.180	1.10	1.00	0.50	0.20	0.90	0.90	0.410	0.270
2007190695	2007190924	0.0010	0.0005	0.190	0.250	3.50	3.30	0.30	0.50	2.90	2.70	0.860	0.880
2007190695	2007190924	0.0005	0.0005	0.230	0.250	5.80	4.70	0.40	0.90	1.40	1.40	1.410	1.030
2007190695	2007190924	0.0005	0.0005	0.320	0.330	7.50	7.50	0.80	0.80	2.30	2.40	1.840	1.620
2007190698	2007190813	0.0010	0.0005	0.180	0.150	10.30	7.50	0.60	0.10	7.00	5.70	1.810	1.500
2007190698	2007190813	0.0010	0.0020	0.170	0.190	9.20	6.80	0.90	0.20	6.90	6.00	1.640	1.450
2007190698	2007190813	0.0005	0.0005	0.160	0.120	9.80	9.20	0.50	0.10	6.90	6.10	1.820	1.920
2007190698	2007190813	0.0005	0.0005	0.160	0.180	9.20	8.50	0.60	0.10	6.50	6.40	1.680	1.830
2007190732	2007191450	0.0020	0.0005	0.070	0.130	2.80	3.90	0.05	0.05	2.60	2.50	0.600	0.430
2007190732	2007191450	0.0005	0.0005	0.060	0.080	3.60	5.00	0.05	0.05	3.60	3.30	0.690	0.610
2007190732	2007191450	0.0020	0.0005	0.070	0.060	4.00	3.20	0.05	0.05	3.00	2.30	0.680	0.510
2007190732	2007191450	0.0005	0.0005	0.080	0.060	5.40	5.00	0.05	0.05	4.10	3.30	0.840	0.680
2007190735	2007191549	0.0020	0.0005	0.140	0.140	8.50	10.50	0.20	0.50	4.50	4.60	1.100	1.320
2007190735	2007191549	0.0005	0.0010	0.130	0.090	6.50	7.70	0.30	0.30	3.70	3.90	0.940	0.910
2007190735	2007191549	0.0005	0.0005	0.130	0.140	8.40	9.90	0.50	0.40	4.60	4.70	1.160	1.230
2007190735	2007191549	0.0010	0.0010	0.150	0.140	7.70	8.90	0.60	0.30	4.30	4.20	1.150	1.250
2007190743	2007190906	0.0020	0.0020	0.240	0.330	6.40	7.30	0.60	0.20	3.10	3.20	0.840	1.010
2007190743	2007190906	0.0020	0.0010	0.320	0.290	8.70	9.30	0.40	0.10	4.00	3.90	1.180	1.180
2007190743	2007190906	0.0005	0.0010	0.260	0.270	5.90	6.40	0.70	0.20	2.80	2.60	1.030	1.020
2007190743	2007190906	0.0030	0.0010	0.270	0.450	7.90	11.20	0.60	0.50	4.00	4.20	1.320	1.790
2007190746	2007191241	0.0005	0.0005	0.050	0.150	0.40	0.30	0.20	0.05	0.60	0.80	0.160	0.520
2007190746	2007191241	0.0005	0.0005	0.070	0.210	1.70	1.20	0.50	0.40	2.30	2.00	0.420	1.020
2007190746	2007191241	0.0010	0.0005	0.050	0.120	1.30	0.40	0.40	0.05	0.90	0.90	0.340	0.540
2007190746	2007191241	0.0005	0.0005	0.070	0.140	2.50	1.90	0.50	0.05	2.20	1.90	0.490	0.690
2007190753	2007191299	0.0020	0.0030	0.070	0.220	11.80	10.50	0.30	0.20	5.40	3.90	1.130	1.300
2007190753	2007191299	0.0005	0.0005	0.100	0.190	11.40	11.50	0.40	0.60	5.20	4.10	1.270	1.470
2007190753	2007191299	0.0005	0.0030	0.130	0.180	11.70	9.20	0.30	0.40	5.30	3.80	1.230	1.370
2007190753	2007191299	0.0005	0.0020	0.100	0.170	11.70	10.00	0.80	0.40	5.40	4.10	1.080	1.380
2007190798	2007191229	0.0020	0.0005	0.160	0.020	0.40	0.60	0.05	0.05	0.20	0.20	1.430	0.220
2007190798	2007191229	0.0005	0.0005	0.080	0.040	1.20	1.50	0.05	0.05	0.90	0.80	0.550	0.460
2007190798	2007191229	0.0005	0.0005	0.060	0.030	0.40	0.40	0.05	0.05	0.10	0.10	0.530	0.120

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Sr (ppm)	Sr (ppm)	Ta (ppm)	Ta (ppm)	Tb (ppm)	Tb (ppm)	Te (ppm)	Te (ppm)	Th (ppm)	Th (ppm)	Tl (ppm)	Tl (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.5	0.5	0.05	0.05	0.1	0.1	0.02	0.02	0.1	0.1	0.02	0.02
ULD:	ULD:	1000	1000										
2007190527	2007190609	64.20	51.00	0.025	0.025	0.70	0.50	0.080	0.050	8.80	7.30	0.130	0.120
2007190531	2007190703	149.00	137.00	0.025	0.025	0.40	0.50	0.070	0.070	3.90	3.40	0.090	0.040
2007190531	2007190703	128.00	122.00	0.025	0.025	0.40	0.40	0.030	0.040	3.40	2.70	0.070	0.050
2007190531	2007190703	147.00	137.00	0.025	0.025	0.40	0.50	0.030	0.010	3.70	3.10	0.080	0.060
2007190531	2007190703	132.00	123.00	0.025	0.025	0.40	0.40	0.030	0.010	3.60	2.90	0.080	0.040
2007190534	2007191522	36.70	30.20	0.025	0.025	0.30	0.30	0.110	0.050	3.10	3.50	0.090	0.120
2007190534	2007191522	49.30	50.40	0.025	0.025	0.40	0.40	0.010	0.030	5.60	4.60	0.110	0.140
2007190534	2007191522	24.30	16.40	0.025	0.025	0.20	0.10	0.030	0.030	3.10	3.00	0.080	0.070
2007190534	2007191522	61.80	39.70	0.025	0.025	0.60	0.70	0.010	0.040	10.80	24.10	0.140	0.140
2007190536	2007190909	11.40	8.00	0.025	0.025	0.05	0.05	0.010	0.010	1.90	2.60	0.040	0.030
2007190536	2007190909	23.20	17.80	0.025	0.025	0.40	0.30	0.040	0.020	12.80	11.90	0.080	0.050
2007190536	2007190909	17.30	19.20	0.025	0.025	0.10	0.10	0.020	0.100	3.50	2.20	0.060	0.050
2007190536	2007190909	59.70	54.50	0.025	0.025	0.40	0.40	0.040	0.010	9.10	8.40	0.140	0.110
2007190548	2007191236	44.90	35.20	0.025	0.025	0.50	0.30	0.080	0.030	9.30	8.90	0.270	0.200
2007190548	2007191236	53.40	50.40	0.025	0.025	0.70	0.60	0.010	0.040	14.10	18.80	0.230	0.240
2007190548	2007191236	36.70	30.50	0.025	0.025	0.50	0.40	0.010	0.040	8.00	10.60	0.230	0.200
2007190548	2007191236	54.50	47.50	0.025	0.025	0.80	0.60	0.030	0.070	16.10	18.80	0.270	0.210
2007190549	2007191507	2.80	1.60	0.025	0.025	0.05	0.05	0.060	0.010	1.50	1.90	0.030	0.030
2007190549	2007191507	5.60	3.40	0.025	0.025	0.10	0.10	0.070	0.010	5.00	5.70	0.070	0.070
2007190549	2007191507	4.20	2.50	0.025	0.025	0.05	0.05	0.030	0.010	2.10	2.60	0.040	0.050
2007190549	2007191507	11.90	6.60	0.025	0.025	0.20	0.20	0.050	0.010	5.50	7.30	0.110	0.110
2007190552	2007190675	13.60	16.80	0.025	0.025	0.20	0.10	0.010	0.030	1.90	1.50	0.040	0.040
2007190552	2007190675	48.20	57.80	0.025	0.025	1.40	0.80	0.010	0.020	8.00	7.10	0.150	0.160
2007190552	2007190675	26.10	23.90	0.025	0.025	0.80	0.40	0.050	0.050	4.00	4.10	0.160	0.160
2007190552	2007190675	64.20	66.70	0.025	0.025	1.90	1.20	0.100	0.120	9.80	10.80	0.440	0.440
2007190554	2007190752	0.70	1.30	0.025	0.025	0.10	0.20	0.010	0.010	2.50	4.40	0.040	0.070
2007190554	2007190752	2.20	2.40	0.025	0.025	0.50	0.40	0.010	0.010	7.60	8.80	0.120	0.140
2007190554	2007190752	0.25	1.20	0.025	0.025	0.10	0.40	0.010	0.010	2.20	9.00	0.020	0.080
2007190554	2007190752	1.60	2.20	0.025	0.025	0.70	0.70	0.010	0.010	9.40	15.70	0.090	0.130
2007190583	2007191063	5.70	3.50	0.025	0.025	0.20	0.20	0.050	0.040	2.80	2.20	0.050	0.050
2007190583	2007191063	7.30	2.80	0.025	0.025	0.30	0.20	0.050	0.080	4.60	2.90	0.090	0.050
2007190583	2007191063	9.70	9.20	0.025	0.025	0.30	0.30	0.060	0.050	5.80	5.60	0.090	0.120
2007190583	2007191063	14.90	9.80	0.025	0.025	0.50	0.40	0.010	0.090	7.60	6.30	0.200	0.110
2007190618	2007191166	47.30	51.40	0.025	0.025	0.40	0.30	0.010	0.010	2.50	1.30	0.060	0.050
2007190618	2007191166	51.20	62.40	0.025	0.025	0.40	0.30	0.030	0.010	2.10	2.00	0.060	0.050
2007190618	2007191166	53.00	49.40	0.025	0.025	0.50	0.30	0.060	0.070	2.90	2.80	0.060	0.050
2007190618	2007191166	54.60	59.80	0.025	0.025	0.60	0.50	0.030	0.010	3.60	3.40	0.050	0.050
2007190647	2007191525	11.00	9.20	0.025	0.025	0.20	0.05	0.040	0.030	4.20	1.30	0.100	0.030
2007190647	2007191525	19.40	9.50	0.025	0.025	0.40	0.30	0.040	0.070	8.40	3.10	0.190	0.090
2007190647	2007191525	7.90	1.50	0.025	0.025	0.30	0.05	0.010	0.050	7.80	1.90	0.130	0.040
2007190647	2007191525	13.00	5.20	0.025	0.025	0.50	0.20	0.030	0.010	11.70	4.50	0.190	0.110
2007190659	2007190739	6.80	10.70	0.025	0.025	0.05	0.10	0.010	0.130	3.80	3.80	0.080	0.040
2007190659	2007190739	22.40	32.90	0.025	0.025	0.30	0.30	0.060	0.050	12.90	12.20	0.220	0.110
2007190659	2007190739	17.80	12.40	0.025	0.025	0.30	0.05	0.050	0.020	8.20	4.50	0.100	0.100
2007190659	2007190739	48.40	34.50	0.025	0.025	0.60	0.30	0.090	0.040	18.60	12.80	0.270	0.240
2007190661	2007191334	16.20	22.70	0.025	0.025	0.20	0.20	0.080	0.010	1.40	1.50	0.030	0.020
2007190661	2007191334	32.70	51.20	0.025	0.025	0.40	0.40	0.110	0.070	3.20	2.40	0.040	0.050
2007190661	2007191334	37.70	31.60	0.025	0.025	0.30	0.30	0.010	0.070	2.30	2.00	0.060	0.050
2007190661	2007191334	66.10	63.30	0.025	0.025	0.50	0.50	0.080	0.010	4.20	4.80	0.090	0.090
2007190686	2007191430	1.00	0.25	0.025	0.025	0.10	0.10	0.040	0.010	4.80	5.80	0.100	0.110
2007190686	2007191430	2.40	0.80	0.025	0.025	0.40	0.40	0.020	0.060	13.20	13.00	0.270	0.240
2007190686	2007191430	1.80	0.25	0.025	0.025	0.60	0.20	0.010	0.030	20.40	8.80	0.260	0.090
2007190686	2007191430	0.90	0.80	0.025	0.025	0.20	0.50	0.030	0.010	8.30	17.20	0.120	0.220
2007190695	2007190924	2.10	2.20	0.025	0.025	0.05	0.05	0.040	0.050	1.60	1.60	0.030	0.020
2007190695	2007190924	4.50	4.00	0.025	0.025	0.30	0.30	0.040	0.050	2.80	3.40	0.080	0.060
2007190695	2007190924	5.30	4.60	0.025	0.025	0.10	0.10	0.040	0.070	4.00	4.10	0.170	0.120
2007190695	2007190924	6.80	7.30	0.025	0.025	0.30	0.30	0.020	0.070	6.70	6.50	0.270	0.180
2007190698	2007190813	56.90	42.60	0.025	0.025	0.70	0.60	0.020	0.090	11.10	9.60	0.340	0.250
2007190698	2007190813	53.40	38.70	0.025	0.025	0.70	0.70	0.080	0.010	10.20	10.30	0.280	0.210
2007190698	2007190813	70.00	71.80	0.025	0.025	0.60	0.70	0.040	0.030	11.00	10.60	0.330	0.280
2007190698	2007190813	74.70	76.60	0.025	0.025	0.70	0.70	0.050	0.080	10.60	10.50	0.300	0.240
2007190732	2007191450	18.30	18.50	0.025	0.025	0.30	0.20	0.010	0.030	3.10	3.00	0.080	0.090
2007190732	2007191450	23.60	25.30	0.025	0.025	0.40	0.30	0.010	0.030	4.30	3.70	0.090	0.100
2007190732	2007191450	42.00	28.00	0.025	0.025	0.30	0.30	0.010	0.010	4.40	4.40	0.100	0.080
2007190732	2007191450	62.40	40.20	0.025	0.025	0.50	0.40	0.010	0.040	6.40	5.50	0.130	0.110
2007190735	2007191549	83.20	84.90	0.025	0.025	0.40	0.40	0.050	0.020	5.80	5.50	0.180	0.210
2007190735	2007191549	66.30	64.40	0.025	0.025	0.30	0.30	0.040	0.030	4.70	4.70	0.140	0.160
2007190735	2007191549	92.20	89.40	0.025	0.025	0.50	0.40	0.050	0.010	7.10	5.50	0.180	0.200
2007190735	2007191549	92.10	81.20	0.025	0.025	0.40	0.40	0.020	0.060	5.60	5.10	0.170	0.170
2007190743	2007190906	59.10	68.70	0.025	0.025	0.30	0.30	0.060	0.010	4.50	5.70	0.150	0.150
2007190743	2007190906	78.00	67.50	0.025	0.025	0.40	0.40	0.050	0.010	5.80	6.90	0.190	0.170
2007190743	2007190906	92.40	73.30	0.025	0.025	0.30	0.30	0.020	0.040	4.30	4.50	0.150	0.130
2007190743	2007190906	131.00	117.00	0.025	0.025	0.40	0.50	0.040	0.010	6.70	7.60	0.230	0.210
2007190746	2007191241	5.50	10.60	0.025	0.025	0.05	0.05	0.010	0.020	1.20	1.80	0.010	0.020
2007190746	2007191241	17.90	19.80	0.025	0.025	0.20	0.30	0.040	0.020	4.80	5.60	0.050	0.060
2007190746	2007191241	14.40	17.40	0.025	0.025	0.05	0.10	0.050	0.020	1.80	2.40	0.040	0.040
2007190746	2007191241	25.90	24.30	0.025	0.025	0.20	0.20	0.040	0.010	3.70	4.20	0.070	0.060
2007190753	2007191299	83.20	56.20	0.025	0.025	0.60	0.40	0.010	0.040	6.60	4.80	0.230	0.140
2007190753	2007191299	83.00	66.80	0.025	0.025	0.50	0.50	0.060	0.070	6.30	5.20	0.200	0.160
2007190753	2007191299	89.90	65.80	0.025	0.025	0.50	0.50	0.080	0.070	6.50	5.50	0.250	0.160
2007190753	2007191299	95.50	62.60	0.025	0.025	0.50	0.50	0.070	0.010	6.40	5.40	0.220	0.140
2007190798	2007191229	0.80	0.60	0.025	0.025	0.05	0.05	0.010	0.010	0.50	0.60	0.010	0.010
2007190798	2007191229	1.30	1.30	0.025	0.025	0.10	0.10	0.010	0.010	1.50	2.00	0.020	0.030
2007190798	2007191229	0.25	0.25	0.025	0.025	0.05	0.05	0.010	0.010	0.40	0.50	0.010	0.010

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Tm (ppm)	Tm (ppm)	U (ppm)	U (ppm)	V (ppm)	V (ppm)	W (ppm)	W (ppm)	Y (ppm)	Y (ppm)	Yb (ppm)	Yb (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1	1	1	0.1	0.1	0.01	0.01	0.1	0.1
ULD:	ULD:							200	200				
2007190527	2007190609	0.30	0.30	1.70	1.70	65	55	0.05	0.05	20.600	19.000	1.60	1.40
2007190531	2007190703	0.10	0.10	0.50	0.40	71	66	0.05	0.05	11.200	9.910	0.70	0.60
2007190531	2007190703	0.10	0.10	0.40	0.40	62	61	0.05	0.05	9.760	8.780	0.60	0.60
2007190531	2007190703	0.10	0.10	0.50	0.50	71	69	0.05	0.05	11.000	10.200	0.70	0.60
2007190531	2007190703	0.10	0.10	0.40	0.40	65	63	0.05	0.05	10.400	9.180	0.60	0.60
2007190534	2007191522	0.05	0.05	0.50	0.60	15	18	0.05	0.05	5.980	5.750	0.40	0.40
2007190534	2007191522	0.10	0.05	1.00	0.90	20	26	0.05	0.05	9.140	11.500	0.60	0.60
2007190534	2007191522	0.05	0.05	0.40	0.30	11	9	0.05	0.05	3.860	3.080	0.20	0.10
2007190534	2007191522	0.10	0.05	1.60	2.20	22	20	0.05	0.05	12.200	14.700	0.80	0.50
2007190536	2007190909	0.05	0.05	0.10	0.10	25	20	0.05	0.05	2.770	2.020	0.20	0.10
2007190536	2007190909	0.05	0.05	1.10	0.80	43	39	0.05	0.05	8.050	8.890	0.60	0.50
2007190536	2007190909	0.05	0.05	0.20	0.10	37	32	0.05	0.05	3.440	2.970	0.30	0.20
2007190536	2007190909	0.05	0.05	0.70	0.70	76	61	0.05	0.05	11.700	9.390	0.70	0.60
2007190548	2007191236	0.20	0.30	1.30	1.20	54	40	0.10	0.05	12.400	10.900	1.10	0.90
2007190548	2007191236	0.20	0.40	2.00	2.10	58	49	0.10	0.05	16.000	17.000	1.40	1.30
2007190548	2007191236	0.20	0.30	1.30	1.40	49	38	0.10	0.05	10.800	9.060	1.10	0.90
2007190548	2007191236	0.20	0.40	2.40	2.10	62	56	0.10	0.05	18.400	17.000	1.60	1.60
2007190549	2007191507	0.05	0.05	0.05	0.10	25	22	0.05	0.05	0.570	0.810	0.05	0.05
2007190549	2007191507	0.05	0.05	0.40	0.40	53	46	0.05	0.05	3.300	3.620	0.30	0.30
2007190549	2007191507	0.05	0.05	0.10	0.20	28	24	0.05	0.05	0.950	1.440	0.05	0.10
2007190549	2007191507	0.05	0.05	0.40	0.70	59	55	0.05	0.20	3.830	5.120	0.30	0.50
2007190552	2007190675	0.05	0.05	0.30	0.20	10	8	0.05	0.05	5.370	4.550	0.30	0.30
2007190552	2007190675	0.30	0.20	0.90	0.90	36	33	0.05	0.05	28.300	20.300	2.40	1.60
2007190552	2007190675	0.10	0.10	0.20	0.50	28	23	0.05	0.05	14.000	10.700	1.70	1.20
2007190552	2007190675	0.60	0.50	0.60	1.50	72	61	0.05	0.05	40.300	35.600	4.40	3.40
2007190554	2007190752	0.05	0.05	0.70	1.00	31	29	0.05	0.05	3.140	3.710	0.20	0.30
2007190554	2007190752	0.10	0.10	2.20	2.30	57	44	0.05	0.05	11.100	8.110	0.80	0.70
2007190554	2007190752	0.05	0.10	0.70	2.00	41	42	0.05	0.05	2.290	9.140	0.20	0.80
2007190554	2007190752	0.20	0.20	3.10	3.30	113	54	0.05	0.05	15.000	15.700	1.40	1.30
2007190583	2007191063	0.05	0.05	0.40	0.40	22	25	0.05	0.05	4.300	4.730	0.30	0.20
2007190583	2007191063	0.05	0.05	0.60	0.50	25	28	0.05	0.05	7.420	4.610	0.50	0.40
2007190583	2007191063	0.05	0.10	1.20	1.00	51	46	0.05	0.10	7.160	8.700	0.60	0.60
2007190583	2007191063	0.20	0.10	1.40	1.30	60	53	0.10	0.20	11.100	10.000	0.90	0.80
2007190618	2007191166	0.20	0.20	1.20	0.90	80	66	0.05	0.05	15.700	13.400	1.30	1.00
2007190618	2007191166	0.20	0.20	1.10	1.00	83	75	0.05	0.05	14.800	14.500	1.20	1.10
2007190618	2007191166	0.30	0.20	0.80	0.80	94	76	0.05	0.05	18.800	14.900	1.70	1.20
2007190618	2007191166	0.30	0.30	0.90	0.80	111	98	0.05	0.05	22.500	20.000	1.90	1.40
2007190647	2007191525	0.05	0.05	0.70	0.30	13	7	0.20	0.10	5.690	1.850	0.40	0.10
2007190647	2007191525	0.05	0.05	1.40	1.10	16	15	0.20	0.30	10.500	7.900	0.70	0.60
2007190647	2007191525	0.05	0.05	0.90	0.40	15	7	0.20	4.10	8.530	1.900	0.70	0.10
2007190647	2007191525	0.10	0.05	1.40	1.00	20	13	0.20	1.20	15.200	5.830	1.10	0.40
2007190659	2007190739	0.05	0.05	0.05	0.10	11	7	0.05	0.05	3.150	3.310	0.20	0.20
2007190659	2007190739	0.10	0.10	0.20	0.40	31	18	0.05	0.05	10.600	11.400	0.80	0.80
2007190659	2007190739	0.05	0.05	0.60	0.05	18	13	0.05	0.05	7.100	2.730	0.60	0.20
2007190659	2007190739	0.20	0.10	0.20	0.20	41	30	0.05	0.05	16.300	7.900	1.40	0.70
2007190661	2007191334	0.05	0.05	0.20	0.20	15	16	0.05	0.05	5.590	6.230	0.40	0.40
2007190661	2007191334	0.10	0.10	0.40	0.40	32	35	0.05	0.05	10.800	12.600	0.70	0.80
2007190661	2007191334	0.05	0.05	0.20	0.20	29	21	0.05	0.05	8.760	7.100	0.60	0.60
2007190661	2007191334	0.20	0.20	0.50	0.60	51	62	0.05	0.05	15.000	13.600	1.00	1.00
2007190686	2007191430	0.05	0.05	0.90	1.00	10	11	0.05	0.05	3.220	3.020	0.20	0.30
2007190686	2007191430	0.05	0.10	3.10	2.90	11	11	0.05	0.05	10.600	8.160	0.60	0.70
2007190686	2007191430	0.10	0.05	3.20	1.60	21	17	0.05	0.05	13.900	5.750	1.00	0.40
2007190686	2007191430	0.05	0.20	1.40	3.60	15	25	0.05	0.05	5.560	11.800	0.50	0.90
2007190695	2007190924	0.05	0.05	0.20	0.10	27	22	0.05	0.05	2.730	2.790	0.20	0.20
2007190695	2007190924	0.05	0.10	0.40	0.40	45	43	0.05	0.05	8.610	8.860	0.70	0.60
2007190695	2007190924	0.05	0.05	0.40	0.30	55	53	0.05	0.05	4.940	4.600	0.40	0.40
2007190695	2007190924	0.05	0.10	0.60	0.60	84	81	0.10	0.10	7.800	8.160	0.70	0.70
2007190698	2007190813	0.20	0.20	0.80	0.60	52	37	0.05	0.05	21.000	16.200	1.40	1.40
2007190698	2007190813	0.20	0.20	0.80	0.70	46	35	0.05	0.05	21.600	17.100	1.40	1.40
2007190698	2007190813	0.20	0.20	0.80	1.20	50	51	0.05	0.05	20.700	19.000	1.40	1.50
2007190698	2007190813	0.20	0.20	0.90	1.30	50	49	0.05	0.05	21.600	20.500	1.40	1.60
2007190732	2007191450	0.10	0.05	0.50	0.50	26	31	0.05	0.05	7.480	8.160	0.70	0.50
2007190732	2007191450	0.20	0.10	0.70	0.70	32	34	0.05	0.05	10.800	12.700	0.90	0.60
2007190732	2007191450	0.10	0.05	0.40	0.60	37	30	0.05	0.05	9.250	8.010	0.80	0.50
2007190732	2007191450	0.20	0.10	0.70	0.70	46	43	0.05	0.05	12.600	10.300	1.10	0.80
2007190735	2007191549	0.20	0.20	0.50	0.40	44	52	0.05	0.05	14.000	13.800	1.00	1.10
2007190735	2007191549	0.10	0.10	0.40	0.40	36	39	0.05	0.05	11.300	10.600	0.80	0.80
2007190735	2007191549	0.20	0.20	0.50	0.60	42	49	0.05	0.05	14.800	13.200	1.00	1.00
2007190735	2007191549	0.10	0.20	0.50	0.50	42	45	0.05	0.05	13.500	11.800	1.00	0.90
2007190743	2007190906	0.05	0.05	0.50	0.50	49	58	0.05	0.05	8.500	7.360	0.70	0.70
2007190743	2007190906	0.10	0.10	0.60	0.60	57	64	0.05	0.05	12.500	8.590	0.90	0.90
2007190743	2007190906	0.05	0.05	1.10	1.20	52	53	0.05	0.05	9.400	6.660	0.70	0.50
2007190743	2007190906	0.10	0.10	1.50	1.60	75	85	0.05	0.05	12.200	10.600	1.00	0.90
2007190746	2007191241	0.05	0.20	0.05	0.40	13	19	0.05	0.05	1.490	1.980	0.10	0.10
2007190746	2007191241	0.05	0.20	0.40	0.60	25	29	0.05	0.05	5.670	4.320	0.40	0.30
2007190746	2007191241	0.05	0.20	0.10	0.30	21	26	0.05	0.05	2.820	2.050	0.20	0.20
2007190746	2007191241	0.05	0.20	0.30	0.50	36	33	0.05	0.05	5.310	4.150	0.40	0.50
2007190753	2007191299	0.20	0.20	0.50	0.20	70	61	0.05	0.05	16.700	10.400	1.20	0.90
2007190753	2007191299	0.20	0.20	0.40	0.30	72	65	0.05	0.05	17.200	11.800	1.10	1.00
2007190753	2007191299	0.20	0.20	0.40	0.20	71	62	0.05	0.05	16.600	10.000	1.10	0.90
2007190753	2007191299	0.20	0.20	0.50	0.20	69	65	0.05	0.05	17.200	10.000	1.10	1.00
2007190798	2007191229	0.05	0.05	0.10	0.05	6	7	0.05	0.05	0.520	0.670	0.05	0.05
2007190798	2007191229	0.05	0.05	0.40	0.40	7	11	0.05	0.05	2.770	2.750	0.20	0.20
2007190798	2007191229	0.05	0.05	0.05	0.60	5	4	0.05	0.05	0.400	0.380	0.05	0.05

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Zn (ppm)	Zn (ppm)	Zr (ppm)	Zr (ppm)
METHOD:	METHOD:	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1
ULD:	ULD:				
2007190527	2007190609	37.10	35.90	3.10	6.40
2007190531	2007190703	63.00	55.20	4.80	2.30
2007190531	2007190703	55.10	44.70	3.20	2.20
2007190531	2007190703	65.10	53.70	4.10	2.40
2007190531	2007190703	62.90	50.10	3.60	2.30
2007190534	2007191522	35.20	34.70	0.40	0.60
2007190534	2007191522	49.90	45.30	0.40	0.90
2007190534	2007191522	25.10	20.60	0.80	1.10
2007190534	2007191522	49.00	41.80	1.00	1.50
2007190536	2007190909	36.70	18.20	4.20	3.80
2007190536	2007190909	38.80	37.40	6.20	7.20
2007190536	2007190909	46.80	19.50	2.80	2.40
2007190536	2007190909	51.30	39.60	4.20	3.90
2007190548	2007191236	54.10	44.50	1.90	3.00
2007190548	2007191236	58.10	53.80	2.00	3.50
2007190548	2007191236	42.30	38.90	2.20	2.70
2007190548	2007191236	61.10	48.00	2.30	3.80
2007190549	2007191507	1.00	14.00	5.00	3.80
2007190549	2007191507	10.80	12.20	10.60	6.80
2007190549	2007191507	0.05	41.10	5.90	5.60
2007190549	2007191507	10.30	58.90	11.90	10.00
2007190552	2007190675	27.00	8.60	1.00	1.00
2007190552	2007190675	37.90	21.40	3.50	3.40
2007190552	2007190675	31.50	12.20	7.30	5.50
2007190552	2007190675	59.70	40.20	14.10	15.20
2007190554	2007190752	18.50	15.50	1.10	1.90
2007190554	2007190752	26.20	16.10	1.80	3.00
2007190554	2007190752	19.40	13.60	1.40	5.70
2007190554	2007190752	23.20	15.60	3.30	7.80
2007190583	2007191063	33.20	15.60	1.40	0.40
2007190583	2007191063	18.20	18.40	1.00	0.40
2007190583	2007191063	6.40	19.40	10.00	7.20
2007190583	2007191063	30.40	23.60	11.40	7.30
2007190618	2007191166	82.70	65.70	5.50	4.20
2007190618	2007191166	83.50	74.60	6.60	5.80
2007190618	2007191166	99.50	60.60	7.30	4.90
2007190618	2007191166	106.00	82.70	7.90	5.60
2007190647	2007191525	7.70	2.60	0.70	0.30
2007190647	2007191525	26.30	8.00	0.80	0.50
2007190647	2007191525	6.20	4.90	2.70	0.50
2007190647	2007191525	12.80	10.20	4.10	0.70
2007190659	2007190739	0.05	40.60	6.70	3.70
2007190659	2007190739	0.90	82.70	14.20	9.30
2007190659	2007190739	1.90	12.30	7.70	5.60
2007190659	2007190739	10.20	16.30	15.40	8.10
2007190661	2007191334	26.40	19.10	2.80	2.10
2007190661	2007191334	28.00	33.40	7.70	2.90
2007190661	2007191334	12.70	16.40	11.30	5.20
2007190661	2007191334	33.50	58.40	14.30	14.90
2007190686	2007191430	0.05	3.00	0.50	0.20
2007190686	2007191430	0.05	4.30	0.90	0.40
2007190686	2007191430	0.70	1.90	3.80	2.60
2007190686	2007191430	0.05	6.90	2.20	4.50
2007190695	2007190924	4.90	12.40	1.40	0.60
2007190695	2007190924	10.80	12.70	1.30	0.60
2007190695	2007190924	12.40	10.10	7.60	5.70
2007190695	2007190924	11.80	13.10	7.10	6.50
2007190698	2007190813	60.60	43.20	13.20	11.30
2007190698	2007190813	47.70	36.70	10.20	9.80
2007190698	2007190813	48.00	58.70	13.00	14.30
2007190698	2007190813	46.40	64.30	10.80	11.20
2007190732	2007191450	28.30	19.60	1.80	1.10
2007190732	2007191450	31.10	25.00	2.60	1.30
2007190732	2007191450	38.50	19.80	5.40	3.00
2007190732	2007191450	40.40	27.10	7.30	3.80
2007190735	2007191549	53.40	58.60	9.20	15.90
2007190735	2007191549	56.60	42.80	8.60	13.70
2007190735	2007191549	48.40	56.70	8.80	16.40
2007190735	2007191549	42.40	58.20	8.10	16.40
2007190743	2007190906	26.20	44.80	8.50	10.90
2007190743	2007190906	43.40	54.30	10.50	12.80
2007190743	2007190906	47.90	39.50	8.20	11.40
2007190743	2007190906	51.10	62.80	10.70	16.10
2007190746	2007191241	1.80	8.10	1.60	2.90
2007190746	2007191241	3.30	16.80	4.70	4.80
2007190746	2007191241	0.05	9.70	3.10	2.40
2007190746	2007191241	10.30	10.70	5.10	4.40
2007190753	2007191299	70.00	63.00	14.90	10.20
2007190753	2007191299	73.10	65.70	12.00	11.00
2007190753	2007191299	69.40	63.70	11.60	9.20
2007190753	2007191299	72.70	63.50	11.50	9.90
2007190798	2007191229	24.60	10.80	0.50	0.80
2007190798	2007191229	18.20	11.60	0.70	1.30
2007190798	2007191229	14.30	10.90	0.40	0.60

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Ag (ppm)	Ag (ppm)	Al (ppm)	Al (ppm)	As (ppm)	As (ppm)	Au (ppm)	Au (ppm)
METHOD:	METHOD:	SIZE	SIZE			AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					0.002	0.002	100	100	0.1	0.1	0.0001	0.0001
ULD:	ULD:							100000	100000				
2007190798	2007191229	Fine	Fine	BOS	BOS	0.0010	0.0010	1700	2100	0.30	0.05	0.00320	0.00005
2007190818	2007191157	Coarse	Coarse	TOS	TOS	0.0130	0.0050	6900	2400	0.80	0.90	0.00020	0.00030
2007190818	2007191157	Fine	Fine	TOS	TOS	0.0160	0.0100	17600	9300	1.40	2.10	0.00040	0.00310
2007190818	2007191157	Coarse	Coarse	BOS	BOS	0.0020	0.0010	2700	4100	0.70	0.90	0.00340	0.00005
2007190818	2007191157	Fine	Fine	BOS	BOS	0.0200	0.0010	8400	11400	2.10	2.50	0.00030	0.00005
2007190825	2007191214	Coarse	Coarse	TOS	TOS	0.1340	0.0130	13000	19200	1.80	2.10	0.00100	0.00005
2007190825	2007191214	Fine	Fine	TOS	TOS	0.0550	0.0180	12300	18000	1.50	2.10	0.00005	0.00005
2007190825	2007191214	Coarse	Coarse	BOS	BOS	0.0450	0.0200	18900	22400	2.50	2.70	0.00005	0.00005
2007190825	2007191214	Fine	Fine	BOS	BOS	0.0570	0.0190	17800	23100	2.30	2.60	0.00005	0.00005
2007190826	2007191052	Coarse	Coarse	TOS	TOS	0.0250	0.0010	4300	7200	0.60	0.90	0.00005	0.00005
2007190826	2007191052	Fine	Fine	TOS	TOS	0.0230	0.0090	10000	15000	1.50	1.30	0.00005	0.00005
2007190826	2007191052	Coarse	Coarse	BOS	BOS	0.0290	0.0010	7000	7800	1.40	1.20	0.00005	0.00005
2007190826	2007191052	Fine	Fine	BOS	BOS	0.0270	0.0030	15900	15800	2.90	1.90	0.00005	0.00040
2007190827	2007191440	Coarse	Coarse	TOS	TOS	0.0090	0.0010	8000	10400	2.30	2.00	0.00070	0.00070
2007190827	2007191440	Fine	Fine	TOS	TOS	0.0150	0.0160	18500	42100	4.20	3.00	0.00180	0.00050
2007190827	2007191440	Coarse	Coarse	BOS	BOS	0.0080	0.0010	10400	31100	2.90	3.00	0.00005	0.00070
2007190827	2007191440	Fine	Fine	BOS	BOS	0.0100	0.0080	21400	42200	4.70	3.40	0.00100	0.00150
2007190834	2007190889	Coarse	Coarse	TOS	TOS	0.0150	0.0030	3700	3600	0.80	0.90	0.00005	0.00020
2007190834	2007190889	Fine	Fine	TOS	TOS	0.0790	0.0080	15400	12400	3.30	3.30	0.00030	0.00020
2007190834	2007190889	Coarse	Coarse	BOS	BOS	0.0290	0.0010	1400	1400	0.05	0.60	0.00005	0.00010
2007190849	2007191277	Coarse	Coarse	TOS	TOS	0.0180	0.0040	21400	23900	1.90	1.60	0.00160	0.00170
2007190849	2007191277	Fine	Fine	TOS	TOS	0.0060	0.0080	23900	22000	2.00	1.50	0.00370	0.00160
2007190849	2007191277	Coarse	Coarse	BOS	BOS	0.1600	0.0010	15100	21900	2.00	2.30	0.00080	0.00040
2007190849	2007191277	Fine	Fine	BOS	BOS	0.0490	0.0010	12800	23600	2.50	1.30	0.00380	0.00180
2007190853	2007190939	Coarse	Coarse	TOS	TOS	0.0360	0.0740	10400	7000	3.70	2.30	0.00005	0.00010
2007190853	2007190939	Fine	Fine	TOS	TOS	0.0800	0.1120	13400	17100	3.90	4.10	0.00240	0.00140
2007190853	2007190939	Coarse	Coarse	BOS	BOS	0.0010	0.0460	4000	5800	1.50	2.00	0.00070	0.00005
2007190853	2007190939	Fine	Fine	BOS	BOS	0.0050	0.0720	30200	27500	6.50	4.80	0.00200	0.00060
2007190865	2007191183	Coarse	Coarse	TOS	TOS	0.0090	0.0050	900	2200	1.00	0.30	0.00005	0.00005
2007190865	2007191183	Coarse	Coarse	BOS	BOS	0.0080	0.0140	2200	1300	0.60	0.30	0.00050	0.00005
2007190874	2007191297	Coarse	Coarse	TOS	TOS	0.0180	0.0190	7200	6100	1.90	1.00	0.00030	0.00005
2007190874	2007191297	Fine	Fine	TOS	TOS	0.0010	0.0200	11200	9600	1.60	0.90	0.00050	0.00010
2007190874	2007191297	Coarse	Coarse	BOS	BOS	0.0150	0.0060	7400	6900	2.40	1.40	0.00040	0.00060
2007190874	2007191297	Fine	Fine	BOS	BOS	0.0080	0.0310	15200	9400	1.80	1.00	0.00040	0.00180
2007190887	2007191058	Coarse	Coarse	TOS	TOS	0.0050	0.0230	23300	27000	3.00	2.20	0.00060	0.00040
2007190887	2007191058	Fine	Fine	TOS	TOS	0.0210	0.0330	17900	22500	2.10	1.90	0.00080	0.00050
2007190887	2007191058	Coarse	Coarse	BOS	BOS	0.0220	0.0240	19000	32300	0.70	1.60	0.00020	0.00070
2007190887	2007191058	Fine	Fine	BOS	BOS	0.0130	0.0230	14900	18400	1.20	1.80	0.00080	0.00050
2007190895	2007190947	Coarse	Coarse	TOS	TOS	0.0530	0.0440	16500	28300	1.30	1.80	0.00090	0.00060
2007190895	2007190947	Fine	Fine	TOS	TOS	0.0310	0.0470	15800	22900	0.60	1.40	0.00100	0.00070
2007190895	2007190947	Coarse	Coarse	BOS	BOS	0.0320	0.0560	16100	27300	0.50	1.60	0.00140	0.00040
2007190895	2007190947	Fine	Fine	BOS	BOS	0.0110	0.0400	16300	25700	0.70	1.40	0.00100	0.00030
2007190896	2007191441	Coarse	Coarse	TOS	TOS	0.0010	0.0030	5600	29400	1.90	2.80	0.00005	0.00080
2007190896	2007191441	Fine	Fine	TOS	TOS	0.0110	0.0110	17100	53700	3.00	4.30	0.00080	0.00190
2007190896	2007191441	Coarse	Coarse	BOS	BOS	0.0010	0.0010	8200	34300	2.50	3.30	0.00010	0.00060
2007190896	2007191441	Fine	Fine	BOS	BOS	0.0040	0.0060	17000	53300	2.70	3.90	0.00090	0.00160
2007190922	2007191082	Coarse	Coarse	TOS	TOS	0.0010	0.0010	3900	4000	12.20	12.30	0.00040	0.00040
2007190922	2007191082	Fine	Fine	TOS	TOS	0.0160	0.0120	14700	13600	45.10	51.90	0.00080	0.00030
2007190922	2007191082	Coarse	Coarse	BOS	BOS	0.0010	0.0160	10700	15300	36.30	42.10	0.00120	0.00310
2007190922	2007191082	Fine	Fine	BOS	BOS	0.0300	0.0280	22600	28700	74.40	78.10	0.00380	0.00420
2007190927	2007191444	Coarse	Coarse	TOS	TOS	0.0400	0.0350	11500	16600	12.00	10.20	0.00400	0.00630
2007190927	2007191444	Fine	Fine	TOS	TOS	0.0970	0.0860	16600	20300	18.60	15.50	0.02050	0.01200
2007190927	2007191444	Coarse	Coarse	BOS	BOS	0.0440	0.0450	11400	14800	14.80	14.60	0.00390	0.02080
2007190927	2007191444	Fine	Fine	BOS	BOS	0.0630	0.0770	14800	18300	15.70	15.90	0.05450	0.02430
2007190949	2007191504	Coarse	Coarse	TOS	TOS	0.0270	0.0120	31300	31400	2.10	1.60	0.00120	0.00030
2007190949	2007191504	Fine	Fine	TOS	TOS	0.0370	0.0210	52700	44100	2.40	1.20	0.00100	0.00070
2007190949	2007191504	Coarse	Coarse	BOS	BOS	0.0140	0.0010	47900	39100	3.30	2.30	0.00110	0.00060
2007190949	2007191504	Fine	Fine	BOS	BOS	0.0050	0.0010	43500	53800	2.40	2.30	0.00160	0.00030
2007190968	2007191437	Coarse	Coarse	TOS	TOS	0.0150	0.0010	4600	5200	0.40	0.90	0.00005	0.00010
2007190968	2007191437	Fine	Fine	TOS	TOS	0.0080	0.0010	9000	11400	0.30	0.90	0.00005	0.00010
2007190968	2007191437	Coarse	Coarse	BOS	BOS	0.0160	0.0010	15500	21100	2.80	1.70	0.00040	0.00060
2007190968	2007191437	Fine	Fine	BOS	BOS	0.0140	0.0150	28800	32000	3.70	2.30	0.00100	0.00190
2007190970	2007191245	Coarse	Coarse	TOS	TOS	0.9740	2.3000	9800	10000	133.00	218.00	0.00440	0.00870
2007190970	2007191245	Fine	Fine	TOS	TOS	0.5630	1.3100	8700	7600	80.10	135.00	0.00400	0.00750
2007190970	2007191245	Coarse	Coarse	BOS	BOS	0.1450	0.0240	9700	4800	42.10	3.50	0.00300	0.00300
2007190970	2007191245	Fine	Fine	BOS	BOS	0.1380	0.0410	9500	9900	44.30	6.60	0.00280	0.00110
2007190986	2007191592	Coarse	Coarse	TOS	TOS	0.0010	0.0010	5300	10200	0.05	0.90	0.00070	0.00160
2007190986	2007191592	Fine	Fine	TOS	TOS	0.0180	0.0010	5900	11200	0.60	0.70	0.00090	0.00120
2007190986	2007191592	Coarse	Coarse	BOS	BOS	0.0230	0.0160	7800	11700	1.40	0.60	0.00060	0.00160
2007190986	2007191592	Fine	Fine	BOS	BOS	0.0280	0.0010	9300	20900	0.05	1.30	0.00040	0.00070
2007190990	2007191537	Coarse	Coarse	TOS	TOS	0.0370	0.0280	5700	7000	0.05	1.00	0.00090	0.00110
2007190990	2007191537	Fine	Fine	TOS	TOS	0.0130	0.0280	4900	6500	0.40	1.40	0.00050	0.00170
2007190990	2007191537	Coarse	Coarse	BOS	BOS	0.0120	0.0180	3300	2300	0.20	0.50	0.00005	0.00060
2007190990	2007191537	Fine	Fine	BOS	BOS	0.0240	0.0130	5300	3800	0.60	1.00	0.00010	0.00070
2007191007	2007191551	Coarse	Coarse	TOS	TOS	0.0170	0.0010	3300	5000	1.10	0.70	0.00090	0.00080
2007191007	2007191551	Fine	Fine	TOS	TOS	0.0310	0.0060	6600	9400	0.80	0.90	0.00170	0.00150
2007191007	2007191551	Coarse	Coarse	BOS	BOS	0.0210	0.0050	3900	8600	2.00	1.40	0.03900	0.00040
2007191007	2007191551	Fine	Fine	BOS	BOS	0.0240	0.0290	6900	12400	2.20	1.60	0.01790	0.00150
2007191028	2007191531	Coarse	Coarse	TOS	TOS	0.0060	0.0010	9500	9900	1.30	1.60	0.00005	0.00050
2007191028	2007191531	Fine	Fine	TOS	TOS	0.0390	0.0110	17700	21700	1.80	2.30	0.00020	0.00030
2007191028	2007191531	Coarse	Coarse	BOS	BOS	0.0200	0.0040	15000	13100	1.20	1.90	0.00005	0.00070
2007191028	2007191531	Fine	Fine	BOS	BOS	0.0430	0.0820	22300	28100	1.50	3.40	0.00040	0.00240
2007191051	2007191331	Coarse	Coarse	TOS	TOS	0.0010	0.0120	14500	11900	1.50	1.60	0.00120	0.00080
2007191051	2007191331	Fine	Fine	TOS	TOS	0.0010	0.0010	13900	8700	0.90	0.90	0.00005	0.00030

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	B (ppm)	B (ppm)	Ba (ppm)	Ba (ppm)	Be (ppm)	Be (ppm)	Bi (ppm)	Bi (ppm)	Ca (ppm)	Ca (ppm)	Cd (ppm)	Cd (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	1	1	0.5	0.5	0.1	0.1	0.02	0.02	100	100	0.01	0.01
ULD:	ULD:												
2007190798	2007191229	0.5	0.5	33.60	23.30	0.40	0.40	0.080	0.050	400	500	0.040	0.005
2007190818	2007191157	0.5	0.5	32.40	16.70	0.30	0.20	0.050	0.010	1200	400	0.005	0.020
2007190818	2007191157	3	2	68.30	44.00	0.60	0.50	0.100	0.080	2900	2000	0.040	0.040
2007190818	2007191157	0.5	0.5	20.30	25.80	0.05	0.20	0.020	0.030	400	1200	0.005	0.005
2007190818	2007191157	2	2	53.00	64.60	0.40	0.60	0.090	0.080	1800	4100	0.005	0.060
2007190825	2007191214	0.5	0.5	114.00	156.00	0.80	0.80	0.080	0.120	4000	3800	0.130	0.080
2007190825	2007191214	0.5	0.5	107.00	143.00	0.50	0.70	0.090	0.110	3600	4100	0.100	0.050
2007190825	2007191214	0.5	0.5	142.00	152.00	1.00	0.70	0.120	0.120	5200	6600	0.100	0.070
2007190825	2007191214	0.5	0.5	172.00	200.00	0.80	0.90	0.120	0.140	5400	5100	0.140	0.090
2007190826	2007191052	0.5	0.5	21.40	34.30	0.30	0.40	0.080	0.100	800	1500	0.130	0.005
2007190826	2007191052	0.5	0.5	45.00	68.40	0.40	0.60	0.160	0.180	2200	3200	0.160	0.030
2007190826	2007191052	1	0.5	23.90	23.90	0.30	0.30	0.090	0.090	2100	1500	0.050	0.005
2007190826	2007191052	0.5	0.5	49.20	46.40	0.80	0.60	0.180	0.140	8000	4500	0.090	0.010
2007190827	2007191440	2	0.5	41.80	29.70	0.40	0.60	0.130	0.150	7300	1600	0.020	0.060
2007190827	2007191440	5	1	40.10	55.80	0.70	1.30	0.270	0.320	15100	3000	0.090	0.190
2007190827	2007191440	4	2	45.00	69.40	0.30	0.90	0.150	0.180	18500	79300	0.030	0.070
2007190827	2007191440	7	3	49.90	128.00	0.90	1.20	0.280	0.240	42300	105000	0.080	0.090
2007190834	2007190889	1	0.5	12.80	13.90	0.05	0.10	0.020	0.030	200	200	0.080	0.005
2007190834	2007190889	1	2	41.70	35.00	0.60	0.60	0.120	0.110	800	1100	0.080	0.020
2007190834	2007190889	0.5	0.5	12.10	12.60	0.05	0.05	0.010	0.010	100	50	0.020	0.005
2007190849	2007191277	2	0.5	72.30	152.00	0.90	0.70	0.140	0.120	3600	3500	0.040	0.030
2007190849	2007191277	2	0.5	87.00	165.00	1.20	0.60	0.160	0.140	4400	3200	0.060	0.050
2007190849	2007191277	3	0.5	112.00	121.00	1.00	0.80	0.140	0.120	12000	19400	0.020	0.050
2007190849	2007191277	2	0.5	102.00	204.00	0.90	0.80	0.130	0.110	16400	10400	0.030	0.005
2007190853	2007190939	4	9	78.20	175.00	0.60	0.40	0.150	0.070	11900	3500	0.060	0.080
2007190853	2007190939	5	14	103.00	381.00	0.90	0.80	0.180	0.200	15400	8200	0.060	0.100
2007190853	2007190939	6	9	40.20	106.00	0.20	0.30	0.040	0.040	1400	1000	0.005	0.060
2007190853	2007190939	18	21	128.00	231.00	1.00	1.20	0.240	0.200	6100	3900	0.030	0.070
2007190865	2007191183	2	0.5	14.10	54.60	0.05	0.10	0.020	0.030	800	1200	0.020	0.005
2007190865	2007191183	2	0.5	30.10	49.60	0.05	0.10	0.020	0.030	1300	600	0.070	0.005
2007190874	2007191297	3	0.5	65.60	65.90	1.00	0.50	0.140	0.140	2700	5200	0.030	0.030
2007190874	2007191297	2	1	90.60	98.60	0.90	0.90	0.220	0.170	5500	13000	0.060	0.050
2007190874	2007191297	2	0.5	49.70	77.10	0.70	0.70	0.160	0.180	2400	5700	0.040	0.060
2007190874	2007191297	1	0.5	124.00	120.00	1.40	0.90	0.260	0.230	7300	8800	0.005	0.120
2007190887	2007191058	0.5	0.5	178.00	191.00	2.40	1.90	0.360	0.340	2000	1000	0.030	0.020
2007190887	2007191058	2	0.5	150.00	157.00	2.10	1.70	0.280	0.310	1400	800	0.005	0.020
2007190887	2007191058	1	0.5	135.00	173.00	2.00	1.90	0.270	0.330	1800	1500	0.060	0.005
2007190887	2007191058	0.5	0.5	123.00	139.00	1.60	1.40	0.270	0.270	1400	1400	0.005	0.005
2007190895	2007190947	0.5	5	137.00	167.00	0.90	1.10	0.120	0.110	5200	9600	0.080	0.080
2007190895	2007190947	0.5	5	134.00	144.00	0.70	0.90	0.120	0.110	4900	8100	0.080	0.050
2007190895	2007190947	0.5	6	136.00	141.00	0.80	1.10	0.120	0.120	5400	15900	0.040	0.040
2007190895	2007190947	0.5	6	163.00	267.00	0.80	1.00	0.120	0.130	5300	10800	0.060	0.050
2007190896	2007191441	0.5	0.5	12.40	25.90	0.40	0.80	0.190	0.250	300	800	0.090	0.050
2007190896	2007191441	0.5	1	14.90	37.40	0.80	1.60	0.340	0.340	600	1200	0.070	0.120
2007190896	2007191441	0.5	0.5	78.90	35.60	0.50	1.20	0.210	0.250	500	800	0.080	0.120
2007190896	2007191441	0.5	1	61.20	44.60	1.00	1.80	0.330	0.430	1200	1000	0.160	0.110
2007190922	2007191082	3	0.5	7.20	9.00	0.20	0.20	0.040	0.040	1100	700	0.030	0.030
2007190922	2007191082	2	2	36.90	34.00	0.80	0.80	0.130	0.130	4600	3400	0.530	0.340
2007190922	2007191082	4	7	78.70	71.50	0.30	0.60	0.070	0.090	93700	47800	0.040	0.020
2007190922	2007191082	8	14	226.00	192.00	0.80	1.10	0.120	0.160	311000	149000	0.130	0.070
2007190927	2007191444	0.5	0.5	55.40	77.00	0.50	0.80	0.250	0.230	2400	4900	0.090	0.160
2007190927	2007191444	0.5	0.5	91.90	116.00	0.60	1.10	0.400	0.300	3800	6000	0.170	0.190
2007190927	2007191444	0.5	0.5	52.90	85.80	0.50	0.60	0.270	0.280	2000	3800	0.150	0.090
2007190927	2007191444	0.5	0.5	72.10	100.00	0.70	1.00	0.410	1.100	2500	3900	0.090	0.100
2007190949	2007191504	0.5	0.5	146.00	107.00	1.60	1.60	0.300	0.200	7700	5800	0.100	0.090
2007190949	2007191504	0.5	0.5	171.00	144.00	2.10	1.90	0.330	0.270	10400	7100	0.130	0.080
2007190949	2007191504	2	2	243.00	120.00	1.60	1.40	0.260	0.160	24100	30800	0.040	0.040
2007190949	2007191504	2	2	191.00	198.00	1.80	1.80	0.250	0.180	24400	44600	0.090	0.060
2007190968	2007191437	0.5	0.5	168.00	90.00	0.20	0.30	0.050	0.040	800	700	0.030	0.020
2007190968	2007191437	0.5	0.5	96.60	64.30	0.60	0.50	0.090	0.070	1400	1600	0.060	0.050
2007190968	2007191437	1	2	357.00	125.00	0.60	0.90	0.070	0.100	10600	3300	0.030	0.050
2007190968	2007191437	1	2	872.00	193.00	1.00	1.30	0.120	0.130	17700	4800	0.090	0.080
2007190970	2007191245	8	3	19.10	15.60	1.10	1.40	9.250	15.600	2600	1900	1.260	0.500
2007190970	2007191245	7	2	16.60	12.60	0.80	1.10	6.880	13.000	1700	1200	0.680	0.360
2007190970	2007191245	7	0.5	16.10	7.90	0.80	0.20	3.350	0.210	2100	600	1.420	0.080
2007190970	2007191245	7	1	15.20	14.40	0.60	0.30	3.590	0.320	1700	1000	1.190	0.180
2007190986	2007191592	0.5	0.5	56.40	51.90	0.30	0.40	0.060	0.080	1800	1700	0.060	0.020
2007190986	2007191592	0.5	0.5	72.60	49.80	0.60	0.50	0.130	0.130	2800	2000	0.040	0.020
2007190986	2007191592	0.5	1	124.00	60.80	0.70	0.60	0.170	0.080	6900	2700	0.170	0.030
2007190986	2007191592	2	0.5	97.10	95.20	0.70	1.40	0.170	0.110	3100	4700	0.005	0.050
2007190990	2007191537	2	0.5	102.00	86.00	1.10	1.30	0.430	0.440	500	200	0.060	0.030
2007190990	2007191537	2	0.5	81.00	69.60	1.30	1.10	0.420	0.390	600	100	0.060	0.005
2007190990	2007191537	2	0.5	55.60	27.50	0.80	0.30	0.220	0.170	200	100	0.030	0.005
2007190990	2007191537	1	0.5	81.30	48.90	1.20	0.60	0.350	0.320	100	50	0.010	0.040
2007191007	2007191551	1	0.5	55.20	41.90	0.30	0.30	0.040	0.040	400	1900	0.050	0.010
2007191007	2007191551	1	0.5	130.00	100.00	0.50	0.60	0.080	0.110	1800	3200	0.090	0.060
2007191007	2007191551	0.5	0.5	30.40	44.60	0.20	0.40	0.040	0.080	200	1500	0.040	0.040
2007191007	2007191551	0.5	0.5	74.40	80.10	0.30	0.80	0.080	0.110	1400	2900	0.020	0.040
2007191028	2007191531	0.5	0.5	35.90	24.60	0.40	0.50	0.120	0.090	2000	1000	0.050	0.030
2007191028	2007191531	0.5	0.5	68.90	52.70	1.00	1.10	0.210	0.190	3800	2400	0.080	0.060
2007191028	2007191531	0.5	0.5	58.70	32.90	0.80	0.60	0.140	0.100	15300	2300	0.070	0.030
2007191028	2007191531	0.5	0.5	89.90	72.10	1.10	1.40	0.200	0.150	18300	5400	0.070	0.040
2007191051	2007191331	0.5	2	163.00	193.00	0.60	0.60	0.560	0.090	2900	3500	0.040	0.040
2007191051	2007191331	0.5	0.5	160.00	170.00	0.60	0.60	0.070	0.060	2200	2700	0.030	0.005

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Ce (ppm)	Ce (ppm)	Co (ppm)	Co (ppm)	Cr (ppm)	Cr (ppm)	Cs (ppm)	Cs (ppm)	Cu (ppm)	Cu (ppm)	Dy (ppm)	Dy (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.01	0.01	0.1	0.1	0.5	0.5	0.02	0.02	0.01	0.01	0.1	0.1
ULD:	ULD:												
2007190798	2007191229	17.300	13.100	1.30	0.90	6.90	6.50	0.230	0.370	1.990	1.420	1.10	0.70
2007190818	2007191157	38.800	18.400	3.10	1.50	18.50	8.60	0.340	0.190	7.490	3.410	0.90	0.40
2007190818	2007191157	109.000	105.000	7.70	5.80	47.40	35.70	0.810	0.560	17.000	13.300	2.60	2.30
2007190818	2007191157	18.300	31.000	1.40	2.60	8.20	15.00	0.160	0.280	3.550	6.350	0.40	0.70
2007190818	2007191157	91.600	93.000	4.80	6.80	32.30	43.30	0.570	0.720	13.600	17.100	2.20	2.60
2007190825	2007191214	36.900	39.200	13.00	12.40	19.20	23.60	0.820	1.340	21.400	17.400	1.90	2.40
2007190825	2007191214	41.000	42.000	9.50	12.10	19.50	21.90	0.790	1.290	22.600	15.900	2.20	2.30
2007190825	2007191214	44.500	45.900	14.20	15.70	27.50	27.40	1.160	1.400	26.800	19.300	2.60	2.80
2007190825	2007191214	43.800	46.800	15.40	15.30	26.10	29.90	1.120	1.550	29.300	20.700	2.40	3.00
2007190826	2007191052	6.560	10.900	1.50	2.10	21.50	22.20	0.420	0.690	5.790	9.170	0.30	0.60
2007190826	2007191052	22.900	23.900	3.70	4.80	30.30	31.80	0.890	1.390	16.000	9.490	1.00	1.30
2007190826	2007191052	8.210	9.220	2.30	2.10	26.00	21.60	0.660	0.750	7.110	3.880	0.40	0.50
2007190826	2007191052	25.600	24.800	5.80	4.80	39.70	34.40	1.370	1.320	18.200	8.890	1.40	1.30
2007190827	2007191440	15.800	17.400	3.10	4.00	53.20	56.40	0.650	0.690	7.350	12.100	0.70	1.00
2007190827	2007191440	40.000	48.200	7.40	11.40	96.10	126.00	1.350	2.130	16.800	24.900	1.60	2.80
2007190827	2007191440	17.800	19.600	3.60	5.40	56.30	61.00	0.790	1.610	8.700	16.900	0.80	1.20
2007190827	2007191440	36.500	24.200	7.60	8.50	90.20	73.40	1.620	2.250	18.300	20.600	1.90	1.50
2007190834	2007190889	10.600	12.000	1.10	1.30	12.10	11.00	0.150	0.140	5.990	2.950	0.30	0.40
2007190834	2007190889	56.200	66.000	4.70	4.80	49.30	42.70	0.580	0.460	23.200	12.600	1.70	2.30
2007190834	2007190889	3.990	3.920	0.50	0.30	5.90	3.70	0.060	0.050	2.910	0.560	0.10	0.10
2007190849	2007191277	41.100	56.000	15.10	12.20	28.20	27.40	1.770	1.760	16.800	13.900	2.80	2.40
2007190849	2007191277	47.400	65.900	16.60	14.10	32.10	30.50	1.920	1.940	19.800	15.600	3.50	3.30
2007190849	2007191277	51.900	72.900	21.50	20.40	24.00	27.30	1.380	1.840	15.600	12.400	4.00	3.20
2007190849	2007191277	58.500	91.400	31.20	33.00	21.60	31.10	1.210	2.070	14.600	14.000	4.00	3.70
2007190853	2007190939	18.800	15.100	7.00	3.50	20.50	15.50	0.780	1.050	14.300	6.700	1.70	0.90
2007190853	2007190939	24.700	34.700	9.40	8.60	33.30	35.70	0.910	2.280	20.200	15.200	2.10	2.10
2007190853	2007190939	6.550	10.500	1.90	2.50	7.80	10.50	0.470	1.020	4.830	4.980	0.50	0.60
2007190853	2007190939	33.300	38.200	12.40	11.30	40.60	43.80	3.900	4.300	27.700	22.100	2.70	2.70
2007190865	2007191183	2.210	1.600	0.40	0.40	3.80	3.90	0.060	0.130	1.370	1.530	0.20	0.20
2007190865	2007191183	2.990	1.310	0.70	0.40	5.60	3.10	0.170	0.110	0.950	1.600	0.20	0.20
2007190874	2007191297	25.300	16.000	7.10	7.10	43.00	38.80	0.610	0.530	6.240	16.000	0.90	1.10
2007190874	2007191297	33.400	29.500	9.70	13.20	38.90	37.50	1.210	0.750	12.600	25.900	2.00	1.90
2007190874	2007191297	14.800	22.300	5.60	8.60	48.40	40.00	0.620	0.640	6.850	17.000	0.80	1.60
2007190874	2007191297	37.400	31.500	12.40	12.90	54.00	36.00	1.530	0.910	16.000	25.900	2.20	2.20
2007190887	2007191058	103.000	83.000	15.70	12.00	45.70	42.40	3.240	3.610	14.700	16.700	3.00	3.40
2007190887	2007191058	76.400	69.300	12.00	10.60	28.50	36.10	3.210	3.230	12.200	14.100	2.90	2.70
2007190887	2007191058	82.800	83.500	6.10	16.80	29.80	49.60	3.340	3.540	13.100	19.400	2.80	3.20
2007190887	2007191058	76.200	73.300	6.00	10.70	26.80	34.40	3.200	2.310	10.900	15.000	2.90	2.90
2007190895	2007190947	33.100	45.400	8.90	11.90	17.40	43.20	0.370	1.820	16.000	19.700	2.70	2.80
2007190895	2007190947	31.800	38.600	8.50	9.30	17.10	35.50	0.390	1.510	14.500	17.000	2.50	2.40
2007190895	2007190947	34.500	49.000	13.00	12.40	17.60	42.10	0.550	1.770	15.000	18.500	2.50	3.10
2007190895	2007190947	34.100	45.300	8.50	10.40	18.50	40.50	0.560	1.650	14.100	18.000	2.60	2.80
2007190896	2007191441	21.400	33.000	2.80	9.70	71.70	95.70	0.230	1.520	9.620	25.300	1.10	1.70
2007190896	2007191441	59.000	61.800	7.50	18.40	95.30	140.00	0.550	2.340	23.800	44.600	3.10	3.70
2007190896	2007191441	38.800	39.300	5.00	8.90	82.40	115.00	0.420	1.690	12.900	25.600	1.50	2.30
2007190896	2007191441	77.700	57.500	12.20	12.70	86.00	138.00	0.760	2.840	26.000	39.600	3.40	3.90
2007190922	2007191082	8.020	12.200	1.20	2.00	8.40	8.90	0.340	0.370	0.770	0.600	0.40	0.50
2007190922	2007191082	42.400	62.900	5.00	8.50	29.80	34.20	0.980	1.230	4.410	3.580	2.60	3.00
2007190922	2007191082	14.200	24.900	6.10	9.00	19.30	28.10	0.640	1.250	1.930	2.090	0.90	1.50
2007190922	2007191082	28.700	51.800	12.90	18.70	36.80	53.50	0.960	1.890	4.430	5.000	2.20	3.30
2007190927	2007191444	23.500	30.100	7.10	10.60	15.50	26.00	1.600	1.800	13.800	21.300	1.70	2.10
2007190927	2007191444	40.300	43.800	10.20	11.70	21.20	31.00	1.970	2.540	22.500	28.600	2.90	3.30
2007190927	2007191444	23.800	28.500	6.50	7.70	15.30	23.90	1.640	2.150	13.600	18.600	2.20	2.20
2007190927	2007191444	37.100	36.600	9.20	10.40	20.00	30.70	1.690	2.350	20.200	24.700	2.50	2.80
2007190949	2007191504	61.600	59.800	9.10	9.10	33.10	31.80	0.960	2.000	16.600	14.400	3.90	3.50
2007190949	2007191504	69.500	68.800	11.20	11.40	38.40	40.60	1.260	2.630	19.600	19.800	4.20	4.30
2007190949	2007191504	59.300	48.400	10.00	7.90	34.90	33.30	1.280	2.510	20.700	15.600	3.80	3.00
2007190949	2007191504	51.300	57.000	9.30	9.60	39.20	40.40	1.480	3.250	24.200	21.400	3.60	3.40
2007190968	2007191437	9.800	5.440	2.80	1.70	11.70	9.20	0.360	0.360	8.980	4.440	0.80	0.50
2007190968	2007191437	17.200	13.900	5.70	4.20	16.90	16.50	0.680	0.710	17.900	9.320	1.30	1.10
2007190968	2007191437	17.800	13.300	6.50	6.70	24.00	25.70	1.110	1.380	17.000	16.400	1.50	1.40
2007190968	2007191437	33.400	21.400	12.50	11.10	39.70	34.20	1.750	2.020	29.100	23.800	2.80	2.00
2007190970	2007191245	38.700	37.100	10.10	9.70	39.40	37.20	1.260	1.660	55.800	107.000	1.10	1.10
2007190970	2007191245	45.000	34.700	7.00	5.20	35.00	28.50	1.130	1.370	38.100	77.300	1.00	0.80
2007190970	2007191245	26.200	13.300	20.50	4.80	44.10	20.40	1.020	0.480	21.000	5.700	1.00	0.50
2007190970	2007191245	29.300	22.900	16.80	11.00	42.30	46.90	0.980	0.890	19.900	14.200	0.90	0.80
2007190986	2007191592	12.100	22.800	4.80	4.90	31.20	33.40	0.520	0.620	9.790	10.000	0.80	1.40
2007190986	2007191592	25.200	48.000	7.60	6.40	62.30	50.70	0.770	0.670	17.400	12.900	1.50	2.30
2007190986	2007191592	22.900	34.800	9.60	7.80	52.70	36.80	0.900	0.900	61.100	13.500	1.50	1.70
2007190986	2007191592	25.300	54.000	8.30	11.20	61.80	54.70	1.150	1.210	17.400	26.200	1.60	3.00
2007190990	2007191537	59.300	71.200	3.90	3.20	9.60	8.30	1.260	0.740	6.040	5.860	3.20	3.20
2007190990	2007191537	56.100	63.900	3.70	2.60	9.90	8.30	1.260	0.700	6.600	5.310	3.20	2.80
2007190990	2007191537	56.300	23.400	1.90	0.80	5.40	3.30	0.810	0.460	2.510	1.930	2.00	1.00
2007190990	2007191537	90.500	46.600	2.70	1.20	7.70	6.10	1.260	0.820	5.260	4.060	3.00	2.10
2007191007	2007191551	21.100	24.100	5.70	5.80	10.90	13.40	0.550	0.540	3.530	4.800	0.70	1.00
2007191007	2007191551	35.300	44.400	12.70	11.20	17.30	23.50	1.000	0.950	8.110	11.600	1.50	2.10
2007191007	2007191551	19.500	17.900	5.30	5.50	9.30	17.80	0.740	0.880	3.120	6.990	0.70	1.00
2007191007	2007191551	35.700	37.400	11.50	11.90	16.20	25.60	1.130	1.160	6.380	12.200	1.30	1.80
2007191028	2007191531	27.500	15.400	5.70	3.40	12.10	15.70	0.210	0.660	8.660	6.670	1.70	1.10
2007191028	2007191531	50.200	30.400	10.10	7.30	20.50	28.10	0.320	1.420	16.500	14.500	3.40	2.40
2007191028	2007191531	32.200	19.400	7.50	5.10	18.60	17.60	0.520	0.790	15.700	7.780	2.00	1.30
2007191028	2007191531	47.900	47.800	9.10	12.80	23.50	36.00	0.760	1.360	17.600	16.700	3.00	2.80
2007191051	2007191331	26.000	38.400	13.00	10.50	17.10	19.50	0.830	0.630	14.500	11.400	2.50	2.20
2007191051	2007191331	24.000	29.800	10.80	7.20	15.90	16.10	0.800	0.560	13.000	8.940	2.20	1.80

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Er (ppm)	Er (ppm)	Eu (ppm)	Eu (ppm)	Fe (ppm)	Fe (ppm)	Ga (ppm)	Ga (ppm)	Gd (ppm)	Gd (ppm)	Ge (ppm)	Ge (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1	100	100	0.02	0.02	0.1	0.1	0.1	0.1
ULD:	ULD:												
2007190798	2007191229	0.40	0.30	0.30	0.20	2900	2500	0.600	0.940	1.40	1.00	0.20	0.05
2007190818	2007191157	0.40	0.10	0.30	0.10	8500	4200	2.500	1.010	1.80	0.70	0.05	0.05
2007190818	2007191157	0.90	0.80	0.90	0.80	21200	17000	6.370	3.850	5.10	4.10	0.10	0.05
2007190818	2007191157	0.20	0.30	0.20	0.20	3500	7400	0.930	1.740	0.80	1.30	0.05	0.05
2007190818	2007191157	0.90	1.00	0.80	0.90	14300	20200	3.330	4.760	4.60	4.30	0.10	0.05
2007190825	2007191214	0.90	1.10	0.70	0.90	21900	21100	4.170	5.140	2.30	3.50	0.05	0.05
2007190825	2007191214	0.90	1.20	0.70	0.90	20400	22100	3.770	4.780	2.70	3.30	0.05	0.05
2007190825	2007191214	1.10	1.30	0.90	0.90	28300	28300	5.780	7.400	3.10	3.30	0.05	0.10
2007190825	2007191214	1.10	1.20	0.90	0.90	28700	26300	5.110	6.580	3.30	3.80	0.05	0.05
2007190826	2007191052	0.10	0.20	0.10	0.20	8400	8900	1.190	2.330	0.40	0.80	0.05	0.05
2007190826	2007191052	0.40	0.70	0.30	0.50	17300	17500	3.140	4.350	1.50	2.10	0.05	0.05
2007190826	2007191052	0.20	0.20	0.20	0.20	11500	9900	2.020	2.510	0.50	0.60	0.05	0.05
2007190826	2007191052	0.60	0.50	0.40	0.30	24100	19600	5.580	5.170	1.80	1.60	0.05	0.05
2007190827	2007191440	0.30	0.50	0.20	0.30	14900	20400	3.600	4.010	1.10	1.50	0.05	0.05
2007190827	2007191440	0.80	1.20	0.50	0.80	33900	58700	8.120	13.500	2.70	3.70	0.05	0.10
2007190827	2007191440	0.40	0.50	0.30	0.40	17800	25300	4.530	8.160	1.20	1.70	0.05	0.05
2007190827	2007191440	0.80	0.80	0.60	0.50	35400	31800	9.390	9.540	2.90	2.50	0.05	0.10
2007190834	2007190889	0.10	0.10	0.10	0.10	7800	7400	0.940	1.430	0.40	0.50	0.05	0.05
2007190834	2007190889	0.70	0.70	0.70	0.60	31700	28400	4.920	5.200	2.40	3.20	0.05	0.05
2007190834	2007190889	0.05	0.05	0.05	0.05	2800	2200	0.270	0.490	0.20	0.20	0.05	0.05
2007190849	2007191277	1.30	1.10	1.00	0.80	23600	15300	7.380	7.250	4.20	3.70	0.05	0.05
2007190849	2007191277	1.60	1.30	1.30	1.00	27200	16500	7.970	7.450	5.10	4.90	0.05	0.05
2007190849	2007191277	1.90	1.30	1.30	1.00	19800	15600	5.610	7.120	5.40	4.80	0.05	0.05
2007190849	2007191277	2.00	1.50	1.30	1.20	19000	17600	4.540	7.830	5.50	5.50	0.05	0.10
2007190853	2007190939	0.80	0.40	0.60	0.40	15200	12100	2.890	2.870	1.80	1.50	0.05	0.05
2007190853	2007190939	1.10	1.00	0.80	0.80	20200	29000	3.550	6.580	2.40	3.40	0.05	0.05
2007190853	2007190939	0.20	0.30	0.20	0.30	4800	7900	1.070	2.380	0.60	1.10	0.05	0.05
2007190853	2007190939	1.30	1.30	0.90	1.00	30400	32900	7.950	10.200	3.10	4.10	0.05	0.10
2007190865	2007191183	0.05	0.10	0.05	0.05	2300	2100	0.280	0.420	0.20	0.20	0.05	0.05
2007190865	2007191183	0.10	0.05	0.05	0.05	2500	1700	0.700	0.320	0.30	0.20	0.05	0.05
2007190874	2007191297	0.40	0.60	0.40	0.40	27000	31900	4.250	2.830	1.40	1.40	0.05	0.05
2007190874	2007191297	0.90	1.00	0.60	0.70	30800	49400	5.460	5.370	2.80	2.00	0.05	0.05
2007190874	2007191297	0.40	0.70	0.20	0.50	29900	39800	4.660	3.960	1.10	1.70	0.10	0.05
2007190874	2007191297	1.10	1.10	0.80	0.80	33800	37500	6.710	4.130	3.20	2.80	0.05	0.05
2007190887	2007191058	1.30	1.20	1.20	1.10	26800	32900	9.480	9.040	5.60	5.00	0.05	0.05
2007190887	2007191058	1.00	1.00	0.90	1.00	18600	24800	4.960	6.910	5.10	4.70	0.05	0.05
2007190887	2007191058	1.10	1.40	1.00	1.20	17700	37500	5.560	11.500	5.10	4.40	0.05	0.05
2007190887	2007191058	1.00	1.20	0.90	1.00	15800	28900	5.060	7.700	4.80	4.20	0.05	0.05
2007190895	2007190947	1.20	1.20	0.90	1.10	17700	31000	4.460	10.900	3.40	4.60	0.05	0.10
2007190895	2007190947	1.10	1.10	0.90	1.00	16700	25500	3.950	8.620	3.30	3.90	0.05	0.10
2007190895	2007190947	1.10	1.40	0.90	1.20	17700	31300	4.280	10.700	3.40	5.00	0.05	0.05
2007190895	2007190947	1.20	1.20	0.90	1.10	17200	28200	4.030	9.910	3.60	4.60	0.05	0.10
2007190896	2007191441	0.50	0.90	0.30	0.60	21000	37100	4.000	9.410	1.40	2.60	0.05	0.05
2007190896	2007191441	1.40	1.70	1.00	1.10	39800	63700	8.950	17.200	4.20	4.70	0.05	0.10
2007190896	2007191441	0.70	0.90	0.50	0.70	25900	40400	5.540	10.900	2.00	3.00	0.05	0.10
2007190896	2007191441	1.60	1.50	1.00	1.10	41900	52800	9.530	16.200	4.40	5.40	0.05	0.20
2007190922	2007191082	0.20	0.20	0.10	0.20	5400	7800	0.990	1.310	0.60	0.70	0.05	0.05
2007190922	2007191082	1.00	1.20	0.90	1.00	20200	28300	3.710	5.030	3.80	4.10	0.05	0.05
2007190922	2007191082	0.40	0.70	0.30	0.50	14000	23500	2.770	4.860	1.20	1.80	0.05	0.05
2007190922	2007191082	0.90	1.70	0.70	1.00	26800	43800	5.170	9.350	2.90	3.90	0.05	0.05
2007190927	2007191444	0.80	1.00	0.40	0.50	21900	29800	3.890	5.950	2.10	2.60	0.05	0.05
2007190927	2007191444	1.30	1.50	0.80	0.80	26900	31800	5.110	6.330	3.90	4.20	0.05	0.05
2007190927	2007191444	0.90	0.90	0.50	0.50	22300	26600	3.840	4.760	2.80	2.80	0.05	0.05
2007190927	2007191444	1.10	1.20	0.70	0.80	26500	28200	4.760	4.800	3.30	4.10	0.05	0.05
2007190949	2007191504	1.80	1.60	1.20	1.10	37200	34500	9.960	11.000	5.40	5.00	0.10	0.10
2007190949	2007191504	2.00	2.00	1.30	1.20	51600	44500	13.600	14.700	5.50	5.60	0.20	0.10
2007190949	2007191504	1.70	1.40	1.10	0.90	46500	33900	13.000	12.600	4.90	4.20	0.10	0.10
2007190949	2007191504	1.60	1.60	1.10	1.00	40500	42400	12.700	16.900	4.80	4.50	0.10	0.20
2007190968	2007191437	0.30	0.20	0.30	0.20	7200	5800	0.970	1.070	1.00	0.70	0.05	0.05
2007190968	2007191437	0.60	0.50	0.50	0.30	13400	13700	2.080	3.230	1.80	1.40	0.05	0.05
2007190968	2007191437	0.80	0.70	0.60	0.50	21400	19400	6.020	4.810	1.70	2.00	0.05	0.05
2007190968	2007191437	1.30	1.10	1.00	0.70	34800	32700	12.000	8.900	3.20	2.90	0.05	0.10
2007190970	2007191245	0.40	0.40	0.70	0.40	32700	37600	4.940	5.150	2.50	2.00	0.05	0.05
2007190970	2007191245	0.30	0.30	0.70	0.40	24800	24200	4.530	4.360	2.60	1.80	0.05	0.05
2007190970	2007191245	0.40	0.20	0.50	0.10	26600	10600	4.300	1.450	2.00	0.80	0.05	0.05
2007190970	2007191245	0.30	0.40	0.50	0.30	27500	24700	4.190	3.490	2.10	1.40	0.05	0.05
2007190986	2007191592	0.40	0.50	0.20	0.30	15100	20200	2.970	3.580	1.10	1.90	0.05	0.05
2007190986	2007191592	0.60	1.00	0.40	0.60	27700	30100	4.370	3.830	2.00	4.60	0.05	0.05
2007190986	2007191592	0.60	0.80	0.40	0.50	23500	28500	4.170	4.640	2.20	2.70	0.05	0.05
2007190986	2007191592	0.70	1.30	0.40	0.60	28800	44700	5.370	8.450	2.50	3.80	0.05	0.20
2007190990	2007191537	1.40	1.50	0.70	0.90	8200	8500	1.800	2.680	4.50	4.50	0.05	0.05
2007190990	2007191537	1.30	1.30	0.80	0.80	9300	8200	1.700	2.440	4.20	4.30	0.05	0.05
2007190990	2007191537	0.90	0.50	0.50	0.30	3700	3500	1.290	1.110	2.60	1.50	0.05	0.05
2007190990	2007191537	1.30	1.00	0.90	0.60	5100	5600	1.740	1.920	4.20	3.30	0.05	0.05
2007191007	2007191551	0.30	0.40	0.30	0.30	5200	8100	0.960	1.550	1.20	1.50	0.05	0.05
2007191007	2007191551	0.60	0.70	0.50	0.60	9600	12900	1.680	2.110	2.10	3.40	0.05	0.05
2007191007	2007191551	0.20	0.40	0.30	0.40	5600	9700	1.180	1.700	1.00	1.90	0.05	0.05
2007191007	2007191551	0.60	0.80	0.50	0.70	9900	15800	2.170	2.560	2.10	3.50	0.05	0.05
2007191028	2007191531	0.70	0.40	0.50	0.30	11500	8400	2.620	2.570	2.20	1.50	0.05	0.05
2007191028	2007191531	1.50	1.10	1.00	0.80	20000	18900	5.000	4.770	4.20	3.70	0.05	0.05
2007191028	2007191531	0.90	0.60	0.60	0.40	16200	12400	4.080	3.240	2.50	1.80	0.05	0.05
2007191028	2007191531	1.30	1.40	0.80	0.70	22100	30000	6.070	8.030	3.70	3.30	0.05	0.10
2007191051	2007191331	1.20	1.10	0.80	0.90	20800	13200	5.270	3.460	2.90	3.20	0.05	0.05
2007191051	2007191331	1.00	0.80	0.70	0.70	18900	10600	4.610	2.720	2.70	2.50	0.05	0.05

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Hf (ppm)	Hf (ppm)	Hg (ppm)	Hg (ppm)	Ho (ppm)	Ho (ppm)	In (ppm)	In (ppm)	K (ppm)	K (ppm)	La (ppm)	La (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.01	0.01	0.1	0.1	0.02	0.02	100	100	0.5	0.5
ULD:	ULD:												
2007190798	2007191229	0.05	0.05	0.005	0.020	0.20	0.10	0.010	0.010	200	200	7.20	6.10
2007190818	2007191157	0.05	0.05	0.020	0.005	0.20	0.05	0.010	0.010	1200	500	20.40	10.10
2007190818	2007191157	0.30	0.05	0.020	0.030	0.40	0.40	0.020	0.010	2900	2200	60.70	59.70
2007190818	2007191157	0.05	0.05	0.005	0.005	0.05	0.10	0.010	0.010	400	900	10.30	17.90
2007190818	2007191157	0.20	0.20	0.005	0.030	0.40	0.40	0.020	0.010	1600	2600	52.40	57.40
2007190825	2007191214	0.10	0.20	0.040	0.040	0.50	0.50	0.010	0.010	1600	1900	16.70	21.10
2007190825	2007191214	0.20	0.20	0.040	0.010	0.60	0.50	0.010	0.010	1500	1900	19.80	21.60
2007190825	2007191214	0.20	0.20	0.150	0.010	0.60	0.60	0.010	0.010	2100	2400	20.30	22.70
2007190825	2007191214	0.20	0.20	0.020	0.005	0.60	0.60	0.010	0.020	1900	2300	20.00	23.10
2007190826	2007191052	0.05	0.10	0.030	0.030	0.05	0.20	0.010	0.010	800	1000	3.80	6.80
2007190826	2007191052	0.20	0.20	0.030	0.050	0.20	0.30	0.010	0.010	1800	1900	13.20	15.00
2007190826	2007191052	0.05	0.05	0.040	0.030	0.05	0.20	0.010	0.010	1400	1200	4.90	5.60
2007190826	2007191052	0.10	0.05	0.040	0.070	0.40	0.30	0.010	0.010	3100	2500	14.40	14.30
2007190827	2007191440	0.10	0.10	0.005	0.020	0.10	0.20	0.010	0.010	2000	2600	7.60	8.50
2007190827	2007191440	0.20	0.20	0.010	0.050	0.30	0.40	0.040	0.040	5000	7300	18.20	24.00
2007190827	2007191440	0.05	0.10	0.010	0.040	0.20	0.20	0.010	0.010	3000	6400	8.60	10.80
2007190827	2007191440	0.05	0.10	0.020	0.070	0.30	0.20	0.040	0.020	6600	7100	17.40	13.10
2007190834	2007190889	0.05	0.05	0.020	0.005	0.05	0.05	0.010	0.010	500	400	6.20	6.20
2007190834	2007190889	0.05	0.20	0.030	0.020	0.40	0.40	0.010	0.010	1700	1800	33.10	34.50
2007190834	2007190889	0.05	0.05	0.010	0.005	0.05	0.05	0.010	0.010	200	300	2.40	1.80
2007190849	2007191277	0.20	0.20	0.030	0.005	0.50	0.40	0.030	0.040	4400	2600	16.60	22.10
2007190849	2007191277	0.20	0.10	0.050	0.070	0.70	0.50	0.040	0.030	5000	2700	19.00	26.90
2007190849	2007191277	0.20	0.30	0.020	0.010	0.80	0.50	0.030	0.030	2100	1900	18.80	25.10
2007190849	2007191277	0.20	0.20	0.010	0.005	0.80	0.60	0.030	0.040	2000	2200	17.90	28.80
2007190853	2007190939	0.05	0.10	0.040	0.020	0.30	0.20	0.010	0.010	2900	1800	8.10	8.00
2007190853	2007190939	0.10	0.30	0.010	0.020	0.40	0.40	0.010	0.040	4000	4500	10.20	17.70
2007190853	2007190939	0.05	0.10	0.010	0.005	0.10	0.10	0.010	0.010	1000	1600	3.10	5.50
2007190853	2007190939	0.20	0.40	0.020	0.010	0.50	0.50	0.010	0.040	8200	8000	15.20	19.10
2007190865	2007191183	0.05	0.05	0.005	0.010	0.05	0.10	0.010	0.010	300	400	1.10	1.20
2007190865	2007191183	0.05	0.05	0.005	0.010	0.05	0.10	0.010	0.010	500	300	1.70	1.00
2007190874	2007191297	0.20	0.05	0.005	0.040	0.20	0.40	0.020	0.010	800	700	8.80	8.80
2007190874	2007191297	0.10	0.05	0.050	0.020	0.40	0.60	0.010	0.010	1400	1400	16.60	14.60
2007190874	2007191297	0.20	0.05	0.005	0.050	0.10	0.50	0.030	0.010	700	900	7.40	11.50
2007190874	2007191297	0.10	0.05	0.005	0.010	0.40	0.60	0.050	0.010	1700	1200	19.50	16.90
2007190887	2007191058	0.20	0.05	0.010	0.040	0.50	0.60	0.040	0.030	1700	2100	48.30	45.50
2007190887	2007191058	0.05	0.05	0.080	0.020	0.50	0.40	0.030	0.030	2400	1700	41.10	39.20
2007190887	2007191058	0.05	0.05	0.010	0.040	0.50	0.60	0.040	0.040	2600	2200	43.50	42.80
2007190887	2007191058	0.05	0.05	0.060	0.020	0.50	0.50	0.030	0.030	1700	1400	40.40	36.40
2007190895	2007190947	0.05	0.20	0.005	0.030	0.40	0.50	0.020	0.040	3100	7100	14.10	21.90
2007190895	2007190947	0.10	0.20	0.020	0.005	0.40	0.40	0.020	0.040	2900	5900	13.50	18.90
2007190895	2007190947	0.05	0.20	0.005	0.030	0.40	0.60	0.020	0.050	2600	5000	13.80	23.10
2007190895	2007190947	0.05	0.30	0.020	0.005	0.40	0.50	0.020	0.040	2500	4600	14.40	21.40
2007190896	2007191441	0.05	0.05	0.010	0.030	0.20	0.30	0.010	0.020	500	1700	10.00	16.50
2007190896	2007191441	0.05	0.05	0.030	0.070	0.50	0.60	0.040	0.040	1300	3100	27.30	33.20
2007190896	2007191441	0.05	0.05	0.005	0.020	0.20	0.30	0.020	0.030	600	1900	11.60	22.40
2007190896	2007191441	0.05	0.10	0.010	0.030	0.60	0.50	0.040	0.050	1400	2900	29.90	34.20
2007190922	2007191082	0.05	0.05	0.005	0.005	0.05	0.05	0.010	0.010	700	400	4.30	5.50
2007190922	2007191082	0.05	0.05	0.100	0.040	0.50	0.50	0.020	0.030	3700	2000	23.00	30.10
2007190922	2007191082	0.20	0.30	0.030	0.030	0.20	0.30	0.010	0.030	3000	2500	7.70	10.20
2007190922	2007191082	0.30	0.50	0.210	0.100	0.40	0.60	0.010	0.040	5900	5100	16.30	19.40
2007190927	2007191444	0.05	0.05	0.060	0.050	0.30	0.40	0.010	0.010	1900	3900	12.60	15.90
2007190927	2007191444	0.05	0.05	0.110	0.100	0.50	0.50	0.030	0.020	2400	4400	21.70	23.80
2007190927	2007191444	0.05	0.05	0.050	0.060	0.40	0.30	0.010	0.010	1900	3200	16.00	15.90
2007190927	2007191444	0.05	0.05	0.080	0.070	0.40	0.40	0.020	0.010	2000	3000	18.80	21.20
2007190949	2007191504	0.30	0.30	0.005	0.030	0.70	0.60	0.040	0.050	8800	8000	31.30	30.80
2007190949	2007191504	0.30	0.40	0.005	0.030	0.70	0.70	0.060	0.070	10900	11400	33.20	33.50
2007190949	2007191504	0.30	0.30	0.010	0.030	0.70	0.50	0.060	0.040	10800	9000	30.50	25.10
2007190949	2007191504	0.30	0.40	0.005	0.030	0.60	0.60	0.050	0.070	12400	12400	26.00	27.20
2007190968	2007191437	0.05	0.05	0.030	0.020	0.20	0.05	0.010	0.010	1400	1000	4.80	2.60
2007190968	2007191437	0.20	0.10	0.005	0.010	0.30	0.20	0.010	0.010	2600	2500	8.90	6.70
2007190968	2007191437	0.10	0.20	0.010	0.005	0.40	0.20	0.010	0.010	3500	4400	9.10	7.00
2007190968	2007191437	0.20	0.20	0.005	0.020	0.70	0.30	0.010	0.020	6400	7600	15.70	9.30
2007190970	2007191245	0.05	0.05	0.070	0.110	0.20	0.20	0.650	1.330	1000	1400	19.40	18.60
2007190970	2007191245	0.05	0.05	0.090	0.110	0.10	0.10	0.490	1.070	800	1000	23.10	17.70
2007190970	2007191245	0.05	0.05	0.020	0.030	0.20	0.05	0.160	0.010	600	500	12.90	6.80
2007190970	2007191245	0.05	0.10	0.010	0.030	0.20	0.20	0.140	0.030	500	600	14.90	11.40
2007190986	2007191592	0.05	0.05	0.005	0.010	0.10	0.20	0.010	0.010	3700	3100	8.30	13.40
2007190986	2007191592	0.05	0.05	0.005	0.010	0.30	0.30	0.020	0.010	3900	2300	15.60	28.50
2007190986	2007191592	0.05	0.05	0.030	0.020	0.30	0.30	0.030	0.010	4400	4100	13.70	18.00
2007190986	2007191592	0.05	0.05	0.010	0.020	0.30	0.50	0.020	0.030	5900	6700	16.70	29.30
2007190990	2007191537	0.05	0.05	0.050	0.030	0.60	0.60	0.010	0.020	400	300	30.20	37.70
2007190990	2007191537	0.05	0.05	0.050	0.020	0.60	0.60	0.030	0.020	400	300	28.10	34.10
2007190990	2007191537	0.05	0.05	0.010	0.005	0.40	0.20	0.010	0.010	200	100	31.10	12.90
2007190990	2007191537	0.05	0.05	0.030	0.005	0.60	0.40	0.020	0.010	300	200	48.20	25.50
2007191007	2007191551	0.05	0.05	0.020	0.005	0.10	0.10	0.010	0.010	700	1100	12.70	12.40
2007191007	2007191551	0.05	0.05	0.030	0.030	0.30	0.30	0.010	0.010	1900	1800	20.80	22.60
2007191007	2007191551	0.05	0.05	0.005	0.020	0.10	0.10	0.010	0.010	600	1000	11.90	10.30
2007191007	2007191551	0.05	0.05	0.030	0.020	0.30	0.30	0.010	0.010	1300	1700	21.10	18.50
2007191028	2007191531	0.05	0.05	0.010	0.030	0.30	0.10	0.010	0.010	2000	1100	11.70	7.50
2007191028	2007191531	0.05	0.10	0.020	0.050	0.60	0.30	0.020	0.010	3700	2200	22.70	17.80
2007191028	2007191531	0.05	0.05	0.005	0.010	0.30	0.20	0.010	0.010	1800	900	13.00	8.80
2007191028	2007191531	0.05	0.10	0.010	0.010	0.50	0.50	0.030	0.020	2600	2200	19.40	20.40
2007191051	2007191331	0.05	0.05	0.010	0.040	0.40	0.50	0.030	0.010	900	1200	9.60	15.00
2007191051	2007191331	0.05	0.05	0.005	0.010	0.40	0.30	0.020	0.010	800	1000	9.20	12.20

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Li (ppm)	Li (ppm)	Lu (ppm)	Lu (ppm)	Mg (ppm)	Mg (ppm)	Mn (ppm)	Mn (ppm)	Mo (ppm)	Mo (ppm)	Na (ppm)	Na (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1	100	100	1	1	0.01	0.01	10	10
ULD:	ULD:												
2007190798	2007191229	1.20	2.10	0.05	0.05	200	300	27	23	0.090	0.005	100	1850
2007190818	2007191157	4.10	1.60	0.05	0.05	1200	600	130	58	0.170	0.090	310	60
2007190818	2007191157	10.30	7.00	0.05	0.05	2900	2000	297	211	0.400	0.430	650	220
2007190818	2007191157	1.80	3.10	0.05	0.05	500	900	67	108	0.100	0.150	180	370
2007190818	2007191157	6.90	8.70	0.05	0.05	1900	2300	201	278	0.490	0.510	600	840
2007190825	2007191214	8.00	10.20	0.05	0.20	2200	3200	619	563	0.310	0.290	190	310
2007190825	2007191214	7.80	9.60	0.05	0.20	2000	2900	494	531	0.250	0.350	210	310
2007190825	2007191214	11.30	12.40	0.05	0.10	3200	3700	698	735	0.350	0.350	790	920
2007190825	2007191214	12.10	12.60	0.05	0.20	3000	3900	703	765	0.410	0.500	750	930
2007190826	2007191052	2.70	4.10	0.05	0.05	800	1800	62	104	0.090	0.080	110	180
2007190826	2007191052	6.80	8.70	0.05	0.05	1800	3700	171	217	0.210	0.170	130	180
2007190826	2007191052	4.90	4.80	0.05	0.05	1400	1400	74	71	0.100	0.100	130	180
2007190826	2007191052	11.30	9.40	0.05	0.05	3400	3000	206	174	0.170	0.130	140	180
2007190827	2007191440	3.40	4.80	0.05	0.05	2900	1800	156	225	0.430	0.760	50	250
2007190827	2007191440	7.30	17.90	0.05	0.10	7300	4400	344	618	0.860	1.200	100	360
2007190827	2007191440	4.10	11.50	0.05	0.05	4700	15000	156	179	0.400	0.770	130	1520
2007190827	2007191440	8.20	15.40	0.05	0.05	10300	16600	316	220	0.780	1.350	270	1940
2007190834	2007190889	3.00	3.20	0.05	0.05	300	400	73	116	0.250	0.260	280	130
2007190834	2007190889	11.90	10.40	0.05	0.05	1300	1300	302	398	1.200	0.910	810	480
2007190834	2007190889	1.40	1.10	0.05	0.05	100	100	18	18	0.250	0.100	160	90
2007190849	2007191277	14.80	10.90	0.20	0.05	3600	2900	1110	901	0.220	0.320	2160	310
2007190849	2007191277	17.00	10.60	0.20	0.10	3900	2900	1240	979	0.340	0.350	2410	290
2007190849	2007191277	10.10	8.70	0.20	0.05	3900	3600	1140	367	1.240	0.370	2900	1800
2007190849	2007191277	9.10	10.00	0.20	0.10	3800	4100	1870	856	0.710	0.640	3020	1940
2007190853	2007190939	13.30	8.80	0.10	0.05	14000	5400	290	169	0.460	0.240	29400	8040
2007190853	2007190939	15.20	20.20	0.10	0.20	19800	13000	445	435	0.890	0.650	32100	14300
2007190853	2007190939	6.50	7.40	0.05	0.05	7600	5500	78	112	0.140	0.140	9640	11200
2007190853	2007190939	27.60	32.20	0.10	0.20	44300	25700	493	539	0.920	0.660	5	45200
2007190865	2007191183	0.20	0.90	0.05	0.05	300	400	17	20	0.190	0.050	30	130
2007190865	2007191183	0.70	0.80	0.05	0.05	400	300	35	15	0.060	0.200	70	130
2007190874	2007191297	3.50	4.50	0.05	0.05	1000	1500	315	329	0.230	0.210	60	150
2007190874	2007191297	7.00	7.70	0.10	0.05	1800	2900	411	715	0.290	0.310	60	180
2007190874	2007191297	3.90	5.30	0.05	0.05	900	1600	213	440	0.210	0.170	60	150
2007190874	2007191297	10.30	7.00	0.10	0.05	2500	2700	515	652	0.240	0.710	70	180
2007190887	2007191058	26.60	29.30	0.20	0.10	1600	1900	380	304	0.330	0.230	220	310
2007190887	2007191058	13.20	24.70	0.10	0.10	1500	1600	299	229	0.200	0.170	130	250
2007190887	2007191058	12.80	36.10	0.10	0.10	2200	2100	98	349	0.240	0.190	250	430
2007190887	2007191058	10.70	19.60	0.20	0.10	1400	1500	103	218	0.070	0.260	190	360
2007190895	2007190947	4.60	11.60	0.10	0.20	2800	5000	313	518	0.080	0.150	1600	260
2007190895	2007190947	4.40	9.10	0.10	0.10	2600	4100	332	435	0.090	0.140	540	200
2007190895	2007190947	4.10	10.30	0.10	0.20	2800	4900	533	561	0.150	0.240	2300	1150
2007190895	2007190947	3.80	9.80	0.10	0.20	2900	4500	298	424	0.120	0.280	980	1060
2007190896	2007191441	2.20	13.00	0.05	0.05	200	900	134	336	0.560	1.490	110	320
2007190896	2007191441	6.20	23.70	0.10	0.20	500	1500	309	707	0.860	2.030	110	390
2007190896	2007191441	2.80	15.20	0.05	0.05	400	1300	545	397	0.550	1.330	110	440
2007190896	2007191441	6.70	24.20	0.20	0.20	1000	1900	722	525	0.830	1.820	220	630
2007190922	2007191082	2.20	2.60	0.05	0.05	300	400	33	48	0.190	0.150	70	30
2007190922	2007191082	7.00	9.70	0.10	0.10	1400	1500	158	201	0.620	0.660	150	150
2007190922	2007191082	3.70	8.50	0.05	0.05	5500	4600	39	74	0.230	0.200	1170	790
2007190922	2007191082	7.50	16.20	0.20	0.20	15300	11900	80	143	0.430	0.420	3300	1660
2007190927	2007191444	15.20	20.90	0.05	0.05	3200	3900	326	499	0.340	0.410	110	280
2007190927	2007191444	18.50	22.80	0.10	0.10	3900	4300	495	613	0.500	0.530	210	280
2007190927	2007191444	14.30	19.70	0.05	0.05	3200	3800	319	388	0.360	0.450	110	280
2007190927	2007191444	18.60	24.80	0.10	0.10	3700	3900	423	437	0.490	0.510	110	280
2007190949	2007191504	15.30	19.50	0.20	0.20	5500	5700	509	599	0.120	0.070	1690	1770
2007190949	2007191504	16.10	27.70	0.20	0.20	8300	7800	718	683	0.090	0.070	2390	2700
2007190949	2007191504	20.20	24.70	0.20	0.10	11300	9800	486	417	0.120	0.005	4320	5330
2007190949	2007191504	23.70	33.70	0.20	0.20	11500	12900	416	450	0.080	0.005	4840	5160
2007190968	2007191437	2.60	2.50	0.05	0.05	800	600	113	54	0.060	0.010	200	210
2007190968	2007191437	5.20	5.80	0.05	0.05	1500	1500	209	142	0.050	0.110	280	290
2007190968	2007191437	7.50	11.10	0.05	0.05	4000	3900	338	271	0.130	0.270	910	4430
2007190968	2007191437	14.80	18.40	0.05	0.10	6900	6000	712	438	0.400	0.500	1410	6830
2007190970	2007191245	16.50	18.10	0.05	0.05	3000	2700	534	802	2.060	2.110	7390	7420
2007190970	2007191245	15.10	15.00	0.05	0.05	2400	2000	321	316	1.600	1.430	3540	3520
2007190970	2007191245	28.90	11.10	0.05	0.05	2400	1200	133	110	3.030	0.460	2050	620
2007190970	2007191245	29.70	26.60	0.05	0.05	2400	2500	126	248	2.520	0.980	1510	1160
2007190986	2007191592	2.40	5.30	0.05	0.05	3000	2400	132	166	0.070	0.060	50	260
2007190986	2007191592	5.00	5.10	0.20	0.05	3200	2100	215	178	0.200	0.100	70	230
2007190986	2007191592	27.00	7.20	1.20	0.05	4300	3500	492	187	0.590	0.100	290	300
2007190986	2007191592	4.30	11.70	0.10	0.10	5700	4700	178	309	0.520	0.250	100	300
2007190990	2007191537	2.40	2.00	0.20	0.20	300	400	54	94	0.280	0.210	110	60
2007190990	2007191537	2.20	1.90	0.20	0.10	200	300	53	76	0.260	0.200	110	50
2007190990	2007191537	1.10	0.70	0.05	0.05	50	50	8	10	0.200	0.100	50	30
2007190990	2007191537	2.00	5.10	0.20	0.10	50	100	10	17	0.220	0.170	70	40
2007191007	2007191551	1.40	2.50	0.05	0.05	400	600	213	258	0.300	0.080	30	180
2007191007	2007191551	3.30	4.60	0.05	0.10	900	1200	474	528	0.280	0.130	50	220
2007191007	2007191551	1.20	3.70	0.05	0.05	400	900	139	133	0.190	0.080	20	250
2007191007	2007191551	2.50	5.80	0.05	0.05	700	1400	311	276	0.310	0.470	70	250
2007191028	2007191531	2.50	5.60	0.05	0.05	1700	1100	262	119	0.050	0.120	120	150
2007191028	2007191531	5.30	11.80	0.20	0.10	3200	2300	416	242	0.100	0.240	120	150
2007191028	2007191531	3.10	7.90	0.10	0.05	4800	1800	259	141	0.480	0.150	240	190
2007191028	2007191531	4.70	16.00	0.10	0.10	6400	3800	351	396	0.120	0.420	240	220
2007191051	2007191331	3.80	1.90	0.10	0.05	1700	1300	570	515	0.005	0.190	90	110
2007191051	2007191331	3.50	1.60	0.10	0.05	1500	1000	475	362	0.005	0.170	90	80

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Nb (ppm)	Nb (ppm)	Nd (ppm)	Nd (ppm)	Ni (ppm)	Ni (ppm)	Pb (ppm)	Pb (ppm)	Pr (ppm)	Pr (ppm)	Rb (ppm)	Rb (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.02	0.02	0.1	0.1	0.01	0.01	0.1	0.1	0.1	0.1
ULD:	ULD:												
2007190798	2007191229	0.05	0.30	7.380	5.550	3.00	1.40	4.480	4.440	1.90	1.50	2.80	4.30
2007190818	2007191157	0.30	0.10	13.800	6.160	7.80	3.20	10.800	4.160	4.00	1.90	8.10	4.30
2007190818	2007191157	0.60	0.40	38.300	35.900	20.70	14.10	21.600	18.200	11.40	10.90	19.50	15.30
2007190818	2007191157	0.10	0.20	6.770	11.100	3.20	6.30	4.180	6.770	2.00	3.40	3.40	6.90
2007190818	2007191157	0.40	0.50	34.700	36.100	13.70	19.10	16.300	18.800	10.30	10.70	13.60	18.70
2007190825	2007191214	0.05	0.05	15.900	17.700	12.90	17.00	6.770	9.130	3.70	4.10	12.20	19.70
2007190825	2007191214	0.05	0.10	16.700	20.600	12.70	18.00	6.910	8.740	4.30	4.90	11.30	17.70
2007190825	2007191214	0.05	0.05	17.500	20.300	16.90	18.10	8.920	9.490	4.20	5.20	17.00	23.10
2007190825	2007191214	0.05	0.05	19.000	18.900	18.10	20.30	9.280	11.100	4.50	4.90	15.80	23.10
2007190826	2007191052	0.20	0.05	3.030	4.630	3.80	5.70	2.500	4.080	0.70	1.30	6.60	10.50
2007190826	2007191052	0.30	0.05	10.300	12.600	8.60	11.60	5.700	8.010	2.60	3.10	14.80	21.90
2007190826	2007191052	0.20	0.05	3.810	4.310	5.40	5.60	3.600	3.800	0.90	1.20	11.40	11.60
2007190826	2007191052	0.30	0.05	11.300	11.500	10.90	9.80	7.300	6.790	2.90	3.10	24.90	23.90
2007190827	2007191440	0.10	0.10	6.530	8.020	7.00	10.70	5.560	8.540	1.70	2.10	18.10	23.70
2007190827	2007191440	0.10	0.20	14.900	20.300	16.90	25.70	12.700	21.500	4.30	5.30	44.90	69.10
2007190827	2007191440	0.10	0.10	7.480	8.010	8.80	18.20	6.940	11.700	2.00	2.00	25.20	45.00
2007190827	2007191440	0.20	0.30	16.000	11.700	18.70	26.90	12.600	16.400	4.30	2.80	54.80	60.10
2007190834	2007190889	0.05	0.20	3.710	4.080	3.40	2.70	2.760	3.750	1.00	1.20	3.30	3.30
2007190834	2007190889	0.30	0.40	19.400	23.400	14.20	11.20	15.700	13.400	5.20	6.70	13.70	12.20
2007190834	2007190889	0.05	0.05	1.350	1.200	2.00	0.80	1.770	1.000	0.40	0.30	1.20	1.10
2007190849	2007191277	0.05	0.05	19.700	22.000	16.70	12.00	11.400	9.880	4.80	5.60	35.90	27.40
2007190849	2007191277	0.05	0.05	23.700	27.500	19.10	12.40	13.400	11.400	5.70	6.90	38.70	29.40
2007190849	2007191277	0.05	0.05	22.900	27.500	23.80	10.00	20.800	12.900	5.40	7.10	18.10	22.60
2007190849	2007191277	0.05	0.05	22.800	32.300	29.90	13.80	51.000	19.800	5.20	8.20	17.10	25.50
2007190853	2007190939	0.05	0.05	8.040	7.230	10.00	7.30	8.870	6.810	2.20	1.90	8.90	10.00
2007190853	2007190939	0.05	0.10	10.900	16.100	14.90	16.10	11.800	15.900	2.70	4.20	10.70	23.00
2007190853	2007190939	0.05	0.05	3.110	4.950	3.30	4.90	1.920	4.040	0.80	1.30	3.40	8.50
2007190853	2007190939	0.05	0.05	14.200	18.100	19.70	22.20	9.720	15.500	4.00	4.70	27.90	37.40
2007190865	2007191183	0.05	0.05	0.960	1.070	0.60	2.30	0.670	1.510	0.20	0.30	0.90	1.60
2007190865	2007191183	0.05	0.05	1.360	0.900	0.60	1.50	0.930	1.990	0.30	0.20	2.60	1.40
2007190874	2007191297	0.20	0.30	6.830	8.160	4.10	9.70	5.570	6.010	1.90	1.80	9.70	7.70
2007190874	2007191297	0.20	0.60	14.200	14.200	7.10	14.80	6.980	7.300	3.80	3.40	17.40	13.20
2007190874	2007191297	0.20	0.40	6.320	9.930	4.30	9.20	5.310	6.740	1.70	2.50	9.40	8.80
2007190874	2007191297	0.30	0.50	16.700	15.500	10.70	16.60	8.520	13.200	4.90	3.50	21.70	12.70
2007190887	2007191058	0.30	0.40	33.600	32.000	8.90	15.20	22.200	25.300	10.70	9.20	39.40	42.80
2007190887	2007191058	0.30	0.50	27.100	30.700	7.00	12.90	17.700	22.500	8.70	7.90	33.40	36.30
2007190887	2007191058	0.30	0.20	27.600	35.100	7.20	16.60	19.500	30.600	9.30	9.60	38.10	44.70
2007190887	2007191058	0.30	0.40	26.400	31.100	5.60	11.50	17.700	22.700	8.40	8.40	34.30	28.60
2007190895	2007190947	0.05	0.40	17.400	20.700	16.50	25.60	7.650	10.900	4.20	5.40	11.80	30.70
2007190895	2007190947	0.05	0.40	16.200	18.000	15.90	20.70	8.230	9.150	4.00	4.50	11.20	25.20
2007190895	2007190947	0.05	0.20	17.300	21.900	20.70	23.60	8.330	11.100	4.10	5.70	12.30	29.00
2007190895	2007190947	0.05	0.30	17.500	20.400	16.00	22.20	7.910	10.300	4.10	5.30	12.40	26.60
2007190896	2007191441	0.20	0.10	9.270	15.800	7.00	24.70	5.880	15.500	2.60	4.00	6.00	20.10
2007190896	2007191441	0.30	0.10	27.500	30.200	15.70	36.50	12.900	25.800	7.40	7.90	16.20	39.50
2007190896	2007191441	0.10	0.10	14.100	17.800	8.70	28.00	8.380	17.200	3.70	4.80	9.00	26.10
2007190896	2007191441	0.20	0.10	30.700	27.300	17.40	42.10	14.800	24.900	8.10	6.90	19.80	41.10
2007190922	2007191082	0.10	0.30	3.450	4.850	1.90	2.70	2.470	2.050	1.00	1.30	4.90	4.80
2007190922	2007191082	0.50	0.90	19.400	26.900	8.40	10.90	12.000	10.300	6.10	7.40	18.50	17.90
2007190922	2007191082	0.20	0.20	6.560	10.200	4.30	10.20	3.480	5.070	1.90	2.70	13.70	19.20
2007190922	2007191082	0.30	0.30	13.800	20.500	9.00	18.00	6.870	9.950	4.10	5.20	27.10	35.30
2007190927	2007191444	1.10	0.20	12.500	15.400	14.80	19.00	12.600	17.600	3.20	3.80	18.00	24.80
2007190927	2007191444	1.30	0.50	21.000	21.500	19.50	22.90	21.800	26.200	5.30	5.40	23.00	29.40
2007190927	2007191444	0.70	0.40	15.100	12.800	13.70	20.90	9.900	11.900	4.00	3.50	17.60	21.50
2007190927	2007191444	1.00	0.50	18.500	19.600	18.60	26.00	14.200	17.100	4.70	4.50	18.80	22.40
2007190949	2007191504	0.20	0.20	30.000	28.300	16.20	15.40	20.000	18.900	7.70	7.80	32.70	39.80
2007190949	2007191504	0.20	0.20	31.700	29.400	17.10	20.80	20.000	21.700	8.00	8.20	51.00	53.00
2007190949	2007191504	0.05	0.20	29.500	22.200	18.00	17.10	18.900	15.400	7.50	6.10	51.70	45.70
2007190949	2007191504	0.05	0.20	26.000	24.700	19.60	21.70	18.000	14.900	6.50	6.70	39.90	60.50
2007190968	2007191437	0.05	0.05	4.660	3.440	3.90	3.10	3.620	2.520	1.10	0.80	4.80	4.20
2007190968	2007191437	0.05	0.05	9.180	7.710	8.70	9.10	4.530	4.630	2.10	1.80	8.90	10.70
2007190968	2007191437	0.05	0.05	10.600	8.210	12.80	14.00	4.700	7.010	2.20	1.80	13.90	18.20
2007190968	2007191437	0.05	0.05	17.000	13.000	24.50	22.00	8.650	9.590	3.90	2.80	24.00	26.00
2007190970	2007191245	0.90	0.60	15.700	15.400	21.20	17.10	109.000	209.000	4.30	4.30	9.10	11.40
2007190970	2007191245	0.80	0.50	18.700	14.100	19.20	13.60	70.600	124.000	5.20	3.90	8.00	9.90
2007190970	2007191245	1.00	0.40	10.900	5.530	31.70	13.90	22.900	3.790	3.00	1.50	6.80	2.50
2007190970	2007191245	1.10	1.00	12.300	9.690	29.40	32.40	20.600	10.200	3.40	2.60	6.30	4.70
2007190986	2007191592	0.70	0.60	5.670	9.040	10.80	13.50	2.900	4.210	1.70	2.60	30.50	21.10
2007190986	2007191592	0.80	0.50	10.400	24.000	15.50	17.80	5.200	6.280	3.30	5.60	31.20	16.10
2007190986	2007191592	0.70	0.80	9.710	17.700	32.30	20.90	8.330	5.000	3.10	4.50	35.90	26.40
2007190986	2007191592	0.90	0.90	11.300	24.900	16.10	25.80	7.040	7.100	3.60	6.60	52.00	41.60
2007190990	2007191537	0.05	0.05	21.100	26.800	2.00	1.50	22.200	16.100	6.80	6.80	13.80	16.80
2007190990	2007191537	0.05	0.05	20.600	24.600	2.70	1.60	23.100	14.900	6.60	6.30	12.50	16.10
2007190990	2007191537	0.05	0.05	16.500	8.910	1.90	0.50	12.200	5.610	5.10	2.20	7.20	8.10
2007190990	2007191537	0.05	0.05	26.300	18.500	1.30	1.30	17.200	10.600	8.10	4.60	10.20	14.10
2007191007	2007191551	0.10	0.40	7.650	11.200	5.70	8.60	2.450	4.440	2.20	2.80	5.80	6.90
2007191007	2007191551	0.20	0.50	12.500	16.100	12.50	17.00	5.160	8.920	3.70	4.70	9.90	10.60
2007191007	2007191551	0.10	0.30	7.080	9.330	6.00	13.30	2.620	6.430	2.00	2.10	6.50	8.50
2007191007	2007191551	0.20	0.50	12.900	19.300	11.70	21.00	5.640	13.900	3.70	4.70	10.50	11.60
2007191028	2007191531	0.05	0.10	12.100	6.460	7.80	6.50	15.300	12.200	3.10	1.50	12.90	13.90
2007191028	2007191531	0.05	0.20	24.100	17.100	14.00	13.50	26.500	25.200	6.10	3.90	22.80	29.40
2007191028	2007191531	0.05	0.05	14.400	9.820	12.60	9.20	22.000	15.700	3.50	2.30	17.00	9.20
2007191028	2007191531	0.05	0.10	20.200	22.000	14.90	17.40	25.400	29.500	5.10	5.20	24.40	22.40
2007191051	2007191331	0.05	0.05	12.900	15.100	8.00	5.50	7.980	4.420	3.20	3.80	10.10	7.60
2007191051	2007191331	0.05	0.05	11.500	12.100	7.00	4.10	7.200	3.510	2.90	3.00	9.40	6.50

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Re (ppm)	Re (ppm)	Sb (ppm)	Sb (ppm)	Sc (ppm)	Sc (ppm)	Se (ppm)	Se (ppm)	Sm (ppm)	Sm (ppm)	Sn (ppm)	Sn (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.001	0.001	0.02	0.02	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.05
ULD:	ULD:												
2007190798	2007191229	0.0020	0.0005	0.060	0.030	1.50	1.20	0.05	0.05	1.50	1.10	0.330	0.350
2007190818	2007191157	0.0020	0.0005	0.070	0.010	2.00	0.80	0.05	0.05	2.10	1.00	0.260	0.100
2007190818	2007191157	0.0010	0.0005	0.070	0.040	5.30	3.80	0.10	0.50	6.10	5.80	0.600	0.440
2007190818	2007191157	0.0010	0.0005	0.020	0.010	0.70	1.50	0.05	0.05	1.00	1.80	0.070	0.180
2007190818	2007191157	0.0005	0.0020	0.080	0.050	3.00	4.40	0.30	0.20	5.50	5.90	0.450	0.500
2007190825	2007191214	0.0020	0.0005	0.110	0.130	5.30	5.60	0.10	0.60	3.30	3.60	0.800	0.810
2007190825	2007191214	0.0030	0.0020	0.250	0.130	4.50	5.40	0.05	0.30	3.30	4.10	0.910	0.840
2007190825	2007191214	0.0030	0.0010	0.100	0.140	6.90	7.00	0.05	0.50	3.80	3.60	0.870	0.960
2007190825	2007191214	0.0020	0.0005	0.130	0.190	7.00	6.60	0.30	0.50	4.00	4.00	0.830	1.280
2007190826	2007191052	0.0005	0.0010	0.170	0.110	0.50	1.10	0.05	0.05	0.60	0.90	0.570	0.800
2007190826	2007191052	0.0005	0.0005	9.680	0.150	2.50	3.30	0.05	0.20	2.00	2.30	1.060	1.150
2007190826	2007191052	0.0005	0.0005	0.450	0.120	1.10	1.40	0.05	0.20	0.80	0.80	0.750	0.830
2007190826	2007191052	0.0020	0.0030	0.320	0.160	4.00	3.50	0.05	0.60	2.10	2.10	1.470	1.340
2007190827	2007191440	0.0005	0.0005	0.090	0.160	2.80	4.10	0.05	0.05	1.20	1.50	0.550	0.630
2007190827	2007191440	0.0005	0.0020	0.220	0.130	6.80	12.00	0.05	0.40	2.80	3.80	1.270	0.370
2007190827	2007191440	0.0020	0.0005	0.230	0.160	3.50	6.50	0.05	0.05	1.30	1.70	0.750	0.980
2007190827	2007191440	0.0020	0.0020	0.230	0.220	7.20	9.50	0.20	0.20	3.10	2.50	1.370	0.860
2007190834	2007190889	0.0020	0.0005	0.060	0.060	0.30	1.10	0.05	0.05	0.60	0.60	0.280	0.440
2007190834	2007190889	0.0005	0.0005	0.150	0.100	5.60	5.10	0.05	0.20	3.40	3.80	0.570	0.590
2007190834	2007190889	0.0010	0.0005	0.080	0.010	0.05	0.40	0.05	0.05	0.20	0.20	0.130	0.025
2007190849	2007191277	0.0005	0.0005	0.100	0.120	6.90	6.20	0.20	0.20	4.20	5.00	0.830	0.730
2007190849	2007191277	0.0005	0.0005	0.120	0.060	8.00	6.70	0.05	0.10	5.50	6.50	1.040	0.840
2007190849	2007191277	0.0010	0.0005	0.050	0.070	5.90	7.00	0.05	0.20	4.80	6.10	0.650	0.670
2007190849	2007191277	0.0005	0.0010	0.090	0.070	5.30	8.30	0.20	0.20	4.90	7.60	0.660	0.870
2007190853	2007190939	0.0050	0.0020	0.200	0.130	2.50	2.80	0.80	0.90	2.00	1.50	0.290	0.390
2007190853	2007190939	0.0030	0.0050	0.300	0.260	4.20	5.80	0.70	1.90	2.60	3.30	0.430	0.900
2007190853	2007190939	0.0005	0.0020	0.050	0.040	1.30	2.20	0.50	0.90	0.70	1.00	0.025	0.250
2007190853	2007190939	0.0020	0.0005	0.310	0.190	8.00	8.90	0.80	1.30	3.20	3.70	0.710	1.180
2007190865	2007191183	0.0005	0.0010	0.060	0.090	0.70	0.05	0.05	0.05	0.30	0.20	0.025	0.800
2007190865	2007191183	0.0005	0.0020	0.030	0.080	0.80	0.05	0.50	0.05	0.30	0.20	0.140	0.290
2007190874	2007191297	0.0005	0.0040	0.190	0.370	5.30	4.60	0.40	0.30	1.50	1.60	0.770	0.890
2007190874	2007191297	0.0005	0.0005	0.210	0.460	7.70	8.10	0.05	0.60	2.90	2.90	1.130	1.350
2007190874	2007191297	0.0005	0.0005	0.170	0.400	5.50	5.10	0.05	0.60	1.20	1.90	0.720	1.200
2007190874	2007191297	0.0005	0.0040	0.250	0.370	9.60	6.40	0.20	0.60	3.50	3.10	1.410	1.170
2007190887	2007191058	0.0005	0.0005	0.300	0.210	11.00	8.10	0.80	0.50	6.40	5.80	1.810	1.720
2007190887	2007191058	0.0005	0.0005	0.340	0.180	7.90	7.30	0.20	0.20	5.80	5.70	1.280	1.370
2007190887	2007191058	0.0020	0.0005	0.310	0.240	9.80	13.20	0.60	0.70	5.80	6.40	1.160	1.990
2007190887	2007191058	0.0030	0.0005	0.310	0.320	8.30	9.60	0.80	0.50	5.40	5.50	0.950	1.610
2007190895	2007190947	0.0040	0.0005	0.090	0.050	4.30	8.60	0.20	0.80	3.70	4.50	0.810	1.100
2007190895	2007190947	0.0050	0.0040	3.900	0.050	4.00	7.20	0.05	0.60	3.60	3.70	0.710	0.980
2007190895	2007190947	0.0060	0.0005	0.150	0.040	4.60	9.10	0.05	1.20	3.50	4.60	0.720	1.230
2007190895	2007190947	0.0005	0.0005	0.100	0.040	4.60	8.30	0.05	1.00	3.70	4.20	0.690	1.020
2007190896	2007191441	0.0005	0.0010	0.130	0.160	3.10	10.50	0.05	0.05	1.60	3.10	0.770	0.650
2007190896	2007191441	0.0005	0.0005	0.160	0.270	8.30	19.90	0.05	0.20	5.00	6.00	1.460	0.930
2007190896	2007191441	0.0005	0.0005	0.140	0.230	4.20	10.10	0.05	0.40	2.40	3.20	0.790	1.230
2007190896	2007191441	0.0005	0.0005	0.150	0.220	9.60	16.90	0.05	0.50	5.50	5.70	1.500	1.260
2007190922	2007191082	0.0005	0.0020	0.140	0.050	1.40	0.80	0.80	0.30	0.80	0.90	0.250	0.170
2007190922	2007191082	0.0040	0.0005	0.320	0.320	4.30	4.40	1.20	0.30	4.40	5.20	0.810	0.790
2007190922	2007191082	0.0030	0.0005	0.280	0.270	3.90	4.40	0.50	0.05	1.50	2.00	0.540	0.650
2007190922	2007191082	0.0005	0.0010	0.470	0.500	8.00	9.90	1.10	0.80	3.20	4.20	1.100	1.150
2007190927	2007191444	0.0005	0.0010	18.100	4.010	2.70	5.20	0.05	0.30	2.30	3.10	0.840	0.650
2007190927	2007191444	0.0005	0.0010	17.300	20.500	3.50	5.70	0.20	0.40	4.20	4.10	1.320	0.940
2007190927	2007191444	0.0020	0.0005	10.500	14.100	2.70	3.90	0.05	0.20	3.10	2.80	1.360	1.000
2007190927	2007191444	0.0005	0.0005	8.770	13.000	3.40	5.10	0.10	0.20	3.70	4.30	0.980	0.890
2007190949	2007191504	0.0005	0.0005	0.120	0.160	7.60	8.10	0.05	0.05	5.80	5.50	1.560	1.620
2007190949	2007191504	0.0005	0.0005	0.140	0.230	8.40	11.00	0.20	0.05	6.20	5.80	1.900	2.100
2007190949	2007191504	0.0040	0.0005	0.170	0.190	8.60	8.50	0.40	0.05	5.60	4.30	1.960	1.590
2007190949	2007191504	0.0020	0.0005	0.120	0.200	10.30	12.00	0.05	0.05	5.10	5.00	1.820	1.870
2007190968	2007191437	0.0005	0.0005	0.140	0.060	0.90	1.20	0.05	0.05	1.10	0.80	0.300	0.140
2007190968	2007191437	0.0005	0.0005	0.120	0.090	2.90	3.70	0.05	0.05	2.20	1.70	0.450	0.420
2007190968	2007191437	0.0010	0.0005	0.170	0.090	5.20	6.30	0.30	0.05	2.30	2.00	0.670	0.800
2007190968	2007191437	0.0030	0.0005	0.140	0.120	8.80	10.70	0.50	0.05	3.50	3.10	1.180	0.910
2007190970	2007191245	0.0005	0.0005	7.500	13.800	2.80	2.40	1.40	1.20	3.00	2.90	24.800	46.000
2007190970	2007191245	0.0010	0.0040	5.820	11.200	2.40	1.90	1.30	0.80	3.40	2.60	25.000	40.900
2007190970	2007191245	0.0005	0.0040	2.990	0.200	3.20	1.40	1.70	0.05	2.10	1.10	7.460	0.480
2007190970	2007191245	0.0020	0.0020	3.220	0.460	3.30	3.10	1.80	0.30	2.40	1.90	9.300	2.800
2007190986	2007191592	0.0005	0.0010	0.190	1.660	2.40	3.90	0.60	0.05	1.20	1.90	0.970	1.020
2007190986	2007191592	0.0080	0.0020	0.240	1.150	3.40	5.10	0.90	0.05	2.20	4.90	1.680	0.930
2007190986	2007191592	0.0190	0.0005	7.050	0.160	3.20	6.60	0.50	0.05	2.30	3.50	1.840	0.990
2007190986	2007191592	0.0020	0.0005	0.320	0.170	4.10	10.50	0.50	0.30	2.40	4.30	1.500	1.560
2007190990	2007191537	0.0020	0.0005	0.090	0.300	2.40	4.40	0.60	0.05	4.80	4.80	0.630	0.540
2007190990	2007191537	0.0005	0.0005	0.230	0.080	2.70	4.70	0.70	0.20	4.60	4.80	0.530	0.580
2007190990	2007191537	0.0005	0.0005	0.110	0.050	2.40	1.80	0.40	0.05	3.30	1.60	0.410	0.260
2007190990	2007191537	0.0005	0.0005	0.160	0.110	3.60	3.40	0.90	0.20	5.50	3.50	0.450	0.470
2007191007	2007191551	0.0005	0.0020	0.010	0.080	1.80	1.80	0.90	0.20	1.60	1.90	0.080	0.350
2007191007	2007191551	0.0040	0.0005	0.010	0.160	3.30	2.80	0.30	0.10	2.60	3.50	0.340	0.540
2007191007	2007191551	0.0005	0.0005	0.010	0.090	1.50	2.30	0.40	0.20	1.40	2.00	0.130	0.550
2007191007	2007191551	0.0005	0.0005	0.010	0.130	3.00	4.20	0.05	0.30	2.60	4.20	0.280	0.470
2007191028	2007191531	0.0005	0.0030	0.030	0.150	2.70	2.40	0.05	0.05	2.40	1.40	0.690	0.420
2007191028	2007191531	0.0005	0.0005	0.050	0.150	5.30	6.30	0.05	0.20	4.70	3.70	0.890	0.770
2007191028	2007191531	0.0005	0.0005	0.040	0.110	3.90	4.10	0.05	0.05	2.80	2.00	0.670	0.510
2007191028	2007191531	0.0030	0.0005	0.050	0.200	5.50	9.30	0.05	0.10	4.10	4.30	0.950	1.230
2007191051	2007191331	0.0005	0.0020	0.080	0.160	5.80	5.90	0.05	0.20	2.90	3.60	0.740	0.530
2007191051	2007191331	0.0005	0.0005	0.080	0.010	5.10	4.50	0.05	0.90	2.70	2.80	0.740	0.440

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Sr (ppm)	Sr (ppm)	Ta (ppm)	Ta (ppm)	Tb (ppm)	Tb (ppm)	Te (ppm)	Te (ppm)	Th (ppm)	Th (ppm)	Tl (ppm)	Tl (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.5	0.5	0.05	0.05	0.1	0.1	0.02	0.02	0.1	0.1	0.02	0.02
ULD:	ULD:	1000	1000										
2007190798	2007191229	1.10	1.50	0.025	0.025	0.20	0.10	0.020	0.010	1.80	2.00	0.010	0.010
2007190818	2007191157	14.10	6.40	0.025	0.025	0.20	0.05	0.010	0.010	7.60	3.40	0.050	0.030
2007190818	2007191157	32.80	26.90	0.025	0.025	0.50	0.30	0.010	0.040	21.80	19.50	0.100	0.060
2007190818	2007191157	5.40	11.80	0.025	0.025	0.05	0.05	0.010	0.010	3.60	5.90	0.020	0.040
2007190818	2007191157	22.90	37.70	0.025	0.025	0.40	0.40	0.010	0.030	19.30	18.60	0.070	0.090
2007190825	2007191214	34.00	48.40	0.025	0.025	0.30	0.50	0.040	0.040	5.80	7.40	0.080	0.130
2007190825	2007191214	30.60	43.80	0.025	0.025	0.40	0.40	0.010	0.040	6.90	7.80	0.070	0.110
2007190825	2007191214	49.40	68.90	0.025	0.025	0.40	0.50	0.010	0.040	7.30	9.30	0.110	0.140
2007190825	2007191214	47.40	65.20	0.025	0.025	0.40	0.60	0.010	0.050	7.20	8.50	0.100	0.150
2007190826	2007191052	11.10	11.00	0.025	0.025	0.05	0.10	0.010	0.020	2.00	3.50	0.040	0.070
2007190826	2007191052	30.50	22.80	0.025	0.025	0.20	0.30	0.010	0.030	6.10	7.80	0.070	0.120
2007190826	2007191052	10.10	13.00	0.025	0.025	0.05	0.10	0.010	0.030	2.30	2.80	0.060	0.070
2007190826	2007191052	26.30	32.70	0.025	0.025	0.20	0.20	0.010	0.030	6.40	6.40	0.140	0.130
2007190827	2007191440	14.50	10.20	0.025	0.025	0.10	0.20	0.140	0.050	4.20	5.80	0.070	0.080
2007190827	2007191440	31.80	25.80	0.025	0.025	0.30	0.40	0.020	0.040	10.50	15.60	0.160	0.240
2007190827	2007191440	37.40	163.00	0.025	0.025	0.10	0.20	0.010	0.050	4.30	7.70	0.100	0.170
2007190827	2007191440	94.70	211.00	0.025	0.025	0.30	0.30	0.070	0.100	7.30	9.50	0.190	0.210
2007190834	2007190889	2.80	3.60	0.025	0.025	0.05	0.05	0.010	0.010	2.20	2.50	0.020	0.010
2007190834	2007190889	11.30	15.80	0.025	0.025	0.30	0.40	0.060	0.010	10.00	12.00	0.070	0.050
2007190834	2007190889	1.00	1.00	0.025	0.025	0.05	0.05	0.010	0.010	1.00	0.80	0.010	0.010
2007190849	2007191277	58.80	55.70	0.025	0.025	0.50	0.40	0.060	0.010	4.70	4.30	0.190	0.170
2007190849	2007191277	70.70	58.70	0.025	0.025	0.60	0.60	0.100	0.010	5.40	5.40	0.220	0.170
2007190849	2007191277	83.60	102.00	0.025	0.025	0.70	0.60	0.070	0.010	4.10	4.50	0.130	0.150
2007190849	2007191277	95.90	110.00	0.025	0.025	0.70	0.70	0.130	0.010	4.20	5.30	0.140	0.150
2007190853	2007190939	269.00	88.20	0.025	0.025	0.30	0.40	0.030	0.050	2.60	2.30	0.080	0.070
2007190853	2007190939	557.00	204.00	0.025	0.025	0.40	0.60	0.060	0.090	3.50	5.80	0.090	0.160
2007190853	2007190939	20.30	42.20	0.025	0.025	0.05	0.30	0.050	0.070	0.90	1.60	0.010	0.040
2007190853	2007190939	92.80	187.00	0.025	0.025	0.40	0.70	0.060	0.120	4.60	6.20	0.140	0.230
2007190865	2007191183	4.00	5.90	0.025	0.025	0.05	0.05	0.010	0.010	0.30	0.50	0.010	0.010
2007190865	2007191183	6.00	4.80	0.025	0.025	0.05	0.05	0.040	0.050	0.60	0.40	0.010	0.010
2007190874	2007191297	4.30	5.10	0.025	0.025	0.20	0.20	0.040	0.020	3.50	3.00	0.060	0.040
2007190874	2007191297	7.90	10.40	0.025	0.025	0.30	0.30	0.010	0.030	5.00	3.00	0.090	0.060
2007190874	2007191297	4.00	6.30	0.025	0.025	0.10	0.30	0.030	0.010	3.70	3.60	0.050	0.050
2007190874	2007191297	10.80	8.50	0.025	0.025	0.40	0.40	0.010	0.010	5.50	3.90	0.110	0.060
2007190887	2007191058	13.20	11.10	0.025	0.025	0.70	0.60	0.020	0.020	15.50	12.70	0.370	0.390
2007190887	2007191058	9.90	8.70	0.025	0.025	0.50	0.50	0.060	0.010	10.30	11.40	0.210	0.290
2007190887	2007191058	13.20	15.40	0.025	0.025	0.50	0.50	0.040	0.070	13.70	15.40	0.220	0.410
2007190887	2007191058	11.00	10.90	0.025	0.025	0.50	0.50	0.010	0.020	11.90	11.60	0.200	0.280
2007190895	2007190947	64.40	99.80	0.025	0.025	0.40	0.60	0.010	0.010	2.90	4.20	0.080	0.150
2007190895	2007190947	60.00	83.70	0.025	0.025	0.40	0.60	0.010	0.010	3.10	3.70	0.090	0.120
2007190895	2007190947	67.80	116.00	0.025	0.025	0.40	0.70	0.010	0.030	3.80	5.40	0.100	0.130
2007190895	2007190947	69.80	115.00	0.025	0.025	0.40	0.60	0.010	0.070	4.00	4.90	0.090	0.110
2007190896	2007191441	2.70	11.00	0.025	0.025	0.20	0.30	0.010	0.040	6.50	11.40	0.060	0.150
2007190896	2007191441	7.50	20.20	0.025	0.025	0.50	0.50	0.030	0.060	13.30	20.20	0.120	0.270
2007190896	2007191441	6.90	13.80	0.025	0.025	0.20	0.30	0.010	0.030	9.60	15.30	0.120	0.210
2007190896	2007191441	17.20	20.40	0.025	0.025	0.60	0.70	0.010	0.030	16.10	26.60	0.190	0.340
2007190922	2007191082	9.10	7.50	0.025	0.025	0.05	0.05	0.080	0.010	1.20	1.60	0.020	0.020
2007190922	2007191082	54.10	38.50	0.025	0.025	0.40	0.50	0.070	0.010	3.30	7.20	0.060	0.090
2007190922	2007191082	198.00	221.00	0.025	0.025	0.20	0.30	0.100	0.050	2.90	3.80	0.060	0.150
2007190922	2007191082	618.00	583.00	0.025	0.025	0.30	0.60	0.050	0.080	5.60	7.50	0.140	0.270
2007190927	2007191444	21.70	33.70	0.025	0.025	0.30	0.30	0.020	0.010	3.20	4.20	0.100	0.130
2007190927	2007191444	38.80	43.10	0.025	0.025	0.50	0.50	0.010	0.030	3.70	5.20	0.130	0.200
2007190927	2007191444	18.20	28.00	0.025	0.025	0.40	0.30	0.010	0.010	4.20	6.10	0.100	0.140
2007190927	2007191444	24.80	29.10	0.025	0.025	0.40	0.50	0.010	0.020	4.80	7.60	0.120	0.140
2007190949	2007191504	58.00	39.90	0.025	0.025	0.70	0.60	0.010	0.010	8.90	7.40	0.210	0.200
2007190949	2007191504	80.00	53.40	0.025	0.025	0.70	0.70	0.010	0.020	9.10	9.70	0.220	0.300
2007190949	2007191504	104.00	78.30	0.025	0.025	0.60	0.50	0.010	0.010	8.60	6.50	0.220	0.270
2007190949	2007191504	102.00	110.00	0.025	0.025	0.60	0.60	0.010	0.010	8.80	7.20	0.240	0.310
2007190968	2007191437	13.60	11.00	0.025	0.025	0.10	0.05	0.010	0.010	1.80	1.10	0.040	0.030
2007190968	2007191437	22.00	24.10	0.025	0.025	0.20	0.20	0.010	0.030	3.10	2.80	0.070	0.070
2007190968	2007191437	63.40	46.10	0.025	0.025	0.30	0.30	0.050	0.020	2.50	3.10	0.090	0.110
2007190968	2007191437	114.00	81.50	0.025	0.025	0.50	0.30	0.010	0.030	4.60	3.80	0.180	0.170
2007190970	2007191245	36.00	32.30	0.025	0.025	0.40	0.10	0.060	0.090	1.70	1.20	0.080	0.080
2007190970	2007191245	20.80	18.80	0.025	0.025	0.40	0.05	0.050	0.010	2.70	1.40	0.060	0.060
2007190970	2007191245	25.30	8.40	0.025	0.025	0.40	0.05	0.050	0.010	2.30	1.30	0.100	0.020
2007190970	2007191245	19.50	14.40	0.025	0.025	0.40	0.05	0.050	0.010	2.80	2.60	0.090	0.040
2007190986	2007191592	5.90	6.80	0.025	0.025	0.10	0.20	0.060	0.040	3.00	7.70	0.110	0.120
2007190986	2007191592	9.50	7.60	0.025	0.025	0.20	0.50	0.100	0.010	7.80	20.20	0.130	0.090
2007190986	2007191592	12.90	8.10	0.025	0.025	0.30	0.30	0.070	0.010	6.30	10.40	0.150	0.150
2007190986	2007191592	12.00	16.10	0.025	0.025	0.30	0.50	0.070	0.040	8.90	13.90	0.170	0.210
2007190990	2007191537	4.20	9.80	0.025	0.025	0.60	0.70	0.080	0.010	9.90	10.20	0.080	0.100
2007190990	2007191537	3.20	6.50	0.025	0.025	0.50	0.60	0.040	0.060	8.70	10.10	0.070	0.100
2007190990	2007191537	0.50	0.25	0.025	0.025	0.30	0.20	0.030	0.050	6.20	4.10	0.080	0.040
2007190990	2007191537	0.80	0.60	0.025	0.025	0.50	0.40	0.020	0.070	10.10	8.50	0.120	0.080
2007191007	2007191551	12.10	16.20	0.025	0.025	0.10	0.20	0.010	0.040	1.40	3.10	0.040	0.060
2007191007	2007191551	28.50	30.70	0.025	0.025	0.30	0.40	0.090	0.030	2.70	7.20	0.060	0.100
2007191007	2007191551	9.70	14.40	0.025	0.025	0.10	0.20	0.060	0.010	1.70	3.60	0.050	0.070
2007191007	2007191551	22.20	26.30	0.025	0.025	0.20	0.30	0.060	0.010	4.00	7.30	0.080	0.090
2007191028	2007191531	4.80	4.00	0.025	0.025	0.30	0.20	0.010	0.030	2.90	3.20	0.080	0.100
2007191028	2007191531	10.00	7.50	0.025	0.025	0.50	0.40	0.010	0.040	5.30	7.00	0.140	0.190
2007191028	2007191531	19.80	5.20	0.025	0.025	0.30	0.20	0.010	0.070	3.30	3.10	0.110	0.100
2007191028	2007191531	26.30	11.90	0.025	0.025	0.50	0.40	0.010	0.040	5.00	5.80	0.170	0.220
2007191051	2007191331	58.30	59.60	0.025	0.025	0.40	0.40	0.010	0.030	2.70	3.30	0.080	0.070
2007191051	2007191331	51.70	47.00	0.025	0.025	0.40	0.30	0.010	0.060	2.60	2.80	0.070	0.040

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Tm (ppm)	Tm (ppm)	U (ppm)	U (ppm)	V (ppm)	V (ppm)	W (ppm)	W (ppm)	Y (ppm)	Y (ppm)	Yb (ppm)	Yb (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1	1	1	0.1	0.1	0.01	0.01	0.1	0.1
ULD:	ULD:							200	200				
2007190798	2007191229	0.05	0.05	0.50	0.50	8	8	0.05	0.05	4.380	3.280	0.30	0.30
2007190818	2007191157	0.05	0.05	1.00	0.40	19	9	0.05	0.05	3.680	1.930	0.20	0.10
2007190818	2007191157	0.10	0.10	2.60	2.40	46	37	0.05	0.05	10.400	10.900	0.70	0.60
2007190818	2007191157	0.05	0.05	0.40	0.80	8	15	0.05	0.05	1.750	3.640	0.10	0.20
2007190818	2007191157	0.10	0.10	2.40	2.80	32	40	0.05	0.05	9.250	12.400	0.60	0.70
2007190825	2007191214	0.05	0.30	0.80	1.30	38	53	0.05	0.05	9.390	10.600	0.70	1.00
2007190825	2007191214	0.05	0.30	0.90	1.30	37	50	0.05	0.05	9.260	11.900	0.70	1.00
2007190825	2007191214	0.10	0.30	1.20	1.60	51	57	0.05	0.05	10.600	14.800	0.90	1.00
2007190825	2007191214	0.10	0.30	1.20	1.50	51	63	0.05	0.05	10.900	13.800	0.90	1.20
2007190826	2007191052	0.05	0.20	0.20	0.40	15	19	0.05	0.05	1.430	2.540	0.05	0.20
2007190826	2007191052	0.05	0.30	0.70	0.80	29	35	0.05	0.05	4.440	6.280	0.30	0.60
2007190826	2007191052	0.05	0.20	0.30	0.30	19	18	0.05	0.05	2.060	2.320	0.10	0.20
2007190826	2007191052	0.05	0.20	0.90	0.90	37	33	0.05	0.05	5.720	6.150	0.50	0.40
2007190827	2007191440	0.05	0.05	3.30	5.50	27	30	0.05	0.05	3.030	4.930	0.20	0.30
2007190827	2007191440	0.05	0.10	8.00	14.20	57	60	0.05	0.05	7.130	12.800	0.60	0.80
2007190827	2007191440	0.05	0.05	8.50	63.10	31	37	0.05	0.05	3.720	5.870	0.30	0.40
2007190827	2007191440	0.10	0.05	16.20	64.80	60	49	0.05	0.05	8.670	7.010	0.70	0.60
2007190834	2007190889	0.05	0.05	0.20	0.30	13	15	0.05	0.05	1.300	1.660	0.05	0.05
2007190834	2007190889	0.05	0.05	1.30	1.50	58	58	0.05	0.05	6.560	9.220	0.60	0.60
2007190834	2007190889	0.05	0.05	0.05	0.05	6	4	0.05	0.05	0.500	0.430	0.05	0.05
2007190849	2007191277	0.20	0.20	0.40	0.60	47	47	0.05	0.05	12.800	14.900	1.10	1.00
2007190849	2007191277	0.20	0.20	0.60	0.70	54	50	0.05	0.05	16.400	19.100	1.20	1.30
2007190849	2007191277	0.20	0.20	0.90	0.80	47	54	0.05	0.05	20.400	17.700	1.50	1.20
2007190849	2007191277	0.30	0.20	1.00	0.90	51	62	0.05	0.05	21.200	21.600	1.60	1.40
2007190853	2007190939	0.05	0.05	1.30	0.70	37	27	0.05	0.05	7.620	5.230	0.60	0.30
2007190853	2007190939	0.10	0.10	1.70	1.80	48	60	0.05	0.05	10.600	12.100	1.00	0.70
2007190853	2007190939	0.05	0.05	0.90	0.60	15	20	0.05	0.05	2.810	3.780	0.20	0.30
2007190853	2007190939	0.20	0.20	4.60	2.70	70	68	0.05	0.05	13.800	15.500	1.00	0.90
2007190865	2007191183	0.05	0.20	0.05	0.05	9	7	0.05	0.05	0.850	0.750	0.05	0.05
2007190865	2007191183	0.05	0.20	0.05	0.05	7	6	0.05	0.05	0.970	0.630	0.10	0.05
2007190874	2007191297	0.05	0.10	0.30	0.20	86	61	0.05	0.10	4.200	4.550	0.40	0.40
2007190874	2007191297	0.10	0.20	0.50	0.30	79	77	0.10	0.10	8.460	9.600	0.70	0.70
2007190874	2007191297	0.05	0.10	0.30	0.30	91	65	0.05	0.10	3.730	6.390	0.40	0.50
2007190874	2007191297	0.20	0.20	0.60	0.40	87	67	0.05	0.10	11.300	8.810	1.00	0.90
2007190887	2007191058	0.20	0.30	3.20	3.70	51	49	0.05	0.05	12.700	12.900	1.10	1.00
2007190887	2007191058	0.20	0.30	2.70	3.20	43	43	0.05	0.05	13.300	10.600	0.90	0.90
2007190887	2007191058	0.20	0.30	3.00	3.80	44	53	0.05	0.05	14.200	15.400	0.90	1.00
2007190887	2007191058	0.10	0.30	2.90	3.50	39	42	0.05	0.05	12.900	13.300	0.80	0.90
2007190895	2007190947	0.20	0.20	0.70	0.40	42	58	0.05	0.05	12.100	14.900	0.80	1.00
2007190895	2007190947	0.10	0.10	0.40	0.40	40	49	0.05	0.05	11.200	12.900	0.90	0.80
2007190895	2007190947	0.10	0.20	0.50	0.60	44	67	0.05	0.05	11.500	17.000	0.80	1.10
2007190895	2007190947	0.20	0.20	0.50	0.60	43	61	0.05	0.05	11.700	15.000	0.90	1.00
2007190896	2007191441	0.05	0.05	1.40	3.20	52	68	0.05	0.05	4.130	8.230	0.40	0.70
2007190896	2007191441	0.20	0.20	3.20	6.20	92	98	0.05	0.05	13.400	17.900	1.10	1.20
2007190896	2007191441	0.05	0.10	1.70	3.70	57	72	0.05	0.05	5.720	9.520	0.60	0.70
2007190896	2007191441	0.20	0.20	3.00	6.40	91	103	0.05	0.05	15.000	14.500	1.30	1.30
2007190922	2007191082	0.05	0.05	0.20	0.20	19	17	0.05	0.05	1.880	2.300	0.20	0.20
2007190922	2007191082	0.10	0.20	1.20	1.20	72	71	0.20	0.10	12.000	13.200	1.00	1.10
2007190922	2007191082	0.05	0.10	0.10	0.20	47	53	0.10	0.05	4.640	7.550	0.50	0.60
2007190922	2007191082	0.10	0.20	0.30	0.30	94	102	0.10	0.05	10.700	17.200	1.00	1.60
2007190927	2007191444	0.10	0.10	0.70	1.00	26	25	0.30	0.05	7.480	12.800	0.60	0.60
2007190927	2007191444	0.20	0.20	1.20	1.50	34	35	1.80	0.20	13.100	16.300	1.00	1.00
2007190927	2007191444	0.10	0.10	0.90	1.10	26	32	1.50	2.20	9.560	9.700	0.70	0.70
2007190927	2007191444	0.10	0.20	1.10	1.50	33	36	3.40	0.40	11.400	12.100	0.90	1.00
2007190949	2007191504	0.20	0.20	0.50	0.50	53	48	0.05	0.05	17.200	17.700	1.40	1.30
2007190949	2007191504	0.30	0.20	0.50	0.70	54	57	0.05	0.05	21.200	19.400	1.50	1.50
2007190949	2007191504	0.20	0.20	1.50	1.10	53	55	0.05	0.05	18.300	14.200	1.30	1.10
2007190949	2007191504	0.20	0.20	1.50	1.20	59	60	0.05	0.05	16.200	17.300	1.40	1.30
2007190968	2007191437	0.05	0.05	0.20	0.10	15	14	0.05	0.05	2.690	2.470	0.30	0.20
2007190968	2007191437	0.05	0.05	0.30	0.30	25	26	0.05	0.05	5.260	5.820	0.50	0.40
2007190968	2007191437	0.05	0.05	0.20	0.50	43	41	0.05	0.05	7.100	7.190	0.60	0.60
2007190968	2007191437	0.10	0.10	0.50	0.60	64	58	0.05	0.05	11.800	12.500	0.90	0.90
2007190970	2007191245	0.05	0.05	1.60	1.60	33	28	1.60	3.20	5.030	4.940	0.30	0.30
2007190970	2007191245	0.05	0.05	1.10	1.00	29	21	2.00	6.70	4.210	3.680	0.30	0.20
2007190970	2007191245	0.05	0.05	2.10	0.50	36	12	0.50	0.05	4.860	2.130	0.30	0.10
2007190970	2007191245	0.05	0.05	1.80	1.00	33	26	0.60	0.05	4.590	4.200	0.30	0.30
2007190986	2007191592	0.05	0.05	0.20	0.50	42	36	0.10	0.10	4.540	5.990	0.40	0.40
2007190986	2007191592	0.05	0.10	0.40	1.00	85	62	0.20	0.05	7.540	8.690	0.70	0.70
2007190986	2007191592	0.05	0.05	0.60	0.50	65	45	0.20	0.05	7.910	8.160	0.70	0.60
2007190986	2007191592	0.10	0.10	0.40	0.90	83	60	0.20	0.10	9.390	15.100	0.70	0.80
2007190990	2007191537	0.20	0.20	2.10	1.90	29	31	0.05	0.05	17.100	17.500	1.20	1.20
2007190990	2007191537	0.20	0.20	2.30	1.90	32	30	0.05	0.05	16.000	15.800	1.30	1.10
2007190990	2007191537	0.10	0.05	1.20	0.70	19	15	0.05	0.05	9.400	5.650	0.70	0.40
2007190990	2007191537	0.20	0.10	1.90	1.50	23	20	0.05	0.05	15.300	11.200	1.10	0.80
2007191007	2007191551	0.05	0.05	0.20	0.40	15	15	0.05	0.05	3.610	4.260	0.20	0.20
2007191007	2007191551	0.05	0.05	0.50	1.00	28	28	0.05	0.05	7.650	7.380	0.50	0.60
2007191007	2007191551	0.05	0.05	0.20	0.40	16	23	0.05	0.05	3.440	3.730	0.20	0.40
2007191007	2007191551	0.05	0.05	0.50	0.70	28	35	0.05	0.05	7.320	7.360	0.50	0.60
2007191028	2007191531	0.05	0.05	0.20	0.20	20	17	0.05	0.05	7.430	3.970	0.60	0.40
2007191028	2007191531	0.20	0.10	0.40	0.40	33	35	0.05	0.05	15.500	9.350	1.10	0.90
2007191028	2007191531	0.10	0.05	0.30	0.20	30	23	0.05	0.05	9.000	5.770	0.70	0.50
2007191028	2007191531	0.20	0.20	0.30	0.30	41	42	0.05	0.05	12.400	15.300	1.00	0.80
2007191051	2007191331	0.10	0.10	1.00	0.60	58	61	0.05	0.05	12.200	12.700	0.90	1.00
2007191051	2007191331	0.10	0.10	0.60	0.50	53	50	0.05	0.05	10.400	9.940	0.80	0.80

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Zn (ppm)	Zn (ppm)	Zr (ppm)	Zr (ppm)
METHOD:	METHOD:	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1
ULD:	ULD:				
2007190798	2007191229	15.70	11.20	0.70	1.60
2007190818	2007191157	19.40	1.70	4.00	1.40
2007190818	2007191157	28.20	16.00	11.20	4.50
2007190818	2007191157	10.10	6.40	2.30	2.80
2007190818	2007191157	20.00	17.10	7.10	7.60
2007190825	2007191214	33.50	29.80	6.60	8.10
2007190825	2007191214	34.30	25.80	6.90	8.90
2007190825	2007191214	39.40	39.50	7.80	10.30
2007190825	2007191214	45.30	42.30	8.20	9.80
2007190826	2007191052	18.90	8.80	2.90	3.40
2007190826	2007191052	34.30	17.90	5.60	6.80
2007190826	2007191052	18.90	5.30	2.60	2.70
2007190826	2007191052	30.30	19.20	4.20	4.30
2007190827	2007191440	18.70	25.90	5.90	5.90
2007190827	2007191440	43.40	62.50	10.50	13.90
2007190827	2007191440	31.90	36.90	2.90	6.30
2007190827	2007191440	54.50	42.20	3.70	6.40
2007190834	2007190889	17.80	5.00	1.00	1.80
2007190834	2007190889	33.70	10.60	3.70	5.60
2007190834	2007190889	17.60	1.30	0.80	0.80
2007190849	2007191277	49.30	54.30	9.80	7.60
2007190849	2007191277	67.30	35.30	9.70	5.40
2007190849	2007191277	37.80	33.60	9.10	12.10
2007190849	2007191277	46.70	40.80	7.50	10.20
2007190853	2007190939	29.10	25.70	5.00	6.50
2007190853	2007190939	39.80	50.30	6.60	13.40
2007190853	2007190939	13.40	19.70	3.00	5.30
2007190853	2007190939	51.30	66.50	13.20	19.00
2007190865	2007191183	12.00	3.60	1.00	1.20
2007190865	2007191183	10.10	0.70	1.50	1.10
2007190874	2007191297	15.80	29.30	7.50	3.00
2007190874	2007191297	24.60	41.50	6.80	3.50
2007190874	2007191297	18.40	30.90	9.10	4.10
2007190874	2007191297	26.30	40.40	7.00	3.70
2007190887	2007191058	35.60	24.70	9.60	1.80
2007190887	2007191058	19.40	17.50	1.30	1.70
2007190887	2007191058	20.80	25.10	3.30	5.60
2007190887	2007191058	19.40	19.00	2.60	2.10
2007190895	2007190947	46.50	63.60	3.90	6.80
2007190895	2007190947	54.80	54.10	4.00	7.00
2007190895	2007190947	48.20	59.40	4.20	10.30
2007190895	2007190947	40.90	56.00	4.30	12.10
2007190896	2007191441	29.20	30.80	3.00	3.40
2007190896	2007191441	43.40	64.80	4.40	6.10
2007190896	2007191441	26.40	41.20	3.80	5.40
2007190896	2007191441	43.20	54.70	4.90	7.20
2007190922	2007191082	16.00	5.50	0.50	1.40
2007190922	2007191082	31.20	19.00	1.90	3.80
2007190922	2007191082	14.30	9.30	5.90	13.00
2007190922	2007191082	21.50	19.10	9.50	21.40
2007190927	2007191444	68.70	82.00	3.30	1.90
2007190927	2007191444	85.40	88.90	3.70	2.10
2007190927	2007191444	62.20	54.80	3.70	3.30
2007190927	2007191444	72.30	63.20	3.10	2.90
2007190949	2007191504	61.10	61.80	11.50	14.20
2007190949	2007191504	69.00	79.90	11.70	18.50
2007190949	2007191504	93.20	54.90	13.80	14.00
2007190949	2007191504	68.10	72.70	14.00	17.80
2007190968	2007191437	21.40	6.80	3.30	3.20
2007190968	2007191437	27.20	20.50	5.60	6.50
2007190968	2007191437	38.10	42.40	7.80	8.10
2007190968	2007191437	54.70	49.50	11.10	13.00
2007190970	2007191245	187.00	102.00	1.20	0.60
2007190970	2007191245	135.00	79.70	1.40	0.80
2007190970	2007191245	215.00	22.90	3.50	2.40
2007190970	2007191245	193.00	54.20	4.00	6.50
2007190986	2007191592	248.00	27.90	1.60	2.90
2007190986	2007191592	60.00	23.00	2.20	3.40
2007190986	2007191592	260.00	22.60	2.20	3.00
2007190986	2007191592	32.60	49.70	1.60	4.90
2007190990	2007191537	16.40	5.80	0.40	0.90
2007190990	2007191537	19.50	4.30	0.30	1.00
2007190990	2007191537	4.50	3.40	0.40	0.50
2007190990	2007191537	12.30	2.60	0.40	0.50
2007191007	2007191551	11.20	20.10	0.40	1.10
2007191007	2007191551	28.80	35.30	0.80	1.40
2007191007	2007191551	10.30	19.30	1.10	2.30
2007191007	2007191551	25.90	22.70	1.10	3.20
2007191028	2007191531	27.70	14.30	2.50	2.90
2007191028	2007191531	41.50	24.90	4.20	5.20
2007191028	2007191531	39.80	12.90	3.00	4.80
2007191028	2007191531	47.30	42.90	4.10	8.70
2007191051	2007191331	42.40	30.50	4.10	4.00
2007191051	2007191331	37.90	24.50	4.10	3.20

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Ag (ppm)	Ag (ppm)	Al (ppm)	Al (ppm)	As (ppm)	As (ppm)	Au (ppm)	Au (ppm)
METHOD:	METHOD:	SIZE	SIZE			AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					0.002	0.002	100	100	0.1	0.1	0.0001	0.0001
ULD:	ULD:							100000	100000				
2007191051	2007191331	Coarse	Coarse	BOS	BOS	0.0010	0.0120	16000	14300	1.10	1.00	0.00005	0.00070
2007191051	2007191331	Fine	Fine	BOS	BOS	0.0030	0.0050	16900	11600	1.40	1.80	0.00030	0.00110
2007191066	2007191379	Coarse	Coarse	TOS	TOS	0.0270	0.0260	11900	7300	2.80	3.60	0.00030	0.00110
2007191066	2007191379	Fine	Fine	TOS	TOS	0.0240	0.0550	14800	13900	3.50	4.20	0.17900	0.00160
2007191066	2007191379	Coarse	Coarse	BOS	BOS	0.0100	0.0250	10800	3500	2.80	4.80	0.00020	0.00210
2007191066	2007191379	Fine	Fine	BOS	BOS	0.0320	0.0190	16300	8100	3.60	5.80	0.00080	0.00410
2007191092	2007191211	Coarse	Coarse	TOS	TOS	0.0010	0.0010	17300	14600	3.90	5.40	0.00090	0.00100
2007191092	2007191211	Fine	Fine	TOS	TOS	0.0010	0.0010	22700	16200	3.00	5.50	0.00140	0.00070
2007191092	2007191211	Coarse	Coarse	BOS	BOS	0.0230	0.0010	29000	15900	5.70	8.60	0.00300	0.00010
2007191092	2007191211	Fine	Fine	BOS	BOS	0.0160	0.0010	35100	21300	6.30	4.00	0.00370	0.00040
2007191134	2007191282	Coarse	Coarse	TOS	TOS	0.0010	0.0040	4400	2000	0.05	0.30	0.00010	0.00020
2007191134	2007191282	Fine	Fine	TOS	TOS	0.0010	0.0080	12300	7200	0.40	0.10	0.00110	0.00005
2007191134	2007191282	Coarse	Coarse	BOS	BOS	0.0010	0.0040	17100	9700	0.05	0.40	0.00100	0.00005
2007191134	2007191282	Fine	Fine	BOS	BOS	0.0060	0.0170	26900	23300	0.80	1.00	0.00030	0.00030
2007191152	2007191578	Coarse	Coarse	TOS	TOS	0.0010	1.9100	3100	6900	0.70	1.00	0.00130	0.00180
2007191152	2007191578	Fine	Fine	TOS	TOS	0.0010	0.0490	6500	16300	1.30	1.80	0.00005	0.00180
2007191152	2007191578	Coarse	Coarse	BOS	BOS	0.0010	0.0010	13900	28400	2.70	2.80	0.00060	0.00220
2007191152	2007191578	Fine	Fine	BOS	BOS	0.0010	0.0090	22300	40100	3.40	3.40	0.00230	0.00390
2007191168	2007191195	Coarse	Coarse	TOS	TOS	0.0200	0.0270	14300	7400	1.50	0.60	0.00005	0.00110
2007191168	2007191195	Fine	Fine	TOS	TOS	0.0290	0.0120	24400	11500	1.90	2.80	0.00005	0.00030
2007191168	2007191195	Coarse	Coarse	BOS	BOS	0.0070	0.0130	19100	8500	2.40	1.30	0.00010	0.00030
2007191168	2007191195	Fine	Fine	BOS	BOS	0.0240	0.0190	32500	16300	3.30	2.80	0.00060	0.00410
2007191192	2007191339	Coarse	Coarse	TOS	TOS	0.0100	0.0120	19400	13900	2.20	2.60	0.00050	0.00070
2007191192	2007191339	Fine	Fine	TOS	TOS	0.0040	0.0080	23900	15800	2.60	2.50	0.00030	0.00005
2007191192	2007191339	Coarse	Coarse	BOS	BOS	0.0260	0.0170	27400	18900	3.20	3.20	0.00010	0.00190
2007191192	2007191339	Fine	Fine	BOS	BOS	0.0110	0.0240	31500	19500	3.10	3.10	0.00030	0.00060
2007191215	2007191281	Coarse	Coarse	TOS	TOS	0.0190	0.0270	5700	3400	0.60	0.30	0.00005	0.00005
2007191215	2007191281	Fine	Fine	TOS	TOS	0.0470	0.0620	10200	7100	0.90	0.40	0.00005	0.00060
2007191215	2007191281	Coarse	Coarse	BOS	BOS	0.0210	0.0300	6800	3000	0.90	0.50	0.00005	0.00380
2007191215	2007191281	Fine	Fine	BOS	BOS	0.0440	0.0390	11700	4800	1.20	0.50	0.00005	0.00005
2007191216	2007191385	Coarse	Coarse	TOS	TOS	0.0010	0.0100	8700	4000	0.80	1.40	0.00005	0.00110
2007191216	2007191385	Fine	Fine	TOS	TOS	0.0090	0.0830	16000	6900	1.50	2.60	0.00005	0.00090
2007191216	2007191385	Coarse	Coarse	BOS	BOS	0.0040	0.0250	12800	3900	2.00	1.90	0.00005	0.00150
2007191216	2007191385	Fine	Fine	BOS	BOS	0.0040	0.0510	22100	15400	2.30	3.60	0.00005	0.00250
2007191264	2007191486	Coarse	Coarse	TOS	TOS	0.0030	0.0100	10700	5000	0.70	0.60	0.00060	0.00010
2007191264	2007191486	Fine	Fine	TOS	TOS	0.0040	0.0130	12600	7600	1.10	0.30	0.00080	0.00040
2007191264	2007191486	Coarse	Coarse	BOS	BOS	0.0050	0.0030	9200	4300	1.20	1.40	0.00020	0.00005
2007191264	2007191486	Fine	Fine	BOS	BOS	0.0120	0.0110	13000	7300	1.00	1.10	0.00050	0.00057
2007191275	2007191590	Coarse	Coarse	TOS	TOS	0.0050	0.0070	11300	27400	1.00	2.50	0.00040	0.00110
2007191275	2007191590	Fine	Fine	TOS	TOS	0.0170	0.0290	28700	43500	3.40	3.40	0.00200	0.00130
2007191275	2007191590	Coarse	Coarse	BOS	BOS	0.0070	0.0180	11900	29000	3.30	3.30	0.00210	0.00100
2007191275	2007191590	Fine	Fine	BOS	BOS	0.0030	0.0270	23600	52400	5.00	5.40	0.00940	0.00280
2007191293	2007191518	Coarse	Coarse	TOS	TOS	0.0050	0.0090	9200	9500	0.80	0.50	0.00070	0.00100
2007191293	2007191518	Fine	Fine	TOS	TOS	0.0040	0.0010	8800	12000	0.80	1.10	0.00030	0.00090
2007191293	2007191518	Coarse	Coarse	BOS	BOS	0.0130	0.0010	9700	17000	1.80	1.50	0.00120	0.00130
2007191293	2007191518	Fine	Fine	BOS	BOS	0.0080	0.0090	8200	19600	1.90	1.10	0.00110	0.00370
2007191295	2007191498	Coarse	Coarse	TOS	TOS	0.0010	0.0010	3500	4400	0.30	0.20	0.00070	0.00005
2007191295	2007191498	Fine	Fine	TOS	TOS	0.0010	0.0230	7000	7900	0.70	0.40	0.00005	0.00580
2007191295	2007191498	Coarse	Coarse	BOS	BOS	0.0010	0.0030	3400	4400	0.80	0.70	0.00020	0.00040
2007191295	2007191498	Fine	Fine	BOS	BOS	0.0010	0.0010	7300	8100	0.90	0.60	0.00005	0.00005
2007191346	2007191429	Coarse	Coarse	TOS	TOS	0.0070	0.0150	15800	23800	1.30	2.70	0.00070	0.00030
2007191346	2007191429	Fine	Fine	TOS	TOS	0.0150	0.0010	14100	16600	1.00	1.80	0.00020	0.00030
2007191346	2007191429	Coarse	Coarse	BOS	BOS	0.0300	0.0010	7600	10200	0.70	1.10	0.00040	0.00005
2007191346	2007191429	Fine	Fine	BOS	BOS	0.0140	0.0010	8000	14100	1.30	1.50	0.00070	0.00100
2007191372	2007191445	Coarse	Coarse	TOS	TOS	0.0090	0.0010	44400	12600	0.05	0.05	0.00170	0.00005
2007191372	2007191445	Fine	Fine	TOS	TOS	0.0270	0.0050	52800	31600	0.30	0.40	0.00160	0.00005
2007191372	2007191445	Coarse	Coarse	BOS	BOS	0.0100	0.0010	29100	16600	0.05	0.20	0.00110	0.00005
2007191372	2007191445	Fine	Fine	BOS	BOS	0.0260	0.0010	51600	30600	0.30	0.40	0.00140	0.00030
2007191382	2007191509	Coarse	Coarse	TOS	TOS	0.0020	0.0120	16000	5800	3.30	3.00	0.00070	0.00049
2007191382	2007191509	Fine	Fine	TOS	TOS	0.0090	0.0290	22900	9300	3.30	1.60	0.00060	0.00060
2007191382	2007191509	Coarse	Coarse	BOS	BOS	0.0010	0.0170	20200	16000	6.90	4.20	0.00050	0.00050
2007191382	2007191509	Fine	Fine	BOS	BOS	0.0010	0.0300	25800	21200	6.90	4.60	0.00200	0.00060
2007191473	2007191510	Coarse	Coarse	TOS	TOS	0.0320	0.0140	34900	15500	4.10	2.70	0.00080	0.00210
2007191473	2007191510	Fine	Fine	TOS	TOS	0.0170	0.0120	35300	17300	4.20	3.50	0.00200	0.00200
2007191473	2007191510	Coarse	Coarse	BOS	BOS	0.0240	0.0150	26000	14100	9.30	7.00	0.00550	0.00350
2007191473	2007191510	Fine	Fine	BOS	BOS	0.0090	0.0010	27500	14400	9.40	9.60	0.00760	0.00480

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	B (ppm)	B (ppm)	Ba (ppm)	Ba (ppm)	Be (ppm)	Be (ppm)	Bi (ppm)	Bi (ppm)	Ca (ppm)	Ca (ppm)	Cd (ppm)	Cd (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	1	1	0.5	0.5	0.1	0.1	0.02	0.02	100	100	0.01	0.01
ULD:	ULD:												
2007191051	2007191331	0.5	1	141.00	143.00	0.60	0.80	0.080	0.080	2200	3900	0.090	0.030
2007191051	2007191331	0.5	0.5	161.00	240.00	0.60	0.50	0.110	0.060	2300	3600	0.020	0.010
2007191066	2007191379	0.5	0.5	148.00	119.00	0.90	0.50	0.190	0.110	33700	67600	0.140	0.200
2007191066	2007191379	1	0.5	179.00	228.00	0.90	0.90	0.230	0.160	50800	116000	0.160	0.240
2007191066	2007191379	1	0.5	133.00	151.00	0.60	0.30	0.140	0.060	34100	101000	0.050	0.240
2007191066	2007191379	0.5	0.5	244.00	637.00	1.00	0.60	0.250	0.090	58500	249000	0.080	0.300
2007191092	2007191211	1	1	118.00	62.00	1.50	0.70	0.060	0.090	6000	4900	0.020	0.060
2007191092	2007191211	1	1	149.00	69.90	1.60	0.80	0.080	0.090	8000	5400	0.005	0.040
2007191092	2007191211	1	0.5	146.00	60.50	1.50	0.90	0.080	0.070	3500	4300	0.020	0.020
2007191092	2007191211	2	0.5	178.00	78.10	2.40	1.20	0.080	0.070	5200	5900	0.010	0.020
2007191134	2007191282	2	2	10.70	10.30	0.20	0.10	0.040	0.010	300	50	0.020	0.005
2007191134	2007191282	4	3	13.40	8.70	0.80	0.70	0.110	0.070	1800	1200	0.030	0.040
2007191134	2007191282	6	8	50.70	33.30	0.80	0.80	0.040	0.050	66100	27200	0.060	0.005
2007191134	2007191282	10	13	93.70	49.80	1.10	1.50	0.060	0.080	110000	31000	0.050	0.005
2007191152	2007191578	0.5	0.5	42.70	49.50	0.10	0.30	0.110	0.090	500	500	0.010	0.005
2007191152	2007191578	0.5	1	23.50	29.40	0.40	0.80	0.190	0.140	1100	1300	0.010	0.060
2007191152	2007191578	0.5	1	34.40	56.30	0.60	1.10	0.200	0.160	11100	9400	0.050	0.005
2007191152	2007191578	0.5	1	65.70	54.00	1.00	1.70	0.250	0.250	10100	10500	0.030	0.005
2007191168	2007191195	0.5	0.5	68.30	60.20	0.70	0.50	0.190	0.160	1500	2400	0.030	0.080
2007191168	2007191195	0.5	0.5	102.00	93.60	1.10	0.80	0.260	0.240	3100	3800	0.060	0.130
2007191168	2007191195	0.5	0.5	102.00	91.30	0.90	0.50	0.150	0.150	5500	3600	0.020	0.005
2007191168	2007191195	1	0.5	200.00	183.00	1.20	1.00	0.290	0.260	9300	9600	0.050	0.050
2007191192	2007191339	1	1	99.20	106.00	0.80	0.70	0.210	0.200	2000	2300	0.050	0.110
2007191192	2007191339	1	1	110.00	105.00	1.00	0.80	0.270	0.260	2400	2600	0.090	0.130
2007191192	2007191339	3	2	143.00	148.00	1.00	1.00	0.260	0.250	9000	9000	0.070	0.100
2007191192	2007191339	3	2	134.00	131.00	1.20	0.80	0.300	0.270	11900	12600	0.050	0.100
2007191215	2007191281	0.5	0.5	82.40	43.90	0.30	0.20	0.070	0.050	2900	600	0.090	0.040
2007191215	2007191281	0.5	0.5	154.00	90.80	0.60	0.50	0.120	0.110	6700	1600	0.350	0.090
2007191215	2007191281	0.5	0.5	48.40	29.80	0.30	0.20	0.050	0.040	5600	700	0.010	0.030
2007191215	2007191281	0.5	0.5	102.00	48.40	0.60	0.30	0.120	0.090	17300	1000	0.030	0.070
2007191216	2007191385	0.5	0.5	46.70	70.70	0.30	0.40	0.090	0.110	2200	2100	0.005	0.170
2007191216	2007191385	0.5	0.5	88.50	141.00	0.60	0.70	0.120	0.190	5000	4400	0.020	0.240
2007191216	2007191385	0.5	0.5	56.70	38.60	0.60	0.40	0.090	0.110	31500	2500	0.005	0.110
2007191216	2007191385	0.5	0.5	117.00	88.40	1.00	0.90	0.140	0.210	68500	5400	0.005	0.180
2007191264	2007191486	0.5	1	64.70	55.20	0.30	0.30	0.160	0.100	1800	1000	0.920	0.005
2007191264	2007191486	0.5	1	75.60	82.50	0.50	0.50	0.150	0.350	2600	1900	0.060	0.010
2007191264	2007191486	0.5	2	49.70	45.60	0.30	0.20	0.110	0.090	1900	800	0.030	0.005
2007191264	2007191486	0.5	2	93.00	72.40	0.50	0.40	0.150	0.120	3900	1900	0.050	0.010
2007191275	2007191590	0.5	0.5	31.70	57.10	0.50	1.30	0.100	0.200	24300	3500	0.040	0.160
2007191275	2007191590	1	1	81.70	81.20	0.80	2.30	0.240	0.330	99400	6000	0.110	0.530
2007191275	2007191590	0.5	1	38.60	49.40	0.40	1.60	0.090	0.180	128000	5200	0.040	0.060
2007191275	2007191590	1	1	80.80	85.40	0.80	2.40	0.170	0.290	275000	8100	0.130	0.080
2007191293	2007191518	2	0.5	110.00	69.30	0.40	0.50	0.090	0.070	4500	1800	0.010	0.030
2007191293	2007191518	0.5	0.5	79.20	74.40	0.50	0.60	0.090	0.070	4100	2000	0.005	0.080
2007191293	2007191518	2	0.5	94.80	91.40	0.40	0.80	0.080	0.080	7100	3900	0.005	0.060
2007191293	2007191518	1	0.5	81.00	154.00	0.30	0.90	0.100	0.120	9800	4000	0.005	0.060
2007191295	2007191498	0.5	0.5	35.70	46.00	0.20	0.10	0.010	0.020	800	800	0.010	0.020
2007191295	2007191498	0.5	0.5	55.80	60.80	0.30	0.20	0.080	0.060	1900	2000	0.020	0.030
2007191295	2007191498	0.5	0.5	42.20	49.90	0.10	0.20	0.010	0.010	1100	1000	0.020	0.005
2007191295	2007191498	0.5	0.5	72.30	85.10	0.20	0.20	0.070	0.070	2500	2400	0.030	0.040
2007191346	2007191429	2	1	102.00	128.00	0.90	2.00	0.210	0.230	19700	22100	0.020	0.080
2007191346	2007191429	1	0.5	100.00	105.00	0.90	1.40	0.210	0.230	21900	16600	0.020	0.070
2007191346	2007191429	2	0.5	48.30	62.50	0.30	0.70	0.130	0.160	8300	8500	0.030	0.040
2007191346	2007191429	0.5	0.5	72.10	76.30	0.60	0.90	0.190	0.180	15400	15300	0.005	0.070
2007191372	2007191445	1	0.5	40.40	17.40	0.30	0.20	0.040	0.010	2700	1000	0.030	0.020
2007191372	2007191445	0.5	0.5	54.90	40.60	0.20	0.60	0.060	0.040	3400	3300	0.050	0.050
2007191372	2007191445	0.5	0.5	17.50	19.00	0.05	0.20	0.040	0.010	400	1000	0.005	0.020
2007191372	2007191445	0.5	0.5	28.50	40.20	0.30	0.50	0.050	0.050	800	2000	0.005	0.040
2007191382	2007191509	4	2	74.10	58.60	0.90	0.50	0.190	0.180	1700	700	0.050	0.040
2007191382	2007191509	5	2	74.90	37.80	1.30	0.70	0.280	0.280	2900	1100	0.090	0.090
2007191382	2007191509	11	7	80.20	55.50	1.00	0.90	0.240	0.200	23300	10500	0.030	0.070
2007191382	2007191509	11	8	82.50	70.90	1.30	1.10	0.270	0.260	25200	6800	0.040	0.080
2007191473	2007191510	2	0.5	181.00	168.00	0.70	0.60	0.250	0.220	83600	107000	0.120	0.140
2007191473	2007191510	2	0.5	74.10	52.30	0.70	0.60	0.250	0.250	80700	100000	0.130	0.120
2007191473	2007191510	5	3	146.00	152.00	0.60	0.50	0.170	0.190	233000	206000	0.100	0.130
2007191473	2007191510	5	3	103.00	72.80	0.70	0.60	0.160	0.190	262000	227000	0.100	0.150

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Ce (ppm)	Ce (ppm)	Co (ppm)	Co (ppm)	Cr (ppm)	Cr (ppm)	Cs (ppm)	Cs (ppm)	Cu (ppm)	Cu (ppm)	Dy (ppm)	Dy (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.01	0.01	0.1	0.1	0.5	0.5	0.02	0.02	0.01	0.01	0.1	0.1
ULD:	ULD:												
2007191051	2007191331	26.200	42.400	12.60	12.70	26.60	24.50	0.950	0.910	15.400	12.300	2.50	2.50
2007191051	2007191331	30.700	38.300	15.70	11.70	23.40	27.00	1.020	0.840	15.000	11.600	2.70	2.30
2007191066	2007191379	27.900	12.900	7.40	4.70	25.40	18.50	1.220	0.450	16.900	11.900	1.80	1.10
2007191066	2007191379	34.200	20.500	10.20	8.10	29.40	28.90	1.510	0.710	20.900	20.200	2.00	1.60
2007191066	2007191379	23.400	9.270	7.10	4.20	21.90	10.40	1.050	0.290	15.100	8.910	1.40	0.80
2007191066	2007191379	35.300	16.400	10.20	6.50	33.30	16.80	1.770	0.480	24.100	17.100	2.40	1.80
2007191092	2007191211	66.200	43.100	16.50	15.60	73.60	56.80	0.820	0.720	18.000	12.500	4.30	2.30
2007191092	2007191211	86.300	49.600	19.90	16.70	92.80	62.00	0.950	0.830	23.900	15.000	5.80	2.40
2007191092	2007191211	61.400	41.800	38.60	18.10	98.10	89.80	0.940	0.650	18.400	17.400	3.40	2.50
2007191092	2007191211	86.500	54.000	42.50	20.30	124.00	93.00	1.090	0.810	24.600	20.600	5.10	3.30
2007191134	2007191282	68.900	16.600	2.10	0.70	7.00	4.50	0.150	0.090	2.630	0.780	1.50	0.40
2007191134	2007191282	205.000	89.700	5.30	3.20	19.00	14.30	0.410	0.270	7.110	4.500	5.00	2.50
2007191134	2007191282	160.000	73.900	7.10	5.10	22.10	15.20	0.590	0.390	9.830	5.990	4.20	3.20
2007191134	2007191282	256.000	223.000	13.70	14.80	30.80	35.70	0.860	0.780	16.500	13.600	6.30	4.90
2007191152	2007191578	7.970	7.960	1.40	2.10	20.00	19.10	0.230	0.530	3.850	3.680	0.50	0.40
2007191152	2007191578	23.400	28.000	3.20	5.00	22.10	28.70	0.410	1.060	8.160	9.130	1.50	1.40
2007191152	2007191578	12.200	11.300	5.00	4.60	37.00	41.70	1.140	2.030	13.700	12.400	1.00	0.80
2007191152	2007191578	25.000	16.900	9.40	7.60	37.50	49.20	1.720	3.110	18.400	19.200	1.60	1.00
2007191168	2007191195	32.100	40.000	6.50	4.70	23.50	14.10	1.360	0.300	14.100	11.000	1.70	1.40
2007191168	2007191195	58.600	57.800	13.30	7.50	35.40	19.70	2.200	0.350	22.500	16.400	2.80	2.10
2007191168	2007191195	36.400	44.000	7.00	5.50	26.60	14.50	1.620	0.630	14.900	12.000	1.90	1.70
2007191168	2007191195	55.900	75.500	11.50	9.10	45.80	23.90	2.910	0.910	28.300	23.100	3.40	2.90
2007191192	2007191339	79.800	70.100	6.50	6.40	47.60	57.50	1.740	1.650	17.300	16.100	2.10	1.90
2007191192	2007191339	108.000	88.900	7.90	7.20	57.70	63.20	2.080	1.710	21.800	19.600	2.90	2.40
2007191192	2007191339	95.100	87.200	10.10	9.00	59.50	65.50	2.170	1.780	25.400	21.400	2.50	2.20
2007191192	2007191339	108.000	89.300	10.40	9.10	63.90	71.40	2.320	1.830	27.400	24.400	2.90	2.50
2007191215	2007191281	20.000	17.000	6.70	5.50	15.00	12.90	0.860	0.490	11.200	19.000	1.10	0.90
2007191215	2007191281	36.400	37.600	14.30	12.60	28.70	32.30	1.310	0.810	22.200	71.700	1.80	2.00
2007191215	2007191281	21.100	19.200	7.60	7.20	15.80	14.40	0.860	0.560	7.260	29.600	1.10	0.90
2007191215	2007191281	45.900	38.300	11.60	8.80	36.30	32.10	1.370	0.820	16.500	98.400	2.50	1.90
2007191216	2007191385	12.400	17.600	2.20	3.40	23.30	28.80	0.530	0.190	5.110	9.080	0.80	1.20
2007191216	2007191385	25.500	34.600	4.90	6.50	25.80	31.30	0.950	0.280	10.600	16.800	1.50	2.60
2007191216	2007191385	16.300	15.900	3.50	4.20	26.00	25.80	0.700	0.240	6.910	6.920	1.00	1.00
2007191216	2007191385	33.400	36.300	5.80	9.70	32.20	38.70	1.270	0.710	12.600	17.600	2.10	2.10
2007191264	2007191486	35.700	13.200	3.40	2.60	30.10	22.70	1.100	0.520	8.810	5.590	1.10	0.70
2007191264	2007191486	99.100	38.600	4.70	4.40	33.70	30.60	1.290	0.660	11.400	10.500	2.20	1.50
2007191264	2007191486	28.000	13.500	2.60	2.20	24.40	21.60	0.880	0.460	6.440	4.720	0.90	0.60
2007191264	2007191486	83.900	35.300	5.90	4.20	37.30	30.40	1.520	0.640	14.600	9.740	2.20	1.50
2007191275	2007191590	30.500	32.200	3.20	6.90	31.20	63.20	0.820	1.520	5.820	17.100	0.90	2.10
2007191275	2007191590	77.000	40.200	7.50	11.10	79.60	95.40	1.940	2.350	16.100	27.500	2.40	2.70
2007191275	2007191590	31.100	33.400	3.90	9.50	32.00	64.10	0.880	1.740	7.540	18.100	0.90	1.90
2007191275	2007191590	54.100	48.500	6.90	12.40	60.60	106.00	1.790	2.620	17.300	31.900	1.90	3.70
2007191293	2007191518	37.900	17.000	7.30	8.40	13.50	14.60	0.470	0.730	9.250	11.300	2.00	1.50
2007191293	2007191518	36.700	21.700	4.90	8.40	13.00	18.50	0.500	0.730	9.150	13.200	2.00	1.90
2007191293	2007191518	39.600	23.400	7.50	10.50	16.10	24.50	0.730	1.010	10.100	14.800	2.20	2.00
2007191293	2007191518	41.300	26.400	8.10	10.20	14.80	29.60	0.800	1.310	10.500	17.400	2.20	2.50
2007191295	2007191498	9.210	9.410	1.30	1.50	5.60	5.80	0.310	0.370	2.560	3.090	0.70	0.70
2007191295	2007191498	33.200	41.700	3.10	3.20	11.00	11.70	0.520	0.620	6.030	5.590	2.00	2.30
2007191295	2007191498	8.120	10.300	1.40	1.40	5.80	5.60	0.320	0.370	2.830	2.740	0.70	0.70
2007191295	2007191498	33.700	45.000	3.30	3.50	12.40	11.90	0.600	0.630	6.640	6.240	2.20	2.40
2007191346	2007191429	53.400	46.800	6.00	11.30	29.90	36.10	2.240	2.390	12.000	22.600	2.10	3.20
2007191346	2007191429	54.800	38.200	5.60	7.10	28.00	31.00	2.250	2.240	11.600	16.600	2.20	2.90
2007191346	2007191429	30.700	22.600	3.20	4.20	17.40	18.30	1.160	1.500	6.950	8.750	1.20	1.50
2007191346	2007191429	46.300	36.400	4.10	6.30	14.40	23.60	1.680	1.880	8.450	12.500	2.30	2.20
2007191372	2007191445	30.100	33.100	4.00	3.90	65.40	18.20	0.450	0.300	108.000	4.120	1.50	0.80
2007191372	2007191445	45.700	79.500	4.60	10.30	81.10	40.80	0.520	0.690	105.000	11.000	2.30	2.10
2007191372	2007191445	23.400	41.300	2.80	5.70	44.90	23.50	0.240	0.460	52.400	6.470	1.20	1.10
2007191372	2007191445	49.000	90.200	4.80	10.30	71.50	44.50	0.360	0.970	88.100	14.000	2.30	2.80
2007191382	2007191509	59.900	72.900	9.00	4.90	70.00	69.00	1.340	0.610	24.800	16.200	2.10	2.20
2007191382	2007191509	88.400	99.600	12.30	7.30	99.40	91.00	1.750	0.940	36.900	19.900	3.30	3.10
2007191382	2007191509	64.500	70.300	10.70	8.30	90.60	92.50	1.640	1.330	33.100	28.400	2.20	2.40
2007191382	2007191509	78.400	95.200	12.10	12.00	107.00	118.00	1.960	1.810	38.800	35.200	2.80	3.20
2007191473	2007191510	123.000	83.400	13.90	13.50	55.10	51.10	2.180	0.100	20.400	18.100	2.60	2.40
2007191473	2007191510	69.000	62.300	7.20	5.50	61.70	57.70	2.400	0.090	20.500	19.100	2.40	2.50
2007191473	2007191510	68.400	68.300	11.20	11.30	42.00	42.40	1.710	0.230	24.400	23.000	1.90	2.00
2007191473	2007191510	47.700	46.400	7.00	6.00	45.80	46.10	1.720	0.200	26.400	23.900	2.00	2.00

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Er (ppm)	Er (ppm)	Eu (ppm)	Eu (ppm)	Fe (ppm)	Fe (ppm)	Ga (ppm)	Ga (ppm)	Gd (ppm)	Gd (ppm)	Ge (ppm)	Ge (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1	100	100	0.02	0.02	0.1	0.1	0.1	0.1
ULD:	ULD:												
2007191051	2007191331	1.20	1.30	0.80	0.90	20200	14600	5.470	4.190	3.00	3.50	0.05	0.05
2007191051	2007191331	1.30	1.20	0.90	1.00	22600	13000	5.710	3.660	3.40	3.20	0.05	0.05
2007191066	2007191379	0.80	0.40	0.60	0.30	21400	13900	4.100	2.190	2.70	1.20	0.05	0.05
2007191066	2007191379	1.00	0.80	0.80	0.60	28500	23400	4.910	3.640	3.30	2.20	0.05	0.05
2007191066	2007191379	0.60	0.40	0.40	0.30	22200	11600	4.320	1.500	2.00	0.90	0.05	0.05
2007191066	2007191379	1.00	0.80	0.80	0.50	26600	15600	5.130	3.220	3.80	2.00	0.05	0.05
2007191092	2007191211	1.60	1.00	2.20	0.80	34700	29600	7.400	5.080	6.00	3.00	0.05	0.05
2007191092	2007191211	2.20	1.00	2.90	0.90	38400	32100	9.790	5.860	8.10	3.50	0.10	0.05
2007191092	2007191211	1.40	1.00	1.70	0.90	63000	59200	12.000	6.410	4.90	3.20	0.10	0.05
2007191092	2007191211	1.90	1.30	2.60	1.20	78200	43200	14.800	7.630	7.40	4.40	0.10	0.10
2007191134	2007191282	0.60	0.20	0.40	0.05	2900	2900	1.060	0.780	2.40	0.60	0.05	0.05
2007191134	2007191282	2.40	1.00	1.30	0.60	7700	10000	2.820	2.870	7.70	3.20	0.05	0.05
2007191134	2007191282	2.00	1.50	1.10	0.90	7900	11000	4.350	3.500	6.80	4.50	0.05	0.05
2007191134	2007191282	3.00	2.10	1.70	1.60	12400	25400	6.480	8.630	9.60	7.60	0.05	0.10
2007191152	2007191578	0.30	0.20	0.10	0.10	9400	8600	1.540	1.970	0.70	0.60	0.05	0.05
2007191152	2007191578	0.70	0.60	0.40	0.30	15500	19400	3.160	5.070	1.90	1.90	0.05	0.05
2007191152	2007191578	0.50	0.30	0.30	0.20	26300	24600	6.360	8.510	1.10	1.00	0.05	0.05
2007191152	2007191578	0.80	0.60	0.40	0.30	32400	32600	9.070	10.100	1.90	1.60	0.05	0.05
2007191168	2007191195	0.70	0.70	0.60	0.50	17300	8600	3.650	1.560	2.80	2.20	0.05	0.05
2007191168	2007191195	1.40	1.10	1.00	0.70	36400	13400	7.950	2.510	4.00	3.40	0.10	0.05
2007191168	2007191195	0.90	0.70	0.60	0.50	25200	9000	5.930	1.760	2.60	2.50	0.05	0.05
2007191168	2007191195	1.50	1.30	1.20	1.10	36900	16200	9.090	3.300	5.20	4.50	0.05	0.05
2007191192	2007191339	0.90	0.90	0.70	0.70	21600	23200	4.700	5.860	3.30	3.40	0.10	0.10
2007191192	2007191339	1.10	1.10	0.80	0.90	26900	27000	5.570	6.690	4.60	4.30	0.20	0.05
2007191192	2007191339	1.00	1.10	0.80	0.80	27700	26600	6.570	7.790	4.10	4.00	0.10	0.05
2007191192	2007191339	1.30	1.20	0.90	0.90	30200	29300	7.190	8.110	5.00	4.70	0.10	0.10
2007191215	2007191281	0.40	0.40	0.40	0.40	8800	8400	1.730	0.940	1.70	1.20	0.05	0.05
2007191215	2007191281	0.80	0.90	0.70	0.90	18400	21100	2.960	2.180	2.80	3.20	0.05	0.05
2007191215	2007191281	0.50	0.40	0.40	0.40	11800	9800	2.440	0.940	1.40	1.10	0.05	0.05
2007191215	2007191281	0.90	0.80	0.80	0.60	22500	22600	4.170	2.080	3.70	2.40	0.05	0.05
2007191216	2007191385	0.40	0.60	0.30	0.40	9000	13700	2.500	1.270	1.10	1.50	0.05	0.05
2007191216	2007191385	0.80	1.10	0.60	0.90	17500	24300	4.350	2.900	2.30	3.20	0.05	0.05
2007191216	2007191385	0.50	0.60	0.30	0.40	14100	16400	3.930	1.420	1.20	1.20	0.05	0.05
2007191216	2007191385	0.90	1.10	0.70	0.90	22600	34500	6.670	4.870	2.90	2.80	0.05	0.05
2007191264	2007191486	0.40	0.30	0.30	0.20	12300	14400	3.840	2.230	1.80	0.90	0.05	0.05
2007191264	2007191486	0.80	0.70	0.60	0.40	15700	22800	4.950	3.430	4.30	2.60	0.10	0.05
2007191264	2007191486	0.30	0.30	0.20	0.10	9900	13800	3.110	2.040	1.40	1.00	0.05	0.05
2007191264	2007191486	0.90	0.60	0.60	0.40	17800	22000	5.410	3.200	4.30	2.50	0.10	0.05
2007191275	2007191590	0.40	0.80	0.20	0.60	12400	33000	3.700	8.320	1.50	2.70	0.05	0.05
2007191275	2007191590	1.00	1.40	0.70	0.90	22500	48800	9.500	10.400	3.80	4.00	0.10	0.05
2007191275	2007191590	0.40	1.00	0.30	0.60	10100	42400	3.880	9.760	1.50	2.10	0.05	0.05
2007191275	2007191590	0.80	1.70	0.60	0.90	21600	62900	7.510	15.900	3.10	4.20	0.05	0.05
2007191293	2007191518	1.00	0.70	0.80	0.50	6500	13300	2.520	2.820	3.10	1.80	0.05	0.05
2007191293	2007191518	1.00	0.90	0.80	0.50	6700	15700	2.710	3.540	2.90	2.10	0.05	0.05
2007191293	2007191518	1.00	1.00	0.80	0.50	7600	20000	2.920	4.950	3.00	2.20	0.05	0.05
2007191293	2007191518	1.20	1.00	0.80	0.70	7200	19100	2.840	4.430	3.20	3.20	0.05	0.05
2007191295	2007191498	0.30	0.30	0.20	0.20	5300	5700	1.060	1.280	1.10	0.90	0.05	0.05
2007191295	2007191498	0.90	1.00	0.50	0.50	13700	15000	2.360	2.560	2.70	3.40	0.05	0.05
2007191295	2007191498	0.30	0.30	0.20	0.20	5200	5800	1.140	1.320	0.90	1.00	0.05	0.05
2007191295	2007191498	1.00	1.10	0.60	0.60	14500	15700	2.590	2.610	3.10	3.60	0.05	0.05
2007191346	2007191429	1.10	1.50	0.70	0.70	16000	33500	5.390	8.120	3.40	3.80	0.05	0.10
2007191346	2007191429	1.10	1.10	0.60	0.70	15600	22600	5.030	5.450	3.50	3.90	0.05	0.10
2007191346	2007191429	0.60	0.70	0.40	0.40	8400	14000	2.660	2.850	1.90	2.50	0.05	0.05
2007191346	2007191429	1.00	1.10	0.60	0.60	11900	21700	2.790	4.830	2.80	3.30	0.05	0.05
2007191372	2007191445	0.70	0.20	0.70	0.20	61300	9400	14.900	3.710	1.70	1.90	0.20	0.05
2007191372	2007191445	0.90	0.60	1.00	0.50	74300	23000	18.200	10.200	2.70	3.50	0.05	0.10
2007191372	2007191445	0.50	0.30	0.50	0.20	38700	12500	9.910	4.980	1.40	2.00	0.05	0.05
2007191372	2007191445	1.00	0.80	0.90	0.70	69200	22100	18.600	9.100	2.60	5.50	0.05	0.10
2007191382	2007191509	1.00	1.00	0.60	0.60	35000	28900	7.930	4.240	3.30	3.50	0.05	0.05
2007191382	2007191509	1.50	1.40	0.90	0.90	50200	33400	11.800	6.280	4.90	5.20	0.05	0.05
2007191382	2007191509	1.00	1.20	0.70	0.70	43800	41500	9.900	9.270	3.60	3.90	0.05	0.05
2007191382	2007191509	1.30	1.40	0.80	0.90	54100	51100	12.500	11.800	4.40	5.00	0.10	0.05
2007191473	2007191510	1.30	1.40	1.00	0.90	31800	19200	9.610	4.270	3.50	3.40	0.10	0.05
2007191473	2007191510	1.20	1.40	0.90	1.00	34600	21600	9.660	5.110	3.10	3.50	0.10	0.05
2007191473	2007191510	1.00	1.20	0.70	0.80	16500	15900	6.640	3.960	2.70	3.00	0.05	0.05
2007191473	2007191510	1.00	1.20	0.70	0.80	17900	16900	7.320	4.280	2.50	2.90	0.05	0.05

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Hf (ppm)	Hf (ppm)	Hg (ppm)	Hg (ppm)	Ho (ppm)	Ho (ppm)	In (ppm)	In (ppm)	K (ppm)	K (ppm)	La (ppm)	La (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.01	0.01	0.1	0.1	0.02	0.02	100	100	0.5	0.5
ULD:	ULD:												
2007191051	2007191331	0.05	0.05	0.005	0.010	0.40	0.50	0.030	0.020	700	700	10.00	16.10
2007191051	2007191331	0.05	0.05	0.005	0.030	0.50	0.50	0.020	0.010	700	600	11.20	14.30
2007191066	2007191379	0.10	0.05	0.030	0.050	0.40	0.30	0.010	0.010	3400	1700	15.70	6.90
2007191066	2007191379	0.10	0.20	0.040	0.050	0.40	0.50	0.010	0.010	4300	3400	17.70	10.50
2007191066	2007191379	0.05	0.05	0.020	0.040	0.30	0.30	0.010	0.010	3000	800	12.80	5.30
2007191066	2007191379	0.05	0.05	0.030	0.020	0.50	0.50	0.020	0.010	4000	1600	20.10	9.10
2007191092	2007191211	0.20	0.05	0.040	0.040	0.70	0.40	0.030	0.010	500	1400	44.30	22.20
2007191092	2007191211	0.30	0.05	0.030	0.040	1.00	0.40	0.050	0.030	700	1700	58.60	25.20
2007191092	2007191211	0.40	0.05	0.030	0.020	0.60	0.40	0.050	0.030	1100	500	31.80	21.40
2007191092	2007191211	0.40	0.10	0.040	0.010	0.90	0.50	0.060	0.030	1400	800	47.80	29.30
2007191134	2007191282	0.05	0.05	0.005	0.020	0.30	0.05	0.010	0.010	800	600	24.20	8.60
2007191134	2007191282	0.05	0.05	0.005	0.040	0.90	0.40	0.010	0.010	2500	1600	77.70	45.00
2007191134	2007191282	0.10	0.20	0.005	0.020	0.80	0.60	0.030	0.010	3100	3100	65.10	54.60
2007191134	2007191282	0.20	0.30	0.005	0.010	1.20	0.90	0.030	0.030	4800	8000	96.00	93.70
2007191152	2007191578	0.05	0.05	0.005	0.020	0.05	0.05	0.010	0.010	600	1000	3.70	4.10
2007191152	2007191578	0.05	0.05	0.040	0.040	0.20	0.20	0.010	0.010	1200	2400	10.70	13.50
2007191152	2007191578	0.10	0.10	0.005	0.020	0.20	0.10	0.030	0.010	4100	5800	6.40	6.80
2007191152	2007191578	0.20	0.10	0.005	0.020	0.30	0.20	0.040	0.030	6400	7300	10.20	8.90
2007191168	2007191195	0.20	0.05	0.020	0.005	0.30	0.30	0.010	0.010	4300	2600	18.70	13.30
2007191168	2007191195	0.30	0.05	0.010	0.050	0.60	0.50	0.020	0.010	8900	3800	29.20	18.90
2007191168	2007191195	0.20	0.05	0.030	0.030	0.40	0.30	0.010	0.010	4900	2200	20.00	15.20
2007191168	2007191195	0.30	0.05	0.060	0.005	0.60	0.60	0.030	0.010	7700	3900	32.10	23.90
2007191192	2007191339	0.05	0.10	0.005	0.030	0.40	0.40	0.020	0.020	5700	6200	30.60	42.40
2007191192	2007191339	0.10	0.10	0.005	0.020	0.50	0.50	0.020	0.030	6600	6500	42.60	54.20
2007191192	2007191339	0.05	0.05	0.010	0.005	0.50	0.40	0.050	0.030	7700	7900	36.00	50.10
2007191192	2007191339	0.05	0.05	0.020	0.020	0.50	0.50	0.040	0.040	8700	8400	42.40	55.90
2007191215	2007191281	0.05	0.05	0.010	0.005	0.20	0.30	0.010	0.010	1600	1100	12.00	9.30
2007191215	2007191281	0.05	0.05	0.020	0.020	0.40	0.50	0.010	0.010	3000	2000	20.40	21.60
2007191215	2007191281	0.05	0.05	0.030	0.005	0.30	0.30	0.010	0.010	1700	900	11.90	10.10
2007191215	2007191281	0.05	0.20	0.030	0.020	0.50	0.50	0.010	0.010	2800	1400	27.00	21.30
2007191216	2007191385	0.10	0.05	0.030	0.005	0.20	0.30	0.010	0.010	1000	700	7.50	8.60
2007191216	2007191385	0.10	0.05	0.030	0.020	0.40	0.70	0.010	0.010	1900	1300	15.30	18.70
2007191216	2007191385	0.05	0.05	0.030	0.010	0.30	0.30	0.010	0.010	1300	700	10.00	6.90
2007191216	2007191385	0.05	0.10	0.020	0.060	0.50	0.70	0.020	0.010	2200	1900	20.40	15.50
2007191264	2007191486	0.10	0.05	0.010	0.010	0.20	0.10	0.010	0.010	2900	2600	19.60	7.90
2007191264	2007191486	0.05	0.10	0.010	0.005	0.30	0.30	0.010	0.020	3300	3500	48.00	21.90
2007191264	2007191486	0.05	0.05	0.020	0.005	0.10	0.10	0.010	0.010	2300	2100	14.50	8.10
2007191264	2007191486	0.05	0.05	0.030	0.030	0.40	0.20	0.030	0.010	3800	3300	41.20	20.20
2007191275	2007191590	0.05	0.20	0.050	0.020	0.20	0.30	0.010	0.030	3000	9100	14.10	14.90
2007191275	2007191590	0.10	0.20	0.020	0.040	0.40	0.50	0.040	0.040	7500	12600	33.30	20.20
2007191275	2007191590	0.05	0.05	0.040	0.040	0.10	0.30	0.010	0.030	2800	9600	13.70	13.70
2007191275	2007191590	0.05	0.10	0.050	0.050	0.30	0.60	0.030	0.050	5500	16100	25.20	24.60
2007191293	2007191518	0.05	0.05	0.020	0.005	0.40	0.30	0.010	0.010	2400	1800	16.00	6.50
2007191293	2007191518	0.05	0.10	0.020	0.010	0.40	0.30	0.010	0.010	2400	2300	15.50	8.40
2007191293	2007191518	0.10	0.10	0.005	0.020	0.50	0.30	0.010	0.010	1700	2000	15.40	9.30
2007191293	2007191518	0.10	0.20	0.020	0.020	0.50	0.40	0.010	0.010	1500	2000	15.30	11.30
2007191295	2007191498	0.05	0.05	0.010	0.020	0.10	0.10	0.010	0.010	800	900	4.80	5.20
2007191295	2007191498	0.10	0.20	0.005	0.020	0.30	0.40	0.010	0.010	1600	1600	16.70	21.70
2007191295	2007191498	0.05	0.05	0.010	0.005	0.05	0.10	0.010	0.010	700	700	4.30	5.20
2007191295	2007191498	0.05	0.10	0.005	0.005	0.40	0.40	0.010	0.010	1400	1300	17.40	23.60
2007191346	2007191429	0.05	0.05	0.010	0.040	0.50	0.50	0.030	0.020	5200	6300	30.90	22.80
2007191346	2007191429	0.05	0.10	0.010	0.040	0.50	0.40	0.020	0.010	4600	4500	33.00	20.30
2007191346	2007191429	0.05	0.05	0.005	0.020	0.20	0.20	0.010	0.010	2400	2400	19.70	13.20
2007191346	2007191429	0.05	0.05	0.020	0.005	0.50	0.40	0.010	0.010	2100	3600	25.90	18.50
2007191372	2007191445	0.30	0.05	0.030	0.020	0.40	0.05	0.020	0.010	400	200	15.40	16.00
2007191372	2007191445	0.30	0.05	0.005	0.030	0.60	0.20	0.040	0.010	500	400	20.50	39.10
2007191372	2007191445	0.20	0.05	0.005	0.020	0.30	0.10	0.010	0.010	200	300	10.20	20.40
2007191372	2007191445	0.30	0.05	0.010	0.030	0.60	0.30	0.040	0.020	300	400	20.50	48.30
2007191382	2007191509	0.10	0.10	0.010	0.005	0.40	0.40	0.030	0.020	9000	2600	30.20	38.00
2007191382	2007191509	0.20	0.20	0.030	0.020	0.60	0.60	0.050	0.040	12600	4200	43.80	51.50
2007191382	2007191509	0.10	0.20	0.005	0.020	0.40	0.50	0.040	0.040	12000	9300	30.80	34.90
2007191382	2007191509	0.10	0.30	0.010	0.020	0.50	0.60	0.050	0.060	15600	12400	36.30	44.40
2007191473	2007191510	0.20	0.10	0.005	0.005	0.50	0.60	0.040	0.040	12500	4700	37.10	34.10
2007191473	2007191510	0.20	0.10	0.005	0.050	0.40	0.60	0.040	0.040	12800	5400	32.80	34.50
2007191473	2007191510	0.10	0.05	0.020	0.005	0.40	0.50	0.030	0.030	7300	3400	26.10	28.70
2007191473	2007191510	0.10	0.10	0.020	0.010	0.30	0.50	0.030	0.030	7900	3400	24.90	28.90

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Li (ppm)	Li (ppm)	Lu (ppm)	Lu (ppm)	Mg (ppm)	Mg (ppm)	Mn (ppm)	Mn (ppm)	Mo (ppm)	Mo (ppm)	Na (ppm)	Na (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1	100	100	1	1	0.01	0.01	10	10
ULD:	ULD:												
2007191051	2007191331	4.10	2.60	0.10	0.10	1600	1400	531	627	0.260	0.550	190	270
2007191051	2007191331	4.40	2.30	0.10	0.05	1700	1200	687	587	0.650	0.890	190	260
2007191066	2007191379	13.30	9.00	0.10	0.05	6300	5100	483	179	0.240	0.170	370	3140
2007191066	2007191379	16.60	17.00	0.10	0.05	7800	9600	589	257	0.250	0.250	430	7610
2007191066	2007191379	11.60	5.10	0.05	0.05	5000	2400	386	236	0.230	0.160	1040	2090
2007191066	2007191379	17.80	10.80	0.10	0.05	8500	5500	568	467	0.270	0.210	1600	5420
2007191092	2007191211	5.90	7.80	0.10	0.20	1800	3200	600	416	0.470	0.580	340	340
2007191092	2007191211	8.00	8.30	0.20	0.20	2300	3300	665	447	0.560	0.440	450	400
2007191092	2007191211	11.60	5.80	0.10	0.10	3200	3700	931	334	0.400	0.610	420	490
2007191092	2007191211	14.10	8.30	0.20	0.10	3600	4600	1090	337	0.640	0.670	530	730
2007191134	2007191282	1.40	0.90	0.05	0.05	700	300	63	20	0.090	0.140	2680	620
2007191134	2007191282	5.30	4.00	0.20	0.10	2500	1200	161	85	0.400	0.590	5600	1910
2007191134	2007191282	4.90	4.10	0.20	0.20	31400	4400	208	120	0.080	0.005	6050	2930
2007191134	2007191282	8.20	9.90	0.30	0.20	51300	8000	395	358	0.090	0.005	8600	6130
2007191152	2007191578	1.40	4.30	0.05	0.05	300	400	46	64	0.020	0.180	2770	190
2007191152	2007191578	2.90	9.90	0.05	0.05	700	1000	113	173	0.310	0.330	1940	270
2007191152	2007191578	6.10	21.40	0.05	0.05	4600	3700	222	135	0.350	0.260	4570	2050
2007191152	2007191578	9.80	28.70	0.10	0.05	6600	5400	446	209	0.500	0.550	5480	2820
2007191168	2007191195	7.50	1.70	0.10	0.05	2600	2300	244	162	0.100	0.130	250	90
2007191168	2007191195	15.50	3.10	0.20	0.05	4600	3600	476	244	0.200	0.200	370	160
2007191168	2007191195	10.50	1.70	0.05	0.05	3800	3300	296	178	0.160	0.160	690	110
2007191168	2007191195	17.20	4.30	0.20	0.10	6900	6800	462	303	0.330	0.320	1180	280
2007191192	2007191339	10.20	10.50	0.05	0.05	5500	4900	318	339	0.540	0.520	130	280
2007191192	2007191339	12.10	10.30	0.10	0.05	6600	5400	387	376	0.600	0.600	270	320
2007191192	2007191339	12.60	10.10	0.05	0.05	8600	7100	349	422	0.620	0.520	330	320
2007191192	2007191339	13.20	10.20	0.10	0.10	9700	7700	353	415	0.580	0.640	360	350
2007191215	2007191281	4.20	2.60	0.05	0.05	900	500	534	415	0.210	0.140	180	110
2007191215	2007191281	7.50	4.90	0.05	0.05	1600	1100	1030	767	0.410	0.330	180	140
2007191215	2007191281	4.60	2.70	0.05	0.05	1000	600	323	249	0.140	0.130	190	140
2007191215	2007191281	7.30	4.10	0.10	0.05	2000	1000	587	361	0.350	0.280	250	150
2007191216	2007191385	4.90	2.40	0.05	0.05	1400	700	99	195	0.090	0.190	180	100
2007191216	2007191385	9.50	3.80	0.05	0.10	2700	1300	193	359	0.130	0.580	180	100
2007191216	2007191385	7.90	2.30	0.05	0.05	1800	500	91	113	0.090	0.270	180	90
2007191216	2007191385	12.80	8.40	0.10	0.05	3700	1500	177	275	0.150	0.280	180	110
2007191264	2007191486	4.50	3.70	0.05	0.05	2300	1600	94	115	0.090	0.120	50	70
2007191264	2007191486	5.40	5.10	0.05	0.05	2600	2400	148	211	0.170	0.130	50	80
2007191264	2007191486	5.30	2.90	0.05	0.05	1500	1300	79	97	0.100	0.080	30	60
2007191264	2007191486	5.90	4.50	0.05	0.05	3100	2200	194	209	0.230	0.130	50	80
2007191275	2007191590	5.00	19.00	0.05	0.05	1800	3400	119	404	0.340	0.550	40	260
2007191275	2007191590	14.00	28.90	0.05	0.20	5400	5300	248	485	0.640	0.840	80	300
2007191275	2007191590	5.50	22.00	0.05	0.05	2700	3900	73	396	0.330	0.700	100	300
2007191275	2007191590	12.20	35.40	0.05	0.20	5600	6300	128	563	0.480	0.790	200	340
2007191293	2007191518	1.20	4.20	0.10	0.05	1400	1100	345	294	0.050	0.040	1790	300
2007191293	2007191518	1.10	4.80	0.05	0.05	1300	1200	206	330	0.040	0.030	1490	300
2007191293	2007191518	1.10	6.20	0.05	0.05	1700	1700	327	414	0.420	0.370	5850	1920
2007191293	2007191518	1.30	6.80	0.10	0.10	1800	2000	342	436	0.480	0.690	5280	2130
2007191295	2007191498	1.10	1.70	0.10	0.05	800	800	41	53	0.005	0.020	1660	1770
2007191295	2007191498	2.80	3.30	0.20	0.05	1600	1600	119	158	0.005	0.040	2250	1600
2007191295	2007191498	1.00	1.70	0.05	0.05	800	900	42	47	0.005	0.005	2560	1440
2007191295	2007191498	2.40	3.00	0.10	0.10	1700	1800	123	155	0.005	0.005	3220	1900
2007191346	2007191429	14.10	26.60	0.05	0.10	7800	7400	326	516	0.170	0.210	160	270
2007191346	2007191429	12.70	18.60	0.05	0.10	7400	5900	298	367	0.180	0.500	140	240
2007191346	2007191429	7.00	10.60	0.05	0.05	3400	3400	139	178	0.560	0.080	110	200
2007191346	2007191429	7.30	16.40	0.20	0.10	4700	5000	229	277	0.160	0.120	80	200
2007191372	2007191445	21.50	9.60	0.05	0.05	400	300	206	122	1.050	0.270	220	160
2007191372	2007191445	20.00	23.60	0.05	0.05	500	800	246	284	1.350	0.440	240	280
2007191372	2007191445	10.20	10.20	0.05	0.05	200	500	72	134	1.000	0.180	140	200
2007191372	2007191445	18.70	19.30	0.05	0.05	300	1000	140	243	1.720	0.370	160	280
2007191382	2007191509	5.20	2.60	0.05	0.05	4000	1100	613	313	0.480	0.620	250	100
2007191382	2007191509	8.00	4.40	0.10	0.10	5400	1800	749	437	0.690	0.670	340	140
2007191382	2007191509	6.20	4.90	0.05	0.05	5700	4600	497	419	0.850	1.060	300	210
2007191382	2007191509	7.80	6.50	0.10	0.10	7600	6000	524	573	0.800	2.170	350	260
2007191473	2007191510	15.00	4.30	0.05	0.10	9500	5100	1330	1250	0.270	0.400	400	570
2007191473	2007191510	15.50	4.50	0.10	0.10	9700	5400	313	271	0.300	0.310	430	680
2007191473	2007191510	13.70	5.40	0.05	0.10	7900	5200	562	903	0.320	0.280	3350	3720
2007191473	2007191510	15.90	5.50	0.05	0.05	8800	5500	198	196	0.220	0.270	3810	3980

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Nb (ppm)	Nb (ppm)	Nd (ppm)	Nd (ppm)	Ni (ppm)	Ni (ppm)	Pb (ppm)	Pb (ppm)	Pr (ppm)	Pr (ppm)	Rb (ppm)	Rb (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.02	0.02	0.1	0.1	0.01	0.01	0.1	0.1	0.1	0.1
ULD:	ULD:												
2007191051	2007191331	0.05	0.05	13.200	15.900	16.80	8.50	8.040	5.000	3.10	3.80	11.00	8.90
2007191051	2007191331	0.05	0.05	14.800	15.100	12.20	10.30	9.620	4.980	3.80	3.70	11.30	7.80
2007191066	2007191379	0.20	0.20	13.700	6.000	18.60	9.80	12.100	5.930	3.40	1.40	16.30	5.40
2007191066	2007191379	0.10	0.30	18.800	11.500	23.10	17.70	15.100	9.220	4.50	2.60	20.60	10.00
2007191066	2007191379	0.10	0.05	12.000	5.580	14.80	7.50	9.850	4.010	3.10	1.30	14.60	2.70
2007191066	2007191379	0.20	0.10	19.000	9.250	24.20	12.60	15.300	6.190	4.60	2.20	21.90	5.70
2007191092	2007191211	4.40	1.90	37.700	17.900	39.30	40.10	9.980	8.310	9.80	4.80	11.60	12.40
2007191092	2007191211	5.80	2.20	49.000	20.400	51.20	43.30	17.300	9.210	12.90	5.50	14.50	14.20
2007191092	2007191211	2.70	2.00	29.100	18.200	73.00	70.10	6.160	6.520	7.70	4.80	15.20	6.70
2007191092	2007191211	3.60	2.80	43.200	24.400	90.60	76.60	8.220	6.460	11.40	6.50	18.40	8.80
2007191134	2007191282	0.05	0.05	13.700	5.010	1.90	0.50	4.720	3.220	3.70	1.60	6.80	3.10
2007191134	2007191282	0.20	0.20	44.100	27.000	4.90	3.60	12.400	12.800	11.90	8.30	18.00	11.00
2007191134	2007191282	0.05	0.05	37.800	34.100	7.50	4.10	10.600	10.200	10.00	10.10	25.20	15.10
2007191134	2007191282	0.05	0.05	56.900	60.600	11.50	11.60	16.600	24.700	14.50	18.10	38.60	35.30
2007191152	2007191578	0.10	0.20	3.480	4.050	4.20	4.70	4.190	3.300	0.90	1.00	4.70	6.50
2007191152	2007191578	0.20	0.30	10.300	13.200	6.20	10.40	8.170	6.730	2.80	3.40	9.50	16.30
2007191152	2007191578	0.05	0.05	6.150	4.960	11.80	13.00	6.720	6.740	1.70	1.30	24.70	32.50
2007191152	2007191578	0.05	0.05	9.160	7.160	19.10	21.70	10.200	9.380	2.50	1.70	37.20	42.60
2007191168	2007191195	0.05	0.10	15.600	11.800	15.80	7.70	10.900	10.700	3.80	2.70	24.00	8.80
2007191168	2007191195	0.20	0.20	27.000	17.500	27.70	10.50	17.800	17.900	7.10	3.80	43.10	12.50
2007191168	2007191195	0.05	0.10	17.000	12.300	16.60	9.00	10.500	7.420	4.50	3.00	29.20	10.90
2007191168	2007191195	0.05	0.10	26.300	22.400	29.20	16.10	18.500	12.500	6.40	5.10	47.70	17.00
2007191192	2007191339	0.40	0.40	20.100	22.400	12.90	12.80	7.980	6.540	5.20	6.50	32.80	37.10
2007191192	2007191339	0.50	0.40	27.600	28.000	15.90	14.70	10.300	7.510	7.00	8.80	39.10	36.50
2007191192	2007191339	0.40	0.40	23.800	25.700	20.10	17.30	10.600	8.750	6.00	7.90	45.00	43.30
2007191192	2007191339	0.40	0.40	28.800	28.300	21.30	18.10	11.800	9.200	7.00	8.60	47.80	45.20
2007191215	2007191281	0.50	0.50	9.680	7.070	16.10	10.30	4.630	3.560	2.40	1.80	13.20	7.40
2007191215	2007191281	1.10	1.50	18.600	18.800	31.10	28.00	7.990	7.110	4.60	4.40	22.20	14.60
2007191215	2007191281	0.40	0.50	10.200	9.280	14.70	12.70	4.820	3.540	2.60	2.20	14.00	7.10
2007191215	2007191281	0.80	1.20	20.600	17.100	31.80	26.40	8.140	5.320	5.70	4.30	22.80	11.10
2007191216	2007191385	0.05	0.05	5.700	7.640	5.60	4.50	5.140	6.100	1.40	1.80	9.20	4.80
2007191216	2007191385	0.05	0.10	14.200	16.700	11.40	8.60	8.850	11.900	3.50	4.20	16.60	7.80
2007191216	2007191385	0.05	0.05	8.680	7.530	7.90	5.90	6.140	6.360	2.20	1.70	13.20	5.00
2007191216	2007191385	0.05	0.05	15.900	16.900	13.30	12.30	10.000	13.000	4.30	3.70	23.20	15.10
2007191264	2007191486	0.50	0.50	13.100	6.280	6.00	5.30	4.520	3.370	3.90	1.70	22.10	14.20
2007191264	2007191486	0.50	0.60	33.800	17.200	7.30	8.20	5.530	5.050	9.70	4.80	23.10	18.60
2007191264	2007191486	0.30	0.40	10.000	6.410	4.50	4.30	4.060	3.270	3.00	1.80	16.40	11.50
2007191264	2007191486	0.60	0.60	29.100	15.700	10.30	8.40	6.050	4.480	8.60	4.50	28.90	17.40
2007191275	2007191590	0.10	0.20	10.100	11.500	6.60	21.60	5.870	13.100	2.80	3.20	14.90	32.70
2007191275	2007191590	0.20	0.20	25.300	20.300	17.40	32.80	12.100	21.200	7.20	4.70	37.80	46.50
2007191275	2007191590	0.20	0.10	10.300	15.400	6.70	23.90	5.030	13.300	2.90	3.80	15.50	35.30
2007191275	2007191590	0.20	0.10	19.700	22.400	13.40	35.40	8.530	19.600	5.60	6.00	30.50	59.00
2007191293	2007191518	0.05	0.05	14.500	9.890	4.50	7.60	4.760	6.260	3.70	2.10	7.70	9.20
2007191293	2007191518	0.05	0.05	13.600	11.300	3.60	7.10	3.570	6.320	3.70	2.60	8.20	12.60
2007191293	2007191518	0.05	0.05	15.000	12.100	4.60	10.90	4.690	7.360	3.80	2.80	8.80	15.40
2007191293	2007191518	0.05	0.05	15.400	11.500	5.30	12.60	4.750	8.580	3.80	2.80	9.10	16.40
2007191295	2007191498	0.10	0.30	5.160	5.330	1.90	2.10	1.700	2.450	1.30	1.40	3.90	4.60
2007191295	2007191498	0.20	0.50	15.700	18.700	5.60	4.90	4.550	4.800	4.40	5.40	7.60	8.00
2007191295	2007191498	0.05	0.20	4.690	5.360	2.40	2.00	1.640	2.140	1.20	1.40	3.60	4.10
2007191295	2007191498	0.40	0.50	16.500	20.900	5.60	4.90	4.930	4.790	4.50	5.70	7.40	7.20
2007191346	2007191429	0.40	0.70	18.700	23.000	10.50	20.90	6.490	14.800	5.50	5.60	36.20	47.50
2007191346	2007191429	0.40	0.50	19.700	16.900	10.50	20.00	6.280	12.200	5.60	4.40	35.10	35.60
2007191346	2007191429	0.30	0.30	11.100	11.700	6.60	10.30	7.600	8.040	3.40	2.90	17.40	20.60
2007191346	2007191429	0.30	0.40	18.000	18.700	7.80	15.20	6.780	10.700	4.90	4.60	27.50	26.80
2007191372	2007191445	1.00	0.30	12.900	14.200	31.60	16.00	10.400	6.400	3.20	3.60	4.50	1.70
2007191372	2007191445	2.10	0.60	16.300	31.000	35.40	31.50	15.800	13.300	4.20	8.10	5.10	4.50
2007191372	2007191445	0.70	0.30	9.800	15.900	23.50	14.90	9.030	6.760	2.40	4.30	1.90	3.80
2007191372	2007191445	1.10	0.30	19.200	31.100	26.20	26.20	14.400	15.000	4.60	9.00	3.70	6.40
2007191382	2007191509	0.20	0.20	23.400	26.600	20.10	11.10	13.900	14.000	6.50	7.90	43.70	16.20
2007191382	2007191509	0.20	0.30	33.000	36.800	29.80	15.70	19.900	16.600	9.40	10.70	61.50	25.20
2007191382	2007191509	0.10	0.10	23.900	26.700	26.50	24.30	14.700	14.000	6.70	7.80	51.30	40.40
2007191382	2007191509	0.10	0.05	28.100	33.800	31.70	38.10	16.200	17.800	8.00	9.80	65.00	53.80
2007191473	2007191510	0.10	0.10	19.000	23.900	26.50	19.70	16.600	20.700	7.20	6.80	37.70	6.60
2007191473	2007191510	0.20	0.10	21.200	24.500	21.20	13.80	9.240	11.700	6.40	7.00	37.50	7.40
2007191473	2007191510	0.20	0.20	17.500	20.300	19.20	15.80	10.900	15.200	5.10	5.70	23.50	6.80
2007191473	2007191510	0.30	0.20	17.400	20.400	15.90	11.10	6.150	8.820	4.90	5.80	24.50	6.80

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Re (ppm)	Re (ppm)	Sb (ppm)	Sb (ppm)	Sc (ppm)	Sc (ppm)	Se (ppm)	Se (ppm)	Sm (ppm)	Sm (ppm)	Sn (ppm)	Sn (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.001	0.001	0.02	0.02	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.05
ULD:	ULD:												
2007191051	2007191331	0.0005	0.0005	0.140	0.040	5.20	6.40	0.05	0.50	3.00	3.80	0.680	0.600
2007191051	2007191331	0.0005	0.0005	0.120	0.050	5.50	5.40	0.05	0.50	3.40	3.70	0.910	0.520
2007191066	2007191379	0.0010	0.0005	0.240	0.280	3.40	1.90	0.20	0.05	2.80	1.40	0.920	0.700
2007191066	2007191379	0.0005	0.0005	0.280	0.340	4.90	4.40	0.50	0.30	3.80	2.60	1.070	0.810
2007191066	2007191379	0.0005	0.0005	0.230	0.270	3.20	1.30	0.05	0.50	2.20	1.10	1.080	0.490
2007191066	2007191379	0.0005	0.0010	0.270	0.320	4.80	2.40	0.40	1.00	3.70	2.00	0.960	0.660
2007191092	2007191211	0.0010	0.0040	0.040	0.080	7.50	5.50	0.70	0.80	7.40	3.60	0.740	0.940
2007191092	2007191211	0.0005	0.0050	0.110	0.090	10.10	6.10	0.80	0.60	9.70	4.00	0.920	1.120
2007191092	2007191211	0.0005	0.0005	0.060	0.290	10.30	6.50	0.60	0.70	5.90	3.80	1.130	0.750
2007191092	2007191211	0.0005	0.0040	0.070	0.020	13.50	8.90	1.10	0.90	8.80	5.00	1.470	0.890
2007191134	2007191282	0.0030	0.0005	0.010	0.010	1.10	0.70	0.10	0.30	2.50	0.80	0.200	0.150
2007191134	2007191282	0.0030	0.0005	0.010	0.030	3.20	2.60	0.05	0.50	8.50	4.40	0.450	0.500
2007191134	2007191282	0.0020	0.0030	0.020	0.010	3.80	3.30	0.10	0.60	7.10	5.60	0.570	0.340
2007191134	2007191282	0.0005	0.0005	0.040	0.040	5.90	8.50	0.05	0.60	10.40	9.70	0.860	0.910
2007191152	2007191578	0.0005	0.0005	0.130	0.070	1.60	1.50	2.10	0.20	0.70	0.80	0.570	0.450
2007191152	2007191578	0.0005	0.0005	0.120	0.130	3.50	5.30	0.20	0.40	2.10	2.40	0.990	0.970
2007191152	2007191578	0.0005	0.0005	0.270	0.180	4.00	5.10	0.70	0.20	1.20	1.10	1.400	1.500
2007191152	2007191578	0.0005	0.0010	0.240	0.210	5.80	8.20	1.60	0.20	1.90	1.60	1.990	1.390
2007191168	2007191195	0.0020	0.0080	0.140	0.160	3.70	2.20	0.30	0.05	2.80	2.50	0.970	0.400
2007191168	2007191195	0.0030	0.0030	0.170	0.180	8.30	2.90	0.10	0.05	5.20	3.80	1.340	0.580
2007191168	2007191195	0.0005	0.0070	0.150	0.090	5.20	2.40	0.05	0.05	2.80	2.70	1.130	0.240
2007191168	2007191195	0.0005	0.0060	0.180	0.130	9.00	4.20	0.70	0.05	5.20	4.70	1.610	0.750
2007191192	2007191339	0.0090	0.0005	0.130	0.130	5.90	5.40	0.05	0.50	3.80	4.00	0.910	1.020
2007191192	2007191339	0.0060	0.0020	0.140	0.170	7.20	6.40	0.05	0.60	5.20	5.20	1.100	1.160
2007191192	2007191339	0.0040	0.0005	0.180	0.150	7.80	6.70	0.05	1.00	4.50	4.80	1.180	1.160
2007191192	2007191339	0.0020	0.0040	0.140	0.170	9.10	7.30	0.05	0.90	5.40	5.40	1.190	1.600
2007191215	2007191281	0.0020	0.0030	0.110	0.180	1.00	0.40	0.20	0.05	1.90	1.50	0.550	0.690
2007191215	2007191281	0.0030	0.0010	0.150	0.210	2.80	3.00	0.50	0.50	3.80	4.00	0.830	0.860
2007191215	2007191281	0.0005	0.0010	0.140	0.180	1.90	0.90	0.20	0.60	1.90	1.80	0.800	0.640
2007191215	2007191281	0.0010	0.0020	0.570	0.270	3.30	2.00	0.30	0.40	3.90	3.10	1.000	1.040
2007191216	2007191385	0.0030	0.0010	0.110	0.210	1.20	1.90	0.05	0.05	1.20	1.70	0.760	0.920
2007191216	2007191385	0.0005	0.0005	0.140	0.300	3.70	3.90	0.30	0.30	2.70	3.60	1.000	1.420
2007191216	2007191385	0.0030	0.0005	0.140	0.210	2.50	3.00	0.20	0.05	1.50	1.60	1.000	0.900
2007191216	2007191385	0.0030	0.0005	0.140	0.270	4.20	7.80	0.20	0.30	3.00	3.60	1.250	1.630
2007191264	2007191486	0.0005	0.0005	0.040	0.070	3.50	2.20	0.05	0.30	2.50	1.20	0.770	0.590
2007191264	2007191486	0.0005	0.0005	0.050	0.060	4.90	3.70	0.30	0.05	6.40	3.10	1.070	0.820
2007191264	2007191486	0.0030	0.0005	1.150	0.050	2.70	2.00	0.05	0.30	2.00	1.20	0.630	0.530
2007191264	2007191486	0.0005	0.0005	0.040	0.060	5.10	3.30	0.10	0.40	5.60	2.90	1.110	0.790
2007191275	2007191590	0.0020	0.0020	0.090	0.280	2.90	8.40	0.40	0.05	1.90	2.50	0.450	1.200
2007191275	2007191590	0.0005	0.0020	0.250	0.330	8.60	15.80	0.40	0.50	5.10	4.50	1.310	1.380
2007191275	2007191590	0.0005	0.0020	0.150	0.750	2.60	12.60	0.30	0.40	1.90	3.00	0.500	1.180
2007191275	2007191590	0.0005	0.0005	0.200	0.440	5.70	17.50	0.70	0.70	3.90	4.10	1.120	2.270
2007191293	2007191518	0.0020	0.0005	0.010	0.060	4.20	4.80	1.00	0.20	3.30	2.30	0.400	0.360
2007191293	2007191518	0.0010	0.0005	0.010	0.080	4.10	5.40	1.00	0.10	3.20	2.20	0.390	0.640
2007191293	2007191518	0.0030	0.0020	0.010	0.080	5.10	6.80	1.10	0.05	3.30	2.30	0.450	0.750
2007191293	2007191518	0.0020	0.0020	0.010	0.080	4.70	6.80	1.20	0.05	3.60	2.80	0.430	0.800
2007191295	2007191498	0.0005	0.0005	0.040	0.100	1.30	1.00	0.05	0.05	1.00	1.10	0.210	0.300
2007191295	2007191498	0.0005	0.0005	0.160	0.080	2.60	2.50	0.05	0.05	3.10	3.80	0.430	0.670
2007191295	2007191498	0.0005	0.0005	0.240	0.070	1.00	1.00	0.05	0.05	1.00	1.10	0.220	0.250
2007191295	2007191498	0.0005	0.0005	0.100	0.120	2.50	2.40	0.80	0.05	3.30	4.20	0.530	0.660
2007191346	2007191429	0.0010	0.0005	0.070	0.210	4.80	8.40	0.20	0.40	3.80	4.60	1.050	1.280
2007191346	2007191429	0.0005	0.0005	0.080	0.190	4.20	5.00	0.70	0.05	4.00	3.60	1.080	1.000
2007191346	2007191429	0.0005	0.0010	0.050	0.090	2.10	3.10	0.40	0.05	2.30	2.50	0.650	0.520
2007191346	2007191429	0.0005	0.0005	0.060	0.110	3.30	5.10	0.40	0.20	3.80	3.80	0.850	0.820
2007191372	2007191445	0.0010	0.0005	0.180	0.030	18.50	1.80	0.80	0.05	2.70	2.60	1.330	0.290
2007191372	2007191445	0.0020	0.0005	0.180	0.120	24.60	6.00	0.40	0.20	3.70	5.60	1.790	0.610
2007191372	2007191445	0.0005	0.0005	0.170	0.030	13.40	3.50	0.60	0.05	2.10	2.60	1.050	0.500
2007191372	2007191445	0.0005	0.0005	0.190	0.030	26.50	7.20	0.10	0.05	4.00	6.30	1.750	0.700
2007191382	2007191509	0.0005	0.0005	9.150	0.150	7.90	4.50	0.05	0.50	4.10	4.40	1.190	0.640
2007191382	2007191509	0.0020	0.0010	0.410	0.150	11.90	6.80	0.20	0.60	5.80	6.40	1.830	1.180
2007191382	2007191509	0.0010	0.0005	0.270	0.220	10.30	9.60	0.50	0.10	4.20	4.70	1.750	1.350
2007191382	2007191509	0.0005	0.0005	0.250	0.240	12.90	12.40	0.05	0.40	5.20	5.90	2.040	1.860
2007191473	2007191510	0.0005	0.0020	0.210	0.190	10.80	4.50	0.50	1.10	4.90	5.20	1.450	0.980
2007191473	2007191510	0.0030	0.0005	0.230	0.190	10.60	4.90	0.10	0.40	4.50	5.30	1.600	1.190
2007191473	2007191510	0.0020	0.0010	0.230	0.270	7.30	4.60	1.10	0.90	3.80	4.40	1.090	0.950
2007191473	2007191510	0.0010	0.0020	0.230	0.210	7.80	4.60	0.90	0.90	3.60	4.40	1.130	0.970

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Sr (ppm)	Sr (ppm)	Ta (ppm)	Ta (ppm)	Tb (ppm)	Tb (ppm)	Te (ppm)	Te (ppm)	Th (ppm)	Th (ppm)	Tl (ppm)	Tl (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.5	0.5	0.05	0.05	0.1	0.1	0.02	0.02	0.1	0.1	0.02	0.02
ULD:	ULD:	1000	1000										
2007191051	2007191331	51.90	67.40	0.025	0.025	0.40	0.50	0.010	0.060	1.90	2.90	0.080	0.090
2007191051	2007191331	55.70	67.40	0.025	0.025	0.40	0.40	0.010	0.040	2.10	2.30	0.080	0.080
2007191066	2007191379	59.70	81.20	0.025	0.025	0.30	0.20	0.020	0.010	6.20	2.60	0.130	0.060
2007191066	2007191379	75.60	122.00	0.025	0.025	0.40	0.30	0.050	0.010	7.10	3.80	0.140	0.090
2007191066	2007191379	67.00	73.30	0.025	0.025	0.30	0.20	0.040	0.020	3.90	1.60	0.090	0.030
2007191066	2007191379	116.00	189.00	0.025	0.025	0.50	0.30	0.020	0.010	6.80	2.70	0.170	0.070
2007191092	2007191211	65.00	51.40	0.025	0.025	0.80	0.30	0.060	0.040	2.30	2.50	0.020	0.060
2007191092	2007191211	84.50	57.60	0.025	0.025	1.10	0.40	0.080	0.040	3.00	2.90	0.040	0.050
2007191092	2007191211	39.70	36.50	0.025	0.025	0.70	0.30	0.010	0.080	4.30	2.70	0.060	0.030
2007191092	2007191211	54.60	50.20	0.025	0.025	1.00	0.50	0.040	0.010	5.70	3.10	0.050	0.040
2007191134	2007191282	6.40	3.30	0.025	0.025	0.30	0.05	0.010	0.020	10.70	4.30	0.050	0.020
2007191134	2007191282	21.90	16.40	0.025	0.025	0.90	0.30	0.040	0.010	32.20	19.40	0.110	0.050
2007191134	2007191282	218.00	63.90	0.025	0.025	0.70	0.40	0.100	0.040	20.70	17.50	0.170	0.090
2007191134	2007191282	353.00	69.70	0.025	0.025	1.10	0.80	0.090	0.010	30.80	43.50	0.290	0.210
2007191152	2007191578	4.30	5.00	0.025	0.025	0.05	0.05	0.010	0.010	1.90	2.10	0.030	0.040
2007191152	2007191578	8.40	12.20	0.025	0.025	0.20	0.20	0.010	0.030	4.10	5.40	0.070	0.090
2007191152	2007191578	19.50	17.80	0.025	0.025	0.10	0.10	0.010	0.070	4.10	4.30	0.150	0.200
2007191152	2007191578	25.40	22.30	0.025	0.025	0.20	0.20	0.010	0.050	5.30	6.10	0.250	0.250
2007191168	2007191195	19.60	21.90	0.025	0.025	0.30	0.30	0.040	0.010	8.30	3.00	0.160	0.100
2007191168	2007191195	37.80	34.60	0.025	0.025	0.50	0.40	0.040	0.010	10.70	4.10	0.300	0.130
2007191168	2007191195	43.70	46.10	0.025	0.025	0.30	0.30	0.050	0.010	7.40	4.00	0.200	0.110
2007191168	2007191195	74.40	104.00	0.025	0.025	0.60	0.50	0.040	0.010	12.80	6.20	0.330	0.220
2007191192	2007191339	25.80	22.70	0.025	0.025	0.40	0.40	0.010	0.060	10.80	11.90	0.230	0.220
2007191192	2007191339	31.20	24.60	0.025	0.025	0.50	0.50	0.010	0.070	16.40	15.50	0.250	0.220
2007191192	2007191339	63.00	55.20	0.025	0.025	0.50	0.50	0.010	0.030	11.00	11.80	0.290	0.250
2007191192	2007191339	74.50	63.50	0.025	0.025	0.50	0.50	0.070	0.060	13.90	12.40	0.320	0.300
2007191215	2007191281	41.60	13.40	0.025	0.025	0.20	0.20	0.030	0.040	2.10	1.70	0.090	0.050
2007191215	2007191281	81.60	31.90	0.025	0.025	0.30	0.40	0.050	0.040	3.40	4.40	0.130	0.080
2007191215	2007191281	55.30	16.90	0.025	0.025	0.20	0.20	0.040	0.080	2.30	2.30	0.090	0.060
2007191215	2007191281	132.00	31.00	0.025	0.025	0.50	0.40	0.030	0.010	7.30	6.10	0.170	0.090
2007191216	2007191385	9.50	6.30	0.025	0.025	0.20	0.20	0.040	0.010	2.60	3.10	0.060	0.040
2007191216	2007191385	17.90	13.10	0.025	0.025	0.30	0.50	0.020	0.030	4.60	5.10	0.090	0.080
2007191216	2007191385	20.00	4.90	0.025	0.025	0.20	0.20	0.050	0.020	2.40	2.70	0.090	0.050
2007191216	2007191385	41.40	12.00	0.025	0.025	0.40	0.40	0.030	0.010	4.60	5.40	0.170	0.130
2007191264	2007191486	13.80	8.40	0.025	0.025	0.20	0.05	0.010	0.010	6.50	2.60	0.120	0.100
2007191264	2007191486	19.20	14.90	0.025	0.025	0.40	0.20	0.010	0.010	16.90	7.50	0.130	0.120
2007191264	2007191486	12.40	7.60	0.025	0.025	0.20	0.05	0.030	0.030	4.50	3.20	0.090	0.080
2007191264	2007191486	26.60	15.50	0.025	0.025	0.40	0.20	0.010	0.010	12.90	8.10	0.200	0.110
2007191275	2007191590	25.00	21.70	0.025	0.025	0.20	0.30	0.010	0.040	3.70	8.60	0.090	0.220
2007191275	2007191590	79.00	26.90	0.025	0.025	0.50	0.50	0.050	0.060	9.10	12.20	0.230	0.280
2007191275	2007191590	107.00	22.70	0.025	0.025	0.20	0.30	0.040	0.060	2.70	6.30	0.090	0.220
2007191275	2007191590	241.00	35.70	0.025	0.025	0.30	0.50	0.040	0.040	4.10	12.30	0.170	0.400
2007191293	2007191518	64.20	22.50	0.025	0.025	0.40	0.20	0.020	0.060	3.90	2.40	0.060	0.070
2007191293	2007191518	59.10	28.30	0.025	0.025	0.40	0.30	0.040	0.030	4.00	3.20	0.090	0.080
2007191293	2007191518	83.10	49.80	0.025	0.025	0.40	0.30	0.060	0.020	4.20	3.60	0.090	0.100
2007191293	2007191518	93.60	57.30	0.025	0.025	0.40	0.40	0.090	0.020	4.70	4.80	0.090	0.130
2007191295	2007191498	8.10	10.20	0.025	0.025	0.10	0.10	0.010	0.010	1.40	1.50	0.030	0.030
2007191295	2007191498	18.80	20.30	0.025	0.025	0.30	0.40	0.010	0.010	7.30	9.70	0.050	0.050
2007191295	2007191498	8.80	11.20	0.025	0.025	0.05	0.10	0.010	0.010	1.10	1.80	0.030	0.030
2007191295	2007191498	21.10	22.40	0.025	0.025	0.40	0.40	0.010	0.010	7.40	10.30	0.050	0.050
2007191346	2007191429	37.70	44.40	0.025	0.025	0.40	0.50	0.120	0.030	7.70	9.40	0.230	0.270
2007191346	2007191429	37.80	32.20	0.025	0.025	0.40	0.40	0.070	0.010	8.70	10.60	0.220	0.260
2007191346	2007191429	15.40	16.00	0.025	0.025	0.20	0.30	0.070	0.030	5.00	7.10	0.120	0.140
2007191346	2007191429	25.20	25.70	0.025	0.025	0.40	0.30	0.040	0.010	6.20	8.90	0.160	0.180
2007191372	2007191445	29.60	7.10	0.025	0.025	0.30	0.10	0.050	0.010	6.80	8.60	0.060	0.020
2007191372	2007191445	37.60	24.30	0.025	0.025	0.40	0.40	0.010	0.050	10.50	15.60	0.090	0.040
2007191372	2007191445	8.10	6.30	0.025	0.025	0.20	0.20	0.010	0.010	7.80	10.30	0.050	0.060
2007191372	2007191445	14.10	13.60	0.025	0.025	0.40	0.50	0.020	0.010	12.40	26.00	0.090	0.120
2007191382	2007191509	18.10	9.50	0.025	0.025	0.30	0.30	0.040	0.010	14.50	16.00	0.220	0.130
2007191382	2007191509	26.40	14.10	0.025	0.025	0.50	0.50	0.050	0.040	22.20	23.60	0.310	0.200
2007191382	2007191509	43.10	25.20	0.025	0.025	0.30	0.40	0.070	0.050	16.40	17.40	0.240	0.260
2007191382	2007191509	53.00	28.40	0.025	0.025	0.40	0.50	0.050	0.010	19.00	20.70	0.290	0.370
2007191473	2007191510	53.50	76.50	0.025	0.025	0.40	0.60	0.080	0.010	8.60	5.20	0.350	0.140
2007191473	2007191510	50.50	69.70	0.025	0.025	0.40	0.60	0.040	0.040	8.70	5.90	0.290	0.090
2007191473	2007191510	157.00	141.00	0.025	0.025	0.30	0.50	0.030	0.010	5.30	5.00	0.240	0.120
2007191473	2007191510	175.00	153.00	0.025	0.025	0.30	0.50	0.140	0.040	5.30	5.10	0.210	0.100

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Tm (ppm)	Tm (ppm)	U (ppm)	U (ppm)	V (ppm)	V (ppm)	W (ppm)	W (ppm)	Y (ppm)	Y (ppm)	Yb (ppm)	Yb (ppm)
METHOD:	METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1	1	1	0.1	0.1	0.01	0.01	0.1	0.1
ULD:	ULD:							200	200				
2007191051	2007191331	0.20	0.20	0.70	0.70	57	65	0.05	0.05	11.800	14.500	1.00	1.00
2007191051	2007191331	0.20	0.10	0.80	0.60	64	60	0.05	0.05	13.200	13.800	1.10	1.10
2007191066	2007191379	0.30	0.10	0.70	0.20	34	22	0.05	0.05	7.790	3.850	0.70	0.30
2007191066	2007191379	0.30	0.20	0.70	0.30	39	33	0.05	0.05	10.800	6.900	0.90	0.60
2007191066	2007191379	0.20	0.10	0.50	0.40	30	26	0.05	0.05	7.610	4.090	0.50	0.30
2007191066	2007191379	0.30	0.20	1.00	0.90	43	39	0.05	0.05	11.000	7.680	0.90	0.50
2007191092	2007191211	0.20	0.10	0.80	1.10	69	45	0.05	0.20	20.700	11.600	1.10	0.70
2007191092	2007191211	0.30	0.10	1.00	1.20	75	49	0.05	0.05	26.900	12.700	1.60	0.80
2007191092	2007191211	0.20	0.10	0.70	1.00	90	87	0.05	0.05	15.800	13.100	0.90	0.80
2007191092	2007191211	0.30	0.20	0.90	1.40	114	64	0.05	0.05	24.100	16.600	1.50	0.90
2007191134	2007191282	0.05	0.05	0.40	0.30	6	6	0.05	0.05	7.640	2.050	0.50	0.10
2007191134	2007191282	0.30	0.20	1.30	1.80	17	20	0.05	0.05	29.200	12.400	2.00	0.80
2007191134	2007191282	0.30	0.20	1.40	0.80	27	21	0.05	0.05	26.400	21.000	1.60	1.10
2007191134	2007191282	0.40	0.30	2.20	1.50	40	54	0.05	0.05	40.700	23.200	2.50	1.50
2007191152	2007191578	0.05	0.05	0.90	0.60	24	19	0.05	0.05	2.290	2.190	0.20	0.10
2007191152	2007191578	0.05	0.05	2.00	1.80	39	33	0.05	0.05	6.710	7.500	0.50	0.30
2007191152	2007191578	0.05	0.05	0.80	1.00	61	47	0.05	0.05	4.960	3.890	0.40	0.30
2007191152	2007191578	0.05	0.05	1.30	1.50	73	64	0.05	0.05	7.510	4.800	0.60	0.40
2007191168	2007191195	0.30	0.05	0.80	0.30	31	32	0.05	0.10	7.340	7.130	0.70	0.60
2007191168	2007191195	0.40	0.10	1.10	0.40	49	50	0.05	0.10	14.800	10.600	1.10	0.80
2007191168	2007191195	0.30	0.05	0.70	0.30	41	36	0.05	0.10	9.420	7.580	0.60	0.60
2007191168	2007191195	0.40	0.20	1.10	0.50	72	65	0.05	0.20	14.000	15.800	1.40	1.30
2007191192	2007191339	0.10	0.10	1.00	1.40	57	62	0.10	0.10	9.960	10.600	0.70	0.80
2007191192	2007191339	0.20	0.10	1.30	1.70	70	70	0.10	0.20	12.500	13.600	0.90	1.00
2007191192	2007191339	0.10	0.10	1.40	1.50	77	75	0.10	0.20	12.300	13.000	0.90	0.90
2007191192	2007191339	0.20	0.10	1.70	1.70	82	84	0.10	0.20	14.700	15.300	1.10	1.00
2007191215	2007191281	0.20	0.05	0.30	0.10	17	12	0.05	0.05	4.220	3.590	0.30	0.20
2007191215	2007191281	0.30	0.20	0.50	0.40	34	36	0.05	0.05	8.620	10.300	0.70	0.60
2007191215	2007191281	0.20	0.10	0.20	0.10	18	15	0.05	0.05	5.280	4.640	0.30	0.20
2007191215	2007191281	0.30	0.10	0.70	0.40	44	42	0.05	0.05	10.200	11.400	0.70	0.50
2007191216	2007191385	0.20	0.10	0.20	0.10	21	28	0.05	0.05	3.550	4.720	0.30	0.40
2007191216	2007191385	0.30	0.20	0.30	0.40	33	44	0.05	0.05	8.560	10.800	0.70	0.90
2007191216	2007191385	0.20	0.10	0.20	0.05	31	34	0.05	0.05	5.700	4.440	0.30	0.40
2007191216	2007191385	0.30	0.20	0.30	0.40	50	66	0.05	0.05	10.500	10.500	0.70	0.90
2007191264	2007191486	0.05	0.05	0.60	0.30	38	25	0.05	0.05	5.850	2.900	0.40	0.30
2007191264	2007191486	0.10	0.05	1.50	0.80	47	38	0.05	0.05	11.600	6.820	0.70	0.50
2007191264	2007191486	0.05	0.05	0.40	0.30	31	25	0.05	0.05	4.720	2.680	0.30	0.20
2007191264	2007191486	0.10	0.05	1.30	0.80	51	38	0.10	0.05	12.600	6.890	0.80	0.50
2007191275	2007191590	0.05	0.10	0.30	0.40	33	50	0.05	0.05	5.700	9.250	0.40	0.70
2007191275	2007191590	0.20	0.20	0.70	0.60	62	81	0.05	0.05	14.300	12.900	1.00	1.20
2007191275	2007191590	0.05	0.10	0.60	0.40	39	57	0.05	0.05	5.860	11.400	0.40	0.70
2007191275	2007191590	0.10	0.20	1.30	0.80	67	83	0.05	0.05	11.900	18.800	0.90	1.10
2007191293	2007191518	0.10	0.05	0.30	0.30	26	29	0.05	0.05	11.600	8.430	0.90	0.60
2007191293	2007191518	0.10	0.05	0.30	0.40	22	30	0.05	0.05	11.200	10.500	0.80	0.50
2007191293	2007191518	0.10	0.05	0.60	0.40	50	43	0.05	0.05	12.200	11.300	1.00	0.60
2007191293	2007191518	0.10	0.10	0.70	0.60	47	50	0.05	0.05	12.600	11.100	1.00	0.90
2007191295	2007191498	0.05	0.05	0.20	0.10	13	15	0.05	0.05	3.740	3.390	0.30	0.20
2007191295	2007191498	0.10	0.10	0.60	0.90	32	36	0.05	0.05	9.560	10.000	0.70	0.70
2007191295	2007191498	0.05	0.05	0.10	0.20	14	15	0.05	0.05	3.160	3.260	0.20	0.20
2007191295	2007191498	0.10	0.10	0.60	0.90	36	41	0.05	0.05	10.900	10.600	0.80	0.80
2007191346	2007191429	0.10	0.20	1.20	1.50	38	42	0.20	0.05	13.000	18.300	1.00	1.00
2007191346	2007191429	0.10	0.10	1.20	1.50	37	34	0.10	0.10	13.100	12.300	1.00	0.90
2007191346	2007191429	0.05	0.05	0.70	0.80	20	22	0.05	0.05	6.860	7.090	0.50	0.60
2007191346	2007191429	0.10	0.10	0.90	1.10	28	31	0.20	0.05	10.000	12.300	0.90	0.80
2007191372	2007191445	0.10	0.05	0.80	0.90	91	16	0.05	0.05	9.550	3.110	0.50	0.10
2007191372	2007191445	0.20	0.05	1.40	1.90	131	36	0.05	0.05	10.600	8.760	0.70	0.30
2007191372	2007191445	0.10	0.05	0.80	1.10	69	22	0.05	0.05	5.600	4.460	0.30	0.20
2007191372	2007191445	0.20	0.05	1.30	2.80	105	37	0.05	0.05	11.100	9.320	0.60	0.50
2007191382	2007191509	0.10	0.10	7.40	6.80	51	57	0.05	0.05	9.960	9.930	0.70	0.80
2007191382	2007191509	0.20	0.20	11.70	9.60	70	58	0.05	0.05	15.400	14.100	1.20	1.10
2007191382	2007191509	0.10	0.20	7.40	3.70	106	70	0.10	0.05	10.800	12.100	0.90	1.00
2007191382	2007191509	0.20	0.20	9.40	4.40	114	80	0.05	0.05	13.200	15.200	1.00	1.20
2007191473	2007191510	0.20	0.20	0.30	0.20	43	56	0.05	0.05	13.400	14.000	1.20	1.10
2007191473	2007191510	0.20	0.20	0.30	0.20	45	59	0.05	0.05	12.400	13.900	1.10	1.20
2007191473	2007191510	0.10	0.20	0.60	0.40	66	86	0.10	0.20	10.000	11.600	0.90	1.10
2007191473	2007191510	0.10	0.20	0.60	0.40	72	83	0.05	0.10	10.500	11.500	1.00	1.00

Appendix 17. Field duplicates analysis by AR

SITEID	SITEID	Zn (ppm)	Zn (ppm)	Zr (ppm)	Zr (ppm)
METHOD:	METHOD:	AR	AR	AR	AR
D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.1	0.1	0.1	0.1
ULD:	ULD:				
2007191051	2007191331	40.60	28.40	1.10	2.20
2007191051	2007191331	43.70	24.70	1.00	1.30
2007191066	2007191379	46.10	18.70	7.30	3.60
2007191066	2007191379	49.10	33.30	9.40	7.30
2007191066	2007191379	36.60	17.10	4.00	3.80
2007191066	2007191379	53.80	23.30	4.40	3.70
2007191092	2007191211	29.70	39.40	11.90	5.30
2007191092	2007191211	38.40	46.00	15.90	6.10
2007191092	2007191211	54.70	45.00	32.90	5.80
2007191092	2007191211	67.40	52.50	34.10	8.60
2007191134	2007191282	11.50	0.05	1.90	0.80
2007191134	2007191282	2.00	4.30	3.90	2.50
2007191134	2007191282	2.70	0.05	6.20	7.30
2007191134	2007191282	5.00	1.40	8.60	13.30
2007191152	2007191578	18.70	3.30	1.60	1.80
2007191152	2007191578	25.60	18.70	2.50	3.50
2007191152	2007191578	32.00	21.50	5.60	6.10
2007191152	2007191578	57.00	28.00	6.30	7.90
2007191168	2007191195	30.60	36.90	9.30	1.90
2007191168	2007191195	53.70	52.00	16.90	2.50
2007191168	2007191195	39.50	35.90	12.20	2.60
2007191168	2007191195	62.40	36.00	15.80	3.00
2007191192	2007191339	47.50	30.70	4.90	6.50
2007191192	2007191339	53.10	35.10	6.40	7.90
2007191192	2007191339	55.90	46.80	1.80	8.30
2007191192	2007191339	58.20	43.00	2.10	2.60
2007191215	2007191281	42.00	36.20	1.80	1.40
2007191215	2007191281	66.20	79.00	3.50	4.50
2007191215	2007191281	28.70	39.00	3.40	5.10
2007191215	2007191281	55.70	103.00	4.80	10.50
2007191216	2007191385	7.60	10.30	4.00	3.10
2007191216	2007191385	11.60	16.30	7.40	4.60
2007191216	2007191385	12.10	6.00	3.80	4.70
2007191216	2007191385	17.40	14.10	4.60	7.50
2007191264	2007191486	25.40	20.50	5.10	3.30
2007191264	2007191486	28.80	19.70	5.00	4.40
2007191264	2007191486	32.20	10.40	3.30	2.50
2007191264	2007191486	41.80	19.10	3.40	2.70
2007191275	2007191590	20.50	52.40	2.90	7.20
2007191275	2007191590	45.80	66.10	5.70	9.60
2007191275	2007191590	22.70	42.80	0.80	6.90
2007191275	2007191590	31.30	74.40	1.10	8.90
2007191293	2007191518	23.10	19.70	5.20	6.20
2007191293	2007191518	15.00	30.70	5.00	7.10
2007191293	2007191518	13.10	41.30	7.20	8.40
2007191293	2007191518	16.10	43.30	6.50	7.90
2007191295	2007191498	18.30	18.90	2.30	3.20
2007191295	2007191498	36.20	28.90	5.50	7.00
2007191295	2007191498	17.60	20.10	1.60	2.70
2007191295	2007191498	33.90	30.30	4.10	5.40
2007191346	2007191429	29.60	51.10	3.30	5.60
2007191346	2007191429	29.90	39.50	4.10	4.70
2007191346	2007191429	23.30	20.50	2.50	3.10
2007191346	2007191429	28.20	27.90	1.80	4.60
2007191372	2007191445	79.40	4.20	8.30	0.70
2007191372	2007191445	65.00	18.90	9.10	1.90
2007191372	2007191445	41.50	15.20	6.90	1.00
2007191372	2007191445	50.50	18.90	11.40	1.80
2007191382	2007191509	27.00	23.40	7.30	6.70
2007191382	2007191509	46.90	30.30	9.40	9.00
2007191382	2007191509	34.80	44.80	7.80	10.70
2007191382	2007191509	46.80	50.30	7.80	12.50
2007191473	2007191510	51.10	40.30	11.90	5.20
2007191473	2007191510	57.50	27.40	11.40	5.20
2007191473	2007191510	38.50	24.70	5.80	5.30
2007191473	2007191510	28.80	22.20	5.70	5.40

Appendix 18. QC samples analysis for Au + multi-elements by Aqua Regia digestion ICP-MS

Appendix 18. QC samples analysis by AR

STANDARD	NUMBER	BATCH	Au (ppm)	Au (ppm) Repeat 1	Au (ppm) Repeat 2
METHOD:		NO	AR	AR	AR
LLD:			0.0001	0.0001	0.0001
GLG306-1	383	A09-022	0.407		
GLG306-1	385	A09-022	0.399		
GLG306-1	387	A09-022	0.403		
GLG306-1	389	A09-022	0.397		
GLG306-1	786	A09-025	0.427		0.401
GLG306-1	788	A09-025	0.397		
GLG306-1	790	A09-025	0.398		
GLG306-1	792	A09-025	0.424		
GLG306-1	1112	A09-026	0.415		
GLG306-1	1114	A09-026	0.407		
GLG306-1	1116	A09-026	0.409		
GLG306-1	1548	A09-027	0.426		
GLG306-1	1550	A09-027	0.428		
GLG306-1	1552	A09-027	0.402		
GLG306-1	1554	A09-027	0.434		
GLG306-1	1556	A09-027	0.445		
GLG306-1	1951	A09-030	0.427	0.41	
GLG306-1	1953	A09-030	0.427		
GLG306-1	1955	A09-030	0.414		
GLG306-1	1957	A09-030	0.403		
GLG306-1	2157	A09-032	0.397		
GLG306-1	2159	A09-032	0.406		
GLG306-1	2523	A09-033	0.399		
GLG306-1	2525	A09-033	0.425		
GLG306-1	2527	A09-033	0.393		
GLG306-1	2529	A09-033	0.432		
GLG306-1	2922	A09-034	0.403		
GLG306-1	2924	A09-034	0.411		
GLG306-1	2926	A09-034	0.39		
GLG306-1	2928	A09-034	0.402		
GLG306-1	3322	A09-035	0.43		
GLG306-1	3324	A09-035	0.423		
GLG306-1	3326	A09-035	0.405		
GLG306-1	3328	A09-035	0.429		
GLG306-1	3722	A09-336	0.417		
GLG306-1	3724	A09-336	0.403		
GLG306-1	3726	A09-336	0.393		
GLG306-1	3728	A09-336	0.394		
GLG306-1	4109	A09-337	0.44		
GLG306-1	4111	A09-337	0.4		
GLG306-1	4113	A09-337	0.395		
GLG306-1	4115	A09-337	0.415		
GLG306-1	4251	A09-338	0.411		
GLG306-1	4516	A09-489	0.361		
GLG306-1	4518	A09-489	0.35		
GLG306-1	4520	A09-489	0.387		
GLG306-1	4774	A09-490	0.391		
GLG306-1	4776	A09-490	0.358		
GLG306-1	4778	A09-490	0.382		
GLG306-1	5032	A09-491	0.393		
GLG306-1	5034	A09-491	0.36		
GLG306-1	5036	A09-491	0.391		
GLG306-1	5335	A09-492	0.384		
GLG306-1	5337	A09-492	0.395		
GLG306-1	5339	A09-492	0.414		
GLG306-1	5592	A09-493	0.334		
GLG306-1	5594	A09-493	0.29		
GLG306-1	5596	A09-493	0.335		
GLG306-1	5872	A10-001	0.353		
GLG306-1	5874	A10-001	0.389		
GLG306-1	5876	A10-001	0.399		
GLG306-1	6129	A10-002	0.507		
GLG306-1	6131	A10-002	0.495		
GLG306-1	6133	A10-002	0.398		
GLG306-1	6300	A10-003	0.441		
Average			0.4032	Including Repeats:	0.4033
SD			0.0325		0.0320
RSD			8%		8%
RV			0.41		0.41
Bias			98%		98%
% <LLD			0%		0%
GLG307-4	375	A09-022	0.0492		
GLG307-4	377	A09-022	0.0515		
GLG307-4	379	A09-022	0.0494		
GLG307-4	381	A09-022	0.049		
GLG307-4	778	A09-025	0.0519		
GLG307-4	780	A09-025	0.0526		
GLG307-4	782	A09-025	0.0504		
GLG307-4	784	A09-025	0.0538		
GLG307-4	1104	A09-026	0.0492		
GLG307-4	1106	A09-026	0.0506		
GLG307-4	1108	A09-026	0.0482		
GLG307-4	1110	A09-026	0.0476		
GLG307-4	1538	A09-027	0.0469		
GLG307-4	1540	A09-027	0.0478		
GLG307-4	1542	A09-027	0.0467		

Appendix 18. QC samples analysis by AR

STANDARD	NUMBER	BATCH	Au (ppm)	Au (ppm) Repeat 1	Au (ppm) Repeat 2
METHOD:		NO	AR	AR	AR
LLD:			0.0001	0.0001	0.0001
GLG307-4	1544	A09-027	0.0518		
GLG307-4	1546	A09-027	0.0501		
GLG307-4	1943	A09-030	0.0468	0.0489	
GLG307-4	1945	A09-030	0.0486		
GLG307-4	1947	A09-030	0.0538		
GLG307-4	1949	A09-030	0.0516		
GLG307-4	2153	A09-032	0.0499		
GLG307-4	2155	A09-032	0.0484		
GLG307-4	2515	A09-033	0.0511		
GLG307-4	2517	A09-033	0.0481		
GLG307-4	2519	A09-033	0.054		
GLG307-4	2521	A09-033	0.054		
GLG307-4	2914	A09-034	0.0473		
GLG307-4	2916	A09-034	0.0507		
GLG307-4	2918	A09-034	0.0443		
GLG307-4	2920	A09-034	0.0534		
GLG307-4	3314	A09-035	0.0484		
GLG307-4	3316	A09-035	0.0451		
GLG307-4	3318	A09-035	0.0499		
GLG307-4	3320	A09-035	0.051		
GLG307-4	3714	A09-336	0.0496		
GLG307-4	3716	A09-336	0.0532		
GLG307-4	3718	A09-336	0.0572		
GLG307-4	3720	A09-336	0.0515		
GLG307-4	4101	A09-337	0.0477		
GLG307-4	4103	A09-337	0.0524		
GLG307-4	4105	A09-337	0.0492		
GLG307-4	4107	A09-337	0.0515		
GLG307-4	4249	A09-338	0.0476		
GLG307-4	4510	A09-489	0.0236		
GLG307-4	4512	A09-489	0.0411		
GLG307-4	4514	A09-489	0.0377		
GLG307-4	4768	A09-490	0.0448		
GLG307-4	4770	A09-490	0.0529		
GLG307-4	4772	A09-490	0.0448		
GLG307-4	5026	A09-491	0.0413		
GLG307-4	5028	A09-491	0.0381		
GLG307-4	5030	A09-491	0.0445		
GLG307-4	5329	A09-492	0.0434		
GLG307-4	5331	A09-492	0.0393		
GLG307-4	5333	A09-492	0.0427		
GLG307-4	5586	A09-493	0.0299		
GLG307-4	5588	A09-493	0.0249		
GLG307-4	5590	A09-493	0.035		
GLG307-4	5866	A10-001	0.0343		
GLG307-4	5868	A10-001	0.0408		
GLG307-4	5870	A10-001	0.0403		
GLG307-4	6123	A10-002	0.0665		
GLG307-4	6125	A10-002	0.0632		
GLG307-4	6127	A10-002	0.0405		
GLG307-4	6296	A10-003	0.0511		
GLG307-4	6298	A10-003	0.0594		
Average			**0.0475**	**Including Repeats:**	**0.0475**
SD			**0.0074**		**0.0074**
RSD			**16%**		**16%**
RV			0.052		0.052
Bias			**91%**		**91%**
% <LLD			**0%**		**0%**
GLG902-2	355	A09-022	0.0111		
GLG902-2	357	A09-022	0.0112		
GLG902-2	359	A09-022	0.0127		
GLG902-2	361	A09-022	0.0092		
GLG902-2	363	A09-022	0.0111		
GLG902-2	758	A09-025	0.0102	0.0497	
GLG902-2	760	A09-025	0.0093		
GLG902-2	762	A09-025	0.0108		
GLG902-2	764	A09-025	0.01		
GLG902-2	766	A09-025	0.01		
GLG902-2	1088	A09-026	0.0097		
GLG902-2	1090	A09-026	0.0109		
GLG902-2	1092	A09-026	0.0108		
GLG902-2	1094	A09-026	0.009		
GLG902-2	1518	A09-027	0.0116	0.01	
GLG902-2	1520	A09-027	0.0109		
GLG902-2	1522	A09-027	0.0089		
GLG902-2	1524	A09-027	0.0075		
GLG902-2	1526	A09-027	0.0112		
GLG902-2	1925	A09-030	0.0071		
GLG902-2	1927	A09-030	0.0089		
GLG902-2	1929	A09-030	0.0094		
GLG902-2	1931	A09-030	0.0096		
GLG902-2	1933	A09-030	0.0097		
GLG902-2	2145	A09-032	0.0105		
GLG902-2	2147	A09-032	0.0096		
GLG902-2	2499	A09-033	0.0105		
GLG902-2	2501	A09-033	0.0118		

Appendix 18. QC samples analysis by AR

STANDARD	NUMBER	BATCH	Au (ppm)	Au (ppm) Repeat 1	Au (ppm) Repeat 2
METHOD:		NO	AR	AR	AR
LLD:			0.0001	0.0001	0.0001
GLG902-2	2503	A09-033	0.00941		
GLG902-2	2505	A09-033	0.0114		
GLG902-2	2896	A09-034	0.00909		
GLG902-2	2898	A09-034	0.0117		
GLG902-2	2900	A09-034	0.0121		
GLG902-2	2902	A09-034	0.0106		
GLG902-2	2904	A09-034	0.0109		
GLG902-2	3296	A09-035	0.0102		
GLG902-2	3298	A09-035	0.0091		
GLG902-2	3300	A09-035	0.0091		
GLG902-2	3302	A09-035	0.00988		
GLG902-2	3304	A09-035	0.01		
GLG902-2	3696	A09-336	0.00928		
GLG902-2	3698	A09-336	0.0096		
GLG902-2	3700	A09-336	0.0107		
GLG902-2	3702	A09-336	0.0096		
GLG902-2	3704	A09-336	0.0106		
GLG902-2	4085	A09-337	0.0099		
GLG902-2	4087	A09-337	0.0107		
GLG902-2	4089	A09-337	0.0112		
GLG902-2	4091	A09-337	0.00922		
GLG902-2	4243	A09-338	0.0101		
GLG902-2	4245	A09-338	0.0098		
GLG902-2	4498	A09-489	0.0112		
GLG902-2	4500	A09-489	0.007		
GLG902-2	4502	A09-489	0.0101		
GLG902-2	4756	A09-490	0.0115		
GLG902-2	4758	A09-490	0.0097		
GLG902-2	4760	A09-490	0.0122		
GLG902-2	5014	A09-491	0.0084		
GLG902-2	5016	A09-491	0.0133		
GLG902-2	5018	A09-491	0.0109		
GLG902-2	5317	A09-492	0.007		
GLG902-2	5319	A09-492	0.008		
GLG902-2	5321	A09-492	0.0065		
GLG902-2	5574	A09-493	0.0022		
GLG902-2	5576	A09-493	0.0429		
GLG902-2	5578	A09-493	0.0091		
GLG902-2	5856	A10-001	0.0086		
GLG902-2	5858	A10-001	0.0078		
GLG902-2	5860	A10-001	0.0144		
GLG902-2	6111	A10-002	0.0152		
GLG902-2	6113	A10-002	0.0095		
GLG902-2	6115	A10-002	0.0105		
GLG902-2	6288	A10-003	0.0177		
GLG902-2	6290	A10-003	0.0146		
Average			0.0106	Including Repeats:	0.0111
SD			0.0043		0.0062
RSD			41%		56%
RV			0.0106		0.0106
Bias			100%		105%
% <LLD			0%		0%
OREAS 5Pb	365	A09-022	0.0983		
OREAS 5Pb	367	A09-022	0.0966		
OREAS 5Pb	369	A09-022	0.0993		
OREAS 5Pb	371	A09-022	0.0984		
OREAS 5Pb	373	A09-022	0.0987		
OREAS 5Pb	768	A09-025	0.103	0.099	0.0943
OREAS 5Pb	770	A09-025	0.0965		
OREAS 5Pb	772	A09-025	0.0946		
OREAS 5Pb	774	A09-025	0.0992		
OREAS 5Pb	776	A09-025	0.0967		
OREAS 5Pb	1096	A09-026	0.0973		
OREAS 5Pb	1098	A09-026	0.0971		
OREAS 5Pb	1100	A09-026	0.0936		
OREAS 5Pb	1102	A09-026	0.0957		
OREAS 5Pb	1528	A09-027	0.0972	0.0978	
OREAS 5Pb	1530	A09-027	0.0954		
OREAS 5Pb	1532	A09-027	0.0998		
OREAS 5Pb	1534	A09-027	0.0988		
OREAS 5Pb	1536	A09-027	0.0974		
OREAS 5Pb	1935	A09-030	0.0964	0.0976	
OREAS 5Pb	1937	A09-030	0.0987		
OREAS 5Pb	1939	A09-030	0.104		
OREAS 5Pb	1941	A09-030	0.0989		
OREAS 5Pb	2149	A09-032	0.0985		
OREAS 5Pb	2151	A09-032	0.0977		
OREAS 5Pb	2507	A09-033	0.099		
OREAS 5Pb	2509	A09-033	0.0986		
OREAS 5Pb	2511	A09-033	0.0967		
OREAS 5Pb	2513	A09-033	0.0958		
OREAS 5Pb	2906	A09-034	0.1		
OREAS 5Pb	2908	A09-034	0.0957		
OREAS 5Pb	2910	A09-034	0.103		
OREAS 5Pb	2912	A09-034	0.104		
OREAS 5Pb	3306	A09-035	0.0972		

Appendix 18. QC samples analysis by AR

STANDARD	NUMBER	BATCH	Au (ppm)	Au (ppm) Repeat 1	Au (ppm) Repeat 2
METHOD:		NO	AR	AR	AR
LLD:			0.0001	0.0001	0.0001
OREAS 5Pb	3308	A09-035	0.0966		
OREAS 5Pb	3310	A09-035	0.0981		
OREAS 5Pb	3312	A09-035	0.0963		
OREAS 5Pb	3706	A09-336	0.0996		
OREAS 5Pb	3708	A09-336	0.0955		
OREAS 5Pb	3710	A09-336	0.0981		
OREAS 5Pb	3712	A09-336	0.098		
OREAS 5Pb	4093	A09-337	0.0975		
OREAS 5Pb	4095	A09-337	0.0979		
OREAS 5Pb	4097	A09-337	0.0987		
OREAS 5Pb	4099	A09-337	0.095		
OREAS 5Pb	4247	A09-338	0.103		
OREAS 5Pb	4504	A09-489	0.102		
OREAS 5Pb	4506	A09-489	0.101		
OREAS 5Pb	4508	A09-489	0.097		
OREAS 5Pb	4762	A09-490	0.101		
OREAS 5Pb	4764	A09-490	0.103		
OREAS 5Pb	4766	A09-490	0.096		
OREAS 5Pb	5020	A09-491	0.0954		
OREAS 5Pb	5022	A09-491	0.0943		
OREAS 5Pb	5024	A09-491	0.102		
OREAS 5Pb	5323	A09-492	0.0974		
OREAS 5Pb	5325	A09-492	0.0962		
OREAS 5Pb	5327	A09-492	0.1012		
OREAS 5Pb	5580	A09-493	0.0796		
OREAS 5Pb	5582	A09-493	0.082		
OREAS 5Pb	5584	A09-493	0.0066		
OREAS 5Pb	5862	A10-001	0.0998		
OREAS 5Pb	5864	A10-001	0.0964		
OREAS 5Pb	6117	A10-002	0.127		
OREAS 5Pb	6119	A10-002	0.0972		
OREAS 5Pb	6121	A10-002	0.0933		
OREAS 5Pb	6292	A10-003	0.119		
OREAS 5Pb	6294	A10-003	0.108		
Average			0.0972	Including Repeats:	0.0972
SD			0.0126		0.0123
RSD			13%		13%
RV			0.098		0.098
Bias			99%		99%
% <LLD			0%		0%

Appendix 18. QC samples analysis by AR

STANDARD	NUMBER	BATCH	Ag (ppm)	Al (ppm)	As (ppm)	B (ppm)	Ba (ppm)	Be (ppm)	Bi (ppm)	Ca (ppm)	Cd (ppm)	Ce (ppm)	Co (ppm)	Cr (ppm)
METHOD:		NO	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:			0.002	100	0.1	1	0.5	0.1	0.02	100	0.01	0.01	0.1	0.5
ULD:				100000										
GBM301_3	421	A09-022	0.258	12400	298	0.5	39.4	0.3	0.7	13900	0.36	18.2	180	48.6
GBM301_3	422	A09-022	0.363	11400	295	0.5	39.2	0.3	0.67	12700	0.39	15.9	191	41.7
GBM301_3	423	A09-022	0.272	11400	311	1	37.7	0.3	0.67	12600	0.36	19.9	184	41.4
GBM301_3	424	A09-022	0.285	11900	291	0.5	35.4	0.3	0.68	12900	0.32	15.1	179	43.2
GBM301_3	425	A09-022	0.26	12900	310	0.5	37.5	0.3	0.72	13500	0.37	19.2	182	46
GBM301_3	820	A09-025	0.253	11400	314	0.5	39.4	0.3	0.65	13400	0.36	18	177	38.9
GBM301_3	821	A09-025	0.255	10800	321	0.5	36.9	0.3	0.67	12500	0.37	19.8	178	38.2
GBM301_3	822	A09-025	0.281	10800	302	1	33.9	0.3	0.71	12600	0.36	18.5	185	34.5
GBM301_3	823	A09-025	0.274	11700	314	0.5	33.9	0.3	0.7	13900	0.37	18.6	187	42.7
GBM301_3	1142	A09-026	0.296	13700	317	0.5	39.2	0.3	0.72	13600	0.37	16	182	46.3
GBM301_3	1143	A09-026	0.259	12300	311	0.5	42.2	0.3	0.66	13300	0.35	15.6	177	45.2
GBM301_3	1144	A09-026	0.29	10300	291	0.5	32	0.3	0.68	9900	0.35	17.8	176	39.7
GBM301_3	1145	A09-026	0.333	11100	317	0.5	35.5	0.4	0.6	10500	0.41	19.5	184	39.1
GBM301_3	1588	A09-027	0.257	10900	290	0.5	35.1	0.3	0.65	11100	0.34	19.2	171	35
GBM301_3	1589	A09-027	0.287	11300	309	0.5	38.6	0.2	0.65	11900	0.34	15.7	174	34.5
GBM301_3	1590	A09-027	0.319	12500	298	1	40.7	0.3	0.74	14100	0.41	18.3	185	42
GBM301_3	1591	A09-027	0.293	12500	299	0.5	37.3	0.3	0.69	13600	0.39	21.3	189	42.9
GBM301_3	1592	A09-027	0.272	13700	297	0.5	34.9	0.3	0.71	12900	0.36	18	182	45
GBM301_3	1987	A09-030	0.253	10900	292	0.5	34	0.3	0.8	12800	0.39	15.1	179	42.3
GBM301_3	1988	A09-030	0.284	11100	298	0.5	34.9	0.2	0.63	12100	0.4	15.8	175	41.4
GBM301_3	1989	A09-030	0.262	11200	308	0.5	40.3	0.4	0.62	12900	0.33	16.3	174	44
GBM301_3	1990	A09-030	0.252	11200	296	0.5	37.1	0.2	0.59	12700	0.33	14.7	183	44
GBM301_3	2177	A09-032	0.245	11800	301	0.5	36.4	0.3	0.69	11800	0.34	17.6	165	43
GBM301_3	2178	A09-032	0.262	11400	295	0.5	32.3	0.2	0.64	12800	0.31	17.5	185	41.4
GBM301_3	2559	A09-033	0.295	9900	300	1	37.1	0.3	0.63	12500	0.36	14.8	176	36.7
GBM301_3	2560	A09-033	0.302	9400	298	0.5	31.8	0.3	0.72	11300	0.32	18.1	177	39.3
GBM301_3	2561	A09-033	0.319	11600	304	1	41.2	0.3	0.64	12700	0.35	15.9	176	35.8
GBM301_3	2562	A09-033	0.35	10500	304	0.5	38.3	0.2	0.81	12100	0.34	17.1	170	40.4
GBM301_3	2958	A09-034	0.292	12900	289	0.5	38.7	0.3	0.67	13500	0.37	14.5	171	35.9
GBM301_3	2959	A09-034	0.234	9900	307	0.5	36.5	0.2	0.64	12800	0.32	12.4	168	35.4
GBM301_3	2960	A09-034	0.32	11700	296	0.5	42.3	0.4	0.67	14500	0.41	22.3	188	40.6
GBM301_3	2961	A09-034	0.315	8700	288	0.5	37	0.2	0.68	12800	0.37	13.1	179	41.4
GBM301_3	3358	A09-035	0.296	12000	283	0.5	37.9	0.3	0.73	9600	0.35	19.4	191	41.2
GBM301_3	3359	A09-035	0.281	10800	314	0.5	36.3	0.3	0.66	12900	0.34	25.5	180	43.4
GBM301_3	3360	A09-035	0.263	11700	307	0.5	38.2	0.3	0.68	13300	0.35	23.9	180	41.6
GBM301_3	3361	A09-035	0.243	11000	300	0.5	31.6	0.3	0.71	13200	0.41	21.1	177	29.9
GBM301_3	3758	A09-336	0.261	14400	310	0.5	35	0.3	0.6	12900	0.34	16.2	163	37.5
GBM301_3	3759	A09-336	0.273	13600	308	1	41.5	0.5	0.74	12000	0.36	20.7	185	43.2
GBM301_3	3760	A09-336	0.275	11700	316	0.5	22.3	0.3	0.6	12300	0.37	23.1	180	30.5
GBM301_3	3761	A09-336	0.27	11000	313	0.5	28	0.2	0.74	12700	0.37	16.4	173	36.2
GBM301_3	4145	A09-337	0.271	11900	318	0.5	30.8	0.3	0.7	12500	0.32	15.8	186	31.6
GBM301_3	4146	A09-337	0.311	11900	321	0.5	33	0.2	0.72	9900	0.26	13.8	177	27.4
GBM301_3	4147	A09-337	0.276	11800	295	0.5	39.5	0.3	0.71	10200	0.35	14.1	156	39.3
GBM301_3	4148	A09-337	0.264	11900	297	0.5	38.3	0.3	0.71	12500	0.34	18.8	179	43.7
GBM301_3	4263	A09-338	0.318	11200	280	0.5	19.5	0.4	0.69	14800	0.36	16.5	151	34.4
GBM301_3	5056	A09-491	0.382	7600	297	1	28.5	0.2	0.61	9400	0.4	14.7	172	32.6
GBM301_3	5057	A09-491	0.305	8400	223	0.5	32.2	0.2	0.61	8300	0.38	14.7	142	36.7
GBM301_3	5058	A09-491	0.352	13600	287	0.5	43.9	0.3	0.63	14100	0.38	16.2	171	44.5
GBM301_3	5311	A09-492	0.348	10400	265	0.5	33.1	0.3	0.54	10800	0.49	12.1	139	39.2
GBM301_3	5313	A09-492	0.401	10800	307	0.5	33.4	0.3	0.53	13100	0.49	13.7	168	41.2
GBM301_3	5315	A09-492	0.456	11200	323	1	37.1	0.3	0.64	12200	0.56	14.7	168	44
GBM301_3	5850	A10-001	0.329	7700	288	0.5	28.8	0.2	0.62	7300	0.51	14.1	143	34.8
GBM301_3	5852	A10-001	0.341	10500	276	0.5	37.2	0.4	0.55	10800	0.48	13	146	41.5
GBM301_3	5854	A10-001	0.358	11300	337	0.5	28.7	0.4	0.56	13600	0.5	15.2	182	43.6
GBM301_3	6157	A10-002	0.329	15700	285	0.5	39.9	0.3	0.57	16700	0.48	13.2	181	48.7
GBM301_3	6158	A10-002	0.3	13000	271	0.5	34	0.4	0.59	12800	0.43	12.3	167	43
GBM301_3	6159	A10-002	0.3	13600	270	0.5	34.8	0.4	0.59	13900	0.39	11.6	175	42.8
Average			**0.296**	**11471.92982**	**299.2**	**0.6**	**35.6**	**0.3**	**0.66**	**12421**	**0.38**	**16.85**	**174.8**	**40.0**
SD			**0.043**	**1494**	**17.4**	**0.2**	**4.6**	**0.1**	**0.06**	**1603**	**0.06**	**3.05**	**11.9**	**4.6**
RSD			**14%**	**13%**	**6%**	**31%**	**13%**	**22%**	**9%**	**13%**	**15%**	**18%**	**7%**	**12%**
RV			0.9		304								187	
GeoPT				3%	12%		7%	16%	22%	3%		9%	12%	8%
Abs GeoPT					36.48								22.44	
Bias			**33%**		**98%**								**93%**	
% <LLD			**0%**	**0%**	**0%**	**86%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
GBM398-4	401	A09-022	46	5000	7.1	0.5	17.7	0.2	11.7	4800	8.28	5.27	1940	1980
GBM398-4	403	A09-022	49.3	5400	7.1	0.5	19	0.2	12.8	5300	8.81	7.04	1890	2060
GBM398-4	405	A09-022	50.9	5200	7.2	0.5	19.2	0.2	12.5	5300	8.7	5.92	1900	2080
GBM398-4	407	A09-022	49.8	4400	6.7	0.5	18.8	0.2	11.5	4800	8.65	6.18	1860	1930
GBM398-4	409	A09-022	49.3	5300	7	0.5	21.9	0.2	12.2	5300	7.81	6.7	1820	2150
GBM398-4	802	A09-025	48.1	5100	6.8	0.5	19.5	0.1	12	4800	8.54	6.35	1900	2130
GBM398-4	804	A09-025	50.7	5500	7.5	0.5	19.6	0.2	12.5	4900	8.24	6.47	1910	2170
GBM398-4	806	A09-025	51.5	4700	7.6	0.5	19.7	0.2	12.1	4800	9.14	5.85	1980	2060
GBM398-4	808	A09-025	49.9	5000	7	0.5	18.8	0.2	12	4600	8.28	5.92	1980	2050
GBM398-4	1126	A09-026	51.1	5600	6.6	0.5	19.6	0.2	12.4	5200	8.95	6.08	1900	2020
GBM398-4	1128	A09-026	51.3	5400	8	0.5	19.1	0.2	12.2	5500	8.21	6.01	1890	2060
GBM398-4	1130	A09-026	49.2	4300	7.1	0.5	20.1	0.2	12.4	4400	8.63	6.2	1910	2070
GBM398-4	1132	A09-026	49.8	5200	7.1	0.5	19.9	0.1	11.6	4800	9	6.68	1900	2080
GBM398-4	1568	A09-027	51.7	4700	7.1	0.5	19.8	0.2	12.6	5300	8.57	6.93	1920	1950
GBM398-4	1570	A09-027	47.8	5500	6.7	0.5	19.9	0.2	11.9	5100	9.04	5.84	1850	2030
GBM398-4	1572	A09-027	48.5	5300	7.2	0.5	20.4	0.2	12.8	5100	8.38	6.64	1910	2160
GBM398-4	1574	A09-027	50.5	5500	7.5	0.5	20.8	0.2	12.4	5300	8.63	7.49	1920	2070
GBM398-4	1576	A09-027	50.3	6000	7.5	0.5	19.6	0.2	12.8	5700	9.22	7.35	1940	2120
GBM398-4	1969	A09-030	47.4	5500	6.2	0.5	18.3	0.2	12.3	5500	8.41	5.41	1870	2040
GBM398-4	1971	A09-030	49.7	4900	6.6	0.5	19.7	0.2	12.6	4900	8.47	5.78	1800	2110

Appendix 18. QC samples analysis by AR

STANDARD	Cs (ppm)	Cu (ppm)	Dy (ppm)	Er (ppm)	Eu (ppm)	Fe (ppm)	Ga (ppm)	Gd (ppm)	Ge (ppm)	Hf (ppm)	Hg (ppm)	Ho (ppm)	In (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.02	0.01	0.1	0.1	0.1	100	0.02	0.1	0.1	0.1	0.01	0.1	0.02
ULD:													
GBM301_3	0.4	777	3.4	1.7	0.6	58200	5.33	3.9	0.2	1.2	0.02	0.6	0.04
GBM301_3	0.34	731	3.1	1.6	0.6	53600	4.21	3.4	0.2	0.9	0.01	0.6	0.04
GBM301_3	0.4	758	3.4	1.7	0.6	55200	5.02	3.9	0.2	1	0.02	0.7	0.04
GBM301_3	0.36	750	3.1	1.6	0.5	57400	4.69	3.7	0.2	1.1	0.005	0.6	0.05
GBM301_3	0.4	787	3.2	1.8	0.6	59000	5.5	4.1	0.2	1	0.005	0.6	0.04
GBM301_3	0.34	757	3.1	1.5	0.4	54600	4.78	3.8	0.2	1.1	0.005	0.6	0.04
GBM301_3	0.55	786	3.2	1.5	0.6	55900	4.71	3.9	0.2	1.1	0.005	0.6	0.04
GBM301_3	0.36	801	3.1	1.5	0.5	55800	4.61	3.9	0.2	1	0.02	0.6	0.04
GBM301_3	0.42	837	3	1.5	0.5	54300	4.93	3.6	0.1	1.2	0.005	0.6	0.04
GBM301_3	0.42	809	3.6	1.8	0.6	55300	5.63	3.9	0.2	1.2	0.005	0.7	0.05
GBM301_3	0.37	774	3.4	1.6	0.6	56200	5.32	3.8	0.1	1.2	0.01	0.6	0.05
GBM301_3	0.43	763	3.2	1.5	0.5	55900	3.91	3.8	0.1	1.2	0.01	0.6	0.04
GBM301_3	0.39	803	3.5	1.7	0.5	54300	5.11	3.9	0.1	1.1	0.02	0.7	0.04
GBM301_3	0.38	735	3.2	1.6	0.6	54200	4.76	3.9	0.1	1.1	0.01	0.6	0.04
GBM301_3	0.39	735	3.1	1.6	0.6	50400	3.99	3.4	0.1	1.1	0.005	0.6	0.04
GBM301_3	0.41	771	3.4	1.7	0.6	55300	4.85	3.9	0.2	1.1	0.005	0.6	0.04
GBM301_3	0.41	763	3.1	1.5	0.6	55700	4.88	3.7	0.2	1.2	0.01	0.6	0.04
GBM301_3	0.36	783	3.2	1.5	0.6	57300	5.22	3.7	0.2	1.1	0.005	0.6	0.04
GBM301_3	0.38	742	2.9	1.5	0.4	53100	4.59	2.9	0.1	1.2	0.02	0.6	0.04
GBM301_3	0.5	761	3.1	1.5	0.4	57600	4.73	3	0.2	1.3	0.005	0.6	0.05
GBM301_3	0.36	758	3.1	1.6	0.6	54900	5.06	3.1	0.1	1.1	0.04	0.6	0.05
GBM301_3	0.33	739	3.2	1.6	0.6	53200	4.9	3.6	0.2	1.1	0.005	0.6	0.04
GBM301_3	0.42	750	3.1	1.5	0.5	55300	4.84	3.5	0.2	1.1	0.005	0.6	0.04
GBM301_3	0.37	776	3	1.4	0.4	52100	4.75	3.4	0.2	0.9	0.02	0.6	0.03
GBM301_3	0.34	729	3.1	1.6	0.6	55400	4.59	2.1	0.2	1.1	0.02	0.6	0.04
GBM301_3	0.36	702	2.9	1.5	0.6	53700	4.8	2.5	0.2	1	0.01	0.6	0.03
GBM301_3	0.37	709	3.1	1.5	0.6	57600	4.95	2.3	0.2	1.1	0.02	0.6	0.04
GBM301_3	0.35	741	3.1	1.6	0.7	57700	4.5	2.5	0.2	1.1	0.01	0.6	0.04
GBM301_3	0.34	733	2.9	1.6	0.6	63200	4.74	3.1	0.2	1.3	0.02	0.5	0.04
GBM301_3	0.36	760	3	1.6	0.5	56100	4.59	29.5	0.2	1.1	0.005	0.6	0.05
GBM301_3	0.43	769	3.3	1.7	0.6	53800	5.06	3.4	0.2	1.1	0.005	0.7	0.04
GBM301_3	0.35	750	2.8	1.6	0.5	53500	4.66	3	0.1	1.2	0.02	0.5	0.04
GBM301_3	0.44	800	3.5	1.7	0.7	52300	4.7	3.3	0.2	1.2	0.03	0.7	0.04
GBM301_3	0.34	774	2.9	1.5	0.6	48900	5.03	3.9	0.2	1.2	0.005	0.5	0.04
GBM301_3	0.37	684	3.4	1.5	0.6	55900	5.12	3.2	0.2	1.1	0.02	0.6	0.04
GBM301_3	0.32	665	2.7	1.7	0.6	53800	3.75	3	0.1	1.2	0.005	0.5	0.05
GBM301_3	0.39	771	3.5	1.7	0.5	57800	4.18	3.7	0.2	1.2	0.01	0.6	0.04
GBM301_3	0.41	738	3.3	1.6	0.5	56800	5.09	3.3	0.2	1.2	0.02	0.7	0.04
GBM301_3	0.4	780	3.2	1.6	0.6	56400	4.53	3.3	0.2	1.2	0.005	0.7	0.04
GBM301_3	0.43	769	3.4	1.7	0.5	52600	4.84	3.7	0.2	1.4	0.01	0.7	0.03
GBM301_3	0.43	725	3.4	1.8	0.7	56800	4.63	3.3	0.3	1.1	0.005	0.7	0.04
GBM301_3	0.41	760	3.7	1.8	0.7	60200	3.87	3.7	0.2	1.3	0.01	0.8	0.03
GBM301_3	0.4	765	3.3	1.7	0.6	56600	5.07	3.6	0.2	1.2	0.02	0.7	0.04
GBM301_3	0.45	789	3.6	1.6	0.6	58300	4.87	4.1	0.2	1.2	0.02	0.6	0.04
GBM301_3	0.37	798	2.9	1.6	0.5	59600	4.36	3.3	0.2	1.3	0.005	0.7	0.05
GBM301_3	0.38	779	3.7	1.7	0.5	54600	3.26	2.9	0.2	1.1	0.005	0.6	0.01
GBM301_3	0.39	784	3.6	1.7	0.6	47600	3.14	3.1	0.3	1.2	0.03	0.6	0.01
GBM301_3	0.4	818	3.9	1.7	0.6	57200	5.31	3.2	0.3	1.2	0.01	0.6	0.01
GBM301_3	0.29	816	2.5	1.2	0.6	49700	3.25	2.8	0.1	0.8	0.005	0.7	0.01
GBM301_3	0.3	827	2.6	1.4	0.6	59000	4.12	2.8	0.2	0.9	0.005	0.8	0.01
GBM301_3	0.34	912	3.1	1.4	0.6	57300	4.16	3.2	0.2	0.9	0.005	0.8	0.01
GBM301_3	0.27	902	3	1.2	0.5	51900	3.25	2.9	0.1	1	0.005	0.8	0.01
GBM301_3	0.29	890	2.9	1.3	0.5	49400	3.81	2.9	0.1	1.1	0.01	0.8	0.01
GBM301_3	0.32	907	3.2	1.6	0.6	68000	4.27	3	0.2	1.1	0.01	1	0.01
GBM301_3	0.32	847	3.4	1.7	0.4	64800	5.04	3.3	0.2	0.9	0.02	0.6	0.03
GBM301_3	0.32	835	3.2	1.5	0.4	60100	4.48	3.2	0.2	0.9	0.01	0.5	0.03
GBM301_3	0.32	806	2.9	1.5	0.4	59400	4.55	3.1	0.2	0.8	0.01	0.5	0.03
Average	**0.38**	**776.8**	**3.2**	**1.6**	**0.6**	**55803.50877**	**4.6**	**3.8**	**0.18**	**1.11**	**0.01**	**0.6**	**0.04**
SD	**0.05**	**50.0**	**0.3**	**0.1**	**0.1**	**3613**	**0.6**	**3.5**	**0.05**	**0.13**	**0.01**	**0.1**	**0.01**
RSD	**13%**	**6%**	**9%**	**8%**	**14%**	**6%**	**12%**	**91%**	**28%**	**11%**	**68%**	**14%**	**35%**
RV		776											
GeoPT	14%	11%	13%	14%	16%	4%	12%	13%	16%	11%		18%	
Abs GeoPT		85.36											
Bias		**100%**											
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**42%**	**0%**	**16%**
GBM398-4	0.76	3890	0.7	0.4	0.2	45800	0.96	0.8	0.05	0.5	3.03	0.1	0.01
GBM398-4	0.93	3770	0.8	0.4	0.2	44100	1.52	1	0.05	0.5	3.13	0.2	0.02
GBM398-4	0.88	3800	0.8	0.4	0.2	46300	1.6	0.9	0.1	0.5	3.27	0.2	0.01
GBM398-4	0.88	3900	0.7	0.4	0.2	42500	1.31	0.9	0.05	0.5	2.79	0.1	0.02
GBM398-4	0.93	4100	0.7	0.4	0.2	44700	1.69	0.9	0.1	0.5	3.16	0.1	0.02
GBM398-4	0.91	3850	0.8	0.4	0.05	44500	1.25	0.9	0.05	0.5	3.04	0.1	0.03
GBM398-4	0.95	3850	0.7	0.4	0.2	44600	1.18	1	0.05	0.5	3.25	0.1	0.02
GBM398-4	0.89	3950	0.8	0.4	0.2	46400	1.19	0.9	0.05	0.5	3.21	0.1	0.02
GBM398-4	0.93	3830	0.7	0.4	0.1	46600	1.3	0.8	0.05	0.5	3.04	0.1	0.02
GBM398-4	0.95	3890	0.8	0.4	0.2	43500	1.36	1	0.05	0.6	3.89	0.2	0.03
GBM398-4	0.94	3720	0.8	0.4	0.2	44500	1.29	1	0.05	0.5	3.69	0.2	0.01
GBM398-4	0.91	3790	0.7	0.4	0.1	44500	1.25	1	0.05	0.5	3.05	0.1	0.03
GBM398-4	0.92	3850	0.8	0.4	0.1	43000	1.01	1	0.05	0.6	3.55	0.1	0.03
GBM398-4	0.9	3810	0.8	0.4	0.1	45000	1.32	0.9	0.05	0.6	3.03	0.2	0.02
GBM398-4	0.9	3670	0.8	0.4	0.2	41000	1.31	0.9	0.05	0.5	3.14	0.2	0.03
GBM398-4	0.93	3820	0.8	0.4	0.2	45300	1.37	0.9	0.05	0.6	3.38	0.2	0.02
GBM398-4	0.9	3890	0.8	0.4	0.2	45800	1.29	0.9	0.05	0.5	2.82	0.1	0.01
GBM398-4	1.05	3770	0.8	0.4	0.2	46900	1.46	1	0.05	0.5	2.82	0.2	0.01
GBM398-4	0.91	3780	0.7	0.4	0.1	44900	0.98	0.8	0.05	0.5	3.15	0.1	0.01
GBM398-4	1.09	3740	0.8	0.4	0.1	44700	1.11	0.7	0.05	0.5	3.1	0.2	0.02

Appendix 18. QC samples analysis by AR

STANDARD	K (ppm)	La (ppm)	Li (ppm)	Lu (ppm)	Mg (ppm)	Mn (ppm)	Mo (ppm)	Na (ppm)	Nb (ppm)	Nd (ppm)	Ni (ppm)	Pb (ppm)	Pr (ppm)	Rb (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	100	0.5	0.1	0.1	100	1	0.01	10	0.1	0.02	0.1	0.01	0.1	0.1
ULD:														
GBM301_3	1100	7.5	2.6	0.2	5000	386	1.97	3510	0.7	11.3	7740	6.84	2.3	3.8
GBM301_3	1200	6.5	2.5	0.2	4300	362	1.83	3230	0.6	9.66	7860	6.23	2.2	3.2
GBM301_3	1100	7.8	3.1	0.2	4600	355	2.05	3410	0.7	11.8	7480	6.17	2.7	3.8
GBM301_3	1000	6.5	2.5	0.2	4900	369	1.87	3370	0.9	9.83	7800	5.32	2.1	3.7
GBM301_3	1200	7.5	2.6	0.2	5200	387	1.83	3580	0.8	11.7	7740	5.48	2.4	4
GBM301_3	1300	7.6	2.2	0.2	4600	338	1.5	2830	0.9	10.9	7560	6.29	2.5	3.4
GBM301_3	1000	8.9	2.3	0.2	4500	339	1.9	3310	0.8	11.8	7700	6.23	2.6	3.7
GBM301_3	1000	8.3	2.3	0.2	4900	370	2.1	3370	0.8	11.1	7600	6.79	2.5	3.7
GBM301_3	1200	8.3	3	0.2	4800	275	1.87	3360	0.7	11.5	7860	6.32	2.6	4
GBM301_3	1100	7.3	2.9	0.2	5300	376	1.6	3710	0.7	9.8	7940	5.38	2.2	3.6
GBM301_3	1200	7.1	2.8	0.2	5000	379	1.44	3670	0.7	10.1	7840	5.51	2.2	3.5
GBM301_3	1100	8.1	2.2	0.2	4500	356	1.54	3140	0.8	10.8	7350	5.66	2.4	3.7
GBM301_3	1100	9	2.3	0.2	4900	351	2.22	2940	0.7	10.9	7930	6.05	2.4	3.7
GBM301_3	800	6.8	2.1	0.2	4500	307	1.75	2810	0.8	10.9	7550	5.35	2.4	3.3
GBM301_3	1200	6.7	2.8	0.2	4400	364	1.82	3120	0.7	10.1	7720	5.87	2.2	3.3
GBM301_3	1100	7.1	3	0.2	4900	375	2.22	3810	0.7	11.5	7800	6.48	2.6	3.7
GBM301_3	1200	8.4	2.6	0.2	4500	365	1.87	3410	0.8	12.1	7770	5.84	2.7	3.9
GBM301_3	1100	8.5	2.5	0.2	4900	366	1.88	3360	0.8	9.7	7570	5.8	2.3	3.8
GBM301_3	1100	6.7	2.3	0.1	4600	368	1.82	2990	0.7	9.28	7240	6.8	2	3.8
GBM301_3	1200	6.9	2.5	0.3	4300	395	1.48	2840	0.8	9.83	7680	5.18	2.2	3.6
GBM301_3	1100	6.7	2.4	0.2	4900	372	1.51	3570	0.7	9.9	7670	5.39	2.2	3.7
GBM301_3	1100	6.6	2.6	0.2	4900	377	1.48	3160	0.8	9.06	7820	5.69	2	3.7
GBM301_3	1100	7.9	2.8	0.2	4800	347	1.57	3130	0.7	11.4	7450	5.03	2.6	3.4
GBM301_3	1300	7.8	2.4	0.1	4800	344	1.53	3260	0.8	10.6	7830	5.32	2.4	3.7
GBM301_3	1000	6.2	2.5	0.2	5100	335	2.05	3790	0.8	8.08	7710	5.36	1.9	3.1
GBM301_3	1000	7.9	2.8	0.1	4900	358	2.07	3300	0.8	9.29	7700	4.17	2.3	3.1
GBM301_3	1000	7	2.4	0.2	5100	289	2.09	3580	0.8	8.92	7790	5.79	2	3.5
GBM301_3	1000	7.2	2.4	0.2	5000	331	2.04	3310	0.6	9.58	8000	4.89	2.3	3.5
GBM301_3	1100	7.9	2.7	0.2	5100	316	1.54	3240	1	7.77	7970	4.48	1.6	3.4
GBM301_3	1000	6.1	3	0.2	5100	285	1.36	3400	0.9	7.8	9080	3.77	1.7	3.2
GBM301_3	900	8.3	3.1	0.2	5300	348	1.54	3400	0.8	9.09	7950	5.75	2.2	3.4
GBM301_3	1200	5.9	2	0.2	5000	359	1.47	3650	0.9	7.94	8370	3.63	1.6	3.4
GBM301_3	1200	7.2	2.9	0.2	5100	372	2.09	3430	0.7	15.9	7780	4.66	4.1	3.3
GBM301_3	1100	6.6	1.6	0.2	5100	328	1.84	3570	0.7	13.7	7820	5.92	3.3	3.7
GBM301_3	1300	8.6	0.2	0.2	5000	370	1.8	3700	0.8	8.09	7650	6.42	2.4	3.9
GBM301_3	1200	7.7	3.3	0.1	5000	363	2.11	3620	0.8	14.2	7790	6.76	2.4	3.2
GBM301_3	1100	8.4	1.7	0.2	5200	327	2.01	3430	0.8	10.3	7720	4.54	2.1	3.8
GBM301_3	1300	8.8	1.9	0.2	5300	359	2.37	3230	0.7	8.68	7790	4.11	2.4	4.5
GBM301_3	1200	10.5	2.1	0.2	4700	310	2.29	3200	0.5	11.3	8120	4.17	2.7	3.3
GBM301_3	900	8.2	1.6	0.2	4900	334	1.87	3230	0.7	9.57	8210	4.93	2.5	3.8
GBM301_3	1300	11	2.7	0.2	5400	367	1.47	3330	0.8	12.3	8030	4.41	2.9	4
GBM301_3	800	7.3	2.2	0.2	5700	279	1.48	3290	0.6	12.5	7560	4.78	2.1	3.6
GBM301_3	1100	12.4	2.2	0.2	5800	262	2.59	3760	0.6	11.2	8020	5.83	2.6	2.9
GBM301_3	1200	11.3	1.7	0.1	5200	327	1.46	3350	0.8	10.6	8350	5.31	1.4	4.1
GBM301_3	1200	8.8	2	0.2	5600	321	2.22	3380	0.8	10.1	7550	4.12	2.1	4.1
GBM301_3	1000	6	1.6	0.2	4400	299	1.38	2390	1.1	10.4	8060	6.07	2.1	3.3
GBM301_3	900	6.2	1.8	0.2	4400	289	1.04	2170	0.7	9.99	7320	5.3	2.1	3.3
GBM301_3	1200	7.1	2.3	0.2	5000	356	1.1	3560	0.7	11	8110	5.57	2.3	4.1
GBM301_3	900	5.9	2.4	0.1	4100	264	1.11	3270	0.4	7.69	7360	4.24	1.5	3.9
GBM301_3	1100	6	2.9	0.1	4000	312	1.05	3430	0.6	8.72	8070	4.57	1.7	4.8
GBM301_3	1100	7	3.2	0.1	4400	319	1.16	3620	0.5	9.45	8340	5.14	1.9	3.4
GBM301_3	900	6.9	2.1	0.1	4000	292	1.06	2680	0.7	7.89	7660	5.21	1.6	4.7
GBM301_3	1000	6.2	2.9	0.1	4100	293	1.08	3370	0.7	7.99	7740	4.89	1.5	5.1
GBM301_3	1200	6.9	3.2	0.1	5000	373	1.16	3600	1	9.3	8040	4.93	1.9	5.8
GBM301_3	1200	5.6	3.5	0.2	5200	346	1.07	3290	0.7	8.69	7350	5.57	1.8	3.3
GBM301_3	1000	5.4	3.1	0.1	4800	318	1.14	2890	0.6	7.96	7210	5.93	1.7	2.8
GBM301_3	1000	5.1	3.1	0.1	4900	309	1.1	3070	0.6	8.23	7370	5.5	1.6	2.8
Average	**1096**	**7.5**	**2.5**	**0.18**	**4858**	**339**	**1.68**	**3306**	**0.7**	**10.2**	**7791.1**	**5.4**	**2.2**	**3.7**
SD	**124**	**1.4**	**0.6**	**0.05**	**398**	**34**	**0.40**	**324**	**0.1**	**1.7**	**319.5**	**0.8**	**0.5**	**0.5**
RSD	**11%**	**19%**	**23%**	**25%**	**8%**	**10%**	**24%**	**10%**	**16%**	**17%**	**4%**	**15%**	**21%**	**14%**
RV											7910	11		
GeoPT	4%	10%		18%	3%	6%	15%	4%	12%	10%	9%	11%	12%	9%
Abs GeoPT											711.9	1.21		
Bias											**98%**	**49%**		
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
GBM398-4	1300	2.2	2.3	0.05	1000	5340	883	2510	0.3	2.59	4020	> 10000	0.6	14.6
GBM398-4	1200	2.8	3.1	0.05	1100	5690	904	2710	0.3	3.34	3980	> 10000	0.8	16.5
GBM398-4	1200	2.6	3.5	0.05	1200	5600	927	2730	0.3	3.12	4160	> 10000	0.7	16.4
GBM398-4	1200	2.5	3	0.05	1100	5430	889	2720	0.3	3.02	3940	> 10000	0.7	16.7
GBM398-4	1200	2.8	2.9	0.05	1100	5700	909	2570	0.3	3.16	3980	> 10000	0.8	20.2
GBM398-4	1100	2.8	3.4	0.05	1200	5680	922	2720	0.3	3.09	4090	> 10000	0.8	16.7
GBM398-4	1200	2.9	3.5	0.05	1300	5570	907	2640	0.3	3.07	4080	> 10000	0.8	17.6
GBM398-4	1200	3.6	3.9	0.05	1200	5490	891	2520	0.4	3.07	4150	> 10000	0.7	16.1
GBM398-4	1100	2.7	3.5	0.05	1300	5470	867	2550	0.3	3.02	3870	> 10000	0.8	17.4
GBM398-4	1200	2.9	3.4	0.05	1200	5480	927	2570	0.4	3.02	4210	> 10000	0.7	17.7
GBM398-4	1200	2.9	3.5	0.05	1100	5720	905	2750	0.3	3.06	4100	> 10000	0.7	17.5
GBM398-4	1200	2.9	3.3	0.05	1200	5500	875	2450	0.4	3.17	4010	> 10000	0.7	16.9
GBM398-4	1300	3.2	3.2	0.05	1200	5610	913	2610	0.3	2.39	4260	> 10000	0.7	17.3
GBM398-4	1000	2.6	3.2	0.05	1200	5540	925	2580	0.3	3.18	4030	> 10000	0.8	17.1
GBM398-4	1100	2.5	3.4	0.05	1100	5500	893	2640	0.4	2.75	4110	> 10000	0.7	16.3
GBM398-4	1200	2.8	3.6	0.05	1100	5640	915	2610	0.3	3.37	3840	> 10000	0.8	16.2
GBM398-4	1200	3	3.7	0.05	1100	5630	940	2580	0.3	3.67	4010	> 10000	0.8	17
GBM398-4	1300	3.7	3.4	0.05	1200	5630	930	2600	0.3	3.27	4070	> 10000	0.8	17.7
GBM398-4	1200	2.5	3.2	0.05	1200	5460	853	2520	0.4	2.65	3920	> 10000	0.7	17.3
GBM398-4	1300	2.7	3.5	0.05	1200	5720	887	2550	0.3	2.99	4000	> 10000	0.7	16.6

Appendix 18. QC samples analysis by AR

STANDARD	Re (ppm)	Sb (ppm)	Sc (ppm)	Se (ppm)	Sm (ppm)	Sn (ppm)	Sr (ppm)	Ta (ppm)	Tb (ppm)	Te (ppm)	Th (ppm)	Tl (ppm)	Tm (ppm)	U (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.001	0.02	0.1	0.1	0.1	0.05	0.5	0.05	0.1	0.02	0.1	0.02	0.1	0.1
ULD:							1000							
GBM301_3	0.008	2.81	4.4	3.8	3.4	0.43	50	0.025	0.6	1.11	1	0.15	0.2	0.1
GBM301_3	0.004	2.46	3.4	3.5	2.8	0.59	48	0.025	0.5	1.04	0.9	0.1	0.2	0.1
GBM301_3	0.007	2.87	3.7	3.9	3.4	0.64	47.6	0.025	0.6	1.19	1	0.14	0.2	0.2
GBM301_3	0.003	2.84	4	3.7	3	0.59	46.7	0.025	0.5	1.07	0.9	0.13	0.2	0.2
GBM301_3	0.007	2.8	4.1	3.9	3.7	0.72	54.7	0.025	0.6	1.03	1.1	0.14	0.2	0.2
GBM301_3	0.014	2.76	3.4	4.4	3.1	0.6	46.7	0.025	0.5	1.2	0.9	0.14	0.2	0.1
GBM301_3	0.013	2.77	3.5	3.9	3.5	0.48	49.6	0.025	0.5	1.26	0.9	0.14	0.2	0.1
GBM301_3	0.002	2.88	3.7	4.2	3.3	0.54	44.1	0.025	0.5	1.24	0.9	0.15	0.2	0.1
GBM301_3	0.01	2.82	3.8	4.2	3.2	0.55	46.9	0.025	0.5	1.22	1	0.15	0.2	0.2
GBM301_3	0.006	4.51	4.2	4.8	2.8	0.74	48.7	0.025	0.5	1.35	0.9	0.13	0.2	0.2
GBM301_3	0.007	2.75	4	4.1	3	0.87	50.5	0.025	0.5	1.24	0.9	0.11	0.2	0.1
GBM301_3	0.005	2.52	3.9	3.7	3.2	0.78	44.6	0.025	0.6	1.26	0.9	0.14	0.2	0.1
GBM301_3	0.009	2.67	3.8	4.1	3.1	0.74	47.9	0.025	0.5	1.22	0.9	0.15	0.2	0.2
GBM301_3	0.006	2.6	4.1	3.9	4.1	0.56	48.1	0.025	0.5	1.1	0.9	0.14	0.2	0.1
GBM301_3	0.005	2.78	3.6	3.3	2.9	0.56	47.2	0.025	0.5	1.1	0.9	0.14	0.2	0.1
GBM301_3	0.005	2.93	4.5	3	3.2	0.68	48.4	0.025	0.6	1.18	1	0.13	0.2	0.2
GBM301_3	0.007	2.66	4	3.3	3.4	0.62	46.7	0.025	0.5	1.16	1	0.15	0.2	0.2
GBM301_3	0.004	2.81	3.9	3.6	3	0.57	48.7	0.025	0.5	1.15	1	0.14	0.2	0.2
GBM301_3	0.008	2.52	4.1	4.1	2.6	0.57	44.3	0.025	0.4	1.12	0.8	0.13	0.2	0.1
GBM301_3	0.006	2.74	4.2	4.2	2.8	0.52	43	0.025	0.4	1.22	0.9	0.13	0.2	0.1
GBM301_3	0.006	2.59	3.9	3.6	2.9	0.59	47.6	0.025	0.6	1.09	0.8	0.13	0.2	0.1
GBM301_3	0.006	2.47	4	3.6	2.7	0.59	46.1	0.025	0.6	1.24	1	0.12	0.2	0.1
GBM301_3	0.009	2.76	3.6	3.9	3.2	0.66	46.7	0.025	0.4	1.1	1	0.13	0.2	0.1
GBM301_3	0.004	2.8	2.7	4.1	3.1	0.6	41.8	0.025	0.4	1.11	1	0.12	0.2	0.1
GBM301_3	0.007	2.72	3.6	4.1	2.4	0.63	43.9	0.025	0.5	1.15	0.9	0.14	0.2	0.1
GBM301_3	0.007	2.73	3.7	3.5	2.9	0.5	46.2	0.025	0.5	1.1	1	0.13	0.2	0.2
GBM301_3	0.009	2.8	3.5	3.4	2.7	0.74	49.5	0.025	0.5	1.17	0.9	0.14	0.2	0.2
GBM301_3	0.011	2.77	3.8	4.2	2.9	0.59	44.6	0.025	0.6	1.05	0.9	0.14	0.2	0.1
GBM301_3	0.011	2.85	3.7	3.4	2.6	0.59	46.6	0.025	0.5	1.16	1	0.12	0.2	0.2
GBM301_3	0.004	3.1	4	3	2.4	0.75	44.7	0.025	0.5	1.13	0.9	0.13	0.2	0.1
GBM301_3	0.01	2.72	4.3	3.9	3	0.7	46.8	0.025	0.6	1.14	1	0.14	0.3	0.2
GBM301_3	0.003	2.81	3.8	3.7	2.3	0.7	47	0.025	0.5	1.21	0.9	0.13	0.2	0.2
GBM301_3	0.003	2.83	4.1	4.5	4.8	0.48	36.9	0.025	0.5	1.05	0.7	0.14	0.2	0.1
GBM301_3	0.002	2.81	2.6	3.8	4.3	0.74	40.2	0.025	0.5	1.17	0.9	0.14	0.2	0.1
GBM301_3	0.005	2.67	4.2	3.8	4.5	0.63	50.7	0.025	0.5	1.07	0.9	0.13	0.3	0.1
GBM301_3	0.01	2.7	3.8	4	4	0.61	45.9	0.025	0.5	1.15	0.9	0.16	0.2	0.1
GBM301_3	0.006	2.86	3.9	3.8	3.2	0.57	46.9	0.025	0.6	0.95	1	0.14	0.2	0.2
GBM301_3	0.005	2.67	3.9	2.9	3.5	0.72	49.5	0.025	0.6	1.01	1	0.15	0.2	0.2
GBM301_3	0.013	2.7	3.7	4.3	3.2	0.61	44	0.025	0.5	0.94	0.9	0.15	0.2	0.1
GBM301_3	0.004	2.65	4	4.2	3.1	0.59	48.9	0.025	0.6	1.18	0.9	0.14	0.2	0.2
GBM301_3	0.005	2.61	3.9	3.2	3.8	0.7	46.3	0.025	0.5	1.29	1	0.14	0.2	0.1
GBM301_3	0.004	2.73	4.1	3.9	3.6	0.54	36.7	0.025	0.7	1.16	1	0.16	0.3	0.2
GBM301_3	0.005	2.86	3.5	4.1	3.3	0.61	40.1	0.025	0.5	1.15	1	0.17	0.2	0.2
GBM301_3	0.006	2.88	4	3.2	4.5	0.61	47.3	0.025	0.6	1.08	1	0.15	0.2	0.2
GBM301_3	0.008	2.77	3.5	3.4	2.7	0.64	45	0.025	0.6	1.38	0.9	0.17	0.3	0.1
GBM301_3	0.008	3.42	3.9	4.1	3	0.7	53.7	0.025	0.5	1.12	0.7	0.15	0.2	0.1
GBM301_3	0.007	2.72	3	4.3	2.8	0.7	50.7	0.025	0.5	1.11	0.9	0.15	0.2	0.1
GBM301_3	0.007	3.17	3.8	3.8	3	0.81	50.9	0.025	0.6	1.01	1.2	0.16	0.2	0.4
GBM301_3	0.006	2.8	2.8	3.4	2.4	0.58	41.3	0.025	0.5	0.99	0.9	0.1	0.1	0.05
GBM301_3	0.003	3.3	3.3	4.1	2.6	0.72	48.4	0.025	0.4	1.17	0.8	0.11	0.2	0.05
GBM301_3	0.004	3.58	3.2	3.9	2.8	0.7	43.4	0.025	0.5	1.91	1.2	0.12	0.2	0.05
GBM301_3	0.006	3.26	2	3.5	2.5	0.92	40.4	0.025	0.5	1.07	1.1	0.13	0.2	0.2
GBM301_3	0.005	3.15	2.6	3.3	2.4	0.81	47.2	0.025	0.5	1.03	0.9	0.1	0.2	0.05
GBM301_3	0.009	3.99	4.3	4.3	2.7	0.94	54	0.025	0.5	1.12	0.9	0.12	0.2	0.1
GBM301_3	0.006	2.86	5.1	4.6	2.3	0.82	46.3	0.025	0.5	0.8	1	0.14	0.2	0.2
GBM301_3	0.005	2.59	4.1	3.6	2.3	0.59	38.8	0.025	0.5	0.79	1	0.14	0.2	0.2
GBM301_3	0.005	2.6	4.5	3.6	2.4	0.54	40.4	0.025	0.4	0.9	0.9	0.13	0.2	0.2
Average	**0.0065**	**2.86**	**3.8**	**3.8**	**3.1**	**0.65**	**46.3**	**0.025**	**0.5**	**1.14**	**0.9**	**0.14**	**0.21**	**0.1**
SD	**0.0027**	**0.35**	**0.5**	**0.4**	**0.6**	**0.11**	**3.8**	**0.000**	**0.1**	**0.15**	**0.1**	**0.02**	**0.03**	**0.1**
RSD	**42%**	**12%**	**14%**	**11%**	**19%**	**17%**	**8%**	**0%**	**12%**	**14%**	**10%**	**11%**	**14%**	**45%**
RV														
GeoPT		17%	12%		12%		7%	16%	17%		12%			14%
Abs GeoPT														
Bias														
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**	**0%**	**7%**
GBM398-4	0.0005	6.05	1.9	2.7	0.7	4.98	14.7	0.025	0.1	0.42	0.9	0.19	0.05	0.7
GBM398-4	0.0005	6.65	2.1	2.8	0.8	5.18	16.6	0.025	0.1	0.38	0.9	0.2	0.05	0.7
GBM398-4	0.002	6.77	2.1	3.3	0.8	5.27	17.1	0.025	0.1	0.43	1	0.2	0.05	0.8
GBM398-4	0.0005	6.36	1.9	3.1	0.8	4.91	16.4	0.025	0.1	0.43	0.9	0.17	0.05	0.6
GBM398-4	0.004	6.61	2.1	3	0.8	5	17.2	0.025	0.1	0.38	1	0.2	0.05	0.7
GBM398-4	0.007	6.46	2	2.7	0.8	5.39	15.2	0.025	0.05	0.42	0.9	0.19	0.05	0.7
GBM398-4	0.004	6.65	2.1	3.2	0.9	5.13	15.8	0.025	0.1	0.38	0.9	0.2	0.05	0.8
GBM398-4	0.004	6.67	2.1	3.3	0.8	5.2	14.3	0.025	0.1	0.46	0.8	0.18	0.05	0.7
GBM398-4	0.004	6.65	2	2.9	0.8	5.22	15.7	0.025	0.1	0.37	0.8	0.19	0.05	0.7
GBM398-4	0.006	6.93	2	3	0.8	5.25	16.3	0.025	0.05	0.37	1	0.19	0.05	0.7
GBM398-4	0.003	6.76	2	3.8	0.8	5.25	16.8	0.025	0.1	0.32	1.1	0.17	0.05	0.7
GBM398-4	0.0005	6.31	1.9	3.2	0.8	5.07	14.2	0.025	0.1	0.39	0.9	0.18	0.05	0.7
GBM398-4	0.005	6.45	2.1	3	0.8	5.29	15.2	0.025	0.05	0.41	0.9	0.19	0.05	0.7
GBM398-4	0.002	6.41	2.6	3	1.1	5.24	15.7	0.025	0.05	0.42	0.9	0.19	0.05	0.7
GBM398-4	0.003	6.22	1.8	2.7	0.7	5.25	15.5	0.025	0.1	0.4	0.8	0.18	0.05	0.7
GBM398-4	0.003	6.58	2	3	0.8	5.19	16.2	0.025	0.1	0.29	0.9	0.18	0.05	0.7
GBM398-4	0.003	6.56	2.2	2.9	0.9	5.27	17.1	0.025	0.1	0.41	1	0.19	0.05	0.7
GBM398-4	0.002	6.61	2.1	2.7	0.8	5.75	16.8	0.025	0.1	0.45	1.1	0.21	0.05	0.7
GBM398-4	0.003	6.37	2.2	2.6	0.7	4.97	15.4	0.025	0.05	0.44	0.7	0.17	0.05	0.7
GBM398-4	0.002	6.9	2.2	4	0.8	4.99	15.4	0.025	0.05	0.45	0.9	0.19	0.05	0.7

Appendix 18. QC samples analysis by AR

STANDARD	V (ppm)	W (ppm)	Y (ppm)	Yb (ppm)	Zn (ppm)	Zr (ppm)
METHOD:	AR	AR	AR	AR	AR	AR
LLD:	1	0.1	0.01	0.1	0.1	0.1
ULD:		200				
GBM301_3	76	0.1	19.1	1.4	97	52
GBM301_3	76	0.05	15.1	1.3	91	46.4
GBM301_3	77	0.1	18	1.3	88	50.2
GBM301_3	73	0.1	18.3	1.3	85	49.6
GBM301_3	76	0.1	17.2	1.5	85	49.7
GBM301_3	71	0.1	17.5	1.2	85	51.2
GBM301_3	68	0.1	19	1.3	94	52.8
GBM301_3	69	0.05	17.8	1.3	93	50.4
GBM301_3	82	0.1	19	1.2	95	55.3
GBM301_3	71	0.1	18.1	1.4	82	54.4
GBM301_3	71	0.05	17.1	1.2	85	54.5
GBM301_3	70	0.05	17.3	1.2	83	51.3
GBM301_3	68	0.1	17.6	1.3	83	50.4
GBM301_3	61	0.05	17.4	1.2	80	49.6
GBM301_3	71	0.1	15.8	1.2	78	49.6
GBM301_3	70	0.1	18.1	1.4	79	52.5
GBM301_3	70	0.1	18.5	1.2	88	51
GBM301_3	65	0.05	17.8	1.2	86	50.1
GBM301_3	70	0.1	17.1	1.1	83	52.6
GBM301_3	76	0.1	18	1.3	82	56.4
GBM301_3	69	0.05	16.6	1.2	80	51.1
GBM301_3	67	0.1	18.4	1.2	93	51.9
GBM301_3	71	0.05	15.4	1.2	86	49.6
GBM301_3	65	0.1	14.4	1.1	87	53.2
GBM301_3	68	0.1	17.3	1.4	87.9	49
GBM301_3	71	0.1	18.5	1.3	74.7	43.6
GBM301_3	70	0.1	17.4	1.4	77.2	47.9
GBM301_3	66	0.05	17.2	1.4	64	48.4
GBM301_3	72	0.1	17.4	1.3	96.2	49.1
GBM301_3	68	0.2	15.6	1.3	61	51.6
GBM301_3	80	0.05	17.2	1.5	95.7	46.6
GBM301_3	65	0.1	18.2	1.3	90	53.9
GBM301_3	69	0.1	19.2	1.3	96.4	54.9
GBM301_3	70	0.1	18.3	1.4	109	46.1
GBM301_3	72	0.1	18.5	1.3	111	51.7
GBM301_3	63	0.05	16.6	1.3	87.6	50.5
GBM301_3	72	0.1	18	1.5	80.9	52.2
GBM301_3	73	0.05	18.2	1.3	92.1	48.6
GBM301_3	71	0.05	18.4	1.2	91.3	52.7
GBM301_3	61	0.1	17.6	1.3	93.2	55.9
GBM301_3	59	0.1	17.7	1.5	86	55.5
GBM301_3	72	0.1	18.1	1.5	91.2	52
GBM301_3	72	0.1	19.5	1.5	71.2	51.1
GBM301_3	72	0.1	16.5	1.5	93.5	56
GBM301_3	69	0.1	18.1	1.3	96.8	50.6
GBM301_3	66	0.1	16	1.3	74.8	49.1
GBM301_3	67	0.1	14.8	1.3	77	41.8
GBM301_3	62	0.1	15.9	1.4	80.6	48.6
GBM301_3	56	0.05	17.6	1.1	88.8	31.7
GBM301_3	59	0.05	20.3	1.2	95.2	43.7
GBM301_3	62	0.05	19.3	1.3	87	39.9
GBM301_3	57	0.1	21.2	1.1	101	40.3
GBM301_3	60	0.05	20.2	1.1	93.5	42.4
GBM301_3	65	0.2	24.7	1.2	100	54.6
GBM301_3	69	0.1	17.4	1.1	69.8	48.7
GBM301_3	65	0.1	16	1.1	59.5	44.3
GBM301_3	66	0.1	15.8	1.1	61.1	45.1
Average	**69**	**0.09**	**17.7**	**1.3**	**86.0**	**49.7**
SD	**5**	**0.03**	**1.6**	**0.1**	**10.7**	**4.6**
RSD	**8%**	**35%**	**9%**	**9%**	**12%**	**9%**
RV					94	
GeoPT	9%	15%	10%	14%	9%	7%
Abs GeoPT					8.46	
Bias					**92%**	
% <LLD	**0%**	**30%**	**0%**	**0%**	**0%**	**0%**
GBM398-4	24	2.8	3.54	0.3	4490	24.3
GBM398-4	25	2.9	4.39	0.4	4760	26.4
GBM398-4	26	3	4.5	0.4	4840	24.4
GBM398-4	24	2.5	3.74	0.3	4960	22.4
GBM398-4	24	3.1	4.54	0.5	5360	24.4
GBM398-4	24	3.1	4.41	0.4	5010	24.3
GBM398-4	23	2.9	4.57	0.3	4820	23.3
GBM398-4	25	3.2	4.36	0.3	5280	23.3
GBM398-4	25	2.7	4.3	0.3	4840	23.4
GBM398-4	24	3.1	4.32	0.4	5180	26.9
GBM398-4	24	3	4.21	0.3	5050	25.3
GBM398-4	23	2.9	4.33	0.3	4910	21.7
GBM398-4	23	2.9	4.23	0.4	5110	24.5
GBM398-4	23	2.9	4.34	0.3	4860	25.3
GBM398-4	23	3	3.91	0.3	4790	24.8
GBM398-4	25	3.1	4.05	0.4	4780	25.1
GBM398-4	24	3.1	4.65	0.3	4740	23.6
GBM398-4	25	3	4.6	0.3	5220	28
GBM398-4	24	2.9	4.18	0.3	4700	23.5
GBM398-4	24	3.2	4.41	0.4	4910	24.5

Appendix 18. QC samples analysis by AR

STANDARD	NUMBER	BATCH	Ag (ppm)	Al (ppm)	As (ppm)	B (ppm)	Ba (ppm)	Be (ppm)	Bi (ppm)	Ca (ppm)	Cd (ppm)	Ce (ppm)	Co (ppm)	Cr (ppm)
METHOD:		NO	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:			0.002	100	0.1	1	0.5	0.1	0.02	100	0.01	0.01	0.1	0.5
ULD:				100000										
GBM398-4	1973	A09-030	49.3	4900	7.2	0.5	19.1	0.2	12.3	5200	8.39	6.3	1880	2000
GBM398-4	1975	A09-030	50.3	5200	7	0.5	19.9	0.2	12.2	5300	8.94	5.73	1890	2130
GBM398-4	2167	A09-032	47.6	5200	7.2	0.5	19.9	0.2	11.8	5100	8.84	6.45	1780	2100
GBM398-4	2169	A09-032	44.3	4600	7	0.5	16.9	0.2	12.1	4800	8.23	5.64	1860	2080
GBM398-4	2541	A09-033	47.1	5600	7.9	1	19.8	0.2	12.1	6400	8.13	5.68	2000	2430
GBM398-4	2543	A09-033	47.5	4700	7	0.5	17	0.2	12.3	5300	8.81	6.47	2040	2060
GBM398-4	2545	A09-033	50.1	5300	7.4	0.5	19.5	0.3	12.1	5300	8.69	6.08	1920	2160
GBM398-4	2547	A09-033	49.7	4800	7.2	0.5	19.3	0.2	11.8	5200	8.59	5.96	2060	2040
GBM398-4	2940	A09-034	45.7	4600	6.6	0.5	19.5	0.2	12.6	4900	8.21	5.49	2000	2150
GBM398-4	2942	A09-034	48.2	5200	8.1	0.5	19.2	0.2	12.1	5800	8.42	4.83	2520	2450
GBM398-4	2944	A09-034	48.2	6100	8	0.5	20.3	0.2	12.1	5600	7.85	8.65	1800	2090
GBM398-4	2946	A09-034	47.5	3600	7.5	0.5	18.5	0.2	13.1	5000	8.12	4.73	2040	2180
GBM398-4	3340	A09-035	46.1	5900	7.1	0.5	19.4	0.2	13.4	5100	8.14	9.71	2150	2070
GBM398-4	3342	A09-035	48.1	5400	6.4	0.5	20.2	0.1	13.6	4900	8.74	9.11	1990	2040
GBM398-4	3344	A09-035	48.1	5300	7.1	0.5	19.4	0.2	13.1	5300	8.35	9.52	2030	2070
GBM398-4	3346	A09-035	47.8	4700	7.7	0.5	21.1	0.2	11.8	5400	8.23	9.22	1900	1830
GBM398-4	3740	A09-336	46.1	6800	5.1	0.5	19.6	0.3	11.8	4700	7.54	9.29	1740	2140
GBM398-4	3742	A09-336	48.1	6700	7.6	0.5	20.1	0.2	13.4	5100	7.73	8.63	1810	2090
GBM398-4	3744	A09-336	48.5	4900	6.8	0.5	19	0.2	11.9	4700	7.49	6.61	2030	2070
GBM398-4	3746	A09-336	46.1	5300	6.6	0.5	12.8	0.2	11.8	5300	7.86	3.98	2070	1960
GBM398-4	4127	A09-337	49.8	5200	8.6	0.5	17.3	0.2	13.7	4400	8.47	9.15	2000	2000
GBM398-4	4129	A09-337	46.8	6000	7.2	0.5	19.8	0.2	13.3	5100	8.48	7.84	2060	2820
GBM398-4	4131	A09-337	40.6	5700	7	0.5	17.8	0.2	11.7	4900	9.15	7.48	2040	1980
GBM398-4	4133	A09-337	46.8	5300	7	0.5	20.3	0.1	12.9	5300	9.52	9.36	2050	1910
GBM398-4	4257	A09-338	48.1	4600	7.4	0.5	15.7	0.2	13.4	4700	8.21	5.13	1960	2910
GBM398-4	5044	A09-491	47.6	3300	5.5	0.5	16.8	0.1	11.9	3600	6.86	4.73	1700	1870
GBM398-4	5046	A09-491	46.8	3800	5.8	1	18.9	0.2	11.2	4300	7.46	5.47	1730	1920
GBM398-4	5048	A09-491	48.3	5400	6.2	0.5	19.2	0.1	11.2	5700	6.83	5.88	1840	1750
GBM398-4	5299	A09-492	52.9	5100	7	0.5	16.6	0.2	10.2	5400	8.33	4.95	1750	1940
GBM398-4	5301	A09-492	50.6	5900	6.9	0.5	18.7	0.3	11.3	5500	9.21	5.53	1690	2150
GBM398-4	5303	A09-492	53.1	4800	6.6	0.5	19.6	0.2	11.9	4700	9.43	5.44	1750	2120
GBM398-4	5836	A10-001	49.6	2900	6.2	0.5	16.2	0.2	10.3	3400	8.49	3.87	1660	1860
GBM398-4	5838	A10-001	53.2	4500	7.5	0.5	17.9	0.2	9.42	4900	8.76	4.92	1970	1950
GBM398-4	5840	A10-001	50.6	4200	7	0.5	16.9	0.05	10.8	4700	8.81	5.14	1820	2010
GBM398-4	6143	A10-002	45	5800	5.8	0.5	17.4	0.3	11.5	5000	7.87	4.05	1810	1850
GBM398-4	6145	A10-002	45.1	4500	6	0.5	15.3	0.2	10.5	4400	7.38	3.9	1830	1810
GBM398-4	6147	A10-002	46.3	5300	6.3	0.5	16.6	0.2	10.8	5000	8.17	4.48	1930	2060
Average			**48.568**	**5098.245614**	**7.0**	**0.5**	**18.8**	**0.2**	**12.08**	**5032**	**8.40**	**6.34**	**1913.9**	**2076.7**
SD			**2.313**	**713**	**0.6**	**0.1**	**1.6**	**0.0**	**0.86**	**484**	**0.57**	**1.52**	**134.7**	**195.5**
RSD			**5%**	**14%**	**9%**	**18%**	**9%**	**24%**	**7%**	**10%**	**7%**	**24%**	**7%**	**9%**
RV			48.7		12								1974	
GeoPT				3%	12%		7%	16%	22%	3%		9%	12%	8%
Abs GeoPT					1.44								236.88	
Bias			**100%**		**58%**								**97%**	
% <LLD			**0%**	**0%**	**0%**	**96%**	**0%**	**2%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
OREAS100-A	411	A09-022	0.151	15300	12.6	0.5	98.9	3.1	0.47	14200	0.18	451	17.4	37.4
OREAS100-A	413	A09-022	0.128	11800	12.2	0.5	87.8	3	0.45	12600	0.15	437	16.5	35.4
OREAS100-A	415	A09-022	0.14	13500	12.7	0.5	91	2.9	0.44	13300	0.14	385	14.9	35.2
OREAS100-A	417	A09-022	0.131	11900	12.3	0.5	87.4	3.1	0.45	12500	0.12	398	16.1	33.9
OREAS100-A	419	A09-022	0.121	13000	12.5	0.5	84.8	3	0.43	12800	0.14	391	13.8	36.4
OREAS100-A	810	A09-025	0.112	15800	13.2	0.5	83.1	3	0.47	12900	0.14	411	14.4	40.4
OREAS100-A	812	A09-025	0.115	14300	13.5	0.5	86.9	2.9	0.43	13600	0.14	459	14.5	36.9
OREAS100-A	814	A09-025	0.093	15100	10	0.5	80	2.8	0.45	13600	0.17	304	12.5	37.5
OREAS100-A	816	A09-025	0.104	14900	11.7	0.5	84.1	2.7	0.45	13900	0.15	418	14.2	39.3
OREAS100-A	818	A09-025	0.121	15200	12.5	0.5	87.9	2.9	0.42	14300	0.14	381	16.1	38
OREAS100-A	1134	A09-026	0.119	15900	12.8	0.5	87	3.4	0.45	13800	0.09	400	14.8	37.7
OREAS100-A	1136	A09-026	0.132	16100	13.6	0.5	86.6	3.1	0.44	13100	0.16	418	14.3	36.6
OREAS100-A	1138	A09-026	0.11	13400	10.1	0.5	86	3	0.46	13900	0.15	298	12.5	35.9
OREAS100-A	1140	A09-026	0.106	14700	11.5	0.5	84.2	2.8	0.39	13300	0.23	370	14	35.7
OREAS100-A	1578	A09-027	0.107	15000	13.5	0.5	89.3	3.2	0.47	14100	0.16	434	13.3	36.6
OREAS100-A	1580	A09-027	0.129	16000	13.5	0.5	90.3	3.4	0.45	14300	0.16	440	15.4	37.7
OREAS100-A	1582	A09-027	0.121	14000	12.2	0.5	83.4	2.9	0.45	12300	0.15	431	14.2	36.9
OREAS100-A	1584	A09-027	0.101	14000	12.5	0.5	82.3	3	0.44	13400	0.13	436	14.4	34.7
OREAS100-A	1586	A09-027	0.112	13800	12.9	1	82.7	3	0.45	13100	0.16	378	14.8	37.6
OREAS100-A	1977	A09-030	0.111	14700	11.9	0.5	82.2	3	0.44	14600	0.1	316	13	37.2
OREAS100-A	1979	A09-030	0.091	14600	11.1	0.5	79.9	3.1	0.45	13900	0.11	341	13.1	35.8
OREAS100-A	1981	A09-030	0.089	15000	12.7	0.5	87.5	3.2	0.42	13900	0.15	410	14.4	37.9
OREAS100-A	1983	A09-030	0.125	15900	12.3	0.5	91.4	3.2	0.46	13400	0.14	445	14.9	37.9
OREAS100-A	1985	A09-030	0.121	17000	13.3	0.5	86.9	3	0.45	13900	0.16	426	14.9	39.5
OREAS100-A	2171	A09-032	0.105	14700	11.1	0.5	85.8	2.6	0.39	13700	0.11	402	13.2	39.1
OREAS100-A	2173	A09-032	0.091	13200	10.7	0.5	84.3	2.9	0.41	13300	0.11	319	12.4	37.4
OREAS100-A	2175	A09-032	0.091	15000	11	0.5	78.9	3	0.44	14800	0.12	339	13.6	37.4
OREAS100-A	2549	A09-033	0.124	15700	12.7	0.5	86.4	3	0.43	14300	0.17	464	13.9	34.1
OREAS100-A	2551	A09-033	0.121	14800	13.3	0.5	81.8	3.1	0.46	13800	0.17	450	13.7	32.9
OREAS100-A	2553	A09-033	0.142	12400	11.6	0.5	67.7	3	0.39	11200	0.15	449	11	32.1
OREAS100-A	2555	A09-033	0.13	14100	12.1	0.5	86.5	2.9	0.43	12800	0.15	469	14.1	31
OREAS100-A	2557	A09-033	0.094	14900	12.3	0.5	89	3.2	0.45	13700	0.16	484	13.5	36.1
OREAS100-A	2948	A09-034	0.127	13500	13.9	0.5	91.4	3.1	0.45	14000	0.14	418	13.9	31.9
OREAS100-A	2950	A09-034	0.102	13700	10.4	0.5	79.7	2.7	0.46	12300	0.15	351	13	27.3
OREAS100-A	2952	A09-034	0.127	15300	13.4	0.5	87.8	3.1	0.43	13500	0.15	471	14.2	30.8
OREAS100-A	2954	A09-034	0.123	13200	10.5	0.5	78.1	2.9	0.44	11300	0.13	479	13.2	33.9
OREAS100-A	2956	A09-034	0.12	12700	13.4	0.5	88.6	2.7	0.44	14800	0.17	448	13.1	38.8
OREAS100-A	3348	A09-035	0.102	13700	11.9	0.5	84.6	3.5	0.46	13700	0.16	430	12.9	36.8
OREAS100-A	3350	A09-035	0.116	14200	11.9	0.5	81.1	2.5	0.45	14300	0.15	396	11.9	39.2
OREAS100-A	3352	A09-035	0.118	14900	8.3	0.5	83.4	2.9	0.44	13700	0.12	397	12.1	34.6

Appendix 18. QC samples analysis by AR

STANDARD	Cs (ppm)	Cu (ppm)	Dy (ppm)	Er (ppm)	Eu (ppm)	Fe (ppm)	Ga (ppm)	Gd (ppm)	Ge (ppm)	Hf (ppm)	Hg (ppm)	Ho (ppm)	In (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.02	0.01	0.1	0.1	0.1	100	0.02	0.1	0.1	0.1	0.01	0.1	0.02
ULD:													
GBM398-4	0.9	3870	0.7	0.3	0.2	42200	1.19	0.8	0.05	0.5	3.59	0.1	0.03
GBM398-4	0.91	3860	0.8	0.4	0.2	43700	1.32	1	0.05	0.5	3.05	0.1	0.03
GBM398-4	1.04	3660	0.7	0.4	0.1	46100	1.4	0.9	0.05	0.5	3.21	0.2	0.03
GBM398-4	0.88	3740	0.7	0.4	0.1	43000	1.26	0.8	0.05	0.4	3.08	0.1	0.01
GBM398-4	0.91	4250	0.8	0.4	0.2	46400	1.09	0.5	0.1	0.5	3.22	0.1	0.02
GBM398-4	0.98	4060	0.7	0.4	0.1	45100	1.14	0.6	0.1	0.5	3.1	0.1	0.02
GBM398-4	0.91	4080	0.7	0.4	0.2	45200	1.11	0.6	0.1	0.5	3.59	0.1	0.02
GBM398-4	0.87	3980	0.7	0.4	0.2	45100	0.94	0.6	0.05	0.5	3.14	0.1	0.02
GBM398-4	0.81	3990	0.7	0.4	0.2	44400	0.76	0.8	0.05	0.5	3.36	0.1	0.01
GBM398-4	0.83	5090	0.7	0.4	0.1	47700	0.66	7.6	0.05	0.5	3.01	0.1	0.03
GBM398-4	1.06	3960	0.8	0.4	0.2	46300	1.3	0.9	0.1	0.5	3.13	0.2	0.02
GBM398-4	0.82	4010	0.7	0.4	0.1	43900	0.87	0.8	0.05	0.5	3.08	0.1	0.02
GBM398-4	1.02	3790	0.9	0.4	0.2	44100	1.19	0.8	0.1	0.5	3.18	0.2	0.01
GBM398-4	0.9	3990	0.6	0.3	0.1	40000	1.26	1	0.1	0.6	3.03	0.1	0.01
GBM398-4	0.85	4040	0.7	0.5	0.2	45100	1.23	0.8	0.05	0.6	3.03	0.2	0.03
GBM398-4	0.9	3440	0.6	0.4	0.1	44900	0.48	0.7	0.05	0.5	3.17	0.1	0.02
GBM398-4	0.98	4050	0.8	0.4	0.2	40800	1.26	0.9	0.05	0.6	3.13	0.1	0.01
GBM398-4	0.9	4060	0.8	0.4	0.2	44500	0.68	0.8	0.05	0.5	3.25	0.2	0.01
GBM398-4	1.01	4100	0.7	0.4	0.1	44300	1.17	0.8	0.05	0.5	3.09	0.1	0.03
GBM398-4	0.87	3870	0.6	0.3	0.05	40100	1.19	0.7	0.05	0.4	3.44	0.1	0.02
GBM398-4	0.99	4010	0.8	0.5	0.2	43100	0.98	0.8	0.05	0.5	3.11	0.2	0.02
GBM398-4	0.99	4040	0.9	0.4	0.2	48800	1.01	0.9	0.05	0.6	3.21	0.2	0.01
GBM398-4	0.92	3830	0.7	0.4	0.2	39400	0.03	0.8	0.05	0.5	3.11	0.2	0.02
GBM398-4	1.05	4100	0.8	0.4	0.1	45400	0.63	0.9	0.05	0.5	3.17	0.1	0.03
GBM398-4	0.88	4100	0.7	0.4	0.1	49100	1.56	0.7	0.1	0.5	3.31	0.2	0.03
GBM398-4	0.84	3290	1	0.5	0.2	37400	0.94	0.7	0.1	0.5	3	0.1	0.01
GBM398-4	0.85	3300	0.9	0.5	0.2	42200	1.31	0.7	0.2	0.5	3.15	0.1	0.01
GBM398-4	1.01	3040	0.8	0.4	0.2	45900	1.45	0.7	0.1	0.5	3.05	0.05	0.01
GBM398-4	0.76	3230	0.7	0.4	0.2	44900	1.43	0.7	0.05	0.5	2.99	0.2	0.01
GBM398-4	0.78	3610	0.8	0.4	0.2	44600	1.89	0.8	0.05	0.6	3.41	0.2	0.01
GBM398-4	0.8	3640	0.7	0.4	0.2	44600	1.49	0.8	0.05	0.6	3.74	0.2	0.01
GBM398-4	0.59	3400	0.6	0.4	0.2	38300	0.84	0.6	0.05	0.4	3.51	0.2	0.01
GBM398-4	0.68	3420	0.8	0.4	0.2	47400	1.46	0.7	0.05	0.5	2.87	0.3	0.01
GBM398-4	0.68	3540	0.8	0.4	0.2	48500	1.41	0.7	0.05	0.6	3.34	0.3	0.01
GBM398-4	0.84	3990	0.6	0.3	0.1	39100	1.5	0.8	0.05	0.4	2.8	0.1	0.01
GBM398-4	0.72	3900	0.6	0.3	0.1	40100	1.39	0.7	0.05	0.4	2.74	0.1	0.01
GBM398-4	0.77	4160	0.7	0.4	0.1	44300	1.71	0.7	0.1	0.4	3.02	0.1	0.01
Average	**0.89**	**3844.9**	**0.7**	**0.4**	**0.2**	**44221.05263**	**1.2**	**0.9**	**0.06**	**0.51**	**3.17**	**0.1**	**0.02**
SD	**0.10**	**299.0**	**0.1**	**0.0**	**0.1**	**2528**	**0.3**	**0.9**	**0.03**	**0.05**	**0.24**	**0.1**	**0.01**
RSD	**11%**	**8%**	**11%**	**10%**	**32%**	**6%**	**27%**	**97%**	**44%**	**11%**	**7%**	**40%**	**44%**
RV		3990											
GeoPT	14%	11%	13%	14%	16%	4%	12%	13%	16%	11%		18%	
Abs GeoPT		438.9											
Bias		**96%**											
% <LLD	**0%**	**0%**	**0%**	**0%**	**4%**	**0%**	**0%**	**0%**	**77%**	**0%**	**0%**	**2%**	**44%**
OREAS100-A	1.27	167	15.3	8.4	3.3	45100	8.85	21	0.3	0.4	0.08	3	0.03
OREAS100-A	1.37	156	14	7.5	2.9	41400	6.88	19.6	0.2	0.5	0.08	2.8	0.03
OREAS100-A	1.27	166	13.9	8	2.8	43800	7.9	20.4	0.2	0.5	0.07	2.8	0.03
OREAS100-A	1.2	160	13.3	8	2.8	43300	7.87	20.3	0.2	0.6	0.08	2.7	0.03
OREAS100-A	1.21	160	13.4	7.4	2.8	41700	7.29	18.7	0.2	0.6	0.07	2.6	0.03
OREAS100-A	0.97	167	13.1	7.1	2.7	47000	7.03	18.5	0.2	0.6	0.06	2.6	0.04
OREAS100-A	1.22	163	14.4	7.9	2.8	45100	7.55	21.7	0.2	0.4	0.06	2.9	0.04
OREAS100-A	1.13	166	12.3	6.7	2.4	46400	6.97	16.8	0.1	0.6	0.08	2.4	0.03
OREAS100-A	1.26	169	14.1	7.5	3	44800	8.21	21	0.2	0.5	0.07	2.7	0.03
OREAS100-A	1.18	165	13.4	7.1	2.7	46200	8.09	18.5	0.2	0.6	0.1	2.6	0.03
OREAS100-A	1.25	168	15.8	8.3	3	44800	8.32	21.3	0.2	0.4	0.06	3	0.04
OREAS100-A	1.31	162	15.3	8.2	3	45500	8.8	21.3	0.2	0.4	0.06	3	0.03
OREAS100-A	1.1	163	12.8	6.9	2.3	45200	7.41	18	0.2	0.6	0.09	2.5	0.03
OREAS100-A	0.92	164	14.5	7.9	2.7	43600	7.46	19.3	0.2	0.5	0.09	2.9	0.03
OREAS100-A	1.23	169	18.7	7.3	2.9	44600	8.28	21.2	0.3	0.4	0.07	3.7	0.04
OREAS100-A	1.27	168	15.4	8.5	3.3	44300	8.04	21.3	0.2	0.5	0.09	3.2	0.03
OREAS100-A	1.2	156	13.9	8	2.9	44100	6.99	21	0.2	0.4	0.08	2.8	0.03
OREAS100-A	1.23	165	12.9	7	2.5	44100	7.85	17.7	0.2	0.7	0.07	2.5	0.03
OREAS100-A	1.1	169	15	7.7	2.8	45500	7.86	20.6	0.2	0.5	0.1	2.7	0.03
OREAS100-A	1.16	159	12.9	7	2.4	44900	7.55	14.7	0.2	0.8	0.1	2.5	0.03
OREAS100-A	1.22	164	13.2	7.3	2.6	44200	8.03	15.4	0.2	0.7	0.08	2.6	0.03
OREAS100-A	1.31	165	15	7.8	3	44500	8.57	17.9	0.2	0.5	0.08	2.9	0.02
OREAS100-A	1.37	160	15	8	3.2	45100	8.15	18	0.2	0.5	0.08	2.9	0.04
OREAS100-A	1.29	160	15.4	8.1	3.4	46000	8.49	22.6	0.2	0.5	0.1	3.1	0.03
OREAS100-A	1.23	158	14	7.6	2.7	45300	7.45	18.8	0.2	0.6	0.07	2.8	0.04
OREAS100-A	1.05	156	13	7	2.4	45200	7.44	17.1	0.2	0.6	0.07	2.5	0.03
OREAS100-A	1.14	160	12.9	7.1	2.5	45300	8.04	17.1	0.2	0.5	0.08	2.5	0.03
OREAS100-A	1.23	155	14.4	7.7	3.4	47400	8.57	13.4	0.2	0.6	0.1	2.8	0.04
OREAS100-A	1.17	155	13.9	7.6	3.4	45000	8.53	12.5	0.2	0.6	0.09	2.7	0.03
OREAS100-A	1.17	146	11.8	6.3	2.8	43100	7.68	13.5	0.1	0.5	0.08	2.3	0.02
OREAS100-A	1.16	154	13.8	7.5	3.3	46300	7.73	14.1	0.2	0.6	0.1	2.6	0.03
OREAS100-A	1.26	159	13.9	7.6	3.4	47900	7.51	15.3	0.2	0.6	0.08	2.7	0.03
OREAS100-A	1.31	158	13.9	7.3	3.4	44600	8.53	19.2	0.2	0.6	0.09	2.7	0.03
OREAS100-A	1.12	146	12.5	7.6	3	46600	7.03	17	0.2	0.7	0.08	2.4	0.03
OREAS100-A	1.29	159	14	8.2	2.8	44500	8.14	19.7	0.2	0.5	0.1	2.9	0.04
OREAS100-A	1.15	162	13.5	7.5	1.4	44700	7.22	17	0.2	0.7	0.12	2.6	0.03
OREAS100-A	1.27	160	13.4	8.3	2.5	46500	7.46	18.5	0.2	0.5	0.07	2.6	0.03
OREAS100-A	1.26	150	15.9	6.7	3.1	44000	7.44	17.8	0.2	0.5	0.08	2.5	0.03
OREAS100-A	1.17	166	15.7	6.3	3.3	45000	7.68	16.7	0.2	0.7	0.08	2.4	0.02
OREAS100-A	1.28	177	15.8	7	3.4	46100	7.24	16.2	0.2	0.5	0.08	2.7	0.02

Appendix 18. QC samples analysis by AR

STANDARD	K (ppm)	La (ppm)	Li (ppm)	Lu (ppm)	Mg (ppm)	Mn (ppm)	Mo (ppm)	Na (ppm)	Nb (ppm)	Nd (ppm)	Ni (ppm)	Pb (ppm)	Pr (ppm)	Rb (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	100	0.5	0.1	0.1	100	1	0.01	10	0.1	0.02	0.1	0.01	0.1	0.1
ULD:														
GBM398-4	1200	2.7	3	0.05	1100	5500	884	2670	0.3	2.98	3930	> 10000	0.7	16.5
GBM398-4	900	2.7	3.7	0.05	1200	5840	899	2690	0.4	2.9	4080	> 10000	0.7	17.8
GBM398-4	1200	3	3.7	0.05	1200	5530	883	2220	0.3	3.22	3850	> 10000	0.8	17
GBM398-4	1200	2.5	3.5	0.05	1200	5480	911	2360	0.3	2.92	3970	> 10000	0.7	17.1
GBM398-4	1200	2.5	3.7	0.05	1200	5810	920	2530	0.4	2.38	4220	> 10000	0.6	16.9
GBM398-4	1200	2.9	3.3	0.05	1000	5340	919	2860	0.4	2.77	4060	> 10000	0.7	16.9
GBM398-4	1200	2.8	3	0.05	1100	5550	904	2760	0.5	2.54	4180	> 10000	0.7	17.9
GBM398-4	1200	2.7	3	0.05	1100	5490	904	2640	0.4	2.76	4070	> 10000	0.7	16.7
GBM398-4	1000	3.2	3.2	0.05	900	5520	890	2720	0.4	2.26	4170	> 10000	0.5	16.5
GBM398-4	1200	2.4	3.8	0.05	1100	6470	877	3090	0.4	2.31	3850	> 10000	0.5	16.5
GBM398-4	1200	3.5	3.6	0.05	1200	5740	908	2610	0.3	3.05	4080	> 10000	0.9	18.1
GBM398-4	1200	2.3	2.6	0.05	900	5490	858	2690	0.4	2.13	3860	> 10000	0.5	16.1
GBM398-4	1300	2.4	3.6	0.05	1400	5460	901	2410	0.3	4.43	4120	> 10000	1.1	18
GBM398-4	1300	2.5	2.5	0.05	1200	5380	939	2750	0.3	4.08	4090	> 10000	0.9	18.3
GBM398-4	1200	3.6	3.7	0.05	1200	5650	902	3630	0.3	5.05	3960	> 10000	1.6	16.5
GBM398-4	900	3.3	3.2	0.05	1200	5540	886	2810	0.4	4.27	3870	> 10000	0.8	17.2
GBM398-4	1100	3	2	0.05	1100	5770	899	2740	0.3	2.95	3810	> 10000	0.6	17.7
GBM398-4	1300	3.8	3.7	0.05	900	5340	827	2680	0.4	2.93	4040	> 10000	0.8	21.4
GBM398-4	1100	3.6	3.2	0.05	800	5620	876	2970	0.3	2.75	4020	> 10000	0.7	17
GBM398-4	1000	2.1	3.5	0.05	1000	5560	949	2900	0.3	1.95	3710	> 10000	0.5	17
GBM398-4	1400	4.1	4	0.05	1000	5620	910	2550	0.4	3.65	4020	> 10000	0.9	18.4
GBM398-4	1200	3.8	3.3	0.05	1100	5470	897	3410	0.3	3.37	3940	> 10000	0.8	20.8
GBM398-4	1400	3.8	3.8	0.05	1200	5730	860	3090	0.3	2.96	3650	> 10000	0.7	17
GBM398-4	1100	3.7	3.1	0.05	1100	5580	899	2960	0.4	3.74	3940	> 10000	0.9	19.8
GBM398-4	1100	2.8	3.8	0.05	1300	5640	892	2920	0.4	2.69	3950	> 10000	0.5	16.5
GBM398-4	900	2.1	2.5	0.05	1100	4510	909	2210	0.4	2.76	4130	> 10000	0.6	15.6
GBM398-4	1100	2.4	2.7	0.05	1100	5460	876	2210	0.4	2.88	3870	> 10000	0.7	17.6
GBM398-4	1300	2.5	2.7	0.05	1100	5320	888	2650	0.5	3.31	3960	> 10000	0.7	18.6
GBM398-4	1200	2.4	3.7	0.05	1000	5010	930	2710	0.3	2.58	4190	9890	0.6	14.6
GBM398-4	1300	2.7	4.1	0.05	1000	5500	919	2910	0.3	2.6	3990	> 10000	0.6	16.6
GBM398-4	1100	2.6	4	0.05	1000	5250	937	2770	0.3	2.74	4200	> 10000	0.6	14.4
GBM398-4	900	1.9	3.1	0.05	900	4150	867	2190	0.4	2.29	3890	> 10000	0.5	9.6
GBM398-4	1200	2.3	3.7	0.05	1000	5230	934	2590	0.4	2.73	3970	> 10000	0.6	14.5
GBM398-4	1200	2.5	3.7	0.05	1000	5500	887	2580	0.4	2.52	3970	> 10000	0.6	13.9
GBM398-4	1000	1.9	3.4	0.05	1000	4050	851	2200	0.4	2.37	3680	> 10000	0.5	14
GBM398-4	900	1.7	3.4	0.05	1000	4140	882	2000	0.4	2.28	3620	> 10000	0.5	12.8
GBM398-4	1100	2	3.7	0.05	1100	4850	882	2170	0.4	2.42	3880	> 10000	0.5	15.5
Average	**1165**	**2.8**	**3.3**	**0.05**	**1111**	**5447**	**898.56**	**2649**	**0.4**	**3.0**	**3993.3**	**9890.0**	**0.7**	**16.8**
SD	**120**	**0.5**	**0.4**	**0.00**	**116**	**406**	**24.91**	**282**	**0.1**	**0.6**	**142.5**	**#DIV/0!**	**0.2**	**1.8**
RSD	**10%**	**19%**	**13%**	**0%**	**10%**	**7%**	**3%**	**11%**	**16%**	**19%**	**4%**	**#DIV/0!**	**24%**	**11%**
RV											4071	11714		
GeoPT	4%	10%		18%	3%	6%	15%	4%	12%	10%	9%	11%	12%	9%
Abs GeoPT											366.39	1288.54		
Bias											**98%**	**84%**		
% <LLD	**0%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
OREAS100-A	6800	252	8.4	1.2	5300	548	23.7	470	2.5	147	10.4	12.8	46.9	57.7
OREAS100-A	6900	225	7	1.1	4500	485	21.5	420	2.9	141	7.9	11.8	44.4	50.8
OREAS100-A	7200	215	7.4	1	4900	517	22.2	390	2.3	128	9.6	11.9	39.1	54.9
OREAS100-A	6100	209	7.4	1.1	4500	496	22.2	440	2.4	133	9	12.8	38.5	49.2
OREAS100-A	5900	211	8.1	1	4500	495	21.2	430	2.5	128	8.5	11.8	38	50.2
OREAS100-A	6100	245	7.7	1	4300	548	21.8	440	2.3	137	11	12.2	42.8	43.8
OREAS100-A	6000	260	7.7	1	4100	521	21.8	450	2.2	146	9.9	12.5	46.8	53.6
OREAS100-A	5900	175	7.8	0.9	4300	532	20.3	450	2.2	105	10.3	12.8	32.2	52.7
OREAS100-A	6600	259	7.7	1	4100	537	21.3	430	2.4	140	10.8	12.5	44.9	51.8
OREAS100-A	6300	229	8	1	4000	538	22.4	420	2.2	130	10.9	12.3	41.5	52.1
OREAS100-A	6900	252	7.8	1.2	5200	526	21.3	400	2.2	131	10.4	12.4	41.8	52.9
OREAS100-A	7500	264	8.1	1	4500	556	21.7	450	2.4	139	9.4	12.5	43.6	53.3
OREAS100-A	6500	176	6.9	0.9	4400	511	19.9	450	1.9	107	8.5	12.1	32	52.4
OREAS100-A	5900	232	7.2	1.6	5000	525	21.6	470	2.2	102	9.5	12.7	36.6	49.8
OREAS100-A	7200	239	7.9	1.2	4400	524	22.2	480	2.7	147	8.6	12.5	43.9	52.9
OREAS100-A	7500	247	8.2	1	4500	537	22.7	450	2.4	146	9.9	12.7	44.9	52.5
OREAS100-A	6800	234	7.3	1	4500	499	22.4	410	2.2	144	9	12.7	45.4	50.6
OREAS100-A	7000	228	7	0.9	4400	482	22.3	440	2.3	140	9	12.4	43	49.5
OREAS100-A	6000	234	7.8	1.1	4400	507	21.9	450	1.8	119	9.1	13	38.1	52.7
OREAS100-A	6100	183	7.6	0.9	4400	534	20.8	480	2.2	108	9	12.2	32.2	45.6
OREAS100-A	6100	203	7.9	1	4200	543	20.7	470	2.1	115	8.7	11.7	35.3	49.7
OREAS100-A	7300	252	8.1	1	5000	530	21.5	460	2.2	134	9.6	12.4	43.1	54.9
OREAS100-A	6300	259	7.4	1.1	5200	525	21.7	450	2	143	9.1	12.9	46.8	55
OREAS100-A	7300	261	7.4	1	5100	560	21.7	460	2.3	138	9.5	12.7	43.8	53.7
OREAS100-A	6200	254	8.4	1	5000	494	21.3	430	2.1	141	8	12.2	44.8	53.4
OREAS100-A	4900	202	7.3	0.9	4500	500	20.3	390	2.5	120	7.5	11.9	36.7	53.4
OREAS100-A	6500	212	8.5	0.9	4800	518	21.2	510	2.4	123	9.3	12.5	37.2	49
OREAS100-A	7300	231	7.9	1.2	4700	460	21.6	400	2.3	103	8.3	12.5	38.5	57.1
OREAS100-A	6800	230	7.1	1.2	4600	507	21.8	400	2.2	106	8.5	12.2	38	52.5
OREAS100-A	5500	234	7.7	0.9	4500	515	21	310	2.4	102	8.6	9.42	38.5	47.7
OREAS100-A	6600	249	6.9	1.1	5300	490	22	400	2.3	113	8.9	11.5	40.3	52.8
OREAS100-A	6600	246	7.7	1.1	5600	513	23.4	400	2.3	119	8.7	12.2	42.9	56.1
OREAS100-A	6600	227	7.9	1	4500	470	21.8	360	2.2	87.9	8.4	10.1	33	55.5
OREAS100-A	5700	260	7.7	0.9	4500	452	21.1	340	2.9	96.3	7.2	9.67	28.5	49.8
OREAS100-A	6100	245	6.7	1.1	5500	431	21.1	340	2.2	88.7	8.9	9.58	35.8	58.2
OREAS100-A	5200	232	7.1	1.1	4500	519	21.6	460	2.2	101	7.6	13.3	30.4	52
OREAS100-A	6900	226	6	1.1	5500	510	21.9	430	2.5	84.4	7	9.19	33.8	57.4
OREAS100-A	7300	248	6.7	1	4800	515	21	450	2.5	135	10.2	10.4	46.7	52.5
OREAS100-A	6800	106	7.4	0.8	5000	508	21.2	390	2.7	132	11.8	9.55	45	54.7
OREAS100-A	6900	228	8.3	0.8	4300	492	22.3	460	2.2	137	9.2	12.4	44.2	55.7

Appendix 18. QC samples analysis by AR

STANDARD	Re (ppm)	Sb (ppm)	Sc (ppm)	Se (ppm)	Sm (ppm)	Sn (ppm)	Sr (ppm)	Ta (ppm)	Tb (ppm)	Te (ppm)	Th (ppm)	Tl (ppm)	Tm (ppm)	U (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.001	0.02	0.1	0.1	0.1	0.05	0.5	0.05	0.1	0.02	0.1	0.02	0.1	0.1
ULD:							1000							
GBM398-4	0.003	6.58	2	2.9	0.7	5.1	16.9	0.025	0.1	0.35	0.9	0.2	0.05	0.7
GBM398-4	0.001	6.73	2.1	3.1	0.7	5.31	17.7	0.025	0.1	0.38	1	0.18	0.05	0.7
GBM398-4	0.004	6.82	2.1	3.1	0.8	5.34	16.6	0.025	0.05	0.41	0.8	0.19	0.05	0.7
GBM398-4	0.002	6.61	1.6	2.7	0.8	5.03	16.1	0.025	0.05	0.38	0.9	0.15	0.05	0.6
GBM398-4	0.003	6.51	2	2.9	0.7	5.19	16.3	0.025	0.05	0.36	0.9	0.19	0.05	0.6
GBM398-4	0.002	6.81	1.9	2.9	0.7	5.01	14.3	0.025	0.05	0.4	1	0.19	0.05	0.8
GBM398-4	0.004	6.49	1.9	2.8	0.7	5.46	17.2	0.025	0.05	0.39	0.9	0.19	0.05	0.7
GBM398-4	0.002	6.81	2.2	2.7	0.7	5.41	15.9	0.025	0.1	0.43	0.8	0.18	0.05	0.6
GBM398-4	0.002	6.6	1.4	3.1	0.7	4.54	16.8	0.025	0.1	0.56	1	0.18	0.05	0.7
GBM398-4	0.002	6.32	2.4	3.7	0.7	5.22	17.5	0.025	0.05	0.32	0.8	0.18	0.05	0.7
GBM398-4	0.003	6.64	2.1	3.6	1.1	5.4	17.1	0.025	0.1	0.4	0.9	0.21	0.05	0.7
GBM398-4	0.002	6.65	1.9	3	0.6	5.46	15.5	0.025	0.05	0.37	0.8	0.17	0.05	0.7
GBM398-4	0.004	6.1	2	3.4	1.3	5.14	15	0.025	0.1	0.41	0.9	0.17	0.05	0.7
GBM398-4	0.001	6.81	1.9	2.3	1.1	5.38	15	0.025	0.1	0.39	0.9	0.17	0.05	0.7
GBM398-4	0.003	7.23	2.1	3	1.3	5.08	16.7	0.025	0.1	0.39	1.1	0.18	0.05	0.7
GBM398-4	0.004	6.38	2	2.8	1.1	4.76	16.1	0.025	0.1	0.35	0.9	0.17	0.05	0.7
GBM398-4	0.009	6.54	2	3.3	0.9	5.22	16.2	0.025	0.1	0.42	1	0.18	0.05	0.7
GBM398-4	0.002	6.6	2.2	3.2	1	5.63	16.3	0.025	0.1	0.43	1.1	0.22	0.05	0.8
GBM398-4	0.002	6.54	2.4	2.4	0.7	5.54	12.7	0.025	0.05	0.42	0.8	0.17	0.05	0.6
GBM398-4	0.0005	5.96	1.7	2.9	0.6	5.13	14.1	0.025	0.05	0.43	0.7	0.14	0.05	0.7
GBM398-4	0.002	6.6	2	2.7	1	5.62	16.2	0.025	0.1	0.42	1	0.19	0.05	0.7
GBM398-4	0.003	6.67	3.1	2.5	0.9	5.68	14.1	0.025	0.2	0.35	1	0.18	0.05	0.8
GBM398-4	0.001	6.65	2	2.8	0.8	5.74	14	0.025	0.1	0.42	0.9	0.2	0.05	0.7
GBM398-4	0.001	6.41	1.7	3	1	5.41	16.2	0.025	0.1	0.36	1	0.18	0.05	0.8
GBM398-4	0.001	6.56	2.2	3	0.7	5.68	15.6	0.025	0.1	0.43	0.8	0.18	0.05	0.7
GBM398-4	0.003	6.5	1.7	3.3	0.7	4.81	16.4	0.025	0.1	0.4	0.8	0.17	0.05	0.6
GBM398-4	0.003	7.17	1.7	3.6	0.8	5.39	18.5	0.025	0.1	0.36	0.9	0.18	0.05	0.7
GBM398-4	0.003	7.49	1.9	2.3	0.8	5.47	15.4	0.025	0.1	0.37	0.9	0.2	0.05	0.7
GBM398-4	0.002	8.13	1.2	2.8	0.7	4.9	17.2	0.025	0.1	0.42	0.9	0.14	0.05	0.5
GBM398-4	0.003	8.74	1.2	2.5	0.7	5.4	18.9	0.025	0.1	0.46	1.1	0.18	0.05	0.6
GBM398-4	0.002	8.38	1.1	2.9	0.8	5.2	15.2	0.025	0.1	0.5	1.1	0.17	0.05	0.6
GBM398-4	0.0005	7.53	1.4	2.1	0.7	4.13	6.9	0.025	0.1	0.41	1	0.11	0.1	0.5
GBM398-4	0.003	8.75	0.9	3.2	0.7	5.13	17	0.025	0.1	0.37	0.9	0.14	0.1	0.5
GBM398-4	0.0005	9	1.1	3	0.7	5.53	14.8	0.025	0.2	0.45	1.1	0.16	0.05	0.7
GBM398-4	0.002	5.65	1.7	2.5	0.6	3.17	11.8	0.025	0.05	0.29	0.9	0.16	0.05	0.6
GBM398-4	0.002	5.59	1.7	2.6	0.6	3.22	10.3	0.025	0.05	0.29	0.8	0.15	0.05	0.6
GBM398-4	0.003	6.2	1.8	2.4	0.6	3.7	12.3	0.025	0.05	0.31	0.9	0.17	0.05	0.7
Average	**0.0026**	**6.75**	**1.9**	**2.9**	**0.8**	**5.13**	**15.6**	**0.025**	**0.1**	**0.40**	**0.9**	**0.18**	**0.05**	**0.7**
SD	**0.0016**	**0.68**	**0.4**	**0.4**	**0.2**	**0.51**	**1.9**	**0.000**	**0.0**	**0.05**	**0.1**	**0.02**	**0.01**	**0.1**
RSD	**61%**	**10%**	**19%**	**13%**	**20%**	**10%**	**12%**	**0%**	**36%**	**12%**	**11%**	**11%**	**18%**	**10%**
RV														
GeoPT		17%	12%		12%		7%	16%	17%		12%			14%
Abs GeoPT														
Bias														
% <LLD	**12%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**32%**	**0%**	**0%**	**0%**	**96%**	**0%**
OREAS100-A	0.078	1.01	3.5	3.9	23.1	4.09	18.2	0.025	2.4	0.05	48.5	0.22	1.3	131
OREAS100-A	0.088	0.97	3.4	2.7	22.7	3.56	16.7	0.025	2.3	0.01	48.2	0.22	1.1	128
OREAS100-A	0.088	0.91	3.4	3.5	21.9	3.76	17.5	0.025	2.3	0.07	43.5	0.25	1.2	129
OREAS100-A	0.083	0.94	3.2	3.6	24.5	3.77	17.5	0.025	2.4	0.03	48.1	0.19	1.3	129
OREAS100-A	0.076	0.89	3.3	2.9	21.3	3.69	16.7	0.025	2.2	0.05	45.6	0.21	1.1	127
OREAS100-A	0.088	0.93	3.4	4.3	22.4	3.7	19.1	0.025	2.1	0.01	51.3	0.19	1.1	140
OREAS100-A	0.077	0.96	3.6	4.5	23.1	3.87	18.2	0.025	2.4	0.03	50.7	0.21	1.2	129
OREAS100-A	0.077	0.89	3.3	3.1	20.1	3.5	18.6	0.025	2.1	0.04	47.3	0.15	1.1	129
OREAS100-A	0.074	1.03	3.4	3.4	23.3	3.46	18.9	0.025	2.4	0.03	50.4	0.22	1.2	127
OREAS100-A	0.081	1	3.5	4.7	21.8	3.77	18.7	0.025	2.3	0.04	49.9	0.19	1.1	133
OREAS100-A	0.103	0.79	3.6	3.8	20.7	3.69	16.1	0.025	2.3	0.04	48	0.23	1.3	132
OREAS100-A	0.09	0.8	3.5	3.6	21.1	3.9	17.9	0.025	2.4	0.1	48.2	0.22	1.3	127
OREAS100-A	0.076	0.89	2.9	3.6	18.5	3.36	18.5	0.025	2.2	0.05	47.9	0.19	1.1	130
OREAS100-A	0.098	0.81	3.4	3.9	19.6	3.58	17.8	0.025	2.2	0.01	48.8	0.18	1.2	133
OREAS100-A	0.08	0.95	3.6	3.7	22.9	3.73	17.2	0.025	3.2	0.06	50.4	0.23	1.2	127
OREAS100-A	0.08	0.92	3.6	4.1	22.7	4.09	17.8	0.025	2.5	0.05	47.6	0.25	1.2	134
OREAS100-A	0.078	0.79	3.6	3.7	22.1	3.53	16.8	0.025	2.3	0.05	47.4	0.23	1.1	127
OREAS100-A	0.091	0.93	3.4	3.6	21.8	3.5	17.7	0.025	2.1	0.05	47.1	0.22	1	126
OREAS100-A	0.083	0.9	3.7	3.7	20.4	3.76	17.6	0.025	2.3	0.07	50.4	0.2	1.1	130
OREAS100-A	0.068	1.1	3.6	3.6	18.5	3.73	18	0.025	2	0.06	44.7	0.16	1.1	133
OREAS100-A	0.075	0.84	3.6	3.5	18.8	3.49	18.4	0.025	2	0.07	46.4	0.19	1.1	131
OREAS100-A	0.08	0.84	3.5	3.7	21.3	3.78	18.7	0.025	2.3	0.06	49	0.22	1.2	134
OREAS100-A	0.076	0.84	3.5	3.5	22.7	3.86	17.8	0.025	2.6	0.08	48.8	0.26	1.2	134
OREAS100-A	0.08	0.83	4.3	3.7	21.7	3.65	16.7	0.025	2.5	0.01	48.1	0.24	1.3	132
OREAS100-A	0.083	0.95	3.4	3.7	22	3.69	18.3	0.025	2.2	0.04	48.1	0.19	1.1	131
OREAS100-A	0.082	0.88	3.2	4.2	19.4	3.45	17.6	0.025	2	0.08	47.7	0.22	1.1	131
OREAS100-A	0.076	0.97	3.2	3.5	20.4	3.7	19.1	0.025	2	0.03	48.4	0.21	1.1	123
OREAS100-A	0.077	1.25	3.5	3	18.7	3.99	18.3	0.025	2.8	0.03	49	0.28	1.2	129
OREAS100-A	0.073	1.03	3.7	3.4	18	3.72	16.9	0.025	2.6	0.05	48.2	0.26	1.1	128
OREAS100-A	0.067	0.84	3	3.5	18.4	3.34	17.3	0.025	2.1	0.04	46.3	0.22	1	126
OREAS100-A	0.076	0.98	3.5	3	19.4	4.16	16.6	0.025	2.7	0.01	49.5	0.23	1.1	133
OREAS100-A	0.078	1.01	3.8	3.2	21.4	3.98	18.4	0.025	2.7	0.06	50.3	0.22	1.2	134
OREAS100-A	0.076	0.89	3.9	2.5	22.7	3.81	18.2	0.025	2.6	0.05	46.3	0.24	1.1	129
OREAS100-A	0.09	0.89	3.3	3.2	21.6	3.42	16.1	0.025	2.4	0.09	52	0.21	1.3	130
OREAS100-A	0.079	1.02	3.9	3.6	19.5	4.2	17.2	0.025	2.6	0.05	49.1	0.27	1.2	128
OREAS100-A	0.075	0.87	3.5	2.8	17.6	3.43	17.8	0.025	2.4	0.05	47.7	0.2	1.3	132
OREAS100-A	0.079	0.96	3.5	3.2	18.3	3.74	17.5	0.025	2.6	0.03	49.3	0.24	1.2	131
OREAS100-A	0.08	0.88	3.5	3.4	22.8	3.49	16.3	0.025	2.3	0.04	46.5	0.19	1	128
OREAS100-A	0.079	0.91	3	3.4	21.6	2.74	18.4	0.025	2.6	0.05	46.3	0.1	0.9	129
OREAS100-A	0.047	0.85	3.1	3.8	19.3	3.36	18.7	0.025	3.1	0.06	50.9	0.23	1.1	134

Appendix 18. QC samples analysis by AR

STANDARD	V (ppm)	W (ppm)	Y (ppm)	Yb (ppm)	Zn (ppm)	Zr (ppm)
METHOD:	AR	AR	AR	AR	AR	AR
LLD:	1	0.1	0.01	0.1	0.1	0.1
ULD:		200				
GBM398-4	23	2.8	3.95	0.3	4880	24.5
GBM398-4	24	2.9	4.64	0.3	4960	26.4
GBM398-4	21	3	3.84	0.3	4740	28.1
GBM398-4	23	3	3.49	0.3	4830	22.1
GBM398-4	25	2.8	4.36	0.3	5190	23.7
GBM398-4	26	2.9	4.69	0.3	5220	22.8
GBM398-4	23	3	4.27	0.3	5120	23.6
GBM398-4	23	2.8	4.17	0.4	4870	27
GBM398-4	23	2.9	4.14	0.3	4780	23.3
GBM398-4	25	3	3.91	0.4	4750	24.4
GBM398-4	25	3	4.41	0.4	5450	23.4
GBM398-4	23	2.9	3.91	0.3	4480	24
GBM398-4	27	3	4.56	0.3	5000	25.4
GBM398-4	24	2.8	4.63	0.4	5230	23.6
GBM398-4	24	2.8	4.3	0.3	5100	24.7
GBM398-4	21	3	4.13	0.3	4790	24.9
GBM398-4	22	3	4.19	0.3	4700	23.1
GBM398-4	23	2.9	4.15	0.3	5150	22.7
GBM398-4	24	2.2	4.32	0.3	4990	22.8
GBM398-4	19	2.5	3.94	0.3	4600	23.7
GBM398-4	20	3.1	4.26	0.4	4640	27.1
GBM398-4	24	2.8	4.18	0.4	5170	24.2
GBM398-4	24	2.7	4.42	0.3	4290	24.4
GBM398-4	25	2.8	5.18	0.4	5060	25.6
GBM398-4	23	3.1	4.14	0.3	5210	21.1
GBM398-4	193	3.2	3.27	0.3	3800	19.3
GBM398-4	107	3.5	3.96	0.3	4220	21.3
GBM398-4	136	3.1	3.05	0.3	3760	25.3
GBM398-4	141	2.8	5.16	0.3	3340	23.7
GBM398-4	164	3	5.27	0.3	3530	22.4
GBM398-4	157	3.2	4.49	0.3	3500	21.8
GBM398-4	158	2.9	2.81	0.3	3170	18.8
GBM398-4	141	2.9	5.63	0.3	3450	23.9
GBM398-4	137	3.5	5.17	0.3	3510	22.9
GBM398-4	205	2.9	2.73	0.3	3880	18.8
GBM398-4	180	3.1	2.85	0.3	3730	18.4
GBM398-4	193	3.2	3.25	0.3	4230	20.2
Average	**52**	**2.95**	**4.2**	**0.3**	**4665.4**	**23.7**
SD	**57**	**0.21**	**0.6**	**0.0**	**577.8**	**2.1**
RSD	**110%**	**7%**	**14%**	**15%**	**12%**	**9%**
RV					5117	
GeoPT	9%	15%	10%	14%	9%	7%
Abs GeoPT					460.53	
Bias					**91%**	
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
OREAS100-A	25	5.1	75.9	7.9	25.3	23
OREAS100-A	23	5.2	77.4	7.3	23.7	25.1
OREAS100-A	24	4.7	82.5	7.3	22.7	24.4
OREAS100-A	24	5.1	73	7.6	25.5	26.4
OREAS100-A	23	5.3	79.4	6.8	23.8	26
OREAS100-A	26	5.3	87.1	7	27.7	27.4
OREAS100-A	24	5	80.8	7.6	18	22.4
OREAS100-A	22	5.4	74.5	6.4	24	27.8
OREAS100-A	23	5.6	80.6	7.5	21.6	25.8
OREAS100-A	23	5.2	80.3	7	22.3	28.8
OREAS100-A	24	5	83.6	7.9	34.1	22.2
OREAS100-A	24	4.9	78.6	7.4	21.3	22.6
OREAS100-A	23	5	74.4	6.4	17.5	26
OREAS100-A	22	4.9	76.6	6.9	21.6	24.2
OREAS100-A	24	5.3	83.5	7.4	22	22.5
OREAS100-A	23	4.9	80.2	7.6	20.2	24
OREAS100-A	22	4.9	76.8	7.3	23.4	19.9
OREAS100-A	23	5.2	79.3	6.9	22.5	25.7
OREAS100-A	23	5.4	79.9	7	20.3	24.8
OREAS100-A	23	5.3	76.9	6.8	19.3	25.6
OREAS100-A	22	5.1	77.7	6.8	22.7	25.9
OREAS100-A	24	4.9	83.8	7.4	20.2	23.8
OREAS100-A	24	4.7	81.8	7.7	23	23.2
OREAS100-A	25	5	83.6	7.7	20.4	23.2
OREAS100-A	20	5.2	70.9	7.2	25.3	25.6
OREAS100-A	20	5.3	67.5	6.6	24.1	26.4
OREAS100-A	23	5.2	66.6	6.4	21.3	24.6
OREAS100-A	25	4.7	84.3	8.5	27.1	28.3
OREAS100-A	25	4.8	81.3	8.3	22.4	26.8
OREAS100-A	21	4.7	77.7	6.9	19.4	23.6
OREAS100-A	23	4.9	80.4	8.1	23.5	28.8
OREAS100-A	23	4.8	83.4	8.3	23.6	24.1
OREAS100-A	25	4.4	73.4	8	17.9	28.1
OREAS100-A	22	4.9	77.6	7.3	20.7	27.7
OREAS100-A	23	4.8	74.2	7.9	25.4	25.3
OREAS100-A	22	5.4	73.4	7.4	22.1	27
OREAS100-A	23	5.2	81	7.4	20.6	24.7
OREAS100-A	22	4.4	63.1	7.4	24.1	25.5
OREAS100-A	21	5.5	65.6	5.8	22.5	30.3
OREAS100-A	25	5.2	83.9	6.3	14.4	28.9

Appendix 18. QC samples analysis by AR

STANDARD	NUMBER	BATCH	Ag (ppm)	Al (ppm)	As (ppm)	B (ppm)	Ba (ppm)	Be (ppm)	Bi (ppm)	Ca (ppm)	Cd (ppm)	Ce (ppm)	Co (ppm)	Cr (ppm)
METHOD:		NO	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:			0.002	100	0.1	1	0.5	0.1	0.02	100	0.01	0.01	0.1	0.5
ULD:				100000										
OREAS100-A	3354	A09-035	0.12	14300	12.4	0.5	89.9	2.8	0.39	13400	0.15	402	16.7	34.8
OREAS100-A	3356	A09-035	0.105	14100	12.3	0.5	89.4	2.3	0.43	13400	0.14	428	16.3	39.5
OREAS100-A	3748	A09-336	0.127	16100	10.2	0.5	82.3	2.9	0.4	13000	0.16	313	12	30.8
OREAS100-A	3750	A09-336	0.114	14300	12.4	0.5	93.4	2.8	0.44	13000	0.16	339	11	33.2
OREAS100-A	3752	A09-336	0.135	13400	9	0.5	71.2	3.1	0.45	14100	0.18	320	12.4	31.4
OREAS100-A	3754	A09-336	0.107	17100	9.9	0.5	85.6	3	0.43	13700	0.14	345	12.6	30.8
OREAS100-A	3756	A09-336	0.114	16800	13.2	0.5	81.7	3.1	0.4	14200	0.15	369	12.4	37.3
OREAS100-A	4135	A09-337	0.123	17500	10.3	0.5	80.5	2.1	0.45	14500	0.17	326	12.2	38.2
OREAS100-A	4137	A09-337	0.118	10600	9.7	0.5	65.3	2.1	0.45	12700	0.11	331	10.6	35.6
OREAS100-A	4139	A09-337	0.12	15500	11.1	0.5	83.1	1.8	0.44	14200	0.16	346	10	25.5
OREAS100-A	4141	A09-337	0.124	15000	10.9	0.5	81.9	1.9	0.43	14600	0.16	354	10.3	37.8
OREAS100-A	4143	A09-337	0.115	14700	12.5	0.5	82.9	1.3	0.38	12200	0.14	332	12.5	29.6
OREAS100-A	4259	A09-338	0.114	15400	10.9	0.5	71.2	2.5	0.43	13400	0.15	341	8.9	35.9
OREAS100-A	4261	A09-338	0.125	15300	10.9	0.5	81.1	2.6	0.49	13800	0.14	327	10.6	29.4
OREAS100-A	5050	A09-491	0.15	15000	12.3	0.5	86.6	2.6	0.41	13300	0.2	371	14.5	33.5
OREAS100-A	5052	A09-491	0.161	15000	11.8	1	84.2	2.9	0.41	15200	0.19	374	14.8	34.8
OREAS100-A	5054	A09-491	0.153	15900	9.6	0.5	90.3	2.6	0.49	11900	0.16	435	10.9	36.7
OREAS100-A	5305	A09-492	0.153	17600	15	1	82	3.1	0.36	15700	0.23	388	15.7	39.2
OREAS100-A	5307	A09-492	0.176	16200	14.8	1	80.6	3.1	0.39	14700	0.24	376	15.3	37.8
OREAS100-A	5309	A09-492	0.189	13500	12.6	0.5	80	2.6	0.4	14100	0.34	363	13.8	37.6
OREAS100-A	5842	A10-001	0.198	13700	12.8	0.5	80.6	2.3	0.39	13100	0.3	305	12.2	43.3
OREAS100-A	5844	A10-001	0.155	13800	11.4	0.5	81.6	2.7	0.38	11000	0.2	342	11.7	40.3
OREAS100-A	5846	A10-001	0.153	16000	11.8	0.5	81.5	2.5	0.38	11500	0.26	383	11.8	36.6
OREAS100-A	5848	A10-001	0.16	11000	9.4	0.5	76.7	2	0.4	10800	0.24	244	10.9	35.5
OREAS100-A	6149	A10-002	0.135	20700	13.2	0.5	76.7	4.6	0.36	14400	0.2	376	15.8	37.8
OREAS100-A	6151	A10-002	0.116	16300	12.7	0.5	69.3	3.4	0.35	14300	0.29	332	14.6	36.8
OREAS100-A	6153	A10-002	0.108	15300	10.4	0.5	68.1	3.2	0.37	12500	0.17	291	12.9	33.4
OREAS100-A	6155	A10-002	0.141	14600	11.2	0.5	71.1	3.4	0.41	13400	0.21	291	13.7	36.4
Average			**0.124**	**14729.41176**	**11.9**	**0.5**	**83.2**	**2.9**	**0.43**	**13471**	**0.16**	**383.65**	**13.5**	**35.8**
SD			**0.022**	**1584**	**1.4**	**0.1**	**6.3**	**0.5**	**0.03**	**983**	**0.05**	**54.69**	**1.7**	**3.2**
RSD			**18%**	**11%**	**11%**	**22%**	**8%**	**16%**	**7%**	**7%**	**28%**	**14%**	**13%**	**9%**
RV												463	18.1	
GeoPT				3%	12%		7%	16%	22%	3%		9%	12%	8%
Abs GeoPT												41.67	2.172	
Bias												**83%**	**74%**	
% <LLD			**0%**	**0%**	**0%**	**94%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
OREAS45-P	391	A09-022	0.287	32800	4.4	2	207	0.9	0.18	3100	0.1	43.3	122	1080
OREAS45-P	393	A09-022	0.298	32800	4.2	2	189	0.9	0.18	3100	0.1	49.3	117	1020
OREAS45-P	395	A09-022	0.313	33700	4.2	2	196	0.8	0.18	3000	0.1	39.5	121	1000
OREAS45-P	397	A09-022	0.291	32600	4.1	2	198	0.8	0.19	3100	0.09	45.8	110	1010
OREAS45-P	399	A09-022	0.287	33400	4.3	2	189	0.8	0.18	3000	0.09	41.5	114	1020
OREAS45-P	794	A09-025	0.307	32500	3.7	2	206	0.9	0.18	3100	0.1	47.2	120	1060
OREAS45-P	796	A09-025	0.295	32000	3.5	2	192	0.9	0.19	3000	0.09	44.5	106	1050
OREAS45-P	798	A09-025	0.311	32500	4.1	2	193	0.8	0.18	2800	0.1	44.5	111	1050
OREAS45-P	800	A09-025	0.303	32900	4	2	199	0.8	0.19	3100	0.08	45	107	989
OREAS45-P	1118	A09-026	0.285	31500	2.7	1	187	0.9	0.16	2800	0.07	37.5	115	992
OREAS45-P	1120	A09-026	0.218	31700	3.8	2	179	0.8	0.18	3000	0.06	37.9	112	965
OREAS45-P	1122	A09-026	0.319	33100	3.7	2	198	1	0.18	3000	0.1	40.9	109	1020
OREAS45-P	1124	A09-026	0.319	32700	4.2	2	181	0.7	0.16	3100	0.13	39.8	111	1010
OREAS45-P	1558	A09-027	0.298	32500	3.9	1	198	0.8	0.18	3100	0.09	41.8	105	1020
OREAS45-P	1560	A09-027	0.297	32600	3.6	2	200	0.8	0.19	3000	0.09	41.7	116	1040
OREAS45-P	1562	A09-027	0.294	31000	4.1	2	187	0.8	0.17	3000	0.09	41.5	113	1020
OREAS45-P	1564	A09-027	0.318	31900	4	2	200	0.9	0.18	3000	0.1	48.2	111	1010
OREAS45-P	1566	A09-027	0.29	31500	3.8	2	195	0.9	0.17	3000	0.1	44.2	117	978
OREAS45-P	1959	A09-030	0.289	32400	4.4	1	183	0.8	0.16	3000	0.09	36.5	104	1040
OREAS45-P	1961	A09-030	0.304	33600	4	2	185	0.8	0.17	3100	0.08	36.9	111	1090
OREAS45-P	1963	A09-030	0.299	33300	3.9	2	197	0.8	0.19	3000	0.07	41.8	119	1030
OREAS45-P	1965	A09-030	0.312	34000	4.2	2	195	0.8	0.18	3000	0.11	42.7	116	1010
OREAS45-P	1967	A09-030	0.293	32200	4.1	2	188	0.8	0.18	3000	0.08	38.9	111	961
OREAS45-P	2161	A09-032	0.302	33400	4.4	2	194	0.8	0.17	3100	0.09	42.3	108	1050
OREAS45-P	2163	A09-032	0.29	31100	4.5	2	185	0.8	0.16	2900	0.1	39.8	102	1040
OREAS45-P	2165	A09-032	0.296	34500	3.7	2	180	0.7	0.18	3000	0.06	40.8	112	978
OREAS45-P	2531	A09-033	0.302	36300	3.5	2	200	0.9	0.18	3100	0.1	38.7	110	1170
OREAS45-P	2533	A09-033	0.28	32900	3.8	2	177	0.8	0.18	3000	0.07	37.5	106	1110
OREAS45-P	2535	A09-033	0.293	34600	4.2	2	183	0.9	0.17	3000	0.1	48.7	109	1020
OREAS45-P	2537	A09-033	0.313	33200	3.6	1	189	0.7	0.18	3000	0.09	41.6	107	1050
OREAS45-P	2539	A09-033	0.293	33200	4	2	194	0.7	0.17	3000	0.11	43.2	105	1030
OREAS45-P	2930	A09-034	0.324	30300	4.1	1	193	0.9	0.19	3100	0.11	33.6	109	1110
OREAS45-P	2932	A09-034	0.321	34000	4.7	2	194	0.6	0.19	2900	0.09	37.5	109	1070
OREAS45-P	2934	A09-034	0.263	34100	4.2	2	191	0.8	0.19	3000	0.1	34.5	108	988
OREAS45-P	2936	A09-034	0.296	31900	4.1	2	180	0.6	0.17	3000	0.11	35.6	105	986
OREAS45-P	2938	A09-034	0.297	30500	4.4	2	205	0.9	0.18	3000	0.09	36	104	908
OREAS45-P	3330	A09-035	0.304	32000	4.2	2	181	1.1	0.18	2800	0.11	32.1	109	1040
OREAS45-P	3332	A09-035	0.294	31200	4.1	1	175	0.8	0.17	3100	0.96	34.5	105	1020
OREAS45-P	3334	A09-035	0.302	31400	4.4	2	205	0.6	0.18	3000	0.09	33.8	106	974
OREAS45-P	3336	A09-035	0.298	31500	4.5	2	183	0.8	0.17	2900	0.09	33.5	109	999
OREAS45-P	3338	A09-035	0.304	33700	4.2	1	195	0.9	0.17	3000	0.1	33.8	108	912
OREAS45-P	3730	A09-336	0.286	31300	4.3	1	200	0.8	0.17	3000	0.09	31.5	103	988
OREAS45-P	3732	A09-336	0.316	30600	5.3	2	195	0.7	0.18	2900	0.11	36.3	106	999
OREAS45-P	3734	A09-336	0.271	29800	4	2	196	0.7	0.19	3000	0.07	39.7	109	958
OREAS45-P	3736	A09-336	0.313	30500	4.7	2	199	0.8	0.16	2900	0.11	38.5	107	953
OREAS45-P	3738	A09-336	0.303	33100	4.4	2	194	0.8	0.19	3100	0.1	36.1	109	1010
OREAS45-P	4117	A09-337	0.304	33800	4.8	1	195	0.5	0.16	3000	0.09	34.2	102	1090
OREAS45-P	4119	A09-337	0.296	29000	4.2	2	173	0.5	0.15	3000	0.12	35.9	110	1010
OREAS45-P	4121	A09-337	0.195	30800	3.9	2	203	0.6	0.18	2900	0.1	40.6	105	1020

Appendix 18. QC samples analysis by AR

STANDARD	Cs (ppm)	Cu (ppm)	Dy (ppm)	Er (ppm)	Eu (ppm)	Fe (ppm)	Ga (ppm)	Gd (ppm)	Ge (ppm)	Hf (ppm)	Hg (ppm)	Ho (ppm)	In (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.02	0.01	0.1	0.1	0.1	100	0.02	0.1	0.1	0.1	0.01	0.1	0.02
ULD:													
OREAS100-A	1.19	167	16.7	7.4	3.6	43600	7.95	17.3	0.2	0.8	0.08	2.8	0.02
OREAS100-A	1.24	166	13.7	8.1	3.7	41800	7.96	16.3	0.2	0.8	0.11	2.6	0.03
OREAS100-A	1.31	153	12.9	7.1	2.5	44500	7.67	17.3	0.2	0.7	0.08	2.7	0.03
OREAS100-A	1.22	160	11.2	6.2	2.9	41400	7.34	15.6	0.1	0.6	0.1	2.3	0.01
OREAS100-A	1.16	145	11.5	6.5	2.1	43600	7.07	13.5	0.2	0.7	0.1	2.4	0.01
OREAS100-A	1.02	161	12.1	6.8	2.4	43600	7.33	14.6	0.2	0.5	0.1	2.7	0.03
OREAS100-A	1.27	157	14.4	7.2	2.6	43400	5.44	17.9	0.2	0.5	0.11	2.9	0.03
OREAS100-A	1.12	170	11.1	7.4	2.3	44700	6.79	12.7	0.2	0.8	0.15	2.8	0.03
OREAS100-A	1	134	11.8	6.7	2.5	41500	6.96	13.3	0.2	0.7	0.09	2.2	0.01
OREAS100-A	1.16	151	12.9	7.1	2.6	42500	5.59	14.9	0.2	0.9	0.09	2.8	0.01
OREAS100-A	1.07	146	11.5	6.5	2.4	42600	7.13	15.5	0.2	0.6	0.1	2.6	0.02
OREAS100-A	1.24	157	12	6.7	1.5	40800	7.23	16.4	0.2	0.5	0.1	2.7	0.02
OREAS100-A	1.17	156	10	5.9	2	42600	6.68	13.2	0.1	0.5	0.11	2.3	0.03
OREAS100-A	1.2	159	10.6	6.5	2	51000	6.7	13	0.1	0.5	0.13	2.5	0.04
OREAS100-A	1.48	148	15.6	8.6	3.1	43400	6.71	16	0.4	0.5	0.01	2.7	0.01
OREAS100-A	1.31	155	16.5	8.9	3	49300	6.96	15.8	0.5	0.6	0.02	3	0.01
OREAS100-A	1.43	166	17.3	8.7	3.2	37300	7.06	16.9	0.4	0.6	0.02	3	0.01
OREAS100-A	1.13	161	13.4	7.3	2.8	55400	8.67	13.6	0.4	0.4	0.005	4	0.01
OREAS100-A	1.13	166	13.6	7.5	3.3	53900	8.35	14.3	0.4	0.3	0.04	3.8	0.01
OREAS100-A	0.86	161	12.8	7	2.8	51100	6.35	14.3	0.4	0.4	0.01	3.8	0.01
OREAS100-A	0.78	158	12.6	6.6	2.7	47700	6.06	13.3	0.3	0.5	0.02	3.9	0.01
OREAS100-A	1.14	153	12.1	6.1	3	38300	6.98	15.3	0.2	0.4	0.005	3.3	0.01
OREAS100-A	1.16	154	13.9	6.3	2.8	43800	8.11	15.3	0.3	0.4	0.005	3.7	0.01
OREAS100-A	0.77	147	10.7	5.8	2.7	40000	4.55	13.4	0.2	0.6	0.01	3.1	0.01
OREAS100-A	1.31	172	15	7.9	2.4	50400	10.5	16.1	0.3	0.3	0.005	2.6	0.01
OREAS100-A	1.06	165	14.2	7.3	2.1	48300	7.68	14.1	0.3	0.5	0.01	2.4	0.01
OREAS100-A	1.32	156	12	6.6	2.1	41200	6.68	14	0.3	0.2	0.01	2.1	0.01
OREAS100-A	0.92	176	13.5	7	2.1	46600	6.84	14.3	0.3	0.4	0.01	2.4	0.01
Average	**1.18**	**159.9**	**13.7**	**7.3**	**2.8**	**44897.05882**	**7.5**	**16.9**	**0.22**	**0.55**	**0.07**	**2.8**	**0.03**
SD	**0.13**	**7.8**	**1.6**	**0.7**	**0.5**	**3054**	**0.9**	**2.7**	**0.08**	**0.13**	**0.03**	**0.4**	**0.01**
RSD	**11%**	**5%**	**12%**	**10%**	**17%**	**7%**	**12%**	**16%**	**34%**	**24%**	**48%**	**14%**	**41%**
RV		169	23.2	14.9	3.71	46600		23.6				4.81	
GeoPT	14%	11%	13%	14%	16%	4%	12%	13%	16%	11%		18%	
Abs GeoPT		18.59	3.016	2.086	0.5936	1864		3.068				0.8658	
Bias		**95%**	**59%**	**49%**	**75%**	**96%**		**72%**				**58%**	
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**6%**	**0%**	**26%**
OREAS45-P	1.41	703	2.6	1.2	1	192000	19.4	3.6	0.2	0.7	0.03	0.5	0.11
OREAS45-P	1.47	693	2.7	1.2	0.9	193000	19.1	3.7	0.2	0.6	0.02	0.5	0.09
OREAS45-P	1.34	686	2.6	1.2	0.9	192000	18.8	3.6	0.1	0.6	0.03	0.5	0.1
OREAS45-P	1.37	678	2.5	1.2	0.9	193000	18.5	3.7	0.2	0.7	0.03	0.5	0.09
OREAS45-P	1.38	664	2.5	1.1	0.9	187000	18.4	3.3	0.1	0.6	0.05	0.4	0.1
OREAS45-P	1.43	694	2.6	1.2	0.8	192000	19.2	3.7	0.2	0.6	0.05	0.5	0.11
OREAS45-P	1.15	672	2.5	1.1	0.9	189000	19.4	3.3	0.1	0.7	0.03	0.4	0.09
OREAS45-P	1.44	677	2.6	1.1	0.9	185000	18.2	3.6	0.1	0.7	0.05	0.5	0.1
OREAS45-P	1.26	674	2.4	1.1	0.8	188000	18.8	3.4	0.2	0.6	0.05	0.4	0.1
OREAS45-P	1.14	707	2.7	1.2	0.8	183000	18.4	3.4	0.1	0.7	0.04	0.5	0.1
OREAS45-P	1.29	684	2.7	1.2	0.9	185000	18.4	3.3	0.1	0.7	0.04	0.5	0.1
OREAS45-P	1.36	671	2.4	1.1	0.8	188000	17	3.5	0.2	0.7	0.06	0.4	0.08
OREAS45-P	0.87	650	2.6	1.1	0.8	188000	19.3	3.3	0.1	0.7	0.04	0.5	0.09
OREAS45-P	1.3	678	3.4	1.1	0.8	191000	18.5	3.6	0.1	0.7	0.04	0.6	0.09
OREAS45-P	1.29	681	2.7	1.3	1	194000	18.8	3.6	0.1	0.8	0.03	0.5	0.1
OREAS45-P	1.33	666	2.6	1.2	0.9	195000	16	3.3	0.1	0.7	0.05	0.4	0.1
OREAS45-P	1.37	691	2.7	1.2	0.9	189000	19.5	3.5	0.2	0.6	0.05	0.5	0.1
OREAS45-P	1.33	674	2.7	1.2	0.9	193000	18.5	3.5	0.2	0.6	0.03	0.5	0.1
OREAS45-P	1.06	654	2.3	1	0.8	188000	17.7	2.6	0.1	0.7	0.05	0.4	0.09
OREAS45-P	1.3	684	2.5	1.1	0.8	188000	19.1	2.6	0.2	0.6	0.04	0.4	0.09
OREAS45-P	1.32	701	2.6	1.2	0.9	191000	20	3.1	0.1	0.6	0.04	0.5	0.1
OREAS45-P	1.37	702	2.6	1.1	0.9	186000	19	3	0.2	0.6	0.07	0.4	0.1
OREAS45-P	1.31	675	2.6	1.1	0.9	191000	19.2	3.5	0.1	0.6	0.04	0.4	0.1
OREAS45-P	1.3	681	2.5	1.1	0.8	195000	18.8	3.1	0.1	0.7	0.03	0.4	0.09
OREAS45-P	1.32	665	2.3	1.1	0.8	187000	18.2	3	0.2	0.6	0.04	0.4	0.08
OREAS45-P	1.13	669	2.5	1.1	0.7	188000	18.9	3.2	0.1	0.6	0.04	0.4	0.09
OREAS45-P	1.42	657	2.7	1.2	1	198000	19.7	2.1	0.2	0.6	0.06	0.5	0.11
OREAS45-P	1.25	647	2.5	1.1	0.9	189000	18.3	2	0.2	0.5	0.03	0.4	0.1
OREAS45-P	1.61	665	2.6	1.2	1.1	197000	19.4	2.6	0.1	0.6	0.04	0.5	0.1
OREAS45-P	1.35	647	2.5	1.1	0.9	192000	17.8	2.3	0.1	0.5	0.04	0.4	0.1
OREAS45-P	1.35	652	2.5	1.2	1	191000	17.6	2.5	0.2	0.6	0.03	0.4	0.09
OREAS45-P	1.3	673	2.6	1.1	1	195000	19.2	3.4	0.2	0.6	0.04	0.5	0.11
OREAS45-P	1.38	654	2.4	1.2	0.9	194000	18	3	0.2	0.6	0.04	0.4	0.11
OREAS45-P	1.36	687	2.6	1.3	0.8	185000	18.1	3	0.2	0.5	0.04	0.5	0.1
OREAS45-P	1.28	686	2.5	1.1	0.7	182000	17.6	2.9	0.1	0.5	0.04	0.4	0.09
OREAS45-P	1.43	664	2.5	1.2	0.8	193000	18	3.2	0.2	0.6	0.05	0.4	0.1
OREAS45-P	1.22	653	2.4	1.1	0.9	189000	18.4	3	0.2	0.5	0.05	0.4	0.1
OREAS45-P	1.27	648	2.5	1.1	0.9	199000	17.3	2.7	0.2	0.6	0.06	0.5	0.09
OREAS45-P	1.29	675	2.2	1.2	0.8	192000	18.2	3.1	0.1	0.6	0.03	0.4	0.11
OREAS45-P	1.25	677	2.3	1.2	0.9	192000	19.9	3.1	0.2	0.6	0.07	0.5	0.09
OREAS45-P	1.28	665	2.4	1.2	0.9	190000	19.7	3.1	0.2	0.7	0.04	0.4	0.08
OREAS45-P	1.41	667	2.6	1.2	0.8	192000	16.1	3.1	0.2	0.6	0.03	0.5	0.12
OREAS45-P	1.18	662	2.6	1.1	0.8	189000	15.6	3.2	0.1	0.4	0.04	0.5	0.11
OREAS45-P	1.25	683	2.5	1.2	0.9	199000	18.6	3	0.1	0.5	0.05	0.5	0.1
OREAS45-P	1.32	643	2.5	1.2	0.9	187000	16.4	3	0.2	0.6	0.05	0.5	0.1
OREAS45-P	1.25	695	2.4	1.1	0.9	193000	17.2	3.1	0.2	0.6	0.05	0.5	0.08
OREAS45-P	1.35	639	2.3	1.3	1	191000	19	3	0.2	0.5	0.03	0.5	0.1
OREAS45-P	1.27	631	2.6	1.3	1	188000	19.3	3	0.2	0.5	0.02	0.4	0.08
OREAS45-P	1.22	644	2.2	1	0.8	183000	15.9	2.4	0.2	0.5	0.04	0.5	0.1

Appendix 18. QC samples analysis by AR

STANDARD	K (ppm)	La (ppm)	Li (ppm)	Lu (ppm)	Mg (ppm)	Mn (ppm)	Mo (ppm)	Na (ppm)	Nb (ppm)	Nd (ppm)	Ni (ppm)	Pb (ppm)	Pr (ppm)	Rb (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	100	0.5	0.1	0.1	100	1	0.01	10	0.1	0.02	0.1	0.01	0.1	0.1
ULD:														
OREAS100-A	6400	239	7.7	0.9	4400	548	20.3	320	2.3	114	10.7	13	44	54.6
OREAS100-A	6800	251	7.3	0.8	4400	493	21.9	440	2.1	139	12.8	12.6	43.7	54
OREAS100-A	6500	225	5.5	0.8	4500	448	20.5	420	2.6	108	7.5	9.74	29.7	45.7
OREAS100-A	6500	240	5.8	0.8	4400	463	17.4	460	2.5	95.9	8.6	9.72	27.7	47.1
OREAS100-A	5200	177	6.2	1	4500	483	17.6	420	2.8	89.1	7.5	9.25	30	51.2
OREAS100-A	6900	233	8.2	0.8	4400	489	20.6	380	2.4	93.9	8.5	13	31.4	49.6
OREAS100-A	7100	203	7.9	1.5	4600	513	20.8	400	2.6	102	8.6	10.9	36	48.5
OREAS100-A	6300	164	7.8	1.3	4600	464	19.3	420	2.5	88.9	9.3	12.7	27.7	43.9
OREAS100-A	6100	184	7.1	1	4400	481	20.9	410	2.7	90.7	7.6	9.14	29.9	46
OREAS100-A	6400	209	7.4	1	4800	387	19	340	2.9	99.6	7.7	9.49	29.8	47.9
OREAS100-A	4600	229	6.6	0.8	5100	380	19.5	410	2.4	90.1	7.1	12.3	30.2	50.8
OREAS100-A	7400	185	4.1	0.6	4000	470	21	410	2.2	89.9	4.7	11.8	29.8	50.1
OREAS100-A	6600	195	7	0.7	5400	508	19.5	410	2.1	124	7.3	7.49	43.1	46.9
OREAS100-A	7300	193	7.8	0.8	5000	453	19.2	460	2.1	115	9.1	8.75	39.4	40.5
OREAS100-A	6300	203	7.2	1.1	5100	440	22.7	390	2.4	147	12.2	12.6	42	62.3
OREAS100-A	6600	193	7.5	1.1	5200	508	21.8	420	2.5	142	12.8	12.7	42.3	54.3
OREAS100-A	6700	252	7.3	1.3	5100	459	21.2	330	1.8	142	13.4	12.6	42.6	65.1
OREAS100-A	8500	239	9.7	0.8	5100	537	23	550	2	134	10.4	11.5	39.4	57.6
OREAS100-A	7600	228	9.2	0.9	4800	510	24.4	540	1.6	132	12.2	11.8	35.8	51.1
OREAS100-A	5700	226	8.9	0.9	4600	506	21.8	520	2.2	110	10.7	12	30.7	36.6
OREAS100-A	4900	183	8.3	0.8	4400	496	21.3	490	2.1	95.7	11.4	21.6	29	31.2
OREAS100-A	6100	221	7.6	0.9	4100	434	20.6	450	2	108	13	11	29.8	47.4
OREAS100-A	7400	239	8.7	0.9	4500	485	19.1	490	1.7	113	10	11.1	33.1	51.7
OREAS100-A	4100	161	7.1	0.9	3900	398	20.1	430	2.3	86.3	10.3	11.2	23.7	28.6
OREAS100-A	8900	218	10.2	0.8	5000	502	23.8	530	2	124	10.7	12.9	35.3	71.6
OREAS100-A	6600	188	8.5	0.8	4300	465	20.3	460	2.3	112	9.9	12.3	32.5	50.2
OREAS100-A	7400	168	8.2	0.7	4200	404	17.6	520	1.4	99	9.7	12.2	28.6	64.5
OREAS100-A	5600	160	8.4	0.8	4400	462	20.9	440	1.9	95.9	10.4	13	28.1	41.7
Average	**6509**	**220.3**	**7.6**	**0.98**	**4654**	**495**	**21.20**	**432**	**2.3**	**117.9**	**9.4**	**11.8**	**37.4**	**51.3**
SD	**824**	**31.3**	**0.9**	**0.18**	**402**	**40**	**1.34**	**50**	**0.3**	**19.7**	**1.6**	**1.8**	**6.3**	**6.6**
RSD	**13%**	**14%**	**12%**	**18%**	**9%**	**8%**	**6%**	**12%**	**13%**	**17%**	**17%**	**15%**	**17%**	**13%**
RV	39400	260		2.26	8390	537	24.1			152	10.3	13.2	47.1	
GeoPT	4%	10%		18%	3%	6%	15%	4%	12%	10%	9%	11%	12%	9%
Abs GeoPT	1576	26		0.4068	251.7	32.22	3.615			15.2	0.927	1.452	5.652	
Bias	**17%**	**85%**		**43%**	**55%**	**92%**	**88%**			**78%**	**91%**	**90%**	**79%**	
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
OREAS45-P	900	21	9.6	0.2	1300	1330	1.11	190	0.5	17.8	347	19.7	4.9	11.5
OREAS45-P	800	22.2	10.8	0.2	1300	1300	1.14	180	0.4	19.2	354	19.7	5.4	11.1
OREAS45-P	800	19.5	11.2	0.2	1300	1310	1.19	200	0.5	16.9	358	19.4	4.3	10.8
OREAS45-P	700	20.9	10.3	0.2	1200	1280	1.12	190	0.5	18.1	360	20.1	4.6	10.7
OREAS45-P	800	19.4	11.4	0.1	1200	1240	1.48	190	0.5	16.7	318	18.6	4.3	11.5
OREAS45-P	800	23	10	0.1	1300	1290	1.09	200	0.5	18.1	317	20.1	5.1	10.7
OREAS45-P	800	21	8.8	0.1	1200	1250	1.15	180	0.9	17	312	18.7	4.7	8.1
OREAS45-P	800	23.3	9.6	0.1	1200	1310	1.15	190	0.6	18.7	327	18.7	5	11.1
OREAS45-P	800	22.2	9.5	0.1	1200	1240	1.2	160	0.7	17.4	341	19	5	10.1
OREAS45-P	900	19.8	8.4	0.1	1200	1200	1.05	140	0.7	14.9	322	18.8	4	9.2
OREAS45-P	800	19.5	9	0.1	1200	1220	1.12	150	0.6	15.2	330	19	4.2	10.3
OREAS45-P	900	20.5	8.2	0.1	1200	1170	1.05	190	0.6	16.5	320	18.2	4.6	8.5
OREAS45-P	900	21.5	8.4	0.2	1100	1260	1.01	190	0.6	12.5	323	18.7	4.3	10.4
OREAS45-P	1000	20	10.9	0.2	1200	1290	1.19	150	0.4	17.5	333	19	4.4	10.1
OREAS45-P	1000	20.2	9.2	0.2	1300	1310	1.3	190	0.6	17.3	324	20	4.6	10.9
OREAS45-P	900	19.5	8.9	0.2	1100	1240	0.99	170	0.6	17.6	337	19.3	4.6	9.4
OREAS45-P	800	22.4	10.6	0.1	1300	1290	1.5	190	0.6	17.9	326	20	4.5	10.5
OREAS45-P	900	23.6	10.3	0.1	1200	1260	1	190	0.5	15.9	339	19	4.6	10.6
OREAS45-P	900	17.9	9.3	0.1	1200	1230	1.16	170	0.6	14.5	318	17.8	3.9	9.8
OREAS45-P	900	18.3	8.4	0.1	1200	1230	1.11	200	0.6	14.5	322	17.7	4.1	10.1
OREAS45-P	1000	20.9	9.4	0.1	1200	1260	1.09	160	0.5	16.4	322	19.4	4.5	10.9
OREAS45-P	700	20.5	9.8	0.1	1300	1240	1.12	160	0.5	16.9	324	19.2	4.7	10.5
OREAS45-P	700	20.1	9.9	0.1	1300	1190	1.12	150	0.4	15.5	319	19.3	4.2	10.4
OREAS45-P	900	21.8	9.4	0.1	1200	1230	1.09	180	0.6	17.6	329	18.5	4.8	10.4
OREAS45-P	700	19.9	9.7	0.05	1100	1210	1.14	160	0.7	16	318	18.6	4.4	10.4
OREAS45-P	1000	20.4	9.5	0.1	1100	1240	1.37	180	0.6	16.6	315	19.6	4.4	10.7
OREAS45-P	1000	19	11.9	0.1	1400	1270	1.25	160	0.5	14	316	19	4.1	10.7
OREAS45-P	900	18.3	9.9	0.2	1200	1290	1.23	150	0.5	13.6	308	18.5	3.8	9.9
OREAS45-P	1000	23.8	10.5	0.1	1200	1240	1.42	150	0.5	17.1	318	18.2	4.9	11.8
OREAS45-P	1000	21.2	9.3	0.2	1200	1240	1.31	180	0.4	14.7	315	18	4.2	10.6
OREAS45-P	900	20.8	10.1	0.1	1200	1270	1.31	160	0.5	15.8	308	18.5	4.7	10.9
OREAS45-P	1000	18.9	9.9	0.2	1000	1290	0.99	110	0.4	14.3	305	19	3.6	10.7
OREAS45-P	1000	20.4	9.9	0.2	1000	1280	1.43	130	0.5	13	293	15.7	3.2	10.9
OREAS45-P	900	19.1	9.2	0.2	1100	1290	1.49	150	0.4	13.6	326	18.7	3.6	9.9
OREAS45-P	800	21.4	8	0.1	1000	1270	1.23	140	0.6	13.4	299	19.9	3.8	10.1
OREAS45-P	900	19.1	9.9	0.2	1200	1320	1.28	130	0.5	14.2	300	18.3	3.6	11.3
OREAS45-P	700	20.6	10.2	0.1	1000	1290	1.59	200	0.5	14.5	305	16.5	4.4	10.8
OREAS45-P	800	15.7	6.7	0.2	900	1270	1.47	170	0.5	13.6	328	18.1	4.4	10.9
OREAS45-P	900	18.8	9.2	0.2	1000	1270	1.25	150	0.6	12.2	291	19.1	3.4	9.6
OREAS45-P	700	18.2	8.2	0.2	1100	1280	1.37	100	0.6	14.9	302	18.9	3.5	10.3
OREAS45-P	900	20.5	8.5	0.2	1200	1270	1.34	190	0.7	14.4	312	20.8	3.4	11.1
OREAS45-P	700	22.2	6.5	0.1	1100	1290	1.53	100	0.6	12.6	298	18.6	3.8	10.7
OREAS45-P	700	19.4	6.5	0.1	900	1260	1.58	100	0.5	13.8	318	18.9	3.3	9.9
OREAS45-P	700	18.6	9.8	0.2	1000	1280	1.54	160	0.7	13.4	298	17.8	4.6	10.2
OREAS45-P	900	18.6	10.1	0.1	1000	1310	1.46	130	0.6	14.8	296	19	3.5	10.5
OREAS45-P	900	20.1	7.1	0.2	1000	1280	1.75	140	0.7	13.4	302	21.7	4.1	12.1
OREAS45-P	1000	18.7	9.3	0.1	900	1330	1.62	130	0.5	14.3	307	19.1	3.3	7.9
OREAS45-P	1000	18.4	9.2	0.2	900	1320	1.63	100	0.6	17.4	312	19	5.1	7.2
OREAS45-P	700	21	8.9	0.05	1000	1270	1.25	130	0.5	13.8	293	18.7	3.6	10.1

Appendix 18. QC samples analysis by AR

STANDARD	Re (ppm)	Sb (ppm)	Sc (ppm)	Se (ppm)	Sm (ppm)	Sn (ppm)	Sr (ppm)	Ta (ppm)	Tb (ppm)	Te (ppm)	Th (ppm)	Tl (ppm)	Tm (ppm)	U (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.001	0.02	0.1	0.1	0.1	0.05	0.5	0.05	0.1	0.02	0.1	0.02	0.1	0.1
ULD:							1000							
OREAS100-A	0.072	0.98	3.3	3.3	21.6	3.86	16.9	0.025	3.3	0.05	49.3	0.2	1.1	127
OREAS100-A	0.077	0.98	3.6	3.3	22.1	3.37	17.4	0.025	3.2	0.05	49.9	0.21	1.2	128
OREAS100-A	0.076	0.93	3	4.3	18.2	3.49	18.4	0.025	2.2	0.09	46.4	0.19	1	135
OREAS100-A	0.075	1.08	3	3.7	13.3	3.97	17.1	0.025	1.9	0.04	42.7	0.12	0.9	122
OREAS100-A	0.064	0.94	3.6	3.3	17.5	3.1	17.8	0.025	2	0.05	45	0.21	1	134
OREAS100-A	0.085	1.06	3.4	3.8	16.9	3.9	18.4	0.025	2	0.04	49.6	0.16	1.1	126
OREAS100-A	0.079	0.95	3.9	3.3	18.5	3.39	18.6	0.025	2.3	0.06	47.5	0.14	1.2	132
OREAS100-A	0.058	1.08	3.7	3.7	18.9	3.79	19.6	0.025	2.4	0.04	46.4	0.15	1.2	132
OREAS100-A	0.065	0.89	2.6	3.1	17.6	3.19	17.5	0.025	1.8	0.04	46.2	0.13	0.9	131
OREAS100-A	0.074	0.9	3.3	2.6	17.8	3.17	17.5	0.025	2.2	0.05	44.8	0.23	1.1	131
OREAS100-A	0.056	1.11	2.9	4	16.6	3.68	19.4	0.025	2	0.1	47.6	0.15	0.9	131
OREAS100-A	0.038	0.91	2.3	4	15.9	2.67	18.2	0.025	2	0.06	48.8	0.11	1	123
OREAS100-A	0.082	0.9	3.5	3.8	16.3	3.11	17.5	0.025	1.9	0.05	42.7	0.14	1	132
OREAS100-A	0.068	1.03	3.3	3.2	16.8	3.59	18.6	0.025	2.1	0.05	47.9	0.14	1.1	132
OREAS100-A	0.086	1.08	4	4	22.9	4.04	19.3	0.025	2.3	0.08	41.5	0.25	1.2	116
OREAS100-A	0.086	1.22	4	4.1	22.1	4.2	21.8	0.025	2.3	0.05	42.8	0.24	1.2	126
OREAS100-A	0.084	0.93	3	3.9	22.3	4.04	17.9	0.025	2.6	0.01	53.8	0.29	1.2	122
OREAS100-A	0.066	1.27	4.2	3.9	20.7	4	15.4	0.025	2	0.04	44.2	0.22	1	113
OREAS100-A	0.07	1.23	4	4.7	21.6	3.63	15.5	0.025	2	0.1	46.3	0.21	1	120
OREAS100-A	0.081	1.2	3.3	3.8	17.8	3.75	13.9	0.025	2	0.01	47.8	0.17	0.9	124
OREAS100-A	0.079	1.24	2.9	4.3	16.5	3.76	13.5	0.025	2.1	0.08	48	0.16	0.9	126
OREAS100-A	0.069	1.14	2.6	3.4	19.3	3.26	12.8	0.025	2.1	0.07	46.3	0.2	1	113
OREAS100-A	0.074	1.2	2.7	3.7	18.5	4.04	13.9	0.025	2.2	0.07	49.1	0.23	0.9	127
OREAS100-A	0.072	1.16	2.2	3.6	16.3	3.01	11.1	0.025	1.8	0.01	44.4	0.14	0.9	109
OREAS100-A	0.072	0.98	4.7	4.5	19.6	3.22	15.6	0.025	2.1	0.07	45.1	0.29	1	123
OREAS100-A	0.072	1.02	4.2	4.3	17.6	3.16	15.2	0.025	1.8	0.06	40.5	0.22	0.9	116
OREAS100-A	0.071	0.74	3.5	3.3	15.9	2.76	12.9	0.025	1.7	0.04	38.7	0.23	0.9	109
OREAS100-A	0.072	1	3.6	4.3	15.6	3.24	14.3	0.025	1.9	0.06	43.3	0.19	1	131
Average	**0.0766**	**0.97**	**3.4**	**3.6**	**19.9**	**3.61**	**17.3**	**0.025**	**2.3**	**0.05**	**47.3**	**0.20**	**1.10**	**127.9**
SD	**0.0101**	**0.12**	**0.4**	**0.5**	**2.4**	**0.35**	**1.8**	**0.000**	**0.3**	**0.02**	**2.7**	**0.04**	**0.12**	**6.0**
RSD	**13%**	**13%**	**13%**	**13%**	**12%**	**10%**	**10%**	**0%**	**15%**	**45%**	**6%**	**21%**	**11%**	**5%**
RV					23.6				3.8		51.6		2.31	135
GeoPT		17%	12%		12%		7%	16%	17%		12%			14%
Abs GeoPT					2.832				0.646		6.192			18.9
Bias					**84%**				**60%**		**92%**		**48%**	**95%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**12%**	**0%**	**0%**	**0%**	**0%**
OREAS45-P	0.001	0.36	67.6	1.4	3.8	1.96	17.1	0.025	0.5	0.02	7.2	0.09	0.2	1.3
OREAS45-P	0.003	0.54	64.3	1.1	4.1	1.97	16.9	0.025	0.5	0.01	7.2	0.14	0.2	1.2
OREAS45-P	0.002	0.49	62.5	0.8	3.7	1.84	16.2	0.025	0.5	0.06	6.8	0.11	0.2	1.3
OREAS45-P	0.0005	0.59	64.2	0.9	4.4	1.89	16.5	0.025	0.5	0.05	7.3	0.12	0.2	1.2
OREAS45-P	0.002	0.65	65	0.9	3.6	2.03	15.7	0.025	0.4	0.05	6.8	0.11	0.2	1.2
OREAS45-P	0.002	0.55	69	0.9	3.8	1.92	16.8	0.025	0.3	0.05	7.3	0.11	0.2	1.4
OREAS45-P	0.003	0.7	65.4	0.9	4	1.86	15.9	0.025	0.5	0.05	7	0.11	0.2	1.2
OREAS45-P	0.003	0.56	66	0.7	4	1.93	17	0.025	0.5	0.06	7.3	0.12	0.2	1.2
OREAS45-P	0.002	0.5	65.3	0.8	3.8	1.91	16	0.025	0.4	0.05	7.1	0.12	0.2	1.2
OREAS45-P	0.0005	0.39	63.5	0.7	3.1	2	13.1	0.025	0.4	0.05	6.7	0.1	0.2	1.2
OREAS45-P	0.0005	0.4	67	0.9	3.3	2.07	15.1	0.025	0.4	0.01	7.1	0.1	0.2	1.1
OREAS45-P	0.001	0.4	65.1	0.8	3.6	2.04	16.1	0.025	0.5	0.04	7	0.1	0.2	1.2
OREAS45-P	0.0005	0.6	64.3	0.7	3.3	1.99	16.4	0.025	0.4	0.03	6.8	0.1	0.2	1.2
OREAS45-P	0.0005	0.5	61.7	0.7	3.8	1.93	17	0.025	0.6	0.05	7.6	0.11	0.2	1.2
OREAS45-P	0.001	0.57	65.3	0.8	3.7	1.97	16.7	0.025	0.5	0.08	7.5	0.12	0.2	1.3
OREAS45-P	0.001	0.54	63.2	0.7	3.6	1.86	15.3	0.025	0.4	0.05	6.9	0.11	0.2	1.1
OREAS45-P	0.001	0.59	65.2	1	3.5	2.04	17.8	0.025	0.4	0.05	7.4	0.11	0.2	1.3
OREAS45-P	0.0005	0.58	63.8	0.9	3.6	1.96	15.9	0.025	0.4	0.06	7.3	0.11	0.2	1.2
OREAS45-P	0.001	0.51	62.3	0.9	3.2	2	14.7	0.025	0.3	0.06	7.1	0.11	0.2	1.1
OREAS45-P	0.001	0.48	65.8	1.2	3.1	1.88	16.3	0.025	0.3	0.03	7	0.11	0.2	1.1
OREAS45-P	0.0005	0.43	65.5	1	3.5	1.97	16.9	0.025	0.4	0.06	7.1	0.12	0.2	1.2
OREAS45-P	0.002	0.46	63.4	0.8	3.5	1.91	16.8	0.025	0.5	0.06	7.2	0.13	0.2	1.2
OREAS45-P	0.003	0.51	61.8	0.7	3.4	1.77	16	0.025	0.5	0.03	7	0.11	0.2	1.2
OREAS45-P	0.002	0.51	65.5	0.8	3.7	1.92	16.3	0.025	0.4	0.06	7.3	0.1	0.1	1.2
OREAS45-P	0.001	0.58	64.7	0.8	3.4	1.9	16.7	0.025	0.3	0.05	7	0.09	0.1	1.1
OREAS45-P	0.0005	0.53	66.7	0.8	3.6	1.92	16.4	0.025	0.3	0.05	7.4	0.1	0.1	1.1
OREAS45-P	0.002	0.59	65.8	1	3.2	1.98	17.4	0.025	0.5	0.09	7.1	0.13	0.2	1.2
OREAS45-P	0.0005	0.53	65.3	0.6	3	1.72	16.6	0.025	0.4	0.09	6.9	0.12	0.2	1.1
OREAS45-P	0.002	0.62	65.9	0.6	3.9	2.03	16.1	0.025	0.4	0.05	7.5	0.12	0.2	1.4
OREAS45-P	0.0005	0.55	64.6	1	3.2	1.96	15.8	0.025	0.5	0.06	7.2	0.12	0.1	1.2
OREAS45-P	0.001	0.54	65.6	0.7	3.6	1.72	16.9	0.025	0.5	0.07	7.2	0.11	0.2	1.2
OREAS45-P	0.0005	0.56	65.1	1	3	1.73	16.4	0.025	0.5	0.05	7.2	0.11	0.2	1.2
OREAS45-P	0.0005	0.56	60.3	0.9	3	1.89	16.7	0.025	0.5	0.08	7.9	0.11	0.2	1.2
OREAS45-P	0.0005	0.53	61.7	0.5	3.1	1.83	16.7	0.025	0.4	0.1	7.5	0.12	0.2	1.3
OREAS45-P	0.005	0.54	63.8	0.7	3.4	1.67	16.1	0.025	0.4	0.03	7.2	0.1	0.2	1.2
OREAS45-P	0.003	0.55	67.4	0.9	3.1	1.88	17	0.025	0.5	0.04	7.3	0.12	0.2	1.3
OREAS45-P	0.001	0.63	64.5	0.8	3.5	2.2	16.3	0.025	0.4	0.05	7.1	0.11	0.2	1.2
OREAS45-P	0.0005	0.56	62.9	0.8	2.8	1.4	16.5	0.025	0.4	0.04	7.3	0.06	0.2	1.1
OREAS45-P	0.002	0.46	65.1	0.8	3	1.76	16	0.025	0.4	0.04	7.6	0.1	0.2	1.1
OREAS45-P	0.003	0.55	66.8	1	2.9	1.73	14.8	0.025	0.4	0.05	7.5	0.11	0.2	1.2
OREAS45-P	0.005	0.66	64	0.8	3.2	1.92	16.4	0.025	0.5	0.04	7.2	0.1	0.2	1.2
OREAS45-P	0.002	0.49	62.5	0.7	3.4	1.88	17.3	0.025	0.4	0.05	7.4	0.11	0.2	1.3
OREAS45-P	0.001	0.41	62.3	0.7	3.2	1.6	15.4	0.025	0.4	0.07	6.7	0.09	0.2	1.3
OREAS45-P	0.003	0.58	63.5	0.8	3.7	1.76	15.9	0.025	0.5	0.05	7	0.09	0.2	1.2
OREAS45-P	0.0005	0.65	62.6	0.7	3.5	1.79	16.2	0.025	0.4	0.05	7.6	0.1	0.2	1.1
OREAS45-P	0.002	0.53	66.4	0.7	3.3	2.02	16.2	0.025	0.4	0.04	7.2	0.09	0.2	1.2
OREAS45-P	0.002	0.58	69.6	0.5	3.4	1.89	16.2	0.025	0.6	0.06	6.8	0.12	0.2	1.1
OREAS45-P	0.001	0.54	65.5	0.3	4.2	1.88	16.1	0.025	0.4	0.06	7	0.11	0.2	1.2
OREAS45-P	0.001	0.43	60.5	0.8	3.1	1.88	13.4	0.025	0.4	0.08	7.4	0.1	0.2	1

Appendix 18. QC samples analysis by AR

STANDARD	V (ppm)	W (ppm)	Y (ppm)	Yb (ppm)	Zn (ppm)	Zr (ppm)
METHOD:	AR	AR	AR	AR	AR	AR
LLD:	1	0.1	0.01	0.1	0.1	0.1
ULD:		200				
OREAS100-A	22	5	81.6	7	23.6	25
OREAS100-A	25	5.5	82.3	7.8	23.1	25.1
OREAS100-A	22	4.8	75.8	7.4	21.8	29.4
OREAS100-A	23	5.4	60.2	6	23.6	27.7
OREAS100-A	22	5.6	63.4	6.6	27.7	25.4
OREAS100-A	24	4.9	71.4	7.1	22.8	27.8
OREAS100-A	24	5.3	79.8	7.9	21	24.8
OREAS100-A	26	5.3	66.9	7.2	21.2	31.7
OREAS100-A	16	5.9	64.2	6.9	25.3	28.7
OREAS100-A	20	5.1	64.2	6.9	20.5	28.4
OREAS100-A	21	5.1	72.6	7.2	25	25
OREAS100-A	19	5.4	60.5	6.4	14.5	24.4
OREAS100-A	19	4.9	63	6	23.8	28.1
OREAS100-A	23	5.6	65.5	6.2	20	29.5
OREAS100-A	26	4.4	84	7.9	12.9	25.8
OREAS100-A	26	5.7	93.2	8	19.7	31.3
OREAS100-A	28	4.8	81.5	8.6	7.6	19.9
OREAS100-A	24	4.7	64.6	6.2	27.8	23.7
OREAS100-A	25	4.5	61.8	7	216	21.1
OREAS100-A	23	5.7	63.6	6.3	16.9	23
OREAS100-A	23	5.9	57.4	6.3	44.9	22.4
OREAS100-A	25	4.5	46.3	7.3	34.1	16.9
OREAS100-A	22	4.6	49.8	6.2	30.3	17.4
OREAS100-A	21	5.1	41.5	6.4	26.7	20.8
OREAS100-A	24	4.6	82.1	6.2	23	23.3
OREAS100-A	23	5.2	79.1	5.5	26.7	27.5
OREAS100-A	21	3.3	66.7	5.3	23.1	16.7
OREAS100-A	23	5.9	74.1	5.7	22.8	22.9
Average	**23**	**5.07**	**74.0**	**7.1**	**25.6**	**25.1**
SD	**2**	**0.42**	**9.9**	**0.7**	**23.9**	**3.1**
RSD	**8%**	**8%**	**13%**	**10%**	**93%**	**12%**
RV	36.7		142	14.9		
GeoPT	9%	15%	10%	14%	9%	7%
Abs GeoPT	3.303		14.2	2.086		
Bias	**63%**		**52%**	**47%**		
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
OREAS45-P	234	0.05	9.28	1.1	142	31.4
OREAS45-P	229	0.05	10.4	1.1	132	30.2
OREAS45-P	233	0.05	10.6	1	135	28.8
OREAS45-P	233	0.05	9.37	1.1	133	29.9
OREAS45-P	230	0.05	10.3	0.9	129	27
OREAS45-P	228	0.05	10.6	1.1	126	28.7
OREAS45-P	219	0.05	10.6	1	136	28.1
OREAS45-P	223	0.05	10.4	1.1	136	29.4
OREAS45-P	232	0.05	10.2	1	140	29.6
OREAS45-P	223	0.05	9.77	1	143	30.2
OREAS45-P	215	0.05	9.34	0.9	135	30.5
OREAS45-P	212	0.05	9.94	0.9	129	27.2
OREAS45-P	217	0.05	9.38	0.9	132	27.3
OREAS45-P	229	0.05	10.7	1	133	30.3
OREAS45-P	226	0.05	9.94	1.1	124	28
OREAS45-P	221	0.05	9.71	1.1	133	28.7
OREAS45-P	223	0.05	11.1	1	132	28.3
OREAS45-P	214	0.05	10.4	1	139	30.1
OREAS45-P	220	0.05	9.67	0.8	127	27.7
OREAS45-P	226	0.05	10.1	0.9	136	29.4
OREAS45-P	225	0.05	10.3	1.1	139	28.9
OREAS45-P	216	0.05	9.68	1	132	28.9
OREAS45-P	214	0.05	10.4	1	134	28.5
OREAS45-P	215	0.05	8.89	1	136	27.5
OREAS45-P	210	0.05	8.4	0.9	126	25.4
OREAS45-P	219	0.05	8.61	0.9	130	27.5
OREAS45-P	231	0.05	10.4	1.2	144	25.7
OREAS45-P	226	0.05	9.84	1.1	139	24.9
OREAS45-P	225	0.05	11.7	1.1	138	25.8
OREAS45-P	223	0.05	9.86	1.1	138	25.9
OREAS45-P	217	0.05	10.1	1.2	132	26.1
OREAS45-P	229	0.05	8.84	1.2	128	26.2
OREAS45-P	216	0.05	9.74	1	136	25.5
OREAS45-P	215	0.05	9.09	1.1	141	26.4
OREAS45-P	216	0.05	9.08	1	129	30.2
OREAS45-P	219	0.05	9.08	1.1	136	29.4
OREAS45-P	222	0.05	8.42	1	138	27.8
OREAS45-P	212	0.2	9.69	1	125	23.9
OREAS45-P	224	0.05	8.77	1	130	25.7
OREAS45-P	208	0.05	8.85	1	126	26.6
OREAS45-P	220	0.05	10.6	1.1	122	28
OREAS45-P	235	0.05	9.94	1.1	116	28.2
OREAS45-P	217	0.05	9.49	1	125	29.3
OREAS45-P	212	0.05	8.79	1.1	120	24.6
OREAS45-P	207	0.05	10.3	1.1	126	27.8
OREAS45-P	207	0.05	10.6	1.1	125	24.8
OREAS45-P	220	0.05	9.55	1.2	130	22.4
OREAS45-P	215	0.05	9.05	1.1	129	25.2
OREAS45-P	209	0.05	7.93	1	121	22.9

Appendix 18. QC samples analysis by AR

STANDARD	NUMBER	BATCH	Ag (ppm)	Al (ppm)	As (ppm)	B (ppm)	Ba (ppm)	Be (ppm)	Bi (ppm)	Ca (ppm)	Cd (ppm)	Ce (ppm)	Co (ppm)	Cr (ppm)
METHOD:		NO	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:			0.002	100	0.1	1	0.5	0.1	0.02	100	0.01	0.01	0.1	0.5
ULD:				100000										
OREAS45-P	4123	A09-337	0.21	31600	4.5	2	224	0.6	0.21	3600	0.09	34.8	107	1080
OREAS45-P	4125	A09-337	0.294	31600	4.6	2	188	0.6	0.17	3000	0.1	37.3	101	974
OREAS45-P	4253	A09-338	0.28	33600	4.3	2	189	0.9	0.17	2700	0.1	39.1	106	985
OREAS45-P	4255	A09-338	0.297	31900	4	1	187	0.7	0.18	3000	0.11	38	107	1020
OREAS45-P	5038	A09-491	0.255	29000	3.9	0.5	173	0.5	0.15	3000	0.1	34.7	103	796
OREAS45-P	5040	A09-491	0.28	30800	4.2	0.5	187	0.6	0.16	3100	0.11	40.7	107	874
OREAS45-P	5042	A09-491	0.238	35600	3.4	0.5	194	0.6	0.17	2800	0.13	39.4	93.4	1050
OREAS45-P	5293	A09-492	0.259	28900	3.3	0.5	178	0.7	0.15	3000	0.19	34.5	98.4	944
OREAS45-P	5295	A09-492	0.313	34300	3.9	0.5	184	0.9	0.16	3300	0.18	37.8	107	988
OREAS45-P	5297	A09-492	0.312	31700	3.6	0.5	185	0.9	0.17	3200	0.2	34.8	104	1050
OREAS45-P	5828	A10-001	0.292	27300	4	0.5	174	0.6	0.15	2500	0.28	31.5	94.3	945
OREAS45-P	5830	A10-001	0.289	28900	3.7	0.5	176	0.7	0.16	2600	0.14	30.2	97.7	954
OREAS45-P	5832	A10-001	0.302	34100	4.1	0.5	178	0.8	0.16	2800	0.14	33.9	102	954
OREAS45-P	5834	A10-001	0.27	23500	2.7	0.5	164	0.5	0.16	2500	0.13	27.6	89.7	861
OREAS45-P	6135	A10-002	0.265	41600	4.8	0.5	160	1.1	0.16	3400	0.13	32	125	1020
OREAS45-P	6137	A10-002	0.246	34800	4.1	0.5	154	0.8	0.16	3000	0.14	29.7	110	942
OREAS45-P	6139	A10-002	0.248	45500	4.3	0.5	183	1.2	0.18	3200	0.18	33.5	115	1070
OREAS45-P	6141	A10-002	0.27	31400	3.8	0.5	157	0.9	0.17	2900	0.17	28	105	928
Average			0.290	32447.76119	4.1	1.5	188.6	0.8	0.17	2996	0.12	38.19	108.2	1005.7
SD			0.026	2804	0.4	0.6	12.2	0.1	0.01	167	0.11	4.92	6.4	60.7
RSD			9%	9%	11%	42%	6%	18%	7%	6%	91%	13%	6%	6%
RV			0.32	68200	13.4		281		0.21	3000	0.2	48.9	120	1103
GeoPT				3%	12%		7%	16%	22%	3%		9%	12%	8%
Abs GeoPT				2046	1.608		19.67		0.0462	90		4.401	14.4	88.24
Bias			90%	48%	30%		67%		83%	100%	60%	78%	90%	91%
% <LLD			0%	0%	0%	21%	0%	0%	0%	0%	0%	0%	0%	0%

Appendix 18. QC samples analysis by AR

STANDARD	Cs (ppm)	Cu (ppm)	Dy (ppm)	Er (ppm)	Eu (ppm)	Fe (ppm)	Ga (ppm)	Gd (ppm)	Ge (ppm)	Hf (ppm)	Hg (ppm)	Ho (ppm)	In (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.02	0.01	0.1	0.1	0.1	100	0.02	0.1	0.1	0.1	0.01	0.1	0.02
ULD:													
OREAS45-P	0.66	663	2.4	1.2	0.9	181000	22.3	3.1	0.2	0.5	0.07	0.5	0.09
OREAS45-P	1.38	659	2.4	1	0.7	193000	17.1	3.1	0.2	0.5	0.04	0.4	0.07
OREAS45-P	1.38	589	2.8	1.2	0.7	189000	18.3	3.1	0.1	0.5	0.05	0.5	0.08
OREAS45-P	1.35	599	2.2	1.2	0.9	183000	18.8	2.9	0.2	0.6	0.04	0.5	0.09
OREAS45-P	1.39	577	2.6	1.2	0.8	174000	14.1	2.5	0.2	0.5	0.04	0.4	0.05
OREAS45-P	1.47	606	3.1	1.3	0.9	192000	17.8	2.8	0.2	0.6	0.03	0.4	0.06
OREAS45-P	1.46	707	3	1.2	0.9	168000	16.8	2.8	0.2	0.6	0.05	0.4	0.06
OREAS45-P	0.98	673	2.4	1	0.8	196000	16.2	2.4	0.1	0.7	0.06	0.6	0.05
OREAS45-P	1.18	735	2.5	1.1	0.9	206000	17.7	2.6	0.2	0.6	0.07	0.6	0.05
OREAS45-P	1.01	701	2.5	1	0.9	195000	17	2.7	0.1	0.7	0.04	0.6	0.05
OREAS45-P	0.79	663	2.3	0.9	0.8	169000	15	2.4	0.1	0.6	0.005	0.6	0.04
OREAS45-P	1.14	710	2	1	0.9	166000	13.4	2.5	0.1	0.6	0.05	0.6	0.05
OREAS45-P	1.18	718	2.3	1	0.9	183000	15.4	2.5	0.2	0.5	0.04	0.6	0.05
OREAS45-P	0.85	650	2	0.9	0.9	162000	12.2	2.3	0.1	0.6	0.04	0.5	0.04
OREAS45-P	1.41	759	2.5	1.1	0.8	208000	19.4	2.8	0.2	0.4	0.04	0.4	0.07
OREAS45-P	1.19	722	2.3	1	0.7	186000	15.6	2.7	0.2	0.4	0.04	0.4	0.06
OREAS45-P	1.39	793	2.8	1.1	0.8	201000	18.2	3.2	0.2	0.4	0.04	0.4	0.08
OREAS45-P	0.95	711	2.4	1.1	0.7	176000	14.9	2.7	0.1	0.4	0.04	0.4	0.07
Average	**1.27**	**673.5**	**2.5**	**1.1**	**0.9**	**188940.2985**	**17.9**	**3.0**	**0.16**	**0.59**	**0.04**	**0.5**	**0.09**
SD	**0.17**	**34.4**	**0.2**	**0.1**	**0.1**	**8170**	**1.7**	**0.4**	**0.05**	**0.09**	**0.01**	**0.1**	**0.02**
RSD	**13%**	**5%**	**9%**	**8%**	**10%**	**4%**	**9%**	**14%**	**31%**	**15%**	**29%**	**14%**	**22%**
RV		749	4.1	2.2	1.2	192200		4				0.78	
GeoPT	14%	11%	13%	14%	16%	4%	12%	13%	16%	11%		18%	
Abs GeoPT		82.39	0.533	0.308	0.192	7688		0.52				0.1404	
Bias		**90%**	**61%**	**52%**	**72%**	**98%**		**75%**				**60%**	
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**1%**	**0%**	**0%**

Appendix 18. QC samples analysis by AR

STANDARD	K (ppm)	La (ppm)	Li (ppm)	Lu (ppm)	Mg (ppm)	Mn (ppm)	Mo (ppm)	Na (ppm)	Nb (ppm)	Nd (ppm)	Ni (ppm)	Pb (ppm)	Pr (ppm)	Rb (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	100	0.5	0.1	0.1	100	1	0.01	10	0.1	0.02	0.1	0.01	0.1	0.1
ULD:														
OREAS45-P	1100	19.2	8.7	0.1	900	1270	1.49	100	0.6	15.5	278	17.2	4.1	8.1
OREAS45-P	700	19.5	5.8	0.05	900	1280	1.41	190	0.6	15.7	293	18.2	4.2	9.9
OREAS45-P	700	17.3	5.6	0.1	1000	1270	1.39	190	0.7	11.4	298	18.1	3.8	11.3
OREAS45-P	700	22.1	3.7	0.2	1000	1280	1.46	150	0.6	14.3	297	18.7	3.5	10.5
OREAS45-P	900	15.9	7.3	0.1	1100	1020	1.45	100	0.4	16	327	17.3	4.1	10.5
OREAS45-P	1000	19	6.6	0.1	1100	1240	1.56	110	0.5	17.5	328	18.9	4.6	11.1
OREAS45-P	1000	19.6	9	0.1	1200	1120	1.19	100	0.3	17.2	345	18.8	4.5	12.4
OREAS45-P	900	17.9	9.1	0.05	1000	1160	1.11	240	0.6	13.2	332	16.6	3.3	8.9
OREAS45-P	1100	19.5	11	0.05	1200	1200	1.14	270	0.4	14.8	359	18.4	3.7	10.5
OREAS45-P	900	19.4	10.3	0.05	1100	1180	1.12	240	0.4	14.2	341	18.6	3.4	7.6
OREAS45-P	800	16.4	6.8	0.05	1000	1060	1.2	220	0.7	11.9	317	16.8	2.9	5.3
OREAS45-P	900	16.9	10.2	0.05	1000	959	1.17	230	0.4	13.6	350	17.1	3.1	9.4
OREAS45-P	1000	18.3	11.8	0.05	1100	1070	1.26	250	0.3	14.1	358	17.5	3.5	10.4
OREAS45-P	700	14.8	6.7	0.05	900	892	1.16	1020	0.7	11.6	327	16.7	2.8	6.8
OREAS45-P	1100	15.8	13.2	0.1	1300	1160	1.51	290	0.4	14.8	400	19.1	3.7	10.8
OREAS45-P	900	14.5	10.5	0.1	1100	1030	1.58	250	0.6	12.5	330	18.8	3.3	8.9
OREAS45-P	1000	17.3	11.6	0.1	1300	1170	1.21	280	0.4	13.7	374	21.3	3.7	10.7
OREAS45-P	800	14.1	8.6	0.1	1000	991	1.17	220	0.6	11.8	310	19	3.1	8
Average	**870**	**19.5**	**9.2**	**0.13**	**1124**	**1231**	**1.28**	**184**	**0.5**	**15.1**	**321.9**	**18.7**	**4.1**	**10.1**
SD	**117**	**2.1**	**1.7**	**0.06**	**129**	**91**	**0.19**	**113**	**0.1**	**1.9**	**21.7**	**1.1**	**0.6**	**1.3**
RSD	**13%**	**11%**	**18%**	**44%**	**11%**	**7%**	**15%**	**61%**	**21%**	**13%**	**7%**	**6%**	**15%**	**13%**
RV	3500	24.8		0.31	2200	1270		810	24	21	385	22	5.4	23
GeoPT	4%	10%		18%	3%	6%	15%	4%	12%	10%	9%	11%	12%	9%
Abs GeoPT	140	2.48		0.0558	66	76.2		32.4	2.88	2.1	34.65	2.42	0.648	2.07
Bias	**25%**	**79%**		**40%**	**51%**	**97%**		**23%**	**2%**	**72%**	**84%**	**85%**	**76%**	**44%**
% <LLD	**0%**	**0%**	**0%**	**15%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**

Appendix 18. QC samples analysis by AR

STANDARD	Re (ppm)	Sb (ppm)	Sc (ppm)	Se (ppm)	Sm (ppm)	Sn (ppm)	Sr (ppm)	Ta (ppm)	Tb (ppm)	Te (ppm)	Th (ppm)	Tl (ppm)	Tm (ppm)	U (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.001	0.02	0.1	0.1	0.1	0.05	0.5	0.05	0.1	0.02	0.1	0.02	0.1	0.1
ULD:							1000							
OREAS45-P	0.002	0.56	66.1	0.8	3.5	1.84	12.9	0.025	0.4	0.07	7.4	0.1	0.2	1.2
OREAS45-P	0.002	0.58	66.2	0.8	3.3	1.64	15.7	0.025	0.4	0.07	6.8	0.1	0.2	1.2
OREAS45-P	0.003	0.49	66.1	0.8	2.7	1.65	14.6	0.025	0.4	0.05	7.8	0.11	0.2	1.3
OREAS45-P	0.0005	0.47	63.7	0.9	3	1.66	16.9	0.025	0.5	0.03	6.8	0.1	0.2	1.2
OREAS45-P	0.0005	0.59	64.2	1.1	3.4	1.82	23.6	0.025	0.4	0.12	5.4	0.13	0.1	1
OREAS45-P	0.0005	0.62	63.2	1.2	3.6	2.17	26	0.025	0.4	0.09	6.9	0.14	0.1	1.3
OREAS45-P	0.002	0.5	56.6	1.1	3.5	2.01	11.3	0.025	0.5	0.04	7.7	0.13	0.05	1.2
OREAS45-P	0.001	0.6	67.2	0.7	2.8	1.92	17.8	0.025	0.4	0.06	6.8	0.1	0.05	1
OREAS45-P	0.002	0.58	70.1	0.7	3.2	1.95	20.3	0.025	0.4	0.01	7.4	0.1	0.1	1.1
OREAS45-P	0.003	0.55	71.1	0.5	3.2	1.85	13.4	0.025	0.4	0.05	7.6	0.1	0.1	1.2
OREAS45-P	0.0005	0.64	61	0.6	2.7	1.94	10	0.025	0.4	0.06	6.8	0.09	0.2	1.1
OREAS45-P	0.0005	0.61	66.3	0.6	3.1	1.68	18	0.025	0.4	0.03	6.6	0.09	0.2	0.9
OREAS45-P	0.003	0.69	67	0.8	3.1	1.93	20.7	0.025	0.4	0.04	7	0.09	0.2	1
OREAS45-P	0.0005	0.58	59.1	0.6	2.7	1.72	15.6	0.025	0.3	0.01	6.3	0.09	0.2	0.9
OREAS45-P	0.0005	0.52	80.5	1.1	3.3	1.54	14.9	0.025	0.4	0.07	6.5	0.12	0.1	1.1
OREAS45-P	0.0005	0.5	67.5	0.9	2.8	1.4	12.2	0.025	0.3	0.05	6.3	0.11	0.1	1
OREAS45-P	0.002	0.49	68.5	0.8	3.1	1.47	14	0.025	0.4	0.05	7.9	0.15	0.1	1.4
OREAS45-P	0.0005	0.49	63.9	0.6	2.6	1.43	11.4	0.025	0.4	0.06	6.5	0.11	0.3	1.1
Average	**0.0015**	**0.54**	**65.0**	**0.8**	**3.4**	**1.85**	**16.2**	**0.025**	**0.4**	**0.05**	**7.1**	**0.11**	**0.18**	**1.2**
SD	**0.0011**	**0.07**	**3.2**	**0.2**	**0.4**	**0.17**	**2.3**	**0.000**	**0.1**	**0.02**	**0.4**	**0.01**	**0.05**	**0.1**
RSD	**73%**	**13%**	**5%**	**23%**	**11%**	**9%**	**14%**	**0%**	**16%**	**39%**	**6%**	**13%**	**25%**	**9%**
RV		0.92			4.51	3.1	32.6		0.69		9.8		0.32	2.4
GeoPT		17%	12%		12%		7%	16%	17%		12%			14%
Abs GeoPT		0.1564			0.5412		2.282		0.1173		1.176			0.336
Bias		**59%**			**75%**	**60%**	**50%**		**62%**		**73%**		**56%**	**49%**
% <LLD	**36%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**6%**	**0%**	**0%**	**3%**	**0%**

Appendix 18. QC samples analysis by AR

STANDARD	V (ppm)	W (ppm)	Y (ppm)	Yb (ppm)	Zn (ppm)	Zr (ppm)
METHOD:	AR	AR	AR	AR	AR	AR
LLD:	1	0.1	0.01	0.1	0.1	0.1
ULD:		200				
OREAS45-P	229	0.1	9.19	1.1	128	28.4
OREAS45-P	211	0.2	8.69	1	120	24.1
OREAS45-P	218	0.05	8.3	1	123	25
OREAS45-P	217	0.05	9.57	1	129	22.9
OREAS45-P	243	0.05	8.89	0.9	102	23.6
OREAS45-P	221	0.05	10.1	1.1	122	26
OREAS45-P	294	0.05	7.59	1.1	110	22.8
OREAS45-P	236	0.05	10.8	0.8	146	26
OREAS45-P	249	0.05	12.1	0.9	125	26.8
OREAS45-P	267	0.05	8.7	0.9	127	26.8
OREAS45-P	247	0.05	7.23	0.8	144	23.8
OREAS45-P	262	0.05	10.8	0.9	194	24.1
OREAS45-P	250	0.05	11.8	0.9	132	24.9
OREAS45-P	238	0.05	9.42	0.8	124	23.9
OREAS45-P	267	0.05	9.54	0.8	115	26.6
OREAS45-P	257	0.05	8.38	0.8	107	23.4
OREAS45-P	257	0.05	8.98	0.9	123	21.3
OREAS45-P	250	0.05	8	0.8	107	20.9
Average	227	0.06	9.6	1.0	130.5	26.7
SD	17	0.03	1.0	0.1	12.0	2.5
RSD	7%	48%	10%	11%	9%	9%
RV			18	2.1	141	279
GeoPT	9%	15%	10%	14%	9%	7%
Abs GeoPT			1.8	0.294	12.69	19.53
Bias			54%	48%	93%	10%
% <LLD	0%	96%	0%	0%	0%	0%

Appendix 18. QC samples analysis by AR

STANDARD	NUMBER	BATCH	SAMPLEID	GRAIN	DEPTH	Ag (ppm)	Al (ppm)	As (ppm)	Au (ppm)	Au (ppm) Repeat 1	B (ppm)	Ba (ppm)	Be (ppm)
METHOD:		NO		SIZE		AR	AR	AR	AR	AR	AR	AR	AR
LLD:						0.002	100	0.1	0.0001	0.0001	1	0.5	0.1
ULD:							100000						
GEMAS-A	4289	A09-489	2007190040	Fine	BOS	0.039	20000	8.7	0.002		0.5	102	1.2
GEMAS-A	4656	A09-490	2007190500	Fine	BOS	0.032	16700	8.8	0.0019		0.5	93.7	1.2
GEMAS-A	4876	A09-491	2007190660	Fine	BOS	0.056	15000	7.4	0.0018		1	92.2	0.8
GEMAS-A	4931	A09-491	2007190720	Fine	BOS	0.057	16300	6.7	0.0022		1	93.1	0.8
GEMAS-A	5354	A09-493	2007191000	Fine	BOS	0.059	17700	8.3	0.0007		1	94.5	1.1
GEMAS-A	6317	A10-044	2007190080	Coarse	BOS	0.049	17100	9.1	0.0014		0.5	92.1	0.8
GEMAS-A	6379	A10-044	2007190200	Coarse	BOS	0.09	19600	10.6	0.0013		0.5	104	0.8
GEMAS-A	6424	A10-044	2007190380	Coarse	BOS	0.054	17300	8.1	0.0011		0.5	82.5	1
GEMAS-A	6583	A10-045	2007190760	Coarse	BOS	0.049	19900	8.2	0.0012		0.5	93.2	1
GEMAS-A	6886	A10-046	2007191160	Coarse	BOS	0.044	12800	7.9	0.0013		0.5	77.4	0.8
Average						0.053	17240	8.4	0.0015		0.65	92.5	1.0
SD						0.016	2271	1.0	0.0005		0.24	7.9	0.2
RSD						29%	13%	12%	31%		37%	9%	18%
% <LLD						0%	0%	0%	0%		70%	0%	0%
GEMAS-G	4312	A09-489	2007190100	Fine	BOS	0.031	16000	10.2	0.0021		0.5	101	1.1
GEMAS-G	4390	A09-489	2007190220	Fine	BOS	0.001	6500	0.9	0.0023		0.5	53.6	0.4
GEMAS-G	5155	A09-492	2007190860	Fine	BOS	0.049	16100	11.6	0.0014		1	102	1.2
GEMAS-G	5480	A09-493	2007191200	Fine	BOS	0.048	14500	10.3	0.002		0.5	103	0.7
GEMAS-G	5721	A10-001	2007191320	Fine	BOS	0.054	13300	9.7	0.0023		0.5	99.3	0.8
GEMAS-G	6393	A10-044	2007190240	Coarse	BOS	0.023	14200	9.8	0.0024		2	92	0.6
GEMAS-G	6499	A10-044	2007190600	Coarse	BOS	0.037	17600	9.6	0.0018		0.5	99.6	0.8
GEMAS-G	6597	A10-045	2007190800	Coarse	BOS	0.025	13600	9.7	0.0027		0.5	85.3	0.9
GEMAS-G	6764	A10-046	2007191040	Coarse	BOS	0.033	16200	8.9	0.0019		0.5	96.2	0.8
GEMAS-G	7017	A10-047	2007191360	Coarse	BOS	0.038	13800	9.5	0.0026		0.5	89.3	0.7
Average						0.034	14180	9.0	0.0022		0.70	92.1	0.8
SD						0.015	3039	2.9	0.0004		0.48	14.7	0.2
RSD						46%	21%	33%	18%		69%	16%	29%
% <LLD						10%	0%	0%	0%		80%	0%	0%
LKSD-1	977	A09-026	2007190500	Fine	TOS	0.636	3700	33.6	0.0224		0.5	93	0.2
LKSD-1	2669	A09-034	2007190440	Coarse	TOS	0.197	1500	11.1	0.0024		0.5	36.7	0.05
LKSD-1	4534	A09-490	2007190380	Fine	BOS	0.573	4100	30.9	0.0044		0.5	95.2	0.2
LKSD-1	6417	A10-044	2007190320	Coarse	BOS	0.557	5100	32.2	0.0032		0.5	101	0.2
Average						0.491	3600	27.0	0.0081		0.50	81.5	0.2
SD						0.199	1519	10.6	0.0096		0.00	30.0	0.1
RSD						41%	42%	39%	118%		0%	37%	46%
RV						0.6		30					
GeoPT							3%	12%				7%	16%
Abs GeoPT								3.6					
Bias						82%		90%					
% <LLD						0%	0%	0%	0%		100%	0%	25%
MRIS	90	A09-022	2007190040	Fine	TOS	0.044	13400	3.3	0.0005		0.5	112	1.2
MRIS	274	A09-022	2007190120	Fine	TOS	0.023	16000	3.3	0.0008		0.5	122	1.3
MRIS	468	A09-025	2007190160	Fine	TOS	0.024	15500	3.2	0.0017		0.5	107	1.1
MRIS	592	A09-025	2007190240	Fine	TOS	0.011	13100	3.1	0.0011		0.5	93.3	0.9
MRIS	605	A09-025	2007190260	Fine	TOS	0.036	15200	3	0.0007		0.5	95.2	1.1
MRIS	866	A09-026	2007190360	Fine	TOS	0.018	16900	3	0.0004		1	106	1
MRIS	883	A09-026	2007190380	Fine	TOS	0.024	13300	3.1	0.0016		0.5	101	1.2
MRIS	940	A09-026	2007190480	Fine	TOS	0.024	14900	3.2	0.0016		0.5	105	1.2
MRIS	991	A09-026	2007190540	Fine	TOS	0.035	17400	3.8	0.0023		0.5	114	1.1
MRIS	1028	A09-026	2007190560	Fine	TOS	0.022	13700	2.5	0.0002		0.5	100	1.1
MRIS	1063	A09-026	2007190620	Fine	TOS	0.033	18400	3.7	0.0009		0.5	114	1.3
MRIS	1192	A09-027	2007190680	Fine	TOS	0.23	17100	3.6	0.0016		1	117	1.3
MRIS	1288	A09-027	2007190760	Fine	TOS	0.03	15100	4.1	0.0009		1	103	1
MRIS	1317	A09-027	2007190780	Fine	TOS	0.025	14900	3.4	0.0007		0.5	105	1
MRIS	1408	A09-027	2007190840	Fine	TOS	0.024	11200	3.3	0.0013		0.5	90.8	0.8
MRIS	1480	A09-027	2007190920	Fine	TOS	0.029	13600	3.6	0.0017		0.5	108	1.1
MRIS	1600	A09-030	2007190940	Fine	TOS	0.065	15500	4.3	0.0011		6	118	1
MRIS	1733	A09-030	2007191120	Fine	TOS	0.1	16600	3.6	0.0009		0.5	117	1.1
MRIS	1773	A09-030	2007191200	Fine	TOS	0.021	15300	3.1	0.0004		0.5	105	1.1
MRIS	1786	A09-030	2007191220	Fine	TOS	0.029	14700	2.8	0.0006		0.5	103	1.2
MRIS	1804	A09-030	2007191260	Fine	TOS	0.026	14700	3	0.0011		1	101	1
MRIS	1847	A09-030	2007191320	Fine	TOS	0.027	16400	3	0.0009		2	107	1.1
MRIS	1856	A09-030	2007191340	Fine	TOS	0.028	15400	2.3	0.0023		2	101	1
MRIS	2205	A09-033	2007190060	Coarse	TOS	0.04	15600	2.7	0.0005		1	105	1.3
MRIS	2219	A09-033	2007190100	Coarse	TOS	0.032	12100	3	0.0006		0.5	96.9	0.9
MRIS	2271	A09-033	2007190180	Coarse	TOS	0.029	14800	3.4	0.0012		0.5	108	0.8
MRIS	2284	A09-033	2007190200	Coarse	TOS	0.043	16100	3.3	0.0074		0.5	110	1.1
MRIS	2397	A09-033	2007190300	Coarse	TOS	0.031	14600	3.3	0.0139		0.5	101	0.9
MRIS	2430	A09-033	2007190320	Coarse	TOS	0.032	16000	3.4	0.0009		1	109	1
MRIS	2660	A09-034	2007190420	Coarse	TOS	0.055	15400	3	0.0015		0.5	100	0.8
MRIS	2747	A09-034	2007190480	Coarse	TOS	0.03	14700	2.8	0.001		0.5	101	0.9
MRIS	2756	A09-034	2007190500	Coarse	TOS	0.024	14900	3.5	0.0012		0.5	104	1.2
MRIS	2851	A09-034	2007190560	Coarse	TOS	0.025	14000	3	0.0012		0.5	119	1.1
MRIS	3016	A09-035	2007190620	Coarse	TOS	0.033	15300	4.2	0.0014		2	116	0.7
MRIS	3096	A09-035	2007190700	Coarse	TOS	0.022	17500	3.3	0.0018		0.5	111	1.1
MRIS	3125	A09-035	2007190720	Coarse	TOS	0.017	14800	2.7	0.001		2	108	0.9
MRIS	3160	A09-035	2007190780	Coarse	TOS	0.04	17600	2.5	0.0009		0.5	121	1
MRIS	3232	A09-035	2007190860	Coarse	TOS	0.014	20500	4.3	0.0018		3	99.6	1.4
MRIS	3261	A09-035	2007190880	Coarse	TOS	0.011	14300	4.6	0.0016		0.5	96	1.3
MRIS	3513	A09-336	2007191060	Coarse	TOS	0.016	12800	3.7	0.0036		0.5	90.8	0.9
MRIS	3609	A09-336	2007191140	Coarse	TOS	0.016	21800	2.8	0.0016		0.5	106	1
MRIS	3630	A09-336	2007191160	Coarse	TOS	0.021	26000	2.9	0.0014		0.5	104	1
MRIS	3660	A09-336	2007191200	Coarse	TOS	0.04	13100	3.2	0.0027		0.5	91.9	0.9

Appendix 18. QC samples analysis by AR

STANDARD	Bi (ppm)	Ca (ppm)	Cd (ppm)	Ce (ppm)	Co (ppm)	Cr (ppm)	Cs (ppm)	Cu (ppm)	Dy (ppm)	Er (ppm)	Eu (ppm)	Fe (ppm)	Ga (ppm)	Gd (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.02	100	0.01	0.01	0.1	0.5	0.02	0.01	0.1	0.1	0.1	100	0.02	0.1
ULD:														
GEMAS-A	0.37	48000	0.22	33.4	12.5	49.9	1.73	25.5	2.6	0.9	0.8	33200	5.92	3.9
GEMAS-A	0.31	54300	0.25	34.3	13.5	44.2	1.29	23.7	2.6	0.9	0.7	37800	5.81	3
GEMAS-A	0.33	48100	0.25	36.2	12.9	40.2	1.85	20.6	2.4	0.9	0.8	35000	4.53	3.1
GEMAS-A	0.35	42700	0.22	34.2	11.8	46.1	1.87	22.5	2.5	0.9	0.8	31600	4.74	2.9
GEMAS-A	0.31	50400	0.23	30.3	12.3	47.6	1.43	22.7	1.9	0.8	0.7	33500	5.45	3.1
GEMAS-A	0.42	51200	0.25	31.5	15.3	39.1	1.01	38.2	2.6	1	0.8	38100	5.59	3.6
GEMAS-A	0.45	56900	0.23	33.6	16.3	42.7	1.1	37	2.9	1.1	0.9	41800	5.76	4.2
GEMAS-A	0.37	41300	0.18	31.9	12.1	36.9	1.74	42.7	2.3	0.9	0.7	32600	5.22	3.3
GEMAS-A	0.41	38900	0.2	34.3	13.1	36.5	1.03	24.3	2.6	1.1	0.8	33400	5.62	3.8
GEMAS-A	0.34	45600	0.17	26	12.2	29.9	0.53	22.9	2.2	0.9	0.7	30600	4.29	3.1
Average	**0.37**	**47740**	**0.22**	**32.6**	**13.2**	**41.3**	**1.36**	**28.0**	**2.5**	**0.9**	**0.8**	**34760**	**5.29**	**3.4**
SD	**0.05**	**5733**	**0.03**	**2.9**	**1.5**	**6.0**	**0.44**	**8.0**	**0.3**	**0.1**	**0.1**	**3462**	**0.58**	**0.4**
RSD	**13%**	**12%**	**13%**	**9%**	**11%**	**15%**	**33%**	**29%**	**11%**	**10%**	**9%**	**10%**	**11%**	**13%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
GEMAS-G	0.31	3200	0.21	38.2	10	41.6	1.4	23.9	2.1	0.7	0.7	27600	5.08	3.2
GEMAS-G	0.07	1100	0.04	19.3	7.7	19.3	0.68	9.4	1.7	0.8	0.6	13100	2.06	2.2
GEMAS-G	0.28	3800	0.29	41	12.1	45.9	1.03	28	1.9	0.7	0.8	34800	5.59	2.6
GEMAS-G	0.27	3800	0.24	36.3	10.7	39.7	0.86	23.5	2	0.7	0.7	29700	5.32	2.9
GEMAS-G	0.29	3700	0.29	35.2	9.9	43.5	1.05	29.6	1.8	0.7	0.8	27800	3.96	2.7
GEMAS-G	0.35	3100	0.27	28.7	10.7	30.4	0.62	28.3	2.1	0.8	0.6	30400	4.2	2.8
GEMAS-G	0.34	3400	0.17	39.5	10.9	36	1.07	30.3	2.2	0.8	0.7	30600	5.47	3.3
GEMAS-G	0.36	2800	0.19	24	10.6	27.8	0.31	24.4	1.9	0.7	0.6	27800	4.17	2.6
GEMAS-G	0.3	3900	0.22	38.8	10.9	34.3	0.93	26.4	2.1	0.8	0.7	28100	5.43	3.1
GEMAS-G	0.3	3400	0.17	33	10.7	27.9	0.62	22.7	2	0.8	0.7	27600	4.73	2.9
Average	**0.29**	**3220**	**0.21**	**33.4**	**10.42**	**34.6**	**0.86**	**24.7**	**2.0**	**0.8**	**0.7**	**27750**	**4.60**	**2.83**
SD	**0.08**	**824**	**0.07**	**7.2**	**1.1**	**8.3**	**0.31**	**6.0**	**0.2**	**0.1**	**0.1**	**5612**	**1.07**	**0.3**
RSD	**29%**	**26%**	**36%**	**22%**	**11%**	**24%**	**36%**	**24%**	**8%**	**7%**	**11%**	**20%**	**23%**	**12%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
LKSD-1	0.86	58400	1.21	19.2	7.7	16	0.49	42.9	2	1.1	0.5	21500	2.19	2.6
LKSD-1	0.28	26500	0.41	10	2.8	5.4	0.2	14.9	0.7	0.4	0.4	6200	0.76	0.9
LKSD-1	0.99	74900	1.57	16	7.5	15.4	0.53	49.3	2	1	0.5	19300	1.87	2.5
LKSD-1	1.11	78500	1.34	19.6	8.2	15.8	0.54	56	2.1	1.1	0.6	22200	2.1	2.8
Average	**0.81**	**59575**	**1.13**	**16.2**	**6.55**	**13.2**	**0.44**	**40.8**	**1.7**	**0.9**	**0.5**	**17300**	**1.73**	**2.2**
SD	**0.37**	**23723**	**0.50**	**4.4**	**2.5**	**5.2**	**0.16**	**18.1**	**0.7**	**0.3**	**0.1**	**7502**	**0.66**	**0.9**
RSD	**45%**	**40%**	**45%**	**27%**	**38%**	**39%**	**37%**	**44%**	**39%**	**37%**	**16%**	**43%**	**38%**	**40%**
RV			1.2		9	12		44				18000		
GeoPT	22%	3%		9%	12%	8%	14%	11%	13%	14%	16%	4%	12%	13%
Abs GeoPT					1.08	0.96		4.84				720		
Bias			**94%**		**73%**	**110%**		**93%**				**96%**		
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
MRIS	0.24	3900	0.33	64.9	9.9	43.1	1.69	12.9	2.9	1.5	0.8	22800	5.31	4.9
MRIS	0.26	4500	0.28	64.6	12	32.3	1.88	13.7	3.4	1.5	0.9	18700	5.87	5.7
MRIS	0.25	3900	0.51	58.3	10.5	46.4	1.55	14.5	2.7	1.3	0.7	24100	4.99	4.2
MRIS	0.23	3200	0.19	50.9	9.5	39.2	1.87	12.9	2.4	1.1	0.6	21500	4.51	3.9
MRIS	0.24	3300	0.21	56.5	9.8	40.8	2.08	14	2.7	1.1	0.7	21500	5.05	4.3
MRIS	0.22	3800	0.36	66.4	10.7	42.6	1.5	13.9	3.2	1.4	0.7	22400	5.73	4.8
MRIS	0.23	3500	0.27	52	9.2	37.3	1.37	12.6	2.7	1.2	0.6	21100	3.99	4.3
MRIS	0.24	3700	0.52	55.3	9.6	39.8	1.61	12.2	2.8	1.2	0.6	21900	4.23	4.5
MRIS	0.24	4400	0.35	63.4	10.8	47.5	1.99	13.5	3.5	1.5	0.8	23800	6.38	5.3
MRIS	0.23	3500	0.36	53.5	10.3	41.5	1.56	13.1	3.2	1.4	0.7	21400	4.73	4.7
MRIS	0.24	4200	0.25	61.5	11.3	47.6	2.01	14.6	3.5	1.6	0.8	23600	6.45	5.3
MRIS	0.27	4200	0.79	67.6	19.4	57.5	2.17	29.6	3.3	1.4	0.8	24200	6.17	5
MRIS	0.26	4100	0.27	62.6	11	47.9	1.7	14	3.1	1.4	0.8	23700	5.14	4.8
MRIS	0.24	3800	0.21	61.8	10.8	47	1.68	13	3	1.4	0.7	23400	4.73	4.7
MRIS	0.22	3500	0.36	48.8	10.1	37	1.32	12.1	2.7	1.3	0.7	19400	4.08	4.1
MRIS	0.24	4100	0.27	65.1	10.8	41.8	1.69	12.9	2.9	1.3	0.9	21500	5.66	4.8
MRIS	0.26	4800	0.34	64.2	11.3	49.5	1.92	14.1	3.5	1.5	1	23100	6.5	5.5
MRIS	0.29	4500	0.4	65.7	11.1	48.4	2.15	14.5	3.4	1.4	0.8	23100	6.2	4.6
MRIS	0.24	4100	0.25	59.2	10.4	45.5	1.93	13.3	3.1	1.3	0.7	22700	5.74	4
MRIS	0.23	4000	0.23	54.8	10.1	44	1.86	13.1	2.9	1.3	0.7	22300	5.45	3.7
MRIS	0.23	3700	0.24	52.7	9.8	41.6	1.86	12.2	2.7	1.3	0.7	21800	5.02	3.6
MRIS	0.24	4100	0.28	54.8	10.4	45.3	2.01	13.1	2.9	1.3	0.7	23600	5.63	3.9
MRIS	0.22	3900	0.21	54.9	10	42.5	2	12.2	2.8	1.3	0.7	22500	5.25	3.8
MRIS	0.24	4100	0.2	62.3	9.8	42.8	1.82	12.4	3	1.4	0.9	21200	5.2	3.5
MRIS	0.21	3700	0.18	55.5	9.1	39.1	1.47	11.5	2.7	1.3	0.8	19100	4.36	3
MRIS	0.24	3900	0.15	63.1	9.9	37.5	1.94	11.8	3	1.3	0.9	20000	5.45	3.2
MRIS	0.24	4200	0.14	64.9	10.1	38.8	1.94	12.6	3.1	1.4	0.9	20700	5.9	3.4
MRIS	0.22	4200	0.14	55.3	9.8	39.5	1.62	12.3	2.9	1.3	0.8	19700	5.56	2.8
MRIS	0.25	4400	0.21	57.5	10.3	41.6	1.83	12.7	3.2	1.4	0.9	20400	6.06	2.9
MRIS	0.26	3800	0.25	76.4	10.3	42.5	1.94	12.2	3.1	1.4	0.6	17300	4.81	4.2
MRIS	0.24	4300	0.17	45.8	10	37.6	1.69	12.6	2.9	1.4	0.7	18200	5.35	3.9
MRIS	0.23	4100	0.19	46.9	10.1	38.5	1.78	12.4	2.8	1.5	0.6	18400	5.41	4
MRIS	0.25	4400	0.14	51.6	10.1	40	1.94	12.5	3.3	1.4	0.9	18500	6.36	4.7
MRIS	0.25	2800	0.19	42.1	9.4	38.4	1.94	12.5	2.7	1.5	0.7	19300	5.75	3.8
MRIS	0.29	4700	0.16	76.5	12.1	48.7	2.21	16.4	3.2	1.6	0.9	26100	8.15	4.9
MRIS	0.23	3500	0.33	43.2	10.1	35.2	1.47	13.7	2.5	1.3	0.7	20500	5.53	4.1
MRIS	0.24	3400	0.2	84.1	9.7	35.3	1.86	12.3	2.6	1.3	0.7	19700	5.97	5.2
MRIS	0.26	4200	0.17	52.2	11.2	50.3	2.24	16.4	3	1.4	0.8	21200	5.01	3.9
MRIS	0.25	5000	0.17	62.7	10	45.5	1.74	13.4	2.8	1.4	0.7	18000	5.15	4.3
MRIS	0.24	3300	0.12	62.7	10.6	35.4	1.3	10.5	2.8	1.4	0.7	16400	4	3.7
MRIS	0.23	3200	0.24	91.8	9.5	40.8	2.12	13.2	3.2	1.5	0.8	15300	4.85	4.9
MRIS	0.21	4700	0.26	92.3	9.4	41.9	2.04	21.2	3.2	1.3	0.7	15600	4.52	4.5
MRIS	0.21	2800	0.12	61.8	9.1	32.2	1.15	11.4	2.6	1.2	0.6	13900	3.04	3.4

Appendix 18. QC samples analysis by AR

STANDARD	Ge (ppm)	Hf (ppm)	Hg (ppm)	Ho (ppm)	In (ppm)	K (ppm)	La (ppm)	Li (ppm)	Lu (ppm)	Mg (ppm)	Mn (ppm)	Mo (ppm)	Na (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.1	0.1	0.01	0.1	0.02	100	0.5	0.1	0.1	100	1	0.01	10
ULD:													
GEMAS-A	0.05	0.05	0.16	0.4	0.04	4600	16.7	32.2	0.05	11200	696	0.69	320
GEMAS-A	0.05	0.05	0.1	0.4	0.03	5400	17.8	27	0.05	10000	832	0.85	1350
GEMAS-A	0.05	0.05	0.1	0.3	0.01	5600	15	21.6	0.05	8700	706	0.85	150
GEMAS-A	0.05	0.05	0.13	0.3	0.01	5400	15.5	26	0.05	8900	695	0.76	130
GEMAS-A	0.05	0.05	0.15	0.4	0.02	5800	15.3	31.1	0.05	9800	680	0.71	370
GEMAS-A	0.05	0.05	0.14	0.4	0.04	3700	13.9	23.1	0.05	8000	844	0.79	500
GEMAS-A	0.05	0.05	0.16	0.5	0.04	4200	15.1	27.5	0.1	9600	928	0.93	390
GEMAS-A	0.05	0.05	0.09	0.4	0.03	4000	14.2	23.2	0.05	7100	699	0.79	270
GEMAS-A	0.1	0.05	0.12	0.4	0.04	4700	15.5	23.2	0.05	8200	682	0.62	170
GEMAS-A	0.05	0.05	0.14	0.3	0.03	2900	11.4	21.2	0.05	8700	701	0.49	1560
Average	**0.06**	**0.05**	**0.13**	**0.4**	**0.03**	**4630**	**15.0**	**25.6**	**0.06**	**9020**	**746**	**0.75**	**521**
SD	**0.02**	**0.00**	**0.03**	**0.1**	**0.01**	**939**	**1.7**	**3.8**	**0.02**	**1168**	**88**	**0.13**	**508**
RSD	**29%**	**0%**	**20%**	**17%**	**41%**	**20%**	**11%**	**15%**	**29%**	**13%**	**12%**	**17%**	**98%**
% <LLD	**90%**	**100%**	**0%**	**0%**	**20%**	**0%**	**0%**	**0%**	**90%**	**0%**	**0%**	**0%**	**0%**
GEMAS-G	0.05	0.05	0.25	0.3	0.03	4200	19.3	23.1	0.05	3800	581	1.02	320
GEMAS-G	0.05	0.05	0.005	0.3	0.01	600	6.8	2	0.1	800	364	0.71	260
GEMAS-G	0.05	0.05	0.01	0.4	0.01	6400	20.5	27.8	0.05	3500	695	1.15	360
GEMAS-G	0.05	0.05	0.18	0.4	0.01	4800	19.7	23.7	0.05	3500	675	0.93	390
GEMAS-G	0.05	0.05	0.02	0.5	0.01	5000	19	24.4	0.05	3000	566	1.06	330
GEMAS-G	0.05	0.05	0.17	0.3	0.03	3100	13.6	14.6	0.05	2900	684	1.08	270
GEMAS-G	0.05	0.05		0.3	0.03	4100	19.3	19.1	0.05	3300	673	0.96	400
GEMAS-G	0.2	0.05	0.19	0.3	0.02	3100	11.1	15.4	0.05	2800	598	0.86	190
GEMAS-G	0.05	0.05	0.13	0.3	0.03	4100	18.6	20.5	0.2	3800	666	0.87	200
GEMAS-G	0.05	0.05	0.17	0.3	0.03	3300	15.8	18.2	0.05	3700	658	0.81	2690
Average	**0.07**	**0.05**	**0.13**	**0.3**	**0.02**	**3870**	**16.4**	**18.9**	**0.07**	**3110**	**616**	**0.95**	**541**
SD	**0.05**	**0.00**	**0.09**	**0.1**	**0.01**	**1526**	**4.5**	**7.2**	**0.05**	**890**	**100**	**0.14**	**759**
RSD	**73%**	**0%**	**72%**	**21%**	**47%**	**39%**	**28%**	**38%**	**69%**	**29%**	**16%**	**14%**	**140%**
% <LLD	**90%**	**100%**	**11%**	**0%**	**40%**	**0%**	**0%**	**0%**	**80%**	**0%**	**0%**	**0%**	**0%**
LKSD-1	0.05	0.05	0.14	0.4	0.45	500	12.3	4.8	0.1	5200	532	9.45	380
LKSD-1	0.05	0.05	0.06	0.1	0.16	300	5.2	1.6	0.05	1900	182	3.01	130
LKSD-1	0.05	0.05	0.1	0.3	0.4	500	11.5	3.7	0.1	5800	435	9.71	530
LKSD-1	0.05	0.05	0.13	0.4	0.5	500	12.2	4.7	0.2	5300	483	10.9	550
Average	**0.05**	**0.05**	**0.11**	**0.3**	**0.38**	**450**	**10.3**	**3.7**	**0.11**	**4550**	**408**	**8.27**	**397.5**
SD	**0.00**	**0.00**	**0.04**	**0.1**	**0.15**	**100**	**3.4**	**1.5**	**0.06**	**1786**	**156**	**3.56**	**194**
RSD	**0%**	**0%**	**33%**	**47%**	**40%**	**22%**	**33%**	**40%**	**56%**	**39%**	**38%**	**43%**	**49%**
RV			0.11								460	12	
GeoPT	16%	11%		18%		4%	10%		18%	3%	6%	15%	4%
Abs GeoPT											27.6	1.8	
Bias			**98%**								**89%**	**69%**	
% <LLD	**100%**	**100%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**25%**	**0%**	**0%**	**0%**	**0%**
MRIS	0.05	0.05	0.02	0.5	0.03	3700	30.1	11.3	0.2	3300	730	0.22	300
MRIS	0.05	0.05	0.05	0.6	0.04	3200	33.2	8.9	0.2	3100	759	0.24	260
MRIS	0.05	0.05	0.03	0.5	0.01	3200	30	15.9	0.1	3400	776	0.24	250
MRIS	0.05	0.05	0.01	0.5	0.01	3100	26.1	9.4	0.1	3300	678	0.24	270
MRIS	0.05	0.05	0.03	0.5	0.01	3400	29.6	10.3	0.1	3400	684	0.53	270
MRIS	0.1	0.05	0.03	0.6	0.02	4000	35.9	11.1	0.05	3600	693	0.22	320
MRIS	0.05	0.05	0.02	0.5	0.02	3300	27.4	9	0.1	3000	643	0.23	270
MRIS	0.05	0.05	0.03	0.5	0.02	3500	29.2	9.8	0.1	3200	663	0.21	280
MRIS	0.1	0.05	0.04	0.6	0.03	3900	34.4	12.3	0.1	3400	725	0.21	290
MRIS	0.05	0.05	0.04	0.6	0.02	3100	28.9	10.4	0.2	3300	680	0.19	230
MRIS	0.05	0.05	0.03	0.6	0.03	4100	34.1	13.3	0.2	3600	727	0.24	290
MRIS	0.05	0.05	0.03	0.6	0.02	4000	37.9	13.7	0.1	3700	773	4.25	310
MRIS	0.05	0.05	0.05	0.6	0.03	3700	30.8	11.3	0.2	3200	717	0.21	290
MRIS	0.05	0.05	0.02	0.6	0.02	3500	29.1	12.1	0.1	3200	710	0.2	270
MRIS	0.05	0.05	0.03	0.5	0.02	2800	23.8	9.5	0.1	3400	663	0.23	250
MRIS	0.05	0.05	0.02	0.6	0.02	3100	26.8	10	0.1	2900	701	0.21	310
MRIS	0.05	0.05	0.03	0.6	0.03	3200	33.8	11.3	0.2	3700	750	0.23	340
MRIS	0.05	0.05	0.02	0.6	0.03	4700	34.9	11.8	0.2	3500	737	0.22	300
MRIS	0.05	0.05	0.04	0.5	0.03	4200	30.7	11.6	0.2	3400	700	0.26	260
MRIS	0.05	0.05	0.03	0.5	0.03	4000	29.1	11.1	0.2	3200	688	0.25	260
MRIS	0.05	0.05	0.02	0.5	0.01	3600	27.4	10.3	0.1	2900	673	0.15	270
MRIS	0.05	0.05	0.02	0.5	0.03	3900	28.5	11.5	0.1	3100	729	0.17	300
MRIS	0.05	0.05	0.04	0.5	0.02	3700	28.8	10.7	0.1	2900	692	0.22	280
MRIS	0.05	0.05	0.04	0.5	0.01	3400	30.8	11.7	0.1	3800	736	0.29	270
MRIS	0.05	0.05	0.05	0.5	0.02	2900	27.5	9.3	0.1	3300	668	0.26	210
MRIS	0.05	0.05	0.02	0.5	0.01	3500	33.2	10.4	0.2	3400	695	0.28	250
MRIS	0.05	0.05	0.02	0.6	0.03	3700	33.4	11.3	0.2	3700	730	0.3	300
MRIS	0.05	0.05	0.02	0.5	0.02	3300	28.2	10.5	0.2	3700	682	0.31	290
MRIS	0.05	0.05	0.03	0.5	0.03	3600	28.7	11.9	0.2	3800	727	0.27	270
MRIS	0.05	0.05	0.03	0.5	0.03	3300	32.4	10.9	0.1	3600	597	0.11	220
MRIS	0.05	0.05	0.02	0.5	0.03	3000	26.2	18.8	0.1	3800	777	0.005	250
MRIS	0.05	0.05	0.005	0.6	0.03	3100	26.7	18.6	0.1	3800	793	0.005	270
MRIS	0.05	0.05	0.005	0.6	0.03	3400	30.3	11.8	0.1	3400	721	0.08	250
MRIS	0.05	0.05	0.03	0.5	0.02	3500	26.8	11.3	0.1	3500	562	0.33	330
MRIS	0.05	0.05	0.005	0.7	0.03	3900	35.8	10.2	0.2	4200	692	0.24	280
MRIS	0.05	0.05	0.005	0.5	0.01	3800	26.5	9.5	0.2	4000	799	0.27	280
MRIS	0.05	0.05	0.01	0.5	0.03	4100	26.3	9.7	0.2	4000	498	0.24	300
MRIS	0.05	0.05	0.06	0.6	0.01	4200	26.1	10.8	0.1	5500	632	0.32	310
MRIS	0.1	0.05	0.01	0.5	0.01	2800	31.2	9.9	0.1	3300	664	0.39	280
MRIS	0.05	0.05	0.02	0.5	0.01	3700	31.3	7.4	0.2	3100	619	0.23	130
MRIS	0.05	0.05	0.02	0.5	0.01	3500	35	8.7	0.1	4300	481	0.28	220
MRIS	0.05	0.05	0.005	0.6	0.03	4100	35.6	10	0.1	5100	490	0.35	280
MRIS	0.05	0.05	0.05	0.5	0.01	3100	22.5	5.5	0.05	4700	502	0.36	190

Appendix 18. QC samples analysis by AR

STANDARD	Nb (ppm)	Nd (ppm)	Ni (ppm)	Pb (ppm)	Pr (ppm)	Rb (ppm)	Re (ppm)	Sb (ppm)	Sc (ppm)	Se (ppm)	Sm (ppm)	Sn (ppm)	Sr (ppm)	Ta (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.1	0.02	0.1	0.01	0.1	0.1	0.001	0.02	0.1	0.1	0.1	0.05	0.5	0.05
ULD:													1000	
GEMAS-A	0.3	17	50.7	17.2	4	35.5	0.0005	1.06	7.1	0.6	3.6	1.26	83.5	0.025
GEMAS-A	0.3	17.7	46.9	17.6	4.3	28.8	0.0005	1.21	6	0.8	3.3	1.35	91.1	0.025
GEMAS-A	0.3	19.8	47.3	18.1	4.6	30	0.0005	1.37	6.1	0.6	4.1	1.37	88.8	0.025
GEMAS-A	0.2	18.2	47.9	17.4	4.3	32.6	0.001	1.3	5.5	0.9	3.8	1.36	89.8	0.025
GEMAS-A	0.2	16.9	50.6	17.1	4	29.9	0.002	0.76	6	0.5	3.4	1.08	82	0.025
GEMAS-A	0.3	16.7	57.8	20.2	3.9	21.3	0.002	1.31	5.8	1.3	3.7	1.16	98.3	0.025
GEMAS-A	0.4	18.6	63	21.6	4.2	24.3	0.002	1.38	6.2	1.8	4.1	1.36	112	0.025
GEMAS-A	0.2	16.5	46.9	17.9	3.9	25.2	0.002	1.26	4.6	0.3	3.6	1.03	85.3	0.025
GEMAS-A	0.3	18.8	51.2	19.7	4.4	26.6	0.0005	0.73	5.3	0.4	4	1.03	84	0.025
GEMAS-A	0.4	12.9	48.1	18	3.3	16.7	0.0005	0.88	4.6	3.7	3	0.97	80.2	0.025
Average	**0.3**	**17.3**	**51.0**	**18.5**	**4.1**	**27.1**	**0.0012**	**1.13**	**5.7**	**1.1**	**3.7**	**1.20**	**89.5**	**0.025**
SD	**0.1**	**1.9**	**5.3**	**1.5**	**0.4**	**5.5**	**0.0007**	**0.25**	**0.8**	**1.0**	**0.4**	**0.16**	**9.5**	**0.000**
RSD	**25%**	**11%**	**10%**	**8%**	**9%**	**20%**	**65%**	**22%**	**13%**	**94%**	**10%**	**13%**	**11%**	**0%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**50%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**
GEMAS-G	0.4	18.3	38.5	0.18	4.6	31	0.0005	1.45	5.4	0.8	3.6	2.14	22.4	0.025
GEMAS-G	0.05	11	8.6	0.05	2.4	7.9	0.0005	0.02	3.3	0.2	2.4	0.42	19.2	0.025
GEMAS-G	0.4	18.9	42.6	15.5	4.4	24.7	0.002	1.83	5.3	0.3	3.9	2	21.2	0.025
GEMAS-G	0.4	17.8	37.9	15.2	4.5	23.4	0.002	1.29	3.7	0.4	3.1	2.25	25.5	0.025
GEMAS-G	0.5	17.7	40.6	15.6	3.9	21.8	0.002	1.83	3.9	0.3	3.7	2.08	19.4	0.025
GEMAS-G	0.3	14.5	36.5	16.5	3.4	15.6	0.003	1.59	3.9	0.05	3.1	1.96	23.7	0.025
GEMAS-G	0.4	18.7	39.2	17.7	4.7	22.2	0.0005	1.6	3.6	0.05	3.7	2.17	24.6	0.025
GEMAS-G	0.5	12	38.6	16.7	2.9	13.7	0.0005	0.79	3.3	0.05	2.7	1.95	21.6	0.025
GEMAS-G	0.4	17.3	40.2	22	4.8	25.2	0.006	1.55	4.4	0.05	3.5	1.84	23.7	0.025
GEMAS-G	0.5	15.2	37.7	17.3	4.1	19.6	0.0005	1.21	3.9	0.05	3.3	1.97	22.9	0.025
Average	**0.4**	**16.1**	**36.0**	**13.7**	**4.0**	**20.5**	**0.0018**	**1.32**	**4.1**	**0.2**	**3.3**	**1.88**	**22.4**	**0.025**
SD	**0.1**	**2.8**	**9.8**	**7.4**	**0.8**	**6.6**	**0.0018**	**0.55**	**0.7**	**0.2**	**0.5**	**0.53**	**2.1**	**0.000**
RSD	**35%**	**18%**	**27%**	**54%**	**21%**	**32%**	**100%**	**42%**	**18%**	**107%**	**14%**	**28%**	**9%**	**0%**
% <LLD	**10%**	**0%**	**0%**	**0%**	**0%**	**0%**	**50%**	**0%**	**0%**	**50%**	**0%**	**0%**	**0%**	**100%**
LKSD-1	1.1	12.5	11.7	86.7	3	3.4	0.023	0.55	3	0.9	2.6	3.76	68.5	0.025
LKSD-1	0.3	4.21	4.2	30.7	1.2	1.2	0.013	0.2	1.2	0.9	1.2	1.12	21.2	0.025
LKSD-1	1.1	12	18.2	88.8	2.8	3.4	0.018	0.56	3.1	1.2	2.6	3	58.2	0.025
LKSD-1	1	13.6	16.4	91	3.1	3.8	0.022	0.72	2.7	1.8	2.9	3.59	73.4	0.025
Average	**0.9**	**10.6**	**12.6**	**74.3**	**2.5**	**3.0**	**0.0190**	**0.51**	**2.5**	**1.2**	**2.3**	**2.87**	**55.3**	**0.025**
SD	**0.4**	**4.3**	**6.2**	**29.1**	**0.9**	**1.2**	**0.0045**	**0.22**	**0.9**	**0.4**	**0.8**	**1.21**	**23.6**	**0.000**
RSD	**44%**	**41%**	**50%**	**39%**	**35%**	**40%**	**24%**	**43%**	**35%**	**35%**	**33%**	**42%**	**43%**	**0%**
RV			11	84				1.2						
GeoPT	12%	10%	9%	11%	12%	9%		17%	12%		12%		7%	16%
Abs GeoPT			0.99	9.24				0.204						
Bias			**115%**	**88%**				**42%**						
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**
MRIS	1.2	27.6	31.2	15.3	6.8	31.8	0.0005	0.36	5.3	0.2	5.9	1.41	26	0.025
MRIS	0.6	20.6	28.1	17	6.8	31	0.0005	0.21	6.1	0.4	5	1.79	26.6	0.025
MRIS	0.9	24.6	31.4	14.6	7	31.5	0.003	0.16	4.6	0.6	5	1.3	25.4	0.025
MRIS	0.9	21	29.9	13.1	5.8	27.9	0.007	0.16	3.8	0.6	4.6	0.95	22.7	0.025
MRIS	1	23.5	30.9	14.9	6.5	29.9	0.0005	0.17	4.4	0.4	5	1.14	23.7	0.025
MRIS	1.1	21.4	33	14.9	7	31.8	0.0005	0.13	5.3	0.2	4.9	1.49	25.1	0.025
MRIS	0.9	22.7	27.6	13.4	6.2	26.5	0.007	0.14	4.1	0.7	4.6	1.26	23.7	0.025
MRIS	1	24.1	28.8	13.3	6.6	28.3	0.001	0.14	4.3	0.3	4.7	1.35	24.6	0.025
MRIS	0.9	27.4	34.3	15.4	7.5	35.3	0.0005	0.16	5.5	0.7	5.4	1.69	29.2	0.025
MRIS	1.1	23.4	31.8	14.2	6.3	27.7	0.0005	0.13	4.4	0.3	4.6	1.42	20.6	0.025
MRIS	1.1	27	37.7	15.9	7.4	36.3	0.005	0.24	5.5	0.4	5.1	1.84	26.2	0.025
MRIS	1	25.3	48.9	17.8	7.4	37.4	0.0005	0.19	5.8	0.9	5.3	2.2	29.6	0.025
MRIS	1.2	27.3	33.4	15.6	7.6	30.9	0.0005	0.15	5.4	0.7	5.1	1.62	25.7	0.025
MRIS	1.1	27.9	31.8	14.9	7.6	29	0.002	0.23	5.4	0.4	5	1.56	24.5	0.025
MRIS	0.9	20.9	30	13.3	5.8	25.6	0.0005	0.13	3.8	0.4	4.2	1.27	21.4	0.025
MRIS	1.1	25.1	32.3	13.5	6.9	30.8	0.0005	0.15	6.1	0.5	6.6	1.52	23.1	0.025
MRIS	1.2	26.8	35.2	16.8	7.4	33.4	0.0005	0.17	5.9	1.5	5.2	1.6	28	0.025
MRIS	1.1	27.3	34.3	15.6	7.6	38.4	0.002	0.19	5.1	0.3	5.4	1.55	30.4	0.025
MRIS	1.1	24.4	32.7	14.1	6.8	34.9	0.002	0.17	5.1	0.5	4.8	1.42	26.8	0.025
MRIS	1.1	23.1	31.2	13.7	6.4	33.8	0.0005	0.12	5.3	0.3	4.7	1.4	25.9	0.025
MRIS	0.8	22.3	30.3	13.6	6.1	28.3	0.002	0.14	4.8	0.7	4.4	1.75	25.1	0.025
MRIS	0.9	23.4	32	13.8	6.4	30.6	0.002	0.13	5.2	1	4.7	1.44	27.2	0.025
MRIS	0.9	23.2	30.8	13.5	6.3	29.5	0.003	7.38	5	0.5	4.6	1.39	26	0.025
MRIS	1	23.9	28.6	13.7	7.1	32.5	0.002	0.15	5.7	0.7	5.1	1.31	26.6	0.025
MRIS	0.9	21.7	25.4	13.3	6.4	27.2	0.0005	0.17	4.7	0.6	4.6	1.22	22.7	0.025
MRIS	1.1	23.2	28.8	13.8	6.8	32.2	0.001	0.15	5.2	0.4	4.7	1.62	25.7	0.025
MRIS	1	24.5	29.7	13.9	7.1	33.4	0.002	0.2	5.7	0.5	4.8	1.64	27.4	0.025
MRIS	1.1	20.4	28.2	13.7	6	29.3	0.0005	0.16	5.2	0.7	4.2	1.41	25.6	0.025
MRIS	1.1	21.7	28.6	14.8	6.3	31.9	0.0005	0.14	5.6	0.5	4.4	1.53	28.2	0.025
MRIS	0.9	20.7	29.5	15.5	5.8	30.9	0.003	0.17	9.4	0.6	4.6	1.41	23.2	0.025
MRIS	0.9	19.7	29.5	10.5	5.2	31.1	0.003	0.35	5.6	0.5	4.3	1.73	27.4	0.025
MRIS	0.9	19.7	28.9	10.6	5.3	30.7	0.001	0.11	5.6	0.8	4.4	1.67	26.4	0.025
MRIS	1.1	22.8	29.5	12.4	5.8	37.1	0.0005	6.37	5.9	0.6	5.8	1.55	28.6	0.025
MRIS	0.8	19.9	29.9	9.33	4.7	34.5	0.005	0.17	5.1	1.2	4.9	1.24	23.6	0.025
MRIS	0.8	28.5	32.8	14.2	7.9	37.8	0.008	0.21	6.3	0.4	5.2	1.59	30	0.025
MRIS	0.6	17.2	30.1	14.6	4.8	35	0.0005	0.09	3.6	0.4	3.9	1.2	24	0.025
MRIS	0.8	32.4	29.1	11	9.1	34	0.0005	0.17	3.9	0.9	6.9	1.54	23.9	0.025
MRIS	0.7	18.6	31.4	12.1	5.4	34.9	0.0005	0.26	5.8	0.05	3.9	1.32	27.5	0.025
MRIS	0.8	22.1	23.1	12.5	6.7	31.2	0.0005	0.19	5.6	0.05	4.5	1.36	25.5	0.025
MRIS	0.6	19.2	27.8	11.4	6.5	29.9	0.0005	0.17	4.8	0.7	4.9	1.19	19.7	0.025
MRIS	0.7	25.4	28	11.7	6	34.1	0.007	0.18	5.3	0.05	5.2	1.35	28.1	0.025
MRIS	0.8	24.4	27.6	11.5	6.1	34.2	0.003	0.2	5.8	0.05	5.1	1.47	29.3	0.025
MRIS	0.4	16.6	23.4	10.9	4	25.3	0.009	0.19	3.4	0.4	3.7	0.78	22.4	0.025

Appendix 18. QC samples analysis by AR

STANDARD	Tb (ppm)	Te (ppm)	Th (ppm)	Tl (ppm)	Tm (ppm)	U (ppm)	V (ppm)	W (ppm)	Y (ppm)	Yb (ppm)	Zn (ppm)	Zr (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.1	0.02	0.1	0.02	0.1	0.1	1	0.1	0.01	0.1	0.1	0.1
ULD:								200				
GEMAS-A	0.4	0.07	5.3	0.18	0.1	1.1	40	0.05	9.49	0.7	108	1.1
GEMAS-A	0.4	0.06	4.6	0.2	0.05	1.2	39	0.1	11.5	0.6	109	2.3
GEMAS-A	0.4	0.08	4.3	0.22	0.05	0.8	36	0.05	11.8	0.6	58.3	1.9
GEMAS-A	0.4	0.06	4.8	0.22	0.05	0.9	37	0.05	10.6	0.7	71.8	1.6
GEMAS-A	0.3	0.05	4.5	0.19	0.3	0.9	41	0.05	9.76	0.6	71.3	1
GEMAS-A	0.5	0.1	4.7	0.19	0.1	1	37	0.1	11.6	0.7	504	2
GEMAS-A	0.5	0.05	5	0.2	0.1	1.1	42	0.05	13.1	0.8	116	2.2
GEMAS-A	0.4	0.05	4.5	0.19	0.1	0.9	36	0.05	10.2	0.6	99.6	1.6
GEMAS-A	0.4	0.02	4.7	0.19	0.2	1	40	0.05	10	0.7	88.5	1.2
GEMAS-A	0.4	0.01	3.7	0.15	0.1	0.9	31	0.05	9.52	0.6	79.3	1.5
Average	**0.4**	**0.06**	**4.6**	**0.19**	**0.12**	**1.0**	**38**	**0.06**	**10.8**	**0.7**	**130.6**	**1.6**
SD	**0.1**	**0.03**	**0.4**	**0.02**	**0.08**	**0.1**	**3**	**0.02**	**1.2**	**0.1**	**132.6**	**0.5**
RSD	**14%**	**48%**	**9%**	**10%**	**68%**	**13%**	**8%**	**35%**	**11%**	**11%**	**102%**	**28%**
% <LLD	**0%**	**10%**	**0%**	**0%**	**30%**	**0%**	**0%**	**80%**	**0%**	**0%**	**0%**	**0%**
GEMAS-G	0.3	0.02	15	0.25	0.1	5.3	33	0.05	8.32	0.5	74.8	0.9
GEMAS-G	0.2	0.01	5.56	0.25	0.1	1.9	36	0.05	8.17	0.7	9.6	0.7
GEMAS-G	0.3	0.02	4.2	0.18	0.05	0.6	35	0.05	6.91	0.5	54.9	0.5
GEMAS-G	0.4	0.03	4.6	0.2	0.3	0.8	31	0.05	8.61	0.5	60.3	0.9
GEMAS-G	0.4	0.01	4.7	0.17	0.1	0.6	33	0.05	5.79	0.5	59.4	1
GEMAS-G	0.4	0.01	3.7	0.16	0.05	0.6	30	0.05	8.59	0.6	71.4	1.5
GEMAS-G	0.4	0.01	4.7	0.21	0.05	0.8	36	0.05	9.18	0.6	84.5	0.9
GEMAS-G	0.3	0.01	2.5	0.16	0.05	0.5	28	0.1	7.59	0.5	73.3	1.7
GEMAS-G	0.4	0.01	4.5	0.21	0.05	1.5	36	0.05	8.65	0.6	297	1.7
GEMAS-G	0.3	0.01	3.5	0.18	0.05	0.6	32	0.05	8.5	0.5	68.9	1.1
Average	**0.3**	**0.01**	**5.3**	**0.20**	**0.09**	**1.3**	**33**	**0.06**	**8.0**	**0.6**	**85.4**	**1.1**
SD	**0.1**	**0.01**	**3.5**	**0.03**	**0.08**	**1.5**	**3**	**0.02**	**1.0**	**0.1**	**77.1**	**0.4**
RSD	**21%**	**50%**	**66%**	**17%**	**86%**	**112%**	**8%**	**29%**	**13%**	**13%**	**90%**	**38%**
% <LLD	**0%**	**70%**	**0%**	**0%**	**60%**	**0%**	**0%**	**90%**	**0%**	**0%**	**0%**	**0%**
LKSD-1	0.3	0.06	1.7	0.17	0.2	9.1	24	0.7	11.7	0.9	318	1.7
LKSD-1	0.05	0.03	0.5	0.08	0.05	2.9	8	0.5	4.34	0.3	116	0.6
LKSD-1	0.3	0.05	1.4	0.19	0.05	8.1	26	0.6	11	1.1	267	1.9
LKSD-1	0.3	0.01	1.5	0.23	0.2	9.5	26	0.6	12.1	1	319	1.6
Average	**0.2**	**0.04**	**1.3**	**0.17**	**0.13**	**7.4**	**21**	**0.60**	**9.8**	**0.8**	**255.0**	**1.5**
SD	**0.1**	**0.02**	**0.5**	**0.06**	**0.09**	**3.1**	**9**	**0.08**	**3.7**	**0.4**	**95.8**	**0.6**
RSD	**53%**	**59%**	**42%**	**38%**	**69%**	**41%**	**42%**	**14%**	**37%**	**44%**	**38%**	**40%**
RV							27				337	
GeoPT	17%		12%			14%	9%	15%	10%	14%	9%	7%
Abs GeoPT							2.43				30.33	
Bias							**78%**				**76%**	
% <LLD	**25%**	**25%**	**0%**	**0%**	**50%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
MRIS	0.6	0.04	8	0.2	0.2	2.9	36	0.05	15.5	1.1	50.7	3
MRIS	0.6	0.03	10.4	0.17	0.2	3	36	0.05	17.4	1.5	57.7	2.1
MRIS	0.5	0.07	6.3	0.17	0.2	2.9	37	0.1	16.3	1	58.2	2.5
MRIS	0.4	0.01	4.8	0.15	0.2	2.5	30	0.1	15.1	1	48.8	1.6
MRIS	0.5	0.01	5.8	0.16	0.2	2.6	31	0.1	15.8	1	49.5	2
MRIS	0.5	0.01	7.9	0.17	0.2	2.9	33	0.05	15.9	1	52.2	2.7
MRIS	0.5	0.01	5.7	0.14	0.2	2.6	28	0.05	14.5	1	44.9	2.1
MRIS	0.5	0.01	6.8	0.17	0.2	2.6	30	0.1	15.1	1	41.5	2.1
MRIS	0.6	0.03	9	0.18	0.2	3	36	0.05	16.4	1.2	51	2.8
MRIS	0.4	0.01	6.8	0.16	0.2	2.7	33	0.05	15.2	1.1	52.7	2.4
MRIS	0.5	0.05	8.8	0.21	0.2	3	37	0.05	17.7	1.2	65.2	3
MRIS	0.6	0.05	9.1	0.21	0.2	2.9	36	0.05	18.1	1.1	71.1	3.2
MRIS	0.5	0.05	7.5	0.19	0.2	2.8	36	0.05	15.9	1.1	54.5	4
MRIS	0.6	0.01	7.2	0.18	0.2	2.7	35	0.05	15.8	1.1	51.9	2.7
MRIS	0.5	0.06	5.6	0.16	0.2	2.7	29	0.05	13.3	1	48.6	2.3
MRIS	0.7	0.06	7.1	0.19	0.2	2.7	34	0.05	16.4	1	60.4	2.8
MRIS	0.8	0.05	9.1	0.21	0.2	3.1	40	0.05	18.6	1.2	67.3	3
MRIS	0.5	0.03	7.8	0.21	0.2	3.1	35	0.05	18	1.2	57.1	2.6
MRIS	0.5	0.07	7.5	0.19	0.2	2.9	34	0.05	16.2	1	53.7	2
MRIS	0.4	0.04	7.1	0.17	0.2	2.8	33	0.05	15.8	1	52.1	1.8
MRIS	0.4	0.01	6.6	0.15	0.2	2.7	31	0.1	15.5	1	47.1	2.4
MRIS	0.4	0.01	7.1	0.16	0.2	2.8	35	0.2	16.4	1	52.7	2.4
MRIS	0.4	0.03	7.3	0.19	0.2	2.8	32	0.1	16	1	51.1	2.5
MRIS	0.6	0.04	8.4	0.19	0.2	2.8	35	0.05	16.2	1.3	47.2	2
MRIS	0.6	0.01	6.9	0.16	0.2	2.6	32	0.05	14.6	1.1	46.6	1.5
MRIS	0.6	0.05	8.9	0.21	0.2	2.9	36	0.05	15.8	1.2	50.6	1.8
MRIS	0.6	0.03	9.5	0.21	0.2	3	37	0.05	16.7	1.2	60.9	2
MRIS	0.5	0.01	8.4	0.2	0.2	2.7	35	0.05	16	1.2	54.6	1.8
MRIS	0.6	0.08	9	0.22	0.2	2.8	37	0.05	16.6	1.3	51.6	1.9
MRIS	0.5	0.03	8.1	0.2	0.2	2.9	35	0.1	15.7	1.1	49.5	2.3
MRIS	0.5	0.06	8.1	0.19	0.2	2.7	36	0.05	14.9	1.2	56	2
MRIS	0.5	0.04	8.4	0.18	0.2	2.7	37	0.1	15.1	1.2	55.5	1.9
MRIS	0.7	0.03	9.1	0.19	0.2	2.9	39	0.05	15.2	1.4	46	2.6
MRIS	0.5	0.01	8.1	0.18	0.2	2.7	33	0.1	16.4	1.1	53.9	2
MRIS	0.7	0.04	11.6	0.26	0.2	3.2	41	0.05	16.6	1.4	73.5	2.5
MRIS	0.5	0.03	5.5	0.16	0.2	2.6	36	0.2	13.6	1	45.2	2.5
MRIS	0.6	0.05	9.1	0.17	0.2	2.7	34	0.2	16.4	1.1	49.9	1.5
MRIS	0.5	0.05	5.7	0.16	0.2	2.9	35	0.2	16.4	1.1	61.7	1.9
MRIS	0.6	0.06	8.6	0.2	0.2	2.9	34	0.05	13.2	1.2	59.6	1.8
MRIS	0.5	0.04	5.8	0.17	0.2	2.9	32	0.2	13.7	1	57.5	1.2
MRIS	0.5	0.07	8.4	0.21	0.2	2.6	36	0.05	15.7	1.2	60.4	1.7
MRIS	0.6	0.01	8.6	0.21	0.2	2.6	37	0.1	15.9	1.1	87.3	1.6
MRIS	0.5	0.01	3.6	0.13	0.2	2.4	33	0.2	13.7	1.1	56.2	1.3

Appendix 18. QC samples analysis by AR

STANDARD	NUMBER	BATCH	SAMPLEID	GRAIN	DEPTH	Ag (ppm)	Al (ppm)	As (ppm)	Au (ppm)	Au (ppm) Repeat 1	B (ppm)	Ba (ppm)	Be (ppm)
METHOD:		NO		SIZE		AR	AR	AR	AR	AR	AR	AR	AR
LLD:						0.002	100	0.1	0.0001	0.0001	1	0.5	0.1
ULD:							100000						
MRIS	3794	A09-337	2007191260	Coarse	TOS	0.003	8500	2.9	0.0017		0.5	92.6	0.7
MRIS	3835	A09-337	2007191280	Coarse	TOS	0.021	14800	2.7	0.0011		0.5	107	0.8
MRIS	3890	A09-337	2007191340	Coarse	TOS	0.024	20900	3.3	0.002		0.5	106	0.9
MRIS	3916	A09-337	2007191380	Coarse	TOS	0.023	14900	3	0.0015		0.5	107	0.7
MRIS	4317	A09-489	2007190120	Fine	BOS	0.008	17800	3.4	0.0029		0.5	115	1.4
MRIS	4334	A09-489	2007190140	Fine	BOS	0.028	14000	3.4	0.0022		0.5	100	1
MRIS	4411	A09-489	2007190240	Fine	BOS	0.013	13700	3.1	0.0036		0.5	107	0.9
MRIS	4420	A09-489	2007190260	Fine	BOS	0.006	14200	3.3	0.0011		0.5	104	0.8
MRIS	4457	A09-489	2007190360	Fine	BOS	0.006	12600	3.9	0.0026		0.5	99.6	1.1
MRIS	4552	A09-490	2007190420	Fine	BOS	0.017	16900	2.5	0.0021		0.5	114	1
MRIS	4609	A09-490	2007190440	Fine	BOS	0.001	16600	3	0.0013		0.5	114	1
MRIS	4719	A09-490	2007190560	Fine	BOS	0.001	16000	3	0.0023		0.5	107	1.1
MRIS	4859	A09-491	2007190640	Fine	BOS	0.03	13300	3	0.0029		1	100	1
MRIS	5072	A09-492	2007190800	Fine	BOS	0.094	13900	2.5	0.0013		0.5	95.9	0.8
MRIS	5085	A09-492	2007190820	Fine	BOS	0.05	15100	3.4	0.0005		0.5	107	1.2
MRIS	5382	A09-493	2007191080	Fine	BOS	0.028	12700	2.7	0.0002		0.5	96.4	0.8
MRIS	5395	A09-493	2007191100	Fine	BOS	0.017	15000	3.1	0.0015		0.5	112	0.8
MRIS	5429	A09-493	2007191140	Fine	BOS	0.025	15300	2.7	0.0014		0.5	114	0.9
MRIS	5497	A09-493	2007191220	Fine	BOS	0.018	15800	2.7	0.0022		0.5	114	0.8
MRIS	5643	A10-001	2007191280	Fine	BOS	0.045	14500	2.7	0.0016		0.5	94.1	1
MRIS	5886	A10-002	2007191400	Fine	BOS	0.032	11600	3.2	0.0017		0.5	91.6	1.4
MRIS	6304	A10-044	2007190060	Coarse	BOS	0.029	17700	3.5	0.0018		0.5	105	0.9
MRIS	6370	A10-044	2007190180	Coarse	BOS	0.017	20300	4	0.0035		0.5	117	1
MRIS	6412	A10-044	2007190300	Coarse	BOS	0.032	21500	3.4	0.0012		0.5	115	1
MRIS	6423	A10-044	2007190360	Coarse	BOS	0.026	18300	3.4	0.0019		0.5	104	0.9
MRIS	6439	A10-044	2007190440	Coarse	BOS	0.036	21100	3.6	0.0021		0.5	105	1
Average						0.031	15612	3.2	0.0017		0.75	105.6	1.0
SD						0.030	2750	0.5	0.0018		0.79	7.8	0.2
RSD						96%	18%	15%	104%		105%	7%	17%
% <LLD						3%	0%	0%	0%		81%	0%	0%
MRIS2	6466	A10-044	2007190500	Coarse	BOS	0.017	22600	3.2	0.0008		0.5	115	0.9
MRIS2	6490	A10-044	2007190580	Coarse	BOS	0.023	19400	3.6	0.0014		0.5	108	0.9
MRIS2	6542	A10-045	2007190660	Coarse	BOS	0.026	20100	3.7	0.0039		0.5	114	0.9
MRIS2	6574	A10-045	2007190740	Coarse	BOS	0.117	20000	3.2	0.001		0.5	104	0.8
MRIS2	6656	A10-045	2007190940	Coarse	BOS	0.038	18400	3.1	0.0009		0.5	104	1.1
MRIS2	6708	A10-045	2007191020	Coarse	BOS	0.09	17600	3	0.0014		0.5	99.9	1.1
MRIS2	6806	A10-046	2007191080	Coarse	BOS	0.019	18300	2.9	0.0012		0.5	103	1
MRIS2	6865	A10-046	2007191140	Coarse	BOS	0.01	12900	2.9	0.0007		0.5	91.7	0.7
MRIS2	6933	A10-046	2007191220	Coarse	BOS	0.022	13800	2.5	0.0012		0.5	98.2	0.9
MRIS2	6976	A10-047	2007191260	Coarse	BOS	0.003	14900	3	0.002		0.5	99.2	0.9
MRIS2	7012	A10-047	2007191340	Coarse	BOS	0.012	14400	2.6	0.0013		0.5	97.4	0.8
MRIS2	7026	A10-047	2007191380	Coarse	BOS	0.019	14100	2.6	0.0015		0.5	99.9	0.8
Average						0.033	17208	3.0	0.0014		0.50	102.9	0.9
SD						0.035	3102	0.4	0.0009		0.00	6.8	0.1
RSD						105%	18%	12%	59%		0%	7%	13%
% <LLD						0%	0%	0%	0%		100%	0%	0%
ORIS	143	A09-022	2007190060	Fine	TOS	0.026	10400	5.6	0.0103		0.5	107	0.8
ORIS	530	A09-025	2007190200	Fine	TOS	0.029	11200	5.9	0.0047	0.0041	2	97.8	1
ORIS	700	A09-025	2007190320	Fine	TOS	0.016	9900	5.9	0.007		0.5	94.6	1
ORIS	927	A09-026	2007190460	Fine	TOS	0.021	10900	6.1	0.0069		2	107	1.4
ORIS	1046	A09-026	2007190600	Fine	TOS	0.016	9600	5.7	0.0028		0.5	95.4	0.9
ORIS	1250	A09-027	2007190720	Fine	TOS	0.018	9200	5.1	0.0047		1	83.8	0.8
ORIS	1417	A09-027	2007190860	Fine	TOS	0.026	8400	5.3	0.0049		0.5	89.2	0.9
ORIS	1651	A09-030	2007191000	Fine	TOS	0.052	10200	6.9	0.0032		6	104	1
ORIS	1734	A09-030	2007191140	Fine	TOS	0.024	10800	6.6	0.0072		0.5	107	1
ORIS	1809	A09-030	2007191280	Fine	TOS	0.025	10600	5.2	0.0025		1	95.1	1
ORIS	2245	A09-033	2007190140	Coarse	TOS	0.032	10900	6.1	0.0036		1	102	1.1
ORIS	2343	A09-033	2007190260	Coarse	TOS	0.035	12600	5.9	0.0031		2	111	1.4
ORIS	2631	A09-034	2007190400	Coarse	TOS	0.032	10700	7	0.0036		1	113	1.2
ORIS	2834	A09-034	2007190540	Coarse	TOS	0.021	11900	6.6	0.0113		1	113	1
ORIS	3078	A09-035	2007190660	Coarse	TOS	0.001	13200	7	0.0075		1	106	1.3
ORIS	3181	A09-035	2007190800	Coarse	TOS	0.02	10400	6.3	0.0152		0.5	83.8	0.8
ORIS	3403	A09-336	2007190940	Coarse	TOS	0.013	11400	7.3	0.002		2	154	1.3
ORIS	3562	A09-336	2007191080	Coarse	TOS	0.015	26300	7.1	0.0027		5	184	1.4
ORIS	3772	A09-337	2007191220	Coarse	TOS	0.02	10100	5.8	0.0044		0.5	146	0.9
ORIS	3945	A09-337	2007191400	Coarse	TOS	0.022	12300	5.8	0.0029		0.5	101	0.8
ORIS	4295	A09-489	2007190080	Fine	BOS	0.051	12100	5.9	0.0313		0.5	116	1.3
ORIS	4365	A09-489	2007190200	Fine	BOS	0.005	10600	6.6	0.0078		0.5	93.6	1.3
ORIS	4448	A09-489	2007190340	Fine	BOS	0.009	8200	5.9	0.0362		0.5	93.1	0.8
ORIS	4639	A09-490	2007190480	Fine	BOS	0.001	11300	5.5	0.008		0.5	105	1
ORIS	4821	A09-491	2007190600	Fine	BOS	0.023	13200	6.3	0.0029		0.5	119	0.9
ORIS	4932	A09-491	2007190740	Fine	BOS	0.019	10100	4.7	0.166		0.5	100	0.7
ORIS	5168	A09-492	2007190880	Fine	BOS	0.037	12400	6	0.0041		0.5	113	1.1
ORIS	5363	A09-493	2007191020	Fine	BOS	0.006	11400	6.3	0.0034		0.5	107	0.9
ORIS	5434	A09-493	2007191160	Fine	BOS	0.025	11400	5.7	0.0265		0.5	115	0.7
ORIS	5734	A10-001	2007191340	Fine	BOS	0.066	9900	5	0.0045		0.5	96.7	1
ORIS	6302	A10-044	2007190020	Coarse	BOS	0.034	10800	6.3	0.0051		0.5	94.2	0.8
Average						0.024	11368	6.0	0.0131		1.11	108.0	1.0
SD						0.014	3023	0.6	0.0296		1.28	20.6	0.2
RSD						60%	27%	11%	226%		115%	19%	21%
% <LLD						6%	0%	0%	0%		61%	0%	0%

Appendix 18. QC samples analysis by AR

STANDARD	Bi (ppm)	Ca (ppm)	Cd (ppm)	Ce (ppm)	Co (ppm)	Cr (ppm)	Cs (ppm)	Cu (ppm)	Dy (ppm)	Er (ppm)	Eu (ppm)	Fe (ppm)	Ga (ppm)	Gd (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.02	100	0.01	0.01	0.1	0.5	0.02	0.01	0.1	0.1	0.1	100	0.02	0.1
ULD:														
MRIS	0.2	3000	0.42	62.8	8.8	34	1.59	11	2.5	1	0.6	12900	3.48	3.5
MRIS	0.24	3600	0.18	73.7	8.6	43.9	1.7	11.4	2.8	1.4	0.7	14500	4.99	4.1
MRIS	0.22	4500	0.15	74.6	9	50.3	2.03	12.1	2.8	1.5	0.7	16400	5.9	4.4
MRIS	0.25	3500	0.35	61.3	8.3	28.2	1.81	10.5	2.9	1.4	0.8	14400	3.99	3.6
MRIS	0.27	4500	0.19	62.3	10.5	46.6	2.11	24.7	4	1.6	0.8	26400	6.63	4.5
MRIS	0.24	3800	0.21	50.1	10.6	41.5	1.93	22.4	3.1	1.4	0.8	22600	4.95	4
MRIS	0.24	3500	0.19	55.5	9.2	41	1.81	19.5	3.6	1.4	0.7	21700	4.82	4.4
MRIS	0.24	3500	0.42	49.3	9.5	40.9	1.83	20.1	3.3	1.3	0.7	20400	4.41	4.3
MRIS	0.2	4300	0.25	51.4	12.4	43.7	1.57	20.4	3.2	1.4	0.7	26000	5.36	3.6
MRIS	0.24	3800	0.27	51.9	9.5	42.7	2.04	21.6	3.6	1.3	0.8	19100	5.01	4.5
MRIS	0.23	4000	0.21	56.9	9.4	43.3	1.94	20.8	3.9	1.4	0.7	23100	5.94	4.1
MRIS	0.25	3700	0.21	48.9	9.8	40.5	1.9	19.3	3.3	1.5	0.8	20200	4.9	4.2
MRIS	0.23	4400	0.19	53.7	10.3	35.7	1.94	20.2	3.2	1.4	0.8	23600	3.94	3.6
MRIS	0.2	3700	0.28	46	9.4	43.8	1.34	25.9	2.5	1.2	0.7	20400	4	3.4
MRIS	0.22	4500	0.36	52.8	11.3	45.4	1.48	28.9	2.8	1.3	0.8	27300	4.58	3.6
MRIS	0.2	3600	0.27	42.5	9.6	39.8	1.37	11.7	2.4	1.2	0.7	20700	4.15	3.4
MRIS	0.21	4100	0.4	50.2	9.7	44	1.45	12.6	3.1	1.4	0.7	23400	4.88	3.9
MRIS	0.23	4100	0.26	51.7	9.1	44	1.59	12.9	3.2	1.4	0.8	23100	4.93	4.2
MRIS	0.24	3600	0.2	46.3	8.9	44	1.77	12.1	2.8	1.3	0.8	18600	4.48	4.3
MRIS	0.2	4500	0.25	49.7	11.1	45.9	1.28	33.7	2.8	1.3	0.7	26300	4.87	3.1
MRIS	0.26	3300	0.22	32.3	10.1	38.8	1.05	14.6	2.6	1.3	0.6	20400	3.11	3.5
MRIS	0.26	3800	0.2	53.4	11.5	41	1.78	17.6	3.5	1.5	0.8	24700	5.91	4.2
MRIS	0.26	4300	0.23	60.2	12.3	45.8	1.84	18.3	3.9	1.6	0.8	27500	6.54	4.8
MRIS	0.27	4100	0.21	59.8	11.3	45.8	2.25	20.6	3.7	1.6	0.8	25500	6.37	5.1
MRIS	0.23	4000	0.18	55.3	10.4	39.5	2.02	18.7	3.4	1.5	0.7	23100	5.59	4.3
MRIS	0.25	4100	0.31	57.2	12.4	41.4	2.04	36.8	3.5	1.5	0.8	25100	6.3	4.5
Average	**0.24**	**3930**	**0.26**	**58.2**	**10.3**	**42.0**	**1.78**	**15.7**	**3.0**	**1.4**	**0.7**	**21174**	**5.21**	**4.2**
SD	**0.02**	**469**	**0.11**	**10.7**	**1.4**	**4.9**	**0.27**	**5.5**	**0.4**	**0.1**	**0.1**	**3266**	**0.91**	**0.6**
RSD	**8%**	**12%**	**42%**	**18%**	**14%**	**12%**	**15%**	**35%**	**12%**	**9%**	**12%**	**15%**	**17%**	**15%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
MRIS2	0.28	3800	0.02	63.7	11	44.3	2.36	17.4	4	1.7	0.9	25000	6.32	5.5
MRIS2	0.28	3500	0.04	55.7	11.4	43.2	2.04	17.4	3.6	1.6	0.8	24800	5.78	4.8
MRIS2	0.3	3400	0.14	57.1	13.1	136	1.73	24.7	3.7	1.6	0.9	26500	5.93	4.7
MRIS2	0.29	3400	0.13	53.8	11	38.1	1.74	17.4	3.5	1.7	0.8	22900	5.56	4.7
MRIS2	0.28	3100	0.09	51.5	11.1	38	1.51	16.8	3.4	1.6	0.8	24000	5.24	4.5
MRIS2	0.25	3200	0.12	48.1	12.9	38.8	1.37	15.9	3.2	1.5	0.7	25600	5.68	4
MRIS2	0.23	4000	0.07	57.4	11.3	39.4	1.92	14.9	3.4	1.5	0.8	23700	6.28	4.5
MRIS2	0.23	3300	0.07	46.1	10	33.3	1.45	12.4	3.1	1.4	0.7	20500	4.63	3.9
MRIS2	0.23	3500	0.06	48.7	10.2	34.6	1.52	13	3.2	1.4	0.7	21700	4.61	4.1
MRIS2	0.24	3700	0.07	52.1	10.9	33.4	1.64	12.9	3.3	1.5	0.7	22700	5.21	4.2
MRIS2	0.23	3600	0.06	48.2	10.9	32.9	1.54	13.4	3.1	1.4	0.7	22100	4.96	4
MRIS2	0.24	3600	0.06	49.8	10.6	33.5	1.56	12.9	3.3	1.5	0.7	22000	4.97	4.4
Average	**0.26**	**3508**	**0.08**	**52.7**	**11.2**	**45.5**	**1.70**	**15.8**	**3.4**	**1.5**	**0.8**	**23458**	**5.43**	**4.4**
SD	**0.03**	**254**	**0.04**	**5.1**	**0.9**	**28.8**	**0.28**	**3.4**	**0.3**	**0.1**	**0.1**	**1786**	**0.59**	**0.5**
RSD	**11%**	**7%**	**47%**	**10%**	**8%**	**63%**	**17%**	**22%**	**8%**	**7%**	**10%**	**8%**	**11%**	**10%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
ORIS	0.26	1400	0.09	52.6	7.1	18.4	1.6	11.2	1.6	0.6	0.6	19000	3.64	3.4
ORIS	0.27	1700	0.09	57.6	7.1	19.1	1.41	13.1	1.4	0.5	0.6	19500	3.39	3.4
ORIS	0.25	1500	0.09	52.7	6.7	17.2	1.1	12.4	1.3	0.5	0.4	18600	2.98	3.1
ORIS	0.28	1700	0.12	57.1	7	20.2	1.37	13.8	1.5	0.6	0.5	20900	3.23	3.5
ORIS	0.24	1400	0.06	48.3	6.6	17.2	1.23	11.9	1.5	0.5	0.5	17500	3.27	3.4
ORIS	0.24	1800	0.06	55.3	5.9	19.8	1.51	9.44	1.1	0.4	0.4	15000	2.75	2.6
ORIS	0.25	1500	0.1	45.6	7	16.4	1.1	12.3	1.3	0.5	0.5	17200	3.02	2.7
ORIS	0.28	1900	0.1	52.1	7.1	21	1.4	12.9	1.5	0.5	0.7	19300	3.96	3.5
ORIS	0.29	1600	0.05	57.8	6.9	19	1.67	13.1	1.5	0.5	0.6	19200	3.96	3
ORIS	0.22	1500	0.05	48.9	6.5	16.8	1.61	11.2	1.3	0.4	0.5	18700	3.41	2.6
ORIS	0.26	1600	0.06	57.5	6.5	18.5	1.54	11.5	1.4	0.5	0.7	17600	3.6	2.5
ORIS	0.29	1600	0.1	68.9	7.3	21.8	2.1	11.5	1.6	0.5	0.7	17200	4.3	2.9
ORIS	0.29	1800	0.06	50.6	6.3	16	1.73	10.6	1.4	0.6	0.5	14400	3.77	3.1
ORIS	0.27	1600	0.08	55	7	16.3	1.6	11.8	1.5	0.6	0.7	16000	3.73	3.2
ORIS	0.25	1600	0.1	67.3	7.7	20.3	1.84	14	1.5	0.7	0.7	20500	4.97	3.6
ORIS	0.27	2100	0.07	30.2	6.5	18.6	1.64	13.3	1.2	0.5	0.5	16300	2.97	1.8
ORIS	0.33	8100	0.2	30.2	16.4	45	1.99	24.5	2.3	1	0.6	26100	3.76	3.1
ORIS	0.35	9100	0.29	92.6	20.3	61	3.01	24.7	3.1	1.3	1.1	32700	7.19	4.7
ORIS	0.31	8200	0.33	58.5	16.5	49.8	1.85	22.9	2.3	0.9	0.7	23100	3.9	3.4
ORIS	0.27	1800	0.12	67	5.7	14	1.83	10.3	1.6	0.6	0.6	12600	3.05	2.9
ORIS	0.29	1500	0.08	56.5	6.2	19.4	1.83	13.8	1.9	0.6	0.6	18700	3.79	3.4
ORIS	0.21	1800	0.09	49.4	7.5	18	1.57	13.3	1.5	0.5	0.6	22000	3.63	2.4
ORIS	0.25	1300	0.09	42.1	6.3	16.6	1.37	12.1	1.4	0.5	0.5	18300	2.59	2.7
ORIS	0.23	1800	0.11	51.7	6.4	18.8	1.54	14	1.8	0.5	0.6	19500	3.9	2.8
ORIS	0.26	1900	0.25	58	7.6	19.5	2.14	14.7	1.8	0.7	0.7	20900	3.17	3
ORIS	0.26	1300	0.08	49.3	5.8	17.1	1.97	14.3	1.6	0.6	0.6	15300	2.37	2.6
ORIS	0.24	1600	0.18	55.1	6.7	22.3	1.64	16.9	1.6	0.6	0.7	20800	3.6	2.7
ORIS	0.21	1800	0.06	49.2	6.9	18	1.48	11.7	1.4	0.6	0.6	19400	3.74	2.5
ORIS	0.26	1600	0.07	52	6	18.9	1.46	12.4	1.7	0.6	0.6	18100	3.66	3.2
ORIS	0.24	1300	0.13	45.5	5.9	19.8	1.28	16.8	1.4	0.5	0.6	16500	2.7	2.4
ORIS	0.27	1700	0.1	44.3	6.9	17.7	1.4	16.3	1.5	0.6	0.5	19500	3.53	2.8
Average	**0.26**	**2294**	**0.11**	**53.5**	**7.8**	**21.7**	**1.64**	**14.0**	**1.6**	**0.6**	**0.6**	**19045**	**3.60**	**3.0**
SD	**0.03**	**2068**	**0.07**	**11.3**	**3.4**	**10.4**	**0.37**	**3.8**	**0.4**	**0.2**	**0.1**	**3671**	**0.85**	**0.5**
RSD	**12%**	**90%**	**62%**	**21%**	**44%**	**48%**	**22%**	**27%**	**24%**	**30%**	**21%**	**19%**	**24%**	**17%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**

Appendix 18. QC samples analysis by AR

STANDARD	Ge (ppm)	Hf (ppm)	Hg (ppm)	Ho (ppm)	In (ppm)	K (ppm)	La (ppm)	Li (ppm)	Lu (ppm)	Mg (ppm)	Mn (ppm)	Mo (ppm)	Na (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.1	0.1	0.01	0.1	0.02	100	0.5	0.1	0.1	100	1	0.01	10
ULD:													
MRIS	0.05	0.05	0.02	0.4	0.01	2200	27.9	5.5	0.05	3000	438	0.24	130
MRIS	0.05	0.05	0.05	0.6	0.01	3700	42.9	6.9	0.1	3600	789	0.35	210
MRIS	0.05	0.05	0.03	0.6	0.01	4500	43.9	10.7	0.1	4700	751	0.31	350
MRIS	0.05	0.05	0.05	0.6	0.01	2600	33.9	7.2	0.05	3500	580	0.33	230
MRIS	0.05	0.05	0.04	0.7	0.03	3400	30.4	13.7	0.2	3800	721	0.3	3030
MRIS	0.05	0.05	0.005	0.5	0.02	2600	23.7	10.8	0.2	3500	637	0.38	360
MRIS	0.05	0.05	0.05	0.6	0.02	2500	27.4	11.2	0.2	3300	658	0.29	340
MRIS	0.05	0.05	0.04	0.5	0.03	2300	25.7	10.3	0.2	3400	594	0.27	350
MRIS	0.05	0.05	0.05	0.6	0.02	2700	24.3	11.9	0.1	3400	717	0.34	370
MRIS	0.05	0.05	0.02	0.5	0.02	3000	32.7	9.9	0.1	3800	624	0.33	480
MRIS	0.05	0.05	0.005	0.6	0.01	3500	34.1	10.3	0.1	3700	752	0.4	400
MRIS	0.05	0.05	0.005	0.5	0.02	2900	30.5	8.9	0.1	3800	608	0.32	450
MRIS	0.1	0.05	0.02	0.5	0.01	3300	24.4	9	0.2	3200	680	0.35	270
MRIS	0.05	0.05	0.04	0.6	0.01	3200	25.7	11.5	0.05	3000	642	0.26	660
MRIS	0.05	0.05	0.04	0.8	0.01	3700	28.7	13.9	0.05	3200	715	0.29	360
MRIS	0.05	0.05	0.05	0.5	0.01	2800	23.7	8.9	0.1	3000	595	0.27	430
MRIS	0.05	0.05	0.02	0.6	0.01	3200	28.6	11.4	0.2	3400	708	0.25	500
MRIS	0.05	0.05	0.03	0.6	0.01	3300	30.5	10.5	0.2	3400	675	0.27	500
MRIS	0.05	0.05	0.03	0.5	0.01	2900	29	9.9	0.2	3300	553	0.24	490
MRIS	0.05	0.05	0.06	0.8	0.01	3600	26.8	12.9	0.05	3200	712	0.33	370
MRIS	0.05	0.05	0.01	0.5	0.01	2400	17.3	10.1	0.1	3000	584	0.22	240
MRIS	0.05	0.05	0.02	0.6	0.02	2900	26.5	9.6	0.1	3300	742	0.3	1750
MRIS	0.05	0.05	0.04	0.7	0.02	3300	29.9	9.8	0.2	3500	852	0.25	500
MRIS	0.05	0.05	0.04	0.6	0.03	3300	31.1	10.3	0.2	3400	764	0.24	550
MRIS	0.05	0.05	0.05	0.6	0.01	2900	27.7	10.9	0.3	3100	678	0.25	540
MRIS	0.05	0.05	0.04	0.6	0.02	3100	28.1	12.4	0.2	3400	726	0.36	530
Average	**0.05**	**0.05**	**0.03**	**0.6**	**0.02**	**3371**	**29.7**	**10.8**	**0.14**	**3516**	**679**	**0.32**	**377**
SD	**0.01**	**0.00**	**0.02**	**0.1**	**0.01**	**516**	**4.4**	**2.2**	**0.06**	**485**	**82**	**0.49**	**381**
RSD	**22%**	**0%**	**52%**	**13%**	**45%**	**15%**	**15%**	**21%**	**43%**	**14%**	**12%**	**153%**	**101%**
% <LLD	**94%**	**100%**	**12%**	**0%**	**39%**	**0%**	**0%**	**0%**	**10%**	**0%**	**0%**	**3%**	**0%**
MRIS2	0.05	0.05		0.7	0.01	3200	32.4	11.2	0.2	3500	748	0.22	520
MRIS2	0.05	0.05		0.6	0.02	2800	28.7	10.2	0.2	3400	732	0.22	390
MRIS2	0.2	0.05	0.005	0.6	0.03	3100	29.1	9.8	0.2	3400	749	0.73	220
MRIS2	0.2	0.05	0.01	0.6	0.02	3000	27.1	9.5	0.2	3100	659	0.18	260
MRIS2	0.05	0.05	0.04	0.6	0.01	2800	25.7	9.9	0.2	3300	697	0.21	210
MRIS2	0.05	0.05	0.02	0.6	0.01	2900	23.7	10.7	0.1	3500	757	1.08	360
MRIS2	0.05	0.05	0.02	0.5	0.02	2800	28.5	9.7	0.2	3700	747	0.13	1260
MRIS2	0.05	0.05	0.02	0.5	0.01	2100	22.7	7.8	0.1	3300	669	0.05	2130
MRIS2	0.05	0.05	0.04	0.5	0.01	2200	23.7	8.5	0.2	3500	701	0.06	1730
MRIS2	0.05	0.05	0.04	0.6	0.02	2400	25.9	9.8	0.2	3700	728	0.07	970
MRIS2	0.05	0.05	0.04	0.5	0.02	2300	24.3	9.5	0.2	3700	705	0.07	3380
MRIS2	0.05	0.05	0.03	0.5	0.02	2300	24.2	8.4	0.2	3600	719	0.04	2670
Average	**0.08**	**0.05**	**0.03**	**0.6**	**0.02**	**2658**	**26.3**	**9.6**	**0.18**	**3475**	**718**	**0.26**	**1175**
SD	**0.06**	**0.00**	**0.01**	**0.1**	**0.01**	**378**	**2.9**	**1.0**	**0.04**	**186**	**32**	**0.32**	**1077**
RSD	**78%**	**0%**	**50%**	**11%**	**39%**	**14%**	**11%**	**10%**	**21%**	**5%**	**4%**	**126%**	**92%**
% <LLD	**83%**	**100%**	**10%**	**0%**	**42%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
ORIS	0.05	0.05	0.02	0.2	0.01	2900	26.4	19.7	0.05	1600	535	0.86	160
ORIS	0.05	0.05	0.04	0.2	0.01	3000	30	19.6	0.05	1600	621	0.82	180
ORIS	0.05	0.05	0.05	0.2	0.01	1700	26	16	0.05	1600	560	0.8	170
ORIS	0.05	0.05	0.06	0.2	0.01	2900	29.8	15.3	0.05	1600	534	0.97	220
ORIS	0.05	0.05	0.03	0.2	0.01	2400	25.7	16.6	0.1	1500	495	0.81	120
ORIS	0.05	0.05	0.03	0.2	0.01	2900	25.5	15.2	0.05	1500	433	0.82	200
ORIS	0.05	0.05	0.05	0.2	0.01	2200	21.8	15.6	0.05	1600	521	0.94	140
ORIS	0.05	0.05	0.005	0.2	0.01	2300	27.3	20.7	0.05	1700	587	0.88	160
ORIS	0.05	0.05	0.06	0.2	0.01	3400	30.8	17.9	0.05	1600	519	0.81	140
ORIS	0.05	0.05	0.03	0.2	0.01	2800	25.2	17.1	0.05	1400	565	0.74	180
ORIS	0.05	0.05	0.04	0.2	0.01	2800	28.4	18	0.05	1800	505	0.91	130
ORIS	0.05	0.05	0.03	0.3	0.01	3300	35	20	0.05	1900	480	0.91	140
ORIS	0.05	0.05	0.04	0.2	0.01	2900	27	17.4	0.05	2000	439	0.48	130
ORIS	0.05	0.05	0.03	0.2	0.01	2900	35	19.4	0.05	1700	506	0.5	140
ORIS	0.05	0.05	0.005	0.3	0.01	3100	31.7	16.2	0.05	1700	489	0.86	120
ORIS	0.05	0.05	0.06	0.2	0.01	2200	14.6	14.5	0.05	1800	444	0.98	140
ORIS	0.05	0.2	0.05	0.4	0.03	3900	17.6	10.9	0.1	7200	532	0.66	1720
ORIS	0.1	0.3	0.01	0.6	0.03	6400	46.9	19.3	0.2	6100	519	0.73	1540
ORIS	0.05	0.2	0.07	0.4	0.04	3000	26.1	7.5	0.05	6000	430	0.84	1290
ORIS	0.05	0.05	0.08	0.3	0.01	2200	36.3	12.5	0.05	1300	441	0.94	120
ORIS	0.05	0.05	0.05	0.3	0.02	2400	28.8	19.5	0.05	1800	486	0.8	250
ORIS	0.05	0.05	0.02	0.2	0.01	2200	23.7	20.4	0.05	1700	491	0.95	280
ORIS	0.05	0.05	0.06	0.2	0.01	1600	21.8	14.4	0.05	1600	453	0.82	220
ORIS	0.05	0.05	0.02	0.2	0.01	2700	31	16.5	0.05	1700	539	0.93	280
ORIS	0.1	0.05	0.03	0.2	0.01	3600	28.4	17.2	0.05	1900	513	1.09	150
ORIS	0.05	0.05	0.04	0.2	0.01	2400	24.5	17.2	0.05	1600	421	0.95	470
ORIS	0.05	0.05	0.03	0.3	0.01	3500	29.8	24.5	0.05	1500	530	0.85	250
ORIS	0.05	0.05	0.04	0.3	0.01	2900	28.3	20.3	0.05	1700	503	0.87	310
ORIS	0.05	0.05	0.05	0.3	0.01	2700	30.3	16.5	0.05	1700	513	0.85	310
ORIS	0.05	0.05	0.01	0.3	0.01	2600	25.8	18.3	0.05	1400	462	1.07	220
ORIS	0.05	0.05	0.04	0.2	0.01	2000	21.9	12.9	0.05	1500	536	0.99	370
Average	**0.05**	**0.067741935**	**0.04**	**0.3**	**0.01**	**2832**	**27.8**	**17.0**	**0.06**	**2106**	**503**	**0.85**	**331**
SD	**0.01**	**0.06**	**0.02**	**0.1**	**0.01**	**849**	**5.9**	**3.3**	**0.03**	**1458**	**48**	**0.13**	**407**
RSD	**23%**	**84%**	**49%**	**35%**	**58%**	**30%**	**21%**	**19%**	**50%**	**69%**	**10%**	**16%**	**123%**
% <LLD	**94%**	**90%**	**6%**	**0%**	**87%**	**0%**	**0%**	**0%**	**90%**	**0%**	**0%**	**0%**	**0%**

Appendix 18. QC samples analysis by AR

STANDARD	Nb (ppm)	Nd (ppm)	Ni (ppm)	Pb (ppm)	Pr (ppm)	Rb (ppm)	Re (ppm)	Sb (ppm)	Sc (ppm)	Se (ppm)	Sm (ppm)	Sn (ppm)	Sr (ppm)	Ta (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.1	0.02	0.1	0.01	0.1	0.1	0.001	0.02	0.1	0.1	0.1	0.05	0.5	0.05
ULD:													1000	
MRIS	0.4	21.9	21.9	12	6.1	25.4	0.0005	0.16	3.1	0.1	4.5	0.86	19.2	0.025
MRIS	0.6	22.9	25.5	9.7	6.7	29.5	0.002	0.13	4.6	1	4.7	1.3	24.5	0.025
MRIS	0.6	23.8	27.2	9.42	7	33.8	0.0005	0.16	5.5	1.5	4.9	1.48	27.6	0.025
MRIS	0.5	22.4	25.4	10.8	5.9	34.5	0.0005	0.07	5	1	4.7	1.12	23.4	0.025
MRIS	1	26.1	32.5	0.23	7.6	42	0.0005	0.19	6.3	0.4	4.7	1.92	28.3	0.025
MRIS	1.1	24.6	33.6	0.16	6	34.1	0.003	0.17	5.7	0.7	4.7	1.49	23.6	0.025
MRIS	0.9	22.1	29.6	0.19	6.2	32.9	0.002	0.14	5.2	0.3	4.5	1.54	22.3	0.025
MRIS	0.9	22.2	29.9	0.17	5.9	33.3	0.003	0.14	5.3	0.4	4.5	1.38	21.7	0.025
MRIS	1.2	24.9	36.9	0.15	6.4	34.8	0.0005	0.17	6.2	0.8	4.6	1.67	25.3	0.025
MRIS	1	23.7	36.4	15.2	5.9	32.7	0.0005	0.16	5	0.3	4.9	1.47	24.5	0.025
MRIS	0.9	23.7	32.4	13.8	6.6	34.9	0.0005	0.18	4.8	1	4.3	1.6	26.5	0.025
MRIS	0.9	25.1	33.9	15.1	6	31.6	0.0005	0.16	5	0.8	5	1.34	23.3	0.025
MRIS	1	25.9	36	14.5	6.7	31.6	0.003	0.19	5.1	0.7	5.1	1.58	29.1	0.025
MRIS	1.3	19.9	33.8	12.1	4.7	24.1	0.002	0.19	4.5	0.05	4	1.36	17.7	0.025
MRIS	1.2	24.4	38.4	14.2	5.9	27.3	0.0005	0.27	5.8	0.4	5	1.59	20.6	0.025
MRIS	1	20.7	33.8	13.5	5.3	25.7	0.0005	0.19	4.1	0.1	3.9	1.42	20	0.025
MRIS	1	22.6	34	14.1	6.2	30.9	0.002	0.19	4.3	0.8	3.9	1.68	24.2	0.025
MRIS	1.1	22.5	34.5	14.8	6.2	30.7	0.0005	0.22	4.2	0.3	4.2	1.86	25	0.025
MRIS	0.9	22.2	36.3	14.4	5.5	31.4	0.0005	0.2	4.1	0.3	4.5	1.39	22.7	0.025
MRIS	1.4	22.2	34.2	12.5	5.5	27.4	0.001	0.34	5.4	0.4	4.3	1.89	25	0.025
MRIS	0.8	16.1	30.5	15.4	3.9	22.2	0.003	0.2	4.2	0.05	3.6	1	15.7	0.025
MRIS	1.3	24.9	34.6	15.6	6.3	32.9	0.0005	0.37	4.8	1.2	4.8	1.49	25.8	0.025
MRIS	1	26.3	35.8	16	7	37.1	0.002	0.23	5.3	2	4.9	1.71	29.3	0.025
MRIS	1.2	26.6	35.4	16.1	6.8	38.3	0.004	0.22	5.4	0.3	5.3	1.99	29.5	0.025
MRIS	1	25.6	32.5	14.9	6.6	34.7	0.006	0.34	4.5	0.8	4.9	2.23	26.1	0.025
MRIS	1	26.3	35.7	16	6.7	36.6	0.002	0.26	4.8	1.3	5.2	1.54	27.6	0.025
Average	**0.9**	**23.4**	**31.4**	**12.8**	**6.4**	**31.9**	**0.0019**	**0.38**	**5.1**	**0.6**	**4.8**	**1.48**	**25.1**	**0.025**
SD	**0.2**	**2.9**	**4.1**	**4.0**	**0.9**	**3.8**	**0.0021**	**1.14**	**0.9**	**0.4**	**0.6**	**0.27**	**3.0**	**0.000**
RSD	**22%**	**13%**	**13%**	**31%**	**14%**	**12%**	**107%**	**299%**	**17%**	**66%**	**12%**	**18%**	**12%**	**0%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**49%**	**0%**	**0%**	**9%**	**0%**	**0%**	**0%**	**100%**
MRIS2	0.9	28.4	34.9	17.4	7.3	39.6	0.003	0.2	5	0.05	5.5	1.79	28.2	0.025
MRIS2	1	26.2	35	16.8	6.6	33.6	0.002	0.2	4.4	0.05	5.1	1.65	23.7	0.025
MRIS2	1.2	25.8	71	15.9	6.6	35.5	0.0005	0.2	5.4	0.05	5.1	1.81	26	0.025
MRIS2	1	25.2	36.3	17.2	6.5	33.5	0.0005	0.27	5	0.05	4.8	1.63	24	0.025
MRIS2	1.1	23.5	34.7	15.7	6	31.6	0.002	0.17	4.6	0.05	4.6	1.47	23.4	0.025
MRIS2	1.3	22.6	39.6	17.8	5.8	31.2	0.0005	0.11	5.1	0.1	4.4	2.23	23.1	0.025
MRIS2	0.9	23.5	36.8	14.5	6.8	37.3	0.0005	0.27	5.4	0.05	4.8	1.61	26.1	0.025
MRIS2	0.9	19.3	29.9	14.7	5.4	26.5	0.0005	0.15	4.1	0.05	3.9	1.27	20	0.025
MRIS2	0.9	20.2	31	15.2	5.8	29	0.0005	0.16	4.3	0.05	4	1.38	21.2	0.025
MRIS2	1	22.1	36.4	15.2	6.2	31.9	0.0005	0.16	4.6	0.05	4.4	1.38	22.5	0.025
MRIS2	1	20.7	32.9	15.2	5.8	30.7	0.0005	0.16	4.5	0.05	4.3	1.36	21.9	0.025
MRIS2	1	20.6	31.7	15.3	5.8	30.3	0.0005	0.15	4.2	0.05	4.2	1.38	21.9	0.025
Average	**1.0**	**23.2**	**37.5**	**15.9**	**6.2**	**32.6**	**0.0010**	**0.18**	**4.7**	**0.1**	**4.6**	**1.58**	**23.5**	**0.025**
SD	**0.1**	**2.8**	**10.9**	**1.1**	**0.5**	**3.6**	**0.0009**	**0.05**	**0.5**	**0.0**	**0.5**	**0.27**	**2.3**	**0.000**
RSD	**12%**	**12%**	**29%**	**7%**	**9%**	**11%**	**90%**	**26%**	**10%**	**27%**	**11%**	**17%**	**10%**	**0%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**75%**	**0%**	**0%**	**92%**	**0%**	**0%**	**0%**	**100%**
ORIS	0.7	22.8	15.2	11	6	22.2	0.0005	0.36	2	0.4	4.6	1.15	15.5	0.025
ORIS	0.7	23.5	14.2	11.5	6.6	22.1	0.002	0.38	1.9	0.5	4.4	1.03	17.8	0.025
ORIS	0.7	20.6	14.1	11.3	5.8	18.6	0.01	0.41	1.8	0.3	3.7	0.86	16.2	0.025
ORIS	0.7	22	13.9	15.4	6.4	20.6	0.001	0.37	1.9	0.2	4.2	1.09	19.7	0.025
ORIS	0.7	19.7	14.1	10.8	5.5	18.9	0.001	0.33	1.6	0.05	3.6	1.09	14.1	0.025
ORIS	0.5	21.5	12.6	10.2	5.8	20.2	0.0005	0.36	1.5	0.6	3.7	0.88	14.9	0.025
ORIS	0.7	18.1	13.7	15.3	4.9	17.9	0.0005	0.32	1.5	0.05	3.4	0.88	15.2	0.025
ORIS	0.8	21.2	15.4	13.3	6	21.8	0.0005	0.35	2.5	1.2	3.9	1.14	17.5	0.025
ORIS	0.7	23	15.2	11.8	6.5	25.1	0.003	0.32	1.8	0.4	4.2	1.16	18.7	0.025
ORIS	0.5	19.3	12.9	10.1	5.5	19	0.003	0.35	1.9	0.7	3.5	0.94	17.6	0.025
ORIS	0.7	22	13.2	10.9	6.3	22	0.004	0.44	2.5	0.6	4.3	0.93	17.1	0.025
ORIS	1	24.4	14.4	11.3	7.4	28.6	0.003	0.41	2.6	0.6	4.8	1.26	17.7	0.025
ORIS	1.1	19	12.6	9.19	5.2	25.6	0.004	0.45	2.6	0.1	3.8	1.42	19.6	0.025
ORIS	0.8	18.4	13.3	9.87	5	25	0.006	0.43	2	0.8	3.9	1.07	17.8	0.025
ORIS	0.5	25	16.4	10.8	6.5	26	0.009	0.46	2.9	0.6	4.2	1.31	19.1	0.025
ORIS	0.4	10.6	11	8.4	3.1	19.3	0.002	0.32	1.5	0.2	2.3	0.64	17.7	0.025
ORIS	2.1	12.8	41.7	10.3	3.8	35.3	0.001	1.35	4.5	1	3.1	1.23	79.8	0.025
ORIS	2.8	26.7	51.3	11.4	9.3	46.3	0.004	0.44	8	0.1	7	1.77	97.4	0.025
ORIS	1.7	20.1	37.6	9.81	5.8	26.4	0.0005	0.29	6.4	0.3	4.6	1.1	69.7	0.025
ORIS	0.4	22.9	12.1	9.27	6.2	25.4	0.002	0.31	2.2	0.4	4.2	0.99	18	0.025
ORIS	0.9	21	14.3	11.8	6.1	27.9	0.0005	0.4	2.6	0.05	3.9	1.29	17.5	0.025
ORIS	0.7	22.7	15.9	0.12	5.8	25.4	0.001	0.39	2.7	0.4	3.9	1.21	17	0.025
ORIS	0.6	18.2	13.1	0.12	4.6	19.9	0.001	0.34	1.7	0.05	3.4	0.96	14.5	0.025
ORIS	0.7	21.3	14.5	10.9	5.7	24.1	0.0005	0.38	1.9	0.5	3.6	1.37	17.8	0.025
ORIS	0.7	27.4	18.1	12.8	7.2	30.6	0.002	0.49	2.5	0.2	4.9	1.37	20	0.025
ORIS	0.6	22.7	15.9	12	5.9	24.2	0.0005	0.39	1.6	0.5	4.3	1.15	17.2	0.025
ORIS	0.8	22.2	16.1	13.2	5.5	23.6	0.002	0.54	1.7	0.05	4.3	1.31	15.1	0.025
ORIS	0.7	22.1	17.7	11.6	6	24	0.002	0.39	1.9	0.1	3.8	1.47	18	0.025
ORIS	0.7	20.1	16.4	12.5	6.1	22.1	0.003	0.4	1.2	0.1	3.6	1.34	17	0.025
ORIS	0.8	18.5	15.9	11.1	4.4	18.6	0.002	2.22	0.8	0.05	3.8	1.2	12.8	0.025
ORIS	0.6	19.2	13.8	11.6	5	19.5	0.003	0.42	1.8	0.5	3.4	1.04	17	0.025
Average	**0.8**	**20.9**	**17.3**	**10.6**	**5.8**	**24.1**	**0.0024**	**0.48**	**2.4**	**0.4**	**4.0**	**1.15**	**23.4**	**0.025**
SD	**0.5**	**3.4**	**9.1**	**3.2**	**1.1**	**5.7**	**0.0023**	**0.37**	**1.5**	**0.3**	**0.8**	**0.22**	**20.0**	**0.000**
RSD	**59%**	**16%**	**52%**	**30%**	**19%**	**24%**	**97%**	**78%**	**61%**	**80%**	**19%**	**19%**	**86%**	**0%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**26%**	**0%**	**0%**	**19%**	**0%**	**0%**	**0%**	**100%**

Appendix 18. QC samples analysis by AR

STANDARD	Tb (ppm)	Te (ppm)	Th (ppm)	Tl (ppm)	Tm (ppm)	U (ppm)	V (ppm)	W (ppm)	Y (ppm)	Yb (ppm)	Zn (ppm)	Zr (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.1	0.02	0.1	0.02	0.1	0.1	1	0.1	0.01	0.1	0.1	0.1
ULD:								200				
MRIS	0.4	0.01	4.5	0.16	0.2	2.6	30	0.2	14.8	1	44	1.3
MRIS	0.5	0.04	6.5	0.18	0.2	3.1	33	0.1	15.8	1.2	44.8	1.9
MRIS	0.5	0.04	7.4	0.19	0.2	3	36	0.2	16.7	1.2	47.8	1.9
MRIS	0.5	0.02	5.4	0.17	0.2	2.7	29	0.2	13.9	1.1	46	1.4
MRIS	0.6	0.01	14.7	0.25	0.2	10.4	35	0.05	17.3	1.2	62.8	4.3
MRIS	0.4	0.04	13.7	0.25	0.2	7.3	34	0.05	15.8	1.2	56.8	3.7
MRIS	0.5	0.04	14.5	0.25	0.2	9.1	31	0.1	14.8	1.2	52.6	3.3
MRIS	0.5	0.01	13.6	0.25	0.2	8.8	32	0.05	13.7	1.1	48.2	3.4
MRIS	0.4	0.01	13.6	0.25	0.2	6.5	34	0.1	17.9	1.1	57.8	3.7
MRIS	0.6	0.04	9	0.19	0.05	2.8	40	0.05	14	1.2	58.5	2.4
MRIS	0.6	0.04	9	0.21	0.05	2.8	39	0.05	16	1.1	78.6	2.5
MRIS	0.5	0.01	8.4	0.19	0.05	2.8	38	0.05	14	1.2	56.7	2
MRIS	0.5	0.05	6.6	0.2	0.1	2.6	32	0.1	17.1	1.1	36.1	2
MRIS	0.5	0.01	6.8	0.15	0.1	2.4	31	0.05	11.1	1	37.7	2.3
MRIS	0.5	0.01	7.9	0.16	0.2	2.5	36	0.05	13.2	1.1	54.3	3.1
MRIS	0.4	0.01	6.9	0.15	0.3	2.5	34	0.05	13.4	1.1	38.3	2.5
MRIS	0.5	0.03	8.4	0.21	0.3	3.1	35	0.05	15	1	52.1	3.2
MRIS	0.6	0.04	9.7	0.2	0.3	3.3	36	0.05	14.6	1.1	48.3	3.4
MRIS	0.5	0.03	9.8	0.17	0.4	2.9	36	0.05	12.3	1.2	43.4	2.6
MRIS	0.5	0.01	6.6	0.15	0.2	2.3	32	0.05	12.8	0.9	59.3	2.7
MRIS	0.5	0.01	5.1	0.14	0.3	2.7	31	0.1	12.2	1	46.6	1.8
MRIS	0.5	0.01	7.1	0.2	0.2	3	41	0.05	17.1	1.2	71	2.2
MRIS	0.6	0.06	8	0.23	0.2	3.3	44	0.05	19	1.2	72.9	1.9
MRIS	0.6	0.01	9.7	0.22	0.2	3	44	0.05	17.6	1.2	73.6	2.1
MRIS	0.6	0.01	8.3	0.2	0.2	2.9	38	0.05	16.5	1.1	74.9	2
MRIS	0.6	0.01	8	0.22	0.2	3	41	0.05	17.7	1.2	80.8	2
Average	**0.5**	**0.03**	**8.1**	**0.19**	**0.20**	**3.2**	**35**	**0.08**	**15.6**	**1.1**	**55.2**	**2.3**
SD	**0.1**	**0.02**	**2.2**	**0.03**	**0.05**	**1.5**	**3**	**0.05**	**1.6**	**0.1**	**10.3**	**0.7**
RSD	**16%**	**66%**	**27%**	**16%**	**25%**	**48%**	**10%**	**63%**	**10%**	**10%**	**19%**	**28%**
% <LLD	**0%**	**41%**	**0%**	**0%**	**4%**	**0%**	**0%**	**65%**	**0%**	**0%**	**0%**	**0%**
MRIS2	0.7	0.01	10.4	0.25	0.2	3.4	44	0.05	17.8	1.4	68.2	2
MRIS2	0.6	0.01	8.6	0.21	0.2	3.1	42	0.05	16.7	1.3	64.4	1.7
MRIS2	0.6	0.01	7.6	0.18	0.2	3.2	55	0.05	17.4	1.3	77.7	3.4
MRIS2	0.6	0.01	7.8	0.19	0.2	3.2	40	0.05	15.4	1.2	95.2	2.6
MRIS2	0.6	0.01	7	0.18	0.2	3.2	39	0.05	15.6	1.3	67.6	2.7
MRIS2	0.5	0.01	5.5	0.16	0.2	2.9	42	0.05	16.6	1.1	67.5	3.5
MRIS2	0.6	0.01	8	0.2	0.2	3.3	42	0.05	17.1	1.2	62.9	2.5
MRIS2	0.5	0.01	6.1	0.17	0.2	3.3	35	0.05	14	1	54.3	2
MRIS2	0.5	0.01	6.2	0.17	0.2	3.2	37	0.05	14.5	1.1	63.4	1.9
MRIS2	0.5	0.01	6.9	0.19	0.2	2.9	37	0.05	15.7	1.2	57.7	2.1
MRIS2	0.5	0.01	6.3	0.18	0.2	2.7	36	0.05	15.3	1.1	58.8	1.9
MRIS2	0.6	0.01	6.6	0.19	0.2	2.9	37	0.05	15.1	1.2	58.5	1.8
Average	**0.6**	**0.01**	**7.3**	**0.19**	**0.20**	**3.1**	**41**	**0.05**	**15.9**	**1.2**	**66.4**	**2.3**
SD	**0.1**	**0.00**	**1.3**	**0.02**	**0.00**	**0.2**	**5**	**0.00**	**1.2**	**0.1**	**11.0**	**0.6**
RSD	**11%**	**0%**	**18%**	**12%**	**0%**	**7%**	**13%**	**0%**	**7%**	**9%**	**17%**	**26%**
% <LLD	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**
ORIS	0.3	0.01	4.9	0.15	0.05	1.4	17	0.3	7	0.5	42.5	0.7
ORIS	0.3	0.06	4.5	0.14	0.05	1.3	16	0.3	6.57	0.4	43.7	0.6
ORIS	0.1	0.03	4	0.12	0.05	1.3	16	0.6	6.1	0.4	39	0.6
ORIS	0.3	0.05	5.4	0.14	0.05	1.6	19	0.5	7.07	0.5	39.2	0.8
ORIS	0.2	0.03	4.1	0.13	0.05	1.3	15	0.3	6.27	0.4	42.3	0.7
ORIS	0.2	0.06	4.1	0.14	0.05	1.2	14	0.3	5.57	0.3	36.1	0.4
ORIS	0.3	0.06	3.8	0.12	0.05	1.3	15	0.3	5.57	0.4	48.1	1
ORIS	0.5	0.07	5.1	0.14	0.05	1.5	22	0.3	7.4	0.4	52	0.8
ORIS	0.2	0.06	4.6	0.15	0.05	1.4	15	0.2	7.04	0.4	43.4	0.4
ORIS	0.2	0.01	4.4	0.14	0.05	1.2	14	0.3	6.4	0.4	34.9	0.6
ORIS	0.4	0.03	5.3	0.13	0.05	1.3	16	0.4	6.67	0.5	38.8	0.4
ORIS	0.3	0.03	6.5	0.19	0.05	1.7	20	0.3	8.61	0.5	43.7	0.5
ORIS	0.4	0.06	5.8	0.17	0.05	1.4	19	0.3	7.11	0.5	49.8	0.7
ORIS	0.3	0.01	6.3	0.13	0.05	1.5	18	0.3	7.13	0.5	48.5	0.6
ORIS	0.3	0.07	6.5	0.16	0.05	1.4	18	0.4	7.16	0.5	114	0.4
ORIS	0.2	0.06	2.5	0.09	0.05	1.2	13	0.4	5.6	0.4	36.7	0.9
ORIS	0.4	0.03	4.1	0.08	0.1	1.7	54	0.4	13.3	0.9	77.5	7.8
ORIS	0.6	0.07	8.8	0.27	0.2	2.1	62	0.1	14.1	1.1	71.6	14.9
ORIS	0.4	0.02	4.4	0.15	0.1	1.6	57	0.4	13.4	0.8	62.2	9.9
ORIS	0.3	0.04	5.1	0.14	0.05	1.5	13	0.4	5.91	0.5	46.4	0.6
ORIS	0.3	0.03	6.1	0.16	0.1	1.9	16	0.3	6.33	0.5	57.7	0.7
ORIS	0.2	0.01	10.4	0.25	0.1	4.2	15	0.3	6.86	0.4	66.6	0.9
ORIS	0.2	0.01	10.4	0.25	0.05	4.8	14	0.4	5.48	0.4	45.2	0.9
ORIS	0.3	0.03	5.4	0.15	0.05	1.4	18	0.3	6.73	0.4	68.1	0.8
ORIS	0.3	0.03	5.3	0.21	0.05	1.4	19	0.3	8.38	0.5	38	0.8
ORIS	0.3	0.03	5.1	0.16	0.05	1.3	17	0.3	6.24	0.4	33.1	0.5
ORIS	0.3	0.01	5.5	0.16	0.05	1.3	17	0.2	5.32	0.4	46.1	0.8
ORIS	0.3	0.03	5	0.15	0.3	1.4	17	0.2	6.82	0.5	41.3	0.9
ORIS	0.3	0.04	6	0.17	0.2	1.7	17	0.3	6.36	0.5	42.8	0.8
ORIS	0.3	0.01	4.7	0.12	0.1	1.1	15	0.3	4.29	0.4	43.8	0.7
ORIS	0.3	0.01	4.4	0.13	0.05	1.4	17	0.4	6.26	0.4	60.6	0.7
Average	**0.3**	**0.04**	**5.4**	**0.15**	**0.08**	**1.6**	**20**	**0.33**	**7.2**	**0.5**	**50.1**	**1.7**
SD	**0.1**	**0.02**	**1.7**	**0.04**	**0.06**	**0.8**	**13**	**0.09**	**2.3**	**0.2**	**16.4**	**3.2**
RSD	**32%**	**59%**	**32%**	**27%**	**76%**	**49%**	**61%**	**29%**	**32%**	**33%**	**33%**	**192%**
% <LLD	**0%**	**26%**	**0%**	**0%**	**74%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**

Appendix 18. QC samples analysis by AR

STANDARD	NUMBER	BATCH	SAMPLEID	GRAIN	DEPTH	Ag (ppm)	Al (ppm)	As (ppm)	Au (ppm)	Au (ppm) Repeat 1	B (ppm)	Ba (ppm)	Be (ppm)
METHOD:		NO		SIZE		AR	AR	AR	AR	AR	AR	AR	AR
LLD:						0.002	100	0.1	0.0001	0.0001	1	0.5	0.1
ULD:							100000						
SoNE-1	667	A09-025	2007190300	Fine	TOS	0.044	24800	11	0.0014		3	276	1.1
SoNE-1	1732	A09-030	2007191100	Fine	TOS	0.046	20000	9.5	0.0025		3	260	1.1
SoNE-1	2310	A09-033	2007190240	Coarse	TOS	0.076	21600	10.7	0.0005		3	270	1.2
SoNE-1	3496	A09-336	2007191040	Coarse	TOS	0.039	19800	8.5	0.0023		0.5	269	1.4
SoNE-1	4360	A09-489	2007190180	Fine	BOS	0.06	18600	11.2	0.0013		0.5	232	1.2
SoNE-1	5341	A09-493	2007190980	Fine	BOS	0.056	22300	9.4	0.001		0.5	279	0.9
SoNE-1	6335	A10-044	2007190120	Coarse	BOS	0.05	19300	9.5	0.0169		0.5	249	0.9
SoNE-1	6651	A10-045	2007190920	Coarse	BOS	0.066	23300	8.8	0.0009		0.5	254	1
Average						0.055	21213	9.8	0.0034		1.44	261.1	1.1
SD						0.012	2155	1.0	0.0055		1.29	15.7	0.2
RSD						23%	10%	10%	165%		90%	6%	15%
% <LLD						0%	0%	0%	0%		63%	0%	0%
STSD-3	1834	A09-030	2007191300	Fine	TOS	0.393	15700	21.3	0.0024		4	659	1.4
STSD-3	3777	A09-337	2007191240	Coarse	TOS	0.362	13300	23	0.0074		0.5	293	0.9
STSD-3	5459	A09-493	2007191180	Fine	BOS	0.38	13600	22.2	0.0162		0.5	749	1.1
STSD-3	6860	A10-046	2007191120	Coarse	BOS	0.394	12900	21.5	0.0037		0.5	536	1.1
Average						0.382	13875	22.0	0.0074		1.38	559.3	1.1
SD						0.015	1250	0.8	0.0062		1.75	197.8	0.2
RSD						4%	9%	4%	84%		127%	35%	18%
RV						0.4		22					
GeoPT							3%	12%				7%	16%
Abs GeoPT								2.64					
Bias						96%		100%					
% <LLD						0%	0%	0%	0%		75%	0%	0%
TILL-1	233	A09-022	2007190100	Fine	TOS	0.233	14100	17.4	0.0204		1	86.5	0.7
TILL-1	2196	A09-033	2007190040	Coarse	TOS	0.191	15500	15.8	0.0125		2	88.2	0.8
TILL-1	5800	A10-001	2007191380	Fine	BOS	0.22	11900	14.5	0.0173		0.5	74.1	0.5
TILL-1	7007	A10-047	2007191320	Coarse	BOS	0.182	15400	14.6	0.0094		0.5	78.7	0.5
Average						0.207	14225	15.6	0.0149		1.00	81.9	0.6
SD						0.024	1676	1.4	0.0049		0.71	6.6	0.2
RSD						12%	12%	9%	33%		71%	8%	24%
RV						0.2		13				84	
GeoPT							3%	12%				7%	16%
Abs GeoPT								1.56				5.88	
Bias						103%		120%				97%	
% <LLD						0%	0%	0%	0%		50%	0%	0%
TILL-3	1479	A09-027	2007190900	Fine	TOS	1.61	9300	85.9	0.121	0.102	0.5	43.6	0.4
TILL-3	3195	A09-035	2007190840	Coarse	TOS	1.23	11900	79.3	0.0036		3	36.7	0.5
TILL-3	5071	A09-492	2007190780	Fine	BOS	1.56	9300	88.6	0.0073		1	37.2	0.5
TILL-3	6565	A10-045	2007190720	Coarse	BOS	1.54	13000	83	0.0037		0.5	45.4	0.4
Average						1.485	10875	84.2	0.0339		1.25	40.7	0.5
SD						0.173	1873	4.0	0.0581		1.19	4.4	0.1
RSD						12%	17%	5%	171%		95%	11%	13%
RV						1.6		84				43	
GeoPT							3%	12%				7%	16%
Abs GeoPT								10.08				3.01	
Bias						93%		100%				95%	
% <LLD						0%	0%	0%	0%		50%	0%	0%
WRIS	41	A09-022	2007190020	Fine	TOS	0.038	17500	6.8	0.0016		2	187	1.1
WRIS	427	A09-025	2007190140	Fine	TOS	0.025	17500	7.3	0.0029		3	183	1.4
WRIS	563	A09-025	2007190220	Fine	TOS	0.006	12600	6.5	0.0015		4	149	1.1
WRIS	829	A09-026	2007190340	Fine	TOS	0.001	16400	7	0.0019		4	173	1.3
WRIS	913	A09-026	2007190420	Fine	TOS	0.01	16400	7.1	0.002		4	178	1.6
WRIS	1037	A09-026	2007190580	Fine	TOS	0.015	13700	5.9	0.0011		2	154	1
WRIS	1163	A09-027	2007190660	Fine	TOS	0.02	17500	7.2	0.0011		4	176	1.5
WRIS	1271	A09-027	2007190740	Fine	TOS	0.03	17900	6.6	0.0027		4	180	1.3
WRIS	1391	A09-027	2007190820	Fine	TOS	0.07	15200	6.5	0.0041		3	175	1.2
WRIS	1642	A09-030	2007190980	Fine	TOS	0.063	15600	7.8	0.0009		8	177	1.2
WRIS	1690	A09-030	2007191060	Fine	TOS	0.022	18100	6.7	0.0013		3	191	1.4
WRIS	1768	A09-030	2007191180	Fine	TOS	0.007	17300	5.6	0.0011		2	171	1.3
WRIS	1885	A09-030	2007191360	Fine	TOS	0.031	15500	5.8	0.0019		3	158	1.1
WRIS	2214	A09-033	2007190080	Coarse	TOS	0.035	16600	6.1	0.0014		2	175	1.2
WRIS	2254	A09-033	2007190160	Coarse	TOS	0.019	17400	7.5	0.00048		3	190	1.2
WRIS	2364	A09-033	2007190280	Coarse	TOS	0.036	17400	7.3	0.0011		4	163	1.3
WRIS	2569	A09-034	2007190360	Coarse	TOS	0.058	15300	7.3	0.0024		2	194	1.2
WRIS	2785	A09-034	2007190520	Coarse	TOS	0.026	18300	6.4	0.0008		2	181	1.3
WRIS	2995	A09-035	2007190600	Coarse	TOS	0.037	17100	7.9	0.0015		3	179	1
WRIS	3095	A09-035	2007190680	Coarse	TOS	0.018	19200	8.9	0.0022		1	173	1.3
WRIS	3159	A09-035	2007190760	Coarse	TOS	0.06	18000	6.8	0.002		2	195	1
WRIS	3370	A09-336	2007190920	Coarse	TOS	0.001	19200	7	0.0021		3	166	1.2
WRIS	3462	A09-336	2007191000	Coarse	TOS	0.028	19100	6.1	0.0019		5	181	1.6
WRIS	3564	A09-336	2007191120	Coarse	TOS	0.035	25800	6.8	0.003		4	184	2
WRIS	3848	A09-337	2007191300	Coarse	TOS	0.015	14300	6.6	0.0026		1	161	0.8
WRIS	3907	A09-337	2007191360	Coarse	TOS	0.006	13700	5.6	0.0021		0.5	146	0.8
WRIS	4284	A09-489	2007190020	Fine	BOS	0.032	16100	6.5	0.0023		0.5	180	1.4
WRIS	4434	A09-489	2007190300	Fine	BOS	0.006	16100	7.2	0.0035		0.5	178	1.4
WRIS	4630	A09-490	2007190460	Fine	BOS	0.006	16800	7	0.0035		0.5	167	1.4
WRIS	4698	A09-490	2007190540	Fine	BOS	0.016	14900	6.5	0.0033		0.5	155	1.2
WRIS	4830	A09-491	2007190620	Fine	BOS	0.031	20000	7	0.0026		1	192	0.9
WRIS	4922	A09-491	2007190700	Fine	BOS	0.049	17900	6.2	0.0023		1	184	1.2
WRIS	5231	A09-492	2007190940	Fine	BOS	0.047	17800	7.1	0.0019		1	177	1.2
WRIS	5377	A09-493	2007191060	Fine	BOS	0.027	15500	6.3	0.0006		1	172	1.1

Appendix 18. QC samples analysis by AR

STANDARD	Bi (ppm)	Ca (ppm)	Cd (ppm)	Ce (ppm)	Co (ppm)	Cr (ppm)	Cs (ppm)	Cu (ppm)	Dy (ppm)	Er (ppm)	Eu (ppm)	Fe (ppm)	Ga (ppm)	Gd (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.02	100	0.01	0.01	0.1	0.5	0.02	0.01	0.1	0.1	0.1	100	0.02	0.1
ULD:														
SoNE-1	0.25	5200	0.45	70.1	11.1	33.9	1.41	20.3	3	1.3	0.7	26600	7.19	5
SoNE-1	0.26	5200	0.43	63.6	10.6	35.3	1.59	18.8	2.8	1.3	0.9	25300	7.17	4
SoNE-1	0.26	5300	0.39	63.2	10.6	31.7	1.67	18.7	2.8	1.2	1	26600	7.56	3.1
SoNE-1	0.24	4500	0.33	58.5	10.6	21.3	1.39	16.4	2.4	1.1	0.8	17400	5.16	3.4
SoNE-1	0.25	5900	0.43	50.1	11.5	29.6	1.49	23.4	2.9	1.3	0.8	26700	6.9	3.4
SoNE-1	0.25	5700	0.53	51.2	10.4	36.2	1.64	19.2	2.5	1.2	0.9	26400	6.52	3.8
SoNE-1	0.3	5100	0.43	48.7	11.6	25.3	1.1	28.1	3.1	1.3	0.8	24700	6.22	4.3
SoNE-1	0.3	4400	0.4	49.5	10.8	25.5	1.02	20.9	3.1	1.4	0.8	25500	6.31	4.2
Average	**0.26**	**5163**	**0.42**	**56.9**	**10.9**	**29.9**	**1.41**	**20.7**	**2.8**	**1.3**	**0.8**	**24900**	**6.63**	**3.9**
SD	**0.02**	**518**	**0.06**	**8.1**	**0.5**	**5.4**	**0.24**	**3.6**	**0.3**	**0.1**	**0.1**	**3119**	**0.75**	**0.6**
RSD	**9%**	**10%**	**13%**	**14%**	**4%**	**18%**	**17%**	**17%**	**9%**	**7%**	**11%**	**13%**	**11%**	**16%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
STSD-3	1.39	17100	1.11	42.2	14	40.2	3.16	37.9	3.3	1.7	0.9	37500	5.56	4
STSD-3	1.42	16300	1.16	57.9	12.9	35.4	2.21	35.7	3.3	1.4	0.8	24300	3.95	4.5
STSD-3	1.61	14900	1.45	40.8	12	40.3	2.71	35.8	3.6	1.7	1	33200	5.92	4.6
STSD-3	1.26	14300	0.95	35.4	12.8	27.9	2.22	36.1	3.2	1.6	0.9	31500	5.06	4.1
Average	**1.42**	**15650**	**1.17**	**44.1**	**12.9**	**36.0**	**2.58**	**36.4**	**3.4**	**1.6**	**0.9**	**31625**	**5.12**	**4.3**
SD	**0.14**	**1279**	**0.21**	**9.7**	**0.8**	**5.8**	**0.45**	**1.0**	**0.2**	**0.1**	**0.1**	**5497**	**0.86**	**0.3**
RSD	**10%**	**8%**	**18%**	**22%**	**6%**	**16%**	**18%**	**3%**	**5%**	**9%**	**9%**	**17%**	**17%**	**7%**
RV			1		14	34		38				34000		
GeoPT	22%	3%		9%	12%	8%	14%	11%	13%	14%	16%	4%	12%	13%
Abs GeoPT					1.68	2.72		4.18				1360		
Bias			**117%**		**92%**	**106%**		**96%**				**93%**		
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
TILL-1	2.12	5400	0.25	76.2	14	37.6	0.74	49	3.3	1.7	0.9	39700	6.94	4.9
TILL-1	1.96	5400	0.16	64.4	12.7	37	0.67	44.4	3.1	1.5	1	41700	6.45	3.3
TILL-1	1.83	3300	0.47	40.8	10.4	31.3	0.38	66.3	2.2	1	0.7	32500	4.74	2.7
TILL-1	2.04	4400	0.22	50.5	12.4	24.7	0.53	44.8	2.9	1.4	0.7	34400	6.28	3.6
Average	**1.99**	**4625**	**0.28**	**58.0**	**12.4**	**32.7**	**0.58**	**51.1**	**2.9**	**1.4**	**0.8**	**37075**	**6.10**	**3.6**
SD	**0.12**	**1001**	**0.14**	**15.5**	**1.5**	**6.0**	**0.16**	**10.3**	**0.5**	**0.3**	**0.2**	**4335**	**0.95**	**0.9**
RSD	**6%**	**22%**	**49%**	**27%**	**12%**	**18%**	**27%**	**20%**	**17%**	**21%**	**18%**	**12%**	**16%**	**26%**
RV	<3		<0.2		12	30		48				31000		
GeoPT	22%	3%		9%	12%	8%	14%	11%	13%	14%	16%	4%	12%	13%
Abs GeoPT					1.44	2.4		5.28				1240		
Bias					**103%**	**109%**		**107%**				**120%**		
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
TILL-3	0.33	7100	0.08	39.2	10.9	73.1	0.72	21.1	1.3	0.6	0.6	21600	4.67	2.3
TILL-3	0.34	5800	0.05	24.8	10.8	83.4	0.66	26	1	0.4	0.4	19300	4	1.6
TILL-3	0.25	7000	0.23	27.9	10.7	73.9	0.59	42.3	1.2	0.5	0.5	22500	3.16	1.6
TILL-3	0.38	6200	0.14	34.2	11.2	64.7	0.93	23.5	1.7	0.8	0.6	21800	4.45	2.5
Average	**0.33**	**6525**	**0.13**	**31.5**	**10.9**	**73.8**	**0.73**	**28.2**	**1.3**	**0.6**	**0.5**	**21300**	**4.07**	**2.0**
SD	**0.05**	**629**	**0.08**	**6.4**	**0.2**	**7.6**	**0.15**	**9.6**	**0.3**	**0.2**	**0.1**	**1388**	**0.67**	**0.5**
RSD	**17%**	**10%**	**63%**	**20%**	**2%**	**10%**	**20%**	**34%**	**23%**	**30%**	**18%**	**7%**	**16%**	**23%**
RV	<3		<0.2		11	73		23				20000		
GeoPT	22%	3%		9%	12%	8%	14%	11%	13%	14%	16%	4%	12%	13%
Abs GeoPT					1.32	5.84		2.53				800		
Bias					**99%**	**101%**		**123%**				**107%**		
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
WRIS	0.33	7900	0.19	68.1	20.7	69.1	2.66	27.8	2.8	1.2	1	40300	7.17	4.8
WRIS	0.36	8900	0.27	63	18.9	63.5	2.48	27.8	2.7	1.2	0.9	40800	6.57	4.5
WRIS	0.33	8300	0.34	40.6	18.4	57.3	1.58	25.2	2.2	1	0.8	37100	4.61	3.5
WRIS	0.33	8500	0.23	60.6	20.1	59.7	2	27.9	2.8	1.3	0.9	37700	6.68	4.6
WRIS	0.34	8200	0.21	56.7	18.2	57.1	2.3	25.1	2.6	1.1	0.8	38900	5.08	4.5
WRIS	0.29	7000	0.24	48.9	18.1	54.5	1.96	24.6	2.6	1.1	0.8	34600	5.48	4.2
WRIS	0.33	8500	0.26	68.8	21.1	67.9	2.75	27.7	2.9	1.2	1	41500	7.29	4.8
WRIS	0.33	7900	0.22	71.7	19.6	59.7	2.67	25	2.8	1.1	0.9	37500	6.42	4.3
WRIS	0.33	8400	0.27	58.6	19.2	60	2.56	26	2.8	1.2	1	35900	6.25	4.4
WRIS	0.36	8300	0.36	55.5	19.8	68	2.39	26.3	2.7	1.2	1	38400	6.81	4.7
WRIS	0.37	8400	0.28	69.8	19.5	66.8	2.92	26	3	1.2	1.1	39100	7.26	4.4
WRIS	0.34	8100	0.21	61.6	18.4	62.9	2.93	25.7	2.8	1.1	1	36000	6.79	4
WRIS	0.34	8100	0.31	47.7	17.6	56.4	2.44	24	2.5	1	0.8	36400	5.31	3.2
WRIS	0.33	8300	0.27	65.3	17.6	60.2	2.8	24.8	2.7	1.2	1.1	40500	6.31	3.4
WRIS	0.35	7800	0.26	66.5	18.2	54.4	3.05	24.2	2.9	1.2	1.2	39600	7.05	3.3
WRIS	0.35	8300	0.23	71.1	17.6	66.9	3.32	24.6	2.8	1.1	1.1	38900	6.91	3.5
WRIS	0.43	9000	0.35	58.3	17.7	52	2.83	23.5	2.7	1.3	0.9	40800	6.55	4.5
WRIS	0.35	8000	0.16	58.1	18.8	52.7	2.79	25.4	2.6	1.2	1.1	44900	6.64	4.4
WRIS	0.34	7300	0.2	51.7	18.9	57.8	2.83	26	2.7	1.3	1.1	34500	6.89	4.6
WRIS	0.42	9000	0.21	78.8	21.4	67.6	3.03	31.6	2.9	1.4	1.1	43700	9.08	5
WRIS	0.38	7700	0.22	82.3	16.8	48.7	2.7	23.7	2.2	1	0.9	31300	6.69	4.8
WRIS	0.33	8700	0.26	50	18	55.2	3.12	26	2.9	1.1	0.8	41200	5.1	4.1
WRIS	0.31	8600	0.25	59.9	19.3	51.7	2.38	23.8	2.4	1.2	0.9	29200	4.97	3.7
WRIS	0.38	9200	0.26	86.2	20.4	61.8	2.98	24	3.1	1.3	0.9	32400	6.87	4.6
WRIS	0.31	8600	0.25	61.2	14.6	54.4	1.92	22.1	2.3	1.2	0.8	35500	5.23	3.8
WRIS	0.28	7500	0.15	47.4	12.4	32.5	1.98	17.7	2.4	1	0.8	21000	3.6	2.9
WRIS	0.38	7700	0.29	53	16.6	58.5	3.13	47.4	3	1.2	1	34300	5.66	4.5
WRIS	0.34	8800	0.24	61.4	19	56.9	2.83	47.2	3.6	1.4	0.9	42500	6.4	4.1
WRIS	0.28	8700	0.31	54.5	19	53.9	2.56	44.3	3.2	1.2	0.9	40300	7.12	3.5
WRIS	0.3	8000	0.28	48	18.5	51	2.47	39.8	2.7	1.2	0.9	36500	6.13	3.5
WRIS	0.34	8700	0.24	64.4	20.6	62.6	3.42	61.3	3.3	1.4	1.1	41500	5.42	4.2
WRIS	0.33	8400	0.39	64.5	19.1	61.5	3.19	54.1	3.4	1.4	1	40700	6.77	3.8
WRIS	0.31	8700	0.35	57.8	17.7	66.3	2.34	79.8	2.8	1.1	1	41900	6.06	3.7
WRIS	0.3	8200	0.88	48.5	17.4	59.9	1.98	24.6	2.8	1.1	0.9	37800	5.93	3.7

Appendix 18. QC samples analysis by AR

STANDARD	Ge (ppm)	Hf (ppm)	Hg (ppm)	Ho (ppm)	In (ppm)	K (ppm)	La (ppm)	Li (ppm)	Lu (ppm)	Mg (ppm)	Mn (ppm)	Mo (ppm)	Na (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.1	0.1	0.01	0.1	0.02	100	0.5	0.1	0.1	100	1	0.01	10
ULD:													
SoNE-1	0.05	0.1	0.02	0.5	0.03	3400	35.1	16.7	0.2	4200	639	0.69	130
SoNE-1	0.05	0.1	0.01	0.5	0.03	3600	31	16.7	0.1	3900	607	0.69	60
SoNE-1	0.05	0.05	0.03	0.5	0.03	4700	32.2	18.1	0.2	4500	661	0.9	80
SoNE-1	0.05	0.1	0.04	0.5	0.04	3300	36.1	16.2	0.1	3000	414	0.85	50
SoNE-1	0.05	0.05	0.04	0.5	0.03	3200	24.4	18.6	0.1	4200	580	0.91	210
SoNE-1	0.05	0.05	0.05	0.5	0.02	4200	29.8	17.3	0.2	4200	567	0.69	250
SoNE-1	0.05	0.1	0.03	0.5	0.03	2800	24.2	11.7	0.2	3100	612	0.79	370
SoNE-1	0.05	0.2	0.05	0.5	0.03	3400	25.5	14.9	0.2	3400	577	0.63	110
Average	**0.05**	**0.09375**	**0.03**	**0.5**	**0.03**	**3575**	**29.8**	**16.3**	**0.16**	**3813**	**582**	**0.77**	**158**
SD	**0.00**	**0.05**	**0.01**	**0.0**	**0.01**	**602**	**4.7**	**2.2**	**0.05**	**569**	**75**	**0.11**	**111**
RSD	**0%**	**53%**	**42%**	**0%**	**18%**	**17%**	**16%**	**13%**	**32%**	**15%**	**13%**	**14%**	**71%**
% <LLD	**100%**	**38%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
STSD-3	0.05	0.05	0.12	0.6	0.06	1700	26.7	24.3	0.3	6400	2740	5.85	470
STSD-3	0.05	0.05	0.13	0.6	0.05	1200	33.9	15.7	0.2	7600	2770	5.82	190
STSD-3	0.05	0.05	0.13	0.7	0.04	1600	27.5	19.3	0.3	6900	2520	5.68	630
STSD-3	0.05	0.05	0.1	0.6	0.05	1000	21.7	16.1	0.2	6400	2350	5.26	2420
Average	**0.05**	**0.05**	**0.12**	**0.6**	**0.05**	**1375**	**27.5**	**18.9**	**0.25**	**6825**	**2595**	**5.65**	**928**
SD	**0.00**	**0.00**	**0.01**	**0.0**	**0.01**	**330**	**5.0**	**4.0**	**0.06**	**568**	**198**	**0.27**	**1011**
RSD	**0%**	**0%**	**12%**	**8%**	**16%**	**24%**	**18%**	**21%**	**23%**	**8%**	**8%**	**5%**	**109%**
RV			0.09								2630	7	
GeoPT	16%	11%		18%		4%	10%		18%	3%	6%	15%	4%
Abs GeoPT											157.8	1.05	
Bias			**133%**								**99%**	**81%**	
% <LLD	**100%**	**100%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
TILL-1	0.05	0.05	0.11	0.6	0.05	900	27.3	12.2	0.2	5500	1290	0.75	450
TILL-1	0.05	0.05	0.1	0.6	0.05	900	24.6	12.4	0.2	6200	1320	0.73	510
TILL-1	0.05	0.05	0.03	0.5	0.01	500	16.8	10	0.05	3800	982	0.75	320
TILL-1	0.05	0.05	0.14	0.5	0.05	500	18.6	10	0.2	5300	1140	0.57	2590
Average	**0.05**	**0.05**	**0.10**	**0.6**	**0.04**	**700**	**21.8**	**11.2**	**0.16**	**5200**	**1183**	**0.70**	**968**
SD	**0.00**	**0.00**	**0.05**	**0.1**	**0.02**	**231**	**4.9**	**1.3**	**0.08**	**1010**	**155**	**0.09**	**1085**
RSD	**0%**	**0%**	**49%**	**10%**	**50%**	**33%**	**23%**	**12%**	**46%**	**19%**	**13%**	**12%**	**112%**
RV			0.092								950	<2	
GeoPT	16%	11%		18%		4%	10%		18%	3%	6%	15%	4%
Abs GeoPT											57		
Bias			**103%**								**125%**		
% <LLD	**100%**	**100%**	**0%**	**0%**	**25%**	**0%**	**0%**	**0%**	**25%**	**0%**	**0%**	**0%**	**0%**
TILL-3	0.05	0.05	0.09	0.2	0.01	900	15.9	17.6	0.05	4500	358	0.65	320
TILL-3	0.05	0.05	0.2	0.2	0.01	700	12.1	17.5	0.05	7200	278	0.62	180
TILL-3	0.05	0.05	0.01	0.3	0.01	1100	14.9	22.2	0.05	5000	338	0.64	580
TILL-3	0.2	0.05	0.07	0.3	0.01	1100	16.9	15.7	0.1	5100	326	0.59	370
Average	**0.09**	**0.05**	**0.09**	**0.3**	**0.01**	**950**	**15.0**	**18.3**	**0.06**	**5450**	**325**	**0.63**	**363**
SD	**0.08**	**0.00**	**0.08**	**0.1**	**0.00**	**191**	**2.1**	**2.8**	**0.03**	**1196**	**34**	**0.03**	**166**
RSD	**86%**	**0%**	**86%**	**23%**	**0%**	**20%**	**14%**	**15%**	**40%**	**22%**	**10%**	**4%**	**46%**
RV			0.107								310	<2	
GeoPT	16%	11%		18%		4%	10%		18%	3%	6%	15%	4%
Abs GeoPT											18.6		
Bias			**86%**								**105%**		
% <LLD	**75%**	**100%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**75%**	**0%**	**0%**	**0%**	**0%**
WRIS	0.05	0.4	0.06	0.5	0.04	4200	32	17.2	0.1	5600	701	1.06	1340
WRIS	0.05	0.4	0.04	0.5	0.04	4100	33.2	20.3	0.1	5600	727	0.68	1300
WRIS	0.05	0.3	0.05	0.4	0.03	4100	21.2	14.4	0.1	5300	742	0.63	1310
WRIS	0.05	0.4	0.06	0.5	0.03	4800	32.2	14.2	0.5	6000	702	0.68	1400
WRIS	0.05	0.3	0.06	0.5	0.03	4500	29.8	13.5	0.1	5400	671	0.7	1360
WRIS	0.05	0.4	0.06	0.5	0.03	3700	26.3	13.5	0.1	5200	627	0.65	1140
WRIS	0.05	0.4	0.03	0.5	0.03	4800	38.5	16.9	0.1	5900	725	0.7	1420
WRIS	0.05	0.4	0.02	0.5	0.04	4900	35.2	16.1	0.1	5100	657	0.78	1350
WRIS	0.05	0.4	0.05	0.5	0.03	3900	28.9	15.3	0.2	5900	660	0.62	1390
WRIS	0.05	0.4	0.03	0.5	0.04	3400	29.2	18.1	0.2	5800	713	0.78	1360
WRIS	0.05	0.4	0.05	0.5	0.04	3600	34.2	17	0.05	5900	694	0.73	1450
WRIS	0.05	0.3	0.02	0.5	0.03	5000	32.2	16.2	0.1	5500	651	0.73	1380
WRIS	0.05	0.3	0.06	0.4	0.04	4500	24.3	12.4	0.1	5000	670	0.69	1290
WRIS	0.05	0.3	0.05	0.5	0.03	4200	32.4	14.6	0.1	6000	701	0.81	1380
WRIS	0.05	0.3	0.02	0.5	0.03	4400	34.5	16.4	0.1	5900	668	0.92	1360
WRIS	0.05	0.3	0.02	0.5	0.03	4300	37	14.6	0.05	6100	661	0.88	1580
WRIS	0.05	0.4	0.01	0.5	0.04	3800	31.7	15.1	0.1	6200	563	0.2	1610
WRIS	0.05	0.3	0.04	0.4	0.04	4300	37.6	15.6	0.1	5600	625	0.48	1670
WRIS	0.05	0.3	0.06	0.5	0.03	4700	32.5	14.2	0.05	7500	572	0.94	1460
WRIS	0.2	0.4	0.01	0.6	0.04	4300	36.5	12.7	0.2	6600	670	0.92	1300
WRIS	0.1	0.2	0.05	0.4	0.02	4500	25.6	12.3	0.05	7200	462	0.72	1360
WRIS	0.05	0.2	0.07	0.5	0.03	5900	29.2	13.5	0.1	9200	559	0.71	2200
WRIS	0.05	0.3	0.08	0.5	0.03	4500	37.1	16.4	0.1	6300	486	0.7	2010
WRIS	0.05	0.3	0.05	0.5	0.03	6100	43.1	21	0.2	6400	516	0.8	1570
WRIS	0.05	0.2	0.05	0.5	0.03	4300	35.8	8.8	0.05	6100	500	0.8	1680
WRIS	0.05	0.2	0.05	0.5	0.02	2600	25.6	9.4	0.05	5200	478	0.61	1430
WRIS	0.05	0.3	0.04	0.5	0.03	2800	28.5	15	0.1	5300	550	0.79	1250
WRIS	0.05	0.3	0.05	0.6	0.03	3400	29.5	18.2	0.1	5500	663	0.72	1320
WRIS	0.05	0.3	0.03	0.5	0.03	4000	32.7	14.7	0.05	5900	696	0.83	1570
WRIS	0.05	0.2	0.04	0.4	0.03	3500	27.6	12	0.05	5700	626	1.03	1550
WRIS	0.1	0.4	0.05	0.5	0.01	4600	31.3	16.9	0.2	6100	628	0.87	1490
WRIS	0.1	0.4	0.06	0.5	0.01	4400	32	15.8	0.1	5600	704	0.85	1370
WRIS	0.05	0.4	0.05	0.7	0.01	4500	32.2	19.9	0.05	5300	678	0.65	1560
WRIS	0.05	0.3	0.06	0.5	0.02	3600	27.5	14.7	0.1	5600	650	0.69	1820

Appendix 18. QC samples analysis by AR

STANDARD	Nb (ppm)	Nd (ppm)	Ni (ppm)	Pb (ppm)	Pr (ppm)	Rb (ppm)	Re (ppm)	Sb (ppm)	Sc (ppm)	Se (ppm)	Sm (ppm)	Sn (ppm)	Sr (ppm)	Ta (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.1	0.02	0.1	0.01	0.1	0.1	0.001	0.02	0.1	0.1	0.1	0.05	0.5	0.05
ULD:													1000	
SoNE-1	0.8	28.6	28.9	19.8	7.9	33.5	0.005	0.81	5.2	0.5	5.3	0.76	41.8	0.025
SoNE-1	0.8	26.8	26.9	18.1	7.2	30.3	0.002	0.74	4.7	0.3	5	0.83	38.8	0.025
SoNE-1	1	23.7	25.3	17.6	6.9	33.3	0.005	0.86	5.3	0.3	4.6	1.13	41.3	0.025
SoNE-1	0.3	19.6	22.6	13.8	5.8	25.7	0.0005	0.67	4.4	0.05	4	0.65	40.7	0.025
SoNE-1	0.9	24.3	28.7	0.27	6.1	33.3	0.003	0.77	6.5	0.9	4.6	0.94	37.8	0.025
SoNE-1	0.7	24.6	30.4	18.4	6.5	33.3	0.001	0.65	5.3	0.6	4.4	0.97	38.1	0.025
SoNE-1	0.7	23.1	26.9	19.1	5.6	25.3	0.004	0.85	4.1	1	4.4	0.8	38.5	0.025
SoNE-1	1	22.9	27.7	18.7	5.8	28.1	0.0005	0.57	4.3	0.05	4.5	0.91	38.4	0.025
Average	**0.8**	**24.2**	**27.2**	**15.7**	**6.5**	**30.4**	**0.0026**	**0.74**	**5.0**	**0.5**	**4.6**	**0.87**	**39.4**	**0.025**
SD	**0.2**	**2.7**	**2.4**	**6.5**	**0.8**	**3.6**	**0.0019**	**0.10**	**0.8**	**0.4**	**0.4**	**0.15**	**1.6**	**0.000**
RSD	**29%**	**11%**	**9%**	**41%**	**12%**	**12%**	**73%**	**14%**	**16%**	**77%**	**9%**	**17%**	**4%**	**0%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**25%**	**0%**	**0%**	**25%**	**0%**	**0%**	**0%**	**100%**
STSD-3	1.1	23.7	29.4	42.3	6.2	15.1	0.005	2.92	4.4	1.4	4.7	1.51	77	0.025
STSD-3	0.7	27.7	23.2	39.1	7.6	12.8	0.004	2.17	3.1	1.2	6.1	1.34	67.1	0.025
STSD-3	1.6	21.9	33.3	39.9	5.8	16.1	0.003	2.46	2.9	1.4	4.1	2.78	70.1	0.025
STSD-3	1.2	19.6	27.5	42.8	5.3	13.1	0.0005	2.76	3.1	0.7	4.1	1.68	60.6	0.025
Average	**1.2**	**23.2**	**28.4**	**41.0**	**6.2**	**14.3**	**0.0031**	**2.58**	**3.4**	**1.2**	**4.8**	**1.83**	**68.7**	**0.025**
SD	**0.4**	**3.4**	**4.2**	**1.8**	**1.0**	**1.6**	**0.0019**	**0.33**	**0.7**	**0.3**	**0.9**	**0.65**	**6.8**	**0.000**
RSD	**32%**	**15%**	**15%**	**4%**	**16%**	**11%**	**62%**	**13%**	**20%**	**28%**	**20%**	**36%**	**10%**	**0%**
RV			25	39				2.4						
GeoPT	12%	10%	9%	11%	12%	9%		17%	12%		12%		7%	16%
Abs GeoPT			2.25	4.29				0.408						
Bias			**113%**	**105%**				**107%**						
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**25%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**
TILL-1	1.8	27.1	18.9	15.2	7.3	7.1	0.001	6.55	6.2	0.6	5.4	1.25	15.7	0.025
TILL-1	1.6	22.4	17.2	13.7	6.2	7	0.003	6.58	6.8	0.9	4.6	0.94	15.9	0.025
TILL-1	1.5	14.2	21.8	12.3	3.2	3.1	0.0005	7.9	4.2	0.3	3	1.17	7	0.025
TILL-1	1.6	16.9	17.3	14.8	4.8	5.7	0.0005	6.04	4.7	0.05	3.6	1.13	11.5	0.025
Average	**1.6**	**20.2**	**18.8**	**14.0**	**5.4**	**5.7**	**0.0013**	**6.77**	**5.5**	**0.5**	**4.2**	**1.12**	**12.5**	**0.025**
SD	**0.1**	**5.8**	**2.1**	**1.3**	**1.8**	**1.9**	**0.0012**	**0.79**	**1.2**	**0.4**	**1.1**	**0.13**	**4.2**	**0.000**
RSD	**8%**	**29%**	**11%**	**9%**	**33%**	**33%**	**95%**	**12%**	**22%**	**80%**	**26%**	**12%**	**34%**	**0%**
RV			18	12										
GeoPT	12%	10%	9%	11%	12%	9%		17%	12%		12%		7%	16%
Abs GeoPT			1.62	1.32										
Bias			**104%**	**117%**										
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**50%**	**0%**	**0%**	**25%**	**0%**	**0%**	**0%**	**100%**
TILL-3	1.1	14.5	34.3	17	4	8.6	0.0005	0.67	5	0.2	3.5	1.25	19.9	0.025
TILL-3	0.4	9.09	29.7	14.5	2.7	7	0.003	0.63	3.8	0.05	1.7	1.25	14.4	0.025
TILL-3	1.3	12.2	35.9	15.3	3	6.7	0.002	0.88	4	0.2	2.2	1.55	16.5	0.025
TILL-3	1.2	15.3	36.7	20.8	4	10.3	0.003	2.22	4.3	0.05	2.8	1.93	25.6	0.025
Average	**1.0**	**12.8**	**34.2**	**16.9**	**3.4**	**8.2**	**0.0021**	**1.10**	**4.3**	**0.1**	**2.6**	**1.50**	**19.1**	**0.025**
SD	**0.4**	**2.8**	**3.1**	**2.8**	**0.7**	**1.7**	**0.0012**	**0.75**	**0.5**	**0.1**	**0.8**	**0.32**	**4.9**	**0.000**
RSD	**41%**	**22%**	**9%**	**17%**	**20%**	**20%**	**56%**	**69%**	**12%**	**69%**	**30%**	**22%**	**26%**	**0%**
RV			32	16										
GeoPT	12%	10%	9%	11%	12%	9%		17%	12%		12%		7%	16%
Abs GeoPT			2.88	1.76										
Bias			**107%**	**106%**										
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**25%**	**0%**	**0%**	**50%**	**0%**	**0%**	**0%**	**100%**
WRIS	3.7	27.6	53.3	16.8	7.1	37.1	0.002	0.44	7	0.7	5.6	1.39	91.8	0.025
WRIS	3.2	26.8	49.6	12.9	7.4	34.9	0.004	0.4	7.7	0.8	5.3	1.58	93.7	0.025
WRIS	3.3	18.3	45.6	11.3	4.8	28.3	0.0005	0.37	6.3	0.6	3.7	1.13	77.8	0.025
WRIS	3.8	18.8	52.9	12.6	6.3	33	0.0005	0.4	7.4	0.2	4.6	1.69	85.6	0.025
WRIS	3.6	24.5	47.1	11.6	6.6	31.5	0.002	0.4	6.7	1	4.7	1.54	89.2	0.025
WRIS	3.6	21	48.4	11.6	5.6	27.9	0.0005	0.43	5.9	0.6	4	1.44	68.8	0.025
WRIS	3.9	24.9	54	13	7.1	37.2	0.0005	0.43	7.7	1.3	5.2	1.66	95.5	0.025
WRIS	3.9	29.2	49.2	13.1	7.7	35.1	0.001	0.43	7	1.3	5.5	1.54	88.5	0.025
WRIS	3.6	23.8	52.9	13.3	6.4	33.7	0.001	0.44	6.4	0.4	5	1.61	88.6	0.025
WRIS	4.4	23.5	53.8	14.7	6.3	32.8	0.0005	0.5	7.4	1.2	4.6	1.64	92.4	0.025
WRIS	3.9	28.5	53.4	14.3	7.9	35.5	0.002	0.43	6.8	0.6	5.5	1.55	97.9	0.025
WRIS	4.1	24.8	50.2	12.8	7.1	36.7	0.003	0.42	6.7	0.5	4.8	1.45	94.5	0.025
WRIS	2.8	20.1	45	11.3	5.3	28.4	0.001	0.39	6.4	0.6	4.1	1.55	81.9	0.025
WRIS	3.8	25.2	44.8	12.6	7.2	33.4	0.002	0.46	7.3	0.9	5.2	1.31	92.4	0.025
WRIS	4	24.8	47.4	12.7	7.1	37.2	0.002	0.49	6.9	0.3	4.9	1.71	95.8	0.025
WRIS	4.8	26.3	44.9	12.1	7.9	36.1	0.002	0.43	7.5	0.7	5.6	1.5	89.5	0.025
WRIS	4.2	23.3	43.9	10.3	6.1	38.7	0.009	0.48	7.5	0.2	4.9	1.51	98.8	0.025
WRIS	4.4	20.7	44	10.7	5.2	36.2	0.005	0.58	7	0.6	4.5	1.55	95.8	0.025
WRIS	3	22.6	47.5	8.8	5.7	37.2	0.001	0.49	8.1	0.6	5.3	1.46	91	0.025
WRIS	2.6	29.4	55.9	13.1	7.8	38.1	0.01	0.59	7.6	1.3	5.3	1.52	105	0.025
WRIS	2.5	31.3	48.1	9.45	8.9	34.7	0.0005	0.46	5.3	1.4	6.5	1.39	85.7	0.025
WRIS	2.9	20.2	46.6	11.1	6.2	45	0.0005	0.33	6.8	0.6	4.3	1.49	89.8	0.025
WRIS	2.1	19.7	46.4	10.1	5.9	31.2	0.0005	0.46	7.4	0.05	4.1	1.43	88.6	0.025
WRIS	2.9	24.9	50.6	11.2	8.7	46.8	0.003	0.44	8.7	0.3	6.2	1.95	98.2	0.025
WRIS	1.9	19.5	37.2	7.96	5.7	27.9	0.002	0.34	6.4	1.1	4	1.42	83.8	0.025
WRIS	1.7	17.9	32.8	8.06	4.6	29.9	0.002	0.3	6.7	0.7	3.7	1.11	70.9	0.025
WRIS	3.2	24	48.3	12.5	6.3	38.6	0.002	0.49	7.4	0.7	4.6	1.51	82.4	0.025
WRIS	3.7	26.3	47.5	0.22	7.3	39.3	0.0005	0.5	8	0.4	4.7	1.85	92.8	0.025
WRIS	3.8	25.3	55	12.4	6.6	36.1	0.0005	0.47	7	1	4.7	1.62	94.5	0.025
WRIS	3.4	23.9	54.8	14.5	5.9	31	0.0005	0.43	6.7	0.8	4.6	2.17	81.8	0.025
WRIS	3.9	31.7	68.1	14.6	7.9	42.9	0.002	0.55	8.2	0.8	6	1.76	103	0.025
WRIS	3.8	29	61.1	13.6	7.5	42.3	0.0005	0.53	7.3	0.9	5.5	1.89	112	0.025
WRIS	4.1	23.2	60.1	12.3	5.9	32.3	0.0005	0.64	6.8	0.6	4.7	1.64	82	0.025
WRIS	4.2	21.5	54.5	12.2	5.7	30.9	0.0005	0.46	6	0.5	3.7	1.66	83.2	0.025

Appendix 18. QC samples analysis by AR

STANDARD	Tb (ppm)	Te (ppm)	Th (ppm)	Tl (ppm)	Tm (ppm)	U (ppm)	V (ppm)	W (ppm)	Y (ppm)	Yb (ppm)	Zn (ppm)	Zr (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.1	0.02	0.1	0.02	0.1	0.1	1	0.1	0.01	0.1	0.1	0.1
ULD:								200				
SoNE-1	0.4	0.06	6.5	0.33	0.2	1.2	56	0.05	15.7	1.1	79.7	7.1
SoNE-1	0.5	0.01	6.6	0.35	0.2	1.3	56	0.05	14.1	1.1	70.8	7.5
SoNE-1	0.5	0.06	7.7	0.39	0.2	1.4	65	0.05	15.5	1.2	78.3	6.8
SoNE-1	0.4	0.03	5.3	0.34	0.2	1.1	41	0.05	14.6	1.1	41.7	4.8
SoNE-1	0.4	0.05	16.8	0.25	0.2	5.7	50	0.05	14.6	1.2	82.8	6.3
SoNE-1	0.4	0.03	7.4	0.33	0.3	1.4	59	0.05	13.8	1.1	68.7	7.1
SoNE-1	0.5	0.05	5.7	0.31	0.2	1.3	47	0.05	14.8	1.2	77.5	5.5
SoNE-1	0.5	0.01	5.8	0.31	0.2	1.4	51	0.05	14.3	1.1	79.2	7.5
Average	**0.5**	**0.04**	**7.7**	**0.33**	**0.21**	**1.9**	**53**	**0.05**	**14.7**	**1.1**	**72.3**	**6.6**
SD	**0.1**	**0.02**	**3.8**	**0.04**	**0.04**	**1.6**	**7**	**0.00**	**0.7**	**0.1**	**13.2**	**1.0**
RSD	**12%**	**55%**	**49%**	**12%**	**17%**	**84%**	**14%**	**0%**	**4%**	**5%**	**18%**	**15%**
% <LLD	**0%**	**25%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**
STSD-3	0.5	0.01	1.4	0.28	0.2	8.8	56	1.4	22.4	1.5	187	0.8
STSD-3	0.6	0.02	1.2	0.2	0.2	9	47	1.6	23.3	1.7	176	1
STSD-3	0.6	0.08	1.6	0.31	0.4	9.8	57	1.9	19.3	1.7	170	1
STSD-3	0.5	0.07	1	0.25	0.2	9.4	49	0.9	18.8	1.5	166	0.8
Average	**0.6**	**0.05**	**1.3**	**0.26**	**0.25**	**9.3**	**52**	**1.45**	**21.0**	**1.6**	**174.8**	**0.9**
SD	**0.1**	**0.04**	**0.3**	**0.05**	**0.10**	**0.4**	**5**	**0.42**	**2.2**	**0.1**	**9.1**	**0.1**
RSD	**10%**	**78%**	**20%**	**18%**	**40%**	**5%**	**10%**	**29%**	**11%**	**7%**	**5%**	**13%**
RV							61				192	
GeoPT	17%		12%			14%	9%	15%	10%	14%	9%	7%
Abs GeoPT							5.49				17.28	
Bias							**86%**				**91%**	
% <LLD	**0%**	**25%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
TILL-1	0.6	0.05	3.3	0.14	0.2	1	64	0.2	17.5	1.5	73.8	1.7
TILL-1	0.6	0.05	3.5	0.12	0.2	0.9	63	0.2	16.7	1.5	68.1	1
TILL-1	0.4	0.01	2.4	0.07	0.2	0.7	47	0.2	8.16	0.9	71.4	0.7
TILL-1	0.5	0.04	2.3	0.12	0.2	0.9	55	0.05	13.5	1.2	69.6	0.7
Average	**0.5**	**0.04**	**2.9**	**0.11**	**0.20**	**0.9**	**57**	**0.16**	**14.0**	**1.3**	**70.7**	**1.0**
SD	**0.1**	**0.02**	**0.6**	**0.03**	**0.00**	**0.1**	**8**	**0.08**	**4.2**	**0.3**	**2.5**	**0.5**
RSD	**18%**	**50%**	**21%**	**27%**	**0%**	**14%**	**14%**	**46%**	**30%**	**23%**	**3%**	**46%**
RV							48				70	
GeoPT	17%		12%			14%	9%	15%	10%	14%	9%	7%
Abs GeoPT							4.32				6.3	
Bias							**119%**				**101%**	
% <LLD	**0%**	**25%**	**0%**	**0%**	**0%**	**0%**	**0%**	**25%**	**0%**	**0%**	**0%**	**0%**
TILL-3	0.3	0.03	2.8	0.07	0.05	1.2	34	0.2	7.23	0.5	52.5	2.7
TILL-3	0.2	0.07	1.6	0.06	0.05	1.2	32	0.2	5.59	0.4	41.5	1.2
TILL-3	0.2	0.03	2.6	0.06	0.05	1	33	0.2	5.98	0.4	25.9	3
TILL-3	0.3	0.02	3.1	0.08	0.1	1.4	44	0.2	7.23	0.7	64.2	3.4
Average	**0.3**	**0.04**	**2.5**	**0.07**	**0.06**	**1.2**	**36**	**0.20**	**6.5**	**0.5**	**46.0**	**2.6**
SD	**0.1**	**0.02**	**0.7**	**0.01**	**0.03**	**0.2**	**6**	**0.00**	**0.8**	**0.1**	**16.3**	**1.0**
RSD	**23%**	**59%**	**26%**	**14%**	**40%**	**14%**	**16%**	**0%**	**13%**	**28%**	**35%**	**37%**
RV							33				43	
GeoPT	17%		12%			14%	9%	15%	10%	14%	9%	7%
Abs GeoPT							2.97				3.87	
Bias							**108%**				**107%**	
% <LLD	**0%**	**0%**	**0%**	**0%**	75%	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
WRIS	0.5	0.03	7.4	0.19	0.2	1.9	62	0.1	15.3	0.9	73.1	18.2
WRIS	0.5	0.05	6.4	0.18	0.2	1.8	62	0.2	14.6	0.9	84.4	16.6
WRIS	0.4	0.01	4.4	0.15	0.1	1.6	59	0.3	12.4	0.8	77.6	12.5
WRIS	0.4	0.01	5.8	0.16	0.2	1.8	59	0.2	13.7	0.9	88.7	17.6
WRIS	0.5	0.01	6.5	0.16	0.1	1.7	55	0.2	13.4	0.9	66.5	14.6
WRIS	0.4	0.05	5.5	0.14	0.2	1.7	54	0.2	12.5	0.8	74.2	15.4
WRIS	0.5	0.07	7.6	0.19	0.2	1.9	61	0.05	14.8	0.9	83.3	20
WRIS	0.5	0.01	7.1	0.21	0.2	1.8	57	0.2	14.1	0.9	76.5	15.7
WRIS	0.5	0.08	6.3	0.17	0.2	1.9	55	0.1	12.7	0.9	89.9	18.7
WRIS	0.7	0.02	7.2	0.18	0.2	1.9	64	0.1	14.7	0.9	88	17.5
WRIS	0.5	0.03	7.8	0.22	0.2	1.9	60	0.05	13.8	0.9	82.2	18.3
WRIS	0.4	0.05	6.7	0.19	0.2	1.8	56	0.1	13.7	0.9	82.5	16.6
WRIS	0.3	0.06	5.3	0.13	0.2	1.6	56	0.3	13	0.8	67.6	14.3
WRIS	0.6	0.01	7.6	0.21	0.2	1.8	61	0.05	13.5	1	71.3	15
WRIS	0.6	0.06	8	0.24	0.2	1.8	64	0.05	14.2	1	80.5	15.7
WRIS	0.6	0.03	9.1	0.25	0.2	2.1	68	0.1	15.8	1	76.7	14.6
WRIS	0.6	0.01	8.3	0.2	0.2	1.8	60	0.05	14.3	0.9	74.1	18
WRIS	0.5	0.07	8.8	0.19	0.2	1.8	61	0.05	14.4	0.9	79.8	15.5
WRIS	0.6	0.03	7.3	0.21	0.2	1.8	63	0.2	14.2	0.9	72.7	15.5
WRIS	0.6	0.01	9.5	0.25	0.2	1.9	66	0.05	14	1	133	16.2
WRIS	0.4	0.11	7.3	0.21	0.1	1.7	58	0.2	13.7	0.9	68.3	13
WRIS	0.5	0.07	6	0.16	0.2	1.7	61	0.3	14.6	1	93.8	10.4
WRIS	0.5	0.06	5.5	0.17	0.2	1.6	61	0.3	13.9	1	81.9	12.6
WRIS	0.6	0.08	8.5	0.29	0.2	2	64	0.05	14.3	1.1	67.2	14.8
WRIS	0.5	0.09	5.3	0.13	0.2	1.9	56	0.3	13	1	66.5	12.5
WRIS	0.4	0.01	4.2	0.15	0.1	1.5	45	0.3	10.2	0.8	58.3	8.2
WRIS	0.5	0.03	8.2	0.19	0.2	2	55	0.05	11.4	1	54	16.1
WRIS	0.5	0.02	13	0.25	0.2	8	53	0.2	14.3	0.9	59.3	19.2
WRIS	0.5	0.01	6.7	0.19	0.05	1.7	60	0.2	15.4	0.9	93.7	17.2
WRIS	0.4	0.03	5.9	0.16	0.05	1.5	58	0.05	13.6	0.9	62.9	15.1
WRIS	0.6	0.04	7.5	0.24	0.1	1.9	67	0.05	14	1	73.5	17.5
WRIS	0.5	0.05	7.8	0.25	0.1	1.9	56	0.1	15.6	1	81.4	16.1
WRIS	0.5	0.01	7.5	0.18	0.1	1.6	58	0.05	12.7	0.8	82	16.2
WRIS	0.5	0.05	7.2	0.17	0.3	1.9	59	0.1	12.2	0.8	67.8	16.3

Appendix 18. QC samples analysis by AR

STANDARD	NUMBER	BATCH	SAMPLEID	GRAIN	DEPTH	Ag (ppm)	Al (ppm)	As (ppm)	Au (ppm)	Au (ppm) Repeat 1	B (ppm)	Ba (ppm)	Be (ppm)
METHOD:		NO		SIZE		AR	AR	AR	AR	AR	AR	AR	AR
LLD:						0.002	100	0.1	0.0001	0.0001	1	0.5	0.1
ULD:							100000						
WRIS	5542	A09-493	2007191240	Fine	BOS	0.022	16300	5.7	0.00005		1	176	1.2
WRIS	5668	A10-001	2007191300	Fine	BOS	0.033	18100	6.2	0.0022		1	181	1.1
WRIS	6303	A10-044	2007190040	Coarse	BOS	0.034	18100	7.1	0.0041		0.5	172	1
WRIS	6349	A10-044	2007190160	Coarse	BOS	0.061	19900	7.2	0.0035		0.5	170	1
WRIS	6433	A10-044	2007190400	Coarse	BOS	0.04	20000	7.2	0.0027		0.5	164	1
Average						0.029	17182	6.8	0.0021		2.26	174.6	1.2
SD						0.018	2264	0.7	0.0010		1.65	11.9	0.2
RSD						63%	13%	10%	48%		73%	7%	19%
% <LLD						5%	0%	0%	3%		21%	0%	0%
WRIS2	6340	A10-044	2007190140	Coarse	BOS	0.021	17100	7	0.0039		0.5	163	1
WRIS2	6403	A10-044	2007190280	Coarse	BOS	0.026	14700	6.3	0.003		0.5	151	1.1
WRIS2	6434	A10-044	2007190420	Coarse	BOS	0.03	20200	6.4	0.0027		0.5	159	1
WRIS2	6457	A10-044	2007190480	Coarse	BOS	0.025	23500	7.1	0.0025		0.5	174	1
WRIS2	6476	A10-044	2007190540	Coarse	BOS	0.038	24900	6.5	0.0026		1	195	1.2
WRIS2	6481	A10-044	2007190560	Coarse	BOS	0.051	21700	7.1	0.0132		2	174	1.1
WRIS2	6537	A10-045	2007190640	Coarse	BOS	0.029	23400	7	0.0028		0.5	180	1.1
WRIS2	6547	A10-045	2007190680	Coarse	BOS	0.031	24000	7.9	0.0023		0.5	182	1.1
WRIS2	6602	A10-045	2007190820	Coarse	BOS	0.032	15600	6.2	0.0032		0.5	156	1.1
WRIS2	6617	A10-045	2007190880	Coarse	BOS	0.029	17100	6	0.0033		0.5	149	1.1
WRIS2	6665	A10-045	2007190960	Coarse	BOS	0.036	18500	6.1	0.0018		0.5	156	1.2
WRIS2	6695	A10-045	2007191000	Coarse	BOS	0.035	22700	6.3	0.0038		0.5	171	1.2
WRIS2	6819	A10-046	2007191100	Coarse	BOS	0.003	12000	5.7	0.0028		0.5	144	1.1
WRIS2	6895	A10-046	2007191180	Coarse	BOS	0.029	11800	5.2	0.0029		0.5	136	0.9
WRIS2	6971	A10-047	2007191240	Coarse	BOS	0.029	15400	6.1	0.0033		0.5	150	1.1
WRIS2	6989	A10-047	2007191280	Coarse	BOS	0.022	15200	5.6	0.0036		0.5	147	1
Average						0.029	18613	6.4	0.0036		0.63	161.7	1.1
SD						0.010	4360	0.7	0.0026		0.39	16.2	0.1
RSD						34%	23%	11%	73%		62%	10%	8%
% <LLD						0%	0%	0%	0%		88%	0%	0%

Appendix 18. QC samples analysis by AR

STANDARD	Bi (ppm)	Ca (ppm)	Cd (ppm)	Ce (ppm)	Co (ppm)	Cr (ppm)	Cs (ppm)	Cu (ppm)	Dy (ppm)	Er (ppm)	Eu (ppm)	Fe (ppm)	Ga (ppm)	Gd (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.02	100	0.01	0.01	0.1	0.5	0.02	0.01	0.1	0.1	0.1	100	0.02	0.1
ULD:														
WRIS	0.32	7600	0.26	45.2	16.1	57.1	2.52	23.1	2.2	1.1	1	32100	4.68	3.9
WRIS	0.34	7900	0.39	56.5	16.1	63.5	2.46	77.8	2.8	1.1	1	37400	6.03	3.8
WRIS	0.37	8200	0.2	49.6	19.9	53.6	2.51	34.2	3.1	1.4	0.9	40700	6.44	4.3
WRIS	0.36	8000	0.27	47.7	20.4	56.8	2.49	36.4	3	1.3	0.9	40100	6.39	4.3
WRIS	0.37	8200	0.26	55.2	19.8	55.1	3	35.6	3.1	1.3	0.9	40300	6.9	4.2
Average	**0.34**	**8246**	**0.28**	**59.4**	**18.5**	**58.3**	**2.62**	**32.4**	**2.8**	**1.2**	**1.0**	**37790**	**6.24**	**4.1**
SD	**0.03**	**483**	**0.11**	**10.3**	**1.8**	**6.8**	**0.42**	**14.4**	**0.3**	**0.1**	**0.1**	**4434**	**0.97**	**0.5**
RSD	**10%**	**6%**	**41%**	**17%**	**10%**	**12%**	**16%**	**45%**	**11%**	**10%**	**11%**	**12%**	**16%**	**13%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
WRIS2	0.35	7300	0.18	49.1	19.9	54.1	2.48	32.1	3.1	1.4	1	40500	6.29	4.4
WRIS2	0.32	7100	0.12	43.3	19.3	49.2	2.19	30.3	2.9	1.3	0.9	39500	5.05	4
WRIS2	0.34	7400	0.09	55.5	20.1	56.5	3	33.2	3.2	1.3	1	41500	6.95	4.5
WRIS2	0.37	7500	0.1	62.4	20.9	62.3	3.34	36.5	3.5	1.4	1.1	43700	7.96	4.9
WRIS2	0.43	7100	0.08	64.1	20.1	59.6	3.55	34.6	3.7	1.5	1.2	41000	7.27	5.6
WRIS2	0.35	7400	0.09	59.3	20.5	59.9	2.9	44.6	3.4	1.4	1	42600	7.2	4.8
WRIS2	0.4	6900	0.18	58.7	22.2	57.5	2.75	30.7	3.4	1.5	1	43700	7.76	4.7
WRIS2	0.54	7100	0.24	61.9	23.4	60.8	2.78	34.7	3.5	1.5	1	46100	8.36	4.8
WRIS2	0.37	6300	0.17	39.4	19.1	45.8	1.67	27	2.9	1.2	0.9	37100	5.06	3.8
WRIS2	0.37	6600	0.2	40.9	19.3	46.5	1.65	26.8	3	1.3	0.9	37500	5.38	3.8
WRIS2	0.42	6300	0.15	47.6	19.8	49.3	2.01	26.6	3.1	1.3	0.9	40400	6.31	3.8
WRIS2	0.39	7000	0.16	54.7	22.7	58	2.48	30.8	3.2	1.4	1	44700	7.56	4.4
WRIS2	0.32	7300	0.12	40.6	17.9	42.5	1.55	24.5	2.9	1.3	0.8	34900	4.68	3.7
WRIS2	0.29	6900	0.11	39.1	17.5	41.7	1.71	23.4	2.6	1.1	0.8	33500	5.22	3.5
WRIS2	0.32	7400	0.11	48.7	18.8	43.8	2.2	23.9	3.1	1.3	0.9	36800	5.83	4
WRIS2	0.4	7000	0.13	47.1	17.9	42.7	2.18	23.3	2.9	1.2	0.9	35400	5.4	4
Average	**0.37**	**7038**	**0.14**	**50.8**	**20.0**	**51.9**	**2.40**	**30.2**	**3.2**	**1.3**	**1.0**	**39931**	**6.39**	**4.3**
SD	**0.06**	**372**	**0.05**	**8.8**	**1.7**	**7.4**	**0.62**	**5.8**	**0.3**	**0.1**	**0.1**	**3756**	**1.20**	**0.6**
RSD	**16%**	**5%**	**33%**	**17%**	**8%**	**14%**	**26%**	**19%**	**9%**	**9%**	**11%**	**9%**	**19%**	**13%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**

Appendix 18. QC samples analysis by AR

STANDARD	Ge (ppm)	Hf (ppm)	Hg (ppm)	Ho (ppm)	In (ppm)	K (ppm)	La (ppm)	Li (ppm)	Lu (ppm)	Mg (ppm)	Mn (ppm)	Mo (ppm)	Na (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.1	0.1	0.01	0.1	0.02	100	0.5	0.1	0.1	100	1	0.01	10
ULD:													
WRIS	0.05	0.3	0.03	0.4	0.01	3300	25.7	14.8	0.1	5300	515	0.61	1950
WRIS	0.05	0.4	0.005	0.7	0.01	4300	33.1	18.2	0.05	5100	627	0.74	1480
WRIS	0.05	0.3	0.04	0.5	0.03	3400	25.2	12.5	0.1	4900	686	0.82	2340
WRIS	0.05	0.2	0.04	0.5	0.03	3200	24.1	11.3	0.2	4700	680	1.34	1730
WRIS	0.05	0.3	0.03	0.5	0.03	3600	26.7	13.2	0.1	5000	668	0.76	1750
Average	0.06	0.323076923	0.04	0.5	0.03	4154	31.1	15.0	0.11	5808	635	0.76	1520
SD	0.03	0.07	0.02	0.1	0.01	719	4.7	2.7	0.08	807	76	0.18	259
RSD	47%	22%	41%	13%	31%	17%	15%	18%	70%	14%	12%	23%	17%
% <LLD	90%	0%	3%	0%	13%	0%	0%	0%	26%	0%	0%	0%	0%
WRIS2	0.05	0.2	0.03	0.5	0.03	2900	24.1	11.4	0.1	4900	694	0.74	1720
WRIS2	0.05	0.2	0.03	0.5	0.03	2700	21.1	9.9	0.1	4900	668	0.65	1780
WRIS2	0.05	0.2	0.05	0.5	0.03	3200	27.3	13.1	0.1	5000	680	0.71	1750
WRIS2	0.05	0.3		0.6	0.04	3600	31.4	15.6	0.1	5000	703	0.66	1820
WRIS2	0.05	0.3		0.6	0.04	3400	33.3	15.2	0.2	5400	662	0.61	1960
WRIS2	0.05	0.3		0.6	0.03	3300	29.9	14.9	0.1	5300	698	0.63	1830
WRIS2	0.2	0.4	0.04	0.6	0.03	3600	30.1	14.5	0.1	5800	682	0.56	1400
WRIS2	0.2	0.4	0.04	0.6	0.05	3800	31.3	15.1	0.2	5900	725	0.62	1440
WRIS2	0.3	0.4	0.04	0.5	0.03	2800	19.8	10.9	0.1	5200	616	0.52	2390
WRIS2	0.1	0.4	0.04	0.5	0.03	2900	20	11.9	0.2	5500	619	0.46	1370
WRIS2	0.1	0.4	0.03	0.5	0.03	3100	23.6	12.6	0.2	5300	641	0.51	1300
WRIS2	0.2	0.4	0.03	0.5	0.03	3600	27.9	15	0.1	6100	719	0.55	1470
WRIS2	0.05	0.3	0.04	0.5	0.03	2300	20.3	9.9	0.1	5500	629	0.36	1200
WRIS2	0.05	0.2	0.05	0.4	0.02	2300	19.2	9.1	0.1	5100	606	0.36	2870
WRIS2	0.05	0.2	0.06	0.5	0.03	2600	23.9	12.7	0.1	6000	652	0.38	2950
WRIS2	0.05	0.3	0.04	0.5	0.04	2500	23.3	11.7	0.1	5800	623	0.42	3060
Average	0.10	0.30625	0.04	0.5	0.03	3038	25.4	12.7	0.13	5419	664	0.55	1894
SD	0.08	0.09	0.01	0.1	0.01	486	4.8	2.1	0.04	400	38	0.12	605
RSD	80%	28%	23%	11%	21%	16%	19%	17%	36%	7%	6%	23%	32%
% <LLD	63%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Appendix 18. QC samples analysis by AR

STANDARD	Nb (ppm)	Nd (ppm)	Ni (ppm)	Pb (ppm)	Pr (ppm)	Rb (ppm)	Re (ppm)	Sb (ppm)	Sc (ppm)	Se (ppm)	Sm (ppm)	Sn (ppm)	Sr (ppm)	Ta (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.1	0.02	0.1	0.01	0.1	0.1	0.001	0.02	0.1	0.1	0.1	0.05	0.5	0.05
ULD:													1000	
WRIS	4	22.8	58.9	12.9	5.7	29.2	0.0005	0.38	5.8	0.8	4.6	1.28	74.1	0.025
WRIS	3.9	23	57.1	12.8	5.6	32.2	0.001	0.64	6.5	0.5	4.7	1.76	79.4	0.025
WRIS	4.3	23	54.7	15	5.7	33.7	0.0005	0.49	6.5	0.9	4.5	1.58	87.1	0.025
WRIS	3.8	22	54.8	20.2	5.4	32.6	0.004	0.46	6	1	4.4	1.59	85.2	0.025
WRIS	4.1	25.6	52.2	13.8	6.4	36.8	0.0005	0.51	6.7	0.4	4.9	1.54	91.4	0.025
Average	**3.6**	**24.1**	**50.6**	**12.2**	**6.5**	**34.9**	**0.0018**	**0.46**	**7.0**	**0.7**	**4.8**	**1.56**	**89.2**	**0.025**
SD	**0.7**	**3.5**	**6.5**	**3.0**	**1.0**	**4.5**	**0.0021**	**0.08**	**0.7**	**0.3**	**0.7**	**0.20**	**8.9**	**0.000**
RSD	**20%**	**14%**	**13%**	**25%**	**16%**	**13%**	**117%**	**16%**	**10%**	**46%**	**14%**	**13%**	**10%**	**0%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**44%**	**0%**	**0%**	**3%**	**0%**	**0%**	**0%**	**100%**
WRIS2	3.8	21.9	49.7	13.3	5.5	31.6	0.0005	0.45	6.4	0.9	4.4	1.5	81.8	0.025
WRIS2	3.5	20.8	48	12.7	5	28.2	0.003	0.41	6.2	0.05	4.2	1.29	74.7	0.025
WRIS2	3.6	24.8	52.2	15.3	6.3	34.7	0.002	0.59	6.9	0.6	4.9	1.52	86.9	0.025
WRIS2	3.7	26.9	54.3	15.7	7	38.3	0.0005	0.52	7.3	0.6	5.2	1.77	95.8	0.025
WRIS2	3.5	29.5	52.5	16.8	7.2	39.1	0.003	0.54	6.7	0.2	5.7	1.93	94.4	0.025
WRIS2	4.1	26.7	52.7	14.4	6.8	36.3	0.0005	0.45	6.7	0.7	5.2	1.63	91.2	0.025
WRIS2	4.3	26.9	60	14.2	6.8	38.2	0.0005	0.37	8	0.05	5.2	1.81	96.9	0.025
WRIS2	4.3	27.2	65.4	14.6	7	39.6	0.002	0.4	8.2	0.6	5.3	1.95	102	0.025
WRIS2	3.6	18.8	50	13	4.6	27.4	0.002	0.34	5.7	0.5	3.9	1.55	74	0.025
WRIS2	3.5	18.7	49.3	12.7	4.8	27.8	0.002	0.4	5.9	0.9	3.8	1.46	74.2	0.025
WRIS2	3.9	22.2	53	13	5.6	30	0.0005	0.33	6.7	0.3	4.5	2.01	79.3	0.025
WRIS2	4.2	25.1	63.1	13.4	6.3	35.7	0.005	0.38	8.1	0.05	5	1.64	91.2	0.025
WRIS2	3	17.5	45.7	13.1	4.8	25.5	0.002	0.38	5.8	0.05	3.7	1.25	68.4	0.025
WRIS2	3	16.9	43.8	11.7	4.6	25.2	0.0005	0.31	5.5	1.3	3.5	1.17	65.3	0.025
WRIS2	3.4	20.3	47.5	12.9	5.7	30.8	0.0005	0.39	6.4	0.05	4.1	1.5	78	0.025
WRIS2	3.2	19.7	46.1	13.2	5.5	29.4	0.0005	0.35	6.1	0.05	4	1.43	73.1	0.025
Average	**3.7**	**22.7**	**52.1**	**13.8**	**5.8**	**32.4**	**0.0016**	**0.41**	**6.7**	**0.4**	**4.5**	**1.59**	**83.0**	**0.025**
SD	**0.4**	**4.0**	**6.2**	**1.3**	**0.9**	**5.0**	**0.0013**	**0.08**	**0.9**	**0.4**	**0.7**	**0.25**	**11.2**	**0.000**
RSD	**11%**	**18%**	**12%**	**10%**	**16%**	**16%**	**84%**	**19%**	**13%**	**91%**	**15%**	**16%**	**14%**	**0%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**50%**	**0%**	**0%**	**38%**	**0%**	**0%**	**0%**	**100%**

Appendix 18. QC samples analysis by AR

STANDARD	Tb (ppm)	Te (ppm)	Th (ppm)	Tl (ppm)	Tm (ppm)	U (ppm)	V (ppm)	W (ppm)	Y (ppm)	Yb (ppm)	Zn (ppm)	Zr (ppm)
METHOD:	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
LLD:	0.1	0.02	0.1	0.02	0.1	0.1	1	0.1	0.01	0.1	0.1	0.1
ULD:								200				
WRIS	0.4	0.01	7.5	0.17	0.3	1.6	61	0.05	10.8	1	53.6	16.4
WRIS	0.5	0.01	8.1	0.2	0.2	1.8	54	0.05	12.2	0.8	95.6	14.6
WRIS	0.5	0.04	6.2	0.22	0.2	1.9	66	0.2	14	1	98.3	13.3
WRIS	0.5	0.01	5.9	0.22	0.2	1.8	67	0.1	13.6	1	88.1	12
WRIS	0.5	0.01	6.7	0.24	0.2	1.7	66	0.05	14.1	1	91.3	14.8
Average	0.5	0.04	7.1	0.20	0.18	1.9	60	0.14	13.7	0.9	78.5	15.5
SD	0.1	0.03	1.6	0.04	0.06	1.0	5	0.09	1.2	0.1	14.5	2.4
RSD	16%	74%	22%	19%	31%	52%	8%	67%	9%	8%	18%	16%
% <LLD	0%	36%	0%	0%	5%	0%	0%	38%	0%	0%	0%	0%
WRIS2	0.5	0.02	5.8	0.21	0.2	1.8	67	0.1	14.3	1	84.3	11
WRIS2	0.5	0.01	5.1	0.18	0.2	2.1	64	0.1	13.7	1	85.7	11.4
WRIS2	0.5	0.02	6.6	0.23	0.2	1.7	67	0.05	14.8	1	91.3	13.2
WRIS2	0.6	0.01	7.7	0.25	0.2	2	72	0.05	15.5	1.1	104	14.5
WRIS2	0.7	0.01	8.9	0.26	0.2	4.9	70	0.05	14.7	1.1	88.5	13.9
WRIS2	0.6	0.01	7.3	0.23	0.2	1.9	70	0.05	15.3	1.1	92.7	14.3
WRIS2	0.5	0.01	6.9	0.19	0.2	1.9	73	0.05	15.6	1.1	91.7	18.1
WRIS2	0.6	0.03	6.8	0.19	0.2	2	75	0.1	16.4	1.1	100	19.1
WRIS2	0.5	0.01	4.1	0.2	0.2	1.9	62	0.2	12.8	1	83.6	15.3
WRIS2	0.5	0.01	4.4	0.18	0.2	1.9	63	0.2	12.9	1	95.3	15.4
WRIS2	0.5	0.01	5.2	0.16	0.2	1.8	65	0.05	13.9	1	81.8	16.7
WRIS2	0.5	0.01	5.9	0.17	0.2	1.8	74	0.05	15.1	1	95.7	16.7
WRIS2	0.5	0.01	4.6	0.13	0.2	2.1	59	0.05	12.4	0.9	76.4	12.2
WRIS2	0.4	0.01	4.1	0.16	0.1	1.7	58	0.05	12.2	0.9	72	12
WRIS2	0.5	0.01	5.4	0.19	0.2	1.7	60	0.05	13.4	0.9	77.9	12.5
WRIS2	0.5	0.01	5.4	0.19	0.2	1.7	59	0.05	12.8	1	72.8	12.6
Average	0.5	0.01	5.9	0.20	0.19	2.1	66	0.08	14.1	1.0	87.1	14.3
SD	0.1	0.01	1.4	0.03	0.03	0.8	6	0.05	1.3	0.1	9.5	2.4
RSD	13%	46%	23%	18%	13%	37%	9%	66%	9%	7%	11%	17%
% <LLD	0%	81%	0%	0%	0%	0%	0%	69%	0%	0%	0%	0%

Appendix 19. Field duplicates analysis for Se by Aqua Regia digestion ICP-MS

Appendix 19. Field duplicates analysis for Se by AR

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Se (ppm)	Se (ppm)
METHOD:	METHOD:	SIZE	SIZE			AR	AR
D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					0.01	0.01
2007190003	2007190213	Coarse	Coarse	TOS	TOS	0.03	0.05
2007190003	2007190213	Fine	Fine	TOS	TOS	0.08	0.09
2007190003	2007190213	Coarse	Coarse	BOS	BOS	0.04	0.04
2007190003	2007190213	Fine	Fine	BOS	BOS	0.06	0.06
2007190071	2007190289	Coarse	Coarse	TOS	TOS	0.03	0.01
2007190071	2007190289	Fine	Fine	TOS	TOS	0.06	0.02
2007190071	2007190289	Coarse	Coarse	BOS	BOS	0.04	0.05
2007190071	2007190289	Fine	Fine	BOS	BOS	0.07	0.08
2007190074	2007190389	Coarse	Coarse	TOS	TOS	0.1	0.06
2007190074	2007190389	Fine	Fine	TOS	TOS	0.08	0.17
2007190074	2007190389	Coarse	Coarse	BOS	BOS	0.09	0.06
2007190074	2007190389	Fine	Fine	BOS	BOS	0.11	0.18
2007190285	2007190406	Coarse	Coarse	TOS	TOS	0.03	0.06
2007190285	2007190406	Fine	Fine	TOS	TOS	0.06	0.08
2007190285	2007190406	Coarse	Coarse	BOS	BOS	0.07	0.06
2007190285	2007190406	Fine	Fine	BOS	BOS	0.05	0.07
2007190183	2007190471	Coarse	Coarse	TOS	TOS	0.22	0.12
2007190183	2007190471	Fine	Fine	TOS	TOS	0.43	0.15
2007190183	2007190471	Coarse	Coarse	BOS	BOS	0.8	0.26
2007190183	2007190471	Fine	Fine	BOS	BOS	0.83	0.23
2007190154	2007190568	Coarse	Coarse	TOS	TOS	0.57	0.22
2007190154	2007190568	Fine	Fine	TOS	TOS	0.66	0.44
2007190154	2007190568	Coarse	Coarse	BOS	BOS	0.13	0.1
2007190154	2007190568	Fine	Fine	BOS	BOS	0.21	0.19
2007190497	2007190586	Coarse	Coarse	TOS	TOS	0.04	0.04
2007190497	2007190586	Fine	Fine	TOS	TOS	0.09	0.07
2007190497	2007190586	Coarse	Coarse	BOS	BOS	0.07	0.07
2007190497	2007190586	Fine	Fine	BOS	BOS	0.14	0.09
2007190527	2007190609	Coarse	Coarse	TOS	TOS	0.1	0.1
2007190527	2007190609	Fine	Fine	TOS	TOS	0.09	0.08
2007190527	2007190609	Coarse	Coarse	BOS	BOS	0.1	0.06
2007190527	2007190609	Fine	Fine	BOS	BOS	0.12	0.09
2007190352	2007190611	Coarse	Coarse	TOS	TOS	0.27	0.25
2007190352	2007190611	Fine	Fine	TOS	TOS	0.39	0.34
2007190352	2007190611	Coarse	Coarse	BOS	BOS	0.35	0.35
2007190352	2007190611	Fine	Fine	BOS	BOS	0.46	0.51
2007190506	2007190631	Coarse	Coarse	TOS	TOS	0.03	0.03
2007190506	2007190631	Fine	Fine	TOS	TOS	0.02	0.02
2007190506	2007190631	Coarse	Coarse	BOS	BOS	0.03	0.08
2007190506	2007190631	Fine	Fine	BOS	BOS	0.04	0.09
2007190032	2007190632	Coarse	Coarse	TOS	TOS	0.23	0.14
2007190032	2007190632	Fine	Fine	TOS	TOS	0.22	0.15
2007190032	2007190632	Coarse	Coarse	BOS	BOS	0.15	0.13
2007190032	2007190632	Fine	Fine	BOS	BOS	0.23	0.1
2007190552	2007190675	Coarse	Coarse	TOS	TOS	0.06	0.03
2007190552	2007190675	Fine	Fine	TOS	TOS	0.21	0.13
2007190552	2007190675	Coarse	Coarse	BOS	BOS	0.18	0.1
2007190552	2007190675	Fine	Fine	BOS	BOS	0.41	0.25
2007190335	2007190692	Coarse	Coarse	TOS	TOS	0.09	0.11
2007190335	2007190692	Fine	Fine	TOS	TOS	0.09	0.11
2007190335	2007190692	Coarse	Coarse	BOS	BOS	0.03	0.02
2007190335	2007190692	Fine	Fine	BOS	BOS	0.05	0.04
2007190531	2007190703	Coarse	Coarse	TOS	TOS	0.06	0.06
2007190531	2007190703	Fine	Fine	TOS	TOS	0.06	0.05
2007190531	2007190703	Coarse	Coarse	BOS	BOS	0.06	0.07
2007190531	2007190703	Fine	Fine	BOS	BOS	0.06	0.07
2007190194	2007190704	Coarse	Coarse	TOS	TOS	0.12	0.1
2007190194	2007190704	Fine	Fine	TOS	TOS	0.12	0.1
2007190194	2007190704	Coarse	Coarse	BOS	BOS	0.1	0.04
2007190194	2007190704	Fine	Fine	BOS	BOS	0.13	0.03
2007190659	2007190739	Coarse	Coarse	TOS	TOS	0.02	0.06
2007190659	2007190739	Fine	Fine	TOS	TOS	0.03	0.16
2007190659	2007190739	Coarse	Coarse	BOS	BOS	0.03	0.005
2007190659	2007190739	Fine	Fine	BOS	BOS	0.05	0.04
2007190212	2007190747	Coarse	Coarse	TOS	TOS	0.03	0.005
2007190212	2007190747	Fine	Fine	TOS	TOS	0.08	0.07
2007190212	2007190747	Coarse	Coarse	BOS	BOS	0.21	0.02
2007190212	2007190747	Fine	Fine	BOS	BOS	0.07	0.06
2007190554	2007190752	Coarse	Coarse	TOS	TOS	0.11	0.13
2007190554	2007190752	Fine	Fine	TOS	TOS	0.22	0.15
2007190554	2007190752	Coarse	Coarse	BOS	BOS	0.07	0.17
2007190554	2007190752	Fine	Fine	BOS	BOS	0.25	0.28
2007190296	2007190758	Coarse	Coarse	TOS	TOS	0.04	0.04
2007190296	2007190758	Fine	Fine	TOS	TOS	0.05	0.07
2007190296	2007190758	Coarse	Coarse	BOS	BOS	0.03	0.03
2007190296	2007190758	Fine	Fine	BOS	BOS	0.04	0.07
2007190425	2007190768	Coarse	Coarse	TOS	TOS	0.09	0.08
2007190425	2007190768	Fine	Fine	TOS	TOS	0.08	0.06
2007190425	2007190768	Coarse	Coarse	BOS	BOS	0.08	0.06
2007190425	2007190768	Fine	Fine	BOS	BOS	0.08	0.06
2007190458	2007190774	Coarse	Coarse	TOS	TOS	0.07	0.07
2007190458	2007190774	Fine	Fine	TOS	TOS	0.08	0.08
2007190458	2007190774	Coarse	Coarse	BOS	BOS	0.05	0.06
2007190458	2007190774	Fine	Fine	BOS	BOS	0.09	0.07
2007190193	2007190788	Coarse	Coarse	TOS	TOS	0.15	0.25

Appendix 19. Field duplicates analysis for Se by AR

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Se (ppm)	Se (ppm)
METHOD:	METHOD:	SIZE	SIZE			AR	AR
D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					0.01	0.01
2007190193	2007190788	Fine	Fine	TOS	TOS	0.11	0.3
2007190193	2007190788	Coarse	Coarse	BOS	BOS	0.03	0.04
2007190193	2007190788	Fine	Fine	BOS	BOS	0.04	0.05
2007190698	2007190813	Coarse	Coarse	TOS	TOS	0.04	0.04
2007190698	2007190813	Fine	Fine	TOS	TOS	0.03	0.04
2007190698	2007190813	Coarse	Coarse	BOS	BOS	0.05	0.04
2007190698	2007190813	Fine	Fine	BOS	BOS	0.08	0.05
2007190357	2007190856	Coarse	Coarse	TOS	TOS	0.02	0.02
2007190357	2007190856	Fine	Fine	TOS	TOS	0.05	0.04
2007190357	2007190856	Coarse	Coarse	BOS	BOS	0.05	0.03
2007190357	2007190856	Fine	Fine	BOS	BOS	0.06	0.05
2007190256	2007190875	Coarse	Coarse	TOS	TOS	0.27	0.17
2007190256	2007190875	Fine	Fine	TOS	TOS	0.1	0.17
2007190256	2007190875	Coarse	Coarse	BOS	BOS	0.1	0.12
2007190256	2007190875	Fine	Fine	BOS	BOS	0.09	0.09
2007190035	2007190876	Coarse	Coarse	TOS	TOS	0.03	0.02
2007190035	2007190876	Fine	Fine	TOS	TOS	0.05	0.04
2007190035	2007190876	Coarse	Coarse	BOS	BOS	0.07	0.05
2007190035	2007190876	Fine	Fine	BOS	BOS	0.1	0.07
2007190834	2007190889	Coarse	Coarse	TOS	TOS	0.04	0.03
2007190834	2007190889	Fine	Fine	TOS	TOS	0.25	0.15
2007190834	2007190889	Coarse	Coarse	BOS	BOS	0.02	0.02
2007190834	2007190889	Fine	Fine	BOS	BOS	0.14	0.13
2007190743	2007190906	Coarse	Coarse	TOS	TOS	0.06	0.09
2007190743	2007190906	Fine	Fine	TOS	TOS	0.06	0.07
2007190743	2007190906	Coarse	Coarse	BOS	BOS	0.18	0.14
2007190743	2007190906	Fine	Fine	BOS	BOS	0.17	0.27
2007190536	2007190909	Coarse	Coarse	TOS	TOS	0.02	0.02
2007190536	2007190909	Fine	Fine	TOS	TOS	0.03	0.01
2007190536	2007190909	Coarse	Coarse	BOS	BOS	0.02	0.02
2007190536	2007190909	Fine	Fine	BOS	BOS	0.04	0.04
2007190107	2007190913	Coarse	Coarse	TOS	TOS	0.04	0.05
2007190107	2007190913	Fine	Fine	TOS	TOS	0.1	0.13
2007190107	2007190913	Coarse	Coarse	BOS	BOS	0.03	0.08
2007190107	2007190913	Fine	Fine	BOS	BOS	0.07	0.3
2007190695	2007190924	Coarse	Coarse	TOS	TOS	0.03	0.03
2007190695	2007190924	Fine	Fine	TOS	TOS	0.05	0.05
2007190695	2007190924	Coarse	Coarse	BOS	BOS	0.05	0.05
2007190695	2007190924	Fine	Fine	BOS	BOS	0.1	0.05
2007190853	2007190939	Coarse	Coarse	TOS	TOS	0.46	0.36
2007190853	2007190939	Fine	Fine	TOS	TOS	0.71	0.66
2007190853	2007190939	Coarse	Coarse	BOS	BOS	0.12	0.15
2007190853	2007190939	Fine	Fine	BOS	BOS	0.33	0.43
2007190895	2007190947	Coarse	Coarse	TOS	TOS	0.1	0.13
2007190895	2007190947	Fine	Fine	TOS	TOS	0.08	0.11
2007190895	2007190947	Coarse	Coarse	BOS	BOS	0.05	0.09
2007190895	2007190947	Fine	Fine	BOS	BOS	0.06	0.1
2007190197	2007190962	Coarse	Coarse	TOS	TOS	0.03	0.04
2007190197	2007190962	Fine	Fine	TOS	TOS	0.06	0.08
2007190197	2007190962	Coarse	Coarse	BOS	BOS	0.08	0.07
2007190197	2007190962	Fine	Fine	BOS	BOS	0.17	0.16
2007190419	2007190974	Coarse	Coarse	TOS	TOS	0.05	0.02
2007190419	2007190974	Fine	Fine	TOS	TOS	0.05	0.04
2007190419	2007190974	Coarse	Coarse	BOS	BOS	0.02	0.01
2007190419	2007190974	Fine	Fine	BOS	BOS	0.03	0.04
2007190241	2007190978	Coarse	Coarse	TOS	TOS	0.04	0.05
2007190241	2007190978	Fine	Fine	TOS	TOS	0.06	0.06
2007190241	2007190978	Coarse	Coarse	BOS	BOS	0.03	0.04
2007190241	2007190978	Fine	Fine	BOS	BOS	0.05	0.09
2007190039	2007190984	Coarse	Coarse	TOS	TOS	0.11	0.1
2007190039	2007190984	Fine	Fine	TOS	TOS	0.13	0.13
2007190039	2007190984	Coarse	Coarse	BOS	BOS	0.08	0.11
2007190039	2007190984	Fine	Fine	BOS	BOS	0.09	0.08
2007190342	2007190989	Coarse	Coarse	TOS	TOS	0.17	0.16
2007190342	2007190989	Fine	Fine	TOS	TOS	0.19	0.18
2007190342	2007190989	Coarse	Coarse	BOS	BOS	0.22	0.11
2007190342	2007190989	Fine	Fine	BOS	BOS	0.22	0.11
2007190457	2007191004	Coarse	Coarse	TOS	TOS	0.21	0.1
2007190457	2007191004	Fine	Fine	TOS	TOS	0.17	0.18
2007190457	2007191004	Coarse	Coarse	BOS	BOS	0.03	0.03
2007190457	2007191004	Fine	Fine	BOS	BOS	0.03	0.04
2007190434	2007191027	Coarse	Coarse	TOS	TOS	0.05	0.05
2007190434	2007191027	Fine	Fine	TOS	TOS	0.08	0.12
2007190434	2007191027	Coarse	Coarse	BOS	BOS	0.06	0.09
2007190434	2007191027	Fine	Fine	BOS	BOS	0.12	0.14
2007190155	2007191031	Coarse	Coarse	TOS	TOS	0.02	0.04
2007190155	2007191031	Fine	Fine	TOS	TOS	0.03	0.05
2007190155	2007191031	Coarse	Coarse	BOS	BOS	0.02	0.02
2007190155	2007191031	Fine	Fine	BOS	BOS	0.03	0.05
2007190114	2007191045	Coarse	Coarse	TOS	TOS	0.14	0.15
2007190114	2007191045	Fine	Fine	TOS	TOS	0.13	0.15
2007190114	2007191045	Coarse	Coarse	BOS	BOS	0.09	0.12
2007190114	2007191045	Fine	Fine	BOS	BOS	0.12	0.08
2007190393	2007191050	Coarse	Coarse	TOS	TOS	0.11	0.11
2007190393	2007191050	Fine	Fine	TOS	TOS	0.12	0.11

Appendix 19. Field duplicates analysis for Se by AR

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Se (ppm)	Se (ppm)
METHOD:	METHOD:	SIZE	SIZE			AR	AR
D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					0.01	0.01
2007190393	2007191050	Coarse	Coarse	BOS	BOS	0.09	0.09
2007190393	2007191050	Fine	Fine	BOS	BOS	0.13	0.13
2007190826	2007191052	Coarse	Coarse	TOS	TOS	0.01	0.005
2007190826	2007191052	Fine	Fine	TOS	TOS	0.04	0.05
2007190826	2007191052	Coarse	Coarse	BOS	BOS	0.01	0.03
2007190826	2007191052	Fine	Fine	BOS	BOS	0.06	0.005
2007190091	2007191053	Coarse	Coarse	TOS	TOS	0.02	0.03
2007190091	2007191053	Fine	Fine	TOS	TOS	0.05	0.05
2007190091	2007191053	Coarse	Coarse	BOS	BOS	0.01	0.01
2007190091	2007191053	Fine	Fine	BOS	BOS	0.04	0.02
2007190887	2007191058	Coarse	Coarse	TOS	TOS	0.17	0.12
2007190887	2007191058	Fine	Fine	TOS	TOS	0.13	0.11
2007190887	2007191058	Coarse	Coarse	BOS	BOS	0.13	0.22
2007190887	2007191058	Fine	Fine	BOS	BOS	0.13	0.19
2007190005	2007191059	Coarse	Coarse	TOS	TOS	0.06	0.08
2007190005	2007191059	Fine	Fine	TOS	TOS	0.06	0.09
2007190005	2007191059	Coarse	Coarse	BOS	BOS	0.04	0.04
2007190005	2007191059	Fine	Fine	BOS	BOS	0.02	0.09
2007190583	2007191063	Coarse	Coarse	TOS	TOS	0.07	0.07
2007190583	2007191063	Fine	Fine	TOS	TOS	0.07	0.08
2007190583	2007191063	Coarse	Coarse	BOS	BOS	0.14	0.07
2007190583	2007191063	Fine	Fine	BOS	BOS	0.14	0.08
2007190922	2007191082	Coarse	Coarse	TOS	TOS	0.04	0.03
2007190922	2007191082	Fine	Fine	TOS	TOS	0.18	0.22
2007190922	2007191082	Coarse	Coarse	BOS	BOS	0.2	0.23
2007190922	2007191082	Fine	Fine	BOS	BOS	0.39	0.51
2007190361	2007191094	Coarse	Coarse	TOS	TOS	0.15	0.09
2007190361	2007191094	Fine	Fine	TOS	TOS	0.2	0.14
2007190361	2007191094	Coarse	Coarse	BOS	BOS	0.4	0.39
2007190361	2007191094	Fine	Fine	BOS	BOS	0.43	0.4
2007190145	2007191105	Coarse	Coarse	TOS	TOS	0.19	0.1
2007190145	2007191105	Fine	Fine	TOS	TOS	0.2	0.16
2007190145	2007191105	Coarse	Coarse	BOS	BOS	0.45	0.34
2007190145	2007191105	Fine	Fine	BOS	BOS	0.51	0.64
2007190508	2007191119	Coarse	Coarse	TOS	TOS	0.25	0.3
2007190508	2007191119	Fine	Fine	TOS	TOS	0.31	0.36
2007190508	2007191119	Coarse	Coarse	BOS	BOS	0.09	0.09
2007190508	2007191119	Fine	Fine	BOS	BOS	0.07	0.09
2007190067	2007191121	Coarse	Coarse	TOS	TOS	0.1	0.06
2007190067	2007191121	Fine	Fine	TOS	TOS	0.12	0.1
2007190067	2007191121	Coarse	Coarse	BOS	BOS	0.2	0.12
2007190067	2007191121	Fine	Fine	BOS	BOS	0.27	0.18
2007190818	2007191157	Coarse	Coarse	TOS	TOS	0.1	0.02
2007190818	2007191157	Fine	Fine	TOS	TOS	0.14	0.09
2007190818	2007191157	Coarse	Coarse	BOS	BOS	0.03	0.04
2007190818	2007191157	Fine	Fine	BOS	BOS	0.1	0.21
2007190618	2007191166	Coarse	Coarse	TOS	TOS	0.15	0.17
2007190618	2007191166	Fine	Fine	TOS	TOS	0.19	0.15
2007190618	2007191166	Coarse	Coarse	BOS	BOS	0.15	0.12
2007190618	2007191166	Fine	Fine	BOS	BOS	0.16	0.17
2007190258	2007191176	Coarse	Coarse	TOS	TOS	0.1	0.06
2007190258	2007191176	Fine	Fine	TOS	TOS	0.15	0.09
2007190258	2007191176	Coarse	Coarse	BOS	BOS	0.06	0.05
2007190258	2007191176	Fine	Fine	BOS	BOS	0.11	0.11
2007190110	2007191182	Coarse	Coarse	TOS	TOS	0.07	0.04
2007190110	2007191182	Fine	Fine	TOS	TOS	0.09	0.09
2007190110	2007191182	Coarse	Coarse	BOS	BOS	0.16	0.12
2007190110	2007191182	Fine	Fine	BOS	BOS	0.18	0.23
2007190865	2007191183	Coarse	Coarse	TOS	TOS	0.01	0.01
2007190865	2007191183	Fine	Fine	TOS	TOS	0.13	0.05
2007190865	2007191183	Coarse	Coarse	BOS	BOS	0.02	0.005
2007190865	2007191183	Fine	Fine	BOS	BOS	0.08	0.03
2007191168	2007191195	Coarse	Coarse	TOS	TOS	0.02	0.04
2007191168	2007191195	Fine	Fine	TOS	TOS	0.03	0.05
2007191168	2007191195	Coarse	Coarse	BOS	BOS	0.02	0.01
2007191168	2007191195	Fine	Fine	BOS	BOS	0.04	0.03
2007190248	2007191198	Coarse	Coarse	TOS	TOS	0.005	0.005
2007190248	2007191198	Fine	Fine	TOS	TOS	0.02	0.005
2007190248	2007191198	Coarse	Coarse	BOS	BOS	0.005	0.005
2007190248	2007191198	Fine	Fine	BOS	BOS	0.02	0.02
2007191092	2007191211	Coarse	Coarse	TOS	TOS	0.15	0.19
2007191092	2007191211	Fine	Fine	TOS	TOS	0.31	0.22
2007191092	2007191211	Coarse	Coarse	BOS	BOS	0.27	0.2
2007191092	2007191211	Fine	Fine	BOS	BOS	0.35	0.22
2007190825	2007191214	Coarse	Coarse	TOS	TOS	0.02	0.05
2007190825	2007191214	Fine	Fine	TOS	TOS	0.005	0.04
2007190825	2007191214	Coarse	Coarse	BOS	BOS	0.03	0.04
2007190825	2007191214	Fine	Fine	BOS	BOS	0.03	0.04
2007190798	2007191229	Coarse	Coarse	TOS	TOS	0.005	0.005
2007190798	2007191229	Fine	Fine	TOS	TOS	0.005	0.01
2007190798	2007191229	Coarse	Coarse	BOS	BOS	0.005	0.005
2007190798	2007191229	Fine	Fine	BOS	BOS	0.01	0.01
2007190548	2007191236	Coarse	Coarse	TOS	TOS	0.05	0.04
2007190548	2007191236	Fine	Fine	TOS	TOS	0.06	0.05
2007190548	2007191236	Coarse	Coarse	BOS	BOS	0.05	0.02

Appendix 19. Field duplicates analysis for Se by AR

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Se (ppm)	Se (ppm)
METHOD:	METHOD:	SIZE	SIZE			AR	AR
D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					0.01	0.01
2007190548	2007191236	Fine	Fine	BOS	BOS	0.07	0.07
2007190746	2007191241	Coarse	Coarse	TOS	TOS	0.005	0.05
2007190746	2007191241	Fine	Fine	TOS	TOS	0.005	0.03
2007190746	2007191241	Coarse	Coarse	BOS	BOS	0.02	0.04
2007190746	2007191241	Fine	Fine	BOS	BOS	0.005	0.05
2007190970	2007191245	Coarse	Coarse	TOS	TOS	0.35	0.45
2007190970	2007191245	Fine	Fine	TOS	TOS	0.22	0.33
2007190970	2007191245	Coarse	Coarse	BOS	BOS	0.32	0.1
2007190970	2007191245	Fine	Fine	BOS	BOS	0.28	0.2
2007190185	2007191253	Coarse	Coarse	TOS	TOS	0.2	0.15
2007190185	2007191253	Fine	Fine	TOS	TOS	0.21	0.15
2007190185	2007191253	Coarse	Coarse	BOS	BOS	0.24	0.22
2007190185	2007191253	Fine	Fine	BOS	BOS	0.22	0.19
2007190209	2007191254	Coarse	Coarse	TOS	TOS	0.03	0.02
2007190209	2007191254	Fine	Fine	TOS	TOS	0.02	0.02
2007190209	2007191254	Coarse	Coarse	BOS	BOS	0.03	0.005
2007190209	2007191254	Fine	Fine	BOS	BOS	0.04	0.02
2007190355	2007191257	Coarse	Coarse	TOS	TOS	0.22	0.28
2007190355	2007191257	Fine	Fine	TOS	TOS	0.26	0.25
2007190355	2007191257	Coarse	Coarse	BOS	BOS	0.47	0.44
2007190355	2007191257	Fine	Fine	BOS	BOS	0.34	0.33
2007190311	2007191259	Coarse	Coarse	TOS	TOS	0.005	0.005
2007190311	2007191259	Fine	Fine	TOS	TOS	0.02	0.005
2007190311	2007191259	Coarse	Coarse	BOS	BOS	0.02	0.005
2007190311	2007191259	Fine	Fine	BOS	BOS	0.04	0.04
2007190849	2007191277	Coarse	Coarse	TOS	TOS	0.03	0.04
2007190849	2007191277	Fine	Fine	TOS	TOS	0.05	0.05
2007190849	2007191277	Coarse	Coarse	BOS	BOS	0.12	0.16
2007190849	2007191277	Fine	Fine	BOS	BOS	0.14	0.15
2007191215	2007191281	Coarse	Coarse	TOS	TOS	0.04	0.02
2007191215	2007191281	Fine	Fine	TOS	TOS	0.08	0.05
2007191215	2007191281	Coarse	Coarse	BOS	BOS	0.01	0.01
2007191215	2007191281	Fine	Fine	BOS	BOS	0.03	0.02
2007191134	2007191282	Coarse	Coarse	TOS	TOS	0.02	0.005
2007191134	2007191282	Fine	Fine	TOS	TOS	0.03	0.07
2007191134	2007191282	Coarse	Coarse	BOS	BOS	0.02	0.01
2007191134	2007191282	Fine	Fine	BOS	BOS	0.03	0.02
2007190874	2007191297	Coarse	Coarse	TOS	TOS	0.07	0.09
2007190874	2007191297	Fine	Fine	TOS	TOS	0.08	0.11
2007190874	2007191297	Coarse	Coarse	BOS	BOS	0.13	0.09
2007190874	2007191297	Fine	Fine	BOS	BOS	0.08	0.1
2007190753	2007191299	Coarse	Coarse	TOS	TOS	0.02	0.03
2007190753	2007191299	Fine	Fine	TOS	TOS	0.02	0.05
2007190753	2007191299	Coarse	Coarse	BOS	BOS	0.06	0.03
2007190753	2007191299	Fine	Fine	BOS	BOS	0.08	0.03
2007190472	2007191312	Coarse	Coarse	TOS	TOS	0.02	0.02
2007190472	2007191312	Fine	Fine	TOS	TOS	0.02	0.02
2007190472	2007191312	Coarse	Coarse	BOS	BOS	0.01	0.005
2007190472	2007191312	Fine	Fine	BOS	BOS	0.02	0.01
2007190495	2007191318	Coarse	Coarse	TOS	TOS	0.24	0.09
2007190495	2007191318	Fine	Fine	TOS	TOS	0.48	0.28
2007190495	2007191318	Coarse	Coarse	BOS	BOS	0.25	0.24
2007190495	2007191318	Fine	Fine	BOS	BOS	0.56	0.68
2007191051	2007191331	Coarse	Coarse	TOS	TOS	0.08	0.07
2007191051	2007191331	Fine	Fine	TOS	TOS	0.06	0.04
2007191051	2007191331	Coarse	Coarse	BOS	BOS	0.06	0.06
2007191051	2007191331	Fine	Fine	BOS	BOS	0.08	0.06
2007190661	2007191334	Coarse	Coarse	TOS	TOS	0.02	0.02
2007190661	2007191334	Fine	Fine	TOS	TOS	0.03	0.03
2007190661	2007191334	Coarse	Coarse	BOS	BOS	0.03	0.02
2007190661	2007191334	Fine	Fine	BOS	BOS	0.03	0.05
2007191192	2007191339	Coarse	Coarse	TOS	TOS	0.07	0.07
2007191192	2007191339	Fine	Fine	TOS	TOS	0.09	0.08
2007191192	2007191339	Coarse	Coarse	BOS	BOS	0.08	0.08
2007191192	2007191339	Fine	Fine	BOS	BOS	0.09	0.1
2007190218	2007191348	Coarse	Coarse	TOS	TOS	0.22	0.14
2007190218	2007191348	Fine	Fine	TOS	TOS	0.32	0.23
2007190218	2007191348	Coarse	Coarse	BOS	BOS	0.21	0.15
2007190218	2007191348	Fine	Fine	BOS	BOS	0.25	0.19
2007191066	2007191379	Coarse	Coarse	TOS	TOS	0.04	0.09
2007191066	2007191379	Fine	Fine	TOS	TOS	0.05	0.1
2007191066	2007191379	Coarse	Coarse	BOS	BOS	0.07	0.1
2007191066	2007191379	Fine	Fine	BOS	BOS	0.1	0.15
2007191216	2007191385	Coarse	Coarse	TOS	TOS	0.02	0.03
2007191216	2007191385	Fine	Fine	TOS	TOS	0.04	0.05
2007191216	2007191385	Coarse	Coarse	BOS	BOS	0.01	0.04
2007191216	2007191385	Fine	Fine	BOS	BOS	0.03	0.06
2007190414	2007191386	Coarse	Coarse	TOS	TOS	0.11	0.08
2007190414	2007191386	Fine	Fine	TOS	TOS	0.07	0.07
2007190414	2007191386	Coarse	Coarse	BOS	BOS	0.03	0.05
2007190414	2007191386	Fine	Fine	BOS	BOS	0.03	0.05
2007190181	2007191396	Coarse	Coarse	TOS	TOS	0.07	0.06
2007190181	2007191396	Fine	Fine	TOS	TOS	0.1	0.08
2007190181	2007191396	Coarse	Coarse	BOS	BOS	0.04	0.03
2007190181	2007191396	Fine	Fine	BOS	BOS	0.05	0.04

Appendix 19. Field duplicates analysis for Se by AR

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Se (ppm)	Se (ppm)
METHOD:	METHOD:	SIZE	SIZE			AR	AR
D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					0.01	0.01
2007190161	2007191413	Coarse	Coarse	TOS	TOS	0.52	0.53
2007190161	2007191413	Fine	Fine	TOS	TOS	0.69	0.73
2007190161	2007191413	Coarse	Coarse	BOS	BOS	0.47	0.37
2007190161	2007191413	Fine	Fine	BOS	BOS	0.57	0.52
2007190383	2007191416	Coarse	Coarse	TOS	TOS	0.05	0.03
2007190383	2007191416	Fine	Fine	TOS	TOS	0.06	0.06
2007190383	2007191416	Coarse	Coarse	BOS	BOS	0.07	0.09
2007190383	2007191416	Fine	Fine	BOS	BOS	0.08	0.11
2007191346	2007191429	Coarse	Coarse	TOS	TOS	0.06	0.11
2007191346	2007191429	Fine	Fine	TOS	TOS	0.06	0.1
2007191346	2007191429	Coarse	Coarse	BOS	BOS	0.03	0.05
2007191346	2007191429	Fine	Fine	BOS	BOS	0.06	0.07
2007190686	2007191430	Coarse	Coarse	TOS	TOS	0.03	0.03
2007190686	2007191430	Fine	Fine	TOS	TOS	0.01	0.04
2007190686	2007191430	Coarse	Coarse	BOS	BOS	0.06	0.12
2007190686	2007191430	Fine	Fine	BOS	BOS	0.14	0.22
2007190349	2007191436	Coarse	Coarse	TOS	TOS	0.1	0.12
2007190349	2007191436	Fine	Fine	TOS	TOS	0.13	0.16
2007190349	2007191436	Coarse	Coarse	BOS	BOS	0.09	0.12
2007190349	2007191436	Fine	Fine	BOS	BOS	0.12	0.15
2007190968	2007191437	Coarse	Coarse	TOS	TOS	0.02	0.03
2007190968	2007191437	Fine	Fine	TOS	TOS	0.02	0.04
2007190968	2007191437	Coarse	Coarse	BOS	BOS	0.03	0.07
2007190968	2007191437	Fine	Fine	BOS	BOS	0.04	0.12
2007190827	2007191440	Coarse	Coarse	TOS	TOS	0.09	0.11
2007190827	2007191440	Fine	Fine	TOS	TOS	0.15	0.19
2007190827	2007191440	Coarse	Coarse	BOS	BOS	0.09	0.3
2007190827	2007191440	Fine	Fine	BOS	BOS	0.17	0.51
2007190896	2007191441	Coarse	Coarse	TOS	TOS	0.21	0.23
2007190896	2007191441	Fine	Fine	TOS	TOS	0.34	0.31
2007190896	2007191441	Coarse	Coarse	BOS	BOS	0.25	0.3
2007190896	2007191441	Fine	Fine	BOS	BOS	0.34	0.4
2007190927	2007191444	Coarse	Coarse	TOS	TOS	0.14	0.13
2007190927	2007191444	Fine	Fine	TOS	TOS	0.26	0.22
2007190927	2007191444	Coarse	Coarse	BOS	BOS	0.14	0.12
2007190927	2007191444	Fine	Fine	BOS	BOS	0.23	0.22
2007191372	2007191445	Coarse	Coarse	TOS	TOS	0.08	0.02
2007191372	2007191445	Fine	Fine	TOS	TOS	0.12	0.1
2007191372	2007191445	Coarse	Coarse	BOS	BOS	0.08	0.03
2007191372	2007191445	Fine	Fine	BOS	BOS	0.11	0.07
2007190732	2007191450	Coarse	Coarse	TOS	TOS	0.02	0.04
2007190732	2007191450	Fine	Fine	TOS	TOS	0.02	0.03
2007190732	2007191450	Coarse	Coarse	BOS	BOS	0.03	0.04
2007190732	2007191450	Fine	Fine	BOS	BOS	0.05	0.04
2007190266	2007191458	Coarse	Coarse	TOS	TOS	0.09	0.07
2007190266	2007191458	Fine	Fine	TOS	TOS	0.16	0.15
2007190266	2007191458	Coarse	Coarse	BOS	BOS	0.05	0.02
2007190266	2007191458	Fine	Fine	BOS	BOS	0.12	0.13
2007190050	2007191481	Coarse	Coarse	TOS	TOS	0.03	0.03
2007190050	2007191481	Fine	Fine	TOS	TOS	0.06	0.07
2007190050	2007191481	Coarse	Coarse	BOS	BOS	0.04	0.03
2007190050	2007191481	Fine	Fine	BOS	BOS	0.08	0.05
2007191264	2007191486	Coarse	Coarse	TOS	TOS	0.03	0.02
2007191264	2007191486	Fine	Fine	TOS	TOS	0.03	0.03
2007191264	2007191486	Coarse	Coarse	BOS	BOS	0.02	0.02
2007191264	2007191486	Fine	Fine	BOS	BOS	0.04	0.03
2007191295	2007191498	Coarse	Coarse	TOS	TOS	0.02	0.02
2007191295	2007191498	Fine	Fine	TOS	TOS	0.02	0.03
2007191295	2007191498	Coarse	Coarse	BOS	BOS	0.02	0.02
2007191295	2007191498	Fine	Fine	BOS	BOS	0.02	0.03
2007190949	2007191504	Coarse	Coarse	TOS	TOS	0.08	0.08
2007190949	2007191504	Fine	Fine	TOS	TOS	0.1	0.08
2007190949	2007191504	Coarse	Coarse	BOS	BOS	0.14	0.1
2007190949	2007191504	Fine	Fine	BOS	BOS	0.16	0.1
2007190549	2007191507	Coarse	Coarse	TOS	TOS	0.12	0.12
2007190549	2007191507	Fine	Fine	TOS	TOS	0.16	0.18
2007190549	2007191507	Coarse	Coarse	BOS	BOS	0.14	0.16
2007190549	2007191507	Fine	Fine	BOS	BOS	0.18	0.26
2007191382	2007191509	Coarse	Coarse	TOS	TOS	0.05	0.05
2007191382	2007191509	Fine	Fine	TOS	TOS	0.07	0.06
2007191382	2007191509	Coarse	Coarse	BOS	BOS	0.06	0.05
2007191382	2007191509	Fine	Fine	BOS	BOS	0.06	0.04
2007191473	2007191510	Coarse	Coarse	TOS	TOS	0.08	0.08
2007191473	2007191510	Fine	Fine	TOS	TOS	0.07	0.09
2007191473	2007191510	Coarse	Coarse	BOS	BOS	0.52	0.36
2007191473	2007191510	Fine	Fine	BOS	BOS	0.54	0.44
2007191293	2007191518	Coarse	Coarse	TOS	TOS	0.02	0.03
2007191293	2007191518	Fine	Fine	TOS	TOS	0.01	0.03
2007191293	2007191518	Coarse	Coarse	BOS	BOS	0.09	0.06
2007191293	2007191518	Fine	Fine	BOS	BOS	0.11	0.09
2007190534	2007191522	Coarse	Coarse	TOS	TOS	0.05	0.06
2007190534	2007191522	Fine	Fine	TOS	TOS	0.09	0.11
2007190534	2007191522	Coarse	Coarse	BOS	BOS	0.04	0.03
2007190534	2007191522	Fine	Fine	BOS	BOS	0.07	0.07
2007190647	2007191525	Coarse	Coarse	TOS	TOS	0.05	0.02

Appendix 19. Field duplicates analysis for Se by AR

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Se (ppm)	Se (ppm)
METHOD:	METHOD:	SIZE	SIZE			AR	AR
D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					0.01	0.01
2007190647	2007191525	Fine	Fine	TOS	TOS	0.07	0.05
2007190647	2007191525	Coarse	Coarse	BOS	BOS	0.02	0.02
2007190647	2007191525	Fine	Fine	BOS	BOS	0.03	0.05
2007191028	2007191531	Coarse	Coarse	TOS	TOS	0.05	0.03
2007191028	2007191531	Fine	Fine	TOS	TOS	0.07	0.06
2007191028	2007191531	Coarse	Coarse	BOS	BOS	0.04	0.02
2007191028	2007191531	Fine	Fine	BOS	BOS	0.04	0.04
2007190125	2007191532	Coarse	Coarse	TOS	TOS	0.09	0.05
2007190125	2007191532	Fine	Fine	TOS	TOS	0.09	0.06
2007190125	2007191532	Coarse	Coarse	BOS	BOS	0.05	0.05
2007190125	2007191532	Fine	Fine	BOS	BOS	0.06	0.06
2007190990	2007191537	Coarse	Coarse	TOS	TOS	0.06	0.04
2007190990	2007191537	Fine	Fine	TOS	TOS	0.06	0.06
2007190990	2007191537	Coarse	Coarse	BOS	BOS	0.02	0.03
2007190990	2007191537	Fine	Fine	BOS	BOS	0.04	0.04
2007190189	2007191542	Coarse	Coarse	TOS	TOS	0.05	0.03
2007190189	2007191542	Fine	Fine	TOS	TOS	0.03	0.03
2007190189	2007191542	Coarse	Coarse	BOS	BOS	0.05	0.04
2007190189	2007191542	Fine	Fine	BOS	BOS	0.06	0.04
2007190121	2007191545	Coarse	Coarse	TOS	TOS	0.07	0.08
2007190121	2007191545	Fine	Fine	TOS	TOS	0.1	0.16
2007190121	2007191545	Coarse	Coarse	BOS	BOS	0.06	0.68
2007190121	2007191545	Fine	Fine	BOS	BOS	0.09	1.45
2007190735	2007191549	Coarse	Coarse	TOS	TOS	0.02	0.02
2007190735	2007191549	Fine	Fine	TOS	TOS	0.02	0.01
2007190735	2007191549	Coarse	Coarse	BOS	BOS	0.05	0.02
2007190735	2007191549	Fine	Fine	BOS	BOS	0.04	0.03
2007191007	2007191551	Coarse	Coarse	TOS	TOS	0.03	0.04
2007191007	2007191551	Fine	Fine	TOS	TOS	0.07	0.09
2007191007	2007191551	Coarse	Coarse	BOS	BOS	0.02	0.06
2007191007	2007191551	Fine	Fine	BOS	BOS	0.04	0.06
2007190118	2007191552	Coarse	Coarse	TOS	TOS	0.17	0.22
2007190118	2007191552	Fine	Fine	TOS	TOS	0.16	0.16
2007190118	2007191552	Coarse	Coarse	BOS	BOS	0.3	0.05
2007190118	2007191552	Fine	Fine	BOS	BOS	0.25	0.05
2007190176	2007191566	Coarse	Coarse	TOS	TOS	0.11	0.12
2007190176	2007191566	Fine	Fine	TOS	TOS	0.31	0.39
2007190176	2007191566	Coarse	Coarse	BOS	BOS	0.22	0.14
2007190176	2007191566	Fine	Fine	BOS	BOS	0.42	0.33
2007191152	2007191578	Coarse	Coarse	TOS	TOS	0.07	0.02
2007191152	2007191578	Fine	Fine	TOS	TOS	0.08	0.04
2007191152	2007191578	Coarse	Coarse	BOS	BOS	0.14	0.1
2007191152	2007191578	Fine	Fine	BOS	BOS	0.21	0.2
2007191275	2007191590	Coarse	Coarse	TOS	TOS	0.04	0.07
2007191275	2007191590	Fine	Fine	TOS	TOS	0.12	0.13
2007191275	2007191590	Coarse	Coarse	BOS	BOS	0.06	0.06
2007191275	2007191590	Fine	Fine	BOS	BOS	0.11	0.09
2007190986	2007191592	Coarse	Coarse	TOS	TOS	0.02	0.03
2007190986	2007191592	Fine	Fine	TOS	TOS	0.03	0.04
2007190986	2007191592	Coarse	Coarse	BOS	BOS	0.02	0.03
2007190986	2007191592	Fine	Fine	BOS	BOS	0.04	0.06
2007190208	2007191593	Coarse	Coarse	TOS	TOS	0.05	0.08
2007190208	2007191593	Fine	Fine	TOS	TOS	0.04	0.06
2007190208	2007191593	Coarse	Coarse	BOS	BOS	0.17	0.1
2007190208	2007191593	Fine	Fine	BOS	BOS	0.22	0.1
2007190481	2007191594	Coarse	Coarse	TOS	TOS	0.02	0.03
2007190481	2007191594	Fine	Fine	TOS	TOS	0.02	0.02
2007190481	2007191594	Coarse	Coarse	BOS	BOS	0.02	0.02
2007190481	2007191594	Fine	Fine	BOS	BOS	0.02	0.02
2007190328	2007191598	Coarse	Coarse	TOS	TOS	0.03	0.03
2007190328	2007191598	Fine	Fine	TOS	TOS	0.05	0.08
2007190328	2007191598	Coarse	Coarse	BOS	BOS	0.05	0.06
2007190328	2007191598	Fine	Fine	BOS	BOS	0.09	0.12
2007190526	2007191599	Coarse	Coarse	TOS	TOS	0.15	0.12
2007190526	2007191599	Fine	Fine	TOS	TOS	0.18	0.22
2007190526	2007191599	Coarse	Coarse	BOS	BOS	0.24	0.26
2007190526	2007191599	Fine	Fine	BOS	BOS	0.22	0.23

Appendix 20. QC samples analysis for Se by Aqua Regia digestion ICP-MS

Appendix 20. QC samples analysis for Se by AR

SAMPLEID	TYPE	REAL	Se (ppm)
METHOD:		SAMPLEID	AR
LLD:			0.01
2007190020001 Coarse	DUP	2007190496001 Fine	0.11
2007190496001 Fine			0.11
Average			**0.11**
SD			**0.00**
RSD			**0%**
% <LLD			**0%**
2007190060002 Fine	DUP	2007190501001 Fine	0.14
2007190501001 Fine			0.12
Average			**0.13**
SD			**0.01**
RSD			**11%**
% <LLD			**0%**
2007190080001 Fine	DUP	2007190712001 Fine	0.1
2007190712001 Fine			0.06
Average			**0.08**
SD			**0.03**
RSD			**35%**
% <LLD			**0%**
2007190100002 Coarse	DUP	2007191504002 Fine	0.13
2007191504002 Fine			0.1
Average			**0.12**
SD			**0.02**
RSD			**18%**
% <LLD			**0%**
2007190120001 Coarse	DUP	2007190632002 Coarse	0.12
2007190632002 Coarse			0.13
Average			**0.13**
SD			**0.01**
RSD			**6%**
% <LLD			**0%**
2007190160002 Fine	DUP	2007190154002 Coarse	0.16
2007190154002 Coarse			0.13
Average			**0.15**
SD			**0.02**
RSD			**15%**
% <LLD			**0%**
2007190180001 Fine	DUP	2007190025002 Coarse	0.12
2007190025002 Coarse			0.12
Average			**0.12**
SD			**0.00**
RSD			**0%**
% <LLD			**0%**
2007190220001 Coarse	DUP	2007190058001 Coarse	0.02
2007190058001 Coarse			0.01
Average			**0.02**
SD			**0.01**
RSD			**47%**
% <LLD			**0%**
2007190220002 Coarse	DUP	2007190389001 Coarse	0.04
2007190389001 Coarse			0.06
Average			**0.05**
SD			**0.01**
RSD			**28%**
% <LLD			**0%**
2007190260002 Coarse	DUP	2007191036002 Fine	0.1
2007191036002 Fine			0.1
Average			**0.10**
SD			**0.00**
RSD			**0%**
% <LLD			**0%**
2007190280001 Fine	DUP	2007190043001 Coarse	0.15
2007190043001 Coarse			0.12
Average			**0.14**
SD			**0.02**
RSD			**16%**
% <LLD			**0%**
2007190280002 Fine	DUP	2007190428001 Coarse	0.1
2007190428001 Coarse			0.12
Average			**0.11**
SD			**0.01**
RSD			**13%**
% <LLD			**0%**

Appendix 20. QC samples analysis for Se by AR

SAMPLEID	TYPE	REAL	Se (ppm)
METHOD:		SAMPLEID	AR
LLD:			0.01
2007190320002 Fine	DUP	2007191253002 Fine	0.14
2007191253002 Fine			0.19
Average			**0.17**
SD			**0.04**
RSD			**21%**
% <LLD			**0%**
2007190340001 Coarse	DUP	2007191510002 Fine	0.43
2007191510002 Fine			0.44
Average			**0.44**
SD			**0.01**
RSD			**2%**
% <LLD			**0%**
2007190340002 Coarse	DUP	2007190716002 Coarse	0.01
2007190716002 Coarse			0.005
Average			**0.01**
SD			**0.00**
RSD			**47%**
% <LLD			**50%**
2007190380001 Coarse	DUP	2007190579002 Coarse	0.04
2007190579002 Coarse			0.05
Average			**0.05**
SD			**0.01**
RSD			**16%**
% <LLD			**0%**
2007190400001 Fine	DUP	2007190041001 Coarse	0.12
2007190041001 Coarse			0.11
Average			**0.12**
SD			**0.01**
RSD			**6%**
% <LLD			**0%**
2007190400002 Fine	DUP	2007190429002 Coarse	0.16
2007190429002 Coarse			0.16
Average			**0.16**
SD			**0.00**
RSD			**0%**
% <LLD			**0%**
2007190440001 Fine	DUP	2007190408001 Coarse	0.19
2007190408001 Coarse			0.25
Average			**0.22**
SD			**0.04**
RSD			**19%**
% <LLD			**0%**
2007190460001 Coarse	DUP	2007190586001 Fine	0.05
2007190586001 Fine			0.07
Average			**0.06**
SD			**0.01**
RSD			**24%**
% <LLD			**0%**
2007190460002 Coarse	DUP	2007190095001 Fine	0.59
2007190095001 Fine			0.57
Average			**0.58**
SD			**0.01**
RSD			**2%**
% <LLD			**0%**
2007190520001 Fine	DUP	2007190282002 Coarse	0.32
2007190282002 Coarse			0.35
Average			**0.34**
SD			**0.02**
RSD			**6%**
% <LLD			**0%**
2007190520002 Coarse	DUP	2007191078002 Coarse	0.06
2007191078002 Coarse			0.07
Average			**0.07**
SD			**0.01**
RSD			**11%**
% <LLD			**0%**
2007190520002 Fine	DUP	2007190633001 Coarse	0.22
2007190633001 Coarse			0.2
Average			**0.21**
SD			**0.01**
RSD			**7%**
% <LLD			**0%**

Appendix 20. QC samples analysis for Se by AR

SAMPLEID	TYPE	REAL	Se (ppm)
METHOD:		SAMPLEID	AR
LLD:			0.01
2007190580001 Coarse	DUP	2007190708002 Fine	0.09
2007190708002 Fine			0.07
Average			**0.08**
SD			**0.01**
RSD			**18%**
% <LLD			**0%**
2007190580002 Fine	DUP	2007190354001 Fine	0.03
2007190354001 Fine			0.02
Average			**0.03**
SD			**0.01**
RSD			**28%**
% <LLD			**0%**
2007190620002 Coarse	DUP	2007191381001 Fine	0.29
2007191381001 Fine			0.3
Average			**0.30**
SD			**0.01**
RSD			**2%**
% <LLD			**0%**
2007190640001 Fine	DUP	2007190889002 Coarse	0.02
2007190889002 Coarse			0.02
Average			**0.02**
SD			**0.00**
RSD			**0%**
% <LLD			**0%**
2007190680002 Fine	DUP	2007190015001 Coarse	0.28
2007190015001 Coarse			0.25
Average			**0.27**
SD			**0.02**
RSD			**8%**
% <LLD			**0%**
2007190700001 Fine	DUP	2007190053002 Coarse	0.04
2007190053002 Coarse			0.06
Average			**0.05**
SD			**0.01**
RSD			**28%**
% <LLD			**0%**
2007190700002 Coarse	DUP	2007191512002 Coarse	0.06
2007191512002 Coarse			0.07
Average			**0.07**
SD			**0.01**
RSD			**11%**
% <LLD			**0%**
2007190740001 Coarse	DUP	2007190707002 Coarse	0.01
2007190707002 Coarse			0.01
Average			**0.01**
SD			**0.00**
RSD			**0%**
% <LLD			**0%**
2007190760002 Fine	DUP	2007190134002 Fine	0.06
2007190134002 Fine			0.1
Average			**0.08**
SD			**0.03**
RSD			**35%**
% <LLD			**0%**
2007190780002 Coarse	DUP	2007190104002 Fine	0.93
2007190104002 Fine			0.98
Average			**0.96**
SD			**0.04**
RSD			**4%**
% <LLD			**0%**
2007190800001 Fine	DUP	2007190764001 Coarse	0.09
2007190764001 Coarse			0.06
Average			**0.08**
SD			**0.02**
RSD			**28%**
% <LLD			**0%**
2007190820001 Coarse	DUP	2007190508002 Fine	0.08
2007190508002 Fine			0.07
Average			**0.08**
SD			**0.01**
RSD			**9%**
% <LLD			**0%**

Appendix 20. QC samples analysis for Se by AR

SAMPLEID	TYPE	REAL	Se (ppm)
METHOD:		SAMPLEID	AR
LLD:			0.01
2007190840002 Coarse	DUP	2007190978002 Coarse	0.06
2007190978002 Coarse			0.04
Average			0.05
SD			0.01
RSD			28%
% <LLD			0%
2007190840002 Fine	DUP	2007190005002 Coarse	0.005
2007190005002 Coarse			0.04
Average			0.02
SD			0.02
RSD			110%
% <LLD			50%
2007190860002 Coarse	DUP	2007190621001 Fine	0.17
2007190621001 Fine			0.2
Average			0.19
SD			0.02
RSD			11%
% <LLD			0%
2007190880001 Fine	DUP	2007190193002 Fine	0.04
2007190193002 Fine			0.04
Average			0.04
SD			0.00
RSD			0%
% <LLD			0%
2007190900001 Coarse	DUP	2007190932001 Coarse	0.12
2007190932001 Coarse			0.12
Average			0.12
SD			0.00
RSD			0%
% <LLD			0%
2007190900002 Coarse	DUP	2007191208001 Coarse	0.25
2007191208001 Coarse			0.23
Average			0.24
SD			0.01
RSD			6%
% <LLD			0%
2007190900002 Fine	DUP	2007190204001 Coarse	0.04
2007190204001 Coarse			0.03
Average			0.04
SD			0.01
RSD			20%
% <LLD			0%
2007190920002 Fine	DUP	2007191450001 Fine	0.06
2007191450001 Fine			0.03
Average			0.05
SD			0.02
RSD			47%
% <LLD			0%
2007190960001 Coarse	DUP	2007190271002 Coarse	0.08
2007190271002 Coarse			0.06
Average			0.07
SD			0.01
RSD			20%
% <LLD			0%
2007190960001 Fine	DUP	2007190192002 Fine	0.1
2007190192002 Fine			0.12
Average			0.11
SD			0.01
RSD			13%
% <LLD			0%
2007190960002 Fine	DUP	2007190766002 Coarse	0.11
2007190766002 Coarse			0.11
Average			0.11
SD			0.00
RSD			0%
% <LLD			0%
2007190980001 Coarse	DUP	2007191518001 Fine	0.02
2007191518001 Fine			0.03
Average			0.03
SD			0.01
RSD			28%
% <LLD			0%

Appendix 20. QC samples analysis for Se by AR

SAMPLEID	TYPE	REAL	Se (ppm)
METHOD:		SAMPLEID	AR
LLD:			0.01
2007190980002 Coarse	DUP	2007190945002 Fine	0.19
2007190945002 Fine			0.19
Average			**0.19**
SD			**0.00**
RSD			**0%**
% <LLD			**0%**
2007191020001 Coarse	DUP	2007190357002 Coarse	0.04
2007190357002 Coarse			0.05
Average			**0.05**
SD			**0.01**
RSD			**16%**
% <LLD			**0%**
2007191020001 Fine	DUP	2007190183002 Fine	0.75
2007190183002 Fine			0.83
Average			**0.79**
SD			**0.06**
RSD			**7%**
% <LLD			**0%**
2007191040001 Fine	DUP	2007190161001 Fine	0.06
2007190161001 Fine			0.69
Average			**0.38**
SD			**0.45**
RSD			**119%**
% <LLD			**0%**
2007191040002 Fine	DUP	2007190648002 Fine	0.07
2007190648002 Fine			0.06
Average			**0.07**
SD			**0.01**
RSD			**11%**
% <LLD			**0%**
2007191060002 Coarse	DUP	2007191154001 Coarse	0.16
2007191154001 Coarse			0.19
Average			**0.18**
SD			**0.02**
RSD			**12%**
% <LLD			**0%**
2007191080001 Fine	DUP	2007190064001 Fine	0.08
2007190064001 Fine			0.03
Average			**0.06**
SD			**0.04**
RSD			**64%**
% <LLD			**0%**
2007191100001 Coarse	DUP	2007190803001 Fine	0.07
2007190803001 Fine			0.09
Average			**0.08**
SD			**0.01**
RSD			**18%**
% <LLD			**0%**
2007191120002 Fine	DUP	2007190536002 Coarse	0.02
2007190536002 Coarse			0.02
Average			**0.02**
SD			**0.00**
RSD			**0%**
% <LLD			**0%**
2007191160001 Fine	DUP	2007190066002 Fine	0.06
2007190066002 Fine			0.08
Average			**0.07**
SD			**0.01**
RSD			**20%**
% <LLD			**0%**
2007191180001 Coarse	DUP	2007190868002 Fine	0.03
2007190868002 Fine			0.03
Average			**0.03**
SD			**0.00**
RSD			**0%**
% <LLD			**0%**
2007191200002 Coarse	DUP	2007190499002 Coarse	0.4
2007190499002 Coarse			0.41
Average			**0.41**
SD			**0.01**
RSD			**2%**
% <LLD			**0%**

Appendix 20. QC samples analysis for Se by AR

SAMPLEID	TYPE	REAL	Se (ppm)
METHOD:		SAMPLEID	AR
LLD:			0.01
2007191240001 Fine	DUP	2007190065001 Fine	0.41
2007190065001 Fine			0.1
Average			**0.26**
SD			**0.22**
RSD			**86%**
% <LLD			**0%**
2007191260002 Fine	DUP	2007190996002 Fine	0.07
2007190996002 Fine			0.06
Average			**0.07**
SD			**0.01**
RSD			**11%**
% <LLD			**0%**
2007191300002 Coarse	DUP	2007191043001 Fine	0.1
2007191043001 Fine			0.1
Average			**0.10**
SD			**0.00**
RSD			**0%**
% <LLD			**0%**
2007191320001 Coarse	DUP	2007191521001 Coarse	0.08
2007191521001 Coarse			0.09
Average			**0.09**
SD			**0.01**
RSD			**8%**
% <LLD			**0%**
2007191360002 Fine	DUP	2007190821001 Fine	0.04
2007190821001 Fine			0.03
Average			**0.04**
SD			**0.01**
RSD			**20%**
% <LLD			**0%**
2007191380001 Fine	DUP	2007190081001 Fine	0.03
2007190081001 Fine			0.03
Average			**0.03**
SD			**0.00**
RSD			**0%**
% <LLD			**0%**
2007191400002 Coarse	DUP	2007190870001 Coarse	0.03
2007190870001 Coarse			0.03
Average			**0.03**
SD			**0.00**
RSD			**0%**
% <LLD			**0%**
2007190040001 Coarse	CRM	TILL-1	0.23
2007190100001 Fine	CRM	TILL-1	0.23
2007191320002 Coarse	CRM	TILL-1	0.24
2007191380002 Fine	CRM	TILL-1	0.24
Average			**0.24**
SD			**0.01**
RSD			**2%**
% <LLD			**0%**
2007190720002 Coarse	CRM	TILL-3	0.15
2007190780002 Fine	CRM	TILL-3	0.14
2007190840001 Coarse	CRM	TILL-3	0.12
2007190900001 Fine	CRM	TILL-3	0.14
Average			**0.14**
SD			**0.01**
RSD			**9%**
% <LLD			**0%**
2007190320002 Coarse	CRM	LKSD-1	0.83
2007190380002 Fine	CRM	LKSD-1	0.77
2007190440001 Coarse	CRM	LKSD-1	0.85
2007190500001 Fine	CRM	LKSD-1	0.84
Average			**0.82**
SD			**0.04**
RSD			**4%**
% <LLD			**0%**
2007191120002 Coarse	CRM	STSD-3	1.33
2007191180002 Fine	CRM	STSD-3	0.97
2007191240001 Coarse	CRM	STSD-3	0.76
2007191300001 Fine	CRM	STSD-3	1.08
Average			**1.04**
SD			**0.24**
RSD			**23%**
% <LLD			**0%**

Appendix 20. QC samples analysis for Se by AR

SAMPLEID	TYPE	REAL	Se (ppm)
METHOD:		SAMPLEID	AR
LLD:			0.01
2007190120002 Coarse	STD	SoNE-1	0.39
2007190180002 Fine	STD	SoNE-1	0.29
2007190240001 Coarse	STD	SoNE-1	0.32
2007190300001 Fine	STD	SoNE-1	0.34
2007190920002 Coarse	STD	SoNE-1	0.41
2007190980002 Fine	STD	SoNE-1	0.31
2007191040001 Coarse	STD	SoNE-1	0.31
2007191100001 Fine	STD	SoNE-1	0.23
Average			**0.33**
SD			**0.06**
RSD			**17%**
RV (TOTAL)			**0.49**
Bias			**66%**
% <LLD			**0%**
2007190040002 Fine	STD	GEMAS-A	0.29
2007190080002 Coarse	STD	GEMAS-A	0.33
2007190200002 Coarse	STD	GEMAS-A	0.36
2007190380002 Coarse	STD	GEMAS-A	0.37
2007190500002 Fine	STD	GEMAS-A	0.3
2007190660002 Fine	STD	GEMAS-A	0.32
2007190720002 Fine	STD	GEMAS-A	0.28
2007190760002 Coarse	STD	GEMAS-A	0.36
2007191000002 Fine	STD	GEMAS-A	0.31
2007191160002 Coarse	STD	GEMAS-A	0.32
Average			**0.32**
SD			**0.03**
RSD			**10%**
Reported Mean Value			**0.57**
Bias			**57%**
% <LLD			**0%**
2007190100002 Fine	STD	GEMAS-G	0.15
2007190220002 Fine	STD	GEMAS-G	0.17
2007190240002 Coarse	STD	GEMAS-G	0.17
2007190600002 Coarse	STD	GEMAS-G	0.18
2007190800002 Coarse	STD	GEMAS-G	0.16
2007190860002 Fine	STD	GEMAS-G	0.16
2007191040002 Coarse	STD	GEMAS-G	0.17
2007191200002 Fine	STD	GEMAS-G	0.15
2007191320002 Fine	STD	GEMAS-G	0.16
2007191360002 Coarse	STD	GEMAS-G	0.18
Average			**0.17**
SD			**0.01**
RSD			**7%**
Reported Mean Value			**0.35**
Bias			**47%**
% <LLD			**0%**
2007190020002 Coarse	IPS	ORIS	0.05
2007190060001 Fine	IPS	ORIS	0.08
2007190080002 Fine	IPS	ORIS	0.07
2007190140001 Coarse	IPS	ORIS	0.08
2007190200001 Fine	IPS	ORIS	0.09
2007190200002 Fine	IPS	ORIS	0.07
2007190260001 Coarse	IPS	ORIS	0.06
2007190320001 Fine	IPS	ORIS	0.07
2007190340002 Fine	IPS	ORIS	0.06
2007190400001 Coarse	IPS	ORIS	0.08
2007190460001 Fine	IPS	ORIS	0.08
2007190480002 Fine	IPS	ORIS	0.06
2007190540001 Coarse	IPS	ORIS	0.06
2007190600001 Fine	IPS	ORIS	0.07
2007190600002 Fine	IPS	ORIS	0.06
2007190660001 Coarse	IPS	ORIS	0.1
2007190720001 Fine	IPS	ORIS	0.08
2007190740002 Fine	IPS	ORIS	0.03
2007190800001 Coarse	IPS	ORIS	0.05
2007190860001 Fine	IPS	ORIS	0.07
2007190880002 Fine	IPS	ORIS	0.08
2007190940001 Coarse	IPS	ORIS	0.06
2007191000001 Fine	IPS	ORIS	0.06
2007191020002 Fine	IPS	ORIS	0.06
2007191080001 Coarse	IPS	ORIS	0.07
2007191140001 Fine	IPS	ORIS	0.05
2007191160002 Fine	IPS	ORIS	0.06
2007191220001 Coarse	IPS	ORIS	0.06
2007191280001 Fine	IPS	ORIS	0.05
2007191340002 Fine	IPS	ORIS	0.08
2007191400001 Coarse	IPS	ORIS	0.06
Average			**0.07**
SD			**0.01**
RSD			**21%**
% <LLD			**0%**

Appendix 20. QC samples analysis for Se by AR

SAMPLEID	TYPE	REAL	Se (ppm)
METHOD:		SAMPLEID	AR
LLD:			0.01
2007190040001 Fine	IPS	MRIS	0.11
2007190060001 Coarse	IPS	MRIS	0.11
2007190060002 Coarse	IPS	MRIS	0.08
2007190100001 Coarse	IPS	MRIS	0.08
2007190120001 Fine	IPS	MRIS	0.1
2007190120002 Fine	IPS	MRIS	0.09
2007190140002 Fine	IPS	MRIS	0.11
2007190160001 Fine	IPS	MRIS	0.12
2007190180001 Coarse	IPS	MRIS	0.09
2007190180002 Coarse	IPS	MRIS	0.11
2007190200001 Coarse	IPS	MRIS	0.09
2007190240001 Fine	IPS	MRIS	0.11
2007190240002 Fine	IPS	MRIS	0.1
2007190260001 Fine	IPS	MRIS	0.11
2007190260002 Fine	IPS	MRIS	0.08
2007190300001 Coarse	IPS	MRIS	0.09
2007190300002 Coarse	IPS	MRIS	0.12
2007190320001 Coarse	IPS	MRIS	0.1
2007190360001 Fine	IPS	MRIS	0.13
2007190360002 Coarse	IPS	MRIS	0.12
2007190360002 Fine	IPS	MRIS	0.1
2007190380001 Fine	IPS	MRIS	0.1
2007190420001 Coarse	IPS	MRIS	0.08
2007190420002 Fine	IPS	MRIS	0.09
2007190440002 Coarse	IPS	MRIS	0.1
2007190440002 Fine	IPS	MRIS	0.1
2007190480001 Coarse	IPS	MRIS	0.11
2007190480001 Fine	IPS	MRIS	0.1
2007190500001 Coarse	IPS	MRIS	0.08
2007190540001 Fine	IPS	MRIS	0.11
2007190560001 Coarse	IPS	MRIS	0.09
2007190560001 Fine	IPS	MRIS	0.11
2007190560002 Fine	IPS	MRIS	0.11
2007190620001 Coarse	IPS	MRIS	0.1
2007190620001 Fine	IPS	MRIS	0.1
2007190640002 Fine	IPS	MRIS	0.08
2007190680001 Fine	IPS	MRIS	0.09
2007190700001 Coarse	IPS	MRIS	0.09
2007190720001 Coarse	IPS	MRIS	0.07
2007190760001 Fine	IPS	MRIS	0.12
2007190780001 Coarse	IPS	MRIS	0.09
2007190780001 Fine	IPS	MRIS	0.1
2007190800002 Fine	IPS	MRIS	0.11
2007190820002 Fine	IPS	MRIS	0.08
2007190840001 Fine	IPS	MRIS	0.07
2007190860001 Coarse	IPS	MRIS	0.08
2007190880001 Coarse	IPS	MRIS	0.11
2007190920001 Fine	IPS	MRIS	0.11
2007190940001 Fine	IPS	MRIS	0.09
2007191060001 Coarse	IPS	MRIS	0.07
2007191080002 Fine	IPS	MRIS	0.08
2007191100002 Fine	IPS	MRIS	0.09
2007191120001 Fine	IPS	MRIS	0.05
2007191140001 Coarse	IPS	MRIS	0.1
2007191140002 Fine	IPS	MRIS	0.11
2007191160001 Coarse	IPS	MRIS	0.06
2007191200001 Coarse	IPS	MRIS	0.08
2007191200001 Fine	IPS	MRIS	0.08
2007191220001 Fine	IPS	MRIS	0.16
2007191220002 Fine	IPS	MRIS	0.08
2007191260001 Coarse	IPS	MRIS	0.09
2007191260001 Fine	IPS	MRIS	0.09
2007191280001 Coarse	IPS	MRIS	0.08
2007191280002 Fine	IPS	MRIS	0.09
2007191320001 Fine	IPS	MRIS	0.11
2007191340001 Coarse	IPS	MRIS	0.09
2007191340001 Fine	IPS	MRIS	0.08
2007191380001 Coarse	IPS	MRIS	0.08
2007191400001 Fine	IPS	MRIS	0.1
2007191400002 Fine	IPS	MRIS	0.1
Average			**0.10**
SD			**0.02**
RSD			**18%**
% <LLD			**0%**

Appendix 20. QC samples analysis for Se by AR

SAMPLEID	TYPE	REAL	Se (ppm)
METHOD:		SAMPLEID	AR
LLD:			0.01
2007190500002 Coarse	IPS	MRIS2	0.02
2007190580002 Coarse	IPS	MRIS2	0.11
2007190660002 Coarse	IPS	MRIS2	0.12
2007190740002 Coarse	IPS	MRIS2	0.12
2007190940002 Coarse	IPS	MRIS2	0.12
2007191020002 Coarse	IPS	MRIS2	0.11
2007191080002 Coarse	IPS	MRIS2	0.13
2007191140002 Coarse	IPS	MRIS2	0.14
2007191220002 Coarse	IPS	MRIS2	0.12
2007191260002 Coarse	IPS	MRIS2	0.1
2007191340002 Coarse	IPS	MRIS2	0.12
2007191380002 Coarse	IPS	MRIS2	0.12
Average			**0.11**
SD			**0.03**
RSD			**27%**
% <LLD			**0%**
2007190020002 Coarse	IPS	ORIS	0.05
2007190060001 Fine	IPS	ORIS	0.08
2007190080002 Fine	IPS	ORIS	0.07
2007190140001 Coarse	IPS	ORIS	0.08
2007190200001 Fine	IPS	ORIS	0.09
2007190200002 Fine	IPS	ORIS	0.07
2007190260001 Coarse	IPS	ORIS	0.06
2007190320001 Fine	IPS	ORIS	0.07
2007190340002 Fine	IPS	ORIS	0.06
2007190400001 Coarse	IPS	ORIS	0.08
2007190460001 Fine	IPS	ORIS	0.08
2007190480002 Fine	IPS	ORIS	0.06
2007190540001 Coarse	IPS	ORIS	0.06
2007190600001 Fine	IPS	ORIS	0.07
2007190600002 Fine	IPS	ORIS	0.06
2007190660001 Coarse	IPS	ORIS	0.1
2007190720001 Fine	IPS	ORIS	0.08
2007190740002 Fine	IPS	ORIS	0.03
2007190800001 Coarse	IPS	ORIS	0.05
2007190860001 Fine	IPS	ORIS	0.07
2007190880002 Fine	IPS	ORIS	0.08
2007190940001 Coarse	IPS	ORIS	0.06
2007191000001 Fine	IPS	ORIS	0.06
2007191020002 Fine	IPS	ORIS	0.06
2007191080001 Coarse	IPS	ORIS	0.07
2007191140001 Fine	IPS	ORIS	0.05
2007191160002 Fine	IPS	ORIS	0.06
2007191220001 Coarse	IPS	ORIS	0.06
2007191280001 Fine	IPS	ORIS	0.05
2007191340002 Fine	IPS	ORIS	0.08
2007191400001 Coarse	IPS	ORIS	0.06
Average			**0.07**
SD			**0.01**
RSD			**21%**
% <LLD			**0%**
2007190020001 Fine	IPS	WRIS	0.01
2007190020002 Fine	IPS	WRIS	0.2
2007190040002 Coarse	IPS	WRIS	0.25
2007190080001 Coarse	IPS	WRIS	0.25
2007190140001 Fine	IPS	WRIS	0.27
2007190160001 Coarse	IPS	WRIS	0.24
2007190160002 Coarse	IPS	WRIS	0.25
2007190220001 Fine	IPS	WRIS	0.22
2007190280001 Coarse	IPS	WRIS	0.27
2007190280001 Coarse	IPS	WRIS	0.21
2007190300002 Fine	IPS	WRIS	0.21
2007190340001 Fine	IPS	WRIS	0.26
2007190360001 Coarse	IPS	WRIS	0.24
2007190400002 Coarse	IPS	WRIS	0.26
2007190420001 Fine	IPS	WRIS	0.28
2007190460002 Fine	IPS	WRIS	0.24
2007190520001 Coarse	IPS	WRIS	0.21
2007190540002 Fine	IPS	WRIS	0.22
2007190580001 Fine	IPS	WRIS	0.23
2007190600001 Coarse	IPS	WRIS	0.17
2007190620002 Fine	IPS	WRIS	0.19
2007190660001 Fine	IPS	WRIS	0.19
2007190680001 Coarse	IPS	WRIS	0.21
2007190680001 Coarse	IPS	WRIS	
2007190700002 Fine	IPS	WRIS	0.19
2007190740001 Fine	IPS	WRIS	0.29
2007190760001 Coarse	IPS	WRIS	0.2
2007190820001 Fine	IPS	WRIS	0.25
2007190920001 Coarse	IPS	WRIS	0.21
2007190940002 Fine	IPS	WRIS	0.23
2007190980001 Fine	IPS	WRIS	0.16

Appendix 20. QC samples analysis for Se by AR

SAMPLEID	TYPE	REAL	Se (ppm)
METHOD:		SAMPLEID	AR
LLD:			0.01
2007191000001 Coarse	IPS	WRIS	0.18
2007191060001 Fine	IPS	WRIS	0.21
2007191060002 Fine	IPS	WRIS	0.18
2007191120001 Coarse	IPS	WRIS	0.2
2007191180001 Fine	IPS	WRIS	0.16
2007191240002 Fine	IPS	WRIS	0.12
2007191300001 Coarse	IPS	WRIS	0.12
2007191300002 Fine	IPS	WRIS	0.18
2007191360001 Coarse	IPS	WRIS	0.22
2007191360001 Fine	IPS	WRIS	0.24
Average			**0.21**
SD			**0.05**
RSD			**24%**
% <LLD			**0%**
2007190140002 Coarse	IPS	WRIS2	0.29
2007190280002 Coarse	IPS	WRIS2	0.24
2007190420002 Coarse	IPS	WRIS2	0.33
2007190480002 Coarse	IPS	WRIS2	0.26
2007190540002 Coarse	IPS	WRIS2	0.32
2007190560002 Coarse	IPS	WRIS2	0.26
2007190640002 Coarse	IPS	WRIS2	0.22
2007190680002 Coarse	IPS	WRIS2	0.3
2007190820002 Coarse	IPS	WRIS2	0.36
2007190880002 Coarse	IPS	WRIS2	0.34
2007190960002 Coarse	IPS	WRIS2	0.33
2007191000002 Coarse	IPS	WRIS2	0.28
2007191100002 Coarse	IPS	WRIS2	0.32
2007191180002 Coarse	IPS	WRIS2	0.27
2007191240002 Coarse	IPS	WRIS2	0.26
2007191280002 Coarse	IPS	WRIS2	0.24
Average			**0.29**
SD			**0.04**
RSD			**14%**
% <LLD			**0%**

Appendix 21. Field duplicates analysis by MMI™

Appendix 21. Field duplicates analysis by MMI™

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Ag (ppm)	Ag (ppm)	Al (ppm)	Al (ppm)	As (ppm)	As (ppm)	Au (ppm)	Au (ppm)
METHOD:	METHOD:	SIZE	SIZE			MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					0.001	0.001	1	1	0.01	0.01	0.0001	0.0001
2007190003	2007190213	Coarse	Coarse	TOS	TOS	0.005	0.004	7	7	0.005	0.005	0.0002	0.0001
2007190005	2007191059	Coarse	Coarse	TOS	TOS	0.003	0.026	27	2	0.005	0.005	0.0002	0.00005
2007190032	2007190632	Coarse	Coarse	TOS	TOS	0.005	0.003	62	53	0.01	0.03	0.0027	0.0008
2007190035	2007190876	Coarse	Coarse	TOS	TOS	0.007	0.064	67	6	0.005	0.005	0.0002	0.0002
2007190039	2007190984	Coarse	Coarse	TOS	TOS	0.012	0.006	8	1	0.005	0.005	0.0004	0.0002
2007190050	2007191481	Coarse	Coarse	TOS	TOS	0.004	0.003	16	22	0.005	0.005	0.0002	0.00005
2007190067	2007191121	Coarse	Coarse	TOS	TOS	0.002	0.005	2	2	0.005	0.005	0.0005	0.00005
2007190071	2007190289	Coarse	Coarse	TOS	TOS	0.002	0.0005	20	36	0.005	0.005	0.0002	0.00005
2007190074	2007190389	Coarse	Coarse	TOS	TOS	0.002	0.0005	10	8	0.005	0.02	0.0002	0.00005
2007190091	2007191053	Coarse	Coarse	TOS	TOS	0.001	0.026	11	2	0.005	0.005	0.0003	0.0001
2007190107	2007190913	Coarse	Coarse	TOS	TOS	0.001	0.009	9	2	0.005	0.005	0.00005	0.0001
2007190110	2007191182	Coarse	Coarse	TOS	TOS	0.002	0.004	74	155	0.03	0.02	0.0002	0.00005
2007190114	2007191045	Coarse	Coarse	TOS	TOS	0.011	0.023	14	22	0.01	0.005	0.0003	0.0001
2007190118	2007191552	Coarse	Coarse	TOS	TOS	0.005	0.006	119	107	0.005	0.005	0.0002	0.0003
2007190121	2007191545	Coarse	Coarse	TOS	TOS	0.002	0.001	7	9	0.005	0.005	0.00005	0.00005
2007190125	2007191532	Coarse	Coarse	TOS	TOS	0.002	0.002	10	5	0.005	0.005	0.0003	0.0004
2007190145	2007191105	Coarse	Coarse	TOS	TOS	0.018	0.05	28	14	0.005	0.005	0.0002	0.00005
2007190154	2007190568	Coarse	Coarse	TOS	TOS	0.001	0.0005	280	109	0.005	0.005	0.0002	0.00005
2007190155	2007191031	Coarse	Coarse	TOS	TOS	0.005	0.02	11	6	0.02	0.005	0.0008	0.0008
2007190161	2007191413	Coarse	Coarse	TOS	TOS	0.002	0.0005	14	15	0.005	0.005	0.0016	0.0023
2007190176	2007191566	Coarse	Coarse	TOS	TOS	0.001	0.002	59	97	0.02	0.005	0.00005	0.00005
2007190181	2007191396	Coarse	Coarse	TOS	TOS	0.019	0.013	6	2	0.005	0.01	0.0002	0.0014
2007190183	2007190471	Coarse	Coarse	TOS	TOS	0.006	0.0005	6	9	0.005	0.01	0.00005	0.00005
2007190185	2007191253	Coarse	Coarse	TOS	TOS	0.007	0.004	10	6	0.005	0.005	0.0006	0.0002
2007190189	2007191542	Coarse	Coarse	TOS	TOS	0.021	0.03	7	2	0.01	0.01	0.0008	0.0015
2007190193	2007190788	Coarse	Coarse	TOS	TOS	0.007	0.002	57	92	0.005	0.02	0.0002	0.0001
2007190194	2007190704	Coarse	Coarse	TOS	TOS	0.009	0.004	39	39	0.005	0.005	0.0004	0.0002
2007190197	2007190962	Coarse	Coarse	TOS	TOS	0.0005	0.019	11	2	0.005	0.005	0.0001	0.00005
2007190208	2007191593	Coarse	Coarse	TOS	TOS	0.006	0.005	67	114	0.005	0.005	0.00005	0.00005
2007190209	2007191254	Coarse	Coarse	TOS	TOS	0.015	0.007	7	4	0.005	0.005	0.0005	0.0006
2007190212	2007190747	Coarse	Coarse	TOS	TOS	0.001	0.008	15	16	0.005	0.005	0.00005	0.00005
2007190218	2007191348	Coarse	Coarse	TOS	TOS	0.002	0.002	43	54	0.005	0.005	0.00005	0.0003
2007190241	2007190978	Coarse	Coarse	TOS	TOS	0.003	0.034	19	2	0.005	0.005	0.00005	0.00005
2007190248	2007191198	Coarse	Coarse	TOS	TOS	0.0005	0.001	5	26	0.005	0.01	0.00005	0.00005
2007190256	2007190875	Coarse	Coarse	TOS	TOS	0.002	0.003	4	1	0.005	0.005	0.0002	0.00005
2007190258	2007191176	Coarse	Coarse	TOS	TOS	0.009	0.009	44	104	0.005	0.01	0.0003	0.0002
2007190266	2007191458	Coarse	Coarse	TOS	TOS	0.008	0.002	10	8	0.005	0.01	0.0002	0.0001
2007190285	2007190406	Coarse	Coarse	TOS	TOS	0.053	0.024	12	12	0.005	0.005	0.001	0.0004
2007190296	2007190758	Coarse	Coarse	TOS	TOS	0.0005	0.001	46	44	0.005	0.005	0.00005	0.0001
2007190311	2007191259	Coarse	Coarse	TOS	TOS	0.0005	0.002	21	38	0.02	0.005	0.00005	0.0004
2007190328	2007191598	Coarse	Coarse	TOS	TOS	0.0005	0.001	27	41	0.005	0.01	0.00005	0.00005
2007190335	2007190692	Coarse	Coarse	TOS	TOS	0.009	0.004	19	32	0.005	0.01	0.0004	0.0004
2007190342	2007190989	Coarse	Coarse	TOS	TOS	0.005	0.023	15	4	0.005	0.005	0.0001	0.0002
2007190349	2007191436	Coarse	Coarse	TOS	TOS	0.007	0.007	11	11	0.005	0.005	0.0006	0.0009
2007190352	2007190611	Coarse	Coarse	TOS	TOS	0.0005	0.003	218	105	0.02	0.01	0.00005	0.00005
2007190355	2007191257	Coarse	Coarse	TOS	TOS	0.001	0.001	8	3	0.005	0.005	0.0005	0.0005
2007190357	2007190856	Coarse	Coarse	TOS	TOS	0.0005	0.054	34	1	0.005	0.005	0.00005	0.00005
2007190361	2007191094	Coarse	Coarse	TOS	TOS	0.01	0.01	39	19	0.01	0.03	0.0004	0.0007
2007190383	2007191416	Coarse	Coarse	TOS	TOS	0.025	0.003	9	10	0.01	0.005	0.0005	0.0006
2007190393	2007191050	Coarse	Coarse	TOS	TOS	0.003	0.054	41	3	0.01	0.005	0.0002	0.0004
2007190414	2007191386	Coarse	Coarse	TOS	TOS	0.01	0.007	25	33	0.02	0.02	0.0015	0.0017
2007190419	2007190974	Coarse	Coarse	TOS	TOS	0.008	0.026	21	7	0.005	0.005	0.0001	0.0003
2007190425	2007190768	Coarse	Coarse	TOS	TOS	0.006	0.011	41	62	0.02	0.01	0.0003	0.0004
2007190434	2007191027	Coarse	Coarse	TOS	TOS	0.009	0.02	10	3	0.01	0.005	0.0007	0.0006
2007190457	2007191004	Coarse	Coarse	TOS	TOS	0.003	0.111	56	3	0.02	0.02	0.00005	0.00005
2007190458	2007190774	Coarse	Coarse	TOS	TOS	0.009	0.011	10	10	0.005	0.005	0.0006	0.0007
2007190472	2007191312	Coarse	Coarse	TOS	TOS	0.014	0.011	17	13	0.02	0.005	0.0014	0.002
2007190481	2007191594	Coarse	Coarse	TOS	TOS	0.002	0.002	6	11	0.005	0.005	0.0001	0.00005
2007190495	2007191318	Coarse	Coarse	TOS	TOS	0.002	0.002	11	13	0.02	0.005	0.0001	0.00005
2007190497	2007190586	Coarse	Coarse	TOS	TOS	0.006	0.006	11	11	0.005	0.005	0.0003	0.00005
2007190506	2007190631	Coarse	Coarse	TOS	TOS	0.01	0.005	12	11	0.005	0.01	0.0011	0.0006
2007190508	2007191119	Coarse	Coarse	TOS	TOS	0.007	0.007	7	13	0.005	0.005	0.0006	0.0007
2007190526	2007191599	Coarse	Coarse	TOS	TOS	0.008	0.009	113	207	0.02	0.02	0.0008	0.0003
2007190527	2007190609	Coarse	Coarse	TOS	TOS	0.005	0.005	15	7	0.01	0.005	0.0006	0.0003
2007190531	2007190703	Coarse	Coarse	TOS	TOS	0.007	0.005	31	25	0.01	0.005	0.0007	0.0004
2007190534	2007191522	Coarse	Coarse	TOS	TOS	0.003	0.004	26	42	0.005	0.005	0.00005	0.00005
2007190536	2007190909	Coarse	Coarse	TOS	TOS	0.0005	0.004	6	0.5	0.005	0.005	0.0001	0.00005
2007190548	2007191236	Coarse	Coarse	TOS	TOS	0.008	0.01	13	22	0.005	0.005	0.0002	0.0005
2007190549	2007191507	Coarse	Coarse	TOS	TOS	0.0005	0.0005	22	40	0.005	0.005	0.00005	0.0001
2007190552	2007190675	Coarse	Coarse	TOS	TOS	0.001	0.001	12	12	0.005	0.005	0.00005	0.00005
2007190554	2007190752	Coarse	Coarse	TOS	TOS	0.003	0.007	113	290	0.02	0.03	0.00005	0.0002
2007190583	2007191063	Coarse	Coarse	TOS	TOS	0.002	0.11	7	3	0.005	0.02	0.0001	0.00005
2007190618	2007191166	Coarse	Coarse	TOS	TOS	0.0005	0.0005	64	48	0.005	0.005	0.00005	0.00005
2007190647	2007191525	Coarse	Coarse	TOS	TOS	0.004	0.004	32	94	0.05	0.02	0.0003	0.00005
2007190659	2007190739	Coarse	Coarse	TOS	TOS	0.001	0.003	8	17	0.02	0.005	0.0002	0.0002
2007190661	2007191334	Coarse	Coarse	TOS	TOS	0.003	0.003	21	17	0.005	0.005	0.00005	0.0001
2007190686	2007191430	Coarse	Coarse	TOS	TOS	0.002	0.003	144	131	0.005	0.01	0.00005	0.00005
2007190695	2007190924	Coarse	Coarse	TOS	TOS	0.001	0.009	13	1	0.005	0.005	0.00005	0.0001
2007190698	2007190813	Coarse	Coarse	TOS	TOS	0.014	0.01	5	14	0.005	0.005	0.0006	0.0006
2007190732	2007191450	Coarse	Coarse	TOS	TOS	0.008	0.005	16	9	0.005	0.005	0.0005	0.0009
2007190735	2007191549	Coarse	Coarse	TOS	TOS	0.018	0.024	11	5	0.02	0.01	0.0006	0.0021
2007190743	2007190906	Coarse	Coarse	TOS	TOS	0.01	0.018	17	12	0.005	0.005	0.0004	0.0006
2007190746	2007191241	Coarse	Coarse	TOS	TOS	0.0005	0.0005	5	4	0.005	0.005	0.0001	0.00005
2007190753	2007191299	Coarse	Coarse	TOS	TOS	0.009	0.01	12	12	0.005	0.005	0.0007	0.0012
2007190798	2007191229	Coarse	Coarse	TOS	TOS	0.016	0.0005	0.5	50	0.005	0.005	0.00005	0.0001
2007190818	2007191157	Coarse	Coarse	TOS	TOS	0.006	0.002	1	34	0.005	0.005	0.00005	0.00005

Appendix 21. Field duplicates analysis by MMI™

SITEID	SITEID	Ba (ppm)	Ba (ppm)	Bi (ppm)	Bi (ppm)	Ca (ppm)	Ca (ppm)	Cd (ppm)	Cd (ppm)	Ce (ppm)	Ce (ppm)	Co (ppm)	Co (ppm)
METHOD:	METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.01	0.01	0.001	0.001	10	10	0.001	0.001	0.005	0.005	0.005	0.005
2007190003	2007190213	0.59	0.47	0.0005	0.0005	260	250	0.006	0.006	0.049	0.049	0.033	0.05
2007190005	2007191059	1.56	2.48	0.0005	0.0005	580	780	0.008	0.009	0.233	0.291	0.165	0.211
2007190032	2007190632	0.87	2.11	0.0005	0.0005	350	570	0.016	0.021	0.824	0.759	0.643	0.338
2007190035	2007190876	0.2	0.81	0.0005	0.0005	160	190	0.006	0.008	0.539	0.541	0.205	0.163
2007190039	2007190984	0.11	0.19	0.0005	0.0005	270	180	0.024	0.005	0.095	0.094	0.096	0.113
2007190050	2007191481	0.31	0.3	0.0005	0.0005	140	140	0.003	0.003	0.185	0.233	0.155	0.151
2007190067	2007191121	0.005	0.18	0.0005	0.0005	110	90	0.0005	0.014	0.061	0.046	0.059	0.055
2007190071	2007190289	0.005	0.08	0.0005	0.0005	90	80	0.0005	0.001	1.97	2.27	0.128	0.065
2007190074	2007190389	1.58	1.11	0.0005	0.0005	700	250	0.007	0.003	0.073	0.091	0.151	0.071
2007190091	2007191053	1.15	1.69	0.0005	0.0005	370	470	0.004	0.007	0.036	0.189	0.132	0.184
2007190107	2007190913	0.46	0.67	0.0005	0.0005	290	330	0.003	0.002	0.048	0.041	0.086	0.145
2007190110	2007191182	0.69	1.01	0.001	0.001	210	260	0.039	0.049	0.861	1.47	0.325	0.382
2007190114	2007191045	2.69	3	0.0005	0.0005	700	990	0.009	0.004	0.371	0.159	0.418	0.433
2007190118	2007191552	1.54	1.8	0.0005	0.0005	90	80	0.005	0.004	1.26	2.79	0.377	0.287
2007190121	2007191545	0.38	0.09	0.0005	0.0005	280	420	0.002	0.003	0.017	0.01	0.076	0.047
2007190125	2007191532	2.46	1.59	0.0005	0.0005	720	600	0.009	0.005	0.053	0.01	0.467	0.217
2007190145	2007191105	0.38	0.37	0.0005	0.0005	500	640	0.01	0.009	0.015	0.025	0.184	0.224
2007190154	2007190568	0.22	0.04	0.0005	0.0005	30	20	0.001	0.0005	0.459	0.202	0.071	0.018
2007190155	2007191031	5.1	2.09	0.0005	0.0005	560	420	0.006	0.012	0.008	0.243	0.342	0.949
2007190161	2007191413	0.44	0.49	0.0005	0.0005	540	720	0.002	0.002	0.0025	0.0025	0.064	0.036
2007190176	2007191566	0.1	0.07	0.0005	0.0005	60	30	0.0005	0.001	0.524	1.27	0.014	0.021
2007190181	2007191396	0.95	2.07	0.0005	0.0005	430	590	0.003	0.018	0.0025	0.047	0.241	0.89
2007190183	2007190471	0.18	0.22	0.0005	0.0005	1290	800	0.001	0.0005	0.0025	0.005	0.017	0.013
2007190185	2007191253	0.78	0.4	0.0005	0.0005	410	410	0.008	0.009	0.005	0.008	0.1	0.147
2007190189	2007191542	3.29	2.01	0.0005	0.0005	790	650	0.008	0.016	0.007	0.014	0.624	0.425
2007190193	2007190788	1.09	1.17	0.0005	0.003	610	290	0.021	0.023	1.1	0.618	0.231	1.07
2007190194	2007190704	0.82	0.46	0.0005	0.0005	340	370	0.008	0.011	0.819	0.768	0.35	0.284
2007190197	2007190962	0.22	0.34	0.0005	0.0005	40	50	0.0005	0.0005	0.922	1.12	0.039	0.067
2007190208	2007191593	0.56	0.24	0.0005	0.0005	60	110	0.005	0.001	1.64	1.28	0.198	0.227
2007190209	2007191254	3.27	2.94	0.0005	0.0005	470	440	0.003	0.005	0.009	0.008	0.3	0.175
2007190212	2007190747	0.61	0.48	0.0005	0.0005	140	120	0.002	0.002	0.116	0.122	0.103	0.044
2007190218	2007191348	0.28	0.1	0.0005	0.0005	50	100	0.001	0.002	1.6	1.15	0.101	0.069
2007190241	2007190978	1.06	0.91	0.0005	0.0005	780	880	0.005	0.006	0.109	0.143	0.907	0.506
2007190248	2007191198	1.51	1.53	0.0005	0.0005	310	270	0.001	0.001	0.008	0.021	0.094	0.061
2007190256	2007190875	2.08	3	0.0005	0.0005	260	210	0.001	0.0005	0.0025	0.011	0.032	0.02
2007190258	2007191176	2.66	2.94	0.0005	0.0005	440	450	0.058	0.027	0.848	0.666	0.52	0.399
2007190266	2007191458	0.67	1.04	0.0005	0.0005	470	480	0.006	0.002	0.0025	0.005	0.157	0.062
2007190285	2007190406	1.1	1.5	0.0005	0.0005	610	460	0.001	0.003	0.024	0.442	0.247	0.514
2007190296	2007190758	0.44	0.22	0.0005	0.0005	70	80	0.002	0.002	0.373	0.226	0.094	0.117
2007190311	2007191259	0.39	0.53	0.0005	0.0005	190	230	0.001	0.002	0.145	0.235	0.024	0.02
2007190328	2007191598	0.26	0.005	0.0005	0.0005	90	70	0.0005	0.001	0.744	0.701	0.101	0.052
2007190335	2007190692	1.34	1.59	0.0005	0.0005	630	830	0.008	0.007	0.214	0.532	0.268	0.4
2007190342	2007190989	0.39	0.82	0.0005	0.0005	220	290	0.018	0.027	0.257	0.625	0.06	0.221
2007190349	2007191436	1.48	1.2	0.0005	0.0005	310	480	0.004	0.004	0.07	0.049	0.222	0.146
2007190352	2007190611	0.6	0.38	0.0005	0.001	350	210	0.017	0.009	3.85	0.099	0.71	0.472
2007190355	2007191257	0.12	0.11	0.0005	0.0005	380	280	0.006	0.006	0.011	0.012	0.102	0.075
2007190357	2007190856	0.46	0.93	0.0005	0.0005	60	90	0.0005	0.0005	0.855	0.864	0.119	0.244
2007190361	2007191094	0.53	0.85	0.0005	0.0005	600	880	0.016	0.024	0.013	0.006	0.203	0.138
2007190383	2007191416	4.46	4.34	0.0005	0.0005	600	610	0.005	0.002	0.112	0.071	0.214	0.055
2007190393	2007191050	0.76	0.5	0.0005	0.0005	660	410	0.025	0.025	0.438	0.281	0.264	0.55
2007190414	2007191386	1.57	2.05	0.0005	0.0005	350	520	0.013	0.011	0.745	0.924	0.651	0.823
2007190419	2007190974	0.97	1.07	0.0005	0.0005	640	770	0.018	0.013	0.624	1.16	0.653	0.916
2007190425	2007190768	0.48	0.43	0.0005	0.0005	270	350	0.015	0.008	0.698	1.17	0.327	0.263
2007190434	2007191027	1.19	0.42	0.0005	0.0005	380	810	0.007	0.003	0.0025	0.031	0.118	0.167
2007190457	2007191004	1.05	1.19	0.0005	0.0005	370	220	0.043	0.025	1.59	2.13	0.104	0.255
2007190458	2007190774	3.76	1.22	0.0005	0.0005	720	380	0.046	0.022	0.051	0.01	0.554	0.217
2007190472	2007191312	2.35	1.71	0.0005	0.0005	460	370	0.002	0.002	0.047	0.007	0.249	0.234
2007190481	2007191594	0.2	0.22	0.0005	0.0005	390	380	0.002	0.003	0.033	0.042	0.197	0.182
2007190495	2007191318	0.21	0.08	0.0005	0.0005	340	490	0.0005	0.004	0.015	0.014	0.036	0.014
2007190497	2007190586	0.51	0.85	0.0005	0.0005	520	470	0.001	0.001	0.215	0.31	0.03	0.066
2007190506	2007190631	2.82	4.32	0.0005	0.0005	400	660	0.007	0.006	0.006	0.011	0.596	0.399
2007190508	2007191119	0.69	0.55	0.0005	0.0005	480	410	0.002	0.005	0.0025	0.028	0.523	1.04
2007190526	2007191599	1.28	0.89	0.0005	0.0005	430	310	0.124	0.096	0.887	0.83	0.357	0.433
2007190527	2007190609	4.44	4.18	0.0005	0.0005	820	670	0.035	0.024	0.173	0.048	0.966	0.49
2007190531	2007190703	0.96	0.75	0.0005	0.0005	350	380	0.004	0.003	0.036	0.021	0.203	0.222
2007190534	2007191522	2.09	1.91	0.0005	0.0005	500	600	0.02	0.022	0.179	0.225	0.09	0.135
2007190536	2007190909	1.24	1.48	0.0005	0.0005	390	340	0.001	0.001	0.0025	0.015	0.073	0.066
2007190548	2007191236	3.92	4.25	0.0005	0.0005	500	660	0.023	0.015	0.695	0.718	0.422	0.207
2007190549	2007191507	0.48	0.26	0.0005	0.0005	50	40	0.0005	0.0005	0.137	0.215	0.024	0.019
2007190552	2007190675	0.1	0.13	0.0005	0.0005	260	280	0.027	0.041	0.927	0.406	0.228	0.16
2007190554	2007190752	0.22	0.69	0.001	0.001	10	30	0.0005	0.002	2.58	6.9	0.141	0.174
2007190583	2007191063	0.62	0.74	0.0005	0.0005	180	140	0.002	0.003	0.276	2.24	0.17	0.43
2007190618	2007191166	0.96	0.77	0.0005	0.0005	510	680	0.132	0.079	0.2	0.158	0.172	0.251
2007190647	2007191525	2.38	0.33	0.0005	0.0005	340	60	0.011	0.002	3.06	1.39	0.418	0.09
2007190659	2007190739	0.26	0.25	0.0005	0.0005	310	400	0.0005	0.0005	0.25	0.232	0.06	0.065
2007190661	2007191334	0.32	1	0.0005	0.0005	280	430	0.006	0.004	0.197	0.079	0.167	0.338
2007190686	2007191430	0.56	0.94	0.007	0.005	5	10	0.001	0.0005	3.68	5.51	0.042	0.028
2007190695	2007190924	0.71	0.92	0.0005	0.0005	240	300	0.0005	0.001	0.329	0.253	0.11	0.077
2007190698	2007190813	2.3	3.03	0.0005	0.0005	770	780	0.005	0.004	0.381	0.674	1.01	0.342
2007190732	2007191450	1.45	2.35	0.0005	0.0005	430	820	0.005	0.002	0.293	0.113	0.066	0.088
2007190735	2007191549	2.2	3	0.0005	0.0005	440	470	0.003	0.005	0.014	0.006	0.368	0.363
2007190743	2007190906	1.32	1.7	0.0005	0.0005	400	520	0.006	0.006	0.0025	0.012	0.114	0.257
2007190746	2007191241	0.96	1.02	0.0005	0.0005	130	260	0.001	0.002	0.035	0.027	0.074	0.131
2007190753	2007191299	4.88	2.85	0.0005	0.0005	450	380	0.008	0.007	0.133	0.112	0.822	0.725
2007190798	2007191229	0.59	0.88	0.0005	0.0005	60	60	0.0005	0.0005	0.374	0.678	0.008	0.051
2007190818	2007191157	0.3	0.24	0.0005	0.0005	80	120	0.001	0.004	0.531	1.39	0.024	0.144

Appendix 21. Field duplicates analysis by MMI™

SITEID	SITEID	Cr (ppm)	Cr (ppm)	Cs (ppm)	Cs (ppm)	Cu (ppm)	Cu (ppm)	Dy (ppm)	Dy (ppm)	Er (ppm)	Er (ppm)	Eu (ppm)	Eu (ppm)
METHOD:	METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.001	0.001	0.0005	0.0005	0.01	0.01	0.001	0.001	0.0005	0.0005	0.0005	0.0005
2007190003	2007190213	0.013	0.012	0.0083	0.0101	0.96	1.06	0.014	0.015	0.0061	0.0062	0.0049	0.005
2007190005	2007191059	0.041	0.048	0.002	0.0032	0.89	0.56	0.069	0.094	0.0332	0.0493	0.0242	0.0254
2007190032	2007190632	0.101	0.112	0.0104	0.0065	0.63	0.31	0.183	0.222	0.103	0.121	0.0506	0.0634
2007190035	2007190876	0.069	0.167	0.0196	0.0179	0.45	0.75	0.071	0.104	0.0401	0.0374	0.0221	0.0204
2007190039	2007190984	0.019	0.012	0.0055	0.0074	1.37	0.56	0.019	0.021	0.0088	0.0092	0.0052	0.0058
2007190050	2007191481	0.036	0.083	0.0209	0.0209	0.67	0.75	0.023	0.034	0.0093	0.0149	0.0094	0.0097
2007190067	2007191121	0.035	0.019	0.0102	0.0082	0.37	0.28	0.026	0.022	0.0117	0.008	0.0098	0.0077
2007190071	2007190289	0.031	0.051	0.0076	0.0119	0.22	0.16	0.109	0.083	0.0469	0.0375	0.0465	0.0333
2007190074	2007190389	0.014	0.012	0.0114	0.0134	1.39	0.45	0.016	0.012	0.0087	0.0061	0.0059	0.0062
2007190091	2007191053	0.013	0.057	0.0074	0.0099	0.43	0.79	0.008	0.032	0.004	0.0136	0.0035	0.0102
2007190107	2007190913	0.003	0.006	0.0242	0.0189	0.49	0.65	0.016	0.033	0.0065	0.0087	0.0077	0.0102
2007190110	2007191182	0.11	0.274	0.0092	0.0095	0.5	0.56	0.131	0.183	0.0746	0.0962	0.0326	0.047
2007190114	2007191045	0.03	0.05	0.0047	0.0047	1.4	0.84	0.088	0.07	0.0413	0.035	0.0261	0.014
2007190118	2007191552	0.03	0.029	0.0957	0.088	0.43	0.65	0.262	0.337	0.17	0.201	0.0517	0.0657
2007190121	2007191545	0.002	0.003	0.0194	0.0151	0.44	0.82	0.004	0.004	0.002	0.0018	0.0015	0.0008
2007190125	2007191532	0.012	0.009	0.0051	0.001	2.75	3.25	0.016	0.011	0.0082	0.006	0.004	0.0013
2007190145	2007191105	0.008	0.013	0.0126	0.008	1.36	1.45	0.002	0.003	0.0012	0.0013	0.0005	0.0006
2007190154	2007190568	0.027	0.014	0.254	0.0742	0.02	0.02	0.036	0.014	0.0191	0.0071	0.0142	0.0066
2007190155	2007191031	0.011	0.036	0.0128	0.0068	2.77	1.18	0.006	0.067	0.0049	0.0481	0.0015	0.0095
2007190161	2007191413	0.025	0.089	0.0128	0.0143	1.13	1.43	0.001	0.002	0.001	0.0011	0.00025	0.00025
2007190176	2007191566	0.167	0.241	0.127	0.119	0.47	0.64	0.04	0.128	0.0157	0.0593	0.0141	0.0354
2007190181	2007191396	0.01	0.116	0.0053	0.0057	3.23	3.5	0.011	0.051	0.0095	0.0573	0.0011	0.0039
2007190183	2007190471	0.005	0.005	0.0595	0.0103	0.4	0.31	0.001	0.002	0.0009	0.0011	0.00025	0.0007
2007190185	2007191253	0.012	0.007	0.008	0.0057	1.57	1.37	0.003	0.004	0.0018	0.0023	0.0008	0.001
2007190189	2007191542	0.015	0.01	0.0073	0.0052	3.14	3.17	0.004	0.004	0.0032	0.0028	0.0012	0.0007
2007190193	2007190788	0.053	0.168	0.0238	0.0188	0.18	0.82	0.124	0.231	0.0689	0.207	0.0323	0.0298
2007190194	2007190704	0.085	0.06	0.0151	0.0171	1.6	0.93	0.153	0.162	0.0919	0.0943	0.0378	0.0418
2007190197	2007190962	0.027	0.036	0.0379	0.0507	0.26	0.33	0.095	0.158	0.0415	0.0719	0.0349	0.0466
2007190208	2007191593	0.06	0.117	0.0537	0.0339	0.11	0.16	0.125	0.142	0.0488	0.0645	0.0379	0.0379
2007190209	2007191254	0.006	0.012	0.0453	0.0712	1.25	1.22	0.014	0.029	0.0129	0.0239	0.0016	0.0021
2007190212	2007190747	0.009	0.026	0.019	0.0127	0.49	0.31	0.014	0.012	0.0063	0.0056	0.0061	0.0049
2007190218	2007191348	0.026	0.094	0.13	0.0895	0.77	1.02	0.14	0.177	0.067	0.0713	0.0501	0.0432
2007190241	2007190978	0.039	0.051	0.0038	0.0017	0.97	0.57	0.033	0.036	0.0177	0.0192	0.0094	0.0097
2007190248	2007191198	0.004	0.018	0.0062	0.0112	0.42	0.33	0.002	0.004	0.001	0.003	0.0011	0.0012
2007190256	2007190875	0.003	0.006	0.0115	0.014	0.29	0.17	0.002	0.003	0.001	0.001	0.0007	0.0012
2007190258	2007191176	0.077	0.188	0.009	0.0089	1.04	1.27	0.113	0.092	0.0633	0.0488	0.037	0.03
2007190266	2007191458	0.004	0.006	0.0284	0.0429	1.1	0.8	0.001	0.001	0.0008	0.0007	0.00025	0.00025
2007190285	2007190406	0.015	0.05	0.051	0.0334	1.54	1.71	0.013	0.077	0.0065	0.0361	0.0025	0.0312
2007190296	2007190758	0.024	0.038	0.0774	0.0605	0.48	0.46	0.038	0.02	0.0196	0.0093	0.0139	0.0077
2007190311	2007191259	0.025	0.056	0.0073	0.844	0.1	0.13	0.006	0.014	0.0035	0.0078	0.0025	0.0041
2007190328	2007191598	0.018	0.052	0.0635	0.0825	0.4	0.4	0.037	0.047	0.0166	0.0218	0.0161	0.0157
2007190335	2007190692	0.005	0.013	0.0187	0.0153	1.26	0.66	0.059	0.07	0.0271	0.0309	0.0178	0.0229
2007190342	2007190989	0.023	0.071	0.0204	0.0156	2.12	2.5	0.034	0.063	0.015	0.0264	0.0148	0.0214
2007190349	2007191436	0.028	0.103	0.0044	0.0039	2.01	2.3	0.013	0.018	0.0065	0.0074	0.0044	0.0037
2007190352	2007190611	0.048	0.035	0.0929	0.0123	0.13	0.07	0.233	0.064	0.114	0.103	0.0846	0.0085
2007190355	2007191257	0.02	0.014	0.0055	0.005	1.74	1.62	0.006	0.008	0.003	0.0041	0.0011	0.002
2007190357	2007190856	0.047	0.366	0.0605	0.0618	0.32	0.44	0.046	0.088	0.0217	0.0281	0.0182	0.0239
2007190361	2007191094	0.011	0.019	0.0134	0.0106	1.62	1.15	0.005	0.004	0.0038	0.0035	0.0007	0.0006
2007190383	2007191416	0.024	0.032	0.0372	0.0275	1.55	1.11	0.036	0.023	0.0211	0.009	0.0096	0.0062
2007190393	2007191050	0.076	0.06	0.0156	0.0149	0.22	0.33	0.108	0.167	0.0808	0.14	0.0262	0.0202
2007190414	2007191386	0.066	0.216	0.0174	0.0144	1.03	1.19	0.062	0.126	0.0361	0.0653	0.0238	0.0289
2007190419	2007190974	0.058	0.064	0.0113	0.0095	0.9	0.68	0.08	0.108	0.0488	0.0623	0.0251	0.0254
2007190425	2007190768	0.113	0.202	0.0117	0.0148	0.81	0.67	0.194	0.159	0.148	0.0954	0.0399	0.0338
2007190434	2007191027	0.003	0.009	0.0084	0.0076	1.2	1.62	0.002	0.013	0.001	0.0066	0.0005	0.0026
2007190457	2007191004	0.076	0.173	0.0092	0.0218	0.32	0.28	0.164	0.276	0.0814	0.138	0.053	0.0669
2007190458	2007190774	0.018	0.02	0.0048	0.009	2.76	2.25	0.019	0.008	0.0104	0.0061	0.0045	0.0008
2007190472	2007191312	0.005	0.014	0.0283	0.0042	2.89	3.03	0.04	0.033	0.0256	0.0225	0.0039	0.0016
2007190481	2007191594	0.01	0.016	0.0103	0.0118	1.03	0.85	0.009	0.015	0.005	0.0088	0.0024	0.0026
2007190495	2007191318	0.026	0.119	0.0151	0.0165	0.26	0.21	0.001	0.002	0.00025	0.0011	0.00025	0.0005
2007190497	2007190586	0.018	0.014	0.0191	0.0232	1.7	1.95	0.042	0.055	0.0165	0.0233	0.0155	0.0211
2007190506	2007190631	0.021	0.013	0.0102	0.0103	1.73	1.56	0.009	0.008	0.0087	0.0067	0.0012	0.0011
2007190508	2007191119	0.009	0.025	0.0037	0.0015	2.16	2.04	0.011	0.015	0.0084	0.0103	0.0012	0.0021
2007190526	2007191599	0.08	0.164	0.0067	0.003	0.69	0.43	0.416	0.459	0.265	0.33	0.0677	0.0563
2007190527	2007190609	0.037	0.013	0.0128	0.0092	2.5	2.66	0.056	0.027	0.0294	0.0154	0.0149	0.0071
2007190531	2007190703	0.004	0.004	0.0048	0.0044	0.93	0.67	0.012	0.013	0.0069	0.0062	0.0016	0.0015
2007190534	2007191522	0.014	0.032	0.0119	0.0116	0.63	0.87	0.034	0.058	0.0139	0.0249	0.0129	0.0135
2007190536	2007190909	0.005	0.007	0.0134	0.0077	0.39	0.31	0.007	0.009	0.0029	0.0025	0.0024	0.0024
2007190548	2007191236	0.049	0.075	0.0057	0.0108	1.99	2.79	0.107	0.069	0.0593	0.0342	0.0327	0.02
2007190549	2007191507	0.012	0.048	0.0487	0.0347	0.28	0.33	0.02	0.026	0.0093	0.0119	0.0075	0.0071
2007190552	2007190675	0.014	0.011	0.0193	0.0187	0.41	0.48	0.143	0.068	0.0583	0.0303	0.0511	0.0222
2007190554	2007190752	0.159	0.49	0.442	0.62	0.3	0.56	0.262	0.333	0.114	0.135	0.0819	0.104
2007190583	2007191063	0.017	0.343	0.0275	0.0446	0.81	1.79	0.052	0.249	0.0211	0.102	0.025	0.0724
2007190618	2007191166	0.064	0.061	0.0037	0.0027	0.51	0.43	0.154	0.135	0.107	0.11	0.0273	0.0163
2007190647	2007191525	0.045	0.13	0.0393	0.0514	0.82	0.41	0.212	0.094	0.113	0.0419	0.056	0.0159
2007190659	2007190739	0.013	0.054	0.0057	0.0092	0.19	0.12	0.039	0.03	0.0172	0.0135	0.0154	0.0096
2007190661	2007191334	0.038	0.099	0.0055	0.0039	0.46	0.92	0.034	0.03	0.0169	0.0114	0.0165	0.0088
2007190686	2007191430	0.061	0.205	0.743	0.952	0.12	0.29	0.26	0.453	0.101	0.184	0.0848	0.104
2007190695	2007190924	0.017	0.024	0.0243	0.02	0.7	0.9	0.031	0.041	0.0125	0.0106	0.0164	0.0133
2007190698	2007190813	0.038	0.033	0.0079	0.0063	0.81	1.58	0.15	0.12	0.0773	0.0584	0.025	0.0348
2007190732	2007191450	0.07	0.055	0.0224	0.0297	1.34	1.56	0.032	0.044	0.0131	0.0187	0.0116	0.0103
2007190735	2007191549	0.04	0.015	0.0076	0.0068	2.02	2.04	0.003	0.002	0.002	0.0025	0.0007	0.0006
2007190743	2007190906	0.013	0.011	0.0064	0.0065	2.21	2.88	0.001	0.003	0.0011	0.0011	0.00025	0.0006
2007190746	2007191241	0.007	0.005	0.009	0.0096	0.27	0.34	0.009	0.01	0.0034	0.004	0.0041	0.0033
2007190753	2007191299	0.047	0.066	0.009	0.0063	2.38	2.13	0.03	0.055	0.0246	0.0324	0.0065	0.0067
2007190798	2007191229	0.041	0.164	0.0695	0.0816	0.15	0.28	0.026	0.04	0.0104	0.0175	0.0097	0.0154
2007190818	2007191157	0.041	0.072	0.0029	0.0066	0.41	0.45	0.044	0.088	0.0197	0.0404	0.0194	0.0289

Appendix 21. Field duplicates analysis by MMI™

SITEID	SITEID	Fe (ppm)	Fe (ppm)	Ga (ppm)	Ga (ppm)	Gd (ppm)	Gd (ppm)	Hg (ppm)	Hg (ppm)	K (ppm)	K (ppm)	La (ppm)	La (ppm)
METHOD:	METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	1	1	0.001	0.001	0.001	0.001	0.001	0.001	0.1	0.1	0.001	0.001
2007190003	2007190213	2	3	0.015	0.009	0.022	0.021	0.0005	0.0005	95.7	97.4	0.012	0.02
2007190005	2007191059	23	24	0.036	0.068	0.094	0.117	0.0005	0.0005	145	103	0.06	0.13
2007190032	2007190632	39	33	0.024	0.064	0.217	0.264	0.001	0.0005	37.7	34.6	0.199	0.155
2007190035	2007190876	17	13	0.01	0.028	0.099	0.116	0.0005	0.0005	81.3	94.4	0.136	0.163
2007190039	2007190984	2	2	0.005	0.005	0.028	0.029	0.0005	0.0005	168	73.8	0.013	0.027
2007190050	2007191481	3	3	0.01	0.012	0.039	0.045	0.0005	0.0005	28	31.4	0.056	0.108
2007190067	2007191121	0.5	0.5	0.003	0.005	0.04	0.034	0.0005	0.0005	83.5	70.9	0.015	0.028
2007190071	2007190289	4	5	0.003	0.004	0.178	0.115	0.0005	0.0005	55.8	39.3	0.385	0.572
2007190074	2007190389	8	6	0.039	0.033	0.026	0.018	0.0005	0.0005	111	119	0.014	0.03
2007190091	2007191053	5	6	0.027	0.044	0.013	0.046	0.0005	0.0005	52.3	46.9	0.01	0.061
2007190107	2007190913	2	0.5	0.009	0.018	0.03	0.052	0.0005	0.0005	97.8	94.6	0.032	0.04
2007190110	2007191182	213	203	0.018	0.031	0.147	0.209	0.0005	0.0005	110	154	0.308	0.521
2007190114	2007191045	6	2	0.052	0.071	0.115	0.08	0.0005	0.002	56.4	74	0.1	0.061
2007190118	2007191552	78	29	0.033	0.044	0.269	0.433	0.0005	0.0005	64.8	19.9	0.412	0.892
2007190121	2007191545	1	0.5	0.008	0.0005	0.007	0.005	0.0005	0.0005	78.4	105	0.006	0.004
2007190125	2007191532	5	1	0.049	0.033	0.019	0.011	0.0005	0.0005	210	55.4	0.016	0.006
2007190145	2007191105	4	1	0.009	0.011	0.003	0.003	0.0005	0.0005	414	371	0.001	0.006
2007190154	2007190568	16	6	0.024	0.01	0.048	0.016	0.0005	0.0005	10	7.1	0.161	0.038
2007190155	2007191031	3	2	0.092	0.052	0.004	0.054	0.0005	0.0005	192	137	0.001	0.022
2007190161	2007191413	4	2	0.008	0.011	0.001	0.002	0.0005	0.0005	141	121	0.0005	0.003
2007190176	2007191566	69	56	0.021	0.013	0.055	0.141	0.0005	0.0005	11.4	13.4	0.134	0.415
2007190181	2007191396	3	2	0.018	0.034	0.007	0.029	0.0005	0.0005	40.1	79.5	0.002	0.016
2007190183	2007190471	7	5	0.003	0.005	0.001	0.003	0.0005	0.0005	393	189	0.0005	0.004
2007190185	2007191253	3	1	0.015	0.011	0.003	0.005	0.0005	0.0005	73.5	112	0.0005	0.003
2007190189	2007191542	4	1	0.059	0.02	0.004	0.004	0.0005	0.001	125	102	0.002	0.007
2007190193	2007190788	39	197	0.023	0.046	0.13	0.162	0.0005	0.0005	84.6	136	0.221	0.181
2007190194	2007190704	63	65	0.02	0.017	0.155	0.191	0.0005	0.0005	187	158	0.218	0.105
2007190197	2007190962	15	15	0.006	0.013	0.135	0.227	0.0005	0.0005	9.6	20.4	0.399	0.659
2007190208	2007191593	58	39	0.018	0.012	0.133	0.147	0.0005	0.0005	33.6	47.3	0.632	0.604
2007190209	2007191254	2	1	0.053	0.06	0.008	0.018	0.0005	0.0005	26.8	25.4	0.0005	0.002
2007190212	2007190747	4	7	0.012	0.018	0.023	0.021	0.0005	0.0005	43.8	32.2	0.038	0.041
2007190218	2007191348	6	3	0.009	0.003	0.182	0.229	0.0005	0.0005	29.5	72.3	0.534	0.544
2007190241	2007190978	7	6	0.02	0.026	0.034	0.041	0.0005	0.0005	70.6	201	0.025	0.032
2007190248	2007191198	4	2	0.029	0.039	0.003	0.003	0.0005	0.0005	83.8	103	0.004	0.007
2007190256	2007190875	2	0.5	0.043	0.102	0.002	0.004	0.0005	0.0005	37.6	18.7	0.0005	0.005
2007190258	2007191176	67	32	0.059	0.084	0.138	0.122	0.0005	0.0005	41.7	27.6	0.317	0.259
2007190266	2007191458	3	0.5	0.011	0.03	0.0005	0.002	0.0005	0.0005	86.6	75.1	0.0005	0.003
2007190285	2007190406	4	4	0.031	0.041	0.012	0.101	0.0005	0.0005	21.1	40.3	0.0005	0.079
2007190296	2007190758	7	4	0.018	0.01	0.055	0.035	0.0005	0.0005	22.4	22.6	0.114	0.104
2007190311	2007191259	30	60	0.012	0.017	0.008	0.019	0.0005	0.0005	65.3	35.1	0.044	0.067
2007190328	2007191598	7	9	0.011	0.0005	0.061	0.064	0.0005	0.0005	12.4	13.2	0.145	0.192
2007190335	2007190692	4	1	0.042	0.045	0.075	0.101	0.0005	0.0005	272	280	0.04	0.039
2007190342	2007190989	3	6	0.013	0.023	0.056	0.105	0.0005	0.002	115	102	0.048	0.134
2007190349	2007191436	3	0.5	0.044	0.034	0.019	0.024	0.0005	0.0005	70.7	77.5	0.021	0.022
2007190352	2007190611	292	244	0.031	0.014	0.286	0.029	0.0005	0.0005	50.9	93.5	1.01	0.022
2007190355	2007191257	3	0.5	0.004	0.003	0.005	0.011	0.0005	0.0005	219	348	0.002	0.004
2007190357	2007190856	16	30	0.017	0.035	0.069	0.119	0.0005	0.0005	9.2	12.1	0.149	0.209
2007190361	2007191094	5	1	0.012	0.011	0.003	0.004	0.002	0.0005	155	311	0.001	0.004
2007190383	2007191416	5	1	0.122	0.127	0.037	0.029	0.0005	0.0005	63.7	63.5	0.016	0.02
2007190393	2007191050	85	154	0.021	0.015	0.098	0.117	0.0005	0.0005	96.8	94.4	0.146	0.094
2007190414	2007191386	11	13	0.046	0.06	0.081	0.15	0.0005	0.0005	82.4	98.1	0.177	0.218
2007190419	2007190974	24	23	0.027	0.031	0.093	0.13	0.0005	0.0005	179	116	0.143	0.277
2007190425	2007190768	184	86	0.016	0.019	0.167	0.172	0.0005	0.0005	206	176	0.215	0.361
2007190434	2007191027	3	0.5	0.028	0.011	0.0005	0.014	0.0005	0.0005	52.8	108	0.0005	0.009
2007190457	2007191004	47	175	0.033	0.038	0.228	0.323	0.0005	0.0005	146	87.3	0.564	0.956
2007190458	2007190774	6	2	0.096	0.036	0.022	0.005	0.0005	0.0005	87.5	48.2	0.008	0.007
2007190472	2007191312	2	0.5	0.053	0.037	0.03	0.017	0.0005	0.0005	223	247	0.002	0.0005
2007190481	2007191594	13	8	0.006	0.006	0.01	0.014	0.0005	0.0005	67.1	34.3	0.012	0.014
2007190495	2007191318	3	3	0.007	0.003	0.002	0.002	0.0005	0.0005	156	41.7	0.008	0.009
2007190497	2007190586	3	3	0.015	0.023	0.067	0.064	0.0005	0.0005	98.8	80.7	0.067	0.046
2007190506	2007190631	3	1	0.069	0.105	0.006	0.005	0.0005	0.0005	108	113	0.001	0.004
2007190508	2007191119	3	0.5	0.017	0.011	0.007	0.012	0.0005	0.0005	95	101	0.0005	0.005
2007190526	2007191599	209	201	0.046	0.031	0.386	0.317	0.0005	0.0005	35.2	32.1	0.297	0.299
2007190527	2007190609	11	6	0.139	0.108	0.069	0.025	0.0005	0.0005	96.9	173	0.033	0.009
2007190531	2007190703	2	0.5	0.023	0.019	0.01	0.009	0.0005	0.0005	36.9	38.7	0.002	0.002
2007190534	2007191522	11	11	0.065	0.068	0.053	0.067	0.0005	0.0005	147	125	0.045	0.062
2007190536	2007190909	2	0.5	0.036	0.045	0.007	0.011	0.0005	0.0005	101	95	0.0005	0.006
2007190548	2007191236	19	7	0.116	0.122	0.104	0.093	0.0005	0.0005	97.5	27.6	0.147	0.188
2007190549	2007191507	4	7	0.016	0.011	0.023	0.032	0.0005	0.0005	12.4	32.3	0.027	0.072
2007190552	2007190675	6	2	0.003	0.004	0.172	0.098	0.0005	0.0005	145	154	0.139	0.046
2007190554	2007190752	84	94	0.037	0.052	0.26	0.45	0.0005	0.0005	9.1	21.1	0.45	1.44
2007190583	2007191063	4	84	0.019	0.034	0.079	0.354	0.0005	0.0005	79.6	71.5	0.082	0.988
2007190618	2007191166	81	43	0.032	0.021	0.103	0.114	0.0005	0.0005	29	15.4	0.064	0.062
2007190647	2007191525	87	35	0.08	0.016	0.293	0.095	0.0005	0.0005	49.8	21.5	0.55	0.332
2007190659	2007190739	4	7	0.008	0.01	0.062	0.043	0.002	0.0005	184	261	0.064	0.098
2007190661	2007191334	6	4	0.01	0.026	0.057	0.041	0.0005	0.0005	278	89.3	0.034	0.038
2007190686	2007191430	18	16	0.032	0.039	0.39	0.583	0.0005	0.0005	13	11.8	0.905	2.12
2007190695	2007190924	3	3	0.021	0.027	0.066	0.065	0.0005	0.0005	54.3	48.7	0.063	0.086
2007190698	2007190813	1	0.5	0.06	0.043	0.131	0.161	0.0005	0.0005	138	86.2	0.05	0.079
2007190732	2007191450	4	1	0.054	0.064	0.052	0.054	0.0005	0.0005	52.9	52.3	0.053	0.031
2007190735	2007191549	2	1	0.075	0.036	0.003	0.002	0.0005	0.0005	60.9	88.9	0.003	0.0005
2007190743	2007190906	3	2	0.042	0.042	0.001	0.002	0.0005	0.0005	82.7	76.8	0.002	0.004
2007190746	2007191241	2	0.5	0.037	0.026	0.016	0.015	0.0005	0.0005	39.7	72.8	0.016	0.009
2007190753	2007191299	3	1	0.139	0.062	0.031	0.044	0.0005	0.0005	107	87	0.027	0.012
2007190798	2007191229	15	33	0.039	0.024	0.04	0.06	0.0005	0.0005	8.3	7.2	0.053	0.252
2007190818	2007191157	8	29	0.064	0.009	0.075	0.144	0.0005	0.0005	33.2	58.4	0.123	0.406

Appendix 21. Field duplicates analysis by MMI™

SITEID	SITEID	Li (ppm)	Li (ppm)	Mg (ppm)	Mg (ppm)	Mn (ppm)	Mn (ppm)	Mo (ppm)	Mo (ppm)	Nb (ppm)	Nb (ppm)	Nd (ppm)	Nd (ppm)
METHOD:	METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.005	0.005	1	1	0.005	0.005	0.005	0.005	0.0005	0.0005	0.001	0.001
2007190003	2007190213	0.005	0.0025	109	106	1.99	2.77	0.007	0.009	0.00025	0.00025	0.055	0.064
2007190005	2007191059	0.011	0.011	290	239	8.55	11.5	0.007	0.009	0.00025	0.00025	0.271	0.434
2007190032	2007190632	0.038	0.019	363	230	17.5	8.51	0.0025	0.006	0.00025	0.001	0.669	0.722
2007190035	2007190876	0.005	0.005	38	37	25.2	20.8	0.007	0.011	0.0007	0.0006	0.408	0.44
2007190039	2007190984	0.0025	0.0025	121	61	5.36	5.65	0.025	0.014	0.00025	0.00025	0.064	0.118
2007190050	2007191481	0.0025	0.0025	38	35	7.09	10.2	0.013	0.016	0.00025	0.0007	0.184	0.225
2007190067	2007191121	0.034	0.014	294	61	2.91	2.92	0.0025	0.0025	0.00025	0.00025	0.111	0.113
2007190071	2007190289	0.0025	0.0025	119	116	1.37	1.97	0.0025	0.0025	0.00025	0.00025	0.948	0.815
2007190074	2007190389	0.007	0.0025	162	92	2.13	3.43	0.008	0.0025	0.00025	0.00025	0.068	0.093
2007190091	2007191053	0.006	0.005	124	132	3.82	6.6	0.009	0.006	0.00025	0.00025	0.042	0.209
2007190107	2007190913	0.0025	0.0025	54	56	2.58	2.17	0.012	0.006	0.00025	0.00025	0.119	0.181
2007190110	2007191182	0.014	0.019	129	109	16.2	22.9	0.019	0.018	0.0147	0.0036	0.536	0.922
2007190114	2007191045	0.0025	0.0025	335	248	11.4	13	0.015	0.011	0.00025	0.00025	0.27	0.237
2007190118	2007191552	0.0025	0.0025	47	29	31.3	30.8	0.0025	0.0025	0.00025	0.00025	0.856	2.29
2007190121	2007191545	0.0025	0.0025	54	31	1.88	1.95	0.0025	0.0025	0.00025	0.00025	0.014	0.011
2007190125	2007191532	0.0025	0.0025	132	70	9.84	3.62	0.022	0.023	0.00025	0.00025	0.042	0.013
2007190145	2007191105	0.044	0.037	180	168	4.64	4.74	0.007	0.0025	0.0016	0.00025	0.006	0.008
2007190154	2007190568	0.0025	0.0025	13	20	1.09	0.833	0.006	0.0025	0.0047	0.0021	0.247	0.098
2007190155	2007191031	0.02	0.023	362	272	4.16	9.15	0.02	0.008	0.00025	0.00025	0.005	0.114
2007190161	2007191413	0.0025	0.0025	141	126	2.56	1.99	0.008	0.029	0.00025	0.00025	0.003	0.006
2007190176	2007191566	0.0025	0.0025	5	3	2.71	1.78	0.006	0.0025	0.0108	0.0016	0.265	0.773
2007190181	2007191396	0.011	0.028	480	487	2.16	1.68	0.023	0.021	0.0017	0.0007	0.0005	0.038
2007190183	2007190471	0.051	0.028	502	110	0.754	0.341	0.031	0.007	0.0007	0.0007	0.002	0.008
2007190185	2007191253	0.0025	0.009	116	99	2.24	3.31	0.0025	0.01	0.0008	0.00025	0.002	0.006
2007190189	2007191542	0.033	0.08	612	331	5.27	0.593	0.028	0.016	0.001	0.0009	0.001	0.015
2007190193	2007190788	0.035	0.069	209	252	32.5	22.7	0.019	0.0025	0.0027	0.00025	0.474	0.318
2007190194	2007190704	0.016	0.016	234	127	12.2	7.76	0.006	0.006	0.0017	0.0023	0.503	0.515
2007190197	2007190962	0.005	0.006	22	19	5.36	5.69	0.0025	0.0025	0.0015	0.00025	0.769	1.65
2007190208	2007191593	0.005	0.0025	59	40	10.6	37.2	0.008	0.011	0.0053	0.00025	0.735	0.809
2007190209	2007191254	0.0025	0.013	299	237	3.8	1.99	0.012	0.027	0.00025	0.00025	0.002	0.002
2007190212	2007190747	0.0025	0.0025	49	27	3.38	3.31	0.0025	0.0025	0.00025	0.00025	0.099	0.079
2007190218	2007191348	0.0025	0.0025	7	15	4.58	6.68	0.0025	0.0025	0.0013	0.00025	1.02	1.34
2007190241	2007190978	0.0025	0.0025	382	181	10.8	9.14	0.013	0.011	0.0028	0.00025	0.075	0.121
2007190248	2007191198	0.007	0.013	70	65	2.21	1.94	0.0025	0.0025	0.00025	0.00025	0.01	0.012
2007190256	2007190875	0.024	0.01	82	34	1.08	0.758	0.011	0.0025	0.00025	0.00025	0.002	0.013
2007190258	2007191176	0.009	0.0025	224	199	17.6	17.7	0.006	0.008	0.0009	0.00025	0.597	0.534
2007190266	2007191458	0.115	0.15	164	137	2.35	1.8	0.024	0.008	0.00025	0.00025	0.002	0.005
2007190285	2007190406	0.0025	0.0025	390	526	2.61	4.6	0.014	0.008	0.00025	0.00025	0.003	0.268
2007190296	2007190758	0.006	0.0025	22	23	8.43	13.9	0.006	0.006	0.00025	0.00025	0.307	0.154
2007190311	2007191259	0.009	0.023	451	70	1.96	0.861	0.0025	0.005	0.0006	0.0014	0.064	0.134
2007190328	2007191598	0.0025	0.0025	23	11	6.24	7.88	0.0025	0.0025	0.0006	0.00025	0.409	0.38
2007190335	2007190692	0.0025	0.007	307	134	5.85	7.35	0.012	0.007	0.00025	0.0008	0.192	0.24
2007190342	2007190989	0.0025	0.007	207	167	3.09	8.27	0.022	0.015	0.00025	0.00025	0.212	0.482
2007190349	2007191436	0.006	0.01	285	162	2.85	3.51	0.019	0.027	0.00025	0.0007	0.062	0.065
2007190352	2007190611	0.046	0.084	363	237	8.55	2.56	0.008	0.0025	0.0028	0.0024	1.71	0.077
2007190355	2007191257	0.0025	0.006	286	174	2.45	1.5	0.009	0.104	0.00025	0.00025	0.004	0.021
2007190357	2007190856	0.0025	0.01	37	31	2.46	3.92	0.0025	0.0025	0.00025	0.0016	0.433	0.595
2007190361	2007191094	0.079	0.147	369	891	3.29	0.424	0.018	0.0025	0.0026	0.00025	0.002	0.004
2007190383	2007191416	0.016	0.008	348	218	6.27	2.17	0.02	0.012	0.00025	0.00025	0.067	0.075
2007190393	2007191050	0.058	0.087	650	182	23.3	27.6	0.0025	0.0025	0.0006	0.00025	0.341	0.303
2007190414	2007191386	0.033	0.042	360	242	19.7	25.2	0.006	0.008	0.00025	0.0005	0.391	0.567
2007190419	2007190974	0.019	0.024	338	237	17.4	21.2	0.025	0.005	0.0005	0.00025	0.362	0.666
2007190425	2007190768	0.027	0.015	265	205	10.8	20.3	0.006	0.0025	0.0015	0.00025	0.554	0.534
2007190434	2007191027	0.025	0.084	160	148	2.04	1.87	0.017	0.0025	0.00025	0.00025	0.003	0.035
2007190457	2007191004	0.037	0.025	125	52	11.1	10.8	0.0025	0.0025	0.002	0.0009	1.06	2.06
2007190458	2007190774	0.024	0.022	244	275	5.15	3.29	0.023	0.043	0.0006	0.00025	0.027	0.008
2007190472	2007191312	0.022	0.016	120	146	2.97	1.83	0.005	0.008	0.00025	0.00025	0.007	0.003
2007190481	2007191594	0.019	0.009	270	172	4.99	9.47	0.006	0.0025	0.0006	0.00025	0.028	0.031
2007190495	2007191318	0.025	0.02	116	84	0.772	1.15	0.009	0.0025	0.00025	0.00025	0.009	0.015
2007190497	2007190586	0.008	0.006	97	110	1.87	3.13	0.008	0.007	0.00025	0.00025	0.189	0.214
2007190506	2007190631	0.017	0.015	306	309	4.54	4.25	0.022	0.024	0.00025	0.00025	0.002	0.005
2007190508	2007191119	0.0025	0.006	392	408	3.61	3.43	0.008	0.007	0.0005	0.00025	0.0005	0.011
2007190526	2007191599	0.007	0.011	99	122	9.18	18.5	0.0025	0.0025	0.002	0.00025	0.883	0.722
2007190527	2007190609	0.017	0.0025	277	236	10.6	4.36	0.035	0.052	0.00025	0.0007	0.13	0.048
2007190531	2007190703	0.07	0.048	55	49	2.5	3.24	0.0025	0.0025	0.00025	0.00025	0.005	0.006
2007190534	2007191522	0.008	0.009	116	166	5.13	5.85	0.015	0.012	0.0005	0.00025	0.154	0.198
2007190536	2007190909	0.006	0.0025	121	61	1.49	1.51	0.0025	0.0025	0.0017	0.00025	0.007	0.024
2007190548	2007191236	0.0025	0.0025	158	192	9.05	5.95	0.012	0.011	0.0015	0.00025	0.471	0.361
2007190549	2007191507	0.0025	0.0025	9	18	1.45	2.38	0.0025	0.0025	0.0013	0.00025	0.113	0.167
2007190552	2007190675	0.039	0.039	113	89	9.05	6.33	0.011	0.012	0.0015	0.0006	0.864	0.334
2007190554	2007190752	0.012	0.023	8	35	3.89	9.94	0.005	0.0025	0.0117	0.0022	1.41	2.21
2007190583	2007191063	0.0025	0.011	68	41	5.16	12.9	0.009	0.007	0.00025	0.00025	0.391	1.84
2007190618	2007191166	0.005	0.0025	213	160	7.49	9.49	0.0025	0.005	0.0046	0.0016	0.249	0.244
2007190647	2007191525	0.008	0.006	84	14	16.9	7.81	0.009	0.0025	0.0134	0.001	1.47	0.495
2007190659	2007190739	0.069	0.109	161	190	0.149	0.206	0.0025	0.0025	0.00025	0.00025	0.224	0.137
2007190661	2007191334	0.0025	0.0025	75	165	7.04	10.1	0.019	0.015	0.0009	0.00025	0.178	0.135
2007190686	2007191430	0.005	0.0025	22	16	1.25	1.1	0.0025	0.0025	0.0033	0.0015	2.15	3.85
2007190695	2007190924	0.0025	0.0025	46	35	2.52	1.4	0.008	0.007	0.00025	0.00025	0.279	0.268
2007190698	2007190813	0.028	0.032	349	274	4.04	7.28	0.045	0.022	0.0008	0.00025	0.21	0.45
2007190732	2007191450	0.01	0.01	254	258	2.78	2.21	0.01	0.021	0.0012	0.00025	0.123	0.12
2007190735	2007191549	0.019	0.032	345	262	3.42	0.751	0.03	0.02	0.00025	0.0018	0.004	0.002
2007190743	2007190906	0.027	0.026	238	198	2.22	4.09	0.007	0.006	0.00025	0.00025	0.002	0.007
2007190746	2007191241	0.0025	0.005	45	42	2.45	2.34	0.0025	0.0025	0.00025	0.00025	0.048	0.053
2007190753	2007191299	0.018	0.034	405	364	5.12	3.73	0.008	0.008	0.00025	0.00025	0.045	0.052
2007190798	2007191229	0.0025	0.0025	24	35	0.357	1.43	0.0025	0.0025	0.00025	0.00025	0.195	0.358
2007190818	2007191157	0.005	0.01	48	84	1.35	4.94	0.0025	0.007	0.00025	0.001	0.434	0.962

Appendix 21. Field duplicates analysis by MMI™

SITEID	SITEID	Ni (ppm)	Ni (ppm)	P (ppm)	P (ppm)	Pb (ppm)	Pb (ppm)	Pd (ppm)	Pd (ppm)	Pr (ppm)	Pr (ppm)	Pt (ppm)	Pt (ppm)
METHOD:	METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.005	0.005	0.1	0.1	0.01	0.01	0.001	0.001	0.001	0.001	0.001	0.001
2007190003	2007190213	0.249	0.201	3.9	4.3	0.005	0.005	0.0005	0.0005	0.009	0.01	0.0005	0.0005
2007190005	2007191059	1.35	1.55	3.8	4	0.005	0.03	0.003	0.0005	0.051	0.064	0.0005	0.0005
2007190032	2007190632	2.57	3.04	2.7	2.1	0.53	0.89	0.006	0.0005	0.151	0.146	0.0005	0.0005
2007190035	2007190876	0.723	0.811	5.5	7	0.01	0.03	0.004	0.0005	0.092	0.094	0.0005	0.0005
2007190039	2007190984	0.413	0.193	2.5	1.5	0.005	0.01	0.0005	0.0005	0.01	0.016	0.0005	0.0005
2007190050	2007191481	0.476	0.641	1.2	0.9	0.005	0.02	0.001	0.0005	0.039	0.046	0.0005	0.0005
2007190067	2007191121	0.439	0.324	0.8	0.5	0.01	0.01	0.0005	0.0005	0.018	0.02	0.0005	0.0005
2007190071	2007190289	0.116	0.061	1	1.3	2.8	2.11	0.002	0.002	0.245	0.207	0.0005	0.0005
2007190074	2007190389	0.696	0.145	1.2	2	0.005	0.005	0.0005	0.0005	0.012	0.017	0.0005	0.0005
2007190091	2007191053	0.657	1.19	3.2	1.9	0.005	0.02	0.0005	0.0005	0.007	0.03	0.0005	0.0005
2007190107	2007190913	0.142	0.132	0.6	0.5	0.01	0.02	0.0005	0.0005	0.02	0.032	0.0005	0.0005
2007190110	2007191182	0.699	1.33	12.7	10.5	0.22	0.57	0.006	0.003	0.118	0.21	0.0005	0.0005
2007190114	2007191045	1.43	1.73	1.6	3	0.03	0.04	0.002	0.0005	0.048	0.035	0.0005	0.0005
2007190118	2007191552	0.541	0.323	0.9	0.9	0.76	1.33	0.008	0.002	0.188	0.267	0.0005	0.0005
2007190121	2007191545	0.156	0.1	0.6	0.5	0.005	0.02	0.0005	0.0005	0.003	0.001	0.0005	0.0005
2007190125	2007191532	0.838	0.348	4.7	0.9	0.03	0.02	0.0005	0.0005	0.008	0.002	0.0005	0.0005
2007190145	2007191105	0.497	0.458	1.7	1.3	0.03	0.04	0.0005	0.0005	0.001	0.002	0.0005	0.0005
2007190154	2007190568	0.166	0.019	0.3	0.05	0.26	0.06	0.002	0.0005	0.06	0.018	0.0005	0.0005
2007190155	2007191031	0.689	1.17	0.6	0.4	0.06	0.08	0.0005	0.0005	0.001	0.015	0.0005	0.0005
2007190161	2007191413	0.242	0.077	0.4	0.6	0.01	0.005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
2007190176	2007191566	0.082	0.067	1.5	1.5	0.12	0.28	0.003	0.002	0.06	0.161	0.0005	0.0005
2007190181	2007191396	0.872	5.26	0.3	0.6	0.04	0.09	0.0005	0.0005	0.0005	0.007	0.0005	0.0005
2007190183	2007190471	0.339	0.071	3.7	0.9	0.02	0.01	0.0005	0.0005	0.0005	0.002	0.0005	0.0005
2007190185	2007191253	0.198	0.259	0.5	0.8	0.005	0.02	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
2007190189	2007191542	1.51	1.11	2	1.1	0.07	0.19	0.0005	0.0005	0.0005	0.002	0.0005	0.0005
2007190193	2007190788	1.34	1.34	5.1	3.6	0.68	2.41	0.003	0.001	0.099	0.088	0.0005	0.0005
2007190194	2007190704	1.35	1.36	2.8	2.7	0.37	0.43	0.004	0.0005	0.1	0.102	0.0005	0.0005
2007190197	2007190962	0.044	0.079	1.1	1.4	0.04	0.1	0.002	0.001	0.17	0.287	0.0005	0.0005
2007190208	2007191593	0.086	0.124	5.2	4.6	0.39	0.17	0.005	0.002	0.188	0.177	0.0005	0.0005
2007190209	2007191254	0.41	0.443	0.2	0.1	0.08	0.06	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
2007190212	2007190747	0.065	0.06	2.3	3.1	0.005	0.06	0.0005	0.0005	0.019	0.021	0.0005	0.0005
2007190218	2007191348	0.083	0.087	0.7	0.6	0.3	0.44	0.003	0.0005	0.22	0.236	0.0005	0.0005
2007190241	2007190978	4.46	3.99	3.2	4.8	0.005	0.005	0.001	0.0005	0.013	0.017	0.0005	0.0005
2007190248	2007191198	0.171	0.085	2.5	3	0.02	0.06	0.0005	0.0005	0.002	0.002	0.0005	0.0005
2007190256	2007190875	0.085	0.032	1.1	1	0.005	0.02	0.0005	0.0005	0.0005	0.003	0.0005	0.0005
2007190258	2007191176	1.76	1.62	2.7	3.2	0.03	0.1	0.003	0.0005	0.125	0.113	0.0005	0.0005
2007190266	2007191458	0.218	0.07	0.4	0.3	0.02	0.02	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
2007190285	2007190406	0.665	2.18	0.3	0.8	0.02	0.01	0.0005	0.0005	0.0005	0.043	0.0005	0.0005
2007190296	2007190758	0.071	0.065	1.1	0.9	0.11	0.07	0.002	0.0005	0.064	0.046	0.0005	0.0005
2007190311	2007191259	0.043	0.12	2	2.5	0.1	0.23	0.0005	0.0005	0.017	0.029	0.0005	0.0005
2007190328	2007191598	0.287	0.156	1.1	0.7	0.03	0.1	0.001	0.0005	0.086	0.075	0.0005	0.0005
2007190335	2007190692	0.791	0.921	1.1	1.1	0.01	0.04	0.002	0.0005	0.031	0.041	0.0005	0.0005
2007190342	2007190989	0.249	0.472	1.2	0.9	0.005	0.03	0.0005	0.0005	0.035	0.066	0.0005	0.0005
2007190349	2007191436	0.387	0.304	0.8	0.6	0.005	0.005	0.0005	0.0005	0.011	0.01	0.0005	0.0005
2007190352	2007190611	0.663	0.451	5.6	4.5	0.17	0.25	0.006	0.0005	0.414	0.012	0.0005	0.0005
2007190355	2007191257	0.396	0.284	0.5	1.2	0.005	0.01	0.0005	0.0005	0.0005	0.003	0.0005	0.0005
2007190357	2007190856	0.065	0.121	0.8	0.9	0.15	0.34	0.002	0.002	0.089	0.131	0.0005	0.0005
2007190361	2007191094	1.05	1.06	0.9	0.2	0.04	0.12	0.0005	0.0005	0.0005	0.001	0.0005	0.0005
2007190383	2007191416	0.704	0.251	1.2	0.7	0.02	0.01	0.0005	0.0005	0.01	0.011	0.0005	0.0005
2007190393	2007191050	1.74	1.41	2.2	1.7	0.2	0.53	0.0005	0.001	0.072	0.048	0.0005	0.0005
2007190414	2007191386	1.66	1.69	2.2	2.7	0.07	0.1	0.0005	0.001	0.08	0.1	0.0005	0.0005
2007190419	2007190974	1.52	1.14	4.1	2.4	0.06	0.11	0.0005	0.0005	0.07	0.109	0.0005	0.0005
2007190425	2007190768	1.64	2.16	5.4	3.9	0.46	0.23	0.002	0.002	0.111	0.159	0.0005	0.0005
2007190434	2007191027	0.27	0.854	0.05	0.6	0.02	0.03	0.0005	0.0005	0.0005	0.005	0.0005	0.0005
2007190457	2007191004	0.799	0.406	2.8	6.5	0.17	0.56	0.0005	0.003	0.241	0.369	0.0005	0.0005
2007190458	2007190774	1.34	0.809	1	0.05	0.05	0.06	0.0005	0.0005	0.004	0.002	0.0005	0.0005
2007190472	2007191312	0.649	0.47	0.05	0.05	0.19	0.16	0.0005	0.0005	0.001	0.0005	0.0005	0.0005
2007190481	2007191594	0.308	0.311	1.1	0.7	0.02	0.03	0.0005	0.0005	0.006	0.005	0.0005	0.0005
2007190495	2007191318	0.38	0.199	2.2	2	0.005	0.02	0.0005	0.0005	0.002	0.003	0.0005	0.0005
2007190497	2007190586	0.374	0.397	0.7	0.6	0.005	0.005	0.0005	0.0005	0.034	0.027	0.0005	0.0005
2007190506	2007190631	0.611	0.563	0.2	0.05	0.05	0.05	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
2007190508	2007191119	1.9	2.92	0.5	0.3	0.02	0.07	0.0005	0.0005	0.0005	0.002	0.0005	0.0005
2007190526	2007191599	1.23	1.26	4.7	2.6	0.34	0.73	0.0005	0.0005	0.176	0.13	0.0005	0.0005
2007190527	2007190609	1.44	0.77	2.2	3	0.02	0.02	0.0005	0.0005	0.023	0.006	0.0005	0.0005
2007190531	2007190703	0.222	0.198	0.05	0.05	0.07	0.06	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
2007190534	2007191522	0.971	1.57	3.2	3.2	0.02	0.07	0.0005	0.0005	0.028	0.035	0.0005	0.0005
2007190536	2007190909	0.11	0.091	0.8	0.5	0.005	0.01	0.0005	0.0005	0.0005	0.004	0.0005	0.0005
2007190548	2007191236	1.18	1.3	3	1.4	0.04	0.08	0.0005	0.0005	0.071	0.074	0.0005	0.0005
2007190549	2007191507	0.03	0.035	0.5	0.6	0.07	0.12	0.0005	0.0005	0.017	0.034	0.0005	0.0005
2007190552	2007190675	0.419	0.402	3	3.3	0.03	0.05	0.0005	0.0005	0.127	0.061	0.0005	0.0005
2007190554	2007190752	0.048	0.148	2.9	2.9	0.46	1.61	0.003	0.007	0.243	0.76	0.0005	0.0005
2007190583	2007191063	0.146	0.446	1.4	2.9	0.005	0.42	0.0005	0.005	0.054	0.414	0.0005	0.0005
2007190618	2007191166	0.817	0.497	6.4	5	0.05	0.3	0.0005	0.0005	0.036	0.022	0.0005	0.0005
2007190647	2007191525	0.345	0.16	4.3	3.5	0.26	0.62	0.0005	0.002	0.368	0.119	0.0005	0.0005
2007190659	2007190739	0.301	0.617	0.05	0.4	0.19	0.19	0.0005	0.0005	0.044	0.04	0.0005	0.0005
2007190661	2007191334	1.23	1.65	8.9	4.9	0.005	0.005	0.0005	0.0005	0.031	0.019	0.0005	0.0005
2007190686	2007191430	0.041	0.033	1.8	1.5	2.28	3.41	0.001	0.005	0.562	0.85	0.0005	0.0005
2007190695	2007190924	0.13	0.157	0.9	0.7	0.05	0.06	0.0005	0.0005	0.054	0.053	0.0005	0.0005
2007190698	2007190813	3.31	1.9	0.7	1	0.12	0.08	0.0005	0.0005	0.048	0.067	0.0005	0.0005
2007190732	2007191450	0.538	0.404	1.2	0.8	0.02	0.01	0.0005	0.0005	0.029	0.017	0.0005	0.0005
2007190735	2007191549	0.906	0.86	0.2	0.05	0.06	0.15	0.0005	0.0005	0.001	0.0005	0.0005	0.0005
2007190743	2007190906	0.255	0.336	0.05	0.05	0.08	0.11	0.0005	0.0005	0.0005	0.002	0.0005	0.0005
2007190746	2007191241	0.069	0.096	1.2	1.6	0.01	0.01	0.0005	0.0005	0.011	0.007	0.0005	0.0005
2007190753	2007191299	1.49	1.48	0.05	0.05	0.26	0.2	0.0005	0.0005	0.011	0.007	0.0005	0.0005
2007190798	2007191229	0.018	0.053	0.2	1.2	0.07	0.29	0.0005	0.001	0.035	0.086	0.0005	0.0005
2007190818	2007191157	0.273	0.363	0.7	2.2	0.06	0.26	0.002	0.003	0.082	0.105	0.0005	0.0005

Appendix 21. Field duplicates analysis by MMI™

SITEID	SITEID	Rb (ppm)	Rb (ppm)	Sb (ppm)	Sb (ppm)	Sc (ppm)	Sc (ppm)	Se (ppm)	Se (ppm)	Sm (ppm)	Sm (ppm)	Sn (ppm)	Sn (ppm)
METHOD:	METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.00025	0.00025	0.001	0.001	0.005	0.005	0.002	0.002	0.001	0.001	0.001	0.001
2007190003	2007190213	0.0931	0.0978	0.0005	0.0005	0.009	0.006	0.001	0.012	0.016	0.019	0.0005	0.0005
2007190005	2007191059	0.0315	0.0503	0.0005	0.0005	0.02	0.02	0.014	0.02	0.083	0.093	0.0005	0.0005
2007190032	2007190632	0.0639	0.0408	0.002	0.0005	0.116	0.053	0.027	0.002	0.186	0.166	0.0005	0.0005
2007190035	2007190876	0.239	0.235	0.0005	0.0005	0.051	0.039	0.023	0.031	0.093	0.097	0.0005	0.0005
2007190039	2007190984	0.124	0.0866	0.0005	0.0005	0.008	0.006	0.008	0.005	0.02	0.024	0.0005	0.0005
2007190050	2007191481	0.105	0.095	0.0005	0.0005	0.014	0.018	0.001	0.005	0.041	0.051	0.0005	0.0005
2007190067	2007191121	0.0512	0.0586	0.0005	0.0005	0.008	0.006	0.01	0.003	0.035	0.033	0.0005	0.0005
2007190071	2007190289	0.0976	0.0732	0.0005	0.0005	0.029	0.029	0.017	0.001	0.205	0.149	0.0005	0.0005
2007190074	2007190389	0.12	0.101	0.0005	0.0005	0.006	0.006	0.007	0.002	0.019	0.022	0.0005	0.002
2007190091	2007191053	0.0519	0.0854	0.0005	0.0005	0.0025	0.01	0.014	0.014	0.011	0.039	0.0005	0.0005
2007190107	2007190913	0.159	0.148	0.0005	0.0005	0.005	0.0025	0.017	0.01	0.03	0.045	0.0005	0.0005
2007190110	2007191182	0.221	0.227	0.001	0.0005	0.1	0.169	0.011	0.05	0.132	0.195	0.0005	0.0005
2007190114	2007191045	0.0524	0.142	0.0005	0.0005	0.012	0.01	0.012	0.018	0.088	0.069	0.0005	0.0005
2007190118	2007191552	0.803	0.517	0.0005	0.0005	0.841	0.524	0.023	0.019	0.244	0.447	0.0005	0.0005
2007190121	2007191545	0.171	0.224	0.0005	0.0005	0.0025	0.0025	0.014	0.005	0.005	0.003	0.0005	0.0005
2007190125	2007191532	0.11	0.0489	0.0005	0.0005	0.007	0.005	0.001	0.004	0.013	0.005	0.0005	0.0005
2007190145	2007191105	0.159	0.146	0.0005	0.0005	0.006	0.0025	0.032	0.018	0.002	0.003	0.0005	0.0005
2007190154	2007190568	0.0752	0.0173	0.0005	0.0005	0.269	0.102	0.049	0.003	0.06	0.02	0.0005	0.0005
2007190155	2007191031	0.0868	0.0719	0.0005	0.0005	0.005	0.012	0.001	0.01	0.002	0.03	0.0005	0.0005
2007190161	2007191413	0.0705	0.069	0.0005	0.0005	0.0025	0.008	0.009	0.01	0.0005	0.002	0.0005	0.0005
2007190176	2007191566	0.197	0.297	0.001	0.0005	0.127	0.231	0.009	0.008	0.064	0.192	0.002	0.001
2007190181	2007191396	0.0597	0.055	0.0005	0.0005	0.0025	0.009	0.008	0.009	0.002	0.009	0.0005	0.0005
2007190183	2007190471	0.116	0.0785	0.0005	0.0005	0.0025	0.0025	0.11	0.001	0.0005	0.003	0.0005	0.0005
2007190185	2007191253	0.0744	0.0921	0.0005	0.0005	0.0025	0.0025	0.007	0.029	0.002	0.002	0.0005	0.0005
2007190189	2007191542	0.0596	0.0536	0.0005	0.0005	0.0025	0.006	0.003	0.011	0.002	0.003	0.0005	0.0005
2007190193	2007190788	0.186	0.232	0.0005	0.0005	0.03	0.206	0.013	1.06	0.13	0.105	0.0005	0.0005
2007190194	2007190704	0.14	0.126	0.0005	0.0005	0.079	0.078	0.018	0.001	0.138	0.116	0.0005	0.0005
2007190197	2007190962	0.168	0.288	0.0005	0.0005	0.071	0.113	0.005	0.028	0.17	0.247	0.0005	0.0005
2007190208	2007191593	0.229	0.173	0.0005	0.0005	0.11	0.084	0.031	0.016	0.157	0.194	0.0005	0.0005
2007190209	2007191254	0.131	0.2	0.0005	0.0005	0.0025	0.0025	0.004	0.011	0.002	0.002	0.0005	0.0005
2007190212	2007190747	0.107	0.0793	0.0005	0.0005	0.012	0.01	0.009	0.005	0.024	0.02	0.0005	0.0005
2007190218	2007191348	0.339	0.438	0.0005	0.0005	0.246	0.248	0.008	0.009	0.217	0.222	0.0005	0.0005
2007190241	2007190978	0.0736	0.0618	0.0005	0.0005	0.011	0.01	0.01	0.018	0.025	0.029	0.0005	0.0005
2007190248	2007191198	0.0372	0.0571	0.0005	0.0005	0.0025	0.012	0.003	0.007	0.003	0.003	0.0005	0.0005
2007190256	2007190875	0.0463	0.04	0.0005	0.0005	0.0025	0.0025	0.003	0.006	0.001	0.003	0.0005	0.0005
2007190258	2007191176	0.0557	0.14	0.0005	0.0005	0.071	0.04	0.032	0.016	0.153	0.12	0.0005	0.0005
2007190266	2007191458	0.106	0.135	0.0005	0.0005	0.0025	0.0025	0.016	0.002	0.0005	0.002	0.0005	0.0005
2007190285	2007190406	0.207	0.178	0.0005	0.0005	0.0025	0.025	0.001	0.001	0.005	0.095	0.0005	0.0005
2007190296	2007190758	0.297	0.259	0.0005	0.0005	0.092	0.057	0.001	0.012	0.061	0.034	0.0005	0.0005
2007190311	2007191259	0.0909	0.0805	0.0005	0.0005	0.007	0.011	0.006	0.028	0.011	0.017	0.0005	0.002
2007190328	2007191598	0.256	0.318	0.0005	0.0005	0.035	0.071	0.001	0.007	0.078	0.093	0.0005	0.0005
2007190335	2007190692	0.154	0.17	0.0005	0.0005	0.009	0.016	0.001	0.001	0.062	0.058	0.0005	0.0005
2007190342	2007190989	0.183	0.167	0.0005	0.0005	0.012	0.024	0.001	0.009	0.055	0.093	0.0005	0.0005
2007190349	2007191436	0.0556	0.0685	0.0005	0.0005	0.007	0.008	0.001	0.007	0.017	0.015	0.0005	0.0005
2007190352	2007190611	0.526	0.171	0.0005	0.0005	0.128	0.152	0.007	0.005	0.317	0.021	0.0005	0.0005
2007190355	2007191257	0.0662	0.0742	0.0005	0.0005	0.0025	0.0025	0.002	0.023	0.003	0.007	0.0005	0.0005
2007190357	2007190856	0.176	0.16	0.0005	0.0005	0.036	0.058	0.001	0.029	0.087	0.124	0.0005	0.0005
2007190361	2007191094	0.0635	0.133	0.0005	0.0005	0.005	0.0025	0.01	0.02	0.002	0.002	0.001	0.0005
2007190383	2007191416	0.295	0.2	0.0005	0.0005	0.009	0.0025	0.002	0.005	0.027	0.018	0.0005	0.0005
2007190393	2007191050	0.29	0.276	0.001	0.002	0.086	0.178	0.001	0.03	0.099	0.079	0.0005	0.0005
2007190414	2007191386	0.113	0.113	0.0005	0.001	0.015	0.024	0.001	0.007	0.091	0.099	0.0005	0.0005
2007190419	2007190974	0.239	0.15	0.0005	0.0005	0.013	0.019	0.001	0.016	0.095	0.111	0.0005	0.0005
2007190425	2007190768	0.112	0.135	0.001	0.0005	0.196	0.145	0.003	0.037	0.164	0.14	0.0005	0.0005
2007190434	2007191027	0.0547	0.117	0.0005	0.0005	0.0025	0.0025	0.001	0.019	0.0005	0.009	0.0005	0.0005
2007190457	2007191004	0.107	0.114	0.0005	0.0005	0.033	0.186	0.003	0.083	0.241	0.333	0.0005	0.001
2007190458	2007190774	0.0442	0.1	0.0005	0.0005	0.0025	0.0025	0.001	0.009	0.011	0.002	0.0005	0.0005
2007190472	2007191312	0.0522	0.0595	0.0005	0.0005	0.0025	0.0025	0.001	0.004	0.006	0.002	0.0005	0.0005
2007190481	2007191594	0.0983	0.132	0.0005	0.0005	0.0025	0.0025	0.001	0.005	0.008	0.011	0.0005	0.0005
2007190495	2007191318	0.169	0.105	0.0005	0.0005	0.0025	0.0025	0.004	0.012	0.002	0.003	0.0005	0.0005
2007190497	2007190586	0.231	0.29	0.0005	0.0005	0.006	0.007	0.001	0.001	0.057	0.055	0.0005	0.0005
2007190506	2007190631	0.0923	0.106	0.0005	0.0005	0.0025	0.0025	0.001	0.001	0.002	0.001	0.0005	0.0005
2007190508	2007191119	0.044	0.0497	0.0005	0.0005	0.0025	0.0025	0.001	0.019	0.002	0.006	0.0005	0.0005
2007190526	2007191599	0.0693	0.0412	0.003	0.003	0.27	0.306	0.003	0.009	0.285	0.272	0.0005	0.0005
2007190527	2007190609	0.106	0.0917	0.0005	0.0005	0.01	0.006	0.001	0.004	0.045	0.016	0.0005	0.0005
2007190531	2007190703	0.0341	0.0293	0.0005	0.0005	0.0025	0.0025	0.001	0.001	0.003	0.002	0.0005	0.0005
2007190534	2007191522	0.113	0.108	0.0005	0.0005	0.008	0.013	0.003	0.008	0.047	0.06	0.0005	0.0005
2007190536	2007190909	0.0634	0.0573	0.0005	0.0005	0.0025	0.0025	0.002	0.005	0.003	0.009	0.0005	0.0005
2007190548	2007191236	0.144	0.21	0.0005	0.0005	0.017	0.017	0.001	0.016	0.097	0.08	0.0005	0.0005
2007190549	2007191507	0.139	0.12	0.0005	0.0005	0.039	0.052	0.001	0.007	0.023	0.037	0.0005	0.0005
2007190552	2007190675	0.188	0.216	0.0005	0.0005	0.013	0.008	0.006	0.006	0.177	0.073	0.0005	0.0005
2007190554	2007190752	0.316	0.572	0.0005	0.0005	0.403	0.506	0.006	0.145	0.291	0.491	0.004	0.003
2007190583	2007191063	0.278	0.314	0.0005	0.0005	0.018	0.285	0.003	0.054	0.082	0.407	0.0005	0.001
2007190618	2007191166	0.0478	0.0358	0.0005	0.0005	0.193	0.072	0.002	0.023	0.072	0.056	0.0005	0.0005
2007190647	2007191525	0.28	0.194	0.001	0.0005	0.052	0.086	0.003	0.009	0.244	0.109	0.0005	0.002
2007190659	2007190739	0.107	0.169	0.0005	0.0005	0.0025	0.005	0.002	0.019	0.046	0.036	0.0005	0.0005
2007190661	2007191334	0.269	0.123	0.0005	0.0005	0.008	0.008	0.001	0.007	0.038	0.031	0.0005	0.0005
2007190686	2007191430	0.412	0.519	0.0005	0.0005	0.259	0.409	0.005	0.022	0.359	0.559	0.0005	0.0005
2007190695	2007190924	0.201	0.166	0.0005	0.0005	0.012	0.009	0.002	0.013	0.05	0.063	0.0005	0.0005
2007190698	2007190813	0.0808	0.084	0.0005	0.0005	0.007	0.006	0.002	0.017	0.063	0.129	0.0005	0.0005
2007190732	2007191450	0.205	0.199	0.0005	0.0005	0.008	0.007	0.008	0.005	0.037	0.03	0.0005	0.0005
2007190735	2007191549	0.0487	0.0517	0.0005	0.0005	0.0025	0.0025	0.008	0.005	0.001	0.0005	0.0005	0.0005
2007190743	2007190906	0.0466	0.0445	0.0005	0.0005	0.0025	0.0025	0.006	0.011	0.0005	0.001	0.0005	0.0005
2007190746	2007191241	0.0446	0.06	0.0005	0.0005	0.0025	0.0025	0.001	0.006	0.014	0.012	0.0005	0.0005
2007190753	2007191299	0.0562	0.0558	0.0005	0.0005	0.009	0.008	0.011	0.006	0.016	0.021	0.0005	0.0005
2007190798	2007191229	0.157	0.196	0.0005	0.0005	0.017	0.061	0.014	0.012	0.043	0.068	0.0005	0.0005
2007190818	2007191157	0.0399	0.0594	0.0005	0.0005	0.011	0.032	0.016	0.038	0.085	0.132	0.0005	0.0005

Appendix 21. Field duplicates analysis by MMI™

SITEID	SITEID	Sr (ppm)	Sr (ppm)	Ta (ppm)	Ta (ppm)	Tb (ppm)	Tb (ppm)	Te (ppm)	Te (ppm)	Th (ppm)	Th (ppm)	Ti (ppm)	Ti (ppm)
METHOD:	METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.01	0.01	0.001	0.001	0.001	0.001	0.01	0.01	0.0005	0.0005	0.003	0.003
2007190003	2007190213	1.14	1.27	0.0005	0.0005	0.003	0.003	0.005	0.005	0.0054	0.0049	0.015	0.013
2007190005	2007191059	4.4	5.14	0.0005	0.0005	0.014	0.018	0.005	0.005	0.0236	0.0236	0.029	0.031
2007190032	2007190632	2.65	5.23	0.0005	0.0005	0.034	0.038	0.005	0.005	0.064	0.0567	0.043	0.015
2007190035	2007190876	0.77	0.99	0.0005	0.0005	0.015	0.016	0.005	0.005	0.125	0.215	0.177	0.126
2007190039	2007190984	1.31	1.19	0.0005	0.0005	0.004	0.004	0.005	0.005	0.0218	0.0316	0.009	0.012
2007190050	2007191481	0.86	0.97	0.0005	0.0005	0.005	0.006	0.005	0.005	0.0704	0.147	0.017	0.022
2007190067	2007191121	0.58	0.65	0.0005	0.0005	0.006	0.005	0.005	0.005	0.0115	0.0147	0.004	0.003
2007190071	2007190289	0.77	0.64	0.0005	0.0005	0.025	0.019	0.005	0.005	0.575	0.382	0.018	0.035
2007190074	2007190389	3.12	1.37	0.0005	0.0005	0.003	0.003	0.005	0.005	0.0123	0.0281	0.021	0.032
2007190091	2007191053	3.11	3.94	0.0005	0.0005	0.002	0.006	0.005	0.005	0.0054	0.0433	0.022	0.027
2007190107	2007190913	1.67	1.89	0.0005	0.0005	0.004	0.006	0.005	0.005	0.012	0.0109	0.01	0.013
2007190110	2007191182	1.48	1.78	0.0005	0.0005	0.026	0.039	0.005	0.005	0.0904	0.185	0.191	0.48
2007190114	2007191045	5.36	6.57	0.0005	0.0005	0.018	0.012	0.005	0.005	0.0291	0.039	0.021	0.033
2007190118	2007191552	0.43	0.3	0.0005	0.0005	0.048	0.072	0.005	0.005	0.524	0.719	0.008	0.015
2007190121	2007191545	1.89	4.57	0.0005	0.002	0.0005	0.0005	0.005	0.005	0.0013	0.0015	0.008	0.01
2007190125	2007191532	2.27	1.96	0.0005	0.002	0.003	0.002	0.005	0.005	0.0093	0.002	0.027	0.01
2007190145	2007191105	2.59	2.42	0.0005	0.0005	0.0005	0.0005	0.005	0.005	0.002	0.0043	0.058	0.024
2007190154	2007190568	0.08	0.15	0.0005	0.0005	0.008	0.003	0.005	0.005	0.0599	0.0284	0.535	0.169
2007190155	2007191031	6.32	4.46	0.0005	0.0005	0.0005	0.01	0.005	0.005	0.0013	0.026	0.022	0.013
2007190161	2007191413	2.23	3.05	0.0005	0.0005	0.0005	0.0005	0.005	0.005	0.00025	0.0006	0.028	0.011
2007190176	2007191566	0.11	0.08	0.0005	0.0005	0.009	0.024	0.005	0.005	0.192	0.319	0.515	0.566
2007190181	2007191396	5.14	7.36	0.0005	0.0005	0.001	0.005	0.005	0.005	0.001	0.0035	0.008	0.014
2007190183	2007190471	12.2	5.89	0.0005	0.0005	0.0005	0.0005	0.005	0.005	0.0015	0.001	0.024	0.006
2007190185	2007191253	1.65	1.87	0.0005	0.0005	0.0005	0.0005	0.005	0.005	0.0009	0.0008	0.005	0.094
2007190189	2007191542	9.15	11.7	0.0005	0.002	0.0005	0.0005	0.005	0.005	0.0013	0.0021	0.016	0.023
2007190193	2007190788	3.06	2.41	0.0005	0.0005	0.021	0.03	0.005	0.005	0.0868	0.299	0.081	0.163
2007190194	2007190704	2.4	3.07	0.0005	0.0005	0.025	0.028	0.005	0.005	0.0931	0.117	0.071	0.053
2007190197	2007190962	0.39	0.46	0.0005	0.0005	0.019	0.033	0.005	0.005	0.299	0.612	0.059	0.084
2007190208	2007191593	0.49	0.72	0.0005	0.0005	0.023	0.026	0.005	0.005	0.332	0.567	0.24	0.31
2007190209	2007191254	5.11	5.04	0.0005	0.0005	0.002	0.004	0.005	0.005	0.0008	0.0013	0.009	0.032
2007190212	2007190747	0.62	0.54	0.0005	0.0005	0.003	0.003	0.005	0.005	0.0457	0.0606	0.012	0.028
2007190218	2007191348	0.13	0.26	0.0005	0.0005	0.027	0.028	0.005	0.005	0.295	0.507	0.08	0.037
2007190241	2007190978	8.78	11.1	0.0005	0.0005	0.005	0.006	0.005	0.005	0.0062	0.0092	0.023	0.022
2007190248	2007191198	2.87	3.09	0.0005	0.0005	0.0005	0.0005	0.005	0.005	0.0014	0.0063	0.008	0.06
2007190256	2007190875	4.57	2.04	0.0005	0.0005	0.0005	0.0005	0.005	0.005	0.00025	0.0016	0.005	0.005
2007190258	2007191176	3.1	2.91	0.0005	0.0005	0.02	0.021	0.005	0.005	0.0922	0.165	0.027	0.025
2007190266	2007191458	6.52	9.01	0.0005	0.0005	0.0005	0.0005	0.005	0.005	0.00025	0.0007	0.008	0.011
2007190285	2007190406	6.83	5.36	0.0005	0.0005	0.002	0.016	0.005	0.005	0.001	0.0331	0.007	0.021
2007190296	2007190758	0.21	0.26	0.0005	0.0005	0.008	0.004	0.005	0.005	0.271	0.287	0.075	0.054
2007190311	2007191259	2.1	1.4	0.0005	0.0005	0.001	0.003	0.005	0.005	0.032	0.0598	0.071	0.294
2007190328	2007191598	0.35	0.24	0.0005	0.0005	0.009	0.01	0.005	0.005	0.19	0.379	0.084	0.068
2007190335	2007190692	4.01	3.99	0.0005	0.0005	0.012	0.013	0.005	0.005	0.0243	0.0745	0.017	0.008
2007190342	2007190989	1.51	1.52	0.0005	0.0005	0.008	0.013	0.005	0.005	0.0212	0.108	0.017	0.019
2007190349	2007191436	2.9	3.4	0.0005	0.0005	0.003	0.003	0.005	0.005	0.0054	0.0068	0.011	0.011
2007190352	2007190611	2.08	2.52	0.0005	0.0005	0.049	0.008	0.005	0.005	0.0495	0.053	0.508	0.059
2007190355	2007191257	2.37	1.94	0.0005	0.0005	0.001	0.002	0.005	0.005	0.001	0.0014	0.062	0.014
2007190357	2007190856	0.28	0.47	0.0005	0.0005	0.01	0.015	0.005	0.005	0.107	0.303	0.047	0.155
2007190361	2007191094	3.63	9.98	0.002	0.0005	0.0005	0.0005	0.005	0.005	0.0061	0.0014	0.053	0.017
2007190383	2007191416	5.22	4.99	0.0005	0.0005	0.007	0.004	0.005	0.005	0.0137	0.012	0.02	0.022
2007190393	2007191050	4.32	2.44	0.0005	0.0005	0.019	0.023	0.005	0.005	0.0669	0.194	0.09	0.089
2007190414	2007191386	3.79	4.56	0.0005	0.0005	0.013	0.021	0.005	0.005	0.185	0.254	0.047	0.046
2007190419	2007190974	4	4.16	0.0005	0.0005	0.016	0.019	0.005	0.005	0.0688	0.0936	0.091	0.042
2007190425	2007190768	2.86	2.31	0.0005	0.0005	0.033	0.026	0.005	0.005	0.148	0.141	0.167	0.191
2007190434	2007191027	4.61	2.5	0.0005	0.0005	0.0005	0.002	0.005	0.005	0.00025	0.0167	0.006	0.01
2007190457	2007191004	2.04	0.92	0.0005	0.0005	0.031	0.051	0.005	0.005	0.187	0.425	0.036	0.488
2007190458	2007190774	5.98	5.2	0.0005	0.0005	0.003	0.0005	0.005	0.005	0.0069	0.0008	0.011	0.007
2007190472	2007191312	3.81	5.94	0.0005	0.0005	0.006	0.003	0.005	0.005	0.0035	0.0016	0.0015	0.006
2007190481	2007191594	2.44	2.35	0.0005	0.0005	0.001	0.002	0.005	0.005	0.0077	0.0209	0.016	0.013
2007190495	2007191318	4.52	3.51	0.0005	0.0005	0.0005	0.0005	0.005	0.005	0.0012	0.0023	0.013	0.065
2007190497	2007190586	3.04	3.64	0.0005	0.0005	0.008	0.01	0.005	0.005	0.0208	0.0243	0.008	0.009
2007190506	2007190631	4.14	4.54	0.0005	0.0005	0.001	0.001	0.005	0.005	0.0009	0.0011	0.009	0.006
2007190508	2007191119	4.08	4.06	0.0005	0.0005	0.001	0.002	0.005	0.005	0.0008	0.0027	0.007	0.006
2007190526	2007191599	1.74	1.87	0.0005	0.0005	0.064	0.067	0.005	0.005	0.111	0.194	0.039	0.064
2007190527	2007190609	4.41	5.03	0.0005	0.0005	0.01	0.005	0.005	0.005	0.0481	0.0079	0.017	0.101
2007190531	2007190703	7.19	5.55	0.0005	0.0005	0.002	0.002	0.005	0.005	0.0011	0.0008	0.0015	0.0015
2007190534	2007191522	4.1	5.67	0.0005	0.0005	0.007	0.009	0.005	0.005	0.0476	0.0617	0.013	0.022
2007190536	2007190909	2.5	1.76	0.001	0.0005	0.001	0.001	0.005	0.005	0.0069	0.0047	0.004	0.006
2007190548	2007191236	4.56	5.65	0.0005	0.0005	0.019	0.015	0.005	0.005	0.113	0.141	0.015	0.024
2007190549	2007191507	0.25	0.18	0.0005	0.0005	0.004	0.005	0.005	0.005	0.0584	0.16	0.017	0.073
2007190552	2007190675	1.71	1.77	0.0005	0.0005	0.029	0.013	0.005	0.005	0.116	0.0867	0.038	0.019
2007190554	2007190752	0.1	0.19	0.0005	0.0005	0.05	0.064	0.005	0.005	0.605	1.64	0.368	0.8
2007190583	2007191063	1.38	0.62	0.0005	0.0005	0.011	0.05	0.005	0.005	0.103	0.759	0.009	0.41
2007190618	2007191166	3.47	2.75	0.0005	0.0005	0.022	0.018	0.005	0.005	0.0107	0.0116	0.029	0.036
2007190647	2007191525	2.55	0.52	0.0005	0.0005	0.041	0.014	0.005	0.005	0.495	0.587	0.026	0.239
2007190659	2007190739	2.41	2.66	0.0005	0.0005	0.008	0.006	0.005	0.005	0.0185	0.0494	0.021	0.059
2007190661	2007191334	2.18	3.57	0.0005	0.0005	0.007	0.005	0.005	0.005	0.0275	0.0201	0.025	0.03
2007190686	2007191430	0.07	0.12	0.0005	0.0005	0.054	0.086	0.005	0.005	1.38	2.91	0.065	0.19
2007190695	2007190924	0.48	0.52	0.0005	0.0005	0.007	0.007	0.005	0.005	0.0946	0.0707	0.01	0.021
2007190698	2007190813	5.89	7.74	0.0005	0.0005	0.019	0.021	0.005	0.005	0.0512	0.117	0.009	0.005
2007190732	2007191450	4.16	7.02	0.0005	0.0005	0.006	0.007	0.005	0.005	0.0257	0.0135	0.024	0.017
2007190735	2007191549	7.69	9.55	0.0005	0.004	0.0005	0.0005	0.005	0.005	0.0014	0.0021	0.011	0.007
2007190743	2007190906	4.22	4.84	0.0005	0.0005	0.0005	0.0005	0.005	0.005	0.0009	0.0015	0.015	0.008
2007190746	2007191241	1.12	2.39	0.0005	0.0005	0.002	0.002	0.005	0.005	0.0092	0.0081	0.012	0.01
2007190753	2007191299	7.22	6.46	0.0005	0.0005	0.004	0.006	0.005	0.005	0.0081	0.0147	0.013	0.009
2007190798	2007191229	0.18	0.14	0.0005	0.0005	0.005	0.01	0.005	0.005	0.0949	0.213	0.016	0.095
2007190818	2007191157	0.92	1.17	0.0005	0.0005	0.01	0.017	0.005	0.005	0.288	0.562	0.018	0.186

Appendix 21. Field duplicates analysis by MMI™

SITEID	SITEID	Tl (ppm)	Tl (ppm)	U (ppm)	U (ppm)	V (ppm)	V (ppm)	W (ppm)	W (ppm)	Y (ppm)	Y (ppm)	Yb (ppm)	Yb (ppm)
METHOD:	METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.0005	0.0005	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.005	0.001	0.001
2007190003	2007190213	0.00025	0.00025	0.123	0.098	0.016	0.021	0.0005	0.001	0.074	0.073	0.004	0.004
2007190005	2007191059	0.00025	0.00025	0.039	0.055	0.051	0.017	0.0005	0.0005	0.337	0.419	0.024	0.029
2007190032	2007190632	0.00025	0.00025	0.204	0.162	0.117	0.015	0.0005	0.0005	0.949	0.933	0.08	0.085
2007190035	2007190876	0.00025	0.0005	0.05	0.074	0.264	0.02	0.001	0.0005	0.422	0.507	0.03	0.035
2007190039	2007190984	0.00025	0.00025	0.134	0.147	0.023	0.028	0.0005	0.0005	0.102	0.093	0.005	0.005
2007190050	2007191481	0.00025	0.00025	0.092	0.136	0.046	0.009	0.0005	0.0005	0.101	0.173	0.006	0.006
2007190067	2007191121	0.00025	0.00025	0.053	0.048	0.179	0.005	0.0005	0.0005	0.157	0.125	0.008	0.005
2007190071	2007190289	0.0008	0.0006	0.113	0.052	0.075	0.009	0.0005	0.0005	0.445	0.355	0.029	0.022
2007190074	2007190389	0.00025	0.00025	0.047	0.013	0.033	0.025	0.0005	0.0005	0.091	0.055	0.006	0.004
2007190091	2007191053	0.00025	0.00025	0.02	0.053	0.027	0.02	0.0005	0.0005	0.039	0.114	0.003	0.007
2007190107	2007190913	0.001	0.0009	0.027	0.028	0.01	0.012	0.0005	0.0005	0.08	0.135	0.004	0.006
2007190110	2007191182	0.00025	0.00025	0.276	0.3	0.266	0.043	0.002	0.002	0.777	1.22	0.063	0.075
2007190114	2007191045	0.00025	0.0009	0.102	0.112	0.022	0.024	0.0005	0.0005	0.485	0.245	0.025	0.024
2007190118	2007191552	0.0018	0.0013	0.455	0.499	0.034	0.023	0.0005	0.0005	1.59	1.55	0.137	0.151
2007190121	2007191545	0.0006	0.00025	0.004	0.005	0.008	0.012	0.0005	0.0005	0.026	0.021	0.001	0.001
2007190125	2007191532	0.00025	0.00025	0.096	0.161	0.026	0.034	0.0005	0.001	0.087	0.051	0.005	0.005
2007190145	2007191105	0.0008	0.0007	0.003	0.002	0.091	0.006	0.0005	0.0005	0.014	0.017	0.001	0.001
2007190154	2007190568	0.00025	0.00025	0.05	0.022	0.756	0.022	0.0005	0.0005	0.135	0.03	0.025	0.008
2007190155	2007191031	0.0006	0.00025	0.12	0.062	0.028	0.025	0.0005	0.0005	0.029	0.242	0.004	0.026
2007190161	2007191413	0.00025	0.00025	0.277	0.928	0.079	0.048	0.0005	0.0005	0.009	0.006	0.001	0.002
2007190176	2007191566	0.0006	0.0006	0.049	0.03	0.6	0.122	0.0005	0.0005	0.152	0.56	0.011	0.03
2007190181	2007191396	0.00025	0.00025	0.046	0.073	0.019	0.042	0.0005	0.0005	0.057	0.109	0.008	0.03
2007190183	2007190471	0.0025	0.00025	0.065	0.02	0.384	0.01	0.0005	0.0005	0.008	0.009	0.0005	0.0005
2007190185	2007191253	0.00025	0.00025	0.022	0.056	0.013	0.016	0.0005	0.0005	0.018	0.018	0.001	0.001
2007190189	2007191542	0.00025	0.00025	0.033	0.019	0.049	0.196	0.002	0.002	0.019	0.01	0.003	0.002
2007190193	2007190788	0.00025	0.0006	0.036	0.615	0.146	0.016	0.002	0.0005	0.565	1.33	0.054	0.186
2007190194	2007190704	0.00025	0.00025	0.057	0.06	0.247	0.035	0.0005	0.0005	0.745	0.64	0.069	0.069
2007190197	2007190962	0.00025	0.00025	0.027	0.062	0.137	0.024	0.0005	0.0005	0.411	0.665	0.027	0.04
2007190208	2007191593	0.0008	0.0007	0.044	0.051	0.537	0.03	0.0005	0.0005	0.511	0.614	0.029	0.029
2007190209	2007191254	0.001	0.0015	0.027	0.116	0.058	0.017	0.0005	0.0005	0.05	0.078	0.009	0.013
2007190212	2007190747	0.00025	0.00025	0.027	0.019	0.028	0.025	0.0005	0.0005	0.063	0.088	0.004	0.004
2007190218	2007191348	0.001	0.0007	0.04	0.084	0.121	0.006	0.0005	0.0005	0.624	0.699	0.046	0.035
2007190241	2007190978	0.00025	0.00025	0.024	0.026	0.05	0.034	0.0005	0.0005	0.15	0.169	0.012	0.011
2007190248	2007191198	0.00025	0.00025	0.004	0.007	0.02	0.123	0.0005	0.0005	0.01	0.022	0.0005	0.003
2007190256	2007190875	0.00025	0.00025	0.008	0.008	0.01	0.032	0.0005	0.0005	0.007	0.017	0.0005	0.0005
2007190258	2007191176	0.00025	0.00025	0.148	0.214	0.116	0.007	0.0005	0.0005	0.64	0.597	0.055	0.038
2007190266	2007191458	0.0009	0.0006	0.055	0.045	0.023	0.076	0.0005	0.0005	0.0025	0.0025	0.0005	0.002
2007190285	2007190406	0.0008	0.00025	0.03	0.081	0.008	0.006	0.0005	0.0005	0.063	0.386	0.005	0.018
2007190296	2007190758	0.0007	0.00025	0.022	0.029	0.011	0.009	0.0005	0.0005	0.169	0.134	0.013	0.006
2007190311	2007191259	0.00025	0.00025	0.008	0.021	0.012	0.126	0.0005	0.004	0.034	0.067	0.002	0.005
2007190328	2007191598	0.0006	0.00025	0.027	0.028	0.016	0.018	0.0005	0.0005	0.154	0.208	0.011	0.011
2007190335	2007190692	0.0005	0.0006	0.023	0.032	0.008	0.005	0.0005	0.0005	0.254	0.235	0.016	0.018
2007190342	2007190989	0.00025	0.0006	0.12	0.224	0.008	0.007	0.0005	0.0005	0.156	0.258	0.008	0.012
2007190349	2007191436	0.00025	0.00025	0.04	0.051	0.008	0.01	0.0005	0.0005	0.061	0.071	0.004	0.004
2007190352	2007190611	0.001	0.0006	0.048	0.077	0.039	0.02	0.0005	0.0005	1.3	0.251	0.095	0.138
2007190355	2007191257	0.00025	0.00025	0.105	0.203	0.021	0.016	0.0005	0.0005	0.03	0.04	0.002	0.002
2007190357	2007190856	0.0005	0.0007	0.036	0.069	0.024	0.085	0.0005	0.0005	0.196	0.354	0.014	0.027
2007190361	2007191094	0.0011	0.0033	0.001	0.0005	0.008	0.006	0.0005	0.0005	0.027	0.017	0.003	0.003
2007190383	2007191416	0.0007	0.0005	0.13	0.085	0.055	0.031	0.0005	0.0005	0.199	0.082	0.013	0.005
2007190393	2007191050	0.00025	0.00025	0.147	0.267	0.013	0.019	0.0005	0.0005	0.603	0.753	0.067	0.1
2007190414	2007191386	0.00025	0.00025	0.094	0.143	0.012	0.017	0.0005	0.0005	0.281	0.472	0.024	0.03
2007190419	2007190974	0.0009	0.0007	0.04	0.048	0.084	0.08	0.001	0.0005	0.399	0.48	0.032	0.035
2007190425	2007190768	0.00025	0.00025	0.129	0.141	0.069	0.039	0.002	0.0005	1.13	1.18	0.126	0.076
2007190434	2007191027	0.00025	0.00025	0.021	0.017	0.021	0.012	0.0005	0.0005	0.006	0.068	0.0005	0.004
2007190457	2007191004	0.00025	0.0005	0.221	0.246	0.009	0.049	0.0005	0.001	0.775	0.855	0.059	0.086
2007190458	2007190774	0.00025	0.0006	0.159	0.156	0.038	0.042	0.0005	0.0005	0.069	0.042	0.006	0.004
2007190472	2007191312	0.00025	0.00025	0.009	0.025	0.061	0.169	0.001	0.0005	0.144	0.103	0.018	0.013
2007190481	2007191594	0.00025	0.00025	0.038	0.031	0.033	0.018	0.0005	0.0005	0.049	0.084	0.004	0.006
2007190495	2007191318	0.00025	0.00025	0.009	0.008	0.019	0.014	0.0005	0.0005	0.006	0.009	0.0005	0.0005
2007190497	2007190586	0.00025	0.0008	0.098	0.111	0.01	0.013	0.0005	0.0005	0.171	0.146	0.01	0.013
2007190506	2007190631	0.00025	0.0007	0.191	0.188	0.051	0.054	0.0005	0.001	0.036	0.023	0.006	0.005
2007190508	2007191119	0.00025	0.00025	0.041	0.039	0.038	0.05	0.0005	0.001	0.042	0.054	0.006	0.008
2007190526	2007191599	0.00025	0.00025	0.34	0.417	0.01	0.006	0.002	0.001	2.52	2.24	0.202	0.2
2007190527	2007190609	0.00025	0.0005	0.296	0.306	0.052	0.1	0.0005	0.0005	0.24	0.072	0.02	0.009
2007190531	2007190703	0.00025	0.00025	0.026	0.019	0.032	0.036	0.0005	0.0005	0.045	0.033	0.004	0.004
2007190534	2007191522	0.00025	0.00025	0.064	0.071	0.009	0.012	0.0005	0.0005	0.138	0.279	0.008	0.009
2007190536	2007190909	0.0005	0.00025	0.02	0.014	0.032	0.03	0.0005	0.0005	0.016	0.035	0.002	0.002
2007190548	2007191236	0.00025	0.00025	0.168	0.194	0.021	0.011	0.001	0.0005	0.354	0.446	0.044	0.024
2007190549	2007191507	0.00025	0.00025	0.015	0.021	0.013	0.016	0.0005	0.0005	0.062	0.135	0.006	0.005
2007190552	2007190675	0.00025	0.00025	0.035	0.047	0.015	0.013	0.0005	0.0005	0.351	0.216	0.036	0.02
2007190554	2007190752	0.0011	0.002	0.182	0.315	0.323	0.198	0.002	0.0005	0.674	1.44	0.081	0.085
2007190583	2007191063	0.0006	0.0007	0.096	0.152	0.01	0.075	0.0005	0.002	0.155	1.47	0.012	0.07
2007190618	2007191166	0.00025	0.00025	0.142	0.144	0.02	0.02	0.0005	0.0005	0.597	0.636	0.094	0.095
2007190647	2007191525	0.00025	0.00025	0.195	0.093	0.018	0.029	0.002	0.001	0.895	0.484	0.089	0.021
2007190659	2007190739	0.00025	0.00025	0.003	0.028	0.133	0.039	0.0005	0.0005	0.146	0.191	0.011	0.009
2007190661	2007191334	0.00025	0.00025	0.025	0.035	0.031	0.053	0.0005	0.0005	0.118	0.121	0.009	0.005
2007190686	2007191430	0.0028	0.0029	0.296	0.388	0.034	0.05	0.001	0.002	0.805	1.52	0.066	0.08
2007190695	2007190924	0.00025	0.00025	0.042	0.046	0.014	0.017	0.0005	0.0005	0.103	0.15	0.007	0.008
2007190698	2007190813	0.00025	0.00025	0.1	0.049	0.073	0.055	0.002	0.0005	0.289	0.297	0.047	0.036
2007190732	2007191450	0.0006	0.0006	0.089	0.097	0.026	0.026	0.0005	0.0005	0.193	0.158	0.007	0.008
2007190735	2007191549	0.00025	0.00025	0.052	0.038	0.133	0.019	0.0005	0.0005	0.019	0.005	0.002	0.003
2007190743	2007190906	0.00025	0.00025	0.028	0.04	0.06	0.077	0.0005	0.0005	0.009	0.011	0.0005	0.002
2007190746	2007191241	0.00025	0.00025	0.01	0.021	0.031	0.004	0.0005	0.0005	0.06	0.035	0.002	0.002
2007190753	2007191299	0.0007	0.00025	0.045	0.054	0.064	0.052	0.0005	0.0005	0.161	0.181	0.018	0.017
2007190798	2007191229	0.00025	0.00025	0.032	0.055	0.064	0.077	0.0005	0.0005	0.085	0.226	0.007	0.012
2007190818	2007191157	0.00025	0.00025	0.078	0.121	0.03	0.037	0.0005	0.0005	0.138	0.294	0.012	0.026

Appendix 21. Field duplicates analysis by MMI™

SITEID	SITEID	Zn (ppm)	Zn (ppm)	Zr (ppm)	Zr (ppm)
METHOD:	METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME
D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.02	0.02	0.005	0.005
2007190003	2007190213	0.19	0.28	0.008	0.007
2007190005	2007191059	0.73	0.93	0.108	0.076
2007190032	2007190632	1.74	1.09	0.198	0.148
2007190035	2007190876	0.13	0.16	0.1	0.086
2007190039	2007190984	0.23	0.11	0.011	0.01
2007190050	2007191481	0.15	0.09	0.02	0.025
2007190067	2007191121	0.2	0.21	0.012	0.009
2007190071	2007190289	0.16	0.1	0.057	0.042
2007190074	2007190389	0.09	0.13	0.018	0.03
2007190091	2007191053	0.17	0.13	0.039	0.039
2007190107	2007190913	0.12	0.1	0.007	0.0025
2007190110	2007191182	3.71	4.09	0.177	0.314
2007190114	2007191045	0.26	0.3	0.019	0.013
2007190118	2007191552	0.42	0.25	0.151	0.114
2007190121	2007191545	0.1	0.14	0.0025	0.0025
2007190125	2007191532	0.27	0.11	0.012	0.008
2007190145	2007191105	0.1	0.11	0.0025	0.0025
2007190154	2007190568	0.07	0.01	0.075	0.042
2007190155	2007191031	0.1	0.42	0.009	0.013
2007190161	2007191413	0.05	0.04	0.0025	0.0025
2007190176	2007191566	0.14	0.21	0.131	0.142
2007190181	2007191396	0.05	0.45	0.007	0.0025
2007190183	2007190471	0.08	0.05	0.0025	0.0025
2007190185	2007191253	0.08	0.23	0.0025	0.0025
2007190189	2007191542	0.1	0.07	0.009	0.0025
2007190193	2007190788	5.85	2.86	0.082	0.179
2007190194	2007190704	1.73	1.84	0.088	0.099
2007190197	2007190962	0.03	0.05	0.061	0.095
2007190208	2007191593	0.31	0.27	0.201	0.173
2007190209	2007191254	0.05	0.03	0.0025	0.0025
2007190212	2007190747	0.19	0.39	0.023	0.041
2007190218	2007191348	0.1	0.33	0.05	0.058
2007190241	2007190978	0.16	0.32	0.043	0.059
2007190248	2007191198	0.1	0.09	0.015	0.019
2007190256	2007190875	0.07	0.07	0.008	0.007
2007190258	2007191176	1.09	1.08	0.094	0.097
2007190266	2007191458	0.13	0.07	0.006	0.005
2007190285	2007190406	0.03	0.09	0.0025	0.009
2007190296	2007190758	0.1	0.07	0.04	0.031
2007190311	2007191259	0.07	0.21	0.01	0.015
2007190328	2007191598	0.03	0.02	0.046	0.069
2007190335	2007190692	0.2	0.29	0.007	0.016
2007190342	2007190989	0.56	0.48	0.0025	0.006
2007190349	2007191436	0.03	0.05	0.008	0.007
2007190352	2007190611	1.48	1.08	0.097	0.126
2007190355	2007191257	0.16	0.17	0.0025	0.0025
2007190357	2007190856	0.05	0.07	0.067	0.122
2007190361	2007191094	0.1	0.09	0.0025	0.0025
2007190383	2007191416	0.06	0.07	0.01	0.0025
2007190393	2007191050	3.3	2.68	0.078	0.121
2007190414	2007191386	0.34	0.63	0.049	0.072
2007190419	2007190974	0.41	0.33	0.039	0.043
2007190425	2007190768	2.63	1.47	0.202	0.162
2007190434	2007191027	0.08	0.05	0.0025	0.006
2007190457	2007191004	0.41	0.26	0.128	0.274
2007190458	2007190774	0.18	0.06	0.007	0.008
2007190472	2007191312	0.08	0.03	0.0025	0.0025
2007190481	2007191594	0.07	0.07	0.011	0.009
2007190495	2007191318	0.04	0.08	0.021	0.018
2007190497	2007190586	0.01	0.01	0.012	0.016
2007190506	2007190631	0.05	0.03	0.008	0.009
2007190508	2007191119	0.06	0.11	0.0025	0.005
2007190526	2007191599	2.88	3.53	0.117	0.138
2007190527	2007190609	0.17	0.1	0.021	0.014
2007190531	2007190703	0.03	0.07	0.0025	0.0025
2007190534	2007191522	1.35	1.23	0.031	0.037
2007190536	2007190909	0.05	0.05	0.007	0.005
2007190548	2007191236	0.69	0.32	0.027	0.029
2007190549	2007191507	0.05	0.03	0.03	0.051
2007190552	2007190675	0.27	0.26	0.071	0.044
2007190554	2007190752	0.04	0.11	0.407	0.677
2007190583	2007191063	0.05	0.5	0.036	0.372
2007190618	2007191166	3.03	2.29	0.098	0.032
2007190647	2007191525	1.21	0.06	0.107	0.144
2007190659	2007190739	0.01	0.01	0.011	0.021
2007190661	2007191334	0.15	0.1	0.079	0.081
2007190686	2007191430	0.08	0.08	0.14	0.192
2007190695	2007190924	0.03	0.05	0.025	0.013
2007190698	2007190813	0.05	0.06	0.021	0.01
2007190732	2007191450	0.06	0.05	0.01	0.005
2007190735	2007191549	0.05	0.06	0.009	0.0025
2007190743	2007190906	0.07	0.11	0.007	0.0025
2007190746	2007191241	0.05	0.04	0.017	0.01
2007190753	2007191299	0.17	0.18	0.006	0.008
2007190798	2007191229	0.08	0.07	0.024	0.111
2007190818	2007191157	0.03	0.1	0.057	0.076

Appendix 21. Field duplicates analysis by MMI™

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Ag (ppm)	Ag (ppm)	Al (ppm)	Al (ppm)	As (ppm)	As (ppm)	Au (ppm)	Au (ppm)
METHOD:	METHOD:	SIZE	SIZE			MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					0.001	0.001	1	1	0.01	0.01	0.0001	0.0001
2007190825	2007191214	Coarse	Coarse	TOS	TOS	0.006	0.012	12	11	0.005	0.01	0.0007	0.0012
2007190826	2007191052	Coarse	Coarse	TOS	TOS	0.006	0.01	1	3	0.005	0.005	0.00005	0.0001
2007190827	2007191440	Coarse	Coarse	TOS	TOS	0.007	0.004	1	5	0.005	0.005	0.0001	0.0001
2007190834	2007190889	Coarse	Coarse	TOS	TOS	0.041	0.018	2	3	0.005	0.005	0.00005	0.0002
2007190849	2007191277	Coarse	Coarse	TOS	TOS	0.006	0.008	17	9	0.02	0.005	0.0019	0.0012
2007190853	2007190939	Coarse	Coarse	TOS	TOS	0.004	0.002	38	21	0.03	0.01	0.0002	0.0002
2007190865	2007191183	Coarse	Coarse	TOS	TOS	0.004	0.0005	0.5	7	0.005	0.005	0.00005	0.00005
2007190874	2007191297	Coarse	Coarse	TOS	TOS	0.055	0.001	0.5	10	0.005	0.005	0.0001	0.00005
2007190887	2007191058	Coarse	Coarse	TOS	TOS	0.263	0.115	2	9	0.02	0.005	0.0002	0.0006
2007190895	2007190947	Coarse	Coarse	TOS	TOS	0.014	0.013	5	7	0.01	0.005	0.0007	0.0003
2007190896	2007191441	Coarse	Coarse	TOS	TOS	0.024	0.005	4	12	0.005	0.005	0.0001	0.0006
2007190922	2007191082	Coarse	Coarse	TOS	TOS	0.056	0.031	2	2	0.03	0.06	0.0001	0.00005
2007190927	2007191444	Coarse	Coarse	TOS	TOS	0.052	0.019	15	60	0.01	0.02	0.0013	0.0021
2007190949	2007191504	Coarse	Coarse	TOS	TOS	0.012	0.01	20	30	0.02	0.005	0.0008	0.0003
2007190968	2007191437	Coarse	Coarse	TOS	TOS	0.005	0.002	12	5	0.005	0.005	0.0003	0.0002
2007190970	2007191245	Coarse	Coarse	TOS	TOS	0.038	0.053	4	264	0.04	0.06	0.0001	0.0012
2007190986	2007191592	Coarse	Coarse	TOS	TOS	0.01	0.001	2	16	0.005	0.005	0.00005	0.00005
2007190990	2007191537	Coarse	Coarse	TOS	TOS	0.226	0.004	6	194	0.01	0.01	0.00005	0.0002
2007191007	2007191551	Coarse	Coarse	TOS	TOS	0.02	0.004	4	28	0.005	0.005	0.00005	0.0002
2007191028	2007191531	Coarse	Coarse	TOS	TOS	0.008	0.004	9	7	0.005	0.005	0.00005	0.00005
2007191051	2007191331	Coarse	Coarse	TOS	TOS	0.009	0.005	4	10	0.005	0.005	0.0006	0.0004
2007191066	2007191379	Coarse	Coarse	TOS	TOS	0.027	0.009	18	10	0.005	0.01	0.0002	0.0003
2007191092	2007191211	Coarse	Coarse	TOS	TOS	0.117	0.002	2	109	0.01	0.03	0.00005	0.0002
2007191134	2007191282	Coarse	Coarse	TOS	TOS	0.001	0.0005	3	14	0.005	0.005	0.00005	0.00005
2007191152	2007191578	Coarse	Coarse	TOS	TOS	0.0005	0.001	12	29	0.005	0.005	0.00005	0.00005
2007191168	2007191195	Coarse	Coarse	TOS	TOS	0.011	0.016	10	22	0.005	0.005	0.0002	0.0004
2007191192	2007191339	Coarse	Coarse	TOS	TOS	0.007	0.007	18	10	0.005	0.005	0.00005	0.0001
2007191215	2007191281	Coarse	Coarse	TOS	TOS	0.013	0.012	44	39	0.005	0.005	0.0002	0.0002
2007191216	2007191385	Coarse	Coarse	TOS	TOS	0.003	0.006	12	9	0.005	0.005	0.0001	0.0007
2007191264	2007191486	Coarse	Coarse	TOS	TOS	0.002	0.002	6	17	0.01	0.005	0.00005	0.00005
2007191275	2007191590	Coarse	Coarse	TOS	TOS	0.004	0.01	23	33	0.005	0.005	0.0005	0.0002
2007191293	2007191518	Coarse	Coarse	TOS	TOS	0.006	0.004	6	18	0.005	0.005	0.0007	0.0004
2007191295	2007191498	Coarse	Coarse	TOS	TOS	0.0005	0.0005	6	8	0.005	0.005	0.00005	0.00005
2007191346	2007191429	Coarse	Coarse	TOS	TOS	0.006	0.007	12	8	0.005	0.005	0.0001	0.0011
2007191372	2007191445	Coarse	Coarse	TOS	TOS	0.002	0.002	132	218	0.005	0.005	0.0001	0.0001
2007191382	2007191509	Coarse	Coarse	TOS	TOS	0.002	0.002	8	13	0.005	0.005	0.0004	0.00005
2007191473	2007191510	Coarse	Coarse	TOS	TOS	0.006	0.006	65	60	0.005	0.005	0.0011	0.0007

Appendix 21. Field duplicates analysis by MMI™

SITEID	SITEID	Ba (ppm)	Ba (ppm)	Bi (ppm)	Bi (ppm)	Ca (ppm)	Ca (ppm)	Cd (ppm)	Cd (ppm)	Ce (ppm)	Ce (ppm)	Co (ppm)	Co (ppm)
METHOD:	METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.01	0.01	0.001	0.001	10	10	0.001	0.001	0.005	0.005	0.005	0.005
2007190825	2007191214	1.33	2.54	0.0005	0.0005	410	500	0.01	0.013	0.014	0.059	0.156	0.376
2007190826	2007191052	0.65	1.1	0.0005	0.0005	290	380	0.002	0.003	0.084	0.019	0.027	0.103
2007190827	2007191440	0.25	0.63	0.0005	0.0005	280	440	0.002	0.009	0.017	0.021	0.042	0.097
2007190834	2007190889	0.22	1.01	0.0005	0.0005	50	660	0.001	0.001	0.926	0.058	0.018	0.097
2007190849	2007191277	0.31	1.59	0.0005	0.0005	830	550	0.006	0.002	0.0025	0.013	0.094	0.11
2007190853	2007190939	0.46	0.49	0.0005	0.0005	2130	400	0.024	0.011	0.009	0.013	0.121	0.038
2007190865	2007191183	0.96	0.93	0.0005	0.0005	160	150	0.0005	0.0005	0.023	0.025	0.021	0.018
2007190874	2007191297	0.18	1.01	0.0005	0.0005	80	750	0.0005	0.003	0.599	0.037	0.012	0.345
2007190887	2007191058	1.65	6.08	0.0005	0.0005	430	180	0.101	0.005	0.333	1.36	0.348	0.395
2007190895	2007190947	1.44	1.87	0.0005	0.0005	780	740	0.007	0.008	0.033	0.019	0.895	0.932
2007190896	2007191441	0.13	0.11	0.0005	0.0005	120	220	0.005	0.007	0.428	0.182	0.168	0.121
2007190922	2007191082	0.29	0.35	0.0005	0.0005	250	230	0.042	0.018	0.435	0.261	0.061	0.075
2007190927	2007191444	1.06	1.3	0.0005	0.0005	390	500	0.027	0.039	0.301	0.304	0.127	0.204
2007190949	2007191504	0.81	0.22	0.0005	0.0005	1190	380	0.023	0.006	0.0025	0.024	0.152	0.095
2007190968	2007191437	2.22	2.27	0.0005	0.0005	410	430	0.003	0.003	0.018	0.017	0.095	0.155
2007190970	2007191245	0.06	0.47	0.006	0.15	20	220	0.011	0.183	0.031	0.156	0.154	1.03
2007190986	2007191592	1.05	0.54	0.0005	0.0005	440	290	0.004	0.003	0.034	0.038	0.136	0.104
2007190990	2007191537	1.93	2.04	0.007	0.003	5	20	0.004	0.004	0.321	1.15	1.04	0.73
2007191007	2007191551	0.7	0.66	0.0005	0.0005	280	250	0.003	0.004	0.136	0.162	0.136	0.118
2007191028	2007191531	0.91	1.13	0.0005	0.0005	780	440	0.005	0.002	0.118	0.043	0.195	0.248
2007191051	2007191331	7.72	4.77	0.0005	0.0005	870	820	0.008	0.011	0.181	0.087	0.587	0.358
2007191066	2007191379	1.3	0.29	0.0005	0.0005	410	260	0.005	0.002	0.009	0.0025	0.071	0.059
2007191092	2007191211	0.86	1.52	0.0005	0.0005	300	590	0.006	0.017	0.199	1.3	0.347	1.25
2007191134	2007191282	0.24	0.06	0.0005	0.0005	210	90	0.001	0.005	0.991	1.17	0.215	0.129
2007191152	2007191578	0.56	0.2	0.0005	0.0005	170	120	0.001	0.002	0.294	0.253	0.093	0.113
2007191168	2007191195	1.76	1.59	0.0005	0.0005	600	670	0.008	0.013	0.073	0.067	0.154	0.189
2007191192	2007191339	0.65	1.14	0.0005	0.0005	440	500	0.021	0.019	0.04	0.05	0.062	0.11
2007191215	2007191281	0.58	0.35	0.0005	0.0005	480	270	0.032	0.012	0.068	0.197	0.281	0.138
2007191216	2007191385	0.84	1.97	0.0005	0.0005	450	540	0.002	0.003	0.009	0.0025	0.246	0.304
2007191264	2007191486	1.84	1.92	0.0005	0.0005	490	370	0.003	0.004	0.033	0.066	0.204	0.205
2007191275	2007191590	0.55	0.12	0.0005	0.0005	470	350	0.003	0.01	0.011	0.005	0.256	0.067
2007191293	2007191518	0.97	2.3	0.0005	0.0005	520	520	0.005	0.017	0.0025	0.04	0.1	0.353
2007191295	2007191498	1.07	1.38	0.0005	0.0005	300	270	0.001	0.001	0.008	0.012	0.086	0.083
2007191346	2007191429	1.31	1.56	0.0005	0.0005	630	460	0.004	0.005	0.029	0.011	0.155	0.109
2007191372	2007191445	0.25	0.24	0.0005	0.0005	290	220	0.001	0.001	0.091	0.162	0.044	0.041
2007191382	2007191509	0.57	0.22	0.0005	0.0005	540	250	0.007	0.01	0.012	0.092	0.062	0.047
2007191473	2007191510	0.51	0.35	0.0005	0.0005	430	370	0.006	0.007	0.014	0.018	0.231	0.424

Appendix 21. Field duplicates analysis by MMI™

SITEID	SITEID	Cr (ppm)	Cr (ppm)	Cs (ppm)	Cs (ppm)	Cu (ppm)	Cu (ppm)	Dy (ppm)	Dy (ppm)	Er (ppm)	Er (ppm)	Eu (ppm)	Eu (ppm)
METHOD:	METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.001	0.001	0.0005	0.0005	0.01	0.01	0.001	0.001	0.0005	0.0005	0.0005	0.0005
2007190825	2007191214	0.006	0.043	0.0076	0.0116	1.56	2.49	0.013	0.018	0.0114	0.0132	0.0011	0.0028
2007190826	2007191052	0.006	0.008	0.0193	0.0231	0.42	0.68	0.018	0.015	0.0075	0.0071	0.0067	0.0037
2007190827	2007191440	0.004	0.02	0.0096	0.0146	0.44	0.7	0.003	0.02	0.0013	0.0093	0.0009	0.0044
2007190834	2007190889	0.151	0.011	0.0125	0.0549	0.42	0.32	0.068	0.004	0.0294	0.0014	0.0254	0.0012
2007190849	2007191277	0.034	0.056	0.0106	0.0116	2.47	1.93	0.024	0.049	0.0111	0.0262	0.0015	0.0053
2007190853	2007190939	0.056	0.025	0.043	0.044	1.85	0.97	0.003	0.003	0.0013	0.0012	0.00025	0.0008
2007190865	2007191183	0.004	0.005	0.0102	0.0065	0.18	0.19	0.005	0.004	0.0017	0.0019	0.0016	0.0015
2007190874	2007191297	0.247	0.032	0.0269	0.0221	0.06	1.05	0.043	0.02	0.0127	0.0097	0.0082	0.0031
2007190887	2007191058	0.289	0.033	0.0963	0.183	0.7	0.62	0.142	0.439	0.0804	0.299	0.0171	0.0656
2007190895	2007190947	0.051	0.054	0.0061	0.0038	2.5	1.91	0.023	0.006	0.0127	0.0031	0.0016	0.001
2007190896	2007191441	0.04	0.025	0.0452	0.0458	1.21	2.34	0.069	0.069	0.0172	0.0249	0.021	0.0215
2007190922	2007191082	0.142	0.067	0.0135	0.0057	0.17	0.09	0.062	0.04	0.0194	0.0156	0.0175	0.0118
2007190927	2007191444	0.058	0.095	0.0088	0.0053	1.55	2.06	0.103	0.148	0.0351	0.0781	0.0198	0.0292
2007190949	2007191504	0.01	0.011	0.0085	0.0053	2.45	1.98	0.012	0.007	0.0084	0.005	0.0007	0.0005
2007190968	2007191437	0.007	0.014	0.009	0.0132	0.77	0.78	0.011	0.008	0.0048	0.0042	0.0029	0.0021
2007190970	2007191245	0.032	0.11	0.0205	0.127	0.16	7.35	0.004	0.039	0.0022	0.03	0.0009	0.0074
2007190986	2007191592	0.007	0.015	0.0059	0.006	0.74	0.64	0.009	0.009	0.0041	0.005	0.0021	0.0025
2007190990	2007191537	0.042	0.031	0.276	0.244	0.29	0.21	0.418	0.669	0.36	0.44	0.0185	0.0543
2007191007	2007191551	0.029	0.031	0.0044	0.0057	0.72	0.69	0.033	0.036	0.0151	0.0182	0.0104	0.0103
2007191028	2007191531	0.01	0.006	0.007	0.0155	1.41	1.06	0.035	0.016	0.0163	0.0063	0.008	0.0045
2007191051	2007191331	0.022	0.051	0.0209	0.0157	1.89	2.08	0.055	0.061	0.0261	0.0239	0.0158	0.0136
2007191066	2007191379	0.006	0.005	0.008	0.006	1.43	0.88	0.0005	0.0005	0.00025	0.00025	0.00025	0.00025
2007191092	2007191211	0.06	0.721	0.0201	0.0128	0.26	0.65	0.46	0.19	0.292	0.13	0.047	0.0524
2007191134	2007191282	0.005	0.086	0.0021	0.0035	0.39	0.17	0.19	0.082	0.0861	0.0315	0.0427	0.0199
2007191152	2007191578	0.012	0.059	0.0213	0.0215	0.6	0.61	0.034	0.024	0.0129	0.0117	0.0118	0.0087
2007191168	2007191195	0.009	0.037	0.0078	0.0059	2.19	2.6	0.02	0.015	0.0103	0.0073	0.0041	0.0046
2007191192	2007191339	0.042	0.04	0.004	0.0042	1.19	1.31	0.01	0.021	0.0042	0.0085	0.0028	0.0041
2007191215	2007191281	0.079	0.086	0.0081	0.008	1.76	0.99	0.01	0.052	0.0048	0.0207	0.0037	0.0147
2007191216	2007191385	0.006	0.013	0.0116	0.0304	0.77	1.8	0.011	0.016	0.0044	0.0098	0.0024	0.0016
2007191264	2007191486	0.007	0.025	0.005	0.0144	0.7	0.75	0.008	0.013	0.0049	0.0067	0.0026	0.0035
2007191275	2007191590	0.016	0.026	0.0159	0.0155	1.41	1.71	0.004	0.002	0.0017	0.0021	0.0006	0.00025
2007191293	2007191518	0.02	0.045	0.0108	0.0131	1.8	2.19	0.002	0.014	0.0006	0.0072	0.00025	0.003
2007191295	2007191498	0.006	0.005	0.0044	0.0082	0.3	0.24	0.005	0.005	0.002	0.0021	0.0012	0.0011
2007191346	2007191429	0.014	0.013	0.0063	0.0068	1.59	1.87	0.008	0.005	0.0039	0.0047	0.0011	0.0006
2007191372	2007191445	0.042	0.183	0.233	0.0727	1.37	0.47	0.066	0.041	0.0373	0.0195	0.013	0.0097
2007191382	2007191509	0.025	0.035	0.0051	0.0076	2.73	1.25	0.006	0.02	0.0045	0.0092	0.0006	0.0036
2007191473	2007191510	0.012	0.013	0.0078	0.0057	2.3	2.33	0.002	0.007	0.0017	0.0049	0.00025	0.0006

Appendix 21. Field duplicates analysis by MMI™

SITEID	SITEID	Fe (ppm)	Fe (ppm)	Ga (ppm)	Ga (ppm)	Gd (ppm)	Gd (ppm)	Hg (ppm)	Hg (ppm)	K (ppm)	K (ppm)	La (ppm)	La (ppm)
METHOD:	METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	1	1	0.001	0.001	0.001	0.001	0.001	0.001	0.1	0.1	0.001	0.001
2007190825	2007191214	0.5	1	0.015	0.053	0.007	0.014	0.0005	0.0005	50.8	44.9	0.0005	0.001
2007190826	2007191052	2	2	0.011	0.028	0.029	0.02	0.0005	0.0005	44.7	46.8	0.015	0.007
2007190827	2007191440	0.5	0.5	0.018	0.017	0.004	0.025	0.0005	0.0005	103	182	0.002	0.007
2007190834	2007190889	23	0.5	0.015	0.029	0.099	0.006	0.0005	0.0005	32.6	314	0.179	0.018
2007190849	2007191277	0.5	0.5	0.007	0.035	0.013	0.039	0.002	0.001	142	90.2	0.0005	0.001
2007190853	2007190939	1	1	0.006	0.011	0.003	0.004	0.0005	0.0005	177	94.7	0.002	0.008
2007190865	2007191183	1	1	0.031	0.023	0.007	0.006	0.0005	0.0005	19.9	21.7	0.01	0.006
2007190874	2007191297	37	9	0.009	0.03	0.043	0.021	0.0005	0.0005	22.5	28.7	0.154	0.015
2007190887	2007191058	156	58	0.078	0.172	0.087	0.363	0.0005	0.0005	44.9	15.8	0.103	0.538
2007190895	2007190947	2	0.5	0.036	0.043	0.011	0.004	0.0005	0.0005	139	199	0.004	0.005
2007190896	2007191441	3	1	0.003	0.004	0.1	0.107	0.0005	0.0005	98.1	116	0.12	0.085
2007190922	2007191082	20	9	0.01	0.011	0.079	0.057	0.0005	0.0005	50	59.4	0.136	0.105
2007190927	2007191444	30	46	0.031	0.039	0.108	0.165	0.0005	0.0005	19.7	46.4	0.162	0.296
2007190949	2007191504	1	3	0.014	0.008	0.006	0.004	0.002	0.0005	311	212	0.002	0.002
2007190968	2007191437	0.5	0.5	0.06	0.066	0.014	0.011	0.0005	0.0005	88.7	80	0.008	0.008
2007190970	2007191245	51	271	0.004	0.019	0.004	0.036	0.0005	0.001	29.6	268	0.009	0.043
2007190986	2007191592	2	3	0.03	0.016	0.011	0.011	0.0005	0.0005	104	102	0.012	0.015
2007190990	2007191537	190	86	0.071	0.05	0.168	0.468	0.0005	0.0005	20.9	27.8	0.092	0.271
2007191007	2007191551	8	11	0.02	0.015	0.045	0.051	0.0005	0.0005	82.9	117	0.059	0.053
2007191028	2007191531	0.5	0.5	0.023	0.025	0.045	0.027	0.0005	0.0005	112	56.2	0.03	0.027
2007191051	2007191331	5	3	0.194	0.118	0.07	0.071	0.0005	0.0005	71.7	91.2	0.038	0.025
2007191066	2007191379	1	0.5	0.044	0.009	0.001	0.001	0.0005	0.0005	124	56.1	0.003	0.002
2007191092	2007191211	93	116	0.027	0.044	0.238	0.205	0.0005	0.0005	25.2	76.5	0.094	0.578
2007191134	2007191282	1	9	0.007	0.002	0.279	0.116	0.0005	0.0005	97.5	34.4	0.276	0.702
2007191152	2007191578	4	8	0.016	0.006	0.066	0.035	0.0005	0.0005	67.7	62.9	0.066	0.088
2007191168	2007191195	2	3	0.043	0.041	0.026	0.02	0.0005	0.0005	157	142	0.008	0.018
2007191192	2007191339	1	2	0.014	0.031	0.013	0.026	0.0005	0.0005	280	258	0.009	0.019
2007191215	2007191281	7	11	0.012	0.01	0.015	0.072	0.0005	0.0005	164	115	0.013	0.089
2007191216	2007191385	0.5	0.5	0.02	0.053	0.012	0.012	0.0005	0.0005	53	77.3	0.002	0.001
2007191264	2007191486	1	3	0.044	0.068	0.012	0.017	0.0005	0.0005	104	105	0.01	0.023
2007191275	2007191590	1	2	0.016	0.003	0.004	0.002	0.0005	0.0005	164	493	0.003	0.003
2007191293	2007191518	0.5	2	0.021	0.075	0.001	0.015	0.0005	0.0005	107	96.3	0.004	0.01
2007191295	2007191498	0.5	0.5	0.031	0.045	0.006	0.005	0.0005	0.0005	73.8	65.4	0.006	0.006
2007191346	2007191429	2	1	0.035	0.031	0.008	0.004	0.0005	0.001	86.6	105	0.009	0.003
2007191372	2007191445	11	12	0.009	0.012	0.06	0.044	0.0005	0.0005	70.4	34.9	0.11	0.18
2007191382	2007191509	1	4	0.016	0.008	0.004	0.021	0.0005	0.0005	162	88.7	0.001	0.022
2007191473	2007191510	1	1	0.014	0.008	0.002	0.004	0.0005	0.001	132	118	0.001	0.003

Appendix 21. Field duplicates analysis by MMI™

SITEID	SITEID	Li (ppm)	Li (ppm)	Mg (ppm)	Mg (ppm)	Mn (ppm)	Mn (ppm)	Mo (ppm)	Mo (ppm)	Nb (ppm)	Nb (ppm)	Nd (ppm)	Nd (ppm)
METHOD:	METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.005	0.005	1	1	0.005	0.005	0.005	0.005	0.0005	0.0005	0.001	0.001
2007190825	2007191214	0.016	0.022	183	371	2.07	4.1	0.018	0.029	0.0005	0.00025	0.001	0.007
2007190826	2007191052	0.0025	0.0025	53	65	0.868	2.9	0.0025	0.0025	0.00025	0.00025	0.092	0.041
2007190827	2007191440	0.0025	0.0025	39	107	1.4	3.87	0.0025	0.061	0.00025	0.00025	0.009	0.032
2007190834	2007190889	0.008	0.127	31	212	2.44	3.16	0.0025	0.013	0.0009	0.00025	0.582	0.025
2007190849	2007191277	0.036	0.023	443	341	2.77	3.54	0.045	0.034	0.0019	0.00025	0.002	0.018
2007190853	2007190939	0.252	0.126	1390	651	2.1	1.09	0.031	0.018	0.0013	0.00025	0.005	0.015
2007190865	2007191183	0.0025	0.0025	30	33	1.16	1.2	0.0025	0.0025	0.00025	0.00025	0.028	0.018
2007190874	2007191297	0.016	0.0025	32	171	0.198	10.4	0.007	0.007	0.002	0.00025	0.219	0.049
2007190887	2007191058	0.045	0.007	72	104	24.3	10.8	0.006	0.0025	0.0168	0.00025	0.228	1.57
2007190895	2007190947	0.015	0.015	339	278	8.07	7.88	0.013	0.012	0.00025	0.00025	0.01	0.01
2007190896	2007191441	0.0025	0.0025	29	108	4.73	2.64	0.021	0.114	0.00025	0.00025	0.452	0.392
2007190922	2007191082	0.007	0.0025	32	48	2.77	1.83	0.0025	0.0025	0.0008	0.00025	0.405	0.243
2007190927	2007191444	0.005	0.009	77	99	5.06	9.63	0.008	0.01	0.00025	0.00025	0.418	0.712
2007190949	2007191504	0.033	0.033	519	186	1.63	2.3	0.0025	0.0025	0.0013	0.00025	0.0005	0.006
2007190968	2007191437	0.008	0.006	115	109	1.58	2.42	0.0025	0.0025	0.00025	0.00025	0.031	0.024
2007190970	2007191245	0.0025	0.027	44	459	5.12	21.3	0.0025	0.012	0.00025	0.0006	0.017	0.133
2007190986	2007191592	0.0025	0.0025	61	76	3.5	3.64	0.0025	0.007	0.00025	0.00025	0.038	0.033
2007190990	2007191537	0.012	0.009	29	25	3.69	12.9	0.0025	0.0025	0.00025	0.00025	0.327	1.23
2007191007	2007191551	0.0025	0.0025	50	47	9.81	6.4	0.006	0.006	0.00025	0.00025	0.218	0.205
2007191028	2007191531	0.005	0.0025	225	172	2.14	2.4	0.033	0.01	0.00025	0.00025	0.121	0.097
2007191051	2007191331	0.007	0.007	270	319	12.8	8.55	0.009	0.014	0.00025	0.00025	0.212	0.158
2007191066	2007191379	0.026	0.088	97	107	2.64	1.25	0.0025	0.0025	0.00025	0.0009	0.002	0.004
2007191092	2007191211	0.0025	0.023	235	563	4.68	23.2	0.0025	0.005	0.00025	0.0019	0.335	0.868
2007191134	2007191282	0.01	0.0025	148	122	4.76	2.51	0.009	0.0025	0.00025	0.00025	1.1	0.94
2007191152	2007191578	0.0025	0.0025	25	39	2.92	6.64	0.01	0.006	0.00025	0.00025	0.3	0.18
2007191168	2007191195	0.015	0.009	126	181	1.84	2.05	0.005	0.01	0.0006	0.00025	0.048	0.05
2007191192	2007191339	0.008	0.013	155	156	3.84	5.76	0.018	0.015	0.00025	0.00025	0.029	0.068
2007191215	2007191281	0.013	0.0025	78	50	19	13.4	0.026	0.01	0.00025	0.00025	0.036	0.301
2007191216	2007191385	0.0025	0.0025	92	168	3.32	3.15	0.0025	0.011	0.00025	0.0008	0.006	0.006
2007191264	2007191486	0.0025	0.0025	53	76	4.33	8.71	0.0025	0.0025	0.00025	0.0006	0.034	0.059
2007191275	2007191590	0.006	0.0025	71	108	4.66	1.71	0.007	0.01	0.0019	0.00025	0.01	0.005
2007191293	2007191518	0.012	0.007	200	225	2.76	13.1	0.0025	0.014	0.00025	0.00025	0.006	0.03
2007191295	2007191498	0.005	0.0025	81	68	1.74	2.2	0.0025	0.0025	0.00025	0.00025	0.016	0.011
2007191346	2007191429	0.006	0.0025	138	94	6.59	1.33	0.0025	0.0025	0.00025	0.00025	0.02	0.009
2007191372	2007191445	0.0025	0.0025	56	21	2.95	2	0.0025	0.0025	0.0027	0.0009	0.203	0.235
2007191382	2007191509	0.0025	0.0025	190	79	2.21	3.76	0.021	0.043	0.0006	0.00025	0.004	0.052
2007191473	2007191510	0.026	0.029	152	135	1.52	2.41	0.0025	0.0025	0.002	0.00025	0.005	0.007

Appendix 21. Field duplicates analysis by MMI™

SITEID	SITEID	Ni (ppm)	Ni (ppm)	P (ppm)	P (ppm)	Pb (ppm)	Pb (ppm)	Pd (ppm)	Pd (ppm)	Pr (ppm)	Pr (ppm)	Pt (ppm)	Pt (ppm)
METHOD:	METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.005	0.005	0.1	0.1	0.01	0.01	0.001	0.001	0.001	0.001	0.001	0.001
2007190825	2007191214	0.355	0.885	1.3	0.3	0.03	0.09	0.0005	0.0005	0.0005	0.001	0.0005	0.0005
2007190826	2007191052	0.089	0.136	0.7	0.8	0.02	0.01	0.0005	0.0005	0.014	0.005	0.0005	0.0005
2007190827	2007191440	0.082	0.207	0.9	0.9	0.02	0.01	0.0005	0.0005	0.001	0.004	0.0005	0.0005
2007190834	2007190889	0.119	0.253	2	2	0.2	0.03	0.004	0.0005	0.113	0.006	0.0005	0.0005
2007190849	2007191277	0.863	0.825	0.05	0.4	0.03	0.03	0.0005	0.0005	0.0005	0.002	0.0005	0.0005
2007190853	2007190939	0.246	0.087	1.9	0.9	0.48	0.28	0.0005	0.0005	0.001	0.003	0.0005	0.0005
2007190865	2007191183	0.033	0.032	0.9	1	0.02	0.03	0.0005	0.0005	0.006	0.003	0.0005	0.0005
2007190874	2007191297	0.069	0.594	1.3	1.1	0.32	0.01	0.0005	0.0005	0.062	0.007	0.0005	0.0005
2007190887	2007191058	0.278	0.473	8.6	0.5	0.44	1.85	0.0005	0.0005	0.053	0.245	0.0005	0.0005
2007190895	2007190947	2.9	2.64	1.3	1	0.11	0.11	0.0005	0.0005	0.002	0.002	0.0005	0.0005
2007190896	2007191441	0.159	0.218	1.3	1.1	0.06	0.01	0.0005	0.0005	0.092	0.055	0.0005	0.0005
2007190922	2007191082	0.2	0.132	10.8	8	0.1	0.03	0.0005	0.0005	0.089	0.049	0.0005	0.0005
2007190927	2007191444	0.779	1.08	2.8	3.1	0.15	0.17	0.0005	0.0005	0.091	0.128	0.0005	0.0005
2007190949	2007191504	0.442	0.29	0.05	0.2	0.08	0.07	0.0005	0.0005	0.0005	0.001	0.0005	0.0005
2007190968	2007191437	0.193	0.162	1.2	1.3	0.01	0.02	0.0005	0.0005	0.004	0.003	0.0005	0.0005
2007190970	2007191245	0.043	0.127	1.4	5.8	0.16	7.92	0.0005	0.0005	0.004	0.025	0.0005	0.0005
2007190986	2007191592	0.197	0.162	5.3	4.8	0.005	0.01	0.0005	0.0005	0.005	0.006	0.0005	0.0005
2007190990	2007191537	0.297	0.227	1.4	1.6	2.41	4.47	0.002	0.002	0.049	0.149	0.0005	0.0005
2007191007	2007191551	0.994	0.76	6.7	14.3	0.005	0.02	0.0005	0.0005	0.031	0.019	0.0005	0.0005
2007191028	2007191531	0.684	0.347	1.2	1	0.08	0.08	0.0005	0.0005	0.016	0.011	0.0005	0.0005
2007191051	2007191331	0.569	0.641	1.3	1.8	0.02	0.02	0.0005	0.0005	0.026	0.019	0.0005	0.0005
2007191066	2007191379	0.188	0.179	0.7	0.7	0.02	0.02	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
2007191092	2007191211	1.36	3.21	2.2	4.5	0.44	0.2	0.003	0.005	0.054	0.201	0.0005	0.0005
2007191134	2007191282	0.22	0.088	1	1.3	0.3	0.61	0.001	0.0005	0.098	0.199	0.0005	0.0005
2007191152	2007191578	0.058	0.104	1	1	0.07	0.04	0.0005	0.0005	0.026	0.034	0.0005	0.0005
2007191168	2007191195	0.464	1.14	1.1	1.3	0.05	0.11	0.0005	0.0005	0.004	0.009	0.0005	0.0005
2007191192	2007191339	0.614	0.609	5.6	3.7	0.02	0.02	0.0005	0.0005	0.005	0.009	0.0005	0.0005
2007191215	2007191281	3.29	0.927	8.2	6.5	0.02	0.01	0.0005	0.001	0.006	0.045	0.0005	0.0005
2007191216	2007191385	0.304	0.357	0.3	0.4	0.03	0.02	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
2007191264	2007191486	0.183	0.244	3.4	3.7	0.01	0.02	0.0005	0.0005	0.005	0.01	0.0005	0.0005
2007191275	2007191590	0.325	0.394	1.1	0.4	0.04	0.01	0.0005	0.0005	0.001	0.001	0.0005	0.0005
2007191293	2007191518	0.333	0.629	0.1	2.9	0.02	0.04	0.0005	0.0005	0.001	0.005	0.0005	0.0005
2007191295	2007191498	0.113	0.077	1.1	1.3	0.02	0.03	0.0005	0.0005	0.002	0.002	0.0005	0.0005
2007191346	2007191429	0.286	0.292	0.8	0.6	0.03	0.05	0.0005	0.0005	0.004	0.002	0.0005	0.0005
2007191372	2007191445	0.196	0.138	0.4	1.2	0.09	0.41	0.0005	0.0005	0.038	0.051	0.0005	0.0005
2007191382	2007191509	0.236	0.177	0.5	1.4	0.03	0.05	0.0005	0.0005	0.0005	0.009	0.0005	0.0005
2007191473	2007191510	0.281	0.516	0.2	0.3	0.05	0.07	0.0005	0.0005	0.001	0.001	0.0005	0.0005

Appendix 21. Field duplicates analysis by MMI™

SITEID	SITEID	Rb (ppm)	Rb (ppm)	Sb (ppm)	Sb (ppm)	Sc (ppm)	Sc (ppm)	Se (ppm)	Se (ppm)	Sm (ppm)	Sm (ppm)	Sn (ppm)	Sn (ppm)
METHOD:	METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.00025	0.00025	0.001	0.001	0.005	0.005	0.002	0.002	0.001	0.001	0.001	0.001
2007190825	2007191214	0.0723	0.122	0.0005	0.0005	0.0025	0.005	0.009	0.012	0.002	0.006	0.0005	0.0005
2007190826	2007191052	0.142	0.16	0.0005	0.0005	0.0025	0.0025	0.01	0.008	0.026	0.013	0.0005	0.0005
2007190827	2007191440	0.231	0.342	0.0005	0.0005	0.0025	0.005	0.008	0.006	0.003	0.013	0.0005	0.0005
2007190834	2007190889	0.0903	0.998	0.0005	0.001	0.06	0.008	0.05	0.024	0.111	0.005	0.0005	0.0005
2007190849	2007191277	0.144	0.13	0.0005	0.0005	0.0025	0.007	0.018	0.006	0.003	0.013	0.0005	0.0005
2007190853	2007190939	0.139	0.0933	0.0005	0.0005	0.0025	0.0025	0.083	0.038	0.001	0.003	0.0005	0.0005
2007190865	2007191183	0.0281	0.0387	0.0005	0.0005	0.0025	0.0025	0.004	0.003	0.006	0.006	0.0005	0.0005
2007190874	2007191297	0.0351	0.209	0.0005	0.0005	0.03	0.007	0.051	0.007	0.044	0.013	0.001	0.0005
2007190887	2007191058	0.242	0.468	0.001	0.0005	0.158	0.606	0.566	0.065	0.063	0.302	0.004	0.0005
2007190895	2007190947	0.067	0.0586	0.0005	0.0005	0.007	0.0025	0.017	0.017	0.003	0.002	0.0005	0.0005
2007190896	2007191441	0.33	0.304	0.0005	0.0005	0.044	0.026	0.013	0.006	0.098	0.078	0.0005	0.0005
2007190922	2007191082	0.0697	0.0637	0.0005	0.0005	0.017	0.012	0.033	0.014	0.086	0.059	0.0005	0.0005
2007190927	2007191444	0.0846	0.0522	0.018	0.033	0.015	0.02	0.017	0.012	0.092	0.121	0.0005	0.0005
2007190949	2007191504	0.118	0.0651	0.0005	0.0005	0.0025	0.0025	0.019	0.017	0.001	0.002	0.0005	0.0005
2007190968	2007191437	0.0624	0.064	0.0005	0.0005	0.0025	0.0025	0.007	0.003	0.009	0.007	0.0005	0.0005
2007190970	2007191245	0.0323	0.201	0.006	0.031	0.015	0.101	0.016	0.042	0.003	0.026	0.008	0.015
2007190986	2007191592	0.0838	0.0747	0.0005	0.0005	0.005	0.006	0.009	0.004	0.008	0.01	0.0005	0.0005
2007190990	2007191537	0.847	0.671	0.0005	0.0005	0.403	0.414	0.059	0.01	0.087	0.341	0.0005	0.0005
2007191007	2007191551	0.0607	0.0722	0.0005	0.0005	0.009	0.008	0.015	0.011	0.041	0.047	0.0005	0.0005
2007191028	2007191531	0.154	0.174	0.0005	0.0005	0.0025	0.0025	0.016	0.008	0.031	0.022	0.0005	0.0005
2007191051	2007191331	0.106	0.131	0.0005	0.0005	0.01	0.01	0.015	0.005	0.05	0.046	0.0005	0.0005
2007191066	2007191379	0.11	0.0323	0.0005	0.0005	0.0025	0.0025	0.009	0.008	0.001	0.002	0.0005	0.0005
2007191092	2007191211	0.167	0.145	0.0005	0.0005	0.305	0.147	0.036	0.048	0.131	0.175	0.0005	0.0005
2007191134	2007191282	0.106	0.0786	0.0005	0.0005	0.006	0.017	0.007	0.006	0.204	0.133	0.0005	0.0005
2007191152	2007191578	0.127	0.109	0.0005	0.0005	0.013	0.022	0.009	0.008	0.05	0.045	0.0005	0.0005
2007191168	2007191195	0.0875	0.0898	0.0005	0.0005	0.0025	0.0025	0.011	0.008	0.013	0.014	0.0005	0.0005
2007191192	2007191339	0.119	0.1	0.0005	0.0005	0.006	0.006	0.012	0.008	0.01	0.017	0.0005	0.0005
2007191215	2007191281	0.288	0.189	0.0005	0.0005	0.007	0.013	0.017	0.01	0.011	0.062	0.0005	0.0005
2007191216	2007191385	0.122	0.172	0.0005	0.0005	0.0025	0.006	0.008	0.004	0.006	0.004	0.0005	0.0005
2007191264	2007191486	0.0578	0.0761	0.0005	0.0005	0.0025	0.007	0.008	0.003	0.008	0.015	0.0005	0.0005
2007191275	2007191590	0.145	0.212	0.0005	0.0005	0.0025	0.0025	0.004	0.008	0.002	0.001	0.0005	0.0005
2007191293	2007191518	0.0954	0.0986	0.0005	0.0005	0.005	0.008	0.001	0.007	0.001	0.01	0.0005	0.0005
2007191295	2007191498	0.0496	0.0469	0.0005	0.0005	0.0025	0.0025	0.001	0.003	0.004	0.004	0.0005	0.0005
2007191346	2007191429	0.0837	0.0513	0.0005	0.0005	0.0025	0.0025	0.007	0.004	0.005	0.003	0.0005	0.0005
2007191372	2007191445	0.718	0.17	0.0005	0.0005	0.367	0.102	0.019	0.012	0.041	0.037	0.0005	0.0005
2007191382	2007191509	0.105	0.111	0.0005	0.0005	0.0025	0.008	0.004	0.004	0.003	0.016	0.0005	0.0005
2007191473	2007191510	0.0582	0.047	0.0005	0.0005	0.007	0.007	0.006	0.004	0.0005	0.002	0.0005	0.0005

Appendix 21. Field duplicates analysis by MMI™

SITEID	SITEID	Sr (ppm)	Sr (ppm)	Ta (ppm)	Ta (ppm)	Tb (ppm)	Tb (ppm)	Te (ppm)	Te (ppm)	Th (ppm)	Th (ppm)	Ti (ppm)	Ti (ppm)
METHOD:	METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.01	0.01	0.001	0.001	0.001	0.001	0.01	0.01	0.0005	0.0005	0.003	0.003
2007190825	2007191214	5.96	5.99	0.0005	0.0005	0.002	0.003	0.005	0.005	0.0008	0.003	0.0015	0.012
2007190826	2007191052	3.8	1.89	0.0005	0.0005	0.003	0.003	0.005	0.005	0.0326	0.0098	0.0015	0.005
2007190827	2007191440	1.25	2.35	0.0005	0.0005	0.0005	0.004	0.005	0.005	0.002	0.0079	0.0015	0.015
2007190834	2007190889	0.32	8.32	0.0005	0.0005	0.013	0.0005	0.005	0.005	0.521	0.0035	0.077	0.009
2007190849	2007191277	11.3	7.37	0.0005	0.0005	0.003	0.006	0.005	0.005	0.0006	0.0069	0.01	0.013
2007190853	2007190939	31.3	14.1	0.0005	0.0005	0.0005	0.0005	0.005	0.005	0.0013	0.0008	0.04	0.012
2007190865	2007191183	1.31	1.58	0.0005	0.0005	0.0005	0.0005	0.005	0.005	0.0039	0.0048	0.004	0.004
2007190874	2007191297	0.58	0.93	0.0005	0.0005	0.007	0.003	0.005	0.005	0.215	0.021	0.307	0.019
2007190887	2007191058	2.56	1.22	0.0005	0.0005	0.016	0.066	0.005	0.005	0.0781	0.445	2.86	0.014
2007190895	2007190947	7.81	7.89	0.0005	0.0005	0.002	0.0005	0.005	0.005	0.0049	0.0022	0.014	0.009
2007190896	2007191441	0.71	1.57	0.0005	0.0005	0.012	0.013	0.005	0.005	0.381	0.138	0.022	0.009
2007190922	2007191082	1.57	1.6	0.0005	0.0005	0.011	0.008	0.005	0.005	0.096	0.0701	0.165	0.119
2007190927	2007191444	2.17	2.8	0.0005	0.0005	0.016	0.024	0.005	0.005	0.084	0.104	0.028	0.04
2007190949	2007191504	9.22	1.88	0.0005	0.0005	0.002	0.0005	0.005	0.005	0.0019	0.0053	0.01	0.011
2007190968	2007191437	3.82	4.4	0.0005	0.0005	0.002	0.001	0.005	0.005	0.0025	0.0041	0.015	0.014
2007190970	2007191245	0.3	3.97	0.0005	0.0005	0.0005	0.006	0.005	0.005	0.0089	0.0524	0.211	0.135
2007190986	2007191592	1.36	1.32	0.0005	0.0005	0.002	0.002	0.005	0.005	0.0063	0.007	0.016	0.023
2007190990	2007191537	0.32	0.85	0.001	0.003	0.045	0.106	0.005	0.005	1.33	1.66	0.157	0.064
2007191007	2007191551	1.53	1.98	0.0005	0.0005	0.006	0.008	0.005	0.005	0.0446	0.0439	0.036	0.09
2007191028	2007191531	1.3	0.95	0.0005	0.002	0.006	0.004	0.005	0.005	0.0076	0.0089	0.008	0.017
2007191051	2007191331	9.81	9.62	0.0005	0.0005	0.01	0.009	0.005	0.005	0.031	0.0253	0.021	0.024
2007191066	2007191379	2.18	2.01	0.0005	0.0005	0.0005	0.0005	0.005	0.005	0.0018	0.0007	0.011	0.012
2007191092	2007191211	2.78	5.31	0.0005	0.0005	0.054	0.037	0.005	0.005	0.0452	0.196	0.098	0.222
2007191134	2007191282	1.74	1.02	0.0005	0.0005	0.035	0.014	0.005	0.005	0.59	1.15	0.005	0.063
2007191152	2007191578	1.38	0.79	0.0005	0.0005	0.007	0.005	0.005	0.005	0.122	0.178	0.017	0.021
2007191168	2007191195	4.68	3.64	0.0005	0.0005	0.003	0.003	0.005	0.005	0.0118	0.0201	0.006	0.02
2007191192	2007191339	2.45	2.62	0.0005	0.0005	0.002	0.003	0.005	0.005	0.0117	0.0134	0.024	0.025
2007191215	2007191281	4.4	2.34	0.0005	0.0005	0.002	0.008	0.005	0.005	0.022	0.0677	0.049	0.05
2007191216	2007191385	1.6	2.09	0.0005	0.0005	0.002	0.002	0.005	0.005	0.0024	0.0014	0.007	0.017
2007191264	2007191486	2.17	1.62	0.0005	0.0005	0.002	0.002	0.005	0.005	0.0048	0.0154	0.029	0.036
2007191275	2007191590	1.46	1.46	0.0005	0.0005	0.0005	0.0005	0.005	0.005	0.0046	0.0006	0.023	0.006
2007191293	2007191518	8.14	5.02	0.0005	0.0005	0.0005	0.002	0.005	0.005	0.0005	0.0089	0.015	0.025
2007191295	2007191498	1.93	1.6	0.0005	0.0005	0.0005	0.0005	0.005	0.005	0.0018	0.0021	0.01	0.014
2007191346	2007191429	2.28	2.34	0.0005	0.0005	0.001	0.0005	0.005	0.005	0.0082	0.0028	0.021	0.011
2007191372	2007191445	1.41	0.62	0.0005	0.0005	0.01	0.007	0.005	0.005	0.0603	0.241	0.065	0.201
2007191382	2007191509	2.86	1.36	0.0005	0.0005	0.0005	0.003	0.005	0.005	0.0035	0.0522	0.016	0.017
2007191473	2007191510	1.64	1.81	0.002	0.0005	0.0005	0.0005	0.005	0.005	0.0024	0.003	0.012	0.013

Appendix 21. Field duplicates analysis by MMI™

SITEID	SITEID	Tl (ppm)	Tl (ppm)	U (ppm)	U (ppm)	V (ppm)	V (ppm)	W (ppm)	W (ppm)	Y (ppm)	Y (ppm)	Yb (ppm)	Yb (ppm)
METHOD:	METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.0005	0.0005	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.005	0.001	0.001
2007190825	2007191214	0.00025	0.00025	0.114	0.255	0.034	0.038	0.0005	0.0005	0.035	0.068	0.008	0.009
2007190826	2007191052	0.00025	0.00025	0.059	0.049	0.016	0.01	0.0005	0.0005	0.059	0.064	0.005	0.004
2007190827	2007191440	0.00025	0.0006	0.039	0.591	0.022	0.01	0.0005	0.0005	0.011	0.088	0.001	0.005
2007190834	2007190889	0.00025	0.0007	0.055	0.007	0.042	0.011	0.0005	0.0005	0.2	0.031	0.017	0.001
2007190849	2007191277	0.0007	0.0006	0.071	0.196	0.044	0.033	0.0005	0.0005	0.081	0.132	0.01	0.013
2007190853	2007190939	0.0025	0.0015	0.219	0.075	0.029	0.034	0.0005	0.0005	0.018	0.018	0.002	0.0005
2007190865	2007191183	0.00025	0.00025	0.003	0.004	0.046	0.052	0.0005	0.0005	0.026	0.023	0.001	0.001
2007190874	2007191297	0.00025	0.00025	0.009	0.054	0.046	0.038	0.0005	0.0005	0.162	0.099	0.013	0.005
2007190887	2007191058	0.0014	0.0025	0.231	0.51	0.227	0.002	0.002	0.002	0.559	1.74	0.086	0.19
2007190895	2007190947	0.00025	0.00025	0.052	0.029	0.138	0.163	0.0005	0.0005	0.076	0.018	0.012	0.004
2007190896	2007191441	0.0007	0.0007	0.24	0.519	0.01	0.009	0.0005	0.0005	0.208	0.242	0.013	0.009
2007190922	2007191082	0.00025	0.00025	0.056	0.04	0.052	0.037	0.0005	0.0005	0.217	0.189	0.018	0.01
2007190927	2007191444	0.00025	0.00025	0.059	0.102	0.01	0.012	0.0005	0.0005	0.467	0.698	0.032	0.036
2007190949	2007191504	0.001	0.00025	0.014	0.015	0.014	0.024	0.001	0.0005	0.043	0.04	0.006	0.003
2007190968	2007191437	0.00025	0.00025	0.03	0.02	0.039	0.065	0.0005	0.0005	0.044	0.034	0.003	0.003
2007190970	2007191245	0.00025	0.0027	0.034	0.314	0.024	0.11	0.0005	0.002	0.015	0.193	0.002	0.026
2007190986	2007191592	0.00025	0.00025	0.017	0.016	0.022	0.023	0.001	0.0005	0.038	0.051	0.002	0.002
2007190990	2007191537	0.0022	0.0016	0.266	0.294	0.028	0.019	0.003	0.003	1.8	3.08	0.254	0.359
2007191007	2007191551	0.00025	0.00025	0.037	0.036	0.017	0.039	0.0005	0.0005	0.127	0.176	0.008	0.011
2007191028	2007191531	0.0006	0.0006	0.015	0.022	0.015	0.009	0.0005	0.0005	0.137	0.071	0.008	0.003
2007191051	2007191331	0.00025	0.00025	0.134	0.139	0.046	0.05	0.0005	0.0005	0.212	0.245	0.013	0.011
2007191066	2007191379	0.00025	0.00025	0.006	0.003	0.018	0.02	0.0005	0.0005	0.007	0.0025	0.0005	0.001
2007191092	2007191211	0.00025	0.00025	0.084	0.314	0.007	0.026	0.002	0.0005	2.26	1.21	0.2	0.108
2007191134	2007191282	0.00025	0.00025	0.131	0.124	0.012	0.021	0.0005	0.0005	0.845	0.332	0.048	0.015
2007191152	2007191578	0.00025	0.00025	0.244	0.225	0.017	0.015	0.0005	0.0005	0.115	0.112	0.007	0.005
2007191168	2007191195	0.00025	0.00025	0.049	0.025	0.025	0.026	0.0005	0.0005	0.078	0.09	0.006	0.005
2007191192	2007191339	0.00025	0.00025	0.07	0.122	0.028	0.029	0.0005	0.0005	0.051	0.09	0.003	0.004
2007191215	2007191281	0.0009	0.00025	0.007	0.021	0.023	0.009	0.0005	0.0005	0.052	0.211	0.003	0.009
2007191216	2007191385	0.00025	0.0006	0.013	0.047	0.01	0.012	0.0005	0.0005	0.063	0.057	0.003	0.006
2007191264	2007191486	0.00025	0.00025	0.049	0.053	0.019	0.04	0.0005	0.0005	0.035	0.081	0.003	0.003
2007191275	2007191590	0.00025	0.00025	0.006	0.009	0.032	0.02	0.0005	0.0005	0.018	0.013	0.002	0.001
2007191293	2007191518	0.00025	0.00025	0.025	0.083	0.1	0.095	0.0005	0.0005	0.0025	0.073	0.0005	0.003
2007191295	2007191498	0.00025	0.00025	0.008	0.006	0.035	0.039	0.0005	0.0005	0.022	0.022	0.0005	0.001
2007191346	2007191429	0.00025	0.00025	0.085	0.091	0.048	0.034	0.0005	0.001	0.042	0.016	0.002	0.004
2007191372	2007191445	0.0009	0.00025	0.05	0.042	0.015	0.02	0.0005	0.0005	0.287	0.17	0.017	0.009
2007191382	2007191509	0.0005	0.00025	0.982	0.685	0.02	0.019	0.0005	0.0005	0.026	0.111	0.003	0.004
2007191473	2007191510	0.0005	0.00025	0.003	0.002	0.015	0.015	0.0005	0.0005	0.009	0.028	0.0005	0.003

Appendix 21. Field duplicates analysis by MMI™

SITEID	SITEID	Zn (ppm)	Zn (ppm)	Zr (ppm)	Zr (ppm)
METHOD:	METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME
D1	D2	D1	D2	D1	D2
LLD:	LLD:	0.02	0.02	0.005	0.005
2007190825	2007191214	0.05	0.08	0.0025	0.01
2007190826	2007191052	0.06	0.12	0.0025	0.0025
2007190827	2007191440	0.12	0.16	0.0025	0.0025
2007190834	2007190889	0.08	0.1	0.084	0.0025
2007190849	2007191277	0.09	0.04	0.0025	0.012
2007190853	2007190939	0.19	0.26	0.006	0.0025
2007190865	2007191183	0.06	0.06	0.006	0.011
2007190874	2007191297	0.06	0.08	0.051	0.008
2007190887	2007191058	1.1	0.19	0.143	0.044
2007190895	2007190947	0.11	0.14	0.014	0.014
2007190896	2007191441	0.34	0.43	0.015	0.0025
2007190922	2007191082	0.59	0.25	0.082	0.108
2007190927	2007191444	1.07	1.74	0.048	0.069
2007190949	2007191504	0.18	0.1	0.0025	0.006
2007190968	2007191437	0.06	0.08	0.007	0.01
2007190970	2007191245	1.65	10.2	0.021	0.054
2007190986	2007191592	0.19	0.2	0.007	0.01
2007190990	2007191537	0.52	0.5	0.147	0.148
2007191007	2007191551	0.12	0.29	0.078	0.07
2007191028	2007191531	0.06	0.03	0.008	0.006
2007191051	2007191331	0.12	0.12	0.014	0.02
2007191066	2007191379	0.13	0.07	0.0025	0.0025
2007191092	2007191211	1.26	3.85	0.284	0.466
2007191134	2007191282	0.08	0.06	0.024	0.078
2007191152	2007191578	0.06	0.06	0.012	0.046
2007191168	2007191195	0.11	0.32	0.0025	0.02
2007191192	2007191339	0.31	0.22	0.015	0.011
2007191215	2007191281	1.67	0.38	0.07	0.103
2007191216	2007191385	0.04	0.07	0.0025	0.0025
2007191264	2007191486	0.19	0.28	0.006	0.017
2007191275	2007191590	0.14	0.27	0.005	0.0025
2007191293	2007191518	0.07	0.06	0.006	0.017
2007191295	2007191498	0.05	0.05	0.009	0.01
2007191346	2007191429	0.1	0.1	0.007	0.0025
2007191372	2007191445	0.1	0.1	0.023	0.042
2007191382	2007191509	0.09	0.12	0.0025	0.011
2007191473	2007191510	0.13	0.09	0.0025	0.0025

Appendix 22. QC samples analysis by MMI™

Appendix 22. QC samples analysis by MMI™

SAMPLEID	TYPE	REAL	Ag (ppm)	Al (ppm)	As (ppm)	Au (ppm)	Ba (ppm)	Bi (ppm)	Ca (ppm)	Cd (ppm)	Ce (ppm)	Co (ppm)	Cr (ppm)
METHOD:		SAMPLEID	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
LLD:			0.001	1	0.01	0.0001	0.01	0.001	10	0.001	0.005	0.005	0.001
STD-MMI -M SRM 18			0.024	21	0.01	0.0093	0.16	0.0005	160	0.059	0.017	0.054	0.036
STD-MMI -M SRM 18			0.027	23	0.005	0.0093	0.16	0.0005	170	0.07	0.02	0.087	0.03
STD-MMI -M SRM 18			0.022	23	0.02	0.0096	0.18	0.0005	170	0.068	0.021	0.077	0.036
STD-MMI -M SRM 18			0.023	24	0.005	0.0093	0.17	0.0005	160	0.059	0.013	0.06	0.033
STD-MMI -M SRM 18			0.024	22	0.005	0.0093	0.15	0.0005	150	0.073	0.016	0.079	0.035
STD-MMI -M SRM 18			0.022	22	0.01	0.009	0.17	0.0005	180	0.07	0.018	0.074	0.037
STD-MMI -M SRM 18			0.023	24	0.005	0.0104	0.18	0.0005	180	0.064	0.027	0.071	0.036
STD-MMI -M SRM 18			0.023	24	0.02	0.0089	0.14	0.0005	180	0.066	0.02	0.072	0.03
STD-MMI -M SRM 18			0.022	23	0.01	0.009	0.17	0.0005	180	0.065	0.014	0.072	0.034
STD-MMI -M SRM 18			0.023	21	0.02	0.0089	0.16	0.0005	160	0.069	0.018	0.07	0.034
STD-MMI -M SRM 18			0.019	20	0.02	0.009	0.16	0.0005	190	0.061	0.017	0.063	0.032
STD-MMI -M SRM 18			0.022	23	0.005	0.0091	0.15	0.0005	190	0.066	0.019	0.065	0.033
STD-MMI -M SRM 18			0.027	21	0.005	0.0096	0.16	0.0005	180	0.067	0.019	0.075	0.032
STD-MMI -M SRM 18			0.021	21	0.01	0.0091	0.13	0.0005	160	0.062	0.014	0.067	0.037
STD-MMI -M SRM 18			0.022	25	0.01	0.0101	0.17	0.0005	190	0.06	0.017	0.063	0.032
STD-MMI -M SRM 18			0.021	23	0.005	0.0108	0.17	0.0005	200	0.066	0.013	0.078	0.032
STD-MMI -M SRM 18			0.021	22	0.005	0.0096	0.16	0.0005	160	0.059	0.013	0.059	0.033
STD-MMI -M SRM 18			0.021	23	0.005	0.0095	0.16	0.0005	150	0.064	0.017	0.057	0.035
STD-MMI -M SRM 18			0.02	23	0.005	0.0102	0.16	0.0005	180	0.06	0.01	0.059	0.036
STD-MMI -M SRM 18			0.02	23	0.005	0.0099	0.17	0.0005	180	0.067	0.012	0.056	0.033
STD-MMI -M SRM 18			0.021	23	0.01	0.0092	0.15	0.0005	160	0.065	0.013	0.058	0.033
STD-MMI -M SRM 18			0.021	22	0.005	0.0093	0.16	0.0005	160	0.065	0.016	0.061	0.032
Average			**0.022**	**23**	**0.009**	**0.0095**	**0.16**	**0.0005**	**172**	**0.065**	**0.017**	**0.067**	**0.034**
SD			**0.002**	**1**	**0.006**	**0.0005**	**0.01**	**0.0000**	**14**	**0.004**	**0.004**	**0.009**	**0.002**
RSD			**9%**	**5%**	**63%**	**5%**	**7%**	**0%**	**8%**	**6%**	**23%**	**13%**	**6%**
% <LLD			**0%**	**0%**	**55%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**	**0%**
STD-MMI -M SRM 19			0.024	24	0.005	0.0066	1.1	0.0005	730	0.038	0.02	0.317	0.051
STD-MMI -M SRM 19			0.027	26	0.005	0.0077	1.1	0.0005	730	0.039	0.02	0.385	0.086
STD-MMI -M SRM 19			0.022	22	0.01	0.008	1.2	0.0005	800	0.033	0.019	0.365	0.053
STD-MMI -M SRM 19			0.027	22	0.005	0.0065	1.03	0.0005	730	0.033	0.018	0.324	0.083
STD-MMI -M SRM 19			0.025	22	0.005	0.0066	1.1	0.0005	770	0.032	0.027	0.372	0.114
STD-MMI -M SRM 19			0.024	23	0.005	0.0068	1.05	0.0005	720	0.032	0.023	0.322	0.053
STD-MMI -M SRM 19			0.023	19	0.005	0.006	1.1	0.0005	720	0.033	0.022	0.391	0.038
STD-MMI -M SRM 19			0.023	20	0.005	0.0062	1.03	0.0005	720	0.033	0.024	0.388	0.035
STD-MMI -M SRM 19			0.023	24	0.005	0.0064	1.1	0.0005	730	0.032	0.019	0.391	0.147
STD-MMI -M SRM 19			0.024	23	0.005	0.0061	1.1	0.0005	740	0.039	0.021	0.377	0.134
STD-MMI -M SRM 19			0.023	21	0.005	0.0062	1.06	0.0005	720	0.036	0.022	0.329	0.037
Average			**0.024**	**22**	**0.005**	**0.0066**	**1.09**	**0.0005**	**737**	**0.035**	**0.021**	**0.360**	**0.076**
SD			**0.002**	**2**	**0.002**	**0.0006**	**0.05**	**0.0000**	**25**	**0.003**	**0.003**	**0.031**	**0.040**
RSD			**7%**	**9%**	**28%**	**10%**	**4%**	**0%**	**3%**	**8%**	**12%**	**8%**	**53%**
% <LLD			**0%**	**0%**	**91%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**	**0%**
2007190040	DUP	2007191093	0.012	13	0.005	0.0004	2.7	0.0005	730	0.01	0.039	0.238	0.017
2007191093			0.02	12	0.01	0.0002	2.92	0.0005	750	0.011	0.061	0.296	0.044
Average			**0.016**	**13**	**0.008**	**0.0003**	**2.81**	**0.0005**	**740**	**0.011**	**0.050**	**0.267**	**0.031**
SD			**0.006**	**1**	**0.004**	**0.0001**	**0.16**	**0.0000**	**14**	**0.001**	**0.016**	**0.041**	**0.019**
RSD			**35%**	**6%**	**47%**	**47%**	**6%**	**0%**	**2%**	**7%**	**31%**	**15%**	**63%**
% <LLD			**0%**	**0%**	**50%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**	**0%**
2007190120	DUP	2007190889	0.001	34	0.005	0.00005	0.1	0.0005	70	0.002	0.805	0.054	0.1
2007190280	DUP	2007190889	0.0005	38	0.01	0.00005	0.14	0.0005	60	0.001	0.88	0.047	0.093
2007190640	DUP	2007190889	0.0005	38	0.02	0.00005	0.21	0.0005	70	0.002	0.742	0.054	0.096
2007190889			0.018	3	0.005	0.0002	1.01	0.0005	660	0.001	0.058	0.097	0.011
Average			**0.005**	**28**	**0.010**	**0.0001**	**0.37**	**0.0005**	**215**	**0.002**	**0.621**	**0.063**	**0.075**
SD			**0.009**	**17**	**0.007**	**0.0001**	**0.43**	**0.0000**	**297**	**0.001**	**0.380**	**0.023**	**0.043**
RSD			**173%**	**60%**	**71%**	**86%**	**118%**	**0%**	**138%**	**38%**	**61%**	**36%**	**57%**
% <LLD			**50%**	**0%**	**50%**	**75%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**	**0%**
2007190200	DUP	2007190929	0.002	114	0.005	0.0001	1.25	0.001	130	0.013	0.051	0.641	0.015
2007190929			0.125	3	0.01	0.0003	1.23	0.001	160	0.017	0.072	0.727	0.039
Average			**0.064**	**59**	**0.008**	**0.0002**	**1.24**	**0.0010**	**145**	**0.015**	**0.062**	**0.684**	**0.027**
SD			**0.087**	**78**	**0.004**	**0.0001**	**0.01**	**0.0000**	**21**	**0.003**	**0.015**	**0.061**	**0.017**
RSD			**137%**	**134%**	**47%**	**71%**	**1%**	**0%**	**15%**	**19%**	**24%**	**9%**	**63%**
% <LLD			**0%**	**0%**	**50%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
2007190360	DUP	2007190639	0.003	14	0.05	0.0019	3.2	0.0005	770	0.036	0.102	0.159	0.055
2007190639			0.002	12	0.04	0.0013	3.06	0.0005	980	0.035	0.079	0.149	0.048
Average			**0.003**	**13**	**0.045**	**0.0016**	**3.13**	**0.0005**	**875**	**0.036**	**0.091**	**0.154**	**0.052**
SD			**0.001**	**1**	**0.007**	**0.0004**	**0.10**	**0.0000**	**148**	**0.001**	**0.016**	**0.007**	**0.005**
RSD			**28%**	**11%**	**16%**	**27%**	**3%**	**0%**	**17%**	**2%**	**18%**	**5%**	**10%**
% <LLD			**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**	**0%**
2007190440	DUP	2007190546	0.007	10	0.01	0.0002	0.76	0.0005	540	0.009	0.038	0.144	0.011
2007190546			0.006	9	0.03	0.0002	0.96	0.0005	890	0.009	0.036	0.166	0.014
Average			**0.007**	**10**	**0.020**	**0.0002**	**0.86**	**0.0005**	**715**	**0.009**	**0.037**	**0.155**	**0.013**
SD			**0.001**	**1**	**0.014**	**0.0000**	**0.14**	**0.0000**	**247**	**0.000**	**0.001**	**0.016**	**0.002**
RSD			**11%**	**7%**	**71%**	**0%**	**16%**	**0%**	**35%**	**0%**	**4%**	**10%**	**17%**
% <LLD			**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**	**0%**

Appendix 22. QC samples analysis by MMI™

SAMPLEID	Cs (ppm)	Cu (ppm)	Dy (ppm)	Er (ppm)	Eu (ppm)	Fe (ppm)	Ga (ppm)	Gd (ppm)	Hg (ppm)	K (ppm)	La (ppm)	Li (ppm)	Mg (ppm)
METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
LLD:	0.0005	0.01	0.001	0.0005	0.0005	1	0.001	0.001	0.001	0.1	0.001	0.005	1
STD-MMI -M SRM 18	0.0623	0.64	0.002	0.0007	0.0008	2	0.005	0.003	0.004	25.2	0.006	0.0025	97
STD-MMI -M SRM 18	0.0619	0.8	0.003	0.0011	0.001	2	0.006	0.004	0.004	26.7	0.005	0.0025	93
STD-MMI -M SRM 18	0.0697	0.8	0.003	0.0014	0.001	2	0.006	0.005	0.003	25.2	0.007	0.0025	93
STD-MMI -M SRM 18	0.0612	0.6	0.002	0.0007	0.0008	2	0.004	0.003	0.002	22.7	0.003	0.0025	92
STD-MMI -M SRM 18	0.0642	0.71	0.003	0.0011	0.0008	3	0.003	0.004	0.004	24.9	0.005	0.0025	97
STD-MMI -M SRM 18	0.064	0.72	0.003	0.0013	0.0012	2	0.004	0.004	0.003	24.2	0.007	0.0025	94
STD-MMI -M SRM 18	0.0612	0.67	0.003	0.0011	0.0011	3	0.011	0.004	0.004	24	0.005	0.0025	100
STD-MMI -M SRM 18	0.0589	0.75	0.003	0.0011	0.001	3	0.004	0.004	0.003	23.6	0.005	0.0025	102
STD-MMI -M SRM 18	0.0601	0.73	0.003	0.0011	0.0009	2	0.005	0.003	0.003	26	0.004	0.0025	91
STD-MMI -M SRM 18	0.064	0.69	0.003	0.0011	0.0012	2	0.005	0.004	0.003	25	0.006	0.0025	87
STD-MMI -M SRM 18	0.0552	0.64	0.003	0.0013	0.0013	2	0.008	0.005	0.003	24.6	0.006	0.0025	90
STD-MMI -M SRM 18	0.0687	0.75	0.0005	0.0015	0.0014	2	0.007	0.005	0.004	24.6	0.005	0.0025	98
STD-MMI -M SRM 18	0.0587	0.8	0.003	0.0013	0.0011	2	0.005	0.005	0.003	22.9	0.005	0.0025	93
STD-MMI -M SRM 18	0.0626	0.64	0.002	0.0006	0.0007	2	0.005	0.003	0.003	26.4	0.006	0.0025	92
STD-MMI -M SRM 18	0.0624	0.64	0.002	0.0007	0.0007	1	0.004	0.003	0.002	23.8	0.005	0.0025	88
STD-MMI -M SRM 18	0.0585	0.74	0.003	0.001	0.0008	1	0.005	0.004	0.003	24.6	0.005	0.0025	96
STD-MMI -M SRM 18	0.0578	0.68	0.002	0.0006	0.0006	1	0.005	0.003	0.003	23.8	0.004	0.0025	90
STD-MMI -M SRM 18	0.0527	0.6	0.002	0.0007	0.0008	1	0.0005	0.002	0.002	24.6	0.005	0.0025	92
STD-MMI -M SRM 18	0.058	0.6	0.002	0.0007	0.0006	1	0.004	0.003	0.002	24.5	0.005	0.0025	95
STD-MMI -M SRM 18	0.0618	0.6	0.002	0.0007	0.0007	1	0.005	0.003	0.002	23.4	0.005	0.0025	90
STD-MMI -M SRM 18	0.0713	0.63	0.002	0.0007	0.0006	1	0.006	0.003	0.003	25.6	0.004	0.0025	92
STD-MMI -M SRM 18	0.0597	0.67	0.002	0.0007	0.0006	2	0.005	0.003	0.003	25.3	0.005	0.0025	101
Average	**0.0616**	**0.69**	**0.002**	**0.0010**	**0.0009**	**2**	**0.005**	**0.004**	**0.0030**	**24.6**	**0.005**	**0.003**	**94**
SD	**0.0044**	**0.07**	**0.001**	**0.0003**	**0.0002**	**1**	**0.002**	**0.001**	**0.0007**	**1.0**	**0.001**	**0.000**	**4**
RSD	**7%**	**10%**	**27%**	**30%**	**27%**	**37%**	**38%**	**23%**	**23%**	**4%**	**18%**	**0%**	**4%**
% <LLD	**0%**	**0%**	**5%**	**0%**	**0%**	**0%**	**5%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**
STD-MMI -M SRM 19	0.0528	2.03	0.014	0.007	0.0024	4	0.026	0.012	0.001	NVL	0.005	0.0025	134
STD-MMI -M SRM 19	0.047	2.21	0.015	0.0089	0.0039	4	0.028	0.013	0.003	NVL	0.006	0.0025	139
STD-MMI -M SRM 19	0.0474	1.77	0.016	0.0067	0.0028	3	0.031	0.012	0.001	NVL	0.006	0.0025	132
STD-MMI -M SRM 19	0.0507	2.23	0.016	0.0081	0.0035	3	0.032	0.017	0.003	93.2	0.004	0.0025	116
STD-MMI -M SRM 19	0.0555	2.25	0.013	0.0065	0.0024	2	0.024	0.013	0.002	79.7	0.006	0.0025	129
STD-MMI -M SRM 19	0.0521	1.92	0.012	0.0076	0.0024	2	0.024	0.012	0.0005	83.7	0.006	0.0025	129
STD-MMI -M SRM 19	0.0479	1.98	0.013	0.007	0.0024	2	0.024	0.014	0.001	81.6	0.005	0.0025	119
STD-MMI -M SRM 19	0.047	1.91	0.012	0.0066	0.0025	2	0.024	0.013	0.002	80.2	0.005	0.0025	126
STD-MMI -M SRM 19	0.0419	2.06	0.012	0.0071	0.0019	2	0.024	0.012	0.001	81.6	0.006	0.0025	136
STD-MMI -M SRM 19	0.0512	2.09	0.012	0.0066	0.0019	2	0.025	0.012	0.001	84.9	0.006	0.0025	131
STD-MMI -M SRM 19	0.0466	1.94	0.013	0.0066	0.0019	3	0.022	0.012	0.001	86.6	0.006	0.0025	131
Average	**0.0491**	**2.04**	**0.013**	**0.0072**	**0.0025**	**3**	**0.026**	**0.013**	**0.0015**	**83.9**	**0.006**	**0.003**	**129**
SD	**0.0038**	**0.15**	**0.002**	**0.0008**	**0.0006**	**1**	**0.003**	**0.002**	**0.0009**	**4.4**	**0.001**	**0.000**	**7**
RSD	**8%**	**7%**	**12%**	**11%**	**25%**	**31%**	**12%**	**12%**	**58%**	**5%**	**12%**	**0%**	**5%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**9%**	**0%**	**0%**	**100%**	**0%**
2007190040	0.0059	2.48	0.016	0.0083	0.0043	5	0.06	0.019	0.0005	160	0.008	0.022	313
2007191093	0.0058	2.6	0.025	0.0105	0.0055	2	0.081	0.027	0.0005	143	0.017	0.019	282
Average	**0.0059**	**2.54**	**0.021**	**0.0094**	**0.0049**	**4**	**0.071**	**0.023**	**0.0005**	**151.5**	**0.013**	**0.021**	**298**
SD	**0.0001**	**0.08**	**0.006**	**0.0016**	**0.0008**	**2**	**0.015**	**0.006**	**0.0000**	**12.0**	**0.006**	**0.002**	**22**
RSD	**1%**	**3%**	**31%**	**17%**	**17%**	**61%**	**21%**	**25%**	**0%**	**8%**	**51%**	**10%**	**7%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**
2007190120	0.0109	0.4	0.045	0.0199	0.0186	18	0.005	0.071	0.0005	37.9	0.336	0.006	80
2007190280	0.0102	0.38	0.036	0.017	0.0159	20	0.008	0.051	0.0005	40.9	0.23	0.007	90
2007190640	0.0095	0.33	0.046	0.0204	0.0204	16	0.01	0.076	0.0005	44.1	0.152	0.011	80
2007190889	0.0549	0.32	0.004	0.0014	0.0012	0.5	0.029	0.006	0.0005	314	0.018	0.127	212
Average	**0.0214**	**0.36**	**0.033**	**0.0147**	**0.0140**	**14**	**0.013**	**0.051**	**0.0005**	**109.2**	**0.184**	**0.038**	**116**
SD	**0.0224**	**0.04**	**0.020**	**0.0090**	**0.0087**	**9**	**0.011**	**0.032**	**0.0000**	**136.5**	**0.134**	**0.060**	**65**
RSD	**105%**	**11%**	**60%**	**61%**	**62%**	**65%**	**84%**	**63%**	**0%**	**125%**	**73%**	**158%**	**56%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**25%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**
2007190200	0.0209	0.15	0.143	0.282	0.0048	241	0.029	0.037	0.0005	126	0.018	0.019	226
2007190929	0.0208	0.22	0.304	0.29	0.0072	230	0.039	0.07	0.0005	114	0.022	0.018	162
Average	**0.0209**	**0.19**	**0.224**	**0.2860**	**0.0060**	**236**	**0.034**	**0.054**	**0.0005**	**120.0**	**0.020**	**0.019**	**194**
SD	**0.0001**	**0.05**	**0.114**	**0.0057**	**0.0017**	**8**	**0.007**	**0.023**	**0.0000**	**8.5**	**0.003**	**0.001**	**45**
RSD	**0%**	**27%**	**51%**	**2%**	**28%**	**3%**	**21%**	**44%**	**0%**	**7%**	**14%**	**4%**	**23%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**
2007190360	0.0053	0.87	0.044	0.0273	0.01	29	0.099	0.041	0.0005	55.6	0.048	0.087	363
2007190639	0.0071	0.55	0.047	0.0292	0.0102	19	0.092	0.05	0.0005	50.9	0.026	0.065	204
Average	**0.0062**	**0.71**	**0.046**	**0.0283**	**0.0101**	**24**	**0.096**	**0.046**	**0.0005**	**53.3**	**0.037**	**0.076**	**284**
SD	**0.0013**	**0.23**	**0.002**	**0.0013**	**0.0001**	**7**	**0.005**	**0.006**	**0.0000**	**3.3**	**0.016**	**0.016**	**112**
RSD	**21%**	**32%**	**5%**	**5%**	**1%**	**29%**	**5%**	**14%**	**0%**	**6%**	**42%**	**20%**	**40%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**
2007190440	0.0074	0.78	0.013	0.0062	0.0043	6	0.021	0.014	0.0005	179	0.016	0.038	221
2007190546	0.0107	0.89	0.016	0.0084	0.0046	8	0.031	0.015	0.001	212	0.007	0.039	178
Average	**0.0091**	**0.84**	**0.015**	**0.0073**	**0.0045**	**7**	**0.026**	**0.015**	**0.0008**	**195.5**	**0.012**	**0.039**	**200**
SD	**0.0023**	**0.08**	**0.002**	**0.0016**	**0.0002**	**1**	**0.007**	**0.001**	**0.0004**	**23.3**	**0.006**	**0.001**	**30**
RSD	**26%**	**9%**	**15%**	**21%**	**5%**	**20%**	**27%**	**5%**	**47%**	**12%**	**55%**	**2%**	**15%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**50%**	**0%**	**0%**	**0%**	**0%**

Appendix 22. QC samples analysis by MMI™

SAMPLEID	Mn (ppm)	Mo (ppm)	Nb (ppm)	Nd (ppm)	Ni (ppm)	P (ppm)	Pb (ppm)	Pd (ppm)	Pr (ppm)	Pt (ppm)	Rb (ppm)	Sb (ppm)	Sc (ppm)
METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
LLD:	0.005	0.005	0.0005	0.001	0.005	0.1	0.01	0.001	0.001	0.001	0.00025	0.001	0.005
STD-MMI -M SRM 18	0.47	0.029	0.00025	0.015	0.496	0.7	0.16	0.011	0.002	0.004	0.168	0.0005	0.0025
STD-MMI -M SRM 18	0.469	0.039	0.00025	0.015	0.548	0.8	0.17	0.014	0.002	0.007	0.171	0.0005	0.0025
STD-MMI -M SRM 18	0.498	0.045	0.0009	0.015	0.562	0.8	0.19	0.014	0.003	0.006	0.167	0.0005	0.0025
STD-MMI -M SRM 18	0.478	0.035	0.00025	0.011	0.486	0.6	0.15	0.011	0.002	0.004	0.165	0.0005	0.0025
STD-MMI -M SRM 18	0.498	0.04	0.0008	0.011	0.528	1	0.18	0.014	0.003	0.006	0.167	0.0005	0.0025
STD-MMI -M SRM 18	0.503	0.039	0.00025	0.015	0.482	1	0.18	0.013	0.003	0.006	0.166	0.0005	0.0025
STD-MMI -M SRM 18	0.498	0.037	0.00025	0.016	0.52	1.1	0.18	0.013	0.004	0.006	0.162	0.0005	0.0025
STD-MMI -M SRM 18	0.469	0.037	0.00025	0.014	0.521	0.9	0.17	0.014	0.003	0.006	0.16	0.0005	0.0025
STD-MMI -M SRM 18	0.498	0.038	0.00025	0.011	0.577	0.8	0.17	0.016	0.002	0.006	0.157	0.0005	0.0025
STD-MMI -M SRM 18	0.491	0.038	0.00025	0.017	0.566	0.8	0.17	0.015	0.004	0.006	0.151	0.0005	0.0025
STD-MMI -M SRM 18	0.451	0.033	0.0006	0.016	0.488	0.8	0.19	0.012	0.003	0.006	0.15	0.0005	0.0025
STD-MMI -M SRM 18	0.429	0.035	0.0005	0.015	0.498	0.7	0.16	0.013	0.003	0.006	0.159	0.0005	0.0025
STD-MMI -M SRM 18	0.489	0.038	0.00025	0.016	0.522	0.6	0.18	0.015	0.003	0.007	0.16	0.0005	0.0025
STD-MMI -M SRM 18	0.491	0.033	0.00025	0.012	0.492	0.8	0.16	0.015	0.003	0.006	0.172	0.0005	0.0025
STD-MMI -M SRM 18	0.452	0.032	0.001	0.013	0.558	0.6	0.16	0.014	0.003	0.005	0.161	0.0005	0.0025
STD-MMI -M SRM 18	0.5	0.038	0.00025	0.011	0.493	0.8	0.18	0.013	0.002	0.006	0.176	0.0005	0.0025
STD-MMI -M SRM 18	0.453	0.032	0.00025	0.012	0.5	0.7	0.15	0.016	0.002	0.005	0.191	0.0005	0.0025
STD-MMI -M SRM 18	0.451	0.031	0.00025	0.011	0.482	0.6	0.19	0.014	0.002	0.005	0.181	0.0005	0.0025
STD-MMI -M SRM 18	0.447	0.034	0.00025	0.013	0.499	0.6	0.18	0.013	0.002	0.005	0.181	0.0005	0.0025
STD-MMI -M SRM 18	0.394	0.033	0.00025	0.014	0.515	0.5	0.16	0.016	0.002	0.006	0.155	0.0005	0.0025
STD-MMI -M SRM 18	0.459	0.034	0.00025	0.011	0.48	0.6	0.17	0.016	0.002	0.005	0.167	0.0005	0.0025
STD-MMI -M SRM 18	0.449	0.031	0.00025	0.013	0.489	0.6	0.16	0.014	0.002	0.005	0.165	0.0005	0.0025
Average	**0.5**	**0.0355**	**0.00037**	**0.014**	**0.51**	**0.7**	**0.17**	**0.0139**	**0.003**	**0.0056**	**0.1660**	**0.0005**	**0.003**
SD	**0.0**	**0.0038**	**0.00024**	**0.002**	**0.03**	**0.2**	**0.01**	**0.0015**	**0.001**	**0.0008**	**0.0100**	**0.0000**	**0.000**
RSD	**6%**	**11%**	**65%**	**15%**	**6%**	**21%**	**7%**	**11%**	**26%**	**14%**	**6%**	**0%**	**0%**
% <LLD	**0%**	**0%**	**77%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**100%**
STD-MMI -M SRM 19	4.95	0.012	0.00025	0.029	2.03	1	0.74	0.0005	0.004	0.0005	0.225	0.0005	0.011
STD-MMI -M SRM 19	5.15	0.012	0.0006	0.027	2.2	0.6	0.8	0.0005	0.004	0.0005	0.21	0.0005	0.013
STD-MMI -M SRM 19	4.23	0.011	0.0005	0.029	2.06	0.9	0.75	0.0005	0.003	0.0005	0.231	0.0005	0.012
STD-MMI -M SRM 19	4.7	0.013	0.00025	0.029	1.93	0.9	0.93	0.0005	0.004	0.0005	0.237	0.001	0.009
STD-MMI -M SRM 19	5.23	0.013	0.00025	0.027	2.14	0.8	0.88	0.0005	0.003	0.0005	0.229	0.0005	0.01
STD-MMI -M SRM 19	5.06	0.011	0.00025	0.031	1.77	0.9	0.76	0.0005	0.004	0.0005	0.225	0.0005	0.01
STD-MMI -M SRM 19	5.2	0.012	0.00025	0.027	1.85	0.9	0.79	0.0005	0.003	0.0005	0.21	0.0005	0.008
STD-MMI -M SRM 19	4.76	0.012	0.00025	0.028	1.82	0.9	0.72	0.0005	0.004	0.0005	0.208	0.0005	0.009
STD-MMI -M SRM 19	5.08	0.013	0.00025	0.028	2.2	0.9	0.79	0.0005	0.004	0.0005	0.226	0.0005	0.011
STD-MMI -M SRM 19	5.4	0.013	0.00025	0.028	2.19	0.9	0.85	0.0005	0.004	0.0005	0.21	0.0005	0.012
STD-MMI -M SRM 19	4.84	0.012	0.00025	0.027	1.94	0.9	0.8	0.0005	0.002	0.0005	0.212	0.0005	0.008
Average	**5.0**	**0.0122**	**0.00030**	**0.028**	**2.01**	**0.9**	**0.80**	**0.0005**	**0.004**	**0.0005**	**0.2203**	**0.0005**	**0.010**
SD	**0.3**	**0.0008**	**0.00012**	**0.001**	**0.16**	**0.1**	**0.06**	**0.0000**	**0.001**	**0.0000**	**0.0104**	**0.0002**	**0.002**
RSD	**6%**	**6%**	**41%**	**4%**	**8%**	**12%**	**8%**	**0%**	**19%**	**0%**	**5%**	**28%**	**16%**
% <LLD	**0%**	**0%**	**82%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**100%**	**0%**	**91%**	**0%**
2007190040	4.39	0.011	0.00025	0.032	1.54	2.8	0.05	0.0005	0.005	0.0005	0.0632	0.0005	0.0025
2007191093	5.66	0.012	0.00025	0.046	1.74	2.6	0.1	0.0005	0.008	0.0005	0.0663	0.0005	0.007
Average	**5.0**	**0.0115**	**0.00025**	**0.039**	**1.64**	**2.7**	**0.08**	**0.0005**	**0.007**	**0.0005**	**0.0648**	**0.0005**	**0.005**
SD	**0.9**	**0.0007**	**0.00000**	**0.010**	**0.14**	**0.1**	**0.04**	**0.0000**	**0.002**	**0.0000**	**0.0022**	**0.0000**	**0.003**
RSD	**18%**	**6%**	**0%**	**25%**	**9%**	**5%**	**47%**	**0%**	**33%**	**0%**	**3%**	**0%**	**67%**
% <LLD	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**100%**	**0%**	**100%**	**50%**
2007190120	8.35	0.006	0.0023	0.421	0.236	1.2	0.08	0.003	0.106	0.0005	0.0848	0.0005	0.048
2007190280	6.08	0.005	0.0011	0.412	0.22	1.4	0.07	0.003	0.099	0.0005	0.0833	0.0005	0.045
2007190640	5.64	0.006	0.0019	0.423	0.228	1.9	0.08	0.001	0.102	0.0005	0.0852	0.0005	0.049
2007190889	3.16	0.013	0.00025	0.025	0.253	2	0.03	0.0005	0.006	0.0005	0.998	0.001	0.008
Average	**5.8**	**0.0075**	**0.00139**	**0.320**	**0.23**	**1.6**	**0.07**	**0.0019**	**0.078**	**0.0005**	**0.3128**	**0.0006**	**0.038**
SD	**2.1**	**0.0037**	**0.00091**	**0.197**	**0.01**	**0.4**	**0.02**	**0.0013**	**0.048**	**0.0000**	**0.4568**	**0.0003**	**0.020**
RSD	**37%**	**49%**	**65%**	**61%**	**6%**	**24%**	**37%**	**70%**	**62%**	**0%**	**146%**	**40%**	**53%**
% <LLD	**0%**	**0%**	**25%**	**0%**	**0%**	**0%**	**0%**	**25%**	**0%**	**100%**	**0%**	**75%**	**0%**
2007190200	3.35	0.0025	0.0012	0.041	0.727	2.6	0.29	0.005	0.008	0.0005	0.334	0.002	0.221
2007190929	4.43	0.0025	0.00025	0.072	1.05	2.7	0.79	0.001	0.014	0.0005	0.317	0.001	0.235
Average	**3.9**	**0.0025**	**0.00073**	**0.057**	**0.89**	**2.7**	**0.54**	**0.0030**	**0.011**	**0.0005**	**0.3255**	**0.0015**	**0.228**
SD	**0.8**	**0.0000**	**0.00067**	**0.022**	**0.23**	**0.1**	**0.35**	**0.0028**	**0.004**	**0.0000**	**0.0120**	**0.0007**	**0.010**
RSD	**20%**	**0%**	**93%**	**39%**	**26%**	**3%**	**65%**	**94%**	**39%**	**0%**	**4%**	**47%**	**4%**
% <LLD	**0%**	**100%**	**50%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**
2007190360	4.86	0.018	0.0007	0.124	1.76	5.3	0.21	0.002	0.025	0.0005	0.062	0.002	0.011
2007190639	4.41	0.02	0.0029	0.111	1.46	4.8	0.22	0.0005	0.022	0.0005	0.0593	0.002	0.01
Average	**4.6**	**0.0190**	**0.00180**	**0.118**	**1.61**	**5.1**	**0.22**	**0.0013**	**0.024**	**0.0005**	**0.0607**	**0.0020**	**0.011**
SD	**0.3**	**0.0014**	**0.00156**	**0.009**	**0.21**	**0.4**	**0.01**	**0.0011**	**0.002**	**0.0000**	**0.0019**	**0.0000**	**0.001**
RSD	**7%**	**7%**	**86%**	**8%**	**13%**	**7%**	**3%**	**85%**	**9%**	**0%**	**3%**	**0%**	**7%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**50%**	**0%**	**100%**	**0%**	**0%**	**0%**
2007190440	2.57	0.0025	0.00025	0.046	0.856	2.2	0.03	0.0005	0.009	0.0005	0.0753	0.0005	0.0025
2007190546	2.28	0.0025	0.0015	0.04	0.74	2.3	0.03	0.0005	0.005	0.0005	0.0864	0.0005	0.0025
Average	**2.4**	**0.0025**	**0.00088**	**0.043**	**0.80**	**2.3**	**0.03**	**0.0005**	**0.007**	**0.0005**	**0.0809**	**0.0005**	**0.003**
SD	**0.2**	**0.0000**	**0.00088**	**0.004**	**0.08**	**0.1**	**0.00**	**0.0000**	**0.003**	**0.0000**	**0.0078**	**0.0000**	**0.000**
RSD	**8%**	**0%**	**101%**	**10%**	**10%**	**3%**	**0%**	**0%**	**40%**	**0%**	**10%**	**0%**	**0%**
% <LLD	**0%**	**100%**	**50%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**100%**	**0%**	**100%**	**100%**

Appendix 22. QC samples analysis by MMI™

SAMPLEID	Se (ppm)	Sm (ppm)	Sn (ppm)	Sr (ppm)	Ta (ppm)	Tb (ppm)	Te (ppm)	Th (ppm)	Ti (ppm)	Tl (ppm)	U (ppm)	V (ppm)	W (ppm)
METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
LLD:	0.002	0.001	0.001	0.01	0.001	0.001	0.01	0.0005	0.003	0.0005	0.001	0.001	0.001
STD-MMI -M SRM 18	0.007	0.003	0.0005	1.25	0.0005	0.0005	0.005	0.0126	0.0015	0.00025	0.015	0.049	0.0005
STD-MMI -M SRM 18	0.016	0.004	0.0005	1.22	0.0005	0.0005	0.005	0.0135	0.006	0.00025	0.018	0.053	0.0005
STD-MMI -M SRM 18	0.019	0.004	0.0005	1.25	0.0005	0.0005	0.005	0.013	0.007	0.00025	0.019	0.05	0.0005
STD-MMI -M SRM 18	0.012	0.003	0.0005	1.16	0.0005	0.0005	0.005	0.0126	0.005	0.00025	0.016	0.052	0.0005
STD-MMI -M SRM 18	0.019	0.004	0.0005	1.18	0.0005	0.0005	0.005	0.0134	0.006	0.00025	0.018	0.049	0.0005
STD-MMI -M SRM 18	0.021	0.005	0.0005	1.14	0.0005	0.0005	0.005	0.0139	0.005	0.00025	0.018	0.047	0.0005
STD-MMI -M SRM 18	0.001	0.004	0.0005	1.17	0.0005	0.0005	0.005	0.014	0.006	0.00025	0.018	0.054	0.0005
STD-MMI -M SRM 18	0.001	0.004	0.0005	1.07	0.0005	0.0005	0.005	0.0133	0.006	0.00025	0.017	0.049	0.0005
STD-MMI -M SRM 18	0.009	0.004	0.0005	1.12	0.0005	0.0005	0.005	0.0134	0.009	0.00025	0.016	0.054	0.0005
STD-MMI -M SRM 18	0.003	0.004	0.0005	1.16	0.0005	0.0005	0.005	0.0138	0.007	0.00025	0.017	0.051	0.0005
STD-MMI -M SRM 18	0.001	0.005	0.0005	1.21	0.0005	0.0005	0.005	0.015	0.007	0.00025	0.019	0.058	0.0005
STD-MMI -M SRM 18	0.002	0.004	0.0005	1.27	0.0005	0.0005	0.005	0.0129	0.006	0.00025	0.019	0.062	0.0005
STD-MMI -M SRM 18	0.003	0.004	0.0005	1.28	0.0005	0.0005	0.005	0.0145	0.006	0.00025	0.019	0.054	0.0005
STD-MMI -M SRM 18	0.005	0.002	0.0005	1.34	0.0005	0.0005	0.005	0.0117	0.007	0.00025	0.018	0.057	0.0005
STD-MMI -M SRM 18	0.007	0.003	0.0005	1.22	0.0005	0.0005	0.005	0.0118	0.004	0.00025	0.017	0.05	0.0005
STD-MMI -M SRM 18	0.008	0.003	0.0005	1.33	0.0005	0.0005	0.005	0.015	0.006	0.00025	0.019	0.057	0.0005
STD-MMI -M SRM 18	0.006	0.003	0.0005	1.36	0.0005	0.0005	0.005	0.0127	0.006	0.00025	0.016	0.052	0.0005
STD-MMI -M SRM 18	0.003	0.004	0.0005	1.33	0.0005	0.0005	0.005	0.0142	0.004	0.00025	0.019	0.054	0.0005
STD-MMI -M SRM 18	0.004	0.003	0.0005	1.21	0.0005	0.0005	0.005	0.012	0.005	0.00025	0.016	0.051	0.0005
STD-MMI -M SRM 18	0.004	0.004	0.0005	1.29	0.0005	0.0005	0.005	0.0125	0.006	0.00025	0.014	0.053	0.0005
STD-MMI -M SRM 18	0.005	0.003	0.0005	1.24	0.0005	0.0005	0.005	0.0116	0.007	0.00025	0.015	0.055	0.0005
STD-MMI -M SRM 18	0.005	0.003	0.0005	1.31	0.0005	0.0005	0.005	0.0115	0.006	0.00025	0.016	0.057	0.0005
Average	**0.007**	**0.004**	**0.0005**	**1.23**	**0.0005**	**0.001**	**0.005**	**0.013**	**0.006**	**0.00025**	**0.017**	**0.053**	**0.0005**
SD	**0.006**	**0.001**	**0.0000**	**0.08**	**0.0000**	**0.000**	**0.000**	**0.001**	**0.001**	**0.00000**	**0.002**	**0.004**	**0.0000**
RSD	**85%**	**20%**	**0%**	**6%**	**0%**	**0%**	**0%**	**8%**	**25%**	**0%**	**9%**	**7%**	**0%**
% <LLD	**14%**	**0%**	**100%**	**0%**	**100%**	**100%**	**100%**	**0%**	**5%**	**100%**	**0%**	**0%**	**100%**
STD-MMI -M SRM 19	0.001	0.007	0.0005	3.46	0.0005	0.002	0.005	0.0293	0.009	0.0011	0.079	#VALUE!	0.0005
STD-MMI -M SRM 19	0.001	0.009	0.0005	3.49	0.0005	0.003	0.005	0.0308	0.009	0.001	0.083	#VALUE!	0.0005
STD-MMI -M SRM 19	0.003	0.007	0.0005	3.38	0.0005	0.002	0.005	0.0299	0.008	0.001	0.083	#VALUE!	0.0005
STD-MMI -M SRM 19	0.025	0.011	0.0005	3.45	0.0005	0.003	0.005	0.0333	0.013	0.0011	0.086	0.016	0.0005
STD-MMI -M SRM 19	0.017	0.009	0.0005	3.34	0.0005	0.002	0.005	0.0319	0.008	0.0009	0.08	0.012	0.0005
STD-MMI -M SRM 19	0.019	0.009	0.0005	3.6	0.0005	0.002	0.005	0.0287	0.009	0.001	0.084	0.012	0.0005
STD-MMI -M SRM 19	0.018	0.008	0.0005	3.45	0.0005	0.002	0.005	0.0306	0.01	0.0011	0.081	0.014	0.0005
STD-MMI -M SRM 19	0.014	0.008	0.0005	3.45	0.0005	0.002	0.005	0.0298	0.012	0.001	0.086	0.024	0.0005
STD-MMI -M SRM 19	0.01	0.007	0.0005	3.34	0.0005	0.001	0.005	0.0358	0.011	0.0008	0.08	0.011	0.0005
STD-MMI -M SRM 19	0.007	0.008	0.0005	3.54	0.0005	0.002	0.005	0.035	0.014	0.0009	0.08	0.012	0.0005
STD-MMI -M SRM 19	0.009	0.008	0.0005	3.33	0.0005	0.002	0.005	0.0292	0.011	0.0009	0.079	0.031	0.0005
Average	**0.011**	**0.008**	**0.0005**	**3.44**	**0.0005**	**0.002**	**0.005**	**0.031**	**0.010**	**0.00098**	**0.082**	**#VALUE!**	**0.0005**
SD	**0.008**	**0.001**	**0.0000**	**0.09**	**0.0000**	**0.001**	**0.000**	**0.002**	**0.002**	**0.00010**	**0.003**	**#VALUE!**	**0.0000**
RSD	**71%**	**14%**	**0%**	**3%**	**0%**	**26%**	**0%**	**8%**	**19%**	**10%**	**3%**	**#VALUE!**	**0%**
% <LLD	**18%**	**0%**	**100%**	**0%**	**100%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**
2007190040	0.001	0.011	0.0005	5.24	0.0005	0.003	0.005	0.0056	0.023	0.00025	0.056	0.05	0.0005
2007191093	0.014	0.017	0.0005	5.51	0.0005	0.004	0.005	0.0138	0.033	0.00025	0.083	0.129	0.0005
Average	**0.008**	**0.014**	**0.0005**	**5.38**	**0.0005**	**0.004**	**0.005**	**0.010**	**0.028**	**0.00025**	**0.070**	**0.090**	**0.0005**
SD	**0.009**	**0.004**	**0.0000**	**0.19**	**0.0000**	**0.001**	**0.000**	**0.006**	**0.007**	**0.00000**	**0.019**	**0.056**	**0.0000**
RSD	**123%**	**30%**	**0%**	**4%**	**0%**	**20%**	**0%**	**60%**	**25%**	**0%**	**27%**	**62%**	**0%**
% <LLD	**50%**	**0%**	**100%**	**0%**	**100%**	**0%**	**100%**	**0%**	**0%**	**100%**	**0%**	**0%**	**100%**
2007190120	0.018	0.082	0.0005	0.39	0.0005	0.011	0.005	0.383	0.107	0.00025	0.083	0.179	0.0005
2007190280	0.001	0.07	0.0005	0.31	0.0005	0.008	0.005	0.377	0.148	0.00025	0.05	0.023	0.0005
2007190640	0.001	0.061	0.0005	0.58	0.0005	0.01	0.005	0.458	0.076	0.00025	0.069	0.022	0.0005
2007190889	0.024	0.005	0.0005	8.32	0.0005	0.0005	0.005	0.0035	0.009	0.0007	0.007	0.011	0.0005
Average	**0.011**	**0.055**	**0.0005**	**2.40**	**0.0005**	**0.007**	**0.005**	**0.305**	**0.085**	**0.00036**	**0.052**	**0.059**	**0.0005**
SD	**0.012**	**0.034**	**0.0000**	**3.95**	**0.0000**	**0.005**	**0.000**	**0.205**	**0.059**	**0.00023**	**0.033**	**0.080**	**0.0000**
RSD	**107%**	**63%**	**0%**	**165%**	**0%**	**64%**	**0%**	**67%**	**69%**	**62%**	**63%**	**137%**	**0%**
% <LLD	**50%**	**0%**	**100%**	**0%**	**100%**	**25%**	**100%**	**0%**	**0%**	**75%**	**0%**	**0%**	**100%**
2007190200	0.001	0.014	0.0005	1.51	0.0005	0.01	0.005	0.0626	0.061	0.0005	0.097	0.109	0.001
2007190929	0.036	0.024	0.0005	1.29	0.0005	0.019	0.005	0.144	0.041	0.0006	0.181	0.007	0.002
Average	**0.019**	**0.019**	**0.0005**	**1.40**	**0.0005**	**0.015**	**0.005**	**0.103**	**0.051**	**0.00055**	**0.139**	**0.058**	**0.0015**
SD	**0.025**	**0.007**	**0.0000**	**0.16**	**0.0000**	**0.006**	**0.000**	**0.058**	**0.014**	**0.00007**	**0.059**	**0.072**	**0.0007**
RSD	**134%**	**37%**	**0%**	**11%**	**0%**	**44%**	**0%**	**56%**	**28%**	**13%**	**43%**	**124%**	**47%**
% <LLD	**50%**	**0%**	**100%**	**0%**	**100%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
2007190360	0.005	0.034	0.0005	10.9	0.0005	0.008	0.005	0.045	0.019	0.00025	0.29	0.014	0.001
2007190639	0.006	0.029	0.0005	10.3	0.0005	0.008	0.005	0.0479	0.011	0.00025	0.352	0.014	0.001
Average	**0.006**	**0.032**	**0.0005**	**10.60**	**0.0005**	**0.008**	**0.005**	**0.046**	**0.015**	**0.00025**	**0.321**	**0.014**	**0.0010**
SD	**0.001**	**0.004**	**0.0000**	**0.42**	**0.0000**	**0.000**	**0.000**	**0.002**	**0.006**	**0.00000**	**0.044**	**0.000**	**0.0000**
RSD	**13%**	**11%**	**0%**	**4%**	**0%**	**0%**	**0%**	**4%**	**38%**	**0%**	**14%**	**0%**	**0%**
% <LLD	**0%**	**0%**	**100%**	**0%**	**100%**	**0%**	**100%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**
2007190440	0.001	0.014	0.0005	4.6	0.0005	0.002	0.005	0.0082	0.024	0.00025	0.01	0.029	0.0005
2007190546	0.003	0.012	0.0005	6.04	0.0005	0.003	0.005	0.0091	0.034	0.00025	0.015	0.041	0.0005
Average	**0.002**	**0.013**	**0.0005**	**5.32**	**0.0005**	**0.003**	**0.005**	**0.009**	**0.029**	**0.00025**	**0.013**	**0.035**	**0.0005**
SD	**0.001**	**0.001**	**0.0000**	**1.02**	**0.0000**	**0.001**	**0.000**	**0.001**	**0.007**	**0.00000**	**0.004**	**0.008**	**0.0000**
RSD	**71%**	**11%**	**0%**	**19%**	**0%**	**28%**	**0%**	**7%**	**24%**	**0%**	**28%**	**24%**	**0%**
% <LLD	**50%**	**0%**	**100%**	**0%**	**100%**	**0%**	**100%**	**0%**	**0%**	**100%**	**0%**	**0%**	**100%**

Appendix 22. QC samples analysis by MMI™

SAMPLEID	Y (ppm)	Yb (ppm)	Zn (ppm)	Zr (ppm)
METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME
LLD:	0.005	0.001	0.02	0.005
STD-MMI -M SRM 18	0.011	0.0005	0.58	0.012
STD-MMI -M SRM 18	0.014	0.0005	0.63	0.018
STD-MMI -M SRM 18	0.017	0.0005	0.62	0.016
STD-MMI -M SRM 18	0.012	0.0005	0.6	0.009
STD-MMI -M SRM 18	0.015	0.0005	0.6	0.016
STD-MMI -M SRM 18	0.015	0.0005	0.57	0.015
STD-MMI -M SRM 18	0.014	0.0005	0.57	0.016
STD-MMI -M SRM 18	0.014	0.0005	0.57	0.015
STD-MMI -M SRM 18	0.013	0.0005	0.59	0.014
STD-MMI -M SRM 18	0.016	0.0005	0.57	0.015
STD-MMI -M SRM 18	0.016	0.0005	0.6	0.014
STD-MMI -M SRM 18	0.014	0.001	0.58	0.016
STD-MMI -M SRM 18	0.013	0.0005	0.65	0.014
STD-MMI -M SRM 18	0.013	0.0005	0.6	0.014
STD-MMI -M SRM 18	0.012	0.002	0.57	0.008
STD-MMI -M SRM 18	0.013	0.0005	0.58	0.012
STD-MMI -M SRM 18	0.012	0.0005	0.59	0.012
STD-MMI -M SRM 18	0.01	0.0005	0.59	0.015
STD-MMI -M SRM 18	0.01	0.0005	0.57	0.011
STD-MMI -M SRM 18	0.01	0.002	0.58	0.009
STD-MMI -M SRM 18	0.012	0.0005	0.64	0.012
STD-MMI -M SRM 18	0.014	0.0005	0.63	0.013
Average	**0.013**	**0.001**	**0.59**	**0.013**
SD	**0.002**	**0.000**	**0.02**	**0.003**
RSD	**15%**	**68%**	**4%**	**19%**
% <LLD	**0%**	**86%**	**0%**	**0%**
STD-MMI -M SRM 19	0.044	0.003	2.46	0.013
STD-MMI -M SRM 19	0.045	0.005	2.43	0.009
STD-MMI -M SRM 19	0.038	0.004	2.04	0.014
STD-MMI -M SRM 19	0.047	0.006	2.24	0.009
STD-MMI -M SRM 19	0.055	0.004	1.98	0.013
STD-MMI -M SRM 19	0.044	0.005	2	0.013
STD-MMI -M SRM 19	0.044	0.004	2.04	0.006
STD-MMI -M SRM 19	0.047	0.004	1.97	0.008
STD-MMI -M SRM 19	0.052	0.005	2.06	0.013
STD-MMI -M SRM 19	0.052	0.004	2.26	0.015
STD-MMI -M SRM 19	0.046	0.004	2.1	0.011
Average	**0.047**	**0.004**	**2.14**	**0.011**
SD	**0.005**	**0.001**	**0.18**	**0.003**
RSD	**10%**	**19%**	**8%**	**25%**
% <LLD	**0%**	**0%**	**0%**	**0%**
2007190040	0.076	0.005	0.12	0.013
2007191093	0.123	0.007	0.15	0.015
Average	**0.100**	**0.006**	**0.14**	**0.014**
SD	**0.033**	**0.001**	**0.02**	**0.001**
RSD	**33%**	**24%**	**16%**	**10%**
% <LLD	**0%**	**0%**	**0%**	**0%**
2007190120	0.224	0.012	0.06	0.103
2007190280	0.154	0.011	0.06	0.101
2007190640	0.157	0.014	0.03	0.101
2007190889	0.031	0.001	0.1	0.0025
Average	**0.142**	**0.010**	**0.06**	**0.077**
SD	**0.080**	**0.006**	**0.03**	**0.050**
RSD	**57%**	**61%**	**46%**	**65%**
% <LLD	**0%**	**0%**	**0%**	**25%**
2007190200	1.03	0.314	3.94	0.098
2007190929	1.29	0.366	4.53	0.108
Average	**1.160**	**0.340**	**4.24**	**0.103**
SD	**0.184**	**0.037**	**0.42**	**0.007**
RSD	**16%**	**11%**	**10%**	**7%**
% <LLD	**0%**	**0%**	**0%**	**0%**
2007190360	0.231	0.022	0.61	0.034
2007190639	0.21	0.022	0.57	0.033
Average	**0.221**	**0.022**	**0.59**	**0.034**
SD	**0.015**	**0.000**	**0.03**	**0.001**
RSD	**7%**	**0%**	**5%**	**2%**
% <LLD	**0%**	**0%**	**0%**	**0%**
2007190440	0.054	0.004	0.1	0.02
2007190546	0.042	0.005	0.1	0.024
Average	**0.048**	**0.005**	**0.10**	**0.022**
SD	**0.008**	**0.001**	**0.00**	**0.003**
RSD	**18%**	**16%**	**0%**	**13%**
% <LLD	**0%**	**0%**	**0%**	**0%**

Appendix 22. QC samples analysis by MMI™

SAMPLEID	TYPE	REAL	Ag (ppm)	Al (ppm)	As (ppm)	Au (ppm)	Ba (ppm)	Bi (ppm)	Ca (ppm)	Cd (ppm)	Ce (ppm)	Co (ppm)	Cr (ppm)
METHOD:		SAMPLEID	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
LLD:			0.001	1	0.01	0.0001	0.01	0.001	10	0.001	0.005	0.005	0.001
2007190560	DUP	2007190462	0.0005	54	0.01	0.00005	0.44	0.0005	260	0.03	0.771	0.075	0.053
2007190840	DUP	2007190462	0.064	1	0.01	0.00005	0.38	0.0005	250	0.03	0.894	0.097	0.114
2007191140	DUP	2007190462	0.001	52	0.005	0.00005	0.69	0.0005	260	0.032	0.961	0.098	0.037
2007190462			0.0005	60	0.005	0.00005	0.33	0.0005	290	0.031	0.849	0.077	0.047
Average			0.017	42	0.008	0.0001	0.46	0.0005	265	0.031	0.869	0.087	0.063
SD			0.032	27	0.003	0.0000	0.16	0.0000	17	0.001	0.080	0.012	0.035
RSD			192%	66%	38%	0%	35%	0%	7%	3%	9%	14%	55%
% <LLD			50%	0%	50%	100%	0%	100%	0%	0%	0%	0%	0%
2007190760	DUP	2007190305	0.008	12	0.005	0.0003	0.55	0.0005	590	0.01	0.039	0.515	0.041
2007190305			0.008	9	0.02	0.00005	0.93	0.0005	830	0.01	0.043	0.481	0.015
Average			0.008	11	0.013	0.0002	0.74	0.0005	710	0.010	0.041	0.498	0.028
SD			0.000	2	0.011	0.0002	0.27	0.0000	170	0.000	0.003	0.024	0.018
RSD			0%	20%	85%	101%	36%	0%	24%	0%	7%	5%	66%
% <LLD			0%	0%	50%	50%	0%	100%	0%	0%	0%	0%	0%
2007190960	DUP	2007190303	0.017	9	0.005	0.0005	2.65	0.0005	610	0.01	0.392	0.313	0.026
2007190303			0.01	18	0.005	0.0006	2.29	0.0005	420	0.009	0.346	0.272	0.022
Average			0.014	14	0.005	0.0006	2.47	0.0005	515	0.010	0.369	0.293	0.024
SD			0.005	6	0.000	0.0001	0.25	0.0000	134	0.001	0.033	0.029	0.003
RSD			37%	47%	0%	13%	10%	0%	26%	7%	9%	10%	12%
% <LLD			0%	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%
2007191040	DUP	2007190290	0.006	8	0.005	0.0005	5.22	0.0005	730	0.002	0.082	0.3	0.018
2007190290			0.008	7	0.005	0.0004	7.23	0.0005	880	0.002	0.131	0.255	0.016
Average			0.007	8	0.005	0.0005	6.23	0.0005	805	0.002	0.107	0.278	0.017
SD			0.001	1	0.000	0.0001	1.42	0.0000	106	0.000	0.035	0.032	0.001
RSD			20%	9%	0%	16%	23%	0%	13%	0%	33%	11%	8%
% <LLD			0%	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%
2007191080	DUP	2007190051	0.021	2	0.005	0.00005	2.12	0.0005	610	0.003	0.159	0.369	0.037
2007190051			0.002	14	0.005	0.0002	1.89	0.0005	590	0.003	0.106	0.354	0.017
Average			0.012	8	0.005	0.0001	2.01	0.0005	600	0.003	0.133	0.362	0.027
SD			0.013	8	0.000	0.0001	0.16	0.0000	14	0.000	0.037	0.011	0.014
RSD			117%	106%	0%	85%	8%	0%	2%	0%	28%	3%	52%
% <LLD			0%	0%	100%	50%	0%	100%	0%	0%	0%	0%	0%
2007191260	DUP	2007190038	0.0005	21	0.005	0.0001	0.46	0.0005	90	0.003	0.302	0.144	0.008
2007190038			0.0005	31	0.005	0.0002	0.42	0.0005	90	0.002	0.282	0.144	0.011
Average			0.001	26	0.005	0.0002	0.44	0.0005	90	0.003	0.292	0.144	0.010
SD			0.000	7	0.000	0.0001	0.03	0.0000	0	0.001	0.014	0.000	0.002
RSD			0%	27%	0%	47%	6%	0%	0%	28%	5%	0%	22%
% <LLD			100%	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%
2007191320	DUP	2007190035	0.006	64	0.005	0.0003	0.28	0.0005	190	0.007	0.512	0.228	0.229
2007190035			0.007	67	0.005	0.0002	0.2	0.0005	160	0.006	0.539	0.205	0.069
Average			0.007	66	0.005	0.0003	0.24	0.0005	175	0.007	0.526	0.217	0.149
SD			0.001	2	0.000	0.0001	0.06	0.0000	21	0.001	0.019	0.016	0.113
RSD			11%	3%	0%	28%	24%	0%	12%	11%	4%	8%	76%
% <LLD			0%	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%
2007191380	DUP	2007190025	0.005	81	0.005	0.00005	1.31	0.0005	190	0.005	3.33	1.24	0.096
2007190025			0.005	79	0.005	0.0002	1.2	0.0005	150	0.003	3.29	0.943	0.028
Average			0.005	80	0.005	0.0001	1.26	0.0005	170	0.004	3.310	1.092	0.062
SD			0.000	1	0.000	0.0001	0.08	0.0000	28	0.001	0.028	0.210	0.048
RSD			0%	2%	0%	85%	6%	0%	17%	35%	1%	19%	78%
% <LLD			0%	0%	100%	50%	0%	100%	0%	0%	0%	0%	0%
2007190020	MRIS2		0.008	19	0.005	0.0004	1	0.0005	500	0.018	0.569	0.308	0.056
2007190080	MRIS2		0.007	16	0.005	0.0003	1.13	0.0005	480	0.016	0.55	0.29	0.051
2007190160	MRIS2		0.008	15	0.01	0.0002	1.2	0.0005	510	0.018	0.588	0.281	0.056
2007190240	MRIS2		0.005	21	0.005	0.0003	1.35	0.0005	470	0.022	0.621	0.34	0.084
2007190320	MRIS2		0.007	19	0.005	0.00005	1.19	0.0005	440	0.018	0.807	0.267	0.053
2007190400	MRIS2		0.006	16	0.01	0.0004	1.08	0.0005	350	0.019	0.546	0.246	0.058
2007190500	MRIS2		0.006	17	0.005	0.0003	1	0.0005	430	0.018	0.556	0.272	0.057
2007190600	MRIS2		0.006	13	0.01	0.0003	1.09	0.0005	390	0.018	0.558	0.235	0.055
2007190700	MRIS2		0.005	15	0.01	0.0003	1.01	0.0005	500	0.018	0.608	0.252	0.051
2007190800	MRIS2		0.012	6	0.01	0.0002	0.99	0.0005	550	0.014	0.664	0.118	0.044
2007190900	MRIS2		0.019	6	0.01	0.0004	1.24	0.0005	570	0.018	0.617	0.342	0.152
2007191000	MRIS2		0.017	6	0.01	0.0003	1.25	0.0005	600	0.018	0.706	0.282	0.063
2007191100	MRIS2		0.027	7	0.005	0.0002	1.25	0.0005	530	0.02	0.694	0.348	0.15
2007191200	MRIS2		0.007	27	0.01	0.0002	1.25	0.0005	500	0.02	0.662	0.314	0.13
2007191300	MRIS2		0.007	17	0.005	0.0005	1.38	0.0005	590	0.019	0.58	0.339	0.175
2007191400	MRIS2		0.006	16	0.01	0.0003	1.4	0.0005	600	0.022	0.627	0.334	0.159
Average			0.010	15	0.008	0.0003	1.18	0.0005	501	0.019	0.622	0.286	0.087
SD			0.006	6	0.003	0.0001	0.14	0.0000	73	0.002	0.071	0.058	0.047
RSD			65%	40%	33%	37%	12%	0%	15%	11%	11%	20%	55%
% <LLD			0%	0%	44%	6%	0%	100%	0%	0%	0%	0%	0%

Appendix 22. QC samples analysis by MMI™

SAMPLEID	Cs (ppm)	Cu (ppm)	Dy (ppm)	Er (ppm)	Eu (ppm)	Fe (ppm)	Ga (ppm)	Gd (ppm)	Hg (ppm)	K (ppm)	La (ppm)	Li (ppm)	Mg (ppm)
METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
LLD:	0.0005	0.01	0.001	0.0005	0.0005	1	0.001	0.001	0.001	0.1	0.001	0.005	1
2007190560	0.0252	0.8	0.099	0.0533	0.0267	80	0.021	0.091	0.0005	192	0.226	0.015	99
2007190840	0.0156	0.86	0.131	0.0457	0.0219	72	0.017	0.131	0.0005	167	0.367	0.015	84
2007191140	0.0143	0.77	0.127	0.0685	0.0259	78	0.024	0.165	0.0005	175	0.343	0.016	73
2007190462	0.0144	0.73	0.104	0.0547	0.0261	87	0.015	0.129	0.0005	187	0.448	0.014	86
Average	**0.0174**	**0.79**	**0.115**	**0.0556**	**0.0252**	**79**	**0.019**	**0.129**	**0.0005**	**180.3**	**0.346**	**0.015**	**86**
SD	**0.0052**	**0.05**	**0.016**	**0.0095**	**0.0022**	**6**	**0.004**	**0.030**	**0.0000**	**11.4**	**0.092**	**0.001**	**11**
RSD	**30%**	**7%**	**14%**	**17%**	**9%**	**8%**	**21%**	**23%**	**0%**	**6%**	**27%**	**5%**	**12%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**
2007190760	0.0044	2.92	0.016	0.0109	0.0024	5	0.016	0.015	0.0005	136	0.007	0.0025	221
2007190305	0.0049	2.68	0.018	0.0103	0.0042	6	0.028	0.018	0.0005	135	0.008	0.0025	274
Average	**0.0047**	**2.80**	**0.017**	**0.0106**	**0.0033**	**6**	**0.022**	**0.017**	**0.0005**	**135.5**	**0.008**	**0.003**	**248**
SD	**0.0004**	**0.17**	**0.001**	**0.0004**	**0.0013**	**1**	**0.008**	**0.002**	**0.0000**	**0.7**	**0.001**	**0.000**	**37**
RSD	**8%**	**6%**	**8%**	**4%**	**39%**	**13%**	**39%**	**13%**	**0%**	**1%**	**9%**	**0%**	**15%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**0%**	**100%**	**0%**
2007190960	0.0048	2.98	0.155	0.0788	0.0323	2	0.072	0.167	0.0005	28.8	0.097	0.009	406
2007190303	0.0049	3.15	0.126	0.0649	0.0314	4	0.071	0.131	0.0005	29.6	0.061	0.009	580
Average	**0.0049**	**3.07**	**0.141**	**0.0719**	**0.0319**	**3**	**0.072**	**0.149**	**0.0005**	**29.2**	**0.079**	**0.009**	**493**
SD	**0.0001**	**0.12**	**0.021**	**0.0098**	**0.0006**	**1**	**0.001**	**0.025**	**0.0000**	**0.6**	**0.025**	**0.000**	**123**
RSD	**1%**	**4%**	**15%**	**14%**	**2%**	**47%**	**1%**	**17%**	**0%**	**2%**	**32%**	**0%**	**25%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**
2007191040	0.0206	1.91	0.045	0.0323	0.0057	2	0.119	0.035	0.0005	82.4	0.008	0.01	276
2007190290	0.0205	1.92	0.041	0.0238	0.011	6	0.216	0.047	0.0005	87.5	0.035	0.01	417
Average	**0.0206**	**1.92**	**0.043**	**0.0281**	**0.0084**	**4**	**0.168**	**0.041**	**0.0005**	**85.0**	**0.022**	**0.010**	**347**
SD	**0.0001**	**0.01**	**0.003**	**0.0060**	**0.0037**	**3**	**0.069**	**0.008**	**0.0000**	**3.6**	**0.019**	**0.000**	**100**
RSD	**0%**	**0%**	**7%**	**21%**	**45%**	**71%**	**41%**	**21%**	**0%**	**4%**	**89%**	**0%**	**29%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**
2007191080	0.01	0.44	0.047	0.0167	0.0143	3	0.061	0.063	0.0005	162	0.04	0.0025	132
2007190051	0.0109	0.47	0.032	0.0134	0.011	5	0.044	0.045	0.0005	179	0.021	0.005	149
Average	**0.0105**	**0.46**	**0.040**	**0.0151**	**0.0127**	**4**	**0.053**	**0.054**	**0.0005**	**170.5**	**0.031**	**0.004**	**141**
SD	**0.0006**	**0.02**	**0.011**	**0.0023**	**0.0023**	**1**	**0.012**	**0.013**	**0.0000**	**12.0**	**0.013**	**0.002**	**12**
RSD	**6%**	**5%**	**27%**	**16%**	**18%**	**35%**	**23%**	**24%**	**0%**	**7%**	**44%**	**47%**	**9%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**0%**	**50%**	**0%**
2007191260	0.0584	0.61	0.045	0.0196	0.016	2	0.013	0.075	0.0005	43.5	0.076	0.0025	19
2007190038	0.0615	0.61	0.035	0.015	0.0152	3	0.013	0.064	0.0005	48.4	0.066	0.0025	31
Average	**0.0600**	**0.61**	**0.040**	**0.0173**	**0.0156**	**3**	**0.013**	**0.070**	**0.0005**	**46.0**	**0.071**	**0.003**	**25**
SD	**0.0022**	**0.00**	**0.007**	**0.0033**	**0.0006**	**1**	**0.000**	**0.008**	**0.0000**	**3.5**	**0.007**	**0.000**	**8**
RSD	**4%**	**0%**	**18%**	**19%**	**4%**	**28%**	**0%**	**11%**	**0%**	**8%**	**10%**	**0%**	**34%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**0%**	**100%**	**0%**
2007191320	0.0174	0.5	0.106	0.0501	0.0221	18	0.01	0.125	0.0005	74.4	0.266	0.0025	32
2007190035	0.0196	0.45	0.071	0.0401	0.0221	17	0.01	0.099	0.0005	81.3	0.136	0.005	38
Average	**0.0185**	**0.48**	**0.089**	**0.0451**	**0.0221**	**18**	**0.010**	**0.112**	**0.0005**	**77.9**	**0.201**	**0.004**	**35**
SD	**0.0016**	**0.04**	**0.025**	**0.0071**	**0.0000**	**1**	**0.000**	**0.018**	**0.0000**	**4.9**	**0.092**	**0.002**	**4**
RSD	**8%**	**7%**	**28%**	**16%**	**0%**	**4%**	**0%**	**16%**	**0%**	**6%**	**46%**	**47%**	**12%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**0%**	**50%**	**0%**
2007191380	0.0144	0.54	0.511	0.257	0.119	72	0.042	0.557	0.0005	37.9	1.42	0.005	129
2007190025	0.014	0.38	0.313	0.16	0.107	58	0.03	0.41	0.0005	37.6	0.751	0.0025	141
Average	**0.0142**	**0.46**	**0.412**	**0.2085**	**0.1130**	**65**	**0.036**	**0.484**	**0.0005**	**37.8**	**1.086**	**0.004**	**135**
SD	**0.0003**	**0.11**	**0.140**	**0.0686**	**0.0085**	**10**	**0.008**	**0.104**	**0.0000**	**0.2**	**0.473**	**0.002**	**8**
RSD	**2%**	**25%**	**34%**	**33%**	**8%**	**15%**	**24%**	**21%**	**0%**	**1%**	**44%**	**47%**	**6%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**0%**	**50%**	**0%**
2007190020	0.0046	0.8	0.101	0.0584	0.0245	27	0.026	0.125	0.0005	50.9	0.173	0.01	260
2007190080	0.0043	0.87	0.096	0.0579	0.0243	26	0.028	0.12	0.0005	50.7	0.162	0.011	257
2007190160	0.0066	1.08	0.105	0.0616	0.0256	29	0.026	0.129	0.0005	47.9	0.292	0.009	251
2007190240	0.0057	0.54	0.112	0.0682	0.0255	31	0.028	0.116	0.0005	52.3	0.3	0.01	304
2007190320	0.0071	1.02	0.103	0.0676	0.0269	31	0.038	0.118	0.0005	54	0.25	0.01	311
2007190400	0.0047	0.77	0.095	0.0621	0.0273	29	0.032	0.105	0.0005	46.7	0.264	0.009	250
2007190500	0.0061	0.79	0.108	0.0626	0.027	28	0.032	0.134	0.0005	49	0.274	0.009	195
2007190600	0.0053	1.05	0.121	0.0699	0.031	27	0.033	0.109	0.0005	53.1	0.151	0.008	188
2007190700	0.0043	0.62	0.119	0.0705	0.0301	20	0.032	0.145	0.0005	42.9	0.147	0.007	159
2007190800	0.0026	0.98	0.111	0.0633	0.028	23	0.069	0.14	0.0005	52.5	0.12	0.01	148
2007190900	0.0062	0.91	0.152	0.0614	0.0245	22	0.039	0.15	0.0005	45.3	0.241	0.009	198
2007191000	0.0062	0.85	0.123	0.0731	0.0266	25	0.035	0.142	0.0005	47.4	0.35	0.008	198
2007191100	0.004	0.75	0.126	0.0609	0.0259	23	0.041	0.143	0.0005	47.7	0.332	0.01	246
2007191200	0.0029	0.8	0.101	0.0586	0.025	25	0.033	0.124	0.0005	44.9	0.313	0.009	263
2007191300	0.0038	0.98	0.152	0.0761	0.0257	33	0.041	0.164	0.0005	48	0.361	0.012	252
2007191400	0.0045	1	0.153	0.0894	0.0267	27	0.041	0.165	0.0005	49.2	0.309	0.01	225
Average	**0.0049**	**0.86**	**0.117**	**0.0664**	**0.0265**	**27**	**0.036**	**0.133**	**0.0005**	**48.9**	**0.252**	**0.009**	**232**
SD	**0.0013**	**0.15**	**0.020**	**0.0082**	**0.0019**	**4**	**0.010**	**0.018**	**0.0000**	**3.2**	**0.079**	**0.001**	**47**
RSD	**27%**	**18%**	**17%**	**12%**	**7%**	**13%**	**29%**	**14%**	**0%**	**6%**	**31%**	**13%**	**20%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**

Appendix 22. QC samples analysis by MMI™

SAMPLEID	Mn (ppm)	Mo (ppm)	Nb (ppm)	Nd (ppm)	Ni (ppm)	P (ppm)	Pb (ppm)	Pd (ppm)	Pr (ppm)	Pt (ppm)	Rb (ppm)	Sb (ppm)	Sc (ppm)
METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
LLD:	0.005	0.005	0.0005	0.001	0.005	0.1	0.01	0.001	0.001	0.001	0.00025	0.001	0.005
2007190560	5.48	0.052	0.0101	0.489	0.164	21.9	0.12	0.0005	0.089	0.0005	0.389	0.0005	0.039
2007190840	9.52	0.057	0.0047	0.603	0.204	18.4	0.26	0.0005	0.157	0.0005	0.362	0.0005	0.034
2007191140	9.63	0.054	0.0015	0.814	0.177	18.7	0.19	0.0005	0.089	0.0005	0.364	0.0005	0.029
2007190462	7.02	0.052	0.0046	0.601	0.193	21.7	0.14	0.0005	0.152	0.0005	0.373	0.0005	0.034
Average	**7.9**	**0.0538**	**0.00523**	**0.627**	**0.18**	**20.2**	**0.18**	**0.0005**	**0.122**	**0.0005**	**0.3720**	**0.0005**	**0.034**
SD	**2.0**	**0.0024**	**0.00357**	**0.136**	**0.02**	**1.9**	**0.06**	**0.0000**	**0.038**	**0.0000**	**0.0123**	**0.0000**	**0.004**
RSD	**26%**	**4%**	**68%**	**22%**	**10%**	**9%**	**35%**	**0%**	**31%**	**0%**	**3%**	**0%**	**12%**
% <LLD	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**100%**	**0%**	**100%**	**0%**
2007190760	8.8	0.014	0.00025	0.017	1.02	1.4	0.005	0.0005	0.004	0.0005	0.102	0.0005	0.008
2007190305	6.53	0.013	0.00025	0.035	0.893	2.2	0.005	0.0005	0.006	0.0005	0.101	0.0005	0.007
Average	**7.7**	**0.0135**	**0.00025**	**0.026**	**0.96**	**1.8**	**0.01**	**0.0005**	**0.005**	**0.0005**	**0.1015**	**0.0005**	**0.008**
SD	**1.6**	**0.0007**	**0.00000**	**0.013**	**0.09**	**0.6**	**0.00**	**0.0000**	**0.001**	**0.0000**	**0.0007**	**0.0000**	**0.001**
RSD	**21%**	**5%**	**0%**	**49%**	**9%**	**31%**	**0%**	**0%**	**28%**	**0%**	**1%**	**0%**	**9%**
% <LLD	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**100%**	**100%**	**0%**	**100%**	**0%**	**100%**	**0%**
2007190960	9.58	0.014	0.00025	0.413	1.57	0.6	0.02	0.0005	0.053	0.0005	0.0762	0.0005	0.03
2007190303	7.46	0.017	0.00025	0.283	1.64	0.6	0.02	0.003	0.044	0.0005	0.0711	0.0005	0.028
Average	**8.5**	**0.0155**	**0.00025**	**0.348**	**1.61**	**0.6**	**0.02**	**0.0018**	**0.049**	**0.0005**	**0.0737**	**0.0005**	**0.029**
SD	**1.5**	**0.0021**	**0.00000**	**0.092**	**0.05**	**0.0**	**0.00**	**0.0018**	**0.006**	**0.0000**	**0.0036**	**0.0000**	**0.001**
RSD	**18%**	**14%**	**0%**	**26%**	**3%**	**0%**	**0%**	**101%**	**13%**	**0%**	**5%**	**0%**	**5%**
% <LLD	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**	**50%**	**0%**	**100%**	**0%**	**100%**	**0%**
2007191040	4.6	0.012	0.00025	0.037	0.519	0.4	0.13	0.0005	0.005	0.0005	0.197	0.0005	0.006
2007190290	3.76	0.013	0.00025	0.092	0.552	1	0.09	0.0005	0.015	0.0005	0.185	0.0005	0.007
Average	**4.2**	**0.0125**	**0.00025**	**0.065**	**0.54**	**0.7**	**0.11**	**0.0005**	**0.010**	**0.0005**	**0.1910**	**0.0005**	**0.007**
SD	**0.6**	**0.0007**	**0.00000**	**0.039**	**0.02**	**0.4**	**0.03**	**0.0000**	**0.007**	**0.0000**	**0.0085**	**0.0000**	**0.001**
RSD	**14%**	**6%**	**0%**	**60%**	**4%**	**61%**	**26%**	**0%**	**71%**	**0%**	**4%**	**0%**	**11%**
% <LLD	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**100%**	**0%**	**100%**	**0%**
2007191080	13.4	0.017	0.00025	0.147	1.06	3.6	0.02	0.0005	0.025	0.0005	0.178	0.0005	0.011
2007190051	11.2	0.014	0.00025	0.11	1.02	3.9	0.005	0.001	0.018	0.0005	0.167	0.0005	0.01
Average	**12.3**	**0.0155**	**0.00025**	**0.129**	**1.04**	**3.8**	**0.01**	**0.0008**	**0.022**	**0.0005**	**0.1725**	**0.0005**	**0.011**
SD	**1.6**	**0.0021**	**0.00000**	**0.026**	**0.03**	**0.2**	**0.01**	**0.0004**	**0.005**	**0.0000**	**0.0078**	**0.0000**	**0.001**
RSD	**13%**	**14%**	**0%**	**20%**	**3%**	**6%**	**85%**	**47%**	**23%**	**0%**	**5%**	**0%**	**7%**
% <LLD	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**50%**	**50%**	**0%**	**100%**	**0%**	**100%**	**0%**
2007191260	5.14	0.006	0.00025	0.398	0.071	0.6	0.07	0.0005	0.063	0.0005	0.241	0.0005	0.036
2007190038	5.69	0.0025	0.00025	0.27	0.114	0.8	0.05	0.0005	0.054	0.0005	0.271	0.0005	0.056
Average	**5.4**	**0.0043**	**0.00025**	**0.334**	**0.09**	**0.7**	**0.06**	**0.0005**	**0.059**	**0.0005**	**0.2560**	**0.0005**	**0.046**
SD	**0.4**	**0.0025**	**0.00000**	**0.091**	**0.03**	**0.1**	**0.01**	**0.0000**	**0.006**	**0.0000**	**0.0212**	**0.0000**	**0.014**
RSD	**7%**	**58%**	**0%**	**27%**	**33%**	**20%**	**24%**	**0%**	**11%**	**0%**	**8%**	**0%**	**31%**
% <LLD	**0%**	**50%**	**100%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**100%**	**0%**	**100%**	**0%**
2007191320	32.7	0.007	0.00025	0.63	0.853	4.8	0.02	0.001	0.108	0.0005	0.246	0.0005	0.041
2007190035	25.2	0.007	0.0007	0.408	0.723	5.5	0.01	0.004	0.092	0.0005	0.239	0.0005	0.051
Average	**29.0**	**0.0070**	**0.00048**	**0.519**	**0.79**	**5.2**	**0.02**	**0.0025**	**0.100**	**0.0005**	**0.2425**	**0.0005**	**0.046**
SD	**5.3**	**0.0000**	**0.00032**	**0.157**	**0.09**	**0.5**	**0.01**	**0.0021**	**0.011**	**0.0000**	**0.0049**	**0.0000**	**0.007**
RSD	**18%**	**0%**	**67%**	**30%**	**12%**	**10%**	**47%**	**85%**	**11%**	**0%**	**2%**	**0%**	**15%**
% <LLD	**0%**	**0%**	**50%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**100%**	**0%**
2007191380	21.4	0.0025	0.0006	2.74	0.26	3.2	1.33	0.004	0.542	0.0005	0.135	0.0005	0.295
2007190025	17.4	0.0025	0.00025	1.89	0.278	3.1	0.69	0.009	0.472	0.0005	0.134	0.0005	0.299
Average	**19.4**	**0.0025**	**0.00043**	**2.315**	**0.27**	**3.2**	**1.01**	**0.0065**	**0.507**	**0.0005**	**0.1345**	**0.0005**	**0.297**
SD	**2.8**	**0.0000**	**0.00025**	**0.601**	**0.01**	**0.1**	**0.45**	**0.0035**	**0.049**	**0.0000**	**0.0007**	**0.0000**	**0.003**
RSD	**15%**	**0%**	**58%**	**26%**	**5%**	**2%**	**45%**	**54%**	**10%**	**0%**	**1%**	**0%**	**1%**
% <LLD	**0%**	**100%**	**50%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**100%**	**0%**
2007190020	22.3	0.0025	0.00025	0.499	3.53	3.2	0.005	0.003	0.116	0.0005	0.0794	0.0005	0.023
2007190080	20.6	0.0025	0.00025	0.47	3.42	3.4	0.01	0.003	0.109	0.0005	0.0782	0.0005	0.022
2007190160	23.9	0.0025	0.0006	0.501	3.59	3.7	0.02	0.002	0.11	0.0005	0.0808	0.0005	0.019
2007190240	23.2	0.0025	0.001	0.491	3.67	3.4	0.02	0.002	0.107	0.0005	0.0765	0.0005	0.023
2007190320	19.4	0.005	0.00025	0.596	3.9	4.3	0.01	0.003	0.127	0.0005	0.0786	0.0005	0.02
2007190400	17.4	0.0025	0.00025	0.515	4	3.7	0.005	0.0005	0.111	0.0005	0.069	0.0005	0.02
2007190500	16	0.0025	0.0013	0.53	3.83	4	0.005	0.0005	0.116	0.0005	0.0724	0.0005	0.017
2007190600	13.3	0.0025	0.0013	0.487	3.24	4	0.005	0.0005	0.078	0.0005	0.0811	0.0005	0.02
2007190700	14.7	0.005	0.0013	0.525	3.37	3.2	0.02	0.0005	0.113	0.0005	0.0705	0.0005	0.017
2007190800	11.6	0.0025	0.00025	0.549	2.84	1.5	0.01	0.0005	0.093	0.0005	0.0773	0.0005	0.012
2007190900	24.1	0.0025	0.00025	0.576	4.25	3.4	0.03	0.0005	0.13	0.0005	0.0719	0.0005	0.018
2007191000	22.2	0.0025	0.00025	0.798	3.5	3.2	0.02	0.0005	0.135	0.0005	0.0797	0.0005	0.019
2007191100	26.6	0.0025	0.00025	0.587	4.34	3.3	0.02	0.0005	0.129	0.0005	0.0878	0.0005	0.023
2007191200	24.9	0.0025	0.00025	0.561	5.04	3	0.04	0.0005	0.123	0.0005	0.0799	0.0005	0.022
2007191300	29.8	0.005	0.00025	0.795	4.34	3.7	0.03	0.0005	0.14	0.0005	0.0802	0.0005	0.022
2007191400	24.8	0.0025	0.00025	0.68	4.13	3.9	0.02	0.0005	0.128	0.0005	0.073	0.0005	0.021
Average	**20.9**	**0.0030**	**0.00052**	**0.573**	**3.81**	**3.4**	**0.02**	**0.0012**	**0.117**	**0.0005**	**0.0773**	**0.0005**	**0.020**
SD	**5.1**	**0.0010**	**0.00044**	**0.102**	**0.53**	**0.6**	**0.01**	**0.0010**	**0.016**	**0.0000**	**0.0048**	**0.0000**	**0.003**
RSD	**24%**	**34%**	**85%**	**18%**	**14%**	**18%**	**62%**	**90%**	**14%**	**0%**	**6%**	**0%**	**15%**
% <LLD	**0%**	**81%**	**69%**	**0%**	**0%**	**0%**	**25%**	**69%**	**0%**	**100%**	**0%**	**100%**	**0%**

Appendix 22. QC samples analysis by MMI™

SAMPLEID	Se (ppm)	Sm (ppm)	Sn (ppm)	Sr (ppm)	Ta (ppm)	Tb (ppm)	Te (ppm)	Th (ppm)	Ti (ppm)	Tl (ppm)	U (ppm)	V (ppm)	W (ppm)
METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME	MMI-ME
LLD:	0.002	0.001	0.001	0.01	0.001	0.001	0.01	0.0005	0.003	0.0005	0.001	0.001	0.001
2007190560	0.001	0.095	0.003	1.23	0.0005	0.018	0.005	0.064	0.215	0.00025	0.125	0.055	0.002
2007190840	0.029	0.12	0.001	1.16	0.0005	0.02	0.005	0.116	0.138	0.00025	0.158	0.05	0.0005
2007191140	0.025	0.125	0.0005	1.47	0.0005	0.021	0.005	0.101	0.148	0.00025	0.159	0.055	0.001
2007190462	0.002	0.134	0.001	1	0.0005	0.018	0.005	0.0827	0.102	0.00025	0.133	0.04	0.002
Average	**0.014**	**0.119**	**0.0014**	**1.22**	**0.0005**	**0.019**	**0.005**	**0.091**	**0.151**	**0.00025**	**0.144**	**0.050**	**0.0014**
SD	**0.015**	**0.017**	**0.0011**	**0.20**	**0.0000**	**0.001**	**0.000**	**0.023**	**0.047**	**0.00000**	**0.017**	**0.007**	**0.0008**
RSD	**104%**	**14%**	**81%**	**16%**	**0%**	**8%**	**0%**	**25%**	**31%**	**0%**	**12%**	**14%**	**55%**
% <LLD	**25%**	**0%**	**25%**	**0%**	**100%**	**0%**	**100%**	**0%**	**0%**	**100%**	**0%**	**0%**	**25%**
2007190760	0.014	0.007	0.0005	2.33	0.0005	0.002	0.005	0.0041	0.013	0.00025	0.099	0.026	0.0005
2007190305	0.002	0.012	0.0005	2.72	0.0005	0.003	0.01	0.0032	0.013	0.00025	0.049	0.019	0.0005
Average	**0.008**	**0.010**	**0.0005**	**2.53**	**0.0005**	**0.003**	**0.008**	**0.004**	**0.013**	**0.00025**	**0.074**	**0.023**	**0.0005**
SD	**0.008**	**0.004**	**0.0000**	**0.28**	**0.0000**	**0.001**	**0.004**	**0.001**	**0.000**	**0.00000**	**0.035**	**0.005**	**0.0000**
RSD	**106%**	**37%**	**0%**	**11%**	**0%**	**28%**	**47%**	**17%**	**0%**	**0%**	**48%**	**22%**	**0%**
% <LLD	**0%**	**0%**	**100%**	**0%**	**100%**	**0%**	**50%**	**0%**	**0%**	**100%**	**0%**	**0%**	**100%**
2007190960	0.016	0.109	0.0005	3.9	0.0005	0.027	0.005	0.0489	0.012	0.00025	0.143	0.008	0.0005
2007190303	0.003	0.096	0.0005	3.03	0.0005	0.023	0.005	0.0342	0.009	0.00025	0.091	0.006	0.0005
Average	**0.010**	**0.103**	**0.0005**	**3.47**	**0.0005**	**0.025**	**0.005**	**0.042**	**0.011**	**0.00025**	**0.117**	**0.007**	**0.0005**
SD	**0.009**	**0.009**	**0.0000**	**0.62**	**0.0000**	**0.003**	**0.000**	**0.010**	**0.002**	**0.00000**	**0.037**	**0.001**	**0.0000**
RSD	**97%**	**9%**	**0%**	**18%**	**0%**	**11%**	**0%**	**25%**	**20%**	**0%**	**31%**	**20%**	**0%**
% <LLD	**0%**	**0%**	**100%**	**0%**	**100%**	**0%**	**100%**	**0%**	**0%**	**100%**	**0%**	**0%**	**100%**
2007191040	0.01	0.014	0.0005	4.43	0.0005	0.006	0.005	0.0091	0.02	0.001	0.093	0.079	0.0005
2007190290	0.003	0.03	0.0005	4.75	0.0005	0.008	0.005	0.0089	0.026	0.0008	0.048	0.053	0.0005
Average	**0.007**	**0.022**	**0.0005**	**4.59**	**0.0005**	**0.007**	**0.005**	**0.009**	**0.023**	**0.00090**	**0.071**	**0.066**	**0.0005**
SD	**0.005**	**0.011**	**0.0000**	**0.23**	**0.0000**	**0.001**	**0.000**	**0.000**	**0.004**	**0.00014**	**0.032**	**0.018**	**0.0000**
RSD	**76%**	**51%**	**0%**	**5%**	**0%**	**20%**	**0%**	**2%**	**18%**	**16%**	**45%**	**28%**	**0%**
% <LLD	**0%**	**0%**	**100%**	**0%**	**100%**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**
2007191080	0.014	0.052	0.0005	4.32	0.0005	0.009	0.005	0.0555	0.024	0.00025	0.058	0.033	0.0005
2007190051	0.019	0.035	0.0005	4.16	0.0005	0.007	0.005	0.0257	0.018	0.00025	0.04	0.022	0.0005
Average	**0.017**	**0.044**	**0.0005**	**4.24**	**0.0005**	**0.008**	**0.005**	**0.041**	**0.021**	**0.00025**	**0.049**	**0.028**	**0.0005**
SD	**0.004**	**0.012**	**0.0000**	**0.11**	**0.0000**	**0.001**	**0.000**	**0.021**	**0.004**	**0.00000**	**0.013**	**0.008**	**0.0000**
RSD	**21%**	**28%**	**0%**	**3%**	**0%**	**18%**	**0%**	**52%**	**20%**	**0%**	**26%**	**28%**	**0%**
% <LLD	**0%**	**0%**	**100%**	**0%**	**100%**	**0%**	**100%**	**0%**	**0%**	**100%**	**0%**	**0%**	**100%**
2007191260	0.008	0.066	0.0005	0.69	0.0005	0.01	0.005	0.2	0.025	0.00025	0.056	0.018	0.0005
2007190038	0.005	0.062	0.0005	0.46	0.0005	0.008	0.005	0.151	0.037	0.0005	0.038	0.062	0.0005
Average	**0.007**	**0.064**	**0.0005**	**0.58**	**0.0005**	**0.009**	**0.005**	**0.176**	**0.031**	**0.00038**	**0.047**	**0.040**	**0.0005**
SD	**0.002**	**0.003**	**0.0000**	**0.16**	**0.0000**	**0.001**	**0.000**	**0.035**	**0.008**	**0.00018**	**0.013**	**0.031**	**0.0000**
RSD	**33%**	**4%**	**0%**	**28%**	**0%**	**16%**	**0%**	**20%**	**27%**	**47%**	**27%**	**78%**	**0%**
% <LLD	**0%**	**0%**	**100%**	**0%**	**100%**	**0%**	**100%**	**0%**	**0%**	**50%**	**0%**	**0%**	**100%**
2007191320	0.007	0.112	0.0005	1.11	0.0005	0.016	0.005	0.206	0.234	0.00025	0.068	0.017	0.001
2007190035	0.023	0.093	0.0005	0.77	0.0005	0.015	0.005	0.125	0.177	0.00025	0.05	0.264	0.001
Average	**0.015**	**0.103**	**0.0005**	**0.94**	**0.0005**	**0.016**	**0.005**	**0.166**	**0.206**	**0.00025**	**0.059**	**0.141**	**0.0010**
SD	**0.011**	**0.013**	**0.0000**	**0.24**	**0.0000**	**0.001**	**0.000**	**0.057**	**0.040**	**0.00000**	**0.013**	**0.175**	**0.0000**
RSD	**75%**	**13%**	**0%**	**26%**	**0%**	**5%**	**0%**	**35%**	**20%**	**0%**	**22%**	**124%**	**0%**
% <LLD	**0%**	**0%**	**100%**	**0%**	**100%**	**0%**	**100%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**
2007191380	0.026	0.428	0.0005	1.92	0.0005	0.083	0.005	0.233	0.137	0.00025	0.136	0.022	0.002
2007190025	0.029	0.422	0.0005	1.39	0.0005	0.063	0.005	0.13	0.104	0.00025	0.102	0.187	0.001
Average	**0.028**	**0.425**	**0.0005**	**1.66**	**0.0005**	**0.073**	**0.005**	**0.182**	**0.121**	**0.00025**	**0.119**	**0.105**	**0.0015**
SD	**0.002**	**0.004**	**0.0000**	**0.37**	**0.0000**	**0.014**	**0.000**	**0.073**	**0.023**	**0.00000**	**0.024**	**0.117**	**0.0007**
RSD	**8%**	**1%**	**0%**	**23%**	**0%**	**19%**	**0%**	**40%**	**19%**	**0%**	**20%**	**112%**	**47%**
% <LLD	**0%**	**0%**	**100%**	**0%**	**100%**	**0%**	**100%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**
2007190020	0.003	0.114	0.0005	2.04	0.0005	0.018	0.005	0.119	0.024	0.00025	0.424	0.067	0.0005
2007190080	0.005	0.11	0.0005	1.96	0.0005	0.018	0.005	0.119	0.016	0.00025	0.411	0.048	0.0005
2007190160	0.021	0.12	0.0005	2.35	0.0005	0.021	0.005	0.115	0.03	0.00025	0.572	0.051	0.0005
2007190240	0.02	0.118	0.0005	2.27	0.0005	0.019	0.005	0.0929	0.026	0.00025	0.383	0.136	0.0005
2007190320	0.001	0.128	0.0005	2.61	0.0005	0.021	0.005	0.133	0.027	0.00025	0.393	0.011	0.0005
2007190400	0.004	0.124	0.0005	2.38	0.0005	0.018	0.005	0.124	0.038	0.00025	0.36	0.011	0.0005
2007190500	0.002	0.125	0.0005	2.52	0.0005	0.019	0.005	0.138	0.021	0.00025	0.49	0.013	0.0005
2007190600	0.001	0.104	0.0005	3.29	0.0005	0.021	0.005	0.123	0.016	0.00025	0.519	0.014	0.0005
2007190700	0.001	0.101	0.0005	2.7	0.0005	0.021	0.005	0.14	0.016	0.00025	0.509	0.012	0.0005
2007190800	0.021	0.124	0.0005	2.62	0.0005	0.02	0.005	0.129	0.006	0.00025	0.497	0.016	0.0005
2007190900	0.021	0.128	0.0005	2.33	0.0005	0.022	0.005	0.172	0.028	0.00025	0.552	0.016	0.0005
2007191000	0.02	0.131	0.0005	2.35	0.0005	0.023	0.005	0.165	0.029	0.00025	0.589	0.014	0.0005
2007191100	0.019	0.14	0.0005	2.25	0.0005	0.022	0.005	0.217	0.046	0.00025	0.579	0.015	0.0005
2007191200	0.014	0.112	0.0005	2.27	0.0005	0.021	0.005	0.179	0.025	0.00025	0.57	0.014	0.0005
2007191300	0.009	0.146	0.0005	2.6	0.0005	0.021	0.005	0.227	0.03	0.00025	0.637	0.017	0.0005
2007191400	0.01	0.113	0.0005	2.59	0.0005	0.024	0.005	0.185	0.035	0.00025	0.514	0.016	0.0005
Average	**0.011**	**0.121**	**0.0005**	**2.45**	**0.0005**	**0.021**	**0.005**	**0.149**	**0.026**	**0.00025**	**0.500**	**0.029**	**0.0005**
SD	**0.008**	**0.012**	**0.0000**	**0.31**	**0.0000**	**0.002**	**0.000**	**0.038**	**0.010**	**0.00000**	**0.084**	**0.033**	**0.0000**
RSD	**79%**	**10%**	**0%**	**13%**	**0%**	**9%**	**0%**	**26%**	**37%**	**0%**	**17%**	**112%**	**0%**
% <LLD	**19%**	**0%**	**100%**	**0%**	**100%**	**0%**	**100%**	**0%**	**0%**	**100%**	**0%**	**0%**	**100%**

Appendix 22. QC samples analysis by MMI™

SAMPLEID	Y (ppm)	Yb (ppm)	Zn (ppm)	Zr (ppm)
METHOD:	MMI-ME	MMI-ME	MMI-ME	MMI-ME
LLD:	0.005	0.001	0.02	0.005
2007190560	0.359	0.042	2.65	0.052
2007190840	0.707	0.048	2.62	0.042
2007191140	0.61	0.05	3.03	0.022
2007190462	0.576	0.043	3.01	0.045
Average	**0.563**	**0.046**	**2.83**	**0.040**
SD	**0.147**	**0.004**	**0.22**	**0.013**
RSD	**26%**	**8%**	**8%**	**32%**
% <LLD	**0%**	**0%**	**0%**	**0%**
2007190760	0.085	0.008	0.14	0.006
2007190305	0.089	0.007	0.12	0.005
Average	**0.087**	**0.008**	**0.13**	**0.006**
SD	**0.003**	**0.001**	**0.01**	**0.001**
RSD	**3%**	**9%**	**11%**	**13%**
% <LLD	**0%**	**0%**	**0%**	**0%**
2007190960	0.692	0.042	0.09	0.01
2007190303	0.553	0.039	0.07	0.012
Average	**0.623**	**0.041**	**0.08**	**0.011**
SD	**0.098**	**0.002**	**0.01**	**0.001**
RSD	**16%**	**5%**	**18%**	**13%**
% <LLD	**0%**	**0%**	**0%**	**0%**
2007191040	0.147	0.018	0.05	0.01
2007190290	0.199	0.014	0.04	0.012
Average	**0.173**	**0.016**	**0.05**	**0.011**
SD	**0.037**	**0.003**	**0.01**	**0.001**
RSD	**21%**	**18%**	**16%**	**13%**
% <LLD	**0%**	**0%**	**0%**	**0%**
2007191080	0.214	0.01	0.16	0.046
2007190051	0.141	0.009	0.13	0.043
Average	**0.178**	**0.010**	**0.15**	**0.045**
SD	**0.052**	**0.001**	**0.02**	**0.002**
RSD	**29%**	**7%**	**15%**	**5%**
% <LLD	**0%**	**0%**	**0%**	**0%**
2007191260	0.156	0.01	0.05	0.012
2007190038	0.154	0.009	0.06	0.025
Average	**0.155**	**0.010**	**0.06**	**0.019**
SD	**0.001**	**0.001**	**0.01**	**0.009**
RSD	**1%**	**7%**	**13%**	**50%**
% <LLD	**0%**	**0%**	**0%**	**0%**
2007191320	0.52	0.028	0.12	0.099
2007190035	0.422	0.03	0.13	0.1
Average	**0.471**	**0.029**	**0.13**	**0.100**
SD	**0.069**	**0.001**	**0.01**	**0.001**
RSD	**15%**	**5%**	**6%**	**1%**
% <LLD	**0%**	**0%**	**0%**	**0%**
2007191380	1.77	0.118	0.31	0.176
2007190025	1.37	0.116	0.27	0.175
Average	**1.570**	**0.117**	**0.29**	**0.176**
SD	**0.283**	**0.001**	**0.03**	**0.001**
RSD	**18%**	**1%**	**10%**	**0%**
% <LLD	**0%**	**0%**	**0%**	**0%**
2007190020	0.618	0.048	1.06	0.048
2007190080	0.593	0.048	1.02	0.047
2007190160	0.744	0.049	0.96	0.043
2007190240	0.641	0.057	1.41	0.041
2007190320	0.598	0.055	0.97	0.045
2007190400	0.619	0.052	0.96	0.038
2007190500	0.65	0.049	1.07	0.038
2007190600	0.454	0.055	0.98	0.045
2007190700	0.531	0.056	0.96	0.045
2007190800	0.469	0.049	0.89	0.021
2007190900	0.822	0.065	1.09	0.038
2007191000	0.663	0.049	0.97	0.039
2007191100	0.84	0.049	1.33	0.059
2007191200	0.786	0.049	1.39	0.059
2007191300	0.85	0.048	1.05	0.055
2007191400	0.812	0.046	1.18	0.043
Average	**0.668**	**0.052**	**1.08**	**0.044**
SD	**0.128**	**0.005**	**0.16**	**0.009**
RSD	**19%**	**10%**	**15%**	**21%**
% <LLD	**0%**	**0%**	**0%**	**0%**

Appendix 23. Field duplicates analysis for F by ISE

Appendix 23. Field duplicates analysis for F by ISE

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	F (ppm)	F (ppm)
METHOD:	METHOD:	SIZE	SIZE			ISE	ISE
D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					20	20
2007190003	2007190213	Coarse	Coarse	TOS	TOS	400	260
2007190003	2007190213	Fine	Fine	TOS	TOS	460	420
2007190003	2007190213	Coarse	Coarse	BOS	BOS	320	300
2007190003	2007190213	Fine	Fine	BOS	BOS	460	420
2007190071	2007190289	Coarse	Coarse	TOS	TOS	140	120
2007190071	2007190289	Fine	Fine	TOS	TOS	160	140
2007190071	2007190289	Coarse	Coarse	BOS	BOS	240	380
2007190071	2007190289	Fine	Fine	BOS	BOS	340	540
2007190074	2007190389	Coarse	Coarse	TOS	TOS	140	60
2007190074	2007190389	Fine	Fine	TOS	TOS	180	180
2007190074	2007190389	Coarse	Coarse	BOS	BOS	60	60
2007190074	2007190389	Fine	Fine	BOS	BOS	140	160
2007190285	2007190406	Coarse	Coarse	TOS	TOS	180	160
2007190285	2007190406	Fine	Fine	TOS	TOS	180	160
2007190285	2007190406	Coarse	Coarse	BOS	BOS	180	160
2007190285	2007190406	Fine	Fine	BOS	BOS	180	180
2007190183	2007190471	Coarse	Coarse	TOS	TOS	240	220
2007190183	2007190471	Fine	Fine	TOS	TOS	440	380
2007190183	2007190471	Coarse	Coarse	BOS	BOS	1060	800
2007190183	2007190471	Fine	Fine	BOS	BOS	1120	1080
2007190154	2007190568	Coarse	Coarse	TOS	TOS	180	220
2007190154	2007190568	Fine	Fine	TOS	TOS	140	200
2007190154	2007190568	Coarse	Coarse	BOS	BOS	380	420
2007190154	2007190568	Fine	Fine	BOS	BOS	380	400
2007190497	2007190586	Coarse	Coarse	TOS	TOS	80	220
2007190497	2007190586	Fine	Fine	TOS	TOS	140	260
2007190497	2007190586	Coarse	Coarse	BOS	BOS	140	300
2007190497	2007190586	Fine	Fine	BOS	BOS	260	400
2007190527	2007190609	Coarse	Coarse	TOS	TOS	360	300
2007190527	2007190609	Fine	Fine	TOS	TOS	300	260
2007190527	2007190609	Coarse	Coarse	BOS	BOS	160	180
2007190527	2007190609	Fine	Fine	BOS	BOS	300	260
2007190352	2007190611	Coarse	Coarse	TOS	TOS	440	420
2007190352	2007190611	Fine	Fine	TOS	TOS	480	400
2007190352	2007190611	Coarse	Coarse	BOS	BOS	440	440
2007190352	2007190611	Fine	Fine	BOS	BOS	440	460
2007190506	2007190631	Coarse	Coarse	TOS	TOS	260	280
2007190506	2007190631	Fine	Fine	TOS	TOS	240	240
2007190506	2007190631	Coarse	Coarse	BOS	BOS	260	300
2007190506	2007190631	Fine	Fine	BOS	BOS	260	300
2007190032	2007190632	Coarse	Coarse	TOS	TOS	340	380
2007190032	2007190632	Fine	Fine	TOS	TOS	400	360
2007190032	2007190632	Coarse	Coarse	BOS	BOS	360	400
2007190032	2007190632	Fine	Fine	BOS	BOS	420	400
2007190552	2007190675	Coarse	Coarse	TOS	TOS	300	220
2007190552	2007190675	Fine	Fine	TOS	TOS	300	240
2007190552	2007190675	Coarse	Coarse	BOS	BOS	300	240
2007190552	2007190675	Fine	Fine	BOS	BOS	480	540
2007190335	2007190692	Coarse	Coarse	TOS	TOS	220	160
2007190335	2007190692	Fine	Fine	TOS	TOS	280	200
2007190335	2007190692	Coarse	Coarse	BOS	BOS	320	220
2007190335	2007190692	Fine	Fine	BOS	BOS	360	260
2007190531	2007190703	Coarse	Coarse	TOS	TOS	280	260
2007190531	2007190703	Fine	Fine	TOS	TOS	260	240
2007190531	2007190703	Coarse	Coarse	BOS	BOS	240	280
2007190531	2007190703	Fine	Fine	BOS	BOS	280	280
2007190194	2007190704	Coarse	Coarse	TOS	TOS	300	200
2007190194	2007190704	Fine	Fine	TOS	TOS	280	200
2007190194	2007190704	Coarse	Coarse	BOS	BOS	280	240
2007190194	2007190704	Fine	Fine	BOS	BOS	280	220
2007190659	2007190739	Coarse	Coarse	TOS	TOS	140	120
2007190659	2007190739	Fine	Fine	TOS	TOS	300	220
2007190659	2007190739	Coarse	Coarse	BOS	BOS	220	140
2007190659	2007190739	Fine	Fine	BOS	BOS	380	260
2007190212	2007190747	Coarse	Coarse	TOS	TOS	60	40
2007190212	2007190747	Fine	Fine	TOS	TOS	180	160
2007190212	2007190747	Coarse	Coarse	BOS	BOS	220	40
2007190212	2007190747	Fine	Fine	BOS	BOS	160	140
2007190554	2007190752	Coarse	Coarse	TOS	TOS	100	40
2007190554	2007190752	Fine	Fine	TOS	TOS	140	80
2007190554	2007190752	Coarse	Coarse	BOS	BOS	100	80
2007190554	2007190752	Fine	Fine	BOS	BOS	140	140
2007190296	2007190758	Coarse	Coarse	TOS	TOS	140	320
2007190296	2007190758	Fine	Fine	TOS	TOS	180	160
2007190296	2007190758	Coarse	Coarse	BOS	BOS	140	140
2007190296	2007190758	Fine	Fine	BOS	BOS	80	160
2007190425	2007190768	Coarse	Coarse	TOS	TOS	160	220
2007190425	2007190768	Fine	Fine	TOS	TOS	180	200
2007190425	2007190768	Coarse	Coarse	BOS	BOS	240	220
2007190425	2007190768	Fine	Fine	BOS	BOS	220	220
2007190458	2007190774	Coarse	Coarse	TOS	TOS	260	340
2007190458	2007190774	Fine	Fine	TOS	TOS	240	340
2007190458	2007190774	Coarse	Coarse	BOS	BOS	240	300
2007190458	2007190774	Fine	Fine	BOS	BOS	260	280
2007190193	2007190788	Coarse	Coarse	TOS	TOS	320	340

Appendix 23. Field duplicates analysis for F by ISE

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	F (ppm)	F (ppm)
METHOD:	METHOD:	SIZE	SIZE			ISE	ISE
D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					20	20
2007190193	2007190788	Fine	Fine	TOS	TOS	340	300
2007190193	2007190788	Coarse	Coarse	BOS	BOS	480	340
2007190193	2007190788	Fine	Fine	BOS	BOS	460	340
2007190698	2007190813	Coarse	Coarse	TOS	TOS	400	320
2007190698	2007190813	Fine	Fine	TOS	TOS	360	280
2007190698	2007190813	Coarse	Coarse	BOS	BOS	440	400
2007190698	2007190813	Fine	Fine	BOS	BOS	440	320
2007190357	2007190856	Coarse	Coarse	TOS	TOS	80	80
2007190357	2007190856	Fine	Fine	TOS	TOS	160	240
2007190357	2007190856	Coarse	Coarse	BOS	BOS	160	240
2007190357	2007190856	Fine	Fine	BOS	BOS	300	480
2007190256	2007190875	Coarse	Coarse	TOS	TOS	100	60
2007190256	2007190875	Fine	Fine	TOS	TOS	200	220
2007190256	2007190875	Coarse	Coarse	BOS	BOS	200	80
2007190256	2007190875	Fine	Fine	BOS	BOS	220	120
2007190035	2007190876	Coarse	Coarse	TOS	TOS	160	200
2007190035	2007190876	Fine	Fine	TOS	TOS	180	260
2007190035	2007190876	Coarse	Coarse	BOS	BOS	260	280
2007190035	2007190876	Fine	Fine	BOS	BOS	340	300
2007190834	2007190889	Coarse	Coarse	TOS	TOS	80	10
2007190834	2007190889	Fine	Fine	TOS	TOS	100	180
2007190834	2007190889	Coarse	Coarse	BOS	BOS	200	60
2007190834	2007190889	Fine	Fine	BOS	BOS	220	120
2007190743	2007190906	Coarse	Coarse	TOS	TOS	280	340
2007190743	2007190906	Fine	Fine	TOS	TOS	400	360
2007190743	2007190906	Coarse	Coarse	BOS	BOS	340	320
2007190743	2007190906	Fine	Fine	BOS	BOS	500	460
2007190536	2007190909	Coarse	Coarse	TOS	TOS	240	100
2007190536	2007190909	Fine	Fine	TOS	TOS	200	140
2007190536	2007190909	Coarse	Coarse	BOS	BOS	180	120
2007190536	2007190909	Fine	Fine	BOS	BOS	180	140
2007190107	2007190913	Coarse	Coarse	TOS	TOS	60	60
2007190107	2007190913	Fine	Fine	TOS	TOS	160	160
2007190107	2007190913	Coarse	Coarse	BOS	BOS	60	80
2007190107	2007190913	Fine	Fine	BOS	BOS	120	320
2007190695	2007190924	Coarse	Coarse	TOS	TOS	60	80
2007190695	2007190924	Fine	Fine	TOS	TOS	160	160
2007190695	2007190924	Coarse	Coarse	BOS	BOS	220	260
2007190695	2007190924	Fine	Fine	BOS	BOS	360	360
2007190853	2007190939	Coarse	Coarse	TOS	TOS	520	280
2007190853	2007190939	Fine	Fine	TOS	TOS	540	520
2007190853	2007190939	Coarse	Coarse	BOS	BOS	260	320
2007190853	2007190939	Fine	Fine	BOS	BOS	960	760
2007190895	2007190947	Coarse	Coarse	TOS	TOS	220	340
2007190895	2007190947	Fine	Fine	TOS	TOS	160	300
2007190895	2007190947	Coarse	Coarse	BOS	BOS	180	320
2007190895	2007190947	Fine	Fine	BOS	BOS	180	320
2007190197	2007190962	Coarse	Coarse	TOS	TOS	160	40
2007190197	2007190962	Fine	Fine	TOS	TOS	160	120
2007190197	2007190962	Coarse	Coarse	BOS	BOS	180	80
2007190197	2007190962	Fine	Fine	BOS	BOS	400	180
2007190419	2007190974	Coarse	Coarse	TOS	TOS	180	80
2007190419	2007190974	Fine	Fine	TOS	TOS	200	100
2007190419	2007190974	Coarse	Coarse	BOS	BOS	160	80
2007190419	2007190974	Fine	Fine	BOS	BOS	220	120
2007190241	2007190978	Coarse	Coarse	TOS	TOS	180	180
2007190241	2007190978	Fine	Fine	TOS	TOS	280	300
2007190241	2007190978	Coarse	Coarse	BOS	BOS	200	220
2007190241	2007190978	Fine	Fine	BOS	BOS	300	320
2007190039	2007190984	Coarse	Coarse	TOS	TOS	220	20
2007190039	2007190984	Fine	Fine	TOS	TOS	320	100
2007190039	2007190984	Coarse	Coarse	BOS	BOS	360	180
2007190039	2007190984	Fine	Fine	BOS	BOS	460	240
2007190342	2007190989	Coarse	Coarse	TOS	TOS	360	280
2007190342	2007190989	Fine	Fine	TOS	TOS	480	420
2007190342	2007190989	Coarse	Coarse	BOS	BOS	400	300
2007190342	2007190989	Fine	Fine	BOS	BOS	560	400
2007190457	2007191004	Coarse	Coarse	TOS	TOS	260	220
2007190457	2007191004	Fine	Fine	TOS	TOS	320	340
2007190457	2007191004	Coarse	Coarse	BOS	BOS	160	140
2007190457	2007191004	Fine	Fine	BOS	BOS	220	260
2007190434	2007191027	Coarse	Coarse	TOS	TOS	120	200
2007190434	2007191027	Fine	Fine	TOS	TOS	260	340
2007190434	2007191027	Coarse	Coarse	BOS	BOS	200	280
2007190434	2007191027	Fine	Fine	BOS	BOS	240	360
2007190155	2007191031	Coarse	Coarse	TOS	TOS	260	280
2007190155	2007191031	Fine	Fine	TOS	TOS	360	420
2007190155	2007191031	Coarse	Coarse	BOS	BOS	280	240
2007190155	2007191031	Fine	Fine	BOS	BOS	420	400
2007190114	2007191045	Coarse	Coarse	TOS	TOS	280	140
2007190114	2007191045	Fine	Fine	TOS	TOS	300	160
2007190114	2007191045	Coarse	Coarse	BOS	BOS	240	140
2007190114	2007191045	Fine	Fine	BOS	BOS	260	140
2007190393	2007191050	Coarse	Coarse	TOS	TOS	440	360
2007190393	2007191050	Fine	Fine	TOS	TOS	380	340

Appendix 23. Field duplicates analysis for F by ISE

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	F (ppm)	F (ppm)
METHOD:	METHOD:	SIZE	SIZE			ISE	ISE
D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					20	20
2007190393	2007191050	Coarse	Coarse	BOS	BOS	440	380
2007190393	2007191050	Fine	Fine	BOS	BOS	380	320
2007190826	2007191052	Coarse	Coarse	TOS	TOS	120	120
2007190826	2007191052	Fine	Fine	TOS	TOS	140	220
2007190826	2007191052	Coarse	Coarse	BOS	BOS	100	100
2007190826	2007191052	Fine	Fine	BOS	BOS	180	180
2007190091	2007191053	Coarse	Coarse	TOS	TOS	80	100
2007190091	2007191053	Fine	Fine	TOS	TOS	160	180
2007190091	2007191053	Coarse	Coarse	BOS	BOS	80	60
2007190091	2007191053	Fine	Fine	BOS	BOS	120	120
2007190887	2007191058	Coarse	Coarse	TOS	TOS	500	360
2007190887	2007191058	Fine	Fine	TOS	TOS	440	420
2007190887	2007191058	Coarse	Coarse	BOS	BOS	520	360
2007190887	2007191058	Fine	Fine	BOS	BOS	440	520
2007190005	2007191059	Coarse	Coarse	TOS	TOS	240	140
2007190005	2007191059	Fine	Fine	TOS	TOS	260	180
2007190005	2007191059	Coarse	Coarse	BOS	BOS	140	140
2007190005	2007191059	Fine	Fine	BOS	BOS	220	220
2007190583	2007191063	Coarse	Coarse	TOS	TOS	160	120
2007190583	2007191063	Fine	Fine	TOS	TOS	220	160
2007190583	2007191063	Coarse	Coarse	BOS	BOS	380	300
2007190583	2007191063	Fine	Fine	BOS	BOS	420	340
2007190922	2007191082	Coarse	Coarse	TOS	TOS	480	120
2007190922	2007191082	Fine	Fine	TOS	TOS	240	260
2007190922	2007191082	Coarse	Coarse	BOS	BOS	180	220
2007190922	2007191082	Fine	Fine	BOS	BOS	320	500
2007190361	2007191094	Coarse	Coarse	TOS	TOS	180	240
2007190361	2007191094	Fine	Fine	TOS	TOS	200	220
2007190361	2007191094	Coarse	Coarse	BOS	BOS	280	260
2007190361	2007191094	Fine	Fine	BOS	BOS	240	260
2007190145	2007191105	Coarse	Coarse	TOS	TOS	200	180
2007190145	2007191105	Fine	Fine	TOS	TOS	200	180
2007190145	2007191105	Coarse	Coarse	BOS	BOS	220	220
2007190145	2007191105	Fine	Fine	BOS	BOS	260	240
2007190508	2007191119	Coarse	Coarse	TOS	TOS	320	320
2007190508	2007191119	Fine	Fine	TOS	TOS	320	340
2007190508	2007191119	Coarse	Coarse	BOS	BOS	420	400
2007190508	2007191119	Fine	Fine	BOS	BOS	420	400
2007190067	2007191121	Coarse	Coarse	TOS	TOS	200	80
2007190067	2007191121	Fine	Fine	TOS	TOS	180	400
2007190067	2007191121	Coarse	Coarse	BOS	BOS	280	160
2007190067	2007191121	Fine	Fine	BOS	BOS	400	440
2007190818	2007191157	Coarse	Coarse	TOS	TOS	120	180
2007190818	2007191157	Fine	Fine	TOS	TOS	240	380
2007190818	2007191157	Coarse	Coarse	BOS	BOS	140	240
2007190818	2007191157	Fine	Fine	BOS	BOS	200	360
2007190618	2007191166	Coarse	Coarse	TOS	TOS	260	300
2007190618	2007191166	Fine	Fine	TOS	TOS	260	280
2007190618	2007191166	Coarse	Coarse	BOS	BOS	200	220
2007190618	2007191166	Fine	Fine	BOS	BOS	200	220
2007190258	2007191176	Coarse	Coarse	TOS	TOS	200	240
2007190258	2007191176	Fine	Fine	TOS	TOS	280	280
2007190258	2007191176	Coarse	Coarse	BOS	BOS	180	240
2007190258	2007191176	Fine	Fine	BOS	BOS	280	320
2007190110	2007191182	Coarse	Coarse	TOS	TOS	320	360
2007190110	2007191182	Fine	Fine	TOS	TOS	560	400
2007190110	2007191182	Coarse	Coarse	BOS	BOS	580	400
2007190110	2007191182	Fine	Fine	BOS	BOS	540	480
2007190865	2007191183	Coarse	Coarse	TOS	TOS	40	40
2007190865	2007191183	Fine	Fine	TOS	TOS	300	380
2007190865	2007191183	Coarse	Coarse	BOS	BOS	40	140
2007190865	2007191183	Fine	Fine	BOS	BOS	160	200
2007191168	2007191195	Coarse	Coarse	TOS	TOS	180	280
2007191168	2007191195	Fine	Fine	TOS	TOS	280	400
2007191168	2007191195	Coarse	Coarse	BOS	BOS	240	340
2007191168	2007191195	Fine	Fine	BOS	BOS	360	540
2007190248	2007191198	Coarse	Coarse	TOS	TOS	40	120
2007190248	2007191198	Fine	Fine	TOS	TOS	180	120
2007190248	2007191198	Coarse	Coarse	BOS	BOS	40	120
2007190248	2007191198	Fine	Fine	BOS	BOS	60	200
2007191092	2007191211	Coarse	Coarse	TOS	TOS	200	260
2007191092	2007191211	Fine	Fine	TOS	TOS	220	280
2007191092	2007191211	Coarse	Coarse	BOS	BOS	240	240
2007191092	2007191211	Fine	Fine	BOS	BOS	260	240
2007190825	2007191214	Coarse	Coarse	TOS	TOS	200	260
2007190825	2007191214	Fine	Fine	TOS	TOS	180	260
2007190825	2007191214	Coarse	Coarse	BOS	BOS	220	260
2007190825	2007191214	Fine	Fine	BOS	BOS	200	240
2007190798	2007191229	Coarse	Coarse	TOS	TOS	20	180
2007190798	2007191229	Fine	Fine	TOS	TOS	40	40
2007190798	2007191229	Coarse	Coarse	BOS	BOS	20	80
2007190798	2007191229	Fine	Fine	BOS	BOS	40	40
2007190548	2007191236	Coarse	Coarse	TOS	TOS	620	420
2007190548	2007191236	Fine	Fine	TOS	TOS	620	420
2007190548	2007191236	Coarse	Coarse	BOS	BOS	600	400

Appendix 23. Field duplicates analysis for F by ISE

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	F (ppm)	F (ppm)
METHOD:	METHOD:	SIZE	SIZE			ISE	ISE
D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					20	20
2007190548	2007191236	Fine	Fine	BOS	BOS	680	540
2007190746	2007191241	Coarse	Coarse	TOS	TOS	40	20
2007190746	2007191241	Fine	Fine	TOS	TOS	80	40
2007190746	2007191241	Coarse	Coarse	BOS	BOS	40	40
2007190746	2007191241	Fine	Fine	BOS	BOS	80	160
2007190970	2007191245	Coarse	Coarse	TOS	TOS	2260	2360
2007190970	2007191245	Fine	Fine	TOS	TOS	3200	3740
2007190970	2007191245	Coarse	Coarse	BOS	BOS	800	220
2007190970	2007191245	Fine	Fine	BOS	BOS	1000	280
2007190185	2007191253	Coarse	Coarse	TOS	TOS	540	320
2007190185	2007191253	Fine	Fine	TOS	TOS	540	360
2007190185	2007191253	Coarse	Coarse	BOS	BOS	620	400
2007190185	2007191253	Fine	Fine	BOS	BOS	620	440
2007190209	2007191254	Coarse	Coarse	TOS	TOS	240	120
2007190209	2007191254	Fine	Fine	TOS	TOS	260	180
2007190209	2007191254	Coarse	Coarse	BOS	BOS	220	120
2007190209	2007191254	Fine	Fine	BOS	BOS	260	160
2007190355	2007191257	Coarse	Coarse	TOS	TOS	300	300
2007190355	2007191257	Fine	Fine	TOS	TOS	340	320
2007190355	2007191257	Coarse	Coarse	BOS	BOS	400	420
2007190355	2007191257	Fine	Fine	BOS	BOS	400	460
2007190311	2007191259	Coarse	Coarse	TOS	TOS	100	80
2007190311	2007191259	Fine	Fine	TOS	TOS	120	100
2007190311	2007191259	Coarse	Coarse	BOS	BOS	180	140
2007190311	2007191259	Fine	Fine	BOS	BOS	460	440
2007190849	2007191277	Coarse	Coarse	TOS	TOS	240	180
2007190849	2007191277	Fine	Fine	TOS	TOS	280	200
2007190849	2007191277	Coarse	Coarse	BOS	BOS	280	220
2007190849	2007191277	Fine	Fine	BOS	BOS	320	240
2007191215	2007191281	Coarse	Coarse	TOS	TOS	200	80
2007191215	2007191281	Fine	Fine	TOS	TOS	220	140
2007191215	2007191281	Coarse	Coarse	BOS	BOS	160	80
2007191215	2007191281	Fine	Fine	BOS	BOS	200	120
2007191134	2007191282	Coarse	Coarse	TOS	TOS	100	240
2007191134	2007191282	Fine	Fine	TOS	TOS	160	260
2007191134	2007191282	Coarse	Coarse	BOS	BOS	340	220
2007191134	2007191282	Fine	Fine	BOS	BOS	440	320
2007190874	2007191297	Coarse	Coarse	TOS	TOS	120	180
2007190874	2007191297	Fine	Fine	TOS	TOS	220	240
2007190874	2007191297	Coarse	Coarse	BOS	BOS	100	200
2007190874	2007191297	Fine	Fine	BOS	BOS	220	280
2007190753	2007191299	Coarse	Coarse	TOS	TOS	280	220
2007190753	2007191299	Fine	Fine	TOS	TOS	280	240
2007190753	2007191299	Coarse	Coarse	BOS	BOS	300	220
2007190753	2007191299	Fine	Fine	BOS	BOS	260	220
2007190472	2007191312	Coarse	Coarse	TOS	TOS	440	420
2007190472	2007191312	Fine	Fine	TOS	TOS	460	460
2007190472	2007191312	Coarse	Coarse	BOS	BOS	420	420
2007190472	2007191312	Fine	Fine	BOS	BOS	500	460
2007190495	2007191318	Coarse	Coarse	TOS	TOS	500	240
2007190495	2007191318	Fine	Fine	TOS	TOS	120	140
2007190495	2007191318	Coarse	Coarse	BOS	BOS	300	160
2007190495	2007191318	Fine	Fine	BOS	BOS	240	180
2007191051	2007191331	Coarse	Coarse	TOS	TOS	80	140
2007191051	2007191331	Fine	Fine	TOS	TOS	80	140
2007191051	2007191331	Coarse	Coarse	BOS	BOS	80	160
2007191051	2007191331	Fine	Fine	BOS	BOS	100	160
2007190661	2007191334	Coarse	Coarse	TOS	TOS	100	60
2007190661	2007191334	Fine	Fine	TOS	TOS	120	100
2007190661	2007191334	Coarse	Coarse	BOS	BOS	120	80
2007190661	2007191334	Fine	Fine	BOS	BOS	160	140
2007191192	2007191339	Coarse	Coarse	TOS	TOS	500	380
2007191192	2007191339	Fine	Fine	TOS	TOS	460	400
2007191192	2007191339	Coarse	Coarse	BOS	BOS	580	460
2007191192	2007191339	Fine	Fine	BOS	BOS	660	520
2007190218	2007191348	Coarse	Coarse	TOS	TOS	140	220
2007190218	2007191348	Fine	Fine	TOS	TOS	220	240
2007190218	2007191348	Coarse	Coarse	BOS	BOS	160	160
2007190218	2007191348	Fine	Fine	BOS	BOS	220	220
2007191066	2007191379	Coarse	Coarse	TOS	TOS	440	360
2007191066	2007191379	Fine	Fine	TOS	TOS	600	360
2007191066	2007191379	Coarse	Coarse	BOS	BOS	380	360
2007191066	2007191379	Fine	Fine	BOS	BOS	580	380
2007191216	2007191385	Coarse	Coarse	TOS	TOS	180	120
2007191216	2007191385	Fine	Fine	TOS	TOS	260	220
2007191216	2007191385	Coarse	Coarse	BOS	BOS	320	120
2007191216	2007191385	Fine	Fine	BOS	BOS	400	320
2007190414	2007191386	Coarse	Coarse	TOS	TOS	300	260
2007190414	2007191386	Fine	Fine	TOS	TOS	300	240
2007190414	2007191386	Coarse	Coarse	BOS	BOS	320	240
2007190414	2007191386	Fine	Fine	BOS	BOS	320	280
2007190181	2007191396	Coarse	Coarse	TOS	TOS	240	300
2007190181	2007191396	Fine	Fine	TOS	TOS	220	300
2007190181	2007191396	Coarse	Coarse	BOS	BOS	240	280
2007190181	2007191396	Fine	Fine	BOS	BOS	280	340

Appendix 23. Field duplicates analysis for F by ISE

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	F (ppm)	F (ppm)
METHOD:	METHOD:	SIZE	SIZE			ISE	ISE
D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					20	20
2007190161	2007191413	Coarse	Coarse	TOS	TOS	280	360
2007190161	2007191413	Fine	Fine	TOS	TOS	440	480
2007190161	2007191413	Coarse	Coarse	BOS	BOS	360	420
2007190161	2007191413	Fine	Fine	BOS	BOS	460	520
2007190383	2007191416	Coarse	Coarse	TOS	TOS	180	200
2007190383	2007191416	Fine	Fine	TOS	TOS	200	300
2007190383	2007191416	Coarse	Coarse	BOS	BOS	200	300
2007190383	2007191416	Fine	Fine	BOS	BOS	220	300
2007191346	2007191429	Coarse	Coarse	TOS	TOS	460	520
2007191346	2007191429	Fine	Fine	TOS	TOS	460	440
2007191346	2007191429	Coarse	Coarse	BOS	BOS	260	300
2007191346	2007191429	Fine	Fine	BOS	BOS	420	400
2007190686	2007191430	Coarse	Coarse	TOS	TOS	120	200
2007190686	2007191430	Fine	Fine	TOS	TOS	280	360
2007190686	2007191430	Coarse	Coarse	BOS	BOS	140	260
2007190686	2007191430	Fine	Fine	BOS	BOS	340	480
2007190349	2007191436	Coarse	Coarse	TOS	TOS	320	180
2007190349	2007191436	Fine	Fine	TOS	TOS	340	200
2007190349	2007191436	Coarse	Coarse	BOS	BOS	300	180
2007190349	2007191436	Fine	Fine	BOS	BOS	380	220
2007190968	2007191437	Coarse	Coarse	TOS	TOS	40	60
2007190968	2007191437	Fine	Fine	TOS	TOS	60	100
2007190968	2007191437	Coarse	Coarse	BOS	BOS	120	180
2007190968	2007191437	Fine	Fine	BOS	BOS	180	320
2007190827	2007191440	Coarse	Coarse	TOS	TOS	280	100
2007190827	2007191440	Fine	Fine	TOS	TOS	500	220
2007190827	2007191440	Coarse	Coarse	BOS	BOS	340	640
2007190827	2007191440	Fine	Fine	BOS	BOS	620	660
2007190896	2007191441	Coarse	Coarse	TOS	TOS	80	140
2007190896	2007191441	Fine	Fine	TOS	TOS	160	180
2007190896	2007191441	Coarse	Coarse	BOS	BOS	80	140
2007190896	2007191441	Fine	Fine	BOS	BOS	180	200
2007190927	2007191444	Coarse	Coarse	TOS	TOS	360	440
2007190927	2007191444	Fine	Fine	TOS	TOS	380	440
2007190927	2007191444	Coarse	Coarse	BOS	BOS	340	460
2007190927	2007191444	Fine	Fine	BOS	BOS	400	420
2007191372	2007191445	Coarse	Coarse	TOS	TOS	80	140
2007191372	2007191445	Fine	Fine	TOS	TOS	100	120
2007191372	2007191445	Coarse	Coarse	BOS	BOS	80	160
2007191372	2007191445	Fine	Fine	BOS	BOS	140	100
2007190732	2007191450	Coarse	Coarse	TOS	TOS	120	160
2007190732	2007191450	Fine	Fine	TOS	TOS	120	140
2007190732	2007191450	Coarse	Coarse	BOS	BOS	160	140
2007190732	2007191450	Fine	Fine	BOS	BOS	180	200
2007190266	2007191458	Coarse	Coarse	TOS	TOS	240	260
2007190266	2007191458	Fine	Fine	TOS	TOS	300	440
2007190266	2007191458	Coarse	Coarse	BOS	BOS	180	160
2007190266	2007191458	Fine	Fine	BOS	BOS	500	240
2007190050	2007191481	Coarse	Coarse	TOS	TOS	120	160
2007190050	2007191481	Fine	Fine	TOS	TOS	180	200
2007190050	2007191481	Coarse	Coarse	BOS	BOS	120	180
2007190050	2007191481	Fine	Fine	BOS	BOS	180	240
2007191264	2007191486	Coarse	Coarse	TOS	TOS	280	340
2007191264	2007191486	Fine	Fine	TOS	TOS	280	300
2007191264	2007191486	Coarse	Coarse	BOS	BOS	240	240
2007191264	2007191486	Fine	Fine	BOS	BOS	360	280
2007191295	2007191498	Coarse	Coarse	TOS	TOS	160	80
2007191295	2007191498	Fine	Fine	TOS	TOS	180	100
2007191295	2007191498	Coarse	Coarse	BOS	BOS	160	80
2007191295	2007191498	Fine	Fine	BOS	BOS	180	120
2007190949	2007191504	Coarse	Coarse	TOS	TOS	340	340
2007190949	2007191504	Fine	Fine	TOS	TOS	420	420
2007190949	2007191504	Coarse	Coarse	BOS	BOS	720	660
2007190949	2007191504	Fine	Fine	BOS	BOS	820	660
2007190549	2007191507	Coarse	Coarse	TOS	TOS	140	80
2007190549	2007191507	Fine	Fine	TOS	TOS	140	140
2007190549	2007191507	Coarse	Coarse	BOS	BOS	80	100
2007190549	2007191507	Fine	Fine	BOS	BOS	140	180
2007191382	2007191509	Coarse	Coarse	TOS	TOS	300	320
2007191382	2007191509	Fine	Fine	TOS	TOS	360	320
2007191382	2007191509	Coarse	Coarse	BOS	BOS	360	420
2007191382	2007191509	Fine	Fine	BOS	BOS	440	420
2007191473	2007191510	Coarse	Coarse	TOS	TOS	200	140
2007191473	2007191510	Fine	Fine	TOS	TOS	180	140
2007191473	2007191510	Coarse	Coarse	BOS	BOS	260	180
2007191473	2007191510	Fine	Fine	BOS	BOS	300	180
2007191293	2007191518	Coarse	Coarse	TOS	TOS	180	140
2007191293	2007191518	Fine	Fine	TOS	TOS	180	160
2007191293	2007191518	Coarse	Coarse	BOS	BOS	200	160
2007191293	2007191518	Fine	Fine	BOS	BOS	220	180
2007190534	2007191522	Coarse	Coarse	TOS	TOS	160	160
2007190534	2007191522	Fine	Fine	TOS	TOS	200	220
2007190534	2007191522	Coarse	Coarse	BOS	BOS	120	120
2007190534	2007191522	Fine	Fine	BOS	BOS	200	140
2007190647	2007191525	Coarse	Coarse	TOS	TOS	200	120

Appendix 23. Field duplicates analysis for F by ISE

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	F (ppm)	F (ppm)
METHOD:	METHOD:	SIZE	SIZE			ISE	ISE
D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					20	20
2007190647	2007191525	Fine	Fine	TOS	TOS	280	240
2007190647	2007191525	Coarse	Coarse	BOS	BOS	220	120
2007190647	2007191525	Fine	Fine	BOS	BOS	300	240
2007191028	2007191531	Coarse	Coarse	TOS	TOS	100	100
2007191028	2007191531	Fine	Fine	TOS	TOS	160	140
2007191028	2007191531	Coarse	Coarse	BOS	BOS	120	120
2007191028	2007191531	Fine	Fine	BOS	BOS	220	160
2007190125	2007191532	Coarse	Coarse	TOS	TOS	420	300
2007190125	2007191532	Fine	Fine	TOS	TOS	500	280
2007190125	2007191532	Coarse	Coarse	BOS	BOS	420	340
2007190125	2007191532	Fine	Fine	BOS	BOS	360	420
2007190990	2007191537	Coarse	Coarse	TOS	TOS	220	240
2007190990	2007191537	Fine	Fine	TOS	TOS	200	240
2007190990	2007191537	Coarse	Coarse	BOS	BOS	140	140
2007190990	2007191537	Fine	Fine	BOS	BOS	180	200
2007190189	2007191542	Coarse	Coarse	TOS	TOS	400	300
2007190189	2007191542	Fine	Fine	TOS	TOS	360	300
2007190189	2007191542	Coarse	Coarse	BOS	BOS	380	320
2007190189	2007191542	Fine	Fine	BOS	BOS	360	320
2007190121	2007191545	Coarse	Coarse	TOS	TOS	60	100
2007190121	2007191545	Fine	Fine	TOS	TOS	160	260
2007190121	2007191545	Coarse	Coarse	BOS	BOS	60	240
2007190121	2007191545	Fine	Fine	BOS	BOS	160	620
2007190735	2007191549	Coarse	Coarse	TOS	TOS	280	420
2007190735	2007191549	Fine	Fine	TOS	TOS	260	340
2007190735	2007191549	Coarse	Coarse	BOS	BOS	260	320
2007190735	2007191549	Fine	Fine	BOS	BOS	240	300
2007191007	2007191551	Coarse	Coarse	TOS	TOS	80	60
2007191007	2007191551	Fine	Fine	TOS	TOS	140	100
2007191007	2007191551	Coarse	Coarse	BOS	BOS	80	80
2007191007	2007191551	Fine	Fine	BOS	BOS	120	120
2007190118	2007191552	Coarse	Coarse	TOS	TOS	500	380
2007190118	2007191552	Fine	Fine	TOS	TOS	460	360
2007190118	2007191552	Coarse	Coarse	BOS	BOS	640	560
2007190118	2007191552	Fine	Fine	BOS	BOS	620	540
2007190176	2007191566	Coarse	Coarse	TOS	TOS	60	140
2007190176	2007191566	Fine	Fine	TOS	TOS	140	180
2007190176	2007191566	Coarse	Coarse	BOS	BOS	80	120
2007190176	2007191566	Fine	Fine	BOS	BOS	120	160
2007191152	2007191578	Coarse	Coarse	TOS	TOS	60	60
2007191152	2007191578	Fine	Fine	TOS	TOS	120	80
2007191152	2007191578	Coarse	Coarse	BOS	BOS	260	120
2007191152	2007191578	Fine	Fine	BOS	BOS	400	160
2007191275	2007191590	Coarse	Coarse	TOS	TOS	140	140
2007191275	2007191590	Fine	Fine	TOS	TOS	240	240
2007191275	2007191590	Coarse	Coarse	BOS	BOS	180	100
2007191275	2007191590	Fine	Fine	BOS	BOS	220	180
2007190986	2007191592	Coarse	Coarse	TOS	TOS	360	300
2007190986	2007191592	Fine	Fine	TOS	TOS	320	220
2007190986	2007191592	Coarse	Coarse	BOS	BOS	380	280
2007190986	2007191592	Fine	Fine	BOS	BOS	520	460
2007190208	2007191593	Coarse	Coarse	TOS	TOS	60	40
2007190208	2007191593	Fine	Fine	TOS	TOS	60	40
2007190208	2007191593	Coarse	Coarse	BOS	BOS	160	120
2007190208	2007191593	Fine	Fine	BOS	BOS	200	120
2007190481	2007191594	Coarse	Coarse	TOS	TOS	200	200
2007190481	2007191594	Fine	Fine	TOS	TOS	200	180
2007190481	2007191594	Coarse	Coarse	BOS	BOS	220	240
2007190481	2007191594	Fine	Fine	BOS	BOS	240	220
2007190328	2007191598	Coarse	Coarse	TOS	TOS	80	40
2007190328	2007191598	Fine	Fine	TOS	TOS	100	60
2007190328	2007191598	Coarse	Coarse	BOS	BOS	80	40
2007190328	2007191598	Fine	Fine	BOS	BOS	120	80
2007190526	2007191599	Coarse	Coarse	TOS	TOS	620	340
2007190526	2007191599	Fine	Fine	TOS	TOS	660	500
2007190526	2007191599	Coarse	Coarse	BOS	BOS	680	420
2007190526	2007191599	Fine	Fine	BOS	BOS	660	580

Appendix 24. QC samples analysis for F by ISE

Appendix 24. QC samples analysis for F by ISE

SAMPLEID	TYPE	REAL	F (ppm)
METHOD:		SAMPLEID	ISE
LLD:			20
2007190020001 Coarse	DUP	2007190496001 Fine	320
2007190496001 Fine			400
Average			360
SD			57
RSD			16%
% <LLD			0%
2007190060002 Fine	DUP	2007190501001 Fine	320
2007190501001 Fine			240
Average			280
SD			57
RSD			20%
% <LLD			0%
2007190080001 Fine	DUP	2007190712001 Fine	340
2007190712001 Fine			220
Average			280
SD			85
RSD			30%
% <LLD			0%
2007190100002 Coarse	DUP	2007191504002 Fine	680
2007191504002 Fine			660
Average			670
SD			14
RSD			2%
% <LLD			0%
2007190120001 Coarse	DUP	2007190632002 Coarse	300
2007190632002 Coarse			400
Average			350
SD			71
RSD			20%
% <LLD			0%
2007190160002 Fine	DUP	2007190154002 Coarse	400
2007190154002 Coarse			380
Average			390
SD			14
RSD			4%
% <LLD			0%
2007190180001 Fine	DUP	2007190025002 Coarse	180
2007190025002 Coarse			200
Average			190
SD			14
RSD			7%
% <LLD			0%
2007190220001 Coarse	DUP	2007190058001 Coarse	240
2007190058001 Coarse			100
Average			170
SD			99
RSD			58%
% <LLD			0%
2007190220002 Coarse	DUP	2007190389001 Coarse	60
2007190389001 Coarse			60
Average			60
SD			0
RSD			0%
% <LLD			0%
2007190260002 Coarse	DUP	2007191036002 Fine	140
2007191036002 Fine			200
Average			170
SD			42
RSD			25%
% <LLD			0%
2007190280001 Fine	DUP	2007190043001 Coarse	180
2007190043001 Coarse			200
Average			190
SD			14
RSD			7%
% <LLD			0%
2007190280002 Fine	DUP	2007190428001 Coarse	340
2007190428001 Coarse			380
Average			360
SD			28
RSD			8%
% <LLD			0%

Appendix 24. QC samples analysis for F by ISE

SAMPLEID	TYPE	REAL	F (ppm)
METHOD:		SAMPLEID	ISE
LLD:			20
2007190320002 Fine	DUP	2007191253002 Fine	440
2007191253002 Fine			440
Average			440
SD			0
RSD			0%
% <LLD			0%
2007190340001 Coarse	DUP	2007191510002 Fine	220
2007191510002 Fine			180
Average			200
SD			28
RSD			14%
% <LLD			0%
2007190340002 Coarse	DUP	2007190716002 Coarse	40
2007190716002 Coarse			40
Average			40
SD			0
RSD			0%
% <LLD			0%
2007190380001 Coarse	DUP	2007190579002 Coarse	240
2007190579002 Coarse			360
Average			300
SD			85
RSD			28%
% <LLD			0%
2007190400001 Fine	DUP	2007190041001 Coarse	300
2007190041001 Coarse			340
Average			320
SD			28
RSD			9%
% <LLD			0%
2007190400002 Fine	DUP	2007190429002 Coarse	100
2007190429002 Coarse			120
Average			110
SD			14
RSD			13%
% <LLD			0%
2007190440001 Fine	DUP	2007190408001 Coarse	440
2007190408001 Coarse			440
Average			440
SD			0
RSD			0%
% <LLD			0%
2007190460001 Coarse	DUP	2007190586001 Fine	180
2007190586001 Fine			260
Average			220
SD			57
RSD			26%
% <LLD			0%
2007190460002 Coarse	DUP	2007190095001 Fine	300
2007190095001 Fine			400
Average			350
SD			71
RSD			20%
% <LLD			0%
2007190520001 Fine	DUP	2007190282002 Coarse	520
2007190282002 Coarse			560
Average			540
SD			28
RSD			5%
% <LLD			0%
2007190520002 Coarse	DUP	2007191078002 Coarse	240
2007191078002 Coarse			220
Average			230
SD			14
RSD			6%
% <LLD			0%
2007190520002 Fine	DUP	2007190633001 Coarse	520
2007190633001 Coarse			460
Average			490
SD			42
RSD			9%
% <LLD			0%

Appendix 24. QC samples analysis for F by ISE

SAMPLEID	TYPE	REAL	F (ppm)
METHOD:		SAMPLEID	ISE
LLD:			20
2007190580001 Coarse	DUP	2007190708002 Fine	580
2007190708002 Fine			540
Average			560
SD			28
RSD			5%
% <LLD			0%
2007190580002 Fine	DUP	2007190354001 Fine	40
2007190354001 Fine			40
Average			40
SD			0
RSD			0%
% <LLD			0%
2007190620002 Coarse	DUP	2007191381001 Fine	120
2007191381001 Fine			280
Average			200
SD			113
RSD			57%
% <LLD			0%
2007190640001 Fine	DUP	2007190889002 Coarse	60
2007190889002 Coarse			60
Average			60
SD			0
RSD			0%
% <LLD			0%
2007190680002 Fine	DUP	2007190015001 Coarse	300
2007190015001 Coarse			300
Average			300
SD			0
RSD			0%
% <LLD			0%
2007190700001 Fine	DUP	2007190053002 Coarse	180
2007190053002 Coarse			240
Average			210
SD			42
RSD			20%
% <LLD			0%
2007190700002 Coarse	DUP	2007191512002 Coarse	100
2007191512002 Coarse			100
Average			100
SD			0
RSD			0%
% <LLD			0%
2007190740001 Coarse	DUP	2007190707002 Coarse	440
2007190707002 Coarse			420
Average			430
SD			14
RSD			3%
% <LLD			0%
2007190760002 Fine	DUP	2007190134002 Fine	320
2007190134002 Fine			420
Average			370
SD			71
RSD			19%
% <LLD			0%
2007190780002 Coarse	DUP	2007190104002 Fine	180
2007190104002 Fine			280
Average			230
SD			71
RSD			31%
% <LLD			0%
2007190800001 Fine	DUP	2007190764001 Coarse	140
2007190764001 Coarse			120
Average			130
SD			14
RSD			11%
% <LLD			0%

Appendix 24. QC samples analysis for F by ISE

SAMPLEID	TYPE	REAL	F (ppm)
METHOD:		SAMPLEID	ISE
LLD:			20
2007190820001 Coarse	DUP	2007190508002 Fine	420
2007190508002 Fine			420
Average			420
SD			0
RSD			0%
% <LLD			0%
2007190840002 Coarse	DUP	2007190978002 Coarse	140
2007190978002 Coarse			220
Average			180
SD			57
RSD			31%
% <LLD			0%
2007190840002 Fine	DUP	2007190005002 Coarse	220
2007190005002 Coarse			140
Average			180
SD			57
RSD			31%
% <LLD			0%
2007190860002 Coarse	DUP	2007190621001 Fine	440
2007190621001 Fine			120
Average			280
SD			226
RSD			81%
% <LLD			0%
2007190880001 Fine	DUP	2007190193002 Fine	10
2007190193002 Fine			460
Average			235
SD			318
RSD			135%
% <LLD			50%
2007190900001 Coarse	DUP	2007190932001 Coarse	500
2007190932001 Coarse			480
Average			490
SD			14
RSD			3%
% <LLD			0%
2007190900002 Coarse	DUP	2007191208001 Coarse	280
2007191208001 Coarse			280
Average			280
SD			0
RSD			0%
% <LLD			0%
2007190900002 Fine	DUP	2007190204001 Coarse	60
2007190204001 Coarse			60
Average			60
SD			0
RSD			0%
% <LLD			0%
2007190920002 Fine	DUP	2007191450001 Fine	120
2007191450001 Fine			140
Average			130
SD			14
RSD			11%
% <LLD			0%
2007190960001 Coarse	DUP	2007190271002 Coarse	260
2007190271002 Coarse			240
Average			250
SD			14
RSD			6%
% <LLD			0%
2007190960001 Fine	DUP	2007190192002 Fine	300
2007190192002 Fine			340
Average			320
SD			28
RSD			9%
% <LLD			0%
2007190960002 Fine	DUP	2007190766002 Coarse	160
2007190766002 Coarse			240
Average			200
SD			57
RSD			28%
% <LLD			0%

Appendix 24. QC samples analysis for F by ISE

SAMPLEID	TYPE	REAL	F (ppm)
METHOD:		SAMPLEID	ISE
LLD:			20
2007190980001 Coarse	DUP	2007191518001 Fine	120
2007191518001 Fine			160
Average			140
SD			28
RSD			20%
% <LLD			0%
2007190980002 Coarse	DUP	2007190945002 Fine	340
2007190945002 Fine			300
Average			320
SD			28
RSD			9%
% <LLD			0%
2007191020001 Coarse	DUP	2007190357002 Coarse	120
2007190357002 Coarse			160
Average			140
SD			28
RSD			20%
% <LLD			0%
2007191020001 Fine	DUP	2007190183002 Fine	1060
2007190183002 Fine			1120
Average			1090
SD			42
RSD			4%
% <LLD			0%
2007191040001 Fine	DUP	2007190161001 Fine	480
2007190161001 Fine			440
Average			460
SD			28
RSD			6%
% <LLD			0%
2007191040002 Fine	DUP	2007190648002 Fine	200
2007190648002 Fine			160
Average			180
SD			28
RSD			16%
% <LLD			0%
2007191060002 Coarse	DUP	2007191154001 Coarse	180
2007191154001 Coarse			220
Average			200
SD			28
RSD			14%
% <LLD			0%
2007191080001 Fine	DUP	2007190064001 Fine	220
2007190064001 Fine			220
Average			220
SD			0
RSD			0%
% <LLD			0%
2007191100001 Coarse	DUP	2007190803001 Fine	340
2007190803001 Fine			240
Average			290
SD			71
RSD			24%
% <LLD			0%
2007191120002 Fine	DUP	2007190536002 Coarse	100
2007190536002 Coarse			180
Average			140
SD			57
RSD			40%
% <LLD			0%
2007191160001 Fine	DUP	2007190066002 Fine	340
2007190066002 Fine			340
Average			340
SD			0
RSD			0%
% <LLD			0%
2007191180001 Coarse	DUP	2007190868002 Fine	240
2007190868002 Fine			180
Average			210
SD			42
RSD			20%
% <LLD			0%

Appendix 24. QC samples analysis for F by ISE

SAMPLEID	TYPE	REAL	F (ppm)
METHOD:		SAMPLEID	ISE
LLD:			20
2007191200002 Coarse	DUP	2007190499002 Coarse	220
2007190499002 Coarse			180
Average			200
SD			28
RSD			14%
% <LLD			0%
2007191240001 Fine	DUP	2007190065001 Fine	380
2007190065001 Fine			580
Average			480
SD			141
RSD			29%
% <LLD			0%
2007191260002 Fine	DUP	2007190996002 Fine	400
2007190996002 Fine			260
Average			330
SD			99
RSD			30%
% <LLD			0%
2007191300002 Coarse	DUP	2007191043001 Fine	480
2007191043001 Fine			440
Average			460
SD			28
RSD			6%
% <LLD			0%
2007191320001 Coarse	DUP	2007191521001 Coarse	420
2007191521001 Coarse			440
Average			430
SD			14
RSD			3%
% <LLD			0%
2007191360002 Fine	DUP	2007190821001 Fine	180
2007190821001 Fine			320
Average			250
SD			99
RSD			40%
% <LLD			0%
2007191380001 Fine	DUP	2007190081001 Fine	300
2007190081001 Fine			240
Average			270
SD			42
RSD			16%
% <LLD			0%
2007191400002 Coarse	DUP	2007190870001 Coarse	60
2007190870001 Coarse			80
Average			70
SD			14
RSD			20%
% <LLD			0%
2007190040001 Coarse	CRM	TILL-1	560
2007190100001 Fine	CRM	TILL-1	580
2007191320002 Coarse	CRM	TILL-1	580
2007191380002 Fine	CRM	TILL-1	440
Average			540
SD			67
RSD			12%
% <LLD			0%
2007190720002 Coarse	CRM	TILL-3	340
2007190780002 Fine	CRM	TILL-3	380
2007190840001 Coarse	CRM	TILL-3	380
2007190900001 Fine	CRM	TILL-3	440
Average			385
SD			41
RSD			11%
% <LLD			0%
2007190320002 Coarse	CRM	LKSD-1	140
2007190380002 Fine	CRM	LKSD-1	160
2007190440001 Coarse	CRM	LKSD-1	200
2007190500001 Fine	CRM	LKSD-1	300
Average			200
SD			71
RSD			36%
RV (TOTAL)			300
Bias			67%
% <LLD			0%

Appendix 24. QC samples analysis for F by ISE

SAMPLEID	TYPE	REAL	F (ppm)
METHOD:		SAMPLEID	ISE
LLD:			20
2007191120002 Coarse	CRM	STSD-3	700
2007191180002 Fine	CRM	STSD-3	820
2007191240001 Coarse	CRM	STSD-3	760
2007191300001 Fine	CRM	STSD-3	800
Average			770
SD			53
RSD			7%
RV (TOTAL)			850
Bias			91%
% <LLD			0%
2007190120002 Coarse	STD	SoNE-1	520
2007190180002 Fine	STD	SoNE-1	460
2007190240001 Coarse	STD	SoNE-1	540
2007190300001 Fine	STD	SoNE-1	560
2007190920002 Coarse	STD	SoNE-1	560
2007190980002 Fine	STD	SoNE-1	300
2007191040001 Coarse	STD	SoNE-1	520
2007191100001 Fine	STD	SoNE-1	480
Average			493
SD			85
RSD			17%
% <LLD			0%
2007190040002 Fine	STD	GEMAS-A	660
2007190080002 Coarse	STD	GEMAS-A	700
2007190200002 Coarse	STD	GEMAS-A	640
2007190380002 Coarse	STD	GEMAS-A	620
2007190500002 Fine	STD	GEMAS-A	560
2007190660002 Fine	STD	GEMAS-A	600
2007190720002 Fine	STD	GEMAS-A	580
2007190760002 Coarse	STD	GEMAS-A	680
2007191000002 Fine	STD	GEMAS-A	460
2007191160002 Coarse	STD	GEMAS-A	620
Average			612
SD			69
RSD			11%
% <LLD			0%
2007190100002 Fine	STD	GEMAS-G	380
2007190220002 Fine	STD	GEMAS-G	460
2007190240002 Coarse	STD	GEMAS-G	440
2007190600002 Coarse	STD	GEMAS-G	400
2007190800002 Coarse	STD	GEMAS-G	400
2007190860002 Fine	STD	GEMAS-G	420
2007191040002 Coarse	STD	GEMAS-G	500
2007191200002 Fine	STD	GEMAS-G	420
2007191320002 Fine	STD	GEMAS-G	400
2007191360002 Coarse	STD	GEMAS-G	540
Average			436
SD			51
RSD			12%
% <LLD			0%
2007190020002 Coarse	IPS	ORIS	380
2007190060001 Fine	IPS	ORIS	400
2007190080002 Fine	IPS	ORIS	280
2007190140001 Coarse	IPS	ORIS	360
2007190200001 Fine	IPS	ORIS	360
2007190200002 Fine	IPS	ORIS	300
2007190260001 Coarse	IPS	ORIS	380
2007190320001 Fine	IPS	ORIS	400
2007190340002 Fine	IPS	ORIS	280
2007190400001 Coarse	IPS	ORIS	360
2007190460001 Fine	IPS	ORIS	420
2007190480002 Fine	IPS	ORIS	180
2007190540001 Coarse	IPS	ORIS	340
2007190600001 Fine	IPS	ORIS	380
2007190600002 Fine	IPS	ORIS	300
2007190660001 Coarse	IPS	ORIS	340
2007190720001 Fine	IPS	ORIS	320
2007190740002 Fine	IPS	ORIS	280
2007190800001 Coarse	IPS	ORIS	360
2007190860001 Fine	IPS	ORIS	140
2007190880002 Fine	IPS	ORIS	320
2007190940001 Coarse	IPS	ORIS	320
2007191000001 Fine	IPS	ORIS	460
2007191020002 Fine	IPS	ORIS	340
2007191080001 Coarse	IPS	ORIS	200
2007191140001 Fine	IPS	ORIS	420
2007191160002 Fine	IPS	ORIS	320
2007191220001 Coarse	IPS	ORIS	380
2007191280001 Fine	IPS	ORIS	360
2007191340002 Fine	IPS	ORIS	300
2007191400001 Coarse	IPS	ORIS	340

Appendix 24. QC samples analysis for F by ISE

SAMPLEID	TYPE	REAL	F (ppm)
METHOD:		SAMPLEID	ISE
LLD:			20
Average			333
SD			69
RSD			21%
% <LLD			0%
2007190040001 Fine	IPS	MRIS	400
2007190060001 Coarse	IPS	MRIS	320
2007190060002 Coarse	IPS	MRIS	360
2007190100001 Coarse	IPS	MRIS	300
2007190120001 Fine	IPS	MRIS	360
2007190120002 Fine	IPS	MRIS	260
2007190140002 Fine	IPS	MRIS	300
2007190160001 Fine	IPS	MRIS	340
2007190180001 Coarse	IPS	MRIS	280
2007190180002 Coarse	IPS	MRIS	300
2007190200001 Coarse	IPS	MRIS	320
2007190240001 Fine	IPS	MRIS	360
2007190240002 Fine	IPS	MRIS	240
2007190260001 Fine	IPS	MRIS	360
2007190260002 Fine	IPS	MRIS	280
2007190300001 Coarse	IPS	MRIS	300
2007190300002 Coarse	IPS	MRIS	280
2007190320001 Coarse	IPS	MRIS	380
2007190360001 Fine	IPS	MRIS	400
2007190360002 Coarse	IPS	MRIS	280
2007190360002 Fine	IPS	MRIS	200
2007190380001 Fine	IPS	MRIS	360
2007190420001 Coarse	IPS	MRIS	300
2007190420002 Fine	IPS	MRIS	220
2007190440002 Coarse	IPS	MRIS	280
2007190440002 Fine	IPS	MRIS	340
2007190480001 Coarse	IPS	MRIS	300
2007190480001 Fine	IPS	MRIS	340
2007190500001 Coarse	IPS	MRIS	380
2007190540001 Fine	IPS	MRIS	340
2007190560001 Coarse	IPS	MRIS	360
2007190560001 Fine	IPS	MRIS	380
2007190560002 Fine	IPS	MRIS	320
2007190620001 Coarse	IPS	MRIS	320
2007190620001 Fine	IPS	MRIS	300
2007190640002 Fine	IPS	MRIS	340
2007190680001 Fine	IPS	MRIS	340
2007190700001 Coarse	IPS	MRIS	340
2007190720001 Coarse	IPS	MRIS	320
2007190760001 Fine	IPS	MRIS	300
2007190780001 Coarse	IPS	MRIS	400
2007190780001 Fine	IPS	MRIS	280
2007190800002 Fine	IPS	MRIS	360
2007190820002 Fine	IPS	MRIS	220
2007190840001 Fine	IPS	MRIS	420
2007190860001 Coarse	IPS	MRIS	300
2007190880001 Coarse	IPS	MRIS	300
2007190920001 Fine	IPS	MRIS	380
2007190940001 Fine	IPS	MRIS	400
2007191060001 Coarse	IPS	MRIS	300
2007191080002 Fine	IPS	MRIS	600
2007191100002 Fine	IPS	MRIS	300
2007191120001 Fine	IPS	MRIS	380
2007191140001 Coarse	IPS	MRIS	340
2007191140002 Fine	IPS	MRIS	300
2007191160001 Coarse	IPS	MRIS	380
2007191200001 Coarse	IPS	MRIS	400
2007191200001 Fine	IPS	MRIS	340
2007191220001 Fine	IPS	MRIS	280
2007191220002 Fine	IPS	MRIS	380
2007191260001 Coarse	IPS	MRIS	380
2007191260001 Fine	IPS	MRIS	260
2007191280001 Coarse	IPS	MRIS	340
2007191280002 Fine	IPS	MRIS	260
2007191320001 Fine	IPS	MRIS	340
2007191340001 Coarse	IPS	MRIS	340
2007191340001 Fine	IPS	MRIS	340
2007191380001 Coarse	IPS	MRIS	300
2007191400001 Fine	IPS	MRIS	380
2007191400002 Fine	IPS	MRIS	320
Average			330
SD			58
RSD			17%
% <LLD			0%

Appendix 24. QC samples analysis for F by ISE

SAMPLEID	TYPE	REAL	F (ppm)
METHOD:		SAMPLEID	ISE
LLD:			20
2007190500002 Coarse	IPS	MRIS2	280
2007190580002 Coarse	IPS	MRIS2	300
2007190660002 Coarse	IPS	MRIS2	280
2007190740002 Coarse	IPS	MRIS2	320
2007190940002 Coarse	IPS	MRIS2	340
2007191020002 Coarse	IPS	MRIS2	280
2007191080002 Coarse	IPS	MRIS2	260
2007191140002 Coarse	IPS	MRIS2	300
2007191220002 Coarse	IPS	MRIS2	300
2007191260002 Coarse	IPS	MRIS2	320
2007191340002 Coarse	IPS	MRIS2	400
2007191380002 Coarse	IPS	MRIS2	380
Average			313
SD			42
RSD			13%
% <LLD			0%
2007190020002 Coarse	IPS	ORIS	380
2007190060001 Fine	IPS	ORIS	400
2007190080002 Fine	IPS	ORIS	280
2007190140001 Coarse	IPS	ORIS	360
2007190200001 Fine	IPS	ORIS	360
2007190200002 Fine	IPS	ORIS	300
2007190260001 Coarse	IPS	ORIS	380
2007190320001 Fine	IPS	ORIS	400
2007190340002 Fine	IPS	ORIS	280
2007190400001 Coarse	IPS	ORIS	360
2007190460001 Fine	IPS	ORIS	420
2007190480002 Fine	IPS	ORIS	180
2007190540001 Coarse	IPS	ORIS	340
2007190600001 Fine	IPS	ORIS	380
2007190600002 Fine	IPS	ORIS	300
2007190660001 Coarse	IPS	ORIS	340
2007190720001 Fine	IPS	ORIS	320
2007190740002 Fine	IPS	ORIS	280
2007190800001 Coarse	IPS	ORIS	360
2007190860001 Fine	IPS	ORIS	140
2007190880002 Fine	IPS	ORIS	320
2007190940001 Coarse	IPS	ORIS	320
2007191000001 Fine	IPS	ORIS	460
2007191020002 Fine	IPS	ORIS	340
2007191080001 Coarse	IPS	ORIS	200
2007191140001 Fine	IPS	ORIS	420
2007191160002 Fine	IPS	ORIS	320
2007191220001 Coarse	IPS	ORIS	380
2007191280001 Fine	IPS	ORIS	360
2007191340002 Fine	IPS	ORIS	300
2007191400001 Coarse	IPS	ORIS	340
Average			333
SD			69
RSD			21%
% <LLD			0%
2007190020001 Fine	IPS	WRIS	500
2007190020002 Fine	IPS	WRIS	400
2007190040002 Coarse	IPS	WRIS	480
2007190080001 Coarse	IPS	WRIS	460
2007190140001 Fine	IPS	WRIS	440
2007190160001 Coarse	IPS	WRIS	420
2007190160002 Coarse	IPS	WRIS	420
2007190220001 Fine	IPS	WRIS	520
2007190280001 Coarse	IPS	WRIS	460
2007190300002 Fine	IPS	WRIS	380
2007190340001 Fine	IPS	WRIS	540
2007190360001 Coarse	IPS	WRIS	460
2007190400002 Coarse	IPS	WRIS	380
2007190420001 Fine	IPS	WRIS	460
2007190460002 Fine	IPS	WRIS	200
2007190520001 Coarse	IPS	WRIS	480
2007190540002 Fine	IPS	WRIS	300
2007190580001 Fine	IPS	WRIS	460
2007190600001 Coarse	IPS	WRIS	460
2007190620002 Fine	IPS	WRIS	340
2007190660001 Fine	IPS	WRIS	440
2007190680001 Coarse	IPS	WRIS	480
2007190700002 Fine	IPS	WRIS	340
2007190740001 Fine	IPS	WRIS	380
2007190760001 Coarse	IPS	WRIS	520
2007190820001 Fine	IPS	WRIS	200
2007190920001 Coarse	IPS	WRIS	420
2007190940002 Fine	IPS	WRIS	220
2007190980001 Fine	IPS	WRIS	500
2007191000001 Coarse	IPS	WRIS	380
2007191060001 Fine	IPS	WRIS	480

Appendix 24. QC samples analysis for F by ISE

SAMPLEID	TYPE	REAL	F (ppm)
METHOD:		SAMPLEID	ISE
LLD:			20
2007191060002 Fine	IPS	WRIS	400
2007191120001 Coarse	IPS	WRIS	160
2007191180001 Fine	IPS	WRIS	420
2007191240002 Fine	IPS	WRIS	340
2007191300001 Coarse	IPS	WRIS	420
2007191300002 Fine	IPS	WRIS	360
2007191360001 Coarse	IPS	WRIS	440
2007191360001 Fine	IPS	WRIS	260
Average			403
SD			94
RSD			23%
% <LLD			0%
2007190140002 Coarse	IPS	WRIS2	440
2007190280002 Coarse	IPS	WRIS2	420
2007190420002 Coarse	IPS	WRIS2	400
2007190480002 Coarse	IPS	WRIS2	380
2007190540002 Coarse	IPS	WRIS2	380
2007190560002 Coarse	IPS	WRIS2	380
2007190640002 Coarse	IPS	WRIS2	360
2007190680002 Coarse	IPS	WRIS2	380
2007190820002 Coarse	IPS	WRIS2	460
2007190880002 Coarse	IPS	WRIS2	400
2007190960002 Coarse	IPS	WRIS2	460
2007191000002 Coarse	IPS	WRIS2	500
2007191100002 Coarse	IPS	WRIS2	420
2007191180002 Coarse	IPS	WRIS2	400
2007191240002 Coarse	IPS	WRIS2	420
2007191280002 Coarse	IPS	WRIS2	420
Average			414
SD			37
RSD			9%
% <LLD			0%

Appendix 25. Field duplicates analysis for PGEs by FA

Appendix 25. Field duplicates analysis for PGEs by FA

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Au (ppm)	Au (ppm)	Pd (ppm)	Pd (ppm)	Pt (ppm)	Pt (ppm)
METHOD:	METHOD:	SIZE	SIZE			FA	FA	FA	FA	FA	FA
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					0.001	0.001	0.001	0.001	0.0005	0.0005
2007190003	2007190213	Coarse	Coarse	TOS	TOS	0.0005	0.0005	0.0005	0.0005	0.00025	0.00025
2007190003	2007190213	Fine	Fine	TOS	TOS	0.001	0.0005	0.0005	0.0005	0.0008	0.0008
2007190003	2007190213	Coarse	Coarse	BOS	BOS	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
2007190003	2007190213	Fine	Fine	BOS	BOS	0.0005	0.001	0.0005	0.0005	0.0007	0.0008
2007190071	2007190289	Coarse	Coarse	TOS	TOS	0.0005	0.001	0.0005	0.001	0.00025	0.00025
2007190071	2007190289	Fine	Fine	TOS	TOS	0.001	0.001	0.0005	0.001	0.00025	0.00025
2007190071	2007190289	Coarse	Coarse	BOS	BOS	0.002	0.003	0.0005	0.001	0.0006	0.0008
2007190071	2007190289	Fine	Fine	BOS	BOS	0.005	0.006	0.001	0.001	0.0017	0.0012
2007190074	2007190389	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190074	2007190389	Fine	Fine	TOS	TOS	0.001	0.002	0.001	0.0005	0.00025	0.0005
2007190074	2007190389	Coarse	Coarse	BOS	BOS	0.002	0.002	0.0005	0.006	0.00025	0.00025
2007190074	2007190389	Fine	Fine	BOS	BOS	0.002	0.002	0.001	0.0005	0.00025	0.00025
2007190285	2007190406	Coarse	Coarse	TOS	TOS	0.002	0.002	0.0005	0.0005	0.00025	0.00025
2007190285	2007190406	Fine	Fine	TOS	TOS	0.002	0.002	0.0005	0.0005	0.00025	0.00025
2007190285	2007190406	Coarse	Coarse	BOS	BOS	0.002	0.002	0.001	0.0005	0.0006	0.00025
2007190285	2007190406	Fine	Fine	BOS	BOS	0.002	0.002	0.001	0.0005	0.00025	0.00025
2007190183	2007190471	Coarse	Coarse	TOS	TOS	0.0005	0.001	0.0005	0.0005	0.00025	0.00025
2007190183	2007190471	Fine	Fine	TOS	TOS	0.0005	0.001	0.0005	0.001	0.0006	0.0008
2007190183	2007190471	Coarse	Coarse	BOS	BOS	0.0005	0.001	0.001	0.001	0.001	0.00025
2007190183	2007190471	Fine	Fine	BOS	BOS	0.001	0.002	0.001	0.001	0.0013	0.0007
2007190154	2007190568	Coarse	Coarse	TOS	TOS	0.001	0.002	0.0005	0.001	0.00025	0.00025
2007190154	2007190568	Fine	Fine	TOS	TOS	0.002	0.003	0.0005	0.001	0.0005	0.00025
2007190154	2007190568	Coarse	Coarse	BOS	BOS	0.005	0.002	0.0005	0.0005	0.00025	0.00025
2007190154	2007190568	Fine	Fine	BOS	BOS	0.009	0.002	0.001	0.001	0.0007	0.00025
2007190497	2007190586	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190497	2007190586	Fine	Fine	TOS	TOS	0.004	0.001	0.0005	0.0005	0.00025	0.00025
2007190497	2007190586	Coarse	Coarse	BOS	BOS	0.003	0.001	0.001	0.0005	0.0005	0.00025
2007190527	2007190609	Coarse	Coarse	TOS	TOS	0.002	0.0005	0.0005	0.0005	0.0005	0.00025
2007190527	2007190609	Fine	Fine	TOS	TOS	0.002	0.001	0.0005	0.001	0.00025	0.00025
2007190527	2007190609	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190527	2007190609	Fine	Fine	BOS	BOS	0.002	0.001	0.0005	0.001	0.00025	0.0006
2007190352	2007190611	Coarse	Coarse	TOS	TOS	0.002	0.0005	0.001	0.0005	0.00025	0.00025
2007190352	2007190611	Fine	Fine	TOS	TOS	0.003	0.002	0.0005	0.001	0.00025	0.00025
2007190352	2007190611	Coarse	Coarse	BOS	BOS	0.002	0.002	0.001	0.001	0.00025	0.0006
2007190352	2007190611	Fine	Fine	BOS	BOS	0.002	0.001	0.001	0.001	0.0005	0.0005
2007190506	2007190631	Coarse	Coarse	TOS	TOS	0.002	0.002	0.001	0.001	0.0007	0.00025
2007190506	2007190631	Fine	Fine	TOS	TOS	0.001	0.001	0.0005	0.001	0.001	0.00025
2007190506	2007190631	Coarse	Coarse	BOS	BOS	0.001	0.001	0.001	0.001	0.0007	0.0005
2007190506	2007190631	Fine	Fine	BOS	BOS	0.002	0.002	0.001	0.001	0.0008	0.0006
2007190032	2007190632	Coarse	Coarse	TOS	TOS	0.027	0.029	0.0005	0.0005	0.00025	0.00025
2007190032	2007190632	Coarse	Coarse	BOS	BOS	0.003	0.004	0.0005	0.0005	0.00025	0.00025
2007190032	2007190632	Fine	Fine	BOS	BOS	0.004	0.006	0.0005	0.001	0.00025	0.00025
2007190552	2007190675	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190552	2007190675	Fine	Fine	TOS	TOS	0.001	0.001	0.0005	0.0005	0.0005	0.0005
2007190552	2007190675	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.0005
2007190552	2007190675	Fine	Fine	BOS	BOS	0.002	0.002	0.001	0.001	0.0009	0.0009
2007190335	2007190692	Coarse	Coarse	TOS	TOS	0.002	0.001	0.001	0.0005	0.0005	0.0006
2007190335	2007190692	Fine	Fine	TOS	TOS	0.002	0.002	0.001	0.001	0.0006	0.0008
2007190335	2007190692	Coarse	Coarse	BOS	BOS	0.003	0.003	0.001	0.001	0.0006	0.0008
2007190335	2007190692	Fine	Fine	BOS	BOS	0.004	0.004	0.001	0.001	0.0007	0.001
2007190531	2007190703	Coarse	Coarse	TOS	TOS	0.002	0.0005	0.001	0.001	0.00025	0.0005
2007190531	2007190703	Fine	Fine	TOS	TOS	0.001	0.0005	0.0005	0.0005	0.00025	0.00025
2007190531	2007190703	Coarse	Coarse	BOS	BOS	0.001	0.0005	0.0005	0.001	0.00025	0.0005
2007190531	2007190703	Fine	Fine	BOS	BOS	0.002	0.0005	0.001	0.0005	0.00025	0.0005
2007190194	2007190704	Coarse	Coarse	TOS	TOS	0.001	0.0005	0.0005	0.001	0.00025	0.00025
2007190194	2007190704	Fine	Fine	TOS	TOS	0.001	0.0005	0.0005	0.001	0.00025	0.00025
2007190194	2007190704	Coarse	Coarse	BOS	BOS	0.001	0.0005	0.0005	0.001	0.00025	0.00025
2007190194	2007190704	Fine	Fine	BOS	BOS	0.001	0.0005	0.0005	0.001	0.00025	0.00025
2007190659	2007190739	Coarse	Coarse	TOS	TOS	0.0005	0.0005	0.0005	0.0005	0.00025	0.00025
2007190659	2007190739	Fine	Fine	TOS	TOS	0.002	0.002	0.001	0.0005	0.00025	0.00025
2007190659	2007190739	Coarse	Coarse	BOS	BOS	0.001	0.0005	0.0005	0.0005	0.00025	0.00025
2007190659	2007190739	Fine	Fine	BOS	BOS	0.003	0.003	0.001	0.001	0.00025	0.00025
2007190212	2007190747	Coarse	Coarse	TOS	TOS	0.0005	0.001	0.0005	0.001	0.00025	0.0011
2007190212	2007190747	Coarse	Coarse	BOS	BOS	0.0005	0.001	0.0005	0.0005	0.00025	0.00025
2007190212	2007190747	Fine	Fine	BOS	BOS	0.0005	0.001	0.0005	0.001	0.00025	0.00025
2007190554	2007190752	Coarse	Coarse	TOS	TOS	0.001	0.002	0.0005	0.0005	0.00025	0.00025
2007190554	2007190752	Fine	Fine	TOS	TOS	0.001	0.002	0.0005	0.0005	0.00025	0.00025
2007190554	2007190752	Coarse	Coarse	BOS	BOS	0.002	0.002	0.0005	0.0005	0.00025	0.00025
2007190554	2007190752	Fine	Fine	BOS	BOS	0.001	0.002	0.0005	0.0005	0.00025	0.00025
2007190296	2007190758	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190296	2007190758	Fine	Fine	TOS	TOS	0.001	0.002	0.001	0.001	0.00025	0.0006
2007190296	2007190758	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.001	0.00025	0.0008
2007190296	2007190758	Fine	Fine	BOS	BOS	0.002	0.002	0.001	0.001	0.00025	0.0006
2007190425	2007190768	Coarse	Coarse	TOS	TOS	0.002	0.01	0.001	0.004	0.0006	0.0024
2007190425	2007190768	Fine	Fine	TOS	TOS	0.002	0.006	0.001	0.003	0.0006	0.0014
2007190425	2007190768	Coarse	Coarse	BOS	BOS	0.001	0.003	0.001	0.002	0.0006	0.001
2007190425	2007190768	Fine	Fine	BOS	BOS	0.002	0.001	0.001	0.0005	0.0005	0.0005
2007190458	2007190774	Coarse	Coarse	TOS	TOS	0.002	0.001	0.001	0.0005	0.0005	0.0005
2007190458	2007190774	Fine	Fine	TOS	TOS	0.002	0.001	0.001	0.0005	0.0006	0.0011
2007190458	2007190774	Coarse	Coarse	BOS	BOS	0.002	0.001	0.001	0.0005	0.0005	0.0009
2007190458	2007190774	Fine	Fine	BOS	BOS	0.002	0.002	0.001	0.0005	0.0005	0.0019
2007190193	2007190788	Coarse	Coarse	TOS	TOS	0.001	0.004	0.0005	0.0005	0.00025	0.0013
2007190193	2007190788	Fine	Fine	TOS	TOS	0.001	0.002	0.0005	0.0005	0.00025	0.00025
2007190193	2007190788	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190698	2007190813	Coarse	Coarse	TOS	TOS	0.002	0.002	0.001	0.0005	0.00025	0.00025

Appendix 25. Field duplicates analysis for PGEs by FA

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Au (ppm)	Au (ppm)	Pd (ppm)	Pd (ppm)	Pt (ppm)	Pt (ppm)
METHOD:	METHOD:	SIZE	SIZE			FA	FA	FA	FA	FA	FA
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					0.001	0.001	0.001	0.001	0.0005	0.0005
2007190698	2007190813	Fine	Fine	TOS	TOS	0.003	0.001	0.001	0.0005	0.00025	0.00025
2007190698	2007190813	Coarse	Coarse	BOS	BOS	0.002	0.001	0.0005	0.0005	0.00025	0.00025
2007190698	2007190813	Fine	Fine	BOS	BOS	0.003	0.002	0.001	0.0005	0.00025	0.0005
2007190357	2007190856	Coarse	Coarse	TOS	TOS	0.001	0.0005	0.0005	0.0005	0.00025	0.00025
2007190357	2007190856	Fine	Fine	TOS	TOS	0.001	0.001	0.001	0.001	0.00025	0.00025
2007190357	2007190856	Coarse	Coarse	BOS	BOS	0.001	0.0005	0.0005	0.0005	0.00025	0.00025
2007190357	2007190856	Fine	Fine	BOS	BOS	0.002	0.0005	0.0005	0.0005	0.00025	0.0012
2007190256	2007190875	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190256	2007190875	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190035	2007190876	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.0005
2007190035	2007190876	Fine	Fine	TOS	TOS	0.007	0.003	0.0005	0.0005	0.00025	0.0005
2007190035	2007190876	Coarse	Coarse	BOS	BOS	0.001	0.002	0.0005	0.001	0.00025	0.0006
2007190035	2007190876	Fine	Fine	BOS	BOS	0.001	0.008	0.0005	0.001	0.00025	0.0006
2007190834	2007190889	Coarse	Coarse	TOS	TOS	0.001	0.0005	0.0005	0.0005	0.00025	0.00025
2007190834	2007190889	Fine	Fine	TOS	TOS	0.004	0.002	0.001	0.001	0.0009	0.0006
2007190834	2007190889	Coarse	Coarse	BOS	BOS	0.001	0.0005	0.0005	0.0005	0.00025	0.00025
2007190743	2007190906	Coarse	Coarse	TOS	TOS	0.001	0.001	0.001	0.001	0.0006	0.0007
2007190743	2007190906	Fine	Fine	TOS	TOS	0.002	0.002	0.001	0.001	0.0008	0.0007
2007190743	2007190906	Coarse	Coarse	BOS	BOS	0.002	0.002	0.001	0.001	0.0007	0.0008
2007190743	2007190906	Fine	Fine	BOS	BOS	0.002	0.002	0.001	0.001	0.0009	0.0008
2007190536	2007190909	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.0005
2007190536	2007190909	Fine	Fine	TOS	TOS	0.001	0.001	0.0005	0.001	0.0005	0.0006
2007190536	2007190909	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.001	0.0005	0.0006
2007190536	2007190909	Fine	Fine	BOS	BOS	0.003	0.002	0.001	0.001	0.0007	0.0008
2007190107	2007190913	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190107	2007190913	Fine	Fine	TOS	TOS	0.001	0.001	0.0005	0.0005	0.0006	0.0005
2007190107	2007190913	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190107	2007190913	Fine	Fine	BOS	BOS	0.002	0.003	0.0005	0.001	0.00025	0.0006
2007190695	2007190924	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190695	2007190924	Fine	Fine	TOS	TOS	0.001	0.001	0.0005	0.001	0.0006	0.00025
2007190695	2007190924	Coarse	Coarse	BOS	BOS	0.001	0.002	0.001	0.001	0.0006	0.00025
2007190695	2007190924	Fine	Fine	BOS	BOS	0.002	0.003	0.001	0.001	0.001	0.0007
2007190853	2007190939	Coarse	Coarse	TOS	TOS	0.0005	0.002	0.001	0.0005	0.00025	0.00025
2007190853	2007190939	Fine	Fine	TOS	TOS	0.0005	0.001	0.001	0.0005	0.0005	0.0006
2007190853	2007190939	Coarse	Coarse	BOS	BOS	0.0005	0.0005	0.0005	0.0005	0.00025	0.00025
2007190853	2007190939	Fine	Fine	BOS	BOS	0.002	0.001	0.001	0.0005	0.0007	0.0007
2007190895	2007190947	Coarse	Coarse	TOS	TOS	0.002	0.002	0.001	0.0005	0.00025	0.0008
2007190895	2007190947	Fine	Fine	TOS	TOS	0.002	0.002	0.001	0.0005	0.00025	0.0009
2007190895	2007190947	Coarse	Coarse	BOS	BOS	0.002	0.001	0.0005	0.0005	0.00025	0.00025
2007190895	2007190947	Fine	Fine	BOS	BOS	0.002	0.001	0.001	0.0005	0.00025	0.00025
2007190197	2007190962	Coarse	Coarse	TOS	TOS	0.0005	0.001	0.0005	0.0005	0.00025	0.00025
2007190197	2007190962	Fine	Fine	TOS	TOS	0.0005	0.001	0.0005	0.0005	0.00025	0.0005
2007190197	2007190962	Coarse	Coarse	BOS	BOS	0.0005	0.001	0.0005	0.0005	0.00025	0.00025
2007190419	2007190974	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190419	2007190974	Fine	Fine	TOS	TOS	0.002	0.001	0.0005	0.0005	0.00025	0.0005
2007190419	2007190974	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190419	2007190974	Fine	Fine	BOS	BOS	0.002	0.001	0.001	0.001	0.00025	0.0006
2007190241	2007190978	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190241	2007190978	Fine	Fine	TOS	TOS	0.025	0.001	0.001	0.0005	0.00025	0.00025
2007190241	2007190978	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190241	2007190978	Fine	Fine	BOS	BOS	0.002	0.002	0.001	0.0005	0.00025	0.00025
2007190039	2007190984	Coarse	Coarse	TOS	TOS	0.0005	0.001	0.0005	0.0005	0.0007	0.0005
2007190039	2007190984	Fine	Fine	TOS	TOS	0.001	0.001	0.001	0.001	0.001	0.0009
2007190039	2007190984	Coarse	Coarse	BOS	BOS	0.001	0.001	0.001	0.001	0.0009	0.0013
2007190039	2007190984	Fine	Fine	BOS	BOS	0.001	0.003	0.001	0.002	0.0013	0.0018
2007190342	2007190989	Coarse	Coarse	TOS	TOS	0.001	0.001	0.001	0.001	0.001	0.0009
2007190342	2007190989	Fine	Fine	TOS	TOS	0.002	0.002	0.002	0.002	0.0013	0.0015
2007190342	2007190989	Coarse	Coarse	BOS	BOS	0.001	0.002	0.002	0.001	0.0009	0.0011
2007190342	2007190989	Fine	Fine	BOS	BOS	0.003	0.002	0.003	0.002	0.0016	0.0014
2007190457	2007191004	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190457	2007191004	Fine	Fine	TOS	TOS	0.001	0.002	0.0005	0.0005	0.00025	0.00025
2007190457	2007191004	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190457	2007191004	Fine	Fine	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190434	2007191027	Coarse	Coarse	TOS	TOS	0.002	0.001	0.001	0.0005	0.001	0.0009
2007190434	2007191027	Fine	Fine	TOS	TOS	0.003	0.002	0.001	0.0005	0.0018	0.0017
2007190434	2007191027	Coarse	Coarse	BOS	BOS	0.004	0.003	0.002	0.001	0.002	0.0014
2007190434	2007191027	Fine	Fine	BOS	BOS	0.008	0.008	0.003	0.0005	0.0029	0.0026
2007190155	2007191031	Coarse	Coarse	TOS	TOS	0.002	0.002	0.001	0.001	0.00025	0.00025
2007190155	2007191031	Fine	Fine	TOS	TOS	0.002	0.002	0.001	0.001	0.0005	0.0005
2007190155	2007191031	Coarse	Coarse	BOS	BOS	0.002	0.002	0.001	0.001	0.00025	0.00025
2007190155	2007191031	Fine	Fine	BOS	BOS	0.003	0.004	0.001	0.002	0.0007	0.0011
2007190114	2007191045	Coarse	Coarse	TOS	TOS	0.0005	0.002	0.0005	0.001	0.00025	0.00025
2007190114	2007191045	Fine	Fine	TOS	TOS	0.001	0.002	0.0005	0.0005	0.0005	0.00025
2007190114	2007191045	Coarse	Coarse	BOS	BOS	0.0005	0.002	0.0005	0.001	0.00025	0.00025
2007190393	2007191050	Coarse	Coarse	TOS	TOS	0.002	0.003	0.0005	0.001	0.00025	0.00025
2007190393	2007191050	Coarse	Coarse	BOS	BOS	0.002	0.003	0.0005	0.001	0.00025	0.00025
2007190393	2007191050	Fine	Fine	BOS	BOS	0.002	0.003	0.0005	0.001	0.00025	0.00025
2007190826	2007191052	Coarse	Coarse	TOS	TOS	0.002	0.002	0.0005	0.001	0.00025	0.0005
2007190826	2007191052	Fine	Fine	TOS	TOS	0.001	0.002	0.0005	0.001	0.0005	0.0006
2007190826	2007191052	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.0005
2007190826	2007191052	Fine	Fine	BOS	BOS	0.001	0.002	0.001	0.001	0.0006	0.0006
2007190091	2007191053	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190091	2007191053	Fine	Fine	TOS	TOS	0.002	0.001	0.0005	0.0005	0.00025	0.00025
2007190091	2007191053	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190091	2007191053	Fine	Fine	BOS	BOS	0.001	0.024	0.0005	0.0005	0.00025	0.00025

Appendix 25. Field duplicates analysis for PGEs by FA

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Au (ppm)	Au (ppm)	Pd (ppm)	Pd (ppm)	Pt (ppm)	Pt (ppm)
METHOD:	METHOD:	SIZE	SIZE			FA	FA	FA	FA	FA	FA
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					0.001	0.001	0.001	0.001	0.0005	0.0005
2007190887	2007191058	Coarse	Coarse	TOS	TOS	0.001	0.002	0.0005	0.001	0.00025	0.0006
2007190887	2007191058	Fine	Fine	TOS	TOS	0.002	0.002	0.001	0.001	0.00025	0.0006
2007190887	2007191058	Coarse	Coarse	BOS	BOS	0.002	0.002	0.001	0.001	0.0005	0.0006
2007190887	2007191058	Fine	Fine	BOS	BOS	0.002	0.002	0.001	0.001	0.00025	0.0006
2007190005	2007191059	Coarse	Coarse	TOS	TOS	0.0005	0.002	0.0005	0.0005	0.00025	0.00025
2007190005	2007191059	Fine	Fine	TOS	TOS	0.0005	0.001	0.0005	0.0005	0.00025	0.00025
2007190005	2007191059	Coarse	Coarse	BOS	BOS	0.0005	0.001	0.0005	0.0005	0.00025	0.00025
2007190005	2007191059	Fine	Fine	BOS	BOS	0.0005	0.001	0.0005	0.0005	0.00025	0.00025
2007190583	2007191063	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190583	2007191063	Fine	Fine	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190583	2007191063	Coarse	Coarse	BOS	BOS	0.001	0.001	0.001	0.001	0.0012	0.00025
2007190583	2007191063	Fine	Fine	BOS	BOS	0.002	0.002	0.001	0.001	0.0006	0.0006
2007190922	2007191082	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.001	0.00025	0.00025
2007190922	2007191082	Fine	Fine	TOS	TOS	0.005	0.001	0.0005	0.0005	0.00025	0.00025
2007190922	2007191082	Coarse	Coarse	BOS	BOS	0.003	0.001	0.001	0.0005	0.00025	0.00025
2007190922	2007191082	Fine	Fine	BOS	BOS	0.007	0.005	0.001	0.001	0.0008	0.001
2007190361	2007191094	Coarse	Coarse	TOS	TOS	0.002	0.0005	0.0005	0.0005	0.0008	0.0005
2007190361	2007191094	Fine	Fine	TOS	TOS	0.002	0.0005	0.0005	0.0005	0.0006	0.0006
2007190361	2007191094	Coarse	Coarse	BOS	BOS	0.004	0.002	0.002	0.001	0.0011	0.0012
2007190361	2007191094	Fine	Fine	BOS	BOS	0.005	0.002	0.002	0.001	0.0012	0.0009
2007190145	2007191105	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.001	0.00025	0.00025
2007190145	2007191105	Fine	Fine	TOS	TOS	0.001	0.001	0.001	0.0005	0.00025	0.0005
2007190145	2007191105	Coarse	Coarse	BOS	BOS	0.001	0.001	0.001	0.001	0.00025	0.0005
2007190145	2007191105	Fine	Fine	BOS	BOS	0.001	0.002	0.001	0.001	0.0005	0.0005
2007190508	2007191119	Coarse	Coarse	TOS	TOS	0.002	0.002	0.001	0.001	0.0005	0.00025
2007190508	2007191119	Fine	Fine	TOS	TOS	0.002	0.003	0.001	0.001	0.00025	0.0007
2007190508	2007191119	Coarse	Coarse	BOS	BOS	0.002	0.003	0.001	0.001	0.0005	0.0006
2007190508	2007191119	Fine	Fine	BOS	BOS	0.002	0.002	0.001	0.001	0.0005	0.00025
2007190067	2007191121	Coarse	Coarse	TOS	TOS	0.001	0.003	0.0005	0.0005	0.0009	0.0007
2007190067	2007191121	Fine	Fine	TOS	TOS	0.003	0.002	0.0005	0.001	0.0027	0.0015
2007190067	2007191121	Coarse	Coarse	BOS	BOS	0.007	0.005	0.001	0.001	0.0019	0.0015
2007190067	2007191121	Fine	Fine	BOS	BOS	0.016	0.015	0.003	0.003	0.003	0.0028
2007190818	2007191157	Coarse	Coarse	TOS	TOS	0.001	0.0005	0.0005	0.0005	0.0005	0.00025
2007190818	2007191157	Fine	Fine	TOS	TOS	0.001	0.002	0.0005	0.001	0.0011	0.0007
2007190818	2007191157	Coarse	Coarse	BOS	BOS	0.0005	0.001	0.0005	0.001	0.00025	0.00025
2007190818	2007191157	Fine	Fine	BOS	BOS	0.001	0.002	0.0005	0.0005	0.0007	0.0006
2007190618	2007191166	Coarse	Coarse	TOS	TOS	0.001	0.001	0.001	0.001	0.0018	0.0019
2007190618	2007191166	Fine	Fine	TOS	TOS	0.002	0.001	0.002	0.001	0.0023	0.0021
2007190618	2007191166	Coarse	Coarse	BOS	BOS	0.001	0.001	0.002	0.001	0.0022	0.002
2007190618	2007191166	Fine	Fine	BOS	BOS	0.002	0.001	0.002	0.002	0.0025	0.0026
2007190258	2007191176	Coarse	Coarse	TOS	TOS	0.002	0.011	0.001	0.0005	0.00025	0.00025
2007190258	2007191176	Fine	Fine	TOS	TOS	0.003	0.002	0.001	0.0005	0.00025	0.00025
2007190258	2007191176	Coarse	Coarse	BOS	BOS	0.002	0.001	0.001	0.0005	0.00025	0.00025
2007190258	2007191176	Fine	Fine	BOS	BOS	0.007	0.019	0.001	0.0005	0.00025	0.00025
2007190110	2007191182	Coarse	Coarse	TOS	TOS	0.0005	0.001	0.0005	0.001	0.00025	0.00025
2007190110	2007191182	Fine	Fine	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190110	2007191182	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.001
2007190110	2007191182	Fine	Fine	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.0011
2007190865	2007191183	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190865	2007191183	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007191168	2007191195	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.001	0.0005	0.00025
2007191168	2007191195	Fine	Fine	TOS	TOS	0.001	0.002	0.001	0.001	0.0006	0.0005
2007191168	2007191195	Coarse	Coarse	BOS	BOS	0.001	0.002	0.001	0.001	0.0006	0.0005
2007191168	2007191195	Fine	Fine	BOS	BOS	0.002	0.003	0.001	0.001	0.0009	0.0007
2007190248	2007191198	Coarse	Coarse	TOS	TOS	0.0005	0.007	0.0005	0.001	0.00025	0.0014
2007190248	2007191198	Fine	Fine	TOS	TOS	0.0005	0.001	0.0005	0.0005	0.00025	0.00025
2007190248	2007191198	Coarse	Coarse	BOS	BOS	0.0005	0.001	0.0005	0.0005	0.00025	0.00025
2007190248	2007191198	Fine	Fine	BOS	BOS	0.001	0.003	0.0005	0.001	0.0091	0.0005
2007191092	2007191211	Coarse	Coarse	TOS	TOS	0.0005	0.002	0.0005	0.0005	0.0007	0.0013
2007191092	2007191211	Fine	Fine	TOS	TOS	0.003	0.002	0.001	0.001	0.001	0.001
2007191092	2007191211	Coarse	Coarse	BOS	BOS	0.002	0.001	0.002	0.0005	0.0007	0.0009
2007191092	2007191211	Fine	Fine	BOS	BOS	0.001	0.002	0.0005	0.001	0.0008	0.0011
2007190825	2007191214	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.001	0.0007	0.0007
2007190825	2007191214	Fine	Fine	TOS	TOS	0.001	0.001	0.0005	0.001	0.0006	0.0006
2007190825	2007191214	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.0007	0.0006
2007190825	2007191214	Fine	Fine	BOS	BOS	0.001	0.002	0.001	0.001	0.0008	0.0007
2007190798	2007191229	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190798	2007191229	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190548	2007191236	Coarse	Coarse	TOS	TOS	0.003	0.001	0.001	0.001	0.0008	0.0009
2007190548	2007191236	Fine	Fine	TOS	TOS	0.003	0.005	0.001	0.001	0.0008	0.0011
2007190548	2007191236	Coarse	Coarse	BOS	BOS	0.004	0.002	0.001	0.001	0.0007	0.001
2007190548	2007191236	Fine	Fine	BOS	BOS	0.005	0.006	0.001	0.001	0.0009	0.0013
2007190746	2007191241	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190746	2007191241	Fine	Fine	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.0005
2007190746	2007191241	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190746	2007191241	Fine	Fine	BOS	BOS	0.001	0.001	0.0005	0.0005	0.0006	0.0005
2007190970	2007191245	Coarse	Coarse	TOS	TOS	0.012	0.007	0.0005	0.0005	0.001	0.0007
2007190970	2007191245	Fine	Fine	TOS	TOS	0.005	0.01	0.0005	0.001	0.00025	0.0005
2007190970	2007191245	Coarse	Coarse	BOS	BOS	0.01	0.003	0.0005	0.003	0.0009	0.0008
2007190970	2007191245	Fine	Fine	BOS	BOS	0.005	0.003	0.0005	0.001	0.001	0.0012
2007190185	2007191253	Coarse	Coarse	TOS	TOS	0.001	0.001	0.001	0.001	0.0016	0.0017
2007190185	2007191253	Fine	Fine	TOS	TOS	0.001	0.001	0.001	0.001	0.0019	0.0018
2007190185	2007191253	Coarse	Coarse	BOS	BOS	0.001	0.002	0.001	0.002	0.0019	0.002
2007190185	2007191253	Fine	Fine	BOS	BOS	0.002	0.002	0.002	0.002	0.0021	0.0022
2007190209	2007191254	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.0005

Appendix 25. Field duplicates analysis for PGEs by FA

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Au (ppm)	Au (ppm)	Pd (ppm)	Pd (ppm)	Pt (ppm)	Pt (ppm)
METHOD:	METHOD:	SIZE	SIZE			FA	FA	FA	FA	FA	FA
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					0.001	0.001	0.001	0.001	0.0005	0.0005
2007190209	2007191254	Fine	Fine	TOS	TOS	0.002	0.001	0.0005	0.0005	0.00025	0.0006
2007190209	2007191254	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.0006
2007190209	2007191254	Fine	Fine	BOS	BOS	0.001	0.001	0.0005	0.0005	0.0005	0.0012
2007190355	2007191257	Coarse	Coarse	TOS	TOS	0.002	0.002	0.002	0.002	0.0019	0.0022
2007190355	2007191257	Coarse	Coarse	BOS	BOS	0.003	0.004	0.004	0.004	0.003	0.0039
2007190355	2007191257	Fine	Fine	BOS	BOS	0.004	0.005	0.004	0.005	0.0031	0.0052
2007190311	2007191259	Coarse	Coarse	TOS	TOS	0.001	0.001	0.001	0.0005	0.00025	0.00025
2007190311	2007191259	Fine	Fine	TOS	TOS	0.001	0.001	0.001	0.0005	0.00025	0.00025
2007190311	2007191259	Coarse	Coarse	BOS	BOS	0.001	0.001	0.001	0.0005	0.00025	0.00025
2007190849	2007191277	Coarse	Coarse	TOS	TOS	0.002	0.002	0.0005	0.0005	0.00025	0.00025
2007190849	2007191277	Fine	Fine	TOS	TOS	0.002	0.002	0.0005	0.0005	0.00025	0.00025
2007190849	2007191277	Coarse	Coarse	BOS	BOS	0.001	0.002	0.0005	0.0005	0.00025	0.00025
2007190849	2007191277	Fine	Fine	BOS	BOS	0.005	0.001	0.0005	0.0005	0.0014	0.0007
2007191215	2007191281	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007191215	2007191281	Fine	Fine	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007191215	2007191281	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007191215	2007191281	Fine	Fine	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007191134	2007191282	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.001	0.00025	0.00025
2007191134	2007191282	Fine	Fine	TOS	TOS	0.001	0.002	0.0005	0.001	0.00025	0.00025
2007191134	2007191282	Coarse	Coarse	BOS	BOS	0.001	0.001	0.001	0.001	0.00025	0.0005
2007191134	2007191282	Fine	Fine	BOS	BOS	0.004	0.001	0.001	0.001	0.001	0.0009
2007190874	2007191297	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190874	2007191297	Fine	Fine	TOS	TOS	0.001	0.001	0.001	0.001	0.0006	0.0006
2007190874	2007191297	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.0007	0.0005
2007190874	2007191297	Fine	Fine	BOS	BOS	0.001	0.001	0.001	0.001	0.0007	0.0007
2007190753	2007191299	Coarse	Coarse	TOS	TOS	0.001	0.002	0.0005	0.0005	0.00025	0.00025
2007190753	2007191299	Fine	Fine	TOS	TOS	0.002	0.002	0.001	0.001	0.0005	0.00025
2007190753	2007191299	Coarse	Coarse	BOS	BOS	0.003	0.001	0.0005	0.0005	0.00025	0.00025
2007190753	2007191299	Fine	Fine	BOS	BOS	0.002	0.002	0.001	0.0005	0.0005	0.00025
2007190472	2007191312	Coarse	Coarse	TOS	TOS	0.002	0.002	0.002	0.001	0.0005	0.0005
2007190472	2007191312	Fine	Fine	TOS	TOS	0.002	0.005	0.002	0.002	0.0005	0.0008
2007190472	2007191312	Coarse	Coarse	BOS	BOS	0.002	0.004	0.0005	0.001	0.0006	0.0007
2007190472	2007191312	Fine	Fine	BOS	BOS	0.002	0.003	0.001	0.001	0.0011	0.0006
2007190495	2007191318	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.0005	0.00025
2007190495	2007191318	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.0005	0.00025
2007190495	2007191318	Fine	Fine	BOS	BOS	0.002	0.002	0.001	0.001	0.0006	0.00025
2007191051	2007191331	Coarse	Coarse	TOS	TOS	0.002	0.001	0.0005	0.0005	0.00025	0.00025
2007191051	2007191331	Fine	Fine	TOS	TOS	0.001	0.001	0.014	0.0005	0.00025	0.00025
2007191051	2007191331	Coarse	Coarse	BOS	BOS	0.002	0.001	0.0005	0.001	0.00025	0.00025
2007191051	2007191331	Fine	Fine	BOS	BOS	0.002	0.002	0.001	0.001	0.0008	0.00025
2007190661	2007191334	Coarse	Coarse	TOS	TOS	0.0005	0.001	0.0005	0.0005	0.00025	0.00025
2007190661	2007191334	Fine	Fine	TOS	TOS	0.0005	0.001	0.0005	0.0005	0.00025	0.00025
2007190661	2007191334	Coarse	Coarse	BOS	BOS	0.0005	0.001	0.0005	0.0005	0.00025	0.00025
2007191192	2007191339	Coarse	Coarse	TOS	TOS	0.001	0.001	0.001	0.001	0.0007	0.0007
2007191192	2007191339	Fine	Fine	TOS	TOS	0.001	0.001	0.001	0.001	0.0008	0.0008
2007191192	2007191339	Coarse	Coarse	BOS	BOS	0.001	0.001	0.001	0.001	0.0009	0.001
2007191192	2007191339	Fine	Fine	BOS	BOS	0.002	0.001	0.001	0.001	0.0011	0.001
2007190218	2007191348	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.001	0.0005	0.00025
2007190218	2007191348	Fine	Fine	TOS	TOS	0.001	0.002	0.001	0.002	0.0009	0.0008
2007190218	2007191348	Coarse	Coarse	BOS	BOS	0.001	0.002	0.0005	0.001	0.0005	0.00025
2007190218	2007191348	Fine	Fine	BOS	BOS	0.002	0.004	0.001	0.002	0.001	0.001
2007191066	2007191379	Coarse	Coarse	TOS	TOS	0.001	0.001	0.001	0.001	0.0007	0.0006
2007191066	2007191379	Fine	Fine	TOS	TOS	0.001	0.002	0.001	0.001	0.0006	0.0009
2007191066	2007191379	Coarse	Coarse	BOS	BOS	0.001	0.001	0.001	0.001	0.0007	0.0006
2007191066	2007191379	Fine	Fine	BOS	BOS	0.002	0.004	0.001	0.002	0.001	0.0011
2007191216	2007191385	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007191216	2007191385	Fine	Fine	TOS	TOS	0.001	0.002	0.0005	0.001	0.0005	0.0006
2007191216	2007191385	Coarse	Coarse	BOS	BOS	0.002	0.002	0.0005	0.001	0.0005	0.00025
2007191216	2007191385	Fine	Fine	BOS	BOS	0.003	0.004	0.001	0.001	0.0007	0.0007
2007190414	2007191386	Coarse	Coarse	TOS	TOS	0.004	0.004	0.001	0.0005	0.00025	0.00025
2007190414	2007191386	Fine	Fine	TOS	TOS	0.004	0.003	0.001	0.0005	0.00025	0.00025
2007190414	2007191386	Coarse	Coarse	BOS	BOS	0.004	0.004	0.001	0.0005	0.00025	0.00025
2007190414	2007191386	Fine	Fine	BOS	BOS	0.004	0.005	0.001	0.0005	0.00025	0.00025
2007190181	2007191396	Fine	Fine	TOS	TOS	0.002	0.002	0.0005	0.001	0.0006	0.00025
2007190181	2007191396	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.001	0.0005	0.00025
2007190181	2007191396	Fine	Fine	BOS	BOS	0.001	0.002	0.0005	0.001	0.0006	0.0005
2007190161	2007191413	Coarse	Coarse	TOS	TOS	0.004	0.004	0.001	0.001	0.0022	0.002
2007190161	2007191413	Fine	Fine	TOS	TOS	0.006	0.008	0.002	0.003	0.0032	0.0036
2007190161	2007191413	Coarse	Coarse	BOS	BOS	0.003	0.006	0.001	0.002	0.0021	0.0025
2007190161	2007191413	Fine	Fine	BOS	BOS	0.006	0.008	0.002	0.002	0.0034	0.0032
2007190383	2007191416	Coarse	Coarse	TOS	TOS	0.002	0.001	0.0005	0.001	0.00025	0.00025
2007190383	2007191416	Fine	Fine	TOS	TOS	0.002	0.002	0.0005	0.001	0.00025	0.0005
2007190383	2007191416	Coarse	Coarse	BOS	BOS	0.002	0.001	0.0005	0.001	0.00025	0.00025
2007190383	2007191416	Fine	Fine	BOS	BOS	0.003	0.002	0.0005	0.001	0.00025	0.00025
2007191346	2007191429	Coarse	Coarse	TOS	TOS	0.001	0.002	0.001	0.001	0.00025	0.0006
2007191346	2007191429	Fine	Fine	TOS	TOS	0.001	0.001	0.001	0.001	0.00025	0.0005
2007191346	2007191429	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007191346	2007191429	Fine	Fine	BOS	BOS	0.002	0.001	0.001	0.0005	0.0005	0.0005
2007190686	2007191430	Coarse	Coarse	TOS	TOS	0.001	0.002	0.0005	0.0005	0.00025	0.00025
2007190686	2007191430	Fine	Fine	TOS	TOS	0.001	0.002	0.0005	0.0005	0.0005	0.00025
2007190686	2007191430	Coarse	Coarse	BOS	BOS	0.001	0.002	0.0005	0.0005	0.00025	0.00025
2007190686	2007191430	Fine	Fine	BOS	BOS	0.002	0.003	0.001	0.001	0.0005	0.00025
2007190349	2007191436	Coarse	Coarse	TOS	TOS	0.002	0.002	0.002	0.001	0.0016	0.0013
2007190349	2007191436	Coarse	Coarse	BOS	BOS	0.004	0.003	0.003	0.002	0.0018	0.0016
2007190349	2007191436	Fine	Fine	BOS	BOS	0.006	0.01	0.004	0.002	0.0028	0.0018

Appendix 25. Field duplicates analysis for PGEs by FA

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Au (ppm)	Au (ppm)	Pd (ppm)	Pd (ppm)	Pt (ppm)	Pt (ppm)
METHOD:	METHOD:	SIZE	SIZE			FA	FA	FA	FA	FA	FA
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					0.001	0.001	0.001	0.001	0.0005	0.0005
2007190968	2007191437	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190968	2007191437	Fine	Fine	TOS	TOS	0.001	0.001	0.0005	0.0005	0.0005	0.00025
2007190968	2007191437	Coarse	Coarse	BOS	BOS	0.002	0.001	0.001	0.0005	0.0008	0.00025
2007190968	2007191437	Fine	Fine	BOS	BOS	0.003	0.003	0.001	0.001	0.0014	0.0007
2007190827	2007191440	Coarse	Coarse	TOS	TOS	0.0005	0.001	0.0005	0.0005	0.0005	0.00025
2007190827	2007191440	Fine	Fine	TOS	TOS	0.001	0.001	0.001	0.001	0.0011	0.0008
2007190827	2007191440	Coarse	Coarse	BOS	BOS	0.001	0.002	0.0005	0.001	0.0006	0.0006
2007190827	2007191440	Fine	Fine	BOS	BOS	0.002	0.002	0.001	0.001	0.0009	0.0008
2007190896	2007191441	Coarse	Coarse	TOS	TOS	0.001	0.002	0.0005	0.001	0.00025	0.0008
2007190896	2007191441	Fine	Fine	TOS	TOS	0.002	0.003	0.001	0.002	0.001	0.0014
2007190896	2007191441	Coarse	Coarse	BOS	BOS	0.001	0.001	0.001	0.001	0.0006	0.0007
2007190896	2007191441	Fine	Fine	BOS	BOS	0.002	0.002	0.001	0.002	0.0011	0.0014
2007190927	2007191444	Coarse	Coarse	TOS	TOS	0.007	0.009	0.0005	0.0005	0.00025	0.00025
2007190927	2007191444	Fine	Fine	TOS	TOS	0.013	0.016	0.001	0.001	0.00025	0.00025
2007190927	2007191444	Coarse	Coarse	BOS	BOS	0.109	0.047	0.001	0.001	0.00025	0.00025
2007190927	2007191444	Fine	Fine	BOS	BOS	0.116	0.103	0.001	0.001	0.00025	0.00025
2007191372	2007191445	Coarse	Coarse	TOS	TOS	0.001	0.002	0.001	0.0005	0.0005	0.00025
2007191372	2007191445	Fine	Fine	TOS	TOS	0.003	0.002	0.001	0.001	0.0007	0.00025
2007191372	2007191445	Coarse	Coarse	BOS	BOS	0.001	0.001	0.001	0.0005	0.0005	0.00025
2007191372	2007191445	Fine	Fine	BOS	BOS	0.001	0.002	0.001	0.001	0.0006	0.0005
2007190732	2007191450	Coarse	Coarse	TOS	TOS	0.002	0.001	0.0005	0.0005	0.00025	0.00025
2007190732	2007191450	Fine	Fine	TOS	TOS	0.002	0.002	0.001	0.001	0.00025	0.00025
2007190732	2007191450	Coarse	Coarse	BOS	BOS	0.002	0.001	0.0005	0.0005	0.00025	0.00025
2007190732	2007191450	Fine	Fine	BOS	BOS	0.003	0.002	0.0005	0.0005	0.00025	0.00025
2007190266	2007191458	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190266	2007191458	Fine	Fine	TOS	TOS	0.002	0.001	0.001	0.001	0.0005	0.00025
2007190266	2007191458	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190050	2007191481	Coarse	Coarse	TOS	TOS	0.0005	0.0005	0.0005	0.0005	0.00025	0.00025
2007190050	2007191481	Fine	Fine	TOS	TOS	0.0005	0.0005	0.0005	0.0005	0.0008	0.0009
2007190050	2007191481	Coarse	Coarse	BOS	BOS	0.0005	0.0005	0.0005	0.0005	0.0005	0.00025
2007190050	2007191481	Fine	Fine	BOS	BOS	0.0005	0.001	0.0005	0.0005	0.0008	0.0011
2007191264	2007191486	Coarse	Coarse	TOS	TOS	0.001	0.0005	0.0005	0.0005	0.00025	0.00025
2007191264	2007191486	Fine	Fine	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.0005
2007191264	2007191486	Coarse	Coarse	BOS	BOS	0.001	0.0005	0.0005	0.0005	0.0027	0.00025
2007191264	2007191486	Fine	Fine	BOS	BOS	0.001	0.0005	0.0005	0.0005	0.00025	0.00025
2007191295	2007191498	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007191295	2007191498	Fine	Fine	TOS	TOS	0.003	0.001	0.001	0.0005	0.00025	0.00025
2007191295	2007191498	Coarse	Coarse	BOS	BOS	0.002	0.001	0.0005	0.0005	0.00025	0.00025
2007191295	2007191498	Fine	Fine	BOS	BOS	0.002	0.001	0.0005	0.0005	0.00025	0.00025
2007190949	2007191504	Coarse	Coarse	TOS	TOS	0.002	0.001	0.001	0.0005	0.00025	0.00025
2007190949	2007191504	Fine	Fine	TOS	TOS	0.001	0.001	0.001	0.0005	0.00025	0.00025
2007190949	2007191504	Coarse	Coarse	BOS	BOS	0.002	0.002	0.001	0.001	0.00025	0.00025
2007190949	2007191504	Fine	Fine	BOS	BOS	0.002	0.002	0.001	0.001	0.0005	0.0006
2007190549	2007191507	Coarse	Coarse	TOS	TOS	0.0005	0.001	0.0005	0.0005	0.00025	0.00025
2007190549	2007191507	Fine	Fine	TOS	TOS	0.003	0.001	0.002	0.0005	0.0014	0.00025
2007190549	2007191507	Coarse	Coarse	BOS	BOS	0.0005	0.001	0.0005	0.0005	0.00025	0.00025
2007190549	2007191507	Fine	Fine	BOS	BOS	0.001	0.004	0.001	0.001	0.0005	0.0005
2007191382	2007191509	Coarse	Coarse	TOS	TOS	0.001	0.0005	0.002	0.0005	0.0008	0.0005
2007191382	2007191509	Fine	Fine	TOS	TOS	0.002	0.001	0.002	0.001	0.001	0.0008
2007191382	2007191509	Coarse	Coarse	BOS	BOS	0.001	0.0005	0.003	0.001	0.0016	0.0012
2007191382	2007191509	Fine	Fine	BOS	BOS	0.002	0.001	0.004	0.002	0.0017	0.0017
2007191473	2007191510	Coarse	Coarse	TOS	TOS	0.001	0.001	0.001	0.001	0.0007	0.0006
2007191473	2007191510	Fine	Fine	TOS	TOS	0.001	0.002	0.001	0.001	0.0005	0.0006
2007191473	2007191510	Coarse	Coarse	BOS	BOS	0.004	0.002	0.002	0.001	0.0011	0.0008
2007191473	2007191510	Fine	Fine	BOS	BOS	0.005	0.003	0.002	0.002	0.0008	0.001
2007191293	2007191518	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007191293	2007191518	Fine	Fine	TOS	TOS	0.002	0.001	0.0005	0.0005	0.00025	0.00025
2007191293	2007191518	Coarse	Coarse	BOS	BOS	0.002	0.001	0.0005	0.0005	0.00025	0.00025
2007191293	2007191518	Fine	Fine	BOS	BOS	0.003	0.002	0.0005	0.0005	0.00025	0.00025
2007190534	2007191522	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190534	2007191522	Fine	Fine	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190534	2007191522	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190534	2007191522	Fine	Fine	BOS	BOS	0.002	0.001	0.001	0.0005	0.00025	0.00025
2007190647	2007191525	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190647	2007191525	Fine	Fine	TOS	TOS	0.002	0.001	0.0005	0.0005	0.0005	0.00025
2007190647	2007191525	Coarse	Coarse	BOS	BOS	0.002	0.002	0.0005	0.0005	0.0005	0.00025
2007190647	2007191525	Fine	Fine	BOS	BOS	0.004	0.002	0.001	0.0005	0.0006	0.00025
2007191028	2007191531	Coarse	Coarse	TOS	TOS	0.002	0.001	0.001	0.0005	0.00025	0.00025
2007191028	2007191531	Fine	Fine	TOS	TOS	0.002	0.001	0.001	0.0005	0.00025	0.00025
2007191028	2007191531	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007191028	2007191531	Fine	Fine	BOS	BOS	0.002	0.001	0.001	0.001	0.00025	0.0005
2007190125	2007191532	Coarse	Coarse	TOS	TOS	0.0005	0.002	0.0005	0.001	0.001	0.0011
2007190125	2007191532	Fine	Fine	TOS	TOS	0.001	0.002	0.0005	0.001	0.0011	0.0014
2007190125	2007191532	Coarse	Coarse	BOS	BOS	0.001	0.001	0.001	0.001	0.0013	0.0011
2007190125	2007191532	Fine	Fine	BOS	BOS	0.002	0.013	0.001	0.001	0.0014	0.0015
2007190990	2007191537	Coarse	Coarse	TOS	TOS	0.002	0.001	0.001	0.0005	0.00025	0.00025
2007190990	2007191537	Fine	Fine	TOS	TOS	0.002	0.001	0.0005	0.0005	0.00025	0.00025
2007190990	2007191537	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190990	2007191537	Fine	Fine	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190189	2007191542	Coarse	Coarse	TOS	TOS	0.001	0.002	0.0005	0.001	0.00025	0.00025
2007190189	2007191542	Coarse	Coarse	BOS	BOS	0.001	0.002	0.0005	0.001	0.00025	0.00025
2007190189	2007191542	Fine	Fine	BOS	BOS	0.001	0.002	0.0005	0.001	0.00025	0.00025
2007190121	2007191545	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190121	2007191545	Fine	Fine	TOS	TOS	0.002	0.001	0.0005	0.001	0.0005	0.0005
2007190121	2007191545	Coarse	Coarse	BOS	BOS	0.002	0.001	0.0005	0.001	0.00025	0.00025

Appendix 25. Field duplicates analysis for PGEs by FA

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Au (ppm)	Au (ppm)	Pd (ppm)	Pd (ppm)	Pt (ppm)	Pt (ppm)
METHOD:	METHOD:	SIZE	SIZE			FA	FA	FA	FA	FA	FA
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					0.001	0.001	0.001	0.001	0.0005	0.0005
2007190121	2007191545	Fine	Fine	BOS	BOS	0.003	0.002	0.001	0.001	0.0005	0.0006
2007190735	2007191549	Coarse	Coarse	TOS	TOS	0.0005	0.001	0.0005	0.0005	0.00025	0.00025
2007190735	2007191549	Fine	Fine	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190735	2007191549	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190735	2007191549	Fine	Fine	BOS	BOS	0.002	0.001	0.001	0.0005	0.00025	0.00025
2007191007	2007191551	Coarse	Coarse	TOS	TOS	0.001	0.006	0.0005	0.0005	0.00025	0.00025
2007191007	2007191551	Fine	Fine	TOS	TOS	0.002	0.002	0.0005	0.001	0.00025	0.00025
2007191007	2007191551	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007191007	2007191551	Fine	Fine	BOS	BOS	0.045	0.019	0.0005	0.004	0.00025	0.0048
2007190118	2007191552	Coarse	Coarse	TOS	TOS	0.001	0.002	0.0005	0.001	0.0005	0.00025
2007190118	2007191552	Fine	Fine	TOS	TOS	0.001	0.002	0.0005	0.001	0.0005	0.0005
2007190118	2007191552	Coarse	Coarse	BOS	BOS	0.001	0.002	0.0005	0.001	0.0006	0.0005
2007190118	2007191552	Fine	Fine	BOS	BOS	0.001	0.002	0.0005	0.001	0.0005	0.0006
2007190176	2007191566	Coarse	Coarse	TOS	TOS	0.0005	0.001	0.0005	0.001	0.00025	0.00025
2007190176	2007191566	Fine	Fine	TOS	TOS	0.002	0.001	0.001	0.001	0.0006	0.0008
2007190176	2007191566	Coarse	Coarse	BOS	BOS	0.0005	0.001	0.0005	0.001	0.00025	0.00025
2007190176	2007191566	Fine	Fine	BOS	BOS	0.002	0.001	0.001	0.002	0.0007	0.0011
2007191152	2007191578	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007191152	2007191578	Fine	Fine	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007191152	2007191578	Coarse	Coarse	BOS	BOS	0.002	0.002	0.001	0.001	0.00025	0.0005
2007191152	2007191578	Fine	Fine	BOS	BOS	0.003	0.003	0.001	0.002	0.0008	0.0007
2007191275	2007191590	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.0007
2007191275	2007191590	Fine	Fine	TOS	TOS	0.002	0.001	0.001	0.001	0.0007	0.001
2007191275	2007191590	Coarse	Coarse	BOS	BOS	0.003	0.001	0.001	0.001	0.00025	0.0007
2007191275	2007191590	Fine	Fine	BOS	BOS	0.005	0.003	0.001	0.001	0.0007	0.0013
2007190986	2007191592	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190986	2007191592	Fine	Fine	TOS	TOS	0.002	0.001	0.0005	0.0005	0.0005	0.0005
2007190986	2007191592	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190986	2007191592	Fine	Fine	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.0006
2007190208	2007191593	Coarse	Coarse	TOS	TOS	0.0005	0.001	0.0005	0.0005	0.00025	0.00025
2007190208	2007191593	Fine	Fine	TOS	TOS	0.0005	0.001	0.0005	0.0005	0.00025	0.00025
2007190208	2007191593	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190208	2007191593	Fine	Fine	BOS	BOS	0.0005	0.001	0.0005	0.0005	0.00025	0.00025
2007190481	2007191594	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.001	0.00025	0.00025
2007190481	2007191594	Fine	Fine	TOS	TOS	0.001	0.001	0.0005	0.0005	0.0005	0.0005
2007190481	2007191594	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.0005	0.0005
2007190481	2007191594	Fine	Fine	BOS	BOS	0.001	0.001	0.0005	0.0005	0.0005	0.0005
2007190328	2007191598	Coarse	Coarse	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190328	2007191598	Fine	Fine	TOS	TOS	0.001	0.001	0.0005	0.0005	0.00025	0.0005
2007190328	2007191598	Coarse	Coarse	BOS	BOS	0.001	0.001	0.0005	0.0005	0.00025	0.00025
2007190328	2007191598	Fine	Fine	BOS	BOS	0.001	0.001	0.001	0.001	0.00025	0.0006
2007190526	2007191599	Coarse	Coarse	TOS	TOS	0.008	0.006	0.001	0.0005	0.00025	0.00025
2007190526	2007191599	Fine	Fine	TOS	TOS	0.004	0.006	0.001	0.0005	0.00025	0.00025
2007190526	2007191599	Coarse	Coarse	BOS	BOS	0.002	0.003	0.0005	0.001	0.00025	0.0005
2007190526	2007191599	Fine	Fine	BOS	BOS	0.005	0.003	0.001	0.001	0.00025	0.0005

Appendix 26. QC samples analysis for PGEs by FA

Appendix 26. QC samples analysis for PGEs by FA

SAMPLEID	TYPE	REAL	Au (ppm)	Pd (ppm)	Pt (ppm)
METHOD:		SAMPLEID	FA	FA	FA
LLD:			0.001	0.001	0.0005
2007190020001 Coarse	DUP	2007190496001 Fine	0.002	0.001	0.004
2007190496001 Fine			0.002	0.001	0.0005
Average			0.0020	0.0010	0.00225
SD			0.0000	0.0000	0.00247
RSD			0%	0%	110%
% <LLD			0%	0%	0%
2007190060002 Fine	DUP	2007190501001 Fine	0.001	0.0005	0.0007
2007190501001 Fine			0.001	0.0005	0.0006
Average			0.0010	0.0005	0.00065
SD			0.0000	0.0000	0.00007
RSD			0%	0%	11%
% <LLD			0%	100%	0%
2007190080001 Fine	DUP	2007190712001 Fine	0.0005	0.0005	0.00025
2007190712001 Fine			0.001	0.0005	0.00025
Average			0.0008	0.0005	0.00025
SD			0.0004	0.0000	0.00000
RSD			47%	0%	0%
% <LLD			50%	100%	100%
2007190100002 Coarse	DUP	2007191504002 Fine	0.002	0.001	0.0006
2007191504002 Fine			0.002	0.001	0.0006
Average			0.0020	0.0010	0.00060
SD			0.0000	0.0000	0.00000
RSD			0%	0%	0%
% <LLD			0%	0%	0%
2007190120001 Coarse	DUP	2007190632002 Coarse	0.003	0.001	0.00025
2007190632002 Coarse			0.004	0.0005	0.00025
Average			0.0035	0.0008	0.00025
SD			0.0007	0.0004	0.00000
RSD			20%	47%	0%
% <LLD			0%	50%	100%
2007190160002 Fine	DUP	2007190154002 Coarse	0.005	0.0005	0.00025
2007190154002 Coarse			0.005	0.0005	0.00025
Average			0.0050	0.0005	0.00025
SD			0.0000	0.0000	0.00000
RSD			0%	0%	0%
% <LLD			0%	100%	100%
2007190180001 Fine	DUP	2007190025002 Coarse	0.0005	0.0005	0.00025
2007190025002 Coarse			0.0005	0.0005	0.00025
Average			0.0005	0.0005	0.00025
SD			0.0000	0.0000	0.00000
RSD			0%	0%	0%
% <LLD			100%	100%	100%
2007190220001 Coarse	DUP	2007190058001 Coarse	0.001	0.0005	0.00025
2007190058001 Coarse			0.0005	0.0005	0.00025
Average			0.0008	0.0005	0.00025
SD			0.0004	0.0000	0.00000
RSD			47%	0%	0%
% <LLD			50%	100%	100%
2007190220002 Coarse	DUP	2007190389001 Coarse	0.002	0.001	0.00025
2007190389001 Coarse			0.001	0.0005	0.00025
Average			0.0015	0.0008	0.00025
SD			0.0007	0.0004	0.00000
RSD			47%	47%	0%
% <LLD			0%	50%	100%
2007190260002 Coarse	DUP	2007191036002 Fine	0.005	0.001	0.00025
2007191036002 Fine			0.001	0.0005	0.00025
Average			0.0030	0.0008	0.00025
SD			0.0028	0.0004	0.00000
RSD			94%	47%	0%
% <LLD			0%	50%	100%
2007190280001 Fine	DUP	2007190043001 Coarse	0.002	0.001	0.0006
2007190043001 Coarse			0.001	0.0005	0.0005
Average			0.0015	0.0008	0.00055
SD			0.0007	0.0004	0.00007
RSD			47%	47%	13%
% <LLD			0%	50%	0%
2007190280002 Fine	DUP	2007190428001 Coarse	0.002	0.001	0.0008
2007190428001 Coarse			0.001	0.001	0.0009
Average			0.0015	0.0010	0.00085
SD			0.0007	0.0000	0.00007
RSD			47%	0%	8%
% <LLD			0%	0%	0%

Appendix 26. QC samples analysis for PGEs by FA

SAMPLEID	TYPE	REAL	Au (ppm)	Pd (ppm)	Pt (ppm)
METHOD:		SAMPLEID	FA	FA	FA
LLD:			0.001	0.001	0.0005
2007190320002 Fine	DUP	2007191253002 Fine	0.002	0.002	0.0018
2007191253002 Fine			0.002	0.002	0.0022
Average			0.0020	0.0020	0.00200
SD			0.0000	0.0000	0.00028
RSD			0%	0%	14%
% <LLD			0%	0%	0%
2007190340001 Coarse	DUP	2007191510002 Fine	0.003	0.001	0.0007
2007191510002 Fine			0.003	0.002	0.001
Average			0.0030	0.0015	0.00085
SD			0.0000	0.0007	0.00021
RSD			0%	47%	25%
% <LLD			0%	0%	0%
2007190340002 Coarse	DUP	2007190716002 Coarse	0.002	0.0005	0.00025
2007190716002 Coarse			0.002	0.0005	0.00025
Average			0.0020	0.0005	0.00025
SD			0.0000	0.0000	0.00000
RSD			0%	0%	0%
% <LLD			0%	100%	100%
2007190380001 Coarse	DUP	2007190579002 Coarse	0.004	0.0005	0.00025
2007190579002 Coarse			0.002	0.0005	0.00025
Average			0.0030	0.0005	0.00025
SD			0.0014	0.0000	0.00000
RSD			47%	0%	0%
% <LLD			0%	100%	100%
2007190400001 Fine	DUP	2007190041001 Coarse	0.002	0.001	0.00025
2007190041001 Coarse			0.001	0.0005	0.00025
Average			0.0015	0.0008	0.00025
SD			0.0007	0.0004	0.00000
RSD			47%	47%	0%
% <LLD			0%	50%	100%
2007190400002 Fine	DUP	2007190429002 Coarse	0.002	0.0005	0.0006
2007190429002 Coarse			0.001	0.001	0.0008
Average			0.0015	0.0008	0.00070
SD			0.0007	0.0004	0.00014
RSD			47%	47%	20%
% <LLD			0%	50%	0%
2007190440001 Fine	DUP	2007190408001 Coarse	0.001	0.001	0.0009
2007190408001 Coarse			0.001	0.001	0.0009
Average			0.0010	0.0010	0.00090
SD			0.0000	0.0000	0.00000
RSD			0%	0%	0%
% <LLD			0%	0%	0%
2007190460001 Coarse	DUP	2007190586001 Fine	0.002	0.0005	0.00025
2007190586001 Fine			0.001	0.0005	0.00025
Average			0.0015	0.0005	0.00025
SD			0.0007	0.0000	0.00000
RSD			47%	0%	0%
% <LLD			0%	100%	100%
2007190460002 Coarse	DUP	2007190095001 Fine	0.002	0.001	0.0007
2007190095001 Fine			0.002	0.001	0.0006
Average			0.0020	0.0010	0.00065
SD			0.0000	0.0000	0.00007
RSD			0%	0%	11%
% <LLD			0%	0%	0%
2007190520001 Fine	DUP	2007190282002 Coarse	0.009	0.005	0.0028
2007190282002 Coarse			0.002	0.002	0.0013
Average			0.0055	0.0035	0.00205
SD			0.0049	0.0021	0.00106
RSD			90%	61%	52%
% <LLD			0%	0%	0%
2007190520002 Coarse	DUP	2007191078002 Coarse	0.004	0.01	0.00025
2007191078002 Coarse			0.002	0.011	0.00025
Average			0.0030	0.0105	0.00025
SD			0.0014	0.0007	0.00000
RSD			47%	7%	0%
% <LLD			0%	0%	100%
2007190520002 Fine	DUP	2007190633001 Coarse	0.001	0.001	0.0007
2007190633001 Coarse			0.001	0.001	0.0007
Average			0.0010	0.0010	0.00070
SD			0.0000	0.0000	0.00000
RSD			0%	0%	0%
% <LLD			0%	0%	0%

Appendix 26. QC samples analysis for PGEs by FA

SAMPLEID	TYPE	REAL	Au (ppm)	Pd (ppm)	Pt (ppm)
METHOD:		SAMPLEID	FA	FA	FA
LLD:			0.001	0.001	0.0005
2007190580001 Coarse	DUP	2007190708002 Fine	0.027	0.001	0.00025
2007190708002 Fine			0.005	0.001	0.0007
Average			0.0160	0.0010	0.00048
SD			0.0156	0.0000	0.00032
RSD			97%	0%	67%
% <LLD			0%	0%	50%
2007190580002 Fine	DUP	2007190354001 Fine	0.001	0.0005	0.0008
2007190354001 Fine			0.001	0.0005	0.00025
Average			0.0010	0.0005	0.00053
SD			0.0000	0.0000	0.00039
RSD			0%	0%	74%
% <LLD			0%	100%	50%
2007190620002 Coarse	DUP	2007191381001 Fine	0.003	0.001	0.00025
2007191381001 Fine			0.003	0.001	0.0005
Average			0.0030	0.0010	0.00038
SD			0.0000	0.0000	0.00018
RSD			0%	0%	47%
% <LLD			0%	0%	50%
2007190640001 Fine	DUP	2007190889002 Coarse	0.0005	0.0005	0.00025
2007190889002 Coarse			0.0005	0.0005	0.00025
Average			0.0005	0.0005	0.00025
SD			0.0000	0.0000	0.00000
RSD			0%	0%	0%
% <LLD			100%	100%	100%
2007190680002 Fine	DUP	2007190015001 Coarse	0.002	0.001	0.0006
2007190015001 Coarse			0.002	0.0005	0.00025
Average			0.0020	0.0008	0.00043
SD			0.0000	0.0004	0.00025
RSD			0%	47%	58%
% <LLD			0%	50%	50%
2007190700001 Fine	DUP	2007190053002 Coarse	0.001	0.0005	0.00025
2007190053002 Coarse			0.0005	0.0005	0.00025
Average			0.0008	0.0005	0.00025
SD			0.0004	0.0000	0.00000
RSD			47%	0%	0%
% <LLD			50%	100%	100%
2007190700002 Coarse	DUP	2007191512002 Coarse	0.001	0.0005	0.00025
2007191512002 Coarse			0.001	0.0005	0.00025
Average			0.0010	0.0005	0.00025
SD			0.0000	0.0000	0.00000
RSD			0%	0%	0%
% <LLD			0%	100%	100%
2007190740001 Coarse	DUP	2007190707002 Coarse	0.0005	0.0005	0.00025
2007190707002 Coarse			0.0005	0.0005	0.00025
Average			0.0005	0.0005	0.00025
SD			0.0000	0.0000	0.00000
RSD			0%	0%	0%
% <LLD			100%	100%	100%
2007190760002 Fine	DUP	2007190134002 Fine	0.002	0.001	0.0009
2007190134002 Fine			0.001	0.0005	0.00025
Average			0.0015	0.0008	0.00058
SD			0.0007	0.0004	0.00046
RSD			47%	47%	80%
% <LLD			0%	50%	50%
2007190780002 Coarse	DUP	2007190104002 Fine	0.002	0.001	0.00025
2007190104002 Fine			0.002	0.001	0.0005
Average			0.0020	0.0010	0.00038
SD			0.0000	0.0000	0.00018
RSD			0%	0%	47%
% <LLD			0%	0%	50%
2007190800001 Fine	DUP	2007190764001 Coarse	0.001	0.0005	0.0006
2007190764001 Coarse			0.003	0.002	0.001
Average			0.0020	0.0013	0.00080
SD			0.0014	0.0011	0.00028
RSD			71%	85%	35%
% <LLD			0%	50%	0%
2007190820001 Coarse	DUP	2007190508002 Fine	0.004	0.001	0.00025
2007190508002 Fine			0.002	0.001	0.0005
Average			0.0030	0.0010	0.00038
SD			0.0014	0.0000	0.00018
RSD			47%	0%	47%
% <LLD			0%	0%	50%

Appendix 26. QC samples analysis for PGEs by FA

SAMPLEID	TYPE	REAL	Au (ppm)	Pd (ppm)	Pt (ppm)
METHOD:		SAMPLEID	FA	FA	FA
LLD:			0.001	0.001	0.0005
2007190840002 Coarse	DUP	2007190978002 Coarse	0.001	0.0005	0.00025
2007190978002 Coarse			0.001	0.0005	0.00025
Average			0.0010	0.0005	0.00025
SD			0.0000	0.0000	0.00000
RSD			0%	0%	0%
% <LLD			0%	100%	100%
2007190840002 Fine	DUP	2007190005002 Coarse	0.001	0.0005	0.00025
2007190005002 Coarse			0.0005	0.0005	0.00025
Average			0.0008	0.0005	0.00025
SD			0.0004	0.0000	0.00000
RSD			47%	0%	0%
% <LLD			50%	100%	100%
2007190860002 Coarse	DUP	2007190621001 Fine	0.002	0.001	0.0006
2007190621001 Fine			0.002	0.001	0.0005
Average			0.0020	0.0010	0.00055
SD			0.0000	0.0000	0.00007
RSD			0%	0%	13%
% <LLD			0%	0%	0%
2007190880001 Fine	DUP	2007190193002 Fine	0.001	0.0005	0.00025
2007190193002 Fine			0.001	0.0005	0.00025
Average			0.0010	0.0005	0.00025
SD			0.0000	0.0000	0.00000
RSD			0%	0%	0%
% <LLD			0%	100%	100%
2007190900001 Coarse	DUP	2007190932001 Coarse	0.003	0.002	0.0013
2007190932001 Coarse			0.003	0.002	0.0013
Average			0.0030	0.0020	0.00130
SD			0.0000	0.0000	0.00000
RSD			0%	0%	0%
% <LLD			0%	0%	0%
2007190900002 Coarse	DUP	2007191208001 Coarse	0.002	0.001	0.00025
2007191208001 Coarse			0.002	0.0005	0.00025
Average			0.0020	0.0008	0.00025
SD			0.0000	0.0004	0.00000
RSD			0%	47%	0%
% <LLD			0%	50%	100%
2007190900002 Fine	DUP	2007190204001 Coarse	0.001	0.0005	0.00025
2007190204001 Coarse			0.001	0.0005	0.0005
Average			0.0010	0.0005	0.00038
SD			0.0000	0.0000	0.00018
RSD			0%	0%	47%
% <LLD			0%	100%	50%
2007190920002 Fine	DUP	2007191450001 Fine	0.002	0.001	0.0005
2007191450001 Fine			0.002	0.001	0.00025
Average			0.0020	0.0010	0.00038
SD			0.0000	0.0000	0.00018
RSD			0%	0%	47%
% <LLD			0%	0%	50%
2007190960001 Coarse	DUP	2007190271002 Coarse	0.002	0.0005	0.00025
2007190271002 Coarse			0.002	0.0005	0.00025
Average			0.0020	0.0005	0.00025
SD			0.0000	0.0000	0.00000
RSD			0%	0%	0%
% <LLD			0%	100%	100%
2007190960001 Fine	DUP	2007190192002 Fine	0.001	0.0005	0.0005
2007190192002 Fine			0.001	0.0005	0.0006
Average			0.0010	0.0005	0.00055
SD			0.0000	0.0000	0.00007
RSD			0%	0%	13%
% <LLD			0%	100%	0%
2007190960002 Fine	DUP	2007190766002 Coarse	0.001	0.001	0.0008
2007190766002 Coarse			0.002	0.001	0.0011
Average			0.0015	0.0010	0.00095
SD			0.0007	0.0000	0.00021
RSD			47%	0%	22%
% <LLD			0%	0%	0%
2007190980001 Coarse	DUP	2007191518001 Fine	0.006	0.0005	0.00025
2007191518001 Fine			0.001	0.0005	0.00025
Average			0.0035	0.0005	0.00025
SD			0.0035	0.0000	0.00000
RSD			101%	0%	0%
% <LLD			0%	100%	100%

Appendix 26. QC samples analysis for PGEs by FA

SAMPLEID	TYPE	REAL	Au (ppm)	Pd (ppm)	Pt (ppm)
METHOD:		SAMPLEID	FA	FA	FA
LLD:			0.001	0.001	0.0005
2007190980002 Coarse	DUP	2007190945002 Fine	0.002	0.001	0.0005
2007190945002 Fine			0.003	0.001	0.0005
Average			0.0025	0.0010	0.00050
SD			0.0007	0.0000	0.00000
RSD			28%	0%	0%
% <LLD			0%	0%	0%
2007191020001 Coarse	DUP	2007190357002 Coarse	0.001	0.0005	0.00025
2007190357002 Coarse			0.001	0.0005	0.00025
Average			0.0010	0.0005	0.00025
SD			0.0000	0.0000	0.00000
RSD			0%	0%	0%
% <LLD			0%	100%	100%
2007191020001 Fine	DUP	2007190183002 Fine	0.001	0.001	0.0012
2007190183002 Fine			0.001	0.001	0.0013
Average			0.0010	0.0010	0.00125
SD			0.0000	0.0000	0.00007
RSD			0%	0%	6%
% <LLD			0%	0%	0%
2007191040001 Fine	DUP	2007190161001 Fine	0.004	0.002	0.0026
2007190161001 Fine			0.006	0.002	0.0032
Average			0.0050	0.0020	0.00290
SD			0.0014	0.0000	0.00042
RSD			28%	0%	15%
% <LLD			0%	0%	0%
2007191040002 Fine	DUP	2007190648002 Fine	0.002	0.001	0.0008
2007190648002 Fine			0.002	0.001	0.0008
Average			0.0020	0.0010	0.00080
SD			0.0000	0.0000	0.00000
RSD			0%	0%	0%
% <LLD			0%	0%	0%
2007191060002 Coarse	DUP	2007191154001 Coarse	0.007	0.001	0.0007
2007191154001 Coarse			0.007	0.001	0.0006
Average			0.0070	0.0010	0.00065
SD			0.0000	0.0000	0.00007
RSD			0%	0%	11%
% <LLD			0%	0%	0%
2007191080001 Fine	DUP	2007190064001 Fine	0.001	0.0005	0.00025
2007190064001 Fine			0.001	0.0005	0.00025
Average			0.0010	0.0005	0.00025
SD			0.0000	0.0000	0.00000
RSD			0%	0%	0%
% <LLD			0%	100%	100%
2007191100001 Coarse	DUP	2007190803001 Fine	0.001	0.001	0.0006
2007190803001 Fine			0.0005	0.001	0.0007
Average			0.0008	0.0010	0.00065
SD			0.0004	0.0000	0.00007
RSD			47%	0%	11%
% <LLD			50%	0%	0%
2007191120002 Fine	DUP	2007190536002 Coarse	0.001	0.001	0.0005
2007190536002 Coarse			0.001	0.0005	0.0005
Average			0.0010	0.0008	0.00050
SD			0.0000	0.0004	0.00000
RSD			0%	47%	0%
% <LLD			0%	50%	0%
2007191160001 Fine	DUP	2007190066002 Fine	0.001	0.002	0.0018
2007190066002 Fine			0.002	0.002	0.0021
Average			0.0015	0.0020	0.00195
SD			0.0007	0.0000	0.00021
RSD			47%	0%	11%
% <LLD			0%	0%	0%
2007191180001 Coarse	DUP	2007190868002 Fine	0.001	0.0005	0.00025
2007190868002 Fine			0.001	0.0005	0.00025
Average			0.0010	0.0005	0.00025
SD			0.0000	0.0000	0.00000
RSD			0%	0%	0%
% <LLD			0%	100%	100%
2007191200002 Coarse	DUP	2007190499002 Coarse	0.002	0.002	0.0016
2007190499002 Coarse			0.001	0.001	0.0012
Average			0.0015	0.0015	0.00140
SD			0.0007	0.0007	0.00028
RSD			47%	47%	20%
% <LLD			0%	0%	0%

Appendix 26. QC samples analysis for PGEs by FA

SAMPLEID	TYPE	REAL	Au (ppm)	Pd (ppm)	Pt (ppm)
METHOD:		SAMPLEID	FA	FA	FA
LLD:			0.001	0.001	0.0005
2007191240001 Fine	DUP	2007190065001 Fine	0.009	0.002	0.0021
2007190065001 Fine			0.001	0.001	0.0016
Average			0.0050	0.0015	0.00185
SD			0.0057	0.0007	0.00035
RSD			113%	47%	19%
% <LLD			0%	0%	0%
2007191260002 Fine	DUP	2007190996002 Fine	0.001	0.0005	0.0005
2007190996002 Fine			0.001	0.001	0.00025
Average			0.0010	0.0008	0.00038
SD			0.0000	0.0004	0.00018
RSD			0%	47%	47%
% <LLD			0%	50%	50%
2007191300002 Coarse	DUP	2007191043001 Fine	0.001	0.0005	0.00025
2007191043001 Fine			0.002	0.001	0.0005
Average			0.0015	0.0008	0.00038
SD			0.0007	0.0004	0.00018
RSD			47%	47%	47%
% <LLD			0%	50%	50%
2007191320001 Coarse	DUP	2007191521001 Coarse	0.002	0.001	0.0005
2007191521001 Coarse			0.002	0.001	0.0006
Average			0.0020	0.0010	0.00055
SD			0.0000	0.0000	0.00007
RSD			0%	0%	13%
% <LLD			0%	0%	0%
2007191360002 Fine	DUP	2007190821001 Fine	0.002	0.001	0.0005
2007190821001 Fine			0.002	0.001	0.0008
Average			0.0020	0.0010	0.00065
SD			0.0000	0.0000	0.00021
RSD			0%	0%	33%
% <LLD			0%	0%	0%
2007191380001 Fine	DUP	2007190081001 Fine	0.002	0.001	0.0005
2007190081001 Fine			0.001	0.0005	0.0008
Average			0.0015	0.0008	0.00065
SD			0.0007	0.0004	0.00021
RSD			47%	47%	33%
% <LLD			0%	50%	0%
2007191400002 Coarse	DUP	2007190870001 Coarse	0.001	0.0005	0.00025
2007190870001 Coarse			0.001	0.0005	0.00025
Average			0.0010	0.0005	0.00025
SD			0.0000	0.0000	0.00000
RSD			0%	0%	0%
% <LLD			0%	100%	100%
2007190040001 Coarse	CRM	TILL-1	0.011	0.0005	0.0007
2007190100001 Fine	CRM	TILL-1	0.007	0.0005	0.00025
2007191320002 Coarse	CRM	TILL-1	0.016	0.001	0.00025
2007191380002 Fine	CRM	TILL-1	0.019	0.001	0.0005
Average			0.0133	0.0008	0.00043
SD			0.0053	0.0003	0.00022
RSD			40%	38%	51%
RV (TOTAL)			0.013		
Bias			102%		
% <LLD			0%	50%	50%
2007190720002 Coarse	CRM	TILL-3	0.005	0.001	0.0006
2007190780002 Fine	CRM	TILL-3	0.006	0.001	0.0012
2007190840001 Coarse	CRM	TILL-3	0.004	0.001	0.0007
2007190900001 Fine	CRM	TILL-3	0.009	0.0005	0.0008
Average			0.0060	0.0009	0.00083
SD			0.0022	0.0003	0.00026
RSD			36%	29%	32%
RV (TOTAL)			0.006		
Bias			100%		
% <LLD			0%	25%	0%
2007190320002 Coarse	CRM	LKSD-1	0.015	0.003	0.003
2007190380002 Fine	CRM	LKSD-1	0.004	0.001	0.0007
2007190440001 Coarse	CRM	LKSD-1	0.005	0.001	0.00025
2007190500001 Fine	CRM	LKSD-1	0.004	0.001	0.0005
Average			0.0070	0.0015	0.00111
SD			0.0054	0.0010	0.00127
RSD			76%	67%	114%
RV (TOTAL)			0.005		
Bias			140%		
% <LLD			0%	0%	25%

Appendix 26. QC samples analysis for PGEs by FA

SAMPLEID	TYPE	REAL	Au (ppm)	Pd (ppm)	Pt (ppm)
METHOD:		SAMPLEID	FA	FA	FA
LLD:			0.001	0.001	0.0005
2007191120002 Coarse	CRM	STSD-3	0.056	0.016	0.0007
2007191180002 Fine	CRM	STSD-3	0.006	0.001	0.0008
2007191240001 Coarse	CRM	STSD-3	0.006	0.001	0.0005
2007191300001 Fine	CRM	STSD-3	0.008	0.002	0.0006
Average			**0.0190**	**0.0050**	**0.00065**
SD			**0.0247**	**0.0073**	**0.00013**
RSD			**130%**	**147%**	**20%**
RV (TOTAL)			**0.007**		
Bias			**271%**		
% <LLD			**0%**	**0%**	**0%**
2007190120002 Coarse	STD	SoNE-1	0.004	0.001	0.001
2007190180002 Fine	STD	SoNE-1	0.002	0.001	0.00025
2007190240001 Coarse	STD	SoNE-1	0.003	0.001	0.0006
2007190300001 Fine	STD	SoNE-1	0.003	0.002	0.0007
2007190920002 Coarse	STD	SoNE-1	0.003	0.001	0.0007
2007190980002 Fine	STD	SoNE-1	0.004	0.001	0.001
2007191040001 Coarse	STD	SoNE-1	0.003	0.001	0.0007
2007191100001 Fine	STD	SoNE-1	0.003	0.001	0.0008
Average			**0.0031**	**0.0011**	**0.00072**
SD			**0.0006**	**0.0004**	**0.00024**
RSD			**21%**	**31%**	**33%**
% <LLD			**0%**	**0%**	**13%**
2007190040002 Fine	STD	GEMAS-A	0.002	0.001	0.0006
2007190080002 Coarse	STD	GEMAS-A	0.003	0.001	0.0008
2007190200002 Coarse	STD	GEMAS-A	0.002	0.001	0.0005
2007190380002 Coarse	STD	GEMAS-A	0.003	0.001	0.0008
2007190500002 Fine	STD	GEMAS-A	0.003	0.001	0.0009
2007190660002 Fine	STD	GEMAS-A	0.004	0.001	0.001
2007190720002 Fine	STD	GEMAS-A	0.003	0.001	0.0009
2007190760002 Coarse	STD	GEMAS-A	0.003	0.001	0.0006
2007191000002 Fine	STD	GEMAS-A	0.003	0.001	0.0008
2007191160002 Coarse	STD	GEMAS-A	0.003	0.001	0.0008
Average			**0.0029**	**0.0010**	**0.00077**
SD			**0.0006**	**0.0000**	**0.00016**
RSD			**20%**	**0%**	**20%**
Reported Mean Value			**0.0017**	**0.0017**	**0.00089**
Bias			**171%**	**59%**	**87%**
% <LLD			**0%**	**0%**	**0%**
2007190100002 Fine	STD	GEMAS-G	0.002	0.0005	0.00025
2007190220002 Fine	STD	GEMAS-G	0.002	0.0005	0.00025
2007190240002 Coarse	STD	GEMAS-G	0.004	0.001	0.0006
2007190600002 Coarse	STD	GEMAS-G	0.003	0.001	0.00025
2007190800002 Coarse	STD	GEMAS-G	0.047	0.001	0.0006
2007190860002 Fine	STD	GEMAS-G	0.003	0.001	0.0008
2007191040002 Coarse	STD	GEMAS-G	0.004	0.001	0.0005
2007191200002 Fine	STD	GEMAS-G	0.003	0.001	0.0008
2007191320002 Fine	STD	GEMAS-G	0.003	0.001	0.0006
2007191360002 Coarse	STD	GEMAS-G	0.003	0.0005	0.0005
Average			**0.0074**	**0.0009**	**0.00052**
SD			**0.0139**	**0.0002**	**0.00021**
RSD			**188%**	**28%**	**41%**
Reported Mean Value			**0.0017**	**0.00028**	**0.00044**
Bias			**435%**	**304%**	**117%**
% <LLD			**0%**	**30%**	**30%**
2007190020002 Coarse	IPS	ORIS	0.005	0.0005	0.00025
2007190080002 Fine	IPS	ORIS	0.008	0.0005	0.00025
2007190140001 Coarse	IPS	ORIS	0.009	0.001	0.0056
2007190200002 Fine	IPS	ORIS	0.189	0.0005	0.00025
2007190260001 Coarse	IPS	ORIS	0.006	0.0005	0.00025
2007190320001 Fine	IPS	ORIS	0.005	0.001	0.00025
2007190340002 Fine	IPS	ORIS	0.319	0.0005	0.0005
2007190400001 Coarse	IPS	ORIS	0.331	0.0005	0.00025
2007190460001 Fine	IPS	ORIS	0.004	0.001	0.00025
2007190480002 Fine	IPS	ORIS	0.012	0.0005	0.00025
2007190540001 Coarse	IPS	ORIS	0.12	0.0005	0.00025
2007190600001 Fine	IPS	ORIS	0.013	0.005	0.0027
2007190600002 Fine	IPS	ORIS	0.014	0.006	0.0031
2007190660001 Coarse	IPS	ORIS	0.007	0.0005	0.00025
2007190720001 Fine	IPS	ORIS	0.218	0.0005	0.00025
2007190740002 Fine	IPS	ORIS	0.008	0.0005	0.0007
2007190800001 Coarse	IPS	ORIS	0.001	0.0005	0.00025
2007190860001 Fine	IPS	ORIS	0.565	0.0005	0.0012
2007190880002 Fine	IPS	ORIS	0.014	0.001	0.0006
2007190940001 Coarse	IPS	ORIS	0.005	0.0005	0.00025
2007191000001 Fine	IPS	ORIS	0.005	0.0005	0.00025
2007191020002 Fine	IPS	ORIS	0.007	0.0005	0.0005
2007191080001 Coarse	IPS	ORIS	0.008	0.0005	0.00025
2007191140001 Fine	IPS	ORIS	0.016	0.0005	0.00025
2007191160002 Fine	IPS	ORIS	0.006	0.0005	0.0005
2007191220001 Coarse	IPS	ORIS	0.002	0.001	0.00025
2007191340002 Fine	IPS	ORIS	0.022	0.004	0.0042

Appendix 26. QC samples analysis for PGEs by FA

SAMPLEID	TYPE	REAL SAMPLEID	Au (ppm) FA	Pd (ppm) FA	Pt (ppm) FA
METHOD:					
LLD:			0.001	0.001	0.0005
Average			0.0711	0.0011	0.00088
SD			0.1378	0.0014	0.00137
RSD			194%	133%	155%
% <LLD			0%	70%	63%
2007190040001 Fine	IPS	MRIS	0.001	0.0005	0.00025
2007190060001 Coarse	IPS	MRIS	0.007	0.001	0.00025
2007190060002 Coarse	IPS	MRIS	0.004	0.001	0.00025
2007190100001 Coarse	IPS	MRIS	0.014	0.002	0.0005
2007190120001 Fine	IPS	MRIS	0.001	0.0005	0.00025
2007190120002 Fine	IPS	MRIS	0.001	0.0005	0.00025
2007190140002 Fine	IPS	MRIS	0.001	0.0005	0.00025
2007190160001 Fine	IPS	MRIS	0.002	0.0005	0.00025
2007190180001 Coarse	IPS	MRIS	0.007	0.001	0.00025
2007190180002 Coarse	IPS	MRIS	0.002	0.001	0.00025
2007190200001 Coarse	IPS	MRIS	0.025	0.001	0.00025
2007190240001 Fine	IPS	MRIS	0.003	0.0005	0.00025
2007190240002 Fine	IPS	MRIS	0.002	0.0005	0.00025
2007190260001 Fine	IPS	MRIS	0.003	0.001	0.0005
2007190260002 Fine	IPS	MRIS	0.004	0.001	0.00025
2007190300001 Coarse	IPS	MRIS	0.003	0.001	0.0005
2007190300002 Coarse	IPS	MRIS	0.016	0.004	0.0032
2007190320001 Coarse	IPS	MRIS	0.002	0.001	0.00025
2007190360001 Fine	IPS	MRIS	0.002	0.001	0.0005
2007190360002 Coarse	IPS	MRIS	0.004	0.001	0.00025
2007190360002 Fine	IPS	MRIS	0.002	0.001	0.0006
2007190380001 Fine	IPS	MRIS	0.002	0.001	0.00025
2007190420001 Coarse	IPS	MRIS	0.004	0.001	0.00025
2007190420002 Fine	IPS	MRIS	0.003	0.001	0.0008
2007190440002 Coarse	IPS	MRIS	0.004	0.001	0.00025
2007190440002 Fine	IPS	MRIS	0.002	0.001	0.0006
2007190480001 Coarse	IPS	MRIS	0.003	0.001	0.00025
2007190480001 Fine	IPS	MRIS	0.001	0.0005	0.0005
2007190500001 Coarse	IPS	MRIS	0.006	0.001	0.00025
2007190540001 Fine	IPS	MRIS	0.001	0.0005	0.0006
2007190560001 Coarse	IPS	MRIS	0.004	0.001	0.00025
2007190560001 Fine	IPS	MRIS	0.004	0.002	0.0013
2007190560002 Fine	IPS	MRIS	0.002	0.001	0.0006
2007190620001 Coarse	IPS	MRIS	0.004	0.001	0.00025
2007190620001 Fine	IPS	MRIS	0.002	0.001	0.00025
2007190640002 Fine	IPS	MRIS	0.003	0.001	0.0006
2007190680001 Fine	IPS	MRIS	0.001	0.001	0.00025
2007190700001 Coarse	IPS	MRIS	0.004	0.001	0.00025
2007190720001 Coarse	IPS	MRIS	0.024	0.003	0.0006
2007190760001 Fine	IPS	MRIS	0.001	0.001	0.0006
2007190780001 Coarse	IPS	MRIS	0.024	0.002	0.00025
2007190780001 Fine	IPS	MRIS	0.003	0.0005	0.0017
2007190800002 Fine	IPS	MRIS	0.004	0.001	0.0008
2007190820002 Fine	IPS	MRIS	0.003	0.001	0.0008
2007190840001 Fine	IPS	MRIS	0.002	0.0005	0.0005
2007190860001 Coarse	IPS	MRIS	0.005	0.001	0.00025
2007190880001 Coarse	IPS	MRIS	0.002	0.001	0.00025
2007190920001 Fine	IPS	MRIS	0.002	0.0005	0.00025
2007190940001 Fine	IPS	MRIS	0.001	0.0005	0.00025
2007191060001 Coarse	IPS	MRIS	0.002	0.001	0.00025
2007191080002 Fine	IPS	MRIS	0.006	0.001	0.0006
2007191100002 Fine	IPS	MRIS	0.003	0.001	0.0005
2007191120001 Fine	IPS	MRIS	0.001	0.0005	0.00025
2007191140001 Coarse	IPS	MRIS	0.002	0.001	0.00025
2007191140002 Fine	IPS	MRIS	0.003	0.001	0.0006
2007191160001 Coarse	IPS	MRIS	0.002	0.001	0.00025
2007191200001 Coarse	IPS	MRIS	0.003	0.001	0.00025
2007191200001 Fine	IPS	MRIS	0.002	0.0005	0.00025
2007191220001 Fine	IPS	MRIS	0.001	0.0005	0.00025
2007191220002 Fine	IPS	MRIS	0.004	0.001	0.0006
2007191260001 Coarse	IPS	MRIS	0.002	0.001	0.00025
2007191260001 Fine	IPS	MRIS	0.007	0.0005	0.00025
2007191280001 Coarse	IPS	MRIS	0.004	0.001	0.00025
2007191280002 Fine	IPS	MRIS	0.003	0.001	0.00025
2007191320001 Fine	IPS	MRIS	0.002	0.001	0.00025
2007191340001 Coarse	IPS	MRIS	0.003	0.001	0.00025
2007191340001 Fine	IPS	MRIS	0.003	0.002	0.0006
2007191380001 Coarse	IPS	MRIS	0.007	0.001	0.00025
2007191400001 Fine	IPS	MRIS	0.002	0.001	0.00025
2007191400002 Fine	IPS	MRIS	0.003	0.001	0.0005
Average			0.0042	0.0010	0.00044
SD			0.0050	0.0006	0.00042
RSD			120%	55%	97%
% <LLD			0%	24%	64%

Appendix 26. QC samples analysis for PGEs by FA

SAMPLEID	TYPE	REAL	Au (ppm)	Pd (ppm)	Pt (ppm)
METHOD:		SAMPLEID	FA	FA	FA
LLD:			0.001	0.001	0.0005
2007190500002 Coarse	IPS	MRIS2	0.002	0.0005	0.00025
2007190580002 Coarse	IPS	MRIS2	0.002	0.001	0.00025
2007190660002 Coarse	IPS	MRIS2	0.002	0.0005	0.00025
2007190740002 Coarse	IPS	MRIS2	0.002	0.0005	0.00025
2007190940002 Coarse	IPS	MRIS2	0.003	0.001	0.00025
2007191020002 Coarse	IPS	MRIS2	0.002	0.0005	0.00025
2007191080002 Coarse	IPS	MRIS2	0.005	0.002	0.0009
2007191140002 Coarse	IPS	MRIS2	0.002	0.001	0.0005
2007191220002 Coarse	IPS	MRIS2	0.003	0.001	0.00025
2007191260002 Coarse	IPS	MRIS2	0.002	0.0005	0.00025
2007191340002 Coarse	IPS	MRIS2	0.004	0.0005	0.00025
2007191380002 Coarse	IPS	MRIS2	0.002	0.0005	0.00025
Average			**0.0026**	**0.0008**	**0.00033**
SD			**0.0010**	**0.0005**	**0.00019**
RSD			**39%**	**57%**	**60%**
% <LLD			**0%**	**58%**	**83%**
2007190020002 Coarse	IPS	ORIS	0.005	0.0005	0.00025
2007190080002 Fine	IPS	ORIS	0.008	0.0005	0.00025
2007190140001 Coarse	IPS	ORIS	0.009	0.001	0.0056
2007190200002 Fine	IPS	ORIS	0.189	0.0005	0.00025
2007190260001 Coarse	IPS	ORIS	0.006	0.0005	0.00025
2007190320001 Fine	IPS	ORIS	0.005	0.001	0.00025
2007190340002 Fine	IPS	ORIS	0.319	0.0005	0.0005
2007190400001 Coarse	IPS	ORIS	0.331	0.0005	0.00025
2007190460001 Fine	IPS	ORIS	0.004	0.001	0.00025
2007190480002 Fine	IPS	ORIS	0.012	0.0005	0.00025
2007190540001 Coarse	IPS	ORIS	0.12	0.0005	0.00025
2007190600001 Fine	IPS	ORIS	0.013	0.005	0.0027
2007190600002 Fine	IPS	ORIS	0.014	0.006	0.0031
2007190660001 Coarse	IPS	ORIS	0.007	0.0005	0.00025
2007190720001 Fine	IPS	ORIS	0.218	0.0005	0.00025
2007190740002 Fine	IPS	ORIS	0.008	0.0005	0.0007
2007190800001 Coarse	IPS	ORIS	0.001	0.0005	0.00025
2007190860001 Fine	IPS	ORIS	0.565	0.0005	0.0012
2007190880002 Fine	IPS	ORIS	0.014	0.001	0.0006
2007190940001 Coarse	IPS	ORIS	0.005	0.0005	0.00025
2007191000001 Fine	IPS	ORIS	0.005	0.0005	0.00025
2007191020002 Fine	IPS	ORIS	0.007	0.0005	0.0005
2007191080001 Coarse	IPS	ORIS	0.008	0.0005	0.00025
2007191140001 Fine	IPS	ORIS	0.016	0.0005	0.00025
2007191160002 Fine	IPS	ORIS	0.006	0.0005	0.0005
2007191220001 Coarse	IPS	ORIS	0.002	0.001	0.00025
2007191340002 Fine	IPS	ORIS	0.022	0.004	0.0042
Average			**0.0711**	**0.0011**	**0.00088**
SD			**0.1378**	**0.0014**	**0.00137**
RSD			**194%**	**133%**	**155%**
% <LLD			**0%**	**70%**	**63%**
2007190020001 Fine	IPS	WRIS	0.003	0.0005	0.0005
2007190020002 Fine	IPS	WRIS	0.003	0.0005	0.00025
2007190040002 Coarse	IPS	WRIS	0.005	0.001	0.0005
2007190080001 Coarse	IPS	WRIS	0.004	0.001	0.00025
2007190140001 Fine	IPS	WRIS	0.003	0.0005	0.0005
2007190160001 Coarse	IPS	WRIS	0.004	0.001	0.00025
2007190160002 Coarse	IPS	WRIS	0.004	0.001	0.0005
2007190220001 Fine	IPS	WRIS	0.003	0.0005	0.0005
2007190280001 Coarse	IPS	WRIS	0.004	0.001	0.00025
2007190300002 Fine	IPS	WRIS	0.003	0.001	0.0006
2007190340001 Fine	IPS	WRIS	0.004	0.001	0.0005
2007190360001 Coarse	IPS	WRIS	0.004	0.001	0.00025
2007190400002 Coarse	IPS	WRIS	0.005	0.001	0.0005
2007190420001 Fine	IPS	WRIS	0.004	0.001	0.0005
2007190460002 Fine	IPS	WRIS	0.003	0.001	0.0006
2007190520001 Coarse	IPS	WRIS	0.004	0.001	0.00025
2007190540002 Fine	IPS	WRIS	0.003	0.001	0.0006
2007190580001 Fine	IPS	WRIS	0.003	0.001	0.00025
2007190600001 Coarse	IPS	WRIS	0.003	0.001	0.00025
2007190620002 Fine	IPS	WRIS	0.004	0.001	0.0007
2007190660001 Fine	IPS	WRIS	0.002	0.001	0.0005
2007190680001 Coarse	IPS	WRIS	0.001	0.0005	0.00025
2007190680001 Coarse	IPS	WRIS	0.004	0.001	0.00025
2007190700002 Fine	IPS	WRIS	0.004	0.001	0.0007
2007190740001 Fine	IPS	WRIS	0.003	0.001	0.0006
2007190760001 Coarse	IPS	WRIS	0.004	0.001	0.0005
2007190820001 Fine	IPS	WRIS	0.003	0.0005	0.0006
2007190920001 Coarse	IPS	WRIS	0.002	0.001	0.00025
2007190940002 Fine	IPS	WRIS	0.004	0.001	0.0006
2007190980001 Fine	IPS	WRIS	0.003	0.0005	0.0005
2007191000001 Coarse	IPS	WRIS	0.003	0.001	0.0005
2007191060001 Fine	IPS	WRIS	0.002	0.0005	0.00025
2007191060002 Fine	IPS	WRIS	0.004	0.001	0.0006
2007191120001 Coarse	IPS	WRIS	0.003	0.001	0.00025
2007191180001 Fine	IPS	WRIS	0.003	0.0005	0.0006
2007191240002 Fine	IPS	WRIS	0.001	0.0005	0.0005
2007191300001 Coarse	IPS	WRIS	0.163	0.0005	0.00025

Appendix 26. QC samples analysis for PGEs by FA

SAMPLEID	TYPE	REAL	Au (ppm)	Pd (ppm)	Pt (ppm)
METHOD:		SAMPLEID	FA	FA	FA
LLD:			0.001	0.001	0.0005
2007191300002 Fine	IPS	WRIS	0.004	0.001	0.00025
2007191360001 Coarse	IPS	WRIS	0.004	0.001	0.00025
2007191360001 Fine	IPS	WRIS	0.003	0.001	0.0005
Average			**0.0073**	**0.0009**	**0.00043**
SD			**0.0253**	**0.0002**	**0.00016**
RSD			**345%**	**26%**	**37%**
% <LLD			**0%**	**28%**	**40%**
2007190140002 Coarse	IPS	WRIS2	0.003	0.001	0.00025
2007190280002 Coarse	IPS	WRIS2	0.006	0.001	0.0011
2007190420002 Coarse	IPS	WRIS2	0.004	0.0005	0.00025
2007190480002 Coarse	IPS	WRIS2	0.003	0.001	0.00025
2007190540002 Coarse	IPS	WRIS2	0.004	0.0005	0.00025
2007190560002 Coarse	IPS	WRIS2	0.003	0.016	0.00025
2007190640002 Coarse	IPS	WRIS2	0.003	0.001	0.00025
2007190680002 Coarse	IPS	WRIS2	0.004	0.0005	0.00025
2007190820002 Coarse	IPS	WRIS2	0.004	0.001	0.00025
2007190880002 Coarse	IPS	WRIS2	0.004	0.001	0.0005
2007190960002 Coarse	IPS	WRIS2	0.003	0.001	0.00025
2007191000002 Coarse	IPS	WRIS2	0.003	0.0005	0.00025
2007191100002 Coarse	IPS	WRIS2	0.003	0.001	0.0011
2007191180002 Coarse	IPS	WRIS2	0.003	0.0005	0.00025
2007191240002 Coarse	IPS	WRIS2	0.003	0.001	0.00025
2007191280002 Coarse	IPS	WRIS2	0.003	0.001	0.00025
Average			**0.0035**	**0.0018**	**0.00037**
SD			**0.0008**	**0.0038**	**0.00029**
RSD			**23%**	**213%**	**78%**
% <LLD			**0%**	**31%**	**81%**

Appendix 27. Field duplicates analysis for Field pH

Appendix 27. Field duplicates analysis for Field pH

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Field pH	Field pH
METHOD:	METHOD:	SIZE	SIZE			SP	SP
D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					N/A	N/A
2007190003	2007190213	Bulk	Bulk	TOS	TOS	7.5	7.5
2007190003	2007190213	Bulk	Bulk	BOS	BOS	8.0	8.0
2007190005	2007191059	Bulk	Bulk	TOS	TOS	6.5	5.5
2007190005	2007191059	Bulk	Bulk	BOS	BOS	6.5	6.0
2007190032	2007190632	Bulk	Bulk	TOS	TOS	5.5	5.0
2007190032	2007190632	Bulk	Bulk	BOS	BOS	5.5	5.5
2007190035	2007190876	Bulk	Bulk	TOS	TOS	4.5	5.0
2007190035	2007190876	Bulk	Bulk	BOS	BOS	5.0	5.0
2007190039	2007190984	Bulk	Bulk	TOS	TOS	6.5	7.5
2007190039	2007190984	Bulk	Bulk	BOS	BOS	8.5	9.0
2007190050	2007191481	Bulk	Bulk	TOS	TOS	6.0	5.5
2007190050	2007191481	Bulk	Bulk	BOS	BOS	7.0	6.0
2007190067	2007191121	Bulk	Bulk	TOS	TOS	6.0	6.5
2007190067	2007191121	Bulk	Bulk	BOS	BOS	8.5	8.5
2007190071	2007190289	Bulk	Bulk	TOS	TOS	6.0	6.0
2007190071	2007190289	Bulk	Bulk	BOS	BOS	8.5	7.5
2007190074	2007190389	Bulk	Bulk	TOS	TOS	6.0	6.0
2007190074	2007190389	Bulk	Bulk	BOS	BOS	6.5	5.0
2007190091	2007191053	Bulk	Bulk	TOS	TOS	6.0	6.0
2007190091	2007191053	Bulk	Bulk	BOS	BOS	6.5	6.5
2007190110	2007191182	Bulk	Bulk	TOS	TOS	5.0	4.5
2007190110	2007191182	Bulk	Bulk	BOS	BOS	5.0	7.5
2007190114	2007191045	Bulk	Bulk	TOS	TOS	7.0	6.5
2007190114	2007191045	Bulk	Bulk	BOS	BOS	8.0	7.5
2007190118	2007191552	Bulk	Bulk	TOS	TOS	4.0	4.5
2007190118	2007191552	Bulk	Bulk	BOS	BOS	5.0	5.0
2007190125	2007191532	Bulk	Bulk	TOS	TOS	6.5	7.0
2007190125	2007191532	Bulk	Bulk	BOS	BOS	6.5	6.5
2007190154	2007190568	Bulk	Bulk	TOS	TOS	6.5	6.5
2007190154	2007190568	Bulk	Bulk	BOS	BOS	6.5	6.5
2007190155	2007191031	Bulk	Bulk	TOS	TOS	6.5	7.0
2007190155	2007191031	Bulk	Bulk	BOS	BOS	6.0	6.0
2007190161	2007191413	Bulk	Bulk	TOS	TOS	8.5	8.5
2007190161	2007191413	Bulk	Bulk	BOS	BOS	8.5	8.5
2007190176	2007191566	Bulk	Bulk	TOS	TOS	5.5	5.0
2007190176	2007191566	Bulk	Bulk	BOS	BOS	4.5	5.5
2007190181	2007191396	Bulk	Bulk	TOS	TOS	5.0	6.0
2007190181	2007191396	Bulk	Bulk	BOS	BOS	8.5	8.5
2007190183	2007190471	Bulk	Bulk	TOS	TOS	7.0	8.0
2007190183	2007190471	Bulk	Bulk	BOS	BOS	7.0	8.0
2007190185	2007191253	Bulk	Bulk	TOS	TOS	7.5	7.5
2007190185	2007191253	Bulk	Bulk	BOS	BOS	7.5	7.5
2007190189	2007191542	Bulk	Bulk	TOS	TOS	8.5	9.0
2007190189	2007191542	Bulk	Bulk	BOS	BOS	8.5	9.0
2007190193	2007190788	Bulk	Bulk	TOS	TOS	5.5	5.0
2007190193	2007190788	Bulk	Bulk	BOS	BOS	10.0	6.0
2007190194	2007190704	Bulk	Bulk	TOS	TOS	5.5	5.5
2007190194	2007190704	Bulk	Bulk	BOS	BOS	6.0	8.0
2007190197	2007190962	Bulk	Bulk	TOS	TOS	7.0	6.0
2007190197	2007190962	Bulk	Bulk	BOS	BOS	8.0	7.0
2007190208	2007191593	Bulk	Bulk	TOS	TOS	5.5	5.5
2007190208	2007191593	Bulk	Bulk	BOS	BOS	5.0	5.5
2007190209	2007191254	Bulk	Bulk	TOS	TOS	5.5	5.5
2007190209	2007191254	Bulk	Bulk	BOS	BOS	5.5	5.5
2007190212	2007190747	Bulk	Bulk	TOS	TOS	5.0	5.0
2007190212	2007190747	Bulk	Bulk	BOS	BOS	5.0	5.0
2007190218	2007191348	Bulk	Bulk	TOS	TOS	5.5	5.5
2007190218	2007191348	Bulk	Bulk	BOS	BOS	6.0	6.0
2007190241	2007190978	Bulk	Bulk	TOS	TOS	5.5	5.0
2007190241	2007190978	Bulk	Bulk	BOS	BOS	9.5	8.5
2007190248	2007191198	Bulk	Bulk	TOS	TOS	9.5	8.0
2007190248	2007191198	Bulk	Bulk	BOS	BOS	9.0	10.0
2007190256	2007190875	Bulk	Bulk	TOS	TOS	8.0	8.5
2007190256	2007190875	Bulk	Bulk	BOS	BOS	8.5	8.5
2007190258	2007191176	Bulk	Bulk	TOS	TOS	5.0	5.5
2007190258	2007191176	Bulk	Bulk	BOS	BOS	5.5	5.5
2007190266	2007191458	Bulk	Bulk	TOS	TOS	10.0	9.5
2007190266	2007191458	Bulk	Bulk	BOS	BOS	10.0	7.5
2007190285	2007190406	Bulk	Bulk	TOS	TOS	7.5	5.5
2007190285	2007190406	Bulk	Bulk	BOS	BOS	7.5	6.5
2007190296	2007190758	Bulk	Bulk	TOS	TOS	6.5	6.5
2007190296	2007190758	Bulk	Bulk	BOS	BOS	6.5	6.5
2007190311	2007191259	Bulk	Bulk	TOS	TOS	7.0	6.0
2007190311	2007191259	Bulk	Bulk	BOS	BOS	8.0	8.0
2007190328	2007191598	Bulk	Bulk	TOS	TOS	6.0	5.5
2007190328	2007191598	Bulk	Bulk	BOS	BOS	6.0	6.0
2007190335	2007190692	Bulk	Bulk	TOS	TOS	8.0	6.5
2007190335	2007190692	Bulk	Bulk	BOS	BOS	9.0	8.0
2007190342	2007190989	Bulk	Bulk	TOS	TOS	7.5	7.0
2007190342	2007190989	Bulk	Bulk	BOS	BOS	8.0	8.5
2007190349	2007191436	Bulk	Bulk	TOS	TOS	6.5	6.5
2007190349	2007191436	Bulk	Bulk	BOS	BOS	7.5	7.5
2007190352	2007190611	Bulk	Bulk	TOS	TOS	4.5	4.5
2007190352	2007190611	Bulk	Bulk	BOS	BOS	4.5	5.0
2007190357	2007190856	Bulk	Bulk	TOS	TOS	5.5	5.5

Appendix 27. Field duplicates analysis for Field pH

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Field pH	Field pH
METHOD:	METHOD:	SIZE	SIZE			SP	SP
D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					N/A	N/A
2007190357	2007190856	Bulk	Bulk	BOS	BOS	5.5	5.5
2007190361	2007191094	Bulk	Bulk	TOS	TOS	8.5	8.5
2007190361	2007191094	Bulk	Bulk	BOS	BOS	9.0	8.5
2007190383	2007191416	Bulk	Bulk	TOS	TOS	7.0	6.5
2007190383	2007191416	Bulk	Bulk	BOS	BOS	6.5	7.5
2007190393	2007191050	Bulk	Bulk	TOS	TOS	4.5	4.5
2007190393	2007191050	Bulk	Bulk	BOS	BOS	4.5	4.5
2007190414	2007191386	Bulk	Bulk	TOS	TOS	5.0	5.5
2007190414	2007191386	Bulk	Bulk	BOS	BOS	7.5	8.5
2007190419	2007190974	Bulk	Bulk	TOS	TOS	5.0	5.0
2007190419	2007190974	Bulk	Bulk	BOS	BOS	5.5	5.5
2007190425	2007190768	Bulk	Bulk	TOS	TOS	6.5	6.5
2007190425	2007190768	Bulk	Bulk	BOS	BOS	5.5	7.5
2007190434	2007191027	Bulk	Bulk	TOS	TOS	7.5	8.0
2007190434	2007191027	Bulk	Bulk	BOS	BOS	7.5	8.0
2007190457	2007191004	Bulk	Bulk	TOS	TOS	6.0	6.0
2007190457	2007191004	Bulk	Bulk	BOS	BOS	6.0	6.0
2007190458	2007190774	Bulk	Bulk	TOS	TOS	6.5	6.5
2007190458	2007190774	Bulk	Bulk	BOS	BOS	6.5	7.0
2007190472	2007191312	Bulk	Bulk	TOS	TOS	6.0	6.0
2007190472	2007191312	Bulk	Bulk	BOS	BOS	6.5	6.0
2007190481	2007191594	Bulk	Bulk	TOS	TOS	6.0	6.0
2007190481	2007191594	Bulk	Bulk	BOS	BOS	6.0	5.5
2007190495	2007191318	Bulk	Bulk	TOS	TOS	10.0	10.0
2007190495	2007191318	Bulk	Bulk	BOS	BOS	10.0	10.0
2007190497	2007190586	Bulk	Bulk	TOS	TOS	5.5	6.0
2007190497	2007190586	Bulk	Bulk	BOS	BOS	6.0	6.0
2007190506	2007190631	Bulk	Bulk	TOS	TOS	7.5	7.0
2007190506	2007190631	Bulk	Bulk	BOS	BOS	9.0	9.0
2007190508	2007191119	Bulk	Bulk	TOS	TOS	9.0	8.0
2007190508	2007191119	Bulk	Bulk	BOS	BOS	8.0	9.0
2007190526	2007191599	Bulk	Bulk	TOS	TOS	6.0	5.5
2007190526	2007191599	Bulk	Bulk	BOS	BOS	5.5	6.0
2007190527	2007190609	Bulk	Bulk	TOS	TOS	6.5	8.0
2007190527	2007190609	Bulk	Bulk	BOS	BOS	7.0	7.5
2007190531	2007190703	Bulk	Bulk	TOS	TOS	9.0	9.0
2007190531	2007190703	Bulk	Bulk	BOS	BOS	9.0	8.5
2007190534	2007191522	Bulk	Bulk	TOS	TOS	5.5	5.0
2007190534	2007191522	Bulk	Bulk	BOS	BOS	6.5	6.5
2007190536	2007190909	Bulk	Bulk	TOS	TOS	6.0	6.0
2007190536	2007190909	Bulk	Bulk	BOS	BOS	5.0	6.0
2007190548	2007191236	Bulk	Bulk	TOS	TOS	4.5	4.5
2007190548	2007191236	Bulk	Bulk	BOS	BOS	4.5	4.5
2007190549	2007191507	Bulk	Bulk	TOS	TOS	6.5	6.5
2007190549	2007191507	Bulk	Bulk	BOS	BOS	7.5	7.0
2007190552	2007190675	Bulk	Bulk	TOS	TOS	7.0	7.0
2007190552	2007190675	Bulk	Bulk	BOS	BOS	9.5	7.0
2007190583	2007191063	Bulk	Bulk	TOS	TOS	5.0	5.0
2007190583	2007191063	Bulk	Bulk	BOS	BOS	5.5	5.0
2007190618	2007191166	Bulk	Bulk	TOS	TOS	5.0	5.0
2007190618	2007191166	Bulk	Bulk	BOS	BOS	8.5	8.5
2007190647	2007191525	Bulk	Bulk	TOS	TOS	6.5	5.5
2007190647	2007191525	Bulk	Bulk	BOS	BOS	6.5	6.5
2007190659	2007190739	Bulk	Bulk	TOS	TOS	7.5	7.5
2007190659	2007190739	Bulk	Bulk	BOS	BOS	8.5	8.5
2007190661	2007191334	Bulk	Bulk	TOS	TOS	6.5	6.5
2007190661	2007191334	Bulk	Bulk	BOS	BOS	9.0	7.0
2007190686	2007191430	Bulk	Bulk	TOS	TOS	6.0	6.5
2007190686	2007191430	Bulk	Bulk	BOS	BOS	5.0	4.5
2007190695	2007190924	Bulk	Bulk	TOS	TOS	6.5	6.0
2007190695	2007190924	Bulk	Bulk	BOS	BOS	6.0	6.5
2007190698	2007190813	Bulk	Bulk	TOS	TOS	6.0	6.0
2007190698	2007190813	Bulk	Bulk	BOS	BOS	9.0	9.5
2007190732	2007191450	Bulk	Bulk	TOS	TOS	7.0	7.5
2007190732	2007191450	Bulk	Bulk	BOS	BOS	8.0	7.5
2007190735	2007191549	Bulk	Bulk	TOS	TOS	9.0	9.0
2007190735	2007191549	Bulk	Bulk	BOS	BOS	9.5	9.5
2007190743	2007190906	Bulk	Bulk	TOS	TOS	9.5	9.5
2007190743	2007190906	Bulk	Bulk	BOS	BOS	9.5	9.5
2007190746	2007191241	Bulk	Bulk	TOS	TOS	7.5	7.5
2007190746	2007191241	Bulk	Bulk	BOS	BOS	9.5	7.5
2007190752	2007190554	Bulk	Bulk	TOS	TOS	5.5	5.5
2007190752	2007190554	Bulk	Bulk	BOS	BOS	5.5	6.0
2007190753	2007191299	Bulk	Bulk	TOS	TOS	5.5	6.0
2007190753	2007191299	Bulk	Bulk	BOS	BOS	9.0	9.0
2007190798	2007191229	Bulk	Bulk	TOS	TOS	6.0	5.5
2007190798	2007191229	Bulk	Bulk	BOS	BOS	6.0	6.0
2007190818	2007191157	Bulk	Bulk	TOS	TOS	6.5	7.0
2007190818	2007191157	Bulk	Bulk	BOS	BOS	7.0	7.0
2007190825	2007191214	Bulk	Bulk	TOS	TOS	7.5	6.5
2007190825	2007191214	Bulk	Bulk	BOS	BOS	8.5	8.0
2007190826	2007191052	Bulk	Bulk	TOS	TOS	6.5	6.5
2007190826	2007191052	Bulk	Bulk	BOS	BOS	6.5	6.5
2007190834	2007190889	Bulk	Bulk	TOS	TOS	6.5	6.5
2007190834	2007190889	Bulk	Bulk	BOS	BOS	6.5	6.5

Appendix 27. Field duplicates analysis for Field pH

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Field pH	Field pH
METHOD:	METHOD:	SIZE	SIZE			SP	SP
D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					N/A	N/A
2007190849	2007191277	Bulk	Bulk	TOS	TOS	7.5	6.0
2007190849	2007191277	Bulk	Bulk	BOS	BOS	7.5	9.0
2007190853	2007190939	Bulk	Bulk	TOS	TOS	8.5	8.5
2007190853	2007190939	Bulk	Bulk	BOS	BOS	5.0	7.5
2007190865	2007191183	Bulk	Bulk	TOS	TOS	8.5	8.5
2007190865	2007191183	Bulk	Bulk	BOS	BOS	8.5	9.0
2007190874	2007191297	Bulk	Bulk	TOS	TOS	6.0	6.5
2007190874	2007191297	Bulk	Bulk	BOS	BOS	6.0	6.5
2007190887	2007191058	Bulk	Bulk	TOS	TOS	5.5	5.5
2007190887	2007191058	Bulk	Bulk	BOS	BOS	6.0	6.0
2007190895	2007190947	Bulk	Bulk	TOS	TOS	7.5	8.0
2007190895	2007190947	Bulk	Bulk	BOS	BOS	9.0	9.0
2007190896	2007191441	Bulk	Bulk	TOS	TOS	7.5	7.5
2007190896	2007191441	Bulk	Bulk	BOS	BOS	7.5	7.5
2007190913	2007190107	Bulk	Bulk	TOS	TOS	7.5	7.0
2007190913	2007190107	Bulk	Bulk	BOS	BOS	7.0	7.0
2007190922	2007191082	Bulk	Bulk	TOS	TOS	6.0	6.0
2007190922	2007191082	Bulk	Bulk	BOS	BOS	9.5	9.5
2007190927	2007191444	Bulk	Bulk	TOS	TOS	7.0	6.0
2007190927	2007191444	Bulk	Bulk	BOS	BOS	7.0	6.5
2007190968	2007191437	Bulk	Bulk	TOS	TOS	7.5	8.0
2007190968	2007191437	Bulk	Bulk	BOS	BOS	8.5	9.0
2007190970	2007191245	Bulk	Bulk	TOS	TOS	4.5	5.5
2007190970	2007191245	Bulk	Bulk	BOS	BOS	5.0	5.0
2007190986	2007191592	Bulk	Bulk	TOS	TOS	6.5	5.5
2007190986	2007191592	Bulk	Bulk	BOS	BOS	5.5	6.0
2007190990	2007191537	Bulk	Bulk	TOS	TOS	5.0	5.5
2007190990	2007191537	Bulk	Bulk	BOS	BOS	5.5	5.5
2007191007	2007191551	Bulk	Bulk	TOS	TOS	6.5	6.0
2007191007	2007191551	Bulk	Bulk	BOS	BOS	7.0	5.5
2007191051	2007191331	Bulk	Bulk	TOS	TOS	5.0	5.0
2007191051	2007191331	Bulk	Bulk	BOS	BOS	4.5	4.5
2007191092	2007191211	Bulk	Bulk	TOS	TOS	6.0	6.0
2007191092	2007191211	Bulk	Bulk	BOS	BOS	7.0	6.5
2007191105	2007190145	Bulk	Bulk	TOS	TOS	9.5	9.5
2007191105	2007190145	Bulk	Bulk	BOS	BOS	9.5	9.5
2007191134	2007191282	Bulk	Bulk	TOS	TOS	6.5	7.5
2007191134	2007191282	Bulk	Bulk	BOS	BOS	8.0	8.5
2007191152	2007191578	Bulk	Bulk	TOS	TOS	7.0	6.5
2007191152	2007191578	Bulk	Bulk	BOS	BOS	8.5	6.5
2007191168	2007191195	Bulk	Bulk	TOS	TOS	6.0	7.5
2007191168	2007191195	Bulk	Bulk	BOS	BOS	9.0	9.0
2007191192	2007191339	Bulk	Bulk	TOS	TOS	7.5	8.0
2007191192	2007191339	Bulk	Bulk	BOS	BOS	8.5	8.5
2007191215	2007191281	Bulk	Bulk	TOS	TOS	5.5	4.5
2007191215	2007191281	Bulk	Bulk	BOS	BOS	8.0	7.0
2007191216	2007191385	Bulk	Bulk	TOS	TOS	6.5	6.0
2007191216	2007191385	Bulk	Bulk	BOS	BOS	9.0	6.0
2007191257	2007190355	Bulk	Bulk	TOS	TOS	8.5	8.5
2007191257	2007190355	Bulk	Bulk	BOS	BOS	8.0	8.0
2007191264	2007191486	Bulk	Bulk	TOS	TOS	5.5	5.5
2007191264	2007191486	Bulk	Bulk	BOS	BOS	6.5	6.5
2007191275	2007191590	Bulk	Bulk	TOS	TOS	8.0	8.5
2007191275	2007191590	Bulk	Bulk	BOS	BOS	8.0	8.5
2007191293	2007191518	Bulk	Bulk	TOS	TOS	7.5	5.5
2007191293	2007191518	Bulk	Bulk	BOS	BOS	9.0	8.0
2007191346	2007191429	Bulk	Bulk	TOS	TOS	5.0	5.5
2007191346	2007191429	Bulk	Bulk	BOS	BOS	6.0	7.0
2007191372	2007191445	Bulk	Bulk	TOS	TOS	5.0	6.5
2007191372	2007191445	Bulk	Bulk	BOS	BOS	5.0	6.5
2007191379	2007191066	Bulk	Bulk	TOS	TOS	9.5	9.5
2007191379	2007191066	Bulk	Bulk	BOS	BOS	9.5	9.5
2007191382	2007191509	Bulk	Bulk	TOS	TOS	7.0	7.0
2007191382	2007191509	Bulk	Bulk	BOS	BOS	8.0	8.0
2007191387	2007191600	Bulk	Bulk	TOS	TOS	6.0	6.0
2007191387	2007191600	Bulk	Bulk	BOS	BOS	5.5	5.5
2007191440	2007190827	Bulk	Bulk	TOS	TOS	7.5	8.5
2007191440	2007190827	Bulk	Bulk	BOS	BOS	8.0	8.5
2007191473	2007191510	Bulk	Bulk	TOS	TOS	9.0	8.5
2007191473	2007191510	Bulk	Bulk	BOS	BOS	8.5	8.5
2007191498	2007191295	Bulk	Bulk	TOS	TOS	9.5	9.5
2007191498	2007191295	Bulk	Bulk	BOS	BOS	9.5	10.0
2007191504	2007190949	Bulk	Bulk	TOS	TOS	8.5	9.5
2007191504	2007190949	Bulk	Bulk	BOS	BOS	9.5	9.5
2007191531	2007191028	Bulk	Bulk	TOS	TOS	6.5	5.0
2007191531	2007191028	Bulk	Bulk	BOS	BOS	6.0	5.0
2007191545	2007190121	Bulk	Bulk	TOS	TOS	4.5	5.0
2007191545	2007190121	Bulk	Bulk	BOS	BOS	4.5	8.0

Appendix 28. Field duplicates analysis for pH 1:5 and EC 1:5

Appendix 28. Field duplicates analysis for pH 1:5 and EC 1:5

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	pH 1:5	pH 1:5	EC 1:5	EC 1:5
METHOD:	METHOD:	SIZE	SIZE			pH Meter	pH Meter	Cond Meter	Cond Meter
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					N/A	N/A	N/A	N/A
2007190003	2007190213	Bulk	Bulk	TOS	TOS	6.26	7.13	10.60	14.09
2007190003	2007190213	Bulk	Bulk	BOS	BOS	6.60	7.00	17.07	25.40
2007190005	2007191059	Bulk	Bulk	TOS	TOS	5.78	5.92	144.50	145.35
2007190005	2007191059	Bulk	Bulk	BOS	BOS	6.55	6.85	19.97	23.12
2007190032	2007190632	Bulk	Bulk	TOS	TOS	5.26	5.12	67.90	77.60
2007190032	2007190632	Bulk	Bulk	BOS	BOS	6.60	6.30	38.20	67.30
2007190035	2007190876	Bulk	Bulk	TOS	TOS	5.29	5.55	26.15	13.94
2007190035	2007190876	Bulk	Bulk	BOS	BOS	6.46	6.98	9.49	10.05
2007190039	2007190984	Bulk	Bulk	TOS	TOS	6.20	7.21	45.50	10.30
2007190039	2007190984	Bulk	Bulk	BOS	BOS	7.42	8.41	56.10	2037.00
2007190050	2007191481	Bulk	Bulk	TOS	TOS	6.25	6.09	4.73	5.46
2007190050	2007191481	Bulk	Bulk	BOS	BOS	6.08	6.03	5.07	4.64
2007190067	2007191121	Bulk	Bulk	TOS	TOS	6.49	7.08	3670.00	1324.00
2007190067	2007191121	Bulk	Bulk	BOS	BOS	8.82	9.17	3585.00	3060.00
2007190071	2007190289	Bulk	Bulk	TOS	TOS	5.47	5.31	986.50	761.00
2007190071	2007190289	Bulk	Bulk	BOS	BOS	8.61	8.42	2209.00	2056.00
2007190074	2007190389	Bulk	Bulk	TOS	TOS	6.74	6.31	73.65	33.00
2007190074	2007190389	Bulk	Bulk	BOS	BOS	6.49	8.01	16.18	18.02
2007190091	2007191053	Bulk	Bulk	TOS	TOS	5.98	5.89	12.43	11.64
2007190091	2007191053	Bulk	Bulk	BOS	BOS	6.79	6.70	13.97	7.92
2007190107	2007190913	Bulk	Bulk	TOS	TOS	7.88	7.68	11.81	6.92
2007190107	2007190913	Bulk	Bulk	BOS	BOS	7.27	8.44	178.50	436.00
2007190110	2007191182	Bulk	Bulk	TOS	TOS	4.90	4.86	148.65	91.45
2007190110	2007191182	Bulk	Bulk	BOS	BOS	5.59	5.85	54.18	29.55
2007190114	2007191045	Bulk	Bulk	TOS	TOS	5.89	6.49	29.20	54.70
2007190114	2007191045	Bulk	Bulk	BOS	BOS	6.53	6.15	55.95	27.90
2007190118	2007191552	Bulk	Bulk	TOS	TOS	4.72	5.17	24.10	12.57
2007190118	2007191552	Bulk	Bulk	BOS	BOS	6.82	9.13	21.68	43.40
2007190121	2007191545	Bulk	Bulk	TOS	TOS	8.06	7.59	17.17	144.25
2007190121	2007191545	Bulk	Bulk	BOS	BOS	8.74	8.33	46.93	730.00
2007190125	2007191532	Bulk	Bulk	TOS	TOS	6.30	6.84	52.58	12.09
2007190125	2007191532	Bulk	Bulk	BOS	BOS	8.02	6.97	42.65	7.94
2007190145	2007191105	Bulk	Bulk	TOS	TOS	8.92	8.77	423.50	262.00
2007190145	2007191105	Bulk	Bulk	BOS	BOS	8.61	8.77	1267.50	1766.00
2007190154	2007190568	Bulk	Bulk	TOS	TOS	5.08	5.14	21.90	14.50
2007190154	2007190568	Bulk	Bulk	BOS	BOS	5.37	5.17	9.10	6.51
2007190155	2007191031	Bulk	Bulk	TOS	TOS	6.27	7.01	61.30	40.10
2007190155	2007191031	Bulk	Bulk	BOS	BOS	6.57	7.14	29.20	19.08
2007190161	2007191413	Bulk	Bulk	TOS	TOS	7.48	7.30	311.50	1848.00
2007190161	2007191413	Bulk	Bulk	BOS	BOS	8.13	7.49	5360.00	5030.00
2007190176	2007191566	Bulk	Bulk	TOS	TOS	5.21	4.49	9.70	5.59
2007190176	2007191566	Bulk	Bulk	BOS	BOS	3.97	4.11	26.63	15.40
2007190181	2007191396	Bulk	Bulk	TOS	TOS	5.72	5.84	90.60	55.00
2007190181	2007191396	Bulk	Bulk	BOS	BOS	7.26	7.08	61.77	32.10
2007190183	2007190471	Bulk	Bulk	TOS	TOS	8.41	7.90	7015.00	2740.00
2007190183	2007190471	Bulk	Bulk	BOS	BOS	7.50	7.90	6240.00	7260.00
2007190185	2007191253	Bulk	Bulk	TOS	TOS	8.42	8.13	52.05	22.40
2007190185	2007191253	Bulk	Bulk	BOS	BOS	8.20	8.55	61.60	73.00
2007190189	2007191542	Bulk	Bulk	TOS	TOS	6.83	8.30	279.00	664.00
2007190189	2007191542	Bulk	Bulk	BOS	BOS	8.19	8.74	1455.50	1891.00
2007190193	2007190788	Bulk	Bulk	TOS	TOS	5.35	4.44	110.10	85.65
2007190193	2007190788	Bulk	Bulk	BOS	BOS	8.13	5.26	76.95	96.30
2007190194	2007190704	Bulk	Bulk	TOS	TOS	5.09	4.92	76.65	166.60
2007190194	2007190704	Bulk	Bulk	BOS	BOS	6.02	7.05	41.90	150.90
2007190197	2007190962	Bulk	Bulk	TOS	TOS	5.37	5.67	6.17	5.37
2007190197	2007190962	Bulk	Bulk	BOS	BOS	7.42	6.64	28.00	6.68
2007190208	2007191593	Bulk	Bulk	TOS	TOS	5.48	5.20	11.32	35.70
2007190208	2007191593	Bulk	Bulk	BOS	BOS	5.08	4.97	111.90	166.80
2007190209	2007191254	Bulk	Bulk	TOS	TOS	7.03	6.91	37.10	13.42
2007190209	2007191254	Bulk	Bulk	BOS	BOS	7.35	7.37	91.25	16.44
2007190212	2007190747	Bulk	Bulk	TOS	TOS	6.41	6.35	10.06	12.35
2007190212	2007190747	Bulk	Bulk	BOS	BOS	6.59	6.42	6.87	6.57
2007190218	2007191348	Bulk	Bulk	TOS	TOS	4.72	4.65	6.00	10.86
2007190218	2007191348	Bulk	Bulk	BOS	BOS	4.91	5.43	9.59	101.00
2007190241	2007190978	Bulk	Bulk	TOS	TOS	6.22	6.50	46.50	74.65
2007190241	2007190978	Bulk	Bulk	BOS	BOS	8.14	8.28	82.60	67.50
2007190248	2007191198	Bulk	Bulk	TOS	TOS	8.43	8.39	46.90	38.10
2007190248	2007191198	Bulk	Bulk	BOS	BOS	9.09	9.93	56.60	405.00
2007190256	2007190875	Bulk	Bulk	TOS	TOS	6.81	7.40	16.83	12.22
2007190256	2007190875	Bulk	Bulk	BOS	BOS	6.87	7.91	141.30	38.60
2007190258	2007191176	Bulk	Bulk	TOS	TOS	5.22	5.29	42.90	34.23
2007190258	2007191176	Bulk	Bulk	BOS	BOS	6.14	5.90	11.99	6.99
2007190266	2007191458	Bulk	Bulk	TOS	TOS	8.02	8.56	595.00	172.60
2007190266	2007191458	Bulk	Bulk	BOS	BOS	8.89	8.70	4720.00	83.30
2007190285	2007190406	Bulk	Bulk	TOS	TOS	8.08	6.68	57.60	30.50
2007190285	2007190406	Bulk	Bulk	BOS	BOS	8.04	7.12	676.00	555.00
2007190296	2007190758	Bulk	Bulk	TOS	TOS	4.80	5.34	4.57	4.80
2007190296	2007190758	Bulk	Bulk	BOS	BOS	6.05	5.87	7.02	4.52
2007190311	2007191259	Bulk	Bulk	TOS	TOS	5.51	5.45	2585.00	1161.00
2007190311	2007191259	Bulk	Bulk	BOS	BOS	6.39	6.16	3185.00	1626.00
2007190328	2007191598	Bulk	Bulk	TOS	TOS	5.44	5.45	5.57	3.46
2007190328	2007191598	Bulk	Bulk	BOS	BOS	5.37	5.05	8.27	6.44
2007190335	2007190692	Bulk	Bulk	TOS	TOS	6.71	6.72	50.70	56.50
2007190335	2007190692	Bulk	Bulk	BOS	BOS	8.68	8.37	170.60	105.90
2007190342	2007190989	Bulk	Bulk	TOS	TOS	5.94	5.59	7.50	18.22

Appendix 28. Field duplicates analysis for pH 1:5 and EC 1:5

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	pH 1:5	pH 1:5	EC 1:5	EC 1:5
METHOD:	METHOD:	SIZE	SIZE			pH Meter	pH Meter	Cond Meter	Cond Meter
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					N/A	N/A	N/A	N/A
2007190342	2007190989	Bulk	Bulk	BOS	BOS	6.24	7.10	10.57	13.31
2007190349	2007191436	Bulk	Bulk	TOS	TOS	6.45	7.23	14.92	7.48
2007190349	2007191436	Bulk	Bulk	BOS	BOS	6.59	7.55	8.47	13.28
2007190352	2007190611	Bulk	Bulk	TOS	TOS	4.75	4.58	150.15	555.00
2007190352	2007190611	Bulk	Bulk	BOS	BOS	3.72	4.15	2368.00	1587.00
2007190355	2007191257	Bulk	Bulk	TOS	TOS	7.57	8.54	1165.50	4395.00
2007190355	2007191257	Bulk	Bulk	BOS	BOS	8.84	8.95	5055.00	6215.00
2007190357	2007190856	Bulk	Bulk	TOS	TOS	4.95	4.73	4.20	6.91
2007190357	2007190856	Bulk	Bulk	BOS	BOS	5.80	5.61	75.70	31.30
2007190361	2007191094	Bulk	Bulk	TOS	TOS	8.00	7.44	2370.00	6145.00
2007190361	2007191094	Bulk	Bulk	BOS	BOS	8.59	7.64	2660.00	3415.00
2007190383	2007191416	Bulk	Bulk	TOS	TOS	6.50	7.23	44.60	5.85
2007190383	2007191416	Bulk	Bulk	BOS	BOS	5.68	6.25	1510.00	1189.00
2007190393	2007191050	Bulk	Bulk	TOS	TOS	5.00	4.96	1567.00	112.50
2007190393	2007191050	Bulk	Bulk	BOS	BOS	4.48	4.22	2306.00	481.00
2007190414	2007191386	Bulk	Bulk	TOS	TOS	4.96	5.24	615.50	283.00
2007190414	2007191386	Bulk	Bulk	BOS	BOS	6.40	7.26	1892.00	1985.50
2007190419	2007190974	Bulk	Bulk	TOS	TOS	5.53	5.14	270.00	135.40
2007190419	2007190974	Bulk	Bulk	BOS	BOS	5.70	6.63	47.50	22.50
2007190425	2007190768	Bulk	Bulk	TOS	TOS	5.38	5.14	161.70	104.25
2007190425	2007190768	Bulk	Bulk	BOS	BOS	5.67	6.50	87.20	48.50
2007190434	2007191027	Bulk	Bulk	TOS	TOS	8.17	7.86	62.60	870.50
2007190434	2007191027	Bulk	Bulk	BOS	BOS	9.08	8.76	1441.00	1432.50
2007190457	2007191004	Bulk	Bulk	TOS	TOS	5.13	4.26	129.10	103.80
2007190457	2007191004	Bulk	Bulk	BOS	BOS	5.39	5.58	180.50	34.10
2007190458	2007190774	Bulk	Bulk	TOS	TOS	6.13	6.10	42.00	28.65
2007190458	2007190774	Bulk	Bulk	BOS	BOS	6.80	6.03	19.97	14.30
2007190472	2007191312	Bulk	Bulk	TOS	TOS	6.97	7.51	65.15	93.40
2007190472	2007191312	Bulk	Bulk	BOS	BOS	7.31	7.49	69.30	60.40
2007190481	2007191594	Bulk	Bulk	TOS	TOS	8.11	8.42	592.00	205.50
2007190481	2007191594	Bulk	Bulk	BOS	BOS	8.67	9.00	2090.00	1900.67
2007190495	2007191318	Bulk	Bulk	TOS	TOS	8.78	8.02	435.00	543.00
2007190495	2007191318	Bulk	Bulk	BOS	BOS	9.51	8.82	1549.00	1602.00
2007190497	2007190586	Bulk	Bulk	TOS	TOS	6.49	6.07	7.18	12.49
2007190497	2007190586	Bulk	Bulk	BOS	BOS	6.36	6.61	9.58	24.40
2007190506	2007190631	Bulk	Bulk	TOS	TOS	7.01	6.39	64.00	65.40
2007190506	2007190631	Bulk	Bulk	BOS	BOS	6.52	7.64	1439.00	1643.00
2007190508	2007191119	Bulk	Bulk	TOS	TOS	7.11	7.54	92.70	94.20
2007190508	2007191119	Bulk	Bulk	BOS	BOS	7.21	8.22	59.20	85.55
2007190526	2007191599	Bulk	Bulk	TOS	TOS	4.93	4.55	19.82	276.00
2007190526	2007191599	Bulk	Bulk	BOS	BOS	4.50	5.86	66.90	18.44
2007190527	2007190609	Bulk	Bulk	TOS	TOS	5.95	6.58	74.70	96.80
2007190527	2007190609	Bulk	Bulk	BOS	BOS	6.59	6.72	13.37	16.46
2007190531	2007190703	Bulk	Bulk	TOS	TOS	8.34	8.16	113.50	100.30
2007190531	2007190703	Bulk	Bulk	BOS	BOS	8.63	8.67	197.50	220.30
2007190534	2007191522	Bulk	Bulk	TOS	TOS	5.54	5.96	30.90	52.55
2007190534	2007191522	Bulk	Bulk	BOS	BOS	6.30	6.92	17.05	6.83
2007190536	2007190909	Bulk	Bulk	TOS	TOS	6.85	7.34	13.32	12.54
2007190536	2007190909	Bulk	Bulk	BOS	BOS	8.78	8.86	56.00	53.90
2007190548	2007191236	Bulk	Bulk	TOS	TOS	5.97	6.05	61.53	23.50
2007190548	2007191236	Bulk	Bulk	BOS	BOS	6.65	6.93	18.36	14.38
2007190549	2007191507	Bulk	Bulk	TOS	TOS	4.84	5.21	4.29	4.23
2007190549	2007191507	Bulk	Bulk	BOS	BOS	5.66	6.44	31.30	293.00
2007190552	2007190675	Bulk	Bulk	TOS	TOS	6.83	6.51	451.00	877.00
2007190552	2007190675	Bulk	Bulk	BOS	BOS	8.98	8.00	1621.00	2650.00
2007190554	2007190752	Bulk	Bulk	TOS	TOS	5.07	5.04	6.26	13.72
2007190554	2007190752	Bulk	Bulk	BOS	BOS	5.47	5.92	2.76	3.93
2007190583	2007191063	Bulk	Bulk	TOS	TOS	6.02	5.15	22.40	21.69
2007190583	2007191063	Bulk	Bulk	BOS	BOS	6.35	6.51	17.65	10.70
2007190618	2007191166	Bulk	Bulk	TOS	TOS	5.54	5.48	89.25	131.70
2007190618	2007191166	Bulk	Bulk	BOS	BOS	6.73	6.62	60.45	63.15
2007190647	2007191525	Bulk	Bulk	TOS	TOS	5.13	5.13	68.20	17.07
2007190647	2007191525	Bulk	Bulk	BOS	BOS	8.99	5.49	68.70	6.21
2007190659	2007190739	Bulk	Bulk	TOS	TOS	6.47	6.72	881.50	889.50
2007190659	2007190739	Bulk	Bulk	BOS	BOS	8.69	7.50	2595.00	2221.50
2007190661	2007191334	Bulk	Bulk	TOS	TOS	6.10	5.98	21.39	22.10
2007190661	2007191334	Bulk	Bulk	BOS	BOS	7.10	6.49	27.45	21.23
2007190686	2007191430	Bulk	Bulk	TOS	TOS	4.84	4.46	11.84	9.33
2007190686	2007191430	Bulk	Bulk	BOS	BOS	5.41	5.02	4.64	5.41
2007190695	2007190924	Bulk	Bulk	TOS	TOS	6.68	5.95	7.60	8.04
2007190695	2007190924	Bulk	Bulk	BOS	BOS	5.51	6.78	10.01	13.23
2007190698	2007190813	Bulk	Bulk	TOS	TOS	6.45	5.99	397.00	84.80
2007190698	2007190813	Bulk	Bulk	BOS	BOS	6.37	6.74	1528.00	1285.50
2007190732	2007191450	Bulk	Bulk	TOS	TOS	6.63	6.88	11.25	12.10
2007190732	2007191450	Bulk	Bulk	BOS	BOS	7.25	7.59	739.00	13.50
2007190735	2007191549	Bulk	Bulk	TOS	TOS	7.16	7.23	139.80	83.65
2007190735	2007191549	Bulk	Bulk	BOS	BOS	6.73	7.40	3025.00	1809.00
2007190743	2007190906	Bulk	Bulk	TOS	TOS	8.54	8.64	113.30	150.70
2007190743	2007190906	Bulk	Bulk	BOS	BOS	8.84	9.32	1380.00	1008.50
2007190746	2007191241	Bulk	Bulk	TOS	TOS	7.39	7.49	12.32	29.20
2007190746	2007191241	Bulk	Bulk	BOS	BOS	8.45	7.69	182.50	32.00
2007190753	2007191299	Bulk	Bulk	TOS	TOS	6.43	6.76	23.75	31.30
2007190753	2007191299	Bulk	Bulk	BOS	BOS	7.37	8.11	915.50	527.00
2007190798	2007191229	Bulk	Bulk	TOS	TOS	6.13	5.51	5.94	6.58
2007190798	2007191229	Bulk	Bulk	BOS	BOS	6.14	6.10	8.13	7.26

Appendix 28. Field duplicates analysis for pH 1:5 and EC 1:5

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	pH 1:5	pH 1:5	EC 1:5	EC 1:5
METHOD:	METHOD:	SIZE	SIZE			pH Meter	pH Meter	Cond Meter	Cond Meter
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					N/A	N/A	N/A	N/A
2007190818	2007191157	Bulk	Bulk	TOS	TOS	5.75	5.47	59.05	20.29
2007190818	2007191157	Bulk	Bulk	BOS	BOS	5.84	6.72	20.13	70.90
2007190825	2007191214	Bulk	Bulk	TOS	TOS	7.38	6.76	12.87	22.10
2007190825	2007191214	Bulk	Bulk	BOS	BOS	7.84	7.98	61.20	137.50
2007190826	2007191052	Bulk	Bulk	TOS	TOS	6.91	7.69	12.40	35.70
2007190826	2007191052	Bulk	Bulk	BOS	BOS	8.36	8.70	36.70	41.40
2007190827	2007191440	Bulk	Bulk	TOS	TOS	8.43	9.74	45.25	45.20
2007190827	2007191440	Bulk	Bulk	BOS	BOS	7.46	8.62	72.40	1280.00
2007190834	2007190889	Bulk	Bulk	TOS	TOS	6.00	6.20	43.50	20.98
2007190834	2007190889	Bulk	Bulk	BOS	BOS	6.26	5.69	20.46	49.40
2007190849	2007191277	Bulk	Bulk	TOS	TOS	6.68	6.33	2122.50	56.50
2007190849	2007191277	Bulk	Bulk	BOS	BOS	6.42	6.60	2990.00	1345.00
2007190853	2007190939	Bulk	Bulk	TOS	TOS	7.84	7.45	21540.00	13015.00
2007190853	2007190939	Bulk	Bulk	BOS	BOS	8.35	7.17	10590.00	14590.00
2007190865	2007191183	Bulk	Bulk	TOS	TOS	8.77	8.92	33.40	32.10
2007190865	2007191183	Bulk	Bulk	BOS	BOS	8.64	9.10	40.70	42.20
2007190874	2007191297	Bulk	Bulk	TOS	TOS	6.75	7.28	27.20	99.35
2007190874	2007191297	Bulk	Bulk	BOS	BOS	7.09	7.65	11.57	80.00
2007190887	2007191058	Bulk	Bulk	TOS	TOS	5.00	5.05	10.22	11.84
2007190887	2007191058	Bulk	Bulk	BOS	BOS	5.07	5.49	11.43	5.19
2007190895	2007190947	Bulk	Bulk	TOS	TOS	7.10	6.83	77.40	190.15
2007190895	2007190947	Bulk	Bulk	BOS	BOS	7.60	7.51	430.00	401.50
2007190896	2007191441	Bulk	Bulk	TOS	TOS	5.93	6.62	34.65	56.90
2007190896	2007191441	Bulk	Bulk	BOS	BOS	6.48	6.66	28.80	96.30
2007190922	2007191082	Bulk	Bulk	TOS	TOS	5.12	5.85	44.70	28.75
2007190922	2007191082	Bulk	Bulk	BOS	BOS	9.07	8.94	380.00	255.30
2007190927	2007191444	Bulk	Bulk	TOS	TOS	5.88	5.57	30.09	99.40
2007190927	2007191444	Bulk	Bulk	BOS	BOS	6.28	6.29	8.89	11.60
2007190949	2007191504	Bulk	Bulk	TOS	TOS	6.99	8.34	3750.00	411.00
2007190949	2007191504	Bulk	Bulk	BOS	BOS	9.06	8.71	1750.00	1795.00
2007190968	2007191437	Bulk	Bulk	TOS	TOS	8.93	7.34	283.00	42.70
2007190968	2007191437	Bulk	Bulk	BOS	BOS	7.40	7.76	20.44	2305.50
2007190970	2007191245	Bulk	Bulk	TOS	TOS	5.12	5.02	5510.00	3435.00
2007190970	2007191245	Bulk	Bulk	BOS	BOS	3.65	2.88	2520.00	1661.00
2007190986	2007191592	Bulk	Bulk	TOS	TOS	7.06	6.70	15.52	10.01
2007190986	2007191592	Bulk	Bulk	BOS	BOS	7.67	7.27	9.87	13.90
2007190990	2007191537	Bulk	Bulk	TOS	TOS	4.05	4.51	43.70	38.60
2007190990	2007191537	Bulk	Bulk	BOS	BOS	4.62	4.63	9.94	6.78
2007191007	2007191551	Bulk	Bulk	TOS	TOS	5.93	6.16	22.40	31.60
2007191007	2007191551	Bulk	Bulk	BOS	BOS	6.46	5.29	12.93	35.00
2007191028	2007191531	Bulk	Bulk	TOS	TOS	7.13	6.60	13.83	10.69
2007191028	2007191531	Bulk	Bulk	BOS	BOS	8.63	5.93	100.10	9.10
2007191051	2007191331	Bulk	Bulk	TOS	TOS	6.16	5.95	30.70	55.90
2007191051	2007191331	Bulk	Bulk	BOS	BOS	6.13	6.05	12.56	1110.00
2007191066	2007191379	Bulk	Bulk	TOS	TOS	9.13	9.18	79.20	2250.00
2007191066	2007191379	Bulk	Bulk	BOS	BOS	8.69	9.11	578.00	1531.00
2007191092	2007191211	Bulk	Bulk	TOS	TOS	5.35	5.37	112.75	81.05
2007191092	2007191211	Bulk	Bulk	BOS	BOS	5.85	5.73	34.85	28.00
2007191134	2007191282	Bulk	Bulk	TOS	TOS	6.71	5.58	2013.00	464.00
2007191134	2007191282	Bulk	Bulk	BOS	BOS	8.49	7.51	3770.00	1669.50
2007191152	2007191578	Bulk	Bulk	TOS	TOS	6.84	6.54	11.48	16.44
2007191152	2007191578	Bulk	Bulk	BOS	BOS	8.03	7.78	2006.00	2000.00
2007191168	2007191195	Bulk	Bulk	TOS	TOS	7.15	7.29	22.70	57.50
2007191168	2007191195	Bulk	Bulk	BOS	BOS	8.73	8.27	137.90	103.30
2007191192	2007191339	Bulk	Bulk	TOS	TOS	7.01	6.90	55.30	52.00
2007191192	2007191339	Bulk	Bulk	BOS	BOS	8.74	8.37	127.50	93.80
2007191215	2007191281	Bulk	Bulk	TOS	TOS	6.27	5.86	100.85	38.60
2007191215	2007191281	Bulk	Bulk	BOS	BOS	8.78	7.12	59.55	7.98
2007191216	2007191385	Bulk	Bulk	TOS	TOS	7.93	6.88	40.00	12.37
2007191216	2007191385	Bulk	Bulk	BOS	BOS	8.76	7.42	48.90	11.12
2007191264	2007191486	Bulk	Bulk	TOS	TOS	6.92	6.15	36.30	22.85
2007191264	2007191486	Bulk	Bulk	BOS	BOS	7.93	6.68	26.70	9.68
2007191275	2007191590	Bulk	Bulk	TOS	TOS	8.48	8.16	74.10	84.50
2007191275	2007191590	Bulk	Bulk	BOS	BOS	8.47	8.18	66.35	63.30
2007191293	2007191518	Bulk	Bulk	TOS	TOS	6.66	7.06	889.50	26.50
2007191293	2007191518	Bulk	Bulk	BOS	BOS	7.73	8.07	3740.00	1707.00
2007191295	2007191498	Bulk	Bulk	TOS	TOS	7.91	7.52	26.60	33.30
2007191295	2007191498	Bulk	Bulk	BOS	BOS	7.90	8.48	28.60	23.02
2007191346	2007191429	Bulk	Bulk	TOS	TOS	8.18	8.37	99.90	110.30
2007191346	2007191429	Bulk	Bulk	BOS	BOS	8.43	8.46	73.80	72.13
2007191372	2007191445	Bulk	Bulk	TOS	TOS	6.52	6.17	89.20	36.30
2007191372	2007191445	Bulk	Bulk	BOS	BOS	6.63	6.72	12.02	18.21
2007191382	2007191509	Bulk	Bulk	TOS	TOS	6.99	6.61	17.95	23.04
2007191382	2007191509	Bulk	Bulk	BOS	BOS	8.31	8.07	56.05	65.35
2007191473	2007191510	Bulk	Bulk	TOS	TOS	8.38	8.54	190.00	199.80
2007191473	2007191510	Bulk	Bulk	BOS	BOS	7.75	7.77	2820.00	2990.00

Appendix 29. Field duplicates analysis for grain size distribution by LPSA

Appendix 29. Field duplicates analysis for grain size distribution

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Sand %	Sand %	Silt %	Silt %	Clay %	Clay %
METHOD:	METHOD:	SIZE	SIZE			LPSA	LPSA	LPSA	LPSA	LPSA	LPSA
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					N/A	N/A	N/A	N/A	N/A	N/A
2007190003	2007190213	Bulk	Bulk	TOS	TOS	78.55	84.19	16.63	12.46	4.82	3.35
2007190003	2007190213	Bulk	Bulk	BOS	BOS	77.34	80.52	17.27	14.81	5.38	4.66
2007190005	2007191059	Bulk	Bulk	TOS	TOS	64.07	59.02	28.20	36.23	7.73	4.74
2007190005	2007191059	Bulk	Bulk	BOS	BOS	75.79	75.81	18.39	18.43	5.82	5.76
2007190032	2007190632	Bulk	Bulk	TOS	TOS	32.30	43.58	56.30	43.21	11.41	13.21
2007190032	2007190632	Bulk	Bulk	BOS	BOS	36.32	33.15	53.15	53.28	10.52	13.57
2007190035	2007190876	Bulk	Bulk	TOS	TOS	84.00	82.80	11.82	13.03	4.18	4.17
2007190035	2007190876	Bulk	Bulk	BOS	BOS	52.69	55.21	36.59	32.18	10.72	12.61
2007190039	2007190984	Bulk	Bulk	TOS	TOS	62.34	78.17	25.47	16.81	12.18	5.02
2007190039	2007190984	Bulk	Bulk	BOS	BOS	55.40	34.62	32.58	53.52	12.02	11.86
2007190050	2007191481	Bulk	Bulk	TOS	TOS	90.69	90.00	6.64	7.36	2.67	2.64
2007190050	2007191481	Bulk	Bulk	BOS	BOS	83.29	86.55	11.26	9.41	5.45	4.03
2007190067	2007191121	Bulk	Bulk	TOS	TOS	89.18	94.53	6.96	4.03	3.86	1.44
2007190067	2007191121	Bulk	Bulk	BOS	BOS	66.95	78.11	24.45	17.45	8.60	4.44
2007190071	2007190289	Bulk	Bulk	TOS	TOS	91.34	91.79	6.04	5.93	2.62	2.28
2007190071	2007190289	Bulk	Bulk	BOS	BOS	60.55	75.26	26.99	18.45	12.45	6.30
2007190074	2007190389	Bulk	Bulk	TOS	TOS	70.81	88.51	18.86	7.74	10.34	3.75
2007190074	2007190389	Bulk	Bulk	BOS	BOS	95.35	82.05	3.29	12.62	1.36	5.33
2007190091	2007191053	Bulk	Bulk	TOS	TOS	85.36	77.89	10.85	16.79	3.79	5.32
2007190091	2007191053	Bulk	Bulk	BOS	BOS	77.79	80.13	16.52	16.38	5.70	3.49
2007190107	2007190913	Bulk	Bulk	TOS	TOS	87.71	82.09	8.41	11.33	3.89	6.58
2007190107	2007190913	Bulk	Bulk	BOS	BOS	92.19	72.25	5.01	21.27	2.80	6.48
2007190110	2007191182	Bulk	Bulk	TOS	TOS	81.35	81.63	15.79	15.79	2.86	2.58
2007190110	2007191182	Bulk	Bulk	BOS	BOS	50.37	77.75	41.88	18.95	7.75	3.31
2007190114	2007191045	Bulk	Bulk	TOS	TOS	42.08	38.95	39.05	45.79	18.87	15.26
2007190114	2007191045	Bulk	Bulk	BOS	BOS	55.12	47.61	30.51	42.09	14.37	10.30
2007190118	2007191552	Bulk	Bulk	TOS	TOS	36.42	37.75	42.36	45.18	21.22	17.07
2007190118	2007191552	Bulk	Bulk	BOS	BOS	25.87	26.04	51.53	55.73	22.60	18.22
2007190121	2007191545	Bulk	Bulk	TOS	TOS	90.34	81.11	6.49	14.83	3.18	4.07
2007190121	2007191545	Bulk	Bulk	BOS	BOS	85.72	70.11	10.94	23.50	3.34	6.38
2007190125	2007191532	Bulk	Bulk	TOS	TOS	77.47	81.92	17.07	14.08	5.45	4.00
2007190125	2007191532	Bulk	Bulk	BOS	BOS	82.32	85.47	13.53	11.47	4.15	3.06
2007190145	2007191105	Bulk	Bulk	TOS	TOS	30.00	25.80	31.99	33.67	38.00	40.53
2007190145	2007191105	Bulk	Bulk	BOS	BOS	26.53	19.89	36.28	38.84	37.19	41.26
2007190154	2007190568	Bulk	Bulk	TOS	TOS	44.33	27.83	47.42	55.41	8.25	16.76
2007190154	2007190568	Bulk	Bulk	BOS	BOS	31.79	35.46	50.46	34.46	17.75	30.09
2007190155	2007191031	Bulk	Bulk	TOS	TOS	39.11	39.34	42.14	42.11	18.74	18.55
2007190155	2007191031	Bulk	Bulk	BOS	BOS	42.50	61.89	44.23	28.29	13.27	9.81
2007190161	2007191413	Bulk	Bulk	TOS	TOS	50.81	31.58	34.29	46.58	14.89	21.84
2007190161	2007191413	Bulk	Bulk	BOS	BOS	21.97	28.57	52.16	46.87	25.87	24.57
2007190176	2007191566	Bulk	Bulk	TOS	TOS	91.87	87.36	5.82	8.92	2.31	3.72
2007190176	2007191566	Bulk	Bulk	BOS	BOS	85.39	85.52	9.81	9.81	4.81	4.67
2007190181	2007191396	Bulk	Bulk	TOS	TOS	32.09	33.44	37.39	49.89	30.52	16.67
2007190181	2007191396	Bulk	Bulk	BOS	BOS	36.62	34.86	36.94	50.42	26.43	14.73
2007190183	2007190471	Bulk	Bulk	TOS	TOS	91.13	87.52	6.44	9.51	2.43	2.97
2007190183	2007190471	Bulk	Bulk	BOS	BOS	38.63	51.35	48.09	40.33	13.28	8.32
2007190185	2007191253	Bulk	Bulk	TOS	TOS	60.22	76.42	29.16	18.89	10.62	4.69
2007190185	2007191253	Bulk	Bulk	BOS	BOS	35.23	51.56	47.25	41.68	17.51	6.76
2007190189	2007191542	Bulk	Bulk	TOS	TOS	24.62	18.33	41.84	54.29	33.55	27.38
2007190189	2007191542	Bulk	Bulk	BOS	BOS	24.48	17.03	45.19	54.62	30.33	28.36
2007190193	2007190788	Bulk	Bulk	TOS	TOS	41.56	28.48	43.91	54.06	14.53	17.45
2007190193	2007190788	Bulk	Bulk	BOS	BOS	32.85	40.88	49.78	43.85	17.37	15.27
2007190194	2007190704	Bulk	Bulk	TOS	TOS	64.81	59.15	20.00	30.60	15.19	10.24
2007190194	2007190704	Bulk	Bulk	BOS	BOS	45.55	32.33	37.27	53.98	17.18	13.69
2007190197	2007190962	Bulk	Bulk	TOS	TOS	92.43	86.93	6.24	10.34	1.33	2.73
2007190197	2007190962	Bulk	Bulk	BOS	BOS	85.01	74.81	9.01	20.05	5.98	5.14
2007190208	2007191593	Bulk	Bulk	TOS	TOS	73.65	67.61	20.71	26.44	5.64	5.96
2007190208	2007191593	Bulk	Bulk	BOS	BOS	42.70	44.18	42.30	44.26	15.00	11.56
2007190209	2007191254	Bulk	Bulk	TOS	TOS	43.10	52.51	24.15	34.79	32.75	12.71
2007190209	2007191254	Bulk	Bulk	BOS	BOS	49.76	51.39	24.47	37.74	25.77	10.87
2007190212	2007190747	Bulk	Bulk	TOS	TOS	88.16	95.35	9.46	3.39	2.38	1.26
2007190212	2007190747	Bulk	Bulk	BOS	BOS	84.31	93.50	13.19	4.76	2.50	1.73
2007190218	2007191348	Bulk	Bulk	TOS	TOS	82.44	79.12	13.03	16.41	4.53	4.47
2007190218	2007191348	Bulk	Bulk	BOS	BOS	77.64	68.68	16.57	23.54	5.79	7.78
2007190241	2007190978	Bulk	Bulk	TOS	TOS	65.98	68.69	24.85	20.79	9.17	10.51
2007190241	2007190978	Bulk	Bulk	BOS	BOS	63.38	64.83	27.50	23.87	9.13	11.30
2007190248	2007191198	Bulk	Bulk	TOS	TOS	89.20	91.81	8.94	6.02	1.86	2.17
2007190248	2007191198	Bulk	Bulk	BOS	BOS	88.99	80.24	9.19	15.70	1.82	4.07
2007190256	2007190875	Bulk	Bulk	TOS	TOS	6.45	22.27	65.84	68.98	27.72	8.76
2007190256	2007190875	Bulk	Bulk	BOS	BOS	22.08	78.86	56.95	17.85	20.97	3.29
2007190258	2007191176	Bulk	Bulk	TOS	TOS	96.02	71.65	2.21	21.75	1.76	6.60
2007190258	2007191176	Bulk	Bulk	BOS	BOS	83.64	80.32	12.26	15.46	4.09	4.22
2007190266	2007191458	Bulk	Bulk	TOS	TOS	7.42	74.44	63.76	17.23	28.82	8.33
2007190285	2007190406	Bulk	Bulk	TOS	TOS	29.10	33.52	47.88	44.93	23.02	21.55
2007190285	2007190406	Bulk	Bulk	BOS	BOS	30.58	27.14	41.46	47.44	27.96	25.42
2007190296	2007190758	Bulk	Bulk	TOS	TOS	81.95	82.87	15.42	12.97	2.63	4.17
2007190296	2007190758	Bulk	Bulk	BOS	BOS	81.61	82.55	15.38	13.26	3.01	4.19
2007190311	2007191259	Bulk	Bulk	TOS	TOS	98.62	93.84	0.96	5.44	0.42	0.72
2007190311	2007191259	Bulk	Bulk	BOS	BOS	80.24	77.85	17.25	21.05	2.51	1.10
2007190328	2007191598	Bulk	Bulk	TOS	TOS	92.58	89.56	5.55	8.51	1.87	1.94
2007190328	2007191598	Bulk	Bulk	BOS	BOS	85.06	83.03	11.59	11.05	3.34	5.91
2007190335	2007190692	Bulk	Bulk	TOS	TOS	35.41	42.21	45.29	48.57	19.29	9.22
2007190335	2007190692	Bulk	Bulk	BOS	BOS	23.36	30.17	59.20	51.99	17.44	17.84
2007190342	2007190989	Bulk	Bulk	TOS	TOS	52.43	44.74	33.66	42.74	13.91	12.52
2007190342	2007190989	Bulk	Bulk	BOS	BOS	43.86	49.92	36.36	38.37	19.79	11.71
2007190349	2007191436	Bulk	Bulk	TOS	TOS	72.77	79.91	18.43	13.85	8.79	6.24

Appendix 29. Field duplicates analysis for grain size distribution

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Sand %	Sand %	Silt %	Silt %	Clay %	Clay %
METHOD:	METHOD:	SIZE	SIZE			LPSA	LPSA	LPSA	LPSA	LPSA	LPSA
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					N/A	N/A	N/A	N/A	N/A	N/A
2007190349	2007191436	Bulk	Bulk	BOS	BOS	66.83	71.15	21.76	20.35	11.41	8.50
2007190352	2007190611	Bulk	Bulk	TOS	TOS	29.13	28.38	44.06	46.44	26.81	25.18
2007190352	2007190611	Bulk	Bulk	BOS	BOS	41.13	33.31	38.09	55.89	20.79	10.80
2007190355	2007191257	Bulk	Bulk	TOS	TOS	30.04	29.56	44.43	55.79	25.53	14.66
2007190355	2007191257	Bulk	Bulk	BOS	BOS	30.44	29.53	47.75	54.70	21.81	15.77
2007190357	2007190856	Bulk	Bulk	TOS	TOS	96.10	91.58	2.58	7.12	1.32	1.30
2007190357	2007190856	Bulk	Bulk	BOS	BOS	86.18	60.25	9.26	35.66	4.56	4.09
2007190361	2007191094	Bulk	Bulk	TOS	TOS	21.20	19.57	40.62	38.78	38.18	41.65
2007190361	2007191094	Bulk	Bulk	BOS	BOS	15.35	21.67	39.15	37.19	45.50	41.14
2007190383	2007191416	Bulk	Bulk	TOS	TOS	34.40	62.25	47.40	25.25	18.20	12.50
2007190383	2007191416	Bulk	Bulk	BOS	BOS	35.41	52.20	41.20	29.23	23.39	18.57
2007190393	2007191050	Bulk	Bulk	TOS	TOS	24.49	23.64	61.57	56.34	13.94	20.02
2007190393	2007191050	Bulk	Bulk	BOS	BOS	38.47	20.13	49.38	61.15	12.15	18.72
2007190414	2007191386	Bulk	Bulk	TOS	TOS	43.76	39.78	39.95	47.63	16.29	12.59
2007190414	2007191386	Bulk	Bulk	BOS	BOS	44.16	43.31	42.33	42.27	13.50	14.42
2007190419	2007190974	Bulk	Bulk	TOS	TOS	41.95	40.59	29.14	43.87	28.91	15.54
2007190419	2007190974	Bulk	Bulk	BOS	BOS	38.45	42.12	36.01	43.18	25.54	14.71
2007190425	2007190768	Bulk	Bulk	TOS	TOS	33.67	40.27	57.84	44.86	8.50	14.87
2007190425	2007190768	Bulk	Bulk	BOS	BOS	38.96	42.75	47.80	41.67	13.24	15.58
2007190434	2007191027	Bulk	Bulk	TOS	TOS	45.99	52.57	39.82	31.38	14.19	16.05
2007190434	2007191027	Bulk	Bulk	BOS	BOS	38.82	43.32	37.40	35.83	23.77	20.85
2007190457	2007191004	Bulk	Bulk	TOS	TOS	56.70	78.60	36.02	16.26	7.28	5.14
2007190457	2007191004	Bulk	Bulk	BOS	BOS	68.24	67.27	26.79	26.82	4.97	5.91
2007190458	2007190774	Bulk	Bulk	TOS	TOS	30.24	41.30	50.08	36.66	19.68	22.04
2007190458	2007190774	Bulk	Bulk	BOS	BOS	35.01	40.98	50.93	42.17	14.06	16.85
2007190472	2007191312	Bulk	Bulk	TOS	TOS	24.47	21.81	41.29	58.13	34.23	20.06
2007190472	2007191312	Bulk	Bulk	BOS	BOS	31.12	23.89	45.06	60.64	23.82	15.47
2007190481	2007191594	Bulk	Bulk	TOS	TOS	58.08	74.73	31.03	18.90	10.89	6.37
2007190481	2007191594	Bulk	Bulk	BOS	BOS	58.76	73.44	31.87	19.50	9.37	7.06
2007190495	2007191318	Bulk	Bulk	TOS	TOS	71.00	86.22	21.07	8.42	7.94	5.35
2007190495	2007191318	Bulk	Bulk	BOS	BOS	80.66	69.89	11.98	19.93	7.36	10.19
2007190497	2007190586	Bulk	Bulk	TOS	TOS	58.50	63.67	31.09	28.66	10.41	7.67
2007190497	2007190586	Bulk	Bulk	BOS	BOS	52.92	50.54	35.38	37.42	11.70	12.05
2007190506	2007190631	Bulk	Bulk	TOS	TOS	43.37	32.83	43.91	45.91	12.71	21.26
2007190506	2007190631	Bulk	Bulk	BOS	BOS	29.99	29.24	51.86	50.63	18.15	20.13
2007190508	2007191119	Bulk	Bulk	TOS	TOS	34.06	33.80	46.85	43.77	19.09	22.43
2007190508	2007191119	Bulk	Bulk	BOS	BOS	37.42	37.02	48.95	45.03	13.63	17.96
2007190526	2007191599	Bulk	Bulk	TOS	TOS	43.70	45.62	44.33	42.73	11.96	11.65
2007190526	2007191599	Bulk	Bulk	BOS	BOS	47.49	44.95	41.26	42.50	11.25	12.55
2007190527	2007190609	Bulk	Bulk	TOS	TOS	31.78	33.64	47.82	43.44	20.40	22.92
2007190527	2007190609	Bulk	Bulk	BOS	BOS	75.22	67.65	16.57	22.40	8.20	9.95
2007190531	2007190703	Bulk	Bulk	TOS	TOS	20.40	22.49	52.19	49.66	27.41	27.85
2007190531	2007190703	Bulk	Bulk	BOS	BOS	15.65	19.95	53.36	54.81	30.99	25.24
2007190534	2007191522	Bulk	Bulk	TOS	TOS	69.15	59.76	21.94	29.73	8.91	10.50
2007190534	2007191522	Bulk	Bulk	BOS	BOS	79.43	85.57	15.35	9.79	5.22	4.64
2007190536	2007190909	Bulk	Bulk	TOS	TOS	84.90	89.03	11.46	8.01	3.64	2.95
2007190536	2007190909	Bulk	Bulk	BOS	BOS	69.52	64.10	24.51	30.38	5.97	5.53
2007190548	2007191236	Bulk	Bulk	TOS	TOS	70.72	82.60	24.55	14.18	4.73	3.21
2007190548	2007191236	Bulk	Bulk	BOS	BOS	74.97	75.66	20.94	20.04	4.09	4.30
2007190549	2007191507	Bulk	Bulk	TOS	TOS	94.58	93.69	3.74	3.99	1.68	2.32
2007190549	2007191507	Bulk	Bulk	BOS	BOS	92.54	89.69	5.53	6.54	1.93	3.77
2007190552	2007190675	Bulk	Bulk	TOS	TOS	89.97	86.51	7.06	10.23	2.97	3.27
2007190552	2007190675	Bulk	Bulk	BOS	BOS	53.35	49.20	39.62	43.34	7.03	7.46
2007190554	2007190752	Bulk	Bulk	TOS	TOS	85.45	71.75	10.38	18.69	4.17	9.56
2007190554	2007190752	Bulk	Bulk	BOS	BOS	94.09	69.33	4.34	18.67	1.57	12.00
2007190583	2007191063	Bulk	Bulk	TOS	TOS	79.08	74.38	14.78	20.09	6.14	5.52
2007190583	2007191063	Bulk	Bulk	BOS	BOS	55.48	55.37	31.19	37.39	13.33	7.24
2007190618	2007191166	Bulk	Bulk	TOS	TOS	48.79	50.11	41.43	39.91	9.77	9.98
2007190618	2007191166	Bulk	Bulk	BOS	BOS	44.89	52.77	44.55	36.34	10.57	10.89
2007190647	2007191525	Bulk	Bulk	TOS	TOS	67.35	83.95	26.33	12.85	6.32	3.20
2007190647	2007191525	Bulk	Bulk	BOS	BOS	58.14	86.14	32.39	11.07	9.47	2.79
2007190659	2007190739	Bulk	Bulk	TOS	TOS	83.72	89.58	12.87	7.04	3.41	3.37
2007190659	2007190739	Bulk	Bulk	BOS	BOS	52.24	79.12	35.62	14.63	12.14	6.25
2007190661	2007191334	Bulk	Bulk	TOS	TOS	83.64	76.58	11.35	19.73	5.02	3.69
2007190661	2007191334	Bulk	Bulk	BOS	BOS	65.61	66.47	24.23	28.92	10.17	4.61
2007190686	2007191430	Bulk	Bulk	TOS	TOS	61.76	75.27	30.61	18.07	7.63	6.66
2007190686	2007191430	Bulk	Bulk	BOS	BOS	66.06	72.14	25.56	18.98	8.38	8.88
2007190695	2007190924	Bulk	Bulk	TOS	TOS	82.68	86.48	13.88	11.42	3.43	2.10
2007190695	2007190924	Bulk	Bulk	BOS	BOS	46.26	52.75	41.19	41.03	12.55	6.22
2007190698	2007190813	Bulk	Bulk	TOS	TOS	33.33	27.41	53.62	49.60	13.05	22.99
2007190698	2007190813	Bulk	Bulk	BOS	BOS	18.15	22.21	67.20	47.96	14.65	29.83
2007190732	2007191450	Bulk	Bulk	TOS	TOS	52.38	46.28	33.24	42.36	14.38	11.36
2007190732	2007191450	Bulk	Bulk	BOS	BOS	44.12	51.51	40.79	35.62	15.09	12.88
2007190735	2007191549	Bulk	Bulk	TOS	TOS	46.71	31.30	44.38	42.49	8.91	26.21
2007190735	2007191549	Bulk	Bulk	BOS	BOS	27.05	14.32	53.77	44.90	19.18	40.78
2007190743	2007190906	Bulk	Bulk	TOS	TOS	36.02	31.87	43.58	47.73	20.39	20.40
2007190743	2007190906	Bulk	Bulk	BOS	BOS	34.74	37.21	48.15	47.72	17.11	15.07
2007190746	2007191241	Bulk	Bulk	TOS	TOS	94.60	91.35	3.68	6.90	1.72	1.75
2007190746	2007191241	Bulk	Bulk	BOS	BOS	80.89	83.97	15.63	14.41	3.49	1.62
2007190753	2007191299	Bulk	Bulk	TOS	TOS	10.08	29.02	63.13	51.28	26.80	19.70
2007190753	2007191299	Bulk	Bulk	BOS	BOS	9.67	50.03	53.47	39.27	36.86	10.71
2007190798	2007191229	Bulk	Bulk	TOS	TOS	98.03	94.88	1.36	4.04	0.61	1.08
2007190798	2007191229	Bulk	Bulk	BOS	BOS	98.13	97.13	1.32	2.31	0.54	0.56
2007190818	2007191157	Bulk	Bulk	TOS	TOS	81.01	90.55	15.96	7.75	3.03	1.70
2007190818	2007191157	Bulk	Bulk	BOS	BOS	94.52	82.39	4.59	14.91	0.89	2.71
2007190825	2007191214	Bulk	Bulk	TOS	TOS	53.01	35.05	39.30	45.78	7.69	19.17

Appendix 29. Field duplicates analysis for grain size distribution

SITEID	SITEID	GRAIN	GRAIN	DEPTH	DEPTH	Sand %	Sand %	Silt %	Silt %	Clay %	Clay %
METHOD:	METHOD:	SIZE	SIZE			LPSA	LPSA	LPSA	LPSA	LPSA	LPSA
D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
LLD:	LLD:					N/A	N/A	N/A	N/A	N/A	N/A
2007190825	2007191214	Bulk	Bulk	BOS	BOS	39.73	30.44	44.28	50.39	15.99	19.17
2007190826	2007191052	Bulk	Bulk	TOS	TOS	85.50	73.75	11.18	21.11	3.32	5.15
2007190826	2007191052	Bulk	Bulk	BOS	BOS	78.43	79.80	17.62	15.48	3.95	4.72
2007190827	2007191440	Bulk	Bulk	TOS	TOS	83.42	71.67	11.71	19.81	4.87	8.52
2007190827	2007191440	Bulk	Bulk	BOS	BOS	74.74	59.98	18.46	27.99	6.81	12.03
2007190834	2007190889	Bulk	Bulk	TOS	TOS	85.79	89.31	10.59	8.25	3.62	2.44
2007190834	2007190889	Bulk	Bulk	BOS	BOS	93.31	96.99	5.04	2.32	1.65	0.69
2007190849	2007191277	Bulk	Bulk	TOS	TOS	29.84	52.05	47.06	35.16	23.10	12.79
2007190849	2007191277	Bulk	Bulk	BOS	BOS	23.40	42.38	54.25	44.53	22.35	13.08
2007190853	2007190939	Bulk	Bulk	TOS	TOS	32.98	63.82	45.80	27.99	21.22	8.18
2007190853	2007190939	Bulk	Bulk	BOS	BOS	76.72	62.03	17.12	29.12	6.16	8.84
2007190865	2007191183	Bulk	Bulk	TOS	TOS	95.44	94.46	3.73	4.27	0.83	1.28
2007190865	2007191183	Bulk	Bulk	BOS	BOS	94.73	94.95	4.23	3.93	1.04	1.12
2007190874	2007191297	Bulk	Bulk	TOS	TOS	81.85	59.94	14.34	29.13	3.81	10.93
2007190874	2007191297	Bulk	Bulk	BOS	BOS	93.81	58.20	4.91	30.57	1.28	11.23
2007190887	2007191058	Bulk	Bulk	TOS	TOS	36.41	29.39	53.16	54.46	10.43	16.15
2007190887	2007191058	Bulk	Bulk	BOS	BOS	39.75	23.04	52.53	55.94	7.72	21.02
2007190895	2007190947	Bulk	Bulk	TOS	TOS	35.54	22.50	40.85	52.52	23.61	24.98
2007190895	2007190947	Bulk	Bulk	BOS	BOS	31.22	25.43	45.79	45.11	22.99	29.46
2007190896	2007191441	Bulk	Bulk	TOS	TOS	74.85	65.49	15.40	24.37	9.75	10.13
2007190896	2007191441	Bulk	Bulk	BOS	BOS	76.07	56.69	15.41	30.77	8.52	12.54
2007190922	2007191082	Bulk	Bulk	TOS	TOS	94.78	96.24	3.61	2.88	1.61	0.89
2007190922	2007191082	Bulk	Bulk	BOS	BOS	74.35	67.83	18.24	22.33	7.42	9.84
2007190927	2007191444	Bulk	Bulk	TOS	TOS	78.04	72.71	17.88	22.00	4.08	5.29
2007190927	2007191444	Bulk	Bulk	BOS	BOS	80.89	83.53	15.99	13.61	3.12	2.87
2007190949	2007191504	Bulk	Bulk	TOS	TOS	21.42	38.49	48.66	42.64	29.92	18.87
2007190949	2007191504	Bulk	Bulk	BOS	BOS	26.75	40.23	55.19	46.02	18.06	13.75
2007190968	2007191437	Bulk	Bulk	TOS	TOS	67.54	81.42	24.26	13.47	8.20	5.12
2007190968	2007191437	Bulk	Bulk	BOS	BOS	45.54	45.29	42.60	38.74	11.86	15.97
2007190970	2007191245	Bulk	Bulk	TOS	TOS	50.62	46.40	39.32	44.00	10.06	9.61
2007190970	2007191245	Bulk	Bulk	BOS	BOS	53.31	78.31	39.43	18.90	7.26	2.79
2007190986	2007191592	Bulk	Bulk	TOS	TOS	90.97	95.16	7.63	3.97	1.40	0.87
2007190986	2007191592	Bulk	Bulk	BOS	BOS	90.93	90.81	7.95	7.35	1.11	1.84
2007190990	2007191537	Bulk	Bulk	TOS	TOS	36.34	38.64	51.30	45.71	12.36	15.65
2007190990	2007191537	Bulk	Bulk	BOS	BOS	59.59	79.09	31.56	15.53	8.84	5.37
2007191007	2007191551	Bulk	Bulk	TOS	TOS	84.97	82.46	11.14	12.28	3.89	5.26
2007191007	2007191551	Bulk	Bulk	BOS	BOS	82.80	66.35	13.52	24.80	3.68	8.85
2007191028	2007191531	Bulk	Bulk	TOS	TOS	59.98	68.76	31.48	23.72	8.54	7.53
2007191028	2007191531	Bulk	Bulk	BOS	BOS	45.77	60.49	34.95	30.37	19.27	9.14
2007191051	2007191331	Bulk	Bulk	TOS	TOS	39.42	43.20	48.72	42.57	11.87	14.23
2007191051	2007191331	Bulk	Bulk	BOS	BOS	42.65	35.97	44.23	43.75	13.12	20.28
2007191066	2007191379	Bulk	Bulk	TOS	TOS	59.44	41.88	29.11	37.86	11.45	20.27
2007191066	2007191379	Bulk	Bulk	BOS	BOS	56.27	78.46	31.47	17.68	12.26	3.86
2007191092	2007191211	Bulk	Bulk	TOS	TOS	54.96	61.98	35.95	26.92	9.09	11.11
2007191092	2007191211	Bulk	Bulk	BOS	BOS	53.39	57.56	32.42	30.68	14.19	11.76
2007191134	2007191282	Bulk	Bulk	TOS	TOS	91.86	94.62	5.93	3.93	2.22	1.46
2007191134	2007191282	Bulk	Bulk	BOS	BOS	32.26	52.41	47.81	42.66	19.93	4.93
2007191152	2007191578	Bulk	Bulk	TOS	TOS	86.03	82.33	9.77	14.79	4.21	2.88
2007191152	2007191578	Bulk	Bulk	BOS	BOS	58.02	59.43	32.74	33.65	9.24	6.92
2007191168	2007191195	Bulk	Bulk	TOS	TOS	49.50	64.35	35.58	27.67	14.92	7.98
2007191168	2007191195	Bulk	Bulk	BOS	BOS	44.29	59.21	41.47	33.55	14.23	7.24
2007191192	2007191339	Bulk	Bulk	TOS	TOS	77.53	73.52	18.04	21.19	4.44	5.29
2007191192	2007191339	Bulk	Bulk	BOS	BOS	64.24	63.75	29.63	28.71	6.13	7.54
2007191215	2007191281	Bulk	Bulk	TOS	TOS	75.34	81.32	17.63	13.52	7.03	5.17
2007191215	2007191281	Bulk	Bulk	BOS	BOS	76.01	86.02	17.38	10.17	6.61	3.80
2007191216	2007191385	Bulk	Bulk	TOS	TOS	67.89	52.97	23.58	33.97	8.53	13.05
2007191216	2007191385	Bulk	Bulk	BOS	BOS	64.62	54.55	27.44	31.66	7.95	13.79
2007191264	2007191486	Bulk	Bulk	TOS	TOS	90.93	88.65	7.68	9.22	1.39	2.13
2007191264	2007191486	Bulk	Bulk	BOS	BOS	89.23	90.30	9.16	7.70	1.60	2.00
2007191275	2007191590	Bulk	Bulk	TOS	TOS	71.05	37.62	17.96	40.40	10.99	21.97
2007191275	2007191590	Bulk	Bulk	BOS	BOS	54.91	48.63	27.71	37.55	17.37	13.83
2007191293	2007191518	Bulk	Bulk	TOS	TOS	47.60	58.04	41.67	30.41	10.74	11.55
2007191293	2007191518	Bulk	Bulk	BOS	BOS	42.93	56.95	47.36	34.57	9.71	8.48
2007191295	2007191498	Bulk	Bulk	TOS	TOS	87.91	89.33	9.00	8.18	3.09	2.49
2007191295	2007191498	Bulk	Bulk	BOS	BOS	90.13	88.64	7.41	9.12	2.46	2.24
2007191346	2007191429	Bulk	Bulk	TOS	TOS	66.90	39.73	28.18	47.50	4.92	12.77
2007191346	2007191429	Bulk	Bulk	BOS	BOS	79.59	79.64	16.42	15.96	3.98	4.40
2007191372	2007191445	Bulk	Bulk	TOS	TOS	58.15	79.23	29.13	16.52	12.72	4.25
2007191372	2007191445	Bulk	Bulk	BOS	BOS	67.48	82.58	19.88	13.25	12.64	4.18
2007191382	2007191509	Bulk	Bulk	TOS	TOS	51.54	63.26	32.82	21.82	15.64	14.92
2007191382	2007191509	Bulk	Bulk	BOS	BOS	33.32	33.43	45.65	43.16	21.03	23.41
2007191473	2007191510	Bulk	Bulk	TOS	TOS	27.57	31.16	37.18	37.90	35.25	30.94
2007191473	2007191510	Bulk	Bulk	BOS	BOS	20.71	24.73	35.95	43.56	43.33	31.72