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2-56339



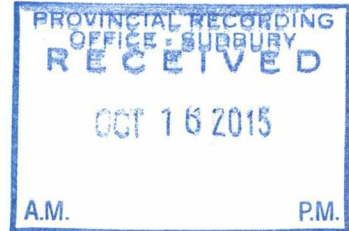
Appia Energy Corp.  
Tel: 416-876-3957  
Fax: 416-218-9772  
email: appia@appiaenergy.ca  
www.appiaenergy.ca

**Assessment and Activities Report:**

Appia Energy Corp, Elliot Lake, Ontario

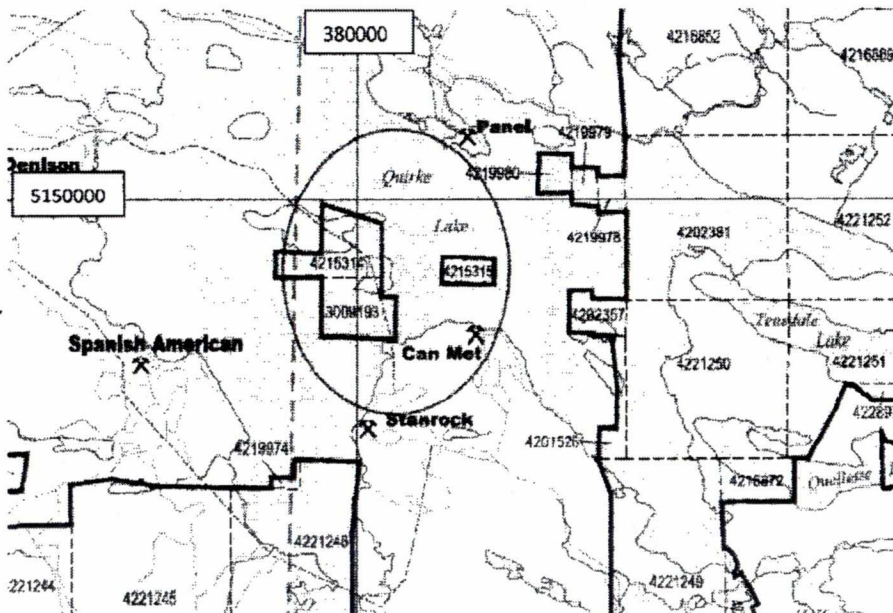
Appia Claims: 3009193, 4215314, 4215315

September 20, 2015 to September 21, 2015



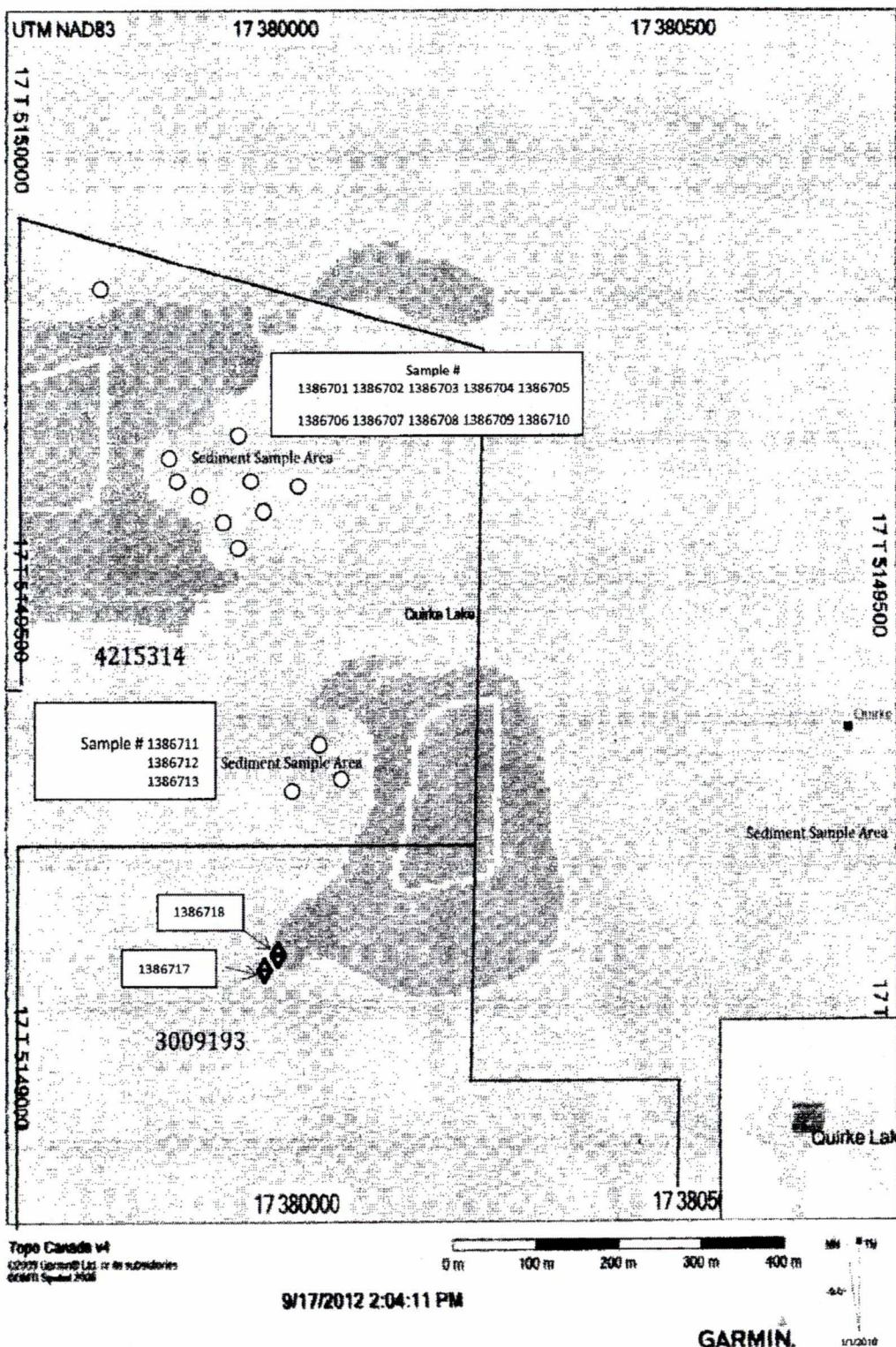
Appia Energy Corp holds two contiguous mining claims ( 3009193 & 4215314) on Quirke Lake in Buckles Twp. and one detached claim ( 4215315 ). The claims are located in the Algoma District of Northern Ontario, Canada approximately 15km north east of Elliot Lake (038 deg azimuth). The magnetic declination in this area is approximately 9 deg west. Two claims intersect two large islands on Quirke Lake and claim 4215315 is over open water. The claims can be reached by boat from a public landing. Both islands are rugged with elevations to ~450m. Two project geologists spent two days sampling lake bottom sediments, (16 samples) and investigating a diabase dyke intersecting one of the claims. Samples were taken of the dyke contact with the country rock.

Location of claims 3009193,4215314, 4215315:



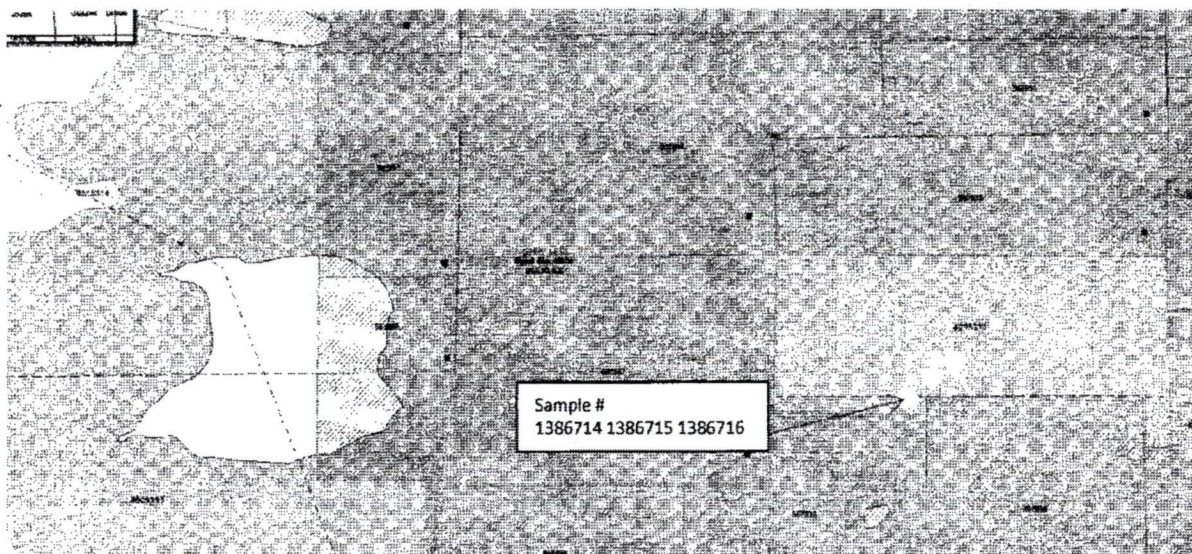
Scale 1:75000

Metres UTM NAD 83 Zone 17



The preceding map shows the general location of a set of lake sediment samples that were collected in claims 4215313, 4215315, and 3009193 on Quirke Lake.





Location of Appia Energy claim 4215315 on Quirke Lake, showing sediment sample general locations.

September 20, 2015

- Travel to Quirke Lake with truck and boat
- Arrived in Roman Bay at claim 4215314 to begin Lake Bottom sampling.
- Continued to collect samples in claims 4215314, 4215315 and 3009193.
- Samples were placed into thick plastic bags for transport and labeled.

September 21, 2015

- Returned to claims on Quirke Lake to do reconnaissance on a diabase dyke in claim 3009193 and take samples.

Samples were bagged in heavy plastic bags with identifier tags. The samples were subsequently shipped to Actlabs for assay including uranium, REE, Au, Pt, Pd, and U.

Act/Lab Smpl. #	Appia Smpl. Ref.	Date	Easting	Northing	Claim #	Depth ft	Water Temp	Description
1386701	15-AE-QL01	Sept. 20/15	379967	5149615	4215314	30	65 deg F.	mud with some mm size fragments
1386702	15-AE-QL02	Sept. 20/15	379691	5149833	4215314	10		mud with some mm size fragments
1386703	15-AE-QL03	Sept. 20/15	379824	5149610	4215314	23		mud with some mm size fragments
1386704	15-AE-QL04	Sept. 20/15	379921	5149634	4215314	25		mud with some mm size fragments
1386705	15-AE-QL05	Sept. 20/15	379921	5149634	4215314	25		duplicate
1386706	15-AE-QL06	Sept. 20/15	379916	5149651	4215314	20		mud with some mm size fragments
1386707	15-AE-QL07	Sept. 20/15	379893	5149667	4215314	16		close to shore, 10% wood chips, organic mulch
1386708	15-AE-QL08	Sept. 20/15	379882	5149633	4215314	19		poorly sorted mud, 10% peb and sand with occ stick, 85% mud
1386709	15-AE-QL09	Sept. 20/15	379902	5149606	4215314	20		dark brown, 95% mud, 5% sand with sticks and organic mulch
1386710	15-AE-QL10	Sept. 20/15	379924	5149591	4215314	18		very dark brown, 92% mud, fine sand to granules, mulch
1386711	15-AE-QL11	Sept. 20/15	380046	5149309	3009193	60		very dark brown, 98% mud
1386712	15-AE-QL12	Sept. 20/15	380074	5149285	3009193	50		as above but with trace coarse sand sized lithics
1386713	15-AE-QL13	Sept. 20/15	380048	5149239	3009193	44		dark brown, 98% mud, non gritty, 2% sand
1386714	15-AE-QL14	Sept. 20/15	381068	5149250	4215315	80		dark brown, 99% mud, non gritty
1386715	15-AE-QL15	Sept. 20/15	381105	5149265	4215315	85		dark brown, 99% mud, non gritty
1386716	15-AE-QL16	Sept. 20/15	381025	5149284	4215315	90		dark brown, 99% mud, non gritty
1386717	15-AE-QL01a	Sept. 21/15	380054	5149404	3009193			diabase
1386718	15-AE-QL02a	Sept. 21/15	380063	5149403	3009193			contact diabase

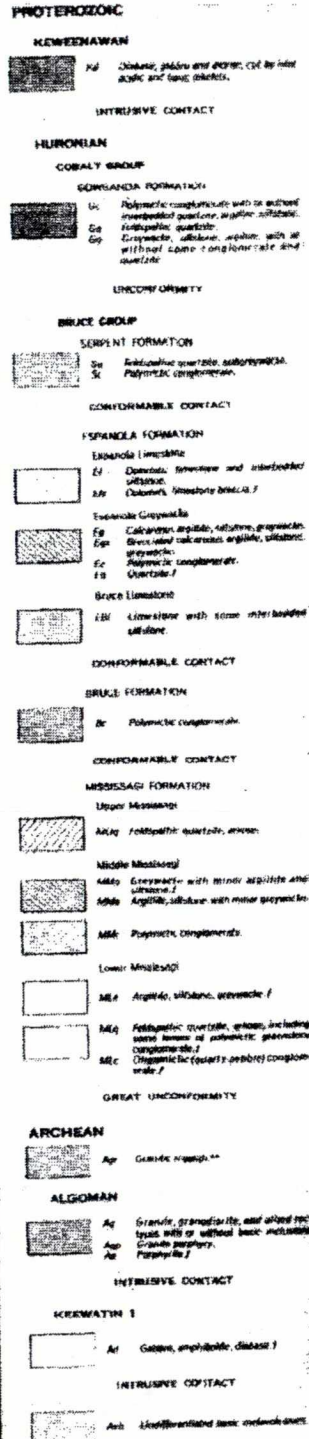
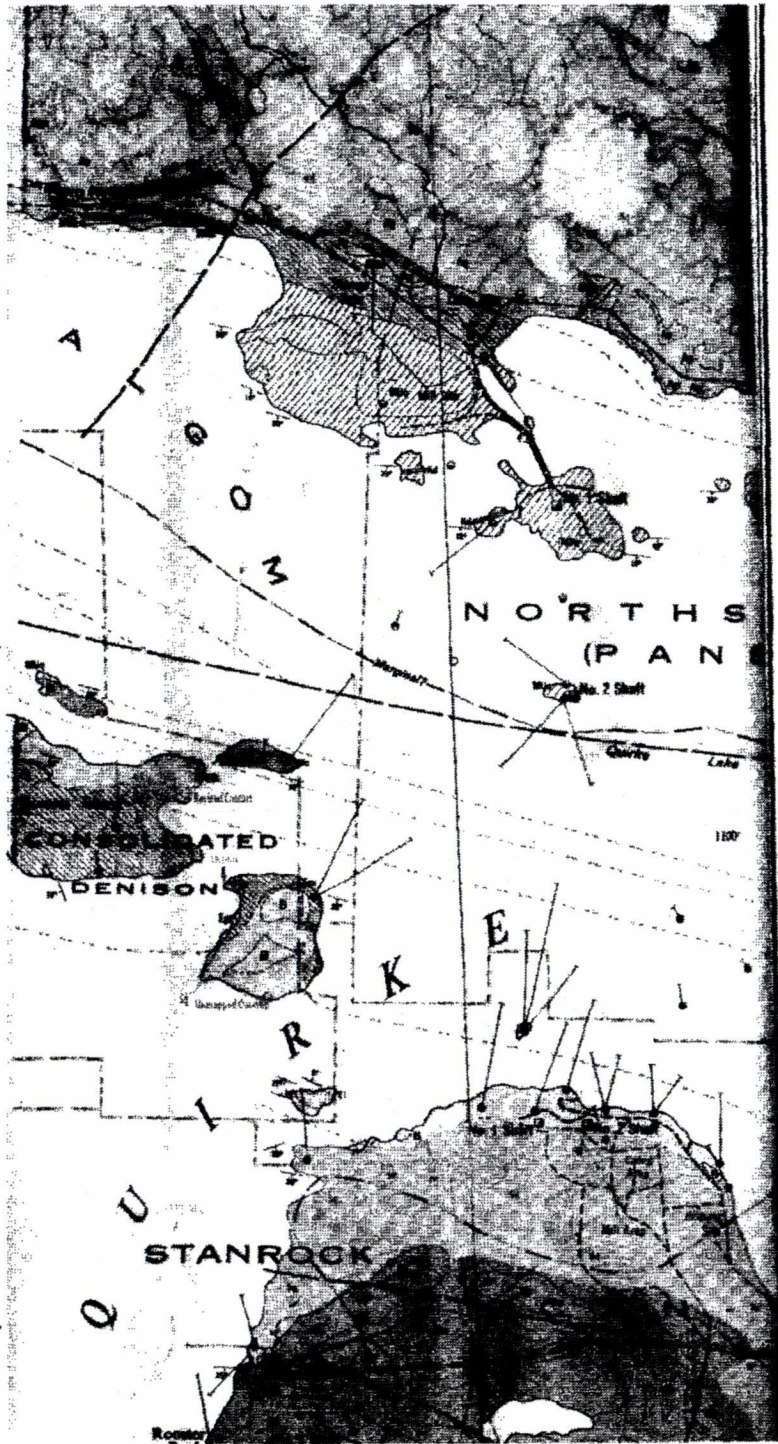
Note: Diabase dyke on J.P. Point of Quirke Lake  
 steeply dipping at 60deg to the north  
 strike E-W  
 3 metres wide  
 contact diabase with Espanola Limestone  
 Quartz intrusions and vuggy along parts of FW contact

The above figure shows a list of samples taken on Appia claims 3009193, 4215314, 4215315.

Google Earth of Roman Bay showing sample area and dyke.





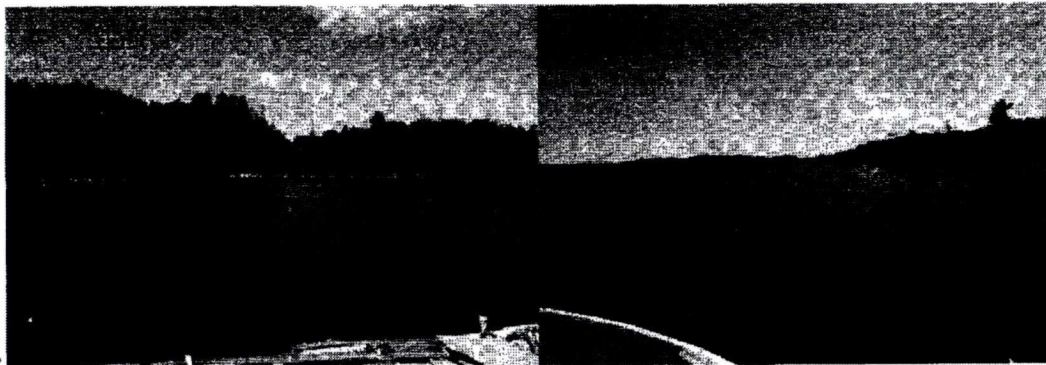


Local geology of islands on Quirke Lake:

September 18 to October 4, 2015 – Organize field data, prepare maps and report. Samples were bagged and packaged for shipment to Activation Laboratories in Sudbury, Ontario. The Sudbury facility will prep the samples, and do certain analysis before sending the pulps to Ancaster for final analysis. The assay results for REE, Uranium, Gold and Platinum, Palladium are attached to the report. The Assessment Work Performed on Mining Lands is included with the report.

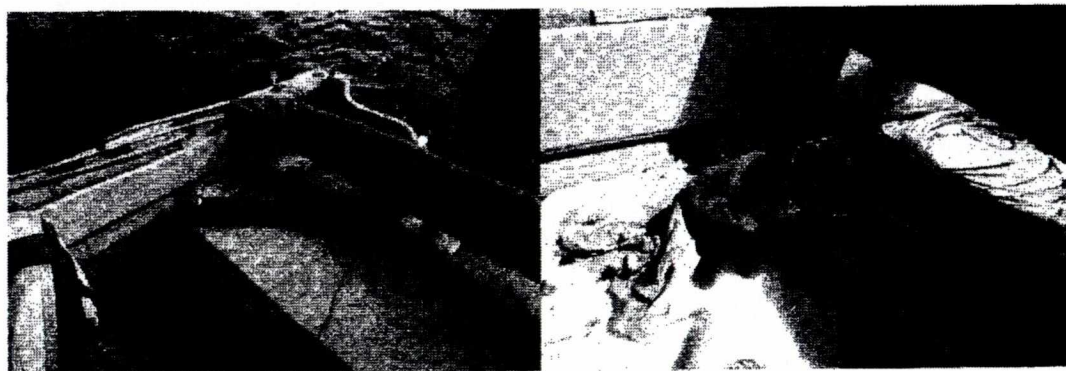
Patrick Enright  
Project Geologist  
19 Cedar Place  
Elliot Lake, Ontario  
705-848-5430

Jeff Enright  
Project Geologist - Post Graduate Student  
Laurentian University  
Sudbury, Ontario.



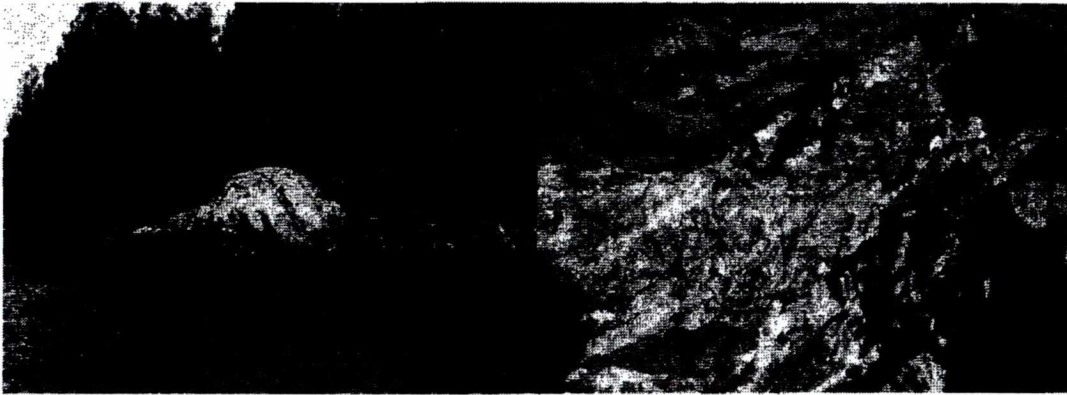
Roman Bay

Claim 4215315



Sediment collector





Diabase Dyke and contact with Espanola Limestone



Samples packaged and ready to ship to Actlabs

Quality Analysis ...



Innovative Technologies

**Date Submitted:** 24-Sep-15  
**Invoice No.:** A15-08080Rev.  
**Invoice Date:** 16-Oct-15  
**Your Reference:** ELLIOT LAKE

Appia Energy Corp.  
20 Toronto St., Suite 1220  
Toronto ON M5C 2B8  
Canada

ATTN: Tom Drivas

## CERTIFICATE OF ANALYSIS

18 Rock samples were submitted for analysis.

The following analytical package was requested:

Code 1C-OES-Sudbury Fire Assay ICPOES

REPORT **A15-08080Rev.**

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**Notes:**

Total includes all elements in % oxide to the left of total.

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé".

Emmanuel Esemé, Ph.D.  
Quality Control

ACTIVATION LABORATORIES LTD.  
1010 Lorne Street Unit West 4, Sudbury, Ontario, Canada. P3C 4R9  
TELEPHONE +705 586-3288 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL [Sudbury@actlabs.com](mailto:Sudbury@actlabs.com) ACTLABS GROUP WEBSITE [www.actlabs.com](http://www.actlabs.com)



Quality Analysis ...



Innovative Technologies

Date Submitted: 24-Sep-15  
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20 Toronto St., Suite 1220  
Toronto ON M5C 2B8  
Canada

ATTN: Tom Drivas

## CERTIFICATE OF ANALYSIS

18 Rock samples were submitted for analysis.

The following analytical package was requested:

Code 8-REE Assay Package Major Elements Fusion ICP(WRA)/Trace Elements Fusion ICP/MS(WRA4B2)

REPORT **A15-08080Rev.**

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**Notes:**

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CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Eeeme".

Emmanuel Eeeme, Ph.D.  
Quality Control

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Results

Analyte Symbol	Au	Pd	Pt	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn
Unit Symbol	ppb	ppb	ppb	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	2	5	5	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30
Method Code	FA-ICP	FA-ICP	FA-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
1386701	9	< 5	< 5	61.95	9.58	3.81	0.150	1.21	1.03	1.66	2.13	0.327	0.11	16.94	98.91	8	2	56	70	23	40	40	100
1386702	6	< 5	< 5	52.32	7.76	3.42	0.202	0.95	1.27	1.28	1.49	0.255	0.12	29.66	98.74	9	2	45	50	31	40	50	150
1386703	< 2	< 5	22	55.32	7.82	2.52	0.039	0.98	1.11	1.48	1.31	0.237	0.10	27.66	98.56	10	2	42	50	6	< 20	40	80
1386704	< 2	< 5	< 5	48.10	6.86	2.22	0.040	0.87	1.22	0.93	1.02	0.202	0.16	38.12	99.73	11	2	44	50	8	< 20	40	90
1386705	5	< 5	< 5	44.83	8.47	2.63	0.058	0.63	1.36	0.91	0.98	0.192	0.15	40.55	98.95	10	2	43	40	8	20	40	90
1386706	10	< 5	15	52.53	7.26	2.06	0.034	1.01	1.11	1.23	1.13	0.213	0.12	31.96	98.66	9	2	42	40	6	< 20	40	80
1386707	10	< 5	< 5	31.25	5.03	2.11	0.047	0.72	1.65	0.79	0.78	0.157	0.08	56.40	99.02	6	1	29	30	13	20	40	100
1386708	12	5	< 5	61.88	10.07	3.88	0.034	2.54	1.12	1.42	2.19	0.435	0.09	15.88	99.53	9	2	72	70	12	30	30	100
1386709	8	< 5	< 5	50.26	7.48	2.32	0.042	1.44	1.37	1.21	1.41	0.266	0.08	33.88	99.76	10	2	48	50	7	20	30	80
1386710	< 2	< 5	< 5	64.25	9.89	3.30	0.029	2.12	1.03	1.58	2.13	0.408	0.09	14.00	98.83	10	2	65	70	8	20	20	70
1386711	7	< 5	7	62.38	10.44	4.48	0.061	1.26	1.49	1.88	2.03	0.370	0.33	14.10	98.81	13	2	76	70	10	20	40	110
1386712	6	< 5	< 5	56.61	8.43	2.96	0.057	0.80	1.30	1.10	1.26	0.271	0.29	25.95	99.02	12	2	57	50	9	20	50	110
1386713	21	< 5	< 5	65.48	11.85	3.53	0.041	1.76	1.46	2.20	2.54	0.430	0.18	9.74	99.26	12	2	72	70	8	20	30	80
1386714	< 2	7	< 5	59.76	10.45	5.32	0.086	0.89	1.45	1.68	1.77	0.338	0.51	17.51	100.3	14	2	72	60	13	40	60	120
1386715	7	< 5	< 5	65.19	11.42	3.08	0.054	1.31	1.76	2.39	2.44	0.438	0.20	11.06	99.33	12	2	71	60	9	30	40	80
1386716	< 2	< 5	< 5	59.85	10.26	5.47	0.072	1.04	1.40	1.75	1.88	0.357	0.43	16.07	98.58	14	2	71	60	11	40	50	120
1386717	< 2	< 5	< 5	51.90	12.81	13.07	0.204	5.85	7.62	3.88	0.91	1.376	0.13	1.90	99.46	44	1	338	100	32	60	50	100
1386718	< 2	< 5	< 5	44.90	13.08	12.93	0.206	6.16	9.03	2.39	2.21	1.322	0.11	7.78	100.1	43	< 1	323	80	56	60	20	100

Results

Analyte Symbol	Ge	Ge	As	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	La	Ce	Pr	Nd	Sm	Eu	Gd
Unit Symbgl	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	1	1	5	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.1	0.1	0.05	0.1	0.1	0.05	0.1
Method Code	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
1386701	11	1	7	76	89	108	136	6	6	<0.5	<0.2	3	1.3	2.7	584	0.4	64.6	116	15.3	63.1	20.4	2.19	23.7
1386702	9	1	7	53	81	146	95	4	9	<0.5	<0.2	2	1.1	2.7	462	0.6	98.5	171	23.1	95.2	30.1	2.95	35.4
1386703	7	1	<5	47	74	40	102	4	<2	<0.5	<0.2	2	2.4	1.9	419	<0.4	89.2	74.6	14.7	56.3	10.4	1.89	9.0
1386704	6	<1	<5	39	59	48	72	3	<2	<0.5	<0.2	<1	0.7	1.8	364	<0.4	82.6	91.3	17.5	69.4	12.6	2.25	10.3
1386705	6	<1	<5	38	55	49	89	4	<2	<0.5	<0.2	<1	0.6	2.0	337	<0.4	85.2	86.7	17.9	69.9	13.3	2.29	11.4
1386706	7	1	<5	46	59	40	97	3	<2	<0.5	<0.2	<1	<0.5	1.8	381	<0.4	71.4	75.4	15.1	58.7	10.6	1.96	8.5
1386707	6	<1	<5	32	49	131	55	3	3	<0.5	<0.2	2	<0.5	1.6	305	<0.4	97.1	143	21.0	86.4	25.0	2.58	28.8
1386708	12	1	<5	91	54	82	124	7	<2	<0.5	<0.2	2	0.6	4.9	722	<0.4	60.4	105	13.4	54.3	15.8	1.71	17.7
1386709	9	<1	<5	58	62	39	89	4	<2	<0.5	<0.2	<1	<0.5	2.8	503	<0.4	76.2	78.8	15.4	59.5	10.5	1.90	8.6
1386710	11	1	<5	89	70	33	108	7	<2	<0.5	<0.2	1	0.5	4.2	707	<0.4	45.9	53.6	9.54	36.8	6.6	1.26	5.5
1386711	11	<1	<5	64	145	37	120	6	2	<0.5	<0.2	1	<0.5	1.9	557	<0.4	59.9	92.8	13.3	52.2	9.6	1.92	7.8
1386712	8	<1	<5	43	99	46	103	4	<2	<0.5	<0.2	<1	<0.5	1.9	397	<0.4	75.6	106	16.9	86.7	12.2	2.31	10.2
1386713	13	<1	<5	82	159	28	134	4	<2	<0.5	<0.2	1	<0.5	2.6	637	<0.4	49.9	73.1	11.6	42.9	7.8	1.54	5.7
1386714	10	<1	<5	54	154	41	139	4	4	<0.5	<0.2	<1	<0.5	1.7	514	<0.4	79.4	128	18.5	69.8	12.6	2.35	9.4
1386715	13	<1	<5	74	197	33	149	5	<2	<0.5	<0.2	1	<0.5	2.1	630	<0.4	61.8	89.2	13.9	52.3	9.4	1.79	6.9
1386716	11	<1	<5	60	146	36	127	4	3	<0.5	<0.2	<1	<0.5	1.8	526	<0.4	69.7	109	16.0	59.7	11.0	2.08	8.3
1386717	16	2	<5	27	181	21	85	9	<2	<0.5	<0.2	<1	2.0	0.9	345	<0.4	14.3	30.1	3.85	16.7	4.4	1.53	4.5
1386718	17	1	28	66	99	22	85	9	<2	<0.5	<0.2	<1	0.9	1.7	395	<0.4	11.0	23.4	2.83	12.1	3.6	0.87	4.0



Results

Analyte Symbol	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.1	0.1	0.1	0.05	0.1	0.04	0.2	0.1	1	0.1	5	0.1	0.1
Method Code	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
1386701	4.0	23.1	4.1	10.2	1.35	8.1	1.11	3.5	0.5	3	0.5	195	45.6	181
1386702	5.9	33.8	5.9	14.8	1.95	11.2	1.49	2.6	0.3	2	0.5	259	54.2	283
1386703	1.1	5.8	1.1	3.1	0.47	2.8	0.39	3.1	0.2	2	0.4	25	10.4	15.9
1386704	1.3	8.9	1.3	3.6	0.53	3.2	0.49	1.6	0.2	2	0.4	18	11.6	20.6
1386705	1.4	7.6	1.4	4.0	0.56	3.4	0.50	2.0	0.3	1	0.3	24	12.0	26.9
1386706	1.0	5.4	1.0	2.8	0.42	2.6	0.39	2.2	0.3	< 1	0.4	13	9.6	12.6
1386707	4.8	27.0	4.7	11.7	1.52	9.1	1.24	2.0	< 0.1	2	0.1	144	26.9	176
1386708	2.9	16.3	2.9	7.3	0.96	5.6	0.75	2.9	0.6	2	0.4	110	23.3	13.2
1386709	1.0	5.5	1.0	3.0	0.45	2.9	0.43	2.6	0.2	1	0.3	12	9.5	15.4
1386710	6.7	3.7	0.7	2.0	0.31	2.0	0.29	3.5	0.3	2	0.4	9	10.3	8.5
1386711	1.0	5.2	1.0	2.8	0.42	2.7	0.42	4.2	0.2	1	0.6	15	14.7	9.9
1386712	1.3	6.7	1.2	3.5	0.48	3.2	0.47	2.7	0.3	1	0.5	22	15.4	18.0
1386713	0.8	4.2	0.8	2.4	0.35	2.4	0.37	2.9	0.5	1	0.4	11	13.2	7.3
1386714	1.2	6.5	1.3	3.7	0.53	3.4	0.53	3.1	0.4	< 1	0.5	< 5	18.1	13.9
1386715	0.9	4.8	1.0	2.7	0.41	2.7	0.41	4.0	0.6	< 1	0.4	11	15.5	12.4
1386716	1.1	5.8	1.1	3.1	0.46	3.0	0.47	2.9	0.5	< 1	0.4	8	15.9	11.8
1386717	0.7	4.6	0.9	2.6	0.40	2.7	0.39	2.2	0.6	< 1	< 0.1	7	1.8	0.9
1386718	0.6	4.5	0.9	2.6	0.37	2.6	0.40	2.2	0.5	< 1	0.3	10	1.8	1.4



QC

Analyte Symbol	Au	Pd	Pt	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	
Unit Symbol	ppb	ppb	ppb	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Lower Limit	2	5	5	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	
Method Code	FA-ICP	FA-ICP	FA-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	
NIST 694 Meas				11.41	1.91	0.74	0.010	0.35	43.17	0.89	0.55	0.120	30.32					1629						
NIST 694 Cert				11.2	1.80	0.790	0.0116	0.330	43.6	0.860	0.510	0.110	30.2					1740						
DNC-1 Meas				46.90	18.50	9.84	0.150	10.04	11.38	1.90	0.22	0.490	0.04			31		157	300	60	250	100		
DNC-1 Cert				47.15	18.34	9.97	0.150	10.13	11.49	1.890	0.234	0.480	0.070			31		148	270	57	247	100		
GBW 07113 Meas				72.41	12.80	3.18	0.140	0.14	0.59	2.50	5.42	0.280	0.04			5	4	7						
GBW 07113 Cert				72.8	13.0	3.21	0.140	0.160	0.590	2.57	5.43	0.300	0.0500			5.00	4.00	5.00						
LKSD-3 Meas																			80	32	60			
LKSD-3 Cert																			87.0	30.0	47.0			
OKA-2 Meas																								
OKA-2 Cert																								
W-2a Meas				52.63	14.84	10.74	0.170	6.18	11.00	2.22	0.62	1.060	0.11			35	< 1	277	100	45	70	110	80	
W-2a Cert				52.4	15.4	10.7	0.163	6.37	10.9	2.14	0.626	1.06	0.130			36.0	1.30	262	92.0	43.0	70.0	110	80.0	
DTS-2b Meas																			15700	128	3780			
DTS-2b Cert																			15500	120	3780			
SY-4 Meas				49.97	29.59	6.14	0.110	0.51	8.12	6.90	1.64	0.280	0.10			1	3	8						
SY-4 Cert				49.9	20.69	8.21	0.108	0.54	8.05	7.10	1.66	0.287	0.131			1.1	2.6	8.0						
CTA-AC-1 Meas																							50	
CTA-AC-1 Cert																							54.0	
BIR-1a Meas				49.18	15.88	11.34	0.170	9.62	13.41	1.86	0.02	0.980	< 0.01			43	< 1	335	400	55	180	120	70	
BIR-1a Cert				47.96	15.50	11.30	0.175	9.700	13.30	1.82	0.030	0.96	0.021			44	0.58	310	370	52	170	125	70	
NCS DC86312 Meas																								
NCS DC86312 Cert																								
NCS DC70009 (GBW07241) Meas																					3	< 20	980	100
NCS DC70009 (GBW07241) Cert																					3.7	2.8	960	100
OREAS 101a (Fusion) Meas																					51		420	
OREAS 101a (Fusion) Cert																					48.8		434	
JR-1 Meas																						< 20		
JR-1 Cert																						1.67		
NCS DC86318 Meas																								
NCS DC86318 Cert																								
USZ 42-2006 Meas																								
USZ 42-2006 Cert																								
PK2 Meas	4990	6210	4940																					
PK2 Cert	4785.000	6918.000	4749.000																					
CDN-PGMS-25 Meas	510	1630	425																					
CDN-PGMS-25 Cert	483	1630	400																					
1386710 Orig	< 2	< 5	< 5																					
1386710 Dup	< 2	< 5	< 5																					
1386715 Orig				65.19	11.42	3.08	0.054	1.31	1.76	2.39	2.44	0.438	0.20	11.06	99.33	12	2	71	60	8	30	40	80	
1386715 Dup				65.55	10.84	3.07	0.056	1.26	1.88	2.06	2.19	0.438	0.24	11.06	98.44	11	2	71						
Method Blank	< 2	< 5	< 5																					
Method Blank	< 2	< 5	< 5																					
Method Blank																			< 20	< 1	< 20	< 10	< 30	



QC

Analyte Symbol	Ga	Ge	As	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	La	Ce	Pr	Nd	Sm	Eu	Gd
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	1	1	5	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.1	0.1	0.05	0.1	0.1	0.05	0.1
Method Code	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
NIST 694 Meas																							
NIST 694 Cert																							
DNC-1 Meas					148	17	37						1.0		104		3.3			5.4		0.61	
DNC-1 Cert					144.0	18.0	38						0.96		116		3.6			5.20		0.59	
GBW 07113 Meas					41	49	409								499								
GBW 07113 Cert					43.0	43.0	403								506								
LKSD-3 Meas			25	82					< 2	2.7		2		2.0			49.5	83.8		46.2	8.3	1.60	
LKSD-3 Cert			27.0	78.0					2.00	2.70		3.00		2.30			52.0	90.0		44.0	8.00	1.50	
OKA-2 Meas																							
OKA-2 Cert																							
W-2a Meas	17	2	< 5	19	184	20	95		< 2	1.0					174	< 0.4	11.0	23.9		12.7	3.3		
W-2a Cert	17.0	1.00	1.20	21.0	190	24.0	94.0		0.600	0.0460					182	0.0300	10.0	23.0		13.0	3.30		
DTS-2b Meas																							
DTS-2b Cert																							
SY-4 Meas					1185	119	538								346								
SY-4 Cert					1191	119	517								340								
CTA-AC-1 Meas																	2360	3600				50.0	135
CTA-AC-1 Cert																	2176	3326				46.7	124
BIR-1a Meas	15				110	14	16						0.6		7					2.4	1.2	0.54	2.0
BIR-1a Cert	16				110	16	18						0.58		6					2.5	1.1	0.55	2.0
NCS DC86312 Meas																	2540	191		1730			
NCS DC86312 Cert																	2360	190		1600			
NCS DC70009 (GBW07241) Meas	16	11	67							1.8			2.6	45.2			25.1	62.7	8.20	32.1	12.7		15.8
NCS DC70009 (GBW07241) Cert	16.5	11.2	69.9							1.8			3.1	41			23.7	60.3	7.9	32.9	12.5		14.8
OREAS 101a (Fusion) Meas									21								858	1470	140	424	53.0	8.58	
OREAS 101a (Fusion) Cert									21.9								816	1396	134	403	48.8	8.06	
JR-1 Meas	17		16					15		< 0.5	< 0.2	2	1.2	21.3		0.4	20.0	48.5		24.8	6.4	0.30	
JR-1 Cert	16.1		16.3					15.2		0.031	0.028	2.66	1.19	20.8		0.56	19.7	47.2		23.3	6.03	0.30	
NCS DC86318 Meas																	2040	418	727	3320	1760	19.7	2190
NCS DC86318 Cert																	1960	430	740	3430	1720	18.91	2095
USZ 42-2006 Meas																	20900	29000	2380	6190	504	83.6	
USZ 42-2006 Cert																	21100	27600	2300	6500	539	87.22	
PK2 Meas																							
PK2 Cert																							
CDN-PGMS-25 Meas																							
CDN-PGMS-25 Cert																							
1386710 Orig																							
1386710 Dup																							
1386715 Orig	13	< 1	< 5	74	197	33	149	5	< 2	< 0.5	< 0.2	1	< 0.5	2.1	630	< 0.4	61.8	89.2	13.9	52.3	9.4	1.79	6.9
1386715 Dup					181	36	185								582								
Method Blank																							
Method Blank																							
Method Blank	< 1	< 1	< 5	< 2				< 1	< 2	< 0.5	< 0.2	< 1	< 0.5	< 0.5		< 0.4	< 0.1	< 0.1	< 0.05	< 0.1	< 0.1	< 0.05	< 0.1



QC

Analyte Symbol	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.1	0.1	0.1	0.05	0.1	0.04	0.2	0.1	1	0.1	5	0.1	0.1
Method Code	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
NIST 694 Meas														
NIST 694 Cert														
DNC-1 Meas						1.9								
DNC-1 Cert						2.0								
GBW 07113 Meas														
GBW 07113 Cert														
LKSD-3 Meas	0.9	5.1				2.8	0.50	4.8	0.6				10.9	4.8
LKSD-3 Cert	1.00	4.90				2.70	0.400	4.80	0.700				11.4	4.60
OKA-2 Meas													29000	
OKA-2 Cert													28900.000	
W-2a Meas	0.6	3.8	0.8			2.0	0.32	2.5	0.4	2	< 0.1		2.2	0.5
W-2a Cert	0.630	3.60	0.760			2.10	0.330	2.60	0.500	0.300	0.200		2.40	0.530
DTS-2b Meas														
DTS-2b Cert														
SY-4 Meas														
SY-4 Cert														
CTA-AC-1 Meas						11.6								4.2
CTA-AC-1 Cert						11.4								4.4
BIR-1a Meas						1.7	0.29	0.5						
BIR-1a Cert						1.7	0.3	0.60						
NCS DC86312 Meas	34.8	200	37.9		14.7	90.8								
NCS DC86312 Cert	34.6	183	36		15.1	87.79								
NCS DC70009 (GBW07241) Meas	3.2	22.1	4.5	14.3	2.30		2.46			2210	2.1		29.3	
NCS DC70009 (GBW07241) Cert	3.3	20.7	4.5	13.4	2.2		2.4			2200	1.8		28.3	
OREAS 101a (Fusion) Meas	5.6	34.3	7.0	21.0	3.00	19.1	2.69						37.1	427
OREAS 101a (Fusion) Cert	5.92	33.3	6.46	19.5	2.90	17.5	2.66						36.6	422
JR-1 Meas	1.1				0.69	4.9	0.76	4.4	1.8			20	28.1	9.0
JR-1 Cert	1.01				0.67	4.55	0.71	4.51	1.86			19.3	26.7	8.88
NCS DC86318 Meas	476	3120	567	1690	274	1800	252							
NCS DC86318 Cert	470	3220	560	1750	270	1840	260.0							
USZ 42-2006 Meas														
USZ 42-2006 Cert														
PK2 Meas														
PK2 Cert														
CDN-PGMS-25 Meas														
CDN-PGMS-25 Cert														
1386710 Orig														
1386710 Dup														
1386715 Orig	0.9	4.8	1.0	2.7	0.41	2.7	0.41	4.0	0.6	< 1	0.4	11	15.5	12.4
1386715 Dup														
Method Blank														
Method Blank														



Analyte Symbol	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W	Ti	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.1	0.1	0.1	0.05	0.1	0.04	0.2	0.1	1	0.1	5	0.1	0.1
Method Code *	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
Method Blank	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	< 0.04	< 0.2	< 0.1	< 1	< 0.1	< 5	< 0.1	< 0.1