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Report On
Drill Core Sampling
Cardiff Township
For
Skead Holdings Ltd.
By
R.A. MacGregor, P. Eng.
September 22, 2015

2-56301

PROVINCIAL RECORDING OFFICE SUDBURY													
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A.M. P.M.													
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Table of Contents

	Page
Summary	1
Location	1
Access	1
Previous Exploration	1
Work Program	2
Results and Conclusions	3

Appendix I	Sampling
Appendix II	Certificate of Analysis
Appendix III	Location Plans
Appendix IV	Receipts
Appendix V	Drill Logs

Summary

Four holes which had been previously drilled and stored at the MNM core storage in Tweed, Ontario were resampled and analysed for a suite of elements. The sampling was a follow up to some previous sampling in these holes. The sampling was to check for Au and sulphur as well as sample adjacent to anomalous values in the previous sampling.

Location

The Cardiff Twp. property is located near Halls Lake which is about 30 km west of Bancroft, Ontario and 5 km south-east of Wilberforce, Ontario.

Access

Access to Halls Lake in Cardiff Twp. can be obtained by following a forest access road which runs from Hwy 121 some 25 km west of Bancroft, Ontario. The access road runs northerly from Hwy 121 changing to an ATV trail about two-thirds of the way to Halls Lake.

Previous Exploration

The property was explored in the 1950's by diamond drilling and underground exploration. There are two adits on the property. Records for this work are no longer available.

The property was staked and examined by El Nino Ventures in 2005. Diamond drilling was carried out in 2007 with 6 holes being drilled. Radioactive samples were analysed for U, Th and REE. These holes were stored at the MNM core facility south of Tweed, Ontario and sampling of this core was initiated in late 2014.

Work Program

Logs of holes had been examined and a number of samples taken for analysis in 2014. Some further work was indicated from anomalous copper and molybdenum values. Also the previous analysis did not provide results for Au and sulphur. A number of samples were reanalyzed for these elements. Also a number of additional samples were taken by Jim Laidlaw of Madoc, Ontario adjacent to anomalous values or from similar lithology.

A list was made up of sample sections within each hole which were to be sampled. Jim Laidlaw of Madoc, Ontario retrieved the core boxes containing the sections to be sampled from the core storage. Sections of core to be sampled were split in half with one half being returned to the core box, the other half was placed in a plastic bag, along with a numbered sample tag. The same number was marked against the listed sample section. The sample bag was closed with black tape and the number also marked with black permanent marker on the outside of the plastic sample bag.

Samples were stored in large rice type bags. They were later picked up in Madoc and transported to Swastika Labs sample preparation facility in Swastika, Ontario. Pulps were then placed in paper envelopes and shipped to Acme labs in Vancouver, B.C. and analysed by ICP-MS after 4-acid dissolution. Pulps and rejects have been stored for future reference.

Results and Conclusions

Further analysis of the pyrrholiferous schists showed high sulphur values but no gold. Additional sampling and analysis gave similar anomalous but sub economic values to Mo and Cu.

No further work is indicated at this time.

Respectfully submitted,



September 22, 2015

R. A. MacGregor, P. Eng.

Appendix I

Sampling



Sampling Cardiff Township

Drill Hole	Sample No.	From To (metres)
H-1	IAX 445	47.15 – 48.70
H-1	IAX 1664	48.70 – 50.24
H-1	IAX 444	70.25 – 71.50
H-1	IAX 1665	71.50 – 73.00
H-1	IAX 1666	83.50 – 85.00
H-1	IAX 1652	88.70 – 90.20
H-1	IAX 443	100.35 – 101.45
H-1	IAX 442	101.69 – 102.75
H-1	IMA 1651	104.00 – 105.50
H-1	IAX 446	165.75 – 165.99
H-2	IMA 1647	102.00 – 103.10
H-2	IAX 456	103.10 – 104.20
H-2	IMA 1646	104.20 – 106.00
H-2	IAX 457	113.44 – 115.00
H-2	IMA 1645	115.00 – 116.60
H-2	IAX 454	135.08 – 136.50
H-2	IMA 1644	136.50 – 137.75
H-2	IMA 1643	143.50 – 145.00
H-2	IMA 1642	152.50 – 153.45
H-2	IAX 455	163.50 – 165.00
H-2	IMA 1673	177.00 – 178.50

Drill Hole	Sample No.	From	To
		(metres)	
H-5	IMA 1672	159.16 –	160.65
H-5	IAX 453	172.18 –	173.50
H-5	IMA 1671	173.50 –	175.00
H-5	IMA 1670	178.60 –	180.20
H-5	IAX 452	180.20 –	181.94
H-5	IMA 1669	181.94 –	183.50
H-5	IMA 1668	189.50 –	191.04
H-5	IAX 451	191.04 –	191.38
H-5	IMA 1667	191.38 –	192.50
H-5	IAX 450	192.50 –	193.63
H-6	IAX 449	143.93 –	145.50
H-6	IMA 1649	147.00 –	148.56
H-6	IAX 448	148.56 –	150.10
H-6	IMA 1648	150.10 –	151.30
H-6	IAX 447	215.93 –	216.47

Appendix II

Certificate of Analysis



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Client: **MacGregor, R.A.**
28 Ford St.
Sault Ste. Marie ON P6A 4N4 CANADA

Submitted By: R.A. MacGregor
Receiving Lab: Canada-Vancouver
Received: April 14, 2015
Report Date: April 22, 2015
Page: 1 of 2

CERTIFICATE OF ANALYSIS

VAN15000829.1

CLIENT JOB INFORMATION

Project: None Given
Shipment ID:
O. Number
Number of Samples: 26

SAMPLE DISPOSAL

TRN-PLP Return

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
SLBHP	26	Sorting, labeling and boxing samples received as pulps			VAN
AQ201	26	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN
DRPLP	26	Warehouse handling / disposition of pulps			VAN

ADDITIONAL COMMENTS

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: **MacGregor, R.A.**
28 Ford St.
Sault Ste. Marie ON P6A 4N4
CANADA

IC:



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. Results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted. Asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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2 of 2

Part: 1 of 2

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VAN15000829.1

	Method Analyte Unit MDL	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
IAX 432	Rock Pulp	0.8	9.0	2.2	3	<0.1	7.3	4.1	184	0.25	4.5	4.5	4.1	169	<0.1	0.2	0.3	9	23.92	0.017	16
IAX 433	Rock Pulp	0.2	100.6	1.0	70	<0.1	60.3	38.6	1823	6.89	30.5	4.2	<0.1	129	0.1	0.2	<0.1	218	5.99	0.020	1
IAX 434	Rock Pulp	3.2	34.8	4.3	37	0.3	63.8	23.1	1015	4.71	101.0	230.0	2.2	253	<0.1	0.5	0.1	49	3.72	0.065	13
IAX 435	Rock Pulp	2.8	89.7	54.1	730	1.4	49.7	29.4	130	18.75	133.8	1.0	2.7	8	1.4	3.5	1.0	3	0.94	0.016	13
IAX 436	Rock Pulp	2.4	86.1	16.8	53	0.4	71.3	20.2	199	13.26	33.4	1.3	0.8	13	0.2	0.4	0.2	4	1.45	0.021	14
IAX 437	Rock Pulp	1.4	53.8	62.9	38	1.2	114.1	20.6	159	18.79	122.7	2.9	0.8	12	0.1	2.4	0.4	6	0.82	0.013	7
IAX 438	Rock Pulp	2.4	142.2	25.2	543	0.4	59.7	35.0	177	8.94	33.4	2.8	0.7	86	1.2	0.6	0.9	8	1.74	0.026	4
IAX 439	Rock Pulp	2.3	190.8	79.0	31	1.2	167.3	36.3	108	24.48	70.2	0.9	0.9	11	<0.1	0.9	4.8	5	0.30	0.011	5
IAX 440	Rock Pulp	1.7	122.5	59.8	48	0.7	99.4	53.5	112	19.64	94.8	0.9	0.9	7	0.2	1.2	4.1	4	0.68	0.011	8
IAX 441	Rock Pulp	1.4	73.5	61.4	48	1.2	81.2	24.6	110	19.87	124.5	<0.5	0.6	6	0.1	2.1	1.5	4	0.69	0.011	8
IAX 442	Rock Pulp	137.5	18.0	1.8	66	<0.1	16.7	8.6	297	2.23	<0.5	<0.5	7.2	27	<0.1	<0.1	<0.1	47	0.98	0.061	45
IAX 443	Rock Pulp	112.2	33.9	2.4	67	<0.1	21.6	10.2	372	2.62	<0.5	1.2	11.2	44	<0.1	<0.1	0.1	44	1.44	0.065	116
IAX 444	Rock Pulp	23.1	604.2	1.4	38	0.1	114.1	72.4	406	8.68	<0.5	0.5	1.3	8	<0.1	<0.1	1.0	193	0.40	0.106	7
IAX 445	Rock Pulp	38.3	292.7	3.8	111	0.3	68.8	29.7	624	8.57	1.5	1.0	14.8	14	0.1	<0.1	0.6	126	0.69	0.145	67
IAX 446	Rock Pulp	13.4	38.2	121.4	699	0.4	17.1	9.5	282	3.45	<0.5	<0.5	9.2	36	1.1	<0.1	<0.1	60	0.71	0.059	46
IAX 447	Rock Pulp	7.2	243.8	9.4	43	<0.1	2.5	13.7	280	2.89	0.5	1.1	18.1	51	0.2	<0.1	0.1	41	1.35	0.134	119
IAX 448	Rock Pulp	24.2	185.5	5.1	66	<0.1	195.8	106.2	755	12.48	0.5	1.4	3.4	48	<0.1	<0.1	0.7	57	1.72	0.114	25
IAX 449	Rock Pulp	27.5	207.1	12.2	109	0.1	48.1	20.7	577	7.15	<0.5	0.8	6.2	18	<0.1	<0.1	0.5	115	1.04	0.162	38
IAX 450	Rock Pulp	16.7	328.5	4.9	128	0.4	109.4	46.1	517	10.67	1.4	<0.5	3.0	9	0.2	<0.1	0.9	142	0.14	0.032	13
IAX 451	Rock Pulp	12.6	203.8	3.1	36	0.2	57.9	23.3	224	5.49	<0.5	<0.5	9.7	6	<0.1	<0.1	0.3	90	0.14	0.036	19
IAX 452	Rock Pulp	25.0	270.6	4.1	53	0.4	104.5	41.4	315	9.20	0.5	<0.5	5.1	9	<0.1	<0.1	1.0	138	0.34	0.046	12
IAX 453	Rock Pulp	16.4	287.0	5.4	46	0.5	120.9	48.1	494	11.21	0.6	<0.5	2.8	12	<0.1	<0.1	1.9	123	0.26	0.054	11
IAX 454	Rock Pulp	24.7	543.5	4.3	38	0.5	134.7	58.3	381	7.77	0.7	<0.5	1.2	11	<0.1	<0.1	0.8	194	0.46	0.071	8
IAX 455	Rock Pulp	6.1	14.1	2.9	87	<0.1	8.7	5.8	260	2.47	<0.5	<0.5	17.0	12	<0.1	<0.1	<0.1	25	0.44	0.021	54
IAX 456	Rock Pulp	23.3	219.1	21.5	127	0.2	42.6	18.8	661	7.28	<0.5	<0.5	3.8	15	0.2	<0.1	0.6	102	0.87	0.067	18
IAX 457	Rock Pulp	16.3	219.3	8.7	56	0.1	59.8	40.5	443	6.56	<0.5	<0.5	5.9	211	<0.1	<0.1	0.6	137	1.28	0.191	51



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Project:

None Given

Report Date:

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Page:

2 of 2

Part:

2 of 2

CERTIFICATE OF ANALYSIS

VAN15000829.1

	Method Analyte Unit MDL	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Ti	S	Ga	Se	Te
		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
IAX 432	Rock Pulp	34	0.10	9	0.081	<1	0.13	0.009	<0.01	0.7	<0.01	1.4	<0.1	<0.05	1	<0.5	<0.2
IAX 433	Rock Pulp	159	3.42	6	0.066	5	3.99	0.108	0.01	<0.1	0.04	36.0	<0.1	0.07	10	<0.5	<0.2
IAX 434	Rock Pulp	161	3.71	11	0.001	3	0.36	0.035	0.03	0.3	<0.01	15.3	<0.1	1.48	2	<0.5	0.2
IAX 435	Rock Pulp	161	0.18	15	0.037	1	0.33	0.021	0.13	0.2	0.04	0.7	0.5	>10	1	2.9	0.6
IAX 436	Rock Pulp	141	0.17	19	0.003	3	0.54	0.050	0.17	0.2	<0.01	0.8	0.4	>10	2	1.8	<0.2
IAX 437	Rock Pulp	201	0.20	10	0.009	2	0.46	0.036	0.16	0.1	0.05	0.9	0.9	>10	1	1.3	0.3
IAX 438	Rock Pulp	119	0.45	45	0.002	1	0.56	0.027	0.19	0.1	0.02	1.5	0.2	6.35	2	1.3	0.6
IAX 439	Rock Pulp	185	0.26	9	0.007	3	0.71	0.023	0.20	0.2	0.05	0.8	0.6	>10	2	2.0	0.8
IAX 440	Rock Pulp	145	0.17	9	0.006	3	0.47	0.024	0.15	0.2	0.02	0.7	0.6	>10	1	2.9	1.0
IAX 441	Rock Pulp	144	0.09	10	0.005	2	0.36	0.024	0.15	0.1	0.04	0.7	1.0	>10	1	2.0	0.6
IAX 442	Rock Pulp	33	1.92	112	0.275	6	1.43	0.101	1.31	1.4	<0.01	2.9	1.0	0.24	6	<0.5	<0.2
IAX 443	Rock Pulp	32	1.96	126	0.341	7	1.36	0.126	1.10	0.9	<0.01	3.4	0.9	0.62	5	<0.5	<0.2
IAX 444	Rock Pulp	43	0.83	58	0.244	6	1.60	0.034	1.04	<0.1	<0.01	21.5	1.0	4.55	9	4.2	0.6
IAX 445	Rock Pulp	37	0.95	66	0.201	4	1.35	0.089	1.11	0.3	<0.01	9.1	1.4	4.44	11	3.0	<0.2
IAX 446	Rock Pulp	31	2.42	131	0.295	7	1.82	0.123	1.37	0.3	<0.01	4.2	1.1	1.18	8	<0.5	<0.2
IAX 447	Rock Pulp	<1	0.54	64	0.238	7	0.76	0.156	0.49	0.1	<0.01	1.7	0.3	0.39	5	1.8	<0.2
IAX 448	Rock Pulp	39	0.99	21	0.229	14	1.60	0.151	0.79	6.8	<0.01	6.5	0.9	6.83	7	7.7	1.0
IAX 449	Rock Pulp	19	0.94	78	0.293	14	1.99	0.063	1.28	0.4	<0.01	9.8	1.2	2.80	14	0.9	<0.2
IAX 450	Rock Pulp	43	1.32	40	0.191	20	2.74	0.024	1.28	0.1	<0.01	11.5	2.8	5.65	15	3.2	0.2
IAX 451	Rock Pulp	19	0.49	30	0.086	10	0.86	0.029	0.56	0.1	<0.01	5.0	1.2	3.29	5	1.1	<0.2
IAX 452	Rock Pulp	33	0.69	31	0.103	19	1.75	0.023	0.68	0.3	<0.01	10.1	1.4	5.77	9	2.5	<0.2
IAX 453	Rock Pulp	45	1.20	53	0.185	23	2.65	0.024	1.12	0.1	<0.01	16.9	2.8	6.35	12	2.9	<0.2
IAX 454	Rock Pulp	79	1.27	61	0.331	11	2.32	0.053	1.32	0.1	<0.01	18.6	1.4	4.45	12	3.3	0.2
IAX 455	Rock Pulp	5	0.32	62	0.174	7	1.42	0.114	0.72	0.3	<0.01	2.6	0.6	<0.05	9	<0.5	<0.2
IAX 456	Rock Pulp	28	1.05	56	0.321	10	1.90	0.040	1.36	0.8	<0.01	7.1	1.3	2.74	14	1.7	<0.2
IAX 457	Rock Pulp	34	1.31	32	0.304	11	2.52	0.114	1.37	0.3	<0.01	11.9	1.1	2.61	12	1.8	0.2



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Project: None Given
Report Date: April 22, 2015

Page: 1 of 1

Part: 1 of 2

QUALITY CONTROL REPORT

VAN15000829.1

	Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
	MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
Pulp Duplicates																					
IAX 448	Rock Pulp	24.2	185.5	5.1	66	<0.1	195.8	106.2	755	12.48	0.5	1.4	3.4	48	<0.1	<0.1	0.7	57	1.72	0.114	25
REP IAX 448	QC	24.7	178.3	5.3	65	<0.1	194.2	103.9	751	12.38	0.6	2.9	3.3	48	<0.1	<0.1	0.6	57	1.71	0.114	24
Reference Materials																					
STD DS10	Standard	15.4	154.9	156.2	377	2.0	73.9	13.1	902	2.74	45.8	68.2	7.8	73	2.2	9.5	12.6	45	1.09	0.076	20
STD OXC129	Standard	1.3	26.5	6.1	42	<0.1	78.1	20.5	427	3.05	<0.5	202.5	1.9	197	<0.1	<0.1	<0.1	52	0.69	0.100	13
STD DS10 Expected		14.69	154.61	150.55	370	2.02	74.6	12.9	875	2.7188	43.7	91.9	7.5	67.1	2.49	8.23	11.65	43	1.0625	0.073	17.5
STD OXC129 Expected		205																			
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1



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1 of 1

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QUALITY CONTROL REPORT

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	Method Analyte Unit MDL	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
Pulp Duplicates																	
IAX 448	Rock Pulp	39	0.99	21	0.229	14	1.60	0.151	0.79	6.8	<0.01	6.5	0.9	6.83	7	7.7	1.0
REP IAX 448	QC	39	0.98	19	0.226	11	1.61	0.151	0.78	7.0	<0.01	6.7	0.9	6.80	7	7.3	1.0
Reference Materials																	
STD DS10	Standard	55	0.79	362	0.083	6	1.09	0.071	0.34	3.0	0.30	3.1	5.3	0.28	4	2.8	5.5
STD OXC129	Standard	50	1.56	51	0.398	<1	1.57	0.601	0.36	<0.1	<0.01	1.0	<0.1	<0.05	5	<0.5	<0.2
STD DS10 Expected		54.6	0.775	359	0.0817		1.0259	0.067	0.338	3.32	0.3	2.8	5.1	0.29	4.3	2.3	5.01
STD OXC129 Expected																	
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2



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Canada

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9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

Client: **MacGregor, R.A.**
28 Ford St.
Sault Ste. Marie ON P6A 4N4 CANADA

Submitted By: R.A. MacGregor
Receiving Lab: Canada-Vancouver
Received: September 08, 2015
Report Date: September 18, 2015
Page: 1 of 5

CERTIFICATE OF ANALYSIS

VAN15002338.1

CLIENT JOB INFORMATION

Project: None Given
Shipment ID:
P.O. Number
Number of Samples: 111

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
SLBHP	111	Sorting, labeling and boxing samples received as pulps			VAN
MA200	111	4 Acid digestion ICP-MS analysis	0.25	Completed	VAN

SAMPLE DISPOSAL

RTRN-PLP Return

ADDITIONAL COMMENTS

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: **MacGregor, R.A.**
28 Ford St.
Sault Ste. Marie ON P6A 4N4
CANADA

CC:



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
*** asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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Client:

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Sault Ste. Marie ON P6A 4N4 CANADA

Project:

None Given

Report Date:

September 18, 2015

Page:

2 of 5

Part:

1 of 3

CERTIFICATE OF ANALYSIS

VAN15002338.1

	Method	Analyte	Unit	MDL	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200			
					Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
					ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
					0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	1	0.1	0.1	0.1	0.1	1	0.01	0.001
IMA 1619	Rock Pulp		1.7	27.8	24.2	143	0.1	96.8	34.0	1705	6.99	3	11.0	14.0	477	0.6	<0.1	0.2	197	7.60	0.756	70.2		
IMA 1620	Rock Pulp		5.3	11.9	51.7	231	0.2	17.2	18.8	1938	7.14	5	7.7	9.7	532	0.5	0.2	0.2	92	4.77	0.375	54.2		
IMA 1621	Rock Pulp		1.7	10.4	21.4	118	0.2	17.1	15.4	2143	5.94	2	6.1	8.3	415	0.7	<0.1	0.1	127	4.24	0.189	39.2		
IMA 1622	Rock Pulp		0.8	16.9	93.8	323	0.2	14.3	8.5	615	2.20	3	3.6	11.9	303	0.3	0.2	1.1	77	4.43	0.336	109.8		
IMA 1630	Rock Pulp		1.7	12.6	8.1	24	<0.1	36.6	9.0	392	1.61	<1	2.2	7.8	664	0.2	0.2	0.2	39	2.09	0.062	25.6		
IMA 1631	Rock Pulp		0.9	9.3	14.9	100	<0.1	233.9	32.7	931	4.30	1	1.9	8.1	1629	0.2	0.5	0.1	130	5.34	0.224	60.9		
IMA 1632	Rock Pulp		3.3	27.2	7.9	34	<0.1	46.5	15.5	528	2.58	<1	0.3	1.0	380	<0.1	0.2	0.2	61	2.69	0.056	8.4		
IMA 1633	Rock Pulp		1.3	4.0	11.2	133	0.2	510.7	37.9	1163	4.63	<1	1.7	8.5	2280	0.7	0.3	<0.1	146	8.56	0.456	79.9		
IMA 1634	Rock Pulp		9.1	13.0	11.2	35	<0.1	108.7	21.5	601	2.96	1	0.7	2.2	1095	0.1	0.1	0.2	74	3.25	0.127	18.4		
IMA 1635	Rock Pulp		1.1	31.5	143.1	146	1.1	173.8	42.5	987	5.14	1	1.2	3.9	900	0.2	0.2	2.2	145	5.45	0.161	32.5		
IMA 1636	Rock Pulp		2.0	56.1	30.6	72	<0.1	114.8	35.4	1320	6.03	3	0.8	0.5	214	<0.1	0.2	0.2	173	6.01	0.032	5.0		
IMA 1637	Rock Pulp		3.0	62.9	12.9	92	0.1	129.4	35.1	1078	4.37	2	1.5	5.0	1747	0.1	0.2	0.5	106	6.73	0.179	44.2		
IMA 1638	Rock Pulp		6.6	29.2	10.5	32	<0.1	39.5	13.6	475	2.58	<1	0.3	1.0	578	<0.1	0.1	0.2	79	2.80	0.042	8.9		
IMA 1639	Rock Pulp		1.5	23.8	8.3	35	0.2	35.8	11.6	480	2.49	<1	0.5	1.5	496	0.2	0.2	<0.1	94	2.80	0.059	11.8		
IMA 1640	Rock Pulp		6.1	23.2	23.7	43	0.2	22.9	9.7	540	2.27	<1	2.3	6.7	468	<0.1	0.1	0.5	53	2.58	0.076	23.0		
IMA 1641	Rock Pulp		7.4	114.9	39.1	47	1.4	8.1	8.5	821	4.54	5	8.0	35.0	894	1.0	<0.1	0.5	175	4.10	0.083	156.3		
IMA 1642	Rock Pulp		5.8	80.0	16.5	126	0.2	47.5	35.5	1847	6.81	2	11.0	6.4	323	0.4	0.1	0.3	213	7.92	0.062	25.6		
IMA 1643	Rock Pulp		0.8	25.3	11.2	153	<0.1	47.5	44.7	2070	8.80	<1	0.5	0.5	267	0.1	0.1	0.2	301	7.98	0.058	6.3		
IMA 1644	Rock Pulp		22.7	323.0	21.2	51	0.4	118.2	49.6	531	7.97	<1	5.9	6.7	141	0.2	<0.1	0.7	206	1.44	0.113	33.2		
IMA 1645	Rock Pulp		7.8	223.1	30.8	100	0.2	43.6	28.2	1376	7.76	1	8.3	16.5	910	0.2	<0.1	0.2	178	3.60	0.360	117.3		
IMA 1646	Rock Pulp		11.2	77.5	165.9	243	0.4	44.2	14.1	2627	8.44	2	10.1	11.2	441	1.4	0.2	0.3	63	2.73	0.201	72.6		
IMA 1647	Rock Pulp		61.7	244.0	8984.0	4268	6.1	86.9	62.4	1955	17.78	12	41.2	8.1	147	20.1	3.8	1.0	175	3.96	0.157	48.1		
IMA 1648	Rock Pulp		2.7	35.4	10.8	179	<0.1	54.6	48.7	1858	9.33	2	1.7	2.1	342	0.2	<0.1	0.4	291	7.22	0.079	16.8		
IMA 1649	Rock Pulp		7.2	84.0	15.1	202	0.3	25.4	18.9	2138	9.07	2	6.1	14.2	701	0.6	<0.1	0.2	87	3.20	0.311	117.0		
IMA 1650	Rock Pulp		2.0	24.2	12.4	82	<0.1	20.8	10.8	520	3.03	<1	4.1	8.6	331	0.2	<0.1	<0.1	62	2.82	0.065	34.5		
IMA 1651	Rock Pulp		5.0	46.8	12.3	75	0.1	26.3	11.9	805	3.28	4	8.5	19.3	390	0.4	<0.1	<0.1	75	5.65	0.069	165.7		
IMA 1652	Rock Pulp		42.5	193.4	28.5	40	0.2	81.5	29.0	279	7.93	<1	7.4	10.3	281	0.2	<0.1	1.0	139	0.72	0.069	44.6		
IMA 1653	Rock Pulp		3.3	15.6	17.6	6026	0.3	17.8	7.9	297	2.71	4	1.3	1.4	955	26.6	0.7	0.2	45	15.78	0.247	9.4		
IMA 1654	Rock Pulp		3.6	21.8	114.2	>10000	0.6	17.0	12.5	611	5.51	7	2.0	1.4	1128	155.9	0.5	3.3	56	18.78	3.010	35.9		
IMA 1655	Rock Pulp		0.1	0.4	3.0	63	<0.1	1.9	0.9	621	0.21	<1	0.1	<0.1	597	0.2	<0.1	<0.1	6	18.11	0.017	2.5		



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Project: None Given
Report Date: September 18, 2015

Page: 2 of 5

Part: 2 of 3

CERTIFICATE OF ANALYSIS

VAN15002338.1

	Method	Analyte	Unit	MDL	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200				
					Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S	Rb	Hf	
					ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm
					1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	1	1	0.1	0.1	0.1	0.1
IMA 1619	Rock Pulp	364	5.33	1192	1.079	5.18	1.326	1.81	1.7	293.3	177	3.6	60.8	20.2	1.2	3	38	63.6	<0.1	135.8	7.9				
IMA 1620	Rock Pulp	45	1.87	568	0.957	7.47	2.794	1.70	1.8	422.5	119	12.1	124.3	35.6	2.4	5	13	44.3	<0.1	56.9	11.4				
IMA 1621	Rock Pulp	58	1.80	624	1.439	6.89	2.504	1.72	46.3	596.2	94	4.5	76.6	31.3	1.9	3	21	19.7	<0.1	41.2	16.2				
IMA 1622	Rock Pulp	34	4.64	892	0.445	5.51	1.668	2.12	0.6	215.3	204	6.7	26.4	11.9	0.7	2	10	61.7	<0.1	51.6	6.2				
IMA 1630	Rock Pulp	87	1.02	1916	0.054	7.12	6.214	0.62	1.0	142.8	59	0.6	6.6	1.8	0.1	2	4	4.7	<0.1	18.4	4.6				
IMA 1631	Rock Pulp	469	5.16	2740	0.067	4.74	0.889	2.46	1.7	168.8	137	0.7	13.4	0.5	<0.1	3	13	29.4	0.1	82.9	4.4				
IMA 1632	Rock Pulp	94	1.21	371	0.084	7.10	6.054	1.01	1.4	91.9	24	0.4	5.2	0.7	<0.1	2	8	8.5	0.7	27.6	2.9				
IMA 1633	Rock Pulp	486	6.88	1638	0.150	4.65	1.436	1.56	1.6	560.6	203	0.9	32.9	0.9	<0.1	4	16	67.4	<0.1	103.8	14.9				
IMA 1634	Rock Pulp	148	1.83	1138	0.086	6.89	5.201	1.34	0.6	160.9	50	0.4	10.9	0.7	<0.1	2	8	13.7	0.4	42.8	4.8				
IMA 1635	Rock Pulp	304	4.22	606	0.094	4.37	0.757	1.62	2.9	117.5	74	0.7	11.2	0.6	<0.1	3	14	27.6	0.4	61.3	2.8				
IMA 1636	Rock Pulp	260	2.66	223	0.421	7.10	4.149	2.19	0.7	37.1	16	0.6	12.5	2.9	0.2	1	25	12.1	<0.1	60.3	1.2				
IMA 1637	Rock Pulp	236	4.16	1142	0.104	6.14	3.330	1.17	1.8	126.9	100	0.5	14.7	1.5	<0.1	2	16	31.4	0.6	29.6	3.2				
IMA 1638	Rock Pulp	103	1.34	873	0.055	7.22	5.531	0.97	2.9	70.9	23	0.4	4.1	0.5	<0.1	2	7	6.4	0.3	29.5	2.2				
IMA 1639	Rock Pulp	74	1.34	738	0.062	8.24	6.286	1.30	3.4	85.4	30	0.5	4.9	0.5	<0.1	2	8	9.2	0.3	36.0	2.7				
IMA 1640	Rock Pulp	96	1.03	653	0.173	7.06	3.698	4.65	1.3	194.0	57	1.0	14.4	6.9	0.5	3	6	3.4	0.5	89.1	5.7				
IMA 1641	Rock Pulp	60	0.70	304	0.324	8.21	5.432	2.97	7.0	765.8	365	3.2	61.2	14.6	0.6	5	4	3.8	0.8	62.4	17.9				
IMA 1642	Rock Pulp	116	4.17	544	0.994	7.56	1.322	1.28	5.8	90.2	58	2.7	39.1	10.0	0.6	7	28	32.8	1.0	98.6	2.9				
IMA 1643	Rock Pulp	120	4.56	107	0.973	8.20	1.458	0.73	2.0	31.9	17	2.0	31.5	1.8	0.1	<1	38	28.8	0.2	16.1	1.5				
IMA 1644	Rock Pulp	199	1.65	45	0.453	7.63	1.398	4.12	0.7	223.5	77	1.2	20.0	2.1	0.1	5	23	65.8	3.7	129.9	5.7				
IMA 1645	Rock Pulp	107	1.84	130	0.853	7.78	1.421	2.76	1.0	264.8	258	2.3	42.4	17.1	1.0	6	16	65.2	1.6	115.5	7.2				
IMA 1646	Rock Pulp	121	1.23	223	0.784	8.24	2.321	5.09	3.1	847.4	175	8.6	102.0	40.1	2.4	9	9	26.7	1.2	135.3	20.8				
IMA 1647	Rock Pulp	92	1.30	31	0.543	6.16	1.448	3.41	7.3	367.2	105	3.0	47.6	16.2	0.9	10	11	54.2	9.3	104.2	9.3				
IMA 1648	Rock Pulp	145	4.29	260	0.944	8.65	1.973	1.24	2.0	98.4	41	3.6	41.3	3.6	0.2	3	36	24.1	0.5	31.0	3.2				
IMA 1649	Rock Pulp	88	1.13	218	0.855	8.20	1.854	3.10	1.9	677.7	258	5.1	91.9	31.7	1.7	6	9	44.0	1.2	129.6	15.8				
IMA 1650	Rock Pulp	149	2.25	543	0.369	6.59	1.838	3.52	0.4	179.1	72	0.9	32.3	11.5	0.6	3	8	38.0	0.2	116.8	4.9				
IMA 1651	Rock Pulp	146	3.06	566	0.453	6.02	1.729	2.58	1.6	196.7	270	1.6	126.6	13.2	0.8	3	11	24.0	0.2	94.0	5.3				
IMA 1652	Rock Pulp	207	0.83	44	0.160	6.74	1.593	4.86	3.6	313.9	103	0.8	18.4	2.2	0.1	4	12	46.3	4.0	164.4	8.3				
IMA 1653	Rock Pulp	31	11.07	57	0.137	1.72	0.460	1.11	2.9	32.8	19	0.6	9.0	4.0	0.2	<1	3	41.4	2.6	22.4	0.9				
IMA 1654	Rock Pulp	83	7.16	21	0.106	1.15	0.181	1.04	2.6	15.1	82	0.3	34.6	2.6	0.2	<1	2	36.3	7.1	23.6	0.4				
IMA 1655	Rock Pulp	3	11.21	33	0.003	0.04	0.147	0.05	0.1	1.7	4	<0.1	0.7	0.1	<0.1	<1	<1	7.7	0.1	0.6	<0.1				



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Project: None Given
Report Date: September 18, 2015

Page: 2 of 5

Part: 3 of 3

CERTIFICATE OF ANALYSIS

VAN15002338.1

Method Analyte Unit MDL		MA200				
		In	Re	Se	Te	Ti
		ppm	ppm	ppm	ppm	ppm
		0.05	0.005	1	0.5	0.5
IMA 1619	Rock Pulp	0.11	<0.005	<1	0.8	1.3
IMA 1620	Rock Pulp	<0.05	<0.005	<1	<0.5	0.6
IMA 1621	Rock Pulp	0.09	<0.005	<1	<0.5	<0.5
IMA 1622	Rock Pulp	0.07	<0.005	<1	<0.5	0.5
IMA 1630	Rock Pulp	<0.05	<0.005	<1	<0.5	<0.5
IMA 1631	Rock Pulp	0.05	<0.005	<1	0.7	<0.5
IMA 1632	Rock Pulp	<0.05	<0.005	<1	<0.5	<0.5
IMA 1633	Rock Pulp	0.10	<0.005	<1	<0.5	0.8
IMA 1634	Rock Pulp	<0.05	<0.005	<1	<0.5	<0.5
IMA 1635	Rock Pulp	0.13	<0.005	<1	0.7	<0.5
IMA 1636	Rock Pulp	0.09	<0.005	<1	<0.5	<0.5
IMA 1637	Rock Pulp	<0.05	<0.005	<1	0.6	<0.5
IMA 1638	Rock Pulp	<0.05	<0.005	<1	<0.5	<0.5
IMA 1639	Rock Pulp	0.05	<0.005	<1	<0.5	<0.5
IMA 1640	Rock Pulp	0.05	<0.005	<1	<0.5	0.6
IMA 1641	Rock Pulp	0.07	<0.005	<1	<0.5	<0.5
IMA 1642	Rock Pulp	0.09	<0.005	<1	<0.5	1.3
IMA 1643	Rock Pulp	0.17	<0.005	<1	<0.5	<0.5
IMA 1644	Rock Pulp	0.10	0.015	4	<0.5	2.1
IMA 1645	Rock Pulp	0.08	<0.005	<1	<0.5	2.3
IMA 1646	Rock Pulp	0.41	<0.005	<1	<0.5	1.5
IMA 1647	Rock Pulp	0.11	0.038	2	<0.5	2.3
IMA 1648	Rock Pulp	0.09	0.006	<1	<0.5	0.7
IMA 1649	Rock Pulp	0.25	<0.005	<1	<0.5	1.9
IMA 1650	Rock Pulp	<0.05	<0.005	<1	<0.5	1.4
IMA 1651	Rock Pulp	<0.05	<0.005	<1	<0.5	1.1
IMA 1652	Rock Pulp	0.08	0.032	<1	<0.5	4.2
IMA 1653	Rock Pulp	<0.05	0.008	<1	2.3	3.0
IMA 1654	Rock Pulp	0.12	0.007	2	1.4	2.8
IMA 1655	Rock Pulp	<0.05	<0.005	<1	2.0	<0.5

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.



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Project: None Given
Report Date: September 18, 2015

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Page: 3 of 5

Part: 1 of 3

CERTIFICATE OF ANALYSIS

VAN15002338.1

Method	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200
Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
MDL	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.001	0.1
IMA 1656	Rock Pulp	0.5	0.7	5.9	313	<0.1	2.7	0.9	548	0.41	<1	0.2	<0.1	1613	0.8	<0.1	9	19.95	0.028	3.0
IMA 1657	Rock Pulp	0.5	3.6	10.4	4689	<0.1	5.1	2.6	621	1.57	3	0.4	0.2	1406	11.3	0.4	9	20.10	0.078	9.8
IMA 1658	Rock Pulp	0.9	12.2	5.9	1888	<0.1	5.0	3.1	709	1.43	2	1.1	0.2	2553	5.5	0.3	10	20.92	0.220	4.7
IMA 1659	Rock Pulp	3.5	19.7	7.5	>10000	0.2	9.7	8.6	613	3.14	3	1.5	1.2	1249	219.0	0.4	32	15.94	1.990	18.4
IMA 1660	Rock Pulp	0.5	1.4	6.6	129	<0.1	4.0	0.6	484	0.17	<1	2.2	1.3	1291	0.4	0.5	8	16.38	0.046	31.6
IMA 1661	Rock Pulp	0.8	3.8	6.0	202	<0.1	5.5	0.8	178	0.30	<1	0.9	1.3	406	0.5	0.4	4	5.13	0.011	3.0
IMA 1662	Rock Pulp	2.8	3.1	5.6	230	<0.1	3.7	1.6	682	0.67	<1	1.5	0.8	645	0.8	<0.1	6	21.17	0.026	9.8
IMA 1663	Rock Pulp	1.7	19.2	9.3	>10000	0.3	8.8	9.5	479	4.05	3	2.1	0.8	876	192.5	0.8	44	18.41	1.597	16.0
IMA 1664	Rock Pulp	18.8	259.2	25.9	98	0.6	60.1	25.6	745	7.61	<1	50.9	27.2	259	1.4	<0.1	69	2.06	0.100	55.4
IMA 1665	Rock Pulp	24.6	497.7	19.5	43	0.4	126.4	73.8	577	8.89	<1	8.4	7.2	148	0.5	<0.1	237	1.52	0.130	30.6
IMA 1666	Rock Pulp	14.5	204.1	24.8	39	0.4	74.5	29.6	337	7.63	<1	4.0	10.3	184	0.3	<0.1	89	0.93	0.063	47.6
IMA 1667	Rock Pulp	22.3	199.1	24.0	100	0.6	99.2	32.7	453	8.71	1	6.1	12.3	257	0.3	0.1	179	0.56	0.107	48.4
IMA 1668	Rock Pulp	41.1	201.8	22.2	161	0.5	91.5	36.1	696	13.15	3	7.2	20.4	110	1.0	0.4	245	1.16	0.080	77.7
IMA 1669	Rock Pulp	17.0	223.9	12.9	48	0.4	84.9	32.8	302	8.23	<1	3.7	9.9	125	0.2	<0.1	177	0.43	0.067	36.3
IMA 1670	Rock Pulp	21.4	264.1	19.9	41	0.5	110.9	43.0	290	11.22	<1	6.9	11.5	135	0.2	<0.1	128	0.32	0.057	42.3
IMA 1671	Rock Pulp	18.1	246.0	14.0	55	0.4	115.5	43.8	506	10.57	<1	3.7	8.5	114	0.4	<0.1	185	0.33	0.092	30.3
IMA 1672	Rock Pulp	26.0	442.1	17.6	53	0.3	130.8	58.3	452	9.50	<1	7.8	7.8	205	0.3	<0.1	221	0.81	0.152	36.9
IMA 1673	Rock Pulp	35.1	299.7	17.2	205	0.3	54.8	20.3	1717	7.73	<1	14.7	12.0	128	0.5	<0.1	124	1.41	0.104	56.5
IMA 1674	Rock Pulp	0.9	4.0	1.8	14	<0.1	27.6	14.6	96	2.93	6	3.7	10.2	150	0.2	0.8	64	2.84	0.051	12.4
IMA 1675	Rock Pulp	0.9	5.7	7.2	10	<0.1	24.4	12.1	130	4.26	17	2.2	6.2	361	<0.1	1.9	73	8.70	0.039	36.8
IMA 1676	Rock Pulp	1.0	30.3	3.7	35	0.2	28.7	21.2	58	3.90	24	3.3	6.3	119	0.1	2.4	108	2.23	0.056	20.6
IMA 1677	Rock Pulp	0.9	5.7	22.9	121	0.1	4.0	1.1	640	0.96	<1	0.4	0.3	433	0.4	1.3	11	21.26	0.030	7.0
IMA 1678	Rock Pulp	1.3	12.2	6.0	50	<0.1	5.3	3.8	642	0.85	1	0.2	0.1	262	<0.1	0.1	11	20.00	0.027	3.1
IMA 1679	Rock Pulp	2.6	67.4	24.2	149	0.3	14.5	10.0	655	7.71	<1	0.3	0.2	265	0.3	0.3	32	18.04	0.097	3.0
IMA 1680	Rock Pulp	2.3	23.9	26.8	9741	0.3	7.9	4.2	543	1.96	4	3.0	1.8	1482	24.8	1.1	31	19.32	0.678	44.0
IMA 1681	Rock Pulp	0.3	2.7	3.3	83	<0.1	21.4	14.5	255	2.32	2	1.7	2.9	288	0.4	0.6	51	7.06	0.051	11.2
IMA 1682	Rock Pulp	3.9	18.0	7.9	285	<0.1	13.4	4.3	256	0.61	2	1.5	1.4	243	0.8	0.3	28	9.78	0.061	3.3
IMA 1683	Rock Pulp	1.2	21.2	11.4	5426	0.3	12.6	4.9	557	4.89	5	0.9	0.7	266	10.2	0.6	32	15.97	1.250	9.9
IMA 1684	Rock Pulp	0.4	2.9	33.9	80	<0.1	3.5	0.7	164	0.50	2	11.6	19.4	133	<0.1	0.5	3	1.00	0.007	5.5
IMA 1685	Rock Pulp	0.5	16.2	15.3	400	0.1	10.3	6.1	547	1.30	3	1.7	1.9	622	0.8	0.8	26	16.26	0.052	8.1

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Page:

3 of 5

Part:

2 of 3

CERTIFICATE OF ANALYSIS

VAN15002338.1

	Method Analyte Unit MDL	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	
		Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S	Rb	Hf
		ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm
		1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	1	1	0.1	0.1	0.1
IMA 1656	Rock Pulp	6	9.83	172	0.003	0.05	0.202	0.06	0.2	3.0	5	<0.1	0.8	0.1	<0.1	<1	<1	12.4	0.4	0.5	<0.1
IMA 1657	Rock Pulp	11	9.14	131	0.005	0.07	0.098	0.03	0.4	3.6	13	0.6	1.4	0.1	<0.1	<1	<1	11.7	1.8	0.7	<0.1
IMA 1658	Rock Pulp	11	10.37	210	0.008	0.09	0.248	0.10	0.5	3.4	8	0.3	2.0	0.3	<0.1	<1	<1	14.0	1.5	3.7	<0.1
IMA 1659	Rock Pulp	34	7.51	17	0.067	0.87	0.046	0.92	3.0	7.9	42	0.7	20.5	1.4	0.1	<1	1	16.5	5.4	17.9	0.3
IMA 1660	Rock Pulp	28	9.95	266	0.009	0.13	0.325	0.09	0.6	8.2	63	0.2	4.3	0.3	<0.1	<1	<1	29.3	0.1	0.9	0.2
IMA 1661	Rock Pulp	89	2.84	934	0.003	0.06	0.056	0.02	0.2	22.6	5	0.2	0.5	0.2	<0.1	<1	<1	6.2	0.1	0.5	0.8
IMA 1662	Rock Pulp	13	11.03	76	0.005	0.07	0.134	0.05	0.9	3.1	17	<0.1	1.8	0.2	<0.1	<1	<1	8.6	0.5	1.2	<0.1
IMA 1663	Rock Pulp	25	7.89	50	0.064	0.79	0.138	0.86	1.1	8.7	36	0.2	17.3	1.3	<0.1	<1	2	35.7	6.1	17.5	0.2
IMA 1664	Rock Pulp	117	0.82	71	0.587	7.74	2.763	4.71	1.6	891.9	138	2.9	135.8	44.4	3.4	7	8	35.3	3.6	184.4	23.7
IMA 1665	Rock Pulp	163	1.51	46	0.479	8.26	1.273	5.60	0.9	292.0	75	1.8	23.0	3.3	0.2	5	24	95.6	4.7	122.5	7.5
IMA 1666	Rock Pulp	163	0.96	40	0.174	6.54	1.870	4.50	1.0	290.4	107	0.5	19.1	3.1	0.2	3	9	50.0	4.0	209.6	7.3
IMA 1667	Rock Pulp	194	1.25	34	0.267	7.42	0.812	4.59	1.0	293.1	117	1.0	22.5	3.5	0.2	4	15	103.7	4.5	157.9	8.3
IMA 1668	Rock Pulp	155	1.72	34	0.293	6.54	1.208	4.46	2.0	790.2	175	2.1	27.0	25.2	1.3	4	8	78.9	7.3	167.4	13.9
IMA 1669	Rock Pulp	277	0.70	42	0.150	7.06	0.459	3.45	0.8	261.4	86	0.9	15.5	1.6	0.1	3	14	67.2	3.9	108.4	6.7
IMA 1670	Rock Pulp	231	0.71	40	0.142	6.24	0.614	4.63	1.4	271.0	99	1.0	17.0	1.8	0.1	2	10	51.3	4.8	154.2	7.2
IMA 1671	Rock Pulp	154	1.30	29	0.242	7.03	0.371	3.95	0.4	284.8	81	1.2	15.2	1.7	<0.1	3	18	102.1	5.4	128.3	7.2
IMA 1672	Rock Pulp	146	1.07	41	0.373	7.55	1.383	4.21	0.6	287.7	82	1.7	21.0	1.9	0.1	3	19	64.3	3.8	110.0	6.3
IMA 1673	Rock Pulp	158	0.86	209	0.577	7.50	2.382	3.47	2.0	736.3	135	4.7	86.0	31.4	1.6	8	11	51.7	1.6	143.5	17.6
IMA 1674	Rock Pulp	79	4.51	161	0.415	6.84	3.719	1.37	4.4	140.2	30	2.4	16.2	10.7	0.7	<1	9	50.3	2.5	9.2	3.9
IMA 1675	Rock Pulp	60	2.99	83	0.360	5.78	2.860	1.79	3.8	125.9	99	1.5	31.9	9.9	0.6	<1	10	52.2	3.4	21.5	3.5
IMA 1676	Rock Pulp	90	4.18	71	0.415	6.68	3.031	2.89	1.1	124.6	52	1.8	23.9	9.9	0.6	<1	11	59.3	3.8	25.1	3.4
IMA 1677	Rock Pulp	8	11.13	193	0.009	0.12	0.111	0.09	<0.1	3.7	11	<0.1	1.8	0.3	<0.1	<1	<1	6.2	0.9	1.9	<0.1
IMA 1678	Rock Pulp	9	11.22	94	0.009	0.12	0.167	0.03	0.5	4.1	6	<0.1	1.9	0.2	<0.1	<1	<1	11.1	0.4	0.6	0.1
IMA 1679	Rock Pulp	95	9.70	78	0.014	0.18	0.127	0.09	1.1	4.3	7	0.2	2.8	0.4	<0.1	<1	<1	10.7	3.4	1.9	0.1
IMA 1680	Rock Pulp	29	9.54	55	0.061	1.11	0.345	0.71	1.3	19.0	84	1.1	12.8	1.3	<0.1	<1	2	25.7	2.0	19.8	0.6
IMA 1681	Rock Pulp	52	8.81	112	0.278	4.18	1.937	0.56	1.5	76.6	22	1.4	11.2	6.5	0.4	1	9	54.2	0.1	9.6	2.3
IMA 1682	Rock Pulp	59	5.32	164	0.038	0.65	0.560	0.09	1.1	12.8	6	0.2	1.9	1.0	<0.1	<1	1	17.5	0.4	3.2	0.4
IMA 1683	Rock Pulp	74	6.51	50	0.026	0.41	0.290	0.24	1.1	5.2	17	0.3	9.9	0.7	<0.1	<1	<1	40.4	4.4	11.6	0.1
IMA 1684	Rock Pulp	64	0.60	503	0.027	6.48	4.515	2.51	0.2	52.3	14	2.3	3.8	19.4	1.2	14	<1	6.9	<0.1	335.6	3.1
IMA 1685	Rock Pulp	18	8.70	65	0.097	1.51	1.010	0.47	1.7	35.3	13	0.3	7.4	2.8	0.2	<1	3	39.5	1.1	26.8	1.0



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September 18, 2015

Page:

3 of 5

Part: 3 of 3

CERTIFICATE OF ANALYSIS

VAN15002338.1

Method Analyte Unit MDL		MA200	MA200	MA200	MA200	MA200
		In	Re	Se	Te	Tl
		ppm	ppm	ppm	ppm	ppm
		0.05	0.005	1	0.5	0.5
IMA 1656	Rock Pulp	<0.05	<0.005	<1	1.9	<0.5
IMA 1657	Rock Pulp	<0.05	<0.005	<1	2.9	<0.5
IMA 1658	Rock Pulp	<0.05	0.006	<1	1.8	<0.5
IMA 1659	Rock Pulp	0.12	0.011	2	1.2	2.5
IMA 1660	Rock Pulp	<0.05	<0.005	<1	2.0	<0.5
IMA 1661	Rock Pulp	<0.05	<0.005	<1	<0.5	<0.5
IMA 1662	Rock Pulp	<0.05	<0.005	1	1.3	<0.5
IMA 1663	Rock Pulp	0.11	<0.005	2	1.1	2.1
IMA 1664	Rock Pulp	0.15	0.007	1	<0.5	1.6
IMA 1665	Rock Pulp	<0.05	0.006	2	<0.5	2.3
IMA 1666	Rock Pulp	0.05	0.006	<1	<0.5	3.3
IMA 1667	Rock Pulp	0.06	0.019	1	<0.5	3.9
IMA 1668	Rock Pulp	0.08	0.017	<1	<0.5	5.3
IMA 1669	Rock Pulp	<0.05	0.009	1	<0.5	2.8
IMA 1670	Rock Pulp	<0.05	0.012	<1	<0.5	3.6
IMA 1671	Rock Pulp	<0.05	0.010	<1	<0.5	4.1
IMA 1672	Rock Pulp	0.08	0.015	2	<0.5	1.8
IMA 1673	Rock Pulp	0.11	0.014	<1	<0.5	1.6
IMA 1674	Rock Pulp	<0.05	<0.005	<1	<0.5	<0.5
IMA 1675	Rock Pulp	<0.05	<0.005	<1	<0.5	<0.5
IMA 1676	Rock Pulp	<0.05	<0.005	1	<0.5	<0.5
IMA 1677	Rock Pulp	<0.05	<0.005	<1	1.8	<0.5
IMA 1678	Rock Pulp	<0.05	<0.005	<1	1.3	<0.5
IMA 1679	Rock Pulp	<0.05	0.005	2	1.0	<0.5
IMA 1680	Rock Pulp	<0.05	0.015	<1	1.7	1.1
IMA 1681	Rock Pulp	<0.05	<0.005	<1	0.8	<0.5
IMA 1682	Rock Pulp	<0.05	<0.005	<1	0.6	<0.5
IMA 1683	Rock Pulp	<0.05	<0.005	2	1.3	0.6
IMA 1684	Rock Pulp	<0.05	<0.005	<1	<0.5	1.5
IMA 1685	Rock Pulp	<0.05	<0.005	1	1.2	0.7

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Page:

4 of 5

Part: 1 of 3

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	Method	Analyte	Unit	MDL	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200			
					Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
					ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
					0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	1	0.1	0.1	0.1	0.1	1	0.01	0.001
IMA 1686	Rock Pulp																							
IMA 1687	Rock Pulp																							
IMA 1688	Rock Pulp																							
IMA 1689	Rock Pulp																							
IMA 1690	Rock Pulp																							
IMA 1691	Rock Pulp																							
IMA 1692	Rock Pulp																							
IMA 1693	Rock Pulp																							
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IMA 1704	Rock Pulp																							
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IMA 1707	Rock Pulp																							
IMA 1708	Rock Pulp																							
IMA 1709	Rock Pulp																							
IMA 1710	Rock Pulp																							
IMA 1711	Rock Pulp																							
IMA 1712	Rock Pulp																							
IMA 1713	Rock Pulp																							
IMA 1714	Rock Pulp																							
IMA 1715	Rock Pulp																							

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Page: 4 of 5

Part: 2 of 3

CERTIFICATE OF ANALYSIS

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	Method Analyte Unit MDL	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200
		Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S	Rb	Hf
		ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm
		1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	1	1	0.1	0.1	0.1
IMA 1686	Rock Pulp	74	2.67	83	0.307	5.55	3.011	1.63	2.0	120.9	17	1.3	19.7	7.9	0.5	<1	8	37.4	4.0	10.0	3.6
IMA 1687	Rock Pulp	75	2.21	154	0.370	5.54	3.768	0.80	1.3	136.9	45	2.0	24.5	9.1	0.6	<1	7	29.8	1.2	6.0	3.8
IMA 1688	Rock Pulp	105	1.50	111	0.373	7.19	6.228	0.32	5.1	109.3	18	1.8	18.9	9.5	0.6	<1	10	13.6	3.0	1.6	3.0
IMA 1689	Rock Pulp	103	1.81	28	0.390	6.96	5.923	0.20	2.1	125.0	64	1.8	27.7	9.8	0.7	<1	14	15.7	4.8	1.0	3.6
IMA 1690	Rock Pulp	99	3.09	19	0.279	4.54	3.340	0.42	4.4	80.5	28	1.4	19.9	7.1	0.4	<1	10	22.6	4.4	2.4	2.2
IMA 1691	Rock Pulp	17	8.95	75	0.010	0.18	0.166	0.03	1.0	4.9	32	0.1	3.4	0.2	<0.1	<1	<1	14.5	1.1	0.9	0.1
IMA 1692	Rock Pulp	142	3.82	172	0.320	3.91	0.566	3.51	1.2	65.0	56	1.3	20.7	6.6	0.4	1	9	106.2	0.8	71.2	1.9
IMA 1693	Rock Pulp	130	2.14	39	0.307	4.51	3.980	0.10	1.4	95.5	17	6.3	18.0	7.9	0.5	<1	9	24.1	3.5	1.2	2.7
IMA 1694	Rock Pulp	112	1.46	65	0.364	5.85	5.140	0.11	1.8	131.2	13	3.3	14.1	9.5	0.6	<1	8	19.2	4.5	0.7	3.7
IMA 1695	Rock Pulp	99	2.50	89	0.297	6.22	5.249	0.08	3.9	130.3	55	1.5	15.5	7.2	0.5	<1	9	42.1	2.7	1.7	3.5
IMA 1696	Rock Pulp	112	1.15	30	0.339	6.90	6.425	0.09	5.8	154.2	46	2.1	14.7	8.4	0.5	<1	8	41.7	3.9	1.3	4.9
IMA 1697	Rock Pulp	133	3.22	258	0.287	7.65	6.401	0.45	0.9	140.2	23	0.9	17.7	5.1	0.3	1	16	46.8	2.0	21.5	3.9
IMA 1698	Rock Pulp	117	0.41	68	0.006	5.65	5.673	0.25	0.2	45.6	7	0.4	5.2	5.1	0.6	2	<1	5.6	0.1	2.3	2.4
IMA 1699	Rock Pulp	90	1.75	305	0.324	6.98	6.310	0.34	3.0	124.6	32	1.0	16.6	6.9	0.4	1	13	30.1	1.3	6.9	3.5
IMA 1700	Rock Pulp	125	2.03	31	0.457	6.30	5.377	0.18	5.0	98.3	58	1.9	23.7	10.4	0.7	<1	10	15.7	5.0	1.3	3.0
IMA 1701	Rock Pulp	47	5.24	38	0.302	4.29	2.632	0.07	2.2	88.3	25	1.9	13.8	6.2	0.4	<1	7	65.6	2.5	1.0	2.5
IMA 1702	Rock Pulp	73	11.04	239	0.312	5.88	0.862	0.77	5.7	122.7	24	1.9	11.8	6.9	0.5	1	10	158.7	0.8	11.1	3.5
IMA 1703	Rock Pulp	119	2.88	19	0.341	4.70	4.032	0.20	2.5	94.8	59	1.9	37.7	7.9	0.5	<1	13	26.3	4.0	8.8	2.6
IMA 1704	Rock Pulp	129	2.24	23	0.501	6.46	5.715	0.21	1.4	113.4	91	1.7	26.9	13.6	0.8	<1	12	11.2	4.9	2.2	3.5
IMA 1705	Rock Pulp	56	2.59	220	0.094	6.71	3.249	3.98	1.8	177.7	632	0.5	13.3	2.5	<0.1	2	1	35.4	1.3	28.5	4.2
IMA 1706	Rock Pulp	42	2.60	730	0.337	7.18	3.947	3.36	1.0	312.3	336	1.7	23.3	9.0	0.5	1	3	57.2	0.6	42.1	7.6
IMA 1707	Rock Pulp	21	10.08	1271	0.192	2.79	0.327	1.85	1.2	114.0	111	0.9	10.7	5.0	0.3	1	2	45.9	0.1	30.2	2.7
IMA 1708	Rock Pulp	114	0.27	1738	0.033	5.79	3.558	3.79	1.2	46.1	16	1.1	4.4	9.5	0.6	3	<1	14.9	0.2	115.1	1.9
IMA 1709	Rock Pulp	85	2.30	348	0.445	5.75	2.902	2.67	0.6	117.2	58	2.4	26.1	10.5	0.7	<1	11	32.9	0.6	17.9	3.4
IMA 1710	Rock Pulp	149	3.52	90	0.252	5.17	2.377	1.92	1.4	117.3	29	1.7	7.5	5.7	0.4	<1	7	68.3	2.7	16.8	3.3
IMA 1711	Rock Pulp	37	7.05	671	0.459	6.42	3.048	1.77	1.2	185.8	91	1.5	15.5	14.4	1.2	2	7	87.8	0.6	24.6	5.3
IMA 1712	Rock Pulp	46	3.00	1564	0.440	7.12	5.141	1.70	4.3	162.2	26	2.4	11.6	10.1	0.6	2	5	38.3	<0.1	13.7	4.7
IMA 1713	Rock Pulp	64	3.83	126	0.403	5.65	4.775	0.21	1.4	114.6	14	2.1	11.1	9.2	0.6	1	6	23.1	2.0	2.0	3.3
IMA 1714	Rock Pulp	114	1.72	82	0.363	6.58	6.151	0.19	0.6	145.7	79	1.2	28.3	7.3	0.5	<1	11	16.5	4.4	1.2	4.1
IMA 1715	Rock Pulp	38	6.13	119	0.106	1.36	0.923	0.05	0.4	31.4	46	0.6	33.5	2.4	0.1	<1	19	29.0	1.0	0.8	0.9



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Project:

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Page:

4 of 5

Part:

3 of 3

CERTIFICATE OF ANALYSIS

VAN15002338.1

		Method	MA200	MA200	MA200	MA200	MA200
		Analyte	In	Re	Se	Te	TI
		Unit	ppm	ppm	ppm	ppm	ppm
		MDL	0.05	0.005	1	0.5	0.5
IMA 1686	Rock Pulp		<0.05	<0.005	<1	<0.5	<0.5
IMA 1687	Rock Pulp		<0.05	<0.005	<1	<0.5	<0.5
IMA 1688	Rock Pulp		<0.05	<0.005	<1	<0.5	<0.5
IMA 1689	Rock Pulp		<0.05	<0.005	1	<0.5	<0.5
IMA 1690	Rock Pulp		<0.05	<0.005	1	<0.5	<0.5
IMA 1691	Rock Pulp		<0.05	0.024	<1	2.0	3.4
IMA 1692	Rock Pulp		<0.05	<0.005	<1	1.0	0.6
IMA 1693	Rock Pulp		<0.05	<0.005	<1	<0.5	<0.5
IMA 1694	Rock Pulp		<0.05	<0.005	1	<0.5	<0.5
IMA 1695	Rock Pulp		<0.05	0.008	<1	<0.5	<0.5
IMA 1696	Rock Pulp		<0.05	<0.005	1	<0.5	<0.5
IMA 1697	Rock Pulp		<0.05	<0.005	<1	<0.5	0.6
IMA 1698	Rock Pulp		<0.05	<0.005	<1	<0.5	<0.5
IMA 1699	Rock Pulp		<0.05	<0.005	<1	<0.5	<0.5
IMA 1700	Rock Pulp		<0.05	<0.005	<1	<0.5	<0.5
IMA 1701	Rock Pulp		<0.05	<0.005	<1	0.9	<0.5
IMA 1702	Rock Pulp		<0.05	<0.005	<1	1.7	<0.5
IMA 1703	Rock Pulp		<0.05	<0.005	<1	0.7	<0.5
IMA 1704	Rock Pulp		<0.05	<0.005	1	<0.5	<0.5
IMA 1705	Rock Pulp		<0.05	<0.005	<1	<0.5	<0.5
IMA 1706	Rock Pulp		<0.05	<0.005	<1	0.7	<0.5
IMA 1707	Rock Pulp		<0.05	<0.005	<1	1.5	<0.5
IMA 1708	Rock Pulp		<0.05	<0.005	<1	<0.5	0.7
IMA 1709	Rock Pulp		<0.05	<0.005	<1	0.8	<0.5
IMA 1710	Rock Pulp		<0.05	<0.005	<1	<0.5	<0.5
IMA 1711	Rock Pulp		<0.05	<0.005	<1	1.1	<0.5
IMA 1712	Rock Pulp		<0.05	<0.005	<1	<0.5	<0.5
IMA 1713	Rock Pulp		<0.05	<0.005	<1	1.0	<0.5
IMA 1714	Rock Pulp		<0.05	<0.005	<1	<0.5	<0.5
IMA 1715	Rock Pulp		<0.05	<0.005	<1	2.0	<0.5



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Page:

5 of 5

Part: 1 of 3

CERTIFICATE OF ANALYSIS

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	Method	Analyte	Unit																			
			MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	
			Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
			ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
MDL	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.001	0.1		
IMA 1716	Rock Pulp	0.6	1.9	2.7	28	<0.1	22.9	14.6	199	4.51	19	2.9	6.0	264	0.1	1.2	0.2	86	5.79	0.048	8.2	
IMA 1717	Rock Pulp	0.6	0.5	2.8	22	<0.1	8.9	3.3	620	5.75	28	2.1	1.2	366	<0.1	2.5	<0.1	77	13.93	0.047	27.0	
IMA 1718	Rock Pulp	0.9	2.7	2.7	13	<0.1	29.0	15.9	59	5.75	29	1.7	7.8	99	<0.1	0.4	0.2	76	0.83	0.053	15.7	
IMA 1719	Rock Pulp	0.5	19.1	7.7	33	0.1	29.7	11.9	222	2.58	11	8.5	20.0	1047	0.1	0.7	0.3	74	4.30	0.150	67.1	
IMA 1720	Rock Pulp	0.5	24.7	10.9	35	0.2	37.1	11.3	268	2.21	12	9.8	25.9	1757	0.1	0.7	0.4	57	4.70	0.230	126.3	
IMA 1721	Rock Pulp	0.7	20.3	5.3	27	<0.1	30.4	13.8	161	4.00	17	3.7	13.4	516	0.1	0.6	0.5	72	2.99	0.105	38.8	
IMA 1722	Rock Pulp	0.4	15.4	10.9	273	0.2	10.2	4.4	550	1.11	5	2.8	7.9	1098	0.9	0.6	0.2	13	16.25	0.087	31.3	
IMA 1723	Rock Pulp	0.5	2.5	10.6	418	0.1	3.5	1.2	617	0.75	2	0.3	0.2	823	1.1	0.2	0.1	9	20.46	0.032	3.2	
IMA 1724	Rock Pulp	0.7	1.9	14.0	819	0.2	4.3	1.8	697	1.02	3	0.5	0.4	937	2.7	0.3	0.3	11	19.22	0.051	13.2	
IMA 1725	Rock Pulp	0.5	3.1	4.2	66	<0.1	11.3	4.3	394	1.59	3	2.2	3.9	673	0.2	0.4	0.1	29	18.06	0.022	20.0	
IMA 1726	Rock Pulp	0.8	3.9	5.7	81	<0.1	19.4	10.5	310	4.13	12	1.8	3.7	506	0.3	0.4	0.5	41	10.00	0.032	14.3	
IMA 1727	Rock Pulp	0.7	3.0	7.1	28	<0.1	17.2	10.4	157	4.47	7	1.5	4.1	426	<0.1	0.6	0.4	45	10.43	0.032	6.4	
IMA 1728	Rock Pulp	1.9	73.9	26.6	326	0.1	46.4	19.7	492	3.98	24	1.5	6.1	248	1.0	0.2	0.3	90	3.22	0.087	32.3	
IMA 1729	Rock Pulp	1.0	185.8	2.4	93	<0.1	87.6	53.4	4499	13.68	16	<0.1	0.2	71	<0.1	0.1	0.2	305	7.37	0.032	6.1	
IMA 1730	Rock Pulp	20.6	997.3	121.6	5635	1.2	730.6	106.2	1526	5.81	146	0.4	1.4	45	19.6	2.5	0.8	46	3.66	0.018	6.1	
IMA 1731	Rock Pulp	16.3	140.0	20.9	110	0.2	270.2	46.5	1158	5.72	48	0.9	3.7	427	0.1	0.9	0.3	144	6.43	0.147	32.2	
IMA 1732	Rock Pulp	6.5	938.3	59.4	9704	1.6	142.7	71.7	525	3.69	101	1.5	5.0	153	17.7	4.9	1.4	69	3.09	0.057	24.6	
IMA 1733	Rock Pulp	1.7	30.8	7.7	113	<0.1	330.6	44.3	1147	5.85	2	0.7	2.4	693	0.2	0.1	<0.1	173	5.22	0.114	18.1	
IMA 1734	Rock Pulp	1.7	154.0	26.2	533	0.1	66.9	40.5	918	6.13	50	0.2	0.6	285	1.1	0.3	0.4	225	4.72	0.038	7.2	
IMA 1735	Rock Pulp	1.1	122.2	2.8	106	<0.1	107.5	73.1	2733	10.69	2	<0.1	0.4	153	0.1	0.4	0.2	353	8.06	0.046	4.8	
IMA 1736	Rock Pulp	0.4	117.8	3.0	118	0.2	1504.7	118.7	3058	9.14	21	<0.1	<0.1	282	0.2	0.3	0.2	122	9.58	0.009	0.9	



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Page:

5 of 5

Part:

2 of 3

CERTIFICATE OF ANALYSIS

VAN15002338.1

	Method	Analyte	Unit	MDL	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200			
					Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S	Rb	Hf
					ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm
					1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	1	1	0.1	0.1	0.1
IMA 1716	Rock Pulp	65	6.00	70	0.464	5.24	2.258	1.00	1.3	109.7	23	2.4	27.1	11.5	0.7	<1	17	115.3	2.6	20.9	3.3			
IMA 1717	Rock Pulp	56	9.67	216	0.068	0.81	0.179	0.19	5.5	16.3	55	0.6	24.3	1.7	<0.1	<1	22	36.7	0.8	13.3	0.5			
IMA 1718	Rock Pulp	95	2.57	29	0.167	6.28	4.921	1.38	0.5	149.3	35	1.2	15.3	2.6	0.2	<1	14	86.8	5.7	11.3	4.3			
IMA 1719	Rock Pulp	92	1.96	67	0.466	7.08	4.888	2.69	1.4	232.5	148	1.6	27.5	13.0	0.7	1	10	36.7	2.4	46.6	6.0			
IMA 1720	Rock Pulp	73	1.52	82	0.463	6.91	3.538	5.24	1.1	307.2	251	2.1	31.0	13.1	0.7	3	7	67.3	1.8	99.1	8.0			
IMA 1721	Rock Pulp	101	1.66	33	0.485	6.62	5.282	1.51	2.2	187.4	90	2.2	23.4	12.7	0.8	1	10	43.6	4.3	28.0	5.1			
IMA 1722	Rock Pulp	20	8.42	88	0.094	1.77	0.684	1.25	0.4	87.4	64	0.7	7.6	2.2	0.1	1	<1	15.1	0.8	17.9	2.1			
IMA 1723	Rock Pulp	11	9.88	127	0.005	0.12	0.131	0.06	0.3	2.6	5	0.1	1.6	0.1	<0.1	<1	<1	14.8	0.5	1.1	<0.1			
IMA 1724	Rock Pulp	14	9.66	155	0.011	0.17	0.138	0.11	0.3	3.9	20	0.1	3.5	0.3	<0.1	<1	<1	21.7	0.8	3.2	<0.1			
IMA 1725	Rock Pulp	55	4.86	50	0.099	1.36	0.686	0.29	1.2	31.3	43	0.5	13.4	2.1	0.1	<1	4	23.1	1.1	9.8	0.9			
IMA 1726	Rock Pulp	107	2.20	18	0.213	3.76	3.131	0.30	3.1	76.0	32	1.2	15.0	4.8	0.3	<1	5	14.1	4.4	2.7	2.2			
IMA 1727	Rock Pulp	88	2.36	72	0.265	3.69	3.294	0.15	0.9	75.7	13	1.2	16.1	5.8	0.4	<1	7	13.0	5.1	1.0	2.2			
IMA 1728	Rock Pulp	73	1.21	72	0.256	7.19	4.673	2.35	2.8	140.3	66	1.2	16.4	3.3	0.2	1	9	12.6	2.8	38.0	3.4			
IMA 1729	Rock Pulp	62	2.16	16	0.573	5.16	0.123	0.06	0.3	16.9	14	0.6	28.6	2.1	0.1	<1	39	21.7	1.8	1.9	0.6			
IMA 1730	Rock Pulp	188	0.86	151	0.105	3.18	0.815	0.77	0.6	44.5	13	6.7	9.9	1.6	0.1	<1	6	10.2	2.6	23.6	1.3			
IMA 1731	Rock Pulp	368	5.65	219	0.077	5.06	0.978	0.84	0.5	78.7	65	0.6	11.0	0.8	<0.1	<1	19	40.0	2.9	18.4	2.1			
IMA 1732	Rock Pulp	82	0.64	52	0.110	6.32	1.955	2.67	1.0	175.7	53	40.2	13.3	1.5	<0.1	<1	11	13.8	4.1	86.0	4.8			
IMA 1733	Rock Pulp	458	5.67	1184	0.375	5.63	1.495	2.64	0.4	73.3	36	0.9	13.4	2.2	0.1	2	21	21.8	0.6	113.4	1.8			
IMA 1734	Rock Pulp	64	2.09	455	0.199	7.25	2.598	1.99	2.1	64.1	16	2.3	7.9	1.1	0.1	<1	33	23.7	3.3	51.0	1.8			
IMA 1735	Rock Pulp	85	2.24	87	0.826	7.50	1.592	0.19	0.5	53.6	13	1.2	31.4	2.9	0.2	<1	47	12.0	0.9	4.3	1.9			
IMA 1736	Rock Pulp	1745	9.20	91	0.186	3.23	0.098	0.46	<0.1	11.8	2	0.4	5.7	0.6	<0.1	<1	22	8.3	0.7	26.2	0.5			



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Page:

5 of 5

Part: 3 of 3

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Method Analyte Unit MDL		MA200	MA200	MA200	MA200	MA200
		In	Re	Se	Te	Tl
		ppm	ppm	ppm	ppm	ppm
		0.05	0.005	1	0.5	0.5
IMA 1716	Rock Pulp	<0.05	<0.005	1	1.0	<0.5
IMA 1717	Rock Pulp	<0.05	<0.005	<1	2.5	<0.5
IMA 1718	Rock Pulp	<0.05	<0.005	<1	<0.5	<0.5
IMA 1719	Rock Pulp	<0.05	<0.005	<1	<0.5	<0.5
IMA 1720	Rock Pulp	<0.05	<0.005	<1	<0.5	1.2
IMA 1721	Rock Pulp	<0.05	<0.005	1	<0.5	<0.5
IMA 1722	Rock Pulp	<0.05	<0.005	<1	2.2	<0.5
IMA 1723	Rock Pulp	<0.05	<0.005	<1	4.0	<0.5
IMA 1724	Rock Pulp	<0.05	<0.005	<1	3.4	<0.5
IMA 1725	Rock Pulp	<0.05	<0.005	<1	2.8	<0.5
IMA 1726	Rock Pulp	<0.05	<0.005	1	<0.5	<0.5
IMA 1727	Rock Pulp	<0.05	<0.005	1	0.6	<0.5
IMA 1728	Rock Pulp	0.09	<0.005	<1	<0.5	<0.5
IMA 1729	Rock Pulp	0.05	<0.005	3	<0.5	<0.5
IMA 1730	Rock Pulp	0.92	0.007	8	1.6	0.5
IMA 1731	Rock Pulp	<0.05	<0.005	2	1.1	<0.5
IMA 1732	Rock Pulp	3.43	0.011	6	1.1	3.1
IMA 1733	Rock Pulp	0.07	<0.005	<1	1.0	1.6
IMA 1734	Rock Pulp	0.22	<0.005	1	<0.5	0.8
IMA 1735	Rock Pulp	0.12	<0.005	1	<0.5	<0.5
IMA 1736	Rock Pulp	<0.05	<0.005	1	3.2	0.7



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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA

PHONE (604) 253-3158

Client:

MacGregor, R.A.

28 Ford St.

Sault Ste. Marie ON P6A 4N4 CANADA

Project:

None Given

Report Date:

September 18, 2015

Page:

1 of 1

Part: 1 of 3

QUALITY CONTROL REPORT

VAN15002338.1

		Method	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	
		Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
		Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
		MDL	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.001	0.1
Pulp Duplicates																						
IMA 1631	Rock Pulp		0.9	9.3	14.9	100	<0.1	233.9	32.7	931	4.30	1	1.9	8.1	1629	0.2	0.5	0.1	130	5.34	0.224	60.9
REP IMA 1631	QC		1.0	9.9	15.7	103	0.1	239.0	33.4	962	4.38	1	1.9	8.4	1698	0.2	0.5	<0.1	134	5.45	0.236	64.1
IMA 1667	Rock Pulp		22.3	199.1	24.0	100	0.6	99.2	32.7	453	8.71	1	6.1	12.3	257	0.3	0.1	0.8	179	0.56	0.107	48.4
REP IMA 1667	QC		22.1	214.1	22.0	101	0.6	101.2	33.2	444	8.74	1	6.8	12.0	242	0.3	0.1	0.8	178	0.52	0.104	44.8
IMA 1703	Rock Pulp		0.7	3.7	3.1	10	<0.1	24.4	13.9	170	3.63	14	1.5	5.4	312	<0.1	0.4	0.2	51	8.72	0.031	26.3
REP IMA 1703	QC		0.6	3.3	2.9	11	<0.1	24.0	12.9	163	3.51	13	1.6	5.7	315	<0.1	0.4	0.2	49	8.37	0.030	25.4
Reference Materials																						
STD OREAS25A-4A	Standard		2.4	37.8	26.7	46	<0.1	50.1	8.1	514	6.60	10	3.0	15.4	49	0.1	0.6	0.3	164	0.29	0.048	18.2
STD OREAS25A-4A	Standard		2.3	35.4	24.9	49	0.1	47.5	7.6	508	6.65	9	2.7	14.3	48	<0.1	0.7	0.4	166	0.27	0.048	18.0
STD OREAS25A-4A	Standard		2.3	33.9	24.9	48	<0.1	45.9	7.6	519	6.66	9	2.8	14.8	48	<0.1	0.5	0.4	162	0.30	0.048	19.9
STD OREAS25A-4A	Standard		2.0	34.5	24.3	45	<0.1	45.6	7.6	473	6.23	10	2.9	14.4	46	<0.1	0.7	0.4	153	0.26	0.048	18.5
STD OREAS45E	Standard		2.4	758.8	18.6	48	0.3	480.8	61.7	576	23.78	17	2.6	13.4	18	<0.1	1.0	0.2	320	0.07	0.036	9.4
STD OREAS45E	Standard		2.2	818.4	19.2	50	0.3	480.6	59.0	617	25.98	17	2.4	12.8	19	<0.1	0.9	0.3	368	0.07	0.036	11.0
STD OREAS45E	Standard		2.4	818.8	19.2	50	0.3	511.8	61.7	642	26.08	16	2.4	12.9	18	<0.1	1.1	0.3	349	0.06	0.036	10.8
STD OREAS45E	Standard		2.3	811.5	19.5	46	0.3	480.0	61.1	575	25.26	17	2.7	14.3	20	<0.1	1.1	0.3	365	0.08	0.034	12.3
STD OREAS25A-4A			2.55	33.9	26.6	44.4		45.8	8.2	500	6.7	10.7	2.94	15.8	48.5		0.67	0.35	163	0.283	0.0495	21.8
STD OREAS45E Expected			2.4	780	18.2	46.7	0.311	454	57	570	24.12	16.3	2.41	12.9	15.9	0.06	1	0.28	322	0.065	0.034	11
BLK	Blank		<0.1	0.1	<0.1	<1	<0.1	0.1	<0.2	4	<0.01	<1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.001	<0.1
BLK	Blank		<0.1	0.2	0.3	<1	<0.1	<0.1	<0.2	<1	<0.01	<1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.001	<0.1
BLK	Blank		<0.1	<0.1	0.2	3	<0.1	<0.1	<0.2	<1	<0.01	<1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.001	<0.1
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.2	<1	<0.01	<1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.001	<0.1



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9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA

PHONE (604) 253-3158

Client:

MacGregor, R.A.

28 Ford St.

Sault Ste. Marie ON P6A 4N4 CANADA

Project:

None Given

Report Date:

September 18, 2015

Page:

1 of 1

Part: 2 of 3

QUALITY CONTROL REPORT

VAN15002338.1

	Method	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200	MA200
	Analyte	Cr	Mg	Ba	Tl	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S	Rb	Hf
	Unit	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm
	MDL	1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	1	1	0.1	0.1	0.1	0.1
Pulp Duplicates																					
IMA 1631	Rock Pulp	469	5.16	2740	0.067	4.74	0.889	2.46	1.7	168.8	137	0.7	13.4	0.5	<0.1	3	13	29.4	0.1	82.9	4.4
REP IMA 1631	QC	494	5.21	2940	0.070	4.83	0.900	2.52	1.9	173.7	142	0.8	14.2	0.7	<0.1	3	14	30.5	0.1	88.3	4.3
IMA 1667	Rock Pulp	194	1.25	34	0.267	7.42	0.812	4.59	1.0	293.1	117	1.0	22.5	3.5	0.2	4	15	103.7	4.5	157.9	8.3
REP IMA 1667	QC	194	1.23	35	0.273	6.94	0.811	4.46	1.2	295.8	110	1.3	21.2	3.5	0.2	4	14	101.3	4.6	144.2	8.1
IMA 1703	Rock Pulp	119	2.88	19	0.341	4.70	4.032	0.20	2.5	94.8	59	1.9	37.7	7.9	0.5	<1	13	26.3	4.0	8.8	2.6
REP IMA 1703	QC	120	2.80	22	0.340	4.53	3.924	0.19	2.2	91.7	59	1.8	36.8	7.8	0.5	<1	13	26.1	3.8	8.2	2.7
Reference Materials																					
STD OREAS25A-4A	Standard	115	0.34	149	1.003	8.92	0.138	0.51	2.0	165.9	43	4.4	9.9	20.9	1.5	1	13	38.0	<0.1	57.9	4.5
STD OREAS25A-4A	Standard	112	0.36	153	0.948	8.76	0.142	0.49	2.0	146.0	44	4.0	9.3	19.0	1.3	1	13	39.5	<0.1	55.4	3.9
STD OREAS25A-4A	Standard	116	0.37	142	1.050	9.00	0.134	0.51	2.1	166.4	48	3.7	9.4	20.5	1.5	1	13	39.2	<0.1	64.9	4.7
STD OREAS25A-4A	Standard	109	0.32	139	0.890	8.32	0.127	0.47	1.7	136.7	41	4.1	9.1	18.4	1.3	<1	12	35.6	<0.1	54.0	3.9
STD OREAS45E	Standard	914	0.16	241	0.558	6.90	0.065	0.36	1.1	99.1	22	1.2	7.4	6.3	0.5	<1	93	7.1	<0.1	19.7	3.0
STD OREAS45E	Standard	1079	0.19	273	0.572	7.24	0.065	0.36	1.0	99.4	26	1.2	8.2	6.2	0.5	<1	98	7.2	<0.1	22.3	3.1
STD OREAS45E	Standard	1094	0.19	260	0.578	7.31	0.062	0.36	0.9	107.9	25	1.2	7.4	6.6	0.5	<1	102	7.1	<0.1	22.5	3.2
STD OREAS45E	Standard	949	0.17	261	0.561	7.24	0.060	0.35	1.0	100.0	25	1.6	8.6	6.3	0.6	<1	98	7.4	<0.1	23.1	3.0
STD OREAS25A-4A		120	0.327	151	0.977	8.87	0.134	0.5	2	155	48.9	4.2	10.5	20.9	1.5	0.93	13.7	36.7	0.047	61	4.28
STD OREAS45E Expected		979	0.156	252	0.559	6.78	0.059	0.324	1.07	97	23.5	1.32	8.28	6.8	0.54		93	6.58	0.046	21.2	3.11
BLK	Blank	2	<0.01	<1	<0.001	<0.01	0.004	<0.01	<0.1	0.2	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<0.1	<0.1	
BLK	Blank	1	<0.01	<1	<0.001	<0.01	0.004	<0.01	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<0.1	<0.1	
BLK	Blank	<1	<0.01	<1	<0.001	<0.01	0.001	<0.01	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<0.1	<0.1	
BLK	Blank	1	<0.01	<1	<0.001	<0.01	<0.001	<0.01	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<0.1	<0.1	



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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA

PHONE (604) 253-3158

Client: **MacGregor, R.A.**
28 Ford St.
Sault Ste. Marie ON P6A 4N4 CANADA

Project: None Given
Report Date: September 18, 2015

Page: 1 of 1

Part: 3 of 3

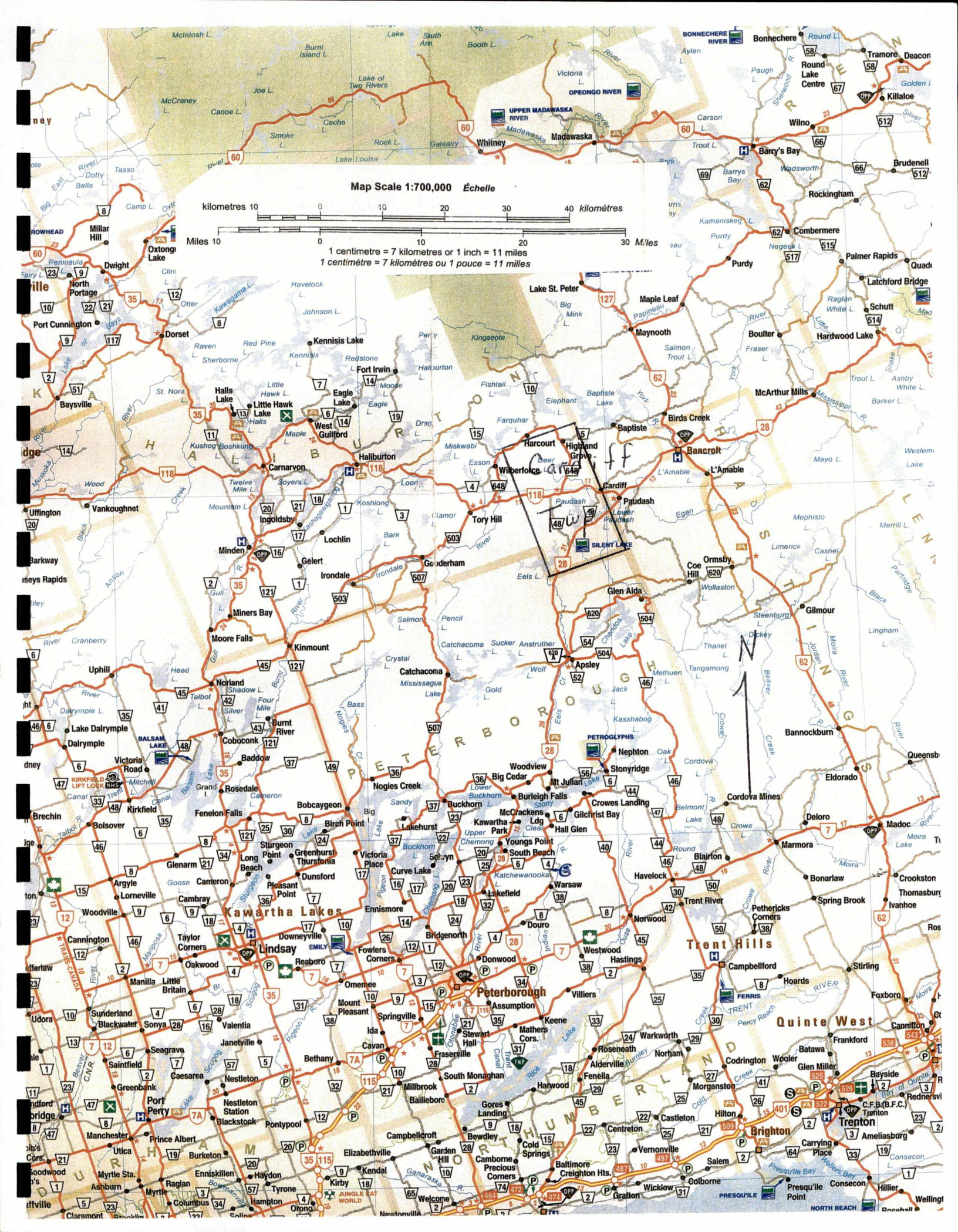
QUALITY CONTROL REPORT

VAN15002338.1

		Method	MA200	MA200	MA200	MA200	MA200
		Analyte	In	Re	Se	Te	Tl
		Unit	ppm	ppm	ppm	ppm	ppm
		MDL	0.05	0.005	1	0.5	0.5
Pulp Duplicates							
IMA 1631	Rock Pulp		0.05	<0.005	<1	0.7	<0.5
REP IMA 1631	QC		0.07	<0.005	<1	0.8	0.5
IMA 1667	Rock Pulp		0.06	0.019	1	<0.5	3.9
REP IMA 1667	QC		0.06	0.017	2	<0.5	3.8
IMA 1703	Rock Pulp		<0.05	<0.005	<1	0.7	<0.5
REP IMA 1703	QC		<0.05	<0.005	1	0.6	<0.5
Reference Materials							
STD OREAS25A-4A	Standard		0.08	<0.005	2	<0.5	<0.5
STD OREAS25A-4A	Standard		0.15	<0.005	2	<0.5	<0.5
STD OREAS25A-4A	Standard		0.11	<0.005	2	<0.5	<0.5
STD OREAS25A-4A	Standard		0.11	<0.005	3	<0.5	<0.5
STD OREAS45E	Standard		0.06	<0.005	3	<0.5	<0.5
STD OREAS45E	Standard		0.08	<0.005	4	<0.5	<0.5
STD OREAS45E	Standard		0.07	<0.005	2	<0.5	<0.5
STD OREAS45E	Standard		0.12	<0.005	3	<0.5	<0.5
STD OREAS25A-4A			0.09		2.5		0.35
STD OREAS45E Expected			0.099		2.97	0.1	0.09
BLK	Blank		<0.05	<0.005	<1	<0.5	<0.5
BLK	Blank		<0.05	<0.005	1	<0.5	<0.5
BLK	Blank		<0.05	<0.005	<1	<0.5	<0.5
BLK	Blank		<0.05	<0.005	<1	<0.5	<0.5

Appendix III

Location Plans

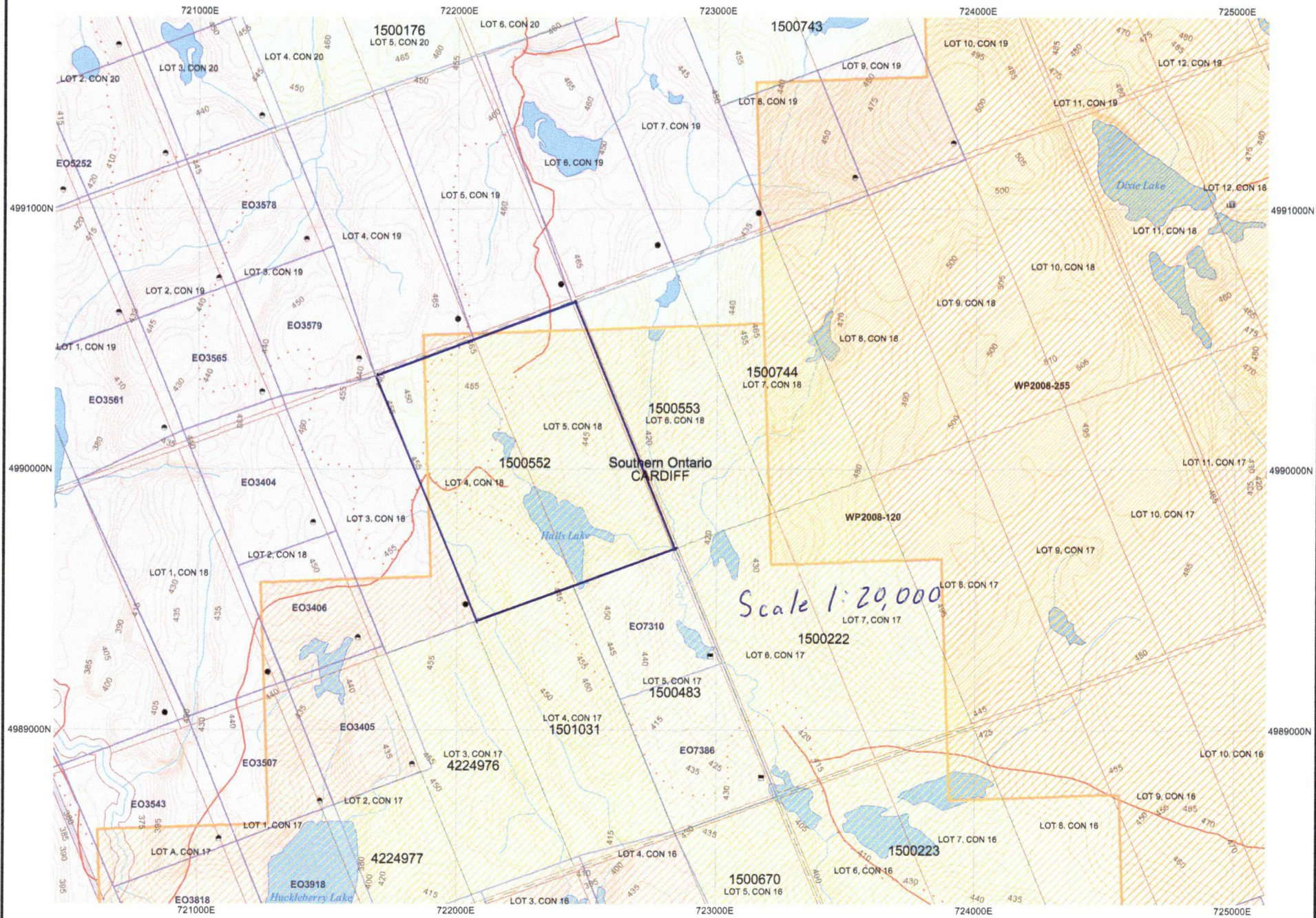


Map Scale 1:700,000 Échelle

kilometres 10 0 10 20 30 40 kilometres

Miles 10 0 10 20 30 Miles

1 centimetre = 7 kilometres or 1 inch = 11 miles
1 centimètre = 7 kilomètres ou 1 pouce = 11 milles



Appendix IV

Receipts





**BUREAU
VERITAS**

Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St.
Vancouver, BC Canada V6P 6E5
Phone 604 253 3158 Fax 604 253 1716
GST # 843013921 RT
QST # 1219972641

Bill To: MacGregor, R.A.
28 Ford St.
Sault Ste. Marie, ON P6A 4N4
CANADA

Invoice Date: April 24, 2015
Invoice Number: **VANI225565**
Submitted by: R.A. MacGregor
Email: macgregor.robert@shaw.ca
Job Number: VAN15000829
Order Number:
Project Code: None Given
Shipment ID:
Quote Number:

Item	Package	Description	Sample No.	Unit Price	Amount
1	SLBHP	Sort, label and box pulp samples	26	\$0.60	\$15.60
2	AQ201	15g Aqua Regia digestion ICP-MS	26	\$19.95	\$518.70
3	DRPLP	Dispose or return handling of pulps	26	\$0.10	\$2.60
			Net Total		\$536.90
			Ontario HST		\$69.80
			Grand Total	CAD	\$606.70

Invoice Stated In Canadian Dollars

Payment Terms:

Due upon receipt of invoice. Please pay the last amount shown on the invoice.

For cheque payments, please remit payable to:
Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St.
Vancouver BC, V6P 6E5

Please specify invoice number on cheque remittance.

For electronic payments, please contact AccountReceivable.VAN@acmelab.com for banking details.

For any enquiries please contact us at AccountReceivable.VAN@acmelab.com

May 1/15
Colex 7171



**BUREAU
VERITAS**

Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St.
Vancouver, BC Canada V6P 6E5
Phone 604 253 3158 Fax 604 253 1716
GST # 843013921 RT
QST # 1219972641

Bill To: MacGregor, R.A.
28 Ford St.
Sault Ste. Marie, ON P6A 4N4
CANADA

Invoice Date: September 18, 2015
Invoice Number: **VANI236000**
Submitted by: R.A. MacGregor
Email: macgregor.robert@shaw.ca
Job Number: VAN15002338
Order Number:
Project Code: None Given
Shipment ID:
Quote Number:

Item	Package	Description	Sample No.	Unit Price	Amount
1	SLBHP	Sort, label and box pulp samples	111	\$0.60	\$66.60
2	MA200	0.25g 4 Acid Digestion ICP-MS	111	\$18.75	\$2,081.25
3	DRPLP	Dispose or return handling of pulps	111	\$0.10	\$11.10
			Net Total		\$2,158.95
			Ontario HST		\$280.66
			Grand Total	CAD	\$2,439.61

Invoice Stated In Canadian Dollars

Payment Terms:

Due upon receipt of invoice. Please pay the last amount shown on the invoice.

For **cheque payments**, please remit payable to:
Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St.
Vancouver BC, V6P 6E5

Please specify invoice number on cheque remittance.

For **electronic payments**, please please contact AccountReceivable.VAN@acmelab.com for banking details.

For any enquiries please contact us at AccountReceivable.VAN@acmelab.com

Sept 22/15

Skid 1344

BILL TO:
R.A. MacGregor, P.Eng.
28 Ford Street
Sault Ste. Marie
ON, P6A 4N4
Sault Ste. Marie, ON P4A 4N4

Invoice # 5

INVOICED BY:
JIM LAIDLAW
GEOLOGICAL TECHNICIAN
307 RIGGS ROAD, R3
MADOC ON, K0K 2K0
(613)-473-5065

Description

H-SERIES DRILL HOLE CORE SAMPLING		AMOUNTS
Dates Worked	13, 14, 15, 19 and 20 May, 2015	
Jim Laidlaw	20.7 HOURS X \$37.50/HOUR	\$776.25
	13% HST	\$100.91
	SUB TOTAL	\$877.16
Rebecca Laidlaw	3.0 HOURS X \$20.00/HOUR	\$60.00
	TOTAL	\$937.16
Work Completed		
21 samples obtained from 30.3m of split drill core from (4) DDH H-1, H-2, H-5 and H-6; and tabulate drill hole data, inventory and prepare drill core samples for		

S-SERIES DRILL HOLE CORE SAMPLING		
Dates Worked	26 and 27, May; and 02 to 05 and 10, 12, 16, 17, 18, 29 and 30 June; and 03 and 06 July 2015.	
Jim Laidlaw	69.0 HOURS X \$37.50/HOUR	\$2,587.50
	13% HST	\$336.38
	SUB TOTAL	\$2,923.88
Rebecca Laidlaw	66.5 HOURS X \$20.00/HOUR	\$1,330.00
	TOTAL	\$4,253.88
Work Completed		
105 samples obtained from 141.1m of split drill core from (23) DDH S-5, S-7, S-8, S-10, S-23, S-24, S-25, S-26, S-27, S-34, S-35, S-37, S-43, S-64, S-67, S-69, S-71, S-72, S-78, S-79, S-81, S-82 and S-83; and tabulate drill hole data, inventory and prepare drill core samples for shipping.		

GRAND TOTAL	\$5,191.04
--------------------	-------------------

Jim Laidlaw
28 July 2015

Billing Date: 29 July 2015

HST No. 864087739

Aug. 11/15

Skid 1336



Appendix V

Drill Logs



Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Drill Log
Journal de forage

Page 1 of / de 2

Under section 8 of the Mining Act, this information is used to maintain a public record. / Aux termes de l'article 8 de la Loi sur les mines, ces renseignements serviront à tenir à jour les dossiers publics.

Hole ID / Forage n° H-1	Claim No. / N° de concession minière 4201590	Township/Area / Canton/ CARDIFF
-----------------------------------	--	---

Name of Land Holder / No. de TOM BARR	Azimuth 045	Dip / Inclinaison -45	End of Hole (m) / fin de forage (m) 170	Overburden Depth / profondeur des morts- terrains 3m
Drilling Company / Compagnie de forage DT/LEVERT	Logged by (print) / Inscrit par (écrire en lettres moulées) T. BEESLEY	Core Size / Dimensions de la carotte BTW	Collar Elevation / Élévation du collier n.a.	

Date Hole Started (yyyy/mm/dd) / Date de commencement du forage (aaaa/mm/jj) 2007/03/19	Date Completed (yyyy/mm/dd) / Date d'achèvement (aaaa/mm/jj) 2007/03/20	Date Logged (yyyy/mm/dd) / Date d'inscription au journal (aaaa/mm/jj) 2007/03/20	Location of Core Storage / Endroit où la carotte est stockée
---	--	--	---

DRILL HOLE COLLAR LOCATION CO-ORDINATES /
COORDONNÉES DU COLLIER DE TROU DE FORAGE

UTM / MTU

Latitude / Longitude

degrees/minutes/seconds or decimal values
degrés/minutes/secondes ou valeurs décimales

Datum: ☐ NAD 27 ☒ NAD 83
Zone: ☐ 15 ☐ 16 ☐ 17 ☒ 18
Northing / Ordonnée: **4990102**
499056
Easting / Abscisse: **721968**
721916

Datum: ☐ NAD 27 ☐ NAD 83
Latitude:
Longitude:

Footage/Avancement		Rock type / type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) / Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planar Feature Angle * / Angle des caractéristiques planes	Core Specimen Footage / Longueur en pieds des carottes prélevées	Your Sample No. / N° d'é chantillon du prospecteur	Sample Footage/ Niveau de prélèvement de l'échantillon (en pieds)		Sample Length/ Longueur de l'échantillon	Assays/ Analyses minéralurgiques
From/De	To/À						From/De	To/À		
3.0	8.92	AMPH.	DK GN, XRSE AMPHIBOLITE	30°						
8.92	12.41	AMPH.	F.G. SALT + PEPPER TEXTURE	50°						
12.41	16.94	AMPH.	DK GN, XRSE							
16.94	19.58	PEG.	PINK, CHLORITE PATCHES; FRACTURES 30-45	50						
19.58	29.63	AMPH.	F.G. SALT + PEPPER; 1 REG. CALCITE							
29.63	38.00	GAR. PNC.	F.G. MS, GARNET BLENDS TO 1cm; PARAGNEISS	35						
38.00	47.15	AMPH.	F.G. SALT + PEPPER	70						
47.15	50.24	GRGN.	COARSE BRONZE SCHIST; 5% PYRRHOTITE - GRAY							
50.24	70.25	AMPH.	F.T. M.G. GRN SALT + PEPPER	70						
70.25	86.00	GRGN.	AS ABOVE 47.15-50.24	70						
86.00	87.80	PEG	GRN, CHLORITE CLOTS, BIOT FRAMES; 3-5% PYRRHOTITE (P)		86.50	8001	86.00	87.10	1.10 m	107.06

*For features such as foliation, bedding, schistosity, measured from the long axis of the core. / *Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

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H-1

Drill Log

Page 2 of / de 2

Journal de forage

Footage/Avancement		Rock type/ type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.)/ Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planar Feature Angle ° / Angle des caractéristiques planes	Core Specimen Footage/ Longueur en pieds des carottes prélevées	Your Sample No./ N° d'échantillon du prospecteur	Sample Footage/ Niveau de prélèvement de l'échantillon (en pieds)		Sample Length/ Longueur de l'échantillon m	Assays/ Analyses minéralurgiques USG Intv 86	
From/De	To/À						From/De	To/À			
37.10	91.70	GREYW.	AS ABOVE 70.25-86.00								
91.70	99.25	GAB. PNG.	AS ABOVE 29.63-38.00	60							
99.25	101.45	GNEISS	GREEN, M.G.; BRANITE MICA.	70							
101.45	101.69	PEG	GREEN, BLACK BIOTITE	80	161.58	8002	101.45	101.69	0.24m	0.04	0.08
101.69	143.00	GNEISS	GREEN; As above 99.25-101.45 M.G. MICA	40/80							
			107.2-109.80 PHLOGOPITE IN ROOTLESS FOLDS	50							
			114.43-114.56, 116.3-116.47 BLUE PEG.	45							
			126.36: TAIL-QUARTZ FRACTURE	65							
143.00	170.00	GNEISS	BROWN F. TO M.G. MICA		161.20	8008	161.00	161.51	0.51	0.01	<0.01
			PEGMATITE, TRACE Pb		161.81	8003	161.72	161.95	0.23	0.02	0.01
			GRAPHIC PEGMATITE		163.71	8004	163.50	164.41	0.91	<0.01	<0.01
			BIOTITE-QUARTZ PEG	80	164.63	8005	164.41	164.75	0.34	<0.01	<0.01
			QTZ-BIO-Pb PEG		166.24	8006	165.99	166.50	0.51	0.01	<0.01
			BLACK QTZ-BIO PEG		167.25	8007	167.38	167.88	0.50	0.01	0.01
			BLACK QTZ, CHLOR.								
170.00			E.O.H.								

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Hole ID / Forage n° H-2		Claim No. / N° de concession minière 4201590		Township/Area / Canton/ CARDIFF		DRILL HOLE COLLAR LOCATION CO-ORDINATES / COORDONNÉES DU COLLIER DE TROU DE FORAGE													
Name of Land Holder / No, de Tom BARR		Azimuth 045		Dip / Inclinaison -45		End of Hole (m) / fin de forage (m) 332		Overburden Depth / profondeur des morts- terrains 5m		UTM / MTU Datum: ☐ NAD 27 ☒ NAD 83 Zone: ☐ 15 ☐ 16 ☐ 17 ☒ 18 Northing / Ordonnée: 4990056 Easting / Abscisse: 721854									
Drilling Company / Compagnie de forage DT/LEVERT		Logged by (print) / Inscrit par (écrire en lettres moulées) T. BEESLEY		Core Size / Dimensions de la carotte BTW		Collar Elevation / Élévation du collier na		Datum: ☐ NAD 27 ☐ NAD 83 Latitude: Longitude:											
Date Hole Started (yyyy/mm/dd) / Date de commencement du forage (aaaa/mm/jj) 2007/03/24		Date Completed (yyyy/mm/dd) / Date d'achèvement (aaaa/mm/jj) 2007/03/24		Date Logged (yyyy/mm/dd) / Date d'inscription au journal (aaaa/mm/jj) 2007/03/24		Location of Core Storage / Endroit où la carotte est stockée													
Footage/Avancement		Rock type / type de roche		Description (Colour, grain size, texture, minerals, alteration, etc.) / Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)				Planar Feature Angle * / Angle des caractéristiques planes		Core Specimen Footage / Longueur en pieds des carottes prélevées		Your Sample No. / N° d'é chantillon du prospecteur		Sample Footage/ Niveau de prélèvement de l'échantillon (en pieds)		Sample Length/ Longueur de l'échantillon		Assays/ Analyses minéralurgiques	
From/De	To/À																		
5.0	80.70	AMPH.		AMPHIBOLITE: DK GN TO BLK, M.B. PINK FELDSPAR PORPHYROBLASTS 14.86-15.06 BADLY BROKEN CORE RUST 35.85-36.20 DK GN CHLORITE BAND 20°ca, CRSE HBE XLS. 43.30 STANDING 60°ca 47.06-47.90:- UNEVEN FRACTURE 20°45°, 80°ca 76.17-76.55 LT PINK PEG SEGN, non-rad.				145											
80.70	90.13	AMPH.		E.G. Salt + Deppen texture.				75											
90.13	113.44	GAR PGN		GARNET PARAGNEISS:- BUFF, F. to M.B. GARNET PORPHYROBLASTS TO 2cm.															

*For features such as foliation, bedding, schistosity, measured from the long axis of the core. / *Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

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Footage/Avancement		Rock type/ type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.)/ Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planar Feature Angle ° / Angle des caractéristiques planes	Core Specimen Footage/ Longueur en pieds des carottes prélevées	Your Sample No./ N° d'échantillon du prospecteur	Sample Footage/ Niveau de prélèvement de l'échantillon (en pieds)		Sample Length/ Longueur de l'échantillon	Assays/ Analyses minéralurgiques		
From/De	To/A						From/De	To/A				
90.63	113.44	GAR PGN	103.1-104.20 HEAVY GRAPHITE COATED SLIPS AND FRACTURES, ALL ANGLES CO									
113.44	118.22	PARAGNEISS	LT BRN, F.G.	50								
118.22	126.02	AMPH	BLK, MASSIVE, SALT AND PEPPER									
126.02	135.08	PARAGNEISS	AS 113.44-118.22	60								
135.08	138.76	SCHIST	DK GRN; 1-3% P									
138.76	138.97	AMPH	F. to M.G.; SALT + PEPPER.									
138.97	153.45	SCHIST	AS ABOVE 135.08-138.40; XRS; PYRITE									
153.45	158.04	AMPH	AS ABOVE 118.22-126.02									
158.04	165.05	GAR PGN	AS ABOVE 90.63-113.44	55								
165.05	173.62	PINK GNEISS	F.G.	60								
173.62	174.43	GAR PGN	F.G. BLACK, DEFORMED	45								
174.43	175.56	PINK GNEISS	AS ABOVE 165.05-173.62									
175.56	181.49	GREEN SCHIST	CRSE; 1% P									
181.49	186.50	GAR PGN	F.G.; MID BROWN TO DK GRN									
186.50	190.80	PINK GNEISS	AS ABOVE 165.05-173.62	45								
190.80	200.90	AMPH	DK GRN, M. to C.G.									
200.90	207.90	GAR PGN	DK BRN, F.G.; GARNETS TO 5mm									
207.90	208.61	AMPH	DK GRN, XRS									
208.61	234.12	GAR PGN	PALE BEIGE, FINE TO M.G. ELONGATED GARNETS	65								
234.12	244.36	AMPH	DK GRN, XRS									
244.36	244.48	AMPH	M.G., SALT AND PEPPER.									
244.48	282.02	GAR PGN	F.G. BRN TO GRN									
			252-72 BANDING	70								

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"Site Web de la Section des terrains miniers : http://www.mndm.gov.on.ca/mndm/mines/lands/default_f.asp"

Footage/Avancement		Rock type/ type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.)/ Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planar Feature Angle ° / Angle des caractéristiques planes	Core Specimen Footage/ Longueur en pieds des carottes prélevées	Your Sample No./ N° d'échantillon du prospecteur	Sample Footage/ Niveau de prélèvement de l'échantillon (en pieds)		Sample Length/ Longueur de l'échantillon	Assays/ Analyses minéralurgiques		
From/De	To/À						From/De	To/À		Ug	ppm	%
249.45	282.10	GAR PGN										
			PINK PEG, Bk Qtz; Min Py		259.80	8009	259.50	260.21	0.71	0.01	0.01	
			As above 8009		262.19	8010	262.01	262.30	0.29	0.01	0.01	
			Black Qtz; 12 Py		263.49	8011	263.09	263.90	0.81	0.01	0.01	
			GREY Qtz, Bk Qtz		270.03	8012	270.68	271.17	0.49	0.01	0.01	
			10% Qtz, TR Py.			8013	276.93	277.12	0.19	0.01	0.01	
282.10	320.00	Amph	DK GRN, XRSE; LOCAL BANDS SALT									
			AND PEPPER	50								
			290.0 FAINT BANDS	65								
			294.80									
			305	65								
			BLACK REP PEG	70	317.82	8014	317.73	317.87	0.14	0.02	0.04	

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Drill Log Journal de forage

Page 1 of / de 4

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Hole ID / Forage n° H-5		Claim No. / N° de concession minière 4201590		Township/Area / Canton/ CARDIFF		DRILL HOLE COLLAR LOCATION CO-ORDINATES / COORDONNÉES DU COLLIER DE TROU DE FORAGE							
Name of Land Holder / No, de TOM BARR		Azimuth 045	Dip / Inclinaison -45	End of Hole (m) / fin de forage (m) 362	Overburden Depth / profondeur des morts- terrains 1.5m	UTM / MTU Datum: ☐ NAD 27 ☒ NAD 83 Zone: ☐ 15 ☐ 16 ☐ 17 ☒ 18 ☐ Northing / Ordonnée: 4990028 Easting / Abscisse: 721900			Latitude / Longitude degrees/minutes/seconds or decimal values degrés/minutes/secondes ou valeurs décimales Datum: ☐ NAD 27 ☐ NAD 83 Latitude: Longitude:				
Drilling Company / Compagnie de forage CDT/LEVERT		Logged by (print) / Inscrit par (écrire en lettres moulées) T. BRESLEY		Core Size / Dimensions de la carotte BTW	Collar Elevation / Élévation du collier na								
Date Hole Started (yyyy/mm/dd) / Date de commencement du forage (aaaa/mm/jj) 2007/04/17	Date Completed (yyyy/mm/dd) / Date d'achèvement (aaaa/mm/jj) 2007/04/24	Date Logged (yyyy/mm/dd) / Date d'inscription au journal (aaaa/mm/jj) 2007/04/24	Location of Core Storage / Endroit où la carotte est stockée										
Footage/Avancement		Rock type \ type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) / Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)			Planar Feature Angle * / Angle des caractéristiques planes	Core Specimen Footage / Longueur en pieds des carottes prélevées	Your Sample No. / N° d'é chantillon du prospecteur	Sample Footage/ Niveau de prélèvement de l'échantillon (en pieds)		Sample Length/ Longueur de l'échantillon	Assays/ Analyses minéralurgiques	
From/De	To/À								From/De	To/À			
1.5	40.40	AMPH	GRN-WHITE, XRSSE			60							
	61.12		1.5-4.5 POROUS ROCK										
			20.2 BANDING			70							
			34.97-35.43: POROUS, HEMATITE-STAINED										
			38.85-38.18 FRACTURE ZONE; DRILL WATER LOST.										
			40.40-61.62 DK GRN, M.G. BIOT. THROUGHOUT										
			59.29-60.24: PINK PEGG, NON RAD										
61.12	61.36	PARAGNEISS	F.G. BROWN - CONTACTS			40							
61.36	60.84	AMPH	GRN-WHITE, XRSSE AS ABOVE 40.40-45-40.4										
			61.85-62.18 PINK PEGG			45							
			62.85-62.97 WHITE PEG			45							

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Footage/Avancement		Rock type/ type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.)/ Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planar Feature Angle ° / Angle des caractéristiques planes	Core Specimen Footage/ Longueur en pieds des carottes prélevées	Your Sample No / N° d'échantillon du prospecteur	Sample Footage/ Niveau de prélèvement de l'échantillon (en pieds)		Sample Length/ Longueur de l'échantillon	Assays/ Analyses minéralurgiques	
From/De	To/À						From/De	To/À			
61.36	80.84	AMPH.	66.60-66.80 GRN CHLORITIC PEG								
			67.70-75.06 POROUS, CALCITE REPLACEMENT								
			77.53-77.90 WHOLESAL REPLACEMENT								
			BY MASSIVE WHITE CALCITE								
0.84	83.76	AMPH	SALT AND PEPPER, M.G.								
3.76	134.04	AMPH	GRN, M.G.: PARTIAL TO WHOLESAL								
			REPLACEMENT BY CALCITE.								
32.04	136.94	PINK GNEISS	92.33-101.95: POROSITY DUE TO CALCITE	50*							
6.94	154.88	GAR PNG	FELDSPAR-BIOTITE	55							
			BRN, F.G. GARNET BLASTS TO 4mm	50							
			148.67-148.79 GRAPHITIC SHEAR, P		142.65	8032	142.59	142.70	0.11	0.02	40.01
			PEG BLACK QTZ, REMNANT GNEISS								
59.16	160.65	SCHIST	BRN, XRSE; PYRRHOTIFEROUS	75							
60.65	164.92	GAR PNG	XRSE, BRN: ALTERED	80							
64.92	166.80	SCHIST	BRN, XRSE: Biotite, PYRRHOTITE + GRAPHITE								
			164.00-164.50: WHITE PEG.								
66.80	172.18	GAR PNG	ALTERED								
			169.55-169.82 WHITE PEG - BROWN CRYSTALS								
			STUBBY ORTHOPHONIC ALLANITE (?) EUCENTITE (?)								
72.18	193.63	SCHIST	BRN, XRSE: PYRRHOTIFEROUS								
			176.44-177.10, 179.63-179.70, 180.20-181.94,								
			191.04-191.30 BROWN CRYSTALS IN WHITE PEGS.								
193.63	196.44	GAR PNG	BUFF, F.G.								
96.44	204.86	AMPH	GRN, F.G. SALT + PEPPER	60							

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Footage/Avancement		Rock type/ type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planar Feature Angle ° / Angle des caractéristiques planes	Core Specimen Footage/ longueur en pieds des carottes prélevées	Your Sample No. / N° d'échantillon du prospecteur	Sample Footage/ Niveau de prélèvement de l'échantillon (en pieds)		Sample Length/ longueur de l'échantillon	Assays/ Analyses minéralurgiques	
From/De	To/À						From/De	To/À		Agf	Agw
204.86	227.62	GAR PNG	BUFF, F.G.								
			80 cps PINK PEG		206.91	8033	206.83	207.11	0.28	<0.01	<0.01
			80 cps PINK PEG		209.25	8034	209.00	210.13	1.13	<0.01	<0.01
			80 cps PINK PEG			8035	210.86	211.08	0.22	<0.01	<0.01
			200 cps PINK PEG			8036	212.00	212.85	0.83	0.02	0.02
			BROWN CRYSTALS IN WHITE PEG			9001	170.83	171.50	0.67	<0.01	0.01
227.62	238.25	SCHIST	DK BRN TO GRN, M.G.								
238.25	242.45	GAR PNG	BUFF, F.G.:								
			238.69-239.13 BLACK AMPHIBOLUS CRYSTALS								
			IN 0.5 CM BAND IN FOLDED FOLD								
242.85	245.52	PEG	PINK FELDSPAR-BIOTITE PEG NON-RAD								
245.52	275.13	GAR PNG	BUFF, F.G. NUMEROUS NARROW PINK								
			PEGGS, NON-RAD.								
275.13	290.40	AMPH	GRN F.G. M.G. SALT + PEPPER.								
			80 cps WHITE GREY PEG	45	275.21	8037	275.13	275.45	0.32	0.01	0.02
			30 cps WHITE PEG, BIOT. SEAM		277.10	8038	276.99	277.45	0.46	<0.01	<0.01
			80 cps GREY TO DRK PEG.		281.11	8039	280.47	281.30	0.83	<0.01	0.05
290.40	313.55	GAR PNG	284.80 BANDING	50							
			TECTONIZED GARNETS STRETCHED TO 3 cm								
313.55	362.00	AMPH	295.48 GARNET BANDING	50							
			DK GRN TO BLK, M.G. SALT + PEPPER								
			324.2 WEAK BANDING	65							
			300 cps PEG, BLK, Py		331.75	8040	331.60	331.90	0.30	0.02	0.10
			80 cps PEG, PINK + GREY		340.09	8041	340.00	340.20	0.20	0.01	0.04

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Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Drill Log
H-5
Journal de forage

Page 4 of / de 4[illegible]

*For features such as foliation, bedding, schistosity, measured from the long axis of the core. / *Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

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Ministry of
Northern Development
and Mines

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Drill Log
Journal de forage

Page 1 of / de 3

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Hole ID / Forage n° <u>H-6</u>	Claim No. / N° de concession minière <u>4201590</u>	Township/Area / Canton/ <u>CARDIFF</u>
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Name of Land Holder / No, de <u>Tom BARR</u>	Azimuth <u>045</u>	Dip / Inclinaison <u>-55</u>	End of Hole (m) / fin de forage (m) <u>332</u>	Overburden Depth / profondeur des morts- terrains <u>1.5</u>
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Drilling Company / Compagnie de forage <u>CDT / LEVERT</u>	Logged by (print) / Inscrit par (écrire en lettres moulées) <u>T. BEESLEY</u>	Core Size / Dimensions de la carotte <u>BTW</u>	Collar Elevation / Élévation du collier <u>na</u>
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Date Hole Started (yyyy/mm/dd) / Date de commencement du forage (aaaa/mm/jj) <u>2007/04/24</u>	Date Completed (yyyy/mm/dd) / Date d'achèvement (aaaa/mm/jj) <u>2007/04/26</u>	Date Logged (yyyy/mm/dd) / Date d'inscription au journal (aaaa/mm/jj) <u>2007/04/26</u>	Location of Core Storage / Endroit où la carotte est stockée
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DRILL HOLE COLLAR LOCATION CO-ORDINATES /
COORDONNÉES DU COLLIER DE TROU DE FORAGE

UTM / MTU

Latitude / Longitude

degrees/minutes/seconds or decimal values
degrés/minutes/secondes ou valeurs décimales

Datum: ☐ NAD 27 ☒ NAD 83

Datum: ☐ NAD 27 ☐ NAD 83

Zone: ☐ 15 ☐ 16 ☐ 17 ☒ 18 ☐

Latitude:

Northing / Ordonnée:

Longitude:

Easting / Abscisse:

4990028
721900

Footage/Avancement		Rock type / type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) / Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planar Feature Angle * / Angle des caractéristiques planes	Core Specimen Footage / Longueur en pieds des carottes prélevées	Your Sample No./ N° d'é chantillon du prospecteur	Sample Footage/ Niveau de prélèvement de l'échantillon (en pieds)		Sample Length/ Longueur de l'échantillon		Assays/ Analyses minéralurgiques	
From/De	To/À						From/De	To/À				
1.5	67.61	AMPH	GRN, M.G. TO C.G. ALTERED TO CHLORITE - SAUSSURITE - CALCITE.									
			38.5 BANDING	50								
			50.0 BANDING	80								
			56.0 - 56.43 BRN MUDSEAM, LIMONITE GLOBE									
67.61	70.33	PARAGNEISS	BUFF, F.G. TO M.G.									
			68.85 BANDING	55								
70.33	75.00	AMPH	GRN, HANDSTOOTH									
75.00	75.33	PINK BNEISS	BANDING	75								
75.33	89.68	AMPH	GRN-PINK, XPRSE: CHLORITE-SAUSSURITE									
89.68	100.63	PARAGNEISS	BUFF F.G. TO M.G. 94.5 BANDING	65								

*For features such as foliation, bedding, schistosity, measured from the long axis of the core. / *Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

"Mining Lands Website: http://www.mndm.gov.on.ca/mndm/mines/lands/default_e.asp"

"Site Web de la Section des terrains miniers : http://www.mndm.gov.on.ca/mndm/mines/lands/default_f.asp"

Footage/Avancement		Rock type/ type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.)/ Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planar Feature Angle * / Angle des caractéristiques planes	Core Specimen Footage/ Longueur en pieds des carottes prélevées	Your Sample No. / N° d'échantillon du prospecteur	Sample Footage/ Niveau de prélèvement de l'échantillon (en pieds)		Sample Length/ Longueur de l'échantillon	Assays/ Analyses minéralurgiques	
From/De	To/À						From/De	To/À			
100.63	103.58	AMPH	MID GRN SCHIST. PYROPHYLLITE								
103.58	135.65	PARAGNEISS	BRN, F.G. ALTERED, FOLDED SLT CA; PEGMATITIC SEGREGATIONS	80							
	140.50		106.20 BANDING								
			105.51-105.65, 110.95-111.17, 114.26-114.73								
			ROOTLESS FOLDS. AMPH	60							
			114.00 BANDING	80							
			127.50 "								
			40cfs BLACK CRYSTALS IN XPRSE PINK ROCK		132.40	9002	137.2	137.61	0.41	0.01	0.01
			30cfs " " " " " "			9003	140.08	140.09	0.01	0.01	0.01
			" " " " " "		139.52	9003	139.54	139.68	0.14	0.01	0.01
140.50	160.39	GAR PNG	DK BRN, F.G.								
			148.50-150.10 DK GREY FELDS PEG; PY + PO		143.68	8042	143.53	143.85	0.40	0.02	0.01
			300cfs PINK PEG, BLACK QZ								
160.39	167.37	AMPH	F.G. PK GREY SALT + PEPPER	90							
			166.0 BANDING								
169.37	190.48	GAR PNG	AS ABOVE 140.51-160.39		158.33	8043	168.20	168.68	0.48	0.01	0.01
			70cfs PEG BL GRAY BIOT.		169.72	8044	169.04	169.88	0.84	0.01	0.01
			" " " "		171.78	8045	171.64	171.91	0.27	0.01	0.02
			80 " " "		174.58	8046	174.31	174.74	0.43	0.01	0.01
			" " " "		174.98	8047	174.74	175.40	0.66	0.02	0.02
			200 " " "			8048					
190.48	215.93	AMPH	DK GN, XPRSE	70							
			202.85 BANDING								
			203.31-203.47, 205.87-205.96, 211.43-216.47, LT PINK PEGS								

*For features such as foliation, bedding, schistosity, measured from the long axis of the core. / *Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

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Footage/Avancement		Rock type/ type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.)/ Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planar Feature Angle ° / Angle des caractéristiques planes	Core Specimen Footage/ Longueur en pieds des carottes prélevées	Your Sample No./ N° d'échantillon du prospecteur	Sample Footage/ Niveau de prélèvement de l'échantillon (en pieds)		Sample Length/ Longueur de l'échantillon	Assays/ Analyses minéralurgiques	
From/De	To/À						From/De	To/À			
215.98	216.47	PARAGNEISS	RUFF, F.G.	70							
216.47	217.36	AMPH	AS ABOVE 190.48-215.93								
217.36	218.18	AMPH	SCHIST, GRN to PINK, XRSE	65							
218.18	218.50	PARAGNEISS	PINK, FELDSPATHIZED	65							
			400 yds B+W PEG, CHLORITE		261.48	8048	261.35	261.82	0.57	0.01	0.051
			300 yds PEG D.K. PEG		279.11	8049	278.50	279.40	0.90	0.03	0.05
285.00	286.30	GAR PNG	BRN, XRSE.								
			285.0-285.19 PINK PEG								
286.30	303.25	AMPH	GRN, M.G. to F.G. SALT & PEPPER	65							
303.25	304.10	PARAGNEISS	PINK, F.G.		298.44	8050	298.32	298.94	0.22	0.03	0.05
304.10	304.70	AMPH	AS ABOVE 286.30-303.25								
304.70	305.07	PARAGNEISS	AS ABOVE 303.25-304.10								
305.07	309.07	GAR PNG	DARK GN, M.G. AMPHIBULE								
309.07	321.00	PARAGNEISS	PINK								
321.00	332.00	GAR PNG	BRN, F.G.	55							
			322.85 BANDING								
332.00			E.O.H.								

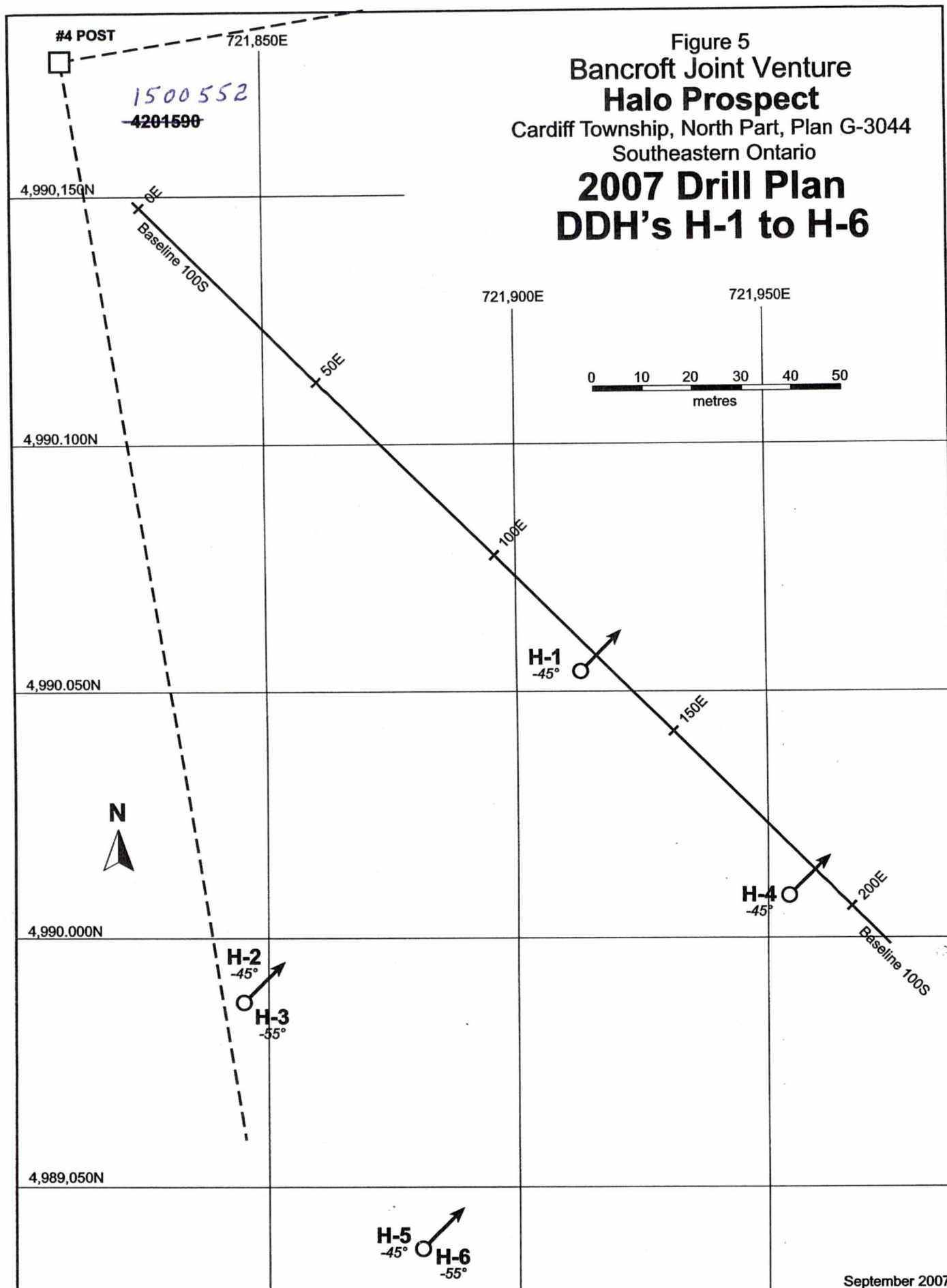
*For features such as foliation, bedding, schistosity, measured from the long axis of the core. / *Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

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Figure 5
Bancroft Joint Venture
Halo Prospect
Cardiff Township, North Part, Plan G-3044
Southeastern Ontario

2007 Drill Plan
DDH's H-1 to H-6



September 2007