



2012 Mapping, Sampling and Geophysical Target Examination Report

Onion Lake Property

Thunder Bay Mining Division

Onion Lake Area

NTS 52A11 and 52A14

December 20th, 2012

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1.0 Summary

Between June 26th, 2012, and December 20th 2012, Glory Resources of Perth, Australia (Quetico Resources being their Canadian Subsidiary based out of Vancouver) contracted Clark Exploration Consulting Inc. to conduct an extensive ground mapping, sampling and geophysical target examination program on the Onion Lake Property.

The ground mapping, sampling and geophysical target examination program comprised the first exploration phase of 2012. The goals of this phase were to: 1) conduct broad-scale geological mapping throughout the entire property; and 2) perform detailed mapping and prospecting on 103 geophysical targets to determine their access and potential as drill targets (57 chosen by the 2012 exploration team, and 46 chosen prior to 2012 by 4 independent parties).

Broad-scale, property-wide geological mapping was completed to better aid in the interpretation of aeromagnetic surveys flown prior to 2012. As the Onion Lake Property contains an extensive network of both active and older logging roads, most of the property-scale mapping was done on road-side outcrop. Detailed mapping and prospecting was carried out on 57 target areas that encompassed prospective geophysical anomalies on the property. This was undertaken by traverse and by shoreline mapping of targets underlying water bodies. Mapping was also done while ground-truthing the pre-2012 geophysical targets and assessing their drill access.

During mapping of these target areas three new outcrops of mafic intrusive rock were discovered on the east side of the property. The first mafic dyke at station OL-TS-12-029 was recovered on the side of a newly built logging road, approximately 800 m southeast of Spirit Lake. The second and third dykes at station OL-CC-12-34 and OL-CC-12-35 were recovered less than 15 m from the eastern property margin that borders Panoramic Resources' claims. These dykes are geochemically similar to the 2011 trenched mafic intrusion, the mafic intrusive outcrop found 600 m east of the trench as well as the bordering Panoramic Resources' Current Lake Deposit. The proximity, strike and geochemical similarity of the dykes discovered at OL-CC-12-34 and OL-CC-12-35 to the 2011 trenched mafic intrusion and the mafic intrusive outcrop 600 m east of the trench suggests that they are derived from of the same magmatic source. Interpretation of the airborne magnetics suggests that these intrusive rocks continue onto the bordering Panoramic Resources' property, potentially linking mafic intrusive discovered on the Onion Lake Property to the Panoramic Resources' Current Lake Intrusive Complex host to the Current Lake Deposit.

The authors of this report believe that although significant ground was covered during the 2012 mapping, sampling and geophysical target examination program, the Onion Lake Property remains underexplored and contains significant potential to host mineralization similar to - and even potentially an extension of - that found on Panoramic Resources' bordering property to the east.

As shown through the exploration and discovery of Panoramic's Current Lake Deposit, deposits of this particular nature are inherently difficult to discover due to their narrow nature and generally subsurface expression. It is usually only through geophysics and drilling that these intrusions are located. The location of the Onion Lake Project along with the prospective rocks and geophysical features all point to the necessity of further diamond drilling on the property.

The authors are proposing a 21-hole (5,000 meter) diamond drill program to test the highest ranked drill targets on the property. This would come at a roughly estimated total cost of \$1,000,000 based on previous drill programs with an all-in cost of roughly \$200/meter.

2.0 Introduction

Between June 26th, 2012, and December 20th 2012, Glory Resources of Perth, Australia (Quetico Resources being their Canadian Subsidiary based out of Vancouver) contracted Clark Exploration Consulting Inc. to conduct an extensive ground mapping, sampling and geophysical target examination on the Onion Lake Property.

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Broad-scale, property-wide geological mapping was completed to better aid in the interpretation of aeromagnetic surveys flown prior to 2012. As the Onion Lake Property contains an extensive network of both active and older logging roads, most of the property-scale mapping was done on road-side outcrop. Detailed mapping and prospecting was carried out on 57 target areas that encompassed prospective geophysical anomalies on the property. This was undertaken by traverse and by shoreline mapping of targets underlying water bodies. Mapping was also done while ground-truthing the pre-2012 geophysical targets and assessing their drill access.

3.0 Property Description

The property is located in Jacques and Fowler Townships as well as Stirrett Bay, Onion Lake, East Bay and Hicks Lake Areas in the Thunder Bay Mining Division (Figure 1). The Onion Lake Property consists of 105 contiguous mining claims containing 1186 units and covering 18,976 hectares (Figure 2, Table 1). All mining claims are 100% owned by Benton Resources and are under option by Glory Resources.

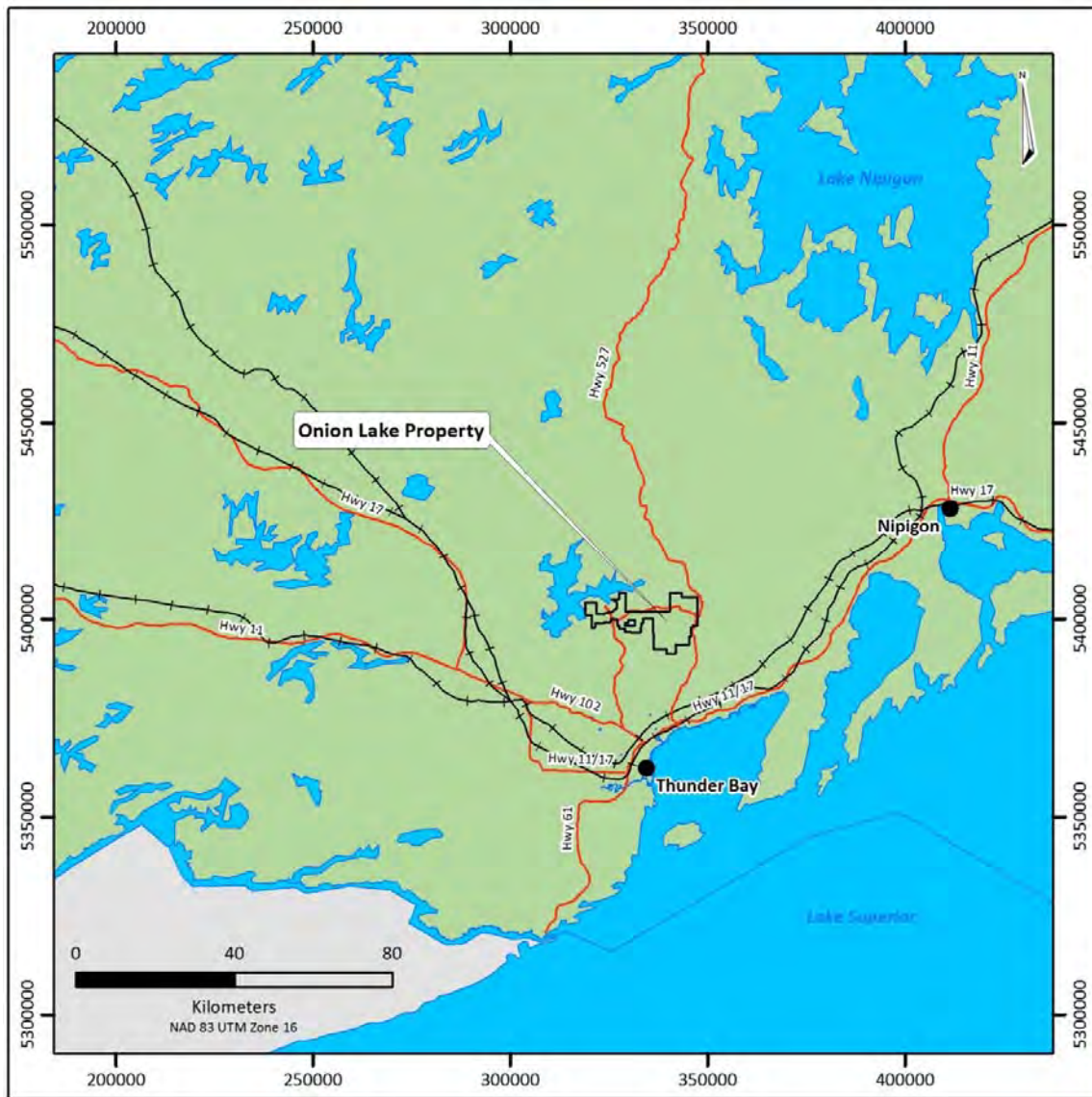


Figure 1: Property Location

Table 1: Onion Lake Claims

Township/Area	Claim Number	Recording Date	Claim Due Date	Units	Area (Ha)	Glory Resc. Ownership	Work Required	Total Applied	Total Reserve
ONION LAKE AREA	4244526	2008-Nov-26	2012-Nov-26	16	256	30.00%	\$6,400	\$12,800	\$0
ONION LAKE AREA	4244527	2008-Nov-26	2012-Nov-26	16	256	30.00%	\$6,400	\$12,800	\$0
ONION LAKE AREA	4244528	2008-Nov-26	2012-Nov-26	15	240	30.00%	\$6,000	\$12,000	\$0
ONION LAKE AREA	4245601	2008-Oct-17	2013-Mar-18	16	256	30.00%	\$6,400	\$12,800	\$0
ONION LAKE AREA	4245602	2008-Oct-17	2013-Oct-17	12	192	30.00%	\$4,800	\$14,400	\$110,310
ONION LAKE AREA	4245611	2008-Oct-17	2013-Mar-18	12	192	30.00%	\$4,800	\$9,600	\$0
ONION LAKE AREA	4245603	2008-Oct-17	2013-Mar-18	16	256	30.00%	\$6,400	\$12,800	\$0
ONION LAKE AREA	4245604	2008-Oct-17	2013-Mar-18	10	160	30.00%	\$4,000	\$8,000	\$0
ONION LAKE AREA	4245605	2008-Oct-17	2013-Mar-18	10	160	30.00%	\$4,000	\$8,000	\$0
ONION LAKE AREA	4245606	2008-Oct-17	2013-Mar-18	4	64	30.00%	\$1,600	\$3,200	\$0
ONION LAKE AREA	4245607	2008-Oct-17	2013-Mar-18	16	256	30.00%	\$6,400	\$12,800	\$0
ONION LAKE AREA	4245608	2008-Oct-17	2013-Mar-18	15	240	30.00%	\$6,000	\$12,000	\$0
ONION LAKE AREA	4245609	2008-Oct-17	2013-Mar-18	15	240	30.00%	\$6,000	\$12,000	\$0
ONION LAKE AREA	4245610	2008-Oct-17	2013-Mar-18	8	128	30.00%	\$3,200	\$6,400	\$0
ONION LAKE AREA	4245612	2008-Oct-17	2013-Mar-18	15	240	30.00%	\$6,000	\$12,000	\$0
ONION LAKE AREA	4245613	2008-Oct-17	2013-Mar-18	1	16	30.00%	\$400	\$800	\$0
HICKS LAKE AREA	4245641	2008-Oct-24	2013-Mar-25	14	224	30.00%	\$5,600	\$11,200	\$0
HICKS LAKE AREA	4245642	2008-Oct-24	2013-Mar-25	12	192	30.00%	\$4,800	\$9,600	\$0
EAST BAY AREA	4250491	2009-Sep-17	2013-Mar-18	2	32	30.00%	\$800	\$800	\$0
ONION LAKE AREA	4250492	2009-Sep-17	2013-Mar-18	2	32	30.00%	\$800	\$800	\$0
ONION LAKE AREA	4250493	2009-Sep-17	2013-Mar-18	3	48	30.00%	\$1,200	\$1,200	\$0
ONION LAKE AREA	4218797	2009-Apr-03	2013-Apr-03	10	160	30.00%	\$4,000	\$8,000	\$0
ONION LAKE AREA	4218798	2009-Apr-03	2013-Apr-03	16	256	30.00%	\$6,400	\$12,800	\$0
ONION LAKE AREA	4244514	2009-Apr-03	2013-Apr-03	4	64	30.00%	\$1,600	\$3,200	\$0
ONION LAKE AREA	4244515	2009-Apr-03	2013-Apr-03	1	16	30.00%	\$400	\$800	\$0
ONION LAKE AREA	4244516	2009-Apr-03	2013-Apr-03	15	240	30.00%	\$6,000	\$12,000	\$2,984
ONION LAKE AREA	4244517	2009-Apr-03	2013-Apr-03	15	240	30.00%	\$6,000	\$12,000	\$235
ONION LAKE AREA	4244518	2009-Apr-03	2013-Apr-03	12	192	30.00%	\$4,800	\$9,600	\$0
ONION LAKE AREA	4244519	2009-Apr-03	2013-Apr-03	11	176	30.00%	\$4,400	\$8,800	\$0
ONION LAKE AREA	4244520	2009-Apr-03	2013-Apr-03	9	144	30.00%	\$3,600	\$7,200	\$0
HICKS LAKE AREA	4244532	2009-Apr-03	2013-Apr-03	12	192	30.00%	\$4,800	\$9,600	\$0
HICKS LAKE AREA	4244533	2009-Apr-03	2013-Apr-03	16	256	30.00%	\$6,400	\$12,800	\$0
HICKS LAKE AREA	4244534	2009-Apr-03	2013-Apr-03	16	256	30.00%	\$6,400	\$12,800	\$0
ONION LAKE AREA	4244536	2009-Apr-03	2013-Apr-03	10	160	30.00%	\$4,000	\$8,000	\$0
ONION LAKE AREA	4244537	2009-Apr-03	2013-Apr-03	10	160	30.00%	\$4,000	\$8,000	\$0
ONION LAKE AREA	4244538	2009-Apr-03	2013-Apr-03	13	208	30.00%	\$5,200	\$10,400	\$0
ONION LAKE AREA	4244539	2009-Apr-03	2013-Apr-03	15	240	30.00%	\$6,000	\$12,000	\$0

Township/Area	Claim Number	Recording Date	Claim Due Date	Units	Area (Ha)	Glory Resc. Ownership	Work Required	Total Applied	Total Reserve
ONION LAKE AREA	4244540	2009-Apr-03	2013-Apr-03	8	128	30.00%	\$3,200	\$6,400	\$0
ONION LAKE AREA	4244541	2009-Apr-03	2013-Apr-03	15	240	30.00%	\$6,000	\$12,000	\$0
ONION LAKE AREA	4244542	2009-Apr-03	2013-Apr-03	16	256	30.00%	\$6,400	\$12,800	\$0
ONION LAKE AREA	4244543	2009-Apr-03	2013-Apr-03	16	256	30.00%	\$6,400	\$12,800	\$0
ONION LAKE AREA	4244544	2009-Apr-03	2013-Apr-03	15	240	30.00%	\$6,000	\$12,000	\$0
ONION LAKE AREA	4244546	2009-Apr-03	2013-Apr-03	12	192	30.00%	\$4,800	\$9,600	\$0
ONION LAKE AREA	4244547	2009-Apr-03	2013-Apr-03	15	240	30.00%	\$6,000	\$12,000	\$0
ONION LAKE AREA	4244548	2009-Apr-03	2013-Apr-03	15	240	30.00%	\$6,000	\$12,000	\$0
ONION LAKE AREA	4244549	2009-Apr-03	2013-Apr-03	10	160	30.00%	\$4,000	\$8,000	\$0
ONION LAKE AREA	4244550	2009-Apr-03	2013-Apr-03	10	160	30.00%	\$4,000	\$8,000	\$0
ONION LAKE AREA	4245054	2009-Apr-03	2013-Apr-03	15	240	30.00%	\$6,000	\$12,000	\$0
HICKS LAKE AREA	4247301	2009-Apr-14	2013-Apr-14	15	240	30.00%	\$6,000	\$12,000	\$0
HICKS LAKE AREA	4247302	2009-Apr-14	2013-Apr-14	14	224	30.00%	\$5,600	\$11,200	\$0
HICKS LAKE AREA	4247303	2009-Apr-14	2013-Apr-14	15	240	30.00%	\$6,000	\$12,000	\$0
HICKS LAKE AREA	4247304	2009-Apr-14	2013-Apr-14	12	192	30.00%	\$4,800	\$9,600	\$0
HICKS LAKE AREA	4247305	2009-Apr-14	2013-Apr-14	5	80	30.00%	\$2,000	\$4,000	\$0
HICKS LAKE AREA	4247306	2009-Apr-14	2013-Apr-14	12	192	30.00%	\$8,248	\$6,152	\$0
EAST BAY AREA	4218799	2009-May-19	2013-Feb-22	3	48	30.00%	\$1,200	\$1,200	\$0
FOWLER	4247309	2009-May-19	2013-Feb-22	4	64	30.00%	\$1,600	\$1,600	\$0
EAST BAY AREA	4247310	2009-May-19	2013-Feb-22	10	160	30.00%	\$4,000	\$4,000	\$0
JACQUES	4247314	2009-May-19	2013-Feb-22	9	144	30.00%	\$3,600	\$3,600	\$0
JACQUES	4247322	2009-May-19	2013-Feb-22	8	128	30.00%	\$3,200	\$3,200	\$0
JACQUES	4247323	2009-May-19	2013-Feb-22	4	64	30.00%	\$1,600	\$1,600	\$0
EAST BAY AREA	4247541	2009-May-19	2013-Feb-22	10	160	30.00%	\$4,000	\$4,000	\$0
EAST BAY AREA	4247545	2009-May-19	2013-Feb-22	7	112	30.00%	\$2,800	\$2,800	\$0
EAST BAY AREA	4247546	2009-May-19	2013-Feb-22	7	112	30.00%	\$2,800	\$2,800	\$0
EAST BAY AREA	4247547	2009-May-19	2013-Feb-22	16	256	30.00%	\$6,400	\$6,400	\$0
EAST BAY AREA	4247548	2009-May-19	2013-Feb-22	12	192	30.00%	\$4,800	\$4,800	\$0
EAST BAY AREA	4247549	2009-May-19	2013-Feb-22	16	256	30.00%	\$6,400	\$6,400	\$0
EAST BAY AREA	4247550	2009-May-19	2013-Feb-22	13	208	30.00%	\$5,200	\$5,200	\$0
EAST BAY AREA	4247851	2009-May-19	2013-Feb-22	14	224	30.00%	\$5,600	\$5,600	\$0
EAST BAY AREA	4247852	2009-May-19	2013-Feb-22	10	160	30.00%	\$4,000	\$4,000	\$0
FOWLER	4247869	2009-May-19	2013-Feb-22	10	160	30.00%	\$4,000	\$4,000	\$0
HICKS LAKE AREA	4244493	2009-May-22	2013-Feb-22	16	256	30.00%	\$6,400	\$6,400	\$0
HICKS LAKE AREA	4244494	2009-May-22	2013-Feb-22	14	224	30.00%	\$5,600	\$5,600	\$0
HICKS LAKE AREA	4244495	2009-May-22	2013-Feb-22	16	256	30.00%	\$6,400	\$6,400	\$0
HICKS LAKE AREA	4244496	2009-May-22	2013-Feb-22	10	160	30.00%	\$4,000	\$4,000	\$0
HICKS LAKE AREA	4244497	2009-May-22	2013-Feb-22	6	96	30.00%	\$2,400	\$2,400	\$0
ONION LAKE AREA	4247454	2009-Mar-20	2013-Mar-20	8	128	30.00%	\$3,200	\$6,400	\$0

Township/Area	Claim Number	Recording Date	Claim Due Date	Units	Area (Ha)	Glory Resc. Ownership	Work Required	Total Applied	Total Reserve
ONION LAKE AREA	4247455	2009-Mar-20	2013-Mar-20	16	256	30.00%	\$6,400	\$12,800	\$0
ONION LAKE AREA	4247456	2009-Mar-20	2013-Mar-20	16	256	30.00%	\$6,400	\$12,800	\$0
ONION LAKE AREA	4247457	2009-Mar-20	2013-Mar-20	8	128	30.00%	\$3,200	\$6,400	\$0
ONION LAKE AREA	4247458	2009-Mar-20	2013-Mar-20	8	128	30.00%	\$3,200	\$6,400	\$0
EAST BAY AREA	4247311	2009-May-05	2013-May-05	15	240	30.00%	\$12,000	\$6,000	\$0
EAST BAY AREA	4247312	2009-May-05	2013-May-05	3	48	30.00%	\$2,400	\$1,200	\$0
EAST BAY AREA	4247313	2009-May-05	2013-May-05	4	64	30.00%	\$3,200	\$1,600	\$0
EAST BAY AREA	4247316	2009-May-05	2013-May-05	16	256	30.00%	\$12,800	\$6,400	\$0
JACQUES	4247317	2009-May-05	2013-May-05	2	32	30.00%	\$1,600	\$800	\$0
JACQUES	4247318	2009-May-05	2013-May-05	15	240	30.00%	\$12,000	\$600	\$0
JACQUES	4247319	2009-May-05	2013-May-05	11	176	30.00%	\$8,800	\$4,400	\$0
JACQUES	4247320	2009-May-05	2013-May-05	12	192	30.00%	\$9,600	\$4,800	\$0
JACQUES	4247321	2009-May-05	2013-May-05	8	128	30.00%	\$6,400	\$3,200	\$0
EAST BAY AREA	4247326	2009-May-05	2013-May-05	16	256	30.00%	\$12,800	\$6,400	\$0
EAST BAY AREA	4247327	2009-May-05	2013-May-05	16	256	30.00%	\$12,800	\$6,400	\$0
ONION LAKE AREA	4247855	2009-May-05	2013-May-05	11	176	30.00%	\$8,800	\$4,400	\$0
ONION LAKE AREA	4247856	2009-May-05	2013-May-05	6	96	30.00%	\$4,800	\$2,400	\$0
EAST BAY AREA	4247857	2009-May-05	2013-May-05	11	176	30.00%	\$8,800	\$4,400	\$0
EAST BAY AREA	4247858	2009-May-05	2013-May-05	12	192	30.00%	\$9,600	\$4,800	\$0
EAST BAY AREA	4247859	2009-May-05	2013-May-05	9	144	30.00%	\$7,200	\$3,600	\$0
EAST BAY AREA	4247860	2009-May-05	2013-May-05	16	256	30.00%	\$12,800	\$6,400	\$0
EAST BAY AREA	4247861	2009-May-05	2013-May-05	16	256	30.00%	\$12,800	\$6,400	\$0
EAST BAY AREA	4247862	2009-May-05	2013-May-05	16	256	30.00%	\$12,800	\$6,400	\$0
EAST BAY AREA	4247863	2009-May-05	2013-May-05	16	256	30.00%	\$12,800	\$6,400	\$0
EAST BAY AREA	4247864	2009-May-05	2013-May-05	16	256	30.00%	\$12,800	\$6,400	\$0
ONION LAKE AREA	4247865	2009-May-05	2013-May-05	16	256	30.00%	\$12,800	\$6,400	\$0
ONION LAKE AREA	4247866	2009-May-05	2013-May-05	15	240	30.00%	\$12,000	\$6,000	\$0
EAST BAY AREA	4247870	2009-May-05	2013-May-05	10	160	30.00%	\$8,000	\$4,000	\$0

3.1 Location and Access

The Onion Lake Property is situated in the Thunder Bay Mining District of Ontario, with the claims being located in Jacques and Fowler Townships as well as Stirrett Bay, Onion Lake, East Bay and Hicks Lake Areas on NTS Sheets 52 A/11 and 52 A/14. The property is located approximately 30 kilometers north-northeast of the city of Thunder Bay, Ontario and can be accessed by either Barnum Road or Monday Road off of HWY 527 on the east side of the property and by Monday Lake Road off of Dog Lake Road on the west side of the property . Both Monday and Barnum of are well maintained (although not year round) logging roads. Aberdeen Road joins the two roads in a north-south fashion roughly 3 to 5 kilometers from Highway 527.

The city of Thunder Bay has a population of 110,000 and provides support services, equipment and skilled labour for both the mineral exploration and mining industry. Rail, national highway, port, and international airport services are also available out of Thunder Bay.

4.0 Geological Setting

4.1 Regional Geology

The Onion Lake Property is predominantly underlain by Archean-aged rocks of the Quetico Subprovince of the Superior Province. The Quetico Subprovince is an approximately 70 km wide, linear strip of moderately to strongly metamorphosed and deformed clastic metasedimentary rocks as well as their anatectic and migmatitic derivatives (Williams, 1991).

The Quetico metasedimentary rocks are comprised of mainly turbiditic wacke and siltstone with rare iron formation, pelite, and conglomerate indicative of a large laterally extensive submarine basin. The metasedimentary rocks are intruded by felsic to intermediate granitoid suites, and associated minor mafic and ultramafic bodies of slightly younger age. The Archean rocks of the Quetico Subprovince were affected by Proterozoic rifting associated with the failed Midcontinent Rift zone to the south.

The Quetico rocks in this area are overlain and intruded by three Proterozoic events (Figure 3; Sutcliffe, 1991):

1. Animikie Group (Paleoproterozoic) deposited unconformably on the Archean basement. The sedimentary sequence is comprised of the Gunflint Formation (chemical and argillite sediments) and the Rove Formation (shales and wackes).
2. Badwater and English Bay Intrusions and the Sibley Group Sediments (Mesoproterozoic). The Badwater and English Bay Intrusions are alkalic to felsic intrusive complexes that intruded into the rocks of the Nipigon Basin. The Sibley Group Sediments range in composition from quartz arenite, argillaceous dolomites and mudstones and unconformably overly the Animikie Group.
3. Keweenawan Supergroup (Mesoproterozoic) consists of tholeiitic basalt flows, minor felsic rocks and intercalated sediments. These rocks also have an associated component of intrusive mafic to ultramafic bodies.

The Keweenawan mafic to ultramafic rocks are intruded within and marginal to the Midcontinent Rift. In the area of the Onion Lake Property, the Keweenawan intrusives include laterally extensive diabase sills and associated dykes (Nipigon, Logan, and Pigeon River Sills); moderate to very large-size composite and layered mafic intrusions (i.e. Duluth Complex, Crystal Lake Gabbro); layered and differentiated ultramafic intrusions (i.e. Seagull, Hele, and Disraeli Intrusions), and volumetrically minor ultramafic conduit-like intrusive complexes (Current Lake Intrusive Complex) (SRK Consulting, 2009).

Fluvioglacial material and coarse boulder till are common over extensive areas within the area of the Onion Lake Property. Indicators of glacial transport such as eskers and striae suggest glacial movement

originating from the northeast. Centimeter- to meter-scale float boulders are prevalent in the area, usually consisting of mafic-ultramafic rock or clastic sediments of the Sibley Formation. The presence of extensive Proterozoic diabbases, gabbros, and ultramafic rocks 20-30 km north and northeast of the property indicates a potential source of these mafic-ultramafic float boulders. Another potential source for the mafic/ultramafic boulders is Archean-aged mafic-ultramafic intrusions that exist in the area, most notably at Lac des Iles where there is an operational mine.

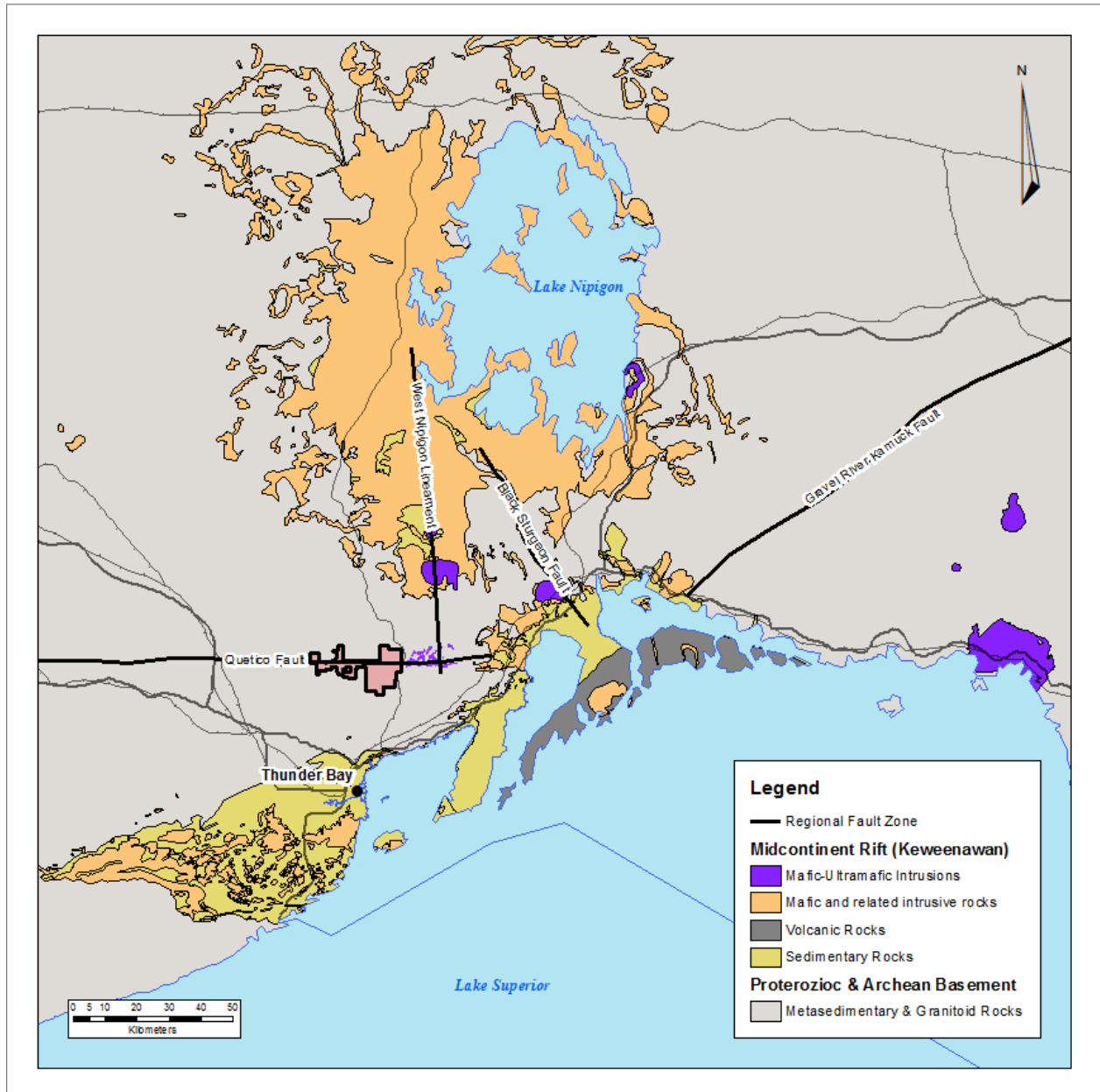


Figure 3: Regional geology

4.1.1 Deposit Types

The Onion Lake Property is located directly west of Panoramic Resources' (formerly Magma Metals (Canada) Ltd.) Thunder Bay North Polymetallic Project (TBNP). This property hosts the Keweenawan aged Current Lake Intrusive Complex (CLIC) which hosts resources of 10.3 Mt at 2.4 g/t PtEq (platinum equivalent).

This nickel-copper-platinum group element magmatic sulfide deposit has similarities to other mineralization around the world in various aged rocks. In SRK Consulting compared the CLIC to the Noril'sk deposits and noted that these magmatic conduit related deposits usually require a sulfur source within the host rocks that saturates the magma so that the sulfide mineralization can collect in depressions or traps near the base of the conduits and or injected in fractures along the conduit.

Exploration records indicate that G. Harper and G. Wilson prospected the area of the TBNP locating Ni-Cu-PGE bearing ultramafic boulders along the shores of Current Lake (SRK, 2009). The Current Lake Intrusive Complex itself is comprised of a series of magmatic conduits. The conduits range in composition from olivine melagabbro to lherzolite and intrude the Archean granitoid rocks and Quetico metasediments (SRK 2009). Regionally the magmatic intrusions are associated to the failed rift arm that trends northward under Lake Nipigon from the Midcontinent Rift system.

SRK (2009) completed a Resource Technical Report for the TBNP and described the mineralization as:

“Two main areas of sulfide mineralization occur at TBNP: Current Lake and Beaver Lake. The two sulfide deposits are connected in the Bridge Zone, however they display different morphologies, are disproportionately mineralized and have slight differences in metal tenors. Copper to nickel ratios are typically 1.4 to 2.0 and vary depending on the proportion of sulfide nickel present. Platinum to palladium ratios are 1.07 for both deposits.

The Current Lake deposit is a narrow conduit ranging from 30 by 30 metres to 50 metres wide and 70 metres tall and in general is very flat lying. The conduit contains sulfide mineralization throughout and in places the entire conduit is mineralized. Beaver Lake exhibits a shallow east-south easterly plunge and increases from 100 metres width and 15 metres thickness to 550 metres width and 200 metres thickness towards the east. The sulfide mineralization is continuous between the Current and Beaver Lake zones and an artificial boundary is placed at the Quetico sedimentary rock – granite structural contact since the morphology of the conduit changes at this point.”

Other Midcontinent Rift related, Keweenawan aged sulfide-bearing intrusives are known around Lake Superior as well as one Archean PGM-bearing mafic-ultramafic intrusion (Figure 4).

Stillwater Mining Company's Marathon PGM-copper project (northwestern Ontario) is currently in the permitting process. This property contains the Marathon PGM-Cu deposit within the Coldwell intrusive complex and hosts reserves of 91 Mt at 1.2 g/t platinum + palladium + gold, and 0.2% copper.

Rio Tinto's Eagle (Michigan) and Tamarack (Minnesota) projects are in the construction and exploration phase respectively. The Eagle Mine is currently undergoing construction and the Eagle deposit hosts reserves of 3.6 Mt at 3.5% nickel and 2.9% copper. The Tamarack intrusion is in the exploration phase, with the most significant drill intercept returning results of 2.3% nickel and 1.2% copper over 166 meters.

Within the Duluth Complex (Minnesota), there are 4 projects undergoing the feasibility and permitting phases. The most prospective of these is the Twin Metals Minnesota project, undertaken by Twin Metals Minnesota (a joint venture between Duluth Metals and Antofagasta PLC) which hosts the Maturi Deposit (formerly the separate historic Nokomis and Maturi Deposits). The Maturi Deposit hosts an indicated resource of 550 Mt at 0.639% copper, 0.2% nickel, and 0.660 ppm platinum, palladium and gold (Duluth Metals, 2012).

North American Palladium's operational Lac des Iles mine is approximately 60 km northwest of the Onion Lake Property. It hosts a measured and indicated resource of 32 Mt at 3.3 g/t palladium and is an Archean-aged mafic to ultramafic intrusion.

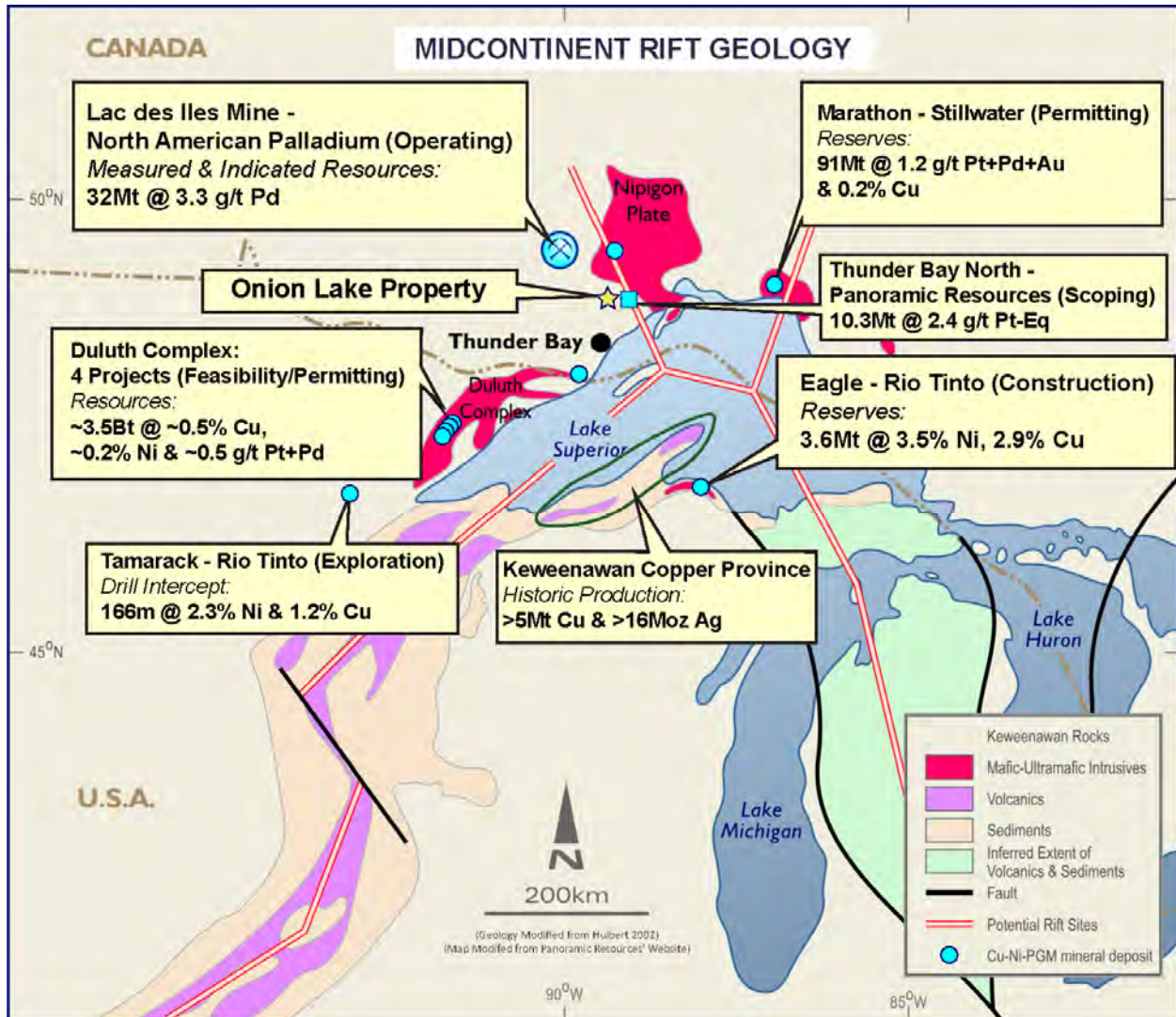


Figure 4: Regional mineral deposits

4.2 Property Geology

Prior to the 2012 mapping program, the Onion Lake Property has lacked investigations pertaining to property wide geology. Through broad- and detailed-scale mapping, it was determined that the rock types within the area of the Onion Lake Property are comprised of:

- **Granitoid Rocks:** these encompass a range of felsic granitoid rocks identified as granite, granodiorite, syenite and tonalite. These units are primarily medium-grained and massive to weakly foliated, with localized zones of pegmatitic material. Locally they contain varying amounts of magnetite. This occurs in zones that correspond with anomalously high magnetic signatures.
- **Migmatitic Rocks:** these represent a range of heavily deformed rocks on the property varying in degree of metamorphism based on the intensity and deformation of gneissic banding. Leucosomes are medium- to coarse-grained consist of quartz, plagioclase and potassic feldspar. Melanosomes are fine- to medium-grained and contain biotite, hornblende, plagioclase and quartz. Their intense foliation and mineral assemblages indicate regional high-grade metamorphic conditions.
- **Metasedimentary Rocks:** these consist of fine-grained, mafic metasedimentary rocks that are heavily foliated, subvertically dipping and have an east-west orientation. Relict sedimentary bedding is present locally and some beds contain magnetite. Quartz veins are abundant and coarse-grained textures are present at the vein margins. Intense shearing occurs in places within the metasedimentary rocks, forming narrow zones of very fine-grained, amphibole-rich, silicified rock (denoted “amphibolite” on the geological map; Figure 5).
- **Intrusive Rocks:** these include three types of intrusive rocks found on the property.
 - **Mafic Intrusives:** these are small mafic intrusive bodies that occur as dykes or small intrusions ranging in size from 0.5-10 m wide. They are very fine- to medium-grained. The mafic intrusives are comprised of pyroxene, plagioclase, magnetite and trace to 1% sulfides (pyrite/pyrrhotite). The mafic intrusions encountered on the property dip subvertically and strike in a general east/west orientation. They show variable interaction with the country rock; some intrusives show very sharp contacts with little to no country rock alteration where as others show hematization, potassic and calcite alteration and distinct chill margins in the adjacent country rock.
 - **Pyroxenite:** this rock type is present as many small outcrops on the northwest extent of the property. It is massive, medium- to coarse-grained and greenish-black in colour. It is comprised of pyroxene (altered to amphibole), olivine (serpentinized), magnetite and trace to 2% sulfides (pyrite & pyrrhotite).

- Mafic Intrusive (Gabbro): this rock type is present as large but narrow N/S trending dykes that intrude the Archean country rock on the west and east side of the property. They are typically medium-grained, have a subophitic texture and contain clinopyroxene, plagioclase (altered and milky-green in colour), magnetite and hematite-altered potassic feldspar. The gabbro dykes have aphanitic chill margins with millimeter-scale plagioclase phenocrysts.

A geological map depicting the field relationships between the aforementioned units is represented in Figure 5. This map was generated through geological mapping this summer and a more detailed map at a scale of 1:20 500 is included in Appendix A.

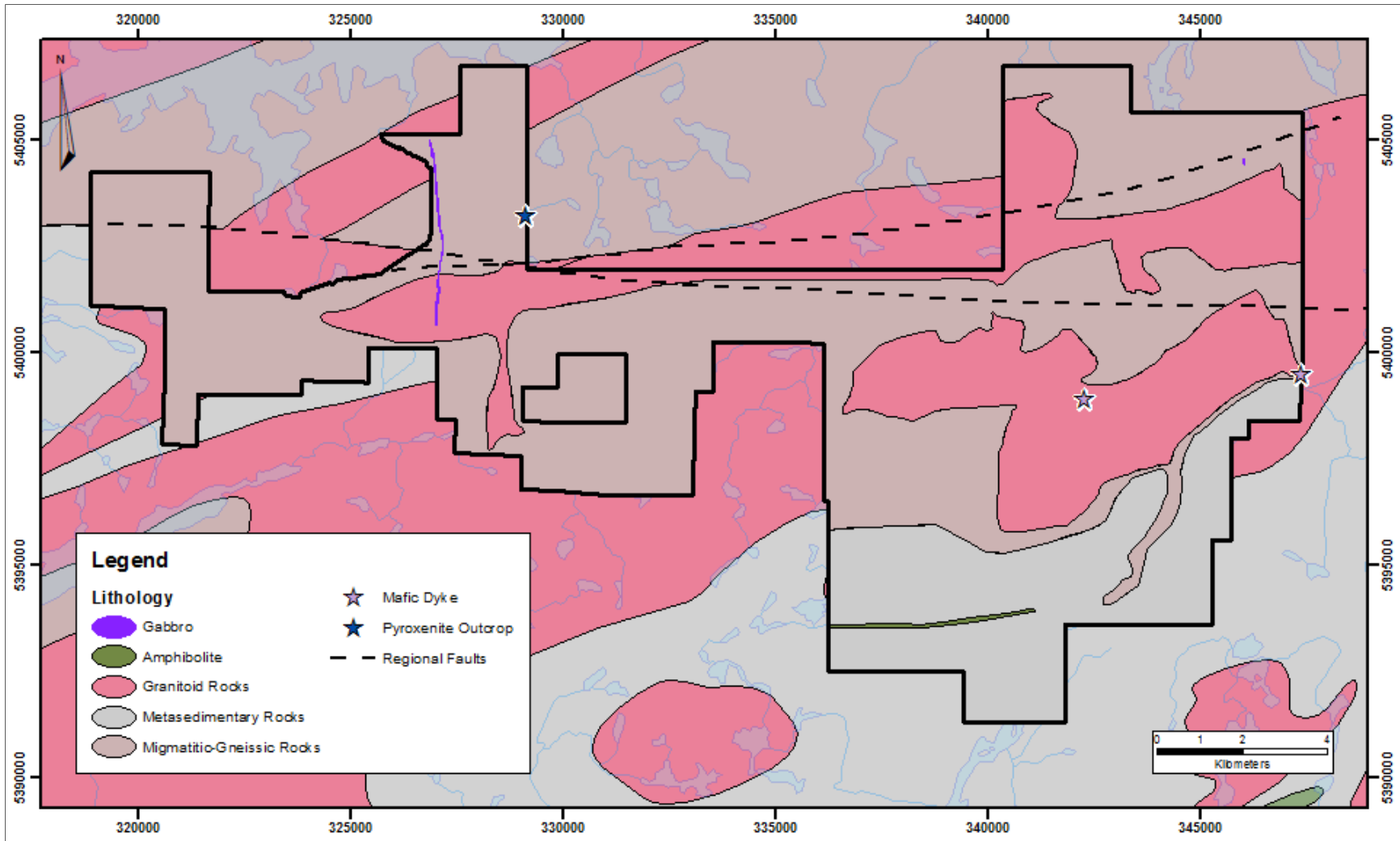


Figure 5: Onion Lake Property Geology

5.0 Exploration History

Staked in 2008, the property as a complete package is relatively underexplored. The discovery of Panoramic Resources' Current Lake Deposit on the property immediately to the east on the Onion Lake Property has led to a renewed interest in the area for conduit-hosted Cu-Ni-PGE mineralization.

In a review of assessment files in the Thunder Bay office, the following assessment work was noted:

1956 (AFRI # 52A11NE0001)

Barker Dawidowich carried out a diamond drilling program in the Onion Lake area. The program consisted of 4 holes covering 1 claim (claim No. M2636) with a total of 832 feet drilled. Drilling was focused on brecciated and silicified metasediments containing minor chalcopyrite mineralization.

1991 (AFRI # 52I07SW0001)

D. Christiansen carried out a large scale prospecting program of which the current Onion Lake Project was only a small portion. 2 sample locations fell on the project and returned no significant results. Host rocks were granites and metasediments.

1993 (AFRI #52A11NE0006)

R. Pitkanen performed work on two properties. Property # 2 is located 100% on the current Onion Lake Property midway down Onion Lake on the western shore. Hand trenching on the area drilled in 1956 (above) returned similar rock types and an assay result of 6848 ppm copper.

1995 (AFRI # 52A10NW0017)

Geological mapping and a geochemical soil survey were completed on a claim that was identified through a geophysical anomaly. Geochemically anomalous zones of Cu, Ni, Zn and Au and Ag were coincident with one another and in areas of no bedrock exposure. Geophysical surveys and an extension of the current geophysical grid were recommended.

A summary of more current work on the property is as follows:

2009 – Claims are staked by Benton Resources

2009 – Mic Stares from Benton Resources takes 11 samples of ultramafic (peridotite/pyroxenite) float from the property and just north of the property on the Prain Lake Block.

2009 – Benton options some ground to Rio Tinto while the remaining ground is optioned to Quetico Resources (Figure 2, existing claims).

2009 – Quetico Resources flies a 2,603 line-km airborne magnetometer survey (north-south) over their claim block.

2009 – Rio Tinto flies an airborne magnetometer survey (east-west) on their claim blocks and also performs an unknown amount of prospecting.

2010 – Quetico Resources conducts a small prospecting program focusing mainly on the eastern half of the property. A number of ultramafic boulders were identified however no significant results were returned.

2010 – CJ Baker of Quetico Resources travels with RTX geologists Dean Rossell and John Storie to assess the potential of five blocks up for option by RTX. Quetico Resources options 4 of the 5 prospective blocks of which one contains a picritic boulder field of particular interest to Quetico/Glory.

2011 – Glory Resources (operators of the Canadian shell Quetico Resources) contracts Clark Exploration to conduct exploration work on Onion Lake. A geophysical interpretation and modeling of targets is subcontracted to Paterson, Grant and Watson (PGW) of Toronto, Ontario. 20 targets were selected of which 15 fell on Glory's ground.

2011 – 5 targets were drilled in a 6-hole 950 meter drill campaign on 5 targets mentioned above. One hole (OL-11-03) intersects unmineralized mafic intrusive rock.

2011 – A one month prospecting program is conducted on the eastern portion of the claim block focusing on Spirit Lake and the area adjacent to OL-11-03. An area of outcropping mafic rock close to OL-11-03 is discovered and a one week trenching program is carried out near the drill collar. A roughly east-west trending mafic intrusion is uncovered and mapped however no significant mineralization is noted. No samples of the exposed intrusion were taken.

2011 – In August of 2011 drillhole OL-11-03 has Pulse EM performed on it by Crone Geophysics. No off-hole anomalies were noted. Around that same time Aeroquest was contracted to fly a 40 meter line-spaced UTS magnetic survey on the eastern portion of the claim block. Modeling by Condor Geophysics revealed a deep east-west trending "spine" which also came to (or close to) surface in a number of spots (including Spirit Lake) suggesting that ultramafic magmatism sat at depth.

2011 – From November to December 2011 a 7-hole (1,400 meter) drill program was conducted on a variety of targets selected from airborne magnetics. While the program did not return significant intersections of mafic-ultramafic material, a number of narrow mafic Proterozoic aged dykes were intersected on the property. During the spotting of the drillholes, a new outcrop roughly along strike (easterly) from OL-11-03 was discovered as well as two boulders that are similar (both geochemically and in appearance) to that of the small dykes intersected in this most recent drill program.

6.0 2012 Geological Mapping, Sampling, and Geophysical Target Examination Program

Between June 26th, 2012, and December 20th, 2012, Clark Exploration Consulting Inc. conducted an extensive ground mapping, sampling and geophysical target examination program on the Onion Lake Property. Although the aforementioned activities occurred simultaneously over the duration of the program, they will be discussed separately to highlight the goals of each part of the field program.

6.1 Mapping and Sampling

This aspect of the program involved property-scale geological mapping carried out over the entire property and detailed-scale mapping and prospecting performed on target areas encompassing prospective geophysical anomalies. Broad-scale, property-wide geological mapping was completed to better aid in the interpretation of aeromagnetic surveys flown prior to 2012. As the Onion Lake Property contains an extensive network of both active and older logging roads, most of the broad-scale mapping was done on roadside outcrop. Detailed mapping and prospecting was undertaken on 57 target areas, denoted OL_01 to OL_57 (full descriptions of each target area are available in Appendix F). This was undertaken by traverse and by shoreline mapping of targets underlying water bodies. Mapping was also done while ground-truthing the pre 2012 geophysical targets and assessing their drill access (full descriptions of each target are available in Appendix E).

A total of 313 mapping stations were produced by multiple field crews. A total of 85 grab samples were taken of outcrop, subcrop and boulders throughout the property with no significant results being returned.

Maps showing traverses and sample locations are located in Appendix B, mapping station details in Appendix C, and sample descriptions in Appendix D.

During mapping of the geophysical target areas, three new outcrops of mafic intrusive were discovered on the east side of the property. The first mafic dyke at station OL-TS-12-029 was recovered on the side of a newly built logging road, approximately 800 m southeast of Spirit Lake. The second and third dykes at station OL-CC-12-34 and OL-CC-12-35 were recovered less than 15 m from the eastern property margin that borders Panoramic Resources' claims. These three dykes are geochemically similar to mafic intrusives located at the 2011 trench, 600 m east of the trench, as well as the bordering Panoramic Resources' Current Lake Deposit.

The proximity, strike and geochemical similarity of the newly discovered dykes to the previously discovered mafic intrusives on the property suggests that they all could be of the same magmatic source. Interpretation of the airborne magnetics suggests that these intrusive rocks continue onto the bordering Panoramic Resources' property, potentially linking the mafic intrusives discovered on the Onion Lake Property to Panoramic Resources' Current Lake Deposit (Figure 6).

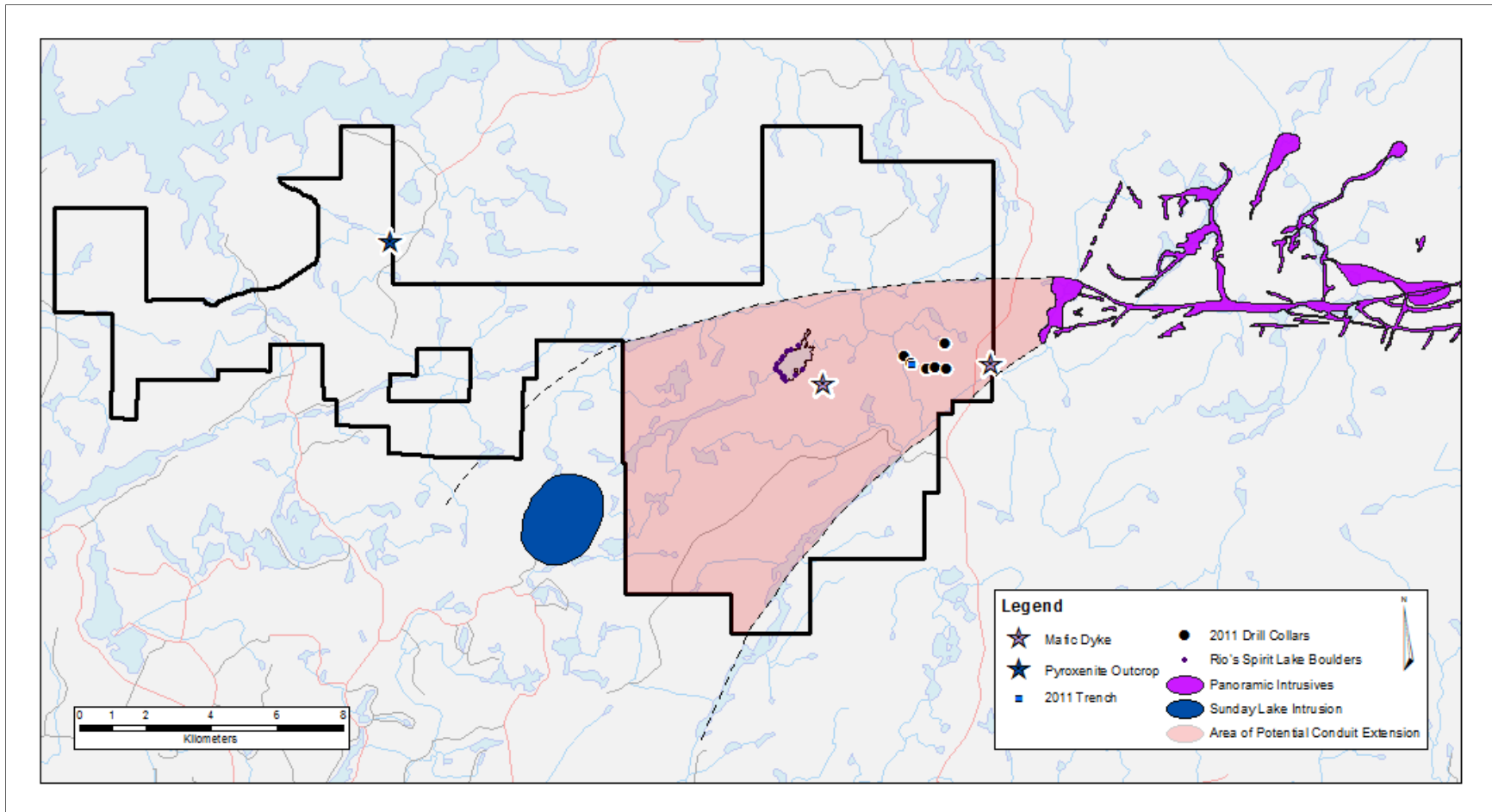


Figure 6: Mafic to ultramafic rocks discovered on the Onion Lake Property

6.1.1. Sampling Methods & Analysis

Throughout the duration of the program, a total of 85 grab samples were taken of outcrop, subcrop and boulders throughout the property. All samples were grab samples of prospective rocks located during mapping and geophysical target ground proofing. Grab samples are samples taken randomly in the field usually selectively targeting mineralization and/or alteration. Representative pieces of each sample were kept and stored.

Standard and blank samples were not inserted in field samples. Clark's exploration team relied on the regular controls carried out by the laboratories. Had visible mineralization been encountered a field QA/QC program would have been initiated. Re-assaying of pulps with a QA/QC program in place would have also been carried out had any significant mineralization been encountered through assaying.

The geologists and prospectors selected the grab samples in the field, inserted them in plastic bags with a sample numbered sample tag, and marked the bags with the sample number. The samples were then delivered directly to the lab by the samplers. The sample analysis was carried out by ALS Chemex Laboratories in Thunder Bay, Ontario. The samples delivered to ALS Chemex were analyzed according to the following procedures (not all procedures were carried out on all samples):

- Method Code ME-ICP06: Whole rock package, litho-geochemistry analysis using ICP-AES
- Method Code ME-MS61: 48 elements by four acid 'near total' digestion analysis using ICP-MS
- Method Code ME-MS81: 38 element fusion, rare-earth and trace element analysis using ICP-MS
- Method Code PGM-ICP24: Fire assay for Pt, Pd, and Au with detection limits of 5 ppb, 1ppb and 1 ppb respectively and ICP-AES finish
- Method Code ME-4ACD81: Base metals by 4-acid digestion analysis using ICP-MS

Prior to assaying the samples they were prepped using CRU-31 and PUL-32a with special instructions to "pulverize split to better than 90% passing 75 microns". Through personal communication with various individuals with extensive PGE deposit exploration experience it was understood that this process will better ensure that the PGE's are more readily liberated from their hosts and reflected in the assay results.

ALS Chemex analytical work was carried out according to standard industry practices. ALS Chemex is ISO 17025 registered.

6.2 Geophysical Target Ground-Proofing

This aspect of the program involved mapping and prospecting in areas surrounding geophysical lineaments and anomalies that are thought to potentially represent mafic-ultramafic intrusive rock at surface or at depth.

6.2.1 Pre 2012 Geophysical Target Summary

Preceding the 2012 field program, the airborne magnetics survey data and maps were analyzed and interpreted by four different parties (Figure 7).

Prior to Glory Resources optioning the Onion Lake Property claims, a series of target magnetic anomalies were chosen from the 100 m line spacing aeromagnetic survey flown for Benton Resources.

In February, 2011 Paterson, Grant & Watson Limited (PGW) was contracted to select and model target magnetic anomalies from an aeromagnetic survey flown in October 2009 by Aeroquest Geophysics (PGW, 2011). In total, PGW selected twenty targeted magnetic anomalies that represented areas of ultramafic rock with mineralization potential. Fifteen of these targets are located on the Onion Lake Property.

In July, 2011 Bernard Aylward of Glory Resources interpreted the preliminary data from the 40 meter line spaced aeromagnetic survey flown in August, 2011 by Aeroquest. He chose 9 areas that represented potential mafic/ultramafic conduits (Figure 7).

In October, 2011 Steve Siemieniuk of Clark Exploration Consulting Inc. chose a series of potential drill targets based on his interpretation of the final data from the 40 meter line spaced aeromagnetic survey flown in by Aeroquest in August, 2011. Twelve points were chosen based on the highest contour values (in nT) on prospective magnetic anomalies. Of these, 7 targets were drilled, and 4 of the drill holes intersected intrusive ultramafic rock at depth. All targets were ground proofed during the 2012 mapping program, and the remaining 5 still being potential drill targets for the 2013 drilling program.

Prior to 2012 46 magnetic anomaly targets were chosen as areas of interest and potential drill targets on the property. During the 2012 mapping program, these targets as well as 57 new target areas were investigated and ground-proofed. This aspect of the program is discussed in the next section.

6.2.2 2012 Geophysical Target Ground-Truthing

During the 2012 mapping program, a total of 103 geophysical targets were investigated and ground proofed with the goal of linking the surface geology to the anomalous magnetic signatures seen in the aeromagnetic data. These consisted of the 46 targets chosen by four different parties prior to 2012 and 57 newly chosen target areas determined by Clark Exploration Consulting. The pre-2012 targets are points within larger geophysical anomalies that were chosen as potential drill targets (Figure 7). The 2012 targets are defined areas that encompass prospective magnetic features. These were chosen through interpretation of the aeromagnetic survey maps and identification of broad areas that represent potential conduits and geophysical lineaments on the Onion Lake Property. These potential conduit zones were then broken down into individual target areas (Figure 8).

All of the targets were investigated by the same method. The aeromagnetic survey maps were uploaded on to each exploration team's GPS to ensure complete coverage of each target anomaly. They were explored by traversing each area and making observations on the following: surface geology, area topography, presence or abundance of mafic boulders, and drill access. Details on each of the target areas are available in Appendix E and F.

Mafic intrusive rock was discovered in outcrop in two target areas on the east side of the property and a series of small pyroxenite outcrops were located in one target area on the northwest side of the property (Figure 6). The remainder of the targets did not yield any exposure of mafic intrusive rock. Of the 103 geophysical targets, 34 are considered prospective and are recommended for drilling (a proposed drill target map is available in Appendix G).

6.2.3 Drill Target Selection Rationale

From the 103 geophysical targets investigated during the 2012 program, 34 were chosen as potential drill targets for the 2013 drilling program. These targets were chosen based on field observations during the ground proofing process as well as the strength of magnetic signature of each geophysical anomaly.

Most of the targets investigated did not yield conclusive surface explanations of the underlying magnetic features. Many of the areas consisted of low lying overburden covered and /or treed areas with little to no outcrop. Most of the outcrop in the target areas consists of granitoid rocks with varying degrees of magnetic susceptibility and minor metasedimentary and migmatitic rocks. The targets ruled out from the drilling program are those within areas overlain by Archean metasedimentary or migmatitic country rock, as they contain magnetite-rich horizons within bedding and gneissic layering respectively. Descriptions and rankings of the potential drillhole locations are provided in Appendix I.

The targets chosen as prospective drill targets are anomalously high magnetic anomalies that underlie swamps, lakes, and overburden-covered areas in which the surface geology could not readily explain the geophysics. In places, some of the strongest magnetic anomalies are overlain by massive

magnetic granite. These are of interest as they could represent skarn-type metamorphism by contact with a mafic intrusive at depth.

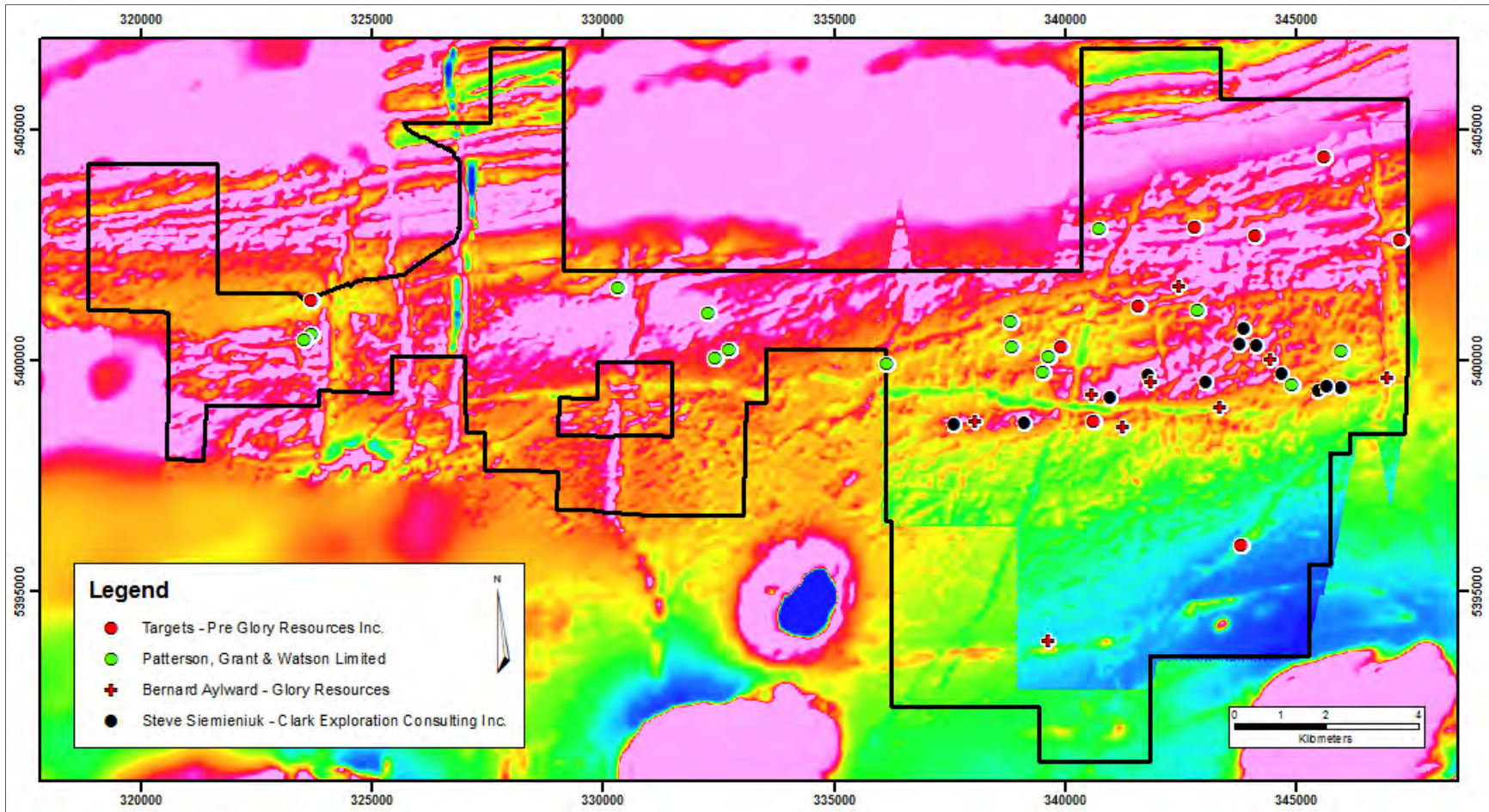


Figure 7: Pre-2012 target magnetic anomalies

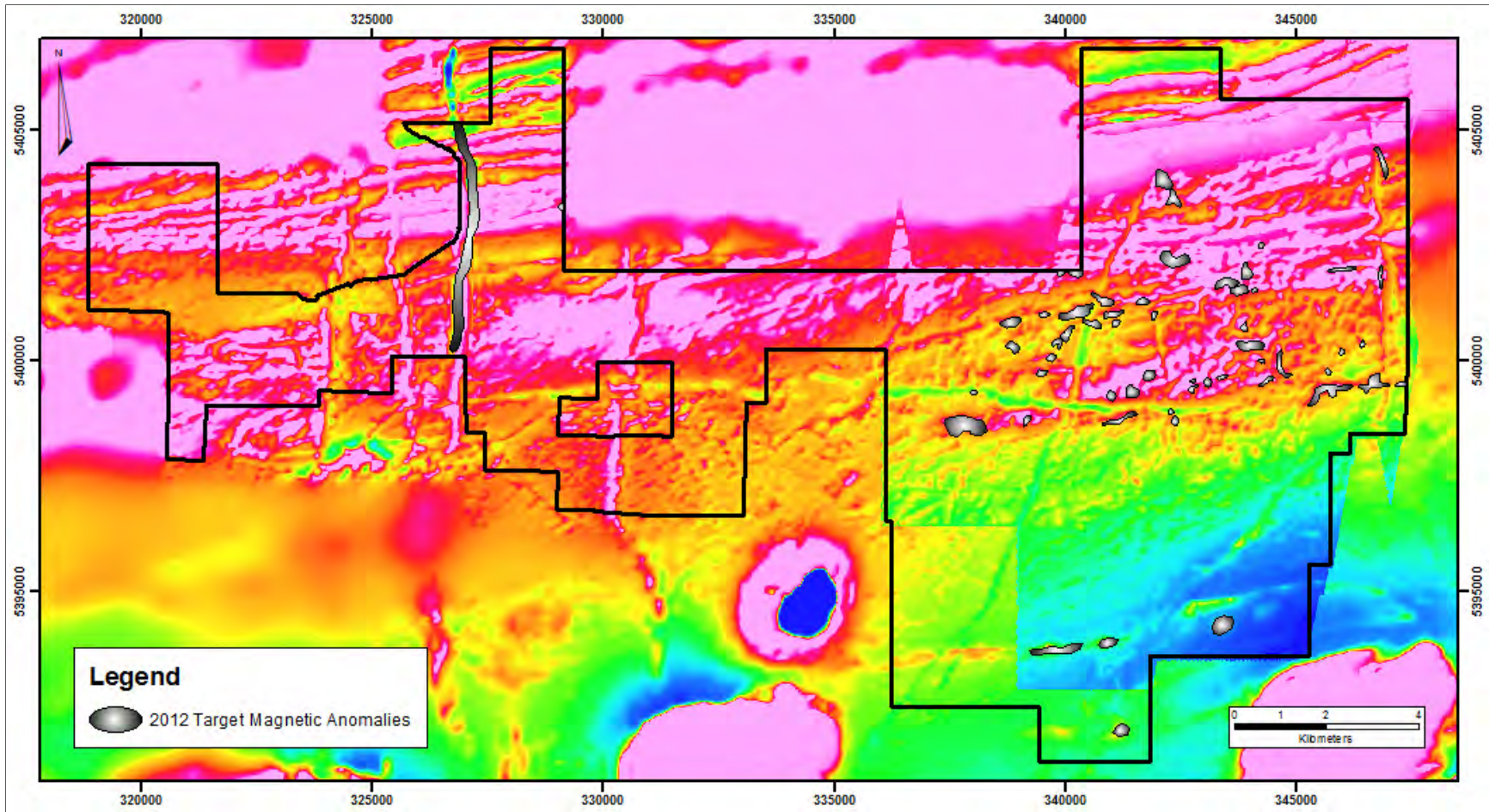


Figure 8: 2012 target magnetic anomalies

7.0 Discussion

As mentioned in the exploration history and mapping and sampling program overview, there is evidence that the Onion Lake Property contains mafic intrusive rocks that are geochemically similar to Panoramic Resources' Current Lake Deposit. These mafic intrusive rocks are present both as outcrop and as drill intercepts at depth.

All of the mafic-ultramafic rocks located on the property to date are shown in Figure 6. In 2008, picritic boulders that are thought to be locally derived were discovered on the shoreline of Spirit Lake. Because of the proximity to the Current Lake Intrusive complex, this was considered to be potentially analogous to the boulders discovered on the shoreline of Current Lake. This prompted further exploration on the east side of the property in 2011; 13 drill holes and a one month prospecting program were completed. The two-phase drill program had 6 drill holes that intersected mafic-ultramafic intrusive rock at depth. The mafic intrusion intersected in drillhole OL-11-03 proved to be exposed at surface. This prompted a trenching program to uncover the 10 m wide intrusion. Soon after, another outcrop of mafic intrusive was discovered along strike of the trench approximately 600 m to the east. The 2012 newly discovered mafic intrusive dykes at the eastern property margin and southeast of Spirit Lake are not mineralized, but their presence suggest that the unit potentially extends from the eastern property margin to approximately 800 m southeast of Spirit Lake. This, along with the anomalously high magnetic anomalies over Spirit Lake and the picritic boulders found along its shoreline make Spirit Lake an area of extreme interest.

An independent geochemist reviewed the assay results from the 2012 sampling program as well as the 2008 Spirit Lake boulders and ranked them based on their geochemical similarity to other Midcontinent Rift intrusions (100 being the most prospective; Figure 9). The most prospective results came from boulders sampled on the shoreline of Spirit Lake and boulders sampled throughout the property. Many of the boulders throughout the property are likely linked to the Seagull Intrusion, present approximately 25 km to the northeast of the property. The abundance of prospective and likely locally derived boulders at Spirit Lake makes it an excellent target for further exploration. The mafic dykes located on the property have lower rankings and likely represent unmineralized feeder dykes but their source and area of termination are unknown.

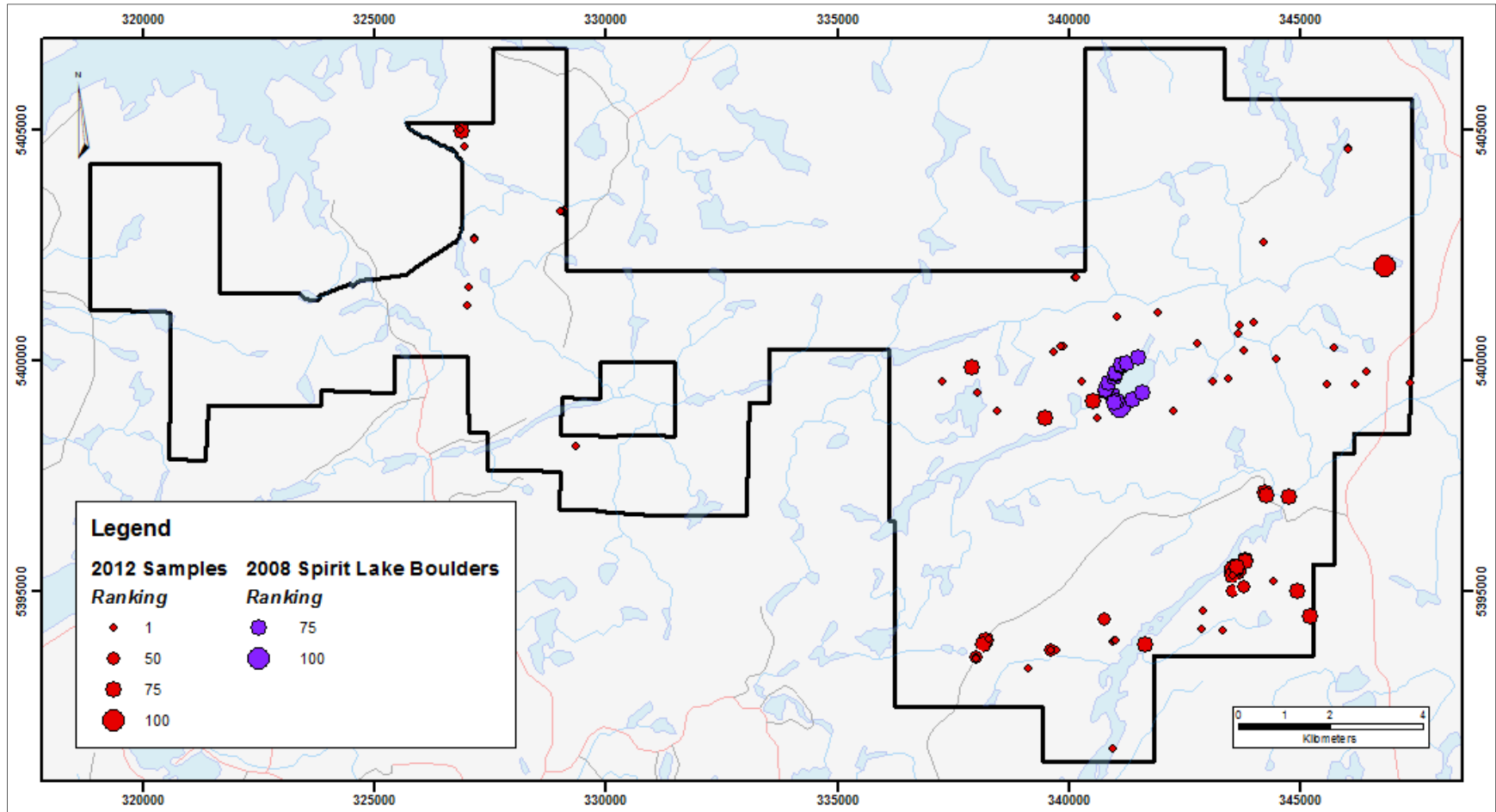


Figure 9: 2012 and 2008 ranked samples

8.0 Conclusion and Recommendations

As shown through the exploration and discovery of Panoramic's Current Lake Deposit, deposits of this particular nature are inherently difficult to discover due to their narrow nature and generally subsurface expression. It is usually only through geophysics and drilling that these intrusions are located. The location of the Onion Lake Project along with the prospective rocks and geophysical features all point to the necessity of further diamond drilling on the property.

The authors are proposing a 21-hole (5,000 meter) diamond drill program to test the highest ranked drill targets on the property. This would come at a roughly estimated total cost of \$1,000,000 based on previous drill programs with an all-in cost of roughly \$200/meter.

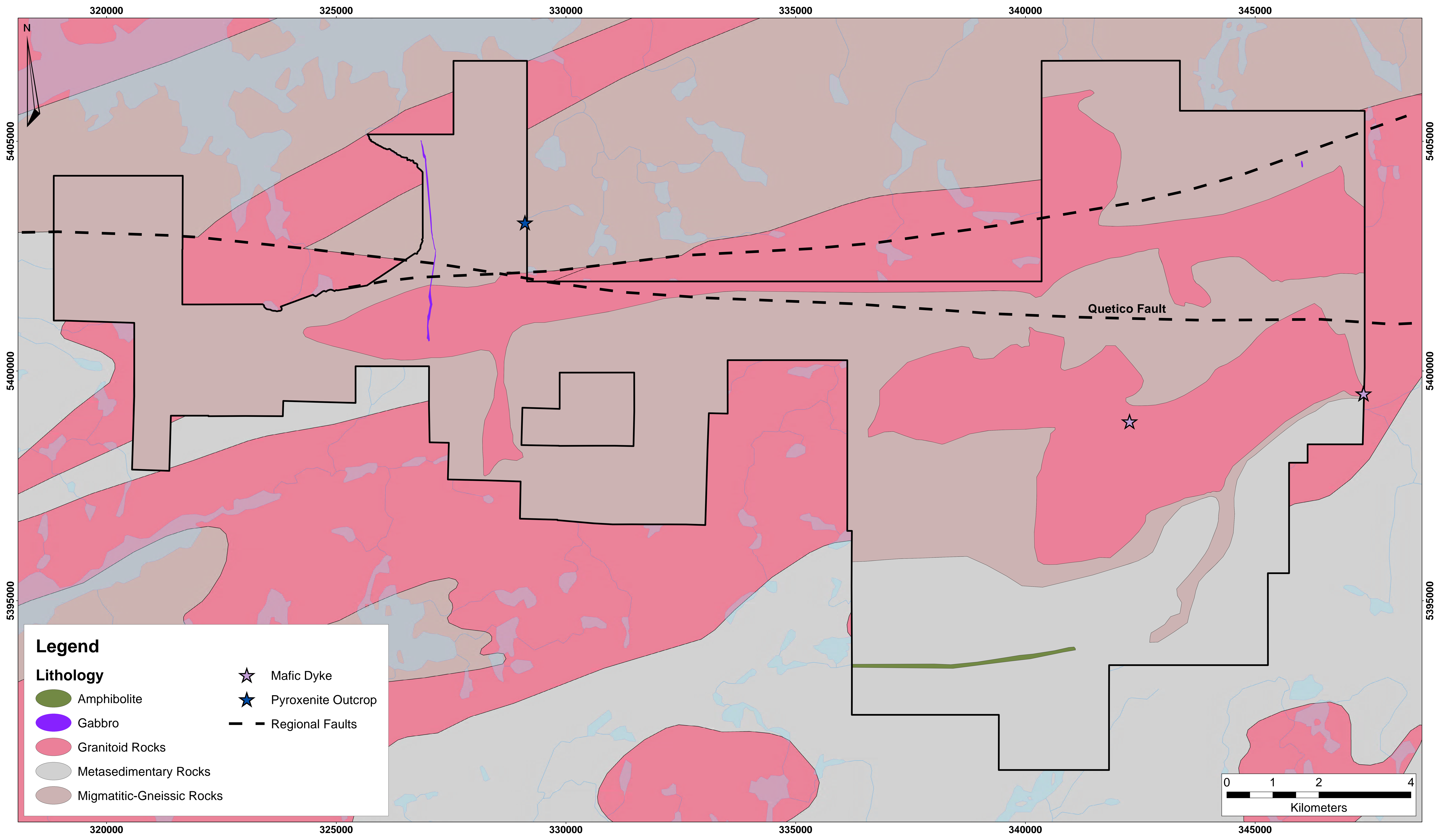
A map of the proposed 2013 drill collars is shown in Appendix G and the proposed 2013 drill program details are available in Appendix H. Inclined Drillholes listed in Appendix H need to be refined in terms of their collar location and orientation through geophysical modeling and ground magnetics of anomalies. In the previous two drill programs the use of a ground magnetometer showed that the location of the magnetic anomalies was in the locations shown on the airborne map to within a few meters. However, a ground magnetometer should be used prior to spotting the vertical drillholes also.

9.0 References

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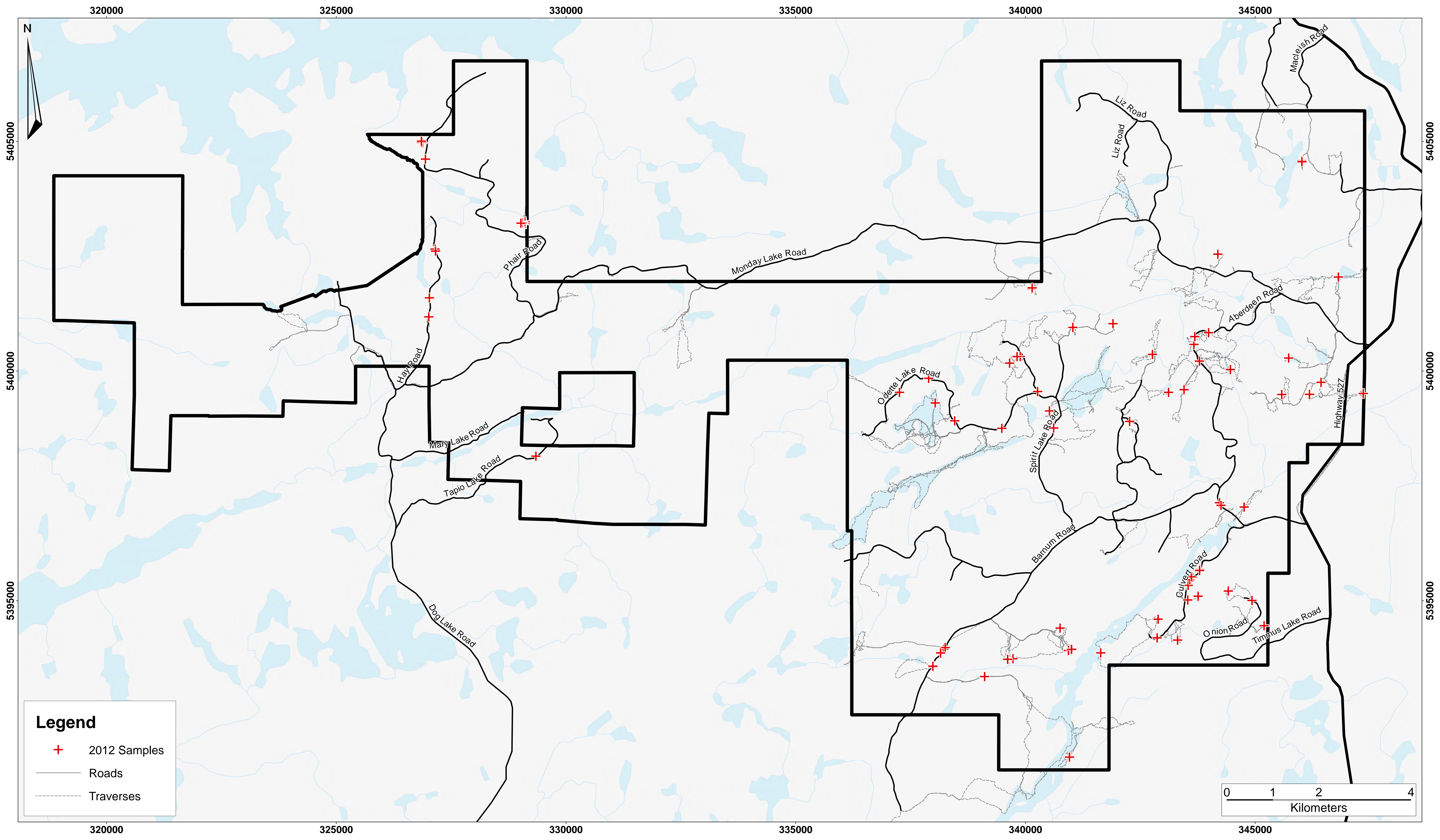
Appendices

Appendix A
Geological Map


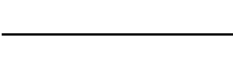



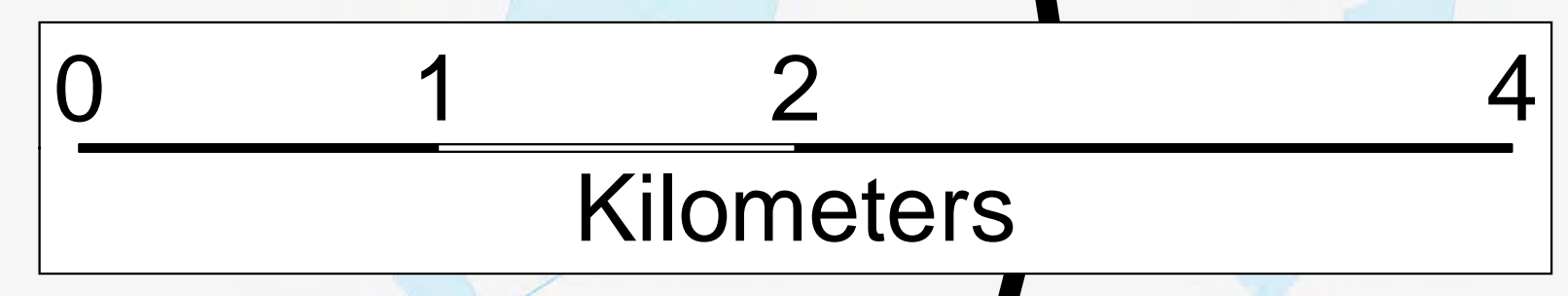
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Appendix B
Traverse Map & Sample Locations



Legend

-  2012 Samples
-  Roads
-  Traverses



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Appendix C
Station Data

Station	Station Type	Date	Collector	Datum	UTM Zone	Easting	Northing	Rock Code	Rock Description	Magsus 1	Magsus 2	Structure	Strike/Trend	Dip/Plunge	Dip Direction	Sample ID
OL-TS-12-001	Outcrop	12-Jul	TS	NAD 83	16U	329355	5398153	MIG	Migmatite - coarse grained granitic mobilizate layers, bt-rich restite bands up to 40 cm thick. Intruded by pegmatitic granite to the NE of the o/c, with garnet, tourmaline, and chlorite in pegmatite veins	0.377	-	FOL	241	90	S	-
OL-TS-12-002	Boulder	12-Jul	TS	NAD 83	16U	329350	5398145	GAB	Rounded gabbroic boulder with plag, px, fine-grained, ophitic texture	30.88	-	-	-	-	-	M785052
OL-TS-12-003	Outcrop	12-Jul	TS	NAD 83	16U	329027	5398194	GR	Medium- to coarse-grained massive granite w/ localized pegmatitic granite dykes that contain tourmaline	0.037	-	-	-	-	-	-
OL-TS-12-004	Outcrop	12-Jul	TS	NAD 83	16U	328642	5398000	MIG	Migmatite - massive, medium to coarse - grained granite mobilizate with sparse mafic restite bands.	0.23	0.473	FOL	250	87	S	-
OL-TS-12-005	Outcrop	12-Jul	TS	NAD 83	16U	328253	5397740	GR	Massive granite with localized pegmatitic granite veins	0.2	-	-	-	-	-	-
OL-TS-12-006	Outcrop	12-Jul	TS	NAD 83	16U	328278	5398654	GR	Massive, medium- to coarse-grained granite w/ local massive, tourmaline-bearing pegmatitic granite veins	0.5	-	-	-	-	-	-
OL-TS-12-007	Outcrop	12-Jul	TS	NAD 83	16U	328623	5398893	GR	Medium- to coarse-grained granite to tonalite	0.28	-	-	-	-	-	-
OL-TS-12-008	Outcrop	17-Jul	TS	NAD 83	16U	338032	5393704	MTSD	Mafic metasediments that show bedding and a foliation that parallels bedding (Az 252/90 S). Most of oc is well bedded, alternating between fine-grained (<1mm) bt-qtz rich beds and fine-medium grained qtz-plag-bt-amph rich beds that show less grain alignment. Local qtz-chl-amph veins are present, containing mm scale py grains. In places the mafic metaseds contain mm sized garnets. Some of the more mafic-rich beds contain magnetite, and thus have higher magsus readings (up to 52). Qtz veining causes amph at margins to become more coarse-grained.	0.50	10.1	-	-	-	-	-
OL-TS-12-009	Outcrop	17-Jul	TS	NAD 83	16U	338246	5393977	MTSD	Mafic metasediments, foliated not bedded (Az 250/85 S). Qtz veining present discordant to foliation & as smaller en echelon veins showing left lateral movement along foliation plane. Composition: qtz, bt, plag, amph, gt. OC has few subangular mafic boulders on it.	0.30	0.4	-	-	-	-	-
OL-TS-12-010	Boulder	17-Jul	TS	NAD 83	16U	338217	5393952	PIC	1 x 1 m picritic boulder. Ol, pyx, no sulfides. Very hard and dense	15.00	-	-	-	-	-	M785053
OL-TS-12-011	Boulder	17-Jul	TS	NAD 83	16U	338255	5393980	GAB	Pitted, weathered, picritic subangular-shaped boulder. Cpx, ol, plag. Flagged boulder, and sampled.	40.00	-	-	-	-	-	M785054
OL-TS-12-012	Outcrop	17-Jul	TS	NAD 83	16U	338389	5394210	MTSD	Gabbroic boulder that is subangular, and contains: cpx, plag, hematite-stained altered feldspar. Subophitic texture. Sampled.	0.33	-	BED	252	90	S	-
OL-TS-12-013	Outcrop	17-Jul	TS	NAD 83	16U	338847	5394452	MTSD	Mafic Metaseds, qtz-bt-amph-gt. Foliated, not bedded (Az260/90). Qtz veining present parallel to foliation.	0.40	-	FOL	260	90	S	-
OL-TS-12-014	Outcrop	17-Jul	TS	NAD 83	16U	339783	5395044	MTSD	Mafic metaseds, qtz-plag-bt. Qtz veining along foliation (that are muscovite-bearing, could be associated with the granitic pegmatites)	0.40	-	FOL	258	90	S	-
OL-TS-12-015	Outcrop	17-Jul	TS	NAD 83	16U	338393	5395463	MTSD	Mafic metaseds, qtz-bt-plag. Local intrusive granitic pegmatite (qtz-plag-k-spar-tour-musc)	0.30	0	FOL	255	90	S	-

Station	Station Type	Date	Collector	Datum	UTM Zone	Easting	Northing	Rock Code	Rock Description	Magsus 1	Magsus 2	Structure	Strike/Trend	Dip/Plunge	Dip Direction	Sample ID
OL-TS-12-016	Outcrop	17-Jul	TS	NAD 83	16U	338604	5395867	MTSD	Mafic metaseds, bt-amph-qtz. Foliated (Az 250/90). Qtz veining along foliation plane. Local whaleback oc of pegmatitic granite (qtz-plag-musc-gt, looks tonalitic, with rafts of metaseds in them), intruding the metaseds	0.50	-	FOL	242	90	S	-
OL-TS-12-017	Outcrop	17-Jul	TS	NAD 83	16U	339266	5395532	MTSD	Mafic metaseds, qtz-bt-plag. Foliated (Az250/90), with qtz veining along foliation. Glacial striations present (Az 220). Local crosscutting, medium-grained, tonalitic dykes.	0.38	-	FOL	250	90	S	-
OL-TS-12-018	Outcrop	17-Jul	TS	NAD 83	16U	340376	5395895	PEG	Pegmatitic granite, qtz-ksparg-plag-musc-tour. Massive	0.03	-	FOL	250	90	S	-
OL-TS-12-019	Outcrop	17-Jul	TS	NAD 83	16U	341148	5396552	GR	Granite, coarse-grained to pegmatitic. Qtz-plag-ksparg-musc. Massive	0.03	0.04	STRIATION	240	0	-	-
OL-TS-12-020	Outcrop	17-Jul	TS	NAD 83	16U	341817	5396035	GR	Massive granite with localized pegmatitic granite veins, qtz-plag-ksparg-musc.	0.03	0.048	-	-	-	-	-
OL-TS-12-021	Outcrop	18-Jul	TS	NAD 83	16U	344226	5397411	GR	Pegmatitic granite, qtz-ksparg-plag-musc-tour. Massive. Coarse-grained in places.	0.010	0.010	-	-	-	-	-
OL-TS-12-022	Outcrop	18-Jul	TS	NAD 83	16U	344017	5397403	GR	Massive granite, medium-grained, qtz-plag-ksparg, local pegmatitic dykes. Contains pockets of metased.	0.030	-	-	-	-	-	-
OL-TS-12-023	Outcrop	18-Jul	TS	NAD 83	16U	344016	5397257	MTSD	Mafic metaseds, qtz-bt-amph. Qtz veining along foliation plane (246/85 S) shows pinkish-red staining/alteration.	0.320	-	-	-	-	-	-
OL-TS-12-024	Outcrop	18-Jul	TS	NAD 83	16U	342926	5396112	MTSD	Mafic metaseds, small pocket within granite. Qtz-bt-amph. Qtz veining along foliation (247/90) causing larger amph grains at margins.	0.390	-	-	-	-	-	-
OL-TS-12-025	Outcrop	18-Jul	TS	NAD 83	16U	343150	5396703	MTSD	Mafic metaseds. Qtz-plag-bt-amph. Local qtz veining producing coarse grained amph at vein margins. Bedded with mafic and felsic beds, medium grained. Bedding and foliation have same orientation (245/90)	0.385	-	FOL	245	90	-	-
OL-TS-12-026	Outcrop	18-Jul	TS	NAD 83	16U	342553	5396785	GR	Massive granite, qtz-plag-ksparg. Medium-grained. Local pegmatitic veins.	0.030	-	-	-	-	-	-
OL-TS-12-027	Outcrop	18-Jul	TS	NAD 83	16U	342077	5396829	GR	Massive, medium-grained granite, qtz-plag-ksparg-gt.	0.020	-	-	-	-	-	-
OL-TS-12-028	Outcrop	18-Jul	TS	NAD 83	16U	342277	5398897	GR	Granite. Qtz-plag-ksparg-musc. Massive, medium grained to pegmatitic. Contains rafts of mafic metaseds.	0.060	0.050	-	-	-	-	-
OL-TS-12-029	Outcrop	18-Jul	TS	NAD 83	16U	342267	5398904	MAF	Mafic dyke, aphanitic. Pyx-plag-mag. Fresh mafic rock, not nearly as weathered and altered like the previous dykes. Likely MCR. Intrudes pegmatitic granite, but does not show chill margin within dyke, or any baking/alteration of country rock. Two photos taken. Contact: 262/90. 2m wide.	18.560	-	Contact	262	90	-	M785055
OL-TS-12-030	Outcrop	18-Jul	TS	NAD 83	16U	342411	5398564	GR	Granite. With mafic metaseds, bt-qtz-plag-amph. Foliated (246/80 S) and intruded by coarse to pegmatitic granite (+musc)	0.050	0.360	-	-	-	-	-
OL-TS-12-031	Outcrop	18-Jul	TS	NAD 83	16U	342526	5399787	GR	Massive, medium-grained granite, qtz-plag-ksparg. Local pegmatitic granite.	0.050	0.402	-	-	-	-	-
OL-TS-12-032	Outcrop	18-Jul	TS	NAD 83	16U	342291	5399376	MTSD	Mafic metaseds, qtz-bt-plag-amph. Foliated (246/90) with qtz veining along foliation. Intruded by pegmatitic granite	0.055	0.355	FOL	246	90	-	-
OL-TS-12-033	Outcrop	18-Jul	TS	NAD 83	16U	342087	5398060	GR	Massive medium-grained granite. Qtz-plag-ksparg.	0.210	-	-	-	-	-	-

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OL-TS-12-034	Outcrop	18-Jul	TS	NAD 83	16U	342421	5397351	GR	Massive medium-grained granite. Qtz-plag-kspars-bt.	0.021	-	-	-	-	-	-
OL-TS-12-035	Outcrop	19-Jul	TS	NAD 83	16U	337518	5399867	GR	Massive, coarse-grained to pegmatitic granite. Qtz-plag-kspars-musc	0.051	-	-	-	-	-	-
OL-TS-12-036	Outcrop	19-Jul	TS	NAD 83	16U	337846	5399836	GR	Massive, coarse-grained to pegmatitic granite. Qtz-plag-kspars.	0.030	2.100	-	-	-	-	-
OL-TS-12-037	Outcrop	19-Jul	TS	NAD 83	16U	338197	5399775	GR	Massive, coarse-grained to pegmatitic granite. Qtz-plag-kspars. Magnetic in local syenitic phases. +/- bt	0.030	2.000	-	-	-	-	-
OL-TS-12-038	Outcrop	19-Jul	TS	NAD 83	16U	338432	5399534	GR	Massive, coarse-grained to pegmatitic granite. Contains magnetite locally.	0.020	2.200	-	-	-	-	-
OL-TS-12-039	Outcrop	19-Jul	TS	NAD 83	16U	338468	5398905	GR	Massive, light-grey to pink, medium-grained granite that contains magnetite locally. Bt-syenite composition in places. Contains local pegmatitic granite dykes.	0.030	1.700	-	-	-	-	-
OL-TS-12-040	Outcrop	19-Jul	TS	NAD 83	16U	339196	5398744	GR	Massive, medium-grained, light-grey to pinkish bt-granite. Locally contains magnetite.	0.500	4.100	-	-	-	-	-
OL-TS-12-041	Outcrop	19-Jul	TS	NAD 83	16U	339494	5398773	GR	Medium-grained, massive syenite that is locally magnetic (magnetite)	0.050	1.100	-	-	-	-	-
OL-TS-12-042	Outcrop	19-Jul	TS	NAD 83	16U	339786	5399324	GR	Medium-grained, massive granite that is locally magnetic (magnetite)	1.400	3.700	-	-	-	-	-
OL-TS-12-043	Outcrop	19-Jul	TS	NAD 83	16U	340657	5399442	GR	Massive, medium-coarse grained granite. Contains magnetite	0.050	5.400	-	-	-	-	-
OL-TS-12-044	Outcrop	19-Jul	TS	NAD 83	16U	340802	5399896	GR	Massive medium-grained granite, contains magnetite	0.034	2.500	-	-	-	-	-
OL-TS-12-045	Outcrop	19-Jul	TS	NAD 83	16U	340816	5400066	MIG	Migmatite: contains mafic restite bands (bt-amph-rich), felsic mobilizate bands that are granitic in composition and medium-coarse grained. Irregular bands (overall 246/90), majority of oc is felsic bands	0.050	0.560	FOL	246	90	-	-
OL-TS-12-046	Outcrop	20-Jul	TS	NAD 83	16U	344554	5395088	MTSD	Mafic metaseds, qtz-bt-plag-amph. Bedded and foliated (265/90). Amphibole-rich layers present containing magnetite are green weathered and rusty in places. Mag-rich layers magsus up to 46. Abundant qtz veining along plane of foliation causing localized patches of larger amphibole grains. Overall fine-grained. Somewhat explains mag-high around station.	0.043	46.440	FOL	265	90	-	-
OL-TS-12-047	Outcrop	20-Jul	TS	NAD 83	16U	344821	5395064	MTSD	Mafic metaseds. Heavily altered. Bedded and foliated (255/90). Qtz-plag-amph-bt-mag. Qtz veining present parallel to foliation w/ stringers and fans running perpendicular. Magnetite rich horizons in sed layers. Light-grey to pink to blue-green on weathered surfaces. 1/2 m scale likely Archean mafic dyke is present parallel to foliation. It is heavily weathered and consists of amph, plag, and bt. No discernible chill margin. Background magsus is ~0.5, up to 45 in mag-rich bands. Explains mag feature in this area, can be correlated to regional structure.	0.530	27.310	FOL	255	90	-	-

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OL-TS-12-048	Outcrop	20-Jul	TS	NAD 83	16U	345086	5394653	MTSD	Mafic Metaseds, qtz-plag-bt-amph. Far less qtz veining than oc's north of this one. Fine-grained. As you go north oc's get heavily sheared with garnet present. Decreasing alteration southward. Finely laminated and foliated (236/90). 2 weathered mafic dykes (amph-bt-plat), 20cm in size, along strike (contact: 240/90)	0.450	0.000	FOL	236	90	-	-
OL-TS-12-049	Outcrop	20-Jul	TS	NAD 83	16U	344785	5394336	MTSD	Mafic metaseds, bt-amph-qtz-plag-gt. Qtz veining along foliation and as eyes. Fine-grained, foliated (260/90).	0.540	0.000	FOL	260	90	-	-
OL-TS-12-050	Outcrop	20-Jul	TS	NAD 83	16U	344211	5393777	MTSD	Mafic metaseds, laminated and foliated (232/90), bt-amph-qtz-plag-magnetite, qtz veining parallel to foliation and as eyes. Fine-grained.	0.430	23.200	FOL	232	90	-	-
OL-TS-12-051	Outcrop	20-Jul	TS	NAD 83	16U	340609	5398741	GR	Massive, medium-grained granite	0.160	-	-	-	-	-	-
OL-TS-12-052	Outcrop	20-Jul	TS	NAD 83	16U	340482	5398496	MIG	Migmatite-mafic restite bands (bt-amph), leuco layers are coarse-grained granite.	0.190	-	-	-	-	-	-
OL-TS-12-053	Outcrop	20-Jul	TS	NAD 83	16U	340301	5397683	GR	Pegmatitic granite, + musc and gt, massive	0.030	-	-	-	-	-	-
OL-TS-12-054	Outcrop	24-Jul	TS	NAD 83	16U	339559	5400630	MIG	Migmatite: segregated mafic restite and granitic to tonalitic coarse grained to pegmatitic mobilzate bands (massive with musc & gt)	0.030	0.473	FOL	276	90	-	-
OL-TS-12-055	Outcrop	24-Jul	TS	NAD 83	16U	339768	5400562	GR	Massive tonalite, very little kspar, musc.	0.021	0.067	-	-	-	-	-
OL-TS-12-056	Boulder	24-Jul	TS	NAD 83	16U	339885	5400311	GAB	Gabbro boulder, semi angular, subophitic texture, pyx-plag-mag-tr py. Sample taken.	19.200	0.000	-	-	-	-	M785056
OL-TS-12-057	Boulder	24-Jul	TS	NAD 83	16U	339818	5400320	GAB	Gabbroic boulder, subrounded, subophitic texture, pyx-plag-mag-hematite alteration.	23.000	31.000	-	-	-	-	M785057
OL-TS-12-058	Outcrop	24-Jul	TS	NAD 83	16U	339943	5400268	GR	Massive medium-grained granite, with local pegmatitic granite (+musc & gt).	0.060	-	-	-	-	-	-
OL-TS-12-059	Outcrop	24-Jul	TS	NAD 83	16U	340194	5399767	GR	Syenite, massive, medium-grained, qtz-plag-kspar-bt-mag	2.120	-	-	-	-	-	-
OL-TS-12-060	Outcrop	24-Jul	TS	NAD 83	16U	340282	5399502	GR	Syenite, massive, medium-grained, qtz-plag-kspar-bt-mag	2.500	-	-	-	-	-	-
OL-TS-12-061	Outcrop	26-Jul	TS	NAD 83	16U	339890	5399896	GR	Tonalite, massive, medium-grained, light grey. Many mafic boulders along same road where this oc is	0.041	-	-	-	-	-	-
OL-TS-12-062	Outcrop	26-Jul	TS	NAD 83	16U	339843	5400085	GR	Tonalite, medium grained, massive, pegmatitic in places. Series of subrounded to subangular mafic boulders in topo low down from this oc (22-43 magsus)	0.000	0.053	-	-	-	-	-
OL-TS-12-063	Outcrop	26-Jul	TS	NAD 83	16U	339698	5400304	GR	Massive, pegmatitic granite (+musc & gt)	0.110	-	-	-	-	-	-
OL-TS-12-064	Subcrop	26-Jul	TS	NAD 83	16U	339656	5400178	GAB	Series of gabbroic boulders to subcrop that are medium to coarse-grained and have subophitic texture. Pyx-plag-mag-tr diss py. 4-5 boulders to subcrop with in 15 m radius of each other, some are subrounded whereas others have flatter tops and resemble outcrop. Curious because they are all the same lithology and have similar grain size and texture. Took three photos, sampled, and flagged location.	0.160	0.330	-	-	-	-	M785058
OL-TS-12-065	Outcrop	26-Jul	TS	NAD 83	16U	339697	5399935	GR	Granite, massive, medium grained. Local pegmatite.	0.024	-	-	-	-	-	-
OL-TS-12-066	Outcrop	26-Jul	TS	NAD 83	16U	339654	5399887	GR	Granite, massive, medium grained	0.020	0.140	-	-	-	-	-
OL-TS-12-067	Outcrop	26-Jul	TS	NAD 83	16U	339585	5399801	GR	Granite, massive, medium grained	0.097	-	-	-	-	-	-
OL-TS-12-068	Outcrop	26-Jul	TS	NAD 83	16U	339575	5399726	GR	Granite, massive, medium grained	0.070	0.700	-	-	-	-	-

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OL-TS-12-069	Outcrop	26-Jul	TS	NAD 83	16U	339571	5399428	GR	Granite, massive, medium grained, local magnetic horizons	0.500	1.320	-	-	-	-	-
						339591	5399485			0.050	1.310	-	-	-	-	-
OL-TS-12-070	Outcrop	26-Jul	TS	NAD 83	16U	339663	5399293	GR	Granite, massive, medium grained, local magnetic horizons	2.978	-	-	-	-	-	-
OL-TS-12-071	Outcrop	27-Jul	TS	NAD 83	16U	342238	5399110	GR	Massive, medium-grained, light-grey to pinkish bt-granite. Locally pegmatitic	0.030	-	-	-	-	-	-
OL-TS-12-072	Outcrop	27-Jul	TS	NAD 83	16U	342035	5399153	GR	massive, medium grained granite with local pegmatite veins	2.100	3.410	-	-	-	-	-
OL-TS-12-073	Outcrop	27-Jul	TS	NAD 83	16U	342003	5399205	GR	massive, medium grained granite with local pegmatite veins	0.070	-	-	-	-	-	-
OL-TS-12-074	Outcrop	27-Jul	TS	NAD 83	16U	342327	5398682	GR	massive, medium grained granite with local pegmatite veins	0.020	-	-	-	-	-	-
OL-TS-12-075	Outcrop	27-Jul	TS	NAD 83	16U	342265	5398743	GR	Massive, medium grained, tonalite	0.041	-	-	-	-	-	-

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OL-MZ-12-001	Outcrop	10-Jul	MZ	NAD 83	16U	328201	5406476	MIG	Migmatite - medium to coarse grained to pegmatitic light pink granitic mobilizate bands are pinched and boudinaged between fine to medium grained, heavily foliated, Hb, Bt, Plag, Qtz-bearing mafic restite bands	0.423	0.294	FOL	252	84	S	-
OL-MZ-12-002	Outcrop	10-Jul	MZ	NAD 83	16U	327793	5406268	MIG	Migmatite - granitic composition with very irregular foliation and remobilization of layers. Mobilizate layers also contain cordierite porphyroblasts	0.403	0.598	FOL	242	90	-	-
OL-MZ-12-003	Outcrop	10-Jul	MZ	NAD 83	16U	326852	5404980	GAB	North/south oriented mafic dyke that intrudes the migmatitic country rock. Gradational chill margin, aphanitic margin with mm scale plag phenocrysts. Gabbro, cpx, plag, hematite-altered k-spar. Subophitic texture, moderately crystalline. Contains trace sulfides (py, pyr) and maybe weathered/altered magnetite.	28	62	-	-	-	-	M785051 M785101
OL-MZ-12-004	Outcrop	10-Jul	MZ	NAD 83	16U	326830	5404979	MIG	Migmatite - medium to coarse grained to pegmatitic light pink granitic mobilizate bands, heavily foliated, Hb, Bt, Plag, Qtz-bearing mafic restite bands. Country rock - cut by gabbro dyke discordant to foliation, smaller 10-20 cm offshoots of the dyke finger into the country rock.	0.4	0.35	-	-	-	-	-
OL-MZ-12-005	Boulder	10-Jul	MZ	NAD 83	16U	326879	5404965	Picrite	Pitted, weathered, possibly picritic boulder that is 1x3 meters in size, subrounded. Massive, with anhedral, interstitial plag. Contains cpx, plag, bt, no alignment of grains.	15.32	-	-	-	-	-	M785102
OL-MZ-12-006	Outcrop	11-Jul	MZ	NAD 83	16U	326966	5404885	MIG	Migmatite - mobilizate bands are coarse grained, and granitic in composition, occur as boudinaged pods. Foliation is more parallel than previous migmatite outcrops. Small pods of amphibole-rich material pop through along the plane of foliation in the migmatite (could be xenoliths of Archean dykes?)	0.498	-	FOL	255	90	S	-
OL-MZ-12-007	Outcrop	11-Jul	MZ	NAD 83	16U	326910	5404649	GAB	Gabbro dyke, intragranular texture, medium-grained, with 5-10 mm light-green milky plag laths. Cpx, plag, trace disseminated sulfides (py).	29.7	24.74	-	-	-	-	M785103
OL-MZ-12-008	Outcrop	11-Jul	MZ	NAD 83	16U	326855	5404635	MIG	Migmatite - granitic composition, medium-grained mobilizate with decimeter scale mafic restite bands. Also	0.854	14	FOL	260	84	SE	-

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									contains small (10x20 cm) pods of amphibole-rich rock that could be blocks of older dykes?							
OL-MZ-12-009	Outcrop	11-Jul	MZ	NAD 83	16U	327254	5404362	MIG	Gneiss - granitic composition, with well defined straight foliation and tightly spaced mobilizate/restite bands. Mafic restite bands locally contain magnetite with higher magsus readings.	23.74	-	FOL	252	88	S	-
OL-MZ-12-010	Outcrop	11-Jul	MZ	NAD 83	16U	327888	5404271	GN	Gneiss - tonalitic composition with qtz, bt, plag, gt. Very tightly spaced foliation.	0.303	-	FOL	252	90	-	-
OL-MZ-12-011	Outcrop	11-Jul	MZ	NAD 83	16U	328322	5404607	MIG	Migmatite - coarse grained granitic mobilizate bands with meter scale mafic restite bands between that contain magnetite. Coarse grained amphibole pods along plane of foliation	0.52	26	FOL	260	90	S	-
OL-MZ-12-012	Outcrop	11-Jul	MZ	NAD 83	16U	328154	5404203	GN	Gneiss - granitic composition, felsic layers contain qtz, plag, k-spar, and bt, and are boudinaged between smaller mafic bands	0.354	-	FOL	270	90	S	-
OL-MZ-12-013	Outcrop	11-Jul	MZ	NAD 83	16U	328409	5404013	GN	Gneiss - tightly spaced foliation contains qtz, plag, bt. Amphibole-rich, boudinaged pods occur along strike of the gneiss.	0.732	0.56	FOL	265	90	S	-
OL-MZ-12-014	Outcrop	11-Jul	MZ	NAD 83	16U	328118	5403533	MIG	Migmatite - mobilizate bands are coarse grained and contain qtz, plag, k-spar. Restite bands contain bt, and amph	0.489	-	-	-	-	-	-
OL-MZ-12-015	Outcrop	11-Jul	MZ	NAD 83	16U	328295	5403225	MIG	Migmatite - mobilizate consists of coarse grained qtz, plag, k-spar, mafic restite bands contain bt and amph. Mafic bands contain magnetite	0.25	10	FOL	260	90	S	-
OL-MZ-12-016	Outcrop	11-Jul	MZ	NAD 83	16U	328781	5402064	GR	Granite - medium-grained (2-10mm) equigranular massive granite contains magnetite. Pegmatitic syenite veins/dykes present	3.508	-	STRIATION	220	0	-	-
OL-MZ-12-017	Outcrop	11-Jul	MZ	NAD 83	16U	328835	5401831	GR	Granite - foliated, defined by slight elongation of qtz, feld, plag grains as well as elongate, wispy amphibole grains. Medium to coarse grained, contains magnetite and amphibole	3.178	-	FOL	274	90	S	-
OL-MZ-12-018	Outcrop	11-Jul	MZ	NAD 83	16U	329302	5401208	GR	Granite - foliated, defined by slight elongation of qtz, feld, plag grains as well as elongate wispy amphibole grains. Fine-grained, contains magnetite and amphibole	0.12	-	FOL	235	90	S	-
OL-MZ-12-019	Outcrop	11-Jul	MZ	NAD 83	16U	328838	5400664	GN	Gneiss - granitic, coarse grained mobilizate bands containing qtz, feld, plag. Fine grained mafic restite bands	0.524	-	FOL	255	87	S	-

Station	Station Type	Date	Collector	Datum	UTM Zone	Easting	Northing	Rock Code	Rock Description	Magsus 1	Magsus 2	Structure	Strike/Trend	Dip/Plunge	Dip/Direction	Sample ID
									that are bt and amp-rich							
OL-MZ-12-020	Outcrop	12-Jul	MZ	NAD 83	16U	327123	5402893	GN	Pink, mg-cg mobilizate (Qz,Kspar) (Magsus .290) Black fg-mg restite (Bt-Amp) (Magsus 6.68). Restite bands are uniform and vary from 10cm to 2m in width. Dark green m scale Amp pods present.	0.29	-	FOL	265	88	S	-
OL-MZ-12-021	Outcrop	12-Jul	MZ	NAD 83	16U	327130	5402682	GN	Pink, mg-cg mobilizate (Qz,Kspar) (Magsus .02) Black fg-mg restite (Bt-Amp) (Magsus .49). Restite bands are uniform and vary from 10cm to 50cm in width. Dark green cm scale Amp pods present. Contact with Gabbro dike.	0.2	-	FOL	262	90	S	-
OL-MZ-12-022	Outcrop	12-Jul	MZ	NAD 83	16U	327140	5402672	GAB	Dark grey-green, fg-mg, subophitic gabbro dike. Small amount of exposed outcrop, Max width based of country rock OC is 18m, Min width of 4m based on exposed gabbro. Large cm x m rafts of gneiss present. CPX (40%) sub-anhedral, Plag (45%) subhedral laths, minor phenocrysts, Kspar (10%) anhedral pink, interstitial, Epidote (45) green mm scale patches throughout, Pyrr (1%) disseminated blebs, Bt (tr%).	35	-	-	-	-	-	M785104
OL-MZ-12-023	Outcrop	12-Jul	MZ	NAD 83	16U	327170	5402571	GN	White-pink, fg-mg mobilizate, fg, uniform m scale restite banding.	0.5	0.23	FOL	263	90	S	-
OL-MZ-12-024	Outcrop	12-Jul	MZ	NAD 83	16U	327165	5402614	GAB	Dark grey-green, Aphanitic chill margin of a gabbro dike. Small amount of exposed outcrop, blocky fracturing, Pyrr (1-2%) disseminated blebs. Minor green plag pheno's. Dike is only 1.5 m wide... (pinch and swell)	23.2	-	-	-	-	-	M785105
OL-MZ-12-025	Outcrop	12-Jul	MZ	NAD 83	16U	327268	5402395	GN	White, mg mobilizate (Qz,Kspar) Black fg restite (Bt-Amp). Uniform m scale restite bands. Meter scale uniform bands of metased greywacke present.	0.31	-	FOL	265	85	S	-
OL-MZ-12-026	Outcrop	12-Jul	MZ	NAD 83	16U	327066	5401820	GR	Pink, mg, biotite syenite with weak Fol (Az260)	0.49	-	-	-	-	-	-
OL-MZ-12-027	Outcrop	12-Jul	MZ	NAD 83	16U	327033	5401605	GAB	Dark grey-green, fg-mg, subophitic gabbro dike. Dike is approximately 25-30m wide. CPX (50%) anhedral, Plag (50%) sub- anhedral greenish milky laths, minor <1cm phenocrysts, Kspar (tr %) anhedral pink, interstitial, Pyrr (tr %) disseminated.	21.7	-	-	-	-	-	M785106

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OL-MZ-12-028	Outcrop	12-Jul	MZ	NAD 83	16U	327082	5401457	GAB	Dark grey-green, fg-mg, subophitic gabbro dike. Dike is approximately 25-30m wide. CPX (50%) anhedral, Plag (50%) sub- anhedral greenish milky laths, minor <1cm phenocrysts, Kspar (tr%) anhedral pink, interstitial, Pyrr (tr%) disseminated.	19.1	-	-	-	-	-	-
OL-MZ-12-029	Outcrop	12-Jul	MZ	NAD 83	16U	327009	5401166	GAB	Dark grey-green, fg-mg, subophitic gabbro dike. CPX (40%) subhedral, Plag (60%) eu-subhedral laths, partially enclosing CPX, milky green in colour, Pyrr (tr%) disseminated blebs. Blocky fracturing. Likely the same dike as MZ-027, but looks different (possibly different phase).	18	-	-	-	-	-	M785107
OL-MZ-12-030	Outcrop	12-Jul	MZ	NAD 83	16U	327022	5400991	GR	Red-pink, mg, massive textured hornblende syenite	0.12	0.7	-	-	-	-	-
OL-MZ-12-031	Outcrop	12-Jul	MZ	NAD 83	16U	327013	5400668	GAB	Dark grey-green, fg-mg, subophitic gabbro dike. CPX (40%) subhedral, Plag (60%) eu-subhedral laths, partially enclosing CPX, milky green in colour, Pyrr (tr%) disseminated blebs. Blocky fracturing.	17.1	-	-	-	-	-	-
OL-MZ-12-032	Outcrop	17-Jul	MZ	NAD 83	16U	325997	5400315	GR	Pink, mg quartz syenite with massive texture	0.2	-	-	-	-	-	-
OL-MZ-12-033	Outcrop	17-Jul	MZ	NAD 83	16U	324354	5400852	GR	Pink, mg quartz syenite with very weak Fol (Az 160)	0.2	-	-	-	-	-	-
OL-MZ-12-034	Outcrop	17-Jul	MZ	NAD 83	16U	325093	5401181	GN	Gneiss; fg (Bt, AMP) restite, mg-cg (Qz syenite) mobilizate. Fol Az 258 86S. Non-uniform, cm-m scale resitite banding.	0.25	-	FOL	258	86	S	-
OL-MZ-12-035	Outcrop	17-Jul	MZ	NAD 83	16U	327246	5399756	GN	Gneiss; fg (Bt, AMP) restite, mg-cg (Qz with minor Kspar) mobilizate. Non-uniform m scale resitite banding.	0.29	-	FOL	255	90	S	-
OL-MZ-12-036	Outcrop	17-Jul	MZ	NAD 83	16U	327741	5399958	GN	Gneiss; fg (Bt, minor AMP) restite, mg-cg (Qz) mobilizate. Non-uniform m scale resitite banding. Fol Az 258 90S.	0.21	-	FOL	258	90	S	-
OL-MZ-12-037	Outcrop	17-Jul	MZ	NAD 83	16U	328323	5400307	GN	Gneiss; fg (Bt, minor AMP) restite, mg-cg (Qz) mobilizate. Non-uniform m scale resitite banding. Fol Az 260 88S.	0.21	-	FOL	260	88	S	-
OL-MZ-12-038	Outcrop	17-Jul	MZ	NAD 83	16U	328630	5400623	GR	White-pink, mg-cg granite. Small 50cm x 2m rafts of Bt gneiss present. Msv texture.	0.05	-	-	-	-	-	-
OL-MZ-12-039	Outcrop	17-Jul	MZ	NAD 83	16U	329681	5401299	GR	Red-Pink mg-cg, magnetite bearing quartz syenite. Generally massive texture. Could explain geophysical pick (8a).	6.18	-	-	-	-	-	-
OL-MZ-12-040	Outcrop	17-Jul	MZ	NAD 83	16U	329752	5401338	GR	Red-Pink mg-cg, magnetite bearing quartz syenite. Minor pegmatitic patches. Generally massive texture with minor mineral alignment trending at Az 255.	8.36	-	FOL	234	0	-	-

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OL-MZ-12-041	Outcrop	17-Jul	MZ	NAD 83	16U	329836	5401505	GR	Red-Pink mg-cg, magnetite bearing quartz syenite. Generally massive texture with minor mineral alignment trending at Az 255.	12.5	3.55	-	-	-	-	-
OL-MZ-12-042	Outcrop	17-Jul	MZ	NAD 83	16U	333048	5401823	GR	White, mg Biotite granite. Mineral Fol (Bt) trending Az 265.	0.64	-	FOL	265	0	-	-
OL-MZ-12-043	Outcrop	17-Jul	MZ	NAD 83	16U	333543	5401947	GR	White hornblende-biotite bearing quartz tonalite. Fol Az 264.	0.01	-	-	-	-	-	-
OL-MZ-12-044	Outcrop	17-Jul	MZ	NAD 83	16U	340986	5402969	GR	Gneiss; fg (Bt, AMP) restite, fg (Qz, Plag) mobilizate. Uniform cm scale resitite banding. Fol Az 242 90S.	0.7	-	FOL	264	0	-	-
OL-MZ-12-045	Outcrop	17-Jul	MZ	NAD 83	16U	341620	5403200	GN	Gneiss; fg (Bt, AMP) restite, fg (Qz, Plag) mobilizate. Uniform cm scale resitite banding. Fol Az 242 90S.	0.32	0.14	FOL	242	90	S	-
OL-MZ-12-046	Outcrop	17-Jul	MZ	NAD 83	16U	342551	5403308	GN	Gneiss; fg (Bt, AMP) restite, fg (Qz, Plag) mobilizate. Uniform cm scale resitite banding. Fol Az 262 90S.	0.23	-	FOL	262	90	S	-
OL-MZ-12-047	Outcrop	17-Jul	MZ	NAD 83	16U	342882	5402635	GN	Gneiss; fg (Bt, AMP) restite, fg-mg (Qz, Plag) mobilizate. Uniform cm scale resitite banding. Fol Az 262 90S.	0.16	-	FOL	262	90	S	-
OL-MZ-12-048	Outcrop	17-Jul	MZ	NAD 83	16U	342926	5402574	GR	Red-Pink mg-cg, magnetite bearing quartz syenite. Minor pegmatitic patches. Generally massive texture.	2.84	-	-	-	-	-	-
OL-MZ-12-049	Outcrop	18-Jul	MZ	NAD 83	16U	343131	5402445	GR	White-pink, mg-cg granite. Small rafts of Bt gneiss present. Msv texture.	0.120	0.180	-	-	-	-	-
OL-MZ-12-050	Outcrop	18-Jul	MZ	NAD 83	16U	343280	5402335	GR	Red-Pink mg, magnetite bearing quartz syenite. Generally massive texture. Explains E-W Mag high.	10.700	9.900	-	-	-	-	-
OL-MZ-12-051	Outcrop	18-Jul	MZ	NAD 83	16U	343648	5402240	GN	Granitic gneiss; White-pink, mg-cg granite, with AMP minerals segregating into mm-cm scale bands	0.070	0.030	FOL	266	90	S	-
OL-MZ-12-052	Outcrop	18-Jul	MZ	NAD 83	16U	345773	5401574	GN	Gneiss; grey, fg Bt, AMP, Qz gneiss with cm scale quartz veins running parallel to Fol.	0.310	0.360	FOL	268	90	S	-
OL-MZ-12-053	Outcrop	18-Jul	MZ	NAD 83	16U	346372	5401432	GR	White, mg Bt Qz Tonalite. Msv texture.	0.250	0.090	-	-	-	-	-
OL-MZ-12-054	Outcrop	18-Jul	MZ	NAD 83	16U	346539	5401243	GN	Gneiss; fg (Bt, AMP) restite, mg-cg (Qz, Plag Msc) mobilizate. Uniform m scale resitite banding.	0.170	0.200	FOL	262	90	S	-
OL-MZ-12-055	Outcrop	18-Jul	MZ	NAD 83	16U	346785	5400840	GN	Gneiss; grey, fg Bt, AMP, Qz Plag gneiss (bordering migmatite), cm scale quartz rich bands (some folding present). Fol Az 290 90S.	0.200	0.200	FOL	290	90	S	-
OL-MZ-12-056	Outcrop	18-Jul	MZ	NAD 83	16U	346953	5400771	GR	Pink, fg-mg, Bt Qz Syenite, Massive texture	0.140	0.100	-	-	-	-	-
OL-MZ-12-057	Outcrop	18-Jul	MZ	NAD 83	16U	346853	5404455	GR	White, fg-mg Bt tonalite. Biotite mineral alignment trending at Az 240.	0.030 0.050	0.020 0.070	-	-	-	-	-

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OL-MZ-12-058	Outcrop	18-Jul	MZ	NAD 83	16U	346844	5404474	GN	Gneiss; grey, fg Bt, AMP, Qz Plag gneiss, cm scale uniform mobilizate banding (QZ Plag) Fol Az 252 90S.	0.230	0.250	FOL	252	90	S	-
OL-MZ-12-059	Outcrop	18-Jul	MZ	NAD 83	16U	347099	5403940	GN	Gneiss; fg (Bt, AMP) restite, mg-cg (Qz, Plag Msc) mobilizate. Uniform m scale resitite banding. Fol Az 246 85S.	0.180	0.360	FOL	246	85	S	-
OL-MZ-12-060	Outcrop	19-Jul	MZ	NAD 83	16U	345388	5401596	GN	Gneiss; fg (Bt, AMP) restite, mg (Qz, Plag Kspar mobilizate. Uniform cm-m scale resitite banding. Fol Az 262 90S. Meter scale Peg Dykelets Throughout (Qz, Plag, Qz, Msc)	0.200 0.250	0.180 0.220	FOL	262	90	S	-
OL-MZ-12-061	Outcrop	19-Jul	MZ	NAD 83	16U	344483	5400914	GN	Gneiss; fg (Bt, Qz) restite, mg-cg (Qz, Plag, Kspar, Msc) mobilizate. Non-uniform m scale resitite banding.	0.200	0.050	FOL	250	90	S	-
OL-MZ-12-062	Outcrop	19-Jul	MZ	NAD 83	16U	343539	5399801	GN	Grey Bt-Qz gneiss with large non-uniform white, mg-cg Bt tonalite patches.	0.090 0.070 0.100	0.250 0.050 0.140	-	-	-	-	-
OL-MZ-12-063	BOULDER	19-Jul	MZ	NAD 83	16U	343445	5399561	Mafic	Small, very angular mafic boulder, fg-mg, anhedral altered grains (serpentinized, chl alteration?) Green-Blue in colour. Likely not rift related.	-	-	-	-	-	-	M785108
OL-MZ-12-064	Outcrop	19-Jul	MZ	NAD 83	16U	344231	5399599	GR	White mg-cg Qz tonalite, massive texture.	0.010 0.070	0.030 0.050	-	-	-	-	-
OL-MZ-12-065	Outcrop	19-Jul	MZ	NAD 83	16U	344167	5398700	GR	Pink-white, fg- mg hornblende granite (magnetite), massive texture.	1.650	0.760	-	-	-	-	-
OL-MZ-12-066	Outcrop	19-Jul	MZ	NAD 83	16U	344545	5398502	GR	Pink-white, fg- mg hornblende granite, massive texture.	0.050 0.040	0.030 0.080	-	-	-	-	-
OL-MZ-12-067	Outcrop	19-Jul	MZ	NAD 83	16U	344555	5397884	GN	Grey Bt-Qz gneiss with large non-uniform white, mg-cg Bt tonalite patches.	0.120	0.150	FOL	250	90	S	-
OL-MZ-12-068	Outcrop	19-Jul	MZ	NAD 83	16U	340107	5399513	GR	Pink-White, mg Bt-Hbl granite, Blocky fracturing, magnetite.	2.670	1.820	-	-	-	-	-
OL-MZ-12-069	Outcrop	20-Jul	MZ	NAD 83	16U	344243	5396044	GN	Grey, fg gneiss, Bt-Qz Plag	0.250 0.340	0.230 0.339	-	-	-	-	-
OL-MZ-12-070	Outcrop	20-Jul	MZ	NAD 83	16U	343478	5394970	GN	Grey, fg gneiss, Bt-Qz Plag. FOL 270 90 S.	0.090 0.240 0.200	0.230 0.340 0.140	FOL	270	90	S	-
OL-MZ-12-071	Outcrop	20-Jul	MZ	NAD 83	16U	343048	5394325	GN	Grey, fg gneiss, Bt-Qz Plag. Cross cutting cm Qz veins throughout. 3 m Archean dike crosscuts gneiss at Az 195.	0.210	0.010	-	-	-	-	-
OL-MZ-12-072	Outcrop	20-Jul	MZ	NAD 83	16U	342780	5394181	GN	Gneiss; fg (Bt, minor Qz) restite, mg (Bt syenite) mobilizate. Much more restite than mobilizate. Fol Az 262 90S.	0.240	0.300	FOL	262	90	S	-
OL-MZ-12-073	Outcrop	20-Jul	MZ	NAD 83	16U	343258	5394582	GN	Grey, fg gneiss, Bt-Qz Plag with cm scale AMP banding. FOL 264 90 S. Possible shear or fault in the area trending Az 230.	0.310	0.340	FOL	264	90	S	-

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OL-MZ-12-074	Outcrop	20-Jul	MZ	NAD 83	16U	347304	5400365	GN	Grey, fg gneiss, Bt-Qz.	0.140	0.160	-	-	-	-	-
OL-MZ-12-075	Outcrop	20-Jul	MZ	NAD 83	16U	346925	5399536	GN	Pink-white mg Bt-granite. With massive texture.	0.070	0.030	-	-	-	-	-
OL-MZ-12-076	Outcrop	22-Jul	MZ	NAD 83	16U	341183	5405802	GN	Grey, fg gneiss, Bt-Qz. FOL 278 90 S.	0.270	0.290	FOL	278	90	-	-
OL-MZ-12-077	Outcrop	22-Jul	MZ	NAD 83	16U	341458	5406048	GR	Bt-Hbl Qz Tonalite. Cg-Peg with massive texture	0.210	0.430	-	-	-	-	-
OL-MZ-12-078	Outcrop	22-Jul	MZ	NAD 83	16U	342060	342060	GN	Gneiss; fg-mg (AMP) restite, cg-peg (Kspar Qz Plag) mobilizate.	0.160	0.270	FOL	265	90	-	-
OL-MZ-12-079	Outcrop	22-Jul	MZ	NAD 83	16U	342143	5404533	GN	Gneiss; fg-mg (AMP) restite, cg-peg (Kspar Qz Plag) mobilizate. Magnetic banding (m scale).	0.170	14.440	-	-	-	-	-
OL-MZ-12-080	Outcrop	22-Jul	MZ	NAD 83	16U	342962	5405050	GN	Gneiss; fg (AMP (mag)) restite with cm-m scale banding, mg-cg (Syenite (mag)) mobilizate. Magnetic banding (m scale). FOL 255 90 S.	15.500	9.800	FOL	255	90	-	-
OL-MZ-12-081	Outcrop	22-Jul	MZ	NAD 83	16U	343259	5404447	GN	Gneiss; fg (Bt, AMP MAG) restite, mg (Qz, Plag Kspar) mobilizate. Uniform cm-m scale mobilizate banding.	15.510	8.730	-	-	-	-	-
OL-MZ-12-082	Outcrop	22-Jul	MZ	NAD 83	16U	343014	5403950	GN	Grey, fg gneiss, Bt-Qz. FOL 252 90 S.	0.280	0.210	FOL	252	90	-	-
OL-MZ-12-083	Outcrop	23-Jul	MZ	NAD 83	16U	345600	5404599	GN	Grey fg Bt-Qz gneiss. FOL 263 90 S	0.250	0.310	-	-	-	-	-
OL-MZ-12-084	Outcrop	23-Jul	MZ	NAD 83	16U	346028	5404584	GN	Grey fg Bt-Qz gneiss with cm-m scale uniform banding. FOL 2248 90 S	0.380	0.200	-	-	-	-	-
OL-MZ-12-085	Outcrop	23-Jul	MZ	NAD 83	16U	346013	5404578	GAB	Dark grey-green, fg, subophitic gabbro dike. Small amount of exposed outcrop (contact with gneiss). CPX (50%) anhedral, Plag (50%) subhedral laths, Pyrr (1%) disseminated blebs. Contact is trending at Az 305.	7.520	3.550	-	-	-	-	M785109
OL-MZ-12-086	Outcrop	23-Jul	MZ	NAD 83	16U	346016	5404539	GAB	Grey-green, mg, subophitic gabbro dike. Same dike as 085 (center of the dike). CPX (45%) an-subhedral, Plag (55%) sub- euhedral laths (milky green) ,Pyrr (1%) disseminated blebs. Does not look MCR related.	3.380	5.790	-	-	-	-	M785110
OL-MZ-12-087	Outcrop	24-Jul	MZ	NAD 83	16U	346765	5404692	GN	Black-grey fg Gneiss (Bt-Gt-Mag-Qz), FOL 275 70N (explains PICK A) regional magnetic zone of gneiss.	-	-	FOL	275	70	N	-
OL-MZ-12-088	Outcrop	24-Jul	MZ	NAD 83	16U	346605 346627	5404692 5404568	GN	Grey fg Bt-Qz gneiss.	0.230 0.140	0.250 0.200	-	-	-	-	-
OL-MZ-12-089	Outcrop	26-Jul	MZ	NAD 83	16U			GAB	Small gabbro dyke	27.100	24.300	-	-	-	-	-
OL-MZ-12-089	Outcrop	26-Jul	MZ	NAD 83	16U	345560	5399493	GR	Red Pink Bt-syenite, fg-mg, msv. Country rock near contact with small gabbro dike. Possible hematite alteration.	0.320 0.100 0.090	0.100 0.090	-	-	-	-	-
OL-MZ-12-090	Outcrop	26-Jul	MZ	NAD 83	16U	345580	5399489	GAB	Aphanitic, dark grey gabbroic dike. E-W trending, no sulfides, looks MCR related,	-	-	-	-	-	-	M785111

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									Likely 2-6m wide.							
OL-MZ-12-091	Outcrop	26-Jul	MZ	NAD 83	16U	345596	5399416	GR	White-Light Pink Qz-Syenite, mg, msv.	0.070	0.080	-	-	-	-	-
OL-MZ-12-092	Outcrop	26-Jul	MZ	NAD 83	16U	345434	5399332	GR	White-Light Pink Qz-Syenite, mg, msv. Bottom of ridge the rock is pinker in colour (possible hem alt near contact with a mafic intrusion??)	-	-	-	-	-	-	-
OL-MZ-12-093	Outcrop	27-Jul	MZ	NAD 83	16U	345634	5399672	GR	White-Pink, Mag, mg, Granite. (could explain mag high in area)	1.240	2.360	-	-	-	-	-
OL-MZ-12-094	Outcrop	27-Jul	MZ	NAD 83	16U	345652 345761	5399870 5399780	GR	White-Light Pink Qz-Syenite, mg, msv.	0.050 0.050	0.070 0.120	-	-	-	-	-
OL-MZ-12-095	Outcrop	31-Jul	MZ	NAD 83	16U	346262	5399714	GR	White-pink granite, msv, mg, qtz rich.	0.09	0.07	-	-	-	-	-
OL-MZ-12-096	Outcrop	31-Jul	MZ	NAD 83	16U	346232	5399676	GR	Pink bt-qtz syenite, weak E-W FOL patches are magnetic. Overall non MAG	1.14	0.86	-	-	-	-	-
OL-MZ-12-097	Outcrop	31-Jul	MZ	NAD 83	16U	346192	5399576	GR	Pink, mg-cg, bt-qtz syenite, weak E-W FOL patches are magnetic. Overall non MAG	4.73	1.13	-	-	-	-	-
OL-MZ-12-098	Outcrop	31-Jul	MZ	NAD 83	16U	346181	5399503	GR	White-pink, mg, bt-granite, weak E-W FOL.	0.78	0.8	-	-	-	-	-
OL-MZ-12-099	Boulder	31-Jul	MZ	NAD 83	16U	346184	5399493	GAB	Grey, fg-mg subophitic gabbroic boulder. 55% plagioclase (subhedral milky white-greenish laths), 44 % CPX an-subhedral. 1% Pyrr blebs.	8.45	9.66	-	-	-	-	M785112
OL-MZ-12-100	Boulder	31-Jul	MZ	NAD 83	16U	346435	5399752	GAB	Grey, fg-mg subophitic gabbroic boulder. 60% plagioclase (subhedral crystalline laths), 40 % CPX an-subhedral. No sulfides.	8.28	5.47	-	-	-	-	M785113
OL-MZ-12-101	Outcrop	1-Aug	MZ	NAD 83	16U	345730	5400286	GAB	Grey, fg interstitial gabbroic boulder. 60% plagioclase (anhedral), 40 % CPX anhedral. No sulfides.	23.2	22.5	-	-	-	-	M785114
OL-MZ-12-102	Outcrop	1-Aug	MZ	NAD 83	16U	345651	5400309	GR	White-pink granite, msv, mg-cg.	0.01	0.07	-	-	-	-	-
OL-MZ-12-103	Outcrop	3-Aug	MZ	NAD 83	16U	344131	5399982	GR	White-pink granite, msv, mg-cg.	-	-	-	-	-	-	-
OL-MZ-12-104	Boulder	3-Aug	MZ	NAD 83	16U	344461	5400029	GAB	Grey, fg interstitial gabbroic boulder. 40% plagioclase (anhedral, interstitial), 60 % CPX anhedral. Trace Py.	26.2	26.3	-	-	-	-	M785115
OL-MZ-12-105	Outcrop	8-Aug	MZ	NAD 83	16U	338107	5398583	GR	White-pink granite, mg, weak FOL Az 255. Magnetic, AMP pod within.	0.73	0.42	-	-	-	-	-
OL-MZ-12-106	Outcrop	8-Aug	MZ	NAD 83	16U	336601	5398604	GR	White-pink granite, msv, mg.	0.1	0.07	-	-	-	-	-
OL-MZ-12-107	Outcrop	8-Aug	MZ	NAD 83	16U	336944	5398906	GR	White-pink granite, msv, mg, minor silica flooding.	0.12	0.14	-	-	-	-	-
OL-MZ-12-108	Outcrop	8-Aug	MZ	NAD 83	16U	336980	5399325	GR	White-pink granite, msv, mg-cg.	0.03	0.07	-	-	-	-	-
OL-MZ-12-109	Outcrop	8-Aug	MZ	NAD 83	16U	337263	5399578	GR	White-pink granite, msv, mg-cg.	0.03	0.08	-	-	-	-	-
OL-MZ-12-110	Outcrop	10-Aug	MZ	NAD 83	16U	339339	5400269	GR	White, tonalite, cg-peg, msv	0.01	0.05	-	-	-	-	-

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OL-MZ-12-111	Outcrop	10-Aug	MZ	NAD 83	16U	339289	5400130	GR	FG, Bt-Qz Gneiss, non magnetic, m scale uniform mafic banding	0.1	0.32	-	-	-	-	-
						339217	5400097			0.03	0.05					
						339143	5400215			0.03	0.04					
OL-MZ-12-112	Outcrop	10-Aug	MZ	NAD 83	16U	339050	5400309	GN	FG, Bt-Qz Gneiss, non magnetic, m-cm scale mafic uniform banding	0.23	0.29	-	-	-	-	-
OL-MZ-12-113	Outcrop	10-Aug	MZ	NAD 83	16U	338760	5400300	GR	White, tonalite, cg-peg, msv	0.02	0.03	-	-	-	-	-
OL-MZ-12-114	Outcrop	10-Aug	MZ	NAD 83	16U	338765	5400434	GR	White-pink granite, msv, mg	0.27	0.05	-	-	-	-	-
OL-MZ-12-115	Outcrop	10-Aug	MZ	NAD 83	16U	338785	5400721	GN	FG, Bt-Qz Gneiss, non magnetic, m-cm scale mafic uniform banding	0.16	0.2	-	-	-	-	-
OL-MZ-12-116	Outcrop	10-Aug	MZ	NAD 83	16U	339022	5400875	GN	FG, Bt-Qz Gneiss, non magnetic, m-cm scale mafic uniform banding	0.25	0.23	-	-	-	-	-
OL-MZ-12-117	Outcrop	10-Aug	MZ	NAD 83	16U	339564	5400941	GN	FG, Bt-Qz Gneiss, non magnetic, m-cm scale mafic uniform banding	0.28	0.18	-	-	-	-	-
OL-MZ-12-118	Outcrop	13-Aug	MZ	NAD 83	16U	338055	5398534	GR	White, granite, mg, msv	0.81	0.73	-	-	-	-	-
OL-MZ-12-119	Outcrop	13-Aug	MZ	NAD 83	16U	338024	5398472	GR	White, granite, mg, msv	0.29	0.33	-	-	-	-	-
OL-MZ-12-120	Outcrop	13-Aug	MZ	NAD 83	16U	338026	5398371	GN	Grey, fg Gneiss, cm-m scale banding	0.34	0.21	-	-	-	-	-
OL-MZ-12-121	Outcrop	13-Aug	MZ	NAD 83	16U	337895	5398446	GN	Grey, fg Gneiss, cm-m scale banding	0.76	0.45	-	-	-	-	-
OL-MZ-12-122	Outcrop	13-Aug	MZ	NAD 83	16U	337907	5398516	GR	White, granite, mg, msv	0.68	0.77	-	-	-	-	-
OL-MZ-12-123	Outcrop	13-Aug	MZ	NAD 83	16U	337916	5398600	GR	Pink-white mg Bt-granite, massive texture, Slightly MAG	0.93	1.02	-	-	-	-	-
OL-MZ-12-124	Outcrop	13-Aug	MZ	NAD 83	16U	337874	5398631	GR	Pink-white mg Bt-granite, massive texture	0.12	0.25	-	-	-	-	-
OL-MZ-12-125	Outcrop	13-Aug	MZ	NAD 83	16U	337866	5398597	GR	Pink-white mg Bt-granite, massive texture, MAG	2.62	2.52	-	-	-	-	-
OL-MZ-12-126	Outcrop	13-Aug	MZ	NAD 83	16U	337765	5398611	GR	Pink-white mg Bt-granite, massive texture, MAG	2.91	2.63	-	-	-	-	-
OL-MZ-12-127	Outcrop	13-Aug	MZ	NAD 83	16U	337739	5398745	GR	Pink-white mg Bt-granite, massive texture, slightly MAG	1.01	0.73	-	-	-	-	-
						337563	5398717									
OL-MZ-12-128	Outcrop	13-Aug	MZ	NAD 83	16U	337647	5398936	GR	Pink-white mg Bt-granite, massive texture	0.04	0.12	-	-	-	-	-
OL-MZ-12-129	Outcrop	13-Aug	MZ	NAD 83	16U	337457	5398635	GR	Pink-white mg Bt-granite, massive texture, slightly MAG	0.87	1.32	-	-	-	-	-
OL-MZ-12-130	Outcrop	13-Aug	MZ	NAD 83	16U	337169	5398755	GR	Pink-white mg Bt-granite, massive texture	0.67	0.87	-	-	-	-	-
OL-MZ-12-131	Outcrop	14-Aug	MZ	NAD 83	16U	338004	5398790	GR	Pink-White mg-cg granite (bordering on syenite)	0.18	0.14	-	-	-	-	-
OL-MZ-12-132	Outcrop	14-Aug	MZ	NAD 83	16U	338239	5398947	GR	Pink-White mg-cg granite (bordering on syenite)	0.1	0.11	-	-	-	-	-
OL-MZ-12-133	Outcrop	14-Aug	MZ	NAD 83	16U	338157	5399219	GR	Pink mg-cg qtz-syenite, MAG	3.52	2.8	-	-	-	-	-
OL-MZ-12-134	Outcrop	14-Aug	MZ	NAD 83	16U	338028	338028	GR	Pink mg-cg qtz-syenite, MAG	1.92	2.19	-	-	-	-	-

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OL-MZ-12-135	Subcrop	15-Aug	MZ	NAD 83	16U	338045	5399304	GAB	Dark grey, mg, msv, interstitial textured gabbro. CPX (45%) subhedral, Plag (55%) interstitial, crystalline, minor subhedral laths, possible trace Olivine. Boulder location and valley in which it is located coincides with Mag Sig.	6.29	6.89	-	-	-	-	M785116
OL-MZ-12-136	Outcrop	17-Aug	MZ	NAD 83	16U	341448	5399175	GR	Pink-white mg Bt-granite, massive texture	0.36	1.35	-	-	-	-	-
OL-MZ-12-137	Outcrop	17-Aug	MZ	NAD 83	16U	341403	5399087	GR	Pink-white mg Bt-granite, massive texture	0.25	0.12	-	-	-	-	-
OL-MZ-12-138	Outcrop	17-Aug	MZ	NAD 83	16U	341842	5399853	GR	Pink-white mg Bt-granite, massive texture	0.45	0.23	-	-	-	-	-
OL-MZ-12-139	Outcrop	20-Aug	MZ	NAD 83	16U	341837	5400543	GR	Pink-white fg-mg Bt-granite, massive texture	1.87	0.27	-	-	-	-	-
OL-MZ-12-140	Boulder	29-Aug	MZ	NAD 83	16U	341908	5401031	GAB	Dark grey, mg-fg, msv, interstitial textured gabbro. CPX (55-60%) an-subhedral, Plag (40-45%) interstitial, crystalline, minor subhedral laths. Boulder location coincides with Mag Sig.	25.62	34.43	-	-	-	-	M785117
OL-MZ-12-141	Boulder	29-Aug	MZ	NAD 83	16U	341033	5400948	GAB	Dark grey, mg-fg, msv, interstitial-subophitic textured gabbro. CPX (50-55%) an-subhedral, Plag (45-50%) interstitial, crystalline, minor subhedral laths. Boulder location coincides with Mag Sig.	29.56	27.45	-	-	-	-	M785118
OL-MZ-12-142	Outcrop	28-Aug	MZ	NAD 83	16U	343630	5401957	GR	Massive Granite	-	-	-	-	-	-	-
OL-MZ-12-143	Outcrop	28-Aug	MZ	NAD 83	16U	343513	5401653	GR	Massive Granite	-	-	-	-	-	-	-
OL-MZ-12-144	Outcrop	28-Aug	MZ	NAD 83	16U	343186	343186	GR	Massive Granite	-	-	-	-	-	-	-
OL-MZ-12-145	Outcrop	4-Sep	MZ	NAD 83	16U	342882	5399566	GN	FG, Bt-Qz Gneiss, non magnetic, m-cm scale mafic non-uniform banding	0.13	0.21	-	-	-	-	-
OL-MZ-12-146	Outcrop	4-Sep	MZ	NAD 83	16U	343149	5399564	GN	FG, Bt-Qz Gneiss, non magnetic, m-cm scale mafic non-uniform banding	0.15	0.12	-	-	-	-	-
OL-MZ-12-147	Boulder	4-Sep	MZ	NAD 83	16U	343118	5399536	GAB	Dark grey, mg-fg, msv, interstitial-subophitic textured gabbro. CPX (55%) an-subhedral, Plag (45%) interstitial, crystalline, minor subhedral laths. Boulder location coincides with Mag Sig.	11.34	17.16	-	-	-	-	M785119
OL-MZ-12-148	Outcrop	4-Sep	MZ	NAD 83	16U	343006	5399516	GN	FG, Bt-Qz Gneiss, non magnetic, m-cm scale mafic non-uniform banding	0.11	0.18	-	-	-	-	-
OL-MZ-12-149	Outcrop	6-Sep	MZ	NAD 83	16U	346177	5401594	GN	FG, Bt-Qz Gneiss, non magnetic, cm scale mafic banding, minor rust.	0.07	0.13	FOL	270	90	-	-
OL-MZ-12-150	Outcrop	6-Sep	MZ	NAD 83	16U	346264	5401979	GN	FG, Bt-Qz Gneiss, non magnetic, cm scale mafic banding, minor rust.	0.12	0.16	-	-	-	-	-
OL-MZ-12-151	Outcrop	6-Sep	MZ	NAD 83	16U	346817	5402036	GAB	Black - green, mg, minor alteration of CPX to Hbl, light green plag, minor Bt. Does not	32.43	30.58	-	-	-	-	M785120

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									look MCR related.							
OL-MZ-12-152	Outcrop	12-Sep	MZ	NAD 83	16U	342371	5403394	GN	FG, Bt-Qz Gneiss, non magnetic, m-cm scale mafic non-uniform banding. Mafic bands are magnetic and contain garnets.	3.21	0.23	FOL	258	90	-	-
OL-MZ-12-153	Outcrop	13-Sep	MZ	NAD 83	16U	341971	5404002	GR	White, mg, msv, Bt-Qz-Plag Granitic tonalite	0.02	0.03	-	-	-	-	-
OL-MZ-12-154	Outcrop	21-Oct	MZ	NAD 83	16U	339730	5393737	GN	Grey-black, fg, siliceous, Strong FOL, pyroxenes have been completely altered to hornblende, minor magnetite, Tr Py. Appears to be a magnetic mafic band of gneiss. Coincides with mag high.	24.87	21.63	FOL	247	90	-	M785121
OL-MZ-12-155	Outcrop	21-Oct	MZ	NAD 83	16U	339685	5393743	GN	Grey-black, fg, siliceous, Strong FOL, pyroxenes have been completely altered to hornblende, minor magnetite, Tr Py. Appears to be a magnetic mafic band of gneiss. Coincides with mag high.	24.18	22.37	FOL	251	90	-	-
OL-MZ-12-156	Outcrop	22-Oct	MZ	NAD 83	16U	341001	5393941	MAFIC	Sheared fg-aphanitic mafic. Pyroxene - hornblende - biotite. Cg Po associated with Qz viens. Disseminated fg Py throughout	18.21	19.58	FOL	248	90	-	-
OL-MZ-12-157	Outcrop	24-Oct	MZ	NAD 83	16U	338003	5393573	GN	Grey, fg, very siliceous, Strong FOL, minor hornblende-Bt, Tr-2% Py.	0.18	0.58	-	-	-	-	M785122
OL-MZ-12-158	Outcrop	24-Oct	MZ	NAD 83	16U	337993	5393556	GN	Grey, fg, very siliceous, Strong FOL, minor hornblende-Bt, Tr-2% Py.	0.51	0.25	-	-	-	-	M785123
OL-MZ-12-159	Outcrop	24-Oct	MZ	NAD 83	16U	337987	5393574	GAB	Green, mg-cg, pyroxene altered to hornblende, msv texture, cg Kspar present (altered hybrid??) up to 3-5% Py	0.53	0.68	-	-	-	-	M785124
OL-MZ-12-160	Outcrop	26-Oct	MZ	NAD 83	16U	329021	5403221	Pyroxenite	Black-minor green, Msv, mg-cg, Pyroxenite - with hornblende alteration, looks Archean.	18.53	23.51	-	-	-	-	M785125
OL-MZ-12-161	Outcrop	26-Oct	MZ	NAD 83	16U	329118	5403204	Pyroxenite	Black-minor green, Msv, mg-cg, Pyroxenite - with hornblende alteration, looks Archean.	9.01	5.32	-	-	-	-	M785126
OL-MZ-12-162	Outcrop	26-Oct	MZ	NAD 83	16U	329120	5403203	Pyroxenite	Black-minor green, Msv, mg-cg, Pyroxenite - with hornblende alteration, looks Archean.	11.61	12.43	-	-	-	-	M785127
OL-MZ-12-163	Outcrop	29-Oct	MZ	NAD 83	16U	329118	5403223	Pyroxenite	Black - green, mg, msv, Pyroxenite - with Amp alteration. Relic olivine appears to be serpentinized.	46.23	71.35	-	-	-	-	M785128
OL-MZ-12-164	Boulder	29-Oct	MZ	NAD 83	16U	329116	5403252	Pyroxenite	Green, cg, Hornblende, much more altered than 163.	1.01	0.89	-	-	-	-	M785129
OL-MZ-12-165	Boulder	29-Oct	MZ	NAD 83	16U	329106	5403251	Pyroxenite	Black - green, mg, msv, Pyroxenite - with Amp alteration. Minor serpentinization.	17.21	12.39	-	-	-	-	M785130

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OL-MZ-12-166	Boulder	29-Oct	MZ	NAD 83	16U	329068	5403239	Pyroxenite	Black-minor green, Msv, mg-cg, Pyroxenite - with hornblende alteration.	11.25	6.21	-	-	-	-	M785131
OL-MZ-12-167	Boulder	29-Oct	MZ	NAD 83	16U	329063	5403225	Pyroxenite	Green, mg, Hornblendite, rusty.	1.25	0.67	-	-	-	-	M785132
OL-MZ-12-168	Outcrop	29-Oct	MZ	NAD 83	16U	329047	5403227	Pyroxenite	Black-minor green, Msv, mg-cg, Pyroxenite - with hornblende alteration.	16.21	5.07	-	-	-	-	M785133
OL-MZ-12-169	Outcrop	29-Oct	MZ	NAD 83	16U	329019	5403218	Pyroxenite	Black - green, mg, msv, Pyroxenite - with Amp alteration. Relic olivine appears to be serpentinized.	58.21	45.32	-	-	-	-	M785134
OL-MZ-12-170	Outcrop	29-Oct	MZ	NAD 83	16U	329020	5403218	Pyroxenite	Black - green, mg, msv, Pyroxenite - with Amp alteration. Relic olivine appears to be serpentinized.	61.73	28.96	-	-	-	-	M785135
OL-MZ-12-171	Outcrop	5-Nov	MZ	NAD 83	16U	342852	5400940	GR	Pink-white, mg, weakly Fol Qz syenite	0.17	0.16	-	-	-	-	-
OL-MZ-12-172	Outcrop	9-Nov	MZ	NAD 83	16U	332715	5400224	GR	Pink, mg, msv, Bt-syenite	5.34	1.68	-	-	-	-	-
OL-MZ-12-173	Outcrop	15-Nov	MZ	NAD 83	16U	325318	5400269	GR	Pink, mg, msv, syenite	1.25	2.78	-	-	-	-	-
OL-MZ-12-174	Outcrop	15-Nov	MZ	NAD 83	16U	344516	5402264	GR	Pink, mg, msv, syenite, coincides with regional Mag feature.	3.65	5.78	-	-	-	-	-
OL-MZ-12-175	Outcrop	12-Nov	MZ	NAD 83	16U	342509	5401744	GN	FG, Bt-Qz Gneiss, non magnetic, cm scale mafic banding, minor rust.	0.07	0.04	FOL	248	90	-	-

Station	Station Type	Date	Collector	Datum	UTM Zone	Easting	Northing	Rock Code	Rock Description	Magsus 1	Magsus 2	Structure	Strike/Trend	Dip/Plunge	Dip Direction	Sample ID
OL-CC-12-01	Outcrop	27-Aug	CC & CM	NAD 83	16U	340385	5402173	Syenitic Granite	Coarse grained syenitic granite, pink and white in colour with magnetic stringers and blebs in outcrop	3.017	0.084	-	-	-	-	-
OL-CC-12-02	Outcrop	27-Aug	CC & CM	NAD 83	16U	340429	5402160	Syenitic Granite	Coarse grained syenitic granite, pink and white in colour, soil and overburden contains magnetite	-	-	-	-	-	-	-
OL-CC-12-03	Boulder	27-Aug	CC & CM	NAD 83	16U	340099	5402089	Maf to UM Gabbro	Two boulders were sampled at this location; OL M7895059 is a 1.0 x 0.7 x 0.5 m rounded pitted boulder, moderately magnetic, biotite-rich and a high pyroxene content, trace sulfides, medium to coarse grained dark grey on fresh surface, light beige on weathered surface with rusted spots, and a greenish mineral (seressitization, possible olivine?); OL M789060 is a biotite-rich mafic to ultramafic boulder that contains mm-wide sulfide stringers, 2-3% disseminated pyrite and pyrrhotite and potassium feldspar xenoliths up to 3 cm wide.	10	1	-	-	-	-	M785059 M785060
OL-CC-12-04	Outcrop	27-Aug	CC & CM	NAD 83	16U	340237	5401663	Granite	Granite outcrop with magnetite blebs and stringers.	7.403	1.479	-	-	-	-	-
OL-CC-12-05	Outcrop	27-Aug	CC & CM	NAD 83	16U	340201	5401786	Granite	Medium to coarse grained granite.	0.648	0.261	FOL	270	-	-	-
OL-CC-12-06	Outcrop	27-Aug	CC & CM	NAD 83	16U	340207	5401826	Granite	Medium to coarse grained granite.	2.132	1.044	-	-	-	-	-
OL-CC-12-07	Outcrop	27-Aug	CC & CM	NAD 83	16U	340195	5401902	Granite	Medium to coarse grained granite.	0.472	0.365	-	-	-	-	-
OL-CC-12-08	Outcrop	27-Aug	CC & CM	NAD 83	16U	340282	5401932	Granite	Medium to coarse grained granite.	0.024	0.031	-	-	-	-	-
OL-CC-12-09	Outcrop	27-Aug	CC & CM	NAD 83	16U	340221	5401860	Granite	Granite with magnetic blebs.	2.532	0.975	-	-	-	-	-
OL-CC-12-10	Outcrop	27-Aug	CC & CM	NAD 83	16U	340146	5401803	Granite	-	0.014	0.021	-	-	-	-	-
OL-CC-12-11	Outcrop	27-Aug	CC & CM	NAD 83	16U	339709	5401917	Granite	-	1.974	0.371	FOL	282	-	-	-
OL-CC-12-12	Outcrop	28-Aug	CC & CM	NAD 83	16U	343872	5401396	Tonalite	Large outcrop ridge at the edge of the anomaly.	0.04	-	-	-	-	-	-
OL-CC-12-13	Outcrop	28-Aug	CC & CM	NAD 83	16U	343474	5401480	Dioritic Gneiss	Large outcrop at the edge of swamp.	0.252	0.291	FOL	268	-	-	-
OL-CC-12-14	Outcrop	28-Aug	CC & CM	NAD 83	16U	343459	5401426	Tonalite	Coarse grained plagioclase and quartz; large mound in forest about 20 m elevation from forest floor.	0	0.004	-	-	-	-	-
OL-CC-12-15	Outcrop	28-Aug	CC & CM	NAD 83	16U	343470	5401421	Gneiss	Biotite-rich gneiss; roughly parallel to ridge; contact between tonalite and gneiss is visible; nice gneiss banding.	0.764	0.461	FOL	259	-	-	-
OL-CC-12-16	Outcrop	28-Aug	CC & CM	NAD 83	16U	344009	5401496	Tonalite	-	0.029	0.001	-	-	-	-	-
OL-CC-12-17	Outcrop	28-Aug	CC & CM	NAD 83	16U	344196	5401507	Gneiss	Gneiss with abundant biotite and quartz potassium feldspar veining up to 3 cm wide.	1.06	0.243	-	-	-	-	-
OL-CC-12-18	Outcrop	29-Aug	CC & CM	NAD 83	16U	340713	5400614	Tonalite	-	0.008	0.038	-	-	-	-	-
OL-CC-12-19	Outcrop	29-Aug	CC & CM	NAD 83	16U	340399	5400799	Tonalite	Coarse to medium grained with some gneissic bands / biotite-rich foliation; magnetic susceptibility is slightly more elevated on the biotite bands (0.346).	0.021	0.019	FOL	260	-	-	-

Station	Station Type	Date	Collector	Datum	UTM Zone	Easting	Northing	Rock Code	Rock Description	Magsus 1	Magsus 2	Structure	Strike/Trend	Dip/Plunge	Dip Direction	Sample ID
OL-CC-12-20	Outcrop	29-Aug	CC & CM	NAD 83	16U	340779	5400700	Tonalite	-	0.012	0.058	-	-	-	-	-
OL-CC-12-21	Outcrop	29-Aug	CC & CM	NAD 83	16U	340653	5400617	Tonalite	-	0.017	0.026	-	-	-	-	-
OL-CC-12-22	Outcrop	30-Aug	CC & CM	NAD 83	16U	340053	5400530	Granite	Granite ridge trending NNE-SSW.	0.036	0.06	-	-	-	-	-
OL-CC-12-23	Outcrop	30-Aug	CC & CM	NAD 83	16U	340080	5400556	Gneiss	-	0.264	0.489	FOL	290	-	-	-
OL-CC-12-24	Outcrop	30-Aug	CC & CM	NAD 83	16U	340093	5400624	Granite	Granite ridge trending NNE-SSW.	0.018	0.037	-	-	-	-	-
OL-CC-12-25	Outcrop	30-Aug	CC & CM	NAD 83	16U	340130	5400679	Granite	Ridge.	-	-	-	-	-	-	-
OL-CC-12-26	Outcrop	30-Aug	CC & CM	NAD 83	16U	340071	5400780	Gneiss	Well foliated gneiss; quartz muscovite pods 15 cm in diameter within the biotite-rich gneiss bands; granite is also present in the outcrop, some granitic xenoliths with strain shadows were photographed.	0.536	0.471	FOL	254	-	-	-
OL-CC-12-27	Outcrop	30-Aug	CC & CM	NAD 83	16U	340091	5400888	Migmatite	Migmatite with ptigmatic folding (photographed); lighter colored / felsic component is quartz and potassium feldspar rich while the darker / mafic minerals are a biotite schist (similar to gneiss); the magnetic susceptibility varies at 0.689 in the darker bands and 0.022 in the lighter bands (which seems to correspond to the readings procured from gneiss and granites respectively).	0.689	0.022	-	-	-	-	-
OL-CC-12-28	Outcrop	30-Aug	CC & CM	NAD 83	16U	340089	5400928	Granite	-	0.007	0.019	-	-	-	-	-
OL-CC-12-29	Outcrop	30-Aug	CC & CM	NAD 83	16U	340223	5400888	Gneiss	-	0.327	0.129	-	-	-	-	-
OL-CC-12-30	Outcrop	30-Aug	CC & CM	NAD 83	16U	340265	5400718	Granite	Tonalitic	0.016	0.011	-	-	-	-	-
OL-CC-12-31	Outcrop	31-Aug	CC & CM	NAD 83	16U	347114	5399474	Granite	Granite with some biotite (granodiorite?).	0.06	0.052	-	-	-	-	-
OL-CC-12-32	Outcrop	31-Aug	CC & CM	NAD 83	16U	347286	5399535	Granite	Potassium feldspar-rich granite.	0.057	0.078	-	-	-	-	-
OL-CC-12-33	Outcrop	31-Aug	CC & CM	NAD 83	16U	347329	5399550	Granite	Locally weakly magnetic granite.	1.178	0.044	-	-	-	-	-
OL-CC-12-34	Outcrop	31-Aug	CC & CM	NAD 83	16U	347353	5399512	Maf to UM dyke	Mafic to ultramafic dyke with visible sulfides; 0.5 to 0l.6 m wide striking at 254°/87°; fresh surface is fine to medium grained dark grey with visible sulfides (likely pyrrhotite and pyrite); highest magnetic susceptibility readings (over 100) correspond to mineralized area of the dyke; adjacent host rock is a potassium feldspar-rich granite with relatively low magnetic susceptibility readings (0.086 to 3.281) which suggests little contamination from the dyke intrusion; contacts are sharp and generally straight with occasional angled boundaries and one host rock xenolith with a magnetic susceptibility reading of 0.286; chill margins were noted; calcite alteration present.	55.8	119.2	Contact	254	87	N	M785061

Station	Station Type	Date	Collector	Datum	UTM Zone	Easting	Northing	Rock Code	Rock Description	Magsus 1	Magsus 2	Structure	Strike/Trend	Dip/Plunge	Dip Direction	Sample ID
OL-CC-12-35	Outcrop	31-Aug	CC & CM	NAD 83	16U	347355	5399513	Maf to UM dyke	Mafic to ultramafic dyke 0.1 to 0.15 m wide similar to OL CC 34; fine grained dark grey fresh surface; no trace sulfides; host rock is the same potassium feldspar-rich granite as for OL CC 34 and has a magnetic susceptibility of 0.054 - 0.344; strike of dike is essentially parallel to OL CC 34 (260°/72) and about 5 m south; a small dextral fault in the dyke suggests that the dykes may be displaced; calcite alteration present; moderately magnetic.	7.988	27.41	Contact	260	72	N	M785062
OL-CC-12-36	Outcrop	31-Aug	CC & CM	NAD 83	16U	347308	5399465	Granite	-	0.04	0.018	-	-	-	-	-
OL-CC-12-37	Outcrop	4-Sep	CC & CM	NAD 83	16U	346640	5399469	Granite	Large granite outcrop.	0.092	0.047	-	-	-	-	-
OL-CC-12-38	Outcrop	4-Sep	CC & CM	NAD 83	16U	346531	5399474	Granite	Granite mound.	0.018	0.024	-	-	-	-	-
OL-CC-12-39	Outcrop	4-Sep	CC & CM	NAD 83	16U	346436	5399531	Granite	-	0.039	0.024	-	-	-	-	-
OL-CC-12-40	Outcrop	4-Sep	CC & CM	NAD 83	16U	346396	5399514	Granite	-	0.082	0.032	-	-	-	-	-
OL-CC-12-41	Outcrop	4-Sep	CC & CM	NAD 83	16U	346392	5399466	Granite	-	0.04	0.038	-	-	-	-	-
OL-CC-12-42	Outcrop	4-Sep	CC & CM	NAD 83	16U	346393	5399427	Tonalite & Gneiss	Tonalite with two exposed magnetic gneiss bands 40 and 10 cm wide that pinch out (ductily deformed / boundins); the magnetic susceptibility of the gneiss bands are 0.326 and 0.238.	0.03	0.01	FOL	250	-	-	-
OL-CC-12-43	Outcrop	4-Sep	CC & CM	NAD 83	16U	346537	5399472	Granite	-	0.082	0.04	-	-	-	-	-
OL-CC-12-44	Outcrop	4-Sep	CC & CM	NAD 83	16U	346609	5399503	Granite	Granite with some elevated magnetic susceptibility readings relative to the readings recorded in the area.	0.563	1.65	-	-	-	-	-
OL-CC-12-45	Outcrop	4-Sep	CC & CM	NAD 83	16U	346694	5399571	Granite	-	0.066	0.032	-	-	-	-	-
OL-CC-12-46	Outcrop	4-Sep	CC & CM	NAD 83	16U	346800	5399599	Granite	Granite with some elevated magnetic susceptibility readings relative to the readings recorded in the area.	1.128	0.266	-	-	-	-	-
OL-CC-12-47	Outcrop	6-Sep	CC & CM	NAD 83	16U	345417	5401885	Metased	Foliated fine grained metaseds. Foliation 80 degrees and steeply dipping south (sub-vertical). Quartz/chert bands 1cm wide are present in this light grey-beige outcrop. Outcrop is a large mound within a poplar-alder stand.	0.028	0.041	Foliation	80	~90	-	-
OL-CC-12-48	Outcrop	6-Sep	CC & CM	NAD 83	16U	345465	5401955	Metased	Foliated fine to medium grained metased. Similar to OL CC 47 but with coarse grained muscovite within quartz rich bands. Foliation 75 degrees, sub-vert dip.	0.012	0.000	Foliation	75	~90	-	-
OL-CC-12-49	Outcrop	6-Sep	CC & CM	NAD 83	16U	345381	5401974	Granite	K-spar rich granite in a large outcrop spanning at least 50 meters west of the anomaly. Some localized relatively high mag sus readings were observed, with the majority of readings around 0.040. Boulders resting on top of the outcrop contained magnetite bands and gave readings of up to 27.0	0.048	0.321	-	-	-	-	-
OL-CC-12-50	Outcrop	6-Sep	CC & CM	NAD 83	16U	345576	5401962	Granite	Weakly foliated granite, 280/ sub-vert.	0.033	0.025	Foliation	280	-	-	-
OL-CC-12-51	Outcrop	6-Sep	CC & CM	NAD 83	16U	345647	5401921	Metased	Foliated metased. Very large (~50m x 20m) outcrop. Foliation 88/~90	0.034	0.042	Foliation	88	~90	-	-

Station	Station Type	Date	Collector	Datum	UTM Zone	Easting	Northing	Rock Code	Rock Description	Magsus 1	Magsus 2	Structure	Strike/Trend	Dip/Plunge	Dip Direction	Sample ID
OL-CC-12-52	Outcrop	6-Sep	CC & CM	NAD 83	16U	345977	5401922	Metased	Metased foliated at 80 degrees. Mag sus values from ~0.05 to ~0.4. Large outcrop on the edge of a clear-cut.	0.441	0.058	Foliation	80	-	-	-
OL-CC-12-53	Outcrop	6-Sep	CC & CM	NAD 83	16U	346140	5401986	Metased	Metased foliated at 70 degrees.	0.044	0.041	Foliation	70	-	-	-
OL-CC-12-54	Outcrop	6-Sep	CC & CM	NAD 83	16U	346266	5402007	Metased	Large E-W trending ridge. Same outcrop as OL CC 53	0.029	0.056	-	-	-	-	-
OL-CC-12-55	Outcrop	6-Sep	CC & CM	NAD 83	16U	346393	5402018	Metased	Quartz altered metased. Outcrop consists of and E-W trending ridge in a pine forest	0.038	0.029	-	-	-	-	-
OL-CC-12-56	Outcrop	6-Sep	CC & CM	NAD 83	16U	346510	5401999	Metased	Dark grey metaseds, foliated at 80 degrees. The outcrop is a long ridge with the same trend as the other ridges seen today.	0.031	0.058	Foliation	80	-	-	-
OL-CC-12-57	Outcrop	6-Sep	CC & CM	NAD 83	16U	346502	5401941	Metased	Dark grey-black fine grained metaseds with a beige-red colored weathered surface. No sulfides.	0.281	0.263	-	-	-	-	-
OL-CC-12-58	Outcrop	6-Sep	CC & CM	NAD 83	16U	346466	5401815	Metased	Fine to medium grained dark grey-black metased, similar to OL CC 57. Foliation 78 degrees.	0.287	0.308	-	-	-	-	-
OL-CC-12-59	Outcrop	7-Sep	CC & CM	NAD 83	16U	347204	5402118	Granite	Granite south of small lake with swampy shoreline.	0.042	0.026	-	-	-	-	-
OL-CC-12-60	Outcrop	7-Sep	CC & CM	NAD 83	16U	347267	5402116	Granite	Large outcrop of granite with gneissic banding. Segregation of felsic/mafic minerals results in varied mag sus readings.	0.051	0.005	-	-	-	-	-
OL-CC-12-61	Outcrop	7-Sep	CC & CM	NAD 83	16U	347354	5402195	Granite	Granite ridge with elongated/strained coarse grained crystals. Possible due to proximity to the Quetico Fault?	0.063	0.027	-	-	-	-	-
OL-CC-12-62	Outcrop	7-Sep	CC & CM	NAD 83	16U	347373	5402142	Granite	Granite with abundant quartz+ muscovite (altered). The mag sus readings at this site are slightly elevated compared to other stations recorded today.	0.086	0.051	-	-	-	-	-
OL-CC-12-63	Outcrop	10-Sep	CC & CM	NAD 83	16U	344291	5402539	Granite	Syenitic granite with gneissic banding. Foliated at 270 degrees.	4.265	3.520	-	-	-	-	-
OL-CC-12-64	Outcrop	10-Sep	CC & CM	NAD 83	16U	344190	5402544	Gabbro	6 sub-angular Gabbroic boulders 1-2 meters in diameter and situated within a magnetic anomaly. Sub-ophitic texture with subhedral pyroxenes and plagioclase. Fresh surfaces are dark grey with a deep bluish-green tint. Medium grained. Extremely sparse trace disseminated sulfides.	61.1	39.800	-	-	-	-	M785063

Appendix D

Sample Descriptions

Sample ID	Station	Sampler	Datum	UTM Zone	Easting	Northing	Sample Medium	Rock Type	Sample Description	Sulfides	Sulfide Mineral	Sulfide Form	Magsus 1	Magsus 2
M785051	OL-MZ-12-003	MZ	NAD 83	16	326853	5405002	OC	Gabbro	North/south oriented mafic dyke that intrudes the migmatitic country rock. Gradational chill margin, aphanitic margin with mm scale plagioclase phenocrysts. Gabbro, cpx, plagioclase, hematite-altered k-spar. Subophitic texture, moderately crystalline. Contains trace sulfides (py, pyrr) and maybe weathered/altered magnetite.	Trace	Pyrite	Disseminated	23.79	21.73
M785052	OL-TS-12-002	TS	NAD 83	16	329347	5398147	BOULDER	Gabbro	1 x 0.5 m rounded gabbro boulder on the side of the road.	None	-	-	26.1	21.35
M785053	OL-TS-12-010	TS	NAD 83	16	338223	5393944	BOULDER	Picrite	1 x 1.5 m subangular picritic boulder on side of Barnum Road	Trace	Pyrite	Disseminated	15	-
M785054	OL-TS-12-011	TS	NAD 83	16	338254	5393980	BOULDER	Gabbro	1 x 1 m angular gabbroic boulder on side of Barnum Road	None	-	-	40	-
M785055	OL-TS-12-028	TS	NAD 83	16	342268	5398902	OC	Mafic Dyke	E/W trending, very fine-grained to aphanitic mafic dyke that crosscuts granitic country rock. Dyke is ~2m wide and has very sharp contacts with the country rock.	<1%	Pyrite	Disseminated	18.560	-
M785056	OL-TS-12-056	TS	NAD 83	16	339887	5400314	BOULDER	Gabbro	1 X 0.5 m rounded gabbro boulder that is medium-grained. Found in a low lying area, down in a low lying area west of mag pick H	Trace	Pyrite	Disseminated	19.200	0.000
M785057	OL-TS-12-057	TS	NAD 83	16	339818	5400313	BOULDER	Gabbro	2 x 1.5 m rounded gabbro boulder in low lying area with concentration of mafic boulders	None	-	-	23.000	31.000
M785058	OL-TS-12-064	TS	NAD 83	16	339655	5400170	SUBCROP	Gabbro	1 x 1 m subrounded to subangular, medium-coarse-grained gabbro boulders/subcrop found ~100m north of mag pick 14.	<1%	Pyrite	Disseminated	0.160	0.330
M785059	OL-CC-12-03	CC	NAD 83	16	340099	5402089	BOULDER	Gabbro	1 x 0.7 x 0.5 m rounded pitted boulder that is moderately magnetic, biotite-rich, and has a high pyroxene content, trace sulfides, medium to coarse grained and dark grey on fresh surface - light beige on weathered surface with rust spots and a greenish mineral (seresitization, possibly olivine?)	Trace	Pyrite	Disseminated	10	1
M785060	OL-CC-12-03	CC	NAD 83	16	340098	5402085	BOULDER	Gabbro	Biotite-rich mafic to ultramafic boulder than contains mm-wide sulfide stringers, 2-3% disseminated pyrite and pyrrhotite, with potassium feldspar xenoliths up to 3 cm wide.	2-3%	Pyrite, Pyrrhotite	Stringers, Disseminated	10	1
M785061	OL-CC-12-34	CC	NAD 83	16	347361	5399511	OC	Gabbro	Mafic to ultramafic dyke with visible sulfides; 0.5 to 0.6 m wide striking at 254°/87°; fresh surface is fine to medium grained dark grey with visible sulfides (likely pyrrhotite and pyrite); highest magnetic susceptibility readings (over 100) correspond to mineralized area of the dyke; adjacent host rock is a potassium feldspar-rich granite with relatively low magnetic susceptibility readings (0.086 to 3.281) which suggests little contamination from the dyke intrusion; contacts are sharp and generally straight with occasional angled boundaries and one host rock xenolith with a magnetic susceptibility reading of 0.286; chill margins were noted; calcite alteration present.	Trace to 1%	Pyrite % Pyrrhotite	Disseminated, blebs	55.8	119.2
M785062	OL-CC-12-35	CC	NAD 83	16	347355	5399512	OC	Gabbro	Mafic to ultramafic dyke 0.1 to 0.15 m wide similar to OL CC 34; fine grained dark grey fresh surface; no trace sulfides; host rock is the same potassium feldspar-rich granite as for OL CC 34 and has a magnetic susceptibility of 0.054 - 0.344; strike of dike is essentially parallel to OL CC 34 (260°/72°) and about 5 m south; a small dextral fault in the dyke suggests that the dykes may be displaced; calcite alteration present; moderately magnetic.	Trace	Pyrrhotite	Disseminated	7.988	27.41
M785063	OL-CC-12-64	CC	NAD 83	16	344189	5402542	OC	Gabbro	2m x 1m elongate gabbroic boulder with trace disseminated pyrite.	Trace	Pyrite	Disseminated	61.1	39.800
M785101	OL-MZ-12-003	MZ	NAD 83	16	326851	5404977	OC	Gabbro	North/south oriented mafic dyke that intrudes the migmatitic country rock. Gradational chill margin, aphanitic margin with mm scale plagioclase phenocrysts. Gabbro, cpx, plagioclase, hematite-altered k-spar. Subophitic texture, moderately crystalline. Contains trace sulfides (py, pyrr) and maybe weathered/altered magnetite.	Trace	Pyrite & Pyrrhotite	Disseminated	28	62
M785102	OL-MZ-12-005	MZ	NAD 83	16	326879	5404967	BOULDER	Picrite	Pitted, weathered, possibly picritic boulder that is 1x3 meters in size, subrounded. Massive, with anhedral, interstitial plagioclase. Contains cpx, plagioclase, bt, no alignment of grains.	None	-	-	15.32	-

Sample ID	Station	Sampler	Datum	UTM Zone	Easting	Northing	Sample Medium	Rock Type	Sample Description	Sulfides	Sulfide Mineral	Sulfide Form	Magsus 1	Magsus 2
M785103	OL-MZ-12-007	MZ	NAD 83	16	326940	5404611	OC	Gabbro	Gabbro dyke, intragranular texture, medium-grained, with 5-10 mm light-green milky plagioclase laths. Cpx, plagioclase, trace disseminated sulfides (py).	Trace	Pyrite	Disseminated	29.7	24.74
M785104	OL-MZ-12-022	MZ	NAD 83	16	327149	5402655	OC	Gabbro	Dark grey-green, fg-mg, subophitic gabbro dike. CPX (40%) sub-anhedral, Plagioclase (45%) subhedral laths, minor phenocrysts, Kspars (10%) anhedral pink, interstitial, Epidote (45) green mm scale patches throughout, Pyrr (1%) disseminated blebs, Bt (tr%).	1%	Pyrite	Disseminated	35	-
M785105	OL-MZ-12-024	MZ	NAD 83	16	327160	5402610	OC	Gabbro	Dark grey-green, Aphanitic chill margin of a gabbro dike. Small amount of exposed outcrop, blocky fracturing, Pyrr (1-2%) disseminated blebs. Minor green plagioclase pheno's. Dike is only 1.5 m wide... (pinch and swell)	1-2%	Pyrite	Disseminated	23.2	-
M785106	OL-MZ-12-027	MZ	NAD 83	16	327027	5401591	OC	Gabbro	Dark grey-green, fg-mg, subophitic gabbro dike. Dike is approximately 25-30m wide. CPX (50%) anhedral, Plagioclase (50%) sub-anhedral greenish milky laths, minor <1cm phenocrysts, Kspars (tr %) anhedral pink, interstitial, Pyrr (tr %) disseminated.	Trace	Pyrite	Disseminated	21.7	-
M785107	OL-MZ-12-029	MZ	NAD 83	16	327015	5401178	OC	Gabbro	Dark grey-green, fg-mg, subophitic gabbro dike. CPX (40%) subhedral, Plagioclase (60%) eu-subhedral laths, partially enclosing CPX, milky green in colour, Pyrr (tr %) disseminated blebs. Blocky fracturing. Likely the same dike as MZ-027, but looks different (possibly different phase).	Trace	Pyrite	Disseminated	18	-
M785108	OL-MZ-12-063	MZ	NAD 83	16	343453	5399593	BOULDER	Mafic	Small, very angular mafic boulder, fg-mg, anhedral altered grains (serpentinized, chl alteration?) Green-Blue in colour. Likely not rift related.	Trace	Py	Disseminated	-	-
M785109	OL-MZ-12-085	MZ	NAD 83	16	346013	5404578	OC	Gabbro	Dark grey-green, fg, subophitic gabbro dike. Small amount of exposed outcrop (contact with gneiss). CPX (50%) anhedral, Plagioclase (50%) subhedral laths, Pyrr (1%) disseminated blebs. Contact is trending at Az 305.	1%	Pyrite	Disseminated	7.520	3.550
M785110	OL-MZ-12-086	MZ	NAD 83	16	346019	5404556	OC	Gabbro	Grey-green, mg, subophitic gabbro dike. Same dike as OL-MZ-12-085 (center of the dike). CPX (45%) and-subhedral, Plagioclase (55%) sub-euhedral laths (milky green), Pyrr (1%) disseminated blebs. Does not look MCR related.	1%	Pyrite	Disseminated	3.380	5.790
M785111	OL-MZ-12-090	MZ	NAD 83	16	345580	5399489	OC	Gabbro	Aphanitic, dark grey gabbroic dike. E-W trending, no sulfides, looks MCR related, Likely 2-6m wide.	None	-	-	-	-
M785112	OL-MZ-12-099	MZ	NAD 83	16	346185	5399493	BOULDER	Gabbro	Grey, fg-mg subophitic gabbroic boulder. 55% plagioclase (subhedral milky white-greenish laths), 44 % CPX an-subhedral. 1% Pyrr blebs.	1%	Pyrrhotite	Disseminated	8.45	9.66
M785113	OL-MZ-12-100	MZ	NAD 83	16	346434	5399752	BOULDER	Gabbro	Grey, fg-mg subophitic gabbroic boulder. 60% plagioclase (subhedral crystalline laths), 40 % CPX an-subhedral. No sulfides.	None	-	-	8.28	5.47
M785114	OL-MZ-12-101	MZ	NAD 83	16	345730	5400282	BOULDER	Gabbro	Grey, fg interstitial gabbroic boulder. 60% plagioclase (anhedral), 40 % CPX anhedral. No sulfides.	None	-	-	23.2	22.5
M785115	OL-MZ-12-104	MZ	NAD 83	16	344462	5400030	BOULDER	Gabbro	Grey, fg interstitial gabbroic boulder. 40% plagioclase (anhedral, interstitial), 60 % CPX anhedral. Trace Py.	Trace	Pyrite	Disseminated	26.2	26.3
M785116	OL-MZ-12-135	MZ	NAD 83	16	338037	5399304	SUBCROP	Gabbro	Grey, mg, interstitial textured gabbro. 55% crystalline subhedral plagioclase, 45% subhedral CPX.	None	-	-	6.29	6.09
M785117	OL-MZ-12-140	MZ	NAD 83	16	341908	5401031	BOULDER	Mafic	Grey, fg, interstitial textured gabbro. 40-45% subhedral plagioclase, 55-60% subhedral CPX.	None	-	-	25.62	34.43
M785118	OL-MZ-12-141	MZ	NAD 83	16	341033	5400948	BOULDER	Mafic	Grey, mg, subophitic - interstitial textured gabbro. 45-50% subhedral plagioclase, 50-55% an-subhedral CPX.	None	-	-	29.56	27.45
M785119	OL-MZ-12-147	MZ	NAD 83	16	343116	5399535	BOULDER	Gabbro	Grey, mg, subophitic - interstitial textured gabbro. 40% an-subhedral plagioclase, 60% subhedral CPX.	None	-	-	N/A	N/A
M785120	OL-MZ-12-151	MZ	NAD 83	16	346812	5402045	BOULDER	Mafic	Angular mafic boulder does not look MCR related but pitted. Bt rich (25%), Green plagioclase laths.	None	-	-	N/A	N/A

Sample ID	Station	Sampler	Datum	UTM Zone	Easting	Northing	Sample Medium	Rock Type	Sample Description	Sulfides	Sulfide Mineral	Sulfide Form	Magsus 1	Magsus 2
M785121	OL-MZ-12-154	MZ	NAD 83	16	339730	5393737	OC	Hornblendite	Black, siliceous, metamorphosed hornblendite. Minor magnetite, coincides with mag high. Strong FOL Az 92.	Trace	Pyrite	Disseminated	24.87	21.63
M785122	OL-MZ-12-157	MZ	NAD 83	16	338003	5393573	OC	Hornblendite	Black, siliceous, metamorphosed hornblendite.	2%	Pyrite	Disseminated	0.18	0.54
M785123	OL-MZ-12-158	MZ	NAD 83	16	337993	5393556	OC	Hornblendite	Black, siliceous, metamorphosed hornblendite.	1-2%	Pyrite	Disseminated	0.53	0.26
M785124	OL-MZ-12-159	MZ	NAD 83	16	337987	5393574	OC	Hornblendite	Green, mg- cg hornblendite, msv texture, with mg Kspar (contamination)	3-5%	Pyrite	Disseminated	0.53	0.61
M785125	OL-MZ-12-160	MZ	NAD83	16	329021	5403221	OC	Pyroxenite	Black-minor green, Msv, mg-cg, Pyroxenite - with hornblende alteration, looks Archean.	1-3%	Pyrite	Disseminated	18.53	23.51
M785126	OL-MZ-12-161	MZ	NAD83	16	329118	5403204	OC	Pyroxenite	Black-minor green, Msv, mg-cg, Pyroxenite - with hornblende alteration, looks Archean.	2%	Pyrite	Disseminated	9.01	5.32
M785127	OL-MZ-12-162	MZ	NAD83	16	329120	5403203	OC	Pyroxenite	Black-minor green, Msv, mg-cg, Pyroxenite - with hornblende alteration, looks Archean.	1-3%	Pyrite	Disseminated	11.61	12.43
M785128	OL-MZ-12-163	MZ	NAD83	16	329118	5403223	OC	Pyroxenite	Black - green, mg, msv, Pyroxenite - with Amp alteration. Relic olivine appears to be serpentinized.	Tr-1%	Pyrite	Disseminated	46.23	71.35
M785129	OL-MZ-12-164	MZ	NAD83	16	329116	5403252	BOULDER	Hornblendite	Green, cg, Hornblendite, much more altered than at station OL-MZ-12-163.	Trace	pyrite	Disseminated	1.01	0.89
M785130	OL-MZ-12-165	MZ	NAD83	16	329106	5403251	BOULDER	Pyroxenite	Black - green, mg, msv, Pyroxenite - with Amp alteration. Minor serpentinization.	1-2%	Pyrite	Disseminated	17.21	12.39
M785131	OL-MZ-12-166	MZ	NAD83	16	329068	5403239	BOULDER	Pyroxenite	Black-minor green, Msv, mg-cg, Pyroxenite - with hornblende alteration.	None	-	-	11.25	6.21
M785132	OL-MZ-12-167	MZ	NAD83	16	329063	5403225	BOULDER	Hornblendite	Green, mg, Hornblendite, rusty.	Trace	Pyrite	Disseminated	1.25	0.67
M785133	OL-MZ-12-168	MZ	NAD83	16	329047	5403227	OC	Hornblendite	Black-minor green, Msv, mg-cg, Pyroxenite - with hornblende alteration.	Trace	Pyrrhotite	Disseminated	16.21	5.07
M785134	OL-MZ-12-169	MZ	NAD83	16	329019	5403218	OC	Pyroxenite	Black - green, mg, msv, Pyroxenite - with Amp alteration. Relic olivine appears to be serpentinized.	2%	Pyrite	Disseminated	58.21	45.32
M785135	OL-MZ-12-170	MZ	NAD83	16	329020	5403218	OC	Pyroxenite	Black - green, mg, msv, Pyroxenite - with Amp alteration. Relic olivine appears to be serpentinized.	1-2%	Pyrite	Disseminated	61.73	28.96
N566001	-	RK	NAD 83	16	342889	5394597	OC	Gneiss	mafic gneissic phase, biotite, beside minor qv	1%	Pyrite	Disseminated	-	-
N566002	-	RK	NAD 83	16	342868	5394191	BOULDER	Diabase	20 lb rounded boulder, probably diabase	none	-	-	-	-
N566003	-	RK	NAD 83	16	339112	5393349	BOULDER	Mafic	10 lb rounded boulder, py	trace	Pyrite	Disseminated	-	-
N566004	-	RK	NAD 83	16	343313	5394143	OC	Mafic	white, minor rust and qvts, biotite, muscovite and hornblende	<1%	Pyrite	Disseminated	-	-
N566005	-	RK	NAD 83	16	343535	5395017	BOULDER	Mafic	20 lb rounded to sub-angular boulder, sheared, py, trace cpy	<1%	Pyrite	Disseminated	-	-
N566006	-	RK	NAD 83	16	343534	5395331	BOULDER	Picrite	40 lb rounded to sub-angular boulder, fng, picritic?, biotite, py, po, cpy	trace	Pyrite, Pyrrhotite & Chalcopyrite	Disseminated	-	-
N566007	-	RK	NAD 83	16	343543	5395334	BOULDER	Mafic	100 lb rounded boulder, fng, cpy, py	<1%	Pyrite & Chalcopyrite	Disseminated	-	-
N566008	-	RK	NAD 83	16	343579	5395454	BOULDER	Mafic	250 lb sub-angular to rounded boulder, fng, biotite,	trace	Pyrite	Disseminated	-	-
N566009	-	RK	NAD 83	16	343639	5395509	BOULDER	Mafic	40 lb rounded boulder, fng, py mostly along fracture	1%	Pyrite	Disseminated	-	-
N566010	-	RK	NAD 83	16	341640	5393865	BOULDER	Mafic	200 lb rounded boulder, biotite, fabric	<1%	Pyrite	Disseminated	-	-
N566011	-	RK	NAD 83	16	343800	5395679	BOULDER	Mafic	40 lb round boulder, dimpled, fng, biotite, py	trace	Pyrite	Disseminated	-	-
N566012	-	RK	NAD 83	16	343792	5395658	BOULDER	Mafic	30 lb round boulder, dimpled, fng, mica	none	Pyrite	-	-	-
N566013	-	RK	NAD 83	16	343613	5395519	BOULDER	Mafic	200 lb rounded boulder, dimpled, biotite,	trace	Pyrite	Disseminated	-	-
N566014	-	RK	NAD 83	16	343762	5395098	BOULDER	Mafic	20 lb sub-angular boulder, biotite, moderate fabric	none	-	-	-	-
N566015	-	RK	NAD 83	16	344225	5397133	BOULDER	Mafic	40 lb subrounded boulder, dimpled, pyroxene, olivine, py	1%	Pyrite	Disseminated	-	-
N566016	-	RK	NAD 83	16	344257	5397077	BOULDER	Mafic	60 lb subrounded boulder, pitted, pyroxene, olivine, py	1%	Pyrite	Disseminated	-	-
N566017	-	RK	NAD 83	16	344761	5397039	BOULDER	Diabase	40 lb round boulder, dimpled, fng, biotite, py - diabase?	trace	Pyrite	Disseminated	-	-

Sample ID	Station	Sampler	Datum	UTM Zone	Easting	Northing	Sample Medium	Rock Type	Sample Description	Sulfides	Sulfide Mineral	Sulfide Form	Magsus 1	Magsus 2
N566018	-	RK	NAD 83	16	340266	5399552	BOULDER	Gabbro	200 lb round boulder, slightly pitted, gabbro?, fng, po,py,cpy	1%	Pyrite, Pyrrhotite & Chalcopyrite	Disseminated	-	-
N566019	-	RK	NAD 83	16	340960	5391596	OC	Mafic	outcrop, gray, gossanous, py, trace cpy, minor Q	1-2%	Pyrite & Chalcopyrite	Disseminated	-	-
N566020	-	RK	NAD 83	16	344418	5395210	BOULDER	Diabase	>300 lb round boulder, slightly pitted, fng, diabase? Cpy, py	trace	Pyrite & Chalcopyrite	Disseminated	-	-
N566021	-	RK	NAD 83	16	344932	5395005	BOULDER	Diabase	200 lb round boulder, moderately pitted, diabase?, fng, py	trace	Pyrite	Disseminated	-	-
N566022	-	RK	NAD 83	16	345196	5394456	BOULDER	Diabase	100 lb sub-angular boulder, slightly pitted, fng, diabase?, biotite, py	trace	Pyrite	Disseminated	-	-
N566023	-	RK	NAD 83	16	337894	5399841	BOULDER	Mafic	10 lb rounded boulder, gossanous, pyroxene, olivine, fabric	1-2%	Pyrite	Disseminated	-	-
N566024	-	RK	NAD 83	16	337259	5399536	BOULDER	Mafic	15 lb rounded boulder, pyroxene, py	>1%	Pyrite	Disseminated	-	-
N566025	-	RK	NAD 83	16	338461	5398916	BOULDER	Mafic	80 lb sub angular boulder, very fng, minor granite, py	>1%	Pyrite	Disseminated	-	-
N566026	-	RK	NAD 83	16	338155	5393862	BOULDER	Mafic	10 lb sub angular boulder, pyroxene, olivine, py	<1%	Pyrite	Disseminated	-	-
N566027	-	RK	NAD 83	16	340616	5398759	BOULDER	Gabbro	20 lb sub-angular boulder, on road, gabbro? Py	<1%	Pyrite	Disseminated	-	-
N566028	-	RK	NAD 83	16	340523	5399130	BOULDER	Mafic	>500 lb boulder, in creek, w/kspar, mafic syenite? Py, trace cpy	2%	Pyrite	Disseminated	-	-
N566029	-	RK	NAD 83	16	339220	5398745	BOULDER	Mafic	> 50 lb round boulder, side of road, biotite, py	1%	Pyrite	Disseminated	-	-
N566030	-	RK	NAD 83	16	342767	5400362	BOULDER	Pyroxenite	50 lb round boulder, gossanous, fabric, py/po, pyroxenite?	1%	Pyrite & Pyrrhotite	Disseminated	-	-
N566031	-	RK	NAD 83	16	343788	5400215	BOULDER	Mafic	300 lb round-sub rounded boulder, greenish, biotite, dimpled, fng	trace	Pyrite	Disseminated	-	-
N566032	-	RK	NAD 83	16	343669	5400579	BOULDER	Diabase	200 lb rounded boulder, diabase?, biotite, fng	trace	Pyrite	Disseminated	-	-
N566033	-	RK	NAD 83	16	343988	5400834	BOULDER	Mafic	>200 lb rounded boulder, gossanous, biotite, py, trace cpy, med grain	1%	Pyrite & Chalcopyrite	Disseminated	-	-
N566034	-	RK	NAD 83	16	343687	5400749	BOULDER	Mafic	>300 lb round boulder, fine-med grain, pyroxene, biotite, olivine	trace	Pyrite	Disseminated	-	-
N566035	-	RK	NAD 83	16	339615	5393725	OC	Metased	or ultramafic int.?, pyroxenes or amphiboles?, olivine?, biotite	<trace	Pyrite	Disseminated	-	-
N566036	-	RK	NAD 83	16	339615	5393724	OC	Metased	with quartz and pyrite	2%	Pyrite	Disseminated	-	-
N566037	-	RK	NAD 83	16	340937	5393917	OC	Metased	and/or pyroxenite, quartz, garnets, py, minor cpy	>2%	Pyrite & Chalcopyrite	Disseminated	-	-
N566038	-	RK	NAD 83	16	340987	5393948	OC	Quartz Vein	milky to white, chl., minor ser., minor kspar,	2%	Pyrite	Disseminated	-	-
N566039	-	RK	NAD 83	16	340987	5393949	OC	Metased	amphibolite and or pyroxenes, biotite, po seam, py	5%	Pyrite & Pyrrhotite	Disseminated & in Veinlets	-	-
N566040	-	RK	NAD 83	16	341007	5393943	OC	Metased	amphibolite and or pyroxenes, kspar, quartz, gossanous	3-5%	Pyrite	Disseminated	-	-
N566041	-	RK	NAD 83	16	340756	5394403	OC	Metased	amphibolitized and or pyroxenitic dike, biotite	none	Pyrite	Disseminated	-	-

Appendix E
Geophysical Target Ground Proofing
Pre-2012 Target Area Descriptions

Target/Anomaly ID	Easting	Northing	Picked By	Year	Status	Assigned DDH	Drill Comments	Access	Area Description
S2_01	344693	5399739	Steve	2012	Drilled	OL-11-07	Intersected interesting ultramafic dyke (30cm).	This target approximately 450 m east of Aberdeen Road (from 344255E / 5399673N). It is also approximately 300 m northwest of the 2011 trench (accessible by quad to the trench and then by traverse to S2_01)	No outcrops were uncovered along the N-S trending anomaly. To the west of the MAG signature non- magnetic qtz-syenite outcrops all of which had low magnetic susceptibilities were found.
S2_02	345474	5399345	Steve	2012	Drilled	OL-11-08	Intersected Ultramafic dyke 145.10-147.70 m. Very similar to OL-11-07	This target is approximately 75 m south of 345471E / 5399417N on the quad trail that runs south off of Monday Lake (junction at 346800E / 5400868N)	Large syenite ridge defines topography. On surface non-mag syenite was only OC encountered.
S2_03	345966	5399435	Steve	2012	Drilled	OL-11-10	Small cm-m scale ultramafic dykes encountered throughout drill hole.	This target is approximately 50 m west of 346020E / 5399424N on the quad trail that runs south off of Monday Lake (junction at 346800E / 5400868N)	This area contained large ridges of granite (with variable degree of magnetic susceptibility 0.5-5)
S2_04	344155	5400330	Steve	2012	Drilled	OL-11-11	Metasediments and Felsic Intrusives (no mafic-ultramafic rocks intersected)	This target is approximately 400 m east of Aberdeen Road (at 343743E / 5400319N)	This target lies within an area of thick glacial till and overburden (30m thick). No outcrop was located in this area.
S2_07	341799	5399680	Steve	2012	-	OL-11-15 (proposed)	-	This target underlies the east side of Spirit Lake.	This target is the east side of Spirit Lake. Outcrop on the shoreline surrounding the mag high was granitic in composition. No magnetic boulders were recovered on the east side of the lake.
S2_08	340986	5399221	Steve	2012	Drilled	OL-11-13	Only Granite was encountered	Drill Road Built already, going east off of Spirit Lake Road at 340765E / 5399106N. The target itself underlies Spirit Lake, and is just off the southwestern shore of the lake.	This target underlies the southwestern part of Spirit Lake. Outcrop on the shoreline surrounding the mag high was granitic in composition. No magnetic boulders were recovered on the southwest side of the lake.
S2_09	339107	5398649	Steve	2012	-	OL-11-17 (proposed)	-	This target is approximately 130 m south of Odette Lake Road. Drill road built already and runs south off of Odette Lake Road at 339086E / 5398767N	Road is on sloping low area SW from a large granite/syenite ridge outcrop that mag's at 4-4.2. You can see the drop off from granite outcrop to overburden covered as you approach the drill road from the northeast.
S2_10	337601	5398617	Steve	2012	-	OL-11-18 (proposed)	-	This target is just south of Odette Lake. Winter: A cleared trail extends from Odette Lake Road (at 338590E / 5398742N) to the shore of Odette Lake. Could use the already cleared trail and drive over ice west to the target. Summer: this target is accessible from the end of Odette Lake Road (at 336564E / 5398605N) via traverse in. It is approximately 1.2 km east of that point on the road.	Jack pine stand, along shore of Odette Lake, Weakly magnetic granites outcrop in area (1.09-1.26)
S2_11	345661	5399453	Steve	2012	Drilled	OL-11-09	Small cm-m scale ultramafic dykes encountered throughout drill hole.	This target is approximately 115 m northeast of 345586E / 5399368N on the quad trail that runs south off of Monday Lake (junction at 346800E / 5400868N)	This area contained large ridges of granite (with variable degree of magnetic susceptibility 0.5-5). Gabbroic dyke mapped on surface approximately 85m North of drill collar. The 1-2 m wide mafic dyke intrudes into granitic country rock.
S2_12	343771	5400368	Steve	2012	Drilled	OL-11-12	Metasediments and Felsic Intrusives (no mafic-ultramafic rocks intersected)	This target is approximately 40 m east of Aberdeen Road at 343728E / 5400366N	This target lies within an area of thick glacial till and overburden (30m thick). No outcrop was located in this area.
S2_13	343873	5400687	Steve	2012	-	-	-	This target is approximately 200m south of Aberdeen Road (from 343875E / 5400881 on the road)	Easy access; first 134m off Aberdeen is cut; next 75m is flat older growth jack pine. Magnetic boulders throughout, however they are rounded and overburden appears very thick. This target lies within an area of

Target/Anomaly ID	Easting	Northing	Picked By	Year	Status	Assigned DDH	Drill Comments	Access	Area Description
									thick glacial till and overburden (30m thick). No outcrop was located in this area.
S2_14	343060	5399541	Steve	2012	-	OL-11-14 (proposed)	-	From Barnum Road (at 341939E / 5396766N) there is an unnamed forestry road that goes north. This road forks north again at 342115E / 5398006N. This road continues north to an old cut block, and the target is approximately 575m east/southeast from the road at 342507E / 5399703N	Mag High is on shore of Flossy Lake Fairly swampy. OC consisting of Gneiss surrounds the anomaly. Angular boulder (M785120) coincides with anomaly. This anomaly is framed by gneissic whaleback outcrops to the west, and ridge of gneiss to the east. The high point of the mag (at the south end of Flossie Lake) is within a low area between these two ridges. A mafic boulder was recovered in this topographic low, and was sampled.
2	323694	5400567	PGW	2011	-	-	-	This target lies N of Shabb Lake, 1.7km W of highway 589 (Dog Lake Road). A logging road runs W to 324663E 5400870N. Road must be made for 1km WSW to drill site. Must drill with 3.	This area was swampy, and the only outcrop found in the area was gneissic in composition.
3	323557	5400458	PGW	2011	-	-	-	Lies N of Shabb Lake 1.7km W of highway 589. Logging road runs W to 324663E 5400870N. Road must be made for 1.1km WSW to drill site (~170SW of target 2). Must drill with 2.	This area was swampy, and the only outcrop found in the area was gneissic in composition.
5	330325	5401592	PGW	2011	-	-	-	Best accessible from Monday lake Road at 329835E 5401624N, W through cut for 180m. Road must then be made for 300m W to centre of target.	This area contained outcrops of magnetic syenite. This could explain the magnetic feature.
6	332282	5401020	PGW	2011	-	-	-	Possible trail headed S at 332966E 5401846N. Likely drill with 7 and 8.	This target is on the edge of a large topographic change (20 m cliff above a low lying swamp). The only outcrop located in this area is granitic in composition.
7	332431	5400060	PGW	2011	-	-	-	Possible trail headed S at 332966E 5401846N. Likely drill with 6 and 8.	The mag target coincides with a syenite outcrop with a magsus ranging from 5.34-1.68.
8	332731	5400230	PGW	2011	-	-	-	Possible trail headed S at 332966E 5401846N. Likely drill with 6 and 7.	This area consists of a low lying spruce swamp with no outcrop.
10	336133	5399923	PGW	2011	-	-	-	Off SW corner of Monday Lake. Network of roads head S to Monday lake off Monday Lake Rd at 336396E 5402981N to within 330m N of the lake. Recommended for winter as there is no road access to S side of the lake.	This area consists of a low lying spruce swamp with no outcrop.
11	339522	5399763	PGW	2011	-	-	-	Spirit Lake Road branches off W at 340665E 5399425 and is drivable by truck W and N to 339590E 5399420N. Road quadable N to 70m E of anomaly. Must drill with 14.	Mag pick point coordinates, in middle of a dense treed and overburden-covered area. 1-2 meter, rounded to subrounded mafic boulders are present around point that magsus between 20-25
12	338810	5400863	PGW	2011	Drilled	OL-11-06	-	This target is accessible via older logging roads off of Monday Lake Road. The trail heads south and then west off Monday Lake. Rd. from 339377E 5402780N to within 800m of anomaly. Should be drill road in to this target as it was drilled in 2011	This target underlies a northeast flowing stream that drains from Monday lake. The stream is lined by many rounded to subrounded magnetic mafic boulders.

Target/Anomaly ID	Easting	Northing	Picked By	Year	Status	Assigned DDH	Drill Comments	Access	Area Description
13	338846	5400292	PGW	2011	-	-	-	Spirit Lake Road branches off W at 340665E 5399425 and then north as a newer forestry road at 340274E / 5399486N. This newer forestry road terminates at 339509E / 5400628N, and target 13 is approximately 750 m southwest of this point.	This mag high underlies a swampy area that connects a smaller lake to the southeast to a creek to the northwest. The only outcrop recovered in the area was granitic and gneissic in composition. Many mafic boulders are scattered around the swamp and stream, with higher concentrations at the stream outflow.
14	339645	5400078	PGW	2011	-	-	-	Spirit Lake Road branches off W at 340665E 5399425, branches off again N at 340274E 5399496N and is drivable by truck to 340077E 5400081N. From this point target is 430 m west of the road. It is also accessible via traverse from the trail that goes to target 11. Must drill with 11.	Mag pick point coordinates are in a densely wooded area that drops off to a low swampy area ~100 m to the north. Series of coarse-grained gabbro boulders to subcrop in the low swampy area.
15	342862	5401080	PGW	2011	-	-	-	From Barnum Road (at 341939E / 5396766N) there is an unnamed forestry road that goes north. This road forks north again at 342115E / 5398006N. This road continues north to an old cut block, and the target is approximately 700 m north from the road at 342821E / 5400382N	The mag anomaly is situated in a large bowl like depression with no exposed outcrop. On the edge of the depression a non-magnetic qtz syenite was located. Mag feature was not explained.
16	340739	5402873	PGW	2011	Drilled	OL-11-04 OL-11-05	- -	This target is approximately 40 m south of Monday Lake Road (at 340731E / 5402910N).	This target is just south of Monday Lake Road. The only outcrop recovered in this area consists of magnetic syenite, which could explain the magnetic anomaly. This is likely a part of the regional mag features seen in the northern part of the property.
17	344901	5399487	PGW	2011	Drilled	OL-11-03	-	This target is accessible via a cleared quad trail to the 2011 trench. The quad trail heads south from Monday Lake Road (junction at 346800E / 5400868N) and terminates at the trench. Target 17 is approximately 35 m south of the trench.	This target is at the 2011 trench site. It was drilled as OL-11-03, and was trenched to uncover a 10 m wide MCR intrusion in contact with granitic country rock.
18	345973	5400217	PGW	2011	Drilled	OL-11-02	-	This target is accessible via the quad trail that heads south from Monday Lake Road (junction at 346800E / 5400868N). There is another grown in road that heads west of the quad trail at 346584E / 5400167N. This western road terminates at 345954E / 5400073N, and the already constructed drill road runs north, down to the shore of a small lake.	There is a newly constructed drill road to target '18'. There is no outcrop in this area, it is all overburden covered.
A	345600	5404400	PKWE - Paul	2009	-	-	-	This target is 20 m off a small quad trail that runs south off of MacLeish Lake Road (from 345220E / 5406144N)	No OC in area around pick, Swarbrick Lake is about 70 m from Pick (good water source). Area appears to be dominated by Gneiss. Likely a Magnetic band of gneiss is responsible for Mag SIG.
B	342800	5402900	PKWE - Paul	2009	-	-	-	This target is approximately 130 m off of Monday Lake Road at 342930E / 5402912N	This target is just west of Monday Lake Road. The only outcrop recovered in this area consists of magnetic syenite, which could explain the magnetic anomaly. This is likely a part of the regional mag features seen in the northern part of the property
C	344100	5402700	PKWE - Paul	2009	-	-	-	This target is approximately 525 m north of Monday Lake Road (at 344099E / 5402168N)	This target is north of Monday Lake Road. The only outcrop recovered in this area consists of magnetic syenite, which could explain the magnetic anomaly. This is likely a part of the regional mag features seen in the northern part of the property
D	347400	5402600	PKWE - Paul	2009	-	-	-	This target is approximately 1 km west of Highway 527 (at 342677 / 5402072N)	No OC found around large mag signature, however bad weather (snow) halted the day early.

Target/Anomaly ID	Easting	Northing	Picked By	Year	Status	Assigned DDH	Drill Comments	Access	Area Description
									Nonetheless the signature is likely a regional magnetic signature not a MCR dike
E	341600	5401200	PKWE - Paul	2009	-	-	-	This target is northeast of the end off Spirit Lake Road (at 340724E / 5400580N). From here, there is an old logging road that extends to the northeast. From this old road, the target is 260 m north of 341476E, 5400915N	This target underlies a northeast flowing stream that drains from Monday lake. The stream is lined by many rounded to subrounded magnetic mafic boulders.
F	343800	5396000	PKWE - Paul	2009	Drilled	OL-11-01	-	This target is approximately 180 m northwest of Culvert Road at 343847E, 5395822N.	The area around this target is overburden covered, and the only outcrop recovered was granitic and gneissic in composition.
G	340600	5398700	PKWE - Paul	2009	-	-	-	Mag pick is basically on Spirit Lake Road, maybe <10 m west of the road at point 340604E 5398699N.	Just off of Spirit Lake Road, and there is two large boulder fields east and west of the road at the point of the mag pick. The boulders are granitic and range in size from 1-2.5 meters. They magsus between 0.3-10.4. Aside from the boulders, the area proximal to the mag pick point is all overburden covered.
H	339900	5400300	PKWE - Paul	2009	-	-	-	Spirit Lake Road branches off W at 340665E 5399425, branches off again N at 340274E 5399496N and is drivable by truck to 339961E 5400301N. From this point target is ~60 m west off of road.	Point of this mag pick is in a northward down sloping area from a ridge of granite to migmatite. Low area slopes to a base where crude forestry trails have been bulldozed. Pick point and surrounding area of the mag high are both overburden covered, but abundant mafic boulders are present (from pick to 100 m north of it).
O	323700	5401300	PKWE - Paul	2009	-	-	-	This target lies N of Shabb Lake, 1.7km W of highway 589 (Dog Lake Road). A logging road runs W to 324663E 5400870N. The target is approximately 800 m northwest of the end of the logging road.	The mag target is along the southern shore of a lake. There are lots of boulders in the area (Gneiss & Tonalite). Nothing to indicate the cause of the Magnetic anomaly.
B1	339646	5393940	Bernard	2011	-	-	-	This target is accessible via an old logging road off Barnum road at 339250E, 5394606N. It is approximately 900 m southeast of Barnum Road, down an old logging road and then straight south from marked flagging along the road (approximately 575 m southeast)	This area is forested (many many alders), and overburden covered. No outcrop recovered around this target
B2	346984	5399627	Bernard	2011	-	-	-	This target is less than 50m east off of Highway 527 at 346944E / 5399632N	Pick is in a very low swampy area. Non-mag Gneiss and granite OC surround the swamp. Would be tough to get a road in and there is no water source nearby.
B3	344443	5400038	Bernard	2011	-	-	-	Pick is off Aberdeen Road, rough skidder roads lead in general direction of Pick.	Low area near stream. Many boulders in area, both magnetic gabbro and non mag granite. Water source is very close. Overburden in area appears to be fairly thick.
B4	343357	5399008	Bernard	2011	-	-	-	This target is approximately 725 m west of Aberdeen Road (from 344080E / 5398986N).	Thick overburden, with no outcrop
B5	341254	5398583	Bernard	2011	-	-	-	This target is approximately 850 m northeast of Spirit Lake Road at 340462E / 5398423N; this gives access via an old logging road. This old logging road can be followed for 300 m and the pick is 530 m northeast from that point.	This area is till-covered with granite boulders. Outcrops mainly granites with minor metasediment rafts.
B6	341867	5399544	Bernard	2011	-	-	-	From Barnum Road (at 341939E / 5396766N) there is an unnamed forestry road that goes north. This road forks north again at 342115E / 5398006N. This road continues north to an old cut block, and the target is approximately 750 m southwest from the road at 342527E / 5399807N	The area around this target is all overburden covered with no outcrop or boulders. There are many mafic boulders approximately 275 m to the northeast of this pick.

Target/Anomaly ID	Easting	Northing	Picked By	Year	Status	Assigned DDH	Drill Comments	Access	Area Description
B7	340586	5399258	Bernard	2011	-	-	-	Drivable by truck to 340718E 5399309N on Spirit Lake Road. Pick is then ~150 m SW of road. Heavy poplars on way in.	Located in swampy area, just north (~10m) of a stream that flows SW from Lassie Lake into Spirit Lake. Swampy area is currently dried out and walkable. West of pick is a field of rounded, granitic (magsus=2) and mafic (magsus=29). All area proximal to pick is swampy or overburden-covered.
B8	342479	5401605	Bernard	2011	-	-	-	The target is approximately 900m S SW off Monday Lake Road from (342891E / 5402640N)	Located in a wooded area (old growth). No outcrops explain the two mag targets. One outcrop of non-magnetic gneiss was mapped near B8; however this doesn't explain the mag high.
B9	338042	5398698	Bernard	2011	-	-	-	This target is along the shore of Odette Lake. A cleared trail extends from Odette Lake Road (at 338590E / 5398742N) to the shore of Odette Lake. From there the target is just north, along the shoreline. Road is already in	This target is located on the west shore of Odette Lake. The only outcrop around this target is granitic in composition with varying degree of magnetic susceptibility.

Appendix F
Geophysical Target Ground Proofing
2012 Target Area Descriptions

Target/Anomaly ID	Easting	Northing	Access	Area Description	Thoughts on Geology
OL_01	338845	5400842	This target is approximately 750 m northwest of (339523E / 5400638N) the end of the road that forks west off of Spirit Lake Road at 340664E / 5399434N, and then northwest at 340262E / 5399499N	This target underlies a northeast flowing stream that drains from Monday lake. The stream is lined by many rounded to subrounded magnetic mafic boulders.	No outcrop was recovered in the area encompassing this mag pick as it has the same orientation as the stream. The only evidence of mafic rocks in the area are many rounded to subrounded magnetic mafic (gabbro) boulders that are present along the edge of the stream
OL_02	339532	5401008	This target is approximately 380 m north of (339523E / 5400638N) the end of the road that forks west off of Spirit Lake Road at 340664E / 5399434N, and then northwest at 340262E / 5399499N	Area is forested and overburden covered. The only outcrop recovered in the area was granitic in composition.	Outcrop in this area does not explain the mag feature
OL_03	340336	5401083	This target is approximately 650m northeast from 339755E / 5400570N on the road that forks west off of Spirit Lake Road at 340664E / 5399434N, and then northwest at 340262E / 5399499N	This anomaly was covered by overburden (boulders and till). Granitic outcrop was recovered to the south, but no outcrop was present over the highest point of the anomaly.	Magsus readings on the granite/migmatite outcrops were low, so the magnetic anomaly could not be readily explained by the geology at surface
OL_04	339981	5400548	This target is approximately 150 m northeast of 339874E / 5400433N on the road that forks west off of Spirit Lake Road at 340664E / 5399434N, and then northwest at 340262E / 5399499N	This target was covered by a swamp with a granite ridge to the east and gneiss/migmatite outcrops to the west.	Magsus readings on the granite/migmatite outcrops were low, so the magnetic anomaly could not be readily explained by the geology at surface
OL_05	339822	5400406	The target is centered at 339876E / 5400428N on an unnamed forestry road that forks west off of Spirit Lake Road at 340664E / 5399434N, and then northwest at 340262E / 5399499N	The target area is mostly tree and overburden-covered with some low swampy areas. Outcrop in this area is present as large granite ridges.	The only outcrop recovered in this area consisted of large granite ridges. North of the target area, there is a series of medium to coarse-grained gabbroic boulders to subcrop. This could be an indicator of mafic outcrop in the area or at depth. No gabbroic outcrop was recovered though.
OL_06	338803	5400335	This target is approximately 750 m southwest of (339523E / 5400638N) the end of the road that forks west off of Spirit Lake Road at 340664E / 5399434N, and then northwest at 340262E / 5399499N	This mag high underlies a swampy area that connects a smaller lake to the southeast to a creek to the northwest. The only outcrop recovered in the area was granitic and gneissic in composition. Many mafic boulders are scattered around the swamp and stream, with higher concentrations at the stream outflow.	Although there were many magnetic mafic boulders concentrated in this area, they don't readily explain the high magnetic anomaly.
OL_07	339538	5399739	This target is accessible via quad on a grown in trail heading north off of Odette Lake Road at 339792E / 5399331N. The target is just west of the trail approximately 600 m up the trail.	The target area is a dense treed and overburden-covered area. 1-2 meter, rounded to subrounded mafic boulders are present that magsus from 20-25. All outcrop recovered consists of massive magnetic granite.	Nothing on surface explains the high magnetic signature in this area.

Target/Anomaly ID	Easting	Northing	Access	Area Description	Thoughts on Geology
OL_08	339713	5400063	The target is approximately 300m west of 340053E / 5400110N on the unnamed forestry road that forks west off of Spirit Lake Road at 340664E / 5399434N, and then northwest at 340262E / 5399499N	The target area is mostly tree and overburden-covered with some low swampy areas. Outcrop in this area is present as large granite ridges.	The only outcrop recovered in this area consisted of large granite ridges. North of the target area, there is a series of medium to coarse-grained gabbroic boulders to subcrop. This could be an indicator of mafic outcrop in the area or at depth. No gabbroic outcrop was recovered though.
OL_09	340604	5400793	This target is accessible via traverse at the northern most extent of Spirit Lake Road (at 340722E / 5400583N)	This area has a few tonalite outcrops with low magnetic susceptibility; otherwise the area was mostly covered by overburden (till, boulders, swamp).	The magnetic anomalies cannot be readily explained by surficial geology.
OL_10	341071	5400795	This target is approximately 450 m northeast of the termination of Spirit Lake Road (at 340722E / 5400580N)	No outcrop present in this area. The mag feature correlates with a topographic high (till).	No outcrop present, mag high could be caused by an accumulation of slightly magnetic till or magnetic boulders accumulated within the till
OL_11	341030	5400999	This target is approximately 500 m northeast of the termination of Spirit Lake Road (at 340722E / 5400580N)	This area is till-covered w/ no outcrop recovered and is in an older cut block, forested.	There is a large mafic boulder on the southern fringe of the mag anomaly that was sampled (M785118). This could correlate to the mag or could be an outlying boulder. The area is till-covered so that could also be the cause of the mag high if the till contains magnetic material
OL_12	341916	5400989	This target is approximately 1200 m northeast of the termination of Spirit Lake Road (at 340722E / 5400580N)	This area is within an old cut block forest and is till and overburden covered. No outcrop was recovered in that area.	On the northern edge of the mag high, there was a concentration of 4 magnetic, subangular magnetic mafic boulders (sample M785119). This could correlate to the mag or could be an outlying boulder. The area is till covered so that could also be the cause of the mag high if the till contains magnetic material
OL_13	341658	5401273	Target is accessible off Spirit Lake road. East branch around the north of Spirit Lake. Old logging road at 341476E, 5400915N. follow NNE for 260m	This target underlies a northeast flowing stream that drains from Monday lake. The stream is lined by variably amounts rounded to subrounded magnetic mafic boulders and granitic boulders.	There are boulders in the vicinity of the target area, but no outcrop located that explains the magnetic anomaly
OL_14	341810	5399680	This target is accessible via canoe on Spirit Lake. The boat launch is at 340793E / 5399358N, and is approximately 100 m east off of Spirit Lake Road at 340712E / 5399340 N.	This mag high underlies the east side of Spirit Lake. Outcrop on the shoreline surrounding the mag high was granitic in composition. No magnetic boulders were recovered on the east side of the lake.	This magnetic high is significant and should be investigated, but cannot be ground proofed as it is under the lake.
OL_15	341481	5399298	This target is accessible via canoe on Spirit Lake. The boat launch is at 340793E / 5399358N, and is approximately 100 m east off of Spirit Lake Road at 340712E / 5399340 N.	This target underlies the southeastern part of Spirit Lake. Outcrop on the shoreline surrounding the mag high was granitic in composition. No magnetic boulders were recovered on the southeast side of the lake.	This magnetic high is significant and should be investigated, but cannot be ground proofed as it is under the lake.

Target/Anomaly ID	Easting	Northing	Access	Area Description	Thoughts on Geology
OL_16	340981	5399214	This target is accessible via canoe on Spirit Lake. The boat launch is at 340793E / 5399358N, and is approximately 100 m east off of Spirit Lake Road at 340712E / 5399340 N.	This target underlies the southwestern part of Spirit Lake. Outcrop on the shoreline surrounding the mag high was granitic in composition. No magnetic boulders were recovered on the southwest side of the lake.	This magnetic high is significant and should be investigated, but cannot be ground proofed as it is under the lake.
OL_17	339112	5398659	The target is centered just south of 339166E / 5398749N on Odette Lake Road (a newer forestry road that forks west off of Spirit Lake Road. There is also a drill road built going in to the southern point of this target, as it coincides with pre 2012 target S2_09. The drill road goes to the point of S2_09, and extends down to the shore of Crock Lake	All outcrop recovered in this area consisted of large ridges of medium-grained, massive, magnetic granite (magsus up to 10)	As the only outcrop recovered was magnetic granite, the surface exposure does not completely explain the magnetic signature of the target. As the granite only produced magsus readings around 10, it is possible that the magnetic granite seen at surface is a product of recrystallization of magnetite due to contact metasomatism with a mafic intrusive body at depth
OL_18	337598	5398615	This target is accessible by canoe on Odette Lake. There is a ~650m cleared trail down to the lake from 338591E / 5398738N on Odette Lake Road	This target underlies the shoreline and southern end of Odette Lake. The only outcrop present in this area is granitic in composition, with varying degrees of magnetic susceptibility (ranges from 0.05-5). The higher degree of magnetism in the granite correlates to the higher mag signatures.	The mag feature could be caused by a highly magnetic body at depth because the granites seemed to be only moderately magnetic. (Seems as if they could not cause such a big mag high?)
OL_19	338018	5399317	This target is accessible by canoe on Odette Lake. There is a ~650m cleared trail down to the lake from 338591E / 5398738N on Odette Lake Road	This anomaly is present on an island on the north end of Odette Lake. The outcrop present is predominantly granitic. Where the east/west mag feature cuts the island, there is a gully with mafic boulders/subcrop that was sampled.	Mag feature may be caused by the boulders/subcrop, but uncertain.
OL_20	341366	5398824	This target is approximately 500 m east of 340588E / 5398599N on Spirit Lake Road	This area is swampy and overburden covered. Little outcrop was recovered, and was all granitic to gneissic in composition	This mag anomaly is not explained by the geology at surface
OL_21	342371	5398694	Target is just west of 342422E / 5398656N on a newer forestry road. This newer road is accessible via unnamed road north off of Barnum Road (at 341924E / 5396770N), forking east off this road (at 342116E / 5398011N), and then forking north to the new road (at 342410E / 5398118N)	The target area slopes westward and is tree and overburden covered. The only outcrop recovered in the area consisted of massive magnetic granite. This mag high is approximately 200 m south of the mafic dyke at OL-TS-12-029	The geology of this area does not explain the magnetic high

Target/Anomaly ID	Easting	Northing	Access	Area Description	Thoughts on Geology
OL_22	342276	5398895	This target is accessible right from a newer forestry road at 342277E / 5398894N. This newer road is accessible via unnamed road north off of Barnum Road (at 341924E / 5396770N), forking east off this road (at 342116E / 5398011N), and then forking north to the new road (at 342410E / 5398118N)	This area is predominantly overburden and forest covered. Most of the outcrop present has been exposed by the construction of a logging road. This has exposed a 2m wide aphanitic mafic dyke on the east side of the road that crosscuts the gneissic country rock.	The mag anomaly is likely caused by the mafic dyke recovered at surface.
OL_23	342752	5399561	This target is approximately 300 m east of an unnamed forestry road (at 342505E / 5399695N). This newer unnamed road is accessible via unnamed road north off of Barnum Road (at 341924E / 5396770N), forking east off this road (at 342116E / 5398011N), and then forking north to the new road (at 342410E / 5398118N)	This target underlies an abundance of glacial till. No outcrop was recovered in this area.	The mag feature could be caused by magnetic components within the till/overburden or by something else at depth.
OL_24	342712	5399367	This target is approximately 375 m east of an unnamed forestry road (at 342505E / 5399695N). This newer unnamed road is accessible via unnamed road north off of Barnum Road (at 341924E / 5396770N), forking east off this road (at 342116E / 5398011N), and then forking north to the new road (at 342410E / 5398118N)	This target underlies an abundance of glacial till. No outcrop was recovered in this area.	The mag feature could be caused by magnetic components within the till/overburden or by something else at depth.
OL_25	343066	5399538	This target is approximately 600 m east of an unnamed forestry road (at 342505E / 5399695N). It encompasses the southern end of Flossie Lake. This newer unnamed road is accessible via unnamed road north off of Barnum Road (at 341924E / 5396770N), forking east off this road (at 342116E / 5398011N), and then forking north to the new road (at 342410E / 5398118N)	This anomaly is framed by gneissic whaleback outcrops to the west, and ridge of gneiss to the east. The high point of the mag (at the south end of Flossie Lake) is within a low area between these two ridges. A mafic boulder was recovered in this topographic low, and was sampled.	The mag could be caused by the fact that it is a low swampy area, or because it correlates to the mafic boulder (subcrop?) in the low area. Could show preferential weathering?
OL_26	343463	5399672	This target is approximately 650 m southwest of Aberdeen Road (at 343790E / 5400185N).	This area is surrounded by granitic outcrop, but on the actual mag high there is only overburden - no outcrop to explain mag feature.	This target cannot be explained by the geology at surface.
OL_27	344299	5399532	This target is just east of Aberdeen Road at 344232E / 5399494N	This target underlies a low swampy area with no outcrop recovered at its margins.	This target cannot be explained by the geology at surface.
OL_28	344286	5399985	Target is ~250m east of Aberdeen road (from 344000E / 5399984N)	This area consists of expansive granitic outcrops.	This target cannot be explained by the geology at surface. This granite was variably magnetic.
OL_29	343871	5400684	Target is ~150m south of Aberdeen Road (from 343932E / 5400860N)	This area is an old growth pine forest. Many boulders are present in the area but are both granitic and mafic in composition. Likely very till/overburden covered	There is likely very thick till covering the area of this target.

Target/Anomaly ID	Easting	Northing	Access	Area Description	Thoughts on Geology
OL_30	345734	5401951	This target is approximately 400 m northeast of the junction of Monday Lake Road and Aberdeen Road (at 345570E / 5401681N)	Along the way, we encountered metasedimentary and granitic outcrops with mag sus readings below 1.0. We then traversed along the anomaly itself which coincided with a large ridge made up of a metasedimentary unit. As we followed the ridge east, we crossed a 2 meter tall waterfall and arrived at our target on the other side of the anomaly. We then traversed back towards Monday Lake Road. We located more metasedimentary outcrops as well as some gneiss as we walked through a clear-cut.	The cause of this anomaly is uncertain. Mag sus readings today were generally around 0.5 with occasional higher readings from magnetic granitic boulders. It is unlikely that the surficial geology seen today is responsible for the magnetic signature at this site.
OL_31	346822	5401997	This target is approximately 600 m north of Monday Lake Road at 346733E / 5400971N	This area is a low swampy zone framed by gneissic / granitic outcrop. There are an abundance of boulders in this area but they are all granitic or gneissic in composition.	This target cannot be explained by the geology at surface
OL_32	346431	5400386	This target is accessible via canoe on a small unnamed lake that is just east of 346691E / 5400290N on the well cleared quad trail (at 345767E / 5399288N) that extends from Monday Lake Road (at 346798E / 5400873N) to the 2011 trenching (at 344976E / 5399502N)	This target underlies a small lake south of Monday Lake Road. The only outcrop present along the shoreline is granitic in composition.	The mag feature is not readily explained by the geology on the shoreline of the lake.
OL_33	345980	5400175	This target is accessible north of a quad trail (that terminates at 345957E / 5400081N) that runs west off of the well cleared quad trail (at 346576E / 5400166N) that extends from Monday Lake Road (at 346798E / 5400873N) to the 2011 trenching (at 344976E / 5399502N)	This target along a newly constructed drill road on the way to pre 2012 target '18'. There is no outcrop in this area, it is all overburden covered.	This target cannot be explained by the geology at surface
OL_34	345688	5399731	This target is accessible via ~500m traverse in from the well cleared quad trail (at 345767E / 5399288N) that extends from Monday Lake Road (at 346798E / 5400873N) to the 2011 trenching (at 344976E / 5399502N)	This target is framed by outcrops of magnetic granite to the east and north.	It is likely that the slight mag feature here is caused by the magnetic granite outcrops in the area
OL_35	345730	5399410	This target extends across an ~850m east/west, and it is all accessible via traverse in from the well cleared quad trail that extends from Monday Lake Road (at 346798E / 5400873N) to the 2011 trenching (at 344976E / 5399502N)	On the southern portions of this anomaly, the outcrop encountered was all granitic in composition (with variably mag sus readings - non magnetic up to 5). On the northwestern portion of the anomaly, there is a 1-2 m wide mafic dyke intruding into granitic country rock.	This magnetic high is associated with the mafic dyke located in outcrop in the northern portion of the anomaly, but is unexplained in the southern portion (where there is only granitic outcrop).
OL_36	346391	5399448	This target is located just west of Highway 527 (at 346973E / 5399476N) and is	Granitic outcrops with slightly elevated magnetic susceptibility readings seem	The anomaly may be the result of slightly elevated magnetic values in granites and gneiss.

Target/Anomaly ID	Easting	Northing	Access	Area Description	Thoughts on Geology
			accessible via traverse from the highway or from the quad trail that runs south off of Monday Lake at 346800E / 5400868N	<p>to correspond to the anomaly. One tonalite outcrop had some ductily deformed gneissic banding with relatively elevated magnetic susceptibility readings. The general area traversed was swampy.</p> <p>A second small traverse was completed near the highway to cover a weak N-S anomaly branching off the main E-W trending anomaly. No outcrops were found but boulders in a stream, which roughly followed the trend of the anomaly, had elevated magnetic susceptibility readings and may be the cause of the anomaly.</p>	The small anomaly could not be explained due to a lack of outcrop exposure but it is possible that magnetic boulders in the stream are the cause of the anomaly.
OL_37	343464	5401700	This target is accessible via ~750m traverse from Aberdeen Road at 344225E / 5400927N	<p>A good portion of the anomaly occurs within this swamp where no outcrop is present and traversing was not feasible. We then followed a NE lineament by following a ridge adjacent to the swamp. All outcrops encountered today were granites, tonalites and gneiss. In total we came across 6 outcrops, all of which had low magnetic susceptibilities. A contact between a tonalite intrusion and adjacent biotite-rich gneiss unit was measured at 260°. No samples were collected. Mounds of till were also common in the area traversed.</p>	The magnetic anomalies cannot be readily explained by surficial geology.
OL_38	343761	5401525	This target is approximately 100 m south of Monday Lake Road (at 343881E / 5402227N)	There is no outcrop present in this target area. It was mostly swampy, but where there was no swamp, there was magnetic soil.	The anomaly could be caused by magnetic soils found in this area.
OL_39	343887	5401808	This target is accessible via ~500m traverse in from Monday Lake Road at 343653E / 5402225N	<p>Investigated Mag anomaly located at the eastern end of the claim. Due to a stream running through the high, we looked at all components located on the northern side of the stream. Outcrop consisted of granites and gneisses. The majority of the area consisted of glacial till, with a mixture of granite and mafic boulders found surrounding the stream. Investigation of the same anomaly to the east side of the creek which feeds the stream was hindered by a large swamp. No evidence was found at surface for the cause of the mag signature.</p>	The majority of the area consisted of glacial till, with a mixture of granite and mafic boulders found surrounding the stream. Investigation of the same anomaly to the east side of the creek which feeds the stream at approximately 343750 was hindered by a large swamp. No evidence was found at surface for the cause of the mag signature.

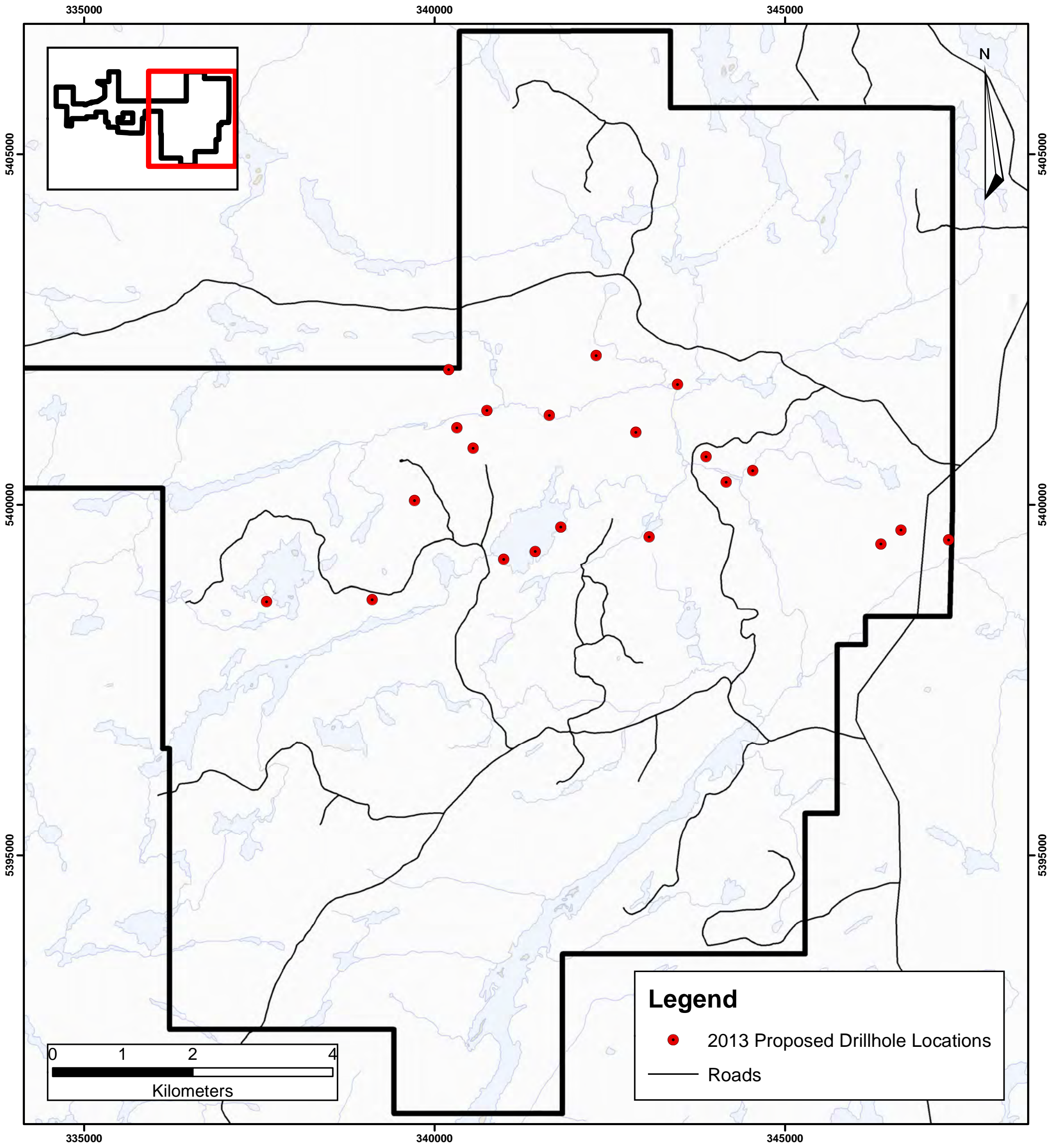
Target/Anomaly ID	Easting	Northing	Access	Area Description	Thoughts on Geology	
OL_40	344225	5402496		This target is approximately 300 m northeast of Monday Lake Road (at 344099E / 5402168N)	This area has many gneissic outcrops and good exposure because it is along an old logging road. A few mafic boulders were located throughout the area, and one was sampled.	This target is not explained by the geology at surface
OL_41	342358	5403480		This target is accessible via canoe on Span Lake. The canoe can be launched at the south end of Span lake, approximately 85 m north of Monday Lake Road (at 342477E / 5403278N)	This target is centered on the southern end of Span Lake. Outcrop located along the shoreline was gneissic in composition.	The anomaly underlies the southern end of the lake, and the only outcrop seen was gneissic. This target is not readily explained by the geology at surface.
OL_42	342103	5403904		This target is accessible via canoe on Span Lake. The canoe can be launched at the south end of Span lake, approximately 85 m north of Monday Lake Road (at 342477E / 5403278N)	This target is centered on the northern end of Span Lake. Outcrop located along the shoreline was gneissic in composition.	The anomaly underlies the northern end of the lake, and the only outcrop seen was gneissic. This target is not readily explained by the geology at surface.
OL_43	340206	5401922		This target is approximately 1.2 km southeast of Monday Lake Road (at 339397E / 5402776N)	The magnetic susceptibility readings revealed the presence of magnetic granites in the area. Some magnetite stringers and blebs were present at OL-CC-04 which recorded a magnetic susceptibility reading of 7.403. Magnetite was also present in the soil in the area.	The presence of magnetite in the granites could explain this anomaly.
OL_44	339892	5401903		This target is approximately 1 km southeast of Monday Lake Road (at 339397E / 5402776N)	The magnetic susceptibility readings revealed the presence of magnetic granites in the area. Some magnetite stringers and blebs were present at OL-CC-04 which recorded a magnetic susceptibility reading of 7.403. Magnetite was also present in the soil in the area.	The presence of magnetite in the granites could explain this anomaly.
OL_45	339722	5393741		This target is approximately 1 km southeast of Barnum Road (at 339253E / 5394608N) and is accessible via an old grown in road	This target is on the northern edge of an expansive e/w trending valley. Mafic 'amphibolite' outcrop was recovered on the northern side of the valley. It explains the mag feature as it contained a fair amount of magnetite.	This anomalous mag high is likely caused by the abundance of magnetite within the amphibolite that is present along the edge of the valley.
OL_46	340932	5393882		This target is approximately 2 km southeast of Barnum Road (at 339253E / 5394608N) and is accessible via an old grown in road	There is an east/west running gully at the northern edge of this mag high. The rest is all forested with outcrops of metasediments. In the gully, there are rock walls of slightly mineralized amphibolite (heavily foliated, and partially silicified). The amphibolite contains varying amounts of magnetite, which is the likely the cause of the mag anomaly.	Although the mag is explained by the geology in this area, it does not seem prospective because the structure in the rocks makes it difficult to say what the rock type was beforehand.

Target/Anomaly ID	Easting	Northing	Access	Area Description	Thoughts on Geology
OL_47	343441	5394291	Target is accessible via ~300 m traverse from Culvert Road at 343339E / 5394565N.	This area consists of expansive granitic outcrops.	This anomalous mag high is not explained by the geology at surface
OL_48	341201	5392024	This target is centered on the east shore of Onion Lake at 341190E / 5392014N	This target is centered on the east shore of Onion Lake at 341190E / 5392014N	There is no outcrop present in this target area as it underlies the east shore of Onion Lake
OL_49	347337	5399511	This target is approximately 200 m east of Highway 527 at 346970E / 5399474N	This E-W trending anomaly is more or less on strike with the trenches dug during the 2011 field season. Non-magnetic granite outcrops were encountered along the way and corresponded with topographic highs. Two parallel mafic to ultramafic dykes (OL CC 34 & OL CC 35) were discovered on the anomaly at the easternmost edge of the property 10m from the claim line. OL CC 34 was 50 to 60 cm wide and OL CC 35 was 10 to 15 cm wide, both striking in the general direction of the anomaly at 260° and steeply dipping north. Magnetic susceptibility readings were up to 119.2 for OL CC 34 where mineralization was observed. Both dykes were hosted within potassium feldspar rich granite with sharp contacts and occurred within 5 m of each other. Both dykes were sampled (OL M785061 and OL M785062).	The anomaly corresponds to 2 magnetic dykes at the eastern edge of the property striking in the same general direction as the anomaly.
OL_50	346833	5404369	This target is centered on an unnamed forestry road that runs west off of Highway 527 at 348656E / 5403935N	This area is swamp-covered. All outcrop encountered in this area was gneissic in composition.	This target is not explained by the geology at surface
OL_51	327151	5403902	This target is extensive and located on the western side of the property. It is accessible 30 m northwest down a walkable/quadable trail off of Phair Road (at 326978E / 5404937N), along Phair Road at 326926E / 5404620N, as well as all the way along Hay Road (a forestry road running north off of Monday Lake Road at 326500E / 5399712N)	This area has many gabbroic outcrops along the forestry roads that cross it. It is an extensive n/s striking gabbro dyke that crosscuts the gneissic and migmatitic country rock on the west side of the property.	Due to the fact that the dyke contains milky green plagioclase, and generally a lot of alteration (saussurization) it is likely not MCR related, and is part of an Archean dyke swarm.
OL_52	344032	5400335	This target is just east of Aberdeen road at 343739E / 5400327N	This target lies within an area of thick glacial till and overburden (30m thick). No outcrop was located in this area.	Target cannot be readily explained by geology at surface
OL_53	342324	5402128	This target is approximately 600 m southwest of Monday Lake Road at 342995E / 5402515N	This target underlies a swamp, with no outcrop at its margins.	This swamp may be caused by preferential weathering of mafic rock, or be the cause of the mag signature itself. This target is not explained by the geology at surface.
OL_54	344093	5401515	This target is accessible via ~600m traverse from Aberdeen Road at 344225E / 5400927N	All outcrops encountered were granites, tonalites and gneiss, all of which had low magnetic susceptibilities	The magnetic anomalies cannot be readily explained by surficial geology.

Target/Anomaly ID	Easting	Northing	Access	Area Description	Thoughts on Geology
OL_55	344618	5399840	This target is approximately 350 m east of Aberdeen Road (at 344249E / 5399680N). It is accessible via traverse from Aberdeen Road, or via traverse from the end of the quad trail at the 2011 trench site	This target is approximately 350 m east of Aberdeen Road (at 344249E / 5399680N). It is accessible via traverse from Aberdeen Road, or via traverse from the end of the quad trail at the 2011 trench site	No outcrops were uncovered along the N-S trending anomaly. To the west of the MAG signature non-magnetic qtz-syenite outcrops all of which had low magnetic susceptibilities were found.
OL_56	329107	5403331	This target is approximately 400 m north of Phair Road (at 329114E / 5402924N). It is present on the property border on the west side of the property	This area is forested with spread out patches of small outcrops. There is a swampy area to the north of the target	Many small Archean pyroxenite outcrops were located (possibly 100 x 50 m plug). May be continuous at depth but at surface shows as very patchy with country rock in between many of the pyroxenite outcrops. This target was sampled in 8 locations. As it is magnetic, and ultramafic, it explained the mag feature. Waiting on assay results to see if it is more prospective.

Appendix G

Proposed 2013 Drillhole Location Map



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Appendix H

Proposed 2013 Drillhole Location Details

Rank	Drill Label	Target	2012 Pick	Pre-2012 Pick	Easting	Northing	Dip	Azimuth	Length (m)	Comment
1	OL-13-01	Spirit Lake SW	OL_16	S2_08	340986	5399221	90	-	400	Target has been previously drilled, but not as a vertical hole directly over the target S2_08
2	OL-13-02	Spirit Lake SE	OL_15	-	341434	5399334	90	-	400	Vertical hole
3	OL-13-03	Spirit Lake NE	OL_14	S2_07	341799	5399680	90	-	400	Vertical hole
4	OL-13-04	NE of Spirit Lake	-	15	342872	5401034	-	-	200	Inclined hole toward the NW
5	OL-13-05	N of Spirit Lake	OL_13	-	341638	5401277	-	-	200	Inclined hole
6	OL-13-06	S of Monday Lake Road	OL_53	-	342306	5402127	-	-	200	Inclined hole
7	OL-13-07	Sunday Creek	OL_39	-	343464	5401718	-	-	200	Inclined hole
8	OL-13-08	North-Central Property Margin	OL_43	-	340202	5401927	90	-	200	Vertical hole
9	OL-13-09	Monday Lake (narrows)	OL_57	-	340746	5401344	-	-	200	Steeply inclined hole
10	OL-13-10	S of Monday Lake (narrows)	OL_03	-	340317	5401098	-	-	200	Steeply inclined hole
11	OL-13-11	At termination of Spirit Lake Road	OL_09	-	340547	5400809	-	-	200	Inclined hole, needs ground mag
12	OL-13-12	NW of Spirit Lake	OL_08	14	339712	5400062	-	-	200	Inclined hole toward the NE
13	OL-13-13	North Crock Lake	OL_17	S2_09	339107	5398649	-	-	200	Inclined hole
14	OL-13-14	Odette Lake South	OL_18	S2_10	337601	5398617	-	-	200	Inclined hole
15	OL-13-15	Flossie Lake South	OL_25	S2_14	343060	5399541	-	-	200	Inclined hole
16	OL-13-16	S of Aberdeen Road	OL_29	S2_13	343873	5400687	-	-	200	Vertical hole
17	OL-13-17	E of Aberdeen Road	OL_52	-	344157	5400327	-	-	200	Previously drilled, but too inclination was too shallow. New hole to be vertical
18	OL-13-18	S of Aberdeen Road	-	-	344535	5400485	-	-	200	Inclined hole
19	OL-13-19	SE of Quad Trail	OL_36	-	346651	5399638	-	-	200	Inclined hole
20	OL-13-20	SE of Quad Trail	OL_36	-	346369	5399441	-	-	200	Inclined hole
21	OL-13-21	East Property Boundary	OL_49	-	347331	5399499	-	-	200	Inclined hole

Appendix I

Assay Certificates



ALS Canada Ltd.
 2103 Dollarton Hwy
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 Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: CLARK EXPLORATION CONSULTING INC.
 1000 ALLOY DRIVE
 THUNDER BAY ON P7B 6A5

Page: 1
 Finalized Date: 8- AUG- 2012
 Account: CECI

CERTIFICATE TB12163971

Project:
 P.O. No.: GLORY- 2012 SUBMISSION 1
 This report is for 9 Rock samples submitted to our lab in Thunder Bay, ON, Canada on 16-JUL- 2012.
 The following have access to data associated with this certificate:
 STEVE SIEMIENIUK | TASSIA STATION | MATTHEW ZAGO

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
CRU- 32	Fine Crushing 90% < 2mm
PUL- 32a	Pulverize 1000g to 90% < 75um
LOG- 21	Sample logging - ClientBarCode
SPL- 21	Split sample - riffle splitter
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
ME- ICP06	Whole Rock Package - ICP- AES	ICP- AES
ME- MS61	48 element four acid ICP- MS	LECO
C- IR07	Total Carbon (Leco)	ICP- MS
PGM- MS24	Pt, Pd and Au 50g FA ICP- MS	LECO
S- IR08	Total Sulphur (Leco)	ICP- MS
ME- MS81	38 element fusion ICP- MS	ICP- MS
ME- MS42	Up to 34 elements by ICP- MS	WST- SEQ
OA- GRA05	Loss on Ignition at 1000C	ICP- AES
TOT- ICP06	Total Calculation for ICP06	ICP- AES
ME- 4ACD81	Base Metals by 4- acid dig.	ICP- AES

To: CLARK EXPLORATION CONSULTING INC.
 ATTN: TASSIA STATION
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature: 
 Colin Ramshaw, Vancouver Laboratory Manager



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CERTIFICATE OF ANALYSIS TB12163971

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg	ME- ICP06 SiO2 %	ME- ICP06 Al2O3 %	ME- ICP06 Fe2O3 %	ME- ICP06 CaO %	ME- ICP06 MgO %	ME- ICP06 Na2O %	ME- ICP06 K2O %	ME- ICP06 Cr2O3 %	ME- ICP06 TiO2 %	ME- ICP06 MnO %	ME- ICP06 P2O5 %	ME- ICP06 SrO %	ME- ICP06 BaO %	C- IR07 C %
M785101		3.09	45.6	12.30	18.55	6.70	4.67	3.71	0.95	0.01	3.32	0.23	0.55	0.03	0.05	0.14
M785102		1.62	47.1	4.37	15.45	9.39	20.7	0.83	0.44	0.25	1.15	0.23	0.12	0.03	0.02	0.06
M785103		2.02	48.8	14.05	13.50	7.59	5.95	2.84	1.26	0.02	1.98	0.18	0.31	0.05	0.06	0.02
M785104		1.71	45.1	12.50	17.25	5.82	5.22	3.87	0.92	0.01	3.21	0.21	0.53	<0.01	0.03	0.08
M785105		1.64	44.7	12.15	17.60	6.29	4.81	2.37	1.55	0.01	3.54	0.16	0.57	0.02	0.06	0.50
M785106		1.32	49.1	15.50	12.90	6.84	6.07	3.10	1.74	0.02	2.04	0.18	0.29	0.05	0.08	0.03
M785107		1.64	50.2	15.60	12.70	7.49	4.95	2.91	1.85	0.01	1.95	0.19	0.33	0.06	0.08	0.04
M785051		0.98	46.4	12.30	18.10	6.54	4.90	3.92	1.03	0.01	3.42	0.26	0.56	0.02	0.07	0.07
M785052		0.69	49.7	13.10	16.50	8.39	6.07	3.13	0.73	0.01	2.81	0.19	0.26	0.04	0.03	0.02



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CERTIFICATE OF ANALYSIS TB12163971

Sample Description	Method Analyte Units LOR	S-IR08	ME-MS81 Ba ppm	ME-MS81 Ce ppm	ME-MS81 Cr ppm	ME-MS81 Cs ppm	ME-MS81 Dy ppm	ME-MS81 Er ppm	ME-MS81 Eu ppm	ME-MS81 Ga ppm	ME-MS81 Cd ppm	ME-MS81 Hf ppm	ME-MS81 Ho ppm	ME-MS81 La ppm	ME-MS81 Lu ppm	ME-MS81 Nb ppm
M785101		0.19	465	85.1	80	0.38	7.72	4.42	2.89	22.9	9.67	5.8	1.54	39.5	0.61	35.7
M785102		0.03	164.0	26.7	1690	0.40	2.39	1.09	1.22	8.1	3.43	2.3	0.43	11.5	0.11	7.3
M785103		0.13	515	53.5	140	2.17	4.85	2.63	2.11	21.8	5.88	3.6	0.96	25.9	0.34	17.1
M785104		0.38	287	76.3	70	0.65	7.67	4.38	2.52	22.0	8.67	5.6	1.55	36.1	0.57	35.0
M785105		0.25	560	82.9	80	4.38	8.50	4.69	2.95	23.8	9.88	6.2	1.68	39.0	0.63	37.5
M785106		0.12	676	49.4	140	2.52	4.49	2.47	1.99	21.8	5.30	3.5	0.89	24.0	0.31	15.6
M785107		0.12	704	52.5	110	2.11	4.74	2.58	2.12	23.0	5.70	3.7	0.96	25.5	0.34	16.5
M785051		0.17	640	82.5	70	0.70	8.23	4.65	2.91	22.9	9.58	6.1	1.66	39.6	0.63	37.4
M785052		0.04	296	43.2	70	0.77	5.31	2.65	2.32	24.4	6.73	4.5	0.99	19.3	0.28	11.8



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CERTIFICATE OF ANALYSIS TB12163971

Sample Description	Method Analyte Units LOR	ME-MS81 Nd ppm	ME-MS81 Pr ppm	ME-MS81 Rb ppm	ME-MS81 Sm ppm	ME-MS81 Sn ppm	ME-MS81 Sr ppm	ME-MS81 Ta ppm	ME-MS81 Tb ppm	ME-MS81 Th ppm	ME-MS81 Tl ppm	ME-MS81 Tm ppm	ME-MS81 U ppm	ME-MS81 V ppm	ME-MS81 W ppm	ME-MS81 Y ppm
M785101		44.3	10.45	34.7	9.92	1	299	2.2	1.36	3.67	<0.5	0.64	0.73	447	1	43.7
M785102		16.7	3.72	9.1	3.65	1	265	0.5	0.46	0.94	<0.5	0.15	0.27	174	2	10.7
M785103		28.1	6.70	39.1	5.77	1	398	1.1	0.84	3.17	<0.5	0.38	0.53	323	1	24.8
M785104		40.9	9.73	39.0	8.59	1	93.2	2.2	1.26	3.36	<0.5	0.63	0.78	417	1	40.0
M785105		45.3	10.65	97.3	9.53	1	209	2.4	1.42	3.75	<0.5	0.68	0.81	468	2	44.2
M785106		26.2	6.31	55.9	5.46	1	440	1.0	0.78	2.95	<0.5	0.37	0.53	311	3	23.2
M785107		28.1	6.69	70.1	5.81	1	505	1.1	0.84	3.18	<0.5	0.40	0.55	306	1	24.2
M785051		44.5	10.65	39.6	9.52	1	258	2.4	1.38	3.78	<0.5	0.68	0.82	425	1	43.1
M785052		26.4	5.99	18.2	6.21	1	398	0.8	0.95	2.39	<0.5	0.38	0.53	340	<1	25.1



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Sample Description	Method Analyte Units LOR	ME-MS81 Yb ppm	ME-MS81 Zr ppm	ME-MS42 As ppm	ME-MS42 Bi ppm	ME-MS42 Hg ppm	ME-MS42 Sb ppm	ME-MS42 Se ppm	ME-MS42 Te ppm	OA-GRA05 LOI %	TOT-ICP06 Total %	ME-4ACD81 Ag ppm	ME-4ACD81 Cd ppm	ME-4ACD81 Co ppm	ME-4ACD81 Cu ppm	ME-4ACD81 Mo ppm
M785101		4.00	250	0.2	0.22	<0.005	<0.05	1.0	<0.01	2.12	98.79	<0.5	<0.5	42	29	1
M785102		0.79	90	0.1	0.02	<0.005	<0.05	0.2	0.01	0.79	100.87	<0.5	<0.5	99	51	1
M785103		2.25	150	0.1	0.03	<0.005	<0.05	0.6	<0.01	1.55	98.14	<0.5	<0.5	44	37	1
M785104		3.80	230	0.1	0.22	<0.005	<0.05	1.3	0.01	3.71	98.38	<0.5	<0.5	42	60	1
M785105		4.25	250	0.4	1.44	0.005	<0.05	1.5	0.01	5.42	99.25	<0.5	<0.5	41	32	1
M785106		2.15	140	0.2	0.02	<0.005	<0.05	0.7	0.01	2.72	100.63	<0.5	<0.5	43	36	<1
M785107		2.21	150	0.2	0.05	<0.005	<0.05	0.6	0.01	1.98	100.30	<0.5	<0.5	38	34	1
M785051		4.15	250	<0.1	0.26	<0.005	<0.05	1.1	0.01	1.91	99.44	<0.5	<0.5	38	25	1
M785052		2.00	170	0.2	0.02	<0.005	<0.05	0.6	<0.01	0.27	101.23	<0.5	<0.5	58	71	<1



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Sample Description	Method Analyte Units LOR	ME-MS61														
		ME-4ACD81 Ni ppm	ME-4ACD81 Pb ppm	ME-4ACD81 Sc ppm	ME-4ACD81 Zn ppm	ME-MS61 Ag ppm	ME-MS61 Al %	ME-MS61 As ppm	ME-MS61 Ba ppm	ME-MS61 Be ppm	ME-MS61 Bi ppm	ME-MS61 Ca %	ME-MS61 Cd ppm	ME-MS61 Ce ppm	ME-MS61 Co ppm	ME-MS61 Cr ppm
M785101		52	4	36	73	0.07	6.79	<0.2	440	1.44	0.16	4.76	0.06	91.2	42.5	55
M785102		536	<2	30	96	0.05	2.60	<0.2	160	0.52	<0.01	6.98	0.07	34.2	104.5	1160
M785103		59	4	25	122	0.12	8.33	9.5	510	0.97	0.07	5.98	0.15	55.6	51.7	96
M785104		27	4	33	83	0.08	7.16	<0.2	280	1.33	0.15	4.29	0.05	91.6	45.5	55
M785105		32	6	37	86	0.12	6.68	0.3	520	2.68	1.15	4.48	<0.02	96.6	42.4	59
M785106		50	<2	26	101	0.06	8.41	0.2	630	0.85	<0.01	4.89	0.12	55.4	42.2	96
M785107		48	9	23	140	0.07	8.69	<0.2	650	0.93	0.01	5.57	0.19	58.5	42.6	74
M785051		26	4	36	84	0.11	6.97	<0.2	610	1.58	0.18	4.80	0.10	98.4	43.2	49
M785052		113	5	21	121	0.05	7.32	<0.2	280	0.88	<0.01	5.97	0.07	49.0	59.4	44



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Sample Description	Method Analyte Units LOR	ME-MS61 Cs ppm	ME-MS61 Cu ppm	ME-MS61 Fe %	ME-MS61 Ga ppm	ME-MS61 Ge ppm	ME-MS61 Hf ppm	ME-MS61 In ppm	ME-MS61 K %	ME-MS61 La ppm	ME-MS61 Li ppm	ME-MS61 Mg %	ME-MS61 Mn ppm	ME-MS61 Mo ppm	ME-MS61 Na %	ME-MS61 Nb ppm
M785101		0.39	34.6	12.35	22.3	0.23	6.6	0.105	0.81	40.1	15.0	2.88	1560	2.12	2.90	38.1
M785102		0.47	56.6	10.85	8.27	0.20	2.7	0.044	0.37	13.6	8.6	13.60	1680	0.54	0.70	8.3
M785103		2.31	51.1	9.85	22.5	0.25	3.9	0.110	1.21	27.3	19.6	3.92	1480	0.99	2.29	18.1
M785104		0.67	65.7	11.95	21.4	0.26	6.2	0.122	0.81	40.1	50.8	3.31	1460	1.25	2.98	36.2
M785105		4.44	38.0	11.75	22.8	0.26	6.5	0.101	1.31	41.8	47.9	2.93	1080	1.79	1.74	37.8
M785106		2.46	39.0	8.92	21.2	0.18	3.8	0.063	1.45	24.9	29.2	3.71	1250	0.97	2.29	16.0
M785107		2.09	38.5	9.03	21.9	0.22	3.9	0.064	1.63	26.3	23.2	3.12	1380	1.03	2.27	17.0
M785051		0.70	32.3	12.45	23.1	0.27	6.7	0.108	0.91	43.2	18.5	3.08	1860	1.85	2.99	39.9
M785052		0.77	74.0	11.05	23.1	0.21	3.2	0.074	0.61	20.4	18.4	3.75	1320	0.86	2.34	12.0



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 1000 ALLOY DRIVE
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Page: 2 - G
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CERTIFICATE OF ANALYSIS TB12163971

Sample Description	Method Analyte Units LOR	ME-MS61 Ni ppm	ME-MS61 P ppm	ME-MS61 Pb ppm	ME-MS61 Rb ppm	ME-MS61 Re ppm	ME-MS61 S %	ME-MS61 Sb ppm	ME-MS61 Sc ppm	ME-MS61 Se ppm	ME-MS61 Sn ppm	ME-MS61 Sr ppm	ME-MS61 Ta ppm	ME-MS61 Te ppm	ME-MS61 Th ppm	ME-MS61 Ti %
M785101		55.8	2310	3.1	35.9	<0.002	0.21	<0.05	39.1	2	1.2	310	2.29	<0.05	3.8	1.920
M785102		620	450	1.0	10.4	<0.002	0.03	<0.05	36.2	1	0.7	306	0.52	<0.05	1.0	0.713
M785103		72.7	1400	7.0	40.7	0.002	0.15	0.32	26.8	2	1.6	442	0.99	<0.05	2.9	1.245
M785104		35.5	2280	4.7	41.1	<0.002	0.42	<0.05	37.9	2	1.2	100.0	2.16	<0.05	3.6	1.885
M785105		37.9	2410	6.7	98.8	0.002	0.27	<0.05	41.5	3	1.3	225	2.26	<0.05	3.8	2.01
M785106		54.4	1260	2.8	46.2	<0.002	0.13	<0.05	28.8	2	1.0	477	0.96	<0.05	2.8	1.160
M785107		56.3	1300	9.8	61.5	<0.002	0.14	<0.05	27.9	2	1.3	542	1.02	<0.05	3.0	1.160
M785051		33.0	2480	4.0	43.0	0.002	0.19	<0.05	41.9	3	1.4	296	2.35	<0.05	3.9	2.00
M785052		122.0	1090	3.4	18.6	<0.002	0.03	<0.05	24.1	2	1.1	455	0.79	<0.05	2.4	1.565



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CERTIFICATE OF ANALYSIS TB12163971

Sample Description	Method Analyte Units LOR	ME-MS61 Ti ppm 0.02	ME-MS61 U ppm 0.1	ME-MS61 V ppm 1	ME-MS61 W ppm 0.1	ME-MS61 Y ppm 0.1	ME-MS61 Zn ppm 2	ME-MS61 Zr ppm 0.5	PGM-MS24 Au ppm 0.001	PGM-MS24 Pt ppm 0.0005	PGM-MS24 Pd ppm 0.001
M785101		0.12	0.8	369	0.5	44.5	75	257	0.001	0.0005	0.001
M785102		0.08	0.3	191	0.2	12.0	103	97.2	0.002	0.0230	0.006
M785103		0.22	0.4	280	0.5	25.8	137	150.5	0.001	<0.0005	<0.001
M785104		0.24	0.8	365	0.5	43.4	89	250	0.001	<0.0005	<0.001
M785105		0.56	0.8	404	1.4	45.2	87	262	0.001	<0.0005	<0.001
M785106		0.28	0.5	265	0.3	23.2	98	142.5	0.001	<0.0005	<0.001
M785107		0.33	0.5	248	0.5	24.7	145	152.0	0.001	<0.0005	<0.001
M785051		0.12	0.8	375	0.7	46.8	90	269	0.001	<0.0005	<0.001
M785052		0.10	0.5	286	0.2	25.8	123	118.5	0.001	<0.0005	<0.001



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CERTIFICATE OF ANALYSIS TB12163971

Method	CERTIFICATE COMMENTS
ME- MS61	REE's may not be totally soluble in this method.



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CERTIFICATE TB12208173

Project:
P.O. No.: GLORY - 2012 SUBMISSION 3
This report is for 2 Rock samples submitted to our lab in Thunder Bay, ON, Canada on 31- AUG- 2012.
The following have access to data associated with this certificate:
STEVE SIEMIENIUK | TASSIA STATION | MATTHEW ZAGO

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
CRU- 32	Fine Crushing 90% < 2mm
LOG- 21	Sample logging - ClientBarCode
PUL- 32a	Pulverize 1000g to 90% < 75um
SPL- 21	Split sample - riffle splitter
CRU- QC	Crushing QC Test

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
ME- ICP06	Whole Rock Package - ICP- AES	ICP- AES
ME- MS61	48 element four acid ICP- MS	ICP- MS
PGM- MS24	Pt, Pd and Au 50g FA ICP- MS	LECO
C- IR07	Total Carbon (Leco)	LECO
S- IR08	Total Sulphur (Leco)	ICP- MS
ME- MS81	38 element fusion ICP- MS	ICP- MS
ME- MS42	Up to 34 elements by ICP- MS	WST- SEQ
OA- GRA05	Loss on Ignition at 1000C	ICP- AES
TOT- ICP06	Total Calculation for ICP06	ICP- AES
ME- 4ACD81	Base Metals by 4- acid dig.	ICP- AES

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ATTN: TASSIA STATION
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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CERTIFICATE OF ANALYSIS TB12208173

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg	ME- ICP06 SiO2 %	ME- ICP06 Al2O3 %	ME- ICP06 Fe2O3 %	ME- ICP06 CaO %	ME- ICP06 MgO %	ME- ICP06 Na2O %	ME- ICP06 K2O %	ME- ICP06 Cr2O3 %	ME- ICP06 TiO2 %	ME- ICP06 MnO %	ME- ICP06 P2O5 %	ME- ICP06 SrO %	ME- ICP06 BaO %	C- IR07 C %
M785061		1.54	47.6	13.75	14.50	8.70	5.06	3.12	0.45	0.01	2.93	0.18	0.38	0.08	0.03	0.51
M785062		1.45	46.3	13.85	12.70	7.13	6.02	2.92	0.34	<0.01	2.90	0.18	0.38	0.07	0.02	0.54



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Method Analyte Units LOR	S-IR08	ME-MS81 Ba ppm	ME-MS81 Ce ppm	ME-MS81 Cr ppm	ME-MS81 Cs ppm	ME-MS81 Dy ppm	ME-MS81 Er ppm	ME-MS81 Eu ppm	ME-MS81 Ga ppm	ME-MS81 Cd ppm	ME-MS81 Hf ppm	ME-MS81 Ho ppm	ME-MS81 La ppm	ME-MS81 Lu ppm	ME-MS81 Nb ppm
M785061	0.22	237	54.6	60	2.42	4.38	2.01	2.37	24.9	6.10	4.2	0.81	23.0	0.22	12.5
M785062	0.24	217	55.6	50	2.64	4.55	2.04	2.52	24.6	6.32	4.3	0.81	23.4	0.23	12.6



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Method Analyte Units LOR	ME-MS81 Nd ppm	ME-MS81 Pr ppm	ME-MS81 Rb ppm	ME-MS81 Sm ppm	ME-MS81 Sn ppm	ME-MS81 Sr ppm	ME-MS81 Ta ppm	ME-MS81 Tb ppm	ME-MS81 Th ppm	ME-MS81 Tl ppm	ME-MS81 Tm ppm	ME-MS81 U ppm	ME-MS81 V ppm	ME-MS81 W ppm	ME-MS81 Y ppm
M785061	33.3	7.40	15.0	7.30	1	689	0.8	0.84	1.04	<0.5	0.27	0.30	446	<1	23.6
M785062	33.2	7.52	20.6	7.37	1	634	0.8	0.87	1.07	<0.5	0.27	0.30	452	<1	23.8



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CERTIFICATE OF ANALYSIS TB12208173

Method Analyte Units LOR	Sample Description	ME-MS81 Yb ppm 0.03	ME-MS81 Zr ppm 2	ME-MS42 As ppm 0.1	ME-MS42 Bi ppm 0.01	ME-MS42 Hg ppm 0.005	ME-MS42 Sb ppm 0.05	ME-MS42 Se ppm 0.2	ME-MS42 Te ppm 0.01	OA-GRA05 LOI % 0.01	TOT-ICP06 Total % 0.01	ME-4ACD81 Ag ppm 0.5	ME-4ACD81 Cd ppm 0.5	ME-4ACD81 Co ppm 1	ME-4ACD81 Cu ppm 1	ME-4ACD81 Mo ppm 1
M785061		1.51	191	0.4	0.06	0.005	<0.05	0.6	0.01	3.59	100.38	<0.5	<0.5	57	100	<1
M785062		1.54	193	0.2	0.02	0.007	0.05	0.6	<0.01	5.78	98.59	<0.5	<0.5	58	53	<1



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Method Analyte Units LOR	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
Sample Description	Ni ppm	Pb ppm	Sc ppm	Zn ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm		
M785061	111	12	22	162	0.20	7.28	<0.2	240	0.83	0.03	5.99	0.09	53.8	50.9	32		
M785062	79	15	22	197	0.20	7.41	<0.2	210	1.81	0.02	4.97	0.23	54.0	52.9	27		



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Method Analyte Units LOR	ME-MS61 Cs ppm	ME-MS61 Cu ppm	ME-MS61 Fe %	ME-MS61 Ga ppm	ME-MS61 Ge ppm	ME-MS61 Hf ppm	ME-MS61 In ppm	ME-MS61 K %	ME-MS61 La ppm	ME-MS61 Li ppm	ME-MS61 Mg %	ME-MS61 Mn ppm	ME-MS61 Mo ppm	ME-MS61 Na %	ME-MS61 Nb ppm
M785061	2.59	100.5	9.37	25.2	0.20	4.4	0.091	0.37	23.9	49.3	3.03	1320	0.73	2.19	12.2
M785062	2.71	54.1	8.22	25.4	0.22	4.2	0.089	0.29	24.1	85.0	3.65	1280	0.66	2.07	12.2



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CERTIFICATE OF ANALYSIS TB12208173

Method Analyte Units LOR	ME-MS61 Ni ppm	ME-MS61 P ppm	ME-MS61 Pb ppm	ME-MS61 Rb ppm	ME-MS61 Re ppm	ME-MS61 S %	ME-MS61 Sb ppm	ME-MS61 Sc ppm	ME-MS61 Se ppm	ME-MS61 Sn ppm	ME-MS61 Sr ppm	ME-MS61 Ta ppm	ME-MS61 Te ppm	ME-MS61 Th ppm	ME-MS61 Ti %
M785061	122.0	1720	11.8	15.7	0.003	0.24	0.05	23.7	3	1.5	708	0.74	<0.05	1.2	1.675
M785062	86.9	1700	16.7	21.4	0.002	0.25	0.10	23.7	3	1.5	652	0.72	<0.05	1.1	1.660



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Method Analyte Units LOR	ME-MS61 Ti ppm 0.02	ME-MS61 U ppm 0.1	ME-MS61 V ppm 1	ME-MS61 W ppm 0.1	ME-MS61 Y ppm 0.1	ME-MS61 Zn ppm 2	ME-MS61 Zr ppm 0.5	PGM-MS24 Au ppm 0.001	PGM-MS24 Pt ppm 0.0005	PGM-MS24 Pd ppm 0.001
M785061	0.11	0.3	355	0.2	22.8	155	159.0	0.001	0.0012	0.001
M785062	0.17	0.3	353	0.1	22.9	186	156.5	0.001	<0.00005	<0.001



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CERTIFICATE OF ANALYSIS TB12208173

	CERTIFICATE COMMENTS
Method ME- MS61	REE's may not be totally soluble in this method.



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CERTIFICATE TB12187247

Project:
 P.O. No.: GLORY- 2012 SUBMISSION 2
 This report is for 28 Rock samples submitted to our lab in Thunder Bay, ON, Canada
 on 14- AUG- 2012.
 The following have access to data associated with this certificate:
 STEVE SIEMIENIUK | TASSIA STATION | MATTHEW ZAGO

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
CRU- 32	Fine Crushing 90% < 2mm
PUL- 32a	Pulverize 1000g to 90% < 75um
LOG- 21	Sample logging - ClientBarCode
SPL- 21	Split sample - riffle splitter
PUL- QC	Pulverizing QC Test

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
PGM- MS24	Pt, Pd and Au 50g FA ICP- MS	ICP- MS
ME- ICP06	Whole Rock Package - ICP- AES	ICP- AES
C- IR07	Total Carbon (Leco)	LECO
S- IR08	Total Sulphur (Leco)	LECO
ME- MS81	38 element fusion ICP- MS	ICP- MS
ME- MS42	Up to 34 elements by ICP- MS	ICP- MS
OA- GRA05	Loss on Ignition at 1000C	WST- SEQ
TOT- ICP06	Total Calculation for ICP06	ICP- AES
ME- 4ACD81	Base Metals by 4- acid dig.	ICP- AES
ME- MS61	48 element four acid ICP- MS	ICP- AES

To: CLARK EXPLORATION CONSULTING INC.
 ATTN: TASSIA STATION
 1000 ALLOY DRIVE
 THUNDER BAY ON P7B 6A5

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature: 
 Colin Ramshaw, Vancouver Laboratory Manager



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CERTIFICATE OF ANALYSIS TB12187247

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg	ME-MS61 Ag ppm	ME-MS61 Al %	ME-MS61 As ppm	ME-MS61 Ba ppm	ME-MS61 Be ppm	ME-MS61 Bi ppm	ME-MS61 Ca %	ME-MS61 Cd ppm	ME-MS61 Ce ppm	ME-MS61 Co ppm	ME-MS61 Cr ppm	ME-MS61 Cs ppm	ME-MS61 Cu ppm	ME-MS61 Fe %
M785108		2.75	0.04	8.35	6.5	50	0.25	0.02	7.32	<0.02	6.39	53.1	134	0.49	51.2	8.62
M785109		1.41	0.10	7.70	1.3	140	0.88	0.02	6.61	0.08	30.4	48.8	71	1.32	185.0	9.24
M785110		2.26	0.13	7.36	0.8	150	0.95	0.08	6.09	0.12	34.6	48.5	77	1.94	215	10.05
M785111		1.77	0.04	8.04	0.9	350	0.98	0.03	6.10	0.12	52.9	55.8	28	1.96	49.2	10.20
M785053		0.78	0.06	1.96	<0.2	200	0.39	0.09	6.59	0.13	23.8	109.0	1220	0.53	67.8	9.62
M785054		3.41	0.05	7.77	1.3	110	0.51	0.08	6.56	0.13	20.6	56.6	82	1.99	214	10.05
M785055		2.06	0.10	6.95	2.2	310	1.87	0.06	5.07	0.13	78.6	45.3	18	4.21	256	10.40
M785056		1.64	0.03	7.99	0.2	370	0.74	0.03	6.58	0.09	42.8	42.1	84	0.33	104.0	7.74
M785057		2.17	0.05	7.69	0.9	240	0.56	0.04	6.46	0.11	28.3	48.1	63	0.57	139.5	9.13
M785058		1.82	0.09	6.85	1.1	330	0.93	0.06	5.84	0.16	40.8	47.7	11	1.14	212	10.85
N566001		1.21	0.07	9.37	0.9	2480	3.32	0.33	1.77	0.03	72.4	60.1	301	14.00	198.5	6.95
N566002		1.49	0.07	6.74	0.3	210	0.86	0.03	6.49	0.10	35.6	58.5	265	1.81	99.7	9.88
N566003		1.07	0.13	7.76	0.4	160	0.77	0.02	6.89	0.12	32.5	45.1	86	3.60	154.5	8.66
N566004		1.34	0.11	6.84	2.8	1150	3.77	0.45	0.75	0.05	75.1	3.2	17	10.75	4.7	2.08
N566005		1.79	0.05	5.08	1.2	920	1.06	0.56	7.58	0.14	41.8	52.0	521	2.16	63.8	4.93
N566006		1.36	0.05	2.46	0.3	180	0.58	0.05	7.97	0.08	31.7	87.5	927	0.77	75.1	8.62
N566007		1.36	0.09	6.66	0.6	410	0.99	0.06	5.51	0.19	46.9	46.0	6	0.93	273	11.35
N566008		1.76	0.20	3.44	1.9	400	0.85	0.31	3.19	0.25	42.7	114.5	2480	1.28	178.0	9.73
N566009		1.39	0.08	7.36	0.5	460	1.25	0.91	7.00	0.14	43.9	62.1	270	6.23	57.5	9.04
N566010		1.39	0.06	5.30	0.4	330	0.88	0.50	5.98	0.11	41.0	57.6	580	6.49	54.5	7.78
N566011		1.42	0.06	2.74	<0.2	170	0.58	0.06	6.61	0.12	35.7	101.0	1500	0.45	78.1	9.69
N566012		0.77	0.09	2.40	0.5	170	0.48	0.09	7.71	0.11	32.2	92.5	1090	0.86	95.7	8.93
N566013		1.29	0.08	1.84	<0.2	170	0.42	0.07	6.99	0.13	24.7	100.5	1450	0.32	72.7	9.35
N566014		0.99	0.06	6.14	1.5	1380	2.71	0.29	5.50	0.19	203	43.9	550	8.43	39.7	5.89
N566015		1.09	0.10	3.50	<0.2	150	0.73	0.90	7.68	0.12	26.5	61.9	819	2.24	86.3	7.55
N566016		1.73	0.32	3.60	0.2	120	0.90	1.85	7.21	0.43	27.6	77.3	812	12.90	88.3	8.08
N566017		0.96	0.13	2.71	0.5	210	0.54	0.10	7.38	0.16	36.2	96.2	977	0.70	119.5	9.52
N566018		1.15	0.07	7.78	0.6	300	1.09	0.05	6.37	0.11	53.5	48.0	55	0.65	96.6	10.30



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Sample Description	Method Analyte Units LOR	ME-MS61 Ga ppm	ME-MS61 Ge ppm	ME-MS61 Hf ppm	ME-MS61 In ppm	ME-MS61 K %	ME-MS61 La ppm	ME-MS61 Li ppm	ME-MS61 Mg %	ME-MS61 Mn ppm	ME-MS61 Mo ppm	ME-MS61 Na %	ME-MS61 Nb ppm	ME-MS61 Ni ppm	ME-MS61 P ppm	ME-MS61 Pb ppm
M785108		17.85	0.16	1.3	0.061	0.22	2.6	15.0	5.12	1540	0.24	1.60	1.9	133.0	250	0.8
M785109		18.15	0.17	3.6	0.074	0.41	13.9	18.6	3.52	1520	0.70	1.69	10.7	70.7	650	2.8
M785110		18.75	0.16	3.8	0.076	1.03	16.0	30.5	3.07	1600	0.79	1.77	12.8	66.1	760	5.4
M785111		25.6	0.19	4.4	0.091	0.49	22.4	9.0	3.37	1290	0.80	2.69	12.2	81.2	1850	2.6
M785053		6.34	0.12	1.8	0.039	0.35	11.6	7.6	13.65	1780	0.43	0.35	6.2	607	380	9.3
M785054		21.5	0.14	2.7	0.090	0.70	9.8	22.5	3.97	1500	0.60	1.63	5.5	118.0	630	2.7
M785055		25.2	0.20	7.3	0.099	1.15	36.2	13.3	2.30	1330	1.71	2.15	29.0	64.0	1930	6.9
M785056		19.30	0.16	3.5	0.057	0.90	25.1	8.8	3.45	1280	0.88	2.01	16.2	59.1	610	2.4
M785057		20.2	0.14	2.9	0.069	0.55	13.8	8.8	3.34	1410	0.65	1.84	7.2	90.2	700	4.2
M785058		24.0	0.16	4.3	0.107	0.83	20.7	11.5	2.41	1620	1.25	2.01	11.7	43.9	960	9.0
N566001		32.5	0.23	5.2	0.048	4.67	28.1	151.5	3.02	964	0.35	1.29	10.2	228	950	8.9
N566002		22.7	0.16	3.5	0.081	0.38	15.1	16.3	4.47	1360	0.66	1.97	9.1	174.0	1510	1.9
N566003		18.00	0.14	3.4	0.067	0.44	15.5	18.5	3.52	1400	0.71	1.64	11.4	70.8	600	2.3
N566004		19.80	0.18	6.3	0.023	2.92	27.9	32.8	0.43	376	0.46	2.84	12.0	5.9	800	39.8
N566005		11.95	0.16	1.4	0.042	1.37	19.5	41.3	7.97	824	0.19	1.26	3.1	216	720	4.4
N566006		8.44	0.15	2.4	0.058	0.49	14.3	20.6	11.15	1510	0.38	0.66	8.2	420	480	2.9
N566007		23.4	0.17	4.8	0.107	0.84	23.1	17.6	2.00	1680	1.06	2.16	12.4	35.4	1200	6.3
N566008		10.50	0.13	2.9	0.043	0.54	17.8	13.3	14.50	1620	3.38	0.84	12.3	928	660	23.6
N566009		19.35	0.12	1.7	0.088	1.53	15.5	75.2	6.76	1170	0.36	1.54	4.9	207	980	5.3
N566010		13.50	0.12	2.2	0.061	1.00	15.5	78.8	8.77	1240	0.31	1.29	3.0	327	770	4.6
N566011		8.31	0.11	2.6	0.048	0.41	13.7	7.8	12.60	1600	0.53	2.89	8.9	586	510	3.4
N566012		7.46	0.09	2.3	0.064	0.61	12.8	19.4	11.60	1620	0.71	0.50	7.2	460	460	4.3
N566013		5.78	0.09	1.6	0.049	0.36	10.4	11.0	14.00	1680	0.51	0.31	5.1	668	360	7.9
N566014		16.85	0.29	4.3	0.052	2.41	88.9	161.5	7.84	1080	0.14	1.22	8.5	414	2940	8.6
N566015		8.71	0.08	1.4	0.045	0.34	11.1	33.1	11.05	1340	0.35	0.68	1.8	358	540	2.2
N566016		8.87	0.08	1.5	0.041	0.51	11.8	32.9	11.75	1320	0.51	0.57	2.1	545	590	60.0
N566017		8.22	0.12	2.4	0.059	0.47	14.3	9.6	12.10	1740	0.86	0.55	7.9	478	510	8.2
N566018		26.1	0.13	5.1	0.094	0.69	23.3	17.5	2.69	1320	0.95	2.49	13.8	72.9	1300	4.0



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Method Analyte Units LOR	ME-MS61 Rb ppm	ME-MS61 Re ppm	ME-MS61 S %	ME-MS61 Sb ppm	ME-MS61 Sc ppm	ME-MS61 Se ppm	ME-MS61 Sn ppm	ME-MS61 Sr ppm	ME-MS61 Ta ppm	ME-MS61 Te ppm	ME-MS61 Th ppm	ME-MS61 Tl %	ME-MS61 U ppm	ME-MS61 V ppm
M785108	5.9	<0.002	<0.01	0.75	41.4	1	0.4	156.5	0.12	<0.05	0.2	0.471	0.02	0.1
M785109	14.0	<0.002	0.08	0.06	45.2	2	1.4	141.5	0.70	<0.05	2.6	0.897	0.13	0.6
M785110	54.7	<0.002	0.08	0.06	44.3	2	1.6	245	0.81	<0.05	2.9	1.035	0.31	0.7
M785111	12.2	<0.002	0.01	0.05	23.7	1	1.4	868	0.73	<0.05	1.1	1.750	0.10	0.3
M785053	9.1	<0.002	0.03	0.09	31.1	1	0.5	351	0.40	<0.05	0.7	0.532	0.12	0.2
M785054	25.0	<0.002	0.01	0.13	38.5	1	0.9	180.0	0.31	<0.05	1.3	0.842	0.15	0.4
M785055	45.9	<0.002	0.04	0.22	27.1	2	2.3	527	1.85	<0.05	4.5	2.18	0.41	1.3
M785056	23.9	<0.002	0.02	0.05	31.8	1	0.8	293	1.02	<0.05	4.2	0.625	0.08	1.0
M785057	19.7	<0.002	0.03	0.06	34.5	1	1.0	192.0	0.49	<0.05	2.6	0.773	0.11	0.7
M785058	32.9	0.003	0.04	0.09	42.7	1	1.5	201	0.75	<0.05	3.9	1.175	0.18	1.1
N566001	99.7	<0.002	0.66	0.12	27.9	2	1.2	348	0.69	0.05	5.5	0.644	1.08	1.9
N566002	10.5	<0.002	0.03	<0.05	27.5	1	1.3	659	0.54	<0.05	0.8	1.610	0.15	0.2
N566003	25.9	<0.002	0.05	0.07	40.2	1	1.1	177.5	0.75	<0.05	2.8	0.782	0.27	0.7
N566004	125.0	<0.002	0.07	0.13	2.8	<1	1.5	635	0.96	<0.05	16.6	0.199	0.98	4.5
N566005	43.5	<0.002	0.02	0.30	38.2	<1	0.6	327	0.19	<0.05	3.2	0.521	0.25	1.1
N566006	14.0	<0.002	0.09	0.07	40.5	1	0.7	192.5	0.51	<0.05	0.9	0.690	0.14	0.3
N566007	29.1	0.002	0.06	0.08	39.2	2	1.5	209	0.82	<0.05	4.4	1.215	0.17	1.3
N566008	15.8	0.005	0.07	0.38	14.9	1	1.1	453	0.74	<0.05	1.5	0.917	0.31	0.5
N566009	63.2	0.004	0.16	0.45	35.1	1	1.6	416	0.28	<0.05	1.8	1.300	0.31	0.7
N566010	48.1	0.005	0.14	0.24	25.9	1	1.0	306	0.17	<0.05	2.4	0.637	0.27	0.7
N566011	11.5	0.005	0.20	0.26	30.7	1	0.8	393	0.56	<0.05	1.2	0.752	0.11	0.4
N566012	19.0	0.005	0.05	0.28	39.3	1	0.8	189.5	0.45	<0.05	0.9	0.656	0.15	0.3
N566013	10.1	0.004	0.03	0.23	35.5	1	0.7	181.5	0.30	<0.05	0.6	0.548	0.19	0.2
N566014	98.5	0.005	<0.01	0.38	20.3	1	1.2	662	0.35	<0.05	16.2	0.520	0.60	3.4
N566015	13.8	0.003	0.25	1.05	30.7	<1	0.7	207	0.12	<0.05	1.7	0.332	0.13	0.6
N566016	27.7	0.004	0.24	0.69	27.4	1	0.7	171.5	0.13	<0.05	1.9	0.309	0.25	0.6
N566017	13.5	0.007	0.04	0.26	36.7	<1	0.9	323	0.50	<0.05	1.1	0.703	0.15	0.4
N566018	22.3	0.006	0.04	0.23	27.7	2	1.9	514	0.87	<0.05	2.7	1.845	0.13	0.6



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Method Analyte Units LOR	Sample Description	ME-MS61 W ppm	ME-MS61 Y ppm	ME-MS61 Zn ppm	ME-MS61 Zr ppm	PGM-MS24 Au ppm	PGM-MS24 Pt ppm	PGM-MS24 Pd ppm	ME-ICP06 SiO2 %	ME-ICP06 Al2O3 %	ME-ICP06 Fe2O3 %	ME-ICP06 CaO %	ME-ICP06 MgO %	ME-ICP06 Na2O %	ME-ICP06 K2O %	ME-ICP06 Cr2O3 %
M785108		0.1	16.1	42	28.5	0.002	0.0110	0.009	47.9	15.10	12.80	10.60	8.81	2.24	0.26	0.03
M785109		0.4	33.4	99	125.0	0.006	0.0121	0.014	50.9	14.20	14.50	9.84	6.23	2.45	0.50	0.02
M785110		0.4	35.7	131	140.5	0.007	0.0129	0.016	49.6	13.50	15.90	9.13	5.52	2.53	1.26	0.02
M785111		0.1	20.7	126	166.0	0.001	<0.0005	<0.001	47.8	14.30	15.65	8.80	5.84	3.80	0.58	0.01
M785053		0.3	8.6	142	65.4	0.004	0.0063	0.003	45.1	3.41	14.90	9.74	24.0	0.46	0.41	0.29
M785054		0.2	27.6	96	98.1	0.006	0.0043	0.021	48.6	13.85	15.50	9.55	6.88	2.32	0.84	0.02
M785055		0.6	35.9	153	272	0.004	0.0022	0.007	48.6	12.55	16.45	7.56	4.10	3.01	1.39	<0.01
M785056		0.3	21.8	81	131.5	0.004	0.0084	0.009	52.1	14.70	11.75	9.74	6.15	2.97	1.12	0.02
M785057		0.3	26.0	107	106.0	0.005	0.0132	0.015	49.7	13.95	14.30	9.54	5.96	2.65	0.67	0.01
M785058		0.4	37.5	129	157.5	0.007	0.0136	0.024	50.6	12.40	16.95	8.57	4.28	2.87	0.98	<0.01
N566001		0.9	16.8	138	189.0	0.001	0.0046	0.006	44.0	21.8	11.05	2.77	5.98	1.94	6.58	0.06
N566002		0.1	19.1	118	132.5	0.001	<0.0005	<0.001	46.5	12.30	15.80	9.81	7.93	2.85	0.46	0.06
N566003		0.3	27.7	98	120.0	0.005	0.0105	0.012	50.1	14.10	13.60	10.30	6.18	2.36	0.53	0.02
N566004		3.0	9.6	53	229	0.001	<0.0005	<0.001	71.4	13.00	3.10	1.10	0.77	4.17	3.74	<0.01
N566005		0.4	9.1	56	50.7	0.001	0.0062	0.007	52.7	9.12	7.38	11.05	13.60	1.80	1.68	0.13
N566006		0.2	12.0	75	83.2	0.002	0.0092	0.009	46.3	4.32	13.15	11.65	18.40	0.91	0.58	0.21
N566007		0.4	44.4	144	168.0	0.008	0.0140	0.027	49.8	12.00	17.75	8.12	3.59	3.11	1.01	<0.01
N566008		1.1	11.4	222	102.5	0.003	0.0150	0.009	42.5	5.86	14.70	4.55	24.5	1.17	0.64	0.51
N566009		0.6	23.8	109	43.3	0.001	<0.0005	<0.001	44.9	12.75	13.10	9.66	11.00	2.02	1.76	0.05
N566010		0.3	16.1	104	73.2	0.001	<0.0005	<0.001	48.1	9.44	11.55	8.60	14.80	1.80	1.22	0.12
N566011		0.2	11.4	109	92.0	0.001	0.0065	0.002	46.0	4.72	15.00	9.27	21.6	0.96	0.43	0.25
N566012		0.2	11.2	97	78.6	0.004	0.0081	0.004	46.6	4.08	13.65	11.25	19.95	0.61	0.70	0.22
N566013		0.1	8.5	117	55.1	0.007	0.0080	0.004	44.4	3.15	14.25	10.20	24.2	0.40	0.42	0.31
N566014		0.6	22.7	107	169.5	0.001	0.0021	0.002	50.3	11.15	8.52	7.65	13.05	1.69	2.88	0.11
N566015		0.3	11.1	88	47.5	0.002	0.0005	0.001	50.4	5.86	10.90	11.25	18.10	0.90	0.39	0.18
N566016		0.3	10.7	150	54.4	0.001	0.0007	0.001	48.9	6.17	11.75	10.25	19.45	0.74	0.61	0.19
N566017		0.3	12.2	145	87.5	0.010	0.0189	0.003	47.3	4.43	13.95	10.55	20.0	0.71	0.53	0.20
N566018		0.3	30.5	129	175.5	0.002	0.0007	0.001	49.6	13.20	15.20	9.10	4.48	3.34	0.79	0.01



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Sample Description	Method Analyte Units LOR	ME-ICP06 TIO2 %	ME-ICP06 MnO %	ME-ICP06 P2O5 %	ME-ICP06 SrO %	ME-ICP06 BaO %	C-IR07 C %	S-IR08 S %	ME-MS81 Ba ppm	ME-MS81 Ce ppm	ME-MS81 Cr ppm	ME-MS81 Cs ppm	ME-MS81 Dy ppm	ME-MS81 Er ppm	ME-MS81 Eu ppm	ME-MS81 Ga ppm
M785108		0.83	0.22	0.06	0.02	0.01	0.02	<0.01	46.9	6.3	230	0.44	2.92	1.78	0.72	17.3
M785109		1.57	0.22	0.17	0.02	0.02	0.03	0.06	150.0	29.2	120	1.27	5.94	3.71	1.44	18.2
M785110		1.83	0.24	0.19	0.03	0.02	0.05	0.06	164.5	34.2	130	1.93	6.44	3.90	1.51	19.2
M785111		3.05	0.19	0.41	0.10	0.04	0.05	<0.01	376	48.9	60	1.88	4.51	2.04	2.46	25.8
M785053		0.93	0.26	0.09	0.04	0.03	0.02	0.01	222	24.0	2110	0.49	2.06	0.93	1.12	6.9
M785054		1.46	0.22	0.15	0.02	0.01	0.03	<0.01	112.5	18.3	140	1.83	4.78	2.92	1.18	20.7
M785055		3.88	0.20	0.45	0.06	0.04	0.01	0.02	334	77.1	40	4.14	7.72	3.72	3.16	25.9
M785056		1.12	0.19	0.14	0.04	0.05	<0.01	0.01	417	44.3	160	0.31	4.25	2.45	1.38	20.4
M785057		1.37	0.21	0.17	0.02	0.03	0.04	0.01	256	27.1	110	0.53	4.73	2.81	1.33	20.5
M785058		2.06	0.24	0.23	0.02	0.03	0.04	0.03	360	37.9	30	1.03	6.50	3.93	1.67	23.6
N566001		1.20	0.14	0.21	0.05	0.34	0.01	0.61	2910	122.0	480	17.80	5.06	2.30	2.04	33.9
N566002		2.88	0.20	0.36	0.08	0.03	0.04	0.02	232	35.6	410	1.80	4.40	1.94	2.24	23.6
N566003		1.40	0.20	0.15	0.02	0.02	0.10	0.02	169.5	32.2	140	3.64	5.20	3.15	1.36	18.3
N566004		0.34	0.05	0.19	0.08	0.14	0.06	0.06	1240	82.3	50	11.45	2.20	1.01	1.49	20.6
N566005		0.89	0.12	0.18	0.04	0.11	0.04	0.02	958	39.0	950	2.18	1.98	0.87	1.18	12.5
N566006		1.21	0.22	0.13	0.02	0.02	0.08	0.07	1015	61.1	1600	3.30	5.73	2.96	1.85	17.8
N566007		2.12	0.24	0.28	0.03	0.05	0.02	0.05	439	45.0	30	0.92	7.38	4.39	1.98	23.8
N566008		1.57	0.23	0.16	0.05	0.05	0.02	0.05	412	37.1	3810	1.25	2.39	1.08	1.40	10.8
N566009		2.16	0.16	0.23	0.05	0.05	0.03	0.12	469	38.7	410	6.02	4.64	2.07	2.03	19.8
N566010		1.14	0.18	0.17	0.04	0.04	0.01	0.11	342	35.7	900	6.31	3.39	1.62	1.69	14.3
N566011		1.30	0.23	0.11	0.04	0.02	0.08	0.02	167.0	30.7	1870	0.40	2.64	1.19	1.34	9.1
N566012		1.13	0.23	0.10	0.02	0.02	0.01	0.04	170.5	27.3	1670	0.75	2.44	1.12	1.22	8.0
N566013		0.95	0.24	0.09	0.02	0.02	0.02	0.02	165.0	20.5	2290	0.26	2.00	0.87	1.03	6.3
N566014		0.88	0.15	0.63	0.08	0.17	0.01	<0.01	1460	185.0	790	8.22	4.44	1.76	3.70	17.0
N566015		0.57	0.19	0.13	0.02	0.02	0.01	0.23	149.0	24.0	1340	2.21	2.31	1.07	1.07	9.1
N566016		0.53	0.19	0.14	0.02	0.01	0.02	0.20	116.0	24.6	1310	11.80	2.17	0.97	0.98	8.8
N566017		1.16	0.24	0.10	0.04	0.02	0.03	0.04	200	29.9	1540	0.62	2.68	1.20	1.38	8.3
N566018		3.07	0.18	0.26	0.06	0.04	0.02	0.04	308	49.7	90	0.65	6.12	2.84	2.63	27.2



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CERTIFICATE OF ANALYSIS TB12187247

Sample Description	Method Analyte Units LOR	ME-MS81 Gd ppm	ME-MS81 Hf ppm	ME-MS81 Ho ppm	ME-MS81 La ppm	ME-MS81 Lu ppm	ME-MS81 Nb ppm	ME-MS81 Nd ppm	ME-MS81 Pr ppm	ME-MS81 Rb ppm	ME-MS81 Sm ppm	ME-MS81 Sn ppm	ME-MS81 Sr ppm	ME-MS81 Ta ppm	ME-MS81 Tb ppm	ME-MS81 Th ppm
M785108		2.53	1.4	0.63	2.4	0.26	1.8	5.1	1.03	6.7	1.80	<1	156.0	0.1	0.44	0.22
M785109		5.65	3.7	1.33	12.9	0.56	10.7	18.2	4.14	15.7	4.87	1	143.0	0.7	0.98	2.65
M785110		6.10	3.9	1.39	15.0	0.59	12.9	20.7	4.71	58.4	5.46	1	238	0.8	1.05	2.86
M785111		6.58	4.3	0.84	20.8	0.23	12.3	31.7	7.25	12.6	7.22	1	842	0.8	0.89	1.14
M785053		2.99	1.9	0.37	11.2	0.11	6.7	14.8	3.41	9.7	3.37	<1	343	0.4	0.40	1.06
M785054		4.49	2.7	1.01	8.2	0.42	5.2	12.1	2.68	26.1	3.54	1	173.5	0.3	0.77	1.28
M785055		10.10	7.4	1.50	34.1	0.45	28.7	45.3	10.50	48.2	10.15	2	525	1.9	1.42	4.52
M785056		4.71	3.5	0.90	22.4	0.34	17.3	20.9	5.36	25.6	4.44	1	293	1.1	0.72	4.07
M785057		4.68	3.0	1.05	12.9	0.42	7.6	15.1	3.54	21.1	3.92	1	186.5	0.5	0.78	2.68
M785058		6.57	4.4	1.40	18.0	0.56	11.3	20.7	4.94	33.4	5.36	1	194.0	0.7	1.07	3.90
N566001		8.00	6.8	0.95	54.4	0.32	10.1	57.8	15.20	255	10.40	1	402	0.7	1.03	10.35
N566002		6.16	3.7	0.83	14.2	0.22	9.5	25.3	5.46	11.5	6.24	1	643	0.6	0.87	0.80
N566003		5.12	3.4	1.12	14.9	0.48	11.9	17.9	4.32	27.6	4.60	1	177.0	0.8	0.87	2.88
N566004		3.81	6.7	0.39	28.5	0.14	13.0	29.8	8.08	141.0	5.55	2	703	1.0	0.49	17.20
N566005		3.42	1.9	0.37	17.5	0.12	3.1	21.2	5.13	48.8	4.35	1	317	0.2	0.43	3.35
N566006		7.27	5.9	1.09	28.6	0.42	17.6	33.7	8.26	208	7.57	3	333	1.4	1.07	10.75
N566007		7.42	4.8	1.60	21.7	0.62	12.6	24.8	5.92	31.4	6.26	1	206	0.8	1.21	4.36
N566008		3.50	2.9	0.45	16.5	0.14	12.9	20.8	5.11	14.5	4.21	1	445	0.8	0.46	1.28
N566009		6.59	2.7	0.88	14.8	0.23	4.8	28.9	6.15	62.5	7.13	1	387	0.3	0.89	1.73
N566010		5.44	2.3	0.64	14.2	0.18	3.4	24.5	5.39	44.1	5.80	1	292	0.2	0.70	2.19
N566011		3.90	2.8	0.48	12.6	0.13	9.3	18.9	4.40	10.3	4.21	1	321	0.6	0.53	1.03
N566012		3.72	2.3	0.46	11.4	0.13	7.5	17.2	4.00	17.7	4.00	1	180.5	0.5	0.49	0.77
N566013		2.94	1.8	0.36	9.1	0.10	5.1	13.3	2.98	9.1	3.03	<1	167.0	0.3	0.39	0.55
N566014		8.93	4.9	0.75	84.2	0.22	8.8	92.6	24.3	104.5	15.35	1	618	0.4	0.99	15.95
N566015		3.57	1.4	0.42	10.9	0.13	1.8	15.9	3.42	13.1	3.60	1	189.5	0.1	0.43	1.49
N566016		3.21	1.5	0.38	11.1	0.12	2.0	14.5	3.31	25.2	3.24	1	148.5	0.1	0.39	1.71
N566017		4.03	2.5	0.47	13.1	0.14	7.6	19.5	4.25	12.1	4.19	1	282	0.5	0.49	0.86
N566018		8.08	5.7	1.14	22.4	0.33	13.5	31.2	6.78	21.3	7.27	2	471	1.0	1.06	2.57



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CERTIFICATE OF ANALYSIS TB12187247

Method Analyte Units LOR	Sample Description	ME-MS81 ppm	ME-MS81 Tm ppm	ME-MS81 U ppm	ME-MS81 V ppm	ME-MS81 W ppm	ME-MS81 Y ppm	ME-MS81 Yb ppm	ME-MS81 Zr ppm	ME-MS42 As ppm	ME-MS42 Bi ppm	ME-MS42 Hg ppm	ME-MS42 Sb ppm	ME-MS42 Se ppm	ME-MS42 Te ppm	OA- GRA05 LOI %
	M785108	<0.5	0.28	0.06	287	<1	16.5	1.69	50	1.8	0.01	<0.005	0.13	0.2	0.01	1.82
	M785109	<0.5	0.58	0.62	321	<1	33.3	3.49	120	0.3	0.01	<0.005	<0.05	0.5	0.01	1.25
	M785110	<0.5	0.59	0.67	338	<1	37.2	3.78	140	0.5	0.07	<0.005	<0.05	0.4	0.01	1.79
	M785111	<0.5	0.28	0.26	416	<1	21.0	1.54	160	0.2	0.02	<0.005	0.08	0.3	<0.01	0.36
	M785053	<0.5	0.13	0.21	140	<1	9.6	0.71	70	0.3	0.08	<0.005	<0.05	<0.2	<0.01	2.14
	M785054	<0.5	0.43	0.35	376	<1	26.9	2.60	90	0.5	0.08	<0.005	<0.05	0.4	0.01	1.13
	M785055	<0.5	0.52	1.30	420	1	37.3	3.04	270	1.7	0.06	0.005	0.13	0.5	<0.01	0.91
	M785056	<0.5	0.37	0.92	265	<1	23.5	2.28	130	0.3	0.02	<0.005	<0.05	0.3	<0.01	0.34
	M785057	<0.5	0.43	0.68	342	<1	26.1	2.61	100	0.3	0.03	<0.005	<0.05	0.3	<0.01	0.14
	M785058	<0.5	0.58	1.01	440	<1	36.6	3.69	150	0.5	0.05	<0.005	<0.05	0.4	<0.01	0.08
	N566001	1.0	0.33	2.25	248	1	23.6	2.03	250	0.5	0.25	0.006	<0.05	1.5	0.06	3.04
	N566002	<0.5	0.27	0.20	406	<1	20.2	1.43	140	0.1	0.02	<0.005	<0.05	0.7	0.01	1.24
	N566003	<0.5	0.48	0.68	307	<1	29.1	3.06	120	0.2	0.02	0.005	<0.05	0.9	0.01	1.18
	N566004	0.8	0.15	4.34	32	5	10.5	0.85	260	2.4	0.40	0.006	0.09	0.5	0.02	0.82
	N566005	<0.5	0.15	1.09	226	1	9.4	0.72	70	0.6	0.26	0.005	0.08	0.3	<0.01	2.09
	N566006	2.5	0.48	5.52	258	3	29.8	2.67	200	0.4	0.03	<0.005	<0.05	0.4	0.02	1.64
	N566007	<0.5	0.65	1.14	426	<1	43.2	4.07	180	0.5	0.05	<0.005	<0.05	0.9	0.01	0.06
	N566008	<0.5	0.16	0.46	202	1	11.5	0.86	110	0.9	0.26	0.009	0.11	0.5	0.01	3.17
	N566009	<0.5	0.30	0.59	326	1	23.4	1.62	80	0.1	0.27	0.005	0.05	0.7	0.01	1.83
	N566010	<0.5	0.22	0.55	182	<1	16.6	1.19	70	0.1	0.15	<0.005	<0.05	0.4	0.02	2.30
	N566011	<0.5	0.17	0.31	209	<1	11.7	0.91	100	0.1	0.02	0.006	<0.05	0.3	0.01	1.18
	N566012	<0.5	0.16	0.28	205	<1	11.5	0.84	80	0.5	0.04	<0.005	<0.05	0.3	0.01	2.07
	N566013	<0.5	0.13	0.19	160	<1	8.6	0.67	60	0.1	0.04	0.013	<0.05	0.2	0.01	2.95
	N566014	0.6	0.27	3.41	136	1	21.4	1.38	200	0.8	0.17	<0.005	0.08	0.7	0.01	2.95
	N566015	<0.5	0.17	0.53	167	<1	10.8	0.91	50	0.1	0.31	<0.005	1.11	0.3	0.04	2.19
	N566016	<0.5	0.16	0.52	127	<1	10.1	0.84	50	0.1	0.65	<0.005	0.07	0.3	0.04	2.77
	N566017	<0.5	0.18	0.29	239	<1	11.4	0.93	90	0.7	0.07	<0.005	0.06	0.3	0.01	2.08
	N566018	<0.5	0.44	0.54	434	<1	27.8	2.28	200	0.5	0.02	<0.005	<0.05	0.7	0.01	0.53



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Sample Description	Method Analyte Units LOR	TOT-ICP06 ME-4ACD81 ME-4ACD81 ME-4ACD81 ME-4ACD81 ME-4ACD81 ME-4ACD81 ME-4ACD81 ME-4ACD81 ME-4ACD81 ME-4ACD81 ME-4ACD81 ME-4ACD81 ME-4ACD81 ME-4ACD81																					
		Total %	Ag ppm	Cd ppm	Co ppm	Cu ppm	Mo ppm	Ni ppm	Pb ppm	Sc ppm	Zn ppm	As ppm	B ppm	Ca ppm	Cr ppm	Fe ppm	Mn ppm	P ppm	S ppm	Ti ppm	V ppm	W ppm	Zr ppm
M785108		100.70	<0.5	<0.5	47	49	<1	121	<2	36	40												
M785109		101.89	<0.5	<0.5	49	189	<1	64	3	42	99												
M785110		101.56	<0.5	<0.5	50	227	<1	63	8	40	134												
M785111		100.93	<0.5	<0.5	57	51	<1	77	<2	22	126												
M785053		101.80	<0.5	<0.5	115	72	<1	620	10	30	145												
M785054		100.55	<0.5	<0.5	55	217	<1	118	2	36	95												
M785055		99.20	<0.5	<0.5	49	263	<1	62	5	26	158												
M785056		100.43	<0.5	<0.5	44	114	<1	60	2	32	83												
M785057		98.72	<0.5	<0.5	51	152	<1	92	2	34	109												
M785058		99.32	<0.5	<0.5	43	206	<1	37	7	40	128												
N566001		99.16	<0.5	<0.5	55	205	<1	234	8	17	142												
N566002		100.50	<0.5	<0.5	58	117	<1	183	2	28	125												
N566003		100.16	<0.5	<0.5	46	173	<1	73	2	41	102												
N566004		98.90	<0.5	<0.5	3	5	<1	5	43	3	57												
N566005		100.89	<0.5	<0.5	53	69	<1	227	6	40	58												
N566006		98.76	<0.5	<0.5	92	87	<1	450	2	41	79												
N566007		98.16	<0.5	<0.5	46	298	<1	33	5	40	153												
N566008		99.66	<0.5	<0.5	118	183	2	958	21	14	232												
N566009		99.72	<0.5	<0.5	58	58	<1	205	4	35	106												
N566010		99.50	<0.5	<0.5	61	60	<1	342	6	26	107												
N566011		101.11	<0.5	<0.5	108	89	<1	626	2	32	114												
N566012		100.63	<0.5	<0.5	99	107	<1	487	3	40	100												
N566013		101.60	<0.5	<0.5	105	79	<1	691	8	34	121												
N566014		100.21	<0.5	<0.5	45	43	<1	445	10	20	114												
N566015		101.10	<0.5	<0.5	65	96	<1	369	2	31	90												
N566016		101.72	<0.5	<0.5	82	97	<1	555	51	27	153												
N566017		101.31	<0.5	<0.5	100	128	<1	488	7	35	147												
N566018		99.86	<0.5	<0.5	47	104	<1	69	3	26	130												



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Method	CERTIFICATE COMMENTS
ME- MS61	REE's may not be totally soluble in this method.



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CERTIFICATE TB12204843

Project:
 P.O. No.: GLORY- 2012 SUBMISSION 3
 This report is for 21 Rock samples submitted to our lab in Thunder Bay, ON, Canada on 31- AUG- 2012.
 The following have access to data associated with this certificate:
 STEVE SIEMIENIUK | TASSIA STATION | MATTHEW ZAGO


SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
CRU- 32	Fine Crushing 90% < 2mm
LOG- 21	Sample logging - ClientBarCode
PUL- 32a	Pulverize 1000g to 90% < 75um
SPL- 21	Split sample - riffle splitter
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
ME- ICP06	Whole Rock Package - ICP- AES	ICP- AES
C- IR07	Total Carbon (Leco)	LECO
ME- MS61	48 element four acid ICP- MS	ICP- MS
PGM- MS24	Pt, Pd and Au 50g FA ICP- MS	LECO
S- IR08	Total Sulphur (Leco)	ICP- MS
ME- MS81	38 element fusion ICP- MS	LECO
ME- MS42	Up to 34 elements by ICP- MS	ICP- MS
OA- GRA05	Loss on Ignition at 1000C	WST- SEQ
TOT- ICP06	Total Calculation for ICP06	ICP- AES
ME- 4ACD81	Base Metals by 4- acid dig.	ICP- AES

To: CLARK EXPLORATION CONSULTING INC.
 ATTN: TASSIA STATION
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature: 
 Colin Ramshaw, Vancouver Laboratory Manager



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CERTIFICATE OF ANALYSIS TB12204843

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg	ME-ICP06 SiO2 %	ME-ICP06 Al2O3 %	ME-ICP06 Fe2O3 %	ME-ICP06 CaO %	ME-ICP06 MgO %	ME-ICP06 Na2O %	ME-ICP06 K2O %	ME-ICP06 Cr2O3 %	ME-ICP06 TiO2 %	ME-ICP06 MnO %	ME-ICP06 P2O5 %	ME-ICP06 SrO %	ME-ICP06 BaO %	C-IR07 C %
M785112		1.96	50.3	14.80	10.70	11.55	7.77	1.76	0.77	0.04	0.68	0.18	0.06	0.02	0.02	0.09
M785113		1.63	50.6	14.05	15.05	9.89	5.41	2.46	0.62	0.01	1.57	0.23	0.14	0.02	0.02	0.04
M785114		2.31	49.5	14.30	15.90	10.00	6.00	2.67	0.43	0.02	1.52	0.23	0.16	0.02	0.02	0.09
M785115		0.99	49.7	13.40	16.15	9.14	4.81	3.44	0.74	0.01	3.11	0.20	0.25	0.05	0.04	0.07
M785116		2.01	48.7	14.55	13.90	10.75	9.77	2.09	0.28	0.04	0.82	0.20	0.09	0.02	0.01	0.03
M785117		1.66	50.0	14.60	15.45	10.20	6.02	2.70	0.37	0.02	1.51	0.22	0.15	0.02	0.02	0.02
M785118		1.48	48.8	14.90	15.25	9.92	6.63	2.48	0.38	0.01	1.38	0.22	0.13	0.02	0.02	0.05
M785059		0.74	43.3	6.81	19.45	5.55	20.7	1.62	0.35	0.18	1.63	0.23	0.16	0.03	0.02	0.08
M785060		1.01	43.5	13.00	15.90	9.40	10.65	1.59	1.58	0.04	2.18	0.18	0.14	0.04	0.05	0.05
N566019		1.10	61.6	14.55	9.45	2.38	3.64	3.84	2.15	0.03	0.77	0.11	0.12	0.06	0.07	0.02
N566020		1.01	50.0	14.80	14.85	10.15	6.31	2.57	0.49	0.02	1.39	0.21	0.15	0.02	0.02	0.04
N566021		0.88	47.2	3.72	13.80	12.25	19.00	0.59	0.46	0.26	1.05	0.23	0.09	0.02	0.01	0.02
N566022		1.05	48.0	7.08	14.00	10.70	14.45	1.32	0.86	0.18	1.52	0.21	0.15	0.05	0.04	0.01
N566023		1.00	44.7	10.50	13.60	12.35	13.55	1.37	0.40	0.02	1.24	0.17	0.04	0.02	0.01	0.05
N566024		1.47	50.2	4.97	10.45	15.25	15.00	0.76	0.54	0.11	0.55	0.20	0.04	0.01	0.01	0.21
N566025		1.30	48.9	14.35	13.85	7.67	4.85	3.09	1.02	<0.01	2.66	0.18	0.34	0.08	0.04	0.20
N566026		1.40	47.1	6.12	10.65	12.50	17.40	0.81	0.34	0.12	0.53	0.17	0.12	0.03	0.02	0.09
N566027		1.23	51.5	10.25	23.1	6.89	1.17	2.93	1.38	<0.01	1.94	0.35	0.88	0.02	0.05	0.01
N566028		1.60	46.3	13.30	13.65	8.43	10.00	2.37	2.11	0.05	1.86	0.14	0.14	0.07	0.11	0.03
N566029		1.34	46.2	8.31	13.95	8.71	16.00	0.49	2.45	0.05	1.01	0.22	0.09	0.01	0.03	0.03
N566030		1.27	40.1	11.35	32.6	7.63	5.05	0.44	0.26	0.01	0.36	2.12	0.10	0.01	<0.01	0.06



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Sample Description	Method Analyte Units LOR	S-IR08	ME-MS81 Ba ppm	ME-MS81 Ce ppm	ME-MS81 Cr ppm	ME-MS81 Cs ppm	ME-MS81 Dy ppm	ME-MS81 Er ppm	ME-MS81 Eu ppm	ME-MS81 Ga ppm	ME-MS81 Cd ppm	ME-MS81 Hf ppm	ME-MS81 Ho ppm	ME-MS81 La ppm	ME-MS81 Lu ppm	ME-MS81 Nb ppm
M785112		0.09	156.0	16.5	280	0.96	2.53	1.61	0.75	14.8	2.45	1.4	0.54	7.9	0.23	3.5
M785113		0.05	137.0	30.9	110	1.60	6.06	3.92	1.52	18.4	5.95	3.7	1.32	13.8	0.57	10.2
M785114		0.02	143.0	21.5	120	0.43	5.34	3.31	1.46	21.8	5.14	2.9	1.15	9.5	0.46	5.5
M785115		0.04	365	52.4	70	0.92	6.33	3.14	2.74	26.9	7.97	5.7	1.21	22.9	0.35	12.6
M785116		0.01	93.5	12.8	300	0.22	2.93	1.75	0.85	17.9	2.84	1.6	0.62	5.8	0.25	2.8
M785117		0.01	138.0	20.5	110	0.30	5.23	3.25	1.37	21.3	4.97	3.0	1.12	9.0	0.46	5.1
M785118		0.01	136.0	18.8	100	0.36	4.80	2.95	1.27	21.0	4.58	2.6	1.03	8.3	0.41	4.6
M785059		0.01	138.5	24.7	1260	0.29	3.07	1.47	1.32	15.1	3.91	2.6	0.58	10.5	0.16	7.0
M785060		0.41	448	47.5	300	3.68	6.39	3.11	3.03	21.1	9.83	3.0	1.21	15.9	0.34	5.3
N566019		0.71	600	44.5	220	10.35	2.98	1.88	1.03	18.2	3.24	4.4	0.63	22.1	0.29	6.0
N566020		0.03	159.5	22.3	130	0.54	4.72	2.89	1.34	21.7	4.57	2.8	1.02	10.1	0.39	5.1
N566021		0.03	127.0	25.8	1880	0.46	2.61	1.18	1.25	7.7	3.82	2.2	0.49	10.5	0.14	5.6
N566022		0.05	303	41.5	1280	1.04	3.43	1.60	1.85	11.8	5.06	3.5	0.63	18.4	0.18	10.8
N566023		0.31	72.0	18.9	120	0.14	3.71	1.69	1.73	19.9	5.48	1.6	0.69	6.0	0.17	1.4
N566024		0.14	73.6	19.5	790	0.54	3.42	1.75	1.39	9.3	4.67	1.4	0.66	7.2	0.20	1.4
N566025		0.22	327	53.4	40	1.40	4.46	2.05	2.37	23.8	6.38	4.5	0.81	23.2	0.22	10.2
N566026		0.23	141.0	49.5	820	0.55	3.15	1.36	1.79	9.4	5.33	1.6	0.56	21.2	0.15	1.4
N566027		0.05	417	81.4	40	0.92	19.55	11.85	4.29	27.0	19.40	9.4	3.94	35.1	1.62	22.5
N566028		0.28	859	53.9	370	10.10	5.22	2.55	2.41	19.8	7.62	2.9	0.96	22.7	0.27	5.1
N566029		0.37	242	20.3	440	12.05	3.32	1.69	1.38	12.3	4.48	1.5	0.62	6.4	0.19	2.2
N566030		2.57	32.1	19.8	70	0.26	2.43	1.54	1.21	8.7	2.74	2.1	0.50	8.8	0.24	3.5



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Sample Description	Method Analyte Units LOR	ME-MS81 Yb ppm	ME-MS81 Zr ppm	ME-MS42 As ppm	ME-MS42 Bi ppm	ME-MS42 Hg ppm	ME-MS42 Sb ppm	ME-MS42 Se ppm	ME-MS42 Te ppm	OA-GRA05 LOI %	TOT-ICP06 Total %	ME-4ACD81 Ag ppm	ME-4ACD81 Cd ppm	ME-4ACD81 Co ppm	ME-4ACD81 Cu ppm	ME-4ACD81 Mo ppm
M785112		1.47	47	<0.1	0.01	<0.005	<0.05	0.4	0.01	1.50	100.15	<0.5	<0.5	46	93	<1
M785113		3.65	120	0.3	0.04	<0.005	<0.05	0.6	0.01	0.71	100.78	<0.5	0.5	49	191	<1
M785114		3.05	99	0.4	0.03	<0.005	<0.05	0.5	0.01	-0.26	100.51	<0.5	<0.5	52	220	<1
M785115		2.39	191	0.3	0.02	<0.005	<0.05	0.5	<0.01	0.55	101.59	<0.5	<0.5	53	67	<1
M785116		1.59	53	0.2	0.01	<0.005	<0.05	0.2	0.01	-0.13	101.09	<0.5	0.5	68	105	<1
M785117		2.96	99	0.3	0.02	<0.005	<0.05	0.4	<0.01	-0.08	101.20	<0.5	<0.5	48	188	<1
M785118		2.68	84	0.3	0.02	<0.005	<0.05	0.5	0.01	0.05	100.19	1.4	<0.5	53	173	<1
M785059		1.16	93	<0.1	0.01	<0.005	<0.05	0.4	<0.01	-0.51	99.52	1.0	0.9	131	76	<1
M785060		2.32	79	<0.1	0.29	<0.005	<0.05	0.7	0.01	2.01	100.26	0.5	<0.5	68	168	<1
N566019		1.78	147	0.1	0.32	0.005	<0.05	0.9	0.08	2.07	100.84	0.5	<0.5	29	159	<1
N566020		2.59	95	0.5	0.02	<0.005	<0.05	0.5	0.01	-0.10	100.88	<0.5	<0.5	51	189	<1
N566021		0.91	68	0.2	0.03	<0.005	<0.05	0.2	0.01	0.98	99.66	<0.5	0.5	94	75	<1
N566022		1.23	115	0.4	0.05	<0.005	<0.05	0.3	0.01	1.50	100.06	<0.5	0.5	79	143	<1
N566023		1.23	40	<0.1	0.10	<0.005	<0.05	0.6	0.03	1.84	99.81	<0.5	<0.5	83	157	<1
N566024		1.43	35	0.1	0.29	<0.005	<0.05	0.3	0.02	2.05	100.14	<0.5	<0.5	69	164	1
N566025		1.55	150	0.1	0.02	0.009	<0.05	0.5	<0.01	2.94	99.97	0.9	<0.5	50	46	<1
N566026		1.05	47	2.6	0.42	0.005	0.08	0.3	0.01	2.40	98.31	<0.5	0.6	70	88	<1
N566027		10.55	333	1.6	0.06	<0.005	0.06	1.8	<0.01	0.11	100.57	1.0	0.8	32	582	<1
N566028		1.98	92	<0.1	0.44	<0.005	<0.05	0.8	0.01	2.23	100.76	0.5	<0.5	64	104	<1
N566029		1.33	45	<0.1	0.34	<0.005	<0.05	0.6	0.01	2.82	100.34	<0.5	0.6	76	131	<1
N566030		1.44	79	<0.1	0.06	<0.005	<0.05	0.6	0.21	1.95	101.98	0.9	1.9	9	225	<1



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Sample Description	Method Analyte Units LOR	ME-4ACD81 Ni ppm	ME-4ACD81 Pb ppm	ME-4ACD81 Sc ppm	ME-4ACD81 Zn ppm	ME-MS61 Ag ppm	ME-MS61 Al %	ME-MS61 As ppm	ME-MS61 Ba ppm	ME-MS61 Be ppm	ME-MS61 Bi ppm	ME-MS61 Ca %	ME-MS61 Cd ppm	ME-MS61 Ce ppm	ME-MS61 Co ppm	ME-MS61 Cr ppm
M785112		95	<2	38	70	0.06	7.88	<0.2	150	0.26	0.02	7.76	0.09	16.10	42.8	188
M785113		66	<2	42	116	0.11	6.96	<0.2	120	0.54	0.04	6.24	0.09	28.7	42.7	73
M785114		97	<2	36	116	0.12	7.42	<0.2	130	0.42	0.03	6.59	0.12	20.2	46.1	87
M785115		80	2	24	129	0.09	6.87	<0.2	350	0.80	0.02	5.88	0.11	50.8	48.7	46
M785116		224	3	29	89	0.07	7.35	<0.2	90	0.27	0.02	7.00	0.09	12.20	62.8	195
M785117		91	<2	35	114	0.10	7.58	<0.2	130	0.38	0.02	6.72	0.13	19.85	45.6	77
M785118		128	<2	32	109	0.09	7.59	<0.2	130	0.36	0.02	6.65	0.11	18.20	48.9	73
M785059		1150	<2	17	135	0.09	3.73	<0.2	130	0.46	0.02	3.80	0.09	24.3	123.5	900
M785060		138	<2	48	127	0.17	6.64	<0.2	430	0.58	0.64	6.24	0.13	47.4	61.5	205
N566019		76	14	20	102	0.24	7.47	<0.2	580	1.31	0.33	1.64	0.10	40.7	26.6	181
N566020		108	<2	34	109	0.10	7.44	<0.2	150	0.42	0.03	6.40	0.12	22.2	48.7	86
N566021		444	<2	39	89	0.09	1.96	<0.2	120	0.33	0.04	7.94	0.08	25.5	87.8	1090
N566022		328	5	32	127	0.15	3.68	<0.2	290	0.68	0.06	6.94	0.12	41.4	73.8	859
N566023		375	2	31	118	0.11	5.17	<0.2	70	0.21	0.21	8.10	0.09	18.70	79.9	79
N566024		267	4	51	73	0.11	2.69	<0.2	70	0.53	0.50	9.69	0.18	20.0	68.1	512
N566025		74	6	19	106	0.10	7.51	<0.2	330	0.88	0.02	5.17	0.05	56.7	46.8	27
N566026		520	<2	39	80	0.09	3.31	3.2	140	2.82	0.49	8.41	0.12	51.3	65.6	518
N566027		<1	3	29	230	0.20	5.52	1.1	430	1.28	0.06	4.61	0.22	81.9	28.1	3
N566028		111	<2	45	96	0.08	6.80	<0.2	870	0.86	1.12	5.43	0.14	52.9	56.1	216
N566029		179	2	45	101	0.13	4.47	<0.2	240	0.49	0.72	5.55	0.21	20.2	72.7	219
N566030		15	3	9	241	0.46	5.86	<0.2	30	0.20	0.06	4.90	0.60	19.65	11.3	34



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Sample Description	Method Analyte Units LOR	ME-MS61 Cs ppm	ME-MS61 Cu ppm	ME-MS61 Fe %	ME-MS61 Ga ppm	ME-MS61 Ge ppm	ME-MS61 Hf ppm	ME-MS61 In ppm	ME-MS61 K %	ME-MS61 La ppm	ME-MS61 Li ppm	ME-MS61 Mg %	ME-MS61 Mn ppm	ME-MS61 Mo ppm	ME-MS61 Na %	ME-MS61 Nb ppm
M785112		0.93	88.7	7.35	15.15	0.16	1.3	0.045	0.62	7.8	16.4	4.73	1270	0.48	1.23	3.9
M785113		1.47	179.0	9.41	17.85	0.21	3.1	0.074	0.46	12.6	15.3	3.04	1480	0.75	1.60	10.4
M785114		0.40	214	10.35	21.0	0.22	2.4	0.076	0.34	8.9	8.1	3.53	1530	0.72	1.80	5.7
M785115		0.91	63.1	10.50	26.1	0.26	4.8	0.101	0.57	22.1	13.0	2.79	1300	1.26	2.28	13.2
M785116		0.21	99.3	8.93	17.40	0.20	1.4	0.049	0.22	5.5	6.2	5.72	1340	0.37	1.40	3.0
M785117		0.29	180.0	10.10	21.5	0.22	2.6	0.077	0.29	8.7	7.9	3.57	1490	0.60	1.83	5.6
M785118		0.36	171.0	9.80	20.6	0.20	2.2	0.069	0.30	8.0	8.1	3.86	1470	0.49	1.66	5.1
M785059		0.29	72.8	13.00	14.65	0.30	2.6	0.055	0.29	10.4	7.3	12.75	1610	0.72	1.13	7.6
M785060		3.62	163.0	10.45	21.5	0.30	2.1	0.110	1.21	15.9	66.3	6.36	1200	0.27	1.07	5.6
N566019		9.98	158.0	6.32	18.10	0.20	3.1	0.046	1.68	19.6	41.1	2.14	759	1.58	2.59	6.3
N566020		0.54	180.5	9.28	21.4	0.21	2.5	0.070	0.37	10.0	11.3	3.55	1380	0.54	1.68	5.5
N566021		0.46	71.6	9.15	7.37	0.23	1.9	0.056	0.36	10.3	11.3	11.25	1560	0.62	0.41	6.0
N566022		1.03	139.5	9.08	11.65	0.26	3.0	0.059	0.66	18.0	20.4	8.55	1420	0.67	0.87	11.6
N566023		0.13	158.5	8.85	19.75	0.24	0.9	0.060	0.32	5.8	8.7	7.93	1140	0.23	0.92	1.6
N566024		0.57	166.5	7.18	9.69	0.20	1.1	0.062	0.43	7.4	29.2	8.95	1360	0.41	0.54	1.4
N566025		1.45	42.1	9.18	25.2	0.24	3.8	0.070	0.82	24.4	42.3	2.87	1200	0.70	2.12	11.5
N566026		0.58	85.3	7.31	10.05	0.25	1.4	0.044	0.28	21.5	10.5	10.45	1200	0.24	0.58	1.7
N566027		0.94	579	14.95	26.2	0.39	7.8	0.178	1.07	35.3	21.3	0.65	2380	1.60	2.00	21.8
N566028		10.35	96.1	8.66	20.3	0.25	1.8	0.079	1.58	21.4	47.1	5.61	946	0.52	1.57	5.4
N566029		12.80	126.0	8.96	12.70	0.21	1.2	0.063	1.85	6.4	69.4	9.07	1430	0.28	0.34	2.0
N566030		0.27	226	20.3	9.03	0.36	1.5	0.127	0.19	8.8	5.4	2.82	14050	1.42	0.30	3.7



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Sample Description	Method Analyte Units LOR	ME-MS61 Ni ppm	ME-MS61 P ppm	ME-MS61 Pb ppm	ME-MS61 Rb ppm	ME-MS61 Re ppm	ME-MS61 S %	ME-MS61 Sb ppm	ME-MS61 Sc ppm	ME-MS61 Se ppm	ME-MS61 Sn ppm	ME-MS61 Sr ppm	ME-MS61 Ta ppm	ME-MS61 Te ppm	ME-MS61 Th ppm	ME-MS61 Ti %
M785112		91.4	260	2.1	36.1	<0.002	0.09	<0.05	41.0	1	0.4	205	0.23	<0.05	1.5	0.389
M785113		58.1	620	2.6	28.5	0.002	0.04	<0.05	40.8	2	1.2	157.0	0.68	<0.05	2.7	0.844
M785114		90.2	670	2.2	13.1	0.002	0.01	0.05	35.6	2	0.9	152.0	0.35	<0.05	1.4	0.838
M785115		76.8	1090	3.6	24.2	0.002	0.03	0.05	24.3	3	1.8	439	0.85	<0.05	2.6	1.675
M785116		210	300	1.4	8.3	<0.002	0.01	<0.05	32.4	1	0.5	148.5	0.19	<0.05	1.0	0.446
M785117		89.0	630	2.1	11.6	<0.002	0.01	<0.05	37.4	2	0.9	154.5	0.35	<0.05	1.4	0.850
M785118		124.5	590	2.1	13.4	0.002	<0.01	<0.05	33.7	2	0.8	150.5	0.32	<0.05	1.3	0.789
M785059		1150	710	1.8	10.1	<0.002	0.01	<0.05	17.5	2	0.8	250	0.49	<0.05	1.2	0.941
M785060		127.0	560	2.8	52.2	<0.002	0.41	<0.05	48.9	3	1.4	355	0.28	<0.05	1.7	1.150
N566019		72.9	520	14.0	62.1	<0.002	0.72	0.07	20.6	2	1.0	518	0.49	0.09	7.2	0.437
N566020		104.0	540	2.5	16.1	0.002	0.03	0.05	35.5	2	0.8	165.5	0.35	<0.05	2.0	0.741
N566021		438	360	2.7	13.8	<0.002	0.03	0.06	41.5	1	0.5	163.0	0.38	<0.05	0.7	0.586
N566022		320	600	6.5	23.4	<0.002	0.04	0.07	34.5	2	0.9	428	0.73	<0.05	1.4	0.833
N566023		381	160	2.1	3.7	<0.002	0.28	0.15	33.9	2	0.6	185.0	0.09	<0.05	0.4	0.681
N566024		265	110	6.1	18.2	<0.002	0.14	<0.05	59.0	2	0.9	63.3	0.11	<0.05	0.6	0.319
N566025		72.8	1500	7.2	31.9	0.002	0.21	<0.05	21.1	2	1.3	696	0.67	<0.05	4.4	1.510
N566026		495	530	3.0	5.1	<0.002	0.22	0.29	42.9	1	1.2	281	0.11	<0.05	3.3	0.308
N566027		2.1	3680	4.6	40.3	0.002	0.05	0.12	28.7	4	2.9	162.5	1.29	<0.05	4.9	1.145
N566028		105.0	580	4.3	73.7	<0.002	0.27	<0.05	45.8	2	1.1	575	0.33	<0.05	2.3	1.070
N566029		169.5	370	1.8	142.0	<0.002	0.36	<0.05	49.0	2	0.8	111.5	0.11	<0.05	1.3	0.555
N566030		14.6	360	4.9	7.1	0.002	2.25	<0.05	8.8	2	0.9	81.3	0.24	0.17	0.5	0.210



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CERTIFICATE OF ANALYSIS TB12204843

Sample Description	Method Analyte Units LOR	PGM- MS24											
		ME- MS61 Ti ppm	ME- MS61 U ppm	ME- MS61 V ppm	ME- MS61 W ppm	ME- MS61 Y ppm	ME- MS61 Zn ppm	ME- MS61 Zr ppm	PGM- MS24 Au ppm	PGM- MS24 Pt ppm	PGM- MS24 Pd ppm		
M785112		0.16	0.2	210	0.2	13.9	67	48.4	0.001	0.0010	0.001	0.0010	0.001
M785113		0.12	0.6	277	0.9	32.0	109	113.5	0.006	0.0122	0.014	0.0122	0.014
M785114		0.05	0.3	343	0.2	29.0	114	86.3	0.005	0.0038	0.020	0.0038	0.020
M785115		0.12	1.0	328	0.3	29.4	124	174.5	0.001	<0.0005	<0.001	<0.0005	<0.001
M785116		0.04	0.3	228	0.4	15.2	86	52.0	0.003	0.0213	0.011	0.0213	0.011
M785117		0.05	0.4	336	0.2	29.0	111	92.1	0.006	0.0043	0.020	0.0043	0.020
M785118		0.05	0.3	314	0.2	26.1	110	80.0	0.003	0.0052	0.013	0.0052	0.013
M785059		0.03	0.3	229	0.1	14.7	135	93.3	0.002	0.0011	0.001	0.0011	0.001
M785060		0.32	0.5	443	2.6	28.9	123	54.6	0.012	0.0016	0.002	0.0016	0.002
N566019		0.42	1.9	133	0.4	14.7	101	117.0	0.005	0.0021	0.002	0.0021	0.002
N566020		0.14	0.5	291	0.2	26.0	101	90.0	0.008	0.0111	0.020	0.0111	0.020
N566021		0.08	0.2	183	0.1	11.5	86	66.3	0.002	0.0251	0.012	0.0251	0.012
N566022		0.83	0.4	196	0.3	14.7	125	109.0	0.004	0.0110	0.006	0.0110	0.006
N566023		0.02	0.1	267	1.6	16.8	120	16.0	0.003	<0.0005	<0.001	<0.0005	<0.001
N566024		0.09	0.4	223	0.3	16.6	73	31.2	0.009	0.0013	0.001	0.0013	0.001
N566025		0.24	0.4	321	0.1	19.3	109	151.0	0.002	<0.0005	<0.001	<0.0005	<0.001
N566026		0.05	0.6	155	0.6	14.7	77	46.6	0.004	0.0009	0.001	0.0009	0.001
N566027		0.20	1.2	17	0.6	103.5	230	276	0.004	<0.0005	<0.001	<0.0005	<0.001
N566028		0.46	0.9	389	0.8	23.9	91	55.6	<0.001	0.0015	0.002	0.0015	0.002
N566029		0.89	0.9	251	0.3	15.9	94	36.4	<0.001	0.0030	0.003	0.0030	0.003
N566030		0.04	0.2	69	0.1	15.2	234	56.3	0.014	0.0007	0.001	0.0007	0.001



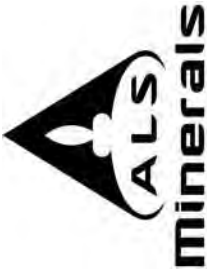
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Method	CERTIFICATE COMMENTS
ME- MS61	REE's may not be totally soluble in this method.



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CERTIFICATE TB12248269

Project:
 P.O. No.: GLORY RESOURCES- ONION LAKE
 This report is for 7 Rock samples submitted to our lab in Thunder Bay, ON, Canada
 on 22- OCT- 2012.
 The following have access to data associated with this certificate:
 STEVE SIEMIENIUK | TASSIA STATION | MATTHEW ZAGO

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
CRU- 31	Fine crushing - 70% <2mm
SPL- 21	Split sample - riffle splitter
PUL- 32a	Pulverize 1000g to 90% < 75um
LOG- 21	Sample logging - ClientBarCode

ANALYTICAL PROCEDURES	
ALS CODE	DESCRIPTION
ME- MS61	48 element four acid ICP- MS
ME- ICP06	Whole Rock Package - ICP- AES
C- IR07	Total Carbon (Leco)
S- IR08	Total Sulphur (Leco)
ME- MS81	38 element fusion ICP- MS
ME- MS42	Up to 34 elements by ICP- MS
OA- GRA05	Loss on Ignition at 1000C
TOT- ICP06	Total Calculation for ICP06
ME- 4ACD81	Base Metals by 4- acid dig.
PGM- ICP24	Pt, Pd, Au 50g FA ICP

To: CLARK EXPLORATION CONSULTING INC.
 ATTN: TASSIA STATION
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature: 
 Colin Ramshaw, Vancouver Laboratory Manager



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CERTIFICATE OF ANALYSIS TB12248269

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg	PGM- ICP24 Au ppm	PGM- ICP24 Pt ppm	PGM- ICP24 Pd ppm	ME- MS61 Ag ppm	ME- MS61 Al %	ME- MS61 As ppm	ME- MS61 Ba ppm	ME- MS61 Be ppm	ME- MS61 Bi ppm	ME- MS61 Ca %	ME- MS61 Cd ppm	ME- MS61 Ce ppm	ME- MS61 Co ppm	ME- MS61 Cr ppm
N566035		1.07	<0.001	<0.005	0.001	<0.01	6.19	<0.2	1740	2.78	0.62	5.04	0.17	215	37.5	444
N566036		0.95	0.002	<0.005	0.002	0.31	6.67	2.5	1250	3.44	2.02	2.30	0.09	10.00	18.3	126
N566037		1.66	0.001	<0.005	0.002	0.32	6.84	0.5	620	1.20	0.86	1.92	0.11	49.2	20.9	133
N566038		1.41	0.002	<0.005	<0.001	0.12	0.97	2.0	80	0.15	1.54	1.73	0.04	14.80	7.4	24
N566039		1.88	0.002	<0.005	0.002	0.30	7.93	2.0	1460	1.66	0.75	1.17	0.03	48.5	30.5	221
N566040		1.56	0.001	<0.005	0.001	0.57	6.87	1.9	1240	0.78	0.65	0.83	0.03	36.6	21.6	132
N566041		0.90	0.001	<0.005	0.001	0.08	6.19	1.8	1410	1.60	0.20	5.30	0.08	149.5	39.5	450



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Sample Description	Method Analyte Units LOR	ME-MS61 Cs ppm	ME-MS61 Cu ppm	ME-MS61 Fe %	ME-MS61 Ga ppm	ME-MS61 Ge ppm	ME-MS61 Hf ppm	ME-MS61 In ppm	ME-MS61 K %	ME-MS61 La ppm	ME-MS61 Li ppm	ME-MS61 Mg %	ME-MS61 Mn ppm	ME-MS61 Mo ppm	ME-MS61 Na %	ME-MS61 Nb ppm
N566035		21.9	<0.2	5.50	18.35	0.45	7.9	0.054	3.94	90.8	79.5	7.17	1010	0.43	1.30	5.4
N566036		14.80	179.5	5.48	17.30	0.20	2.3	0.046	1.83	4.6	30.0	1.98	525	0.26	2.38	6.4
N566037		6.43	82.9	10.00	18.90	0.27	2.1	0.051	1.56	23.3	39.2	2.28	819	0.31	1.74	5.8
N566038		0.51	134.5	2.09	4.20	0.11	0.1	0.034	0.18	8.6	7.4	0.29	240	5.59	0.04	0.4
N566039		19.05	244	11.50	25.5	0.33	2.5	0.045	3.31	20.9	95.8	3.44	1000	1.60	1.06	7.1
N566040		2.98	144.5	9.82	22.0	0.27	1.9	0.036	2.39	17.6	50.2	2.82	724	0.58	0.68	5.0
N566041		13.95	17.2	4.93	17.30	0.34	5.3	0.042	2.31	63.7	98.5	6.68	841	0.24	1.92	7.7



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Sample Description	Method Analyte Units LOR	ME-MS61 Ni ppm	ME-MS61 P ppm	ME-MS61 Pb ppm	ME-MS61 Rb ppm	ME-MS61 Re ppm	ME-MS61 S %	ME-MS61 Sb ppm	ME-MS61 Sc ppm	ME-MS61 Se ppm	ME-MS61 Sn ppm	ME-MS61 Sr ppm	ME-MS61 Ta ppm	ME-MS61 Te ppm	ME-MS61 Th ppm	ME-MS61 Ti %
N566035		359	4510	14.3	169.5	<0.002	<0.01	0.06	21.0	2	1.8	1190	0.25	<0.05	14.2	0.479
N566036		54.1	730	16.5	77.6	<0.002	0.60	<0.05	14.6	1	1.1	1090	0.34	<0.05	5.3	0.280
N566037		77.5	910	15.7	56.9	<0.002	0.63	<0.05	15.7	2	1.1	439	0.38	0.19	5.1	0.311
N566038		23.5	320	3.5	6.5	<0.002	0.73	<0.05	1.4	1	0.3	90.9	<0.05	0.12	0.8	0.021
N566039		108.5	970	10.4	101.0	<0.002	1.59	<0.05	19.5	3	0.7	355	0.51	0.26	4.9	0.415
N566040		84.0	710	7.5	113.0	<0.002	1.75	<0.05	16.3	2	0.7	392	0.31	0.15	4.9	0.279
N566041		335	2200	17.1	97.6	<0.002	0.01	0.34	21.1	1	1.0	1280	0.55	<0.05	10.0	0.452



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Sample Description	Method Analyte Units LOR	ME-MS61 Ti ppm 0.02	ME-MS61 U ppm 0.1	ME-MS61 V ppm 1	ME-MS61 W ppm 0.1	ME-MS61 Y ppm 0.1	ME-MS61 Zn ppm 2	ME-MS61 Zr ppm 0.5	ME-ICP06 SiO2 % 0.01	ME-ICP06 Al2O3 % 0.01	ME-ICP06 Fe2O3 % 0.01	ME-ICP06 CaO % 0.01	ME-ICP06 MgO % 0.01	ME-ICP06 Na2O % 0.01	ME-ICP06 K2O % 0.01	ME-ICP06 Cr2O3 % 0.01
N566035		1.07	2.7	123	1.0	23.7	108	316	52.5	11.50	7.97	7.10	11.35	2.01	4.94	0.10
N566036		0.53	1.7	104	0.4	9.9	55	87.1	62.9	13.50	8.67	3.33	3.50	3.61	2.38	0.02
N566037		0.44	1.3	105	0.5	14.3	83	81.1	55.3	13.50	16.00	2.75	4.02	2.64	1.97	0.02
N566038		0.03	0.3	18	10.9	3.2	9	3.3	90.5	1.88	3.79	2.92	0.54	0.06	0.24	0.01
N566039		1.03	1.6	159	1.6	15.4	126	104.0	40.8	16.95	20.9	1.96	6.51	1.37	3.98	0.04
N566040		0.56	1.2	121	1.6	10.6	98	76.2	54.0	13.20	15.90	1.22	4.98	1.04	3.00	0.02
N566041		0.58	2.5	119	0.3	19.3	84	236	50.5	11.85	8.67	9.08	11.80	2.52	2.67	0.11



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Sample Description	Method Analyte Units LOR	ME-ICP06 TiO2 %	ME-ICP06 MnO %	ME-ICP06 P2O5 %	ME-ICP06 SrO %	ME-ICP06 BaO %	C-IR07 C %	S-IR08 S %	ME-MS81 Ba ppm	ME-MS81 Ce ppm	ME-MS81 Cr ppm	ME-MS81 Cs ppm	ME-MS81 Dy ppm	ME-MS81 Er ppm	ME-MS81 Eu ppm	ME-MS81 Ga ppm
N566035		0.92	0.16	1.06	0.15	0.21	0.03	0.01	1535	177.5	730	21.3	5.48	1.90	4.48	15.7
N566036		0.49	0.07	0.18	0.13	0.16	0.03	0.60	1305	10.5	160	17.55	1.19	1.00	0.58	18.4
N566037		0.54	0.12	0.20	0.06	0.08	0.20	0.66	706	53.5	170	7.15	2.33	1.59	1.20	20.8
N566038		0.04	0.04	0.08	0.01	0.01	0.36	0.76	94.4	16.3	30	0.57	0.39	0.33	0.34	4.9
N566039		0.79	0.16	0.24	0.04	0.21	0.02	1.73	1620	78.0	280	26.2	3.03	1.99	1.49	28.8
N566040		0.50	0.11	0.18	0.05	0.17	0.05	1.86	1415	39.4	160	3.40	1.55	1.15	0.80	23.1
N566041		0.87	0.14	0.52	0.13	0.20	0.12	0.02	1500	141.0	640	15.80	3.50	1.74	3.54	17.3



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CERTIFICATE OF ANALYSIS TB12248269

Sample Description	Method Analyte Units LOR	ME-MS81 Gd ppm	ME-MS81 Hf ppm	ME-MS81 Ho ppm	ME-MS81 La ppm	ME-MS81 Lu ppm	ME-MS81 Nb ppm	ME-MS81 Nd ppm	ME-MS81 Pr ppm	ME-MS81 Rb ppm	ME-MS81 Sm ppm	ME-MS81 Sn ppm	ME-MS81 Sr ppm	ME-MS81 Ta ppm	ME-MS81 Tb ppm	ME-MS81 Th ppm
N566035		13.05	8.3	0.82	75.0	0.21	5.4	92.7	22.5	159.0	17.10	<1	1070	0.2	1.39	13.20
N566036		1.17	3.0	0.29	5.0	0.16	6.8	5.1	1.28	94.6	1.19	<1	1110	0.3	0.21	5.06
N566037		3.14	2.9	0.51	27.7	0.23	6.6	22.5	6.21	79.9	4.31	<1	445	0.4	0.47	5.22
N566038		0.71	0.2	0.09	9.6	0.05	0.4	6.4	1.76	7.7	1.01	<1	100.0	<0.1	0.09	0.77
N566039		4.37	4.0	0.68	37.9	0.29	7.6	33.9	9.17	204	6.07	<1	381	0.5	0.63	7.10
N566040		2.15	2.6	0.36	18.7	0.18	5.4	16.5	4.54	124.0	2.93	<1	398	0.3	0.32	4.57
N566041		7.99	6.0	0.65	67.7	0.21	8.2	69.9	18.00	112.5	13.25	<1	1280	0.6	0.93	9.47



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Sample Description	Method Analyte Units LOR	ME-MS81 TI ppm 0.5	ME-MS81 Tm ppm 0.01	ME-MS81 U ppm 0.05	ME-MS81 V ppm 5	ME-MS81 W ppm 1	ME-MS81 Y ppm 0.5	ME-MS81 Yb ppm 0.03	ME-MS81 Zr ppm 2	ME-MS42 As ppm 0.1	ME-MS42 Bi ppm 0.01	ME-MS42 Hg ppm 0.005	ME-MS42 Sb ppm 0.05	ME-MS42 Se ppm 0.2	ME-MS42 Te ppm 0.01	OA- GRA05 LOI % 0.01
N566035		0.9	0.24	2.61	121	1	23.4	1.42	332	0.7	0.44	<0.005	<0.05	0.5	<0.01	1.62
N566036		0.5	0.14	1.63	146	1	9.7	0.96	116	2.4	2.07	<0.005	<0.05	0.6	0.03	1.82
N566037		<0.5	0.22	1.22	143	1	15.6	1.33	104	0.8	0.72	<0.005	<0.05	0.6	0.16	2.17
N566038		<0.5	0.05	0.24	28	14	3.3	0.31	3	1.8	0.65	0.010	<0.05	0.7	0.13	1.64
N566039		1.1	0.28	1.67	222	2	19.3	1.81	147	1.9	0.74	0.008	<0.05	1.8	0.25	4.11
N566040		0.6	0.16	1.11	165	2	10.1	1.03	90	1.7	0.64	<0.005	<0.05	1.3	0.14	4.83
N566041		0.6	0.22	2.39	133	<1	19.4	1.26	264	0.9	0.14	<0.005	<0.05	0.4	0.01	1.62



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Sample Description	Method Analyte Units LOR	TOT-ICP06	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81
			Ag	Cd	Co	Cu	Mo	Ni	Pb	Sc	Zn					
		%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
N566035		101.59	<0.5	<0.5	35	<1	<1	331	11	16	102					
N566036		100.76	<0.5	<0.5	15	193	<1	52	14	13	58					
N566037		99.37	<0.5	<0.5	21	93	<1	80	13	15	86					
N566038		101.76	<0.5	<0.5	6	139	5	20	3	1	10					
N566039		98.06	<0.5	<0.5	32	253	<1	111	9	16	129					
N566040		99.20	<0.5	<0.5	21	160	<1	84	8	15	102					
N566041		100.68	<0.5	<0.5	38	18	<1	341	13	18	87					



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CERTIFICATE OF ANALYSIS TB12248269

Method	CERTIFICATE COMMENTS
ME- MS61	REE's may not be totally soluble in this method.



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CERTIFICATE TB12252882

Project:
 P.O. No.: GLORY - 2012 SUBMISSION 3
 This report is for 18 Rock samples submitted to our lab in Thunder Bay, ON, Canada on 30- OCT- 2012.
 The following have access to data associated with this certificate:
 STEVE SIEMIENIUK | TASSIA STATION | MATTHEW ZAGO

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
CRU- 32	Fine Crushing 90% < 2mm
LOG- 21	Sample logging - ClientBarCode
PUL- 32a	Pulverize 1000g to 90% < 75um
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
ME- MS42	Up to 34 elements by ICP- MS	ICP- MS
OA- GRA05	Loss on Ignition at 1000C	WST- SEQ
TOT- ICP06	Total Calculation for ICP06	ICP- AES
ME- 4ACD81	Base Metals by 4- acid dig.	ICP- AES
ME- MS61	48 element four acid ICP- MS	ICP- MS
PGM- MS24	Pt, Pd and Au 50g FA ICP- MS	ICP- AES
ME- ICP06	Whole Rock Package - ICP- AES	LECO
C- IR07	Total Carbon (Leco)	LECO
S- IR08	Total Sulphur (Leco)	LECO
ME- MS81	38 element fusion ICP- MS	ICP- MS

To: CLARK EXPLORATION CONSULTING INC.
 ATTN: TASSIA STATION
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



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Sample Description	Method Analyte Units LOR	ME-ICP06													C-IR07										
		WEI-21 Recvd Wt. kg	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	Cr2O3 %	TiO2 %	MnO %	P2O5 %	SrO %		BaO %									
M785063		1.60	50.6	12.90	16.90	9.59	5.43	2.51	0.47	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		
M785119		2.32	50.2	14.05	15.30	9.96	6.74	2.46	0.52	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
M785120		1.49	42.0	3.20	18.35	6.29	25.1	0.33	0.36	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
M785121		1.16	63.9	13.65	7.17	4.40	2.28	4.44	1.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
M785122		1.55	64.7	14.10	6.00	4.78	3.22	4.09	0.99	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
M785123		1.74	64.5	14.90	5.75	3.40	2.76	3.87	2.07	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
M785124		2.17	52.1	8.24	9.87	10.65	13.60	1.70	0.88	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
M785125		2.12	49.2	5.19	13.05	12.95	15.20	0.74	0.34	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
M785126		1.82	49.1	4.51	12.15	12.55	16.55	0.64	0.44	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
M785127		1.33	50.7	3.89	10.00	14.85	15.95	0.56	0.24	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
M785128		1.92	51.2	2.31	10.40	13.30	18.30	0.35	0.07	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
M785129		1.86	49.3	6.57	13.50	12.30	14.60	0.93	0.55	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
M785130		1.71	50.5	4.31	14.30	9.75	16.85	0.63	0.30	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
M785131		1.25	52.8	4.43	11.45	12.60	15.60	0.62	0.29	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
M785132		1.70	48.3	6.63	13.35	11.10	15.05	0.92	0.55	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
M785133		1.22	48.6	5.70	11.70	11.25	16.40	0.69	0.86	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
M785134		1.88	49.0	4.83	12.05	11.70	16.95	0.67	0.58	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
M785135		2.13	48.9	4.78	11.95	11.85	16.70	0.62	0.62	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09



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CERTIFICATE OF ANALYSIS TB12252882

Sample Description	Method Analyte Units LOR	S-IR08	ME-MS81 Ba ppm	ME-MS81 Ce ppm	ME-MS81 Cr ppm	ME-MS81 Cs ppm	ME-MS81 Dy ppm	ME-MS81 Er ppm	ME-MS81 Eu ppm	ME-MS81 Ga ppm	ME-MS81 Cd ppm	ME-MS81 Hf ppm	ME-MS81 Ho ppm	ME-MS81 La ppm	ME-MS81 Lu ppm	ME-MS81 Nb ppm
M785063		<0.01	162.5	24.0	80	0.40	6.48	3.97	1.58	24.2	5.97	3.3	1.35	10.6	0.54	6.6
M785119		<0.01	151.5	19.7	120	1.23	5.51	3.23	1.28	21.7	4.88	2.8	1.13	8.7	0.45	5.2
M785120		0.04	191.0	20.7	2480	0.44	1.92	0.87	0.98	6.7	2.66	1.6	0.35	9.0	0.10	5.5
M785121		0.07	380	42.0	200	2.14	2.20	1.25	1.07	17.7	2.86	3.5	0.43	17.1	0.19	6.7
M785122		0.31	490	39.9	240	6.06	2.27	1.31	1.00	19.1	3.06	3.8	0.46	17.8	0.20	6.9
M785123		0.25	665	56.8	220	7.01	2.04	1.17	1.14	20.4	2.96	3.8	0.40	27.3	0.17	5.4
M785124		0.27	397	66.7	530	0.51	3.62	1.70	2.17	12.0	6.27	2.5	0.64	28.8	0.20	2.2
M785125		0.46	69.7	23.0	490	0.94	4.16	2.07	1.65	11.3	5.82	1.9	0.78	6.1	0.24	1.3
M785126		0.88	108.0	19.9	670	1.65	2.68	1.36	1.14	8.1	3.83	1.1	0.51	6.1	0.15	1.6
M785127		0.28	57.7	15.2	1570	0.96	2.45	1.24	0.98	6.9	3.20	1.1	0.47	4.9	0.15	1.1
M785128		0.37	61.0	8.1	740	0.63	1.84	0.94	0.76	4.1	2.54	0.5	0.37	2.7	0.11	0.2
M785129		0.31	64.2	36.5	380	0.46	4.54	2.31	1.84	13.2	6.26	2.8	0.85	12.2	0.27	2.6
M785130		0.54	66.1	23.5	730	0.92	3.09	1.63	1.14	10.6	4.29	1.8	0.60	7.8	0.20	1.0
M785131		0.05	50.0	19.3	560	1.15	3.43	1.79	1.35	10.1	4.91	1.7	0.68	6.9	0.22	0.8
M785132		0.64	119.0	19.1	370	0.59	3.78	2.02	1.49	11.3	5.12	1.5	0.73	6.1	0.23	1.8
M785133		0.10	262	20.1	640	0.99	3.31	1.63	1.39	10.0	4.85	1.5	0.63	6.4	0.19	1.3
M785134		0.16	172.5	19.0	630	1.78	3.20	1.55	1.37	9.8	4.54	1.3	0.60	5.2	0.18	1.3
M785135		0.29	190.0	19.3	660	1.82	3.17	1.61	1.38	9.8	4.60	1.3	0.62	5.3	0.19	1.3



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CERTIFICATE OF ANALYSIS TB12252882

Sample Description	Method Analyte Units LOR	ME-MS81 ppm	ME-MS81 ppm	ME-MS81 ppm	ME-MS81 ppm	ME-MS81 ppm	ME-MS81 ppm	ME-MS81 ppm	ME-MS81 ppm	ME-MS81 ppm	ME-MS81 ppm	ME-MS81 ppm	ME-MS81 ppm	ME-MS81 ppm	ME-MS81 ppm	ME-MS81 ppm	ME-MS81 ppm	ME-MS81 ppm	
		Nd	Pr	Rb	Sm	Sn	Sr	Ta	Tb	Th	Ti	Tm	U	V	W	Y			
M785063		14.8	3.28	14.4	4.14	<1	148.0	0.4	1.02	1.68	<0.5	0.55	0.48	525	<1	35.2			
M785119		12.0	2.73	19.3	3.41	<1	167.5	0.3	0.83	1.37	<0.5	0.45	0.39	407	<1	28.2			
M785120		12.2	2.80	9.2	2.66	<1	238	0.4	0.37	0.59	<0.5	0.11	0.19	81	<1	8.2			
M785121		18.7	4.84	28.1	3.46	<1	907	0.3	0.40	5.37	<0.5	0.19	1.24	95	1	11.1			
M785122		17.7	4.66	31.7	3.31	<1	553	0.4	0.41	6.49	<0.5	0.20	1.92	115	1	12.4			
M785123		23.7	6.45	68.0	4.08	<1	481	0.3	0.38	5.24	<0.5	0.16	1.21	105	1	11.1			
M785124		37.8	8.81	23.9	7.82	<1	438	0.1	0.77	4.79	<0.5	0.22	0.98	178	1	16.2			
M785125		21.8	4.20	8.4	5.90	<1	106.5	0.1	0.78	0.38	<0.5	0.28	0.19	250	<1	18.2			
M785126		16.1	3.22	13.7	4.16	<1	115.5	0.1	0.50	0.45	<0.5	0.18	0.19	215	<1	12.6			
M785127		12.0	2.43	5.4	3.15	<1	82.2	0.1	0.45	0.32	<0.5	0.18	0.18	155	3	11.2			
M785128		7.8	1.44	4.5	2.43	<1	68.6	<0.1	0.35	0.20	<0.5	0.12	0.05	136	<1	8.3			
M785129		25.8	5.51	7.3	6.51	<1	89.5	0.2	0.86	1.01	<0.5	0.31	0.33	376	1	20.5			
M785130		17.8	3.70	8.4	4.48	<1	61.7	0.1	0.57	0.85	<0.5	0.23	0.27	216	<1	14.6			
M785131		17.1	3.30	11.2	4.77	<1	60.1	0.1	0.67	0.49	<0.5	0.24	0.17	243	<1	16.0			
M785132		17.5	3.34	7.4	4.90	<1	143.5	0.1	0.70	0.45	<0.5	0.27	0.30	333	<1	17.4			
M785133		17.8	3.41	25.7	4.89	<1	91.9	0.1	0.64	0.44	<0.5	0.22	0.18	264	<1	15.4			
M785134		17.9	3.49	16.4	4.82	<1	113.0	0.1	0.62	0.37	<0.5	0.21	0.17	230	<1	14.7			
M785135		18.2	3.50	18.9	4.87	<1	108.5	0.1	0.61	0.48	<0.5	0.21	0.16	218	<1	14.5			



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Sample Description	Method Analyte Units LOR	ME-MS81 Yb ppm	ME-MS81 Zr ppm	ME-MS42 As ppm	ME-MS42 Bi ppm	ME-MS42 Hg ppm	ME-MS42 Sb ppm	ME-MS42 Se ppm	ME-MS42 Te ppm	OA-MS42 LOI %	TOT-ICP06 Total %	ME-4ACD81 Ag ppm	ME-4ACD81 Cd ppm	ME-4ACD81 Co ppm	ME-4ACD81 Cu ppm	ME-4ACD81 Mo ppm
M785063		3.64	114	1.0	0.03	0.014	<0.05	0.8	0.01	0.18	100.83	<0.5	<0.5	49	243	<1
M785119		2.94	90	0.9	0.04	0.014	<0.05	0.5	0.01	0.72	101.82	<0.5	<0.5	55	174	<1
M785120		0.69	50	0.1	0.08	0.023	<0.05	0.2	0.02	4.60	101.74	<0.5	<0.5	132	148	1
M785121		1.21	124	0.6	0.39	<0.005	<0.05	0.4	0.01	0.63	98.47	<0.5	<0.5	17	28	<1
M785122		1.21	136	0.7	0.27	0.007	0.05	0.3	0.03	1.18	100.07	<0.5	<0.5	19	31	<1
M785123		1.04	141	0.7	0.16	0.005	<0.05	0.6	0.03	1.37	99.59	<0.5	<0.5	19	40	<1
M785124		1.29	74	1.0	0.11	<0.005	0.09	0.4	0.01	2.18	100.40	<0.5	<0.5	57	90	<1
M785125		1.61	41	0.4	0.29	0.007	<0.05	0.5	0.02	1.70	99.41	0.5	0.5	79	157	<1
M785126		1.04	24	0.2	0.59	0.008	<0.05	1.1	0.06	2.37	98.28	<0.5	0.6	107	290	<1
M785127		1.03	20	0.3	0.54	0.009	<0.05	0.5	0.05	1.97	99.06	<0.5	0.7	81	259	<1
M785128		0.73	7	0.3	0.22	0.006	<0.05	0.2	0.02	2.82	99.30	<0.5	<0.5	87	116	<1
M785129		1.84	73	0.1	0.33	0.007	<0.05	0.5	0.03	1.88	101.03	<0.5	0.7	70	145	<1
M785130		1.33	45	0.5	0.12	0.006	<0.05	0.4	0.03	2.64	100.17	<0.5	<0.5	86	149	<1
M785131		1.42	34	0.3	0.12	0.006	<0.05	<0.2	0.01	2.63	101.27	<0.5	<0.5	59	32	<1
M785132		1.59	31	0.3	0.47	0.010	0.05	1.0	0.04	2.34	99.45	0.5	0.5	82	265	<1
M785133		1.23	33	0.2	0.11	<0.005	<0.05	0.2	0.01	2.17	98.49	<0.5	<0.5	72	64	<1
M785134		1.30	25	0.2	0.25	0.006	<0.05	0.2	0.01	1.82	98.72	<0.5	0.5	75	41	<1
M785135		1.28	23	0.6	0.30	0.010	<0.05	0.3	0.01	2.02	98.54	<0.5	<0.5	78	61	<1



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CERTIFICATE OF ANALYSIS TB12252882

Sample Description	Method Analyte Units LOR	ME-4ACD81 Ni ppm 1	ME-4ACD81 Pb ppm 2	ME-4ACD81 Sc ppm 1	ME-4ACD81 Zn ppm 2	ME-MS61 Ag ppm 0.01	ME-MS61 Al % 0.01	ME-MS61 As ppm 0.2	ME-MS61 Ba ppm 10	ME-MS61 Be ppm 0.05	ME-MS61 Bi ppm 0.01	ME-MS61 Ca % 0.01	ME-MS61 Cd ppm 0.02	ME-MS61 Ce ppm 0.01	ME-MS61 Co ppm 0.1	ME-MS61 Cr ppm 1
M785063		51	<2	44	134	0.12	6.94	0.3	170	0.49	0.03	6.74	0.16	25.7	47.3	57
M785119		113	<2	39	105	0.08	6.93	0.6	150	0.37	0.05	6.66	0.12	22.8	52.0	84
M785120		770	15	22	174	0.16	1.72	<0.2	190	0.32	0.09	4.32	0.14	24.0	126.5	1660
M785121		61	16	12	60	0.08	6.88	<0.2	400	1.27	0.63	3.10	0.10	41.5	19.4	154
M785122		74	11	13	81	0.13	7.24	<0.2	510	1.60	0.46	3.38	0.17	39.3	22.2	182
M785123		77	7	11	73	0.08	7.17	0.7	660	1.22	0.21	2.33	0.08	47.7	22.7	159
M785124		316	5	37	80	0.06	4.54	<0.2	430	0.61	0.18	7.60	0.10	75.4	56.3	369
M785125		170	5	51	104	0.14	2.96	<0.2	80	0.38	0.41	9.15	0.19	26.8	79.6	344
M785126		161	3	49	68	0.16	2.47	<0.2	110	0.30	0.76	8.60	0.14	22.5	103.0	458
M785127		278	6	56	67	0.22	2.35	<5	70	0.54	0.88	10.30	0.21	20.5	89.0	1170
M785128		126	4	52	53	0.10	1.29	<0.2	70	0.12	0.24	9.32	0.11	8.25	84.9	512
M785129		100	6	60	96	0.24	3.51	<0.2	70	0.45	0.58	8.22	0.18	36.1	64.9	261
M785130		279	12	45	117	0.31	2.31	<0.2	70	0.25	0.20	6.64	0.16	23.8	82.1	479
M785131		79	16	57	124	0.08	2.31	<0.2	50	0.39	0.19	8.38	0.20	19.35	53.9	382
M785132		84	16	57	112	0.49	3.68	<0.2	130	0.24	0.75	7.76	0.21	20.9	74.5	241
M785133		101	<2	48	75	0.07	3.13	<0.2	260	0.20	0.28	7.63	0.09	18.90	64.5	381
M785134		120	8	50	128	0.11	2.68	<0.2	180	0.20	0.48	8.08	0.23	20.9	67.5	412
M785135		128	3	50	104	0.12	2.63	<0.2	190	0.23	0.48	8.09	0.16	19.35	68.7	440



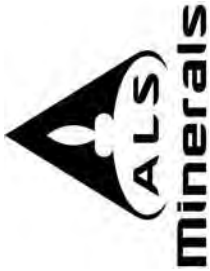
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Sample Description	Method Analyte Units LOR	ME-MS61 Cs ppm	ME-MS61 Cu ppm	ME-MS61 Fe %	ME-MS61 Ga ppm	ME-MS61 Ge ppm	ME-MS61 Hf ppm	ME-MS61 In ppm	ME-MS61 K %	ME-MS61 La ppm	ME-MS61 Li ppm	ME-MS61 Mg %	ME-MS61 Mn ppm	ME-MS61 Mo ppm	ME-MS61 Na %	ME-MS61 Nb ppm
M785063		0.40	245	10.95	23.0	0.22	3.2	0.108	0.41	11.9	8.8	3.27	1750	0.69	1.79	7.3
M785119		1.30	162.5	9.47	22.1	0.24	2.8	0.086	0.43	10.6	18.4	3.82	1500	0.59	1.66	6.1
M785120		0.49	144.0	11.45	6.61	0.27	1.5	0.044	0.30	10.7	7.8	14.40	1880	0.45	0.23	6.5
M785121		2.37	31.3	4.65	19.15	0.16	2.5	0.038	0.82	16.8	12.2	1.35	654	0.23	3.03	7.8
M785122		6.41	34.6	3.89	19.85	0.16	2.6	0.035	0.81	18.5	15.7	1.94	826	0.69	2.75	7.4
M785123		6.88	41.6	3.62	20.7	0.16	2.3	0.034	1.70	22.0	31.0	1.60	554	1.08	2.57	6.0
M785124		0.60	89.7	6.57	13.10	0.24	2.0	0.054	0.73	33.5	24.6	8.65	1230	0.33	1.17	2.6
M785125		1.10	161.0	8.70	12.60	0.23	1.7	0.089	0.29	7.6	10.8	9.61	1540	0.29	0.51	1.8
M785126		1.92	284	7.78	8.81	0.21	1.1	0.057	0.36	7.2	13.0	10.05	1190	0.28	0.43	2.1
M785127		1.25	279	7.04	8.80	0.20	1.0	0.062	0.22	7.0	18.5	10.55	1400	0.32	0.42	1.7
M785128		0.65	108.5	6.81	4.40	0.16	0.5	0.035	0.06	2.7	8.2	11.30	1070	0.15	0.24	0.4
M785129		0.49	129.5	8.39	13.60	0.26	2.3	0.086	0.44	11.9	9.4	8.74	1490	0.60	0.61	3.0
M785130		0.98	135.0	8.90	10.75	0.25	1.7	0.070	0.24	7.9	7.3	10.10	1690	0.41	0.42	1.3
M785131		1.14	27.5	7.04	10.25	0.20	1.4	0.067	0.22	6.7	10.0	9.07	1440	0.13	0.40	1.0
M785132		0.63	263	8.59	11.70	0.24	1.4	0.080	0.47	6.5	4.8	9.24	1360	0.37	0.62	1.9
M785133		0.95	53.7	7.48	9.51	0.21	1.3	0.053	0.69	5.9	8.6	9.90	1450	0.27	0.46	1.5
M785134		1.99	35.2	7.79	9.83	0.22	1.2	0.063	0.48	5.6	8.0	10.30	1480	0.33	0.45	1.7
M785135		1.86	49.2	7.66	9.60	0.22	1.1	0.059	0.51	5.1	9.1	10.10	1400	0.17	0.42	1.6



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Sample Description	Method Analyte Units LOR	ME-MS61 Ni ppm	ME-MS61 P ppm	ME-MS61 Pb ppm	ME-MS61 Rb ppm	ME-MS61 Re ppm	ME-MS61 S %	ME-MS61 Sb ppm	ME-MS61 Sc ppm	ME-MS61 Se ppm	ME-MS61 Sn ppm	ME-MS61 Sr ppm	ME-MS61 Ta ppm	ME-MS61 Te ppm	ME-MS61 Th ppm	ME-MS61 Ti %
M785063		51.7	780	3.0	17.4	<0.002	0.01	0.06	43.8	2	1.2	146.0	0.43	<0.05	1.7	1.045
M785119		108.5	640	2.3	19.5	<0.002	<0.01	0.10	45.9	2	0.8	167.5	0.36	<0.05	1.6	0.825
M785120		718	340	9.1	11.9	<0.002	0.04	0.05	24.9	1	0.5	239	0.39	<0.05	0.6	0.468
M785121		68.7	710	17.2	27.1	<0.002	0.07	0.08	14.8	1	0.9	924	0.40	<0.05	5.3	0.298
M785122		80.3	670	13.2	29.6	<0.002	0.31	0.14	16.1	1	0.9	538	0.40	<0.05	6.7	0.323
M785123		81.9	660	10.4	54.4	<0.002	0.26	0.10	13.8	1	0.7	444	0.39	<0.05	4.8	0.311
M785124		319	740	4.4	30.7	<0.002	0.28	0.36	41.9	1	0.7	492	0.16	<0.05	5.3	0.375
M785125		174.5	90	2.0	11.7	<0.002	0.46	0.06	59.0	2	0.9	118.5	0.12	<0.05	0.4	0.414
M785126		155.0	220	1.4	18.4	0.002	0.76	0.06	55.2	2	0.7	127.0	0.10	0.06	0.4	0.350
M785127		300	180	3.4	8.3	<0.002	0.29	0.08	71.1	2	1.0	101.0	0.11	0.06	0.4	0.261
M785128		120.5	60	1.7	5.0	<0.002	0.35	0.08	49.5	1	0.3	79.3	<0.05	<0.05	0.2	0.149
M785129		93.5	90	7.8	8.3	<0.002	0.31	<0.05	54.4	2	1.2	103.5	0.15	<0.05	1.0	0.579
M785130		277	90	10.9	9.3	0.002	0.54	<0.05	41.0	2	0.6	72.5	0.07	<0.05	0.9	0.274
M785131		73.2	70	18.0	12.3	<0.002	0.05	0.06	50.5	2	0.9	68.4	0.06	<0.05	0.5	0.275
M785132		75.5	90	18.5	8.6	0.002	0.64	0.10	50.2	3	1.0	161.0	0.10	<0.05	0.4	0.522
M785133		91.7	30	1.6	25.2	<0.002	0.10	<0.05	42.2	2	0.6	97.0	0.06	<0.05	0.5	0.434
M785134		108.0	150	9.8	18.2	<0.002	0.17	0.08	43.7	2	0.7	129.5	0.08	<0.05	0.4	0.424
M785135		116.0	150	3.8	20.4	<0.002	0.29	0.10	43.4	2	0.8	120.5	0.08	<0.05	0.4	0.414



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Sample Description	Method Analyte Units LOR	ME-MS61		ME-MS61		ME-MS61		ME-MS61		ME-MS61		PGM-MS24		PGM-MS24		PGM-MS24	
		Tl ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm	Au ppm	Pt ppm	Pd ppm	PGM-MS24 ppm	PGM-MS24 ppm	PGM-MS24 ppm	PGM-MS24 ppm	PGM-MS24 ppm	PGM-MS24 ppm
M785063		0.07	0.5	415	0.2	35.4	136	123.0	0.006	0.0031	0.027	0.0031	0.0005	0.001	0.001	0.001	0.001
M785119		0.28	0.4	334	0.2	30.9	103	106.0	0.004	0.0042	0.017	0.0042	0.0005	0.001	0.001	0.001	0.001
M785120		0.12	0.2	142	0.2	9.3	175	58.2	0.026	0.0293	0.015	0.0293	0.0005	0.001	0.001	0.001	0.001
M785121		0.20	1.1	86	0.6	12.7	64	97.8	0.001	0.0014	0.002	0.0014	0.0005	0.001	0.001	0.001	0.001
M785122		0.21	1.8	98	0.7	13.6	83	107.5	0.001	0.0016	0.002	0.0016	0.0005	0.001	0.001	0.001	0.001
M785123		0.41	0.9	88	0.7	11.4	75	93.4	0.001	0.0012	0.001	0.0012	0.0005	0.001	0.001	0.001	0.001
M785124		0.17	1.0	165	0.6	18.8	85	70.1	0.001	0.0007	0.001	0.0007	0.0005	0.001	0.001	0.001	0.001
M785125		0.10	0.2	232	0.2	22.2	109	47.1	0.001	0.0014	0.001	0.0014	0.0005	0.001	0.001	0.001	0.001
M785126		0.17	0.2	199	0.4	15.1	70	33.8	0.011	0.0033	0.004	0.0033	0.0005	0.001	0.001	0.001	0.001
M785127		0.15	0.2	206	2.8	15.5	74	30.9	0.001	0.0036	0.003	0.0036	0.0005	0.001	0.001	0.001	0.001
M785128		0.09	0.1	151	0.4	8.5	56	12.3	0.002	0.0012	0.001	0.0012	0.0005	0.001	0.001	0.001	0.001
M785129		0.06	0.3	323	0.5	22.3	96	72.3	0.001	<0.0005	<0.001	<0.0005	0.0005	0.001	0.001	0.001	0.001
M785130		0.12	0.3	213	0.2	15.9	117	52.9	0.002	0.0034	0.004	0.0034	0.0005	0.001	0.001	0.001	0.001
M785131		0.07	0.2	228	0.2	16.7	123	36.3	0.001	0.0008	0.001	0.0008	0.0005	0.001	0.001	0.001	0.001
M785132		0.11	0.3	293	0.4	18.9	114	34.8	0.001	0.0010	0.001	0.0010	0.0005	0.001	0.001	0.001	0.001
M785133		0.15	0.2	225	0.4	15.0	76	34.6	0.001	0.0007	0.001	0.0007	0.0005	0.001	0.001	0.001	0.001
M785134		0.13	0.2	211	0.3	15.9	127	28.8	<0.001	<0.0005	<0.001	<0.0005	0.0005	0.001	0.001	0.001	0.001
M785135		0.16	0.2	205	1.3	15.5	102	28.6	0.001	0.0006	0.001	0.0006	0.0005	0.001	0.001	0.001	0.001



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Method	CERTIFICATE COMMENTS
ME- MS61 ME- MS61	REE's may not be totally soluble in this method. Interference: Samples with Ca > 10% on ICP- MS As. ICP- AES As results reported (5 ppm DL)