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Report on the 2015 Geologic Mapping Program Sky Lake Property, Pickle Lake, Ontario

Patricia Mining Division, Ontario

51° 14' N, 90° 39' W

NTS 52O07SE, 52O02NE, 52O02NW

FOR

TRI ORIGIN EXPLORATION LTD.

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September 16, 2015

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1.0 INTRODUCTION AND PROPERTY DESCRIPTION

The Sky Lake property is located approximately 35 km southwest of the Town of Pickle Lake, Ontario, and north of Lake St. Joseph (Figure 1). The property consists of 34 claims covering approximately 80 km² (Figure 2), of which 24 claims are 100% held by Tri Origin Exploration, and the remaining claims are held by Kitrinor Metals Inc and Murchison Minerals Ltd under option to Tri Origin Exploration (see Appendix A). The east-central portion of the property is covered by patented claims not held by Tri Origin Exploration. These patents were initially staked in the 1950s following the discovery of gold at surface, and the property was subsequently known as the Koval property.

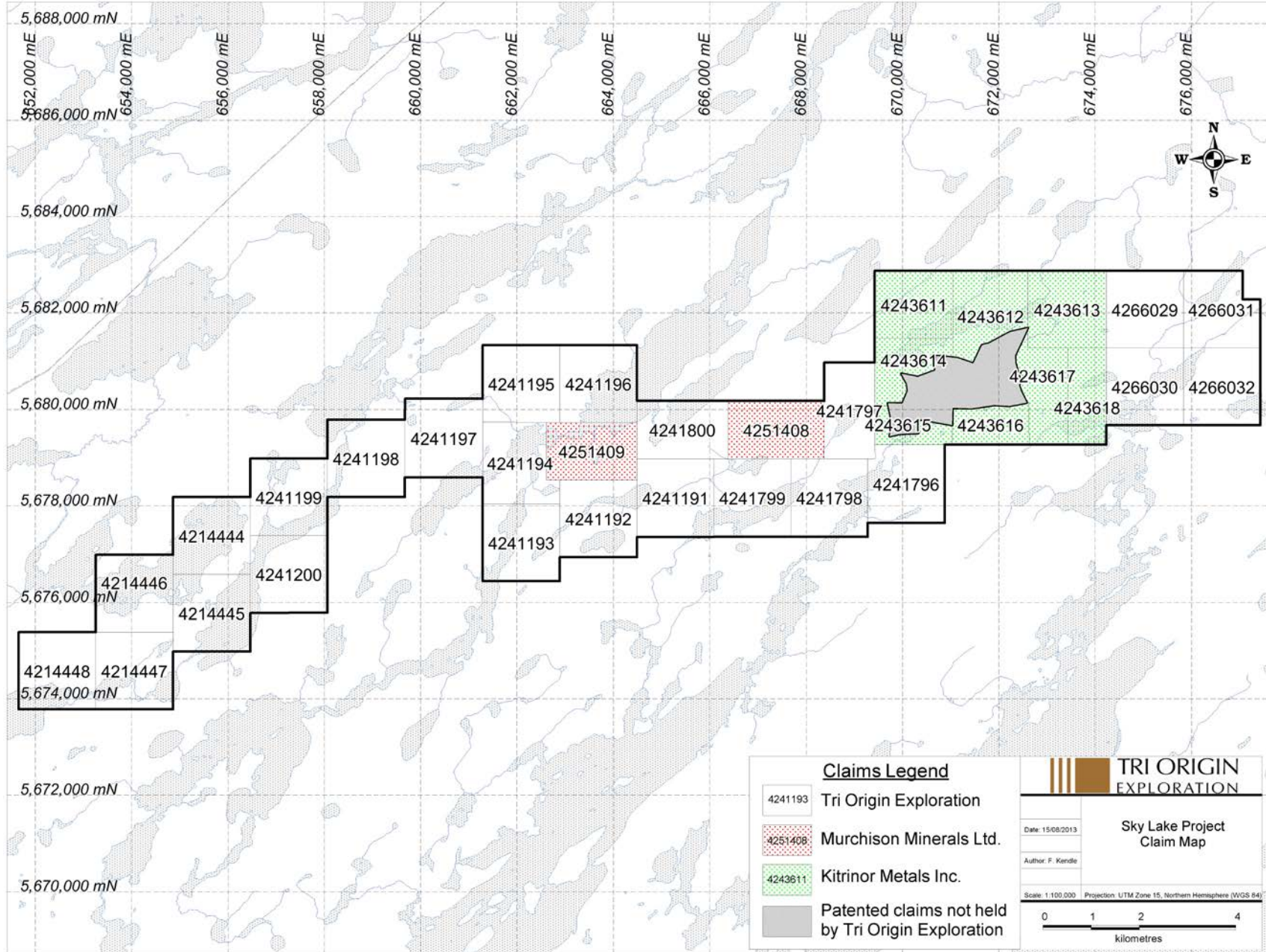
The geologic mapping programme by Tri Origin Exploration at the Sky Lake property commenced on May 31, 2015, and ended June 6, 2015. Mapping was conducted on claims held by Kitrinor Metals Inc in order to fulfill an option agreement, and focussed on areas along strike of geologic units known to host mineralization within the Koval property. Some of the mapping was done in an area that had not been previously mapped, even though past airborne magnetic surveys had identified a small positive magnetic anomaly in the area. Access to the property was by means of float plane chartered from Pickle Lake Outposts. Fly-in times varied from 20 to 25 minutes from the Pickle Lake Outposts float plane base in the Town of Pickle Lake. The property is also cut by various irregular tractor trails and skewed north-south cut lines. The cut lines were overgrown, and trended at 140 degrees. Pickets were generally absent.

In addition to the geologic mapping program, 2 days were spent prior to mapping at the core storage facility reviewing Tri Origin's 2012 diamond drill core, and 2 days were spent in the office reviewing rock specimens collected from previous years' field mapping programs. The purpose of core and specimen review was to familiarize the geologists with the lithologies found on the property.

FIGURE 1: Property Location



FIGURE 2: Mineral Tenure Map



2.0 REGIONAL GEOLOGY

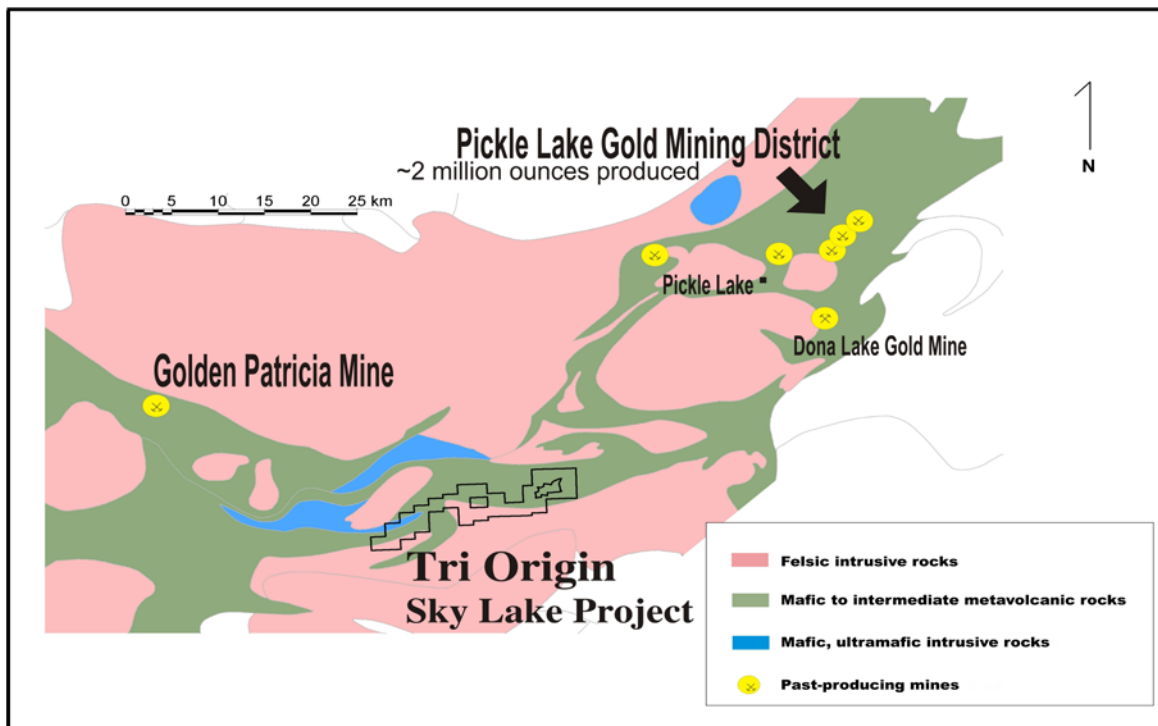
2.1 PHYSIOGRAPHY AND VEGETATION

Drainage of the property area is southward via Matapesatakun Creek from Bancroft Lake to Lake St. Joseph, 374 m above sea level. Maximum relief is on the order of 35 m, with the highest elevations on southwest-trending drumlins distributed across the property. Most of the area is covered either by water (lakes, ponds, and streams) and overburden, typically low-lying swamps, muskeg, and boulder tills. Mature birch forest is sporadic and mostly associated with the well-drained soil of the drumlins. Overburden is generally less than 10 m in thickness. Outcrop is generally less than 1% of the area, and more common in the northeast portion of the property, between Bancroft Lake and Matapesatakun Bay.

2.2 REGIONAL GEOLOGY AND ECONOMIC MINERALIZATION

The following is summarized from Jolliffe (1996). The Sky Lake property is situated within the Archean Meen-Dempster greenstone belt of the Uchi Subprovince, a part of the Superior Province (Figure 3). The area is characterized by several arcuate, highly deformed and coalescing greenstone belts, consisting of predominantly mafic to intermediate volcanic flows, which have been intruded by numerous granitic to ultramafic intrusive bodies. The metamorphic grade ranges from greenschist to amphibolite facies. The volcanics host subordinate amounts of felsic to mafic pyroclastic rocks, sedimentary rocks, and iron formation. Felsic quartz-feldspar porphyry dykes are commonly found intruding all lithologies.

FIGURE 3: Regional Geology



Historically, gold production in the Pickle Lake area has been from structurally-controlled vein-type deposits or sulphide replacement bodies spatially associated with, or contained within, bands of Algoman (chert-magnetite) iron formation. The most important of these were the past producing Pickle Crow and Central Patricia mines (operated from 1935 to 1966 and 1934 to 1951, respectively) which collectively produced 2,068,020 ounces of gold from 4,966,820 tons of ore for an average grade of 0.416 ounces of gold per ton. The past producing Golden Patricia Mine of Barrick Gold Corp., located about 40 km west-northwest of the Sky Lake property within the Meen-Dempster greenstone belt, also produced 619,796 ounces of gold from 1,216,165 tonnes of milled ore (Ministry of Northern Development and Mines, MDI File MDI52O06SE00005). The gold mineralization was hosted in a quartz vein at the contact between a mylonitized unit and sheared mafic volcanics in close proximity to banded iron formation.

Ultramafic intrusive rocks of the Uchi Subprovince are also known to host copper-nickel mineralization. The past producing Thierry Mine, located 30 km north-northeast of the Sky Lake property, produced 113.6 million pounds of copper, 2.8 million pounds of nickel, 17,500 ounces of platinum, 47,000 ounces of palladium, 17,000 ounces of gold, and 900,000 ounces of silver from 5.8 million tons of ore between 1976 and 1982 (Ministry of Northern Development and Mines, MDI File MDI52O08NW00003).

3.0 PROPERTY GEOLOGY

The east-central portion of the property in proximity to the Koval claims is the area of most abundant outcrop. The area is underlain by a west-southwest trending, vertical to steeply south-dipping assemblage of metavolcanic and metasediments with minor intrusive rocks. The northern 1/3 is dominated by mafic volcanics, mainly massive flows with some pillowed flows and tuffs, along with minor chemical sediments (oxide facies iron formation) and felsic volcanics. A diabase intrusive in the north-central area has been roughly outlined by limited outcrop exposure and previous magnetometer survey. Feldspar porphyry dykes and sills outcrop locally and granitic intrusions have been intersected in drilling. South of the thick northern mafic volcanic unit are intermittently exposed fine clastic metasediments (mainly argillite, siltstone) and felsic volcanics. The central area is underlain by the 'Central Intermediate-Mafic Volcanic' (CIMV) assemblage comprising intermediate volcanoclastic rocks, enclosed by mafic volcanics to the north (massive flows and tuffs) and south (massive and pillowed flows with pillow breccia) as well as minor intercalated fine clastic metasediments and felsic volcanics. The intermediate volcanic hosts historical gold zones on the Koval property. In contrast, the Kitrinor claims cover gold occurrences associated with iron formation.

4.0 PREVIOUS WORK

The first recorded discovery of gold in the Meen-Dempster greenstone belt was made in 1954 by prospector Ben Ohman near Bancroft Lake (Scratch, 1984) on the Koval property. The discovery of gold on the Koval property initiated a staking and exploration rush in the Meen-Dempster belt, and a number of exploration programs were conducted on, around, and along strike of the mineralization at the Koval property.

- During the 1950s and 1960s, Hasaga Gold Mines conducted early stage exploration activities, including ground geophysical surveys, diamond drilling, stripping, and geologic mapping on and around the Koval property.
- In 1969, Newconex Canadian Exploration conducted ground electromagnetic and geological surveys on their “Ed” claim block at the western end of Tri Origin’s present-day claim block. They delineated zones of auriferous pyrite.
- Union Miniere Exploration and Mining Corporation Ltd. conducted extensive airborne and ground geophysical surveys and 4465 m of diamond drilling in 1971-1972. One of these holes was collared on the Kitrinor property, but the rest of the work was done to the north and east of the claims which are the subject of the present report. There is no record of any samples having been assayed from that hole.
- During the 1970s to mid-1980s, LAC Minerals held the Koval property and conducted extensive exploration activities around the property, including airborne and ground geophysical surveys, geologic mapping, soil sampling, and diamond drilling.
- In 1983-84 Moss Resources Ltd. conducted geological mapping and magnetic, VLF-EM and IP geophysical surveys as well as rock and humus geochemistry. This was followed by a 20 hole, 1522.78 m diamond drill program.
- From July 1 – August 22, 1984 Golden Maverick Resources conducted reconnaissance geological mapping and rock and humus geochemistry. A total of 53 rock samples and 572 humus samples were collected and analyzed for Au, Ag, As, Sb, Mo, and Ba. They also carried out limited diamond drilling between 1984 and 1988.
- In September 1988 Bond Gold mapped the area they referred to as the Caley Lake claim block, to the west of the Kitrinor claims, and drilled three holes in October of that year. No assay results were reported.
- In 1996, Moss Resources drilled a total of 808.3 m in eight BQ diamond drill holes in the southwest quadrant of the Kitrinor claims.
- In 2009, Aeroquest flew a helicopter-borne AeroTEM survey for Tri Origin Exploration. This survey was followed up by geologic mapping, soil and humus geochemistry, and prospecting in the summers of 2010, 2011 and 2012. In addition, a ground IP survey was conducted in 2011, and 7 diamond drillholes were drilled in 2012 to test IP anomalies.

5.0 2015 EXPLORATION WORK CONDUCTED BY TRI ORIGIN EXPLORATION LTD.

Prior to the mapping program, a total of 4 days were spent by geologists reviewing rock specimens in the office and reviewing diamond drill core at the Red Lake outdoor core storage facility. The purpose of the reviews was to familiarize the mapping geologists with the lithologies found on the Sky Lake property and to verify previous observations and compare them to field mapping observations. During the office specimen review, 55 specimens from previous mapping programs were reviewed between May 13 and 14.

During the drill core review from May 27 to 28, 7 drill holes were reviewed for familiarity and logging accuracy, and also to look for any intersections of sulphide, magnetite, or graphite to explain anomalies from a ground IP survey conducted by the company in 2012. Several changes were made to the original logs, and “mini-logs” (quick re-logs) were produced for each drill hole (Appendix C).

The field mapping program consisted of 7 days spent on mapping and sampling by two geologists and a field assistant on various areas of the property. The collected information was plotted on a map scale of 1:6,000 using handheld GPS devices as the primary means of location control. Satellite photo maps were unavailable for reference at the time.

The rock units that were encountered on the property include:

Rock Code	Lithology	Unit Description
2	Mafic volcanics, undefined	Generally very fine- to medium-grained, dominated by mafic minerals (amphibole, plagioclase, pyroxene, biotite, and abundant secondary chlorite) massive and weakly to strongly foliated, and sometimes associated with significant alteration by chlorite and/or carbonate, but without any features that would indicate whether these rocks are intrusive, extrusive flows, or extrusive pyroclastics.
2a	Mafic massive flows	Mafic igneous flows with a massive texture. These rocks are generally fine- to medium-grained, dominated by mafic minerals (amphibole, plagioclase, pyroxene, biotite, and abundant secondary chlorite) massive and weakly to strongly foliated, and sometimes associated with significant alteration by chlorite and/or carbonate.
2b	Mafic pillowed flows	Similar in many ways to massive flows and occasionally found in the same outcrop. These rocks have pillow structures.
2f	Mafic tuffs, fine-grained volcanics	Generally aphanitic to very fine-grained unless recrystallized. Mineralogy is difficult to determine due to fine grain size, but colour is diagnostic: dark green to dark green-grey, often with chlorite alteration, and recrystallization (with secondary amphibole and/or garnet). These rocks are thinly laminated to thickly bedded (layers on the order of a few millimeters to 20 cm), compositionally layered, and soft. In places, they host bombs/fragments.
3	Intermediate volcanics, undefined	Generally very fine- to fine-grained, and dominated by amphibole, plagioclase, and biotite, with minor quartz (10-20%). Texture is massive or weakly layered and weakly to strongly foliated, and sometimes associated with significant alteration by chlorite and/or carbonate, but without any features that would indicate whether these rocks are intrusive,

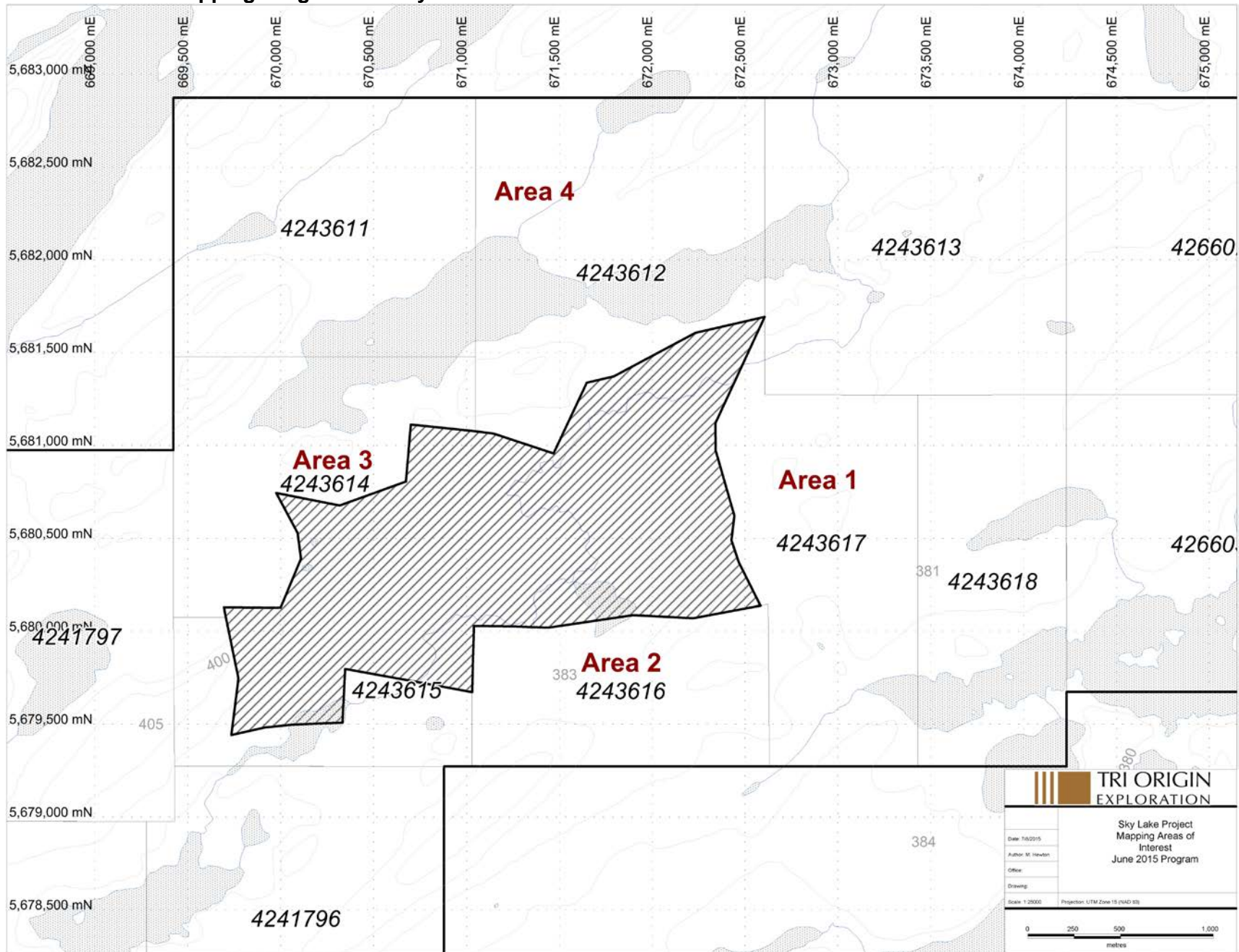
		extrusive flows, or extrusive pyroclastics.
3a	Intermediate massive flows	Intermediate igneous flows with a massive texture. These rocks are generally fine- to medium-grained, dominated by amphibole, plagioclase, and biotite, with minor quartz (10-20%) and secondary chlorite.
3f	Intermediate tuffs, fine-grained volcanics	Generally aphanitic to very fine-grained unless recrystallized. Mineralogy is difficult to determine due to fine grain size, but colour is diagnostic: pale to dark green, pastel green, grey, beige to tan. These rocks are thinly laminated to thickly bedded (layers on the order of a few millimeters to 20 cm), compositionally layered/colour banded, and soft. Secondary chlorite, amphibole and garnet occur in places. In places, they host bombs/fragments.
4	Felsic volcanics, undefined	Generally very fine- to medium-grained, dominated by felsic minerals (quartz, albite, K-feldspar, biotite, muscovite) massive and weakly to strongly foliated, and sometimes associated with minor sericite and/or carbonate, but without any features that would indicate whether these rocks are intrusive, extrusive flows, or extrusive pyroclastics.
4a	Felsic massive flows, rhyolite, rhyodacite	Felsic igneous flows with a massive or weakly to moderately-foliated texture. These rocks are generally fine- to medium-grained, and dominated by quartz, K-feldspar, albite, muscovite, and biotite. They are locally porphyritic (quartz eyes, feldspar phenocrysts) and may host fragments/bombs.
4b	Felsic tuffs, ash, ash-crystal tuffs	Generally aphanitic to fine-grained. Mineralogy is difficult to determine due to fine grain size, but colour is diagnostic: pale to green, yellow-green, beige to tan, cream, light grey. These rocks are thinly laminated to thickly bedded (layers on the order of a few millimeters to 20 cm), compositionally layered/colour banded, and hard to scratch. Secondary sericite is common. Quartz eyes and feldspar phenocrysts are also common. In places, they host bombs/fragments.
6d	Argillite	Aphanitic to fine-grained, thinly to thickly bedded, medium to dark grey to black. Primary sedimentary structures are largely absent, but normal grading is locally preserved. Moderately to strongly foliated, giving the rocks a strong cleavage. Mineralogy is dominated by quartz and secondary biotite. Individual beds are hard or soft, and scratch gritty, depending on abundance of quartz. Argillite is very common as interflow sediments between volcanic flows and tuffs.
7b	Iron formation, oxide facies	Aphanitic to fine-grained and finely banded/layered, and

		dominated by silica/quartz and magnetite bands. The unit is extremely magnetic. This unit rarely exceeds 2 m in thickness.
12a	Granite	Medium-grained, white to light pink, and composed of quartz, K-feldspar, and biotite.
17b	Schist	Highly metamorphosed unit of which the protolith is unrecognizable, but may often be intermediate volcanics or metasedimentary rocks. The unit is strongly schistose and fissile, dominated by biotite, feldspar (albite, plagioclase), amphibole, and muscovite.

6.0 GEOLOGIC MAPPING RESULTS

The 2015 exploration program was conducted in four priority areas (Figure 4). Access to the areas was by float plane and by foot. Area 1 is the area covered by claim 4243617 and the southwest portion of claim 4243613, immediately east of the Koval property. The strata hosting mineralization on the Koval property strike northeast and extend to the northwestern part of Area 1. A ground induced polarization survey was completed in this area at the same time mapping was being conducted, and the results of mapping will be compared to results of the IP survey. Area 2 is the region south of the Koval property and covered by claims 4243615 and 4243616. Little mapping has been completed in this area in the past, but felsic volcanic rocks in the southwest quadrant of the Koval property were interpreted to extend into the area. Mapping was completed to confirm this interpretation. Area 3 is the area northwest of the Koval property, covered by claim 4243614. This area was sparsely mapped previously, and a 2012 IP survey contracted by the company returned several anomalies that warranted geological investigation. Area 4 is north of Bancroft Lake and covered by claims 4243611 and 4243612. This area had never been previously mapped and prior airborne magnetic and electromagnetic geophysical surveys turned up small, oval-shaped magnetic anomalies in the area, warranting investigation. A geologic map of the claims, as well as a list of outcrop locations and descriptions, has been appended to this report.

FIGURE 4: 2015 Mapping Program Priority Areas



6.1 Area 1

The strata hosting mineralization on the Koval property strike northeast and are interpreted to extend to the northwestern part of claim 4243617. A ground induced polarization survey was completed in this area at the same time mapping was being conducted. Mapping in Area 1 was completed in order to verify the extent of Koval mineralization and to compare to IP survey results. Four north-south lines were traversed by geologists.

Outcrop distribution in Area 1 is concentrated in two zones: 1) on the south side of the river flowing out from Bancroft Lake in claim 4243613, and 2) southeast of the Koval property, on the north side of the river in the south end of claim 4243617. Between these two zones, no outcrop was discovered, and the terrain consisted of low spruce swamps and locally thick spruce forest, with no exposed outcrop.

From north to south, the outcrops in zone 1 consisted of an east-northeast to northeast striking package of metasedimentary argillite and phyllites in the north, minor oxide facies iron formation (outcrop FRK-SL-15-001), a thick unit of dominantly mafic to minor intermediate volcanic flows and tuffs, and felsic to intermediate tuff with minor volcanic flows to the southwest. Foliation approximates bedding and tends to strike west-southwest to southwest and dips steeply to nearly vertical. Trace pyrite is found throughout the units, especially within the felsic to intermediate volcanic rocks. Representative grab samples of outcrops were taken for future analytical work.

To the southeast of the Koval property, zone 2 is predominantly underlain by fine-grained to aphanitic intermediate tuff with minor felsic and mafic tuff phases locally. Bedding and foliation strike approximately east-west and dips are very steep to near vertical to the south. A second foliation almost perpendicular to the primary foliation was rarely observed within felsic tuffs, striking north to north-northeast and steeply dipping to the east-southeast.

6.2 Area 2

South of the Koval property, Area 2 was previously sparsely mapped, but felsic volcanic rocks mapped on the Koval property indicated that felsic volcanics may continue onto the claims held by Kitrinor, and therefore warranted more detailed mapping. Terrain consisted of mature birch forest, some muskeg, and minor spruce-cedar bog. To the south, glacial drumlin deposits trend to the southwest. Outcrop exposure in Area 2 was sufficient, with exposure less than 5%, and more concentrated toward the west.

From north to south, the area is underlain by felsic tuffs and rhyolitic flows as well as very strongly foliated schist, intermediate to felsic mixed volcanic flows and tuffs with minor interflow sediments, and in the southwest, mafic to intermediate tuffs and volcanic flows with minor interflow sediments (argillite and phyllite). Foliation approximates bedding and tends to strike approximately west and dips are very steep to vertical. A second foliation (as small crenulations) almost perpendicular to the primary foliation was observed within interflow phyllitic argillite, striking north and dipping vertically, in the southwestern end of Area 2. Many of the outcrops in the southeast part of claim 4243615 appear to be more highly deformed than elsewhere. These outcrops tend to be very fissile and more strongly foliated, and even begin to develop a schistose to sub-gneissic fabric

towards the river.

6.3 Area 3

Area 3 targeted an east-west trending airborne magnetic and EM anomaly in the southwest corner of claim 4243614, which is situated along the interpreted extent of iron formation. Outcrop distribution was limited to the western and northern ends of the area, and there was no outcrop observed in the area immediately west of the Koval claims above the magnetic and EM anomaly. The dominant lithologies were mafic and mafic to intermediate volcanic flows and minor tuff. Foliation and bedding were approximately striking east-northeast and dipping very steeply to the south or vertical. No explanation for the magnetic or EM anomaly was observed.

6.4 Area 4

No published mapping by government, academia, or industry geologists exists for the area north of Bancroft Lake, Area 4. However, oblong, positive airborne magnetic anomalies with associated weak linear EM anomalies within the eastern side of claim 4243611, just northwest of Bancroft Lake, warranted mapping. Area 4 was traversed to investigate these anomalies and to provide more regional outcrop mapping detail for a better understanding of the geology of the area.

Terrain is characterized by mature birch forest on boulder till or drumlins, low-lying thick spruce forest and spruce bog, and muskeg or swamp closer to bodies of water. Both the mature birch forest and spruce forest are underlain by a thick carpet of moss. Outcrop exposure is very sparse north of Bancroft Lake, and is often covered by the moss carpet. Only 4 outcrops were mapped over the whole area by 2 geologists and an assistant. To the east of Area 4, two outcrops of non-magnetic, medium-grained biotite-granite with rare cubic pyrite were uncovered. In the western end of Area 4, one outcrop of fine-grained felsic to intermediate volcanics cut by minor, thin quartz-tourmaline(?) veins was uncovered. The outcrop hosted roughly 10% volcanic fragments and 5% quartz eyes, and foliation was striking 060 (east-northeast). An additional outcrop of non-magnetic fine-grained to aphanitic, layered/foliated mafic to intermediate tuff and volcanoclastics was discovered south of the felsic volcanic outcrop, in close proximity (within 50 m) to the strongest of the airborne magnetic and EM anomalies. Due to the proximity of the magnetic anomaly, the geologist's compass was wandering somewhat and a reliable strike of the foliation could not be obtained. However, the strike was estimated to be east-northeast, and the dip of the foliation was 75° towards Bancroft Lake. Trace fine-grained, disseminated pyrite was observed within the mafic to intermediate tuff.

7.0 MULTI-ELEMENT LITHOGEOCHEMISTRY

Eleven surficial rock samples were collected from outcrops during field mapping. Sample locations are appended (Appendix E). Samples were sent to SGS Minerals Services in Lakefield, ON, for preparation and routine analysis. Analysis for gold was completed by fire assay with atomic absorption finish with a detection limit of 5 ppb according to standard procedures (SGS package

FAA313). Analysis for base metals and trace elements was conducted by 4-acid digestion with an ICP-AES finish with varying detection limits for each element (SGS package ICP40B).

Selected analytical results from rock samples are presented in Table 1. No samples returned anomalous gold or silver values. Results were generally below detection for the precious metals. All samples were below detection limit for arsenic and lead. All but one sample was below detection for copper. Two samples returned results with slightly elevated zinc (samples FRK-SL-15-001 and FRK-SL-15-022, 247 and 255 ppm Zn, respectively). Assay certificates are appended (Appendix G).

Table 1. Gold, Base Metal, and Selected Element Analytical Results

Field ID	UTM Easting	UTM Northing	Sample Number		Au	Ag	As	Cu	Fe	Mo	Ni	Pb	Sb	Zn	S	Sample Weight
					ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	kg
				Detection Limit	5	2	30	20	0.01	1	1	20	5	1	0.01	0.001
FRK-SL-15-001	672635	5681420	651022		<5	9	<30	<20	>15	7	4	<20	12	247	<0.01	3.591
FRK-SL-15-004	672556	5681295	651023		<5	<2	<30	<20	0.23	<1	6	<20	<5	<1	<0.01	1.402
FRK-SL-15-004	672556	5681295	Ch:651023 (duplicate)		<5											
FRK-SL-15-022	672903	5681434	651024		8	7	<30	<20	>15	5	4	<20	9	255	<0.01	1.681
FRK-SL-15-022	672903	5681434	Ch:651024 (duplicate)			7	<30	<20	>15	7	4	<20	9	255	<0.01	
MHOC15-006A	672843	5679851	651032		<5	<2	<30	21	3.19	4	19	<20	<5	28	0.1	3.475
MHOC15-027A	670595	5679583	651025		<5	<2	<30	<20	0.62	1	6	<20	<5	8	<0.01	1.911
MHOC15-027B	670586	5679582	651026		24	<2	<30	<20	2.14	3	21	<20	<5	51	<0.01	1.846
MHOC15-027C	670607	5679586	651027		<5	<2	<30	<20	0.88	3	8	<20	<5	11	<0.01	0.435
MHOC15-027D	670583	5679582	651028		<5	<2	<30	<20	0.66	3	6	<20	<5	10	0.01	0.907
MHOC15-027E	670584	5679582	651029		12	<2	<30	<20	1.27	2	13	<20	<5	21	0.02	0.64
MHOC15-027F	670575	5679578	651030		<5	<2	<30	<20	2.23	5	15	<20	<5	33	0.02	1.518
MHOC15-034A	671081	5679895	651031		<5	<2	<30	<20	1.37	1	12	<20	<5	26	0.04	0.855

8.0 RECOMMENDATIONS AND CONCLUSIONS

The summer 2015 Sky Lake exploration programme involved a total of 7 days of mapping and sampling in four priority areas, chosen on the basis of airborne geophysical features and historical mapping program results. From the mapping, it is interpreted that the Sky Lake property in the vicinity of the Kitrinor claims is underlain north to south by several successions of largely east-northeast striking, southward dipping volcanic cycles of mafic to intermediate to felsic flows, tuffs, and volcanoclastic rocks as well as interflow and basinal post-volcanic argillite and phyllite, intruded to the north by younger granite, and locally folded and sheared. Thirty-three rock grab samples were collected for possible assay or whole rock analyses and to build a representative suite of the local lithologies. GPS coordinates were recorded of any located outcrops, drill collars, cut lines, and claim posts.

Integrated interpretation of previous work along with Tri Origin's airborne geophysical data and the results of this summer's mapping programme should be the next step in determining target areas for future work.

Due to the vast extent of the property, satellite photos would be of great assistance to locate trails, outcrop locations and terrain analysis. Any drill programs conducted in the area would need to be performed during winter conditions for ease of mobility.

9.0 PERSONNEL

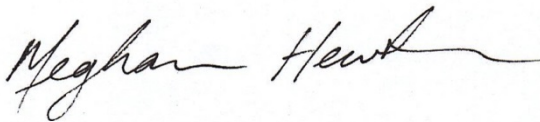
Robert Valliant	President Tri Origin Exploration Ltd. Project Supervision	Aurora, Ontario
Frank Kendle	Contract Geologist Tri Origin Exploration Ltd.	Queensville, Ontario
Meghan Hewton	Geologist Tri Origin Exploration Ltd	Goodwood, Ontario
Fraser Valliant	Field Assistant Tri Origin Exploration Ltd	Waterloo, Ontario

10.0 STATEMENT OF QUALIFICATIONS

I, Meghan Hewton, of 17 Tindall Lane, Goodwood, Ontario, L0C 1A0, do hereby certify that:

1. I am employed as a geologist by Tri Origin Exploration Ltd.
2. I graduated with a Master's of Science (Geology) from Simon Fraser University in 2012, and a Bachelor of Science (Honours Environmental Geosciences) from the University of Western Ontario in 2010.
3. I have worked as a geologist for a total of three years.
4. I am responsible for the technical report titled "Report on the 2015 Geologic Mapping Program, Sky Lake Property, Pickle Lake, Ontario".
5. My knowledge of the property as described herein was obtained by fieldwork and literature review.
6. I have no direct interest, nor do I expect to receive any interest in the mining claims that comprise the Sky Lake Property within the Matapesatakun Bay and Caley Lake areas in the Patricia Mining division.
7. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
8. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 16th day of September, 2015.

A handwritten signature in black ink that reads "Meghan Hewton". The signature is written in a cursive, flowing style.

MEGHAN HEWTON

11.0 REFERENCES

Jolliffe, T.S. 1996. Report on Diamond Drilling, Koval Property, Patricia Mining Division, Northwestern Ontario for Moss Resources, Inc. 90pp. AFRI 52O02NE001.

Ministry of Northern Development and Mines, MDI File MDI52O06SE00005. Golden Patricia Mine.

Ministry of Northern Development and Mines, MDI File MDI52O08NW00003. Thierry Mine.

Scratch, R, 1984. Report on Reconnaissance Geologic Mapping and Humus Sampling of the Golden Maverick Resources Corporation – Bancroft Lake Project currently under option to Kennco Explorations (Canada) Ltd. 87pp. AFRI 52O08SW0019.

APPENDIX A – List of Claims and Ownership

Claim Number	Township/Area	Ownership
4214444	Duffell Lake Area	Tri Origin Exploration (100%)
4214445	Duffell Lake Area	Tri Origin Exploration (100%)
4214446	Duffell Lake Area	Tri Origin Exploration (100%)
4214447	Duffell Lake Area	Tri Origin Exploration (100%)
4214448	Duffell Lake Area	Tri Origin Exploration (100%)
4241191	Matapesatakun Bay Area	Tri Origin Exploration (100%)
4241192	Matapesatakun Bay Area	Tri Origin Exploration (100%)
4241193	Matapesatakun Bay Area	Tri Origin Exploration (100%)
4241194	Matapesatakun Bay Area	Tri Origin Exploration (100%)
4241195	Caley Lake Area	Tri Origin Exploration (100%)
4241196	Caley Lake Area	Tri Origin Exploration (100%)
4241197	Caley Lake Area	Tri Origin Exploration (100%)
4241198	Matapesatakun Bay Area	Tri Origin Exploration (100%)
4241199	Matapesatakun Bay Area	Tri Origin Exploration (100%)
4241200	Matapesatakun Bay Area	Tri Origin Exploration (100%)
4241796	Matapesatakun Bay Area	Tri Origin Exploration (100%)
4241797	Caley Lake Area	Tri Origin Exploration (100%)
4241798	Matapesatakun Bay Area	Tri Origin Exploration (100%)
4241799	Matapesatakun Bay Area	Tri Origin Exploration (100%)
4241800	Matapesatakun Bay Area	Tri Origin Exploration (100%)
4243611	Caley Lake Area	Kitrinor Metals Inc. (100%) (under option)
4243612	Caley Lake Area	Kitrinor Metals Inc. (100%) (under option)
4243613	Caley Lake Area	Kitrinor Metals Inc. (100%) (under option)
4243614	Caley Lake Area	Kitrinor Metals Inc. (100%) (under option)
4243615	Matapesatakun Bay Area	Kitrinor Metals Inc. (100%) (under option)
4243616	Caley Lake Area	Kitrinor Metals Inc. (100%) (under option)
4243617	Caley Lake Area	Kitrinor Metals Inc. (100%) (under option)
4243618	Matapesatakun Bay Area	Kitrinor Metals Inc. (100%) (under option)
4251408	Matapesatakun Bay Area	Murchison Minerals Ltd. (100%) (under option)
4251409	Matapesatakun Bay Area	Murchison Minerals Ltd. (100%) (under option)
4266029	Little Ochig Lake Area	Tri Origin Exploration (100%)
4266030	Little Ochig Lake Area	Tri Origin Exploration (100%)
4266031	Little Ochig Lake Area	Tri Origin Exploration (100%)
4266032	Little Ochig Lake Area	Tri Origin Exploration (100%)

APPENDIX B – Rock Specimens Reviewed

Station ID	Geochemical Sample ID	Easting (NAD 83, zone 15)	Northing (NAD 83, zone 15)	Year Collected	Description
SKYFK002		669542.248	5679092	2011	Large outcrop of fg sediments? Moderately foliated.
SKYFK003		663445.123	5679498	2011	Small 1m high outcrop face of dark grey-green, fg, moderately foliated mafic volcanic. Matrix is fg, aphanitic comprised of amphibole, chlorite, feldspar and quartz. Slightly sugary texture. Foliation planes appear to be slightly slickenside; specimen is folded/open fold
SKYFK004	429932	663254.365	5679360	2011	2m high x 15m cliff face. Vfg, dark green-black mafic volcanic. Moderately foliated (some foliation planes are slightly slickenside with trace py). Vfg matrix comprised primarily of amphibole and chlorite. Massive mafic volcanic.
SKYFK006		662888.654	5679054	2011	~0.5m high x 2m outcrop of fg, weakly foliated, dark grey-brown felsic tuff? Looks like ~ 1% 1-2mm opaque white quartz eyes oval in shape. Matrix is very fg comprised of quartz, feldspar and amphibole. Slightly sericitic.
SKYFK001		663188.195	5679395	2011	10m x1m Outcrop at the edge of lake. Fg, moderate to strongly foliated mafic volcanic. Matrix is dark green to black aphanitic. Weathered surface is very pock marked.
SLBR11011		663588.171	5679424	2011	10m x 30cm high. Fg-mg, porphyritic, quartz rich mafic volcanic, possibly ash tuff. Phenocrysts of amphibole (<3mm) possibly pyx subhedral, possibly shards. Plag and qtz are anhedral. 80% alt mafic minerals. No chlorite. Massive no obvious foliation.
SLBR11012		663418.953	5678798	2011	Flat laying outcrop, cream to deep red in clour with bands of medium grey chert, fg to aphanitic foliated felsic volcanic, locally qtz phyr. Chrt bands 1-10cm thick. 5% of felsics in bands 1-40cm thick. Fracture faults have sinistral offset <10cm.
SLBR11013	429832	663329.716	5678822	2011	Very similar to SLBR11012. Quartz viens present
Trench 1	652209	671108	5680537	2011	Altered Rx? With Qtz vn
Trench 2	652217	673009	5681663	2011	Qtz-Feld Porphyry with meta Seds- 040/082, 1-2% Sulphide, Rusty,altered,
PC2OC1	652201	671011	5681085	2012	Felsic Tuff/Sed? 069/060 S
PC2OC2	652202	670990	5681444	2012	Mafic Vol , Massive with minor Qtz veins
PC2OC3	652203	671052	5681068	2012	Mafic Vol Large hornblende xlls, massive non mag.Poss inbedded Seds
PC2OC6	652204	670974	5680728	2012	Gabbro? Med Grain Tr Arsenopyr
PC2OC7	652205	671069	5680689	2012	Mafic vol with inbedded Tuff? O/C Trends E-W
PC2OC8	652206	671142	5680621	2012	Poss Meta Seds on edge of Swamp With Trenches/ channel samples. 068/075
PC2OC9A	652207	671151	5680534	2012	Meta Seds 079/080S,Argill/Phyllitic alteration,3% pyrite, rusty/oxidized in 8m Trench

PC2OC09B	652208	671151	5680534	2012	Meta Seds 079/080S, Argill/Phyllitic alteration, 3% pyrite, rusty/oxidized in 8m Trench
PC2OC11	652210	671327	5680464	2012	Int. Clastic Vol tuff/Sed?. Dark, sil, with Fragments 063/ 085 S
PC2OC14		670641	5680339	2012	Dark Grey F.G. Mafic Vol, Massive
PC2OC15	652211	670614	5680382	2012	Qtz Feld Porphyry
PC2OC16	652212	672971	5681887	2012	Mafic Vol Tuff. Cut By Felsic intr..5m wide ll to foliation 070/083 S. Minor Qtz Stringers
PC2OC17	652213	672973	5681830	2012	Green/grey Mafic Vol With elongated xtls with inbedded Seds? 070/ 082 S
PC2OC18	652214	672942	5681786	2012	Mafic Vol With felsic enclaves. Finer g. Tuff 5m to the S 068/082 S
PC2OC19	652215	672936	5681754	2012	Mafic Vol, Massive cut by Qtz-feldspar vn (15 cm) 155/? Host also cut by Qtz Stringers 064
PC2OC20	652216	672969	5681744	2012	Meta sed/Tuff. Grey f.g. thinly bedded with altered bands 1- 4 cm
PC2OC21	652218	672947	5681642	2012	O/C on edge of swamp Course grain, altered rx. Banded- Poss seds Ridge trends 050
PC2OC22	652219	672923	5681630	2012	F.G. Mafic Vol. Fol.~ 044/.080 E. Cut by qtz vn, 10cm 120/075 N (rusty color Vn)
PC2OC23	652220	672903	5681643	2012	F.G. Sed. (060/070 S). In contact with Qtz/Feld Porphyry to the N.
PC2OC24	652221	672802	5681667	2012	Mafic Vol/Inerbedded sed Fabric 060/070 S
PC2OC25	652222	672737	5681578	2012	Meta Seds F.G. Argillite 064/074 S
PC2OC26	652223	672735	5681558	2012	Grey F.G Meta Seds Near Drill collar
PC2OC27	652224	672628	5681505	2012	Int- Mafic Tuff . Weak foliation 074/080 S
PC2OC28	652225	672634	5681542	2012	Trench, Meta sed/tuff. 1-2% Py, 058/085 S
PC2OC29	652226	672693	5681558	2012	F.G Int. Tuff/ Sed, 2-4% py; 070/072 S
PC2OC30	652227	672705	5681577	2012	F.G Int. Tuff/ Sed, 2-4% py, tr cpy; 070/072 S
PC2OC31	652228	672669	5681723	2012	Grey, F.G. Mafic Vol. weak fabric? 070/082 S
PC2OC32A	652229	672833	5681788	2012	Med.Grain, Mafic vol.;070/090
PC2OC32B	652230	672858	5681829	2012	Oxidized unit in mafic vol PC2-OC33
PC2OC34	652231	672698	5681823	2012	Course mafic vol, Massive with enclosed int frags(5cm). Cut by qtz vn,(5-10cm, 100/030 N)
PC2OC35	652232	673405	5681941	2012	Altered Meta seds in large mafic vol O/C. Local oxidation in sample(seds) 060/083 S
PC2OC37	652233	661686	5679589	2012	Altered Mafic Tuff/Seds? Massive ,With contorted Qtz lens
PC2OC39	652234	661603	5679901	2012	F.G Folded Sed., Rusty Brown, Thin Bedding,Qtz Stringers(fractured) ll To Beds 084/080 N
PC2OC40	652236	661593	5679843	2012	Mafic Vol, Strong Fabric 068/075 N

PC2OC41	652235	661625	5679604	2012	Altered Sediments, With Qtz Vns, 068/Vert?
PC2OC42	652237	663049	5679400	2012	Mafic Vol? Micro folded qtz stringers
NGOC002	652159	672907	5681318	2012	Intermediate Volcaniclastic. Few sulphides and slightly rusty appearance.
NGOC012	652151	673422	5681936	2012	Tuffaceous/Sedimentary unit? More qtz rich. Foliation= 052/62S
NGOC013	652152	673438	5682069	2012	Mafic Volcanics. Coarser Hornblende crystals. Foliation= 062/81S
NGOC025A	652153	672889	5681340	2012	Volcaniclastics unit? Appears very rusty in areas. Sericite Alteration? S1= 078/82S. Sulphides more concentrated in altered zones. S2= 166/79E. Alteration appears concentrated along S1 fabric. Schistose fabric. Muscovite-rich
NGOC025B	652154	672889	5681340	2012	Volcaniclastics unit? Appears very rusty in areas. Sericite Alteration? S1= 078/82S. Sulphides more concentrated in altered zones. S2= 166/79E. Alteration appears concentrated along S1 fabric. Schistose fabric. Muscovite-rich
NGOC029	652155	672816	5681325	2012	Tuffaceous unit. Many qtz veins parallel to S1= 081/78S. Schistose texture. Very rusty. Sericite alteration?
NGOC035	652156	661971	5679912	2012	Rusty Sediments. Thinly bedded (few cm). few sulphides. Shaly and more feldspathic beds. Bedding= 125/74S. Orientation wrong? because compasses reacting to BIF? Parasitic folds with hinge= 083°. Schistose texture. Muscovite-rich. Qtz veins parallel to bedding. Aprox size= 20x50m
NGOC036	652157	661936	5680104	2012	mafic volcanics. Few sulphides and qtz veins. Massive. Aprox size= 20x50m
NGOC039	652158	661803	5679528	2012	Felsic or Intermediate volcanics. Feldspar porphyry. Few small pegmatitic veins.

APPENDIX C – Reviewed Core Mini-Logs

Hole	SL-12-01									
	From	To (m)	Code	Name	Description	Alteration	Py	Po	Cpy	
	0.0	1.6	OB	Casing						
	1.6	25.3	6/3f	Sediments / Intermediate Tuff	18.7 m: possible facing direction up-hole > in tuff unit, coarse crystals at bottom of bed/layer, grading up into aphanitic tuff toward top of hole					
	25.3	25.9	3f	Intermediate Lithic Tuff	contains subrounded fragments of sediments (?)/other lithologies than the host tuff, therefore lithic tuff					
	25.9	32.8	6	Sediments >> Intermediate Tuff	~20% tuff layers; possible slump @ 28.5 m, showing facing/top up-hole (photo); dewatering structure @ 31.8 m (photo)					
	32.8	42.5	4a	Felsic Volcanic Flow	series of banded flows, with minor felsic tuff towards bottom of unit					
	42.5	53.1	4a	Felsic Volcanic Flow						
	53.1	73.3	4b	Felsic Crystal Tuff / Felsic Tuff.	abundant blue quartz eyes					
	73.3	102.4	4b	Felsic Tuff / Felsic Crystal Tuff	generally well-banded, locally looks bar-coded; very few quartz eyes; rare sulphides	local silica-sericite flooding along layers	rare			
	102.4	130.6	2f	Intermediate Volcanic Flow / Tuff	mostly albite (50%) > plag, abundant biotite, <10% quartz; banded with brown, grey, green bands					
	130.6	140.5	2f / 2a	Intermediate Tuff / Intermediate Flow (Mineralized)	similar to previous unit, but with more sulphide (5-7%); abundant biotite					5-7%
	140.5	191.2	2f	Mafic to Intermediate volcanic / tuff (sulphidized)	similar to last unit, but with 0% quartz, 30% albite, more amphibole-biotite; more green units					3%, locally 15-20%
	191.2	200	2f	Mafic Volcanic Tuff		191.2-192.5 m: 5% Fe-carbonate veining, deformed; 192.5-200 m: minor Fe-carbonate flooding in more mafic units				
	EOH									

Hole SL-12-02										
From	To (m)	Code	Name	Description	Alteration	Py	Po	Cpy		
0.0	11.3	OB	Casing	Overburden						
11.3	58	3a	Intermediate-Mafic massive flow>tuff	70% flows, 30% tuffs; 38.2 to 39.2 m: diorite/gabbro dyke						
58	87.4	3f	Intermediate-MaficTuff>>Flow	biotite alteration increases @ 66 m, accompanied by trace py-po smears that are stratabound (<1 mm grains)	Biotite	trace	trace			
87.4	100.9	2a	Mafic Massive Flow	fine-grained						
100.9	153	2a	Mafic Massive Flow	medium-grained						
	EOH									

Hole	SL-12-03									
	From	To (m)	Code	Name	Description	Alteration	Py	Po	Cpy	
	0.0	18.0	OB	Casing	Overburden					
	18	33.5	3f	Intermediate Tuff	Intensely carbonatized, especially in bands and stretched pods, occasionally folded, warped, deformed veins; 2nd = carbonate veins; carbonate and host rocks turn green when HCl added; weathering with slight greenish tint	Intensely carbonatized, especially in bands and stretched pods				
	33.5	44.4	6d	Meta-Siltstone	fine to very fine-grained blueish-grey sed; beds on scale of 1 mm to 3 cm, rhythmically bedded					
	44.4	80.5	3f	Intermediate Tuff	zebra-striped intermediate tuffs with rusty brown-orange weathering calcite/ankerite bands 0.1 to 1 cm wide; rhythmic; <50 % of unit; minor lapilli - most kind of flattened along S1	calcite/ankerite bands 0.1 to 1 cm wide; rhythmic				
	80.5	91.75	3f	Intermediate-Mafic Tuff	unit has locally abundant qz-calcite flooding/veining +/- minor blebby pyrrhotite up to 1 cm, especially between 88 to 89 m; local coarse amphibole (actinolite?) in more mafic beds, minor at about 88 to 88.7 m	91.5 to 91.65 - highly altered, flooded with carbonate-biotite, minor quartz veining		trace, blebby, up to 1 cm		
	91.75	129.2	2f	Mafic Tuff	green, fine to medium-grained mafic tuff, actinolite in some bands; minor gritty, hard, grey interflow sedimentary beds 0.5 to 2 cm thick, <5% of unit					
	129.2	134.2	3f,6	Intermediate flows > minor sediments (silicified)	50/50 intermediate flows and pervasively silicified very fine-grained sedimentary beds; flows: 80-90% feldspar, minor biotite-quartz, most abundant towards top of unit, weathering brown to buff; sed: light to dark grey, pink tinged where completely silicified, finely laminated (mm to cm scale), mostly in second/lower half of unit					
	134.2	162	2a	Mafic Massive Flow		minor epidote alteration, trace epidote-K-spar veinlets				
				EOH						

Hole	SL-12-04									
	From	To (m)	Code	Name	Description	Alteration	Py	Po	Cpy	
	0.00	18.00	OB	Casing	Overburden					
	18.00	54.00	2f	Mafic Tuff	moderate carbonate(ankerite)-quartz flooding between 18-42 m, banded carbonate ~10-20% mostly parallel to foliation, decreasing substantially (<5%) below 42 m; mostly grey quartz veins remain	moderate carbonate-quartz; chl/ser/ank				
	54.00	59.90	3f	Intermediate Tuff	Medium grey, moderately foliated, predominately intermediate tuff abundant blueish-grey quartz eyes in felsic tuff; 64.55-65.3 m: biotite-quartz-feldspar intermediate flow; 62.2-62.6m: subrounded lithic fragments of ankerite vein material, quartz vein material, up to 1 cm	Chl	3			
	59.90	66.50	4b	Felsic Tuffs						
	66.50	117.30	3f	Intermediate Tuff	Pred. intermediate tuffs; rhythmically bedded on mm to cm scale; grey and locally blue shaded beds; most beds soft, some more siliceous; minor (<2%) interflow sediments/siltstones toward bottom of unit	105.75-111.6 m: pervasive silification; 107-109m: very intense brecciation, almost stockward; beigey/shot green	3		2%, stratabound along S0/S1, @ 78-81.5 m, strongly foliated, disseminated to blebby, and stringer along S1; 113.5-115.5: stratabound and disseminated pyrrhotite, up to 2%	
	117.30	121.40	16	Alteration zone (quartz-sericite)	intense to complete silica-sericite alteration zone, snotty yellow-green colour, minor grey, occasional relict feldspar and quartz crystals/phenocrysts; with late, randomly oriented and squiggly milky quartz veins up to 1 cm wide, hosting minor (1%) pyrrhotite blebs; vein density ~2-3%; alteration zone hosts <1% fine-grained (<1mm), disseminated pyrite-pyrrhotite; protolith: felsic to intermediate tuff?; Alteration zone shouldered by 2-3% pyrite-pyrrhotite in intermediate tuffs	intense to complete silica-sericite	2-3% disseminated, <1 mm grains		1% blebs in quartz veins; 1-2% disseminated, <1 mm grains	
	121.40	144.00	3f	Intermediate to Felsic Tuff	with minor (<10%) interflow sedimentary beds		1		2	
	144.00	180.00	3f	Intermediate tuffs	Banded intermediate tuffs. Several cycles of med-grained lapilli tuff unit - 2 to 3 cm.					
	EOH									

Hole	SL-12-05									
	From	To (m)	Code	Name	Description	Alteration	Py	Po	Cpy	
	0.00	35.30	OB	Overburden	Overburden. Mostly till and boulders lower in interval. Hole on Esker					
	35.30	49.75	6d, 3f	Mixed Argillite and Intermediate Tuff	~60% argillite, 40% intermediate tuffs and flows; argillite in beds 0.5 to 5 cm, rhythmic banding (light grey, dark grey); tuffs in beds 1 cm to 1 m, light to dark grey, abundant biotite defines foliation	chlorite	2.0	2.0		
	49.75	77.80	6db	Argillite, greywacke	90% bedded argillite, 10% intermediate tuffs, flows, and ash beds (chloritic, very soft, aphanitic, 1-2 cm wide, phyllitic)	Chlorite				
	77.80	79.55	3a	Intermediate Flow	fine to medium-grained intermediate flow	strong biotite				
	79.55	107.43	6d	Argillite >> intermediate-mafic tuff	similar to 49.75-77.8 m; 90% argillite, soft, very fine-grained to aphanitic, shades of grey, bar code-coloured with rhythmic bedding, 1 mm to 5 cm	105 m: beginning of quartz-calcite veining, ~5-10%, 1mm to 5 cm wide, randomly oriented		2.0		
	107.43	109.25	3a	Intermediate Flow	dacitic to andesitic volcanic flows, with abundant chlorite, biotite, feldspar, quartz (20%); fine to medium-grained, layered with a few layers of aphanitic green ash tuff	chlorite	1% disseminated throughout		0.5%, locally	
	109.25	113.35	6d	Argillite >> intermediate-mafic tuff	similar to 79.55-107.43 m; minor grey to green ash layers with minor lithic fragments			0.5		
	113.35	115.05	13a	Quartz Feldspar Porphyry, flow	abundant biotite (30%), strongly foliated; top and bottom contacts are very sharp, no bake/chill margins					
	115.05	130.70	6d	Argillite >> intermediate-mafic tuff	similar to 79.55-107.43 m and 109.25-113.35 m; predominantly argillite, with minor ash beds; still abundant quartz-calcite veining in rando orientations, 5-10%, though decreasing downhole	chlorite				
	130.70	160.00	3f	Intermediate to mafic ash tuff	90% dark grey to green, very fine-grained to aphanitic layered ash tuff; 10% argillite; unit also hosts rare flows	10-15% quartz-carbonate-pyrite+/- chalcopyrite veins, 1 mm to 3 cm wide in random orientations, but often along S0/S1				
	EOH									

Hole	SL-12-06									
	From	To (m)	Code	Name	Description	Alteration	Py	Po	Cpy	
	0.0	10.9	OB	Casing	Overburden					
	10.9	66.6	3f	Intermediate-Mafic Tuff	Intermediate to mafic ash tuff, with rusty-weathering ankerite veins and a local but well-developed S2 crenulation of S1; S2 is roughly parallel to core axis and best seen as phyllitic sheen in the sunshine, and is most obvious in phyllitic/more fine-grained ash-rich sections	chl/ank/bt	tr-1%			
	66.6	68.6	13a	Quartz-feldspar porphyry dyke	bake-chill margins at both contacts					
	68.6	84	3f	Intermediate-Mafic Tuff	same unit as 10.9-66.6 m	chl/ank/bt	tr-1%			
	84	101.1	3fa	Intermediate-Mafic Tuff, minor flows		Chl/ser/ank/bt		Trace		
	101.1	108.2	2f,3a	Mafic to Intermediate Tuff, minor intermediate flows	Mostly mafic to intermediate ash tuff beds, with abundant chlorite; very minor intermediate flows, generally less than 10 cm thick	chl/bt/ank/ minor hem		Trace		
	108.2	153	3f	Intermediate-Mafic Tuff	Mostly green to brown and light grey ash beds/layers; minor blueish-grey sediments at 109-110 m	ser/ank/chl, minor bt		Trace		
	153	174	3f	Intermediate Tuff and flows	50/50 tuffs and intermediate flows; an increase in alteration with a local silicification and/or sericitization in tuff beds between flows	silica-sericite in tuffs; quartz+/-pyrrhotite veins in flows, sub-perpendicular to core axis		Trace in veins and disseminated grains throughout the flows, grains up to 5 mm		
	EOH									

Hole	SL-12-07									
	From	To	Code	Name	Description	Alteration	Py	Po	Cpy	
	0.0	9.7	OB	Casing	Overburden					
	9.7	11.0	3f	Intermediate tuff	rusty weathering					
	11.0	18.6	6d,3f	Argillite, minor intermediate tuff	~85% argillite/shale, and ~15% tuff bands <2 cm; argillite cleaves strongly along foliation and is rusty weathering					
	18.6	34.3	3f,6d	Intermediate tuff, minor argillite	~80% ash tuff, and ~20% argillite; deeper down, feldspar phenocrysts become abundant in the tuff units (crystal tuffs), which may more likely be rhyodacitic flows, though banding/layering is prevalent throughout the unit					
	34.3	56.8	4b,6d	Felsic crystal tuff, minor argillite	60% tuff, 40% argillite; abundant blue-grey quartz eyes in felsic crystal tuff units, up to 5 mm; many quartz eyes look flattened parallel to S1					
	56.8	132.8	6d,3f	Argillite, minor intermediate tuff	Predominantly (95%) argillite/shale/greywacke beds with strong cleavage, with minor (5%) interbedded intermediate tuff units 1 cm to 1.3 m wide (generally <1 m)					
	132.8	136.5	3a	Intermediate flows	Mixed intermediate feldspar-porphyrific flows and green chloritic intermediate to mafic biotite-rich flows, back and forth between the two; contacts are very sharp, with no bake-chill margins; feldspar porphyry flows could be hypabyssal dykes injecting into warm flows	chlorite				
	136.5	139.4	6d	Argillite	fine-grained, grey, with very minor green ash tuff beds					
	139.4	141.4	3f	Intermediate flow	similar to chloritic intermediate flows above (132.8 ro 136.5 m)	chlorite				
	141.4	142.5	6d	Argillite	same old argillite				1.0	
	142.5	145.4	3f	Intermediate porphyritic flow	coarse feldspar phenocrysts in flow					
	145.4	151.0	6d	Argillite	same old argillite; weakly gradational bedding @ 149.5 m, and is fine-grained towards the bottom of hole and aphanitic toward top of hole, therefore tops facing up-hole				0.5	
				EOH						

APPENDIX D – Outcrop Locations and Descriptions

Outcrop ID	Easting (NAD 83, zone 15)	Northing (NAD 83, zone 15)	Outcrop Size	Rock Code	Lithology	Structure	Strike/Dip	Structure	Strike/Dip	Description
MHOC15-001	672079	5680834	5x10 m	3f	intermediate tuff	S1 (foliation)	080/72			Koval claims
MHOC15-002	671549	5680694	5x10 m	3f	intermediate tuff	S1 (foliation)	080/85			Koval claims
MHOC15-003	672400	5679878	<1 m	4b	felsic ash and quartz crystal tuff	S1 (foliation)	260/82			Line 2400E; well-layered, pink-beige to light grey/white weathering; fine-grained, crystalline, medium grey with pinkish-purple tinge mostly, but some bands/layers almost black, very fine-grained/aphanitic (generally 0.5 to 5 cm wide layers); rock largely non-magnetic; minor bluish quartz eyes locally, up to 2 mm; felsic ash & quartz crystal tuffs, interbedded; layering/bedding(?) 260/82 (dips N); some units more siliceous than others, weathering proud; minor quartz veins in random orientations (<2% vein density)
MHOC15-004	672400	5679757	25x10 m	3f	intermediate ash tuff	S1 (foliation)	248/85			big o/c, moderately to well-exposed under thin moss; 25x10m, ridge trending about 250; well-layered, multi-coloured, compositionally & colour banded on mm to several cm layers; layering/bedding 248/85; mineralogy & colour change with layers: variably weathering layers - chloritic green, light grey to beige, minor pink, dark grey; mineralogy - micas (bt>musc) abundant, abundant feldspar, chlorite; minor quartz; minor pink garnet in darker beds; intermediate ash tuff with minor felsic and mafic units; occasionally quartz veins (VD <1%) perpendicular to layering
MHOC15-005	672430	5679362	2 to 5 m x 50 m	3f6d	mixed intermediate to felsic tuffs and sediments/argillite	S1 (foliation)	094/84			long, narrow ridge trends ~260; 50 m long, 2-5 m wide; moderately to well-exposed under thin moss; well-layered, medium to dark grey weathering, some layers weathering light grey/bluish grey to beige, couple are green, few rusty; 094/84; differential weathering of layers, some weather proud (typically more siliceous, have few quartz eyes), others weather low; quartz vein density <<1%, but veins up to 10 cm wide, milky, look barren, largely sub-parallel to bedding/layering; beds on scale of mm to 8 cm; mixed intermediate to felsic tuffs and seds/argillite (?); mineralogy - quartz-feldspar-biotite-chlorite+/- possible sillimanite or andalusite? (<1mm, white to light grey, prismatic, flattened parallel to layering/foliation)
MHOC15-006	672812	5679797	30 x 80 m	2	mafic to intermediate volcanics	S1 (foliation)	260/90			very big outcrop, very well-exposed, minor moss; ridge trending north, ~30m wide; rock weathering mostly dark grey to black and dark green, locally light grey to white bands; locally gossan patches up to 50 cm across; well-banded (compositionally, coloured, and texturally); bedding @ 260/90; quartz veining from 0 to 5%, sub-parallel to bedding, white to red, up to 20 cm thick; some beds hosting proud-weathering, flattened fragments, flattened along S0/S1, 1 to 5 cm, ovoid shaped (bombs and large lapilli); o/c is mafic to intermediate volcanics (mixed ash & lapilli tuffs, minor interflow clastic sediments/argillite);

										MHOC15-006a - took for assay, gossanous/rusty weathering with 5% white & red quartz+/-hematite veining; o/c weathers dark mauve/blackish purple @ northernmost end
MHOC15-007	672897	5681340		3f	intermediate tuff/schist	S1 (foliation)	080/80	S2 - weak alignment of biotite	060/85?	moderately exposed, mostly covered in black lichen; previously mapped by N Guest?; abundant proud weathering little siliceous/quartz pods parallel to foliation/schistosity (~25% of rock); rock largely weathering dark grey to black and rusty in places; on fresh, rock is black and white, salt & pepper colour; mineralogy: biotite-feldspar-quartz-muscovite+/-amphibole, fine to medium-grained (<2mm, mostly <1 mm), strong schistose fabric approaching gneissic (south end of o/c, quartz pods have 060/85 fabric; north end, overall fabric is 080/80); S2 at shallow angle (<20 degrees) to S1? Sometimes see alignment of biotite at angle to alignment of colour/compositional banding
MHOC15-008	672885	5681391		3f	intermediate tuff/schist					similar to last o/c, but with less of those little siliceous pods and more biotite, occasional green-weathering bands/layers/beds = mafic tuff beds?; previously mapped
MHOC15-009	672979	5681521		6d2f	mixed sediments/ argillite > mafic to intermediate tuff					generally very fine-grained, dark grey to black, weathering dark grey to black, locally chloritic green or rusty; few layers of hornblende (hornblende in random orientations along S1, in chlorite-biotite matrix); mostly very fine grained, siliceous, hard, biotite-quartz - argillite; minor soft chloritic beds - mafic tuffs; mixed seds/argillite (60) > mafic-intermediate tuffs (40); high metamorphism - amphibolite facies; north end of o/c ends as cliff/steep face into river floodplain/muskeg
MHOC15-010	673101	5679935	3 x 8-10 m	3f	intermediate volcanics, tuff	S1 (foliation)	255/90			poorly exposed, entirely covered by moss mat; on 2 small, low profile ridges with few trees; ridges trend N-S, each about 3 m wide, 8-10 m long; intermediate tuff, mostly ash, colour and compositionally banded (bands 1 mm to 8 cm wide); weathering tan to light brown, medium to dark grey, few black bands, sometimes a little rusty; fresh surface: light greenish grey to medium grey, local light grey; some beds weathering proud, some lower (rustier beds weather low -> ankerite alteration?); ~1% quartz veins, white with local reddish tinge, up to 5 cm and generally parallel to sub-parallel to foliation; some quartz veins compressed across bedding; mineralogy: feldspar>biotite-musc>quartz, pretty quartz poor, so intermediate; few mafic-looking clasts/bombs, rounded, up to 10 cm; bedding strikes 255, dips vertical
MHOC15-011	672486	5681225	<2 m	17b	biotite-muscovite-feldspar schist					poorly exposed, under 2" moss mat; pinkish-orange-red weathering, minor rust, weathering makes it soft (not much quartz?); musc-chlorite-smectite?; strong foliation striking 260, vertical dip; cut by rusty pink-red quartz vein striking 230; vein pinches and swells and varies from 2 cm to 7 cm wide; further west, couple more small exposures (all <2m) -> mineralogy: biotite-plag-musc-chlorite+/-quartz, some layers have more quartz than other; o/c is biotite-musc-feldspar schist, pretty strongly foliated/schistose; 3 m to north, o/c of mafic-looking rock - dense, dark green to black, amphibole-biotite-plag schist, contact @ 080.
MHOC15	672369	5681164	20 x 20	4b6d	felsic to	S1	270			moderately exposed, mostly covered in white & green moss, and black, green,

-012			m		intermediate tuff, minor interflow argillite	(foliation)				& rusty brown lichen; ~20 x 20 m; fresh surface generally black, dark grey to medium grey, rusty brown, with few rusty-orange-red patches, or medium-light grey to light green; mostly colour and compositionally banded - o/c mostly biotite>>feldspar schist, but can see proud weathering, flattened clasts along foliation/S1; clasts/fragments 1 cm to 10 cm long, up to 2 cm thick; localized too few beds; 2 kinds of quartz veins: 1) rusty, deep red quartz-hematite veins, weather black, up to 4 cm wide, randomly oriented, with trace sulphide/pyrite along selvages; 2) milky white, up to 15 cm, as veins and discontinuous pods, mostly parallel to foliation; foliation strikes 270; mineralogy: biotite>>feldspar-musc-quartz; some beds look almost 100% biotite, others have more biotite=feldspar=quartz=musc; mixed felsic to intermediate tuff, lapilli/bomb tuff with minor interflow argillite (80-90% tuff, 10-20% argillite beds)
MHOC15-013	672305	5681155	15 x 15 m	4ba	felsic to intermediate tuff, minor flows	S1 (foliation)	080/76	S2 - weak alignment of biotite		moderately to well-exposed, typical moss, black, grey, and rusty brown lichen; o/c ~15 x 15 m; south half of o/c same old schist as last o/c (mixed schist, argillite, felsic to intermediate tuff) -> here, 2 foliations are apparent (S2 and S1; S2 defined by bt-musc alignment at ~25 degree angle to compositional/colour banding S1) - S1 @ 080/76; North half of o/c grades up into dark grey, siliceous, felsic to intermediate tuffs (have few clasts, fragments), minor flows (crystalline and homogenous), still with a few schist/argillite beds; tuff/flow beds appear to have minor to locally moderate hematite alteration/flooding that is patchy/occurs locally; quartz veins similar to last o/c
MHOC15-014	672377	5681122	2 x 2 m	17b	biotite-muscovite-feldspar schist/intermediate tuff	S1 (foliation)	70			completely covered by 3" moss mat; 2x2 m area; weathering very rusty brown-orange and black; strongly foliated S1 @ 070/dip unknown; can't get a fresh surface! o/c is totally flat under moss mat; rock looks like abundant bt-musc-feldspar; very soft on weathered surface; trace pyrite disseminated throughout, <0.1 mm; 1 little pyrite veinlet <2mm wide, <1 cm long, cuts across S1 - can't see much of the veinlets, but probably <1%?; rock is intermediate tuff?, can see some proud-weathering fragments <5x10 cm, or biotite-muscovite-feldspar schist (can't get assay or grab sample; too flat to break a piece anywhere)
MHOC15-015	672664	5681307	5 x 10 m	2fa	mafic volcanics, tuff > flows	S1 (foliation)	080/70			moderately exposed, 5x10 m, mostly covered by moss/lichen; dark green to black weathering, locally rusty, especially on joints/fractures; rock is fine- to medium-grained (up to 2 mm), dark green to black, >50% amphibole (actinolite or hornblende?) + feldspar (plag) + biotite (minor); cut by white quartz +/- rusty carbonate veins (VD ~2%), generally <0.5 cm wide; weak layering and foliation (S0 & S1) strike 080/70 (dips south); mafic volcanics, probably mostly tuff, though flows also present
MHOC15-016	670475	5680947	15 x 30 m	2baf	mafic volcanics, flows > tuffs	S1 (foliation)	245/90	glacial striae, chattermarks	230	very big outcrop consisting of several exposures up to 15x30 m, well-exposed, ~70% covered by moss; rest covered with black or brown lichen; dark green to black weathering; dark green on fresh surface, fine to medium-grained; mineralogy: amphibole (hornblende or actinolite?)-plag>bt +/- relict pyroxene; non-magnetic; massive to pillowed mafic flows, few tuff beds on south side of o/c; flows up to 1 m thick; pillows up to 30 cm long, 10 cm wide, very

										flattened/oblate; can't tell up-direction; layers (S0) strike 245, dips vertical; foliation (S1) 245, dips vertical; glacial chattermarks and striae @ 230
MHOC15-017	670194	5681007		2af	mafic volcanics, massive flows > tuffs	S1 (foliation)	250			moderately exposed, ~90% covered in moss, rest covered in black, tan, and grey lichen; fine- to medium-grained, hbl/actin-rich (~40%), plag, pyx, +/- bt, trace pyrite disseminated (<0.5 mm); non-magnetic; S0/S1 ~250; mafic flows (massive, basalt) and tuffs, metamorphosed to amphibolite facies.
MHOC15-018	669966	5680779		2af	mafic volcanics					fine- to medium-grained, amphibole (hbl/actin?)-plag-minor bt, little quartz; mostly massive, strongly foliated along S1; southern units approaching gneissic fabric almost, with colour/compositional banding of dark green to black amphibole-rich layers, and light grey to pale greenish-white plag/fsp-quartz layers, generally 0.5 to 1 cm wide; amphibole layers have abundant amphibole floating (randomly oriented along S1) in sea of plag(+/-chl?); mafic volcanics, amphibolite facies metamorphism - flows and tuffs?
MHSC15-019	669569	5680510	5 x 3 m	2	mafic volcanics					not exposed, covered in moss, trees; not sure if it's o/c, probably sub-crop or very large boulder; 5x3 m; mafic volcanics, abundant amph-plag, weathering dark green, green on fresh.
MHOC15-020	669575	5680583	20 x 5 m	2	mafic volcanics					o/c moderately exposed, covered in moss, lichen, trees; o/c ~20 m x 5 m ridge trending 070; medium-grained amphibole-plag; mafic volcanics; hard to make out S1
MHOC15-021	669594	5680643		2	mafic volcanics	S1 (foliation)	072/90			dark green, fine-grained, amphiboles; mafic volcanics; S1 @ 072/vertical-85
MHOC15-022	669600	5680809		2	mafic volcanics					mafic volcanics
MHOC15-023	670210	5679242		6d	Metasediments (argillite)	S0	80			metaseds, thinly laminated to finely bedded argillite, with thicker beds between (turbidite sequences?); within thinly laminated beds, several beds look cut or slumped (see photos) - Hewton and Kendle debating whether top is north or south; S0 @ 080 (dip unknown)
MHOC15-024	670610	5679338		2	mafic to intermediate volcanics	S1 (foliation)	254/90			walked south down line 9600, just off line; walked past several small o/c of mixed fine-grained, dark green chloritic and amphibolitic mafic to medium green-grey, fine-grained intermediate (20% quartz, 35% feldspar, 35% amphibole) volcanic units, strongly foliated, locally moderately developed sub-gneissic fabric with differentiation of dark and light minerals into <1 cm bands - > locally tourmaline? dark, black, conchoidal fracture, very hard; this o/c mostly covered by moss, trees, but looks highly weathered; fine to medium grained (up to 2 mm) chlorite-amphibole=plag>quartz-bt; schistose fabric; foliation/S1 @ 254/90
MHOC15-025	670610	5679420		2,6d	mafic volcanics, minor phyllitic interflow sediments	S1 (foliation)	260/87	S2	360/90	moderately exposed under moss; finely laminated (<1 mm) to thickly bedded (~10cm) mafic to lesser intermediate-mafic tuffs>flows, with some minor bt-rich phyllite/phyllitic interflow sediments (beds up to 1 cm thick) -> well-developed S2 crenulation in phyllite, S2 plunges vertical/87 degrees, 360/90 (perpendicular to S0/S1; see photos); S0/S1 @ 260/87; just north of S2 location, rusty dark red quartz+/-hem pod with 2 crystals of very hard, black, prisms (tourmaline?); increase in abundance and thickness of argillite

										northward in outcrop, biotite-rich (>60%)-> rusty hematite staining, especially along S1, rusty-looking red-orange quartz-carbonate veins , vein density ~2%, veins 1 mm to 5 cm wide; in mafic-intermediate tuffs, same rusty red-orange quartz-carbonate veins, ~1-2%
MHOC15-026	670564	5679512		2af6d	mafic to intermediate volcanics, tuffs, minor argillite	S1 (schistosity)	265/90	S2	230/90	very strongly foliated/schistose and fissile tuffs (mafic to intermediate or intermediate to mafic) and volcanics, with minor argillite beds; very fine-grained, dark grey to black and dark green; scratching generally green, generally chloritic, soft; minor quartz veins ~2%, 1-5 mm wide, approximately parallel to S1; trace disseminated pyrite, <0.5 mm; weakly developed 2nd foliation at angle to S0/S1 - chops up/ breaks up some S0 bands into little blebs; S0/S1 - 265/90; foliation 2 - 230/90 (shear?); locally about 2% ankerite blebs/flooding and thin veinlets; rock weathers rusty red-orange/brick red along joints and S1
MHOC15-027	670589	5679585		4ab6d	felsic to intermediate volcanics, tuffs, minor sediments	S1 (foliation)	260/90			unexposed o/c, completely covered by 4" moss mat - found by smack with hammer along ridge trending 070 just south of creek; weathering beige to tan and deep brick red; intruded by quartz-K spar veins (medium- to coarse grained, pink and white to light grey; which are in turn cut by secondary white to clear quartz veins which do not cut the host rock) and several pinch-and-swell red quartz-hematite veins; host rock is finely laminated, beige or black weathering, dark to medium grey to pinkish grey on fresh surface, sugary textured, fine grained (<1 mm) to aphanitic, with abundant biotite-muscovite; host is baked felsic to intermediate tuffs/volcanics or sediments/volcaniclastic sediments; S0/S1 is 260/90; locally deformed around veins, including drag folds (roughly NE to ENE trending hinge accompanied by reverse faulting; see photo); dilational quartz-hematite veins pinch and swell up to 5 cm wide, generally trend 235 to 240, often cut and brecciate host rock, especially the blacker/darker and more indurated beds; quartz-K spar veins up to 20 cm wide, medium-grained (up to 5 mm), with white-grey quartz vein cores (up to 3 cm wide, which intrude along S0/S1, between beds, pinch and swell, and often have minor hematite staining, especially at selvages; few hematite-only veins <1 cm wide across S0/S1; zone of most intense alteration/veining about 1 m wide; moderate alteration zone 3 to 4 m wide, strikes >25 m long, E-W; F Kendle exposed 2 more similar outcrops along strike east and west of original outcrop
MHOC15-028	670587	5679585	5 x 2 m	17b	schist	S1 (schistosity)	260/90			north of alteration zone; cliff face roughly 3 m high and trending E-W before creek and swamp; S1 ~ 260/90, very strong foliation; covered in dark purple to black lichen; fissile, schistose; schist/intermediate tuff? Or argillite?
MHOC15-029	671128	5679544		3fa	intermediate to felsic tuff/volcanics	S1 (foliation)	260/90			well-exposed, some moss, mostly lichen; fresh surface dark grey to black; mineralogy - biotite-quartz-feldspar, non-magnetic; locally quartz eyes up to 2 mm; biotite wraps around quartz & feldspar defining strong S1 @ 260/90, and schistose fabric; minor quartz veins up to several cm wide, vein density 1 to 2%, few slightly rusty veins; rock is intermediate to felsic tuff/volcanics
MHOC15	671059	5679642		3fa	intermediate	S1	280/87			similar to last o/c; intermediate to felsic tuff/volcanics, S0/S1 @ 280/87

-030					to felsic tuff/ volcanics	(foliation)				
MHOC15 -031	671090	5679723		3f6	intermediate tuff with minor interflow sediments	S0	250/85			99% covered by moss mat, just barely see ridge along S1, ridge >50 m long, 10 m wide; fresh surface is dark brownish grey, very biotite-rich; rock is finely laminated to thinly bedded (order of <1mm to 7 mm), nicely bedded, well-developed laminations; intermediate tuffs with minor interflow sediments; 250/85
MHOC15 -032	671085	5679844		3fa	intermediate to felsic tuff/ volcanics	S1 (foliation)	260/90			unexposed under 3" moss mat; weathered surface is zebra-striped, 50/50 black and white/beige bands/layers ~0.5 mm to 15mm wide; black stripes weathering proud, white low; black stripes powder grey-green (chloritic), white stripes soft, clayey; locally rusty weathering, esp on joints, fractures; on fresh: black layers - aphanitic to very fine-grained, dark green, chlorite-amphibole, mostly, pretty continuous, sometimes pinch out; white layers - aphanitic to very fine-grained, dark pinkish/purplish grey, just barely scratches, K spar-rich (rhyolitic? syenitic?); moderately fissile along layers; S1 ~ 260/90; intermediate to felsic tuff, almost gneissic -> shear fabric?
MHOC15 -033	671123	5679890		4a	felsic volcanics	S0	268/90	S1 (foliation)	268/90	unexposed, 3" moss mat; weathering orangey-buff to beige, quartz eyes 0.5 to 10 mm (though mostly up to 2 mm) weather proud; rusty on fractures; fresh surface - fine- to medium-grained (up to 1-2 mm), orangey-grey; weak to moderate foliation @ 268/90; mineralogy - quartz-quartz eyes-feldspar-biotite- "rusted out mineral" (<1 mm, disseminated, cubic to rhombic looking weathered out empty pits, Fe-oxide powder is all that remains; formerly ankerite or pyrite?); few clasts/fragments up to 20 cm long, chloritic, stretched out; North side of o/c: massive but foliated, no bedding, rhyolitic flow; south side of o/c: well-banded/layered (1-20 mm), mineralogy similar to north side, felsic tuffs
MHOC15 -034	671083	5679890		4a	felsic volcanics	S1 (foliation)	268/90			unexposed, under moss mat; similar to south side of last o/c with thick (20-30 cm) bands of rhyolite flows and proud-weathering black to dark green chlorite-quartz bands (flattened fragments? Or tuff beds?); cut by wide milky white quartz veins with minor hematite, especially at edges - vein strikes 240/90 across chloritic bands, seems to pinch out at rhyolitic zones; foliation/S1 ~ 268/90; vein sampled
MHOC15 -035	671214	5679787		3af	intermediate to felsic volcanics (flows>tuffs)	S1 (foliation)	253/90	folds (F1)	hinges roughly perpendi cular to S1	poor exposed; rusty beige to dark grey; interbeds of medium-grained salt-and-pepper rhyodacitic to dacitic flows (up to 10 cm), intermediate tuffs (up to 15 cm) that are very fine-grained, dark to medium grey, and minor very fine-grained to fine-grained, biotite-rich dark grey interflow sediments (up to 5 cm); dacitic flow beds mineralogy - up to 1 mm, feldspar-hornblende-quartz-biotite; o/c is overall/dominantly intermediate volcanics (flows and tuffs); S1 ~253/90 generally, but also small folds with hinges approx perpendicular to S1
MHOC15 -036	671177	5679762		3fa	intermediate volcanics (mixed tuff>flows)	S1 (foliation)	259/90			well-laminated intermediate volcanics (mixed tuff> flows); mineralogy - biotite>hornblende-feldspar (greenish, albite)-quartz (<20%); S1 @ 259/90

MHOC15-037	671122	5679832		3fa	intermediate volcanics with minor intermediate to mafic bands	S1 (foliation)	270/90			dark chloritic green to medium grey weathering; green grey to salt-and-pepper on fresh; hornblende-rich (chloritized), feldspar (albite)-rich, minor quartz (<10%); intermediate volcanics (tuffs and flows) with minor intermediate to mafic tuff bands; S1 foliation of hornblende-rich medium-grained units (flows?) @ 270/90
MHOC15-038	671168	5679731		3	intermediate volcanics	S1 (foliation)	254/90			moderately exposed; intermediate volcanics cut by pinch-and-swell quartz-Fe carbonate(?) hematite veins, rusty orange to blood red, up to 20 cm wide, and vein density of 1 to 20% over a meter (up to 20% only locally); S1 @ 254/90; veins approximately parallel to S1 to cutting at low angle; rock has black layers that weather proud; o/c looks kind of baked, schist to amphibolite facies; walking south across o/c, looks similar with occasional quartz veins brecciating black, indurated host; o/c sometimes looks kind of sheared, locally almost zebra-striped, volcanoclastic fragments occasionally look pulled/stretched rather than just flattened
MHOC15-039	670921	5682337	5x10 m	4	felsic to intermediate volcanics	S1 (foliation)	240			unexposed, under 6" moss mat, found by hammer hit into white crunchy reindeer moss; red-brown weathering, soft weathering; cleaned up with water - light pinkish brown to brownish beige, few hard quartz+"hard black mineral" (tourmaline?) veinlets that pinch and swell, up to 5 mm wide, discontinuous, trend parallel to foliation; ~10% fragments, ~5% grey quartz eyes up to 5 mm; strong foliation @ 240; o/c about 5x10m? Exposed 1x1m of it; o/c right on claim line; fresh surface (could only get chips off it) is light to dark grey, locally pinkish beige; mineralogy - biotite-feldspar(albite+K spar)-quartz(<20%)-minor quartz eyes (5%); non-magnetic; felsic to intermediate volcanic
MHOC15-040	670856	5682127	2x5 m	2af	mafic to intermediate volcanics	S1 (foliation)	ENE/75			unexposed o/c, narrow ridge ~1-2 m wide and 5 m long, under 8" thick moss mat; interbedded pale brown-grey-tan and dark green weathering beds ~2-10 cm thick; green beds weather proud, brown-grey-tan beds low, very soft, both non-magnetic; mafic to intermediate volcanics/tuffs; green beds very hard, fresh surface show very fine-grained/aphanitic sugary white-light green quartz with fine to medium grained amphiboles and chlorite; quartz almost looks cherty (-> silica sinter?); light coloured beds are speckled with green amphibole needles up to 2 mm long and are dominantly composed of feldspar (plag), very fine-grained to aphanitic, but mineralogy looks like plag-amph+/-chlorite; trace pyrite, <0.01mm, disseminated; o/c is 50 m SSE of EM anomaly area within mag high area -> near this area, compass starts to wander and diverge from magnetic north, sort of points toward NE/ENE, so can't measure strike of bedding; bedding strike looks ENE roughly, and dips 75 degrees toward the lake.
FRK-SL-15-001	672636	5681421	20m high ridge !F 1m x 10m	7b	Oxide Facies Iron Formation					Large ridge running parallel to creek ~20m high. Small band of fg banded oxide facies iron formation within a f-mg mafic volcanic (FRK-SL-15-002). IF is finely banded silica-magnetite rich bands. Strongly foliated along S1. Rock is extremely magnetic!

FRK-SL-15-002	672589	5681361	100m x >25m	2a	Mafic Volcanic (Flow?)	S1	088/76			Large outcrop ridge of fg massive mafic volcanic (locally medium grained with visible amphiboles). Weakly foliated becoming more strongly foliated to the north. S1 plane split easily on the northern portion and are rusty. Rare diss Py.
FRK-SL-15-003	672588	5681290	15m x 30m	2a	Mafic Volcanic	S1	110/86			Small outcrop exposure ~15m x 3m of fg, weakly foliated massive mafic volcanic. Matrix is very fine grained dark green to black with <3% 1mm quartz-carbonate veinlets.
FRK-SL-15-004	672557	5681296	40cm wide vein	15a	Quartz Vein	Vein	299/90			~40cm wide milky white quartz vein in contact with a massive mafic volcanic (FRK-SL-15-003). Vein is barren, no visible sulphides. Contact is irregular but appears to be trending 299 deg, dip is near vertical.
FRK-SL-15-005	672469	5681216	2m x 7m	4b	Felsic Tuff	S1	074/80			Small o/c of fg grey-brown felsic tuff. Moderately foliated with Fe-oxide staining along S1 foliation. Matrix is comprised of 45% quartz, 35% feldspar and 20% biotite, grey white in colour and sugary texture. Occasional qtz eye? <5% qtz veins <3cm wide
FRK-SL-15-006	672395	5681194	5m x 5m	4b	Felsic Tuff	S1	080/78			Fine grained felsic tuff similar to (FRK-SL-15-005) possibly with interbeds of intermediate tuff. Weathered surfaces show 10% positive weathering (silica rich bands?)
FRK-SL-15-007	672605	5680367	30m x 15m	3f	Intermediate Tuff					Large o/c within numerous smaller ones. Mapped previously, location ~25m S of previous location. Weathered surface gry-blk. Matrix dark grn comprised of feldspar, qtz, biotite and amphibole. Intermediate tuff minor felsic tuff. Masive to N, layered to S
FRK-SL-15-008	672595	5680359	40cm layer	4b	Felsic Tuff	S1	082/86	S2	014/68	40cm interbed of felsic tuff within (FRK-SL-15-007), fine grained sugary quartzo-feldspathic matrix, highly weathered pale brown. Fresh surface pale grey, predominately quartz and feldspar with minor biotite, Possible quartz eyes.
FRK-SL-15-009	672603	5680099	5m x 10m	3f	Intermediate Tuff	S1	078/82			Small poorly exposed o/c fg, mod Fol intermediate tuff? There appears to be some layering (more visible on weathered surface. Weathered grey brown. Matrix is light green-grey, aphanitic comprised primarily of feldspar, chlorite with quartz & minor Biotite
FRK-SL-15-010	672634	5680076	1m x 0.5m	3f	Intermediate Tuff	S1	079/70			Small poorly exposed under a thin layer of moss intermediate tuff. Same as FRK-SL-15-009.
FRK-SL-15-011	672602	5680087	5m x 10m	3f	Intermediate Tuff					Southern half of o/c FRK-SL-15-009. Intermediate tuff with minor interbedded felsic tuff and 10% quartz veins (<1cm - 10cm wide) often boudinaged.
FRK-SL-15-012	672606	5680032	10m x 10m	3f	Intermediate Tuff					Area of large blocks, sub outcrop? of fine grained grey intermediate volcanic. matrix is comprised mostly of feldspar (plag), biotite and 20-30% quartz? Appears quite massive, possibly a flow?
FRK-SL-15-013	672574	5679787	25m x 25m	3f	Intermediate Tuff	S1	076/76	76		Very large, well exposed o/c of finely layered intermediate ash tuff/lapilli tuff. <5% 1mm-1cm qtz-carbonate veins usually parallel to S1. Matrix is fg, light grey, aphanitic comprised of feldspar, biotite chlorite and quartz. rare lapilli beds.
FRK-SL-15-014	672568	5679777	1m x 5m	4b	Felsic Tuff					~1m wide interflow felsic volcanic (tuff?) within FRK-SL-15-013. Quartzo-feldspathic with ~1% quartz eyes. Trace py.
FRK-SL-	672609	5679801	1m x 3m	3f	Intermediate					Same as FRK-SL-15-013

15-015					Tuff					
FRK-SL-15-016	672602	5679761	1m x 3m	3f	Intermediate Tuff					Same as FRK-SL-15-013
FRK-SL-15-017	672604	5679717	1m x 3m	3f	Intermediate Tuff					Same as FRK-SL-15-013
FRK-SL-15-018	672606	5679688	1m x 3m	3f	Intermediate Tuff	S1	082/76	76		Same as FRK-SL-15-013
FRK-SL-15-019	672604	5679663	1m x 3m	3f	Intermediate Tuff					Same as FRK-SL-15-013
FRK-SL-15-020	672599	5679383	15m x 10m	3f	Intermediate Tuff	S1	088/84	84		Layering <1cm Same as FRK-SL-15-013
FRK-SL-15-021	672886	5681416	15m x 20m	2a	Mafic Volcanic	Fold	270/64	64		Hand stipped 10m across strike of outcrop mapped by NG. strong magnetic variance in compass but unable to fine source. Massive fg mafic volcanic. Locally 20% amphibole with chlorite, feldspar and biotite. Fold axis roughly parallel to S1 (west dip 64).
FRK-SL-15-022	672904	5681434	2m x 1m	7b	Oxide Facies Iron Formation					Very fine grained, finely layered, oxide facies iron formation, in an area of extreme magnetism. 1m wide by 2m long block / suboutcrop? S0/S1 planes are Fe oxidized.
FRK-SL-15-023	672819	5681455	3m x 5m	4a	Felsic Volcanic (flow?)	S1	062/86	86		3m felsic volcanic (flow?) within extremely large mafic (massive flow). Good contact not visible as strong S1 has peeled units apart on cliff face. Contacts sharp but no chill margin. F-mg qtz-feldspathic with 20% biotite, trace Py. <3% qtz phenocrysts
FRK-SL-15-024	672763	5681420	0.5 x 5m	4b2b	Felsic-Intermediate Tuff?	S1	058/86	86		~50cm wide interflow of felsic-intermediate volcanic within an extremely large mafic flow (pillow basalt?). fg sugary matrix comprised primarily of feldspar, quartz, minor biotite. Possible qtz eyes? Trace diss Py.
FRK-SL-15-025	670002	5680778	20m x 10m	2	Mafic Volcanic	S1	072/83	83		Large outcrop, probably mapped before. Fg, mafic volcanic. Matrix is aphanitic comprised of plag, chlorite, amphibole and minor qtz. Southern portion appears layed (possibly S1 fabric). <1% erratic qtz-card veins? sweats.
FRK-SL-15-026	669974	5680739	2m x 1m	2	Mafic Volcanic					Small poorly exposed outcrop of fg layered aphanitic mafic volcanic.
FRK-SL-15-027	6698439	5680773	20m x 10m	2	Mafic Volcanic					Large outcrop of fg mafic volcanic? possibly approaching intermediate, slightly harder than FRK-SL-15-026. Mafic to Intermediate tuff?
FRK-SL-15-028	669497	5680578	1m x 1m	2f	Mafic-Intermediate Volcanic	S1	069/82	82		Small rise <5m high in flat black spruce swamp (drumlin?) possible sub crop or outcrop? Fg mafic-intermediate grey-green to black ash tuff? soft enough to scratch. minor qtz-carb veining. located by picket L95/16+00N.
FRK-SL-15-029	669512	5680589	2m x 4m	3f	Intermediate-Mafic Volcanic	S1	074/84	84		Poorly exposed o/c of strongly foliated, fg, intermediate-mafic volcanic(ash tuff?) similar to FRK-SL-15-028. Dark grey to black, still soft enough to scratch but appears to have slightly more silica. S1 foliation planes display Fe staining. tr diss Py
FRK-SL-15-030	669535	5680625	10m x 10m	2	Mafic Volcanic					Fine grained, weakly foliated mafic volcanic.
FRK-SL-	669500	5680724	40m x	2	Mafic					Long narrow ridge of weakly foliated mafic volcanic.

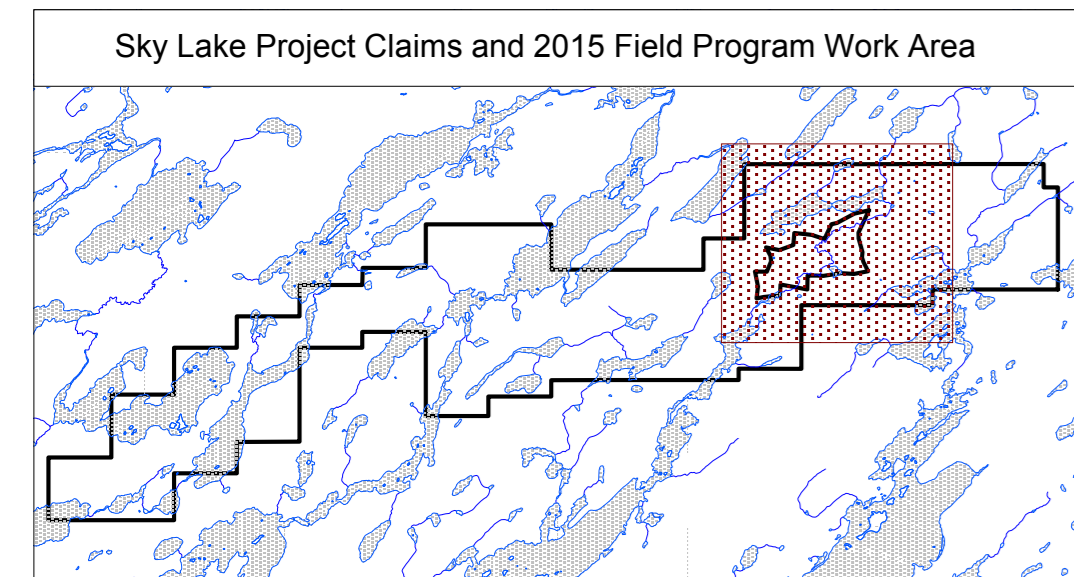
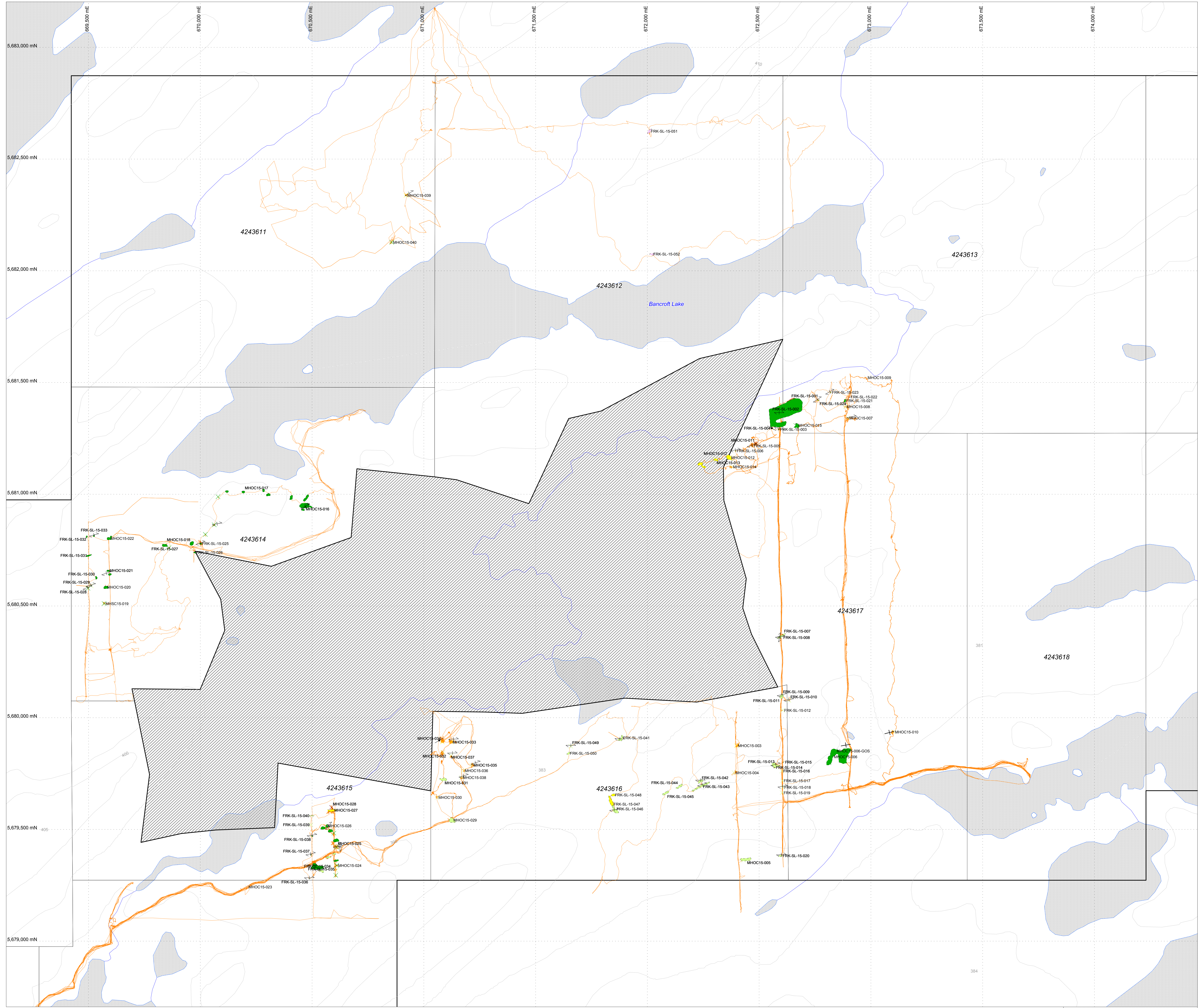
15-031			15m		Volcanic					
FRK-SL-15-032	669492	5680808	10m x 3m	2	Mafic Volcanic					Fine grained massive mafic volcanic.
FRK-SL-15-033	669525	5680814	10m x 3m	2	Mafic Volcanic	S1	076/78	78		Large poorly exposed outcrop of fg, weakly foliated mafic volcanic.
FRK-SL-15-034	670503	5679336	15m x 15m	2	Mafic Volcanic	S1	095/86	86		Large outcrop just south of old drill trail. F, dark green, weakly foliated mafic volcanic comprised primarily of plag, chlorite, amphibole and quartz with minor biotite. slightly hard but still able to scratch fairly easily
FRK-SL-15-035	670532	5679317	30m x 12m	3	Intermediate-Mafic Volcanic	S1	087/83	83		North face of this outcrop and south face of FRK-SL-15-034 very sharp (steep) with small alley between (fault - EM anomaly?) Fg, weakly foliated layered intermediate to mafic volcanic. Some layers more Qtz (<30%) other layers similar to FRK-SL-15-034.
FRK-SL-15-036	670488	5679280	7m x 15m	3f	Intermediate Volcanic	S1	089/	82		Small poorly exposed outcrop of intermediate volcanic (ash tuff?). Fg, weakly foliated, light grey-green, matrix is aphanitic (sugary) comprised of plag, chlorite, quartz (~30%) and amphibole? rare disseminated Py.
FRK-SL-15-037	670495	5679386	1m x 4m	2	Mafic Volcanic	S1	258/88	88		Small narrow poorly exposed outcrop of fg, strongly foliated, green-grey mafic volcanic. strong S1 has created a weak schistosity. Interval cleaves very easily along S1 with weak Fe staining. just south of IP anomaly.
FRK-SL-15-038	670500	5679471	1m x 5m	2	Mafic Volcanic	S1	262/86	86		Small poorly exposed outcrop of strongly foliated dark grey-black very fg mafic volcanic comprised primarily of amphibole, chlorite and plagioclase. <5% <1mm qtz-carb veinlets. Strong Fe staining along S1 foliation.
FRK-SL-15-039	670495	5679520	1m x 2m	3f	Intermediate Volcanic					Poorly exposed outcrop under moss, layered intermediate to mafic tuff, difficult to get a fresh piece. Fg, grey-green matrix comprised of plagioclase, chlorite, amphibole and quartz.
FRK-SL-15-040	670497	5679561	2m x 8m	3f	Intermediate Tuff					Long narrow 2m high cliff face at the edge of a swamp (fault?). very fg, grey-black intermediate volcanic tuff (ash?). matrix is comprised of plagioclase, chlorite, quartz and amphibole.
FRK-SL-15-041	671877	5679901	3m x 2m	3f	Intermediate Tuff	S1	274/82	82		Small poorly exposed o/c on trail, moderately foliated, fg, light grey intermediate ash? lithic? tuff. interval is layered with slight variations in layering comprised predominately of plagioclase biotite and quartz. ~10% 1mm clots of biotite. Biotite along S1.
FRK-SL-15-042	672237	5679716	5m x 15m	3f	Intermediate Tuff	S1	258/74	74		Large poorly exposed o/c of vfg, grey-green, layered intermediate ash tuff?. Layering/S1 is erratic. Rock is relatively hard but can still scratch with knife. Some (<20%) more mafic looking layers <5cm thick (~2cm) dark green chlorite rich.
FRK-SL-15-043	672247	5679698	5m x 50m	3f	Intermediate-Felsic Tuff	S1	255/78	78		Layered intermediate to felsic tuffs, fg finely layered, locally the felsic layers display weak sericite alteration.
FRK-SL-15-044	672144	5679692	5m x 20m	3f	Intermediate Tuff					Same as FRK-SL-15-042.
FRK-SL-15-045	672081	5679661	5m x 20m	3f	Intermediate-Felsic Tuff					Same as FRK-SL-15-043. slightly less layering.
FRK-SL-	671853	5679584	25m x	3f	Intermediate	S1	262/82	82		Well exposed o/c of intermediate tuff with interflow mafic tuff (<20%). similar to

15-046			10m		-Mafic Tuff					FRK-SL-15-042. weakly foliated parallel to layering. <5% qtz-carb veins.
FRK-SL-15-047	671841	5679623	25m x 15m	4b	Felsic-Intermediate Tuff					Extension of o/c FRK-SI-15-046. very hard, fg, light green-grey felsic tuffs with interflow intermediate tuffs. Occasional beds of quartz crystal tuff. Whole o/c seems to becoming more felsic to the north.
FRK-SL-15-048	671847	5679654	10m x 10m	4b	Felsic-Intermediate Tuff					Layered, fg, light grey in colour felsic to intermediate tuff. Locally strong Fe staining S1 foliation. Occasional interflows of intermediate ash tuffs.
FRK-SL-15-049	671658	5679871	2m x 4m	3f	Intermediate-Mafic Tuff	S1	272/86	86		Small poorly exposed outcrop of fg, light green intermediate to mafic tuff comprised primarily of feldspar, biotite, quartz and amphibole. weakly foliated.
FRK-SL-15-050	671649	5679840	2m x 4m	3f	Intermediate-Mafic Tuff					Very fg intermediate tuff.
FRK-SL-15-051	672008	5682625	15m x 10m	12a	Granite					Medium grained white with slight pink (minor k-spar) granite. Comprised of quartz, feldspar and biotite. Rare cubic Py. Several other small outcrops in the vicinity.
FRK-SL-15-052	672025	5682073	20m x 2m	12a	Granite					Long ~ 20m narrow ~2m high ~0.5m outcrop of medium grained white granite covered by moss. Comprised of quartz, feldspar and 20% biotite. On magnetics map appears high, but rock is non-magnetic.

APPENDIX E – Rock Specimen and Sample Location List

Outcrop ID	Sample ID	Sample ID	Easting (NAD 83, zone 15)	Northing (NAD 83, zone 15)
FRK-SL-15-001	FRK-SL-15-001	651022	672635	5681420
FRK-SL-15-004	FRK-SL-15-004	651023	672556	5681295
FRK-SL-15-005	FRK-SL-15-005		672468	5681215
FRK-SL-15-007	FRK-SL-15-007		672605	5680367
FRK-SL-15-014	FRK-SL-15-014		672567	5679776
FRK-SL-15-022	FRK-SL-15-022	651024	672903	5681434
FRK-SL-15-023	FRK-SL-15-023		672818	5681455
FRK-SL-15-024	FRK-SL-15-024		672762	5681420
FRK-SL-15-027	FRK-SL-15-027		669842	5680772
FRK-SL-15-029	FRK-SL-15-029		669511	5680589
FRK-SL-15-038	FRK-SL-15-038		670500	5679470
FRK-SL-15-047	FRK-SL-15-047		671840	5679622
FRK-SL-15-051	FRK-SL-15-051		672008	5682624
FRK-SL-15-052	FRK-SL-15-052		672024	5682072
MHOC15-003	MHOC15-003		672400	5679878
MHOC15-004	MHOC15-004		672400	5679757
MHOC15-005	MHOC15-005		672430	5679362
MHOC15-006	MHOC15-006A	651032	672843	5679851
MHOC15-007	MHOC15-007		672897	5681340
MHOC15-011	MHOC15-011		672486	5681225
MHOC15-013	MHOC15-013		672305	5681155
MHOC15-018	MHOC15-018		669966	5680779
MHOC15-027	MHOC15-027		670589	5679585
MHOC15-027	MHOC15-027A	651025	670594	5679583
MHOC15-027	MHOC15-027B	651026	670585	5679581
MHOC15-027	MHOC15-027C	651027	670606	5679586
MHOC15-027	MHOC15-027D	651028	670583	5679582
MHOC15-027	MHOC15-027E	651029	670584	5679581
MHOC15-027	MHOC15-027F	651030	670575	5679578
MHOC15-028	MHOC15-028		670587	5679585
MHOC15-032	MHOC15-032		671085	5679844
MHOC15-033	MHOC15-033		671123	5679890
MHOC15-034	MHOC15-034A	651031	671081	5679894

APPENDIX F – Geologic Map



Sky Lake Project Claims and 2015 Field Program Work Area	
	GPS Tracks
	Claims
	Claim block outline
	Claims held by Tri Origin (claim numbers in centre)
	Other Company Claims

Legend	
	Topography Contour Lines (m)
	Hydrography Streams
	Lakes and other Waterbodies

Geology	
	Mafic volcanics, tuffs and flows (small outcrop)
	Intermediate volcanics, tuffs and flows (small outcrop)
	Argillite, siltstone, greywacke (small outcrop)
	Felsic volcanics, tuffs and flows (small outcrop)
	Schist (protolith undetermined; small outcrop)
	Mafic volcanics, tuffs and flows
	Oxide-facies iron formation
	Felsic volcanics, tuffs and flows
	Intermediate volcanics, tuffs and flows
	Granite

Structure	
	Bedding, dipping
	Bedding, vertically dipping
	Foliation/schistosity, dipping
	Foliation/schistosity, vertically dipping
	Second foliation/schistosity, vertically dipping
	Glacial striae
	Quartz veins

Legend	
	Topography Contour Lines (m)
	Hydrography Streams
	Lakes and other Waterbodies

TRI ORIGIN EXPLORATION	
Date: 6/25/2015	Sky Lake Project Mapping Traverses and Outcrop Locations June 2015 Program
Author: M Hewton	
Scale: 1:6,000	Projection: UTM Zone 15 (NAD 83)

APPENDIX G – Multi-element Certificate of Analysis