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ASSESSMENT REPORT – RESAMPLING AND ASSAYING OF HISTORIC DRILL CORE

CASE LAKE PROPERTY

Cochrane, Northeastern Ontario, Canada

NTS Sheet: 32E04SW

POWER METALS CORP.
Suite 545 – 999 Canada Place
Vancouver, British Columbia, V6C 3E1
Canada

Date: August 12, 2017

Prepared By:
J-J Minerals
Julie Selway, Ph.D., P.Geo

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1.0 SUMMARY

J-J Minerals of Sudbury, Ontario, Canada was contracted by Power Metals Corp. ("Power Metals") of Vancouver, British Columbia, Canada to write an Assessment Report summarizing the results of the resampling, assaying and relogging of historic drill core from the Case Lake Property, Cochrane, northeastern Ontario and to recommend a future exploration program.

Case Lake Property is located in Steele and Case townships, near Cochrane, NE Ontario close to the Ontario-Quebec border. It is located within Larder Lake Mining Division and NTS sheet: 32E04SW. It is located 80 km east of Cochrane, 100 km north of Kirkland Lake and 120 km NE of Timmins. The Property consists of a total of 32 mining claims for a total of 5968 ha and is 9.5 km x 9 km. Power Metals has option agreements for 10 mining claims (1168 ha) and has 100% ownership of the remaining 22 mining claims (4800 ha).

The Case Lake pegmatite swarm occurs along a subprovincial boundary between the metasedimentary Opatica Subprovince to the north and greenstone Abitibi Subprovince to the south. The Opatica Subprovince consists of the granitic Case Batholith, and the Abitibi Subprovince consists of the Scapa metasedimentary rocks (metagraywacke and garnet schist) and the Steele volcanic rocks (amphibolite) in the Case Lake area. The Case Batholith is an extensive 50 by 85 km ovoid granitic complex. The Case Batholith is a weakly foliated biotite granodiorite to quartz monzonite which is characterized by biotite-rich orbicules that range in diameter from 1 to 7 cm.

The Case Lake pegmatite swarm consists of five dykes:

1. North Dyke – 12 m thick and > 100 m strike length
2. Main Dyke (also known as Central Dyke) – 35 m thick and > 350 m strike length
3. South Dyke – 10 m thick and > 250 m strike length
4. East Dyke – 19 m wide and > 1200 m strike length
5. Northeast Dyke – 10 m wide and > 75 m length

The North, Main and South dykes are hosted by the Case granodiorite batholith and they strike at 60 to 70° and dip 40 to 60°. The East and Northeast Dykes are hosted by fine-grained biotite-garnet metasedimentary rocks. Both the North and Main Dykes have spodumene-rich zones (muscovite-K-feldspar-quartz-green spodumene-albite) and albitic aplite border zones. Spodumene is absent in the beryl-type South Dyke and the potassic pegmatite East Dyke. The Northeast Dyke contains very coarse-grained spodumene.

In 1959, S.B. Lumbers and assistants mapped Steele, Bonis and Scapa townships to produce a bedrock geology map (M2018) and a geological report (R008) in 1962 (Lumbers, 1962 a, b). Lumbers identified the Case pegmatite dykes in lot 5, concession V, Steele township.

In 1973, L. Darby and R. Strickland drilled one hole 101 ft (=30.8 m) deep which was collared on the Case Batholith and intersected 25.3 m of spodumene-bearing pegmatite in the Main Dyke.

In 1991, J.G. Burns conducted geological mapping on the North, Main and South Dykes and completed assays on 15 grab samples from trenches on the dykes. The best assay was from Main Dyke inner intermediate zone with 2.58% Li_2O, 318 ppm Ta and 225 ppm Cs.

In September 1999, Joseph Horne of Cardinal Exploration Services completed 4500 m^2 mechanical stripping and selected power washing on the North, Main and South Dykes. In October 1999, J. Horne conducted 2 days of regional prospecting to the northeast and the northwest of the known Case pegmatite dykes. This regional prospecting lead to the discovery of the Northeast dyke 10 m wide by 75 m along strike with very coarse-grained spodumene. In November 1999, J. Horne collected two plugger hole sample series normal to the strike across the North Dyke. The best lithium assay was sample 3441 with 2.29 %Li_2O and 160 ppm Ta.

In 2001, Platinova A/S completed detailed geological mapping of North, Main and South Dykes. Main and North Dykes are zoned with aplitic albite border zones and spodumene-bearing intermediate zones and a quartz core. The surface outcrops for South and East Dykes lacked spodumene-bearing pegmatite zones. Platinova also completed sampling of 6 channels totaling 113.1 m on North, Main and South Dykes. Assay highlights from Platinova's channel sampling include Main Dyke SC-3, sample 23549, 2.73 % Li_2O, 186 ppm Cs, 1,330 ppm Rb, >100 ppm Be and 489 ppm Ta. August to September 2001, Platinova A/S completed 7 drill holes totaling 508.76 m on the Case property. These holes were drilled on 5 sections across Main and North Case Pegmatite Dykes. Assay highlights from DDH-2 include: from 39.0 to 40.0 m, interval 1.0 m with 1.52 % Li_2O, 62 ppm Ta, > 100 ppm Be from the inner intermediate zone.

In September 2010, Fieldex Exploration Inc. resampled Platinova's 7 drill holes on the North and Main Dykes. The assay highlights include: DDH-1 from 23.80 to 33.00 m with 1.98 % Li_2O over 9.20 m.

On May 30 and 31, 2014, E. Shynkorenko and P. Hermeston conducted prospecting, grab sampling and mapping on the Northeast Dyke. Sample NED-01-14 on the north exposure of the Northeast Dyke contains > 10,000 ppm Li and 57.4 ppm Ta.

Platinova's 7 drill holes which intersected Main and North Dykes were relogged and resampled by Caracle Creek International Consulting Inc. ("Caracle Creek") in January 2017. The resampling and assaying were required because Platinova originally only targeted the pegmatite for Ta and didn't analyze for Li for all of the holes except one. Power Metals' 2017 resampling and assay analysis included Li assays on the rest of the holes in order to better evaluate the property. As expected, the spodumene-rich pegmatite zones had high grade lithium assays. Some of the assay highlights on the Main Dyke spodumene zone include:

- DDH-1 from 22.70 to 33.00 m with 1.98 % Li_2O and 130.88 ppm Ta over 10.30 m
- DDH-5 from 46.57 to 56.00 m with 1.37 % Li_2O over 9.43 m
- DDH-5 from 45.00 to 45.95 m with 3.24 % Li_2O over 0.95 m

The Qualified Person visited the Case Property on May 31, 2017. The QP's visit included a meeting with Wahgoshig First Nation, meeting with Metis Northern Lights Council in Cochrane, review of the Property access, and a review of spodumene mineralization on the Main and North Dykes. The QP observed coarse-grained spodumene crystals on the Main and North Dykes. As a result of the site visit, the QP recommends that the trail to the Case Lake pegmatites be cleared to improve access for the proposed exploration program and that a DGPS survey be conducted on the historic drill holes and channels to improve the 3D model for drill targeting.

The Qualified Person concludes that Power Metals 2017 resampling program successfully identified and verified lithium mineralization in Platinova's historic drill core on the Case pegmatite dykes. A review of the historic geological data on the Property and the site visit provided further evidence of lithium mineralization on surface and aided in identification of exploration targets. A review of the 3D model aided in understanding the pegmatite dykes at depth and targeting of future drill holes. There is potential to find additional lithium and tantalum mineralization on the Property.

The Qualified Person recommends that Power Metals' summer 2017 exploration program on the Case Lake Property consist of 6000 m of drilling of approximately 41 holes of which (Figure 16-4):

- 4000 m of resource drilling at 30 m spacing and depths of 100-150 m on the Main and North Dykes surface exposure (approximately 26 holes) to aid in future resource estimate.

- 2000 m of expansion drilling at depths of 100-150 m to extend the Main and North Dykes along strike to the east and west (approximately 15 holes) to extend the dykes along strike.

Platinova A/S completed 7 drill holes on the North and Main Dykes in 2001 and Power Metals should infill and verify these historic drill holes. There is 100 m of surface exposed strike length for the Main Dyke that has not yet been drill tested. Both dykes are open along strike and down dip. Power Metals should also test the possibility that the Main Dyke is actually two parallel pegmatite dykes not just one dyke. Since the pegmatite dykes within the Case Lake pegmatite swarm are parallel to each other, there is potential to find additional buried dykes at depth. Power Metals has an Exploration Plan and Permit on Case Lake Property approved by MNDM for the proposed exploration work. The total budget for the proposed drill program is $1.1 million CAD + 13% HST.

In addition to the exploration targets of extension of the North and Main Dykes along strike, there are other exploration targets to be investigated on the Case Lake Property at a later date:

- The fault offset dyke target is a 1 km long target which is assumed to be the down faulted continuation of the North and Main spodumene dykes. The East Dyke is the down faulted continuation of the South Dyke.
- The Far East Dyke is an underexplored pegmatite outcrop which is along the same strike as the North and Main Dykes.
- The metasedimentary host rock Li anomaly target is also along strike of the North and Main Dykes
- Northeast spodumene pegmatite dyke with historical assay of > 2.15 % Li_2O.

2.0 INTRODUCTION

2.1 Introduction

In the summer of 2017, J-J Minerals of Sudbury, Ontario, Canada was contracted by Power Metals Corp. ("Power Metals") of Vancouver, British Columbia, Canada to write an Assessment Report summarizing the results of the Winter 2017 resampling, assaying and relogging of historic drill core from the Case Lake Property, Cochrane, northeastern Ontario and to recommend a future exploration program.

Sources of information for this Report include a 43-101 Report by Selway (2017), Ministry of Northern Development and Mines (“MNDM”) assessment files listed in Appendix 2, references listed in section 17.0, and drill core logs and assays from Power Metals’ 2017 resampling program. Tenure information was derived from MNDM CLAIMaps website (http://www.mndm.gov.on.ca/en/mines-and-minerals/applications/claimaps).

The Qualified Person/author visited the Case pegmatites in 2001 and 2002 while working for the Ontario Geological Survey and co-authored two Open File Reports on the Property (Breaks et al, 2003 and 2006). The Qualified Person also visited the Case Property on May 31, 2017. The QP’s visit included a meeting with Wahgoshig First Nation, meeting with Metis Northern Lights Council in Cochrane, review of the Property access, and a review of spodumene mineralization on the Main and North Dykes (sections 13.0 and 14.0). As a result of the site visit, the QP recommends that the trail to the Case Lake pegmatites be cleared to improve access for the proposed exploration program and that a DGPS survey be conducted on the historic drill holes and channels to improve the 3D model for drill targeting.

2.2 Terminology

Fusion - This digestion process will melt the entire sample to produce “total digestion”. This method is especially used for digestion of silicates and other resistive minerals.

ICP-MS: Inductively Coupled Plasma - Mass Spectrometer: An instrument capable of determining the concentrations of 70+ elements simultaneously by measuring the mass of ions generated by an argon gas plasma heated to 10,000°K and passing through a magnetic quadrupole to the detector. Capable of ultra low detection limits (ppb to ppt) with very wide linear ranges (up to 7 orders of magnitude) (Acme Analytical Laboratories Ltd: www.acmelab.com).

MNDM: Ministry of Northern Development and Mines which is the provincial ministry responsible for managing mining claims (Mining Lands Section) and Ontario Geological Survey.

QA/QC: Quality Assurance/ Quality Control

2.3 Units

The Metric System is the primary system of measure and length used in this Report and is generally expressed in kilometres (km), metres (m) and centimetres (cm); volume is expressed as cubic metres (m^3), mass expressed as metric tonnes (t), area as hectares (ha), and gold and silver concentrations as grams per tonne (g/t). Conversions from the Metric System to the Imperial System are provided below and quoted where practical. Many of the geologic publications and more recent documents now use the Metric System but older documents almost exclusively refer to the Imperial System. Metals and minerals acronyms in this report conform to mineral industry accepted usage and the reader is directed to www.maden.hacettepe.edu.tr/dmmrt/index.html for a glossary.

Other abbreviations include ppb = parts per billion; ppm = parts per million; oz/t = troy ounce per short ton; Moz = million ounces; Mt = million tonne; t = tonne (1000 kilograms); SG = specific gravity; lb/t = pound/ton; and, st = short ton (2000 pounds).

Dollars are expressed in Canadian currency (CAD$) unless otherwise noted. Where quoted, Universal Transverse Mercator (UTM) coordinates are provided in the datum of Canada, NAD 83, Zone 17.

2.4 Qualified Person

The Qualified Person and author for this Report is Dr. Julie Selway, Ph.D., P.Geo., Principal Geologist for J-J Minerals and a geologist in good standing with the Association of Professional Geoscientists of Ontario (APGO # 0738). Dr. Selway completed a Ph.D. in rare-element pegmatites in 1999, worked as a pegmatite geoscientist for Ontario Geological Survey for 3 years (2001-2003) and has completed 4 NI 43-101 Reports on the Georgia Lake spodumene pegmatites, Ontario, Canada for Rock Tech Lithium Inc. Dr. Selway has also over 7 years of work experience completing QA/QC reviews of drill core assays for the purpose of resource estimates. Dr. Selway has co-authored over 20 NI 43-101 Technical Reports.

3.0 Reliance on Other Experts

The author of this Report relied on Power Metals' legal counsel and MNDM CLAIMaps website (http://www.mndm.gov.on.ca/en/mines-and-minerals/applications/claimaps) for tenure information and title opinion.

4.0 Property Description and Location

4.1 Location

Case Lake Property is located in Steele and Case townships, near Cochrane, NE Ontario close to the Ontario-Quebec border (Figure 4-1). It is located within Larder Lake Mining Division and NTS sheet: 32E04SW. The Property is located 80 km east of Cochrane, 100 km north of Kirkland Lake and 120 km NE of Timmins. The Main Dyke is located at UTM Z17, E 578236 m, N 5431667 m, NAD 83.

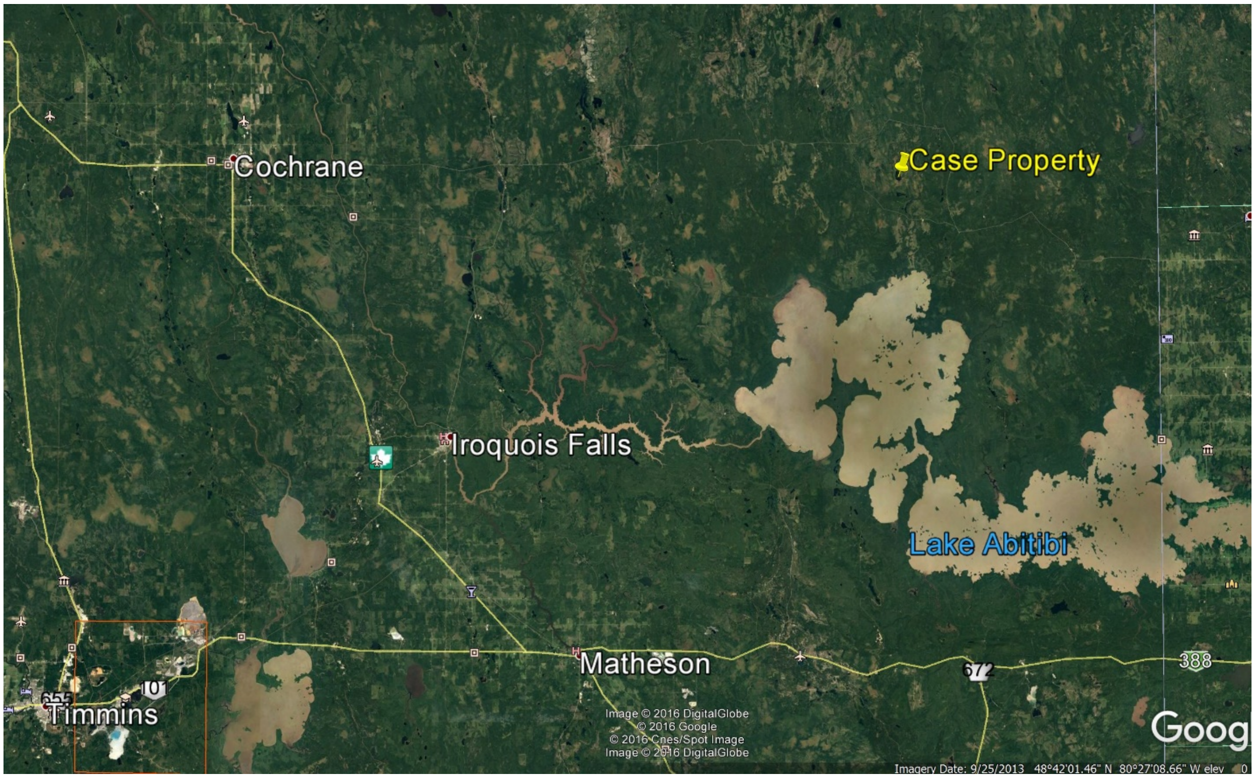

Figure 4-1 Regional location map for Case Lake Property, NE Ontario.

4.2 Description and Ownership

The Case Lake Property consists of a total of 32 mining claims for a total of 5968 ha and is 9.5 km x 9 km. Power Metals has option agreements for 10 mining claims (1168 ha) (section 4.3) and has 100% ownership of the remaining 22 mining claims (4800 ha) (Table 4-1). Power Metals holds the mining rights of the mining claims and the crown holds the surface rights. Power Metals as legal access to the Property.

Table 4-1 Case Lake Property mining claims.

Township / Area	Claim Number	Recording Date	Claim Due Date	Work Required	Number of claim units	Area (ha)	claim holder
Case	4284339	2017-Mar-03	2019-Mar-03	$6,400	16	256	Power Metals Corp.
Case	4284340	2017-Mar-03	2019-Mar-03	$1,600	4	64	Power Metals Corp.
Case	4284341	2017-Mar-03	2019-Mar-03	$1,600	4	64	Power Metals Corp.
Case	4284342	2017-Mar-03	2019-Mar-03	$1,600	4	64	Power Metals Corp.
Case	4286407	2017-Feb-23	2019-Feb-23	$6,000	15	240	Power Metals Corp.
Case	4286408	2017-Feb-23	2019-Feb-23	$6,400	16	256	Power Metals Corp.

Township / Area	Claim Number	Recording Date	Claim Due Date	Work Required	Number of claim units	Area (ha)	claim holder
Case	4286409	2017-Feb-23	2019-Feb-23	$6,400	16	256	Power Metals Corp.
Case	4286410	2017-Feb-23	2019-Feb-23	$6,400	16	256	Power Metals Corp.
Case	4286411	2017-Feb-23	2019-Feb-23	$6,400	16	256	Power Metals Corp.
Case	4286412	2017-Feb-23	2019-Feb-23	$6,400	16	256	Power Metals Corp.
Case	4286413	2017-Feb-23	2019-Feb-23	$6,400	16	256	Power Metals Corp.
Case	4286414	2017-Feb-23	2019-Feb-23	$6,400	16	256	Power Metals Corp.
Steele	4286402	2017-Feb-23	2019-Feb-23	$2,800	7	112	Power Metals Corp.
Steele	4286403	2017-Feb-23	2019-Feb-23	$4,800	12	192	Power Metals Corp.
Steele	4286404	2017-Feb-23	2019-Feb-23	$6,400	16	256	Power Metals Corp.
Steele	4286405	2017-Feb-23	2019-Feb-23	$6,000	15	240	Power Metals Corp.
Steele	4286406	2017-Feb-23	2019-Feb-23	$6,000	15	240	Power Metals Corp.
Steele	4286415	2017-Feb-23	2019-Feb-23	$6,400	16	256	Power Metals Corp.
Steele	4286416	2017-Feb-23	2019-Feb-23	$6,400	16	256	Power Metals Corp.
Steele	4286417	2017-Feb-23	2019-Feb-23	$6,400	16	256	Power Metals Corp.
Steele	4286418	2017-Feb-23	2019-Feb-23	$6,400	16	256	Power Metals Corp.
Steele	4286419	2017-Feb-23	2019-Feb-23	$6,400	16	256	Power Metals Corp.
Steele	1213780	1996-Jul-29	2022-Aug-19	$1,200	3	48	Walitta Gertrude O'Reilly (50%), Bernard Gergory Sigouin (25%), Margaret Wendy Sigouin (12.5%), Edward Shynkorenko (12.5%)
Steele	1214666	1998-Apr-29	2022-May-20	$800	2	32	Walitta Gertrude O'Reilly (50%), Edward Shynkorenko (50%)
Steele	1214668	2009-Aug-26	2017-Aug-26	$1,600	4	64	Edward Shynkorenko (50%), Peter M. Hermeston (50%)
Steele	4249052	2010-Aug-26	2017-Aug-26	$400	1	16	Peter M. Hermeston (100%)
Steele	4251385	2009-Sep-04	2017-Sep-04	$672	2	32	Edward Shynkorenko (50%), Peter M. Hermeston (50%)
Steele	4271906	2016-Apr-19	2018-Apr-19	$6,400	16	256	Orebot Inc (100%)
Steele	4271907	2016-Apr-19	2018-Apr-19	$6,000	15	240	Orebot Inc (100%)
Steele	4271908	2016-Apr-19	2018-Apr-19	$6,000	15	240	Orebot Inc (100%)
Steele	4271909	2016-Apr-19	2018-Apr-19	$1,200	3	48	Orebot Inc (100%)
Steele	4271910	2016-Apr-19	2018-Apr-19	$4,800	12	192	Orebot Inc (100%)
				$149,072	**373**	**5968**	

4.3 Option Agreements

On March 31, 2016, Edward Shynkorenko, Walitta O'Reilly, Peter Hermeston, Margaret Signouin and Bernard Sigouin optioned their Case Lake Claims to Empire Exploration Pty Ltd ("Empire"), New South Wales, Australia. The Claims in the option agreement include: 1213780, 1214666, 1214668, 4251385 and 4249052.

On Aug. 18, 2016, Empire Exploration Pty Ltd. (Vendor) sold its option agreement on the Case Lake Property Claims to Camden Ventures Inc. ("Camden"), Toronto, Ontario (Purchaser). The Claims include: 1213780, 1214666, 1214668, 4251385 and 4249052. Orebot, in the same agreement, transferred Other Claims to the Camden. The Other Claims include: 4271906, 4271907, 4271908, 4271909 and 4271910. The terms of the agreement were:

- On Aug. 31, 2016, Camden will pay Empire $75,000 CAD as part of the purchase price
- On Oct. 15, 2016, Camden will pay Empire $75,000 CAD as part of the purchase price
- On the completion date (Dec. 31, 2016), Camden will pay Empire $75,000 CAD

The total purchase price is $225,000 CAD.

On Sept. 22, 2016, Camden Ventures Inc. (Vendor) signed an option agreement with Aldrin Resource Corp., Vancouver, British Columbia ("Aldrin") (Purchaser). The Claims in the option agreement include: 1213780, 1214666, 1214668, 4251385, 4249052, 4271906, 4271907, 4271908, 4271909 and 4271910.

The terms of the option agreement are that Aldrin shall:

- pay $175,000 on the signing of the agreement
- issue 15,000,000 common shares of Aldrin within 5 days of regulatory approval of this agreement, to the Camden
- paying $75,000 on or before October 15, 2016
- paying $75,000 on or before December 31, 2016
- paying $300,000 in cash or shares, at the election of the Purchaser on or before June 8, 2018
- make such payments and incur such expenditures in Ontario

- Camden shall retain an NSR on each Property.

Aldrin can earn 100% of Case Lake by making a total of $325,000 cash payments and spending $200,000 on exploration and development over 36 months (Aldrin Resource Corp., press release dated Sept. 22, 2017). Under the option agreement, Empire has agreed to a 2% Net Smelter Royalty (“NSR”) and 3% NPR (NPR is only for aggregates such as silica).

Aldrin Resources Corp changed its name to Power Metals Corp effective December 2, 2016.

The QP has reviewed the option agreement documents and summarized them to the best of the QP’s abilities. The QP is a senior geologist and relies on Power Metals’ legal counsel for their opinion and interpretation of the option agreements.

To the best of the QP’s knowledge there is no back-in-rights, payments or other agreements and encumbrances to which the Property is subject to. There is a 2% NSR on the claims. There are no environmental liabilities on the Property.

4.4 Requirements to Retain the Property and Exploration Plan and Permit

In Ontario, to retain a mining claim, companies must submit an assessment file to MNDM’s Geoscience Assessment Office showing that they have spent $400/per claim unit on exploration on each claim. One claim unit is equal to 16 hectares. The initial mining claim is issued for a term of 2 years and then renewed every year afterwards.

The Property has an Exploration Plan from MNDM (PL-16-10621) starting on Aug. 10, 2016 and is valid for 2 years. The Exploration Plan covers the 10 claims included in the Camden – Aldrin option agreement. The Plan includes:

- Any geophysical surveys that require the use of a generator to be carried out.
- Mechanized drilling where the weight of the drill is less than 150 kg
- Line cutting, where the width of the line is less than 1.5 m.
- Mechanized surface stripping where the total area is less than 100 m^2
- Pitting and trenching

https://www.ontario.ca/laws/regulation/120308#BK29.

Power Metals has an Exploration Permit PR-17-11098 on the Case Lake Property dated June 30, 2017. The Exploration Permit is effective for 3 years. The Exploration Permit covers all of Power Metals Case Lake Property both optioned claims and 100% owned claims. The Exploration Permit includes:

- Line cutting, where the width of the line is more than 1.5 metres.
- Mechanized drilling, where the weight of the drill is greater than 150 kg.
- Mechanized surface stripping (overburden removal), where the total combined surface area stripped is greater than 100 square metres and up to advanced exploration thresholds, within a 200-metre radius.
- Pitting and trenching (rock), where the total volume of rock is greater than 3 cubic metres and up to advanced exploration thresholds, within a 200-metre radius.

https://www.mndm.gov.on.ca/en/mines-and-minerals/mining-act/mining-act-modernization/exploration-permits

To the best of the QP's knowledge, there is no significant factors and risks that may affect access, title or the right or ability to perform work on the Property.

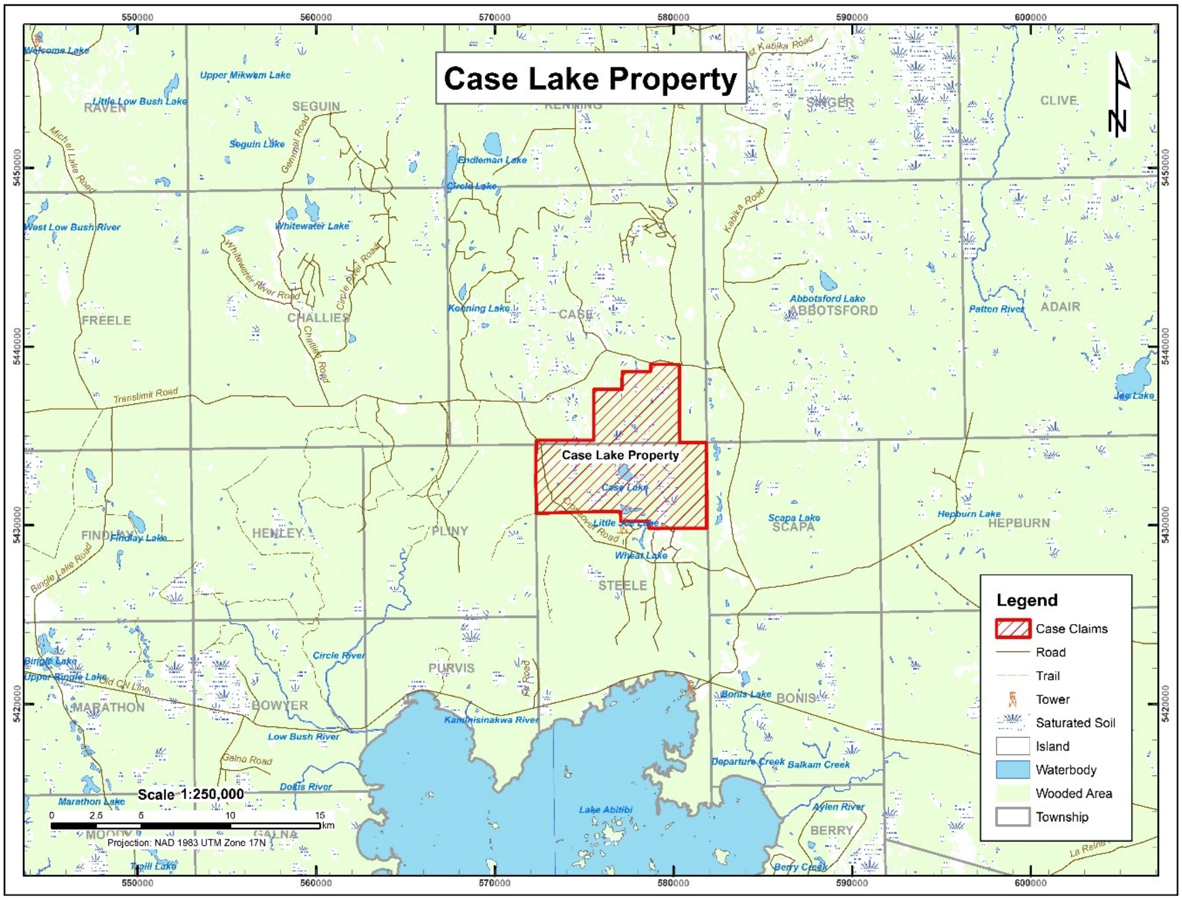

Figure 4-2 Regional location map for Case Lake Property.

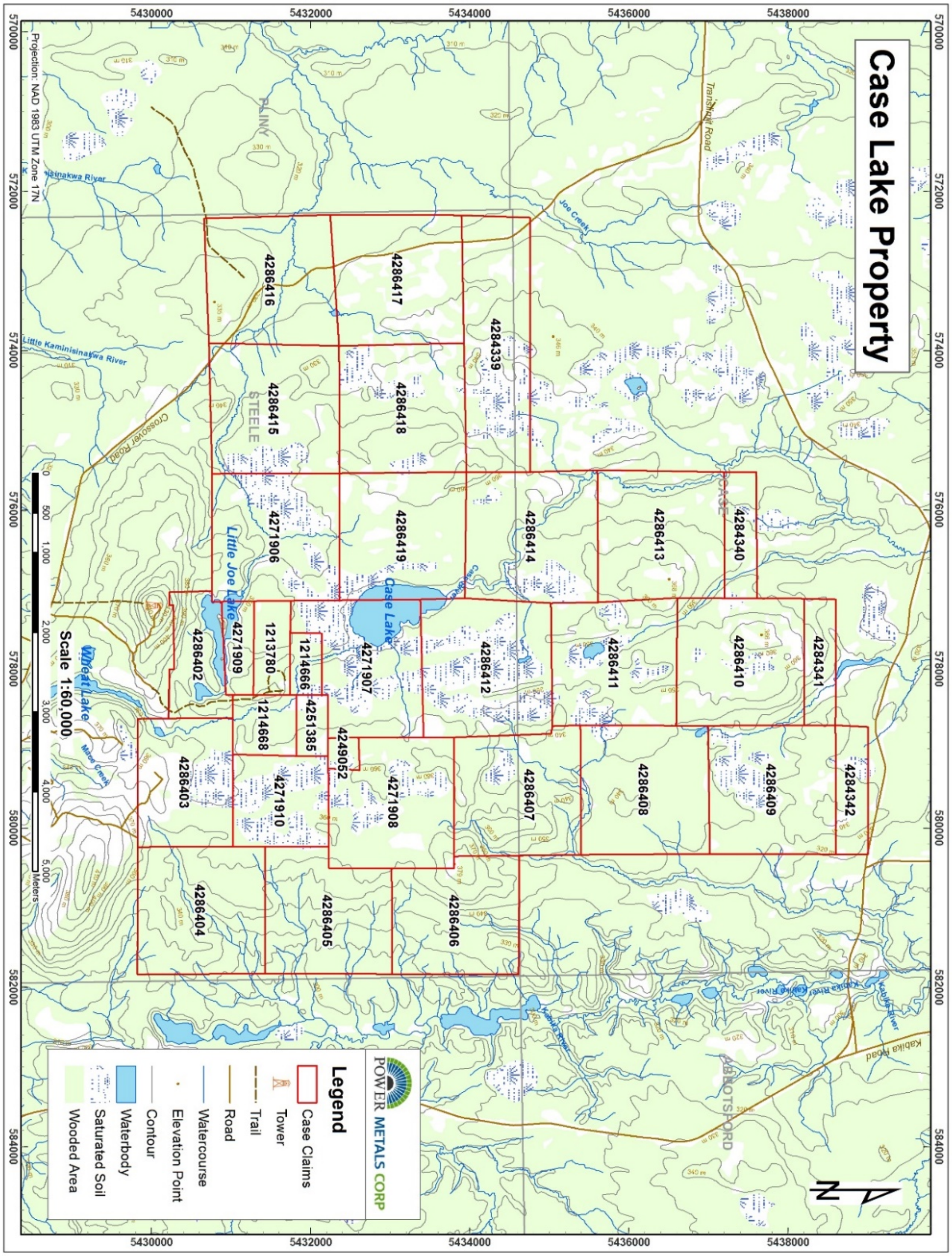

Figure 4-3 Property scale claim map for Case Lake Property.

5.0 Accessibility, Climate, Local Resources, Infrastructure, and Physiography

5.1 Access

The Case Property has excellent access and infrastructure (Figure 5-4). It is accessible year-round by road via the Translimit Road which connects Ontario and Quebec. The Translimit Road passes through the northeast corner of the Property and the Crossover Road passes through the easternmost claims on the Property and provides access to the southern claims (Figure 4-3).

The Property can be accessed by driving east of Cochrane on Highway 652 for 32 km. Turning onto the dirt road towards Iroquois Falls, drive a short distance and then turn left towards the Quebec border on the Translimit Road (Figure 5-1).

Figure 5-1 After turning off Highway 652, there is another intersection for the Quebec border and Iroquois Falls. Follow the sign for the Quebec border.

Drive along the Translimit Road for 33 km past the junction with Bingle Road, over a one lane bridge on Lowbush River and over a one lane bridge on Circle River. At the fork in the Translimit Road, turn right onto Crossover Road (Figure 5-2). Drive along the Crossover Road for 11 km until the intersection of the Crossover Road with the road north to the OPP tower at UTM Z17, E 577310 m, N 542872 m, NAD 83. Drive north towards the Ontario Provincial Police ("OPP") tower. The junction of road to the OPP tower and the bush trail to Case Lake is located at UTM E 577795 m, N 5429740 m. Drive along the bush trail which passes over the South Dyke and ends at the Main Dyke. The total distance from Cochrane to the Main Dyke is about 80 km.

Figure 5-2 Intersection of Translimit Road and Crossover Road

The closest commercial airport to the Property is in Timmins (Figure 5-4). The airport in Cochrane links passengers and freight with the James Bay coastline. The airport is used by charter flights, air cargo, medevac services and MNR fire crews (Cochrane Municipal Airport website: http://town.cochrane.cycn.ca/siteengine/activepage.asp).

The closest that the Canadian National Railway is to the Case Lake Property is at Gogama 167 km south of Cochrane. The Ontario Northland Railway used to connect Toronto to Matheson to Cochrane, but the service was discontinued on Sept. 28, 2012 (Cochrane railway station website: https://en.wikipedia.org/wiki/Cochrane_railway_station). The Ontario Northland Railway still operates trains between Cochrane and Moosonee as an “essential service”.

5.2 Physiography, Vegetation and Climate

Steele Ridge (Steele metavolcanics) is a prominent ridge south of the Property (Lumbers, 1962a) (Figure 4-3). The Steele Ridge is a drainage divide as water to the north of the ridge flows to the north and water to the south of the ridge flows south to Lake Abitibi. Most of the water in the Steele township drains north into Case Lake and then continues northwards to Burntbush River. There is an Ontario Provincial Police (OPP) fire lookout tower at the highest elevation on Steele Ridge at 439 m ASL (above sea level) just 180 m south of the Property boundary. The elevation of Case Lake is 340 m ASL.

Three granodiorite outcrop domes occur on the Property: on claims 4286413 and 4286410 in Case township and on claim 4286406 in Steele township (Figure 4-3). There are swampy areas around Case Lake. The Case Property is situated in a traditional boreal setting. Forest cover includes black spruce, tamarack and open bog in the wetter low-lying areas changing to jack pine, balsam fir and white birch mixture over the more elevated areas (MNDM assessment report 2.47355, 2010).

Southern parts of Steele township were historically cut for pulp and thus are covered by popular, birch and alder (Lumbers, 1962a). The rest of the area has mature growth of spruce, balsam and jack pine. In the muskegs, black spruce, tamarack and alder are common.

According to Environment Canada, the hottest month of the year in Cochrane is July with an average temperature of 24.0 °C and the coldest month is January with an average temperature of -12.1 °C (https://en.wikipedia.org/wiki/Cochrane,_Ontario). The average rainfall in September is 109.0 cm and the average snowfall in January is 71.6 cm.

Drilling can be completed year-round except for the spring snow melt in April when it is too muddy in the bush. Geological mapping can be completed May to October.

5.3 Infrastructure and Local Resources

The town of Cochrane can provide accommodations, grocery stores, hardware stores and hospital for labourers. The population of town of Cochrane is 5,340 people according to the 2011 Census (Statistics Canada, www.statcan.gc.ca). Cochrane is on Ontario Highway 11 and it has a railway station operated by Ontario Northland Railway with trips 5 days per week on the Polar Bear Express to Moonsonee for tourists to look at Polar Bears in the wild (Figure 5-3). The Cochrane Polar Bear Habitat (CPBH) is the only captive bear facility in the world dedicated solely to polar bears (http://www.northeasternontario.com/partner/polar-bear-habitat/). Situated on five acres of northern Ontario terrain, visitors can walk along three large outdoor bear enclosures.

Figure 5-3 Cochrane's polar bear

Kirkland Lake and Timmins are established mining camps which can provide the skilled labour and field supplies required to run an exploration program (Figure 5-4).

Ontario Power Generation's Northeast Plant Group (NEPG) is headquartered in Timmins and has 13 hydroelectric generating stations (http://www.opg.com/communities-and-partners/host-communities/Pages/northeast.aspx). Power lines run along Highway 652 to the homes east of Cochrane and to homes on the Quebec side of the border.

Sources of water on the Property includes Little Joe Lake, Case Lake, Case River and numerous swamps. Case River flows north from Wheat Lake to Case Lake and continues northward past the northern Property boundary.

The Property's surface rights are owned by the crown and they are sufficient for future mining operations. The Case Lake Property does not a have a resource estimate and thus a discussion of potential tailings storage areas, potential waste disposal areas, heap leach pad areas and potential processing plant sites is not relevant to the Property at this time.

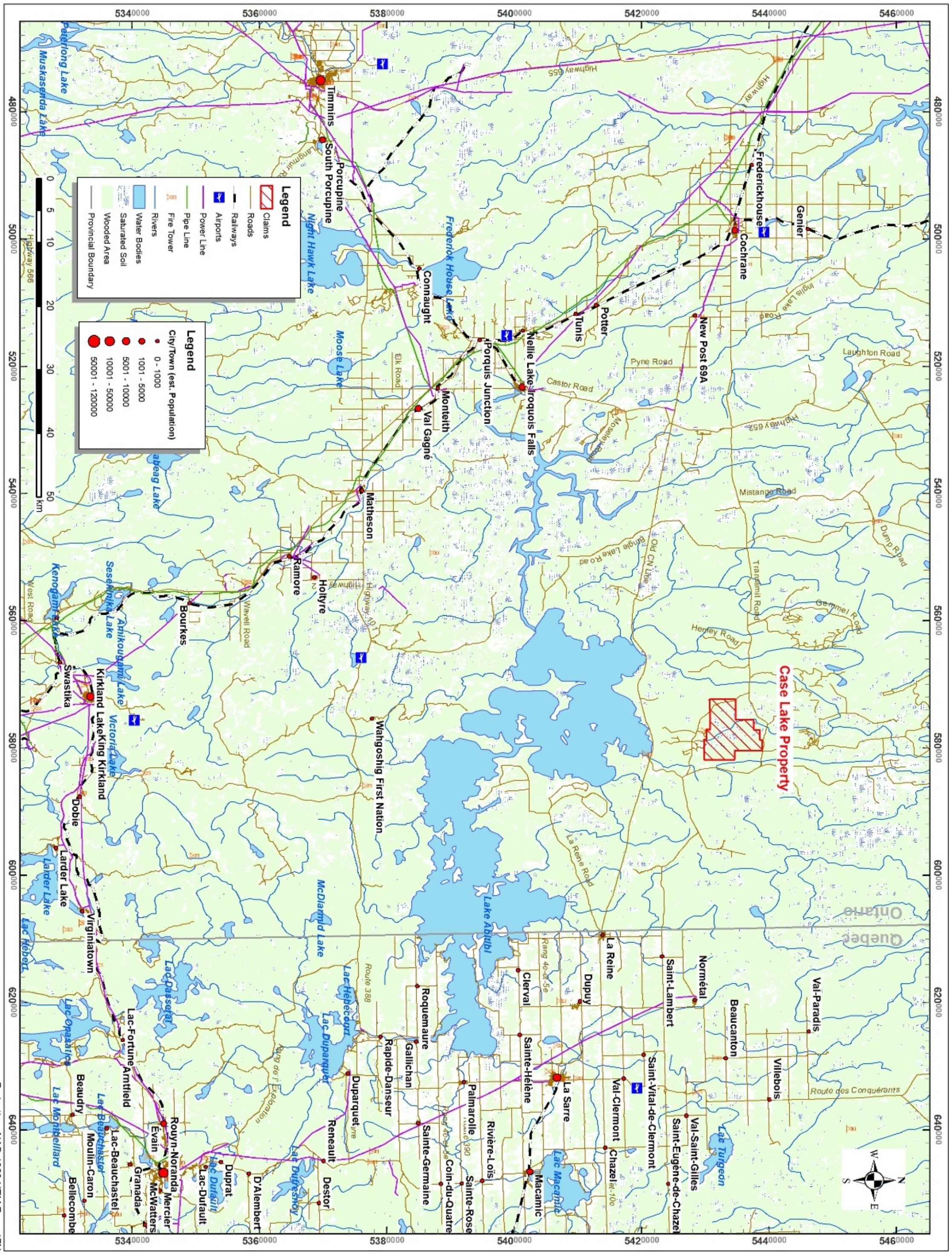

Figure 5-4 Regional infrastructure map

6.0 HISTORY

This section is derived from an internal Field Report by Selway (2017).

6.1 1959-1962, Ontario Department of Mines

In 1959, S.B. Lumbers and assistants mapped Steele, Bonis and Scapa townships to produce a bedrock geology map (M2018) and a geological report (R008) in 1962 (Lumbers, 1962 a, b). Lumbers identified the Case pegmatite dykes in lot 5, concession V, Steele township. Lumbers noted that the spodumene-bearing dykes are zoned with aplite border zone and quartz core. Lumbers measured the pegmatite dyke as 825 ft (=251.5 m) east-west along strike and a maximum width of 100 ft (=30.5 m). The spodumene crystals are up to 3 ft (=0.9 m) long and 6 inches (=15.2 cm) across in the quartz-rich patches. The spodumene content of the dyke was estimated to be 10-15 % and a grab sample assayed 0.65 %Li_2O. Columbite-tantalite, muscovite and tourmaline occur with the spodumene. Molybdenite is rare. Lumbers' map is still the most detailed bedrock map for the Steele township.

6.2 1963, Canada Department of Mines and Technical Surveys

In 1963, Canadian Johns-Manville Company carried out prospecting, minor trenching and geological mapping at 1':40'. They submitted samples from Steele Township to the Canada Department of Mines and Technical Surveys in Ottawa. A mineralogical study of 3 samples identified tantalite, microlite, beryl, spodumene and pollucite and a bulk sample contained 5.79 % Cs_2O and 0.5 % Ta (Nickel, 1963).

6.3 1968, J. Tesluk

Property owner J. Tesluk of Timmins trenched and stripped parts of the Case pegmatites in 1968 (Tesluk, 1969).

6.4 1973, L. Darby and R. Strickland

R. Strickland was the optionee and drill owner who drilled one drill hole on historic claim L299570, lot 5, concession V in Steele township (MNDM assessment report: 32E04SW0008). L. Darby was the geologist who logged the drill hole and the claim holder. The hole was drilled 101 ft (=30.8 m) deep, azimuth 195°, dip 55° on Sept. 28 to Oct. 2, 1973. The hole was collared in Case Batholith with biotite orbicules and then intersected 83 ft (=25.3 m) of spodumene-bearing pegmatite in the Main Dyke. The hole ended in quartz aplite border zone. Dominate minerals in the pegmatite intersection are plagioclase, quartz, muscovite and spodumene.

According to MNDM assessment reports 32E04SW0003 and KL0644, pegmatite outcrop was stripped and trenched and geologically mapped between 1971 and 1975 by consultant G.R. Guillet of Gartner Lee Associates Ltd.

6.5 1973, L. Darby/Gartner Lee Associates property report

On Nov. 27, 1973 Gartner Lee Associates Limited, consulting engineering geologists, completed a report addressed to L.H. Darby, Timmins based on a site visit on Oct. 10 and 11, 1973 (Gartner Lee, 1973). They observed pegmatite dykes in 8 trenches and blast pits and a small amount of drill core. The average composition of the main pegmatite is: 15% spodumene, 30% feldspar, 45% quartz and 10% muscovite. Pure chips of very coarse-grained pale green lath-shaped spodumene from the Main Dyke contained 7.5 % Li_2O and 0.86 %Fe_2O_3. The aplite contained trace fine-grained orange garnet. Dr. S.B. Lumbers, Curator of Geology of the Royal Ontario Museum examined the biotite orbicules in the Case Batholith under a microscope and revealed a concentric arrangement of biotite, K-feldspar and quartz.

Gartner Lee Associates recommend deep drilling to 200 and 500 ft (=61.0 and 152.4 m) on the Main Dyke to determine its vertical extent and surface trenching to expose more pegmatite dykes. Both exploration activities should increase the potential tonnage on the property.

6.6 1974 to 1976, L. Darby/ Dex Ltd

Dex Ltd. carried out additional power stripping, blast-hole drilling and geological mapping of the South Dyke and trenching (assessment report KL0668). Dex Ltd. was a private company that L. Darby was the president of.

6.7 1980, L. Darby/Dex Ltd.

According to MNDM assessment report 32E04SW0003, Dex Ltd. stripped an area of pegmatite to the east and south and drilled one hole 216 ft (=65. 8 ft) in length in 1980. There is no drill log in assessments and the hole length was determined from claim abstracts. Dex Ltd. allowed the claims to lapse in 1987.

6.8 1991, J.G. Burns

J.G. Burns conducted a work program in 1991 that consisted of (MNDM assessment report 32E04SW0003):

- Line cutting with line spacing of 100 m over the property and 25 m spacing over the pegmatite outcrops with 20 m station intervals for all lines
- 1:2500 scale and 1:500 scale geological maps of the North, Main and South pegmatite dykes
- Magnetometer survey and VLF survey
- Assays of 15 grab samples of spodumene-bearing pegmatite from trenches, 10 pairs of muscovite and feldspar samples from trenches, and 16 samples of granite and metasediment host rock.

J.G. Burns noted that the largest pegmatite dyke is 420 m long by 30 m wide and the three pegmatite dykes strike at about 60° NE (Table 6-1). In the coarse-grained intermediate zones, the spodumene concentrations range up to 15-20%. Spodumene crystals are normally stubby and have an average length of 3-7 cm. In the very coarse-grained core margin zone, the spodumene concentrations are lower, but the crystals maybe as long as 50 cm with a 5-7 cm diameter. In the quartz core, the spodumene crystals are up to 90 cm in length.

Table 6-1 Case pegmatite dyke dimensions according to MNDM assessment report 32E04SW0003

Dyke	Max Length in Outcrop (m)	Max Thickness in Outcrop (m)	Distance Between Dykes (m)
North	100	15	20
Main	420	30	100
South	140	10	

J.G. Burns' magnetometer survey showed that the magnetic signature across the Case Property is low and featureless and there is no correlation with mapped pegmatite contacts. A linear magnetic feature with a relief of 400 to 500 nT, a strike of east southeast strike may represent a diabase dyke however the strike does not match that of dyke sets in the region. The VLF survey was abandoned after the completion of two lines.

J.G. Burns collected 15 grab samples from the pits which had been blasted by previous claim holders and assayed for Li, Ta, Cs and Y (Figure 6-3). Ten samples were collected from Main Dyke, 2 samples from North Dyke and 3 samples from the South Dyke (Table 6-2). The best assay was from Main Dyke inner intermediate zone sample T-4B with 2.58% Li_2O, 318 ppm Ta and 225 ppm Cs. One sample of a pure single spodumene crystal was assayed for Li with 3.55 %Li which equals 7.64 % Li_2O. The assay results indicate that the North and Main Dykes are richer in lithium than the South Dyke.

Table 6-2 Grab samples assays from in trenches (MNDM assessment report 32E04SW0003)

Sample Number	Dyke Name	Pegmatite Zone	Li (%)	Li_2O (%)	Ta (ppm)	Cs (ppm)
T-1A	Main Dyke	inner intermediate zone	0.28	0.60	172	106.5
T-1B	Main Dyke	quartz core	0.89	1.92	120	250
T-1C	Main Dyke	inner intermediate zone	1.11	**2.39**	434	102
T-2	Main Dyke	inner intermediate zone	0.65	1.40	244	249
T-3	Main Dyke	inner intermediate zone	0.73	1.57	36	72
T-4A	Main Dyke	inner intermediate zone	0.6	1.29	24	73.5
T-4B	Main Dyke	inner intermediate zone	1.2	**2.58**	318	225
T-4C	Main Dyke	inner intermediate zone	0.64	1.38	126	179.5
T-5	Main Dyke	quartz core	0.68	1.46	46	652
T-6	North Dyke	inner intermediate zone	0.43	0.93	638	264
T-7	Main Dyke	inner intermediate zone	0.68	1.46	52	133.5
T-8	North Dyke	quartz core	0.12	0.26	174	364
T-9	South Dyke	wall zone	0.11	0.24	40	223
T-10	South Dyke	wall zone	0.05	0.11	26	89.5
T-11	South Dyke	wall zone	0.01	0.02	36	94

6.9 1996-1998, G. O'Reilly

A composite sample was taken from the Main Dyke in July 1996 by G. O'Reilly (MNDM assessment report 32E04SW2001). The sample consisted of muscovite, spodumene, K-feldspar and greisen like material.

On Oct. 2, 1997, Dr. F.W. Breaks of the Ontario Geological Survey visited the property. Breaks sampled K-feldspar and primary muscovite from the trenches on the North, Main and South Dykes as in Burns (1991). Breaks interpreted the K-feldspar and muscovite assays as an increasing evolution trend from South Dyke to Main Dyke to North Dyke for Cs in K-feldspar and Ta in muscovite. Electron microprobe work identified Ta-rich minerals tapiolite and microlite. The results of Breaks site visit lead to the following recommendation: prospect the poorly exposed ground to the north of the North Dyke for additional pegmatites.

In April to May, 1998, G. O'Reilly prospected ground north of the North Dyke, but only found granodiorite in outcrop. Stripping the area to the north of the North Dyke also didn't uncover any more pegmatite. Six areas of outcrop were sampled within the North Dyke. The east trench sample # 13 (T-6 of Burns, 1991) contained 1790 ppm Cs while the west trench sample #11 (T-8 of Burns, 1991) contained 880 ppm Ta.

6.10 1999, JD Horne & Associates Ltd

In September 1999, Joseph Horne of Cardinal Exploration Services completed 4500 m^2 mechanical stripping and selected power washing on the North, Main and South Dykes (MNDM assessment report 32E04SW2002). The stripping resulted in revisions of the size of each dyke (Table 6-3).

Table 6-3 Case pegmatite dyke dimensions according to MNDM assessment report 32E04SW0002

Dyke	Max Length in Outcrop (m)	Max Thickness in Outcrop (m)	Distance Between Dykes (m)
North	100	12	20
Main	350	35	100
South	250	10	

A field grid was cut which comprised of an east-west baseline (1.375 km) and 14 north-south cross lines (10.126 km) on 100 m centers. Picketed stations were established on 25 m centers along the baseline and all of the cross lines. The Property was previously surveyed in 1970's and 8 of the 9 original survey pins were located in the field and used as field control.

J. Horne identified an unusual-looking northwest-southeast trending mafic intrusive in a rescue trench north of the North Dyke (area C). It likely corresponds to the magnetitic high previously noted by Burns (1991) (MNDM assessment report 32E04SW0003).

J. Horne also identified two old drill collars on the Main Dyke: one is Darby's 1973 drill collar and the other must be Dex Ltd's 1980 drill collar.

J. Horne spent 10 days prospecting and mapping the entire field grid around the Case pegmatites and collected 17 grab samples including pegmatite, metasediments, and quartz veins.

In October 1999, J. Horne conducted 2 days of regional prospecting to the northeast and the northwest of the known Case pegmatite dykes (Figure 6-2). A total of 15 grab samples were collected of granodiorite, metasediments and pegmatite rocks. This regional prospecting lead to the discovery of the Northeast dyke

10 m wide by 75 m along strike with very coarse-grained spodumene. Assay of in situ sample 20365 resulted in > 500 ppm Li and > 100 ppm Ta at 579046 E and 5432147 N.

In November 1999, J. Horne collected two plugger hole sample series normal to the strike across the North Dyke (Figure 6-3). Section 1 had 12 samples collected 11.7 m across the North Dyke at 0.5 m centers starting at the south contact (samples 3439-3450 inclusive). The best lithium assay was sample 3441 with 2.29 %Li_2O and 160 ppm Ta. Sample 3442 has 2.16 % Li_2O and 425 ppm Ta. This indicates that the spodumene-rich zone in the North Dyke is also rich in Ta. The purpose of Section 2 was to identify any geochemical alteration halo around the pegmatite. Section 2 had 7 vertical holes drilled (samples 20377-30383 inclusive). The first hole was drilled in the North Dyke at its north contact and the remaining 6 samples were collected from the granodiorite host rock north of the contact at distances of 0.5, 1.5, 5, 10, 20, 35 m from the contact. The North Dyke exhibits a lithium lithogeochemical halo between 10 and 20 m.

A total of 8.864 km of high density, total field magnetic and gradient data was completed on the grid. The pegmatite -granodiorite contrast was not significant enough to adequately define the dykes contacts. The northwest trending mafic intrusive (located north of the North Dyke) was prominent and could be traced further along strike.

6.11 2001, Platinova A/S – North, Main and South Dykes

Platinova A/S optioned the Case property in mid-2001 and conducted geological mapping, channel sampling and drilling (MNDM assessment report: 32E04SW2003).

Platinova completed geological mapping at 1:200 scale on a 10 m grid. Based on surface exposures and drilling, Platinova estimated the dyke dimensions (Table 6-4). Platinova's detailed geological mapping divided the Case pegmatite dykes into pegmatites zones (Table 6-5). Main and North Dykes are zoned with aplitic albite border zones and spodumene-bearing intermediate zones and a quartz core. The surface outcrops for South and East Dykes lack spodumene-bearing pegmatite zones.

Table 6-4 Case pegmatite dyke dimensions according to Platinova, 2001

Pegmatite Dyke	Length (m)	Max Thickness (m)	North Contact Dip (deg)	South Contact Dip (deg)
North Dyke	120	8	50 to 75N	40 to 65 N
Main Dyke	300	33	45 to 60 N	45 to 75 N
South Dyke	240	14	85N?	85 N?

Table 6-5 Case pegmatite zonation according to Platinova, 2001. Zones 1 to 8 occur in Main and North Dykes. Zone 8 occurs in South and East Dykes.

Pegmatite Zone	Name of Pegmatite Zone	Mineralogy of Pegmatite Zone
1,7	albitic aplitic border zone	muscovite-garnet-quartz-albite
2,6	outer intermediate zone	muscovite-albite-spodumene-quartz-K-feldspar
3,5	inner intermediate zone	muscovite-spodumene-quartz-K-feldspar
4	quartz core	very coarse quartz-rich with coarse K-feldspar and spodumene
8	muscovite-quartz-K-feldspar zone	muscovite-quartz-K-feldspar, no spodumene, possible beryl
9	aplite dykes	muscovite-quartz-albite aplite
10	spodumene lenses	fine-grained spodumene-rich lenses

Platinova did some grab sampling of the trench rubble of the Main and North Dyke to test for tantalum mineralization (Figure 6-3). An assay highlight is surface chip sample 27043 from the inner intermediate zone of the North Dyke with > 4000 ppm Ta.

Platinova also completed sampling of 6 channels totaling 113.1 m on North, Main and South Dykes. Two channels were cut on North Dyke, 3 on Main Dyke and 1 on the South Dyke (Figure 6-1). Channels on the North and Main Dykes were 30 m apart and samples were 1 m long. Assay highlights from Platinova's channel sampling include:

- North Dyke, SC-1, sample 23503, 2.38 % Li_2O
- Main Dyke SC-3, sample 23549, 2.73 % Li_2O, 186 ppm Cs, 1,330 ppm Rb, >100 ppm Be and 489 ppm Ta.

August to September 2001, Platinova A/S completed 7 drill holes totaling 508.76 m on the Case property to investigate the Ta/Nb contents of the pegmatite dykes (Table 6-6) (Figure 6-1 and Figure 6-3). These holes were drilled on 5 sections across Main and North Case Pegmatite Dykes on claim 1213780.

The plan map shows that the North and Main Dykes have been drilled for about 200 m along strike and that there is an additional 100 m of the Main Dyke that is exposed on surface which has not yet been drill tested. Also the surface mapping appears to indicate that the Main Dyke is actually 2 parallel dykes, not just one dyke.

Plan map and cross sections for the historic drill holes are given in Appendix 3. The dykes dip to the north and flatten out at depth.

Table 6-6 Drill collar locations for Platinova's 2001 drill program.

Drill hole number	Easting (m)	Northing (m)	Azimuth	Dip	Total Length (m)
DDH-1	578217	5431685	151	-45	45.1
DDH-2	578198	5431718	148	-47	79.57
DDH-3	578221	5431734	148	-45	70.27
DDH-4	578171	5431702	148	-46	73.27
DDH-5	578145	5431686	148	-46	76.57
DDH-6	578089	5431664	148	-45	79.27
DDH-7	578160	5431720	148	-65	84.71
				total	**508.76**

All of the drill core samples were analyzed for Ta and Nb, but only DDH-2 was analyzed for Li, Rb. Cs and Be. Assay highlights include:

- sample 27194, from 39.0 to 40.0 m, interval 1.0 m with 1.52 % Li_2O, 62 ppm Ta, > 100 ppm Be from the inner intermediate zone
- sample 27200, from 45.0 to 46.0 m, interval 1.0 m with 1.36 % Li_2O, 53 ppm Ta, > 100 ppm Be from the inner intermediate zone

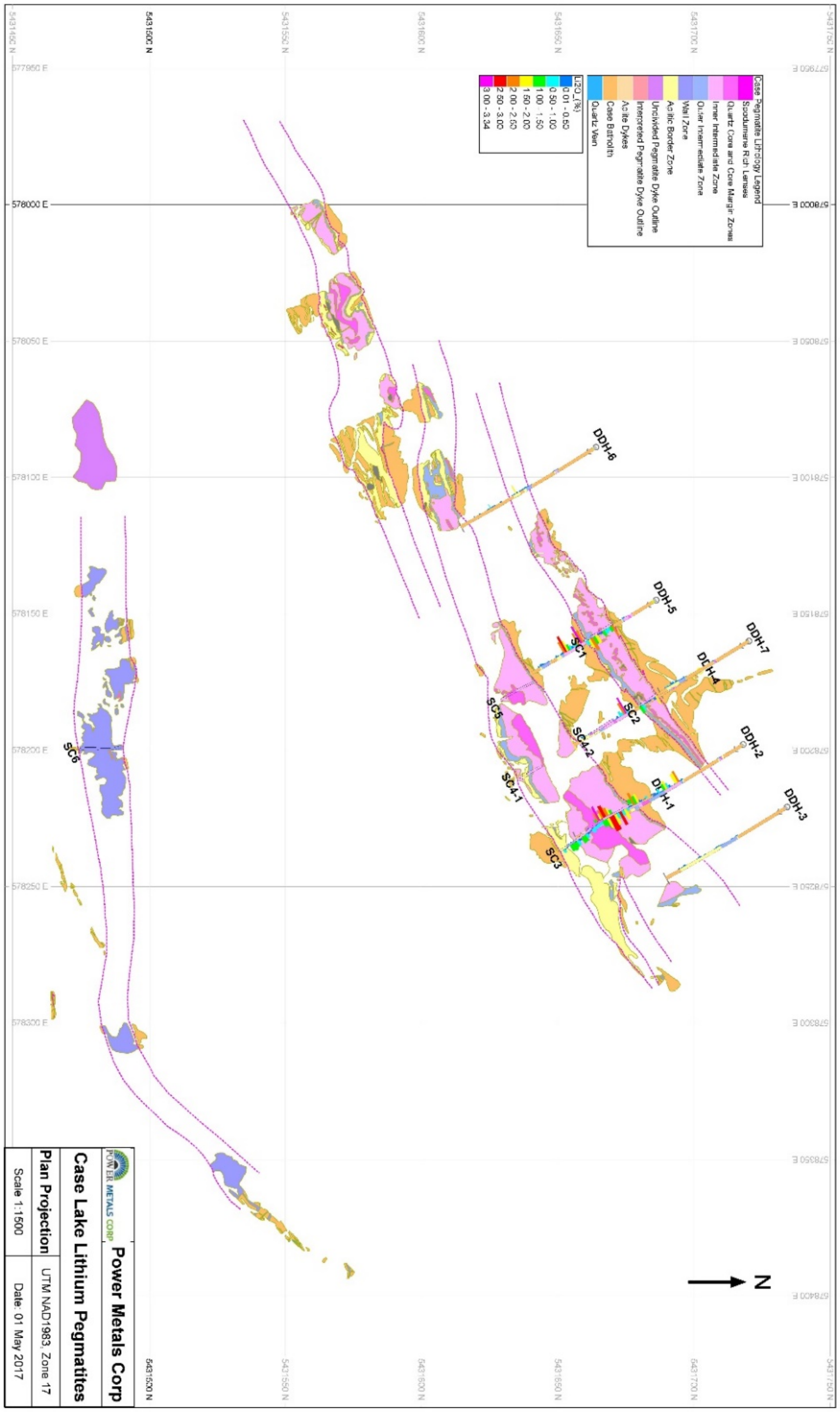

Figure 6-1 Drill plan and channel sample map for Case North, Main and South Dykes.

6.12 2001, Navigator Exploration Corp – East Dyke

Navigator Exploration Corp. conducted exploration to assess the tantalum potential of the East Dyke (MNDM assessment report 32E04SW2004). In June 2001, seven grab samples were collected and analyzed for Nb and Ta, and the pegmatite was prospected. In August 2001, a channel was cut 16.6 m long from wall to wall across the western part of East Dyke and analyzed for Nb and Ta and multi-elements as 1 m samples. Feldspar and mica pairs from 4 channel samples were analyzed for multi-elements.

Navigator concluded that the tantalum levels in the grab and channels samples were low and the trace element content of the feldspar and mica pairs were also unencouraging. The East Dyke is less evolved than the other Case pegmatite Dykes and thus likely has no potential for economic amounts of tantalum.

The East Dyke does not contain spodumene and thus has no potential for economic amounts of lithium.

6.13 2001, E. Ludwig – Northeast Dyke

E. Ludwig held the Steele township property which was located directly east of the Case Pegmatite North and Main Dykes held by Platinova A/S at the same time (MNDM assessment report 32E04SW2006). A total of 5 grab samples were collected in June 2001. Prospecting identified numerous old trenches with about 5% spodumene and traces of columbite and molybdenite located in the area of the Northeast Dyke. The spodumene crystals were up to 6 cm long and 1 cm wide. No assays were completed on the samples.

6.14 2010, Fieldex Exploration Inc.

In March 2010, Fieldex Exploration Inc ("Fieldex") announced that it had entered an option agreement with Mantis Minerals Corp to acquire up to 60% of the Case pegmatite Property (Fieldex press release dated March 10, 2010).

In September 2010, Fieldex Exploration Inc. resampled Platinova's 7 drill holes on the North and Main Dykes (Fieldex press release dated Sept. 13, 2010). The assay highlights include:

- DDH-1 from 23.80 to 33.00 m with 1.98 % Li_2O over 9.20 m
- DDH-4 from 43.32 to 47.72 m with 1.49 % Li_2O over 4.40 m
- DDH-5 from 43.00 to 57.07 m with 1.35 % Li_2O over 14.07 m

6.15 2010, P. Hermeston – East Dyke

Navigator Exploration allowed their claims on the East Dyke to lapse and the area was staked by P. Hermeston late summer of 2009 (MNDM assessment report 2.45523). In April and May, 2010, P. Hermeston with the assistance of E. Shynkorenko established a field grid system and conducted a Beep Mat survey over the known outcrops and adjacent areas of East Dyke. Navigator concluded that the East Dyke was not economic for tantalum, so P. Hermeston explored it for rubidium and muscovite.

Study Area A was over East Dyke outcrops and immediate adjacent areas. A base line was cut with two tie lines (a total of 2.65 km), and 100 m interval grid system with station locations every 50 m located by handheld GPS. Study Area B covers a dyklet with a 50 m interval grid was used with stations at every 25 m.

The Beep Mat survey identified several locations of higher quality conductivity: 7 areas in Study Area A and 3 areas in Study Area B. Higher magnetic values maybe the result of mafic intrusives.

6.16 2010, P. Hermeston – Northeast Dyke

On August 24, 2010 P. Hermeston staked claim 4249052 northeast of Case pegmatites (MNDM assessment report 2.47355). On August 25, 2010, P. Hermeston and E. Shynkorenko conducted prospecting on the Northeast Dyke, collected 4 grab samples and 2 soil samples.

The Northeast Dyke is hosted by fine-grained biotite-garnet metasediments. The Northeast Dyke is exposed in two areas and appear to dip shallowly and trend northeast-southwest direction. The southern exposed area is averaging 10 m wide and an estimated 75 m in length. The northern exposed area averages 20 m in width and 48 m in length. Descriptions and assays of the 4 grab samples is given in Table 6-7.

Table 6-7 Hermeston's 2010 grab sampling of Northeast Dyke, NAD 83.

Station number	Easting (m)	Northing (m)	Description	Li (ppm)	Ta (ppm)
Stn. ST-001	578,789	5,432,297	vein of K-feldspar, quartz, mica	19	0.005
Stn. ST-002	579,135	5,432,590	vein of K-feldspar, quartz, mica	3	0.005
Stn. ST-003	579,051	5,432,289	vein of K-feldspar, quartz, mica; 1 m wide with NE-SW trend; southern exposed portion	93	0.005

Stn. ST-004	579,076	5,432,366	peg dyke of K-feldspar, quartz, mica, green spodumene crystal; 0.5 to 1.0 m wide with NE-SW trend, northern exposed portion	35	0.010

6.17 2010-2011, P. Hermeston – South Dyke

Prospecting, mapping and sampling was conducted on the South Dyke by P. Hermeston with the assistance of E. Shynkorenko on Oct. 26, 2010 and July 21, 2011 (MNDM assessment report 2.49595). Claim 1214668 was staked by P. Hermeston on Aug. 25, 2009 which includes the eastern part of the South Dyke and most of the East Dyke.

On Oct. 26, 2010, two rock samples were collected from the eastern part of the South Dyke (Figure 6-3). One of the samples was a muscovite sample taken from the midsection of the exposed dyke to evaluate the lithium and gallium content in the mica. The other sample was a pegmatite sample with a few small (2 cm) greenish-blue beryl crystals from a ~1975 trench. On July 21, 2011, two more rock samples were collected: one from a water filled trench and the other from the mid-section of the exposed dyke.

The grab sample assays are given in Table 6-8. The muscovite sample had higher Rb and Ga contents than the pegmatite samples, but still not significant. Overall, the Li and Ta contents of the pegmatite samples are insignificant, as the South Dyke does not contain spodumene.

Table 6-8 Hermeston's 2010-2011 grab sampling of South Dyke, NAD 83

Sample Number	Easting (m)	Northing (m)	Description	Li (ppm)	Ta (ppm)	Ga (ppm)	Rb (ppm)	Cs (ppm)
STSD-01	578,377	5,431,547	muscovite	172.5	0.06	10.15	329	15.85
STSD-02	578,393	5,431,564	pegmatite with a few greenish-blue beryl	191	0.01	2.08	96.3	22.1
STSD-03	578,386	5,431,561	pegmatite	101	0.005	1.45	57.2	6.73
STSD-04	578,381	5,431,551	pegmatite	3.7	0.005	0.62	30.7	1.81

6.18 2012, P. Hermeston – Little Joe Lake

On May 12, 2012, P. Hermeston prospected the area south of the South Dyke and north of Little Joe Lake in search of parallel pegmatite dykes (MNDM assessment report 2.52017). One rock grab sample (mainly feldspar and minor quartz and mica) and 3 soil-humus samples were collected (Figure 6-2). The majority of the dry-land area north of Little Joe Lake is covered with a thick overburden consisting of deep humus bog overlaying coarse sand. The rare-element content of the samples was insignificant, but two soil samples had elevated Cu-Ni contents (Table 6-9). P. Hermeston recommended that the area be prospected for Cu-Ni occurrences similar to those south of Little Joe Lake.

Table 6-9 Hermeston's 2012 samples for Little Joe Lake area, NAD 83

Sample Number	Easting (m)	Northing (m)	Sample Type	Li (ppm)	Ta (ppm)	Cu (ppm)	Ni (ppm)
ST-01-12	578,000	5,431,060	soil-humus	N.A.	N.A.	N.A.	N.A.
ST-02-12	578,168	5,431,303	soil-humus	1.4	0.005	71.4	32.1
ST-03-12	578,168	5,431,303	rock (float)	3.8	0.005	0.6	0.4
ST-04-12	578,305	5,431,181	soil-humus	1.4	0.01	36.5	19.9

6.19 2014, E. Shynkorenko/P. Hermeston – Northeast Dyke

On May 30 and 31, 2014, E. Shynkorenko and P. Hermeston conducted prospecting, grab sampling and mapping on the Northeast Dyke in claim 4249052 (MNDM assessment report 2.55141). This work was a follow up of prospecting that they conducted in 2010. Two samples were collected to define the silica, feldspar and rare-element potential for the property (Figure 6-2). They noted that deep moss covered areas lacking tree cover inferred that extensions of the dykes might trend NE-SW. Two pegmatite samples were collected and the description and assays are given in Table 6-7. The elevated Li assay for sample NED-01-14 suggests the presence of lithium mica.

Table 6-10 Shynkorenko's 2014 grab sampling of Northeast Dyke, NAD 83

Sample	Easting (m)	Northing (m)	Li (ppm)	Ta (ppm)	Location	Description
NED-01-14	579,098	5,432,355	> 10,000	57.4	outcrop - north exposure	pegmatite - quartz, feldspar
NED-02-14	579,138	5,462,283	58	< 0.5	float - south exposure	mainly quartz and feldspar, some hornblende

6.20 Summary of exploration history

A summary of the historic exploration work on the Case Lake Property is given in Table 6-11. Historical grab sample locations are plotted in Figure 6-2 and Figure 6-3.

Table 6-11 Summary of historic exploration work on the Case Lake Property

Assessment Report Number	Year of Report	Year of Work	Company	Type of Work	Description of Work
KL2653	1969	1969	J. Tesluk	trenching, stripping	trenching and stripping of Case pegmatites
32E04SW0008	1973	1973	R. Strickland/L. Darby	drilling	one drill hole 101 ft, collared in Case Batholith, intersected 83 ft of spodumene-bearing pegmatite
Gartner Lee Associates report	1973	1973	L. Darby	geological	property visit, assays of pure mineral chips
KL0644	1974	1974	L. Darby	geological	trenching, stripping, geological mapping, 1 drill hole 101 ft
KL0668	1976	1976	L. Darby/ Dex Ltd	geological	stripping, blast-hole drilling, geological mapping of South Dyke, trenching
32E04SW0003	1991	1991	J.G. Burns	geology and geophysics	line cutting, grab samples of North, Main and South Dykes, magnetometer survey, VLF survey, geology map of North, Main and South Dykes
32E04SW2001	1998	1996-1998	G. O'Reilly	prospecting, grab sampling	prospecting for new pegmatites, stripping, grab sampling
32E04SW2002	1999	1999	J. Horne	mapping, stripping, plugger holes, geophysics	4500 m^2 of stripping, discovery of NE Dyke, 2 plugger holes on North Dyke, total magnetic and gradient surveys

Assessment Report Number	Year of Report	Year of Work	Company	Type of Work	Description of Work
32E04SW2003	2002	2001	Platinova A/S	drilling, channel sampling, detailed geological mapping	7 drill holes totaling 508.76 m, 6 channel samples, detailed geological map of North, Main and South Dykes
32E04SW2004	2002	2001	Navigator Exploration Corp	grab and channel sampling	7 grab samples, 16.6 m long channel on East Dyke
32E04SW2006	2003	2001	E. Ludwig	prospecting and grab samples	5 grab samples with 5% spodumene, near NE Dyke
2.45523	2010	2010	P. Hermeston	line cutting, geophysics	Beep Mat survey over the East Dyke
2.47355	2011	2010	P. Hermeston	sampling, mapping	prospecting, 4 grab samples from NE Dyke
2.49595	2011	2010/2011	P. Hermeston	grab sampling	4 grab samples from South Dyke
2.52017	2012	2012	P.Hermeston	grab sampling	1 grab sample, 3 soil-humus samples from Little Joe Lake
2.55141	2014	2014	E. Shynkorenko	grab sampling	2 grab samples from NE Dyke

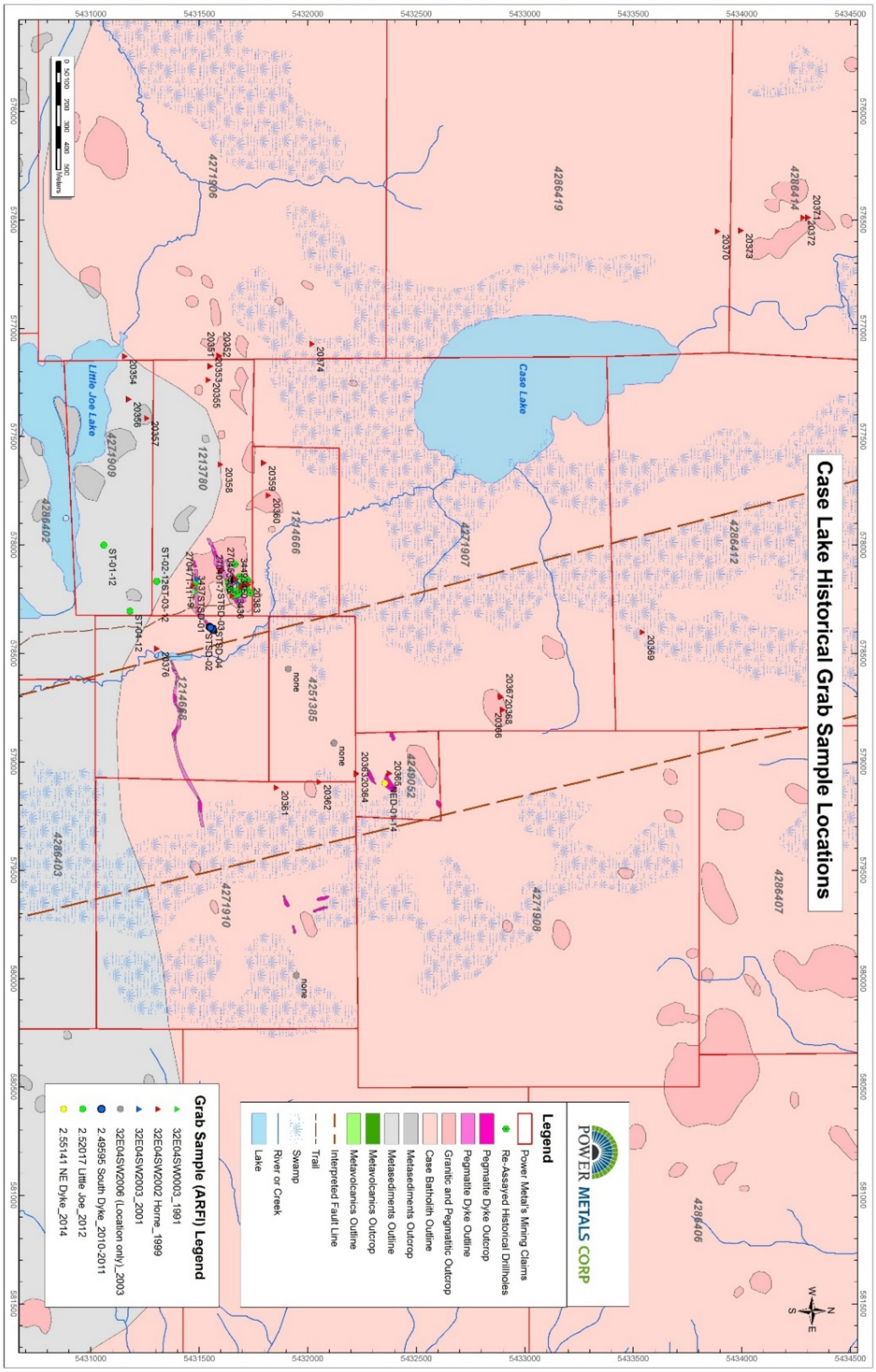

Figure 6-2 Map of regional historical grab samples at Case Lake.

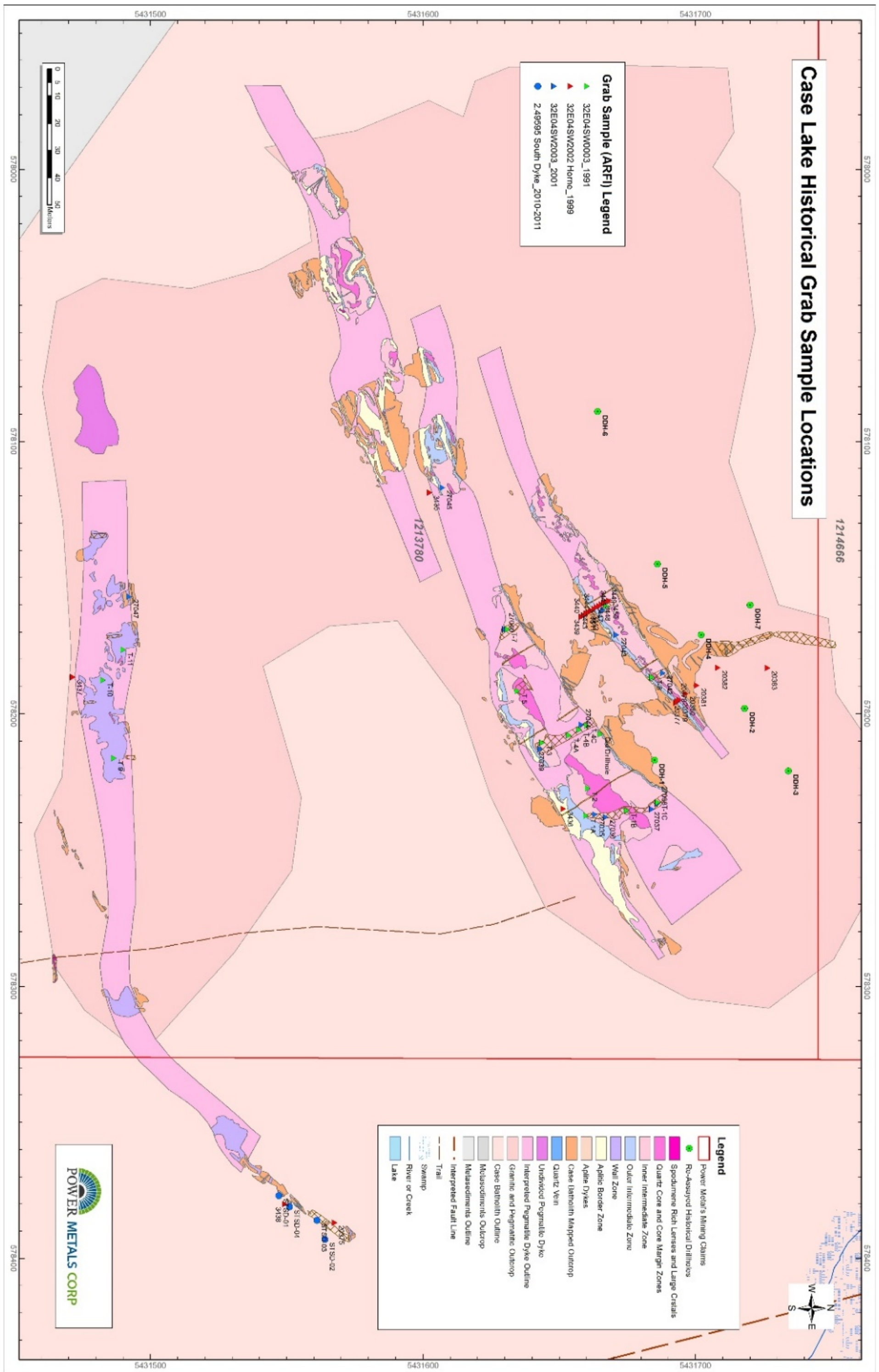

Figure 6-3 Map of historical grab samples on North, Main and South Dykes.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The Case Lake pegmatite swarm occurs along a subprovincial boundary between the metasedimentary Opatica Subprovince to the north and greenstone Abitibi Subprovince to the south (Figure 7-1) (Breaks et al., 2006). The Opatica Subprovince consists of the granitic Case Batholith, and the Abitibi Subprovince consists of the Scapa metasedimentary rocks (metagraywacke and garnet schist) and the Steele volcanic rocks (amphibolite) in the Case Lake area (Lumbers, 1962, M2018) (Figure 7-2).

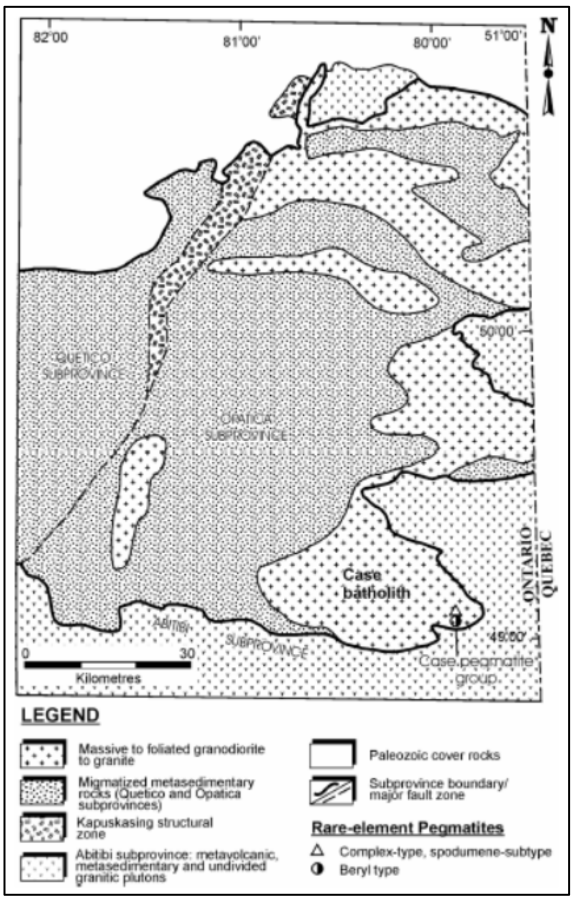

Figure 7-1 Regional geology map (from Breaks et., 2006, OFR 6195).

7.2 Local Geology

The Case Lake pegmatite swarm is hosted by the Case Batholith which is an extensive 50 by 85 km ovoid granitic complex that is part of the Optica Subprovince (Jackson and Fyon, 1991) (Figure 7-1 and Figure 7-2). The Case Batholith is a weakly foliated biotite granodiorite to quartz monzonite which is characterized by biotite-rich orbicules that range in diameter from 1 to 7 cm (Breaks et al., 2006, OFR6195) (Figure 7-3). The Case Batholith is mainly quartz monzonite, but near its contacts, *i.e.*, on the Case Lake Property, it grades into granodiorite (Lumbers, 1962a). The main components in the granodioite are quartz (20%), feldspar (70%) and biotite (10%) (MNDM assessment report: 32E04SW2002).

The Scapa Metasediments are mostly metamorphosed greywacke and garnet schist and dip moderately-steeply southward at 60 to 70° (MNDM assessment report: 32E04SW2002). The metasediments are bedded with individual beds ranging from 1-2 cm in thickness. The metasediments are fine-grained and schistose. The major minerals are quartz, feldspar and biotite with minor garnet and staurolite. Staurolite is easily identified on weathered surface as 2 cm diameter knobs.

The Steele volcanics form a narrow lenticular belt composed of amphibolite with some interbedded metasediment and metamorphosed rocks (Lumbers, 1962a). Some of the amphibolites are schistose and contain garnet, but most are poorly foliated and exhibit relict volcanic structures (i.e., amygdaloidal, pillowed, massive, diabasic and porphyritic textures). The amphibolites are metamorphosed mafic volcanic rocks.

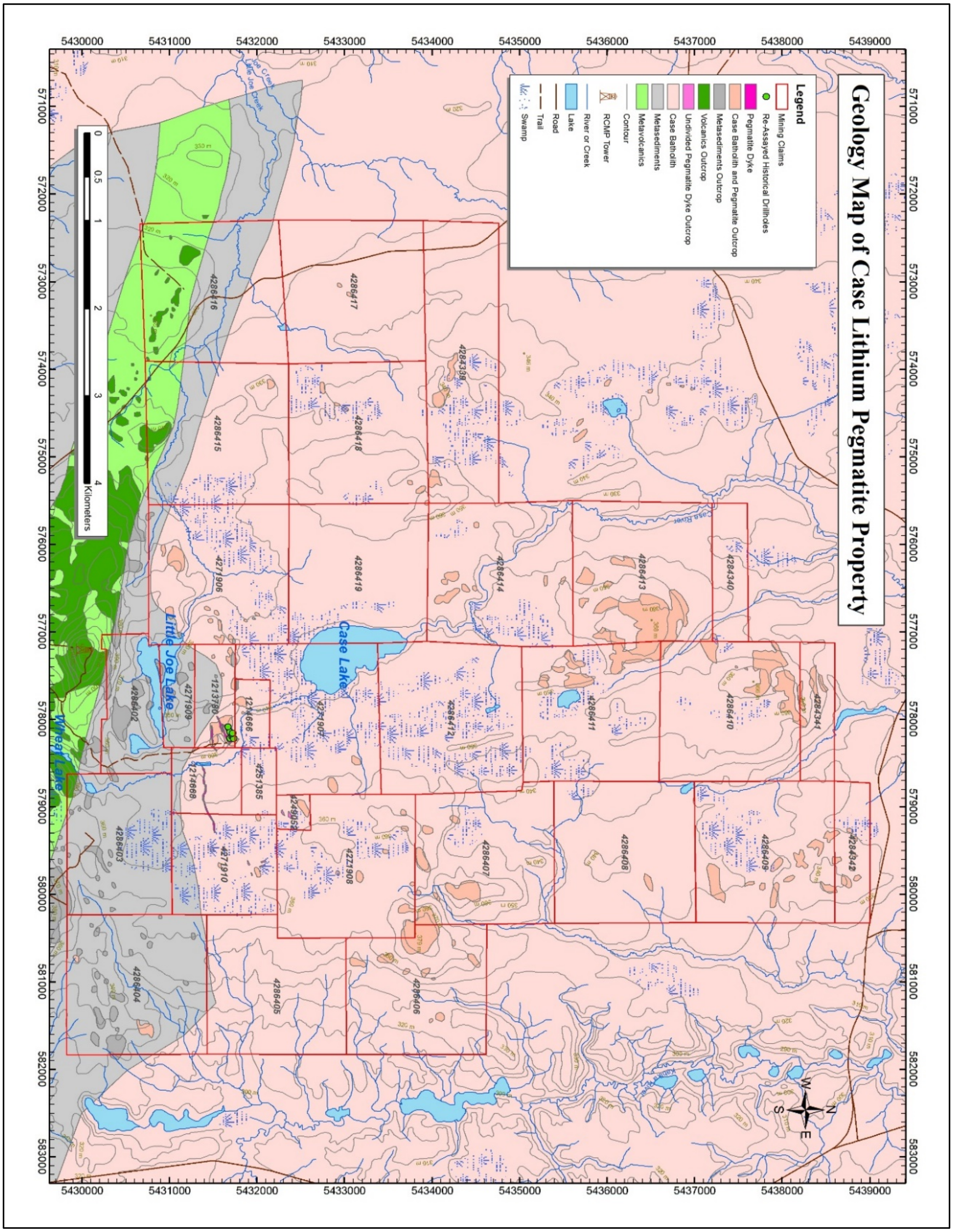

Figure 7-2 Local geology of Case Lake Property.

Figure 7-3 Orbicular Case Batholith host rocks adjacent to Case North pegmatite dyke (Breaks et al., 2006, OFR 6195).

7.3 Property Geology

Case Lake pegmatite swarm consists of five dykes exposed on surface (Breaks et al., 2006, OFR6195; MNDM assessment reports: 32E04SW2002, 2000; 32E04SW2003, 2001; 32E04SW2004, 2001; 2.47355, 2011) (Figure 7-4):

6. North Dyke – 12 m thick and > 100 m strike length
7. Main Dyke (also known as Central Dyke) – 35 m thick and > 350 m strike length
8. South Dyke – 10 m thick and > 250 m strike length
9. East Dyke – 19 m wide and > 1200 m strike length
10. Northeast Dyke – 10 m wide and > 75 m length

Figure 7-4 View of Main Dyke looking north at North Dyke (Breaks et al., 2006, OFR 6195).

All of the known Case pegmatite dykes are open along strike, as the current strike length only represents surface exposure and doesn't represent the total length of the pegmatite dykes. Thus, there is potential to increase the strike length of each mineralized dyke.

The North, Main and South dykes are hosted by the Case granodiorite batholith and they strike at 60 to 70° and dip 40 to 60°. The East and Northeast Dykes are hosted by fine-grained biotite-garnet metasedimentary rocks. While Figure 7-5 shows the East Dyke being hosted by the Case Batholith, mapping by Navigator Exploration Corp. in 2001 (MNDM assessment report 32E04SW2004) indicates that the East Dyke is in contact with metasedimentary rocks, but more geological mapping is required to fine-tune the Case Batholith and metasedimentary boundary around the East Dyke. The East Dyke is steeply dipping and has a E-W strike. Geological mapping by Hermeston (MNDM assessment report 2.47355, 2010) indicates that the Northeast Dyke is hosted by metasediments, but additional geological mapping is required to confirm the host rock. The Northeast Dyke has a shallow dip and trend in a northeast-southwest direction. The Northeast Dyke consists of northern and southern exposures and numerous dykelets.

Both the North and Main Dykes have spodumene-rich zones (muscovite-K-feldspar-quartz-green spodumene-albite) and albitic aplite border zones (Breaks et al., 2006, OFR6195). Spodumene is absent in the beryl-type South Dyke and the potassic pegmatite East Dyke (MNDM assessment report: 32E04SW2004, 2001). The East Dyke consists mostly of grey, very coarse-grained K-feldspar, quartz and minor muscovite, quartz pods and aplite bands.

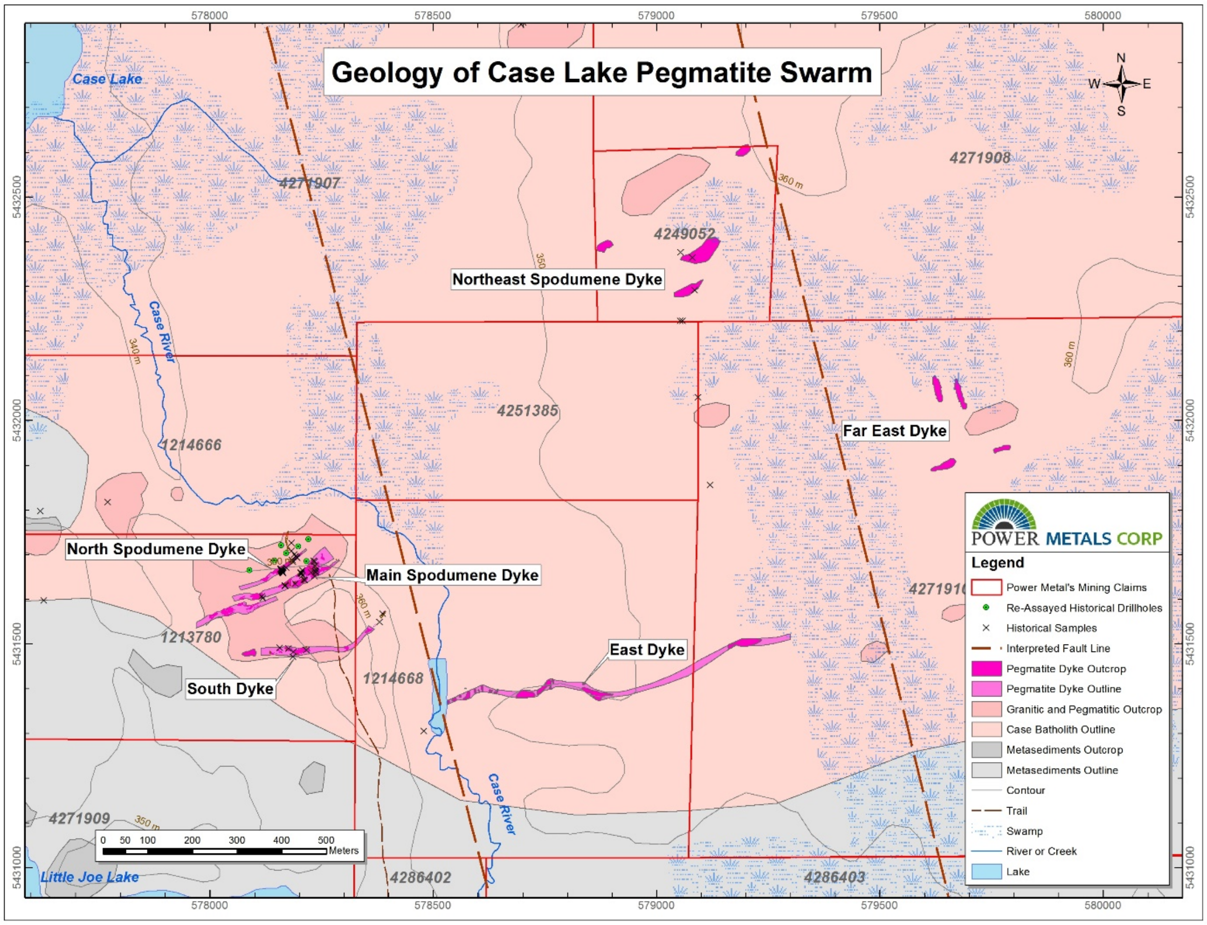

Figure 7-5 Geology map of Case Lake pegmatite swarm.

7.4 Mineralization

The spodumene in the North Dyke is very coarse-grained with blades up to 5 by 70 cm. The spodumene in the Main Dyke is abundant, very coarse-grained and green and white in colour (Figure 7-6 and Figure 7-7) (Breaks et al., 2006, OFR6195).

Platinova's mapping in 2001 divided the Main and North Dykes into 4 pegmatite zones (MNDM assessment report: 32E04SW2003, 2001) (Figure 7-8). The albitic aplite border zone (1, 7) does not contain spodumene. In the Main Dyke, the outer intermediate zone (2, 6) has about 10% greenish-grey spodumene. The inner intermediate zones (3, 5) contains spodumene which is often 2-4 cm across and 20 cm to 3.9 m long in the upper part of the zone. The spodumene is mostly greenish-grey, but may be brownish or pink-coloured. The lower part of the zone contains 20% spodumene that is typically 10-49 cm long and 1-4 cm across. The quartz core zone (4) contains up to 15% greenish grey spodumene. The spodumene crystals are coarser than in the inner intermediate zone.

In the North Dyke, the outer intermediate zone (2, 6) contains 20% spodumene that is 2 to 10 cm long with a yellowish hue in the lower part of the zone (MNDM assessment report: 32E04SW2003, 2001). The outer intermediate zone contains up to 25% spodumene that is up to 8 cm long and often 3-4 cm long with a yellowish-green colour in the upper part of the zone. The inner intermediate zone (3, 5) contains 15% pale green spodumene that is often 15 cm long and may be up to 1.2 m long in the lower part of the zone. The inner intermediate zone contains 20% spodumene that is often 60 cm long and 3-5 cm across in the upper part of the zone. The quartz core (4) contains very little spodumene.

Horne's sampling in 1999 located the Northeast Dyke and noted that it hosted very coarse-grained spodumene and a grab sample contained > 500 ppm Li and > 100 ppm Ta (MNDM assessment report: 32E04SW2002, 2000). It is recommended that follow up geological mapping of this dyke be completed.

Figure 7-6 Spodumene megacrysts, quartz and white K-feldspar from Main Dyke (Breaks et al., 2006, OFR 6195). Rusty pock marks in the spodumene represent weathered sphalerite.

Tantalum mineralization is abundant in the Main Dyke and the North Dyke and is hosted within spodumene-rich pegmatite zone and albite-rich pegmatite zone (Figure 7-7). This expands the mineralization within the Case pegmatites to include both the spodumene-rich pegmatite zones with Li and Ta mineralization and the albite-rich pegmatite zones with Ta mineralization. Breaks et al. (2006) study of Case Lake pegmatite dykes showed that the Ta content increases from the South Dyke to the Main Dyke to the North Dyke with increasing fractionation (OFR 6195). Breaks et al. (2006) completed electron microprobe analyses of the Nb-Ta-oxide minerals and identified that most of the Nb-Ta-oxide minerals in the South Dyke are ferrocolumbite. Most of the Nb-Ta-oxide minerals in the Main and North Dykes are manganocolumbite and manganotantalite. Microlite occurs as an infilling between abundant spodumene blades in the North Dyke.

Figure 7-7 Black manganocolumbite-manganotantalite in spodumene-rich zone of the Main Dyke (Breaks et al., 2006, OFR 6195).

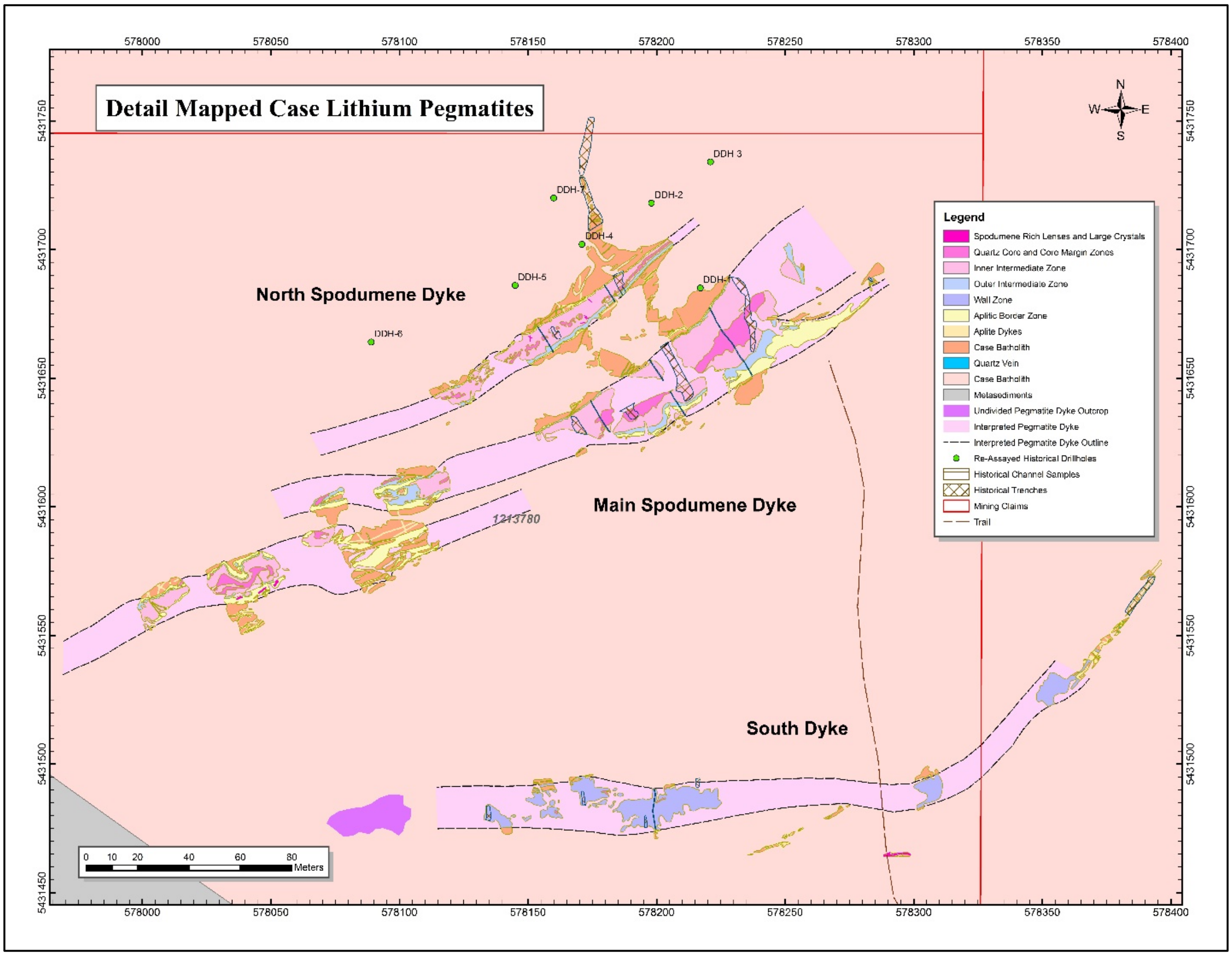

Figure 7-8 Detailed geology map of the North, Main and South Dykes (from Platinova, 2001, MNDM assessment report: 32E04SW2003).

8.0 DEPOSIT TYPES

8.1 Rare-element pegmatites of Superior Province

Rare-element pegmatites may host several economic commodities, such as tantalum (Ta-oxide minerals), tin (cassiterite), lithium (ceramic-grade spodumene and petalite), rubidium (lepidolite and K-feldspar), and cesium (pollucite) collectively known as rare elements, and ceramic-grade feldspar and quartz (Selway *et al*., 2005). Two families of rare-element pegmatites are common in the Superior Province, Canada: Li-Cs-Ta enriched ("LCT") and Nb-Y-F enriched ("NYF"). LCT pegmatites are associated with S-type, peraluminous (Al-rich), quartz-rich granites. S-type granites crystallize from a magma produced by partial melting of preexisting sedimentary source rock. They are characterized by the presence of biotite and muscovite, and the absence of hornblende. NYF pegmatites are enriched in rare earth elements ("REE"), U, and Th in addition to Nb, Y, F, and are associated with A-type, subaluminous to metaluminous (Al-poor), quartz-poor granites or syenites (Černý, 1991a).

Rare-element pegmatites derived from a fertile granite intrusion are typically distributed over a 10 to 20 km^2 area within 10 km of the fertile granite (Breaks and Tindle, 1997). A fertile granite is the parental granite to rare-element pegmatite dykes. The granitic melt first crystallizes several different granitic units (e.g., biotite granite to two mica granite to muscovite granite), due to an evolving melt composition, within a single parental fertile granite pluton. The residual melt enriched in incompatible elements (e.g., Rb, Cs, Nb, Ta, Sn) and volatiles (e.g., H_2O, Li, F, BO_3, and PO_4) from such a pluton can then migrate into the host rock and crystallize pegmatite dykes (Figure 8-1). Volatiles promote the crystallization of a few large crystals from a melt and increase the ability of the melt to travel greater distances. This results in pegmatite dykes with coarse-grained crystals occurring in country rocks considerable distances from their parent granite intrusions.

There are several geological features that are common in rare-element pegmatites of the Superior province of Ontario (Breaks and Tindle, 2001; Breaks et al., 2003) and Manitoba (Černý et al., 1981; Černý et al., 1998) (Selway *et al.*, 2005):

1. *Subprovincial Boundaries:* The pegmatites tend to occur along subprovincial boundaries.
2. *Metasedimentary-Dominant Subprovince:* Most pegmatites in the Superior province occur along subprovince boundaries, except for those that occur within the metasedimentary Quetico subprovince.
3. *Greenschist to Amphibolite Metamorphic Grade:* Pegmatites are absent in the granulite terranes.
4. *Fertile Parent Granite:* Most pegmatites in the Superior province are genetically derived from a fertile parent granite.
5. *Host Rocks:* Highly fractionated spodumene- and petalite-subtype pegmatites are commonly hosted by mafic metavolcanic rocks (amphibolite) in contact with a fertile granite intrusion along subprovincial boundaries. Pegmatites within the Quetico subprovince are hosted by metasedimentary rocks or their fertile granitic parents.
6. *Metasomatized Host Rocks:* Biotite and tourmaline are common minerals, and holmquistite is a minor phase in metasomatic aureoles in mafic metavolcanic host rocks to spodumene- and petalite-subtype pegmatites. Tourmaline, muscovite, and biotite are common, and holmquistite is rare in metasomatic aureoles in metasedimentary rocks.

7. *Li Minerals:* Most of the complex-type pegmatites of the Superior province contain spodumene and/or petalite as the dominant Li mineral, except for a few pegmatites which have lepidolite as the dominant Li mineral.
8. *Cs Minerals:* Cesium-rich minerals only occur in the most extremely fractionated pegmatites.
9. *Ta-Sn Minerals:* Most pegmatites in the Superior province contain ferrocolumbite and manganocolumbite as the dominant Nb-Ta-bearing minerals. Some pegmatites contain manganotantalite or wodginite as the dominant Ta-oxide mineral. Tantalum-bearing cassiterite is relatively rare in pegmatites of the Superior province.
10. *Pegmatite Zone Hosting Ta Mineralization:* Fine-grained Ta-oxides (e.g., manganotantalite, wodginite, and microlite) commonly occur in the aplite, albitized K-feldspar, mica-rich, and spodumene core zones in pegmatites in the Superior province.

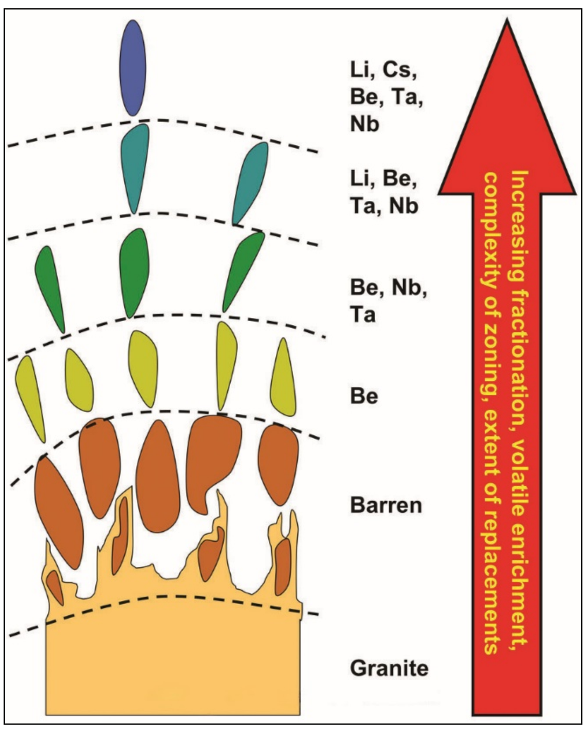

Figure 8-1 Chemical evolution of lithium-rich pegmatites with distance from the granitic source (London, 2008).

8.2 Case Lake pegmatites

The Case Lake pegmatites occur on the subprovincial boundary between the Opatica metasedimentary Subprovince and the Abitibi greenstone Subprovince (Figure 7-1) (Breaks et al., 2006). The Case Lake pegmatites are hosted by their parental granite, the Case Batholith. North and Main Dykes are classified as spodumene-subtype pegmatites, as the dominate lithium mineral is spodumene. South Dyke is classified as beryl-type pegmatite, as lithium minerals have not been identified within this dyke and beryl is the most fractionated mineral present. The pegmatite dykes increase in fractionation from the South to Main to North Dykes.

9.0 CURRENT EXPLORATION WORK

A total of 7 historic drill holes totaling 508.76 m from Platinova's 2001 drill program were relogged and resampled by Caracle Creek Jan. 19-23, 2017. These holes were drilled on 5 sections across Main and North Case Pegmatite Dykes on claim 1213780 (MNDM assessment report: 32E04SW2003) (Figure 7-8).

9.1 Sampling Methodology

The drill core was resampled so that 1 m of the Case Batholith granodiorite host rock was sampled followed by 1 m long samples of the pegmatite dyke and 1 m of the Case Batholith. The sampling followed lithology boundaries so that only one lithology unit is within a sample. The core was cut in half to produce the samples. If whole core was in the box (3 samples), then ½ core sample was cut to put in the sample bag and the remaining half was left in the core box. If ½ was in the core box (86 samples), then ¼ core sample was cut to put in the sample bag and the remaining half was left in the core box. If ¼ core was in the core box (144 samples), then the entire ¼ core was put in the sample bag and nothing was left in the core box. The coarse grain size of the spodumene means that 1/8 core would not be representative. In four intervals in the pegmatite, core was missing from the box and could not be resampled. Missing core resulted in short intervals for some of the samples in the relogging program.

The drill core was originally sampled by Platinova in 2001, but it was resampled by Fieldex Exploration Inc in 2010 (Fieldex press release dated Sept. 13, 2010). Platinova's original sampling left ½ core in the box and Fieldex's resampling left ¼ core in the box. Fieldex had an option on the property from Mantis Mineral Corp. Fieldex disclosed the assay highlights of their sampling program (Fieldex press release dated

Sept. 13, 2010), but J-J Minerals does not have access to the original assay certificates, as they were not filed for assessment.

A total of 258 core samples including QC samples were submitted to Actlabs for analysis by Caracle Creek which includes 233 drill core samples, 13 blanks and 12 Li standards.

9.2 Power Metals 2017 Re-sampling Li and Ta Results

Platinova's 7 drill holes which intersected Main and North Dykes were relogged and resampled by Caracle Creek in January 2017. The drill core logs are in Appendix 4 and the assay certificates are in Appendix 5. As expected, the spodumene-rich pegmatite zones had high grade lithium assays. Case pegmatite assays had 45 assays out of a total of 234 drill core assays with > 0.43 % Li_2O cut off which represents 19% of the total assays. Some of the assay highlights on the Main Dyke spodumene zone include:

- DDH-1 from 22.70 to 33.00 m with 1.98 % Li_2O over 10.30 m
- DDH-5 from 46.57 to 56.00 m with 1.37 % Li_2O over 9.43 m
- DDH-5 from 45.00 to 45.95 m with 3.24 % Li_2O over 0.95 m (Figure 9-1).

Additional lithium assay highlights are given in Table 9-1.

Figure 9-1 DDH-5 45-45.95 m with 3.24 %Li_2O (Power Metals, 2017 sampling)

Table 9-1 Lithium assay highlights from Power Metals resampling in 2017.

Drill hole number	Rock type	Dyke	Composite from (m)	Composite to (m)	Weighted average (Li_2O%)	Length (m)	including
DDH-1	spod peg	Main Dyke	8.00	14.50	1.43	6.50	
DDH-1	spod peg	Main Dyke	10.27	11.45	2.34	1.18	including
DDH-1	spod peg	Main Dyke	22.70	33.00	1.98	10.30	
DDH-1	spod peg	Main Dyke	25.00	31.73	2.31	6.73	including
DDH-2	spod peg	Main Dyke	38.00	40.55	1.93	2.55	
DDH-2	spod peg	Main Dyke	44.00	47.30	1.20	3.30	
DDH-2	spod peg	Main Dyke	49.05	50.00	0.88	0.95	
DDH-2	qtz-mus peg	Main Dyke	55.90	57.00	0.73	1.10	
DDH-4	qtz-feld-mus peg	North Dyke	14.80	15.44	0.67	0.64	
DDH-4	qtz-feld-mus peg	North Dyke	18.00	19.00	0.55	1.00	
DDH-4	spod peg	Main Dyke	41.86	47.00	1.28	5.14	
DDH-4	spod peg	Main Dyke	43.32	45.00	2.56	1.68	
DDH-5	spod peg	Main Dyke	44.00	45.95	2.73	1.95	
DDH-5	spod peg	Main Dyke	46.57	56.00	1.37	9.43	
DDH-5	spod peg	Main Dyke	46.57	47.40	2.23	0.83	including
DDH-5	spod peg	Main Dyke	53.05	56.00	2.36	2.95	including
DDH-6	spod peg	Main Dyke	47.00	47.55	1.57	0.55	
DDH-6	spod peg	peg dyke	61.92	62.22	0.77	0.30	

DDH-3 and 7 had no significant Li_2O% assays.

Power Metals Corp.'s reassay of Platinova's 2001 drill core also confirms tantalum mineralization on the Case Lake property (Table 1). Selected tantalum assay highlights include:

- DDH-1 intersected 1.43 % Li_2O and 300.32 ppm Ta over 6.50 m in spodumene-rich pegmatite zone in the Main Dyke.
- DDH-1 also intersected 1.98 % Li_2O and 130.88 ppm Ta over 10.30 m in the spodumene-rich pegmatite zone in the Main Dyke.
- DDH-4 intersected 1010 ppm Ta over 0.43 m within an albite-rich pegmatite zone in the North Dyke.
- DDH-5 intersected 330.29 ppm Ta over 6.48 m within an albite-rich pegmatite zone in the Main Dyke.

Tantalum mineralization is abundant in the Main Dyke and the North Dyke and is hosted within spodumene-rich pegmatite zone and albite-rich pegmatite zone (Figure 7-7). This expands the mineralization within the Case pegmatites to include both the spodumene-rich pegmatite zones with Li and Ta mineralization and the albite-rich pegmatite zones with Ta mineralization.

Table 9-2 Power Metals Ta (ppm) and Li2O (%) reassay highlights of Platinova's 2001 drill core.

Dyke	drill hole number	composite from (m)	composite to (m)	weighted average (Li_2O%)	length (m)	including	composite from (m)	composite to (m)	weighted average (Ta ppm)	length (m)	including
Main Dyke	DDH-1	8	14.5	1.43	6.50		8	14.5	300.32	6.50	
Main Dyke	DDH-1						11.45	13.27	653	1.82	including
Main Dyke	DDH-1	10.27	11.45	2.34	1.18	including					
Main Dyke	DDH-1	22.7	33	1.98	10.30		22.7	33	130.88	10.30	
Main Dyke	DDH-1						22.7	28	216.05	5.30	including
Main Dyke	DDH-1	30	31	3.16	1.00	including					
North Dyke	DDH-2						15.87	17.24	207	1.37	
Main Dyke	DDH-2						59	60	334	1	
Main Dyke	DDH-3						31.27	32	403	0.73	
North Dyke	DDH-4						15.44	19.57	395.16	4.13	
North Dyke	DDH-4						17.57	18	1010	0.43	including
Main Dyke	DDH-4						46	49.73	290.17	3.73	
Main Dyke	DDH-4						48.71	49.57	583	0.86	including
North Dyke	DDH-5						15	16.1	251	1.10	
North Dyke	DDH-5						18	19	211	1.00	
Main Dyke	DDH-5	44	56	1.61	12.00						
Main Dyke	DDH-5						46.57	53.05	330.29	6.48	
Main Dyke	DDH-5	44	47.4	2.58	3.40	including	44	47.4	399	3.40	including
Main Dyke	DDH-5	54	55	2.98	1.00	including					
Main Dyke	DDH-5						48	52	448.99	4.00	including
pegmatite dyke	DDH-5						66	67	206	1	
Main Dyke	DDH-7						64	66.9	279.72	2.90	
Main Dyke	DDH-7						64	65	502	1	including

10.0 DRILLING

Power Metals has not completed a drill program on the Case Lake Property as of the date of this Report.

11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 Sample Security

Platinova's 2001 drill core is stored in a locked core shed on Peter Hermeston's property on Highway #11 approximately 2 miles north of the southern exit off Highway #11 into Kirkland Lake, Ontario. The core was transported by Canadian Exploration Services ("CXS") to their core logging facility at 14579 Government Road, Larder Lake. The core was stored in the locked core logging building while Caracle Creek geologists relogged the core. CXS returned the core to Peter Hermeston's locked core shed.

The core samples were placed in sample bags sealed with cable ties and then placed in rice bags sealed with flagging tape (Figure 11-1). The core samples were transported by Caracle Creek's senior geologist Gary McLearn from Larder Lake to Sudbury and then Caracle Creek's core technician, Cecil Johnson, delivered the core samples to Manitoulin Transport in Lively for shipping to Actlabs analytical lab in Ancaster, Ontario. Actlabs received the core samples on Jan. 27, 2017.

Figure 11-1 Sealed rice bags labelled with drill hole number and sample range.

11.2 Sample Preparation

A total of 258 core samples were submitted to Actlabs including 233 core samples, 13 quartz blanks and 12 Li standards. Every 20 samples contained one blank and one Li standard. Core duplicates were not cut due to insufficient material in the core boxes and 1/8 core samples would not be representative. The core duplicates will be a comparison of the historic and current assays. The blank was ½ inch mesh coarse silica purchased from Analytical Solutions Ltd., Toronto, Ontario. The blanks are silica-rich with typically about 97% SiO_2.

Figure 11-2 Quartz blank

The Li standard was purchased from Brammer Standard Company Inc., Houston, Texas, United States. The Li standard was CGL 128 created by Mongolia Central Geological Laboratory. The Li standard has a certified value of 0.578 % Li_2O and a 95% confidence level of 0.015 % Li_2O. The starting material for the Li standard was a bulk of lithium ore from the wolfram – lithium deposit located at Arbayan area in Mongolia. The certificate of analysis for CGL 128 is given in Appendix 1.

Actlabs' Quality System is accredited to international quality standards through the International Organization for Standardization /International Electrotechnical Commission (ISO/IEC) 17025 (ISO/IEC

17025 includes ISO 9001 and ISO 9002 specifications) with CAN-P-1578 (Forensics), CAN-P-1579 (Mineral Analysis) and CAN-P-1585 (Environmental) for specific registered tests by the Standards Council of Canada (“SCC”). The accreditation program includes ongoing audits which verify the QA system and all applicable registered test methods. ISO 17025 is the main standard used by testing and calibration laboratories. Actlabs’ analytical lab in Ancaster has ISO 17025 certification.

11.3 Sample Analyses

The samples were prepared using RX1 analytical code. RX1 is dry, crush entire sample to 90% -10 mesh, riffle split (up to 5 kg) and pulverize with hardened steel (250 g sample to 95% -150 mesh) (includes cleaner sand).

The ore grade Li_2O% was analyzed by FUS-Na2O2 (8-peroxide ICP-Li) analytical code which is sodium peroxide fusion with analysis by ICP-OES with a detection limit of 0.01 % Li_2O. Fusion is a “total” digestion of the silicate sample and is the superior method to use for pegmatite analyses.

The major element oxides and trace elements including Rb, Cs, Nb, Ta and Be was analyzed by FUS-ICP and FUS-MS (4Litho-Pegmatite Special) analytical codes. This is lithium metaborate tetraborate fusion with analysis by ICP and ICPMS.

The specific gravity was determined for every 10^{th} sample by RX17-GP analytical code which is a measurement on the pulp by a gas pycnometer.

Actlabs inserted internal standards, blanks, pulp duplicates and preparation duplicates within each sample batch as part of their own internal monitoring of quality control. The internal Li standards were inserted one for every 10 samples and the internal blanks were inserted one for every 20 samples. Actlabs used the following lithium standards: NCS DC86303 with a certified value of 0.460 %Li_2O, NCS DC86304 with a certified value of 2.29 %Li_2O and NCS DC86314 with a certified value of 3.89 %Li_2O. The pulp duplicates were inserted one for every approximately 10 samples. The preparation duplicates were inserted one for every 50 samples.

In the QP’s opinion the sample preparation, security and analytical procedure was adequate and to industry standard for the due diligence resampling of Platinova’s 2001 drill core.

12.0 DATA VERIFICATION

12.1 Quality Control

All of the external blanks passed as they had Li_2O % values below the detection limit which indicates that there was no contamination during sample preparation. All of the external lithium standards passed too, as the assays for the Li standards were 0.02 to 0.05 % Li_2O above the certified value of 0.578 % Li_2O for CGL 128 which indicates excellent accuracy for the assays. No sample mix ups were identified.

The core duplicates were a comparison of the Fieldex's 2010 sampling and Power Metals' 2017 sampling results (Fieldex Exploration Inc, press release Sept. 13, 2010). Table 12-1 shows that there Fieldex and Power Metals assay results are very similar for the same intervals which validates the reproducibility of Fieldex's and Power Metals' assays. Power Metals assay results are comparable with that from Fieldex's, especially for:

- DDH-1 22.70 - 33.00 m with 1.98 %Li_2O over 10.30 m for Power Metals
- DDH-1 23.80 - 33.00 m with 1.98 %Li_2O over 9.20 m for Fieldex in 2010.

Table 12-1 Comparison of Fieldex's 2010 and Power Metals' 2017 assay results

Fieldex Exploration, 2010 Sampling					**Power Metals, 2017 Sampling**					
Drill hole number	**From (m)**	**To (m)**	**Interval (m)**	**Li_2O (%)**	**Drill hole number**	**From (m)**	**To (m)**	**Interval (m)**	**Li_2O (%)**	**Difference in Li_2O%**
DDH-1	6.10	14.90	8.80	1.02	DDH-1	6.03	14.50	8.47	1.16	0.14
DDH-1	23.80	33.00	9.20	1.98	DDH-1	22.70	33.00	10.30	1.98	0.00
DDH-4	43.32	47.72	4.40	1.49	DDH-4	43.32	47.00	3.68	1.57	0.08
DDH-5	43.00	57.07	14.07	1.35	DDH-5	46.57	57.00	10.43	1.27	0.08
DDH-6	47.00	47.58	0.58	1.41	DDH-6	47.00	47.55	0.55	1.57	0.16

The QP's (Dr. Selway) opinion is that the quality control review indicates that the standards, blanks and duplicates from the 2017 resampling program are of excellent quality. All of the standards and blanks passed. The quality control review also indicates that there were no sample mix ups. The assays completed by Power Metals were similar to those completed by Fieldex in 2010. There were no lithium contamination and the lab had good reproducibility for the duplicates.

In the QP's opinion, the reassays of Platinova's 2001 drill core is adequate for the purpose of due diligence sampling of historic core.

13.0 ABORIGINAL CONSULTATION

At the end of May, Julie Selway, QP and Ron Bourgeois, Power Metals, travelled to Cochrane to meet with the local Aboriginal groups and Property owner, and to visit the Property. The purpose of the meetings was to introduce Power Metals to them and establish a friendly working relationship.

On May 30, 2017 Julie Selway and Ron Bourgeois met with Chris Sackaney, Land and Resources Manager for Wahgoshig First Nation. The Wahgoshig First Nation reserve is located east of Matheson and south of Lake Abitibi, but their traditional land extends north of Lake Abitibi and includes the Case Lake Property. Wahgoshig Resources Inc. ("WRI") is Wahgoshig's exploration services company (Figure 13-1 and Figure 13-3). The discussion included ways that WRI can help with Power Metals future exploration programs.

Figure 13-1 Wahgoshig Resources Inc.'s office

The meeting with Wahgoshig was followed by a meeting the same day with Urgel Courville, Chair of the Northern Lights Metis Council in Cochrane (Figure 13-2 and Figure 13-3). Mr. Courville explained how the Metis council worked and offered helpful advice on Property logistics.

Figure 13-2 Northern Lights Metis Council office in Cochrane

Also on the same day, Dr. Selway and Mr. Bourgeois met with Edward Shynkorenko in Cochrane. Mr. Shynkorenko is the spokesperson for the group who are the property owners of the original 5 Case Lake claims. Mr. Shynkorenko explained the history of exploration on the property and had a lot of useful advice on logistics for a future exploration program on the Property. Mr. Shynkorenko reported that the trees are dominantly jack pine and spruce on the Property with abundant cranberries in the swamps in the fall. Due to lack of berries and popular trees on the Property, there are no bears. Mr. Shynkorenko also reported that after 4 h of fishing on Case Creek, he didn’t catch any trout. During the site visit, partridges and moose tracks were seen and Mr. Shynkorenko also reported a beaver dam on Case River.

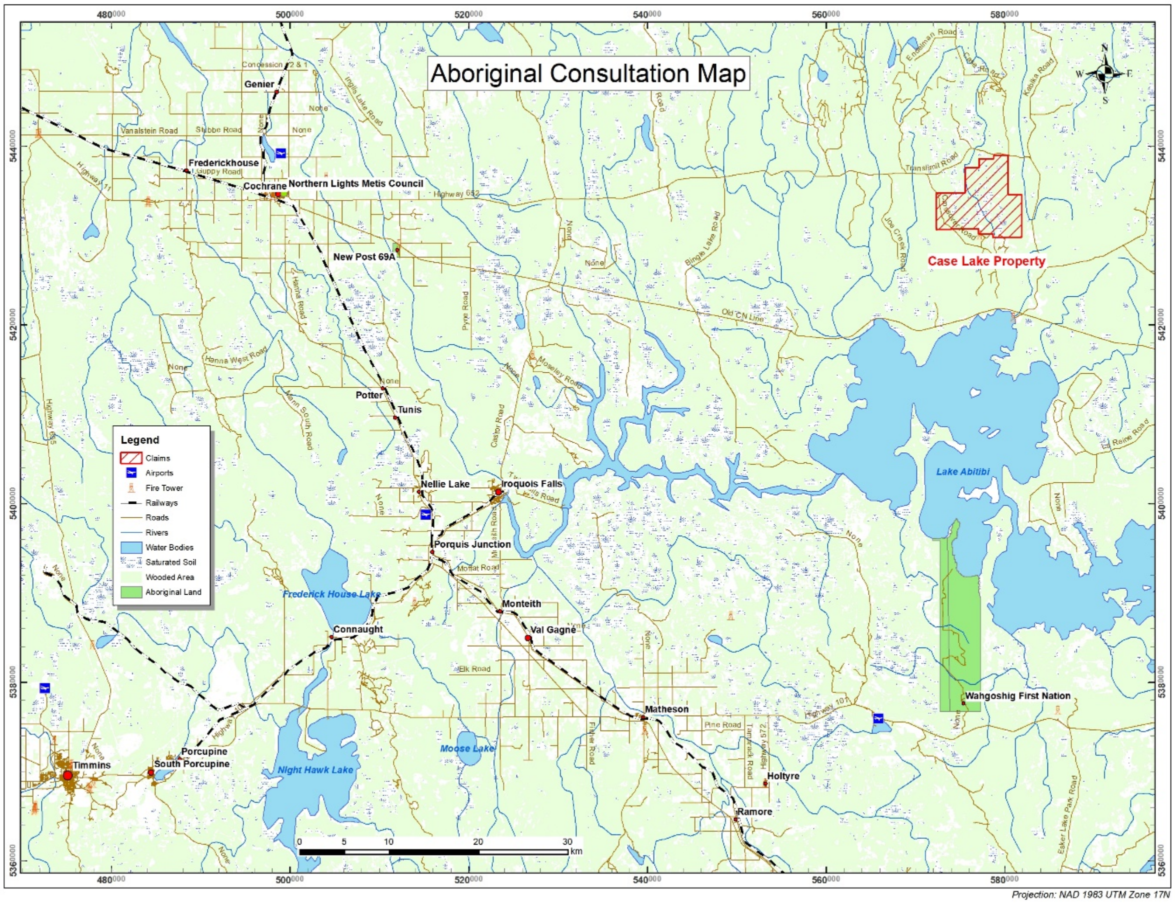

Figure 13-3 Aboriginal consultation map.

14.0 SITE VISIT

On May 31, 2017, Dr. Selway and Mr. Bourgeois drove from Cochrane to Case Lake Property for a site visit to assess access to the property for future work programs and to confirm mineralization at surface. The access to the Property as recorded during the site visit is described in detail in Access section 5.1. During the site visit, Dr. Selway noted a sign for Dunn Right Outfitters on Bingle Road as possible accommodations for a future drill program. Also, the trail to Case Lake pegmatites north of the road to the OPP tower was overgrown with little trees growing along the trail, big trees had fallen across the trail and there were some muddy spots that needed to be filled in (Figure 14-1). This trail needs to be cleared before active exploration can take place on the property.

Figure 14-1 Bush trail to Case Lake at the time of the site visit.

14.1.1 Main Dyke

The Main Dyke is at the end of the bush trail. It was noted that the white outcrops of the Main and North Dykes have been coated with grey moss since the previous exploration activity. A historic drill hole collar was identified at UTM Z17, E 578223 m, N 5431650 m which is likely Darby's 1973 drill hole (Figure 14-2). It is recommended that all of the drill hole collars for the historic holes be DGPS surveyed to improve their location in the 3D model.

Figure 14-2 Darby's 1973 historic drill hole on Main Dyke, looking west

The two end points of channel SC-03 on the Main Dyke was recorded (Figure 14-6):

- South end of a long channel at the contact with the host rock at UTM Z17, E 578245 m, N 5431643 m
- North end of the same long channel at contact with host rock at UTM Z17, E 578225 m, N 5431677 m

Samples of spodumene pegmatite were collected from the easternmost pit on the Main Dyke at UTM Z17, E 578236, N 5431667 (Figure 14-6). These samples were not assayed. The spodumene is both pale green pencil-shaped and white knife-blade shaped crystals (Figure 14-3 and Figure 14-4). The quartz is grey and feldspar is white in the blast pit samples. The GPS location for the blast pit taken during the site visit closely matches that from Platinova's detailed map (MNDM assessment file 32E04SW2003). The main mineralogy of the Main Dyke is grey quartz, pale green spodumene, white K-feldspar and green muscovite (Figure 14-5).

Figure 14-3 Main Dyke blast pit sample with pencil-shaped spodumene crystals.

Figure 14-4 Main Dyke blast pit sample with knife-blade shaped spodumene crystals.

Figure 14-5 Photo of randomly oriented pale green spodumene crystals and grey quartz next to channel SC-03 on Main Dyke. Tape measure is within the channel cut and is 1.04 m long.

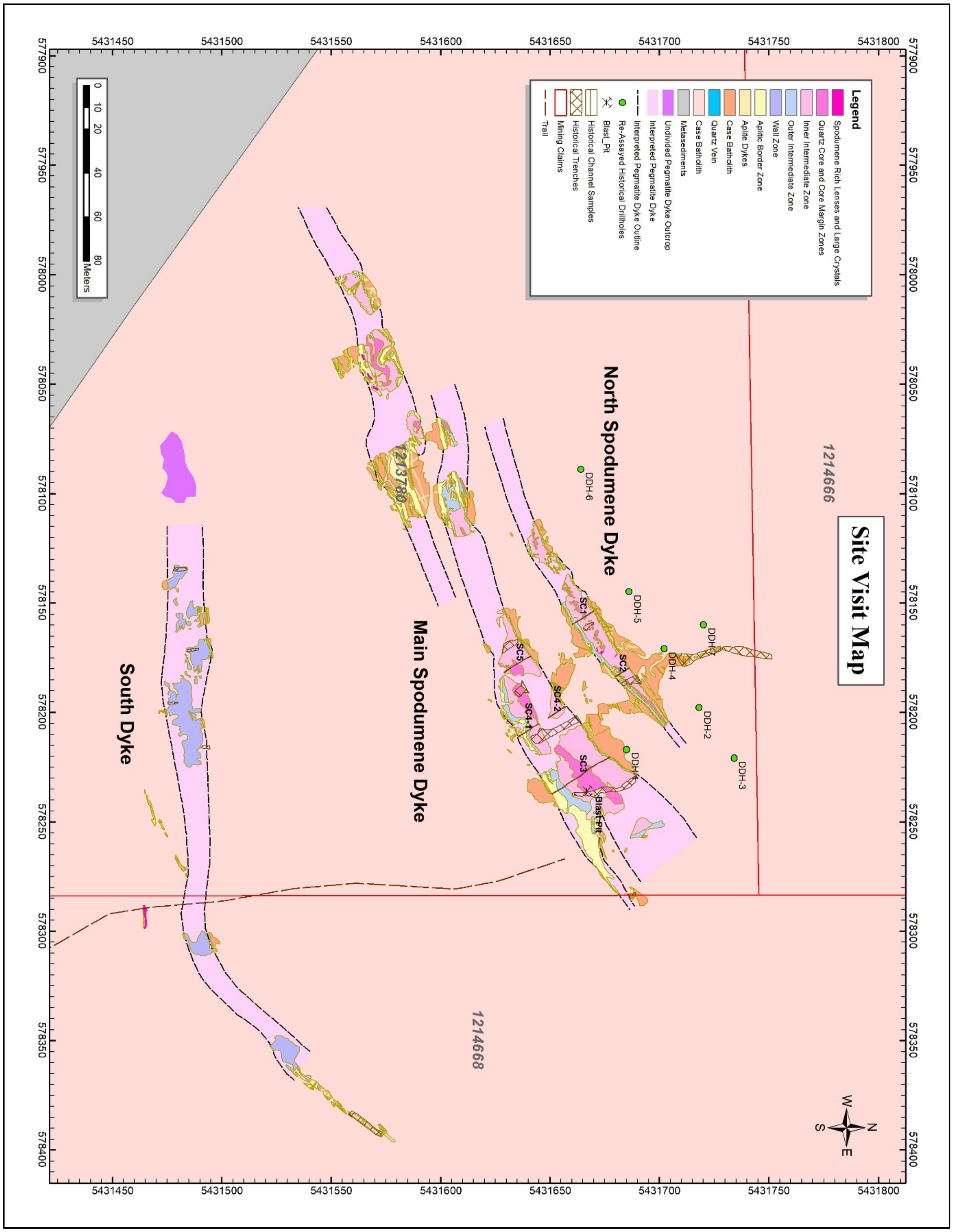

Figure 14-6 Property geology and site visit map.

14.1.2 North Dyke

The location of both ends of two channel cuts were recorded and two blast pits were observed (Figure 14-7).

Channel SC-02 (Figure 14-6):

- South end of channel at contact with host rock (exact end is in a puddle) at UTM Z17, E 578184 m, N 5431665 m
- North end of same channel UTM Z17, E 578179 m, N 5431689 m

Channel SC-01:

- South end of channel "77" is first sample at UTM Z17, E 578162 m, N 5431658 m. Plugger holes along the length of the channel are mostly 50 cm apart (Figure 14-8).
- North end of same channel at UTM Z17, E 578155 m, N 5431670 m

Figure 14-7 North Dyke looking west. Ron is standing next to a blast pit.

Figure 14-8 Channel SC-01 and a plugger hole on North Dyke

The mineralogy of the North Dyke is similar to that of the Main dyke with grey quartz, pale green spodumene, white K-feldspar and green muscovite (Figure 14-9 and Figure 14-10).

Figure 14-9 A 53 cm long spodumene crystal in a matrix of coarse-grained spodumene + grey quartz from North Dyke

Figure 14-10 Two 30 cm long spodumene crystals in grey quartz from North Dyke.

The QP recommends that all of the historic channels and historic drill hole collars be surveyed by DGPS to improve their location in the 3D model and improve drill target locations. The QP also recommends that the trail to the Case Lake pegmatites be cleared before active exploration starts.

15.0 Interpretation and Conclusions

Case Lake Property is located in Steele and Case townships, near Cochrane, NE Ontario close to the Ontario-Quebec border. It is located within Larder Lake Mining Division and NTS sheet: 32E04SW. It is located 80 km east of Cochrane, 100 km north of Kirkland Lake and 120 km NE of Timmins. The Property consists of a total of 32 mining claims for a total of 5968 ha and is 9.5 km x 9 km. Power Metals has option agreements for 10 mining claims (1168 ha) and has 100% ownership of the remaining 22 mining claims (4800 ha).

The Case Lake pegmatite swarm occurs along a subprovincial boundary between the metasedimentary Opatica Subprovince to the north and greenstone Abitibi Subprovince to the south. The Opatica Subprovince consists of the granitic Case Batholith, and the Abitibi Subprovince consists of the Scapa metasedimentary rocks (metagraywacke and garnet schist) and the Steele volcanic rocks (amphibolite) in the Case Lake area. The Case Batholith is an extensive 50 by 85 km ovoid granitic complex. The Case Batholith is a weakly foliated biotite granodiorite to quartz monzonite which is characterized by biotite-rich orbicules that range in diameter from 1 to 7 cm.

The Case Lake pegmatite swarm consists of five dykes:

1. North Dyke – 12 m thick and > 100 m strike length
2. Main Dyke (also known as Central Dyke) – 35 m thick and > 350 m strike length
3. South Dyke – 10 m thick and > 250 m strike length
4. East Dyke – 19 m wide and > 1200 m strike length
5. Northeast Dyke – 10 m wide and > 75 m length

The North, Main and South dykes are hosted by the Case granodiorite batholith and they strike at 60 to 70° and dip 40 to 60°. The East and Northeast Dykes are hosted by fine-grained biotite-garnet metasedimentary rocks. Both the North and Main Dykes have spodumene-rich zones (muscovite-K-feldspar-quartz-green spodumene-albite) and albitic aplite border zones. Spodumene is absent in the beryl-type South Dyke and the potassic pegmatite East Dyke. The Northeast Dyke contains very coarse-grained spodumene.

In 1959, S.B. Lumbers and assistants mapped Steele, Bonis and Scapa townships to produce a bedrock geology map (M2018) and a geological report (R008) in 1962 (Lumbers, 1962 a, b). Lumbers identified the Case pegmatite dykes in lot 5, concession V, Steele township.

In 1973, L. Darby and R. Strickland drilled one hole 101 ft (=30.8 m) deep which was collared on the Case Batholith and intersected 25.3 m of spodumene-bearing pegmatite in the Main Dyke.

In 2001, Platinova A/S completed detailed geological mapping of North, Main and South Dykes. Main and North Dykes are zoned with aplitic albite border zones and spodumene-bearing intermediate zones and a quartz core. The surface outcrops for South and East Dykes lacked spodumene-bearing pegmatite zones. Platinova also completed sampling of 6 channels totaling 113.1 m on North, Main and South Dykes. Assay highlights from Platinova's channel sampling include Main Dyke SC-3, sample 23549, 2.73 % Li_2O, 186 ppm Cs, 1,330 ppm Rb, >100 ppm Be and 489 ppm Ta. August to September 2001, Platinova A/S completed 7 drill holes totaling 508.76 m on the Case property. These holes were drilled on 5 sections across Main and North Case Pegmatite Dykes. Assay highlights from DDH-2 include: from 39.0 to 40.0 m, interval 1.0 m with 1.52 % Li_2O, 62 ppm Ta, > 100 ppm Be from the inner intermediate zone.

Platinova's 7 drill holes which intersected Main and North Dykes were relogged and resampled by Caracle Creek in January 2017. As expected, the spodumene-rich pegmatite zones had high grade lithium assays. Some of the assay highlights on the Main Dyke spodumene zone include:

- DDH-1 from 22.70 to 33.00 m with 1.98 % Li_2O and 130.88 ppm Ta over 10.30 m
- DDH-5 from 46.57 to 56.00 m with 1.37 % Li_2O over 9.43 m
- DDH-5 from 45.00 to 45.95 m with 3.24 % Li_2O over 0.95 m

The Qualified Person concludes that Power Metals 2017 resampling program successfully identified and verified lithium mineralization in Platinova's historic drill core on the Case pegmatite dykes. The review of the historic geological data on the Property and the site visit provided further evidence of lithium mineralization on surface and aided in identification of exploration targets. The review of the 3D model aided in understanding the pegmatite dykes at depth and targeting of future drill holes. There is potential to find additional lithium and tantalum mineralization on the Property.

To the best of the Qualified Person's knowledge, there are no significant risks and uncertainties that could reasonably be expected to affect the reliability or confidence in the exploration information or projected economic outcomes. There are no historic or current mineral resource or mineral reserve estimates on the Property.

The Qualified Person recommends that Power Metals' summer 2017 exploration program on the Case Lake Property consist of 6000 m of drilling of which:

- 4000 m of resource drilling at 30 m spacing and depths of 100-150 m on the Main and North Dykes surface exposure (approximately 26 holes) to aid in future resource estimate.

- 2000 m of expansion drilling at depths of 100-150 m to extend the Main and North Dykes along strike to the east and west (approximately 15 holes) to extend the dykes along strike.

16.0 RECOMMENDATIONS

16.1 Drill Targeting

The drill hole database and detailed geological mapping was used to create a 3D model for North, Main and South Dykes (Figure 16-2 and Figure 16-3). The detailed geological map and channel samples were used for lithology of the surface and the drill core extended the lithology to depth. The dykes were modelled to a depth of 100 m. The fault plane was interpreted from regional geophysics maps and satellite imagery (Figure 16-1). The 3D model was used for drill targeting for a future drill program.

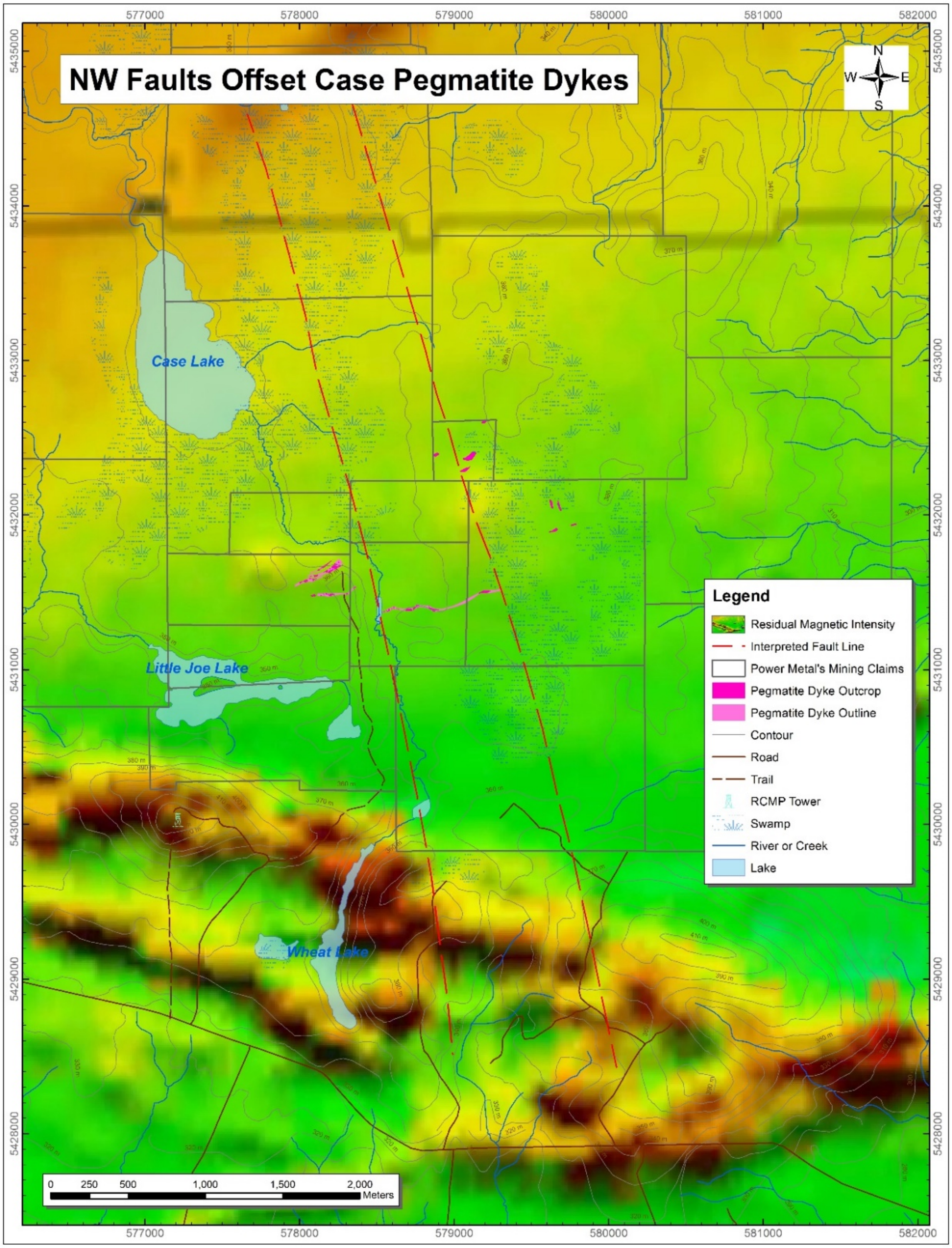

Figure 16-1 Residual Magnetic Intensity map with interpreted faults for Case Lake (from OGS Earth).

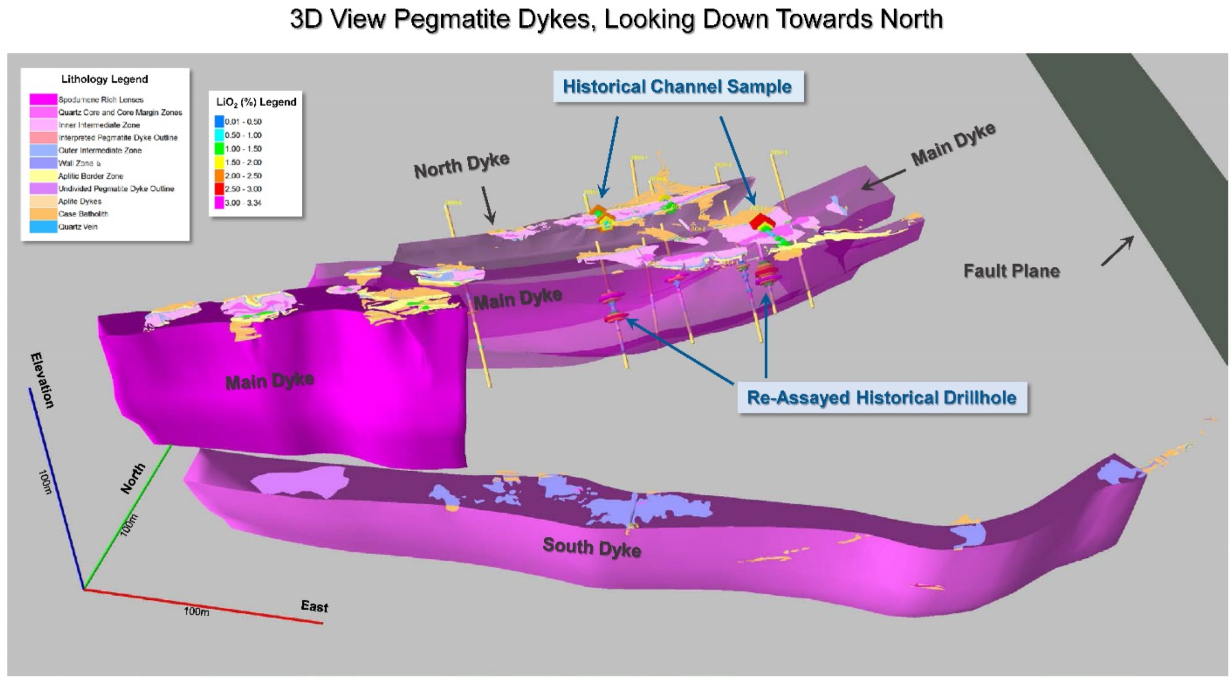

Figure 16-2 3D view of North, Main and South Dykes looking down towards the north.

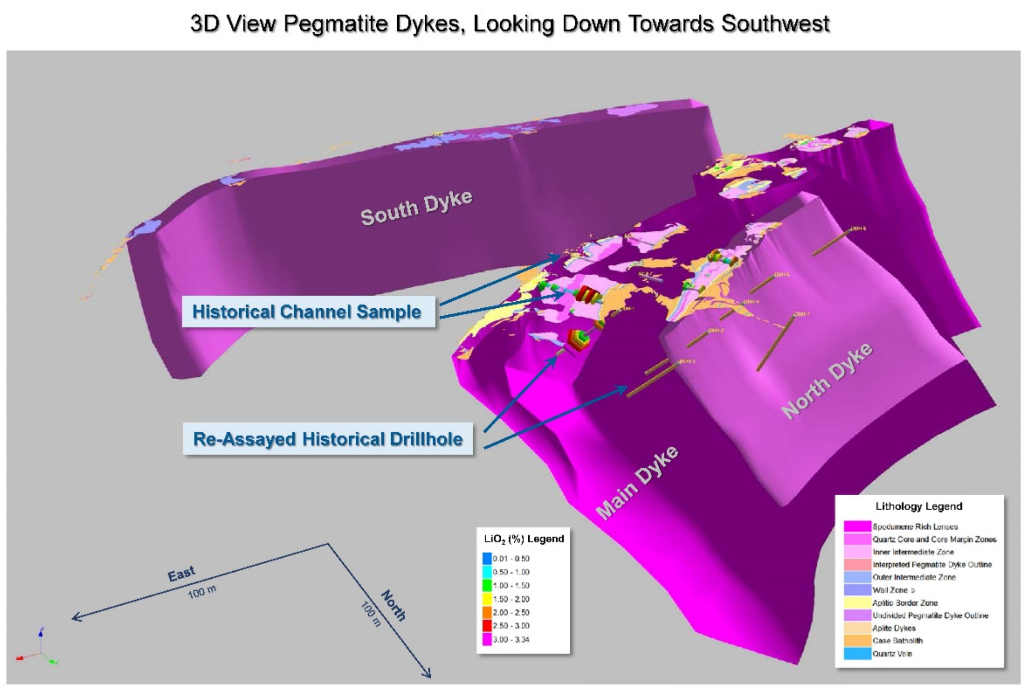

Figure 16-3 3D view of North, Main and South Dykes looking down towards the southwest.

16.2 Recommended Exploration Program

The Qualified Person recommends that Power Metals' summer 2017 exploration program on the Case Lake Property consist of 6000 m of drilling of approximately 41 holes of which (Figure 16-4):

- 4000 m of resource drilling at 30 m spacing and depths of 100-150 m on the Main and North Dykes surface exposure (approximately 26 holes) to aid in future resource estimate.
- 2000 m of expansion drilling at depths of 100-150 m to extend the Main and North Dykes along strike to the east and west (approximately 15 holes) to extend the dykes along strike.

Platinova A/S completed 7 drill holes on the North and Main Dykes in 2001 and Power Metals should infill and verify these historic drill holes. There is 100 m of surface exposed strike length for the Main Dyke that has not yet been drill tested. Both dykes are open along strike and down dip. Power Metals should also test the possibility that the Main Dyke is actually two parallel pegmatite dykes not just one dyke. Since the pegmatite dykes within the Case Lake pegmatite swarm are parallel to each other, there is potential to find additional buried dykes at depth. Power Metals has an Exploration Plan and Permit on Case Lake Property approved by MNDM for the proposed exploration work. The total budget for the proposed drill program is $1.1 million CAD + 13% HST.

In addition to the exploration targets of extension of the North and Main Dykes along strike, there are other exploration targets to be investigated on the Case Lake Property at a later date:

- The fault offset dyke target is a 1 km long target which is assumed to be the down faulted continuation of the North and Main spodumene dykes. The East Dyke is the down faulted continuation of the South Dyke.
- The Far East Dyke is an underexplored pegmatite outcrop which is along the same strike as the North and Main Dykes.
- The metasedimentary host rock Li anomaly target is also along strike of the North and Main Dykes
- Northeast spodumene pegmatite dyke with historical assay of > 2.15 % Li_2O.

The QP also recommends that all of the historic channels and historic drill hole collars be surveyed by DGPS to improve their location in the 3D model and improve drill target locations. The QP recommends that the trail to the Case Lake pegmatites be cleared before active exploration starts.

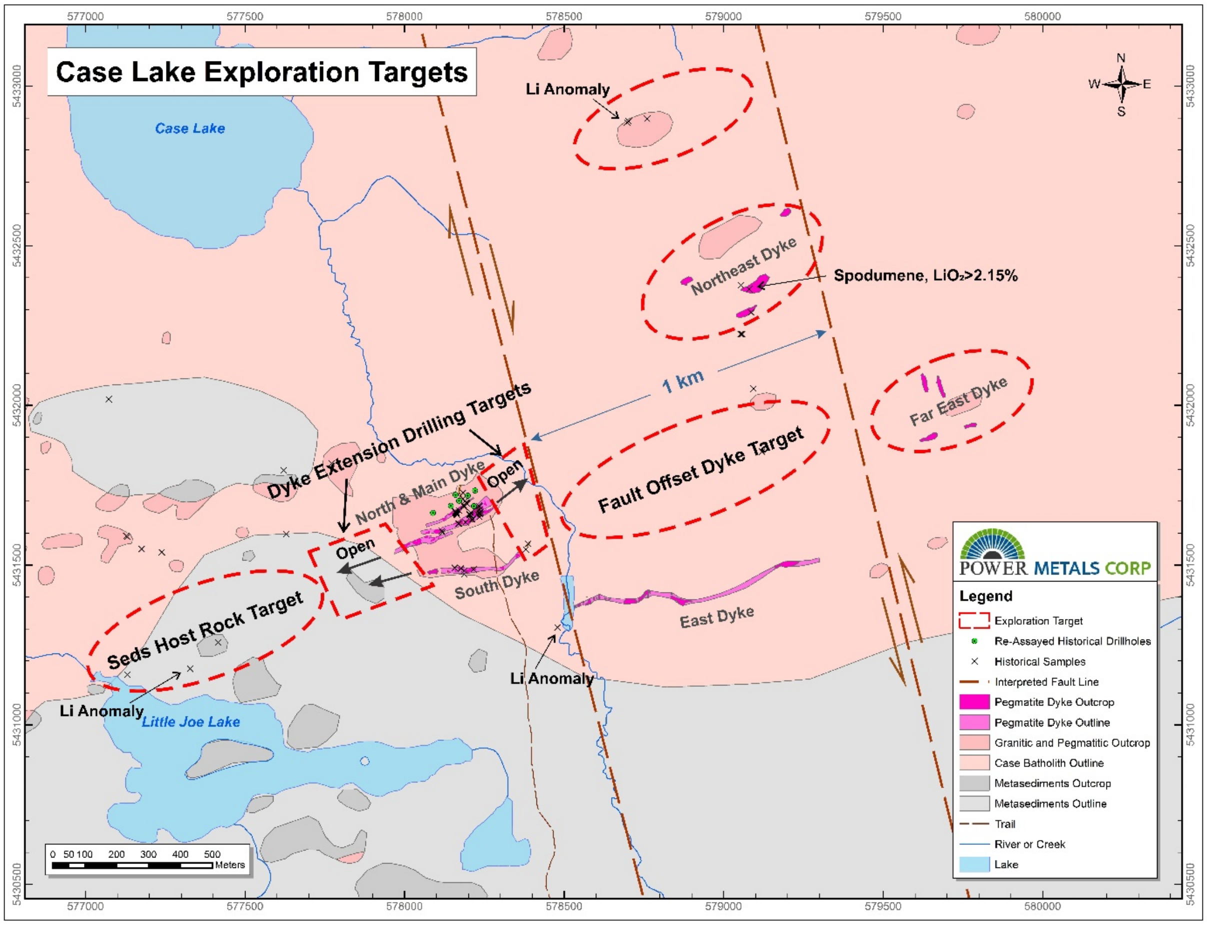

Figure 16-4 Exploration targets for Case Lake pegmatite swarm.

Table 16-1 Proposed budget for drill program.

17.0 REFERENCES

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Appendix 1 – Li standard CGL 1258 Certificate of Analysis

MONGOLIA
CENTRAL GEOLOGICAL LABORATORY

ACLASS ACCREDITED REFERENCE MATERIAL PRODUCER

CRM FROM MONGOLIA

CERTIFICATE OF ANALYSIS

CERTIFIED REFERENCE MATERIAL
LITHIUM ORE "MLiH"

Certified values

No.	Oxide/element	Units	CV[1]	U[2]	N[3]
1	SiO_2	% m/m	73.40	0.65	10
2	Al_2O_3	% m/m	13.66	0.24	11
3	$Fe_2O_{3\ total}$	% m/m	0.663	0.018	13
4	MnO	% m/m	0.603	0.018	11
5	MgO	% m/m	0.033	0.005	11
6	CaO	% m/m	0.746	0.022	12
7	K_2O	% m/m	6.28	0.07	11
8	Li_2O	% m/m	0.578	0.015	11
9	As	mg/kg	61.75	9.37	11
10	Ba	mg/kg	83.51	5.44	10
11	Bi	mg/kg	185	10	11
12	Cu	mg/kg	186	5	12
13	Pb	mg/kg	558	53	12
14	Sr	mg/kg	24.54	4.24	10
15	U	mg/kg	45.28	5.00	10
16	W	mg/kg	107	6	10
17	Zn	mg/kg	594	19	12
18	Zr	mg/kg	69.94	11.45	10

[1] Certified values (CV) – based on a minimum of 10 mean results determined with a minimum of 2 independent methods

[2] Estimated expanded uncertainty (U) – with a coverage factor k = 2, corresponding to a level of confidence of approximately 95 %, as defined in the Guide to the Expression of Uncertainty in Measurement (GUM, ISO/IEC GUIDE 98-3:2008)

[3] Number of datasets (N)

Informational value

No.	Element	Units	IV[4]	N[3]
1	LOI	% m/m	2.14	5
2	Na_2O	% m/m	0.603	9
3	P_2O_5	% m/m	0.029	9
4	TiO_2	% m/m	0.053	9

No.	Element	Units	IV[4]	N[3]
5	Cd	mg/kg	3.64	6
6	Ce	mg/kg	46.93	7
7	Co	mg/kg	0.401	5
8	Cr	mg/kg	105	9
9	Cs	mg/kg	67.38	6
10	Dy	mg/kg	1.37	5
11	Er	mg/kg	1.18	5
12	Eu	mg/kg	0.091	4
13	Ga	mg/kg	29.69	8
14	Gd	mg/kg	1.22	4
15	Hf	mg/kg	5.64	6
16	Ho	mg/kg	0.313	4
17	In	mg/kg	0.303	5
18	La	mg/kg	28.92	5
19	Lu	mg/kg	0.421	6
20	Mo	mg/kg	7.26	10
21	Nb	mg/kg	77.63	8
22	Nd	mg/kg	8.64	4
23	Ni	mg/kg	1.76	5
24	Pr	mg/kg	3.41	5
25	Rb	mg/kg	2135	7
26	S_{total}	% m/m	0.223	6
27	Sb	mg/kg	20.50	8
28	Sc	mg/kg	9.62	7
29	Sm	mg/kg	2.26	6
30	Sn	mg/kg	11.43	6
31	Ta	mg/kg	9.74	6
32	Tb	mg/kg	0.208	6
33	Te	mg/kg	1.12	4
34	Th	mg/kg	24.20	7
35	Tl	mg/kg	14.65	4
36	Tm	mg/kg	0.240	5
37	Y	mg/kg	12.33	9
38	Yb	mg/kg	2.19	6

[4] Non-certified "informational value" (IV) – one of certification criteria is not fulfilled

LOI – Loss on Ignition

Intended use of the Certified Reference Material (CRM)

Based on defined metrological characteristics – metrological traceability of assigned property values and associated measurement uncertainties also physical characteristics – homogeneity and small particle size, this CRM is suitable for use in method development, calibration, validation and quality assurance, quality control purposes when analyzing samples that are matrix – matched to this material.

Description of sample

The starting material, a bulk of lithium ore was collected by the Central Geological Laboratory (CGL) from the wolfram – lithium deposit located at Arbayan area, in Erdenetsagaan soum, Sukhbaatar province of Mongolia in April, 2012.

Based on mineralogical, petrographical investigation at CGL laboratories, the mineral composition of the material has been determined to be:

Minerals	Percentage (% m/m)
Quartz	37
Feldspar	26
Plagioclase	13
Mica (zinnwaldite)	18
Topaz	3
Hubnerite	1
Sphalerite	1
Pyrite	0.1
Tennantite, galenite, hematite, covelline, fluorite, sphene	few

Sample preparation

The preparation, homogeneity and stability tests were performed by the CGL laboratories from 2012 to 2014. After crushing and pulverization, the entire batch of selected bulk material passed a sieve with an opening of 75 µm of an ultrasonic sieving machine.

The pulverized bulk material was homogenized by a high performance intensive mixer.

After testing the homogeneity, portion of 100 g reference material each were bottled by rotary splitting from this batch to polyethylene bottles and labeled.

Homogeneity of the material

After homogenization and bottling, homogeneity test was performed under repeatability condition, using 10 samples randomly selected. Homogeneity test results confirmed that material is sufficiently homogeneous.

Certification

An interlaboratory approach with 14 participating laboratories was selected to obtain a reliable base of data for assignment of the certified values. A nested design was chosen for maximum information output.

The traceability was established to the existing CRM – Lithium ore NCS DC 86303 produced at China National Center for Iron and Steel.

Production and evaluation procedures for compliance with the valid ISO-Guides were assessed and certified by Scientific and Technical Council of Central Geological Laboratory.

Instruction for Storage and Use

The CRM should be stored at room temperature and tightly sealed to protect it from absorption of atmospheric moisture, direct sun reflection and laboratory chemicals. The material can be transported by any kind of transport means.

To overcome segregation effect due to storage or transportation, the material should be shaken appropriately before opening the bottle.

No material that had once been removed from the original sample bottle should be returned to it, as that might cause contamination of the remaining sample.

Certified values and informational values are reported on a dry weight basis (105°C, 2 hours).

The recommended minimum sample test portion is 100 mg. If a test method requires a test portion less than 100 mg, it is recommended that an excess of the CRM (>100 mg) is further pulverized in an agate mortar, before weighing out the needed mass.

Material safety data sheet for this CRM is attached to this certificate.

Validity of the Certificate

This material is considered to be stable. Therefore, this certificate shall remain valid through 2024, unless users are otherwise notified.
The stability of the material will be monitored regularly for duration of an inventory.

Availability of Material

This certified reference material will be classified as **CGL 128** in accordance with CGL CRM classification system. It is available from:

Central Geological Laboratory
CGL building
Trade Union street
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Customer Feedback

Customers, using this CRM are kindly requested to register at the Central Geological Laboratory. This opens the opportunity to notify the user community on any new development with regard to this CRM. Customer feedback with respect to any information included in this certificate is highly appreciated.

Test methods applied for this certification

Al_2O_3	ED/WDXRF (8), ICP-OES (3)	Na_2O	ED/WDXRF (6), ICP-OES (3)
As	ED/WDXRF (4), ICP-MS (4), ICP-OES (3)	Nb	ED/WDXRF (3), ICP-MS (4), ICP-OES (1)
Ba	ED/WDXRF (4), ICP-MS (2), ICP-OES (4)	Nd	ICP-MS (4)
Bi	ED/WDXRF (4), ICP-MS (6), ICP-OES (1)	Ni	ICP-MS (2), ICP-OES (3)
CaO	ED/WDXRF (7), ICP-OES (5)	P_2O_5	ED/WDXRF (7), ICP-OES (2)
Cd	ICP-MS (6)	Pb	ED/WDXRF (3), ICP-MS (5), ICP-OES (4)
Ce	ED/WDXRF (1), ICP-MS (5), ICP-OES (1)	Pr	ICP-MS (5)
Co	ICP-MS (5)	Rb	ED/WDXRF (3), ICP-MS (4)
Cr	ED/WDXRF (3), ICP-MS (2), ICP-OES (4)	S_{total}	ED/WDXRF (2), ICP-OES (2), GRAV(2)
Cs	ED/WDXRF (2), ICP-MS (4)	Sb	ICP-MS (5), ICP-OES (3)
Cu	ED/WDXRF (3), ICP-MS (4), ICP-OES (5)	Sc	ICP-MS (6), ICP-OES (1)
Dy	ICP-MS (5)	SiO_2	ED/WDXRF (8), ICP-OES (2)
Er	ICP-MS (5)	Sm	ED/WDXRF (1), ICP-MS (5)
Eu	ICP-MS (4)	Sn	ICP-MS (5), ICP-OES (1)
Fe_2O_3 *total*	ED/WDXRF (8), ICP-OES (5)	Sr	ED/WDXRF (3), ICP-MS (3), ICP-OES (4)
Ga	ED/WDXRF (4), ICP-MS (4)	Ta	ED/WDXRF (2), ICP-MS (4)
Gd	ICP-MS (4)	Tb	ICP-MS (6)
Hf	ED/WDXRF (1), ICP-MS (5)	Te	ICP-MS (4)
Ho	ICP-MS (4)	Th	ED/WDXRF (2), ICP-MS (5)
K_2O	ED/WDXRF (7), ICP-OES (4)	TiO_2	ED/WDXRF (7), ICP-OES (2)
In	ICP-MS (5)	Tl	ICP-MS (4)
La	ICP-MS (5)	Tm	ICP-MS (5)
Li_2O	ICP-OES (11)	U	ED/WDXRF (3), ICP-MS (6), ICP-OES (1)
LOI	GRAV (5)	W	ED/WDXRF (3), ICP-MS (5), ICP-OES (2)
Lu	ICP-MS (6)	Y	ED/WDXRF (1), ICP-MS (6), ICP-OES (2)

MgO	ED/WDXRF (6), ICP-OES (5)	Yb	ICP-MS (6)
MnO	ED/WDXRF (7), ICP-OES (4)	Zn	ED/WDXRF (3), ICP-MS (3), ICP-OES (6)
Mo	ED/WDXRF (3), ICP-MS (5), ICP-OES (2)	Zr	ED/WDXRF (3), ICP-MS (3), ICP-OES (4)

Abbreviations

- ED/WDXRF - energy and wavelength dispersive X-ray fluorescence spectrometry
- ICP- MS - inductively coupled plasma - mass spectrometry
- ICP-OES - inductively coupled plasma - optical emission spectrometry
- GRAV - gravimetry

Participating Laboratories

1. Activation Laboratories Ltd, Ontario, Canada
2. ALS Group LLC, Ulaanbaatar, Mongolia
3. ALS Loughrea, Loughrea, Ireland
4. ALS Minerals-Vancouver, Vancouver, Canada
5. Bureau Veritas Inspection and Testing Mongolia LLC, Ulaanbaatar, Mongolia
6. Central Geological Laboratory, Ulaanbaatar, Mongolia
7. CRB Analyse Service GmbH, Germany
8. Eurotest Control JSC, Sofia, Bulgaria
9. Federal Institute for Geosciences and Natural Resources, Hannover, Germany
10. Galbraith INC, Knoxville, USA
11. Genalysis Laboratory Service Pty Ltd, Maddington, Australia
12. Institute de Technologia Ceramica, Castellon, Spain
13. Research Institute of Mineralogy, Geochemistry and Crystal Chemistry of Rare-Earth Metals, Moscow, Russia
14. SGS Mongolia LLC, Ulaanbaatar, Mongolia

Legal notice

Based on a decision of Scientific and Technical Council of Central Geological Laboratory on 30th December 2014, by a resolution No. 183 of director of CGL, this material had been approved as a Certified Reference Material with a code number CGL 128.

DIRECTOR
CENTRAL GEOLOGICAL LABORATORY

P.ARIUNBOLD

Printed on 5 January, 2015

Appendix 2 – Assessment files used in this report

Table 17-1 Assessment reports used in this report.

Assessment Report Number	Year of Report	Year of Work	Company	Type of Work
KL2653	1969	1969	J. Tesluk	trenching, stripping
32E04SW0008	1973	1973	R. Strickland/L. Darby	drilling
Gartner Lee Associates report	1973	1973	L. Darby	geological
KL0644	1974	1974	L. Darby	geological
KL0668	1976	1976	L. Darby/ Dex Ltd	geological
32E04SW0003	1991	1991	J.G. Burns	geology and geophysics
32E04SW2001	1998	1996-1998	G. O'Reilly	prospecting, grab sampling
32E04SW2002	1999	1999	J. Horne	prospecting, line cutting, mapping, sampling, stripping, plugger holes, total magnetic and gradient surveys
32E04SW2003	2002	2001	Platinova A/S	drilling, channel sampling, detailed geological mapping
32E04SW2004	2002	2001	Navigator Exploration Corp	grab and channel sampling
32E04SW2006	2003	2001	E. Ludwig	prospecting and grab samples
2.45523	2010	2010	P. Hermeston	line cutting, geophysics
2.47355	2011	2010	P. Hermeston	prospecting, sampling, mapping
2.49595	2011	2010/2011	P. Hermeston	prospecting, grab sampling
2.52017	2012	2012	P.Hermeston	prospecting, grab sampling
2.55141	2014	2014	E. Shynkorenko	prospecting, grab sampling

Appendix 3 – Plan map and cross sections for Platinova's historic drill holes with Power Metals' 2017 assays

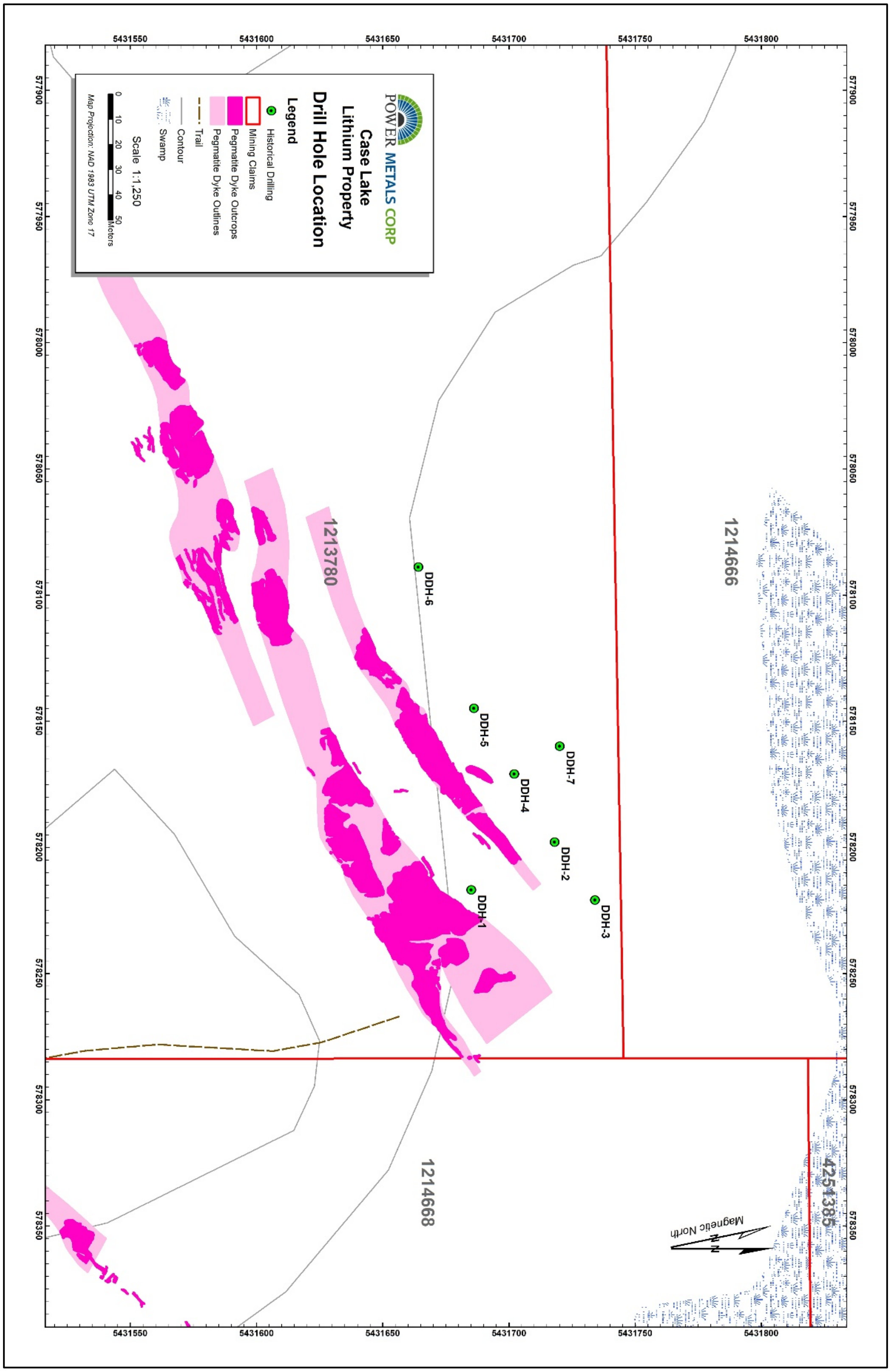

Figure 17-1 Drill collar location map for Platinova's 2001 drill holes.

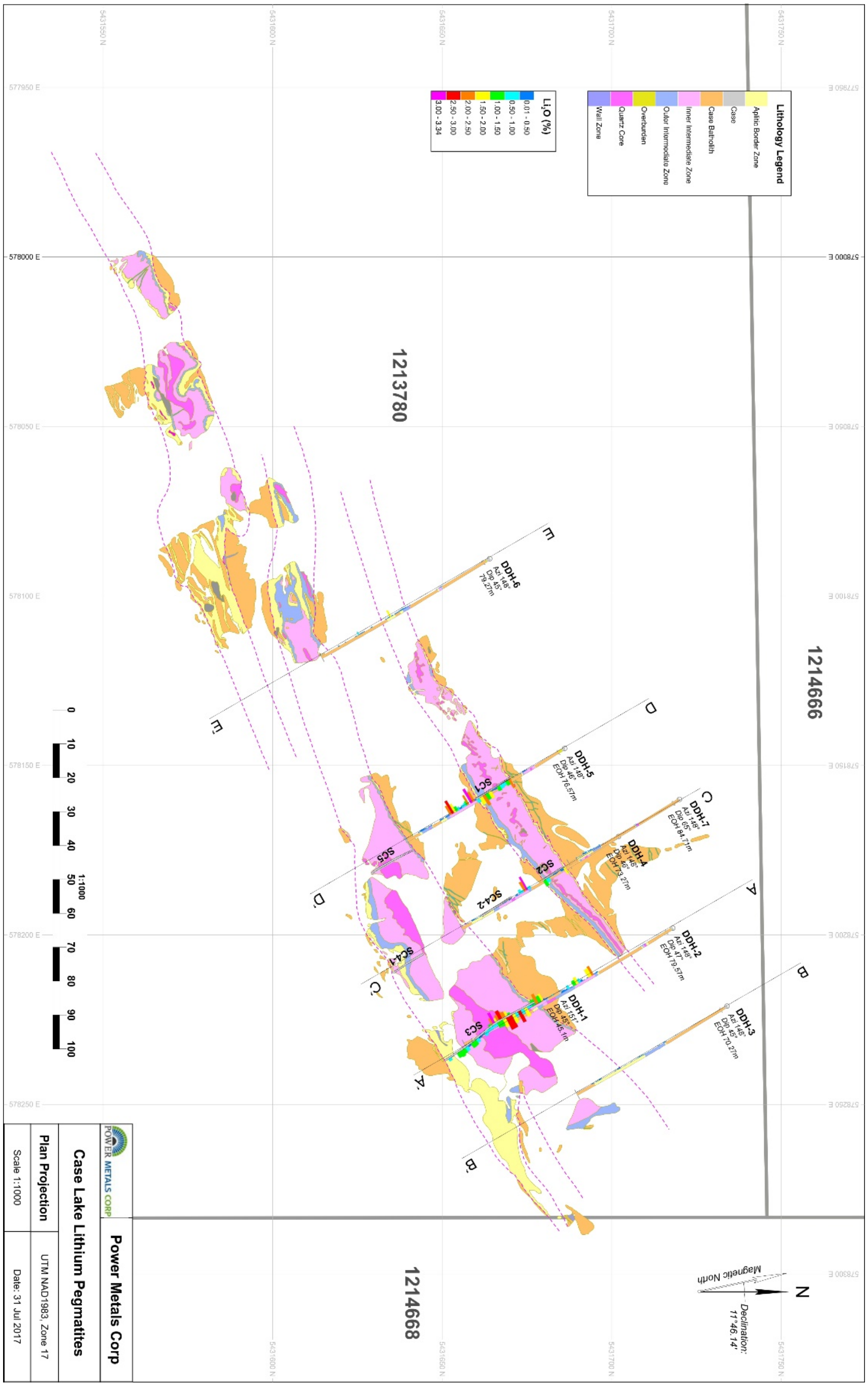

Figure 17-2 Drill plan map for Platinova's 2001 historic drill holes and channel locations.

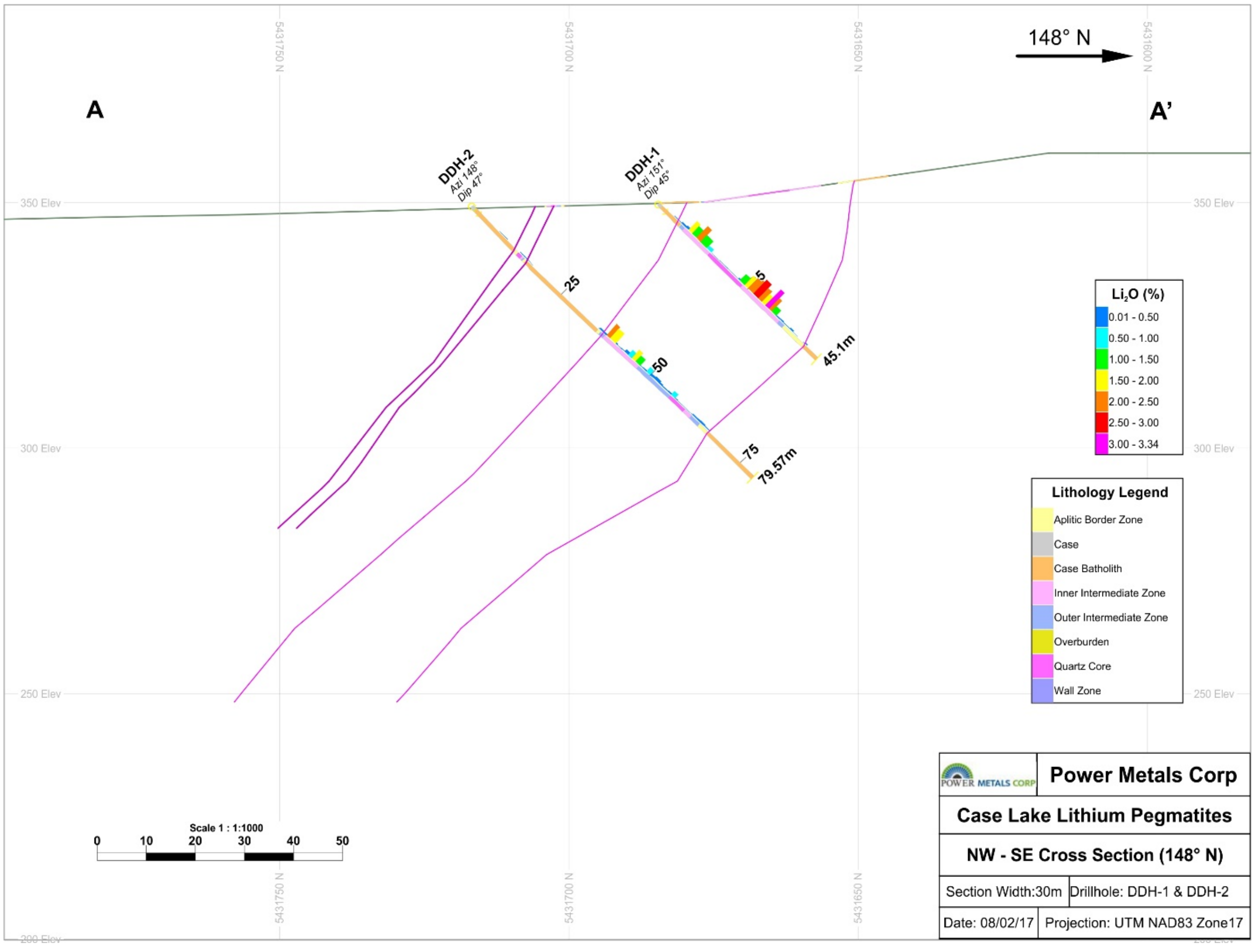

Figure 17-3 Cross section for historic hole DDH-1 and 2.

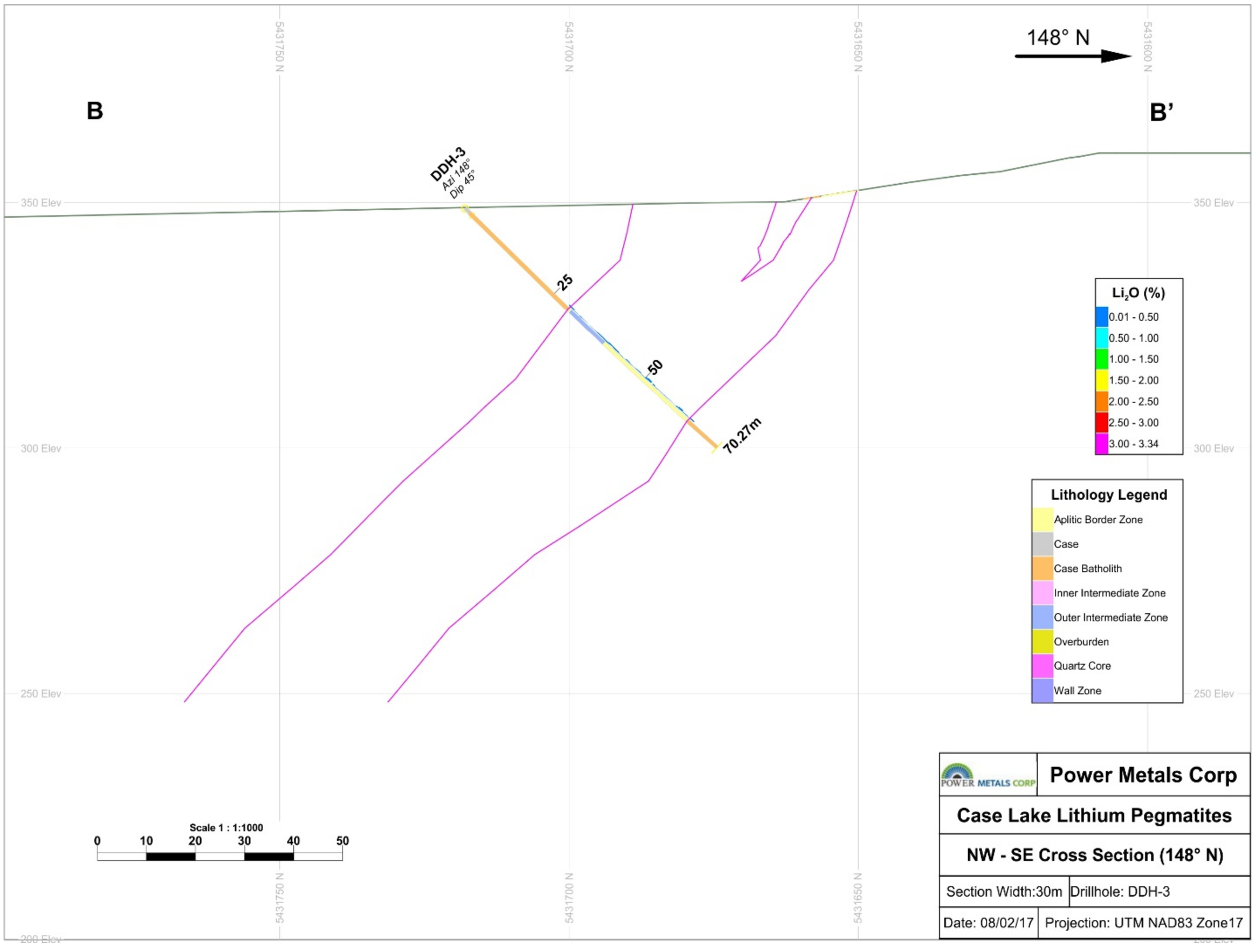

Figure 17-4 Cross section for historic hole DDH-3.

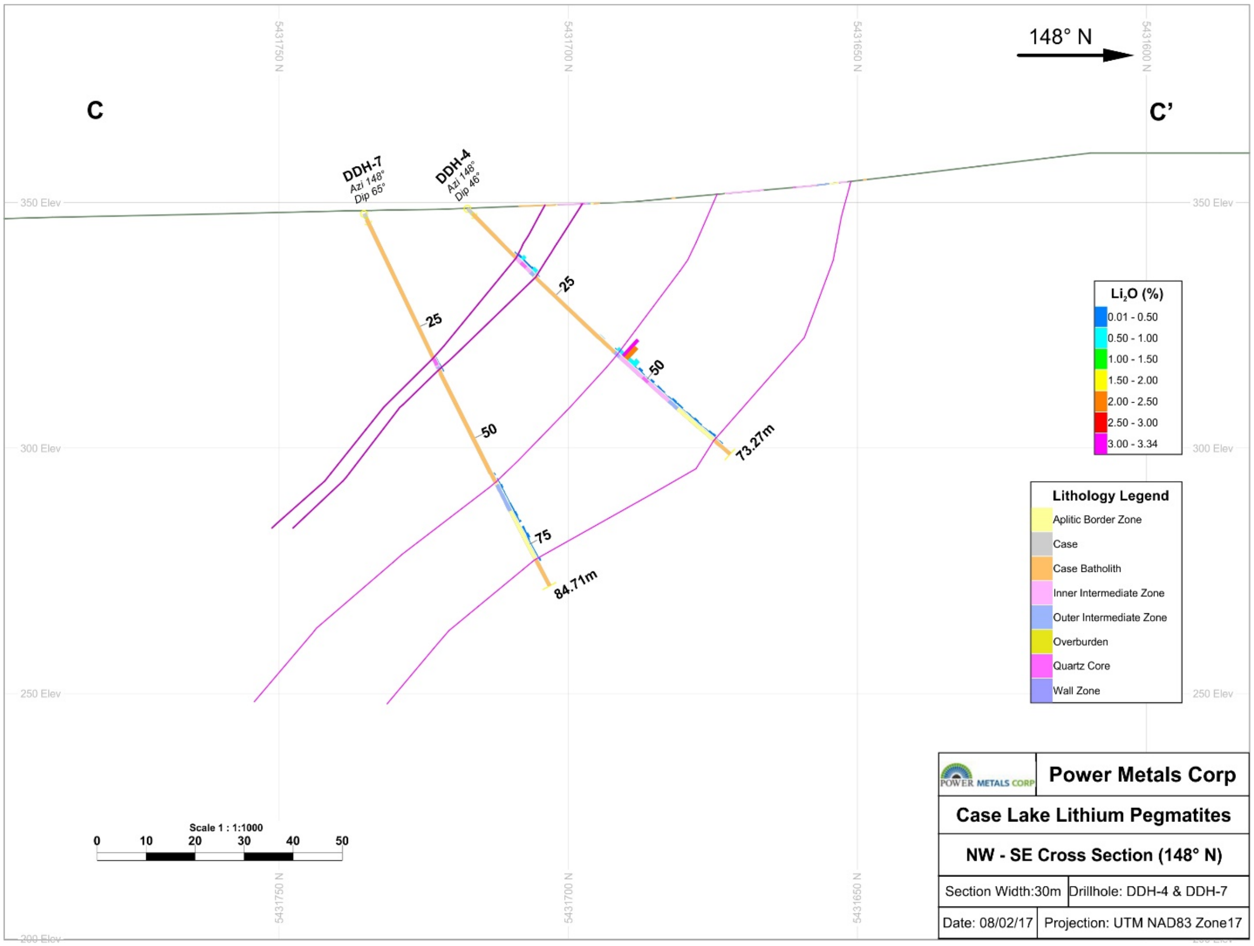

Figure 17-5 Cross section for historic hole DDH-4 and 7.

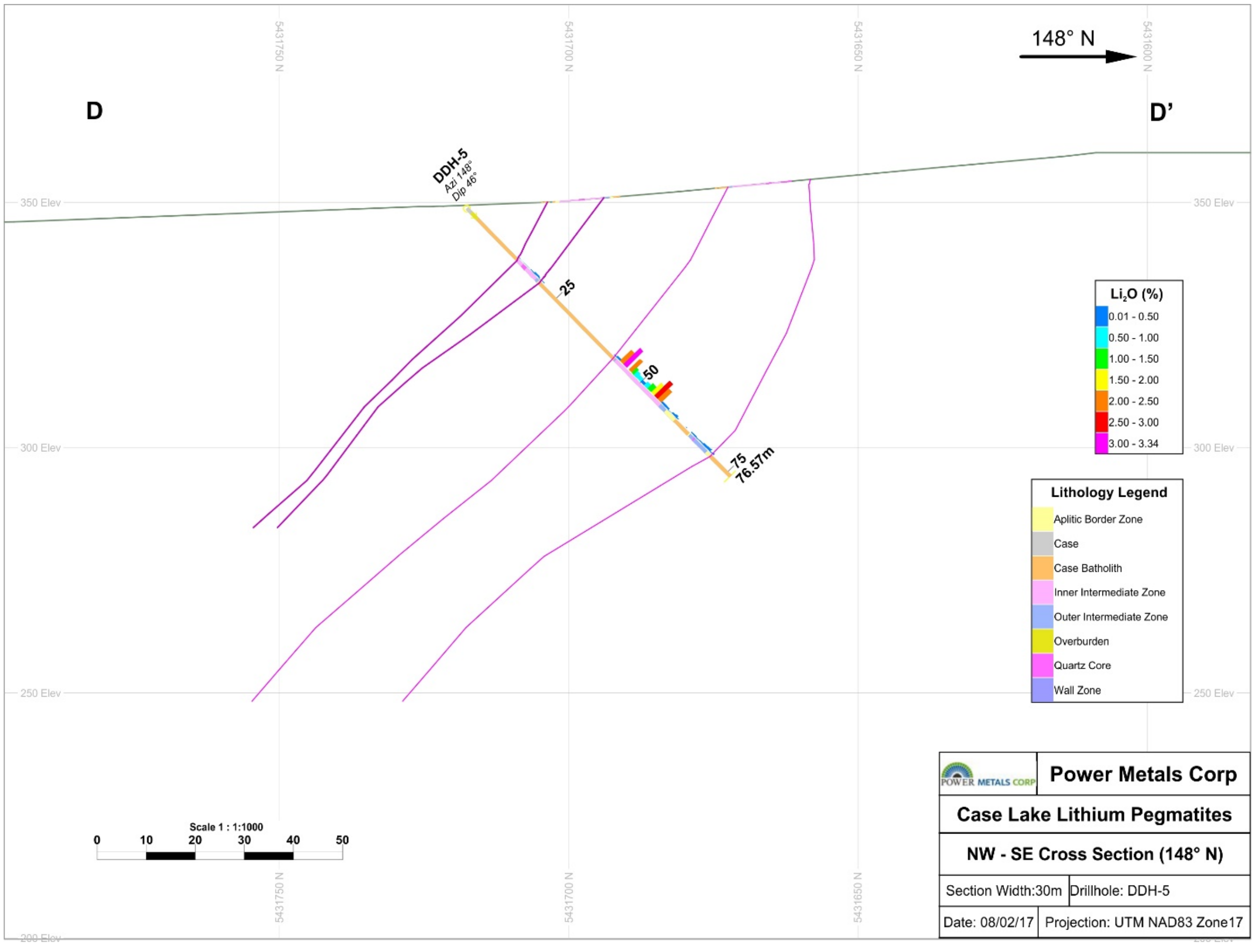

Figure 17-6 Cross section for historic hole DDH-5.

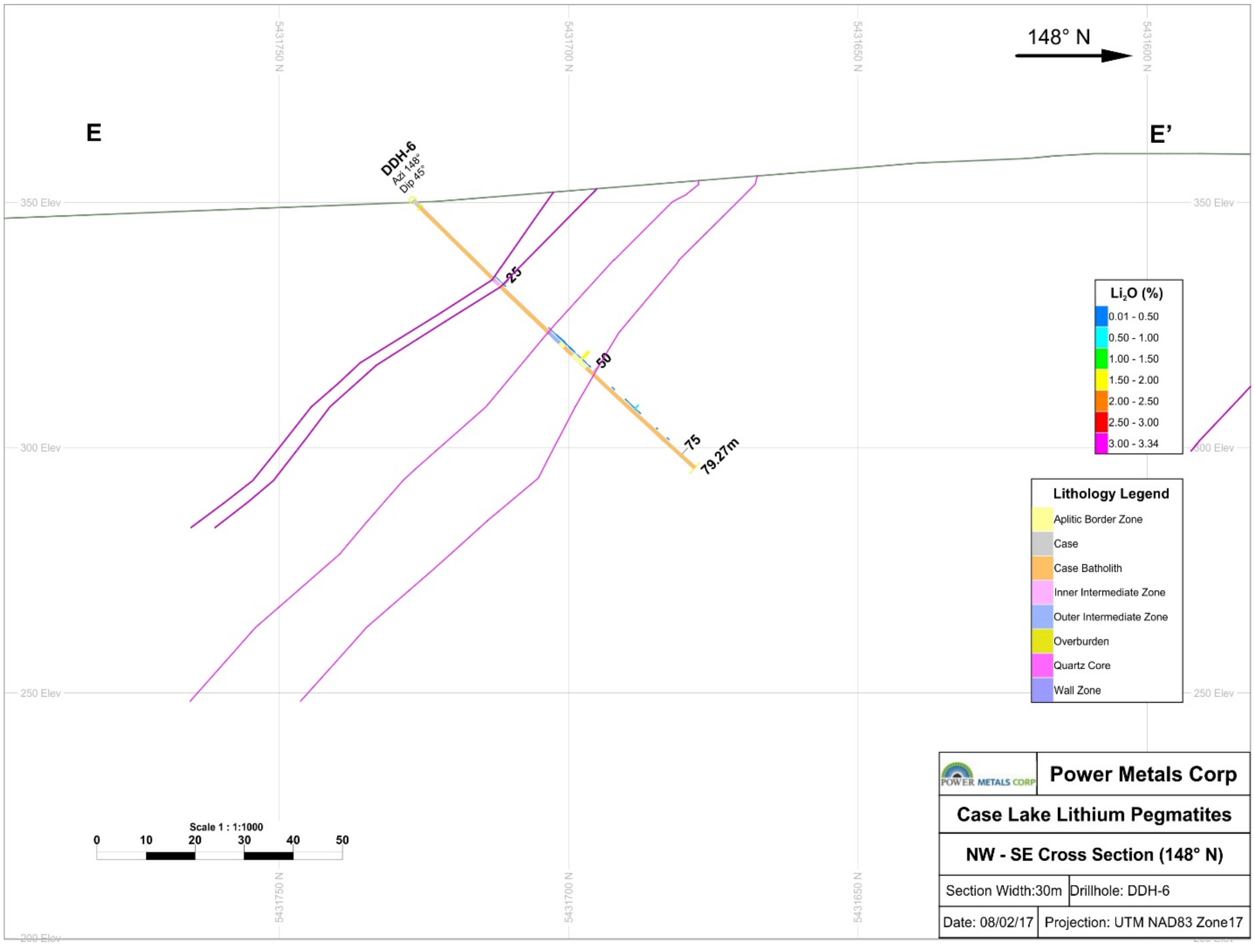

Figure 17-7 Cross section for historic hole DDH-6.

Appendix 4 – Drill core logs

GEOLOGICAL CORE LOG DDH-1

Claim number: 1213780 | **District**: Larder Lake | **Township**: Steele

Collar Location: UTM, NAD 83, Zone 17 | **Size of Core**: NQ

Easting: 578217 m | Northing: 5431685 m | **Total Length**: 45.10 m

Azimuth: 151 deg true | Dip: -45 deg

Start Date: 23-Aug-2001 | **Completion Date**: 24-Aug-2001 | **Date of Completion of Log**: 19-Jan-2017

Name of Drill Contractor: Rick Yost Drilling | **Logged by**: Gary McLearn

Storage location of drill core: Peter Hermeston's cabin on Highway 11

Depth From (m)	Depth To (m)	Oxidation state	Lithology	Lithology texture	Colour	Foliation TCA	Alteration 1	Alteration 2	Alteration 3	Alteration style	Mineral 1	Mineral 2	Mineral 3	Contact TCA	Comments
0.00	0.85														Over burden
0.85	4.58	FRS	GRD		light grey	50									Quartz-feldspar-biotite-hornblende Pegmatite, granodiorite, 1-4cm hornblende 1% nodules, weak foliation 50deg CA
4.58	6.03	FRS	GRD		grey-white	50									Quartz-feldspar-biotite, pegmatite,<1% hornblende nodules 1cm, weak foliation, 50 deg CA , trace veins 2cm at 135-165 deg
6.03	7.27	FRS	GPE		white										Quartz-feldspar-biotite, Pegmatite, 10-20% biotite <1cm, white, massive
7.27	11.45		GPE								SPOD				Quartz-feldspar-spodumene pegmatite, white with light green patches, massive, 1-2cm crystals, <1% biotite <1cm, spod altered light green and hard. 20-30% Spod.
11.45	14.50		GPE												Quartz-feldspar-muscovite pegmatite, <1% muscovite, <1cm, massive, white.
14.50	22.70		GPE												Quartz-feldspar pegmatite, white with grey patches, massive.
22.70	26.00		GPE								SPOD				Quartz-feldspar-muscovite-spod. Pegmatite, White and light grey, 65 deg contact, trace muscovite and spod, massive. 10% spod.
26.00	31.73		GPE								SPOD				Quartz-feldspar spod. Some muscovite trace biotite and saw coating 2cm 2mm, redish brown, light green spodumene, white and clear, massive. 5% Spod.
31.73	**35.00**		GPE								SPOD				Quartz-feldspar-biotite, trace muscovite, trace spod., white-clear, massive, biotite 10-15mm, 1% Spod
35.00	36.85		GPE								SPOD				Quartz-feldspar trace biotite, trace spod., white, massive, pegmatite, 1% Spod.
36.85	37.74		GPE												Quartz-feldspar-biotite, trace muscovite, massive.
37.74	41.75		GPE		white						SPOD				Quartz-feldspar, some muscovite,trace spod, massive,white, 1% Spod.
41.75	44.95		GRD		light gry	50									Quartz-feldspar-biotite 50 deg weak foliation-massive, trace qtz veins 130, light grey.
															TD: 44.95m

Legend:

GRD = granodiorite   Spod = spodumene

GPE = granitic pegmatite

FRS = fresh

SAMPLES

LOGGED BY: Gary McLearn DATE: 1/24/2017

Sample ID	Sample from (m)	Sample To (m)	Interval (m)	Visual %	Mineral	Rock type	Li20 (%)	Be (ppm)	Rb (ppm)	Cs (ppm)	Nb (ppm)	Ta (ppm)	QC sample
150001	4	4.58	0.58			GRD	0.08	2	45	4.7	4	0.3	
150002	4.58	6.03	1.45			GRD	0.08	4	108	14.2	5	1	
150003	6.03	7.27	1.24			GPE	0.25	24	1210	142	59	19.9	
150004	7.27	8	0.73	20-30%	Spod	GPE	0.36	52	632	76.9	17	9.7	
150005	8	9	1.00	20-30%	Spod	GPE	1.66	183	789	137	42	31.3	
150006	9	10.27	1.27	20-30%	Spod	GPE	1.45	579	300	133	88	265	
150007	10.27	11.45	1.18	20-30%	Spod	GPE	2.34	129	1150	139	52	129	
150008	11.45	13.27	1.82			GPE	1.32	664	748	260	116	653	
150009	13.27	14.5	1.23			GPE	0.5	315	1100	171	55	198	
150010													blank - K-feldspar
150011	14.5	16	1.50			GPE	0.02	41	6240	858	2	10.1	
150012	16	17	1.00			GPE	0.02	2	4540	993	0.5	0.8	
150013	17	19.27	2.27			GPE	0.03	2	248	45.6	0.5	0.7	
150014	19.27	22.27	3.00			GPE	0.02	0.5	13	4.4	0.5	0.05	
150015	22.27	22.7	0.43			GPE	0.22	2	30	8.2	0.5	4.1	
150016	22.7	24	1.30	10%	Spod	GPE	1.28	238	1020	158	41	157	
150017	24	25	1.00	10%	Spod	GPE	1.84	672	902	234	63	228	
150018	25	26	1.00	10%	Spod	GPE	2.05	365	871	195	106	316	
150019	26	26.56	0.56	5%	Spod	GPE	2.32	44	320	60.5	61	192	
150020													standard
150021	26.56	28	1.44	5%	Spod	GPE	2.72	455	412	150	64	201	
150022	28	29	1.00	5%	Spod	GPE	2.01	744	432	198	35	68.2	
150023	29	30	1.00	5%	Spod	GPE	1.59	259	361	94.6	37	30.6	
150024	30	31	1.00	5%	Spod	GPE	3.16	325	270	82.1	30	27.4	
150025	31	31.73	0.73	5%	Spod	GPE	2.11	207	353	74.5	55	57.9	
150026	31.73	33	1.27	1%	Spod	GPE	1.02	41	1110	160	49	27.2	

Sample ID	Sample from (m)	Sample To (m)	Interval (m)	Visual %	Mineral	Rock type	Li20 (%)	Be (ppm)	Rb (ppm)	Cs (ppm)	Nb (ppm)	Ta (ppm)	QC sample
150027	33	34	1.00	1%	Spod	GPE	0.18	47	1520	220	73	42.1	
150028	34	35	1.00	1%	Spod	GPE	0.16	19	1550	222	71	64.6	
150029	35	36	1.00	1%	Spod	GPE	0.1	12	318	80.5	62	50.5	
150030													blank - K-feldspar
150031	36	36.85	0.85	1%	Spod	GPE	0.08	146	484	181	59	50.6	
150032	36.85	37.74	0.89	0		GPE	0.21	20	667	314	7	2.3	
150033	37.74	39.04	1.30	1%	Spod	GPE	0.04	12	602	120	46	65.7	
150034	40.62	41.28	0.66	1%	Spod	GPE	0.02	25	101	18	54	59.5	
150035	41.28	41.75	0.47	1%	Spod	GRD	0.14	14	403	80.3	6	3.4	

Legend:

GRD = granodiorite

Spod = spodumene

GPE = granitic pegmatite

GEOLOGICAL CORE LOG DDH-2

Claim number: 1213780	**District**: Larder Lake	**Township**: Steele
Collar Location: UTM, NAD 83, Zone 17		**Size of Core**: NQ
Easting: 578198 m	Northing: 5431718 m	**Total Length**: 79.57 m
Azimuth: 148 deg true	Dip: -47 deg	
Start Date: 24-Aug-2001	**Completion Date**: 26-Aug-2001	**Date of Completion of Log**: 20-Jan-2017
Name of Drill Contractor: Rick Yost Drilling		**Logged by**: Gary McLearn
Storage location of drill core: Peter Hermeston's cabin on Highway 11		

Depth From (m)	Depth To (m)	Oxidation state	Lithology	Lithology texture	Colour	Foliation TCA	Alteration 1	Alteration 2	Alteration 3	Alteration style	Mineral 1	Mineral 2	Mineral 3	Contact TCA	Comments
0.00	2.70														Overburden
2.70	8.40		GRD								**PY**				Quartz-feldspar pegmatite, weak oxidation staining light orange and light grey,trace biotite nodules 9mm, trace veins 125 deg 4mm, massive, trace pyrite on fractures adjacent veining, 1% Pyrite.
8.40	9.85		GRD												Quartz-feldspar peg. 1% biotite 1-2mm, and quartz-feldspar vein 30cm 15deg, weak oxidation.
9.85	14.45		GPE												Quartz-feldspar-biotite pegmatite,massive, weak oxidation, trace quartz vein 2cm at 90deg.
14.45	17.24		GPE												Quartz-feldspar pegmatite, 1-2cm crystals, trace muscovite and biotite <1cm, massive.
17.24	**36.13**		GRD												Quartz-feldspar-biotite pegmatite, massive,granodiorite, trace veins, and trace biotite nodules.
36.13	50.00		GPE								**SPOD**				Quartz-feldspar-muscovite-spod. Coarse muscovite and light green spod. <1cm, 10% Spod.
50.00	51.30		GRD												Quartz-feldspar-biotite pegmatite abundant mm biotite ,darkgrey-black massive
51.30	55.90		GPE								SPOD				Quartz-feldspar-biotite-muscovite-spodume, pegmatite, light green pods and darker green spod. 4mm, 20% Spod.
55.90	61.80		GPE												Quartz pegmatite, clear and dark quartz, some plag rectangular crystals, trace yellow muscovite, trace biotite.
61.80	65.23		GPE								SPOD				Quartz-feldspar-muscovite pegatite, light green,massive.Trace spod. <1%
65.23	66.48		GPE												Quartz-feldspar trace biotite-muscovite, pegmatite, massive,white.
66.48	79.57		GRD								Cord	Mag.			Granodiorite, quartz-plagioclase, trace dark blue cordierite and black magnetite, trace veins,massive.
															TD: 79.57m

Legend:

GRD = granodiorite	Spod = spodumene
GPE = granitic pegmatite	Py = pyrite
	Cord = cordierite
	Mag = magnetite

Julie Selway

SAMPLES

LOGGED BY: Gary McLearn DATE: 1/24/2017

Sample ID	Sample from (m)	Sample To (m)	Interval (m)	Visual %	Mineral	Rock type	Li20 (%)	Be (ppm)	Rb (ppm)	Cs (ppm)	Nb (ppm)	Ta (ppm)	QC sample
150036	7.57	8.4	0.83			GRD	0.05	5	160	69.2	5	0.8	
150037	8.4	9.85	1.45			GRD	0.05	16	787	163	18	87.7	
150038	13.57	14.45	0.88			GPE	0.1	6	148	35.8	6	1.6	
150039	14.45	15.87	1.42			GPE	0.08	578	752	174	33	81.2	
150040													standard
150041	15.87	17.24	1.37			GPE	0.02	125	477	109	66	207	
150042	35.95	36.13	0.18			GRD	0.1	10	203	56.2	7	1	
150043	36.13	37	0.87	10%	SPOD	GPE	0.27	15	1910	252	101	43.1	
150044	37	38	1.00	10%	SPOD	GPE	0.19	20	1180	181	43	25.1	
150045	38	39	1.00	10%	SPOD	GPE	2.08	48	482	77.7	34	44.7	
150046	39	40.55	1.55	10%	SPOD	GPE	1.83	103	628	87	29	70.7	
150047	40.55	41	0.45	10%	SPOD	GPE	0.17	120	1210	190	32	112	
150048	41	42	1.00	10%	SPOD	GPE	0.06	26	673	132	5	23.3	
150049	42	43	1.00	10%	SPOD	GPE	0.09	211	1130	132	34	134	
150050													blank - quartz
150051	43	44	1.00	10%	SPOD	GPE	0.44	138	950	163	29	126	
150052	44	45	1.00	10%	SPOD	GPE	0.95	475	1000	148	24	66.9	
150053	45	46	1.00	10%	SPOD	GPE	1.58	390	451	129	92	81.1	
150054	46	47.3	1.30	10%	SPOD	GPE	1.11	144	642	120	27	18.7	
150055	47.3	48	0.70	10%	SPOD	GPE	0.13	12	641	105	34	21.9	
150056	48	49.05	1.05	10%	SPOD	GPE	0.2	11	788	105	40	22.6	
150057	49.05	50	0.95	10%	SPOD	GPE	0.88	68	742	110	38	44.3	
150058	50	51.3	1.30	0		GRD	0.32	35	964	249	61	34.9	
150059	51.3	52.57	1.27	20%	SPOD	GPE	0.43	21	924	123	59	54.7	
150060													standard
150061	52.57	53.4	0.83	20%	SPOD	GPE	0.26	22	1600	147	63	26.3	

Sample ID	Sample from (m)	Sample To (m)	Interval (m)	Visual %	Mineral	Rock type	Li20 (%)	Be (ppm)	Rb (ppm)	Cs (ppm)	Nb (ppm)	Ta (ppm)	QC sample
150062	53.4	54.9	1.50	20%	SPOD	GPE	0.13	15	818	123	37	20	
150063	54.9	55.9	1.00	20%	SPOD	GPE	0.2	251	1410	138	33	77.9	
150064	55.9	57	1.10			GPE	0.73	282	269	97.9	25	113	
150065	57	57.69	0.69			GPE	0.08	2	10	2.9	3	12.6	
150066	57.69	59	1.31			GPE	0.02	1	5	1.4	0.5	1.1	
150067	59	60	1.00			GPE	0.03	29	570	95.7	49	334	
150068	60	61	1.00			GPE	0.04	33	215	36.4	72	62.7	
150069	61	61.8	0.80			GPE	0.06	48	642	103	47	60.8	
150070													blank - quartz
150071	61.8	63	1.20	<1%	SPOD	GPE	0.14	56	1370	229	66	37.1	
150072	63	64	1.00	<1%	SPOD	GPE	0.14	15	1320	236	62	46.4	
150073	64	65.23	1.23	<1%	SPOD	GPE	0.21	12	1330	185	77	30.3	
150074	65.23	66.48	1.25	0		GPE	0.07	11	655	136	70	71.3	

Legend:

GRD = granodiorite

GPE = granitic pegmatite

Spod = spodumene

GEOLOGICAL CORE LOG DDH-3

Claim number: 1213780	**District**: Larder Lake	**Township**: Steele
Collar Location: UTM, NAD 83, Zone 17		**Size of Core**: NQ
Easting: 578221 m	Northing: 5431734 m	**Total Length**: 70.27 m
Azimuth: 148 deg true	Dip: -45 deg	
Start Date: 26-Aug-2001	**Completion Date**: 28-Aug-2001	**Date of Completion of Log**: 21-Jan-2017
Name of Drill Contractor: Rick Yost Drilling		**Logged by**: Gary McLearn
Storage location of drill core: Peter Hermeston's cabin on Highway 11		

Depth From (m)	Depth To (m)	Oxidation state	Lithology	Lithology texture	Colour	Foliation TCA	Alteration 1	Alteration 2	Alteration 3	Alteration style	Mineral 1	Mineral 2	Mineral 3	Contact TCA	Comments
0.00	**29.65**		GRD								**Mag**	Cord.			Granodiorite, trace quartz veins, trace magnetite nodules,massive, light grey, trace dark blue nodules possible cord. hematite stains and K-spar alteration.
29.65	43.00		GPE												Quatrz-feldspar-biotite, pegmatite, some muscovite, white, massive, trace biotite nodules.
43.00	50.40		GPE								Zir				Quartz-feldspar-muscovite pegmatite, white-greenish, trace biotite, some red-brown hexagonal zircon crystals, massive.
50.40	51.95		GRD												Quartz-feldsap-biotite pegmatite, 130 deg foliation,weak, salt-pepper granitoid.
51.95	**59.47**		GPE								SPOD	ZIR			Quartz-feldspar-muscovite, white, massive, (missing core 52.27-52.42), some light green spod and red-brown zircons. 10-20% Spod.
59.47	60.54		GRD												Quartz-feldspar-biotite massive 130 lower contact and 90 upper, biotite <1mm.
60.54	62.77		GPE								SPOD				Quartz-feldspar-muscovite,, some light green spod, massive, 125 uppercontact, white. 1% Spod.
62.77	70.32		GRD												Quartz-feldspar-biotite, 135 weak foliation, massive, some Quartz bands white.
															TD: 70.32m

Legend:

GRD = granodiorite	Spod = spodumene
GPE = granitic pegmatite	Zir = zircon
	Mag = magnetite
	Cord = cordierite

Julie Selway

SAMPLES

LOGGED BY: Gary McLearn DATE: 3/11/2016

Sample ID	Sample from (m)	Sample To (m)	Interval (m)	Visual %	Mineral	Rock type	Li20 (%)	Be (ppm)	Rb (ppm)	Cs (ppm)	Nb (ppm)	Ta (ppm)	QC sample
150075	29	29.65	0.65	1%	Cord	GRD	0.2	9	698	218	10	2.2	
150076	29.65	30.4	0.75			GPE	0.14	16	1360	173	75	43.4	
150077	30.4	31.27	0.87			GPE	0.06	45	608	97.4	52	86.9	
150078	31.27	32	0.73			GPE	0.04	137	443	85.6	150	403	
150079	32	33	1.00			GPE	0.08	103	1010	150	81	135	
150080													standard
150081	33	34	1.00			GPE	0.04	73	655	118	63	137	
150082	34	35	1.00			GPE	0.04	37	349	68.4	68	112	
150083	35	36	1.00			GPE	0.04	23	434	54.7	103	183	
150084	36	37	1.00			GPE	0.04	44	361	72.5	63	72.2	
150085	37	38	1.00			GPE	0.08	18	1020	169	55	98.5	
150086	38	39	1.00			GPE	0.09	18	1390	257	58	108	
150087	39	40	1.00			GPE	0.12	20	976	136	56	35.6	
150088	40	41	1.00			GPE	0.17	21	1540	183	88	33.8	
150089	41	42	1.00			GPE	0.19	33	1690	218	92	38.3	
150090													blank - quartz
150091	42	43	1.00			GPE	0.08	18	1210	199	77	58.8	
150092	43	44.1	1.10			GPE	0.04	17	440	65	24	25.2	
150093	44.1	45	0.90			GPE	0.05	16	587	107	47	34.1	
150094	45	46	1.00			GPE	0.08	18	1280	278	50	51.2	
150095	46	47	1.00			GPE	0.02	29	261	41.4	73	57.2	
150096	47	48	1.00			GPE	0.01	10	80	14.6	43	33.8	
150097	48	49	1.00			GPE	0.08	12	375	61.5	36	20.4	
150098	49	50.4	1.40		Zir	GPE	0.05	13	106	15.4	46	32.9	
150099	50.4	51	0.60			GRD	0.18	17	722	158	6	0.9	
150100													standard

Sample ID	Sample from (m)	Sample To (m)	Interval (m)	Visual %	Mineral	Rock type	Li20 (%)	Be (ppm)	Rb (ppm)	Cs (ppm)	Nb (ppm)	Ta (ppm)	QC sample
150101	51	51.95	0.95			GRD	0.24	15	1280	167	12	6.9	
150102	52.42	53	0.58	10-20%	SPOD	GPE	0.11	27	1330	233	62	58.8	
150103	53	54	1.00	10-20%	SPOD	GPE	0.01	19	103	18.3	16	21.6	
150104	54	55	1.00	10-20%	SPOD	GPE	0.02	17	180	26.7	53	83.6	
150105	55	56	1.00	10-20%	SPOD	GPE	0.03	9	174	16.3	18	11.8	
150106	56	57	1.00	10-20%	SPOD	GPE	0.02	8	119	9.9	17	8.6	
150107	57	58	1.00	10-20%	SPOD	GPE	0.04	8	202	20.6	26	14.5	
150108	58	59	1.00	10-20%	SPOD	GPE	0.05	21	173	37.1	67	48.4	
150109	59	59.47	0.47	10-20%	SPOD	GPE	0.07	15	186	42.2	47	33.6	
150110													blank - quartz
150111	59.47	60.54	1.07	0		GRD	0.23	13	696	309	5	2	
150112	60.54	62	1.46	1%	SPOD	GPE	0.11	17	513	140	35	26.8	
150113	62	62.77	0.77	1%	SPOD	GPE	0.03	10	141	32.3	62	36.7	
150114	62.77	63.79	1.02	0		GRD	0.19	7	518	179	4	0.6	

Legend:

GRD = granodiorite

GPE = granitic pegmatite

Spod = spodumene

Zir = zircon

Cord = Cordierite

GEOLOGICAL CORE LOG DDH-4

Claim number: 1213780 | **District**: Larder Lake | **Township**: Steele

Collar Location: UTM, NAD 83, Zone 17 | **Size of Core**: NQ

Easting: 578171 m | Northing: 5431702 m | **Total Length**: 73.27 m

Azimuth: 148 deg true | Dip: -46 deg

Start Date: 28-Aug-2001 | **Completion Date**: 30-Aug-2001 | **Date of Completion of Log**: 21-Jan-2017

Name of Drill Contractor: Rick Yost Drilling | **Logged by**: Gary McLearn

Storage location of drill core: Peter Hermeston's cabin on Highway 11

Depth From (m)	Depth To (m)	Oxidation state	Lithology	Lithology texture	Colour	Foliation TCA	Alteration 1	Alteration 2	Alteration 3	Alteration style	Mineral 1	Mineral 2	Mineral 3	Contact TCA	Comments
0.00	1.52														Over Burden
1.52	**14.00**		GRD												Quartz-feldspar-biotite, trace biotite nodules 1-2cm weak foliation 50 , light grey, some weak oxidation/stain.
13.96	19.38		GPE								SPOD				Quartz-feldspar-muscovite, trace light green spod, massive, white. 1% Spod.
19.38	41.86		GRD												Quartz-feldspar-biotite, trace biotite nodulers 1-2cm, patches of oxidation, trace quartz bands. 37.15-38.61: Qtz-feldspar dike 160deg, trace biotite massive.
41.86	49.57		GPE								SPOD				Quartz-feldspar pegmatite, trace biotite and muscovite, 20% light green spod., clear and white qtz, massive.
49.57	51.08		GPE												Quartz dike,clear, massive, broken at contact, core broken.
51.08	58.36		GPE								Galena				Quartz-feldspar-muscovite, pegmatite, massive, trace hornblend, and trace galena 4mm.
58.36	59.90		GPE								SPOD				Quartz-feldspar-biotite pegmatite 1-2mm biotite, trace spod. Massive, dark grey-black. 1% Spod.
59.90	68.56		GPE								SPOD	Garnet			Quartz-feldspar-muscovite pegmatite, trace light red garnets, trace coarse muscovite, some darker green spod. ,white, massive. 20% spod
68.56	69.98		GPE								SPOD				Quartz-feldspar pegmatite, some muscovite, trace biotite, white, massive, light green and redish alteration. Spod <1%
69.98	73.27		GRD												Quartz-feldspar-biotite pegmatite, biotite 4mm and trace nodule 1.5cm, massive, light grey.
															TD: 73.27m

Legend:

GRD = granodiorite | Spod = spodumene

GPE = granitic pegmatite

SAMPLES

LOGGED BY: Gary McLearn DATE: 1/25/2017

Sample ID	Sample from (m)	Sample To (m)	Interval (m)	Visual %	Mineral	Rock type	Li20 (%)	Be (ppm)	Rb (ppm)	Cs (ppm)	Nb (ppm)	Ta (ppm)	QC sample
150115	13	13.96	0.96			GRD	0.07	3	93	12	4	0.7	
150116	13.96	14.8	0.84	1%	SPOD	GPE	0.33	156	747	112	37	80.6	
150117	14.8	15.44	0.64	1%	SPOD	GPE	0.67	53	731	104	38	97	
150118	15.44	16.57	1.13	1%	SPOD	GPE	0.27	213	1180	185	78	382	
150119	16.57	17.57	1.00	1%	SPOD	GPE	0.21	226	1280	213	50	160	
150120													standard
150121	17.57	18	0.43	1%	SPOD	GPE	0.34	416	989	179	172	1010	
150122	18	19	1.00	1%	SPOD	GPE	0.55	256	883	158	106	398	
150123	19	19.57	0.57	1%	SPOD	GPE	0.04	568	925	136	65	365	
150124	19.57	20.08	0.51	1%	SPOD	GRD	0.07	3	140	16.3	5	1.4	
150125	37.15	38.61	1.46	1%	SPOD	GRD	0.04	11	297	24.3	13	8.5	
150126	41.41	41.86	0.45	1%	SPOD	GRD	0.12	3	201	29.6	4	0.4	
150127	41.86	43.32	1.46	20%	SPOD	GPE	0.55	34	737	74.4	41	22.1	
150128	43.32	44	0.68	20%	SPOD	GPE	3.1	74	198	43	19	28.4	
150129	44	45	1.00	20%	SPOD	GPE	2.19	155	346	70.3	33	37.2	
150130													blank - quartz
150131	45	46	1.00	20%	SPOD	GPE	0.55	83	1350	139	19	48.4	
150132	46	47	1.00	20%	SPOD	GPE	0.93	205	754	110	27	118	
150133	47	47.72	0.72	20%	SPOD	GPE	0.09	217	1450	163	74	386	
150134	47.72	48.71	0.99	20%	SPOD	GPE	0.4	392	958	150	29	140	
150135	48.71	49.57	0.86	20%	SPOD	GPE	0.08	377	1230	249	128	583	
150136	49.57	51.08	1.51			GPE	0.02	3	6	1.6	0.5	0.9	
150137	51.08	52	0.92			GPE	0.31	600	971	192	42	150	
150138	52	53	1.00			GPE	0.05	132	860	118	43	174	
150139	53	54	1.00			GPE	0.25	192	859	124	42	151	
150140													standard

Sample ID	Sample from (m)	Sample To (m)	Interval (m)	Visual %	Mineral	Rock type	Li20 (%)	Be (ppm)	Rb (ppm)	Cs (ppm)	Nb (ppm)	Ta (ppm)	QC sample
150141	54	55	1.00			GPE	0.15	130	1040	122	27	85	
150142	55	56	1.00			GPE	0.06	231	916	113	34	97.7	
150143	56	57	1.00			GPE	0.12	164	860	84.6	200	168	
150144	57	58	1.00			GPE	0.31	163	949	101	40	41.7	
150145	58	58.36	0.36			GPE	0.19	54	1360	126	32	53.5	
150146	58.36	59.9	1.54	1%	SPOD	GPE	0.21	22	1170	145	52	36	
150147	59.9	61	1.10	20%	SPOD	GPE	0.03	9	225	33.2	42	42.1	
150148	61	62	1.00	20%	SPOD	GPE	0.15	10	468	82.6	63	73.2	
150149	62	63	1.00	20%	SPOD	GPE	0.11	263	616	121	50	34.8	
150150													blank - quartz
150151	63	64	1.00	20%	SPOD	GPE	0.23	21	1420	143	56	21	
150152	64	65	1.00	20%	SPOD	GPE	0.14	40	729	96.4	38	22.9	
150153	65	66	1.00	20%	SPOD	GPE	0.06	22	447	40.7	22	47.5	
150154	66	67	1.00	20%	SPOD	GPE	0.13	26	1000	123	34	31.9	
150155	67	68	1.00	20%	SPOD	GPE	0.21	49	1420	232	62	32.4	
150156	68	68.56	0.56	20%	SPOD	GPE	0.31	126	1620	435	80	45.8	
150157	68.56	69.98	1.42	<1%	SPOD	GPE	0.04	25	379	70.7	66	69.6	
150158	69.98	70.72	0.74			GRD	0.12	7	165	28.3	6	1.2	

Legend:

GRD = granodiorite

GPE = granitic pegmatite

Spod = spodumene

GEOLOGICAL CORE LOG DDH-5

Claim number: 1213780 | **District**: Larder Lake | **Township**: Steele

Collar Location: UTM, NAD 83, Zone 17 | **Size of Core**: NQ

Easting: 578145 m | Northing: 5431686 m | **Total Length**: 76.57 m

Azimuth: 148 deg true | Dip: -46 deg

Start Date: 30-Aug-2001 | **Completion Date**: 04-Sept-2001 | **Date of Completion of Log**: 22-Jan-2017

Name of Drill Contractor: Rick Yost Drilling | **Logged by**: Gary McLearn

Storage location of drill core: Peter Hermeston's cabin on Highway 11

Depth From (m)	Depth To (m)	Oxidation state	Lithology	Lithology texture	Colour	Foliation TCA	Alteration 1	Alteration 2	Alteration 3	Alteration style	Mineral 1	Mineral 2	Mineral 3	Contact TCA	Comments
0.00	3.05														Overburden
3.05	**14.36**		GRD												Quartz-feldspar-biotite, pegmatite, biotite 1-2mm, massive, light grey.
14.36	15.00		GPE												Quartz pegmatite, clear, massive.
15.00	21.18		GPE												Quartz- feldspar-muscovite, Pegmatite trace biotite,massive,clear and white.
21.18	43.00		GRD												Quartz-feldspar-biotite,light grey,massive, 1-2mm biotite
43.00	46.80		GPE								SPOD				Quartz-feldspar-spod.pegmatite, light green,some muscovite, spod 1-4cm, massive, trace biotite. Missing core 45.95-46.57m samples: 45-45.95 then 46.57-46.8m 20% Spod.
46.80	53.05		GPE												Quartz-feldspar-biotite pegmatite, some muscovite giving black appearance, light grey and white, massive, mm-cm crystals.
53.05	56.00		GPE								SPOD				Quartz-feldsap-spod-Muscovite.Pegmatite, white and light green, massive, crystals 1-2cm,1% muscovite dark. 20% Spod.
56.00	60.40		GPE								Apatite	col-tan			Quartz-feldspar-biotite, pegmatite, some muscovite, trace apatite 2mm sea green color, trace red-brown columbite-tantalite.
60.40	64.56		GPE								Apatite				Quartz-feldspar-biotite Pegmatite, 30cm trace apaitite, massive, light grey.
64.56	70.57		GPE												Quartz-muscovite pegmatite, clear and white, massive, 1-5mm muscovite,trace feldspar.
70.57	76.57		GPE												Quartz-feldspar-biotite, pegmatite, light grey, massive, 40 cm quartz vein.
															TD:76.57m

Legend:

GRD = granodiorite | Spod = spodumene

GPE = granitic pegmatite | col-tan = columbite-tantalite

SAMPLES													
LOGGED BY:Gary McLearn					DATE: 3/11/2016								
Sample ID	Sample from (m)	Sample To (m)	Interval (m)	Visual %	Mineral	Rock type	Li20 (%)	Be (ppm)	Rb (ppm)	Cs (ppm)	Nb (ppm)	Ta (ppm)	QC sample
150159	14.36	15	0.64			GPE	0.01	0.5	13	2.8	0.5	0.5	
150160													standard
150161	15	16.1	1.10			GPE	0.06	19	629	138	38	251	
150162	16.11	17.2	1.09			GPE	0.03	15	464	72.1	10	51.1	
150163	17.2	18	0.80			GPE	0.06	162	1040	170	40	94.9	
150164	18	19	1.00			GPE	0.12	251	886	142	74	211	
150165	19	20.43	1.43			GPE	0.24	234	892	107	83	161	
150166	20.43	21.18	0.75			GPE	0.05	386	861	153	30	151	
150167	21.18	21.85	0.67			GRD	0.09	7	156	35.5	5	2.2	
150168	42.27	43	0.73			GRD	0.11	4	147	24.9	4	0.5	
150169	43	44	1.00	20%	SPOD	GPE	0.3	16	832	89	46	22	
150170													blank - quartz
150171	44	45	1.00	20%	SPOD	GPE	2.25	195	446	88.2	36	43.3	
150172	45	45.95	0.95	20%	SPOD	GPE	3.24	18	413	55.5	77	87.7	
150173	46.57	46.8	0.23	20%	SPOD	GPE	2.15	113	394	68.7	50	241	
150174	46.8	47.4	0.60	0		GPE	2.26	156	891	127	100	399	
150175	47.4	48	0.60	0		GPE	1	162	735	139	51	286	
150176	48	48.85	0.85	0		GPE	0.76	216	824	135	77	373	
150177	48.85	50	1.15	0		GPE	0.59	323	865	150	123	586	
150178	50	51	1.00	0		GPE	0.38	304	885	146	89	440	
150179	51	52	1.00	0		GPE	0.69	297	588	108	78	365	
150180													standard
150181	52	53.05	1.05	0		GPE	1.07	250	660	92.4	67	237	
150182	53.05	54	0.95	20%	SPOD	GPE	1.97	217	793	112	69	158	
150183	54	55	1.00	20%	SPOD	GPE	2.98	62	133	33.7	145	123	
150184	55	56	1.00	20%	SPOD	GPE	2.12	61	512	81.9	24	24.7	

Sample ID	Sample from (m)	Sample To (m)	Interval (m)	Visual %	Mineral	Rock type	Li20 (%)	Be (ppm)	Rb (ppm)	Cs (ppm)	Nb (ppm)	Ta (ppm)	QC sample
150185	56	57	1.00	1%	APAT	GPE	0.34	19	1120	184	55	36.5	
150186	57	58	1.00	1%	APAT	GPE	0.26	16	1190	291	61	29.8	
150187	58	59	1.00	1%	APAT	GPE	0.05	9	261	99	41	38.7	
150188	59	59.85	0.85	1%	APAT	GPE	0.21	35	1090	223	50	42.7	
150189	59.85	60.4	0.55	1%	APAT	GPE	0.41	335	869	116	60	124	
150190													blank - quartz
150191	60.4	60.91	0.51	1%	APAT	GRD	0.15	5	234	43.1	3	0.5	
150192	63.05	63.33	0.28	1%	APAT	GRD	0.12	87	145	39.5	47	67.3	
150193	64.56	66	1.44			GPE	0.17	47	1370	299	35	56	
150194	66	67	1.00			GPE	0.12	47	1010	191	52	206	
150195	67	68	1.00			GPE	0.17	232	1300	221	68	125	
150196	68	69	1.00			GPE	0.3	20	1540	252	75	46.1	
150197	69	70	1.00			GPE	0.41	45	643	138	56	29	
150198	70	70.57	0.57			GPE	0.09	10	210	79.1	19	14.1	
150199	70.57	71.09	0.52			GRD	0.21	20	310	119	20	2.5	
150200													standard

Legend:

GRD = granodiorite

GPE = granitic pegmatite

Spod = spodumene

Apat = apatite

GEOLOGICAL CORE LOG DDH-6

Claim number: 1213780 | **District**: Larder Lake | **Township**: Steele

Collar Location: UTM, NAD 83, Zone 17 | **Size of Core**: NQ

Easting: 578089 m | Northing: 5431664 m | **Total Length**: 79.27 m

Azimuth: 148 deg true | Dip: -45 deg

Start Date: 05-Sep-2001 | **Completion Date**: 06-Sep-2001 | **Date of Completion of Log**: 22-Jan-2017

Name of Drill Contractor: Rick Yost Drilling | **Logged by**: Gary McLearn

Storage location of drill core: Peter Hermeston's cabin on Highway 11

Depth From (m)	Depth To (m)	Oxidation state	Lithology	Lithology texture	Colour	Foliation TCA	Alteration 1	Alteration 2	Alteration 3	Alteration style	Mineral 1	Mineral 2	Mineral 3	Contact TCA	Comments
0.00	2.13														Overburden
2.13	**23.02**			GRD											Quartz-feldspar-biotite pegmatite. 50 deg foliation, light grey, granitoid.
23.02	25.28			GPE							Col-tan				Quartz-feldspar-muscovite, pegmatite, massive, <1cm cyystals,white, trace columbite-tantalite red-brown.
25.28	38.45			GRD											Quartz-feldspar-biotite, pegmatite, massive, light grey, biotite 2-4mm
38.45	43.23			GPE											Quartz-feldspar-muscovite pegmatite, 1-1.5cm crystals, white, massive.
43.23	**45.37**			GRD											Quartz-feldspar-biotite pegmatite, biotite 1mm, light grey, massive.
45.37	47.55			GPE							SPOD				Quartz-feldspar-muscovite-spod pegmatite, white, massive, light green, 1-6cm spod, 20% spod.
47.55	55.64			GPE											Quartz-feldspar-biotite pegmatite, massive, trace muscovite, and trace biotite nodules, light grey.
55.64	56.45			GPE							SPOD				Quartz-feldspar pegmatite, trace muscovite and biotite, trace spod., light green, masive, white . 1% Spod
56.45	59.82			GPE											Quartz-feldspar-biotite pegmatite, light grey, massive, trace biotite <2cm nodule.
59.82	60.55			GPE							SPOD				Quartz-muscovite-biotite-spod., white, 20% mus. ,10% biotite, 1 % spod 1-2mm, massive.
60.55	63.00			GPE							SPOD				Quartz-feldspar-biotite, pegmatite, light grey,massive, 20cm quartz band, containing spod. <1% Spod.
63.00	63.69			GPE											Quartz pegmatite,trace muscovite,trace biotite, white, massive.
63.69	67.95			GRD											Quartz-feldspar-biotite, pegmatite, massive, light grey, biotite 1-2mm.
67.95	68.35			GPE							Col-tan				Quartz-feldspar pegmatite, white, massive, trace biotite, trace muscovite, trace col.-tan. Red-brown mm grains.
68.35	**70.91**			GPE											Quartz-feldspar-biotite pegmatite, light grey, massive, trace felsic bands.
70.91	71.55			GPE							SPOD	Col-tan			Quartz pegmatite, some muscovite, trace spod., trace col.-tan greenish and red-brown crystals, massive, white. 1% Spod.
71.55	79.27			GPE											Quartz-feldspar-biotite pegmatite, light grey, massive, few 10cm qtz bands.
															TD:79.27m

Legend:

GRD = granodiorite | Spod = spodumene

GPE = granitic pegmatite | Col-tan = columbite-tantalite

Julie Selway

SAMPLES

LOGGED BY: Gary McLearn DATE: 22-Jan-17

Sample ID	Sample from (m)	Sample To (m)	Interval (m)	Visual %	Mineral	Rock type	Li20 (%)	Be (ppm)	Rb (ppm)	Cs (ppm)	Nb (ppm)	Ta (ppm)	QC sample
150201	22.5	23.02	0.52			GRD	0.1	3	138	41.2	4	0.5	
150202	23.02	24.3	1.28	1%	Col-Tan	GPE	0.08	169	490	112	72	122	
150203	24.3	25.28	0.98	1%	Col-Tan	GPE	0.07	251	313	93.5	98	155	
150204	25.28	25.84	0.56			GRD	0.11	2	115	36	4	0.3	
150205	37.9	38.45	0.55			GRD	0.1	2	102	20.6	3	0.9	
150206	38.45	40	1.55			GPE	0.1	24	1030	288	43	98.6	
150207	40	41	1.00			GPE	0.14	21	955	244	67	124	
150208	41	42.5	1.50			GPE	0.27	21	1660	345	55	59	
150209	42.5	43.23	0.73			GPE	0.16	17	485	75.3	37	20.8	
150210													blank - quartz
150211	43.23	44	0.77			GRD	0.17	6	120	30.4	3	0.4	
150212	44	45.37	1.37			GRD	0.14	3	78	13.7	3	0.3	
150213	45.37	46	0.63	20%	SPOD	GPE	0.05	18	746	108	47	117	
150214	46	47	1.00	20%	SPOD	GPE	0.17	27	423	66.9	33	40.9	
150215	47	47.55	0.55	20%	SPOD	GPE	1.57	47	671	155	45	43.4	
150216	47.55	48.5	0.95			GPE	0.2	21	751	158	37	15	
150217	48.5	49.27	0.77			GPE	0.11	20	343	106	39	26.1	
150218	49.27	49.7	0.43			GPE	0.18	19	409	170	9	7.2	
150219	55.64	56.45	0.81	1%	SPOD	GPE	0.16	52	355	45.7	32	23.3	
150220													standard
150221	59.31	59.82	0.51			GPE	0.15	11	249	52.3	5	2.4	
150222	59.82	60.55	0.73	1%	SPOD	GPE	0.17	24	1300	102	26	26.2	
150223	60.55	61.92	1.37	<1%	SPOD	GPE	0.15	9	194	41.6	5	2.3	
150224	61.92	62.22	0.30	<1%	SPOD	GPE	0.77	51	510	60.1	17	10.7	
150225	62.22	63	0.78	<1%	SPOD	GPE	0.12	6	276	53.2	4	1.2	
150226	63	63.69	0.69			GPE	0.2	13	349	35.8	45	33.5	

Sample ID	Sample from (m)	Sample To (m)	Interval (m)	Visual %	Mineral	Rock type	Li20 (%)	Be (ppm)	Rb (ppm)	Cs (ppm)	Nb (ppm)	Ta (ppm)	QC sample
150227	67.95	68.35	0.40	1%	Col-Tan	GPE	0.15	10	202	28.1	28	15.6	
150228	70.91	71.55	0.64	1%	SPOD	GPE	0.16	8	76	12	30	24.4	

Legend:

GRD = granodiorite

GPE = granitic pegmatite

Spod = spodumene

Col-tan = Columbite-tantalite

GEOLOGICAL CORE LOG DDH-7

Claim number: 1213780	**District**: Larder Lake	**Township**: Steele
Collar Location: UTM, NAD 83, Zone 17		**Size of Core**: NQ
Easting: 578160 m	Northing: 5431720 m	**Total Length**: 84.71 m
Azimuth: 148 deg true	Dip: -65 deg	
Start Date: 06-Sep-2001	**Completion Date**: 07-Sep-2001	**Date of Completion of Log**: 23-Jan-2017
Name of Drill Contractor: Rick Yost Drilling		**Logged by**: Gary McLearn
Storage location of drill core: Peter Hermeston's cabin on Highway 11		

Depth From (m)	Depth To (m)	Oxidation state	Lithology	Lithology texture	Colour	Foliation TCA	Alteration 1	Alteration 2	Alteration 3	Alteration style	Mineral 1	Mineral 2	Mineral 3	Contact TCA	Comments
0.00	1.22														Overburden
1.22	**32.65**			GRD											Quartz-feldspar-biotite, massive, light grey, trace biotite nodules 1-3cm , trace oxidation patches. Box 4 dropped, 14.07-19.58m, no change in lithol.
32.65	34.20			GPE											Quartz pegmatite, trace biotite-muscovite, clear-white, trace greenish patch, massive.
34.20	35.25			GPE											Quartz-feldspar-muscovite pegmatite, white, massive < 5mm muscovite.
35.25	60.95			GRD											Quartz-feldspar-biotite pegmatite, biotite nod. 2.5-3.5cm 140 deg, light grey, 125 foliation. 58.88-59.2: Quartz and muscovite , massive.
60.95	74.45			GPE											Quartz-feldspar-muscovite-bio pegmatite, white, massive, crystals <1cm. Missing core: 70.35-71.35, sample 70.35, 71.35 gap made.
74.45	78.70			GPE							SPOD				Quartz-feldspar pegmatite, some muscovite, trace biotite, white, trace spod greenish, massive, lower contact 110. 1% Spod.
78.70	84.71			GRD							Pyrite	pyrrhot.			Quartz-feldspar-biotite, trace green carbonate, light grey,massive, trace fracture fill sulphides pyrrohotite and pyrite. 79.75-79.98: qtz-feldspar band. Carbonate veining and sulphides between 81-83m
															TD: 84.71m

Legend:

GRD = granodiorite

Spod = spodumene

GPE = granitic pegmatite

SAMPLES													
LOGGED BY: Gary McLearn					DATE: 23-Jan-17								
Sample ID	Sample from (m)	Sample To (m)	Interval (m)	Visual %	Mineral	Rock type	Li20 (%)	Be (ppm)	Rb (ppm)	Cs (ppm)	Nb (ppm)	Ta (ppm)	QC sample
150229	32.65	33.44	0.79			GPE	0.04	11	311	102	8	21	
150230													blank - quartz
150231	33.44	34.2	0.76			GPE	0.02	0.5	3	0.7	0.5	0.6	
150232	34.2	35.25	1.05			GPE	0.09	23	678	171	36	66.7	
150233	35.25	35.93	0.68			GRD	0.07	2	147	20.2	3	0.3	
150234	58.88	59.2	0.32			GRD	0.06	13	372	66.5	20	107	
150235	59.2	59.57	0.37			GRD	0.08	7	317	58.9	4	1.5	
150236	60.35	60.95	0.60			GRD	0.1	9	263	56.2	4	1.1	
150237	60.95	61.75	0.80			GPE	0.12	15	971	131	57	183	
150238	61.75	62.5	0.75			GPE	0.26	11	1680	166	64	28	
150239	62.5	63.25	0.75			GPE	0.13	15	942	119	38	18.9	
150240													standard
150241	63.25	64	0.75			GPE	0.08	11	734	140	43	69	
150242	64	65	1.00			GPE	0.08	15	665	128	122	502	
150243	65	66	1.00			GPE	0.09	18	848	145	64	149	
150244	66	66.9	0.90			GPE	0.19	91	1090	222	73	178	
150245	66.9	68	1.10			GPE	0.18	100	1640	231	59	56.9	
150246	68	69	1.00			GPE	0.21	19	2310	416	84	98.5	
150247	69	70	1.00			GPE	0.18	20	1910	245	69	71.8	
150248	70	70.35	0.35			GPE	0.29	22	3580	705	117	134	
150249	71.35	72	0.65			GPE	0.3	22	3080	338	138	118	
150250													blank
150251	72	73	1.00			GPE	0.25	27	2830	512	128	129	
150252	73	74	1.00			GPE	0.36	45	3110	537	124	98.9	
150253	74	74.45	0.45			GPE	0.17	21	1730	185	85	71.2	
150254	74.45	76	1.55	1%	SPOD	GPE	0.09	17	531	53.5	52	50.5	

Sample ID	Sample from (m)	Sample To (m)	Interval (m)	Visual %	Mineral	Rock type	Li20 (%)	Be (ppm)	Rb (ppm)	Cs (ppm)	Nb (ppm)	Ta (ppm)	QC sample
150255	76	77	1.00	1%	SPOD	GPE	0.12	18	415	56.4	49	28.1	
150256	77	78	1.00	1%	SPOD	GPE	0.11	19	180	24.4	34	20.1	
150257	78	78.7	0.70	1%	SPOD	GPE	0.1	13	224	32.2	34	13.8	
150258	78.7	79.3	0.60			GRD	0.21	10	768	253	7	1.3	

Legend:

GRD = granodiorite

GPE = granitic pegmatite

Spod = spodumene

Appendix 5 – Assay Certificates

Quality Analysis ... *Innovative Technologies*

Date Submitted:	27-Jan-17
Invoice No.:	A17-00835
Invoice Date:	28-Feb-17
Your Reference:	

POWER METALS CORP
Suite 545-999 Canada Place
Vancouver BC v6c 3E1
Canada

ATTN: Johnathon More

CERTIFICATE OF ANALYSIS

258 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 4Litho-Pegmatite Special Major Elements Fusion ICP(WRA)/Trace Elements Fusion ICP/MS(WRA4B2)

Code 8-Li (Sodium Peroxide Fusion) Sodium Peroxide Fusion

Code Specific Gravity-Pycnometer (Nitrogen) Pulp by Nitrogen Pycnometer

REPORT **A17-00835**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

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

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
150001	70.30	16.61	1.36	0.013	0.34	2.71	5.84	1.63	0.177	0.06	0.40	99.43	< 1	2	15	< 20	2	< 20	10	100	29	< 1	< 5
150002	71.19	16.40	1.12	0.015	0.27	2.54	5.72	1.80	0.135	0.04	0.36	99.60	< 1	4	12	< 20	1	< 20	20	70	29	< 1	< 5
150003	75.05	14.06	1.70	0.085	0.30	0.94	4.25	2.00	0.101	0.20	0.99	99.69	< 1	24	12	30	2	< 20	< 10	330	51	3	< 5
150004	82.04	10.80	0.85	0.037	0.11	0.62	3.66	1.27	0.032	0.01	0.55	99.96	< 1	52	5	30	1	< 20	< 10	60	30	3	< 5
150005	79.05	14.00	1.11	0.079	0.17	0.57	2.93	1.07	0.061	0.03	0.77	99.82	< 1	183	< 5	30	1	< 20	10	80	50	3	< 5
150006	80.14	13.00	0.86	0.061	0.06	0.51	3.18	0.41	0.022	0.02	0.54	98.81	< 1	579	< 5	40	< 1	< 20	10	40	39	3	< 5
150007	76.31	16.24	0.81	0.075	0.07	0.37	2.80	2.34	0.020	0.03	0.48	99.55	< 1	129	< 5	30	< 1	< 20	10	< 30	52	4	< 5
150008	79.57	14.10	0.64	0.063	0.03	0.37	3.67	1.56	0.013	0.01	0.45	100.5	< 1	664	< 5	30	< 1	< 20	< 10	< 30	40	4	< 5
150009	71.38	17.29	0.53	0.055	0.05	0.67	6.73	2.37	0.013	0.01	0.74	99.84	< 1	315	< 5	20	< 1	< 20	10	< 30	46	4	< 5
150010	73.01	15.31	1.32	0.012	0.08	1.36	4.28	4.64	0.039	< 0.01	0.38	100.4	< 1	2	< 5	< 20	< 1	< 20	10	< 30	20	< 1	< 5
150011	72.61	14.88	0.37	0.007	0.02	0.13	2.88	8.37	0.002	0.02	0.20	99.48	< 1	41	< 5	20	< 1	< 20	< 10	< 30	26	4	< 5
150012	83.86	8.22	0.48	0.007	0.02	0.03	0.81	5.72	0.001	< 0.01	0.10	99.23	< 1	2	< 5	30	< 1	< 20	< 10	< 30	11	2	< 5
150013	97.52	0.69	0.38	0.005	0.02	0.02	0.10	0.35	0.002	< 0.01	0.17	99.26	< 1	2	< 5	60	< 1	< 20	10	< 30	1	2	< 5
150014	99.61	0.19	0.62	0.007	< 0.01	0.02	0.03	0.03	0.002	< 0.01	0.12	100.6	< 1	< 1	< 5	120	< 1	< 20	10	< 30	< 1	2	< 5
150015	97.15	1.55	0.53	0.015	0.02	0.06	0.37	0.06	0.002	< 0.01	0.17	99.94	< 1	2	< 5	60	< 1	< 20	< 10	< 30	5	2	< 5
150016	78.02	14.10	0.61	0.053	0.04	0.38	3.97	2.25	0.008	< 0.01	0.44	99.87	< 1	238	< 5	40	< 1	< 20	< 10	< 30	41	4	< 5
150017	75.31	16.59	0.65	0.111	0.05	0.41	3.88	1.79	0.017	0.01	0.59	99.41	< 1	672	< 5	20	< 1	< 20	10	< 30	56	4	< 5
150018	76.57	16.22	0.87	0.093	0.05	0.33	3.00	1.52	0.024	< 0.01	0.51	99.20	< 1	365	< 5	40	< 1	< 20	10	30	58	4	< 5
150019	78.77	15.12	0.74	0.077	0.04	0.36	2.79	0.54	0.016	< 0.01	0.41	98.89	< 1	44	< 5	30	< 1	< 20	< 10	< 30	52	4	< 5
150020	73.60	14.01	0.68	0.618	0.03	0.76	0.60	6.27	0.053	< 0.01	1.98	98.61	12	5	< 5	120	< 1	< 20	180	580	31	6	42
150021	78.95	15.65	0.88	0.107	0.06	0.30	1.94	0.82	0.018	< 0.01	0.36	99.09	< 1	455	< 5	70	< 1	< 20	10	30	54	4	< 5
150022	79.78	13.79	0.70	0.071	0.09	0.41	2.42	0.84	0.020	0.01	0.56	98.69	< 1	744	< 5	20	< 1	< 20	10	40	47	4	< 5
150023	80.65	12.97	0.86	0.063	0.07	0.49	3.07	0.52	0.024	< 0.01	0.47	99.19	< 1	259	< 5	30	< 1	< 20	10	40	43	3	< 5
150024	77.65	17.01	0.98	0.080	0.07	0.41	2.31	0.50	0.021	< 0.01	0.43	99.46	< 1	325	< 5	30	< 1	< 20	10	< 30	58	3	< 5
150025	78.33	15.01	0.97	0.071	0.06	0.42	2.86	0.72	0.020	< 0.01	0.46	98.92	< 1	207	< 5	40	< 1	< 20	< 10	< 30	48	3	< 5
150026	73.88	16.47	1.17	0.084	0.19	0.76	4.36	1.63	0.076	0.02	0.99	99.62	< 1	41	6	30	1	< 20	10	130	57	3	< 5
150027	71.83	17.07	1.32	0.070	0.26	0.99	5.34	2.20	0.091	0.16	1.14	100.5	< 1	47	12	30	2	< 20	< 10	220	64	3	< 5
150028	68.75	18.97	1.26	0.097	0.25	0.90	5.83	2.33	0.096	0.17	1.37	100.0	< 1	19	11	< 20	1	< 20	< 10	210	69	3	< 5
150029	72.90	15.74	0.90	0.496	0.06	0.74	7.73	0.59	0.017	0.28	0.36	99.82	< 1	12	< 5	< 20	< 1	< 20	< 10	40	45	4	< 5
150030	72.89	15.98	0.75	0.010	0.08	1.29	4.23	5.02	0.021	< 0.01	0.40	100.7	< 1	2	< 5	< 20	< 1	< 20	10	< 30	20	< 1	< 5
150031	72.82	16.32	0.69	0.224	0.06	0.51	7.68	0.89	0.022	0.05	0.39	99.66	< 1	146	< 5	< 20	< 1	< 20	10	50	45	3	< 5
150032	69.59	17.72	1.50	0.029	0.43	2.88	5.75	1.14	0.222	0.08	0.76	100.1	1	20	19	20	2	< 20	10	110	33	1	< 5
150033	69.56	18.89	0.66	0.223	0.07	0.67	8.94	0.88	0.027	0.09	0.64	100.7	< 1	12	< 5	< 20	< 1	< 20	10	40	55	4	< 5
150034	70.57	16.96	0.90	0.734	0.03	0.62	8.94	0.26	0.009	0.09	0.26	99.38	< 1	25	< 5	< 20	< 1	< 20	20	40	45	5	< 5
150035	70.86	17.22	1.49	0.038	0.40	2.53	5.75	1.21	0.188	0.06	0.69	100.4	1	14	17	< 20	2	< 20	10	90	30	< 1	< 5
150036	71.19	16.72	0.98	0.012	0.19	2.44	5.89	1.60	0.124	0.04	0.36	99.54	< 1	5	7	30	< 1	< 20	10	70	32	< 1	< 5
150037	71.19	17.31	0.79	0.032	0.14	1.78	6.36	2.42	0.085	0.03	0.49	100.6	< 1	16	6	< 20	< 1	< 20	10	60	34	2	< 5
150038	71.96	16.55	1.04	0.035	0.17	2.39	5.76	1.80	0.110	0.02	0.28	100.1	< 1	6	7	20	< 1	< 20	10	60	31	< 1	< 5
150039	84.35	9.77	0.67	0.048	0.05	0.38	2.88	1.52	0.030	< 0.01	0.84	100.6	< 1	578	< 5	50	< 1	< 20	< 10	40	36	3	< 5
150040	74.27	13.89	0.68	0.594	0.03	0.76	0.58	6.19	0.056	< 0.01	1.92	98.97	12	5	< 5	120	< 1	< 20	180	590	31	7	55
150041	78.74	13.15	0.51	0.069	0.03	0.55	5.74	1.12	0.019	0.03	0.59	100.5	< 1	125	< 5	20	< 1	< 20	< 10	< 30	35	3	< 5

Analyte Symbol	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
150042	72.22	16.83	1.04	0.017	0.18	2.34	5.81	1.78	0.117	0.03	0.35	100.7	< 1	10	7	40	< 1	< 20	20	80	33	< 1	< 5
150043	70.23	16.79	1.92	0.268	0.35	0.74	4.44	2.77	0.116	0.27	1.28	99.17	1	15	17	20	2	< 20	10	230	72	4	< 5
150044	77.64	12.55	1.02	0.057	0.18	0.58	3.98	2.05	0.058	0.08	0.80	99.00	< 1	20	6	40	1	< 20	10	130	43	3	< 5
150045	77.59	14.94	1.73	0.099	0.11	0.55	2.79	0.84	0.042	< 0.01	0.60	99.31	< 1	48	< 5	50	1	< 20	20	60	54	3	< 5
150046	79.60	13.61	0.80	0.100	0.05	0.34	2.31	1.50	0.013	< 0.01	0.41	98.74	< 1	103	< 5	60	< 1	< 20	10	< 30	48	3	< 5
150047	84.29	8.78	0.69	0.090	0.06	0.24	2.06	2.21	0.020	< 0.01	0.56	99.00	< 1	120	< 5	30	< 1	< 20	10	< 30	30	3	< 5
150048	92.81	3.28	0.54	0.040	0.02	0.10	0.65	1.16	0.006	< 0.01	0.23	98.84	< 1	26	< 5	80	< 1	< 20	20	< 30	9	2	< 5
150049	83.91	9.23	0.75	0.147	0.05	0.23	1.97	2.67	0.020	< 0.01	0.65	99.64	< 1	211	< 5	40	< 1	< 20	< 10	40	31	3	< 5
150050	96.68	0.60	2.36	0.021	0.02	0.02	0.04	0.05	0.023	< 0.01	-0.09	99.72	< 1	< 1	< 5	30	2	< 20	10	< 30	1	1	< 5
150051	83.05	9.74	0.73	0.172	0.03	0.28	2.33	2.02	0.014	< 0.01	0.49	98.87	< 1	138	< 5	60	< 1	< 20	< 10	< 30	32	3	< 5
150052	82.22	11.79	1.00	0.155	0.07	0.22	1.38	2.38	0.029	0.02	0.94	100.2	< 1	475	< 5	40	< 1	< 20	< 10	40	46	2	< 5
150053	77.35	15.84	0.79	0.066	0.07	0.57	3.90	0.81	0.028	< 0.01	0.57	100.0	< 1	390	< 5	50	< 1	< 20	< 10	50	49	3	< 5
150054	82.18	11.29	1.18	0.063	0.12	0.41	2.42	1.00	0.044	0.02	0.52	99.25	< 1	144	6	40	1	< 20	< 10	90	38	3	< 5
150055	88.22	6.36	0.98	0.042	0.14	0.36	1.99	0.96	0.043	0.04	0.53	99.66	< 1	12	7	60	1	< 20	< 10	150	26	3	< 5
150056	88.81	5.99	1.35	0.048	0.19	0.25	1.30	1.38	0.051	< 0.01	0.63	100.0	< 1	11	7	60	1	< 20	< 10	120	27	2	< 5
150057	78.81	12.73	1.03	0.045	0.13	0.64	3.45	2.02	0.035	0.10	0.46	99.44	< 1	68	8	50	< 1	< 20	< 10	80	37	4	< 5
150058	70.96	15.97	2.20	0.084	0.62	1.95	5.29	1.70	0.212	0.39	0.82	100.2	1	35	27	40	4	< 20	30	330	49	2	< 5
150059	75.28	14.48	1.03	0.191	0.13	0.49	5.13	2.00	0.039	0.04	0.48	99.30	< 1	21	6	50	1	< 20	< 10	160	46	4	< 5
150060	74.98	13.45	0.71	0.605	0.05	0.76	0.60	6.33	0.055	0.02	2.08	99.63	12	5	6	120	< 1	< 20	170	490	28	6	38
150061	76.00	12.95	1.72	0.138	0.30	0.89	3.26	2.97	0.092	0.38	1.12	99.83	< 1	22	12	30	2	< 20	< 10	190	49	3	< 5
150062	87.03	7.13	0.91	0.043	0.15	0.39	1.95	1.21	0.049	< 0.01	0.63	99.50	< 1	15	7	50	1	< 20	< 10	110	29	2	< 5
150063	72.23	16.13	0.90	0.048	0.10	1.11	4.03	3.34	0.037	< 0.01	1.70	99.63	< 1	251	6	40	1	< 20	< 10	90	58	3	< 5
150064	90.48	5.73	0.69	0.076	0.13	0.16	0.68	0.55	0.010	< 0.01	0.57	99.06	< 1	282	< 5	70	1	< 20	< 10	180	22	2	< 5
150065	97.21	0.56	0.69	0.019	0.10	0.24	0.08	0.03	0.002	< 0.01	0.28	99.21	< 1	2	< 5	60	< 1	< 20	< 10	< 30	2	1	< 5
150066	98.64	0.16	0.70	0.010	< 0.01	0.20	0.02	0.02	0.001	< 0.01	0.18	99.93	< 1	1	< 5	70	< 1	< 20	< 10	< 30	< 1	1	< 5
150067	91.58	4.84	0.68	0.154	0.02	0.19	1.34	1.07	0.013	< 0.01	0.27	100.2	< 1	29	< 5	60	< 1	< 20	< 10	< 30	17	2	< 5
150068	74.42	15.59	0.54	0.028	0.02	1.06	7.09	0.48	0.013	0.07	0.64	99.95	< 1	33	< 5	30	< 1	< 20	< 10	30	40	3	< 5
150069	82.04	10.13	0.56	0.040	0.09	0.55	3.63	1.10	0.035	< 0.01	0.81	99.01	< 1	48	< 5	40	< 1	< 20	< 10	60	37	3	< 5
150070	95.32	0.67	3.46	0.029	0.02	0.04	0.08	0.11	0.023	< 0.01	-0.34	99.43	< 1	1	< 5	30	2	< 20	30	< 30	2	1	< 5
150071	76.54	13.32	1.29	0.081	0.20	0.68	3.96	1.86	0.083	0.04	0.93	98.98	< 1	56	9	40	2	< 20	< 10	150	49	3	< 5
150072	75.12	14.30	1.29	0.075	0.20	0.71	4.41	1.98	0.079	0.13	1.03	99.33	< 1	15	9	30	1	< 20	< 10	160	59	3	< 5
150073	73.69	13.52	1.36	0.117	0.25	1.60	4.24	1.92	0.071	0.90	0.94	98.60	< 1	12	11	60	2	< 20	< 10	190	59	3	< 5
150074	71.13	17.05	1.04	0.349	0.10	0.59	7.61	1.11	0.041	0.05	0.69	99.76	< 1	11	< 5	20	1	< 20	< 10	270	57	4	< 5
150075	64.76	16.67	4.05	0.037	1.47	3.56	5.01	1.62	0.538	0.29	0.71	98.72	2	9	61	30	8	< 20	20	310	34	1	< 5
150076	75.18	13.69	1.64	0.097	0.33	0.49	4.07	2.22	0.105	0.03	0.97	98.81	< 1	16	13	30	2	< 20	< 10	230	56	3	< 5
150077	81.27	10.78	0.81	0.032	0.11	0.47	4.02	0.88	0.040	0.02	0.51	98.94	< 1	45	< 5	40	1	< 20	< 10	90	35	3	< 5
150078	76.22	14.50	0.65	0.046	0.06	0.80	6.41	0.67	0.029	0.11	0.46	99.95	< 1	137	< 5	30	< 1	< 20	< 10	60	39	3	< 5
150079	75.55	14.40	1.06	0.074	0.18	0.81	4.92	1.44	0.067	0.07	0.80	99.37	< 1	103	7	40	1	< 20	< 10	140	49	3	< 5
150080	73.87	13.98	0.69	0.601	0.03	0.75	0.59	6.26	0.053	< 0.01	1.79	98.61	12	5	< 5	120	< 1	< 20	170	560	31	6	52
150081	71.50	17.48	0.75	0.059	0.08	0.97	7.16	0.98	0.034	0.02	0.77	99.79	< 1	73	< 5	30	< 1	< 20	< 10	70	51	4	< 5
150082	70.52	17.69	0.52	0.030	0.05	1.18	8.34	0.63	0.020	0.03	0.79	99.79	< 1	37	< 5	30	2	< 20	20	280	49	4	< 5

Analyte Symbol	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
150083	69.28	18.33	0.63	0.055	0.05	1.06	7.82	1.01	0.019	0.03	0.83	99.11	< 1	23	< 5	20	< 1	< 20	< 10	< 30	53	4	< 5
150084	73.63	15.94	0.55	0.037	0.06	1.09	7.26	0.61	0.026	0.01	0.68	99.90	< 1	44	< 5	40	< 1	< 20	< 10	70	39	3	< 5
150085	72.95	15.17	1.07	0.067	0.15	0.91	5.39	1.59	0.066	0.03	1.33	98.73	< 1	18	7	30	1	< 20	< 10	130	51	3	< 5
150086	64.94	20.46	1.00	0.059	0.18	1.08	6.95	2.33	0.076	0.02	1.83	98.91	< 1	18	7	30	1	< 20	< 10	180	70	3	< 5
150087	74.71	13.90	1.51	0.074	0.31	1.23	4.60	1.52	0.114	0.19	0.78	98.94	< 1	20	13	30	2	< 20	< 10	610	44	2	< 5
150088	74.32	13.90	2.01	0.073	0.41	0.89	3.70	2.23	0.138	0.03	1.16	98.85	1	21	16	50	2	< 20	10	300	56	3	< 5
150089	71.18	15.90	2.07	0.090	0.43	1.09	4.32	2.44	0.161	0.20	1.15	99.04	1	33	21	30	3	< 20	< 10	250	62	3	< 5
150090	97.30	0.51	1.60	0.015	0.02	0.02	0.04	0.05	0.026	< 0.01	0.07	99.65	< 1	< 1	< 5	20	1	< 20	< 10	< 30	1	< 1	< 5
150091	69.71	18.04	1.13	0.135	0.22	1.24	6.62	1.86	0.079	0.33	1.03	100.4	< 1	18	14	40	2	< 20	< 10	150	65	4	< 5
150092	69.91	18.00	0.63	0.104	0.08	1.57	8.22	0.70	0.028	0.58	0.66	100.5	< 1	17	< 5	< 20	< 1	< 20	< 10	60	49	4	< 5
150093	68.02	18.59	0.78	0.278	0.09	1.02	8.88	0.97	0.037	0.24	0.80	99.72	< 1	16	< 5	20	< 1	< 20	< 10	60	55	4	< 5
150094	65.18	20.17	0.89	0.133	0.14	1.18	8.35	1.77	0.066	0.22	1.24	99.34	< 1	18	8	< 20	1	< 20	< 10	80	70	3	< 5
150095	71.89	16.59	0.70	0.252	0.06	0.96	8.29	0.52	0.018	0.34	0.38	100.0	< 1	29	< 5	20	< 1	< 20	< 10	30	46	3	< 5
150096	71.49	15.42	1.07	0.649	0.02	0.89	8.53	0.27	0.008	0.27	0.24	98.85	< 1	10	< 5	< 20	< 1	< 20	< 10	< 30	38	4	< 5
150097	72.53	16.00	0.67	0.198	0.08	0.79	8.05	0.75	0.025	0.20	0.56	99.84	< 1	12	< 5	< 20	< 1	< 20	< 10	50	42	3	< 5
150098	73.76	15.41	0.81	0.413	0.03	0.65	7.75	0.40	0.012	0.09	0.33	99.65	< 1	13	< 5	< 20	< 1	< 20	< 10	< 30	35	4	< 5
150099	70.69	15.65	1.65	0.040	0.47	2.56	5.37	1.32	0.197	0.08	0.84	98.88	2	17	21	30	2	< 20	< 10	80	28	1	< 5
150100	74.09	13.83	0.69	0.591	0.02	0.76	0.57	6.21	0.055	0.01	2.43	99.26	12	5	< 5	120	< 1	< 20	170	510	29	6	35
150101	72.25	15.53	1.80	0.058	0.39	1.50	5.03	2.01	0.183	0.06	0.91	99.73	1	15	22	< 20	2	< 20	< 10	170	32	1	< 5
150102	71.23	17.37	1.09	0.084	0.19	0.68	6.15	1.91	0.082	0.03	1.24	100.1	< 1	27	9	< 20	1	< 20	< 10	120	59	3	< 5
150103	73.01	16.37	0.49	0.212	0.03	0.82	8.49	0.30	0.008	0.09	0.43	100.3	< 1	19	< 5	< 20	< 1	< 20	< 10	80	37	3	< 5
150104	72.59	15.87	0.77	0.295	0.03	0.62	7.98	0.47	0.013	0.07	0.46	99.18	< 1	17	< 5	20	< 1	< 20	< 10	< 30	39	3	< 5
150105	76.01	14.06	0.92	0.482	0.03	0.47	6.63	0.51	0.011	0.04	0.24	99.41	< 1	9	< 5	< 20	< 1	< 20	< 10	< 30	34	4	< 5
150106	77.44	12.94	1.03	0.620	0.03	0.45	6.11	0.35	0.007	0.06	0.20	99.24	< 1	8	< 5	< 20	< 1	< 20	< 10	< 30	31	4	< 5
150107	76.25	14.39	0.87	0.333	0.05	0.36	6.85	0.58	0.010	0.02	0.37	100.1	< 1	8	< 5	< 20	< 1	< 20	< 10	< 30	36	3	< 5
150108	74.54	15.36	0.78	0.347	0.05	0.42	7.53	0.46	0.010	0.03	0.31	99.84	< 1	21	< 5	20	< 1	< 20	< 10	40	38	3	< 5
150109	73.53	16.30	0.84	0.332	0.03	0.62	7.93	0.56	0.012	0.08	0.25	100.5	< 1	15	< 5	< 20	< 1	< 20	< 10	30	38	3	< 5
150110	97.91	0.52	0.74	0.008	0.02	0.04	0.05	0.05	0.025	< 0.01	0.27	99.63	< 1	< 1	5	< 20	< 1	< 20	10	< 30	< 1	< 1	< 5
150111	70.08	16.45	2.02	0.029	0.58	2.80	4.97	1.53	0.244	0.10	0.54	99.34	2	13	26	30	3	< 20	20	100	27	< 1	< 5
150112	71.06	17.12	0.96	0.360	0.12	0.82	7.59	0.87	0.050	0.12	0.42	99.49	< 1	17	7	< 20	< 1	< 20	< 10	80	41	3	< 5
150113	73.80	15.46	0.97	0.465	0.03	0.61	7.88	0.52	0.011	0.11	0.17	100.0	< 1	10	< 5	< 20	< 1	< 20	< 10	50	38	4	< 5
150114	69.36	16.61	2.02	0.028	0.63	2.89	5.24	1.50	0.269	0.10	0.51	99.16	2	7	30	20	3	< 20	20	100	27	< 1	< 5
150115	71.22	16.35	1.17	0.018	0.19	2.22	5.58	1.85	0.113	0.02	0.39	99.13	< 1	3	8	30	< 1	< 20	10	70	27	< 1	< 5
150116	76.61	14.49	0.80	0.086	0.05	0.48	4.63	1.58	0.030	0.02	0.76	99.54	< 1	156	< 5	30	< 1	< 20	< 10	40	46	3	< 5
150117	85.50	8.99	0.57	0.056	0.03	0.21	2.25	1.30	0.018	< 0.01	0.40	99.33	< 1	53	< 5	50	< 1	< 20	< 10	< 30	28	3	< 5
150118	81.72	11.47	0.88	0.047	0.07	0.25	2.96	2.50	0.030	< 0.01	0.74	100.7	< 1	213	< 5	30	< 1	< 20	< 10	60	33	3	< 5
150119	79.27	12.43	0.75	0.045	0.05	0.32	3.55	2.46	0.027	< 0.01	0.66	99.55	< 1	226	< 5	40	< 1	< 20	< 10	30	34	3	< 5
150120	73.74	14.01	0.70	0.602	0.02	0.75	0.57	6.25	0.055	0.01	2.35	99.06	12	5	6	120	< 1	< 20	170	530	28	6	42
150121	78.30	12.62	0.74	0.058	0.05	0.40	3.92	2.16	0.035	0.01	0.70	98.99	< 1	416	< 5	20	< 1	< 20	< 10	< 30	35	3	< 5
150122	78.85	12.51	0.62	0.046	0.04	0.42	3.94	1.89	0.025	< 0.01	0.56	98.88	< 1	256	< 5	30	< 1	< 20	< 10	< 30	33	3	< 5
150123	77.92	13.08	0.57	0.057	0.05	0.68	4.71	2.10	0.033	0.04	0.82	100.1	< 1	568	< 5	20	< 1	< 20	< 10	< 30	32	3	< 5

Analyte Symbol	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
150124	71.11	15.82	1.40	0.035	0.32	2.27	5.57	1.85	0.153	0.05	0.50	99.08	< 1	3	11	30	1	< 20	< 10	100	29	< 1	< 5
150125	72.49	15.27	0.76	0.052	0.12	1.29	5.29	3.06	0.063	0.01	0.28	98.70	< 1	11	< 5	< 20	< 1	< 20	< 10	40	29	2	< 5
150126	71.48	16.41	1.10	0.015	0.19	2.33	5.74	1.70	0.124	0.02	0.27	99.40	< 1	3	9	30	< 1	< 20	< 10	80	28	< 1	< 5
150127	82.06	10.12	1.01	0.075	0.15	0.67	2.84	1.40	0.049	0.19	0.59	99.15	< 1	34	7	40	< 1	< 20	< 10	110	33	3	< 5
150128	78.80	16.01	1.22	0.083	0.06	0.38	2.03	0.37	0.018	< 0.01	0.32	99.29	< 1	74	< 5	50	< 1	< 20	< 10	< 30	49	3	< 5
150129	80.54	14.08	1.00	0.077	0.10	0.47	2.29	0.67	0.024	0.04	0.47	99.76	< 1	155	< 5	30	< 1	< 20	< 10	60	47	3	< 5
150130	98.36	0.51	0.76	0.008	0.01	0.03	0.04	0.07	0.026	< 0.01	0.27	100.1	< 1	< 1	5	< 20	< 1	< 20	10	40	< 1	< 1	< 5
150131	83.72	9.70	0.88	0.054	0.05	0.13	0.91	2.66	0.031	0.01	0.81	98.97	< 1	83	< 5	50	< 1	< 20	< 10	50	42	3	< 5
150132	81.52	11.98	0.79	0.061	0.05	0.36	2.96	1.52	0.019	< 0.01	0.73	100.0	< 1	205	< 5	30	< 1	< 20	< 10	30	38	3	< 5
150133	80.03	11.97	0.73	0.083	0.05	0.31	2.74	2.87	0.030	< 0.01	0.96	99.77	< 1	217	< 5	50	< 1	< 20	< 10	50	44	3	< 5
150134	77.52	13.02	0.57	0.076	0.05	0.40	4.37	2.11	0.011	0.01	0.67	98.81	< 1	392	< 5	20	< 1	< 20	< 10	180	35	3	< 5
150135	77.99	13.14	0.72	0.105	0.04	0.44	4.41	1.66	0.032	< 0.01	1.02	99.56	< 1	377	< 5	40	< 1	< 20	< 10	40	47	3	< 5
150136	98.43	0.20	0.65	0.008	< 0.01	0.04	0.04	0.01	0.001	< 0.01	0.07	99.45	< 1	3	< 5	50	< 1	< 20	< 10	< 30	< 1	2	< 5
150137	73.32	16.72	0.80	0.150	0.07	0.57	5.42	1.77	0.024	0.01	1.19	100.0	< 1	600	< 5	30	< 1	< 20	< 10	40	50	3	< 5
150138	78.77	12.56	0.49	0.069	0.03	0.45	5.14	1.94	0.012	< 0.01	0.65	100.1	< 1	132	< 5	30	< 1	< 20	< 10	< 30	32	3	< 5
150139	84.52	9.37	0.76	0.090	0.05	0.29	2.57	1.69	0.016	< 0.01	0.62	99.98	< 1	192	< 5	50	< 1	< 20	< 10	< 30	29	3	< 5
150140	73.54	14.18	0.71	0.609	0.03	0.76	0.57	6.24	0.056	0.01	2.09	98.80	12	5	< 5	120	< 1	< 20	170	560	28	7	49
150141	86.31	7.40	0.87	0.091	0.05	0.16	1.29	2.01	0.019	< 0.01	0.55	98.76	< 1	130	< 5	40	< 1	< 20	< 10	40	28	2	< 5
150142	86.10	8.14	0.73	0.097	0.03	0.24	1.83	2.02	0.016	< 0.01	0.62	99.82	< 1	231	< 5	50	< 1	< 20	< 10	< 30	25	2	< 5
150143	78.44	12.61	0.73	0.062	0.06	0.50	3.59	2.07	0.033	< 0.01	1.04	99.14	< 1	164	5	20	< 1	< 20	< 10	60	42	2	< 5
150144	76.58	13.47	1.17	0.065	0.14	0.47	3.61	1.89	0.044	< 0.01	1.19	98.63	< 1	163	6	50	< 1	< 20	< 10	70	51	3	< 5
150145	68.31	18.47	1.13	0.089	0.16	0.64	5.14	2.68	0.074	< 0.01	1.89	98.59	1	54	8	< 20	< 1	< 20	< 10	70	69	3	< 5
150146	77.96	11.95	1.37	0.071	0.24	0.71	3.56	1.74	0.079	0.12	1.00	98.80	< 1	22	11	40	2	< 20	< 10	170	43	3	< 5
150147	72.76	16.36	0.91	0.227	0.05	0.56	8.63	0.50	0.016	0.09	0.38	100.5	< 1	9	< 5	< 20	< 1	< 20	< 10	40	44	4	< 5
150148	71.81	16.69	0.70	0.197	0.10	0.63	7.90	0.82	0.027	0.16	0.51	99.55	< 1	10	< 5	< 20	< 1	< 20	< 10	40	47	3	< 5
150149	69.76	16.25	0.79	0.193	0.11	1.50	7.57	0.96	0.032	0.81	0.56	98.53	< 1	263	6	< 20	< 1	< 20	< 10	100	49	3	< 5
150150	96.52	0.69	1.89	0.018	0.02	0.03	0.11	0.08	0.031	< 0.01	0.04	99.44	< 1	2	< 5	< 20	< 1	< 20	20	< 30	1	< 1	< 5
150151	78.59	12.64	1.47	0.070	0.32	0.69	3.37	2.12	0.092	0.09	1.06	100.5	< 1	21	13	30	2	< 20	< 10	180	48	3	< 5
150152	77.01	13.04	0.93	0.046	0.18	0.92	4.99	1.17	0.048	< 0.01	1.05	99.39	< 1	40	5	< 20	< 1	< 20	< 10	100	37	3	< 5
150153	84.36	8.78	0.67	0.029	0.06	0.40	3.27	0.94	0.020	< 0.01	0.80	99.31	< 1	22	< 5	40	< 1	< 20	< 10	< 30	28	2	< 5
150154	77.99	12.64	0.95	0.057	0.18	0.70	4.05	1.55	0.060	0.03	1.00	99.19	< 1	26	7	20	< 1	< 20	< 10	110	41	3	< 5
150155	71.82	16.02	1.33	0.088	0.26	0.95	5.16	2.00	0.087	0.21	1.06	98.96	< 1	49	11	30	1	< 20	< 10	220	54	3	< 5
150156	71.89	15.92	1.36	0.101	0.27	0.83	4.93	2.20	0.079	0.30	1.12	98.99	< 1	126	11	< 20	1	< 20	< 10	190	57	3	< 5
150157	68.66	18.63	0.71	0.292	0.05	0.65	9.02	0.69	0.021	0.08	0.55	99.36	< 1	25	< 5	< 20	< 1	< 20	< 10	< 30	50	4	< 5
150158	71.28	16.67	1.08	0.016	0.19	2.34	5.52	1.88	0.115	0.03	0.34	99.46	< 1	7	10	30	< 1	< 20	10	80	29	< 1	< 5
150159	98.96	0.28	0.43	0.006	0.01	0.03	0.05	0.04	0.003	< 0.01	0.03	99.83	< 1	< 1	< 5	40	< 1	< 20	< 10	< 30	< 1	1	< 5
150160	73.86	13.83	0.69	0.590	0.02	0.76	0.57	6.23	0.053	< 0.01	2.05	98.68	12	5	6	120	< 1	< 20	160	560	28	6	51
150161	69.97	17.48	0.63	0.254	0.08	0.74	7.32	1.12	0.042	0.02	0.92	98.57	< 1	19	< 5	< 20	< 1	< 20	< 10	110	45	4	< 5
150162	94.01	3.14	0.71	0.018	0.03	0.11	0.83	0.91	0.008	< 0.01	0.25	100.0	< 1	15	< 5	50	< 1	< 20	< 10	< 30	8	2	< 5
150163	77.43	12.78	0.96	0.159	0.05	0.40	4.47	2.09	0.026	< 0.01	0.59	98.97	< 1	162	< 5	30	< 1	< 20	< 10	40	34	3	< 5
150164	77.85	13.78	0.87	0.066	0.06	0.49	4.50	1.84	0.036	0.01	0.79	100.3	< 1	251	< 5	30	< 1	< 20	< 10	40	39	3	< 5

Analyte Symbol	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
150165	73.08	14.92	1.61	0.084	0.66	1.16	4.28	1.99	0.089	0.03	1.54	99.43	3	234	18	80	4	< 20	< 10	60	43	3	11
150166	79.65	11.73	0.90	0.044	0.03	0.44	4.33	1.89	0.016	0.02	0.47	99.52	< 1	386	< 5	40	< 1	< 20	< 10	< 30	27	3	< 5
150167	72.66	16.31	1.01	0.025	0.17	2.35	5.76	1.70	0.109	0.02	0.40	100.5	< 1	7	9	20	< 1	< 20	< 10	60	27	< 1	< 5
150168	70.98	17.36	0.99	0.014	0.17	2.49	5.97	1.56	0.125	0.01	0.38	100.1	< 1	4	6	< 20	< 1	< 20	< 10	70	27	< 1	< 5
150169	82.86	9.97	1.52	0.063	0.21	0.62	2.93	1.41	0.068	0.14	0.73	100.5	< 1	16	10	50	1	< 20	< 10	220	35	2	< 5
150170	96.71	0.49	1.08	0.011	0.01	0.03	0.02	0.05	0.030	< 0.01	0.21	98.64	< 1	< 1	5	< 20	< 1	< 20	< 10	< 30	< 1	< 1	< 5
150171	78.14	15.70	1.13	0.074	0.09	0.52	2.96	0.64	0.034	< 0.01	0.62	99.91	< 1	195	< 5	30	< 1	< 20	< 10	40	48	3	< 5
150172	77.72	16.61	1.29	0.094	0.10	0.37	1.87	0.58	0.031	< 0.01	0.61	99.28	< 1	18	< 5	70	< 1	< 20	< 10	40	57	3	< 5
150173	83.65	11.69	0.89	0.109	0.03	0.22	1.62	0.80	0.013	< 0.01	0.40	99.42	< 1	113	< 5	40	< 1	< 20	< 10	< 30	38	3	< 5
150174	77.54	15.86	0.82	0.085	0.05	0.34	3.00	1.86	0.017	< 0.01	0.54	100.1	< 1	156	< 5	40	< 1	< 20	< 10	40	47	3	< 5
150175	77.96	14.09	0.81	0.137	0.09	0.68	4.03	1.47	0.040	0.02	0.52	99.84	< 1	162	< 5	20	< 1	< 20	10	50	33	2	< 5
150176	79.71	12.20	0.73	0.073	0.03	0.37	3.48	1.54	0.021	< 0.01	0.53	98.71	< 1	216	< 5	40	< 1	< 20	< 10	30	35	3	< 5
150177	74.86	15.16	0.67	0.088	0.07	0.44	5.11	1.81	0.015	0.01	0.72	98.95	< 1	323	< 5	< 20	< 1	< 20	< 10	< 30	38	3	< 5
150178	74.83	15.12	0.74	0.119	0.04	0.49	5.79	1.95	0.012	< 0.01	0.67	99.75	< 1	304	< 5	30	< 1	< 20	< 10	< 30	38	3	< 5
150179	76.61	15.40	0.69	0.093	0.03	0.59	5.58	1.17	0.012	< 0.01	0.59	100.8	< 1	297	< 5	20	< 1	< 20	< 10	< 30	37	3	< 5
150180	74.57	13.61	0.70	0.620	0.05	0.78	0.60	6.34	0.052	< 0.01	2.26	99.58	12	5	< 5	110	< 1	< 20	170	550	27	6	46
150181	80.81	11.81	0.95	0.084	0.04	0.32	2.64	1.46	0.016	< 0.01	0.57	98.69	< 1	250	< 5	40	< 1	< 20	< 10	< 30	39	3	< 5
150182	80.58	13.13	0.79	0.078	0.06	0.31	2.15	2.00	0.010	0.03	0.46	99.61	< 1	217	< 5	30	< 1	< 20	< 10	< 30	40	3	< 5
150183	79.81	15.08	1.31	0.089	0.06	0.41	2.43	0.25	0.013	0.03	0.28	99.78	< 1	62	< 5	50	< 1	< 20	< 10	< 30	51	3	< 5
150184	76.42	15.77	1.13	0.075	0.09	0.56	3.45	0.75	0.037	0.02	0.57	98.89	< 1	61	7	30	< 1	< 20	< 10	60	49	3	< 5
150185	79.28	12.41	1.28	0.076	0.21	0.64	4.03	1.54	0.070	0.09	0.80	100.4	< 1	19	8	30	1	< 20	< 10	170	42	3	< 5
150186	72.17	16.24	1.41	0.102	0.21	1.12	6.18	1.62	0.064	0.43	0.84	100.4	< 1	16	10	20	1	< 20	< 10	180	51	3	< 5
150187	71.56	16.96	0.69	0.257	0.05	0.87	8.66	0.51	0.016	0.37	0.24	100.2	< 1	9	< 5	< 20	< 1	< 20	< 10	40	40	3	< 5
150188	72.82	15.69	1.14	0.187	0.19	0.95	6.06	1.64	0.093	0.16	0.81	99.74	< 1	35	10	< 20	1	< 20	< 10	490	42	3	< 5
150189	71.09	16.95	0.90	0.214	0.12	0.62	6.57	1.91	0.033	0.05	0.95	99.41	< 1	335	6	20	< 1	< 20	< 10	50	48	3	< 5
150190	96.39	0.55	2.43	0.021	0.01	0.04	0.04	0.05	0.037	< 0.01	-0.15	99.41	< 1	< 1	< 5	20	2	< 20	< 10	< 30	1	< 1	< 5
150191	71.71	16.49	1.11	0.016	0.18	2.34	5.63	1.41	0.117	0.02	0.35	99.37	< 1	5	9	< 20	< 1	< 20	< 10	70	27	< 1	< 5
150192	71.75	16.80	0.70	0.394	0.04	0.75	8.51	0.53	0.010	0.13	0.24	99.85	< 1	87	< 5	< 20	< 1	< 20	< 10	< 30	38	4	< 5
150193	72.14	16.98	0.97	0.070	0.18	0.78	4.88	2.14	0.075	0.07	1.51	99.79	< 1	47	9	20	< 1	< 20	< 10	100	57	3	< 5
150194	79.98	12.19	1.02	0.052	0.10	0.45	3.14	1.82	0.054	< 0.01	1.19	100.0	< 1	47	7	50	< 1	< 20	< 10	50	45	2	< 5
150195	71.92	17.19	1.15	0.070	0.17	0.70	4.95	2.36	0.082	< 0.01	1.48	100.1	< 1	232	8	< 20	1	< 20	< 10	210	53	3	< 5
150196	72.52	15.72	1.44	0.111	0.35	1.22	4.62	2.33	0.106	0.42	1.48	100.3	< 1	20	18	30	2	< 20	< 10	190	54	3	< 5
150197	71.51	16.76	1.09	0.115	0.15	1.14	6.89	1.08	0.042	0.41	0.76	99.94	< 1	45	7	< 20	< 1	< 20	< 10	80	47	3	< 5
150198	72.65	16.96	0.77	0.392	0.06	0.64	8.17	0.50	0.020	0.13	0.24	100.5	< 1	10	< 5	< 20	< 1	< 20	< 10	30	37	3	< 5
150199	69.13	17.96	1.36	0.027	0.30	2.49	6.08	2.16	0.161	0.07	0.41	100.1	1	20	11	< 20	1	< 20	20	100	35	1	< 5
150200	74.52	13.90	0.71	0.606	0.02	0.77	0.58	6.33	0.054	0.01	2.14	99.65	12	5	< 5	110	< 1	< 20	160	530	27	6	49
150201	70.52	17.22	1.06	0.017	0.20	2.72	6.36	1.20	0.150	0.03	0.34	99.81	< 1	3	12	30	< 1	< 20	< 10	70	25	< 1	< 5
150202	68.61	18.89	0.52	0.107	0.05	0.99	8.13	1.25	0.022	0.01	1.05	99.63	< 1	169	< 5	< 20	< 1	< 20	< 10	< 30	42	3	< 5
150203	68.81	18.14	0.52	0.281	0.08	0.91	8.67	0.79	0.022	0.06	0.78	99.05	< 1	251	< 5	< 20	< 1	< 20	< 10	60	41	4	< 5
150204	69.55	17.39	1.33	0.016	0.21	2.80	6.11	1.17	0.149	0.04	0.59	99.35	1	2	9	< 20	< 1	< 20	< 10	70	24	< 1	< 5
150205	69.91	17.19	1.22	0.017	0.25	2.55	6.20	1.16	0.128	0.01	0.86	99.48	< 1	2	10	< 20	< 1	< 20	< 10	60	23	< 1	< 5

Analyte Symbol	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
150206	70.39	18.17	1.00	0.055	0.13	0.87	6.36	1.73	0.072	0.01	1.35	100.1	< 1	24	7	30	< 1	< 20	< 10	40	48	2	< 5
150207	67.03	19.16	0.94	0.082	0.13	0.95	7.16	1.69	0.062	0.01	1.49	98.70	< 1	21	7	< 20	< 1	< 20	< 10	40	51	3	< 5
150208	66.66	18.74	1.69	0.081	0.32	0.98	5.28	2.72	0.119	0.11	1.89	98.58	< 1	21	13	< 20	1	< 20	< 10	160	60	2	< 5
150209	73.70	16.05	0.94	0.067	0.14	0.87	6.85	1.03	0.040	0.14	0.59	100.4	< 1	17	8	< 20	< 1	< 20	< 10	70	38	3	< 5
150210	96.41	0.58	1.23	0.014	0.17	0.25	0.03	0.06	0.045	0.02	0.59	99.40	< 1	< 1	< 5	40	< 1	< 20	< 10	< 30	1	< 1	< 5
150211	70.22	17.05	1.23	0.014	0.24	2.63	5.99	1.35	0.140	0.03	0.50	99.39	< 1	6	10	< 20	< 1	< 20	< 10	60	22	< 1	< 5
150212	71.09	17.27	1.02	0.015	0.25	2.61	5.93	1.43	0.145	0.02	0.54	100.3	< 1	3	11	< 20	< 1	< 20	< 10	60	22	< 1	< 5
150213	69.03	18.25	0.52	0.039	0.06	0.89	7.27	2.40	0.021	0.04	1.01	99.52	< 1	18	< 5	< 20	< 1	< 20	< 10	< 30	33	2	< 5
150214	71.99	17.35	0.69	0.082	0.09	0.98	7.38	0.93	0.037	0.06	0.90	100.5	< 1	27	< 5	< 20	< 1	< 20	< 10	< 30	32	3	< 5
150215	68.01	20.32	0.88	0.078	0.14	0.82	5.84	1.35	0.045	0.08	1.05	98.61	< 1	47	7	< 20	< 1	< 20	< 10	60	43	3	< 5
150216	71.60	16.52	1.04	0.072	0.19	0.99	6.64	1.44	0.060	0.28	0.82	99.64	< 1	21	11	< 20	< 1	< 20	< 10	90	40	2	< 5
150217	72.90	15.73	0.81	0.078	0.10	0.89	7.32	0.72	0.028	0.28	0.60	99.45	< 1	20	5	< 20	< 1	< 20	< 10	40	34	3	< 5
150218	70.43	17.06	0.92	0.037	0.17	1.80	6.83	0.92	0.128	0.02	0.55	98.87	< 1	19	7	< 20	< 1	< 20	< 10	70	24	< 1	< 5
150219	71.95	17.11	0.77	0.068	0.14	1.28	7.30	0.94	0.052	0.13	0.60	100.3	< 1	52	7	< 20	< 1	< 20	< 10	60	32	2	< 5
150220	75.08	13.06	0.68	0.597	0.05	0.76	0.59	6.17	0.050	0.01	2.22	99.26	12	5	< 5	110	< 1	< 20	170	510	27	6	38
150221	70.80	16.78	1.08	0.023	0.18	2.32	6.47	0.92	0.135	0.02	0.38	99.08	< 1	11	11	< 20	< 1	< 20	< 10	60	22	< 1	< 5
150222	67.85	18.97	0.69	0.100	0.08	0.62	6.33	4.54	0.030	0.09	0.55	99.85	< 1	24	< 5	< 20	< 1	< 20	< 10	< 30	33	3	< 5
150223	70.91	17.36	0.89	0.017	0.17	2.60	6.16	1.11	0.131	0.03	0.35	99.73	< 1	9	10	< 20	< 1	< 20	< 10	50	22	< 1	< 5
150224	73.34	15.78	1.03	0.054	0.17	1.23	4.87	1.42	0.070	0.07	0.75	98.78	< 1	51	7	20	< 1	< 20	< 10	60	30	2	< 5
150225	70.15	17.42	1.00	0.019	0.18	2.42	6.25	1.03	0.136	0.03	0.47	99.11	< 1	6	9	< 20	< 1	< 20	< 10	60	23	< 1	< 5
150226	68.68	18.02	1.10	0.463	0.11	0.94	8.31	0.90	0.041	0.27	0.47	99.30	< 1	13	6	< 20	< 1	< 20	< 10	70	37	3	< 5
150227	70.88	16.80	1.02	0.466	0.07	0.62	8.19	0.64	0.024	0.15	0.26	99.12	< 1	10	< 5	< 20	< 1	< 20	< 10	50	34	3	< 5
150228	70.43	17.24	0.78	0.670	0.02	0.50	8.67	0.45	0.013	0.13	0.17	99.07	< 1	8	< 5	< 20	< 1	< 20	< 10	< 30	33	3	< 5
150229	88.57	5.97	0.66	0.016	0.07	0.32	1.98	0.65	0.035	< 0.01	0.48	98.74	< 1	11	< 5	80	< 1	< 20	< 10	< 30	15	2	< 5
150230	97.22	0.49	1.34	0.016	0.13	0.25	0.04	0.05	0.024	< 0.01	0.41	99.97	< 1	< 1	< 5	30	< 1	< 20	< 10	< 30	1	< 1	< 5
150231	98.96	0.15	0.53	0.009	0.04	0.08	0.03	0.03	0.002	< 0.01	0.09	99.91	< 1	< 1	< 5	70	< 1	< 20	< 10	< 30	< 1	1	< 5
150232	66.76	20.24	0.82	0.143	0.11	1.10	7.90	1.63	0.067	0.01	1.20	99.99	< 1	23	7	< 20	< 1	< 20	< 10	40	44	2	< 5
150233	71.83	16.49	1.08	0.015	0.18	2.34	5.88	1.90	0.109	0.04	0.41	100.3	< 1	2	8	30	< 1	< 20	< 10	70	29	< 1	< 5
150234	77.67	12.65	0.66	0.026	0.10	0.79	5.44	0.82	0.056	0.01	0.69	98.91	< 1	13	5	30	< 1	< 20	< 10	< 30	25	2	< 5
150235	73.14	15.51	0.97	0.029	0.15	2.14	6.13	1.20	0.101	0.02	0.42	99.81	< 1	7	9	< 20	< 1	< 20	< 10	70	21	< 1	< 5
150236	72.24	15.56	1.09	0.026	0.19	2.15	6.00	1.47	0.111	0.03	0.54	99.41	< 1	9	9	30	< 1	< 20	< 10	60	23	< 1	< 5
150237	74.84	13.87	1.12	0.097	0.16	1.01	5.16	1.40	0.055	0.28	1.02	99.01	< 1	15	8	40	1	< 20	< 10	120	46	3	< 5
150238	81.30	10.22	1.95	0.099	0.39	0.46	1.49	2.54	0.123	0.17	1.26	99.98	1	11	18	50	2	< 20	< 10	210	51	3	< 5
150239	86.96	7.38	1.14	0.045	0.18	0.48	2.02	1.23	0.057	0.12	0.77	100.4	< 1	15	8	60	1	< 20	< 10	100	29	3	< 5
150240	74.92	13.57	0.70	0.590	0.02	0.77	0.58	6.31	0.053	0.01	2.04	99.58	12	5	< 5	120	< 1	< 20	170	590	29	7	55
150241	85.65	8.98	0.76	0.061	0.11	0.44	3.03	1.07	0.041	< 0.01	0.82	101.0	< 1	11	6	50	< 1	< 20	< 10	60	30	3	< 5
150242	77.26	13.13	0.94	0.536	0.09	0.68	4.94	1.14	0.042	0.02	1.05	99.82	< 1	15	< 5	40	< 1	< 20	< 10	60	40	4	< 5
150243	77.71	12.74	0.94	0.117	0.11	0.63	4.83	1.18	0.048	0.03	1.00	99.33	< 1	18	7	50	1	< 20	< 10	290	39	3	< 5
150244	77.93	12.40	0.92	0.113	0.15	0.58	3.88	1.72	0.061	0.03	1.17	98.95	< 1	91	6	30	< 1	< 20	< 10	110	42	3	< 5
150245	76.05	14.72	1.38	0.108	0.27	0.66	4.05	2.17	0.100	0.06	1.22	100.8	< 1	100	12	30	2	< 20	< 10	210	54	3	< 5
150246	66.74	19.29	1.65	0.229	0.33	0.67	4.61	3.47	0.133	0.04	1.92	99.10	1	19	15	20	2	< 20	< 10	190	82	3	< 5

Analyte Symbol	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
150247	67.32	19.62	1.42	0.200	0.28	0.72	5.32	3.04	0.110	0.03	1.64	99.69	< 1	20	11	< 20	1	< 20	< 10	170	76	3	< 5
150248	56.23	25.58	2.11	0.342	0.46	0.75	4.74	5.39	0.194	0.09	2.74	98.63	2	22	25	< 20	2	< 20	< 10	310	122	3	< 5
150249	55.93	26.12	2.04	0.239	0.46	0.66	4.85	5.51	0.181	0.06	2.71	98.78	2	22	24	< 20	2	< 20	< 10	230	121	3	< 5
150250	98.46	0.44	0.66	0.009	0.01	0.04	0.02	0.04	0.024	< 0.01	0.30	100.0	< 1	< 1	9	< 20	< 1	< 20	< 10	< 30	< 1	< 1	< 5
150251	58.04	25.16	1.96	0.539	0.38	0.88	5.74	4.48	0.178	0.05	2.47	99.88	1	27	17	< 20	2	< 20	< 10	200	108	4	< 5
150252	61.12	23.16	2.13	0.126	0.47	0.77	4.06	5.01	0.198	0.07	2.47	99.60	1	45	23	20	2	< 20	< 10	320	109	3	< 5
150253	61.27	22.91	1.32	0.135	0.26	1.25	7.10	3.12	0.106	0.19	2.01	99.67	< 1	21	14	< 20	1	< 20	< 10	250	84	3	< 5
150254	65.99	20.00	0.82	0.193	0.09	0.98	9.21	1.09	0.032	0.07	0.63	99.10	< 1	17	< 5	< 20	< 1	< 20	10	50	54	3	< 5
150255	72.07	15.55	0.78	0.121	0.11	1.60	7.07	0.83	0.053	0.47	0.46	99.12	< 1	18	5	< 20	< 1	< 20	< 10	80	39	2	< 5
150256	72.01	16.24	0.87	0.348	0.05	0.87	8.11	0.47	0.018	0.31	0.21	99.51	< 1	19	< 5	< 20	< 1	< 20	< 10	30	40	3	< 5
150257	73.32	15.53	0.69	0.216	0.06	0.74	8.03	0.67	0.022	0.25	0.26	99.78	< 1	13	< 5	< 20	< 1	< 20	< 10	190	41	3	< 5
150258	68.59	17.15	2.56	0.036	0.81	3.16	5.24	1.30	0.337	0.17	0.59	99.95	2	10	37	< 20	4	< 20	10	150	30	< 1	< 5

Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	Hf	Ta	W	Tl	Pb	Th	U	Li	Li2O	Spec Grav
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	-
Lower Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.2	0.1	1	0.1	5	0.1	0.1	0.01	0.01	0.01
Method Code	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-Na2O2	FUS-Na2O2	GRAV
150001	45	970	< 2	122	4	< 2	2.1	< 0.2	1	< 0.5	4.7	928	< 0.4	4.3	0.3	< 1	0.4	10	1.8	1.1	0.04	0.08	
150002	108	915	< 2	116	5	< 2	1.6	< 0.2	< 1	< 0.5	14.2	932	< 0.4	3.8	1.0	< 1	0.6	11	1.7	1.0	0.04	0.08	
150003	1210	288	< 2	47	59	< 2	1.4	< 0.2	50	< 0.5	142	188	< 0.4	2.9	19.9	< 1	6.2	6	6.8	1.2	0.12	0.25	
150004	632	236	< 2	8	17	< 2	1.0	< 0.2	16	< 0.5	76.9	161	< 0.4	0.4	9.7	< 1	4.4	< 5	0.4	0.4	0.17	0.36	
150005	789	162	< 2	13	42	< 2	0.9	< 0.2	30	< 0.5	137	64	2.2	1.5	31.3	< 1	4.6	13	4.1	6.4	0.77	1.66	
150006	300	126	< 2	< 4	88	< 2	0.7	< 0.2	15	< 0.5	133	11	1.1	0.9	265	< 1	2.0	7	1.3	4.5	0.67	1.45	
150007	1150	93	< 2	5	52	< 2	0.6	< 0.2	29	< 0.5	139	69	0.9	1.4	129	< 1	8.7	10	2.1	2.4	1.09	2.34	
150008	748	57	< 2	18	116	< 2	0.5	< 0.2	20	< 0.5	260	11	16.9	6.9	653	< 1	6.4	20	7.3	9.0	0.61	1.32	
150009	1100	92	< 2	7	55	< 2	< 0.5	< 0.2	12	< 0.5	171	17	< 0.4	2.8	198	< 1	9.2	16	6.1	6.6	0.23	0.50	
150010	168	166	< 2	14	2	< 2	< 0.5	< 0.2	< 1	< 0.5	0.9	127	< 0.4	0.6	0.4	< 1	1.5	26	4.2	0.6	< 0.01	< 0.01	2.64
150011	6240	110	< 2	7	2	< 2	< 0.5	< 0.2	< 1	< 0.5	858	30	< 0.4	2.5	10.1	< 1	59.3	24	1.3	0.9	0.01	0.02	2.64
150012	4540	80	< 2	< 4	< 1	< 2	< 0.5	< 0.2	< 1	< 0.5	993	95	< 0.4	< 0.2	0.8	< 1	50.0	11	< 0.1	< 0.1	0.01	0.02	
150013	248	6	< 2	< 4	< 1	< 2	< 0.5	< 0.2	< 1	< 0.5	45.6	3	< 0.4	< 0.2	0.7	< 1	4.3	< 5	0.2	0.1	0.01	0.03	
150014	13	< 2	< 2	7	< 1	3	< 0.5	< 0.2	< 1	< 0.5	4.4	< 3	1.3	< 0.2	< 0.1	< 1	0.8	< 5	< 0.1	< 0.1	0.01	0.02	
150015	30	8	< 2	< 4	< 1	< 2	< 0.5	< 0.2	2	< 0.5	8.2	3	< 0.4	0.3	4.1	< 1	0.4	< 5	< 0.1	0.3	0.10	0.22	
150016	1020	62	< 2	< 4	41	< 2	< 0.5	< 0.2	14	< 0.5	158	18	< 0.4	1.2	157	< 1	7.7	12	4.7	4.1	0.60	1.28	
150017	902	76	< 2	< 4	63	< 2	< 0.5	< 0.2	21	< 0.5	234	19	< 0.4	2.0	228	< 1	6.8	13	3.7	4.0	0.86	1.84	
150018	871	76	< 2	9	106	2	< 0.5	< 0.2	30	< 0.5	195	20	< 0.4	4.4	316	1	6.3	16	7.0	7.8	0.95	2.05	
150019	320	94	< 2	6	61	< 2	< 0.5	< 0.2	26	< 0.5	60.5	14	< 0.4	3.0	192	< 1	2.4	10	1.6	2.5	1.08	2.32	
150020	2210	25	13	76	68	5	2.0	0.2	13	16.0	69.7	89	34.1	6.5	11.1	114	13.8	429	26.3	47.2	0.29	0.61	2.68
150021	412	77	< 2	5	64	2	< 0.5	< 0.2	31	< 0.5	150	40	0.7	2.2	201	< 1	3.6	7	1.4	2.4	1.26	2.72	2.84
150022	432	106	< 2	< 4	35	< 2	< 0.5	< 0.2	25	< 0.5	198	34	0.6	1.2	68.2	< 1	3.1	6	2.0	2.8	0.93	2.01	
150023	361	133	< 2	8	37	< 2	< 0.5	< 0.2	15	< 0.5	94.6	22	1.3	1.4	30.6	< 1	2.2	6	3.1	3.7	0.74	1.59	
150024	270	111	< 2	5	30	< 2	< 0.5	< 0.2	18	< 0.5	82.1	27	1.0	1.3	27.4	1	1.6	6	4.2	3.0	1.47	3.16	
150025	353	124	< 2	19	55	< 2	< 0.5	< 0.2	16	< 0.5	74.5	72	2.4	4.0	57.9	< 1	2.1	18	16.0	10.5	0.98	2.11	
150026	1110	255	< 2	11	49	< 2	< 0.5	< 0.2	37	< 0.5	160	88	2.1	1.8	27.2	< 1	6.6	11	2.9	3.0	0.47	1.02	
150027	1520	268	< 2	37	73	< 2	< 0.5	< 0.2	55	< 0.5	220	119	< 0.4	2.9	42.1	< 1	9.2	6	2.0	2.1	0.09	0.18	
150028	1550	207	< 2	82	71	< 2	< 0.5	< 0.2	53	< 0.5	222	114	< 0.4	11.0	64.6	< 1	9.4	14	8.2	8.2	0.08	0.16	
150029	318	95	< 2	36	62	< 2	< 0.5	< 0.2	12	< 0.5	80.5	21	< 0.4	5.2	50.5	< 1	2.4	10	3.3	9.2	0.05	0.10	
150030	192	161	< 2	13	1	< 2	< 0.5	< 0.2	< 1	< 0.5	1.0	131	< 0.4	0.5	0.2	< 1	1.2	29	1.2	0.4	< 0.01	< 0.01	2.63
150031	484	117	< 2	68	59	< 2	< 0.5	< 0.2	13	< 0.5	181	36	< 0.4	11.6	50.6	< 1	3.1	10	11.4	16.4	0.04	0.08	2.67
150032	667	1029	< 2	155	7	< 2	0.8	< 0.2	9	< 0.5	314	716	< 0.4	4.9	2.3	< 1	5.3	11	3.3	2.5	0.10	0.21	
150033	602	122	< 2	48	46	< 2	< 0.5	< 0.2	15	< 0.5	120	38	< 0.4	7.0	65.7	< 1	3.7	21	4.6	5.4	0.02	0.04	
150034	101	113	3	53	54	< 2	< 0.5	< 0.2	4	< 0.5	18.0	14	< 0.4	8.8	59.5	< 1	0.8	89	10.4	13.7	< 0.01	0.02	
150035	403	941	< 2	129	6	< 2	0.6	< 0.2	4	< 0.5	80.3	728	< 0.4	4.1	3.4	< 1	3.0	15	2.9	3.9	0.06	0.14	
150036	160	928	< 2	105	5	< 2	0.5	< 0.2	1	< 0.5	69.2	841	< 0.4	4.1	0.8	< 1	1.5	13	1.3	1.4	0.02	0.05	
150037	787	640	< 2	77	18	< 2	< 0.5	< 0.2	7	< 0.5	163	608	< 0.4	3.4	87.7	< 1	5.9	18	1.7	5.3	0.02	0.05	
150038	148	905	< 2	108	6	< 2	< 0.5	< 0.2	3	< 0.5	35.8	994	< 0.4	4.0	1.6	< 1	1.5	11	1.2	1.5	0.05	0.10	
150039	752	92	< 2	6	33	< 2	< 0.5	< 0.2	16	< 0.5	174	39	< 0.4	1.4	81.2	< 1	4.8	< 5	2.5	2.1	0.04	0.08	
150040	2140	25	13	76	71	6	2.0	0.3	13	16.9	68.1	88	55.5	6.8	11.6	109	13.9	446	25.6	47.4	0.28	0.61	2.67
150041	477	141	< 2	17	66	< 2	< 0.5	< 0.2	8	< 0.5	109	149	< 0.4	3.3	207	< 1	4.2	16	5.1	4.5	< 0.01	0.02	2.68

Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	Hf	Ta	W	Tl	Pb	Th	U	Li	Li2O	Spec Grav
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	-
Lower Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.2	0.1	1	0.1	5	0.1	0.1	0.01	0.01	0.01
Method Code	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-Na2O2	FUS-Na2O2	GRAV
150042	203	868	< 2	111	7	2	< 0.5	< 0.2	3	< 0.5	56.2	863	< 0.4	4.3	1.0	< 1	1.8	15	1.2	2.0	0.05	0.10	
150043	1910	136	< 2	46	101	< 2	< 0.5	< 0.2	76	< 0.5	252	185	< 0.4	4.2	43.1	< 1	10.2	8	2.0	1.9	0.13	0.27	
150044	1180	186	< 2	23	43	< 2	< 0.5	< 0.2	37	< 0.5	181	203	< 0.4	1.9	25.1	< 1	7.3	5	0.8	1.4	0.09	0.19	
150045	482	177	< 2	19	34	< 2	< 0.5	< 0.2	22	< 0.5	77.7	94	0.6	2.0	44.7	< 1	3.2	6	3.0	3.3	0.96	2.08	
150046	628	78	< 2	5	29	< 2	< 0.5	< 0.2	16	< 0.5	87.0	15	0.8	1.3	70.7	< 1	4.6	12	3.7	5.8	0.85	1.83	
150047	1210	48	< 2	5	32	< 2	< 0.5	< 0.2	13	< 0.5	190	21	< 0.4	2.2	112	< 1	8.6	19	5.6	7.7	0.08	0.17	
150048	673	20	< 2	< 4	5	2	< 0.5	< 0.2	3	< 0.5	132	20	< 0.4	0.5	23.3	< 1	5.7	11	2.0	3.1	0.03	0.06	
150049	1130	48	< 2	6	34	< 2	< 0.5	< 0.2	14	< 0.5	132	15	< 0.4	2.3	134	1	8.8	13	3.9	6.0	0.04	0.09	
150050	3	11	< 2	18	< 1	< 2	< 0.5	< 0.2	< 1	< 0.5	< 0.5	116	< 0.4	0.5	0.2	1	0.8	< 5	0.2	0.2	< 0.01	< 0.01	2.68
150051	950	47	< 2	6	29	< 2	< 0.5	< 0.2	12	< 0.5	163	18	< 0.4	2.9	126	1	7.6	12	5.5	7.1	0.20	0.44	2.71
150052	1000	38	< 2	5	24	< 2	< 0.5	< 0.2	21	< 0.5	148	14	< 0.4	1.8	66.9	4	4.9	11	3.5	3.8	0.44	0.95	
150053	451	146	< 2	12	92	< 2	< 0.5	< 0.2	18	< 0.5	129	17	5.4	1.7	81.1	1	3.6	12	5.7	7.2	0.73	1.58	
150054	642	133	< 2	11	27	< 2	< 0.5	< 0.2	25	< 0.5	120	40	< 0.4	1.2	18.7	2	4.7	9	3.4	5.5	0.52	1.11	
150055	641	120	< 2	16	34	< 2	< 0.5	< 0.2	30	< 0.5	105	52	< 0.4	1.1	21.9	< 1	4.5	< 5	0.7	0.6	0.06	0.13	
150056	788	93	< 2	6	40	< 2	< 0.5	< 0.2	46	< 0.5	105	103	< 0.4	0.7	22.6	2	4.9	< 5	0.4	0.9	0.09	0.20	
150057	742	245	< 2	11	38	< 2	< 0.5	< 0.2	29	< 0.5	110	241	< 0.4	1.6	44.3	< 1	5.4	8	2.1	3.6	0.41	0.88	
150058	964	526	2	92	61	< 2	0.6	< 0.2	52	< 0.5	249	472	< 0.4	4.5	34.9	< 1	6.9	8	2.0	2.5	0.15	0.32	
150059	924	184	2	17	59	2	< 0.5	< 0.2	28	< 0.5	123	260	< 0.4	3.1	54.7	2	6.9	9	2.1	7.7	0.20	0.43	
150060	2100	24	13	72	62	6	0.5	0.2	13	13.2	58.6	89	55.5	5.8	10.2	98	11.6	410	23.0	42.5	0.29	0.62	2.61
150061	1600	171	< 2	22	63	< 2	< 0.5	< 0.2	56	< 0.5	147	251	< 0.4	1.9	26.3	2	10.4	7	1.5	3.0	0.12	0.26	2.74
150062	818	130	< 2	8	37	< 2	< 0.5	< 0.2	32	< 0.5	123	78	< 0.4	0.6	20.0	6	6.3	< 5	0.3	5.0	0.06	0.13	
150063	1410	169	< 2	6	33	< 2	< 0.5	< 0.2	29	< 0.5	138	32	< 0.4	0.8	77.9	3	11.2	12	2.1	35.0	0.09	0.20	
150064	269	21	< 2	6	25	< 2	< 0.5	< 0.2	12	< 0.5	97.9	8	< 0.4	2.3	113	2	2.7	8	1.6	3.2	0.34	0.73	
150065	10	3	< 2	< 4	3	2	< 0.5	< 0.2	1	< 0.5	2.9	< 3	< 0.4	< 0.2	12.6	1	0.6	< 5	0.1	3.4	0.04	0.08	
150066	5	2	< 2	< 4	< 1	4	< 0.5	< 0.2	< 1	< 0.5	1.4	< 3	< 0.4	< 0.2	1.1	9	0.3	< 5	< 0.1	19.9	< 0.01	0.02	
150067	570	29	< 2	11	49	< 2	< 0.5	< 0.2	8	< 0.5	95.7	18	< 0.4	5.0	334	1	4.0	13	5.4	5.1	0.01	0.03	
150068	215	239	< 2	39	72	< 2	< 0.5	< 0.2	7	< 0.5	36.4	17	< 0.4	7.2	62.7	3	1.8	26	14.6	11.7	0.02	0.04	
150069	642	147	< 2	14	47	< 2	< 0.5	< 0.2	22	< 0.5	103	34	< 0.4	4.0	60.8	2	4.1	10	3.7	3.0	0.03	0.06	
150070	9	10	< 2	28	< 1	< 2	< 0.5	< 0.2	2	< 0.5	1.3	134	< 0.4	1.0	0.6	1	0.5	< 5	0.3	0.4	< 0.01	< 0.01	2.62
150071	1370	188	< 2	26	66	< 2	< 0.5	< 0.2	46	< 0.5	229	81	< 0.4	2.7	37.1	4	8.5	5	2.6	1.6	0.06	0.14	2.71
150072	1320	154	< 2	47	62	< 2	< 0.5	< 0.2	50	< 0.5	236	86	< 0.4	8.0	46.4	10	8.8	7	2.7	2.6	0.06	0.14	
150073	1330	115	3	45	77	< 2	< 0.5	< 0.2	57	< 0.5	185	99	< 0.4	4.7	30.3	1	8.5	< 5	1.8	3.2	0.10	0.21	
150074	655	102	3	32	70	< 2	< 0.5	< 0.2	24	< 0.5	136	39	5.3	6.7	71.3	2	5.2	17	3.1	7.8	0.03	0.07	
150075	698	1118	< 2	178	10	< 2	1.1	< 0.2	10	< 0.5	218	1519	< 0.4	5.9	2.2	1	5.8	6	4.7	2.3	0.09	0.20	
150076	1360	189	< 2	11	75	< 2	< 0.5	< 0.2	59	< 0.5	173	179	< 0.4	1.4	43.4	2	9.0	9	0.6	0.9	0.06	0.14	
150077	608	169	< 2	13	52	< 2	< 0.5	< 0.2	21	< 0.5	97.4	46	< 0.4	1.6	86.9	2	4.6	11	2.1	1.9	0.03	0.06	
150078	443	211	< 2	32	150	< 2	< 0.5	< 0.2	15	< 0.5	85.6	31	0.7	6.0	403	3	3.3	52	20.7	12.6	0.02	0.04	
150079	1010	228	< 2	29	81	< 2	< 0.5	< 0.2	39	< 0.5	150	73	< 0.4	3.1	135	2	6.9	10	4.8	3.0	0.04	0.08	
150080	2120	24	15	70	68	5	1.8	0.3	14	15.9	71.8	89	45.1	7.5	12.1	119	14.3	367	24.7	47.4	0.29	0.62	2.65
150081	655	243	< 2	14	63	< 2	< 0.5	< 0.2	21	< 0.5	118	34	< 0.4	3.9	137	2	5.1	13	3.7	3.6	0.02	0.04	2.68
150082	349	290	< 2	20	68	< 2	< 0.5	< 0.2	11	< 0.5	68.4	25	< 0.4	3.5	112	2	2.9	50	5.1	6.8	0.02	0.04	

Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	Hf	Ta	W	Tl	Pb	Th	U	Li	Li2O	Spec Grav
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	-
Lower Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.2	0.1	1	0.1	5	0.1	0.1	0.01	0.01	0.01
Method Code	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-Na2O2	FUS-Na2O2	GRAV
150083	434	263	< 2	34	103	< 2	< 0.5	< 0.2	14	< 0.5	54.7	26	< 0.4	6.6	183	2	3.3	21	15.1	9.8	0.02	0.04	
150084	361	299	< 2	17	63	< 2	< 0.5	< 0.2	12	< 0.5	72.5	36	< 0.4	2.5	72.2	2	2.6	17	5.8	4.0	0.02	0.04	
150085	1020	193	< 2	32	55	< 2	< 0.5	< 0.2	35	< 0.5	169	70	< 0.4	4.2	98.5	2	6.6	35	10.8	11.5	0.04	0.08	
150086	1390	248	< 2	34	58	< 2	< 0.5	< 0.2	45	< 0.5	257	75	< 0.4	6.2	108	3	8.5	17	7.0	9.6	0.04	0.09	
150087	976	367	< 2	45	56	< 2	< 0.5	< 0.2	41	< 0.5	136	297	< 0.4	3.0	35.6	1	6.7	10	2.6	6.0	0.06	0.12	
150088	1540	334	< 2	16	88	< 2	< 0.5	< 0.2	69	< 0.5	183	301	< 0.4	1.3	33.8	2	9.6	37	1.5	3.8	0.08	0.17	
150089	1690	353	< 2	62	92	< 2	< 0.5	< 0.2	77	< 0.5	218	262	< 0.4	3.3	38.3	2	11.7	8	1.9	1.8	0.09	0.19	
150090	2	7	< 2	22	< 1	< 2	< 0.5	< 0.2	< 1	< 0.5	< 0.5	142	< 0.4	0.6	0.1	1	1.0	< 5	0.4	0.2	< 0.01	< 0.01	2.66
150091	1210	225	< 2	72	77	< 2	< 0.5	< 0.2	45	< 0.5	199	125	< 0.4	8.3	58.8	1	7.2	47	4.0	3.7	0.04	0.08	2.71
150092	440	222	2	57	24	< 2	< 0.5	< 0.2	16	< 0.5	65.0	33	< 0.4	12.3	25.2	1	3.2	40	9.2	4.8	0.02	0.04	
150093	587	178	2	33	47	< 2	< 0.5	< 0.2	21	< 0.5	107	39	< 0.4	6.4	34.1	1	3.9	23	7.4	2.2	0.02	0.05	
150094	1280	208	2	90	50	< 2	0.5	< 0.2	36	< 0.5	278	55	< 0.4	18.1	51.2	2	7.9	47	28.2	13.1	0.04	0.08	
150095	261	119	3	45	73	< 2	< 0.5	< 0.2	10	< 0.5	41.4	19	< 0.4	6.9	57.2	1	2.3	8	4.2	7.5	< 0.01	0.02	
150096	80	111	5	52	43	< 2	< 0.5	< 0.2	4	< 0.5	14.6	9	< 0.4	6.6	33.8	< 1	< 0.1	10	5.0	8.1	< 0.01	0.01	
150097	375	123	< 2	48	36	< 2	< 0.5	< 0.2	13	< 0.5	61.5	30	< 0.4	5.7	20.4	< 1	1.3	33	5.4	12.7	0.04	0.08	
150098	106	149	2	29	46	< 2	< 0.5	< 0.2	3	< 0.5	15.4	103	< 0.4	3.7	32.9	< 1	2.8	12	3.5	11.5	0.02	0.05	
150099	722	1041	3	117	6	< 2	< 0.5	< 0.2	7	< 0.5	158	1342	< 0.4	3.3	0.9	< 1	5.1	21	2.9	4.0	0.08	0.18	
150100	2170	25	14	74	65	5	< 0.5	0.2	13	15.7	63.5	88	38.8	5.7	11.0	110	12.6	362	22.9	43.1	0.28	0.61	2.71
150101	1280	594	< 2	108	12	2	< 0.5	< 0.2	39	< 0.5	167	830	< 0.4	3.1	6.9	19	9.9	14	3.5	13.0	0.11	0.24	2.72
150102	1330	172	< 2	24	62	< 2	< 0.5	< 0.2	43	< 0.5	233	83	< 0.4	2.3	58.8	1	8.5	18	3.2	3.5	0.05	0.11	
150103	103	166	< 2	22	16	< 2	< 0.5	< 0.2	3	< 0.5	18.3	16	< 0.4	2.9	21.6	< 1	1.9	23	3.7	5.7	< 0.01	0.01	
150104	180	106	3	39	53	< 2	< 0.5	< 0.2	7	< 0.5	26.7	30	< 0.4	5.1	83.6	< 1	1.0	117	6.9	13.9	0.01	0.02	
150105	174	130	3	35	18	< 2	< 0.5	< 0.2	8	< 0.5	16.3	50	< 0.4	4.6	11.8	< 1	0.7	32	4.2	11.3	0.01	0.03	
150106	119	113	4	34	17	< 2	< 0.5	< 0.2	6	< 0.5	9.9	31	< 0.4	4.5	8.6	< 1	0.3	20	4.9	11.0	< 0.01	0.02	
150107	202	104	2	35	26	< 2	< 0.5	< 0.2	7	< 0.5	20.6	37	< 0.4	4.3	14.5	4	0.7	16	5.9	13.4	0.02	0.04	
150108	173	101	3	26	67	< 2	< 0.5	< 0.2	6	< 0.5	37.1	18	< 0.4	3.8	48.4	< 1	0.7	16	5.7	15.2	0.02	0.05	
150109	186	146	< 2	46	47	< 2	< 0.5	< 0.2	6	< 0.5	42.2	143	< 0.4	5.1	33.6	< 1	0.9	19	2.9	11.5	0.03	0.07	
150110	< 2	8	< 2	22	< 1	< 2	< 0.5	< 0.2	< 1	< 0.5	< 0.5	114	< 0.4	0.6	< 0.1	< 1	< 0.1	7	0.5	0.2	< 0.01	< 0.01	2.61
150111	696	1234	2	144	5	< 2	< 0.5	< 0.2	6	< 0.5	309	2122	< 0.4	3.4	2.0	< 1	4.5	15	3.7	2.3	0.11	0.23	2.72
150112	513	236	3	83	35	< 2	< 0.5	< 0.2	15	< 0.5	140	240	< 0.4	10.4	26.8	< 1	3.3	24	12.2	17.2	0.05	0.11	
150113	141	129	4	31	62	< 2	< 0.5	< 0.2	6	< 0.5	32.3	131	< 0.4	4.4	36.7	< 1	1.2	15	4.4	13.6	0.02	0.03	
150114	518	1263	3	137	4	< 2	< 0.5	< 0.2	4	< 0.5	179	1879	< 0.4	3.5	0.6	< 1	3.5	17	4.0	2.7	0.09	0.19	
150115	93	815	< 2	98	4	< 2	< 0.5	< 0.2	2	< 0.5	12.0	952	< 0.4	3.1	0.7	2	1.0	24	1.1	1.1	0.03	0.07	
150116	747	132	< 2	10	37	< 2	< 0.5	< 0.2	17	< 0.5	112	68	0.7	1.6	80.6	< 1	4.2	10	2.5	2.0	0.15	0.33	
150117	731	57	< 2	< 4	38	< 2	< 0.5	< 0.2	12	< 0.5	104	48	< 0.4	0.8	97.0	< 1	4.7	10	1.7	1.4	0.31	0.67	
150118	1180	76	< 2	6	78	< 2	< 0.5	< 0.2	17	< 0.5	185	119	< 0.4	1.6	382	3	9.0	13	2.2	3.1	0.13	0.27	
150119	1280	94	< 2	12	50	< 2	< 0.5	< 0.2	13	< 0.5	213	110	< 0.4	2.7	160	1	10.9	13	2.8	2.5	0.10	0.21	
150120	2140	25	15	75	64	7	< 0.5	0.2	12	15.9	62.6	90	38.2	5.8	11.6	109	14.4	363	23.4	44.0	0.28	0.60	2.70
150121	989	91	< 2	13	172	< 2	< 0.5	< 0.2	18	< 0.5	179	89	0.6	3.8	1010	3	9.5	15	6.0	6.7	0.16	0.34	2.71
150122	883	111	< 2	17	106	< 2	< 0.5	< 0.2	12	< 0.5	158	57	< 0.4	3.8	398	1	7.7	18	4.0	6.2	0.26	0.55	
150123	925	161	< 2	19	65	< 2	< 0.5	< 0.2	13	< 0.5	136	191	3.3	3.7	365	< 1	8.0	24	4.2	3.1	0.02	0.04	

Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	Hf	Ta	W	Tl	Pb	Th	U	Li	Li2O	Spec Grav
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	-
Lower Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.2	0.1	1	0.1	5	0.1	0.1	0.01	0.01	0.01
Method Code	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-Na2O2	FUS-Na2O2	GRAV
150124	140	815	< 2	104	5	< 2	< 0.5	< 0.2	1	< 0.5	16.3	1091	< 0.4	3.2	1.4	< 1	2.1	16	1.1	1.5	0.03	0.07	
150125	297	478	2	56	13	< 2	< 0.5	< 0.2	1	< 0.5	24.3	526	< 0.4	2.7	8.5	< 1	1.8	20	1.3	5.4	0.02	0.04	
150126	201	867	< 2	104	4	< 2	< 0.5	< 0.2	2	< 0.5	29.6	1007	< 0.4	3.0	0.4	< 1	1.4	15	1.0	1.2	0.05	0.12	
150127	737	154	< 2	18	41	< 2	< 0.5	< 0.2	27	< 0.5	74.4	135	0.7	1.5	22.1	< 1	3.8	9	1.2	1.5	0.26	0.55	
150128	198	103	< 2	< 4	19	< 2	< 0.5	< 0.2	15	< 0.5	43.0	27	1.4	0.9	28.4	< 1	1.5	6	4.3	2.7	1.44	3.10	
150129	346	104	< 2	11	33	< 2	< 0.5	< 0.2	16	< 0.5	70.3	15	1.2	2.1	37.2	< 1	1.9	11	4.1	5.4	1.02	2.19	
150130	3	7	< 2	21	1	< 2	< 0.5	< 0.2	< 1	< 0.5	< 0.5	109	< 0.4	0.5	0.3	1	0.2	8	0.4	0.4	< 0.01	< 0.01	2.67
150131	1350	46	< 2	< 4	19	2	< 0.5	< 0.2	28	< 0.5	139	22	2.4	0.6	48.4	1	8.1	10	0.4	0.6	0.26	0.55	2.73
150132	754	68	< 2	< 4	27	< 2	< 0.5	< 0.2	16	< 0.5	110	17	< 0.4	0.5	118	4	5.8	10	0.8	0.8	0.43	0.93	
150133	1450	52	< 2	5	74	72	< 0.5	< 0.2	22	< 0.5	163	11	< 0.4	1.7	386	< 1	10.0	13	1.6	2.5	0.04	0.09	
150134	958	51	< 2	< 4	29	< 2	< 0.5	< 0.2	10	< 0.5	150	13	< 0.4	1.4	140	< 1	8.4	16	2.2	5.7	0.19	0.40	
150135	1230	47	< 2	13	128	< 2	< 0.5	< 0.2	22	< 0.5	249	6	< 0.4	4.4	583	2	8.5	14	3.0	5.0	0.04	0.08	
150136	6	< 2	< 2	< 4	< 1	< 2	< 0.5	< 0.2	< 1	< 0.5	1.6	< 3	< 0.4	< 0.2	0.9	< 1	1.1	< 5	< 0.1	1.0	0.01	0.02	
150137	971	53	< 2	< 4	42	1720	< 0.5	< 0.2	18	< 0.5	192	11	18.3	1.1	150	1	5.9	16	1.7	3.1	0.15	0.31	
150138	860	57	< 2	9	43	5	< 0.5	< 0.2	8	< 0.5	118	18	< 0.4	2.7	174	1	6.8	18	3.8	4.5	0.02	0.05	
150139	859	47	< 2	10	42	3	< 0.5	< 0.2	12	< 0.5	124	12	< 0.4	3.4	151	< 1	6.3	12	3.4	3.0	0.12	0.25	
150140	2150	25	14	78	71	6	< 0.5	0.2	14	18.0	63.1	90	45.1	6.4	11.1	110	13.6	384	24.0	44.0	0.28	0.60	2.69
150141	1040	32	< 2	7	27	2	< 0.5	< 0.2	15	< 0.5	122	16	< 0.4	2.2	85.0	2	8.3	10	1.9	2.4	0.07	0.15	2.71
150142	916	52	< 2	5	34	< 2	< 0.5	< 0.2	12	< 0.5	113	25	< 0.4	1.5	97.7	1	7.6	10	0.9	1.6	0.03	0.06	
150143	860	130	< 2	14	200	< 2	< 0.5	< 0.2	20	< 0.5	84.6	25	0.6	1.4	168	1	5.0	13	5.1	6.9	0.05	0.12	
150144	949	129	< 2	11	40	2	< 0.5	< 0.2	29	< 0.5	101	36	3.2	1.2	41.7	2	5.7	19	6.2	10.4	0.14	0.31	
150145	1360	199	< 2	16	32	< 2	< 0.5	< 0.2	40	< 0.5	126	57	< 0.4	1.2	53.5	2	9.3	11	4.7	2.8	0.09	0.19	
150146	1170	202	< 2	33	52	2	< 0.5	< 0.2	41	< 0.5	145	96	< 0.4	1.6	36.0	2	8.0	6	2.0	1.8	0.10	0.21	
150147	225	92	< 2	26	42	< 2	< 0.5	< 0.2	9	< 0.5	33.2	19	< 0.4	3.3	42.1	< 1	2.7	6	2.4	4.5	0.01	0.03	
150148	468	76	< 2	29	63	< 2	< 0.5	< 0.2	15	< 0.5	82.6	28	< 0.4	5.5	73.2	< 1	2.8	11	2.9	11.2	0.07	0.15	
150149	616	93	3	42	50	< 2	< 0.5	< 0.2	21	< 0.5	121	41	< 0.4	5.2	34.8	< 1	3.5	12	3.4	9.8	0.05	0.11	
150150	16	10	< 2	23	2	< 2	< 0.5	< 0.2	1	< 0.5	1.9	134	0.6	0.6	1.2	< 1	0.6	5	0.5	0.2	< 0.01	< 0.01	2.67
150151	1420	222	< 2	18	56	< 2	< 0.5	< 0.2	55	< 0.5	143	154	< 0.4	1.0	21.0	< 1	6.9	< 5	0.5	0.9	0.11	0.23	2.73
150152	729	304	< 2	9	38	< 2	< 0.5	< 0.2	27	< 0.5	96.4	64	< 0.4	0.6	22.9	2	5.4	7	0.6	0.9	0.07	0.14	
150153	447	84	< 2	7	22	< 2	< 0.5	< 0.2	13	< 0.5	40.7	19	< 0.4	0.9	47.5	1	3.4	10	4.1	6.2	0.03	0.06	
150154	1000	184	< 2	18	34	< 2	< 0.5	< 0.2	30	< 0.5	123	65	< 0.4	1.3	31.9	< 1	6.0	7	1.0	1.9	0.06	0.13	
150155	1420	211	< 2	44	62	< 2	< 0.5	< 0.2	54	< 0.5	232	109	< 0.4	2.7	32.4	< 1	8.7	6	2.5	2.1	0.10	0.21	
150156	1620	131	< 2	58	80	< 2	< 0.5	< 0.2	58	< 0.5	435	110	< 0.4	4.6	45.8	< 1	11.0	< 5	2.2	4.7	0.14	0.31	
150157	379	100	< 2	50	66	< 2	< 0.5	< 0.2	12	< 0.5	70.7	22	< 0.4	8.2	69.6	1	3.8	7	3.4	8.6	0.02	0.04	
150158	165	826	< 2	95	6	< 2	< 0.5	< 0.2	2	< 0.5	28.3	900	< 0.4	3.1	1.2	< 1	1.8	13	1.1	1.8	0.06	0.12	
150159	13	2	< 2	< 4	< 1	< 2	< 0.5	< 0.2	< 1	< 0.5	2.8	4	< 0.4	< 0.2	0.5	< 1	0.4	< 5	< 0.1	< 0.1	< 0.01	0.01	
150160	2080	23	14	73	65	7	0.6	0.2	12	17.0	60.9	90	42.9	5.6	10.7	104	11.7	373	21.9	41.6	0.28	0.61	2.69
150161	629	194	< 2	15	38	< 2	< 0.5	< 0.2	17	< 0.5	138	107	< 0.4	3.8	251	2	6.1	38	2.4	19.1	0.03	0.06	2.68
150162	464	25	< 2	4	10	< 2	< 0.5	< 0.2	3	< 0.5	72.1	66	< 0.4	0.4	51.1	< 1	4.0	< 5	0.5	0.6	0.01	0.03	
150163	1040	91	< 2	13	40	< 2	< 0.5	< 0.2	12	< 0.5	170	89	< 0.4	2.3	94.9	< 1	8.3	9	4.5	6.7	0.03	0.06	
150164	886	119	< 2	9	74	< 2	< 0.5	< 0.2	17	< 0.5	142	42	9.9	2.0	211	2	7.5	17	4.2	3.7	0.06	0.12	

Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	Hf	Ta	W	Tl	Pb	Th	U	Li	Li2O	Spec Grav
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	-
Lower Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.2	0.1	1	0.1	5	0.1	0.1	0.01	0.01	0.01
Method Code	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-Na2O2	FUS-Na2O2	GRAV
150165	892	128	< 2	37	83	< 2	< 0.5	< 0.2	19	< 0.5	107	33	< 0.4	7.7	161	2	6.9	17	5.7	6.9	0.11	0.24	
150166	861	141	< 2	10	30	< 2	< 0.5	< 0.2	8	< 0.5	153	76	3.7	2.0	151	< 1	7.6	9	3.0	1.7	0.03	0.05	
150167	156	879	< 2	100	5	2	< 0.5	< 0.2	2	< 0.5	35.5	1021	< 0.4	3.2	2.2	2	2.6	11	1.1	1.3	0.04	0.09	
150168	147	934	< 2	114	4	< 2	< 0.5	< 0.2	2	< 0.5	24.9	973	< 0.4	3.1	0.5	< 1	1.4	10	1.2	1.2	0.05	0.11	
150169	832	158	< 2	25	46	2	< 0.5	< 0.2	36	< 0.5	89.0	101	< 0.4	1.7	22.0	< 1	4.4	< 5	1.3	1.1	0.14	0.30	
150170	2	7	< 2	37	< 1	< 2	< 0.5	< 0.2	< 1	< 0.5	< 0.5	114	< 0.4	0.9	0.2	< 1	0.8	< 5	1.3	0.2	< 0.01	< 0.01	2.72
150171	446	149	< 2	10	36	< 2	< 0.5	< 0.2	20	< 0.5	88.2	32	0.7	1.2	43.3	< 1	2.2	7	3.7	3.7	1.05	2.25	2.82
150172	413	77	< 2	9	77	< 2	< 0.5	< 0.2	26	< 0.5	55.5	17	< 0.4	0.9	87.7	< 1	2.3	< 5	0.9	1.5	1.50	3.24	
150173	394	43	< 2	< 4	50	< 2	< 0.5	< 0.2	23	< 0.5	68.7	10	0.6	0.7	241	< 1	2.9	< 5	0.4	1.2	1.00	2.15	
150174	891	67	< 2	< 4	100	< 2	< 0.5	< 0.2	20	< 0.5	127	18	0.5	1.3	399	< 1	6.6	10	1.4	2.6	1.05	2.26	
150175	735	220	< 2	36	51	< 2	< 0.5	< 0.2	14	< 0.5	139	148	0.6	3.3	286	< 1	6.1	16	2.5	5.7	0.47	1.00	
150176	824	74	< 2	7	77	< 2	< 0.5	< 0.2	14	< 0.5	135	24	1.0	2.5	373	< 1	6.4	10	3.2	4.1	0.35	0.76	
150177	865	62	2	19	123	< 2	< 0.5	< 0.2	14	< 0.5	150	16	< 0.4	6.9	586	2	7.1	15	6.6	8.6	0.27	0.59	
150178	885	64	< 2	14	89	< 2	< 0.5	< 0.2	11	< 0.5	146	19	< 0.4	4.7	440	< 1	7.7	14	4.9	6.2	0.18	0.38	
150179	588	84	< 2	18	78	< 2	< 0.5	< 0.2	10	< 0.5	108	12	< 0.4	5.2	365	2	5.0	16	5.1	8.3	0.32	0.69	
150180	2010	24	14	74	53	5	< 0.5	0.3	12	13.8	56.5	90	67.9	5.4	9.7	97	10.3	403	21.4	39.5	0.29	0.62	2.71
150181	660	63	< 2	11	67	< 2	< 0.5	< 0.2	18	< 0.5	92.4	14	< 0.4	3.3	237	2	6.5	9	5.2	5.3	0.49	1.07	2.73
150182	793	72	< 2	8	69	< 2	< 0.5	< 0.2	16	< 0.5	112	33	1.5	2.4	158	< 1	7.3	11	6.2	4.1	0.91	1.97	
150183	133	88	< 2	9	145	143	< 0.5	< 0.2	15	< 0.5	33.7	8	0.7	1.4	123	< 1	2.2	15	8.5	10.9	1.38	2.98	
150184	512	159	< 2	12	24	< 2	< 0.5	< 0.2	20	< 0.5	81.9	37	0.6	1.2	24.7	< 1	3.2	11	4.2	4.9	0.99	2.12	
150185	1120	175	< 2	27	55	< 2	< 0.5	< 0.2	39	< 0.5	184	80	< 0.4	2.0	36.5	< 1	6.7	7	1.7	2.4	0.16	0.34	
150186	1190	177	2	60	61	< 2	< 0.5	< 0.2	43	< 0.5	291	88	< 0.4	4.3	29.8	< 1	8.4	8	3.9	5.8	0.12	0.26	
150187	261	101	3	61	41	< 2	< 0.5	< 0.2	8	< 0.5	99.0	26	< 0.4	6.7	38.7	< 1	2.9	12	3.4	13.5	0.02	0.05	
150188	1090	259	< 2	64	50	< 2	< 0.5	< 0.2	30	< 0.5	223	263	< 0.4	3.8	42.7	< 1	6.8	21	2.9	3.6	0.10	0.21	
150189	869	151	< 2	27	60	< 2	< 0.5	< 0.2	19	< 0.5	116	86	< 0.4	3.1	124	< 1	6.4	7	3.6	5.2	0.19	0.41	
150190	3	7	2	35	< 1	< 2	1.9	< 0.2	< 1	< 0.5	< 0.5	105	< 0.4	0.8	0.1	< 1	0.2	< 5	0.8	0.2	< 0.01	< 0.01	2.71
150191	234	875	< 2	98	3	< 2	2.2	< 0.2	2	< 0.5	43.1	869	< 0.4	2.8	0.5	< 1	1.7	10	1.0	1.2	0.07	0.15	3.10
150192	145	129	3	32	47	< 2	1.7	< 0.2	3	< 0.5	39.5	42	< 0.4	4.3	67.3	< 1	1.2	8	3.6	5.8	0.06	0.12	
150193	1370	208	< 2	32	35	< 2	1.7	< 0.2	35	< 0.5	299	73	< 0.4	3.9	56.0	< 1	8.0	8	4.8	2.3	0.08	0.17	
150194	1010	97	< 2	6	52	< 2	1.4	< 0.2	25	< 0.5	191	38	< 0.4	1.6	206	1	6.7	14	4.2	7.0	0.05	0.12	
150195	1300	177	< 2	19	68	< 2	1.4	< 0.2	34	< 0.5	221	107	< 0.4	2.7	125	1	9.0	10	2.3	3.3	0.08	0.17	
150196	1540	236	3	48	75	< 2	< 0.5	< 0.2	60	< 0.5	252	137	< 0.4	2.8	46.1	2	10.2	8	1.3	2.3	0.14	0.30	
150197	643	196	< 2	68	56	< 2	1.5	< 0.2	27	< 0.5	138	61	< 0.4	5.3	29.0	< 1	5.1	24	3.9	6.5	0.19	0.41	
150198	210	132	2	42	19	< 2	1.2	< 0.2	8	< 0.5	79.1	33	< 0.4	4.2	14.1	< 1	2.1	8	1.8	8.6	0.04	0.09	
150199	310	942	< 2	115	20	< 2	1.5	< 0.2	2	< 0.5	119	1151	< 0.4	3.4	2.5	< 1	2.5	11	1.1	1.3	0.10	0.21	
150200	1960	25	14	77	64	6	2.1	0.2	12	16.5	56.6	92	41.8	6.0	10.5	113	11.8	352	22.3	42.6	0.29	0.63	2.72
150201	138	1098	< 2	132	4	< 2	1.5	< 0.2	2	< 0.5	41.2	834	< 0.4	3.3	0.5	1	3.0	8	1.6	1.5	0.05	0.10	2.70
150202	490	257	< 2	68	72	< 2	1.1	< 0.2	8	< 0.5	112	47	< 0.4	12.5	122	< 1	3.7	22	7.4	10.9	0.04	0.08	
150203	313	214	3	125	98	< 2	1.5	< 0.2	8	< 0.5	93.5	43	< 0.4	22.0	155	3	2.5	27	10.4	7.4	0.03	0.07	
150204	115	1111	< 2	131	4	< 2	1.2	< 0.2	1	< 0.5	36.0	844	< 0.4	3.3	0.3	2	1.2	7	1.3	1.9	0.05	0.11	
150205	102	1045	< 2	120	3	< 2	1.1	< 0.2	< 1	< 0.5	20.6	766	< 0.4	2.7	0.9	< 1	0.8	7	1.1	0.7	0.05	0.10	

Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	Hf	Ta	W	Tl	Pb	Th	U	Li	Li2O	Spec Grav
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	-
Lower Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.2	0.1	1	0.1	5	0.1	0.1	0.01	0.01	0.01
Method Code	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-Na2O2	FUS-Na2O2	GRAV
150206	1030	272	< 2	29	43	2	0.8	< 0.2	26	< 0.5	288	100	< 0.4	3.3	98.6	2	5.2	9	2.9	2.9	0.05	0.10	
150207	955	262	< 2	26	67	6	0.8	< 0.2	23	< 0.5	244	83	< 0.4	5.0	124	< 1	5.9	12	5.3	6.2	0.06	0.14	
150208	1660	246	< 2	77	55	< 2	0.8	< 0.2	53	< 0.5	345	134	< 0.4	3.7	59.0	2	9.9	7	1.2	1.9	0.12	0.27	
150209	485	240	2	26	37	< 2	0.7	< 0.2	20	< 0.5	75.3	74	< 0.4	1.8	20.8	< 1	4.0	< 5	2.0	3.5	0.08	0.16	
150210	4	8	< 2	47	1	3	< 0.5	< 0.2	< 1	< 0.5	0.7	106	< 0.4	1.1	0.2	1	1.9	6	0.4	0.2	< 0.01	< 0.01	2.67
150211	120	1058	< 2	118	3	< 2	0.9	< 0.2	2	< 0.5	30.4	864	< 0.4	2.3	0.4	< 1	1.0	8	1.1	0.7	0.08	0.17	2.77
150212	78	1004	2	120	3	< 2	0.8	< 0.2	1	< 0.5	13.7	870	< 0.4	2.5	0.3	< 1	0.7	7	1.1	1.0	0.06	0.14	
150213	746	288	< 2	12	47	< 2	< 0.5	< 0.2	8	< 0.5	108	181	< 0.4	1.7	117	< 1	5.0	9	3.6	5.6	0.02	0.05	
150214	423	244	< 2	51	33	< 2	0.5	< 0.2	12	< 0.5	66.9	40	< 0.4	3.3	40.9	2	2.9	11	10.1	19.5	0.08	0.17	
150215	671	195	< 2	56	45	< 2	0.6	< 0.2	24	< 0.5	155	70	< 0.4	4.7	43.4	< 1	4.1	10	4.6	7.6	0.73	1.57	
150216	751	200	< 2	59	37	< 2	0.6	< 0.2	31	< 0.5	158	82	< 0.4	3.0	15.0	< 1	4.4	< 5	2.2	4.2	0.09	0.20	
150217	343	166	< 2	31	39	< 2	< 0.5	< 0.2	14	< 0.5	106	36	< 0.4	2.3	26.1	< 1	2.5	< 5	3.6	6.6	0.05	0.11	
150218	409	659	< 2	119	9	< 2	0.8	< 0.2	14	< 0.5	170	324	< 0.4	2.5	7.2	< 1	3.1	6	1.3	0.9	0.08	0.18	
150219	355	336	< 2	51	32	< 2	0.5	< 0.2	15	< 0.5	45.7	97	< 0.4	2.4	23.3	2	2.3	9	2.2	2.3	0.07	0.16	
150220	2030	23	14	64	52	5	< 0.5	0.2	12	13.1	56.6	87	51.5	5.4	9.9	101	11.6	414	21.8	40.7	0.29	0.62	2.70
150221	249	870	< 2	121	5	< 2	1.0	< 0.2	7	< 0.5	52.3	665	< 0.4	2.5	2.4	1	3.9	6	1.4	0.6	0.07	0.15	2.71
150222	1300	245	2	48	26	< 2	0.6	< 0.2	10	< 0.5	102	367	1.6	2.7	26.2	< 1	10.4	15	2.2	2.7	0.08	0.17	
150223	194	972	2	124	5	< 2	0.8	< 0.2	3	< 0.5	41.6	752	< 0.4	2.6	2.3	< 1	2.9	6	1.0	0.6	0.07	0.15	
150224	510	379	< 2	46	17	< 2	0.5	< 0.2	17	< 0.5	60.1	190	< 0.4	1.3	10.7	< 1	3.2	5	0.7	1.0	0.36	0.77	
150225	276	985	< 2	122	4	< 2	0.8	< 0.2	5	< 0.5	53.2	713	< 0.4	2.7	1.2	< 1	2.6	6	0.9	0.5	0.05	0.12	
150226	349	170	< 2	82	45	< 2	0.6	< 0.2	16	< 0.5	35.8	48	< 0.4	6.0	33.5	< 1	2.3	15	1.9	4.4	0.09	0.20	
150227	202	134	3	75	28	< 2	0.6	< 0.2	11	< 0.5	28.1	44	< 0.4	7.0	15.6	< 1	1.3	16	2.2	9.7	0.07	0.15	
150228	76	119	< 2	80	30	< 2	0.6	< 0.2	4	< 0.5	12.0	47	< 0.4	9.1	24.4	< 1	0.6	32	2.5	10.1	0.07	0.16	
150229	311	82	< 2	4	8	3	< 0.5	< 0.2	8	< 0.5	102	68	< 0.4	0.3	21.0	< 1	1.7	< 5	0.1	0.2	0.02	0.04	
150230	2	8	3	20	< 1	3	< 0.5	< 0.2	< 1	0.5	< 0.5	125	< 0.4	0.5	< 0.1	2	2.5	< 5	0.4	0.2	< 0.01	< 0.01	2.68
150231	3	< 2	< 2	< 4	< 1	3	< 0.5	< 0.2	< 1	< 0.5	0.7	3	< 0.4	< 0.2	0.6	< 1	0.7	< 5	< 0.1	< 0.1	< 0.01	0.02	2.67
150232	678	324	< 2	30	36	< 2	< 0.5	< 0.2	18	< 0.5	171	187	< 0.4	4.0	66.7	< 1	3.7	6	4.4	3.2	0.04	0.09	
150233	147	805	< 2	101	3	< 2	< 0.5	< 0.2	1	< 0.5	20.2	921	< 0.4	3.0	0.3	< 1	1.0	11	1.0	1.6	0.03	0.07	
150234	372	207	< 2	60	20	3	< 0.5	< 0.2	11	< 0.5	66.5	82	2.3	2.7	107	4	2.0	< 5	1.6	2.0	0.03	0.06	
150235	317	733	< 2	97	4	< 2	0.5	< 0.2	2	< 0.5	58.9	701	0.7	2.3	1.5	< 1	2.4	8	1.0	1.2	0.04	0.08	
150236	263	756	< 2	94	4	< 2	0.5	< 0.2	4	< 0.5	56.2	769	< 0.4	2.2	1.1	< 1	2.2	9	0.8	2.2	0.05	0.10	
150237	971	191	< 2	48	57	< 2	< 0.5	< 0.2	33	< 0.5	131	100	3.3	3.8	183	2	4.4	12	3.7	8.7	0.06	0.12	
150238	1680	75	< 2	30	64	< 2	< 0.5	< 0.2	64	< 0.5	166	155	< 0.4	1.9	28.0	2	8.1	< 5	0.7	1.7	0.12	0.26	
150239	942	107	< 2	16	38	3	< 0.5	< 0.2	33	< 0.5	119	69	< 0.4	0.8	18.9	1	6.5	< 5	0.7	1.9	0.06	0.13	
150240	2190	24	15	78	60	6	0.8	0.2	13	18.0	65.4	92	59.7	5.7	10.8	111	14.2	395	23.6	43.0	0.28	0.60	2.71
150241	734	105	< 2	16	43	< 2	< 0.5	< 0.2	20	< 0.5	140	46	< 0.4	2.2	69.0	2	6.1	6	2.6	4.6	0.04	0.08	2.68
150242	665	136	5	56	122	5	< 0.5	< 0.2	17	< 0.5	128	48	< 0.4	12.4	502	2	5.0	32	11.2	22.9	0.04	0.08	
150243	848	153	< 2	24	64	2	< 0.5	< 0.2	22	< 0.5	145	50	< 0.4	3.1	149	1	5.5	19	4.1	6.7	0.04	0.09	
150244	1090	154	< 2	24	73	< 2	< 0.5	< 0.2	26	< 0.5	222	122	0.5	2.9	178	5	6.9	15	2.9	5.7	0.09	0.19	
150245	1640	191	< 2	28	59	< 2	< 0.5	< 0.2	48	< 0.5	231	105	< 0.4	1.8	56.9	1	9.8	9	1.4	1.6	0.09	0.18	
150246	2310	197	< 2	36	84	< 2	< 0.5	< 0.2	68	< 0.5	416	169	< 0.4	4.4	98.5	2	14.6	32	4.4	17.2	0.10	0.21	

Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	Hf	Ta	W	Tl	Pb	Th	U	Li	Li2O	Spec Grav
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	-
Lower Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.2	0.1	1	0.1	5	0.1	0.1	0.01	0.01	0.01
Method Code	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-Na2O2	FUS-Na2O2	GRAV
150247	1910	203	< 2	46	69	< 2	< 0.5	< 0.2	58	< 0.5	245	159	< 0.4	5.9	71.8	1	13.3	24	4.0	5.4	0.09	0.18	
150248	3580	180	< 2	76	117	< 2	< 0.5	< 0.2	96	< 0.5	705	249	< 0.4	7.9	134	3	23.8	17	4.1	3.5	0.14	0.29	
150249	3080	178	< 2	58	138	< 2	< 0.5	< 0.2	101	< 0.5	338	274	< 0.4	4.6	118	3	20.3	9	3.2	4.8	0.14	0.30	
150250	3	6	< 2	19	< 1	< 2	< 0.5	< 0.2	< 1	< 0.5	< 0.5	109	< 0.4	0.6	< 0.1	< 1	1.0	< 5	0.4	0.2	< 0.01	< 0.01	2.67
150251	2830	220	3	75	128	< 2	< 0.5	< 0.2	82	< 0.5	512	193	< 0.4	12.5	129	3	17.7	15	9.6	10.0	0.11	0.25	2.83
150252	3110	219	< 2	38	124	79	< 0.5	< 0.2	97	< 0.5	537	235	< 0.4	2.9	98.9	3	19.5	21	1.6	2.5	0.17	0.36	
150253	1730	232	< 2	59	85	< 2	< 0.5	< 0.2	56	< 0.5	185	150	< 0.4	4.1	71.2	1	12.1	8	4.7	4.3	0.08	0.17	
150254	531	264	< 2	74	52	< 2	< 0.5	< 0.2	17	< 0.5	53.5	173	< 0.4	5.0	50.5	< 1	4.8	11	2.9	6.5	0.04	0.09	
150255	415	328	3	84	49	< 2	< 0.5	< 0.2	14	< 0.5	56.4	249	< 0.4	5.2	28.1	< 1	3.3	9	2.7	5.7	0.05	0.12	
150256	180	146	3	45	34	< 2	< 0.5	< 0.2	9	< 0.5	24.4	26	< 0.4	4.1	20.1	< 1	1.7	12	2.1	7.3	0.05	0.11	
150257	224	128	< 2	32	34	< 2	< 0.5	< 0.2	16	< 0.5	32.2	61	< 0.4	3.2	13.8	< 1	1.6	12	2.0	5.4	0.05	0.10	
150258	768	1082	3	156	7	< 2	< 0.5	< 0.2	13	< 0.5	253	1025	< 0.4	3.6	1.3	< 1	5.4	10	3.6	1.2	0.10	0.21	

Analyte Symbol	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
NIST 694 Meas	11.28	1.91	0.75	0.013	0.34	42.77	0.85	0.55	0.119	30.23					1606								
NIST 694 Cert	11.2	1.80	0.790	0.0116	0.330	43.6	0.860	0.510	0.110	30.2					1740								
DNC-1 Meas	47.34	18.10	9.36	0.145	9.92	11.54	1.91	0.22	0.461	0.07			31		151	270	57	260	100	70	14		
DNC-1 Cert	47.15	18.34	9.97	0.150	10.13	11.49	1.890	0.234	0.480	0.070			31		148	270	57	247	100	70	15		
GBW 07113 Meas	71.71	12.97	3.22	0.144	0.14	0.60	2.51	5.45	0.287	0.04			5	4	5								
GBW 07113 Cert	72.8	13.0	3.21	0.140	0.160	0.590	2.57	5.43	0.300	0.0500			5.00	4.00	5.00								
LKSD-3 Meas																90	30	50	30				26
LKSD-3 Cert																87.0	30.0	47.0	35.0				27.0
TDB-1 Meas																250		100	330	160			
TDB-1 Cert																251		92	323	155			
W-2a Meas	52.88	15.85	10.77	0.166	6.28	11.12	2.22	0.62	1.090	0.13			35	< 1	269	100	44	80	110	80	18	2	< 5
W-2a Cert	52.4	15.4	10.7	0.163	6.37	10.9	2.14	0.626	1.06	0.130			36.0	1.30	262	92.0	43.0	70.0	110	80.0	17.0	1.00	1.20
SY-4 Meas	49.32	20.24	6.27	0.106	0.49	8.07	6.89	1.63	0.288	0.12			1	3	7								
SY-4 Cert	49.9	20.69	6.21	0.108	0.54	8.05	7.10	1.66	0.287	0.131			1.1	2.6	8.0								
CTA-AC-1 Meas																			60				
CTA-AC-1 Cert																			54.0				
BIR-1a Meas	47.43	15.91	11.33	0.173	9.63	13.52	1.85	0.02	0.992	0.02			44	< 1	329	390	54	190	130	80	16		
BIR-1a Cert	47.96	15.50	11.30	0.175	9.700	13.30	1.82	0.030	0.96	0.021			44	0.58	310	370	52	170	125	70	16		
NCS DC86312 Meas																							
NCS DC86312 Cert																							
NCS DC70009 (GBW07241) Meas																		< 20	960	100	17	11	65
NCS DC70009 (GBW07241) Cert																		2.8	960	100	16.5	11.2	69.9
OREAS 100a (Fusion) Meas																	17		170				
OREAS 100a (Fusion) Cert																	18.1		169				
OREAS 101a (Fusion) Meas																	48		420				
OREAS 101a (Fusion) Cert																	48.8		434				
OREAS 101b (Fusion) Meas																	46		430				
OREAS 101b (Fusion) Cert																	47		416				
JR-1 Meas																		< 20			17	2	15
JR-1 Cert																		1.67			16.1	1.88	16.3
NCS DC86303 Meas																							

Analyte Symbol	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
NCS DC86303 Cert																							
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Analyte Symbol	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
NCS DC86304 Meas																							
NCS DC86304 Cert																							
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Analyte Symbol	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
NCS DC86314 Cert																							
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Lithium Tetraborate FX-LT 100 lot#220610B																							

Analyte Symbol	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
Cert																							
Lithium Tetraborate FX-LT 100 lot#220610B Meas																							
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Lithium Tetraborate FX-LT 100 lot#220610B Cert																							

Analyte Symbol	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
Lithium Tetraborate FX-LT 100 lot#220610B Meas																							
Lithium Tetraborate FX-LT 100 lot#220610B Cert																							
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Lithium Tetraborate FX-LT 100 lot#220610B Cert																							

Analyte Symbol	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
Lithium Tetraborate FX-LT 100 lot#220610B Meas																							
Lithium Tetraborate FX-LT 100 lot#220610B Cert																							
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Lithium Tetraborate FX-LT 100 lot#220610B Cert																							
Lithium																							

Analyte Symbol	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
Tetraborate FX-LT 100 lot#220610B Meas																							
Lithium Tetraborate FX-LT 100 lot#220610B Cert																							
150007 Orig																							
150007 Dup																							
150015 Orig	97.29	1.54	0.53	0.015	0.02	0.06	0.37	0.06	0.002	< 0.01	0.17	100.1	< 1	2	< 5	60	< 1	50	< 10	< 30	5	2	< 5
150015 Dup	97.00	1.57	0.53	0.015	0.02	0.06	0.38	0.06	0.002	0.01	0.17	99.81	< 1	2	< 5	60	< 1	< 20	10	< 30	5	2	< 5
150029 Orig																							
150029 Dup																							
150032 Orig	69.63	17.60	1.50	0.029	0.43	2.87	5.73	1.14	0.221	0.08	0.76	99.98	1	20	20	20	2	< 20	10	100	33	1	< 5
150032 Dup	69.55	17.85	1.50	0.029	0.43	2.88	5.77	1.14	0.223	0.08	0.76	100.2	1	20	18	30	2	< 20	10	110	33	1	< 5
150037 Orig																							
150037 Dup																							
150051 Orig	83.05	9.74	0.73	0.172	0.03	0.28	2.33	2.02	0.014	< 0.01	0.49	98.87	< 1	138	< 5	60	< 1	< 20	< 10	< 30	32	3	< 5
150051 Split PREP DUP	83.20	9.56	0.83	0.154	0.03	0.27	2.22	1.95	0.013	< 0.01	0.43	98.65	< 1	162	< 5	60	< 1	< 20	< 10	< 30	31	2	< 5
150059 Orig																							
150059 Dup																							
150062 Orig	86.95	7.04	0.90	0.042	0.15	0.39	1.95	1.21	0.049	< 0.01	0.63	99.33	< 1	15	7	50	1	< 20	< 10	110	28	2	< 5
150062 Dup	87.10	7.21	0.92	0.043	0.15	0.39	1.95	1.21	0.050	< 0.01	0.63	99.66	< 1	15	7	50	1	< 20	< 10	120	29	2	< 5
150073 Orig																							
150073 Dup																							
150079 Orig	75.85	14.34	1.05	0.073	0.18	0.80	4.90	1.44	0.066	0.07	0.80	99.55	< 1	103	7	40	1	< 20	< 10	140	48	3	< 5
150079 Dup	75.25	14.47	1.07	0.075	0.18	0.81	4.94	1.45	0.067	0.07	0.80	99.18	< 1	104	8	40	1	< 20	< 10	140	49	3	< 5
150081 Orig																							
150081 Dup																							
150095 Orig																							
150095 Dup																							
150100 Orig																							
150100 Dup																							
150101 Orig	72.25	15.53	1.80	0.058	0.39	1.50	5.03	2.01	0.183	0.06	0.91	99.73	1	15	22	< 20	2	< 20	< 10	170	32	1	< 5
150101 Split PREP DUP	71.49	16.32	1.76	0.057	0.39	1.51	4.87	1.91	0.190	0.06	0.90	99.45	1	15	20	< 20	2	< 20	< 10	160	31	1	< 5
150101 Orig																							
150101 Dup																							
150109 Orig	73.31	16.30	0.83	0.330	0.03	0.62	7.88	0.55	0.012	0.08	0.25	100.2	< 1	15	< 5	< 20	< 1	< 20	< 10	30	37	3	< 5
150109 Dup	73.76	16.30	0.84	0.334	0.03	0.63	7.99	0.56	0.012	0.08	0.25	100.8	< 1	15	< 5	< 20	< 1	< 20	< 10	30	38	3	< 5
150117 Orig																							

Analyte Symbol	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
150117 Dup																							
150125 Orig																							
150125 Dup																							
150126 Orig	71.99	16.46	1.12	0.015	0.19	2.34	5.81	1.71	0.125	0.03	0.27	100.1	< 1	3	9	30	< 1	< 20	< 10	80	28	< 1	< 5
150126 Dup	70.97	16.36	1.09	0.015	0.19	2.33	5.68	1.68	0.123	0.02	0.27	98.73	< 1	3	9	30	< 1	< 20	< 10	80	28	< 1	< 5
150148 Orig																							
150148 Dup																							
150151 Orig																							
150151 Split PREP DUP	78.76	12.27	1.42	0.073	0.32	0.72	3.33	2.12	0.093	0.09	1.10	100.3	1	21	13	40	2	< 20	< 10	180	45	3	< 5
150156 Orig	71.83	15.68	1.36	0.101	0.27	0.82	4.99	2.21	0.079	0.31	1.12	98.78	< 1	125	11	< 20	1	< 20	< 10	190	57	3	< 5
150156 Dup	71.94	16.15	1.36	0.101	0.27	0.83	4.87	2.18	0.079	0.29	1.12	99.19	< 1	127	11	20	1	< 20	< 10	190	57	3	< 5
150161 Orig																							
150161 Dup																							
150169 Orig																							
150169 Dup																							
150173 Orig	83.89	11.38	0.89	0.107	0.03	0.22	1.63	0.80	0.013	< 0.01	0.40	99.35	< 1	112	< 5	40	< 1	< 20	< 10	< 30	37	3	< 5
150173 Dup	83.41	12.00	0.88	0.111	0.03	0.21	1.62	0.80	0.013	< 0.01	0.40	99.48	< 1	114	< 5	30	< 1	< 20	< 10	< 30	39	3	< 5
150183 Orig																							
150183 Dup																							
150191 Orig																							
150191 Dup																							
150201 Orig	70.52	17.22	1.06	0.017	0.20	2.72	6.36	1.20	0.150	0.03	0.34	99.81	< 1	3	12	30	< 1	< 20	< 10	70	25	< 1	< 5
150201 Split PREP DUP	71.46	16.43	1.06	0.018	0.21	2.73	6.31	1.19	0.144	0.03	0.35	99.92	< 1	3	10	30	< 1	< 20	< 10	60	25	< 1	< 5
150201 Orig																							
150201 Dup																							
150203 Orig	68.93	17.80	0.52	0.282	0.08	0.91	8.74	0.80	0.022	0.06	0.78	98.92	< 1	249	< 5	< 20	< 1	< 20	< 10	60	41	4	< 5
150203 Dup	68.68	18.47	0.51	0.281	0.08	0.91	8.61	0.79	0.022	0.06	0.78	99.18	< 1	253	< 5	< 20	< 1	< 20	< 10	60	40	4	< 5
150204 Orig																							
150204 Dup																							
150212 Orig																							
150212 Dup																							
150220 Orig	74.59	12.95	0.68	0.591	0.05	0.75	0.58	6.13	0.049	0.01	2.22	98.60	12	5	7	110	< 1	< 20	170	510	27	6	36
150220 Dup	75.57	13.17	0.68	0.602	0.05	0.77	0.59	6.20	0.051	0.01	2.22	99.93	12	5	< 5	120	< 1	< 20	180	510	27	6	40
150235 Orig																							
150235 Dup																							
150249 Orig																							
150249 Dup																							
150250 Orig																							
150250 Dup																							

Analyte Symbol	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1	5
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
150251 Orig	57.71	25.27	1.96	0.533	0.37	0.88	5.69	4.48	0.178	0.04	2.47	99.57	1	26	17	< 20	2	< 20	< 10	200	108	4	< 5
150251 Dup	58.37	25.04	1.97	0.544	0.38	0.89	5.79	4.49	0.179	0.06	2.47	100.2	1	27	18	< 20	2	< 20	< 10	210	107	4	< 5
150256 Orig																							
150256 Dup																							
150258 Orig	68.59	17.15	2.56	0.036	0.81	3.16	5.24	1.30	0.337	0.17	0.59	99.95	2	10	37	< 20	4	< 20	10	150	30	< 1	< 5
150258 Split PREP DUP	68.84	16.30	2.58	0.037	0.82	3.17	5.29	1.31	0.332	0.17	0.56	99.41	2	10	36	20	5	< 20	10	160	30	1	< 5
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																< 20	< 1	< 20	< 10	< 30	< 1	< 1	< 5
Method Blank	< 0.01	< 0.01	< 0.01	0.002	< 0.01	0.01	< 0.01	< 0.01	0.001	< 0.01			< 1	< 1	< 5								
Method Blank	< 0.01	< 0.01	0.01	0.002	< 0.01	0.01	< 0.01	< 0.01	0.001	< 0.01			< 1	< 1	< 5								
Method Blank	< 0.01	< 0.01	0.01	0.002	< 0.01	< 0.01	< 0.01	< 0.01	0.001	< 0.01			< 1	< 1	< 5								
Method Blank	< 0.01	< 0.01	0.01	0.002	< 0.01	0.01	< 0.01	< 0.01	0.001	< 0.01			< 1	< 1	< 5								
Method Blank	< 0.01	0.01	0.01	0.002	< 0.01	0.01	< 0.01	< 0.01	0.001	< 0.01			< 1	< 1	< 5								
Method Blank																							
Method Blank																							
Method Blank	< 0.01	< 0.01	0.01	0.002	< 0.01	< 0.01	< 0.01	< 0.01	0.001	< 0.01			< 1	< 1	< 5								
Method Blank																							
Method Blank																							

Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	Hf	Ta	W	Tl	Pb	Th	U	Li	Li2O	Spec Grav
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	-
Lower Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.2	0.1	1	0.1	5	0.1	0.1	0.01	0.01	0.01
Method Code	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-Na2O2	FUS-Na2O2	GRAV
NIST 694 Meas																							
NIST 694 Cert																							
DNC-1 Meas	3	141	15	39								106						< 5					
DNC-1 Cert	5	144.0	18.0	38								118						6.3					
GBW 07113 Meas		41	46	386								508											
GBW 07113 Cert		43.0	43.0	403								506											
LKSD-3 Meas	72					< 2	2.6		2		2.3			4.5	0.7				10.5	4.4			
LKSD-3 Cert	78.0					2.00	2.70		3.00		2.30			4.80	0.700				11.4	4.60			
TDB-1 Meas	21																		2.7				
TDB-1 Cert	23																		2.7				
W-2a Meas	21	201	20	89		< 2						173	< 0.4			< 1	< 0.1		2.3	0.6			
W-2a Cert	21.0	190	24.0	94.0		0.600						182	0.0300			0.300	0.200		2.40	0.530			
SY-4 Meas		1199	115	547								341											
SY-4 Cert		1191	119	517								340											
CTA-AC-1 Meas															2.5				23.8	4.1			
CTA-AC-1 Cert															2.65				21.8	4.4			
BIR-1a Meas		112	14	14								5		0.6				< 5					
BIR-1a Cert		110	16	18								6		0.60				3					
NCS DC86312 Meas																			25.4				
NCS DC86312 Cert																			23.6				
NCS DC70009 (GBW07241) Meas	505						1.8	1.0	1630	2.8	41.5					2020			29.1				
NCS DC70009 (GBW07241) Cert	500						1.8	1.3	1701	3.1	41					2200			28.3				
OREAS 100a (Fusion) Meas						24													53.0	140			
OREAS 100a (Fusion) Cert						24.1													51.6	135			
OREAS 101a (Fusion) Meas						21													36.3	427			
OREAS 101a (Fusion) Cert						21.9													36.6	422			
OREAS 101b (Fusion) Meas						21													38.3	415			
OREAS 101b (Fusion) Cert						20.9													37.1	396			
JR-1 Meas	247				15	3		< 0.2	3	1.2	20.1		0.5	4.1		2	1.5	18	26.7	9.0			
JR-1 Cert	257				15.2	3.25		0.028	2.86	1.19	20.8		0.56	4.51		1.59	1.56	19.3	26.7	8.88			
NCS DC86303 Meas																					0.22	0.46	

Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	Hf	Ta	W	Tl	Pb	Th	U	Li	Li2O	Spec Grav
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	-
Lower Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.2	0.1	1	0.1	5	0.1	0.1	0.01	0.01	0.01
Method Code	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-Na2O2	FUS-Na2O2	GRAV
NCS DC86303 Cert																					0.21	0.460	
NCS DC86303 Meas																					0.22	0.47	
NCS DC86303 Cert																					0.21	0.460	
NCS DC86303 Meas																					0.22	0.47	
NCS DC86303 Cert																					0.21	0.460	
NCS DC86303 Meas																					0.22	0.47	
NCS DC86303 Cert																					0.21	0.460	
NCS DC86303 Meas																					0.21	0.45	
NCS DC86303 Cert																					0.21	0.460	
NCS DC86303 Meas																					0.22	0.47	
NCS DC86303 Cert																					0.21	0.460	
NCS DC86303 Meas																					0.22	0.46	
NCS DC86303 Cert																					0.21	0.460	
NCS DC86303 Meas																					0.22	0.48	
NCS DC86303 Cert																					0.21	0.460	
NCS DC86304 Meas																					1.03	2.21	
NCS DC86304 Cert																					1.06	2.29	
NCS DC86304 Meas																					1.04	2.23	
NCS DC86304 Cert																					1.06	2.29	
NCS DC86304 Meas																					1.07	2.30	
NCS DC86304 Cert																					1.06	2.29	
NCS DC86304 Meas																					1.08	2.33	
NCS DC86304 Cert																					1.06	2.29	

Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	Hf	Ta	W	Tl	Pb	Th	U	Li	Li2O	Spec Grav
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	-
Lower Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.2	0.1	1	0.1	5	0.1	0.1	0.01	0.01	0.01
Method Code	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-Na2O2	FUS-Na2O2	GRAV
NCS DC86304 Meas																					1.04	2.24	
NCS DC86304 Cert																					1.06	2.29	
NCS DC86304 Meas																					1.07	2.30	
NCS DC86304 Cert																					1.06	2.29	
NCS DC86304 Meas																					1.05	2.27	
NCS DC86304 Cert																					1.06	2.29	
NCS DC86304 Meas																					1.08	2.32	
NCS DC86304 Cert																					1.06	2.29	
NCS DC86314 Meas																					1.78	3.84	
NCS DC86314 Cert																					1.81	3.89	
NCS DC86314 Meas																					1.86	4.00	
NCS DC86314 Cert																					1.81	3.89	
NCS DC86314 Meas																					1.79	3.85	
NCS DC86314 Cert																					1.81	3.89	
NCS DC86314 Meas																					1.79	3.85	
NCS DC86314 Cert																					1.81	3.89	
NCS DC86314 Meas																					1.80	3.88	
NCS DC86314 Cert																					1.81	3.89	
NCS DC86314 Meas																					1.83	3.93	
NCS DC86314 Cert																					1.81	3.89	
NCS DC86314 Meas																					1.74	3.76	
NCS DC86314 Cert																					1.81	3.89	
NCS DC86314 Meas																					1.84	3.96	

Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	Hf	Ta	W	Tl	Pb	Th	U	Li	Li2O	Spec Grav
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	-
Lower Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.2	0.1	1	0.1	5	0.1	0.1	0.01	0.01	0.01
Method Code	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-Na2O2	FUS-Na2O2	GRAV
NCS DC86314 Cert																					1.81	3.89	
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.40		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.21		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.25		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.00		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.02		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.10		
Lithium Tetraborate FX-LT 100 lot#220610B																					8		

Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	Hf	Ta	W	Tl	Pb	Th	U	Li	Li2O	Spec Grav
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	-
Lower Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.2	0.1	1	0.1	5	0.1	0.1	0.01	0.01	0.01
Method Code	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-Na2O2	FUS-Na2O2	GRAV
Cert																							
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.29		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.39		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.35		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.12		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.13		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.37		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		

Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	Hf	Ta	W	Tl	Pb	Th	U	Li	Li2O	Spec Grav
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	-
Lower Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.2	0.1	1	0.1	5	0.1	0.1	0.01	0.01	0.01
Method Code	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-Na2O2	FUS-Na2O2	GRAV
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					7.72		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.11		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.24		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.05		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.10		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.18		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		

Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	Hf	Ta	W	Tl	Pb	Th	U	Li	Li2O	Spec Grav
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	-
Lower Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.2	0.1	1	0.1	5	0.1	0.1	0.01	0.01	0.01
Method Code	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-Na2O2	FUS-Na2O2	GRAV
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					7.98		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.10		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.07		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.03		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.15		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
Lithium Tetraborate FX-LT 100 lot#220610B Meas																					8.23		
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
Lithium																					8.15		

Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	Hf	Ta	W	Tl	Pb	Th	U	Li	Li2O	Spec Grav
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	-
Lower Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.2	0.1	1	0.1	5	0.1	0.1	0.01	0.01	0.01
Method Code	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-Na2O2	FUS-Na2O2	GRAV
Tetraborate FX-LT 100 lot#220610B Meas																							
Lithium Tetraborate FX-LT 100 lot#220610B Cert																					8		
150007 Orig																					1.10	2.36	
150007 Dup																					1.07	2.31	
150015 Orig	30	8	< 2	< 4	< 1	< 2	< 0.5	< 0.2	2	< 0.5	8.4	4	< 0.4	0.3	4.2	< 1	0.4	< 5	< 0.1	0.3	0.10	0.21	
150015 Dup	29	8	< 2	< 4	< 1	2	< 0.5	< 0.2	2	< 0.5	8.0	3	< 0.4	0.2	4.1	< 1	0.3	< 5	< 0.1	0.3	0.10	0.22	
150029 Orig																					0.05	0.10	
150029 Dup																					0.05	0.10	
150032 Orig	666	1033	< 2	155	7	< 2	0.8	< 0.2	9	< 0.5	314	713	< 0.4	4.8	2.3	< 1	5.1	11	3.3	2.4			
150032 Dup	668	1025	< 2	155	7	< 2	0.7	< 0.2	9	< 0.5	315	720	< 0.4	4.9	2.4	< 1	5.4	10	3.3	2.5			
150037 Orig																					0.02	0.05	
150037 Dup																					0.02	0.05	
150051 Orig	950	47	< 2	6	29	< 2	< 0.5	< 0.2	12	< 0.5	163	18	< 0.4	2.9	126	1	7.6	12	5.5	7.1	0.20	0.44	
150051 Split PREP DUP	878	46	< 2	6	29	< 2	< 0.5	< 0.2	12	< 0.5	158	18	< 0.4	3.1	107	3	7.6	11	4.1	5.0	0.21	0.45	
150059 Orig																					0.20	0.44	
150059 Dup																					0.20	0.43	
150062 Orig	821	129	< 2	8	36	< 2	< 0.5	< 0.2	31	< 0.5	123	78	< 0.4	0.7	19.8	9	6.5	< 5	0.3	4.9			
150062 Dup	814	131	< 2	7	38	< 2	< 0.5	< 0.2	32	< 0.5	124	78	< 0.4	0.6	20.1	2	6.2	< 5	0.3	5.1			
150073 Orig																					0.10	0.21	
150073 Dup																					0.10	0.21	
150079 Orig	997	229	< 2	29	80	< 2	< 0.5	< 0.2	38	< 0.5	148	73	< 0.4	3.1	137	1	6.7	10	4.8	3.0			
150079 Dup	1020	228	< 2	28	82	< 2	< 0.5	< 0.2	39	< 0.5	151	74	< 0.4	3.1	133	2	7.2	10	4.7	3.0			
150081 Orig																					0.02	0.04	
150081 Dup																					0.02	0.04	
150095 Orig																					0.01	0.02	
150095 Dup																					< 0.01	0.02	
150100 Orig																							2.70
150100 Dup																							2.71
150101 Orig	1280	594	< 2	108	12	2	< 0.5	< 0.2	39	< 0.5	167	830	< 0.4	3.1	6.9	19	9.9	14	3.5	13.0	0.11	0.24	
150101 Split PREP DUP	1230	614	< 2	109	11	< 2	< 0.5	< 0.2	37	< 0.5	166	850	< 0.4	3.0	6.9	< 1	9.2	15	3.2	12.8	0.11	0.24	
150101 Orig																							2.72
150101 Dup																							2.73
150109 Orig	183	144	< 2	47	48	< 2	< 0.5	< 0.2	5	< 0.5	41.9	142	< 0.4	5.2	35.3	< 1	0.9	18	2.9	11.4			
150109 Dup	189	148	2	45	45	< 2	< 0.5	< 0.2	6	< 0.5	42.4	144	< 0.4	5.1	31.9	< 1	0.9	19	2.9	11.6			
150117 Orig																					0.31	0.67	

Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	Hf	Ta	W	Tl	Pb	Th	U	Li	Li2O	Spec Grav
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	-
Lower Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.2	0.1	1	0.1	5	0.1	0.1	0.01	0.01	0.01
Method Code	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-Na2O2	FUS-Na2O2	GRAV
150117 Dup																					0.31	0.67	
150125 Orig																					0.02	0.04	
150125 Dup																					0.02	0.04	
150126 Orig	204	871	< 2	106	4	< 2	< 0.5	< 0.2	2	< 0.5	29.8	1012	< 0.4	3.0	0.4	< 1	1.4	14	1.0	1.2			
150126 Dup	197	863	< 2	103	4	< 2	< 0.5	< 0.2	1	< 0.5	29.5	1001	< 0.4	3.1	0.4	< 1	1.4	15	1.1	1.2			
150148 Orig																					0.07	0.15	
150148 Dup																					0.07	0.16	
150151 Orig																					0.11	0.23	
150151 Split PREP DUP	1340	212	< 2	19	50	< 2	< 0.5	< 0.2	51	< 0.5	134	155	< 0.4	1.1	19.6	< 1	6.1	< 5	0.5	0.8	0.11	0.23	
150156 Orig	1620	132	< 2	57	77	< 2	< 0.5	< 0.2	57	< 0.5	436	111	< 0.4	4.6	46.0	< 1	10.8	< 5	2.2	4.7			
150156 Dup	1630	130	< 2	59	82	< 2	< 0.5	< 0.2	58	< 0.5	435	109	< 0.4	4.7	45.6	< 1	11.2	< 5	2.2	4.7			
150161 Orig																					0.03	0.06	
150161 Dup																					0.03	0.06	
150169 Orig																					0.14	0.30	
150169 Dup																					0.14	0.30	
150173 Orig	394	42	< 2	< 4	49	< 2	< 0.5	< 0.2	23	< 0.5	68.0	10	0.4	0.7	246	< 1	2.9	< 5	0.4	1.2			
150173 Dup	394	44	< 2	< 4	50	< 2	< 0.5	< 0.2	23	< 0.5	69.4	10	0.7	0.7	236	1	2.9	7	0.4	1.2			
150183 Orig																					1.39	2.99	
150183 Dup																					1.38	2.96	
150191 Orig																					0.07	0.15	
150191 Dup																					0.07	0.15	
150201 Orig	138	1098	< 2	132	4	< 2	1.5	< 0.2	2	< 0.5	41.2	834	< 0.4	3.3	0.5	1	3.0	8	1.6	1.5	0.05	0.10	
150201 Split PREP DUP	136	1074	< 2	138	4	< 2	1.5	< 0.2	2	< 0.5	41.3	829	< 0.4	3.4	0.6	2	1.6	7	1.4	1.5	0.05	0.10	
150201 Orig																							2.70
150201 Dup																							2.69
150203 Orig	316	215	3	123	100	< 2	1.3	< 0.2	7	< 0.5	94.7	43	< 0.4	21.9	164	3	2.6	27	10.5	7.6			
150203 Dup	309	213	3	127	95	< 2	1.6	< 0.2	8	< 0.5	92.3	43	< 0.4	22.0	147	2	2.4	26	10.4	7.2			
150204 Orig																					0.05	0.12	
150204 Dup																					0.05	0.11	
150212 Orig																					0.06	0.14	
150212 Dup																					0.06	0.14	
150220 Orig	2020	23	14	65	52	5	< 0.5	0.2	12	12.4	55.9	86	45.7	5.6	9.6	99	10.1	415	21.1	40.0			
150220 Dup	2050	24	14	63	51	5	0.6	0.2	11	13.9	57.2	87	57.3	5.2	10.1	102	13.2	413	22.5	41.4			
150235 Orig																					0.04	0.08	
150235 Dup																					0.04	0.08	
150249 Orig																					0.14	0.30	
150249 Dup																					0.14	0.30	
150250 Orig																							2.67
150250 Dup																							2.67

Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	Hf	Ta	W	Tl	Pb	Th	U	Li	Li2O	Spec Grav
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	-
Lower Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.2	0.1	1	0.1	5	0.1	0.1	0.01	0.01	0.01
Method Code	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-Na2O2	FUS-Na2O2	GRAV
150251 Orig	2870	219	3	74	125	< 2	< 0.5	< 0.2	82	< 0.5	514	192	< 0.4	12.2	125	3	16.7	14	9.7	9.8			
150251 Dup	2800	220	3	76	130	< 2	< 0.5	< 0.2	82	< 0.5	511	193	< 0.4	12.8	132	3	18.7	15	9.6	10.2			
150256 Orig																					0.05	0.11	
150256 Dup																					0.05	0.11	
150258 Orig	768	1082	3	156	7	< 2	< 0.5	< 0.2	13	< 0.5	253	1025	< 0.4	3.6	1.3	< 1	5.4	10	3.6	1.2	0.10	0.21	
150258 Split PREP DUP	801	1037	2	164	7	< 2	< 0.5	< 0.2	13	< 0.5	267	1036	< 0.4	3.7	1.3	< 1	6.5	8	3.7	1.1	0.11	0.23	
Method Blank																					< 0.01	< 0.01	
Method Blank																					< 0.01	< 0.01	
Method Blank																					< 0.01	< 0.01	
Method Blank																					< 0.01	< 0.01	
Method Blank																					< 0.01	< 0.01	
Method Blank																					< 0.01	< 0.01	
Method Blank																					< 0.01	< 0.01	
Method Blank																					< 0.01	< 0.01	
Method Blank																					< 0.01	< 0.01	
Method Blank																					< 0.01	< 0.01	
Method Blank																					< 0.01	< 0.01	
Method Blank																					< 0.01	< 0.01	
Method Blank	< 2				< 1	< 2	< 0.5	< 0.2	< 1	< 0.5	< 0.5		< 0.4	< 0.2	< 0.1	< 1	< 0.1	< 5	< 0.1	< 0.1			
Method Blank		< 2	< 2	< 4								< 3											
Method Blank		< 2	< 2	< 4								< 3											
Method Blank		< 2	< 2	< 4								< 3											
Method Blank		< 2	< 2	< 4								< 3											
Method Blank		< 2	< 2	8								< 3											
Method Blank																							< 0.01
Method Blank																							< 0.01
Method Blank		< 2	< 2	< 4								< 3											
Method Blank																							< 0.01
Method Blank																							< 0.01