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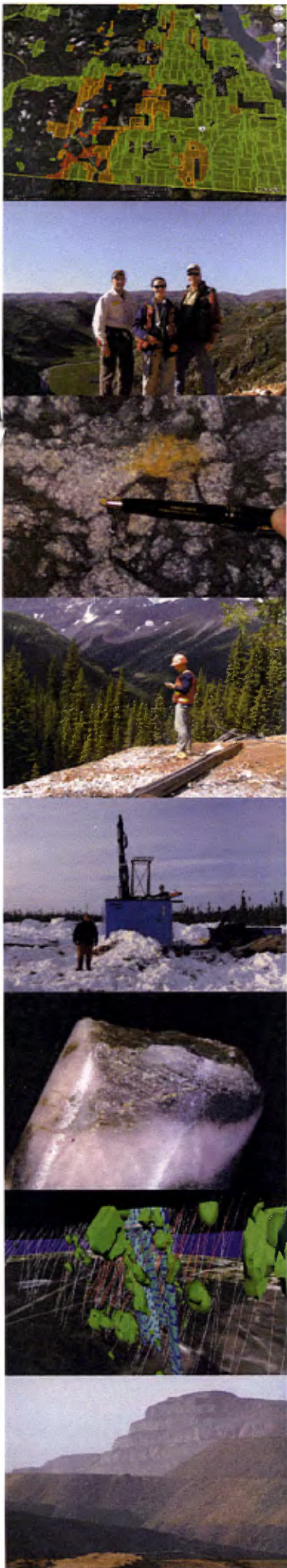


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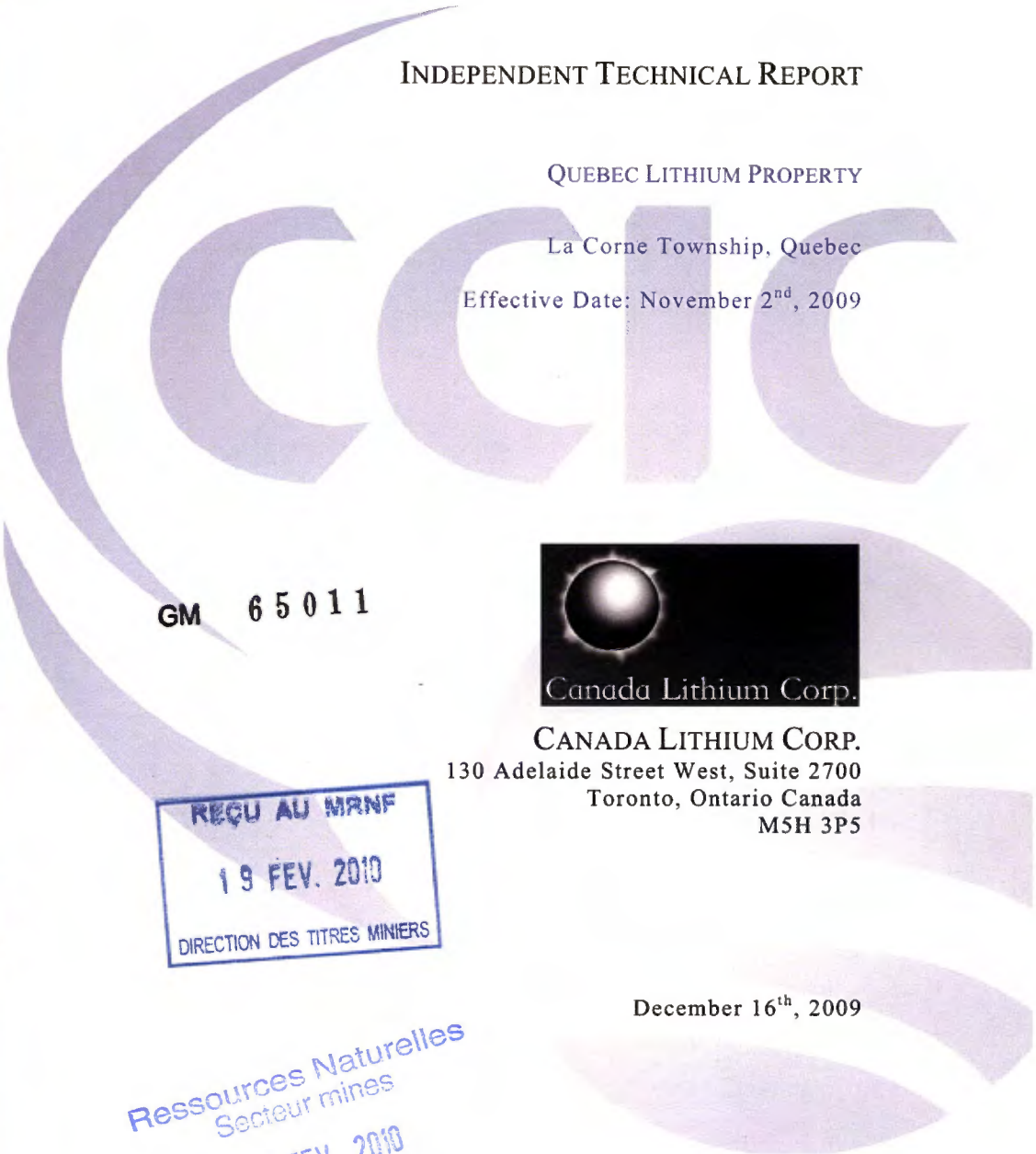


INDEPENDENT TECHNICAL REPORT

QUEBEC LITHIUM PROPERTY

La Corne Township, Quebec

Effective Date: November 2nd, 2009



GM 65011



CANADA LITHIUM CORP.
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REÇU AU MRNF
 19 FEV. 2010
 DIRECTION DES TITRES MINIERES

December 16th, 2009

Ressources Naturelles
 Secteur mines
 17 FEV. 2010
 Bureau Régional Val-d'Or

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*This report has been prepared by
Caracle Creek International Consulting Inc. (CCIC) on
behalf of Canada Lithium Corp.*

2009

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APPENDICES

Appendix 1 – Certificates

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1.0 SUMMARY

Caracle Creek International Consulting Inc. ("CCIC") was contracted by Canada Lithium Corp. ("Canada Lithium"), to review the historic data for the Quebec Lithium Property (the "Property"), and prepare an Independent Technical Report (the "Report"), compliant with National Instrument 43-101 ("NI 43-101"), companion policy NI 43-101CP and Form 43-101F1. A potential tonnage and grade for the Property was estimated based on the historic information and the results were released on the 2nd of November, 2009.

The Quebec Lithium Property encompasses several spodumene-bearing pegmatite dykes with known overall strike length of up to 2.2 km on 105,174.10 ha of claims, which are wholly owned claims Canada Lithium. These occurrences include some of the dykes that were historically mined during the 1950's and 1960's at the Quebec Lithium mine (now closed) located 60 km north of Val d'Or, Quebec.

Preliminary metallurgical test work has been ongoing since 2008 shortly after the Property was acquired by Canada Lithium to produce battery-grade lithium carbonate. In 2009, the historic mine data was compiled digitally and a potential tonnage and grade for the Property prepared. A conceptual target of 29-30 million tonnes at a grade of 1.1-1.2% Li₂O was estimated from the compiled database and interpreted geology maps. A classifiable, NI 43-101 could not be prepared from these data because the original core samples from the historic drilling programs were lost when the mine closed down in 1965 and the assay data cannot be verified. A pre-feasibility study ("PFS") has been initiated and to advance the conceptual target to a resource, the drilling database is being confirmed by a 7,000m drill program. Once complete a classified, NI 43-101 compliant resource estimate will be completed. A program of infill and extensional drilling will commence in 2010 while potential mining methods are investigated through the PFS. A budget of ~CAD\$5.5million has been made available to advance the Quebec Lithium project in 2010.

It is recommended that site specific, certified standards be prepared from a bulk sampling site on the Property. These will provide a more effective foundation to monitor the laboratory's analytical quality in subsequent drill programs. The QA/QC protocol should be reviewed and updated as appropriate after the 2009 drill program is complete and the QC data reviewed.



2.0 INTRODUCTION

2.1 Introduction

Canada Lithium retained CCIC in January 2009 to complete an independent review of the Property. Michelle Stone, a Qualified Person under NI 43-101, visited the Property on August 13th, 2009. After compiling all of the available historic drilling information a potential tonnage or conceptual target was estimated for the Property and the results released on the 2nd of November, 2009.

This Report on the Quebec Lithium Property has been prepared following the standards outlined in NI 43-101, companion policy NI 43-101CP and Form 43-101F1, and is based on information supplied by Canada Lithium, review of public domain data, and incorporation of relevant mining and geological literature. Qualified persons responsible for preparation of this report are Michelle Stone (P.Geo., CCIC; Sections 1-6 and 10-23) and Julie Selway (P.Geo., CCIC; Sections 7-9). Certificates of Qualifications are provided in Appendix 1.

2.2 Units of Measure and Terms of Reference

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 (m³), mass expressed as metric tonnes ("t"), and area as hectares ("ha"). However, many of the geologic publications and historic documents referenced in this Report exclusively refer to the Imperial System of measure. Hence, Imperial data is referenced in this Report with the equivalent Metric value following in parentheses. Conversions from the Imperial System to the Metric System are provided below. 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.

Conversion factors utilized in this report include:

- 1 inch = 2.54 centimetres
- 1 foot = 0.3048 metres
- 1 mile = 1.609344 kilometres
- 1 acre = 0.4047 hectares
- 1 pound = 2.2 kilograms



- 1 short ton = 0.907185 metric tonnes
- 1% = 10,000 ppm
- 1 part per million = 1,000 parts per billion

Other abbreviations include ppb = parts per billion; ppm = parts per million (1,000 ppb); Mt = million tonne; t = tonne (1,000 kilograms) and SG = specific gravity. Lithium values are typically reported as Li₂O% rather than in the elemental form. This conversion was done by multiplying the Li value in ppm by the molecular weight of Li₂O (29.8814) divided by the molecular weight of Li (6.941) and converting the resultant value to percent by dividing by 10,000.

Dollars are expressed in Canadian currency (“CAD\$”) unless otherwise noted. Where quoted, Universal Transverse Mercator (“UTM”) coordinates are provided in the datum of Canada, NAD83, Zone 18N North.

Frequently used abbreviations and acronyms are given in **Error! Reference source not found.**

Table 2 - 1 Frequently used abbreviations and acronyms.

Abbreviation	Description
Black Pearl	Black Pearl Minerals Consolidated Inc.
CAD\$	Canadian dollars
Canada Lithium	Canada Lithium Corp.
CCIC	Caracle Creek International Consulting Inc.
cm	centimetre
C.N.R.	Canadian National Railway
Genivar	Genivar Inc. - Amos, Quebec
Ha	hectares
IAMGOLD	IAMGOLD - Quebec Management Inc.
Km	kilometre
LCA	Lithium Corporation of America Inc
LCT	Li-Cs-Ta enriched
M	metre
Mm	millimetre
MRC	Mineral Research Centre
MRNF	Ministère des Ressources Naturelles et de la Faune - Quebec
NYF	Nb-Y-F enriched
NI 43-101	National Instrument 43-101
Ppb	parts per billion
Ppm	parts per million
REE	rare earth elements



Abbreviation	Description
SG	specific gravity
SGS Lakefield	SGS Lakefield analytical laboratory
T	metric tonne
UTM	Universal Transverse Mercator

3.0 RELIANCE ON OTHER EXPERTS

CCIC has completed this Report in accordance with the methodology and format outlined in NI 43-101, companion policy NI 43-101CP and Form 43-101F1. This Report was prepared by competent and professional individuals from CCIC on behalf of Canada Lithium and is directed solely for the development and presentation of data with recommendations to allow Canada Lithium and or potential partners to reach informed decisions.

The information, conclusions and recommendations contained herein are based on a review of digital and hard copy data and information supplied to CCIC by Canada Lithium, as well as various published geological reports, and information available from the Quebec Ministère des Ressources Naturelles et de la Faune (“MRNF”) claims website. CCIC has assumed that the reports and other data listed in the “References” section of this report are substantially accurate and complete.

CCIC has relied exclusively on information provided by Canada Lithium regarding land tenure, underlying agreements and technical information not in the public domain, and all of these sources appear to be of sound quality. CCIC is unaware of any technical data other than that presented by Canada Lithium or its agents. While title documentation was reviewed for this Report as provided by Canada Lithium, it does not constitute, nor is it intended to represent, a legal, or any opinion as to title. The title ownership and status of claims as outlined in this Report was obtained from the MRNF claims website. The claims’ ownership is consistent with the purchase agreement data March, 2008 with IAMGOLD - Quebec Management Inc. (“IAMGOLD”).

Some relevant information on the Property presented in this Report is based on data derived from reports written by geologists and/or engineers, whose professional status may or may not be known in relation to the NI 43-101 definition of a Qualified Person. CCIC has made every attempt to accurately convey the content of those files, but cannot guarantee either the accuracy or validity of the work contained within those files. However, CCIC believes that these reports were written with the objective of presenting the results of the work performed without any promotional or misleading intent. In this sense, the information



presented should be considered reliable, unless otherwise stated, and may be used without any prejudice by Canada Lithium.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Location and Property Status

The Quebec Lithium Property is located in the north-east corner of La Corne Township, Quebec approximately 38 km south-east of Amos, 15 km west of Barraute and 60 km north of Val d'Or, Quebec (Figure 4-1). The property is centred near coordinates 291,964m E and 5,365,763m N, Zone 18N as located on the NTS map sheet 32C5.

The Property consists of 12 contiguous claims covering 387.91 hectares (Table 4-1 and Figure 4-1). The concessions are registered in the name of Black Pearl Minerals Consolidated Inc. ("Black Pearl"), the former name of Canada Lithium (see Section 4.3). The claims are in the process of being transferred to the new company name. Canada Lithium owns 100% of the Property as per the Letter of Agreement with IAMGOLD (Appendix 2).

Table 4 - 1 Canada Lithium's claims constituting the Quebec Lithium Property.

Claim Number	Owner	Issued	Expires	Area (Ha)	Work for Renewal (\$)	Renewal Fee (\$)
403542300	Black Pearl	17-Mar-08	16-Mar-10	22.4	500	26
403542301	Black Pearl	17-Mar-08	16-Mar-10	48.31	1,200	52
403542302	Black Pearl	17-Mar-08	16-Mar-10	48.29	1,200	52
403542303	Black Pearl	17-Mar-08	16-Mar-10	48.28	1,200	52
403542304	Black Pearl	17-Mar-08	16-Mar-10	16.76	500	26
403542305	Black Pearl	17-Mar-08	16-Mar-10	23.81	500	26
403542306	Black Pearl	17-Mar-08	16-Mar-10	55.97	1,200	52
403542307	Black Pearl	17-Mar-08	16-Mar-10	50.76	1,200	52
403542308	Black Pearl	17-Mar-08	16-Mar-10	18.29	1,200	52
403542309	Black Pearl	17-Mar-08	16-Mar-10	17.59	500	26
403542310	Black Pearl	17-Mar-08	16-Mar-10	1.53	500	26
403542311	Black Pearl	17-Mar-08	16-Mar-10	35.92	1,200	52
Total				387.91	10,900	494

In 2008, Canada Lithium was required to pay CAD\$11,394 (work required and fees) during the year to maintain the claims (Table 4.1). Similar amounts are expected in 2009.

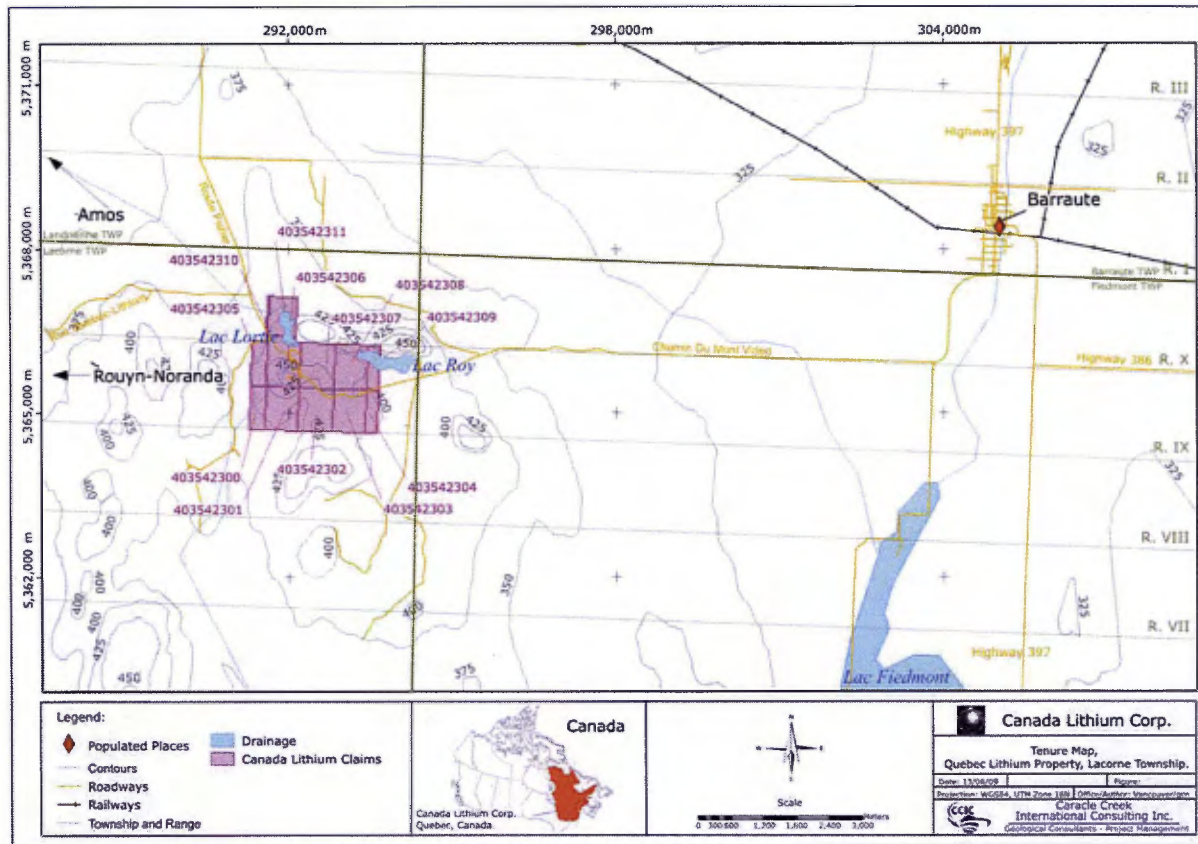


Figure 4- 1 Location of the Quebec Lithium Property near Val d'Or, Quebec.

4.2 Location of Mineralization and Workings

The Quebec Lithium Property consists of 10-12 spodumene-bearing dykes (Figures 4.2 and 4-3). The area of historic mining focused on the dykes located on Lots 53 and 54, Range IX, La Corne Township approximately 1,400 feet (~425m) south of the south shore of Lac Lortie (Tremblay, 1950). Mining operations were conducted by Quebec Lithium Corporation (“QLC”) from 1955-1965, with a brief hiatus in 1959 (see Section 6). Production included ceramic grade and chemical grade spodumene concentrates, lithium carbonate, lithium hydroxide monohydrate as well as a small quantity of lithium chloride and feldspar. Tailings are stored in two dams located to the north of the mine area in a west-east trending valley between Lac Lortie and Lac Roy (Figure 4-2). There is an estimated 700,000-750,000t of material (quartz and feldspar sand) stored there (Karpoff, 1993). Rehabilitation of the mine site including complete removal of all underground and surface plant and equipment, the mine’s head frame, the railway spur connecting to the C.N.R., and all office buildings and other structures was completed from 1975

through 2001 (Figures 4-3 through 4-7). The crown pillar was fenced off and all openings sealed to the satisfaction of the MRNF to conform to Provincial safety standards (Appendix 3).

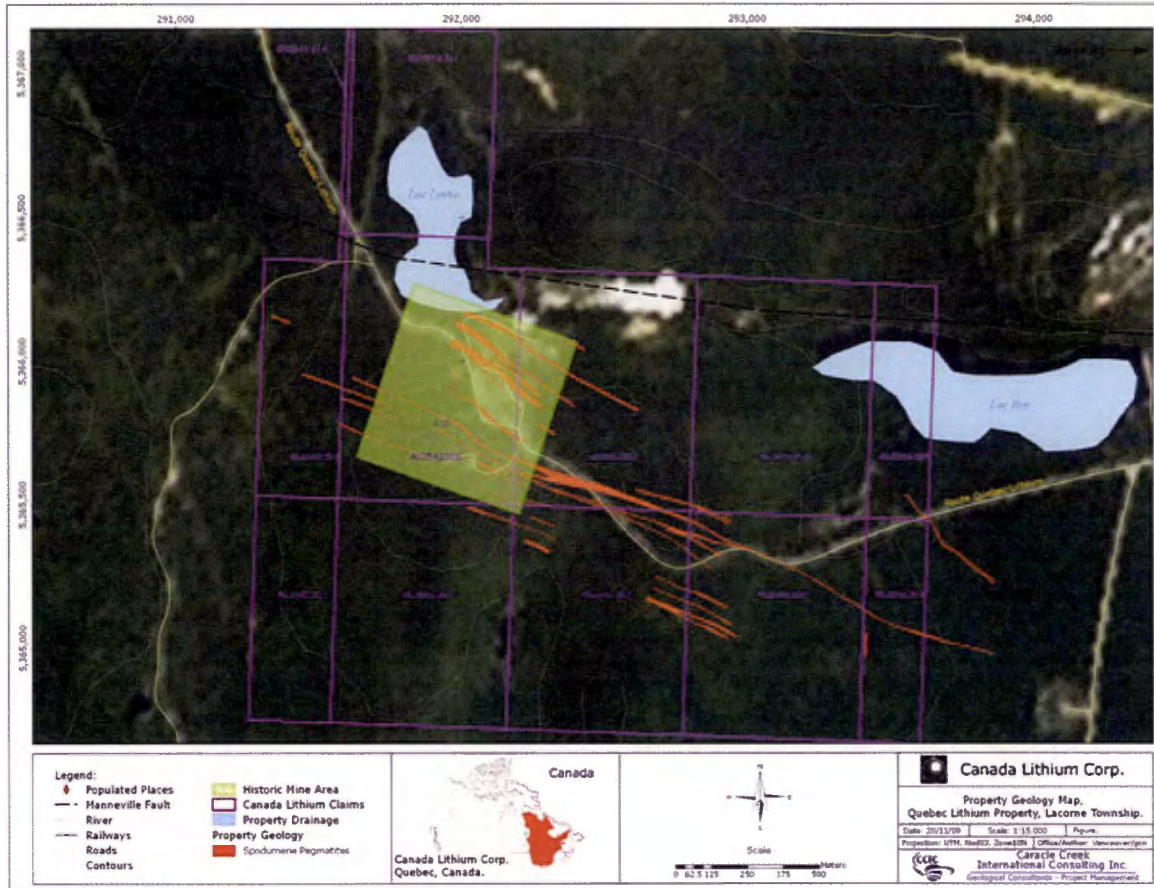


Figure 4- 2 Map showing the spodumene-bearing pegmatite dykes and the historic mine area. Tailings are shown as the white area extending from the south-eastern edge of Lac Lortie along the valley to the east.



Figure 4- 3 Photograph of spodumene (elongate mineral)-bearing pegmatite from Dyke B at the Quebec Lithium mine (Karpoff, 1993). Coin for scale is 21.2 mm in diameter.

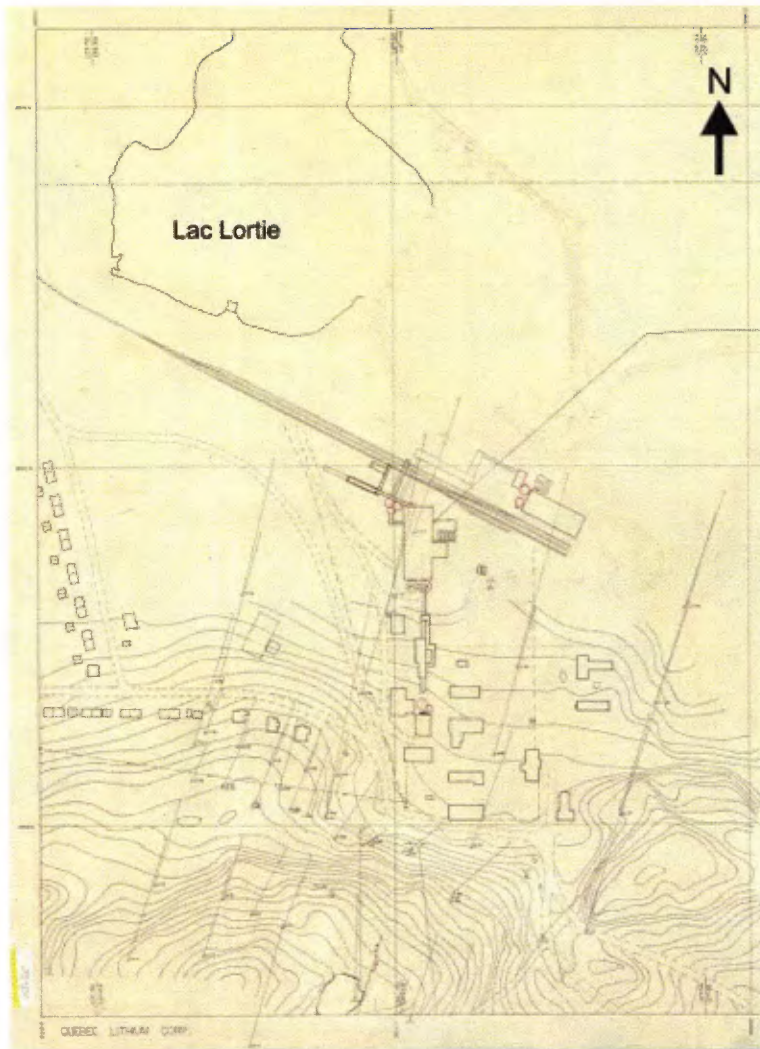


Figure 4- 4 Extract from a historic QLC map showing the plant location near the south shore of Lac Lortie (not to scale).



Figure 4- 5 Fenced off crown pillar area, Quebec Lithium Property, Val d'Or, Quebec. November, 2009.

4.3 Terms of Agreement

In March 2008, Black Pearl and IAMGOLD signed a Letter of Agreement that outlined the terms upon which Black Pearl could acquire 100% of the Quebec Lithium Property. Terms of the transaction were:

- 1) Black Pearl will pay IAMGOLD \$350,000 in cash and will pay for IAMGOLD's out-of-pocket expenses to complete the transaction.
- 2) Subject to regulatory approval, Black Pearl will issue 6 million common shares to IAMGOLD.

In May 2008, Black Pearl obtained TSX-V approval and closed the above transaction. Canada Lithium issued to IAMGOLD the required cash and shares, the latter which were subject to a four-month hold period.



In January 2009, Black Pearl changed its name to Canada Lithium Corp. and commenced trading on the TSX-V under the symbol CLQ. At the time of this Report, the Property claims have not yet been transferred to the new company name (Table 4-1).

4.4 Liabilities and Required Permits

The Property is owned 100% by Canada Lithium. There are no royalties due to IAMGOLD. To the best of Canada Lithium's knowledge there are no native land claims on the land.

The authors are unaware of any environmental liabilities to which the Property is subject, other than the normal licensing and permitting requirements that must be made prior to undertaking certain operations and environmental restrictions as set forth in the Provincial Mining Act and Regulations.

A closure plan will have to be submitted to the MNRF for any modifications to the surface, which include decant basins (tailing settling ponds), stock piles, etc.

A mining concession will have to be obtained before any full time mining can be undertaken. However, a bulk sample, up to 50 tonnes, can be taken without permission from the Minister. An environmental impact study (EIS) has to be completed before any production mining is undertaken. This is currently in progress by Genivar Inc. ("Genivar") of Amos, Quebec. The EIS is anticipated to take approximately one year to complete and will outline all environmental concerns and constraints for the Canada Lithium's proposed development of a 3,500-tonne-per-day lithium mining operation.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Access

The Quebec Lithium Property is located approximately 60 km north of Val d'Or, Quebec and is accessible by either provincial highway #111 connecting Val d'Or and Amos or by provincial highway #397 connecting Val d'Or and Barraute. An all weather secondary road traverses the Property. This Range road joins the above mentioned highways. The area has recently been used as part of the recreational offerings of the area and has numerous marked ski-doo and cross country ski trails.

The main trans Canada C.N.R. railway line runs through Barraute, a C.N.R. section town, and passes approximately 11 km to the north of the property. A C.N.R. spur line serviced the property during the production period but the tracks were all removed after mining operations were shut down. The rail right of way has since become overgrown but the rail bed is still in excellent shape.

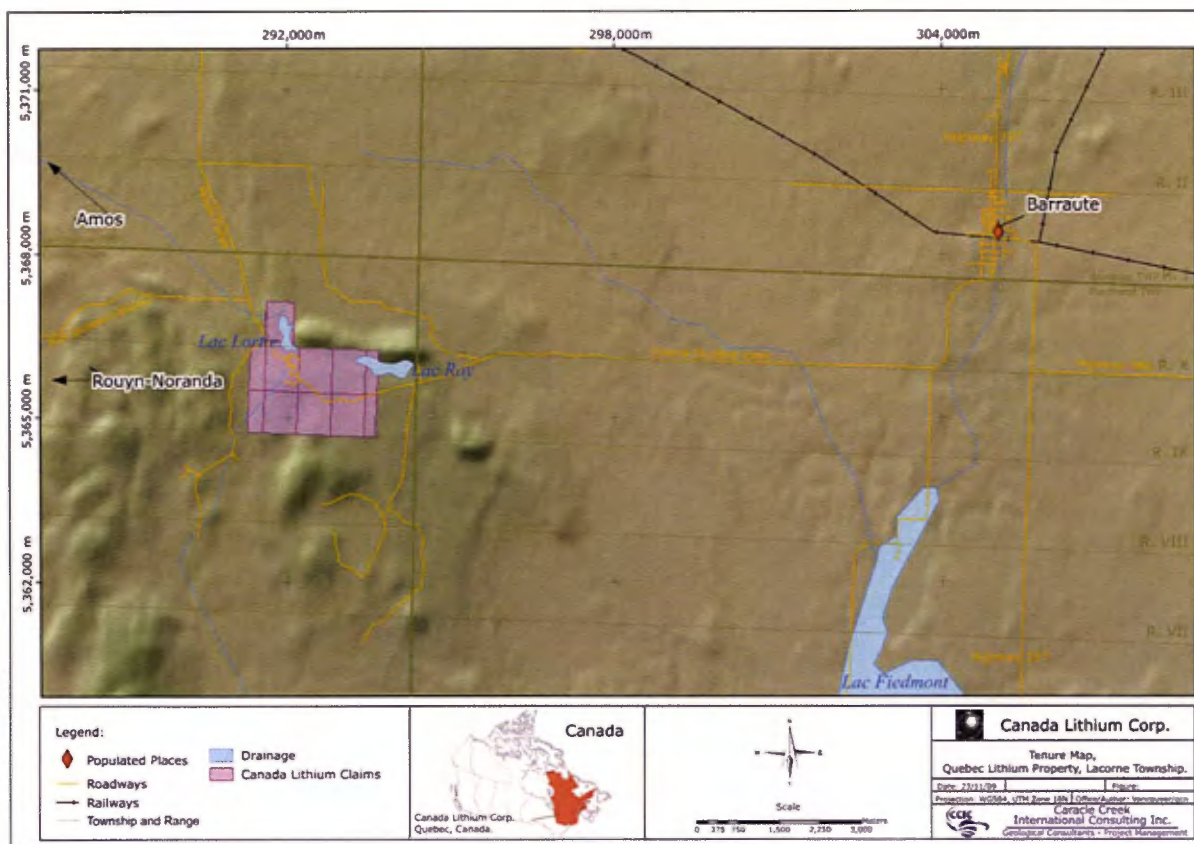


Figure 5- 1 Shaded relief map showing the location of infrastructure in the area of the Quebec Lithium Property.

5.2 Physiography, Vegetation and Climate

The topography in the area of the Preissac-Lacorne batholith is characterized by three types of topography: highlands with abundant outcrop, eskers and low-lands underlain by lacustrine clays, recent muskegs and lake and stream deposits (Dawson, 1966). An esker is a long winding ridge of sorted sands and gravel. It is thought to be formed from sediment deposited by a stream flowing within or beneath a glacier (www.geology.com).

The highlands have a relief up to 500 feet (~150m; Dawson, 1966). They carry thin drift cover with boulder trains in some valleys. Granitic intrusions which are part of the Lacorne pluton underlie nearly all of the hilly area (Figure 5.2 and 5.3; Tremblay, 1950). The volcanic rocks adjacent to this pluton have been altered to hornblende schists, which are very resistant to weathering and now form the highest hills (Figure 5.4). Originally (early 1950's), the hills were covered with dense forest growth consisting mainly of hardwoods (Dawson, 1966).



Figure 5- 2 West-east trending outcrop along the northern edge of the tailings area. Photograph faces north showing granitic rocks. Biotite schists crop out to the right of the photograph (Figure 5.4). Quebec Lithium Property, Val d'Or, Quebec. August, 2009.



Figure 5- 3 Photograph across the ridge shown in Figure 5-2. Prominent rock face on left of the photograph is the same as in Figure 5.2. There is a fault cutting through the ridge where the outcrop is recessive (near the people). Biotite schist crops out to the right of the photograph, however the contact is not exposed. Quebec Lithium Property, Val d'Or, Quebec. November, 2009.



Figure 5- 4 Biotite schist on south face of west-east trending ridge in Figure 5-2 and 5-3. Quebec Lithium Property, Val d'Or, Quebec. November, 2009. Rock face is approximately 3.5m high.

The eskers (Figure 5.5) are broad, flat-topped ridges with a maximum relief of 200 feet (~60m; Dawson, 1966). They form a nearly complete cover over lacustrine clays and low-lying outcrops, exhibiting such features as raised beaches, lake-filled kettles and sand dunes. The flat topped hills have approximately uniform elevation, suggesting remnants of a former plateau, now largely dissected by erosion following slow uplift (Tremblay, 1950). The underlying rocks are granitic and volcanic. The eskers were originally covered by dense stands of jack pine with some areas of hardwoods (Figure 5.6; Dawson, 1966).



Figure 5- 5 Sand deposit in an esker on the northern end of Lac Lortie. Pen for scale is 14.5 cm long.



Figure 5- 6 Photograph of jack pine stand at the eastern end of the tailings area for the Quebec Lithium mine.

The lowlands represent a very gently rolling land form with relief that rarely reaches 100 feet (~30m) above the adjoining waterways (Dawson, 1966). They are dissected by shallow stream valleys and contain large muskegs where drainage is poor (Figures 5-7 and 5-8). Due to its even surface and clay bottom, this plain is a good farming area (Tremblay, 1950). The lowlands were originally covered with dense stands of softwoods.

Outcrops are very scarce, as the showing is almost entirely covered by a thick growth of timber and a light mantle of sand and gravel (Tremblay, 1950). Most of the outcrops of spodumene-bearing pegmatite occur on the top of a ridge that rises to an elevation of approximately 150 feet (~45m) above Lac Lortie (Figure 5-7). This ridge can be traced for approximately 2,000 feet (~610m) in an east and west direction.



Figure 5- 7 Muskeg swamp area along the southeastern tip of Lac Lortie, which is located up and to the left of this photograph, as shown in Figure 5-8). Photograph taken from the old plant site of the Quebec Lithium mine. The white material in foreground is tailings material which was dumped in the valley along the trend of the swamp to the east.



Figure 5- 8 Photograph of outcrop in ridge line referred to in Figure 5-7 and shown in Figure 5-3 and 5-4 (centre-right) adjacent to Lac Lortie taken facing north from the old plant site at the of the Quebec Lithium mine. Cleared area between ridge and low, rounded hill in the front of the photograph is the old plant site. A muskeg swamp is located immediately to the north of the site, stretches from the southern tip of Lac Lortie to the east.

Summer temperatures average 16 °C with an average rainfall of 103 mm for Amos (the nearest weather station to the Property; Environment Canada Climate website: www.climate.weatheroffice.ec.gc.ca/climate_normals). In the winter, the average daily temperature is -15 °C and the average snowfall is 45 cm with most falling in December and January. Snow accumulation is 52 cm on average for Amos.

5.3 Infrastructure and Local Resources

Provincial highways #111 and #397 pass nearby the Property. The main C.N.R. line runs through Barraute, approximately 11 km north of the Property.



The Quebec Lithium Property is located approximately 60 km north of Val d'Or, Quebec and is accessible by either provincial highway #111 connecting Val d'Or and Amos or by provincial highway #397 connecting Val d'Or and Barraute. An all weather secondary road traverses the Property. This Range road joins the above mentioned highways.

Val d'Or and Rouyn Noranda are serviced daily by regional air carriers and small craft landing areas are also located in these towns and nearby Amos. The closest all weather landing strip and heli-pad is located at Mont Video, to the east of the property. The Property is located in an active mining belt and as such the area offers a substantial professional work force experienced in mining and related activities in addition to most supplies and services.

The main trans-Canada railway ("C.N.R.") line runs through Barraute, a C.N.R. section town, and passes approximately 11 km to the north of the property. A C.N.R. spur line serviced the property during the production period but the tracks were all removed after mining operations were shut down. The rail right of way has since become overgrown but the rail bed is still in excellent shape.

Electrical services exist on the Property (110,000 volts). A high tension hydro electric line servicing the Mont Video Ski and Recreation area passes within 2 km of the Property.

Water from Lac Lortie provides sufficient water for drilling and plant use.

The tailings storage area for the historic mining operations is the west-east trending valley that runs along the southern tip of Lac Lortie. An alternative site for future production would need to be considered as this area is more or less "full" to capacity.

All buildings on the Property were removed and underground openings sealed as part of the mine closure and site rehabilitation. Figure 5-9 shows a panoramic view of the mine.

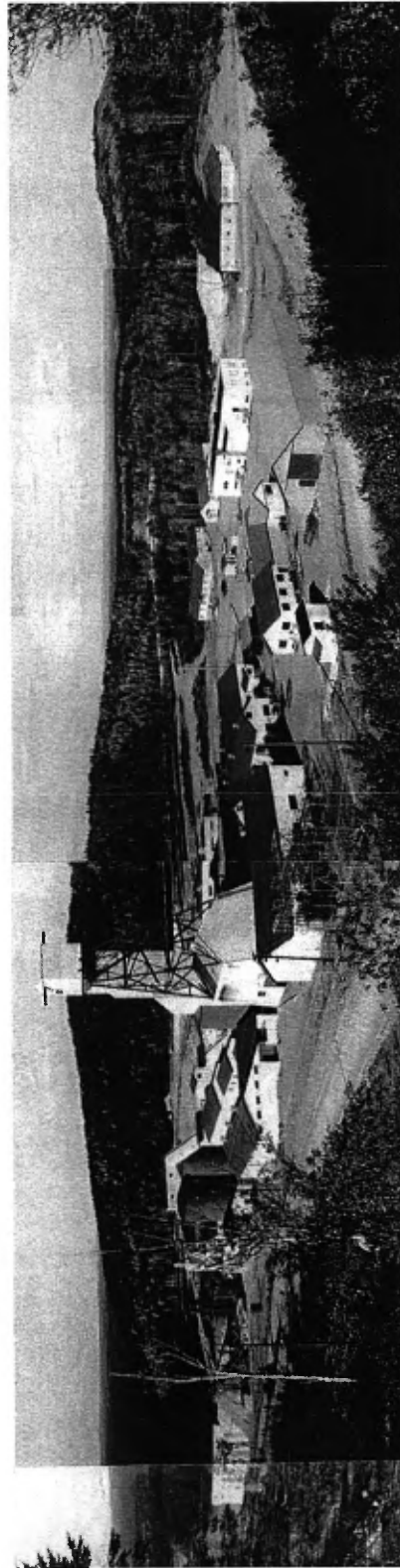


Figure 5- 9 Panoramic photograph view of the Quebec Lithium mine in 1959.



6.0 HISTORY

The following summary of the historic exploration and mining activities on the Quebec Lithium Property is based on published reports, internal reports, drill logs and assessment files from the MRNF that were available to the authors. Historic annual mine reports are missing for 1958 to 1962, so for these years there is little to no information available even though the mine was operating.

6.1 1942, Sullivan Consolidated Mines Limited

The original discovery of a spodumene pegmatite dyke was made in 1942 on Lot 61, Range IX of La Corne Township (south of Lac Roy) by prospector Mr. Fred W. Chubb, and gentlemen Georges Dumont and Jos Laroche (B.S. Karpoff, chief engineer, 1959, internal QLC report). The pegmatite contained quartz veins and crystals of green "beryl" a few hundred feet south of Lac Roy (Karpoff, 1993). Beliveau examined the samples, and recognized that the green crystals were not beryl but that they were spodumene. Due to lack of interest in lithium at that time, no exploration work was completed until 1952.

According to Maurice Scott, geologist for Sullivan Consolidated Mines Limited ("Sullivan"), Sullivan purchased a group of claims including Lots 55 to 62 inclusive of Range IX in La Corne Township (M. Scott, mining geologist, 1954, internal QLC report). It also added to this original group of claims, 9 adjacent claims to the south. In the same year, spodumene-bearing pegmatite dyke was made on the original claims in the eastern end of the property (current Quebec Lithium pegmatite).

6.2 1942-1943, Dumont Molybdenite Exploration

In August 1942, the geology south of Lac Roy was summarized possibly by Mr. Georges Dumont. Of economic interest at that time was the molybdenite in the pegmatite dykes. The molybdenite occurs in clusters along the feldspar-rich bands, and individual crystals of molybdenite may be as large as $\frac{1}{4}$ of an inch (~6.4 mm) in diameter. Occasionally, it occurs as small stringers up to $\frac{1}{2}$ of an inch (~12.8 mm) wide and 6 inches (~15 cm) long, also in the feldspar-rich bands. The central band of quartz, which has a minimum width of 18 inches (~46 cm) carries little or no molybdenite. Pyrite is very rare in the pegmatite dykes. The country rock is basaltic lavas altered to hornblende schist with variable amounts of biotite. Within the hornblende schist is bodies of peridotite which is exposed along the shore of Lac Roy. A granite stock (Lacorne pluton) occurs to the north and west of Lac Roy.

Fourteen diamond holes (S-1 through S-14) were drilled between November 1942 and February 1943 by Dumont Molybdenite Exploration ("Dumont") for a total of 3,598.9 feet (~1,100m; Table 6 - 1). In



December 1942, a 2 pound (4.4 kg) sample, KH-1930, from High Grade Vein # 2 assayed 11.83% molybdenum at the Province of Quebec, Bureau of Mines Laboratory. Additional molybdenite mineralization was assayed in March 1943 (Table 6-2). In March 1943, an 8 pound (17.6 kg) sample, KK-2249 assayed 1.37% Li_2O at the Province of Quebec, Bureau of Mines Laboratory. Also in March 1943, the Laboratoire de Minéralogie reported that the composition of the plagioclase was $\text{Ab}_{92}\text{An}_8$ (albite).

Table 6 - 1 Historic Drilling by Dumont (1942-1943)

Year	Drill hole	Depth (feet)	Depth (metres)
1942	S-1	494.3	104.6
1942	S-2	253.7	53.7
1942	S-3	110.0	23.3
1942	S-4	253	53.6
1942	S-5	53.5	11.3
1942	S-5A	36.0	7.6
1943	S-5B	488.1	103.3
1943	S-6	198.2	42.0
1943	S-7	303.0	64.1
1943	S-8	318.7	67.5
1943	S-9	79.5	16.8
1943	S-9A	135.0	28.6
1943	S-10	392.7	83.1
1943	S-11	123.3	26.1
1943	S-12	118.0	25.0
1943	S-13	12.01	25.6
1943	S-14	120.9	25.6
Total		3,598.90	104.6

Table 6 - 2 Drilling highlights from Dumont

Sample No.	Sample Weight	MoS_2 (%)	Drill hole	From (ft)	To (ft)	Length (ft)
KJ-2119	2 oz	0.137	S-6	143.9	144.1	0.2
KJ-2110	2 oz	0.132	S-8	211.8	212.0	0.2
KJ-2111	3 oz	0.219	S-8	243.8	244.4	0.6
KJ-2112	1 oz	1.197	S-8	258.7	259.0	0.3
KJ-2091	2 oz	0.113	S-9	80.4	80.8	0.4
KJ-2094	2 oz	0.269	S-9	85.0	85.5	0.5
KJ-2098	1/4 lb	0.258	S-9	96.0	97.0	1.0



6.3 1946, Nepheline Products Limited and Great Lakes Carbon Corporation

In 1942, research work was started to develop an economical method for the production of lithium chemicals from spodumene (W.G. Hubler, president, 1953, internal report for La Corne Lithium Mines Limited). The research program was sponsored by Nepheline Products Ltd. and conducted by C.M. Nicholson, a research chemist, and resulted in the development of an alkaline process which was believed to produce lithium chemicals at a lower cost than existing acid extraction and volatilization processes. The United States and Canada granted patents to Mr. Nicholson in 1946 which assigned to Nepheline Products Ltd.

In 1944, Nepheline Products Ltd. joined with Great Lakes Carbon Corp. of New York to prospect and examine the spodumene ore occurrences in the La Corne district (Hubler, 1953). As a result of this work, a number of claims were optioned and staked. Exploration by surface trenching and diamond drilling continued during 1945 and 1946 when an agreement between the two companies was made whereby Great Lakes Carbon Corp. retained a group of claims in the southwest section and Nepheline Products Ltd. independently retained two groups of claims amounting to approximately 1,600 acres (~647.5 ha). Nepheline Products Ltd. retained one group of claims in the northwest La Corne section where there are deposits of spodumene, beryl and tantalite. The second group of claims held were in the northeast La Corne section and is known as the North La Corne Group. Most of the surface trenching and diamond drilling was done on the northeast group of claims and sufficient ore was found to assure a source of supply for mining and milling operations (current Quebec Lithium pegmatite).

The claims held jointly by Nepheline Products Ltd. and Great Lakes Carbon Corporation consisted of Lots 45 to 54, inclusive in Range IX, La Corne Township (D.R. Derry, geologist, 1946, internal report for Nepheline Products Ltd. and Great Lakes Carbon Corporation). Subsequently claims were staked to include Lots 37 to 44, Range IX. Options were also taken on ground to the north and west of these claims.

The outcrops of spodumene-bearing pegmatites on the original claims were examined by Dr. D.R. Derry in the autumn of 1945 (Rowe, 1953). On the basis of preliminary sampling, separation tests were made on a bulk sample of several hundred pounds (kilograms) by Lakefield Laboratory of Nepheline Products Ltd. at Lakefield, Ontario (Table 6-3). The results of the test were encouraging and a limited diamond drilling program was undertaken.



Table 6 - 3 Partial analyses of Dyke A bulk sample (Derry, 1950)

Sample	Li ₂ O (%)	Na ₂ O (%)	K ₂ O (%)	Al ₂ O ₃ (%)	SiO ₂ (%)	Fe ₂ O ₃ + TiO ₂ (%)	CaO (%)	MgO (%)	Mn (%)
total pegmatite (Dyke A)	1.64	5.02	1.47	17.21	73.05	0.23	1.29	0.48	0.08
spodumene concentrate	5.86	2.98	0.79	25.34	64.92	0.30	0.23	0.029	

In May 1946, Nepheline Products Limited and Great Lakes Carbon Corporation, who held the claims jointly, drilled a total of 6 holes totaling 2,088 feet (~636m) south of Lac Lortie. The results are described in internal reports by D.R. Derry in 1946 and 1950. Three main spodumene dykes were intersected: A, B and C and several thinner ones (Figure 6- 1). The spodumene-pegmatite intersections all had sharp walls and varied in true width from 3 to 45 feet (~0.9 to 14m). The parallel spodumene dykes strike 60 to 70° NW (nearly parallel to the main granite contact in this area) and dip 40 to 60° S. Dyke A was traced for 600 feet (~183m) and varies from 11 to 48 feet (~3.4 to 15m) in true width (Rowe, 1953). Dyke A was intersected by all 6 holes (Derry, 1946). Dyke B is a lense 100 feet (~31m) in length (Rowe, 1953). Dyke B was intersected with certainty by drill hole No. 3 (Derry, 1946). Dyke C was followed for 350 feet (~107m) horizontally and has an average width of 10 feet (~3.1m; Rowe, 1953). Dyke C was intersected by drill holes No. 1, 3, 5 and 6 (Derry, 1946).

Separation tests on the drill core from the North La Corne claims were carried out at the laboratory of Nepheline Products Limited at Lakefield, Ontario (Derry, 1946). Each individual dyke intersection of the three main dykes (A, B and C) was tested separately. Composite samples were created by grouping samples from the same dyke. Intersections of small, discontinuous or low-grade dykes were not tested, but the core was filed for future tests.

The drilling revealed 309,200 (~280,502t) of ore (spodumene-bearing pegmatite) and milling tests have shown that a spodumene concentrate can be obtained that would consist of 20.46% of the pegmatite, contain 64.9% of the total Li₂O and assay 5.86% Li₂O (Tremblay, 1950; Rowe, 1954). Since the dykes apparently carry spodumene from wall to wall, the entire dyke was considered in the tonnage estimate. Because it would be possible to drive an adit to the 100 foot level (~31m), two tonnage estimates were made, one for the pegmatite above the 100 foot level (~31m) and the other for the pegmatite above the 900 foot level (~275m; Table 6-4; Rowe 1953). These historic tonnage estimates are not current, have not been confirmed by CCIC and should not be relied upon.

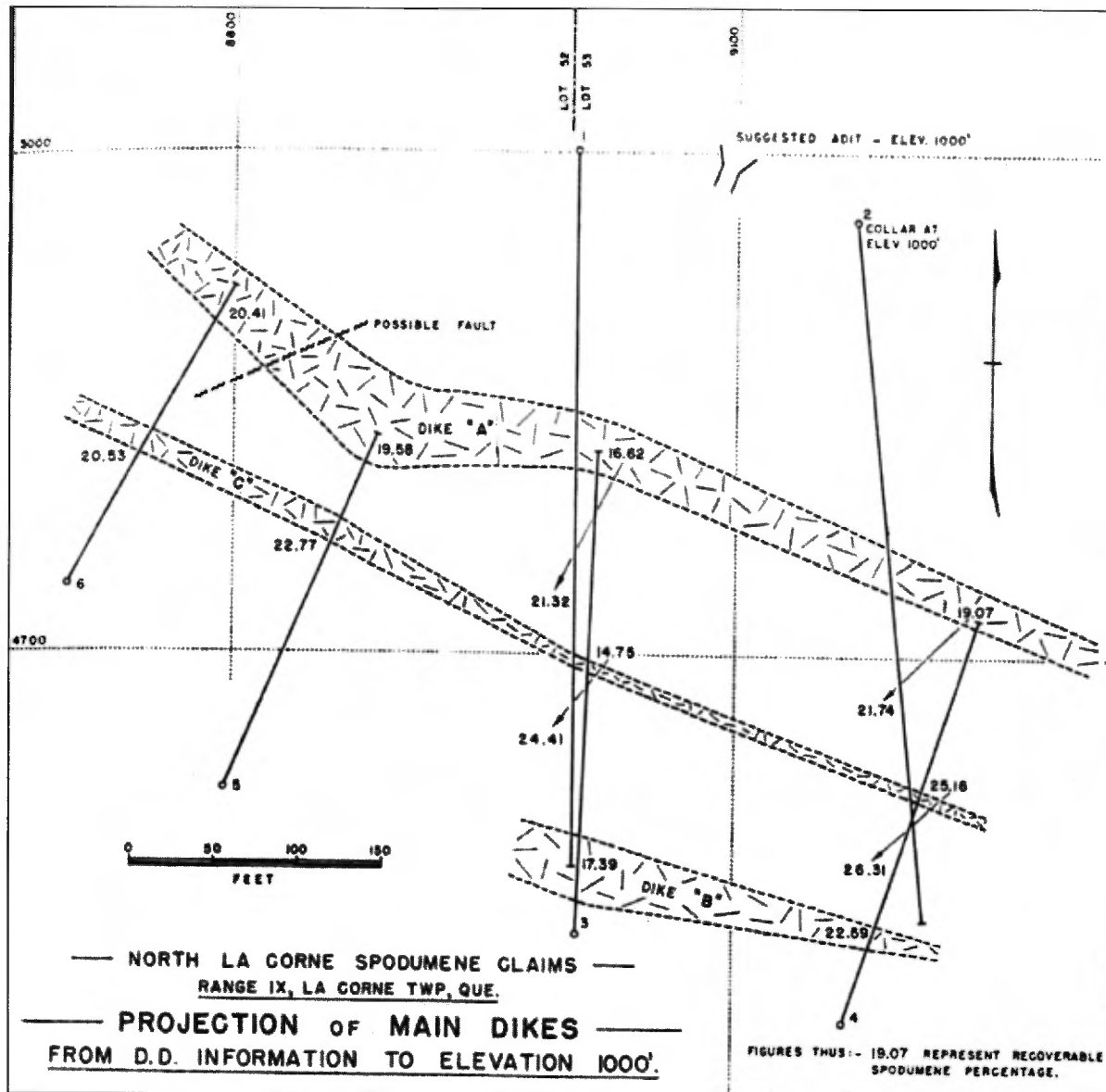


Figure 6- 1 Projection of the main dykes (A, B and C) based on six diamond holes drilled in 1946. Map dated October 1948 as reproduced in Derry (1950).



Table 6 - 4 Tonnage estimates¹ for Dykes A, B and C (Rowe, 1953)

Dyke	Tons ² (surface to 100 foot elevation)	Tonnes ³ (surface to 30m elevation)	Tons ⁴ (surface to 900 foot elevation)	Tonnes ⁵ (surface to 274m foot elevation)
A	88,660	80,431	234,000	212,281
B	18,330	16,629	18,330	16,629
C	23,330	21,165	56,870	51,592
Total	130,320	118,224	309,200	280,502

¹These resources are not current, have not been verified by CCIC and should not be relied upon.

³Metric equivalent to 2.

⁵Metric equivalent to 4.

6.4 1947, La Corne Lithium Mines Limited

In 1947, a new company La Corne Lithium Mines Ltd. was formed to bring into production the claims held and under option to Nepheline Products Ltd (Hubler, 1953). This company was formed under Ontario Charter with a capitalization of 2,500,000 shares of \$1.00 par value. A total of 833,000 shares were issued as vendors stock, of which 533,000 shares were owned by Nepheline Products Ltd. All vendors shares were held in escrow.

6.5 1950, Lakefield Research Ltd.

In 1950, the name Nepheline Products Ltd. was changed to Lakefield Research Ltd. which became owner of all assets of the former company (Hubler, 1953).

6.6 1953, La Corne Lithium Mines Limited

During the period from 1947 to Dec. 31st, 1952, Nepheline Products Ltd., later Lakefield Research Ltd., advanced to La Corne Lithium Mines Ltd., the funds necessary to maintain title to the mining claims, to carry out research work and to pay the incidental costs of the company (Hubler, 1953). In repayment for the funds advanced by Lakefield Research Ltd. to La Corne, Lakefield accepted 130,606 shares of capital stock. Based on the active growing demand for lithium concentrate, chemicals and metals and prices paid for these products, a plan was prepared by La Corne to bring the property into production.

The property was owned by La Corne Lithium Mines Limited and at the time was referred to as the La Corne Lithium property or the La Corne Lithium Deposits (Rowe 1953; Rowe 1954).



Surface diamond drilling was conducted in 1952 and 1953. As of December 24th, 1953, a total of 80 diamond drill holes totaling over 30,000 feet (+9,140m) have been put down and several spodumene-bearing pegmatite bodies have been intersected (Rowe, 1954). The results of this drill program were summarized by Scott (1954) and are discussed in Section 6.7. The pegmatites contain an average of 53% feldspar, 30% quartz and 17% spodumene (Rowe, 1954).

6.7 1954, QLC

In March 1954, QLC (formerly Lithium Exploration Company Limited) acquired the property from La Corne Lithium Mines Limited (B.S. Karpoff, chief engineer, 1957, internal QLC report). QLC was incorporated in 1953 (M. Scott, mining geologist, 1955, internal report for QLC). Sullivan was the largest shareholder of QLC by holding over 50% of the interests (Scott, 1955).

The total area of the claims wholly owned under option by QLC is approximately 16,100 acres (~6,515.7 ha) extending in an east-west direction across the whole township of La Corne into the township of La Motte (to the west) and Fiedmont (to the east) for a distance of over 14 miles (~22.5 km; Scott, 1954).

The spodumene dykes have been found at a distance not exceeding ½ mile from the volcanic – granodiorite contact which the property straddles for a distance of 12 miles (19.3 km; Scott, 1954). The pegmatites tend to follow the main contact striking 70° N and having an average dip of 55° SW. On the whole, the average width of the dykes is 7 to 25 feet (~2.1 to 7.6m) over lengths up to 5,000 feet (~1,524m). Mineralization in spodumene is uniformly distributed throughout a dyke wall to wall. Crystals of spodumene exposed at the surface vary in length from ½ to 3 inches (~12.7 mm to 7.6 cm) or more and their elongated dimension is normal to the walls of the dykes. The colour of the spodumene is white to greenish with white being characteristic of some ore shoots.

In June 1954, stripping of the ground began on Lots 53 and 54 of Range IX. On June 29, 1954, QLC signed a five-year contract with Lithium Corporation of America Inc. ("LCA") to purchase 272,220 short tons (~246,954t) of spodumene concentrate containing at least 4.5% Li₂O with deliveries from January 1st, 1956 to December 31st, 1960 (Karpoff, 1993).

According to Scott (1954), who supervised the exploration work in 1952 and 1953, the total footage of surface diamond drilling on the original group of claims is 29,533 feet (~9,000m). Dyke No. 1 was cut by 41 diamond drill holes. Surface diamond drilling as of February 1954, has indicated that spodumene dykes No. 1 and 2 contain a total of 2,260,000 tons (~2,050,238t) with 1.11% Li₂O. This historical resource estimate is not current, has not been verified by CCIC and should not be relied upon. Fifty-one



holes drilled systematically across the No. 1 and 2 dykes have defined the ore shoot with tonnages listed in Table 6 - 5. Dyke No. 2 is 1,000 feet (~305m) north of dyke No. 1.

Table 6 - 5 Average dimensions, tonnage¹ and lithia content for pegmatite ore shoots (Scott, 1954)

Dyke No.	Length (feet)	Vertical depth (feet)	Width (feet)	Tonnage (tons)	Li ₂ O (%)
1	400	400	22	370,000	1.04
1	1020	450	22	1,000,000	1.24
1	1580	250	7	270,000	0.72
1	1300	250	12	370,000	1.12
2	1500	300	7	250,000	1.12
Total Tonnage				2,260,000	

¹This historical resource estimate is not current, has not been verified by CCIC and should not be relied upon.

Additional dykes were also intersected by surface drilling (Scott, 1954). A limited amount of drilling in an area 700 feet (~213m) south of dyke No.1 has indicated the presence of numerous dykes which includes three parallel dykes No. 3, 4 and 5. Thirty-two intersections of the other dykes have returned an average of 1.02% Li₂O across an average width of 18.6 feet (~5.7m). Higher grade shoots could be mined in dykes No. 3 and 4. Two holes were drilled across dykes No. 6 and 7, respectively located 200 and 300 feet (~61 and 91m, respectively) north of dyke No. 1. The drilling was done to a vertical depth of 200 feet (~61m) and gave the following results:

- Dyke No. 6 is 35.9 feet (~11m) wide with 1.11% Li₂O
- Dyke No. 7 is 21.8 feet (~6.6m) wide with 0.99% Li₂O

With present available data on all dykes, Scott (1954) estimated a total reserve of 3,000,000 tons (~2,721,555t) with an average of 1.11% Li₂O. This historical resource estimate is not current, has not been verified by CCIC and should not be relied upon.

In December 1954, QLC started shaft sinking operations (Karpoff, 1957).

6.8 1955, QLC

The mining property of QLC is located on surveyed Lots of Ranges VIII, IX and X in the townships of La Come and Fiedmont covering a total area of 11,100 acres (~4,492.2 ha) and 11 miles (~17.7 km) in an east-west direction (Karpoff, 1955; Scott, 1955). It comprises a contiguous group of 201 claims from which 11 claims are held under mining concession No. 421. The No. 421 mining concession was granted for the first time on July 4th, 1955 (Karpoff, 1993). The mine plant and underground workings extend on Lots 52, 53 and 54 of Range IX, La Come Township.



In 1955, QLC began mine and mill development with the goal of producing spodumene ore from Dyke A (H.S. Bérubé, mine manager, 1955, internal QLC report). Mine development relied on information from surface and underground diamond drilling. During the year, the following mine development was completed (Table 6-6):

- A three compartment shaft was sunk to 560 vertical feet (~170m) by June 1955. A skip loading pocket, spill pocket and sump were also cut and excavated.
- Three levels were established with level stations (150, 275 and 400 foot) (~46, 84 and 121m).
- A crusher room was cut and excavated on Level 3.
- Ore and waste passes were driven from the loading pocket to the crusher room and extended to the second and first level.
- Pumping station established at the 500 foot (~152m) level.
- 32 x 40 inch (81 x 107 cm) jaw crusher and steel loading pocket was installed.
- Drives were started on three levels.
- Cross cuts north and south and drives east and west were developed.

The shaft was completed in June 1955 at a depth of 560 feet (~171m) with working levels at 150 and 275 foot horizons (~46 and 84m, respectively; Karpoff, 1957). As soon as the drives on Levels 1 and 2 were far enough advanced, sectional underground diamond drilling was started to outline the attitude of the A and No. 1 dykes for mining purposes. The underground drilling information was used for stope development. A total of 8,765 feet (~2,672m) of underground diamond drilling was completed. A total of 13,460 feet (~4,103m) and 138 holes of surface exploration diamond drilling were also completed. At the end of 1955, two stopes were in operation which contains 150,000 tons (~136,078t) of ore grading 1.2% Li₂O.

Sectional surface diamond drilling has cut commercial intersections over true widths ranging from 6 feet (~1.8m) to over 100 feet (~31m). Dyke No. 1 was traced by drilling for a continuous length of more than 10,000 feet (+3,048m) and it ranged in width from 8 feet up to 125 feet (~2.4 to 38m; Karpoff, 1955). Dyke No. 1 contains two individual shoots 1,500 feet and 4,000 feet long (~457m and 1,219m, respectively; Scott, 1955). Over a dozen other commercial dykes parallel to dyke No. 1 are known to extend for hundreds feet (up to ~200m) along the strike (Scott, 1955).

In November 1955, the first tonnes of ore were hoisted and the concentrator started on November 28th, 1955 (Karpoff, 1993). Spodumene concentrates were sent to the Lithium Corporation of America Inc.'s



(“LCA”) refinery in Bessemer, North Carolina or Minneapolis, Minnesota. All concentrate was shipped to LCA for refining until mid-1959, from which point forward, refining of lithium carbonate, monohydrate hydroxide and ultimately lithium chloride was carried out on site by QLC.

Table 6 - 6 Summary of underground work completed 1955 (Bérubé, 1955)

Item	Amount	Units
shaft sinking	488.5	feet
loading pocket	7,667	feet ³
spill pocket	1,056	feet ³
sump	8,875	feet ³
level stations	24,000	feet ³
ore pocket	33,450	feet ³
crusher room	24,350	feet ³
battery stations	16,200	feet ³
ore pass	311.5	feet
waste pass	343	feet
crosscuts	3,685	feet
drifts	2,230	feet
raises	780	feet
D.D. stations	173	feet
drift slashing	7,352	feet ³
diamond drilling	22,225	feet
stopes in production	2	stopes
tonnage broken in stopes	27,739	tons
tonnage drawn from stopes	12,562	tons

According to Scott (1955), as of February 1955, the dykes contain a total of 15,000,000 tons (~13,607,775t) of ore at an average grade of 1.20% Li₂O (Table 6 - 7). This historical resource estimate is not current, has not been verified by CCIC and should not be relied upon.

Table 6 - 7 Indicated ore reserves as of February 1955 (Scott, 1955)

Dyke	Number of drill holes	Footage (feet)	Strike length drilled (feet)	Deepest intersection vertical (feet)	Indicated tonnage (tons)	Grade % Li₂O per ton	Average true width (feet)
No. 1	106	42,625	8,000	500	5,000,000	1.20	23
Dykes northwest of No. 1	32	16,295	1,200	850	10,000,000	1.20	40
Total	138	58,920			15,000,000	1.20	34
Total above the 400 foot elevation			8,000	400	9,000,000	1.20	28



According to Karpoff (1955), as of late in 1955, the group of dykes explored contains an estimated 20,000,000 tons (~18,143,700t) of ore with an average grade of 1.20% Li_2O . Proven ore reserves are well over 4,000,000 tons (~3,628,740t) with an average grade of 1.55% Li_2O . This tonnage is located in the immediate vicinity of the shaft above the 325 foot horizon (~99m) along a strike length of 1,400 feet (~427m). This historical estimate is not current, has not been verified by CCIC and should not be relied upon.

6.9 1956, QLC

In 1956, 1,100 tons (~998t) of ore were mined per day and a total of 265,362 tons (~240,732t) were hoisted and milled (M. Scott, mining geologist, 1957, internal QLC report).

6.10 1957, QLC

The property covers an area of 11,936 acres (~4,830.5 ha) in the townships of La Corne and Fiedmont (Karpoff, 1957). It comprises of a contiguous group of 168 claims covering surveyed Lots of Ranges VIII, IX and X in both townships. Eleven claims are held under mining concession No. 421.

Spodumene is the ore constituent of the pegmatite dykes occurring in a mica-hornblende granodiorite close to its main contact with volcanic rocks (Karpoff, 1957). The dykes also intrude the volcanic rocks in the shaft area. The pegmatites tend to follow the main contact, striking 50 to 70° N with an average dip of 55 to 75° SW. The pegmatite dykes are quite regular and persistent along a strike length of over 8000 feet (~2,438m). The mineralization in spodumene is uniformly distributed from wall to wall. Crystals of spodumene vary in lengths from 1/8 of an inch or less to 6 inches or more and a remarkably uniform orientation of the elongated crystals nearly normal to the walls of the dykes. The spodumene crystals are white to greenish with the white colour being characteristic of the shaft area.

Development work done to the end of April 1957 has given access to the mining of 5,018,460 tons (~4,552,672t) of ore proven by sectional underground drilling consisting of horizontal and inclined holes drilled at 50 foot (~15.2m) intervals (Karpoff, 1957). With the exception of one blast-hole stope, the shrinkage method of stoping is used throughout the mine. The stopes are laid out in 200 foot (~61m) lengths and serviced by pillar raises at each end. The raises have entry windows cut on 17 foot (~5.2m) centers (Karpoff, 1957). The three-compartment shaft with a depth of 560 feet (~171m) has level stations at the 150, 275 and 400 foot horizons (46m, 84m and 122m or Levels 1, 2 and 3 respectively; Scott, 1957). The shaft was being slashed to a five compartment shaft at this time. Underground sectional diamond drilling at the end of April 1957, reached a total accumulated footage of 85,988 feet (~26,209m).



It has proven the existence of ore shoots exceeding 50 feet (~15m) in width and 1,200 feet (~366m) in length. A summary of the development work completed to outline ore shoots and prepare them for stoping is given in Table 6-6.

Table 6 - 8 Development work completed to end of April 1957 (Scott, 1957)

Item	Amount (feet)	Amount (metres)
cross cuts	5,396	254.9
Drifts	7,501	354.4
Raises	3,299	155.9
draw points	2,981	140.8
box holes	1,022	48.3
sub and fringe drifts	2,613	123.4
scram drifts	249	11.8
diamond drilling	85,988	4,062.4

In the first 4 months of 1957, 1,250 tons (~1,134t) of ore were mined per day and a total of 90,922 tons (~82,483t) were hoisted to the mill (Scott, 1957). By the end of April 1957, 513,403 tons (~465,752t) of ore had been mined of which 142,125 tons (~128,934t) still remained in stopes as broken ore (Table 6-7). The average grade of ore mined to April 1957 is 1.25% Li₂O. The concentrator is equipped for treatment of 1,600 tons (~1,451t) of ore per day. The concentrator through flotation process produces spodumene concentrates for sale to the chemical and ceramic trade. The recovery for the first four months of 1957 was 90.8%.

Table 6 - 9 Mine output to April 1957 (Scott, 1957)

Year	Tons of ore mined	Tons of ore hoisted	Tons of ore milled	Tons of broken ore
1955 (December)	31,061	14,994	14,275	16,067
1956	346,691	265,362	238,309	81,329
1957 (to end of April)	135,651	90,922	77,731	44,729
Total	513,403	371,278	330,315	142,125

Surface diamond drilling in 43 separate sections and totalling 58,920 feet (~17,959m) has cut pegmatite over true widths ranging from 6 to 120 feet (~1.8m to 38m; Scott, 1957). It is estimated that the ore tonnages is over 20,000,000 tons (~18,143,700t) containing 1.15% Li₂O. The deepest intersection was cut at a vertical depth of 850 feet (~259m) with a content of 1.53% Li₂O across a true width of 120 feet (~37m).



6.11 1959, QLC

QLC's mining property is located on surveyed Lots of Ranges VIII, IX and X in La Corne and Fiedmond Townships (B.S. Karpoff, chief engineer, 1959, internal QLC report). It comprises a contiguous group of 187 claims from which 11 claims are held under mining concession No. 421.

6.12 1960, QLC

In mid-1959, the contract for the sale of spodumene concentrate by QLC to LCA was terminated and a refinery for lithium carbonate, monohydrate hydroxide and lithium chloride was constructed and operational by 1960 (Karpoff, 1993). The chloride refinery did not operate daily.

6.13 September 1962 – August 1963, QLC

Production of lithium hydroxide ($\text{LiOH}\cdot\text{H}_2\text{O}$) began in June 1963.

6.14 September 1963 – August 1964, QLC

The underground was operated for a period of 188 days (R. Plasse, mine manager, 1964, internal QLC report). During the year, 61,107 tons (~55,435t) were broken in the stopes and 76,856 tons (~69,723t) were hoisted to surface. The broken ore reserves at the end of year amounted to 198,998 tons (~180,528t). The mill was run intermittently according to the demands for concentrate from the refineries. The concentrator treated 70,122 tons (~63,614t) of ore to produce 15,595 tons (~14,148t) of concentrate. The ore processed through the concentrator had an average grade of 1.51% Li_2O to form a concentrate of 5.91% Li_2O for an overall recovery of 87.0%.

The carbonate plant was in production for the whole fiscal year except for July 12th, 1964 to July 27th, 1964 for the annual holiday. The production for the year was 2,204,300 pounds (~4,849,460 kg). The hydroxide plant was also operated for the whole fiscal year except for July 12th, 1964 to July 27th, 1964 for the annual holiday. A production of 632,588 pounds (~1,391,694 kg) was obtained.

6.15 September 1965 – August 1966, QLC

The underground was operated for a period of 143 days (R. Lavertu, plant manager, 1965, internal QLC report). During the year 113,323 tons (~102,805t) were broken in the stopes and 62,479 tons (~56,680t) of ore were hoisted to surface. The broken ore reserves at the end of the year amounted to 249,842 tons (~226,653t). The concentrator ran for the same period of time and treated 54,933 tons (~49,834t) of ore



(after sorting) to produce 11,937 tons (~10,829t) of concentrate. The ore processed through the concentrator had an average grade of 1.44% Li₂O to produce a concentrate of 5.71% Li₂O with an average recovery of 86.5%.

The carbonate plant operated for a period of 10 months. During July and August 1965, the plant was closed for annual holidays and to make changes in steam piping due to the installation of a new autoclave and precipitation tank. The total production for the year was 2,649,800 pounds (~5,829,560 kg). The hydroxide plant was operated for a period of 4 months from September 1st, 1964 through to December 31st, 1964. A production of 347,650 pounds (~746,830 kg) was obtained for an average of 94,000 pounds (~206,800 kg) per month.

The building of the carbonate plant was enlarged to provide room for installation of one new autoclave, one blow-down tank, one precipitation tanks and one set of six coolers. Installation and hook-up was practically completed at the end of August 1965. Early in the summer of 1965, the chloride plant was designed and it scheduled to start construction later that year in November.

Table 6 - 10 Sales September 1964 to August 1966 (Lavertu, 1965)

Product	1964 Production		1965 Production	
lithium carbonate	1,821,250 lbs	4,006,750 kg	2,004,530 lbs	4,409,966 kg
lithium hydroxide	49,000 lbs	107,800 kg	266,875 lbs	587,125 kg
decrepitated concentrate			95.9 tons	87.0 t

Table 6 - 11 Summary of mine production as of August 31, 1965 (Lavertu, 1965)

Year	Tons broken in stopes	Tons of ore drawn from stopes	Tons of ore drawn from development and stope preparation	Tons of ore hoisted	Tons milled	Broken ore reserve at the end of:	Tons of ore in place prepared for stoping at the end of:
1955	28,587	12,520	2,474	11,615	10,549	16,067	1,994,450
1956	307,955	226,626	46,502	265,362	238,309	97,396	1,686,495
1957	321,660	243,090	22,618	272,211	226,873	175,966	1,364,835
1958	210,554	183,682	2,705	188,208	157,091	202,838	1,154,281
1959	224,988	203,740	168	202,571	166,292	224,086	929,293
1960	39,548	3,694	-	5,253	3,694	259,940	889,745
1961 ¹	-	26,149	-	23,410	25,368	236,536	889,745
1962 ¹	22,097	22,785	-	18,261	14,137	240,366	867,648
1963	41,617	68,270	-	69,494	66,921	212,489	826,031
1964	61,102	26,866	2,258	76,856	70,122	198,998	762,666
1965	113,323	60,080	2,399	62,479	54,933	249,842	649,343

¹beginning in 1961, the fiscal year ends August 31st.

Table 6 - 12 Summary of mill production as of August 31, 1965 (Lavertu, 1965)



Year	Tons milled	Head grade (% Li ₂ O)	Tons concentrate	Concentrate grade (% Li ₂ O)	Recovery (%)
1962-1963	66,921	1.48	13,735	5.98	82.5
1963-1964	70,122	1.51	15,595	5.91	87.0
1964-1965	54,933	1.44	11,937	5.71	86.5

Table 6 - 13 Lithium carbonate plant production 1962-1965 (Lavertu, 1965)

Year	Production Li ₂ CO ₃ (lbs)	Spodumene ¹		
		Processed (lbs/lb)	Available Li ₂ O %	beta Li ₂ O %
1962-1963	1,921,550	9.74	5.65	5.64
1963-1964	2,204,200	9.10	5.71	5.67
1964-1965	2,649,800	10.02	5.50	5.40

¹spodumene quantity expressed as quantity consumed per pound Li₂CO₃ produced

Table 6 - 14 Lithium hydroxide plant production 1962-1965 (Lavertu, 1965)

Year	Production LiOH-H ₂ O ¹ (lbs)	Spodumene ²	
		Processed (lbs/lb)	Available Li ₂ O in cake %
1962-1963	86,077	19.98	3.53
1963-1964	632,588	12.19	3.71
1964-1965	374,650 ³	10.33	4.38

¹production of LiOH-H₂O began in June 1963

²spodumene quantity expressed as quantity consumed per pound LiOH-H₂O produced

³production in Sept., Oct., Nov. and Dec. 1964

6.16 September 1965 – August 1966, QLC

The underground was operated for one period of 35 days from September 17th, 1965 to October 23rd, 1965 (M. Larouche, chief chemist, 1966, internal QLC report). During this time, 16,764 tons (~15,208t) were broken in stopes and 6,447 tons (~5,849t) of ore were hoisted to surface. The broken ore reserves at the end of the year amounted to 260,159 tons (~236,012t). The concentrator ran for 15 days from October 7th, 1965 to October 23rd, 1965 and treated 5,447 tons (~4,941t) of ore (after sorting) to produce 1,423 tons (~1,291t) of concentrate. The ore processed through the concentrator had an average grade of 1.48% Li₂O to produce a concentrate of 5.29% Li₂O with an average recovery of 93.14%. The carbonate plant was operated for 15 days from October 7th, 1965 to October 23rd, 1965. The hydroxide plant was closed for the whole year.



During September and October 1965, a new autoclave, blow tank, precipitation tank were installed and a set of coolers were almost completed. A chloride plant was also nearly completed October 23rd, 1965 (Larouche, 1966).

Due to a strike, operations were suspended October 23rd, 1965. Since then no production has been made except for 11,900 pounds (~26,180 kg) of carbonate from the circuit cleaning and practically no material was shipped from the property (Larouche, 1966). Operations were also suspended in 1965 because of unfavourable market and price conditions and lack of sales (SNC, 1974; Karpoff, 1993). Since operations were suspended the property was under surveillance by guards and infrastructure and equipment were not maintained.

Table 6 - 15 Sales for September 1965 – August 1966 (Larouche, 1966)

Product	Amount	Imperial Units	Amount	Metric Units
lithium carbonate	1,106,959	lbs	2,435,310	kg
lithium hydroxide	128,874	lbs	283,523	kg
spodumene concentrate	151.8	tons	137.7	t

6.17 1974, Sullivan Mining Group

Surveyer, Nenniger et Chênevert Inc. (“SNC”), an engineering consulting firm, was contracted by Sullivan Mining Group (“SMG”) to write a feasibility report (dated March 8, 1974) on the rehabilitation of the Quebec Lithium mine (SNC, 1974). They investigated market conditions, alternative mining methods and metallurgical processes. They also recalculated the mining and property Li₂O reserves.

In 1974, the major use of lithium was as an additive in the molten salt bath in the aluminum smelting process. It was also used in the manufacturing of glasses, ceramics, vitreous enamels, greases, refrigeration and air conditioning.

6.17.1 Historic Reserves

According to SNC, the ore reserves for the Quebec Lithium Property are 17,347,000 short tons (~15,736,938t) with an average grade of 1.14% Li₂O (Table 6 - 16 and Table 6 - 16). These historical reserves are not NI 43-101 compliant, have not been verified by a Qualified Person, are not current and should not be relied upon. The ore reserves were recalculated using diamond drilling records, vertical geological sections and information from mining operations in 20 stopes. This data was supplied to SNC by SMG. SNC did not conduct a site visit or examine any drill core, as the drill core no longer exists. The



historic reserves for the mine area were based on 58,920 feet (~17,959m) of surface diamond drilling, 85,988 feet (~26,209m) of underground drilling, as well as information from mining approximately 1,200,000 tons (~1,088,622t) of ore in 20 stopes on two levels underground. The vertical geological sections, geological interpretations and diamond drill logs were checked as required to verify grade averages.

The ore reserves were calculated for two distinct areas:

1. Mine area – The mine area consists of two contiguous blocks in which underground mining operations were carried out. The northern block lies between Geological Section 11 West and 2 East and from the original Base Line to 400 feet (~122m) north. The southern block lies between Geological Sections 11 West and 17 East, and from the original Base Line to 1,000 feet (~305m) south.
2. Surface Diamond Drilling Area – This area extends from the mine area approximately 2,000 feet (~610m) to the west and 6,000 feet (~1,829m) to the east.

The ore reserves in the mine area are adjusted for 85% recovery in 7% dilution with the exception of the broken ore. Over a period of 10 years of operation, the ore hoisted from underground works averaged a grade of 1.25% Li₂O against the composed 1.13% Li₂O derived from geological sections.

Table 6 - 16 Historic ore reserves¹ for the Quebec Lithium Property (SNC, 1974)

Mine area	Dry short tons	Metric Tonnes	Li₂O (%)
Proven ore	3,639,000	3,301,246	1.13
Probable ore	980,000	889,041	1.14
Possible ore	2,500,000	2,267,963	1.13
Subtotal	7,119,000	6,458,250	1.13
Surface diamond drilling area	Dry short tons		Li₂O (%)
Well drill indicated ¹	808,000	733,005	0.99
Drill indicated ²	9,420,000	8,545,683	1.16
Subtotal	10,228,000	9,278,688	1.15
Total reserves	17,347,000	15,736,938	1.14

¹These historical reserves are not NI 43-101 compliant, have not been verified by a Qualified Person, are not current and should not be relied upon.

²Well drill indicated reserves refer to Dykes 3, 4 and 5

³Drill indicated reserves refer to Dykes B, F, E, X, 1 and 2.



Table 6 - 17 Historic mine area ore reserves¹ for the Quebec Lithium Property (SNC, 1974)

Mine area	Dry short tons	Metric tonnes	Li₂O (%)
Proven ore reserves			
- broken ore	227,000	205,931	1.13
- developed ore	412,000	373,760	1.13
- undeveloped ore	3,000,000	2,721,555	1.13
Subtotal	3,639,000	3,301,246	
Probable ore reserves			
	980,000	889,041	1.14
Possible ore reserves			
	2,500,000	2,267,963	1.13
Subtotal of mine area ore reserves	7,119,000	6,458,250	1.13

¹These historical reserves are not NI 43-101 compliant, have not been verified by a Qualified Person, are not current and should not be relied upon.

6.17.1 Mining

The underground workings were serviced by a 5-compartment, 530 feet (~132m) deep shaft. The shaft was originally sunk as a 3-compartment shaft and later slashed to provide the other two compartments. Only 3 compartments were in use. Three, 6 feet by 6 feet (~1.8 by 1.8m), raises were been driven to the surface for ventilation.

Three levels, the 150 foot (~46m; Level 1), the 275 foot (~84m; Level 2) and the 400 foot (~122m; Level 3) level were established, allowing for a 25 foot (~7.6m) surface pillar. The mining levels are approximately 125 feet (~38m) apart for extraction. A double, 6 foot by 8 foot (~1.8 by 2.4m), ore pass system has been established from the first and second levels to the skip loading station in the shaft below the third level, via the primary crushing station. The waste pass system was also established from the first and second levels and it by-passes the crusher station on the third level.

Level 1 intersects 6 roughly parallel ore bearing dykes, from northeast to southwest: B, U, A, T, S and V (Figure 6-2). Approximately 2,000 feet (~610m) of cross cutting and 4,500 feet (~1,372m) of drifting have been driven with headings of 8 feet by 8 feet (~2.4 by 2.4m) and 8 feet by 10 feet (~2.4 x 3.0m), respectively. This development work has allowed the opening up and mining of 10 stopes: 5 stopes in Dyke A, 3 stopes in Dyke V, 1 each in Dykes S and U (Figure 6-2).

Level 2 intersects the same dykes as the first level (Figure 6-3). Approximately 2,100 feet (~640m) of cross cutting and 3,500 feet (~1,067m) of drifting have been developed. This development work has



allowed the opening up and mining of 10 stopes: 5 stopes in Dyke A, 3 stopes in Dyke V, 1 each in Dykes C and S (Figure 6-3). Three cross cuts have been driven through Dyke B, in the shaft area, over a strike length of approximately 400 feet (~122m), indicating widths averaging from 80 to 100 feet (~24 to 31m). Approximately, 300 feet (~91m) in length of Dyke S, varying in width from 40 to 60 feet (~12 to 18m) has been developed by drifting.

The only development on Level 3 is approximately 200 feet (~61m) of cross cutting into Dykes B and U.

The mining method used is illustrated in Figures 6-4 and 6-5. Production mining was accomplished by the use of shrinkage stoping. The shrinkage stopes were developed by driving drifts parallel to the dykes. Draw points were then established by drifting into the dyke and then driving several boxhole rounds from the end of the draw point up in the ore. The boxholes were then coned out (Figure 6-5).

Each stope was ~200 feet (~61m) long with a 30 foot (~9.1m) pillar in-between. Access to the stopes was through 6 x 6 foot (~1.8m) raises in the centre of the pillar with subdrifts driven into the stopes from the access raise. The stopes varied in width from 20 feet (~6.1m) to 60 feet (~18m) with an average width of approximately 30 feet (~9.1m) while the dip of the dykes mined averages 55 to 75°.

Production mining and development work were done with jackleg drills using tungsten carbide bits. Both the development and the production mucking from draw points were done with track-mounted mucking machines, while ore was transported using 2.5 ton (~2.3t) battery-run locomotives and mine cars on 24 inch gauge (~61 cm separating the sides of the rail tracks), 30 pound rail (rail profile = 30-pound-per-yard or 14.9 kg/m).

Blast hole stoping was not done, however, preparations were made to use this method in Dyke B prior to shutting down the mining operation.

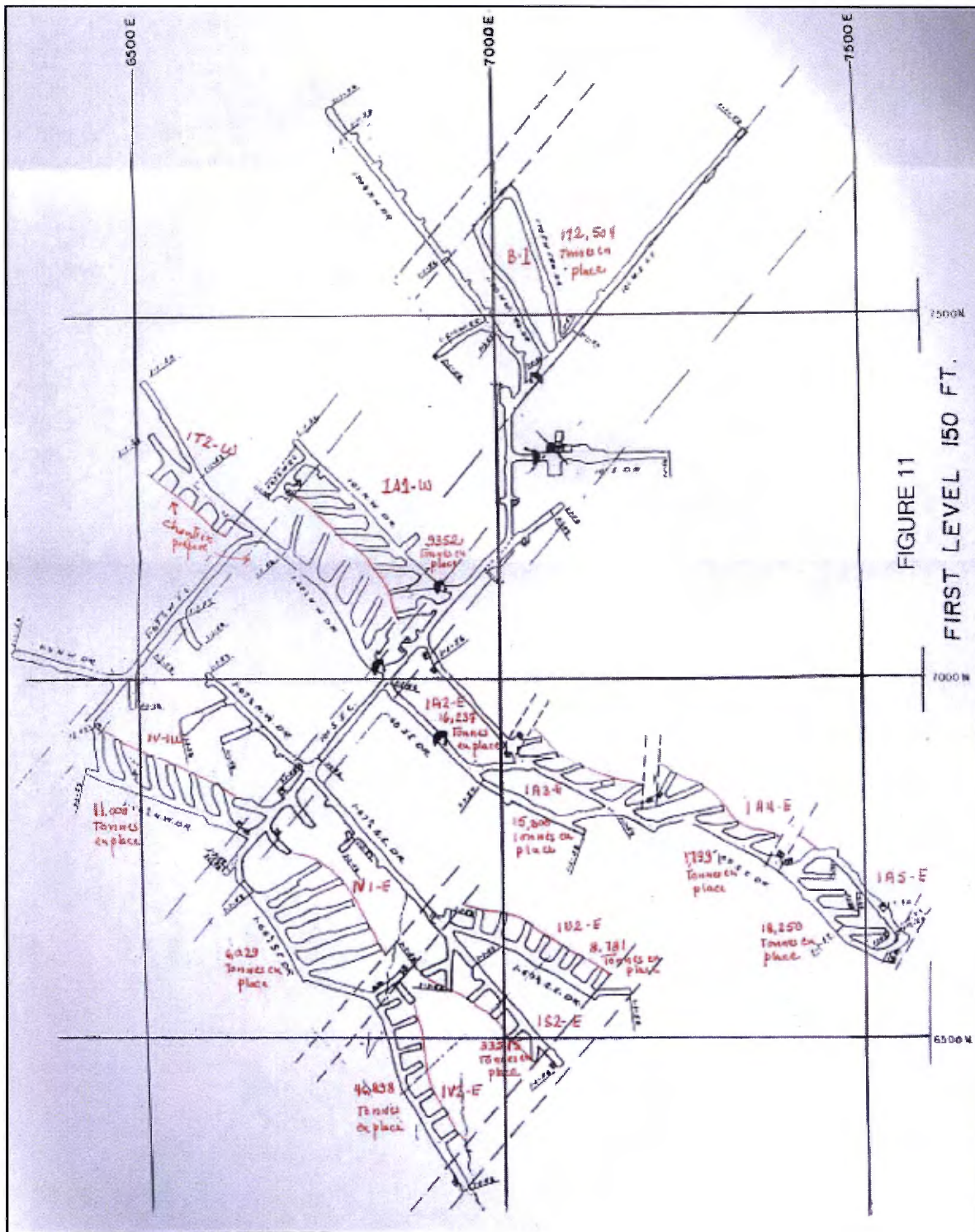


Figure 6- 2 Production stopes on Level 1 (from Leclerc, 2000).



SNC recommended that underground mining operations be resumed using the shrinkage stope method previously used (Figures 6-4 and 6-5). The first and second levels have sufficient broken and developed ore reserves to operate the mine for approximately 2 ½ years at the rate of 1,000 tons (~907t) per day (assuming it can all be recovered). It was also recommended that long hole stoping with trackless haulage be conducted in Dyke B from Level 2. Improvements to the mining method were recommended to deal with the problem that the spodumene pegmatite is very difficult to drill, as it is abrasive causing excessive bit wear.

6.17.1 Processing

SNC reviewed records from SMG and the Mineral Research Centre (“MRC”) of the Department of Natural Resources of the Province of Quebec which indicated that the crushing, grinding and concentration plant, as well as the decrepitation plant have sufficient capacity to handle the 850 tons (~771t) per day mine output. This is the nominal requirement to produce 7,000,000 pounds (~15,400,000 kg) of lithium carbonate per year. However if the process improvement recommendations are implemented, the optimum plant performance could be achieved at close to 9,000,000 pounds (~19,800,000 kg) per year. The production record from the refinery, until it was shut down in 1965 is given in Table 6-18.

When the Quebec Lithium mine was in operation, the ore was sorted by hand. The spodumene ore is white and the iron-rich waste rock is very dark to almost black.

Table 6 - 18 Annual production of lithium carbonate (SNC, 1974)

Fiscal year ending	Annual production of lithium carbonate	
	pounds	kg
August 1961	635,000	
August 1962	958,000	2,107,600
August 1963	1,915,000	4,213,000
August 1964	2,284,000	5,024,800
August 1965	2,650,000	5,830,000

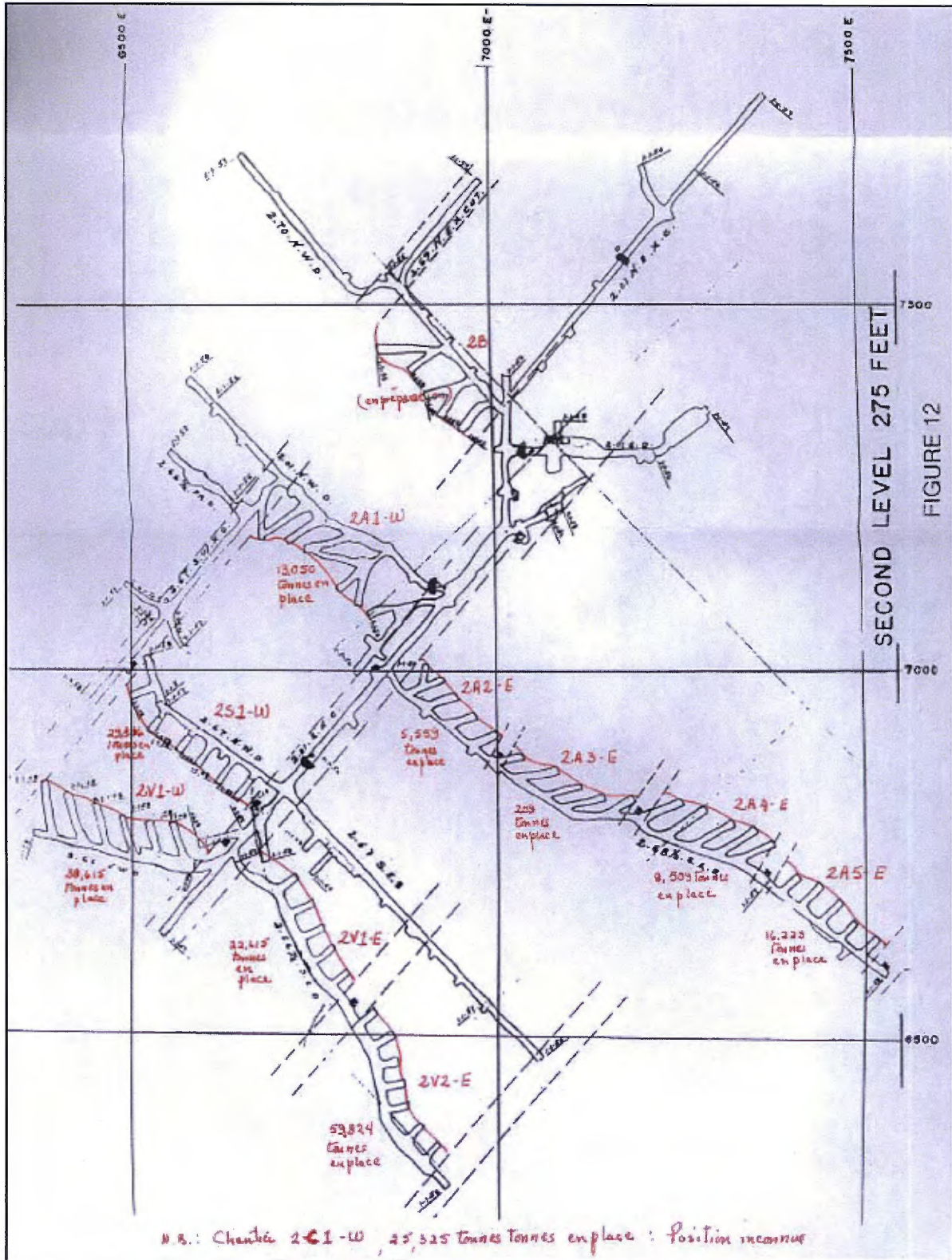


Figure 6- 3 Production stops on Level 2 (from Leclerc, 2000).

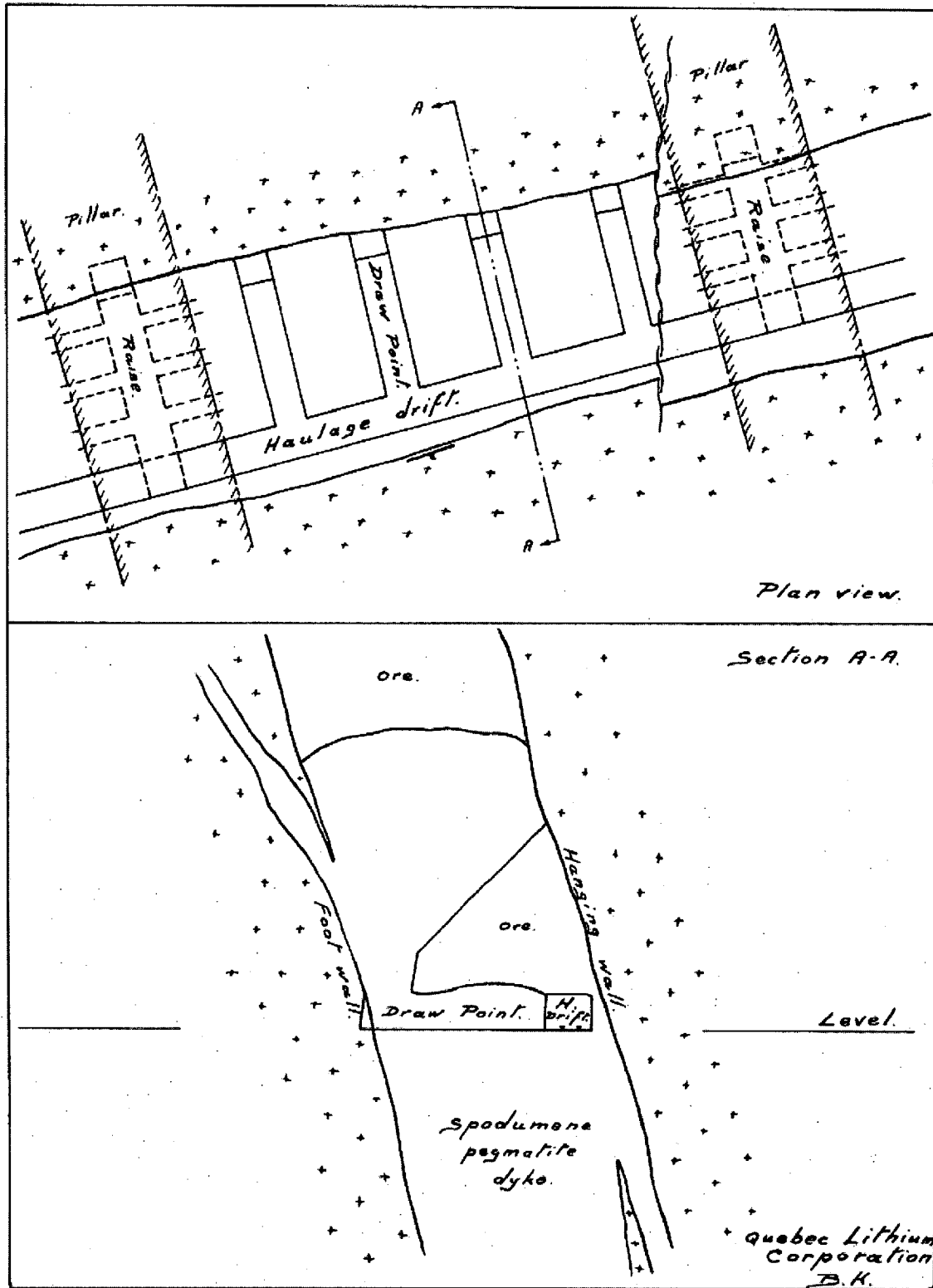


Figure 6-4 Schematic drawings of the shrinkage stope mining technique used at the Quebec Lithium mine (Karpoff, 1958).

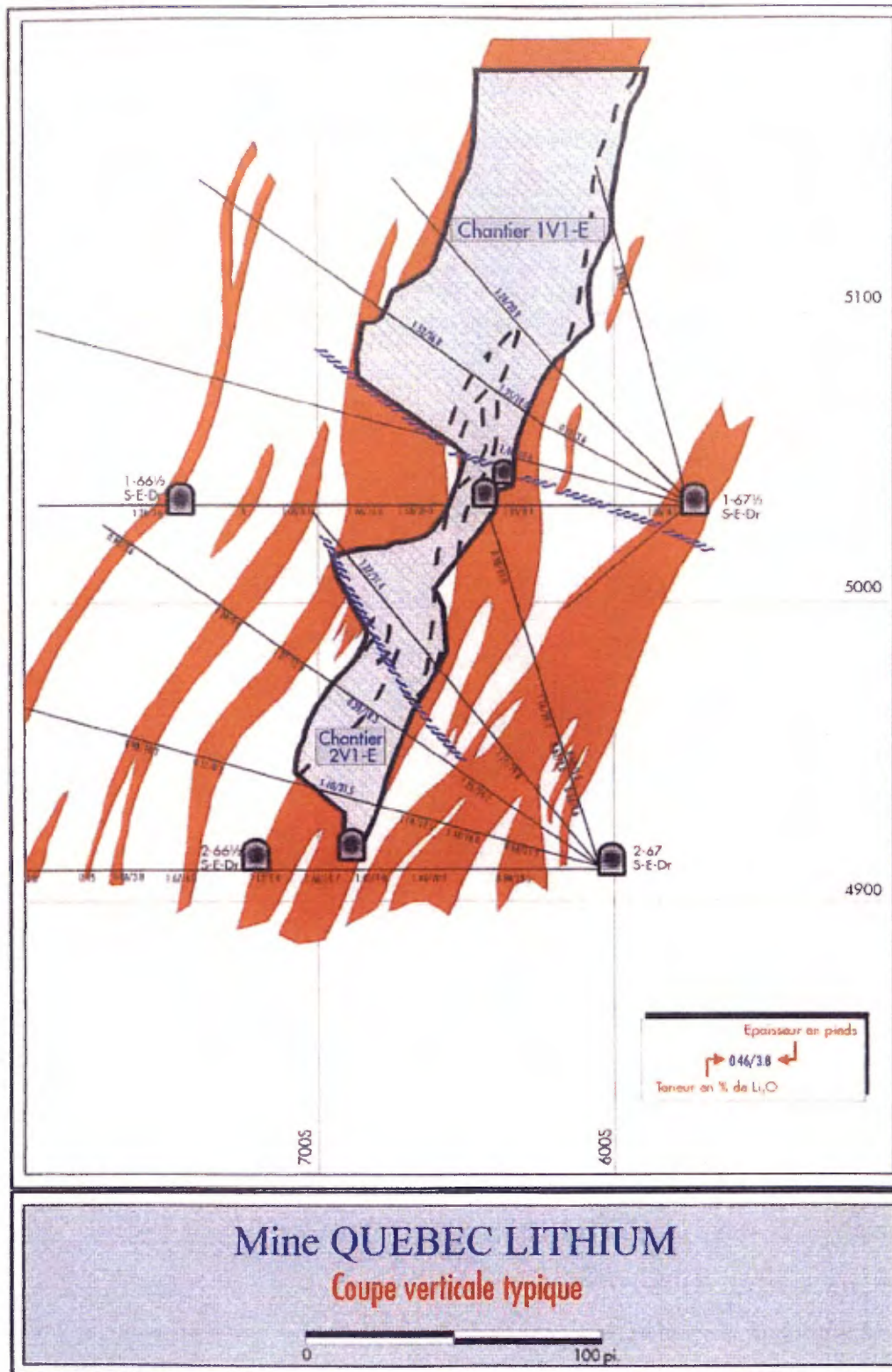


Figure 6- 5 Cross sectional view of stopes in Dyke V (Karpoff, 1993).

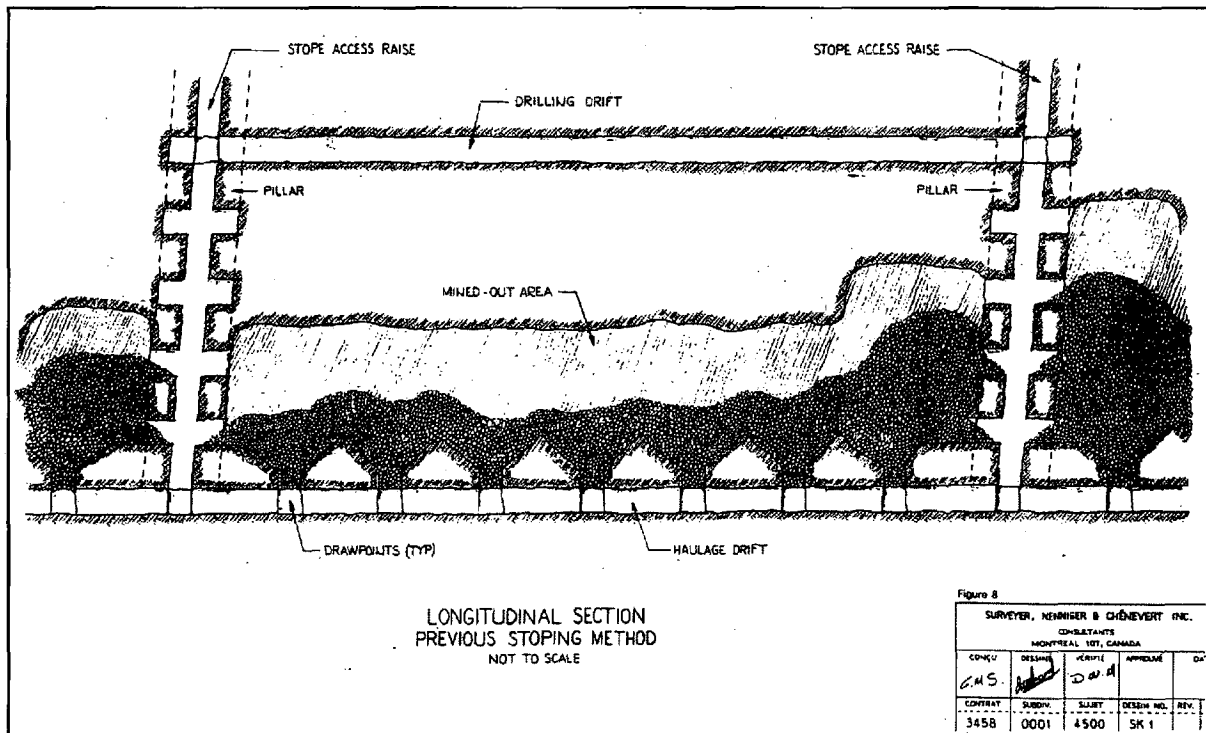


Figure 6- 6 Schematic long section showing the shrinkage stope mining method used at the Quebec Lithium mine (Leclerc, 2000).

6.18 1977, SMG

In June 1977, Cox reviewed SNC's reserve calculations for the Quebec Lithium Property and agreed with it (H.H. Cox, engineer, 1977, internal report for SMG). He also agreed with SNC that the former mining method of shrinkage stoping should be replaced by open long hole method to lower the extraction cost. Cox's report also proposed the cost of equipment needed for underground, estimated the capital expenditures necessary to rehabilitate the underground workings, estimate personnel required for the mine and estimate the operating cost.

6.19 1987, Cambior Inc.

In October 1987, Cambior Inc. ("Cambior") acquired all assets of QLC, including the mining property (Karpoff, 1993).



6.20 1990 - 1991, Cambior

In 1990-1991, the mining facilities were sold, infrastructure was demolished and the site was completely leveled (Karpoff, 1993). All surface facilities were dismantled and the site was restored to its original appearance.

6.21 1993, Cambior

In December 1993, B.S. Karpoff, engineer, wrote a report for Cambior summarizing: 1) characteristics of lithium and its ore minerals, 2) Quebec Lithium mine property, and 3) the global lithium market and uses of lithium (Karpoff, 1993). Karpoff worked as the chief engineer at the Quebec Lithium mine in the 1950's. The following text contains the highlights from his 1993 report. This report basically summarized historic mining activities (1955-1965) and does not refer to any new exploration or mining activity other than the cost to operate the mine again.

The Quebec Lithium mining property is owned by Cambior under the mining concession 421 which includes Lots 51 to 59 of Range IX and southern half of Lots 52 to 53 of Range X, La Corne Township.

More than 62,000 feet (~18,898m) of surface drilling and 104,500 feet (~31,852m) of underground drilling indicate a mining reserve of 7,170,000 tonnes with an average grade of 1.13% Li₂O (proven ore) and a indicated geology reserve by drilling of more than 10,000,000 tonnes with an average grade of 1.15% Li₂O.

Figure 6-7 through 6-9 show the production by year and level (from Karpoff, 1993). The majority of the mine development was between 1955 and 1957.

Table 6 - 19 Summary of mine development (1955-1959) (Karpoff, 1993)

Item	1955		1956		1957		1958		1959		Total	
	feet	metres	feet	metres	feet	metres	feet	metres	feet	metres	feet	metres
sinking of the shaft	560	171									560	171
widening of the shaft			35	11	103	31					138	42
levels and stations	842	257	365	111	400	122					1,607	490
drill stations	173	53	332	101							505	154
cross cuts	2,544	775	1,450	442	320	98			68	21	4,382	1336
drifts 8' x 8'	1,761	537	4,207	1282	2,633	803					8,601	2622
drifts 8' x 11'	234	71	96	29	666	203					996	304
ore corridor and enlargement	453	138	742	226			571	174	107	33	1,873	571
sterile corridor	343	105									343	105
raises (3 total)	463	141	1,456	444							1,919	585

The mill equipment crushing and grinding and the concentrator had sufficient capacity to handle 1,000 short tons (~907t) of ore per day and moving production of 186 short tons (~169t) of spodumene concentrate at an average grade of 5.78% Li₂O.

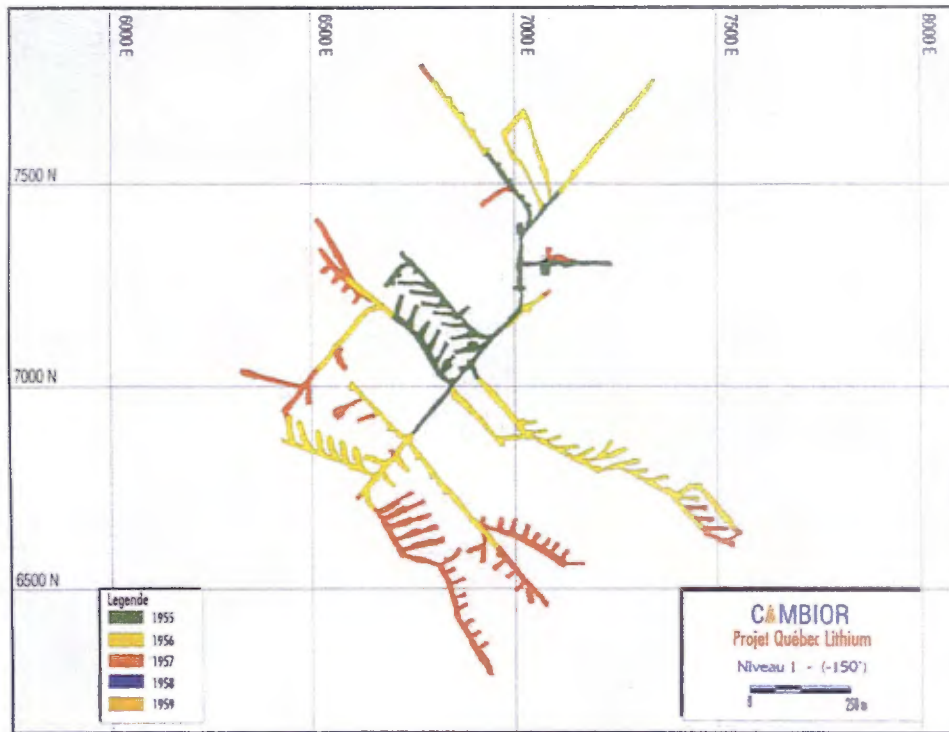


Figure 6- 7 Mine plan for the first level (150 feet deep) (Karpoff, 1993).

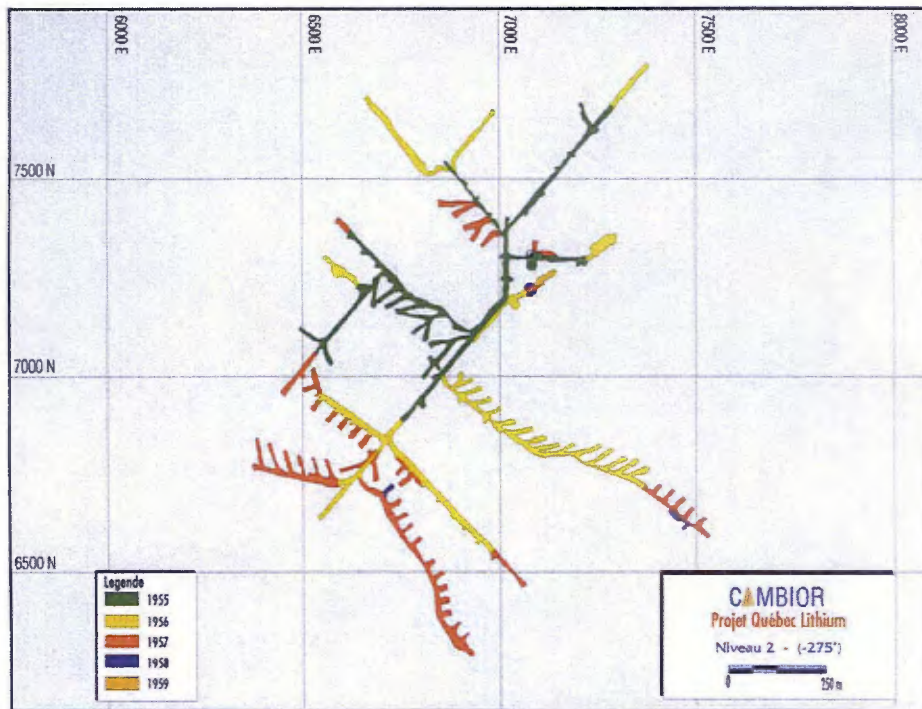


Figure 6- 8 Mine plan for the second level (275 feet deep) (Karpoff, 1993).

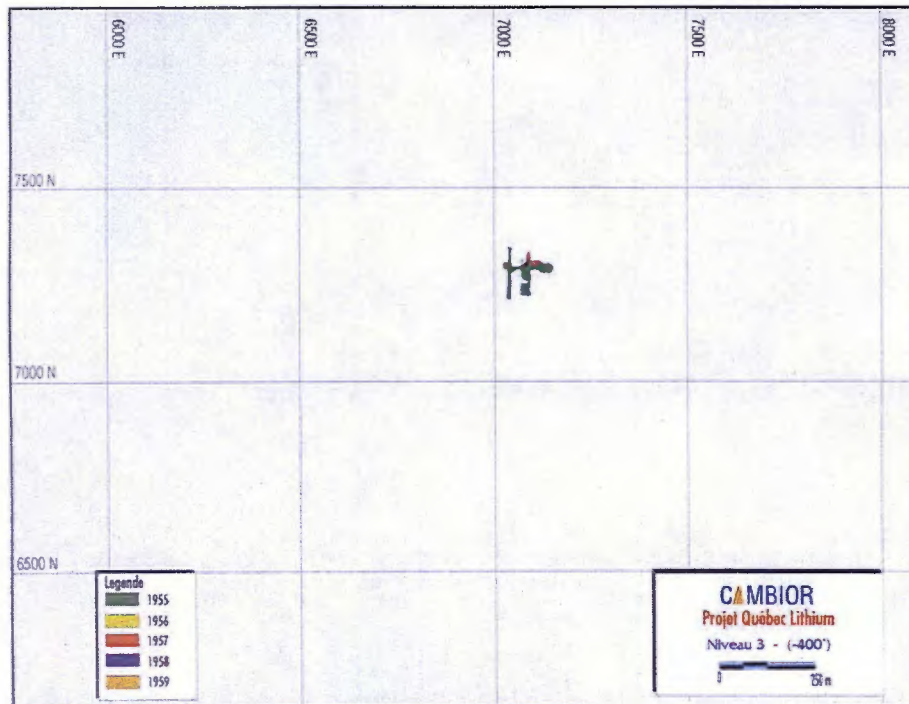


Figure 6- 9 Mine plan for the third level (400 feet deep) (Karpoff, 1993).



6.22 1985, SMG

In 1985, Les Relevés C.D.I. Surveys Inc. was contracted to complete magnetic and electromagnetic (VLF) surveys, over an area on the Property of 7.5 x 6 km. The surveys identified several ultramafic bodies and two minor acidic intrusions.

6.23 1988, Cambior

In February of 1988, magnetometer and VLF surveys were completed over part of the Quebec Lithium Property (13.7 line kms) in an attempt to identify favourable structures that could host spodumene-ore. The surveys are interpreted to have identified sulphide- and magnetite- bearing rocks associated with the ultramafic stratigraphy on the Property (Lambert and Turcotte, 1988).

6.24 2000, Cambior

In December 2000, G.A. Leclerc Inc. wrote a report for Cambior on the Quebec Lithium Property summarizing: the location, tenure, geology, mining infrastructure, restoration and security of the site (Leclerc, 2000). This report reviews information from Karpoff (1993) and SNC (1974) and is summarized below.

The Quebec Lithium Property is covered by mining concession No. 421 and has an area of 404.69 hectares. This concession is located on Lots 51 to 59 inclusive on Range IX and the southern half of Lots 52 and 53, Range X, La Corne Township. Cambior is the 100% owner of the property.

There are a total of 161 surface diamond drill holes for a total of 62,000 feet (~18,898m) and a total of 659 underground diamond drill holes for a total of 104,455 feet (~31,838m). Twenty one stopes were mined (not 20 stopes as reported by SNC in 1974, and two stopes were prepared for mining (Tables 6-20 and 6-21).

In 1989, the infrastructure on site was demolished. In May 1996, they began to study the restoration of the mine site. The foundations of the entrances and the stability of the principle tailing dam was validated by a geotechnical study. In April 1997, corrective measures were taken to hide the foundations and an evaluation of the sowing seeds was made. In June 1997, the site was vegetated and a fence was built to



prevent particles being blown by the wind. In the spring of 1998, areas where the vegetation did not take were resown and the wind-block fence was taken down. At the time of the visit in the summer of 1999, it was noted that part of the park and dam towards Lac Roy need resowing. The remainder of the restoration work and resowing were judged to be satisfactory (sod was placed at the far east end of the tailings dam in the fall of 2009 to conform to environmental requirements).

Leclerc (2000) concluded that the Quebec Lithium site is practically restored and only a small amount of resowing is requirement by the Ministry of the Environment. The mine openings to the surface (1 shaft and 3 raises) are protected in accordance with the requirements of the MEF.

There are 11 stopes on the first level of the mine with 11 pillars to surface. The security of the pillars to surface needs to be addressed by searching the Quebec Ministry of Natural Resources and Cambior offices to find plans of the building sites, cross sections and longitudinal sections for the mine. If this search does not locate adequate infrastructure maps, then maps of the surface, underground levels, dykes mined and the projection of the dykes to the surface will need to be created. Leclerc (2000) also recommended that calculations of the thickness of the pillars with the tonnage in place for each stope with the width and length dimensions of extracted material from each stope as it progressed and reserve calculations be completed.

Table 6 - 20 Summary of stopes for each dyke (Leclerc, 2001)

Dyke	No of Stopes	
	Mined	Stopes Mined
Level 1		
B	1	B-1
A	5	1A1-W, 1A2-E, 1A3-E, 1A4-E, 1A5-E
T	1	1T2-W
S	1	1S2-E
V	3	1V1-W, 1V1-E, 1V2-E
U	1	1U2-E
Level 2		
B	1	B-2
A	5	2A1-W, 2A2-E, 2A3-E, 2A4-E, 2A5-E
C	1	2C1-W
S	1	2S1-W
V	3	2V1-W, 2V1-E, 2V2-E



Table 6 - 21 Summary of stopes for each dyke (Leclerc, 2001)

Dyke	Mined Stopes		Prepared Stopes
	Level 1	Level 2	Level 1
B	B-1		B-2
C	1C2-E	2C1-W	
A	1A1-W	2A1-W	
	1A2-E	2A2-E	
	1A3-E	2A3-E	
	1A4-E	2A4-E	
	1A5-E	2A5-E	
T			1T2-W
S	1S2-E	2S1-W	
U	1U2-E		
V	1V1-W	2V1-W	
	1V2-E	2V1-E	
		2V2-E	

6.25 2001, Cambior

Thirty eight samples were collected from the tailings area and various outcrops on the Quebec Lithium Property in 2001 by Aline Leclerc of Gestion Aline Leclerc Inc. at the request of Cambior. The samples were analyzed for Li by Chimitec Bondar Clegg in Val d'Or using a four-acid digest and ICP ("4A-ICP") as well as by AAS ("4A-AAS"). The results are summarized in Table 6-22. Coordinates are given in the report for the samples collected but there is no reference to the grid system, so the locations are not reported here at this time. The Li values for the tailings are similar to those collected during the CCIC site visit and reported in section 14.1.

Table 6 - 22 Summary of lithium assays for samples collected for Cambior (Leclerc, 2001)

Sample	Rock Type	Li (ppm)	
		4A-ICP	4A-AAS
253501	tailings	1,071	.
253502	tailings	>2,000	3,937
253503	tailings	1,820	
253504	tailings	>2,000	2,401
253505	tailings	>2,000	3,636
253506	tailings	>2,000	2,628
253507	tailings	1,560	
253508	tailings	>2,000	2,669
253509	tailings	>2,000	3,469
253510	tailings	>2,000	3,034



Sample	Rock Type	Li (ppm)	
		4A-ICP	4A-AAS
253511	tailings	>2,000	2,788
253512	tailings	>2,000	2,453
253513	tailings	1,341	
253514	tailings	992	
253515	tailings	1,363	
253516	tailings	>2,000	2,660
253517	tailings	>2,000	2,367
253518	tailings	>2,000	2,761
253519	quartz feldspar pegmatite dyke	14	
253520	quartz feldspar pegmatite dyke in granodiorite	27	
253521	spodumene pegmatite dyke	>2,000	3,578
253522	spodumene pegmatite dyke	1,788	
253523	spodumene pegmatite in granodiorite	1,503	
253524	spodumene pegmatite in granodiorite	>2,000	5,553
253525	spodumene pegmatite in granodiorite	241	
253526	foliated, amphibolitized basalt	40	
253527	pegmatite dyke in an amphibolitized basalt with molybdenite and a blue mineral (beryl and/or apatite)	106	
253528	pegmatite dyke with biotite and molybdenite	62	
253529	trench sample with molybdenite and chalcopyrite	17	
253530	spodumene pegmatite Dyke No.1	>2,000	3,259
253531	granodiorite outcrop with an aplite dyke and pink altered pegmatite dyke	115	
253532	pegmatite (with pink beryl) in granodiorite	28	
253533	spodumene pegmatite dyke	>2,000	4,977
253534	spodumene pegmatite dyke	>2,000	9,019
253535	spodumene pegmatite dyke	>2,000	7,380
253536	spodumene pegmatite - dyke B	>2,000	6,612
253537	spodumene pegmatite - dyke B	>2,000	6,218
253538	aplite dyke	>2,000	6,498

6.24 Summary of Historic Activities

Tables 6-23 through 6-25 summarize the historic exploration activities completed on the Quebec Lithium Property.



Table 6 - 23 Summary of historic exploration and mining activity for the Quebec Lithium Property

Year	Company	Activity	Results
1942	Sullivan	prospecting	discovery of spodumene pegmatite
1942-1943	Dumont	diamond drilling	17 holes totalling 3,598.9 ft; up to 0.258% MoS ₂
1946	Nepheline Products Ltd. and Great Lakes Carbon Corporation	prospecting, trenching, diamond drilling	sufficient ore discovered for mining, 6 holes totalling 2,088 ft
		bulk sampling	encouraging results
1947	La Corne Lithium Mines Ltd.	company was established	
1950	Lakefield Research Ltd.	Nepheline Products Ltd. changed name to Lakefield Research Ltd.	
1952-1953	La Corne Lithium Mines Ltd.	diamond drilling	>30,000 ft drilled; several spodumene-bearing pegmatites intersected
1954	QLC	acquired property surface diamond drilling shaft sinking operations started	
1955	QLC	mine and mill development 3 underground level (150, 275 and 400 ft) underground drilling	shaft completed to 560 ft depth 118 drill holes totalling +22,000 ft
1956	QLC	mining, underground drilling	1,100 tons of ore/day; 325 drill holes totalling +53,000 ft
1957	QLC	mining, surface diamond drilling totalling 58,920 ft	1,250 tons of ore/day, total 513,403 tons
1959	QLC	construction of lithium refinery commences	
1960	QLC	refinery operational	
1963	QLC	production of lithium hydroxide begins June 1963	
1963-1964	QLC	mining and refining	76,856 tons of ore hoisted to surface; year end reserves of broken ore were 198,998 t
1965-1966	QLC	mining and refining	62,479 tons of ore hoisted to surface; year end reserves of broken ore were 249,842 t
1974	SMG	feasibility study on the rehabilitation of the Quebec Lithium mine; historic reserve mining processing resource	life of mine is 2 1/2 years at 1,000 t/day 2,100 ft of cross cutting and 3,500 ft of drifting 17,347,000 tons of ore at 1.14% Li ₂ O
1977	SMG	1974 resource confirmed	
1979	SMG	diamond drilling	7 holes totalling 5,320.1 ft
1985	SMG	diamond drilling	2 holes totalling 504 ft
1987	Cambior	Cambior acquired all assets from QLC	



Year	Company	Activity	Results
1990-1991	Cambior	mining facilities sold, infrastructure demolished	site rehabilitated
1993	Cambior	report summarizing historic mining activities (Karpoff, 1993)	
2000	Cambior	report approving of the rehabilitation	
2001	Cambior	grab samples	

Table 6 - 24 Summary of historic surface drilling for Quebec Lithium Property

Year	Company	Number of Holes	Hole Name	Total Feet Drilled	Total Meters Drilled
Surface Diamond Drill Holes					
1942/43	Dumont	17	S-1 to S-14	3,599.5	1,097.1
1946	Nepheline Products Ltd. and Great Lakes Carbon Corporation	6	1 to 6	2,088	636.4
1952 onwards	QLC	60	LV1 to LV-60	29,409.2	8,964
1952	Lithium Exploration Company Ltd.	5	SB-15 to SB-19	497.5	151.6
1952	QLC	14	SB-20 to SB-30 and SB-32 to SB-34	3,595.8	1,096.0
1953	QLC	40	SB-47 to SB-86	17,464.1	5,323.1
1953	QLC	8	LB-1 to LB-8	3,876.7	1,181.6
1955	Tide Lake Lithium Mining Corp. Ltd.	18	T-1 to T-18	11,432.5	3,484.6
1956	QLC	10	LV61 to LV-70	2,118	645.6
1958	QLC	3	LV-71 to LV-73	152.0	46.3
1979		7	LV74 to LV-79, LV-80, LV-81	5320.1	1621.6
1985		2	QL-85-1 and QL-85-2	504.0	153.6
Underground Diamond Drill Holes					
Level 1					
1955	QLC	52	1-1 to 1-12, 1-14 to 1-20, 1-23 to 1-58	9465.4	2885.1
1956	QLC	190	1-58 to 1-246	28253.3	8611.6
1957	QLC	145	1-245 to 1-389	20991.3	6398.1
Level 2					
1955	QLC	64	2-1 to 2-19, 2-21 to 2-26, 2-28 to 2-38, 2-44 to 2-72	11745.8	3580.1
1956	QLC	135	2-72 to 2-206	24947.1	7603.9
1957	QLC	71	2-204, 2-207 to 2-276	9657.8	2943.7
Level 3					
1955	QLC	2	3-1 and 3-2	876.4	267.1



Table 6 - 25 Summary of historic resources¹ for the Quebec Lithium Property.

Year	Company	Tonnage		Li ₂ O (%)
		tons	t	
1946	Nepheline Products Ltd. and Great Lakes Carbon Corporation	309,200	280,502	5.86
1954	QLC	2,260,000	2,050,238	1.11
Feb-55	QLC	15,000,000	13,607,775	1.2
Dec-55	QLC	20,000,000	18,143,700	1.2
1974	SMG	17,347,000	15,736,938	1.14
1977	SMG	17,347,000	15,736,938	1.14

¹These resources have not been validated by CCIC, are not considered and should therefore not be relied upon.

²Scott (1955)

³Karpoff (1955)

⁴Surveyer et al. (1974)

⁵1974 resource confirmed by Cox (1977)

7.0 GEOLOGICAL SETTING

7.1 Regional Geology

7.1.1 Preissac-Lacorne batholith

The Archean Preissac-Lacorne batholith is a syn- to post-tectonic intrusion that was emplaced in the Southern Volcanic Zone of the Abitibi Greenstone Belt of the Superior Province of Quebec (Figure 7- 1). The geology of the batholith has been discussed by numerous reports including Tremblay 1950, Dawson 1966, Siroonian *et al.*, 1959, Mulja *et al.*, 1995a and Mulja *et al.*, 1996. The batholith intruded along the La Pause anticline into the ultramafic to basic lavas of the Kinojevis (2,718 Ma; Corfu 1993) and Malartic groups, and biotite schist of the Kewagama Group. To the north the batholith is bounded by the Manneville fault and to the south by the Cadillac fault and the eastward extension of the Porcupine-Destor fault.

The batholith is a composite body comprising early metaluminous gabbro, diorite, monzonite and granodiorite (*ca.* 2,650-2,760 Ma: Steiger and Wasserburg 1969, Feng and Kerrich 1991) and four late peraluminous monzogranitic plutons (Preissac, Moly Hill, Lamotte and Lacorne) and associated pegmatites and quartz veins (*ca.* 2,621-2,655: Gariépy and Allègre 1985, Feng and Kerrich 1991). The final intrusive activity in the area was the Proterozoic diabase dykes. The regional metamorphic grade is greenschist facies and close to the batholith is hornblende hornfels facies contact metamorphism.

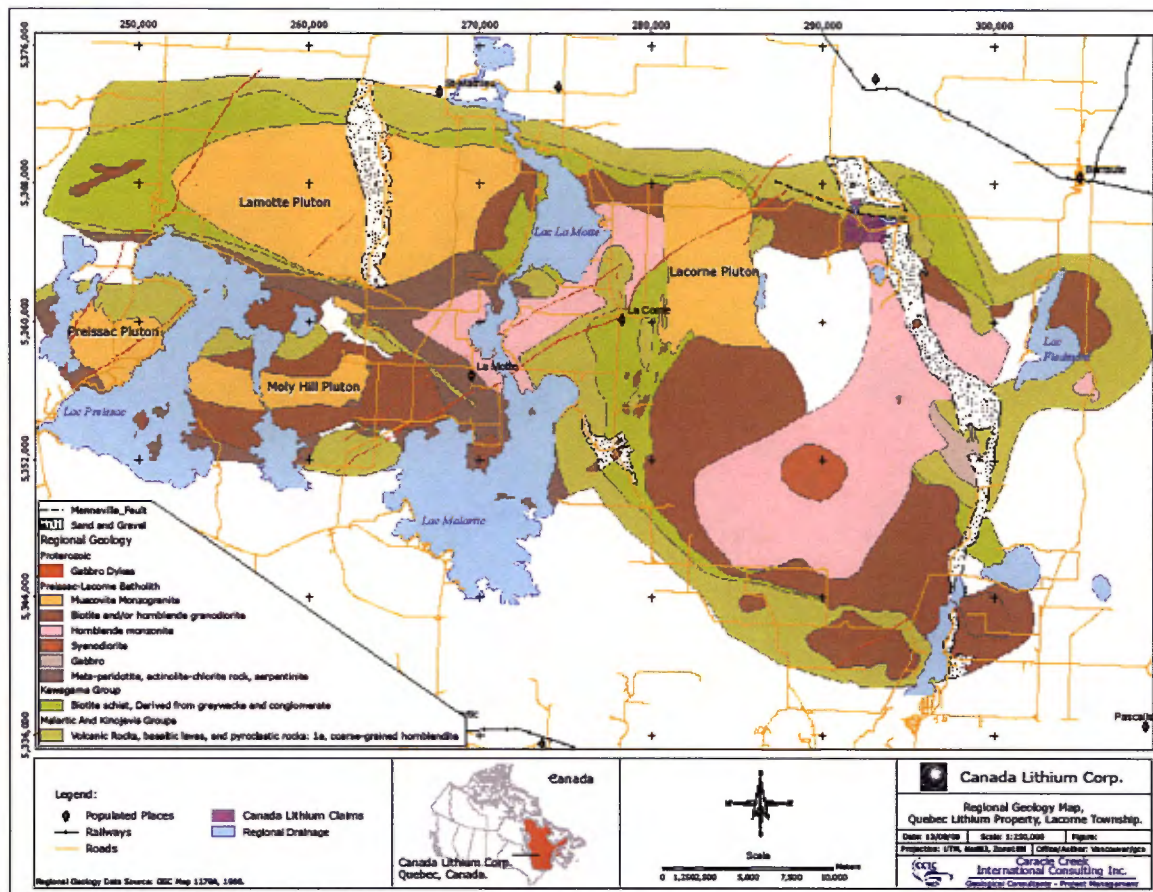


Figure 7-1 Regional geology map showing the Preissac-Lacorne batholith

Each peraluminous pluton (Preissac, Moly Hill, Lamotte and Lacorne) is zoned compositionally from biotite through to two-mica to muscovite monzogranite (Mulja *et al.*, 1995a). Biotite monzogranite is distinguished from the other types of monzogranite by the presence of up to 5 volume % biotite and by the lack of primary muscovite. The two-mica monzogranite has a muscovite to biotite ratio of 2:1 and the muscovite monzogranite contains little or no biotite. All of the subtypes of monzogranite have similar major mineral proportions: quartz (25-35%), plagioclase (30-45%) and perthitic to microperthitic K-feldspar (25-45%). The minor minerals include biotite, muscovite, apatite, zircon, monazite ((REE)PO₄), xenotime (YPO₄) and titanite. The distribution of both the minor and accessory minerals changes systematically from biotite through to two-mica to muscovite monzogranite. The contents of biotite, epidote, magnetite, ilmenite, apatite, zircon, monazite and titanite decrease gradually, whereas those of muscovite and garnet increase. Molybdenite, columbite-tantalite and sphalerite only occur in the



muscovite and muscovite-garnet monzogranite and in the pegmatites. The biotite monzogranite is enriched in Fe, Mg, Ti, Zr, REE and P, whereas the muscovite monzogranite is enriched in Al, Mn, Mo, Nb, Ta and Zn.

7.1.2 Mineralized pegmatite dykes

The peraluminous plutons are the parental granites to the pegmatite dykes, albitite dykes and quartz veins. Over 1,600 bodies of barren and mineralized pegmatite dykes have been recorded by Dawson (1966) associated with the Preissac-Lacorne batholith (Mulja *et al.*, 1996). They cut all subtypes of monzogranite and adjacent country rocks. The mineralized (Be, Li, Nb, Ta and Mo) pegmatites are associated with the Lamotte and Lacorne plutons. The pegmatites occur as tabular dykes ranging from 10's cm to 8 m in width and up to 100's of metres in length. They occur as lenticular bodies and dyke swarms particularly along the margin of the plutons and they filled in zones of dilation (pinch and swell) in the monzogranite and existing fractures in the country rocks. Contacts between the spodumene pegmatites and amphibolite are marked by a narrow halo in the amphibolite in which holmquistite (purple Li-amphibole) replaced hornblende. The pegmatite bodies are zonally distributed from beryl type in and at the margin of the parental plutons to spodumene + beryl type at the margins of the plutons and to spodumene type in the country rocks. Mineral and whole-rock geochemical data indicate that the pegmatites are comagmatic; with the beryl pegmatite as the least geochemically evolved type and the spodumene pegmatite as the most evolved type. Dykes of molybdenite- and columbite-tantalite-bearing albitite dykes (rocks composed mostly of albite An_{99}) and molybdenite-bearing quartz vein occur beyond the spodumene pegmatite zone to the north and south of the Lacorne pluton, respectively. The albitites occur in the intercalated biotite schist and basalt.

The small **beryl pegmatite dykes** (< 1 m wide) are symmetrically zoned from (1) a narrow border zone of sodic aplite through (2) an assemblage of coarse-grained quartz, K-feldspar, albite and muscovite and (3) a central zone of beryl, K-feldspar and quartz megacrysts (Mulja *et al.*, 1996). Columbite-tantalite is concentrated in fine layers of spessartine garnet which occur mostly in the aplite. Larger bodies of beryl pegmatite (up to 8m wide) typically display asymmetric zoning: (1) sodic aplite border zone, (2) muscovite + albite + quartz \pm perthite, (3) beryl + albite + perthite + quartz \pm muscovite, (4) quartz + perthite \pm beryl, (5) large irregular lenses of quartz intergrown with perthite megacrysts (up to 1 m long) or monomineralic quartz masses, and (6) a marginal facies of muscovite + albite + quartz and locally perthite. Columbite-tantalite occurs in zones 1, 2, 3 and 6.



Spodumene + beryl pegmatite dykes are found associated with the Lamotte and Lacorne plutons and are typically zoned (Mulja *et al.*, 1996). The least evolved spodumene + beryl pegmatite is hosted by two-mica monzogranite and contains quartz, spodumene and lepidolite (2-3 cm across) in the core. The most evolved spodumene + beryl pegmatite is lepidolite-free and is hosted by biotite schist and basalt country rocks. The evolved pegmatite has a (1) narrow zone of sodic aplite with thin layers of garnet and scattered crystals of columbite-tantalite. Beryl crystals are small and occur along the contact between the aplite and the (2) intermediate zone of spodumene + albite + quartz + muscovite. The (3) core zone of this pegmatite consists of megacrysts of quartz and K-feldspar.

The less evolved type of **spodumene pegmatite dyke** at Lacorne is massive consisting of spodumene laths, quartz, albite and K-feldspar and traces of fluorite. The minor minerals in order of decreasing abundance are: columbite-tantalite (up to 0.5 cm across), molybdenite, beryl and cerianite ((Ce,Th)O₂). Unlike the beryl and spodumene + beryl pegmatite, the aplite in the spodumene pegmatites lack garnets. The more evolved type of spodumene pegmatite occurs in the country rocks north of the Lamotte and Lacorne plutons. The spodumene pegmatites associated with Lacorne pluton are zoned with from a marginal aplite to a core of coarse-grained perthite + spodumene + quartz. Columbite-tantalite crystals (up to 1 cm across) occur throughout the pegmatite.

Generally, the mineralized pegmatites have (1) albite-rich aplite border zones with garnet layers and scattered columbite-tantalite, (2) beryl + muscovite + spodumene + quartz + albite + K-feldspar intermediate zones and (3) quartz + K-feldspar-rich cores. The columbite-tantalite is associated with the albite.

7.1.3 Crystallization history of Lamotte and Lacorne pluton

The crystallization history of the Lamotte and Lacorne plutons has been described in detail by Mulja *et al.* (1995b). The description below corresponds to Figure 7- 2.

- A) Early side-wall crystallization produces marginal biotite monzogranite and less dense crystal-layer melts which ascend to the roof of the magma chamber.
- B) Continues fractional crystallization forms successive two-mica and muscovite monzogranite layers and more differentiated melts. A small portion of the more differentiated muscovite-bearing monzogranite melt breaches the chamber and intrudes the country rocks as a dyke (MG) in the Lacorne pluton.

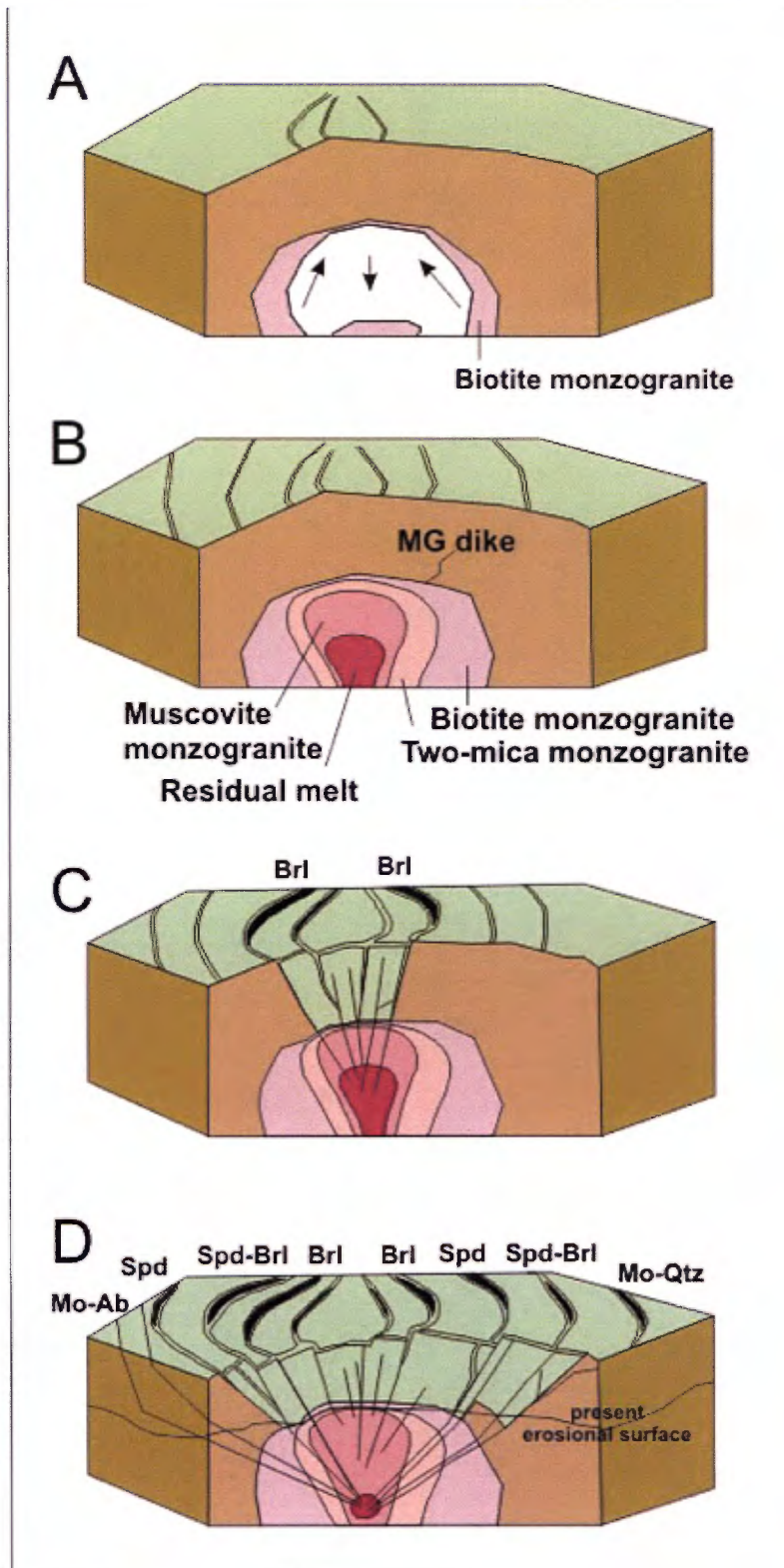


Figure 7- 2 History of crystallization of Lamotte and Lacorne plutons (modified from Mulja et al. 1995b).



- C) Expulsion of pegmatite-forming volatile-rich magma from the chamber due to fluid overpressure results in the emplacement of the beryl (Brl) pegmatite in the overlying monzogranite.
- D) Later contraction of the pluton, partly due to its advanced stage of crystallization and to the cooling of the magma, reactivates fractures in the country rock and produces new fractures, into which the more evolved melts are intruded. This gives rise to the spodumene-beryl (Spd-Brl) and spodumene (Spd) pegmatites. Aqueous fluids exsolve from the spodumene pegmatites; some back-react with earlier-formed aplite and pegmatite to form Mo-bearing albitite (Mo-Ab) and some precipitate quartz and molybdenite as veins (Mo-qtz), in the country rocks.

7.2 Local Geology – La Corne and Fiedmont Townships

The geology of La Corne and Fiedmont Townships has been discussed in reports by Tremblay 1950, Dawson 1966 and Mulja *et al.*, 1995a and is shown on the Geological Survey of Canada (GSC) map 999A (Tremblay 1950) and GSC map 1179A (Dawson 1966). The stratigraphic units are discussed below from oldest to youngest (Figure 7- 1).

7.2.1 Malartic and Kinojevis groups – basaltic lavas

The volcanic rocks are generally fine-grained and medium- to dark-green on fresh surfaces (Dawson 1966). They are massive or locally exhibit structures such as pillows, flow-breccia or amygdules. Under the microscope, the volcanic rocks are mainly green hornblende, plagioclase with minor amounts of quartz, epidote, biotite and chlorite. The accessory minerals include titanite, apatite, magnetite, pyrite and leucoxene (alteration product of ilmenite). The abundant green hornblende shows incipient alteration to chlorite or partial replacement by holmquistite (purple Li amphibole). Holmquistite is likely only present in close proximity to the spodumene pegmatites.

7.2.2 Kewagama group – biotite schist

The biotite schists are conformably interbedded with the basaltic lavas (Dawson 1966). The schists are mainly sedimentary in origin derived from greywacke, sandstone and conglomerate. The biotite schist beds are up to 15 inches thick (38.1 cm), fine-grained and are grey to black on fresh surfaces. They are foliated with the foliation parallel with either the contact or the foliation in the outcrops of the Preissac-Lacorne batholith. Under the microscope, the biotite schist consists mainly of quartz, plagioclase and biotite; hornblende and chlorite are major components in a few beds. The common accessory minerals are apatite, epidote, tourmaline, pyrite and magnetite.



7.2.3 Meta-peridotite

The meta-peridotite is interbanded with the basaltic lavas, and less commonly with the biotite schists (Dawson 1966). The meta-peridotite is fine-grained and black or dark green in colour. The weathered surface is typically brown and has a variety of surface features ranging from polygonal fracture system to pseudopillow structures and “platy structure” (likely komatiite). The meta-peridotite consists mainly of felted aggregates of chlorite flakes, acicular to prismatic actinolite, fibrous serpentine and talc flakes with accessory magnetite, carbonate and pyrite. The “platy structure” consists of planar concentrations of chlorite + serpentine alternating with similarly shaped concentrations of actinolite + magnetite. Primary olivine and/or pyroxene relicts are pseudomorphed by aggregates of chlorite, serpentine, talc, magnetite and carbonate.

7.2.4 Lacorne pluton

The Lacorne pluton is dominated by biotite monzogranite which gives way inward to two-mica and muscovite monzogranite (Mulja *et al.*, 1995a). The geology of the Lacorne pluton is similar to that of the rest of the Preissac-Lacorne batholith and is discussed in Section 7.1.1.

7.2.5 Proterozoic gabbro/diabase dykes

The post-batholithic gabbro/diabase dykes outcrop in the batholith and nearby as tabular bodies up to 200 feet (61m) wide and several miles (kilometres) long, striking either N25° E or N40° E and dipping vertically (Dawson 1966). The gabbro is fine- to medium-grained and tends to be ophitic. The dominant minerals are labradorite (An₆₀) plagioclase and interstitial clinopyroxene with rare hornblende-biotite coronas. The accessory minerals are magnetite, apatite and titanite.

7.2.6 Manneville Fault

The Manneville Fault, a major strike fault, is rarely exposed in the basaltic lava outcrops along the north side of the batholith (Dawson 1966). As a result of the strike of N80° W, the distance between the fault and the batholith varies from 2 miles (~3.2 km) north of Preissac to less than 1 mile (~1.6 km) at Lac Roy. It locally contains some base-metal sulphides. The Manneville fault is believed to be a dip-slip fault because the biotite schist band east of Lac Roy shows slight evidence of strike-slip displacement. Many of the lithium-bearing dykes occur less than 1.5 miles (~2.4 km) SW of and roughly parallel with the Manneville Fault zone.

7.3 Property geology - Quebec Lithium pegmatite

7.3.1 Property Geology

The spodumene-bearing pegmatites on the Quebec Lithium Property are very poorly exposed (Figure 7-3). As a result most of the information on the dykes was initially obtained by diamond drilling and subsequent separation tests on spodumene-bearing diamond drill core (Rowe, 1953). Mining commenced in 1955 and although the three-dimensional nature of the dykes became more evident, the characteristics identified in exploration remained the same.

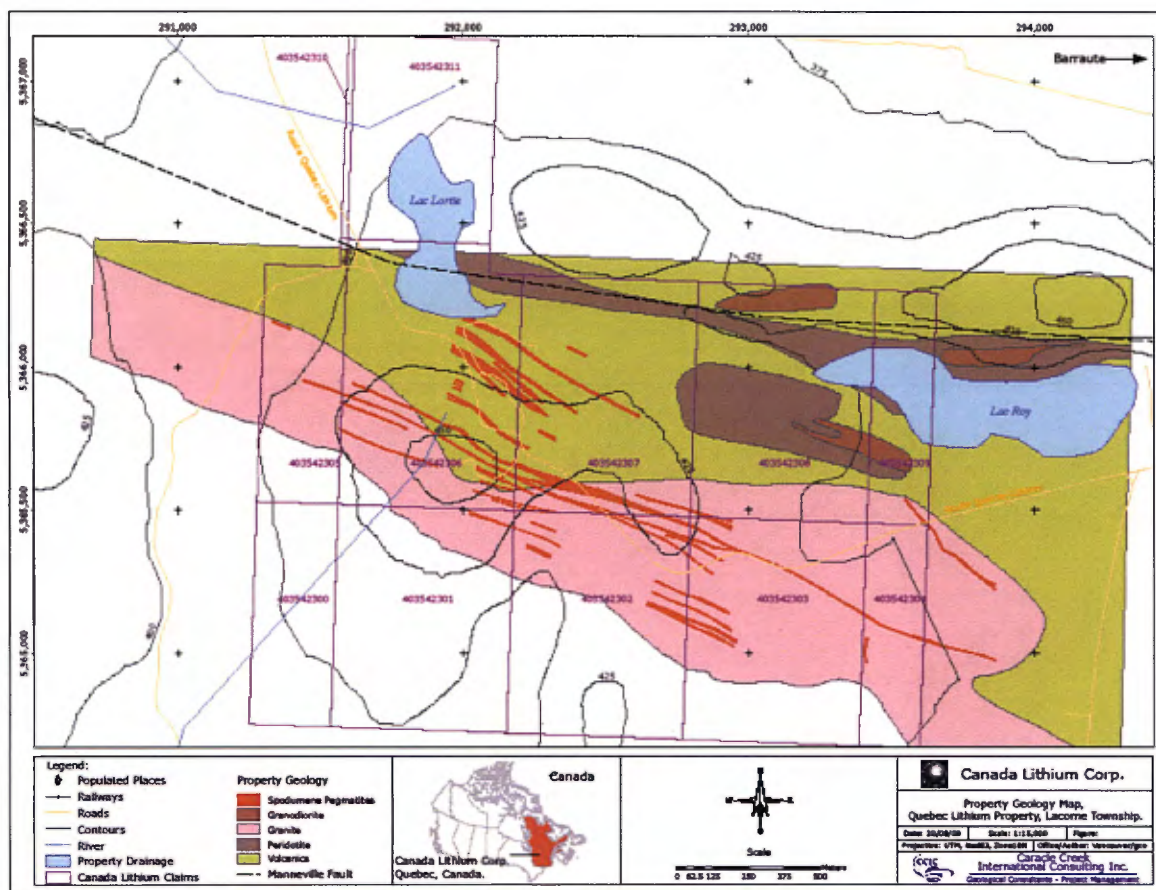


Figure 7- 3 Property geology map showing location of spodumene pegmatite dykes.



7.3.2 Spodumene pegmatite dyke orientation

According to Derry (1950), approximately 10 separate dykes were intersected by diamond drilling on the property. The narrower dykes are simple quartz-feldspar dykes, but the majority of the dykes that are greater than 10 feet (~3.0m) in width are spodumene-bearing. The three most persistent spodumene dykes (continuous from hole to hole) were named dykes A, B and C. The spodumene dykes vary in width from a few feet to 45 feet (~13.7m) and have been traced for several hundred feet (up to ~200m) in length (Tremblay, 1950). As interpreted from the drilling, dyke A has been traced for 600 feet (~183m) laterally and varies from 11 to 48 feet in true width (~3.4 to 15m; Rowe, 1953). Dyke B is a lens 100 feet (~31m) in length and has a true width of 22 feet (~6.7m). Dyke C has been traced for 350 feet (~105m) horizontally and has an average width of 10 feet (~3.0m). The drill core indicates that the dykes are parallel striking 60 to 70° NW (nearly parallel to the main granite contact in this area) and dipping 40 to 60° S (Derry, 1950). The dykes cut basaltic lavas of Kinojevis group near surface and the main granite or granodiorite phase of the monzogranite Lacorne pluton at depth (Derry, 1950; Tremblay 1950). In the vicinity of the granite, the metavolcanic rocks have recrystallized to form coarse-grained hornblende schist (Tremblay, 1950; Rowe, 1953).

Subsequent to QLC's mining of the spodumene pegmatites, Mulligan (1965) stated that numerous parallel, spodumene-bearing pegmatite dykes lie within a band up to 2,000 feet (~610m) wide that trends S76° E through the shaft area for more than 8,000 feet (~2,440m) to the outcrops in the east zone (Figure 7- 4). The spodumene dykes cut amphibolitized greenschist and granodiorite along the margin of the northeast protrusion of the Lacorne pluton. Holmquistite (purple Li-amphibole) occurs in the amphibolite country rock locally near dyke contacts. The spodumene dykes occur within 4,000 feet (~1,220m) of and nearly parallel with the Manneville Fault zone. The property includes the former holdings of La Corne Lithium Mines known as the "Ventures Zone" and those of Lithium Exploration Company, known as the "East Zone".

In the shaft zone, 10 to 12 subparallel dykes generally strike N76° W and dip 50 to 75° S, cutting the greenstone-granodiorite contact, which has a slope of approximately 35° to the north (Figure 7- 4) (Mulligan, 1965). Dykes are known to extend several hundred feet into granodiorite with good width and grade. The spodumene dykes are as much as 2,000 feet (~610m) long and 100 feet (~31m) thick. Several of the dykes are exposed on the hill south of the mine, the original showing of La Corne Lithium Mines.

7.3.1 Spodumene pegmatite dykes zonation and mineralogy

The majority of reports state that no internal structure has been recognized and the dykes are apparently consistent in composition and texture from wall to wall (Rowe, 1953). Calculations based on separation tests, with allowances for losses in slimes, fines and magnetic waste result in the average mineral content for the three dykes (Table 7 - 1; Derry, 1950). There is local variation in mineral content from one part to another part of the dyke, but the total mineral content within the dyke remains consistent.

In contrast Karpoff (1955), chief engineer and geologist for the Quebec Lithium mine, states that almost all of the complex pegmatites display zoning: 1) border zone, 2) wall zone and 3) intermediate or inner zone, but this zoning is so insignificant and is not always completely revealed that he considered for mining purposes that the pegmatite dyke is spodumene bearing from wall to wall.

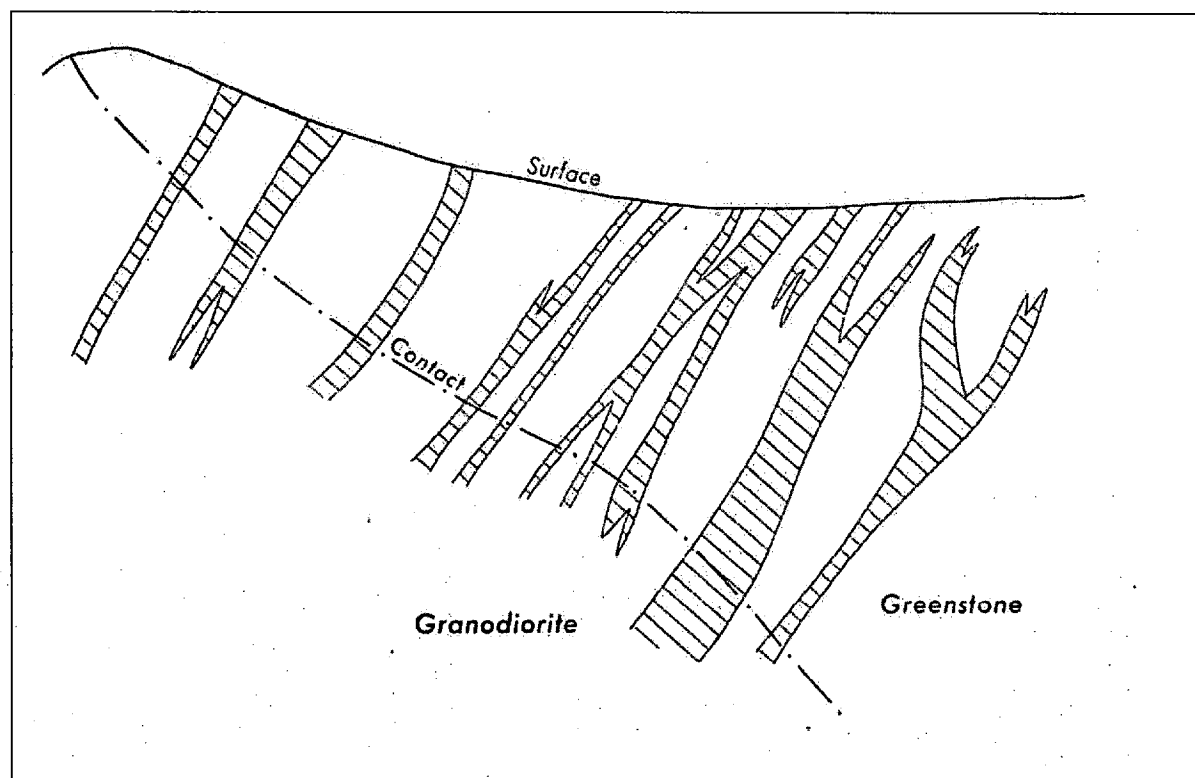


Figure 7- 4 Vertical section looking N76° W. Unzoned quartz-feldspar-spodumene dykes dip steeply left (Mulligan, 1965).



The border zone is generally ½ inch or less wide. It has a very fine-grained texture and is composed mostly of white feldspar (likely aplite).

The wall zone is also very narrow from a few inches (centimeters) to a maximum of one foot (~30 cm) and occurs only in a few places. It is a fine-grained zone composed mostly of white feldspar (the platy variety cleavelandite), white to light brown quartz and some light buff to green spodumene growing normal to the walls.

The intermediate or inner zone represents the bulk of the pegmatite bodies. It has a fine- to medium-grained texture composed of 40% feldspar (albite, microcline and perthite), 35% quartz and 25% spodumene. The coarse feldspar crystals (microcline) and spodumene are uniformly oriented normal to the walls of the pegmatite dyke.

Dyke B shows a fourth zone, the quartz core. In this particular case, the zones are much wider and some beryl crystals were noted in the wall zone.

Table 7 - 1 Mineral content in spodumene pegmatite dykes

Mineral in dyke	Content (%) by Derry ¹ (1950)	Content (%) by Rowe ² (1954)	Content (%) by Karpoff ³ (1955)
Feldspar (albite and microcline)	51	53	40
Spodumene	25	17	25
Quartz	23	30	35
Accessory minerals (including muscovite, magnetite and tantalite)	1 or less		
Total	100	100	100

¹Derry (1950) mineral content is based on 6 drill holes,

²Rowe (1954) mineral content is based on 80 drill holes and

³Karpoff (1955) mineral content is based on surface and underground drill holes.

Coarse K-feldspar crystals typically occur normal in orientation to the dyke walls and their interstices are filled by spodumene crystals embedded in a fine-grained mixture of anhedral feldspar (mostly albite) and quartz grains (Mulligan, 1965). The spodumene crystals are parallel to each other and are normal to the dyke walls (Tremblay, 1950) (Figure 7- 5).

Medium- to coarse-grained white K-feldspar is mostly orthoclase with some microcline, whereas the white plagioclase (An₁₀) is mostly fine-grained (Rowe, 1953). None of the forms typical of cleavelandite were seen (Derry, 1950). Microscopic examination indicates that the most common feldspar is plagioclase

(albite-oligoclase) and the ratio of sodic to potassic feldspar is approximately 5:1 (Derry, 1950). The quartz occurs as irregular, small patches of clear, yellowish-grey colour.

The spodumene occurs as log-shaped crystals fine-grained to ½ inch (~1.25 cm) long (Tremblay, 1950). The spodumene is white to cream (or buff) in colour which indicates low iron content as opposed to the green colour that is more common in the Preissac-La Come district. The spodumene occurs essentially from wall to wall mainly with quartz bands separated by aplite and feldspar-rich stringers (Mulligan, 1965). The spodumene of the shaft zone is white, fine- to medium-grained and oriented normal to the walls and bands. A few coarse crystals are more random in orientation. The spodumene in the east zone is pale green, medium-grained and strongly oriented normal to the granodiorite contacts. Some spodumene is locally altered to dark green colour, especially near a water-course underground, and leached spodumene and feldspar occur in the fissure. An analysis of the spodumene concentrate by Derry (1950) is given in Table 7 - 2.

Table 7 - 2 Analysis of spodumene concentrate by Derry (1950)

Element	Content (%)
Li ₂ O	5.86
Na ₂ O	2.98
K ₂ O	0.79
Al ₂ O ₃	25.34
SiO ₂	64.92
Fe ₂ O ₃ + TiO ₂	0.30
CaO	0.23
MgO	0.029
Mn	0.08
Total	100.529

Tremblay (1950) reported the presence of the following accessory minerals: beryl, bright yellow to orange-yellow spessartine, wedge-shaped columbite-tantalite grains intergrown with microlite and betafite. Karpoff (1955) lists the accessory minerals as: lepidolite, beryl, garnet, columbite-tantalite, molybdenite, bismuthinite, some native bismuth and radioactive betafite. Mulligan (1965) listed the accessory minerals as: yellow garnet, beryl, fluorite, columbite-tantalite, rare-earth minerals, molybdenite and bismuth. In the vicinity of faults, Karpoff (1955) noted the presence of some fluorite, calcite, chalcopyrite and sphalerite; the amount of K-feldspar increases and the spodumene crystals are altered to dark brown killinite. Killinite is a di-octahedral hydromuscovite. Hydromuscovite is another name for the clay-mineral illite with the formula of: $K(Al,Mg,Fe)_2(Si,Al)_4O_{10}[(OH)_2,H_2O]$ (Nawaz, 1984).

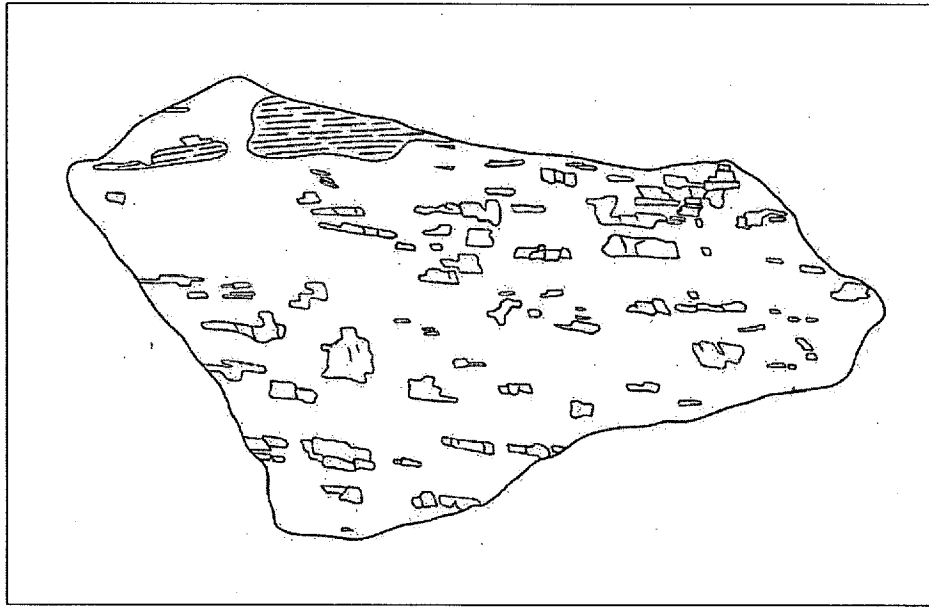


Figure 7- 5 Sketch of spodumene-bearing pegmatite from the Quebec Lithium pegmatite (Rowe, 1953). Note parallel orientation of spodumene crystals in a groundmass of feldspar and quartz. Sample is 8.3 cm across.

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 km² area within 10 km of the fertile granite (Breaks and Tindle, 1997a). 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., H₂O, Li, F, BO₃, and PO₄) 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 Kfeldspar, mica-rich, and spodumene core zones in pegmatites in the Superior province.

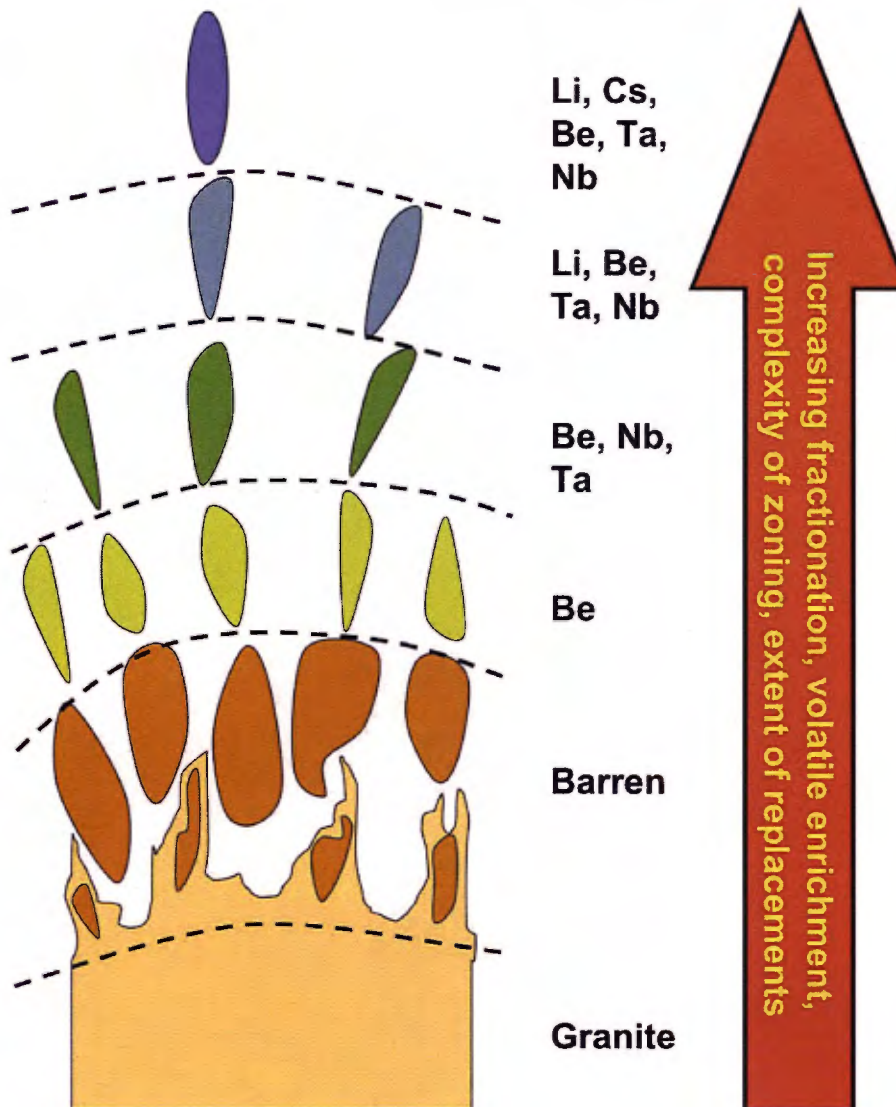


Figure 8 - 1 Chemical evolution of lithium-rich pegmatites with distance from the granitic source (London, 2008).



8.2 Lacorne pluton rare-element pegmatites

The rare-element pegmatites associated with the Lacorne pluton are LCT pegmatites because they are enriched in Li and Ta and they are associated with the S-type Lacorne pluton (biotite to two-mica to muscovite monzogranite). The Lacorne pluton is the fertile parental granite from which the pegmatites were derived. The presence of garnet, molybdenite, columbite-tantalite and sphalerite in the muscovite monzogranite indicates that the Lacorne pluton is fertile granite rather than a barren granite (Mulja *et al.* 1995a).

The pegmatites are regionally zoned from the Lacorne pluton outwards: beryl pegmatites to spodumene-beryl pegmatites, spodumene pegmatites to Mo-bearing albitite to molybdenite-quartz veins (see discussion on crystallization history Section 7.1.3).

The rare-element pegmatites show features similar to other rare-element pegmatites of the Superior province:

1. The pegmatites occur within the Abitibi Greenstone Belt near the contact with the Pontiac subprovince. Many of the lithium dykes lie less than 1.5 miles (~2.4 km) SW of and approximately parallel to the Manneville Fault zone.
2. The regional metamorphic grade is greenschist facies
3. The pegmatites are genetically derived from the fertile Lacorne pluton
4. The pegmatites are hosted by mafic metavolcanic rocks (i.e., basaltic lavas of Kinojevis group)
5. The mafic metavolcanic rocks have been metasomatized to produce holmquistite along the contact with the Lacorne pluton.
6. The dominant Li-mineral is spodumene and the dominant Ta-mineral is columbite-tantalite. Cs-minerals have not yet been found in the pegmatites.
7. The columbite-tantalite crystals occur in the albitite.

9.0 MINERALIZATION

The mineralization in the Quebec Lithium pegmatite is spodumene hosted within the unzoned pegmatite dykes. The spodumene occurs as log-shaped, fine-grained to ½ an inch (~1.25cm) long crystals (Tremblay, 1950). The spodumene is white to cream (or buff) in colour which indicates low iron content as opposed to the green colour that is more common in the Preissac-La Corne district. The spodumene occurs essentially from wall to wall in the mine mainly with quartz bands separated by aplite and



feldspar-rich stringers (Mulligan, 1965). The spodumene near the mine shaft area is white, fine- to medium-grained and oriented normal to the walls and bands. A few coarse crystals are more random in orientation. The spodumene in the east zone is pale green, medium-grained and strongly oriented normal to the granodiorite contacts (Figure 9-1). Some spodumene is locally altered to a dark green colour, especially near an underground water-course, and leached spodumene and feldspar occur in the fissure. An analysis of the spodumene concentrate by Derry (1950) is given in Table 7 - 2.

Karpoff (1955) made the following observations on the spodumene within the pegmatite dykes based on surface drilling and underground workings, keeping in mind that the pegmatite dykes dip to the south and the granodiorite-volcanic contact dips to the north:

- The richest concentration of spodumene is found at or near the granodiorite-volcanic contact zone.
- At a distance of 500 to 600 feet above the contact in the volcanics, the pegmatite dykes become weak, narrow and low grade.
- In the granodiorite, the pegmatite dykes remain strong and become low in spodumene only at a distance of 1,600 feet below the contact.
- The amount of spodumene decrease with an increase in pink orthoclase feldspar. The K-feldspar begins to appear in the dykes within the granodiorite at a distance of about 1600 feet below the contact.
- The spodumene is white to light green in the mafic volcanic rocks and buff to light grey in the granodiorite.
- The iron content in the spodumene is higher in the mafic volcanic rocks above the contact than in the granodiorite.
- The spodumene crystals are smaller grained in the mafic volcanic rocks than those in the granodiorite.
- The grade and uniformity of the spodumene pegmatite dykes are affected by the degree of orientation of the crystals. The part of the dykes in which the crystals lie at any direction (random orientation) are lower than the well oriented sections.
- Structural considerations suggest that the zone of pegmatitic dykes will have a depth extension of at 2,500 feet (~762m) down the contact.

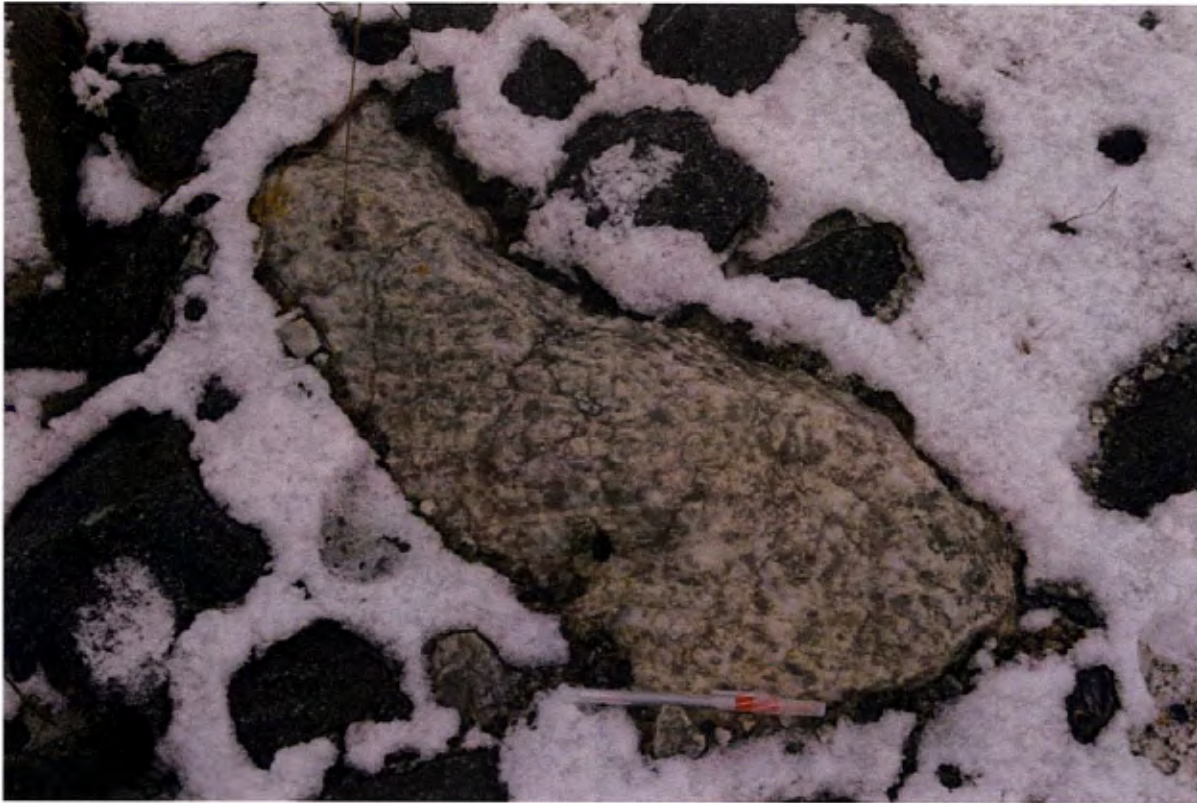


Figure 9- 1 Photograph of parallel oriented green spodumene with interstitial quartz and aplite in rock sample, Quebec Lithium Property. Pen for scale is 14.5 cm long.



Figure 9- 2 Photograph of oriented green spodumene (comb structure) with interstitial quartz and aplite in drill core (middle of tray) from the Quebec Lithium Property. Coin for scale is 2.8 cm in diameter.

10.0 EXPLORATION

There has been no exploration done on the property by the issuer up until October 2009, when a recommended drilling program was initiated (see Section 11.0).

11.0 DRILLING

After reviewing the historic data, CCIC recommended a drill program of approximately 7,000m to twin approximately 5% of the historic holes and check pegmatite intersects along strike of the mined areas. This should provide enough information to confirm the historic results and calculate an NI 43-101 compliant resource estimate. Figure 11-1 shows the location of the proposed holes. All holes are planned

to be drilled to the northeast at ~40-60 degree dips cross cutting the stratigraphy. Drilling is anticipated to be finished in December, 2009. Samples will be analyzed at SGS Toronto.

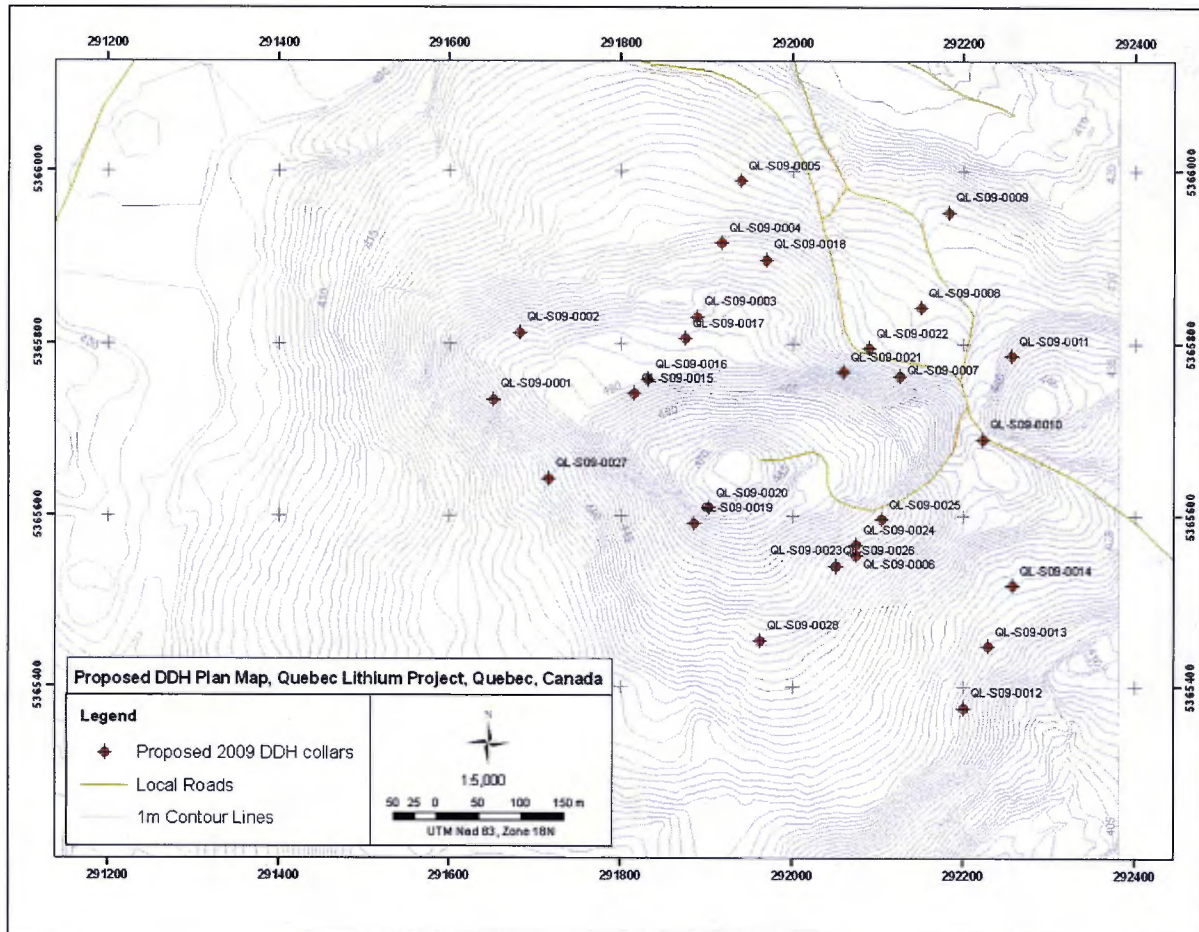


Figure 11-1 Collar plan showing drill hole locations.

12.0 SAMPLING METHOD AND APPROACH

12.1.1 Historic

There is no record in the historic information available specific to the sampling method of the underground or surface drill holes. However from the drill logs, sample intervals appear to have ranged

from 0.1 feet (~3 cm) to 102.3 feet (~31m). The average sampled interval is 7.9 feet or 2.4m in length. Common sample intervals were 1, 2, 3, 4, 5, 7, 10 and 15 feet (~30, 60 and 90 cm; 1.2, 1.5, 2.1, 3 and 4.6m, respectively). Assay values in percent Li₂O are reported but no original assay certificates are available for the historic drilling or an indication of the analytical method used. Eight hundred and six (806) assays are reported in 61 of the surface drill holes.

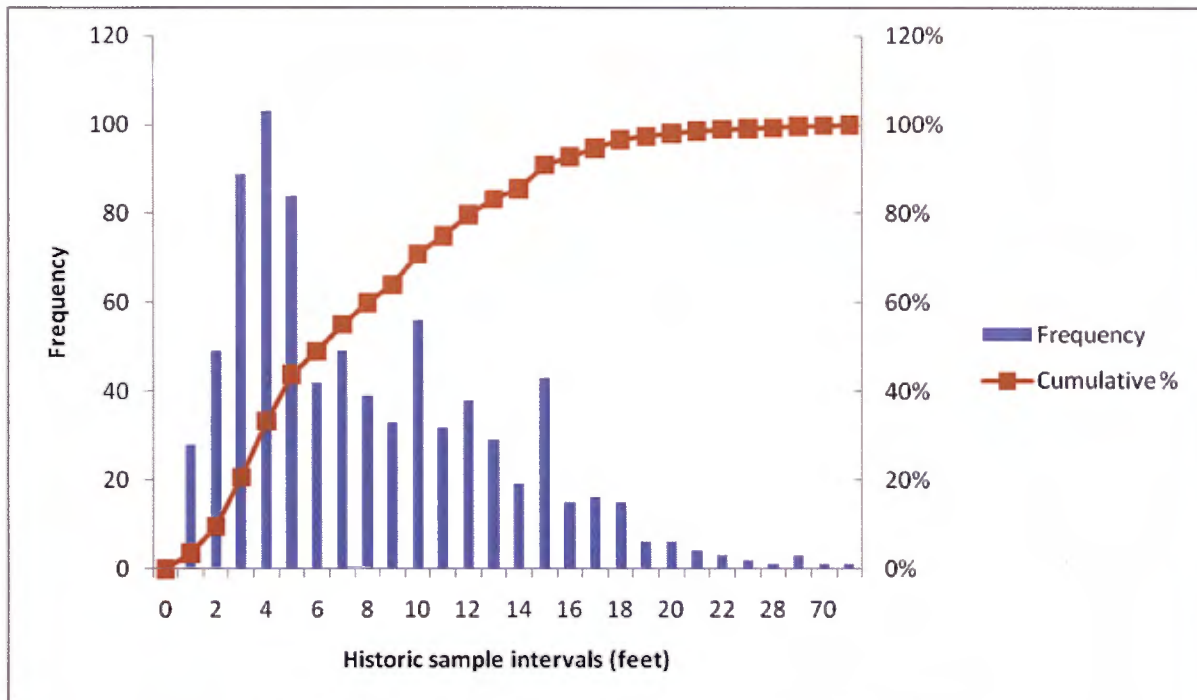


Figure 12- 1 Graph showing the frequency of historic sample intervals recorded in feet. The average value is 7.9 feet or 2.4m in length.

12.1.2 Current

For the drill program currently underway, all of the pegmatite intersections are being sampled in 1m intervals from core sawn in half at the Canada Lithium’s core facility in Val d’Or. If a final 1m interval cannot be made, then the remaining interval is combined with the previous 1m interval and the combined interval is split in half for sampling. For example, if 1.5m of core remains to be sampled, then 2 samples are taken, each 0.75 cm in length.



All core is washed, photographed and logged prior to sampling. Geological descriptions and geotechnical information is recorded directly into Coreview v. 5.0.0 software (Visidata Pty Ltd.), which is exported and backed up nightly on a secure data server.

Samples had not yet been submitted for analysis prior to the effective date of the report as standard reference material was not yet available to include with the batches for assay.

13.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

There is no information in the historic reports describing the sample preparation, analysis or security measures undertaken by QLC, who is responsible for the majority of the historic drilling completed on the Property. However, as part of the historic data review, 806 assays were compiled representing 61 of the surface drill holes. Assay values are hand written on the drill logs and expressed in percent lithia. The assay values range 0.1% Li_2O to 3.65% Li_2O . Figure 13-1 shows a histogram of the length weighted or "grade x thickness" results using the historic lithia sample information. Figure 13-1 shows that the predominant grade x thickness value is equivalent to 1% lithia per 2 feet (~61 cm) of material sampled.

There is no assay data for the underground holes. Original assay certificates are not available to check the data, so should not be considered reliable data at this time. The reliability of these data will be assessed when the results of the 2009 confirmatory drill program are available.

For the current, 2009 drill program, core samples are put in wooden core boxes at the drill site, sealed with a lid and strapped with plastic bindings. The core is transported from the drill site by the drill contractor or Canada Lithium personnel to Canada Lithium's core facility in Val d'Or. The core is sawn in half and sampled as described in Section 12.0. The core is then placed with a sample tag into plastic bags labelled with the same sample number and then sealed with a cable tie. Approximately 20 sealed sample bags are placed in a labelled rice bag along with the request for analysis and then these bags are also sealed with a cable tie.

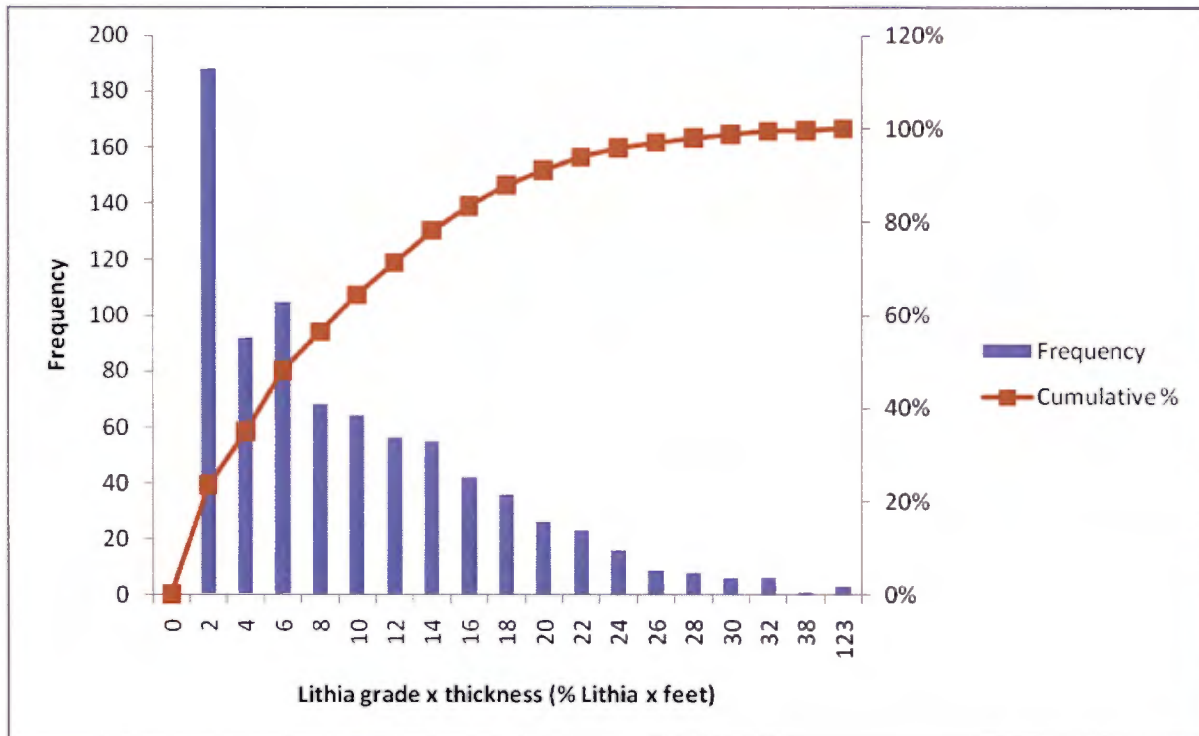


Figure 13- 1 Histogram showing lithia grade x thickness (expressed in % lithia x feet). From this graph, the dominant grade and thickness is equivalent to 2 feet (~61 cm) with a grade of 1% Li_2O .

14.0 DATA VERIFICATION

All of the historic data available for the Quebec Lithium Property has been reviewed by CCIC. There is limited assay information and no quality control information is documented. The only lithia grade information for the Property prior to CCIC's involvement in the project comes from drill logs, production summaries and statements in the historic reports. These data cannot be otherwise confirmed but are expected to be of good quality as they were prepared by professional geologists and engineers at that time.

To verify the historic data a 7,000m drill program (Section 11.0) was recommended by CCIC and has been implemented by Canada Lithium. CCIC designed and is managing the program. Drilling is expected to be completed in December 2009 and a compliant resource estimate produced after the geological interpretation is complete and the assays have been received.



14.1 CCIC Site Visit

Michelle Stone, CCIC, made a site visit to the Property on August 12th, 2009. The old plant site and tailings area was visited. However, no buildings or other structures other than an underground vent remain. All underground openings were sealed and the old mine area rehabilitated.

Two samples were collected from the site. One sample was collected near the old plant site adjacent to the tailings area (sample 682751; Figure 14-1). It consisted of sand sized tailings material. The second sample consisted of 18 fist to 2-fist sized pieces of pegmatite collected from a rock wall near the tailings area (sample 682752; Figure 14-2). The samples were placed with a numbered sample tag in a labelled plastic bag. Sample bags were secured with a cable ties and then placed in a rice sack, which was also secured with a cable tie. The samples were shipped back to Toronto by Greyhound bus for photographing (Figure 14-3) and were then submitted by courier to SGS Toronto for preparation and analysis. Both samples were completely crushed to 90% passing 2 mm and then pulverized to 85% passing 75 microns using chromium steel. Eight samples were split from each sample, fused using sodium hydroxide and then analyzed by ICP (package ICM90A). Detection limits for this method range from 10 ppm to 5% Li_2O . The results of the Li analyses are shown below in Tables 14-1 and 14-2 and recast to percent Li_2O .



Figure 14- 1 Tailings sample 682751 (Table 14-1) was collected from the quartz-feldspar sand at the front of this photograph. This track leads down from the old plant site to the tailings dam in the swampy area in the foreground. The tailings storage area extends to the east (right of photograph). Lac Lortie is located above and to the left of this photograph.



Figure 14- 2 A composited sample of pegmatite rocks (682752 – Table 14-2) were collected from this rock wall near the old plant site and the tailings area.



Figure 14- 3 Photographs of the rock samples collected to form the composite for geochemical analysis. Penny for scale is 19.05 mm in diameter.



Figure 14- 3 continued.



Figure 14- 3 continued.



Table 14 - 1 Tailings sample analyses

Sample	Li (ppm)	Li₂O (%)
682751-1	3,230	1.39
682751-2	3,390	1.46
682751-3	3,150	1.36
682751-4	3,270	1.41
682751-5	3,160	1.36
682751-6	2,880	1.24
682751-7	3,240	1.39
682751-8	3,340	1.44
DUP-682751-8	3,450	1.49
Minimum	2,880	1.24
Maximum	3,390	1.46
Average	3,208	1.38

Table 14 - 2 Pegmatite sample analyses

Sample	Li (ppm)	Li₂O (%)
682752-1	4,570	1.97
682752-2	4,630	1.99
682752-3	4,480	1.93
682752-4	4,400	1.89
682752-5	4,610	1.98
682752-6	4,460	1.92
682752-7	4,490	1.93
682752-8	4,530	1.95
DUP-682752-8	4,540	1.95
Minimum	4,400	1.89
Maximum	4,630	1.99
Average	4,521	1.95

The samples appear to have been homogenized well before the pulp splits taken. The grade of the rock samples is higher than the historic reported geological or mining grade.



14.2 QA/QC program for the 2009 drill program

The following is the QA/QC procedure developed for the start of the 2009 confirmatory drill program:

14.2.1 Core Sampling and Sample Shipment Tracking

Core sampling for the 2009 drill program should be done on 1m intervals through the pegmatite. Where there is core in excess of the amount to be sampled in 1m samples, the last 1m interval is added to the remainder and then 2 samples are taken of equal length. For example, after a series of 1m intervals, there is 1.5m of core left – this material should form 2, 0.75m samples. Samples taken must begin at the stratigraphic top of the pegmatite and continue sequentially downward.

The samples will be sawn wet. CCIC will monitor the cutting to ensure that the sample is being processed and collected properly. The saw and work area will be cleaned after each sample is split. Safety glasses must be worn when working or passing within 3m of the saw. The saw blade should be checked weekly or more frequently for excessive damage and sharpness, and changed as appropriate.

Samples will be stored in plastic bags labelled with the hole number, interval and sample number. The corresponding sample tag will be placed in the bag. The bag will be secured with a plastic cable tie. Plastic sample bags will be placed in large rice sacks and secured with a cable tie for shipping to the laboratory. The hole number and samples will be labelled on the outside of each rice sack. Samples should be sent to the primary assay lab (SGS Toronto) as soon as is practical to avoid unnecessary delays.

Samples from individual holes will constitute individual batches of samples to be sent to the laboratory. If additional sample material is required from any hole, that material will be considered a separate batch and not included with samples from another hole. Record the hole number, sampled interval, sampled data, shipment date, and sample numbers with corresponding from and to depths on the Sample Tracking and Sample List spreadsheets as appropriate. Email these spreadsheets to CCIC on a daily basis. The Sample Tracking spreadsheet needs to be updated with the date the samples were received at the lab (and any comments), as well as the date that the final assays were received and the certificate number.



14.2.2 QA/QC samples

The QC samples are to be inserted into the sample sequence in ~5% of instances. Every batch of 20 samples should include at least one standard, one blank and one pulp duplicate sample

Standards – ideally the standard should matrix match (i.e., spodumene-bearing pegmatite) and method match (i.e., sodium hydroxide fusion and AAS for Li) the assays for the drill core.

Two standards are being prepared for use in the 2009 drill program from material acquired from the Tantalum Mining Corporation of Canada Limited (“Tanco”) mine in Manitoba, which is currently owned by the Cabot Corporation. The material is a spodumene concentrate produced at Tanco. This material will be diluted and homogenized at the Ontario Geological Survey laboratory in Sudbury. The standard grades will be ~0.5% and 1% Li₂O.

Blanks – coarse pure quartz chip to monitor any contamination during sample preparation.

The standards and blanks must be blind to the analytical laboratory. Give the standards and blanks a sample number so that they blend in with the drill core samples. Standards and blanks detect bias and accuracy errors by the primary laboratory.

Duplicates

- Pulp duplicates at the request of Canada Lithium will be prepared at SGS Toronto and analyzed as a different laboratory. Preparation and pulp duplicates will also be made by SGS Toronto and analyzed with the samples received at that lab.
- Core duplicates will not be collected for this drill program because of the metallurgical requirements of the PFS.

15.0 ADJACENT PROPERTIES

Canada Lithium’s property is surrounded by active claims which cover 18 known lithium occurrences that are located between Lac La Motte and Roy (Figure 15-1).

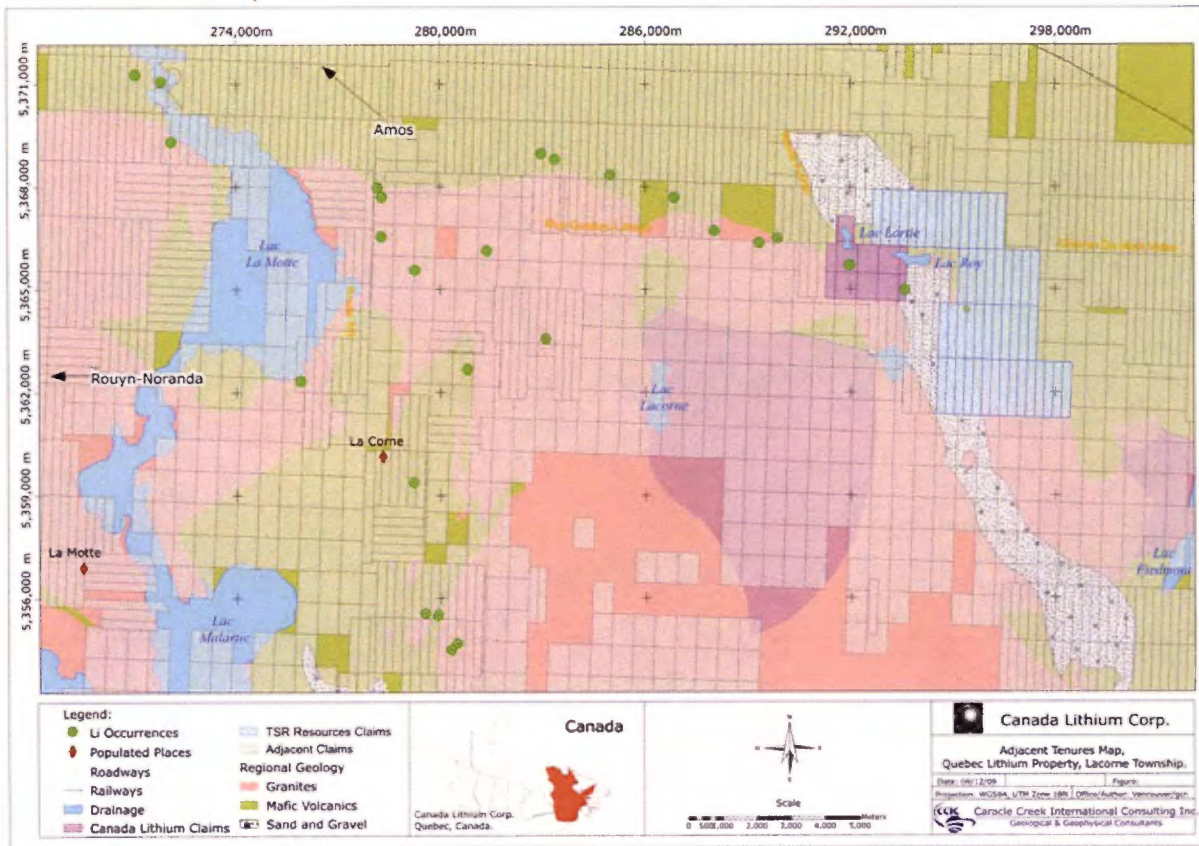


Figure 15 - 1 Adjacent properties map showing location of Li occurrences (Mulligan, 1965).

15.1 Thelon Ventures Ltd.

Thelon Ventures Ltd. signed a letter of intent with Gene Leong to acquire 100% interest in 60 mineral claims approximately 18 km southwest of the Quebec Lithium Property (Thelon Ventures news release, September 8, 2009). The claims are located near Lac Malartic (NTS sheet 32D08). Thelon stated that the presence of historic prospects and mines suggests that the property is a good exploration target for spodumene bearing pegmatites (Thelon Ventures news release, September 8, 2009). No exploration has been completed by Thelon to date.

15.2 Candorado Operating Company Ltd.

Candorado Operating Company Ltd. entered into an option agreement with two private individuals, Glenn Griesbach and Kamaledin Salmasi, to acquire 100% interest in 29 mineral claims totalling 1,289.95



hectares located approximately 8 km west of the Quebec Lithium Property (Candorado Operating Company Ltd. news release, August 25, 2009). Candorado's ground is divided into five parts.

The Lake La Motte South Property hosts the Lake La Motte lithium occurrence where a historic diamond drill hole drilled into pegmatite dikes containing 15 to 30% spodumene.

The Lake La Motte East Property is located south of the Lac La Motte lithium occurrence and historic drilling and trenching indicate pegmatite occurrences.

The Landrienne South Property is located in southern Landrienne Township and covers a major east-west structural zone hosting lithium occurrences. Several historic diamond drill holes were drilled on this Property.

The La Come Valor East Property is located 5m east of Lake La Motte and about 200m from the Valor lithium occurrence. The La Come Valor West Property is located west of the Valor Lithium occurrence. Two diamond drill holes were drilled on the La Come Valor West Property.

Candorado are preparing an exploration budget and are planning an exploration program starting in April 2010 (Candorado Operating Company Ltd. news release, August 25, 2009).

15.3 AKA Ventures Inc.

AKA Ventures Inc. entered into an option agreement with A Better Search where AKA will acquire the right to earn 100% interest in the La Come Property, located about 45 km north of Val d'Or (AKA Ventures Inc. news release, October 1, 2009). The Property consists of three claim blocks. The Vallée Claim Block consists of 17 claims in La Come and Fiedmont Townships and is adjacent to the Quebec Lithium Property (AKA Ventures Inc. news release, October 1, 2009).

The Baillarge Claim Block consists of 12 claims in La Come Township and hosts the Lac Baillarge East Lithium Showing where mineralized pegmatites had been identified (AKA Ventures Inc. news release, October 1, 2009).

The La Come Claim Block consists of 5 claims in La Motte Township and hosts the La Come Lithium Showing where eight spodumen-bearing pegmatites had been identified (AKA Ventures Inc. news release, October 1, 2009).



15.4 TSR

TSR, a private Quebec company, holds 104 claims in Fiedmont and La Corne Townships. The company explores for base metals and gold.

16.0 MINERAL PROCESSING AND METALLURGICAL TESTING

16.1 Historic

Many of the documents relating to production and concentration were lost or destroyed after the mine was closed in the 1960's. However several documents were retained and the metallurgical process and production described by SNC (1974) and Karpoff (1993). The following is a summary from these reports.

Historic records show that equipment crushing, grinding and concentration in place at the time, had sufficient capacity to handle 1,000 tons (~907t) of ore per day and moving production of 186 short tons (~169t) of concentrate spodumene at an average grade of about 5.78% Li_2O .

16.1.1 Concentrating

The concentration circuit is described as follows:

- Run of mine was crushed at least 6 inches (~15 cm) in an underground jaw crusher and then hoisted to a 1,000 ton (~907t) capacity storage container (silo).
- Ore was then sorted by hand and then crushed to less than 3/8 of an inch (~1 cm) through three cones and then stored in silos.
- The minus 3/8 of an inch (~1 cm) material was then ground in a primary, semi-autogenous mill (8.5 feet x 12 feet in size or ~3 x 3.7m). This material was then passed through a cyclone and to ball mills for further size reduction.
- The final pulverized material went through a floatation process and thickened to produce a concentrate.



- The spodumene concentrate was cleaned, filtered and dried in a rotary kiln (4.5 feet in diameter and 35 feet long or 1.4 x 10.7m).
- A flotation circuit was added in 1958 for the concentration of feldspar.

The process is shown in Figures 16-1 and 16-2. The following numbers refer to these diagrams and indicate the equipment used in the process:

1. 24 inch cyclones
2. No 4 Dorr sizer
3. 3 x 6 Derrick
4. 8 x 12 Marcy rod mill
5. 9 x 6 Marcy ball mill
6. 4 inch Linatex pump
7. 4 inch Linatex pump
8. 66 x 29 FF Wemco spiral classifier
9. 10, 6 inch cyclones
10. 4. Denver conditioners
11. 20 x 5 Southwestern rougher cells
12. 20 x 5 Southwestern scavenger cells
13. 4, No 24 Denver cleaner cells
14. 8 x 22 Dorr diaphragm pump
15. 8 x 48 Dorrco filter
16. 4 ½ foot x 35 foot dryer

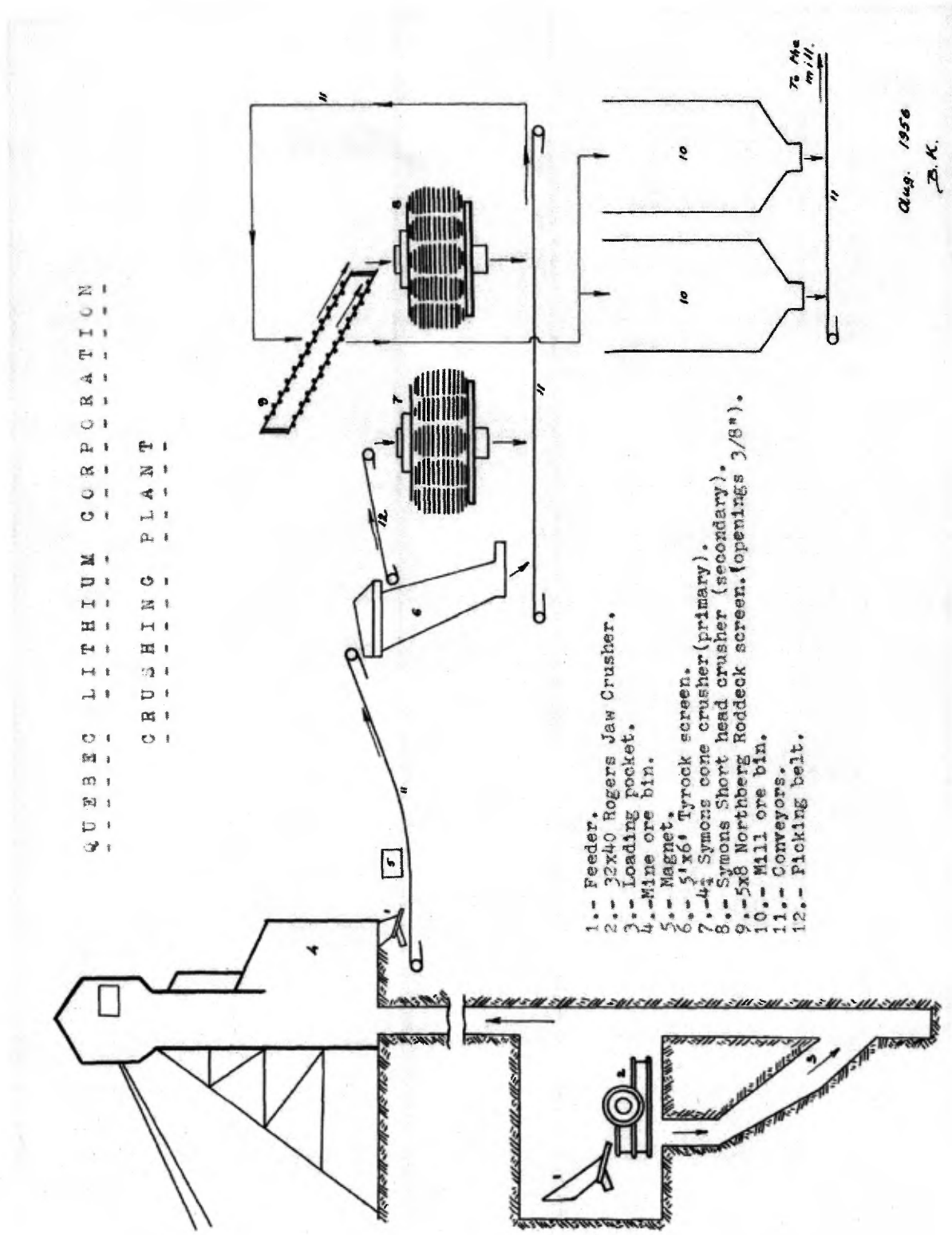


Figure 16-1 Crushing plant flow sheet – historic processing (Karpoff, 1957).

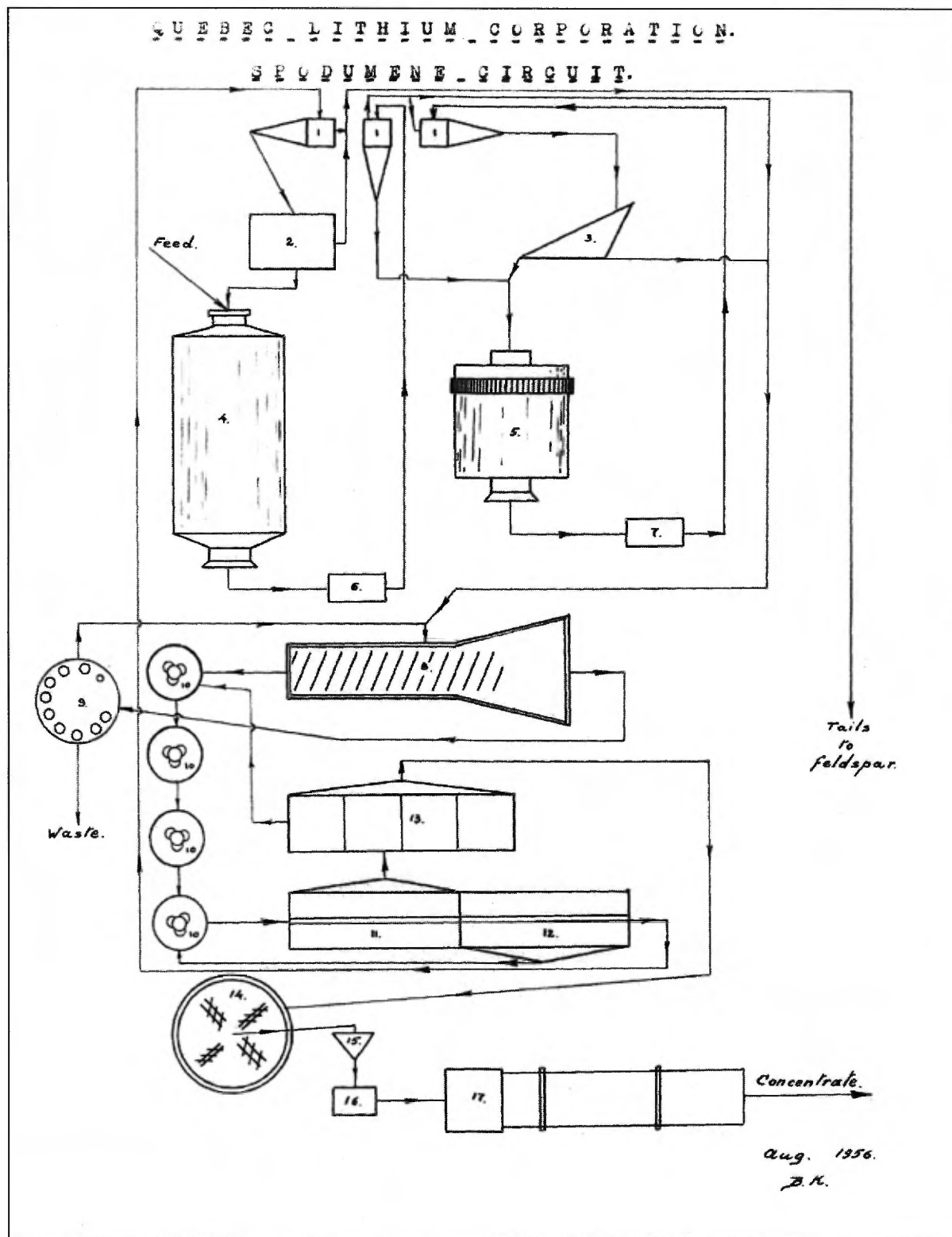


Figure 16- 2 Spodumene circuit flow sheet – historic processing (Karpoff, 1957).



16.1.2 Tailings

The tailings from the spodumene concentration were stored in the small valley between the Lac Lortie and Lac Roy, ~1,000 feet (~305m) northeast of the refinery. Two rock dams were constructed at both ends of the lake and a pond was built downstream from the discharge.

Based on the production figures for years 1956 to 1962, it is estimated that 700,000 to 750,000 tons (~635,030 to 680,389t) of quartz and feldspar were dumped as waste.

16.1.3 Refining

The production of lithium carbonate, and other lithium salts, must first go through a step, referred to as decrepitation of spodumene. This is done in a rotary kiln at a temperature of 1,900° F (~1,038° C). The product, beta spodumene, is then cooled with water. This product is crushed to 90% passing minus 200 mesh and then transferred into a silo.

The production of lithium carbonate from the decrepitated spodumene occurs over several stages which are described briefly below.

Carbonation

The decrepitated spodumene is mixed with a saturated solution of sodium carbonate. This mixture is fed into autoclaves and washed for one hour under 300 pounds of pressure (~20.7 bars) at 400° F (~204° C) for 1 hour. The slurry is transferred to a blow down tank partially filled with cold weak liquor, in closed circuit with a heat exchanger, until its temperature is reduced to 80° F (~27° C).

Bicarbonatation

When the product has cooled to 80° F (~27° C), the slurry is transferred into horizontal bicarbonation vessels. CO₂ is injected into the slurry under pressure while it kept in agitation. Sodium and lithium bicarbonate formed go into solution. When the reaction is completed, the slurry is pumped into a large surge tank.

Removing impurities - filtration

The solution is washed twice before it passes through two filters and then through 2 filter presses. The final concentrate contains less than 0.1% insoluble material.



Precipitation

The bicarbonate solution is precipitated in stainless steel vessels in which steam coils bring the temperature to 210° F (~99° C). The lithium carbonate precipitates when agitation stops as the solutions settles.

Filtration and drying

The lithium carbonate slurry is transferred into surge tanks where recirculation is maintained to break the lumps. A centrifuge is used to dewater the lithium carbonate which is transferred to a dryer.

Grinding and packaging

The dried product is reground to 88% passing minus 200 mesh in a ball mill with porcelain balls. The mill is operated in closed circuit with an air classifier. The lithium carbonate is then packaged in fibre drums, or in polyethylene bags in steel drums.

This process, which was used by QLC, had the disadvantage of being a batch process and not continuous. Since then, the MRC has improved the general process and developed continuous carbonation. The closure of the Quebec Lithium mine prevented the introduction of a new process at its refinery.

Based on some production sheets and annual reports, the capacity of the refinery was about 4,200,000 pounds (~9,240,000 kg) of lithium carbonate per year. The refinery was built during the period 1959-1960 and began its operations in 1960. The final closure occurred in 1965. Annual productions are presented in Table 16-1. Details of the lithium hydroxide monohydrate production are not available for the years listed in Table 16-1.

Table 16 - 1 Annual lithium carbonate production

Year	Lithium carbonate production	
	pounds	kg
September 1960 – August 1961	635,000	1,397,000
September 1961 – August 1962	958,000	2,107,600
September 1962 – August 1963	1,915,000	4,213,000
September 1963 – August 1964	2,284,000	5,024,800
September 1964 – August 1965	2,650,000	5,830,000

The latest tests of the decrepitating and processing of lithium carbonate made by the CRM showed decrepitating recoveries of around 94% and 86% for the process, with a total recovery of lithium carbonate at about 70%.



16.2 Current Metallurgical Test Work

Canada Lithium is completing a pre-feasibility study (“PFS”) for the development of a mine to produce 15 million tonnes of ore over a 15 year period. This is expected to result in production of up to 19,200 tonnes of 99.5% lithium carbonate annually, commencing in 2012. The PFS is being carried out by BBA Inc. (“BBA”) in Montreal.

Material for preliminary test work was obtained in 2008 and mid-2009. Eight holes were drilled in June 2008. The holes were drilled to collect material for preliminary test work. All of the pegmatitic material was sampled and sent for processing at SGS Lakefield in July. The total combined weight of the material shipped to SGS Lakefield was 310 kg.

In 2009, a bulk sample was collected consisting of pegmatite boulders picked from a waste dump near the tailings and old plant area (608 kg sample). These samples were also sent to SGS Lakefield for test work.

In April 2009, Canada Lithium signed a Marketing Agreement with Mitsui Corp. for the distribution of battery-grade carbonate in Japan, China and Korea. In September 2009, the first samples were dispatched to Mitsui in Japan for marketing purposes. Table 16-2 shows the properties of these samples.

Table 16 - 2 Quality of marketing samples sent to Mitsui in Japan (April 2009)

Analyte (%)	Analysis
Li ₂ CO ₃	99.96
Cl	0.0048
Na	0.016
Ca	0.016
Mg	0.0081
S	<0.01
Fe	<0.0002

Metallurgical test work is still in progress and BBA and SGS Lakefield are currently finalising the PFS flow sheets and criteria to design a lithium carbonate production facility on site. This on-site facility will treat an estimated 1,200,000 tonnes of crushed pegmatite ore per annum to produce a 6.5% Li₂O spodumene concentrate that will be upgraded to produce ~19,200 tonnes of 99.5% battery-grade lithium carbonate. Figure 16-3 shows part of the preliminary flow sheet for this process which will use conventional processing technology and equipment.

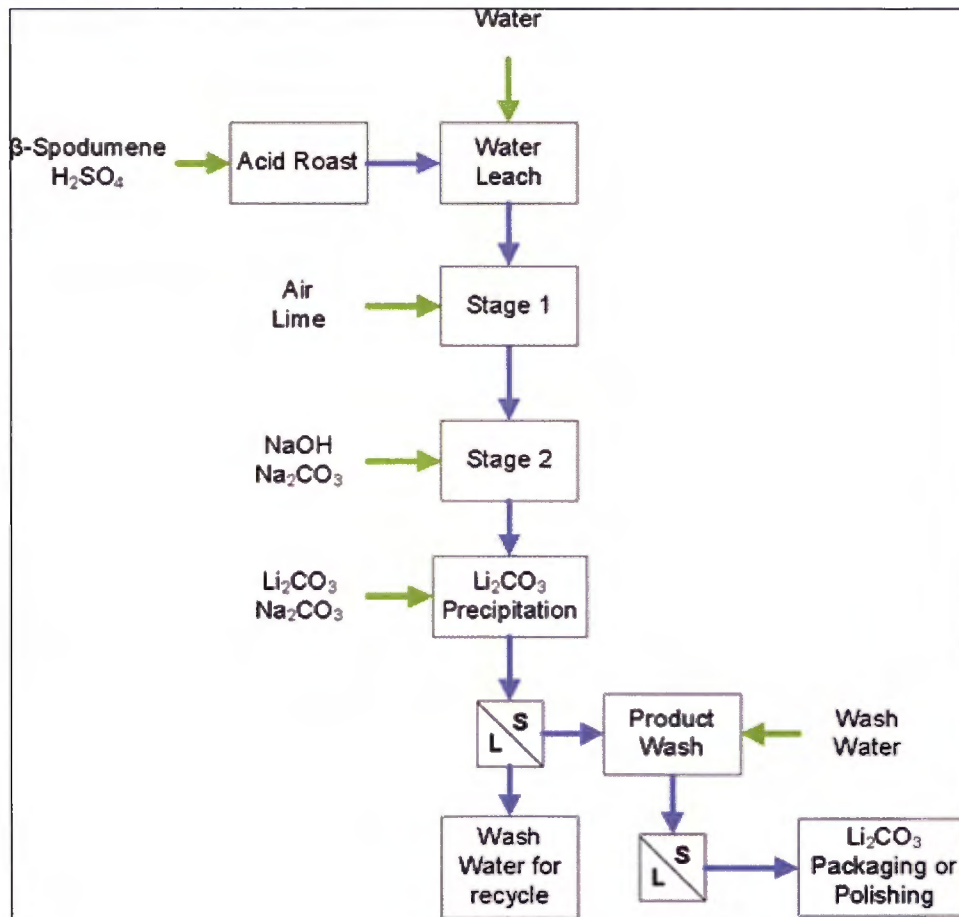


Figure 16- 3 Part of the preliminary flow sheet for lithium carbonate processing.

17.0 MINERAL RESOURCE AND RESERVE ESTIMATES

There are no current resource or reserve estimates. However, a potential tonnage has been estimated based on the historic data available for the Property. It is described in the following sections.

17.1 Potential Tonnage Estimation

The underground workings were digitized and their 3D extents estimated and constructed based on mining widths cited in the historic reports (Figures 17-1 and 17-2).

The collars of all available historic drill holes were digitized and basic lithology and hole orientation information compiled from the associated drill logs and plans (Figure 17-3). The resulting database for use in the 3D modelling was composed of 81 surface and 412 underground holes.

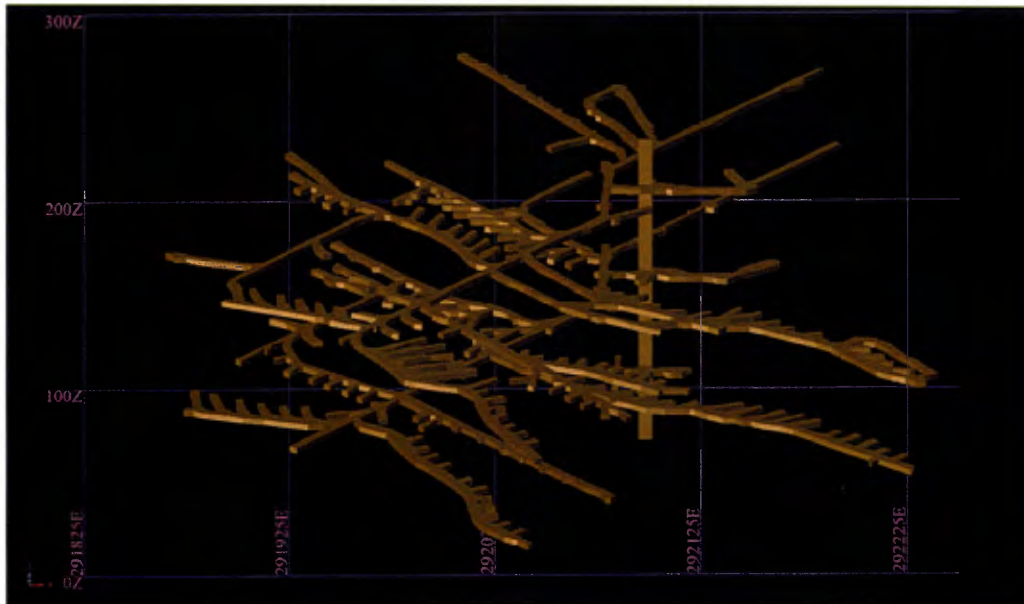


Figure 17- 1 Underground levels reconstructed from historic underground plans.

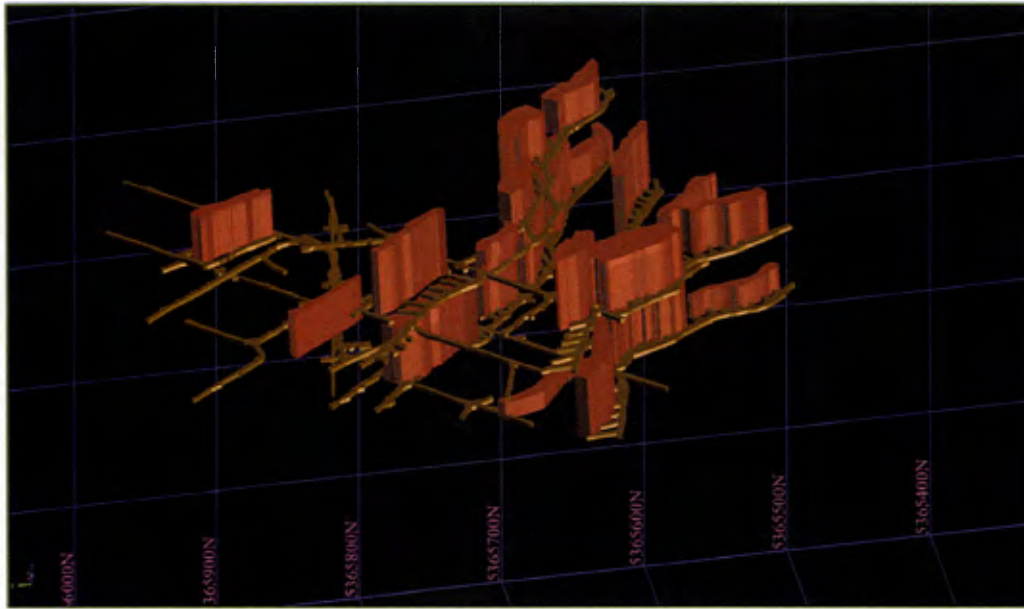


Figure 17- 2 Mine model rotated to show stopes (red).

The drill holes were then displayed using Surpac Vision v. 6.1.3 (Figure 17-4) and 3D solids of the spodumene-bearing dykes were constructed based on the drill hole intercepts and the interpreted surface geology (Figures 17-5 and 17-6).

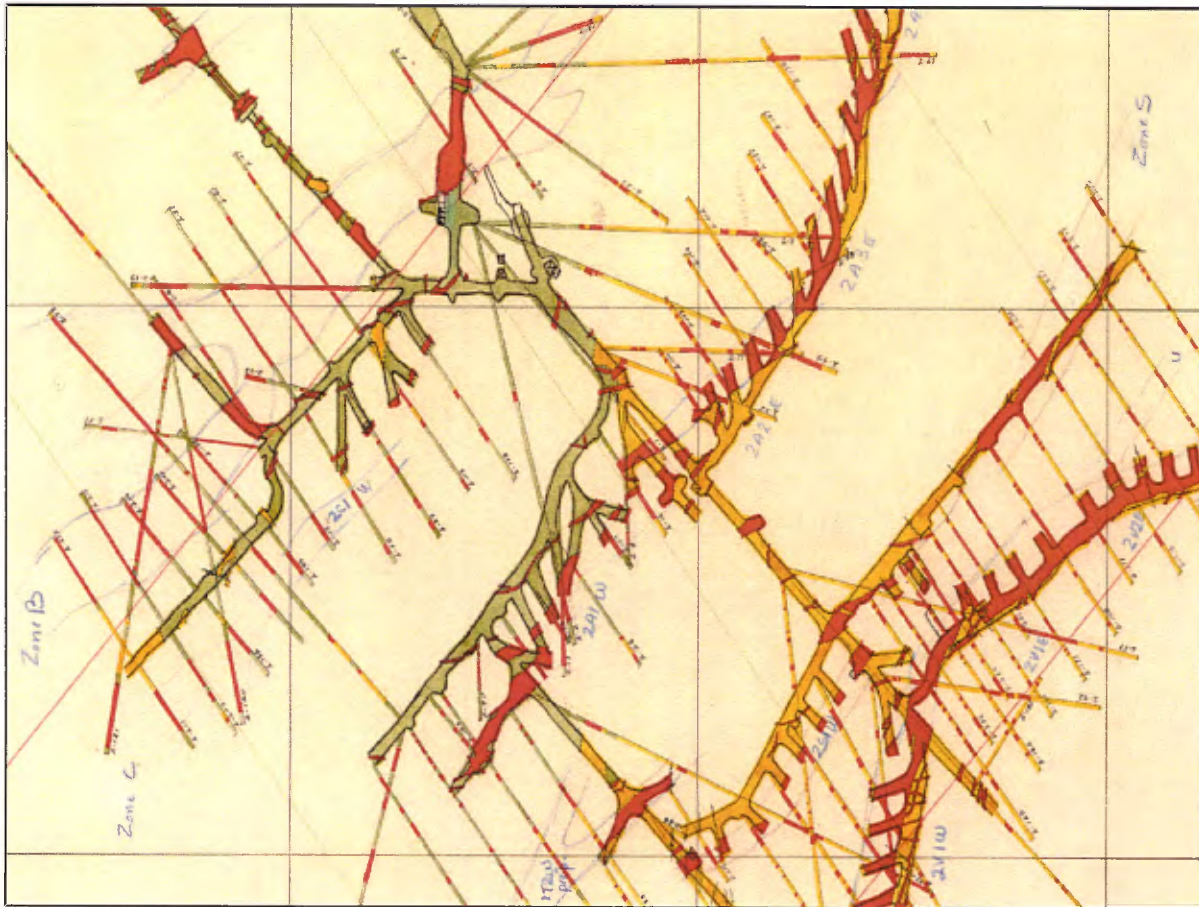


Figure 17- 3 Example of a level plan used to capture the level outlines and drill hole information. Colours: red = pegmatite, green = mafic volcanic rocks and yellow = granitic rocks.

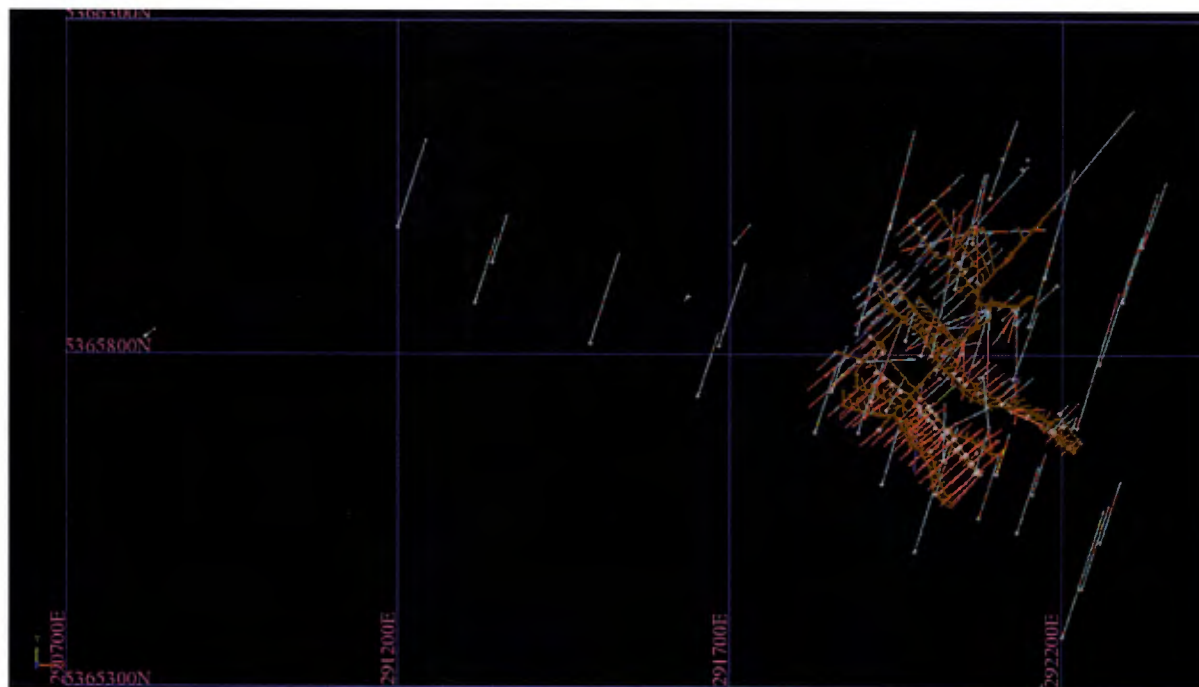


Figure 17- 4 Plan view of digitized historic drilling with pegmatite intervals highlighted in red. Underground levels shown in brown.

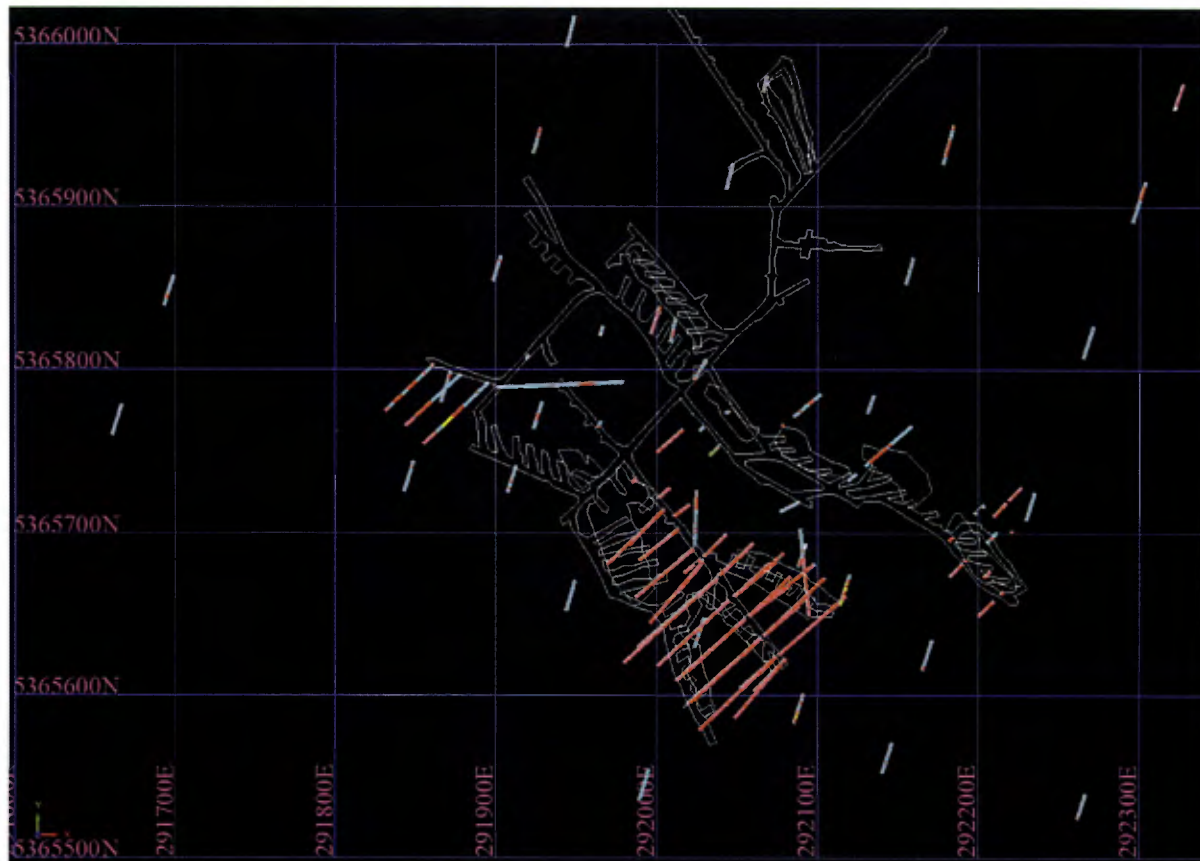


Figure 17- 5 Example of a level view used to interpret pegmatite dyke locations in 3D (red in drill holes and open ovoid features are worked stopes).

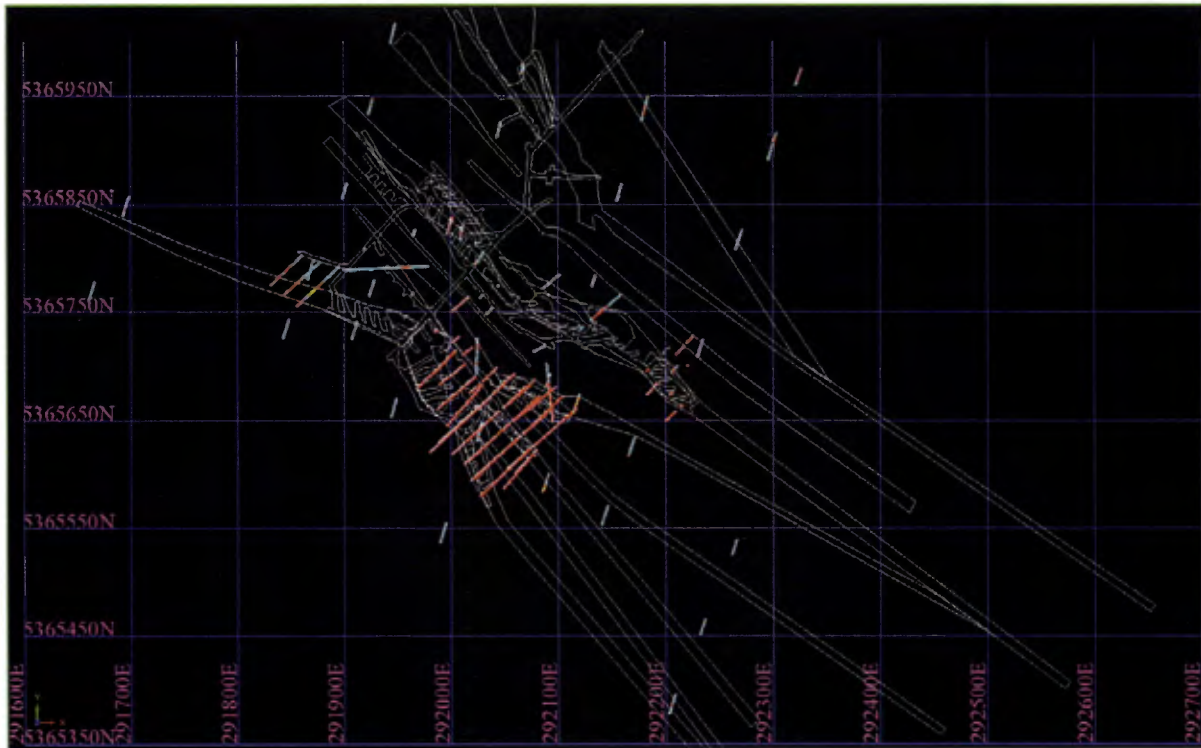


Figure 17- 6 Pegmatite dykes were interpreted on the historic mining levels, between, above and below to construct 3D solids representing the spodumene-bearing dykes.

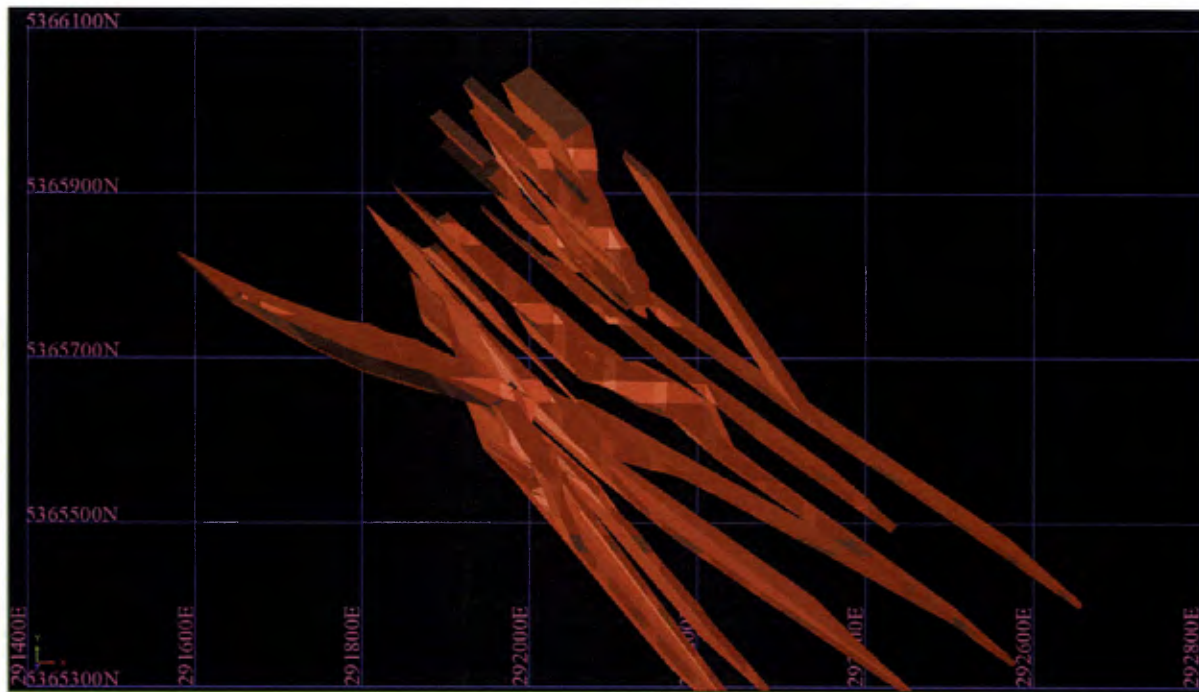


Figure 17- 7 Screen capture image showing the interpreted dykes used to estimate the potential tonnage presented in this Section and to plan the current, on-going confirmatory drill program.

A 10 x 10 x 10m block model was constructed over the mine area (Table 17-1).

Table 17 - 1 Model extents and block details

Type	Y (m)	X (m)	Z (m)
Minimum Coordinates	5,365,200	291,150	0
Maximum Coordinates	5,366,250	292,750	500
Block Size	10	10	10
Rotation	0	0	0

Grades were assigned for each dyke based on historic resource and reserve numbers (Tables 17-2 and 17-3). The grades shown in Table 17-2 were compiled from the 1957 resource and reserve estimate documents. Short tons were converted to metric tonnes as reported in Table 17-2 using a conversion of 1 short ton = 0.907185 metric tonnes. A weighted average grade was calculated for each dyke from these data (Table 17-3 and Figure 17-8).



Table 17 - 2 Historic resources and reserves¹ per cross section

Cross section	Dyke A		Dyke B		Dyke C		Dyke D	
	Tonnage (t)	Grade (% Li ₂ O)	Tonnage (t)	Grade (% Li ₂ O)	Tonnage (t)	Grade (% Li ₂ O)	Tonnage (t)	Grade (% Li ₂ O)
2EN			58,500	1.15				
1EN			211,400	1.28				
2WN			251,100	1.13				
3WN			84,360	1.26				
4WN			103,100	1.08	13,410	0.82	10,760	0.87
5WN			81,250	1.10	26,320	1.01	4,900	0.87
6WN			79,000	1.25	31,270	1.15	12,700	0.89
7WN			89,400	1.27	45,700	0.65		
8WN			86,700	1.26	45,990	0.79		
9WN			107,300	1.28	31,900	0.88		
10WN			4,000	1.35	27,600	0.93		
11WN			49,000	1.45				
17ES	9,160	0.80						
16ES	52,010	1.02						
15ES	62,510	1.25						
14ES	71,750	1.04						
13ES	63,260	1.18						
12ES	50,000	1.26						
11ES	39,250	1.26						
10ES	45,400	1.06						
9ES	64,400	1.01						
8ES	47,590	1.33						
7ES	66,320	1.23						
6ES	89,250	1.36						
5ES	65,480	1.21						
4ES	54,610	1.21						
3ES	40,950	0.91	9,640	1.20	4,210	1.04		
2ES	27,120	0.66	190	1.23	4,140	0.84		
1ES	39,200	0.96						
0S	48,970	0.97						
1WS	51,290	1.16						
2WS	59,980	1.21			17,950	0.81		
3WS	49,000	1.28			4,643	1.10		
4WS	46,830	1.27			18,500	1.46		
5WS	49,460	1.29			24,580	1.33		
6WS	46,250	1.19			25,340	1.30		
7WS	36,910	1.13			30,190	1.09		
8WS					27,210	1.00		
9WS					33,400	1.04		
10WS					31,640	0.89		
11WS					36,180	1.77		
Total	1,276,950	1.16	1,214,940	1.21	480,173	1.04	28,360	0.88

¹These resources and reserves are not current, have not been validated by CCIC and should not be considered current.



Table 17-2 continued

Cross section	Dyke T		Dyke S		Dyke V	
	Tonnage (t)	Grade (% Li ₂ O)	Tonnage (t)	Grade (% Li ₂ O)	Tonnage (t)	Grade (% Li ₂ O)
2EN						
1EN						
2WN						
3WN						
4WN						
5WN						
6WN						
7WN						
8WN						
9WN						
10WN						
11WN						
17ES						
16ES						
15ES						
14ES						
13ES						
12ES						
11ES			9,890	1.06	66,990	1.25
10ES			8,330	1.63	40,920	0.97
9ES			15,100	1.38	76,220	1.11
8ES			41,450	1.19	105,650	1.24
7ES			48,090	1.23	99,000	1.16
6ES			41,000	1.25	158,720	1.07
5ES			1,270	0.77	107,960	1.01
4ES			2,310	0.87	116,630	1.14
3ES			6,160	0.78	114,880	1.24
2ES			12,920	1.1	138,530	1.11
1ES			29,600	1.23	97,560	1.37
0S			25,000	1.23	79,190	1.38
1WS			23,900	0.92	65,740	1.25
2WS			16,510	0.97	59,400	1.17
3WS	21,200	1.60	22,040	1.03	56,600	1.09
4WS	29,700	0.82	9,800	1.07		
5WS	29,410	1.31	24,200	1.30		
6WS	51,400	1.24	11,800	1.15		
7WS	30,300	1.37				
8WS						
9WS						
10WS						
11WS						
Total	162,010	1.25	349,370	1.17	1,383,990	1.17

¹These resources and reserves are not current, have not been validated by CCIC and should not be considered current.

Table 17 - 3 Estimated dyke grades

Dyke	Li ₂ O (%)
A	1.16
B	1.17
C	1.04
S	1.17
U	0.88
V	1.17

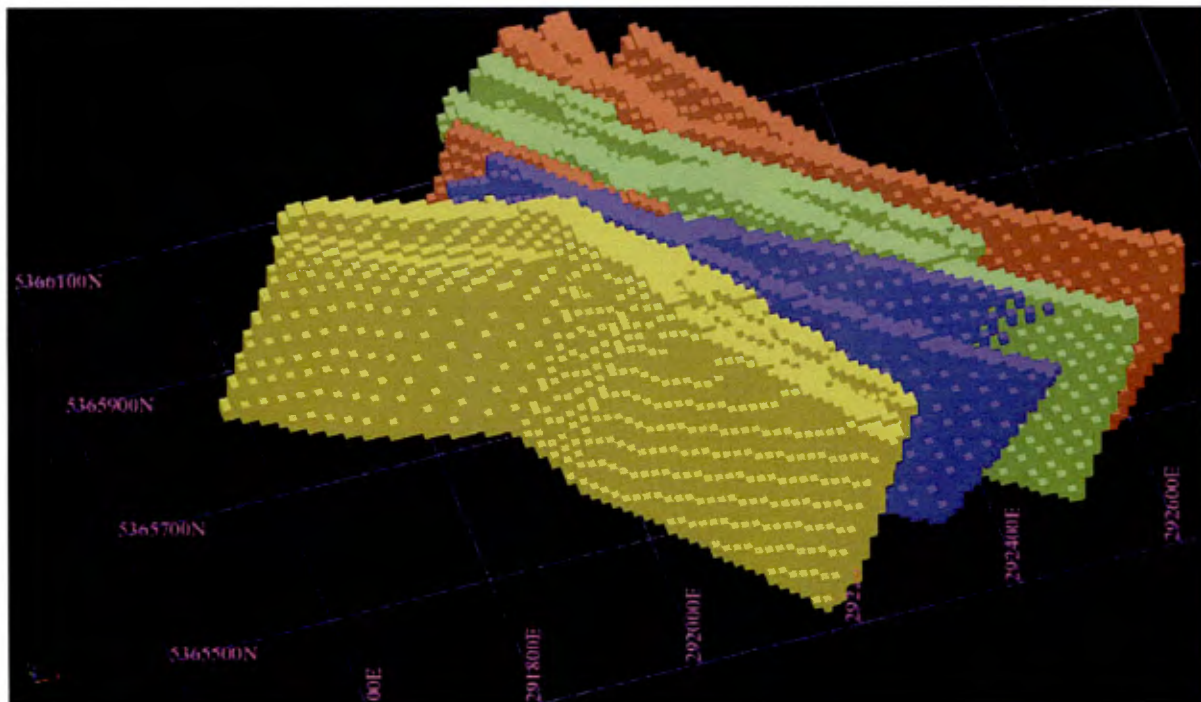


Figure 17- 8 Dyke ore blocks shaded by grade. Colours: blue = 0.88% Li₂O, green = 1.04-1.16% Li₂O, yellow = 1.17% Li₂O and red = 1.21-1.25% Li₂O.

The tonnage for each block at least partially within the dyke solids was calculated as follows:

Block volume (10m x 10m x 10m) * SG * the proportion of the block within the solid and under the surface topography.

A specific gravity of 2.73 (determined from the on-going metallurgical test work) was used in this calculation. The tonnage was reduced by the amount mined during drifting and stope mining. The tonnage was reported only for blocks up to ~110m below Level 2 of the historic mine workings (60m below Level 3, which is of only limited lateral extent) and within 60m of the surface drilling extents; Figure 17-9). A total of 29-30 million tonnes of spodumene ore has been estimated with a grade of 1.1% Li₂O (Table 17-4).

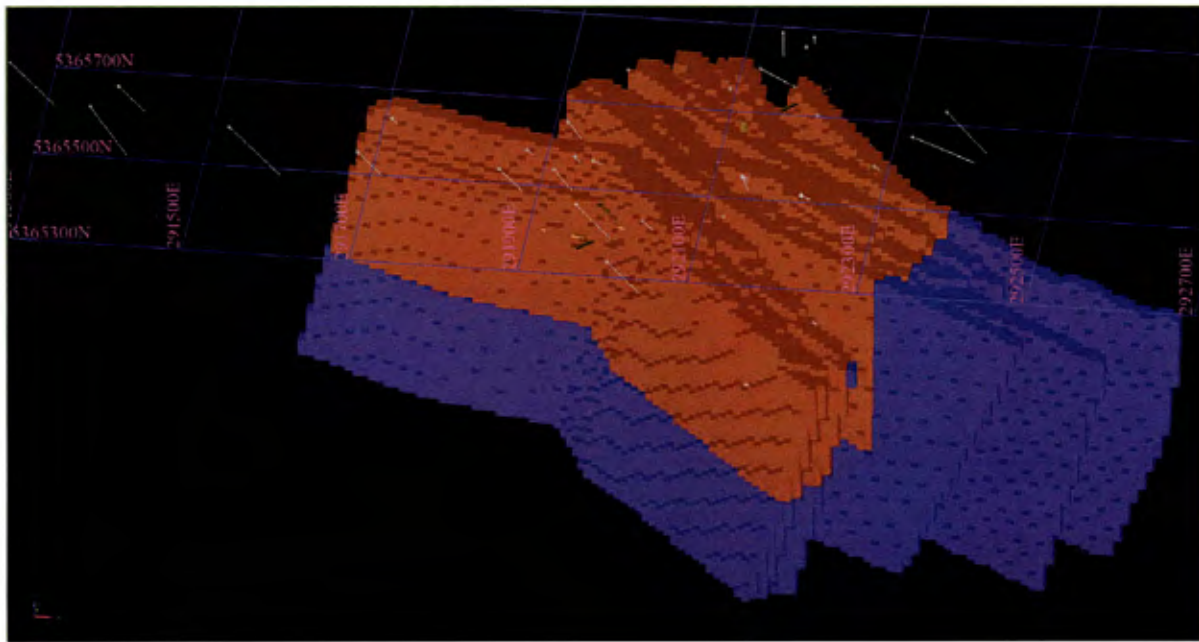


Figure 17- 9 Dyke portions used in the tonnage estimation (red).

Table 17 - 4 Conceptual tonnage and grade for the Quebec Lithium Property, 2009.

	Tonnes ¹	Li ₂ O (%)
Potential tonnage	29,947,643	1.12

¹includes broken stocks



17.2 Comparison with Historic Resource Estimate

A historic reserve estimate outlined ~15 million tonnes of spodumene ore with a grade of 1.14% Li₂O (SNC, 1974). This reserve is not compliant with NI 43-101 due to the fact that the original core samples from the historic drilling programs were lost when the mine closed down in 1965 and the assay data cannot be verified. This reserve estimate is not, therefore, considered current and reliable. However, for comparison purposes, the historic reserve will be re-classified and treated as an NI 43-101 non-compliant resource estimate. This estimate is being verified by the 2009 confirmatory drill program currently in progress.

The conceptual tonnage reported herein for the Property is approximately twice the size but of similar grade as the historic estimate. The potential tonnage considers a similar vertical extent to the historic resource and is calculated to a depth of ~58m below Level 3 of the mine, whereas the historic resource was calculated to a depth of approximately 76m below Level 3. The lateral extents are larger for the historic resource (effectively the area of interpreted dykes on historic mine maps, e.g. Figure 7-3), however the modeled dykes are thicker than depicted on the historic surface maps and there appear to be additional dykes that were not defined for the reserves as they were likely to thin to mine economically. These dykes are persistent through the mine area and need to be considered for total potential tonnage and conversion to a classified, compliant resource.

17.3 Historic Reserves

Historic reserves are presented in Scott (1957) for the Quebec Lithium Property. Updated reserves were prepared by SNC in 1974 as part of their due diligence report on the mine. Both reserve estimates were prepared by professional geologists or engineers at that time. Cox (1977) reviewed both estimates and he determined that the calculated reserves were reasonable estimates of similar value and that the SNC estimate was acceptable for use and considered current for their purposes at the time. The following is an extract from the 1974 SNC report (single spaced). These reserves are not current or compliant with NI 43-101 and CIM specifications, and therefore should not be relied upon. An NI 43-101 compliant resource estimate will be prepared from the results of the 2009 confirmatory drill program and updated after a second phase of drilling scheduled for 2010. NI 43-101 compliant ore reserves will then be calculated.



“General

The ore reserves were recalculated, using the diamond drilling records, the vertical geological sections, and the information obtained from mining operations in twenty stopes.

The ore reserve check was made from data made available by SMG.

No site visit was made, nor were any of the drill cores examined, since these are no longer in existence.

The information, from which the reserves were established in the mine, is based on 58,920 feet (~17,959m) of surface diamond drilling, 85,988 feet (~26,209m) underground drilling as well as on the information obtained from mining approximately 1,200,000 tons (~1,088,622t) of ore in 20 stopes, on two levels, underground (Table 17-5).

Table 17 - 5 Total historic reserves¹ for the Quebec Lithium mine

	Dry Short Tons	Metric Tonnes	Li ₂ O (%)
Mine Area			
Proven Ore	3,639,000	3,301,246	1.13
Probable Ore	980,000	889,041	1.14
Possible Ore	<u>2,500,000</u>	<u>2,267,963</u>	<u>1.13</u>
Subtotal	7,119,000	6,458,250	1.13
Surface Diamond Drilling Area			
Well drill indicated	808,000	733,005	0.99
Drill indicated	<u>9,420,000</u>	<u>8,545,683</u>	<u>1.16</u>
Subtotal	10,228,000	9,278,688	1.15
Total Reserves	17,347,000	15,736,938	1.14

¹These reserves are not current or compliant with NI 43-101 and CIM specifications, and therefore should not be relied upon.

The vertical geological sections, the geological interpretations and the diamond drill logs were checked as required to verify grade averages.

The areas of influence and the classification of ore reserves presented in this report were established by SNC. The ore reserves have been calculated for two distinct areas as follows (Tables 17-5 and 17-6):

(a) Mine Area

The mine area consists of two continuous blocks in which underground mining operations are carried out.

The northern block lies between Geological Section 11 West and 2 East, and from the original Base Line to 400 feet (~122m) north. The southern block lies between Geological Sections 11 West and 17 East, and from the original base line to 1,000 feet (~305m) south.

(b) Surface Diamond Drilling Area

This area extends from the mine area approximately 2,000 feet (~610m) to the west and 6,000 feet (~1,829m) to the east.



Table 17 - 6 Historic Indicated Reserves¹ of the Quebec Lithium mine

Well Drill Indicated Reserves	Dry Short Tons	Metric Tonnes	Li ₂ O (%)
Dykes 3, 4 and 5	<u>808,000</u>	<u>733,005</u>	<u>0.99</u>
Subtotal	808,000	733,005	0.99
Drill Indicated Reserves			
B. Dyke - Northern Dykes	1,002,000	908,999	1.17
F. Dyke	927,000	840,960	1.04
E. Dyke	3,300,000	2,993,711	1.24
X. Dyke	<u>607,000</u>	<u>550,661</u>	<u>0.93</u>
Subtotal	5,836,000	5,294,332	1.16
Dyke No. 1			
East of Mine Area	2,224,000	2,017,579	1.21
Middle of East Body	485,000	439,985	1.18
Far East Body	412,000	373,760	0.97
West of Mine Area	<u>228,000</u>	<u>206,838</u>	<u>1.03</u>
Subtotal	3,349,000	3,038,163	1.17
Dyke No. 2			
	<u>235,000</u>	<u>213,188</u>	<u>1.14</u>
Subtotal Drill Indicated Reserves	9,420,000	8,545,683	1.16
Total All Reserves	17,347,000	15,736,938	1.14

¹These reserves are not current or compliant with NI 43-101 and CIM specifications, and therefore should not be relied upon.

Ore Reserves by Area

The total ore reserves are presently estimated at 17,347,000 short tons (~15,736,938t) as shown in Table 17-6.

The ore reserves in the mine area are adjusted for 8% recovery in 7% dilution with the exception of the broken ore.

Over a period of 10 years of operation, the ore hoisted from underground works averaged a grade of 1.25% of Li₂O against the composed 1.13% derived from geological sections.

All of the proven ore reserves in the mine area are blocked out above the third level in the mine in dykes which are remarkably persistent in length and depth.

These reserves amount to approximately 5,000,000 tons (~4,535,925t) grading 1.20% Li₂O blocked out by diamond drilling and underground development work over a vertical distance of approximately 500 feet (~152m).



This amounts to 10,000 tons (~9,072t) per vertical foot (~2,721 tonnes per vertical metre) of proven ore above the third level.

On the above basis, there is a very strong potential for proving an additional 2,500,000 tons (~2,267,963t) of ore by diamond drilling and developing two additional mine levels 125 feet (~38m) apart, and over a distance of 250 feet (~76m) vertically, below the third level.

Classification of Ore Reserves

(a) Broken Ore Reserves*

Broken ore remains in 7 of the stopes mined on the first two levels, two on the first level and five on the second level. This mining was conducted on the A, C, S, T and UV dykes within the mine area block.

It is assumed that this broken ore is of average proven ore grade of 1.25% Li₂O after dilution, i.e. the grade of previous production.

Tonnages are based on the latest available mine statistics and surveys. The grade has been adjusted for 7% dilution.

(b) Developed Ore Reserves

The developed ore reserves consist of the ore to be broken in the 7 stopes which have been already developed and partially mined, and the ore in two additional stopes on the first level and two on the second level that have been prepared for mining.

No detailed calculation of the grade of unbroken ore remaining in the stopes has been made. It has been assumed that the grade of this ore is the same as the average grade of 1.25% Li₂O of the broken ore reserves.

The tonnage estimate is based on the latest mine statistics and the survey data, and both the tonnage and the grade have been adjusted for 85% recovery and 7% dilution.

*On this page of this quotation, certain corrections to the context, have been made, as underlined (Cox, 1977).

(c) Proven Ore Reserves

Ore Reserves in the mine area block only have been classified as proven ore.

The proven ore calculation is based on systematic underground diamond drilling made on reasonably close patterns, covering a strike length of 1,400 feet (~427m) on 29 vertical sections spaced 50 feet (~15m) apart, and from the surface to the third level at a depth of approximately 500 feet (~152m). The excellent vertical and horizontal continuity of dykes mined, and the consistency of the grade, lend support to the area of influence used.

Very little sampling was done in the stopes or development headings during the mining operations, and as a result, assay plans of underground workings are not available for calculations.



The area of influence used is 75 feet (~23m) on either side of an intersection along dip and half the distance between sections.

The grade assigned is the weighted average of the assays of the intersections.

The total proven ore reserves for the mine area block have been calculated in this manner, and from this figure, the tons hoisted to date, broken ore reserves and developed ore reserves have been deducted.

(d) Probably Ore Reserves

Probably ore reserves are the extension of the zones of influence of the proven ore down to the third level and to the surface in the mine area block, on the underground drill hole sections used for establishing proven ore. These extensions average 75 feet (~23m), ranging up to 150 feet (~46m) in several distances. All of the probable ore occurs in dykes that have been mined on the first and second levels.

The shaft enters the B dyke a short distance below the second level and remains in this dyke to the third level station. This station plus a short development heading to the west remain in ore.

In addition, two horizontal diamond drill holes drilled to the south from the third level intersect dykes in which proven ore reserves have been calculated above.

This, along with vertical and horizontal continuity of the dykes, as well as the continuity of grade in the mine areas in the close vicinity of the probable ore, warrants the use of an extension of the zone of influence of probable ore of 150 feet (~46m), in isolated and reasonable cases.

(e) Well Drill Indicated Ore Reserves

Well drill indicated ore reserves are calculated upon using a zone of influence of 75 feet (~23m) on either side of an intersection, parallel to the dip, mid distance between holes on the same section and mid distance between sections in areas where diamond drilling has been done on sections from 100 foot (~31m) to 200 foot (~61m) intervals, and where two or more holes have been drilled on each section, as it was done in the majority of cases.

(f) Drill Indicated Ore Reserves

Drill indicated ore reserves are calculated using a zone of influence of 75 feet (~23m) on either side of an intersection, parallel to the dip, mid distance between holes on the same section and mid distance between sections in areas where diamond drilling has been done on sections from 200 to 400 feet (~61 to 122m) apart, except in one isolated case, in the west side of the mine area, where four sections were 600 feet (~183m) apart in a relatively well explored area.

(g) Dilution

Past mining experience in twenty-one stopes on the first two levels indicate that both hanging and footwall are very competent. The present management, who were responsible for the previous operation, feel confident that they can leave a thick skin of ore on both walls to avoid dilution. The only dilution that could result might be caused by mining into the walls when irregularities occur in the dyke either in a section or along a strike.



Accordingly, a dilution factor of 7% is allowed for in the proven ore reserve estimate.

The inclusions of waste that occur within the dykes are included in the estimate of tonnages and grades in the ore reserve calculations. Essentially, this was the material for which a picking belt was used in the past.

(h) Recovery

It is assumed that for the first few years of resumed operations, mining will be done by shrinkage stoping, similar to that used in the past. Because of the competence of the ground, it is felt that a large percentage of both sill and rib pillars can be recovered within the horizons in which the above reserves are calculated.

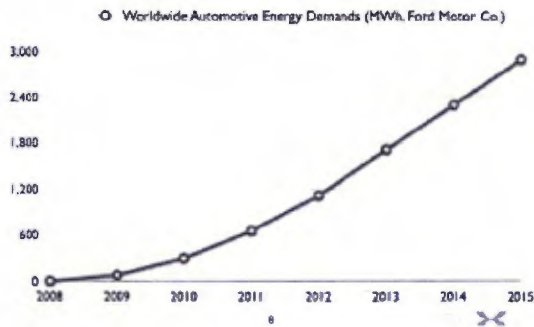
Accordingly, a recovery factor of 85% is applied to the reserves in the mine area. This takes into consideration surface pillars left for roads and buildings and also the “skin” that is proposed to be left in stopes to reduce dilution.”

18.0 OTHER RELEVANT DATA AND INFORMATION

18.1 World Demand for Lithium

Lithium demand is reported to be on the rise (e.g., Getsinger, 2009; Figure 18-1). One of the main factors influencing this upswing is environmental pressure for and public interest in “greener” transportation. Increased use of lithium-ion batteries are a major component to achieve this ideal, especially for powering cars (Figure 18-2). Lithium-ion batteries are also used in many electronic devices such as cell phones, cameras and computers because of their high power capacity. Lithium metal has many other uses including ceramics, glass, lubricant and pharmaceutical production, and in the production of lightweight alloys for use in the aerospace industry (Figure 18-3).

Growing Demand



Rising Prices



Figure 18- 1 Demand and price increases for lithium (Getsinger, 2009).

Batteries Impact High

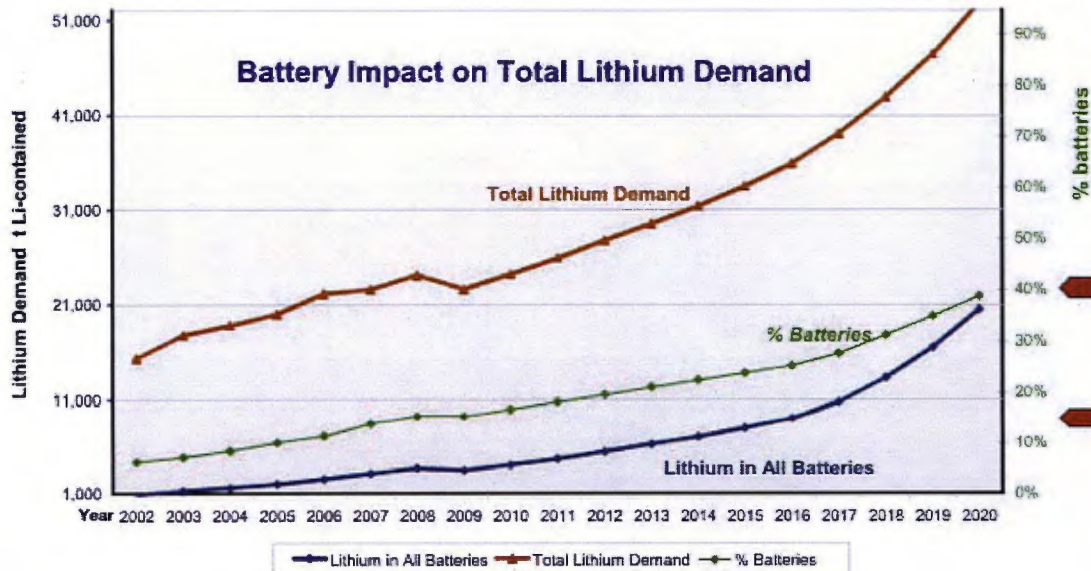


Figure 18- 2 Graph showing the use of lithium in battery production (Anderson, 2009).

Alloy Impact Also High

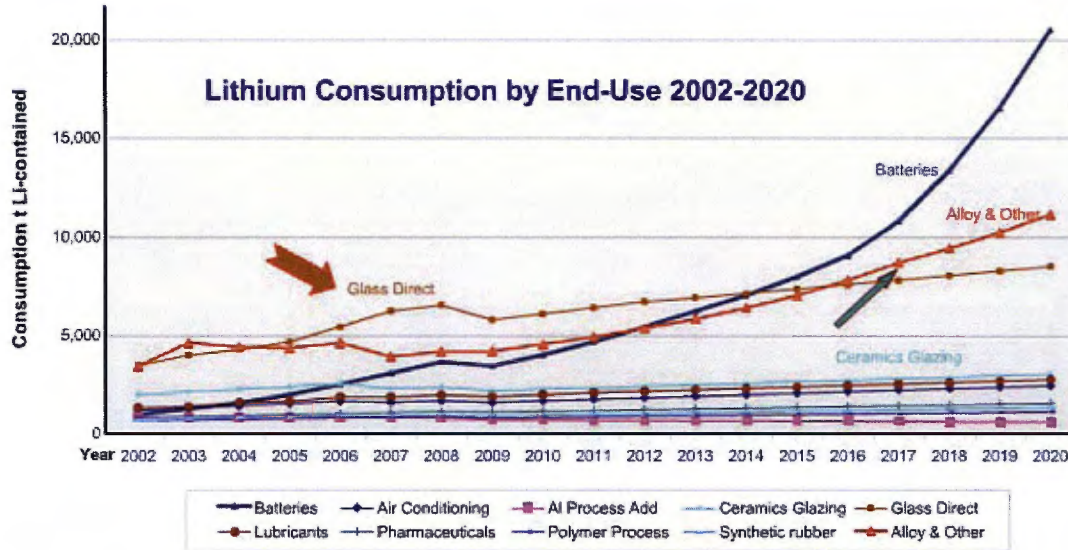


Figure 18- 3 Graph showing the use of lithium in alloys and other products (Anderson, 2009).

18.2 Other Lithium Deposit Types

Pegmatite deposits are the only hard-rock source of lithium and are the type-deposits for lithium in Canada. Elsewhere, lithium is also deposited in a variety of brines (continental, geothermal and oilfield) and in a clay (hectorite) (Evans, 2008). The brine deposits are most common in faulted, mountainous areas with basin and range structure, associated with geothermal hot springs and concentrated in interior basins without external drainage (Getsinger, 2009). The bulk of the world’s lithium supply comes from brine deposits.

The cost to produce a lithium concentrate from both the hard-rock and brine deposits is quite variable depending on the cost of acid, soda ash and energy used in their production as well as their location. Both types of deposits are subject to refining to remove deleterious elements like iron and magnesium. Typically brine deposits are considered lower cost.

The main advantage to hard-rock lithium deposits over brines is the lead-time to production and also ability to quickly scale up or reduce production as demand changes for the product. There is usually a 2-3



year lag time in the evaporation process to recover lithium from brines (Getsinger, 2009), whereas a hard-rock operation need only to increase the haulage rate and/or throughput capacity of the plant.

19.0 INTERPRETATION AND CONCLUSIONS

The Quebec Lithium Property contains several spodumene-bearing dykes. Underground mining between 1955 and 1965 produced both spodumene and lithium carbonate products. Historic resources showed that ~15 million tonnes of ore grading 1.14% Li₂O remained.

In May 2008, Canada Lithium acquired the Quebec Lithium Property and began a small program of metallurgical test work to produce battery-grade lithium carbonate. In 2009, the historic mine data was compiled digitally and a potential tonnage and grade for the Property prepared. A conceptual target of 29-30 million tonnes at a grade of 1.1-1.2% Li₂O was estimated from the compiled database and interpreted geology maps. A classifiable, NI 43-101 could not be prepared from these data because the original core samples from the historic drilling programs were lost when the mine closed down in 1965 and the assay data cannot be verified. To advance the conceptual target to a resource, the drilling database is being confirmed by a 7,000m drill program. Once complete a classified, NI 43-101 compliant resource estimate will be completed.

20.0 RECOMMENDATIONS

A 7,000m drill program was recommended by CCIC after the historic information for the project was compiled and a potential tonnage estimated for the Property. This drill program has been implemented and is expected to be completed in December, 2009. An updated resource model will be completed once this drill program is completed and a QA/QC review of the sample data is completed. A program of infill and extensional drilling will commence in 2010 while potential mining methods are investigated through the PFS.

As part of the PFS, additional metallurgical work is required to advance the project. An additional bulk sample will be collected from the Property and used in conjunction with material from the current drill program for pilot plant test work.

It is recommended that site specific, certified standards be prepared from a future bulk sampling site. These will provide a more effective foundation to monitor the laboratory's analytical quality in



subsequent drill programs. The QA/QC protocol should be reviewed and updated as appropriate after the 2009 drill program is complete and the QC data reviewed.

\$5.5 million dollars has been budgeted by Canada Lithium for advancement of the project in 2010 (Table 20-1).

Table 20 - 1 Recommended budget.

Item	Amount (CAD\$)
Confirmatory drill program (7,000m) and updated NI 43-101 resource estimate	\$1,000,000
Metallurgical test work (SGS pilot plant)	\$2,000,000
Process Engineering and Mining Feasibility Study	\$2,000,000
Environmental Impact Study	\$500,000
Management	\$500,000



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22.0 DATE AND SIGNATURE PAGE

This Report, titled "Independent Technical Report, Quebec Lithium Project, La Corne Township, Quebec, Canada", effective date November 2nd, 2009 and dated December 16th, 2009 was prepared and signed by the following authors:

"Michelle Stone"

Michelle Stone, Senior Geologist, Ph.D., P.Geo.
December 16th, 2009
Toronto, Ontario

"Julie Selway"

Julie Selway, Senior Geologist, Ph.D., P.Geo.
December 16th, 2009
Sudbury, Ontario



23.0 ADDITIONAL REQUIREMENTS FOR TECHNICAL REPORTS ON DEVELOPMENT PROPERTIES AND PRODUCTION PROPERTIES

The author is unaware of any additional requirements for this Property as it is not currently a development or production property.



APPENDIX 1
CERTIFICATES



CERTIFICATE OF AUTHOR

To accompany the report entitled
"Independent Technical Report, Quebec Lithium Property, La Corne Township, Quebec"
dated the 16th, of December, 2009 (effective date November 2nd, 2009).

I, Michelle Stone, of 4361 Latimer Crescent, Burlington, Ontario, do hereby certify that:

I am a Senior Geologist with Caracle Creek International Consulting Inc., 34 King Street East, 9th Floor, Toronto, Ontario.

I hold a B.Sc. (1994) from McMaster University (Ontario), an M.S. (1996) from the University of Alabama (Alabama), and a Ph.D. (2005) from the University of Western Australia (Australia).

I am a Professional Geoscientist and a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia since 2006 (registered #30601) and have Special Authorization to practice in the Province of Quebec (#134). I have practiced my profession continuously since 1994 and have worked on exploration and mining stage projects for precious and base metals and phosphate.

I have read the definition of "qualified person" set out in National Instrument 43-101 and certify that by reason of education, experience, and affiliation with a professional association, I meet the requirements of a Qualified Person as defined in National Instrument 43-101. I am independent of the issuer applying all the tests in section 1.4 of National Instrument 43-101.

This report titled "Independent Technical Report, Quebec Lithium Property, La Corne Township, Quebec" and dated effective November 2nd, 2009 (the "Technical Report") is based on a study of the data and literature available on the Quebec Lithium Property and a one day site visit in July, 2009. I am responsible for the following sections of this Technical Report: 1-6 and 10-23.

As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report, not misleading.

I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

I consent to the filing of the Technical Report by Canada Lithium Corp. with any stock exchange or regulatory authority, and any publication of the Technical Report by them for regulatory purposes, including electronic publication in the public company files on their websites accessible to the public.

Signed and stamped this 16th, day of December, 2009, at Burlington, Ontario.

"Michelle Stone"

Michelle Stone, P.Geo., Ph.D.

Special Authorization permit #134



Julie Selway
25 Froid Road
Sudbury, Ontario, Canada, P3C 4Y9
Telephone: 705-671-1801
Email: jselway@cciconline.ca

CERTIFICATE OF AUTHOR

I, Julie Selway, do hereby certify that:

1. I am a Senior Project Geologist for the geological consulting firm of Caracle Creek International Consulting Inc. Canada (CCIC).
2. I hold the following academic qualifications: B.Sc. (Hons) Geology (1991) Saint Mary's University; M.Sc. Geology (1993) Lakehead University; Ph.D. Mineralogy (1999) University of Manitoba.
3. I am a member of the Association of Professional Geoscientists of Ontario (Member #0738). I am a member in good standing of the Mineralogical Association of Canada, Geological Association of Canada and Mineralogical Society of America.
4. I have worked as a geologist for 15 years with academia and industry on a variety of exploration properties such as rare-element pegmatites, gold and Ni-Cu-PGE.
5. I have had no prior involvement with the Property that forms the subject of this Report.
6. I am not aware of any material fact or material change with respect to the subject matter of the Report that is not reflected in the Report, the omission to disclose which makes the Report misleading.
7. I am independent of the parties involved in the transaction for which this report is required, other than providing consulting services.
8. I am responsible for the preparation of Sections 7-9 in the Report titled "Independent Technical Report, Quebec Lithium Property, La Corne Township, Quebec", effective date November 2nd, 2009, submission date December 16th, 2009, and prepared for Canada Lithium Corp.
9. I consent to the filing of the Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public.
10. I fulfill the requirements to be a "qualified person" as defined in the National Policy 43-101.
11. I have not visited the property.

Dated this 16th day of December, 2009.

Respectfully Submitted

SIGNED AND SEALED

"Julie Selway"

Julie Selway, Ph.D., P.Geo.
Senior Project Geologist, CCIC Canada



APPENDIX 2

CANADA LITHIUM'S LETTER OF AGREEMENT WITH IAMGOLD

PROPERTY ACQUISITION AGREEMENT made as of April 18, 2008.

BETWEEN: **BLACK PEARL MINERALS CONSOLIDATED INC.**, a corporation duly incorporated under the laws of the Province of Ontario, having a place of business at Suite 2700, 130 Adelaide Street West, Toronto, Province of Ontario, M5H 3P5, represented for the purposes hereof by Judy Baker, duly authorised as she so declares;

(hereinafter referred to as "**Black Pearl**")

AND: **IAMGOLD-QUÉBEC MANAGEMENT INC.**, a corporation duly incorporated under the laws of the Province of Quebec, having a place of business at Suite 750, 1111 St-Charles West, East Tower, Longueuil, Quebec, J4K 5G4 represented for the purposes hereof by Tim Bradburn, duly authorised as he so declares;

(hereinafter "**IAMGOLD**")

(collectively, the "**Parties**" and each of them, a "**Party**")

RECITALS:

WHEREAS IAMGOLD owns a 100% interest (the "**Interest**") in mining claims located in the la Corne Township, Province of Québec, known as the Québec Lithium Property (the "**Property**") (the list of mining claims comprising the Property is attached hereto as **Schedule A**);

WHEREAS the Parties have entered into a Letter of Intent dated March 5, 2008 (such letter of intent referred to as the "**LOI**") in connection with the Property.

WHEREAS the Parties have agreed to complete the following transaction relating to the Property on the terms and subject to the conditions set forth in this Agreement (collectively, the "**Transaction**");

- (i) IAMGOLD shall assign, transfer and sell to Black Pearl all of its rights, titles and interests in and to the Property on signing of this Agreement;
- (ii) In consideration of the purchase, at the Time of Closing (as hereinafter defined), Black Pearl shall (a) pay IAMGOLD the sum of \$350,000, (b) issue to IAMGOLD 6,000,000 Common Shares (as hereinafter defined); (c) pay all of IAMGOLD's out-of-pocket expenses related to the Transaction;
- (iii) the LOI and all rights and obligations of the Parties thereunder shall be terminated on signing of this Agreement.

THEREFORE, the Parties agree as follows:

ARTICLE 1 - INTERPRETATION

1.1 Definitions

Whenever used in this Agreement, the following words and terms shall have the meanings set out below:

"Agreement" means this Property Acquisition Agreement and all instruments supplementing or amending or confirming this Agreement and references to "Article" or "Section" mean and refer to the specified Article or Section of this Agreement;

"Business Day" means a day, other than a Saturday or Sunday, on which the principal commercial banks located in the City of Toronto are open for business during normal banking hours;

"Claim" shall have the meaning ascribed thereto in Section 5.1(b);

"Closing Date" shall have the meaning ascribed thereto in Section 2.2;

"Common Shares" means common shares in the capital of Black Pearl as presently constituted;

"Governmental Body" means any government, parliament, legislature, or any regulatory authority, agency, commission or board of any government, parliament or legislature, or any court or (without limitation to the foregoing) any other law, regulation or rule-making entity (including any central bank, fiscal or monetary authority or authority regulating banks), having or purporting to have jurisdiction in the relevant circumstances, or any Person acting or purporting to act under the authority of any of the foregoing (including any arbitrator);

"Interest" shall have the meaning ascribed thereto in the Recitals;

"LOI" shall have the meaning ascribed thereto in the Recitals;

"Mining Act" means the *Mining Act*, R.S.Q., chapter M-13.1, and the regulations adopted thereunder;

"Notice" shall have the meaning ascribed thereto in Section 6.1;

"Parties" and **"Party"** shall have the meanings ascribed thereto in the preamble;

"Person" means any individual, partnership, limited partnership, joint venture, syndicate, sole proprietorship, company or corporation with or without share capital, unincorporated association, trust, trustee, executor, administrator or other legal personal representative or Governmental Body;

"Property" shall have the meaning ascribed thereto in the Recitals;

"Time of Closing" shall have the meaning ascribed thereto in Section 2.2;

"Transactions" shall have the meaning ascribed thereto in the Recitals; and

"TSX-V" means the TSX Venture Exchange.

1.2 Certain Rules of Interpretation

In this Agreement:

- (a) **Time** – time is of the essence in the performance of the Parties' respective obligations;
- (b) **Currency** – unless otherwise specified, all references to money amounts are to Canadian currency;
- (c) **Headings** – descriptive headings of Articles and Sections are inserted solely for convenience of reference only and are not intended as complete or accurate descriptions of the content of such Articles or Sections;
- (d) **Singular, etc.** – use of words in the singular or plural, or with a particular gender, shall not limit the scope or exclude the application of any provision of this Agreement to such person or persons or circumstances as the context otherwise permits;
- (e) **Business Day** – whenever payment is to be made or action to be taken under this Agreement is required to be made or taken on a day other than a Business Day, such payment shall be made or action taken on the next Business Day following such day;
- (f) **Inclusion** – where the words “including” or “includes” appear in this Agreement, they mean “including (or includes) without limitation”;
- (g) **Reference to law** – Any reference to a law is a reference to such law as in force from time to time, including (i) modifications thereto, (ii) any regulation, decree, order or ordinance enacted thereunder and (iii) any law that may be passed which has the effect of supplementing, re-enacting or superseding the law to which it is referred; and
- (h) **Reference to numbering** – Any reference to a numbered or lettered section in this Agreement is a reference to the section bearing that number or letter in this Agreement and a reference to “this” section means the section in which such reference appears.

1.3 Severability

If any provision of this Agreement is determined to be void or unenforceable, in whole or in part, it shall be deemed not to affect or impair the validity of any other provision of this Agreement.

1.4 Entire Agreement

Upon the Parties' execution of this Agreement, this Agreement shall constitute the entire agreement between the Parties pertaining to the subject matter of this Agreement and shall supersede all prior agreements, understandings, negotiations and discussions, whether oral or written, of the Parties, including, without limitation, the LOI. There are no warranties, representations or other agreements between the Parties in connection with the subject matter of this Agreement except as specifically set forth in this Agreement. No supplement, modification, waiver or termination of this Agreement shall be binding unless executed in writing by the Party to be bound thereby.

1.5 Applicable Law

This Agreement shall be governed in all respects by the laws in force in the Province of Ontario, *inter alia* having regards to its formation, existence, validity, effect, interpretation, execution, violation and termination.

ARTICLE 2 - PROPERTY INTEREST

2.1 Purchase and Sale

Subject to Section 2.3, the Parties agree to complete the Transactions as follows:

- (a) IAMGOLD shall assign, transfer and sell to Black Pearl, who accepts to purchase, all of its rights, titles and interests in and to the Property effective at the Time of Closing;
- (b) In consideration of the purchase, Black Pearl agrees, at the Time of Closing, to:
 - (i) pay IAMGOLD \$350,000;
 - (ii) issue 6,000,000 Common Shares to IAMGOLD;
 - (iii) pay IAMGOLD's out-of-pocket expenses to complete the Transaction, including, without limitation, all legal, accountant and audit fees incurred by IAMGOLD in connection with the negotiation, preparation, drafting and execution of this Agreement.
- (c) effective at the Time of Closing, the LOI and all rights and obligations of the Parties thereunder shall be terminated and, except as provided herein, IAMGOLD shall have no further rights or liability in any way, directly or indirectly, connected to the Property.

2.2 Closing Date

Closing of the Transactions will be completed at the offices of IAMGOLD Corporation, 410 Bay Street, Suite 3200, Toronto, Ontario, M5H 2Y4 at 10:00 a.m. (Toronto time) (the "Time of Closing") on April 29, 2008 or at such other place or time as may be mutually agreed upon by the Parties (the "Closing Date"). At the Time of Closing:

- (a) IAMGOLD shall receive:
 - (i) a certified cheque or bank draft in the amount of \$350,000;
 - (ii) a share certificate representing 6,000,000 Common Shares.
- (b) Black Pearl shall receive:
 - (i) a duly executed mining transfer form evidencing the transfer of a 100% interest in the Property from IAMGOLD in favour of Black Pearl, in the form prescribed by the Mining Act, together with any other document necessary or useful for such transfer, the whole to the Parties' satisfaction. Black Pearl shall be responsible to pay any statutory or administrative fee or duty in relation to such transfer of mining rights and to the registration thereof.

2.3 Conditions of Sale

The Parties hereby acknowledge and agree that the completion of the Transactions is conditional upon Black Pearl obtaining any necessary approvals of the TSX-V, which it shall commence to obtain on the date hereof, and providing copies of any correspondence with the TSX-V in respect thereto to IAMGOLD. It is also conditional upon Black Pearl being satisfied with its title due diligence of the Property. Should Black Pearl not advise IAMGOLD of a material defect in title by the Closing Date, Black Pearl shall be deemed to have waived all rights to its title due diligence.

2.4 Acknowledgements of the Parties

The Parties hereby acknowledge and agree as follows:

- (a) the Common Shares are subject to a statutory hold period of not more than 4 months and one day from the date of issue;
- (b) the certificate representing the Common Shares will be endorsed with a legend setting out resale restrictions under applicable securities legislation;
- (c) IAMGOLD is solely responsible for compliance with applicable hold periods and resale restrictions; and
- (d) effective at the Closing Time, the LOI and all other agreements between the Parties relating to the Property (other than as contemplated herein) shall be terminated.

2.5 Covenants

Subject to the Closing Date occurring, IAMGOLD covenants and agrees to deliver to Black Pearl all data relating to the Property in its control or possession (whether in paper or digital form), except for any information which cannot be disclosed pursuant to any statutory or regulatory requirement or any confidentiality agreement previously entered into in good faith, as the case may be.

ARTICLE 3 - REPRESENTATIONS AND WARRANTIES OF BLACK PEARL

Black Pearl hereby represents, warrants and covenants (which representations, warranties or covenants shall survive the Closing Date for a period of two years) as follows:

3.1 Incorporation

Black Pearl is a valid and subsisting corporation duly incorporated and in good standing under the laws of the Province of Ontario and has all requisite corporate power and authority to carry on its business as presently conducted and as presently proposed to be conducted, and to own, lease and operate all of its assets.

3.2 Capitalization

The authorized capital of Black Pearl consists of an unlimited number of Common Shares of which 58,977,801 Common Shares are issued and outstanding. When issued in accordance with the terms of this Agreement, the Common Shares issued hereunder will be duly issued and outstanding as fully paid and non-assessable shares of Black Pearl.

3.3 No Conflict

The entering into of this Agreement by Black Pearl and the consummation of the Transactions contemplated hereby does not and will not conflict with and does not and will not result in a breach of any of the terms, conditions or provisions of the constating documents or by-laws of Black Pearl or any statute, law or regulation applicable to Black Pearl or any agreement or instrument to which Black Pearl is a party.

3.4 Due Authorization

This Agreement and the transactions contemplated hereby have been duly authorized by all necessary corporate action on the part of Black Pearl and constitute valid obligations of Black Pearl legally binding upon it and enforceable against it in accordance with its terms, subject however to the usual limitations with respect to enforcement imposed by law in connection with bankruptcy or similar proceedings and the availability of equitable remedies. Black Pearl has all corporate power and authority necessary to complete the Transactions.

3.5 Reporting Issuer Status

Black Pearl is a reporting issuer in the Provinces of British Columbia, Alberta and Ontario within the meaning of the securities acts of each jurisdiction, is current and up-to-date with all filings required to be made pursuant to applicable securities laws and is not included on the list of defaulting reporting issuers maintained by the respective securities commissions in such jurisdictions.

3.6 Public Listing

The issued and outstanding Common Shares are listed for trading on the TSX-V.

3.7 No Cease Trade Order

No order ceasing or suspending trading in the Common Shares nor prohibiting the sale of such securities has been issued by any securities commission of any Province or Territory of Canada to Black Pearl or its directors, officers or promoters which is currently in effect, and to the best of Black Pearl's knowledge, no such investigations or proceedings for such purposes are pending or threatened.

3.8 Compliance with Applicable Laws

Black Pearl is conducting its business, in all material respects, in compliance with all applicable laws (including applicable laws respecting environmental matters).

ARTICLE 4 - REPRESENTATIONS AND WARRANTIES OF IAMGOLD

IAMGOLD hereby represents, warrants and covenants (which representations, warranties or covenants shall survive the Closing Date for a period of two years) as follows.

4.1 Incorporation

IAMGOLD is a valid and subsisting corporation duly incorporated and in good standing under the laws of Quebec and has all requisite corporate power and authority to carry on its business as presently conducted and as presently proposed to be conducted, and to own, lease and operate all of its assets.

4.2 No Conflict

The entering into of this Agreement by IAMGOLD and the consummation of the Transactions contemplated hereby does not and will not conflict with and does not and will not result in a breach of any of the terms, conditions or provisions of the constating documents or by-laws of IAMGOLD or any statute, law or regulation applicable to IAMGOLD or any agreement or instrument to which IAMGOLD is a party.

4.3 Due Authorization

This Agreement and the Transaction contemplated hereby have been duly authorized by all necessary corporate action on the part of IAMGOLD and constitute valid obligations of IAMGOLD legally binding upon it and enforceable against it in accordance with its terms, subject however to the usual limitations with respect to enforcement imposed by law in connection with bankruptcy or similar proceedings and the availability of equitable remedies. IAMGOLD has all corporate power and authority necessary to complete the Transaction.

4.4 Residency

IAMGOLD is not a non-resident of Canada for the purposes of the *Income Tax Act* (Canada).

4.5 Property Representations

- (a) IAMGOLD is the sole beneficial owner of a 100% undivided interest in the Property, free and clear of all royalties, liens, charges and encumbrances of any kind.
- (b) IAMGOLD does not have any information or knowledge pertaining to the Property or substances thereon, therein or therefrom not disclosed in writing to Black Pearl which, if known to Black Pearl, might reasonably be expected to deter Black Pearl from completing the Transactions contemplated hereby on the terms and conditions contained herein.
- (c) IAMGOLD does not have any information or knowledge of any actions, suits, investigations or proceedings before any court, arbitrator, administrative agency or other tribunal or governmental authority, whether current, pending or threatened, which directly relate to or affect the Property nor is IAMGOLD aware of any facts which would lead it to suspect that the same might be initiated or threatened.

ARTICLE 5 - INDEMNIFICATION

5.1 Indemnification

- (a) The representations and warranties given in Article 3 and Article 4 constitute conditions on which the Parties have relied in entering into this Agreement.
- (b) Subject to Section 5.1(c), each Party shall indemnify and save the other Party harmless from any loss, damage or cost (including interests and reasonable legal fees and disbursements) that arises as a result of or in connection with any claim whatsoever including any demand, action, motion, application, cause of action, dispute, trial, suit, administrative proceeding, quotation or re-quotation, order, judgement, decree or arbitral award, resulting from a breach,

inaccuracy or untruth in respect of any representation or warranty that the Party has given in this Agreement (a "Claim").

- (c) The obligation of a Party to defend the other Party pursuant to Section 5.1(b) is conditional upon the following:
- (i) the Party that is subject to a Claim (the "Indemnified Party") must promptly give notice thereof to the Party having the obligation to indemnify the Indemnified Party (the "Indemnifying Party") and must thereafter cooperate fully in the defence of the Claim; and
 - (ii) the Indemnifying Party shall have exclusive control of the defence and of any negotiation leading to the settlement of the Claim, provided that the written consent of the Indemnified Party shall be obtained before any settlement is made final and conclusive.

5.2 Term

The mutual indemnification obligation of the Parties provided for in Section 5.1 shall remain in full force and effect and be binding upon the Parties for a period of two (2) years from the Closing Date. In the event of the absence of any Claim, as from the second anniversary of the Closing Date, each of the Parties hereby waives, releases and forever discharges the other Party from all claims and from all liability for damages, losses, costs, fees and expenses, existing as of the second anniversary of the Closing Date or arising thereafter, known and unknown, arising out of or in any way connected with the representations and warranties contained in Article 3 and Article 4.

ARTICLE 6 - GENERAL

6.1 Notices

Any notice or other writing required or permitted to be given under this Agreement or for the purposes of this Agreement (in this Section referred to as a "Notice") shall be in writing and shall be sufficiently given if delivered, or if sent by prepaid registered mail or if transmitted by facsimile or other form of recorded communication tested prior to transmission to such Party:

- (a) in the case of a Notice to IAMGOLD at:

IAMGOLD-Quebec Management Inc.
Suite 750, 1111 St-Charles West, East Tower
Longueuil, Quebec, J4K 5G4

Attention: Mr. Paul Olmsted
Facsimile: 416-360-4750

With copy to:

IAMGOLD Corporation

Suite 3200, 401 Bay Street
Toronto, Ontario M5H 2Y4

Attention: Mr. Paul Olmsted
Facsimile: 416-360-4750

(b) in the case of a Notice to Black Pearl at:

Black Pearl Minerals Consolidated Inc.

Suite 2700 – 130 Adelaide Street West
Toronto, Ontario M5H 3P5

Attention: Ms. Judy Baker
Facsimile: 416-364-5400

or at such other address as the Party to whom such Notice is to be given shall have last notified the Party giving the same in the manner provided in this Section 6.1. Any Notice delivered to the Party to whom it is addressed as provided above shall be deemed to have been given and received on the day it is so delivered at such address, provided that if such day is not a Business Day then the Notice shall be deemed to have been given and received on the next Business Day. Any Notice sent by prepaid registered mail shall be deemed to have been given and received on the fifth Business Day following the date of its mailing. Any Notice transmitted by facsimile or other form of recorded communication shall be deemed given and received on the first Business Day after its transmission.

6.2 Further Assurances

The Parties shall with reasonable diligence, do all such things and provide all such reasonable assurances as may be required to consummate the transactions contemplated by this Agreement, and each Party shall provide such further documents or instruments required by the other Party as may be reasonably necessary or desirable to effect the purpose of this Agreement and carry out its provisions.

6.3 Counterparts and Execution by Facsimile

This Agreement may be executed by the Parties in separate counterparts each of which when so executed and delivered to the other Party shall be deemed to be and shall be read as a single agreement among the Parties. In addition, execution of this Agreement by either of the Parties may be evidenced by way of a faxed transmission of such Party's signature (which signature may be by separate counterpart) or a photocopy of such faxed transmission, and such faxed signature, or photocopy of such faxed signature, shall be deemed to constitute the original signature of such Party to this Agreement.

6.4 Amendment

This Agreement may not be amended or modified except by a written document executed by each of the Parties.

6.5 Waiver

- (a) No failure on the part of any Party to exercise, no delay in exercising, and no course of dealing with respect to, any right, power or privilege under this Agreement shall operate as a waiver thereof.
- (b) Except as otherwise expressly provided for herein, no waiver of any provision of this Agreement or consent to any departure by any Party from any provision of this Agreement shall in any event be effective unless it is confirmed in writing, and such waiver or consent shall be effective only in the specific instance, for the specific purpose and for the specific length of time for which it is given.

- (c) The single or partial exercise of any right, power or privilege under this Agreement shall not preclude any other or further exercise thereof.

6.6 Binding Effect

This Agreement shall enure to the benefit of and be binding upon the Parties and their respective successors and permitted assigns.

IN WITNESS OF WHICH the Parties have duly executed this Agreement as of the date first written above.

IAMGOLD-QUEBEC MANAGEMENT INC.

**BLACK PEARL MINERALS
CONSOLIDATED INC.**

Per: _____

**Tim Bradburn
Corporate Secretary**

Per: _____


**Judy Baker
President**

SCHEDULE A

PROPERTY

Quebec Lithium Property - Mining titles list
Constituted of 12 designated cells located in
La Corne township, Abitibi, Province of Quebec

Title Number	Surface Area (ha)	Registration Date	Epiry Date	Renewal Fees	Required Work
2145325	22.40	17-mars-08	16-mars-10	25.00 \$	500.00 \$
2145326	48.31	17-mars-08	16-mars-10	50.00 \$	1 200.00 \$
2145327	48.29	17-mars-08	16-mars-10	50.00 \$	1 200.00 \$
2145328	48.28	17-mars-08	16-mars-10	50.00 \$	1 200.00 \$
2145329	16.76	17-mars-08	16-mars-10	25.00 \$	500.00 \$
2145330	23.81	17-mars-08	16-mars-10	25.00 \$	500.00 \$
2145331	55.97	17-mars-08	16-mars-10	50.00 \$	1 200.00 \$
2145332	50.76	17-mars-08	16-mars-10	50.00 \$	1 200.00 \$
2145333	50.57	17-mars-08	16-mars-10	50.00 \$	1 200.00 \$
2145334	17.59	17-mars-08	16-mars-10	25.00 \$	500.00 \$
2145335	1.53	17-mars-08	16-mars-10	25.00 \$	500.00 \$
2145336	35.92	17-mars-08	16-mars-10	50.00 \$	1 200.00 \$
	420.19			475.00 \$	10 900.00 \$