

ASX: ADV

## **Capital structure:**

Ordinary shares 607.4m

Options (Unlisted) 41.5m (various)

# Shareholders:

Institutional 12% Board/Mgt 16% Retail 72%

Top 20: 40%

Ardiden Limited Suite 6, 295 Rokeby Road Subiaco WA 6008 Australia

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Tel: +61 (0) 8 6555 2950 Fax: +61 (0) 8 9382 1222

## 6 January 2016

# ARDIDEN SECURES ADVANCED LITHIUM PROJECT IN CANADA

Proposed acquisition of Seymour Lake Lithium-Beryllium-Tantalum project in Ontario, Canada complements existing Manitouwadge Graphite Project

# Key Points:

- Ardiden enters option agreement to acquire 100% of the Seymour Lake Lithium-Beryllium-Tantalum (Spodumene) Project in Ontario, Canada.
- Seymour Lake has over 4,000m of historical diamond drilling which has confirmed the potential for high quality spodumene mineralisation containing extensive zones of lithium, tantalum and beryllium. Key features of the project include:
  - Mineralisation hosted in extensive outcropping spodumene-bearing pegmatite structures;
  - Widths of up to 26m of lithium mineralisation intersected in historical drilling;
  - Excellent infrastructure (road, rail and power) within the leading mining jurisdiction of Ontario, Canada;
  - Significant historical lithium intersections include:
    - 2.081% Li<sub>2</sub>O over 16.90m
    - 1.584% Li₂O over 26.13m
    - 2.386% Li<sub>2</sub>O over 9.20m
    - 1.735% Li₂O over 14.25m
    - 1.325% Li<sub>2</sub>O over 23.85m including 2.059% Li<sub>2</sub>O over 9.00m and 2.232% Li<sub>2</sub>O over 3.04m
    - 1.837% Li<sub>2</sub>O over 11.80m
    - 2.212% Li<sub>2</sub>O over 5.70m
    - 2.100% Li<sub>2</sub>O over 6.75m
    - 1.475% Li<sub>2</sub>O over 17.72m including 1.937% Li<sub>2</sub>O over 12.97m
    - In addition, tantalum and beryllium grades of up to 1,180 ppm (Ta<sub>2</sub>O<sub>5</sub>) and 1,270ppm (BeO) respectively were intersected
  - Lithium is anticipated to be in tight supply as the demand for lithium-ion batteries undergoes transformational growth over the next decade. In addition, the project shows potential for tantalite and beryllium as by-products/credits, both of which are worth ~US\$500/kg.
- The proposed acquisition is highly complementary and synergistic to Ardiden's existing 100%-owned Manitouwadge Jumbo Flake Graphite project in Ontario for a number of key reasons:
  - Lithium-ion batteries use lithium as the cathode and graphite as the anode. Transformational growth is predicted in this market.
  - The Seymour Lake Project can be developed by Ardiden's existing experienced Ontario-based team, which has led the highly successful graphite drilling program in 2015.
  - Both projects are located less than 4 hours from a key infrastructure hub at Thunder Bay which is less than 100km from the US border and has existing rail, road and port facilities which can also access the Atlantic and service European markets.

Ardiden Limited (ASX: ADV) is pleased to advise that it has entered into an option agreement to acquire 100% of the advanced **Seymour Lake Lithium Project** in Ontario, Canada, providing it with a highly complementary growth opportunity in one of the world's fastest growing commodity sectors.

The Seymour Lake Project, which is located near the town of Armstrong in Ontario, comprises five patented mining claims covering an area of 912 Ha. The Project has over 4,000m of historical diamond drilling which has confirmed the presence of extensive spodumene mineralisation (a host rock to lithium).

The proposed acquisition is consistent with Ardiden's strategy of acquiring commodity projects with exposure to structural and transformational change and outstanding market fundamentals, such as graphite and lithium, in Tier-1 mining jurisdictions. Together with its existing Manitouwadge Graphite Project, this acquisition positions Ardiden as a potential supplier of both of the key ingredients in the manufacture of lithium-ion batteries.

Seymour Lake is a lithium-beryllium-tantalum site located within the Caribou Lake Greenstone Belt, 230km north-northeast of Thunder Bay, Ontario, Canada. The claim group is located on an all-weather, year-round, two-lane, main haulage road and the project has excellent proximity (10km) to existing rail sidings on the main CN rail line, and close proximity to a major power grid provided by Ontario Power Generation which is planning a 85MW hydro-electric project 8km from the project.

The project is ideally located approximately 3 hours by road from Thunder Bay (see Figure 1 below), a leading mining jurisdiction in Ontario with key local infrastructure including a skilled mining workforce and excellent local logistics infrastructure. It has strong potential to provide high quality product to service growing North American demand and export markets. The city of Thunder Bay is a mining, rail, port and infrastructure hub which is less than 100km from the US border and has existing port facilities which can also access the Atlantic and service European markets. Thunder Bay is also the main support hub for Ardidens existing Manitouwadge Jumbo Flake Graphite project, creating excellent synergies for the company.



Figure 1: Location of Seymour Lake Project (230km north-northeast of Thunder Bay)

The project was originally identified for its tantalum prospectivity in the 1950s and has common geological features with the Tanco mine in Manitoba, which is Canada's only operating tantalum mine. The Seymour Lake project has been subject to two main drill programs – a 1,865m program in 2002 and a 2,365m program in 2009. These programs confirmed the tantalum prospectivity but also identified significant high grade zones of lithium and beryllium. To date, the project has identified two key lithium-bearing zones, North Aubry and South Aubry.



Figure 2: North Aubry – Looking Southwest showing outcropping upper contact of main zone

![](_page_2_Picture_3.jpeg)

Figure 9-1: North Aubry Pegmatite Mineralogy

(A - abundant, large, pale green spodumene, parallel to hammer, in quartz-albite core, B - concentrated pocket of "cubic" black tantalite and blue apatite near Na-K feldspar transition, note dime for scale; C - very large pale green beryl, approximately 0.3 x 0.4 m)

Figure 3: North Aubry: Spodumene, Tantalite and Beryl in outcrop

Key features of the Seymour Lake Project include:

- The Main Zone of spodumene has been intersected at North Aubry over an area of approximately 200m x 250m and is up to 26m in thickness (averages 11.52m thick @ 1.467% Li<sub>2</sub>O). The Main Zone is open to the north and to the east. The highly prospective South Aubry zone is also located several hundred metres to the south.
- The Main Zone is underlain by at least three more stacked and open horizons of lithium mineralisation at relatively shallow depth that carry similar lithium grades (with significant Be and Ta).
- Soil sampling and litho-geochemical sampling indicate that there is a very good possibility of discovering significant extensions to the known occurrences (to the north of North Aubry; to the west and south-east of South Aubry), as well as the possibility of discovering new zones, especially to the east (Pye showing area) and south (Lookout Hill).
- Excellent access to infrastructure (road, rail, power, potential hydro), all within 10km.
- Location of the main zone at surface near top of large hill provides open pit and/or ramp access.
- The prices of lithium, tantalum and beryllium are all predicted to increase: Li (electric vehicles, electric storage, etc.), Ta (loss of conflict supply and primary producer closure), and Be (nuclear fuel alloys, US military armour applications).

# The market for lithium-dependent products including lithium-ion batteries (for which lithium is used as the cathode) for the battery storage market (for utilities, business, households and electric vehicles) is expected to experience transformational growth over the next decade.

High-grade historical assay results from the Seymour Lake project include:

- 2.081% Li<sub>2</sub>O over 16.90m
- 1.584% Li<sub>2</sub>O over 26.13m
- 2.386% Li<sub>2</sub>O over 9.20m
- 1.735% Li<sub>2</sub>O over 14.25m
- 1.325% Li2O over 23.85m including 2.059% Li2O over 9.00m and 2.232% Li2O over 3.04m
- 1.837% Li<sub>2</sub>O over 11.80m
- 2.212% Li<sub>2</sub>0 over 5.70m
- 2.100% Li<sub>2</sub>O over 6.75m
- 1.475% Li<sub>2</sub>O over 17.72m including 1.937% Li<sub>2</sub>O over 12.97m
- In addition, Tantalum and Beryllium grades of up to 1,180ppm (Ta<sub>2</sub>O<sub>5</sub>) and 1,270ppm (BeO) respectively were intersected

Drill-hole locations for North and South Aubry are shown in Figures 4 to 7 below (further drill data details are set out in Appendix 1).

![](_page_4_Figure_1.jpeg)

Figure 4: Location of North Aubry and South Aubry Drill holes

![](_page_4_Figure_3.jpeg)

Figure 5: North Aubry Showing, Drill Location Map

![](_page_5_Figure_0.jpeg)

Figure 6: Section 9950 N, North Aubry Showing showing Main and Lower zones (Note: M/L = Main/ Lower Horizon, L-1 = Lower – 1 Horizon, L-2= Lower – 2 Horizon)

![](_page_5_Figure_2.jpeg)

Figure 7: South Aubry Showing, Drill Location Map

# **Deal Terms**

Key deal terms for the option agreement (in CAD\*) to acquire 100% of the Seymour Lake Project include:

- 1. An exclusivity/holding deposit of C\$75,000 to be paid on signing of the agreement (which amount has been paid) to commence a 150-day option and due diligence period;
- 2. C\$75,000 plus C\$250,000 in ADV equity (at the 20-day VWAP prior to this announcement) to be paid at the end of a 150-day due diligence period to keep option on foot;
- 3. Following the due diligence period if Ardiden wishes to continue the option, the vendor will be paid in quarterly instalments of C\$25,000 per quarter to a total of a further C\$350,000;
- 4. A further C\$250,000 of Ardiden shares (at the 20 day VWAP prior to this announcement) will be issued at the completion of the option agreement (or no later than 24 months from execution of option) for a total compensation of C\$1,000,000 to finalise the transfer of 100% of Seymour Lake;
- 5. Ardiden reserves both the right to accelerate all payments or withdraw from the option agreement at any time. The vendor will retain 100% of the Seymour Lake rights should Ardiden fail to complete any requirements of the option agreement; and
- 6. The property has an existing 3% net smelter royalty (NSR) held by an independent third party. The vendor maintains the option to purchase or buy back from the third party a 1.5% NSR for payment of C\$1,000,000.

## Next Steps

The Company intends to undertake the following activities at the Seymour Lake Project in the New Year as it continues its focus on commodities exposed to structural and transformational change (such as those which are essential ingredients in the manufacture of lithium-ion batteries) in leading jurisdictions.

- Due diligence on Seymour Lake during the 150-day option period to include detailed review of historical data and further geological exploration potentially including but not limited to surface sampling, soil surveys and further drilling;
- Further planned drilling on the Manitouwadge Graphite Project as set out in ASX Announcement dated 5 January 2016;
- Progression of discussions with potential off-take partners and customers; and
- Acquisition of further project areas/ acreage with strong geological potential.

Further updates will be provided as they come to hand.

Board of Directors Ardiden Limited

ENDS

#### For further information:

Investors: Ardiden Ltd Tel: +61 (0) 8 6555 2950 Media: Nicholas Read – Read Corporate Mobile: 0419 929 046

#### About the Manitouwadge Project

The 5,300 Ha Manitouwadge Jumbo Flake Graphite Project is located in Ontario, Canada. The Project has a 19km strike length of EM anomalies with graphite prospectivity and is being subject to systematic exploration to determine areas that have potential to be a near-term development opportunity.

Metallurgical testwork has indicated that up to 80% of the graphite is high value jumbo or large flake graphite. Testwork has also indicated that simple, low-cost gravity and flotation beneficiation techniques can result in graphite purity levels of up to 96.8% for jumbo flake and 96.8% for large flake. Testing using the proven caustic bake process was able to produce ultra-high purity (>99.95%) graphite. The graphite can also be processed into high value expandable graphite and produces a high quality graphene and graphene oxide.

The information in this report has been reviewed by Mr Paul Nielsen who is a member of the Association of Professional Geoscientists of Ontario. Mr Nielsen has more than five years relevant exploration experience, and qualifies as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Nielsen consents to the inclusion of the information in this report in the form and context in which it appears.

#### **Forward-Looking Statement**

This announcement may contain some references to forecasts, estimates, assumptions and other forward-looking statements. Although the company believes that its expectations, estimates and forecast outcomes are based on reasonable assumptions, it can give no assurance that they will be achieved. They may be affected by a variety of variables and changes in underlying assumptions that are subject to risk factors associated with the nature of the business, which could cause actual results to differ materially from those expressed herein. All references to dollars (\$) and cents in this presentation are to Australian currency, unless otherwise stated. Investors should make and rely upon their own enquires and assessments before deciding to acquire or deal in the Company's securities.

#### Appendix 1 – Historic Drill Results (2002 and 2009 drill programs)

#### Appendix 1: Tables of Significant Drill Hole Intersections, 2002 and 2009

North Aubry, 2002, Lithium and Beryllium Results

Holo		From	То	Width		
HOIP	Horizon	(metres)	(metres)	(metres)	Li <sub>2</sub> O(%)	BeO(%)
SL-02-2	Main	45.75	60.00	14.25	1.735	0.046
SL-02-3	Main	25.65	30.20	4.55	1.210	0.038
And	Lower	32.50	40.70	8.20	1.370	0.037
SL-02-4	Main	25.00	34.20	9.20	2.386	0.034
SL-02-5	Main	18.00	21.60	3.60	0.944	0.039
SL-02-8 *	Main	13.60	30.00	16.40	0.830	0.022
SL-02-9	Main	1.45	22.10	20.65	0.955	0.037
SL-02-10	Lower-1	51.85	57.05	5.20	1.578	0.062
SL-02-14	Main	2.65	8.35	5.70	2.212	0.065
SL-02-15*2	Main	6.35	11.80	5.45	1.302	0.034
SL-02-16	Main	1.70	9.55	7.85	1.148	0.055
SL-02-25	Main	1.40	1.65	0.25	0.829	0.013
SL-02-26	Main	1.65	5.05	3.40	2.484	0.024
SL-02-27	Main	3.00	26.85	23.85	1.325	0.031
SL-02-28	Main	2.30	14.10	11.80	1.837	0.127
SL-02-29	Main	1.80	13.75	11.95	1.696	0.096
SL-02-30	Main	2.00	18.90	16.90	2.081	0.025
And	Lower?	23.30	27.00	3.70	1.837	0.037
SL-02-31	Main	1.60	19.32	17.72	1.475	0.028
			1			

\* SL-02-08 was lost at 30 metre depth

\*2 this interval preceded by 0.95 m of lost core and then preceded by 0.7 m of 1.052% BeO

	From	То	Width		
Horizon	(metres)	(metres)	(metres)	Li <sub>2</sub> O (%)	BeO (%)
Lower	30.70	35.05	4.35	1.460	0.056
Main	25.00	31.25	6.25	0.339	0.013
Lower	52.10	61.18	9.08	1.262	0.067
Main	2.65	17.15	14.50	0.304	0.040
Main	3.00	16.30	13.30	0.757	0.048
Lower	58.20	60.00	1.80	0.454	0.088
Main	2.35	18.64	10.36	0.648	0.052
Lower	50.82	52.02	1.20	0.288	0.027
Main	8.13	15.20	7.07	0.390	0.036
Lower	39.18	42.10	2.92	1.401	0.046
Main	1.95	5.20	3.25	0.625	0.074
Main	13.90	17.95	4.05	0.307	0.049
	Horizon Lower Main Lower Main Lower Main Lower Main Lower Main Main	From (metres)Lower30.70Main25.00Lower52.10Main2.65Main3.00Lower58.20Main2.35Lower50.82Main8.13Lower39.18Main1.95Main13.90	From Horizon         To (metres)           Lower         30.70         35.05           Main         25.00         31.25           Lower         52.10         61.18           Main         2.65         17.15           Main         3.00         16.30           Lower         58.20         60.00           Main         2.35         18.64           Lower         50.82         52.02           Main         8.13         15.20           Lower         39.18         42.10           Main         1.95         5.20	From HorizonTo (metres)Width (metres)Lower30.7035.054.35Main25.0031.256.25Lower52.1061.189.08Main2.6517.1514.50Main3.0016.3013.30Lower58.2060.001.80Main2.3518.6410.36Lower50.8252.021.20Main8.1315.207.07Lower39.1842.102.92Main1.955.203.25Main13.9017.954.05	From HorizonTo (metres)Width (metres)Li2O (%)Lower30.7035.054.351.460Main25.0031.256.250.339Lower52.1061.189.081.262Main2.6517.1514.500.304Main3.0016.3013.300.757Lower58.2060.001.800.454Main2.3518.6410.360.648Lower50.8252.021.200.288Main8.1315.207.070.390Lower39.1842.102.921.401Main1.955.203.250.625

#### South Aubry, 2002, Lithium and Beryllium Results

#### North Aubry, 2002 & 2009, Tantalum Results

				Width	
Hole	Horizon	From	То	(metres)	Ta <sub>2</sub> O <sub>5</sub> (%)*
SL02-15	Main	6.35	9.75	3.40	0.104
SL02-28	Main	3.75	6.00	2.25	0.108
SL02-31	Main	6.35	7.50	1.15	0.092
and	Lower?	14.50	19.32	4.82	0.118

\*In the 2009 drilling, only two narrow high grade tantalum intersections were made: SL-09-3A with 1.0 m of 0.221% Ta<sub>2</sub>O<sub>5</sub>; and SL-09-33 with 0.84 m at 0.098% Ta<sub>2</sub>O<sub>5</sub>.

\*Strong Rb<sub>2</sub>O values were also encountered in most of the drill holes, giving average values of 0.1% to 0.6% over the composite interval, but as with tantalum and beryllium in note <sup>(0)</sup>, no metallurgical or comparative work has been undertaken to quantify what ultimately may be recoverable values of rubidium, or any other potential by-product credits such as gallium or thallium.

		From	То	Width		
Hole	Horizon	(metres)	(metres)	(metres)	Li <sub>2</sub> O %	BeO % <sup>(1)</sup>
SL-09-03A	Lower-1	74.17	85.30	11.13	1.203	0.033
SL-09-09A	Lower-1	53.12	58.70	5.58	0.108	Nsa <sup>(2)</sup>
And	Lower-2	71.90	75.30	3.40	0.833	0.038
SL-09-27A	Lower-1	62.00	67.60	5.60	1.895	0.068
SL-09-33	Main/Lower	14.40	40.53	26.13	1.584	0.046
And	Lower-1	90.2	93.5	3.3	0.936	0.063
And	Dyke?	105.3	106.4	1.1	1.176	0.070
SL-09-34	Main	86.32	97.54	11.22	0.550	0.023
SL-09-43	Main	51.55	58.00	6.45	1.030	0.017
And	Lower-1	97.28	102.08	4.80	0.735	0.010
SL-09-44	Main	32.80	39.55	6.75	2.100	0.082
And	Lower-1	72.70	75.84	3.14	2.457	0.031
SL-09-45	Main/Lower	48.00	60.90	12.90	1.676	0.045
SL-09-46	Main/Lower	60.82	78.45	17.63	0.710	0.047
SL-09-47	Main/Lower	51.52	55.40	3.88	1.507	0.081
And		55.40	62.40	7.00	0.200	0.024

#### North Aubry, 2009, Lithium and Beryllium Results

South Aubry, 2009, Lithium and Beryllium Results:

SL-09-48 intersected several narrow horizons, including 1.23 metres at 0.422% Li<sub>2</sub>O and 0.062% BeO, and 2.32 metres at 0.854% Li<sub>2</sub>O and 0.032% BeO

#### Drill Hole Locations from 2002 Drill Program (1,865 m drilled)

Hole	Target	Northing	Easting	Dip	Depth (m)
SL02-01	North Aubry	100+50N	101+50E	-90°	60.00
SL02-02	North Aubry	100+00N	101+50E	-90°	72.00
SL02-03	North Aubry	99+50N	101+50E	-90°	54.00
SL02-04	North Aubry	99+00N	101+50E	-90°	47.00
SL02-05	North Aubry	98+50N	101+50E	-90°	39.00
SL02-06	North Aubry	98+00N	101+50E	-90°	105.00
SL02-07	North Aubry	100+00N	102+00E	-90°	93.00
SL02-08	North Aubry	100+00N	101+00E	-90°	30.00
SL02-09	North Aubry	99+50N	101+00E	-90°	30.00
SL02-10	North Aubry	99+50N	100+50E	-90°	72.00
SL01-11	North Aubry	100+00N	100+50E	-90°	54.00
SL02-12	North Aubry	98+00N	100+46E	-90°	40.00
SL02-13	North Aubry	98+00N	100+24E	-90°	40.00
SL02-14	North Aubry	99+00N	100+75E	-90°	18.00
SL02-15	North Aubry	99+00N	101+00E	-90°	24.00
SL02-16	North Aubry	99+50N	100+75E	-90°	40.00
SL02-17	South Aubry (SA-5)	94+50N	96+71E	-90°	75.00
SL02-18	South Aubry (SA-5)	94+69N	96+90E	-90°	81.00
SL02-19	South Aubry	92+00N	96+54E	-90°	27.00
SL02-20	South Aubry	91+51N	96+84E	-90°	81.00
SL02-21	South Aubry	90+75N	97+06E	-90°	75.00
SL02-22	South Aubry	91+00N	97+24E	-90°	75.00
SL02-23	South Aubry	93+50N	96+54E	-90°	137.70
SL03-24	South Aubry	90+77N	97+63E	-90°	75.00
SL02-25	North Aubry	98+19N	100+74E	-90°	50.00
SL02-26	North Aubry	98+58N	100+76E	-90°	50.00
SL02-27	North Aubry	99+25N	101+17E	-90°	50.00
SL02-28	North Aubry	99+25N	100+96E	-90°	50.00
SL02-29	North Aubry	99+25N	100+75E	-90°	42.00
SL02-30	North Aubry	99+00N	101+21E	-90°	42.00
SL02-31	North Aubry	98+70N	101+20E	-90°	42.00
SL02-32	Enzyme Leach	98+00N	94+00E	-90°	95.00
					1865.70

Drill Hole Locations from 2009 Drill Program (2,362 m drilled, all holes drilled vertically)

	East	North	Altitude	Depth	
Hole No.	(NAD27)	(NAD27)	(m)	(m)	Comments
SL02-01	396973	5585033	387	60.00	
SL02-02	396979	5584979	389	71.75	
SL02-03	396982	5584935	399	54.00	
SL02-04	396985	5584869	403	47.00	
SL02-05	396982	5584845	397	39.00	
SL02-06	396994	5584778	391	105.00	
SL02-07	397031	5584981	394	93.00	
SL02-08	396929	5584976	381	30.00	hole lost at 30 m
SL02-09	396933	5584931	392	30.00	
SL02-10	396882	5584931	391	72.00	
SL02-11	396882	5584976	389	54.00	
SL02-12	396889	5584778	380	40.00	
SL02-13	396868	5584777	371	40.00	
SL02-14	396916	5584874	384	18.00	
SL02-15	396937	5584876	385	24.00	
SL02-16	396906	5584936	378	40.00	
SL02-17	396547	5584389	338	75.00	
SL02-18	396570	5584417	339	81.00	
SL02-19	396554	5584163	339	27.00	
SL02-20	396590	5584122	350	81.00	
SL02-21	396621	5584084	348	75.00	
SL02-22	396635	5584066	343	75.00	
SL02-23	396562	5584302	325	137.70	
SL02-24	396677	5584022	344	75.00	
SL02-25	396915	5584792	369	50.00	
SL02-26	396914	5584845	382	50.00	
SL02-27	396956	5584900	401	50.00	
SL02-28	396936	5584898	386	50.00	
SL02-29	396913	5584899	385	42.00	
SL02-30	396957	5584868	384	42.00	
SL02-31	396961	5584841	397	42.00	
SL02-32	396258	5584725	304	95.00	hole lost at 95 m
SL09-03A	396981	5584933	388	164.00	deepening of SL02-03
SL09-09A	396933	5584926	382	107.00	deepening of SL02-09
SL09-27A	396958	5584900	383	95.00	deepening of SL02-27

Hole No.	East (NAD27)	North (NAD27)	Altitude (m)	Depth (m)	Comments
SL09-33	396921	5584973	375	114.00	"twin" of SL02-08
SL09-34	397134	5584917	383	164.00	
SL09-35	397298	5584921	385	221.00	
SL09-36	397040	5584823	386	104.00	
SL09-37	397348	5584615	375	299.00	
SL09-38	396720	5584352	375	158.00	
SL09-39	398259	5584962	374	101.00	
SL09-40	398028	5584201	na	20.00	abandoned, collared in granite
SL09-41	397114	5584396	377	150.00	
SL09-42	397398	5584164	357	152.00	
SL09-43	397028	5584943	391	122.00	
SL09-44	397004	5584906	390	98.00	
SL09-45	397054	5584905	387	125.50	
SL09-46	397086	5584942	373	151.00	
SL09-47	397069	5584863	393	131.00	
SL09-48	396626	5584428	357	89.00	

# JORC Code, 2012 Edition – Table 1

# **Section 1 Sampling Techniques and Data**

#### (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Data from the 2002 drill program was used "as is" from the respective report, and no specific attempt was made to verify these earlier results (e.g. QAQC), although in several cases holes from the earlier program was fully or partially twinned by holes drilled in the 2009 program, with generally comparable results.</li> <li>The 2010 43-101 compliant report relies heavily on the 2002 drilling results, reported by Morgan (2002), which were incorporated into the drill hole database and in part formed the foundation for the 2009 drilling campaign.</li> <li>Although no internal company QAQC program was used at that time, visual inspection of the internal SGS-XRAL routine checks as listed on the assay sheets (e.g. duplicates and blanks), and knowledge of the analytical methods used (total flux fusions, with XRF or ICP analyses) indicates that the assay data are adequate to use reliably, at least on a first-pass basis.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>Diamond wireline core drilling.</li> <li>2002 and 2009 drill core size is NQ , core diameter is 45.0 millimeters</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>The sample interval of core was measured and recorded along with a description and incorporated in the completed drill logs.</li> <li>Core within the mineralised zone tended to be uniform and competent so loss was minimal and samples represent the true nature of the mineralisation</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical</li> </ul>	• Samples represent half the core width, and were logged in detail to support appropriate Mineral Resource estimation at a later stage of exploration.

Criteria	JORC Code explanation	Commentary
Sub-sampling	<ul> <li>studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> <li>If core, whether cut or sawn and whether quarter, half or all core taken</li> </ul>	<ul> <li>In 2002 core was split in half using a pressure hydraulic splitter with the remaining half retained in the core tray.</li> </ul>
sample preparation	<ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field the instance results for field</li> </ul>	<ul> <li>In 2009 core was sawn in half with the remaining half retained in the core tray</li> <li>Mineralisation was observed to be relatively uniform so assay samples closely represented the in situ material.</li> <li>Samples were taken on an average of 1 meter intervals and were determined to be appropriate for the mineralised material being sampled</li> </ul>
	<ul> <li>duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	
<i>Quality of assay data and laboratory tests</i>	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Core samples from 2002 drill program were analysed by XRAL Laboratories in Don Mills, Ontario Canada</li> <li>Core samples from 2009 drill program were analysed by Actlabs in Thunder Bay, Ontario Canada a SCC (Standards Council of Canada) accredited laboratory.</li> <li>The 2002 drill program did not include any specific company- implemented QAQC protocols although SGS-XRAL routinely used internal blanks, duplicates and standards, but the</li> <li>standards employed were not of ore grade, and so are of limited use in QAQC controls. In the 2009 drill program Linear Metals employed standard QA/QC protocols involving the submission of standards, duplicates and blanks within each batch of samples submitted to the lab.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Drill data was stored digitally in a Gemcom database in 2010 by Linear Metals and included the earlier 2002 drill information.</li> <li>Some holes were twinned in the 2009 drill program with 2002 drill holes with generally comparable results.</li> </ul>

Criteria	JORC Code explanation	Commentary
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Drill holes were located with handheld WAAS enabled handheld GPS units (+/- 3m accuracy) set for recording UTM NAD27 Zone 16 projection coordinates.</li> <li>In 2002 drill hole orientation was measured (azimuth and dip) using a Tropari instrument at the bottom of the hole</li> <li>In 2009 down hole surveys were performed on all of the completed holes using a Flexit Multishot® survey tool, at 50 to 100m intervals.</li> </ul>
Data spacing and distribution Orientation of data in relation to geological structure	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material</li> </ul>	<ul> <li>Core samples of the mineralised zone were taken at approximately 1 meter intervals and deemed appropriate to represent the in situ nature of the mineralization.</li> <li>Further drilling and sampling will be required to adequately establish the geologic and grade continuity for any Mineral Resource and Ore Reserve estimation procedure.</li> <li>Drill hole locations were designed to intercept the mineralised zone as close to true width as possible to avoid sampling bias.</li> </ul>
Sample security	The measures taken to ensure sample security.	• During the 2009 drill program samples were bagged and tagged by company personnel and transported to the accredited laboratory (Actlabs) via bonded courier.
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>The 2002 drill results were reviewed by Mat Rees the qualified person documenting the exploration results up to and including 2009 drilling and surface exploration work described in the 2010 43-101 compliant report.</li> </ul>

# **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral	• Type, reference name/number, location and ownership including	• All claims are in good standing and are 100% owned by Stockport
tenement and	agreements or material issues with third parties such as joint	Exploration Inc.
land tenure	ventures, partnerships, overriding royalties, native title interests,	
status	historical sites, wilderness or national park and environmental	
	settings.	
	• The security of the tenure held at the time of reporting along with	

Criteria	JORC Code explanation	Commentary
	any known impediments to obtaining a license to operate in the area.	
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Other parties have not appraised the exploration carried out to date</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	The Seymour Lake area pegmatites have been classified as belonging to the Complex-type, Spodumene-subtype. Mineralization is dominated by spodumene (Li), with lesser beryl (Be), tantalite(Ta), and Rb-bearing potassium feldspar, hosted in a vertically stacked series of gently dipping pegmatite sills.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>Drill hole information including Easting and Northing of drill collars, elevation, dip and azimuth and down hole length and interception depth has been documented in Gemcom database format.</li> <li>Database is presently in the process of being restored.</li> <li>Property assessment reports for both the 2002 and 2009 drill programs are available on the Ontario Ministry of Natural Resources website.</li> </ul>
<i>Data aggregation methods</i>	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregations should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>With the homogeneity of the mineralised material, sample intervals for the most part were kept at or near the 1 meter interval.</li> <li>Weighted averaging calculations were used when sample intervals were not uniform.</li> </ul>
Relationship between mineralisation widths and	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole</li> </ul>	<ul> <li>Mineralised zones were determined to be shallow dipping and drill holes were drilled vertically so that mineralised drill intercepts represented close to true widths minimizing any bias in reporting of results.</li> </ul>

C Code explanation	Со	mmentary
ength, true width not known').		
ppropriate maps and sections (with scales) and tabulations of ntercepts should be included for any significant discovery being eported These should include, but not be limited to a plan view of rill hole collar locations and appropriate sectional views.	•	Maps and scaled sections were reviewed and partially included in the 43-101 compliant technical report on the Seymour Lake property.
Vhere comprehensive reporting of all Exploration Results is not	•	Comprehensive reporting of all exploration results was completed
racticable, representative reporting of both low and high grades nd/or widths should be practiced to avoid misleading reporting of xploration Results.		in the Technical Report on the Seymour Lake Property done by Linear Metals in 2010.
ther exploration data, if meaningful and material, should be	•	Well documented in 43-101 compliant report by Linear Metals in
eported including (but not limited to): geological observations;		2010.
amples – size and method of treatment: metallurgical test results:		
ulk density, groundwater, geotechnical and rock characteristics;		
otential deleterious or contaminating substances.		
he nature and scale of planned further work (eg tests for lateral xtensions or depth extensions or large-scale step-out drilling).	•	Further drilling is planned to test the lateral extension and depth extension of the mineralised zones.
iagrams clearly highlighting the areas of possible extensions,	•	Further drilling of geochemical targets will be considered to try and
ncluding the main geological interpretations and future drilling		confirm the source of selected Enzyme Leach soil survey anomalies
	Code explanation ngth, true width not known'). poropriate maps and sections (with scales) and tabulations of tercepts should be included for any significant discovery being ported These should include, but not be limited to a plan view of ill hole collar locations and appropriate sectional views. There comprehensive reporting of all Exploration Results is not racticable, representative reporting of both Iow and high grades ind/or widths should be practiced to avoid misleading reporting of exploration Results. ther exploration data, if meaningful and material, should be ported including (but not limited to): geological observations; exploysical survey results; geochemical survey results; bulk amples – size and method of treatment; metallurgical test results; ilk density, groundwater, geotechnical and rock characteristics; otential deleterious or contaminating substances. the nature and scale of planned further work (eg tests for lateral tensions or depth extensions or large-scale step-out drilling). iagrams clearly highlighting the areas of possible extensions, cluding the main geological interpretations and future drilling reas, provided this information is not commercially sensitive.	Code explanation       Co         ngth, true width not known').       -         opropriate maps and sections (with scales) and tabulations of tercepts should be included for any significant discovery being ported These should include, but not be limited to a plan view of ill hole collar locations and appropriate sectional views.       •         there comprehensive reporting of all Exploration Results is not racticable, representative reporting of both low and high grades ind/or widths should be practiced to avoid misleading reporting of exploration Results.       •         there exploration data, if meaningful and material, should be ported including (but not limited to): geological observations; exploration Results; geochemical survey results; bulk amples – size and method of treatment; metallurgical test results; ilk density, groundwater, geotechnical and rock characteristics; otential deleterious or contaminating substances.       •         the nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).       •         agrams clearly highlighting the areas of possible extensions, cluding the main geological interpretations and future drilling reas, provided this information is not commercially sensitive.       •