DEMPSEY MINERALS LTD
ACN 149 349 646

ASX ANNOUNCEMENT

17th April 2018

HIGHLY ENCOURAGING DUE DILIGENCE HIGHLIGHTS POTENTIAL OF ARGENTINIAN LITHIUM PROJECTS

Highlights

- **Due diligence largely completed on Blue Sky Lithiums' *Hombre Muerto* salar projects located in Argentina - located in the *Lithium Triangle* of South America**
- **Projects adjoin FMC Corporation's Fenix and Galaxy Resources Limited's Sal de Vida Lithium operations**
- **Highly productive basin with low impurities and shallow targets**
- **The *Candelas* target is very extensive being ~15km long by 3-4km wide**
- **Ideal geological setting for Li brine development**
- **Recent surface sampling includes results similar to those obtained by Galaxy nearby where economic brine occurs**
- **Geophysical surveys planned to commence shortly**
- **Experienced in-country team**
- **Argentina is actively encouraging foreign investment in the mining sector**

Dempsey Minerals Limited (ASX:DMI) (**Dempsey** or **the Company**) is pleased to give an update on its due diligence work on its exclusive agreement with Australian company Blue Sky Lithium Pty Ltd (**Blue Sky**) to acquire 100% of Blue Sky's interests in mining tenements located in the lithium bearing *Hombre Muerto* salt flat in the province of Catamarca, Argentina (see Dempsey ASX announcement 6th February 2018). Dempsey has convened a meeting of shareholders for the 4th of May to consider a range of resolutions in connection with the transaction including ratifying the agreement and approving capital raisings to assist in progressing the project (see DMI Notice of Meeting ("**NoM**") issued 4 April). Since signing the agreement, the Company has been active in undertaking due diligence ("**DD**") on the project and on Blue Sky and provides an update on this work in the Due Diligence section of this announcement.

Background

The Blue Sky tenements (the **Project**) are located within the South American *Lithium Triangle* in the Hombre Muerto Basin, one of the most important and prolific salt flats in Argentina and indeed the world. The Project is situated adjacent to Galaxy Resources' *Sal de Vida* project (proposed production of 25ktpa LCE - GXY:ASX announcement, 22 August 2016) and FMC's Fenix lithium operations (which has been in operation since 1997). The basin is known to have the lowest impurity levels of any producing Salar in Argentina and has been in production for over 20 years. The geology of the basin is well understood with lithium grades ranging from 680 to 780ppm and reserve life's estimated to be greater than 50 years for FMC (GXY NI 43-101, March, 2010) and 40 years for Galaxy (GXY: ASX announcement, 22 August 2016) at current and forecast production rates.

Figure 1: Blue Sky's Project within the Lithium triangle

Due Diligence

DD work has comprised legal assessment of Blue Sky and the licences which comprise the project in Argentina. Whilst all licences were found to be legally held and that binding agreements to acquire the licences were held by Blue Sky, the work highlighted the mineral rights for the second project in the portfolio forming the Catalina licence (which covers ~2.5km^2 of prospective ground) have been granted by both the Catamarca and Salta provinces over the same ground. This is a result of a long term border dispute between the provinces and further details are being sought on this matter.

The Company's main interest in Blue Sky's portfolio however, has always been the Candelas group (which covers ~55km^2 of prospective ground) where no such title issues exist and on Blue Sky's ability to further grow the project portfolio in country.

On the technical front, a site visit has been made and a programme of surface sampling conducted over the Candelas group of licences. Key points to arise from this work are:

- The Hombre Muerto salar is the premiere salar for lithium brine production (FMC) in Argentina
- Proven high grade/low impurity Li brine setting
- *Candelas* adjoins Galaxy Resources' ("GXY") *Sal de Vida* brine project
- The Candelas target channel is very extensive being ~15km long by 3-4km wide
- Ideal geological setting for Li brine development; ground waters sourcing volcanic rocks, local hydrothermal activity, a closed basin, arid climate and a faulted environment
- Galaxy's closest drilling to Candelas indicates substantial volumes of brine hosted by coarse sands and gravels similar to those thought to exist at Candelas; perfect permeable host
- Recent surface sampling includes results similar to that obtained by Galaxy
- Potential for significant volumes of brine to exist at depth within the Candelas channel
- Further potential at Deceo for brines to exist below surficial alluvial fan cover over palaeo-salar
- Experienced in-country team
- Argentina is actively encouraging foreign investment in the mining sector

The Candelas tenements cover the Los Patos delta valley which is the major conduit for incoming waters into the HM salar accounting for ~79% of the salars total water intake. The delta sits at ~4060m RL in the south and gently dips from the south to the salar at ~4000m in the north where the tenements abut Galaxy Resources' tenements. The scale of the valley is very large; being ~15km long and 3 to 4 km wide giving enormous potential should brines exist at depth. The valley sits within a graben structure bounded by major north-south faults and is transgressed by a major NW-SE trending fault. Active fumaroles were observed in the area associated with these faults indicating the relatively shallow depth to magma.

There is very real potential for lithium bearing brines to exist below the delta. The Eastern Hombre Muerto sub-basin is dominated by coarse sands where Galaxy has proven significant volumes of brine. It is likely that these coarse sands exist below the delta and, having good porosity and permeability, could potentially host significant volumes of brine. Galaxy has stated that the Eastern sub-basin could be at least 300m deep and it is considered likely that these brine hosting sediments continue below the Candelas licences.

A programme of sampling comprising 18 water samples was undertaken over the Candelas licences (Appendix 1). Water samples were taken from shallow auger holes up to 1.3 metres deep and analysed for conductivity, total dissolved salts ("TDS") and analysed for a range of elements. The results were highly encouraging with several samples recording Li values and conductivities similar to those observed from near surface results from the closest drilling to Candelas as conducted by Galaxy at Sal de Vida. The results were surprising as the deltaic sediments sit above the RL of the salar and it was thought that there would be significant contamination from the surficial alluvial waters and that sampling would return no significant lithium values.

Samples collected in the northern section of Candelas ranged up to 59 mg/l Li. This compares to near surface results of ~62.8 mg/l Li in Lithium One (Galaxy) drillholes SVH11_16 and 52.7 mg/l in SVH10_8 (figure 3). These results lie above economic brines occurring within an interpreted palaeo-channel as observed from gravity survey data (figure 2). The highest recorded result from the Candelas sampling was 120 mg/l located ~10km to the south in the southern part of the project.

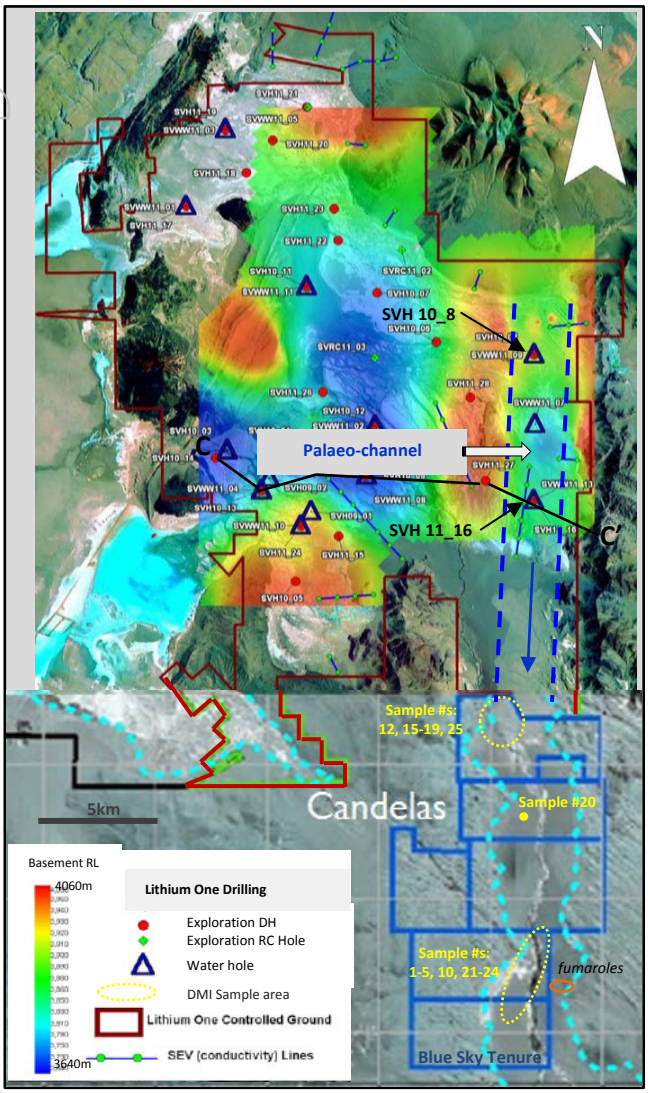

Figure 2: Base gravity/aerial foto image showing eastern palaeo-channel, location of Lithium One (Galaxy) drilling & DMI Samples – Candelas area (ref: Lithium One NI43-101, March 2012)

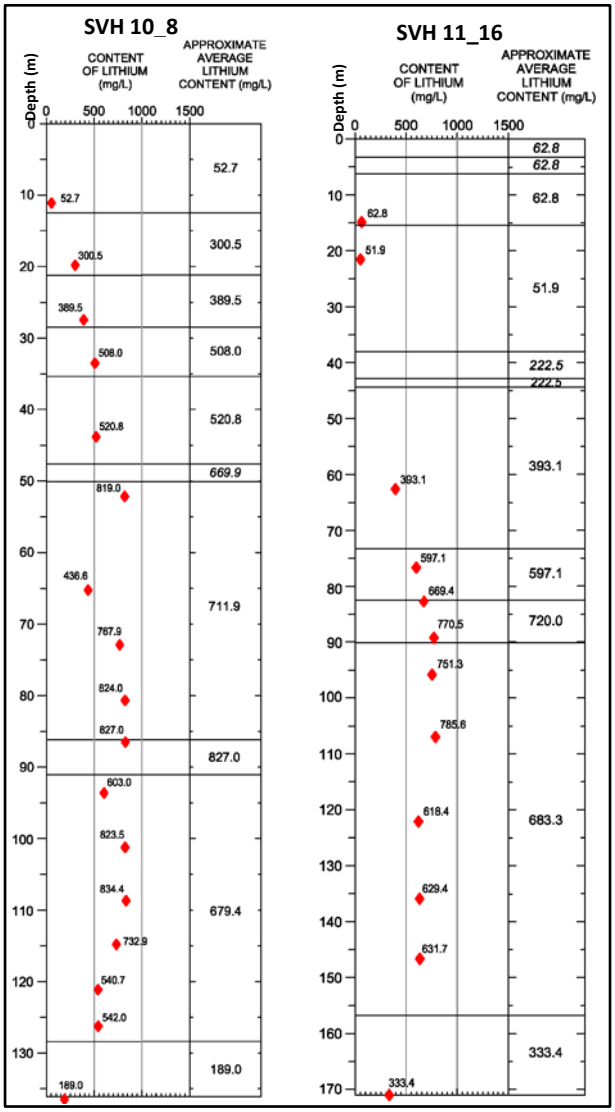

Figure 3: Lithium One (Galaxy) drillholes SVH10_8 & SVH11_16 noting near surface Li versus underlying economic Li grades (ref: Lithium One NI43-101, March 2012)

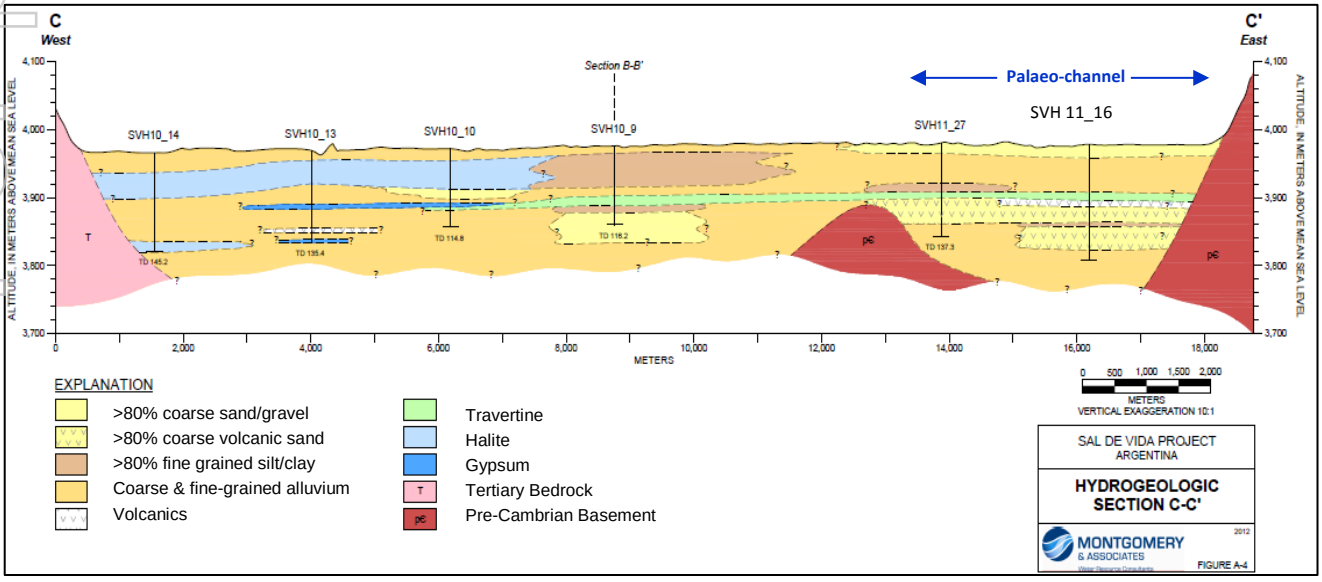

Figure 4: Lithium One X-Section C-C' (Ref: Lithium One NI43-101, March 2012)

The variable results from the Company's sampling indicate mixing of brine and fresher waters brought in by the Los Patos river in the Candelas area. What is important is that there is elevated lithium bearing briny waters in the system with some samples having Li levels similar to that observed near surface at Sal de Vida below which significant concentrations of economic lithium brine is found. It is also noted that the highest recorded value received was 120 mg/l Li taken some 10km south of the northern extent of the project.

The next phase of work will involve a programme of geophysics incorporating a Gravity survey and a Controlled Source Audio-frequency Magnetotellurics (CSAMT) survey. The surveys are aimed at defining the geometry and depth to basement, as well as mapping resistivity contrasts to help identify potential lithium-bearing brine aquifers. The Company is currently obtaining quotes for the surveys.

Dempsey is confident that Blue Sky has the requisite in-country personnel to advance the projects lead by Juan Pablo Vargas de la Vega. Further opportunities to expand the portfolio of projects are currently being explored and, on the assumption that no major issues arise, then the Company is confident that it will proceed with finalising the transaction and commencing detailed work on the projects.

Commenting on the transaction, Dempsey Non-Executive director Nathan McMahon said:

"Due diligence has been very encouraging and backs up our view that this transaction is a potential game-changer for Dempsey. It has proven to us that Blue Sky's licences lie in an ideal geological setting for lithium brine development with low impurities and shallow targets. Surface sampling has also been very positive, returning similar results to Galaxy Resources' adjacent Sal de Vida project where production of 25ktpa lithium carbonate equivalent (LCE) is proposed.

Should we proceed, our aim will be to fast track these projects to production while also exploring opportunities to expand our portfolio of projects in the most productive lithium brine region in Argentina."

Further information with respect to the Project and to Blue Sky is available on a presentation available on the Company's website. Information contained in this release concerning FMC's Fenix project is sourced from FMC's website at www.fmc.com unless otherwise stated. Information contained in this release concerning Galaxy's Sal de Vida Lithium project was sourced from Galaxy's website at www.galaxylithium.com and reports as referenced in this release.

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Competent Person's Statement

The information contained herein that relates to Exploration Results is based on information compiled or reviewed by Mr Clive Jones, who is a consultant to the Company. Mr Jones is a Member of the Australasian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and types of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Jones consents to the inclusion of his name in the matters based on the information in the form and context in which it appears.

Los Patos river at Candelas, view looking north towards Galaxy's Sal de Vida project (above).

Testing fumaroles (right)

Preparing for auger drilling to collect water samples, Candelas project (below)

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APPENDIX 1

CANDELAS WATER SAMPLING RESULTS
March, 2018

Sampling	Easting	Northing	RL	Cond (µS/cm)	Li (mg/l)	Mg (mg/l)	Location
	W						
1	3409386	7169392	4055	3700	120	144	Candela 1
2	3409386	7169392	4055	3700	6	22	Candela 1
3	3409595	7169384	4058	880	1	15	Candela 1
4	3409252	7169403	4055	4400	8	38	Candela 1
5	3409179	7169406	4058	na	0.5	10	Candela 1
6	3412125	7166145	4064	na	4	4	River sample
7	3412127	7166265	4063	na	4	4	River sample
8	3413473	7165723	4069	na	1	20	River sample
9	3413548	7165739	4070	1400	1	23	River sample
10	3409798	7167825	4057	830	2	10	Candela 5
12	3409340	7181281	4024	8800	25	45	Candela 4
15	3410568	7181990	4021	14000	16	107	Candela 4
16	3410568	7181990	4025	14600	16	125	Candela 4
17	3411208	7181118	4025	14600	19	79	Candela 4
18	3411208	7181118	4022	12000	17	8	Candela 4
19	3409636	7181009	4022	19800	33	99	Candela 4
20	3410666	7177347	4029	6500	10	9	Candela 2
21	3409921	7170710	4057	36000	41	421	Candela 1
22	3410002	7170732	4050	9500	7	84	Candela 1
23	3410061	7170686	4052	14300	16	119	Candela 1
24	3410574	7171114	4054	41300	42	264	Candela 1
25	3409425	7180462	4027	40500	59	253	Candela 4

na: information not available *DATUM: WGS84 Zone 3*

APPENDIX 2

JORC CODE, 2012 EDITION – TABLE 1

1.1 Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *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.*	• 18 one litre water samples were collected from just below the surface and up to 1.3 metres deep • Four river water samples were also taken as reference for the auger water samples • Water samples were sent to laboratory Alex Stewart Argentina A.A.
Drilling techniques	• *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).*	• Four inch diameter auger holes were drilled up to ~1.3 metres deep
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• Samples on site were immediately tested for PH, conductivity, total dissolved salts (TDS) and temperature and then transported to the laboratory for chemical analyses
Logging	• *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 studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean,*	• Water samples only collected

Criteria	JORC Code explanation	Commentary
	channel, etc) photography. • *The total length and percentage of the relevant intersections logged.*	
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• No field duplicates samples were considered necessary for first pass reconnaissance • Appropriate sampling protocols were used to maximise representivity.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *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.*	• All samples were analysed using standard laboratory techniques • The laboratory inserted duplicate samples. Results were within tolerable limits
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• All data has been checked internally by DMI staff • Location data was collected using a handheld GPS and maps • No adjustment to assay data has been made
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• All location points were collected using handheld GPS • The error in locational data is expected to be up to 10m in easting and northing and up to 20m in RL.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and*	• Sample spacing was adequate for first pass reconnaissance work of this nature and a product of access and exposure of the targeted lithologies • The water sampling does not give adequate information on geological and

Criteria	JORC Code explanation	Commentary
	Ore Reserve estimation procedure(s) and classifications applied. • *Whether sample compositing has been applied.*	grade continuity and cannot be used for the purpose of Mineral Resource estimation • No compositing of samples was conducted
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• There is not enough information available from this sampling to determine an average grade or to determine sample bias
Sample security	• *The measures taken to ensure sample security.*	• Samples were delivered directly to the laboratory in Argentina. The laboratory managed security of samples during prep and analysis
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Data is audited and reviewed in house by senior staff

1.2

1.3 **Section 2 Reporting of Exploration Results**

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• All sampling is located within granted licences Candela 1, 2, 4 and 5, which are held 100% by vendors with whom Blue Sky has agreements with • DMI, through Blue Sky, has an access agreement for exploration on the licences with the state of Catamarca, Argentina • The licences are in good standing with no known impediments
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• There has been no known previous exploration over the licence areas
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The project lies within the Altiplano- Puna region of Argentina which is 3,700 m asl (meters above sea level). The Altiplano-Puna Volcanic Complex (APVC) is located in the region and is associated with numerous stratovolcanoes and calderas. Recent studies have shown that the APVC is underlain by an extensive magma chamber at 4-8 km depth (de Silva et al., 2006). It is likely that this could be the ultimate source of the anomalously high values of lithium in the area. • Northern Argentina is a semi-arid to arid climate with consequent high radiation

Criteria	JORC Code explanation	Commentary
		and evaporation. The combination of internal drainage and arid climate led to the deposition of evaporite precipitates in many of the Puna basins including the Hombre Muerto salar which typically contain subsurface brines. • Brine prospects differ from solid phase industrial mineral prospects by virtue of their fluid nature. Because of the mobility of the brine, the flow regime and other factors such as the hydraulic properties of the aquifer material are considered to be just as important as the chemical constituents of the brine. The clastic, basin fill sediments in Salar de Hombre Muerto are the target units for brine retrieval.
Drill hole Information	• *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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* • *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.*	• Short auger holes were drilled to depths of 0.7 to 1.3 metres. Appendix 1 shows a summary of these holes and the assay results.
Data aggregation methods	• *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.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No weighted averages, aggregates or metal equivalent values are reported
Relationship between mineralisation widths and intercept	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*	• Not relevant. Holes were augered to collect single 1 litre water samples

Criteria	JORC Code explanation	Commentary
lengths	• *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 length, true width not known').*	
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Refer to Maps, Figures and Diagrams in the document
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• All sample results from the program are reported in the document
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• All meaningful and material information is reported
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Geological mapping and geochemical sampling is planned as is a programme of geophysics all of which it is expected will be followed by drilling within 2018