

25 February 2022

Option Agreement to acquire prime Lithium Brine tenement in Argentina in close proximity to Lake Resources

Highlights:

- 🏆 Option to acquire “Luz Maria”, a highly prospective lithium tenement in Catamarca, Argentina – in the heart of the “Lithium Triangle”
- 🏆 Luz Maria has a total area of ~3,400 Hectares (Ha) in close proximity to Lake Resources (ASX:LKE) Kachi project; XTC now building a strong land position
- 🏆 Previous drilling confirmed lithium rich brine at depth
- 🏆 Luz Maria’s Environmental Impact Assessment study has been approved, with titles and mining licenses up to date
- 🏆 Luz Maria option ‘won’ against strong competition from major Lithium companies in surrounding area
- 🏆 Oversubscribed Placement of A\$15.2m at A\$0.01 under-pinned by a cornerstone AU\$6.5m investment from US-based investors.

Xantippe Resources Limited (ASX: XTC) (Xantippe, XTC, or the Company) is pleased to advise it has, pursuant to its rights to purchase the shares in Carolina Lithium Pty Ltd¹, secured an option to acquire a fourth tenement – Luz Maria. All four tenements are prospective for lithium brine deposits in Catamarca, Argentina and are known as the Carachi Pampa Lithium Project.

Carachi Pampa Lithium Project

The target area is a proven paleo salt flat with lithium brine potential. XTC currently has option agreements covering 12,400 Ha suitable for Direct Lithium Exchange processing (DLE) and is part of an XTC strategy to acquire 17,000 Ha within the Catamarca region.

¹ Refer option agreement to acquire the [Rita, Rita 1](#) and [La Sofia](#) projects announced on 29 November 2021 and 12 January 2022 respectively.

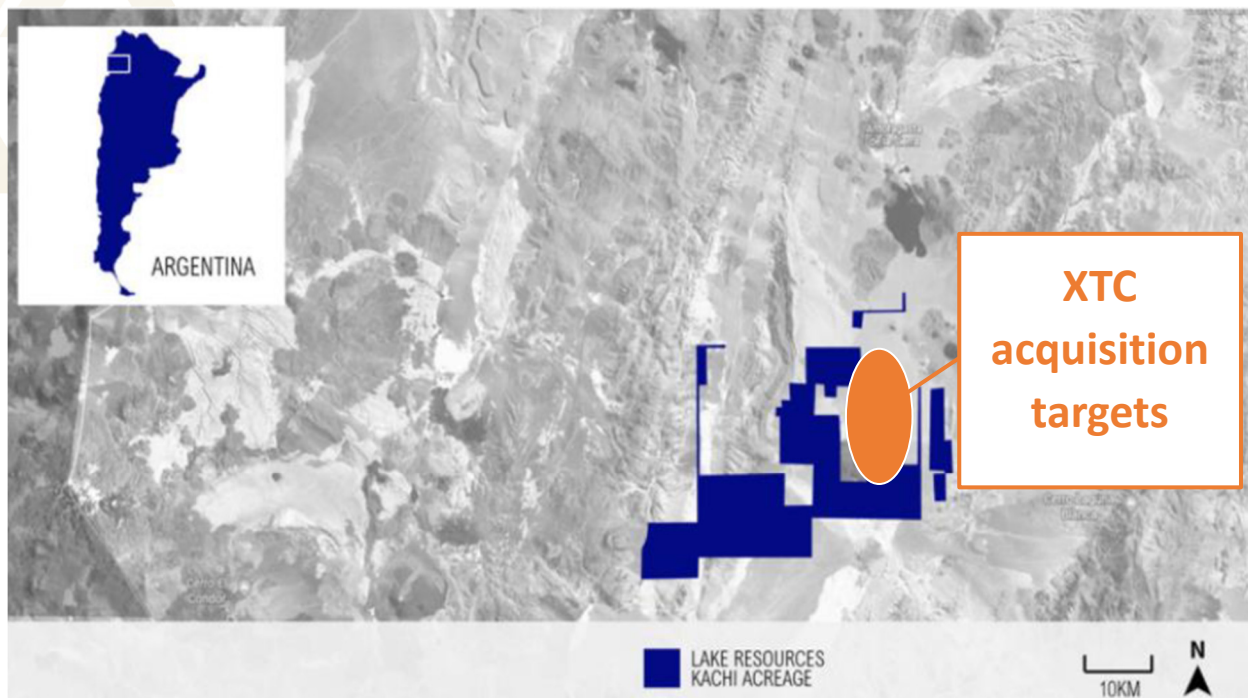


Figure 1: Location of Lake Resources' (ASX:LKE) Kachi Acreage and acquisition focus of XTC, Argentina.

Tenement Details

Luz Maria has title on 1 mining property owned by Crydon SA, a company unrelated to Xantippe controlled by Senor and Senora Santos (**Luz Maria Owners**), as follows:

Mine	Administrative File
Luz Maria	1209-C-2006

Proposed Exploration

To be determined after completion of Phase 1 due diligence.

Luz Maria

The Luz Maria property covers over 3,383Ha on Carachi Pampa salt flats adjacent to Lake Resources project (ASX:LKE) in Catamarca Province, Argentina. It lies in the centre of the Carachi basin and the main outcropping units are alluvial fans and a small portion of a salt lake. The presence of superficial brine and a paleo salar in depth is backed up by the available information in the area.

The lithium brine target in Carachi Pampa is a paleo salar found at depth. This paleo salar continues under the cover of a more recent alluvial fan to the northeast and west of LKE areas. The target areas are covered by alluvial fans and easy to access.

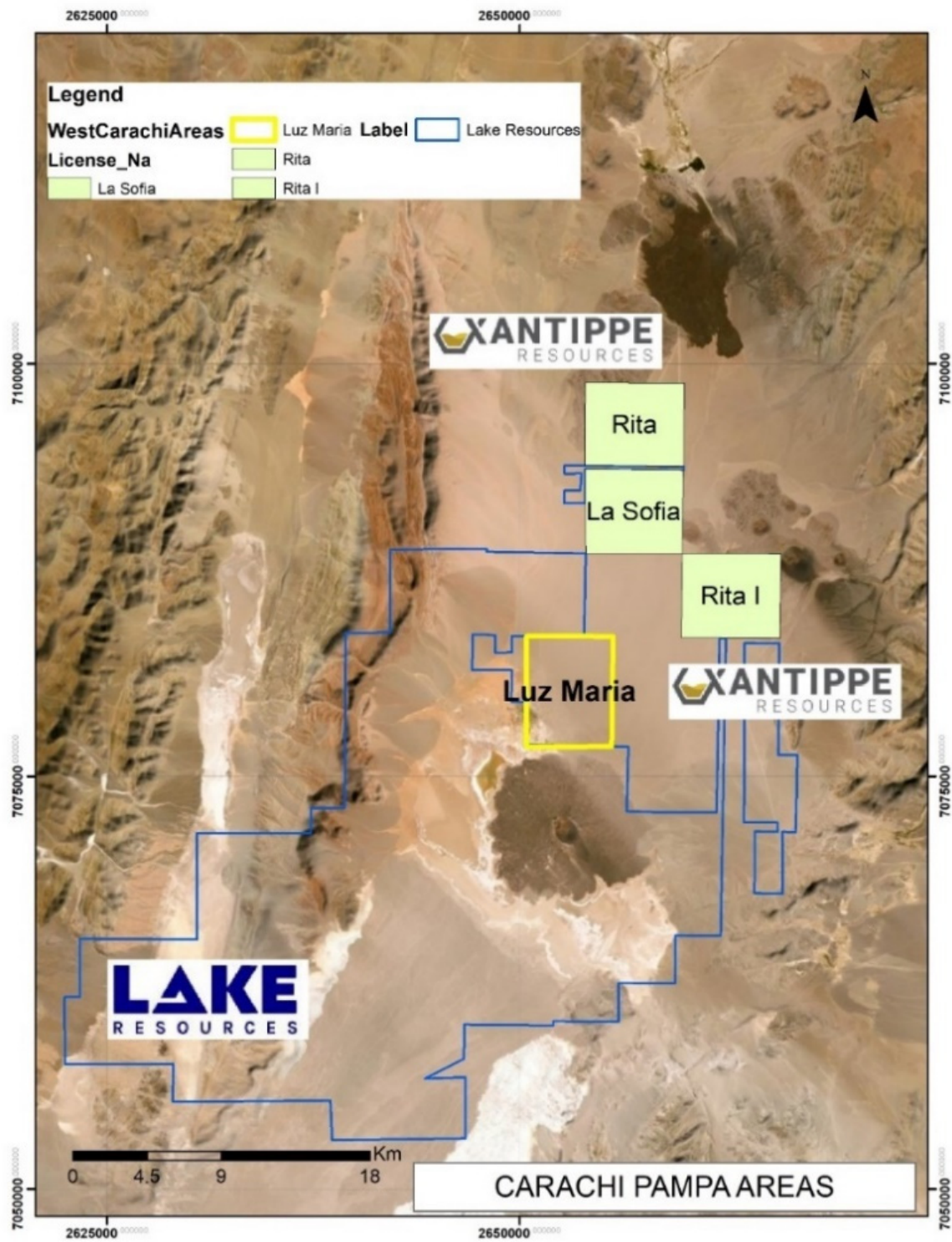


Figure 2: Carachi Pampa Lithium Project location Map

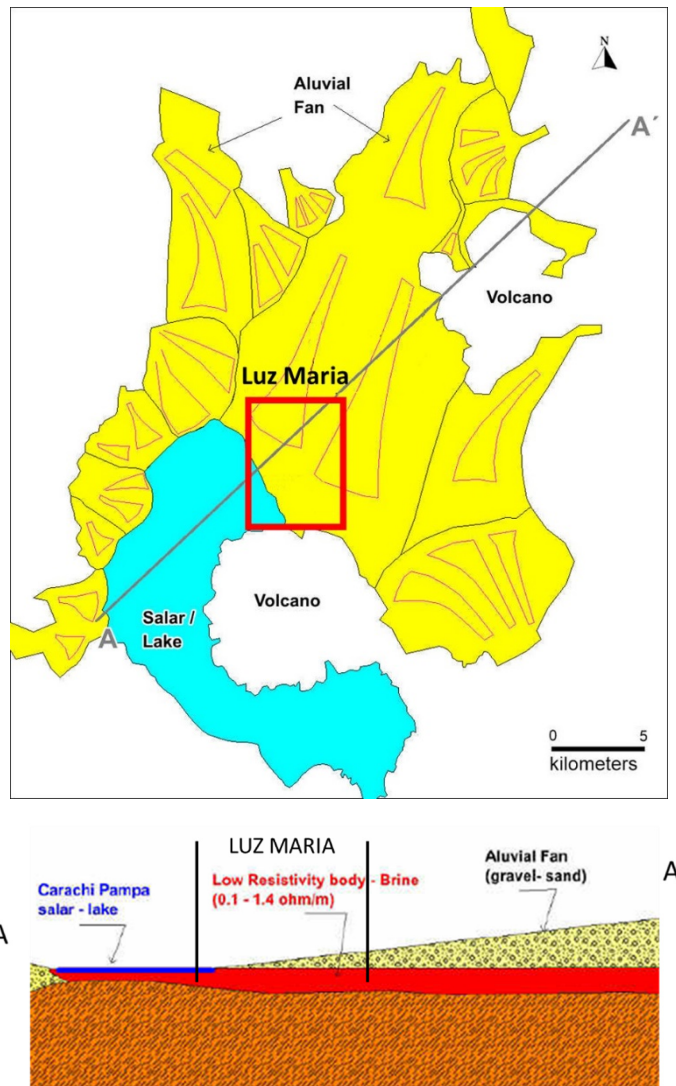


Figure 3: Geomorphological units showing alluvial cover and continuation of brine saturated level (subject areas in red). Wells confirming Li bearing brine in blue. (Modified from NRG, 2016)

Lithium South (formerly NRG metals TSX:NRG) previously conducted a Vertical Electrical Sounding (VES) survey consisting of 6 stations inside the property reaching up to 300-350 metres. Four units were interpreted starting with dry sediments at the surface followed by a transition between fresh water to brines.

Luz Maria has potential to be the main prospect area of a larger project. Reported results confirm the potential for lithium rich brine at depth as well as the concept model further developed by Lake Resources.

The accumulated drilling experience since the last works carried out in the property suggests that saturated levels can be tested with more confidence and assure sample quality in order to evaluate the resources and develop a project.

In summary, Luz Maria has historical geological data from previous drilling campaigns, the environmental impact assessment study has been approved, and the titles and licenses are confirmed as up to date.



Managing Director Richard Henning commented: *“The acquisition of Luz Maria adds to our strategy of extending our footprint in Catamarca and developing a Lithium product sourced from brines in South America. This tenement has been widely considered as the ‘jewel in the crown’ of Catamarca and through our partners in Argentina, the Arecco Group, we were able to secure the option against many other suitors.*

To add to this, the infrastructure in Luz Maria is well established with access roads, electricity, a small town with a hotel, and good local management.”

The LKE resource of 4.4 million tons LCE was defined after studying an area of 17,000 Ha with 14 wells and includes a pyroclastic complex (ASX: LKE 27 November 2018). The resource estimate at the LKE Kachi project is reported as 1M tonnes at 290mg/L Lithium (Indicated) and 3.4M tonnes @210mg/L lithium (Inferred) (ASX: LKE 27 November 2018).

The Rita & Rita I area covers more than over 6,000 Ha; La Sofia adds another 3,000 Ha for a total of 9,000 Ha; Luz Maria a further 3,400 Ha offering potential to host similar resources. Due Diligence on Rita and Rita 1 is nearing completion and has begun on La Sofia.

Further efforts to expand the footprint in the salt flat are on-going through the Arecco Group.

Terms of the Acquisition

Xantippe has shareholder approval to convert an option agreement (**Option**) with the shareholders of Carolina Lithium Pty Ltd (**Carolina Lithium**) to acquire all the shares (**Sale Shares**) in Carolina Lithium which is entitled to become the beneficial owner of Arlupo SA (**Arlupo**), a company registered in Argentina.

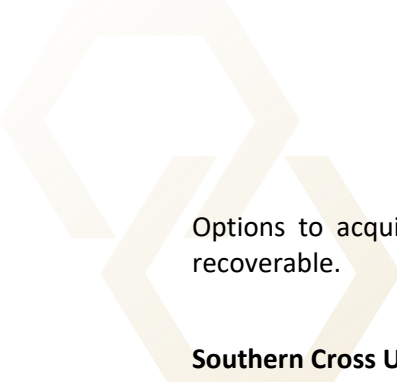
In addition to holding the rights to acquire the Rita, Rita I and La Sofia tenements, Arlupo now holds the rights to the acquisition of Luz Maria, under a letter of offer (**Offer Agreement**) with the Luz Maria Owners.

Under the Offer Agreement, the following consideration will be payable by the Company to acquire the Luz Maria tenement:

1. Payment of a non-refundable option fee of US\$320,000 to the Luz Maria Owners to enable the Company (via Carolina Lithium and Arlupo) to conduct due diligence on Luz Maria for a period of 3 months from the date of execution of the Option.
2. US\$2,180,000 payable to the Luz Maria Owners upon exercise of the Option and signing a definitive acquisition agreement within 3 months of the option being exercised.
3. US\$10,000,000 payable to the Luz Maria Owners in two separate payments detailed below:
 - a. US\$3,000,000 payable 6 months after signing the definitive agreement; and
 - b. US\$7,000,000 payable 12 months after signing the definitive agreement.

Further, XTC will issue shares to the value of US\$10,000,000 to the Luz Maria Owner 180 days after signing the definitive agreement and subject to shareholder approval.

Following the exercise of the option to acquire all the issued capital in Carolina Lithium, the Company will hold rights to acquire all the shares in Arlupo SA, the holder of the rights to the four tenements comprising the Carachi Pampa Lithium Project. In the event the Company does not exercise any of the



Options to acquire the Luz Maria and/or Sofia and Rita tenements, the option fees will not be recoverable.

Southern Cross Update

The Company is investigating the potential for lithium bearing pegmatites at its Southern Cross Project through in-depth data evaluation and re-analysis of previous drilling assays that have intercepted pegmatite material. Regional source granites on either side of the greenstone terrane produce a favourable setting for pegmatite emplacement.

Additionally, Xantippe is in the process of locating drill assay pulps from more recent drilling which intercepted pegmatites and only underwent gold analysis by fire assay. This drilling includes Xantippe, Treasury South, and Ganymedes Extended Prospects. Multi-element analysis will be undertaken on the pulp material to determine potential for lithium mineralisation and follow up target generation and field work will be planned off this.

Capital Raising

The Company is pleased to advise it has received commitments to raise \$15.22 million (**Placement**) by way of issuing a total of 1,522,000,000 Shares (**Placement Shares**) at an issue price of \$0.01 per share together with a 1-for 2 attaching option (**Placement Options**). The placement was strongly supported by both domestic and international institutions.

753,699,600 Placement Shares will be issued pursuant to ASX Listing Rule 7.1 and 506,300,400 Placement Shares will be issued pursuant to ASX Listing Rule 7.1A. 262,000,000 Placement Shares will be issued subject to shareholder approval at a general meeting to be convened. The Placement Options will also be issued subject to shareholder approval and will be exercisable at \$0.015 expiring two years from the date of issue.

Evolution Capital Pty Ltd (**Evolution Capital**) acted as lead manager to the Placement. Evolution Capital is a leading corporate advisory firm specialising in IPOs, mergers and acquisitions and capital raisings for listed and unlisted companies. Subject to shareholder approval the Company will issue Evolution Capital 30 million options on the same terms as the Placement Options and 10 million ordinary shares.

Funds raised under the Placement will be applied towards the potential exercise of the Company's options to acquire the Carachi Pampa Lithium Project (subject to due diligence), exploratory drilling, potential new acquisitions and working capital.

The placement is under-pinned by a cornerstone AU\$6.5m investment from US-based investors. Further, subject to shareholder approval, Managing Director Richard Henning will subscribe for \$120,000 in the second tranche.

This announcement has been approved for release by the Board of Xantippe Resources.

For more information, please contact:

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Xantippe Resources Limited



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Competent Persons Statement

The Exploration Results reported in this announcement are based on, and fairly represent, information and supporting documentation prepared by Mr Greg Cunnold. Mr Cunnold who is a Member of the Australasian Institute of Mining and Metallurgy and is a Director of Xantippe Resources Ltd. Mr Cunnold has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Cunnold consents to the form and context in which the Exploration Results are presented in this announcement.

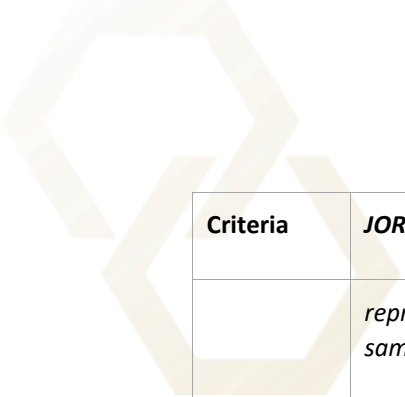
JORC Code, 2012 Edition: Table 1

Section 1: Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC – Code of Explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (e.g. 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.</i>	<p><u>VES Survey:</u></p> <ul style="list-style-type: none"> - Consulting geophysical company Conhidro SRL carried out a Vertical Electrical Sounding (VES) Survey over the large alluvial fans located on the north and northeast of the Carachi Pampa salar within the Luz Maria properties. - 10 VES stations were surveyed. <p><u>Drilling</u></p> <ul style="list-style-type: none"> - Drill samples were taken from both stabilised brine at surface from artisanal flow and downhole using a bailer (Snap Sampler™) system.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	<p><u>VES Survey</u></p> <ul style="list-style-type: none"> - Calibration of the VES equipment unknown. <p><u>Drilling</u></p> <ul style="list-style-type: none"> - Drilling: Onsite quality assurance and quality control (QA/QC) was supervised by Mr. William Feyerabend, a Certified Professional Geologist and a Qualified Person under NI 43-101.
	<i>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 (e.g. ‘reverse circulation</i>	Industry standard drilling and collection of brine samples. The samples were assayed by the Alex Stewart Laboratory in Jujuy, Argentina. Alex Stewart employed Inductively Coupled Plasma Optical Emission Spectrometry (“ICP-OES”) as the analytical technique for the elements of interest. Alex Stewart maintains a strict internal QA/QC program employing multiple standards, re-analyses by AA and calculation of ionic balances.

Criteria	JORC – Code of Explanation	Commentary
	<i>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 (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	
Drilling techniques	<i>Drill type (e.g. 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).</i>	Holes were drilled using a diamond drill rig. Coring from surface and converting to rotary drilling (tricone) at 210m due to drilling difficulties. Standard tube core with no orientation.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Unknown.
	<i>Measures taken to maximise sample recovery and ensure</i>	Unknown.




Criteria	JORC – Code of Explanation	Commentary
	<i>representative nature of the samples.</i>	
	<i>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.</i>	Unknown.
Logging	<i>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.</i>	Drill cuttings were geologically logged in a manner appropriate to exploration drilling. More detailed logging was not undertaken, and Mineral Resources are not being estimated.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	Logging of RC drill cuttings was qualitative.
	<i>The total length and percentage of the relevant intersections logged.</i>	Drill holes were logged in their entirety.

Criteria	JORC – Code of Explanation	Commentary
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	No sampling of the core samples. Only the entrained brines.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	Samples were taken from stabilised brine to ensure a representative sample.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Sample preparation is appropriate to the sample type and is of a standard considered acceptable by the Competent Person
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Onsite quality assurance and quality control (QA/QC) was supervised by Mr. William Feyerabend, a Certified Professional Geologist and a Qualified Person under NI 43-101.
	<i>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.</i>	Unknown.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	A total of 1,000 litres of brine was collected, and the Competent Person considers the sample size to be appropriate for the material being sampled.

Criteria	JORC – Code of Explanation	Commentary
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	The Competent Person considers that industry standard assay techniques have been used that are appropriate for lithium brine exploration.
	<i>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 derivations, etc.</i>	<p>VES Survey tool calibration details unknown. The VES results permit the differentiation of four main geo-electric zones:</p> <p>Unit 1: an upper zone showing relatively high resistivity values between 95 and 700 ohm/m.</p> <p>Unit 2: A semi-resistive layer showing resistivity values between 50 to 180 ohm/m.</p> <p>Unit 3: A semi-conductive zone that shows resistivity between 27 to 33 ohm/m.</p> <p>Unit 4: a highly conductive zone that appears to occur as an extensive layer with resistivity values ranging from 0.1 to 1.4 ohm/m.</p>
	<i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	NRG inserted one blank sample and one blind duplicate sample in the sample batch, and the QA/QC results corroborate the analyses reported in the press release.

Criteria	JORC – Code of Explanation	Commentary
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Exploration drilling results are being reported here and no known verification has been undertaken and the Competent Person does not consider it to be necessary at this stage.
	<i>The use of twinned holes.</i>	No holes have been twinned and the Competent Person does not consider it to be necessary at this stage
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Unknown.
	<i>Discuss any adjustment to assay data.</i>	No adjustments have been made to the data.
Location of data points	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations</i>	<u>VES Survey</u> VES station locations:

Criteria	JORC – Code of Explanation	Commentary
	used in Mineral Resource estimation.	 <p>The map displays a coastal region with a red-outlined polygon indicating a specific area of interest. Within this polygon, ten sampling points are marked with yellow triangles and labeled SEV_1 through SEV_10. The points are distributed across the polygon, with SEV_1, SEV_2, SEV_3, SEV_4, SEV_5, SEV_6, SEV_7, SEV_8, SEV_9, and SEV_10. The map also shows a scale bar from 0 to 5 Kilometres and coordinate markers for 7680.000 mN, 3350.000 mE, and 3650.000 mE. The background is a satellite image showing land, water, and vegetation.</p>

Criteria	JORC – Code of Explanation	Commentary
		<u>Drilling:</u> Hole collars were located with a hand-held GPS with attendant degree of accuracy. Collars have not been surveyed and have been identified by the Company from publicly available information. This drilling is not being used to inform a Mineral Resource estimation and the Competent Persons considers that the accuracy is sufficient to inform preliminary exploration.
	<i>Specification of the grid system used.</i>	Unverified. Assuming POSGAR 98.
	<i>Quality and adequacy of topographic control.</i>	The drill holes being reported have not been surveyed.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	The Competent Person considers that the drill holes have been located appropriately for preliminary exploration drilling of targets identified from a vertical electrical sounding survey.
	<i>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.</i>	No Mineral Resource has been estimated
	<i>Whether sample compositing has been applied.</i>	No compositing.

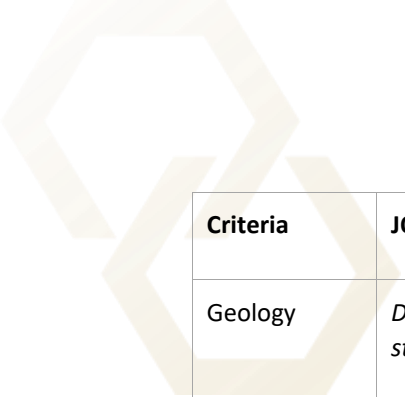
Criteria	JORC – Code of Explanation	Commentary
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	Not applicable. The sampling has no orientation.
	<i>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.</i>	Not applicable. Vertical holes were drilled into a horizontal structure (reservoir) and considered to have no bias.
Sample security	<i>The measures taken to ensure sample security.</i>	Samples were collected on site under the supervision of the logging geologist. The Competent Person considers sample security to be adequate.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	No audit has been undertaken of the preliminary results being reported.

(Criteria in this section apply to all succeeding sections)

Section 2: Reporting of Exploration Results

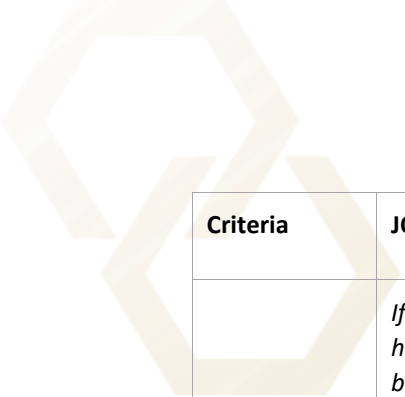
(Criteria listed in the preceding section also apply to this section)

Criteria	JORC – Code of Explanation	Commentary				
Tenement and land tenure status	<i>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.</i>	<p>The Company has an option to acquire the tenement on terms as detailed in this release.</p> <p>Luz Maria has title on 1 mining property owned by Crydon SA, a company unrelated to Xantippe controlled by Senor and Senora Santos, as follows:</p> <table><tr><th>Mine</th><th>Administrative File</th></tr><tr><td>Luz Maria</td><td>1209-C-2006</td></tr></table>	Mine	Administrative File	Luz Maria	1209-C-2006
	Mine	Administrative File				
Luz Maria	1209-C-2006					
	<i>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.</i>	<p>The Company has an option to acquire the leases. There will be a 3 month period of due diligence, however the Company is unaware at this stage of any known impediments.</p>				
Exploration done by other parties	<i>Acknowledgement and appraisal of exploration by other parties.</i>	<p>The Company has obtained historical exploration records from public company reporting. Most of the historical work was conducted by NRG Metals Inc.</p> <p>The Competent Person considers this work to have been undertaken in accordance with industry standards current at the time.</p>				



Criteria	JORC – Code of Explanation	Commentary
Geology	<i>Deposit type, geological setting and style of mineralisation.</i>	The mineralisation type is brine hosted. Brines developed in large sedimentary basin.
Drill hole information	<p><i>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:</i></p> <ul style="list-style-type: none"> • <i>easting and northing of the drill hole collar</i> • <i>elevation or RL (Reduce Level) – elevation above sea level in metres) of the drill hole collar</i> • <i>dip and azimuth of the hole</i> • <i>down hole length and interception depth</i> • <i>hole length</i> 	The hole collars have not been formally surveyed and the Competent Person considers the preliminary locations to be appropriate for preliminary Exploration Results.
	<i>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.</i>	This data is included where possible but the Competent Person advises that it is preliminary and that drill hole collar locations have not yet been made available. The Competent Person does not consider that this is material to the reporting of preliminary Exploration Results.

Criteria	JORC – Code of Explanation	Commentary
Data aggregation methods	<i>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.</i>	Assay data is as reported.
	<i>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.</i>	Not applicable. No aggregation incorporated, No widths or lengths reported.
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No metal equivalent values have been reported
Relationship between mineralisation widths and intercept lengths	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	Not applicable as drill holes are of a preliminary nature.
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	Drilling was vertical. The brine horizons are horizontal.



Criteria	JORC – Code of Explanation	Commentary
	<i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i>	Not applicable. No down hole lengths reported.
Diagrams	<i>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.</i>	This will be reported once drilling has identified a significant discovery.
Balanced reporting	<i>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.</i>	The results being reported are preliminary and summarised. The Competent Person considers that appropriate cautions have been included in this report that alert the reader to the nature of the results.

Criteria	JORC – Code of Explanation	Commentary
Other substantive exploration data	<i>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.</i>	No other substantive data available.
Further work	<i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	The Company will plan drilling to delineate the extents of the reservoir if the option is exercised.
	<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	The Competent Person advises that the results being reported are preliminary and that geological interpretation has not been completed and that such maps and sections are not yet available.