

#### WYEMANDOO PASSIVE SEISMIC SURVEY TARGETS LARGE PEGMATITE FEEDER

### **Highlights**

- Completion of Fleet Space passive seismic surveys interpretation at Wyemandoo.
- Seismic data successfully mapping host rocks and underlying key structures.
- Survey towards south-west region identified a wide deep feature as possible source to numerous outcropping pegmatites.
- Additional 85 rock chip samples collected along pegmatite dykes, with mineralised batches to be sent for wet chemistry analysis.

Aldoro Resources Ltd ("Aldoro", "The Company") (ASX: ARN) is pleased to announce that preliminary interpretation of passive seismic surveys (ANT) conducted by Fleet Space Technologies has been completed at the Company's 100% owned Wyemandoo Project. Fleet Space is the leader in satellite-enabled passive seismic surveys, delivering 3D geological interpreted models.

The surveys covered two specific regions (**Dome 1** & **Dome 2**), with previously drilled pegmatites and mapped samples that host lithium and rubidium mineralisation. The objectives of the surveys were to locate pegmatites with reasonable thickness and identify the main feeders to the dykes, sills and their controlling structures.

At Dome 1 (north-east region), previous rock chip sampling revealed grades of up to 2.6% Li<sub>2</sub>O and 1.8% Rb with Dome 2 (south-east region) producing grades of up to 2.3% Li<sub>2</sub>O and 1.2% Rb. Refer to Figure 1 for the location of the surveys & anomalous historic assays. (ARN:ASX Announcement lodged 30 October 2023).

Each completed survey spanned approximately 2.4km<sup>2</sup> with 64 geodes, initially at 250m spacing then focused in along the main zone at 125m spacing covering 0.78km<sup>2</sup>. The 250m spacing allowed a depth constraint to 500m, while the 125m spacing provided a shallower 340m depth penetration and allowed a higher resolution towards near surface.

The survey data interpretation determined that:

- The seismic data successfully provided mapping of host rocks and controlling structures.
- Ground conditions produced high velocity waves, with inversion techniques unable to resolve shallow pegmatites, being less than 20m in thickness, due to low contrast signals.
- Both seismic and magnetic features within a section of pegmatite outcrop at the south-west region suggest a wider and deeper feature of interest where feeders over





20m thick may exist. Sampling and mapping surveys have not been carried out in this area and further investigation is warranted.

- Velocity models identified structural zones interpreted as being related to deep regional faults.
- Faults crosscutting the East-North-East (ENE) strike of the outcropping pegmatites are interpreted as possible conduits for the fluids emanating from the parental granites.
- The North-East (NE) survey at 150m depth revealed a North-South low velocity zone
  cutting through the ENE-NE trending geological fabric and has been interpreted as a
  possible fault.
- The South-West (SW) survey shows a North-North-East (NNE) structure at 200m depth, which is also interpreted as a fault.
- The ENE fabric modelled in the seismic data is supported in the aeromagnetics and may be interpreted as NW dipping sheets/layers of leucogabbro with intervening folded volcaniclastic units.

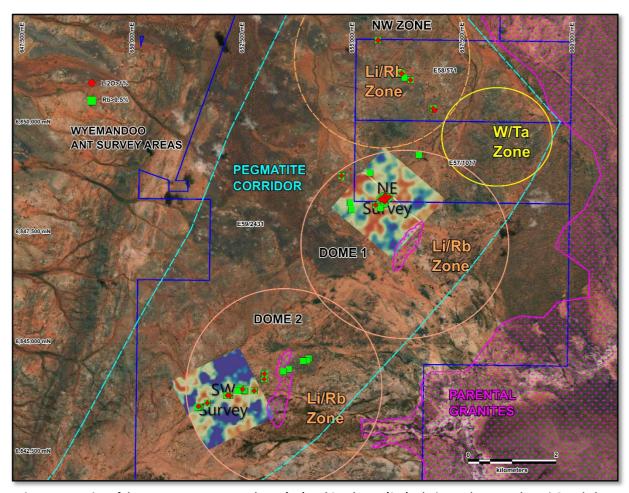
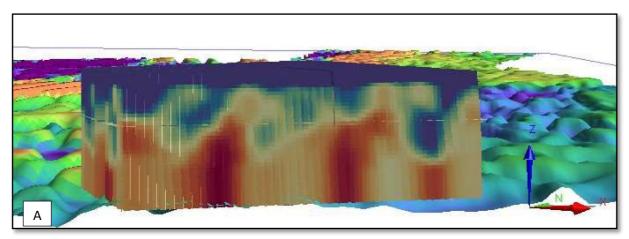


Figure 1: Location of the ANT survey areas Northeast (NE) and Southwest (SW) relative to the anomalous Li₂O and Rb rock chip samples. The survey colours show the high velocity zones in red and lower velocity in blue.







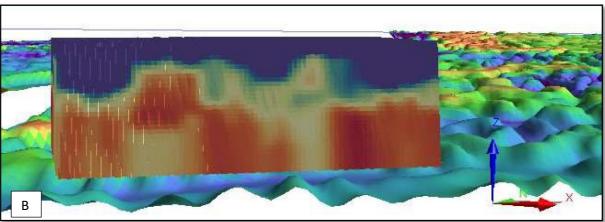


Figure 2: (A) NE area model view looking to the northeast display pipe like structures (higher velocity zones – possibly leucogabbros) below the 220m depth with potential dips to the NW of possible volcaniclastic units.

(B) SW area model view to the NE again with a velocity change around 220m depth without a pronounced dip and more of an offset velocity change.

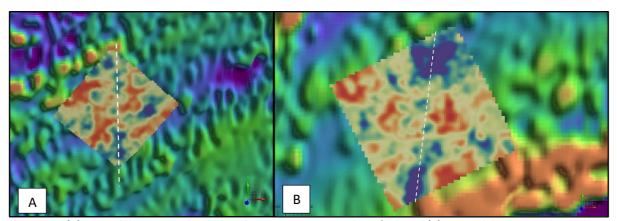


Figure 3: (A) NE model at ~150m depth slice showing an interpreted N-S fault and (B) SW model at ~200m depth slice showing an interpreted NNE fault. Background in the regional magnetic field with NE striking fabric.





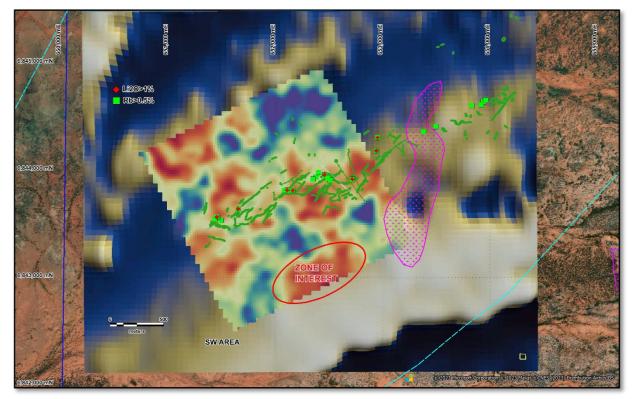


Figure 4: SW area with the seismic model with NE trend have some correlation between the high velocity zones (red) and the mapped pegmatite dykes (green) and the regional magnetics (background image). The red circle marks the area of interest where further ground investigations are warranted.

### **Forward Work Programme**

The planned forward work programme involves ground follow-up investigations of the "Zone of Interest" demonstrated in Figure 4 via passive seismic survey and potential drilling to determine larger pegmatite feeders.

## **Rock Chip Sampling**

An additional 85 rock chip samples were collected targeting dykes that were not previously explored. The distribution of the newly acquired samples is shown in Figure 5. Samples are currently being screened, with mineralised batches to be sent for wet chemistry.





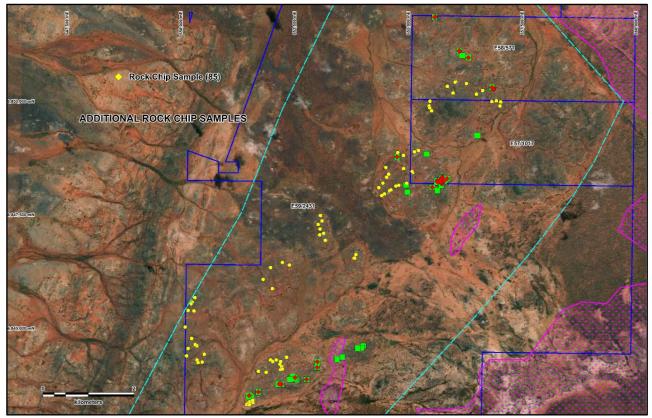


Figure 5: Location of the 85 pegmatite dyke samples collected during the geode data collecting time.

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#### **About Aldoro Resources**

Aldoro Resources Ltd is an ASX-listed (*ASX: ARN*) mineral exploration and development company. Aldoro has a portfolio of critical minerals including rare earth, lithium, rubidium and base metal projects. The Company's projects include the Kameelburg REE Project in Namibia, the Wyemandoo lithium-rubidium-tungsten project, the Niobe lithium-rubidium-tantalum Project and the Nandee Igneous Complex in Western Australia.

#### Disclaimer

Some of the statements appearing in this announcement may be in the nature of forward-looking statements. You should be aware that such statements are only predictions and are subject to inherent risks and uncertainties. Those risks and uncertainties include factors and risks specific to the industries in which Aldoro operates and proposes to operate as well as general economic conditions, prevailing exchange rates and interest rates and conditions in the financial markets, among other things. Actual events or results may differ materially from the events or results expressed or implied in any forward-looking statement. No forward-looking statement is a guarantee or representation as to future performance or any other future matters, which will be influenced by a number of factors and subject to various uncertainties and contingencies, many of which will be outside Aldoro's control.





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#### **Competent Person Statement**

The information in this announcement that relates to Exploration Results and other technical information complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). It has been compiled and assessed under the supervision of Mark Mitchell, technical director for Aldoro Resources Ltd. Mr Mitchell is a Member of the Australasian Institute of Geoscientists and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Mr Mitchell consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

This announcement was approved for release to ASX by the Board of Aldoro Resources





## JORC Code, 2012 Edition – Table 1

# **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<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 downhole 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>Rock samples were collected from outcrop/subcrop of the high albedo features identified from satellite imagery. At each site approximately 500-1000g, two fist size representative samples of the pegmatite were collected. Each sample was bagged, in medium sized calico, tagged internally and labelled externally.</li> <li>Sample Duplicates. An attempt to collect duplicate samples for quality control was undertaken by collecting a second rock and regolith sample at regular intervals.</li> <li>Data recording. At each site pertinent geological and location information was recorded on datasheets, which were later entered into digital spread sheets. Each site was photographed covering each sample site and a general view of the terrain.</li> <li>The samples will be pulverised and a subsampled with a 30g charge of sample fused by sodium peroxide with an ICP-MS finish.</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>	No drilling reported.
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>	No drilling reported
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 studies.</li> </ul>	No drilling reported.





Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul> <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> <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 duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>No drilling reported.</li> <li>For the rock chip sampling, the techniques applied are appropriate for initial investigations. They are not intended to be used is any resource calculations.</li> <li>The quality control procedures for the rock sampling are considered good in respect to the use of duplicates and standards which were used to measure the repeatability and consistency of the analytical results.</li> <li>While the measure of representativity is somewhat biased with small samples based on dominate lithology present for the purposes of exploration potential (not resource calculations) the sampling is consider adequate.</li> <li>The 0.5-1kg rock samples are appropriate given the pegmatite mineral grainsize.</li> </ul>
Quality of assay data and laboratory tests	<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>The rock samples were consigned to Intertek's Genalysis Laboratory in Perth for sodium peroxide fusion and ICP-MS finish. These techniques are considered appropriate given the refractory nature of Lithium in conventional total acid leaches.</li> <li>No handheld instrument data is reported.</li> <li>Rock duplicates at regular intervals and CRM's at every 50 samples were conducted and were within acceptable tolerances.</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> </ul>	No drilling reported.





Criteria	JORC Code explanation	Commentary
Location of data points	<ul> <li>Discuss any adjustment to assay data.</li> <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>The datum used was GDA94 zone 50.,</li> <li>Samples were not based on a grid rather taken along regular intervals along the dyes and sills.</li> </ul>
Data spacing and distribution	<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> </ul>	<ul> <li>The rock chip sampling was based on the presence of pegmatite and an attempt was made to take samples along the pegmatite based on mineral and textural changes. A hand held pXRF was used to help discriminate samples worthing of analysis based on the correlation between Li and Rb.</li> <li>The surface sampling is adequate for delineating the 2D spread of any mineralisation but makes no interpretation of the vertical extent of mineralisation. The results must not be considered in any context of mineral grade or resource estimation. Therefore, no resource inferences can be made. The drilling data is not sufficient to indicate any continuity of mineralisation at depth.</li> <li>No mineral compositing has been done for the surface samples, but for the drill samples some composition was done based on lithology.</li> </ul>
Orientation of data in relation to geological structure	<ul> <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>The rock sampling makes no consideration of any structures other than the grid extending in country rock.</li> <li>No drilling reported.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>No sampling security adopted is mentioned in the open file reports.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No sampling audit reviews are mentioned in the open file reports





# Section 2 Reporting of Exploration Results

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

Criteria	(Criteria listed in the preceding section also apply to this section also apply to this section also apply to this section.)	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The project consists of four licences all held by Aldoro E57/1017, E58/571 and E58/555</li> <li>No known impediments to exploring on either of the Wyemandoo granted licences.</li> </ul>
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.  done by other	<ul> <li>Geological mapping by Australian Geophysical Pty Ltd in 1969 (Wamex report A141). This shows one lepidolite-bearing pegmatite at Wyemandoo.</li> <li>Geological mapping by I D Martin for Alcoa in 1983 (Wamex report A13164). This shows dozens of pegmatite dykes at Wyemandoo.</li> <li>Geological mapping by Pancontinental in 1988. This shows a number of pegmatites and annotates them as Na, K or Li type (see Wamex report 24289).</li> <li>A small number of geochemical samples, including stream sediments, rocks and possibly soils, have been collected within the current licence area but were not analysed for any elements relevant to our current work.</li> <li>As far as we are aware, no exploration drilling on pegmatites has ever been carried out within the current licence area.</li> </ul>
		<ul> <li>Recent exploration by Meridian120 focused on mainly tungsten but also lithium and includes</li> <li>Detailed (1:1000 scale) geological mapping of three areas within the tungsten zone.</li> <li>Reconnaissance mapping (10,000 scale) west of the known tungsten zone</li> <li>Broad scale mapping of pegmatites by GPS tracing</li> <li>UV lamp prospecting</li> </ul>





Criteria JORC Code explanation	Commentary
	<ul> <li>Epidote vein prospecting</li> <li>Stream sediment sampling</li> <li>Rock sampling of epidote and epidote-scheelite rocks</li> <li>Soil sampling (loaming) with panning of heavy mineral concentrates and scheelite grain counting under UV light</li> <li>GPS surveying of creeks and pegmatite dykes</li> </ul>
Deposit type, geological setting and style of mineralisation.	<ul> <li>The licence areas are underlain by gabbroic rocks of the Windimurra layered mafic intrusion. The mafic rocks are separated from the main Windimurra mass by a major fault zone and a silver of felsic and sedimentary schists. The layering trend at Wyemandoo is very different from that of the main Windimurra mass. It generally strikes east-north-easterly, and dips to the north.</li> <li>There are numerous pegmatite dykes at Wyemandoo. Some contain lithium bearing mica. Composite rock samples from the pegmatites have given assays up to 2.6% lithium oxide, 276 ppm tantalum, and 3296 ppm tungsten (0.42% WO<sub>3</sub>)</li> <li>The nearby granitic pluton, immediately east of the licence area, is considered the parental source of the pegmatites this granite is assigned as part of the Wogala Suite. It is described as a highly fractionated S type metamorphosed monzogranite containing muscovite and biotite and local accessory fluorite.</li> <li>However, in a geochronology report (Wingate 2015) the same granite is said to be part of the Tuckanarra Suite and a sample of it from near the north-eastern corner of the current licence area is described as biotite monzogranite with quartz, K-feldspar, plagioclase, biotite and muscovite plus accessory minerals. Its magmatic crystallisation age was determined by the zircon uranium-lead method as 2,678 million years (plus or minus 8 million years)</li> <li>Topaz, fluorite, beryl, lepidolite and trace tantalite have been</li> </ul>





Criteria	JORC Code explanation	Commentary
		<ul> <li>(suggesting strong fractionation of a granite/pegmatite magma capable of depositing rare metals)</li> <li>Meridian have found an extensive zone of hydrothermal epidotegarnet-quartz-scheelite veins in the licence area. The veins are high-grade with rock assays up to 16.5% W0<sub>3</sub> and occur along a linear structure hundreds of metres long.</li> </ul>
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>No drilling reported.</li> <li>No pertinent information has been excluded in this release.</li> </ul>
Data aggregation methods	<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 aggregation 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>	No sample results reported
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> </ul>	<ul> <li>No relationships between mineralisation widths and intercepts have been made.</li> <li>No comment on the geometry of the mineralisation has been made.</li> </ul>





Criteria	JORC Code explanation	Commentary
intercept lengths	<ul> <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 length, true width not known').</li> </ul>	<ul> <li>Conversion of down hole to True width has not been done as no down hole orientation data is available.</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>Appropriate location and geology maps are presented in the body of the announcement</li> </ul>
Balanced reporting	<ul> <li>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.</li> </ul>	<ul> <li>All rock assays have been previously provided, see ASX:ARN 12 August 2022, , 9 August 2022, 23 June 2022, 13 May 2022, 4 May 2022, 28 February 2022, 18 November 2021, 10 November 2021, and 26 October 2021.</li> </ul>
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.	<ul> <li>Passive seismic survey refers to ambient noise which is the continuous vibrations that are present in the earth at different frequencies. Geodes are geophones, acoustic detectors, which are laid out in a grid to record these vibrations and record subsurface waves at differing S-wave velocities detected.</li> <li>The ANT survey was completed under the supervision of Fleet Space Technologies. Approximately 64 Geodes were deployed at approximately 250m/125m spacing for approximately 3 to 6 days across four grids.</li> <li>Finalised Interpretation of the results was conducted by Fleet Space Technologies.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Short term future work plans involve geological mapping, infill sampling, modelling for drill collar locations and drilling.</li> <li>Diagrams of future work are provided in this release.</li> </ul>

