

16 December 2013

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## NEARBY DISCOVERY HIGHLIGHTS NI/CU POTENTIAL OF EM TARGETS IN FRASER RANGE TENEMENT

- Classic Minerals Ltd's new Mammoth nickel-copper mineralised horizon located close to and SW along strike of ENU's Lake Harris project
- This discovery has prompted a re-interpretation of several airborne EM targets at Lake Harris
- Previously identified EM conductors in basement now interpreted as possible nickel-copper sulphide bodies

Enterprise Uranium Limited ("Enterprise" or "the Company", ASX: ENU) is pleased to note the recent discovery of nickel/copper/cobalt mineralisation on the adjacent tenement to Enterprise's Lake Harris Project in the Fraser Range. Subsequent re-interpretation of several basement airborne EM targets at the Lake Harris Project suggests potential for nickel/copper sulphide mineralisation.

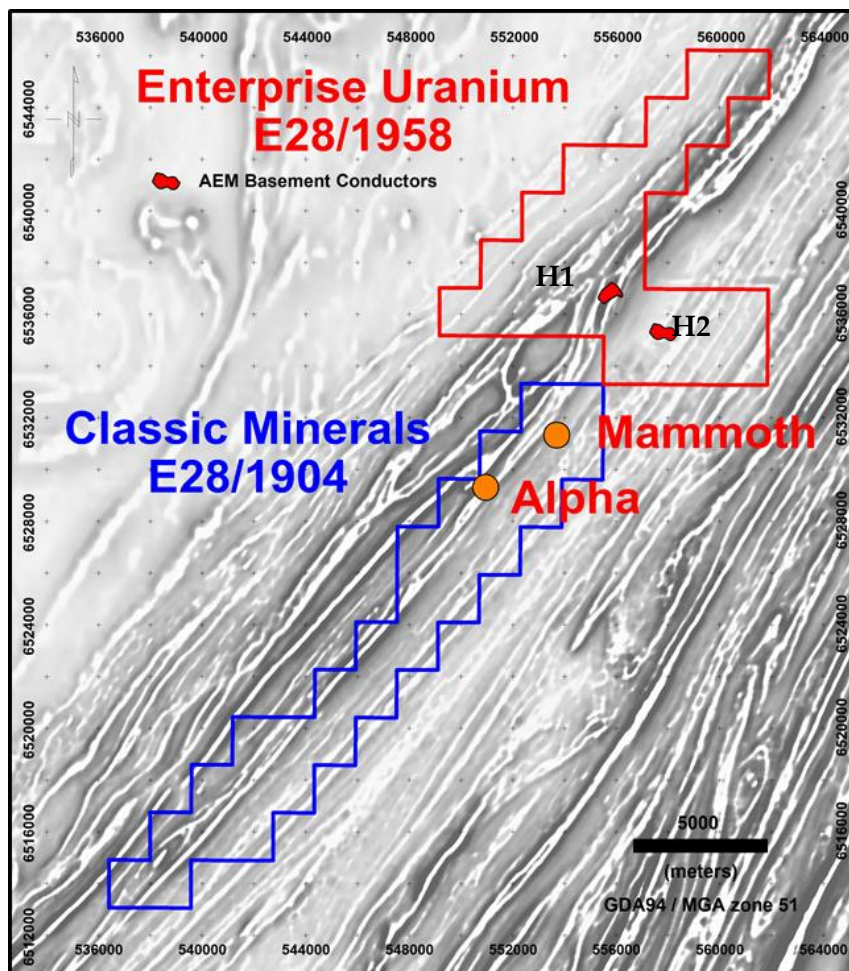


Figure 1. Magnetic Image with Location of ENU Basement Conductors H1 & H2

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This new interpretation is based on ENU's detailed magnetic survey of EL28/1958 which identified magnetic basement lithologies and structure, ENU's subsequent airborne EM (AEM) survey which was designed to map palaeochannels but which also located deeper basement conductors, and thirdly, the drilling evidence now produced by Classic Minerals Ltd. (ASX: CLZ 12 December 2013)

### Background

The Lake Harris Project (E28/1958, 76.3km<sup>2</sup>) covers a substantial portion of the iron rich western units of the Proterozoic Albany-Fraser Orogen. The licence is prospective for shallow palaeochannel hosted uranium deposits and also for bedrock nickel-copper sulphide deposits.

The Project is located 25km south of Zanthus on the Trans-Australian rail line and 200km east of Kalgoorlie. The Lake Harris Project is a single exploration licence granted on 8 March 2010, held 100% in the name of Enterprise Uranium Ltd and is subject to a 1.5% Gross Royalty to the original vendors.

Enterprise has completed an extensive literature review of previous exploration reports, compiled historic surface geochemical and shallow drilling data over the project area and completed a detailed aeromagnetic and radiometric survey in March 2011. An AEM survey on 400m line spacing was flown over the Project in July 2012 which identified palaeochannels with uranium potential, and basement, bedrock conductors. (Refer ENU Prospectus, October 2012, Enterprise Metals Ltd ASX release 3 Sept 2012, and Figure 2 below)

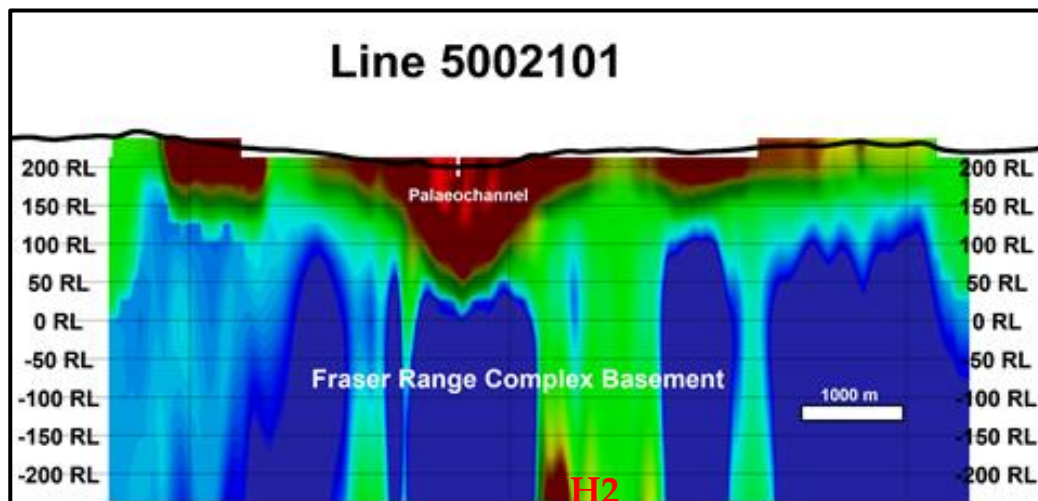


Figure 2. Lake Harris Project – Sample CDI (from Prospectus) Showing Basement Conductor H2

### Tenure

The Project is situated on Vacant Crown Land (VCL) but most of the tenement is also within the Lake Harris Proposed Nature Reserve (PNR/91). The Proposed Nature Reserve is classified as a 'C' Class nature reserve, vested in the National Parks and Nature Conservation Authority (NPNCA) for the purpose of conservation of flora and fauna. The Project is covered by the Ngadju Native Title Claim Group. A Native Title Agreement was signed in September 2009 and is administered by the Goldfields Land & Sea Council.

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During 2013, the Company prepared plans for drill testing various uranium targets and completed Heritage Surveys over the uranium targets. Flora and fauna risk assessment surveys were also completed to assist in the preparation of a Conservation Management Plan, to be submitted to, and approved by the Department of Parks & Wildlife (DPaW) prior to the commencement of any drilling.

However, given the significance of the Classic Minerals nickel-copper drilling results, the Company is currently reviewing its exploration strategy for this particular area and considering its options for testing of the deeper AEM base metal targets.



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#### **Competent Persons Statement**

*The information in this report that relates to Exploration Results is based on information compiled by Mr Dermot Ryan, who is employed as the Executive Director of the Company through geological consultancy Xserv Pty Ltd. Mr Ryan is a Fellow of the Australasian Institute of Mining & Metallurgy, a Fellow of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities 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 Ryan consents to the inclusion in this report of the matters based on information in the form and context in which it appears.*

*The information in this report that relates to Geophysical Exploration Results is based on information compiled by Mr Bill Robertson, who is employed as a Consultant to the Company through geophysical consultancy Value Adding Resources Pty Ltd. Mr Robertson is a Member of the Australian Institute of Geoscientists and the Australian Society of Exploration Geophysicists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities 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 Robertson consents to the inclusion in this report of the matters based on information in the form and context in which it appears.*

# JORC Code, 2012 Edition – Table 1 report

13 December 2013 – E28/1958 Lake Harris Project

## Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"><li>• <i>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.</i></li><li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li><li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li><li>• <i>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.</i></li></ul>	<ul style="list-style-type: none"><li>• Not applicable, not referred to</li></ul>
Drilling techniques	<ul style="list-style-type: none"><li>• <i>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).</i></li></ul>	<ul style="list-style-type: none"><li>• Not applicable, not referred to</li></ul>
Drill sample recovery	<ul style="list-style-type: none"><li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li><li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li><li>• <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></li></ul>	<ul style="list-style-type: none"><li>• Not applicable, not referred to</li></ul>
Logging	<ul style="list-style-type: none"><li>• <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate</i></li></ul>	<ul style="list-style-type: none"><li>• Not applicable, not referred to</li></ul>

Criteria	JORC Code explanation	Commentary
	<p><i>Mineral Resource estimation, mining studies and metallurgical studies.</i></p> <ul style="list-style-type: none"> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <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></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable, not referred to</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <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 derivation, etc.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable, not referred to</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable, not referred to</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable, not referred to</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <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></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable, not referred to</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable, not referred to</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable, not referred to</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable, not referred to</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• The Lake Harris Project is a single exploration licence granted on 8 March 2010, now held 100% in the name of Enterprise Uranium Ltd and is subject to a 1.5% Gross Royalty to the original vendors. The tenement is in good standing with the Department of Mines and Petroleum.</li> <li>• Exploration Licence 28/1958 covers an area of 76.3km<sup>2</sup> and covers a substantial portion of the Harris Lake salt lake system.</li> <li>• The Project is located 25km south of Zanthus on the Trans-Australian rail line and 200km east of Kalgoorlie.</li> <li>• The Project is situated on Vacant Crown Land, but most of the tenement is contained within the Proposed Lake Harris Nature Reserve, a 'C' Class nature reserve, vested in the NPNCA for the</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>purpose of conservation of flora and fauna.</li> <li>The Project is covered by the Ngadju Native Title Claim Group. A Native Title Agreement was signed in September 2009 and is administered by the Goldfields Land Sea &amp; Council.</li> </ul>
<p><i>Exploration done by other parties</i></p>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<p>A summary of previous exploration activities is provided below.</p> <ul style="list-style-type: none"> <li>Uranerz undertook extensive exploration for uranium in the region focussing on the drainage systems associated with Harris Lake and Lake Rivers during 1974-1978. Exploration activities completed included; airborne radiometric and spectrometer surveys, ground spectrometer surveys, geological mapping, water sampling, "drop hammer" seismic lines, auger and RC drilling. The drilling identified several palaeochannels and a maximum value of 138ppm U3O8 was returned in hole ZR6 from interval 22-23m, located 7km to the north of E28/1958.</li> <li>CRA Exploration Pty Ltd (CRA) explored a large area, including the Harris Lake region, for brown coal (lignite) in 1980-1982. Their work concentrated on the Upper Eocene Werillup Formation. CRA drilled 2 RC holes, ZRH12 and ZRH14, on Enterprise's E28/1958. CRA's holes were located away from the airborne radiometric anomalies targeted by URL and CRA did not assay for uranium or undertake any downhole radiometric testing. They found no sufficient thickness and quality to warrant further work.</li> <li>Enterprise Metals Ltd completed an extensive literature review of previous exploration reports, compiled historic geochemical and drilling data over the project area and immediate surrounds. A detailed aeromagnetic and radiometric survey covering the entire project area of 76.3km<sup>2</sup> was flown in March 2011.</li> <li>The magnetic shows the general geological strike (NE/SW). The area is structurally complex with numerous faults trending E-W or NW-SW. The magnetic signature supports Enterprise interpretation that this tenement overlies contact between the south eastern margin of the Archaean Yilgarn Craton and the Proterozoic Albany-Fraser Orogen.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>The radiometric data acquired shows the anomalous uranium response of the Harris Lake drainage system.</li> <li>Enterprise Metals Ltd completed an airborne electromagnetic (AEM) survey over the Project in July 2012. This survey highlighted palaeochannels and several deeper basement conductors.</li> </ul>
Geology	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>Only known mineralization is surficial calcrete hosted uranium mineralization.</li> </ul>
Drill hole Information	<ul style="list-style-type: none"> <li><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> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length.</i></li> </ul> </li> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>All known drilling results are from shallow uranium focused drilling programs and are therefore not material to the deeper basement hosted AEM targets.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li><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></li> <li><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></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable, not referred to</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>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</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable, not referred to</li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>width not known').</i>	
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable, not referred to</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable, not referred to</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Geophysical survey results reported in ENU Prospectus dated 19 October 2012 and Enterprise Metals Ltd ASX release 3 Sept 2012.</li> <li>• Aeroquest Airborne detailed airborne magnetic-radiometric survey over the southeastern half of Harris Lake and the surrounding drainage channels. The survey covered the entire tenement area of E28/1958 at 100m line spacing, with a flying height of 50m for a total of 1,026 line km. <ul style="list-style-type: none"> <li>• Survey specifications are:</li> <li>• Survey: Magnetics &amp; Radiometrics</li> <li>• Aircraft: Cessna 210</li> <li>• Flying Height: 50m</li> <li>• Flight Direction: 0900 – 2700</li> <li>• Line Spacing: 100m</li> <li>• Total line km: 1,026km</li> <li>• Magnetic Sensors: Scintrex or Geometrics caesium vapour magnetometer</li> <li>• 0.001nT resolution, 0.01nT sensitivity</li> <li>• 10Hz (0.1 sec) sampling rate</li> <li>• Spectrometer: Exploranium model GR-820 or RI-500 spectrometer</li> <li>• 2 x 16.8 litre detector packs (33.6lt total volume)</li> <li>• 256 channel = 0-3MeV</li> <li>• 1Hz (1.0 sec) sampling rate</li> <li>• Altimeter: Radar altimeter, 0.3m resolution, 3% accuracy</li> </ul> </li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>• 10Hz (0.1 sec) sampling rate</li> <li>• Barometric pressure sensor Vaisala PTB220</li> <li>• 0.01hPa resolution, 0.15hPa accuracy</li> <li>• 3z (0.3 sec) recording rate</li> <li>• Navigation:Novatel 12 channel differential GPS</li> <li>• The survey has been registered with the DMP:</li> <li>• Survey Registration No.: 70470.</li> <li>• Survey Name: "Fraser Range Area 3".</li>   <li>• Fugro Airborne Surveys detailed airborne EM survey over the entire tenement area of E28/1958.</li> <li>• Survey specifications are:</li> <li>• Survey Company           Fugro Airborne Surveys Pty Ltd</li> <li>• Date Flown                -       21<sup>st</sup> June 2012 – 6<sup>th</sup> July 2012</li> <li>• Client                       -       Enterprise Uranium Pty Ltd</li> <li>• EM System                 -       25 Hz TEMPEST</li> <li>• Navigation                -       Real-time differential GPS</li> <li>• Datum                     -       GDA94</li> <li>• Projection                -       MGA Zone 50S &amp; 51S</li> <li>• Area Name                -       Lake Harris</li> <li>• Nominal Terrain Clearance   120 m</li> <li>• Traverse Line Spacing       400 m</li> <li>• Traverse Line Direction     045 – 225 degrees</li> <li>• Traverse Line Numbers     5000101 – 5003301</li> <li>• Line Kilometres            382 km</li> </ul>
<p><i>Further work</i></p>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Not yet determined</li> </ul>