

7 February 2022

## Lake Surprise Uranium Geochemistry Results

- Uranium Assay results received from ALS Laboratories
- Assay summary:
  - 11 of 28 rock chip samples returned values over 100ppm uranium, 7 of which are greater than 200ppm uranium
  - Maximum uranium value of 356ppm
  - Sample values are greater than 20 times the background values estimated from the spectrometer survey
  - Elevated values of uranium coincident with elevated gamma mapped from the spectrometer survey
- Planning of next phase of exploration underway

**Adavale Resources Limited** (ASX:ADD) (“Adavale” or “the Company”) is pleased to announce geochemistry results from the work program in the final quarter of 2021 on its 100% owned Lake Surprise Uranium Project tenements in South Australia.

### Adavale geologist Patrick Harvey commented:

*“The uranium content in the rock samples is significantly above the spectrometer estimated background reading levels ~2 to 3ppm.*

*The elevated uranium in the rock samples is directly associated with the gamma mapped in the field program which is extremely encouraging.*

*The resulting database now being developed will form the foundation to advance the project with the ultimate objective of confirming the resource potential at Lake Surprise.”*

### 2022 CY EXPLORATION STRATEGY

The gamma survey undertaken by Adavale’s geological team targeted the strongest known radioactive signatures at surface from the historic regional data.

This work along with surface rock chip sampling has shown a presence of highly anomalous uranium accompanying the elevated gamma. The exploration strategy moving forward will aim to:

- Identify targets that are a continuation of the surface anomaly with an appropriate method of exploration, most probably air core drilling.



**ASX: ADD**

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### ISSUED CAPITAL

Shares: 351 million

Unlisted options: 17.5 million

### ABOUT ADAVALE

Adavale Resources is an ASX-listed exploration company targeting projects in the “battery materials” space. The company is currently focussed on its 100% owned Kabanga Jirani Nickel Project and a Farm-In Project adjacent and along strike from the world’s largest undeveloped high grade NiS resource of 58Mt @ 2.62% Ni. Adavale is also progressing exploration on its 100% owned uranium tenements in South Australia

### MORE INFORMATION

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- Identify new targets for a longer-term exploration program on the Lake Surprise Project utilising spectral surveys, ground surveys and ultimately drilling.

With the above exploration objectives and broad goals in mind, Adavale will seek to expedite the exploration activities at the Lake Surprise Project, unlocking the resource potential of the tenement package.

## **SUMMARY OF EXPLORATION ACTIVITIES 2021**

Initial on ground exploration commenced in early November 2021.

The field work undertaken comprised a Gamma survey to better target rock chip sampling of outcrops that demonstrated elevated gamma reading.

The data from this survey was processed in field and used on ground by geological staff to sample areas where gamma was elevated above background levels.

## **Geochemical Results**

The results of the geochemistry show uranium levels greater than 100 ppm in 11 out of 28 samples from zones of elevated gamma. This is an important correlation that will be used for future field activities in 2022.

Summarised below are the key highlights from the assays of the rock chip sampling undertaken which should be read in conjunction with the full table of results for uranium presented in Appendix 1.

### **Key Highlights:**

- Highest uranium content of 356ppm
- 11 of 28 samples with uranium content above 100ppm – of which 7 are above 200ppm
- Elevated gamma correlating with the uranium in samples

To provide context to the results achieved, the average background levels of uranium in geological units in the Lake Surprise Uranium Project is below 4ppm. This value is estimated from the gamma spectrometer data and is in line with the global average for shales and mudstones (between 0.9 and 3.7ppm), and which make up most of the stratigraphic units (rock types) within the tenement package.

The rock chip data collected shows that the uranium content of the silcrete is between 20 and 95 times the background levels and is coincidental with the zones of high gamma.

The location of rock chip samples is shown in Figure 1.

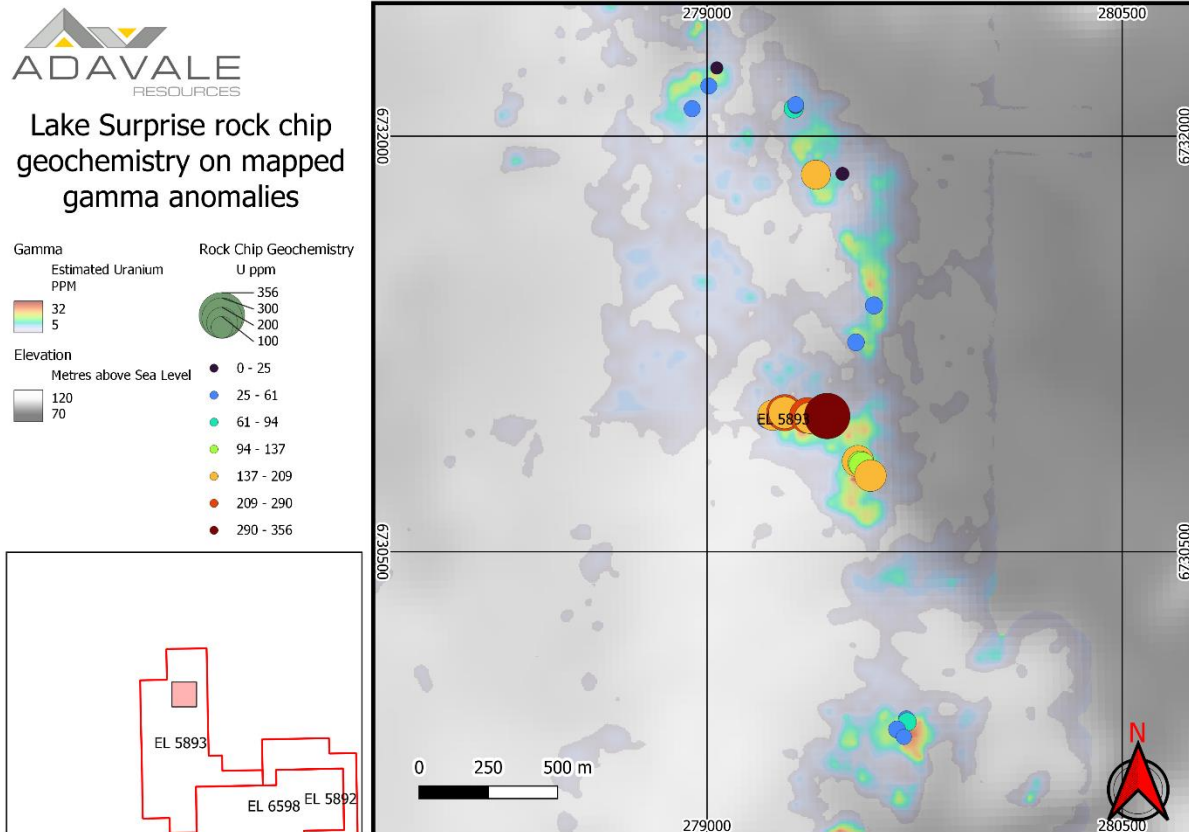


Figure 1: Location of rock chip samples relative to elevated gamma results

The data reveals that the lower levels of the gamma readings have reduced uranium content in the surface samples, whereas the zones of elevated gamma have increased uranium values.

With the key geochemical results now in Adavale is planning the next phase of work on the tenements and the company intends to extend the targets defined by the spectrometer survey and rock chip sampling.

Adavale acknowledges the Dieri as Traditional Custodians of the land on which our current works are located. With respect to Elders past, present and emerging Adavale is committed to conducting its activities with utmost respect to the communities in which it operates.

*This announcement has been authorised for release by the Board of Adavale Resources Limited.*

**For further information please contact [investor@adavaleresources.com](mailto:investor@adavaleresources.com) or visit [www.adavaleresources.com](http://www.adavaleresources.com)**

### About Adavale

Adavale Resources Limited (ASX:ADD) is a nickel sulphide exploration company that holds 100% of the Kabanga Jirani Nickel Project, a portfolio of 7 highly prospective granted licences covering ~ 1,145km<sup>2</sup> along the Karagwe-Ankolean belt in Tanzania. The 4 southernmost licences are proximal to the world class Kabanga Nickel Deposit (58Mt @ 2.62% Ni). Adavale has Farmed-In 2 more highly prospective licences contiguous to our 4 southernmost licences, adding a further 99km<sup>2</sup> to the portfolio. Adavale's licences were selected based on their strong geochemical and geophysical signatures from previous exploration undertaken by BHP Billiton.

Adavale also holds three exploration licences for their sedimentary uranium potential within the northern part of the highly prospective Lake Frome Embayment in South Australia.

## Competent Persons Statement

The information in this release that relates to “exploration results” for the Project is based on information compiled or reviewed by Mr Patrick Harvey MAppSci, Australia. Mr Harvey is a consultant for Adavale Resources Limited and is a member of the AIG. Mr Harvey has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration as well as to the activity that is being undertaking to qualify as a Competent Person under the ASX Listing Rules. Mr Harvey consents to this release in the form and context in which it appears.

## Forward looking statements

This document contains forward looking statements concerning Adavale. Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward-looking statements as a result of a variety of risks, uncertainties and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes. Forward looking statements in this document are based on Adavale's beliefs, opinions and estimates of Adavale as of the dates the forward-looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments. Although management believes that the assumptions made by the Company and the expectations represented by such information are reasonable, there can be no assurance that the forward-looking information will prove to be accurate. Forward-looking information involves known and unknown risks, uncertainties, and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any anticipated future results, performance or achievements expressed or implied by such forward-looking information. Such factors include, among others, the actual market price of nickel, the actual results of future exploration, changes in project parameters as plans continue to be evaluated, as well as those factors disclosed in the Company's publicly filed documents. Readers should not place undue reliance on forward-looking information. The Company does not undertake to update any forward-looking information, except in accordance with applicable securities laws. No representation, warranty or undertaking, express or implied, is given or made by the Company that the occurrence of the events expressed or implied in any forward- looking statements in this presentation will actually occur.

## Appendix 1: table of samples and hand-held spectrometer readings

SampleID	SampleType	Easting	Northing	RockType	CPS	U ppm
10004	In situ rock outcrop	245752	6758341	Silcrete	600	3.6
10005	In situ rock outcrop	279035	6732246	Silcrete	750	41.7
10006	In situ rock outcrop	279006	6732181	Silcrete	442	42.5
10007	In situ rock outcrop	278946	6732099	Silcrete	833	74.5
10008	In situ rock outcrop	279313	6732100	Sandstone	390	25.2
10009	In situ rock outcrop	279320	6732108	Sandstone	700	40.5
10010	In situ rock outcrop	279320	6732114	Sandstone	690	93.9
10011	In situ rock outcrop	279392	6731863	Sandstone	1045	180.5
10012	In situ rock outcrop	279393	6731861	Mudstone	549	10.8
10013	In situ rock outcrop	279489	6731864	Silcrete	600	54.5
10014	In situ rock outcrop	279603	6731389	Silcrete	1000	51.4
10016	In situ rock outcrop	279538	6731256	Sandstone	632	60.9
10017	In situ rock outcrop	279214	6730978	Silcrete	1600	193
10018	In situ rock outcrop	279237	6730993	Silcrete	1550	256
10019	In situ rock outcrop	279280	6731002	Silcrete	1360	209
10020	In situ rock outcrop	279280	6731002	Silcrete	1426	249
10021	In situ rock outcrop	279362	6730992	Sandstone	1530	203
10022	In situ rock outcrop	279372	6730983	Silcrete	2147	356
10023	In situ rock outcrop	279434	6730990	Silcrete	1100	24.8
10024	In situ rock outcrop	279543	6730825	Silcrete	1760	206

10025	In situ rock outcrop	279545	6730827	Silcrete	2834	137
10026	In situ rock outcrop	279554	6730819	Silcrete	3100	136
10027	In situ rock outcrop	279559	6730815	Silcrete	1423	84.3
10028	In situ rock outcrop	279573	6730778	Silcrete	1800	207
10029	In situ rock outcrop	279590	6730775	Silcrete	625	42.4
10030	In situ rock outcrop	279720	6729897	Silcrete	886	64.2
10031	In situ rock outcrop	279723	6729886	Sandstone	1240	51.6
10032	In situ rock outcrop	279686	6729859	Silcrete	810	34.4

*Table 1: List of samples collected and the counts per second recorded in photographs taken during the Lake Surprise works program.*

## JORC Code Edition 2012: Table 1

### Section 1: Sampling Techniques and Data

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. 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>	<p>Gamma survey equipment used is a Pico-Envirotech PGIS 2 litre gamma spectrometer (model GIS-S-128). Calibration was checked using the internal check outlined in the user manual on one of the Thorium Channels with a value between 0.7 and 0.9. The spectrometer provides two values for uranium the first in counts per second and the second is the estimated ppm from the internal equation – this is outlined in the user manual. Information shown is the estimated uranium content from the spectrometer equation.</p> <p>Data from this survey was processed in SAGA GIS v 8.1 using simple kriging under the geo-statistics menu. The system automatically calculates the number of pairs and range of influence in the system and uses an automated slider controlled by the geologist to fit the equation to the data.</p> <p>Hand held spectrometer is the RS Super Spec 125 gamma spectrometer. The unit self-stabilises. The unit was used in survey mode which outputs data as counts per second. No GPS was attached to the unit, however, sampling of rocks at sites where gamma was recorded took place. These are presented in the data table above. The use of this device is for the purpose of establishing the relationship between gamma readings and uranium content.</p>



Criteria	JORC Code Explanation	Commentary
		Rock chip sampling at surface was used across a number of gamma readings on a random basis so that the relationship between uranium content and gamma can be established.
<i>Drilling techniques</i>	<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>	Not applicable
<i>Drill sample recovery</i>	<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>	Not applicable
<i>Logging</i>	<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 Mineral Resource estimation, mining studies and metallurgical studies.</i></li> <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>	Rock chips have had their geological features logged. These are lithology, grainsize, texture and colour. Counts per second was also recorded at each site and images of the site for each sample have been retained.
<i>Sub-sampling techniques and sample preparation</i>	<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>	Not applicable
<i>Quality of assay data and laboratory tests</i>	<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> </ul>	The PGIS takes readings once per second and is linked to GPS. There is an internal calibration check on the device and this was checked daily after data collection in the field.

Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> <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>	<p>The RS Super Spec was allowed to stabilise on the outcrop before sampling occurred.</p> <p>Assay and laboratory procedure used for the samples was recommended by ALS Geochemistry staff. Analysis used was ME-MS61U – 4A multi-element ICP-MS + Uranium. Samples were crushed and prepared in accordance with laboratory standard practices.</p> <p>One blank was used in the process to ensure data integrity (10015). This is not shown in the above table but had significantly lower results than those presented above.</p>
<i>Verification of sampling and assaying</i>	<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>	Not applicable.
<i>Location of data points</i>	<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> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<p>The rock chips were surveyed with a handheld GPS unit with an accuracy of 3m which is considered sufficiently accurate for the purpose of the sampling. All co-ordinates are expressed in GDA2020 SUTM Z54.</p> <p>The PGIS Spectrometer uses WGS84 and outputs co-ordinates into ASCII files in SUTM and Lat Long.</p>
<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>	Not applicable.
<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>	Not applicable.

Criteria	JORC Code Explanation	Commentary
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	Not applicable
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	Internal audits/reviews of procedures are ongoing, however no external reviews have been undertaken.

## Section 2: Reporting of Exploration Results

Criteria	Explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <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>	<p>The Lake Surprise Uranium Project covers an area of 396<sup>2</sup>km. The tenement package is located in the North-East Pastoral District of South Australia. It is 100% owned and operated by Adavale Resources.</p> <p>Tenement ID's are: EL5892, EL5893 and EL6589</p> <p>The Native Title holder for the area is the Dieri People.</p> <p>The tenements cross the boundary of Clayton Station and Murnpeowie Station.</p>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Not applicable, not referred to.
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	The exploration target is a sandstone hosted palaeochannel deposit of uranium within sediment outwash from the Northern Flinders Ranges.
Drill hole Information	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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>	<p>A complete table of rock chip data to date is presented in the body of this announcement and includes uranium results.</p> <p>Other elements have not been included in this table as they are not relevant to the announcement of uranium results at this juncture.</p>
Data aggregation methods	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high</li> </ul>	Not applicable.



Criteria	Explanation	Commentary
	<p><i>grades) and cut-off grades are usually Material and should be stated.</i></p> <ul style="list-style-type: none"> <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>	
<i>Relationship between mineralisation widths and intercept lengths</i>	<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 width not known').</i></li> </ul>	Not applicable.
<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>	Not applicable.
<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>	This report contains the comprehensive geochemical results of the previously reported works program.
<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>	Images of geophysical data are being shown here. The image shown is related to the number of counts present in the uranium channel of the spectrometer.
<i>Further work</i>	<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>	Further work following up on the Assay results from rock chips will be planned now that information is available. As planning and preparation for this work is completed it will be made available.