

Westpoint Hill – Infill Calcrete Sampling

Marmota Energy Limited (ASX: MEU) (“Marmota”)

Key Points

- Assay results from the Westpoint Hill infill calcrete sampling program arrived on Friday 12 February 2016 and Monday 15 February 2016, from the laboratory, Intertek (Genalysis), in Adelaide.
- The new infill assay results appear statistically inconsistent with the earlier assay results for the target area, received from the same laboratory, and reported to the ASX in October 2015.
- In particular, the new results did not return anomalous gold occurrences in or around the previously reported significant gold-in-calcrete anomalies.
- The inconsistencies are being investigated with the laboratory.

Background

- In October 2015, Marmota’s calcrete sampling (on 800m grid) at Westpoint Hill identified exceptional gold-in-calcrete anomalous assay results of 70ppb to 107ppb.
- The high gold-in-calcrete results (107ppb, 80ppb and 70ppb) were re-checked and verified by the laboratory in October 2015, prior to ASX release.
- Based on the above, Marmota undertook and completed in December a detailed infill calcrete sampling program at Westpoint Hill [see ASX:MEU [24 Nov 2015](#)] [see [Fig. 1](#)]

Assay Results and Testing

The Westpoint Hill calcrete infill sampling program recovered 1,530 samples via auger drilling and the assay results have now been received by the Company. Surprisingly, the new results returned no detectable or negligible gold-in-calcrete results around the 20 to 107 ppb gold-in-calcrete locations reported from Marmota’s 800m grid calcrete sampling program conducted in October 2015 [see ASX:MEU [26 October 2015](#)]. As noted in Appendix 1, the difference is not just the absence of high gold values – the entire statistical distribution is different.

Marmota has initiated an investigation into how these inconsistencies could occur, having been advised previously by the laboratory that check analyses were done on the high gold-in-calcrete samples at the time and that it was satisfied with those assays.

Subsequent to the Trading Halt on the morning of Monday 15 February 2016:

- 1) The inconsistencies are now being investigated with the laboratory.
- 2) Marmota's technical director has met with both the laboratory and those involved in the sampling program.
- 3) An urgent re-assay of critical residue samples from both October 2015 and the current Infill program is underway.¹
- 4) Collection of duplicate field samples for critical samples is also underway, for analysis at another, independent laboratory.

The re-assaying of residue and newly sampled materials should determine the validity or otherwise of the gold anomalism detected at Westpoint Hill.

Marmota will advise the results of these activities as soon as they are to hand.

The Appendix compares the statistical distribution of the October sampling program (92 samples) to the new infill results (1530 samples), both from the same laboratory.

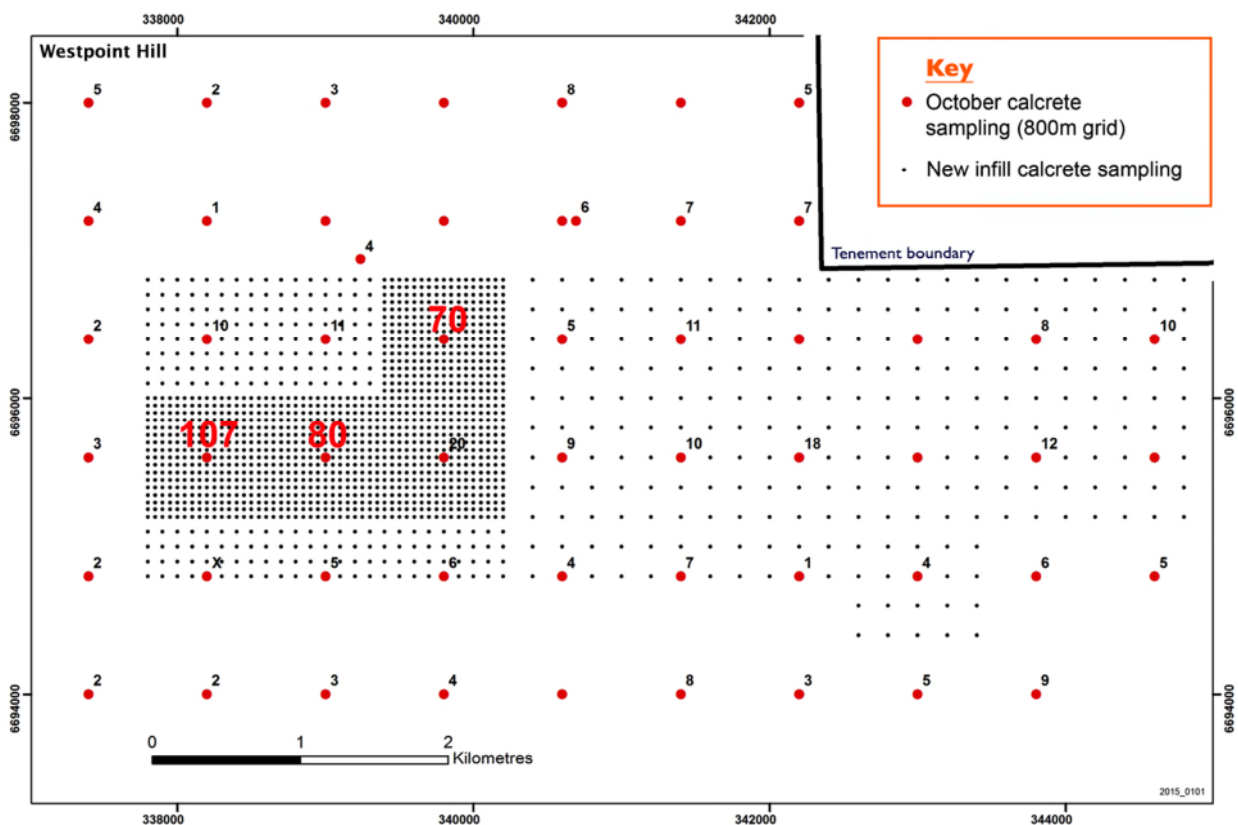


Figure 1: ● Previous (800m grid) sampling carried out in October 2015 (red dots) and ● NEW high detail infill calcrete sampling points: 1580 targets (black dots)

¹ The high gold-in-calcrete values (107ppb, 80ppb, 70ppb) were already re-checked in October 2015, by the laboratory, prior to ASX release. They are now being re-checked from a different pulp.

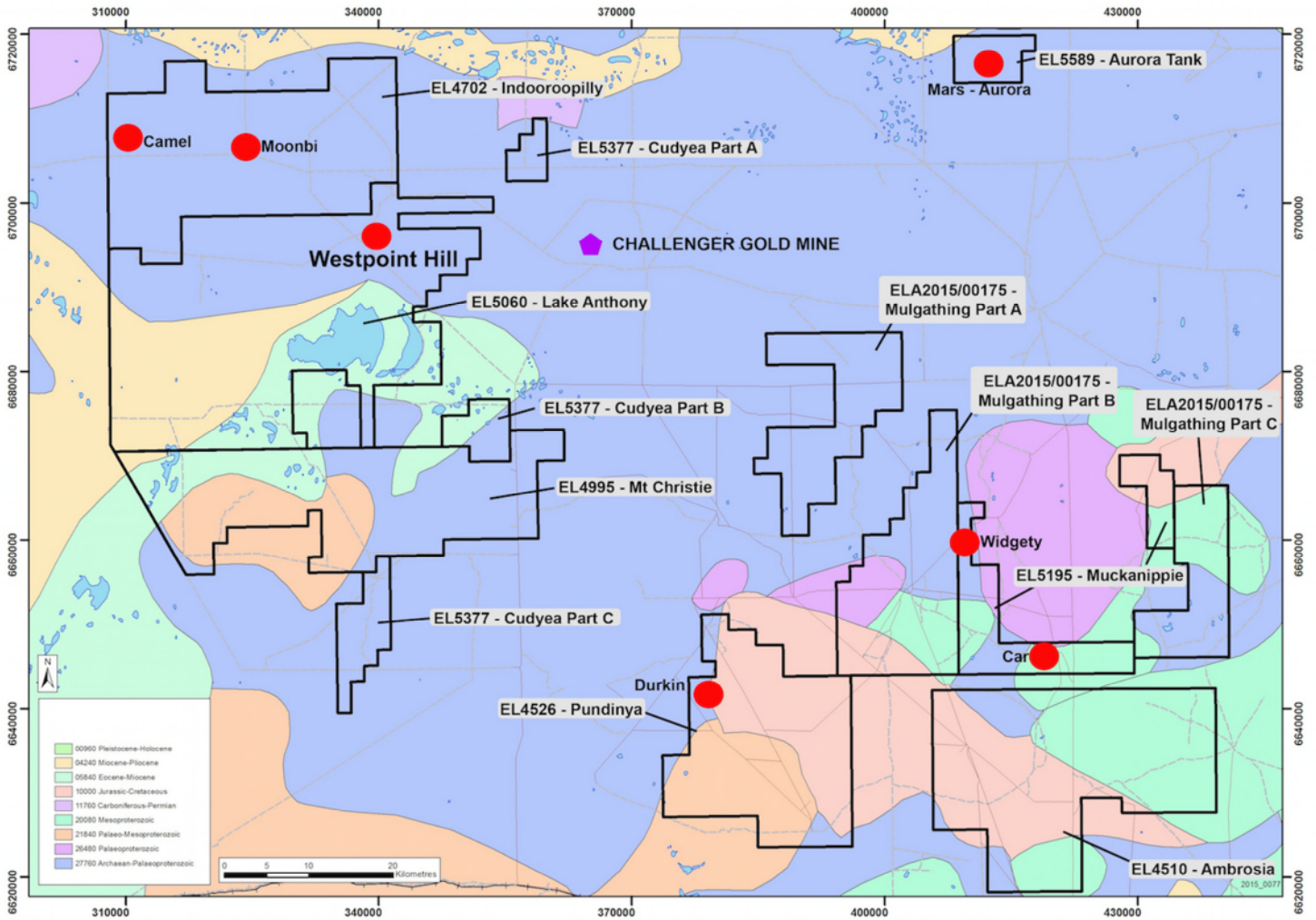


Figure 2: Marmota's Gawler Craton Gold Project, showing the location of Westpoint Hill

Competent Persons Statement

The information in this release that relates to Exploration Results and Mineral Resources is based on information compiled by Dan Gray as Senior Project Geologist of Marmota Energy Limited who is a member of the Australasian Institute of Geoscientists. He has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Gray consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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About Marmota Energy Limited

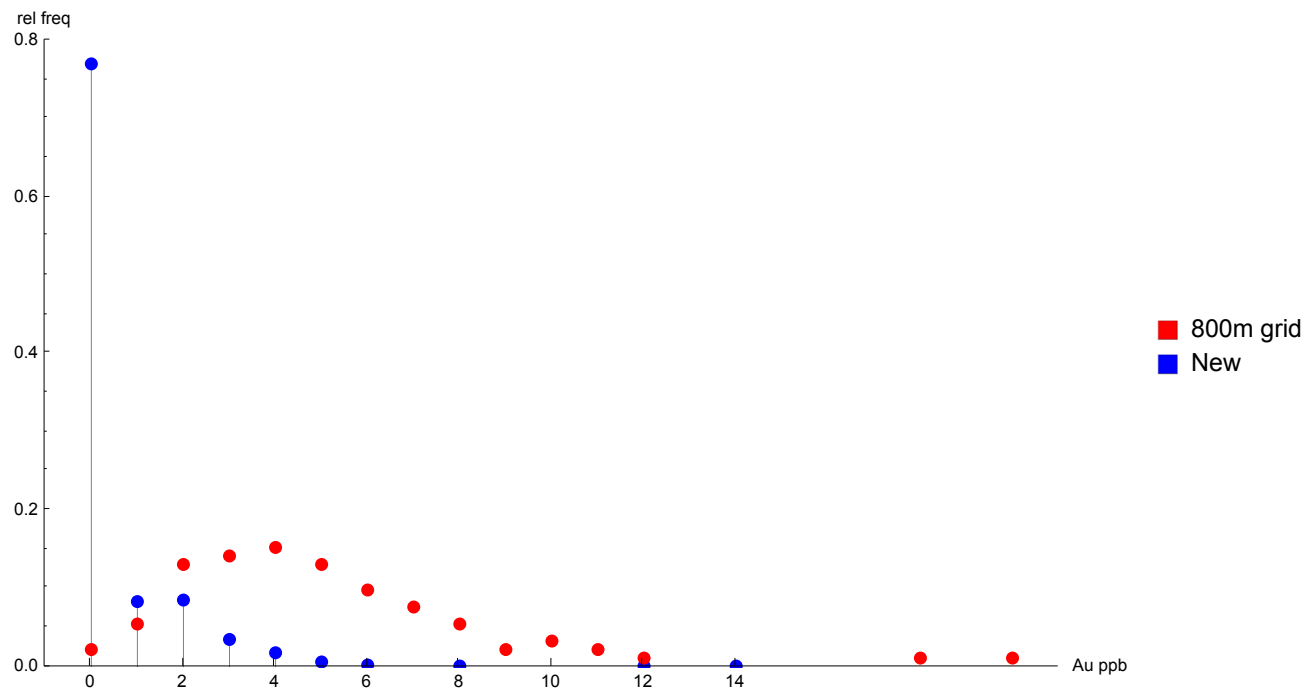
Marmota Energy Limited (ASX: MEU) is a South Australian mining exploration company, focused on gold, copper and uranium. Gold exploration is centered on the Company's dominant tenement holding in the highly prospective and significantly underexplored Gawler Craton, near the Challenger gold mine, in the Woomera Prohibited Defence Area. The Company's cornerstone copper project is based at the Melton project on the Yorke Peninsula. The Company's largest uranium project is at Junction Dam adjacent to the Honeymoon mine. For more information, please visit: www.marmotaenergy.com.au

APPENDIX

Empirical distribution of: ● 800m grid data (October 2015 assays) versus
● New in-fill program

Gold

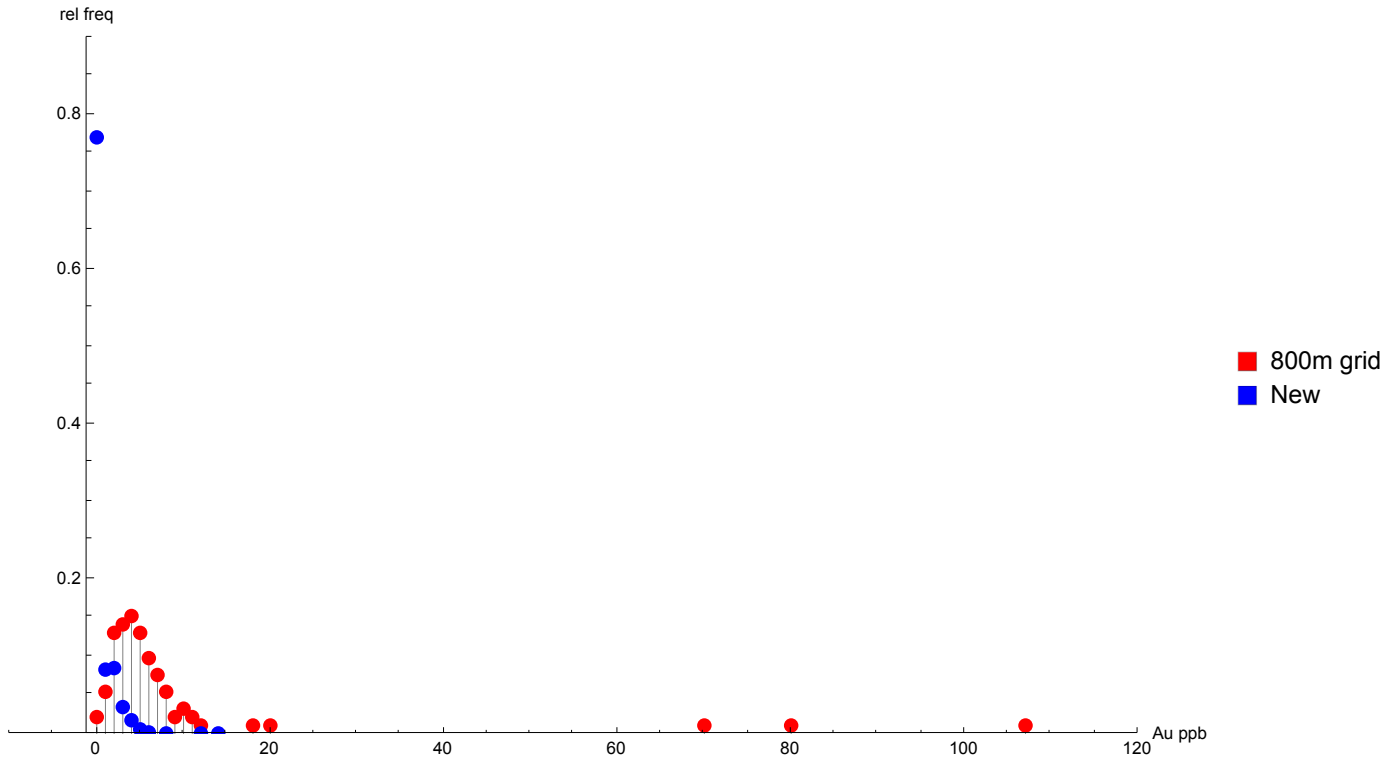
(i) Detail of Au gold-inc-calcrete ppb: 0 to 20 ppb



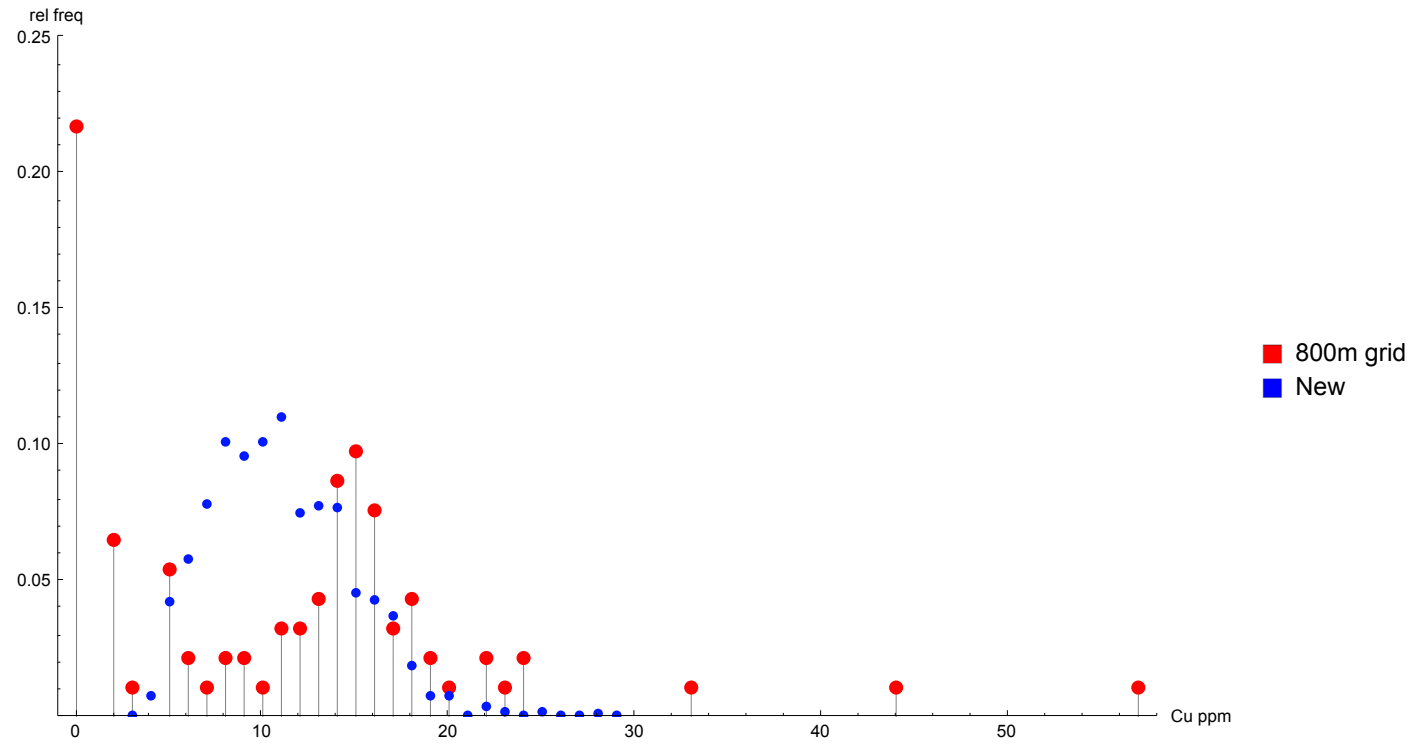
Note the disparity in results at 0 ppb.

Even if large values (107ppb, 80ppbb, 70ppb) are excluded, the distributions have very diferent shapes.

(ii) Au ppb: 0 to 110 (including large values)



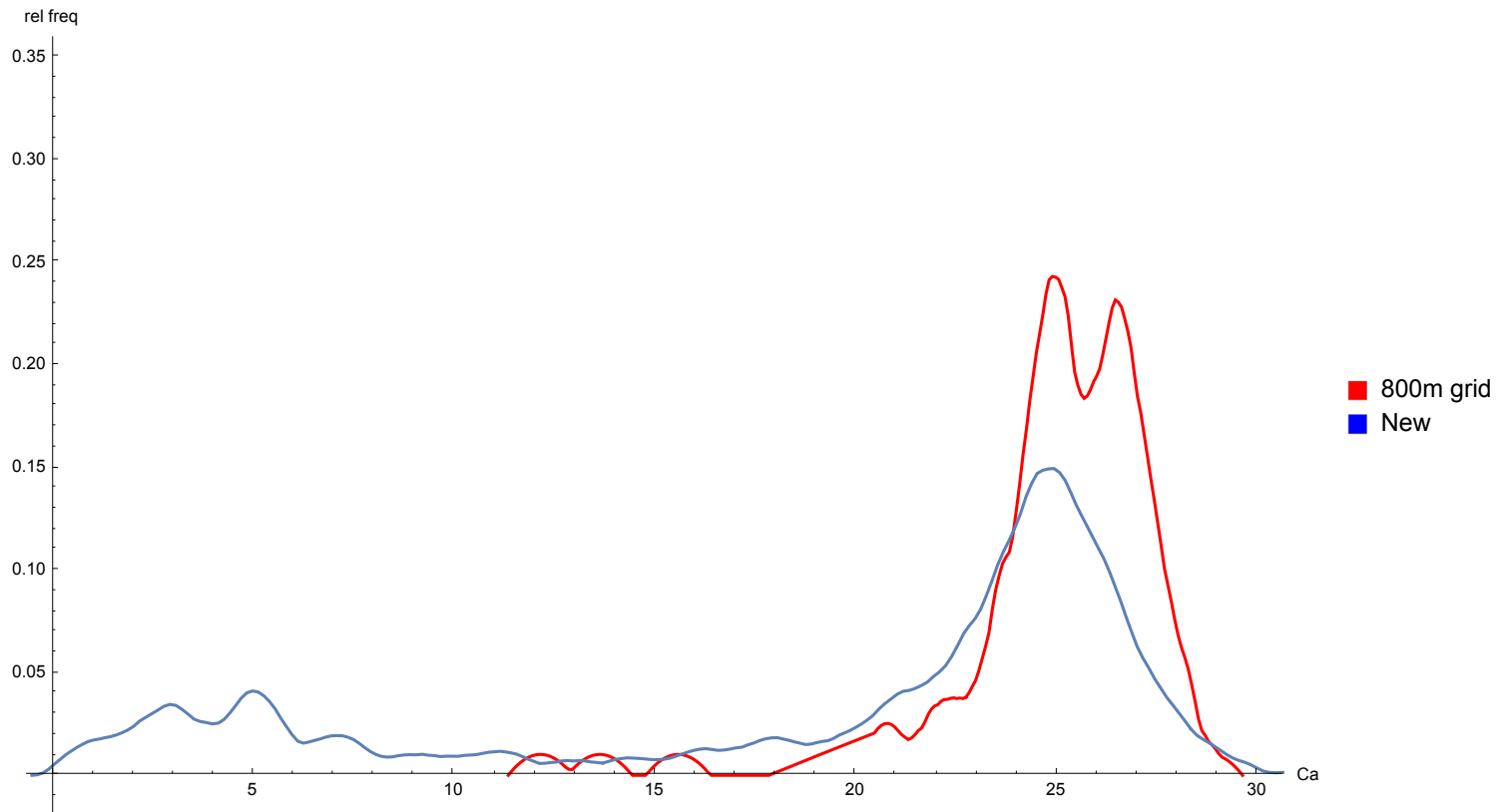
Copper



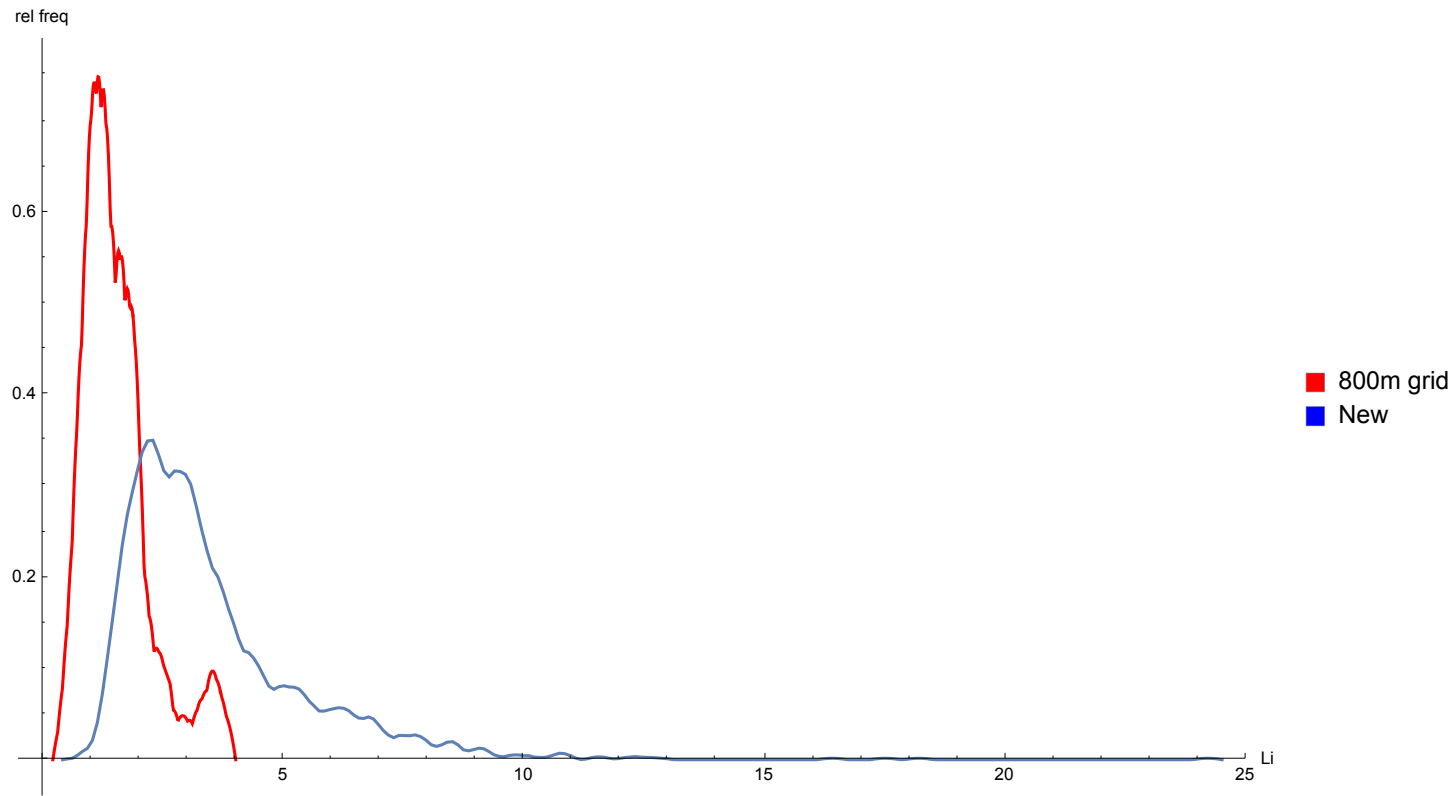
Calcium

The NEW blue data set has some lower quality samples (0 to 10 calcium).

Continuous data: smoothed kernel density estimate (smoothed histogram)

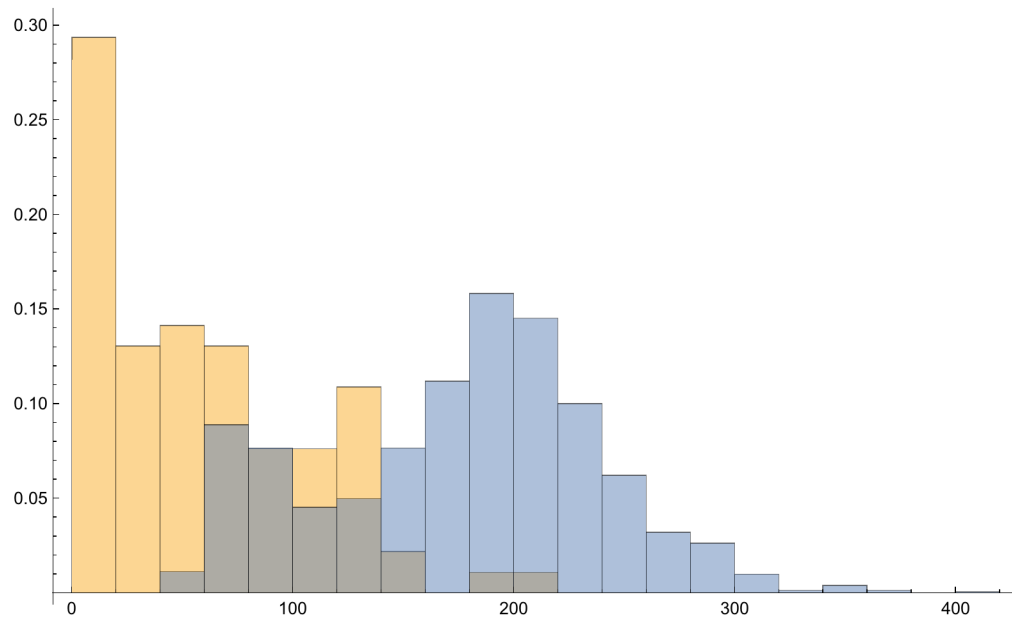


Lithium



Phosphorous

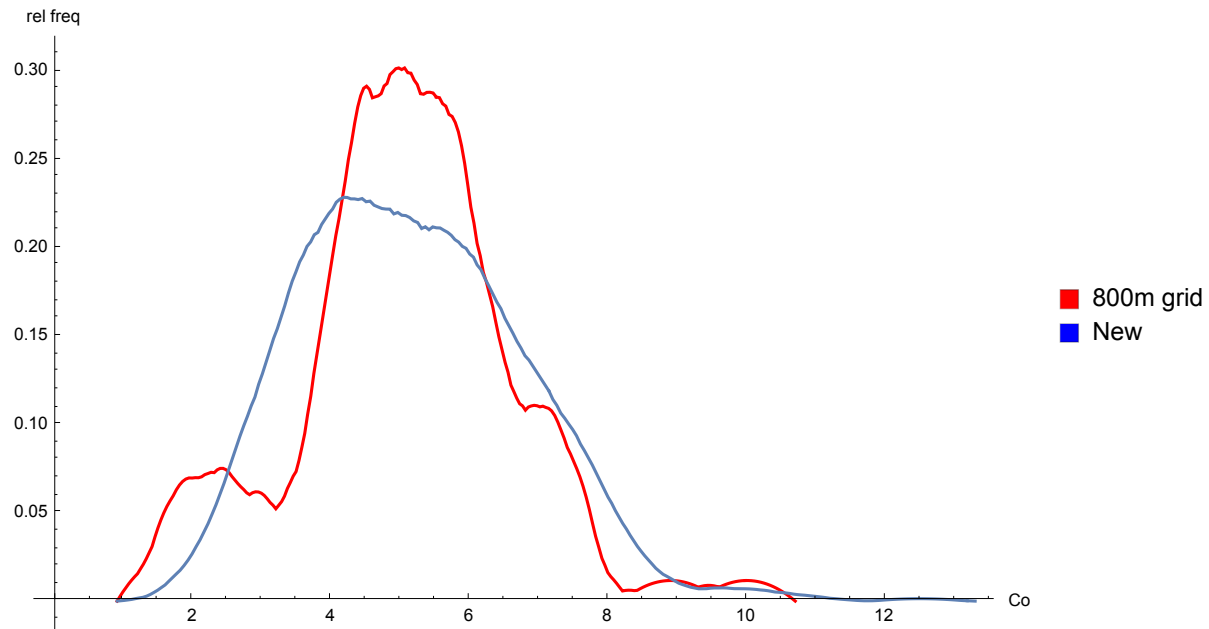
Here: YELLOW = 800m grid (lots of zero values)
BLUE = new



Most other elements appear to return similar results across the two assay sets

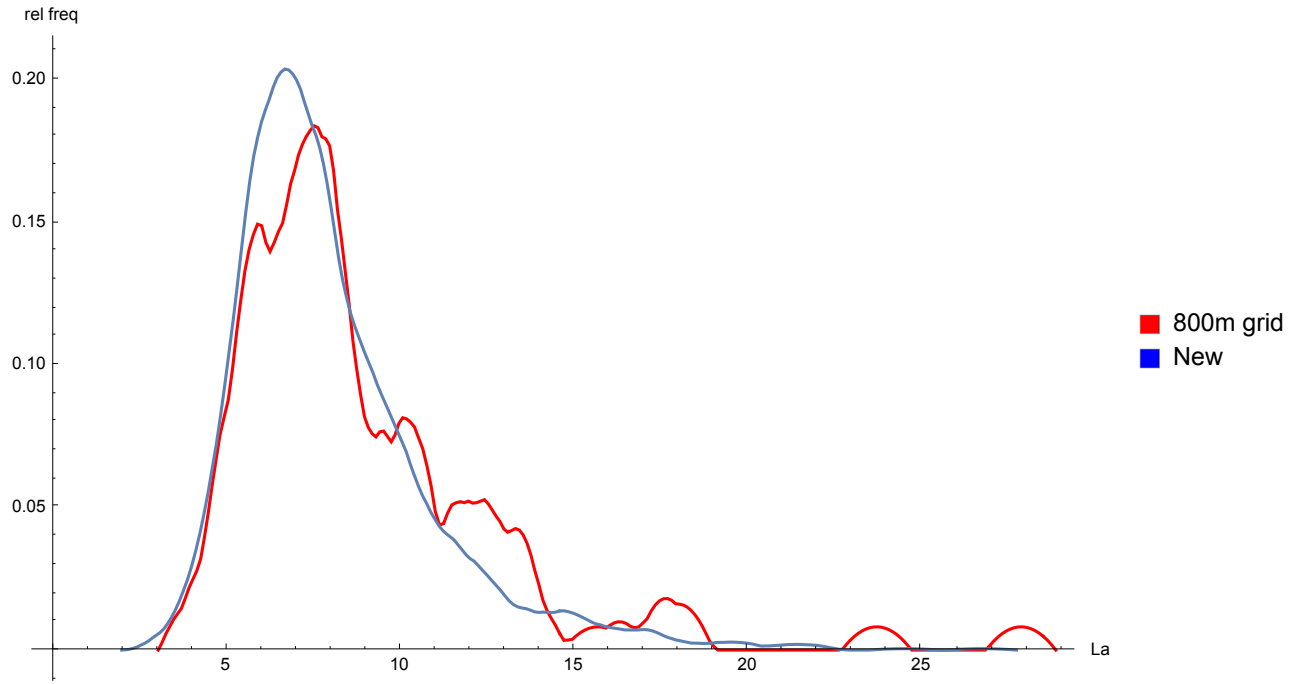
Cobalt

Kernel density estimate (smoothed histogram)

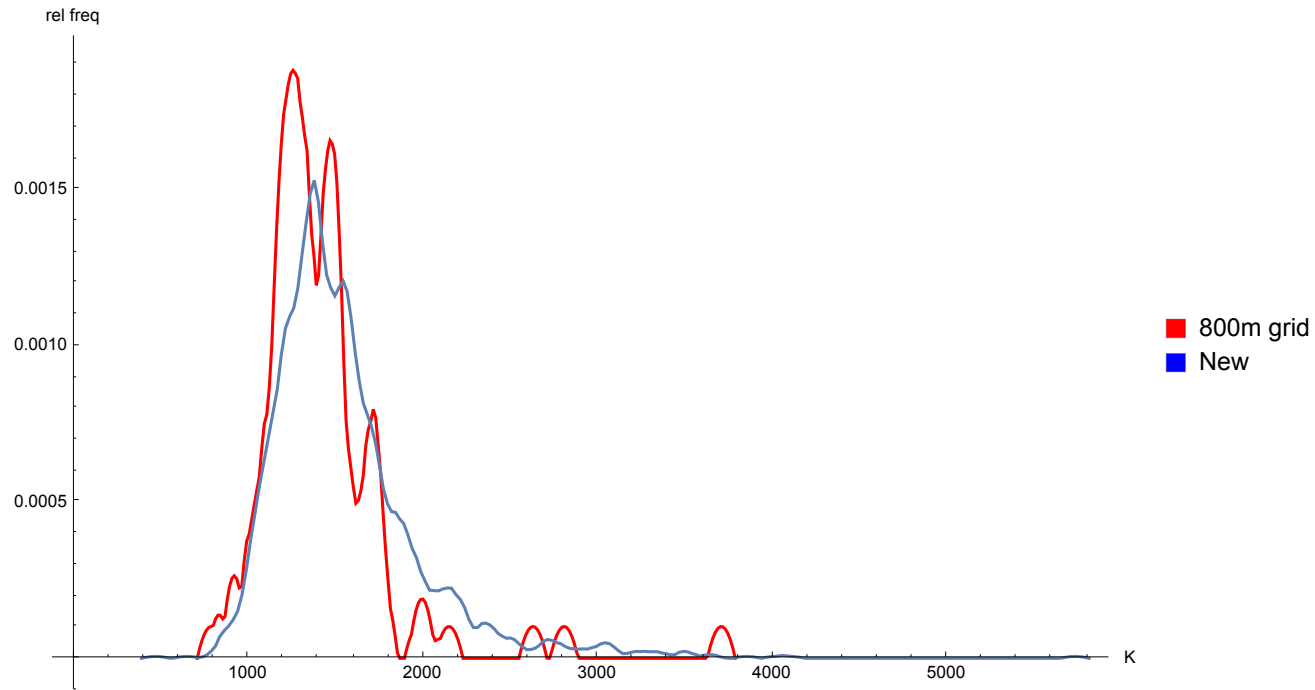


Lanthanum

Kernel density estimate (smoothed histogram)

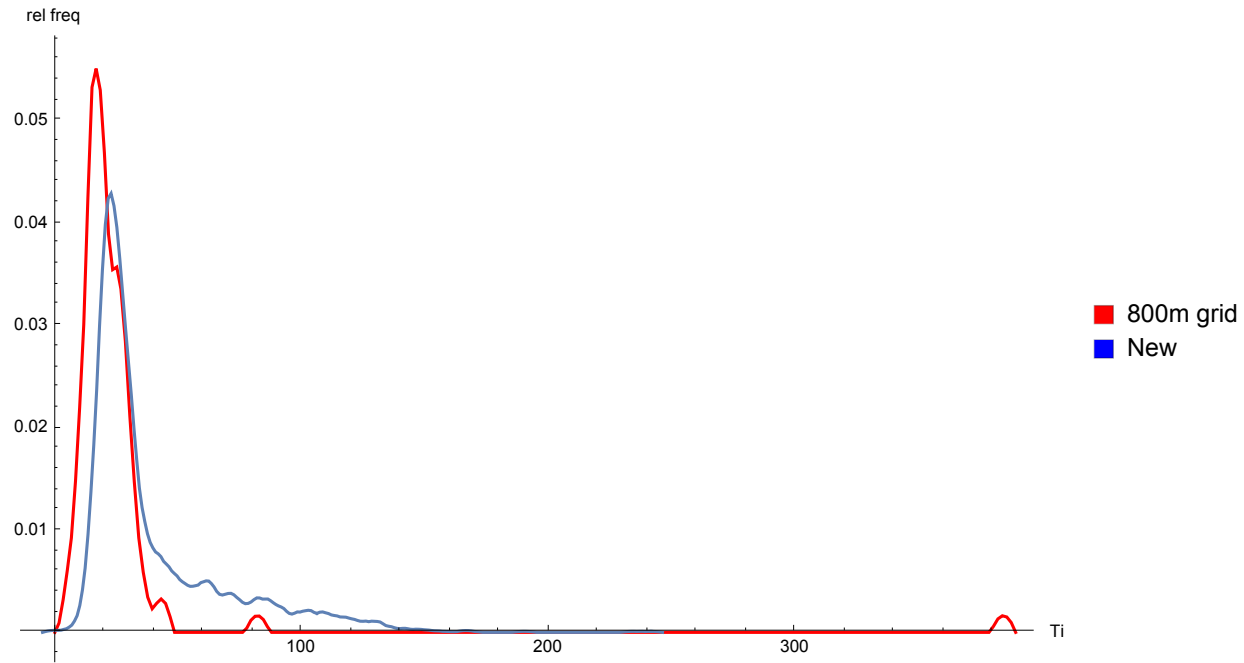


Potassium

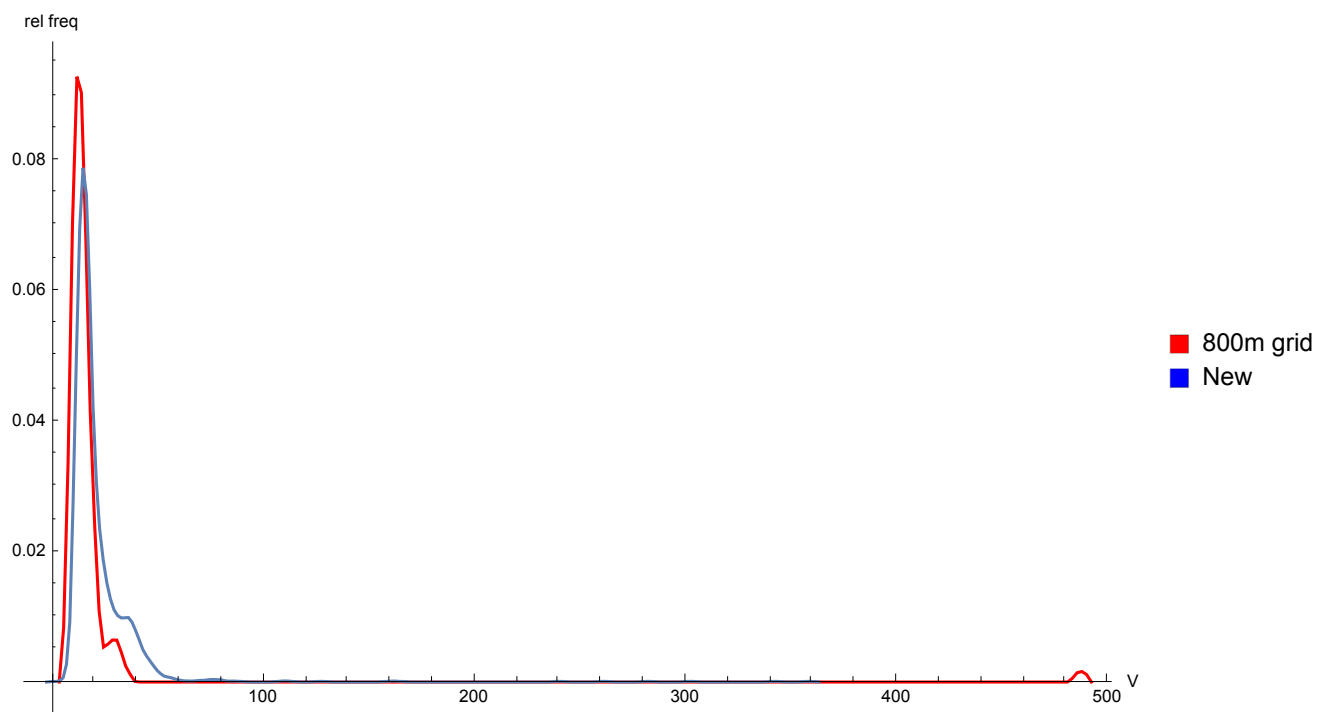


Titanium

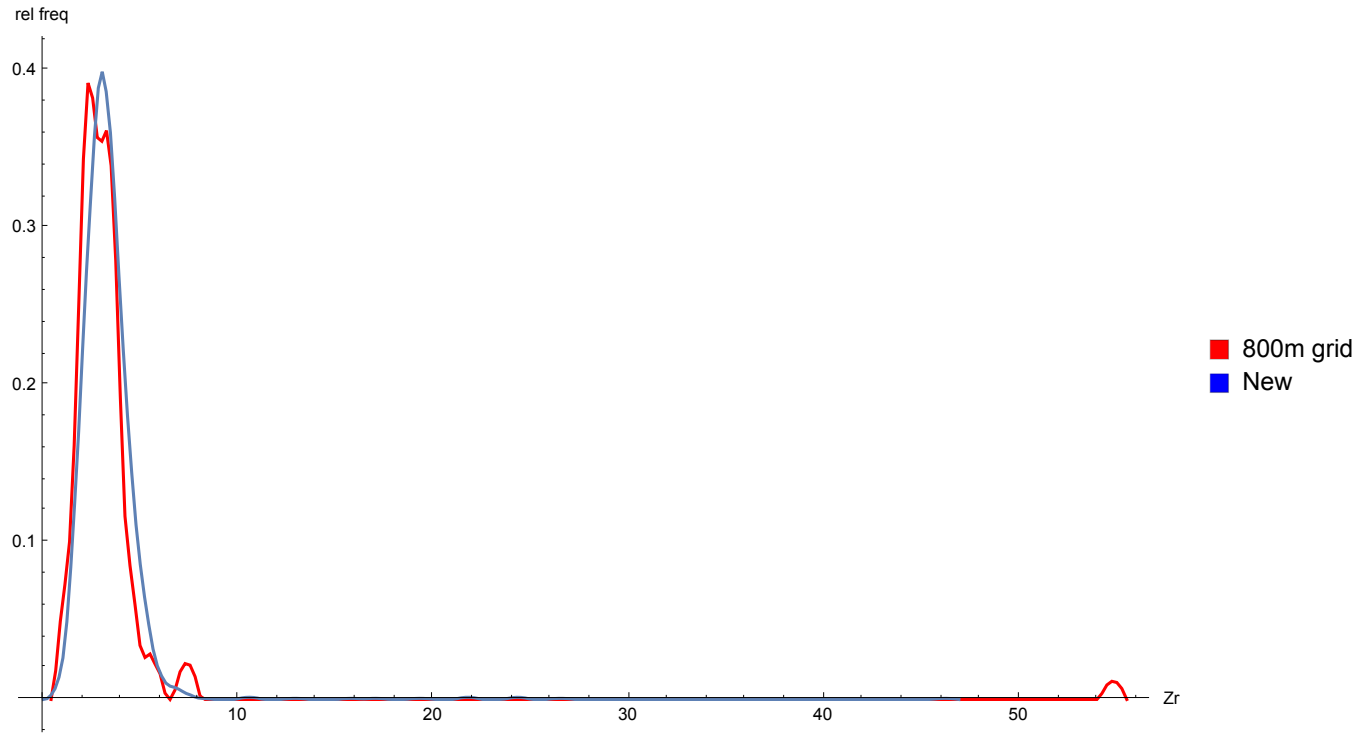
Kernel density estimate (smoothed histogram)



Vanadium



Zirconium



Appendix 1

JORC Code, 2012 Edition – Table 1 report

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"> Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> Calcrete samples were collected on a pre-planned grid pattern of varying dimensions depending upon target. The grids were oriented on an east-west/north-south direction. Calcrete samples were obtained from varying depths ranging from surface to 3m. Samples were sieved and only good quality calcrete (nodular or massive) was taken for geochemical analysis. Samples obtained were ~1kg in weight. Samples are annotated with descriptions including, location, type of calcrete, depth, level of HCl reaction, terrain, rock outcrop occurrence and any notes relating to potential contamination.
Drilling techniques	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> 4WD mounted mechanical auger was used to obtain calcrete samples. The auger blade is 20cm in diameter with a maximum reach of 6m.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> Samples were taken by hand and sieved so that a good quality calcrete only sample obtained for geochemical analysis. Samples averaging 1kg in weight were taken, which are considered to be representative for this sampling medium (calcrete).
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, 	<ul style="list-style-type: none"> Recorded data at each sample point included sample number, GDA94 Zone 53 Co-ordinates, calcrete type, sample depth, level of HCl reaction, terrain, rock outcrop or float occurrence and any notes relating to potential contamination eg near roads.

Criteria	JORC Code explanation	Commentary
	<p>channel, etc) photography.</p> <ul style="list-style-type: none"> The total length and percentage of the relevant intersections logged. 	
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> No sub sampling was undertaken during the calcrete sampling program.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	<ul style="list-style-type: none"> A certified and accredited global laboratory (Intertek Genalysis) was used for all assays. Samples from the Westpoint Hill Target were subject to analysis by ARU25/MS; 25gram Aqua Regia digest, unfiltered. Analysed by Inductively Coupled Plasma Mass Spectrometry and ARU25/OE; 25gram Aqua Regia digest, unfiltered. Analysed by Inductively Coupled Plasma Optical (Atomic) Emission Spectrometry. Internal certified laboratory QA/QC is undertaken by Intertek Genalysis. Intertek Genalysis provided blanks and standard lab checks for each batch (15 batches)
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> Field data is captured on field sheets and transferred to digital medium at the end of the program. All data is managed in-house by Marmota Energy. Laboratory assay data is not adjusted.
Location of data points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> All samples are located using hand held GPS with an accuracy generally within +/- 5m. All coordinates are recorded in GDA94, Zone 53.
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications 	<ul style="list-style-type: none"> Samples were collected at different grid spacings as identified in the ASX Release in which is considered to be appropriate spacing for progressing the target to the next stage of exploration. Calcrete sampling only – no association or reliance should be made on level of

Criteria	JORC Code explanation	Commentary
	<p><i>applied.</i></p> <ul style="list-style-type: none"> • <i>Whether sample compositing has been applied.</i> 	<p>mineralisation</p> <ul style="list-style-type: none"> • Samples were not composited.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <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> • <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> 	<ul style="list-style-type: none"> • It is not considered that the sampling method (grid calcrete sampling) should introduce a sampling bias.
Sample security	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • Each sample was put into individually numbered calico bags which were tied and placed into polyweave bags. • Samples remained at the remote field camp until Marmota staff returned them to Adelaide and the samples dropped off at the Intertek Genalysis Laboratory in Wingfield, Adelaide.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • No audits or reviews have been undertaken.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> • <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> • <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> 	<ul style="list-style-type: none"> • Lake Anthony (EL5060) is 100% owned by Marmota Energy Limited. • The project is located in the Gawler Craton of South Australia. • There are no third party agreements, no government royalties, historical sites or environmental issues. • Underlying land title is Crown Lease. • EL 5060 is in good standing.
Exploration done by other parties	<ul style="list-style-type: none"> • <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> • Marmota has reviewed past exploration data over the region. The region in which EL 5060 is located have been the subject of mineral exploration in the past by various companies including Dominion, Hindmarsh Resources Limited, Deep Yellow Limited as well as regional exploration drilling conducted by the South Australian Department of Mines and Energy.
Geology	<ul style="list-style-type: none"> • <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> • Style of mineralisation in the region is considered to be Challenger style gold mineralisation.
Drill hole Information	<ul style="list-style-type: none"> • <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"> ○ <i>easting and northing of the drill hole collar</i> 	<ul style="list-style-type: none"> • N/A, no drilling conducted.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> ○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar ○ dip and azimuth of the hole ○ down hole length and interception depth ○ hole length. <ul style="list-style-type: none"> ● 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. 	
Data aggregation methods	<ul style="list-style-type: none"> ● In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. ● Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. ● The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> ● N/A, no drilling conducted.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> ● These relationships are particularly important in the reporting of Exploration Results. ● If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. ● 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'). 	<ul style="list-style-type: none"> ● N/A, no drilling conducted.
Diagrams	<ul style="list-style-type: none"> ● 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. 	<ul style="list-style-type: none"> ● N/A, no significant discovery reported.
Balanced reporting	<ul style="list-style-type: none"> ● 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. 	<ul style="list-style-type: none"> ● N/A, no significant discovery reported.
Other substantive exploration data	<ul style="list-style-type: none"> ● 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 style="list-style-type: none"> ● See attached release.

Criteria	JORC Code explanation	Commentary
<i>Further work</i>	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> • <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> 	<ul style="list-style-type: none"> • See attached release.