

24 September 2018

# Daejon Vanadium Resource increased by 99% to 490 million pounds of V<sub>2</sub>O<sub>5</sub>

- Mineral Resource update following completion of Phase 2 p-XRF assay program targeting the 8.3km Daejon mineralisation strike length, almost doubling the June interim resource estimate
- Combined Mineral Resource Estimate (JORC 2012) of **76 Mt @ 0.3% V<sub>2</sub>O**<sub>5</sub> (2,000ppm cut-off) and **110ppm U<sub>3</sub>O**<sub>8</sub> defined for a total of **490 Mlbs V<sub>2</sub>O**<sub>5</sub> and 18 Mlbs U<sub>3</sub>O<sub>8</sub>.
  - o Indicated Mineral Resource of 3.6 Mt @ 0.3%  $V_2O_5$  and 142ppm  $U_3O_8$
  - o Inferred Mineral Resource of 72 Mt @ 0.3% V<sub>2</sub>O<sub>5</sub> and 108ppm U<sub>3</sub>O<sub>8</sub>
- The 2018 vanadium Mineral Resource update correlates well with the 2013 exploration target
- The project is pursuing the South Korean domestic vanadium market which totals 17 million pounds per annum via future offtake supply agreements through a strategic Korean partner
- Next steps: pilot plant metallurgical testwork including ore beneficiation and process optimisation

Protean Energy Ltd (**Protean** or the **Company**) is pleased to announce the completion of a Mineral Resource Estimation (MRE) targeting 8.3km of known strike length at it's Daejon vanadium/uranium project in South Korea. The MRE represents a 99% increase to the interim resource estimation.

The Daejon vanadium/uranium and uranium mineralisation is hosted in black shale. The September 2018 MRE correlates well with the 2013 Exploration Target with an estimated combined Mineral Resource of **490 MIbs at an average grade of 0.3% V<sub>2</sub>O<sub>5</sub>** (Table 1).

		<u>V2O5</u>	Resource	e with U <sub>3</sub>	O <sub>8</sub> by-pro	oduct	<u>U<sub>3</sub>O<sub>8</sub> (</u>	Only Res	<u>ource</u>
Cutoff	Classification	Tonnes	$V_2O_5$	mlbs	$U_3O_8$	mlbs	Tonnes	U₃O <sub>8</sub>	mlbs
		mt	ppm	$V_2O_5$	ppm	U308	Mt	ppm	U308
V2O5 >	Indicated	3.6	3,000	24	140	1.1	0		
2,000ppm or	Inferred	72	3,000	470	110	17	15	250	8.1
U3O8	Indicated +								
>200ppm	Inferred	76	3,000	490	110	18	15	250	8.1

Table 1: September 2018 Daejon Mineral Resource Estimate, Indicated and Inferred may not sum due to rounding



Figure 1: Strike extent of the 2018 mineral resource estimate

## Further Detail on the 2018 Mineral Resource Estimate

Protean Energy Ltd owns 50% of Stonehenge Korea Ltd (SHK), the operator of the tenements in the Daejon region that contain uranium and vanadium Mineral Resources.

In 2011, SHK completed a Mineral Resource estimate (MRE) at the Daejon uranium project, using historical  $eU_3O_8$  gamma data. To date, only non-destructive testing methods have been permitted for the core stored at the Korean Institute of Geoscience and Mineral resources (KIGAM). In 2013, SHK drilled five diamond drillholes which were assayed for, amongst other elements, uranium and vanadium. This provided additional data for an update for the uranium MRE, and a maiden vanadium MRE in a restricted area around the 2013 drilling.

The Company demonstrated the feasibility of using portable XRF (p-XRF) devices to collect analytical data from core in a 2017 orientation study using the 2013 core and assays. In late January 2018 a p-XRF testing program of the core at KIGAM was commenced, which included a significant component of quality control (QC) testing to demonstrate the appropriateness of the technique.

For vanadium and uranium, quality control (QC) duplicate sampling and the testing of previously ICP assayed diamond core has demonstrated that sample and analytical precision as well as analytical accuracy is sufficient to support Indicated and Inferred Mineral Resources at Daejon. The two Brucker Titan p-XRF devices (serial number 800N4905, the same device that was used for the 2017 orientation study and device 800N4143) were serviced during the data collection work. Prior to updating the Mineral Resource estimate, the readings from the QC CRM standards and testing of previously ICP assayed drilling and duplicate data were reviewed. The final calibration protocol resulted in no calibrations required for 65% of the p-XRF data. Both devices had a period when the results required calibration:

 Device 800N4905 performed well, with no justification to apply calibrations except for data collected between the 18/05 and the 25/06.  Device 800N4143 performed less consistently and calibrations were required for data collected after the 26/03.

The calibrations were assessed using CRM standards taken at the start and end of the day, as well as throughout the data collection and periodic re-testing of a hole drilled in 2013 that had ICP assays and formed part of the 2017 orientation study. The calibrations were based on an iterative process of correlating the ICP assay data from CHUDD0002 and the p-XRF data collected over the calibration period. The calibrations were only applied to p-XRF data collected during the calibration periods.

The final calibrations were applied on a device/element basis as presented in Table 2.

Device	Calibration	% of data		Vanadium Calibration			Uranium Calibration		
	Period	Device	Globally	Min	Max	Avg	Min	Max	Avg
800N4905	18/05 to 25/06	25%	16%	0.95	1.3	1.16	1.00	1.50	1.30
800N4143	From 23/03	53%	19%	0.8	1.45	1.21	0.90	1.40	1.25

Table 2 Applied calibration factors as at May 2018 per p-XRF device before and after a scheduled mid-program service

The 1.0 m composite p-XRF samples were used to prepare interpretations for vanadium and uranium mineralisation at 560ppm V (1,000 ppm  $V_2O_5$ ) and 100 ppm U (118 ppm  $U_3O_8$ ) respectively. Both vanadium and uranium mineralisation occurs as multiple, variably mineralised lodes (fourteen vanadium and twelve uranium lodes), within the respective black shales. Vanadium and uranium mineralisation is broadly co-located, often overlaps but are not coincident and there is no correlation between the two variables.

The coefficient of variation and coefficient of skew for both vanadium and uranium were sufficiently low that top-cutting was not necessary for either variable and ordinary kriging was selected as the estimation technique. Normal-score transformed variograms were used to model the vanadium and uranium grade continuity and the back-transformed continuity models used for estimation. Only the footwall and hanging wall mineralisation of the South shale horizon had sufficient sampling to derive variography. The domains that had insufficient samples to support variography used variogram that best matched the stratigraphic position and/or statistical parameters.

All shale, fault and mineralisation boundaries were treated as hard boundaries for the purposes of estimation. The estimate used a parent block size of 25 mE x 10 mN x 5 mRL which was rotated parallel to the stratigraphy and the parent blocks were discretised at 8 E x 4 N x 2 RL. The block size was derived by kriging neighborhood analysis.

The search ellipse was orientated parallel to the black shales and in the plane of the mineralisation. The drillhole spacing is variable, ranging from 40 to 500 m spaced sections, and from 40 to 220 m along a section at Chubu. The drilling at Yokwang and Seongdong prospects occur predominantly as single hole sections. A four pass search strategy was employed to overcome the inconsistent hole spacing. The primary search used a radius of 250 m along strike and down dip, and a search of 40 m across strike, with a restriction on the number of samples per drillhole, such that a minimum of two drillholes were required to inform the estimate. Subsequent passes had no restriction on the number of samples per drillhole. The second search used the primary search ranges, the third search doubled the primary search and the fourth search tripled the primary search.

The better informed zones were estimated using a minimum of 8 and a maximum of 30 samples for vanadium and 8 and a maximum of 36 samples for uranium for the first three estimation passes, and 4 to 15 and 4 to 18 samples for vanadium and uranium respectively for the fourth estimation pass. Lesser informed domains used 4 to 15 and 4 to 18 samples for vanadium and uranium for all estimation passes. The maximum distance of extrapolation was 375 m in the plane of the mineralisation.

Validation consisted of initial visual validation, followed by a comparison of the composite and model averages and finally, swath plots by easting, northing and elevation, all of which exhibited good correlation between the composite and estimated values and maintained the composite sample grade trends.

Currently, there are 41 specific gravity determinations available, with values that ranged from 2.48 to 3.05 and averaged 2.72. A default density of 2.6 t/m3 was assigned to the 2013 Mineral Resource on the basis that typically specific gravity values are slightly higher than the true dry bulk density and as shale dry bulk density values range from 2.4 to 2.7 t/m<sup>3</sup>.

The resource classification has incorporated all aspects of data quality, spatial distribution, geological and grade continuity, as well as estimation metrics (kriging variance, kriging efficiency and slope of regression). Only material shallower than 300 m vertically below surface has been classified as a Mineral Resource, as material deeper than 300 m vertically is considered unlikely to support open pit mining. Mineralisation within a 200 m exclusion buffer around the road tunnel infrastructure that cross-cuts the mineralization has been excluded from the Mineral Resource.

Most of the material shallower than 300 m vertical depth has been classified as an Inferred Mineral Resource. There is a small area adjacent to the 2013 drilling where the vanadium mineralization has been classified as an Indicated Mineral Resources as a function of the demonstrated geological and grade continuity, good geological confidence and there being sufficient supporting information to inform modifying factors for that area. The uranium only resource has been classified as an Inferred Mineral Resource at best, because of the lower precision observed to date in the p-XRF data.

	<u>V</u> <sub>2</sub>	<u>V<sub>2</sub>O<sub>5</sub> Resource with U<sub>3</sub>O<sub>8</sub> by-product</u>				U <sub>3</sub> O <sub>8</sub> Only Resource			
Cutoff	Classification	Tonnes	V <sub>2</sub> O <sub>5</sub>	mlbs	U₃O <sub>8</sub>	mlbs	Tonnes	U₃O <sub>8</sub>	mlbs
		mt	ppm	$V_2O_5$	ppm	U₃O <sub>8</sub>	Mt	ppm	U <sub>3</sub> O <sub>8</sub>
V.O. > 1.000mm or	Indicated	5.9	2,500	32	130	1.8	0		
$V_2 O_5 > 1,000$ ppm or	Inferred	90	2,700	540	110	22	29	200	13
0308 >100ppm	Ind + Inf	95	2,700	570	110	23	29	200	13
	Indicated	5.3	2,600	31	130	1.6	0		
$V_2O_5 > 1,500ppm \text{ or}$	Inferred	87	2.800	530	110	21	27	210	12
0308 >130ppin	Ind + Inf	92	2,800	560	110	22	27	210	12
	Indicated	3.6	3,000	24	140	1.1	0		
$V_2O_5 > 2,000ppm or$	Inferred	72	3,000	470	110	17	15	250	8.1
0308 >200ppm	Ind + Inf	76	3,000	490	110	18	15	250	8.1
V O . 2 500	Indicated	2.3	3,500	17	150	0.8	0		
V <sub>2</sub> O <sub>5</sub> > 2,500ppm or	Inferred	45	3,400	330	110	11	5.8	320	4.1
0 <sub>3</sub> 0 <sub>8</sub> >250ppm	Ind + Inf	47	3,400	350	110	11	5.8	320	4.1
	Indicated	1.6	3,800	13	150	0.6	0		
$v_2 O_5 > 3,000$ ppm or	Inferred	28	3,800	240	110	6.7	3.4	370	2.7
0 <sub>3</sub> 0 <sub>8</sub> >300ppm	Ind + Inf	30	3,800	250	110	7.2	3.4	370	2.7
V O . 2 500	Indicated	1.0	4,100	8.7	160	0.3	0		
V <sub>2</sub> O <sub>5</sub> > 3,500ppm or U <sub>3</sub> O <sub>8</sub> >350ppm	Inferred	16	4,200	160	110	4.1	1.9	400	1.7
	Ind + Inf	17	4,200	160	110	4.1	1.9	400	1.7
	Indicated	0.4	4,600	4.1	170	0.2	0		
$v_2 \cup 5 > 4,000 ppm$	Inferred	7.6	4,700	80	110	1.8	0.6	450	0.6
or $U_3U_8 > 400ppm$	Ind + Inf	8.0	4,700	80	110	2.0	0.6	450	0.6

Table 3 May 2018 Mineral Estimate at various  $V_2O_5$  and  $U_3O_8$  cut-offs, with tonnage expressed as million tonnes (*Mt*) – note totals may not sum due to rounding.

The Daejon 2018 vanadium MRE at a 2,000 ppm  $V_2O_5$  cut-off is:

• a vanadium Indicated Mineral Resource of 3.6 Mt of 0.3%  $V_2O_5$  and 140 ppm  $U_3O_8$ 

a vanadium Inferred Mineral Resource of 72 Mt of 0.3% ppm V<sub>2</sub>O<sub>5</sub> and 110 ppm U<sub>3</sub>O<sub>8</sub>, with an additional uranium Inferred Mineral Resource of 15 Mt at 250 ppm U<sub>3</sub>O<sub>8</sub>.

The grade-tonnage data reported in the same manner as the 2018 MRE is presented in Figure 2.



Figure 2 Daejon interim resource  $V_2O_5$  and  $U_3O_8$  grade-tonnage curves

The previous vanadium estimate was calculated over a very restricted area. Within this restricted area, the 2018 estimate predicts 13% more tonnes at 3% lower grade at a 2,000 ppm V<sub>2</sub>O<sub>5</sub> cut-off, as a function of the 2018 p-XRF work demonstrating greater vanadium continuity. The previous uranium estimate was based on down hole gamma equivalent U<sub>3</sub>O<sub>8</sub> grades and the ICP assays for the five SHK holes, which provided a combined total of 1,179 samples to inform the estimate. The available p-XRF data (3,448 1.0 m composites), resulted in the 2018 estimate reporting 45% less tonnes and 23% lower grade, compared to the 2013 Mineral Resource. This is a primarily a function of the previous estimate being reliant on the equivalent U<sub>3</sub>O<sub>8</sub> grade that was derived from downhole gamma readings that lacked sufficient local calibration information.

# ABOUT PROTEAN ENERGY LIMITED (ASX: POW)

Protean Energy Limited is an energy company focused on the commercialisation of vanadium battery energy storage systems. The Company is also developing a multi-mineral project in South Korea through its 50% holding in Stonehenge Korea Limited (SHK). SHK is a JV company with KOSDAQ-listed DST Company Ltd (DST) [formerly KORID]. SHK owns 100% of the rights to 3 projects in South Korea, including the Company's flagship Daejon Vanadium Project.

For further information, see <u>www.proteanenergy.com</u> or phone: T: + 61 8 9481 2277

# **Competent Person Statement**

The information contained in this ASX release relating to exploration results and Mineral Resources has been compiled by Mr Kahan Cervoj of Optiro Pty Ltd. Mr Cervoj is a Member of The Australasian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 editions of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Cervoj consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary		
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools	The p-XRF sampling is of whole core that was drilled between 1974 and 1985. The p-XRF sampling commenced in late January 2018 and is being undertaken using two p-XRF devices, taking readings every 0.2 m down hole as well as associated routine QC analysis.		
	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 magning of	The 2013 Stonehenge Korea Ltd (SHK) drilling has been previously disclosed by Protean Energy Ltd in an ASX release dated 11/01/2018.		
	not be taken as limiting the broad meaning of sampling.	The final 2018 Daejon MRE used p-XRF data. Available QC sampling confirmed that some of the p-XRF data required calibrations to be applied to portions of the p-XRF data.		
		An orientation study carried out in 2017 confirmed that for the Daejon mineralisation, a handheld portable XRF (p-XRF) device can produce analytical results that suitably replicate 'wet chemistry' analysis (Protean Energy Ltd ASX release dated 11/01/2018) that would support a Mineral Resource estimate in accordance with the JORC 2012 reporting code. There was good correlation between analytical and p-XRF results for vanadium ( $R^2$ = 0.87). The correlation for uranium was poorer, but still acceptable ( $R^2$ = 0.69).		
		The 2018 p-XRF analytical data collection from the historical BQ core includes the following measures to ensure representivity and appropriateness of the results:		
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	<ul> <li>The core was tested using two Brucker S1 Titan 800 p-XRF devices (serial numbers 800N4905 and 800N4143). Device 800N4905 was the same device used for the orientation study in 2017.</li> <li>The 2018 p-XRF work used the same sampling process that was used for the 2017 orientation study.</li> </ul>		
		<ul> <li>Prior to starting the work, the correlation between the two devices was tested. There was a minor difference, with 800N4143 reading slightly lower than 800N4905 but the difference was not considered material.</li> </ul>		
		<ul> <li>At the start and end of each day, 3 standards were tested three times to allow calibration of any instrument drift.</li> <li>Matrix-matched standards are used to test/calibrate the p-XRF performance</li> </ul>		
	Aspects of the determination of mineralisation	The historic diamond drilling totals 94 BQ diameter (36.5 mm) drillholes, of which data for 91 holes can be located. The historic holes, when drilled, were tested using a downhole gamma probe recording counts per second that were converted to equivalent		
	that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (a.s. (associa-	XRF data which provides additional vanadium as well as uranium assay data.		
	circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 a charae for fire assay'). In other	In 2013, five diamond drillholes provided 405 samples at 1.0 m intervals of NX diameter half-core which were submitted for assay by inductively coupled plasma (ICP) techniques.		
	cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules)	In 2017, the p-XRF orientation study of the 2013 drilling was taken from the rounded core surface at regular 0.2 m intervals down hole. The instrument performs an internal check prior to taking the reading.		

may warrant disclosure of detailed information

In 2018 the p-XRF analysis of the historical drilling was taken at regular 0.2 m intervals down hole, from full core. Two p-XRF instruments were used for this analytical data collection and all available core has been tested.

Criteria	JORC Code explanation	Commentary		
Drilling techniques		There are two phases of diamond drilling in the project area:		
	Drill type (e.g. core, reverse circulation, open- hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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> <li>Historical diamond drilling, completed between 1974 and 1985 consisted of 94 BQ (36.5 mm) diameter core holes. Holes were drilled by the Republic of Korea (ROK) Korean Institute of Energy Research (KIER) targeting the uranium mineralised black shale units located in the Ongcheon Basin. Most of the core for the historical drilling is stored in the Korean Institute of Geology and Mineral Resources (KIGAM) facility in Daejon. However, only 73 of these holes were available for p-XRF testing. All historic BQ diamond drilling was cored from surface using conventional drilling techniques (non-triple tube). No core orientation was undertaken, with 47 of the 85 available historic holes being drilled vertically.</li> <li>In 2013, Stonehenge Metals Ltd (SHK) drilled five NX (49 mm) diameter triple tube diamond drillholes from surface. Downhole core orientation used an ACT III Down Hole orientation device that was implemented at the start of each run.</li> </ul>		
Drill sample recovery	Method of recording and assessing core and	For the historic Chubu drilling, 14 holes have core recovery measurements which have been collected over the entire hole and not on an interval basis. The length weighted average total core recovery for holes with data is 86%. For the 2013 drilling, the recovered core was measured and the		
	chip sample recoveries and results assessed	overall total core recovery was excellent, averaging 98.6%. The historical drilling was predominantly vertical or steeply inclined and was a smaller diameter (BQ, 36.5mm) compared to the 2013 drilling, which was of larger diameter (NX 49 mm) and drilled sub-horizontally.		
	Measures taken to maximise sample recovery and ensure representative nature of the	Measures taken to maximise core recovery for the historical drilling are unknown, but the core recovery measurements imply that recovery was good to very good.		
	samples	The 2013 drilling used triple tube drilling to maximise the core recovery.		
	Whether a relationship exists between sample	For the historical drilling, no comparison between sample recovery from the time of drilling and p-XRF vanadium or uranium grades has been undertaken. However, the historical core has degraded since drilling such that approximately 13% of the mineralized intervals were fragmented such that p-XRF readings could not be taken.		
	may have occurred due to preferential loss/gain of fine/coarse material.	It was observed in the 2013 drilling that higher grade uranium intervals are associated with carbonaceous zones, which are characterised by more friable/broken core that necessitated the use of triple tube drilling. No relationship has been observed between the total core recovery and the vanadium and/or uranium grade.		
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Minoral	Both the historical core and the 2013 core has been logged for lithology and key mineralogy. The geological logging of the historic core is of a high quality and sufficient to support a Mineral Resource estimate. However, additional geotechnical information will be required to allow geotechnical assessment of the project.		
	Resource estimation, mining studies and metallurgical studies.	The 2013 drilling has additional logging that captures weathering and alteration, geological and geotechnical features (structure and RQD) and total core recovery. The geological and geotechnical logging is at a standard that supports a Mineral Resource estimate.		

Criteria	IORC Code explanation	Commentary
	Whether logging is qualitative or quantitative in	For the historical drilling, all core lithology was logged qualitatively and mineralogy was captured semi-quantitatively as a visual estimate. It is unknown if the core was photographed when drilled. The mineralised intersections for the historical drilling are being photographed as part of the 2018 p-XRF data collection.
	nature. Core (or costean, channel, etc) photography.	For the 2013 drilling, all lithology, weathering, alteration and geological and geotechnical features have been logged qualitatively. Mineralogy has been captured semi-quantitatively as a visual estimate. Structural information (alpha and beta), RQD and total core recovery have been measured quantitatively.
		The historical drilling has captured lithology using a consistent legend with holes being logged in their entirety.
	The total length and percentage of the relevant intersections logged	The 2013 drilling has been logged in its entirety using a consistent legend. The historical and 2013 logging legends are different but are able to be readily equated.
Sub-sampling techniques and sample preparation		Of the remaining 91 holes, 73 holes at the KIER storage facility and 5 SHE drillholes were tested with the p-XRF. There were 13 drillholes that were not tested, either because the core had been consumed for historical metallurgical testing or had been stored elsewhere.
	If core, whether cut or sawn and whether quarter, half or all core taken.	No sub-sampling of the historic BQ core has been undertaken; all p-XRF readings were taken at 0.2 m intervals from whole core.
		There are six drillholes that have previously been sampled and assayed as apparent 'fillets' (approximately $^{1}/_{3}$ of the core sampled with $^{2}/_{3}$ remaining). Sampling of the historic core was by splitting the core, which has further fragmented it.
		For the 2013 NX core, the core was sampled as half core on a brick saw for submission to the laboratory. The remaining core is in the original core trays. Samples were weighed prior to submission and sample weights ranged between 1.46 to 3.2 kg.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	All physically sampled material is core.
		For the historical drilling, there is no information on the sample protocol or preparation used for the six holes that have been sampled. No other sampling of the historic holes has occurred.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The 2013 diamond drilling resulted in 405 samples at 1.0 m intervals of ½ NX diameter core being submitted for assaying, with a nominal sample weight of 2.4 kg. Samples were submitted to an Australian contract laboratory with the following protocol: on receipt by the laboratory, the entire sample was crushed so that 70% was less than a nominal 6 mm particle size. The crushed material was pulverised such that 85% passed 75 microns. A subsample was taken from the pulverised material and fused prior to dissolution by nitric acid.
		For the 2017 and 2018 p-XRF analysis, the core was initially cleaned using water and gentle agitation/brushing. The existing metre marks were confirmed and then the p-XRF readings were taken.

### **JORC Code explanation**

Quality control procedures adopted for all sub-

sampling stages to maximise representivity of

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.

samples.

### Commentary

The following QC procedure were implemented:

- The core was tested by taking a p-XRF reading every 0.2 m down hole.
- During the data collection, p-XRF readings were taken from matrix matched standard samples at a rate of 5 readings from 3 standards, at a nominal rate of 1 in 30.
- Analytical precision (effectively laboratory duplicates) was tested every 28 to 32 m of core length.
- Sampling precision (effectively field duplicates) was tested every 30 to 32 m of core length.
- A 50 m interval of CHUDD0002 which was previously tested as part of the 2017 orientation study and has ICP assays available, was used for the orientation work in 2017 and has been used periodically to test and calibrate the p-XRF devices.

For the 2013 core, half NX core was submitted for assay. No field duplicate data was collected in 2013.

In November 2017, orientation testwork on the five 2013 drillholes confirmed the appropriateness of using a p-XRF tool to provide analytical information from core. The orientation study used p-XRF readings taken on the remaining half core. This provided vanadium and uranium values which were then compared to the available ICP results for vanadium and uranium. Readings were from the outer, curved surface of the core and were taken at a maximum of 0.2 m along the core, such that a nominal minimum of 5 readings were taken per metre.

The 2017 p-XRF analysis readings were taken at 0.2 m intervals and then averaged within the same 1.0 m sample intervals as the 2013 sampling. The resultant correlation for vanadium with the ICP analytical results was  $R^2$ =0.87 and for uranium  $R^2$ =0.69. Duplicate p-XRF readings (two readings at the same location analogous to laboratory duplicates) were taken and excellent analytical precision was observed for vanadium and uranium. Duplicate p-XRF field readings were taken (the p-XRF device was removed then replaced on the core at the same location) - for vanadium the sample precision is considered good, but for uranium the sample precision is considered moderate to poor and will require further assessment when all of the data is available.

The 2018 p-XRF sampling used the same field and duplicate protocols as the 2017 orientation work. Results from the 2018 testing are comparable to that observed in the 2017 orientation work, with good to excellent analytical precision for vanadium and uranium, excellent sampling precision for vanadium and poor to moderate sampling precision for uranium.

Metallurgical test work to date has confirmed that vanadium and uranium mineralisation is very fine grained. The vanadium is uniformly distributed throughout the rock mass and is relatively homogenous. Uranium, however, is more heterogeneously distributed through the rock mass, occurring as larger uraninite aggregates.

For the 2013 drilling, all samples submitted for analysis were weighed prior to submission and had an average sample weight of 2.4 kg (weights ranged from 1.8 to 3.2 kg). The sample size is considerate appropriate for this style of mineralisation (hosted within black shale).

The performance of the QC work demonstrates that the p-XRF 'sample size' (effectively the sensor 'window') is appropriate for the vanadium mineralisation and uranium when composited up to 1.0 m.

Whether sample sizes are appropriate to the grain size of the material being sampled.

Criteria	JORC Code explanation	Commentary

### Quality of assay data and laboratory tests

The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.

The 2013 vanadium analysis was by ICP-AES and uranium by ICP-MS. Both techniques are considered total analytical techniques and are appropriate for the respective elements and mineralisation style.

The 2018 p-XRF analysis was by handheld p-XRF and is considered a total analytical technique and is appropriate for the respective elements and mineralisation style.

### **JORC Code explanation**

### Commentary

The historical drilling was tested at the time the holes was drilled by a Mount Sopris downhole gamma spectrometry logger that records counts per second (CPS) from uranium (and daughter products), thorium and potassium. The CPS was then converted using conversion tables to  $eU_3O_8$ . As the rock mass is not porous nor is it permeable, it has been assumed that the uranium is in equilibrium, but this has not been confirmed. The  $eU_3O_8$  data is now redundant, being replaced by p-XRF data.

No geophysical tools were employed on the 2013 drill programme.

The 2017 and 2018 p-XRF work were undertaken with two Brucker S1 Titan 800 handheld XRF devices.

The p-XRF testing of the historic core was undertaken using two p-XRF devices:

- Brucker S1 Titan 800 handheld XRF device, serial number 800N4905, which was the same device as used for the 2017 orientation study.
- Brucker S1 Titan 800 handheld XRF device, serial number 800N4143, that has been on hire from the start of the 2018 programme.

All p-XRF readings used a reading time of 60 seconds. A total of 28,097 readings were taken, of which 3,903 readings were subsequently classified as not valid as a function of instrument disturbance, low battery warning or failure of the p-XRF and excluded.

The p-XRF readings are stored as original values. Both p-XRF devices required servicing during the data collection, and postservice the two devices were tested against existing standards and pre/post service calibrations derived. As the orientation work was successfully undertaken using 800N4905, the results from 800N4143 have been calibrated to 800N4905. The calibration details are presented in the discussion on adjustments to assay values.

All data from the respective Brucker p-XRF was imported to a MS Excel spreadsheet where a unique sample identifier was assigned prior to being imported into a MS Access database. The reading location, associated geological observations and reading type information was recorded in Excel and was validated again after being imported into Access.

Final p-XRF QC data identified that 65% of p-XRF data did not require any calibration. Of the remaining 35% of the data that required calibration:

- For device 800N4905, the data collected between the 18/05/18 and the 25/06/18 needed to be calibrated -25% of data collected with this device and 16% of all data. The calibrations ranged from 0.95 to 1.30, averaging 1.16 for vanadium and 1.0 to 1.5, averaging 1.30 for uranium.
- For device 800N4143, the data collected from the 26/03 a needed to be calibrated 53% of data collected with this device and 19% of all data. Calibrations ranged from 0.80 to 1.45, averaging 1.21 for vanadium and 0.9 to 1.4, averaging 1.25 for uranium.

The calibrations were based on an iterative process of correlating the ICP assay data from CHUDD0002 and the p-XRF data collected over the calibration period. The calibrations were only applied to p-XRF data collected during the calibration periods.

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.

Criteria	JORC Code explanation	Commentary
		No quality control protocols have been located for the historical drilling.
		In 2012, SHK dispatched 40 kg of material to a contract standards manufacturer and three separate CRM series were manufactured (SHE-CRM1, SHE-CRM2 and SHE-CRM3). The 2013 drilling programme included 22 CRM samples submitted along with the 405 ½ core samples (a nominal submission rate of 5 per hundred samples). There were an additional 14 nominally 'blank' samples. The CRM results indicated that good analytical accuracy was achieved and the results for the blank material identified no cross sample contamination. As only half core was cut, no field duplicates were submitted and no laboratory duplicate data has been compiled.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	The 2017 p-XRF reading incorporated p-XRF duplicate readings (testing analytical precision) and p-XRF field duplicate readings (testing sample and analytical precision) at a rate of 1 in 20. A series of standards were tested at a similar rate of 1 in 20, but the available CRM material exhibited significant grade variation with time and are not considered representative. Analytical accuracy was demonstrated by the good correlation between the 2013 ICP assays and the 2017 p-XRF values. There was no grade variation with time observed with the ICP and p-XRF correlation data.
		A series of fused XRF disks were manufactured at a laboratory using existing certified reference material sourced from the Daejon project. The 3 fused disks were then read with the p-XRF devices at the start and end of each day and used during the day as standards for the p-XRF data collection.
		Neither p-XRF device has reproduced the accepted/expected standard grades, however this is expected as a function of the addition of flux material and loss on ignition during the creation of the fused discs. The CRM accepted means were re-scaled and using a +/- three standard deviation criterion, the performance of the analysis of the standards is acceptable. This is reinforced by the correlation observed between 'wet chemistry' and p-XRF readings during the orientation survey and the re-testing of CHUDD0002 at the end of the data collection stage.
Verification of sampling and assaying	The verification of cignificant intercactions by	The significant intersections in the 2013 drillhole data were independently verified during the 2017 orientation study by the Competent Person.
	either independent or alternative company personnel.	Independent verification of significant intersections has not been undertaken for the p-XRF data collected from the historic drill core. This is because to date, KIGAM will only allow non- destructive testing (NDT) of the core.
	The use of twinned holes.	There is no twinned assay data in the project area. However, there is historical drilling, trenches and an adit, all of which support the overall geology of the project and mineralisation.
		The available documentation regarding the data management for the 2013 drilling states that logging and sampling details were initially captured into a spreadsheet, which was then imported into Micromine software and checked for consistency and for any transcription errors.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	For the 2018 p-XRF data collection, the data from the p-XRF devices was collected onto a spreadsheet and a unique sample identifier assigned before being imported into a MS Access database. The p-XRF reading hole ID, sample from-to, etc. were recorded directly to Excel, where a unique sample identifier was assigned and then imported into an Access database. The p-XRF data and sample physicals were then cross-referenced against available commentary.

Criteria	JORC Code explanation	Commentary
		No adjustment to either the 2013 ICP analytical or the 2017 orientation p-XRF analysis has been made.
		With the full QC data set now available, 65% of the p-XRF data did not require additional calibration. However, both p-XRF devices had discrete periods where the collected data needed to be calibrated.
		For device 800N4905, considered the 'master' p-XRF device and used during the 2017 orientation study, a period from the 18/05 to the 26/06 required calibration. This constituted 25% of the data collected using this device (16% of all data). Calibrations ranged from 0.95 to 1.30, averaging 1.16 for vanadium, and 1.0 to 1.5, averaging 1.30 for uranium.
	Discuss any adjustment to assay data.	For device 800N4143, a period from the 23/03 required calibration. This constituted 53% of the data collected by this device (19% of all data). Calibrations ranged from 0.8 to 1.45, averaging 1.21 for vanadium, and 0.9 to 1.4, averaging 1.25 for uranium.
		The calibrations were derived by matching a combination of CRM samples and periodic re-testing of CHUDD0002, which was part of the orientation testwork and had ICP analytical 'wet chemistry data.
		The calibrations are considered appropriate, as the accuracy of the p-XRF device 800B4905 has previously been demonstrated in the orientation survey.
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations	For the historic drilling, no information has been located confirming the details of how the collar locations were surveyed when drilled. A verification programme of re-surveying the drillhole collars with differential GPS was undertaken in 2013, with all holes at Daejon being located and re-surveyed. The only downhole survey information for the historic drilling are collar compass orientation and inclination measurements. A total of 47 of the 91 holes are vertical. For the remaining inclined holes, six are less than 150 m depth and there are 26 holes between 200 and 460 m depth.
	used in Mineral Resource estimation.	In addition, there are a total of 13 trenches excavated across the project area. The locations for these trenches have not been verified.
		The collars for the 2013 drilling were re-surveyed using RTK-DGPS. The 2013 drilling was surveyed downhole using a downhole electronic multi-shot tool (EMS), with surveys taken at nominal 30 m intervals.
		The Daejon project is located within zone 52N.
	Specification of the grid system used.	No information detailing the grid system used for the historic drilling is available. The 2013 drilling and re-surveying was completed using the UTM coordinate system, on the WGS84 grid.
	Quality and adequacy of topographic control.	A digital terrain model (DTM) for the topography is available at a 5.0 m contour interval, which is considered adequate for the current Mineral Resource estimate.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The historical drilling is variably spaced, with drilling along strike ranging from 40 m to 275 m spaced sections, and across strike spacing ranging from 40 to 220 m. The Yokwang and Seongdang prospect areas are defined by single drillhole sections along the strike of mineralisation; however, mapping has confirmed black shale outcrop/sub-crop in these prospects. Drillhole intersection angles range between 50° and 90°.
		The five holes drilled in 2013 are spaced between 40 and 120 m along strike and 30 to 50 m vertically on section. The drillhole intersections with the mineralisation range between 50° and 70°.
	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.	The drillhole and sample spacing is variable but is considered to be sufficient to carry out a Mineral Resource estimate. The subsequent classification will reflect the confidence, geological and grade continuity derived from the available data.

Criteria	JORC Code explanation	Commentary		
		The 2013 drilling samples were taken at a constant sample length of 1.0 m samples.		
	Whether sample compositing has been applied.	The p-XRF readings were taken on a maximum 0.2 m interval and composited to a 1.0 m composite length.		
		Compositing has been applied for the reporting of significant intersections.		
Orientation of data in relation to	Whether the orientation of sampling achieves	The historic drilling intersects the mineralisation at between 50° and 90° and is not considered to have produced biased samples.		
geological structure	unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The 2013 drillhole intersection with the mineralisation is approximately 50° to 70° to the interpreted mineralisation and is not considered to have produced biased samples.		
	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.	The orientation of both the historic and 2013 drilling are considered unlikely to have introduced a sampling bias.		
		No information is available regarding the sample security of the historical data collection.		
Sample security	The measures taken to ensure sample security.	The 2013 drilling and sampling was conducted by Stonehenge Korea Ltd (SHK). No documentation is currently available regarding the sample security prior to transport of the core to Australia. The ½ core samples were transported to Australia by independent transport contractors with a documented paper trail until delivery to the independent contract laboratory in Brisbane, Australia.		
		The 2017 and 2018 p-XRF data collection were conducted and supervised by independent consultants.		
	The results of any audits or reviews of sampling	The sampling techniques and data available prior to 2017 have been reviewed as part of the 2011 and 2013 Mineral Resource updates, which were previously reported in accordance with the 2004 JORC Code.		
Audits or reviews	techniques and data.	An extensive review of the collar, downhole survey and available analytical data has been carried out as part of the 2018 update.		
		The p-XRF orientation study was reviewed as part of the Optiro Pty Ltd internal peer review process.		

# Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary	
Mineral tenement and land tenure status	eral tenement land tenure       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.         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.	Protean Energy Ltd (POW) is a 50% shareholder of the Korean registered company Stonehenge Korea Ltd (SHK). The remaining joint venture partners are in SHK are KOSDAQ listed DST Co Ltd (30% holding) and BHI Co Ltd (20% holding). SHK is the the registered tenement operator of the Daejon exploration and mining leases which are detailed in JORC Table 1, Appendix C and are 100% holders of the licence. There are no known issues with third parties and currently, there are no known impediments to progressing the project.	
		All tenure is understood to be in good standing. Tenements are due to expire in June 2019, with no known impediments to obtaining a continuing licence to operate in the area.	
		There is existing road tunnel infrastructure in the project area and a 200 m exclusion buffer has been used to exclude this material from the Mineral Resource.	

Criteria	JORC Code explanation	Commentary		
Exploration done by other parties		The tenement has been explored by the Korean Institute of Energy Research (KIER), a ROK agency from the 1970s to the 1980s. In addition to the KIER diamond drillholes, KIER completed 19 surface trenches ranging in lengths from 25 to 132 linear metres, which were excavated to a maximum depth of approximately 2 m.		
	Acknowledgment and appraisal of exploration by	In addition to the Chubu-Yokwang-Seongdang prospect, there have been 13 diamond holes drilled into the adjacent Kolnami prospect within the tenement area, which is a separate project.		
	otter parties.	A single adit was excavated with an approximate length of 300 m of underground development, exposing approximately 80 m of the black shale (host to the mineralisation).		
		Across the tenement area, ROK agencies have conducted two ground based radiometric surveys.		
		Available outcrop has been mapped, rocks chip sampled and assayed as well as p-XRF sampling across the tenement area.		
Geology	Deposit type, geological setting and style of mineralisation.	The vanadium and uranium mineralisation are hosted by a series of black shales within the late Proterozoic Ogcheong Belt, a marine sequence of sediments. There are at least three black shale horizons that are the host to the vanadium and uranium mineralization, which dips on average at 35° towards 325°. The shale horizons can be traced along surface for at least 10 km and have an apparent thickness of 15 to 40 m. The black shales are variably mineralized for vanadium and uranium.		
Drill hole Information	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: • easting and northing of the drill hole collar • elevation or RL (Reduced Level –	The KIER drilling for Chubu-Yokwang-Seongdang has not been previously reported. Of the 91 available holes in the prospect area, 78 holes in total have had p-XRF readings completed. The intersection information has been reported as vanadium and uranium intersections and is presented in Table 1, Appendix A1 and A2 for vanadium and uranium respectively.		
	<ul> <li>elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> </ul>	Both elemental vanadium and uranium, raw and calibrated p- XRF intersections have been reported as well as the calibrated oxide values.		
	<ul><li> down hole length and interception depth</li><li> hole length.</li></ul>	Recently completed sampling has informed previously isolated drillholes which are now reported.		
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and	The vanadium and uranium intersections have been reported using the respective from and to values. No grade truncations or top cutting factors were applied, reflecting the findings from the Mineral Resource estimate (Table 1, Section 3).		
	cut-off grades are usually Material and should be stated.	The vanadium interpretation was prepared at 560 ppm V (1,000 V <sub>2</sub> O <sub>5</sub> ) cut-off and the uranium interpretation prepared at a 100 ppm U (118 U <sub>3</sub> O <sub>8</sub> ) cut-off.		
	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 listed vanadium and uranium length-weighted composites intersections were prepared for reporting. Intervals of fragmented core that could not appropriately be tested by p- XRF have been listed.		
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents are reported.		
Relationship between mineralisation widths and intercept lengths	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 (e.g. 'down hole length, true width not known').	No grade-width relationship has previously been identified. The intersections angles range between 50° and 90°.		

Criteria	JORC Code explanation	Commentary
Diagrams	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.	A plan view of the available data is presented in Figure A1 and a vertical cross section in Figure A2.
Balanced reporting	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.	The reporting of exploration results is balanced and reflects the Competent Person's opinion of the geology and available sample data.
Other substantive exploration data		There have been two ground based radiometric surveys across the project area conducted by ROK agencies.
	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;	The adit excavated by KIER was re-entered in 2011 by SHK and a detailed underground sampling programme undertaken. This sampling programme provided bulk samples for metallurgical test work and provided material to create matrix matched certified reference material.
	metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics: potential deleterious or	SHK has mapped, rock chipped and p-XRF tested available outcrop.
	contaminating substances.	Metallurgical testing has shown that the uranium is readily extractable by conventional leaching processes. Metallurgical testwork is ongoing for vanadium.
	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or	
	large-scale step-out drilling).	Testing of the available core has been completed.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive	SHK is in discussions with KIGAM to plan access the historical drilling for further 'wet chemistry' analysis.

# Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	Approximately 10% of the available drilling results were checked against the available hardcopy, finding no discrepancies between the hardcopy and the digital data.
	Data validation procedures used.	The digital data was imported from Excel spreadsheets into an Access database and the key fields in the various tables checked. These were then desurveyed and the desurveyed information checked for consistency, and finding none, the drillhole data was checked spatially which identified no inconsistencies.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	A site visit was undertaken by the Competent Person, Kahan Cervoj, in mid-November 2017 during the initial orientation survey. Inspection of the Stonehenge Korea Ltd and KIGAM storage facilities was undertaken, with both facilities found to be well-managed and equipped.
	If no site visits have been undertaken indicate why this is the case.	A site visit was undertaken in November 2017.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	There is good confidence in the broad geological interpretation of the black shale lithologies. As the first interpretation of the vanadium and uranium mineralisation at the current 1.0 m data resolution for the entire project, the global scale confidence is good. Although the additional p-XRF data collected after the interim update in the Chubu area resulted in only minor edits to the interpretation, there is significantly less data in the Yokwang and Seondang areas. Hence, at a local scale at Chubu and at a broader scale at elsewhere, the confidence is less.
	Nature of the data used and of any assumptions made.	The p-XRF data to date has an acceptable level of accuracy and precision but is less precise than typical 'wet assay' analytical techniques.

JORC Code explanation	Commentary
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This is the first interpretation of the full project area using data

	The effect, if any, of alternative interpretations on Mineral Resource estimation.	at a 1.0 m scale and the geological understanding at this scale. Vanadium mineralisation was interpreted above 560 ppm V (1,000 ppm V <sub>2</sub> O <sub>5</sub> ) and the uranium mineralisation was interpreted above 100 ppm (118 ppm U <sub>3</sub> O <sub>8</sub> ). A total of fourteen vanadium mineralised domains and 12 uranium mineralised domains were interpreted. At a global scale there is little scope for alternative interpretations. Where additional data was available for the September update, minor edits to the mineralised shapes were required. However, at a local scale there remains considerable scope for variation in width and grade, which is reflected in the Mineral Resource classification. The available drilling suggests the volume of mineralisation is locally variable.
	The use of geology in guiding and controlling Mineral Resource estimation.	The mineralisation was restricted to the interpreted black shale horizons, which are the prospective host to vanadium or uranium mineralisation at Chubu. All mineralized boundaries were treated as hard boundaries.
	The factors affecting continuity both of grade and geology.	At a global scale, both the uranium and vanadium mineralisation pinches and swells with variable widths. Mineralisation appears to narrow with depth but to date, has not strictly been closed off along strike or at depth.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource	<ul> <li>There are 3 black shale horizons, all of which exhibit variable widths of vanadium and uranium mineralisation:</li> <li>South horizon – the black shale of the South horizon extends across the entire tenement area. Both the vanadium and uranium mineralisation can be traced as a hanging wall and foot wall mineralised lodes for 9,300 m along strike, 420 m vertically and with a true width from 1.6 to 46.3 m, with an average of 19.5 m.</li> <li>Mid horizon – the black shale of the Mid horizon extends along 2,700 m of the western side of the tenement area. The vanadium mineralisation can be traced as hanging wall and foot wall lodes in the west before becoming a series of anastomosing lodes in the central area. The mineralisation can be traced for 1,300 m along strike, 350 m vertically and averaging ranging from 1.0 to 67 m true width, averaging 25 m wide. Uranium mineralisation can be traced for 1,400 m along strike, up to 350 m vertically and averaging between 1 and 42 m true width, with an average of 14.8 m.</li> <li>North horizon – the black shale of the North horizon extends along 1,090 m of the central third of the tenement area. Vanadium mineralisation can be traced as an anastomosing series of lodes within the black shale for 700 m along strike, 220 m vertically and averaging between 3 and 46.9 m true width, with an average of 17.0 m. Uranium mineralisation can be traced as an anastomosing series of lodes within the black shale, that can be traced for 700m along strike, 350 m vertically and averaging between 0.9 and 46.0 m true width, at an average true width of 15.7m</li> </ul>

### **JORC Code explanation**

Estimation and modelling techniques

All block modelling and grade estimation was completed using Datamine Studio RM v1.3.11.0.

Only the 78 diamond holes with p-XRF data were used for grade estimation.

The 0.2 m p-XRF data was composited to 1.0 m length composite samples, which were then selected within mineralised interpretations prepared at 560 ppm V and 100 ppm U. The vanadium and uranium mineralisation are intercalated and is not always co-located. There is no correlation between the vanadium and uranium grades. Grade estimation used separate vanadium and uranium interpretations, which were treated as hard boundaries. The CV for the vanadium and uranium mineralised domains are all less than 1.1 (most less than 1.0) and were not top-cut/capped. Ordinary kriging was selected as the grade interpolation technique.

A multiple search pass strategy was used for grade estimation of both vanadium and uranium. Search pass 1 used a search distance of 250 m along strike and down dip, and 40 m across strike, with a maximum of 4 samples per hole. Passes 2, 3 and 4 did not use any restriction on the number of samples per drillhole. The number of samples was derived from kriging neighbourhood analysis (KNA), that for vanadium identified 8 to 30 samples as being optimal and for uranium 8 to 36 samples. The search ellipses were aligned with the respective stratigraphic horizons.

Normal-score transformed variograms were used to model the spatial continuity, but only the footwall and hanging wall mineralisation of the South shale horizon had sufficient sampling to derive variography. Mineralisation that had insufficient samples to support variography used the variogram that best matched the stratigraphic position and/or statistical parameters of the modelled mneralisation

The grade estimate used a discretization of 8 E x 4 N x 2 RL.

The maximum distance of extrapolation was 375 m in the plane of the mineralisation, along a mineralised zone that can be traced along 5.8 km.

The 2011/2013 vanadium estimate was for a small area of the project. Within a common area and reported at a 2,000 ppm V2O5 cut-off, the 2018 final estimate has 13% more tonnes and 3% lower vanadium grade than the 2013 estimate.

The previous uranium estimate for the full project area was the 2011/2013 combined estimate, using eU3O8 data across the entire project area and uranium ICP assay data for a small area supported by the 2013 drilling.

For uranium, the 2013 estimate across the entire project area was based on equivalent U<sub>3</sub>O<sub>8</sub> data derived from downhole natural gamma readings and the five SHK holes that had ICP data and the estimate was informed by 1,179 samples. Using a 200 ppm U<sub>3</sub>O<sub>8</sub> reporting cut-off, the 2018 estimate has 45% less tonnes, at a 22% lower uranium grade than the 2011/2013 estimate.

The assumptions made regarding recovery of by- products.	For reporting of the 2018 Mineral Resource, it has been assumed that the vanadium will be valued on the vanadium only and carrying uranium co product. The remaining uraniferous- only material, will be valued as a uranium product only.
Estimation of deleterious elements or other non- grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	No deleterious elements have been recognised or estimated.
In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	The block size is 25 m in the along strike, 10 m across strike and 5 m vertically. The block size was derived from kriging neighbourhood analysis, assuming an effective parent block height of 5.0 m. In the Chubu area, the hole spacing is irregular, but ranges from 40 to 135 m along strike and 50 to 115 m across strike. In the Yokwang and Seondang prospects of the deposit, the spacing increases to 180 to 500 m along strike, with single drillholes on section.
	The primary search radius is 250 m along strike and down dip

and 40 m across strike.

The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values. domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.

Esti gra sulp

The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.

Criteria	JORC Code explanation	Commentary
	Any assumptions behind modelling of selective mining units.	Other than the assumption that future mining will be on a nominal 5.0 m vertical increment to optimize the mining of a 35° dipping mineralisation, no SMU assumptions have been made for the modelling.
	Any assumptions about correlation between variables.	There has been no evidence to date of any correlation between vanadium, uranium or specific gravity/dry bulk density.
	Description of how the geological interpretation was used to control the resource estimates.	The vanadium and uranium estimation were constrained by the respective mineralised interpretations and by the black shale horizons and the two West Fault structures. All boundaries were treated as hard boundaries.
	Discussion of basis for using or not using grade cutting or capping.	The respective domain statistics for vanadium and uranium had low coefficients of variation (CV) and low to moderate coefficients of skew, and hence no top-cuts were applied.
	The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	The estimates were initially reviewed spatially on section and on plan, with good correlation between the input composites and the estimate. Global composite and estimate averages were then compared which correlated well; swath plots were prepared, which also showed good correlation between samples and the estimate.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	No determination of moisture content has been undertaken. A dry bulk density of 2.6 t/m3 has been applied based on specific gravity determinations which averaged between 2.65 to 2.70.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied	<ul> <li>The 2018 Mineral Resource has been reported as a vanadium resource above 2,000 ppm V2O5, with a separate uranium resource above 200 ppm U3O8. These are the same reporting criteria used to report the previous estimate.</li> <li>As the vanadium and uranium mineralisation is frequently colocated but not correlated, reporting of the Mineral Resource used a two-part strategy: <ol> <li>Vanadium mineralisation that has a uranium coproduct. Material that meets the vanadium reporting criteria is reported first, with a uranium grade.</li> </ol> </li> <li>Remaining uranium only material using a uranium reporting cut-off exclusively.</li> </ul>
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	It has been assumed that mineralisation shallower than 300 m vertically below surface can be exploited by open pit mining methods. Material below this depth has been excluded from the reported Mineral Resource. A road tunnel passes through the Daejon mineralisation. A 200 m exclusion buffer has been used to exclude this material from the Mineral Resource.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	For vanadium, ongoing metallurgical testing has demonstrated that the vanadium can be recovered, but with variable recoveries and metallurgical work continues. Metallurgical testing to date has consistently demonstrated that the uranium can be recovered by conventional leaching techniques.

Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made	The environmental aspects have not been considered as part of this Mineral Resource assessment, other than the assumption that any future work will comply with existing and future environmental management legislation. The Daejon project is still at an early resource development stage and environmental considerations will be dependent on the mining and processing option which are still to be fully explored. The Republic of Korea has advanced materials, industrial and nuclear industries.
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	The dry bulk density has been assumed at 2.6 t/m3. This is based on 41 specific gravity determinations which ranged from 2.48 to 3.05 but averaged 2.7 and typical dry bulk density values for typical shales which range from 2.4 to 2.8 t/m3.
	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit,	The measurement of specific gravity was by immersion of dried core. Although no additional sealing of the core was made, the core is 'tight' and does not have vugs, pores or porosity.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	The dry bulk density has been applied only to the black shale material and is considered appropriate for this material type. The available specific gravity is slightly higher than then applied density, but this is consistent with the Competent Person's experience in comparing specific gravity and bulk density determinations.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories	Classification has been based on the quality and quantity of available data, the spatial distribution of data and assessment of a variety of estimation metrics including kriging efficiency, variance and slope of regression. To date, the p-XRF data has demonstrated sufficient precision and accuracy to support Inferred and Indicated Mineral Resources. For the vanadium Mineral Resource, a small area informed by the 2013 drilling has been classified as Indicated Mineral Resource on the basis that the geological and grade continuity has been demonstrated and there is sufficient quality and types of data to support the classified as an Inferred Mineral Resource has been classified as an Inferred Mineral Resource. The uranium Mineral Resource has been classified as an Inferred Mineral Resource at best, because of the lower sampling precision observed to date. There remains material either deeper than 300 m vertical depth below surface, or where there is insufficient confidence to define either the grade or geometry. This material has been excluded from the reported Mineral Resource.
	Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	All relevant factors have been taken in to account in the classification and reporting of the Mineral Resource.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The result appropriately reflects the Competent Person's view of the data, deposit geology, mineralisation and Mineral Resource.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	The Mineral Resource has been peer reviewed internally but no independent review has been undertaken.

### JORC Code explanation

Commentary

Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate

The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used

These statements of relative accuracy and confidence of the estimate should be compared with production data, where available There is good confidence in the analytical data for vanadium as demonstrated by the analytical and sampling precision and accuracy. For uranium, the demonstrated analytical precision is not as good as the vanadium but is currently sufficient to support an Inferred Mineral Resource.

This has been reflected in the Mineral Resource classification applied.

Both the Inferred and Indicated Mineral Resource is considered a global estimate.

No production data is currently available. A small exploration adit has been used to source bulk samples, however, it only partially tests the mineralised horizon and only incomplete production records are available for reconciliation.

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	01110	Collar						7	Me	tres		Vanadium pp	om	True thickness
	внір	XCOLLAR	YCOLLAR	ZCOLLAR	EOH	Azimuth	Dip	Zone	From	То	V p-XRF	V Calibrated	Calibrated V <sub>2</sub> O <sub>5</sub>	(m)
	CHUDD0001	362142	4008896	402	342	165	22	S3-HW	264.0	277.0	1,396	1,396	2,492	9.6
	CHUDD0001							S3-FW	299.0	336.0	1,205	1,205	2,151	26.3
	CHUDD0002	362151	4008897	402	407	148	7	S3-HW	307.0	345.0	2,456	2,456	4,383	24.3
$(\bigcirc)$	CHUDD0002							S3-FW	352.0	392.0	853	853	1,522	23.7
	CHUDD0003	362150	4008897	403	337	157	30	S3-HW	265.0	296.0	1,978	1,978	3,530	26.3
(15)	CHUDD0003							S3-FW	302.4	321.0	1,102	1,102	1,967	15.3
	CHUDD0004	362141	4008895	402	371	175	26	S3-HW	279.0	314.0	1,600	1,600	2,856	25.4
(0)	CHUDD0004							S3-FW	317.0	352.0	826	826	1,474	24.4
	CHUDD0005	362142	4008898	402	303	163	38	S3-HW	236.2	260.0	2,024	2,024	3,613	20.9
	CHUDD0005							S3-FW	273.0	288.0	1,641	1,641	2,930	13.0
	79-DE-10	361357	4007676	350	170	270	90	S1-FW	91.4	94.0	1,027	1,027	1,834	2.1
$(\overline{\Omega}D)$	79-DE-13	361426	4007754	286	125	0	90	S1-HW	71.0	85.0	2,313	2,313	4,129	11.5
	79-DE-13							S1-HW	85.0	89.0	Core fragme	ented, unable to o	otain p-XRF reading	3.3
	79-DE-13							S1-HW	89.0	93.0	1,288	1,288	2,300	3.3
$\bigcirc$	79-DE-13							S1-FW	107.0	110.0	871	871	1,555	2.5
	79-DE-13							S1-FW	110.0	112.4	Core fragme	ented, unable to o	otain p-XRF reading	2.0
	79-DE-13							S1-FW	112.4	122.0	932	932	1,664	7.9
	79-DE-19	361602	4008056	320	140	270	90	S2-CNT1	92.0	97.0	1,317	1,317	2,350	4.1
(D)	79-DE-19							S2-CNT1	97.0	99.2	Core fragme	ented, unable to o	otain p-XRF reading	1.8
$\overline{\bigcirc}$	79-DE-19							S2-CNT1	99.2	102.4	1,616	1,616	2,884	2.6
	79-DE-21	361652	4008185	389	161	138	70	S2-CNT1	120.0	128.0	1,635	1,635	2,918	7.7
	79-DE-21							S2-CNT1	128.0	132.0	Core fragme	ented, unable to o	otain p-XRF reading	3.9
	79-DE-21							S2-CNT1	132.0	135.0	847	847	1,512	2.9
	79-DE-21							S2-CNT1	135.0	141.0	Core fragme	ented, unable to o	otain p-XRF reading	5.8
	79-DE-21							S2-CNT1	141.0	146.0	1,368	1,368	2,441	4.8
	79-DE-22	361832	4008285	415	210	0	90	S2-CNT1	130.0	147.6	1,674	1,674	2,988	14.4
	79-DE-22							S2-CNT1	147.6	152.0	Core fragme	ented, unable to o	otain p-XRF reading	3.6

# , Appendix A1: Daejon vanadium drillhole intersections

		Collar						7	Met	tres	Vanadium ppm		True thickness	
	внір	XCOLLAR	YCOLLAR	ZCOLLAR	EOH	Azimuth	Dip	Zone	From	То	V p-XRF	V Calibrated	Calibrated V <sub>2</sub> O <sub>5</sub>	(m)
	79-DE-22							S2-CNT1	152.0	156.8	1,490	1,490	2,660	3.9
D	79-DE-22							S2-CNT1	156.8	160.0	Core fragm	ented, unable to ol	btain p-XRF reading	2.6
	79-DE-22							S2-CNT1	160.0	162.0	2,629	2,629	4,692	1.6
	79-DE-23	361861	4008426	350	150	0	90	S3-FW	115.0	118.8	2,871	2,871	5,125	3.1
	79-DE-23													
	79-DE-23							S3-FW	121.0	122.6	446	446	796	1.3
	79-DE-31	362645	4008894	414	200	0	90	S3-HW	46.2	56.0	1,753	1,753	3,130	8.0
	79-DE-31							S3-FW	63.0	73.0	1,389	1,389	2,480	8.2
	79-DE-36	363061	4009227	420	130	138	60	S3-HW	76.0	78.6	1,349	1,349	2,409	2.6
	79-DE-36							S3-FW	81.0	90.0	1,051	1,051	1,876	8.9
	79-DE-37	363165	4009280	349	120	138	70	S3-FW	60.0	61.8	791	791	1,413	1.7
	79-DE-4	360952	4007573	423	148	0	90	M1-HW	64.2	70.0	894	1,074	1,918	4.8
	79-DE-5	361002	4007631	407	196	0	90	M1-FW	78.0	79.0	609	731	1,304	0.8
	79-DE-5							M1-FW	79.0	88.0	Core fragm	ented, unable to ol	btain p-XRF reading	7.4
	79-DE-5							M1-FW	88.0	91.0	938	1,207	2,154	2.5
	79-DE-6	361110	4007660	415	193	138	70	M1-HW	27.0	29.0	2,199	2,199	3,926	1.9
	79-DE-6							M1-FW	43.0	62.0	1,276	1,276	2,277	18.3
	79-DE-8	361238	4007642	399	141	180	90	S1-HW	103.4	110.0	1,382	1,382	2,468	5.4
	79-DE-8							S1-FW	119.0	119.8	863	863	1,540	0.7
	80-DE2-10	361459	4008076	359	331	138	70	S2-CNT1	97.0	122.0	1,676	1,676	2,992	24.1
	80-DE2-10							S2-CNT1	122.0	135.0	Core fragm	ented, unable to ol	btain p-XRF reading	12.5
	80-DE2-10							S2-CNT1	135.0	147.0	1,920	1,920	3,427	11.6
	80-DE2-11	361567	4008195	383	325	180	90	S2-CNT1	182.0	204.0	1,591	1,591	2,840	18.0
	80-DE2-11							S2-CNT1	204.0	208.0	Core fragm	ented, unable to ol	btain p-XRF reading	3.3
	80-DE2-11							S2-CNT1	208.0	213.0	1,248	1,248	2,228	4.1
	80-DE2-2	360597	4007669	384	220	138	70	M1-HW	141.0	145.0	873	873	1,559	3.9
	80-DE2-2							M1-FW	191.0	198.0	1,636	1,636	2,920	6.7
	80-DE2-2							M1-FW	198.0	206.0	Core fragm	ented, unable to o	btain p-XRF reading	7.7

	DUUD.	Collar						7	Met	tres		Vanadium ppm		True thickness
	внір	XCOLLAR	YCOLLAR	ZCOLLAR	EOH	Azimuth	Dip	Zone	From	То	V p-XRF	V Calibrated	Calibrated V <sub>2</sub> O <sub>5</sub>	(m)
	80-DE2-2							M1-FW	206.0	210.6	1,200	1,200	2,142	4.4
D	80-DE2-3	360773	4007685	398	200	138	70	M1-HW	117.0	122.0	2,491	2,491	4,446	4.8
	80-DE2-3							M1-FW	156.0	181.0	1,056	1,056	1,886	24.1
	80-DE2-7	361293	4007766	340	180	0	90	S1-HW	116.0	119.0	2,388	2,388	4,262	2.5
	80-DE2-7							S1-FW	139.0	140.0	1,245	1,245	2,222	0.8
	80-DE2-9	361388	4007879	349	270	138	70	M2-FW	6.0	16.0	771	944	1,685	9.6
	80-DE2-9							S2-CNT1	181.0	203.0	1,144	1,419	2,534	21.2
	80-DE-11	361179	4008025	468	200	138	70	N2-HW	57.0	60.0	1,560	1,560	2,785	2.9
	80-DE-11							N2-CNT1	90.0	107.0	2,148	2,148	3,835	16.4
	80-DE-11							N2-CNT2	127.0	131.0	2,918	2,918	5,208	3.9
	80-DE-12	361313	4007916	361	170	138	70	M2-FW	118.0	132.0	870	870	1,553	13.5
	80-DE-14	361222	4008139	454	200	138	70	N2-CNT1	131.0	134.0	1,225	1,225	2,186	2.9
	80-DE-14							N2-CNT2	145.0	148.0	933	933	1,665	2.9
	80-DE-15	361433	4007939	360	201	138	60	S2-CNT1	164.0	182.8	1,876	1,876	3,348	18.7
	80-DE-15							S2-CNT1	182.8	185.0	Core fragm	ented, unable to ol	btain p-XRF reading	2.2
	80-DE-15							S2-CNT1	185.0	190.0	1,137	1,137	2,030	5.0
	80-DE-16	361439	4007905	363	170	100	70	S2-CNT1	124.0	143.0	875	1,067	1,905	17.9
	80-DE-17	361345	4008167	464	200	138	80	N2-HW	72.2	73.0	635	762	1,360	0.7
	80-DE-17							N2-HW	73.0	75.4	Core fragm	ented, unable to ol	btain p-XRF reading	2.2
	80-DE-17							N2-HW	75.4	77.0	1,101	1,465	2,615	1.4
	80-DE-17							N2-CNT1	94.0	96.0	1,207	1,589	2,836	1.8
	80-DE-18	361465	4008230	443	150	0	90	N2-HW	72.4	77.0	704	704	1,256	3.8
	80-DE-20	361536	4008318	485	150	270	90	N2-HW	136.6	140.6	696	696	1,243	3.3
	80-DE-24	361912	4008516	350	200	184	90	S3-HW	120.0	126.4	843	1,032	1,842	5.2
	80-DE-24							S3-HW	126.4	130.0	Core fragm	ented, unable to ol	btain p-XRF reading	2.9
	80-DE-24							S3-HW	130.0	137.6	1,174	1,376	2,456	6.2
	80-DE-24							S3-FW	179.0	180.0	802	1,058	1,889	0.8
	80-DE-26	362111	4008600	384	180	0	90	S3-HW	118.0	152.0	1,493	1,493	2,665	27.9

	DUUD	Collar						7	Met	res	Vanadium ppm		True thickness	
	внір	XCOLLAR	YCOLLAR	ZCOLLAR	EOH	Azimuth	Dip	Zone	From	То	V p-XRF	V Calibrated	Calibrated V <sub>2</sub> O <sub>5</sub>	(m)
	80-DE-26							S3-FW	164.0	169.0	1,073	1,073	1,916	4.1
ע	80-DE-27	362281	4008707	408	150	180	90	S3-HW	95.0	120.6	1,430	1,430	2,553	21.0
	80-DE-27							S3-FW	136.0	141.0	776	776	1,385	4.1
	80-DE-27							S3-FW	141.0	144.0	Core fragm	ented, unable to o	btain p-XRF reading	2.5
	80-DE-27							S3-FW	144.0	147.0	653	653	1,165	2.5
	80-DE-28	362376	4008735	479	210	90	90	S3-HW	179.0	186.0	843	843	1,504	5.7
	80-DE-29	362440	4008839	423	160	0	90	S3-HW	140.0	147.6	1,067	1,067	1,904	6.2
	80-DE-29							S3-FW	150.2	150.8	2,135	2,135	3,810	0.5
	80-DE-29							S3-FW	150.8	153.2	Core fragm	ented, unable to o	btain p-XRF reading	2.0
	80-DE-29							S3-FW	153.2	155.0	1,036	1,036	1,850	1.5
	80-DE-30	362538	4008848	426	120	180	90	S3-FW	96.0	101.0	1,278	1,278	2,281	4.1
	80-DE-32	362677	4009001	441	200	187	90	S3-FW	150.0	157.0	1,252	1,252	2,235	5.7
	80-DE-33	362794	4009029	450	180	180	90	S3-HW	110.0	113.0	1,321	1,321	2,358	2.5
	80-DE-33							S3-CNT1	130.0	131.0	609	609	1,086	0.8
	80-DE-33							S3-FW	141.0	148.0	1,210	1,210	2,161	5.7
	80-DE-34	362864	4009083	452	210	138	70	S3-HW	139.0	148.0	1,755	1,755	3,132	8.7
	80-DE-34							S3-CNT1	155.4	157.4	1,102	1,102	1,968	1.9
	80-DE-34							S3-CNT1	157.4	160.0	Core fragm	ented, unable to o	btain p-XRF reading	2.5
	80-DE-34							S3-CNT1	160.0	163.0	1,868	1,868	3,334	2.9
	80-DE-34							S3-FW	180.0	188.0	754	754	1,347	7.7
	80-DE-38	363209	4009327	395	180	138	70	S3-HW	63.0	72.4	1,142	1,142	2,038	9.1
	80-DE-38							S3-FW	82.2	101.0	1,657	1,657	2,958	18.1
	80-DE-39	363251	4009470	277	140	138	70	S3-FW	14.0	21.0	584	584	1,043	6.7
	80-DE-7	361138	4007817	422	155	138	70	M1-HW	61.0	68.4	987	987	1,761	7.1
	80-DE-7							M1-FW	72.0	80.0	2,050	2,050	3,659	7.7
	80-DE-9	361264	4007912	401	170	0	90	M2-HW	68.0	85.0	1,932	1,932	3,449	13.9
	80-DE-9							M2-HW	85.0	111.0	Core fragm	ented, unable to o	btain p-XRF reading	21.3
	80-DE-9							M2-HW	111.0	135.0	1,192	1,192	2,127	19.7

RUID	Collar						7	Met	Metres Vanadium ppm			om	True thickness
внір	XCOLLAR	YCOLLAR	ZCOLLAR	EOH	Azimuth	Dip	Zone	From	То	V p-XRF	V Calibrated	Calibrated V <sub>2</sub> O <sub>5</sub>	(m)
80-DE-9							M2-FW	155.0	159.0	2,223	2,223	3,968	3.3
81-DE2-12	361647	4008363	433	350	7	90	S2-CNT1	241.0	245.8	5,312	5,312	9,481	3.9
81-DE2-12							S2-CNT1	245.8	249.0	Core fragm	ented, unable to o	btain p-XRF reading	2.6
81-DE2-12							S2-CNT1	249.0	272.0	798	798	1,425	18.8
81-DE2-12							S2-CNT1	272.0	278.0	Core fragm	ented, unable to o	btain p-XRF reading	4.9
81-DE2-12							S2-CNT1	278.0	281.0	718	718	1,281	2.5
81-DE2-12							S2-CNT1	281.0	286.0	Core fragm	ented, unable to o	btain p-XRF reading	4.1
81-DE2-12							S2-CNT1	286.0	286.8	611	611	1,090	0.7
81-DE2-13	361730	4008485	361	300	187	90	S3-HW	197.0	208.0	1,039	1,039	1,855	9.0
81-DE2-13							S3-FW	239.0	276.0	1,050	1,050	1,874	30.3
81-DE2-14	361831	4008611	376	320	7	90	S3-HW	221.0	222.8	668	833	1,487	1.5
81-DE2-14							S3-HW	222.8	226.0	Core fragm	ented, unable to o	btain p-XRF reading	2.6
81-DE2-14							S3-HW	226.0	228.0	2,263	2,644	4,720	1.6
81-DE2-14							S3-FW	258.0	293.8	1,409	1,652	2,950	29.3
81-DE2-15	361977	4008711	416	363	0	90	S3-HW	307.0	315.0	1,260	1,260	2,250	6.6
81-DE2-15							S3-FW	336.0	343.0	1,387	1,387	2,476	5.7
81-DE2-16	362129	4008735	445	290	180	90	S3-HW	216.0	221.8	1,227	1,227	2,189	4.8
81-DE2-16							S3-HW	221.8	225.4	Core fragm	ented, unable to o	btain p-XRF reading	2.9
81-DE2-16							S3-HW	225.4	230.0	897	1,117	1,994	3.8
81-DE2-16							S3-FW	240.0	252.6	867	1,100	1,963	10.3
81-DE2-16							S3-FW	252.6	255.0	Core fragm	ented, unable to o	btain p-XRF reading	2.0
81-DE2-16							S3-FW	255.0	257.0	539	646	1,153	1.6
81-DE2-17	362198	4008921	423	280	138	70	S3-HW	237.0	240.0	1,798	1,798	3,210	2.9
81-DE2-17							S3-FW	251.0	254.0	1,340	1,340	2,392	2.9
81-DE2-19	362528	4008981	429	300	0	90	S3-HW	169.0	179.4	1,533	1,533	2,737	8.5
81-DE2-19							S3-FW	196.0	206.0	985	985	1,759	8.2
81-DE2-22	362894	4009236	372	200	138	70	S3-HW	138.0	141.0	1,512	1,512	2,700	2.9
81-DE2-22							S3-FW	151.0	158.0	1,866	1,866	3,331	6.7

	Collar Zone Metres								Vanadium pp	om	True thickness			
	внір	XCOLLAR	YCOLLAR	ZCOLLAR	EOH	Azimuth	Dip	Zone	From	То	V p-XRF	V Calibrated	Calibrated V <sub>2</sub> O <sub>5</sub>	(m)
	81-DE2-23	363032	4009329	370	220	138	70	S3-HW	116.0	122.0	2,873	2,873	5,129	5.8
5	81-DE2-23							S3-FW	128.4	132.0	1,412	1,412	2,520	3.5
	81-DE2-4	360943	4007712	477	300	183	90	M1-HW	156.0	169.0	1,226	1,480	2,641	10.6
	81-DE2-4							M1-FW	177.0	202.8	1,215	1,422	2,538	21.1
)	81-DE2-4							M1-FW	202.8	209.0	Core fragm	ented, unable to ol	btain p-XRF reading	5.1
	81-DE2-4							M1-FW	209.0	230.0	1,424	1,729	3,086	17.2
)	81-DE2-5	361041	4007848	489	300	0	90	M1-HW	158.2	183.0	1,332	1,332	2,378	20.3
	81-DE2-6	361126	4007994	472	320	0	90	N2-CNT1	141.6	142.6	1,742	1,742	3,109	0.8
)	81-DE2-6							N2-CNT1	142.6	146.0	Core fragm	ented, unable to ol	btain p-XRF reading	2.8
)	81-DE2-6							N2-CNT1	146.0	146.8	1,739	1,739	3,103	0.7
	81-DE2-6							N2-CNT1	146.8	149.2	Core fragm	ented, unable to ol	btain p-XRF reading	2.0
	81-DE2-6							N2-CNT1	149.2	170.0	1,147	1,147	2,047	17.0
)	81-DE2-6							N2-CNT2	209.0	212.0	2,020	2,020	3,607	2.5
	81-DE2-6							N2-FW	233.0	237.0	1,257	1,257	2,244	3.3
	81-DE2-8	361257	4008076	395	274	138	70	N2-HW	23.0	26.8	1,738	1,738	3,102	3.7
)	81-DE2-8							N2-CNT1	37.0	41.0	1,624	1,624	2,900	3.9
	81-DE2-8							N2-CNT2	57.0	70.6	1,537	1,537	2,743	13.1
	81-DE2-8							N2-CNT2	70.6	73.0	Core fragm	ented, unable to o	btain p-XRF reading	2.3
	81-DE2-8							N2-CNT2	73.0	78.8	3,868	3,868	6,905	5.6
)	81-DE2-8							N2-CNT2	78.8	81.0	Core fragm	ented, unable to o	btain p-XRF reading	2.1
	81-DE2-8							N2-CNT2	81.0	92.0	1,463	1,463	2,612	10.6
	82-DEY-1	363806	4009869	217	280	143	70	S3-FW	236.0	257.6	1,260	1,260	2,249	20.8
	82-DEY-3	364964	4010653	382	190	143	70	S3-HW	95.0	138.0	1,690	1,690	3,016	41.3
	82-DEY-3							S3-FW	147.0	177.6	2,511	2,511	4,483	29.4
	82-DE3-10	362130	4009000	378	340	138	70	S3-HW	289.0	295.0	1,674	1,674	2,989	5.8
	82-DE3-10							S3-FW	299.0	301.0	1,563	1,563	2,790	1.9
	82-DE3-12	362528	4009148	344	310	138	70	S3-HW	233.0	239.0	1,366	1,366	2,438	5.8
	82-DE3-12							S3-FW	245.0	247.0	738	738	1,318	1.9

BUUD	Collar						7	Met	tres		Vanadium pp	om	True thickness
ыпр	XCOLLAR	YCOLLAR	ZCOLLAR	EOH	Azimuth	Dip	Zone	From	То	V p-XRF	V Calibrated	Calibrated V <sub>2</sub> O <sub>5</sub>	(m)
82-DE3-13	362677	4009323	310	293	138	70	V_WASTE				No significant inter	rsection	
82-DE3-2	360655	4007764	449	370	0	90	M1-HW	259.0	270.0	1,050	1,222	2,181	9.0
82-DE3-2							M1-FW	279.0	285.0	643	790	1,410	4.9
82-DE3-3	360832	4007869	525	400	148	90	M1-HW	322.0	328.0	803	968	1,728	4.9
82-DE3-3							M1-FW	336.0	342.0	553	683	1,219	4.9
82-DE3-3							M1-FW	342.0	348.0	Core fragm	ented, unable to ol	btain p-XRF reading	4.9
82-DE3-3							M1-FW	348.0	349.0	690	828	1,479	0.8
82-DE3-4	361454	4007897	362	370	0	90	S2-CNT1	220.0	227.8	2,711	3,020	5,391	6.4
82-DE3-4							S2-CNT1	227.8	230.0	Core fragm	ented, unable to o	btain p-XRF reading	1.8
82-DE3-4							S2-CNT1	230.0	251.8	1,617	1,811	3,233	17.9
82-DE3-4							S2-CNT1	251.8	254.0	Core fragm	ented, unable to ol	btain p-XRF reading	1.8
82-DE3-4							S2-CNT1	254.0	262.0	2,393	2,635	4,703	6.6
82-DE3-6	361521	4008421	477	410	182	90	S2-CNT1	360.0	368.0	1,352	1,352	2,413	6.6
82-DE3-6							S2-CNT1	368.0	382.0	Core fragm	ented, unable to ol	btain p-XRF reading	11.5
82-DE3-6							S2-CNT1	382.0	383.0	608	608	1,086	0.8
82-DE3-6							S2-CNT1	383.0	386.0	Core fragm	ented, unable to ol	btain p-XRF reading	2.5
82-DE3-6							S2-CNT1	386.0	388.6	1,187	1,187	2,119	2.1
82-DE3-7	361668	4008609	466	460	187	90	S3-HW	380.0	389.0	1,327	1,663	2,969	7.4
82-DE3-7							S3-FW	410.0	440.0	1,762	2,056	3,669	24.6
82-DE3-8	361816	4008732	465	460	180	90	S3-HW	407.0	412.0	1,016	1,016	1,814	4.1
82-DE3-8							S3-FW	419.0	429.0	2,047	2,047	3,655	8.2
82-DE3-9	362036	4008796	471	440	227	90	S3-HW	342.0	350.0	793	950	1,695	6.6
82-DE3-9							S3-FW	361.0	364.0	977	1,302	2,324	2.5
83-DEY-1	363976	4009969	303	270	143	70	S3-HW	194.0	199.0	1,841	2,287	4,082	4.8
83-DEY-1							S3-FW	209.0	211.0	1,484	1,922	3,431	1.9
83-DEY-1							S3-FW	211.0	224.0	Core fragm	ented, unable to ol	btain p-XRF reading	12.5
83-DEY-1							S3-FW	224.0	249.6	1,598	1,963	3,504	24.6
83-DEY-10	367,284	4,012,040	419	370	143	70	V_WASTE				No significant inter	rsection	

	DUID	Collar						7000	Met	res		Vanadium pp	om	True thickness
	ыпр	XCOLLAR	YCOLLAR	ZCOLLAR	EOH	Azimuth	Dip	Zone	From	То	V p-XRF	V Calibrated	Calibrated V <sub>2</sub> O <sub>5</sub>	(m)
	83-DEY-11	367692	4012337	348	300	143	70	S3-FW	117.0	124.0	1,017	1,269	2,265	6.7
2	83-DEY-11							S3-FW	124.0	165.0	Core fragm	ented, unable to ol	btain p-XRF reading	39.4
	83-DEY-11							S3-FW	165.0	193.0	937	1,173	2,094	26.9
	83-DEY-11							S3-FW	193.0	196.4	Core fragm	ented, unable to o	btain p-XRF reading	3.3
	83-DEY-11							S3-FW	196.4	200.4	607	745	1,330	3.8
	83-DEY-2	364148	4010071	386	270	143	70	S3-HW	130.0	135.0	1,518	1,902	3,395	4.8
	83-DEY-2							S3-HW	135.0	149.0	Core fragm	ented, unable to ol	btain p-XRF reading	13.5
	83-DEY-2							S3-HW	149.0	162.4	1,594	1,990	3,552	12.9
	83-DEY-2							S3-HW	162.4	166.2	Core fragm	ented, unable to o	btain p-XRF reading	3.7
	83-DEY-2							S3-HW	166.2	172.0	803	1,018	1,817	5.6
	83-DEY-2							S3-FW	176.0	190.8	2,066	2,540	4,534	14.2
	83-DEY-2							S3-FW	190.8	205.4	Core fragm	ented, unable to ol	btain p-XRF reading	14.0
	83-DEY-2							S3-FW	205.4	209.0	1,041	1,266	2,259	3.5
	83-DEY-3*	364287	4010228	400	290	143	70	S3-HW	101.6	109.0	2,678	2,678	4,779	7.1
	83-DEY-3*							S3-HW	109.0	112.0	Core fragm	ented, unable to ol	btain p-XRF reading	2.9
	83-DEY-3*							S3-HW	112.0	178.0	1,650	1,650	2,945	63.4
	83-DEY-3*							S3-FW	189.0	198.4	1,500	1,500	2,677	9.0
	83-DEY-3*							S3-FW	198.4	201.0	Core fragm	ented, unable to o	btain p-XRF reading	2.5
	83-DEY-3*							S3-FW	201.0	209.6	1,175	1,175	2,097	8.3
	83-DEY-4	364433	4010365	328	290	143	70	S3-HW	88.0	103.0	1,454	1,772	3,163	14.4
	83-DEY-4							S3-FW	135.0	144.0	1,038	1,297	2,316	8.6
	83-DEY-6	364858	4010636	284	180	143	70	S3-FW	164.0	171.0	2,140	2,580	4,605	6.7
	83-DEY-7	365151	4010730	358	230	270	90	S3-HW	99.0	111.0	826	1,007	1,798	9.8
	83-DEY-7							S3-HW	111.0	119.0	Core fragm	ented, unable to ol	btain p-XRF reading	6.6
	83-DEY-7							S3-HW	119.0	120.0	498	581	1,037	0.8
	83-DEY-7							S3-FW	168.0	191.6	1,664	2,038	3,637	19.3
	83-DEY-7							S3-FW	191.6	195.0	Core fragm	ented, unable to o	btain p-XRF reading	2.8
	83-DEY-7							S3-FW	195.0	197.0	894	1,106	1,975	1.6

BUUD	Collar						7000	Me	tres		Vanadium pp	om	True thickness
ыпр	XCOLLAR	YCOLLAR	ZCOLLAR	EOH	Azimuth	Dip	Zone	From	То	V p-XRF	V Calibrated	Calibrated V <sub>2</sub> O <sub>5</sub>	(m)
83-DEY-8	365339	4010812	324	210	90	90	S3-HW	49.0	71.0	881	1,087	1,940	18.0
83-DEY-8							S3-HW	71.0	77.0	Core fragm	ented, unable to o	btain p-XRF reading	4.9
83-DEY-8							S3-HW	77.0	107.0	1,034	1,282	2,288	24.6
83-DEY-8							S3-FW	112.0	120.0	808	975	1,741	6.6

\* 83-DEY-3 was previously excluded from the interpretation as it there was no adjacent drilling to inform the interpretations

	RHID			Collar				7000	Me	tres		Uranium ppm		True thickness
	ыпр	XCOLLAR	YCOLLAR	ZCOLLAR	EOH	Azimuth	Dip	Zone	From	То	U p-XRF	U Calibrated	Calibrated U <sub>3</sub> O <sub>8</sub>	(m)
)	CHUDD0001	362,142	4,008,896	402	342	165	20	S3-HW	266.0	325.0	165	165	195	42.6
	CHUDD0001							S3-FW	333.0	334.0	158	158	186	0.7
ſ	CHUDD0002	362,151	4,008,897	402	407	148	7	S3-HW	313.0	342.0	128	128	151	18.5
	CHUDD0002							S3-FW	359.0	370.0	195	195	229	6.6
	CHUDD0003	362,150	4,008,897	403	337	157	29	S3-HW	268.0	303.0	112	112	132	29.6
	CHUDD0003							S3-FW	306.0	318.0	122	122	144	9.9
	CHUDD0004	362,141	4,008,895	402	371	175	26	S3-HW	284.0	317.0	167	167	197	23.8
	CHUDD0004							S3-FW	322.0	347.0	136	136	161	17.4
	CHUDD0005	362,142	4,008,898	402	303	164	37	S3-HW	243.0	288.0	201	201	237	39.2
ſ	79-DE-10	361,357	4,007,676	350	170	0	90	S1-CNT1	66.2	67.0	138	138	162	0.7
	79-DE-10							S1-CNT1	67.0	92.0	Core fragmente	d, unable to obt	ain p-XRF reading	20.5
	79-DE-10							S1-CNT1	92.0	94.0	236	236	278	1.6
ſ	79-DE-13	361,426	4,007,754	286	125	0	90	S1-CNT1	73.0	85.0	149	149	176	9.8
	79-DE-13							S1-CNT1	85.0	89.0	Core fragmente	d, unable to obt	ain p-XRF reading	3.3
	79-DE-13							S1-CNT1	89.0	110.0	130	130	154	17.2
	79-DE-13							S1-CNT1	110.0	112.4	Core fragmente	d, unable to obt	ain p-XRF reading	2.0
	79-DE-13							S1-CNT1	112.4	116.0	115	115	135	2.9
	79-DE-19	361,602	4,008,056	320	140	0	90	S2-CNT1	100.0	124.8	139	139	163	20.3
	79-DE-21	361,652	4,008,185	389	161	138	70	S2-CNT1	125.0	145.0	157	157	185	19.3
	79-DE-21							S2-CNT1	145.0	148.0	Core fragmente	d, unable to obt	ain p-XRF reading	2.9
	79-DE-21							S2-CNT1	148.0	149.0	105	105	123	1.0
	79-DE-22	361,832	4,008,285	415	210	0	90	S2-CNT1	130.0	147.6	222	222	261	14.4
	79-DE-22							S2-CNT1	147.6	152.0	Core fragmente	d, unable to obt	ain p-XRF reading	3.6
	79-DE-22							S2-CNT1	152.0	156.8	410	410	483	3.9
1	79-DE-22							S2-CNT1	156.8	160.0	Core fragmente	d, unable to obt	ain p-XRF reading	2.6
	79-DE-22							S2-CNT1	160.0	162.0	328	328	387	1.6
	79-DE-23	361,861	4,008,426	350	150	0	90	U_WASTE	115.0	118.8	41	41	49	3.1
	79-DE-23							U_WASTE	118.8	121.0	Core fragmente	d, unable to obt	ain p-XRF reading	1.8
	79-DE-23							U_WASTE	121.0	128.4	6	6	7	6.1
	79-DE-31	362,645	4,008,894	414	200	0	90	S3-HW	47.0	64.0	170	170	201	13.9
	79-DE-31							S3-FW	67.0	68.0	164	164	193	0.8
	79-DE-36	363,061	4,009,227	420	130	138	60	S3-HW	76.0	78.6	157	157	185	2.6
	79-DE-36							S3-HW	78.6	81.0	Core fragmente	d, unable to obt	ain p-XRF reading	2.4

# JORC Table 1, Appendix A2: Daejon September 2018 uranium drillhole intersections

PUID			Collar				Zono	Me	tres		Uranium ppm		True thickness
ыпр	XCOLLAR	YCOLLAR	ZCOLLAR	EOH	Azimuth	Dip	20110	From	То	U p-XRF	U Calibrated	Calibrated U <sub>3</sub> O <sub>8</sub>	(m)
79-DE-36							S3-HW	81.0	88.0	330	330	389	7.0
79-DE-37	363,165	4,009,280	349	120	138	70	U_WASTE	60.0	62.6	25	25	30	2.5
79-DE-4	360,952	4,007,573	423	148	7	90	M1-FW	66.0	70.0	200	196	232	3.3
79-DE-5	361,002	4,007,631	407	196	180	90	M1-FW	83.0	91.0	230	215	253	6.6
79-DE-6	361,110	4,007,660	415	193	138	70	M1-HW	28.0	29.0	227	227	267	1.0
79-DE-6							M1-FW	40.0	59.0	267	267	314	18.3
79-DE-8	361,238	4,007,642	399	141	180	90	S1-CNT1	107.0	109.0	139	139	164	1.6
80-DE2-10	361,459	4,008,076	359	331	138	70	S2-CNT1	99.0	114.0	127	127	150	14.5
80-DE2-10							S2-CNT1	114.0	121.0	Core fragmen	ted, unable to obt	ain p-XRF reading	6.7
80-DE2-10							S2-CNT1	121.0	146.0	178	178	210	24.1
80-DE2-11	361,567	4,008,195	383	325	0	90	S2-CNT1	187.0	192.0	120	120	141	4.1
80-DE2-11							S2-CNT1	192.0	196.0	Core fragmen	ted, unable to obt	ain p-XRF reading	3.3
80-DE2-11							S2-CNT1	196.0	212.0	227	227	267	13.1
80-DE2-2	360,597	4,007,669	384	220	138	70	M1-FW	201.0	210.6	222	222	262	9.3
80-DE2-3	360,773	4,007,685	398	200	138	70	M1-HW	119.0	121.0	277	277	327	1.9
80-DE2-3							M1-FW	156.0	180.0	127	127	150	23.1
80-DE2-7	361,293	4,007,766	340	180	32	90	U_WASTE			N	o significant inters	section	
80-DE2-9	361,388	4,007,879	349	270	138	70	M2-FW	7.0	16.8	103	111	131	9.4
80-DE2-9							S2-CNT1	173.0	201.0	213	205	241	27.0
80-DE-11	361,179	4,008,025	468	200	138	70	N2-HW	57.0	60.0	114	114	134	2.9
80-DE-11							N2-CNT1	104.0	110.0	160	160	189	5.8
80-DE-11							N2-FW	127.0	129.0	207	207	244	1.9
80-DE-12	361,313	4,007,916	361	170	138	70	M2-FW	113.0	120.8	177	177	209	7.5
80-DE-14	361,222	4,008,139	454	200	138	70	N2-CNT1	134.0	138.4	152	152	179	4.2
80-DE-14							N2-FW	142.0	147.0	184	184	216	4.8
80-DE-15	361,433	4,007,939	360	201	138	60	S2-CNT1	172.0	182.8	583	583	687	10.7
80-DE-15							S2-CNT1	182.8	185.0	Core fragmen	ted, unable to obt	ain p-XRF reading	2.2
80-DE-15							S2-CNT1	185.0	190.0	394	394	465	5.0
80-DE-16	361,439	4,007,905	363	170	100	70	S2-CNT1	122.0	130.0	130	138	163	7.5
80-DE-16							S2-CNT1	130.0	136.0	Core fragmen	ted, unable to obt	ain p-XRF reading	5.6
80-DE-16							S2-CNT1	136.0	143.0	239	230	271	6.6
80-DE-17	361,345	4,008,167	464	200	138	80	N2-CNT1	95.0	96.0	304	278	328	0.9
80-DE-18	361,465	4,008,230	443	150	0	90	U_WASTE			N	o significant inters	section	

	PHID			Collar				Zono	Me	tres		Uranium ppm		True thickness
	ыл	XCOLLAR	YCOLLAR	ZCOLLAR	EOH	Azimuth	Dip	20112	From	То	U p-XRF	U Calibrated	Calibrated U <sub>3</sub> O <sub>8</sub>	(m)
	80-DE-20	361,536	4,008,318	485	150	0	90	N2-CNT1	136.6	140.0	108	108	127	2.8
$\mathcal{D}$	80-DE-24	361,912	4,008,516	350	200	358	90	S3-HW	122.0	126.4	214	205	241	3.6
_	80-DE-24							S3-FW	179.0	180.0	225	206	243	0.8
	80-DE-26	362,111	4,008,600	384	180	180	90	S3-HW	110.0	132.0	177	177	208	18.0
	80-DE-26							S3-FW	145.0	169.0	119	119	140	19.7
	80-DE-27	362,281	4,008,707	408	150	180	90	S3-HW	99.0	120.6	129	129	152	17.7
	80-DE-27							S3-HW	120.6	123.0	Core fragmen	ted, unable to obt	ain p-XRF reading	2.0
	80-DE-27							S3-HW	123.0	125.4	104	104	122	2.0
)	80-DE-27							S3-HW	125.4	127.6	Core fragmen	ted, unable to obt	ain p-XRF reading	1.8
	80-DE-27							S3-HW	127.6	129.0	124	124	146	1.1
	80-DE-27							S3-FW	140.0	141.0	607	607	716	0.8
	80-DE-28	362,376	4,008,735	479	210	0	90	S3-HW	180.6	186.0	248	248	293	4.4
	80-DE-29	362,440	4,008,839	423	160	90	90	S3-FW	150.2	150.8	993	993	1,171	0.5
	80-DE-29							S3-FW	150.8	153.2	Core fragmen	ted, unable to obt	ain p-XRF reading	2.0
	80-DE-29							S3-FW	153.2	155.0	280	280	330	1.5
)	80-DE-30	362,538	4,008,848	426	120	110	90	S3-FW	94.0	101.4	241	241	284	6.1
	80-DE-32	362,677	4,009,001	441	200	0	90	S3-HW	154.0	160.8	112	112	132	5.6
	80-DE-33	362,794	4,009,029	450	180	5	90	S3-HW	108.2	133.4	173	173	204	20.6
)	80-DE-33							S3-FW	142.0	148.0	239	239	282	4.9
	80-DE-34	362,864	4,009,083	452	210	138	70	S3-HW	139.0	157.4	128	128	151	17.7
)	80-DE-34							S3-HW	157.4	160.0	Core fragmen	ted, unable to obt	ain p-XRF reading	2.5
	80-DE-34							S3-HW	160.0	164.0	143	143	169	3.9
	80-DE-34							S3-FW	181.0	187.0	305	305	360	5.8
	80-DE-38	363,209	4,009,327	395	180	138	70	S3-HW	62.4	83.0	134	134	158	19.9
	80-DE-38							S3-FW	93.0	100.0	190	190	224	6.7
	80-DE-39	363,251	4,009,470	277	140	138	70	S3-HW	10.0	11.0	302	302	356	1.0
	80-DE-39							S3-FW	20.0	22.0	216	216	255	1.9
	80-DE-7	361,138	4,007,817	422	155	138	70	M1-HW	61.0	68.0	179	179	210	6.7
)	80-DE-7							M1-FW	74.0	80.0	203	203	239	5.8
	80-DE-9	361,264	4,007,912	401	170	0	90	M2-HW	115.0	135.0	245	245	288	16.4
	80-DE-9							M2-FW	155.0	159.6	124	124	147	3.8
	81-DE2-12	361,647	4,008,363	433	350	0	90	S2-CNT1	245.0	245.8	176	176	207	0.7
Ī	81-DE2-12							S2-CNT1	245.8	249.0	Core fragmen	ted, unable to obt	ain p-XRF reading	2.6
	81-DE2-12							S2-CNT1	249.0	255.0	243	243	287	4.9

	PLUD			Collar				7000	Me	tres		Uranium ppm	l	True thickness
	ыпр	XCOLLAR	YCOLLAR	ZCOLLAR	EOH	Azimuth	Dip	zone	From	То	U p-XRF	U Calibrated	Calibrated U <sub>3</sub> O <sub>8</sub>	(m)
	81-DE2-12							S2-CNT1	255.0	277.0	Core fragmente	d, unable to obt	ain p-XRF reading	18.0
2	81-DE2-12							S2-CNT1	277.0	278.0	107	107	126	0.8
	81-DE2-13	361,730	4,008,485	361	300	180	90	S3-HW	200.0	210.0	195	195	230	8.2
	81-DE2-13							S3-FW	255.2	269.0	340	340	400	11.3
	81-DE2-14	361,831	4,008,611	376	320	7	90	S3-HW	240.0	277.0	125	133	157	30.3
	81-DE2-14							S3-FW	282.0	293.8	207	200	236	9.7
	81-DE2-15	361,977	4,008,711	416	363	0	90	S3-HW	299.0	307.8	128	128	151	7.2
	81-DE2-15							S3-FW	314.0	341.0	141	141	166	22.1
	81-DE2-16	362,129	4,008,735	445	290	178	90	S3-HW	226.0	252.6	187	190	224	21.8
	81-DE2-16							S3-HW	252.6	255.0	Core fragmente	d, unable to obt	ain p-XRF reading	2.0
	81-DE2-16							S3-HW	255.0	256.0	125	127	150	0.8
	81-DE2-17	362,198	4,008,921	423	280	138	70	S3-HW	240.0	246.0	149	149	176	5.8
	81-DE2-19	362,528	4,008,981	429	300	180	90	S3-HW	170.0	184.0	143	143	169	11.5
	81-DE2-19							S3-FW	195.0	203.6	206	206	243	7.0
	81-DE2-21	362,753	4,009,165	367	300	138	70	S3-FW			No	significant inters	section	
	81-DE2-22	362,894	4,009,236	372	200	138	70	S3-HW	153.0	156.0	109	109	129	2.9
	81-DE2-23	363,032	4,009,329	370	220	138	70	S3-HW	116.0	122.0	115	115	136	5.8
	81-DE2-23							S3-FW	129.0	134.4	214	214	253	5.2
	81-DE2-4	360,943	4,007,712	477	300	90	90	M1-HW	160.0	166.0	317	298	352	4.9
	81-DE2-4							M1-FW	180.2	230.0	148	152	179	40.8
	81-DE2-5	361,041	4,007,848	489	300	180	90	M1-HW	158.2	169.0	122	122	144	8.8
	81-DE2-5							M1-FW	182.0	183.0	112	112	132	0.8
	81-DE2-6	361,126	4,007,994	472	320	180	90	N2-CNT1	163.0	167.0	245	245	289	3.3
	81-DE2-6							N2-FW	205.0	206.0	217	217	255	0.8
	81-DE2-6							N2-FW	206.0	240.0	Core fragmente	d, unable to obt	ain p-XRF reading	27.9
	81-DE2-6							N2-FW	240.0	245.0	241	241	284	4.1
	81-DE2-8	361,257	4,008,076	395	274	138	70	N2-CNT1	37.0	51.0	228	228	269	13.5
	81-DE2-8							N2-FW	58.0	70.6	256	256	302	12.1
	81-DE2-8							N2-FW	70.6	73.0	Core fragmente	d, unable to obt	ain p-XRF reading	2.3
	81-DE2-8							N2-FW	73.0	78.8	114	114	135	5.6
	81-DE2-8							N2-FW	78.8	81.0	Core fragmente	d, unable to obt	ain p-XRF reading	2.1
	81-DE2-8							N2-FW	81.0	89.0	217	217	256	7.7
	82-DEY-1	363,806	4,009,869	217	280	143	70	S3-FW	256.0	257.6	187	187	220	1.5
	82-DEY-3	364,964	4,010,653	382	190	143	70	S3-HW	95.0	110.0	121	121	143	14.4

РШБ			Collar				7000	Me	tres		Uranium ppm		True thickness
БПІЛ	XCOLLAR	YCOLLAR	ZCOLLAR	EOH	Azimuth	Dip	zone	From	То	U p-XRF	U Calibrated	Calibrated U <sub>3</sub> O <sub>8</sub>	(m)
82-DEY-3							S3-CNT1	131.0	151.0	189	189	223	19.2
82-DEY-3							S3-FW	163.6	168.0	231	231	272	4.2
82-DE3-10	362,130	4,009,000	378	340	138	70	U_WASTE			N	o significant inters	section	
82-DE3-12	362,528	4,009,148	344	310	138	70	S3-HW	238.0	248.6	220	220	259	10.2
82-DE3-13	362,677	4,009,323	310	293	138	70	S3-HW	282.0	286.0	148	155	183	3.9
82-DE3-2	360,655	4,007,764	449	370	0	90	M1-HW	259.0	262.0	100	111	130	2.5
82-DE3-2							M1-FW	279.0	285.0	259	245	289	4.9
82-DE3-3	360,832	4,007,869	525	400	187	90	M1-FW	324.0	338.0	104	117	138	11.5
82-DE3-4	361,454	4,007,897	362	370	0	90	S2-CNT1	223.0	227.8	102	115	135	3.9
82-DE3-4							S2-CNT1	227.8	230.0	Core fragmen	ted, unable to obt	ain p-XRF reading	1.8
82-DE3-4							S2-CNT1	230.0	236.0	211	208	245	4.9
82-DE3-4							S2-CNT1	236.0	257.0	Core fragmen	ted, unable to obt	ain p-XRF reading	17.2
82-DE3-4							S2-CNT1	257.0	261.0	111	123	145	3.3
82-DE3-6	361,521	4,008,421	477	410	0	90	S2-CNT1	370.0	371.0	106	106	125	0.8
82-DE3-6							S2-CNT1	371.0	386.0	Core fragmen	ted, unable to obt	ain p-XRF reading	12.3
82-DE3-6							S2-CNT1	386.0	388.6	200	200	236	2.1
82-DE3-7	361,668	4,008,609	466	460	0	90	S3-HW	381.0	418.0	115	127	149	30.3
82-DE3-7							S3-FW	424.0	437.0	109	119	140	10.6
82-DE3-8	361,816	4,008,732	465	460	7	90	S3-HW	420.0	422.0	171	171	201	1.6
82-DE3-8							S3-FW	424.0	428.0	144	144	170	3.3
82-DE3-9	362,036	4,008,796	471	440	270	90	S3-HW	361.0	363.0	253	240	282	1.6
83-DEY-1	363,976	4,009,969	303	270	143	70	S3-FW	240.0	241.0	120	142	168	1.0
83-DEY-11	367,692	4,012,337	348	300	143	70	S3-HW	117.0	124.0	150	172	203	6.7
83-DEY-11							S3-FW	171.0	193.0	87	107	126	21.1
83-DEY-11							S3-FW	193.0	196.4	Core fragmen	ted, unable to obt	ain p-XRF reading	3.3
83-DEY-11							S3-FW	196.4	198.0	116	137	162	1.5
83-DEY-2	364,148	4,010,071	386	270	143	70	S3-HW	133.0	135.0	197	220	259	1.9
83-DEY-2							S3-CNT1	147.0	149.0	149	172	202	1.9
83-DEY-2							S3-CNT1	149.0	157.0	Core fragmen	ted, unable to obt	ain p-XRF reading	7.7
83-DEY-2							S3-CNT1	157.0	159.0	104	133	157	1.9
83-DEY-2							S3-FW	206.0	210.0	198	212	250	3.8
83-DEY-3*	364,287	4,010,228	400	290	143	70	S3-HW	101.6	109.0	111	111	131	7.1
83-DEY-3*							S3-HW	109.0	112.0	Core fragmen	ted, unable to obt	ain p-XRF reading	2.9
83-DEY-3*							S3-HW	112.0	132.0	105	105	124	19.2

BHID			Collar				7000	Me	etres		Uranium ppm		True thickne
внір	XCOLLAR	YCOLLAR	ZCOLLAR	EOH	Azimuth	Dip	Zone	From	То	U p-XRF	U Calibrated	Calibrated U <sub>3</sub> O <sub>8</sub>	(m)
3-DEY-3*							S3-CNT1	146.0	147.0	171	171	202	1.0
3-DEY-3*							S3-CNT1	147.0	158.0	Core fragmer	nted, unable to obt	ain p-XRF reading	10.6
3-DEY-3*							S3-CNT1	158.0	164.0	234	234	276	5.8
3-DEY-3*							S3-FW	195.0	198.0	143	143	169	2.9
3-DEY-4	364,433	4,010,365	328	290	143	70	S3-HW	91.0	94.0	101	129	152	2.9
3-DEY-4							S3-CNT1	99.0	104.0	105	137	161	4.8
33-DEY-4							S3-CNT1	104.0	109.0	Core fragmer	nted, unable to obt	ain p-XRF reading	4.8
33-DEY-4							S3-CNT1	109.0	112.0	99	128	151	2.9
3-DEY-4							S3-FW	136.0	143.0	67	91	108	6.7
33-DEY-6	364,858	4,010,636	284	180	143	70	S3-CNT1	165.0	166.0	87	102	120	1.0
33-DEY-6							S3-FW	169.0	174.8	104	129	152	5.6
3-DEY-7	365,151	4,010,730	358	230	0	90	S3-HW	95.0	116.0	179	198	233	17.2
83-DEY-7							S3-CNT1	168.0	177.0	204	221	260	7.4
33-DEY-7							S3-FW	190.6	191.6	501	526	620	0.8
83-DEY-7							S3-FW	191.6	195.0	Core fragmer	nted, unable to obt	ain p-XRF reading	2.8
83-DEY-7							S3-FW	195.0	198.0	246	265	312	2.5
83-DEY-8	365,339	4,010,812	324	210	90	90	S3-HW	30.0	56.0	80	102	120	21.3
83-DEY-8							S3-FW	113.0	120.6	74	95	112	6.2

### Appendix B1: Daejon plan view showing hole collars





# Appendix C: Stonehenge Korea Tenement Listing

Group Name	Туре	Commodity	Block Identifier	Register Number	Granted date	Renewal date
	Exploration	U	Gwesan-125	76941	15/05/2008	14/05/2019
	Exploration	U	Gwesan-115	76942	15/05/2008	14/05/2019
	Exploration	U	Gwesan-124	76964	29/05/2008	28/05/2019
	Exploration	U	Gwesan-117	76965	29/05/2008	28/05/2019
Gwesan	Exploration	U	Gwesan-118	76966	29/05/2008	28/05/2019
	Exploration	U	Gwesan-114	76967	29/05/2008	28/05/2019
	Exploration	U	Gwesan-126	76968	29/05/2008	28/05/2019
	Exploration	U	Gwesan-128	76969	29/05/2008	28/05/2019
	Exploration	U, V	Gwesan-137	79161	12/01/2011	11/01/2022
	Exploration	U	Miwon-36	77018	12/06/2008	11/06/2019
	Exploration	U	Miwon-46	77019	12/06/2008	11/06/2019
Miwon	Exploration	U	Miwon-58	77020	12/06/2008	11/06/2019
WIWON	Exploration	U	Miwon-37	77225	22/08/2008	21/08/2019
	Exploration	U	Miwon-47	77291	24/09/2008	23/09/2019
	Exploration	U	Miwon-57	77292	24/09/2008	23/09/2019
	Exploration	U-V	Okcheon-136	77010	11/06/2008	10/06/2019
	Exploration	U-V-Mo	Daejeon-18	77011	11/06/2008	10/06/2019
	Exploration	U-V	Daejeon-28	77012	11/06/2008	10/06/2019
	Exploration	U	Daejeon-38	77013	11/06/2008	10/06/2019
	Exploration	U-V	Daejeon-48	77014	11/06/2008	10/06/2019
Daejon	Exploration	U-V	Okcheon-147	77038	20/06/2008	19/06/2019
	Exploration	U	Daejeon-17	77039	20/06/2008	19/06/2019
	Exploration	U-V-Mo	Daejeon-07	77114	04/07/2008	3/07/2019
	Exploration	U	Daejeon-27	77115	04/07/2008	3/07/2019
	Exploration	U	Daejeon-47	77363	17/10/2008	16/10/2019
	Exploration	U	Daejeon-57	77364	17/10/2008	16/10/2019