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Daejon Vanadium Mining Study Update

- Mining Study on the company's Daejon, South Korea vanadium/uranium project advanced, with final report expected Q1 2019
- Major aspects addressed include: Mining Method, surface infrastructure, landholder approvals, processing pathways applied to the yogwang deposit
- Alongside the Mining Study the company continues to engage independent registered geologist, Daeheung Mining, in finalising a mining excavation plan
- The scoping study along with minerals extraction plan will be used to progress the Company's tenure to a mining lease

Protean Energy Ltd (**Protean, POW** or the **Company**) is pleased to advise that it has made significant progress in the finalisation of a Mining Study and mineral excavation plan targeting its Daejon vanadium/uranium project.

Following the successful increase of the Daejon mineral resource estimate by 99% to a combined 490 mlbs of V_2O_5 @ 0.3%[1] the Company has engaged two independent geological firms, Geogeny and Daeheung Mining, based in South Korea to work alongside Optiro Pty Ltd in progressing the two studies which form the basis of advancing the Daejon tenements to a mining lease.

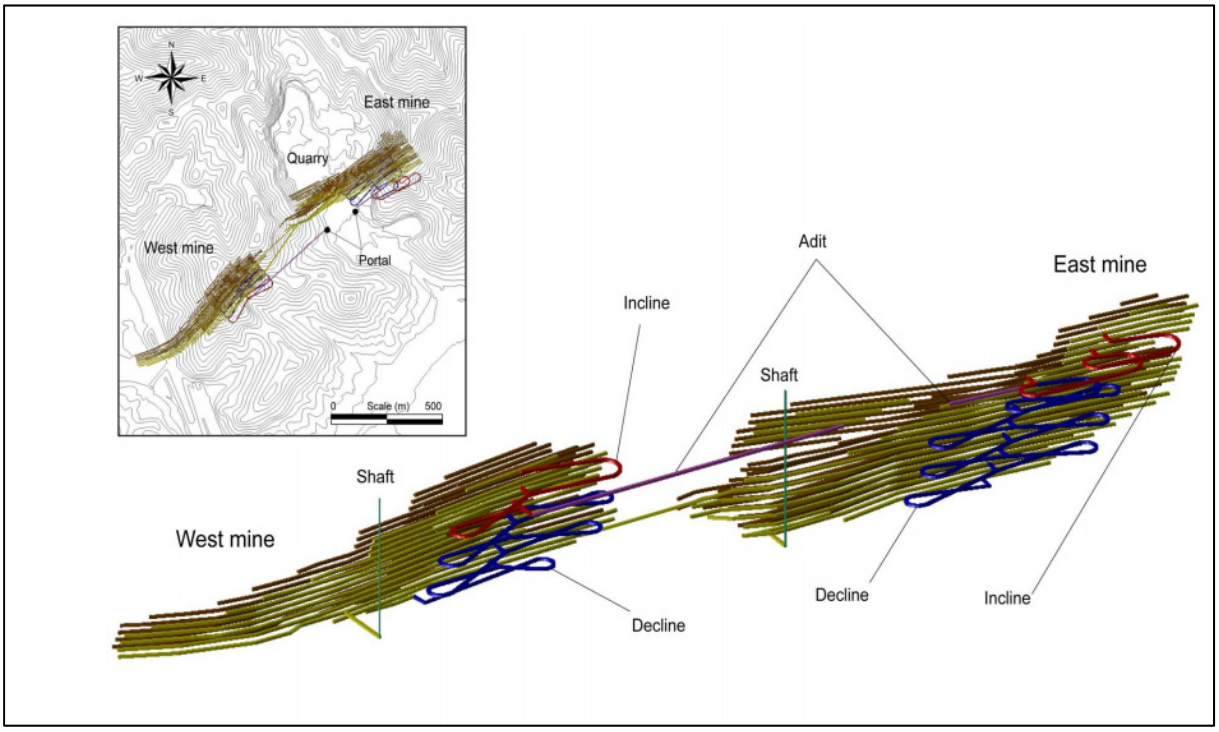

Figure 1 General layout of proposed underground access surrounding the quarry in Yogwang

[1] Refer ASX announcement 24 September 2018 for further information and table 1 below.

Mining Method

Geogeny has conducted geotechnical investigations including scanline surveys, geotechnical logging and laboratory testing to characterise the rock mass properties in the area. As a result the mining method that has been selected is Longitudinal Longhole Stoping (LLS) for the orebody over a dip of 60˚ and Transverse Longhole Stoping (TLS) when the inclination is lower than 60˚.

Mining method	Dip of orebody (°)	Height (m)	Width (m)	Strike length (m)	
				Allowable	Design
LLS	60	30	20	49	45
TLS	50	30	15	37	15

Drive	Development			Production		
	Adit, Decline, Incline	Level drive	Vent shaft	Drill drive	Stope access	Extraction drive
Dimension	5 m × 4 m	4.5 m × 4 m	ϕ 2.4 m	4 m × 4 m	4.5 m × 4 m	4.5 m × 4 m

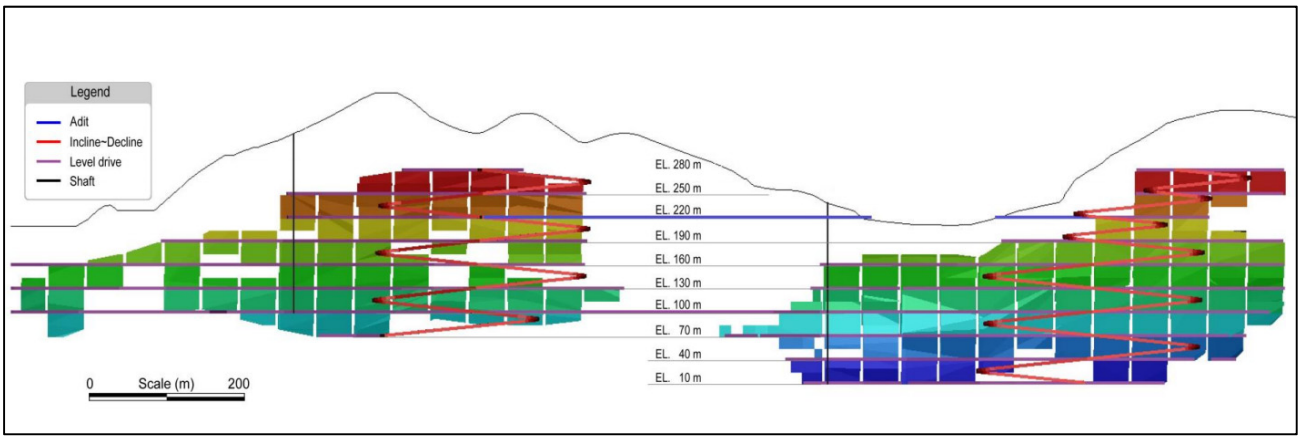

Figure 1 Layout of conceptual stope design

Extraction Method

The Daejon deposit is a stratiform orebody hosted within black shale. Since the 1970s vanadium extraction technology form black shale has been developed and commercialized in China. One of the most widely used methods in China is the salt roasting-atmospheric water leaching (SRAWL) technique. As a result of the advanced nature of the technology SRAWL has been selected as the optimal recovery method for this project based on metallurgical testwork and the conceptual processing plan.

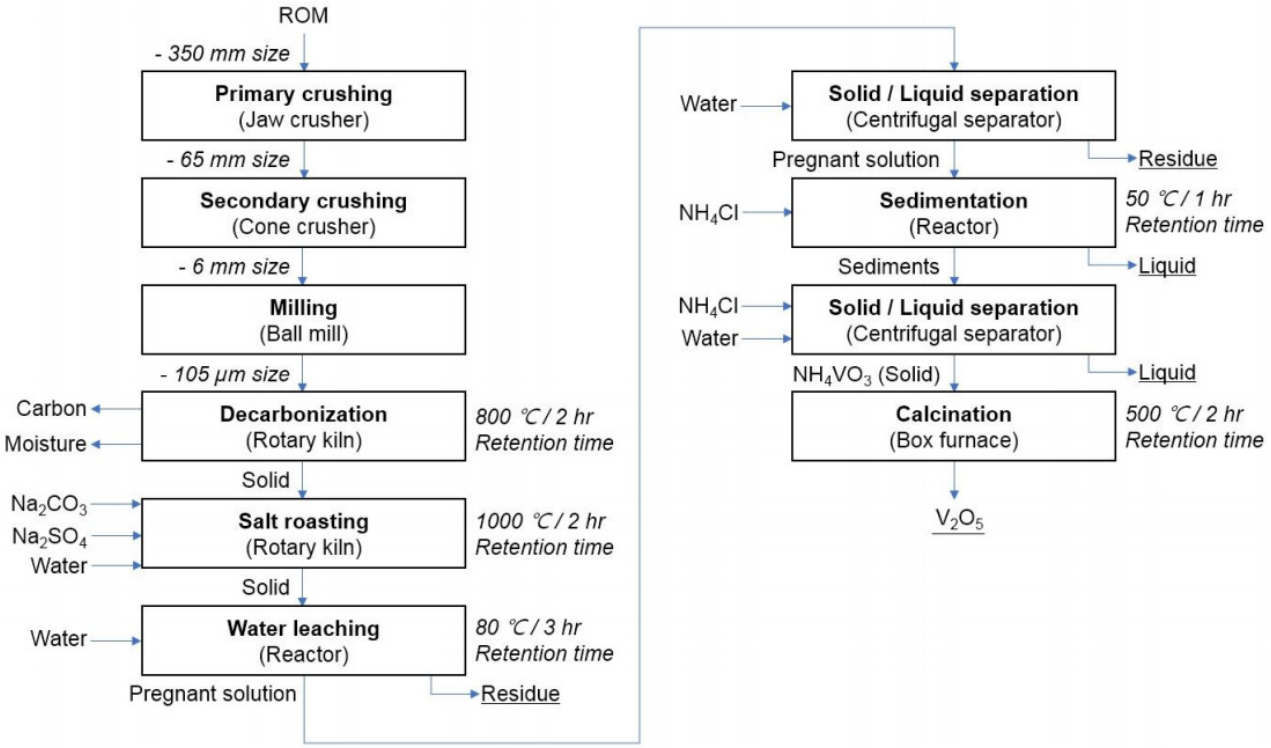

Figure 2 Proposed processing flowchart

Surface Infrastructure

The Daejeon vanadium project requires 2.0 mW for mining operations and 5.0 mW for plant and surface facilities. The main substation is located near the proposed backfill plant with four substations to be installed underground.

Korea Electric Power Corporation (KEPCO) holds total authority and responsibility to connect the operation with a 15.4 kV national grid line from the Chubu substation.

In terms of water the three primary sources of water utilised is rainfall, groundwater and recycled water from the tailings dam. In the mine site, water will be used for drilling machines at a rate of 75 liter/min per drill and supplied via 3-inch pipe near working faces. In the plant, the majority of the water will be used for milling and leaching around 1.2 m^3 /feed-ton, site dust suppression, cleaning etc.

The main water pond for the paste fill and leaching plant will be constructed with a storage capacity of 36,000 m^3. A maintenance workshop will support underground and surface facilities. The workshop will be composed of storage house, change room and office. The warehouse will provide parts storage, a change room, meeting room etc. An installed Fuel Storage tank (200,000 litres) located near the West mine adit will supply fuel underground via 2.5 ton fuel tank trucks and distribute directly to mobile equipment.

Underground Infrastructure

Transformer rooms are to be installed every 1.0 km from the portal of adit to prevent voltage drops. The capacity of the proposed transformer is 100 kVA and the transformer will be installed in a drift with a length of 8.0 m and a size of 4.0 m x 4.0 m which is excavated in the decline.

Underground magazines will be constructed by excavating a 20 m-length drifts at the end of East adit and West adit with a diameter of 4.0 m x 4.0 m. Two rescue chambers will be installed in the appropriate locations of the underground workings and emergency communication systems, oxygen generators, drinking water and food for 15 days will be stored internally. The groundwater introduced into the underground operations is either drained or pumped through the two adits located at EL. 220 m. In the East mine, the first pump will be installed at EL. 10 m and the relay pump will be installed at EL. 130 m. In the West mine, the first pump is at EL. 70 m and the relay pump is at EL. 130 m. Two

8-inch pipe lines will be installed in the underground for drainage. The water line for the drill rigs to be installed along the incline and decline using a 3-inch pipe.

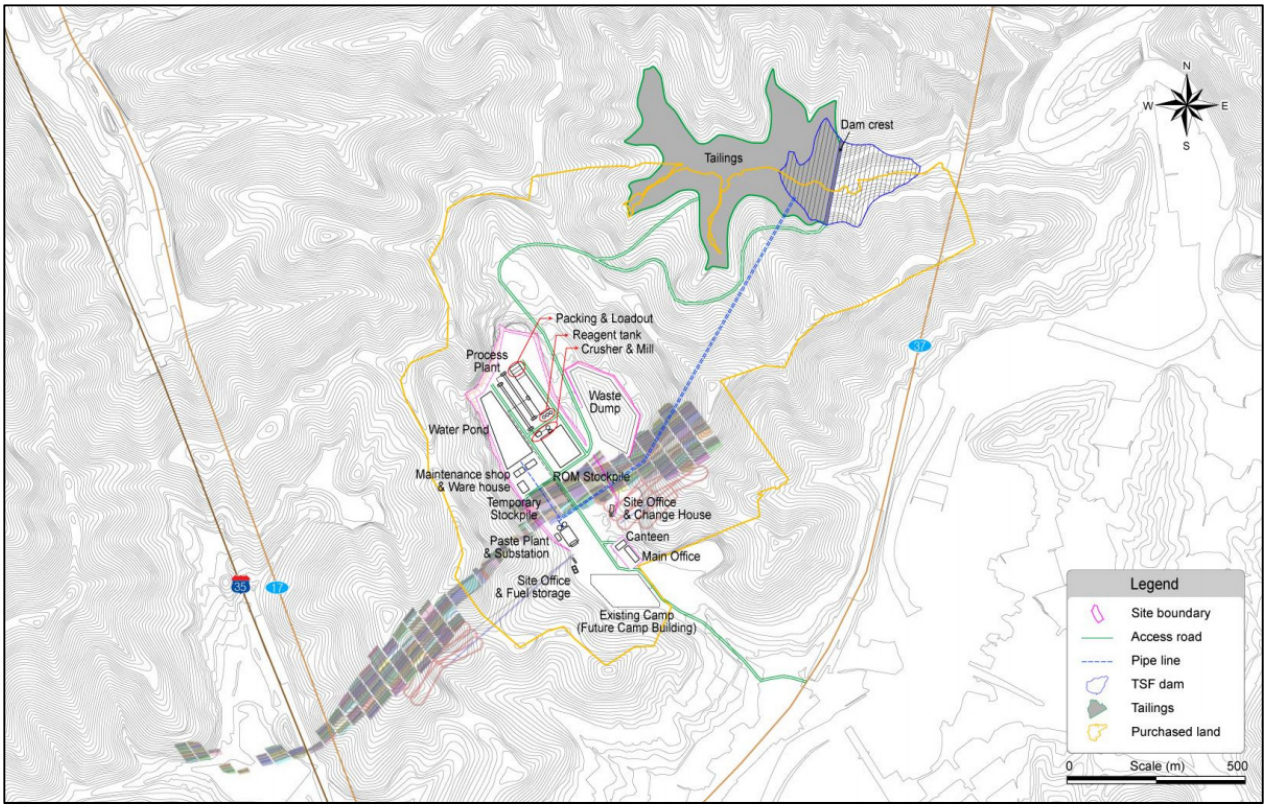

Figure 3 Surface infrastructure and mine layout

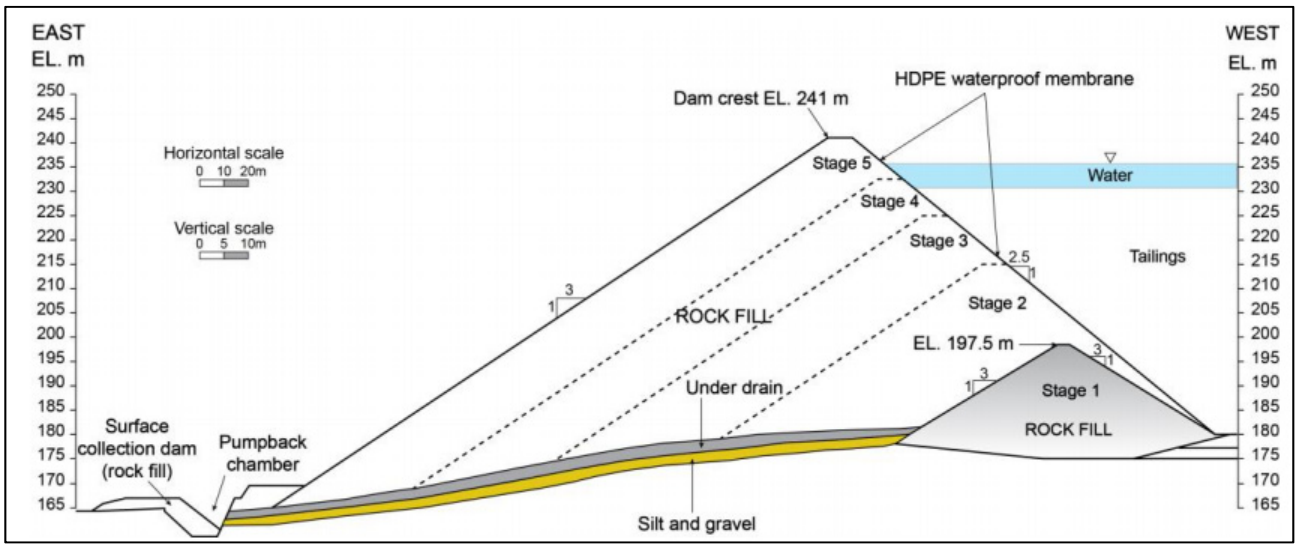

Figure 4 Tailings Dam design

ABOUT PROTEAN ENERGY LIMITED (ASX: POW)

Protean Energy Limited is focused on the commercialisation of the V-KOR vanadium battery energy storage systems via its Korean joint venture subsidiary, KORID Energy Ltd (**KORID**).

Protean is also developing a multi-energy mineral project in South Korea through its 50% holding in Korea Vanadium Limited (**KV**). KV is a JV company between Protean and KOSDAQ-listed DST Co Ltd (**DST**). KV owns 100% of the rights to 3 projects in South Korea, including the Company's flagship Daejon Vanadium Project.

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

Cutoff	Classification	V_2O_5 Resource with U_3O_8 by-product					U_3O_8 Only Resource		
		Tonnes mt	V_2O_5 ppm	mlbs V_2O_5	U_3O_8 ppm	mlbs U3O8	Tonnes Mt	U_3O_8 ppm	mlbs U3O8
V_2O_5 > 2,000ppm or U_3O_8 >200ppm	Indicated	3.6	3,000	24	140	1.1	0		
	Inferred	72	3,000	470	110	17	15	250	8.1
	Indicated + 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

Competent Person Statement

The information contained in this ASX release relating to 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.