

***Environmental Protection Act 1986***

**Section 43A**

**NOTICE OF DECISION TO CONSENT TO CHANGE TO PROPOSAL DURING  
ASSESSMENT**

**PERSON TO WHOM THIS NOTICE IS GIVEN**

(a) Technology Metals Australia Limited (ACN: 612 531 389)  
Suite 9  
330 Churchill Avenue  
SUBIACO WA 6904

**PROPOSAL TO WHICH THIS NOTICE RELATES:**

Gabanintha Vanadium Project  
Assessment No. 2190

Pursuant to section 43A of the *Environmental Protection Act 1986* (EP Act), the Environmental Protection Authority (EPA) consents to the proponent making the following changes to the proposal during assessment without a revised proposal being referred -

- Decrease in Development Envelope area;
- Processing Plant: Staged Implementation (Stage 1 and 2);
- Processing Plant: Increase Processing Production;
- Ore Processing Waste: Clarification of Disposal during Stage 1;
- Increase in Peak Annual Vanadium Production;
- Addition of Iron Vanadium Concentrate and Titanium Concentrate as recovered product;
- Increase in Base Metal Concentrate;
- Power Generation: Incorporate an Emergency Diesel Generator;
- Reduction in Water Abstraction;
- Decrease in Maximum Pit Depth; and
- Change in Greenhouse Gas (GHG) Emissions.

**EFFECT OF THIS NOTICE:**

1. The EPA considers that the change is unlikely to significantly increase any impact that the proposal may have on the environment. The proponent may change the proposal as provided for in this notice.

**RIGHTS OF APPEAL:**

There are no rights of appeal under the EP Act in respect of this decision.



**Matthew Tonts**  
**Delegate of the Environmental Protection Authority**  
CHAIR

6 May 2021

## Schedule 1

### Change to Proposal

Element	Referral Proposal (2018)	Changed Proposal (s43A) (2020)	Proposal (s43A) (2021)
<b>Physical Elements</b>			
Development Envelope	5,452.52 ha.	5,452.52 ha	<b>5,409.45ha (see Figure 1).</b>
Proposal Footprint	Disturbance of up to 1,060 ha within the Development Envelope.	Disturbance of up to 1,060 ha within the Development Envelope.	Disturbance of up to 1,060 ha within the Development Envelope
Open Pits	Up to 150 ha within the Development Envelope. It is envisaged that three vanadium deposits will be mined as open pits (Far North, North and Central) with an indicative maximum depth of 230 m.	Up to 150 ha within the Development Envelope. It is envisaged that three vanadium deposits will be mined as open pits (Far North, North and Central) with an indicative maximum depth of 230 m.	Up to 150 ha within the Development Envelope. It is envisaged that three vanadium deposits will be mined as open pits (Far North, North and Central) with an indicative maximum depth of <b>220 m.</b>
Waste Rock Landform (WRL)	Up to 275 ha within the Development Envelope. This includes the WRLs, low grade ore stockpiles and clay stockpiles.	Up to 275 ha within the Development Envelope. This includes the WRLs, low grade ore stockpiles and clay stockpiles.	Up to 275 ha within the Development Envelope. This includes the WRLs, low grade ore stockpiles and clay stockpiles
Integrated Waste Landform (IWL)	Up to 130 ha within the Development Envelope. The IWL is proposed to have two cells for the disposal of tailings and calcine tailings. The facility is proposed to have a central decant. Waste salt recovered from the adjacent evaporation ponds will be disposed of within the facility.	Up to 130 ha within the Development Envelope. The IWL is proposed to have two cells for the disposal of tailings and calcine tailings. The facility is proposed to have a central decant. Waste salt recovered from the adjacent evaporation ponds will be disposed of within the facility	Up to 130 ha within the Development Envelope. The IWL is proposed to have two cells for the disposal of tailings and calcine tailings. The facility is proposed to have a central decant. Waste salt recovered from the adjacent evaporation ponds will be disposed of within the facility
Processing Plant	Up to 23 ha within the Development Envelope. Ore will be crushed, screened, ground, beneficiated, roasted, leached, filtered and precipitated to generate a vanadium pentoxide (V <sub>2</sub> O <sub>5</sub> ) flake.	Up to 23 ha within the Development Envelope. Ore will be crushed, screened, ground, beneficiated, roasted, leached, filtered and precipitated to generate a vanadium pentoxide (V <sub>2</sub> O <sub>5</sub> ) flake, <b><u>FerroVanadium (FE V<sub>80</sub>) flake and an Aluminium Slag by-product. As well as the recovery of nickel, cobalt and copper.</u></b>	Up to 23 ha within a 5,409.45ha development envelope. Ore will be crushed, screened, ground, beneficiated, roasted, leached, filtered and precipitated to generate a vanadium pentoxide (V <sub>2</sub> O <sub>5</sub> ) flake, FerroVanadium (FE V <sub>80</sub> ) flake and an Aluminium Slag by-product. As well as the recovery of nickel, cobalt and copper. <b><u>The project will be implemented in two stages.</u></b>

Borefield and Service Corridors	Disturbance of up to 120 ha within the Development Envelope. Abstraction from up to 25 production bores.	Disturbance of up to 120 ha within the Development Envelope. Abstraction from up to 25 production bores	Disturbance of up to 120 ha within the Development Envelope. Abstraction from up to 25 production bores.
<b>Operational Elements</b>			
Processing Plant	Processing up to 2.3 Mt ore per annum.	Processing up to 2.3 Mt ore per annum.	<b><u>Processing up to 4 Mt ore per annum.</u></b>
Mining rate	Annual mining rates (ore and waste) will range from 5.3 – 22.3 Mt/annum with an average of 12 Mt/annum.	Annual mining rates (ore and waste) will range from 5.3 – 22.3Mt/annum with an average of 12Mt/annum.	Annual mining rates (ore and waste) will range from 5.3 – 22.3Mt/annum with an average of 12Mt/annum.
Water abstraction	Up to 3.3 GL/annum or 104L/s.	Up to 3.3 GL/annum or 104L/s	<b><u>Up to 2.7GL/annum or 86L/s for Project activities.</u></b>
Ore Processing Waste	Disposal of up to 2.16 Mt per annum of processing waste to the lined IWL (inert tailings, calcine tailings and contaminated salt waste).	Disposal of up to 2.16 Mt per annum of processing waste to the lined IWL (inert tailings, calcine tailings and contaminated salt waste).	Disposal of <b><u>1.1-2.16</u></b> Mt per annum of processing waste to the lined IWL (inert tailings, calcine tailings and contaminated salt waste).
Vanadium Production	Between 10,000-13,000 tonnes of fused vanadium pentoxide (V <sub>2</sub> O <sub>5</sub> ) flake per year.	Between 10,000-13,000 tonnes of fused vanadium pentoxide (V <sub>2</sub> O <sub>5</sub> ) flake per year <b><u>and/or between 9,000 – 13,000 tonnes of FerroVanadium (FEV<sub>80</sub>) flake and other FerroVanadium products such as FE V<sub>75</sub> and FE V<sub>50</sub>, per year.</u></b>	Between 10,000- <b><u>14,400</u></b> tonnes of fused vanadium pentoxide (V <sub>2</sub> O <sub>5</sub> ) flake per year and/or between 9,000 – 13,000 tonnes of FerroVanadium (FEV <sub>80</sub> ) flake and other FerroVanadium products such as FE V <sub>75</sub> and FE V <sub>50</sub> , per year.
<b><u>Base Metal Production</u></b>	.	<b><u>Up to 25,000 tonnes of Cobalt, Nickel and Copper concentrate</u></b>	<b><u>Produce up to 50,000 tonnes of Base Metal Concentrate per annum</u></b>
<b><u>Iron-Vanadium Concentrate</u></b>	=		<b><u>Produce up to 2.0Mt of Iron-Vanadium Concentrate per annum.</u></b>
<b><u>Titanium Concentrate</u></b>	=		<b><u>Produce up to 400,000 tonnes of Titanium concentrate per annum.</u></b>
Power Supply	21 MW gas power plant 6 MW solar field (Future option)	<b><u>25MW</u></b> gas power plant <b><u>2MW diesel fired power plant</u></b> 6MW solar field (future option)	<b><u>Up to 25MW</u></b> gas power plant <b><u>with an emergency diesel supply</u></b> 2MW diesel fired power plant 6MW solar field (future option)

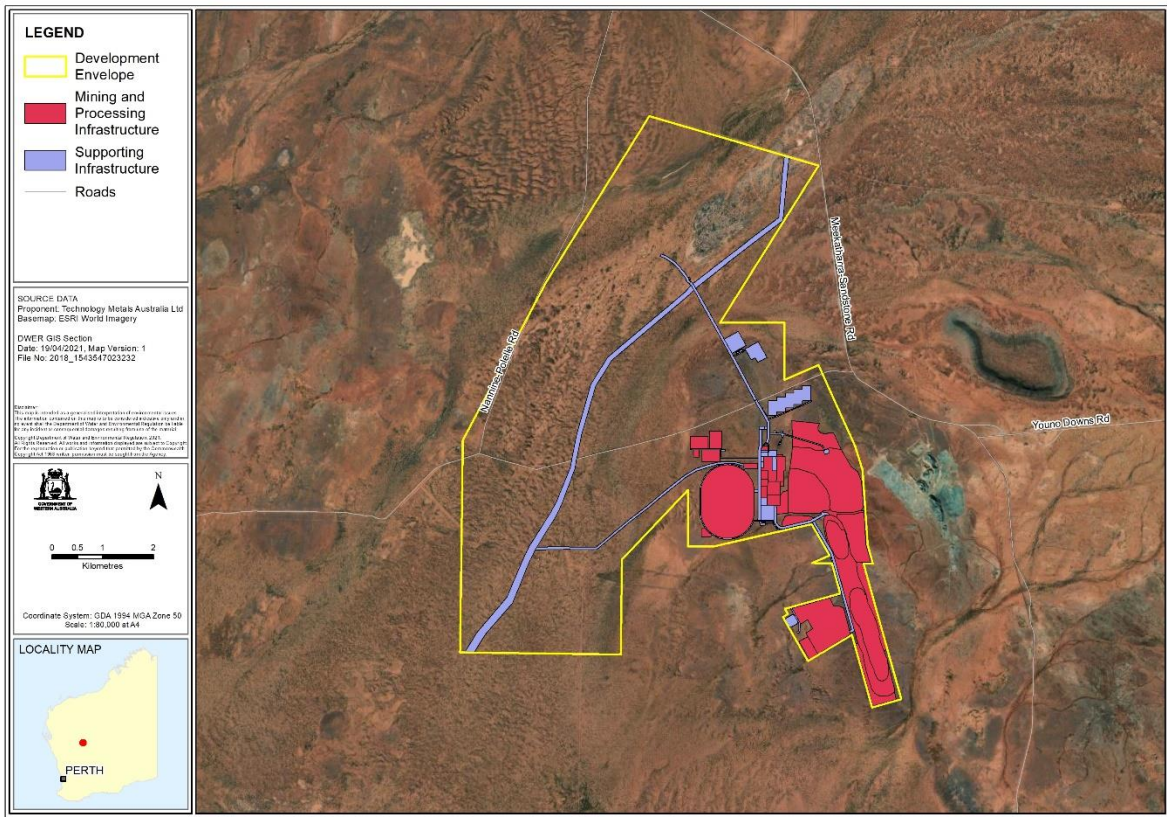


Figure 1: Gabanintha Vanadium Project - Development Envelope