



MINISTER FOR THE ENVIRONMENT;
EMPLOYMENT AND TRAINING

Statement No.

000484

STATEMENT TO AMEND CONDITIONS APPLYING TO A PROPOSAL
(PURSUANT TO THE PROVISIONS OF SECTION 46 OF THE
ENVIRONMENTAL PROTECTION ACT 1986)

MINERAL SANDS MINE, DARDANUP

Proposal: The mining of mineral sand as documented in schedule 1 of this statement.

Proponent: ISK Minerals Pty Ltd

Proponent Address: Lot 7 Harris Road, PICTON WA 6229

Assessment Number: 1138

Previous Assessment Number: 624

Previous Statement Number: Statement No. 239 published on 8 April 1992

Report of the Environmental Protection Authority: Bulletin 898

Previous Report of the Environmental Protection Authority: Bulletin 605

The implementation of the proposal to which the above reports of the Environmental Protection Authority relate is now subject to the following conditions and procedures which replace all previous conditions and procedures:

1 Implementation

- 1-1 Subject to these conditions and procedures, the proponent shall implement the proposal as documented in schedule 1 of this statement.
- 1-2 Where, in the course of implementing the proposal, the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment determines, on advice of the Environmental Protection Authority, is not substantial, those changes may be effected.

2 Proponent Commitments

- 2-1 The proponent shall implement any environmental management commitments which the proponent makes as part of the fulfilment of conditions and procedures in this statement.

Published on

11 AUG 1998

3 Environmental Management System

- 3-1 In order to manage the environmental impacts of the project, and to fulfil the requirements of the conditions and procedures in this statement, prior to commencement of ground-disturbing activities, the proponent shall demonstrate to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection that there is in place an environmental management system which includes the following elements:
- 1 environmental policy and commitment;
 - 2 planning of environmental requirements;
 - 3 implementation and operation of environmental requirements;
 - 4 measurement and evaluation of environmental performance; and
 - 5 review and improvement of environmental outcomes.
- 3-2 The proponent shall implement the environmental management system referred to in condition 3-1.

4 Environmental Management Program

- 4-1 Prior to commencement of ground-disturbing activities, the proponent shall prepare an Environmental Management Program to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection, the Department of Minerals and Energy, Agriculture Western Australia, the Water and Rivers Commission and the owners of land on which mining takes place.

The Program shall include:

- 1 construction of facilities and stockpiles with consideration given to visual impact on public and private locations;
- 2 limitation of clearing and land disturbance to that required for safe operation; and
- 3 consultation with Western Power and relevant landowners to determine the most acceptable means of extending the existing 22 kV agricultural supply transmission line to the mining area,

and shall consist of the following environmental management plans:

- 1 Surface Water and Groundwater Monitoring and Management Plan (see condition 5);
 - 2 Rehabilitation Management Plan (see condition 6); and
 - 3 Decommissioning Management Plan (see condition 7).
- 4-2 The proponent shall implement the Environmental Management Program required by condition 4-1.

5 Surface Water and Groundwater Monitoring and Management Plan

- 5-1 Prior to the commencement of mining, the proponent shall prepare a Surface Water and Groundwater Monitoring and Management Plan, in consultation with neighbouring landowners, Agriculture Western Australia, the Water and Rivers Commission and the Dardanup Land Conservation District Committee, to the requirements of the Department of Environmental Protection.

This plan shall include:

- 1 hydrological and technical studies to facilitate prediction of impacts of mine dewatering on local and regional hydrology;
- 2 regional monitoring of water bores to facilitate prediction of impacts of mine dewatering on local and regional hydrology; and
- 3 strategies to be implemented in the event of a deterioration of water quality in the monitored areas.

5-2 The proponent shall implement the Surface Water and Groundwater Monitoring and Management Plan required by condition 5-1.

6 Rehabilitation Management Plan

6-1 Prior to the commencement of mining, the proponent shall develop a progressive rehabilitation plan, in order to rehabilitate the mine site to an environmentally stable condition, to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection, the Department of Minerals and Energy, Agriculture Western Australia, the Water and Rivers Commission and the owners of land on which mining takes place.

6-2 The proponent shall implement the Rehabilitation Management Plan required by condition 6-1.

Note: The final land use after mining will be determined between the land owners and the proponent.

7 Decommissioning Management Plan

7-1 At least six months prior to decommissioning, the proponent shall prepare a Decommissioning Management Plan to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection and the Department of Minerals and Energy.

This Plan shall address:

- 1 removal or, if appropriate, disposal on-site of plant and infrastructure;
- 2 rehabilitation of all disturbed areas to agreed final land use(s); and
- 3 identification of contaminated areas, including provision of evidence of notification to relevant statutory authorities.

7-2 The proponent shall implement the Decommissioning Management Plan required by condition 7-1.

8 Noise Limits

8-1 The proponent shall conduct operations so that noise emissions do not unreasonably impact on people in the vicinity, including residents.

8-2 The proponent shall ensure that noise emissions meet the requirements of the noise control regulations applying from time to time under the Environmental Protection Act.

- 8-3 The proponent shall conduct noise surveys (including baseline measurements) and assessments (including the impact of tonal noise) at the Dardanup site to meet the requirements of the Department of Environmental Protection.

9 Performance Review

- 9-1 Within three years following the commencement of mining, the proponent shall submit a Performance Review to evaluate the environmental performance relevant to:

- 1 environmental issues and objectives reported on in Environmental Protection Authority Bulletins 605 and 898;
- 2 the fulfilment of conditions and procedures in this statement;
- 3 environmental management system environmental management targets;
- 4 Environmental Management Programs and Plans; and
- 5 environmental performance indicators,

to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection.

Note: The Environmental Protection Authority may recommend changes and actions to the Minister for the Environment following consideration of the Performance Review.

10 Proponent

- 10-1 The proponent for the time being nominated by the Minister for the Environment under section 38(6) or (7) of the Environmental Protection Act is responsible for the implementation of the proposal until such time as the Minister for the Environment has exercised the Minister's power under section 38(7) of the Act to revoke the nomination of that proponent and nominate another person in respect of the proposal.
- 10-2 Any request for the exercise of that power of the Minister referred to in condition 10-1 shall be accompanied by a copy of this statement endorsed with an undertaking by the proposed replacement proponent to carry out the proposal in accordance with the conditions and procedures set out in the statement.
- 10-3 The proponent shall notify the Minister for the Environment of any change of proponent contact name and address within 30 days of such change.

11 Commencement

- 11-1 The proponent shall provide evidence to the Minister for the Environment within two years of the date of this statement that the proposal has been substantially commenced.
- 11-2 Where the proposal has not been substantially commenced within two years of the date of this statement, the approval to implement the proposal as granted in statement no. 239, published 8 April 1992, shall lapse and be void. The Minister for the Environment will determine any question as to whether the proposal has been substantially commenced.
- 11-3 The proponent shall make application to the Minister for the Environment for any extension of approval for the substantial commencement of the proposal beyond two years from the date of this statement.

- 11-4 Where the proponent demonstrates to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority that the environmental parameters of the proposal have not changed significantly, then the Minister may grant an extension not exceeding five years for the substantial commencement of the proposal.

12 Compliance Auditing

- 12-1 The proponent shall submit periodic Performance and Compliance Reports, in accordance with an audit program prepared in consultation between the proponent and the Department of Environmental Protection.
- 12-2 Unless otherwise specified, the Department of Environmental Protection is responsible for assessing compliance with the conditions contained in this statement and for issuing formal clearance of conditions.
- 12-3 Where compliance with any condition or procedure is in dispute, the matter will be determined by the Minister for the Environment.

Note

- 1 The proponent is required to apply for a Works Approval and Licence for this project under the provisions of Part V of the Environmental Protection Act.

CHERYL EDWARDES (Mrs) MLA
MINISTER FOR THE ENVIRONMENT

10 AUG 1998

Schedule 1

The Proposal

ISK Minerals Pty Ltd proposes to mine mineral sands from a low grade deposit covering an area about 5 kilometres long and ranging in width from 0.5 to 1.5 kilometres located between Burekup and Dardanup, in the Shire of Dardanup.

Following primary separation on site, the heavy mineral concentrate is to be trucked to the Proponent's nearby Picton dry separation plant for separation of the primary minerals.

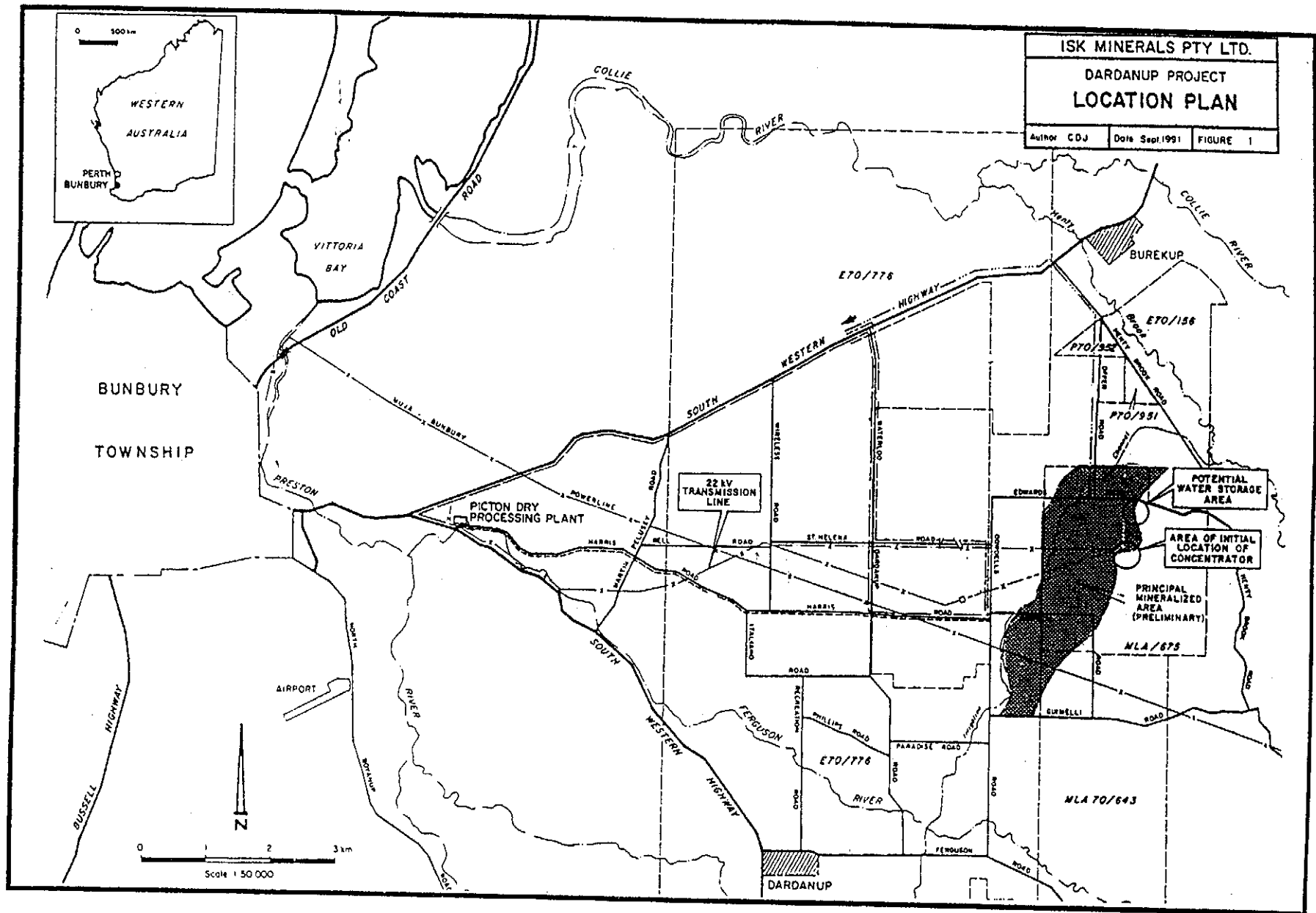
The main aspects of the proposal are summarised in the table below.

Key characteristics table

| Element | Description |
|--|---|
| Life of project | 15 years |
| Area of disturbance: <ul style="list-style-type: none"> • size of orebody • mining of orebody • water storage dams • tailings pond | <ul style="list-style-type: none"> • 5 kilometres by 0.5 - 1.5 kilometres • 40 hectares per year • 5 hectares • 80 hectares |
| Mining method | Dry or sluice mining |
| Processing | Wet separation on-site, dry separation at Picton plant |
| Ore mining rate (maximum) | 200 000 tonnes per year, Heavy Mineral Concentrate production |
| Overburden (maximum) | 2.5 million tonnes per year |
| Rehabilitation: <ul style="list-style-type: none"> • Topsoil • Hydrology • End use | <ul style="list-style-type: none"> • Respread direct or from stockpiles. • Adopt mechanisms to reinstate acceptable hydrological regime. • Restore agricultural production at least to current level, and plant trees to replace and augment existing trees. |
| Area of influence on groundwater | 500 metre radius around mining |
| Water supply | Dewatering (up to 1,700 cubic metres per day), plus stormwater and tailings decant, supplemented by deep bore. |
| Energy | Upgrade and extend existing 22 kV line west of site. |
| Transport | Operating supplies by different roads, depending on source. Product to Picton Plant via Dowells Road extension to South Western Highway. |

Figure 1: Location of Proposal (attached).

Figure 1. Location map for the proposal.



Attachment 1 to Ministerial Statement 484

Change to proposal under s45C of the *Environmental Protection Act 1986*

Proposal: Dardanup Mineral Sand Project

Proponent: Doral Mineral Sands Pty Ltd

Change: Increase in disturbance area required for Tailings Pond

Key Characteristics Table: This table replaces Table 1 in Schedule 1

| <u>Element</u> | <u>Description of proposal</u> | <u>Description of approved change to proposal</u> |
|--|---|---|
| Life of Project | 15 years | 15 years |
| Area of Disturbance <ul style="list-style-type: none"> Size of Orebody; Mining of Orebody; Water storage dams; Tailings Ponds; | <ul style="list-style-type: none"> 5 kilometres by 0.5-1.5 kilometres; 40 hectares per year; 5 hectares; 80 hectares | <ul style="list-style-type: none"> 5 kilometres by 0.5-1.5 kilometres; 40 hectares per year; 5 hectares; 130 hectares |
| Mining Method | Dry or sluice mining | Dry or sluice mining |
| Ore Mining Rate (maximum) | 200,000 tonnes per year, Heavy Mineral Concentrate production. | 200,000 tonnes per year, Heavy Mineral Concentrate production. |
| Overburden (Maximum) | 2.5 Million tonnes per year. | 2.5 Million tonnes per year. |
| Rehabilitation: <ul style="list-style-type: none"> Topsoil Hydrology End Use | <ul style="list-style-type: none"> Respread direct from stockpiles; Adopt mechanisms to reinstate acceptable hydrology regime Restore agricultural production at least to current level, and plant trees to replace and augment existing trees | <ul style="list-style-type: none"> Respread direct from stockpiles; Adopt mechanisms to reinstate acceptable hydrology regime Restore agricultural production at least to current level, and plant trees to replace and augment existing trees |

| | | |
|----------------------------------|--|--|
| Area of influence on groundwater | 500 metre radius around mining | 500 metre radius around mining |
| Water supply | Dewatering (up to 1,700 m ³ /day), plus stormwater and tailing decant, supplements by deep bore | Dewatering (up to 1,700 m ³ /day), plus stormwater and tailing decant, supplements by deep bore |
| Energy | Upgrade and extend existing 22 kV line west of site | Upgrade and extend existing 22 kV line west of site |
| Transport | Operating supplies by different roads, depending on source. Product to Picton plant via Dowdells Road extension to South Western Highway | Operating supplies by different roads, depending on source. Product to Picton plant via Dowdells Road extension to South Western Highway |

Note: Text in **bold** in the Key Characteristics Table, indicates change/s to the proposal.

Approval date: 19 January 2004

Attachment 2 to Ministerial Statement 484

Change to proposal under s45C of the *Environmental Protection Act 1986*

Proposal: Dardanup Mineral Sand Project

Proponent: Doral Mineral Sands Pty Ltd

Change: Increase in maximum ore mining rate

Key Characteristics Table: This table replaces Table 1 in Schedule 1

| <u>Element</u> | <u>Description of proposal</u> | <u>Description of approved change to proposal</u> |
|--|---|---|
| Life of Project | 15 years | 15 years |
| Area of Disturbance <ul style="list-style-type: none"> Size of Orebody; Mining of Orebody; Water storage dams; Tailings Ponds; | <ul style="list-style-type: none"> 5 kilometres by 0.5-1.5 kilometres; 40 hectares per year; 5 hectares; 130 hectares | <ul style="list-style-type: none"> 5 kilometres by 0.5-1.5 kilometres; 40 hectares per year; 5 hectares; 130 hectares |
| Mining Method | Dry or sluice mining | Dry or sluice mining |
| Ore Mining Rate (maximum) | 200,000 tonnes per year, Heavy Mineral Concentrate production. | 220,000 tonnes per year. |
| Overburden (Maximum) | 2.5 Million tonnes per year. | 2.5 Million tonnes per year. |
| Rehabilitation: <ul style="list-style-type: none"> Topsoil Hydrology End Use | <ul style="list-style-type: none"> Respread direct from stockpiles; Adopt mechanisms to reinstate acceptable hydrology regime Restore agricultural production at least to current level, and plant trees to replace and augment existing trees | <ul style="list-style-type: none"> Respread direct from stockpiles; Adopt mechanisms to reinstate acceptable hydrology regime Restore agricultural production at least to current level, and plant trees to replace and augment existing trees |

| | | |
|----------------------------------|--|--|
| Area of influence on groundwater | 500 metre radius around mining | 500 metre radius around mining |
| Water supply | Dewatering (up to 1,700 m ³ /day), plus stormwater and tailing decant, supplements by deep bore | Dewatering (up to 1,700 m ³ /day), plus stormwater and tailing decant, supplements by deep bore |
| Energy | Upgrade and extend existing 22 kV line west of site | Upgrade and extend existing 22 kV line west of site |
| Transport | Operating supplies by different roads, depending on source. Product to Picton plant via Dowdells Road extension to South Western Highway | Operating supplies by different roads, depending on source. Product to Picton plant via Dowdells Road extension to South Western Highway |

Note: Text in **bold** in the Key Characteristics Table, indicates change/s to the proposal.

Approval date: 28 June 2004

Attachment 3 to Ministerial Statement 484

Change to proposal under s45C of the *Environmental Protection Act 1986*

Proposal: Dardanup Mineral Sand Project

Proponent: Doral Mineral Sands Pty Ltd

Change: Multiple amendments to the Key Characteristics Table relating to project life, groundwater influence and water supply, as a result of the Dardanup Southern Extension Project

Key Characteristics Table: This table replaces Table 1 in Schedule 1

| <u>Element</u> | <u>Description of proposal</u> | <u>Description of approved change to proposal</u> |
|--|--|--|
| Life of Project | 15 years | 18 years |
| Area of Disturbance <ul style="list-style-type: none"> Size of Orebody; Mining of Orebody; Water storage dams; Tailings Ponds; | <ul style="list-style-type: none"> 5 kilometres by 0.5-1.5 kilometres; 40 hectares per year; 5 hectares; 130 hectares | <ul style="list-style-type: none"> 6 kilometres by 0.5-1.5 kilometres; 40 hectares per year; 5 hectares; 130 hectares |
| Mining Method | Dry or sluice mining | Dry or sluice mining |
| Ore Mining Rate (maximum) | 200,000 tonnes per year, Heavy Mineral Concentrate production. | 220,000 tonnes per year. |
| Overburden (Maximum) | 2.5 Million tonnes per year. | 2.5 Million tonnes per year. |
| Rehabilitation: <ul style="list-style-type: none"> Topsoil Hydrology End Use | <ul style="list-style-type: none"> Respread direct from stockpiles; Adopt mechanisms to reinstate acceptable hydrology regime Restore agricultural production at least to current level, and plant trees to replace and | <ul style="list-style-type: none"> Respread direct from stockpiles; Adopt mechanisms to reinstate acceptable hydrology regime Restore agricultural production at least to current level, and plant trees to replace and |

| | augment existing trees | augment existing trees |
|----------------------------------|--|--|
| Area of influence on groundwater | 500 metre radius around mining | 700 metre radius around mining |
| Water supply | Dewatering (up to 1,700 m ³ /day), plus stormwater and tailing decant, supplements by deep bore | Dewatering (up to 1,700 m ³ /day), plus stormwater and tailing decant, supplements by deep bore. 700-900 ML/yr irrigation water from Harvey Water |
| Energy | Upgrade and extend existing 22 kV line west of site | Upgrade and extend existing 22 kV line west of site |
| Transport | Operating supplies by different roads, depending on source. Product to Picton plant via Dowdells Road extension to South Western Highway | Operating supplies by different roads, depending on source. Product to Picton plant via Dowdells Road extension to South Western Highway |

Note: Text in **bold** in the Key Characteristics Table, indicates change/s to the proposal.

Dr Paul Vogel
CHAIRMAN
Environmental Protection Authority
under delegated authority

Approval date: 9 August 2012

Attachment 4 to Ministerial Statement 484

Change to proposal under s45C of the *Environmental Protection Act 1986*

This Attachment replaces Schedule 1, Attachment 1, Attachment 2 and Attachment 3 in Ministerial Statement 484

Proposal: Dardanup Mineral Sand Project

Proponent: Doral Mineral Sands Pty Ltd

The Proposal (Assessment No. 1138)

The proposal is to construct and operate a mineral sand operation approximately 20 km east of Bunbury. The location of the various project components is shown in Figure 1. The main characteristics of the proposal are summarised in Table 1 below.

Change: Inclusion of the Waterloo Project area into the Southern Extension.

Table 1 - Key Characteristics Table: This table replaces Table 1 in Attachments 1, 2 and 3

| Element | Description of authorised proposal | Description of approved change to proposal |
|---|---|---|
| Life of Project | 18 years | “Removed as not a significant Key Characteristic” |
| Area of Disturbance <ul style="list-style-type: none">Size of Orebody;Mining of Orebody;Water storage dams;Tailings Ponds; | <ul style="list-style-type: none">6 kilometres by 0.5-1.5 kilometres;40 hectares per year;5 hectares;130 hectares | <ul style="list-style-type: none">6 kilometres by 0.5-1.5 kilometres;40 hectares per year;5 hectares;130 hectares |
| Mining Method | Dry or sluice mining | Dry or sluice mining |
| Ore Mining Rate (maximum) | 220,000 tonnes per year. | 220,000 tonnes per year. |
| Overburden (Maximum) | 2.5 Million tonnes per year. | 2.5 Million tonnes per year. |
| Rehabilitation: <ul style="list-style-type: none">TopsoilHydrologyEnd Use | <ul style="list-style-type: none">Respread direct from stockpiles;Adopt mechanisms to reinstate acceptable hydrology regimeRestore agricultural production at least to current level, and plant trees to replace and augment existing trees | <ul style="list-style-type: none">Respread direct from stockpiles;Adopt mechanisms to reinstate acceptable hydrology regimeRestore agricultural production at least to current level, and plant trees to replace and augment existing trees |

| | | |
|----------------------------------|--|--|
| Area of influence on groundwater | 700 metre radius around mining | 700 metre radius around mining |
| Water supply | Dewatering (up to 1,700 m ³ /day), plus stormwater and tailing decant, supplements by deep bore. 700-900 ML/yr irrigation water from Harvey Water | Dewatering (up to 1,700 m ³ /day), plus stormwater and tailing decant, supplements by deep bore. 700-900 ML/yr irrigation water from Harvey Water |
| Energy | Upgrade and extend existing 22 kV line west of site | Upgrade and extend existing 22 kV line west of site |
| Transport | Operating supplies by different roads, depending on source. Product to Picton plant via Dowdells Road extension to South Western Highway | Operating supplies by different roads, depending on source. Product to Picton plant via Dowdells Road extension to South Western Highway |

Note: Text in **bold** in the Key Characteristics Table, indicates change/s to the proposal.

List of Replacement Figures

Figure 1 Development envelope, Offset areas and remnant vegetation not to be mined (replaces Figure 1 Location map for the proposal)

[Signed 20 December 2013]

Dr Paul Vogel
CHAIRMAN
Environmental Protection Authority
under delegated authority

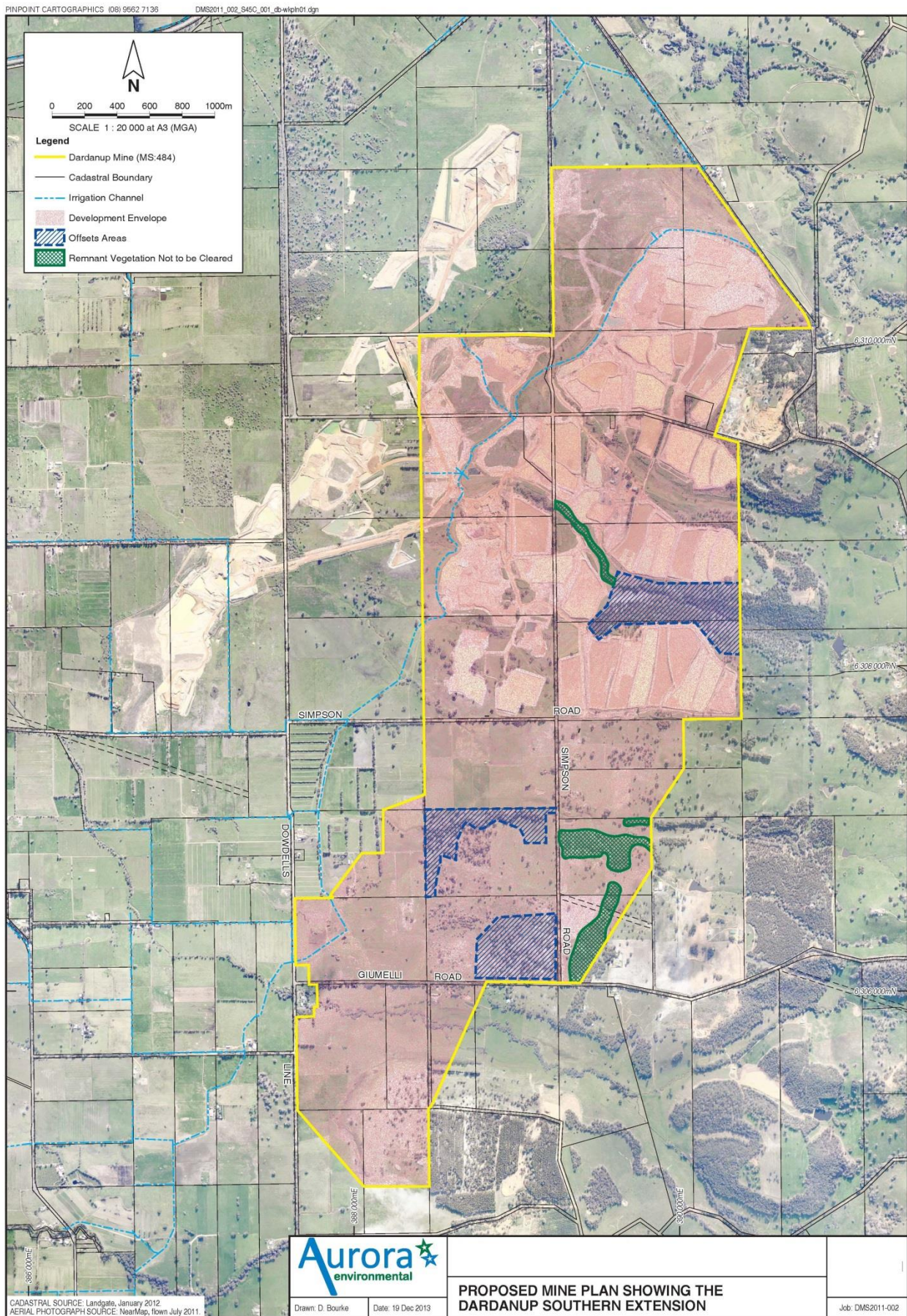


Figure 1: Development envelope, Offset areas and remnant vegetation not to be mined