



MINISTER FOR THE ENVIRONMENT

Statement No.

000866

**STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED  
(PURSUANT TO THE PROVISIONS OF THE  
ENVIRONMENTAL PROTECTION ACT 1986)**

**MINERAL SANDS MINE  
APPROXIMATELY 2.5 KILOMETRES NORTH-WEST OF GINGIN  
SHIRE OF GINGIN**

**Proposal:** The construction in the Gingin area and operation of an approximately 2.8 million tonnes per annum mineral sands mine and concentrator plant, and subsequent rehabilitation of the site, as documented in schedule 1 of this statement.

**Proponent:** Iluka Resources Limited

**Proponent Address:** Level 23, 140 St George's Terrace, PERTH WA 6000

**Assessment Number:** 1536

**Report of the Environmental Protection Authority:** Bulletin 1146

The proposal referred to above may be implemented by the proponent subject to the following conditions and procedures:

**1 Implementation**

1-1 The proponent shall implement the proposal as documented in schedule 1 of this statement subject to the conditions of this statement.

**2 Proponent Commitments**

2-1 The proponent shall implement the environmental management commitments documented in schedule 2 of this statement, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

Published on

- 3 NOV 2004

### **3 Proponent Nomination and Contact Details**

- 3-1 The proponent for the time being nominated by the Minister for the Environment under section 38(6) or (7) of the *Environmental Protection Act 1986* 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 as the proponent for the proposal.
- 3-2 If the proponent wishes to relinquish the nomination, the proponent shall apply for the transfer of proponent and provide a letter with a copy of this statement endorsed by the proposed replacement proponent that the proposal will be carried out in accordance with this statement. Contact details and appropriate documentation on the capability of the proposed replacement proponent to carry out the proposal shall also be provided.
- 3-3 The nominated proponent shall notify the Department of Environment of any change of contact name and address within 60 days of such change.

### **4 Commencement and Time Limit of Approval**

- 4-1 The proponent shall substantially commence the proposal within five years of the date of this statement or the approval granted in this statement shall lapse and be void.

Note: The Minister for the Environment will determine any dispute as to whether the proposal has been substantially commenced.

- 4-2 The proponent shall make application for any extension of approval for the substantial commencement of the proposal beyond five years from the date of this statement to the Minister for the Environment, prior to the expiration of the five-year period referred to in condition 4-1.

The application shall demonstrate that:

1. the environmental factors of the proposal have not changed significantly;
2. new, significant, environmental issues have not arisen; and
3. all relevant government authorities have been consulted.

Note: The Minister for the Environment may consider the grant of an extension of the time limit of approval not exceeding five years for the substantial commencement of the proposal.

## **5 Compliance Audit and Performance Review**

5-1 The proponent shall prepare an audit program and submit compliance reports to the Department of Environment which address:

1. the status of implementation of the proposal as defined in schedule 1 of this statement;
2. evidence of compliance with the conditions and commitments; and
3. the performance of the environmental management plans and programs.

Note: Under sections 48(1) and 47(2) of the *Environmental Protection Act 1986*, the Chief Executive Officer of the Department of Environment is empowered to monitor the compliance of the proponent with the statement and should directly receive the compliance documentation, including environmental management plans, related to the conditions, procedures and commitments contained in this statement.

5-2 The proponent shall submit a performance review report every five years after the start of operations, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority, which addresses:

1. the major environmental issues associated with the project; the targets for those issues; the methodologies used to achieve these; and the key indicators of environmental performance measured against those targets;
2. the level of progress in the achievement of sound environmental performance, including industry benchmarking, and the use of best available technology where practicable;
3. significant improvements gained in environmental management, including the use of external peer reviews;
4. stakeholder and community consultation about environmental performance and the outcomes of that consultation, including a report of any on-going concerns being expressed; and
5. the proposed environmental targets over the next five years, including improvements in technology and management processes.

5-3 The proponent may submit a report prepared by an auditor approved by the Department of Environment under the "Compliance Auditor Accreditation Scheme" to the Chief Executive Office of the Department of Environment on each condition/commitment of this statement which requires the preparation of a management plan, programme, strategy or system, stating that the requirements of each condition/commitment have been fulfilled within the timeframe stated within each condition/commitment.

## 6 Integrated Mining and Rehabilitation Plan

- 6-1 Prior to ground-disturbing activity, the proponent shall develop an Integrated Mining and Rehabilitation Plan to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The objective of this Plan is to ensure that mining impacts on the environment are minimised and the success of rehabilitation is maximised, by integrating environmental planning with the mine plan.

The Plan shall include:

- (1) Vegetation and Fauna Management Plan which addresses the following:
  1. a baseline vegetation study;
  2. minimisation of impacts on native vegetation;
  3. delineation of areas of vegetation to be retained or cleared;
  4. retention of topsoil for rehabilitation;
  5. strategy for removal and reconstruction of the north and south streams and central wetland which addresses re-establishment of soil structure, stabilisation of banks and revegetation;
  6. fauna habitat restoration;
  7. development of specific rehabilitation performance criteria for reconstruction of the central wetland and diverted streams, and improvement of a one kilometre length of the north stream upstream of the site, including rehabilitation of these areas with more diverse native vegetation than existed pre-mining; fencing of these areas; and rehabilitation of the remaining areas to productive pasture;
  8. inspection of tailings dams for trapped animals;
  9. weed management;
  10. dieback management;
  11. a monitoring program to determine rehabilitation success;
  12. consideration of the effect of the rehabilitation of the north and south streams on the hydrology of the site; and
  13. support of local land-care and watercourse improvement programs.
  
- (2) Soil Management Plan which addresses the following:
  1. delineation of highly acidic soils;
  2. operational handling of the soils during mining and rehabilitation;
  3. treatment of acidic soils; and
  4. details of post-mining soil structure.
  
- (3) Stormwater and Drainage Management Plan which addresses the following:
  1. erosion control measures;
  2. prevention of water contamination;
  3. monitoring of diverted/drainage water impacts on the off-site north and south streams, including a contingency plan for stabilisation of the downstream bed and banks; and

4. mitigation measures to be taken if water quality and sedimentation levels are adversely impacting on the down-stream environment during mining;
- (4) Groundwater Management Plan to ensure that environmental and social provisions of groundwater are maintained.

This plan shall include arrangements for at least six-monthly monitoring of aquifer draw-down and recovery, and a contingency plan for replacement of landowner groundwater requirements in the case of adverse groundwater impacts; and

- (5) Decommissioning and Closure Plan for the mining areas, final voids and other mine infrastructure which includes:
  1. removal of equipment and infrastructure;
  2. identification and remediation of contaminated areas, and
  3. rehabilitation of all disturbed areas to a standard suitable for the agreed new land use(s).
- 6-2 The proponent shall implement the Integrated Mining and Rehabilitation Plan required by condition 6-1 until such time as the Minister for the Environment determines, on advice of the Environmental Protection Authority, that the proponent's rehabilitation responsibilities have been fulfilled.
- 6-3 The proponent shall make the Integrated Mining and Rehabilitation Plan required by condition 6-1 publicly available, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

## **7 Rehabilitation Performance Bond**

- 7-1 As security for the due and punctual observance and performance by the proponent of the requirements of condition 6-2 to be observed, conformed and complied with, the proponent shall lodge with the Chief Executive Officer of the Department of Environment on demand prior to ground-disturbing activity, an irrevocable Performance Bond as nominated and approved by the Chief Executive Officer in his sole unfettered discretion to a cash value and in a form acceptable to the Chief Executive Officer ("the Security") which Security at the date hereof being \$2,400,000.
- 7-2 The Chief Executive Officer may review the Security required by condition 7-1 at any time or times and if, on such review, the Chief Executive Officer considers that a security has ceased to be acceptable to the Chief Executive Officer, then the Chief Executive Officer may, with the approval of the Minister for the Environment, require the proponent to furnish replacement or additional security for performance by the proponent of its obligations under condition 6-2.

- 7-3 The proponent shall within 14 days after written request by the Chief Executive Officer furnish replacement or additional security in such sum as the Chief Executive Officer shall nominate, in a form and upon terms and conditions approved by the Chief Executive Officer, which approval shall not be unreasonably withheld. On receipt of approved replacement security the Chief Executive Officer shall release and discharge the original security.

### **Procedures**

- 1 Where a condition states “to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority”, the Environmental Protection Authority will provide that advice to the Department of Environment for the preparation of written notice to the proponent.
- 2 The Environmental Protection Authority may seek advice from other agencies or organisations, as required, in order to provide its advice to the Department of Environment.
- 3 Where a condition lists advisory bodies, it is expected that the proponent will obtain the advice of those listed as part of its compliance reporting to the Department of Environment.

### **Notes**

- 1 The Minister for the Environment will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environment over the fulfilment of the requirements of the conditions.
- 2 The proponent is required to apply for a Works Approval, Licence and Registration for this project under the provisions of Part V of the *Environmental Protection Act 1986*.
- 3 Within this statement, to “have in place” means to “prepare, implement and maintain for the duration of the proposal”.

Dr Judy Edwards MLA  
MINISTER FOR THE ENVIRONMENT

- 3 NOV 2004

## Schedule 1

### **The Proposal (Assessment No. 1536)**

The project is located approximately 2.5 kilometres north-west of the Gingin townsite, to the east of the Brand Highway and north of Dewar Road (Figure 1).

The proposal area consists of Part Swan Locations 128, 354 and 508, Lot 2; Part Swan Locations 128 and 340, Lot 3; Part Swan Locations 128, 354, 355, 506, Lot 9 owned by Iluka Resources Limited and Swan Location 506, Portion of each of Swan Locations 354 and 508, Lot 1; and Part Swan Locations 511 and 536, Lot 7 for which Iluka has a landowner agreement to mine.

All the lots are Minerals-to-Owner, being pre-1899 land grants.

The Project comprises:

- open-cut mining to an approximate depth of 28 metres;
- in-pit feed hopper;
- feed conveyors;
- centrally located screen plant;
- 250 tonnes per hour concentrator;
- heavy mineral concentrate stockpiles;
- process water dam;
- return water dam;
- solar drying dams;
- site office, crib room and ablution block;
- potable water storage;
- weighbridge;
- monazite unloading facility;
- workshop and tool shed;
- parking area;
- mine access roads; and
- earthmoving contractors' area (parking and workshop).

Significant features of the proposal are:

- progressive mining and rehabilitation of the site;
- temporary diversion of the north and south streams around mining operations;
- supply of process water from superficial groundwater and pit dewatering and the Yarragadee aquifer; and
- 24 hours per day, seven days per week operation.

The key proposal characteristics are shown in Table 1 below.

**Table 1 – Key Proposal Characteristics (1536)**

<b>Element</b>	<b>Quantities / Description</b>
Life of Mine (mine production)	Expected less than 4 years (continual operation)
Area of Orebody	80 hectares
Area of disturbance	280 hectares
Major Components <ul style="list-style-type: none"> <li>• open-cut mining to an approximate depth of 28 metres;</li> <li>• in-pit feed hopper;</li> <li>• feed conveyors;</li> <li>• centrally located screen plant;</li> <li>• 250 tonnes per hour concentrator;</li> <li>• heavy mineral concentrate stockpiles;</li> <li>• process water dam;</li> <li>• return water dam;</li> <li>• solar drying dams;</li> <li>• site office, crib room and ablution block;</li> <li>• potable water storage;</li> <li>• weighbridge;</li> <li>• monazite unloading facility;</li> <li>• workshop and tool shed;</li> <li>• parking area;</li> <li>• mine access roads; and</li> <li>• earthmoving contractors' area (parking and workshop).</li> </ul>	See Figures 1 and 2 for details.
Ore mining rate (maximum)	2.8 million tonnes per year
Overburden mining rate (maximum)	3.65 million tonnes per year
Hours of Operation	24 hours per day, 7 days per week
Water Supply <ul style="list-style-type: none"> <li>Source</li> <li>Maximum Annual Requirement</li> <li>Source</li> <li>Maximum Annual Requirement</li> </ul>	Yarragadee Aquifer 1,500 Megalitres per year Superficial Aquifer 1,000 Megalitres per year
Fuel storage capacity	50,000 litres
Annual fuel usage	3,300,000 litres per year

**Figures (attached)**

Figure 1 – Mine location and site layout;

Figure 2 – Process diagram.



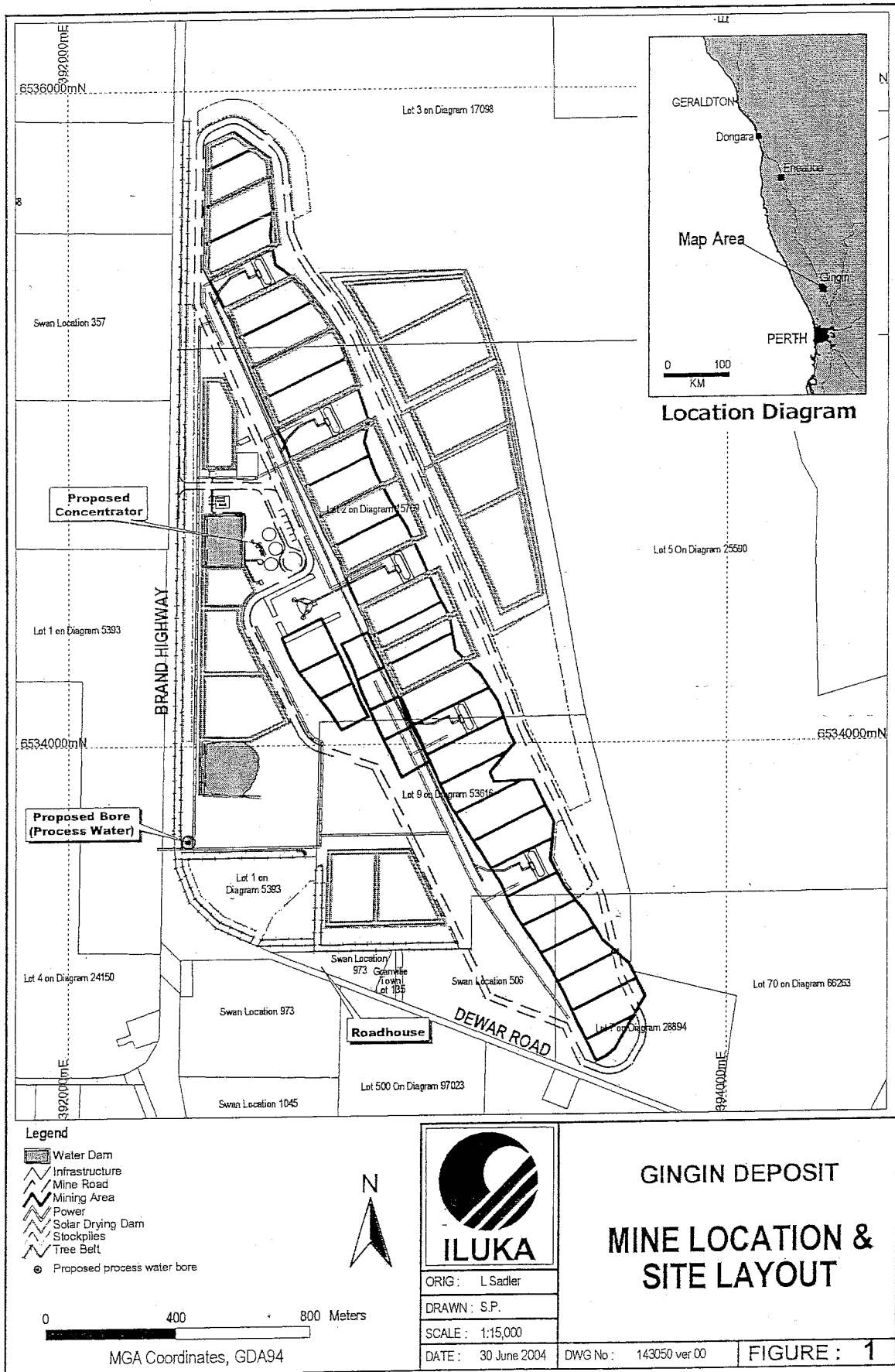


Figure 1: Mine location and site layout

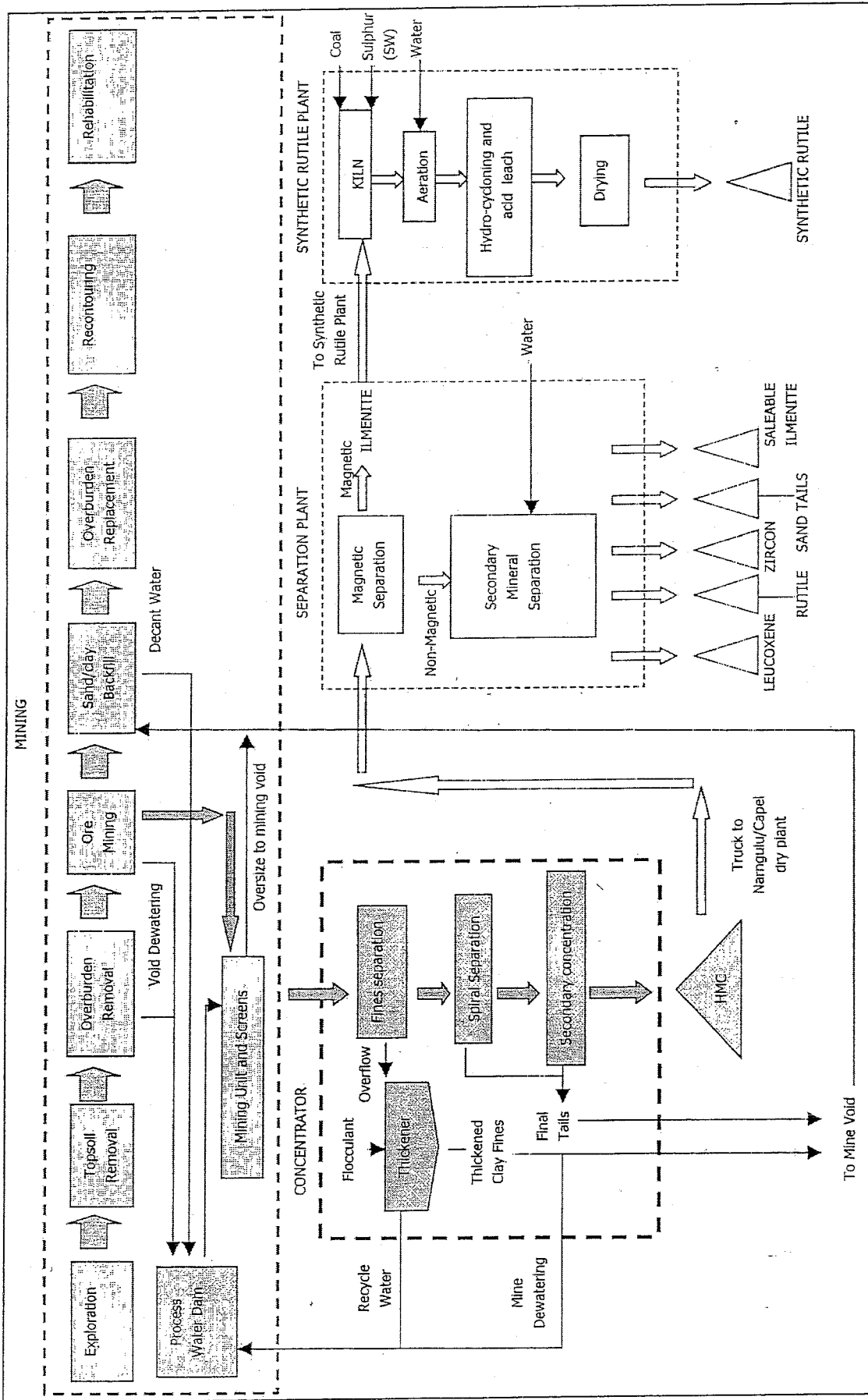


Figure 2: Process diagram

**Proponent's Environmental Management Commitments**

September 2004

**MINERAL SANDS MINE  
APPROXIMATELY 2.5 KILOMETRES  
NORTH-WEST OF GINGIN**

(Assessment No. 1536)

**Iluka Resources Limited**

## Proponent's Environmental Management Commitments – September 2004

### Mineral Sands Mine, Gingin (Assessment No. 1536)

**Note:** The term “commitment” as used in this schedule includes the entire row of the table and its six separate parts as follows:

- a commitment number;
- a commitment topic;
- the objective of the commitment;
- the ‘action’ to be undertaken by the proponent;
- the timing requirements of the commitment; and
- the body/agency to provide technical advice to the Department of Environment (DoE).

No.	Topic	Objective	Action	Timing	Advice
1	Dust	To minimise significant impact on amenity and environmental impact.	1) Have in place and make publicly available a Dust Management Plan which includes the following measures: <ol style="list-style-type: none"> <li>1. the use of water sprays to wet the site during windy conditions;</li> <li>2. the use of speed limits to minimise dust generated by vehicle movements;</li> <li>3. the use of minimum drop heights when loading and unloading soils and other excavated materials;</li> <li>4. minimisation of areas of disturbed and/or exposed soils;</li> <li>5. use of embankments; and</li> <li>6. use of mulch, temporary crops and re-establishment of pasture.</li> </ol> 2) Implement the Dust Management Plan.	Prior to ground-disturbing activity	Commissioner of Soil and Land Conservation

2	Noise	To comply with the requirements of the <i>Environmental Protection (Noise) Regulations 1997</i>	<p>1) Prepare and make publicly available a Noise Management Plan which includes:</p> <ol style="list-style-type: none"> <li>1. monitoring at the nearest sensitive receptor locations;</li> <li>2. noise controls to be incorporated in the engineering design;</li> <li>3. operational controls to achieve compliance; and</li> <li>4. community consultation and complaint response.</li> </ol> <p>2) Implement the Noise Management Plan.</p>	<p>Prior to ground-disturbing activity</p> <p>During construction and operation</p>	Department of Environment (Noise Section)
3	Waste	To minimise potential contamination of the receiving environment.	<p>1) Prepare and make publicly available a Waste Management Plan which includes storage, segregation and disposal of waste streams and maximises recycling and re-use of wastes.</p> <p>2) Implement the Waste Management Plan.</p>	<p>Prior to construction</p> <p>During construction and operation</p>	Shire of Gingin
4	Light	To minimise the impacts of light spill on neighbouring residences and adjacent roads.	<p>1) Prepare a Light Management Plan which addresses:</p> <ol style="list-style-type: none"> <li>1. placement of lighting; and</li> <li>2. design of lighting.</li> </ol> <p>2) Implement the Light Management Plan.</p>	<p>Prior to construction</p> <p>During construction and operation</p>	Shire of Gingin
5	Radiation	To minimise radiation impacts	<p>1) Prepare and make publicly available a Radiation Management Plan which includes:</p> <ol style="list-style-type: none"> <li>1. monitoring of background radiation levels before and after mining;</li> <li>2. procedures for mining, stockpiling, transport and disposal; and</li> <li>3. procedures to ensure that post-mining radiation levels do not exceed the pre-mining levels.</li> </ol> <p>2) Implement the Radiation Management Plan.</p>	<p>Prior to ground-disturbing activity</p> <p>During construction and operation</p>	<p>Department of Industry and Resources</p> <p>Radiological Council</p>

Attachment to Statement 666

Change to Description of Proposal

**Proposal:** Mineral sands mine approximately 2.5 Kilometres North-West of Gingin Shire of Gingin

**Proponent:** Iluka Resources Limited

**Change:** Schedule 1

**From:**

Element	Quantities/Description
Disturbance Area	280 hectares

**To:**




Element	Quantities/Description
Disturbance Area	370 hectares

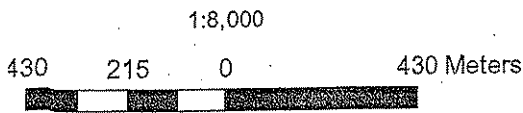
Figure 1. Disturbance Area map


**Approval Date:** 31/10/06



**Legend.**

-  Proposed Disturbance Area(370 Ha)
-  Disturbed Area (275 Ha)
-  Proposed area for clearing



	SITE
	<b>Proposed Disturbance Area</b>
	<small>           ORG: Dtp            DRAWN: Basil Bano            SCALE: 1:8,000            DATE: 21/05         </small>
	<small>           DWG No: _____            AS FIGURE: 1         </small>