

ENVIRONMENTAL SCOPING DOCUMENT

PROPOSAL:	Koolanooka South Magnetite Project – Bulk Sampling (Assessment No. 1953)
LOCATION:	Koolanooka, Western Australia
LOCALITY:	Koolanooka South
PROPONENT:	Westralian Iron Pty Ltd
LEVEL OF ASSESSMENT:	Public Environmental Review with a 6 week public review period

This Environmental Scoping Document (ESD) is provided to define the requirements of the Public Environmental Review (PER) document to be prepared in accordance with the Western Australian *Environmental Protection Act 1986* (EP Act).

The preliminary key environmental factors to be addressed are identified in Section 2. The generic guidelines for the format of an environmental review document are available on the EPA's website www.epa.wa.gov.au.

The PER document must adequately address all elements of this scoping document prior to approval being given to commence the public review.

1. Introduction

The EP Act sets out that where a proposal is considered to be likely to have a significant environmental impact it will be subject to an assessment by the EPA under section 38 of the EP Act. This proposal is being assessed by way of a PER because it raises significant environmental factors. The EPA will, at the conclusion of its assessment, prepare a report on the outcome of its assessment of the proposal and give the assessment report to the Minister for Environment. In accordance with the requirements of the EP Act, the Minister for Environment will then decide whether or not the proposal may be implemented, and, if the proposal may be implemented, the conditions and procedures that implementation of the proposal should be subject.

As the level of assessment for this proposal was set on 3 December 2012, the procedure for a PER is described in the Western Australian EP Act *Environmental Impact Assessment – Administrative Procedures 2010*. The proponent should have regard to the Administrative Procedures when preparing the PER.

As this proposal is subject to a PER, the proponent is required to produce a PER document in accordance with an approved ESD. The purpose of the ESD is to:

- develop proposal-specific guidelines to direct the proponent on the key environmental issues for the proposal that should be addressed in preparing the PER document; and
- identify the necessary impact predictions required for an assessment of the proposal, and the information on the environmental setting required to carry out the assessment.

The EPA has determined that it will prepare and issue the ESD outlining the scope and content of the PER in relation to this proposal.

The EPA, in its formulation of the ESD, undertakes consultation with the proponent regarding the details of the proposal, its environmental setting, the environmental surveys and investigations required and expected outcomes. In addition the EPA will consult with the relevant government agencies, including decision making authorities. The Office of the EPA (OEPA) provides services and facilities for the EPA. In many cases the OEPA will act for the EPA.

ESDs prepared by the EPA are not subject to a public review period. The ESD will be available on the EPA website (www.epa.wa.gov.au) upon finalisation and will be included as an appendix in the PER document.

The proponent will then be required to prepare a PER document in accordance with the ESD. When the EPA is satisfied that the PER document has adequately addressed all of the environmental factors and studies identified in the ESD, the proponent will be required to release the document for a public review period of 6 weeks.

An important aspect of the environmental impact assessment process is the review by the public. The EPA allows public input into the possible environmental impacts of this proposal and its implementation. The EPA expects the proponent to fully consult with interested members of the public and relevant stakeholders, and to take due care in ensuring any other relevant environmental factors which may be of interest to the public and stakeholders are succinctly addressed. The PER should document the matters raised in consultation ideally in a table.

The EPA considers that adequate consultation can be demonstrated when:

- stakeholders are included in the consultation process and are able to make their concerns known;
- are kept informed about the potential and actual environmental impacts; and
- receive responses to the concerns raised that are relevant to the environmental factors identified by the EPA, identifying how the proposal has been modified and/or identifying management measures that will be implemented to address the concerns raised.

To facilitate adequate public input, the PER should be made available as widely as possible and at a reasonable cost.

2. Specific Guidelines for the Preparation of the PER Document

2.1 The proposal

The EPA has prepared *Environmental Assessment Guideline for Defining the Key Characteristics of a Proposal* (May 2012) (EAG 1). EAG 1 describes how to define the Key Proposal Characteristics for the purposes of assessing the proposal and subsequent incorporation in the Ministerial approval statement. It is expected that the Key Proposal Characteristics will be informed by the outcome of the work required for the environmental factors that are relevant to the proposal specified below (section 2.2).

Westralian Iron Pty Ltd proposes to develop three bulk sample pits at Koolanooka South (Figure 1). The project site is located approximately 20 kilometres (km) due east of Morawa and 370 km north of Perth. Bulk sampling is required to assist with future planning and design for the proposed development and to provide sufficient material for a test regime to fully understand the characteristics of the ore to enable an efficient Magnetite processing plant to be designed. The bulk sampling programme would involve the development of three bulk sampling pits and stockpiles, access tracks, waste dumps and soil stockpiles and laydown areas and take up to 12 months. The project would require a maximum of 68 hectares (ha) of vegetation clearing.

The bulk sampling proposal is located within the Koolanooka Threatened Ecological Community. The proposed bulk sampling layout is shown in Figure 2. It is expected that the production rate would be 186,000 tonnes of ore with waste overburden of 1612,700 tonnes.

The summary of the proposal and the proposed location and extent of the physical and operational elements are provided in Table 1 and 2.

The proposal would involve the removal of topsoil as a first step using graders, front end loaders and possibly bulldozers, depending on the terrain. Topsoil would be removed to a depth of up to 0.2 metres (m) where available and placed into a dedicated topsoil stockpile area. Pit depth would vary between North Flat (50 m), Hematite Ridge (30 m) and Magnetite Ridge (40 m).

Ore would be stacked in three finger type stockpiles up to 5 m high on the north eastern side of the topsoil adjacent to the North Flat pit. Bulk samples would be removed off site to an external testing facility where crushing and testing would be conducted.

On closure the proponent proposes to remove all temporary facilities from the site and rehabilitate the site in accordance with the following principles:

- re-establishment of a stable landform with erosion protection for long-term stability;
- creation of a post-use landform that resembles the pre-use landform as closely as practicable;
- replacement of topsoil;

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- spreading of vegetation debris to return organic matter to the area, and provide additional seed sources;
- additional seeding and planting of seedlings if regeneration from topsoil is insufficient; and
- rehabilitation monitoring.

The proponent currently proposes that test pits would be maintained in a care and maintenance basis until the final pit design is completed for Koolanooka Hills, then a decision would be made to incorporate the pits into any proposed operating mine. All pits would be made safe and bunded in accordance with the Department of Mines and Petroleum and Environmental Protection Authority – *Guidelines for Preparing Mine Closure Plans*, June 2011. If an operating mine is subsequently proposed it will be subject to the requirements of the EP Act and referred separately to the EPA.

Table 1 – Summary of the proposal

Proposal Title	Koolanooka South Magnetite Project – Bulk Sampling
Proponent Name	Westralian Iron Pty Ltd
Short Description	The proposal is to develop three bulk sampling pits at Koolanooka South, approximately 20 km east of Morawa WA. Included in the development are pits, stockpiles, waste dumps, laydown areas, access and infrastructure required to support the operation.

Table 2 – Location and extent of physical and operational elements

Physical Element	Location	Proposed Extent
Pits, stockpiles, waste dumps, laydown areas, access and infrastructure to support a bulk sampling program.	Within the proposed development envelope in Figure 3.	Within the proposed disturbance envelope, clearing of not more than 68 ha of native vegetation listed as a Threatened Ecological Community.
Operational Element	Location	Proposed Extent
Processing water		Currently a groundwater bore is located on site. Should this not be adequate, water would be carted in from Perenjori and Morowa.
Rehabilitation	All bulk sampling pit areas	

2.2 Preliminary Key Environmental factors and policy documents relevant to this proposal

The PER should give a detailed assessment of each of the preliminary key environmental factors identified for this proposal. At this stage, the EPA has identified the preliminary key environmental factors, objectives and work required as detailed below (see Table 3).

The EPA has identified a list of relevant policy documents (see Table 3) which set out how the EPA expects the preliminary key environmental factors to be considered. The EPA expects that the treatment of environmental factors will be consistent with the approaches set out in these policy documents. The EPA also considers that the proponent should assess the proposal in a local and regional context and ensure that all cumulative impacts are addressed.

The proponent should demonstrate in the PER that best available technology would be implemented to prevent, control and abate emissions to an acceptable level or explain any deviations from best available technology.

The EPA considers that the following preliminary key environmental factors are relevant to the proposal:

- Flora and Vegetation;
- Terrestrial Fauna;
- Landforms;
- Rehabilitation and closure; and
- Offsets.

Table 3: Preliminary Key Environmental factors relevant to the proposal

Flora and Vegetation	
EPA objective	To maintain representation, diversity, viability and ecological function at the species, population and community level.
Potential Impacts	The proposal involves the clearing of up to 68 ha of native vegetation which includes a Threatened Ecological Community.
Work required	<p>Detailed description of clearing associated with the proposal and justification for the amount of land proposed to be cleared.</p> <p>A Level 2 survey and vegetation and flora mapping of the proposal area is to be undertaken in accordance with Guidance Statement 51;</p> <p>Identification and mapping of vegetation communities including threatened ecological communities and important, declared rare, priority or significant flora species as defined in EPA Guidance Statement 51;</p> <p>Figure(s) showing the predicted extent of loss of vegetation from both direct and indirect impacts and the extent to which vegetation is expected to recover;</p> <p>Analysis, such as but not limited to the percentage of impacts, of the extent of likely direct and indirect impacts to flora and vegetation including the conservation status of vegetation and impact to its extent regionally (including but not limited to, threatened ecological communities) and/or flora species to assist in the determination of the significance of impacts;</p> <p>Discussions that fully address the cumulative impacts on the Koolanooka Hills and the specific flora and vegetation communities therein utilising quantitative data from</p>

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	<p>appropriate local and regional surveys.</p> <p>Discussion of potential for direct and indirect impacts to flora and vegetation as a result of the proposal and provision of quantitative data on impacts of the proposal to vegetation or species of conservation significance;</p> <p>Discussion of proposed management, monitoring and mitigation methods to be implemented.</p> <p>All surveys are to be conducted in the correct season as per the Guidance Statements.</p> <p>Vegetation and Flora survey methods, analysis, interpretation and reporting for this proposal to demonstrate best practice and be of sufficient rigour to accurately inform an impact assessment, and one which considers both biodiversity conservation and ecological function. Where taxa or communities of interest are found, it is essential that the surveys are extended to provide a comprehensive understanding of the taxa and communities in a local and regional context.</p> <p>Any survey work to be undertaken must be consistent with the Department of Environment and Conservation's <i>Recommended interim protocol for flora surveys of banded ironstone formations (BIF) of the Yilgarn Craton</i>.</p> <p>A peer review by botanists with appropriate experience and expertise of the associated vegetation and flora analysis may be required.</p> <p>If the proponent intends to rely on results from previous surveys, justification will be required that those surveys are relevant, representative of the proposal area, and were carried out using methods consistent with current best practice.</p>
Relevant policy/guidance documents	<p>Position Statement 2 Environmental Protection of Native Vegetation in Western Australia;</p> <p>Position Statement 3 Terrestrial Biological Surveys as an Element of Biodiversity Protection;</p> <p>Guidance Statement No. 51 Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia June 2004; and</p> <p>Checklist for documents submitted for EIA on marine and terrestrial biodiversity.</p>
Terrestrial and Subterranean Fauna	
EPA objective	To maintain representation, diversity, viability and ecological function at the species, population and assemblage level.
Potential impacts	Clearing of vegetation may result in loss or fragmentation of fauna habitat and consequential displacement of fauna. Excavation may also remove habitat of subterranean Fauna.
Work required	<p>A detailed description of expected impacts to fauna habitat from the proposal.</p> <p>Mapping of habitats within areas to be cleared or indirectly impacted should be conducted in accordance with Guidance Statement 56; including rare or unusual habitat types; Figure(s) showing the likely extent of loss of the habitat types and the extent of areas where vegetation is expected to recover, from both direct and indirect impacts.</p> <p>Analysis of likely loss of habitat, including percentages of habitat types to be impacted, to assist in determination of significance of impacts to fauna.</p> <p>Local Aboriginal groups consider the Bronzewing Pigeon and the Major Mitchel Cockatoo to have important cultural associations.</p> <p>Consideration should be given to understanding the impacts caused by changes to habitats associated with the Proposal and what effect this may have on the immediate population distribution and frequency of the Bronzewing Pigeon and the Major Mitchel Cockatoo.</p>

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	<p>Conduct targeted Level 2 surveys within the proposal area and immediate surrounds, to identify potential impacts to conservation significant vertebrate fauna species.</p> <p>Discussion of potential impacts to fauna as a result of the proposal and provision of quantitative data on impacts of the proposal to species of conservation significance. Demonstrate the extent to which areas are used for foraging and/or nesting.</p> <p>Discussion of proposed management, monitoring and mitigation methods to be implemented.</p> <p>All surveys are to be conducted in the correct season as per the Guidance Statements.</p> <p>In accordance with Guidance Statement 20, assess the prospectively of the area for surface short range endemic invertebrate species. If the area is prospective for these species, undertake short range endemic invertebrate fauna sampling as per Guidance Statement 20.</p> <p>Assess the likelihood of subterranean fauna being present based on availability of subsurface habitats. If the area is prospective for subterranean fauna, undertake subterranean fauna sampling representative of the extent of the area to be impacted including areas outside impact areas to provide context of impacts in accordance with Guidance Statements 54 and 54a.</p> <p>If the proponent intends to rely on results from previous surveys, justification will be required that those surveys are relevant, representative of the proposal area, and were carried out using methods consistent with current best practice.</p>
Relevant policy/guidance documents	<p>Guidance Statement No. 20 Sampling of Short Range Endemic Invertebrate Fauna for Environmental Impact Assessment in Western Australia, May 2009;</p> <p>Guidance Statement No. 54 Consideration of subterranean fauna in groundwater and caves during Environmental Impact Assessment in Western Australia, December 2003;</p> <p>Guidance Statement No. 54a Sampling methods and survey considerations for subterranean fauna in Western Australia, August 2007;</p> <p>Guidance Statement No. 56 Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia June 2004;</p> <p>Position Statement 3 Terrestrial Biological Surveys as an Element of Biodiversity Protection; and</p> <p>Checklist for documents submitted for EIA on marine and terrestrial biodiversity.</p> <p>Technical Guide - Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment, Technical report of the Environmental Protection Authority and the Department of Environment and Conservation (September 2010).</p>
Landforms	
EPA objective	To maintain the variety, integrity, ecological functions and environmental values of landforms and soils.
Potential impacts	Mining activities would alter landforms and soils.
Work required	Provide information to allow assessment of the significance of the landforms to be impacted in terms of uniqueness or regional significance from a visual landscape perspective, in terms of ecological function (eg. unusual or restricted soil types) and any particular geodiversity values. This should include consideration of recreational/tourism values associated with the existing landforms.

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Relevant policy/guidance documents	N/A
Rehabilitation and Closure	
EPA objective	To ensure that premises can be closed, decommissioned and rehabilitated in an ecologically sustainable manner, consistent with agreed outcomes and land uses, and without unacceptable liability to the State.
Potential Impacts	Impacts on landforms, native vegetation (including the Koolanooka Threatened Ecological Community), fauna habitat. Potential impacts on heritage values and recreational tourism values.
Work required	<p>Demonstrating that the mitigation hierarchy has been addressed including placing infrastructure offsite and demonstrating any access and infrastructure within vegetated areas has had regard to future proposals for mining.</p> <p>Provide justification for the amount of land cleared. Noting that no proposal for mining has been submitted, the proponent is to justify why areas cannot be progressively mined and backfilled rather than creating out of pit waste dumps. The proponent is to also justify, for any waste dumps proposed, why material should not be returned to mined out areas at the end of the bulk sampling project.</p> <p>A workable and site specific closure plan, prepared in accordance with the Department of Mines and Petroleum and Environmental Protection Authority – <i>Guidelines for Preparing Mine Closure Plans</i>, June 2011, should be provided with the PER document.</p> <p>The plan should include a review of available information on previous rehabilitation activities at the Koolanooka mine and learnings from that previous rehabilitation.</p> <p>Waste characterisation; including but not limited to, information relating to the physical and chemical characterisation of waste materials and/or ore. Appropriate testing representative of the geological materials present at the Project by undertaken at the approvals stage to assess the potential environmental impacts (e.g. Acid and Metalliferous Drainage).</p> <p>Site-specific closure criteria, and target dates, are to be included in the Mine Closure Plan.</p> <p>Top-soil is to be handled and stored so as to maintain seed viability. Topsoil management and handling protocols needs to be specified. Consideration needs to be given to optimal use of the topsoil and seed viability testing.</p> <p>Rehabilitation should be planned and implemented so as to return a soil profile capable of supporting vegetation regrowth.</p>
Relevant policy/guidance documents	Department of Mines and Petroleum and Environmental Protection Authority – <i>Guidelines for Preparing Mine Closure Plans</i> , June 2011.
Offsets	
EPA objective	To counterbalance any significant residual environmental impacts or uncertainty through the application of offsets.
Potential impacts	Potential impacts on vegetation, flora and fauna species.
Work required	<p>Examination of residual impacts and, if required, development of draft program of environmental offsets.</p> <p>Inclusion in the PER of completed Environmental Offsets Reporting Form and any offsets required and proposed.</p>

Relevant policy/guidance documents	WA Environmental Offsets Policy, September 2011. Environmental Protection Bulletin No 19 – Environmental offsets – Biodiversity, September 2008. Position Statement 9 Environmental offsets. Offset reporting Form.
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These preliminary key environmental factors must be addressed within the environmental review document for the public to consider and make comment to the EPA. The EPA anticipates addressing these factors in its report to the Minister for Environment. All technical reports, modelling and referenced documents (not currently in the public domain) used or relied upon in the preparation of the PER should be included as appendices to the document and should not contain disclaimers that prevent them being made publicly available.

2.3 Other Matters

The EPA expects the proponent to take due care in ensuring other matters which may be of interest to the public are succinctly addressed and that management is described in the PER.

The EPA has identified other matters which it considers warrant attention as part of the environmental review of this proposal to the extent that the PER should show how these factors will be mitigated and the extent to which other statutory decision making processes can regulate potential impacts to meet the EPA's objectives.

These include but are not limited to the following:

- *Dust*
The proponent should identify the locations of all sensitive receptors; sources of dust; and propose management measures.
- *Noise*
The proponent should provide details of an environmental noise study including:
 - A map showing the locations of all noise sensitive premises adjacent to the mining operations or likely to be affected by the proposal.
 - Environmental noise monitoring at representative noise-sensitive premises, where access to the premises can be obtained through agreement with the landowners.
 - Noise predictions for proposed operations and proposed management measures.

This list is provided to assist with the preparation of the PER document. If during the course of the preparation of the document other environmental factors or matters are identified, they should be discussed with the OEPA to determine whether they are to be addressed in the PER.

2.4 Other Approvals

The EPA notes that a number of other approvals will be required for the proposal. Where possible, the EPA advises that these approvals should be processed in

parallel with the PER. These include Water Licensing and other approvals required by the Department of Water, the Mining Proposal and Mine Closure Plans required by the Department of Mines and Petroleum and approvals under Part V of the EP Act required by the Department of Environment and Conservation.

With reference to demonstrating that the mitigation hierarchy has been addressed, the EPA is aware that additional approvals and land access requirements would be necessary and that these may have lead times to achieve the outcome of placing non-essential infrastructure offsite and minimising access impacts. Accordingly, the proponent is reminded to address these requirements as soon as possible.

Inclusion of information relating to these approvals as appendices to the PER document would be desirable and would eliminate some duplication of processes.

2.5 Agreed Assessment Milestones

EPA Environmental Assessment Guideline No. 6 "Timelines for EIA of Proposals" addresses the responsibilities proponents and EPA for achieving timely and effective assessment of proposals.

This timeline (Table 4) is agreed between the EPA and proponent. The EPA and the proponent are expected to meet the agreed proposal assessment timeline, and in doing so, provide adequate, quality information to inform the assessment. Proponents will need to allocate sufficient time to undertake the necessary studies to the appropriate standard and incorporate the outcomes of the studies into the PER.

Where an agreed timeline is not being met by the proponent, or if adequate information is not submitted by the proponent, the timeline for subsequent steps will be re-established. Where the OEPA is unable to meet a date in the agreed timelines the proponent will be advised prior to the agreed delivery date and the timeline adjusted.

The EPA will report to the Minister for Environment on whether the agreed proposal assessment timeline has been met. Where the timeline has not been met, the reasons for this will be identified in the report.

Table 4: Agreed Milestones for the proposal

Key Stage of Proposal	Agreed Milestone
EPA approval of ESD Document	13 May 2013
Proponent submits first adequate draft of PER Document	20 January 2015
OEPA provides comment on first draft PER Document	3 March 2015
Proponent submits adequate revised draft PER Document	31 March 2015
EPA authorises release of PER Document	14 April 2015

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Proponent releases approved PER Document	21 April 2015
Public Review of PER Document	2 June 2015
EPA provides Summary of Submissions	23 June 2015
Proponent provides Response to Public Submissions	21 July 2015
OEPA assesses proposal for consideration by EPA	8 September 2015
Preparation and finalisation of EPA Report (including 2 weeks consultation on draft conditions with proponent and key Government agencies)	20 October 2015

Decision Making Authorities

At this preliminary stage, the EPA has identified the following decision making authorities (DMAs) (see Table 5). These DMAs are constrained from making any decision that could have the effect of causing or allowing the revised proposal to be implemented. Throughout the assessment process further DMAs may be identified.

Table 5: Nominated Decision Making Authorities

Decision Making Authority	Relevant Legislation
Minister for Indigenous Affairs	<i>Aboriginal Heritage Act 1972</i>
Minister for Mines and Petroleum	<i>Mining Act 1978</i>
Department of Mines and Petroleum	<i>Mining Act 1978</i>
Department Environment and Conservation	<i>Part V Environmental Protection Act 1986</i>

DMAs are not prevented from parallel processing, up to the point of their decision, so that their views can inform the ministerial consultation process.

2.6 Preparation of the PER Document

The recommended format for the PER document is enclosed as Attachment 1.

When the EPA is satisfied with the standard of the PER document (see EAG 6 Section 4.3) it will provide a written sign-off, giving approval to advertise the document for public review. The review document may not be advertised for release before written approval is received.

The proponent is responsible for advertising the release and availability of the PER in accordance with the guidelines which will be issued to the proponent by the OEPA. The OEPA must be consulted on the timing and details for advertising the document.

Figure 1 - Location of Proposal

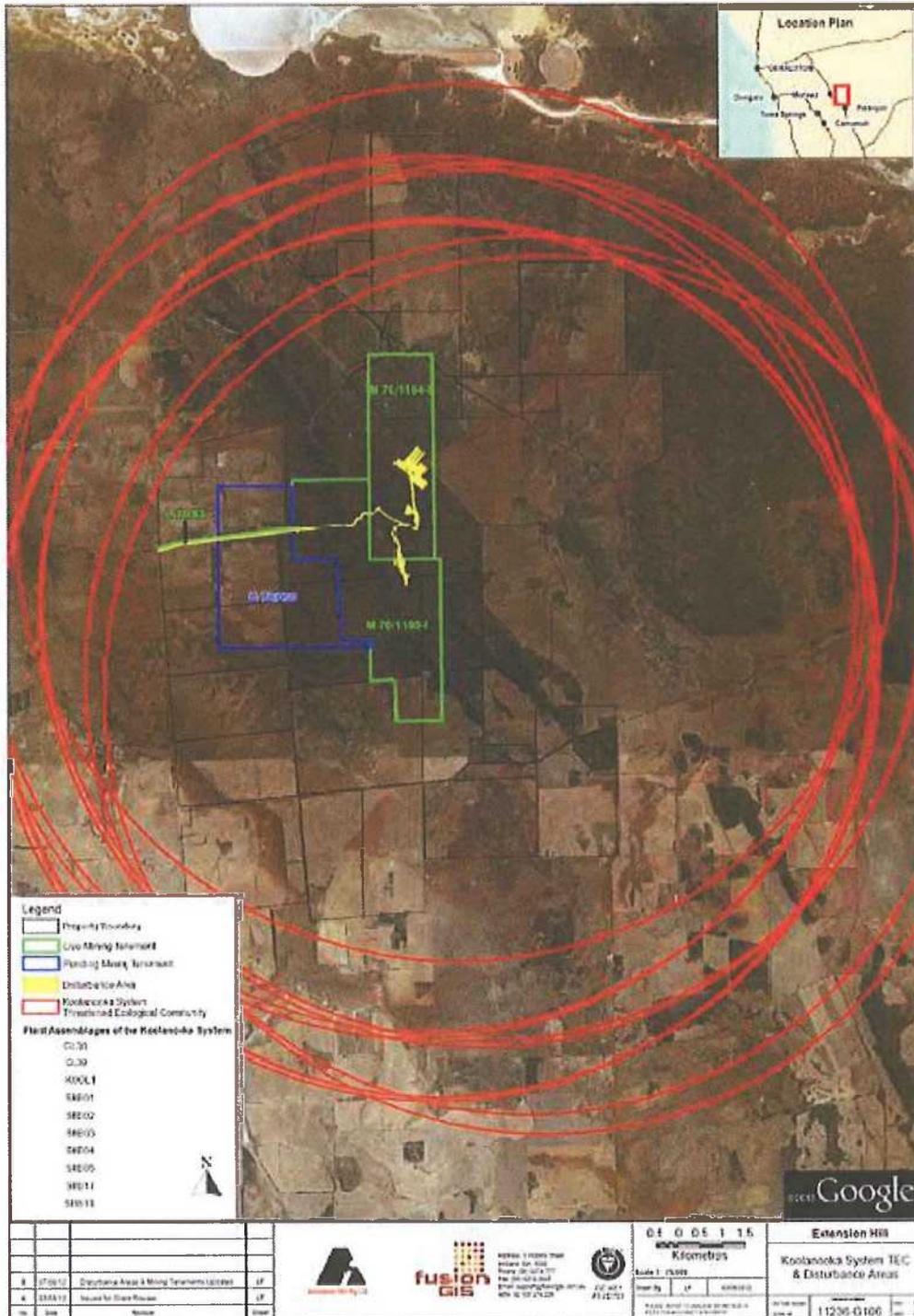


Figure 2 – Proposal Envelope and indicative mine layout

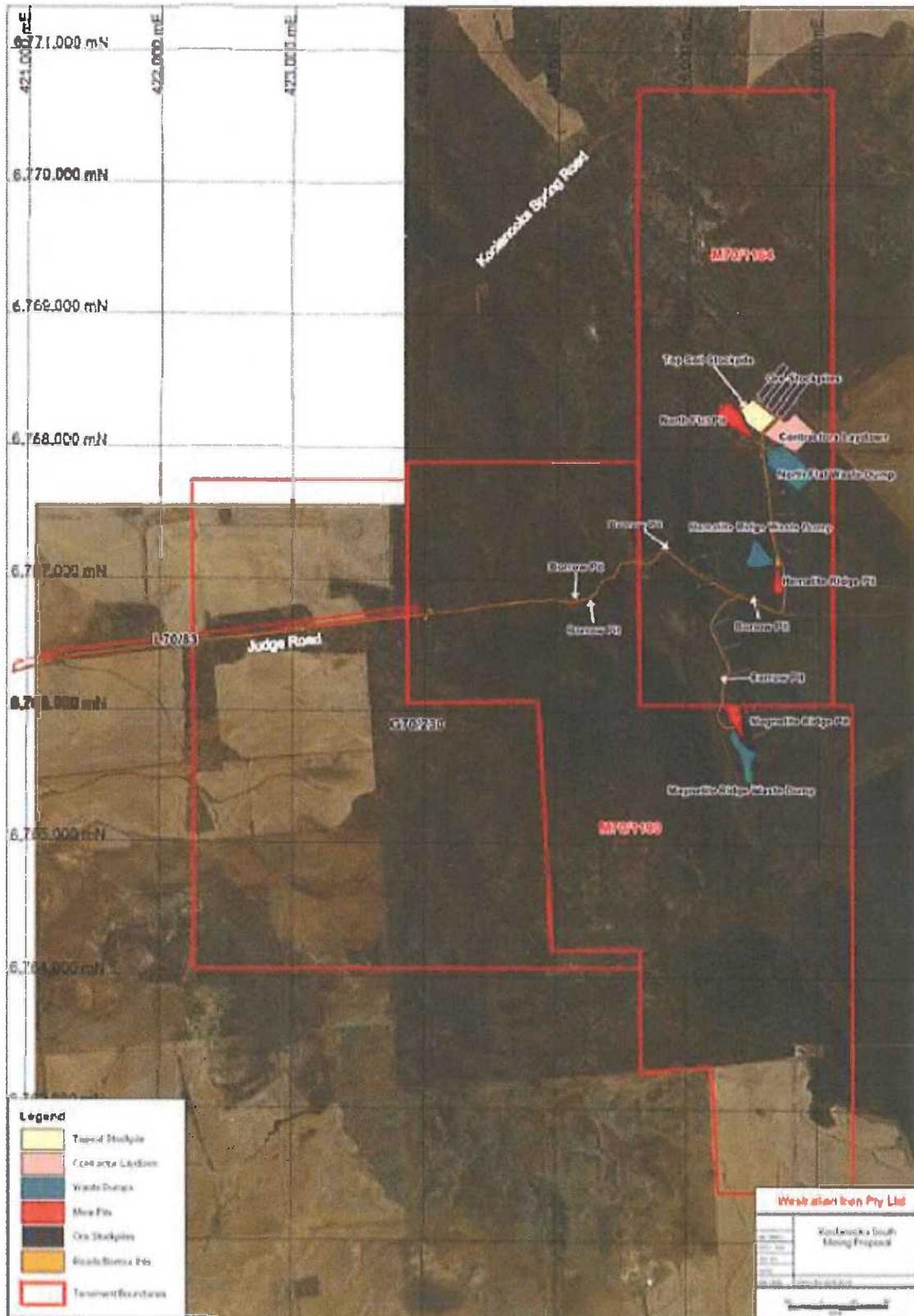


Figure 3

