IRONCLAD MINING

MINING AND REHABILITATION COMPLIANCE REPORT

ML6390, ML6391, MPL138

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1.0 Introduction

1.1 General

IronClad Mining Limited (IronClad) is currently developing the Wilcherry Hill Iron Project (WHIP), located approximately 40 km north of Kimba on the Eyre Peninsula, South Australia (Figure 1.1). The project involves the development of a greenfield open cut iron ore mine.

Exploration of the Wilcherry Hill deposits has been undertaken since the 1960s. Since this time, a large amount of drilling data has been collected, primarily related to targeted gold and base metals exploration.

In 2007, Trafford Resources Limited, a Perth-based mineral exploration company, floated a subsidiary company, IronClad Mining Limited, to progress the development of the iron ore resources of the Wilcherry Hill Iron Project (WHIP).

The WHIP is managed in a joint venture between Trafford Resources (27%) and IronClad (73%).

This report meets the requirements for IronClad (Under the First Schedule 1 of the Mining Lease offer) to provide the Department for Manufacturing, Innovation, Trade, Resources and Energy (DMITRE) with an annual Mining and Rehabilitation Compliance Report (MARCR) for WHIP operations.

This MARCR has been prepared in accordance with DMITRE MG3 Guidelines for miners: preparation of a mining and rehabilitation compliance report (MARCR) in South Australia, Version 1.4 (dated March 2009).

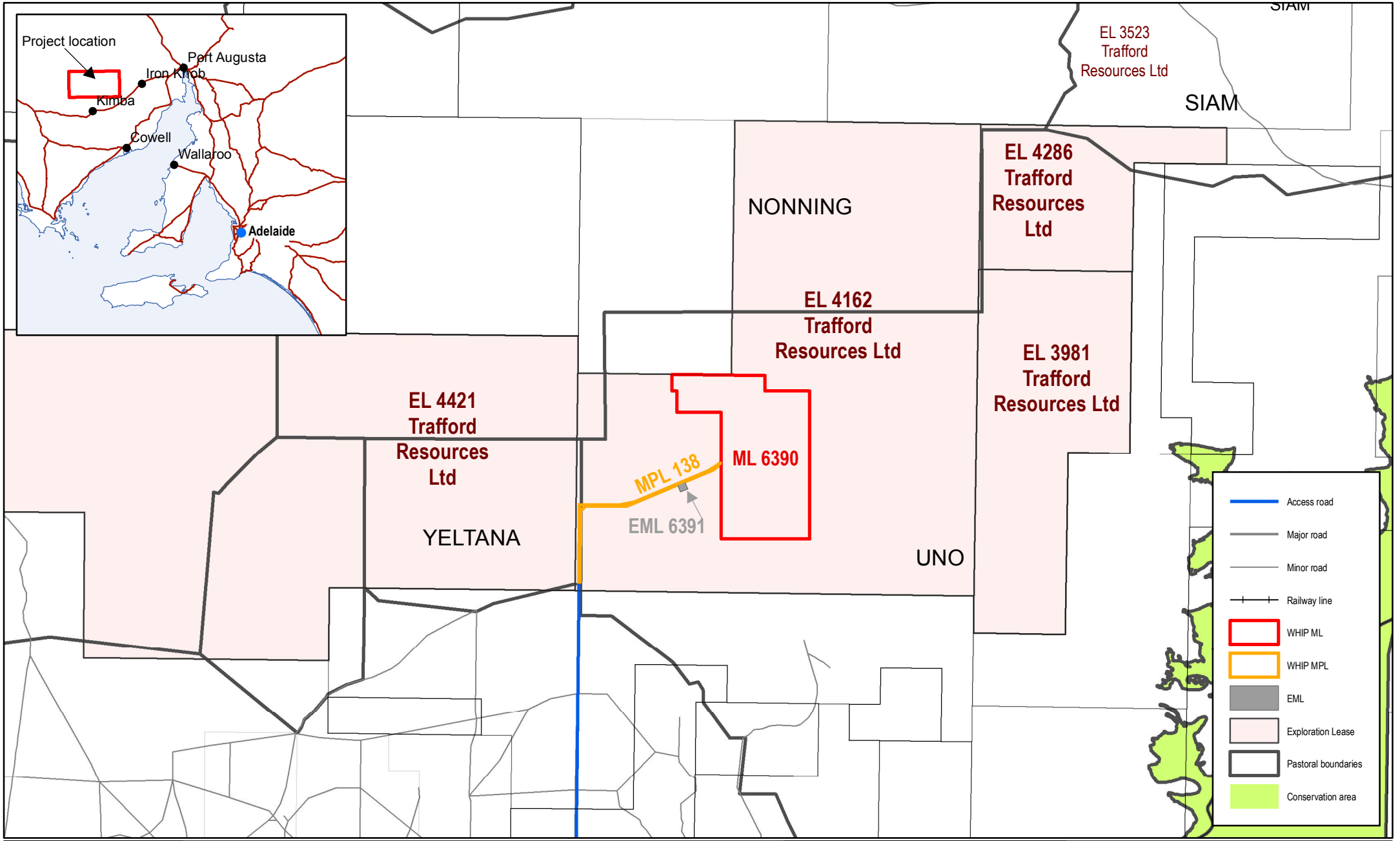
1.2 Background to the PEPR

The WHIP Program for Environmental Protection and Rehabilitation (PEPR No. PEPR2011/023) was approved by DMITRE 23 December 2011. It was anticipated at that time that the WHIP construction would commence January 2012. However due to a number of factors the project was substantially delayed, finally resulting in a request to the minister 21 November 2012 under Section 79 of the Mining Act that mining operations be delayed until 1 August 2013. Ministerial approval was received 29 November 2012. A revised interim bond was agreed and lodged for the duration of the delay.

The WHIP ML will remain in a phase of care and maintenance and no mining works will occur until any revisions to the PEPR are presented and a revised bond is approved by DMITRE and lodged. It is expected that the revised PEPR will be submitted in Q2 2013 for a start of construction in Q3 2013.

1.3 Commitment

The WHIP will be managed in accordance with the approved Mining Closure and Completion Plan (MCCP - PEPR No. PEPR2011/023) during the care and maintenance period. Environmental Management and Monitoring will continue through 2013 as outlined in the MCCP (see section 5.6 for discussion).



IRONCLAD MINING LIMITED

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SOURCE
Base topography supplied by Geoscience Australia 2010
Lease and Licence boudaries supplied by DMITRE 2013

TITLE
Project location and tenure

GIS FILE
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PROJECTION
GDA 94 Zone 53

DATE
18 Feb 2013

DRAWING No.
IFE-WH-ENV-021 Rev2

FIGURE No.
1.1

2.0 Abbreviations and Definitions

DMS	Dry Magnetic Separation
DSO	Direct Shipping Ore
EML	Extractive Mining Lease
DMITRE	Department for Manufacturing, Innovation, Trade, Resources and Energy
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities
JORC	Joint Ore Reserves Committee
MARCR	Mining and Rehabilitation Compliance Report
MCCP	Mining Closure and Completion Plan
ML	Mining Lease
MPL	Miscellaneous Purposes License
WHIP	Wilcherry Hill Iron Project

3.0 Description of Mining Activities

3.1 Tenement

Table 3.1 identifies the land tenure associated with the project tenements. Tenement locations are shown in Figure 1.1.

The tenement area is located within the Gawler Ranges Native Title area (SC97/7). Portions of the mine access and haul roads are located within the Barngarla Native Title Claim area (SC96/4-1).

Table 3.1 Project land tenure

Tenement	Land Ownership	Tenure Details
ML6390	Crown land	Leasehold portion CL Volume 1290 Folio 4 (pastoral block 814) – Uno Station
MPL 138	Crown land	Leasehold portion CL Volume 1290 Folio 4 (pastoral block 814) – Uno Station
EML6391	Crown land	Leasehold portion CL Volume 1290 Folio 4 (pastoral block 814) – Uno Station

3.2 Owner/Operator

IronClad is an Australian company listed on the Australian Stock Exchange (ASX) since 11 July 2007 (ASX code: IFE).

The IronClad board and registered office is located in Perth and the principal company office is located in Adelaide. Contact details are provided in Table 3.2.

Table 3.2 IronClad contact details

Perth Registered Office	Adelaide Principal Office
Level 2, 679 Murray Street West Perth WA 6005 Telephone: 08 9485 1040 Facsimile: 08 9485 1050	Level 1, 307 Pulteney Street Adelaide SA 5000 Telephone: 08 8224 0411 Facsimile: 08 8227 0411 Contact: Charlie Johnston Health, Safety, Environment and Community Manager Email: charlie.johnston@ironcladmining.com

Since floating IronClad as a subsidiary company in 2007, Trafford Resources retains a 50% direct shareholding in IronClad and a 27% free-carried interest in the Wilcherry Hill Project.

Trafford Resources has been listed on the ASX since June 2006.

3.3 Reporting Period

This MARCR relates to the reporting period 1 November 2011 through to 30 October 2012.

3.4 Mining Activities Undertaken During the Reporting Period

No mining activities relating to production of ore were undertaken during the reporting period.

The weakening global demand for iron ore had an adverse effect on the iron ore price during the year. Consequently the decision to commence mining operations at the WHIP was deferred. Project and mining study reviews were undertaken to assess the commercial viability of the mining operation in the prevailing and medium term economic outlook.

Activities undertaken were restricted to reverse circulation drilling of the four deposits comprising the WHIP. Infill drilling, down to 12.5 m centres, was conducted to better define areas of high grade mineralisation suitable as DSO (direct shipping ore). In the prevailing high cost - low commodity price environment commencing a phased mining operation of DSO followed by a secondary phase of Dry Magnetic Separation (DMS) is an attractive option due to the lower cost structure.

An added benefit of the close spaced drilling is once mining commences the data can be utilised to define the grade control process.

A summary of the drilling undertaken on the ML during the reporting period is given below in Table 3.3.

Table 3.3 Summary of the drilling undertaken ML 6390 during the reporting period

Deposit	No Holes	Total Metres	Date From	Date To
Weednanna	56	2,285	13/3/2012	30/3/2012
Weednanna	38	1,784	8/8/2012	18/8/2012
Ultima Dam East	68	2,593	19/8/2012	6/10/2012
Weednanna North	20	855	15/9/2012	21/9/2012
Ultima Dam West	11	616	26/9/2012	4/10/2012

4.0 Ore Reserves and Mine Life

There are currently no changes to the Joint Ore Reserves Committee (JORC) compliant Ore Reserve for the WHIP.

For planning purposes Ironclad is still assuming a mine life of up to 5 years based on the mineral inventory outlined in Table 4.1 and mining feed rate of up to 1.9 Mtpa.

Table 4.1 Total Wilcherry Hill Mineral Inventory as at March 2012

Total	Feed t	11,092,935
	Feed Fe %	42.3
	Concentrate t	5,273,096
	Concentrate Fe %	59.3

4.1 Review of Reserves

The close spaced reverse circulation drilling combined with extensive metallurgical testwork undertaken in 2011 has provided the basis for a fundamental reinterpretation of the nature of the iron mineralisation at Wilcherry Hill. This understanding has been used in the re-estimation of the mineral resources at Wilcherry Hill. The JORC compliant Mineral Resource as at 30 June 2012 is listed in Table 4.2.

The drill results from the program completed in October 2012 will be used to further update the mineral resource. This updated mineral resource will form the basis of a phased DSO and DMS mining study to estimate a new JORC compliant Ore Reserve for the project. It is anticipated results from this study will be available in March 2013.

Table 4.2 Wilcherry Hill Iron Project Mineral Resource Statement

JORC Classification of Wilcherry Hill Resource May 2012												
Prospect	**JORC Classification**	**Tonnes (Mt)**	**Fe %**	**Al2O3 %**	**SiO2 %**	**S %**	**P %**	**LOI**	**SG**	**Strike Length**	**Average Dip**	**Vertical Depth Extent**
Weednanna	Inferred	1.07	48.65	4.05	12.90	0.19	0.02	2.63	3.92	1.2 km	45°	225m
	Indicated	12.00	39.82	4.96	19.32	0.53	0.02	5.02	3.40			
	Measured	0.16	58.69	3.48	8.35	0.04	0.02	2.21	3.79			
	Total	13.23	40.76	4.87	18.67	0.50	0.02	4.79	3.45			
Ultima Dam East	Inferred	0.57	35.22	6.22	24.67	0.24	0.08	6.12	2.86	1.4 km	40°	130m
	Indicated	5.37	38.19	7.74	21.33	0.11	0.13	9.46	2.46			
	Total	5.94	37.91	7.59	21.65	0.12	0.13	9.14	2.50			
Weednanna North	Inferred	1.64	34.18	4.97	22.11	0.15	0.03	6.84	3.38	1.1 km	< 40°	225m
	Indicated	7.97	37.34	6.92	20.72	0.32	0.04	6.32	3.32			
	Total	9.61	36.80	6.59	20.96	0.29	0.04	6.41	3.33			
Combined Total Inferred		3.3	39.1	4.9	19.6	0.18	0.04	5.34	3.5			
Combined Total Indicated		25.3	38.7	6.2	20.2	0.37	0.05	6.37	3.2			
Combined Total Measured		0.2	58.7	3.5	8.4	0.04	0.02	2.21	3.8			
Combined Total		28.8	38.8	13.1	21.0	0.36	0.05	6.22	3.5			

4.2 Additional Potential Sources

4.2.1 Ultima Dam West

Within the ML the Ultima Dam West deposit is regarded as having the best potential.

The JORC compliant Mineral Resource is listed below in Table 4.3. Additional drilling carried out in October 2012 to will be used to update the resource.

Table 4.3 Ultima Dam West Deposit Mineral Resource Statement

JORC classification of Ultima Dam West Resource September 2010									
Prospect	**JORC Classification**	**Tonnes (Mt)**	**Fe %**	**Al2O3 %**	**SiO2 %**	**S %**	**P %**	**LOI**	**SG**
Ultima Dam West*	Inferred	7.86	26.54	2.92	30.96	0.05	0.05	6.64	3.00
	Indicated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	7.86	26.54	2.92	30.96	0.05	0.05	6.64	3.00

*Strike length is approximately 0.25 km, average dip is greater than 60°

4.2.2 Hercules Prospect

External to the mining lease, the Hercules Deposit (EL 3981), last explored in 2008, is considered to represent a conventional BIF target. In 2008 a JORC compliant Mineral Resource was estimated by Golder Associates. The Inferred Mineral Resource reported at the time was 193.9 Mt @ 27.1% Fe.

The near surface zones of flat –goethite / hematite interpreted to result from supergene enrichment of the primary magnetite rich banded iron formation are being re-evaluated as a potential feed source for any mining operation that may be established at Wilcherry Hill

A field reassessment at Hercules focusing on the northern extensions to the known mineralisation was completed mid-2012. An infill 62 m x 125 m spaced gravity survey was proposed and completed in mid-2012 over the prospective BIF stratigraphy represented by the 7 km of prospective magnetic anomalism. Subsequent geophysical modelling of the data by Adelaide Mining Geophysics has identified extensive anomalous gravity zones. A series of gravity bodies have been modelled of which 60 to 70 are within 150 m of surface and regarded as prospective non-magnetic iron rich targets. This data has provided support for drilling campaign planned for early 2013.

4.2.3 Other Regional

A desktop study of the tenement package held by Ironclad Mining Limited in joint venture with Trafford Resources was conducted to identify new and reassess known potential iron rich target areas utilising all existing surface geochemistry and geochemistry from the upper 12 m of drill holes contained in IFE's drill hole database. This information was then combined with historical exploration samples and observations utilising Google Earth satellite imagery and also a detailed regolith examination of the area to determine potential prospect areas for field follow-up.

A total of 30 potential sites were identified from this process. Field trips have been completed to most of the potential areas where evaluation by extensive traversing and collection of representative samples of Fe rich lithotypes was undertaken.

Of the sites, prospects Zealous and Black Hill West were selected for immediate evaluation. These two areas, containing significant surficial hematite in outcrop supported by high Fe assays (see Table 4.4 below), appeared to provide the best immediate potential for locating material suitable as DSO (direct shipping ore).

Table 4.4 Sample location and Fe assay result from Black Hills West and Zealous Prospects

PROJECT AREA	COORDINATE SYSTEM	NORTHING	EASTING	SAMPLE_TYPE	Fe %
Black Hill West	MGA94_53	6378898	602838	Surface float	67.97
Black Hill West	MGA94_53	6379044	602875	Rock Chip - outcrop	65.89
Black Hill West	MGA94_53	6379159	602713	Rock Chip - outcrop	66.06
Zealous	MGA94_53	6386068	642605	Rock Chip - outcrop	60.60
Zealous	MGA94_53	6386102	642613	Rock Chip - outcrop	56.30
Zealous	MGA94_53	6386102	642583	Rock Chip - outcrop	60.30
Zealous	MGA94_53	6386127	642584	Rock Chip - outcrop	60.60

Drilling was completed at Zealous and Black Hills West in late 2012.

Ten reverse circulation drillholes were drilled for a total of 533 m at the Zealous Prospect. Seventeen reverse circulation drillholes were drilled for a total of 919 m at the Black Hills West Prospect.

Intercepts of goethite dominant iron mineralisation have been recorded at the Zealous Prospect. No mineralisation suitable as DSO was identified. Mineralisation intersected has a strike length of 150 m, true width of 15 to 20 m and is open to the north and south and at depth. Evaluation of the significance of this mineralisation is ongoing.

Drilling at Black Hills West has identified a zone of near surface hematitic mineralisation grading at depth to more magnetite dominant mineralisation. Continuous zones of greater than 60% Fe have been intersected. The mineralisation style observed is similar to the skarn style observed at the Wilcherry Hill. Interpretation and resource modelling is underway to determine if the mineralisation intersected can add to the Wilcherry Hill mining inventory.

With the success in delineating near surface hematite and magnetite mineralisation at Black Hills West, geophysical modelling is now planned to assess the potential for more extensive primary iron mineralised bodies.

4.3 Proposed Operations for 2013

No exploration or mining activities will occur on the WHIP until the Environmental Bond as described in the PEPR has been lodged with DMITRE, or an amended PEPR has been approved and the subsequent agreed Environmental Bond Lodged.

It is anticipated that an amended PEPR will be submitted to DMITRE Q2 2013 and will likely comprise the following changes (although not be limited too):

- Inclusion of a DSO mining phase prior to the mining of the DMS component of ore.
- Smaller and more efficient project footprint.
- Transport of ore in covered side tipper B-double trucks.
- Minor changes to transport route.
- Inclusion of application for a small MPL to the east of the ML for a waterbore (and associated piping linking with the current ML).

5.0 Rehabilitation and Environmental Management Activities

All areas on the ML that were disturbed for drilling purposes have been rehabilitated. Further, the drilling programs were generally located in areas subject to a great deal of previous drilling activity therefore very little vegetation clearance was required. However, all areas were calculated and accounted for in the Significant Environmental Benefit Offset payments (see Section 5.3 for further description of vegetation clearances).

5.1 Rehabilitation Works

Rehabilitation in the Wilcherry Hill area was carried out in accordance with Primary Industry and Resources South Australia's fact sheet M33 – Statement of Environmental Objectives and Environmental Guidelines for Mineral Exploration Activities in South Australia and IronClads Exploration Drilling Environmental Procedure.

The guidelines state that upon completion of exploration activities, companies are to "*Reinstate land disturbed by new access tracks, drill sites and camp sites to a condition which is stable, consistent with the prior land use, and in a manner which will facilitate natural regeneration, and minimise the visual impact of activities*."

Given that the exploration areas rehabilitated will likely be the focus of mining activities in 2013 achievement of full rehabilitation is not expected prior to the start of operations. For those areas that will not be disturbed during mining, the success of previous rehabilitation efforts would indicate that rehabilitation can be expected to be achieved. Vegetation growth has already been recorded in some areas. However, the response of the native species to recolonise these areas will be dependent upon rainfall. Rehabilitation areas will be monitored during 2013 (See Table 5.4) and additional rehabilitation measures implemented if required.

All areas subject to exploration activities have been rehabilitated in accordance with the following procedures.

5.1.1 Operational Procedures

To suitably manage its environmental responsibilities IronClad Mining have implemented various management practices while in the field. Although not a comprehensive list, some of these practices include:

- Protecting groundwater and aquifers if encountered during drilling operations. Any drill hole that intersects excessive water flows should immediately be terminated and the drill hole returned, as far as feasible, to a geological condition that existed prior to the hole being drilled.

- Avoiding muddy or contaminated water from drill sites entering nearby water courses.
- Collecting drilling rig and heavy equipment wastes such as engine oil, grease and cleaning fluids in suitable containers for disposal. Using biodegradable drilling fluids where possible.
- Placing hessian soaking pads in areas where spillages are likely to occur (i.e. under fuel taps and hoses).
- Restricting personnel to designated access roads and tracks and limiting unnecessary off road 'bush bashing'.
- Limiting vehicle access on tracks during wet weather to minimise track degradation.
- Stockpiling vegetation, topsoil and subsoil separately when any excavation works are to be carried out.

In addition to the above measures any ground disturbance carried out by IronClad requires the completion and approval of an internal Ground Disturbance Permit. The permit identifies the location and size of the disturbance required. Before approval is given a site visit determines the presence of any environmentally or culturally significant areas and photo-points are established at 10% of the drill sites. The site is then visited and photographed again once vegetation has been cleared. After rehabilitation a final visit is carried out to check the suitability of the rehabilitation against DMITRE and IronClad requirements.

5.1.2 Drilling Sites

Where applicable, all PVC plastic bags and remaining calico sample bags of all drill cuttings are emptied at the drill hole site. The site cleared of all introduced litter, including the removal of all sample bags. All waste was disposed of at an approved District Council dumping facility.

Local contractors were responsible for the preparation and rehabilitation of all drill sites (and access tracks). Using a loader, all sample cuttings were buried by digging and covering in a small pit or by emptying into a nearby sump prior to backfilling. Drill cuttings scattered over the surface during the drilling operations (i.e. material overflow from a cyclone) were also buried in this manner.

Prior to backfilling, sumps were confirmed as dry and all plastic liners removed and suitably disposed of. When backfilling sumps (and all excavations in general) that sub-soil and top-soil was replaced in the correct order.

PVC drill collars were cut off at least 0.3 m below surface and capped using orange plastic plugs to remove any evidence of drilling. Any additional holes or cavities were dealt with in a similar manner and backfilled.

Previously stockpiled topsoil was respread over the site. Remnant drill cuttings were not scattered or mixed into the topsoil as this has the potential to inhibit vegetation regeneration. Areas compacted by the use of heavy machinery or prolonged were ripped along the contour to loosen and aerate the soil. Upon completion of ripping, any cleared vegetative matter was re-scattered back over the disturbed area.

5.1.3 Access Tracks

All void drill site access tracks have been scarified and (where available) covered with vegetation. Entrance sites have been camouflaged to decrease visibility and deter further use of such tracks by third parties. Where vegetation was not available to cover access tracks signage will be erected to minimise use by third parties.

Principal access tracks into the four resource prospects of Weednanna, Weednanna North, Ultima Dam East and Ultima Dam West have been retained. However, localised drill site tracks and traverses within these four prospects have been levelled, scarified and covered in vegetation.

Additionally, principal tracks into each regional exploration site have remained accessible so there will be no need to re-create access in the occurrence of future exploration. As many of these tracks relate to existing station tracks, or have since come to be utilised as such, rehabilitation was considered unnecessary.

Historical tracks constructed by previous explorers, including AngloGold, Aberfoyle Resources, Acacia Resources and Aquila, are scattered across the tenement and in most cases remain only slightly visible. These historical tracks have not been rehabilitated as vegetation regeneration has been very successful and the tracks largely do not require further remedial work.

Weednanna Deposit

Ultima Dam West

Weednanna North

Figure 5.1 Rehabilitation Plates

5.2 Monitoring

5.2.1 Flora & Fauna Monitoring

Given that activities on the WHIP were limited to the exploration of areas that had been the focus of a number of previous drilling programs, it is unlikely to impact further on the flora and fauna populations on the WHIP. Therefore flora and fauna impact survey were not carried out in 2012. Construction works on the WHIP are not expected to commence before Q3 2013 and we have therefore planned a flora and fauna impact survey for spring (October or November) of 2013. The results of the flora and fauna survey will be reported in the 2013 MARCR.

Further discussion of future monitoring and management is given in Section 5.6.

A summary of the WHIP outcomes and compliance criteria for 2012 activities can be found in summary Section 7.0.

5.2.2 Pest Species Monitoring

Monitoring of weeds and pest animals was carried out May, June and July 2012, and recorded opportunistically throughout 2012.

Although foxes were sighted on the ML at various periods during 2012, IronClad were unable to carry out a fox baiting program due to concerns by the landholder for the welfare of local domestic dogs. However due to ongoing negotiations and consultation with the landholder regarding Ironclad's Pest Control Standard Operating Procedure it is anticipated that fox baiting will be carried out in spring of 2013. The results of the baiting program will reported in the 2013 MARCR. Given the limited amount of exploration works on the WHIP it is not likely that the activities have caused any change in the abundance of foxes on the WHIP.

The presence of weeds was recorded opportunistically along roads and tracks in the WHIP. Few weeds were recorded; however saffron thistles (*Carthamus lanatus*) were recorded on the WHIP access road May 2012. It is likely that the limited number of weeds recorded on the access road during 2012 is likely due to the low rainfall (Figure 5.5), further, given the semi-arid climate of the region is unlikely that viable weed populations will exist off roadside or track verges. Monthly weed monitoring will be carried out in 2013 of WHIP tracks and roads and rehabilitated areas. The results of the weed monitoring program will reported in the 2013 MARCR.

Further discussion of future monitoring and management is given in Section 5.6.

A summary of the WHIP outcomes and compliance criteria for 2012 activities can be found in summary Section 7.0.

5.2.3 EPBC Listed Species Monitoring

On 10 June 2010, the Commonwealth Department of Sustainability, Environment, Water, Populations and Communities (DSEWPAC) determined that the project was a controlled action and required assessment under the EPBC Act (see Section 2.2.1). The controlling provisions were determined to be listed threatened species and ecological communities, and listed migratory species. DSEWPAC indicated that malleefowl (*Leipoa ocellata*) was one of the main species of concern and subsequently the slender-billed thornbill (*Acanthiza iredalei iredalei*). Both species have specific management provisions and federal conditions related to their management. See Section 12 (page 48) for discussion of EPBC compliance and reporting.

Slender-billed Thornbill

A Sinclair Knight Merz (SKM) threatened species survey identified the slender-billed thornbills (western) at three locations within the WHIP ML, in all cases within small groups within, or in close proximity to, dense vegetation. This species was also identified from a number of locations during the 2008 SKM survey. It is considered likely that this species is widespread across the broader region, although at relatively low numbers.

In accordance with the slender-bill thornbill research proposal a survey for the slender-billed thornbill was carried out 10 to 14 December 2012. The purpose of the survey was to determine the presence of the slender-bill thornbill across the WHIP and surrounding regions and to determine suitable locations for future research of the species.

Thirty one sites (Figure 5.2) across the WHIP region were surveyed morning and afternoon for a minimum of 30 minutes by two people (60 minutes) per site. All bird species observed were recorded (Appendix A). Locations where slender-billed thornbill had been recorded previously were targeted with secondary targets focussing on locations where suitable habitat had been identified.

No slender-billed thornbill were observed during the survey period. It is expected that on the WHIP the birds recorded in 2010 where likely to be transients, i.e. birds dispersing out of optimal habitats during unseasonably good conditions (related to the higher than average rainfall of 2010). However that lack of observations in usual habitats (of chenopod shrubland) was unexpected and likely related to the drier than average condition for 2012 (see Figure 5.5).

Monthly inspections for the slender-billed thornbill will be carried out through 2013 on the WHIP and in the surrounding areas. This data will be reported in the 2013 MARCR. Further discussion of future monitoring and management is given in Section 5.6.

A summary of the WHIP outcomes and compliance criteria for 2012 activities can be found in summary Section 7.0.

Malleefowl

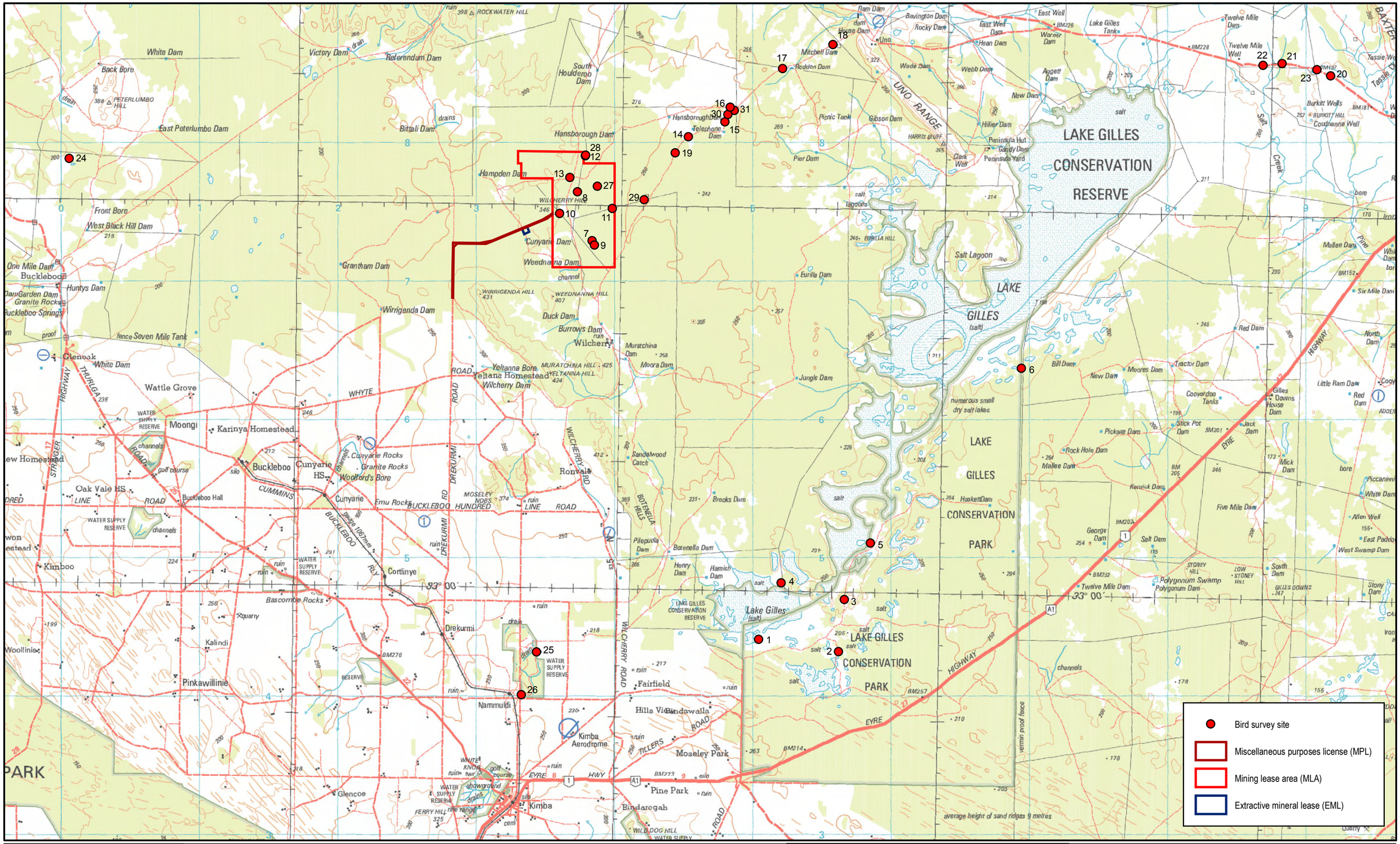
Two malleefowl breeding mounds were identified during the SKM 2008 and survey within the sandy Triodia and mallee habitat (Malllefowl Protected Area) along the WHIP access road.

Monitoring of the malleefowl breeding mound located on the WHIP MPL was carried out opportunistically over 2012. The location of the malleefowl mound is shown in Figure 5.3. It was noted that the breeding mound had been worked in September and October 2012 and a malleefowl was sighted opportunistically in close proximity to a mound during October 2012. However subsequent monitoring of the mound has not identified any further works. It is not anticipated that the mound on the WHIP MPL will be used for breeding purposes for the 2012/2013 breeding season.

Due to the presence of the malleefowl on the WHIP access road additional signage was placed 1 km east and 1 km west of the malleefowl protected area to notify drivers of the potential presence of the malleefowl in the area.

Monthly inspections of the malleefowl protected area and the malleefowl breeding mound will be carried out through 2013 on the WHIP MPL. This data will be reported in the 2013 MARCR. Further discussion of future monitoring and management is given in Section 5.6.

A summary of the WHIP outcomes and compliance criteria for 2012 activities can be found in summary Section 7.0.



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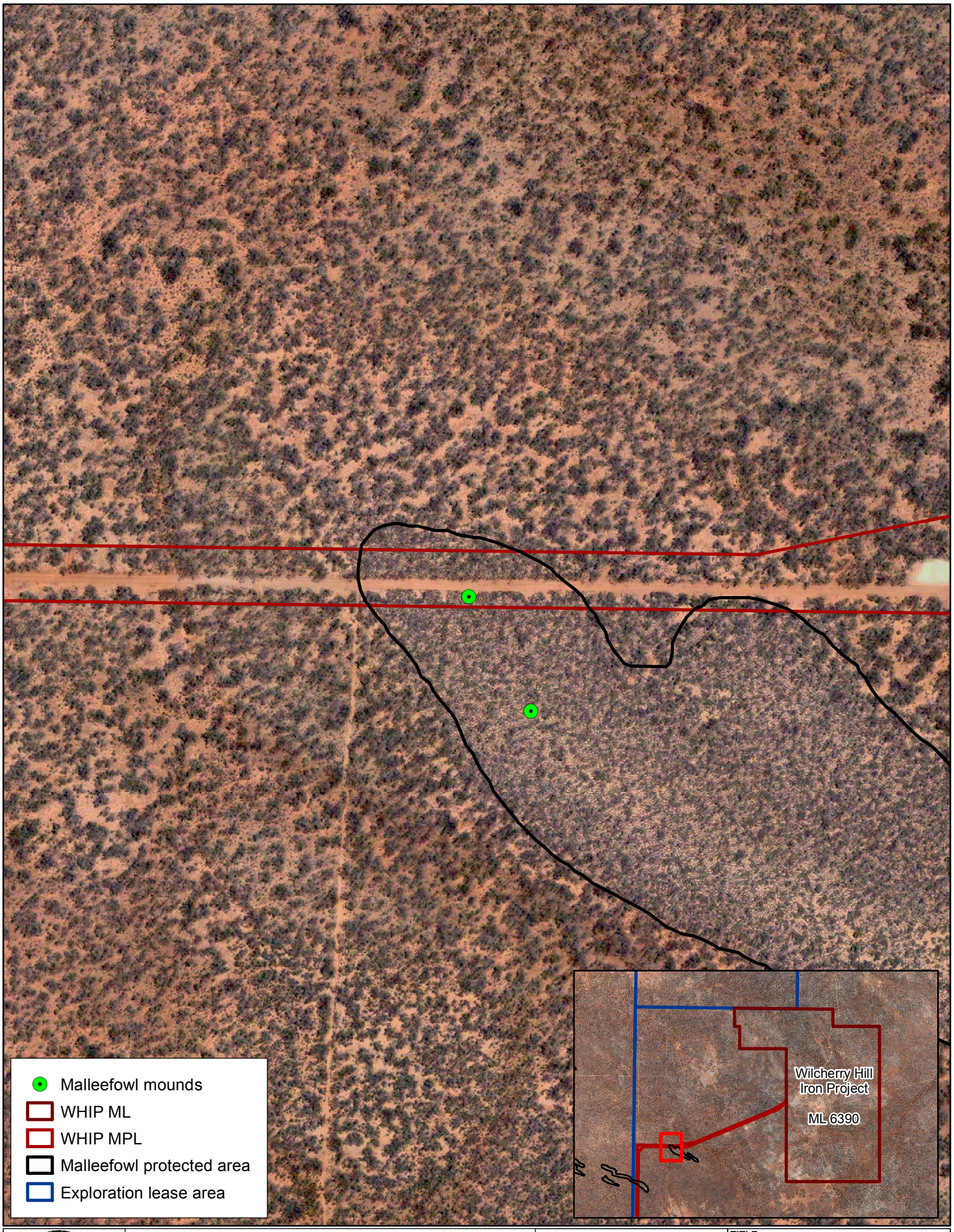

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GDA94 Zone 53

DATE
18 Feb 2013

SOURCE
Topographical map supplied by Geoscience Australia 2010
Malleefowl mound data supplied by SKM 2008

TITLE
Malleefowl breeding mound location and malleefowl protected area

DRAWING No.
IFE-WH-ENV-00019 Rev.1

FIGURE No.
5.3

5.2.4 Groundwater Monitoring

The WHIP is located within the Gawler Craton, which generally consists of shallow unconsolidated sedimentary aquifers (palaeochannels) and fractured rock aquifers (Hou et al., 2007). The Gawler Craton is an extensive region of Archaean to Mesoproterozoic crystalline basement underlying approximately 440,000 km^2 of central South Australia.

Water level and salinity was measured on ML at 12 locations on at least 2 occasions, but in some instances up to 7 occasions, in 2010 (Figure 5.4, Appendix B).

Salinity levels are expected to be generally very high throughout the region due to the low rainfall recharge rates and high evapotranspiration rates. This expectation was confirmed in the fractured rock aquifer of the WHIP, with average salinities ranging from 13,700 mg/L to 61,400 mg/L total dissolved solids (TDS) recorded in 2010. All waterbores (except waterbore number 08 UDRC 005) recorded salinity levels greater than 14,000 mg/L, therefore are considered to be too saline for any use other than some industrial purposes. However Waterbore 08 UDRC 005 recorded an average salinity of 13,700 mg/L which although just below the 14,000 mg/L threshold would still be considered too saline for stock purposes. The Guidelines for Groundwater Protection in Australia (ARMCA/ANZECC 1995) report beneficial use categories as follows:

- Less than 1,000 mg/L TDS - suitable for drinking and for most domestic, industrial and irrigation purposes.
- 1,000 to 3,000 mg/L TDS - may be used for some domestic and industrial purposes or for irrigating salt tolerant crops.
- 3,000 to 7,000 mg/L TDS - suitable only for stock watering.
- Greater than 7,000 mg/L TDS - suitable only for sheep.
- Greater than 14,000 mg/L TDS - too saline for any use other than some industrial applications.

Recorded water levels on average ranged from 50.64 m to 28.86 m in 2010 (Table 5.1).

There is currently only one waterbore operating on the WHIP; however no water was extracted during the MARCR period for construction or exploration purposes.

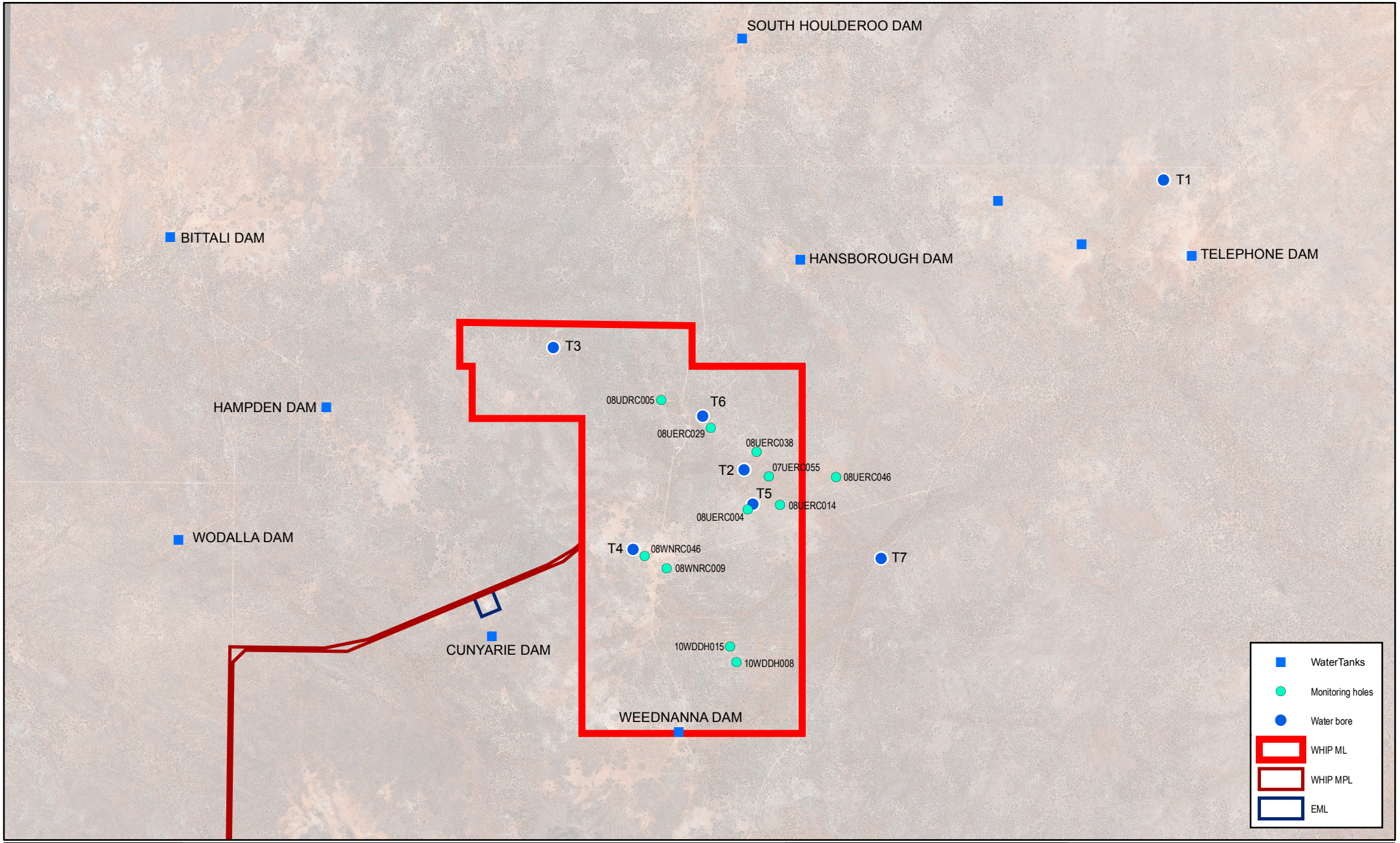
Salinity, water level and pH was measured at the 12 locations in July 2012. Although used in comparison here with the 2010 records it is anticipated that these records will form additional baseline results once mining operations commence. Overall salinity decreased across all waterbores with salinity ranging from 7,400 mg/L to 30,500 mg/L. Waterbore 08 UDRC 005 was the only recorded salinity level below the industrial purposes beneficial use category and has potential for stock (sheep only) use. However the reduction in salinity at all waterbores is likely to be a function of the higher than average rainfall over 2010 and 2011 (Figure 5.5). It is anticipated that salinity levels will increase to closer to the 2010 baseline levels as annual rainfall decreases to reflect more closely the long term average rainfall for the region.

Water levels generally increased at all locations (except waterbore number 08WNRC046 which had a slight decrease of 0.4 m, not expected to be significant) with records ranging from 48.83 m to 28.83 m in 2012 (Table 5.1). The greatest increase in water level was at waterbore number 07 UERC 038 of approximately 5 m (coinciding with the greatest reduction is salinity).

pH was first recorded in 2012, ranging from 5.89 to 7.31. These records will form the baseline levels for future monitoring programs.

Given the limited groundwater abstraction it is unlikely that any changes in groundwater quality or quantity are related to exploration operations on the WHIP. Difference in groundwater quality and quantity are more likely to be associated with changes in environmental conditions (i.e. rainfall).

A summary of the WHIP PEPR outcomes and compliance criteria for 2012 activities can be found in summary Table 7.2.



IRONCLAD MINING LIMITED

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0 1 2 4 6
Kilometers

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SOURCE
Imagery supplied by SKM 2010.

TITLE
Groundwater monitoring locations

GIS FILE	PROJECTION	DATE
I:\16_GIS_data\Projects\WilcherryHill\Environment\IFE-WH-ENV-009_Rev3_A4_Groundwaterboresandmonitoring.mxd	GDA 94 Zone 53	18 Feb 2013

DRAWING No.	FIGURE No.
IFE-WH-ENV-009 Rev3	5.4

Table 5.1 Groundwater monitoring results for 2010 (averaged as baseline) and 2012.
Note that the difference indicates change from the average 2010 results and the 2012 results, therefore a negative result indicates a decrease and a positive result indicates an increase.

Water Bore ID	Water Level (m)			TDS (mg/L)			pH
	Average Baseline	2012 Results	Difference	Average Baseline	2012 Results	Difference	2012 Results
08 WNRC 009	49.03	48.83	-0.2	43500	22400	-21100	6.31
08 WNRC 046	45.14	45.57	0.43	33000	27600	-5400	5.89
08 UDRC 005	44.01	40.8	-3.21	13700	7400	-6300	7.31
07 UERC 004	48.93	44.15	-4.78	34300	28300	-6000	6.55
07 UERC 038	50.64	45.52	-5.12	61400	24400	-37000	6.8
07 UERC 055	39.63	37.54	-2.09	33600	27000	-6600	6.53
T1	43.30	43.19	-0.11	36700	27000	-9700	6.87
T2	39.87	39.49	-0.38	33100	28300	-4800	7.1
T3	46.66	46.62	-0.04	35000	28200	-6800	6.43
T4	42	41.57	-0.43	32300	27400	-4900	6.35
T6	Not recorded	47.30		Not recorded	24300		6.06
T7	28.86	28.83	-0.03	34600	30500	-4100	5.99

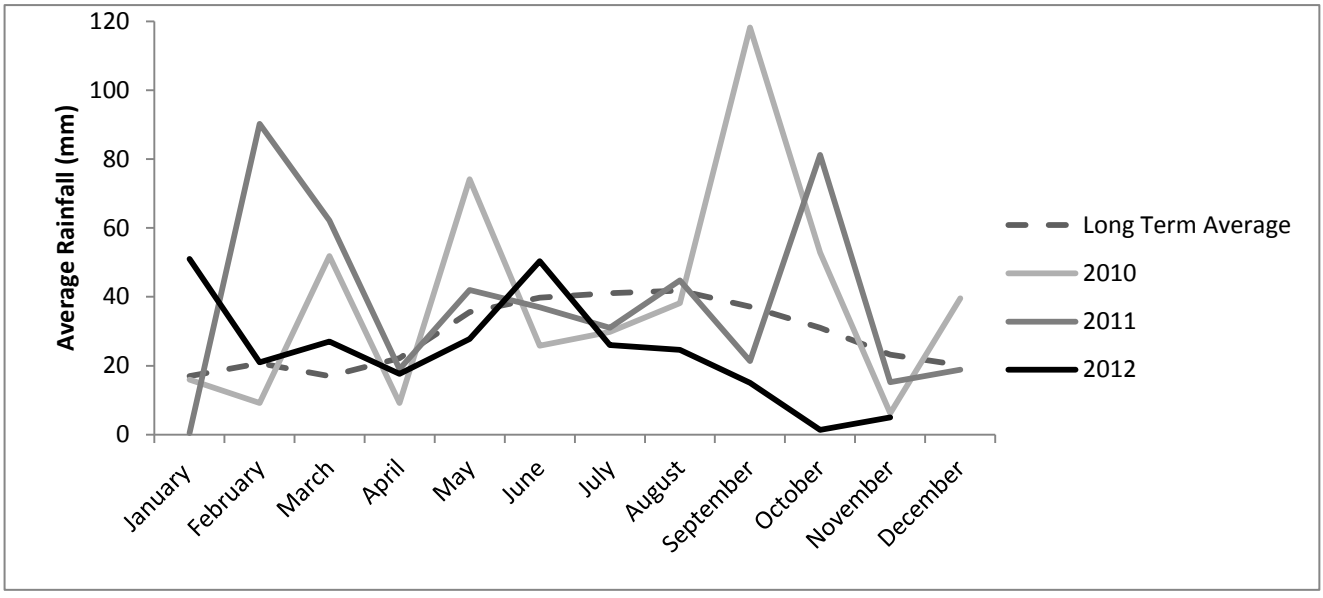


Figure 5.5 Kimba long term average rainfall in comparison with rainfall recorded 2010 - 2012

5.2.5 Dust Monitoring

The existing air quality in the vicinity of the project area is typical of a semi-arid, rural environment. Dust generated by wind erosion of exposed surfaces is the main air pollutant present. The project area is removed from additional significant air pollution sources, other than that from passing freight and tourist traffic on the Eyre Highway, located approximately 40 km to the south. The project area is remote from significant air pollution sources such as industry.

Background dust fall levels have been measured by deposition gauges at 11 locations within the WHIP, including along all potential transport routes and surrounding areas (Figure 5.6, Appendix C) over 30 sampling periods, from April 2010 to October 2012 (September 2012 was not recorded due to inclement weather). A number of dust gauges have been removed as those areas are no longer to be impacted by the WHIP, including:

- Dust gauges WH09 to WH11 related to the Lincoln Gap rail siding, were removed in July 2011.
- Dust gauges WH13 and WH14 related to the Whyalla rail siding were removed March 2012.
- Dust gauges WH06 to WH08 related to MPL2 were removed April 2012.

The data from the removed dust gauges is not analysed here and will not be discussed further in this report. However this data is held on record if required in the future.

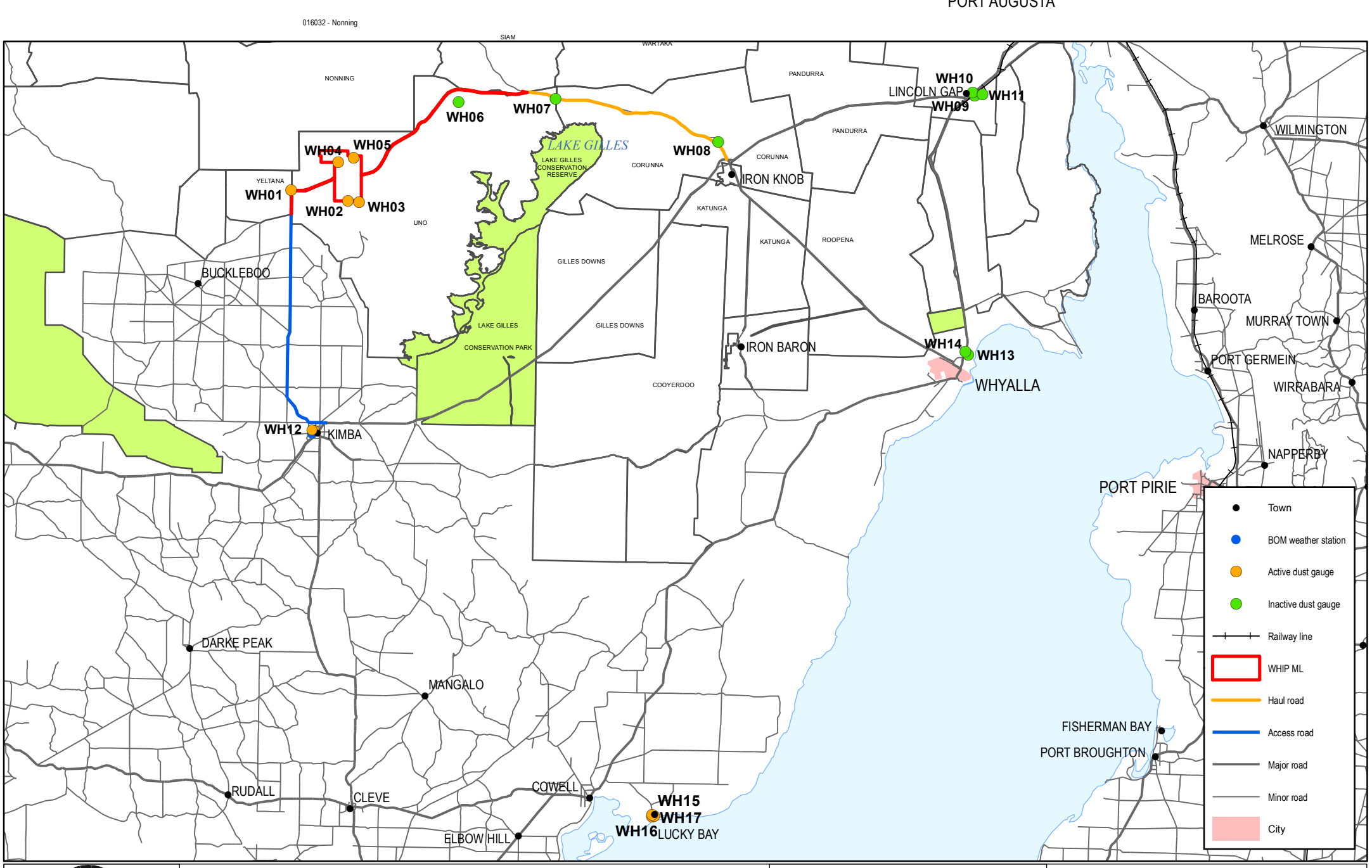
Baseline dust fall monitoring results recorded are presented in Table 5.2. Overall results were similar for all areas, with total solids ranging from 0.2 to 8.0 g/m^2/month and ash content ranging from less than 0.1 to 2.0 g/m^2/month. The difference between the total solids and ash content indicates a relatively high organic content.

The higher level at WH12, on the access road, is likely due to the gauge being located adjacent to an agricultural land parcel. High readings are likely related due the farm practices at certain periods throughout the year.

Dustfall monitoring results for the 2012 MARCR periods are presented in Table 5.3. Generally results were similar for across areas, with total solids ranging from 0.3 to 4.2 g/m^2/month and ash content ranging from less than 0.1 to 2.6 g/m^2/month. Overall there has been little change in the recorded dustfall results (Figure 5.7). For total solids average differences between sites ranged from 0.54 g/m^2/month increase in deposition on the ML (WH02) to a reduction by 1.31 g/m^2/month in deposition on the access road (WH12). For ash content differences between sites ranged from 0.37 g/m^2/month increase in deposition on the access road (WH01) to a reduction by 0.08 g/m^2/month in deposition on the ML road (WH02).

Given that activity on the ML was limited to exploration activities any changes to dustfall rates is likely to be related to general environmental variability. Further, given the limited WHIP traffic on the access road any changes to dustfall rates are also likely to be due to general environmental variability.

Given that no further activity will be continuing on the WHIP until submission of the revised PEPR all further dust deposition monitoring will be suspended until construction commences. A summary of the WHIP PEPR outcomes and compliance criteria for 2012 activities can be found in summary Table 7.2.



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PROJECTION
GDA 94 Zone 53

DATE
18 Feb 2013

SOURCE
Cadastral data provided by GA 2010

TITLE
Location of dust deposition gauges

DRAWING No.
IFE-WH-ENV-020 Rev2

FIGURE No.
5.6

Table 5.2 Baseline Dustfall Monitoring Results

Dust Deposition Gauge ID	Ash content (g/m2 month)			Total solids (g/m2 month)		
	Minimum	Maximum	Average	Minimum	Maximum	Average
Access Road						
WH01	0.10	0.70	0.29	0.30	4.30	1.95
WH12	0.10	2.00	0.66	0.80	8.00	3.26
Mining Lease						
WH02	0.10	0.90	0.28	0.40	3.50	1.76
WH03	0.10	0.50	0.16	0.40	3.70	1.62
WH04	0.10	0.40	0.17	0.40	4.40	2.15
WH05	0.10	0.20	0.14	0.20	3.90	1.62

Table 5.3 2011/2012 MARCR Dustfall Monitoring Results

Dust Deposition Gauge ID	Ash content (g/m2 month)			Total solids (g/m2 month)		
	Minimum	Maximum	Average	Minimum	Maximum	Average
Access Road						
WH01	0.20	2.60	0.66	1.00	3.20	1.83
WH12	0.10	1.30	0.59	1.10	3.30	1.94
Mining Lease						
WH02	0.10	0.70	0.36	1.20	4.20	2.30
WH03	0.10	0.70	0.31	0.40	2.90	1.61
WH04	0.10	0.50	0.20	0.40	3.20	1.70
WH05	0.10	0.50	0.21	0.30	2.50	1.31

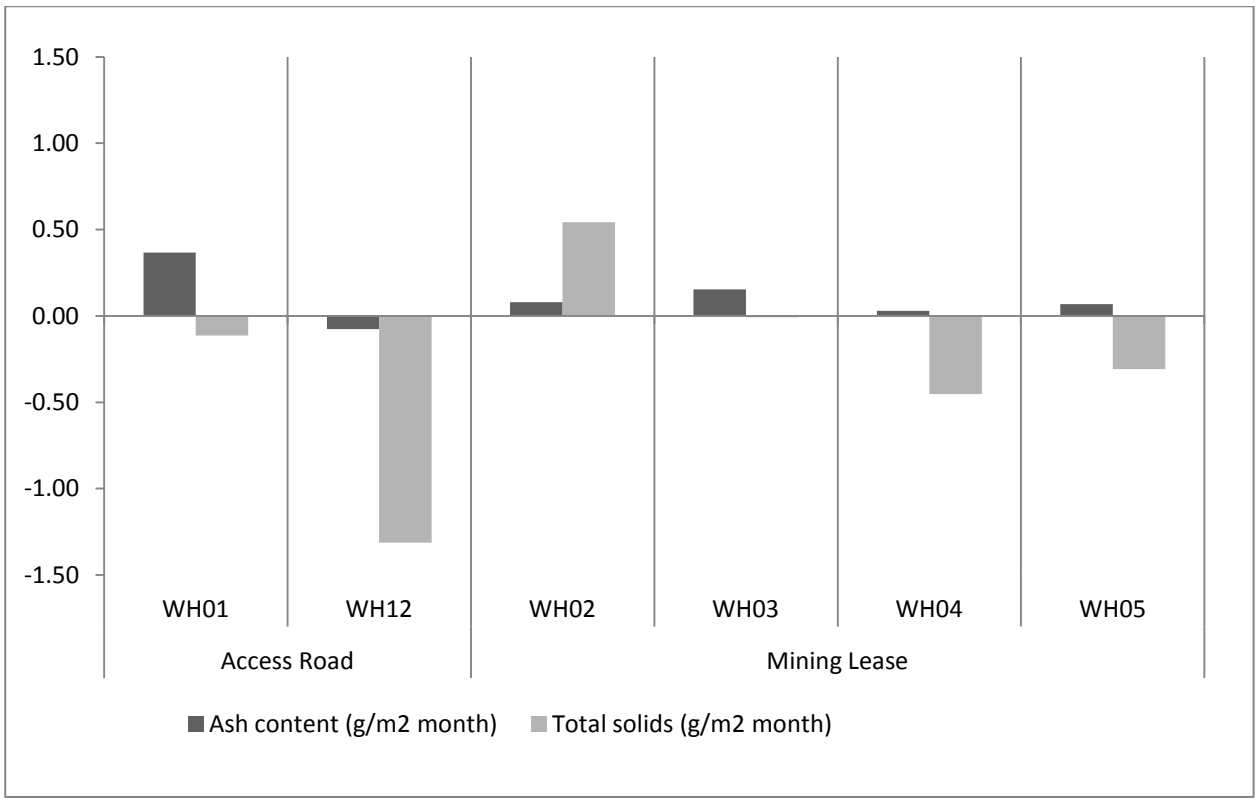


Figure 5.7 Difference in Dustfall between baseline results and 2012 MARCR Results.
Note that a positive result indicates an increase in average dustfall at that location and a negative result indicates a decrease in average dustfall at that location.

5.3 Amount of Land Disturbed and Vegetation Cleared

The extent of vegetation clearance for the WHIP is recorded through the IronClad Ground Disturbance Permit system. The total footprint of vegetation clearance for the 2012 period is approximately 5 ha (Figure 5.8), comprising the following habitat types:

- False sandalwood *Myoporum platycarpum* open low woodland over chenopod understorey (0.5 ha)
- Spinifex hummock grassland – gravelly plains (<0.01 ha)
- Red mallee *Eucalyptus oleosa*/white mallee *E. gracilis* tree mallee over chenopod and bluebush daisy *Cratystylis conocephala* understorey (4.5 ha)

There was no clearance of Protected Areas.

A summary of the WHIP PEPR outcomes and compliance criteria for 2012 activities can be found in summary Table 7.2.

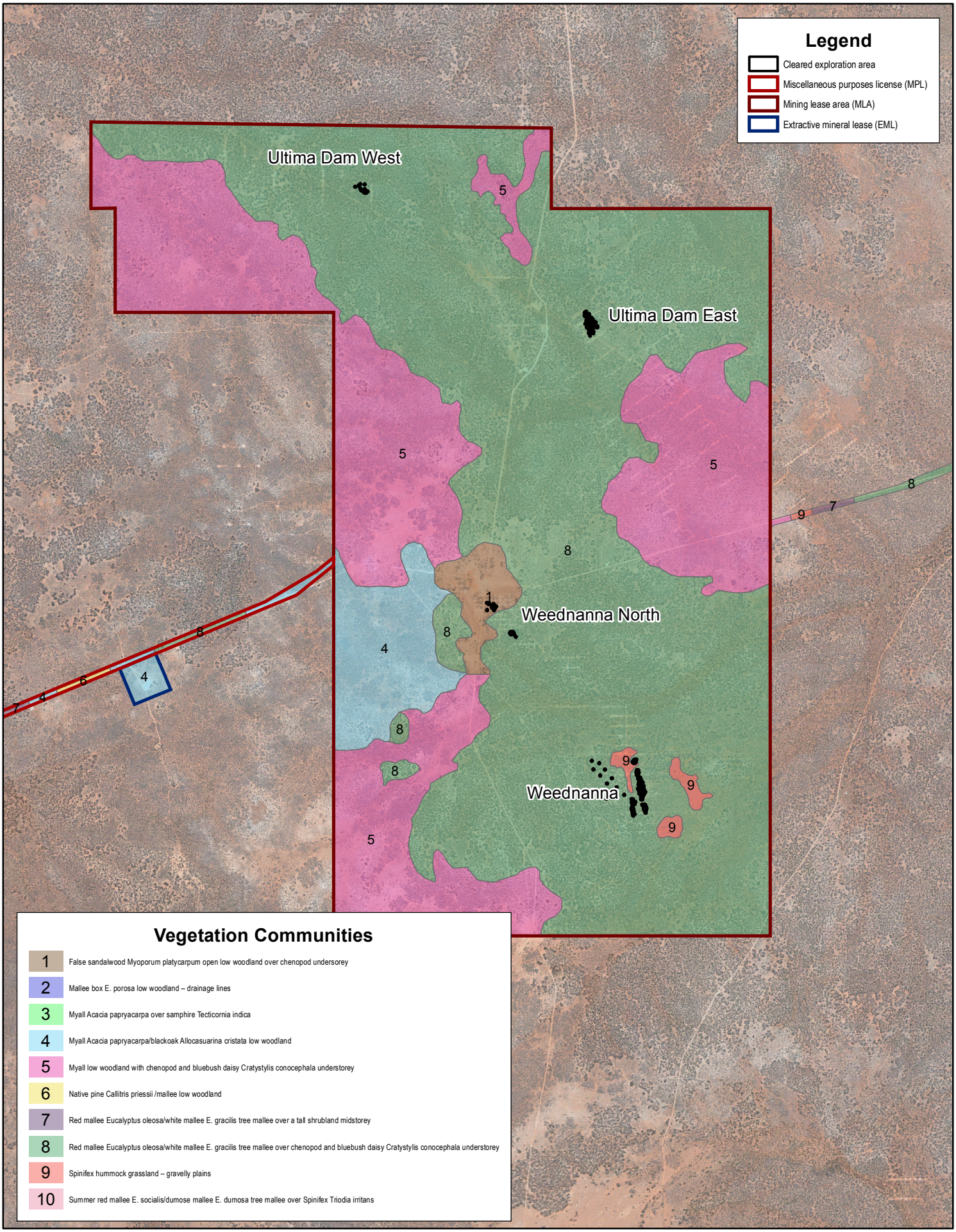
5.4 Proposed Rehabilitation and Environmental Management Activities

It is anticipated that construction will not commence until Q3 2013, therefore rehabilitation will be limited to the portion of the current access road travelling through the Wilcherry Cairn Cultural Heritage Protected Area (Figure 5.9). The rehabilitation will comprise deep ripping and scarifying the access track, spreading of topsoil (sourced from the realignment of the access road) and spreading of cleared timber (sourced from the realignment of the access road). This rehabilitation will form part of the initial rehabilitation trials to determine the success of natural seedbank germination and subsequent vegetation growth.

A summary of anticipated environmental management and monitoring activities for 2013 is outlined in Table 5.4.

Table 5.4 Expected environmental management and monitoring activities for the WHIP 2013

Environmental Aspect	Management/Monitoring	Timing	Responsibility
Flora and Fauna	Impact monitoring	Spring 2013	HSEC
	Weed monitoring	Monthly	HSEC
	Weed Control	As required	HSEC
	Fox control	Spring 2013	HSEC
	Slender-billed thornbill survey	Monthly	HSEC
	Protected area monitoring	Monthly	HSEC
Rehabilitation	Weed monitoring	Monthly	HSEC
	Native flora (species and abundance)	Quarterly	HSEC
Groundwater	Quality and depth monitoring	Monthly (from start of construction)	HSEC
	Usage	Ongoing	Operations
Air Quality	Dust deposition	Monthly (from start of construction)	HSEC



IRONCLAD MINING LIMITED

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PROJECTION
GDA 94 Zone 53

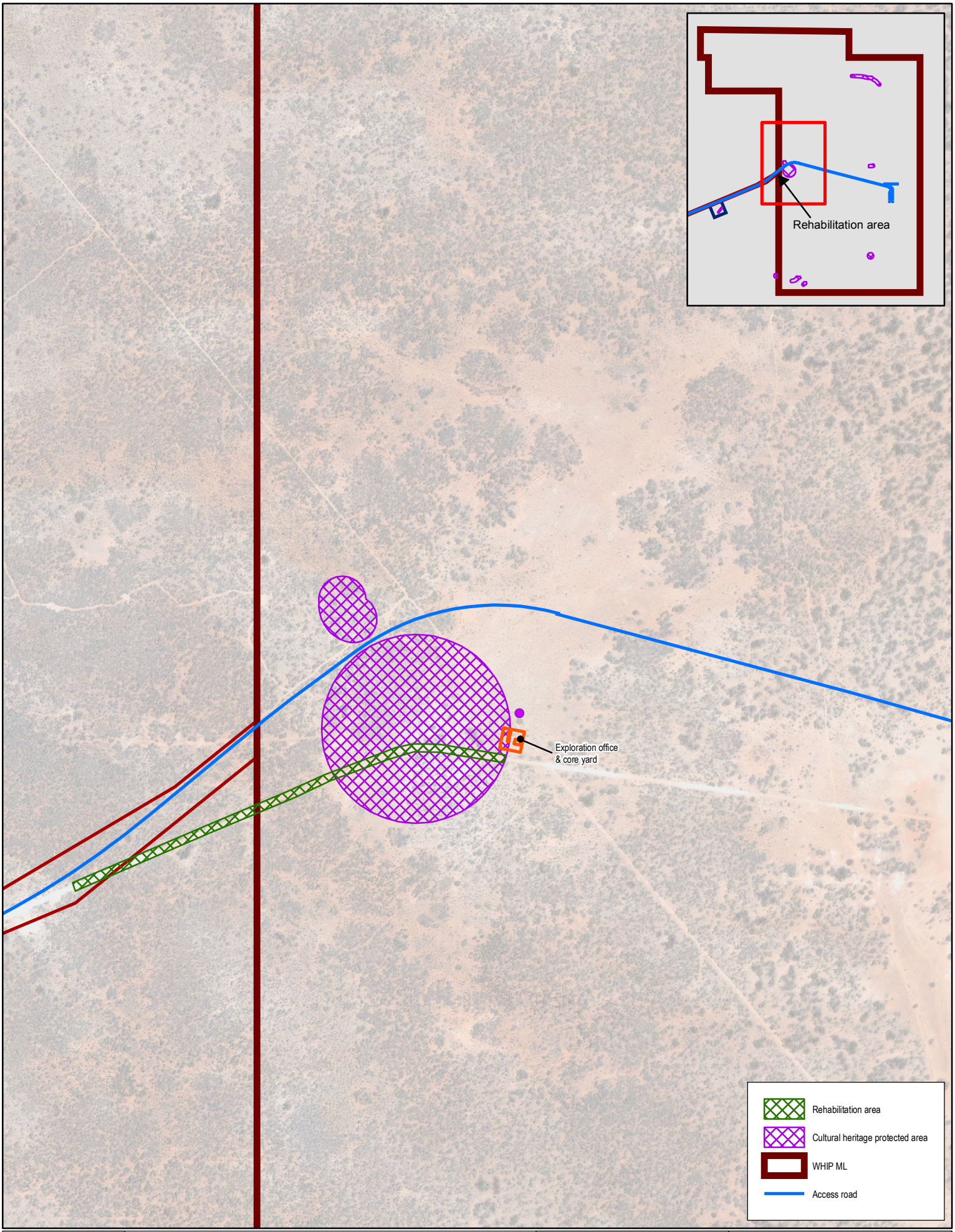
DATE
27 March 2013

SOURCE
Aerial photography supplied by SKM 2009
Mining lease and MPL supplied by DMITRE 2012

TITLE
WILCHERRY HILL IRON PROJECT
Vegetation Clearances for the MARCR Period

DRAWING No.
IFE-WH-ENV-023 Rev1

FIGURE No.
5.8



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GIS FILE
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PROJECTION
GDA94 Zone 53

DATE
18 Feb 2013

SOURCE
Imagery supplied by SKM 2010.

TITLE
Location of Wilcherry Cairn rehabilitation area

DRAWING No.
IFE-WH-PRJ-008, Rev 3 A3

FIGURE No.
5.9

6.0 Community Consultation

IronClad carried out a number of stakeholder and community engagement activities during the MARCR period. All stakeholder engagement activities are recorded in the Stakeholder Engagement Register (Appendix D).

IronClad have a Community Feedback Line (Free call 1800 136 067), it is anticipated that the number will be advertised in the Kimba and Cowell Townships in 2013. However in the interim the usual IronClad Adelaide Office number is available to receive feedback 24 hours a day, seven days a week. No complaints were received for the MARCR reporting period.

7.0 Operations Summary

Operations for 2012 on the WHIP was limited to exploration activities only. A total of 5 ha was cleared.

All exploration areas have now been rehabilitated, and will be monitored over 2013.

Currently the WHIP mining studies for 2013 are under review, however, it is anticipated that the footprint will be less than the approved footprint within the current PEPR (PEPR No. PEPR2011/023). It is expected that the current PEPR will be amended in line with the results of the mine studies and submitted to DMITRE for approval March 2013. Construction is anticipated to commence May 2013.

8.0 Compliance with Outcomes

Table 7.1 lists all lease conditions related to the WHIP and the compliance outcome criteria for each condition as described in the WHIP PEPR. Table 7.2 lists all compliance outcome criteria and assessment criteria given in Table 7.1 and details of compliance or non-compliance with measurement criteria as described in the WHIP PEPR.

Table 7.1 Lease conditions related to the WHIP and the compliance outcome criteria for each condition

Lease Condition	PEPR Outcome
Schedule 2 Lease Condition - **Mineral Lease**	
Stormwater The Lessee must, in constructing and operating the Lease ensure no water contaminated as a result of mining operations leaves the Lease area or results in loss of or contamination of soil on or off the Lease.	**Outcome 7**: No final pastoral land use limitations due to project activities. **Outcome 16**: No adverse impact on the quality of surface water caused by project activities. **Outcome 31**: Existing soil quantity and quality is maintained.
Groundwater and Hydrology The Lessee must, in constructing and operating the Lease ensure that there is no adverse impact to the quality and quantity of ground and or surface water caused by mining operations to existing users and water dependent ecosystems.	**Outcome 7**: No final pastoral land use limitations due to project activities. **Outcome 16**: No adverse impact on the quality of surface water caused by project activities. **Outcome 17**: Surface water flow regimes remain unaltered for downstream water dependent ecosystems or existing users. **Outcome 18**: No adverse impact to the quantity of groundwater, that is attributable to the mine operation. **Outcome 19**: No adverse impact to the quality of groundwater. **Outcome 20**: Mine operations do not significantly impact on hydrology of Lake Gilles.
Soil The Lessee must, in constructing and operating the Lease, ensure that the existing soil quality and quantity is maintained.	**Outcome 7**: No final pastoral land use limitations due to project activities. **Outcome 31**: Existing soil quantity and quality is maintained.
Acid Mine Drainage The Lessee must, in constructing and operating the Lease ensure that no contamination of natural water drainage systems, streams and rivers, groundwater, land and soils occurs either on or off site resulting from permanent disposal or temporary storage of mine or	**Outcome 7**: No final pastoral land use limitations due to project activities. **Outcome 16**: No adverse impact on the quality of surface water caused by project activities. **Outcome 19**:

waste material.	No adverse impact to the quality of groundwater **Outcome 31**: Existing soil quantity and quality is maintained.
Mine Rehabilitation The Lessee must demonstrate to the satisfaction of the Director of Mines that the following mine closure outcomes (in so far as they may be affected by mining operations) are expected to be achieved and sustained after mine closure: • Integrate and harmonise final landforms and vegetation with the surrounding landscape. • The risks to the health and safety of the public and fauna are as low as reasonably practicable. • Where practicable, re-establishment of the pre-mining ecosystem and landscape function. • No compromise of the quality and quantity of ground and or surface water to existing users and water dependent ecosystems. • All mine waste materials left onsite are chemically and physically stable. • No industrial or domestic waste left onsite. • Where practicable, pre-mining land use is re-established.	**Outcome 7**: No final pastoral land use limitations due to project activities. **Outcome 8**: Impact on visual amenity to be reduced by minimising ground disturbance. **Outcome 14**: Final landforms will be softened in accordance with the surrounding landscape. **Outcome 16**: No adverse impact on the quality of surface water caused by project activities. **Outcome 17**: Surface water flow regimes remain unaltered for downstream water dependent ecosystems or existing users. **Outcome 18**: No adverse impact to the quantity of groundwater, that is attributable to the mine operation. **Outcome 19**: No adverse impact to the quality of groundwater. **Outcome 20**: Mine operations do not significantly impact on hydrology of Lake Gilles. **Outcome 22**: No new weed species to be introduced to the project area. **Outcome 23**: No introduction of Mundulla yellows due to project activities. **Outcome 25**: No net adverse impacts from site operations on native fauna abundance or diversity in the ML and MPL. **Outcome 26**: New introduced fauna species are managed as per Section 3.4 of the Fauna Management Plan **Outcome 31**: Existing soil quantity and quality is maintained.
Air Quality The Lessee must, in constructing and operating the	**Outcome 9**: No increase in dust emissions beyond the mining tenements.

Lease ensure that there are no public health and/or nuisance impacts to local residents from air emissions, dust and odour generated by mining operations.	**Outcome 10**: No increase in asbestos dust emissions beyond the mining tenements. **Outcome 11**: No nuisance air emissions attributable to the project beyond the mining tenements.
Public Complaints The Lessee will be responsible for recording and addressing in a manner and form specified in the PEPR any complaints received from the public.	**Outcome 5**: Any complaints received from the public will be recorded and addressed in a manner and form as outlined in this PEPR.
Native Vegetation The Lessee must, in constructing and operating the Lease, ensure no loss of abundance or diversity of native vegetation on or off the Lease through: a. Clearance. b. Dust/contaminant deposition. c. Fire. d. Other damage. Unless prior approval under the relevant legislation is obtained.	**Outcome 9**: No increase in dust emissions beyond the mining tenements. **Outcome 16**: No adverse impact on the quality of surface water caused by project activities. **Outcome 17**: Surface water flow regimes remain unaltered for downstream water dependent ecosystems or existing users. **Outcome 21**: No unapproved native vegetation clearance. **Outcome 22:** No new weed species to be introduced to the project area. **Outcome 23**: No introduction of Mundulla yellows due to project activities.
Landholder Liaison The Lessee must ensure that the occupier of the land is fully advised of their program of activities, particularly in regard to the impact of operations on the land and rehabilitation process.	**Outcome 6**: Operate a Community Engagement Plan which ensures effective communication and exchange of information between IronClad and their stakeholders (including but not limited to landowners, Kimba community and Native Title claimants).
Soil The Licensee must, in constructing and operating the Licence, ensure that the existing soil quality and quantity is maintained.	**Outcome 7**: No final pastoral land use limitations due to project activities. **Outcome 31**: Existing soil quantity and quality is maintained.
1. Schedule 2 License Condition - **Miscellaneous Purpose License**	
Stormwater The Licensee must, in constructing and operating the	**Outcome 7**:

Licence ensure no water contaminated as a result of mining operations leaves the Licence area or results in loss of or contamination of soil on or off the Licence.	No final pastoral land use limitations due to project activities. **Outcome 16**: No adverse impact on the quality of surface water caused by project activities. **Outcome 31**: Existing soil quantity and quality is maintained.
Soil The Licensee must, in constructing and operating the Licence, ensure that the existing soil quality and quantity is maintained.	**Outcome 7**: No final pastoral land use limitations due to project activities. **Outcome 31**: Existing soil quantity and quality is maintained.
Mine Rehabilitation The Licensee must demonstrate to the satisfaction of the Director of Mines that the following mine closure outcomes (in so far as they may be affected by mining operations) are expected to be achieved and sustained after mine closure: • Integrate and harmonise final landforms and vegetation with the surrounding landscape. • The risks to the health and safety of the public and fauna are as low as reasonably practicable. • Where practicable, re-establishment of the pre-mining ecosystem and landscape function. • No compromise of the quality and quantity of ground and or surface water to existing users and water dependent ecosystems. • All mine waste materials left onsite are chemically and physically stable. • No industrial or domestic waste left onsite. • Where practicable, pre-mining land use is re-established.	**Outcome 7**: No final pastoral land use limitations due to project activities. **Outcome 8**: Impact on visual amenity to be reduced by minimising ground disturbance. **Outcome 14**: Final landform will be in softened in accordance with the surrounding landscape **Outcome 16**: No adverse impact on the quality of surface water caused by project activities. **Outcome 17**: Surface water flow regimes remain unaltered for downstream water dependent ecosystems or existing users. **Outcome 18**: No adverse impact to the quantity of groundwater, that is attributable to the mine operation. **Outcome 19**: No adverse impact to the quality of groundwater. **Outcome 20**: Mine operations do not significantly impact on hydrology of Lake Gilles. **Outcome 22**: No new weed species to be introduced to the project area. **Outcome 23**: No introduction of Mundulla yellows due to project activities. **Outcome 25**: No net adverse impacts from site operations on native fauna abundance or diversity in the ML and MPL.

	Outcome 26: New introduced fauna species are managed as per Section 3.4 of the Fauna Management Plan **Outcome 31**: Existing soil quantity and quality is maintained.
Air Quality The Licensee must, in constructing and operating the Licence ensure that there are no public health and/or nuisance impacts to local residents from air emissions, dust and odour generated by mining operations.	**Outcome 9**: No increase in dust emissions beyond the mining tenements. **Outcome 10**: No increase in asbestos dust emissions beyond the mining tenements. **Outcome 11**: No nuisance air emissions attributable to the project beyond the mining tenements.
Native Vegetation The Licensee must, in constructing and operating the Licence, ensure no loss of abundance or diversity of native vegetation on or off the Licence through: a. Clearance. b. Dust/contaminant deposition. c. Fire. d. Other damage. Unless prior approval under the relevant legislation is obtained.	**Outcome 9**: No increase in dust emissions beyond the mining tenements. **Outcome 16**: No adverse impact on the quality of surface water caused by project activities. **Outcome 17**: Flow regimes remain unaltered for downstream water dependent ecosystems or existing users. **Outcome 21**: No unapproved native vegetation clearance. **Outcome 22**: No new weed species to be introduced due to project activities. **Outcome 23**: No introduction of Mundulla yellows due to project activities.
Public Complaints The Licensee will be responsible for recording and addressing in a manner and form specified in the PEPR any complaints received from the public.	**Outcome 5**: Any complaints received from the public will be recorded and addressed in a manner and form as outlined in this PEPR.
Landholder Liaison The Licensee must ensure that the occupier of the land is fully advised of their program of activities, particularly in regard to the impact of operations on the land and rehabilitation process.	**Outcome 6**: Operate a Community Engagement Plan which ensures effective communication and exchange of information between IronClad and their stakeholders (including but not limited to landowners, Kimba community and Native Title claimants).
Schedule 2 License Condition – **Extractive Minerals License**	

Stormwater The Licensee must, in constructing and operating the Licence ensure no water contaminated as a result of mining operations leaves the Licence area or results in loss of or contamination of soil on or off the Licence.	**Outcome 7**: No final pastoral land use limitations due to project activities. **Outcome 16**: No adverse impact on the quality of surface water caused by project activities. **Outcome 31**: Existing soil quantity and quality is maintained.
Soil The Licensee must, in constructing and operating the Licence, ensure that the existing soil quality and quantity is maintained.	**Outcome 7**: No final pastoral land use limitations due to project activities. **Outcome 31**: Existing soil quantity and quality is maintained.
Mine Rehabilitation The Licensee must demonstrate to the satisfaction of the Director of Mines that the following mine closure outcomes (in so far as they may be affected by mining operations) are expected to be achieved and sustained after mine closure: • Integrate and harmonise final landforms and vegetation with the surrounding landscape. • The risks to the health and safety of the public and fauna are as low as reasonably practicable. • Where practicable, re-establishment of the pre-mining ecosystem and landscape function. • No compromise of the quality and quantity of ground and or surface water to existing users and water dependent ecosystems. • All mine waste materials left onsite are chemically and physically stable. • No industrial or domestic waste left onsite. • Where practicable, pre-mining land use is re-established.	**Outcome 7**: No final pastoral land use limitations due to project activities. **Outcome 8**: Impact on visual amenity to be reduced by minimising ground disturbance. **Outcome 14**: Final landform will be in softened in accordance with the surrounding landscape **Outcome 16**: No adverse impact on the quality of surface water caused by project activities. **Outcome 17**: Surface water flow regimes remain unaltered for downstream water dependent ecosystems or existing users. **Outcome 18**: No adverse impact to the quantity of groundwater, that is attributable to the mine operation. **Outcome 19**: No adverse impact to the quality of groundwater. **Outcome 20**: Mine operations do not significantly impact on hydrology of Lake Gilles. **Outcome 22**: No new weed species to be introduced to the project area. **Outcome 23**: No introduction of Mundulla yellows due to project activities. **Outcome 25**:

	No net adverse impacts from site operations on native fauna abundance or diversity in the ML and MPL. **Outcome 26**: New introduced fauna species are managed as per Section 3.4 of the Fauna Management Plan **Outcome 31**: Existing soil quantity and quality is maintained.
Air Quality The Licensee must, in constructing and operating the Licence ensure that there are no public health and/or nuisance impacts to local residents from air emissions, dust and odour generated by mining operations.	**Outcome 9**: No increase in dust emissions beyond the mining tenements. **Outcome 10**: No increase in asbestos dust emissions beyond the mining tenements. **Outcome 11**: No nuisance air emissions attributable to the project beyond the mining tenements.
Native Vegetation The Licensee must, in constructing and operating the Licence, ensure no loss of abundance or diversity of native vegetation on or off the Licence through: a. Clearance. b. Dust/contaminant deposition. c. Fire. d. Other damage. Unless prior approval under the relevant legislation is obtained.	**Outcome 9**: No increase in dust emissions beyond the mining tenements. **Outcome 16**: No adverse impact on the quality of surface water caused by project activities. **Outcome 17**: Flow regimes remain unaltered for downstream water dependent ecosystems or existing users. **Outcome 21**: No unapproved native vegetation clearance. **Outcome 22**: No new weed species to be introduced due to project activities. **Outcome 23**: No introduction of Mundulla yellows due to project activities.
Public Complaints The Licensee will be responsible for recording and addressing in a manner and form specified in the PEPR any complaints received from the public.	**Outcome 5**: Any complaints received from the public will be recorded and addressed in a manner and form as outlined in this PEPR.
Landholder Liaison The Licensee must ensure that the occupier of the land is fully advised of their program of activities, particularly in regard to the impact of operations on the land and rehabilitation process.	**Outcome 6**: Operate a Community Engagement Plan which ensures effective communication and exchange of information between IronClad and their stakeholders (including but not limited to landowners, Kimba community and Native Title claimants).

Table 7.2 Compliance or non-compliance with measurement criteria

Outcomes (as per PEPR)	Measurement criteria	Compliance
Outcome 5: Any complaints received from the public will be recorded and addressed in a manner and form as outlined in this PEPR.	Time: All complaints regarding project activities to be addressed within 24 hours and closed off within 7 days.	**Not applicable** No complaints were recorded during 2012.
Outcome 6: Operate a Community Engagement Plan which ensures effective communication and exchange of information between IronClad and their stakeholders (including but not limited to landowners, Kimba community and Native Title claimants).	Compliance with plan: Compliance with Community Engagement Plan and Indigenous Community Engagement Plan	**Not applicable** The Community Engagement Plan and the Indigenous Community Engagement Plan will be enacted when amended PEPR is approved.
Outcome 7: No final pastoral land use limitations due to project activities.	Refer Outcome 18, Outcome 19, Outcome 22, Outcome 23, Outcome 26 and Outcome 31	
Outcome 8: Impact on visual amenity to be reduced by minimising ground disturbance.	Compliance with plan: Ground disturbance in accordance with the approved PEPR and Figure 4.1 & Table 4.1 in the NVMP	**Compliant** All ground disturbance for 2012 was within the areas and locations identified in the PEPR and NVMP
Outcome 9: No increase in dust emissions beyond the mining tenements.	Dust deposition: No statistically significant deviation in dust deposition levels adjacent to sensitive receptors relative to control sites due to project dust emissions.	**Compliant** No deviation in dust deposition was observed for the 2012 period.
Outcome 10: No increase in asbestos dust emissions beyond the mining tenements.	Asbestos levels in air samples: No statistically significant deviation in asbestos - air sample levels adjacent to sensitive receptors relative to control sites due to project dust emissions.	**Not applicable** Monitoring of asbestos dust emission will be carried out once mining operations commence.
Outcome 11: No nuisance air emissions attributable to the project beyond the mining tenements.	See Outcome 5	

Outcomes (as per PEPR)	Measurement criteria	Compliance
Outcome 14: Final landform will be in softened in accordance with the surrounding landscape.	Compliance with plan: Final landforms to be constructed as per design in Section 3.3 and Figure 3.2 of the Stockpile Management Plan.	**Not applicable** Final landforms have not yet been constructed.
Outcome 16: No adverse impact on the quality of surface water caused by project activities.	Surface water quality: Results not to exceed a statistically significant variation between downstream and control site water quality or ANZECC (2000) guidelines values for south central Australia low-rainfall area.	**Not applicable** No surface water flows of a sufficient depth (greater than 10 cm) have been observed for sampling to occur. Further given that activity on the WHIP has been limited to exploration it is unlikely that there has been any adverse impact on the quality of surface water.
Outcome 17: Surface water flow regimes remain unaltered for downstream water dependent ecosystems or existing users.	Compliance with plan: Surface water management system constructed and maintained as per design outlined in the SWMP.	**Not applicable** In 2012 no infrastructure has been constructed to change surface water flows. No surface water systems have been constructed for the WHIP.
Outcome 18: No adverse impact to the quantity of groundwater, that is attributable to the mine operation.	Groundwater levels: Groundwater drawdown levels in line with or below model predictions as per Section 5 of Groundwater Impact Assessment.	**Compliant** Groundwater monitoring wells have not been installed however no groundwater was extracted during the MARCR period. Further, the groundwater levels had increased at most waterbores on the WHIP.
	Groundwater levels: Model review and development in accordance with Section 7.7 of the Ground Water Management Plan.	**Not applicable** Groundwater monitoring wells were not installed in 2012 and therefore modelling has not been further developed. However monitoring wells will be installed prior to construction in 2013.
Outcome 19: No adverse impact to the quality of groundwater.	Groundwater quality: Groundwater quality measurement to show that baseline beneficial use category (ARMCANZA/ANZECC (1995)) has not deteriorated (as a result of increases in salinity) as a result of the project.	**Compliant** Groundwater monitoring wells have not been installed however groundwater use during exploration has been limited. Further the salinity of the groundwater has decreased at most waterbores on the WHIP.

Outcomes (as per PEPR)	Measurement criteria	Compliance
Outcome 20: Mine operations do not significantly impact on hydrology of Lake Gilles.	Refer outcome 17, Outcome 18 and Outcome 19	
Outcome 21: No unapproved native vegetation clearance.	Compliance with plan and area of clearance: Vegetation clearance in accordance with the approved PEPR and the NVMP.	**Compliant** All vegetation clearance on the WHIP was approved via IronClad Ground Disturbance Permit.
	Vegetation condition: No statistically significant decrease in condition of native vegetation at designated monitoring sites.	**Compliant** No vegetation impact monitoring was carried out in 2012. However given that on site activities were limited to exploration impacts to vegetation are unlikely. Vegetation impact monitoring will be carried in Spring 2013.
Outcome 22: No new weed species to be introduced due to project activities.	Compliance with plan: Compliance with weed management measures as outlined in Section 4.4.2 of the Flora Management Plan and associated Weed and Pathogen Standard Operating Procedure (SOP).	**Working towards compliance** Weeds on the access tracks and roads were monitored May to July 2012, and the presence of weeds on the WHIP was noted opportunistically in rehabilitated areas. Monthly monitoring of rehabilitation areas and roads and tracks will be carried out 2013.
Outcome 23: No introduction of Mundulla yellows due to project activities	Compliance with plan: Management procedures are in place to prevent introduction of Mundulla yellows.	**Compliant** WHIP activities were limited to exploration activities therefore weed and pathogen management was carried out in accordance with the EDEP. Weed and Pathogen SOP will be enacted upon commencement of construction.

Outcomes (as per PEPR)	Measurement criteria	Compliance
Outcome 25: No net adverse impacts from site operations on native fauna abundance or diversity in the ML and MPL.	Fauna abundance: No statistically significant long term change in abundance and diversity of fauna species within survey areas compared to control sites.	**Compliant** Locations identified as potential traps for fauna were monitored opportunistically throughout 2012. No trapped animals were noted. No fauna impact surveys has been carried out, however given that WHIP activities have been limited to exploration in already disturbed areas it is unlikely that fauna populations have been impacted in the longer term. Fauna impact monitoring will be carried in Spring 2013.
Outcome 26: New introduced fauna species are managed as per Section 3.4 of the Fauna Management Plan	Compliance with plan: New introduced fauna species are managed as per Section 3.4 of the Fauna Management Plan	**Working towards compliance** The presence of introduced fauna was monitored May to July 2012. However no introduced fauna management was carried out in 2012. Given the limited on site activities it is unlikely that introduced fauna populations have altered due to exploration activities. It is anticipated that fox control will commence on site spring 2013.
Outcome 31: Existing soil quantity and quality is maintained.	Compliance with plan: Annual audit to show all available topsoil is stripped and stockpiled prior to disturbance.	**Compliant** Ground Disturbance Permit records (requiring on ground visual assessment) indicate that topsoil has been stockpiled during exploration activities.
	Compliance with plan: Annual audit to show the fuel and chemical storage areas are constructed and maintained in accordance with EPA guidelines.	**Not applicable** No new fuel or chemical storage areas have been constructed for the WHIP. However it is anticipated that all hazardous substances storage areas will be appropriately constructed and maintained.

Outcomes (as per PEPR)	Measurement criteria	Compliance
	Soil quality: Closure soil sampling does not exceed determined NEPM criteria or statistically significant difference of a contaminant from baseline for final land use. (appropriate NEPM land use criteria category to be determined upon completion of baseline soil study and risk assessment)	**Not applicable** Soil quality will be measured at closure.

9.0 Rectification of Non-compliances

IronClad have two areas of compliance that will require additional works in 2013 (in comparison to 2012), comprising:

- Weed monitoring was not carried out on a monthly basis during 2012. Monthly monitoring of weed populations and outbreaks will be carried in 2013.
- No fox control was carried in 2012. Fox control measures will be implemented spring 2013 in accordance with the Pest Management SOP.

There are no site works to be carried out on site until an amended PEPR has been approved by DMITRE (submission of the amended PEPR is anticipated Q2 2013). Whilst the site is in care and maintenance all monitoring will be carried out in accordance with the MCCP. All compliance management and monitoring for 2013 is described in Table 5.4 (page 31). Given that construction is not anticipated to start until Q3 2013 a compliance audit will not be carried out prior to the 2013 MARCR period. However, the implementation of all environmental management and monitoring (including weed monitoring and fox management) will be audited as part of the MARCR program.

There are no previous non-compliance issues related to the WHIP.

9.1 Environmental Incidents

No environmental incidents occurred during the MARCR reporting period.

10.0 Management Systems Reviews

The IronClad HSEC Management System has been designed to consider all HSEC aspects of the WHIP and includes IronClad employees, contractors and third-parties operating at the WHIP, the Kimba accommodation village and the Lucky Bay Common User Export Facility (Lucky Bay CUEF).

The HSEC Management System represents the formalisation of policy, management plans and standard operating procedures to mitigate the risks during construction and operation of the WHIP. The HSEC Management System includes management plans, procedures, forms and registers and consists of three main components:

- Health and safety
- Environmental management
- Community engagement

Given that WHIP operations have not yet commenced the HSEC Management System has not yet been reviewed. However it is anticipated with project changes and changes to health and safety legislation the HSEC Management System will undergo a full review to ensure compliance with legislation and approvals documents prior to construction commencement.

10.1 Management System Audit

No audit of the HSEC Management System was carried out for this reporting period. However annual audits will be carried upon WHIP commencement.

11.0 Fitness-for-purpose Reviews of Plant, Equipment, Infrastructure and Other Facilities

Given that on site activities were limited to exploration activities very little plant, equipment, infrastructure or facilities were required for this reporting period. It is anticipated that fitness for purpose reviews will be carried out upon commencement of the WHIP.

12.0 New Environmental Hazards

There were no new environmental hazards or risks identified during this reporting period.

13.0 Environmental Protection and Biodiversity Conservation Act Reporting

Condition 8 of the Commonwealth EPBC Approval requires the publication of an annual compliance report:

"Within three months of every anniversary of the approval to commence mining, the person taking the action must publish a report on their website addressing compliance with each of the conditions of this approval, including implementation of any management plans as specified in the conditions"

This (MARCR) report will be supplied to the DSEWPaC Environmental Assessment and Compliance Division and published on the IronClad website. Table 12.1 lists all Commonwealth Lease conditions related to the WHIP and the compliance outcome criteria for each condition and described in the PEPR. Table 12.2 lists all compliance outcome criteria and assessment criteria given in Table 12.1 and details of the compliance or non-compliance with measurement criteria as described in the PEPR.

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Table 12.1 Compliance outcome criteria for each Commonwealth approval condition

DSEWPAC Approval Condition	PEPR Outcome
Footprint 1. For the protection of malleefowl and Slender-billed Thornbill, the person taking the action must ensure that no more than 700 hectares of vegetation will be cleared and/or disturbed within the Wilcherry Hill Iron Ore Project area as indicated in the map at Attachment 1 and specified in the table at Attachment 2.	**Outcome 21**: No unapproved native vegetation clearance.
2. The person taking the action must ensure that no more than 0.2 hectares of breeding habitat for the malleefowl is cleared within the Wilcherry Hill Iron Ore Project area as specified in the map at Attachment 3.	**Outcome 21**: No unapproved native vegetation clearance.
Management Plans 3. The person taking the action must adhere to the malleefowl Management Plan August 2011 at Attachment 5.	**Outcome 28**: No adverse impacts from site operations on malleefowl abundance or diversity in the lease area and in surrounding areas
Biodiversity Offsets 4. The person taking the action must submit to the Minister for approval a malleefowl offset strategy (the strategy) for the management of the malleefowl offset area, to offset impacts resulting from the loss of malleefowl habitat. The strategy must, at a minimum: i. detail management measures to: • reduce goat and rabbit numbers. • undertake appropriate fire regimes. • control predators (control measures will probably need to extend beyond the boundaries of the malleefowl offset area in order to be effective). ii. detail administrative matters including: • funding for implementation of the strategy. • performance indicators. • roles and responsibilities. • monitoring and reporting standards. iii. be accompanied by a shapefile defining the malleefowl offset area. Management measures must take into account the biodiversity values already present in the offset area, including particular any species or communities listed as threatened under the EPBC Act. Mining must not commence within the MLA until the strategy has been approved by the Minister.	**Outcome 24**: Establishment and ongoing management of a significant environmental benefit (SEB) offset program.

Once approved, the strategy must be implemented.	
5. The person taking action must submit to the Minister for approval Slender-billed Thornbill research plan (the plan) to compensate for impacts resulting from the loss of Slender-billed Thornbill habitat. The plan must, at a minimum: • address spatial and temporal (at least in each year from commencement to cessation of the action) population trends for the species at the MLA and in comparison to adjacent populations; • address spatial and temporal population trends for the species at the malleefowl offset area (if found to be present); and • consider and report on: - species habitat preferences and use - species responses to exclusion of grazing, control of feral herbivores, control of feral predators, fire regimes and fragmentation; and - efficacy of any mitigations measures in place. • detail administrative matters including: - funding for implementation of the plan; - performance indicators; - roles and responsibilities; and - monitoring and reporting standards – all results and reports must be made publicly available and provided directly to the Department, and publication of results in a referred journal should be considered.	As per the Fauna Management Plan, Section 3, Management Measures. IronClad will develop and submit to DSEWPAC for approval a research plan for the slender-billed thornbill.

Table 12.2 Compliance or non-compliance with measurement criteria

Outcomes (as per PEPR)	Measurement criteria	Compliance
Outcome 21: No unapproved native vegetation clearance.	Compliance with plan and area of clearance: Vegetation clearance in accordance with the approved PEPR and the NVMP.	**Compliant** All vegetation clearance on the WHIP was approved via the IronClad Ground Disturbance Permit.
	Vegetation condition: No statistically significant decrease in condition of native vegetation at designated monitoring sites.	**Compliant** No vegetation impact monitoring was carried out in 2012. However given that activities on site were limited to exploration, impacts to vegetation are unlikely. Vegetation impact monitoring will be carried in Spring 2013.
Outcome 24: Establishment and ongoing management of a significant environmental benefit (SEB) offset program.	Compliance with plan: Achievement of SEB offset - Middleback Alliance: vegetation restoration project.	**Compliant** Given that mining operations have yet to commence, there is no requirement for payment into the SEB offset program. However a provisional payment of $20,000 has been paid to the program to allow for native vegetation clearance related to exploration. Payments into the program as set out in the Commonwealth approved Malleefowl Management Strategy Middleback Alliance Offset Area will continue prior to WHIP construction works.
Outcome 28: No adverse impacts from site operations on malleefowl abundance or diversity in the lease area and in surrounding areas.	No statistically significant deviation in abundance or condition of malleefowl mounds within survey area compared to control sites.	**Compliant** No malleefowl monitoring program was carried for the 2012 period, however a malleefowl was recorded opportunistically and management measures enacted in accordance with the plan. However given the limited site activities it is unlikely that malleefowl populations were impacted by the WHIP. Malleefowl monitoring (and additional management measures) will be carried out in 2013.

Outcomes (as per PEPR)	Measurement criteria	Compliance
As per the Fauna Management Plan, Section 3, Management Measures. IronClad will develop and submit to DSEWPAC for approval a research plan for the slender-billed thornbill.		**Compliant** The IronClad slender-billed thornbill research plan was approved by the Commonwealth 23 February 2013. A slender-billed thornbill survey was carried out December 2012.

14.0 References

ARMCA/ANZECC. 1995. Guidelines for Groundwater Protection in Australia. Agriculture and Resource Management Council of Australia and New Zealand Australian and New Zealand Environment and Conservation Council. Canberra.

Hou B, Zang W, Fabris A, Keeling J, Stoian L and Fairclough M comps 2007. Palaeodrainage and Tertiary coastal barriers of South Australia, 1:2 000 000 map, 1st edn. CRC LEME (Cooperative Research Centre for Landscape Environments and Mineral Exploration); Department of Primary Industries and Resources South Australia, Adelaide.

15.0 Appendices

APPENDIX A

Table A Slender-billed thornbill survey results

Species		Site Number																														
Common name	**Scientific name**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**
Spiny-cheeked Honeyeater	*Acanthagenys rufogularis*	✓		✓	✓	✓	✓	✓	✓	✓		✓	✓			✓	✓	✓	✓	✓	✓		✓	✓				✓	✓		✓	✓
Inland Thornbill	*Acanthiza apicalis*					✓		✓	✓				✓				✓											✓	✓			
Yellow-rumped Thornbill	*Acanthiza chrysorrhoa*							✓														✓										
Chestnut-rumped Thornbill	*Acanthiza uropygialis*					✓		✓									✓															✓
Australian Owlet-Nightjar	*Aegotheles cristatus*																											✓	✓			
Western Grasswren	*Amytornis textilis*																								✓							
Red Wattlebird	*Anthochaera carunculata*	✓		✓					✓																							
Australasian Pipit	*Anthus novaeseelandiae*	✓														✓									✓							
Southern Whiteface	*Aphelocephala leucopsis*					✓									✓	✓	✓							✓		✓						✓
Wedge-tailed Eagle	*Aquila audax*	✓																✓														
Black-faced Woodswallow	*Artamus cinereus*				✓											✓			✓					✓								
Dusky Woodswallow	*Artamus cyanopterus*																													✓		
Masked Woodswallow	*Artamus personatus*																									✓						
Australian Ringneck	*Barnardius zonarius*				✓	✓		✓							✓			✓				✓				✓						✓
Galah	*Cacatua roseicapilla*							✓													✓			✓		✓						
Fan-tailed Cuckoo	*Cacomantis flabelliformis*							✓																								
Rufous Fieldwren	*Calamanthus campestris*																						✓		✓							
Rufous Treecreeper	*Climacteris rufus*							✓	✓	✓			✓	✓						✓								✓		✓		✓
Grey Shrike-Thrush	*Colluricincla harmonica*							✓		✓			✓	✓								✓						✓	✓			
Black-faced	*Coracina*	✓		✓	✓					✓											✓							✓				

Species		Site Number																														
Common name	**Scientific name**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**
Cuckoo-Shrike	*novaehollandiae*																															
White-winged Chough	*Corcorax melanorhamphos*								✓																							
Australian Raven	*Corvus coronoides*							✓	✓									✓								✓		✓			✓	✓
Australian Magpie	*Cracticus tibicen*	✓					✓								✓	✓						✓			✓						
Grey Butcherbird	*Cracticus torquatus*													✓	✓							✓				✓		✓				
Varied Sittella	*Daphoenositta chrysoptera*																															✓
Mistletoebird	*Dicaeum hirundinaceum*									✓		✓					✓	✓				✓						✓	✓		✓	✓
Emu	*Dromaius-novaehollandiae*																		✓			✓										
Southern Scrub-Robin	*Drymodes brunneopygia*									✓																						
Western Yellow Robin	*Eopsaltria griseogularis*							✓																						✓		
Brown Falcon	*Falco berigora*	✓																														
Nankeen Kestrel	*Falco cenchroides*	✓																														
Welcome Swallow	*Hirundo neoxena*																	✓						✓								
White-winged Triller	*Lalage tricolor*																					✓										
White-eared Honeyeater	*Lichenostomus leucotis*							✓	✓				✓									✓							✓			
Yellow-plumed Honeyeater	*Lichenostomus ornatus*								✓	✓		✓		✓						✓		✓						✓	✓	✓		
Singing Honeyeater	*Lichenostomus virescens*			✓	✓	✓		✓	✓	✓		✓			✓		✓	✓	✓		✓	✓		✓		✓					✓	✓
Variegated Fairy-Wren	*Malurus lamberti*																				✓	✓					✓	✓				
White-winged Fairy-Wren	*Malurus leucopterus*					✓					✓										✓			✓	✓							
Splendid Fairy-Wren	*Malurus splendens*					✓							✓				✓											✓				✓
Yellow-throated Miner	*Manorina flavigula*									✓																						

Species		Site Number																														
Common name	**Scientific name**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**
Hooded Robin	*Melanodryas cucullata*									✓	✓					✓		✓														
Brown-headed Honeyeater	*Melithreptus brevirostris*								✓	✓																						
Rainbow Bee-eater	*Merops ornatus*								✓				✓		✓													✓		✓		
Jacky Winter	*Microeca fascinans*						✓	✓	✓					✓	✓		✓	✓		✓		✓				✓		✓				✓
Restless Flycatcher	*Myiagra inquieta*																											✓				
Crested Pigeon	*Ocyphaps lophotes*																	✓			✓											
Crested Bellbird	*Oreoica gutturalis*					✓		✓		✓	✓				✓	✓		✓	✓									✓	✓			✓
Golden Whistler	*Pachycephala pectoralis*								✓								✓															
Rufous Whistler	*Pachycephala rufiventris*																										✓	✓		✓		
Striated Pardalote	*Pardalotus striatus*	✓		✓				✓	✓																				✓			
Tree Martin	*Petrochelidon nigricans*								✓	✓																		✓	✓	✓		
Red-capped Robin	*Petroica goodenovii*					✓		✓					✓		✓	✓	✓					✓						✓	✓			✓
Common Bronzewing	*Phaps chalcoptera*										✓				✓		✓										✓	✓	✓			
White-fronted Honeyeater	*Phylidonyris albifrons*	✓						✓	✓	✓		✓																✓	✓	✓		
White-browed Babbler	*Pomatostomus superciliosus*							✓	✓	✓					✓	✓	✓	✓			✓	✓					✓	✓	✓			✓
Mulga Parrot	*Psephotus varius*							✓	✓													✓		✓								
Willie Wagtail	*Rhipidura leucophrys*	✓								✓							✓									✓	✓	✓	✓	✓		
Weebill	*Smicrornis brevirostris*							✓	✓	✓			✓									✓				✓			✓			✓
Grey Currawong	*Strepera versicolor*	✓						✓	✓																	✓						
Zebra Finch	*Taeniopygia guttata*																							✓								
Red-backed Kingfisher	*Todiramphus pyrrhopygius*	✓		✓				✓																						✓		

Species		Site Number																													
Common name	Scientific name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Silvereye	*Zosterops lateralis*									✓																						

APPENDIX B

Table B Groundwater monitoring results

WaterBore	Date	Water level (m)	Conductivity (mS/cm)	Temperature (°C)	pH
08 HCRC 051	17/06/2010	21.50	999.90	21.2	
	14/06/2012				
08 WNRC 009	21/06/2010	49.16	63.40	30.6	
		49.06	170.90	21.5	
	6/10/2010	49.40	49.50	19.6	
	2/11/2010	48.95	52.20	19.7	
	23/11/2010	48.87	49.20	20.1	
	24/11/2010	48.87	48.50	20	
	25/11/2010	48.87	42.70	20.2	
	14/06/2012	48.83	35.00	19.7	6.31
08WNRC046	6/10/2010	44.90	49.10	19.6	
	2/11/2010	45.10	57.90	19.5	
	19/11/2010	45.10	56.50	20.4	
	22/11/2010	45.20			
	23/11/2010	45.20	49.20	20.1	
	24/11/2010	45.25	49.50	20	
	25/11/2010	45.24	47.30	20.1	
	14/06/2012	45.57	43.20	19.6	5.89
08 UDRC 005	22/09/2009	40.60	96.00	20.2	
	21/06/2010	58.90	31.20	32.5	
		46 .72	40.30	21.4	
	6/10/2010	41.60	14.10	19.6	
	2/11/2010	41.65	15.10	19.2	
	23/11/2010	40.62	14.00	20.1	
	24/11/2010	40.66	13.90	19.6	
	14/06/2012	40.80	11.57	18.8	7.31
07 UERC 004	21/06/2010	60.50	485.90	31	
		45.32	141.60	22.2	
	6/10/2010	44.70	52.10	19.9	
	2/11/2010	45.20	55.20	19.9	
	14/06/2011	44.15	44.20	19.7	6.55
07 UERC 029	22/09/2009	34.00	109.00	21.2	
	21/06/2010	60.00	92.70	30.9	
		34.38	143.90	21.2	
	6/10/2010	34.65	43.60	19.4	
	2/11/2010	35.05	45.90	19.2	
	14/06/2012	35.00	42.30	19.5	6.61
07 UERC 038	21/06/2010	64.18	173.30	32.5	
		46.26	121.10	21.6	
	6/10/2010	46.10	42.20	19.7	
	2/11/2010	46.00	47.50	19.6	
	14/06/2012	45.52	38.10	18.8	6.8
07 UERC 046	22/09/2009	38.40	109.00	21.8	
	21/06/2010	63.88	482.40	31	
		45.76	120.70	21.7	
	6/10/2010	44.95	47.30	19.2	
	2/11/2010	44.90	52.40	19.4	
07 UERC 055	22/09/2009	38.17	106.70	21.4	
	21/06/2010	44.70	479.50	31.1	

WaterBore	Date	Water level (m)	Conductivity (mS/cm)	Temperature (°C)	pH
		38.06	141.30	21.6	
	6/10/2010	37.90	52.20	19.6	
	2/11/2010	37.85	52.90	19.1	
	14/06/2012	37.54	42.20	19.8	6.53
08 UERC 014	21/06/2010	57.50	425.90	31.5	
	6/10/2010	36.00	52.40	19.6	
	2/11/2010	36.10	55.80	19.7	
10WDDH015	6/10/2010	41.70	12.60	19.4	
	2/11/2010	41.30	13.20	19.1	
10WDDH008	6/10/2010	45.40	45.00	20.1	
	2/11/2010	43.60	30.50	20.1	
T1	2/11/2010	43.30	57.30	20.1	
	14/06/2012	43.19	42.20	20.1	6.87
T2	2/11/2010	40.00	52.40	19.7	
	22/11/2010	39.85	55.90	20.1	
	23/11/2010	39.83	49.10	20.2	
	24/11/2010	39.81	49.40	19.9	
	14/06/2012	39.49	44.20	19.2	7.1
T3	2/11/2010	46.80	57.60	19.7	
	24/11/2010	46.52	51.70	20.1	
	14/06/2012	46.42	44.00	18.3	6.43
T4	2/11/2010	49.30	52.20	19.7	
T5	2/11/2010	42.00	57.70	19.6	
	22/11/2010	42.00	51.80	20	
	23/11/2010	42.00	49.20	20.1	
	24/11/2010	42.00	43.40	19.6	
	14/06/2012	41.57	42.80	19.1	6.35
T6	14/06/2012	47.30	38.00	19.1	6.06
T7	2/11/2010	28.40	52.90	19	
	22/11/2010	28.95	55.30	20.1	
	14/06/2012	28.83	47.70	18.8	5.99

APPENDIX C

Table C1 Dust monitoring (Total solids (g/m2 month) results for the MARCR period (1 October 2012 to 31 October 2013)

Year	Month	Site																
		WH01	WH02	WH03	WH04	WH05	WH06	WH07	WH08	WH09	WH10	WH11	WH12	WH13	WH14	WH15	WH16	WH17
2011	October	1.5	1.8	0.5	1.1	1.4	1.9	1.3	3.5	Obsolete			1.9	4	3.9	9.8	11.8	7.8
	November	0.9	2.8	1.3	2.5	1.3	2.4	0.7	5.8				5.4	5.4	1.9	9.8	2.4	1.3
	December	1	0.8	1.3	1.8	1.8	0.8	2.4	2.3				2.5	3.6	2.8	2.5	0.4	1.4
2012	January	1.4	2.6	1.1	1.7	1.2	3.3	1.2	5.1				3.1	2.9	5.6	6.1	3.9	33.2
	February	3	3.3	2.9	3.2	1.8	5.5	2.9	5.4				3.3	4.6	7.2	4	6.2	5.3
	March	2.2	4.2	1.7	3.1	1.5	3.1	1.5	16.9				2.8	5.5	3.5	3.9	2.3	2.7
	April	1.8	2.9	1.8	1.4	0.3	Obsolete						1.3	Obsolete		8.6	2.1	3.7
	May	1.1	1.9	1.2	1.3	1.4							1.7			16	7.9	4.9
	June	3.2	1.3	0.4	0.4	0.6							1.1			9.7	7.3	1.9
	July	1	1.2	2.3	0.8	2.5							1.5			5.7	30.1	2.8
	August	1.2	1.6	1.8	1.7	1.4							1.3			4.2	8	12.4
	September																	
	October	1.6	1.7	1.3	1.7	1.1							1.4			12.8	3.3	2

Table C2 Dust monitoring (Ash content (g/m^2 month) results for the MARCR period (1 October 2012 to 31 October 2013)

Year	Month	Site																
		WH01	WH02	WH03	WH04	WH05	WH06	WH07	WH08	WH09	WH10	WH11	WH12	WH13	WH14	WH15	WH16	WH17
2011	October	0.2	0.4	0.2	0.2	0.2	0.3	0.4	0.6	Obsolete			0.4	1.5	1	7.1	3.4	0.3
	November	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.7				2	1.1	0.4	9.2	1	0.2
	December	0.4	0.5	0.3	0.3	0.2	0.4	1.6	0.7				0.6	0.9	0.9	2.5	0.4	0.4
2012	January	0.6	0.4	0.4	0.2	0.4	0.9	0.3	1.1				1.3	0.8	1.1	1.7	0.7	0.8
	February	0.4	0.4	0.7	0.3	0.4	0.4	0.3	1.4				1	1.5	1.2	0.4	0.4	1.1
	March	0.3	0.4	0.4	0.2	0.2	0.4	0.2	9.8				1	2	1.1	2.5	0.4	0.5
	April	0.3	0.4	0.3	0.2	0.1	Obsolete						1.3	Obsolete		0.5	2.1	3.7
	May	0.3	0.3	0.1	0.1	0.1							1.7			0.5	7.9	4.9
	June	2.6	0.4	0.2	0.1	0.1							1.1			0.2	7.3	1.9
	July	0.5	0.1	0.1	0.1	0.1							1.5			0.2	30.1	2.8
	August	0.2	0.1	0.1	0.1	0.1							1.3			0.1	8	12.4
	September																	
	October	0.7	0.7	0.5	0.5	0.4							1.4			0.5	3.3	2

APPENDIX D

Table D Stakeholder Engagement for the MARCR periods (1 October 2012 to 31 October 2013)

Date	Stakeholder	Matters discussed	Particular Issues Raised
16 November 2011	DTEI	Route assessments	Discussed engineering of triple road trains Discussed outstanding route assessment issues
19 December 2011	PIRSA	Approvals requirements for stage 1b WHIP	MLP ammendment required Process same as for MLP however sorter public comment period
6 January 2012	DSEWPaC	Offset approval	Discussed the required funding for the Malleefowl Offset Management Plan
18 January 2012	EPA	EPA approvals for stage 1b	Agreed process change application required for EPA licenses
15 February 2012	DSEWPaC	Offset approval	Discussed the required funding for the Malleefowl Offset Management Plan Funding and outcome agreed
22 February 2012	Cowell Community	Community contracts and employment workshops	Employment opportunities and working conditions Training requirements and opportunities Small contract opportunities for local business
23 February 2012	Kimba Community	Community contracts and employment workshops	Employment opportunities and working conditions Training requirements and opportunities Small contract opportunities for local business
14 May 2012	DMITRE	Exploration works approval Hercules	Discussed approvals for Hercules exploration
30 May 2012	GRAC, SANTS	WHIP update, stage 2 exploration	Presented an update of the WHIP Presented access survey request for Hercules exploration Discussed timing of Indigenous employments and contracts workshops Presented access survey request for groundwater well monitoring system
17 July 2012	SAAL NRM (David Leek)	Water Affecting activities	Agreed permit not likely to be required by ICM for water affecting activities. Letter of confirmation to be sent.
18 July 2012	Nonning Pastoral Company (Angus McTaggart)	Project update, environmental management	Presented an update of the WHIP Agreed on Pest control SOP (particularly related to fox baiting) Agreed on pipeline road upgrades
18 July 2012	SANTS	Indigenous community contracts and employment workshops	Employment opportunities and working conditions Training requirements and opportunities Small contract opportunities for local business
30 August 2012	GRAC	Project progress briefing	Application for mining operations exemption
12 September 2012	District Council Franklin Harbour	Project progress briefing	Lucky Bay Export Facility approvals progress briefing
12 September 2012	District Council Kimba	Project progress briefing	Application for mining exemption & Lucky Export Facility approvals progress