



**EPBC ANNUAL COMPLIANCE REPORT**

**TUTUNUP SOUTH MINERAL SANDS MINE**

**EPBC 2007/3441**

**ILUKA RESOURCES LIMITED**

**JANUARY – DECEMBER 2017**

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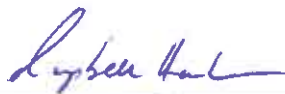
## Acronyms and Abbreviations

Acronym / Abbreviation	Definition
CAR	Compliance Assessment Report
Cth	Commonwealth
DPLH	Department of Planning, Lands and Heritage (WA)
DotEE	Department of the Environment and Energy - formerly the Department of the Environment; formerly the Department of Sustainability, Environment, Water, Population and Communities (Commonwealth)
DSEWPAC	Department of Sustainability, Environment, Water, Population and Communities
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i>
HMC	Heavy Mineral Concentrate
NCSM	North Capel Separation Mill
SR	Synthetic Rutile
WA	Western Australia
WAPC	Western Australian Planning Commission (WA)

## Declaration of Accuracy

In making this declaration, I am aware that sections 490 and 491 of the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)* (EPBC Act) make it an offence in certain circumstances to knowingly provide false or misleading information or documents. The offence is punishable on conviction by imprisonment or a fine, or both. I declare that all the information and documentation supporting this compliance report is true and correct in every particular. I am authorised to bind the approval holder to this declaration and that I have no knowledge of that authorisation being revoked at the time of making this declaration.

Signed: \_\_\_\_\_



Full name (please print): \_\_\_\_\_

CAMPBELL HAWKS

Position (please print): \_\_\_\_\_

PRINCIPAL ENVIRONMENTAL SCIENTIST

Organisation: Iluka Resources Limited (ABN: 34 008 675 018 / ACN 008 675 018)

Date: \_\_\_\_\_

25/6/2018

## **1 INTRODUCTION**

This Report details the status and compliance of the Project with conditions specified within EPBC 2007/3441 for works completed within the reporting period, 1 January 2017 to 31 December 2017. This Compliance Assessment Report has been prepared to address the requirements of Condition 7 of EPBC 2007/3441.

### **1.1 PROJECT SUMMARY**

Iluka operates the Tutunup South mineral sands mine (the Project) located approximately 195 kilometres south of Perth and 15 km southeast of the township of Busselton (Figure 1). The Project area includes mining tenements, M70/611, M70/612 and M70/1261. The Project went into idle in June 2013 due to poor market conditions and restarted in February 2015. The Project was operational for the duration of the 2017 reporting period.

### **1.1 MINING ACTIVITIES**

Following the removal and stockpiling of overburden the ore is mined and hauled by truck to an in-pit hopper. The ore is then conveyed to a wet screening plant where oversize material greater than 2.5 mm is removed. From the screen plant, the ore is slurried and pumped to a wet concentrator.

The concentrator has a nominal throughput of 200 tonnes per hour of screened ore and utilises gravity separation processes to extract the heavy mineral fraction. The Heavy Mineral Concentrate (HMC) produced is stockpiled prior to road transport to the North Capel Separation Mill (NCSM) for further physical processing followed by mineral processing into Synthetic Rutile (SR).

Mining and processing operations ceased 23 February 2018. Rehabilitation activities commenced on 6 March 2018.

### **1.2 OBLIGATIONS FRAMEWORK**

Table 1 provides a summary of environmental approvals and licences associated with the Project.

Table 1: Summary of Environmental Approvals and Licences

Act	Approval	Details
<p><i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i></p>	<p>s.130(1) &amp; s.133 Approval</p>	<p>The proposal to develop and operate a mineral sands mine at Tutunup South, 15km southeast of Busselton, WA was identified as a Controlled Action by the Department of the Environment and Water Resources (DoEWR) 8 June 2007. The subsequent assessment by the Department of the Environment, Water, Heritage and the Arts (DoEWHA) resulted in the issue of EPBC 2007/3441 approval on 25 September 2009. The following variation to conditions have been issued:</p> <ul style="list-style-type: none"> <li>• 17 December 2009, by DoEWHA (now known as DotEE).</li> <li>• 21 September 2011 by the Department of Sustainability, Environment, Water, Population and Communities (DSEWPAC now known as DotEE).</li> <li>• 23 July 2014 by the Department of the Environment (now known as DotEE).</li> <li>• A Consolidated Approval Notice was subsequently issued 14 September 2016 by the Department of the Environment and Energy (DotEE).</li> </ul> <p>This Consolidated Approval Notice is the document against which compliance is measured in this report.</p>
<p><i>Environmental Protection Act 1986 (WA)</i></p>	<p>Part IV</p>	<p>Ministerial Statement 799 was published 7 August 2009 for the Tutunup South Mineral Sands Project located approximately 15 kilometres southeast of Busselton on Lots 2, 1827 and 1828 and part of Lots 441, 442, 1268, 1813, 1829 and part of Crown Reserve 22455, Hithergreen and part of State Forest 33 Yoganup. Mining was authorised to extend approximately 15 metres below ground level with dewatering. On 25 March 2015 the Ministerial Statement was published without noise conditions as Statement No. 1001.</p>
	<p>Part V</p>	<p>Licence L8528 was issued under Part V of the Environmental Protection Act on 21 January 2016. Conditions contained within the licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.</p>
	<p><i>Environmental Protection (Clearing of Native Vegetation) Regulations 2004</i></p>	<p>As the project was assessed under Part IV of the <i>Environmental Protection Act</i> at the PER level of assessment a clearing permit was not required as per s.51C and Schedule 6 s.2(a) of the EP Act.</p>
<p><i>Mining Act 1978 (WA)</i></p>	<p>Mining Proposals</p>	<p>Two mining proposals have been submitted and approved for the Project.</p> <p>2009 Tutunup South Mining Proposal 23758. Proposing and providing authorisation for the Tutunup South mineral sands mine as part of Iluka's ongoing South West operations, being a continuation of mining and production of HMC as other sites conclude mining.</p> <p>2015 Tutunup South Mining Proposal 54755. Proposing and providing authorisation for the Tutunup South Sleees Extension. Entailing expansion of the mine's existing footprint to mine south of the Vasse Highway. Additional infrastructure is required to support the expansion, as well as some minor modifications to existing plant. The expansion is known as the Tutunup South Mine Extension</p>
<p><i>Rights in Water and Irrigation Act 1914 (WA)</i></p>	<p>5C Groundwater Licence</p>	<p>Two groundwater licences are in effect for the Project.</p> <p>GWL161847 approves abstraction from the Yarragadee Aquifer for a number of Iluka sites in the Southwest, including Tutunup South. The licence has an associated operating strategy and is valid until 31 March 2020. The approved total allocation of 6,500,000kL per annum and authorises uses including mineral ore processing and other mining activities and rehabilitation.</p> <p>GWL167315 approves dewatering of the Superficial Swan for mining purposes. The licence has an associated operating strategy and is valid until 30 July 2024. The approved total dewatering is 1,040,000kL per annum.</p>

## 2 REPORT SCOPE

The Tutunup South Mine is located between Ludlow-Hithergreen Road and the base of the Whicher Scarp. The Whicher Scarp is a prominent topographic feature orientated parallel to the present day coastline. Disturbance of the Whicher Scarp vegetation was assessed by DSEWPC as requiring controlling provisions under Sections 18 and 18A of the EPBC Act in relation to the presence of the Carnaby's Cockatoo (*Calyptorhynchus latirostris*) and Baudin's Cockatoo (*Calyptorhynchus baudinii*) feeding, roosting and possibly breeding.

Approval Decision 3441 identified 12 conditions related to the project. Condition 7 specifically requires an annual update of the progress against these conditions. This report fulfils the requirements of Condition 7.

In general the EPBC obligations relate to a direct offset applied to the Roberts Block area including an area of known black cockatoo habitat at the Iluka Yoganup Mine site. The area includes a wildlife corridor of native vegetation to the nearby state forest. Following closure and rehabilitation of the Tutunup South Mine site, areas of cockatoo habitat are to be planted with cockatoo habitat vegetation and a covenant established to preserve the areas.

## 3 COMPLIANCE REPORT

Compliance against the conditions of EPBC 2007/3441 is detailed within Table 2 for the 2017 reporting period. Note the descriptions provided for the following headings within the table:

- Phase – relates to the relevant development phases of the project, being Pre-mining; Mining; or Rehabilitation and Closure; and Overall (relates to several or all phases).
- Status – relates to the relevant status of the condition being, Non-Compliant, Compliant, Complete, or Not Yet Required.

**Table 2: Compliance Assessment Table**

EPBC Condition	Requirement	Phase	Status	Supporting information
EPBC 2007/3441: 1	<p>In order to minimise the impact on the EPBC listed endangered Carnaby's Black Cockatoo (<i>Calyptorhynchus latirostris</i>) and the EPBC listed vulnerable Baudin's Black Cockatoo (<i>Calyptorhynchus baudinii</i>) the following offsets must be implemented within the timeframes stipulated, including:</p> <ul style="list-style-type: none"> <li>a. Documentation confirming the vesting of the 112ha Roberts Block offset area identified in Annexure 1 must be provided to the Department by 21 December 2016.</li> <li>b. A conservation covenant in perpetuity must be placed over the 9.95ha cockatoo habitat offset area to the north of Roberts Block identified in Annexure 1 by 30 June 2016. Documentation confirming the covenant is in place must be provided to the Department by 30 June 2016.</li> <li>c. Creation of a vegetation link, which includes cockatoo suitable species, from Roberts Block to the State Forest must be commenced by 31 October 2013. The person taking the action must provide the Department with documentation confirming the vesting of the link by 21 December 2016.</li> <li>d. Prior to clearing of any potential cockatoo hollows the person taking the action must inspect the hollows. No tree that contains an active nest can be cleared until the young have fledged.</li> <li>e. Three nesting hollows must be provided for every potential cockatoo hollow removed during the vegetation clearance of the proposal site using salvaged cockatoo hollows and/or artificial hollows. These hollows must be replaced in suitable trees adjacent to the State Forest within one month of their removal. The person taking the action must provide the Department with a map detailing the position of the replaced hollows and the hollows must be monitored on a six monthly basis to check usage rates, check for feral species and to provide any maintenance required. The nesting boxes are to be monitored and maintained for the life of the mine and incorporated in the final closure plan.</li> </ul>	<p>Overall</p> <p>Overall</p> <p>Overall</p> <p>Mining</p> <p>Mining</p>	<p>Non-compliant</p> <p>Complete</p> <p>Non-compliant</p> <p>Compliant</p> <p>Compliant</p>	<p>Iluka submitted Authorised Deposited Plans to the West Australian Planning Commission (WAPC) dated 3 November 2016. These documents were provided in Compliance Assessment Report (CAR) 2016 EPBC 2007/3441 (Submitted June 2017). Finalisation of the vesting documentation sits with WA Department of Planning, Lands and Heritage (DPLH) and is outside of Iluka's control; we anticipate completion by September 2018, subject to WAPC processes.</p> <p>Information provided in CAR 2016 (Submitted June 2017).</p> <p>Roberts Block vegetation link has been established and fenced (see Plate 2). Iluka submitted WAPC Authorised Deposited Plans dated 3 November 2016, as provided in CAR 2016 EPBC 2007/3441 (Submitted June 2017). Finalisation of the vesting documentation remains with DPLH and is outside of Iluka's control; we anticipate completion by September 2018, subject to WAPC processes.</p> <p>Information provided in CAR 2016 EPBC 2007/3441 (Submitted June 2017). No vegetation clearing has occurred during the reporting period.</p> <p>Information provided in CAR 2016 EPBC 2007/3441 (Submitted June 2017). The tubes were inspected in June and December 2017. All are still in-situ and intact, no evidence of cockatoo habitation was identified. All trees supporting the nest tubes remain sturdy and supporting branches and trunks are robust. There is no evidence of chewing or of use by pest species including feral bees.</p> <p>The nest tubes will continue to be monitored for the life of the mine and Iluka has committed in the Tutunup South Mine Closure Plan to maintaining the hollows until one year after landform re-establishment.</p>
EPBC 2007/3441: 2	<p>In order to minimise the impact on the EPBC listed endangered Carnaby's Black Cockatoo and the EPBC listed vulnerable Baudin's Black Cockatoo the person taking the action must prepare an environmental management plan for the Minister's approval that provides details of:</p> <ul style="list-style-type: none"> <li>a. the ongoing management plan to protect the revegetated cockatoo habitat areas, including fencing from stock;</li> <li>b. the timing, responsibilities and performance criteria for such actions: and,</li> <li>c. the reporting on an annual basis to the Department of actions carried out under the plan/s.</li> </ul> <p>This plan must be provided within 1 month of completion of revegetation. The approved plan/s must be implemented.</p>	<p>Rehabilitation</p> <p>Rehabilitation</p> <p>Rehabilitation</p>	<p>Not yet required</p>	<p>This plan must be provided within 1 month of completion of revegetation. Rehabilitation activities commenced in March 2018 and are expected to continue until mid-2020.</p>
EPBC 2007/3441: 3	<p>Within 12 months of the completion of the revegetation of the cockatoo habitat area the person taking the action must provide the Department with documentation confirming the cockatoo habitat rehabilitation area has been placed under a covenant in perpetuity.</p>	<p>Rehabilitation</p>	<p>Not yet required</p>	<p>Revegetation of the cockatoo habitat will take place over the next three years.</p>

EPBC Condition	Requirement	Phase	Status	Supporting information
EPBC 2007/3441: 4	In order to minimise the impact on the EPBC listed endangered Carnaby's Black Cockatoo and the EPBC listed vulnerable Baudin's Black Cockatoo from loss of foraging and breeding habitat the person taking the action will ensure that mining operations, including excavation and dewatering, are managed to minimise adverse affects on cockatoo habitat outside of the area identified as being impacted by clearing or dewatering in the Public Environmental Review document (Iluka, 2008).	Mining	Complete	Mining Operations are now complete and no adverse impacts were noted on cockatoo habitat outside of the disturbance area.
EPBC 2007/3441: 5	Prior to commencement of the proposal, the person taking the action must provide for the Minister's approval, a contingency plan outlining mitigating actions to be implemented if the effects of drawdown from the proposal site impacts on foraging and breeding habitat for the EPBC listed cockatoos in vegetation outside the 11.48ha identified in the Public Environmental Review document (Iluka, 2008) as: low - moderate (1.58ha) moderate - high (3.5ha) high (6.4ha) The approved contingency plan must be implemented	Mining	Complete	Contingency Plan approved in October 2009. No impacts have occurred to-date that would require the implementation of the management measures identified in the contingency management plan
EPBC 2007/3441: 6	In order to increase knowledge of the potential distribution of the endangered Carnaby's Black Cockatoo and vulnerable Baudin's Black Cockatoo and the extent of foraging and breeding habitat, the person proposing to take the action must: a. within 6 months of the recommencement of operations provide for the Minister's approval a five year survey plan of Black Cockatoos in the region surrounding the Tutunup South Project area (Annexure 2). The approved plan must be implemented. b. the first survey must be conducted within 12 months of the recommencement of operations and then for a further four consecutive years. c. results or reports of all surveys for the Black Cockatoos are to be provided to the Department by 1 July each year until 2017 to add to information on the extent of the species.	Mining Mining Mining	Complete Complete Complete	The five year plan was approved 21 September 2011. First survey was carried out at the restart of operations in 2011. All reports submitted. Final report submitted in CAR 2016 EPBC 2007/3441 (Submitted June 2017). Project is now complete and no further surveys have been conducted.
EPBC 2007/3441: 7	The person taking the action must submit to the Department a report annually on 1 July each year, for the preceding calendar year, addressing compliance with the conditions of approval (or other data as may be agreed by the Minister). This report must be made publicly available on the internet within 30 days of it being provided to the Minister.	Overall	Compliant	This report has been prepared to satisfy this condition. The annual compliance report is made available on <a href="http://www.iluka.com/sustainability/environmental-management-plans-reports">http://www.iluka.com/sustainability/environmental-management-plans-reports</a> within 30 days of submission to the DoEE.
EPBC 2007/3441: 8	The person taking the action must maintain accurate records of all activities associated with or relevant to the above conditions of approval, and make them available on request by the Department. Such documents may be subject to audit by the Department and used to verify compliance with the conditions of approval.	Overall	Compliant	All reports, monitoring data and survey work is securely stored and available on request.
EPBC 2007/3441: 9	If the person taking the action wishes to carry out an action otherwise than in accordance with the plans approved in relation to this approval they may submit a revised plan for the Minister's approval.	Overall	Noted	No alterations to current operating plans were required during the reporting period.
EPBC 2007/3441: 10	If the Minister believes that it is necessary or desirable for the better protection of the listed threatened species to do so, the Minister may request that the person taking the action make specified revisions to any plans approved pursuant to this Annexure. The person taking the action must comply with any such request. The revised plans must be implemented.	Overall	Noted	No revisions to any plans approved pursuant to the EPBC Act approval were requested during the reporting period.
EPBC 2007/3441: 11	If the action has not been substantially commenced within 5 years of the date of this approval the action must not commence without the written agreement of the Minister.	Overall	Complete	Project has commenced and at the time of report, the mining phase is now complete.
EPBC 2007/3441: 12	Prior to recommencement of operations, the person taking the action must give written notice to the Minister, no less than 14 days before they intend to recommence.	Overall	Complete	Notification of project commencement was provided to DoSEWPC in September of 2011.



## 2 PLATES



**Plate 1: State Forest along eastern boundary of operations (Feb 2018)**



**Plate 2: Roberts Block Vegetation Link**

### 3 FIGURES



Figure 1: Tutunup South Location

## **4 REFERENCES**

Iluka Resources Limited. 2017. *EPBC Annual Compliance Report Tutunup South Mineral Sands Mine EPBC 2007/3441 January to December 2016*. Available at <http://www.iluka.com/sustainability/environmental-management-plans-reports>