



**Warrawoona Gold Project  
Annual EPBC Compliance Report – 2022-2023  
EPBC 2019/8584**

Warrawoona Gold Project: Annual EPBC Compliance Report 2022-2023

Rev	Revision Details	Prepared	Reviewed	Authorised	Date
0	EPBC Compliance Report February 2022 – 2023 Submission to DCCEEW	N. McBride K. Ryan	R. Geagea	P. Brennan	19/05/2023

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This document has been prepared based on assumptions as reported throughout and upon information and data supplied by others.

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## 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) PAUL BRENNAN

Position (please print) PROJECT DEVELOPMENT

Organisation (please print including ABN/ACN if applicable)

Calidus Resources Limited (98 006 640 553)  
Keras (Pilbara) Gold Pty Ltd (37 169 795 037)

Date 19/05/2023

## 1 Introduction

This annual report has been compiled to fulfil the reporting requirements of Calidus Resources Limited's (Calidus) approvals, as listed below.

- Warrawoona Gold Project, Pilbara Region, WA (EPBC 2019/8584)

The Warrawoona Gold Project (EPBC 2019/8584) was approved under Part 9 of the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) on 12 February 2021 and involves the development of the Warrawoona open pit and underground mine site within the Chichester Ranges of the Pilbara region of Western Australia. A variation to the conditions to EPBC 2019/8584 was approved on the 2 August 2021. An additional variation of conditions was approved by DCCEEW on 17 February 2023. Compliance for the current reporting period is assessed against the conditions prior to this latest variation.

This report fulfils the requirements of condition 33 of EPBC 2019/8584 and is based on the 2022/23 annual reporting period from 27 February 2022 to 27 February 2023.

### 1.1 WGP Proponent

The Proponent is Calidus Resources Limited. Calidus is also the occupier (the Licensee) for the land within the Prescribed Premises.

Calidus Resources Limited

PO Box 1240, West Perth WA 6872, Australia 6005

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## 2 Warrawoona Gold Project (EPBC 2019/8584) Compliance Summary

**Table 1: Compliance table for EPBC 2019/8584**

#	Condition	Evidence	Status
<b>Part A – Conditions specific to the action</b>			
1	To minimise impacts to the Ghost bat, Northern quoll, Pilbara olive python and Pilbara leaf-nosed bat the approval holder must not: <ol style="list-style-type: none"> <li>clear more than 465 ha within the development envelope, including 0.8 ha of rocky breakaway habitat; or</li> <li>clear more than the six temporary refuge sites for bats; or</li> <li>extract more than 1.6 GL per annum of groundwater.</li> </ol>	<p>During the 2022-2023 compliance period</p> <ol style="list-style-type: none"> <li>73.57 ha was cleared within the development envelope. Refer to Appendix I for a map of clearing conducted during the reporting period. To date, 226.15ha** has been cleared within the development envelope.</li> <li>0.01 hectares of rocky breakaway habitat had been disturbed prior to the commencement of the activity (via exploration works) (refer to Appendix I)</li> <li>No additional temporary refuge sites for bats were cleared.</li> <li>457,528kL groundwater was extracted (refer to Appendix II).</li> </ol>	Compliant
2	To minimise impacts to the Ghost bat, Northern quoll, Pilbara olive python and Pilbara leaf-nosed bat, the approval holder must comply with all requirements of the following conditions of the Western Australian Approval that are consequential for these species: <ol style="list-style-type: none"> <li>Condition 6 (Mining Exclusion Zone); and</li> <li>Condition 7 (Significant Species Management Plan).</li> </ol>	<ol style="list-style-type: none"> <li>Refer to the map in Appendix I; no mining has occurred within the Mining Exclusion Zone.</li> <li>Notice in writing from the CEO of the Western Australian Department of Water and Environmental Regulation (DWER) that the Significant Species Management Plan satisfies the requirements of MS1150 conditions 7-2 and 7-3 was received on 16 September 2020 (refer to Appendix III)</li> <li>Three exceedances to the 70 decibel noise and two to the 10 millimeters per second vibration limits detailed in Ministerial Statement 1150 Condition 7-3(9) occurred (Appendix VII).</li> </ol>	Partially compliant

#	Condition	Evidence	Status
3	The approval holder must implement the Western Australian Government approved Significant Species Management Plan.	The Significant Species Management Plan (Rev 3.3) continued to be implemented during the compliance period. Refer to the Significant Bat Monitoring Summary (Appendix V) and Northern Quoll Monitoring Summary (Appendix VI).	Compliant
4	The approval holder must notify the Department within 2 business days of requesting any change to the conditions of the Western Australian Approval and within 5 business days of the conditions of the Western Australian Approval being updated or otherwise changed.	No change of conditions to Ministerial Statement 1150 was requested during the reporting period.	Compliant
5	In the event that monitoring, tests, surveys or investigations indicate exceedance of thresholds specified in the Significant Species Management Plan, the approval holder must provide the Department a copy of the report required by Condition 7-5(5) of the Western Australian Approval at the same time as the report is provided to the Western Australian Government.	Investigations were provided at the same time to both the Western Australian Government and DCCEEW. Refer to the Summary of Non-Compliances within the Significant Bat Monitoring Summary (Appendix V) and Northern Quoll Monitoring Summary (Appendix VI).	Compliant
6	The approval holder must implement all contingency actions and management measures proposed in the report required by Condition 7-5(5) of the Western Australian Approval and within the timeframes recommended in that report.	Actions and management measures proposed in the investigation reports required by Condition 7-5(5) were implemented. Refer to the Summary of Non-Compliances within the Significant Bat Monitoring Summary (Appendix V) and Northern Quoll Monitoring Summary (Appendix VI).	Compliant
7	To avoid and mitigate impacts to the Pilbara leaf-nosed bat and ghost bat the approval holder must implement the Action Plan for the Management of Significant Bats (APMSB) or a revised version approved by the Minister in accordance with condition 39-42, for the rest of the life of this approval.	The Action Plan for the Management of Significant Bats continues to be implemented. Refer to the Significant Bat Monitoring Summary (Appendix V).  Revised conditions were received on 17 February 2023. The revised condition reads 'To avoid and mitigate impacts to the Pilbara leaf-nosed bat and ghost bat the approval holder must, for the period for which the approval has effect, implement the Action Plan for the Management of Significant Bats (APMSB)'.	Compliant
8	A version of the APMSB that includes the Upper Control Limit and Lower Control Limit triggers and justifications for those triggers must be submitted to the Department before commencement of mining activities at the Klondyke Queen pit.	The APMSB with Upper Control Limit and Lower Control Limit triggers and justifications for those triggers was submitted to the Department on 25 June 2021.	Compliant

#	Condition	Evidence	Status
9	<p>In the event that the monitoring undertaken as required in the approved APMSB demonstrates either:</p> <ol style="list-style-type: none"> <li>that the number of Pilbara leaf-nosed bat roosting within the development envelope has not returned to or remained at baseline roosting numbers; or</li> <li>that the microclimate conditions of the Bow Bells roost have not remained at or returned to baseline levels</li> </ol> <p>within five years after the cessation of mining activities, the approval holder must construct the artificial roost approved in accordance with the requirements of conditions.</p>	<p>The Pilbara leaf-nosed bat monitoring data did not breach the LCL for the Warrawoona colony during the compliance period. Refer to the Significant Bat Monitoring Summary (Appendix V).</p> <p>Condition 9 was revised on 17 February 2023.</p>	Compliant
10	<p><u>Mine Closure Monitoring Strategy</u></p> <p>To avoid and mitigate impacts to the Pilbara leaf-nosed bat and Ghost bat the approval holder must submit a Mine Closure Monitoring Strategy to the Minister for approval.</p>	<p>The Mine Closure Monitoring Strategy is currently under development, several iterations have been provided with the initial submission occurring on 19 September 2022.</p> <p>Revised conditions were received on 17 February 2023. The revised condition partially reads 'To avoid and mitigate impacts to the Pilbara leaf-nosed bat and ghost bat the approval holder must, no later than 30 August 2023, implement a Mine Closure Monitoring Strategy approved by the Minister'.</p>	Compliant
11	<p>The approval holder must not conduct mining activities below groundwater level at the Klondyke Queen pit until the Mine Closure Monitoring Strategy has been approved by the Minister. The approved Mine Closure Monitoring Strategy must be implemented.</p>	<p>During the reporting period mining activities did not occur below the groundwater level at the Klondyke Queen pit.</p> <p>Revised conditions were received on 17 February 2023. The revised condition partially reads 'The approval holder must, prior to cessation of mining activities at the Klondyke Queen pit, submit to the department for approval by the Minister a revised Mine Closure Monitoring Strategy'.</p>	Compliant



#	Condition	Evidence	Status
12	<p>The Mine Closure Monitoring Strategy must detail how the approval holder will undertake monitoring sufficient to demonstrate whether:</p> <ol style="list-style-type: none"> <li>without anthropogenic supplementation of its water level, the Bow Bells roost will maintain its pre-mining water levels continuously for five consecutive years following the cessation of mining activities at the Klondyke Queen pit;</li> <li>Pilbara leaf-nosed bat and/or ghost bat are drinking from the Klondyke Queen pit lake following the cessation of mining; and</li> <li>arsenic levels in the Pilbara leaf-nosed bat and ghost bat populations are elevated in the three months following any observed drinking from the Klondyke Queen pit lake.</li> </ol>	<p>During the compliance period mining activities did not occur below the groundwater level at the Klondyke Queen pit. The Mine Closure Monitoring Strategy is currently under development.</p> <p>Revised conditions were received on 17 February 2023. The revised condition partially reads 'The approval holder must ensure that there is no standing ground water in the Klondyke Queen pit'.</p>	Compliant
13	<p>If the monitoring undertaken as required in the approved Mine Closure Monitoring Strategy shows that any bats have been drinking from the Klondyke Queen pit lake, the approval holder must implement the monitoring specified in the approved Mine Closure Monitoring Strategy to determine whether arsenic levels in the local Pilbara leaf-nosed bat and ghost bat populations are elevated within three months of when bats were recorded drinking from the Klondyke Queen pit lake.</p>	<p>During the compliance period mining activities did not occur below the groundwater level at the Klondyke Queen pit. The Mine Closure Monitoring Strategy is currently under development.</p> <p>Revised conditions were received on 17 February 2023. Condition 13 was revoked.</p>	Compliant
14	<p>If the monitoring undertaken as required in the approved Mine Closure Monitoring Strategy demonstrates that arsenic levels in the local Pilbara leaf-nosed bat and Ghost bat populations are elevated within three months of when bats were recorded drinking from the Klondyke Queen pit lake, the approval holder must, within 12- months of the first records of elevated arsenic levels in bats, fill the Klondyke Queen pit lake so that no standing ground water can accumulate in the Klondyke Queen pit.</p>	<p>During the compliance period mining activities did not occur below the groundwater level at the Klondyke Queen pit. The Mine Closure Monitoring Strategy is currently in development.</p> <p>Condition 14 was revised on 17 February 2023.</p>	Compliant
15	<p><b>Artificial Roost</b></p> <p>The approval holder must submit a design for an artificial roost to the Minister for approval before mining activities in the Klondyke Queen pit reach the groundwater level.</p>	<p>During the compliance period mining activities did not occur below the groundwater level at the Klondyke Queen pit. The artificial roost design was submitted to DCCEEW on 16 August 2022. Calidus is currently awaiting feedback.</p>	Compliant
16	<p>The artificial roost design must include:</p> <ol style="list-style-type: none"> <li>the coordinates of the proposed location of the artificial roost within the development envelope;</li> <li>details of the features of the artificial roost that will make it suitable roosting habitat for the Pilbara leaf-nosed bat or ghost bat</li> </ol>	<p>During the compliance period mining activities did not occur below the groundwater level at the Klondyke Queen pit. The artificial roost design was submitted to DCCEEW on 16 August 2022. Calidus is currently awaiting feedback.</p>	Compliant

#	Condition	Evidence	Status
	<p>(including how a microclimate sufficiently matching the baseline data of the microclimate recorded at the Klondyke Queen roost and Bow Bells roost will be provided); and</p> <p>c. the proposed dimensions, which must provide a volume equal to or greater than the impacted roost.</p>		
17	<p>If a significant impact to the Pilbara leaf-nosed bats or ghost bats resulting from mining activities occurs and is not otherwise offset, the approval holder must:</p> <p>a. construct an artificial roost in accordance with the approved artificial roost design; and</p> <p>b. complete construction of the artificial roost within six months of exceedance of the target threshold.</p>	<p>Significant impact to the Pilbara leaf-nosed bats or ghost bats resulting from mining activities did not occur during the compliance period. Refer to the Significant Bat Monitoring Summary (Appendix V).</p> <p>Revised conditions were received on 17 February 2023. The revised condition reads 'If the approval holder constructs an artificial roost in accordance with the requirements of condition 9, the approval holder must complete construction of the artificial roost within six months of detecting any exceedance of any requirement specified in conditions 9.a. and 9.b.'.</p>	Compliant
18	<p>Within 12-months of completing construction of the artificial roost the approval holder must submit to the Department a report signed by an independent suitably qualified field ecologist that includes:</p> <p>a. verification, with detailed justification, that the artificial roost provides suitable roosting habitat for Pilbara leafed-nosed bat;</p> <p>b. at least 60 consecutive days of hourly records of the abiotic features inside the artificial roost, including, but not limited to, microclimate that demonstrates the artificial roost is suitable roosting habitat for Pilbara leafed-nosed bat; and</p> <p>c. details, with supporting evidence, of the activity of Pilbara leaf-nosed bat and ghost bat in the artificial roost over the same period.</p> <p>d. The cost of construction of the artificial roost is additional to, and must not be deducted from, contributions to offset funds intended to offset the residual significant impacts to the ghost bat or Pilbara leaf-nosed bat from clearing.</p>	<p>During the compliance period mining activities did not occur below the groundwater level at the Klondyke Queen pit. The artificial roost design was submitted to DCCEEW on 16 August 2022. Calidus is currently awaiting feedback.</p>	Compliant

#	Condition	Evidence	Status
19	<p><u>Offsets</u></p> <p>To compensate for the residual significant impacts of clearing of up to 465 ha of ghost bat, northern quoll, Pilbara olive python and Pilbara leaf-nosed bat habitat, the approval holder must comply with conditions 20-25 below.</p>	<p>Details of compliance to conditions 20 – 25 are detailed below.</p>	Compliant
20	<p>The approval holder must contribute to the Pilbara Environmental Offsets Fund (PEOF). In making the contribution to the PEOF, the approval holder must:</p> <ol style="list-style-type: none"> <li>a. contribute funds towards an offset activity or offset activities that: <ol style="list-style-type: none"> <li>i. is intended to reduce the rate of decline of the ghost bat, northern quoll, Pilbara olive python and Pilbara leaf-nosed bat species;</li> <li>ii. is intended to ensure that a viable population of ghost bat, northern quoll, Pilbara olive python and Pilbara leaf-nosed bat species remains in the Pilbara bioregion; and</li> <li>iii. has specified outcomes and performance indicators; timeframes and milestones for their achievement; sufficient monitoring to detect achievement of performance indicators, milestones and the outcomes; and regular reporting to the approval holder of the outcomes of the monitoring.</li> </ol> </li> <li>b. make an annual payment of \$1,542 to the PEOF by 30 September for each hectare of ghost bat, northern quoll, Pilbara olive python and Pilbara leaf-nosed bat habitat cleared, based on evidence of the actual clearing footprint from the date of commencement of the impact to the next 30 June, and then annually during each subsequent 12-month period ending 30 June. All payments must be exclusive of GST and increased in accordance with the CPI from 1 July 2020;</li> <li>c. as an advance payment, prior to commencement of the impact, contribute \$100,000 to the PEOF toward achieving the outcomes set out in condition 20.a. of this approval. This advanced payment is not additional to the annual payments required by condition 20.b.</li> <li>d. submit evidence of each payment made under condition 20.b and 20.c. to the Department within 40 business days of the date of the</li> </ol>	<p>Calidus has submitted the 2022 Impact Reconciliation Report (IRR) to the WA Department of Water and Environmental Regulation (DWER) for approval. Request for Further Information was received on 10 March 2023. A revised IRR was submitted on 18 April 2023. Once the 2022 IRR is finalised, DWER will invoice Calidus for the 2022 PEOF contribution. This has not yet occurred.</p> <p>The annual delivery agent report as per condition 20 was due 27 February 2022 but was unable to be compiled due to PEOF factors beyond Calidus' control. The DCCEEW has been notified of this issue and Calidus continues to communicate with state and federal PEOF contacts.</p> <p>Condition 20 was revised on 17 February 2023.</p>	Compliant

#	Condition	Evidence	Status
	<p>payment;</p> <p>e. unless otherwise agreed to by the Minister in writing, submit an annual delivery agent report(s) to the Department for each PEOF offset activity that consistent with condition 20(a), funds have been contributed towards. The approval holder must submit the annual delivery agent report(s) every 12-months from the date of the advanced payment required by condition 9(c), or as otherwise agreed to in writing by the Minister.</p> <p>f. write to the Minister, within 10 business days of being aware or having concerns, providing details, that the offset outcomes specified for the PEOF project(s) may not be achieved; and on completion of clearing, submit to the Department an impact reconciliation report verified by an independent person.</p>		
21	If the Minister is reasonably satisfied that there has been, or there is probably going to be, a failure, the Minister may write to the approval holder asking it to provide evidence about whether failure has occurred or is likely to occur and nominating a deadline by which this must be provided.	N/A	N/A
22	If, after considering any information provided by the approval holder by the deadline nominated by the Minister under condition 21 and any other information available to the Minister, the Minister is reasonably satisfied that there has been a failure, the Minister will notify the approval holder of the failure.	N/A	N/A
23	The approval holder must submit for the Minister's approval, within 4 months of being notified by the Minister of a failure, a draft Offset Strategy consistent with the principles of the Environmental Offsets Policy. The approval holder must implement the approved Offset Strategy. The approval holder must commence implementation of the approved Offset Strategy within 2 months of the approval of the draft Offset Strategy by the Minister in writing, or another time as agreed in writing by the Minister.	N/A	N/A

#	Condition	Evidence	Status
24	<p>The draft Offset Strategy to be provided for the Minister’s approval at condition 23, must be a framework for how the residual significant impacts to the ghost bat, northern quoll, Pilbara olive python, or Pilbara leaf-nosed bat will be offset and must detail:</p> <ul style="list-style-type: none"> <li>a. how the strategy will address the outcomes specified under condition 20.a., including the extent to which the outcomes have been addressed prior to any failure;</li> <li>b. how it accounts for relevant approved conservation advices, recovery plans and threat abatement plans;</li> <li>c. the party to be responsible for implementing the proposed offset;</li> <li>d. the location and nature of the proposed offset;</li> <li>e. detailed objectives, outcomes, and timeframes for their achievement;</li> <li>f. budget;</li> <li>g. performance and completion criteria for evaluating conservation or research outcomes;</li> <li>h. has project monitoring (with indicators and measures) that demonstrates achievement of the outcomes, reporting on agreed outputs/offset activities and includes evaluation;</li> <li>i. a description of the potential risks to the successful implementation of each proposed offset (including but not limited to environmental, administrative, financial, and governance risks);</li> <li>j. a description of the measures that will be implemented to mitigate risk associated with each proposed offset and a description of the contingency measures that will be implemented if performance or completion criteria are not met;</li> <li>k. processes to adaptively manage the proposed offset;</li> <li>l. how the proposed offset is consistent with the Environmental Offsets Policy; and</li> <li>m. how the measures will be implemented as part of the Offsets Strategy to ensure they have no detrimental impact on any threatened species listed under the EPBC Act.</li> </ul>	N/A	N/A

#	Condition	Evidence	Status
25	<p>If the Minister considers that a draft Offset Strategy consistent with the outcomes specified at condition 24, has not been received within 4 months of the approval holder being notified by the Minister of a failure under condition 22, the Minister may notify the approval holder that:</p> <ul style="list-style-type: none"> <li>a. the draft Offset Strategy does not adequately offset the impacts to the Ghost bat, Northern quoll, Pilbara olive python, or Pilbara leaf-nosed bat, and</li> <li>b. it must submit a draft Offset Strategy to the Minister that is suitable for approval.</li> </ul>	N/A	N/A
26	<p>If, after 60 business days of receiving this notice, the approval holder does not submit a draft Offset Strategy to the Minister that is suitable for approval, the Minister may require the approval holder to do any of the following:</p> <ul style="list-style-type: none"> <li>a. cease any clearing of habitat for the Ghost bat, Northern quoll, Pilbara olive python, or Pilbara leaf-nosed bat; or</li> <li>b. cease taking the action or part of the action.</li> </ul> <p>Recommencement of clearing or the action or part of the action, can occur once the Minister agrees in writing that the requirements of condition 24 have been satisfied.</p>	N/A	N/A
<b>Part B – Standard administrative conditions</b>			
27	<p>Notification of date of commencement of the action</p> <p>The approval holder must notify the Department in writing of the date of commencement of the action within 10 business days after the date of commencement of the action.</p>	The date of the commencement of the action was 27 February 2021, DCCEE (formally DAWE) was notified via email on 25 March 2021.	Compliant
28	<p>If the commencement of the action does not occur within 5 years from the date of this approval, then the approval holder must not commence the action without the prior written agreement of the Minister.</p>	The date of the commencement of the action was 27 February 2021.	Compliant

#	Condition	Evidence	Status
29	<p><u>Compliance records</u></p> <p>The approval holder must maintain accurate and complete compliance records.</p>	<p>This compliance document and previous compliance documents are available on the Calidus Resources website:</p> <p><a href="https://www.calidus.com.au/">https://www.calidus.com.au/</a></p> <p>Refer to the Significant Bat Monitoring Summary (Appendix V) and Northern Quoll Monitoring Summary (Appendix VI).</p>	Compliant
30	<p>If the Department makes a request in writing, the approval holder must provide electronic copies of compliance records to the Department within the timeframe specified in the request.</p> <p>Note: Compliance records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act, and or used to verify compliance with the conditions. Summaries of the result of an audit may be published on the Department’s website or through the general media.</p>	<p>No request was made during the reporting period.</p>	Compliant
31	<p>Submission and publication of plans</p> <p>The approval holder must:</p> <ol style="list-style-type: none"> <li>a. submit plans electronically to the Department;</li> <li>b. unless otherwise agreed to in writing by the Minister, publish each plan on the website within 20 business days of the date;</li> <li>i. of this approval, if the version of the plan to be implemented is specified in these conditions; or</li> <li>ii. that the plan is submitted to the Minister or the Department if the plan does not require the approval of the Minister but was not finalised before the date of this approval; or that the plan was approved by the Minister in writing, if the plan requires the approval of the Minister;</li> <li>c. exclude or redact sensitive ecological data from plans that are to be published on the website or provided to a member of the public; and</li> <li>d. keep plans published on the website until the end date of this approval.</li> </ol>	<p>The following plans are available on the Calidus Resources website:</p> <p><a href="https://www.calidus.com.au/">https://www.calidus.com.au/</a></p> <ul style="list-style-type: none"> <li>• Significant Species Management Plan (SSMP) (Rev 3.3)</li> <li>• Action Plan for the Management of Significant Bats (APMSB) (Rev 2)</li> </ul>	Compliant

#	Condition	Evidence	Status
32	<p>The approval holder must ensure that any monitoring data (including sensitive ecological data), surveys, maps, and other spatial and metadata required under conditions of this approval, is prepared in accordance with the Department’s Guidelines for biological survey and mapped data (2018) and submitted electronically in accordance with the requirements of the Significant Species Management Plan.</p>	<p>Monitoring data (including sensitive ecological data), surveys, maps, and other spatial and metadata required under conditions of this approval have been prepared in accordance with the Department’s Guidelines for Biological S urvey and Mapped Data (2018) and has been submitted electronically in accordance with the requirements of the Significant Species Management Plan.</p> <p>Refer to the Significant Bat Summary (Appendix V) and Northern Quoll Monitoring Summary (Appendix VI).</p> <p>Note that the significant bat monitoring data and the Northern Quoll monitoring data is appended to these summary reports, the raw data files utilised to produce the bat activity charts have not been appended due to volume of data generated by permanent SM4 recorders.</p>	Compliant
33	<p><u>Annual compliance reporting</u></p> <p>The approval holder must prepare a compliance report for each 12- month period following the date of commencement of the action, or otherwise as agreed in writing by the Minister. The approval holder must:</p> <ol style="list-style-type: none"> <li>publish each compliance report on the website within 60 business days following the relevant 12-month period;</li> <li>notify the Department by email that a compliance report has been published on the website and provide the weblink for the compliance report within five business days of the date of publication. This notification must include documentary evidence of the date of publication of the compliance report;</li> <li>keep all compliance reports publicly available on the website until this approval expires;</li> <li>exclude or redact sensitive ecological data from compliance reports published on the website; and</li> <li>where any sensitive ecological data has been excluded from the version published, submit the full compliance report to the Department within 5 business days of publication.</li> <li>Note: Compliance reports may be published on the Department’s</li> </ol>	<p>This compliance report is available on the Calidus website:  <a href="https://www.calidus.com.au/">https://www.calidus.com.au/</a></p> <p>The documents:</p> <ul style="list-style-type: none"> <li>Warrawoona Gold Project Significant Bat Monitoring Summary for the EPBC 2019/8584 compliance period February 2022 to February 2023 (Appendix V); and</li> <li>Warrawoona Gold Project Northern Quoll Monitoring Summary for the EPBC 2019/8584 compliance period February 2022 to February 2023 (Appendix VI)</li> </ul> <p>Contain sensitive ecological data and have been excluded from the version published on the Calidus website but have been submitted to the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW).</p>	Compliant



#	Condition	Evidence	Status
	website.		
34	<p><u>Reporting non-compliance</u></p> <p>The approval holder must notify the Department in writing of any: incident; non-compliance with the conditions; or non-compliance with the commitments made in plans. The notification must be given as soon as practicable, and no later than two business days after becoming aware of the incident or non-compliance. The notification must specify:</p> <ol style="list-style-type: none"> <li>any condition which is or may be in breach;</li> <li>a short description of the incident and/or non-compliance; and</li> <li>the location (including co-ordinates), date, and time of the incident and/or non-compliance. In the event the exact information cannot be provided, provide the best information available.</li> </ol>	<p>Incidents of non-compliance with the conditions; or non-compliance with the commitments made in plans are described in the following documents:</p> <ul style="list-style-type: none"> <li>Warrawoona Gold Project Significant Bat Monitoring Summary for the EPBC 2019/8584 compliance period February 2022 to February 2023 (Appendix V) and;</li> <li>Warrawoona Gold Project Northern Quoll Monitoring Summary for the EPBC 2019/8584 compliance period February 2022 to February 2023 (Appendix VI)</li> </ul> <p>Refer to Appendix VII for Notifications of Non-compliances.</p>	Compliant
35	<p>The approval holder must provide to the Department the details of any incident or non-compliance with the conditions or commitments made in plans as soon as practicable and no later than 10 business days after becoming aware of the incident or non-compliance, specifying:</p> <ol style="list-style-type: none"> <li>any corrective action or investigation which the approval holder has already taken or intends to take in the immediate future;</li> <li>the potential impacts of the incident or non-compliance; and</li> <li>the method and timing of any remedial action that will be undertaken by the approval holder.</li> </ol>	<p>Incidents of non-compliance with the conditions; or non-compliance with the commitments made in plans are described in the following documents:</p> <ul style="list-style-type: none"> <li>Warrawoona Gold Project Significant Bat Monitoring Summary for the EPBC 2019/8584 compliance period February 2022 to February 2023 (Appendix V) and;</li> <li>Warrawoona Gold Project Northern Quoll Monitoring Summary for the EPBC 2019/8584 compliance period February 2022 to February 2023 (Appendix VI)</li> </ul> <p>Three exceedances to the 70 decibel noise and two to the 10 millimeters per second vibration limits detailed in Ministerial Statement 1150 Condition 7-3(9) occurred. Note discussion of equipment issues within Appendix V.</p> <p>Refer to Appendix VII for Notifications of Non-compliances.</p>	Compliant
36	<p>Independent audit</p> <p>The approval holder must ensure that independent audits of compliance with the conditions are conducted as requested in writing by the Minister.</p>	<p>There were no requests for an independent audit during the reporting period.</p>	Compliant

#	Condition	Evidence	Status
37	<p>For each independent audit, the approval holder must:</p> <ul style="list-style-type: none"> <li>a. provide the name and qualifications of the independent auditor and the draft audit criteria to the Department;</li> <li>b. only commence the independent audit once the audit criteria have been approved in writing by the Department; and</li> <li>c. submit an audit report to the Department within the timeframe specified in the approved audit criteria.</li> </ul>	<p>There were no requests for an independent audit during the reporting period.</p>	Compliant
38	<p>The approval holder must publish the audit report on the website within 10 business days of receiving the Department’s approval of the audit report and keep the audit report published on the website until the end date of this approval.</p>	<p>There were no requests for an independent audit during the reporting period.</p>	Compliant
39	<p>Revision of action management plans</p> <p>The approval holder may, at any time, apply to the Minister for a variation to an action management plan approved by the Minister under conditions 7, 10 and 23, or as subsequently revised in accordance with these conditions, by submitting an application in accordance with the requirements of section 143A of the EPBC Act. If the Minister approves a revised action management plan (RAMP) then, from the date specified, the approval holder must implement the RAMP in place of the previous action management plan.</p>	<p>No revision occurred of the Significant Species Management Plan (Rev 3.3) or the Action Plan for the Management of Significant Bats (Rev 2) during the compliance period however a revised Procedure appended to the SSMP was submitted to DCCEEW on 1 June 2022. This was the Cyanide Monitoring Procedure (CRL-ENV-PRO-019 Rev 1).</p>	Compliant
40	<p>The approval holder may choose to revise an action management plan approved by the Minister under conditions 7, 10 and 23, or as subsequently revised in accordance with these conditions, without submitting it for approval under section 143A of the EPBC Act, if the taking of the action in accordance with the RAMP would not be likely to have a new or increased impact.</p>	<p>No revision occurred of the Significant Species Management Plan (Rev 3.3) or the Action Plan for the Management of Significant Bats (Rev 2) during the compliance period however a revised Procedure appended to the SSMP was submitted to DCCEEW on 1 June 2022. This was the Cyanide Monitoring Procedure (CRL-ENV-PRO-019 Rev 1).</p> <p>Revised conditions were received on 17 February 2023. Condition 40 was revoked.</p>	Compliant

#	Condition	Evidence	Status
41	<p>If the approval holder makes the choice under Condition 40 to revise an action management plan without submitting it for approval, the approval holder must:</p> <ul style="list-style-type: none"> <li>a. notify the Department in writing that the approved action management plan has been revised and provide the Department with: <ul style="list-style-type: none"> <li>i. an electronic copy of the RAMP;</li> <li>ii. an electronic copy of the RAMP marked up with track changes to show the differences between the approved action management plan and the RAMP;</li> <li>iii. an explanation of the differences between the approved action management plan and the RAMP;</li> <li>iv. the reasons the approval holder considers that taking the action in accordance with the RAMP would not be likely to have a new or increased impact; and</li> <li>v. written notice of the date on which the approval holder will implement the RAMP (RAMP implementation date), being</li> </ul> </li> <li>b. at least 20 business days after the date of providing notice of the revision of the action management plan, or a date agreed to in writing with the Department.</li> <li>c. subject to Condition 43, implement the RAMP from the RAMP implementation date.</li> </ul>	<p>No revision occurred of the Significant Species Management Plan (Rev 3.3) or the Action Plan for the Management of Significant Bats (Rev 2) during the compliance period however a revised Procedure appended to the SSMP was submitted to DCCEEW on 1 June 2022. This was the Cyanide Monitoring Procedure (CRL-ENV-PRO-019 Rev 1).</p> <p>Revised conditions were received on 17 February 2023. Condition 41 was revoked.</p>	Compliant
42	<p>The approval holder may revoke their choice to implement a RAMP under Condition 40 at any time by giving written notice to the Department. If the approval holder revokes the choice under Condition 40, the approval holder must implement the action management plan in force immediately prior to the revision undertaken under Condition 40.</p>	<p>N/A</p> <p>Revised conditions were received on 17 February 2023. Condition 42 was revoked.</p>	N/A

#	Condition	Evidence	Status
43	<p>If the Minister gives a notice to the approval holder that the Minister is satisfied that the taking of the action in accordance with the RAMP would be likely to have a new or increased impact, then:</p> <ol style="list-style-type: none"> <li>Condition 40 does not apply, or ceases to apply, in relation to the RAMP; and</li> <li>the approval holder must implement the action management plan specified by the Minister in the notice.</li> </ol>	<p>N/A</p> <p>Revised conditions were received on 17 February 2023. Condition 43 was revoked.</p>	N/A
44	<p>At the time of giving the notice under Condition 43, the Minister may also notify that for a specified period of time, Condition 40 does not apply for one or more RAMPs.</p>	N/A	N/A
45	<p>Completion of the action</p> <p>Within 20 business days after whichever is the earlier of:</p> <ul style="list-style-type: none"> <li>the completion of the action, or</li> <li>60 business days before the end date of the period for which this approval has effect,</li> </ul> <p>the approval holder must notify the Department in writing and provide completion data.</p> <p>If the completion of the action is unlikely to occur before the end date of the period for which the approval has effect, the approval holder must submit to the Department, before the end date of the period for which the approval has effect, a request, in accordance with the requirements of section 145C of the EPBC Act, to extend the period of effect of the approval.</p>	N/A	N/A
<p>*Please note - an additional 3.99Ha of disturbance was found to be omitted in an error in the 2022 Compliance Report (2021-2022). It has been included in the total in the current report.</p> <p>A variation of conditions to EPBC 2019/8584 was approved by DCCEE on the 17 February 2023. Compliance for the current reporting period is assessed against the conditions prior to their variation, as they stood for the majority of the period.</p>			

**Table 2: Implementation of the Action Plan for the Management of Significant Bats (APMSB)**

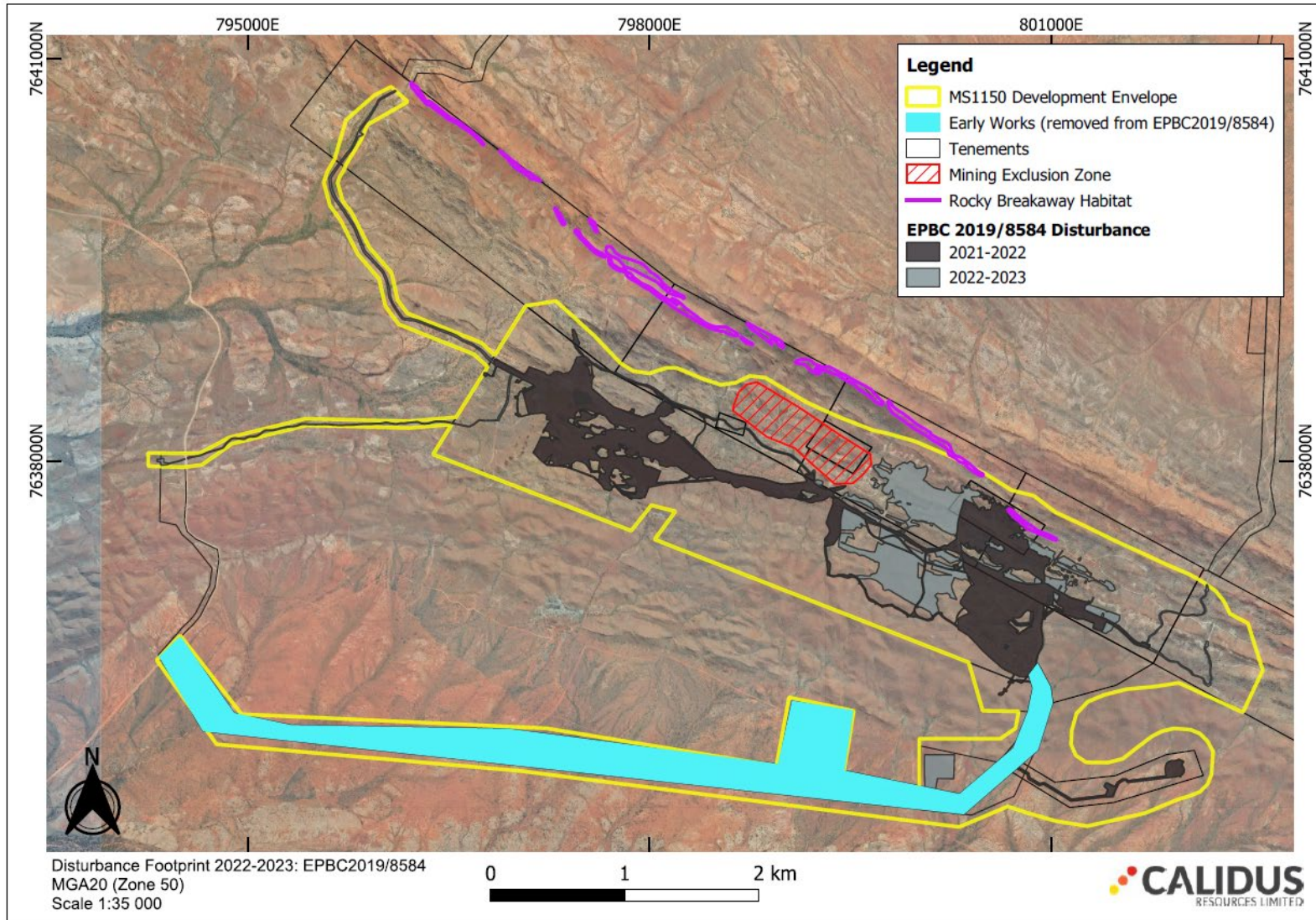
Number	Trigger and threshold	Monitoring and Targets	Evidence	Status
Outcome: Minimise disturbance to Pilbara Leaf-nosed bats as a result of the project.				
Target: No abandonment of Bow Bells South roost by Pilbara Leaf-nosed bats as a result of the project.				
Activity: Dewatering				
1.	<p>Trigger Criteria:</p> <p><u>Humidity</u></p> <p>Percentage humidity records at Bow Bells South workings are not to fall below the baseline average (to be set prior to Klondyke Open pit dewatering activities commencing using baseline data collected up until that time)</p> <p><u>Groundwater Drawdown</u></p> <p>Modelling indicates drawdown cone of depression is approaching the Bow Bells South workings (modelling indicates will not be impacted until Year 4 from commencement of dewatering, if at all) Monitoring bores to be installed between Klondyke Open Pit and Bow Bells South</p> <p><u>Pilbara Leaf-nosed bat Activity</u></p> <p>Bow Bells Pilbara Leaf-nosed bat Activity long-term Lower Control Limit (as per Table 8.1.1)</p>	<p>Humidity levels in the Klondyke Queen and Bow Bells South workings is monitored continuously via HOBO units.</p> <p>Quarterly standing water levels in monitoring bores at Klondyke and near Bow Bells South occurred (minimum quarterly monitoring via manual dipping)</p> <p>The groundwater model will be recalibrated each year once pit dewatering has commenced.</p> <p>Permanent echolocation call detectors (continuous near real time monitoring via SM4 units) recording Pilbara leaf-nosed bat and Ghost bat activity at Bow Bells South and Klondyke Queen. Quarterly interpretation occurs by a Calidus consultant Ecologist.</p> <p>An annual regional survey count is conducted to confirm the entire colony is at Bow Bells South and Klondyke Queen and is not roosting elsewhere.</p> <p>Annual manual count or infra-red camera (census) is used to calibrate SM4 data</p>	<p>Microclimate and Significant Bat Activity Monitoring is detailed in the Significant Bat Monitoring Summary (Appendix V).</p> <p>Mining below the water table did not occur during the compliance period, consequently, baseline humidity LCLs have not yet been set.</p> <p>The groundwater model will be recalibrated each year once pit dewatering has commenced. Pit dewatering did not occur during the reporting period.</p> <p>Groundwater data is available in Appendix II and Appendix V (Section 6.2.2).</p>	Compliant

Number	Trigger and threshold	Monitoring and Targets	Evidence	Status
Outcome: Minimise disturbance to Klondyke Queen historic workings as a result of the project.				
Performance Indicator: No permanent damage to Klondyke Queen historic workings as a result of the project. Activity: Blasting				
2.	<p>Trigger Criteria:</p> <p><u>Blast Vibration Monitoring</u></p> <p>Vibration limit of greater than 10mms<sup>-1</sup> is recorded on the blast vibration monitor at Klondyke Queen</p>	<p><u>Ghost bat Monitoring</u></p> <ol style="list-style-type: none"> <li>Permanent echolocation call detectors recording Ghost bat activity at Klondyke Queen</li> <li>Visual Roost Monitoring via motion cameras during the blasts to determine if there is a Ghost bat response during blasting.</li> </ol> <p><u>Blast Monitoring</u></p> <p>Permanent Blast monitoring station at Klondyke Queen to monitor:</p> <ol style="list-style-type: none"> <li>peak particle velocity (PPV – mms<sup>-1</sup>); and</li> <li>wave form trace.</li> </ol> <p><u>Meteorological Monitoring</u></p> <p>To ensure blasts are fired in favorable conditions a weather station located adjacent to Klondyke Queen is monitored for:</p> <ul style="list-style-type: none"> <li>Temperature</li> <li>Wind Speed and Direction</li> </ul> <p><u>Structural Monitoring</u></p> <p>Klondyke Queen inspected after blasts within 500m</p> <p><u>Noise Monitoring</u></p> <p>To ensure noise levels within the roost are below 70dB</p>	<p>Noise and Vibration Monitoring and Significant Bat Activity Monitoring: refer to the document titled Warrawoona Gold Project Significant Bat Monitoring Summary for the EPBC 2019/8584 compliance period February 2022 to February 2023 (Appendix V).</p> <p>Number of exceedances of 70 decibels and 10 mms<sup>-1</sup> vibration limit:</p> <ul style="list-style-type: none"> <li>18/08/2022: 74.6 decibels</li> <li>24/08/2022: 10.25 mms<sup>-1</sup></li> <li>29/09/2022: 17.88 mms<sup>-1</sup></li> <li>28/10/2022: 74.8 decibels</li> <li>25/02/2023: 70.7 decibels</li> </ul> <p>Refer to the Blast Register extract (Appendix IV) and Notifications of Non-compliance (Appendix VII).</p> <p>Structural Monitoring – post blast inspections occurred for Klondyke Queen adit. No structural incidences were noted from the inspections.</p>	Non-compliant

### 3 Supporting Documentation

Number	Title	Description
Appendix I	Disturbance Footprint – Warrawoona Gold Project February 2022-2023	Map of clearing conducted for the 2022 – 2023 compliance period
Appendix II	Groundwater Data	Summary of groundwater abstraction for the 2022 – 2023 compliance period
Appendix III	Significant Species Management Plan Approval	Written approval from the Department of Water and Environmental Regulation regarding the Significant Species Management Plan (CRL-ENV-PLN-006).
Appendix IV	Noise and Vibration Data	Blast Register extract February 2022- 2023 and monitoring data from permanent fixed unit
Appendix V	* Warrawoona Gold Project Significant Bat Monitoring Summary for the EPBC 2019/8584 compliance period February 2022 to February 2023	Summary of actions conducted for the 2022 – 2023 compliance period. Contains Significant Bat monitoring reports.
Appendix VI	*Warrawoona Gold Project Northern Quoll Monitoring Summary for the EPBC 2019/8584 compliance period February 2022 to February 2023	Summary of actions conducted for the 2022 – 2023 compliance period. Contains Northern quoll monitoring reports.
Appendix VII	Notifications of Non-Compliance	Notifications sent on behalf of Calidus to the Commonwealth Department of Agriculture, Water and the Environment (AWE) – now Department of Climate Change, Energy, the Environment and Water (DCCEEW).
<p>* Document not published on the Calidus website as it contains Sensitive Ecological Data (as per Sensitive Ecological Data – Access and Management Policy V1.0, Department of the Environment, January 2016, <a href="https://www.environment.gov.au/system/files/resources/246e674a-feb1-4399-a678-be9f4b6a6800/files/sensitive-ecological-data-access-mgt-policy.pdf">https://www.environment.gov.au/system/files/resources/246e674a-feb1-4399-a678-be9f4b6a6800/files/sensitive-ecological-data-access-mgt-policy.pdf</a>) including locational data of highly desirable, collectable or commercially valuable taxa. All documents identified above have been provided to the DCCEEW, in accordance with relevant reporting requirements</p>		

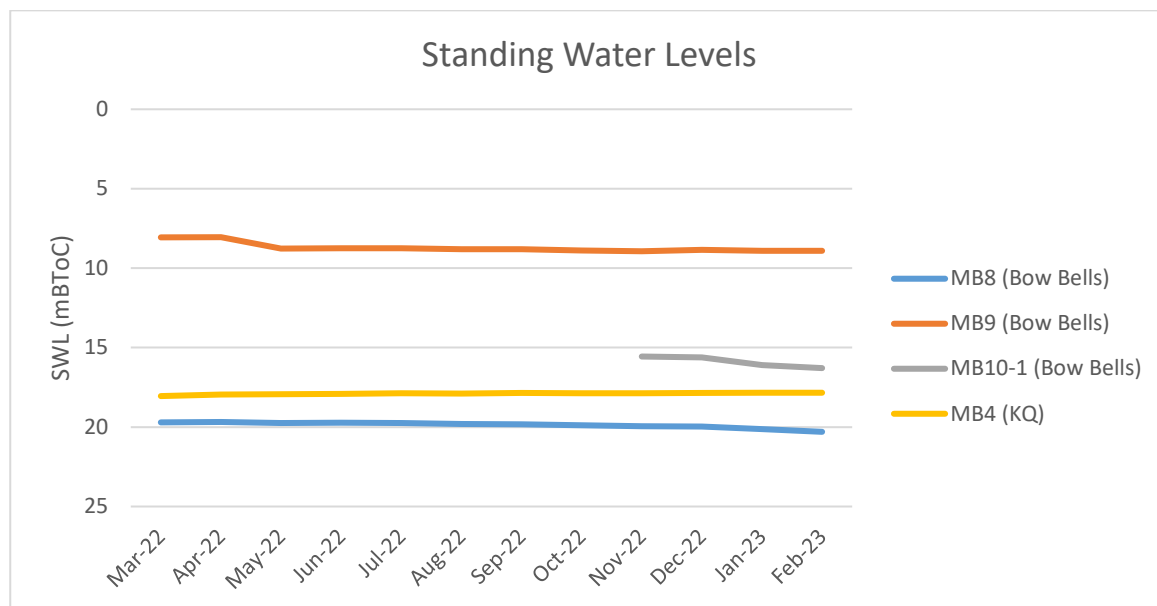
**Appendix I – Disturbance Footprint: Warrawoona Gold Project February 2022-2023**





## Appendix II – Ground Water Data

Standing Water Levels (SWL) at relevant monitoring bores (meters below top of casing: mBToC)



Bore ID	SWL	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23
MB8 (Bow Bells)	mbToC	19.7	19.68	19.74	19.73	19.74	19.8	19.82	19.88	19.945	19.96	20.13	20.3
MB9 (Bow Bells)	mbToC	8.07	8.05	8.77	8.74	8.755	8.8	8.8	8.88	8.935	8.85	8.9	8.9
MB10-1 (Bow Bells)	mbToC	-	-	-	-	-	-	-	-	15.56	15.61	16.1	16.29
MB4 (KQ)	mbToC	18.05	17.95	17.94	17.92	17.87	17.89	17.85	17.875	17.88	17.86	17.84	17.84

**Abstraction volumes March 2022 – February 2023**

Bore ID	Units	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Total
PB5	kL	8706	7877	8420	7028	11086	10328	5832	7091	5838	4750	4510	5069	<b>457528</b>
PB6	kL	0	0	0	0	0	0	0	1316	3571	2058	1723	1643	
PB8	kL	5324	5323	46131	45466	15897	48561	45077	5405	19612	20149	19977	19769	
PB9	kL											0	3014	
CRA	kL					0	170	0	0	9	4806	5665	*	
PB10	kL											0	5722	
DB1	kL										0	13090	5285	
DB2	kL											0	1029	
Copenhagen Pit	kL					4193	9861	3604	0	1477	6066	0	0	
<b>Total</b>	<b>kL</b>	<b>14030</b>	<b>13200</b>	<b>54551</b>	<b>52494</b>	<b>31176</b>	<b>68920</b>	<b>54513</b>	<b>13812</b>	<b>30507</b>	<b>37829</b>	<b>44965</b>	<b>41531</b>	

\*CRA bore decommissioned

## Appendix IIIII- Significant Species Management Plan Approval



Government of Western Australia  
Department of Water and Environmental Regulation

Our ref: DWERT 5679  
Enquiries: Troy Sinclair, Ph 6364 6425  
Email: [troy.sinclair@dwer.wa.gov.au](mailto:troy.sinclair@dwer.wa.gov.au)

Mr Paul Brennan  
Chief Operating Officer  
Calidus Resources Limited  
Email: [paul@calidus.com.au](mailto:paul@calidus.com.au)

Dear Mr Brennan

### **WARRAWOONA GOLD PROJECT - MINISTERIAL STATEMENT 1150 - SIGNIFICANT SPECIES MANAGEMENT PLAN - APPROVED**

Thank you for your email of 11 September 2020 submitting the Significant Species Management Plan (CRL-ENV-PLN-006, Rev 3.3, September 2020) to the Department of Water and Environmental Regulation (DWER) for review. This Plan was reviewed by DWER on 11 September 2020.

I note the plan has been prepared to satisfy condition 7-1 of Ministerial Statement 1150 (MS 1150) which states:

*7-1 Prior to ground disturbing activities, unless otherwise agreed by the CEO, the proponent shall finalise and submit a revision of the Significant Species Management Plan (CRL-ENV-PLN-006-19 Rev 2, May 2020) in consultation with the agency responsible for the administration of the Biodiversity Conservation Act 2016 (being at the time of this Statement the Department of Biodiversity, Conservation and Attractions). The Significant Species Management Plan shall, when implemented, meet the following environmental objective:*

- (1) *avoid where possible, and minimise direct and indirect impacts to significant fauna and their habitat, including, but not limited to:*
- (a) *Pilbara leaf-nosed bat;*
  - (b) *ghost bat;*
  - (c) *Pilbara olive python; and*
  - (d) *northern quoll.*

I am satisfied with the preparation of the Significant Species Management Plan (CRL-ENV-PLN-006, Rev 3.3, September 2020) and consider the requirements of condition 7.1 of MS 1150 have been met.

Prime House, 8 Davidson Terrace Joondalup Western Australia 6027  
Locked Bag 10 Joondalup DC WA 6919  
Telephone: 08 6364 7000 Facsimile: 08 6364 7001  
[www.dwer.wa.gov.au](http://www.dwer.wa.gov.au)

Please note any changes to the management actions or targets of the Significant Species Management Plan (CRL-ENV-PLN-006, Rev 3.3, September 2020) would require the approval of DWER.

Yours sincerely



Anthony Sutton  
**EXECUTIVE DIRECTOR**  
**EPA SERVICES**

16 September 2020

## Appendix IVV– Noise and Vibration Data

Date	Time	Blast ID	Location	Weather Conditions (temp, wind speed, wind direction)	Adjusted Noise (dBA			Vibration (PPV mm/s)	KQ Structural Insecton	Significant fresh rockfall (Y/N)	Additional cracking (Y/N)	Movement of the strata (Y/N)	Vibration above 10mm/s in period since last record (Y/N)	Hazards / Notes	Date / Time Inspected	Inspected By
					Noise (dBA Lmax)	Lmax	Vibration (PPV mm/s)									
10-Mar-2022	14:00	CUB_290_01 & 02	Cuban	38°C, Ave wind speed 6km/h, S	No data	No data	telemetry / server failure	N/A								
14-Mar-2022	14:00	CUB_290_01 & 02	Cuban	42°C, Ave wind speed 5km/h, E	No data	No data	telemetry / server failure	N/A								
19-Mar-2022	14:00	Cuban_290_188	Cuban	34°C, Ave wind speed 6km/h, NNE	No data	No data	telemetry / server failure	N/A								
23-Mar-2022	14:00	CUB_CH3_300_03	Cuban	39°C, Ave wind speed 4km/h, SW	No data	No data	telemetry / server failure	N/A								
5-Apr-2022	13:59	CUB_290_03	Cuban	37°C, Ave wind speed 6km/h, NNW	52.2	38.2	0.51	N/A								
9-Apr-2022	14:00	CUB_290_07/08	Cuban	39°C, Ave wind speed 6km/h, SSE	73.6	59.6	0.91	N/A								
11-Apr-2022	14:00	CUB_290_14	Cuban	38°C, Ave wind speed 6km/h, NNE	47	33	0.35	N/A								
12-Apr-2022	14:00	KIN_285_01	King	38°C, Ave wind speed 8km/h, W	62.7	48.7	0.67	N								
15-Apr-2022	14:05	CUB_CH3_295_01_02	Cuban	37°C, Ave wind speed 12km/h, SW	61.2	47.2	1.29	N/A								
17-Apr-2022	10:00	CUB_CH3_295_Toe	Cuban	34°C, Ave wind speed 5km/h, WSW	60.9	46.9	0.12	N/A								
18-Apr-2022	14:04	CUB_290_14+15	Cuban	35°C, Ave wind speed 14km/h, W	65.9	51.9	0.74	N/A								
21-Apr-2022	13:59	CUB_295_03	Cuban	34°C, Ave wind speed 9km/h, W	48.5	34.5	0.56	N/A								
23-Apr-2022	16:00	KING_315_01/02	King	35°C, Ave wind speed 6km/h, SW	63.9	49.9	2.21	N								
27-Apr-2022	17:00	CUB_CH3_295_04_05	Cuban	30°C, Ave wind speed 5km/h, WNW	47.7	33.7	0.66	N/A								
29-Apr-2022	13:00	KIN_310_01	King	23°C, Ave wind speed 7km/h, W	74.3	60.3	2.3	N								
1-May-2022	15:57	CUB_290_16	Cuban	30°C, Ave wind speed 12km/h, WNW	60.9	46.9	0.74	N/A								
7-May-2022	14:00	CUB_290_16+17; CUB_290_14_toe	Cuban	30°C, Ave wind speed 8km/h, W	62.3	48.3	0.54	N/A								
8-May-2022	14:10	CUB_CH3_west_hill	Cuban	30°C, Ave wind speed 7km/h, W	65.6	51.6	0.65	N/A								
8-May-2022	14:10	KIN_280-01	King	30°C, Ave wind speed 7km/h, W	65.6	51.6	0.65	N								
10-May-2022	14:00	CUB_285_01	Cuban	29°C, Ave wind speed 11km/h, WNW	61.2	47.2	5.17	N/A								
11-May-2022	14:00	KIN_310_01B	King	29°C, Ave wind speed 10km/h, WSW	65.3	51.3	1.98	N								
13-May-2022	10:00	King Hills 1, 3, 4	King	25°C, Ave wind speed 6km/h, SE	54.5	40.5	1.32	Y	N	N	N	N		22/05/2022	M. Mech	
16-May-2022	16:52	CUB_290_12+13	Cuban	29°C, Ave wind speed 1km/h, ENE	51.8	37.8	0.5	N/A								
17-May-2022	13:30	CUB_290_toe; CUB_290_Central_ramp	Cuban	21°C, Ave wind speed 4km/h, WNW	No data	No data	telemetry / server failure	N/A								
22-May-2022	14:00	CUB_285_17+18_Rev3	Cuban	30°C, Ave wind speed 3km/h, NNE	49.1	35.1	0.57	N/A								
26-May-2022	15:07	CUB_285_07+08_V2	Cuban	30°C, Ave wind speed 5km/h, SSE	59.6	45.6	3.44	N/A								
29-May-2022	14:01	KIN_310_02	King	20°C, Ave wind speed 1km/h, NNE	53.2	39.2	1.61	Y	N	N	N	N		29/05/2022	R. Geagea / T. Funston	
30-May-2022	14:02	CUB_290_11	Cuban	13°C, Ave wind speed 12km/h, W	60.6	46.6	0.5	N/A								
5-Jun-2022	13:58	CUB_290_09	Cuban	26°C, Ave wind speed 8km/h, WNW	56.1	42.1	0.76	N/A								
8-Jun-2022	14:00	CUB_290_10	Cuban	27°C, Ave wind speed 5km/h, W	48.7	34.7	0.57	N/A								
9-Jun-2022	14:00	KIN_315_03	King	25°C, Ave wind speed 8km/h, W	70.6	56.6	6.04	Y	N	N	N	N		6/09/2022	O. Padia	
14-Jun-2022	14:02	CUB_290_16	Cuban	29°C, Ave wind speed 5km/h, SW	61	47	0.75	N/A								
16-Jun-2022	14:00	CUB_290_15	Cuban	29°C, Ave wind speed 10km/h, SSW	59.3	45.3	0.78	N/A								
19-Jun-2022	14:00	CUB_285_14	Cuban	28°C, Ave wind speed 8km/h, NW	55.9	41.9	0.57	N/A								
22-Jun-2022	14:00	CUB_285_04_05	Cuban	30°C, Ave wind speed 9km/h, SW	72.7	58.7	1.13	N/A								
25-Jun-2022	10:00	CUB_285_02_A	Cuban	24°C, Ave wind speed 10km/h, W	61.2	47.2	1.03	N/A								
26-Jun-2022	14:00	KIN_Hills_6_5_2	King	26°C, Ave wind speed 14km/h, W	77.8	63.8	8.21	Y	N	N	N	N		26/06/2022	G. Murphy	
27-Jun-2022	10:00	CUB_285_03	Cuban	21°C, Ave wind speed 15km/h, W	62.9	48.9	0.68	N/A								
29-Jun-2022	14:00	CUB_285_12_13_A	Cuban	24°C, Ave wind speed 13km/h, WNW	49.2	35.2	0.43	N/A								
1-Jul-2022	16:00	CUB_290_09_Reblast	Cuban	22°C, Ave wind speed 12km/h, W	64.6	50.6	0.33	N/A								
6-Jul-2022	14:00	CUB_285_10/11A	Cuban	22°C, Ave wind speed 9km/h, W	51.2	37.2	0.65	N/A								
8-Jul-2022	16:00	CUB_285_06	Cuban	25°C, Ave wind speed 6km/h, WSW	68	54	0.79	N/A								
10-Jul-2022	14:00	KIN_305_02	King	26°C, Ave wind speed 5km/h, W	64.2	50.2	4.33	Y	N	N	N	N		7/11/2022	G. Murphy	
10-Jul-2022	14:44	KIN_305_02_misfire	King	26°C, Ave wind speed 4km/h, WSW	49.4	35.4	1.12	Y	N	N	N	N		7/11/2022	G. Murphy	
12-Jul-2022	14:00	CUB_285_09B	Cuban	26°C, Ave wind speed 7km/h, WSW	55.2	41.2	0.83	N/A								
14-Jul-2022	14:00	CUB_285_10/11B; CUB_285_06_Toe	Cuban	25°C, Ave wind speed 8km/h, SSW	59.2	45.2	0.32	N/A								
16-Jul-2022	14:00	CUB_280_01	Cuban	26°C, Ave wind speed 5km/h, SW	58.6	44.6	0.55	N/A								
19-Jul-2022	14:00	CUB_285_09A	Cuban	29°C, Ave wind speed 6km/h, SW	51.4	37.4	0.65	N/A								
22-Jul-2022	10:00	CUB_285_12&13B	Cuban	29°C, Ave wind speed 5km/h, NNW	62.5	48.5	0.82	N/A								
22-Jul-2022	10:00	KIN_300_01	King	29°C, Ave wind speed 5km/h, NNW	62.5	48.5	0.82	Y	N	N	N	N		24/07/2022 17:00	R. Geagea / B. Nene	
25-Jul-2022	14:00	CUB_280_08; CUB_285_19	Cuban	25°C, Ave wind speed 8km/h, W	63.9	49.9	1.32	N/A								
26-Jul-2022	14:00	CUB_285_01B; CUB_285_02B	Cuban	28°C, Ave wind speed 4km/h, ENE	56.2	42.2	0.59	N/A								
28-Jul-2022	14:00	CUB_280_02; KIN_310_03	Cuban; King	28°C, Ave wind speed 6km/h, SSW	68.3	54.3	6.74	Y	N	N	N	N		28/07/2022	G. Murphy / B. Nene	
1-Aug-2022	14:00	CUB_280_09; CUB_280_14	Cuban	29°C, Ave wind speed 5km/h, SSE	53.5	39.5	1.17	N/A								
4-Aug-2022	14:00	CUB_280_03; CUB_280_10	Cuban	25°C, Ave wind speed 9km/h, NNW	56.8	42.8	1.03	N/A								
6-Aug-2022	14:00	CUB_280_13	Cuban	25°C, Ave wind speed 8km/h, W	63.3	49.3	1.54	N/A								
8-Aug-2022	15:30	CUB_280_06; CUB_280_11	Cuban	29°C, Ave wind speed 6km/h, N	52.1	38.1	0.78	N/A								
11-Aug-2022	15:00	CUB_280_04; CUB_280_19	Cuban	24°C, Ave wind speed 10km/h, SW	61.9	47.9	0.5	N/A								
15-Aug-2022	14:00	CUB_280_08_Toe; CUB_280_15; CUB_280_07	Cuban	32°C, Ave wind speed 6km/h, WSW	61.6	47.6	0.86	N/A								
18-Aug-2022	10:00	KIN_305_03	King	22°C, Ave wind speed 18km/h, NW	88.6	74.6	2.36	Y	N	N	N	N		18/08/2022 15:00	R. Gajaweera	
20-Aug-2022	14:00	CUB_280_05	Cuban	29°C, Ave wind speed 11km/h, WSW	55.1	41.1	0.6	N/A								
22-Aug-2022	16:00	CUB_280_16 & 17	Cuban	32°C, Ave wind speed 8km/h, W	67.6	53.6	0.45	N/A								
24-Aug-2022	14:00	KIN_305_04	King	26°C, Ave wind speed 11km/h, SW	83.8	69.8	10.25	Y	N	N	N	N		24/08/2022 15:00	G. Murphy	
26-Aug-2022	14:00	CUB_280_12; CUB_280_18	Cuban	26°C, Ave wind speed 3km/h, SW	77.7	63.7	0.61	N/A								
29-Aug-2022	14:00	CUB_275_03	Cuban	29°C, Ave wind speed 8km/h, W	64.9	50.9	1.29	N/A								
1-Sep-2022	14:00	CUB_275_08	Cuban	30°C, Ave wind speed 14km/h, SW	63.6	49.6	0.77	N/A								
3-Sep-2022	12:30	CUB_275_01_02	Cuban	17°C, Ave wind speed 11km/h, WNW	No data	No data	telemetry / server failure	N/A								
5-Sep-2022	10:00	KIN_300_02	King	23°C, Ave wind speed 4km/h, N	No data	No data	telemetry / server failure	N/A						5/09/2022	G. Murphy / W. Nene	
7-Sep-2022	14:00	CUB_275_11	Cuban	27°C, Ave wind speed 6km/h, WNW	52.2	38.2	0.72	N/A								
11-Sep-2022	15:00	CUB_275_07; KIN_300_03; KIN_300_06_TRENCH	Cuban; King	31°C, Ave wind speed 4km/h, WSW	68	54	3.25	Y	N	N	N	N		12/09/2022 16:30	R. Gajaweera	
13-Sep-2022	14:00	KIN_300_04	King	30°C, Ave wind speed 7km/h, NNW	65.6	51.6	2.3	Y	N	N	N	N		13/09/2022 15:30	R. Gajaweera	
15-Sep-2022	17:00	CUB_275_04	Cuban	29°C, Ave wind speed 10km/h, NW	62.5	48.5	1.71	N/A								
17-Sep-2022	14:00	KIN_300_05	King	32°C, Ave wind speed 5km/h, NW	No data	No data	telemetry / server failure	N/A								
19-Sep-2022	15:37	CUB_280_06_13_TOE	Cuban	33°C, Ave wind speed 11km/h, N	65.7	51.7	0.26	N/A								
19-Sep-2022	16:00	KIN_300_06	King	32°C, Ave wind speed 12km/h, NNE	64.9	50.9	3.37	Y	N	N	N	N		20/09/2022 14:00	W. Nene	
21-Sep-2022	16:00	CUB_275_12	Cuban	33°C, Ave wind speed 4km/h, SSE	48.5	34.5	0.7	N/A								
24-Sep-2022	10:00	CUB_275_06; CUB_275_10; CUB_275_03_Toe	Cuban	35°C, Ave wind speed 9km/h, W	63.9	49.9	0.47	N/A								
25-Sep-2022	14:00	KIN_300_07A	King	35°C, Ave wind speed 9km/h, NNE	76.1	62.1	5.23	Y								

15-Oct-2022	13:31	KIN_295_06A	King	36°C, Ave wind speed 5km/h, ENE	66.2	52.2	1.31	Y	N	N	N	N	N	15/10/2022 14:15	G. Murphy	
16-Oct-2022	13:00	KIN_295_03	King	37°C, Ave wind speed 8km/h, E	58.3	44.3	1.11	Y	N	N	N	N	N	16/10/2022 13:56	G. Murphy	
17-Oct-2022	17:00	KIN_295_06B; CUB_270_11	Cuban; King	35°C, Ave wind speed 13km/h, N	63.9	49.9	1.88	N	N	N	N	N	N	18/10/2022 7:11	G. Murphy	
19-Oct-2022	17:00	KIN_295_05; CUB_270_12	Cuban; King	36°C, Ave wind speed 4km/h, NNE	75.4	61.4	1.43	Y	N	N	N	N	N	20/10/2022 6:30	G. Murphy	
21-Oct-2022	17:00	CUB_270_17; CUB_270_18	Cuban	38°C, Ave wind speed 10km/h, NNE	52.2	38.2	0.44	Y	N	N	N	N	N			
21-Oct-2022	17:15	KIN_295_08	King	39°C, Ave wind speed 10km/h, NNE	61	47	1.8	Y	N	N	N	N	N			
23-Oct-2022	14:00	CUB_270_02	Cuban	40°C, Ave wind speed 9km/h, N	52.5	38.5	0.8	N/A	N	N	N	N	N	26/10/2022 @ 16:00	O.Padia	
24-Oct-2022	13:02	KIN_295_07	King	36°C, Ave wind speed 8km/h, S	61.6	47.6	1.95	Y	N	N	N	N	N	26/10/2022 @ 16:00	O.Padia	
26-Oct-2022	12:53	CUB_270_13	Cuban	35°C, Ave wind speed 8km/h, WSW	47.8	33.8	0.79	N/A	N	N	N	N	N			
26-Oct-2022	12:55	KIN_290_01	King	35°C, Ave wind speed 8km/h, WSW	61.7	47.7	1.02	Y	N	N	N	N	N	26/10/2022 @ 16:00	O.Padia	
27-Oct-2022	14:01	CUB_270_03	Cuban	34°C, Ave wind speed 11km/h, N	51.4	37.4	0.69	N/A	N	N	N	N	N			
27-Oct-2022	14:05	KIN_295_09B	King	34°C, Ave wind speed 11km/h, N	69	55	2.76	Y	N	N	N	N	N	27/10/2022 @ 16:00	O.Padia / A.Owen	
28-Oct-2022	16:58	KIN_295_09A	King	32°C, Ave wind speed 7km/h, S	88.8	74.8	3.66	Y	N	N	N	N	N	29/10/2022 @ 0600	G. Murphy / C. Lawlor	
31-Oct-2022	12:58	CUB_270_14	Cuban	28°C, Ave wind speed 17km/h, ESE	57.5	38.5	0.63	N/A	N	N	N	N	N			
2-Nov-2022	12:55	CUB_270_19; CUB_270_20	Cuban	32°C, Ave wind speed 11km/h, SE	57.3	43.3	0.48	N/A	N	N	N	N	N			
4-Nov-2022	16:03	KIN_290_03	King	39°C, Ave wind speed 19km/h, NW	48.9	34.9	0.54	Y	N	N	N	N	N	08/11/2022 @ 04:30	O.Padia / A.Mikhail	
6-Nov-2022	12:54	KIN_290_02	King	35°C, Ave wind speed 6km/h, SW	48.2	34.2	0.65	Y	N	N	N	N	N	08/11/2022 @ 04:30	O.Padia / A.Mikhail	
7-Nov-2022	17:00	CUB_270_15; CUB_270_01_Toe	Cuban	31°C, Ave wind speed 10km/h, SE	64.7	50.7	0.93	Y	N	N	N	N	N			
8-Nov-2022	14:00	KIN_290_04	King	36°C, Ave wind speed 6km/h, SW	53.9	39.9	0.71	Y	N	N	N	N	N	08/11/2022 @ 04:30	O.Padia / A.Mikhail	
10-Nov-2022	13:00	KIN_290_06	King	36°C, Ave wind speed 8km/h, ESE	54.1	40.1	1.17	Y	N	N	N	N	N	12/11/2022 @ 07:05	G. Murphy	
11-Nov-2022	10:01	CUB_270_04; CUB_270_11_Toe	Cuban	31°C, Ave wind speed 9km/h, NNW	56.2	42.2	0.69	Y	N	N	N	N	N			
12-Nov-2022	15:44	KIN_290_05	King	37°C, Ave wind speed 8km/h, N	47.5	33.5	0.93	Y	N	N	N	N	N	N os exiting the addit at 1039.	14/11/2022 @ 10:39	G. Murphy
13-Nov-2022	12:57	CUB_270_16	Cuban	35°C, Ave wind speed 9km/h, ENE	48.1	34.1	0.88	N/A	N	N	N	N	N			
15-Nov-2022	13:15	CUB_270_21; CUB_270_22	Cuban	33°C, Ave wind speed 7km/h, SE	52.1	38.1	0.33	N/A	N	N	N	N	N			
16-Nov-2022	11:56	KIN_290_07; KIN_290_08A	King	32°C, Ave wind speed 6km/h, WNW	60.8	46.8	1.17	Y	N	N	N	N	N	16/11/2022 @ 1700	G. Murphy	
17-Nov-2022	15:06	CUB_270_23; CUB_270_24; CUB_270_05	Cuban	22°C, Ave wind speed 6km/h, NW	54.1	40.1	0.37	N/A	N	N	N	N	N			
18-Nov-2022	17:00	KIN_290_08B; KIN_290_10	King	35°C, Ave wind speed 5km/h, N	57.3	43.3	1.4	Y	N	N	N	N	N	19/11/2022 @ 7:00	Andrew M	
20-Nov-2022	17:00	KIN_290_09	King	29°C, Ave wind speed 5km/h, W	66.2	52.2	2	Y	N	N	N	N	N	21/11/2022 @ 7:00	Andrew M	
23-Nov-2022	16:59	KIN_290_09 AdditionalHoles; CUB_275_06	King; Cuban	33°C, Ave wind speed 5km/h, SW	53.9	39.9	0.8	Y	N	N	N	N	N	24/11/2022 @ 7:00	Andrew M	
24-Nov-2022	17:00	CUB_265_01; CUB_265_04	Cuban	35°C, Ave wind speed 8km/h, SSW	66.2	52.2	1.26	Y	N	N	N	N	N			
25-Nov-2022	13:00	KIN_290_11	King	36°C, Ave wind speed 5km/h, N	56.5	42.5	1.5	Y	N	N	N	N	N			
27-Nov-2022	13:02	CUB_265_09	Cuban	38°C, Ave wind speed 5km/h, NNW	60	46	0.77	N/A	N	N	N	N	N	25/11/2022 @ 1600	G. Murphy	
29-Nov-2022	10:01	KIN_285_01	King	38°C, Ave wind speed 7km/h, SSW	66	52	0.83	Y	N	N	N	N	N	29/11/2022 @ 0733	G. Murphy	
2-Dec-2022	15:00	CUB_265_01_Toe	Cuban	42°C, Ave wind speed 6km/h, NE	50	36	0.06	N/A	N	N	N	N	N			
3-Dec-2022	13:08	CUB_265_08	Cuban	42°C, Ave wind speed 8km/h, ESE	63.2	49.2	1.34	Y	N	N	N	N	N			
4-Dec-2022	17:07	KIN_285_12A	King	43°C, Ave wind speed 4km/h, SE	59.9	45.9	2.29	Y	N	N	N	N	N	07/12/2022 @ 07:20	O.Padia	
6-Dec-2022	17:11	CUB_265_07; KIN_285_12B	Cuban; King	44°C, Ave wind speed 2km/h, N	63.3	49.3	2	Y	N	N	N	N	N	07/12/2022 @ 07:20	O.Padia	
8-Dec-2022	17:45	CUB_265_10; CUB_265_05	Cuban	41°C, Ave wind speed 5km/h, WNW	53.9	39.9	1.46	Y	N	N	N	N	N			
11-Dec-2022	13:04	CUB_265_06; CUB_265_11	Cuban	43°C, Ave wind speed 7km/h, WNW	59.3	45.3	0.87	N/A	N	N	N	N	N			
12-Dec-2022	12:57	KIN_285_13	King	44°C, Ave wind speed 10km/h, NNW	62.9	48.9	3.03	Y	N	N	N	N	N	13/12/2022 @ 1312	G. Murphy	
14-Dec-2022	13:04	KIN_285_11	King	39°C, Ave wind speed 5km/h, N	64.7	50.7	1.76	Y	N	N	N	N	N	15/12/2022 @ 0817	G. Murphy	
15-Dec-2022	13:00	CUB_265_02	Cuban	40°C, Ave wind speed 9km/h, NNE	58.5	44.5	1.15	N/A	N	N	N	N	N			
17-Dec-2022	13:06	KIN_285_03	King	36°C, Ave wind speed 9km/h, SW	54.6	40.6	1.26	Y	N	N	N	N	N	19/12/2022 @ 0710	C. Lawlor	
17-Dec-2022	13:17	CUB_265_03	Cuban	36°C, Ave wind speed 9km/h, SW	47.9	33.9	0.65	N/A	N	N	N	N	N			
18-Dec-2022	16:47	KIN_285_05	King	35°C, Ave wind speed 10km/h, SSW	63	49	1.68	Y	N	N	N	N	N	19/12/2022 @ 0710	C. Lawlor	
20-Dec-2022	12:58	CUB_265_12; CUB_275_06 AdditionalHoles	Cuban	34°C, Ave wind speed 3km/h, WSW	51.2	37.2	0.76	N/A	N	N	N	N	N			
21-Dec-2022	12:59	KIN_285_02	King	35°C, Ave wind speed 5km/h, SSW	50.8	36.8	0.76	Y	N	N	N	N	N	22/12/2022 @ 0620	C. Lawlor	
24-Dec-2022	13:04	CUB_265_13; CUB_265_16; CUB_265_17	Cuban	40°C, Ave wind speed 6km/h, WNW	59.5	45.5	0.78	N/A	N	N	N	N	N			
25-Dec-2022	13:02	KIN_285_04	King	42°C, Ave wind speed 7km/h, SSW	50.4	36.4	0.81	Y	N	N	N	N	N	26/12/2022 @ 0915	G. Murphy	
26-Dec-2022	16:59	KIN_295_06; CUB_265_18; CUB_265_19	Cuban; King	40°C, Ave wind speed 4km/h, ESE	52.5	38.5	3.22	Y	N	N	N	N	N	27/12/2022 @ 1310	G. Murphy	
29-Dec-2022	13:01	CUB_265_14	Cuban	39°C, Ave wind speed 11km/h, NW	49.8	35.8	0.82	N/A	N	N	N	N	N			
31-Dec-2022	16:29	KIN_285_14; KIN_280_01	King	38°C, Ave wind speed 9km/h, NNE	52.8	38.8	2.03	Y	N	N	N	N	N	01/01/2023 @ 0600	C. Lawlor	
1-Jan-2023	16:56	CUB_265_20; CUB_265_21; CUB_265_15	Cuban	43°C, Ave wind speed 11km/h, N	58.2	44.2	0.5	N/A	N	N	N	N	N			
2-Jan-2023	16:57	CUB_260_08A	Cuban	44°C, Ave wind speed 12km/h, NW	53.6	39.6	1.1	N/A	N	N	N	N	N			
4-Jan-2023	13:00	CUB_265_22; CUB_265_23	Cuban	38°C, Ave wind speed 17km/h, WNW	51.1	37.1	0.22	N/A	N	N	N	N	N			
5-Jan-2023	15:57	CUB_265_24; CUB_265_25	Cuban	39°C, Ave wind speed 19km/h, NW	53.8	39.8	0.38	N/A	N	N	N	N	N			
6-Jan-2023	13:04	KIN_290_12	King	40°C, Ave wind speed 13km/h, NW	61.5	47.5	4.44	Y	N	N	N	N	N	07/01/2023 @ 1510	G. Murphy	
7-Jan-2023	13:00	KIN_280_02	King	40°C, Ave wind speed 8km/h, N	50.1	36.1	0.63	Y	N	N	N	N	N	07/01/2023 @ 1510	G. Murphy	
8-Jan-2023	12:56	CUB_260_08B	Cuban	37°C, Ave wind speed 6km/h, S	50.8	36.8	0.76	N/A	N	N	N	N	N			
9-Jan-2023	12:56	KIN_280_03	King	37°C, Ave wind speed 12km/h, SW	59.2	45.2	0.85	Y	N	N	N	N	N	09/01/2023 @ 1412	G. Murphy	
11-Jan-2023	13:00	CUB_260_04	Cuban	40°C, Ave wind speed 6km/h, NNE	57.2	43.2	1.06	N/A	N	N	N	N	N			
12-Jan-2023	12:59	KIN_280_04; KIN_280_24	King	44°C, Ave wind speed 14km/h, NW	60.5	46.5	1.77	Y	N	N	N	N	N	18.01.2023 @ 07:30	J.Yang / O.Padia	
15-Jan-2023	12:58	CUB_260_03	Cuban	37°C, Ave wind speed 7km/h, WSW	57.8	43.8	1.24	N/A	N	N	N	N	N			
16-Jan-2023	16:59	KIN_280_05	King	39°C, Ave wind speed 4km/h, N	59.3	45.3	2.06	Y	N	N	N	N	N	18.01.2023 @ 07:30	J.Yang / O.Padia	
19-Jan-2023	8:58	CUB_260_02	Cuban	22°C, Ave wind speed 4km/h, S	57.5	43.5	1.67	N/A	N	N	N	N	N			
21-Jan-2023	12:56	KIN_280_09; KIN_280_10	King	36°C, Ave wind speed 9km/h, SSW	55.1	41.1	0.77	N/A	N	N	N	N	N			
23-Jan-2023	12:57	CUB_260_01	Cuban	33°C, Ave wind speed 6km/h, SW	75	61	0.95	N/A	N	N	N	N	N			
24-Jan-2023	12:58	KIN_280_11; KIN_280_12	King	31°C, Ave wind speed 12km/h, SSW	72.1	58.1	1.37	N/A	N	N	N	N	N			
25-Jan-2023	17:28	CUB_260_05; CUB_260_08_Toe	Cuban	34°C, Ave wind speed 4km/h, SW	69.6	55.6	0.82	N/A	N	N	N	N	N			
29-Jan-2023	12:29	KIN_280_06	King	33°C, Ave wind speed 6km/h, W	67	53	3.76	Y	N	N	N	N	N	30.01.2023 @ 06:30	J.Yang / O.Padia/N.Mcbride	
30-Jan-2023	10:57	CUB_260_10; CUB_260_11	Cuban	35°C, Ave wind speed 6km/h, SW	59.3	45.3	1.91	N/A	N	N	N	N	N			
31-Jan-2023	13:13	CUB_260_06; CUB_260_08_Toe_2	Cuban	38°C, Ave wind speed 11km/h, WNW	73.8	59.8	0.97	N/A	N	N	N	N	N			
1-Feb-2023	10:57	KIN_285_15	King	38°C, Ave wind speed 8km/h, SW	57.9	43.9	3.13	Y	N	N	N	N	N	02.02.2023 @ 06:00	J.Yang / O.Padia	
2-Feb-2023	17:30	CUB_260_12; CUB_260_13; CUB_260_09	Cuban	28°C, Ave wind speed 10km/h, SW	68.9	54.9	1.21	N/A	N	N	N	N	N			
5-Feb-2023	13:30	CUB_260_07	Cuban	38°C, Ave wind speed 7km/h, NW	65.6	51.6	0.72	N/A	N	N	N	N	N			
6-Feb-2023	12:59	KIN_275_01	King	38°C, Ave wind speed 7km/h, SW	57.2	43.2	1.15	N/A	N	N	N	N	N			
7-Feb-2023	12:59	KIN_275_02	King	38°C, Ave wind speed 5km/h, S	55.9	41.9	0.8	N/A	N	N	N	N	N			
8-Feb-2023	17:00	CUB_260_18	Cuban	39°C, Ave wind speed 7km/h, SW	54.1	40.1	0.95	N/A	N	N	N	N	N			
10-Feb-2023	14:17	KIN_280_15	King	39°C, Ave wind speed 7km/h, S	66.2	52.2	1.69	N/A	N	N	N	N	N			
12-Feb-2023	16:06	KIN_280_14; KIN_275_03	King	41°C, Ave wind speed 4km/h, SW	74.3	60.3	1.16	N/A	N	N	N	N	N	13.02.2023 @ 07:30	J.Yang / O.Padia	
13-Feb-2023	12:58	CUB_260_14; CUB_260_15	Cuban	40°C, Ave wind speed 14km/h, SW	51.8	37.8	0.43	N/A	N	N	N	N	N			
14-Feb-2023	17:01	KIN_275_04	King	42°C, Ave wind speed 3km/h, WSW	60.6	46.6	1.01	N/A	N	N	N	N	N			
15-Feb-2023	13:06	CUB_260_16	Cuban	41°C, Ave wind speed 7km/h, N	40.3	26.3	0.28	N/A	N	N	N	N	N			
15-Feb-2023	13:21	CUB_260_17	Cuban	41°C, Ave wind speed 7km/h, WNW	39.3	25.3	0.36	N/A	N	N	N	N	N			
16-Feb-2023	17:02	CUB_255_99	Cuban	43°C, Ave wind speed 5km/h, NW	51.4	37.4	1.16	N/A	N	N	N	N	N			

27-Feb-2023

12:57 KIN\_275\_11\_12

King

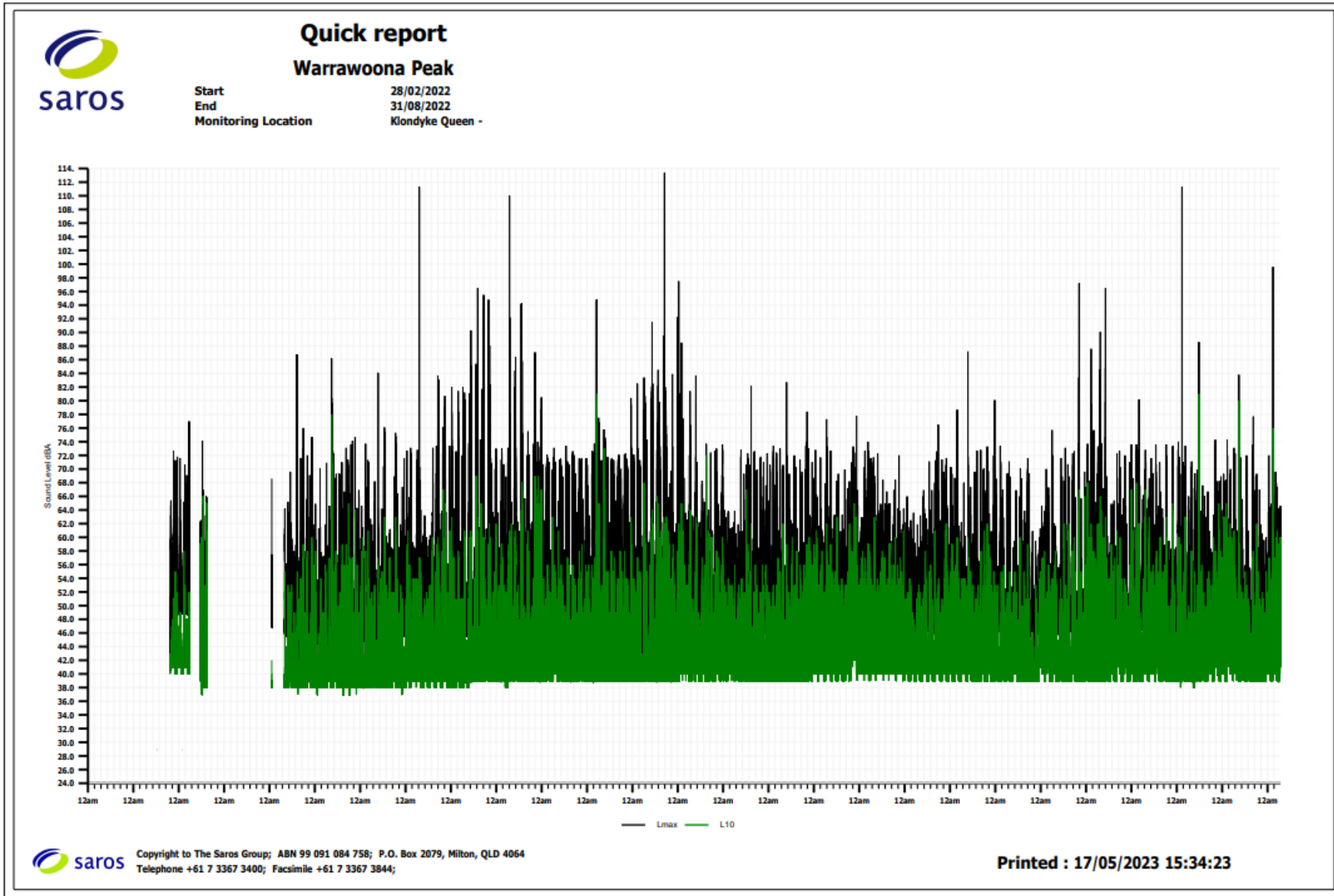
36°C, Ave wind speed 8km/h, WSW

54.9

40.9

2.14





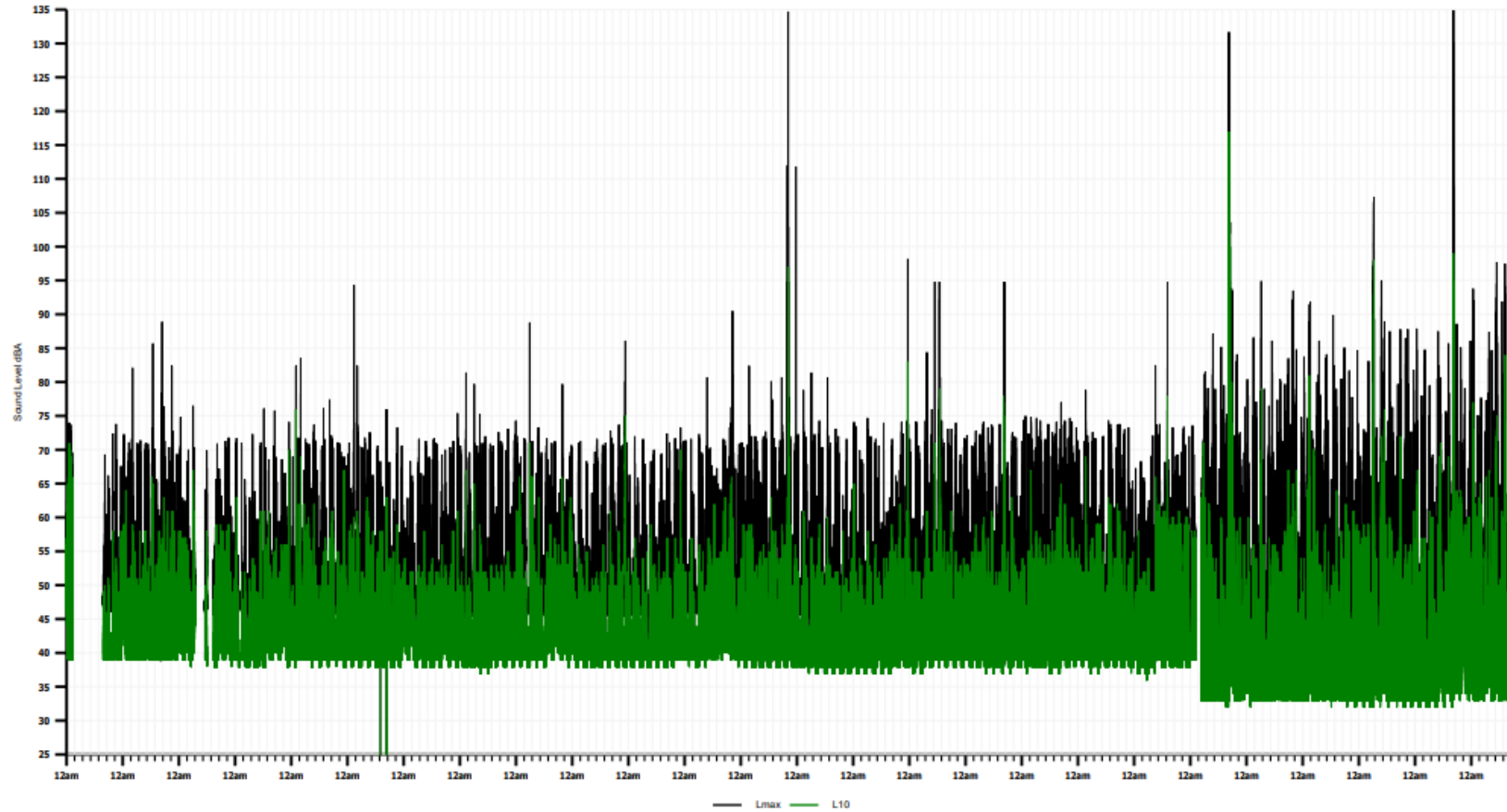
Noise levels extracted from the Klondyke Queen fixed monitoring unit measuring Lmax and L10 between 28 February 2022 and 31 August 2022.



### Quick report

#### Warrawoona Peak

Start 1/09/2022  
End 28/02/2023  
Monitoring Location Klondyke Queen -



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Telephone +61 7 3367 3400; Facsimile +61 7 3367 3844;

Printed : 17/05/2023 15:38:55

Noise levels extracted from the Klondyke Queen fixed monitoring unit measuring  $L_{max}$  and  $L_{10}$  between 01 September 2022 and 28 February 2023.

## **Appendix V – Warrawoona Gold Project Significant Bat Monitoring Summary for the EPBC 2019/8584 compliance period February 2022 to February 2023**

**Appendix VI – Warrawoona Gold Project Northern Quoll Monitoring Summary  
for the EPBC 2019/8584 compliance period February 2022 to February 2023**

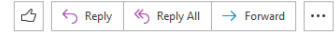
## Appendix VII – Notifications of Non-Compliance

19/08/2022

EPBC 2019/8584 - Warrawoona Gold Project - Notification of exceedance



Rebekah Geagea  
To: EPBCmonitoring@awe.gov.au



Fri 19/08/2022 2:23 PM

Good afternoon,

In accordance with Condition 34 of EPBC 2019/8584 for the Warrawoona Gold Project, Calidus is required to notify DAWE of any exceedances to commitments within the submitted plans. Although the Outcome and Trigger Criteria specified within the Action Plan for the Management of Significant Bats (CRL-ENV-PLN-008-20) has not been breached, the noise limit (70dB) detailed within the plan has. Please note that this limit is also detailed within Ministerial Statement 1150 (Condition 7-3 (9)) and the Significant Species Management Plan (CRL-ENV-PLN-006-19).

At 10:00am on 18 August 2022 during a blasting event the 70 decibel A noise limit at the Klondyke Queen roost was exceeded. The LMax (adjusted reading) was 74.6 dBA. Please note, the 10 millimetre per second vibration limit was not exceeded. Cameras installed at Klondyke Queen did not identify any potential flushing event of Ghost Bats or Pilbara Leaf-Nosed Bats. A post blast structural inspection has also occurred with no identified change to the area.

An investigation is underway and will be provided at the same time as it is submitted to the WA EPA as per Condition 5. Please feel free to contact myself for any further information.

Kind Regards,

Rebekah Geagea  
Senior Environmental Advisor



P: (08) 9178 8910  
M: +61 427 507 470  
A: Suite 12, 11 Ventnor Ave West Perth WA 6005  
E: [r.geagea@calidus.com.au](mailto:r.geagea@calidus.com.au) [calidus.com.au](http://calidus.com.au)

25/08/2022

**From:** Rebekah Geagea <[r.geagea@calidus.com.au](mailto:r.geagea@calidus.com.au)>  
**Sent:** Thursday, 25 August 2022 3:19 PM  
**To:** [EPBCmonitoring@awe.gov.au](mailto:EPBCmonitoring@awe.gov.au)  
**Subject:** EPBC 2019/8584 - Warrawoona Gold Project - Notification of exceedance

Good afternoon,

In accordance with Condition 34 of EPBC 2019/8584 for the Warrawoona Gold Project, Calidus is required to notify DAWE of any exceedances to commitments within the submitted plans. Although the Outcome specified within the Action Plan for the Management of Significant Bats (CRL-ENV-PLN-008-20) has not been breached, the vibration limit (10 millimetres per second) detailed within the plan has. Please note that this limit is also detailed within Ministerial Statement 1150 (Condition 7-3 (9)) and the Significant Species Management Plan.

At 2:00pm on 24 August 2022 during a blasting event the 10 millimetre per second limit at the Klondyke Queen roost was exceeded. Please note, the 70dB noise limit was not exceeded. Cameras installed at Klondyke Queen did not identify any potential flushing event of Ghost Bats or Pilbara Leaf-Nosed Bats. A post blast structural inspection has also occurred with no identified change to the area.

An investigation is underway and will be provided at the same time as it is submitted to the WA EPA as per Condition 5. Please note, the blast volume and the powder factor was reduced after the incident on the 18 August 2022 to avoid potential exceedances.

Please feel free to contact myself for any further information.

Kind Regards,

Rebekah Geagea  
Senior Environmental Advisor



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13/09/2022

**From:** Rebekah Geagea  
**Sent:** Tuesday, 13 September 2022 5:05 PM  
**To:** EPBC Monitoring <[EPBCMonitoring@awe.gov.au](mailto:EPBCMonitoring@awe.gov.au)>  
**Subject:** EPBC 2019/8584 - Warrawoona Gold Project - Notification of non-compliance

Good afternoon,

In accordance with Condition 34 and 35 of EPBC 2019/8584 for the Warrawoona Gold Project, Calidus is required to notify of and non-compliance with commitments in the plans. As per Action Plan for the Management of Significant Bats CRL-ENV-PLN-008-20 a permanent blast monitoring station must record both dB A (maintaining a 70 dB A limit) within the Klondyke Queen adit and ground vibration for all blasts within 1,000 m of the Klondyke Queen.

**Non-compliance Detail**

Noise and vibration data is unavailable from approximately 18:00 on 1 September 2022 to approximately 13:00 on 5 September 2022. Two blasting events occurred whilst the unit was not recording:

- 3-Sep-2022 12:30 CUB\_275\_01\_02 (approximately 1,000m from the Klondyke Queen Roost)
- 5-Sep-2022 10:00 KIN\_300\_02 (approximately 800m from Klondyke Queen Roost)

**Investigation**

- On the 1 August the noise microphone had excessive records (potentially triggered by strong winds recorded at the adjacent weather station).
- It is believed that the in-field system's memory filled before the upload period resulting the system to timeout and stop recording.
- It was unknown to the issue with the system and the supplier was contacted for technical support. This was received on the 5 September and the system was re-set.

**Potential Impact**

- It is not believed that the blast events exceeded the 70dBA noise limit or the 10mm/s vibration limit based on noise and vibration results from adjacent blasts as well as the more conservative blasting parameters recently implemented. It is therefore considered that there was no environmental impact.

**Corrective Actions**

- The system was re-set and it was investigated whether there was recorded data within the in-field device. It was confirmed on 12 September that no data was available.
- Alerts have been set up within the supplier's data management system to notify the supplier's technical support team and the Calidus environment team if the system is not recording.
- Technical support information has been received to detail the procedure for re-setting the system.
- Remote access to the unit is being set up to troubleshoot and re-set the system remotely.

If you require further information, feel free to contact myself.

Kind Regards,

**Rebekah Geagea**  
Senior Environmental Advisor



21/09/2022

**From:** Rebekah Geagea <[r.geagea@calidus.com.au](mailto:r.geagea@calidus.com.au)>  
**Sent:** Wednesday, 21 September 2022 10:33 AM  
**To:** [epbcmonitoring@awe.gov.au](mailto:epbcmonitoring@awe.gov.au)  
**Subject:** EPBC 2019/8584 - Warrawoona Gold Project - Notification of non-compliance

Good afternoon,

In accordance with Condition 34 and 35 of EPBC 2019/8584 for the Warrawoona Gold Project, Calidus is required to notify of and non-compliance with commitments in the plans. As per Action Plan for the Management of Significant Bats CRL-ENV-PLN-008-20 a permanent blast monitoring station must record both dB A (maintaining a 70 dB A limit) within the Klondyke Queen adit and ground vibration for all blasts within 1,000 m of the Klondyke Queen.

**Non-compliance Detail**

Noise and vibration data is unavailable from approximately 23:00 on 17 September to approximately 06:00 on 18 September and 12:00 18 September to 06:00 19 September. One blasting event occurred whilst the unit was not recording:

- 17-Sep-2022 14:00 KIN\_300\_06 (approximately 250m from the Klondyke Queen Roost)

**Investigation**

- On the 17 September the unit undertook a scheduled stop and did not re-start until 06:00 18 September. The same issue occurred at 12:00 18 September.
- The supplier was contacted and reviewed the logs and were unsure of the cause so have contacted the manufacturer.
- Remote access to the unit was set up to troubleshoot and re-set the system remotely on 14 September.

**Potential Impact**

- It is not believed that the blast events exceeded the 70dBA noise limit or the 10mm/s vibration limit based on noise and vibration results from adjacent blasts as well as the more conservative blasting parameters recently implemented. It is therefore considered that there was no environmental impact.

**Corrective Actions**

- The system was re-set, logs downloaded and it was investigated whether there was recorded data within the logs. It was confirmed on 20 September that no data was available for the 17 September blast event.
- Alerts are being set up within the supplier's data management system to notify the supplier's technical support team and the Calidus environment team if the system is not recording.
- The in-field unit will be swapped out upon arrival of a new microphone and set back to the supplier for calibration and investigation.

If you require further information, feel free to contact myself.

Kind Regards,

**Rebekah Geagea**  
Senior Environmental Advisor



P: (08) 9178 8910

28/09/2022

**From:** Paul Brennan <Paul@calidus.com.au>  
**Sent:** Wednesday, 28 September 2022 3:02 PM  
**To:** EPBC Monitoring <EPBCMonitoring@awe.gov.au>; postapproval@awe.gov.au  
**Cc:** Rebekah Geagea <r.geagea@calidus.com.au>  
**Subject:** EPBC 2019/8584 - Non-Compliance with Condition

Good Afternoon,

Calidus Resources Limited (Calidus) advises that in accordance with Condition 20(b) of EPBC 2019/8584 that it is unable to make payment to the Pilbara Environmental Offset Fund (PEOF) by 30 September 2022.

As per the attached correspondence, Calidus has been advised by that until Calidus submits its Impact Reconciliation Report required under the Western Australian Approval due on the 30<sup>th</sup> October, that payment to the PEOF cannot be made.

Calidus awaits further advice on aligning the Western Australian State Approval and the Commonwealth Approval with regards to Offset Payments to the PEOF as also noted in the attached correspondence.

Regards  
Paul

**Paul Brennan**  
Project Development

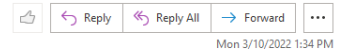


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A: Suite 12, 11 Ventnor Ave West Perth WA 6005  
E: paul@calidus.com.au calidus.com.au

03/10/2022



**Rebekah Geagea**  
To: epbcmonitoring@awe.gov.au  
Cc: Paul Brennan



Mon 3/10/2022 1:34 PM

Good afternoon,

In accordance with Condition 34 of EPBC 2019/8584 for the Warrawoona Gold Project, Calidus is required to notify DAWE of any exceedances to commitments within the submitted plans. Although the Outcome specified within the Action Plan for the Management of Significant Bats (CRL-ENV-PLN-008-20) has not been breached, the vibration limit (10 millimetres per second) detailed within the plan has. Please note that this limit is also detailed within Ministerial Statement 1150 (Condition 7-3 (9)) and the Significant Species Management Plan.

At 2:00pm on 29 September 2022 during a blasting event the 10 millimetre per second limit at Klondyke Queen was exceeded (17.88mm/s). Please note, the 70dB noise limit was not exceeded. Cameras installed at Klondyke Queen did not identify any potential flushing event of Ghost Bats or Pilbara Leaf-Nosed Bats. A post blast structural inspection has also occurred with no identified change to the area.

An investigation is underway and will be provided at the same time as it is submitted to the WA EPA as per Condition 5 however, the following updates are available:

- A temporary extension of the Klondyke Queen blasting buffer zone from 200m to 500m is in place until further refinement of the blasting parameters and the updated processes from the findings of the investigation are fully implemented
- An independent blasting specialist is onsite reviewing the following:
  - Blasting parameters
  - Blast designs against monitoring results
  - Noise and vibration monitoring unit set up and recordings
  - The specialist is also reviewing the previous events and this recent exceedance event
  - A report will be provided to Calidus with recommendations
- Drill and blast design for blasting events within 1,000m of Klondyke Queen will be modified to reduce the risk of exceedances, setting a limit on the maximum instantaneous charge and reducing the size of blast patterns to facilitate this, as well as implementing new loading parameters for certain hole types.
- Predictive vibration will be included in the Drill and Blast design approval process for all blasts, with post-blast results being reviewed to assess the current site constants used in the vibration prediction calculation.
- Drill & Blast design approval forms and templates will be updated to highlight predicted vibrations and more clearly highlight allowable design parameters, additional risk identification and controls.

Calidus would like to hold a Teams meeting to discuss this exceedance, previous exceedances and corrective actions. Can we please be provided possible dates/times that we can organise this? Paul Brennan, myself and a representative from the site management team can be available 10 – 14 October if this suits.

Kind Regards,

**Rebekah Geagea**  
Senior Environmental Advisor



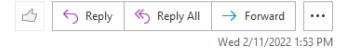
P: (08) 9178 8910  
M: +61 427 507 470  
A: Suite 12, 11 Ventnor Ave West Perth WA 6005  
E: r.geagea@calidus.com.au calidus.com.au

02/11/2022

EPBC 2019/8584 - Warrawoona Gold Project - Notification of exceedance



Rebekah Geagea  
To: EPBCmonitoring@awe.gov.au



Wed 2/11/2022 1:53 PM

Good afternoon,

In accordance with Condition 34 of EPBC 2019/8584 for the Warrawoona Gold Project, Calidus is required to notify DAWE of any exceedances to commitments within the submitted plans. Although the Outcome and Trigger Criteria specified within the Action Plan for the Management of Significant Bats (CRL-ENV-PLN-008-20) has not been breached, the noise limit (70dB) detailed within the plan has. Please note that this limit is also detailed within Ministerial Statement 1150 (Condition 7-3 (9)) and the Significant Species Management Plan (CRL-ENV-PLN-006-19).

At 17:00 on 28 October 2022 during a blasting event the 70 decibel A noise limit at the Klondyke Queen roost was exceeded. The LMax (adjusted reading) was 74.8 dBA. Please note, the 10 millimetre per second vibration limit was not exceeded. Cameras installed at Klondyke Queen did not identify any potential flushing event of Ghost Bats or Pilbara Leaf-Nosed Bats. A post blast structural inspection has also occurred with no identified change to the area.

An investigation is underway and will be provided at the same time as it is submitted to the WA EPA as per Condition 5.

Please feel free to contact myself for any further information prior to the investigation being submitted.

Kind Regards,

**Rebekah Geagea**  
Senior Environmental Advisor



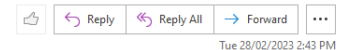
P: (08) 9178 8910  
M: +61 427 507 470  
A: Suite 12, 11 Ventnor Ave West Perth WA 6005  
E: [r.geagea@calidus.com.au](mailto:r.geagea@calidus.com.au) [calidus.com.au](http://calidus.com.au)

28/02/2023

EPBC 2019/8584 - Warrawoona Gold Project - Notification of exceedance



Rebekah Geagea  
To: EPBC Monitoring



Tue 28/02/2023 2:43 PM

Good afternoon,

In accordance with Condition 34 of EPBC 2019/8584 for the Warrawoona Gold Project, Calidus is required to notify DAWE of any exceedances to commitments within the submitted plans. Although the Outcome and Trigger Criteria specified within the Action Plan for the Management of Significant Bats (CRL-ENV-PLN-008-20) has not been breached, the noise limit (70dB) detailed within the plan has. Please note that this limit is also detailed within Ministerial Statement 1150 (Condition 7-3 (9)) and the Significant Species Management Plan (CRL-ENV-PLN-006-19).

At 13:05 on 25 February 2023 during a blasting event the 70 decibel A noise limit at the Klondyke Queen roost was exceeded. The LMax (adjusted reading) was 70.7 dBA. Please note, the 10 millimetre per second vibration limit was not exceeded (2.84mm/s). Cameras installed at Klondyke Queen did not identify any potential flushing event of Ghost Bats or Pilbara Leaf-Nosed Bats. A post blast structural inspection has also occurred with no identified change to the area.

An investigation is underway and will be provided at the same time as it is submitted to the WA EPA as per Condition 5.

Please feel free to contact myself for any further information prior to the investigation being submitted.

Kind Regards,

**Rebekah Geagea**  
Senior Environmental Advisor



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