

2021 Independent Environmental Audit Findings

Table 1: Action Plan to resolve non-compliances.

Audit Section	Audit Recommendations	Action	Due Date	Progress
Project Approval				
Schedule 3 - Condition 5(f) - <i>Operating Conditions</i>	Ensure there are improved record keeping for changes made at site relating to noise real time noise triggers and actions. Records should be kept indicating TGO has reviewed site activities when a trigger has been hit. Look into the implementation of operating a noise management system on site that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day-to-day planning of mining operations. This is to cover Schedule 3 Condition 5b of the Project Approval.	If a trigger is recorded an appropriate record will be generated demonstrating internal review and actions. Noted and will be discussed with current noise monitoring consultants.	Ongoing August 2022	
Schedule 3 - Condition 6(a) - <i>Noise Management Plan</i>	Update the Noise Management Plan to outline the monthly noise monitoring (currently says quarterly). This is consistent with what has been occurring at the site.	Noise Management Plan will be reviewed as part of annual Management Plan review and submitted to DPIE for approval.	30th January 2022	



Schedule 3 - Condition 7 – <i>Blasting Criteria</i>	Ensure the Annual Review blasting criteria is outlined as per Schedule 3 Condition 7 of the Project Approval. This includes outlining that only 5% of blasts can be over 115 dBA for overpressure and 5% of blasts can be over 5 mm/s for vibration. Blasting results should be included as an appendix to the Annual Review. The monthly EPL monitoring reports only include maximum vibration levels for blasting, not overpressure. Results should be consistent to allow comparison against relevant blasting criteria. The Blast Management Plan should be updated to include information about underground blasting (e.g. timing, methods, criteria, monitoring and record keeping).	2021 Annual Review to include this. Noted. Noted, TGO blast reports record both vibration and overpressure. Noted, and will be reviewed as part of the current review of the Blast Management Plan.	31st March 2022 31st December 2021	
Schedule 3 - Condition 14 – <i>Blast Management Plan</i>	Ensure the site keeps evidence of assessing weather conditions prior to blasting as well as recording this information in the Blast Summary Spreadsheet.	Currently done on the blast record sheets.	Ongoing	



Schedule 3 - Condition 17 – Air Quality Criteria	Going forward it is recommended that a spreadsheet or spreadsheets are prepared to include ongoing environmental monitoring results (eg. Air, surface water and groundwater). This will enable an easier assessment of results and trends. Records should be kept in regards to planning for adverse weather requirements in an attempt to reduce dust emissions. Also if operations are changed due to adverse weather events (eg. wind direction, strength then this information should be recorded and kept at site. Liaise with an air quality specialist to utilise real time information and meteorological conditions to determine the incremental impact from site dust levels. This system should be easy enough that the site can determine it quickly. Utilising regional dust stations as well. A formal procedure for investigating any exceedances of ambient air quality criteria should be developed. Another alternative is to investigate the use of directional dust gauges to integrate with the current dust management system.	Monitoring results for air, surface water and groundwater are being imported into Esdat for improved data management. Noted, site currently uses weatherzone alerts which are tied to various site TARPS and operations are conducted according to weather alerts. There have not been any dust complaints since 2018. TGO will continue to monitor and manage dust emissions appropriately and investigate any potential practical and affordable improvements to current practices where necessary.	Ongoing	
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Schedule 3 - Condition 18 – <i>Air Quality & Greenhouse Gas Management Plan</i>	It is recommended that a procedure for review and validation of ambient air quality data be adopted. This would be of use when there are differing ratios between TSP and PM10. It is recommended that a formal procedure for investigating any exceedances of ambient air quality criteria, which includes quantitative estimation of the sites contribution to any exceedances be adopted.	Cbased Environmental Pty Ltd (Singleton) maintain and calibrate the TGO TEOM and HVAS. Consultation with Cbased Environmental Services will be undertaken in relation to this recommendation.	31 st December 2021	
Schedule 3 - Condition 20 – <i>Meteorological Monitoring</i>	It is recommended that system calibration and diagnostic checks be performed at six-month intervals, or in accordance with manufacturer's recommendations, whichever is more frequent as required by AM-4.	Cbased conduct calibration in accordance with the manufacturers specified time intervals. Cbased will be consulted in relation to this recommendation.	Ongoing	
Schedule 3 - Condition 27- <i>Water Performance Measures</i>	Water Performance Measures in Schedule 3 Condition 27 should be included in the Water Management Plan.	Will be reviewed in the current review of the TGO Water Management Plan.	31 st December 2021	



Schedule 3 - Condition 32- <i>Water Management Plan</i>	Complete all monitoring and inspections as per the requirement of approved Water Management Plan. This needs to occur until the revised Water Management Plan is approved. Ensure triggers relating to surface water and groundwater are implemented and actions recorded by TGO. Ensure groundwater quality is discussed in the Annual Reviews. Recommend streamlining and consolidating the Water Management Plan and appendices. The sub plans are quite repetitive of the Water Management Plan main document and could be streamlined to allow for easier implementation.	Will be reviewed in the current review of the TGO Water Management Plan.	31st December 2021	
Schedule 3 - Condition 32 (A)- <i>Water Management Plan</i>	Ensure there is information on the design and management for final void in the Surface Water Management Plan to cover Part iii of Schedule 3 Condition 32A. Implement recommendations from the 2020 TGO Biodiversity and Rehabilitation Monitoring Report in regards to erosion/biodiversity management along Gundong Creek. Include surface water monitoring results for SW1 and 2 (creek monitoring locations) in the Annual Review as there is currently little information in the Annual Review regarding surface water management.	Will be reviewed in the current review of the TGO Water Management Plan.	31st December 2021	
Schedule 3 - Condition 32 (B)- <i>Water Management Plan</i>	Information relating to geochemical testing should be included in the Water Management Plan. An acid rock and saline drainage strategy should be included in the Water Management Plan. This should be based on a trigger. Section 8.2 (Groundwater Trigger TARP) within the Water Management Plan could be updated. Ensure groundwater monitoring data is in the format of that is the same as the trigger levels within the Groundwater Management Plan	Will be reviewed in the current review of the TGO Water Management Plan.	31st December 2021	



Schedule 3 - Condition 37 - <i>Biodiversity Management Plan</i>	Ensure the Biodiversity Management Plan includes a cross referencing table. Section 3 mentions the conditions of consent, but not where they are covered. Figures to be updated and made clear (currently blurry). Further information should be included about the salvage of resources within the approved disturbance area. Ensure the Biodiversity and Rehabilitation Monitoring Report includes more defined recommendations. Currently recommendations are generally mixed in within general discussion points.	Will be reviewed / included in current review of Biodiversity Management Plan.	30 th November 2021	
Schedule 3 - Condition 33 - <i>Biodiversity Offset</i>	Liaison with DPIE to obtain approval for the PVP.	Letter will be provided to DPIE seeking approval of the PVP.	30 th October 2021	
Schedule 3 - Condition 39 - <i>Heritage Management Plan</i>	Ensure the Heritage Management Plan is revised to include a strategy for the storage of any heritage items salvaged on site, both during the project and in the long term. Implementation of strategy and reporting in the Annual Review. The next review of the ACHMP should update the status of 'proposed controls' as many of these have been completed. E.g. Fencing, signage.	Will be reviewed/ addressed in current review of the Heritage Management Plan.	31 st December 2021	
Schedule 3 - Condition 43- <i>Operating Conditions</i> &	Ensure a log is kept for heavy vehicles to ensure compliance with Schedule 3 Condition 43. We recommend recording this information in a spreadsheet for easy tracking and assessment.	Will be reviewed and record keeping will be improved accordingly.	Ongoing	



Schedule 3 - Condition 44- <i>Traffic Management Plan</i>				
Schedule 3 - Condition 49 - <i>Waste</i>	Remove the older bulky bins at site that contain hydrocarbons. Where it is required that bulky bins are to remain onsite for a period of time they should be installed in an earthen bund. This bund will need to be constructed. It is noted the bund would be within the sites dirty water catchment. Details on waste management are to be included in the Annual Review.	Review of used IBC's completed. New procedure being implemented for management and disposal of IBC's. Will be included in Annual Review.	30th October 2021 31st March 2022	
Schedule 3 Condition 51 - <i>Rehabilitation Objectives</i>	Liaise with the Resources Regulator about implementing the TAP for tailings and rehabilitation. Implement rehabilitation recommendations from the Biodiversity and Rehabilitation Monitoring Reports by DNA Environmental.	TGO has already initiated actions in relation to Regulator TAP Landform Establishment and Rehabilitation. Recommendations reviewed and implemented where practical at present.	30th January 2022 Ongoing	
Schedule 3 Condition 53 - <i>Rehabilitation Management Plan</i>	It is recommended that the RMP includes reference to the consultation that took place in considering the option to backfill the Caloma Two void. There still is not much information in the current MOP regarding backfilling of Coloma Two void. This is to cover Schedule 2 Condition 53k. The DNA Environmental - TGO Biodiversity and Rehabilitation Monitoring Report need to have a more defined conclusion and recommendations section. Recommendations are mixed within this section and should be separated out and given specific recommendation ID numbers. The conclusion should also be	Will be addressed during preparation of new Rehabilitation Management Plan in accordance with NSW government reform agenda. Will be addressed in current review of 2021	2nd July 2022	



	separated into biodiversity areas and rehabilitation areas as they are managed differently For future rehabilitation ensure better records are kept as to what activities were completed. This would details such as soil testing, landform shaping, ameliorants used, seed mix used and rates. This 'validation' process is a new requirement of the Resources Regulators Rehabilitation Reforms.	Rehabilitation and Biodiversity Monitoring Report. Noted.	31st December 2021	
Schedule 5 - Condition 2 -<i>Adaptive Management</i>	The site should keep improved internal records of short term PM10 exceedances. If any investigation determines a non - compliance with criteria then this should be reported to DPIE.	Noted, site currently completes internal investigations of such events. Records related to these events will continue to be kept on site and recording keeping will be improved where possible.	Ongoing	
Schedule 5 - Condition 3 - <i>Management Plan Requirements</i>	All Management Plans should include cross referencing tables outlining where the key statutory conditions have been covered. This relates to specific management plan conditions as well as the 'All Management Plan conditions'. All management plans should cover the requirements of Schedule 5 Condition 3. This includes baseline information and contingency measures. Contingency measures should generally be a consistent layout between plans and include a Trigger Action Response Plan in a traffic light system eg. green, amber and red triggers and subsequent responses.	Will be reviewed and amended where necessary in current round of Management Plan reviews.	28th February 2022	
Schedule 5 - Condition 4 – <i>Annual Review</i>	Additional detail needs to be provided in future Annual Reviews regarding longer term data trends. Complete a comparison of MOP predictions vs actual disturbance and rehabilitation. (Mining Lease Condition 4) Section 8.1 of the Annual Review does not meet the requirements of the DPIE Annual Review Guidelines. It does not include details of the total amount of rehabilitation or the previous period. This should be completed in future Annual Reviews. See link to the guideline.	Noted, will be included in 2021 Annual Review.	31st March 2022	



	https://www.planning.nsw.gov.au/-/media/Files/DPE/Guidelines/post-approval-requirements-for-state-significant-mining-developments-annual-review-guideline-2015-10.pdf?la=en (Mining Lease Condition 4)			
Schedule 5 - Condition 5 - <i>Revision Strategies, Plans and Programs</i>	Ensure management plans are updated as per the requirements of Schedule 5 Condition 5. Management Plans should be updated if they are identified by the auditor and actions are included in TGO's Audit Action Plan.	Noted, all TGO Environmental Management Plans are currently at various stages of review and will be submitted to DPIE for approval as they are completed.	31 st March 2022	
Environment Protection Licence				
EPL <i>Operating Conditions</i> O1.1	As per Schedule 3 - Condition 49 - <i>Waste</i>	Review of used IBC's completed. New procedure being implemented for management and disposal of IBC's.	30 th October 2021	
EPL <i>Reporting Conditions</i> R2.1	Ensure incident notification occurs immediately if there have been incidents that cause or threaten material harm.	Incidents that require reporting will be done so in the required form and timeframe.	Ongoing	
Statement of Commitments				



4.4 Noise	As per recommendation from Schedule 3 Condition 6.	Noise Management Plan will be reviewed as part of annual Management Plan review and submitted to DPIE for approval.	30 th January 2022	
5.4 Surface Water/Hydrocarbons	Complete a full review of the refuelling infrastructure and procedure to ensure that refuelling is completed within bunded areas and there are appropriate controls to manage a spill.	Review to be completed in conjunction with site review of May 2021 Diesel spill from JLP Transport bulk diesel tanker.	31 st December 2021	
5.4 Surface Water/Hydrocarbons	Store used IBCs with residue contents in bunded area.	Review of used IBC's completed. New procedure being implemented for management and disposal of IBC's. IBC's will be rinsed and not stored with residue prior to removal from site.	30 th October 2021	
13.1 Traffic and Transportation	Including the Code of Conduct for all drivers of all heavy vehicles. Attaching as appendix to the Traffic Management Plan Complete training for drivers.	Noted. Will be reviewed when Traffic Management Plan is reviewed. All drivers on site must have current licence and are tested and permitted on each piece of	Ongoing	



		equipment they drive / use on site.		
15.2 Waste	As per S3 C49 (Project Approval) recommendations.	Review of used IBC's completed. New procedure being implemented for management and disposal of IBC's. Details of waste management will be included in Annual Review.	30th October 2021 31st March 2022	