

Environmental Protection Act 1994

Environmental Protection Order

This environmental protection order is issued by the administering authority pursuant to section 358 of the Environmental Protection Act 1994.

Cromarty Resources Pty Ltd (ACN: 601 398 841)

B & L CONSULTING PTY LTD

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Cc:

Patrick.Oconnor@redriverresources.com.au; bbroad@redriverresources.com.au

Your reference: STAT-E-100352489

Our reference: C-CPLRC-100314296, EPML00773613, 101/0009448

~~30 November 2022~~ 1 December 2022

Dear Directors

Take notice: that under the *Environmental Protection Act 1994* (the Act) this environmental protection order (EPO) is issued to Cromarty Resources Pty Ltd (ACN: 601 398 841) (you) by the administering authority. The administering authority is the Chief Executive of the Department of Environment and Science (the department).

The EPO is issued in respect to the activities of Cromarty Resources Pty Ltd (ACN 601 398 841) at Thalanga Mine site on land described mining leases ML10186, ML10185, ML10137, ML1392 and ML1531 (the premises).

Take further notice that: The original decision was issued on 30 November 2022 and has been corrected on 1 December 2022 pursuant to section 24AA of the *Acts Interpretation Act 1994*. The corrections are shown by formatting such that deletions are in “strike-through” and the corresponding replacement text is adjacent and underlined.

A. Grounds

This EPO is issued on the following grounds:

To secure compliance by you with the “general environmental duty” pursuant to section 358(d)(i) of the Act.

- The general environmental duty is defined pursuant to section 319(1) of the Act as follows:



*'A person must not carry out any activity that causes, or is likely to cause, environmental harm unless the person takes all reasonable and practical actions to prevent or minimise the harm (the **general environmental duty**).*

The department requires you to take reasonable measures to secure compliance with the General Environmental Duty.

- To secure compliance with conditions of Environmental Authority (EA) EPML00773613 pursuant to section 358(d)(iii) of the Act.

The conditions of the EA which are directly relevant are conditions A1-2, A1-4, A1-5, C9-2, F1-1, F5-1, F9-1 and F9-13. The EA (EPML00773613) dated 08 April 2022 states:

(A1-2) *In carrying out the mining activity, reasonable and practicable measures must be taken to prevent or minimise the likelihood of environmental harm being caused.*

(A1-4) *The environmental authority holder must:*

- (a) Install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority and the general environmental duty;*
- (b) Maintain such measures, plant and equipment in a proper condition;*
- (c) Operate such measures, plant and equipment in a proper manner; and*
- (d) Ensure that all instruments and devices used for the measurement or monitoring of any parameter under any condition of this environmental authority must be calibrated and appropriately operated and maintained.*

(A1-5) *Contaminants must not be released to the receiving environment unless they are in accordance with the contaminant limits authorised by this environmental authority.*

(C9-2) *The water level within the Vomacka Pit must not at any time exceed 280mAHD.*

(F1-1) *Contaminants that will, or have the potential to cause, environmental harm must not be released directly or indirectly to any waters except as permitted under the conditions of this environmental authority.*

(F5-1) *The "design wet period - storage" on 1st November of each year for any tailings dam or process water dam with high or significant hazard rating constructed within the operational land must be equivalent to the run-off from the critical wet season in Schedule F - Table 5.*

Schedule F - Table 5 (Storage Design)

Storage Type	Design Wet Period Storage	Spillway Critical Design Storm ¹	Mandatory Reporting Level
Process Water Dam ²	100 Year ARI 3 month wet season	1000 Year ARI	1:10 year ARI ³
Tailings Dam	100 Year ARI 3 month wet season	1000 Year ARI	1:10 year ARI ³

¹ The critical storm has a duration that produces the peak discharge for the catchment

² Applies to East evaporation pond, West evaporation pond, Rail siding evaporation pond, Rail siding first flush pond, decant pond.

³ Refers to volume below the spillway crest, either the 10 ARI 72 hour storm or the 10 ARI wave allowance, whichever is lower.

(F9-1) Groundwater quality and standing water level must be monitored at the locations and frequencies defined in Schedule F - Table 8 & Schedule H Map 2 for parameters identified in Schedule F- Table 9.

(F9-13) Bore CC7 must be established at a location:

- (i) Within the shaded oval area depicted in Schedule H map 2; and
- (ii) In such a manner that it will detect any groundwater contamination before it enters the Campaspe aquifer.

Map 2- Thalanga Ground Water Monitoring.



Figure 1- Site Plan for the Far West Underground & waste rock/PAF above ground storage location TBA (To be provided by 29 July 2022).

The facts and circumstances forming the basis for these grounds are:

1. You are:
 - a. the holder of mining leases ML10186, ML10185, ML10137, ML1392 and ML1531;
 - b. the holder of EA EPML00773613;
 - c. the person with possession and control over the premises.
2. EA EPML00773613 authorises the conduct of environmentally relevant activities at the premises including various aspects of mining and associated activities, subject to the conditions of the EA.

3. There is significant disturbed land and infrastructure on the premises resulting from the mining activities including for example, open cut pits, waste rock dumps, tailings storage facilities (TSFs), run of mine pads, sewage ponds, evaporation ponds, a wetland treatment facility and a processing plant.
4. There are significant risks of environmental harm associated with the mining activities carried out at the premises. This includes, but is not necessarily limited to:
 - a. Environmental risks associated with the mobilisation of contaminants in rainfall runoff from disturbed areas;
 - b. Environmental risks associated with the discharge of mine wastes (e.g. process waters, tailings etc.);
 - c. Environmental risks associated with the seepages from stored water and disturbed areas; and
 - d. Environmental risks associated with equipment, plant and infrastructure utilised in the carrying out of activities (e.g. residual process chemicals, chemical and fuel storages etc).
5. On 14 September 2017, the department issued you an Environmental Evaluation to investigate potential impacts from the Thalanga site to groundwaters.
6. On 26 February 2021 the department accepted the Environmental Report associated with the environmental evaluation.
7. The department's assessment of the Environmental Report identified risks associated with the Vomacka Pit (the pit) and its potential to impact on the nearby Campaspe groundwater formation (water resource).
8. Due to the potential impacts, and to protect the Campaspe groundwater formation, you and the department reached agreement on amendments to EA EPML00773613, which included placing a limit on the maximum water level, that water is lawfully able to be stored in the pit, along with an appropriate groundwater monitoring network.
9. The EA amendments referred to in 8 above, occurred on 24 December 2021 and included changes associated with conditions
 - (C9-2) *The water level within the Vomacka Pit must not at any time exceed 280mAHD; and*
 - (F9-1) *Groundwater quality and standing water level must be monitored at the locations and frequencies defined in Schedule F - Table 8 & Schedule H Map 2 for parameters identified in Schedule F- Table 9,*
10. On 16 September 2022, the department received a notification from you advising that the water held in the pit was at the time, at a level of 301m AHD. This equates to approximately 980,000m³ of water stored in the pit above the maximum authorised level.
11. The department met with you on 19 September 2022 to discuss the pit level and more broadly water management preparations on site leading up to the wet season.
12. The department undertook an inspection at the premises on 29 and 30 September 2022. Authorised persons observed significant quantities of stored water at the premises, took samples of various water storages and other areas of interest.
13. You have been provided the results of the sampling undertaken during the above referenced inspection.
14. Sample results from the pit indicate elevated level of contaminants including salts and metals that are not authorised for and not suitable for release without further treatment.

15. The department understands the site's water management strategy has historically been that generally, rainfall runoff from disturbed mine areas is directed to the pit.
16. It is the department's understanding that you have not yet installed monitoring bores required under EA EPML00773613 condition F9-1. These monitoring bores were required under condition F9-1, to be installed by 30 September 2022 and are considered an important measure as part of your General Environmental Duty. As a result, you do not have an appropriate monitoring network in place to detect potential impacts from the current very high stored water level in the pit.
17. It is unclear how you intend to manage the risks associated with the very high-water level in the pit and what actions you are taking to reduce the water level to comply with condition (C9-2) of EA EPML00773613.
18. On 7 November, you notified the department that an assessment by external engineers identified that the TSF Cell 9 and the West Evaporation Pond (WEP) did not have sufficient capacity to meet their respective Design Storage Allowances (DSA) on 1 November 2022. You further advised that you would be following the engineers' recommendations, which were to distribute stored water across the system to increase capacity in the TSF and WEP.
19. The intent of having the available DSA volume, is to provide reasonable certainty that design performance criteria for containment will be met in any forthcoming wet season. Failure to ensure a regulated structure achieves the required DSA volume at the onset of each wet season (that is, on 1 November each year) poses a heightened risk of an uncontrolled contaminant release.
20. Analytical results of samples taken from the TSF during the inspection referenced in 12 above, indicated elevated level of contaminants including salts and metals, with the quality of waters not authorised for and/or not suitable for release without further treatment.
21. In-situ analysis of waters in the WEP taken during the inspection referenced in 12 above, indicated elevated level of salts at a level not authorised for and/or not suitable for release without further treatment.

Appointment of administrators

22. An ASX release on Friday 28 October 2022, indicated that Michael Ryan, David McGrath and Kathryn Warwick of FTI Consulting (Australia) Pty Ltd (FTI) had been appointed as administrators of Cromarty Resources Pty Ltd.
23. In a meeting with the department on 1 November 2022, you advised that a significant number of staff had been laid off. You further advised an intention to place the site in care and maintenance, that approximately \$1.1M in cash reserves were available during the administration period, along with some assets that could be readily sold.
24. During the 1 November 2022 meeting, you also advised that you were exploring whether to continue to dewater the underground, in order to maintain the value of that asset.
25. During this same meeting, the department sought detailed information in relation to the management of the site water inventory given the changed nature of the operation, and very high water inventory. The department sought a documented water management plan. To date, such a plan has not been provided.
26. As a result, it is presently unclear the actions you are taking to manage water inventory levels and water management risks onsite, along with the risk of such actions (or lack thereof). It is also unclear the impact that ceasing processing, and any continued dewatering of the underground will have on the site water inventory and associated risk of a release of contaminated water.

27. The Bureau of Meteorology reports that we are in a La Niña weather pattern. La Niña events increase the chances of above rainfall for northern and eastern Australia during spring and summer.
28. Whilst in force, EA EPML00773613 has set out the necessary and reasonable conditions required to prevent or minimise environmental harm.
29. The “general environmental duty” requires that all reasonable and practicable measures be taken to prevent or minimise environmental harm. The department considers that there are further reasonable and practicable measures that can and should be taken to prevent or minimise environmental harm. Such actions include for example complying with EA EPML00773613 conditions, having in place a documented water management plan, lawfully reducing the water level of the pit, and ensuring that a competent environmental monitoring program is in place to detect impacts from the pit.
30. It is the department’s assessment that you are not currently complying with EA EPML00773613, in the following terms:
- a. *Condition (C9-2)*, the water level significantly exceeds the maximum level permitted in the pit, being 280m AHD.
 - b. *Condition (F5-1)*, DSA was not available in in TSF Cell 9 and WEP on 1 November 2022
 - c. *Condition (F9-1)*, you have not installed the groundwater monitoring bores necessary to ensure the impacts associated with the mining activity are identified and can be managed.
 - d. *Condition (A1-4)*, given the reported water inventory at the premises (in excess of 980 000m³ above what is authorised), you have not installed and operated all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority.
31. Given the circumstances associated with the administration, and the current water inventory at the premises, the department holds reasonable and significant concerns with respect to the levels of compliance associated with the following condition:
- (A1-2) In carrying out the mining activity, reasonable and practicable measures must be taken to prevent or minimise the likelihood of environmental harm being caused.*
- (A1-5) Contaminants must not be released to the receiving environment unless they are in accordance with the contaminant limits authorised by this environmental authority.*
- (F1-1) Contaminants that will, or have the potential to cause, environmental harm must not be released directly or indirectly to any waters except as permitted under the conditions of this environmental authority.*
32. The department considers that additional measures are available to you to manage the contaminated water inventory, to prevent or minimise environmental harm, to meet the obligations outlined in the *Manual for assessing consequence categories and hydraulic performance of structures (ESR/2016/1933)* (the Manual), and to secure compliance with conditions of EA EPML00773613 and the general environmental duty.
33. The department considers this includes measures such as:
- a. reducing the water accumulation during rainfall events on the premises by diverting clean water catchments;
 - b. installing appropriate pumping and transfer capacity and associated redundancy;
 - c. operating and increasing enhanced evaporation capacity at the premises; and
 - d. operating and increasing water treatment activities and capacities at the premises.

34. On the basis of the information set out in facts and circumstances, the department is of the view that there is an unacceptable risk of material and/or serious environmental harm occurring as a result of the current very high water inventory at the premises and associated risk of a release.
35. On the basis of the information set out in facts and circumstances including the levels of compliance with EA EPML00773613, the very high water levels onsite (in excess of 980 000 m³ above what is authorised), the recent changes to operations, and the forecast of increased chances of above average rainfall, the department considers it reasonable for you to take further action in order to secure compliance with the general environmental duty and with conditions of EA EPML00773613.

B. Requirements

In accordance with this EPO, you are required to do the following:

1. From the date of this EPO, you must take all necessary actions to prevent an unlawful release of contaminants from the premises.
2. By 14 December 2022 you must provide the department with a water management plan (WMP), that covers the 2022/2023 wet season, sets out a strategy to reduce the water level in Vomacka Pit to 280m AHD or lower before 1 November 2023, and that if implemented will effectively minimise the risks of environmental harm from the premises.
3. The WMP must be prepared by an appropriately qualified person (AQP) and outline the proposed water management operating strategy that addresses risks for the 2022/2023 wet season and reduces the water level in Vomacka Pit through to 1 November 2023. An AQP means a person(s) who has professional qualifications, training and experience relevant to the nominated subject matter and who can give authoritative assessment, advice and analysis on performance relative to the subject matter using relevant protocols, standards, methods and literature.
4. The WMP must describe the site water management system (including the seepage management system) and in relation to the proposed water management operating strategy, must at a minimum systematically:
 - a) identify the actual and potential risks of environmental harm that may be caused as a result of implementing the proposed water management operating strategy (including risks associated with any areas where there are no management actions proposed); and
 - b) define the infrastructure (including pumps and pipes), resources, management actions and critical controls necessary to effectively minimise the risks of environmental harm.
5. Commencing ~~1 January 2022~~ 1 January 2023 and continuing thereafter, you must remove a minimum of 22.6 megalitres of contaminated water from the site water inventory every 7 days.
6. All contaminated water removed under ~~requirement 4~~ requirement 5 must be removed lawfully and in a way that minimises the potential for environmental harm.
7. Commencing on ~~1 January 2022~~ 1 January 2023 and continuing thereafter, you must have in place and operational in or adjacent to the Pit, enhanced evaporators that achieve an effective water destruction capacity of at minimum 37.3 L/s. You must quantify and maintain weekly records of the volume of water removed via evaporation through the operation of this system (in L/s).
8. Requirements 5, 6 and 7 persist while this EPO is in effect until such time as a Registered Professional Engineer of Queensland who is an AQP, confirms that each of the regulated structures on the premises has available storage volume to meet relevant DSA, and the Vomacka Pit water level is below 280m AHD, as per the EA EPML00773613 and the Manual.

9. Commencing on and from 1 January 2023, all enhanced evaporators must be operated daily, unless it is not safe to do so, it is raining, or they are under maintenance. The times, dates and reasons for non-operational periods must be recorded.
10. By 14 December 2022, you must provide a report to the department prepared by an APQ, that separately details the method(s) proposed that would result in the removal of 22.6 megalitres of contaminated water from the site inventory every 7 days, using appropriate measures that minimise the potential for environmental harm. The report must include relevant designs, management actions, implementation timeframes and any risks, controls and recommendations, for proposed water reduction. The report is to be sent to ESTownsville@des.qld.gov.au.
11. By 16 December 2022 you must have installed groundwater monitoring bores Campaspe Channel 6 and CC7 listed in EA EPML00773613 Schedule F – Table 8 - Groundwater monitoring locations and frequency.
12. By 16 December 2022, you must provide the department with the following information for Campaspe Channel 6 and CC7:
 - a) the location of the installed bore (easting/northing);
 - b) the relevant screened interval (m);
 - c) the surface and top of casing relative levels (RL); and
 - d) a drill log.
13. By 16 December 2022 you must have equipment installed to enable continuous monitoring for pH, EC and water level at bore locations CC7 and Campaspe Channel 6. The monitoring equipment installed must be able to accurately, reliably and continuously measure pH, EC and water level. The data must be downloaded at minimum weekly and provided in reporting associated with requirement 19.
14. You must not discharge any further tailings into TSF Cell 9, unless and until such time as an independent Registered Professional Engineer of Queensland has provided the department with written certification that TSF Cell 9 is capable of receiving further tailings in compliance with the EA, whilst maintaining an acceptable spill risk. Such certification must provide the basis of the assessment and any limitations associated with the tailings deposition.
15. At all times you must have available:
 - a. appropriately qualified and experienced staff to ensure compliance with this EPO;
 - b. measures, plant and equipment necessary to ensure compliance with this EPO; and
 - c. fuel supplies and access to power to ensure the ongoing operation of measures, plant and equipment to ensure compliance with this EPO; and
 - d. safe lawful access to meet the requirements of this EPO.
16. All measures, plant and equipment necessary to ensure compliance with this EPO must be maintained in a functional and operable manner.
17. You must not, without the department's prior written approval, dispose of, materially alter, or remove any measures, plant or equipment on the premises, necessary to:
 - a) ensure compliance with the requirements of this EPO, or
 - b) reasonably required to reduce the risk of a release of contaminants not otherwise permitted under EA EPML00773613.

18. At all times you must maintain sufficient site security to ensure public safety and prevent theft or vandalism of the measures, plant and equipment that are required to ensure compliance with this EPO.
19. You must provide a written report to the department each Friday (weekly report) prior to 10 am to be prepared by appropriately qualified personnel, which details:
 - a. for the weekly reporting period, details of actions undertaken to comply with this EPO;
 - b. for the weekly reporting period, daily rainfall totals for the premises.
 - c. for the weekly reporting period, details of water transfers undertaken, including the volume (and how that was estimated) of water pumped to and from any regulated structures and/or contaminated storages on the premises.
 - d. for the weekly reporting period the actions taken to reduce the water inventory over the reporting period including the estimated daily volume of water removed from the water inventory, listed for each day, separated by removal method, including details of the measurements, calculations, and assumptions that the estimate is based.
 - e. for the weekly reporting period, the volume of water removed from the Vomacka Pit and any other water storages on site.
 - f. the storage capacity available in each of the regulated structures and the water level (metres AHD) in the Vomacka Pit at the end of the weekly reporting period.
20. You must notify the department in writing at least three business days prior to the date of Cromarty Resources Pty Ltd ceasing activities at all or any part of the premises. "Ceasing activities" means any circumstances that may arise in which the EA is no longer in force, or otherwise taking any action that could result in any of the environmentally relevant activities referred to in the EA being no longer able to be lawfully carried out at the premises.

Written notifications and submissions required by this notice must be provided to the department via email to Kate.Brosnan@des.qld.gov.au and estownsville@des.qld.gov.au.

C. Obligations

If you propose to dispose of the place or business to which the EPO relates, you **must** advise the buyer of the existence of this EPO.

Take notice:

- the requirements of this order take effect immediately upon service of the order;
- failure to comply with this order is an offence under the EP Act;
- this order remains in force until further notice from the administering authority.

D. Penalty

Failure to comply with an EPO is an offence.

- The maximum penalty for an individual for wilfully contravening an EPO is 6250 penalty units, totalling \$898,437.50

- The maximum penalty for a corporation for wilfully contravening an EPO \$4,492,187.50.
- The maximum penalty for an individual for contravening an EPO is 4500 penalty units, totalling \$646,875
- The maximum penalty for a corporation for contravening an EPO is \$3,234,375

Failure to provide written notice to the buyer is an offence.

- The maximum penalty for an individual is 50 penalty units, totalling \$7,187.50.
- The maximum penalty for a corporation is \$35,937.50.

Failure to provide written notice within 10 business days of ceasing the activity to the department is an offence.

- The maximum penalty for an individual is 50 penalty units, totalling \$7,187.50.
- The maximum penalty for a corporation is \$35,937.50.

Section 3 of the Penalties and Sentences Regulation 2015 prescribes the monetary value of a penalty unit.

E. Reviews and appeals

The provisions regarding reviews of decisions and appeals are found in sections 519 to 539 of the EP Act.

A person who is dissatisfied with an original decision made by the Department of Environment and Science (the department) may apply to have that decision internally reviewed.

Information about initiating an appeal in relation to this notice is contained within the [Internal Reviews and Appeals Information Sheet](#) (available at www.qld.gov.au using the publication number ESR /2015/1742 as a search term)

A request for review or appeal is to be made using the approved form '[Application for review of original decision](#)' (available at www.qld.gov.au using the publication number ESR/2015/1573 as a search term).

Applications for reviews are to be sent to Permit and Licence Management, Department of Environment and Science: via email at palm@des.qld.gov.au , or by mail to the following address: GPO. Box 2454, Brisbane, QLD, 4001.

Where an application has been made for a decision to be reviewed, the applicant may also apply to the relevant court for a stay of the decision to secure the effectiveness of the review.

Once the original decision has been reviewed, a person who is dissatisfied with the review decision may be able to appeal against that decision to the relevant court within 22 business days after receiving notice of the review decision.

A person whose interests are or would be adversely affected by a decision of the department may be able to request a statement of reasons for a decision or a statutory order review under the *Judicial Review Act 1991*.

You may have other legal rights or obligations and should seek your own legal advice.

Pursuant to section 540 of the Act, the department is required to maintain a register of certain documents and information authorised under the Act. A copy of this document will be kept on the public register. The register is available for inspection by members of the public who are able take extracts, or copies of the documents from the register. Documents that are required to be kept on the register are published in their entirety, unless alteration is required by the Act. There is no general discretion allowing the department to withhold documents or information required to be kept on the public register. For more information on the department's public

Notice
Environmental Protection Order

register, search 'public register' at www.qld.gov.au. For queries about privacy matters please email privacy@des.qld.gov.au or telephone 13 74 68.

Should you have any queries in relation to the notice, please contact Kate Brosnan on telephone number 07 4722 5330 or email address Kate.Brosnan@des.qld.gov.au .



Signature

1/12/2022

Date

Tony Williams

Manager Minerals

Delegate of the Chief Executive

Department of Environment and Science

Environmental Protection Act 1994

Enquiries:

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