# Project Caymus Compliance Assessment Report

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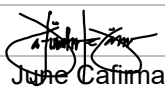
## Authorisation

| Version | Prepared | Checked | Authorised | Date |
|---|---|---|---|---|
| 1 | Jacobs (DC) | Jacobs (TB) | Jacobs (DC) | 19/03/25 |
| 2 | Jacobs (DC) | Crowley (JC) | Jacobs (DC) | 31/03/25 |
| 3 | Jacobs (DC) | Crowley (JC) | Jacobs (DC) | 02/0 5/25 |

## Declaration of Accuracy

In making this declaration, I am aware that section *150 of the Environment Protection Act 2019* makes it an offence in certain circumstances to knowingly provide false or misleading information or documents. I declare that all the information and documentation supporting this compliance report is true and correct in every particular.

| | |
|---|---|
| **Signature** |  |
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# Contents

# Introduction

Crowley Australia (Crowley) as proponent for the Project Caymus Bulk Fuel Storage Facility was issued with an Approval under the Environment Protection Act 2019 (EP Act) (EP2021/008 – 001) on 29 November 2021. The approval was subsequently amended by variations to conditions 6(d), 11(i), 11(j) made pursuant to Section 65 of the EP Act. The Approval is now referenced as EP2021/008 – 002.

Condition 6(f) of EP2021/008 – 002 requires Crowley to submit a Compliance Assessment Report (CAR) to the CEO of the Department of Lands, Planning and Environment (DLPE) (formerly DEPAWS) within 15 months from commencement of the issue of the licence, or as otherwise agreed with the CEO, with each subsequent report submitted within 12 months from the date of the previous report. This is the second CAR, covering the period 29 November 2023 to 28 November 2024, to be submitted on the 29 February 2025. Approval from the CEO for the updated CAR timelines was obtained as outlined in Section 1.1.

Specific Project details are provided in Table 0-1, with an overview and status of activities described in Section 2.

**Table 0-1: Project Caymus details**

| Item | Project Details |
|---|---|
| EP Number | EP2021/008 – 002 |
| Project Name | Project Caymus |
| Approval Holder | Crowley Australia |
| Approval holder ABN | 654 468 836 |
| Approved Action | To construct and operate a bulk fuel storage facility and ancillary infrastructure for the transfer and storage of jet fuel, East Arm, Darwin. |

## 1.1 Purpose and Scope

On 29 November 2021, Crowley Australia Pty. Ltd. (Crowley) received Ministerial approval to construct and operate a bulk fuel storage facility and ancillary infrastructure for the transfer and storage of jet fuel at East Arm, in Darwin (the Project). The Approval was granted under Section 65 of the Environment Protection Act 2019 in line with Environmental approval EP2021/008-001 (the Approval).

The purpose of this Compliance Assessment Report is to meet the requirements of the Approval, including:

**Condition 6f:**

> *The approval holder shall submit to the CEO the first Compliance Assessment Report fifteen (15) months from the date of issue of this approval addressing the twelve (12) month period from the date of issue of this approval and then annually from the date of submission of the first Compliance Assessment Report, or as otherwise agreed in writing by the CEO.*
>
> *Note: DEPWS granted Crowley an extension for the submission date of the first CAR on October 31, 2023. DEPWS requested that the reporting period cover a period of 24 months (November 29, 2021 – November 28, 2023; see reference to this in Appendix A).*
>
> *Note: Crowley requested a month extension for this CAR on 28 February 2025 (to the end of March 2025). DLPE granted this request on 3 March 2025.*

**Condition 6g:**

> *The Compliance Assessment Report shall:*

i. *have the company seal affixed and be endorsed by the approval holder's Chief Executive Officer or a person delegated to sign on the Chief Executive Officer's behalf;*

ii. *include a statement as to whether the approval holder has complied with the conditions;*

iii. *identify all potential non -compliances and describe corrective and preventative actions taken;*

iv. *be made publicly available at www.crowley.com in accordance with the approved Compliance Assessment Plan; and*

v. *indicate any proposed changes to the Compliance Assessment Plan required by condition 6a.*

This Compliance Report addresses compliance with above conditions and associated plans, programs or strategies during the **period of 29 November 2023 to 28 November 2024**.

### 1.1.1 Variations Under EP2021/008 – 002

It is noted that several conditions in the original Approval (EP2021/008-001) were amended during the previous reporting period through an "Application for a review of a decision" submitted to DEPWS on 18th January 2023. A formal response was received on 25 May 2023 which included following agreed amendments:

**Condition 6(d):**

*The approval holder shall retain reports of all compliance assessments described in the Compliance Assessment Plan required by condition 6a for a period of seven years from the finalisation of each report. The approval holder shall make those reports available when requested by the CEO.*

**Condition 11(i):**

*Within six weeks of sampling referred to in condition 11h (unless otherwise agreed by the CEO), provide a written verification report to the CEO. The report will include:*

i. *all analytical results of sampling required for all discharge points (any external report must be reproduced in full);*

ii. *all relevant Australian Standard (AS) information in relation to establishing, siting, operating and maintaining meteorological monitoring equipment i.e. the latest versions of :*

   a. *M-1 Guide for the siting of sampling units (AS/NZS 3580.1.1)*
   b. *AM-2 Guide for measurement of horizontal wind for air quality applications (AS 3580.14)*
   c. *AM-4 Meteorological monitoring guidance for regulatory modelling applications (AS 3580.14 or USEPA 454/R-99-005).*

*Also, the meteorological stations will use an anemometer with a stall speed of 0.5 m/s or less;*

iii. *a description of operational parameters during sampling relevant for air emissions estimates; and*

iv. *a comparison of analytical results from sampling against final design emission specifications and modelled emission parameters in the AQIA required under conditions 11c and 11d.*

**Condition 11(j):**

*Ensure that where any comparison under condition 11i identifies measured emission concentrations or rates that are significantly greater than the emissions characteristics used in the AQIA or are greater than the Protection of the Environment Operations (Clean Air) Regulation 2021 standards of concentration:*

i. *provide an updated validated air dispersion model report to confirm compliance with the impact assessment criteria contained in the Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (EPA 2016) or the latest version; and*

ii. *if requested by the CEO, identify and record as part of the EMS, measures to be implemented to reduce emissions of air pollutants so that they comply with the relevant NSW Clean Air Regulation standards and assessment criteria in the Approved Methods for the Modelling and Assessments of Air Pollutants in New South Wales (NSW EPA 2016) or the latest version.*

### 1.1.2 DLPE Approved and/or Reviewed Plans

Table 0-2 provides an overview of relevant environmental plans which were submitted to, and where relevant approved by DLPE, which were in effect during the November 29, 2023 to November 28, 2024 CAR reporting period.

**Table 0-2: Submitted Plans**

| Title | Description |
|---|---|
| Air Quality Monitoring Plan<br><br>(AQMP) | The Air Quality Monitoring Plan describes the measures in place to minimise emissions of volatile organic compounds and potential damage to environmental values associated with the Project Caymus Bulk Fuel Storage Facility. It describes the methodology, approach and environmental criteria used in the monitoring program.<br><br>The AQMP was submitted in accordance with EP2001/008-001 Condition 11 to DLPE |
| Compliance Assessment Plan<br><br>(CAP) | The Compliance Assessment Plan outlines how compliance with the Approval will be assessed and reported. This includes a description of the assessment process, frequency of compliance reporting and retention of compliance assessment records.<br><br>The CAP was submitted in accordance with EP2001/008-001 Condition 6. DLPE responded on 7/9/2023 stating that the CAP satisfies requirements |
| Environmental Monitoring Program<br><br>(EMP) | The Environmental Monitoring Program outlines how ongoing environmental monitoring will be conducted. This program supersedes the Wastewater Management Plan and the Dewatering Management Plan.<br><br>The EMP was submitted in accordance with EP2001/008 -002 condition 7/10 . Response was received from DLPE on 8/11/2024 stating that it satisfied requirements. |
| Construction Environmental Management Plan<br><br>(CEMP) | The CEMP outlines how construction activities will be managed in order to avoid/mitigate environmental or nuisance impacts, and how those environmental management requirements will be implemented, monitored and maintained in a compliant state<br><br>The Construction Environmental Management Plan was designed in accordance with EP2001/008 -002 Condition 10. It has been made available on the Crowley Australia website. |
| Wastewater Management Plan<br><br>(WMP)[1] | The Wastewater Management Plan describes the measures implemented to ensure that wastewater discharged from the project site does not contain contaminants or waste at concentrations which exceed the Approval conditions It also specifies the controls in place to minimise potential erosion associated with the release of wastewater.<br><br>The WMP was submitted in accordance with EP2001/008-002 Condition 10 to DEPWS on 1/8/2023 . |
| Erosion and Sediment Control Plan<br><br>(ESCP) | The Erosion and Sediment Control Plan describes the minimum required erosion control measures for the desired works.<br><br>The ESCP was submitted in accordance with EP2001/008-001 Condition 10 and acknowledged by DEPWS on the 14/9/2023. |
| Acid Sulphate Soil Management Plan<br><br>(ASSMP) | The ASSMP is a supporting document to the CEMP and outlines the strategy to effectively manage the potential extent and severity of environmental impacts associated with the disturbance of acid sulphate soils on the site. |

| Title | Description |
|---|---|
| Dewatering Management Plan<br><br>(DMP)[1] | The DMP describes the measures in place to ensure that any dewatering and disposal activities related to construction works do not result in an unacceptable risk to human health or the environment. |

**Note:**

1. These plans are no longer active post change of Principal Contractor.

# 2. Description of Activities

## 2.1 Project Caymus Project Overview

The Project is to construct and operate a U.S. Defence Bulk Fuel Storage Facility (BFSF) located on Lot 5720 west of the Railway Terminal on East Arm District, Northern Territory, near Darwin. The facility will have a total storage capacity of 300 Mega Litre (ML) of jet fuel comprising the following :

- 700,000 barrels (111.3 ML) of F34 jet fuel (military kerosene type) aviation turbine fuel, with added Fuel System Icing Inhibitor (FSII), to be used by land-based gas turbine engine aircraft; and
- 1,200,000 barrels (190.8 ML) F44 combustible jet fuel (military high flash-point kerosene type) aviation turbine fuel with added FSII, to be used by ship-based gas turbine engine aircraft.

## 2.2 Location

**Approved locations of physical and operational elements:**

Element: New pipeline easement

- Section 5720 Hundred of Bagot, Freehold, Town Planning Zone DV, 740 Berrimah Rd.
- Section 5719 (right of way behind Vopak), Hundred of Bagot, Freehold, Town Planning Zone MZ, 780 Berrimah Rd

Element: Pipeline route

- Section 07219 Hundred of Bagot plan LTO2015/060
- N.T. Portion 05986, East Arm plan S2000/206
- Section 05717 Hundred of Bagot plan S2003/201 (access only)
- Section 05719 Hundred of Bagot plan S2003/201
- Section 05720 Hundred of Bagot plan S2003/201
- Section 05783 Hundred of Bagot plan S2005/171A
- Section 04443 Hundred of Bagot plan S921090

## 2.3 Current Status of Activities

Key construction activities undertaken at Project Caymus during the reporting period included:

- Bulk earthworks, equipment delivery, assembly and installation associated with the construction of the bulk fuel storage facility
- Planning and construction of a fuel transfer pipeline from the marine loading arm to the project site
- Environmental inspection and monitoring of construction activities.

# 3. Limitations

## 3.1 Project Challenges

Project Caymusexperienced challenges with its construction contractors during the reporting period which have the potential to influence the information presented in this CAR. Due to an ongoing legal proceeding with the contractor , we canonly provide a brief summary of issuesat this stage.

### Change in Principal Contractor

- Crowley assumed the role of Principal Contractor (PC) in November 2024.
- The PC prior to that time was engaged by Crowley on 28 April 2023 and ceased acting as PC on 30 October 2024.

### Limitations on Access to Environmental Plans, Inspection Records & Monitoring Data

Crowley is currently in a dispute with the previous PC. To the best of Crowley's knowledge, there are no activities of potential concern that occurred during that time. However, Crowley has a concern that given the dispute, the previous PC may not have provided all information that may be pertinent to this report. Crowley continues to use all best endeavours to obtain all relevant information.

### Installation & Construction

- Following the identification of groundwater in the leak detection system, it was identified that the installation work associated with the tanks and lining may not have met the required Standard.
- Crowley is actively investigating the issue and an appropriate, compliant and effective repair solution. Crowley is in ongoing communication with DLPE on this issue;
- No commissioning activities will occur until the system has been installed to the required Standard and its compliance independently verified. DLPE will be informed of this prior to commissioning to be able to demonstrate pursuant to condition 4 of its licence that the plant is fit for purpose.

This CAR assesses the compliance of project activities with the conditions of the Approval using all documents / data / information available to Crowley for this reporting period.

In the event that additional information becomes available, an Annex to this CAR will be submitted to DLPE, or data will be included in the next CAR, depending on timing.

## 3.2 Statement of Limitations

The sole purpose of this report prepared by Jacobs on behalf of Crowley is to assess the compliance of the site with environmental approval EP2021/008-002.

In preparing this report, Jacobs has relied upon, and presumed accurate, any information (or confirmation of the absence thereof) provided by Crowley. Except as otherwise stated in the report, Jacobs has not attempted to verify the accuracy or completeness of any such information. If the information is subsequently determined to be false, inaccurate or incomplete then it is possible that Jacob's observations and conclusions as expressed in this report may change.

Jacobs derived the data in this report from information sourced from the Crowley covering the stated assessment period. No other data has been considered. The passage of time, manifestation of latent conditions or impacts of future events may result in changes in site conditions, which will be evaluated in future compliance assessment reporting.

Jacobs has prepared this report in accordance with the usual care and thoroughness of the consulting profession, for the sole purpose described above and byreference to applicable standards, guidelines, procedures and practices at the date of issue of this report. For the reasons outlined above, however, no other warranty or guarantee, whether expressed or implied, is made as to the data, observations and findings expressed in this report, to the extent permitted by law.

This report should be read in full, and no excerpts are to be taken as representative of the findings. No responsibility is accepted by Jacobs for use of any part of this report in any other context.

This report has been prepared on behalf of, and for the exclusive use of Crowley, and is subject to, and issued in accordance with, the provisions of the contract between Jacobs and the Crowley. Jacobs accepts no liability or responsibility whatsoever for, or in respect of, any use of, or reliance upon, this report by any third party.

# 4. Compliance with Environmental Approval Conditions

The terms and definitions provided in Table 4-1 have been used to indicate the status of compliance with relevant EP2021/008 – 002 approval conditions.

A summary of the compliance status with relevant EP2021/008 -002 approval conditions (Section 1.1), applicable timeframes and reference to evidence supporting the compliance status (as applicable) is provided in Table 4-3.

**Table 3-1 Compliance status terms, acronyms and definitions**

| Term | Acronym | Definition |
|---|---|---|
| Compliant | C | Compliance is achieved when all the requirements of a condition have been met, including the implementation of management plans or other measures required by those conditions. |
| Non-compliant | NC | A designation of "non-compliance" is given where the requirements of a condition, or elements of a conditions, including the implementation of management plans and other measures, have not been met. |
| Not applicable | NA | A designation of "not applicable" is given where the requirements of a condition, or elements of a condition, fall outside of the scope of the current reporting period. For example, a condition which applies to activity that has not yet commenced. |
| In progress | IP | A designation of "in progress" is given where the requirements of a condition have not yet been met (e.g. during the construction phase), but actions are being taken to ensure that compliance is met in the future. |

## 4.1 Audits, Inspections & Reviews

A summary of the environmental audits, inspections and reviews (as relevant to EP2021/008 – 002) undertaken during the reporting period is provided in Table 4-2. Outcomes of audits as applicable to EP2021/008 – 002 conditions are presented in Table 4-3.

**Table 4-2: Summary of Audits, Inspections & Reviews**

| Audits, Inspections & Reviews | Scope | Date |
|---|---|---|
| Latitude 63 Caymus Site Environmental Inspection Program | The inspection program included regular environmental inspections of the Caymus site by Latitude 63 (PC) and Byrne (consultants). | 24 November 2023 to 29 February 2024<br><br>(Refer Appendix C) |
| Crowley Project Caymus Discharge Monitoring | The discharge monitoring included weekly sampling of stormwater discharge by Crowley in accordance with the Environmental Monitoring Program. | Weekly sampling commenced on 19 November 2024<br><br>(Refer Appendix C) |

Table 4-3: EP2021/008 -002 Approval Compliance Table

| Condition No. | Condition | Timing | Status | Evidence/Comments |
|---|---|---|---|---|
| 1a | Commencement of action.<br><br>The proponent shall not commence implementation of the proposal after two (2) years from the date on which approval has been granted, unless substantial work has physically commenced on or before that date. | By 29 November 2023 | Compliant | Commencement of action letter submitted under Condition 1b.<br>Picture 1 – Photo demonstrating substantial commencement of project.<br>  |
| 1b | Commencement of action.<br><br>The approval holder must notify in writing the Chief Executive Officer of the Department of Environment, Parks and Water Security (the CEO) of the date of commencement of the action, within 10 business days after the date of commencement of the action. | Within 10 business days after commencement of the action | Compliant | Letter was sent to the CEO notifying the date of commencement on 15 February 2022.<br><br>Photos demonstrating the substantial commencement of the Project are provided. (Attached as Appendix B). |

| Condition No. | Condition | Timing | Status | Evidence/Comments |
|---|---|---|---|---|
| 2 | Proposal implementation.<br><br>The action must be carried out:<br>I. In accordance with the Environment Protection Act 2019;<br>II. In accordance with this approval;<br>III. In a competent manner; and<br>IV. Wholly within the premises as identified in the approval | Ongoing | In Progress | Crowley has demonstrated compliance with this condition.<br><br>Where non-compliances are identified (refer to Condition 6e) the relevant parties have been notified. |
| 3 | Change of contact details.<br><br>The approval holder must notify the CEO of any change of its name, physical address, postal address and contact details for the serving of notices or other correspondence within 10 business days of such change. | Within 10 business days of a change in name, physical address or postal address. | Compliant | No changes to contact details in the reporting period. |
| 4 | Operation and maintenance of plant and equipment.<br>The approval holder must ensure any plant and equipment used in conducting the action:<br>I) Is fit for the purpose and use to which it is put;<br>II) Is maintained;<br>III) Is operated by a person trained to use the plant and equipment; and<br>IV) Is calibrated in accordance with Australian Standard methods. | Ongoing | In progress | Monitoring and verification of the design continues to ensure prior to commissioning the plant and equipment will be fit for the purpose to which it is being put. Crowley is currently examining the tanks and lining design to ensure it meets Standards<br><br>A Construction Environment Management Plan (CEMP) was implemented during the construction phase of the action.<br><br>An Environmental Management System (EMS) is being finalised and will be fully implemented prior to the commissioning phase of the action. |
| 5a | Environmental Management.<br><br>Prior to commencement of operation, the approval holder must develop and implement an environmental management system (EMS) that applies specifically to the action, and is | September 18, 2023 | In progress | An EMS is being finalised and will be fully implemented and tested as part of the commissioning phase. Any recommended improvement actions will be implemented prior to operation. |

| Condition No. | Condition | Timing | Status | Evidence/Comments |
|---|---|---|---|---|
| | consistent with ISO 14001 Environmental Management Systems | | | |
| 5b | Environmental Management.<br><br>The approval holder must ensure that the action is designed, constructed, maintained and operated in accordance with industry best practice, and as a minimum:<br><br>I) all applicable Australian Standards, including but not limited to AS1940 and AS1692, as amended from time to time.<br><br>II) all applicable American Petroleum Industry (API) standards, including but not limited to API650 and API1581, as amended from time to time. | Ongoing | In Progress | The referenced Standards were included as core compliance requirements in the project specifications and conditions of contract. This included design, equipment supply and construction contracts.<br><br>Issues with the installation of the leak detection system were identified during the reporting period, with areas of groundwater ingress noted during routine inspections.<br><br>There is currently no jet fuel stored in the onsite tanks and no environmental harm has occurred as a result of the leak.<br><br>Investigation and rectification works are being undertaken to ensure the final construction meets all relevant Standards. |
| 6a | Compliance Reporting.<br><br>The approval holder shall prepare and maintain a Compliance Assessment Plan which is submitted to the CEO at least six (6) months prior to the first Compliance Assessment Report required by condition 6f, or prior to implementation of the action, whichever is sooner. | By 30 June 2023 | Compliant | The CAP was submitted to DEPWS on 22/9/2022.<br><br>It is proposed that the CAP will be reviewed, updated and resubmitted prior to the commissioning phase. |
| 6b | Compliance Reporting.<br>The Compliance Assessment Plan shall indicate:<br>I) the frequency of compliance reporting;<br>II) the approach and timing of compliance assessments;<br>III) the retention of compliance assessments;<br>IV) the method of reporting of potential non-compliances and corrective actions taken; | By 30 June 2023 | Compliant | Acknowledgement of receipt of the report was provided by DEPWS on 7/9/2023.The CEO approved the CAP on 31/9/23. |

| Condition No. | Condition | Timing | Status | Evidence/Comments |
|---|---|---|---|---|
| | V) the table of contents of Compliance Assessment Reports; and<br>VI) public availability of Compliance Assessment Reports. | | | |
| 6c | Compliance Reporting.<br><br>After receiving notice in writing from the CEO that the Compliance Assessment Plan satisfies the requirements of condition 6b the approval holder shall assess compliance with conditions in accordance with the Compliance Assessment Plan required by condition 6a. | 29 February 2024 and annually thereafter | Compliant | Submission of this CAR to the CEO.<br><br>On 28 February 2025 Crowley requested a month extension for the submission of this CAR. An extension was granted on 3 March 2025. |
| 6d | Compliance Reporting.<br><br>The approval holder shall retain reports of all compliance assessments described in the Compliance Assessment Plan required by condition 6a and shall make those reports available when requested by the CEO. | Retain CARs for 7 years following the end of life of the proposal. Make CARs available when requested by CEO. | Compliant | Subject to our comments in the limitations section above, Crowley can confirm that all reports are retained on Crowley's document management system. |
| 6e | Compliance Reporting.<br><br>The approval holder shall advise the CEO of any potential or actual non-compliance within seven (7) days of that non-compliance being known. | Within 7 days of a potential or actual non-compliance being known | Compliant | No formal non-compliance events have been reported to the CEO within the reporting period, however the issues noted regarding the underground leak detection system were communicated to DLPE. This was subsequently determined to be non-compliant with Condition 10c.<br><br>Crowley continue to communicate with DLPE regarding the management and rectification plans and will ensure the tanks are compliant with Condition 10c prior to their filling with fuel. |
| 6f | Compliance Reporting.<br><br>The approval holder shall submit to the CEO the first Compliance Assessment Report fifteen (15) months from the date of issue of this approval addressing the twelve (12) month period from the date of issue of this approval and then | 29 February 2024 was the agreed date with the CEO for the first report and annually thereafter, with an agreed month extension for this report | Compliant | The first CAR was submitted to the CEO by 29 February 2024. |

| Condition No. | Condition | Timing | Status | Evidence/Comments |
|---|---|---|---|---|
| | annually from the date of submission of the first Compliance Assessment Report, or as otherwise agreed in writing by the CEO. | | | |
| 6g | Compliance Reporting.<br>The Compliance Assessment Report shall:<br>I) have the company seal affixed and be endorsed by the approval holder's Chief Executive Officer or a person delegated to sign on the Chief Executive Officer's behalf;<br>II) include a statement as to whether the approval holder has complied with the conditions;<br>III) identify all potential non-compliances and describe corrective and preventative actions taken;<br>IV) be made publicly available in accordance with the approved Compliance Assessment Plan; and<br>V) indicate any proposed changes to the Compliance Assessment Plan required by condition 6a. | As above | Compliant | Submission of this CAR to the CEO. |
| 7a | Monitoring and Auditing<br>The approval holder must design and implement a monitoring program, to the satisfaction of the CEO, which demonstrates compliance with condition 10g and 10l of this environmental approval. The monitoring program must include:<br>I) the collection of baseline data over an appropriate time period;<br>II) appropriate monitoring of relevant parameters in accordance with Appendix 2 of this approval | Ongoing | Compliant | The Environmental Monitoring Program was developed in accordance with the conditions in EP2021/008 – 002.<br><br>The EMP was submitted to the CEO for review and approval. Response was received from DLPE on 8/11/2024 stating that it satisfied requirements.<br><br>Implementation is ongoing and the EMP will be reviewed, updated and resubmitted prior to the commissioning phase.<br><br>Stormwater discharge monitoring has been conducted throughout the reporting period, initially following the DMP procedure, before the implementation of the EMP. Supporting data provided in Appendix C. |

| Condition No. | Condition | Timing | Status | Evidence/Comments |
|---|---|---|---|---|
| | III) a system for recording and maintaining monitoring details and data records; and a quality assurance and quality control system. | | | Baseline monitoring is currently being undertaken onsite. Quarterly groundwater/ surface water monitoring will commence after commissioning of the site. |
| 7b | Monitoring and Auditing.<br>The approval holder must develop and implement an environmental audit program for the site. The program must:<br>I) be developed by a qualified person, and approved by the CEO prior to commissioning of the action;<br>II) verify that the safeguards specified in this environmental approval are implemented and maintained;<br>III) evaluate the effectiveness of the safeguards for the protection of the environment applied or adopted in relation to the action;<br>IV) evaluate compliance with the conditions of this environmental approval; and<br>V) verify that environmental monitoring, maintenance and record keeping are being undertaken in accordance with the Compliance Assessment Reporting process required under condition 6, and the approval holder's EMS. | Audit program to be implemented and demonstrated within two months of the commencement of operations. | NA | A commencement date has yet to be confirmed due to the ongoing investigation and rehabilitation works being undertaken on the leak detection system.<br>The CEO will be informed as soon as an indicative date is known.<br>The required environmental audit program will be submitted to the CEO for approval within two months of commencement of operations.<br>A scope of work for the audit program has been drafted. |
| 7c | Monitoring and Auditing.<br>The audit program must include an audit within two (2) months of the completion of construction of the action, and an audit within two (2) months after the first year following commissioning of the action. Thereafter, auditing of the action will be conducted at a frequency determined by the CEO. | An Environmental Audit will be undertaken within two months of commissioning of the site. A second audit will be conducted within two months after following the first year after commissioning. | NA | A commencement date has yet to be confirmed due to the ongoing investigation and rehabilitation works being undertaken on the leak detection system.<br>The CEO will be informed as soon as an indicative date is known.<br>The required environmental audit program will be implemented within two months of completion of the action. |

| Condition No. | Condition | Timing | Status | Evidence/Comments |
|---|---|---|---|---|
| | | | | A scope of work for the audit program has been drafted. |
| 7d | Monitoring and Auditing.<br><br>The approval holder must ensure that, within 20 business days of conclusion of each environmental audit, it provides to the CEO:<br><br>I) a written report on the environmental audit required by condition 7c that is prepared and signed by the qualified person who conducted the audit; and<br><br>II) a written report from the approval holder that responds to each potential and actual non-compliance identified in the written audit report. | Environmental audit to be undertaken two months prior to commissioning of site and two months after commissioning. | NA | No formal audits against the conditions of the Approval have been conducted in this reporting period. |
| 8 | Notification of environmental incidents.<br><br>Notification of environmental incidents must be in accordance with Part 9 Division 8 of the Environment Protection Act 2019 and Part 10 of the Environment Protection Regulations 2020.<br><br>In an emergency, the NT EPA Pollution Response Hotline should be notified in the first instance by telephoning 1800 064 567. | As soon as practicable after becoming aware of an environmental incident. | Compliant | PRL12222 – Drain Sheen: On 8 February 2024 Crowley reported a sheen in the eastern upstream drain. It was later assessed as a minor incident by an authorised officer. No further action was required.<br><br>PRL12218 – Groundwater release: On 8 February a third party reported to the NT EPA that there was a discharge of water from the site. This was in relation to the identification of groundwater accumulating in the leak detection system below the tanks. Crowley responded to the report on 12 February 2024. DLPE were notified as the investigation progressed. It was concluded that groundwater was leaking through the geosynthetic clay liner that caps the base of the leak detection system. The repair works are ongoing to fix this issue. |
| 9 | Public availability of data.<br><br>Subject to confidentiality of information requirements under Part 13, Division 3 of the Environment Protection Act 2019, within six (6) months of commencement of the action and for | 29 May 2023 then ongoing for the life of the action | Non-Compliant | This has been flagged as a non-compliance. Crowley will upload available environmental data as soon as practicable to www.crowley.com/darwin-australia/ |

| Condition No. | Condition | Timing | Status | Evidence/Comments |
|---|---|---|---|---|
| | the remainder of the life of the action, the approval holder is required to publish and make publicly available, in the form and manner approved by the CEO, all available environmental data (including sampling design, sampling methodologies, empirical data and derived information products (e.g. maps}), monitoring records, management plans, reports and audits relevant to the assessment of the action and implementation of the environmental approval. | | | |
| 10a | Marine environmental quality<br><br>Take all reasonably practicable measures during the planning, design, construction, operation, remediation and closure of the action to avoid and mitigate impacts attributable to the action on the quality and productivity of water, sediment and biota beyond the boundary of the premises. | Ongoing | In Progress. | During the reporting period all works conducted have followed the CEMP, DMP and/or EMP which aim to mitigate impacts to the quality and productivity of water, sediment and biota beyond the boundary of the premises. |
| 10b | Marine environmental quality<br><br>Ensure there is no migration or overflow of a contaminant or waste beyond the boundary of the premises, which causes or may cause environmental harm. | Ongoing | Compliant | As per 10a.<br><br>Ongoing implementation of the EMS, ASSMP, CEMP and ESCP, supported by the EMP and CAR process ensures there is no release of contaminants from onsite activities. Noting that the plant has not yet been commissioned, there is limited opportunity for contamination. |
| 10c | Marine environmental quality<br>Ensure all fuel storage tanks are designed and constructed in accordance with API Standard 650 welded tanks for oil storage, and must include:<br>I) impermeable sub-grade release prevention barriers; and<br>II) under tank leak detection systems. | Ongoing | Non-compliant | As discussed, during the reporting period, groundwater ingress was identified in the leak detection system. The cause is understood to be associated with the initial installation of the leak detection system.<br>There is currently no jet fuel stored onsite and no environmental harm has occurred as a result of this non-compliance. |

| Condition No. | Condition | Timing | Status | Evidence/Comments |
|---|---|---|---|---|
| | | | | Investigation and rectification works are being undertaken to ensure the final construction meets all relevant Standards. Corrective actions will be communicated to DLPE once confirmed. |
| 10d | Ensure that storage tanks and bunds on the premises are designed and constructed to minimise the potential for overflow of containment structures from dynamic pressure and product wave in the event of catastrophic tank failure. | Ongoing | In progress | The tanks and bunds have been designed to meet the requirements of 10d, subject to the comments above.<br><br>Ongoing implementation of the EMS ASSMP, CEMP and ESCP, supported by the EMP and CAR process will help ensure there is no release of contaminants from onsite activities.<br><br>The design and construction of the tanks and bunded area will be reviewed as part of the audit program and independently verified to ensure compliance prior to commissioning. |
| 10e | Marine environmental quality.<br><br>Take all reasonably practicable measures to ensure that stormwater within the premises does not come into contact with a contaminant, which causes or may cause environmental harm. | Ongoing | Compliant | Ongoing implementation of the EMS, ASSMP, CEMP and ESCP, supported by the EMP and CAR process will help ensure there is no release of contaminants from onsite activities. |
| 10f | Marine environmental quality.<br><br>Maintain capacity at all times to contain stormwater that has the potential to be contaminated within the boundary of the premises up to a 2% Annual Exceedance probability 24-hour rainfall event. The height of bund walls must not be less than 3 metres. | Ongoing | Compliant | Ongoing implementation of the EMS, ASSMP, CEMP and ESCP, supported by the EMP and CAR process will help ensure there is no release of contaminants from onsite activities.<br><br>The design and construction of the tanks and bunded area will be reviewed as part of the audit program and independently verified. |
| 10g | Marine environmental quality.<br><br>Ensure that any stormwater that has the potential to be contaminated with hydrocarbons is retained on the premises and treated through an oily water separation device to a quality in | Ongoing | Compliant | Stormwater is contained in the bunded area and when determined to be uncontaminated, is released via the oily water separator to the harbour. Noting the Project is not yet commissioned so very low risk at this stage. |

| Condition No. | Condition | Timing | Status | Evidence/Comments |
|---|---|---|---|---|
| | accordance with Table 1 of Appendix 2 of this approval. | | | Ongoing implementation of the EMS, ASSMP, CEMP and ESCP, supported by the EMP and CAR process will help ensure there is no release of contaminants from onsite activities.<br><br>The design and construction of the oily water interceptor will be reviewed as part of the audit program and independently verified. |
| 10h | Marine environmental quality.<br><br>Ensure and be able to validate that any water (including stormwater) discharged from the premises does not contain a contaminant or waste, except as specifically authorised by another condition of this approval. | Ongoing | Compliant | During the reporting period, several minor non-compliances to the Dewatering Management Plan (this plan is no longer active, water is now discharged in accordance with the Environmental Monitoring Program) were noted in the stormwater discharged from the premises. The 2023/24 wet season saw the following exceedances (measured at the site outlet):<br>▪ 4 exceedances of pH<br>▪ 6 exceedances of TSS<br>▪ 6 exceedances of Turbidity (not a condition noted in the approval)<br>All exceedances occurred between 30 November 2023 and 23 January 2024, during the 2023/2024 wet season. The project's ESCP has now been implemented, and previously elevated parameters fell to within guideline values.<br><br>Low pH was an ongoing issue with stormwater discharges In the 2024/2025 wet season. It is understood that the pH recorded is representative of the pH found naturally in the rainwater in the area.<br>A summary of the monitoring data is provided in Appendix C.<br><br>Surface water discharge monitoring is ongoing in accordance with Environmental Monitoring Program and will be reported in the CAR. |
| 10i | Marine environmental quality.<br><br>Ensure that wastewater (not including sewage) is not discharged from the premises unless all | Ongoing | Compliant | Wherever possible, stormwater is reused onsite as part of the construction works including for dust suppression, earthworks compaction, vegetation establishment/ rehabilitation and plant/ vehicle wash-down. This is not always possible during |

| Condition No. | Condition | Timing | Status | Evidence/Comments |
|---|---|---|---|---|
| | other reasonably practicable measures for re-use or controlled removal of wastewater from the premises have been excluded, in accordance with the waste management hierarchy. | | | periods of high rainfall when water is discharged via the oily water separator.<br><br>Where deemed necessary, water vacuum trucks have been employed to remove potentially contaminated water from site.<br><br>Surface water discharge monitoring is ongoing in accordance with Environmental Monitoring Program and will be reported in the CAR. |
| 10j | Marine environmental quality.<br>Ensure any discharge of wastewater to the environment from the premises, after consideration of condition 10i, must:<br>I) be controlled, such as through a pipe, in a manner that does not cause erosion;<br>II) be recorded, including details of the date, time, discharge point location, name of the person monitoring the discharge, and the volume and rate of discharge; and<br>III) be of a quality that meets 95% species protection for marine water under the Australian & New Zealand Guidelines for Fresh and Marine Water Quality (ANZG 2018), except as specifically authorised by another condition of this approval. | Ongoing | Compliant | The onsite stormwater management infrastructure, including bunding, diversion drains, sump pumps and oily water separator have been designed to meet the requirements of 10j.<br><br>Surface water discharge monitoring is ongoing in accordance with Environmental Monitoring Program and will be reported in the CAR.<br><br>It is recognised that some minor non-compliant water discharge events have occurred as discussed in 10h. |
| 10k | Marine environmental quality.<br>Implement best available practices for:<br>I) Handling, transport, storage, use and disposal of firefighting foams containing PFAS; and<br>II) Phasing out use of firefighting foams containing PFOA, PFOS, PFHxS, and precursor compounds to PFOA, PFOS, and | Ongoing | Compliant | The use of PFAS / PFOS containing fire-fighting materials is not included in the design specification and will not be permitted onsite. |

| Condition No. | Condition | Timing | Status | Evidence/Comments |
|---|---|---|---|---|
| | PFHxS where this does not compromise safety requirements. | | | |
| 101 | Marine environmental quality.<br><br>The approval holder must conduct surface water and groundwater quality monitoring within the premises, in accordance with the monitoring program under condition 7 that measures the parameters listed in Appendix 2. | Ongoing | Compliant | Surface water discharge monitoring and groundwater monitoring is conducted in accordance with the Environmental Monitoring Program and will be reported in the CAR.<br><br>Baseline monitoring is still being undertaken prior to the site being commissioned. Once commissioned, quarterly monitoring will be conducted in accordance with the EMP. |
| 11a | Air Quality.<br><br>The approval holder must ensure there are no attributable impacts on the Darwin airshed and must take all reasonably practicable measures during the planning, design, construction, operation, remediation and closure of the action to avoid and mitigate impacts attributable to the action on air quality beyond the boundary of the premises. | Ongoing | Compliant | The tank venting and fuel transfer process has been designed to meet the requirements of 11a and will be independently verified as part of the audit program.<br><br>The EMS and EMP describe preventative and remedial measures to mitigate potential air quality impacts from site activities. |
| 11b | Air Quality.<br><br>Plan, design, construct, operate, remediate and close the action using best available techniques to minimise emissions of volatile organic compounds to air. | Ongoing | In progress but compliant in terms of the construction component of the condition | The tank venting and fuel transfer process has been designed to meet the requirements of 11b and will be independently verified as part of the audit program.<br><br>The EMS and EMP describe preventative and remedial measures to mitigate potential air quality impacts from site activities. |
| 11c | Air Quality.<br>Within 20 business days after the commencement of construction of the action, complete:<br>I) a Level 1 air quality impact assessment (AQIA) of the operational design of the action; and | By 2 March 2022 for Level 1 AQIA | Compliant | The Level 1 AQIA was submitted March 2022 in accordance with condition 11. Following comments from DEPWS, a revised Level 1 AQIA was submitted to DEPWS August 2022, with a follow up technical memo submitted in December 2022.<br><br>The Level 1 AQIA concluded that a level 2 assessment would not be necessary. |

| Condition No. | Condition | Timing | Status | Evidence/Comments |
|---|---|---|---|---|
| | II) if required following completion of the Level 1 assessment, a Level 2 (refined dispersion modelling) AQIA for operation of the action. | | | |
| 11d | Air Quality.<br><br>Undertake the AQIA in accordance with Approved Methods for the Modelling and Assessment of Air Pollutants in New South W ales (State of NSW and Environment Protection Authority [EPA] 2016 or latest version), to the satisfaction of the CEO. An AQIA report must be provided to the CEO within 20 business days of completing the AQIA. | By 30 March 2022 | Compliant | The Level 1 AQIA was submitted March 2022 in accordance with condition 11. Following comments from DEPWS, a revised Level 1 AQIA was submitted to DEPWS August 2022, with a follow up technical memo submitted in December 2022. |
| 11e | Air Quality.<br><br>Ensure control equipment for tanks storing jet fuel includes:<br><br>I) in tanks with F34 flammable jet fuel, a floating cover constructed of material impervious to vapour that, under normal operating conditions, floats on the surface of the liquid inside a fixed roof; and<br><br>II) if the AQIA undertaken in accordance with conditions 11c and 11d indicates that there is the potential for significant impacts to air quality from the action beyond the boundary of the premises, a vapour recovery system (no incineration) at loading/ unloading points. | Ongoing | Compliant | The tank venting and fuel transfer process has been designed to meet the requirements of 11e and will be independently verified as part of the audit program.<br><br>The EMS describes preventative and remedial measures to mitigate potential air quality impacts from site activities. |
| 11f | Air Quality.<br><br>Implement emission mitigation measures for volatile organic compounds (no incineration) if the turnover of the total volume of 300 million | Ongoing | NA | This will be tracked annually during operation of the facility. |

| Condition No. | Condition | Timing | Status | Evidence/Comments |
|---|---|---|---|---|
| | litres (ML) of stored jet fuel on the premises is exceeded in any year. | | | |
| 11g | Air Quality.<br><br>Undertake annual monitoring for total volatile organic compounds and BTEX at the boundary of the operating premises in accordance with approved air emission monitoring techniques in the Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (EPA 2016), or latest version, to the satisfaction of the CEO. The results from annual monitoring must be evaluated as part of the Compliance Assessment Reporting process required under condition 6. | Ongoing | Compliant | Baseline Air quality monitoring has been conducted in accordance with the AQMP during the monitoring program.<br><br>The annual air quality monitoring report for the reporting period was submitted in February 2024 in electronic form by emailing environmentalregulation@nt.gov.au |
| 11h | Air Quality.<br>Within the period of the first turnover and during a period in which the action is operating under predicted maximum emission levels (i.e. during tank filling), undertake a sampling program to confirm the air emission performance of the premises. The sampling program must measure, as a minimum:<br>I) organic vapours concentration at point source discharge point/s such as tank vents or<br>II) vapour recovery systems using the appropriate test method/s. | By the completion of the first turnover TBC | NA | The date for the facility to be operational has yet to be determined.<br><br>The air quality monitoring program for 11h will be implemented at first turnover and the report provided to the CEO. |
| 11i | Air Quality.<br>Within six weeks of sampling referred to in condition 11h (unless otherwise agreed by the CEO), provide a written verification report to the CEO. The report must: | Within 6 weeks of sampling conducted under the Air Quality Monitoring Program. | NA | The date for the facility to be operational has yet to be determined.<br><br>The air quality monitoring program for 11i will be implemented at first turnover and the report provided to the CEO. |

| Condition No. | Condition | Timing | Status | Evidence/Comments |
|---|---|---|---|---|
| | I) include all analytical results of sampling required for all discharge points (any external report must be reproduced in full);<br>II) include all the information listed in section 4 (meteorological data) of the Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (EPA 2016), or latest version;<br>III) describe all the operational parameters during sampling;<br>IV) compare analytical results from sampling against final design emission specifications and modelled emission parameters in the AQIA required under conditions 11c and 11d. | | | |
| 11j | Air Quality.<br><br>Ensure that where any comparison under condition 11i identifies measured emission concentrations or rates above the emissions characteristics in the revised AQIA or the Protection of the Environment Operation s (Clean Air) Regulation 2021 standards of concentration:<br><br>I) re-assess and evaluate both the emission concentrations against the relevant NSW Clean Air Regulation standards of concentrations and the impacts against the relevant impact assessment criteria in the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA 2016), or the latest version; and/ or<br><br>II) identify and record as part of the EMS measures to be implemented to reduce emissions of air pollutants to no greater | Ongoing | NA | The date for the facility to be operational has yet to be determined.<br><br>The air quality monitoring program for 11j will be implemented at first turnover and the report provided to the CEO. |

| Condition No. | Condition | Timing | Status | Evidence/Comments |
|---|---|---|---|---|
| | than those predicted in the AQIA (required under condition 11c and 11d). | | | |
| 11k | Air Quality.<br><br>Ensure the final design, installation and operation of the plant does not preclude the ability for air pollution emissions controls to be retrofitted. | Ongoing | In progress but compliant in terms of the construction component of the condition | The air handling and emissions control equipment has been designed to meet the requirements of 11k and will be independently verified as part of the audit program. |
| 12a | Closure of action.<br><br>The approval holder is required to assess the premises for contamination in accordance with the National Environment Protection (Assessment of Site Contamination) Measure (as amended from time to time). If the premises is contaminated, it must be remediated in accordance with the CRC CARE National Remediation Framework prior to closure of the action, or as otherwise specified to the satisfaction of the CEO. | As notified | NA | The EMS and EMP describe preventative and remedial measures to mitigate potential impacts to soil and groundwater quality.<br><br>A Site Remedial Plan will be prepared in accordance with the Standards referenced in 12a, if required. |
| 12b | Closure of action.<br><br>The approval holder must submit to the CEO a plan for closure of the action within a period not less than three (3) years prior to closure of the action, or within a period determined by the CEO if the environmental approval is revoked by the Minister. | As notified | NA | The EMS and EMP describe preventative and remedial measures to mitigate potential impacts to soil and groundwater quality.<br><br>A Site Remedial Plan will be prepared in accordance with the Standards referenced in 12b, if required. |

Compliance Status: C = Compliant, CLD = Completed, NA = Not Audited, NC = Non-compliant, NR = Not required at this stage, IP = In progress. Note the terms VR = Verification Required and IP = In Process are only for DEPWS use.

# References:

Project Caymus NT Environmental Approval, 2021 (EP2021/008 – 002)

Project Caymus Compliance Assessment Plan, 2023

Project Caymus– Environmental Monitoring Program , 2024

# Appendix A: Compliance Assessment Plan Approval

NORTHERN TERRITORY GOVERNMENT
Department of
ENVIRONMENT, PARKS
AND WATER SECURITY

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Goyder Centre
25 Chung Wah Terrace
PALMERSTON NT 0830

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T 08 8999 XXXX

File reference
NTEPA2022/0033-007~0015

31 October 2023

Mr June Cafirma
HSSE Manager
Crowley Australia Pty Ltd
GPO Box 1018
DARWIN NT 0801

Via email June.Cafirma@crowley.com

Dear Mr Cafirma

**Re: Project Caymus – Compliance Assessment Plan Approval**

Thank you for submitting the Compliance Assessment Plan (CAP) for Project Caymus as required by Environmental Approval EP2021/008 – 002.

I am satisfied that the Compliance Assessment Plan satisfies the requirements of condition 6b of the environmental approval. In accordance with condition 6c, Crowley Australia Pty Ltd is required to assess compliance with conditions in accordance with the Plan.

I note that Condition 6f of the approval required submission of the first Compliance Assessment Report by 29 February 2023. This requirement has not been met. Given the time since the report was due, and that the Compliance Assessment Plan has just been finalised, the Compliance Assessment Report due on 29 February 2024 must assess compliance in accordance with the Plan for the period 29 November 2021 to 28 November 2023 (that is, the first two years of the approval). Thereafter, reports must be submitted annually addressing compliance for the 12 month period commencing on 29 November each year, as per condition 6f of the approval.

If you have any questions about this matter, please contact Henry Berko, Senior Environment Officer, via email to environmentalregulation@nt.gov.au.

Yours sincerely

Joanne Townsend
Chief Executive Officer

# Appendix B: Commencement of the Action

| | |
|---|---|
| From: | Joanne Townsend <Joanne.Townsend@nt.gov.au> |
| Sent: | Thursday, 17 February 2022 12:45 PM |
| To: | Richard McAllister |
| Cc: | Amy Dennison; Gemma Sheridan; Henry Berko; Thomas, Sean; Watson, Angela; Chris Mouat |
| Subject: | RE: Commencement of action EP2021/008 - 001 - Project Caymus Bulk Fuel Storage Facility |



Dear Richard,

Thank you for your email and notification advice.

We are working through a more streamlined method of notification which may result in advice on an alternate email address for future correspondence.

Regards

**Joanne Townsend**
Chief Executive Officer
Department of Environment, Parks and Water Security
Northern Territory Government

Floor 1, Goyder Building, Chung Wah Terrace, Palmerston
PO Box 496, Palmerston, NT 0831

P: **+61 8 8999 3662**
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E: joanne.townsend@nt.gov.au

W: Department of Environment, Parks and Water Security
W: Parks and Wildlife Commission

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NTDEPWS NTG Parks & Wildlife NT Bushfires NT



From: Richard McAllister <richard.mcallister@pfeng.com.au>
Sent: Tuesday, 15 February 2022 11:53 AM
To: Joanne Townsend <Joanne.Townsend@nt.gov.au>

Cc: Amy Dennison <Amy.Dennison@nt.gov.au>; Gemma Sheridan <Gemma.Sheridan@nt.gov.au>; Henry Berko <Henry.Berko@nt.gov.au>; Thomas, Sean <Sean.Thomas@crowley.com>; Watson, Angela <Angela.Watson@crowley.com>; Chris Mouat <Chris.Mouat@nt.gov.au>
Subject: Commencement of action EP2021/008 - 001 - Project Caymus Bulk Fuel Storage Facility

Hi Jo,

Please find attached notification of commencement of action as required under section 1(b) of EP2021/008 - 001 - Project Caymus Bulk Fuel Storage Facility, signed by Sean Thomas, Director, Crowley Australia.

If you have any questions, please don't hesitate to contact myself, Sean or Angela, copied into this email.

Best Regards

Richard

Richard McAllister
Regional Director – Northern Territory
MEnvEngSci FIEAust CPEng EngExec MAusIMM
President Northern Division Engineers Australia

pritchard francis ENGINEERS AUSTRALIA

**T** (08) 7922 4100
**E** richard.mcallister@pfeng.com.au | **W** www.pfeng.com.au
Suite 1, 8 Knuckey Street Darwin NT 0800 | PO Box 104 Parap NT 0804

# Appendix C: Environmental Monitoring and Inspections

**Table 1 Project Caymus Discharge Monitoring Register**

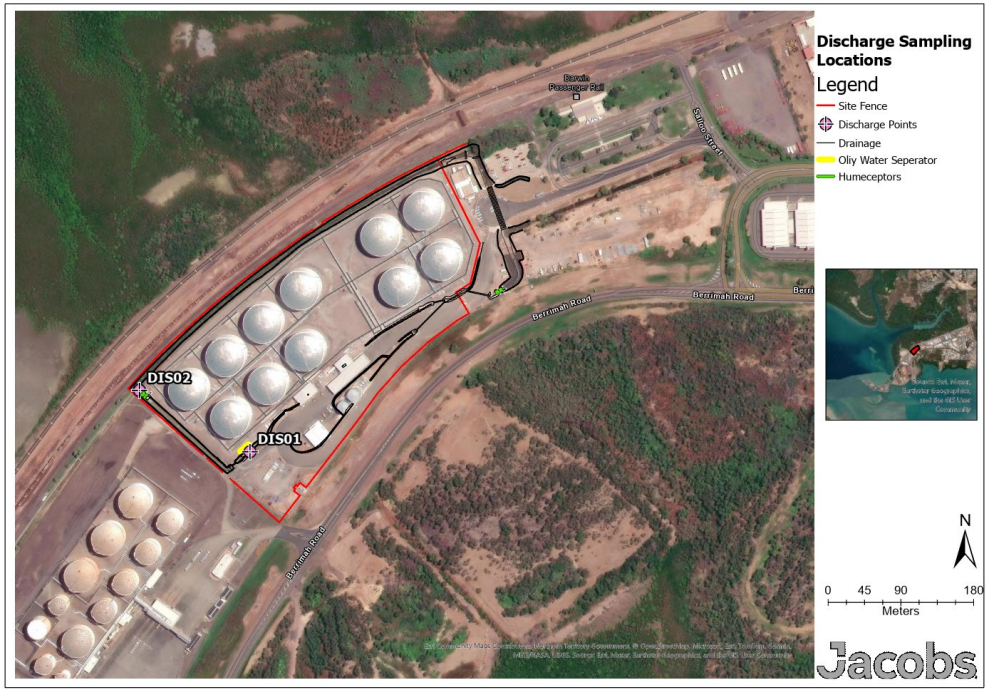
CROWLEY

PROJECT CAYMUS PROJECT DISCHARGE MONITORING REGISTER

| Date | Time | Location | Sample Taken by | Field Parameters | | | | | Volume Discharged | Rate Discharged | Site Observations | COC# | Lab Results | | | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | pH | EC (µS/cm) | DO (mg/L) | Redox (mV) | Temp (°C) | | | | | pH | TSS (mg/L) | TRH (µg/L) | |
| 18/11/2024 | 1530 | Tank 11 | D.Coffey | 8.66 | 104.5 | 1.68 | 126.2 | 32.6 | | | | ES2437433 | 6.75 | <5 | <100 | Lab pH out of holding time, likely to have resulted |
| 19/11/2024 | 1540 | DIS01 | D.Coffey | 6.04 | 61.8 | 4.39 | 261.1 | 27.4 | | | Water by passing Oil water seperator | ES2437838 | 7.33 | 19 | <100 | QC101 & QC201 |
| 19/11/2024 | 1550 | DIS02 | D.Coffey | 7.3 | 91.4 | 8.13 | 170.7 | 27.7 | | | | ES2437838 | 6.97 | 18 | <100 | |
| 28/11/2024 | 1237 | DIS01 | D.Coffey | Error | Error | 14.7 | 57.6 | 37.5 | | | Water quality meter malfunctioned | ES2438817 | 6.55 | 14 | <100 | |
| 28/11/2024 | 1244 | DIS02 | D.Coffey | Error | Error | 12.75 | 90.8 | 35.7 | | | Water quality meter malfunctioned | ES2438818 | 6.86 | 22 | <100 | |

Notes:

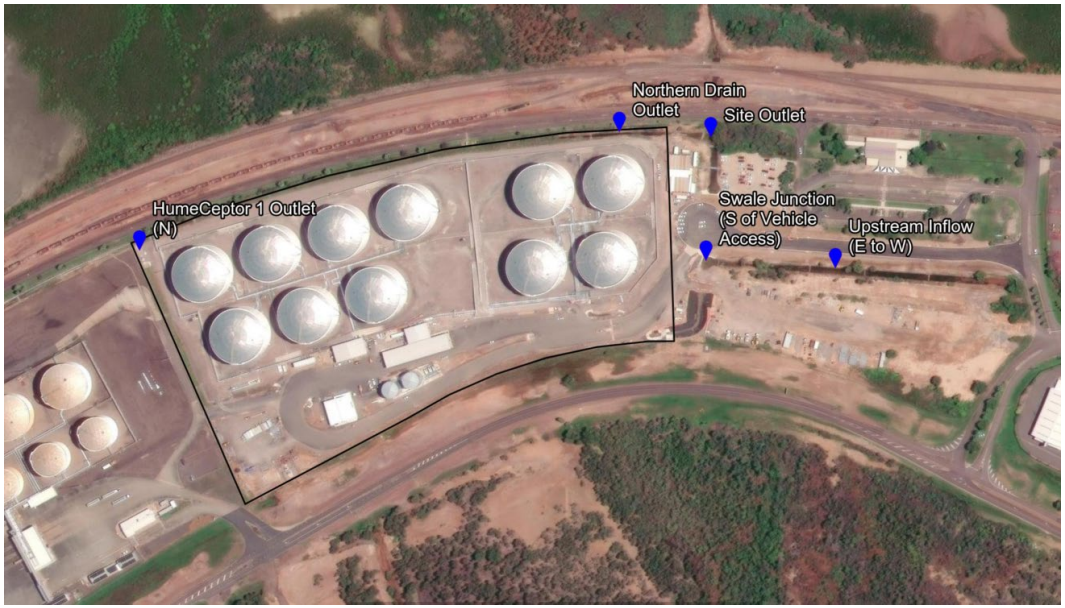
- A sample was collected from Tank 11 on the 18/11/2024 and tested for the full analytical suite outlined in the EMP. This sample was collected to assess the quality of the water in Tank 11 to assist in a risk assessment of the release of this water. Water was not being released from Tank 11 at this point in time.
- All discharge samples (collected from DIS01 and DIS02) where analysed for parameters outlined in Table 1, Appendix 2 of the environmental approval (shown in Lab Results columns). Field parameters were also collected.
- At the time of sampling a method for recording volume discharged and rate discharged had not been established. A process for recording these details will be implemented prior to the commissioning of site.



## Table 2 Latitude 63 Environmental Monitoring

CAYMUS PROJECT ENVIRONMENTAL MONITORING REGISTER

| | | | Northern Drain Outlet | | | | Upstream Inflow (E to W) | | | | Site Outlet | | | | Swale Junction (S of Vehicle Access) | | | | HumeCeptor 1 Outlet (N) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Time | ctivity Descripti | DO | pH | TSS | Turbidity | DO | pH | TSS | Turbidity | DO | pH | TSS | Turbidity | DO | pH | TSS | Turbidity | DO | pH | TSS | Turbidity | Sample Taken by | Tested by | COC# | Observations / Findings |
| | | | 90th %-ile > 80% saturation | 7-8.5 | 30mg/L | 20 NTU | 90th %-ile > 80% saturation | 7-8.5 | 30mg/L | 20 NTU | 90th %-ile > 80% saturation | 7-8.5 | 30mg/L | 20 NTU | 90th %-ile > 80% saturation | 7-8.5 | 30mg/L | 20 NTU | 90th %-ile > 80% saturation | 7-8.5 | 30mg/L | 20 NTU | | | | |
| 24/11/2023 | 13:45 | Weekly Inspection | | | | | | | | | 8.9 | 7.8 | 22 | 12 | 8.5 | 7.2 | 13 | 10 | 9.1 | 8.4 | 130 | 26 | Ethan Dilettoso | Eurofins | 1047626 | Turbidity temporarily elevated due to Humeceptor installation works taking place at time of sampling. |
| 30/11/2023 | 10:00 | Weekly Inspection | 9.1 | 5.9 | 31 | 11 | 8.5 | 6.6 | 16 | 3 | 9.2 | 9.5 | 78 | 3 | | | | | | | | | Ethan Dilettoso | Eurofins | 1049259 | Just upstream of the site outlet in the drain running along the northern boundary (sample was visibly clear) |
| 7/12/2023 | 14:30 | Weekly Inspection | 9.5 | 8.2 | 13 | 5.4 | | | | | 8.7 | 9.8 | 31 | 42 | 9.3 | 7.7 | 19 | 13 | | | | | Nick Sullivan | Eurofins | 1051652 | |
| 14/12/2023 | 13:45 | Weekly Inspection | 9.8 | 6.4 | 49 | 54 | 9.1 | 5.4 | 20 | 28 | 9.1 | 6.7 | 36 | 41 | | | | | | | | | Nick Sullivan | Eurofins | 1054256 | Low pH, high turbidity (although below general industry standard of 75NTU), high TSS |
| 20/12/2023 | 13:45 | Weekly Inspection | 9.5 | 8.4 | 9.2 | 2.7 | | | | | 9.6 | 8.1 | 29 | 28 | 9.3 | 7.9 | 37 | 17 | | | | | Nick Sullivan | Eurofins | 1055830 | Results generally good, Turbidity and TSS high in one location each of the three sample points. |
| 11/01/2024 | 13:45 | Weekly Inspection | 9 | 7.2 | 58 | 31 | | | | | 9.3 | 7.1 | 66 | 26 | 9.3 | 7.9 | 34 | 40 | | | | | Nick Sullivan | Eurofins | 1058895 | Turbidity and TSS non-compliant at all locations |
| 18/01/2024 | 13:55 | Weekly Inspection | 9 | 7.7 | - | 23 | | | | | 9 | 7.9 | 180 | 120 | 9.3 | 9.4 | - | 48 | | | | | Nick Sullivan | Eurofins | 1060858 | TSS not taken for two locations - Byrne to follow up Eurofins |
| 23/01/2024 | 10:30 | Weekly Inspection | 8.6 | 5.3 | 30 | 24 | | | | | 8.5 | 5.6 | 44 | 28 | 8.7 | 5.1 | 18 | 14 | | | | | Nick Sullivan | Eurofins | 1061692 | pH non-compliant (low) , turbidity and TSS slightly high at site outlet. |
| 1/02/2024 | 13:55 | Weekly Inspection | 8.9 | 7.1 | 8 | 7.3 | | | | | 8.7 | 7.3 | 5 | 2 | 8.7 | 7 | 8.4 | 4.1 | | | | | Nick Sullivan | Eurofins | 1064795 | |
| 8/02/2024 | 10:00 | Weekly Inspection | | | | | 9.2 | 7.1 | 15 | 3 | 9.2 | 7.1 | 11 | 1.7 | 9.3 | 7.2 | 8.9 | 2.6 | | | | | Nick Sullivan | Eurofins | 1066623 | |
| 15/02/2024 | 13:50 | Weekly Inspection | 8.9 | 7.5 | 13 | 14 | | | | | 9.2 | 7.3 | <5 | 8.3 | 8.7 | 7.4 | 9.6 | 4.5 | | | | | Ethan Dilettoso | Eurofins | 1069317 | |
| 22/02/2024 | 12:00 | Weekly Inspection | 8.4 | 7.6 | 38 | 12 | | | | | 9.2 | 7.4 | <5 | 2.2 | 9 | 8.2 | <5 | 1.2 | | | | | Patrick Chin | Eurofins | 1071256 | |
| 29/02/2024 | 13:40 | Weekly Inspection | | | | | | | | | | | | | | | | | | | | | | | | |



LATITUDE 63, AUSTRALIA
CONSTRUCTION MANAGEMENT SUPPORT
ABN 68 666 850 488

Mike Martin, MBA, PMP
Chip Anderson, PMP

| LATITUDE 63 CAYMUS SITE ENVIRONMENTAL INSPECTIONS - MAY 2023 thru DECEMBER 2023 | | | | |
|---|---|---|---|---|
| **Inspection Type** | **Performing Entity** | **Inspection Date** | **Corrective Actions** | **Status of Corrective Actions** |
| Weekly Inspection | Byrne | 11/30/2023 | NONE | NA |
| Weekly Inspection | Byrne | 12/7/2023 | YES | CLOSED |
| Weekly Inspection | Byrne | 12/14/2023 | NONE | NA |
| Site Inspection/Audit | Latitude 63 | 12/16/2023 | NONE | NA |
| Weekly Inspection | Byrne | 12/20/2023 | YES | CLOSED |

**Table 3 – Latitude 63 Environmental Inspections Notes:**

- 7/12/23 – Corrective action included ensuring water had low turbidity prior to discharging to site outlet.
- 20/12/23 – Corrective actions included the installation of further sediment control measures at the site outlet and the upstream inflow drain (E to W).