11 January 2024

Environment Division
Level 1, Arnhemica House
16 Parap Road, PARAP NT 0820

Good afternoon Onshore Gas,

As agreed to in the *NT Drilling Campaign EMP Final Report - PV12 Flare Discharge*, Central Petroleum (Central) on behalf of the interest holders at Palm Valley, is submitting the annual monitoring report (Attachment 1). This report addresses the annual sampling and visual monitoring requirements and seeks to close out the incident by demonstrating:

- observed contaminant levels within the impact area have stabilised and are now below applicable NEPM Guideline (2013) levels.
- Visual monitoring has not identified any impacts to flora in the flow path or surrounding areas

The table below provides a summary of various conditions established through the incident reporting process and how each has been met to close the incident out.

Condition	Addressed	Evidence
1. Annual soil sampling	Yes	• Final Incident Report (sent) • 2023 EcOz 12-month monitoring report (attached)
2. Annual visual monitoring	Yes	• Initial observations and images provided in incident reporting (sent). • Observations and images contained in the 2023 EcOz 12-month sampling Report (attached).

In addition, Central has engaged the services of a third-party Contaminated Land specialist (and auditor) who has reviewed both sampling reports and endorsed the findings / conclusions reached in the most recent sampling report (EcOz, 2023) – this additional correspondence has been included for your information (Attachment 2).

Central trusts this final sampling report and third-party endorsement now closes out the PV12 flare over spray incident. Should you have any questions please do not hesitate to contact me on [redacted] or [redacted]

Yours sincerely,

[redacted]

HSE Manager
Central Petroleum

Attachment 1: EcOz 12-month sampling report

PV 12 Drilling Operation

Overspray from Flare Pit

Annual Monitoring Report, July 2023

CENTRAL PETROLEUM

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DOCUMENT CONTROL RECORD

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Recipients are responsible for eliminating all superseded documents in their possession.

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RELIANCE, USES and LIMITATIONS

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This study, report and analyses have been based on the information available to EcOz Environmental Consultants at the time of preparation. EcOz Environmental Consultants accepts responsibility for the report and its conclusions to the extent that the information was sufficient and accurate at the time of preparation. EcOz Environmental Consultants does not take responsibility for errors and omissions due to incorrect information or information not available to EcOz Environmental Consultants at the time of preparation of the study, report or analyses.

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1 INTRODUCTION

EcOz Environmental Consultants (EcOz) was engaged by Central Petroleum (CTP) to conduct annual sampling of a flare pit overspray incident at the PV12 drill site that occurred in June 2022. Sampling was conducted by [redacted] (EcOz), with assistance from [redacted] (Central) on the 20 July 2023, and is the second sampling event to monitor this incident.

1.1 Incident details

During a routine inspection on the 10 October 2022 on the PV12 well lease and surrounding area by the On-site Company Representative (OCR), an area was identified to the north-west of the PV-12 well lease where white residue was visible on the ground and vegetation.

Following identification, and when it was safe to do so, samples of the residue were collected at five locations by the on-site Mud Engineer on the 9 November 2022 (sites locations shown in Figure 1). Analysis of the samples identified that the white residue was salt associated with evaporated salts from formation water, with concentrations decreasing further from the flare location (this was confirmed by sampling four background sample sites around the lease outside of the affected area - shown in Figure 1). Preliminary mapping of the deposition area indicates approximately 0.29 ha (approx. 30x65m) has been covered in varying levels of the residue (shown in Figure 1; the overspray area is visible on Google Earth imagery – Figure 2; photographs provided in Figure 3 and Figure 4).

Review of activities identified that this salt deposition may have arisen from an unexpected contact / intersection with a formation water zone during drilling of the well. Pre-planning did not anticipate formation water at this location in the well.

Once the subsurface team identified the location of the formation water, CTP ran an inflatable production packer in hole to isolate the water production zone from the gas producing zone. This packer was set and verified with a tag and overpull. This packer is designed to prevent formation water flowing into the well while allowing the gas zone above it to flow gas.

Figure 1: Map of PV12 overspray area, and soil sample site locations (October 2022)

Figure 2: Google earth image of flare pit overspray (imagery date: 10 December 2022)

Figure 3: Photograph of flare pit overspray – view from drill pad (9 October 2022)

Figure 4: Photograph of flare pit overspray – view from plateau (9 October 2022)

1.2 Remediation and monitoring plan

Four options were considered:

1. Natural remediation
2. Flushing the impacted area with potable water from the turkey's nest storage via irrigation
3. Conducting active remediation through the removal of contaminated soils
4. Addition of gypsum to support leaching of salts

After initial assessment of the incident, sampling results and topography of the receiving environment, Central and specialist third party subject matter experts determined that a lesser impact would result from leaving the soil to naturally leach the salts than engage machinery or personnel into the environment and disturb the limited soil resource. This is aligned with the Key Principles for Remediation and Management of Contaminated Sites developed by the National Environment Protection Council, which details that if a contaminated site management strategy is likely to create a greater adverse effect than leaving the site undisturbed, clean up should not proceed.

Central has committed to annual monitoring of the incident as per details in Table 1, which will include sampling of soils and visual inspection of potential impacts (i.e. presence of white residue and vegetation health / condition). The soil condition sampling will aim to determine whether natural decline in salinity levels is being achieved via rainfall leaching. The parameters assessed will generally remain consistent with previous parameters, discounting petroleum hydrocarbons and PFAS which initial sampling indicates they were below limits of reporting. Where salt parameters remain above background / reference sites, further monitoring and review of the remediation and monitoring strategy will be assessed.

Table 1: Monitoring program details for the overspray incident at PV12

Activity	Timing	Process	Chain of custody	Analysis	Reporting
Soil Sampling	12 monthly post incident, until results are aligned with background samples or below threshold levels. Sampling to be conducted after the summer period (as summer rainfall is more likely in this region)	Samples will be collected to reflect similar locations to initial sampling (as per Figure 1-1). Include sampling of four background sites.	Samples will be sent to NATA accredited lab for analysis and will be accompanied by the required chain of custody documents.	Analytes for testing will be as per initial sampling – without petroleum hydrocarbons and PFAS because initial sampling indicated they were below limits of reporting and not relevant to incident.	An annual report will be produced.
Visual monitoring	12 monthly post incident, aligned with soil sampling.	Visual monitoring to track the natural remediation capacity, presence of white residue, and any impacts on vegetation health / condition within the affected area.	N/A	N/A	An annual report will be produced.

2 METHODOLOGY

Sampling was conducted by [redacted] (EcOz), with assistance from [redacted] (Central) on the 20 July 2023. Surface soil samples were collected (to an approximate depth of 10cm). A total of 5 soil samples were collected within the overspray area, and four background soil samples collected outside of the overspray area to provide natural variation (details provided in Table 2; site locations shown in Figure 5).

Soil samples were collected in accordance with appropriate Australian Standards. Samples were analysed by the NATA accredited ALS Laboratories, with the analysis suite as recommended by the previous monitoring –to target concentration of salts. The laboratory sample receipt notification indicates all sample handling complied with required standards and samples were received within required holding times.

Table 2: Sample site details for overspray monitoring, July 2023

Site ID	Easting	Northing	Matrix	Location	Sample description	Distance from flarepit
Overspray samples						
OS1	269367	7344162	Soil	Eastern edge of area	Surface soil (0-10cm)	20m
OS2	269367	7344159	Soil	South east corner	Surface soil (0-10cm)	15m
OS3	269335	7344175	Soil	Western edge of area	Surface soil (0-10cm)	50m
OS4	269372	7344173	Soil	North eastern corner	Surface soil (0-10cm)	20m
OS5	269379	7344170	Soil	North eastern corner	Surface soil (0-10cm)	15m
Background samples						
B1	269519	7344009	Soil	Eastern side of lease	Surface soil (0-10cm)	NA
B2	269566	7343970	Soil	Eastern side of lease	Surface soil (0-10cm)	NA
B3	269344	7343985	Soil	Southern side of lease	Surface soil (0-10cm)	NA
B4	269315	7344043	Soil	Western side of lease	Surface soil (0-10cm)	NA

Projection: GDA94, Zone 53

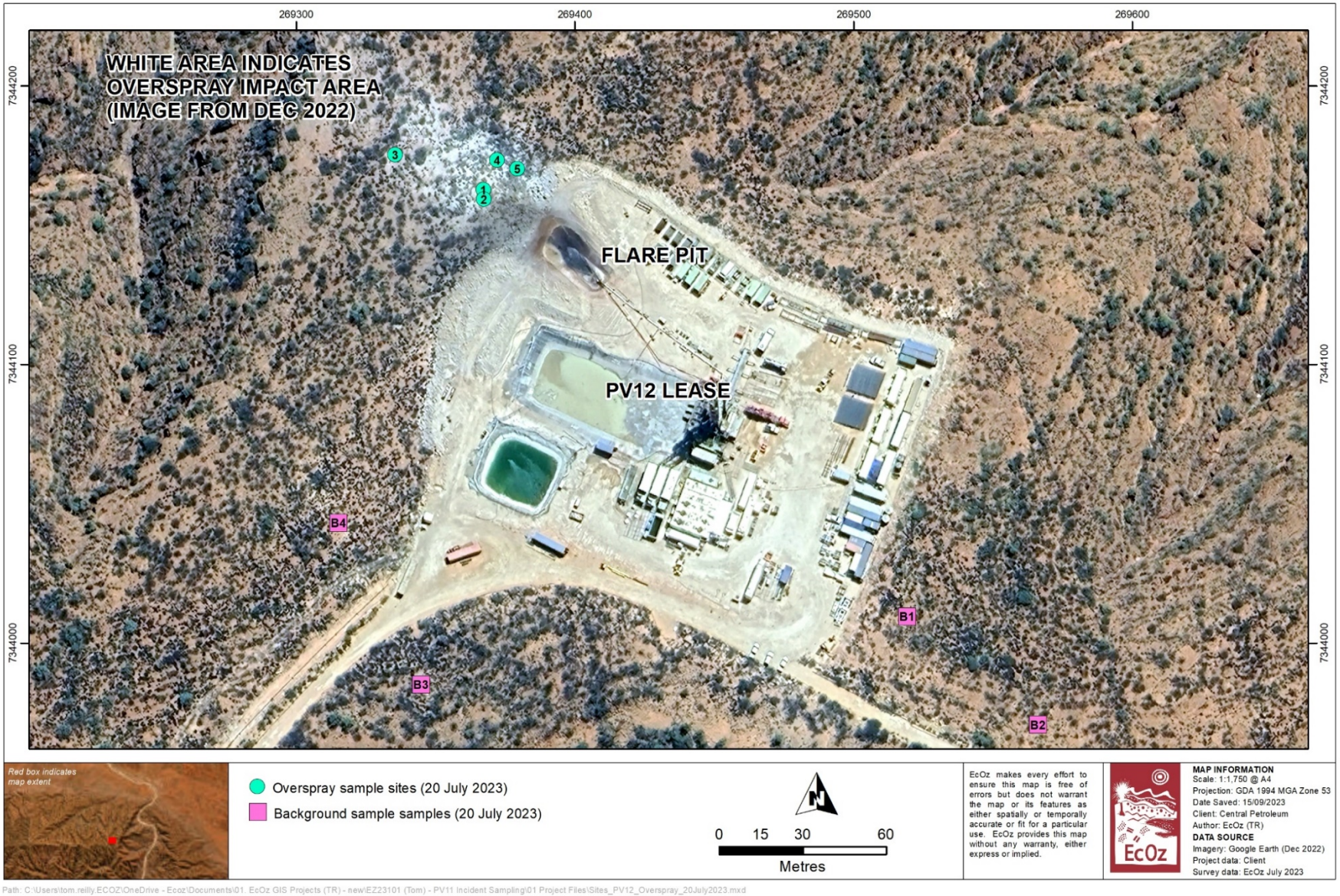

Figure 5: Map of sample sites 20/7/2023

3 RESULTS

3.1 Rainfall

A total of 527.5 mm of rainfall has been recorded at PVGF since the overspray incident in October 2022 (data provided in Figure 3). This volume of rainfall is expected to have provided significant dilution levels within the affected drainage gully and spill impact area.

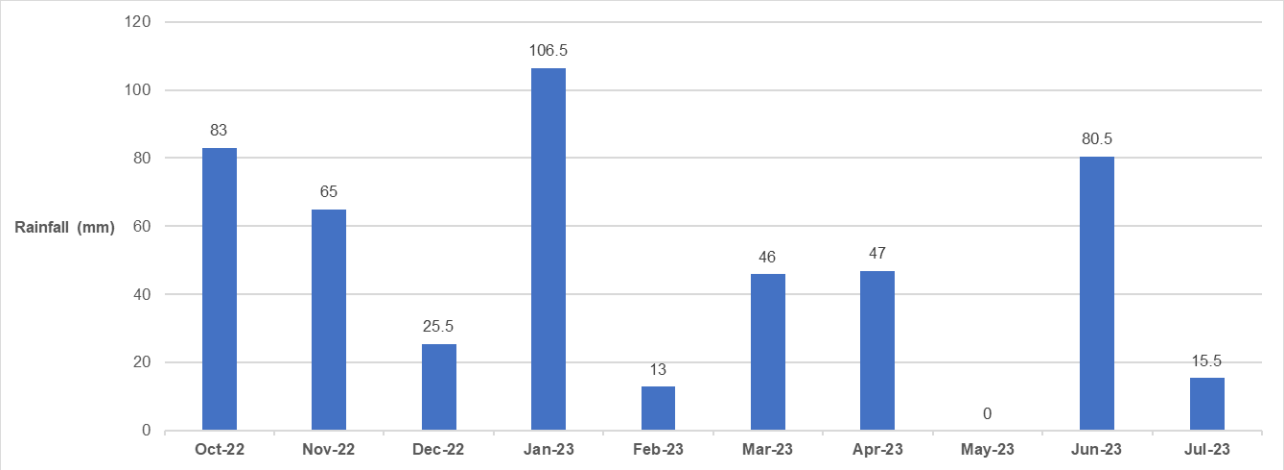

Figure 6: Graph of monthly rainfall since the overspray incident

3.2 Visual assessment

There were no notable or obvious impacts from salt toxicity to vegetation health or condition within the affected area (refer to photographs in Figure 7). There was a small area of vegetation death / senescence close to the edge of the lease area (approximately 10m from edge) – however, this is assumed to be a result of heat damage from the flare rather than impacts from the overspray (in the future flare pit berms will be built higher and further away from vegetation to avoid vegetation impacts from heat from flare).

White staining or salt crusting was not observed on the soil surface or vegetation, and is expected to have dissolved after several high rainfall events over the past 12 months.

3.3 Soil analysis

Analysis results for soil samples is presented in Appendix A, which provides available data for the overspray and background sites for the current sampling event (20 July 2023), and a data range for the initial sampling event (10 October 2022). Laboratory reports provided separately.

Data indicates that sites OS4 and OS5 still have slightly elevated levels of Electrical Conductivity, Chloride, Bromide and Sodium. However, concentrations have significantly reduced since initial sampling in October 2022 (all results shown in Appendix A). Sites OS1, OS2 and OS3 for the abovementioned analytes are considered within range of background levels. All other analytes are within natural variation as shown in background sample sites. None of the analytes exceeded threshold for NEPM 2013 (NEPM 2013).

Background sample site B1 had unexpectedly high level of Electrical Conductivity and concentrations of Chloride – when compared to other background sites. As such, those elevated readings were not used as a background comparison. All other parameters are within normal expected range for background samples. Investigation into the anomaly is recommended.

Vegetation within the affected area is in good condition, with the exception of the small area on the edge of flare (see below)

Localised area of dead or senesced vegetation close to edge of flare as a result of heat impacts from flare rather than salt toxicity

View from flare pit edge – note that white residue is no longer visible on soil surface or vegetation

Figure 7: Photographs of the overspray area – 20 July 2023

4 CONCLUSION

Results from the current sampling event indicate that there are no physiochemical impacts from the overspray incident, and that detection levels of salt-based analytes have significantly reduced since the previous monitoring event. This indicates that natural remediation approach proposed in the initial incident report has been effective, largely due to the high rainfall (and associated flushing) over the past 12 months which has dissolved and dissipated the thin layer of salt residue observed after the incident.

Concentrations are below NEPM (2013) health and ecological screening levels (where applicable) and there are currently no observable impacts to vegetation condition at the site given the senescence close to flare pit boundary is attributed to the heat from flare during the incident. Consequently, no further sampling of the overspray site is recommended and the site is considered remediated.

5 REFERENCES

NEPM (2013), *Guideline on Investigation Levels for soil and groundwater. Schedule B1*. National Environment Protection (Assessment of site contamination) Measure April 2011

APPENDIX A RESULTS TABLE

Analyte grouping/Analyte	Unit	LOR	NEPM Threshold (2013) (strictest available)	OVERSPRAY SITES (July 2023)					BACKGROUND SITES (July 2023)				OVERSPRAY RANGE OF INITIAL SAMPLING (Oct 2022)
				OS1	OS2	OS3	OS4	OS5	B1	B2	B3	B4	
Moisture Content	%	1.0	---	3.1	2.2	1.8	3.6	3.4	3.8	2.3	3.7	3.2	2.2 - 6.6
pH Value	pH Unit	0.1	---	7.6	6.4	5.5	5.2	6.2	4.5	6.6	6.9	7.4	5.6 - 7.6
Electrical Conductivity @ 25°C	µS/cm	1	---	37	9	41	318	391	1160	24	86	81	490 - 5520
Fluoride (total)	mg/kg	40	---	90	90	80	90	90	120	80	90	110	90 - 130
Total Organic Carbon	%	0.02	---	0.38	0.39	0.70	0.44	0.50	0.37	0.65	0.57	0.27	0.31 - 0.53
Total Carbon	%	0.02	---	0.43	0.44	0.74	0.44	0.54	0.38	0.66	0.58	0.28	0.33 - 0.55
Total Inorganic Carbon	%	0.02	---	0.05	0.05	0.04	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02 - 0.02
Exchange Acidity													
Exchange Acidity	meq/100g	0.1	---	----	----	0.6	0.3	----	----	----	----	----	0.3 - 0.6
Exchangeable Aluminium	meq/100g	0.1	---	----	----	0.4	<0.1	----	----	----	----	----	0.1 - 0.5
Exchangeable Cations													
Exchangeable Calcium	meq/100g	0.2	---	0.8	1.3	1.1	1.4	1.9	----	----	----	----	0.8 - 7.2
Exchangeable Magnesium	meq/100g	0.2	---	<0.2	0.3	0.2	0.4	0.2	----	----	----	----	<0.02 - 0.8
Exchangeable Potassium	meq/100g	0.2	---	0.2	0.2	0.2	0.2	0.2	----	----	----	----	0.3 - 0.5
Exchangeable Sodium	meq/100g	0.2	---	<0.2	<0.1	0.2	<0.1	<0.1	----	----	----	----	<0.1 - 0.9
Cation Exchange Capacity	meq/100g	0.2	---	1.0	1.9	2.3	2.3	2.4	----	----	----	----	2.1 - 8.8
Exchangeable Sodium Percent	%	0.2	---	<0.2	3.9	13.0	2.6	1.8	----	----	----	----	1.2 - 42
Magnesium/Potassium Ratio		0.2	---	<0.2	1.5	0.8	1.5	0.8	----	----	----	----	<0.2 - 1.4
Calcium/Magnesium Ratio			---	----	4.3	5.5	3.5	9.5	----	----	----	----	4 - 9.2
Anions													
Bromide	mg/kg	0.05	---	0.15	<0.05	0.23	3.03	3.86	----	----	----	----	1.01 - 67.1
Chloride	mg/kg	0.5	---	24.1	3.8	51.2	527	566	----	----	----	----	180 - 9830
Fluoride	mg/kg	0.05	---	1.23	0.18	0.07	0.79	<0.10	----	----	----	----	----
Iodide	mg/kg	0.05	---	0.37	<0.05	<0.05	<0.10	<0.10	----	----	----	----	<0.05 - 0.13
Sulfate	mg/kg	0.5	---	18.2	0.8	3.7	38.5	13.1	----	----	----	----	<10 - 80
Alkalinity													
Hydroxide Alkalinity as CaCO3	mg/kg	5	---	<5	<5	<5	<5	<5	----	----	----	----	<5
Carbonate Alkalinity as CaCO3	mg/kg	5	---	<5	<5	<5	<5	<5	----	----	----	----	<5
Bicarbonate Alkalinity as CaCO3	mg/kg	5	---	1590	230	120	810	420	----	----	----	----	73 - 2610
Total Alkalinity as CaCO3	mg/kg	5	---	1590	230	120	810	420	----	----	----	----	73 - 2610
Soluble Sulfate by ICPAES													
Sulfate as SO4 2-	mg/kg	10	---	30	<10	<10	50	20	----	----	----	----	<10 - 80
Chloride by Discrete Analyser													
Chloride	mg/kg	10	---	30	<10	50	510	570	1830	10	90	60	180 - 9830
Soluble Major Cations													
Calcium	mg/kg	10	---	30	<10	<10	50	90	----	----	----	----	<10 - 1700
Magnesium	mg/kg	10	---	<10	<10	<10	10	10	----	----	----	----	60 - 150
Sodium	mg/kg	10	---	50	<10	40	220	230	----	----	----	----	110 - 3990
Potassium	mg/kg	10	---	40	<10	<10	50	40	----	----	----	----	10 - 330
Extractable Metals by ICPAES													
Aluminium	mg/kg	50	---	350	370	450	300	600	----	----	----	----	320 - 1330
Beryllium	mg/kg	1.0	60	<1.0	<1.0	<1.0	<1.0	<1.0	----	----	----	----	<1.0
Molybdenum	mg/kg	5	---	<5	<5	<5	<5	<5	----	----	----	----	<5
Extractable metals by ICPMS													
Arsenic	mg/kg	1.0	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	mg/kg	0.10	20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<1.0
Chromium	mg/kg	1.0	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 - 1.4
Cobalt	mg/kg	0.5	100	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 - 1.4
Copper	mg/kg	1.0	6000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1 - 2.8
Lead	mg/kg	1.0	300	<1.0	1.0	1.2	1.4	<1.0	<1.0	1.0	1.3	1.1	<1.0 - 1.6
Manganese	mg/kg	10	3800	24	<10	31	20	41	14	28	36	<10	<10 - 68
Nickel	mg/kg	1.0	400	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Selenium	mg/kg	0.5	200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Zinc	mg/kg	1.0	7400	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Silver	mg/kg	1.0	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vanadium	mg/kg	2.0	---	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Barium	mg/kg	1.0	---	29.6	18.2	15.5	144	40.6	27.9	12.5	30.4	24.4	11.9 - 180
Boron	mg/kg	5.0	4500	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Strontium	mg/kg	0.5	---	49.7	25.8	8.7	29.9	95.6	4.7	2.0	3.7	4.9	13.7 - 340
Mercury (recoverable by FIMS low level)	mg/kg	0.01	40	<0.01	<0.01	0.01	0.02	<0.01	0.01	0.02	0.01	<0.01	<0.01 - 0.03
Radionuclides / Activity													
Gross alpha	Bq/kg DW	500	---	570	780	730	1110	920	600	740	850	900	810 - 1860
Gross beta	Bq/kg DW	500	---	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500

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Attachment 2: Mach 1 Overspray concurrence letter

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22 November 2023

[redacted]
Central Petroleum Limited
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GPO Box 292, Brisbane, QLD 4001

Via email: [redacted]

Document Ref: 022-002-004 Independent Reviewer Concurrence Letter

Dear [redacted]

Re: Independent Reviewer Concurrence Letter, PV 12 Drilling Operation, Flare Pit Drilling Fluid Release Incident and Overspray from Flare Pit, Mereenie Oil and Gas Field, near Mereenie, Northern Territory

MACH1 Environmental Pty Ltd (MACH1) have been commissioned by Central Petroleum Limited to provide the Independent Reviewer services for the investigation and monitoring works at two different incident sites associated with the PV 12 drilling operations. The first site is described as the Flare Pit Fluid Release Incident site, and the second site is the Overspray from Flare Pit site.

Review works have included a review of four environmental reports produced by EcOz Environmental Consultants (EcOz). The purpose of this letter is to confirm the review and Independent Reviewer concurrence of the EcOz documents titled:

- "*PV 12 Flare Pit June 2022, Analyses, Impact Assessment and Recommendations*", Reference No. Final V3, dated 7 January 2023.
- "*PV-12 Drilling Operation Flare pit drilling fluid release incident 12-month monitoring report, July 2023*" Reference No. 229653-23, dated 13/09/2023.
- "*PV-12 Overspray – Final Incident Report*", dated 17 February 2023.
- "*PV 12 Drilling Operation Overspray from Flare Pit Annual Monitoring Report, July 2023*", Reference No. 229654-13, dated July 2023.

It should be noted that the review services for this site were undertaken in the capacity of an Independent Reviewer, however, they were completed in general accordance with general best practise and currently accepted guidelines. It should be noted that the works were completed by [redacted] of MACH1 (who is a Queensland Department of Environment and Science (DES) appointed CLA under Approval No. CLAD010001639 dated August 2022, provided in ***Attachment A***). [redacted] is also a Certified Environmental Practitioner (CEnvP) Contaminated Land Specialist and Suitably Qualified Person (SQP) for the assessment of contamination.

It is noted that the role was specific and limited to addressing a review of the reports listed above only and not designed to be a commentary on general compliance of the sites in question.

[redacted] has been engaged by Central Petroleum Limited to review and verify the current work completed by the above consultants. It should be noted, however, [redacted] is acting independently of both the client and consultant to provide an Independent Review which can provide concurrence to verify the work completed. As necessary, this verifies the IR review and concurrence with the reports provided by the consultants.

It should be noted that the Independent Reviewer has verified the suitability of the reports, but has not completed a site inspection, nor has obtained any samples directly. The works have therefore, been a peer review and desktop assessment only.

It is noted and accepted that the sole purpose of the Independent Reviewer review is to inform the administering authority, as required. The Independent Reviewer has employed evidence-based auditing methods to reach reliable and reproducible conclusions which are consistent with current legislation, policies and guidelines. This Concurrence Letter Report has been prepared to confirm the Independent Reviewer review and to provide supporting evidence with relation to the works completed.

Independent Reviewer Review of the Flare Pit Fluid Release Incident Report and the Overspray from Flare Pit Report

The Independent Reviewer can confirm that:

- The Independent Reviewer possesses sufficient expertise and technical expertise for the site in question and is appropriately qualified to complete the audit review works;
- the Independent Reviewer has acted independently with integrity, diligence and impartiality and there were no conflicts of interest between the Independent Reviewer and the site operator / owner and consultant;
- the review has been completed in an objective and honest manner, to a high professional standard and with all due care and diligence, avoiding misrepresentation and prejudice;
- the Independent Reviewer has not concealed or omitted information so as to mislead opinion about the sites;
- the review function (voluntary review of the Flare Pit Fluid Release Incident Report and the Overspray from Flare Pit Report) has been completed to achieve the best environmental outcomes and protection of environmental values, including ecological and human health, amenity and safety;
- the Independent Reviewer holds an appropriate level of professional indemnity insurance for the works completed;
- the Independent Reviewer is a member of the Environmental Institute of Australia and New Zealand (EIANZ);

- the Independent Reviewer is certified by one of the recognised bodies in the contaminated land field, being an EIANZ Certified Environmental Practitioner (CEnvP), Contaminated Land Specialist;
- the Independent Reviewer has had access to sufficient information to enable all pertinent aspects of the report to be evaluated, which includes independent verification of raw data where available and applicable. All reasonable and practicable measures have been taken to verify any opinion of others which have been relied upon, and the data and information their opinion is based on; and
- the Independent Reviewer has provided a comprehensive and reliable review of the report, which does not appear to exclude any material aspects.

In addition, the Independent Reviewer can confirm the following legislation/guidelines were referenced (as applicable) as relevant to the works completed (within the Flare Pit Fluid Release Incident Report and the Overspray from Flare Pit Report) and the general review process:

- Australian Standard AS 4482.1-2005, *Guide to the Sampling and Investigation of Potentially Contaminated Soil – Part 1: Non-volatile and semi-volatile compounds* (Standards Australia, 2005) – noting these are no longer in publication, but redundant.
- *National Environment Protection Council* 2013, *National Environmental Protection (Site Contamination) Measure (NEPM),. Schedule B9 – Guideline on competencies and acceptance of environmental auditors and related professionals*; Schedule B8 Community Engagement and Risk Communication.
- Northern Territory Government *Petroleum (Environment) Regulations 2016*.
- Northern Territory Government NT Environmental Protection Agency Northern Territory Contaminated Land Guideline (2017).
- New South Wales (NSW) Environment Protection Authority (EPA) (2022), Contaminated Land Guidelines – Sampling Design Part 1 – Application, and Sampling Design Part 2 – Interpretation.

The Independent Reviewer comments regarding the Flare Pit Fluid Release Incident Report were summarised as follows:

- The Flare Pit Fluid Release Incident Report was completed in general accordance with the NEPM/NT EPA guidelines and were considered suitable for Independent Reviewer concurrence.
- The works undertaken to address specific elements of the site and contamination (limited to the investigation of the Flare Pit Fluid Release Incident site), were considered to be in accordance with the appropriate guidelines (as applicable) and were suitable for Independent Reviewer concurrence.
- The works were focused on area of the site likely to have been impacted by the incident and this is deemed as appropriate.
- The extent of the works was suitable to provide a general coverage, specific to both the area of concern and the likely contaminants of concern, which was appropriate.

- The details provided in the Flare Pit Fluid Release Incident Report were suitable for Independent Reviewer concurrence to meet the general requirements of the currently applicable guidelines.

The Independent Reviewer comments regarding the Overspray from Flare Pit Report were summarised as follows:

- The Overspray from Flare Pit Report was completed in general accordance with the NEPM/NT EPA guidelines and were considered suitable for Independent Reviewer concurrence.
- The works undertaken to address specific elements of the site and contamination (limited to the investigation of the Overspray from Flare Pit site), were considered to be in accordance with the appropriate guidelines (as applicable) and were suitable for Independent Reviewer concurrence.
- The works were focused on area of the site likely to have been impacted by the Overspray from Flare Pit site and this is deemed as appropriate.
- The extent of the works was suitable to provide a general coverage, specific to both the area of concern and the likely contaminants of concern, which was appropriate.
- The details provided in the Overspray from Flare Pit Report were suitable for Independent Reviewer concurrence to meet the general requirements of the currently applicable guidelines.

4 Independent Reviewer Independent Data Verification

Independent verification of the primary sources of data, presented as part of the Flare Pit Fluid Release Incident Report and the Overspray from Flare Pit Report review, was undertaken by the Independent Reviewer and comprised of the following:

- Verification of current site status on Google Earth, including a search and review of site layout (and historical layout, as appropriate) and site surrounds.
- Verification of location of Environmental Sensitive Areas and surface water bodies.
- Verification of geology and hydrogeology using online mapping, including an independent search of local water bores, checking the geological areas and determining the appropriate assessment of the source-pathway-receptor.
- Verification of the groundwater quality based on online mapping.
- Verification of the site activities and potential for contaminants of concern. The Independent Reviewer experience and expertise were also employed to make a learned judgement on aspects of the site, as applicable.
- Verification of the site setting and the detail discussions, based on the Independent Reviewer's local knowledge and knowledge of other sites in vicinity of the area or sites of a similar nature.
- Verification of the Conceptual Site Model (CSM), based on cross-referencing the requirements of NEPM in addition to knowledge of both the site, likely contaminants, likely pathways and likely receptors within the area.
- Verification of field methods and review of the verification of data quality.

- Verification that there is no evidence of misrepresentation or omission of material information by EcOz or Independent Reviewer that may compromise the review process.

The Independent Reviewer can confirm that this letter provides an endorsement of the conclusions of the Flare Pit Fluid Release Incident Report and the Overspray from Flare Pit Report, noting this was based on a voluntary engagement for Independent Reviewer review and concurrence and does not form a specific statutory submission.

We trust that the information provided in this letter meets your requirements and allows submission of the Flare Pit Fluid Release Incident Report and the Overspray from Flare Pit Report, however, should you wish to discuss any aspects or need any additional details, please do not hesitate to contact me further.

[redacted]

[redacted]

[redacted]

Principal

Independent Reviewer

Attachment A

Contaminated Land Auditor Approval

Certificate

Environmental Protection Act 1994

Certificate of Approval - Auditor

Approval No: CLAD010001639

This certificate of approval as an auditor is issued by the chief executive[1] pursuant to section 573 (2)(a) of the Environmental Protection Act 1994.

1. **Approved person**

[redacted]

2. **Approved auditor functions**

The approved person is approved to perform auditor's functions under s.568(b) of the *Environmental Protection Act 1994.*

3. **Term of approval**

This approval will remain in force until 24 June 2025 unless it is cancelled or suspended.

4. **Conditions of approval**

The approved person must:

- continue to hold professional indemnity insurance for at least $5 million of cover
- comply with the most recent version of the Queensland Auditor Handbook for Contaminated Land, Module 4: Code of Professional Conduct
- have and maintain an expert support team whose support and advice can be obtained when the auditor is not an expert in any of the competencies and proficiencies listed in Schedule B9 of the *National Environment Protection (Assessment of Site Contamination) Measure 1999*, amended 2013.

[redacted]

Director, Technical and Assessment Services
Department of Environment and Science
Delegate of the chief executive
Environmental Protection Act 1994

5 August 2022

Date

Enquiries:
[redacted]
Phone: (07) 3330 5574
Email: technicalsupport@des.qld.gov.au

[1] The Director-General of the Department of Environment and Science is the chief executive under the *Environmental Protection Act 1994*.

Queensland Government