6 October 2025

Director Petroleum Operations
Department of Lands, Planning and Environment
PO Box 3675
Darwin NT 0801

Attention: Ms Sally Strohmayr

Dear Ms Strohmayr

Re: Quarter 3 2025 – Groundwater Monitoring Results – Beetaloo Basin Drilling, Stimulation and Well Testing Program Environment Management Plan – Amungee NW (ORI10-3)

In accordance with the ministerial condition of approval 5 (ii) of the *Beetaloo Sub -Basin Multi-well Drilling, Stimulation and Well Testing Program Environment Management Plan* (ORI10-3) (Beetaloo Multi-well EMP), water quality results are provided to the Department of Lands, Planning and Environment (DLPE) 2 months after collection of the Quarter 2 2025 monitoring event.

While not a requirement of the conditions of approval for the Beetaloo Multi-well EMP, statistical summaries comprising the interquartile ranges for the groundwater quality parameters identified in the Code of Practice are have been provided for the Amungee NW site (Table 2). The parameters for which the 75th percentile concentration in the impact monitoring bore exceeds the 75th percentile concentration in the control monitoring bore are highlighted.

Table 1: Quarter 3 2025 Groundwater quality monitoring result reporting summary

Data required	Tamboran response
The title of the current plan the relevant approval conditions the submission of quarterly groundwater data is intended to satisfy	*Beetaloo Sub -Basin Multi-well Drilling, Stimulation and Well Testing Environment Management Plan* (ORI10-3)
Details of the relevant approval condition the notification of any groundwater monitoring results above the interquartile range is intended to satisfy	**Self-Reporting – noting:** ***Condition 5:*** *In support of clause B.4.17.2 of the Code of Practice: Onshore Petroleum Activities in the Northern Territory, the interest holder must:* *ii. provide DEPWS, via Onshoregas.DEPWS@nt.gov.au, the results of quarterly groundwater monitoring, as soon as practicable and no later than 2 months after collection, in a format determined by DEPWS.*[1].

[1] *Under the new Administration Arrangement Orders the following departmental name change has occurred - Department of Environment, Parks and Water Security (DEPWS) has been revised to Department of Lands Planning and Environment (DLPE). Email address – Onshoregas.DLPE@nt.gov.au*

Data required	Tamboran response
Information to demonstrate that the reporting has occurred within the timeframe specified in the relevant condition	Groundwater monitoring results that have been collected during the reporting period are submitted to DLPE post sampling event. The monitoring frequency of the groundwater program aligns with the Ministerial Condition 5i. which requires quarterly groundwater monitoring.
Statement on whether the analytical results are within or outside of natural variability of baseline groundwater quality	The analytical results from the Amungee NW Gum Ridge impact monitoring bore (RN043018) have recorded several results outside of the interquartile range of the control monitoring bore (RN040894).
Highlighting the data that are above the respective interquartile range for the relevant groundwater parameter/s	Eleven (11) chemical parameters measured in the impact monitoring bore were identified to exceed the 75th percentile of background concentrations (Table 2). The results of the statistical analysis, identifying the analytes that exceed the 75th percentile, is provided separately to this summary.
A summary and an analysis of causes for elevated groundwater monitoring results and actions taken to ensure that protection of groundwater is maintained	The 75th percentile exceedances observed from the impact monitoring bore are: • within the natural variability based on the hydrogeological conceptualisation of the Cambrian limestone aquifers; including likelihood of rainfall recharge entering the aquifer from the 2023/2024 and 2024/2025 wet season. • the low absolute concentrations where exceedances occur are within laboratory error ranges. • Results of groundwater monitoring confirm no material deterioration in groundwater quality associated with Tamboran's activities.
The outcome of the risk review undertaken as a result of the notification, including an updated assessment of the occurrence likelihood and whether this changes the risk ranking.	The absolute concentrations where exceedances occur do not materially change the groundwater quality. There is no change to the risk ranking associated with the activity.

A full compilation of water quality monitoring results across Tamboran's sites has been provided with this report.

If you require any further information, please do not hesitate to email me.

Kind Regards

[redacted]

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Table 2: Amungee NW Gum Ridge Formation Bore Comparison Results, February 2025

Table 2 Amungee NW1 Gum Ridge Formation bore comparison July 2025

Analyte	RN040894 (BET-MB019) Count Samples	EQL	EQL Units	Output Unit	RN040894 (BET-MB019) 75th percentile	RN043018 (BET-MB027) Concentration as of Last Sample Date 12/07/2025	RN040894 (BET-MB019) to RN043018 (BET-MB027) Ratio	75th Percentile Exceedance	Comment
Acenaphthene	19	1	µg/L	µg/L	<1	<1	NA	Complies	
Acenaphthylene	19	1	µg/L	µg/L	<1	<1	NA	Complies	
Alkalinity (Bicarbonate as CaCO3)	19	1	mg/L	mg/L	418	398	0.95	Complies	
Alkalinity (Carbonate as CaCO3)	19	1	mg/L	mg/L	<1	<1	NA	Complies	
Alkalinity (Hydroxide as CaCO3)	19	1	mg/L	mg/L	<1	<1	NA	Complies	
Alkalinity (Total) (as CaCO3)	19	1	mg/L	mg/L	418	398	0.95	Complies	
Anthracene	19	1	µg/L	µg/L	<1	<1	NA	Complies	
Arsenic	19	0.001	mg/L	mg/L	<0.001	<0.001	NA	Complies	
Barium	19	0.001	mg/L	mg/L	0.071	0.088	1.24	Exceedance	Less than historical maximum, dynamic but possible declining trend with time
Benzo(a)anthracene	19	1	µg/L	µg/L	<1	<1	NA	Complies	
Benzene	19	1	µg/L	µg/L	<1	<1	NA	Complies	
Benzo(a)pyrene	19	0.5	µg/L	µg/L	<0.5	<0.5	NA	Complies	
Benzo(b+j)fluoranthene	19	0.001	mg/L	mg/L	<0.001	<0.0010	NA	Complies	
Benzo(g,h,i)perylene	19	1	µg/L	µg/L	<1	<1	NA	Complies	
Benzo(k)fluoranthene	19	1	µg/L	µg/L	<1	<1	NA	Complies	
Boron	19	0.05	mg/L	mg/L	0.165	0.15	0.91	Complies	
C10 - C14 Fraction	19	50	µg/L	µg/L	<50	<50	NA	Complies	
C10 - C16 Fraction	19	100	µg/L	µg/L	<100	<100	NA	Complies	
C10 - C16 Fraction minus Naphthalene (F2)	19	100	µg/L	µg/L	<100	<100	NA	Complies	
C10 - C36 Fraction (Sum)	19	50	µg/L	µg/L	<50	<50	NA	Complies	
C10 - C40 Fraction (Sum)	19	100	µg/L	µg/L	<100	<100	NA	Complies	
C15 - C28 Fraction	19	100	µg/L	µg/L	<100	<100	NA	Complies	
C16 - C34 Fraction	19	100	µg/L	µg/L	<100	<100	NA	Complies	
C29 - C36 Fraction	19	50	µg/L	µg/L	<50	<50	NA	Complies	
C34 - C40 Fraction	19	100	µg/L	µg/L	<100	<100	NA	Complies	
C6 - C10 Fraction	19	20	µg/L	µg/L	<20	<20	NA	Complies	
C6 - C10 Fraction minus BTEX (F1)	19	20	µg/L	µg/L	<20	<20	NA	Complies	
C6 - C9 Fraction	19	20	µg/L	µg/L	<20	<20	NA	Complies	
Cadmium	19	0.0001	mg/L	mg/L	<0.0001	<0.0001	NA	Complies	
Calcium	19	1	mg/L	mg/L	121	108	0.89	Complies	
Chloride	19	1	mg/L	mg/L	106	127	1.20	Exceedance	Less than historical maximum, no discernible trend
Chromium (III+VI)	19	0.001	mg/L	mg/L	<0.001	<0.001	NA	Complies	
Chrysene	19	1	µg/L	µg/L	<1	<1	NA	Complies	
Copper	19	0.001	mg/L	mg/L	<0.001	<0.001	NA	Complies	
Dibenz(a,h)anthracene	19	1	µg/L	µg/L	<1	<1	NA	Complies	
Dissolved Oxygen (Field)	15	0.1	mg/L	mg/L	1.04	0.32	0.31	Complies	
Electrical Conductivity (Field)	16	1	µS/cm	µS/cm	1491	1,611	1.08	Exceedance	Small exceedance. Possible slight rising trend since April 2023
Specific conductance (Field)	13	1	µS/cm	µS/cm	1240	1311	1.06	Exceedance	Small exceedance. Possible slight rising trend since April 2024
Electrical Conductivity (Lab)	18	1	µS/cm	µS/cm	1180	1,140	0.97	Complies	
Ethane	18	10	µg/L	µg/L	<10	<10	NA	Complies	
Ethylbenzene	19	2	µg/L	µg/L	<2	<2	NA	Complies	
Fluoranthene	19	1	µg/L	µg/L	<1	<1	NA	Complies	
Fluorene	19	1	µg/L	µg/L	<1	<1	NA	Complies	
Fluoride	19	0.1	mg/L	mg/L	0.5	0.5	1	Complies	
Gross alpha activity	14	0.05	Bq/L	Bq/L	0.39	0.31	0.80	Complies	
Gross beta activity (excluding activity of K-40)	14	0.1	Bq/L	Bq/L	0.19	0.18	0.97	Complies	
Indeno(1,2,3-c,d)pyrene	19	1	µg/L	µg/L	<1	<1	NA	Complies	
Iron	19	0.05	mg/L	mg/L	1.36	4.06	2.99	Exceedance	Slight rising trend since April 2024, less than historical maximum
Lead	19	0.001	mg/L	mg/L	<0.001	<0.001	NA	Complies	
Lithium	18	0.001	mg/L	mg/L	0.0550	0.047	0.85	Complies	
Magnesium	19	1	mg/L	mg/L	48	47	0.98	Complies	
Manganese	19	0.001	mg/L	mg/L	0.101	0.118	1.17	Exceedance	Broadly declining trend, and significantly lower than historical maximum
Mercury	19	0.0001	mg/L	mg/L	<0.0001	<0.0001	NA	Complies	
Methane	18	10	µg/L	mg/L	<0.01	0.012	1.20	Exceedance	Trace level of methane detected. Dynamic buy possibly declining trend.
Naphthalene	19	1	µg/L	µg/L	<1	<1	NA	Complies	
Nitrate (as N)	19	0.01	mg/L	mg/L	0.03	0.01	0.4	Complies	
Nitrite (as N)	19	0.01	mg/L	mg/L	<0.01	<0.01	NA	Complies	
Nitrite + Nitrate (as N)	10	0.01	mg/L	mg/L	0.04	0.01	0.29	Complies	
pH (Lab)	18	0.01	pH units	pH units	7.51	7.26	0.97	Complies	
pH (Field)	18	0.01	pH units	pH units	6.79	6.89	1.01	Exceedance	Very small exceedance, within calibration and measurement error. No trend
Phenanthrene	19	1	µg/L	µg/L	<1	<1	NA	Complies	
Potassium	19	1	mg/L	mg/L	11	26	2.48	Exceedance	Dynamic but possibly declining trend. Less than historical maximum
Propane	18	10	mg/L	mg/L	<0.01	<0.01	NA	Complies	
Pyrene	19	1	µg/L	µg/L	<1	<1	NA	Complies	
Selenium	19	0.01	mg/L	mg/L	<0.01	<0.01	NA	Complies	
Silicon as Si	17	0.05	mg/L	mg/L	14	14	0.98	Complies	
Silver	19	0.001	mg/L	mg/L	<0.001	<0.001	NA	Complies	
Sodium	19	1	mg/L	mg/L	69	69	1	Complies	
Strontium	19	0.001	mg/L	mg/L	0.670	0.632	0.94	Complies	
Sulphate as SO4	17	1	mg/L	mg/L	133	118	0.89	Complies	
Sum of BTEX	19	1	µg/L	µg/L	<1	<1	NA	Complies	
Suspended Solids	19	5	mg/L	mg/L	9	7	0.78	Complies	
Temperature (Field)	16	0.1	°C	°C	35.93	37	1.03	Exceedance	Results consistent with previous four measurements, and greater than earlier historical values. Likely due to different purge durations
Toluene	19	2	µg/L	µg/L	<2	<2	NA	Complies	
Total Dissolved Solids	19	10	mg/L	mg/L	752	686	0.91	Complies	
Total Reportable PAH	18	0.5	µg/L	µg/L	<0.5	<0.5	NA	Complies	
Xylene (m & p)	19	2	µg/L	µg/L	<2	<2	NA	Complies	
Xylene (o)	19	2	µg/L	µg/L	<2	<2	NA	Complies	
Xylene Total	19	2	µg/L	µg/L	<2	<2	NA	Complies	
Zinc	19	0.005	mg/L	mg/L	0.013	0.022	1.73	Exceedance	Variable historical concentrations with no definable trend. Less than historical maximum