

Appendix B

Table 1 – Authorised wastewater discharge points and monitoring locations for EPL217-06.

Location Code	Description	Authorised Discharge Point	Monitoring location	Latitude	Longitude	Discharge Source*
Jetty Outfall						
SC 2914	Jetty Outfall – Composite Sampler as indicative location of the Authorised Discharge Point (ADP).	Y	N	-12.523555	130.850003	Reverse Osmosis (RO) plant reject water
SC 2920	Jetty Outfall – Monitoring location for Reverse Osmosis (RO) plant reject water discharged to ocean.	N	Y	- 12.522763	130.865053	RO plant reject water
Irrigation Field						
SC 2919	Irrigation Field – ADP and monitoring location for the discharge of treated wastewater to the irrigation field.	Y	Y	- 12.522777	130.865054	Irrigation water is comprised of the following streams: <ul style="list-style-type: none"> • Turbine air humidification system (TAHS) water • Boiler blowdown water

Location Code	Description	Authorised Discharge Point	Monitoring location	Latitude	Longitude	Discharge Source*
						<ul style="list-style-type: none"> • Treated effluent from the Sanitary Treatment Plant (STP) • Treated effluent from the Corrugated Plate Interceptor/ Dissolved Air Floatation (CPI/DAF).
Sediment Pond Outfalls						
SC 2915	Sediment Pond Outfall 1 – ADP and monitoring location for stormwater runoff from process area to receiving environment.	Y	Y	- 12.523538	130.866764	Stormwater runoff and the discharge of clean water ^[1] from process areas (including discharge from the RO plant green sand filter backwash).
SC 2916	Sediment Pond Outfall 2 –ADP and monitoring location for stormwater runoff from process area to receiving environment.	Y	Y	- 12.523460	130.872109	Stormwater runoff and the discharge of clean water ^[1] from process areas including discharge from the refuelling bay oily water separator.

Location Code	Description	Authorised Discharge Point	Monitoring location	Latitude	Longitude	Discharge Source*
SC 2917	Sediment Pond Outfall 3 -ADP and monitoring location for stormwater runoff from process area to receiving environment.	Y	Y	- 12.517615	130.868488	Stormwater runoff and the discharge of clean water ^[1] from process areas including discharge from the dangerous good compound humeceptor and the RO plant green sand filter backwash.

Notes:

¹ Clean water discharges are defined by the water quality criteria detailed in the Operations Environmental Management Plan.

* = Discharge from the RO plant green sand filter backwash may also be diverted to the CPI/DAF and discharged via SC 2919.

Y - Yes

N - No

Authorised Wastewater Discharge and Monitoring Locations as shown in Figure 2 of Appendix A.

Table 2 – Authorised wastewater discharge trigger values and monitoring program for EPL 217-06.

Parameter	Monitoring Site Code	Irrigation Field Discharge SC 2919		Jetty Outfall Discharge SC 2920		Sediment Pond Discharge SC 2915, SC 2916, SC 2917	
	Unit	Trigger Value	Frequency	Trigger Value	Frequency	Trigger Value	Frequency
Environmental Parameters (In-situ)							
pH	pH	<6 and >8.5	Q	<7 and >8.5	M	<6 and >8.5	S
Electrical conductivity (EC)	µs/cm	-	Q	-	M	-	S
Total suspended solids (TSS)	mg/L	30	Q	30	M	75	S
Turbidity	NTU	-	Q	20	M	-	S
Dissolved oxygen (DO)	% saturation	-	Q	-	M	-	S
Temperature	°C	-	Q	-	M	-	S
Nutrient indicators							
Total Nitrogen (TN)	mg/L	40	Q	13.5 ¹¹	M	40	S
Total Phosphorus (TP)	mg/L	10	Q	1.0 ¹²	M	10	S
Nitrate/Nitrite (NO _x)	µg/L	N/A	Q	N/A	M	N/A	S
Ammonia (NH ₃)	µg/L	N/A	Q	N/A	M	N/A	S
Dissolved reactive phosphorus (PO ₄ _P)	µg/L	N/A	Q	N/A	M	N/A	S
Bacteriological							
Faecal Coliforms (E.coli)	MPN/100mL	1000	Q	N/A	N/A	N/A	N/A
Metals ¹							
Arsenic	µg/L	10 ⁶	Q	N/A	M	N/A	S
Cadmium	µg/L	3.2 ⁶	Q	5.5 ⁸	M	5.5 ⁸	S
Chromium	µg/L	10 ⁶	Q	4.4 ⁸	M	4.4 ⁸	S
Copper	µg/L	69 ⁶	Q	13 ⁹	M	2.0 ¹⁰	S
Iron	µg/L	1,300 ⁶	Q	N/A	M	N/A	S
Lead	µg/L	10 ⁶	Q	4.4 ^{8,13}	M	4.4 ⁸	S
Manganese	µg/L	200 ⁷	Q	N/A	M	N/A	S
Mercury	µg/L	0.1 ⁶	Q	0.4 ⁸	M	0.4 ⁸	S
Nickel	µg/L	200 ⁷	Q	70 ⁸	M	70 ⁸	S
Silver	µg/L	1.4 ⁶	Q	1.4 ⁸	M	1.4 ⁸	S
Zinc	µg/L	1780 ⁶	Q	80 ⁹	M	130 ¹⁰	S
Volatiles and semi-volatiles							
Total Recoverable Hydrocarbons (TRH) ²	mg/L	1.2 ¹⁰	Q	>0.32 ⁵	M	>0.32 ⁵	S
BTEX	µg/L	>3.0 ⁵	Q	>3.0 ⁵	M	>3.0 ⁵	S
Activated Methyldiethanolamine (aMDEA) ³	µg/L	N/A	NR	N/A	NR	LOR	S ⁴

KEY: A = Annually; M = Monthly; Q = Quarterly; S = Seasonal (monthly during discharge events, typically over the Wet Season [November to May]); NR = Not Reportable.

N/A: No limit set for the purpose of reporting events to the NT EPA, as not expected to be present in the discharge in significant concentrations. Monitoring (where there is N/A for 'trigger value' however has a 'frequency' specified) is a precautionary measure only); - = Reportable but no established trigger values or limits; LOR = Limit of Reporting.

NOTES:

¹ All metal analysis to be carried out on filtered samples.

² If TRH are detected over the prescribed limits, per monitoring conditions of the licence, a silica gel clean-up is to be undertaken and samples re-analysed to remove false positive from natural, normally occurring hydrocarbons.

³ Sample taken for laboratory analysis, however analysis may not be NATA accredited.

⁴ Sampling for aMDEA limited to Sediment Pond 2.

⁵ Limit of reporting used by Santos during analysis of samples collected during 2024 monitoring program.

⁶ 80th percentile of monitoring data from reference bore BH1 collected between 2015 and 2018.

⁷ ANZECC & ARMCANZ (2000) agricultural irrigation long-term trigger value.

⁸ 95% species protection default guideline value for marine waters, slightly-moderately disturbed ecosystems (ANZG, 2018). The ANZECC guidelines advise that there was insufficient data to derive a reliable trigger value for Arsenic, Iron and Manganese.

⁹ ANZG (2018) 95% species protection default guideline value (DGV) with a 1:10 dilution applied. For copper: DGV of 1.3 µg/L with a 1:10 dilution applied to result in 13 µg/L at the end-of-pipe. For zinc: DGV of 8 µg/L with a 1:10 dilution applied to result in 80 µg/L at the end-of-pipe.

¹⁰ 80th percentile of historical data collected between 2015 and 2025.

¹¹ Darwin Harbour Water Quality Objective value of 0.27 mg/L and 1:50 dilution applied to result in a 13.5 mg/L trigger value at the end-of-pipe.

¹² Darwin Harbour Water Quality Objective value of 0.02 mg/L and 1:50 dilution applied to result in a 1.0 mg/L trigger value at the end-of-pipe.

¹³ The Trigger Value has conservatively used the Hexavalent chromium (Chromium III) default guideline value of 4.4 µg/L. Santos results have historically been presented as Total Chromium (i.e. all chromium compounds in water regardless of oxidation state).

Table 3 – Authorised air emissions points and monitoring program for EPL217-06.

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Release Point Number	Source (nominal power output)	Pollutant	Concentration Limit ¹ (mg/Nm ³)	Maximum mass emission rate (g/s)	Monitoring Frequency*
U3101 U3102 U3103 U3104 U3105	Power generation turbines Solar Taurus 60 (4.2 MW)	SO ₂	23 @15% O ₂ dry	0.2	Biannually
		NO _x as NO ₂	70 @15% O ₂ dry	1	
		CO	32 @15% O ₂ dry	0.4	
U1411 U1421 U1511 U1521 U1611 U1621	Compressor turbines General Electric LM2500+G4 (32MW)	SO ₂	65 @15% O ₂ dry	4.7	Biannually
		NO _x as NO ₂	212 @15% O ₂ dry	25	
		CO	70 @15% O ₂ dry	5	
K1905	Thermal oxidiser	SO ₂	485 @7% O ₂ dry	11.1	Quarterly
		NO _x as NO ₂	350 @7% O ₂ dry	1.5	
		CO	145 @7% O ₂ dry	3	
		H ₂ S	5 @7% O ₂ dry	0.1	
V1206	Acid Gas Vent (Solvent Regenerator Reflux Drum)	H ₂ S	362 dry	4.3	Quarterly
		Benzene	306 dry	3.6	
B3801	Boiler(35 t/hr steam generating capacity)	SO ₂	84 @7% O ₂ dry	0.25	Biannually
		NO _x as NO ₂	244 @7% O ₂ dry	0.7	
		CO	54 @7% O ₂ dry	0.2	

¹ NSW EPA concentration limits for plants licenced on or after 1 September 2005 (Group 6). Available at [Protection of the Environment Operations \(Clean Air\) Regulation 2022](#).

Table 4 – Groundwater monitoring bore location and frequency for EPL217-06.

Bore	Latitude	Longitude	Monitoring frequency*
BH1	-12.52388	130.8753	Biannually
BH2	-12.52099	130.8635	Biannually
BH3	-12.52204	130.8637	Biannually
BH4	-12.52316	130.8628	Biannually
BH5	-12.52424	130.8638	Biannually
BH6	-12.52455	130.8651	Biannually
BH7	-12.52558	130.8641	Biannually
<p>Note: * = Biannual groundwater monitoring to be undertaken once in the dry season and tested for the analytes specified in the DLNG Groundwater Monitoring Plan. Monitoring sites as shown in Figure 4 of Appendix A.</p>			