Vales Point Power Station Monthly Environmental Data Summary

LICENCE NO	761	http://www.epa.nsw.gov.au/prpoeoapp/
LICENCE HOLDER	SUNSET POWER INTERNATIONAL PTY LTD	
REPORTING PERIOD	July 2022	
ADDRESS	VALES ROAD, MANNERING PARK NSW	

POINT 2 **Combined air emissions from boiler 5 via Points 4 to 7 to Point 1 marked and shown as EPA ID 2 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceed 100% Limit (yes/no)	Comments
Jul-22	Cadmium	(mg/m3)	Every 6 months							0.2		
Jul-22	Chlorine	(mg/m3)	Every 6 months							20		
Jul-22	Fluorine	(mg/m3)	Every 6 months							30		
Jul-22	Hydrogen chloride	(mg/m3)	Every 6 months							50		
Jul-22	Mercury	(mg/m3)	Every 6 months							0.05		
Jul-22	Nitrogen Oxides	(mg/m3)	Continuous	97.8%	Jul-22	395	656	794	850	980	No	
Jul-22	Solid Particles	(mg/m3)	Quarterly							50	No	
Jul-22	Sulfur dioxide	(mg/m3)	Continuous	97.7%	Jul-22	533	763	937	1400	1700	No	
Jul-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100		
Jul-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75		
Jul-22	VOC's as n-propane equivalent	(mg/m3)	Every 6 months							10		

POINT 3 **Combined air emissions from boiler 6 via Points 8 to 11 to Point 1 marked and shown as EPA ID 3 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceed 100% Limit (yes/no)	Comments
Jul-22	Cadmium	(mg/m3)	Every 6 months							0.2		
Jul-22	Chlorine	(mg/m3)	Every 6 months							20		
Jul-22	Fluorine	(mg/m3)	Every 6 months							30		
Jul-22	Hydrogen chloride	(mg/m3)	Every 6 months							50		
Jul-22	Mercury	(mg/m3)	Every 6 months							0.05		
Jul-22	Nitrogen Oxides	(mg/m3)	Continuous	98.6%	Jul-22	402	654	836	850	980	No	
Jul-22	Solid Particles	(mg/m3)	Quarterly							50	No	
Jul-22	Sulfur dioxide	(mg/m3)	Continuous	98.4%	Jul-22	601	759	902	1400	1700	No	
Jul-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100		
Jul-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75		
Jul-22	VOC's as n-propane equivalent	(mg/m3)	Every 6 months							10		

POINT 4 **Boiler number 5 exhaust - duct A marked and shown as EPA ID 4 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Jul-22	Cadmium	(mg/m3)	Every 6 months									
Jul-22	Carbon dioxide	(%)	Every 6 months									
Jul-22	Chlorine	(mg/m3)	Every 6 months									
Jul-22	Flow rate	(m3/s)	Continuous									
Jul-22	Fluorine	(mg/m3)	Every 6 months									
Jul-22	Hydrogen chloride	(mg/m3)	Every 6 months									
Jul-22	Mercury	(mg/m3)	Every 6 months									Continuous monitoring of flow rate, moisture, O2 and temperature not required until 30/11/2022.
Jul-22	Moisture	(%)	Continuous									
Jul-22	Oxygen (O2)	(%)	Continuous									
Jul-22	Solid Particles	(mg/m3)	Quarterly									
Jul-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Jul-22	Temperature	(°C)	Continuous									
Jul-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Jul-22	VOC's as n-propane equivalent	(mg/m3)	Every 6 months									

POINT 5 **Boiler number 5 exhaust - duct B marked and shown as EPA ID 5 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Jul-22	Cadmium	(mg/m3)	Every 6 months									
Jul-22	Flow rate	(m3/s)	Continuous									
Jul-22	Mercury	(mg/m3)	Every 6 months									
Jul-22	Moisture	(%)	Continuous									Continuous monitoring of flow rate, moisture, O2 and temperature not required until 30/11/2022.
Jul-22	Oxygen (O2)	(%)	Continuous									
Jul-22	Solid Particles	(mg/m3)	Quarterly									
Jul-22	Temperature	(°C)	Continuous									
Jul-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									

POINT 6 **Boiler number 5 exhaust - duct C marked and shown as EPA ID 6 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Jul-22	Cadmium	(mg/m3)	Every 6 months									
Jul-22	Carbon dioxide	(%)	Every 6 months									
Jul-22	Chlorine	(mg/m3)	Every 6 months									
Jul-22	Flow rate	(m3/s)	Continuous									
Jul-22	Fluorine	(mg/m3)	Every 6 months									
Jul-22	Hydrogen chloride	(mg/m3)	Every 6 months									
Jul-22	Mercury	(mg/m3)	Every 6 months									Continuous monitoring of flow rate, moisture, O2 and temperature not required until 30/11/2022.
Jul-22	Moisture	(%)	Continuous									
Jul-22	Oxygen (O2)	(%)	Continuous									
Jul-22	Solid Particles	(mg/m3)	Quarterly									
Jul-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Jul-22	Temperature	(°C)	Continuous									
Jul-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Jul-22	VOC's as n-propane equivalent	(mg/m3)	Every 6 months									

POINT 7 **Boiler number 5 exhaust - duct D marked and shown as EPA ID 7 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Jul-22	Cadmium	(mg/m3)	Every 6 months									
Jul-22	Flow rate	(m3/s)	Continuous									
Jul-22	Mercury	(mg/m3)	Every 6 months									
Jul-22	Moisture	(%)	Continuous									Continuous monitoring of flow rate, moisture, O2 and temperature not required until 30/11/2022.
Jul-22	Oxygen (O2)	(%)	Continuous									
Jul-22	Solid Particles	(mg/m3)	Quarterly									
Jul-22	Temperature	(°C)	Continuous									
Jul-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									

POINT 8 **Boiler number 6 exhaust - duct A marked and shown as EPA ID 8 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Jul-22	Cadmium	(mg/m3)	Every 6 months									
Jul-22	Carbon dioxide	(%)	Every 6 months									
Jul-22	Chlorine	(mg/m3)	Every 6 months									
Jul-22	Flow rate	(m3/s)	Continuous									
Jul-22	Fluorine	(mg/m3)	Every 6 months									
Jul-22	Hydrogen chloride	(mg/m3)	Every 6 months									
Jul-22	Mercury	(mg/m3)	Every 6 months									Continuous monitoring of flow rate, moisture, O2 and temperature not required until 30/11/2022.
Jul-22	Moisture	(%)	Continuous									
Jul-22	Oxygen (O2)	(%)	Continuous									
Jul-22	Solid Particles	(mg/m3)	Quarterly									
Jul-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Jul-22	Temperature	(°C)	Continuous									
Jul-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Jul-22	VOC's as n-propane equivalent	(mg/m3)	Every 6 months									

POINT 9 **Boiler number 6 exhaust - duct B marked and shown as EPA ID 9 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Jul-22	Cadmium	(mg/m3)	Every 6 months									
Jul-22	Flow rate	(m3/s)	Continuous									
Jul-22	Mercury	(mg/m3)	Every 6 months									
Jul-22	Moisture	(%)	Continuous									Continuous monitoring of flow rate, moisture, O2 and temperature not required until 30/11/2022.
Jul-22	Oxygen (O2)	(%)	Continuous									
Jul-22	Solid Particles	(mg/m3)	Quarterly									
Jul-22	Temperature	(°C)	Continuous									
Jul-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									

POINT 10 **Boiler number 6 exhaust - duct C marked and shown as EPA ID 10 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Jul-22	Cadmium	(mg/m3)	Every 6 months									
Jul-22	Carbon dioxide	(%)	Every 6 months									
Jul-22	Chlorine	(mg/m3)	Every 6 months									
Jul-22	Flow rate	(m3/s)	Continuous									
Jul-22	Fluorine	(mg/m3)	Every 6 months									
Jul-22	Hydrogen chloride	(mg/m3)	Every 6 months									
Jul-22	Mercury	(mg/m3)	Every 6 months									
Jul-22	Moisture	(%)	Continuous									Continuous monitoring of flow rate, moisture, O2 and temperature not required until 30/11/2022.
Jul-22	Oxygen (O2)	(%)	Continuous									
Jul-22	Solid Particles	(mg/m3)	Quarterly									
Jul-22	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Jul-22	Temperature	(°C)	Continuous									
Jul-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Jul-22	VOC's as n-propane equivalent	(mg/m3)	Every 6 months									

POINT 11 **Boiler number 6 exhaust - duct D marked and shown as EPA ID 11 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Jul-22	Cadmium	(mg/m3)	Every 6 months									
Jul-22	Flow rate	(m3/s)	Continuous									
Jul-22	Mercury	(mg/m3)	Every 6 months									
Jul-22	Moisture	(%)	Continuous									Continuous monitoring of flow rate, moisture, O2 and temperature not required until 30/11/2022.
Jul-22	Oxygen (O2)	(%)	Continuous									
Jul-22	Solid Particles	(mg/m3)	Quarterly									
Jul-22	Temperature	(°C)	Continuous									
Jul-22	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									

POINT 12 **Boiler number 5 combined exhaust - duct A and B (points 4 and 5) marked and shown as EPA ID 12 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Jul-22	Nitrogen Oxides	(mg/m3)	Continuous	98.3%	Jul-22	383	646	807			N/A	
Jul-22	Sulfur dioxide	(mg/m3)	Continuous	98.1%	Jul-22	417	719	901			N/A	

POINT 13 **Boiler number 5 combined exhaust - duct C and D (points 6 and 7) marked and shownas EPA ID 13 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Jul-22	Nitrogen Oxides	(mg/m3)	Continuous	97.4%	Jul-22	261	667	825			N/A	
Jul-22	Sulfur dioxide	(mg/m3)	Continuous	97.3%	Jul-22	302	807	983			N/A	

POINT 14 **Boiler number 6 combined exhaust - duct A and B (points 8 and 9) marked and shownas EPA ID 14 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Jul-22	Nitrogen Oxides	(mg/m3)	Continuous	97.7%	Jul-22	225	714	909			N/A	
Jul-22	Sulfur dioxide	(mg/m3)	Continuous	97.5%	Jul-22	607	786	972			N/A	

POINT 15 **Boiler number 6 combined exhaust - duct C and D (points 10 and 11) marked and shownas EPA ID 12 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Jul-22	Nitrogen Oxides	(mg/m3)	Continuous	99.5%	Jul-22	436	594	768			N/A	
Jul-22	Sulfur dioxide	(mg/m3)	Continuous	99.3%	Jul-22	576	733	875			N/A	

POINT 22 **Discharge of cooling water from the cooling water outlet canal to Wyee Bay marked and shown as EPA ID 22 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	98.5 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceed 100% Limit (yes/no)	Comments
Jul-22	Chlorine (free residual)	(mg/L)	Monthly during discharge	1	15/07/2022	<0.1	<0.1	<0.1		**0.2**	No	
Jul-22	Copper	(mg/L)	Monthly during discharge	1	15/07/2022	0.002	0.002	0.002		**0.005**	No	
Jul-22	Iron	(mg/L)	Monthly during discharge	1	15/07/2022	0.089	0.089	0.089		**0.3**	No	
Jul-22	Oil and Grease	Visible	Continuous during discharge	100%	Jul-22	NIL	NIL	NIL				
Jul-22	Selenium	(mg/L)	Monthly during discharge	1	15/07/2022	<0.002	<0.002	<0.002		**0.005**	No	
Jul-22	Temperature	(°C)	Continuous during discharge	100%	Jul-22	18.9	23.4	26.8	**35**	**37.5**	No	

POINT 23 **Discharge of supernatant water from the ash dam to the cooling water outlet canal to Wyee Bay marked and shown as EPA ID 23 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Jul-22	Aluminium	(mg/L)	Monthly during discharge	1	15/07/2022	0.166	0.166	0.166				
Jul-22	Ammonia	(mg/L)	Monthly during discharge	1	15/07/2022	0.13	0.13	0.13				
Jul-22	Arsenic (III)	(mg/L)	Monthly during discharge	1	15/07/2022	<0.0005	<0.0005	<0.0005				
Jul-22	Arsenic (V)	(mg/L)	Monthly during discharge	1	15/07/2022	0.0081	0.0081	0.0081				
Jul-22	Cadmium	(mg/L)	Monthly during discharge	1	15/07/2022	<0.00005	<0.00005	<0.00005				
Jul-22	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	15/07/2022	0.002	0.002	0.002				
Jul-22	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	15/07/2022	0.025	0.025	0.025				
Jul-22	Copper	(mg/L)	Monthly during discharge	1	15/07/2022	0.001	0.001	0.001				
Jul-22	Iron	(mg/L)	Monthly during discharge	1	15/07/2022	0.119	0.119	0.119				
Jul-22	Lead	(mg/L)	Monthly during discharge	1	15/07/2022	0.0002	0.0002	0.0002				
Jul-22	Manganese	(mg/L)	Monthly during discharge	1	15/07/2022	0.0040	0.0040	0.0040				
Jul-22	Nickel	(mg/L)	Monthly during discharge	1	15/07/2022	<0.0005	<0.0005	<0.0005				
Jul-22	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	15/07/2022	0.02	0.02	0.02				
Jul-22	Nitrogen	(mg/L)	Monthly during discharge	1	15/07/2022	0.20	0.20	0.20				
Jul-22	pH	pH	Monthly during discharge	1	15/07/2022	8.51	8.51	8.51		**6.5 - 9.5**	No	
Jul-22	Phosphorus	(mg/L)	Monthly during discharge	1	15/07/2022	0.03	0.03	0.03				
Jul-22	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	15/07/2022	<0.01	<0.01	<0.01				
Jul-22	Selenium	(mg/L)	Monthly during discharge	1	15/07/2022	0.0453	0.0453	0.0453				
Jul-22	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	15/07/2022	0.2	0.2	0.2				
Jul-22	Total Suspended Solids	(mg/L)	Monthly during discharge	1	15/07/2022	8	8	8		**50**	No	
Jul-22	Vanadium	(mg/L)	Monthly during discharge	1	15/07/2022	0.066	0.066	0.066				
Jul-22	Zinc	(mg/L)	Monthly during discharge	1	15/07/2022	0.002	0.002	0.002				

POINT 24 Discharge of seepage water from the ash dam rehabilitation area to Mannering Bay marked and shown as EPA ID 24 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	Discharge (yes/no)	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Jul-22	Aluminium	(mg/L)	Monthly during discharge	1	15/07/2022				No			
Jul-22	Ammonia	(mg/L)	Monthly during discharge	1	15/07/2022				No			
Jul-22	Arsenic (III)	(mg/L)	Monthly during discharge	1	15/07/2022				No			
Jul-22	Arsenic (V)	(mg/L)	Monthly during discharge	1	15/07/2022				No			
Jul-22	Cadmium	(mg/L)	Monthly during discharge	1	15/07/2022				No			
Jul-22	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	15/07/2022				No			
Jul-22	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	15/07/2022				No			
Jul-22	Copper	(mg/L)	Monthly during discharge	1	15/07/2022				No			
Jul-22	Iron	(mg/L)	Monthly during discharge	1	15/07/2022				No			
Jul-22	Lead	(mg/L)	Monthly during discharge	1	15/07/2022				No			
Jul-22	Manganese	(mg/L)	Monthly during discharge	1	15/07/2022				No			No discharge from EPA Point 24 during July 2022
Jul-22	Nickel	(mg/L)	Monthly during discharge	1	15/07/2022				No			
Jul-22	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	15/07/2022				No			
Jul-22	Nitrogen	(mg/L)	Monthly during discharge	1	15/07/2022				No			
Jul-22	pH	pH	Monthly during discharge	1	15/07/2022				No	6.5 - 9.5	No	
Jul-22	Phosphorus	(mg/L)	Monthly during discharge	1	15/07/2022				No			
Jul-22	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	15/07/2022				No			
Jul-22	Selenium	(mg/L)	Monthly during discharge	1	15/07/2022				No			
Jul-22	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	15/07/2022				No			
Jul-22	Total Suspended Solids	(mg/L)	Monthly during discharge	1	15/07/2022				No	50	No	
Jul-22	Vanadium	(mg/L)	Monthly during discharge	1	15/07/2022				No			
Jul-22	Zinc	(mg/L)	Monthly during discharge	1	15/07/2022				No			

POINT 25 Discharge of over boarded water from the ash dam to Mannering Bay marked and shown as EPA ID 25 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	Discharge (yes/no)	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Jul-22	Aluminium	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-22	Ammonia	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-22	Arsenic (III)	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-22	Arsenic (V)	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-22	Cadmium	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-22	Chromium (trivalent)	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-22	Chromium (VI) Compounds	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-22	Copper	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-22	Iron	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-22	Lead	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-22	Manganese	(mg/L)	Daily for any discharge >2 hrs						No			No discharge from EPA Point 25 during July 2022
Jul-22	Nickel	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-22	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-22	Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-22	pH	pH	Daily for any discharge >2 hrs						No	6.5 - 9.5	No	
Jul-22	Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-22	Reactive Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-22	Selenium	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-22	Total Kjeldahl Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-22	Total Suspended Solids	(mg/L)	Daily for any discharge >2 hrs						No	50	No	
Jul-22	Vanadium	(mg/L)	Daily for any discharge >2 hrs						No			
Jul-22	Zinc	(mg/L)	Daily for any discharge >2 hrs						No			

POINT 30	Groundwater quality monitoring bore marked and shown as EPA ID 30 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).											
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Jul-22	Aluminium	(mg/L)	Quarterly	1	15/07/2022	0.130	0.130	0.130				
Jul-22	Ammonia	(mg/L)	Quarterly	1	15/07/2022	1.80	1.80	1.80				
Jul-22	Arsenic (III)	(mg/L)	Quarterly	1	15/07/2022	<0.004	<0.004	<0.004				
Jul-22	Arsenic (V)	(mg/L)	Quarterly	1	15/07/2022	<0.004	<0.004	<0.004				
Jul-22	Cadmium	(mg/L)	Quarterly	1	15/07/2022	<0.0002	<0.0002	<0.0002				
Jul-22	Chromium (trivalent)	(mg/L)	Quarterly	1	15/07/2022	0.001	0.001	0.001				
Jul-22	Chromium (VI) Compounds	(mg/L)	Quarterly	1	15/07/2022	<0.001	<0.001	<0.001				
Jul-22	Copper	(mg/L)	Quarterly	1	15/07/2022	0.003	0.003	0.003				
Jul-22	Electrical Conductivity	(us/cm)	Quarterly	1	15/07/2022	31400	31400	31400				
Jul-22	Iron	(mg/L)	Quarterly	1	15/07/2022	81.8	81.8	81.8				
Jul-22	Lead	(mg/L)	Quarterly	1	15/07/2022	0.0011	0.0011	0.0011				
Jul-22	Magnesium	(mg/L)	Quarterly	1	15/07/2022	717	717	717				
Jul-22	Manganese	(mg/L)	Quarterly	1	15/07/2022	4.01	4.01	4.01				
Jul-22	Nickel	(mg/L)	Quarterly	1	15/07/2022	0.0268	0.0268	0.0268				
Jul-22	pH	pH	Quarterly	1	15/07/2022	5.64	5.64	5.64				
Jul-22	Potassium	(mg/L)	Quarterly	1	15/07/2022	77	77	77				
Jul-22	Selenium	(mg/L)	Quarterly	1	15/07/2022	<0.002	<0.002	<0.002				
Jul-22	Sodium	(mg/L)	Quarterly	1	15/07/2022	4960	4960	4960				
Jul-22	Standing Water Level	(m)	Quarterly	1	15/07/2022	3.64	3.64	3.64				
Jul-22	Vanadium	(mg/L)	Quarterly	1	15/07/2022	<0.0005	<0.0005	<0.0005				
Jul-22	Zinc	(mg/L)	Quarterly	1	15/07/2022	0.036	0.036	0.036				

POINT 31	Groundwater quality monitoring bore marked and shown as EPA ID 31 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).											
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Jul-22	Aluminium	(mg/L)	Quarterly	1	15/07/2022	2.96	2.96	2.96				
Jul-22	Ammonia	(mg/L)	Quarterly	1	15/07/2022	0.03	0.03	0.03				
Jul-22	Arsenic (III)	(mg/L)	Quarterly	1	15/07/2022	<0.0005	<0.0005	<0.0005				
Jul-22	Arsenic (V)	(mg/L)	Quarterly	1	15/07/2022	<0.0005	<0.0005	<0.0005				
Jul-22	Cadmium	(mg/L)	Quarterly	1	15/07/2022	<0.00005	<0.00005	<0.00005				
Jul-22	Chromium (trivalent)	(mg/L)	Quarterly	1	15/07/2022	0.003	0.003	0.003				
Jul-22	Chromium (VI) Compounds	(mg/L)	Quarterly	1	15/07/2022	<0.001	<0.001	<0.001				
Jul-22	Copper	(mg/L)	Quarterly	1	15/07/2022	0.0176	0.0176	0.0176				
Jul-22	Electrical Conductivity	(us/cm)	Quarterly	1	15/07/2022	336	336	336				
Jul-22	Iron	(mg/L)	Quarterly	1	15/07/2022	3.19	3.19	3.19				
Jul-22	Lead	(mg/L)	Quarterly	1	15/07/2022	0.0094	0.0094	0.0094				
Jul-22	Magnesium	(mg/L)	Quarterly	1	15/07/2022	4	4	4				
Jul-22	Manganese	(mg/L)	Quarterly	1	15/07/2022	0.035	0.035	0.035				
Jul-22	Nickel	(mg/L)	Quarterly	1	15/07/2022	0.0029	0.0029	0.0029				
Jul-22	pH	pH	Quarterly	1	15/07/2022	6.14	6.14	6.14				
Jul-22	Potassium	(mg/L)	Quarterly	1	15/07/2022	2	2	2				
Jul-22	Selenium	(mg/L)	Quarterly	1	15/07/2022	0.0007	0.0007	0.0007				
Jul-22	Sodium	(mg/L)	Quarterly	1	15/07/2022	39	39	39				
Jul-22	Standing Water Level	(m)	Quarterly	1	15/07/2022	0.40	0.40	0.40				
Jul-22	Vanadium	(mg/L)	Quarterly	1	15/07/2022	0.005	0.005	0.005				
Jul-22	Zinc	(mg/L)	Quarterly	1	15/07/2022	0.35	0.35	0.35				

POINT 32	Groundwater quality monitoring bore marked and shown as EPA ID 32 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).											
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Jul-22	Aluminium	(mg/L)	Quarterly	1	15/07/2022	1.93	1.93	1.93				
Jul-22	Ammonia	(mg/L)	Quarterly	1	15/07/2022	0.01	0.01	0.01				
Jul-22	Arsenic (III)	(mg/L)	Quarterly	1	15/07/2022	<0.0005	<0.0005	<0.0005				
Jul-22	Arsenic (V)	(mg/L)	Quarterly	1	15/07/2022	<0.0005	<0.0005	<0.0005				
Jul-22	Cadmium	(mg/L)	Quarterly	1	15/07/2022	<0.00005	<0.00005	<0.00005				
Jul-22	Chromium (trivalent)	(mg/L)	Quarterly	1	15/07/2022	0.002	0.002	0.002				
Jul-22	Chromium (VI) Compounds	(mg/L)	Quarterly	1	15/07/2022	<0.001	<0.001	<0.001				
Jul-22	Copper	(mg/L)	Quarterly	1	15/07/2022	0.0015	0.0015	0.0015				
Jul-22	Electrical Conductivity	(us/cm)	Quarterly	1	15/07/2022	209	209	209				
Jul-22	Iron	(mg/L)	Quarterly	1	15/07/2022	0.92	0.92	0.92				
Jul-22	Lead	(mg/L)	Quarterly	1	15/07/2022	0.0007	0.0007	0.0007				
Jul-22	Magnesium	(mg/L)	Quarterly	1	15/07/2022	2	2	2				
Jul-22	Manganese	(mg/L)	Quarterly	1	15/07/2022	0.0079	0.0079	0.0079				
Jul-22	Nickel	(mg/L)	Quarterly	1	15/07/2022	0.0014	0.0014	0.0014				
Jul-22	pH	pH	Quarterly	1	15/07/2022	6.17	6.17	6.17				
Jul-22	Potassium	(mg/L)	Quarterly	1	15/07/2022	<1	<1	<1				
Jul-22	Selenium	(mg/L)	Quarterly	1	15/07/2022	0.0002	0.0002	0.0002				
Jul-22	Sodium	(mg/L)	Quarterly	1	15/07/2022	19	19	19				
Jul-22	Standing Water Level	(m)	Quarterly	1	15/07/2022	0.53	0.53	0.53				
Jul-22	Vanadium	(mg/L)	Quarterly	1	15/07/2022	0.0023	0.0023	0.0023				
Jul-22	Zinc	(mg/L)	Quarterly	1	15/07/2022	0.010	0.010	0.010				

POINT 33	Groundwater quality monitoring bore marked and shown as EPA ID 33 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).											
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Jul-22	Aluminium	(mg/L)	Quarterly	1	15/07/2022	0.86	0.86	0.86				
Jul-22	Ammonia	(mg/L)	Quarterly	1	15/07/2022	0.12	0.12	0.12				
Jul-22	Arsenic (III)	(mg/L)	Quarterly	1	15/07/2022	<0.004	<0.004	<0.004				
Jul-22	Arsenic (V)	(mg/L)	Quarterly	1	15/07/2022	<0.004	<0.004	<0.004				
Jul-22	Cadmium	(mg/L)	Quarterly	1	15/07/2022	<0.0002	<0.0002	<0.0002				
Jul-22	Chromium (trivalent)	(mg/L)	Quarterly	1	15/07/2022	<0.001	<0.001	<0.001				
Jul-22	Chromium (VI) Compounds	(mg/L)	Quarterly	1	15/07/2022	<0.001	<0.001	<0.001				
Jul-22	Copper	(mg/L)	Quarterly	1	15/07/2022	0.002	0.002	0.002				
Jul-22	Electrical Conductivity	(us/cm)	Quarterly	1	15/07/2022	48700	48700	48700				
Jul-22	Iron	(mg/L)	Quarterly	1	15/07/2022	69.4	69.4	69.4				
Jul-22	Lead	(mg/L)	Quarterly	1	15/07/2022	0.0014	0.0014	0.0014				
Jul-22	Magnesium	(mg/L)	Quarterly	1	15/07/2022	1420	1420	1420				
Jul-22	Manganese	(mg/L)	Quarterly	1	15/07/2022	0.664	0.664	0.664				
Jul-22	Nickel	(mg/L)	Quarterly	1	15/07/2022	0.0013	0.0013	0.0013				
Jul-22	pH	pH	Quarterly	1	15/07/2022	6.72	6.72	6.72				
Jul-22	Potassium	(mg/L)	Quarterly	1	15/07/2022	309	309	309				
Jul-22	Selenium	(mg/L)	Quarterly	1	15/07/2022	<0.002	<0.002	<0.002				
Jul-22	Sodium	(mg/L)	Quarterly	1	15/07/2022	10400	10400	10400				
Jul-22	Standing Water Level	(m)	Quarterly	1	15/07/2022	-0.14	-0.14	-0.14				
Jul-22	Vanadium	(mg/L)	Quarterly	1	15/07/2022	0.0037	0.0037	0.0037				
Jul-22	Zinc	(mg/L)	Quarterly	1	15/07/2022	0.020	0.020	0.020				

POINT 34 **Groundwater quality monitoring bore marked and shown as EPA ID 33 on The Plans ("VX837351-1 AND "VX837351-2" 03/06/2020 EPA REFERENCE DOC20/476695 AND DOC20/476695-1).**

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Jul-22	Aluminium	(mg/L)	Quarterly	1	15/07/2022	0.96	0.96	0.96				
Jul-22	Ammonia	(mg/L)	Quarterly	1	15/07/2022	<0.01	<0.01	<0.01				
Jul-22	Arsenic (III)	(mg/L)	Quarterly	1	15/07/2022	<0.0005	<0.0005	<0.0005				
Jul-22	Arsenic (V)	(mg/L)	Quarterly	1	15/07/2022	<0.0005	<0.0005	<0.0005				
Jul-22	Cadmium	(mg/L)	Quarterly	1	15/07/2022	<0.00005	<0.00005	<0.00005				
Jul-22	Chromium (trivalent)	(mg/L)	Quarterly	1	15/07/2022	0.002	0.002	0.002				
Jul-22	Chromium (VI) Compounds	(mg/L)	Quarterly	1	15/07/2022	<0.001	<0.001	<0.001				
Jul-22	Copper	(mg/L)	Quarterly	1	15/07/2022	0.0033	0.0033	0.0033				
Jul-22	Electrical Conductivity	(us/cm)	Quarterly	1	15/07/2022	669	669	669				
Jul-22	Iron	(mg/L)	Quarterly	1	15/07/2022	1.19	1.19	1.19				
Jul-22	Lead	(mg/L)	Quarterly	1	15/07/2022	0.0009	0.0009	0.0009				
Jul-22	Magnesium	(mg/L)	Quarterly	1	15/07/2022	10	10	10				
Jul-22	Manganese	(mg/L)	Quarterly	1	15/07/2022	0.0714	0.0714	0.0714				
Jul-22	Nickel	(mg/L)	Quarterly	1	15/07/2022	0.0073	0.0073	0.0073				
Jul-22	pH	pH	Quarterly	1	15/07/2022	5.67	5.67	5.67				
Jul-22	Potassium	(mg/L)	Quarterly	1	15/07/2022	2	2	2				
Jul-22	Selenium	(mg/L)	Quarterly	1	15/07/2022	<0.0002	<0.0002	<0.0002				
Jul-22	Sodium	(mg/L)	Quarterly	1	15/07/2022	112	112	112				
Jul-22	Standing Water Level	(m)	Quarterly	1	15/07/2022	-0.48	-0.48	-0.48				
Jul-22	Vanadium	(mg/L)	Quarterly	1	15/07/2022	0.0020	0.0020	0.0020				
Jul-22	Zinc	(mg/L)	Quarterly	1	15/07/2022	0.042	0.042	0.042				

GENERAL COMMENTS