

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	October 2023	
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
Oct-23	Cadmium	(mg/m3)	Every 6 months	1	August 2023	0.000276	0.000276	0.000276		0.2	No	
Oct-23	Chlorine	(mg/m3)	Every 6 months	1	August 2023	1.82	1.82	1.82		20	No	
Oct-23	Fluorine	(mg/m3)	Every 6 months	1	August 2023	10.8	10.8	10.8		30	No	
Oct-23	Hydrogen chloride	(mg/m3)	Every 6 months	1	August 2023	11.0	11.0	11.0		50	No	
Oct-23	Mercury	(mg/m3)	Every 6 months	1	August 2023	0.00107	0.00107	0.00107		0.05	No	
Oct-23	Nitrogen Oxides	(mg/m3)	Continuous	96.8%	Oct-23	406	630	795	850	980	No	
Oct-23	Solid Particles	(mg/m3)	Quarterly	1	August 2023	1.15	1.15	1.15		50	No	
Oct-23	Sulfur dioxide	(mg/m3)	Continuous	96.8%	Oct-23	608	940	1435	1400	1700	No	
Oct-23	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months	1	August 2023	9.0	9.0	9.0		100	No	
Oct-23	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months	1	August 2023	0.005	0.005	0.005		0.75	No	
Oct-23	VOC's as n-propane equivalent	(mg/m3)	Every 6 months	1	August 2023	<0.425	<0.425	<0.425		10	No	

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
Oct-23	Cadmium	(mg/m3)	Every 6 months	1	August 2023	0.0007	0.0007	0.0007		0.2	No	
Oct-23	Chlorine	(mg/m3)	Every 6 months	1	August 2023	0.567	0.567	0.567		20	No	
Oct-23	Fluorine	(mg/m3)	Every 6 months	1	August 2023	14.7	14.7	14.7		30	No	
Oct-23	Hydrogen chloride	(mg/m3)	Every 6 months	1	August 2023	15.1	15.1	15.1		50	No	
Oct-23	Mercury	(mg/m3)	Every 6 months	1	August 2023	0.000508	0.000508	0.000508		0.05	No	
Oct-23	Nitrogen Oxides	(mg/m3)	Continuous	58.1%	Oct-23	501	623	820	850	980	No	
Oct-23	Solid Particles	(mg/m3)	Quarterly	1	August 2023	1.20	1.20	1.20		50	No	
Oct-23	Sulfur dioxide	(mg/m3)	Continuous	57.9%	Oct-23	727	943	1390	1400	1700	No	
Oct-23	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months	1	August 2023	6.1	6.1	6.1		100	No	
Oct-23	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months	1	August 2023	0.0155	0.0155	0.0155		0.75	No	
Oct-23	VOC's as n-propane equivalent	(mg/m3)	Every 6 months	1	August 2023	<0.411	<0.411	<0.411		10	No	

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
Oct-23	Cadmium	(mg/m3)	Every 6 months	1	August 2023	0.000152	0.000152	0.000152			N/A	
Oct-23	Carbon dioxide	(%)	Every 6 months	1	August 2023	11.0	11.0	11.0			N/A	
Oct-23	Chlorine	(mg/m3)	Every 6 months	1	August 2023	1.3	1.3	1.3			N/A	
Oct-23	Fluorine	(mg/m3)	Every 6 months	1	August 2023	11.1	11.1	11.1			N/A	
Oct-23	Hydrogen chloride	(mg/m3)	Every 6 months	1	August 2023	13.7	13.7	13.7			N/A	
Oct-23	Mercury	(mg/m3)	Every 6 months	1	August 2023	0.00122	0.00122	0.00122			N/A	
Oct-23	Solid Particles	(mg/m3)	Quarterly	1	August 2023	<1.01	<1.01	<1.01			N/A	
Oct-23	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months	1	August 2023	10.2	10.2	10.2			N/A	
Oct-23	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months	1	August 2023	0.00391	0.00391	0.00391			N/A	
Oct-23	VOC's as n-propane equivalent	(mg/m3)	Every 6 months	1	August 2023	<0.391	<0.391	<0.391			N/A	

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
Oct-23	Cadmium	(mg/m3)	Every 6 months	1	August 2023	0.00082	0.00082	0.00082			N/A	
Oct-23	Mercury	(mg/m3)	Every 6 months	1	August 2023	0.00137	0.00137	0.00137			N/A	
Oct-23	Solid Particles	(mg/m3)	Quarterly	1	August 2023	<1.37	<1.37	<1.37			N/A	
Oct-23	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months	1	August 2023	0.01	0.01	0.01			N/A	

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
Oct-23	Cadmium	(mg/m3)	Every 6 months	1	August 2023	<0.000106	<0.000106	<0.000106			N/A	
Oct-23	Carbon dioxide	(%)	Every 6 months	1	August 2023	9.7	9.7	9.7			N/A	
Oct-23	Chlorine	(mg/m3)	Every 6 months	1	August 2023	3.04	3.04	3.04			N/A	
Oct-23	Fluorine	(mg/m3)	Every 6 months	1	August 2023	9.95	9.95	9.95			N/A	
Oct-23	Hydrogen chloride	(mg/m3)	Every 6 months	1	August 2023	4.6	4.6	4.6			N/A	
Oct-23	Mercury	(mg/m3)	Every 6 months	1	August 2023	0.000635	0.000635	0.000635			N/A	
Oct-23	Solid Particles	(mg/m3)	Quarterly	1	August 2023	<1.49	<1.49	<1.49			N/A	
Oct-23	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months	1	August 2023	6.1	6.1	6.1			N/A	
Oct-23	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months	1	August 2023	0.0036	0.0036	0.0036			N/A	
Oct-23	VOC's as n-propane equivalent	(mg/m3)	Every 6 months	1	August 2023	<0.507	<0.507	<0.507			N/A	

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
Oct-23	Cadmium	(mg/m3)	Every 6 months	1	August 2023	<0.0000696	<0.0000696	<0.0000696			N/A	
Oct-23	Mercury	(mg/m3)	Every 6 months	1	August 2023	0.000886	0.000886	0.000886			N/A	
Oct-23	Solid Particles	(mg/m3)	Quarterly	1	August 2023	<0.985	<0.985	<0.985			N/A	
Oct-23	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months	1	August 2023	0.00335	0.00335	0.00335			N/A	

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
Oct-23	Cadmium	(mg/m3)	Every 6 months	1	August 2023	0.000431	0.000431	0.000431			N/A	
Oct-23	Carbon dioxide	(%)	Every 6 months	1	August 2023	10.9	10.9	10.9			N/A	
Oct-23	Chlorine	(mg/m3)	Every 6 months	1	August 2023	<0.604	<0.604	<0.604			N/A	
Oct-23	Fluorine	(mg/m3)	Every 6 months	1	August 2023	16.1	16.1	16.1			N/A	
Oct-23	Hydrogen chloride	(mg/m3)	Every 6 months	1	August 2023	15.1	15.1	15.1			N/A	
Oct-23	Mercury	(mg/m3)	Every 6 months	1	August 2023	0.00109	0.00109	0.00109			N/A	
Oct-23	Solid Particles	(mg/m3)	Quarterly	1	August 2023	<1.08	<1.08	<1.08			N/A	
Oct-23	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months	1	August 2023	5.7	5.7	5.7			N/A	
Oct-23	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months	1	August 2023	0.0138	0.0138	0.0138			N/A	
Oct-23	VOC's as n-propane equivalent	(mg/m3)	Every 6 months	1	August 2023	<0.413	<0.413	<0.413			N/A	

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
Oct-23	Cadmium	(mg/m3)	Every 6 months	1	August 2023	0.00133	0.00133	0.00133			N/A	
Oct-23	Mercury	(mg/m3)	Every 6 months	1	August 2023	0.00013	0.00013	0.00013			N/A	
Oct-23	Solid Particles	(mg/m3)	Quarterly	1	August 2023	<1.33	<1.33	<1.33			N/A	
Oct-23	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months	1	August 2023	0.0227	0.0227	0.0227			N/A	

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
Oct-23	Cadmium	(mg/m3)	Every 6 months	1	August 2023	0.000103	0.000103	0.000103			N/A	
Oct-23	Carbon dioxide	(%)	Every 6 months	1	August 2023	10.8	10.8	10.8			N/A	
Oct-23	Chlorine	(mg/m3)	Every 6 months	1	August 2023	0.418	0.418	0.418			N/A	
Oct-23	Fluorine	(mg/m3)	Every 6 months	1	August 2023	9.12	9.12	9.12			N/A	
Oct-23	Hydrogen chloride	(mg/m3)	Every 6 months	1	August 2023	15.1	15.1	15.1			N/A	
Oct-23	Mercury	(mg/m3)	Every 6 months	1	August 2023	0.000391	0.000391	0.000391			N/A	
Oct-23	Solid Particles	(mg/m3)	Quarterly	1	August 2023	<1.03	<1.03	<1.03			N/A	
Oct-23	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months	1	August 2023	7.6	7.6	7.6			N/A	
Oct-23	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months	1	August 2023	0.0043	0.0043	0.0043			N/A	
Oct-23	VOC's as n-propane equivalent	(mg/m3)	Every 6 months	1	August 2023	<0.403	<0.403	<0.403			N/A	

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
Oct-23	Cadmium	(mg/m3)	Every 6 months	1	August 2023	0.000186	0.000186	0.000186			N/A	
Oct-23	Mercury	(mg/m3)	Every 6 months	1	August 2023	0.000186	0.000186	0.000186			N/A	
Oct-23	Solid Particles	(mg/m3)	Quarterly	1	August 2023	<1.24	<1.24	<1.24			N/A	
Oct-23	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months	1	August 2023	0.00937	0.00937	0.00937			N/A	

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
Oct-23	Nitrogen Oxides	(mg/m3)	Continuous	96.8%	Oct-23	362	591	810			N/A	
Oct-23	Sulfur dioxide	(mg/m3)	Continuous	96.8%	Oct-23	532	842	1321			N/A	

POINT 13 Boiler number 5 combined exhaust - duct C and D (points 6 and 7) marked and shown as 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
Oct-23	Nitrogen Oxides	(mg/m3)	Continuous	96.8%	Oct-23	435	668	866			N/A	
Oct-23	Sulfur dioxide	(mg/m3)	Continuous	96.8%	Oct-23	646	1038	1587			N/A	

POINT 14 Boiler number 6 combined exhaust - duct A and B (points 8 and 9) marked and shown as 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
Oct-23	Nitrogen Oxides	(mg/m3)	Continuous	19.4%	Oct-23	620	688	929			N/A	Faulty instrument during October 2023 resulted in loss of data. Circuit Card and main instrument lens consequently replaced by CEMS service technician.
Oct-23	Sulfur dioxide	(mg/m3)	Continuous	19.4%	Oct-23	798	911	1468			N/A	

POINT 15 Boiler number 6 combined exhaust - duct C and D (points 10 and 11) 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
Oct-23	Nitrogen Oxides	(mg/m3)	Continuous	96.8%	Oct-23	328	559	809			N/A	
Oct-23	Sulfur dioxide	(mg/m3)	Continuous	96.4%	Oct-23	572	975	1557			N/A	

POINT 22 Discharge of cooling water from the cooling water outlet canal to Wye 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
Oct-23	Chlorine (free residual)	(mg/L)	Monthly during discharge	1	3/10/2023	0	0	0		0.2	No	
Oct-23	Copper	(mg/L)	Monthly during discharge	1	3/10/2023	0.002	0.002	0.002		0.005	No	
Oct-23	Iron	(mg/L)	Monthly during discharge	1	3/10/2023	0.15	0.15	0.15		0.3	No	
Oct-23	Oil and Grease	Visible	Continuous during discharge	100%	Oct-23	NIL	NIL	NIL				
Oct-23	Selenium	(mg/L)	Monthly during discharge	1	3/10/2023	0.002	0.002	0.002		0.005	No	
Oct-23	Temperature	(°C)	Continuous during discharge	100%	Oct-23	24.7	28.6	33.5	35	37.5	No	

POINT 23 Discharge of supernatant water from the ash dam to the cooling water outlet canal to Wye 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
Oct-23	Aluminium	(mg/L)	Monthly during discharge	1	3/10/2023	0.05	0.05	0.05				
Oct-23	Ammonia	(mg/L)	Monthly during discharge	1	3/10/2023	0.061	0.061	0.061				
Oct-23	Arsenic (III)	(mg/L)	Monthly during discharge	1	3/10/2023	<0.001	<0.001	<0.001				
Oct-23	Arsenic (V)	(mg/L)	Monthly during discharge	1	3/10/2023	<0.001	<0.001	<0.001				
Oct-23	Cadmium	(mg/L)	Monthly during discharge	1	3/10/2023	0.0002	0.0002	0.0002				
Oct-23	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	3/10/2023	<0.005	<0.005	<0.005				
Oct-23	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	3/10/2023	0.020	0.020	0.020				
Oct-23	Copper	(mg/L)	Monthly during discharge	1	3/10/2023	0.003	0.003	0.003				
Oct-23	Iron	(mg/L)	Monthly during discharge	1	3/10/2023	<0.05	<0.05	<0.05				
Oct-23	Lead	(mg/L)	Monthly during discharge	1	3/10/2023	0.003	0.003	0.003				
Oct-23	Manganese	(mg/L)	Monthly during discharge	1	3/10/2023	0.006	0.006	0.006				
Oct-23	Nickel	(mg/L)	Monthly during discharge	1	3/10/2023	<0.001	<0.001	<0.001				
Oct-23	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	3/10/2023	0.07	0.07	0.07				
Oct-23	Nitrogen	(mg/L)	Monthly during discharge	1	3/10/2023	0.50	0.50	0.50				
Oct-23	pH	pH	Monthly during discharge	1	3/10/2023	9.1	9.1	9.1		6.5 - 9.5	No	
Oct-23	Phosphorus	(mg/L)	Monthly during discharge	1	3/10/2023	0.30	0.30	0.30				
Oct-23	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	3/10/2023	<0.005	<0.005	<0.005				
Oct-23	Selenium	(mg/L)	Monthly during discharge	1	3/10/2023	0.066	0.066	0.066				
Oct-23	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	3/10/2023	0.4	0.4	0.4				
Oct-23	Total Suspended Solids	(mg/L)	Monthly during discharge	1	3/10/2023	20	20	20		50	No	
Oct-23	Vanadium	(mg/L)	Monthly during discharge	1	3/10/2023	0.21	0.21	0.21				
Oct-23	Zinc	(mg/L)	Monthly during discharge	1	3/10/2023	0.012	0.012	0.012				

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
Oct-23	Aluminium	(mg/L)	Monthly during discharge	1	3/10/2023				No			
Oct-23	Ammonia	(mg/L)	Monthly during discharge	1	3/10/2023				No			
Oct-23	Arsenic (III)	(mg/L)	Monthly during discharge	1	3/10/2023				No			
Oct-23	Arsenic (V)	(mg/L)	Monthly during discharge	1	3/10/2023				No			
Oct-23	Cadmium	(mg/L)	Monthly during discharge	1	3/10/2023				No			
Oct-23	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	3/10/2023				No			
Oct-23	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	3/10/2023				No			
Oct-23	Copper	(mg/L)	Monthly during discharge	1	3/10/2023				No			
Oct-23	Iron	(mg/L)	Monthly during discharge	1	3/10/2023				No			
Oct-23	Lead	(mg/L)	Monthly during discharge	1	3/10/2023				No			
Oct-23	Manganese	(mg/L)	Monthly during discharge	1	3/10/2023				No			No discharge from EPA Point 24 during October 2023
Oct-23	Nickel	(mg/L)	Monthly during discharge	1	3/10/2023				No			
Oct-23	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	3/10/2023				No			
Oct-23	Nitrogen	(mg/L)	Monthly during discharge	1	3/10/2023				No			
Oct-23	pH	pH	Monthly during discharge	1	3/10/2023				No	6.5 - 9.5	No	
Oct-23	Phosphorus	(mg/L)	Monthly during discharge	1	3/10/2023				No			
Oct-23	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	3/10/2023				No			
Oct-23	Selenium	(mg/L)	Monthly during discharge	1	3/10/2023				No			
Oct-23	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	3/10/2023				No			
Oct-23	Total Suspended Solids	(mg/L)	Monthly during discharge	1	3/10/2023				No	50	No	
Oct-23	Vanadium	(mg/L)	Monthly during discharge	1	3/10/2023				No			
Oct-23	Zinc	(mg/L)	Monthly during discharge	1	3/10/2023				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
Oct-23	Aluminium	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-23	Ammonia	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-23	Arsenic (III)	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-23	Arsenic (V)	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-23	Cadmium	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-23	Chromium (trivalent)	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-23	Chromium (VI) Compounds	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-23	Copper	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-23	Iron	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-23	Lead	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-23	Manganese	(mg/L)	Daily for any discharge >2 hrs						No			No discharge from EPA Point 25 during October 2023
Oct-23	Nickel	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-23	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-23	Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-23	pH	pH	Daily for any discharge >2 hrs						No	6.5 - 9.5	No	
Oct-23	Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-23	Reactive Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-23	Selenium	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-23	Total Kjeldahl Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-23	Total Suspended Solids	(mg/L)	Daily for any discharge >2 hrs						No	50	No	
Oct-23	Vanadium	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-23	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
Oct-23	Aluminium	(mg/L)	Quarterly	1	3/10/2023	0.04	0.04	0.04				
Oct-23	Ammonia	(mg/L)	Quarterly	1	3/10/2023	3.9	3.9	3.9				
Oct-23	Arsenic (III)	(mg/L)	Quarterly	1	3/10/2023	0.002	0.002	0.002				
Oct-23	Arsenic (V)	(mg/L)	Quarterly	1	3/10/2023	0.005	0.005	0.005				
Oct-23	Cadmium	(mg/L)	Quarterly	1	3/10/2023	<0.0001	<0.0001	<0.0001				
Oct-23	Chromium (trivalent)	(mg/L)	Quarterly	1	3/10/2023	<0.005	<0.005	<0.005				
Oct-23	Chromium (VI) Compounds	(mg/L)	Quarterly	1	3/10/2023	<0.005	<0.005	<0.005				
Oct-23	Copper	(mg/L)	Quarterly	1	3/10/2023	0.085	0.085	0.085				
Oct-23	Electrical Conductivity	(us/cm)	Quarterly	1	3/10/2023	380	380	380				
Oct-23	Iron	(mg/L)	Quarterly	1	3/10/2023	69.0	69.0	69.0				Next sample scheduled for January 2024
Oct-23	Lead	(mg/L)	Quarterly	1	3/10/2023	0.003	0.003	0.003				
Oct-23	Magnesium	(mg/L)	Quarterly	1	3/10/2023	830	830	830				
Oct-23	Manganese	(mg/L)	Quarterly	1	3/10/2023	4.6	4.6	4.6				
Oct-23	Nickel	(mg/L)	Quarterly	1	3/10/2023	0.081	0.081	0.081				
Oct-23	pH	pH	Quarterly	1	3/10/2023	5.45	5.45	5.45				
Oct-23	Potassium	(mg/L)	Quarterly	1	3/10/2023	100	100	100				
Oct-23	Selenium	(mg/L)	Quarterly	1	3/10/2023	<0.001	<0.001	<0.001				
Oct-23	Sodium	(mg/L)	Quarterly	1	3/10/2023	6000	6000	6000				
Oct-23	Standing Water Level	(m)	Quarterly	1	3/10/2023	3.98	3.98	3.98				
Oct-23	Vanadium	(mg/L)	Quarterly	1	3/10/2023	<0.001	<0.001	<0.001				
Oct-23	Zinc	(mg/L)	Quarterly	1	3/10/2023	0.075	0.075	0.075				

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
Oct-23	Aluminium	(mg/L)	Quarterly	1	3/10/2023	1.20	1.20	1.20				
Oct-23	Ammonia	(mg/L)	Quarterly	1	3/10/2023	2.10	2.10	2.10				
Oct-23	Arsenic (III)	(mg/L)	Quarterly	1	3/10/2023	0.011	0.011	0.011				
Oct-23	Arsenic (V)	(mg/L)	Quarterly	1	3/10/2023	0.002	0.002	0.002				
Oct-23	Cadmium	(mg/L)	Quarterly	1	3/10/2023	0.00010	0.00010	0.00010				
Oct-23	Chromium (trivalent)	(mg/L)	Quarterly	1	3/10/2023	<0.005	<0.005	<0.005				
Oct-23	Chromium (VI) Compounds	(mg/L)	Quarterly	1	3/10/2023	<0.005	<0.005	<0.005				
Oct-23	Copper	(mg/L)	Quarterly	1	3/10/2023	0.088	0.088	0.088				
Oct-23	Electrical Conductivity	(us/cm)	Quarterly	1	3/10/2023	425	425	425				
Oct-23	Iron	(mg/L)	Quarterly	1	3/10/2023	280	280	280				Next sample scheduled for January 2024
Oct-23	Lead	(mg/L)	Quarterly	1	3/10/2023	0.008	0.008	0.008				
Oct-23	Magnesium	(mg/L)	Quarterly	1	3/10/2023	950	950	950				
Oct-23	Manganese	(mg/L)	Quarterly	1	3/10/2023	4.2	4.2	4.2				
Oct-23	Nickel	(mg/L)	Quarterly	1	3/10/2023	0.190	0.190	0.190				
Oct-23	pH	pH	Quarterly	1	3/10/2023	21.60	21.60	21.60				
Oct-23	Potassium	(mg/L)	Quarterly	1	3/10/2023	46.0	46.0	46.0				
Oct-23	Selenium	(mg/L)	Quarterly	1	3/10/2023	0.001	0.001	0.001				
Oct-23	Sodium	(mg/L)	Quarterly	1	3/10/2023	5300	5300	5300				
Oct-23	Standing Water Level	(m)	Quarterly	1	3/10/2023	1.83	1.83	1.83				
Oct-23	Vanadium	(mg/L)	Quarterly	1	3/10/2023	0.003	0.003	0.003				
Oct-23	Zinc	(mg/L)	Quarterly	1	3/10/2023	0.22	0.22	0.22				

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
Oct-23	Aluminium	(mg/L)	Quarterly	1	3/10/2023	7.90	7.90	7.90				
Oct-23	Ammonia	(mg/L)	Quarterly	1	3/10/2023	0.49	0.49	0.49				
Oct-23	Arsenic (III)	(mg/L)	Quarterly	1	3/10/2023	<0.001	<0.001	<0.001				
Oct-23	Arsenic (V)	(mg/L)	Quarterly	1	3/10/2023	<0.001	<0.001	<0.001				
Oct-23	Cadmium	(mg/L)	Quarterly	1	3/10/2023	<0.0001	<0.0001	<0.0001				
Oct-23	Chromium (trivalent)	(mg/L)	Quarterly	1	3/10/2023	<0.005	<0.005	<0.005				
Oct-23	Chromium (VI) Compounds	(mg/L)	Quarterly	1	3/10/2023	<0.005	<0.005	<0.005				
Oct-23	Copper	(mg/L)	Quarterly	1	3/10/2023	0.041	0.041	0.041				
Oct-23	Electrical Conductivity	(us/cm)	Quarterly	1	3/10/2023	8234	8234	8234				
Oct-23	Iron	(mg/L)	Quarterly	1	3/10/2023	34	34	34				Next sample scheduled for January 2024
Oct-23	Lead	(mg/L)	Quarterly	1	3/10/2023	0.009	0.009	0.009				
Oct-23	Magnesium	(mg/L)	Quarterly	1	3/10/2023	71	71	71				
Oct-23	Manganese	(mg/L)	Quarterly	1	3/10/2023	1.500	1.500	1.500				
Oct-23	Nickel	(mg/L)	Quarterly	1	3/10/2023	0.053	0.053	0.053				
Oct-23	pH	pH	Quarterly	1	3/10/2023	4.90	4.90	4.90				
Oct-23	Potassium	(mg/L)	Quarterly	1	3/10/2023	160.0	160.0	160.0				
Oct-23	Selenium	(mg/L)	Quarterly	1	3/10/2023	<0.001	<0.001	<0.001				
Oct-23	Sodium	(mg/L)	Quarterly	1	3/10/2023	1200	1200	1200				
Oct-23	Standing Water Level	(m)	Quarterly	1	3/10/2023	4.08	4.08	4.08				
Oct-23	Vanadium	(mg/L)	Quarterly	1	3/10/2023	<0.001	<0.001	<0.001				
Oct-23	Zinc	(mg/L)	Quarterly	1	3/10/2023	0.230	0.230	0.230				

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
Oct-23	Aluminium	(mg/L)	Quarterly	1	3/10/2023	1.1	1.1	1.1				
Oct-23	Ammonia	(mg/L)	Quarterly	1	3/10/2023	0.11	0.11	0.11				
Oct-23	Arsenic (III)	(mg/L)	Quarterly	1	3/10/2023	<0.001	<0.001	<0.001				
Oct-23	Arsenic (V)	(mg/L)	Quarterly	1	3/10/2023	<0.001	<0.001	<0.001				
Oct-23	Cadmium	(mg/L)	Quarterly	1	3/10/2023	<0.0001	<0.0001	<0.0001				
Oct-23	Chromium (trivalent)	(mg/L)	Quarterly	1	3/10/2023	<0.005	<0.005	<0.005				
Oct-23	Chromium (VI) Compounds	(mg/L)	Quarterly	1	3/10/2023	<0.005	<0.005	<0.005				
Oct-23	Copper	(mg/L)	Quarterly	1	3/10/2023	0.012	0.012	0.012				
Oct-23	Electrical Conductivity	(us/cm)	Quarterly	1	3/10/2023	3702	3702	3702				
Oct-23	Iron	(mg/L)	Quarterly	1	3/10/2023	49	49	49				
Oct-23	Lead	(mg/L)	Quarterly	1	3/10/2023	0.002	0.002	0.002				Next sample scheduled for January 2024
Oct-23	Magnesium	(mg/L)	Quarterly	1	3/10/2023	1200	1200	1200				
Oct-23	Manganese	(mg/L)	Quarterly	1	3/10/2023	0.17	0.17	0.17				
Oct-23	Nickel	(mg/L)	Quarterly	1	3/10/2023	0.001	0.001	0.001				
Oct-23	pH	pH	Quarterly	1	3/10/2023	6.69	6.69	6.69				
Oct-23	Potassium	(mg/L)	Quarterly	1	3/10/2023	360	360	360				
Oct-23	Selenium	(mg/L)	Quarterly	1	3/10/2023	0.001	0.001	0.001				
Oct-23	Sodium	(mg/L)	Quarterly	1	3/10/2023	9300	9300	9300				
Oct-23	Standing Water Level	(m)	Quarterly	1	3/10/2023	0.65	0.65	0.65				
Oct-23	Vanadium	(mg/L)	Quarterly	1	3/10/2023	0.006	0.006	0.006				
Oct-23	Zinc	(mg/L)	Quarterly	1	3/10/2023	0.032	0.032	0.032				

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
Oct-23	Aluminium	(mg/L)	Quarterly	1	3/10/2023	1.50	1.50	1.50				
Oct-23	Ammonia	(mg/L)	Quarterly	1	3/10/2023	0.063	0.063	0.063				
Oct-23	Arsenic (III)	(mg/L)	Quarterly	1	3/10/2023	<0.001	<0.001	<0.001				
Oct-23	Arsenic (V)	(mg/L)	Quarterly	1	3/10/2023	<0.001	<0.001	<0.001				
Oct-23	Cadmium	(mg/L)	Quarterly	1	3/10/2023	<0.0001	<0.0001	<0.0001				
Oct-23	Chromium (trivalent)	(mg/L)	Quarterly	1	3/10/2023	<0.005	<0.005	<0.005				
Oct-23	Chromium (VI) Compounds	(mg/L)	Quarterly	1	3/10/2023	<0.005	<0.005	<0.005				
Oct-23	Copper	(mg/L)	Quarterly	1	3/10/2023	0.003	0.003	0.003				
Oct-23	Electrical Conductivity	(us/cm)	Quarterly	1	3/10/2023	560	560	560				
Oct-23	Iron	(mg/L)	Quarterly	1	3/10/2023	4.3	4.3	4.3				
Oct-23	Lead	(mg/L)	Quarterly	1	3/10/2023	0.002	0.002	0.002				Next sample scheduled for January 2024
Oct-23	Magnesium	(mg/L)	Quarterly	1	3/10/2023	8.6	8.6	8.6				
Oct-23	Manganese	(mg/L)	Quarterly	1	3/10/2023	0.082	0.082	0.082				
Oct-23	Nickel	(mg/L)	Quarterly	1	3/10/2023	0.005	0.005	0.005				
Oct-23	pH	pH	Quarterly	1	3/10/2023	5.16	5.16	5.16				
Oct-23	Potassium	(mg/L)	Quarterly	1	3/10/2023	2	2	2				
Oct-23	Selenium	(mg/L)	Quarterly	1	3/10/2023	<0.001	<0.001	<0.001				
Oct-23	Sodium	(mg/L)	Quarterly	1	3/10/2023	93	93	93				
Oct-23	Standing Water Level	(m)	Quarterly	1	3/10/2023	0.95	0.95	0.95				
Oct-23	Vanadium	(mg/L)	Quarterly	1	3/10/2023	0.009	0.009	0.009				
Oct-23	Zinc	(mg/L)	Quarterly	1	3/10/2023	0.014	0.014	0.014				

GENERAL COMMENTS