

## Vales Point Power Station Monthly Environmental Data Summary



LICENCE NO	761	<a href="http://www.epa.nsw.gov.au/prpoeoapp/">http://www.epa.nsw.gov.au/prpoeoapp/</a>
LICENCE HOLDER	SUNSET POWER INTERNATIONAL PTY LTD	
REPORTING PERIOD	October 2020	
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	Exceedance (yes/no)	Comments
Oct-20	Cadmium	(mg/m3)	Every 6 months							0.2		
Oct-20	Chlorine	(mg/m3)	Every 6 months							20		
Oct-20	Fluorine	(mg/m3)	Every 6 months							30		
Oct-20	Hydrogen chloride	(mg/m3)	Every 6 months							50		
Oct-20	Mercury	(mg/m3)	Every 6 months							0.05		
Oct-20	Nitrogen Oxides	(mg/m3)	Continuous	99.7%	Oct-20	376	535	718	1100	1500	No	
Oct-20	Solid Particles	(mg/m3)	Quarterly							50		
Oct-20	Sulfur dioxide	(mg/m3)	Continuous	99.7%	Oct-20	517	663	874	1400	1700	No	
Oct-20	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100		
Oct-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75		
Oct-20	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	Exceedance (yes/no)	Comments
Oct-20	Cadmium	(mg/m3)	Every 6 months							0.2		
Oct-20	Chlorine	(mg/m3)	Every 6 months							20		
Oct-20	Fluorine	(mg/m3)	Every 6 months							30		
Oct-20	Hydrogen chloride	(mg/m3)	Every 6 months							50		
Oct-20	Mercury	(mg/m3)	Every 6 months							0.05		
Oct-20	Nitrogen Oxides	(mg/m3)	Continuous	100%	Oct-20	480	747	876	1100	1500	No	The 99th percentile limit does not apply until 31/1/2021
Oct-20	Solid Particles	(mg/m3)	Quarterly							50		
Oct-20	Sulfur dioxide	(mg/m3)	Continuous	100%	Oct-20	393	606	736	1400	1700	No	
Oct-20	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months							100		
Oct-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months							0.75		
Oct-20	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
Oct-20	Cadmium	(mg/m3)	Every 6 months									
Oct-20	Carbon dioxide	(%)	Every 6 months									
Oct-20	Chlorine	(mg/m3)	Every 6 months									
Oct-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Oct-20	Fluorine	(mg/m3)	Every 6 months									
Oct-20	Hydrogen chloride	(mg/m3)	Every 6 months									
Oct-20	Mercury	(mg/m3)	Every 6 months									
Oct-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Oct-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Oct-20	Solid Particles	(mg/m3)	Quarterly									
Oct-20	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Oct-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Oct-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Oct-20	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
Oct-20	Cadmium	(mg/m3)	Every 6 months									
Oct-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Oct-20	Mercury	(mg/m3)	Every 6 months									
Oct-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Oct-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Oct-20	Solid Particles	(mg/m3)	Quarterly									
Oct-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Oct-20	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
Oct-20	Cadmium	(mg/m3)	Every 6 months									
Oct-20	Carbon dioxide	(%)	Every 6 months									
Oct-20	Chlorine	(mg/m3)	Every 6 months									
Oct-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Oct-20	Fluorine	(mg/m3)	Every 6 months									
Oct-20	Hydrogen chloride	(mg/m3)	Every 6 months									
Oct-20	Mercury	(mg/m3)	Every 6 months									
Oct-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Oct-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Oct-20	Solid Particles	(mg/m3)	Quarterly									
Oct-20	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Oct-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Oct-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Oct-20	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
Oct-20	Cadmium	(mg/m3)	Every 6 months									
Oct-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Oct-20	Mercury	(mg/m3)	Every 6 months									
Oct-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Oct-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Oct-20	Solid Particles	(mg/m3)	Quarterly									
Oct-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Oct-20	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
Oct-20	Cadmium	(mg/m3)	Every 6 months									
Oct-20	Carbon dioxide	(%)	Every 6 months									
Oct-20	Chlorine	(mg/m3)	Every 6 months									
Oct-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Oct-20	Fluorine	(mg/m3)	Every 6 months									
Oct-20	Hydrogen chloride	(mg/m3)	Every 6 months									
Oct-20	Mercury	(mg/m3)	Every 6 months									
Oct-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Oct-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Oct-20	Solid Particles	(mg/m3)	Quarterly									
Oct-20	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Oct-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Oct-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Oct-20	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
Oct-20	Cadmium	(mg/m3)	Every 6 months									
Oct-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Oct-20	Mercury	(mg/m3)	Every 6 months									
Oct-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Oct-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Oct-20	Solid Particles	(mg/m3)	Quarterly									
Oct-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Oct-20	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
Oct-20	Cadmium	(mg/m3)	Every 6 months									
Oct-20	Carbon dioxide	(%)	Every 6 months									
Oct-20	Chlorine	(mg/m3)	Every 6 months									
Oct-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Oct-20	Fluorine	(mg/m3)	Every 6 months									
Oct-20	Hydrogen chloride	(mg/m3)	Every 6 months									
Oct-20	Mercury	(mg/m3)	Every 6 months									
Oct-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Oct-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Oct-20	Solid Particles	(mg/m3)	Quarterly									
Oct-20	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months									
Oct-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Oct-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months									
Oct-20	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
Oct-20	Cadmium	(mg/m3)	Every 6 months									
Oct-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Oct-20	Mercury	(mg/m3)	Every 6 months									
Oct-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Oct-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Oct-20	Solid Particles	(mg/m3)	Quarterly									
Oct-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Oct-20	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
Oct-20	Nitrogen Oxides	(mg/m3)	Continuous	100%	Oct-20	346	496	653			No	
Oct-20	Sulfur dioxide	(mg/m3)	Continuous	100%	Oct-20	440	599	831			No	

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-20	Nitrogen Oxides	(mg/m3)	Continuous	100%	Oct-20	393	575	828			No	
Oct-20	Sulfur dioxide	(mg/m3)	Continuous	100%	Oct-20	591	727	935			No	

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-20	Nitrogen Oxides	(mg/m3)	Continuous	100%	Oct-20	477	720	859			No	
Oct-20	Sulfur dioxide	(mg/m3)	Continuous	100%	Oct-20	423	632	765			No	

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-20	Nitrogen Oxides	(mg/m3)	Continuous	100%	Oct-20	470	775	893			No		
Oct-20	Sulfur dioxide	(mg/m3)	Continuous	100%	Oct-20	336	580	724			No		

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	97 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments	
Oct-20	Chlorine (free residual)	(mg/L)	Monthly during discharge	1	7/10/2020	<0.1	<0.1	<0.1		0.2	No		
Oct-20	Copper	(mg/L)	Monthly during discharge	1	7/10/2020	0.007	0.007	0.007		0.005	Yes	EPA notified of non-compliance.	
Oct-20	Iron	(mg/L)	Monthly during discharge	1	7/10/2020	0.505	0.505	0.505		0.3	Yes	EPA notified of non-compliance.	
Oct-20	Oil and Grease	Visible	Continuous during discharge	100%	Oct-20	NIL	NIL	NIL					
Oct-20	Selenium	(mg/L)	Monthly during discharge	1	7/10/2020	<0.002	<0.002	<0.002		0.005	No		
Oct-20	Temperature	(°C)	Continuous during discharge	100%	Oct-20	24.0	29.2	31.8	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	
Oct-20	Aluminium	(mg/L)	Monthly during discharge	1	7/10/2020	0.082	0.082	0.082					
Oct-20	Ammonia	(mg/L)	Monthly during discharge	1	7/10/2020	<0.10	<0.10	<0.10					
Oct-20	Arsenic (III)	(mg/L)	Monthly during discharge	1	7/10/2020	<0.005	<0.005	<0.005					
Oct-20	Arsenic (V)	(mg/L)	Monthly during discharge	1	7/10/2020	<0.005	<0.005	<0.005					
Oct-20	Cadmium	(mg/L)	Monthly during discharge	1	7/10/2020	<0.0002	<0.0002	<0.0002					
Oct-20	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	7/10/2020	<0.001	<0.001	<0.001					
Oct-20	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	7/10/2020	0.003	0.003	0.003					
Oct-20	Copper	(mg/L)	Monthly during discharge	1	7/10/2020	0.001	0.001	0.001					
Oct-20	Iron	(mg/L)	Monthly during discharge	1	7/10/2020	0.24	0.24	0.24					
Oct-20	Lead	(mg/L)	Monthly during discharge	1	7/10/2020	0.0002	0.0002	0.0002					
Oct-20	Manganese	(mg/L)	Monthly during discharge	1	7/10/2020	0.049	0.049	0.049					
Oct-20	Nickel	(mg/L)	Monthly during discharge	1	7/10/2020	0.0011	0.0011	0.0011					
Oct-20	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	7/10/2020	0.06	0.06	0.06					
Oct-20	Nitrogen	(mg/L)	Monthly during discharge	1	7/10/2020	<0.5	<0.5	<0.5					
Oct-20	pH	pH	Monthly during discharge	1	7/10/2020	6.95	6.95	6.95		6.5 - 9.5	No		
Oct-20	Phosphorus	(mg/L)	Monthly during discharge	1	7/10/2020	0.3	0.3	0.3					
Oct-20	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	7/10/2020	0.02	0.02	0.02					
Oct-20	Selenium	(mg/L)	Monthly during discharge	1	7/10/2020	0.034	0.034	0.034					
Oct-20	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	7/10/2020	<0.5	<0.5	<0.5					
Oct-20	Total Suspended Solids	(mg/L)	Monthly during discharge	1	7/10/2020	6	6	6		50	No		
Oct-20	Vanadium	(mg/L)	Monthly during discharge	1	7/10/2020	0.0279	0.0279	0.0279					
Oct-20	Zinc	(mg/L)	Monthly during discharge	1	7/10/2020	0.008	0.008	0.008					

**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-20	Aluminium	(mg/L)	Monthly during discharge	1	7/10/2020				No			
Oct-20	Ammonia	(mg/L)	Monthly during discharge	1	7/10/2020				No			
Oct-20	Arsenic (III)	(mg/L)	Monthly during discharge	1	7/10/2020				No			
Oct-20	Arsenic (V)	(mg/L)	Monthly during discharge	1	7/10/2020				No			
Oct-20	Cadmium	(mg/L)	Monthly during discharge	1	7/10/2020				No			
Oct-20	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	7/10/2020				No			
Oct-20	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	7/10/2020				No			
Oct-20	Copper	(mg/L)	Monthly during discharge	1	7/10/2020				No			
Oct-20	Iron	(mg/L)	Monthly during discharge	1	7/10/2020				No			
Oct-20	Lead	(mg/L)	Monthly during discharge	1	7/10/2020				No			
Oct-20	Manganese	(mg/L)	Monthly during discharge	1	7/10/2020				No			No discharge from EPA Point 24 during October 2020
Oct-20	Nickel	(mg/L)	Monthly during discharge	1	7/10/2020				No			
Oct-20	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	7/10/2020				No			
Oct-20	Nitrogen	(mg/L)	Monthly during discharge	1	7/10/2020				No			
Oct-20	pH	pH	Monthly during discharge	1	7/10/2020				No	6.5 - 9.5		
Oct-20	Phosphorus	(mg/L)	Monthly during discharge	1	7/10/2020				No			
Oct-20	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	7/10/2020				No			
Oct-20	Selenium	(mg/L)	Monthly during discharge	1	7/10/2020				No			
Oct-20	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	7/10/2020				No			
Oct-20	Total Suspended Solids	(mg/L)	Monthly during discharge	1	7/10/2020				No	50		
Oct-20	Vanadium	(mg/L)	Monthly during discharge	1	7/10/2020				No			
Oct-20	Zinc	(mg/L)	Monthly during discharge	1	7/10/2020				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-20	Aluminium	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-20	Ammonia	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-20	Arsenic (III)	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-20	Arsenic (V)	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-20	Cadmium	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-20	Chromium (trivalent)	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-20	Chromium (VI) Compounds	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-20	Copper	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-20	Iron	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-20	Lead	(mg/L)	Daily for any discharge >2 hrs						No			No discharge from EPA Point 25 during October 2020
Oct-20	Manganese	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-20	Nickel	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-20	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-20	Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-20	pH	pH	Daily for any discharge >2 hrs						No	6.5 - 9.5	No	
Oct-20	Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-20	Reactive Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-20	Selenium	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-20	Total Kjeldahl Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-20	Total Suspended Solids	(mg/L)	Daily for any discharge >2 hrs						No	50	No	
Oct-20	Vanadium	(mg/L)	Daily for any discharge >2 hrs						No			
Oct-20	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 & Analyzed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Oct-20	Aluminium	(mg/L)	Quarterly	1	7/10/2020	1.26	1.26	1.26				
Oct-20	Ammonia	(mg/L)	Quarterly	1	7/10/2020	3.44	3.44	3.44				
Oct-20	Arsenic (III)	(mg/L)	Quarterly	1	7/10/2020	<0.005	<0.005	<0.005				
Oct-20	Arsenic (V)	(mg/L)	Quarterly	1	7/10/2020	<0.005	<0.005	<0.005				
Oct-20	Cadmium	(mg/L)	Quarterly	1	7/10/2020	<0.0002	<0.0002	<0.0002				
Oct-20	Chromium (trivalent)	(mg/L)	Quarterly	1	7/10/2020	0.001	0.001	0.001				
Oct-20	Chromium (VI) Compounds	(mg/L)	Quarterly	1	7/10/2020	<0.001	<0.001	<0.001				
Oct-20	Copper	(mg/L)	Quarterly	1	7/10/2020	0.003	0.003	0.003				
Oct-20	Electrical Conductivity	(us/cm)	Quarterly	1	7/10/2020	28600	28600	28600				
Oct-20	Iron	(mg/L)	Quarterly	1	7/10/2020	73.9	73.9	73.9				
Oct-20	Lead	(mg/L)	Quarterly	1	7/10/2020	0.0025	0.0025	0.0025				
Oct-20	Magnesium	(mg/L)	Quarterly	1	7/10/2020	583	583	583				
Oct-20	Manganese	(mg/L)	Quarterly	1	7/10/2020	3.98	3.98	3.98				
Oct-20	Nickel	(mg/L)	Quarterly	1	7/10/2020	0.017	0.017	0.017				
Oct-20	pH	pH	Quarterly	1	7/10/2020	6.16	6.16	6.16				
Oct-20	Potassium	(mg/L)	Quarterly	1	7/10/2020	98	98	98				
Oct-20	Selenium	(mg/L)	Quarterly	1	7/10/2020	<0.002	<0.002	<0.002				
Oct-20	Sodium	(mg/L)	Quarterly	1	7/10/2020	3920	3920	3920				
Oct-20	Standing Water Level	(m)	Quarterly	1	7/10/2020	3.87	3.87	3.87				
Oct-20	Vanadium	(mg/L)	Quarterly	1	7/10/2020	0.0024	0.0024	0.0024				
Oct-20	Zinc	(mg/L)	Quarterly	1	7/10/2020	0.02	0.02	0.02				

**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 & Analyzed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Oct-20	Aluminium	(mg/L)	Quarterly	1	7/10/2020	0.90	0.90	0.90				
Oct-20	Ammonia	(mg/L)	Quarterly	1	7/10/2020	0.08	0.08	0.08				
Oct-20	Arsenic (III)	(mg/L)	Quarterly	1	7/10/2020	<0.005	<0.005	<0.005				
Oct-20	Arsenic (V)	(mg/L)	Quarterly	1	7/10/2020	<0.005	<0.005	<0.005				
Oct-20	Cadmium	(mg/L)	Quarterly	1	7/10/2020	0.00016	0.00016	0.00016				
Oct-20	Chromium (trivalent)	(mg/L)	Quarterly	1	7/10/2020	0.001	0.001	0.001				
Oct-20	Chromium (VI) Compounds	(mg/L)	Quarterly	1	7/10/2020	<0.001	<0.001	<0.001				
Oct-20	Copper	(mg/L)	Quarterly	1	7/10/2020	0.018	0.018	0.018				
Oct-20	Electrical Conductivity	(us/cm)	Quarterly	1	7/10/2020	19700	19700	19700				
Oct-20	Iron	(mg/L)	Quarterly	1	7/10/2020	121.0	121.0	121.0				
Oct-20	Lead	(mg/L)	Quarterly	1	7/10/2020	0.0068	0.0068	0.0068				
Oct-20	Magnesium	(mg/L)	Quarterly	1	7/10/2020	495	495	495				
Oct-20	Manganese	(mg/L)	Quarterly	1	7/10/2020	2.28	2.28	2.28				
Oct-20	Nickel	(mg/L)	Quarterly	1	7/10/2020	0.082	0.082	0.082				
Oct-20	pH	pH	Quarterly	1	7/10/2020	5.76	5.76	5.76				
Oct-20	Potassium	(mg/L)	Quarterly	1	7/10/2020	45	45	45				
Oct-20	Selenium	(mg/L)	Quarterly	1	7/10/2020	0.002	0.002	0.002				
Oct-20	Sodium	(mg/L)	Quarterly	1	7/10/2020	2760	2760	2760				
Oct-20	Standing Water Level	(m)	Quarterly	1	7/10/2020	0.80	0.80	0.80				
Oct-20	Vanadium	(mg/L)	Quarterly	1	7/10/2020	0.0021	0.0021	0.0021				
Oct-20	Zinc	(mg/L)	Quarterly	1	7/10/2020	1.16	1.16	1.16				

**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-20	Aluminium	(mg/L)	Quarterly	1	7/10/2020	1.59	1.59	1.59				
Oct-20	Ammonia	(mg/L)	Quarterly	1	7/10/2020	0.04	0.04	0.04				
Oct-20	Arsenic (III)	(mg/L)	Quarterly	1	7/10/2020	<0.0005	<0.0005	<0.0005				
Oct-20	Arsenic (V)	(mg/L)	Quarterly	1	7/10/2020	<0.0005	<0.0005	<0.0005				
Oct-20	Cadmium	(mg/L)	Quarterly	1	7/10/2020	<0.00005	<0.00005	<0.00005				
Oct-20	Chromium (trivalent)	(mg/L)	Quarterly	1	7/10/2020	<0.001	<0.001	<0.001				
Oct-20	Chromium (VI) Compounds	(mg/L)	Quarterly	1	7/10/2020	0.002	0.002	0.002				
Oct-20	Copper	(mg/L)	Quarterly	1	7/10/2020	0.0041	0.0041	0.0041				
Oct-20	Electrical Conductivity	(us/cm)	Quarterly	1	7/10/2020	986	986	986				
Oct-20	Iron	(mg/L)	Quarterly	1	7/10/2020	5.76	5.76	5.76				
Oct-20	Lead	(mg/L)	Quarterly	1	7/10/2020	0.0036	0.0036	0.0036				
Oct-20	Magnesium	(mg/L)	Quarterly	1	7/10/2020	12	12	12				
Oct-20	Manganese	(mg/L)	Quarterly	1	7/10/2020	0.08	0.08	0.08				
Oct-20	Nickel	(mg/L)	Quarterly	1	7/10/2020	0.01	0.01	0.01				
Oct-20	pH	pH	Quarterly	1	7/10/2020	6.76	6.76	6.76				
Oct-20	Potassium	(mg/L)	Quarterly	1	7/10/2020	2	2	2				
Oct-20	Selenium	(mg/L)	Quarterly	1	7/10/2020	0.0003	0.0003	0.0003				
Oct-20	Sodium	(mg/L)	Quarterly	1	7/10/2020	97	97	97				
Oct-20	Standing Water Level	(m)	Quarterly	1	7/10/2020	2.61	2.61	2.61				
Oct-20	Vanadium	(mg/L)	Quarterly	1	7/10/2020	0.003	0.003	0.003				
Oct-20	Zinc	(mg/L)	Quarterly	1	7/10/2020	0.015	0.015	0.015				

**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-20	Aluminium	(mg/L)	Quarterly	1	7/10/2020	54.70	54.70	54.70				
Oct-20	Ammonia	(mg/L)	Quarterly	1	7/10/2020	0.40	0.40	0.40				
Oct-20	Arsenic (III)	(mg/L)	Quarterly	1	7/10/2020	<0.005	<0.005	<0.005				
Oct-20	Arsenic (V)	(mg/L)	Quarterly	1	7/10/2020	<0.005	<0.005	<0.005				
Oct-20	Cadmium	(mg/L)	Quarterly	1	7/10/2020	0.003	0.003	0.003				
Oct-20	Chromium (trivalent)	(mg/L)	Quarterly	1	7/10/2020	0.029	0.029	0.029				
Oct-20	Chromium (VI) Compounds	(mg/L)	Quarterly	1	7/10/2020	<0.01	<0.01	<0.01				
Oct-20	Copper	(mg/L)	Quarterly	1	7/10/2020	0.05	0.05	0.05				
Oct-20	Electrical Conductivity	(us/cm)	Quarterly	1	7/10/2020	48700	48700	48700				
Oct-20	Iron	(mg/L)	Quarterly	1	7/10/2020	358	358	358				
Oct-20	Lead	(mg/L)	Quarterly	1	7/10/2020	0.0905	0.0905	0.0905				
Oct-20	Magnesium	(mg/L)	Quarterly	1	7/10/2020	1310	1310	1310				
Oct-20	Manganese	(mg/L)	Quarterly	1	7/10/2020	0.790	0.790	0.790				
Oct-20	Nickel	(mg/L)	Quarterly	1	7/10/2020	0.0972	0.0972	0.0972				
Oct-20	pH	pH	Quarterly	1	7/10/2020	6.52	6.52	6.52				
Oct-20	Potassium	(mg/L)	Quarterly	1	7/10/2020	286	286	286				
Oct-20	Selenium	(mg/L)	Quarterly	1	7/10/2020	0.007	0.007	0.007				
Oct-20	Sodium	(mg/L)	Quarterly	1	7/10/2020	9680	9680	9680				
Oct-20	Standing Water Level	(m)	Quarterly	1	7/10/2020	-0.05	-0.05	-0.05				
Oct-20	Vanadium	(mg/L)	Quarterly	1	7/10/2020	0.106	0.106	0.106				
Oct-20	Zinc	(mg/L)	Quarterly	1	7/10/2020	0.534	0.534	0.534				

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-20	Aluminium	(mg/L)	Quarterly	1	7/10/2020	11.9	11.9	11.9				
Oct-20	Ammonia	(mg/L)	Quarterly	1	7/10/2020	0.03	0.03	0.03				
Oct-20	Arsenic (III)	(mg/L)	Quarterly	1	7/10/2020	<0.0005	<0.0005	<0.0005				
Oct-20	Arsenic (V)	(mg/L)	Quarterly	1	7/10/2020	<0.0005	<0.0005	<0.0005				
Oct-20	Cadmium	(mg/L)	Quarterly	1	7/10/2020	0.00013	0.00013	0.00013				
Oct-20	Chromium (trivalent)	(mg/L)	Quarterly	1	7/10/2020	0.018	0.018	0.018				
Oct-20	Chromium (VI) Compounds	(mg/L)	Quarterly	1	7/10/2020	<0.001	<0.001	<0.001				
Oct-20	Copper	(mg/L)	Quarterly	1	7/10/2020	0.015	0.015	0.015				
Oct-20	Electrical Conductivity	(us/cm)	Quarterly	1	7/10/2020	1290	1290	1290				
Oct-20	Iron	(mg/L)	Quarterly	1	7/10/2020	10.3	10.3	10.3				
Oct-20	Lead	(mg/L)	Quarterly	1	7/10/2020	0.0111	0.0111	0.0111				
Oct-20	Magnesium	(mg/L)	Quarterly	1	7/10/2020	12	12	12				
Oct-20	Manganese	(mg/L)	Quarterly	1	7/10/2020	0.0994	0.0994	0.0994				
Oct-20	Nickel	(mg/L)	Quarterly	1	7/10/2020	0.019	0.019	0.019				
Oct-20	pH	pH	Quarterly	1	7/10/2020	6.64	6.64	6.64				
Oct-20	Potassium	(mg/L)	Quarterly	1	7/10/2020	3	3	3				
Oct-20	Selenium	(mg/L)	Quarterly	1	7/10/2020	0.002	0.002	0.002				
Oct-20	Sodium	(mg/L)	Quarterly	1	7/10/2020	115	115	115				
Oct-20	Standing Water Level	(m)	Quarterly	1	7/10/2020	0.14	0.14	0.14				
Oct-20	Vanadium	(mg/L)	Quarterly	1	7/10/2020	0.0306	0.0306	0.0306				
Oct-20	Zinc	(mg/L)	Quarterly	1	7/10/2020	0.092	0.092	0.092				

GENERAL COMMENTS