

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	December 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
Dec-20	Cadmium	(mg/m3)	Every 6 months	1	Sep - Nov 2020	0.004	0.004	0.004		0.2	No	
Dec-20	Chlorine	(mg/m3)	Every 6 months	1	Sep - Nov 2020	<0.046	<0.046	<0.046		20		
Dec-20	Fluorine	(mg/m3)	Every 6 months	1	Sep - Nov 2020	0.64	0.64	0.64		30		
Dec-20	Hydrogen chloride	(mg/m3)	Every 6 months	1	Sep - Nov 2020	<0.046	<0.046	<0.046		50		
Dec-20	Mercury	(mg/m3)	Every 6 months	1	Sep - Nov 2020	0.00067	0.00067	0.00067		0.05	No	
Dec-20	Nitrogen Oxides	(mg/m3)	Continuous	100%	Dec-20	338	529	704	1100	1500	No	
Dec-20	Solid Particles	(mg/m3)	Quarterly	1	Sep - Nov 2020	2.1	2.1	2.1		50		
Dec-20	Sulfur dioxide	(mg/m3)	Continuous	100%	Dec-20	444	583	669	1400	1700	No	
Dec-20	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months	1	Sep - Nov 2020	11.5	11.5	11.5		100		
Dec-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months	1	Sep - Nov 2020	0.028	0.028	0.028		0.75		
Dec-20	VOC's as n-propane equivalent	(mg/m3)	Every 6 months	1	Sep - Nov 2020	<0.18	<0.18	<0.18		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
Dec-20	Cadmium	(mg/m3)	Every 6 months	1	Sep - Nov 2020	0.0087	0.0087	0.0087		0.2		
Dec-20	Chlorine	(mg/m3)	Every 6 months	1	Sep - Nov 2020	<0.036	<0.036	<0.036		20		
Dec-20	Fluorine	(mg/m3)	Every 6 months	1	Sep - Nov 2020	0.92	0.92	0.92		30		
Dec-20	Hydrogen chloride	(mg/m3)	Every 6 months	1	Sep - Nov 2020	0.12	0.12	0.12		50		
Dec-20	Mercury	(mg/m3)	Every 6 months	1	Sep - Nov 2020	0.00047	0.00047	0.00047		0.05		
Dec-20	Nitrogen Oxides	(mg/m3)	Continuous	100%	Dec-20	488	758	902	1100	1500	No	The 99th percentile limit does not apply until 31/1/2021
Dec-20	Solid Particles	(mg/m3)	Quarterly	1	Sep - Nov 2020	20	20	20		50		
Dec-20	Sulfur dioxide	(mg/m3)	Continuous	100%	Dec-20	400	580	678	1400	1700	No	
Dec-20	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months	1	Sep - Nov 2020	12	12	12		100		
Dec-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months	1	Sep - Nov 2020	0.036	0.036	0.036		0.75		
Dec-20	VOC's as n-propane equivalent	(mg/m3)	Every 6 months	1	Sep - Nov 2020	<0.17	<0.17	<0.17		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
Dec-20	Cadmium	(mg/m3)	Every 6 months	1	22/11/20	0.017	0.017	0.017				
Dec-20	Carbon dioxide	(%)	Every 6 months	1	21/9/20	10.1	10.1	10.1				
Dec-20	Chlorine	(mg/m3)	Every 6 months	1	21/9/20	<0.048	<0.048	<0.048				
Dec-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Dec-20	Fluorine	(mg/m3)	Every 6 months	1	22/9/20	0.93	0.93	0.93				
Dec-20	Hydrogen chloride	(mg/m3)	Every 6 months	1	21/9/20	<0.048	<0.048	<0.048				
Dec-20	Mercury	(mg/m3)	Every 6 months	1	22/11/20	0.0011	0.0011	0.0011				
Dec-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Dec-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Dec-20	Solid Particles	(mg/m3)	Quarterly	1	22/9/20	1.3	1.3	1.3				
Dec-20	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months	1	21/9/20	13	13	13				
Dec-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Dec-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months	1	22/9/20	0.045	0.045	0.045				
Dec-20	VOC's as n-propane equivalent	(mg/m3)	Every 6 months	1	21/9/20	<0.18	<0.18	<0.18				

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
Dec-20	Cadmium	(mg/m3)	Every 6 months	1	23/9/20	0.00079	0.00079	0.00079				
Dec-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Dec-20	Mercury	(mg/m3)	Every 6 months	1	23/9/20	0.0009	0.0009	0.0009				
Dec-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Dec-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Dec-20	Solid Particles	(mg/m3)	Quarterly	1	23/9/20	5.5	5.5	5.5				
Dec-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Dec-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months	1	23/9/20	0.006	0.006	0.006				

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
Dec-20	Cadmium	(mg/m3)	Every 6 months	1	24/9/20	0.00062	0.00062	0.00062				
Dec-20	Carbon dioxide	(%)	Every 6 months	1	24/9/20	11.3	11.3	11.3				
Dec-20	Chlorine	(mg/m3)	Every 6 months	1	24/9/20	<0.044	<0.044	<0.044				
Dec-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Dec-20	Fluorine	(mg/m3)	Every 6 months	1	24/9/20	0.35	0.35	0.35				
Dec-20	Hydrogen chloride	(mg/m3)	Every 6 months	1	24/9/20	<0.044	<0.044	<0.044				
Dec-20	Mercury	(mg/m3)	Every 6 months	1	24/9/20	0.00088	0.00088	0.00088				
Dec-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Dec-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Dec-20	Solid Particles	(mg/m3)	Quarterly	1	24/9/20	1.6	1.6	1.6				
Dec-20	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months	1	24/9/20	10	10	10				
Dec-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Dec-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months	1	24/9/20	0.048	0.048	0.048				
Dec-20	VOC's as n-propane equivalent	(mg/m3)	Every 6 months	1	24/9/20	<0.18	<0.18	<0.18				

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
Dec-20	Cadmium	(mg/m3)	Every 6 months	1	28/9/20	0.00026	0.00026	0.00026				
Dec-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Dec-20	Mercury	(mg/m3)	Every 6 months	1	28/9/20	0.00013	0.00013	0.00013				
Dec-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Dec-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Dec-20	Solid Particles	(mg/m3)	Quarterly	1	28/9/20	0.94	0.94	0.94				
Dec-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Dec-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months	1	28/9/20	0.017	0.017	0.017				

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
Dec-20	Cadmium	(mg/m3)	Every 6 months	1	29/9/20	0.0003	0.0003	0.0003				
Dec-20	Carbon dioxide	(%)	Every 6 months	1	29/9/20	10.6	10.6	10.6				
Dec-20	Chlorine	(mg/m3)	Every 6 months	1	30/9/20	<0.041	<0.041	<0.041				
Dec-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Dec-20	Fluorine	(mg/m3)	Every 6 months	1	30/9/20	0.68	0.68	0.68				
Dec-20	Hydrogen chloride	(mg/m3)	Every 6 months	1	30/9/20	<0.041	<0.041	<0.041				
Dec-20	Mercury	(mg/m3)	Every 6 months	1	29/9/20	0.00084	0.00084	0.00084				
Dec-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Dec-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Dec-20	Solid Particles	(mg/m3)	Quarterly	1	29/9/20	97	97	97				
Dec-20	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months	1	29/10/20	14	14	14				
Dec-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Dec-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months	1	29/9/20	0.022	0.022	0.022				
Dec-20	VOC's as n-propane equivalent	(mg/m3)	Every 6 months	1	30/9/20	<0.16	<0.16	<0.16				

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
Dec-20	Cadmium	(mg/m3)	Every 6 months	1	1/10/20	0.0036	0.0036	0.0036				
Dec-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Dec-20	Mercury	(mg/m3)	Every 6 months	1	1/10/20	0.0012	0.0012	0.0012				
Dec-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Dec-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Dec-20	Solid Particles	(mg/m3)	Quarterly	1	1/10/20	2.9	2.9	2.9				
Dec-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Dec-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months	1	1/10/20	0.016	0.016	0.016				

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
Dec-20	Cadmium	(mg/m3)	Every 6 months	1	24/11/20	0.011	0.011	0.011				
Dec-20	Carbon dioxide	(%)	Every 6 months	1	23/11/20	12.3	12.3	12.3				
Dec-20	Chlorine	(mg/m3)	Every 6 months	1	23/11/20	<0.033	<0.033	<0.033				
Dec-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Dec-20	Fluorine	(mg/m3)	Every 6 months	1	23/11/20	1.1	1.1	1.1				
Dec-20	Hydrogen chloride	(mg/m3)	Every 6 months	1	23/11/20	0.18	0.18	0.18				
Dec-20	Mercury	(mg/m3)	Every 6 months	1	24/11/20	0.0002	0.0002	0.0002				
Dec-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Dec-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Dec-20	Solid Particles	(mg/m3)	Quarterly	1	24/11/20	3	3	3				
Dec-20	Sulfuric acid mist and sulfur trioxide (as SO3)	(mg/m3)	Every 6 months	1	23/11/20	11	11	11				
Dec-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Dec-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months	1	24/11/20	0.02	0.02	0.02				
Dec-20	VOC's as n-propane equivalent	(mg/m3)	Every 6 months	1	23/11/20	<0.18	<0.18	<0.18				

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
Dec-20	Cadmium	(mg/m3)	Every 6 months	1	29/10/20	0.014	0.014	0.014				
Dec-20	Flow rate	(m3/s)	Continuous									Not required until 31 October 2021
Dec-20	Mercury	(mg/m3)	Every 6 months	1	29/10/20	0.00019	0.00019	0.00019				
Dec-20	Moisture	(%)	Continuous									Not required until 31 October 2021
Dec-20	Oxygen (O2)	(%)	Continuous									Not required until 31 October 2021
Dec-20	Solid Particles	(mg/m3)	Quarterly	1	29/10/20	1.2	1.2	1.2				
Dec-20	Temperature	(°C)	Continuous									Not required until 31 October 2021
Dec-20	Type 1 and Type 2 substances in aggregate	(mg/m3)	Every 6 months	1	29/10/20	0.078	0.078	0.078				

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
Dec-20	Nitrogen Oxides	(mg/m3)	Continuous	100%	Dec-20	259	470	684			No	
Dec-20	Sulfur dioxide	(mg/m3)	Continuous	100%	Dec-20	338	511	610			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
Dec-20	Nitrogen Oxides	(mg/m3)	Continuous	99.3%	Dec-20	371	588	892			No	
Dec-20	Sulfur dioxide	(mg/m3)	Continuous	99.3%	Dec-20	505	655	756			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
Dec-20	Nitrogen Oxides	(mg/m3)	Continuous	100%	Dec-20	421	730	892			No	
Dec-20	Sulfur dioxide	(mg/m3)	Continuous	100%	Dec-20	398	627	751			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
Dec-20	Nitrogen Oxides	(mg/m3)	Continuous	100%	Dec-20	555	785	920			No	
Dec-20	Sulfur dioxide	(mg/m3)	Continuous	100%	Dec-20	393	533	620			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
Dec-20	Chlorine (free residual)	(mg/L)	Monthly during discharge	1	10/12/2020	0.06	0.06	0.06		0.2	No	
Dec-20	Copper	(mg/L)	Monthly during discharge	1	10/12/2020	0.009	0.009	0.009		0.005	Yes	EPA notified of non-compliance.
Dec-20	Iron	(mg/L)	Monthly during discharge	1	10/12/2020	0.153	0.153	0.153		0.3	No	
Dec-20	Oil and Grease	Visible	Continuous during discharge	100%	Dec-20	NIL	NIL	NIL				
Dec-20	Selenium	(mg/L)	Monthly during discharge	1	10/12/2020	<0.002	<0.002	<0.002		0.005	No	
Dec-20	Temperature	(°C)	Continuous during discharge	100%	Dec-20	25.7	30.9	34.1	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
Dec-20	Aluminium	(mg/L)	Monthly during discharge	1	10/12/2020	0.044	0.044	0.044				
Dec-20	Ammonia	(mg/L)	Monthly during discharge	1	10/12/2020	0.16	0.16	0.16				
Dec-20	Arsenic (III)	(mg/L)	Monthly during discharge	1	10/12/2020	<0.001	<0.001	<0.001				
Dec-20	Arsenic (V)	(mg/L)	Monthly during discharge	1	10/12/2020	0.0029	0.0029	0.0029				
Dec-20	Cadmium	(mg/L)	Monthly during discharge	1	10/12/2020	<0.0002	<0.0002	<0.0002				
Dec-20	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	10/12/2020	<0.001	<0.001	<0.001				
Dec-20	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	10/12/2020	0.004	0.004	0.004				
Dec-20	Copper	(mg/L)	Monthly during discharge	1	10/12/2020	<0.001	<0.001	<0.001				
Dec-20	Iron	(mg/L)	Monthly during discharge	1	10/12/2020	0.074	0.074	0.074				
Dec-20	Lead	(mg/L)	Monthly during discharge	1	10/12/2020	<0.0002	<0.0002	<0.0002				
Dec-20	Manganese	(mg/L)	Monthly during discharge	1	10/12/2020	0.0154	0.0154	0.0154				
Dec-20	Nickel	(mg/L)	Monthly during discharge	1	10/12/2020	<0.0005	<0.0005	<0.0005				
Dec-20	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	10/12/2020	0.11	0.11	0.11				
Dec-20	Nitrogen	(mg/L)	Monthly during discharge	1	10/12/2020	<0.5	<0.5	<0.5				
Dec-20	pH	pH	Monthly during discharge	1	10/12/2020	8.75	8.75	8.75		6.5 - 9.5	No	
Dec-20	Phosphorus	(mg/L)	Monthly during discharge	1	10/12/2020	0.07	0.07	0.07				
Dec-20	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	10/12/2020	0.03	0.03	0.03				
Dec-20	Selenium	(mg/L)	Monthly during discharge	1	10/12/2020	0.04	0.04	0.04				
Dec-20	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	10/12/2020	<0.5	<0.5	<0.5				
Dec-20	Total Suspended Solids	(mg/L)	Monthly during discharge	1	10/12/2020	3	3	3		50	No	
Dec-20	Vanadium	(mg/L)	Monthly during discharge	1	10/12/2020	0.0356	0.0356	0.0356				
Dec-20	Zinc	(mg/L)	Monthly during discharge	1	10/12/2020	<0.005	<0.005	<0.005				

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
Dec-20	Aluminium	(mg/L)	Monthly during discharge	1	10/12/2020				No			
Dec-20	Ammonia	(mg/L)	Monthly during discharge	1	10/12/2020				No			
Dec-20	Arsenic (III)	(mg/L)	Monthly during discharge	1	10/12/2020				No			
Dec-20	Arsenic (V)	(mg/L)	Monthly during discharge	1	10/12/2020				No			
Dec-20	Cadmium	(mg/L)	Monthly during discharge	1	10/12/2020				No			
Dec-20	Chromium (trivalent)	(mg/L)	Monthly during discharge	1	10/12/2020				No			
Dec-20	Chromium (VI) Compounds	(mg/L)	Monthly during discharge	1	10/12/2020				No			
Dec-20	Copper	(mg/L)	Monthly during discharge	1	10/12/2020				No			
Dec-20	Iron	(mg/L)	Monthly during discharge	1	10/12/2020				No			
Dec-20	Lead	(mg/L)	Monthly during discharge	1	10/12/2020				No			
Dec-20	Manganese	(mg/L)	Monthly during discharge	1	10/12/2020				No			
Dec-20	Nickel	(mg/L)	Monthly during discharge	1	10/12/2020				No			No discharge from EPA Point 24 during December 2020
Dec-20	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Monthly during discharge	1	10/12/2020				No			
Dec-20	Nitrogen	(mg/L)	Monthly during discharge	1	10/12/2020				No			
Dec-20	pH	pH	Monthly during discharge	1	10/12/2020				No	6.5 - 9.5		
Dec-20	Phosphorus	(mg/L)	Monthly during discharge	1	10/12/2020				No			
Dec-20	Reactive Phosphorus	(mg/L)	Monthly during discharge	1	10/12/2020				No			
Dec-20	Selenium	(mg/L)	Monthly during discharge	1	10/12/2020				No			
Dec-20	Total Kjeldahl Nitrogen	(mg/L)	Monthly during discharge	1	10/12/2020				No			
Dec-20	Total Suspended Solids	(mg/L)	Monthly during discharge	1	10/12/2020				No	50		
Dec-20	Vanadium	(mg/L)	Monthly during discharge	1	10/12/2020				No			
Dec-20	Zinc	(mg/L)	Monthly during discharge	1	10/12/2020				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
Dec-20	Aluminium	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-20	Ammonia	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-20	Arsenic (III)	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-20	Arsenic (V)	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-20	Cadmium	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-20	Chromium (trivalent)	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-20	Chromium (VI) Compounds	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-20	Copper	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-20	Iron	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-20	Lead	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-20	Manganese	(mg/L)	Daily for any discharge >2 hrs						No			No discharge from EPA Point 25 during December 2020
Dec-20	Nickel	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-20	Nitrate + nitrite (oxidised nitrogen)	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-20	Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-20	pH	pH	Daily for any discharge >2 hrs						No	6.5 - 9.5	No	
Dec-20	Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-20	Reactive Phosphorus	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-20	Selenium	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-20	Total Kjeldahl Nitrogen	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-20	Total Suspended Solids	(mg/L)	Daily for any discharge >2 hrs						No	50	No	
Dec-20	Vanadium	(mg/L)	Daily for any discharge >2 hrs						No			
Dec-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 & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	99 Percentile Concentration Limit	100 Percentile Concentration Limit	Exceedance (yes/no)	Comments
Dec-20	Aluminium	(mg/L)	Quarterly									
Dec-20	Ammonia	(mg/L)	Quarterly									
Dec-20	Arsenic (III)	(mg/L)	Quarterly									
Dec-20	Arsenic (V)	(mg/L)	Quarterly									
Dec-20	Cadmium	(mg/L)	Quarterly									
Dec-20	Chromium (trivalent)	(mg/L)	Quarterly									
Dec-20	Chromium (VI) Compounds	(mg/L)	Quarterly									
Dec-20	Copper	(mg/L)	Quarterly									
Dec-20	Electrical Conductivity	(us/cm)	Quarterly									
Dec-20	Iron	(mg/L)	Quarterly									
Dec-20	Lead	(mg/L)	Quarterly									
Dec-20	Magnesium	(mg/L)	Quarterly									
Dec-20	Manganese	(mg/L)	Quarterly									
Dec-20	Nickel	(mg/L)	Quarterly									
Dec-20	pH	pH	Quarterly									
Dec-20	Potassium	(mg/L)	Quarterly									
Dec-20	Selenium	(mg/L)	Quarterly									
Dec-20	Sodium	(mg/L)	Quarterly									
Dec-20	Standing Water Level	(m)	Quarterly									
Dec-20	Vanadium	(mg/L)	Quarterly									
Dec-20	Zinc	(mg/L)	Quarterly									

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
Dec-20	Aluminium	(mg/L)	Quarterly									
Dec-20	Ammonia	(mg/L)	Quarterly									
Dec-20	Arsenic (III)	(mg/L)	Quarterly									
Dec-20	Arsenic (V)	(mg/L)	Quarterly									
Dec-20	Cadmium	(mg/L)	Quarterly									
Dec-20	Chromium (trivalent)	(mg/L)	Quarterly									
Dec-20	Chromium (VI) Compounds	(mg/L)	Quarterly									
Dec-20	Copper	(mg/L)	Quarterly									
Dec-20	Electrical Conductivity	(us/cm)	Quarterly									
Dec-20	Iron	(mg/L)	Quarterly									
Dec-20	Lead	(mg/L)	Quarterly									
Dec-20	Magnesium	(mg/L)	Quarterly									
Dec-20	Manganese	(mg/L)	Quarterly									
Dec-20	Nickel	(mg/L)	Quarterly									
Dec-20	pH	pH	Quarterly									
Dec-20	Potassium	(mg/L)	Quarterly									
Dec-20	Selenium	(mg/L)	Quarterly									
Dec-20	Sodium	(mg/L)	Quarterly									
Dec-20	Standing Water Level	(m)	Quarterly									
Dec-20	Vanadium	(mg/L)	Quarterly									
Dec-20	Zinc	(mg/L)	Quarterly									

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
Dec-20	Aluminium	(mg/L)	Quarterly									
Dec-20	Ammonia	(mg/L)	Quarterly									
Dec-20	Arsenic (III)	(mg/L)	Quarterly									
Dec-20	Arsenic (V)	(mg/L)	Quarterly									
Dec-20	Cadmium	(mg/L)	Quarterly									
Dec-20	Chromium (trivalent)	(mg/L)	Quarterly									
Dec-20	Chromium (VI) Compounds	(mg/L)	Quarterly									
Dec-20	Copper	(mg/L)	Quarterly									
Dec-20	Electrical Conductivity	(us/cm)	Quarterly									
Dec-20	Iron	(mg/L)	Quarterly									
Dec-20	Lead	(mg/L)	Quarterly									
Dec-20	Magnesium	(mg/L)	Quarterly									
Dec-20	Manganese	(mg/L)	Quarterly									
Dec-20	Nickel	(mg/L)	Quarterly									
Dec-20	pH	pH	Quarterly									
Dec-20	Potassium	(mg/L)	Quarterly									
Dec-20	Selenium	(mg/L)	Quarterly									
Dec-20	Sodium	(mg/L)	Quarterly									
Dec-20	Standing Water Level	(m)	Quarterly									
Dec-20	Vanadium	(mg/L)	Quarterly									
Dec-20	Zinc	(mg/L)	Quarterly									

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
Dec-20	Aluminium	(mg/L)	Quarterly									
Dec-20	Ammonia	(mg/L)	Quarterly									
Dec-20	Arsenic (III)	(mg/L)	Quarterly									
Dec-20	Arsenic (V)	(mg/L)	Quarterly									
Dec-20	Cadmium	(mg/L)	Quarterly									
Dec-20	Chromium (trivalent)	(mg/L)	Quarterly									
Dec-20	Chromium (VI) Compounds	(mg/L)	Quarterly									
Dec-20	Copper	(mg/L)	Quarterly									
Dec-20	Electrical Conductivity	(us/cm)	Quarterly									
Dec-20	Iron	(mg/L)	Quarterly									
Dec-20	Lead	(mg/L)	Quarterly									
Dec-20	Magnesium	(mg/L)	Quarterly									
Dec-20	Manganese	(mg/L)	Quarterly									
Dec-20	Nickel	(mg/L)	Quarterly									
Dec-20	pH	pH	Quarterly									
Dec-20	Potassium	(mg/L)	Quarterly									
Dec-20	Selenium	(mg/L)	Quarterly									
Dec-20	Sodium	(mg/L)	Quarterly									
Dec-20	Standing Water Level	(m)	Quarterly									
Dec-20	Vanadium	(mg/L)	Quarterly									
Dec-20	Zinc	(mg/L)	Quarterly									

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
Dec-20	Aluminium	(mg/L)	Quarterly									
Dec-20	Ammonia	(mg/L)	Quarterly									
Dec-20	Arsenic (III)	(mg/L)	Quarterly									
Dec-20	Arsenic (V)	(mg/L)	Quarterly									
Dec-20	Cadmium	(mg/L)	Quarterly									
Dec-20	Chromium (trivalent)	(mg/L)	Quarterly									
Dec-20	Chromium (VI) Compounds	(mg/L)	Quarterly									
Dec-20	Copper	(mg/L)	Quarterly									
Dec-20	Electrical Conductivity	(us/cm)	Quarterly									Next sample due January 2021
Dec-20	Iron	(mg/L)	Quarterly									
Dec-20	Lead	(mg/L)	Quarterly									
Dec-20	Magnesium	(mg/L)	Quarterly									
Dec-20	Manganese	(mg/L)	Quarterly									
Dec-20	Nickel	(mg/L)	Quarterly									
Dec-20	pH	pH	Quarterly									
Dec-20	Potassium	(mg/L)	Quarterly									
Dec-20	Selenium	(mg/L)	Quarterly									
Dec-20	Sodium	(mg/L)	Quarterly									
Dec-20	Standing Water Level	(m)	Quarterly									
Dec-20	Vanadium	(mg/L)	Quarterly									
Dec-20	Zinc	(mg/L)	Quarterly									

GENERAL COMMENTS

The Stack Gas Testing Report for the first round of stack gas testing undertaken during the 2020/21 reporting period was provided by the consultant to Delta on 7 January 2021.