

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 2019	
ADDRESS	VALES POINT ROAD, MANNERING PARK NSW	

POINT 1 Cooling water outlet at Wyee Bay, marked and shown as "VPOC" on the Plan (VX837351, 30.06.2015, DOC15/381265).											
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	Exceedance (yes/no)	Comments
Dec-19	Chlorine (free residual)	milligrams per litre	Monthly	1	4/12/2019	0.01	0.01	0.01	0.2	No	
Dec-19	Temperature	degrees celsius	Continuous	100%	Dec-19	26.3	30.8	34.9	37.5	No	
Dec-19	Oil and Grease	Visible	Continuous	100%	Dec-19	NIL	NIL	NIL			No visible oil or grease detected during December 2019.

POINT 2 Discharge from the ash water recycle system to the cooling water outlet canal, marked and shown as "VPADB" on the Plan (VX837351, 30.06.2015, DOC15/381265).											
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	Exceedance (yes/no)	Comments
Dec-19	Ammonia	milligrams per litre	Quarterly								
Dec-19	Cadmium	milligrams per litre	Quarterly								
Dec-19	Copper	milligrams per litre	Quarterly								
Dec-19	Lead	milligrams per litre	Quarterly								
Dec-19	Manganese	milligrams per litre	Quarterly								
Dec-19	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Monthly	1	4/12/2019	0.08	0.08	0.08			
Dec-19	Nitrogen (total)	milligrams per litre	Quarterly								
Dec-19	pH	pH	Monthly	1	4/12/2019	8.27	8.27	8.27	6.5 - 9.5	No	
Dec-19	Phosphorus (total)	milligrams per litre	Monthly	1	4/12/2019	0.12	0.12	0.12			
Dec-19	Reactive Phosphorus	milligrams per litre	Monthly	1	4/12/2019	0.06	0.06	0.06			
Dec-19	Selenium	milligrams per litre	Quarterly								
Dec-19	Total Kjeldahl Nitrogen	milligrams per litre	Quarterly								
Dec-19	Total Suspended Solids	milligrams per litre	Fortnightly	2	Dec-19	60	65	69	50	Yes	Background TSS concentration in Lake Macquarie higher than TSS concentration at EPA2 when exceedances occurred.
Dec-19	Zinc	milligrams per litre	Quarterly								

POINT 4 Seepage from ash dam rehabilitated area, marked and shown as "VPADS" on the Plan (VX837351, 30.06.2015, DOC15/381265).											
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	Exceedance (yes/no)	Comments
Dec-19	Ammonia	milligrams per litre	Quarterly								
Dec-19	Cadmium	milligrams per litre	Quarterly								
Dec-19	Copper	milligrams per litre	Quarterly								
Dec-19	Lead	milligrams per litre	Quarterly								
Dec-19	Manganese	milligrams per litre	Quarterly								
Dec-19	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Monthly	1	4/12/2019						** Seepage water sampled is captured and pumped back to the ash dam. There was no licence 'discharge to waters' (i.e. to Manning Bay) during December 2019.
Dec-19	Nitrogen (total)	milligrams per litre	Quarterly								
Dec-19	pH	pH	Monthly	1	4/12/2019						
Dec-19	Phosphorus (total)	milligrams per litre	Monthly	1	4/12/2019						
Dec-19	Selenium	milligrams per litre	Quarterly								
Dec-19	Total Kjeldahl Nitrogen	milligrams per litre	Quarterly								
Dec-19	Total Suspended Solids	milligrams per litre	Monthly	1	4/12/2019				50	No	
Dec-19	Zinc	milligrams per litre	Quarterly								

POINT 18 Overboarding of Ash Dam, marked and shown as "VPADD" on the Plan (VX837351, 30.06.2015, DOC15/381265).											
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	Exceedance (yes/no)	Comments
Dec-19	Ammonia	milligrams per litre	Daily for discharge >2 hrs								
Dec-19	Cadmium	milligrams per litre	Daily for discharge >2 hrs								
Dec-19	Copper	milligrams per litre	Daily for discharge >2 hrs								
Dec-19	Lead	milligrams per litre	Daily for discharge >2 hrs								
Dec-19	Manganese	milligrams per litre	Daily for discharge >2 hrs								
Dec-19	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Daily for discharge >2 hrs								
Dec-19	Nitrogen (total)	milligrams per litre	Daily for discharge >2 hrs								No discharge from EPA Point 18 during December 2019
Dec-19	pH	pH	Daily for discharge >2 hrs						6.5 - 9.0		
Dec-19	Phosphorus (total)	milligrams per litre	Daily for discharge >2 hrs								
Dec-19	Selenium	milligrams per litre	Daily for discharge >2 hrs								
Dec-19	Total Kjeldahl Nitrogen	milligrams per litre	Daily for discharge >2 hrs								
Dec-19	Total Suspended Solids	milligrams per litre	Daily for discharge >2 hrs						50		
Dec-19	Zinc	milligrams per litre	Daily for discharge >2 hrs								

POINT 19 Groundwater bore, marked and shown as "VPGM/D3" on the Plan (VX837351, 30.06.2015, DOC15/381265).											
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	Exceedance (yes/no)	Comments
Dec-19	Arsenic	milligrams per litre	Quarterly								
Dec-19	Cadmium	milligrams per litre	Quarterly								
Dec-19	Calcium	milligrams per litre	Quarterly								
Dec-19	Chromium	milligrams per litre	Quarterly								
Dec-19	Copper	milligrams per litre	Quarterly								
Dec-19	Electrical conductivity	microsiemens per centimetre	Quarterly								
Dec-19	Iron	milligrams per litre	Quarterly								
Dec-19	Lead	milligrams per litre	Quarterly								
Dec-19	Magnesium	milligrams per litre	Quarterly								(next quarterly sample scheduled for January 2020)
Dec-19	Manganese	milligrams per litre	Quarterly								
Dec-19	Nickel	milligrams per litre	Quarterly								
Dec-19	pH	pH	Quarterly								
Dec-19	Potassium	milligrams per litre	Quarterly								
Dec-19	Selenium	milligrams per litre	Quarterly								
Dec-19	Sodium	milligrams per litre	Quarterly								
Dec-19	Standing Water Level	metres	Quarterly								
Dec-19	Zinc	milligrams per litre	Quarterly								

POINT 20 Groundwater bore, marked and shown as "VPGM/D5" on the Plan (VX837351, 30.06.2015, DOC15/381265).											
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	Exceedance (yes/no)	Comments
Dec-19	Arsenic	milligrams per litre	Quarterly								
Dec-19	Cadmium	milligrams per litre	Quarterly								
Dec-19	Calcium	milligrams per litre	Quarterly								
Dec-19	Chromium	milligrams per litre	Quarterly								
Dec-19	Copper	milligrams per litre	Quarterly								
Dec-19	Electrical conductivity	microsiemens per centimetre	Quarterly								
Dec-19	Iron	milligrams per litre	Quarterly								
Dec-19	Lead	milligrams per litre	Quarterly								
Dec-19	Magnesium	milligrams per litre	Quarterly								(next quarterly sample scheduled for January 2020)
Dec-19	Manganese	milligrams per litre	Quarterly								
Dec-19	Nickel	milligrams per litre	Quarterly								
Dec-19	pH	pH	Quarterly								
Dec-19	Potassium	milligrams per litre	Quarterly								
Dec-19	Selenium	milligrams per litre	Quarterly								
Dec-19	Sodium	milligrams per litre	Quarterly								
Dec-19	Standing Water Level	metres	Quarterly								
Dec-19	Zinc	milligrams per litre	Quarterly								

POINT 21 Groundwater bore, marked and shown as "VPGM/D6" on the Plan (VX837351, 30.06.2015, DOC15/381265).											
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	Exceedance (yes/no)	Comments
Dec-19	Arsenic	milligrams per litre	Quarterly								
Dec-19	Cadmium	milligrams per litre	Quarterly								
Dec-19	Calcium	milligrams per litre	Quarterly								
Dec-19	Chromium	milligrams per litre	Quarterly								
Dec-19	Copper	milligrams per litre	Quarterly								
Dec-19	Electrical conductivity	microsiemens per centimetre	Quarterly								
Dec-19	Iron	milligrams per litre	Quarterly								
Dec-19	Lead	milligrams per litre	Quarterly								(next quarterly sample scheduled for January 2020)
Dec-19	Magnesium	milligrams per litre	Quarterly								
Dec-19	Manganese	milligrams per litre	Quarterly								
Dec-19	Nickel	milligrams per litre	Quarterly								
Dec-19	pH	pH	Quarterly								
Dec-19	Potassium	milligrams per litre	Quarterly								
Dec-19	Selenium	milligrams per litre	Quarterly								
Dec-19	Sodium	milligrams per litre	Quarterly								
Dec-19	Standing Water Level	metres	Quarterly								
Dec-19	Zinc	milligrams per litre	Quarterly								

POINT 22 Groundwater bore, marked and shown as "VPGM/D8" on the Plan (VX837351, 30.06.2015, DOC15/381265).											
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	Exceedance (yes/no)	Comments
Dec-19	Arsenic	milligrams per litre	Quarterly								
Dec-19	Cadmium	milligrams per litre	Quarterly								
Dec-19	Calcium	milligrams per litre	Quarterly								
Dec-19	Chromium	milligrams per litre	Quarterly								
Dec-19	Copper	milligrams per litre	Quarterly								
Dec-19	Electrical conductivity	microsiemens per centimetre	Quarterly								
Dec-19	Iron	milligrams per litre	Quarterly								
Dec-19	Lead	milligrams per litre	Quarterly								
Dec-19	Magnesium	milligrams per litre	Quarterly								(next quarterly sample scheduled for January 2020)
Dec-19	Manganese	milligrams per litre	Quarterly								
Dec-19	Nickel	milligrams per litre	Quarterly								
Dec-19	pH	pH	Quarterly								
Dec-19	Potassium	milligrams per litre	Quarterly								
Dec-19	Selenium	milligrams per litre	Quarterly								
Dec-19	Sodium	milligrams per litre	Quarterly								
Dec-19	Standing Water Level	metres	Quarterly								
Dec-19	Zinc	milligrams per litre	Quarterly								

POINT 23 Groundwater bore, marked and shown as "VPGM/D10" on the Plan (VX837351, 30.06.2015, DOC15/381265).											
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	Exceedance (yes/no)	Comments
Dec-19	Arsenic	milligrams per litre	Quarterly								
Dec-19	Cadmium	milligrams per litre	Quarterly								
Dec-19	Calcium	milligrams per litre	Quarterly								
Dec-19	Chromium	milligrams per litre	Quarterly								
Dec-19	Copper	milligrams per litre	Quarterly								
Dec-19	Electrical conductivity	microsiemens per centimetre	Quarterly								
Dec-19	Iron	milligrams per litre	Quarterly								
Dec-19	Lead	milligrams per litre	Quarterly								
Dec-19	Magnesium	milligrams per litre	Quarterly								(next quarterly sample scheduled for January 2020)
Dec-19	Manganese	milligrams per litre	Quarterly								
Dec-19	Nickel	milligrams per litre	Quarterly								
Dec-19	pH	pH	Quarterly								
Dec-19	Potassium	milligrams per litre	Quarterly								
Dec-19	Selenium	milligrams per litre	Quarterly								
Dec-19	Sodium	milligrams per litre	Quarterly								
Dec-19	Standing Water Level	metres	Quarterly								
Dec-19	Zinc	milligrams per litre	Quarterly								

POINT 11 Stack serving Boiler Unit No. 5, marked and shown as "11" on the Plan (VX837351, 30.06.2015, DOC15/381265).											
Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	Exceedance (yes/no)	Comments
Dec-19	Cadmium	milligrams per cubic metre	Yearly						1	No	
Dec-19	Chlorine	milligrams per cubic metre	Yearly						200	No	
Dec-19	Copper	milligrams per cubic metre	Yearly								
Dec-19	Hydrogen chloride	milligrams per cubic metre	Yearly						100	No	
Dec-19	Mercury	milligrams per cubic metre	Yearly						1	No	
Dec-19	Moisture	percent	Yearly								
Dec-19	Molecular weight of stack gases	grams per gram mole	Yearly								
Dec-19	Nitrogen Oxides	milligrams per cubic metre	Continuous	99.73%	Dec-19	230	589	823	1500	No	
Dec-19	Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Yearly						100	No	
Dec-19	Sulphur dioxide	parts per million	Continuous	99.73%	Dec-19	234	324	499	600	No	
Dec-19	Temperature	degrees Celsius	Yearly								
Dec-19	Total Fluoride	milligrams per cubic metre	Yearly						50	No	
Dec-19	Total Solid Particles	milligrams per cubic metre	Yearly						100	No	
Dec-19	Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Yearly						5	No	
Dec-19	Undifferentiated Particulates	milligrams per cubic metre	Continuous	100%	Dec-19	15.5	19.7	23.4			
Dec-19	Velocity	metres per second	Yearly								
Dec-19	Volatile organic compounds	parts per million	Yearly								
Dec-19	Volumetric flowrate	cubic metres per second	Yearly								

POINT 12 Stack serving Boiler Unit No. 6, marked and shown as "12" on the Plan (VX837351, 30.06.2015, DOC15/381265).

Month	Pollutant	Unit of Measure	Sample/Measurement Frequency	Samples Collected & Analysed	Date Sampled	Lowest Sample Value	Mean of Samples	Highest Sample Value	EPL Limit	Exceedance (yes/no)	Comments
Dec-19	Cadmium	milligrams per cubic metre	Yearly						1	No	
Dec-19	Chlorine	milligrams per cubic metre	Yearly						200	No	
Dec-19	Copper	milligrams per cubic metre	Yearly								
Dec-19	Hydrogen chloride	milligrams per cubic metre	Yearly						100	No	
Dec-19	Mercury	milligrams per cubic metre	Yearly						1	No	
Dec-19	Moisture	percent	Yearly								
Dec-19	Molecular weight of stack gases	grams per gram mole	Yearly								
Dec-19	Nitrogen Oxides	milligrams per cubic metre	Continuous	100%	Dec-19	532	765	1054	1500	No	
Dec-19	Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Yearly						100	No	
Dec-19	Sulphur dioxide	parts per million	Continuous	100%	Dec-19	182	294	465	600	No	
Dec-19	Temperature	degrees Celsius	Yearly								
Dec-19	Total Fluoride	milligrams per cubic metre	Yearly						50	No	
Dec-19	Total Solid Particles	milligrams per cubic metre	Yearly						100	No	
Dec-19	Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Yearly						5	No	
Dec-19	Undifferentiated Particulates	milligrams per cubic metre	Continuous	100%	Dec-19	3.6	7.3	9.0			
Dec-19	Velocity	metres per second	Yearly								
Dec-19	Volatile organic compounds	parts per million	Yearly								
Dec-19	Volumetric flowrate	cubic metres per second	Yearly								

GENERAL COMMENTS