

Vales Point Power Station Monthly Environmental Data Summary



LICENCE NO	761	http://www.epa.nsw.gov.au/prpneoapp/
LICENCE HOLDER	SUNSET POWER INTERNATIONAL PTY LTD	
REPORTING PERIOD	March 2017	
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	98.5% limit	Exceedance (yes/no)	Comments
March 2017	Chlorine (free residual)	milligrams per litre	Monthly	1	15/03/2017	0.05	0.05	0.05	0.2		No	
March 2017	Temperature	degrees celsius	Continuous	100%	March 2017	27.7	32.3	34.7	38.5*	35	No	*See Note 1 in 'General Comments' section below.
March 2017	Oil and Grease	Visible	Continuous	100%	March 2017	NIL	NIL	NIL			No	No visible oil or grease detected during March 2017

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	98.5% limit	Exceedance (yes/no)	Comments
March 2017	Ammonia	milligrams per litre	Quarterly									
March 2017	Cadmium	milligrams per litre	Quarterly									
March 2017	Copper	milligrams per litre	Quarterly									
March 2017	Lead	milligrams per litre	Quarterly									
March 2017	Manganese	milligrams per litre	Quarterly									
March 2017	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Monthly	1	15/03/2017	0.04	0.04	0.04				
March 2017	Nitrogen (total)	milligrams per litre	Quarterly									
March 2017	pH	pH	Monthly	1	15/03/2017	8.74	8.74	8.74	6.5 - 9.5		No	(next quarterly samples scheduled for April/May 2017)
March 2017	Phosphorus (total)	milligrams per litre	Monthly	1	15/03/2017	0.09	0.09	0.09				
March 2017	Reactive Phosphorus	milligrams per litre	Monthly	1	15/03/2017	0.06	0.06	0.06				
March 2017	Selenium	milligrams per litre	Quarterly									
March 2017	Total Kjeldahl Nitrogen	milligrams per litre	Quarterly									
March 2017	Total Suspended Solids	milligrams per litre	Fortnightly	4	14, 15, 21 & 27/03/17	11	25	48	50		No	
March 2017	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	98.5% limit	Exceedance (yes/no)	Comments
March 2017	Ammonia	milligrams per litre	Quarterly									
March 2017	Cadmium	milligrams per litre	Quarterly									
March 2017	Copper	milligrams per litre	Quarterly									
March 2017	Lead	milligrams per litre	Quarterly									
March 2017	Manganese	milligrams per litre	Quarterly									
March 2017	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Monthly	1	15/03/2017	0.11	0.11	0.11				
March 2017	Nitrogen (total)	milligrams per litre	Quarterly									No discharge to Mannering Bay during March 2017
March 2017	pH	pH	Monthly	1	15/03/2017	7.21	7.21	7.21				(next quarterly samples scheduled for April/May 2017)
March 2017	Phosphorus (total)	milligrams per litre	Monthly	1	15/03/2017	0.03	0.03	0.03				
March 2017	Selenium	milligrams per litre	Quarterly									
March 2017	Total Kjeldahl Nitrogen	milligrams per litre	Quarterly									
March 2017	Total Suspended Solids	milligrams per litre	Monthly	1	15/03/2017	46	46	46	50		No	
March 2017	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	98.5% limit	Exceedance (yes/no)	Comments
March 2017	Ammonia	milligrams per litre	Daily for discharge >2 hrs									
March 2017	Cadmium	milligrams per litre	Daily for discharge >2 hrs									
March 2017	Copper	milligrams per litre	Daily for discharge >2 hrs									
March 2017	Lead	milligrams per litre	Daily for discharge >2 hrs									
March 2017	Manganese	milligrams per litre	Daily for discharge >2 hrs									
March 2017	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Daily for discharge >2 hrs									
March 2017	Nitrogen (total)	milligrams per litre	Daily for discharge >2 hrs									No discharge from EPA Point 18 during March 2017
March 2017	pH	pH	Daily for discharge >2 hrs						6.5 - 9.0			
March 2017	Phosphorus (total)	milligrams per litre	Daily for discharge >2 hrs									
March 2017	Selenium	milligrams per litre	Daily for discharge >2 hrs									
March 2017	Total Kjeldahl Nitrogen	milligrams per litre	Daily for discharge >2 hrs									
March 2017	Total Suspended Solids	milligrams per litre	Daily for discharge >2 hrs						50			
March 2017	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
March 2017	Arsenic	milligrams per litre	Quarterly								
March 2017	Cadmium	milligrams per litre	Quarterly								
March 2017	Calcium	milligrams per litre	Quarterly								
March 2017	Chromium	milligrams per litre	Quarterly								
March 2017	Copper	milligrams per litre	Quarterly								
March 2017	Electrical conductivity	microsiemens per centimetre	Quarterly								
March 2017	Iron	milligrams per litre	Quarterly								
March 2017	Lead	milligrams per litre	Quarterly								(next quarterly samples scheduled for April/May 2017)
March 2017	Magnesium	milligrams per litre	Quarterly								
March 2017	Manganese	milligrams per litre	Quarterly								
March 2017	Nickel	milligrams per litre	Quarterly								
March 2017	pH	pH	Quarterly								
March 2017	Potassium	milligrams per litre	Quarterly								
March 2017	Selenium	milligrams per litre	Quarterly								
March 2017	Sodium	milligrams per litre	Quarterly								
March 2017	Standing Water Level	metres	Quarterly								
March 2017	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
March 2017	Arsenic	milligrams per litre	Quarterly								
March 2017	Cadmium	milligrams per litre	Quarterly								
March 2017	Calcium	milligrams per litre	Quarterly								
March 2017	Chromium	milligrams per litre	Quarterly								
March 2017	Copper	milligrams per litre	Quarterly								
March 2017	Electrical conductivity	microsiemens per centimetre	Quarterly								
March 2017	Iron	milligrams per litre	Quarterly								
March 2017	Lead	milligrams per litre	Quarterly								(next quarterly samples scheduled for April/May 2017)
March 2017	Magnesium	milligrams per litre	Quarterly								
March 2017	Manganese	milligrams per litre	Quarterly								
March 2017	Nickel	milligrams per litre	Quarterly								
March 2017	pH	pH	Quarterly								
March 2017	Potassium	milligrams per litre	Quarterly								
March 2017	Selenium	milligrams per litre	Quarterly								
March 2017	Sodium	milligrams per litre	Quarterly								
March 2017	Standing Water Level	metres	Quarterly								
March 2017	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
March 2017	Arsenic	milligrams per litre	Quarterly								
March 2017	Cadmium	milligrams per litre	Quarterly								
March 2017	Calcium	milligrams per litre	Quarterly								
March 2017	Chromium	milligrams per litre	Quarterly								
March 2017	Copper	milligrams per litre	Quarterly								
March 2017	Electrical conductivity	microsiemens per centimetre	Quarterly								
March 2017	Iron	milligrams per litre	Quarterly								
March 2017	Lead	milligrams per litre	Quarterly								(next quarterly samples scheduled for April/May 2017)
March 2017	Magnesium	milligrams per litre	Quarterly								
March 2017	Manganese	milligrams per litre	Quarterly								
March 2017	Nickel	milligrams per litre	Quarterly								
March 2017	pH	pH	Quarterly								
March 2017	Potassium	milligrams per litre	Quarterly								
March 2017	Selenium	milligrams per litre	Quarterly								
March 2017	Sodium	milligrams per litre	Quarterly								
March 2017	Standing Water Level	metres	Quarterly								
March 2017	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
March 2017	Arsenic	milligrams per litre	Quarterly								
March 2017	Cadmium	milligrams per litre	Quarterly								
March 2017	Calcium	milligrams per litre	Quarterly								
March 2017	Chromium	milligrams per litre	Quarterly								
March 2017	Copper	milligrams per litre	Quarterly								
March 2017	Electrical conductivity	microsiemens per centimetre	Quarterly								
March 2017	Iron	milligrams per litre	Quarterly								
March 2017	Lead	milligrams per litre	Quarterly								(next quarterly samples scheduled for April/May 2017)
March 2017	Magnesium	milligrams per litre	Quarterly								
March 2017	Manganese	milligrams per litre	Quarterly								
March 2017	Nickel	milligrams per litre	Quarterly								
March 2017	pH	pH	Quarterly								
March 2017	Potassium	milligrams per litre	Quarterly								
March 2017	Selenium	milligrams per litre	Quarterly								
March 2017	Sodium	milligrams per litre	Quarterly								
March 2017	Standing Water Level	metres	Quarterly								
March 2017	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
March 2017	Arsenic	milligrams per litre	Quarterly								
March 2017	Cadmium	milligrams per litre	Quarterly								
March 2017	Calcium	milligrams per litre	Quarterly								
March 2017	Chromium	milligrams per litre	Quarterly								
March 2017	Copper	milligrams per litre	Quarterly								
March 2017	Electrical conductivity	microsiemens per centimetre	Quarterly								
March 2017	Iron	milligrams per litre	Quarterly								
March 2017	Lead	milligrams per litre	Quarterly								(next quarterly samples scheduled for April/May 2017)
March 2017	Magnesium	milligrams per litre	Quarterly								
March 2017	Manganese	milligrams per litre	Quarterly								
March 2017	Nickel	milligrams per litre	Quarterly								
March 2017	pH	pH	Quarterly								
March 2017	Potassium	milligrams per litre	Quarterly								
March 2017	Selenium	milligrams per litre	Quarterly								
March 2017	Sodium	milligrams per litre	Quarterly								
March 2017	Standing Water Level	metres	Quarterly								
March 2017	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
March 2017	Cadmium	milligrams per cubic metre	Yearly						1	No	Refer Note 2 in 'General Comments' re annual stack tests
March 2017	Chlorine	milligrams per cubic metre	Yearly						200	No	
March 2017	Copper	milligrams per cubic metre	Yearly								
March 2017	Hydrogen chloride	milligrams per cubic metre	Yearly						100	No	
March 2017	Mercury	milligrams per cubic metre	Yearly						1	No	
March 2017	Moisture	percent	Yearly								
March 2017	Molecular weight of stack gases	grams per gram mole	Yearly								
March 2017	Nitrogen Oxides	milligrams per cubic metre	Continuous	100%	March 2017	383	542	675	1500	No	
March 2017	Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Yearly						100	No	
March 2017	Sulphur dioxide	parts per million	Continuous	100%	March 2017	182	215	233	600	No	
March 2017	Temperature	degrees Celsius	Yearly								
March 2017	Total Fluoride	milligrams per cubic metre	Yearly						50	No	
March 2017	Total Solid Particles	milligrams per cubic metre	Yearly						100	No	
March 2017	Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Yearly						5	No	
March 2017	Undifferentiated Particulates	milligrams per cubic metre	Continuous	100%	March 2017	10.7	21.2	66.1			
March 2017	Velocity	metres per second	Yearly								
March 2017	Volatile organic compounds	parts per million	Yearly								
March 2017	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
March 2017	Cadmium	milligrams per cubic metre	Yearly						1	No	Refer Note 2 in 'General Comments' re annual stack tests
March 2017	Chlorine	milligrams per cubic metre	Yearly						200	No	
March 2017	Copper	milligrams per cubic metre	Yearly								
March 2017	Hydrogen chloride	milligrams per cubic metre	Yearly						100	No	
March 2017	Mercury	milligrams per cubic metre	Yearly						1	No	
March 2017	Moisture	percent	Yearly								
March 2017	Molecular weight of stack gases	grams per gram mole	Yearly								
March 2017	Nitrogen Oxides	milligrams per cubic metre	Continuous	100%	March 2017	387	805	1074	1500	No	
March 2017	Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Yearly						100	No	
March 2017	Sulphur dioxide	parts per million	Continuous	100%	March 2017	117	186	226	600	No	
March 2017	Temperature	degrees Celsius	Yearly								
March 2017	Total Fluoride	milligrams per cubic metre	Yearly						50	No	
March 2017	Total Solid Particles	milligrams per cubic metre	Yearly						100	No	
March 2017	Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Yearly						5	No	
March 2017	Undifferentiated Particulates	milligrams per cubic metre	Continuous	100%	March 2017	11.6	26.2	48.7			
March 2017	Velocity	metres per second	Yearly								
March 2017	Volatile organic compounds	parts per million	Yearly								
March 2017	Volumetric flowrate	cubic metres per second	Yearly								

GENERAL COMMENTS

Note 1: Special Condition E6 was included in the Vales Point EPL761 on 10 February 2017 by the NSW Government to address the potential forecast threat to energy security during heatwave conditions in NSW during February 2017. The condition increases the maximum allowable water temperature limit at LDP1 (the cooling water outlet canal) to 38.5°C until this condition is reviewed or revoked by the EPA.

Note 2: Last annual stack test on Points 11 & 12 completed in March 2017. Report has not yet been received from consultants.