

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	February 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
February 2017	Chlorine (free residual)	milligrams per litre	Monthly	1	1/02/2017	0.05	0.05	0.05	0.2		No	
February 2017	Temperature	degrees celsius	Continuous	100%	February 2017	30.9	33.9	38.1	38.5*	35	No	*See Note 1 in 'General Comments' section below.
February 2017	Oil and Grease	Visible	Continuous	100%	February 2017	NIL	NIL	NIL				No visible oil or grease detected during Feb 2017

POINT 2 Discharge from the ash water recycle system to the cooling water outlet canal, marked and shown as "VPAD8" 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	
February 2017	Ammonia	milligrams per litre	Quarterly	1	1/02/2017	0.21	0.21	0.21				
February 2017	Cadmium	milligrams per litre	Quarterly	1	1/02/2017	0.00029	0.00029	0.00029				
February 2017	Copper	milligrams per litre	Quarterly	1	1/02/2017	<0.001	<0.001	<0.001				
February 2017	Lead	milligrams per litre	Quarterly	1	1/02/2017	<0.0002	<0.0002	<0.0002				
February 2017	Manganese	milligrams per litre	Quarterly	1	1/02/2017	0.0012	0.0012	0.0012				
February 2017	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Monthly	1	1/02/2017	0.04	0.04	0.04				
February 2017	Nitrogen (total)	milligrams per litre	Quarterly	1	1/02/2017	1	1	1				
February 2017	pH	pH	Monthly	1	1/02/2017	8.6	8.6	8.6	6.5 - 9.5	No		
February 2017	Phosphorus (total)	milligrams per litre	Monthly	1	1/02/2017	0.17	0.17	0.17				
February 2017	Reactive Phosphorus	milligrams per litre	Monthly	1	1/02/2017	0.16	0.16	0.16				
February 2017	Selenium	milligrams per litre	Quarterly	1	1/02/2017	0.0307	0.0307	0.0307				
February 2017	Total Kjeldahl Nitrogen	milligrams per litre	Quarterly	1	1/02/2017	1	1	1				
February 2017	Total Suspended Solids	milligrams per litre	Fortnightly	4	1, 13, 24, 27/2/2017	6	14.5	25	50	No		
February 2017	Zinc	milligrams per litre	Quarterly	1	1/02/2017	<0.005	<0.005	<0.005				

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	
February 2017	Ammonia	milligrams per litre	Quarterly									
February 2017	Cadmium	milligrams per litre	Quarterly									
February 2017	Copper	milligrams per litre	Quarterly									
February 2017	Lead	milligrams per litre	Quarterly									
February 2017	Manganese	milligrams per litre	Quarterly									
February 2017	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Monthly	1	1/02/2017	0.33	0.33	0.33				
February 2017	Nitrogen (total)	milligrams per litre	Quarterly								No discharge to Mannering Bay during February 2017	
February 2017	pH	pH	Monthly	1	1/02/2017	7.65	7.65	7.65				
February 2017	Phosphorus (total)	milligrams per litre	Monthly	1	1/02/2017	<0.2	<0.2	<0.2				
February 2017	Selenium	milligrams per litre	Quarterly									
February 2017	Total Kjeldahl Nitrogen	milligrams per litre	Quarterly									
February 2017	Total Suspended Solids	milligrams per litre	Monthly	1	1/02/2017	<2	<2	<2	50	No		
February 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	Exceedance (yes/no)	Comments	
February 2017	Ammonia	milligrams per litre	Daily for discharge >2 hrs									
February 2017	Cadmium	milligrams per litre	Daily for discharge >2 hrs									
February 2017	Copper	milligrams per litre	Daily for discharge >2 hrs									
February 2017	Lead	milligrams per litre	Daily for discharge >2 hrs									
February 2017	Manganese	milligrams per litre	Daily for discharge >2 hrs									
February 2017	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Daily for discharge >2 hrs									
February 2017	Nitrogen (total)	milligrams per litre	Daily for discharge >2 hrs								No discharge from EPA Point 18 during February 2017	
February 2017	pH	pH	Daily for discharge >2 hrs						6.5 - 9.0			
February 2017	Phosphorus (total)	milligrams per litre	Daily for discharge >2 hrs									
February 2017	Selenium	milligrams per litre	Daily for discharge >2 hrs									
February 2017	Total Kjeldahl Nitrogen	milligrams per litre	Daily for discharge >2 hrs									
February 2017	Total Suspended Solids	milligrams per litre	Daily for discharge >2 hrs						50			
February 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
February 2017	Arsenic	milligrams per litre	Quarterly								
February 2017	Cadmium	milligrams per litre	Quarterly								
February 2017	Calcium	milligrams per litre	Quarterly								
February 2017	Chromium	milligrams per litre	Quarterly								
February 2017	Copper	milligrams per litre	Quarterly								
February 2017	Electrical conductivity	microsiemens per centimetre	Quarterly								
February 2017	Iron	milligrams per litre	Quarterly								
February 2017	Lead	milligrams per litre	Quarterly								(next quarterly samples scheduled for April/May 2017)
February 2017	Magnesium	milligrams per litre	Quarterly								
February 2017	Manganese	milligrams per litre	Quarterly								
February 2017	Nickel	milligrams per litre	Quarterly								
February 2017	pH	pH	Quarterly								
February 2017	Potassium	milligrams per litre	Quarterly								
February 2017	Selenium	milligrams per litre	Quarterly								
February 2017	Sodium	milligrams per litre	Quarterly								
February 2017	Standing Water Level	metres	Quarterly								
February 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
February 2017	Arsenic	milligrams per litre	Quarterly								
February 2017	Cadmium	milligrams per litre	Quarterly								
February 2017	Calcium	milligrams per litre	Quarterly								
February 2017	Chromium	milligrams per litre	Quarterly								
February 2017	Copper	milligrams per litre	Quarterly								
February 2017	Electrical conductivity	microsiemens per centimetre	Quarterly								
February 2017	Iron	milligrams per litre	Quarterly								
February 2017	Lead	milligrams per litre	Quarterly								(next quarterly samples scheduled for April/May 2017)
February 2017	Magnesium	milligrams per litre	Quarterly								
February 2017	Manganese	milligrams per litre	Quarterly								
February 2017	Nickel	milligrams per litre	Quarterly								
February 2017	pH	pH	Quarterly								
February 2017	Potassium	milligrams per litre	Quarterly								
February 2017	Selenium	milligrams per litre	Quarterly								
February 2017	Sodium	milligrams per litre	Quarterly								
February 2017	Standing Water Level	metres	Quarterly								
February 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
February 2017	Arsenic	milligrams per litre	Quarterly								
February 2017	Cadmium	milligrams per litre	Quarterly								
February 2017	Calcium	milligrams per litre	Quarterly								
February 2017	Chromium	milligrams per litre	Quarterly								
February 2017	Copper	milligrams per litre	Quarterly								
February 2017	Electrical conductivity	microsiemens per centimetre	Quarterly								
February 2017	Iron	milligrams per litre	Quarterly								
February 2017	Lead	milligrams per litre	Quarterly								(next quarterly samples scheduled for April/May 2017)
February 2017	Magnesium	milligrams per litre	Quarterly								
February 2017	Manganese	milligrams per litre	Quarterly								
February 2017	Nickel	milligrams per litre	Quarterly								
February 2017	pH	pH	Quarterly								
February 2017	Potassium	milligrams per litre	Quarterly								
February 2017	Selenium	milligrams per litre	Quarterly								
February 2017	Sodium	milligrams per litre	Quarterly								
February 2017	Standing Water Level	metres	Quarterly								
February 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
February 2017	Arsenic	milligrams per litre	Quarterly								
February 2017	Cadmium	milligrams per litre	Quarterly								
February 2017	Calcium	milligrams per litre	Quarterly								
February 2017	Chromium	milligrams per litre	Quarterly								
February 2017	Copper	milligrams per litre	Quarterly								
February 2017	Electrical conductivity	microsiemens per centimetre	Quarterly								
February 2017	Iron	milligrams per litre	Quarterly								
February 2017	Lead	milligrams per litre	Quarterly								(next quarterly samples scheduled for April/May 2017)
February 2017	Magnesium	milligrams per litre	Quarterly								
February 2017	Manganese	milligrams per litre	Quarterly								
February 2017	Nickel	milligrams per litre	Quarterly								
February 2017	pH	pH	Quarterly								
February 2017	Potassium	milligrams per litre	Quarterly								
February 2017	Selenium	milligrams per litre	Quarterly								
February 2017	Sodium	milligrams per litre	Quarterly								
February 2017	Standing Water Level	metres	Quarterly								
February 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
February 2017	Arsenic	milligrams per litre	Quarterly								
February 2017	Cadmium	milligrams per litre	Quarterly								
February 2017	Calcium	milligrams per litre	Quarterly								
February 2017	Chromium	milligrams per litre	Quarterly								
February 2017	Copper	milligrams per litre	Quarterly								
February 2017	Electrical conductivity	microsiemens per centimetre	Quarterly								
February 2017	Iron	milligrams per litre	Quarterly								
February 2017	Lead	milligrams per litre	Quarterly								(next quarterly samples scheduled for April/May 2017)
February 2017	Magnesium	milligrams per litre	Quarterly								
February 2017	Manganese	milligrams per litre	Quarterly								
February 2017	Nickel	milligrams per litre	Quarterly								
February 2017	pH	pH	Quarterly								
February 2017	Potassium	milligrams per litre	Quarterly								
February 2017	Selenium	milligrams per litre	Quarterly								
February 2017	Sodium	milligrams per litre	Quarterly								
February 2017	Standing Water Level	metres	Quarterly								
February 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
February 2017	Cadmium	milligrams per cubic metre	Yearly						1	No	Refer Note 2 in 'General Comments' re annual stack tests
February 2017	Chlorine	milligrams per cubic metre	Yearly						200	No	
February 2017	Copper	milligrams per cubic metre	Yearly								
February 2017	Hydrogen chloride	milligrams per cubic metre	Yearly						100	No	
February 2017	Mercury	milligrams per cubic metre	Yearly						1	No	
February 2017	Moisture	percent	Yearly								
February 2017	Molecular weight of stack gases	grams per gram mole	Yearly								
February 2017	Nitrogen Oxides	milligrams per cubic metre	Continuous	100%	February 2017	366	572	941	1500	No	
February 2017	Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Yearly						100	No	
February 2017	Sulphur dioxide	parts per million	Continuous	100%	February 2017	146	205	239	600	No	
February 2017	Temperature	degrees Celsius	Yearly								
February 2017	Total Fluoride	milligrams per cubic metre	Yearly						50	No	
February 2017	Total Solid Particles	milligrams per cubic metre	Yearly						100	No	
February 2017	Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Yearly						5	No	
February 2017	Undifferentiated Particulates	milligrams per cubic metre	Continuous	100%	February 2017	9.2	18.0	57.7			
February 2017	Velocity	metres per second	Yearly								
February 2017	Volatile organic compounds	parts per million	Yearly								
February 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
February 2017	Cadmium	milligrams per cubic metre	Yearly						1	No	Refer Note 2 in 'General Comments' re annual stack tests
February 2017	Chlorine	milligrams per cubic metre	Yearly						200	No	
February 2017	Copper	milligrams per cubic metre	Yearly								
February 2017	Hydrogen chloride	milligrams per cubic metre	Yearly						100	No	
February 2017	Mercury	milligrams per cubic metre	Yearly						1	No	
February 2017	Moisture	percent	Yearly								
February 2017	Molecular weight of stack gases	grams per gram mole	Yearly								
February 2017	Nitrogen Oxides	milligrams per cubic metre	Continuous	100%	February 2017	553	846	1043	1500	No	
February 2017	Sulphuric acid mist and sulfur trioxide (as SO ₃)	milligrams per cubic metre	Yearly						100	No	
February 2017	Sulphur dioxide	parts per million	Continuous	100%	February 2017	115	179	222	600	No	
February 2017	Temperature	degrees Celsius	Yearly								
February 2017	Total Fluoride	milligrams per cubic metre	Yearly						50	No	
February 2017	Total Solid Particles	milligrams per cubic metre	Yearly						100	No	
February 2017	Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Yearly						5	No	
February 2017	Undifferentiated Particulates	milligrams per cubic metre	Continuous	100%	February 2017	17.9	25.2	44.9			
February 2017	Velocity	metres per second	Yearly								
February 2017	Volatile organic compounds	parts per million	Yearly								
February 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. The maximum temperature of 38.1 °C at LDP1 in February occurred after the condition was approved by the EPA.

Note 2: Last annual stack test on Points 11 & 12 completed in March 2016 and reported in April 2016. Point 11 (Unit 5) Stack Gas testing for 2016/17 reporting period commenced 27 February 2017. Point 12 (Unit 6) is scheduled for March 2017.