

## 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	March 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
Mar-19	Chlorine (free residual)	milligrams per litre	Monthly	1	6/3/2019	0.05	0.05	0.05	0.2	No	
Mar-19	Temperature	degrees celsius	Continuous	100%	Mar-19	29.1	32.8	34.9	37.5	No	
Mar-19	Oil and Grease	Visible	Continuous	99.99%	Mar-19	NIL	NIL	NIL			No visible oil or grease detected during March 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
Mar-19	Ammonia	milligrams per litre	Quarterly								
Mar-19	Cadmium	milligrams per litre	Quarterly								
Mar-19	Copper	milligrams per litre	Quarterly								
Mar-19	Lead	milligrams per litre	Quarterly								
Mar-19	Manganese	milligrams per litre	Quarterly								
Mar-19	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Monthly	1	6/3/2019	0.05	0.05	0.05			
Mar-19	Nitrogen (total)	milligrams per litre	Quarterly								
Mar-19	pH	pH	Monthly	1	6/3/2019	8.52	8.52	8.52	6.5 - 9.5	No	
Mar-19	Phosphorus (total)	milligrams per litre	Monthly	1	6/3/2019	0.13	0.13	0.13			
Mar-19	Reactive Phosphorus	milligrams per litre	Monthly	1	6/3/2019	0.08	0.08	0.08			
Mar-19	Selenium	milligrams per litre	Quarterly								
Mar-19	Total Kjeldahl Nitrogen	milligrams per litre	Quarterly								
Mar-19	Total Suspended Solids	milligrams per litre	Fortnightly	15	Mar-19	<2	19	71	50	yes	Background TSS concentration in Lake Macquarie higher than TSS concentration at EPA2 when exceedances occurred.
Mar-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
Mar-19	Ammonia	milligrams per litre	Quarterly								
Mar-19	Cadmium	milligrams per litre	Quarterly								
Mar-19	Copper	milligrams per litre	Quarterly								
Mar-19	Lead	milligrams per litre	Quarterly								
Mar-19	Manganese	milligrams per litre	Quarterly								
Mar-19	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Monthly	1	6/3/2019	0.3	0.3	0.3			
Mar-19	Nitrogen (total)	milligrams per litre	Quarterly								
Mar-19	pH	pH	Monthly	1	6/3/2019	7.45	7.45	7.45			
Mar-19	Phosphorus (total)	milligrams per litre	Monthly	1	6/3/2019	0.13	0.13	0.13			
Mar-19	Selenium	milligrams per litre	Quarterly								
Mar-19	Total Kjeldahl Nitrogen	milligrams per litre	Quarterly								
Mar-19	Total Suspended Solids	milligrams per litre	Monthly	1	6/3/2019	<2	<2	<2	50	No	
Mar-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
Mar-19	Ammonia	milligrams per litre	Daily for discharge >2 hrs								
Mar-19	Cadmium	milligrams per litre	Daily for discharge >2 hrs								
Mar-19	Copper	milligrams per litre	Daily for discharge >2 hrs								
Mar-19	Lead	milligrams per litre	Daily for discharge >2 hrs								
Mar-19	Manganese	milligrams per litre	Daily for discharge >2 hrs								
Mar-19	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Daily for discharge >2 hrs								
Mar-19	Nitrogen (total)	milligrams per litre	Daily for discharge >2 hrs								No discharge from EPA Point 18 during March 2019
Mar-19	pH	pH	Daily for discharge >2 hrs						6.5 - 9.0		
Mar-19	Phosphorus (total)	milligrams per litre	Daily for discharge >2 hrs								
Mar-19	Selenium	milligrams per litre	Daily for discharge >2 hrs								
Mar-19	Total Kjeldahl Nitrogen	milligrams per litre	Daily for discharge >2 hrs								
Mar-19	Total Suspended Solids	milligrams per litre	Daily for discharge >2 hrs						50		
Mar-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
Mar-19	Arsenic	milligrams per litre	Quarterly								
Mar-19	Cadmium	milligrams per litre	Quarterly								
Mar-19	Calcium	milligrams per litre	Quarterly								
Mar-19	Chromium	milligrams per litre	Quarterly								
Mar-19	Copper	milligrams per litre	Quarterly								
Mar-19	Electrical conductivity	microsiemens per centimetre	Quarterly								
Mar-19	Iron	milligrams per litre	Quarterly								
Mar-19	Lead	milligrams per litre	Quarterly								
Mar-19	Magnesium	milligrams per litre	Quarterly								(next quarterly sample scheduled for April 2019)
Mar-19	Manganese	milligrams per litre	Quarterly								
Mar-19	Nickel	milligrams per litre	Quarterly								
Mar-19	pH	pH	Quarterly								
Mar-19	Potassium	milligrams per litre	Quarterly								
Mar-19	Selenium	milligrams per litre	Quarterly								
Mar-19	Sodium	milligrams per litre	Quarterly								
Mar-19	Standing Water Level	metres	Quarterly								
Mar-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
Mar-19	Arsenic	milligrams per litre	Quarterly								
Mar-19	Cadmium	milligrams per litre	Quarterly								
Mar-19	Calcium	milligrams per litre	Quarterly								
Mar-19	Chromium	milligrams per litre	Quarterly								
Mar-19	Copper	milligrams per litre	Quarterly								
Mar-19	Electrical conductivity	microsiemens per centimetre	Quarterly								
Mar-19	Iron	milligrams per litre	Quarterly								
Mar-19	Lead	milligrams per litre	Quarterly								
Mar-19	Magnesium	milligrams per litre	Quarterly								(next quarterly sample scheduled for April 2019)
Mar-19	Manganese	milligrams per litre	Quarterly								
Mar-19	Nickel	milligrams per litre	Quarterly								
Mar-19	pH	pH	Quarterly								
Mar-19	Potassium	milligrams per litre	Quarterly								
Mar-19	Selenium	milligrams per litre	Quarterly								
Mar-19	Sodium	milligrams per litre	Quarterly								
Mar-19	Standing Water Level	metres	Quarterly								
Mar-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
Mar-19	Arsenic	milligrams per litre	Quarterly								
Mar-19	Cadmium	milligrams per litre	Quarterly								
Mar-19	Calcium	milligrams per litre	Quarterly								
Mar-19	Chromium	milligrams per litre	Quarterly								
Mar-19	Copper	milligrams per litre	Quarterly								
Mar-19	Electrical conductivity	microsiemens per centimetre	Quarterly								
Mar-19	Iron	milligrams per litre	Quarterly								
Mar-19	Lead	milligrams per litre	Quarterly								(next quarterly sample scheduled for April 2019)
Mar-19	Magnesium	milligrams per litre	Quarterly								
Mar-19	Manganese	milligrams per litre	Quarterly								
Mar-19	Nickel	milligrams per litre	Quarterly								
Mar-19	pH	pH	Quarterly								
Mar-19	Potassium	milligrams per litre	Quarterly								
Mar-19	Selenium	milligrams per litre	Quarterly								
Mar-19	Sodium	milligrams per litre	Quarterly								
Mar-19	Standing Water Level	metres	Quarterly								
Mar-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
Mar-19	Arsenic	milligrams per litre	Quarterly								
Mar-19	Cadmium	milligrams per litre	Quarterly								
Mar-19	Calcium	milligrams per litre	Quarterly								
Mar-19	Chromium	milligrams per litre	Quarterly								
Mar-19	Copper	milligrams per litre	Quarterly								
Mar-19	Electrical conductivity	microsiemens per centimetre	Quarterly								
Mar-19	Iron	milligrams per litre	Quarterly								
Mar-19	Lead	milligrams per litre	Quarterly								
Mar-19	Magnesium	milligrams per litre	Quarterly								(next quarterly sample scheduled for April 2019)
Mar-19	Manganese	milligrams per litre	Quarterly								
Mar-19	Nickel	milligrams per litre	Quarterly								
Mar-19	pH	pH	Quarterly								
Mar-19	Potassium	milligrams per litre	Quarterly								
Mar-19	Selenium	milligrams per litre	Quarterly								
Mar-19	Sodium	milligrams per litre	Quarterly								
Mar-19	Standing Water Level	metres	Quarterly								
Mar-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
Mar-19	Arsenic	milligrams per litre	Quarterly								
Mar-19	Cadmium	milligrams per litre	Quarterly								
Mar-19	Calcium	milligrams per litre	Quarterly								
Mar-19	Chromium	milligrams per litre	Quarterly								
Mar-19	Copper	milligrams per litre	Quarterly								
Mar-19	Electrical conductivity	microsiemens per centimetre	Quarterly								
Mar-19	Iron	milligrams per litre	Quarterly								
Mar-19	Lead	milligrams per litre	Quarterly								
Mar-19	Magnesium	milligrams per litre	Quarterly								(next quarterly sample scheduled for April 2019)
Mar-19	Manganese	milligrams per litre	Quarterly								
Mar-19	Nickel	milligrams per litre	Quarterly								
Mar-19	pH	pH	Quarterly								
Mar-19	Potassium	milligrams per litre	Quarterly								
Mar-19	Selenium	milligrams per litre	Quarterly								
Mar-19	Sodium	milligrams per litre	Quarterly								
Mar-19	Standing Water Level	metres	Quarterly								
Mar-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
Mar-19	Cadmium	milligrams per cubic metre	Yearly						1	No	Annual stack gas testing scheduled for April 2019
Mar-19	Chlorine	milligrams per cubic metre	Yearly						200	No	
Mar-19	Copper	milligrams per cubic metre	Yearly								
Mar-19	Hydrogen chloride	milligrams per cubic metre	Yearly						100	No	
Mar-19	Mercury	milligrams per cubic metre	Yearly						1	No	
Mar-19	Moisture	percent	Yearly								
Mar-19	Molecular weight of stack gases	grams per gram mole	Yearly								
Mar-19	Nitrogen Oxides	milligrams per cubic metre	Continuous	100%	Mar-19	449	601	830	1500	No	
Mar-19	Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Yearly						100	No	
Mar-19	Sulphur dioxide	parts per million	Continuous	100%	Mar-19	207	272	367	600	No	
Mar-19	Temperature	degrees Celsius	Yearly								
Mar-19	Total Fluoride	milligrams per cubic metre	Yearly						50	No	
Mar-19	Total Solid Particles	milligrams per cubic metre	Yearly						100	No	
Mar-19	Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Yearly						5	No	
Mar-19	Undifferentiated Particulates	milligrams per cubic metre	Continuous	100%	Mar-19	4.6	17.2	38.0			
Mar-19	Velocity	metres per second	Yearly								
Mar-19	Volatile organic compounds	parts per million	Yearly								
Mar-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
Mar-19	Cadmium	milligrams per cubic metre	Yearly						1	No	Unit 6 annual stack gas testing completed. Results will be published when they are received from the stack testing consultant.
Mar-19	Chlorine	milligrams per cubic metre	Yearly						200	No	
Mar-19	Copper	milligrams per cubic metre	Yearly							No	
Mar-19	Hydrogen chloride	milligrams per cubic metre	Yearly						100	No	
Mar-19	Mercury	milligrams per cubic metre	Yearly						1	No	
Mar-19	Moisture	percent	Yearly							No	
Mar-19	Molecular weight of stack gases	grams per gram mole	Yearly							No	
Mar-19	Nitrogen Oxides	milligrams per cubic metre	Continuous	100%	Mar-19	551	833	1064	1500	No	
Mar-19	Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Yearly						100	No	
Mar-19	Sulphur dioxide	parts per million	Continuous	100%	Mar-19	192	266	353	600	No	
Mar-19	Temperature	degrees Celsius	Yearly							No	
Mar-19	Total Fluoride	milligrams per cubic metre	Yearly						50	No	
Mar-19	Total Solid Particles	milligrams per cubic metre	Yearly						100	No	
Mar-19	Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Yearly						5	No	
Mar-19	Undifferentiated Particulates	milligrams per cubic metre	Continuous	100%	Mar-19	5.1	7.8	10.1		No	
Mar-19	Velocity	metres per second	Yearly							No	
Mar-19	Volatile organic compounds	parts per million	Yearly							No	
Mar-19	Volumetric flowrate	cubic metres per second	Yearly							No	

**GENERAL COMMENTS**

--