

## 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	April 2018	
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	97% limit	Exceedance (yes/no)	Comments
April 2018	Chlorine (free residual)	milligrams per litre	Monthly	1	05/04/2018	0.05	0.05	0.05	<b>0.2</b>	<b>35</b>	<b>No</b>	
April 2018	Temperature	degrees celsius	Continuous	100%	April 2018	24.2	30.3	33.6	<b>37.5</b>	<b>35</b>	<b>No</b>	
April 2018	Oil and Grease	Visible	Continuous	100%	April 2018	NIL	NIL	NIL				No visible oil or grease detected during April 2018

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	
April 2018	Ammonia	milligrams per litre	Quarterly	1	5/04/2018	0.34	0.34	0.34				
April 2018	Cadmium	milligrams per litre	Quarterly	1	5/04/2018	0.00012	0.00012	0.00012				
April 2018	Copper	milligrams per litre	Quarterly	1	5/04/2018	0.0037	0.0037	0.0037				
April 2018	Lead	milligrams per litre	Quarterly	1	5/04/2018	0.0002	0.0002	0.0002				
April 2018	Manganese	milligrams per litre	Quarterly	1	5/04/2018	0.0008	0.0008	0.0008				
April 2018	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Monthly	1	5/04/2018	0.02	0.02	0.02				
April 2018	Nitrogen (total)	milligrams per litre	Quarterly	1	5/04/2018	<1	<1	<1				
April 2018	pH	pH	Monthly	1	5/04/2018	8.22	8.22	8.22	<b>6.5 - 9.5</b>	<b>No</b>		
April 2018	Phosphorus (total)	milligrams per litre	Monthly	1	5/04/2018	<0.1	<0.1	<0.1				
April 2018	Reactive Phosphorus	milligrams per litre	Monthly	1	5/04/2018	0.09	0.09	0.09				
April 2018	Selenium	milligrams per litre	Quarterly	1	5/04/2018	0.0532	0.0532	0.0532				
April 2018	Total Kjeldahl Nitrogen	milligrams per litre	Quarterly	1	5/04/2018	<1	<1	<1				
April 2018	Total Suspended Solids	milligrams per litre	Fortnightly	2	5/4/2018 & 18/4/2018	5	7	9	<b>50</b>	<b>No</b>		
April 2018	Zinc	milligrams per litre	Quarterly	1	5/04/2018	0.008	0.008	0.008				

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	
April 2018	Ammonia	milligrams per litre	Quarterly	1	5/04/2018							
April 2018	Cadmium	milligrams per litre	Quarterly	1	5/04/2018							
April 2018	Copper	milligrams per litre	Quarterly	1	5/04/2018							
April 2018	Lead	milligrams per litre	Quarterly	1	5/04/2018							
April 2018	Manganese	milligrams per litre	Quarterly	1	5/04/2018							
April 2018	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Monthly	1	5/04/2018							
April 2018	Nitrogen (total)	milligrams per litre	Quarterly	1	5/04/2018						** Seepage water sampled is captured and pumped back to the ash dam. There was no licence 'discharge to waters' (i.e. to Mannering Bay) during April 2018.	
April 2018	pH	pH	Monthly	1	5/04/2018							
April 2018	Phosphorus (total)	milligrams per litre	Monthly	1	5/04/2018							
April 2018	Selenium	milligrams per litre	Quarterly	1	5/04/2018							
April 2018	Total Kjeldahl Nitrogen	milligrams per litre	Quarterly	1	5/04/2018							
April 2018	Total Suspended Solids	milligrams per litre	Monthly	1	5/04/2018				<b>50</b>			
April 2018	Zinc	milligrams per litre	Quarterly	1	5/04/2018							

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	
April 2018	Ammonia	milligrams per litre	Daily for discharge >2 hrs									
April 2018	Cadmium	milligrams per litre	Daily for discharge >2 hrs									
April 2018	Copper	milligrams per litre	Daily for discharge >2 hrs									
April 2018	Lead	milligrams per litre	Daily for discharge >2 hrs									
April 2018	Manganese	milligrams per litre	Daily for discharge >2 hrs									
April 2018	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Daily for discharge >2 hrs									
April 2018	Nitrogen (total)	milligrams per litre	Daily for discharge >2 hrs								No discharge from EPA Point 18 during April 2018	
April 2018	pH	pH	Daily for discharge >2 hrs						<b>6.5 - 9.0</b>			
April 2018	Phosphorus (total)	milligrams per litre	Daily for discharge >2 hrs									
April 2018	Selenium	milligrams per litre	Daily for discharge >2 hrs									
April 2018	Total Kjeldahl Nitrogen	milligrams per litre	Daily for discharge >2 hrs									
April 2018	Total Suspended Solids	milligrams per litre	Daily for discharge >2 hrs						<b>50</b>			
April 2018	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
April 2018	Arsenic	milligrams per litre	Quarterly	1	5/04/2018	0.0095	0.0095	0.0095			
April 2018	Cadmium	milligrams per litre	Quarterly	1	5/04/2018	<0.00021	<0.00021	<0.00021			
April 2018	Calcium	milligrams per litre	Quarterly	1	5/04/2018	724	724	724			
April 2018	Chromium	milligrams per litre	Quarterly	1	5/04/2018	0.0021	0.0021	0.0021			
April 2018	Copper	milligrams per litre	Quarterly	1	5/04/2018	0.0038	0.0038	0.0038			
April 2018	Electrical conductivity	microsiemens per centimetre	Quarterly	1	5/04/2018	43100	43100	43100			
April 2018	Iron	milligrams per litre	Quarterly	1	5/04/2018	43.6	43.6	43.6			
April 2018	Lead	milligrams per litre	Quarterly	1	5/04/2018	0.0022	0.0022	0.0022			
April 2018	Magnesium	milligrams per litre	Quarterly	1	5/04/2018	910	910	910			(next quarterly samples scheduled for July/August 2018)
April 2018	Manganese	milligrams per litre	Quarterly	1	5/04/2018	4.19	4.19	4.19			
April 2018	Nickel	milligrams per litre	Quarterly	1	5/04/2018	0.0183	0.0183	0.0183			
April 2018	pH	pH	Quarterly	1	5/04/2018	5.6	5.6	5.6			
April 2018	Potassium	milligrams per litre	Quarterly	1	5/04/2018	85	85	85			
April 2018	Selenium	milligrams per litre	Quarterly	1	5/04/2018	<0.0021	<0.0021	<0.0021			
April 2018	Sodium	milligrams per litre	Quarterly	1	5/04/2018	5400	5400	5400			
April 2018	Standing Water Level	metres	Quarterly	1	5/04/2018	3.82	3.82	3.82			
April 2018	Zinc	milligrams per litre	Quarterly	1	5/04/2018	0.017	0.017	0.017			

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
April 2018	Arsenic	milligrams per litre	Quarterly	1	5/04/2018	0.0076	0.0076	0.0076			
April 2018	Cadmium	milligrams per litre	Quarterly	1	5/04/2018	<0.00021	<0.00021	<0.00021			
April 2018	Calcium	milligrams per litre	Quarterly	1	5/04/2018	273	273	273			
April 2018	Chromium	milligrams per litre	Quarterly	1	5/04/2018	0.0018	0.0018	0.0018			
April 2018	Copper	milligrams per litre	Quarterly	1	5/04/2018	0.0065	0.0065	0.0065			
April 2018	Electrical conductivity	microsiemens per centimetre	Quarterly	1	5/04/2018	26600	26600	26600			
April 2018	Iron	milligrams per litre	Quarterly	1	5/04/2018	166	166	166			
April 2018	Lead	milligrams per litre	Quarterly	1	5/04/2018	0.0038	0.0038	0.0038			
April 2018	Magnesium	milligrams per litre	Quarterly	1	5/04/2018	636	636	636			(next quarterly samples scheduled for July/August 2018)
April 2018	Manganese	milligrams per litre	Quarterly	1	5/04/2018	2.85	2.85	2.85			
April 2018	Nickel	milligrams per litre	Quarterly	1	5/04/2018	0.0789	0.0789	0.0789			
April 2018	pH	pH	Quarterly	1	5/04/2018	5.3	5.3	5.3			
April 2018	Potassium	milligrams per litre	Quarterly	1	5/04/2018	25	25	25			
April 2018	Selenium	milligrams per litre	Quarterly	1	5/04/2018	0.0123	0.0123	0.0123			
April 2018	Sodium	milligrams per litre	Quarterly	1	5/04/2018	3260	3260	3260			
April 2018	Standing Water Level	metres	Quarterly	1	5/04/2018	0.81	0.81	0.81			
April 2018	Zinc	milligrams per litre	Quarterly	1	5/04/2018	0.36	0.36	0.36			

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
April 2018	Arsenic	milligrams per litre	Quarterly	1	5/04/2018	0.0008	0.0008	0.0008			
April 2018	Cadmium	milligrams per litre	Quarterly	1	5/04/2018	0.00009	0.00009	0.00009			
April 2018	Calcium	milligrams per litre	Quarterly	1	5/04/2018	103	103	103			
April 2018	Chromium	milligrams per litre	Quarterly	1	5/04/2018	0.0019	0.0019	0.0019			
April 2018	Copper	milligrams per litre	Quarterly	1	5/04/2018	0.0025	0.0025	0.0025			
April 2018	Electrical conductivity	microsiemens per centimetre	Quarterly	1	5/04/2018	7420	7420	7420			
April 2018	Iron	milligrams per litre	Quarterly	1	5/04/2018	30.9	30.9	30.9			
April 2018	Lead	milligrams per litre	Quarterly	1	5/04/2018	0.0014	0.0014	0.0014			(next quarterly samples scheduled for July/August 2018)
April 2018	Magnesium	milligrams per litre	Quarterly	1	5/04/2018	93	93	93			
April 2018	Manganese	milligrams per litre	Quarterly	1	5/04/2018	1.01	1.01	1.01			
April 2018	Nickel	milligrams per litre	Quarterly	1	5/04/2018	0.0468	0.0468	0.0468			
April 2018	pH	pH	Quarterly	1	5/04/2018	5.21	5.21	5.21			
April 2018	Potassium	milligrams per litre	Quarterly	13	5/04/2018	13	13	13			
April 2018	Selenium	milligrams per litre	Quarterly	1	5/04/2018	0.0004	0.0004	0.0004			
April 2018	Sodium	milligrams per litre	Quarterly	939	5/04/2018	939	939	939			
April 2018	Standing Water Level	metres	Quarterly	1	5/04/2018	2.94	2.94	2.94			
April 2018	Zinc	milligrams per litre	Quarterly	1	5/04/2018	0.031	0.031	0.031			

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
April 2018	Arsenic	milligrams per litre	Quarterly	1	5/04/2018	0.0128	0.0128	0.0128			
April 2018	Cadmium	milligrams per litre	Quarterly	1	5/04/2018	0.00033	0.00033	0.00033			
April 2018	Calcium	milligrams per litre	Quarterly	1	5/04/2018	516	516	516			
April 2018	Chromium	milligrams per litre	Quarterly	1	5/04/2018	0.0173	0.0173	0.0173			
April 2018	Copper	milligrams per litre	Quarterly	1	5/04/2018	0.0114	0.0114	0.0114			
April 2018	Electrical conductivity	microsiemens per centimetre	Quarterly	1	5/04/2018	71000	71000	71000			
April 2018	Iron	milligrams per litre	Quarterly	1	5/04/2018	45.1	45.1	45.1			
April 2018	Lead	milligrams per litre	Quarterly	1	5/04/2018	0.0098	0.0098	0.0098			
April 2018	Magnesium	milligrams per litre	Quarterly	1	5/04/2018	1530	1530	1530			(next quarterly samples scheduled for July/August 2018)
April 2018	Manganese	milligrams per litre	Quarterly	1	5/04/2018	0.328	0.328	0.328			
April 2018	Nickel	milligrams per litre	Quarterly	1	5/04/2018	0.0133	0.0133	0.0133			
April 2018	pH	pH	Quarterly	1	5/04/2018	6.58	6.58	6.58			
April 2018	Potassium	milligrams per litre	Quarterly	1	5/04/2018	346	346	346			
April 2018	Selenium	milligrams per litre	Quarterly	1	5/04/2018	0.0022	0.0022	0.0022			
April 2018	Sodium	milligrams per litre	Quarterly	1	5/04/2018	11400	11400	11400			
April 2018	Standing Water Level	metres	Quarterly	1	5/04/2018	0.03	0.03	0.03			
April 2018	Zinc	milligrams per litre	Quarterly	1	5/04/2018	0.111	0.111	0.111			

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
April 2018	Arsenic	milligrams per litre	Quarterly	1	5/04/2018	0.006	0.006	0.006			
April 2018	Cadmium	milligrams per litre	Quarterly	1	5/04/2018	0.00014	0.00014	0.00014			
April 2018	Calcium	milligrams per litre	Quarterly	1	5/04/2018	3	3	3			
April 2018	Chromium	milligrams per litre	Quarterly	1	5/04/2018	0.0293	0.0293	0.0293			
April 2018	Copper	milligrams per litre	Quarterly	1	5/04/2018	0.023	0.023	0.023			
April 2018	Electrical conductivity	microsiemens per centimetre	Quarterly	1	5/04/2018	867	867	867			
April 2018	Iron	milligrams per litre	Quarterly	1	5/04/2018	4.86	4.86	4.86			
April 2018	Lead	milligrams per litre	Quarterly	1	5/04/2018	0.022	0.022	0.022			(next quarterly samples scheduled for July/August 2018)
April 2018	Magnesium	milligrams per litre	Quarterly	1	5/04/2018	15	15	15			
April 2018	Manganese	milligrams per litre	Quarterly	1	5/04/2018	0.0942	0.0942	0.0942			
April 2018	Nickel	milligrams per litre	Quarterly	1	5/04/2018	0.0136	0.0136	0.0136			
April 2018	pH	pH	Quarterly	1	5/04/2018	5.42	5.42	5.42			
April 2018	Potassium	milligrams per litre	Quarterly	1	5/04/2018	3	3	3			
April 2018	Selenium	milligrams per litre	Quarterly	1	5/04/2018	0.0009	0.0009	0.0009			
April 2018	Sodium	milligrams per litre	Quarterly	1	5/04/2018	145	145	145			
April 2018	Standing Water Level	metres	Quarterly	1	5/04/2018	0.36	0.36	0.36			
April 2018	Zinc	milligrams per litre	Quarterly	1	5/04/2018	0.115	0.115	0.115			

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
April 2018	Cadmium	milligrams per cubic metre	Yearly						1	No	
April 2018	Chlorine	milligrams per cubic metre	Yearly						200	No	
April 2018	Copper	milligrams per cubic metre	Yearly								
April 2018	Hydrogen chloride	milligrams per cubic metre	Yearly						100	No	
April 2018	Mercury	milligrams per cubic metre	Yearly						1	No	
April 2018	Moisture	percent	Yearly								
April 2018	Molecular weight of stack gases	grams per gram mole	Yearly								
April 2018	Nitrogen Oxides	milligrams per cubic metre	Continuous	99.7%	April 2018	509	654	819	1500	No	
April 2018	Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Yearly						100	No	2018/19 Annual Stack Test scheduled for October 2018
April 2018	Sulphur dioxide	parts per million	Continuous	99.7%	April 2018	187	284	411	600	No	
April 2018	Temperature	degrees Celsius	Yearly								
April 2018	Total Fluoride	milligrams per cubic metre	Yearly						50	No	
April 2018	Total Solid Particles	milligrams per cubic metre	Yearly						100	No	
April 2018	Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Yearly						5	No	
April 2018	Undifferentiated Particulates	milligrams per cubic metre	Continuous	100%	April 2018	20.0	33.3	67.8			
April 2018	Velocity	metres per second	Yearly								
April 2018	Volatile organic compounds	parts per million	Yearly								
April 2018	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
April 2018	Cadmium	milligrams per cubic metre	Yearly						1	No	
April 2018	Chlorine	milligrams per cubic metre	Yearly						200	No	
April 2018	Copper	milligrams per cubic metre	Yearly								
April 2018	Hydrogen chloride	milligrams per cubic metre	Yearly						100	No	
April 2018	Mercury	milligrams per cubic metre	Yearly						1	No	
April 2018	Moisture	percent	Yearly								
April 2018	Molecular weight of stack gases	grams per gram mole	Yearly								Unit 6 out of service for entire month of April 2018.
April 2018	Nitrogen Oxides	milligrams per cubic metre	Continuous						1500	No	
April 2018	Sulfuric acid mist and sulfur trioxide (as SO <sub>3</sub> )	milligrams per cubic metre	Yearly						100	No	2018/19 Annual Stack Test scheduled for October 2018
April 2018	Sulphur dioxide	parts per million	Continuous						600	No	
April 2018	Temperature	degrees Celsius	Yearly								
April 2018	Total Fluoride	milligrams per cubic metre	Yearly						50	No	
April 2018	Total Solid Particles	milligrams per cubic metre	Yearly						100	No	
April 2018	Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Yearly						5	No	
April 2018	Undifferentiated Particulates	milligrams per cubic metre	Continuous								
April 2018	Velocity	metres per second	Yearly								
April 2018	Volatile organic compounds	parts per million	Yearly								
April 2018	Volumetric flowrate	cubic metres per second	Yearly								

**GENERAL COMMENTS**

Unit 6 was not in service during the month of April 2018. The outage commenced on the evening of 31 March 2018 and the unit was returned to service on 3 May 2018.