

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	October 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
October 2017	Chlorine (free residual)	milligrams per litre	Monthly	1	5/10/2017	0.05	0.05	0.05	0.2		No	
October 2017	Temperature	degrees celsius	Continuous	100%	October 2017	25.9	30.8	34.0	37.5	35	No	
October 2017	Oil and Grease	Visible	Continuous	100%	October 2017	NIL	NIL	NIL				No visible oil or grease detected during October 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
October 2017	Ammonia	milligrams per litre	Quarterly	1	5/10/2017							
October 2017	Cadmium	milligrams per litre	Quarterly	1	5/10/2017							
October 2017	Copper	milligrams per litre	Quarterly	1	5/10/2017							
October 2017	Lead	milligrams per litre	Quarterly	1	5/10/2017							
October 2017	Manganese	milligrams per litre	Quarterly	1	5/10/2017							
October 2017	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Monthly	1	5/10/2017							
October 2017	Nitrogen (total)	milligrams per litre	Quarterly	1	5/10/2017							
October 2017	pH	pH	Monthly	1	5/10/2017				6.5 - 9.5		No	
October 2017	Phosphorus (total)	milligrams per litre	Monthly	1	5/10/2017							
October 2017	Reactive Phosphorus	milligrams per litre	Monthly	1	5/10/2017							
October 2017	Selenium	milligrams per litre	Quarterly	1	5/10/2017							
October 2017	Total Kjeldahl Nitrogen	milligrams per litre	Quarterly	1	5/10/2017							
October 2017	Total Suspended Solids	milligrams per litre	Fortnightly	2	4 & 5/10/2017				50		No	
October 2017	Zinc	milligrams per litre	Quarterly	1	5/10/2017							

The Return Water System was out of service from the 28th of September until the 20th of October 2017 and valves were closed preventing any discharge to the outlet canal for the remainder of the month. There was no discharge to the outlet canal from EPA Point 2 during October 2017.

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
October 2017	Ammonia	milligrams per litre	Quarterly	1	5/10/2017							
October 2017	Cadmium	milligrams per litre	Quarterly	1	5/10/2017							
October 2017	Copper	milligrams per litre	Quarterly	1	5/10/2017							
October 2017	Lead	milligrams per litre	Quarterly	1	5/10/2017							
October 2017	Manganese	milligrams per litre	Quarterly	1	5/10/2017							
October 2017	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Monthly	1	5/10/2017							
October 2017	Nitrogen (total)	milligrams per litre	Quarterly	1	5/10/2017							
October 2017	pH	pH	Monthly	1	5/10/2017							
October 2017	Phosphorus (total)	milligrams per litre	Monthly	1	5/10/2017							
October 2017	Selenium	milligrams per litre	Quarterly	1	5/10/2017							
October 2017	Total Kjeldahl Nitrogen	milligrams per litre	Quarterly	1	5/10/2017							
October 2017	Total Suspended Solids	milligrams per litre	Monthly	1	5/10/2017				50			
October 2017	Zinc	milligrams per litre	Quarterly	1	5/10/2017							

** 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 October 2017.

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
October 2017	Ammonia	milligrams per litre	Daily for discharge >2 hrs									
October 2017	Cadmium	milligrams per litre	Daily for discharge >2 hrs									
October 2017	Copper	milligrams per litre	Daily for discharge >2 hrs									
October 2017	Lead	milligrams per litre	Daily for discharge >2 hrs									
October 2017	Manganese	milligrams per litre	Daily for discharge >2 hrs									
October 2017	Nitrate + nitrite (oxidised nitrogen)	milligrams per litre	Daily for discharge >2 hrs									
October 2017	Nitrogen (total)	milligrams per litre	Daily for discharge >2 hrs									No discharge from EPA Point 18 during October 2017
October 2017	pH	pH	Daily for discharge >2 hrs						6.5 - 9.0			
October 2017	Phosphorus (total)	milligrams per litre	Daily for discharge >2 hrs									
October 2017	Selenium	milligrams per litre	Daily for discharge >2 hrs									
October 2017	Total Kjeldahl Nitrogen	milligrams per litre	Daily for discharge >2 hrs									
October 2017	Total Suspended Solids	milligrams per litre	Daily for discharge >2 hrs						50			
October 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
October 2017	Arsenic	milligrams per litre	Quarterly	1	5/10/2017	0.0273	0.0273	0.0273			
October 2017	Cadmium	milligrams per litre	Quarterly	1	5/10/2017	0.00021	0.00021	0.00021			
October 2017	Calcium	milligrams per litre	Quarterly	1	5/10/2017	754	754	754			
October 2017	Chromium	milligrams per litre	Quarterly	1	5/10/2017	0.0031	0.0031	0.0031			
October 2017	Copper	milligrams per litre	Quarterly	1	5/10/2017	0.0034	0.0034	0.0034			
October 2017	Electrical conductivity	microsiemens per centimetre	Quarterly	1	5/10/2017	37400	37400	37400			
October 2017	Iron	milligrams per litre	Quarterly	1	5/10/2017	73.8	73.8	73.8			
October 2017	Lead	milligrams per litre	Quarterly	1	5/10/2017	0.002	0.002	0.002			
October 2017	Magnesium	milligrams per litre	Quarterly	1	5/10/2017	928	928	928			
October 2017	Manganese	milligrams per litre	Quarterly	1	5/10/2017	4.54	4.54	4.54			
October 2017	Nickel	milligrams per litre	Quarterly	1	5/10/2017	0.0201	0.0201	0.0201			
October 2017	pH	pH	Quarterly	1	5/10/2017	6.22	6.22	6.22			
October 2017	Potassium	milligrams per litre	Quarterly	1	5/10/2017	93	93	93			
October 2017	Selenium	milligrams per litre	Quarterly	1	5/10/2017	<0.0021	<0.0021	<0.0021			
October 2017	Sodium	milligrams per litre	Quarterly	1	5/10/2017	5690	5690	5690			
October 2017	Standing Water Level	metres	Quarterly	1	5/10/2017	3.9	3.9	3.9			
October 2017	Zinc	milligrams per litre	Quarterly	1	5/10/2017	0.022	0.022	0.022			

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
October 2017	Arsenic	milligrams per litre	Quarterly	1	5/10/2017	0.0151	0.0151	0.0151			
October 2017	Cadmium	milligrams per litre	Quarterly	1	5/10/2017	<0.00021	<0.00021	<0.00021			
October 2017	Calcium	milligrams per litre	Quarterly	1	5/10/2017	436	436	436			
October 2017	Chromium	milligrams per litre	Quarterly	1	5/10/2017	0.0023	0.0023	0.0023			
October 2017	Copper	milligrams per litre	Quarterly	1	5/10/2017	0.0139	0.0139	0.0139			
October 2017	Electrical conductivity	microsiemens per centimetre	Quarterly	1	5/10/2017	31700	31700	31700			
October 2017	Iron	milligrams per litre	Quarterly	1	5/10/2017	244	244	244			
October 2017	Lead	milligrams per litre	Quarterly	1	5/10/2017	0.0118	0.0118	0.0118			
October 2017	Magnesium	milligrams per litre	Quarterly	1	5/10/2017	884	884	884			
October 2017	Manganese	milligrams per litre	Quarterly	1	5/10/2017	3.58	3.58	3.58			
October 2017	Nickel	milligrams per litre	Quarterly	1	5/10/2017	0.117	0.117	0.117			
October 2017	pH	pH	Quarterly	1	5/10/2017	5.64	5.64	5.64			
October 2017	Potassium	milligrams per litre	Quarterly	1	5/10/2017	38	38	38			
October 2017	Selenium	milligrams per litre	Quarterly	1	5/10/2017	0.0258	0.0258	0.0258			
October 2017	Sodium	milligrams per litre	Quarterly	1	5/10/2017	4810	4810	4810			
October 2017	Standing Water Level	metres	Quarterly	1	5/10/2017	0.89	0.89	0.89			
October 2017	Zinc	milligrams per litre	Quarterly	1	5/10/2017	0.304	0.304	0.304			

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
October 2017	Arsenic	milligrams per litre	Quarterly	1	5/10/2017	0.0006	0.0006	0.0006			
October 2017	Cadmium	milligrams per litre	Quarterly	1	5/10/2017	<0.00005	<0.00005	<0.00005			
October 2017	Calcium	milligrams per litre	Quarterly	1	5/10/2017	4	4	4			
October 2017	Chromium	milligrams per litre	Quarterly	1	5/10/2017	0.0025	0.0025	0.0025			
October 2017	Copper	milligrams per litre	Quarterly	1	5/10/2017	0.0021	0.0021	0.0021			
October 2017	Electrical conductivity	microsiemens per centimetre	Quarterly	1	5/10/2017	545	545	545			
October 2017	Iron	milligrams per litre	Quarterly	1	5/10/2017	2.06	2.06	2.06			
October 2017	Lead	milligrams per litre	Quarterly	1	5/10/2017	0.0024	0.0024	0.0024			
October 2017	Magnesium	milligrams per litre	Quarterly	1	5/10/2017	11	11	11			
October 2017	Manganese	milligrams per litre	Quarterly	1	5/10/2017	0.0842	0.0842	0.0842			
October 2017	Nickel	milligrams per litre	Quarterly	1	5/10/2017	0.0062	0.0062	0.0062			
October 2017	pH	pH	Quarterly	1	5/10/2017	6.06	6.06	6.06			
October 2017	Potassium	milligrams per litre	Quarterly	1	5/10/2017	3	3	3			
October 2017	Selenium	milligrams per litre	Quarterly	1	5/10/2017	0.0003	0.0003	0.0003			
October 2017	Sodium	milligrams per litre	Quarterly	1	5/10/2017	72	72	72			
October 2017	Standing Water Level	metres	Quarterly	1	5/10/2017	2.93	2.93	2.93			
October 2017	Zinc	milligrams per litre	Quarterly	1	5/10/2017	0.012	0.012	0.012			

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
October 2017	Arsenic	milligrams per litre	Quarterly	1	5/10/2017	0.0076	0.0076	0.0076			
October 2017	Cadmium	milligrams per litre	Quarterly	1	5/10/2017	<0.00021	<0.00021	<0.00021			
October 2017	Calcium	milligrams per litre	Quarterly	1	5/10/2017	453	453	453			
October 2017	Chromium	milligrams per litre	Quarterly	1	5/10/2017	0.011	0.011	0.011			
October 2017	Copper	milligrams per litre	Quarterly	1	5/10/2017	0.006	0.006	0.006			
October 2017	Electrical conductivity	microsiemens per centimetre	Quarterly	1	5/10/2017	55400	55400	55400			
October 2017	Iron	milligrams per litre	Quarterly	1	5/10/2017	42.4	42.4	42.4			
October 2017	Lead	milligrams per litre	Quarterly	1	5/10/2017	0.0056	0.0056	0.0056			
October 2017	Magnesium	milligrams per litre	Quarterly	1	5/10/2017	1280	1280	1280			
October 2017	Manganese	milligrams per litre	Quarterly	1	5/10/2017	0.298	0.298	0.298			
October 2017	Nickel	milligrams per litre	Quarterly	1	5/10/2017	0.0074	0.0074	0.0074			
October 2017	pH	pH	Quarterly	1	5/10/2017	7.17	7.17	7.17			
October 2017	Potassium	milligrams per litre	Quarterly	1	5/10/2017	317	317	317			
October 2017	Selenium	milligrams per litre	Quarterly	1	5/10/2017	<0.0021	<0.0021	<0.0021			
October 2017	Sodium	milligrams per litre	Quarterly	1	5/10/2017	10200	10200	10200			
October 2017	Standing Water Level	metres	Quarterly	1	5/10/2017	0.23	0.23	0.23			
October 2017	Zinc	milligrams per litre	Quarterly	1	5/10/2017	0.063	0.063	0.063			

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
October 2017	Arsenic	milligrams per litre	Quarterly	1	5/10/2017	0.0045	0.0045	0.0045			
October 2017	Cadmium	milligrams per litre	Quarterly	1	5/10/2017	0.00006	0.00006	0.00006			
October 2017	Calcium	milligrams per litre	Quarterly	1	5/10/2017	2	2	2			
October 2017	Chromium	milligrams per litre	Quarterly	1	5/10/2017	0.0425	0.0425	0.0425			
October 2017	Copper	milligrams per litre	Quarterly	1	5/10/2017	0.027	0.027	0.027			
October 2017	Electrical conductivity	microsiemens per centimetre	Quarterly	1	5/10/2017	938	938	938			
October 2017	Iron	milligrams per litre	Quarterly	1	5/10/2017	1.91	1.91	1.91			
October 2017	Lead	milligrams per litre	Quarterly	1	5/10/2017	0.0177	0.0177	0.0177			
October 2017	Magnesium	milligrams per litre	Quarterly	1	5/10/2017	14	14	14			
October 2017	Manganese	milligrams per litre	Quarterly	1	5/10/2017	0.0889	0.0889	0.0889			
October 2017	Nickel	milligrams per litre	Quarterly	1	5/10/2017	0.0141	0.0141	0.0141			
October 2017	pH	pH	Quarterly	1	5/10/2017	5.18	5.18	5.18			
October 2017	Potassium	milligrams per litre	Quarterly	1	5/10/2017	3	3	3			
October 2017	Selenium	milligrams per litre	Quarterly	1	5/10/2017	0.0015	0.0015	0.0015			
October 2017	Sodium	milligrams per litre	Quarterly	1	5/10/2017	132	132	132			
October 2017	Standing Water Level	metres	Quarterly	1	5/10/2017	0.45	0.45	0.45			
October 2017	Zinc	milligrams per litre	Quarterly	1	5/10/2017	0.08	0.08	0.08			

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
October 2017	Cadmium	milligrams per cubic metre	Yearly						1	No	
October 2017	Chlorine	milligrams per cubic metre	Yearly						200	No	
October 2017	Copper	milligrams per cubic metre	Yearly								
October 2017	Hydrogen chloride	milligrams per cubic metre	Yearly						100	No	
October 2017	Mercury	milligrams per cubic metre	Yearly						1	No	
October 2017	Moisture	percent	Yearly								
October 2017	Molecular weight of stack gases	grams per gram mole	Yearly								
October 2017	Nitrogen Oxides	milligrams per cubic metre	Continuous	100%	October 2017	498	625	912	1500	No	
October 2017	Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Yearly						100	No	2017/18 Annual Stack Test scheduled for March/April 2018
October 2017	Sulphur dioxide	parts per million	Continuous	100%	October 2017	201	270	396	600	No	
October 2017	Temperature	degrees Celsius	Yearly								
October 2017	Total Fluoride	milligrams per cubic metre	Yearly						50	No	
October 2017	Total Solid Particles	milligrams per cubic metre	Yearly						100	No	
October 2017	Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Yearly						5	No	
October 2017	Undifferentiated Particulates	milligrams per cubic metre	Continuous	100%	October 2017	14.9	23.4	57.2			
October 2017	Velocity	metres per second	Yearly								
October 2017	Volatile organic compounds	parts per million	Yearly								
October 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
October 2017	Cadmium	milligrams per cubic metre	Yearly						1	No	
October 2017	Chlorine	milligrams per cubic metre	Yearly						200	No	
October 2017	Copper	milligrams per cubic metre	Yearly								
October 2017	Hydrogen chloride	milligrams per cubic metre	Yearly						100	No	
October 2017	Mercury	milligrams per cubic metre	Yearly						1	No	
October 2017	Moisture	percent	Yearly								
October 2017	Molecular weight of stack gases	grams per gram mole	Yearly								
October 2017	Nitrogen Oxides	milligrams per cubic metre	Continuous	100%	October 2017	461	759	1023	1500	No	
October 2017	Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Yearly						100	No	2017/18 Annual Stack Test scheduled for March/April 2018
October 2017	Sulphur dioxide	parts per million	Continuous	100%	October 2017	126	243	380	600	No	
October 2017	Temperature	degrees Celsius	Yearly								
October 2017	Total Fluoride	milligrams per cubic metre	Yearly						50	No	
October 2017	Total Solid Particles	milligrams per cubic metre	Yearly						100	No	
October 2017	Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Yearly						5	No	
October 2017	Undifferentiated Particulates	milligrams per cubic metre	Continuous	100%	October 2017	26.6	41.7	63.8			
October 2017	Velocity	metres per second	Yearly								
October 2017	Volatile organic compounds	parts per million	Yearly								
October 2017	Volumetric flowrate	cubic metres per second	Yearly								

GENERAL COMMENTS