

Appin Power Station

Licence Number: 5482

Licence Holder: EDL CSM (NSW) PTY LTD
Appin Coal Seam Methane Power Station

Licensee Address: Northampton Dale Road Appin NSW 2560

Month: FY 2015-2016

Frequency: Continuous monitoring for ambient NOx, O3 (taken off site) and point source NOx air emissions;

Spot sampling weekly during discharge for First Flush pH and oil and grease (O&G);

Spot sampling monthly for Process Water Effluent pH and oil and grease (O&G);

Spot sampling monthly for Septic Effluent biological oxygen demand (BOD), fecal coliforms (FC), O&G, total nitrogen (TN), TDS and total phosphorus (TP);

Volume monitoring daily for waste water discharges.

Month	Location of monitoring point	Sampled	Obtained	Published	Pollutant	Units	Monitoring limit and requirement	Measurement during month	Min	Mean	Max
Jul-15	Point 10 - Ambient air and weather monitoring station	-	13/08/15	13/08/15	NOx	ppb	Continuous	Cont.	0	8	141
		-	13/08/15	13/08/15	O3	ppb	Continuous	Cont.	-1	-	28
	Point 13 - Air emissions monitoring	-	-	11/08/15	NOx	ppm	Continuous with limit of 2878 g/min	Cont.	<2878g/min		
	Point 11 - First Flush Effluent quality monitoring	-	-	11/08/15	O&G	mg/L	Weekly during any discharge	15	No visual		
		-	-	11/08/15	pH		Weekly during any discharge	15	6.6	7.71	8.46
	Point 12 - Process Water Effluent quality monitoring	2/07/15	27/07/15	11/08/15	O&G	mg/L	Monthly	1	6		
		2/07/15	27/07/15	11/08/15	pH		Monthly	1	7.11		
		2/07/15	27/07/15	11/08/15	Salinity	ppt	Not required		0.177		
		2/07/15	27/07/15	11/08/15	TSS	mg/L	Not required		6		
		2/07/15	27/07/15	11/08/15	BOD	mg/L	Monthly	1	29		
	Point 16 - Septic waste water Effluent quality monitoring	2/07/15	27/07/15	11/08/15	FC	units/100ml	Monthly	1	<1		
		2/07/15	27/07/15	11/08/15	O&G	mg/L	Monthly	1	<3		
		2/07/15	27/07/15	11/08/15	TN	mg/L	Monthly	1	63		
		2/07/15	27/07/15	11/08/15	TDS	mg/L	Monthly	1	642		
		2/07/15	27/07/15	11/08/15	TP	mg/L	Monthly	1	16		
-		28/09/15	28/09/15	NOx	ppb	Continuous	Cont.	0	19	105	
-		28/09/15	28/09/15	O3	ppb	Continuous	Cont.	0	-	40	
Aug-15	Point 10 - Ambient air and weather monitoring station	-	28/09/15	28/09/15	NOx	ppb	Continuous	Cont.	0	19	105
		-	28/09/15	28/09/15	O3	ppb	Continuous	Cont.	0	-	40
	Point 13 - Air emissions monitoring	-	-	14/09/15	NOx	ppm	Continuous with limit of 2878 g/min	Cont.	<2878g/min		
	Point 11 - First Flush Effluent quality monitoring	-	-	14/09/15	O&G	mg/L	Weekly during any discharge	12	No visual		
		-	-	14/09/15	pH		Weekly during any discharge	12	6.54	7.8	8.2
	Point 12 - Process Water Effluent quality monitoring	4/08/15	28/08/15	14/09/15	O&G	mg/L	Monthly	1	7		
		4/08/15	28/08/15	14/09/15	pH		Monthly	1	7.26		
		4/08/15	28/08/15	14/09/15	Salinity	ppt	Not required		0.19		
		4/08/15	28/08/15	14/09/15	TSS	mg/L	Not required		13		
		4/08/15	28/08/15	14/09/15	BOD	mg/L	Monthly	1	9		
	Point 16 - Septic waste water Effluent quality monitoring	4/08/15	28/08/15	14/09/15	FC	units/100ml	Monthly	1	<1		
		4/08/15	28/08/15	14/09/15	O&G	mg/L	Monthly	1	<3		
		4/08/15	28/08/15	14/09/15	TN	mg/L	Monthly	1	38		
		4/08/15	28/08/15	14/09/15	TDS	mg/L	Monthly	1	497		
		4/08/15	28/08/15	14/09/15	TP	mg/L	Monthly	1	17		
-		12/10/15	15/10/15	NOx	ppb	Continuous	Cont.	0	8	55	
-		12/10/15	15/10/15	O3	ppb	Continuous	Cont.	0	-	48	
Sep-15	Point 10 - Ambient air and weather monitoring station	-	12/10/15	15/10/15	NOx	ppb	Continuous	Cont.	0	8	55
		-	12/10/15	15/10/15	O3	ppb	Continuous	Cont.	0	-	48
	Point 13 - Air emissions monitoring	-	-	8/10/15	NOx	ppm	Continuous with limit of 2878 g/min	Cont.	<2878g/min		
	Point 11 - First Flush Effluent quality monitoring	-	-	8/10/15	O&G	mg/L	Weekly during any discharge	9	No visual		
		-	-	8/10/15	pH		Weekly during any discharge	9	6.54	7.8	8.3
	Point 12 - Process Water Effluent quality monitoring	2/09/15	15/09/15	28/09/15	O&G	mg/L	Monthly	1	5		
		2/09/15	15/09/15	28/09/15	pH		Monthly	1	7.34		
		2/09/15	15/09/15	28/09/15	Salinity	ppt	Not required		0.252		
		2/09/15	15/09/15	28/09/15	TSS	mg/L	Not required		6		
		2/09/15	15/09/15	28/09/15	BOD	mg/L	Monthly	1	13		
	Point 16 - Septic waste water Effluent quality monitoring	2/09/15	15/09/15	28/09/15	FC	units/100ml	Monthly	1	18		
		2/09/15	15/09/15	28/09/15	O&G	mg/L	Monthly	1	<3		
		2/09/15	15/09/15	28/09/15	TN	mg/L	Monthly	1	48		
		2/09/15	15/09/15	28/09/15	TDS	mg/L	Monthly	1	345		
		2/09/15	15/09/15	28/09/15	TP	mg/L	Monthly	1	16		
-		12/11/15	17/11/15	NOx	ppb	Continuous	Cont.	1	10	210	
-		12/11/15	17/11/15	O3	ppb	Continuous	Cont.	0	-	74	
Oct-15	Point 10 - Ambient air and weather monitoring station	-	12/11/15	17/11/15	NOx	ppb	Continuous	Cont.	1	10	210
		-	12/11/15	17/11/15	O3	ppb	Continuous	Cont.	0	-	74
	Point 13 - Air emissions monitoring	-	-	5/11/15	NOx	ppm	Continuous with limit of 2878 g/min	Cont.	<2878g/min		
	Point 11 - First Flush Effluent quality monitoring	-	-	5/11/15	O&G	mg/L	Weekly during any discharge	8	no visual		
		-	-	5/11/15	pH		Weekly during any discharge	8	7.29	7.9	8.1
	Point 12 - Process Water Effluent quality monitoring	6/10/15	22/10/15	5/11/15	O&G	mg/L	Monthly	1	7		
		6/10/15	22/10/15	5/11/15	pH		Monthly	1	7.46		
		6/10/15	22/10/15	5/11/15	Salinity	ppt	Not required		0.23		
		6/10/15	22/10/15	5/11/15	TSS	mg/L	Not required		4		
		6/10/15	22/10/15	5/11/15	BOD	mg/L	Monthly	1	9		
	Point 16 - Septic waste water Effluent quality monitoring	6/10/15	22/10/15	5/11/15	FC	units/100ml	Monthly	1	<10		
		6/10/15	22/10/15	5/11/15	O&G	mg/L	Monthly	1	<3		
		6/10/15	22/10/15	5/11/15	TN	mg/L	Monthly	1	17		
		6/10/15	22/10/15	5/11/15	TDS	mg/L	Monthly	1	385		
		6/10/15	22/10/15	5/11/15	TP	mg/L	Monthly	1	14		
-		11/12/15	16/12/15	NOx	ppb	Continuous	Cont.	1	10	92	
-		11/12/15	16/12/15	O3	ppb	Continuous	Cont.	0	-	69	
Nov-15	Point 10 - Ambient air and weather monitoring station	-	11/12/15	16/12/15	NOx	ppb	Continuous	Cont.	1	10	92
		-	11/12/15	16/12/15	O3	ppb	Continuous	Cont.	0	-	69
	Point 13 - Air emissions monitoring	-	-	16/12/15	NOx	ppm	Continuous with limit of 2878 g/min	Cont.	<2878g/min		
	Point 11 - First Flush Effluent quality monitoring	-	-	16/12/15	O&G	mg/L	Weekly during any discharge	10	No visual		
		-	-	16/12/15	pH		Weekly during any discharge	10	7.00	7.89	8.10
	Point 12 - Process Water Effluent quality monitoring	3/11/15	26/11/15	16/12/15	O&G	mg/L	Monthly	1	6		
		3/11/15	26/11/15	16/12/15	pH		Monthly	1	7.28		
		3/11/15	26/11/15	16/12/15	Salinity	ppt	Not required		0.19		
		3/11/15	26/11/15	16/12/15	TSS	mg/L	Not required		5		
		3/11/15	26/11/15	16/12/15	BOD	mg/L	Monthly	1	12		
	Point 16 - Septic waste water Effluent quality monitoring	3/11/15	26/11/15	16/12/15	FC	units/100ml	Monthly	1	<1		
		3/11/15	26/11/15	16/12/15	O&G	mg/L	Monthly	1	<3		

Month	Location of monitoring point	Sampled	Obtained	Published	Pollutant	Units	Monitoring limit and requirement	Measurement during month	Min	Mean	Max
	Point 10 - Septic waste water Effluent quality monitoring	3/11/15	26/11/15	16/12/15	TN	mg/L	Monthly	1	17		
		3/11/15	26/11/15	16/12/15	TDS	mg/L	Monthly	1	334		
		3/11/15	26/11/15	16/12/15	TP	mg/L	Monthly	1	18		
Dec-15	Point 10 - Ambient air and weather monitoring station	-	14/01/16	20/01/16	NOx	ppb	Continuous	Cont.	1	8	133
		-	14/01/16	20/01/16	O3	ppb	Continuous	Cont.	-1	-	80
	Point 13 - Air emissions monitoring	-	-	20/01/16	NOx	ppm	Continuous with limit of 2878 g/min	Cont.	<2878g/min		
	Point 11 - First Flush Effluent quality monitoring	-	-	20/01/16	O&G	mg/L	Weekly during any discharge	10	No visual		
		-	-	20/01/16	pH		Weekly during any discharge	10	7.8	8.09	8.43
	Point 12 - Process Water Effluent quality monitoring	1/12/15	16/12/15	20/01/16	O&G	mg/L	Monthly	1	7		
		1/12/15	16/12/15	20/01/16	pH		Monthly	1	7.25		
		1/12/15	16/12/15	20/01/16	Salinity	ppt	Not required		0.19		
		1/12/15	16/12/15	20/01/16	TSS	mg/L	Not required		6		
		1/12/15	16/12/15	20/01/16	BOD	mg/L	Monthly	1	11		
	Point 16 - Septic waste water Effluent quality monitoring	1/12/15	16/12/15	20/01/16	FC	units/100ml	Monthly	1	<1		
		1/12/15	16/12/15	20/01/16	O&G	mg/L	Monthly	1	<3		
		1/12/15	16/12/15	20/01/16	TN	mg/L	Monthly	1	23		
		1/12/15	16/12/15	20/01/16	TDS	mg/L	Monthly	1	391		
		1/12/15	16/12/15	20/01/16	TP	mg/L	Monthly	1	18		
Jan-16	Point 10 - Ambient air and weather monitoring station	-	12/02/16	23/02/16	NOx	ppb	Continuous	Cont.	0	8	97
		-	12/02/16	23/02/16	O3	ppb	Continuous	Cont.	-1	-	84
	Point 13 - Air emissions monitoring	-	-	23/02/16	NOx	ppm	Continuous with limit of 2878 g/min	Cont.	<2878g/min		
	Point 11 - First Flush Effluent quality monitoring	-	-	23/02/16	O&G	mg/L	Weekly during any discharge	9	no visual		
		-	-	23/02/16	pH		Weekly during any discharge	9	7.6	7.9	8.12
	Point 12 - Process Water Effluent quality monitoring	4/01/16	19/01/16	20/01/16	O&G	mg/L	Monthly	1	<5		
		4/01/16	19/01/16	20/01/16	pH		Monthly	1	7.42		
		4/01/16	19/01/16	20/01/16	Salinity	ppt	Not required		0.171		
		4/01/16	19/01/16	20/01/16	TSS	mg/L	Not required		5		
		4/01/16	19/01/16	20/01/16	BOD	mg/L	Monthly	1	9		
	Point 16 - Septic waste water Effluent quality monitoring	4/01/16	19/01/16	20/01/16	FC	units/100ml	Monthly	1	<1		
		4/01/16	19/01/16	20/01/16	O&G	mg/L	Monthly	1	<3		
		4/01/16	19/01/16	20/01/16	TN	mg/L	Monthly	1	15		
		4/01/16	19/01/16	20/01/16	TDS	mg/L	Monthly	1	351		
		4/01/16	19/01/16	20/01/16	TP	mg/L	Monthly	1	19		
Feb-16	Point 10 - Ambient air and weather monitoring station	-	12/03/16	22/03/16	NOx	ppb	Continuous	Cont.	0	9.4	240
		-	12/03/16	22/03/16	O3	ppb	Continuous	Cont.	1	17.1	107
	Point 13 - Air emissions monitoring	-	-	22/03/16	NOx	ppm	Continuous with limit of 2878 g/min	Cont.	<2878g/min		
	Point 11 - First Flush Effluent quality monitoring	-	-	22/03/16	O&G	mg/L	Weekly during any discharge	5	No visual		
		-	-	22/03/16	pH		Weekly during any discharge	5	7.5	7.88	8.5
	Point 12 - Process Water Effluent quality monitoring	1/02/16	18/02/16	3/03/16	O&G	mg/L	Monthly	1	5		
		1/02/16	18/02/16	3/03/16	pH		Monthly	1	7.82		
		1/02/16	18/02/16	3/03/16	Salinity	ppt	Not required		0.385		
		1/02/16	18/02/16	3/03/16	TSS	mg/L	Not required		2		
		1/02/16	18/02/16	3/03/16	BOD	mg/L	Monthly	1	8		
	Point 16 - Septic waste water Effluent quality monitoring	1/02/16	18/02/16	3/03/16	FC	units/100ml	Monthly	1	<1		
		1/02/16	18/02/16	3/03/16	O&G	mg/L	Monthly	1	<3		
		1/02/16	18/02/16	3/03/16	TN	mg/L	Monthly	1	20		
		1/02/16	18/02/16	3/03/16	TDS	mg/L	Monthly	1	392		
		1/02/16	18/02/16	3/03/16	TP	mg/L	Monthly	1	17		
Mar-16	Point 10 - Ambient air and weather monitoring station	-	12/04/16	28/04/16	NOx	ppb	Continuous	Cont.	0	8	85
		-	12/04/16	28/04/16	O3	ppb	Continuous	Cont.	-1	-	81
	Point 13 - Air emissions monitoring	-	-	28/04/16	NOx	ppm	Continuous with limit of 2878 g/min	Cont.	<2878g/min		
	Point 11 - First Flush Effluent quality monitoring	-	-	28/04/16	O&G	mg/L	Weekly during any discharge		No Visual		
		-	-	28/04/16	pH		Weekly during any discharge		6.7	7.3	7.9
	Point 12 - Process Water Effluent quality monitoring	30/03/16	14/04/16	28/04/16	O&G	mg/L	Monthly	1	<5		
		30/03/16	14/04/16	28/04/16	pH		Monthly	1	7.26		
		30/03/16	14/04/16	28/04/16	Salinity	ppt	Not required		0.208		
		30/03/16	14/04/16	28/04/16	TSS	mg/L	Not required		9		
		30/03/16	14/04/16	28/04/16	BOD	mg/L	Monthly	1	8		
	Point 16 - Septic waste water Effluent quality monitoring	30/03/16	14/04/16	28/04/16	FC	units/100ml	Monthly	1	<1		
		30/03/16	14/04/16	28/04/16	O&G	mg/L	Monthly	1	<3		
		30/03/16	14/04/16	28/04/16	TN	mg/L	Monthly	1	16		
		30/03/16	14/04/16	28/04/16	TDS	mg/L	Monthly	1	351		
		30/03/16	14/04/16	28/04/16	TP	mg/L	Monthly	1	16		
Apr-16	Point 10 - Ambient air and weather monitoring station	-	13/05/16	2/11/16	NOx	ppb	Continuous	Cont.	1	9	66
		-	13/05/16	2/11/16	O3	ppb	Continuous	Cont.	-1	16	58
	Point 13 - Air emissions monitoring	-	-	2/11/16	NOx	ppm	Continuous with limit of 2878 g/min	Cont.	<2878g/min		
	Point 11 - First Flush Effluent quality monitoring	-	-	2/11/16	O&G	mg/L	Weekly during any discharge		No Visual		
		-	-	2/11/16	pH		Weekly during any discharge		6.7	7.3	7.9
	Point 12 - Process Water Effluent quality monitoring	13/04/16	29/04/16	2/11/16	O&G	mg/L	Monthly	1	<5		
		13/04/16	29/04/16	2/11/16	pH		Monthly	1	7.25		
		13/04/16	29/04/16	2/11/16	Salinity	ppt	Not required		0.238		
		13/04/16	29/04/16	2/11/16	TSS	mg/L	Not required		30		
		13/04/16	29/04/16	2/11/16	BOD	mg/L	Monthly	1	17		
	Point 16 - Septic waste water Effluent quality monitoring	13/04/16	29/04/16	2/11/16	FC	units/100ml	Monthly	1	<10		
		13/04/16	29/04/16	2/11/16	O&G	mg/L	Monthly	1	<3		
		13/04/16	29/04/16	2/11/16	TN	mg/L	Monthly	1	35		
		13/04/16	29/04/16	2/11/16	TDS	mg/L	Monthly	1	416		
		13/04/16	29/04/16	2/11/16	TP	mg/L	Monthly	1	18		
	Point 10 - Ambient air and weather monitoring station	-	10/06/16	2/11/16	NOx	ppb	Continuous	Cont.	0	8	91
		-	10/06/16	2/11/16	O3	ppb	Continuous	Cont.	0	-	52
	Point 13 - Air emissions monitoring	-	-	2/11/16	NOx	ppm	Continuous with limit of 2878 g/min	Cont.	<2878g/min		
	-	-	2/11/16	O&G	mg/L	Weekly during any discharge		No visual			

Month	Location of monitoring point	Sampled	Obtained	Published	Pollutant	Units	Monitoring limit and requirement	Measurement during month	Min	Mean	Max	
May-16	Point 11 - First Flush Effluent quality monitoring			2/11/16	pH		Weekly during any discharge		7.3	7.7	8.2	
				2/11/16	Salinity		Not required		NA			
		-	-	2/11/16	TSS		Not required		NA			
	Point 12 - Process Water Effluent quality monitoring	3/05/16	22/06/16	2/11/16	O&G	mg/L	Monthly		1	< 5		
		3/05/16	22/06/16	2/11/16	pH		Monthly		1	7.22		
		3/05/16	22/06/16	2/11/16	Salinity	ppt	Not required			0.222		
		3/05/16	22/06/16	2/11/16	TSS	mg/L	Not required			20		
		3/05/16	22/06/16	2/11/16	BOD	mg/L	Monthly		1	32		
		3/05/16	22/06/16	2/11/16	FC	units/100ml	Monthly		1	< 10		
	Point 16 - Septic waste water Effluent quality monitoring	3/05/16	22/06/16	2/11/16	O&G	mg/L	Monthly		1	< 3		
		3/05/16	22/06/16	2/11/16	TN	mg/L	Monthly		1	68		
		3/05/16	22/06/16	2/11/16	TDS	mg/L	Monthly		1	531		
		3/05/16	22/06/16	2/11/16	TP	mg/L	Monthly		1	13		
				2/11/16	NOx	ppb	Continuous	Cont.		-1	5.5	-1
			2/11/16	O3	ppb	Continuous	Cont.		11.7	2.4	0.1	
			2/11/16	NOx	ppm	Continuous with limit of 2878 g/min	Cont.		<2878g/min			
Jun-16	Point 11 - First Flush Effluent quality monitoring	-	-	2/11/16	O&G	mg/L	Weekly during any discharge	4	No visual			
				2/11/16	pH		Weekly during any discharge	4	7.2	7.625	7.9	
	Point 12 - Process Water Effluent quality monitoring	1/06/16	28/06/16	2/11/16	Salinity		Not required		1	0.08		
		1/06/16	28/06/16	2/11/16	TSS		Not required		1	2		
		1/06/16	28/06/16	2/11/16	O&G	mg/L	Monthly		1	6		
		1/06/16	28/06/16	2/11/16	pH		Monthly		1	7.2		
		1/06/16	28/06/16	2/11/16	Salinity	ppt	Not required			0.225		
		1/06/16	28/06/16	2/11/16	TSS	mg/L	Not required			9		
	Point 16 - Septic waste water Effluent quality monitoring			2/11/16	BOD	mg/L	Monthly		1	7		
		1/06/16	28/06/16	2/11/16	FC	units/100ml	Monthly		1	<10		
		1/06/16	28/06/16	2/11/16	O&G	mg/L	Monthly		1	<3		
		1/06/16	28/06/16	2/11/16	TN	mg/L	Monthly		1	19		
		1/06/16	28/06/16	2/11/16	TDS	mg/L	Monthly		1	338		
		1/06/16	28/06/16	2/11/16	TP	mg/L	Monthly		1	13		
				2/11/16	NOx	ppb	Continuous	Cont.		-1	5.5	-1
	Annual Review of volume monitoring	Point 2 - 'Septic Wastewater Volume Monitoring Point' on drawing 823-BA-72		17/06/16	28/07/20	Volume	kL/day	Daily, collated annually with limit of 9 kL/day	356	0.00	0.49	2.47
		Point 15 - First flush and process water labelled 'Wastewater Volume Monitoring Point' on drawing 823-BA-72							Process water - 303	0.01	3.74	32.43
								First flush - 138	0.40	21.37	178.56	

First flush empty

Note: Volume monitoring covers the period of 03 May to 02 May

Change Log

Date Change

- 16/07/20 Included frequency of sampling required into data sheet
- 27/07/20 Included limit requirement for NOx
- 28/07/20 Included volume monitoring data