

**Appin Power Station**

**Licence Number:** 5482

**Licence Holder:** EDL CSM (NSW) PTY LTD

Appin Coal Seam Methane Power Station

**Licencee Address:** Northhampton Dale Road Appin NSW 2560

**Month:** FY 2014-2015

**Frequency:** Continuous monitoring for ambient NOx, O3 (taken off site) and point source NO3 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-14	Point 10 - Ambient air and weather monitoring station	-	14/08/14	20/08/14	NOx	ppb	Continuous	Continuous	0	9	100	
		-	14/08/14	20/08/14	O3	ppb	Continuous	Continuous	-1	-	32	
	Point 13 - Air emissions monitoring	-	-	7/08/14	NOx	ppm	Continuous with limit of 2878 g/min	Continuous	Max Nox emission rate did not exceed 2878g/min			
	Point 11 - First Flush Effluent quality monitoring	-	-	7/08/14	O&G	mg/L	Weekly during any discharge	11	No visual			
		-	-	7/08/14	pH		Weekly during any discharge	11	7.60	8.14	8.40	
	Point 12 - Process Water Effluent quality monitoring		2/07/14	18/07/14	21/07/14	O&G	mg/L	Monthly	1	6		
			2/07/14	18/07/14	21/07/14	pH		Monthly	1	7.11		
			2/07/14	18/07/14	21/07/14	Salinity	ppt	Not Required		0.283		
			2/07/14	18/07/14	21/07/14	TSS	mg/L	Not Required		4		
	Point 16 - Septic waste water Effluent quality monitoring		2/07/14	18/07/14	21/07/14	BOD	mg/L	Monthly	1	12		
			2/07/14	18/07/14	21/07/14	FC	units/100ml	Monthly	1	<1		
			2/07/14	18/07/14	21/07/14	O&G	mg/L	Monthly	1	<3		
			2/07/14	18/07/14	21/07/14	TN	mg/L	Monthly	1	28.9		
			2/07/14	18/07/14	21/07/14	TDS	mg/L	Monthly	1	453		
		2/07/14	18/07/14	21/07/14	TP	mg/L	Monthly	1	16			
Aug-14	Point 10 - Ambient air and weather monitoring station	-	7/10/14	18/09/14	NOx	ppb	Continuous	Continuous	0	9	113	
		-	7/10/14	18/09/14	O4	ppb	Continuous	Continuous	2	35	35	
	Point 13 - Air emissions monitoring	-	-	18/09/14	NOx	ppm	Continuous with limit of 2878 g/min	Continuous	Max NOx emission rate did not exceed 2878g/min			
	Point 11 - First Flush Effluent quality monitoring	-	-	18/09/14	O&G	mg/L	Weekly during any discharge	6	None observed			
		-	-	18/09/14	pH		Weekly during any discharge	6	7.8	8.02	8.3	
	Point 12 - Process Water Effluent quality monitoring		4/08/14	25/08/14	28/08/14	O&G	mg/L	Monthly	1	5		
			4/08/14	25/08/14	28/08/14	pH		Monthly	1	9.73		
			4/08/14	25/08/14	28/08/14	Salinity	ppt	Not Required		0.285		
			4/08/14	25/08/14	28/08/14	TSS	mg/L	Not Required		14		
	Point 16 - Septic waste water Effluent quality monitoring		4/08/14	25/08/14	28/08/14	BOD	mg/L	Monthly	1	11		
			4/08/14	25/08/14	28/08/14	FC	units/100ml	Monthly	1	<2		
			4/08/14	25/08/14	28/08/14	O&G	mg/L	Monthly	1	<3		
			4/08/14	25/08/14	28/08/14	TN	mg/L	Monthly	1	21.8		
			4/08/14	25/08/14	28/08/14	TDS	mg/L	Monthly	1	438		
		4/08/14	25/08/14	28/08/14	TP	mg/L	Monthly	1	16			
Sep-14	Point 10 - Ambient air and weather monitoring station	-	10/10/14	15/10/14	NOx	ppb	Continuous	Continuous	0	7	84	
		-	10/10/14	15/10/14	O4	ppb	Continuous	Continuous	1	22	40	
	Point 13 - Air emissions monitoring	-	-	15/10/14	NOx	ppm	Continuous with limit of 2878 g/min	Continuous	Max NOx emission rate did not exceed 2878g/min			
	Point 11 - First Flush Effluent quality monitoring	-	-	7/10/14	O&G	mg/L	Weekly during any discharge	6	None observed			
		-	-	7/10/14	pH		Weekly during any discharge	6	7.8	8.01	8.3	
	Point 12 - Process Water Effluent quality monitoring		2/09/14	7/10/14	7/10/14	O&G	mg/L	Monthly	1	5		
			2/09/14	7/10/14	7/10/14	pH		Monthly	1	7.66		
			2/09/14	7/10/14	7/10/14	Salinity	ppt	Not Required		0.311		
			2/09/14	7/10/14	7/10/14	TSS	mg/L	Not Required		1		
	Point 16 - Septic waste water Effluent quality monitoring		2/09/14	7/10/14	7/10/14	BOD	mg/L	Monthly	1	9		
			2/09/14	7/10/14	7/10/14	FC	units/100ml	Monthly	1	<1		
			2/09/14	7/10/14	7/10/14	O&G	mg/L	Monthly	1	<3		
			2/09/14	7/10/14	7/10/14	TN	mg/L	Monthly	1	18		
			2/09/14	7/10/14	7/10/14	TDS	mg/L	Monthly	1	320		
		2/09/14	7/10/14	7/10/14	TP	mg/L	Monthly	1	12			
	Point 10 - Ambient air and weather monitoring station	-	13/11/14	13/11/14	NOx	ppb	Continuous	Continuous	0	7	97	
		-	13/11/14	13/11/14	O5	ppb	Continuous	Continuous	0	24	61	
	Point 13 - Air emissions monitoring	-	-	7/11/14	NOx	ppm	Continuous with limit of 2878 g/min	Continuous	Max Nox emission rate did not exceed 2878g/min			
	-	-	7/11/14	O&G	mg/L	Weekly during any discharge	9	Nil observed				

Month	Location of monitoring point	Sampled	Obtained	Published	Pollutant	Units	Monitoring limit and requirement	Measurement during month	Min	Mean	Max
Oct-14	monitoring	-	-	7/11/14	pH		Weekly during any discharge	9	8	8.14	8.4
	Point 12 - Process Water Effluent quality monitoring	1/10/14	21/10/14	7/11/14	O&G	mg/L	Monthly	1	5		
		1/10/14	21/10/14	7/11/14	pH		Monthly	1	7.48		
		1/10/14	21/10/14	7/11/14	Salinity	ppt	Not Required		0.259		
		1/10/14	21/10/14	7/11/14	TSS	mg/L	Not Required		4		
	Point 16 - Septic waste water Effluent quality monitoring	1/10/14	21/10/14	7/11/14	BOD	mg/L	Monthly	1	10		
		1/10/14	21/10/14	7/11/14	FC	units/100ml	Monthly	1	<1		
		1/10/14	21/10/14	7/11/14	O&G	mg/L	Monthly	1	<3		
		1/10/14	21/10/14	7/11/14	TN	mg/L	Monthly	1	24		
		1/10/14	21/10/14	7/11/14	TDS	mg/L	Monthly	1	391		
1/10/14		21/10/14	7/11/14	TP	mg/L	Monthly	1	18			
Nov-14	Point 10 - Ambient air and weather monitoring station	-	12/12/14	15/12/14	NOx	ppb	Continuous	Continuous	1	6	74
		-	12/12/14	15/12/14	O4	ppb	Continuous	Continuous	0	24	75
	Point 13 - Air emissions monitoring	-	-	15/12/14	NOx	ppm	Continuous with limit of 2878 g/min	Continuous	Max Nox emission rate did not exceed 2878g/min		
	Point 11 - First Flush Effluent quality monitoring	-	-	17/11/14	O&G	mg/L	Weekly during any discharge	10	Nil		
		-	-	17/11/14	pH		Weekly during any discharge	10	7.7	8.07	8.4
	Point 12 - Process Water Effluent quality monitoring	3/11/14	14/11/14	17/11/14	O&G	mg/L	Monthly	1	6		
		3/11/14	14/11/14	17/11/14	pH		Monthly	1	7.28		
		3/11/14	14/11/14	17/11/14	Salinity	ppt	Not Required	1	0.188		
		3/11/14	14/11/14	17/11/14	TSS	mg/L	Not Required	1	10		
	Point 16 - Septic waste water Effluent quality monitoring	3/11/14	14/11/14	17/11/14	BOD	mg/L	Monthly	1	9		
		3/11/14	14/11/14	17/11/14	FC	units/100ml	Monthly	1	1		
		3/11/14	14/11/14	17/11/14	O&G	mg/L	Monthly	1	3		
		3/11/14	14/11/14	17/11/14	TN	mg/L	Monthly	1	24		
		3/11/14	14/11/14	17/11/14	TDS	mg/L	Monthly	1	376		
		3/11/14	14/11/14	17/11/14	TP	mg/L	Monthly	1	21		
	Dec-14	Point 10 - Ambient air and weather monitoring station	-	16/01/15	16/01/15	NOx	ppb	Continuous	Continuous	0	6
-			16/01/15	16/01/15	O5	ppb	Continuous	Continuous	3	24	79
Point 13 - Air emissions monitoring		-	-	16/01/15	NOx	ppm	Continuous with limit of 2878 g/min	Continuous	Max Nox emission rate did not exceed 2878g/min		
Point 11 - First Flush Effluent quality monitoring		-	-	16/01/15	O&G	mg/L	Weekly during any discharge	11	Nil observed		
		-	-	16/01/15	pH		Weekly during any discharge	11	7.6	7.6	8.1
Point 12 - Process Water Effluent quality monitoring		2/12/14	22/12/14	16/01/15	O&G	mg/L	Monthly	1	5		
		2/12/14	22/12/14	16/01/15	pH		Monthly	1	7.34		
		2/12/14	22/12/14	16/01/15	Salinity	ppt	Not Required	1	0.215		
		2/12/14	22/12/14	16/01/15	TSS	mg/L	Not Required	1	6		
Point 16 - Septic waste water Effluent quality monitoring		2/12/14	22/12/14	16/01/15	BOD	mg/L	Monthly	1	8		
		2/12/14	22/12/14	16/01/15	FC	units/100ml	Monthly	1	4		
		2/12/14	22/12/14	16/01/15	O&G	mg/L	Monthly	1	<3		
		2/12/14	22/12/14	16/01/15	TN	mg/L	Monthly	1	18		
		2/12/14	22/12/14	16/01/15	TDS	mg/L	Monthly	1	394		
	2/12/14	22/12/14	16/01/15	TP	mg/L	Monthly	1	18			
Jan-15	Point 10 - Ambient air and weather monitoring station	-	13/02/15	14/02/15	NOx	ppb	Continuous	Continuous	0	8	85
		-	13/02/15	14/02/15	O5	ppb	Continuous	Continuous	1	18	85
	Point 13 - Air emissions monitoring	-	-	14/02/15	NOx	ppm	Continuous with limit of 2878 g/min	Continuous	Max Nox emission rate did not exceed 2878g/min		
	Point 11 - First Flush Effluent quality monitoring	-	-	14/02/15	O&G	mg/L	Weekly during any discharge	5	Nil Observed		
		-	-	14/02/15	pH		Weekly during any discharge	5	7.8	8.12	8.38
	Point 12 - Process Water Effluent quality monitoring	6/01/15	3/02/15	14/02/15	O&G	mg/L	Monthly	1	<5		
		6/01/15	3/02/15	14/02/15	pH		Monthly	1	7.39		
		6/01/15	3/02/15	14/02/15	Salinity	ppt	Not Required	1	0.25		
		6/01/15	3/02/15	14/02/15	TSS	mg/L	Not Required	1	7		
	Point 16 - Septic waste water Effluent quality monitoring	6/01/15	3/02/15	14/02/15	BOD	mg/L	Monthly	1	8		
		6/01/15	3/02/15	14/02/15	FC	units/100ml	Monthly	1	10000		
		6/01/15	3/02/15	14/02/15	O&G	mg/L	Monthly	1	<3		
6/01/15		3/02/15	14/02/15	TN	mg/L	Monthly	1	21			
6/01/15		3/02/15	14/02/15	TDS	mg/L	Monthly	1	301			
6/01/15		3/02/15	14/02/15	TP	mg/L	Monthly	1	15			
Point 10 - Ambient air and weather monitoring station	-	12/03/15	13/03/15	NOx	ppb	Continuous	Continuous	0	7	79	
	-	12/03/15	13/03/15	O6	ppb	Continuous	Continuous	0	15	67	
	Point 13 - Air emissions monitoring	-	-	13/03/15	NOx	ppm	Continuous with limit of 2878 g/min	Continuous	Max Nox emission rate did not exceed 2878g/min		

Month	Location of monitoring point	Sampled	Obtained	Published	Pollutant	Units	Monitoring limit and requirement	Measurement during month	Min	Mean	Max
Feb-15	Point 11 - First Flush Effluent quality monitoring	-	-	13/03/15	O&G	mg/L	Weekly during any discharge		Not tested as no water present for sampling.		
		-	-	13/03/15	pH		Weekly during any discharge				
	Point 12 - Process Water Effluent quality monitoring	3/02/15	6/03/15	13/03/15	O&G	mg/L	Monthly	1	5		
		3/02/15	6/03/15	13/03/15	pH		Monthly	1	7.56		
		3/02/15	6/03/15	13/03/15	Salinity	ppt	Not Required	1	0.289		
		3/02/15	6/03/15	13/03/15	TSS	mg/L	Not Required	1	4		
	Point 16 - Septic waste water Effluent quality monitoring	3/02/15	6/03/15	13/03/15	BOD	mg/L	Monthly	1	9		
		3/02/15	6/03/15	13/03/15	FC	units/100ml	Monthly	1	-		
		3/02/15	6/03/15	13/03/15	O&G	mg/L	Monthly	1	<3		
		3/02/15	6/03/15	13/03/15	TN	mg/L	Monthly	1	<0.5		
3/02/15		6/03/15	13/03/15	TDS	mg/L	Monthly	1	355			
3/02/15		6/03/15	13/03/15	TP	mg/L	Monthly	1	27			
Mar-15	Point 10 - Ambient air and weather monitoring station	-	10/04/15	10/04/15	NOx	ppb	Continuous	Continuous	0	8	82
		-	10/04/15	10/04/15	O4	ppb	Continuous	Continuous	0	-	67
	Point 13 - Air emissions monitoring	-	-	10/04/15	NOx	ppm	Continuous with limit of 2878 g/min	Continuous	Max Nox emission rate did not exceed 2878g/min		
	Point 11 - First Flush Effluent quality monitoring	-	-	10/04/15	O&G	mg/L	Weekly during any discharge	8	Nil observed		
		-	-	10/04/15	pH		Weekly during any discharge	8	8.18 (mean)		
	Point 12 - Process Water Effluent quality monitoring	2/03/15	17/03/15	10/04/15	O&G	mg/L	Monthly	1	<5		
		2/03/15	17/03/15	10/04/15	pH		Monthly	1	7.43		
		2/03/15	17/03/15	10/04/15	Salinity	ppt	Not Required	1	0.247		
		2/03/15	17/03/15	10/04/15	TSS	mg/L	Not Required	1	6		
	Point 16 - Septic waste water Effluent quality monitoring	2/03/15	17/03/15	10/04/15	BOD	mg/L	Monthly	1	14		
		2/03/15	17/03/15	10/04/15	FC	units/100ml	Monthly	1	18000		
		2/03/15	17/03/15	10/04/15	O&G	mg/L	Monthly	1	<3		
		2/03/15	17/03/15	10/04/15	TN	mg/L	Monthly	1	<0.5		
		2/03/15	17/03/15	10/04/15	TDS	mg/L	Monthly	1	334		
2/03/15		17/03/15	10/04/15	TP	mg/L	Monthly	1	37			
Apr-15	Point 10 - Ambient air and weather monitoring station	-	12/05/15	18/05/15	NOx	ppb	Continuous	Continuous	0	10	93
		-	12/05/15	18/05/15	O5	ppb	Continuous	Continuous	-1	16	43
	Point 13 - Air emissions monitoring	-	-	18/05/15	NOx	ppm	Continuous with limit of 2878 g/min	Continuous	Max Nox emission rate did not exceed 2878g/min		
	Point 11 - First Flush Effluent quality monitoring	-	-	18/05/15	O&G	mg/L	Weekly during any discharge	6	Nil observed		
		-	-	18/05/15	pH		Weekly during any discharge	6	8.3 mean		
	Point 12 - Process Water Effluent quality monitoring	1/04/15	16/04/15	18/05/15	O&G	mg/L	Monthly	1	<5		
		1/04/15	16/04/15	18/05/15	pH		Monthly	1	7.39		
		1/04/15	16/04/15	18/05/15	Salinity	ppt	Not Required	1	0.152		
		1/04/15	16/04/15	18/05/15	TSS	mg/L	Not Required	1	2		
	Point 16 - Septic waste water Effluent quality monitoring	1/04/15	16/04/15	18/05/15	BOD	mg/L	Monthly	1	14		
		1/04/15	16/04/15	18/05/15	FC	units/100ml	Monthly	1	>800		
		1/04/15	16/04/15	18/05/15	O&G	mg/L	Monthly	1	<3		
		1/04/15	16/04/15	18/05/15	TN	mg/L	Monthly	1	27		
		1/04/15	16/04/15	18/05/15	TDS	mg/L	Monthly	1	396		
1/04/15		16/04/15	18/05/15	TP	mg/L	Monthly	1	21			
May-15	Point 10 - Ambient air and weather monitoring station	-	19/06/15	19/06/15	NOx	ppb	Continuous	Continuous	0	6	58
		-	19/06/15	19/06/15	O5	ppb	Continuous	Continuous	-1	15	29
	Point 13 - Air emissions monitoring	-	-	19/06/15	NOx	ppm	Continuous with limit of 2878 g/min	Continuous	Max Nox emission rate did not exceed 2878g/min		
	Point 11 - First Flush Effluent quality monitoring	-	-	19/06/15	O&G	mg/L	Weekly during any discharge	15	Nil observed		
		-	-	19/06/15	pH		Weekly during any discharge	15	7.47	8.09	8.4
	Point 12 - Process Water Effluent quality monitoring	4/05/15	19/05/15	19/06/15	O&G	mg/L	Monthly	1	6		
		4/05/15	19/05/15	19/06/15	pH		Monthly	1	7.73		
		4/05/15	19/05/15	19/06/15	Salinity	ppt	Not Required	1	0.384		
		4/05/15	19/05/15	19/06/15	TSS	mg/L	Not Required	1	2		
	Point 16 - Septic waste water Effluent quality monitoring	4/05/15	19/05/15	19/06/15	BOD	mg/L	Monthly	1	NA		
		4/05/15	19/05/15	19/06/15	FC	units/100ml	Monthly	1	NA		
		4/05/15	19/05/15	19/06/15	O&G	mg/L	Monthly	1	NA		
		4/05/15	19/05/15	19/06/15	TN	mg/L	Monthly	1	NA		
		4/05/15	19/05/15	19/06/15	TDS	mg/L	Monthly	1	NA		
4/05/15		19/05/15	19/06/15	TP	mg/L	Monthly	1	NA			
Point 10 - Ambient air and weather monitoring station	-	13/07/15	15/07/15	NOx	ppb	Continuous	Continuous	0	10	68	
	-	13/07/15	15/07/15	O6	ppb	Continuous	Continuous	-1	0	28	
	Point 13 - Air emissions monitoring	-	-	15/07/15	NOx	ppm	Continuous with limit of 2878 g/min	Continuous	Max Nox emission rate did not exceed 2878g/min		

Fault resulted in circulation pump not working and being isolated- storage pit pumped out 2 days before sampling (SAS).

Month	Location of monitoring point	Sampled	Obtained	Published	Pollutant	Units	Monitoring limit and requirement	Measurement during month	Min	Mean	Max
Jun-15	Point 11 - First Flush Effluent quality monitoring	-	-	15/07/15	O&G	mg/L	Weekly during any discharge	16	No visual		
		-	-	15/07/15	pH		Weekly during any discharge	16	7.08	7.694	8.5
	Point 12 - Process Water Effluent quality monitoring	1/06/15	16/06/15	15/07/15	O&G	mg/L	Monthly	1	5		
		1/06/15	16/06/15	15/07/15	pH		Monthly	1	7.34		
		1/06/15	16/06/15	15/07/15	Salinity	ppt	Not Required		0.175		
		1/06/15	16/06/15	15/07/15	TSS	mg/L	Not Required		8		
	Point 16 - Septic waste water Effluent quality monitoring	1/06/15	16/06/15	15/07/15	BOD	mg/L	Monthly	1	11		
		1/06/15	16/06/15	15/07/15	FC	units/100ml	Monthly	1	150		
		1/06/15	16/06/15	15/07/15	O&G	mg/L	Monthly	1	<3		
		1/06/15	16/06/15	15/07/15	TN	mg/L	Monthly	1	26		
		1/06/15	16/06/15	15/07/15	TDS	mg/L	Monthly	1	396		
		1/06/15	16/06/15	15/07/15	TP	mg/L	Monthly	1	13		
Annual Review of volume monitoring	Point 2 - 'Septic Wastewater Volume Monitoring Point' on drawing 823-BA-72	25/06/15		28/07/20	Volume	kL/day	Daily, collated annually with limit of 9 kL/day	360	0.00	0.39	6.08
	Point 15 - First flush and process water labelled 'Wastewater Volume Monitoring Point' on drawing 823-BA-72	25/06/15		28/07/20	Volume	kL/day	Daily, collated annually	Process water - 346 First flush - 130		5.60	29.80

Note: Volume monitoring covers the period of 03 May 2014 to 02 May 2015

#### 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