

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 2016-2017

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-16	Point 10 - Ambient air and weather monitoring station	-	-	2/11/16	NOx	ppb	Continuous	Cont.	0	5	52
		-	-	2/11/16	O3	ppb	Continuous	Cont.	-1	-	26
	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	9	No visual		
		-	-	2/11/16	pH		Weekly during any discharge	9	7.7	7.9	8
		5/07/16	21/07/16	2/11/16	Salinity		Not required	1	0.03		
	Point 12 - Process Water Effluent quality monitoring	5/07/16	21/07/16	2/11/16	TSS		Not required	1	5		
		5/07/16	21/07/16	2/11/16	O&G	mg/L	Monthly	1	<5		
		5/07/16	21/07/16	2/11/16	pH		Monthly	1	7.11		
		5/07/16	21/07/16	2/11/16	Salinity	ppt	Not required	1	0.202		
		5/07/16	21/07/16	2/11/16	TSS	mg/L	Not required	1	4		
	Point 16 - Septic waste water Effluent quality monitoring	5/07/16	21/07/16	2/11/16	BOD	mg/L	Monthly	1	9		
		5/07/16	6/06/17	14/06/17	FC	units/100ml	Monthly	1	<10		
		5/07/16	21/07/16	2/11/16	O&G	mg/L	Monthly	1	<3		
		5/07/16	21/07/16	2/11/16	TN	mg/L	Monthly	1	35		
5/07/16		21/07/16	2/11/16	TDS	mg/L	Monthly	1	471			
5/07/16		21/07/16	2/11/16	TP	mg/L	Monthly	1	15			
Aug-16	Point 10 - Ambient air and weather monitoring station	-	12/09/16	2/11/16	NOx	ppb	Continuous	Cont.	0	12	237
		-	12/09/16	2/11/16	O3	ppb	Continuous	Cont.	-1	-	32
	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	4	No visual		
		-	-	2/11/16	pH		Weekly during any discharge	4	7.8	8.3	8.6
		2/08/16	29/08/16	2/11/16	Salinity		Not required	1	0.33		
	Point 12 - Process Water Effluent quality monitoring	2/08/16	29/08/16	2/11/16	TSS		Not required	1	1		
		2/08/16	29/08/16	2/11/16	O&G	mg/L	Monthly	1	<5		
		2/08/16	29/08/16	2/11/16	pH		Monthly	1	7.3		
		2/08/16	29/08/16	2/11/16	Salinity	ppt	Not required	1	0.237		
	Point 16 - Septic waste water Effluent quality monitoring	2/08/16	29/08/16	2/11/16	TSS	mg/L	Not required	1	8		
		2/08/16	29/08/16	2/11/16	BOD	mg/L	Monthly	1	26		
		3/08/16	29/08/16	2/11/16	FC	units/100ml	Monthly	1	<1		
		2/08/16	29/08/16	2/11/16	O&G	mg/L	Monthly	1	<3		
		2/08/16	29/08/16	2/11/16	TN	mg/L	Monthly	1	30		
2/08/16		29/08/16	2/11/16	TDS	mg/L	Monthly	1	445			
2/08/16	29/08/16	2/11/16	TP	mg/L	Monthly	1	38				
Sep-16	Point 10 - Ambient air and weather monitoring station	-	12/10/16	2/11/16	NOx	ppb	Continuous	Cont.	0	10	231
		-	12/10/16	2/11/16	O3	ppb	Continuous	Cont.	0	-	39
	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	13	No visual		
		-	-	2/11/16	pH		Weekly during any discharge	13	7.7	8	8.2
		5/09/16	27/09/16	2/11/16	Salinity		Not required	1	0.363		
	Point 12 - Process Water Effluent quality monitoring	5/09/16	27/09/16	2/11/16	TSS		Not required	1	1		
		5/09/16	27/09/16	2/11/16	O&G	mg/L	Monthly	1	<5		
		5/09/16	27/09/16	2/11/16	pH		Monthly	1	7.36		
		5/09/16	27/09/16	2/11/16	Salinity	ppt	Not required	1	0.158		
	Point 16 - Septic waste water Effluent quality monitoring	5/09/16	27/09/16	2/11/16	TSS	mg/L	Not required	1	4		
		5/09/16	27/09/16	2/11/16	BOD	mg/L	Monthly	1	28		
		5/09/16	27/09/16	2/11/16	FC	units/100ml	Monthly	1	<1		
		5/09/16	27/09/16	2/11/16	O&G	mg/L	Monthly	1	<3		
		5/09/16	27/09/16	2/11/16	TN	mg/L	Monthly	1	42		
5/09/16		27/09/16	2/11/16	TDS	mg/L	Monthly	1	535			
5/09/16	27/09/16	2/11/16	TP	mg/L	Monthly	1	10				
Oct-16	Point 10 - Ambient air and weather monitoring station	14/10/16	11/11/16	17/11/16	NOx	ppb	Continuous	Cont.	0	7	223
		15/10/16	11/11/16	17/11/16	O3	ppb	Continuous	Cont.	0	21	45
	Point 13 - Air emissions monitoring	-	-	17/11/16	NOx	ppm	Continuous with limit of 2878 g/min	Cont.	<2878g/min		
	Point 11 - First Flush Effluent quality monitoring	-	-	17/11/16	O&G	mg/L	Weekly during any discharge	13	No visual		
		-	-	17/11/16	pH		Weekly during any discharge	13	7.6	8.1	8.4
		-	-	17/11/16	Salinity		Not required	1	0.379		
	Point 12 - Process Water Effluent quality monitoring	-	-	17/11/16	TSS		Not required	1	3		
		4/10/16	19/10/16	17/11/16	O&G	mg/L	Monthly	1	<5		
		4/10/16	19/10/16	17/11/16	pH		Monthly	1	7.32		
		4/10/16	19/10/16	17/11/16	Salinity	ppt	Not required	1	0.161		
	Point 16 - Septic waste water Effluent quality monitoring	4/10/16	19/10/16	17/11/16	TSS	mg/L	Not required	1	2		
		4/10/16	19/10/16	17/11/16	BOD	mg/L	Monthly	1	9		
		5/10/16	19/10/16	17/11/16	FC	units/100ml	Monthly	1	<1		
		4/10/16	19/10/16	17/11/16	O&G	mg/L	Monthly	1	<3		
		4/10/16	19/10/16	17/11/16	TN	mg/L	Monthly	1	35		
4/10/16	19/10/16	17/11/16	TDS	mg/L	Monthly	1	486				

Month	Location of monitoring point	Sampled	Obtained	Published	Pollutant	Units	Monitoring limit and requirement	Measurement during month	Min	Mean	Max	
		4/10/16	19/10/16	17/11/16	TP	mg/L	Monthly	1	15			
Nov-16	Point 10 - Ambient air and weather monitoring station	12/12/16	12/12/16	13/12/16	NOx	ppb	Continuous	Cont.	0	7	195	
		12/12/16	12/12/16	13/12/16	O3	ppb	Continuous	Cont.	-1	21	76	
	Point 13 - Air emissions monitoring			13/12/16	NOx	ppm	Continuous with limit of 2878 g/min	Cont.	<2878g/min			
	Point 11 - First Flush Effluent quality monitoring			-	O&G	mg/L	Weekly during any discharge		5	No visual		
				-	pH		Weekly during any discharge		5	8	8.16	8.33
				-	Salinity		Not required		0			
				-	TSS		Not required		0			
	Point 12 - Process Water Effluent quality monitoring	2/11/16	28/11/16	7/12/16	O&G	mg/L	Monthly		1	<5		
		2/11/16	28/11/16	7/12/16	pH		Monthly		1	7.3		
		2/11/16	28/11/16	7/12/16	Salinity	ppt	Not required		1	0.143		
		2/11/16	28/11/16	7/12/16	TSS	mg/L	Not required		1	2		
		2/11/16	28/11/16	7/12/16	BOD	mg/L	Monthly		1	<2		
		3/11/16	28/11/16	7/12/16	FC	units/100ml	Monthly		1	<1		
		2/11/16	28/11/16	7/12/16	O&G	mg/L	Monthly		1	<3		
2/11/16		28/11/16	7/12/16	TN	mg/L	Monthly		1	31			
Point 16 - Septic waste water Effluent quality monitoring	2/11/16	28/11/16	7/12/16	TDS	mg/L	Monthly		1	323			
	2/11/16	28/11/16	7/12/16	TP	mg/L	Monthly		1	12			
Dec-16	Point 10 - Ambient air and weather monitoring station	12/01/17	12/01/17	1/02/17	NOx	ppb	Continuous	Cont.	0	6	124	
		12/01/17	12/01/17	1/02/17	O3	ppb	Continuous	Cont.	-1	23	75	
	Point 13 - Air emissions monitoring			18/01/17	NOx	ppm	Continuous with limit of 2878 g/min	Cont.	<2878g/min			
	Point 11 - First Flush Effluent quality monitoring			18/01/17	O&G	mg/L	Weekly during any discharge		4	No visual		
				18/01/17	pH		Weekly during any discharge		4	7.21	8	8.5
		2/12/16	15/12/16	18/01/17	Salinity		Not required		1	0.399		
		2/12/16	15/12/16	18/01/17	TSS		Not required		1	5		
	Point 12 - Process Water Effluent quality monitoring	2/12/16	15/12/16	18/01/17	O&G	mg/L	Monthly		1	6		
		2/12/16	15/12/16	18/01/17	pH		Monthly		1	7.02		
		2/12/16	15/12/16	18/01/17	Salinity	ppt	Not required		1	0.192		
		2/12/16	15/12/16	18/01/17	TSS	mg/L	Not required		1	6		
	Point 16 - Septic waste water Effluent quality monitoring	2/12/16	15/12/16	18/01/17	BOD	mg/L	Monthly		1	9		
		2/12/16	15/12/16	18/01/17	FC	units/100ml	Monthly		1	<1		
		2/12/16	15/12/16	18/01/17	O&G	mg/L	Monthly		1	<3		
2/12/16		15/12/16	18/01/17	TN	mg/L	Monthly		1	22			
2/12/16		15/12/16	18/01/17	TDS	mg/L	Monthly		1	325			
2/12/16		15/12/16	18/01/17	TP	mg/L	Monthly		1	8.1			
Jan-17	Point 10 - Ambient air and weather monitoring station	10/02/17	10/02/17	13/02/17	NOx	ppb	Continuous	Cont.	0	1	14	
		10/02/17	10/02/17	13/02/17	O3	ppb	Continuous	Cont.	0	6	74	
	Point 13 - Air emissions monitoring			13/02/17	NOx	ppm	Continuous with limit of 2878 g/min	Cont.	<2878g/min			
	Point 11 - First Flush Effluent quality monitoring			13/02/17	O&G	mg/L	Weekly during any discharge		4	No visual		
				13/02/17	pH		Weekly during any discharge		4	7.51	7.952	8.31
		4/01/17	24/01/17	13/02/17	Salinity		Not required		1	0.411		
		4/01/17	24/01/17	13/02/17	TSS		Not required		1	2		
	Point 12 - Process Water Effluent quality monitoring	4/01/17	24/01/17	13/02/17	O&G	mg/L	Monthly		1	<5		
		4/01/17	24/01/17	13/02/17	pH		Monthly		1	7.36		
		4/01/17	24/01/17	13/02/17	Salinity	ppt	Not required		1	0.161		
		4/01/17	24/01/17	13/02/17	TSS	mg/L	Not required		1	4		
	Point 16 - Septic waste water Effluent quality monitoring	4/01/17	24/01/17	13/02/17	BOD	mg/L	Monthly		1	8		
		5/01/17	24/01/17	13/02/17	FC	units/100ml	Monthly		1	<1		
		4/01/17	24/01/17	13/02/17	O&G	mg/L	Monthly		1	<3		
4/01/17		24/01/17	13/02/17	TN	mg/L	Monthly		1	19			
4/01/17		24/01/17	13/02/17	TDS	mg/L	Monthly		1	308			
4/01/17		24/01/17	13/02/17	TP	mg/L	Monthly		1	12			
Feb-17	Point 10 - Ambient air and weather monitoring station	10/03/17	10/03/17	15/03/17	NOx	ppb	Continuous	Cont.	0	10	353	
		10/03/17	10/03/17	15/03/17	O3	ppb	Continuous	Cont.	-2	20	76	
	Point 13 - Air emissions monitoring			15/03/17	NOx	ppm	Continuous with limit of 2878 g/min	Cont.	<2878g/min			
	Point 11 - First Flush Effluent quality monitoring			10/03/17	O&G	mg/L	Weekly during any discharge		4	No visual		
				10/03/17	pH		Weekly during any discharge		4	7.7	8	8.28
		3/02/17	21/02/17	10/03/17	Salinity		Not required			0.516		
		3/02/17	21/02/17	10/03/17	TSS		Not required			5		
	Point 12 - Process Water Effluent quality monitoring	3/02/17	21/02/17	10/03/17	O&G	mg/L	Monthly			<5		
		3/02/17	21/02/17	18/12/00	pH		Monthly			7.3		
		3/02/17	21/02/17	10/03/17	Salinity	ppt	Not required			0.122		
		3/02/17	21/02/17	10/03/17	TSS	mg/L	Not required			1		
	Point 16 - Septic waste water Effluent quality monitoring	3/02/17	21/02/17	10/03/17	BOD	mg/L	Monthly			8		
		3/02/17	21/02/17	10/03/17	FC	units/100ml	Monthly			<1		
		3/02/17	21/02/17	10/03/17	O&G	mg/L	Monthly			<3		
3/02/17		21/02/17	10/03/17	TN	mg/L	Monthly			19			
3/02/17		21/02/17	10/03/17	TDS	mg/L	Monthly			318			
3/02/17		21/02/17	10/03/17	TP	mg/L	Monthly			18			
Point 10 - Ambient air and weather monitoring station	12/04/17	12/04/17	19/04/17	NOx	ppb	Continuous	Cont.	0	6	89		
	12/04/17	12/04/17	19/04/17	O3	ppb	Continuous	Cont.	1	16	65		
	Point 13 - Air emissions monitoring		31/03/17	19/04/17	NOx	ppm	Continuous with limit of 2878 g/min	Cont.	<2878g/min			
	Point 11 - First Flush Effluent quality monitoring			11/04/17	O&G	mg/L	Weekly during any discharge		4	No Visual		
			11/04/17	pH		Weekly during any discharge		4	7.5	7.76	7.93	

The First Flush samples were not collected as the storage pits were empty at the time of collection

Month	Location of monitoring point	Sampled	Obtained	Published	Pollutant	Units	Monitoring limit and requirement	Measurement during month	Min	Mean	Max	
Mar-17	Point 12 - Process Water Effluent quality monitoring	2/03/17	31/03/17	11/04/17	Salinity		Not required		0.171			
		2/03/17	31/03/17	11/04/17	TSS		Not required		1			
		2/03/17	31/03/17	11/04/17	O&G	mg/L	Monthly		<5			
		2/03/17	31/03/17	11/04/17	pH		Monthly		7.75			
		2/03/17	31/03/17	11/04/17	Salinity	ppt	Not required		0.118			
		2/03/17	31/03/17	11/04/17	TSS	mg/L	Not required		1			
	Point 16 - Septic waste water Effluent quality monitoring	2/03/17	31/03/17	11/04/17	BOD	mg/L	Monthly		18			
		3/03/17	31/03/17	11/04/17	FC	units/100ml	Monthly		<1			
		2/03/17	31/03/17	11/04/17	O&G	mg/L	Monthly		<3			
		2/03/17	31/03/17	11/04/17	TN	mg/L	Monthly		27			
		2/03/17	31/03/17	11/04/17	TDS	mg/L	Monthly		344			
		2/03/17	31/03/17	11/04/17	TP	mg/L	Monthly		11			
Apr-17	Point 10 - Ambient air and weather monitoring station		12/05/17	19/05/17	NOx	ppb	Continuous	Cont.	0	13	225	
			12/05/17	19/05/17	O3	ppb	Continuous	Cont.	-1	15	43	
	Point 13 - Air emissions monitoring		3/05/17	19/05/17	NOx	ppm	Continuous with limit of 2878 g/min	Cont.	<2878g/min			
	Point 11 - First Flush Effluent quality monitoring			3/05/17	O&G	mg/L	Weekly during any discharge	4	No visual			
				3/05/17	pH		Weekly during any discharge	4	8.01	8.08	8.12	
		4/04/17	26/04/17	3/05/17	Salinity	ppt	Not required		0.28			
		4/04/17	26/04/17	3/05/17	TSS		Not required		<1			
	Point 12 - Process Water Effluent quality monitoring	4/04/17	26/04/17	3/05/17	O&G	mg/L	Monthly		<5			
		4/04/17	26/04/17	3/05/17	pH		Monthly		7.13			
		4/04/17	26/04/17	3/05/17	Salinity	ppt	Not required		0.154			
		4/04/17	26/04/17	3/05/17	TSS	mg/L	Not required		10			
	Point 16 - Septic waste water Effluent quality monitoring	4/04/17	26/04/17	3/05/17	BOD	mg/L	Monthly		14			
		4/04/17	26/04/17	3/05/17	FC	units/100ml	Monthly		<1			
		4/04/17	26/04/17	3/05/17	O&G	mg/L	Monthly		<3			
		4/04/17	26/04/17	3/05/17	TN	mg/L	Monthly		38			
		4/04/17	26/04/17	3/05/17	TDS	mg/L	Monthly		369			
		4/04/17	26/04/17	3/05/17	TP	mg/L	Monthly		8.6			
	May-17	Point 10 - Ambient air and weather monitoring station		14/06/17	19/06/17	NOx	ppb	Continuous	Cont.	1	13	110
			14/06/17	19/06/17	O3	ppb	Continuous	Cont.	-1	15	32	
Point 13 - Air emissions monitoring			7/06/17	14/06/17	NOx	ppm	Continuous with limit of 2878 g/min	Cont.	<2878g/min			
Point 11 - First Flush Effluent quality monitoring			7/06/17	14/06/17	O&G	mg/L	Weekly during any discharge		No Visual			
			7/06/17	14/06/17	pH		Weekly during any discharge		8.10	8.23	8.4	
		2/05/17	19/05/17	19/05/17	Salinity	ppt	Not required	0	The First Flush samples were not collected as the storage pits were empty at the time of collection			
Point 12 - Process Water Effluent quality monitoring		2/05/17	19/05/17	19/05/17	TSS	mg/L	Not required	0				
		2/05/17	19/05/17	19/05/17	O&G	mg/L	Monthly		<5			
		2/05/17	19/05/17	19/05/17	pH		Monthly		7.5			
		2/05/17	19/05/17	19/05/17	Salinity	ppt	Not required		0.165			
Point 16 - Septic waste water Effluent quality monitoring		2/05/17	19/05/17	19/05/17	TSS	mg/L	Not required		2			
		2/05/17	19/05/17	19/05/17	BOD	mg/L	Monthly		23			
		2/05/17	19/05/17	19/05/17	FC	units/100ml	Monthly		<1			
		2/05/17	19/05/17	19/05/17	O&G	mg/L	Monthly		<3			
		2/05/17	19/05/17	19/05/17	TN	mg/L	Monthly		15			
		2/05/17	19/05/17	19/05/17	TDS	mg/L	Monthly		466			
Jun-17		Point 10 - Ambient air and weather monitoring station		13/07/17	13/07/17	NOx	ppb	Continuous	Cont.	1	12	127
				13/07/17	13/07/17	O3	ppb	Continuous	Cont.	-1	14	27
	Point 13 - Air emissions monitoring		3/07/17	5/07/17	NOx	ppm	Continuous with limit of 2878 g/min	Cont.	<2878g/min			
	Point 11 - First Flush Effluent quality monitoring		3/07/17	5/07/17	O&G	mg/L	Weekly during any discharge		No Visual			
		2/06/17	3/07/17	5/07/17	pH		Weekly during any discharge		7.60	8.016	8.2	
		1/06/17	21/06/17	5/07/17	Salinity	ppt	Not required	0	0.441			
	Point 12 - Process Water Effluent quality monitoring	1/06/17	21/06/17	5/07/17	TSS	mg/L	Not required	0	1			
		1/06/17	21/06/17	5/07/17	O&G	mg/L	Monthly		<5			
		1/06/17	21/06/17	5/07/17	pH		Monthly		7.19			
		1/06/17	21/06/17	5/07/17	Salinity	ppt	Not required		0.161			
	Point 16 - Septic waste water Effluent quality monitoring	1/06/17	21/06/17	5/07/17	TDS	mg/L	Not required		135			
		1/06/17	21/06/17	5/07/17	TSS	mg/L	Not required		2			
		1/06/17	21/06/17	5/07/17	BOD	mg/L	Monthly		28			
		1/06/17	21/06/17	5/07/17	FC	units/100ml	Monthly		<1			
		1/06/17	21/06/17	5/07/17	O&G	mg/L	Monthly		<3			
		1/06/17	21/06/17	5/07/17	TN	mg/L	Monthly		31			
	Annual Review of volume monitoring	Point 2 - 'Septic Wastewater Volume Monitoring Point' on drawing 823-BA-72		22/06/17	28/07/20	Volume	kL/day	Daily, collated annually with limit of 9 kL/day	365	0.00	0.68	7.15
		Point 15 - First flush and process water labelled 'Wastewater Volume Monitoring Point' on drawing 823-BA-72		22/06/17	28/07/20	Volume	kL/day	Daily, collated annually	365	0.00	23.01	231.30

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