AGL UPSTREAM INVESTMENTS PTY LTD
ROSALIND PARK GAS PLANT
Air Monitoring Report

Reporting Period: April 2013

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Foreword

PREMISES	Rosalind Park Gas Plant Lot 35 Medhurst Road GILEAD NSW 2560
LICENCE DETAILS	Environment Protection Licence 12003
LICENCEE	AGL Upstream Investments Pty Limited
LICENCEE'S ADDRESS	Locked Bag 1837, North Sydney, NSW 2060
REPORTING PERIOD	01 April to 30 April 2013
REPORT DATE	07 June 2013 (version 2)
REPORT PREPARED BY	Aaron Clifton Environmental Manager

SUMMARY OF ACTIVITY

Rosalind Park Gas Plant, located approximately 60km south west of Sydney, is a natural gas processing and treatment plant, used to process coal seam natural gas from the Camden Gas Project.

Produced natural gas is cleaned, dehydrated, compressed and odourised before being measured and transported by pipeline about 500 metres into the nearby Moomba to Sydney Natural Gas Pipeline. The premises covered by this Environment Protection Licence also includes all gas wells, gas gathering, reticulation systems, trunk lines and associated effluent storage areas and work areas of the Camden Gas Project.

This Monitoring Report relates to those air monitoring activities specified in Part 5, Monitoring and Recording Conditions, of the Environment Protection Licence. The Licence conditions stipulate air monitoring is required to be carried out at the locations, at the frequency and using the test methods as set out in the tables below.

This report sets out the results of continuous monitoring summarized on a monthly basis. A separate report is issued for quarterly monitoring.

This report is prepared in accordance with the *Requirements for Publishing Pollution Monitoring Data* (EPA, March 2012) (**Publication Requirements**).

AIR MONITORING LOCATIONS

Point	Location	Monitoring Frequency
1	Exhaust Stack 1 on Compression Engine 1	Continuous
2	Exhaust Stack 2 on Compression Engine 2	Continuous
3	Exhaust Stack 3 on Compression Engine 3	Continuous

Note: monitoring is only undertaken when the compression engines are running.

AIR MONITORING TEST METHODS

Parameter	NSW EPA Test Method (Sampling Method)	Reference Method
Oxides of Nitrogen	CEM-2	USEPA Performance Specification 2
Temperature	TM-2	USEPA Method 2
Moisture content	TM-22	USEPA Method 4
Volumetric Flow Rate	CEM-6	USEPA Performance Specification 6
Oxygen	CEM-3	USEPA Performance Specification 3

USEPA Method refers to the US Environmental Protection Agency 2000, Code of Federal Regulations, Title 40, Part 60, Appendix A Methods.

USEPA Performance Specification refers to the US Environmental Protection Agency 2000, Code of Federal Regulations, Title 40, Part 60, Appendix B, Performance Specifications.

Air Monitoring Results

Continuous monitoring results are based on test results obtained over a one-hour averaging period as set out in Schedule 5 of the *Protection of the Environment Operations (Clean Air) Regulation* 2010 (NSW).

Monitoring Point	Description	Pollutant	Units of measure	Oxygen correction	Sampling method	Monitoring frequency required by licence	Number of times measured during sampling period	Minimum value	Average value	Maximum value	Concentration limit
1	Compressor Engine 1	Oxides of Nitrogen	milligrams per cubic metre	7% oxygen	CEM-2	Continuous	*Compressor Engine 1 operated from 1 to 30 April. The CEMS of Compressor Engine 1 has 1 hour of down time every 24 hours for cleaning purposes. See Note 1.*	232	307	423	461
		Temperature	degrees Celsius		TM-2	Continuous		314	342	424	
		Moisture	percent		TM-22	Continuous		6.9	7.7	8.7	
		Volumetric flow rate	cubic metres per second		CEM-6	Continuous		2.8	2.9	3.0	
		Oxygen	percent		CEM-3	Continuous		11.1	12.0	13.0	
2	Compressor Engine 2	Oxides of Nitrogen	milligrams per cubic metre	7% oxygen	CEM-2	Continuous	*Compressor Engine 2 operated from 1 to 22 April. The CEMS of Compressor Engine 2 was operating for 45 minutes of every one hour period. The remaining 15 minute period was down time for cleaning purposes. See Note 2.*	85	104	222	461
		Temperature	degrees Celsius		TM-2	Continuous		382	415	445	
		Moisture	percent		TM-22	Continuous		See Note 2	See Note 2	See Note 2	
		Volumetric flow rate	cubic metres per second		CEM-6	Continuous		See Note 2	See Note 2	See Note 2	
		Oxygen	percent		CEM-3	Continuous		0.10	0.42	0.65	
3	Compressor Engine 3	Oxides of Nitrogen	milligrams per cubic metre	7% oxygen	CEM-2	Continuous	*Compressor Engine 3 operated from 22 to 30 April The CEMS of Compressor Engine 3 was operating for 45 minutes of every one hour period. The remaining 15 minute period was down time for cleaning purposes. See Note 3.*	80	99	136	461
		Temperature	degrees Celsius		TM-2	Continuous		390	428	469	
		Moisture	percent		TM-22	Continuous		See Note 3	See Note 3	See Note 3	
		Volumetric flow rate	cubic metres per second		CEM-6	Continuous		See Note 3	See Note 3	See Note 3	
		Oxygen	percent		CEM-3	Continuous		0.66	0.78	0.89	

Air Monitoring Results

Emission Testing Consultants has been engaged by AGL to undertake independent monitoring each month for Monitoring Points 1, 2 and 3. This is additional monitoring beyond the conditions of EPL 12003. Results for monitoring undertaken by Emission Testing Consultants (Report 130095r) on 23 April 2013 are as follows:

Monitoring Point	Description	Pollutant	Units of measure	Oxygen correction	Sampling method	Monitoring frequency required by licence	Result	Concentration limit
1	Compressor Engine 1	Oxides of Nitrogen	milligrams per cubic metre	7% oxygen	TM-11	Not applicable	410	461
		Temperature	degrees Celsius		TM-2	Not applicable	358	
		Moisture	percent		TM-22	Not applicable	8.7	
		Volumetric flow rate	cubic metres per second		TM-2	Not applicable	3	
		Oxygen	percent		TM-25	Not applicable	12.1	
2	Compressor Engine 2	Oxides of Nitrogen	milligrams per cubic metre	7% oxygen	TM-11	Not applicable	*Compressor Engine 2 was not operating at the time of the test.*	461
		Temperature	degrees Celsius		TM-2	Not applicable		
		Moisture	percent		TM-22	Not applicable		
		Volumetric flow rate	cubic metres per second		TM-2	Not applicable		
		Oxygen	percent		TM-25	Not applicable		
3	Compressor Engine 3	Oxides of Nitrogen	milligrams per cubic metre	7% oxygen	TM-11	Not applicable	180	461
		Temperature	degrees Celsius		TM-2	Not applicable	434	
		Moisture	percent		TM-22	Not applicable	15	
		Volumetric flow rate	cubic metres per second		TM-2	Not applicable	0.878	
		Oxygen	percent		TM-25	Not applicable	0.63	

Notes:

1. In accordance with Section 3.4.1 of the EPA Publication Requirements, the following data points have not been included for Monitoring Point 1 (Compressor #1 exhaust stack) as AGL knows that the data collected is incorrect. The data is incorrect because the component of the equipment measuring the relevant parameter has either failed or was not operating. AGL has taken and is currently taking actions to rectify the issue (e.g. replacement of failed components of measuring equipment).

Date	Approximate total hours	Pollutant
01-30.04.2013	30	Oxides of Nitrogen and Oxygen
08-09.04.2013	12	Temperature
09.04.2013	1	Oxides of Nitrogen, Oxygen, Temperature, Volumetric Flow, Moisture

2. In accordance with Section 3.4.1 of the EPA Publication Requirements, the following data points have not been included for Monitoring Point 2 (Compressor #2 exhaust stack) as AGL knows that the data collected is incorrect. The data is incorrect because the component of the equipment measuring the relevant parameter has either failed or was not operating. AGL has taken and is currently taking actions to rectify the issue (e.g. replacement of failed components of measuring equipment).

Date	Approximate total hours	Pollutant
01-22.04.2013	511	Volumetric Flow Rate, Moisture

3. In accordance with Section 3.4.1 of the EPA Publication Requirements, the following data points have not been included for Monitoring Point 3 (Compressor #3 exhaust stack) as AGL knows that the data collected is incorrect. The data is incorrect because the component of the equipment measuring the relevant parameter has either failed or was not operating. AGL

has taken and is currently taking actions to rectify the issue (e.g. replacement of failed components of measuring equipment).

Date	Approximate total hours	Pollutant
22-30.04.2013	204	Volumetric Flow Rate, Moisture