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

Reporting Period: December 2012

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Foreword

PREMISES	Rosalind Park Gas Plant Lot 35 Medhurst Road GILEAD NSW 2560
LICENCE DETAILS	<u>Environment Protection Licence 12003</u>
LICENCEE	AGL Upstream Investments Pty Limited
LICENCEE'S ADDRESS	Locked Bag 1837, North Sydney, NSW 2060
REPORTING PERIOD	01 December to 31 December 2012
REPORT DATE	13 February 2013
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	<i>The CEMS of Compressor Engine 1 was operating for 45 minutes of every one hour period. The remaining 15 minute period was down time for cleaning purposes. See Note 2.</i>	174	250	578 See Note 1	461
		Temperature	degrees Celsius		TM-2	Continuous		324	345	373	
		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		11.45	12.45	13.0	
2	Compressor Engine 2	Oxides of Nitrogen	milligrams per cubic metre	7% oxygen	CEM-2	Continuous	<i>Compressor Engine 2 operated from 01-24 December and 27-31 December. 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 3.</i>	71	119	238	461
		Temperature	degrees Celsius		TM-2	Continuous		302	432	492	
		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		0.41	0.68	0.93	
3	Compressor Engine 3	Oxides of Nitrogen	milligrams per cubic metre	7% oxygen	CEM-2	Continuous	<i>Compressor Engine 3 operated on 21 December and from 25-27 December. The CEMS of Compressor Engine 3 was operating for 45 minutes of every one hour period. The remaining 15 minute</i>	84	124	395	461
		Temperature	degrees Celsius		TM-2	Continuous		305	379	517	
		Moisture	percent		TM-22	Continuous		See Note 4	See Note 4	See Note 4	
		Volumetric flow rate	cubic metres per second		CEM-6	Continuous		See Note 4	See Note 4	See Note 4	
		Oxygen	percent		CEM-3	Continuous		0.61	0.82	1.25	



							<i>period was down time for cleaning purposes. See Note 4.</i>			
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Notes:

1. The NO_x concentration limit was exceeded on for 9 hours on 04 December 2012, and 9 hours on 05 December 2012. The exceedances were caused by a drift in the air fuel ratio adjustment system, causing the engine to run rich (more fuel) which elevates the NO_x emissions. Upon discovering the exceedences on 05 December 2012, the unit was shut down, the problem was identified and has now been rectified.
2. 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
09.12.2012 to 20.12.2012	3	Oxides of Nitrogen, Temperature and Oxygen
22.12.2012 to 21.12.2012	3	Oxides of Nitrogen and Oxygen
06.12.2012 to 19.12.2012	3	Oxides of Nitrogen and Temperature
02.12.2012	1	Oxygen
14.12.2012	1	Temperature
01.12.2012 to 31.12.2012	714	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 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
04.12.2012 – 27.12.2012	8	Oxides of Nitrogen, Temperature and Oxygen
09.12.2012	1	Oxides of Nitrogen
13.12.2012	4	Oxides of Nitrogen
01.12.2012 to 24.12.2012 , and 27.12.2012 to 31.12.2012	652	Volumetric Flow Rate, Moisture

4. 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
21.12.2012 and 25.12.2012 to 27.12.2012	26	Volumetric Flow Rate and Moisture
27.12.20012	3	Oxides of Nitrogen and Oxygen