

The logo features the text "Energy in action.™" in blue, positioned within a large, light brown rounded rectangle. Below this rectangle are three smaller, overlapping light brown shapes of varying sizes and orientations. At the bottom right of these shapes is the AGL logo, which consists of a blue square containing a white sunburst icon and the letters "AGL" in white.

Energy in  
action.™

The AGL logo is a blue square with a white sunburst icon to the left of the letters "AGL" in white.

# AGL UPSTREAM INVESTMENTS PTY LTD

## CAMDEN GAS PROJECT

### **Monthly Flare Pit Water Quality Monitoring Report**

Reporting Period: November 2016

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## Foreword

<b>PREMISES</b>	Rosalind Park Gas Plant Lot 35 Medhurst Road GILEAD NSW 2560
<b>LICENCE DETAILS</b>	<u><a href="#">Environment Protection Licence 12003</a></u>
<b>LICENCEE</b>	AGL Upstream Investments Pty Limited (AGL)
<b>LICENCEE'S ADDRESS</b>	Locked Bag 1837, St Leonards, NSW 2065
<b>MONITORING DATE</b>	November 2016 (02 November 2016)
<b>MONITORING BY</b>	AGL
<b>ANALYSIS BY</b>	ALS Laboratory, Smithfield (Work order number: ES1624871)
<b>DATE DATA OBTAINED</b>	09 November 2016
<b>REPORT DATE</b>	14 November 2016
<b>REPORT PREPARED BY</b>	A. Clifton, Environment Business Partner

## Introduction

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.

The premises are covered by Environment Protection Licence 12003 which 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 water monitoring activities specified in Part 5, Monitoring and Recording Conditions, of the Environment Protection Licence, specifically monitoring point 16 (Rosalind Park Gas Plant Flare Pit) (Table 1). The Licence conditions stipulate water monitoring is required to be carried out at the locations, at the frequency and using the test methods as set out in Table 2. Table 3 presents the results of this month's water monitoring. This report is prepared in accordance with the Requirements for Publishing Pollution Monitoring Data (EPA, October, 2013) (**Publication Requirements**).

The water quality samples are analysed by an external NATA certified laboratory (ALS Environmental, Smithfield), in accordance with the EPA Approved Methods Publication "*Approved Methods for the Sampling and Analysis of Water Pollutants in New South Wales*" (EPA, 2004), with the exception of phenols and PAHs, which were analysed with an alternate method following written approval from the EPA (EPA, 2014) (refer to Table 2 for analytical methodology).



**Table 1- Flare pit water quality monitoring point location**

EPA monitoring point	Location	Latitude	Longitude
16	RFPF	34°07'17.0"S	150°46'08.1"E

Coordinate reference system: Map Grid of Australia 1994 Zone 56

**Table 2 – Analytes monitored, frequency (as per EPL 12003) and methodology**

Analyte	Units of measure	Frequency	Sampling Method	Analytical method
<b>BOD</b>	milligrams per litre	Monthly	Grab sample	APHA 5210 B using APHA 4500-O G for the determination of dissolved oxygen
<b>Electrical conductivity</b>	Microsiemens per centimetre	Monthly	Grab sample	APHA (1998) section 2510 B
<b>Oil and grease</b>	milligrams per litre	Monthly	Grab sample	APHA 5520 B
<b>Phenols</b>	micrograms per litre	Monthly	Grab sample	USEPA (1996a) method 8270 D
<b>Total organic carbon</b>	milligrams per litre	Monthly	Grab sample	APHA 5310 B
<b>Total PAH's</b>	micrograms per litre	Monthly	Grab sample	USEPA (1996a) method 8270 D
<b>Total petroleum hydrocarbons</b>	micrograms per litre	Monthly	Grab sample	USEPA (1996h) method 8015B
<b>Total suspended solids</b>	milligrams per litre	Monthly	Grab sample	APHA 2540 D

**Table 3 – Flare pit water monitoring results – November 2016**

		Monitoring point	16
		Location	RFPF
		Sampled Date	02/11/2016
		Data obtained	09/11/2016
Analyte	Units	Limit of reporting	
<b>BOD</b>	mg/L	2	73
<b>Electrical conductivity</b>	µS/cm	1	9510
<b>Oil and grease</b>	mg/L	5	<5
<b>Phenols</b>			
Phenol	µg/L	1	<1.0
2-Chlorophenol	µg/L	1	<1.0
2-Methylphenol	µg/L	1	<1.0
3- & 4-Methylphenol	µg/L	2	<2.0
2-Nitrophenol	µg/L	1	<1.0
2,4-Dimethylphenol	µg/L	1	<1.0
2,4-Dichlorophenol	µg/L	1	<1.0
2,6-Dichlorophenol	µg/L	1	<1.0
4-Chloro-3-methylphenol	µg/L	1	<1.0
2,4,6-Trichlorophenol	µg/L	1	<1.0
2,4,5-Trichlorophenol	µg/L	1	<1.0
Pentachlorophenol	µg/L	2	<2.0

		Monitoring point	16
		Location	RFPF
		Sampled Date	02/11/2016
		Data obtained	09/11/2016
Analyte	Units	Limit of reporting	
<b>Total organic carbon</b>	mg/L	1	72
<b>Total PAH's</b>			
Naphthalene	µg/L	1	<1.0
Acenaphthylene	µg/L	1	<1.0
Acenaphthene	µg/L	1	<1.0
Fluorene	µg/L	1	<1.0
Phenanthrene	µg/L	1	<1.0
Anthracene	µg/L	1	<1.0
Fluoranthene	µg/L	1	<1.0
Pyrene	µg/L	1	<1.0
Benz(a)anthracene	µg/L	1	<1.0
Chrysene	µg/L	1	<1.0
Benzo(b+j)fluoranthene	µg/L	1	<1.0
Benzo(k)fluoranthene	µg/L	1	<1.0
Benzo(a)pyrene	µg/L	0.5	<0.5
Indeno(1.2.3.cd)pyrene	µg/L	1	<1.0
Dibenz(a.h)anthracene	µg/L	1	<1.0
Benzo(g.h.i)perylene	µg/L	1	<1.0
Sum of polycyclic aromatic hydrocarbons	µg/L	0.5	<0.5
Benzo(a)pyrene TEQ (zero)	µg/L	0.5	<0.5
<b>Total petroleum hydrocarbons</b>			
C6 - C9 Fraction	µg/L	20	<20
C10 - C14 Fraction	µg/L	50	<50
C15 - C28 Fraction	µg/L	100	<100
C29 - C36 Fraction	µg/L	50	<50
C10 - C36 Fraction (sum)	µg/L	50	<50
<b>Total suspended solids</b>	mg/L	5	20

## References

Environment Protection Authority (EPA), 2014. Letter correspondence to AGL Upstream Investments Pty Ltd., titled: *Environment Protection Licence 12003*, EPA reference: EF13/2522:DOC14/95163-07:CK, dated 28 August 2014, signed: Greg Newman (Acting Manager Illawarra).

Environment Protection Authority (EPA), 2004. Approved Methods for the Sampling and Analysis of Water Pollutants in New South Wales, The Department of Environment and Conservation, Sydney, Australia. Available online: <http://www.environment.nsw.gov.au/resources/water/approvedmethods-water.pdf>

The State of NSW and Environment Protection Authority (EPA), 2013. Requirements for publishing pollution monitoring data. Environment Protection Authority, Sydney, Australia. Available online: <http://www.epa.nsw.gov.au/resources/licensing/130742reqpubpmdata.pdf>