

AGL UPSTREAM INVESTMENTS PTY LTD CAMDEN GAS PROJECT

Monthly Flare Pit Water Quality Monitoring Report

Reporting Period: January 2018

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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 (AGL)

LICENCEE'S ADDRESS Locked Bag 1837, St Leonards, NSW 2065

MONITORING DATE January 2018 (16 January 2018)

MONITORING BY AGL

ANALYSIS BY ALS Laboratory, Smithfield (Work order number: ES1802030)

DATE DATA OBTAINED 24 January 2018

REPORT DATE 25 January 2018

REPORT PREPARED BY 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	Latitiude	Longitude
16	RPFP	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
BOD	milligrams per litre	Monthly	Grab sample	APHA 5210 B using APHA 4500-O G for the determination of dissolved oxygen
Electrical conductivity	Microsiemens per centimetre	Monthly	Grab sample	APHA (1998) section 2510 B
Oil and grease	milligrams per litre	Monthly	Grab sample	APHA 5520 B
Phenols	micrograms per litre	Monthly	Grab sample	USEPA (1996a) method 8270 D
Total organic carbon	milligrams per litre	Monthly	Grab sample	APHA 5310 B
Total PAH's	micrograms per litre	Monthly	Grab sample	USEPA (1996a) method 8270 D
Total petroleum hydrocarbons	micrograms per litre	Monthly	Grab sample	USEPA (1996h) method 8015B
Total suspended solids	milligrams per litre	Monthly	Grab sample	APHA 2540 D

Table 3 - Flare pit water monitoring results

		Monitoring point	16
		Location	RPFP
		Sampled Date	16/01/2018
		Data obtained	24/01/2018
Analyte	Units	Limit of reporting	
BOD	mg/L	2	12
Electrical conductivity	μS/cm	1	16200
Oil and grease	mg/L	5	<5
Phenois			
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
Total organic carbon	mg/L	1	494



		Monitoring point	16
		Location	RPFP
		Sampled Date	16/01/2018
		Data obtained	24/01/2018
Analyte	Units	Limit of reporting	
Total PAH's			
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
Total petroleum hydrocarbons			
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
Total suspended solids	mg/L	5	19

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