eurofins | Lancaster Laboratories

Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Cabot Oil & Gas Corporation
Five Penn Center West
Suite 401
Pittsburgh PA 15276

February 09, 2012

Project: PASUS-EPA-48743

Submittal Date: 01/26/2012
Group Number: 1286826
SDG: PAS09
PO Number: 47745
State of Sample Origin: PA

Client Sample Description	Lancaster Labs (LLI) #
181.000-1,042.00,000 WELL-1-1	6533200
181.000-1,042.00,000 WELL-1-1 Filtered	6533201
181.000-1,042.00,000 Trip Blank	6533202

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Wendy A Kozma at (717) 656-2300 Ext. 1522

Respectfully Submitted,

Mark A. Ratcliff
Senior Specialist

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

eurofins | Lancaster Laboratories

Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: 181.000-1,042.00,000 WELL-1-1
Ex. 6 - Personal Privacy
PASUS-EPA-48743

LLI Sample # WW 6533200
LLI Group # 1286826
Account # 13294

Project Name: PASUS-EPA-48743

Collected: 01/26/2012 15:50 by GK

Submitted: 01/26/2012 23:31
Reported: 02/09/2012 14:11

Cabot Oil & Gas Corporation
Five Penn Center West
Suite 401
Pittsburgh PA 15276

11934 SDG#: PAS09-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	< 5.0	5.0	3.0	1
02898	Acrylonitrile	107-13-1	< 5.0	5.0	1.0	1
02898	Benzene	71-43-2	< 0.5	0.5	0.1	1
02898	Bromobenzene	108-86-1	< 0.5	0.5	0.1	1
02898	Bromochloromethane	74-97-5	< 0.5	0.5	0.1	1
02898	Bromodichloromethane	75-27-4	< 0.5	0.5	0.1	1
02898	Bromoform	75-25-2	< 0.5	0.5	0.1	1
02898	Bromomethane	74-83-9	< 0.5	0.5	0.1	1
02898	2-Butanone	78-93-3	< 5.0	5.0	1.0	1
02898	n-Butylbenzene	104-51-8	< 0.5	0.5	0.1	1
02898	sec-Butylbenzene	135-98-8	< 0.5	0.5	0.1	1
02898	tert-Butylbenzene	98-06-6	< 0.5	0.5	0.1	1
02898	Carbon Disulfide	75-15-0	< 0.5	0.5	0.4	1
02898	Carbon Tetrachloride	56-23-5	< 0.5	0.5	0.1	1
02898	Chlorobenzene	108-90-7	< 0.5	0.5	0.1	1
02898	Chloroethane	75-00-3	< 0.5	0.5	0.1	1
02898	2-Chloroethyl vinyl ether	110-75-8	< 0.5	0.5	0.1	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.					
02898	Chloroform	67-66-3	< 0.5	0.5	0.1	1
02898	Chloromethane	74-87-3	< 0.5	0.5	0.2	1
02898	2-Chlorotoluene	95-49-8	< 0.5	0.5	0.1	1
02898	4-Chlorotoluene	106-43-4	< 0.5	0.5	0.1	1
02898	Cyclohexane	110-82-7	< 0.5	0.5	0.1	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	< 0.5	0.5	0.2	1
02898	Dibromochloromethane	124-48-1	< 0.5	0.5	0.1	1
02898	1,2-Dibromoethane	106-93-4	< 0.5	0.5	0.1	1
02898	Dibromomethane	74-95-3	< 0.5	0.5	0.1	1
02898	1,2-Dichlorobenzene	95-50-1	< 0.5	0.5	0.1	1
02898	1,3-Dichlorobenzene	541-73-1	< 0.5	0.5	0.1	1
02898	1,4-Dichlorobenzene	106-46-7	< 0.5	0.5	0.1	1
02898	Dichlorodifluoromethane	75-71-8	< 0.5	0.5	0.1	1
02898	1,1-Dichloroethane	75-34-3	< 0.5	0.5	0.1	1
02898	1,2-Dichloroethane	107-06-2	< 0.5	0.5	0.1	1
02898	1,1-Dichloroethene	75-35-4	< 0.5	0.5	0.1	1
02898	cis-1,2-Dichloroethene	156-59-2	< 0.5	0.5	0.1	1
02898	trans-1,2-Dichloroethene	156-60-5	< 0.5	0.5	0.1	1
02898	1,2-Dichloropropane	78-87-5	< 0.5	0.5	0.1	1
02898	1,3-Dichloropropane	142-28-9	< 0.5	0.5	0.1	1
02898	2,2-Dichloropropane	594-20-7	< 0.5	0.5	0.1	1
02898	1,1-Dichloropropene	563-58-6	< 0.5	0.5	0.1	1
02898	cis-1,3-Dichloropropene	10061-01-5	< 0.5	0.5	0.1	1
02898	trans-1,3-Dichloropropene	10061-02-6	< 0.5	0.5	0.1	1
02898	Ethylbenzene	100-41-4	< 0.5	0.5	0.1	1
02898	Freon 113	76-13-1	< 0.5	0.5	0.2	1
02898	Hexachlorobutadiene	87-68-3	< 0.5	0.5	0.1	1
02898	2-Hexanone	591-78-6	< 5.0	5.0	1.0	1
02898	Isopropylbenzene	98-82-8	< 0.5	0.5	0.1	1

*=This limit was used in the evaluation of the final result

eurofins | Lancaster Laboratories

Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: 181.000-1.042.00.000 WELL-1-1
Ex. 6 - Personal Privacy
PASUS-EPA-48743

LLI Sample # WW 6533200
LLI Group # 1286826
Account # 13294

Project Name: PASUS-EPA-48743

Collected: 01/26/2012 15:50 by GK

Submitted: 01/26/2012 23:31
Reported: 02/09/2012 14:11

Cabot Oil & Gas Corporation
Five Penn Center West
Suite 401
Pittsburgh PA 15276

11934 SDG#: PAS09-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		ug/l	ug/l	ug/l	
02898	p-Isopropyltoluene	99-87-6	< 0.5	0.5	0.1	1
02898	Methyl Acetate	79-20-9	< 1.0	1.0	0.3	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	< 0.5	0.5	0.1	1
02898	4-Methyl-2-Pentanone	108-10-1	< 5.0	5.0	1.0	1
02898	Methylcyclohexane	108-87-2	< 0.5	0.5	0.1	1
02898	Methylene Chloride	75-09-2	< 0.5	0.5	0.2	1
02898	Naphthalene	91-20-3	< 0.5	0.5	0.1	1
02898	n-Propylbenzene	103-65-1	< 0.5	0.5	0.1	1
02898	Styrene	100-42-5	< 0.5	0.5	0.1	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	< 0.5	0.5	0.1	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	< 0.5	0.5	0.1	1
02898	Tetrachloroethene	127-18-4	< 0.5	0.5	0.1	1
02898	Toluene	108-88-3	< 0.5	0.5	0.1	1
02898	1,2,3-Trichlorobenzene	87-61-6	< 0.5	0.5	0.1	1
02898	1,2,4-Trichlorobenzene	120-82-1	< 0.5	0.5	0.1	1
02898	1,1,1-Trichloroethane	71-55-6	< 0.5	0.5	0.1	1
02898	1,1,2-Trichloroethane	79-00-5	< 0.5	0.5	0.1	1
02898	Trichloroethene	79-01-6	< 0.5	0.5	0.1	1
02898	Trichlorofluoromethane	75-69-4	< 0.5	0.5	0.1	1
02898	1,2,3-Trichloropropane	96-18-4	< 1.0	1.0	0.3	1
02898	1,2,4-Trimethylbenzene	95-63-6	< 0.5	0.5	0.1	1
02898	1,3,5-Trimethylbenzene	108-67-8	< 0.5	0.5	0.1	1
02898	Vinyl Acetate	108-05-4	< 0.5	0.5	0.2	1
02898	Vinyl Chloride	75-01-4	< 0.5	0.5	0.1	1
02898	m+p-Xylene	179601-23-1	< 0.5	0.5	0.1	1
02898	o-Xylene	95-47-6	< 0.5	0.5	0.1	1

00890 VOA GC/MS Library Search

The results from the volatile library search are listed on the attached FORM 1 - VOA-TIC. The qualifiers appearing in the "Q" column are defined on the back of this form.

GC/MS Semivolatiles	**SW-846 8270C**		ug/l	ug/l	ug/l	
01309	Acenaphthene	83-32-9	< 0.5	0.5	0.1	1
01309	Acenaphthylene	208-96-8	< 0.5	0.5	0.1	1
01309	Acetophenone	98-86-2	< 1	1	0.5	1
01309	Anthracene	120-12-7	< 0.5	0.5	0.1	1
01309	Atrazine	1912-24-9	< 5	5	2	1
01309	Benzaldehyde	100-52-7	< 5	5	1	1
01309	Benzo(a)anthracene	56-55-3	< 0.5	0.5	0.1	1
01309	Benzo(a)pyrene	50-32-8	< 0.5	0.5	0.1	1
01309	Benzo(b)fluoranthene	205-99-2	< 0.5	0.5	0.1	1
01309	Benzo(g,h,i)perylene	191-24-2	< 0.5	0.5	0.1	1
01309	Benzo(k)fluoranthene	207-08-9	< 0.5	0.5	0.1	1
01309	1,1'-Biphenyl	92-52-4	< 1	1	0.5	1
01309	4-Bromophenyl-phenylether	101-55-3	< 1	1	0.5	1
01309	2-Butoxyethanol	111-76-2	< 5	5	1	1
01309	Butylbenzylphthalate	85-68-7	< 5	5	2	1

*=This limit was used in the evaluation of the final result

eurofins | Lancaster Laboratories

Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: 181.000-1.042.00.000 WELL-1-1
Ex. 6 - Personal Privacy
PASUS-EPA-48743

LLI Sample # WW 6533200
LLI Group # 1286826
Account # 13294

Project Name: PASUS-EPA-48743

Collected: 01/26/2012 15:50 by GK

Submitted: 01/26/2012 23:31
Reported: 02/09/2012 14:11

Cabot Oil & Gas Corporation
Five Penn Center West
Suite 401
Pittsburgh PA 15276

11934 SDG#: PAS09-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C			ug/l	ug/l	ug/l	
01309	Di-n-butylphthalate	84-74-2	< 5	5	2	1
01309	Caprolactam	105-60-2	< 14	14	5	1
01309	Carbazole	86-74-8	< 1	1	0.5	1
01309	4-Chloro-3-methylphenol	59-50-7	< 1	1	0.5	1
01309	4-Chloroaniline	106-47-8	< 1	1	0.5	1
01309	bis(2-Chloroethoxy)methane	111-91-1	< 1	1	0.5	1
01309	bis(2-Chloroethyl)ether	111-44-4	< 1	1	0.5	1
01309	bis(2-Chloroisopropyl)ether	39638-32-9	< 1	1	0.5	1
01309	2-Chloronaphthalene	91-58-7	< 1	1	0.4	1
01309	2-Chlorophenol	95-57-8	< 1	1	0.5	1
01309	4-Chlorophenyl-phenylether	7005-72-3	< 1	1	0.5	1
01309	Chrysene	218-01-9	< 0.5	0.5	0.1	1
01309	Dibenz(a,h)anthracene	53-70-3	< 0.5	0.5	0.1	1
01309	Dibenzofuran	132-64-9	< 1	1	0.5	1
01309	3,3'-Dichlorobenzidine	91-94-1	< 5	5	2	1
01309	2,4-Dichlorophenol	120-83-2	< 1	1	0.5	1
01309	Diethylphthalate	84-66-2	< 5	5	2	1
01309	2,4-Dimethylphenol	105-67-9	< 1	1	0.5	1
01309	Dimethylphthalate	131-11-3	< 5	5	2	1
01309	4,6-Dinitro-2-methylphenol	534-52-1	< 14	14	5	1
01309	2,4-Dinitrophenol	51-28-5	< 29	29	5	1
01309	2,4-Dinitrotoluene	121-14-2	< 5	5	1	1
01309	2,6-Dinitrotoluene	606-20-2	< 1	1	0.5	1
01309	bis(2-Ethylhexyl)phthalate	117-81-7	< 5	5	2	1
01309	Fluoranthene	206-44-0	< 0.5	0.5	0.1	1
01309	Fluorene	86-73-7	< 0.5	0.5	0.1	1
01309	Hexachlorobenzene	118-74-1	< 0.5	0.5	0.1	1
01309	Hexachlorobutadiene	87-68-3	< 1	1	0.5	1
01309	Hexachlorocyclopentadiene	77-47-4	< 14	14	5	1
01309	Hexachloroethane	67-72-1	< 5	5	1	1
01309	Indeno(1,2,3-cd)pyrene	193-39-5	< 0.5	0.5	0.1	1
01309	Isophorone	78-59-1	< 1	1	0.5	1
01309	1-Methylnaphthalene	90-12-0	< 0.5	0.5	0.1	1
01309	2-Methylnaphthalene	91-57-6	< 0.5	0.5	0.1	1
01309	2-Methylphenol	95-48-7	< 1	1	0.5	1
01309	4-Methylphenol	106-44-5	< 1	1	0.5	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
01309	Naphthalene	91-20-3	< 0.5	0.5	0.1	1
01309	2-Nitroaniline	88-74-4	< 1	1	0.5	1
01309	3-Nitroaniline	99-09-2	< 1	1	0.5	1
01309	4-Nitroaniline	100-01-6	< 1	1	0.5	1
01309	Nitrobenzene	98-95-3	< 1	1	0.5	1
01309	2-Nitrophenol	88-75-5	< 1	1	0.5	1
01309	4-Nitrophenol	100-02-7	< 29	29	10	1
01309	N-Nitrosodimethylamine	62-75-9	< 5	5	2	1
01309	N-Nitroso-di-n-propylamine	621-64-7	< 1	1	0.5	1
01309	N-Nitrosodiphenylamine	86-30-6	< 1	1	0.5	1

*=This limit was used in the evaluation of the final result

eurofins | Lancaster Laboratories

Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: 181.000-1,042.00,000 WELL-1-1
Ex. 6 - Personal Privacy
PASUS-EPA-48743

LLI Sample # WW 6533200
LLI Group # 1286826
Account # 13294

Project Name: PASUS-EPA-48743

Collected: 01/26/2012 15:50 by GK

Submitted: 01/26/2012 23:31
Reported: 02/09/2012 14:11

Cabot Oil & Gas Corporation
Five Penn Center West
Suite 401
Pittsburgh PA 15276

11934 SDG#: PAS09-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270C**		ug/l	ug/l	ug/l	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
01309	Di-n-octylphthalate	117-84-0	< 5	5	2	1
01309	Pentachlorophenol	87-86-5	< 5	5	1	1
01309	Phenanthrene	85-01-8	< 0.5	0.5	0.1	1
01309	Phenol	108-95-2	< 1	1	0.5	1
01309	Pyrene	129-00-0	< 0.5	0.5	0.1	1
01309	1,2,4,5-Tetrachlorobenzene	95-94-3	< 1	1	0.5	1
01309	2,3,4,6-Tetrachlorophenol	58-90-2	< 1	1	0.5	1
01309	2,4,5-Trichlorophenol	95-95-4	< 1	1	0.5	1
01309	2,4,6-Trichlorophenol	88-06-2	< 1	1	0.5	1
00893	**Semivolatile Library Search**					
	The results from the semivolatile library search are listed on the attached FORM 1 - SV-TIC. The qualifiers appearing in the "Q" column are defined on the back of this form.					
GC Volatiles	**SW-846 8015B**		ug/l	ug/l	ug/l	
01635	TPH-GRO water C6-C10	n.a.	< 50	50	20	1
GC Miscellaneous	**RSKSOP-175 08/11/94 modified**		ug/l	ug/l	ug/l	
07105	n-butane	106-97-8	< 5.0	5.0	1.0	1
07105	Ethane	74-84-0	17	5.0	1.0	1
07105	Isobutane	75-28-5	< 5.0	5.0	1.0	1
07105	Methane	74-82-8	2,600	300	100	20
07105	Propane	74-98-6	< 5.0	5.0	1.0	1
GC Miscellaneous	**SW-846 8015B**		ug/l	ug/l	ug/l	
06624	n-butanol	71-36-3	< 1,000	1,000	200	1
06624	Ethanol	64-17-5	< 1,000	1,000	200	1
06624	Isobutanol	78-83-1	< 1,000	1,000	200	1
06624	Methanol	67-56-1	< 1,000	1,000	200	1
06624	n-propanol	71-23-8	< 1,000	1,000	200	1
GC Miscellaneous	**SW-846 8015B modified**		mg/l	mg/l	mg/l	
08278	Diethylene glycol	111-46-6	< 10	10	8.0	1
08278	Ethylene glycol	107-21-1	< 10	10	8.0	1
08278	Tetraethylene glycol	112-60-7	< 15	15	15	1
08278	Triethylene glycol	112-27-6	< 10	10	10	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.
Reporting limits were raised due to interference from the sample matrix.

*=This limit was used in the evaluation of the final result

eurofins | Lancaster Laboratories

Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: 181.000-1,042.00,000 WELL-1-1
Ex. 6 - Personal Privacy
PASUS-EPA-48743

LLI Sample # WW 6533200
LLI Group # 1286826
Account # 13294

Project Name: PASUS-EPA-48743

Collected: 01/26/2012 15:50 by GK

Submitted: 01/26/2012 23:31
Reported: 02/09/2012 14:11

Cabot Oil & Gas Corporation
Five Penn Center West
Suite 401
Pittsburgh PA 15276

11934 SDG#: PAS09-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B**		ug/l	ug/l	ug/l	
08269	TPH-DRO water C10-C28	n.a.	< 95	95	30	1
Metals	**EPA 200.7 rev 4.4**		mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	< 0.0500	0.0500	0.0022	1
01750	Calcium	7440-70-2	29.6	0.200	0.0705	1
01756	Lithium	7439-93-2	< 0.0200	0.0200	0.0076	1
01757	Magnesium	7439-95-4	5.18	0.100	0.0067	1
01762	Potassium	7440-09-7	1.03	0.500	0.0874	1
07066	Silver	7440-22-4	< 0.0050	0.0050	0.00091	1
01767	Sodium	7440-23-5	8.97	1.00	0.0647	1
07069	Tin	7440-31-5	< 0.0200	0.0200	0.0043	1
07070	Titanium	7440-32-6	< 0.0100	0.0100	0.00046	1
	EPA 200.8 rev 5.4		mg/l	mg/l	mg/l	
06023	Aluminum	7429-90-5	< 0.100	0.100	0.0103	1
06024	Antimony	7440-36-0	< 0.0010	0.0010	0.00042	1
06025	Arsenic	7440-38-2	< 0.0020	0.0020	0.00095	1
06026	Barium	7440-39-3	0.0854	0.0020	0.00069	1
06027	Beryllium	7440-41-7	< 0.00050	0.00050	0.00013	1
06028	Cadmium	7440-43-9	< 0.00050	0.00050	0.00020	1
06031	Chromium	7440-47-3	< 0.0020	0.0020	0.00060	1
06032	Cobalt	7440-48-4	< 0.00050	0.00050	0.00010	1
06033	Copper	7440-50-8	0.0020	0.0020	0.00038	1
06034	Iron	7439-89-6	< 0.100	0.100	0.0114	1
06035	Lead	7439-92-1	0.0032	0.0010	0.000080	1
06037	Manganese	7439-96-5	0.0084	0.0010	0.00040	1
06039	Nickel	7440-02-0	< 0.0020	0.0020	0.00050	1
06041	Selenium	7782-49-2	< 0.0020	0.0020	0.00027	1
06044	Strontium	7440-24-6	0.0839	0.0010	0.00045	1
06045	Thallium	7440-28-0	< 0.00050	0.00050	0.00015	1
06048	Vanadium	7440-62-2	< 0.00050	0.00050	0.00018	1
06049	Zinc	7440-66-6	< 0.0150	0.0150	0.0040	1
	EPA 245.1 rev 3		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	< 0.00020	0.00020	0.000026	1
Wet Chemistry	**EPA 300.0**		mg/l	mg/l	mg/l	
01505	Bromide	24959-67-9	< 0.50	0.50	0.40	1
00224	Chloride	16887-00-6	17.2	2.0	1.0	5
01504	Fluoride	16984-48-8	0.10	0.10	0.080	1
00228	Sulfate	14808-79-8	14.1	1.0	0.30	1
	EPA 353.2		mg/l	mg/l	mg/l	
07882	Total Nitrite/Nitrate Nitrogen	7727-37-9	1.6	0.10	0.040	1
	EPA 365.1		mg/l	mg/l	mg/l	
00227	Total Phosphorus as P (water)	7723-14-0	< 0.10	0.10	0.080	1

*=This limit was used in the evaluation of the final result

eurofins | Lancaster Laboratories

Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: 181.000-1,042.00,000 WELL-1-1
Ex. 6 - Personal Privacy
PASUS-EPA-48743

LLI Sample # WW 6533200
LLI Group # 1286826
Account # 13294

Project Name: PASUS-EPA-48743

Collected: 01/26/2012 15:50 by GK

Submitted: 01/26/2012 23:31
Reported: 02/09/2012 14:11

Cabot Oil & Gas Corporation
Five Penn Center West
Suite 401
Pittsburgh PA 15276

11934 SDG#: PAS09-01

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Wet Chemistry		**EPA 1664A**		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)		n.a.	< 5.0	5.0	1.4	1
		EPA 365.3		mg/l	mg/l	mg/l	
00226	Ortho-Phosphate as P		7723-14-0	< 0.090	0.090	0.030	1
		SM20 2540 C		mg/l	mg/l	mg/l	
00212	Total Dissolved Solids		n.a.	142	30.0	9.7	1
		SM20 2540 D		mg/l	mg/l	mg/l	
00206	Total Suspended Solids		n.a.	< 12.0	12.0	3.0	1
		SM20 5540 C		mg/l LAS MW 320	mg/l LAS MW 320	mg/l LAS MW 320	
00225	M. B. A. S.		n.a.	< 0.12	0.12	0.040	1
Microbiology		**SM20 9215 B**		cfu/ml	cfu/ml	cfu/ml	
00307	Heterotrophic Plate Count		n.a.	5	1	1	n.a.
	This result is an estimated count. At least one plate used to calculate the result is outside the established counting range of 30 to 300 colony forming units (cfu) per dilution.						
		SM20 9222 D		/100ml	/100ml	/100ml	
11028	Non-NPDES Fecal Coliform by MF		n.a.	< 1	1	1	n.a.
	The test was performed within the hold time for the analysis. The fecal coliform value is estimated since the number of typical colonies present is outside the standard counting range.						
		SM20 9223 B		/100ml	/100ml	/100ml	
06477	Total Coliform		n.a.	See Below			n.a.
	Total Coliform		Negative	/100ml			
	E. coli		Negative	/100ml			

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/13

The reporting limit listed for TDS is the method detection limit (MDL).

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

*=This limit was used in the evaluation of the final result

Sample Description: 181.000-1,042.00,000 WELL-1-1
Ex. 6 - Personal Privacy
PASUS-EPA-48743

LLI Sample # WW 6533200
LLI Group # 1286826
Account # 13294

Project Name: PASUS-EPA-48743

Collected: 01/26/2012 15:50 by GK

Submitted: 01/26/2012 23:31
Reported: 02/09/2012 14:11

Cabot Oil & Gas Corporation
Five Penn Center West
Suite 401
Pittsburgh PA 15276

11934 SDG#: PAS09-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	G120311AA	01/31/2012 20:39	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G120311AA	01/31/2012 20:39	Jason M Long	1
01309	SVOCs 8270C	SW-846 8270C	1	12030WAH026	02/01/2012 16:55	Joseph M Gambler	1
10464	BNA Water Extraction (App IX)	SW-846 3510C	1	12030WAH026	01/31/2012 08:10	Cynthia J Salvatori	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	12027A07A	01/30/2012 16:01	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	12027A07A	01/30/2012 16:01	Laura M Krieger	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	120270027A	02/01/2012 01:45	Elizabeth J Marin	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	120270027A	02/01/2012 17:52	Elizabeth J Marin	20
06624	Alcohol by Direct Injection	SW-846 8015B	1	120300029A	01/30/2012 22:23	Elizabeth J Marin	1
08278	Glycols in Water	SW-846 8015B modified	1	120270028A	01/28/2012 04:14	Tyler O Griffin	1
08269	TPH-DRO water C10-C28	SW-846 8015B	1	120310015A	02/05/2012 00:54	Michele D Hamilton	1
07003	Extraction - DRO (Waters)	SW-846 3510C	1	120310015A	02/01/2012 03:00	Sherry L Morrow	1
08014	Boron	EPA 200.7 rev 4.4	1	120305716002	02/01/2012 04:55	Tara L Snyder	1
01750	Calcium	EPA 200.7 rev 4.4	1	120305716002	01/31/2012 18:25	John P Hook	1
01756	Lithium	EPA 200.7 rev 4.4	1	120305716002	01/31/2012 18:25	John P Hook	1
01757	Magnesium	EPA 200.7 rev 4.4	1	120305716002	01/31/2012 18:25	John P Hook	1
01762	Potassium	EPA 200.7 rev 4.4	1	120305716002	01/31/2012 18:25	John P Hook	1
07066	Silver	EPA 200.7 rev 4.4	1	120305716002	01/31/2012 18:25	John P Hook	1
01767	Sodium	EPA 200.7 rev 4.4	1	120305716002	01/31/2012 18:25	John P Hook	1
07069	Tin	EPA 200.7 rev 4.4	1	120305716002	02/01/2012 04:55	Tara L Snyder	1
07070	Titanium	EPA 200.7 rev 4.4	1	120305716002	02/01/2012 04:55	Tara L Snyder	1
06023	Aluminum	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:25	Choon Y Tian	1
06024	Antimony	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:25	Choon Y Tian	1
06025	Arsenic	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:25	Choon Y Tian	1
06026	Barium	EPA 200.8 rev 5.4	1	120307050002D	02/01/2012 07:25	Choon Y Tian	1
06027	Beryllium	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:25	Choon Y Tian	1
06028	Cadmium	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:25	Choon Y Tian	1
06031	Chromium	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:25	Choon Y Tian	1
06032	Cobalt	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:25	Choon Y Tian	1
06033	Copper	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:25	Choon Y Tian	1
06034	Iron	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:25	Choon Y Tian	1
06035	Lead	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:25	Choon Y Tian	1
06037	Manganese	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:25	Choon Y Tian	1
06039	Nickel	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:25	Choon Y Tian	1
06041	Selenium	EPA 200.8 rev 5.4	1	120307050002B	02/01/2012 07:25	Choon Y Tian	1
06044	Strontium	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:25	Choon Y Tian	1
06045	Thallium	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:25	Choon Y Tian	1
06048	Vanadium	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:25	Choon Y Tian	1
06049	Zinc	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:25	Choon Y Tian	1
00259	Mercury	EPA 245.1 rev 3	1	120275714003	01/29/2012 09:26	Damary Valentin	1
05716	EPA 600 ICP Digest (tot rec)	EPA 200.7 rev 4.4	1	120305716002	01/31/2012 10:28	Denise K Conners	1
07050	ICP/MS EPA-600 Digest	EPA 200.8 rev 5.4	1	120307050002	01/31/2012 10:33	Denise K Conners	1

*=This limit was used in the evaluation of the final result

eurofins | Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Sample Description: 181.000-1,042.00,000 WELL-1-1
Ex. 6 - Personal Privacy
PASUS-EPA-48743

LLI Sample # WW 6533200
LLI Group # 1286826
Account # 13294

Project Name: PASUS-EPA-48743

Collected: 01/26/2012 15:50 by GK

Submitted: 01/26/2012 23:31
Reported: 02/09/2012 14:11

Cabot Oil & Gas Corporation
Five Penn Center West
Suite 401
Pittsburgh PA 15276

11934 SDG#: PAS09-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05714	PW/WW Hg Digest	EPA 245.1 rev 3	1	120275714003	01/27/2012 15:12	Nelli S Markaryan	1
01505	Bromide	EPA 300.0	1	12027196903A	01/27/2012 17:58	Ashley M Adams	1
00224	Chloride	EPA 300.0	1	12027196903A	01/30/2012 10:18	Ashley M Adams	5
01504	Fluoride	EPA 300.0	1	12027196903A	01/27/2012 17:58	Ashley M Adams	1
00228	Sulfate	EPA 300.0	1	12027196903A	01/27/2012 17:58	Ashley M Adams	1
07882	Total Nitrite/Nitrate Nitrogen	EPA 353.2	1	12033118101A	02/02/2012 20:36	Joseph E McKenzie	1
00227	Total Phosphorus as P (water)	EPA 365.1	1	12031109101B	01/31/2012 18:37	Joseph E McKenzie	1
08263	Total Phos as P Prep (water)	EPA 365.1	1	12031109101B	01/31/2012 10:25	Nancy J Shoop	1
08079	HEM (oil & grease)	EPA 1664A	1	12034807901A	02/03/2012 06:04	Noah M Rainbow	1
00226	Ortho-Phosphate as P	EPA 365.3	1	12028022601A	01/28/2012 04:00	Daniel S Smith	1
00212	Total Dissolved Solids	SM20 2540 C	1	12027021201B	01/27/2012 10:41	Denise L Trimby	1
00206	Total Suspended Solids	SM20 2540 D	1	12031020601A	01/31/2012 07:32	Karen R Rettew	1
00225	M. B. A. S.	SM20 5540 C	1	12028022501A	01/28/2012 06:00	Daniel S Smith	1
00307	Heterotrophic Plate Count	SM20 9215 B	1	012712MGH	01/31/2012 15:54	Martha G Helwig	n.a.
11028	Non-NPDES Fecal Coliform by MF	SM20 9222 D	1	012712MGH	01/28/2012 14:24	Martha G Helwig	n.a.
06477	Total Coliform	SM20 9223 B	1	012712KRM	01/28/2012 14:09	Kelly R Munson	n.a.

*=This limit was used in the evaluation of the final result

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

11934

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 6533200
Sample wt/vol: 25.0 (g/mL) mL Lab File ID: HP16334.i/12jan31a.b/gj31s13.d
Level: (low/med) LOW Date Received: 01/26/12
% Moisture: not dec. Date Analyzed: 01/31/12
Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

page 1 of 1

FORM I VOA-TIC

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
11934

Lab Name: Lancaster Laboratories Contract: _____
Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: 6533200
Sample wt/vol: 1052 (g/mL) mL Lab File ID: bb0026.d
Level: (low/med) LOW Date Received: 01/26/12
% Moisture: Decanted: (Y/N) Date Extracted: 01/31/12
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 02/01/12
Injection Volume: 1 (uL) Dilution Factor: 1
GPC Cleanup: N pH: Extraction: Sepf
CONCENTRATION UNITS:
Number TICs found: 1 (ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	2.683	7	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

page 1 of 1

FORM I SV-1

eurofins | Lancaster Laboratories

Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: 181.000-1.042.00.000 WELL-1-1 Filtered
Ex. 6 - Personal Privacy
PASUS-EPA-48743

LLI Sample # WW 6533201
LLI Group # 1286826
Account # 13294

Project Name: PASUS-EPA-48743

Collected: 01/26/2012 15:50 by GK

Submitted: 01/26/2012 23:31
Reported: 02/09/2012 14:11

Cabot Oil & Gas Corporation
Five Penn Center West
Suite 401
Pittsburgh PA 15276

1934F SDG#: PAS09-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**EPA 200.7 rev 4.4**		mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	< 0.0500	0.0500	0.0022	1
01750	Calcium	7440-70-2	29.9	0.200	0.0705	1
01756	Lithium	7439-93-2	< 0.0200	0.0200	0.0076	1
01757	Magnesium	7439-95-4	5.23	0.100	0.0067	1
01762	Potassium	7440-09-7	1.04	0.500	0.0874	1
07066	Silver	7440-22-4	< 0.0050	0.0050	0.00091	1
01767	Sodium	7440-23-5	9.15	1.00	0.0647	1
07069	Tin	7440-31-5	< 0.0200	0.0200	0.0043	1
07070	Titanium	7440-32-6	< 0.0100	0.0100	0.00046	1
	EPA 200.8 rev 5.4		mg/l	mg/l	mg/l	
06023	Aluminum	7429-90-5	< 0.100	0.100	0.0103	1
06024	Antimony	7440-36-0	< 0.0010	0.0010	0.00042	1
06025	Arsenic	7440-38-2	< 0.0020	0.0020	0.00095	1
06026	Barium	7440-39-3	0.0868	0.0020	0.00069	1
06027	Beryllium	7440-41-7	< 0.00050	0.00050	0.00013	1
06028	Cadmium	7440-43-9	0.00055	0.00050	0.00020	1
06031	Chromium	7440-47-3	< 0.0020	0.0020	0.00060	1
06032	Cobalt	7440-48-4	< 0.00050	0.00050	0.00010	1
06033	Copper	7440-50-8	< 0.0020	0.0020	0.00038	1
06034	Iron	7439-89-6	< 0.100	0.100	0.0114	1
06035	Lead	7439-92-1	0.0072	0.0010	0.000080	1
06037	Manganese	7439-96-5	0.0080	0.0010	0.00040	1
06039	Nickel	7440-02-0	< 0.0020	0.0020	0.00050	1
06041	Selenium	7782-49-2	< 0.0020	0.0020	0.00027	1
06044	Strontium	7440-24-6	0.0841	0.0010	0.00045	1
06045	Thallium	7440-28-0	< 0.00050	0.00050	0.00015	1
06048	Vanadium	7440-62-2	< 0.00050	0.00050	0.00018	1
06049	Zinc	7440-66-6	< 0.0150	0.0150	0.0040	1
	EPA 245.1 rev 3		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	< 0.00020	0.00020	0.000026	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/13
This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	EPA 200.7 rev 4.4	1	120305716002	02/01/2012 05:45	Tara L Snyder	1
01750	Calcium	EPA 200.7 rev 4.4	1	120305716002	01/31/2012 19:14	John P Hook	1

*=This limit was used in the evaluation of the final result

eurofins | Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Sample Description: 181.000-1,042.00,000 WELL-1-1 Filtered
Ex. 6 - Personal Privacy
PASUS-EPA-48743

LLI Sample # WW 6533201
LLI Group # 1286826
Account # 13294

Project Name: PASUS-EPA-48743

Collected: 01/26/2012 15:50 by GK

Submitted: 01/26/2012 23:31
Reported: 02/09/2012 14:11

Cabot Oil & Gas Corporation
Five Penn Center West
Suite 401
Pittsburgh PA 15276

1934F SDG#: PAS09-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01756	Lithium	EPA 200.7 rev 4.4	1	120305716002	01/31/2012 19:14	John P Hook	1
01757	Magnesium	EPA 200.7 rev 4.4	1	120305716002	01/31/2012 19:14	John P Hook	1
01762	Potassium	EPA 200.7 rev 4.4	1	120305716002	01/31/2012 19:14	John P Hook	1
07066	Silver	EPA 200.7 rev 4.4	1	120305716002	01/31/2012 19:14	John P Hook	1
01767	Sodium	EPA 200.7 rev 4.4	1	120305716002	01/31/2012 19:14	John P Hook	1
07069	Tin	EPA 200.7 rev 4.4	1	120305716002	02/01/2012 05:45	Tara L Snyder	1
07070	Titanium	EPA 200.7 rev 4.4	1	120305716002	02/01/2012 05:45	Tara L Snyder	1
06023	Aluminum	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:29	Choon Y Tian	1
06024	Antimony	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:29	Choon Y Tian	1
06025	Arsenic	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:29	Choon Y Tian	1
06026	Barium	EPA 200.8 rev 5.4	1	120307050002D	02/01/2012 07:29	Choon Y Tian	1
06027	Beryllium	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:29	Choon Y Tian	1
06028	Cadmium	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:29	Choon Y Tian	1
06031	Chromium	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:29	Choon Y Tian	1
06032	Cobalt	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:29	Choon Y Tian	1
06033	Copper	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:29	Choon Y Tian	1
06034	Iron	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:29	Choon Y Tian	1
06035	Lead	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:29	Choon Y Tian	1
06037	Manganese	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:29	Choon Y Tian	1
06039	Nickel	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:29	Choon Y Tian	1
06041	Selenium	EPA 200.8 rev 5.4	1	120307050002B	02/01/2012 07:29	Choon Y Tian	1
06044	Strontium	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:29	Choon Y Tian	1
06045	Thallium	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:29	Choon Y Tian	1
06048	Vanadium	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:29	Choon Y Tian	1
06049	Zinc	EPA 200.8 rev 5.4	1	120307050002A	02/01/2012 07:29	Choon Y Tian	1
00259	Mercury	EPA 245.1 rev 3	1	120275714003	01/29/2012 09:28	Damary Valentin	1
05716	EPA 600 ICP Digest (tot rec)	EPA 200.7 rev 4.4	1	120305716002	01/31/2012 10:28	Denise K Conners	1
07050	ICP/MS EPA-600 Digest	EPA 200.8 rev 5.4	1	120307050002	01/31/2012 10:33	Denise K Conners	1
05714	PW/WW Hg Digest	EPA 245.1 rev 3	1	120275714003	01/27/2012 15:12	Nelli S Markaryan	1

*=This limit was used in the evaluation of the final result

eurofins | Lancaster Laboratories

Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: 181.000-1.042.00.000 Trip Blank
Ex. 6 - Personal Privacy
PASUS-EPA-48743

LLI Sample # WW 6533202
LLI Group # 1286826
Account # 13294

Project Name: PASUS-EPA-48743

Collected: 01/26/2012

Submitted: 01/26/2012 23:31
Reported: 02/09/2012 14:11

Cabot Oil & Gas Corporation
Five Penn Center West
Suite 401
Pittsburgh PA 15276

TBL11 SDG#: PAS09-03TB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	< 5.0	5.0	3.0	1
02898	Acrylonitrile	107-13-1	< 5.0	5.0	1.0	1
02898	Benzene	71-43-2	< 0.5	0.5	0.1	1
02898	Bromobenzene	108-86-1	< 0.5	0.5	0.1	1
02898	Bromochloromethane	74-97-5	< 0.5	0.5	0.1	1
02898	Bromodichloromethane	75-27-4	< 0.5	0.5	0.1	1
02898	Bromoform	75-25-2	< 0.5	0.5	0.1	1
02898	Bromomethane	74-83-9	< 0.5	0.5	0.1	1
02898	2-Butanone	78-93-3	< 5.0	5.0	1.0	1
02898	n-Butylbenzene	104-51-8	< 0.5	0.5	0.1	1
02898	sec-Butylbenzene	135-98-8	< 0.5	0.5	0.1	1
02898	tert-Butylbenzene	98-06-6	< 0.5	0.5	0.1	1
02898	Carbon Disulfide	75-15-0	< 0.5	0.5	0.4	1
02898	Carbon Tetrachloride	56-23-5	< 0.5	0.5	0.1	1
02898	Chlorobenzene	108-90-7	< 0.5	0.5	0.1	1
02898	Chloroethane	75-00-3	< 0.5	0.5	0.1	1
02898	2-Chloroethyl vinyl ether	110-75-8	< 0.5	0.5	0.1	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.					
02898	Chloroform	67-66-3	< 0.5	0.5	0.1	1
02898	Chloromethane	74-87-3	< 0.5	0.5	0.2	1
02898	2-Chlorotoluene	95-49-8	< 0.5	0.5	0.1	1
02898	4-Chlorotoluene	106-43-4	< 0.5	0.5	0.1	1
02898	Cyclohexane	110-82-7	< 0.5	0.5	0.1	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	< 0.5	0.5	0.2	1
02898	Dibromochloromethane	124-48-1	< 0.5	0.5	0.1	1
02898	1,2-Dibromoethane	106-93-4	< 0.5	0.5	0.1	1
02898	Dibromomethane	74-95-3	< 0.5	0.5	0.1	1
02898	1,2-Dichlorobenzene	95-50-1	< 0.5	0.5	0.1	1
02898	1,3-Dichlorobenzene	541-73-1	< 0.5	0.5	0.1	1
02898	1,4-Dichlorobenzene	106-46-7	< 0.5	0.5	0.1	1
02898	Dichlorodifluoromethane	75-71-8	< 0.5	0.5	0.1	1
02898	1,1-Dichloroethane	75-34-3	< 0.5	0.5	0.1	1
02898	1,2-Dichloroethane	107-06-2	< 0.5	0.5	0.1	1
02898	1,1-Dichloroethene	75-35-4	< 0.5	0.5	0.1	1
02898	cis-1,2-Dichloroethene	156-59-2	< 0.5	0.5	0.1	1
02898	trans-1,2-Dichloroethene	156-60-5	< 0.5	0.5	0.1	1
02898	1,2-Dichloropropane	78-87-5	< 0.5	0.5	0.1	1
02898	1,3-Dichloropropane	142-28-9	< 0.5	0.5	0.1	1
02898	2,2-Dichloropropane	594-20-7	< 0.5	0.5	0.1	1
02898	1,1-Dichloropropene	563-58-6	< 0.5	0.5	0.1	1
02898	cis-1,3-Dichloropropene	10061-01-5	< 0.5	0.5	0.1	1
02898	trans-1,3-Dichloropropene	10061-02-6	< 0.5	0.5	0.1	1
02898	Ethylbenzene	100-41-4	< 0.5	0.5	0.1	1
02898	Freon 113	76-13-1	< 0.5	0.5	0.2	1
02898	Hexachlorobutadiene	87-68-3	< 0.5	0.5	0.1	1
02898	2-Hexanone	591-78-6	< 5.0	5.0	1.0	1
02898	Isopropylbenzene	98-82-8	< 0.5	0.5	0.1	1

*=This limit was used in the evaluation of the final result

eurofins | Lancaster Laboratories

Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: 181.000-1,042.00,000 Trip Blank
Ex. 6 - Personal Privacy
PASUS-EPA-48743

LLI Sample # WW 6533202
LLI Group # 1286826
Account # 13294

Project Name: PASUS-EPA-48743

Collected: 01/26/2012

Submitted: 01/26/2012 23:31
Reported: 02/09/2012 14:11

Cabot Oil & Gas Corporation
Five Penn Center West
Suite 401
Pittsburgh PA 15276

TBL11 SDG#: PAS09-03TB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		ug/l	ug/l	ug/l	
02898	p-Isopropyltoluene	99-87-6	< 0.5	0.5	0.1	1
02898	Methyl Acetate	79-20-9	< 1.0	1.0	0.3	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	< 0.5	0.5	0.1	1
02898	4-Methyl-2-Pentanone	108-10-1	< 5.0	5.0	1.0	1
02898	Methylcyclohexane	108-87-2	< 0.5	0.5	0.1	1
02898	Methylene Chloride	75-09-2	< 0.5	0.5	0.2	1
02898	Naphthalene	91-20-3	< 0.5	0.5	0.1	1
02898	n-Propylbenzene	103-65-1	< 0.5	0.5	0.1	1
02898	Styrene	100-42-5	< 0.5	0.5	0.1	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	< 0.5	0.5	0.1	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	< 0.5	0.5	0.1	1
02898	Tetrachloroethene	127-18-4	< 0.5	0.5	0.1	1
02898	Toluene	108-88-3	< 0.5	0.5	0.1	1
02898	1,2,3-Trichlorobenzene	87-61-6	< 0.5	0.5	0.1	1
02898	1,2,4-Trichlorobenzene	120-82-1	< 0.5	0.5	0.1	1
02898	1,1,1-Trichloroethane	71-55-6	< 0.5	0.5	0.1	1
02898	1,1,2-Trichloroethane	79-00-5	< 0.5	0.5	0.1	1
02898	Trichloroethene	79-01-6	< 0.5	0.5	0.1	1
02898	Trichlorofluoromethane	75-69-4	< 0.5	0.5	0.1	1
02898	1,2,3-Trichloropropane	96-18-4	< 1.0	1.0	0.3	1
02898	1,2,4-Trimethylbenzene	95-63-6	< 0.5	0.5	0.1	1
02898	1,3,5-Trimethylbenzene	108-67-8	< 0.5	0.5	0.1	1
02898	Vinyl Acetate	108-05-4	< 0.5	0.5	0.2	1
02898	Vinyl Chloride	75-01-4	< 0.5	0.5	0.1	1
02898	m+p-Xylene	179601-23-1	< 0.5	0.5	0.1	1
02898	o-Xylene	95-47-6	< 0.5	0.5	0.1	1

00890 VOA GC/MS Library Search

The results from the volatile library search are listed on the attached FORM 1 - VOA-TIC. The qualifiers appearing in the "Q" column are defined on the back of this form.

GC Miscellaneous	**RSKSOP-175 08/11/94 modified**		ug/l	ug/l	ug/l	
07105	n-butane	106-97-8	< 5.0	5.0	1.0	1
07105	Ethane	74-84-0	< 5.0	5.0	1.0	1
07105	Isobutane	75-28-5	< 5.0	5.0	1.0	1
07105	Methane	74-82-8	< 15	15	5.0	1
07105	Propane	74-98-6	< 5.0	5.0	1.0	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/13

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

*=This limit was used in the evaluation of the final result

eurofins | Lancaster Laboratories

Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: 181.000-1.042.00.000 Trip Blank
Ex. 6 - Personal Privacy
PASUS-EPA-48743

LLI Sample # WW 6533202
LLI Group # 1286826
Account # 13294

Project Name: PASUS-EPA-48743

Collected: 01/26/2012

Submitted: 01/26/2012 23:31
Reported: 02/09/2012 14:11

Cabot Oil & Gas Corporation
Five Penn Center West
Suite 401
Pittsburgh PA 15276

TBL11 SDG#: PAS09-03TB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	EPA SW846/8260 (water-25ml) #1	SW-846 8260B 25mL purge	1	G120311AA	01/31/2012 21:00	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G120311AA	01/31/2012 21:00	Jason M Long	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 08/11/94 modified	1	120270027A	02/01/2012 02:03	Elizabeth J Marin	1

*=This limit was used in the evaluation of the final result

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TBL11

Lab Name: Lancaster Laboratories Contract:_____
Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____
Matrix: (soil/water) WATER Lab Sample ID: 6533202
Sample wt/vol: 25.0 (g/mL) mL Lab File ID: HP16334.i/12jan31a.b/gj31s14.d
Level: (low/med) LOW Date Received: 01/26/12
% Moisture: not dec. Date Analyzed: 01/31/12
Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

page 1 of 1

FORM I VOA-TIC

eurofins | Lancaster Laboratories

Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Quality Control Summary

Client Name: Cabot Oil & Gas Corporation Group Number: 1286826
Reported: 02/09/12 at 02:11 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: G120311AA	Sample number(s): 6533200,6533202								
Acetone	< 5.0	5.0	3.0	ug/l	110	109	74-137	0	30
Acrylonitrile	< 5.0	5.0	1.0	ug/l	113	111	76-135	2	30
Benzene	< 0.5	0.5	0.1	ug/l	100	101	80-120	0	30
Bromobenzene	< 0.5	0.5	0.1	ug/l	101	102	80-120	1	30
Bromochloromethane	< 0.5	0.5	0.1	ug/l	104	104	80-120	0	30
Bromodichloromethane	< 0.5	0.5	0.1	ug/l	104	104	80-120	0	30
Bromoform	< 0.5	0.5	0.1	ug/l	103	103	70-128	0	30
Bromomethane	< 0.5	0.5	0.1	ug/l	101	102	66-124	1	30
2-Butanone	< 5.0	5.0	1.0	ug/l	110	108	70-130	3	30
n-Butylbenzene	< 0.5	0.5	0.1	ug/l	99	99	80-120	0	30
sec-Butylbenzene	< 0.5	0.5	0.1	ug/l	99	100	80-120	0	30
tert-Butylbenzene	< 0.5	0.5	0.1	ug/l	100	97	80-120	3	30
Carbon Disulfide	< 0.5	0.5	0.4	ug/l	108	108	73-133	0	30
Carbon Tetrachloride	< 0.5	0.5	0.1	ug/l	103	102	80-129	1	30
Chlorobenzene	< 0.5	0.5	0.1	ug/l	101	101	80-120	0	30
Chloroethane	< 0.5	0.5	0.1	ug/l	101	102	67-124	1	30
2-Chloroethyl vinyl ether	< 0.5	0.5	0.1	ug/l	104	102	64-130	2	30
Chloroform	< 0.5	0.5	0.1	ug/l	103	103	80-120	0	30
Chloromethane	< 0.5	0.5	0.2	ug/l	99	98	55-135	1	30
2-Chlorotoluene	< 0.5	0.5	0.1	ug/l	99	101	80-120	1	30
4-Chlorotoluene	< 0.5	0.5	0.1	ug/l	99	101	80-120	2	30
Cyclohexane	< 0.5	0.5	0.1	ug/l	103	103	77-122	0	30
1,2-Dibromo-3-chloropropane	< 0.5	0.5	0.2	ug/l	114	108	51-148	5	30
Dibromochloromethane	< 0.5	0.5	0.1	ug/l	103	104	80-120	1	30
1,2-Dibromoethane	< 0.5	0.5	0.1	ug/l	103	102	80-120	1	30
Dibromomethane	< 0.5	0.5	0.1	ug/l	108	106	80-120	2	30
1,2-Dichlorobenzene	< 0.5	0.5	0.1	ug/l	100	100	80-120	0	30
1,3-Dichlorobenzene	< 0.5	0.5	0.1	ug/l	100	100	80-120	0	30
1,4-Dichlorobenzene	< 0.5	0.5	0.1	ug/l	99	100	80-120	2	30
Dichlorodifluoromethane	< 0.5	0.5	0.1	ug/l	96	94	39-120	1	30
1,1-Dichloroethane	< 0.5	0.5	0.1	ug/l	104	102	80-120	2	30
1,2-Dichloroethane	< 0.5	0.5	0.1	ug/l	105	104	80-127	1	30
1,1-Dichloroethene	< 0.5	0.5	0.1	ug/l	104	105	80-123	1	30
cis-1,2-Dichloroethene	< 0.5	0.5	0.1	ug/l	105	104	80-120	1	30
trans-1,2-Dichloroethene	< 0.5	0.5	0.1	ug/l	104	104	80-120	0	30
1,2-Dichloropropane	< 0.5	0.5	0.1	ug/l	103	102	80-120	1	30
1,3-Dichloropropane	< 0.5	0.5	0.1	ug/l	102	102	80-120	0	30
2,2-Dichloropropane	< 0.5	0.5	0.1	ug/l	102	102	75-122	1	30
1,1-Dichloropropene	< 0.5	0.5	0.1	ug/l	103	103	80-120	0	30
cis-1,3-Dichloropropene	< 0.5	0.5	0.1	ug/l	103	103	74-120	0	30
trans-1,3-Dichloropropene	< 0.5	0.5	0.1	ug/l	102	103	80-120	1	30
Ethylbenzene	< 0.5	0.5	0.1	ug/l	100	100	80-120	0	30
Freon 113	< 0.5	0.5	0.2	ug/l	106	106	78-132	0	30
Hexachlorobutadiene	< 0.5	0.5	0.1	ug/l	98	97	79-120	1	30
2-Hexanone	< 5.0	5.0	1.0	ug/l	103	102	75-124	1	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Cabot Oil & Gas Corporation Group Number: 1286826
Reported: 02/09/12 at 02:11 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Isopropylbenzene	< 0.5	0.5	0.1	ug/l	100	101	80-120	0	30
p-Isopropyltoluene	< 0.5	0.5	0.1	ug/l	100	100	80-120	0	30
Methyl Acetate	< 1.0	1.0	0.3	ug/l	104	99	62-148	5	30
Methyl Tertiary Butyl Ether	< 0.5	0.5	0.1	ug/l	104	104	73-120	0	30
4-Methyl-2-Pentanone	< 5.0	5.0	1.0	ug/l	106	103	70-123	3	30
Methylcyclohexane	< 0.5	0.5	0.1	ug/l	103	101	78-128	1	30
Methylene Chloride	< 0.5	0.5	0.2	ug/l	105	106	80-120	0	30
Naphthalene	< 0.5	0.5	0.1	ug/l	99	98	77-120	1	30
n-Propylbenzene	< 0.5	0.5	0.1	ug/l	100	101	80-120	1	30
Styrene	< 0.5	0.5	0.1	ug/l	102	102	80-120	0	30
1,1,1,2-Tetrachloroethane	< 0.5	0.5	0.1	ug/l	101	101	80-120	0	30
1,1,2,2-Tetrachloroethane	< 0.5	0.5	0.1	ug/l	101	101	80-125	0	30
Tetrachloroethene	< 0.5	0.5	0.1	ug/l	102	101	80-120	1	30
Toluene	< 0.5	0.5	0.1	ug/l	101	101	80-120	1	30
1,2,3-Trichlorobenzene	< 0.5	0.5	0.1	ug/l	98	98	77-120	0	30
1,2,4-Trichlorobenzene	< 0.5	0.5	0.1	ug/l	97	98	80-120	0	30
1,1,1-Trichloroethane	< 0.5	0.5	0.1	ug/l	103	102	80-121	1	30
1,1,2-Trichloroethane	< 0.5	0.5	0.1	ug/l	103	103	80-120	0	30
Trichloroethene	< 0.5	0.5	0.1	ug/l	103	103	80-120	0	30
Trichlorofluoromethane	< 0.5	0.5	0.1	ug/l	100	104	71-126	5	30
1,2,3-Trichloropropane	< 1.0	1.0	0.3	ug/l	103	103	80-120	0	30
1,2,4-Trimethylbenzene	< 0.5	0.5	0.1	ug/l	101	101	80-120	0	30
1,3,5-Trimethylbenzene	< 0.5	0.5	0.1	ug/l	100	101	80-120	0	30
Vinyl Acetate	< 0.5	0.5	0.2	ug/l	111	107	57-157	4	30
Vinyl Chloride	< 0.5	0.5	0.1	ug/l	101	99	55-126	2	30
m+p-Xylene	< 0.5	0.5	0.1	ug/l	101	101	80-120	0	30
o-Xylene	< 0.5	0.5	0.1	ug/l	102	101	80-120	1	30
Batch number: 12030WAH026	Sample number(s): 6533200								
Acenaphthene	< 0.5	0.5	0.1	ug/l	104	99	75-114	5	30
Acenaphthylene	< 0.5	0.5	0.1	ug/l	114	107	80-122	7	30
Acetophenone	< 1	1.	0.5	ug/l	93	93	75-109	1	30
Anthracene	< 0.5	0.5	0.1	ug/l	102	104	76-115	2	30
Atrazine	< 5	5.	2	ug/l	94	77	76-129	20	30
Benzaldehyde	< 5	5.	1	ug/l	32	30	10-81	6	30
Benzo(a)anthracene	< 0.5	0.5	0.1	ug/l	96	106	75-116	10	30
Benzo(a)pyrene	< 0.5	0.5	0.1	ug/l	112	104	64-126	7	30
Benzo(b)fluoranthene	< 0.5	0.5	0.1	ug/l	120	115	66-125	4	30
Benzo(g,h,i)perylene	< 0.5	0.5	0.1	ug/l	107	91	66-132	17	30
Benzo(k)fluoranthene	< 0.5	0.5	0.1	ug/l	104	110	66-131	5	30
1,1'-Biphenyl	< 1	1.	0.5	ug/l	96	87	80-109	10	30
4-Bromophenyl-phenylether	< 1	1.	0.5	ug/l	111	108	75-115	2	30
2-Butoxyethanol	< 5	5.	1	ug/l	70	76	70-130	9	30
Butylbenzylphthalate	< 5	5.	2	ug/l	105	112	77-115	6	30
Di-n-butylphthalate	< 5	5.	2	ug/l	105	116*	76-115	10	30
Caprolactam	< 15	15.	5	ug/l	26	30	10-42	14	30
Carbazole	< 1	1.	0.5	ug/l	95	104	75-120	9	30
4-Chloro-3-methylphenol	< 1	1.	0.5	ug/l	102	110	70-123	8	30
4-Chloroaniline	< 1	1.	0.5	ug/l	65	58	43-116	11	30
bis(2-Chloroethoxy)methane	< 1	1.	0.5	ug/l	103	101	74-124	3	30
bis(2-Chloroethyl)ether	< 1	1.	0.5	ug/l	100	97	77-108	3	30
bis(2-Chloroisopropyl)ether	< 1	1.	0.5	ug/l	101	99	62-127	3	30
2-Chloronaphthalene	< 1	1.	0.4	ug/l	78	71	43-132	9	30
2-Chlorophenol	< 1	1.	0.5	ug/l	102	102	71-114	0	30
4-Chlorophenyl-phenylether	< 1	1.	0.5	ug/l	104	102	77-114	3	30
Chrysene	< 0.5	0.5	0.1	ug/l	89	100	76-116	12	30
Dibenz(a,h)anthracene	< 0.5	0.5	0.1	ug/l	107	94	67-131	13	30
Dibenzofuran	< 1	1.	0.5	ug/l	101	99	75-117	3	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Cabot Oil & Gas Corporation Group Number: 1286826
Reported: 02/09/12 at 02:11 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
3,3'-Dichlorobenzidine	< 5	5.	2	ug/l	68	80	37-117	17	30
2,4-Dichlorophenol	< 1	1.	0.5	ug/l	106	108	77-117	2	30
Diethylphthalate	< 5	5.	2	ug/l	107	108	66-116	1	30
2,4-Dimethylphenol	< 1	1.	0.5	ug/l	97	101	72-110	4	30
Dimethylphthalate	< 5	5.	2	ug/l	105	105	29-138	1	30
4,6-Dinitro-2-methylphenol	< 15	15.	5	ug/l	109	120	65-126	10	30
2,4-Dinitrophenol	< 30	30.	5	ug/l	84	102	52-131	19	30
2,4-Dinitrotoluene	< 5	5.	1	ug/l	103	112	76-119	8	30
2,6-Dinitrotoluene	< 1	1.	0.5	ug/l	107	106	76-118	2	30
bis(2-Ethylhexyl)phthalate	< 5	5.	2	ug/l	101	110	78-117	8	30
Fluoranthene	< 0.5	0.5	0.1	ug/l	97	113	76-119	15	30
Fluorene	< 0.5	0.5	0.1	ug/l	106	106	76-116	1	30
Hexachlorobenzene	< 0.5	0.5	0.1	ug/l	112	108	75-119	4	30
Hexachlorobutadiene	< 1	1.	0.5	ug/l	108	99	57-124	8	30
Hexachlorocyclopentadiene	< 15	15.	5	ug/l	68	45	36-118	42*	30
Hexachloroethane	< 5	5.	1	ug/l	102	98	52-113	4	30
Indeno(1,2,3-cd)pyrene	< 0.5	0.5	0.1	ug/l	109	94	69-121	15	30
Isophorone	< 1	1.	0.5	ug/l	107	108	74-117	1	30
1-Methylnaphthalene	< 0.5	0.5	0.1	ug/l	97	98	78-105	1	30
2-Methylnaphthalene	< 0.5	0.5	0.1	ug/l	98	100	69-108	2	30
2-Methylphenol	< 1	1.	0.5	ug/l	97	102	58-110	5	30
4-Methylphenol	< 1	1.	0.5	ug/l	91	95	49-108	4	30
Naphthalene	< 0.5	0.5	0.1	ug/l	101	99	70-111	2	30
2-Nitroaniline	< 1	1.	0.5	ug/l	100	101	75-120	1	30
3-Nitroaniline	< 1	1.	0.5	ug/l	85	94	74-113	10	30
4-Nitroaniline	< 1	1.	0.5	ug/l	77	95	59-100	20	30
Nitrobenzene	< 1	1.	0.5	ug/l	100	99	75-109	1	30
2-Nitrophenol	< 1	1.	0.5	ug/l	105	107	76-118	1	30
4-Nitrophenol	< 30	30.	10	ug/l	45	63	16-78	35*	30
N-Nitroso-di-n-propylamine	< 1	1.	0.5	ug/l	105	106	69-110	1	30
N-Nitrosodimethylamine	< 5	5.	2	ug/l	70	61	34-101	14	30
N-Nitrosodiphenylamine	< 1	1.	0.5	ug/l	106	103	67-136	3	30
Di-n-octylphthalate	< 5	5.	2	ug/l	126	136*	68-128	8	30
Pentachlorophenol	< 5	5.	1	ug/l	89	99	53-110	10	30
Phenanthrene	< 0.5	0.5	0.1	ug/l	103	102	76-113	1	30
Phenol	< 1	1.	0.5	ug/l	55	55	21-67	1	30
Pyrene	< 0.5	0.5	0.1	ug/l	100	101	75-119	1	30
1,2,4,5-Tetrachlorobenzene	< 1	1.	0.5	ug/l	109	96	73-117	13	30
2,3,4,6-Tetrachlorophenol	< 1	1.	0.5	ug/l	105	112	66-129	6	30
2,4,5-Trichlorophenol	< 1	1.	0.5	ug/l	105	105	79-107	0	30
2,4,6-Trichlorophenol	< 1	1.	0.5	ug/l	107	107	76-120	0	30
Batch number: 12027A07A	Sample number(s): 6533200								
TPH-GRO water C6-C10	< 50	50.	20	ug/l	109	100	75-135	9	30
Batch number: 120270027A	Sample number(s): 6533200,6533202								
n-butane	< 5.0	5.0	1.0	ug/l	109		75-125		
Ethane	< 5.0	5.0	1.0	ug/l	98		80-120		
Isobutane	< 5.0	5.0	1.0	ug/l	100		75-125		
Methane	< 15	15.	5.0	ug/l	95		80-120		
Propane	< 5.0	5.0	1.0	ug/l	100		73-125		
Batch number: 120270028A	Sample number(s): 6533200								
Diethylene glycol	< 10	10.	8.0	mg/l	95	95	67-126	0	20
Ethylene glycol	< 10	10.	8.0	mg/l	100	95	78-136	5	20
Tetraethylene glycol	< 15	15.	15	mg/l	77*	77*	78-136	0	20
Triethylene glycol	< 10	10.	8.0	mg/l	90	90	72-140	0	20

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Quality Control Summary

Client Name: Cabot Oil & Gas Corporation Group Number: 1286826
Reported: 02/09/12 at 02:11 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 120300029A	Sample number(s): 6533200								
n-butanol	< 1,000	1,000.	200	ug/l	104		75-125		
Ethanol	< 1,000	1,000.	200	ug/l	96		78-116		
Isobutanol	< 1,000	1,000.	200	ug/l	91		75-125		
Methanol	< 1,000	1,000.	200	ug/l	100		76-122		
n-propanol	< 1,000	1,000.	200	ug/l	106		75-125		
Batch number: 120310015A	Sample number(s): 6533200								
TPH-DRO water C10-C28	< 100	100.	32	ug/l	88	94	56-122	7	20
Batch number: 120275714003	Sample number(s): 6533200-6533201								
Mercury	< 0.00020	0.00020	0.00002 6	mg/l	97		85-115		
Batch number: 120305716002	Sample number(s): 6533200-6533201								
Boron	< 0.0500	0.0500	0.0022	mg/l	95		89-110		
Calcium	< 0.200	0.200	0.0705	mg/l	98		90-110		
Lithium	< 0.0200	0.0200	0.0076	mg/l	94		90-110		
Magnesium	< 0.100	0.100	0.0067	mg/l	98		90-110		
Potassium	< 0.500	0.500	0.0874	mg/l	98		90-110		
Silver	< 0.0050	0.0050	0.00091	mg/l	87		85-115		
Sodium	< 1.00	1.00	0.0647	mg/l	96		85-115		
Tin	< 0.0200	0.0200	0.0043	mg/l	97		90-110		
Titanium	< 0.0100	0.0100	0.00046	mg/l	101		90-110		
Batch number: 120307050002A	Sample number(s): 6533200-6533201								
Aluminum	< 0.100	0.100	0.0103	mg/l	100		85-115		
Antimony	< 0.0010	0.0010	0.00042	mg/l	101		85-115		
Arsenic	< 0.0020	0.0020	0.00095	mg/l	103		85-115		
Beryllium	< 0.00050	0.00050	0.00013	mg/l	105		85-115		
Cadmium	< 0.00050	0.00050	0.00020	mg/l	100		85-115		
Chromium	< 0.0100	0.0100	0.00060	mg/l	104		85-115		
Cobalt	< 0.00050	0.00050	0.00010	mg/l	92		85-115		
Copper	< 0.0020	0.0020	0.00038	mg/l	102		85-115		
Iron	< 0.100	0.100	0.0114	mg/l	101		85-115		
Lead	< 0.0010	0.0010	0.00008 0	mg/l	100		85-115		
Manganese	< 0.0010	0.0010	0.00040	mg/l	102		85-115		
Nickel	< 0.0020	0.0020	0.00050	mg/l	102		85-115		
Strontium	< 0.0010	0.0010	0.00045	mg/l	100		85-115		
Thallium	< 0.00050	0.00050	0.00015	mg/l	100		85-115		
Vanadium	< 0.00050	0.00050	0.00018	mg/l	104		85-115		
Zinc	< 0.0150	0.0150	0.0040	mg/l	112		85-115		
Batch number: 120307050002B	Sample number(s): 6533200-6533201								
Selenium	< 0.0020	0.0020	0.00027	mg/l	118*		85-115		
Batch number: 120307050002D	Sample number(s): 6533200-6533201								
Barium	< 0.0020	0.0020	0.00069	mg/l	98		85-115		
Batch number: 12027196903A	Sample number(s): 6533200								
Bromide	< 0.50	0.50	0.40	mg/l	104		90-110		
Chloride	< 0.40	0.40	0.20	mg/l	107		90-110		
Fluoride	< 0.10	0.10	0.080	mg/l	101		90-110		
Sulfate	< 1.0	1.0	0.30	mg/l	105		90-110		
Batch number: 12031109101B	Sample number(s): 6533200								
Total Phosphorus as P (water)	< 0.10	0.10	0.080	mg/l	107		90-110		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Cabot Oil & Gas Corporation Group Number: 1286826
Reported: 02/09/12 at 02:11 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 12033118101A	Sample number(s): 6533200								
Total Nitrite/Nitrate Nitrogen	< 0.10	0.10	0.040	mg/l	100		90-110		
Batch number: 12027021201B	Sample number(s): 6533200								
Total Dissolved Solids	< 30.0	30.0	9.7	mg/l	97		80-120		
Batch number: 12028022501A	Sample number(s): 6533200								
M. B. A. S.	< 0.12	0.12	0.040	mg/l LAS MW 320	103		83-114		
Batch number: 12028022601A	Sample number(s): 6533200								
Ortho-Phosphate as P	< 0.090	0.090	0.030	mg/l	100		95-105		
Batch number: 12031020601A	Sample number(s): 6533200								
Total Suspended Solids	< 12.0	12.0	3.0	mg/l	91		80-105		
Batch number: 12034807901A	Sample number(s): 6533200								
HEM (oil & grease)	< 5.0	5.0	1.4	mg/l	87	87	78-114	0	16

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 120270027A	Sample number(s): 6533200,6533202 UNSPK: P529838								
n-butane	53*	47*	75-125	11	20				
Ethane	56	56	34-153	0	20				
Isobutane	49*	47*	75-125	5	20				
Methane	53	55	35-157	3	20				
Propane	38	36	36-149	4	20				
Batch number: 120300029A	Sample number(s): 6533200 UNSPK: P533192								
n-butanol	104	102	75-125	2	20				
Ethanol	112	112	62-145	0	20				
Isobutanol	91	89	75-125	2	20				
Methanol	112	116	52-159	4	20				
n-propanol	118	120	75-125	2	20				
Batch number: 120275714003	Sample number(s): 6533200-6533201 UNSPK: P533365 BKG: P533365								
Mercury	99		80-120			< 0.00020	< 0.00020	0 (1)	20
Batch number: 120305716002	Sample number(s): 6533200-6533201 UNSPK: 6533200 BKG: 6533200								
Boron	100		88-111			< 0.0500	< 0.0500	2 (1)	20
Calcium	90 (2)		81-118			29.6	30.1	2	20
Lithium	95		75-125			< 0.0200	< 0.0200	200* (1)	20
Magnesium	93		77-122			5.18	5.26	2	20
Potassium	97		83-123			1.03	0.937	10 (1)	20
Silver	86		70-130			< 0.0050	< 0.0050	0 (1)	20
Sodium	93		76-121			8.97	9.16	2	20
Tin	102		86-118			< 0.0200	< 0.0200	200* (1)	20
Titanium	103		90-110			< 0.0100	< 0.0100	52* (1)	20

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Cabot Oil & Gas Corporation Group Number: 1286826
Reported: 02/09/12 at 02:11 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 120307050002A	Sample number(s): 6533200-6533201 UNSPK: P534282 BKG: P534282								
Aluminum	101		70-130			< 0.100	< 0.100	13 (1)	20
Antimony	102		70-130			< 0.0010	< 0.0010	0 (1)	20
Arsenic	107		70-130			< 0.0020	< 0.0020	0 (1)	20
Beryllium	107		70-130			< 0.00050	< 0.00050	0 (1)	20
Cadmium	103		70-130			< 0.00050	< 0.00050	0 (1)	20
Chromium	104		70-130			< 0.0020	< 0.0020	0 (1)	20
Cobalt	94		70-130			< 0.00050	< 0.00050	0 (1)	20
Copper	105		70-130			< 0.0020	< 0.0020	25* (1)	20
Iron	100		70-130			< 0.100	< 0.100	30* (1)	20
Lead	103		70-130			< 0.0010	< 0.0010	25* (1)	20
Manganese	101		70-130			0.0040	0.0038	5 (1)	20
Nickel	104		70-130			< 0.0020	< 0.0020	0 (1)	20
Strontium	101		70-130			0.119	0.123	4	20
Thallium	100		70-130			< 0.00050	< 0.00050	0 (1)	20
Vanadium	108		70-130			< 0.00050	< 0.00050	0 (1)	20
Zinc	108		70-130			< 0.0150	< 0.0150	0 (1)	20
Batch number: 120307050002B	Sample number(s): 6533200-6533201 UNSPK: P534282 BKG: P534282								
Selenium	110		70-130			< 0.0020	< 0.0020	0 (1)	20
Batch number: 120307050002D	Sample number(s): 6533200-6533201 UNSPK: P534282 BKG: P534282								
Barium	100		70-130			0.134	0.137	2	20
Batch number: 12027196903A	Sample number(s): 6533200 UNSPK: P533192 BKG: P533192								
Bromide	97		90-110			< 0.50	< 0.50	0 (1)	20
Chloride	97		90-110			4.0	3.9	1	20
Fluoride	97		90-110			0.14	0.14	2 (1)	20
Sulfate	94		90-110			5.2	5.3	1	20
Batch number: 12031109101B	Sample number(s): 6533200 UNSPK: P533192 BKG: P533192								
Total Phosphorus as P (water)	115*		90-110			< 0.10	< 0.10	0 (1)	4
Batch number: 12033118101A	Sample number(s): 6533200 UNSPK: P529447 BKG: P529447								
Total Nitrite/Nitrate Nitrogen	80*		90-110			2.6	2.6	0	2
Batch number: 12027021201B	Sample number(s): 6533200 UNSPK: P533130 BKG: P532811								
Total Dissolved Solids	109		62-135			4,560	4,590	1	9
Batch number: 12028022501A	Sample number(s): 6533200 UNSPK: P534285 BKG: P534282								
M. B. A. S.	95	97	60-136	2	11	< 0.12	< 0.12	0 (1)	18
Batch number: 12028022601A	Sample number(s): 6533200 UNSPK: P534288 BKG: P534288								
Ortho-Phosphate as P	100	97	89-112	3	5	< 0.090	< 0.090	0 (1)	6
Batch number: 12031020601A	Sample number(s): 6533200 BKG: P532770								
Total Suspended Solids						256	228	12* (1)	10

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Cabot Oil & Gas Corporation Group Number: 1286826
Reported: 02/09/12 at 02:11 PM

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: EPA SW846/8260 (water-25ml) #1
Batch number: G120311AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6533200	104	106	99	99
6533202	104	105	99	99
Blank	102	103	99	100
LCS	102	101	100	100
LCSD	102	102	100	100
Limits:	77-114	74-113	77-110	78-110

Analysis Name: SVOCs 8270C
Batch number: 12030WAH026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6533200	48	64	116	98	95	113
Blank	54	73	122	104	100	118
LCS	57	77	103	98	104	115
LCSD	56	76	112	98	96	118
Limits:	10-74	10-98	22-150	52-120	63-114	34-118

Analysis Name: TPH-GRO water C6-C10
Batch number: 12027A07A

	Trifluorotoluene-F
6533200	106
Blank	107
LCS	121
LCSD	115
Limits:	63-135

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 120270027A

	Propene
6533200	53
6533202	51
Blank	103
LCS	100
MS	47
MSD	46
Limits:	42-131

Analysis Name: Glycols in Water
Batch number: 120270028A

	Tetramethylene glycol
6533200	81
Blank	96
LCS	94

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Cabot Oil & Gas Corporation Group Number: 1286826
Reported: 02/09/12 at 02:11 PM

Surrogate Quality Control

LCSD	96

Limits: 29-157

Analysis Name: Alcohol by Direct Injection
Batch number: 120300029A

	Acetone
6533200	99
Blank	97
LCS	101
MS	100
MSD	99

Limits: 54-147

Analysis Name: TPH-DRO water C10-C28
Batch number: 120310015A

	Orthoterphenyl
6533200	101
Blank	100
LCS	108
LCSD	109

Limits: 54-127

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Analysis Request / Environmental Services Chain of Custody

eurofins | Lancaster Laboratories

For Lancaster Laboratories Use Only
Acct: 13294 Group #: 12868826 Sample #s: 6533200-02

Revised COC Rec'd 2/1/12 WAK

For Lab Use Only
SF#: 141288
SCR#: 116650

Client: Cabot Oil & Gas Corporation. 2/1/12 WS
Acct: 13294
Project Name: ~~PASUS-Dimock-SOGEHS-120126~~
PWSID #:
Project Manager: Phillip Levasseur PASUS-EPA-47743
P.O.# ~~31934~~ WS 2/1/12 47745
Technician: Gene Kush
FS Co.:
State: PA
County: Susquehanna
Twp: Dimock
FAC ID: 181.00-1,042.00,000.

Matrix: ☐ Potable ☐ NPDES

Analyses Requested / Preservation Codes

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Other	Total # of Containers	TCL VOA 8260 + TICs (H)	RSK-175 (H)	TCL SVOA 8270 +TICs	Anions*	TDS, TSS, MBAS, Fluoride	Total Phosphorus (S)	Glycols in Water	Oil and Grease (HEM) (H)	Coliform, total/fecal; HPC (T)	Metals, Dissolved (N)	Metals, Total (N)
Well-1-1	~~1/26/2012~~ WS 2/1/12	1550	X			X			X	X	X	X	X	X	X	X	X	X	X
Trip Blank	~~1/26/2012~~ 1/26/2012								X	X									

Preservation Codes: H=HCl T=Thiosulfate N=HNO_3 B=NaOH S=H_2SO_4 O=Other

Comments:

Temperature of samples upon receipt (if requested)

Remarks:
*Chloride, Bromide, Sulfate
Nitrate, Nitrite, OrthoPhosphate

Land Owner Name: Maye, Timothy and Deborah
Address: 1059 Carter Road Montrose,PA 18801

Turnaround Time Requested (TAT) (please circle): Normal Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date Results are needed: _____
Rush results requested by (please circle): Phone Fax Email
Phone #: _____ Fax#: _____
Email address: _____

Data Package Options (please circle if required)
Type I (validation/NJ Reg) Type VI(Raw Data)
Type II (Tier II) Type III (Reduced NJ)
Type IV (CLP SOW)
SDG Complete? Yes No

TX TRRP-13
MA MCP
CT RCP
Site-specific QC Required (MS/MSD/DUP)? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody Required? Yes No

Relinquished by:	Date	Time	Received by:	Date	Time
Gene Kush	1-26-12	1941	Will Smith	1/26/12	1941
Will Smith	1/26/12	2021	[illegible]	1/26/12	20:21

Lancaster Laboratories, Inc. 2425 New Holland Pike Lancaster, PA 17601 (717) 656-2300 Fax: (717) 656-6766
Copies: White copy should accompany samples to Lancaster Laboratories. The yellow copy should be retained by the samplers.

Analysis Request / Environmental Services Chain of Custody

eurofins | Lancaster Laboratories

Acct: 13294

For Lancaster Laboratories Use Only
Group # 1286826 Sample #s: 6053200

Revised COC Rec'd 2/1/12 WAK

For Lab Use Only
SF#: 141288
SCR#: 116650

Client: Cabot Oil & Gas Corporation. WS 2/1/12
Acct: 13294
Project Name: ~~PASUS-Dimock-GOGEHC-129126~~
PWSID #:
Project Manager: Phillip Levasseur PASUS-EPA-48743
P.O.# ~~34934~~ WS 2/1/12 47745
Technician: Gene Kush
FS Co.:
State: PA
County: Susquehanna
Twp: Dimock
FAC ID: 181.00-1,042.00,000.

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 O=Other

Comments:

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water (☐ Potable ☐ NPDES)	Other	Total # of Containers	TPH DRO 8015	TPH GRO 8015	Alcohols	Rad Chem Analyses*	Temperature of samples upon receipt (if requested)
										H	H		
Well-1-1	1/26/2012	1550	X			X			X	X	X	X	

Remarks:

*Rad Chem Analyses:
Alpha and Gamma Spec,
Gross Alpha/Beta
Ra-226; Ra-228; Uranium

Land Owner Name: Maye, Timothy and Deborah
Address: 1059 Carter Road Montrose, PA 18801

Turnaround Time Requested (TAT) (please circle): Normal Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date Results are needed: _____
Rush results requested by (please circle): Phone Fax Email
Phone #: _____ Fax#: _____
Email address: _____

Data Package Options (please circle if required)
Type I (validation/NJ Reg) Type VI(Raw Data)
Type II (Tier II) Type III (Reduced NJ)
Type IV (CLP SOW)

SDG Complete? Yes No

TX TRRP-13
MA MCP
CT RCP

Site-specific QC Required (MS/MSD/DUP)? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody Required? Yes No

Relinquished by:	Date	Time	Received by:	Date	Time
Gene Kush	1-26-12	1941	Will Smith	1/26/12	1941
Will Smith	1/26/12	2021	[illegible]	1/26/12	2021
			[illegible]	1/26/12	2331

Lancaster Laboratories, Inc. 2425 New Holland Pike Lancaster, PA 17601 (717) 656-2300 Fax: (717) 656-6766
Copies: White copy should accompany samples to Lancaster Laboratories. The yellow copy should be retained by the samplers.

Analysis Request / Environmental Services Chain of Custody

eurofins | Lancaster Laboratories

For Lancaster Laboratories Use Only
Acct: 13294 Group # 1286826 Sample #s: 6533200-02

For Lab Use Only
SF#: 141288
SCR#: 116650

Client: Cabot Oil & Gas Corporation. | Acct: 13294
Project Name: PASUS-Dimock-COGEHS-120126 | PWSID #:
Project Manager: Phillip Levasseur | P.O.# 31934
Technician: Gene Kush | FS Co.:
State: PA | County: Susquehanna | Twp: Dimock
FAC ID: 181.00-1,042.00,000.

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water (☐ Potable ☐ NPDES)	Other	Total # of Containers	TCL VOA 8260 + TICs (H)	RSK-175 (H)	TCL SVOA 8270 +TICs	Anions*	TDS, TSS, MBAS, Fluoride	Total Phosphorus (S)	Glycols in Water	Oil and Grease (HEM) (H)	Coliform, total/fecal; HPC (T)	Metals, Dissolved (N)	Metals, Total (N)	Temperature of samples upon receipt (if requested)
Well-1-1	1/26/2011	1550	X			X			X	X	X	X	X	X	X	X	X	X	X	
Trip Blank									X	X										

Analyses Requested / Preservation Codes

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 O=Other

Comments:

Remarks:
*Chloride, Bromide, Sulfate
Nitrate, Nitrite, OrthoPhosphate

Land Owner Name: Maye, Timothy and Deborah
Address: 1059 Carter Road Montrose,PA 18801

Turnaround Time Requested (TAT) (please circle): Normal Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date Results are needed: _____
Rush results requested by (please circle): Phone Fax Email
Phone #: _____ Fax#: _____
Email address: _____

Data Package Options (please circle if required)
Type I (validation/NJ Reg) Type VI(Raw Data)
Type II (Tier II) Type III (Reduced NJ)
Type IV (CLP SOW)
SDG Complete? Yes No

TX TRRP-13
MA MCP
CT RCP
Site-specific QC Required (MS/MSD/DUP)? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody Required? Yes No

Relinquished by:	Date	Time	Received by:	Date	Time
Gene Kush	1-26-12	1941	Will Smith	1/26/12	1941
Will Smith	1/26/12	2021	[illegible]	1/26/12	20:21

Lancaster Laboratories, Inc. 2425 New Holland Pike Lancaster, PA 17601 (717) 656-2300 Fax: (717) 656-6766

Copies: White copy should accompany samples to Lancaster Laboratories. The yellow copy should be retained by the samplers.

Analysis Request / Environmental Services Chain of Custody

eurofins | Lancaster Laboratories

Acct: 13294

For Lancaster Laboratories Use Only
Group # 1286826 Sample #s: 6053 3200

For Lab Use Only
SF#: 141288
SCR#: 116650

Client: Cabot Oil & Gas Corporation.
Acct: 13294
Project Name: PASUS-Dimock-COGEHS-120126
PWSID #:
Project Manager: Phillip Levasseur
P.O.# 31934
Technician: Gene Kush
FS Co.:
State: PA
County: Susquehanna
Twp: Dimock
FAC ID: 181.00-1,042.00,000.

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 O=Other

Comments:

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix: Soil	Matrix: Water (☐ Potable ☐ NPDES)	Matrix: Other	Total # of Containers	TPH DRO 8015	TPH GRO 8015 (H)	Alcohols (H)	Rad Chem Analyses*								Temperature of samples upon receipt (if requested)
Well-1-1	1/26/2012	1550	X			X			X	X	X	X								

Remarks:

*Rad Chem Analyses:
Alpha and Gamma Spec,
Gross Alpha/Beta
Ra-226; Ra-228; Uranium

Land Owner Name: Maye, Timothy and Deborah
Address: 1059 Carter Road Montrose, PA 18801

Turnaround Time Requested (TAT) (please circle): Normal Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date Results are needed: _____
Rush results requested by (please circle): Phone Fax Email
Phone #: _____ Fax#: _____
Email address: _____

Data Package Options (please circle if required)
Type I (validation/NJ Reg) Type VI(Raw Data)
Type II (Tier II) Type III (Reduced NJ)
Type IV (CLP SOW)

SDG Complete? Yes No

TX TRRP-13
MA MCP
CT RCP

Site-specific QC Required (MS/MSD/DUP)? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody Required? Yes No

Relinquished by:	Date	Time	Received by:	Date	Time
Gene Kush	1-26-12	1941	Will Smith	1/26/12	1941
Will Smith	1/26/12	2021	[illegible]	1/26/12	2021
			[illegible]	1/26/12	2331

Lancaster Laboratories, Inc. 2425 New Holland Pike Lancaster, PA 17601 (717) 656-2300 Fax: (717) 656-6766

Copies: White copy should accompany samples to Lancaster Laboratories. The yellow copy should be retained by the samplers.

eurofins | Lancaster Laboratories

Environmental Sample Administration
Receipt Documentation Log

Client/Project: Cabot

Date of Receipt: 1/26/12

Time of Receipt: 2331

Source Code: 01

Shipping Container Sealed: YES NO

Custody Seal Present * : YES NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	9422	1.9°C	+B	WI	Y	B	
2		4.4°C					
3		1.8°C					
4		3.7°C					
5	1396	2.7-3.0°C	ST	WI	Y	B	no +B
6	9422	5.7°C	+B				

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: [signature] 4h1259 **Date/Time:** 1/27/0027

Issued by Dept. 6042 Management

2174.06

eurofins | Lancaster Laboratories

Environmental Sample Administration
Receipt Documentation Log

Client/Project: Cabot

Date of Receipt: 1/26/12

Time of Receipt: 2331

Source Code: 01

Shipping Container Sealed: YES NO

Custody Seal Present * : YES NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
7	9422	3.9°C	TB	WI	Y	B	
8	↓	4.4°C	↓	↓	↓	↓	
9	↓	1.9°C	↓	↓	↓	↓	
10	↓	5.8°C	↓	↓	↓	↓	
11	↓	2.3°C	↓	↓	↓	↓	
6	—						

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: 4h1259 **Date/Time:** 1/27/12 0027

1/27/12 (3)

Issued by Dept. 6042 Management

2174.06

eurofins | Lancaster Laboratories

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.