

Sample Number: 521599
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 7/25/2012
 Time Collected: 1045
 Date Received: 7/27/2012
 Date Completed: 08/06/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 8/6/2012

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE ENVIRONMENTAL LABORATORY
 707 N. ROBINSON
 OKLAHOMA CITY
 OKLAHOMA, 73102-6010
 General Inquiries: 1-866-412-3057
 or sels.ok.gov
Report of Analysis by GCMS
 EPA Drinking Water Certification #OK00013

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CC: Ferrell March/LPD

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Extractabi						
Acenaphthylene	NA		UG/L		8270DM	
Acenaphthene	NA		UG/L		8270DM	
Anthracene	NA		UG/L		8270DM	
Benzo(b)fluoranthene	NA		UG/L		8270DM	
Benzo(k)fluoranthene	NA		UG/L		8270DM	
Benzo(a)pyrene	NA		UG/L		8270DM	
Bis(2-chloroethyl)ether	NA		UG/L		8270DM	
Bis(2-chloroethoxy)methane	NA		UG/L		8270DM	
Bis(2-chloroisopropyl)ether	NA		UG/L		8270DM	
Butylbenzylphthalate	NA		UG/L		8270DM	
Chrysene	NA		UG/L		8270DM	
Diethylphthalate	NA		UG/L		8270DM	
Dimethylphthalate	NA		UG/L		8270DM	
Fluoranthene	NA		UG/L		8270DM	
Fluorene	NA		UG/L		8270DM	
Hexachlorocyclopentadiene	NA		UG/L		8270DM	
Hexachloroethane in water	NA		UG/L		8270DM	
Indeno(123cd)pyrene	NA		UG/L		8270DM	
Isophorone	NA		UG/L		8270DM	
Nitrosodipropylamine	NA		UG/L		8270DM	
Nitrosodiphenylamine	NA		UG/L		8270DM	
Nitrobenzene	NA		UG/L		8270DM	
p-Chloro-m-cresol	NA		UG/L		8270DM	
Phenanthrene	NA		UG/L		8270DM	
Pyrene	NA		UG/L		8270DM	
Benzo(ghi)perylene	NA		UG/L		8270DM	
Benzo(a)anthracene	NA		UG/L		8270DM	
Bibenz(a,h)anthracene	NA		UG/L		8270DM	
2-Chloronaphthalene	NA		UG/L		8270DM	
2-Chlorophenol	NA		UG/L		8270DM	
4-Nitrophenol	NA		UG/L		8270DM	
Di-n-octylphthalate	NA		UG/L		8270DM	

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
2,4-Dichlorophenol	NA		UG/L		8270DM	
2,4-Dimethylphenol	NA		UG/L		8270DM	
2,4-Dinitrotoluene	NA		UG/L		8270DM	
2,4-Dinitrophenol	NA		UG/L		8270DM	
2,4,6-Trichlorophenol	NA		UG/L		8270DM	
2,6-Dinitrotoluene	NA		UG/L		8270DM	
3,3'-Dichlorobenzidine	NA		UG/L		8270DM	
4-Bromophenylphenyl ether	NA		UG/L		8270DM	
4-Chlorophenyl phenylether	NA		UG/L		8270DM	
4-Nitrophenol	NA		UG/L		8270DM	
4,6-Dinitro-o-cresol	NA		UG/L		8270DM	
Phenol	NA		UG/L		8270DM	
Naphthalene	NA		UG/L		8270DM	
Pentachlorophenol	NA		UG/L		8270DM	
Bis(2-ethylhexyl)phthalate	NA		UG/L		8270DM	
Di-n-butylphthalate	NA		UG/L		8270DM	
Hexachlorobenzene	NA		UG/L		8270DM	
Hexachlorobutadiene	NA		UG/L		8270DM	
Dibenzofuran	NA		UG/L		8270DM	
2-Methylnaphthalene	NA		UG/L		8270DM	
2-Methylphenol	NA		UG/L		8270DM	
4-Methylphenol	NA		UG/L		8270DM	
2,4,5-Trichlorophenol	NA		UG/L		8270DM	
4-Chloroaniline	NA		UG/L		8270DM	
2-Nitroaniline	NA		UG/L		8270DM	
3-Nitroaniline	NA		UG/L		8270DM	
4-Nitroaniline	NA		UG/L		8270DM	

COMPOUND	TENTATIVELY IDENTIFIED BY	VALUE	UNITS
NOT ANALYZED	NBS LIBRARY SEARCH		

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CC: Ferrella March/LPD

Summary

Labs performing analysis on this Sample:

Metals GCMS

SOURCE: OCC TANKS

SAMPLERS COMMENTS:

SAMPLE SITE 1; POWELL OIL OP#17941; PUMP FOR HD SMART 17A

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE= 1.5

ANALYST'S COMMENTS:

No gel formation present.

Analyst: Cassandra Kontas

(NA) Not analyzed.

Sample extract in storage.

* ANALYST

Cassandra Kontas

Sample Number: 521600
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 7/25/2012
 Time Collected: 1055
 Date Received: 7/27/2012
 Date Completed: 08/06/2012
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Dilution Factor, Extractab:						
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Acenaphthene	NA		UG/L		8270DM	
Anthracene	NA		UG/L		8270DM	
Benzo(b)fluoranthene	NA		UG/L		8270DM	
Benzo(k)fluoranthene	NA		UG/L		8270DM	
Benzo(a)pyrene	NA		UG/L		8270DM	
Bis(2-chloroethyl)ether	NA		UG/L		8270DM	
Bis(2-chloroethoxy)methane	NA		UG/L		8270DM	
Bis(2-chloroisopropyl)ethe	NA		UG/L		8270DM	
Butylbenzylphthalate	NA		UG/L		8270DM	
Chrysene	NA		UG/L		8270DM	
Diethylphthalate	NA		UG/L		8270DM	
Dimethylphthalate	NA		UG/L		8270DM	
Fluoranthene	NA		UG/L		8270DM	
Fluorene	NA		UG/L		8270DM	
Hexachlorocyclopentadiene	NA		UG/L		8270DM	
Hexachloroethane in water	NA		UG/L		8270DM	
Indeno(123cd)pyrene	NA		UG/L		8270DM	
Isophorone	NA		UG/L		8270DM	
Nitrosodipropylamine	NA		UG/L		8270DM	
Nitrosodiphenylamine	NA		UG/L		8270DM	
Nitrobenzene	NA		UG/L		8270DM	
p-Chloro-m-cresol	NA		UG/L		8270DM	
Phenanthrene	NA		UG/L		8270DM	
Pyrene	NA		UG/L		8270DM	
Benzo(ghi)perylene	NA		UG/L		8270DM	
Benzo(a)anthracene	NA		UG/L		8270DM	
Dibenzo(ah)anthracene	NA		UG/L		8270DM	
2-Chloronaphthalene	NA		UG/L		8270DM	
2-Chlorophenol	NA		UG/L		8270DM	
2-Nitrophenol	NA		UG/L		8270DM	
Di-n-octylphthalate	NA		UG/L		8270DM	

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
2,4-Dichlorophenol	NA		UG/L		8270DM	
2,4-Dimethylphenol	NA		UG/L		8270DM	
2,4-Dinitrotoluene	NA		UG/L		8270DM	
2,4-Dinitrophenol	NA		UG/L		8270DM	
2,4,6-Trichlorophenol	NA		UG/L		8270DM	
2,6-Dinitrotoluene	NA		UG/L		8270DM	
3,3'-Dichlorobenzidine	NA		UG/L		8270DM	
4-Bromophenylphenyl ether	NA		UG/L		8270DM	
4-Chlorophenyl phenylether	NA		UG/L		8270DM	
4-Nitrophenol	NA		UG/L		8270DM	
4,6-Dinitro-o-cresol	NA		UG/L		8270DM	
Phenol	NA		UG/L		8270DM	
Naphthalene	NA		UG/L		8270DM	
Pentachlorophenol	NA		UG/L		8270DM	
Bis(2-ethylhexyl)phthalate	NA		UG/L		8270DM	
Di-n-butylphthalate	NA		UG/L		8270DM	
Hexachlorobenzene	NA		UG/L		8270DM	
Hexachlorobutadiene	NA		UG/L		8270DM	
Dibenzofuran	NA		UG/L		8270DM	
2-Methylnaphthalene	NA		UG/L		8270DM	
2-Methylphenol	NA		UG/L		8270DM	
4-Methylphenol	NA		UG/L		8270DM	
2,4,5-Trichlorophenol	NA		UG/L		8270DM	
4-Chloroaniline	NA		UG/L		8270DM	
2-Nitroaniline	NA		UG/L		8270DM	
3-Nitroaniline	NA		UG/L		8270DM	
4-Nitroaniline	NA		UG/L		8270DM	

COMPOUND	TENTATIVELY IDENTIFIED BY NBS LIBRARY SEARCH	VALUE	UNITS
NOT ANALYZED			

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Summary

Labs performing analysis on this Sample:

Metals GCMS

SOURCE: OCC TANKS

SAMPLERS COMMENTS:

SAMPLE SITE 2; POWELL OIL OP#17941; PUMP FOR TJ SMART 4A

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE= 1.1

ANALYST'S COMMENTS:

No gel formation present.

Analyst: Cassandra Kontas

(NA) Not analyzed.

Sample extract in storage.

* ANALYST

Cassandra Kontas

Sample Number: 521601
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 7/25/2012
 Time Collected: 1115
 Date Received: 7/27/2012
 Date Completed: 08/06/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 8/6/2012

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Extractab:		1.00				
Acenaphthylene	<	10	UG/L	08/02/12	8270D	
Acenaphthene	<	10	UG/L	08/02/12	8270D	
Anthracene	<	10	UG/L	08/02/12	8270D	
Benzo(b)fluoranthene	<	10	UG/L	08/02/12	8270D	
Benzo(k)fluoranthene	<	10	UG/L	08/02/12	8270D	
Benzo(a)pyrene	<	10	UG/L	08/02/12	8270D	
Bis(2-chloroethyl)ether	<	10	UG/L	08/02/12	8270D	
Bis(2-chloroethoxy)methane	<	10	UG/L	08/02/12	8270D	
Bis(2-chloroisopropyl)ether	<	10	UG/L	08/02/12	8270D	
Butylbenzylphthalate	<	10	UG/L	08/02/12	8270D	
Chrysene	<	10	UG/L	08/02/12	8270D	
Diethylphthalate	<	10	UG/L	08/02/12	8270D	
Dimethylphthalate	<	10	UG/L	08/02/12	8270D	
Fluoranthene	<	10	UG/L	08/02/12	8270D	
Fluorene	<	10	UG/L	08/02/12	8270D	
Hexachlorocyclopentadiene	<	10	UG/L	08/02/12	8270D	
Hexachloroethane in water	<	10	UG/L	08/02/12	8270D	
Indeno(123cd)pyrene	<	10	UG/L	08/02/12	8270D	
Isophorone	<	10	UG/L	08/02/12	8270D	
Nitrosodipropylamine	<	10	UG/L	08/02/12	8270D	
Nitrosodiphenylamine	<	10	UG/L	08/02/12	8270D	
Nitrobenzene	<	10	UG/L	08/02/12	8270D	
p-Chloro-m-cresol	<	10	UG/L	08/02/12	8270D	
Phenanthrene		11	UG/L	08/02/12	8270D	
Pyrene	<	10	UG/L	08/02/12	8270D	
Benzo(ghi)perylene	<	10	UG/L	08/02/12	8270D	
Benzo(a)anthracene	<	10	UG/L	08/02/12	8270D	
Dibenzo(ah)anthracene	<	10	UG/L	08/02/12	8270D	
2-Chloronaphthalene	<	10	UG/L	08/02/12	8270D	
2-Chlorophenol	<	10	UG/L	08/02/12	8270D	
2-Nitrophenol	<	10	UG/L	08/02/12	8270D	
Di-n-octylphthalate	<	10	UG/L	08/02/12	8270D	

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
2,4-Dichlorophenol	<	10	UG/L	08/02/12	8270D	
2,4-Dimethylphenol	<	10	UG/L	08/02/12	8270D	
2,4-Dinitrotoluene	<	10	UG/L	08/02/12	8270D	
2,4-Dinitrophenol	<	25	UG/L	08/02/12	8270D	
2,4,6-Trichlorophenol	<	10	UG/L	08/02/12	8270D	
2,6-Dinitrotoluene	<	10	UG/L	08/02/12	8270D	
3,3'-Dichlorobenzidine	<	10	UG/L	08/02/12	8270D	
4-Bromophenylphenyl ether	<	10	UG/L	08/02/12	8270D	
4-Chlorophenyl phenylether	<	10	UG/L	08/02/12	8270D	
4-Nitrophenol	<	25	UG/L	08/02/12	8270D	
4,6-Dinitro-o-cresol	<	25	UG/L	08/02/12	8270D	
Phenol	<	10	UG/L	08/02/12	8270D	
Naphthalene	<	10	UG/L	08/02/12	8270D	
Pentachlorophenol	UJ <	25	UG/L	08/02/12	8270D	
Bis(2-ethylhexyl)phthalate	<	10	UG/L	08/02/12	8270D	
Di-n-butylphthalate	<	10	UG/L	08/02/12	8270D	
Hexachlorobenzene	<	10	UG/L	08/02/12	8270D	
Hexachlorobutadiene	<	10	UG/L	08/02/12	8270D	
Dibenzofuran	<	10	UG/L	08/02/12	8270D	
2-Methylnaphthalene	<	10	UG/L	08/02/12	8270D	
2-Methylphenol	<	10	UG/L	08/02/12	8270D	
4-Methylphenol	<	10	UG/L	08/02/12	8270D	
2,4,5-Trichlorophenol	<	10	UG/L	08/02/12	8270D	
4-Chloroaniline	<	10	UG/L	08/02/12	8270D	
2-Nitroaniline	<	25	UG/L	08/02/12	8270D	
3-Nitroaniline	<	25	UG/L	08/02/12	8270D	
4-Nitroaniline	<	25	UG/L	08/02/12	8270D	

COMPOUND	SURROGATE RECOVERIES	RECOVERY %
P-TERPHENYL-D14		38
2-FLUOROPHENOL		39
PHENOL-D5		37
2-FLUOROBIPHENYL		68

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CC: Ferrella March/LPD

COMPOUND	SURROGATE RECOVERIES	RECOVERY %
NITROBENZENE-D5		69
2,4,6-TRIBROMOPHENOL		110

COMPOUND	TENTATIVELY IDENTIFIED BY NBS LIBRARY SEARCH	VALUE	UNITS
Naphthalene, 1,6,7-trimethyl- unknown substituted alkane		38	µg/L
Tetracosane		50	µg/L
Heptacosane		53	µg/L
Tricosane		53	µg/L
unknown alcohol substituted alk		52	µg/L
unknown substituted cyclic alka		49	µg/L
unknown substituted naphthalen		50	µg/L
Heptadecane		64	µg/L
Docosane		52	µg/L
Naphthalene, 2,3,6-trimethyl-		65	µg/L
Tetradecane		52	µg/L
1H-Indene, 2,3-dihydro-1,1,2,3,		130	µg/L
Hexacosane		31	µg/L
Hexadecane		58	µg/L
Tetradecane, 4,11-dimethyl-		110	µg/L
Naphthalene, 1,3-dimethyl-		61	µg/L
Pentadecane		37	µg/L
Tridecane		110	µg/L
7-Hexadecene		40	µg/L
		81	µg/L

Summary

Labs performing analysis on this Sample:
Metals GCMS

Sample Number: 521601
Project Code: RR-BLP
Agency Number:
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CC: Ferrella March/LPD

SOURCE: OCC TANKS

SAMPLERS COMMENTS:

SAMPLE SITE 3; POWELL OIL OP#17941; PUMP FOR TROUT BUSBY#2

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE= 1.4

ANALYST'S COMMENTS:

No gel formation present.

Analyst: Cassandra Kontas

At minimum, quality control samples associated with this analysis include: a negative control, a positive control, a field sample fortified with target analytes, and a duplicate. (NJ) The analysis indicates the presence of one or more compounds that have been 'tentatively identified,' and the associated numerical values represent their approximate concentrations. Some compound names were truncated in the "Tentatively Identified by NBS Library Search" report table; their complete names are:

1H-Indene, 2,3-dihydro-1,1,2,3,3-pentamethyl-

unknown alcohol-substituted alkane

unknown substituted cyclic alkane

unknown substituted naphthalene

(UJ) The material was analyzed for but was not detected at or above the reporting limit for this analysis; the associated value is an estimate and may be inaccurate or imprecise.

* ANALYST

Cassandra Kontas

Sample Number: 521602
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 7/25/2012
 Time Collected: 1145
 Date Received: 7/27/2012
 Date Completed: 08/06/2012
 Collected By: SC
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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Extractab:		1.00				
Acenaphthylene	<	10	UG/L	08/02/12	8270D	
Acenaphthene	<	10	UG/L	08/02/12	8270D	
Anthracene	<	10	UG/L	08/02/12	8270D	
Benzo(b)fluoranthene	<	10	UG/L	08/02/12	8270D	
Benzo(k)fluoranthene	<	10	UG/L	08/02/12	8270D	
Benzo(a)pyrene	<	10	UG/L	08/02/12	8270D	
Bis(2-chloroethyl)ether	<	10	UG/L	08/02/12	8270D	
Bis(2-chloroethoxy)methane	<	10	UG/L	08/02/12	8270D	
Bis(2-chloroisopropyl)ether	<	10	UG/L	08/02/12	8270D	
Butylbenzylphthalate	<	10	UG/L	08/02/12	8270D	
Chrysene	<	10	UG/L	08/02/12	8270D	
Diethylphthalate	<	10	UG/L	08/02/12	8270D	
Dimethylphthalate	<	10	UG/L	08/02/12	8270D	
Fluoranthene	<	10	UG/L	08/02/12	8270D	
Fluorene	<	10	UG/L	08/02/12	8270D	
Hexachlorocyclopentadiene	<	10	UG/L	08/02/12	8270D	
Hexachloroethane in water	<	10	UG/L	08/02/12	8270D	
Indeno(123cd)pyrene	<	10	UG/L	08/02/12	8270D	
Isophorone	<	10	UG/L	08/02/12	8270D	
Nitrosodipropylamine	<	10	UG/L	08/02/12	8270D	
Nitrosodiphenylamine	<	10	UG/L	08/02/12	8270D	
Nitrobenzene	<	10	UG/L	08/02/12	8270D	
p-Chloro-m-cresol	<	10	UG/L	08/02/12	8270D	
Phenanthrene	<	10	UG/L	08/02/12	8270D	
Pyrene	<	10	UG/L	08/02/12	8270D	
Benzo(ghi)perylene	<	10	UG/L	08/02/12	8270D	
Benzo(a)anthracene	<	10	UG/L	08/02/12	8270D	
Dibenzo(ah)anthracene	<	10	UG/L	08/02/12	8270D	
2-Chloronaphthalene	<	10	UG/L	08/02/12	8270D	
2-Chlorophenol	<	10	UG/L	08/02/12	8270D	
2-Nitrophenol	<	10	UG/L	08/02/12	8270D	
Di-n-octylphthalate	<	10	UG/L	08/02/12	8270D	

Sample Number: 521602
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 7/25/2012
 Time Collected: 1145
 Date Received: 7/27/2012
 Date Completed: 08/06/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 8/6/2012

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
2,4-Dichlorophenol	<	10	UG/L	08/02/12	8270D	
2,4-Dimethylphenol	<	10	UG/L	08/02/12	8270D	
2,4-Dinitrotoluene	<	10	UG/L	08/02/12	8270D	
2,4-Dinitrophenol	<	25	UG/L	08/02/12	8270D	
2,4,6-Trichlorophenol	<	10	UG/L	08/02/12	8270D	
2,6-Dinitrotoluene	<	10	UG/L	08/02/12	8270D	
3,3'-Dichlorobenzidine	<	10	UG/L	08/02/12	8270D	
4-Bromophenylphenyl ether	<	10	UG/L	08/02/12	8270D	
4-Chlorophenyl phenylether	<	10	UG/L	08/02/12	8270D	
4-Nitrophenol	<	25	UG/L	08/02/12	8270D	
4,6-Dinitro-o-cresol	<	25	UG/L	08/02/12	8270D	
Phenol	<	10	UG/L	08/02/12	8270D	
Naphthalene	<	10	UG/L	08/02/12	8270D	
Pentachlorophenol	UJ <	25	UG/L	08/02/12	8270D	
Bis(2-ethylhexyl)phthalate	<	10	UG/L	08/02/12	8270D	
Di-n-butylphthalate	<	10	UG/L	08/02/12	8270D	
Hexachlorobenzene	<	10	UG/L	08/02/12	8270D	
Hexachlorobutadiene	<	10	UG/L	08/02/12	8270D	
Dibenzofuran	<	10	UG/L	08/02/12	8270D	
2-Methylnaphthalene	<	10	UG/L	08/02/12	8270D	
2-Methylphenol	<	10	UG/L	08/02/12	8270D	
4-Methylphenol	<	10	UG/L	08/02/12	8270D	
2,4,5-Trichlorophenol	<	10	UG/L	08/02/12	8270D	
4-Chloroaniline	<	10	UG/L	08/02/12	8270D	
2-Nitroaniline	<	25	UG/L	08/02/12	8270D	
3-Nitroaniline	<	25	UG/L	08/02/12	8270D	
4-Nitroaniline	<	25	UG/L	08/02/12	8270D	

COMPOUND	SURROGATE RECOVERIES	RECOVERY %
2-FLUOROPHENOL		32
2,4,6-TRIBROMOPHENOL		89
P-TERPHENYL-D14		37
NITROBENZENE-D5		48

Sample Number: 521602
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 7/25/2012
 Time Collected: 1145
 Date Received: 7/27/2012
 Date Completed: 08/06/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 8/6/2012

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COMPOUND	SURROGATE RECOVERIES	RECOVERY %
PHENOL-D5		39
2-FLUOROBIPHENYL		54

COMPOUND	TENTATIVELY IDENTIFIED BY NBS LIBRARY SEARCH	VALUE	UNITS
Docosane		21	µg/L
Heptadecane		32	µg/L
Naphthalene, 1,6,7-trimethyl-		20	µg/L
Nonadecane		17	µg/L
Tridecane		26	µg/L
Eicosane		18	µg/L
Hexadecane		44	µg/L
Pentadecane, 7-methyl-		18	µg/L
Tetracosane		17	µg/L
unknown substituted alkane		16	µg/L
unknown substituted naphthalene		18	µg/L
Pentadecane		38	µg/L
Tricosane		17	µg/L
Undecane, 2,6-dimethyl-		15	µg/L
unknown substituted alkene		24	µg/L
Hexacosane		14	µg/L
Naphthalene, 2,3,6-trimethyl-		16	µg/L
Tetradecane		38	µg/L
Heptacosane		15	µg/L
Naphthalene, 2,3-dimethyl-		17	µg/L

Summary

Labs performing analysis on this Sample:

Metals GCMS

Sample Number: 521602
Project Code: RR-BLP
Agency Number:
Date Collected: 7/25/2012
Time Collected: 1145
Date Received: 7/27/2012
Date Completed: 08/06/2012
Collected By: SC
PWS Id:
Location Code:
Station:
Facility:
Report Date: 8/6/2012

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SOURCE: OCC TANK

SAMPLERS COMMENTS:

SAMPLE SITE 4;KSESOILOP#20497;PUMP FOR PENISTON 4;PINISTEN B1 CPFILE 1B;PFILE3 PFILE6
PENISTON 6

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE= 1.7

ANALYST'S COMMENTS:

No gel formation present.

Analyst: Cassandra Kontas

At minimum, quality control samples associated with this analysis include: a negative control, a positive control, a field sample fortified with target analytes, and a duplicate. (NJ) The analysis indicates the presence of one or more compounds that have been 'tentatively identified,' and the associated numerical values represent their approximate concentrations. (UJ) The material was analyzed for but was not detected at or above the reporting limit for this analysis; the associated value is an estimate and may be inaccurate or imprecise.

* * ANALYST Cassandra Kontas

Sample Number: 521603
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 7/25/2012
 Time Collected: 1201
 Date Received: 7/27/2012
 Date Completed: 08/06/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 8/6/2012

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CC: Ferrella March/LPD

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Extractab:		1.00				
Acenaphthylene	<	10	UG/L	08/02/12	8270D	
Acenaphthene	<	10	UG/L	08/02/12	8270D	
Anthracene	<	10	UG/L	08/02/12	8270D	
Benzo(b)fluoranthene	<	10	UG/L	08/02/12	8270D	
Benzo(k)fluoranthene	<	10	UG/L	08/02/12	8270D	
Benzo(a)pyrene	<	10	UG/L	08/02/12	8270D	
Bis(2-chloroethyl)ether	<	10	UG/L	08/02/12	8270D	
Bis(2-chloroethoxy)methane	<	10	UG/L	08/02/12	8270D	
Bis(2-chloroisopropyl)ethe:	<	10	UG/L	08/02/12	8270D	
Butylbenzylphthalate	<	10	UG/L	08/02/12	8270D	
Chrysene	<	10	UG/L	08/02/12	8270D	
Diethylphthalate	<	10	UG/L	08/02/12	8270D	
Dimethylphthalate	<	10	UG/L	08/02/12	8270D	
Fluoranthene	<	10	UG/L	08/02/12	8270D	
Fluorene	<	10	UG/L	08/02/12	8270D	
Hexachlorocyclopentadiene	<	10	UG/L	08/02/12	8270D	
Hexachloroethane in water	<	10	UG/L	08/02/12	8270D	
Indeno(123cd)pyrene	<	10	UG/L	08/02/12	8270D	
Sophorone	<	10	UG/L	08/02/12	8270D	
Nitrosodipropylamine	<	10	UG/L	08/02/12	8270D	
Nitrosodiphenylamine	<	10	UG/L	08/02/12	8270D	
Nitrobenzene	<	10	UG/L	08/02/12	8270D	
Chloro-m-cresol	<	10	UG/L	08/02/12	8270D	
Benanthrene	<	10	UG/L	08/02/12	8270D	
rene	<	10	UG/L	08/02/12	8270D	
Benzo(ghi)perylene	<	10	UG/L	08/02/12	8270D	
Benzo(a)anthracene	<	10	UG/L	08/02/12	8270D	
Benzo(ah)anthracene	<	10	UG/L	08/02/12	8270D	
Chloronaphthalene	<	10	UG/L	08/02/12	8270D	
Chlorophenol	<	10	UG/L	08/02/12	8270D	
Nitrophenol	<	10	UG/L	08/02/12	8270D	
n-octylphthalate	<	10	UG/L	08/02/12	8270D	
	<	10	UG/L	08/02/12	8270D	

Sample Number: 521603
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 7/25/2012
 Time Collected: 1201
 Date Received: 7/27/2012
 Date Completed: 08/06/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 8/6/2012

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
2,4-Dichlorophenol	<	10	UG/L	08/02/12	8270D	
2,4-Dimethylphenol	<	10	UG/L	08/02/12	8270D	
2,4-Dinitrotoluene	<	10	UG/L	08/02/12	8270D	
2,4-Dinitrophenol	<	25	UG/L	08/02/12	8270D	
2,4,6-Trichlorophenol	<	10	UG/L	08/02/12	8270D	
2,6-Dinitrotoluene	<	10	UG/L	08/02/12	8270D	
3,3'-Dichlorobenzidine	<	10	UG/L	08/02/12	8270D	
4-Bromophenylphenyl ether	<	10	UG/L	08/02/12	8270D	
4-Chlorophenyl phenylether	<	10	UG/L	08/02/12	8270D	
4-Nitrophenol	<	25	UG/L	08/02/12	8270D	
4,6-Dinitro-o-cresol	<	25	UG/L	08/02/12	8270D	
Phenol	<	10	UG/L	08/02/12	8270D	
Naphthalene	<	10	UG/L	08/02/12	8270D	
Pentachlorophenol	UJ <	25	UG/L	08/02/12	8270D	
Bis(2-ethylhexyl)phthalate	<	10	UG/L	08/02/12	8270D	
Di-n-butylphthalate	<	10	UG/L	08/02/12	8270D	
Hexachlorobenzene	<	10	UG/L	08/02/12	8270D	
Hexachlorobutadiene	<	10	UG/L	08/02/12	8270D	
Dibenzofuran	<	10	UG/L	08/02/12	8270D	
2-Methylnaphthalene	<	10	UG/L	08/02/12	8270D	
2-Methylphenol	<	10	UG/L	08/02/12	8270D	
4-Methylphenol	<	10	UG/L	08/02/12	8270D	
2,4,5-Trichlorophenol	<	10	UG/L	08/02/12	8270D	
4-Chloroaniline	<	10	UG/L	08/02/12	8270D	
2-Nitroaniline	<	25	UG/L	08/02/12	8270D	
3-Nitroaniline	<	25	UG/L	08/02/12	8270D	
4-Nitroaniline	<	25	UG/L	08/02/12	8270D	

COMPOUND	SURROGATE RECOVERIES	RECOVERY %
NITROBENZENE-D5		59
PHENOL-D5		39
P-TERPHENYL-D14		55
2,4,6-TRIBROMOPHENOL		91

Sample Number: 521603
Project Code: RR-BLP
Agency Number:
Date Collected: 7/25/2012
Time Collected: 1201
Date Received: 7/27/2012
Date Completed: 08/06/2012
Collected By: SC
PWS Id:
Location Code:
Station:
Facility:
Report Date: 8/6/2012

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COMPOUND	SURROGATE RECOVERIES	RECOVERY %
2-FLUOROBIPHENYL		54
2-FLUOROPHENOL		38

COMPOUND	TENTATIVELY IDENTIFIED BY NBS LIBRARY SEARCH	VALUE	UNITS
Cyclic octaatomic sulfur		180	µg/L
Sulfur		11	µg/L
Benzenesulfonamide, N-butyl-		15	µg/L

Summary

Labs performing analysis on this Sample:

Metals GCMS

SOURCE: OCC TANK

SAMPLERS COMMENTS:

SAMPLE SITE#5; KSES OIL OP#20497;PUMP FOR METZNER#12

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE= 5.0

ANALYST'S COMMENTS:

No gel formation present.

Analyst: Cassandra Kontas

At minimum, quality control samples associated with this analysis include: a negative control, a positive control, a field sample fortified with target analytes, and a duplicate. (NJ) The analysis indicates the presence of one or more compounds that have been 'tentatively identified,' and the associated numerical values represent their approximate concentrations. (UJ) The material was analyzed for but was not detected at or above the reporting limit for this analysis; the associated value is an estimate and may be inaccurate or imprecise.

* ANALYST

Cassandra Kontas

Sample Number: 522432
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 8/15/2012
 Time Collected: 1130
 Date Received: 8/16/2012
 Date Completed: 08/22/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 8/22/2012

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Extractab:						
Acenaphthylene	NA		UG/L		8270DM	
Acenaphthene	NA		UG/L		8270DM	
Anthracene	NA		UG/L		8270DM	
Benzo(b)fluoranthene	NA		UG/L		8270DM	
Benzo(k)fluoranthene	NA		UG/L		8270DM	
Benzo(a)pyrene	NA		UG/L		8270DM	
Bis(2-chloroethyl)ether	NA		UG/L		8270DM	
Bis(2-chloroethoxy)methane	NA		UG/L		8270DM	
Bis(2-chloroisopropyl)ethel	NA		UG/L		8270DM	
Butylbenzylphthalate	NA		UG/L		8270DM	
Chrysene	NA		UG/L		8270DM	
Diethylphthalate	NA		UG/L		8270DM	
Dimethylphthalate	NA		UG/L		8270DM	
Fluoranthene	NA		UG/L		8270DM	
Fluorene	NA		UG/L		8270DM	
Hexachlorocyclopentadiene	NA		UG/L		8270DM	
Hexachloroethane in water	NA		UG/L		8270DM	
Indeno(123cd)pyrene	NA		UG/L		8270DM	
Isophorone	NA		UG/L		8270DM	
Nitrosodipropylamine	NA		UG/L		8270DM	
Nitrosodiphenylamine	NA		UG/L		8270DM	
Nitrobenzene	NA		UG/L		8270DM	
p-Chloro-m-cresol	NA		UG/L		8270DM	
Phenanthrene	NA		UG/L		8270DM	
Pyrene	NA		UG/L		8270DM	
Benzo(ghi)perylene	NA		UG/L		8270DM	
Benzo(a)anthracene	NA		UG/L		8270DM	
1,2,4-Trichlorobenzene	NA		UG/L		8270DM	
Dibenzo(ah)anthracene	NA		UG/L		8270DM	
1,4-Dichlorobenzene	NA		UG/L		8270DM	
2-Chloronaphthalene	NA		UG/L		8270DM	
2-Chlorophenol	NA		UG/L		8270DM	

Sample Number: 522432
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 8/15/2012
 Time Collected: 1130
 Date Received: 8/16/2012
 Date Completed: 08/22/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 8/22/2012

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
2-Nitrophenol	NA		UG/L		8270DM	
Di-n-octylphthalate	NA		UG/L		8270DM	
2,4-Dichlorophenol	NA		UG/L		8270DM	
2,4-Dimethylphenol	NA		UG/L		8270DM	
2,4-Dinitrotoluene	NA		UG/L		8270DM	
2,4-Dinitrophenol	NA		UG/L		8270DM	
2,4,6-Trichlorophenol	NA		UG/L		8270DM	
2,6-Dinitrotoluene	NA		UG/L		8270DM	
3,3'-Dichlorobenzidine	NA		UG/L		8270DM	
4-Bromophenylphenyl ether	NA		UG/L		8270DM	
4-Chlorophenyl phenylether	NA		UG/L		8270DM	
4-Nitrophenol	NA		UG/L		8270DM	
4,6-Dinitro-o-cresol	NA		UG/L		8270DM	
Phenol	NA		UG/L		8270DM	
Naphthalene	NA		UG/L		8270DM	
Pentachlorophenol	NA		UG/L		8270DM	
Bis(2-ethylhexyl)phthalate	NA		UG/L		8270DM	
Di-n-butylphthalate	NA		UG/L		8270DM	
Hexachlorobenzene	NA		UG/L		8270DM	
Hexachlorobutadiene	NA		UG/L		8270DM	
Dibenzofuran	NA		UG/L		8270DM	
2-Methylnaphthalene	NA		UG/L		8270DM	
2-Methylphenol	NA		UG/L		8270DM	
4-Methylphenol	NA		UG/L		8270DM	
2,4,5-Trichlorophenol	NA		UG/L		8270DM	
4-Chloroaniline	NA		UG/L		8270DM	
2-Nitroaniline	NA		UG/L		8270DM	
3-Nitroaniline	NA		UG/L		8270DM	
4-Nitroaniline	NA		UG/L		8270DM	

Sample Number: 522432
Project Code: RR-BLP
Agency Number:
Date Collected: 8/15/2012
Time Collected: 1130
Date Received: 8/16/2012
Date Completed: 08/22/2012
Collected By: SC
PWS Id:
Location Code:
Station:
Facility:
Report Date: 8/22/2012

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COMPOUND	TENTATIVELY IDENTIFIED BY NBS LIBRARY SEARCH	VALUE	UNITS
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NOT ANALYZED

Summary

Labs performing analysis on this Sample:

Metals GCMS

SOURCE: DORF DRILLING

SAMPLERS COMMENTS:

1-1;ON SEAY LEASE TANK BATTERY PUMP;GEL FORMATION ONLY

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE= 3.6

ANALYST'S COMMENTS:

No gel formation.

Analyst: Cassandra Kontas

(NA) Not analyzed

* ANALYST Cassandra Kontas

Sample Number: 522432
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 8/15/2012
 Time Collected: 1130
 Date Received: 8/16/2012
 Date Completed: 09/13/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 9/18/2012

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 EPA Drinking Water Certification #OK00013

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CC: Ferrella March/LPD

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Calcium, Total		6320	MG/L	09/05/12	200.7	
Magnesium, Total		1830	MG/L	09/05/12	200.7	
Sodium, Total		27600	MG/L	09/05/12	200.7	
Potassium, Total		452	MG/L	09/05/12	200.7	
Silica (SiO2), Total		4860	UG/L	09/05/12	200.7	
Arsenic, Total		38.3	UG/L	09/12/12	200.7	
Barium, Total		63400	UG/L	09/05/12	200.7	
Beryllium, Total	<	2.00	UG/L	09/05/12	200.7	
Boron, Total		3010	UG/L	09/05/12	200.7	
Cadmium, Total	<	5.00	UG/L	09/05/12	200.7	
Chromium, Total	<	5.00	UG/L	09/05/12	200.7	
Cobalt, Total		14.5	UG/L	09/05/12	200.7	
Copper, Total		62.3	UG/L	09/05/12	200.7	
Iron, Total		43000	UG/L	09/05/12	200.7	
Lead, Total		23.0	UG/L	09/05/12	200.7	
Manganese, Total		3200	UG/L	09/05/12	200.7	
Thallium, Total		41.8	UG/L	09/05/12	200.7	
Molybdenum, Total		14.1	UG/L	09/05/12	200.7	
Nickel, Total	<	10.0	UG/L	09/05/12	200.7	
Silver, Total		14.0	UG/L	09/05/12	200.7	
Strontium, Total		435000	UG/L	09/12/12	200.7	
Zinc, Total		137	UG/L	09/05/12	200.7	
Antimony, Total	<	10.0	UG/L	09/05/12	200.7	
Tin, Total	<	10.0	UG/L	09/05/12	200.7	
Aluminum, Total	<	300	UG/L	09/05/12	200.7	
Selenium, Total		33.0	UG/L	09/05/12	200.7	
Titanium, Total		77.3	UG/L	09/12/12	200.7	
Vanadium, Total		1200	UG/L	09/05/12	200.7	
Mercury, Total	<	0.50	UG/L	08/29/12	200.8	

Summary

Sample Number: 522432
Project Code: RR-BLP
Agency Number:
Date Collected: 8/15/2012
Time Collected: 1130
Date Received: 8/16/2012
Date Completed: 09/13/2012
Collected By: SC
PWS Id:
Location Code:
Station:
Facility:
Report Date: 9/18/2012

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General Inquiries: 1-866-412-3057
or sels.ok.gov

Report of Analysis by Metals
EPA Drinking Water Certification #OK00013

To: File Copy

CC: Ferrella March/LPD

Labs performing analysis on this Sample:

Metals GCMS

SOURCE: DORF DRILLING

SAMPLERS COMMENTS:

1-1;ON SEAY LEASE TANK BATTERY PUMP;GEL FORMATION ONLY

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE= 3.6

ANALYST'S COMMENTS:

Grey Goode

* ANALYST

Greg Goode
State Environmental Laboratory

Sample Number: 522433
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 8/15/2012
 Time Collected: 1153
 Date Received: 8/16/2012
 Date Completed: 08/22/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 8/22/2012

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Report of Analysis by GCMS

EPA Drinking Water Certification #OK00013

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CC: Ferrella March/LPD

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Extractab:						
Acenaphthylene	NA		UG/L		8270DM	
Acenaphthene	NA		UG/L		8270DM	
Anthracene	NA		UG/L		8270DM	
Benzo(b)fluoranthene	NA		UG/L		8270DM	
Benzo(k)fluoranthene	NA		UG/L		8270DM	
Benzo(a)pyrene	NA		UG/L		8270DM	
Bis(2-chloroethyl)ether	NA		UG/L		8270DM	
Bis(2-chloroethoxy)methane	NA		UG/L		8270DM	
Bis(2-chloroisopropyl)ethe	NA		UG/L		8270DM	
Butylbenzylphthalate	NA		UG/L		8270DM	
Chrysene	NA		UG/L		8270DM	
Diethylphthalate	NA		UG/L		8270DM	
Dimethylphthalate	NA		UG/L		8270DM	
Fluoranthene	NA		UG/L		8270DM	
Fluorene	NA		UG/L		8270DM	
Hexachlorocyclopentadiene	NA		UG/L		8270DM	
Hexachloroethane in water	NA		UG/L		8270DM	
Indeno(123cd)pyrene	NA		UG/L		8270DM	
Isophorone	NA		UG/L		8270DM	
Nitrosodipropylamine	NA		UG/L		8270DM	
Nitrosodiphenylamine	NA		UG/L		8270DM	
Nitrobenzene	NA		UG/L		8270DM	
p-Chloro-m-cresol	NA		UG/L		8270DM	
Phenanthrene	NA		UG/L		8270DM	
Pyrene	NA		UG/L		8270DM	
Benzo(ghi)perylene	NA		UG/L		8270DM	
Benzo(a)anthracene	NA		UG/L		8270DM	
1,2,4-Trichlorobenzene	NA		UG/L		8270DM	
Bibenz(a)anthracene	NA		UG/L		8270DM	
1,4-Dichlorobenzene	NA		UG/L		8270DM	
2-Chloronaphthalene	NA		UG/L		8270DM	
2-Chlorophenol	NA		UG/L		8270DM	

Sample Number: 522433
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 8/15/2012
 Time Collected: 1153
 Date Received: 8/16/2012
 Date Completed: 08/22/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 8/22/2012

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OKLAHOMA, 73102-6010
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Report of Analysis by GCMS
 EPA Drinking Water Certification #OK00013

To: File Copy

CC: Ferrella March/LPD

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
2-Nitrophenol	NA		UG/L		8270DM	
Di-n-octylphthalate	NA		UG/L		8270DM	
2,4-Dichlorophenol	NA		UG/L		8270DM	
2,4-Dimethylphenol	NA		UG/L		8270DM	
2,4-Dinitrotoluene	NA		UG/L		8270DM	
2,4-Dinitrophenol	NA		UG/L		8270DM	
2,4,6-Trichlorophenol	NA		UG/L		8270DM	
2,6-Dinitrotoluene	NA		UG/L		8270DM	
3,3'-Dichlorobenzidine	NA		UG/L		8270DM	
4-Bromophenylphenyl ether	NA		UG/L		8270DM	
4-Chlorophenyl phenylether	NA		UG/L		8270DM	
4-Nitrophenol	NA		UG/L		8270DM	
4,6-Dinitro-o-cresol	NA		UG/L		8270DM	
Phenol	NA		UG/L		8270DM	
Naphthalene	NA		UG/L		8270DM	
Pentachlorophenol	NA		UG/L		8270DM	
Bis(2-ethylhexyl)phthalate	NA		UG/L		8270DM	
Di-n-butylphthalate	NA		UG/L		8270DM	
Hexachlorobenzene	NA		UG/L		8270DM	
Hexachlorobutadiene	NA		UG/L		8270DM	
Dibenzofuran	NA		UG/L		8270DM	
2-Methylnaphthalene	NA		UG/L		8270DM	
2-Methylphenol	NA		UG/L		8270DM	
4-Methylphenol	NA		UG/L		8270DM	
2,4,5-Trichlorophenol	NA		UG/L		8270DM	
4-Chloroaniline	NA		UG/L		8270DM	
2-Nitroaniline	NA		UG/L		8270DM	
3-Nitroaniline	NA		UG/L		8270DM	
4-Nitroaniline	NA		UG/L		8270DM	

Sample Number: 522433
Project Code: RR-BLP
Agency Number:
Date Collected: 8/15/2012
Time Collected: 1153
Date Received: 8/16/2012
Date Completed: 08/22/2012
Collected By: SC
PWS Id:
Location Code:
Station:
Facility:
Report Date: 8/22/2012

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EPA Drinking Water Certification #OK00013

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CC: Ferrella March/LPD

COMPOUND	TENTATIVELY IDENTIFIED BY NBS LIBRARY SEARCH	VALUE	UNITS
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NOT ANALYZED

Summary

Labs performing analysis on this Sample:

Metals GCMS

SOURCE: DOUBLE R PRODUCTION

SAMPLERS COMMENTS:

GEL FORMATION;1-2 DELBERT SEAY TANK BATTERY

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE= 3.6

ANALYST'S COMMENTS:

No gel formation.

Analyst: Cassandra Kontas

(NA) Not analyzed

* ANALYST

Cassandra Kontas

Sample Number: 522433
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 8/15/2012
 Time Collected: 1153
 Date Received: 8/16/2012
 Date Completed: 09/13/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 9/13/2012

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To: File Copy

CC: Ferrella March/LPD

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Calcium, Total		6160	MG/L	09/05/12	200.7	
Magnesium, Total		1800	MG/L	09/05/12	200.7	
Sodium, Total		26400	MG/L	09/05/12	200.7	
Potassium, Total		418	MG/L	09/05/12	200.7	
Silica (SiO2), Total		4710	UG/L	09/05/12	200.7	
Arsenic, Total		18.1	UG/L	08/30/12	200.7	
Barium, Total		41400	UG/L	09/05/12	200.7	
Beryllium, Total	<	2.00	UG/L	09/05/12	200.7	
Boron, Total		2770	UG/L	09/05/12	200.7	
Cadmium, Total	<	5.00	UG/L	09/05/12	200.7	
Chromium, Total	<	5.00	UG/L	09/05/12	200.7	
Cobalt, Total		11.7	UG/L	09/05/12	200.7	
Copper, Total		10.3	UG/L	09/05/12	200.7	
Iron, Total		37100	UG/L	09/05/12	200.7	
Lead, Total		19.2	UG/L	09/05/12	200.7	
Manganese, Total		3040	UG/L	09/05/12	200.7	
Thallium, Total		49.5	UG/L	09/05/12	200.7	
Molybdenum, Total		7.74	UG/L	09/05/12	200.7	
Nickel, Total	<	10.0	UG/L	09/05/12	200.7	
Silver, Total		15.7	UG/L	09/05/12	200.7	
Strontium, Total		420000	UG/L	09/12/12	200.7	
Zinc, Total		81.2	UG/L	09/05/12	200.7	
Antimony, Total	<	10.0	UG/L	09/05/12	200.7	
Tin, Total	<	10.0	UG/L	09/05/12	200.7	
Aluminum, Total	<	300	UG/L	09/05/12	200.7	
Selenium, Total		38.5	UG/L	09/05/12	200.7	
Titanium, Total		92.7	UG/L	09/05/12	200.7	
Vanadium, Total		1160	UG/L	09/05/12	200.7	
Mercury, Total	<	0.50	UG/L	08/29/12	200.8	

Summary

Sample Number: 522433
Project Code: RR-BLP
Agency Number:
Date Collected: 8/15/2012
Time Collected: 1153
Date Received: 8/16/2012
Date Completed: 09/13/2012
Collected By: SC
PWS Id:
Location Code:
Station:
Facility:
Report Date: 9/13/2012

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Report of Analysis by Metals
EPA Drinking Water Certification #OK00013

To: File Copy

CC: Ferrella March/LPD

Labs performing analysis on this Sample:

Metals GCMS

SOURCE: DOUBLE R PRODUCTION

SAMPLERS COMMENTS:

GEL FORMATION;1-2 DELBERT SEAY TANK BATTERY

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE= 3.6

ANALYST'S COMMENTS:

*

* ANALYST

Greg Goode

Greg Goode
State Environmental Laboratory

Sample Number: 522434
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 8/15/2012
 Time Collected: 1217
 Date Received: 8/16/2012
 Date Completed: 08/22/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 8/22/2012

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Report of Analysis by GCMS
 EPA Drinking Water Certification #OK00013

To: File Copy

CC: Ferrella March/LPD

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Extractab:						
Acenaphthylene	NA		UG/L		8270DM	
Acenaphthene	NA		UG/L		8270DM	
Anthracene	NA		UG/L		8270DM	
Benzo(b)fluoranthene	NA		UG/L		8270DM	
Benzo(k)fluoranthene	NA		UG/L		8270DM	
Benzo(a)pyrene	NA		UG/L		8270DM	
Bis(2-chloroethyl)ether	NA		UG/L		8270DM	
Bis(2-chloroethoxy)methane	NA		UG/L		8270DM	
Bis(2-chloroisopropyl)ether	NA		UG/L		8270DM	
Butylbenzylphthalate	NA		UG/L		8270DM	
Chrysene	NA		UG/L		8270DM	
Diethylphthalate	NA		UG/L		8270DM	
Dimethylphthalate	NA		UG/L		8270DM	
Fluoranthene	NA		UG/L		8270DM	
Fluorene	NA		UG/L		8270DM	
Hexachlorocyclopentadiene	NA		UG/L		8270DM	
Hexachloroethane in water	NA		UG/L		8270DM	
Indeno(123cd)pyrene	NA		UG/L		8270DM	
Isophorone	NA		UG/L		8270DM	
Nitrosodipropylamine	NA		UG/L		8270DM	
Nitrosodiphenylamine	NA		UG/L		8270DM	
Nitrobenzene	NA		UG/L		8270DM	
p-Chloro-m-cresol	NA		UG/L		8270DM	
Phenanthrene	NA		UG/L		8270DM	
Pyrene	NA		UG/L		8270DM	
Benzo(ghi)perylene	NA		UG/L		8270DM	
Benzo(a)anthracene	NA		UG/L		8270DM	
1,2,4-Trichlorobenzene	NA		UG/L		8270DM	
Dibenzo(ah)anthracene	NA		UG/L		8270DM	
1,4-Dichlorobenzene	NA		UG/L		8270DM	
2-Chloronaphthalene	NA		UG/L		8270DM	
2-Chlorophenol	NA		UG/L		8270DM	

Sample Number: 522434
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 8/15/2012
 Time Collected: 1217
 Date Received: 8/16/2012
 Date Completed: 08/22/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 8/22/2012

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CC: Ferrella March/LPD

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
2-Nitrophenol	NA		UG/L		8270DM	
Di-n-octylphthalate	NA		UG/L		8270DM	
2,4-Dichlorophenol	NA		UG/L		8270DM	
2,4-Dimethylphenol	NA		UG/L		8270DM	
2,4-Dinitrotoluene	NA		UG/L		8270DM	
2,4-Dinitrophenol	NA		UG/L		8270DM	
2,4,6-Trichlorophenol	NA		UG/L		8270DM	
2,6-Dinitrotoluene	NA		UG/L		8270DM	
3,3'-Dichlorobenzidine	NA		UG/L		8270DM	
4-Bromophenylphenyl ether	NA		UG/L		8270DM	
4-Chlorophenyl phenylether	NA		UG/L		8270DM	
4-Nitrophenol	NA		UG/L		8270DM	
4,6-Dinitro-o-cresol	NA		UG/L		8270DM	
Phenol	NA		UG/L		8270DM	
Naphthalene	NA		UG/L		8270DM	
Pentachlorophenol	NA		UG/L		8270DM	
Bis(2-ethylhexyl)phthalate	NA		UG/L		8270DM	
Di-n-butylphthalate	NA		UG/L		8270DM	
Hexachlorobenzene	NA		UG/L		8270DM	
Hexachlorobutadiene	NA		UG/L		8270DM	
Dibenzofuran	NA		UG/L		8270DM	
2-Methylnaphthalene	NA		UG/L		8270DM	
2-Methylphenol	NA		UG/L		8270DM	
4-Methylphenol	NA		UG/L		8270DM	
2,4,5-Trichlorophenol	NA		UG/L		8270DM	
4-Chloroaniline	NA		UG/L		8270DM	
2-Nitroaniline	NA		UG/L		8270DM	
3-Nitroaniline	NA		UG/L		8270DM	
4-Nitroaniline	NA		UG/L		8270DM	

Sample Number: 522434
Project Code: RR-BLP
Agency Number:
Date Collected: 8/15/2012
Time Collected: 1217
Date Received: 8/16/2012
Date Completed: 08/22/2012
Collected By: SC
PWS Id:
Location Code:
Station:
Facility:
Report Date: 8/22/2012

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CC: Ferrella March/LPD

COMPOUND	TENTATIVELY IDENTIFIED BY NBS LIBRARY SEARCH	VALUE	UNITS
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NOT ANALYZED

Summary

Labs performing analysis on this Sample:

Metals GCMS

SOURCE: REAGAN PRODUCTION IN

SAMPLERS COMMENTS:

GEL FORMATION;1-3WILMER D SEAY TANK BATTERY

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE= 3.6

ANALYST'S COMMENTS:

No gel formation.

Analyst: Cassandra Kontas

(NA) Not analyzed

* * ANALYST Cassandra Kontas

Sample Number: 522434
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 8/15/2012
 Time Collected: 1217
 Date Received: 8/16/2012
 Date Completed: 09/13/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 9/18/2012

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Report of Analysis by Metals
 EPA Drinking Water Certification #OK00013

To: File Copy

CC: Ferrella March/LPD

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Calcium, Total		4250	MG/L	09/05/12	200.7	
Magnesium, Total		1030	MG/L	09/05/12	200.7	
Sodium, Total		19100	MG/L	09/05/12	200.7	
Potassium, Total		259	MG/L	09/05/12	200.7	
Silica (SiO2), Total		6100	UG/L	09/05/12	200.7	
Arsenic, Total		53.4	UG/L	08/30/12	200.7	
Barium, Total		11300	UG/L	09/05/12	200.7	
Beryllium, Total	<	2.00	UG/L	09/12/12	200.7	
Boron, Total		2600	UG/L	09/05/12	200.7	
Cadmium, Total	<	5.00	UG/L	09/05/12	200.7	
Chromium, Total	<	5.00	UG/L	09/05/12	200.7	
Cobalt, Total		9.31	UG/L	09/05/12	200.7	
Copper, Total	<	5.00	UG/L	09/05/12	200.7	
Iron, Total		25800	UG/L	09/05/12	200.7	
Lead, Total		20.2	UG/L	09/12/12	200.7	
Manganese, Total		2030	UG/L	09/05/12	200.7	
Thallium, Total		51.8	UG/L	09/12/12	200.7	
Molybdenum, Total		9.18	UG/L	09/05/12	200.7	
Nickel, Total	<	10.0	UG/L	09/05/12	200.7	
Silver, Total		14.7	UG/L	09/05/12	200.7	
Strontium, Total		251000	UG/L	09/12/12	200.7	
Zinc, Total		290	UG/L	09/12/12	200.7	
Antimony, Total	<	10.0	UG/L	09/05/12	200.7	
Tin, Total	<	10.0	UG/L	09/05/12	200.7	
Aluminum, Total	<	300	UG/L	09/05/12	200.7	
Selenium, Total		20.2	UG/L	09/12/12	200.7	
Titanium, Total		69.1	UG/L	09/12/12	200.7	
Vanadium, Total		535	UG/L	09/05/12	200.7	
Mercury, Total	<	0.50	UG/L	08/29/12	200.8	

Summary

Sample Number: 522434
Project Code: RR-BLP
Agency Number:
Date Collected: 8/15/2012
Time Collected: 1217
Date Received: 8/16/2012
Date Completed: 09/13/2012
Collected By: SC
PWS Id:
Location Code:
Station:
Facility:
Report Date: 9/18/2012

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Report of Analysis by Metals
EPA Drinking Water Certification #OK00013

To: File Copy

CC: Ferrella March/LPD

Labs performing analysis on this Sample:

Metals GCMS

SOURCE: REAGAN PRODUCTION IN

SAMPLERS COMMENTS:

GEL FORMATION;1-3WILMER D SEAY TANK BATTERY

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE= 3.6

ANALYST'S COMMENTS:

Greg Goode

* ANALYST

Greg Goode
State Environmental Laboratory

Sample Number: 522435
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 8/15/2012
 Time Collected: 1233
 Date Received: 8/16/2012
 Date Completed: 08/22/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 8/22/2012

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE ENVIRONMENTAL LABORATORY
707 N. ROBINSON
OKLAHOMA CITY
OKLAHOMA, 73102-6010
 General Inquiries: 1-866-412-3057
 or sels.ok.gov
Report of Analysis by GCMS
 EPA Drinking Water Certification #OK00013

To: File Copy

CC: Ferrella March/LPD

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Extractab:						
Acenaphthylene	NA		UG/L		8270DM	
Acenaphthene	NA		UG/L		8270DM	
Anthracene	NA		UG/L		8270DM	
Benzo(b)fluoranthene	NA		UG/L		8270DM	
Benzo(k)fluoranthene	NA		UG/L		8270DM	
Benzo(a)pyrene	NA		UG/L		8270DM	
Bis(2-chloroethyl)ether	NA		UG/L		8270DM	
Bis(2-chloroethoxy)methane	NA		UG/L		8270DM	
Bis(2-chloroisopropyl)ethe	NA		UG/L		8270DM	
Butylbenzylphthalate	NA		UG/L		8270DM	
Chrysene	NA		UG/L		8270DM	
Diethylphthalate	NA		UG/L		8270DM	
Dimethylphthalate	NA		UG/L		8270DM	
Fluoranthene	NA		UG/L		8270DM	
Fluorene	NA		UG/L		8270DM	
Hexachlorocyclopentadiene	NA		UG/L		8270DM	
Hexachloroethane in water	NA		UG/L		8270DM	
Indeno(123cd)pyrene	NA		UG/L		8270DM	
Isophorone	NA		UG/L		8270DM	
Nitrosodipropylamine	NA		UG/L		8270DM	
Nitrosodiphenylamine	NA		UG/L		8270DM	
Nitrobenzene	NA		UG/L		8270DM	
p-Chloro-m-cresol	NA		UG/L		8270DM	
Phenanthrene	NA		UG/L		8270DM	
Pyrene	NA		UG/L		8270DM	
Benzo(ghi)perylene	NA		UG/L		8270DM	
Benzo(a)anthracene	NA		UG/L		8270DM	
1,2,4-Trichlorobenzene	NA		UG/L		8270DM	
Dibenzo(ah)anthracene	NA		UG/L		8270DM	
1,4-Dichlorobenzene	NA		UG/L		8270DM	
2-Chloronaphthalene	NA		UG/L		8270DM	
2-Chlorophenol	NA		UG/L		8270DM	

Sample Number: 522435
 Project Code: RR-BLP
 Agency Number:
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 Date Received: 8/16/2012
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Report of Analysis by GCMS
 EPA Drinking Water Certification #OK00013

To: File Copy

CC: Ferrella March/LPD

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
2-Nitrophenol	NA		UG/L		8270DM	
Di-n-octylphthalate	NA		UG/L		8270DM	
2,4-Dichlorophenol	NA		UG/L		8270DM	
2,4-Dimethylphenol	NA		UG/L		8270DM	
2,4-Dinitrotoluene	NA		UG/L		8270DM	
2,4-Dinitrophenol	NA		UG/L		8270DM	
2,4,6-Trichlorophenol	NA		UG/L		8270DM	
2,6-Dinitrotoluene	NA		UG/L		8270DM	
3,3'-Dichlorobenzidine	NA		UG/L		8270DM	
4-Bromophenylphenyl ether	NA		UG/L		8270DM	
4-Chlorophenyl phenylether	NA		UG/L		8270DM	
4-Nitrophenol	NA		UG/L		8270DM	
4,6-Dinitro-o-cresol	NA		UG/L		8270DM	
Phenol	NA		UG/L		8270DM	
Naphthalene	NA		UG/L		8270DM	
Pentachlorophenol	NA		UG/L		8270DM	
Bis(2-ethylhexyl)phthalate	NA		UG/L		8270DM	
Di-n-butylphthalate	NA		UG/L		8270DM	
Hexachlorobenzene	NA		UG/L		8270DM	
Hexachlorobutadiene	NA		UG/L		8270DM	
Dibenzofuran	NA		UG/L		8270DM	
2-Methylnaphthalene	NA		UG/L		8270DM	
2-Methylphenol	NA		UG/L		8270DM	
4-Methylphenol	NA		UG/L		8270DM	
2,4,5-Trichlorophenol	NA		UG/L		8270DM	
4-Chloroaniline	NA		UG/L		8270DM	
2-Nitroaniline	NA		UG/L		8270DM	
3-Nitroaniline	NA		UG/L		8270DM	
4-Nitroaniline	NA		UG/L		8270DM	

Sample Number: 522435
Project Code: RR-BLP
Agency Number:
Date Collected: 8/15/2012
Time Collected: 1233
Date Received: 8/16/2012
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EPA Drinking Water Certification #OK00013

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CC: Ferrella March/LPD

COMPOUND	TENTATIVELY IDENTIFIED BY		VALUE	UNITS
	NBS LIBRARY SEARCH			

NOT ANALYZED

Summary

Labs performing analysis on this Sample:

Metals GCMS

SOURCE: REAGAN PRODUCTIONS

SAMPLERS COMMENTS:

GEL FORMATION;1-4;WILMER D SEAY TANK BATTERY

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE= 3.6

ANALYST'S COMMENTS:

No gel formation.

Analyst: Cassandra Kontas

(NA) Not analyzed

*

* ANALYST Cassandra Kontas

Sample Number: 522435
Project Code: RR-BLP
Agency Number:
Date Collected: 8/15/2012
Time Collected: 1233
Date Received: 8/16/2012
Date Completed: 09/14/2012
Collected By: SC
PWS Id:
Location Code:
Station:
Facility:
Report Date: 9/14/2012

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CC: Ferrella March/LPD

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Calcium, Total		5020	MG/L	09/05/12	200.7	
Magnesium, Total		1250	MG/L	09/05/12	200.7	
Sodium, Total		22600	MG/L	09/05/12	200.7	
Potassium, Total		360	MG/L	09/05/12	200.7	
Silica (SiO ₂), Total		5670	UG/L	09/05/12	200.7	
Arsenic, Total		23.1	UG/L	09/12/12	200.7	
Barium, Total		9780	UG/L	09/05/12	200.7	
Beryllium, Total	<	2.00	UG/L	09/12/12	200.7	
Boron, Total		3410	UG/L	09/05/12	200.7	
Cadmium, Total	<	5.00	UG/L	09/05/12	200.7	
Chromium, Total	<	5.00	UG/L	09/05/12	200.7	
Cobalt, Total		9.99	UG/L	09/05/12	200.7	
Copper, Total		29.2	UG/L	09/05/12	200.7	
Iron, Total		32200	UG/L	09/05/12	200.7	
Lead, Total		47.5	UG/L	09/12/12	200.7	
Manganese, Total		2350	UG/L	09/05/12	200.7	
Thallium, Total		20.7	UG/L	09/05/12	200.7	
Molybdenum, Total		6.91	UG/L	09/05/12	200.7	
Nickel, Total	<	10.0	UG/L	09/05/12	200.7	
Silver, Total		17.4	UG/L	09/05/12	200.7	
Strontium, Total		300000	UG/L	09/12/12	200.7	
Zinc, Total		28.0	UG/L	09/05/12	200.7	
Antimony, Total	<	10.0	UG/L	09/05/12	200.7	
Tin, Total	<	10.0	UG/L	09/05/12	200.7	
Aluminum, Total	<	300	UG/L	09/05/12	200.7	
Selenium, Total		15.4	UG/L	09/05/12	200.7	
Titanium, Total		77.4	UG/L	09/12/12	200.7	
Vanadium, Total		727	UG/L	09/05/12	200.7	
Mercury, Total	<	0.50	UG/L	08/29/12	200.8	

Summary

Sample Number: 522435
Project Code: RR-BLP
Agency Number:
Date Collected: 8/15/2012
Time Collected: 1233
Date Received: 8/16/2012
Date Completed: 09/14/2012
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Report Date: 9/14/2012

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or sels.ok.gov

Report of Analysis by Metals
EPA Drinking Water Certification #OK00013

To: File Copy

CC: Ferrella March/LPD

Labs performing analysis on this Sample:

Metals GCMS

SOURCE: REAGAN PRODUCTIONS

SAMPLERS COMMENTS:

GEL FORMATION;1-4;WILMER D SEAY TANK BATTERY

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE= 3.6

ANALYST'S COMMENTS:

* * ANALYST _____

Sample Number: 522436
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 8/15/2012
 Time Collected: 1305
 Date Received: 8/16/2012
 Date Completed: 08/22/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 8/22/2012

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To: File Copy

CC: Ferrella March/LPD

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Extractab:						
Acenaphthylene	NA		UG/L		8270DM	
Acenaphthene	NA		UG/L		8270DM	
Anthracene	NA		UG/L		8270DM	
Benzo(b)fluoranthene	NA		UG/L		8270DM	
Benzo(k)fluoranthene	NA		UG/L		8270DM	
Benzo(a)pyrene	NA		UG/L		8270DM	
Bis(2-chloroethyl)ether	NA		UG/L		8270DM	
Bis(2-chloroethoxy)methane	NA		UG/L		8270DM	
Bis(2-chloroisopropyl)ethel	NA		UG/L		8270DM	
Butylbenzylphthalate	NA		UG/L		8270DM	
Chrysene	NA		UG/L		8270DM	
Diethylphthalate	NA		UG/L		8270DM	
Dimethylphthalate	NA		UG/L		8270DM	
Fluoranthene	NA		UG/L		8270DM	
Fluorene	NA		UG/L		8270DM	
Hexachlorocyclopentadiene	NA		UG/L		8270DM	
Hexachloroethane in water	NA		UG/L		8270DM	
Indeno(123cd)pyrene	NA		UG/L		8270DM	
Isophorone	NA		UG/L		8270DM	
Nitrosodipropylamine	NA		UG/L		8270DM	
Nitrosodiphenylamine	NA		UG/L		8270DM	
Nitrobenzene	NA		UG/L		8270DM	
p-Chloro-m-cresol	NA		UG/L		8270DM	
Phenanthrene	NA		UG/L		8270DM	
Pyrene	NA		UG/L		8270DM	
Benzo(ghi)perylene	NA		UG/L		8270DM	
Benzo(a)anthracene	NA		UG/L		8270DM	
1,2,4-Trichlorobenzene	NA		UG/L		8270DM	
Dibenzo(ah)anthracene	NA		UG/L		8270DM	
1,4-Dichlorobenzene	NA		UG/L		8270DM	
2-Chloronaphthalene	NA		UG/L		8270DM	
2-Chlorophenol	NA		UG/L		8270DM	

Sample Number: 522436
Project Code: RR-BLP
Agency Number:
Date Collected: 8/15/2012
Time Collected: 1305
Date Received: 8/16/2012
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Collected By: SC
PWS Id:
Location Code:
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Report Date: 8/22/2012

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CC: Ferrella March/LPD

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
2-Nitrophenol	NA		UG/L		8270DM	
Di-n-octylphthalate	NA		UG/L		8270DM	
2,4-Dichlorophenol	NA		UG/L		8270DM	
2,4-Dimethylphenol	NA		UG/L		8270DM	
2,4-Dinitrotoluene	NA		UG/L		8270DM	
2,4-Dinitrophenol	NA		UG/L		8270DM	
2,4,6-Trichlorophenol	NA		UG/L		8270DM	
2,6-Dinitrotoluene	NA		UG/L		8270DM	
3,3'-Dichlorobenzidine	NA		UG/L		8270DM	
4-Bromophenylphenyl ether	NA		UG/L		8270DM	
4-Chlorophenyl phenylether	NA		UG/L		8270DM	
4-Nitrophenol	NA		UG/L		8270DM	
4,6-Dinitro-o-cresol	NA		UG/L		8270DM	
Phenol	NA		UG/L		8270DM	
Naphthalene	NA		UG/L		8270DM	
Pentachlorophenol	NA		UG/L		8270DM	
Bis(2-ethylhexyl)phthalate	NA		UG/L		8270DM	
Di-n-butylphthalate	NA		UG/L		8270DM	
Hexachlorobenzene	NA		UG/L		8270DM	
Hexachlorobutadiene	NA		UG/L		8270DM	
Dibenzofuran	NA		UG/L		8270DM	
2-Methylnaphthalene	NA		UG/L		8270DM	
2-Methylphenol	NA		UG/L		8270DM	
4-Methylphenol	NA		UG/L		8270DM	
2,4,5-Trichlorophenol	NA		UG/L		8270DM	
4-Chloroaniline	NA		UG/L		8270DM	
2-Nitroaniline	NA		UG/L		8270DM	
3-Nitroaniline	NA		UG/L		8270DM	
4-Nitroaniline	NA		UG/L		8270DM	

Sample Number: 522436
Project Code: RR-BLP
Agency Number:
Date Collected: 8/15/2012
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CC: Ferrella March/LPD

COMPOUND	TENTATIVELY IDENTIFIED BY NBS LIBRARY SEARCH	VALUE	UNITS
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NOT ANALYZED

Summary

Labs performing analysis on this Sample:

Metals GCMS

SOURCE: REAGAN PRODUCTION

SAMPLERS COMMENTS:

GEL FORMATION;1-5;W D SEAY LEASE TANK BATTERY

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE= 3.6

ANALYST'S COMMENTS:

No gel formation.

Analyst: Cassandra Kontas

(NA) Not analyzed

* ANALYST Cassandra Kontas

Sample Number: 522436
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 8/15/2012
 Time Collected: 1305
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 EPA Drinking Water Certification #OK00013

To: File Copy

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Calcium, Total		3590	MG/L	09/05/12	200.7	
Magnesium, Total		825	MG/L	09/05/12	200.7	
Sodium, Total		17300	MG/L	09/05/12	200.7	
Potassium, Total		203	MG/L	09/05/12	200.7	
Silica (SiO2), Total		6590	UG/L	09/05/12	200.7	
Arsenic, Total		15.8	UG/L	09/05/12	200.7	
Barium, Total		12600	UG/L	09/05/12	200.7	
Beryllium, Total	<	2.00	UG/L	09/12/12	200.7	
Boron, Total		2400	UG/L	09/05/12	200.7	
Cadmium, Total	<	5.00	UG/L	09/05/12	200.7	
Chromium, Total	<	5.00	UG/L	09/05/12	200.7	
Cobalt, Total		8.54	UG/L	09/05/12	200.7	
Copper, Total		27.6	UG/L	09/05/12	200.7	
Iron, Total		24800	UG/L	09/05/12	200.7	
Lead, Total		36.3	UG/L	09/12/12	200.7	
Manganese, Total		1740	UG/L	09/05/12	200.7	
Thallium, Total		22.0	UG/L	09/05/12	200.7	
Molybdenum, Total		8.74	UG/L	09/12/12	200.7	
Nickel, Total	<	10.0	UG/L	09/05/12	200.7	
Silver, Total		9.99	UG/L	09/05/12	200.7	
Strontium, Total		202000	UG/L	09/12/12	200.7	
Zinc, Total		289	UG/L	09/12/12	200.7	
Antimony, Total	<	10.0	UG/L	09/05/12	200.7	
Tin, Total	<	10.0	UG/L	09/05/12	200.7	
Aluminum, Total	<	300	UG/L	09/05/12	200.7	
Selenium, Total		16.2	UG/L	09/05/12	200.7	
Titanium, Total		57.3	UG/L	09/12/12	200.7	
Vanadium, Total		412	UG/L	09/05/12	200.7	
Mercury, Total	<	0.50	UG/L	08/29/12	200.8	

Summary

Sample Number: 522436
Project Code: RR-BLP
Agency Number:
Date Collected: 8/15/2012
Time Collected: 1305
Date Received: 8/16/2012
Date Completed: 09/13/2012
Collected By: SC
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Location Code:
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Facility:
Report Date: 9/13/2012

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Report of Analysis by Metals
EPA Drinking Water Certification #OK00013

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CC: Ferrella March/LPD

Labs performing analysis on this Sample:

Metals GCMS

SOURCE: REAGAN PRODUCTION

SAMPLERS COMMENTS:

GEL FORMATION;1-5;W D SEAY LEASE TANK BATTERY

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE= 3.6

ANALYST'S COMMENTS:

Greg Goode

* ANALYST

Greg Goode
State Environmental Laboratory

Sample Number: 522437
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 8/15/2012
 Time Collected: 1320
 Date Received: 8/16/2012
 Date Completed: 08/22/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 8/22/2012
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CC: Ferrella March/LPD

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Extractab.						
Acenaphthylene	NA					
Acenaphthene	NA					
Anthracene	NA		UG/L		8270DM	
Benzo(b)fluoranthene	NA		UG/L		8270DM	
Benzo(k)fluoranthene	NA		UG/L		8270DM	
Benzo(a)pyrene	NA		UG/L		8270DM	
Bis(2-chloroethyl) ether	NA		UG/L		8270DM	
Bis(2-chloroethoxy) methane	NA		UG/L		8270DM	
Bis(2-chloroisopropyl) ether	NA		UG/L		8270DM	
Butylbenzylphthalate	NA		UG/L		8270DM	
Chrysene	NA		UG/L		8270DM	
Diethylphthalate	NA		UG/L		8270DM	
Dimethylphthalate	NA		UG/L		8270DM	
Fluoranthene	NA		UG/L		8270DM	
Fluorene	NA		UG/L		8270DM	
Hexachlorocyclopentadiene	NA		UG/L		8270DM	
Hexachloroethane	NA		UG/L		8270DM	
Indeno(123cd)pyrene	NA		UG/L		8270DM	
Isophorone	NA		UG/L		8270DM	
Isotrisodipropyl	NA		UG/L		8270DM	
Isotrisodiphenyl	NA		UG/L		8270DM	
Isotrobenzene	NA		UG/L		8270DM	
Chloro-m-cresol	NA		UG/L		8270DM	
Benanthrene	NA		UG/L		8270DM	
Benene	NA		UG/L		8270DM	
Benzo(ghi)perylene	NA		UG/L		8270DM	
Benzo(a)anthracene	NA		UG/L		8270DM	
1,4-Trichlorobenzene	NA		UG/L		8270DM	
Benzo(ah)anthracene	NA		UG/L		8270DM	
1,2-Dichlorobenzene	NA		UG/L		8270DM	
Chloronaphthalene	NA		UG/L		8270DM	
Chlorophenol	NA		UG/L		8270DM	
	NA		UG/L		8270DM	

Sample Number: 522437
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 8/15/2012
 Time Collected: 1320
 Date Received: 8/16/2012
 Date Completed: 08/22/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 8/22/2012

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE ENVIRONMENTAL LABORATORY
707 N. ROBINSON
OKLAHOMA CITY
OKLAHOMA, 73102-6010
 General Inquiries: 1-866-412-3057
 or sels.ok.gov
Report of Analysis by GCMS
 EPA Drinking Water Certification #OK00013

To: File Copy

CC: Ferrella March/LPD

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
2-Nitrophenol	NA		UG/L		8270DM	
Di-n-octylphthalate	NA		UG/L		8270DM	
2,4-Dichlorophenol	NA		UG/L		8270DM	
2,4-Dimethylphenol	NA		UG/L		8270DM	
2,4-Dinitrotoluene	NA		UG/L		8270DM	
2,4-Dinitrophenol	NA		UG/L		8270DM	
2,4,6-Trichlorophenol	NA		UG/L		8270DM	
2,6-Dinitrotoluene	NA		UG/L		8270DM	
3,3'-Dichlorobenzidine	NA		UG/L		8270DM	
4-Bromophenylphenyl ether	NA		UG/L		8270DM	
4-Chlorophenyl phenylether	NA		UG/L		8270DM	
4-Nitrophenol	NA		UG/L		8270DM	
4,6-Dinitro-o-cresol	NA		UG/L		8270DM	
Phenol	NA		UG/L		8270DM	
Naphthalene	NA		UG/L		8270DM	
Pentachlorophenol	NA		UG/L		8270DM	
Bis(2-ethylhexyl)phthalate	NA		UG/L		8270DM	
Di-n-butylphthalate	NA		UG/L		8270DM	
Hexachlorobenzene	NA		UG/L		8270DM	
Hexachlorobutadiene	NA		UG/L		8270DM	
Dibenzofuran	NA		UG/L		8270DM	
2-Methylnaphthalene	NA		UG/L		8270DM	
2-Methylphenol	NA		UG/L		8270DM	
4-Methylphenol	NA		UG/L		8270DM	
2,4,5-Trichlorophenol	NA		UG/L		8270DM	
4-Chloroaniline	NA		UG/L		8270DM	
2-Nitroaniline	NA		UG/L		8270DM	
3-Nitroaniline	NA		UG/L		8270DM	
4-Nitroaniline	NA		UG/L		8270DM	

Sample Number: 522437
Project Code: RR-BLP
Agency Number:
Date Collected: 8/15/2012
Time Collected: 1320
Date Received: 8/16/2012
Date Completed: 08/22/2012
Collected By: SC
PWS Id:
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CC: Ferrella March/LPD

COMPOUND	TENTATIVELY IDENTIFIED BY NBS LIBRARY SEARCH	VALUE	UNITS
----------	---	-------	-------

NOT ANALYZED

Summary

Labs performing analysis on this Sample:

Metals GCMS

SOURCE: COLONIAL ENERGY

SAMPLERS COMMENTS:

GEL FORMATION;1-6; S ANPELAR LEASE TANK BATTERY

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE= 3.6

ANALYST'S COMMENTS:

No gel formation.

Analyst: Cassandra Kontas

(NA) Not analyzed

*

* ANALYST

Cassandra Kontas

Sample Number: 522437
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 8/15/2012
 Time Collected: 1320
 Date Received: 8/16/2012
 Date Completed: 09/13/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 9/13/2012

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To: File Copy

CC: Ferrella March/LPD

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Calcium, Total		5630	MG/L	09/05/12	200.7	
Magnesium, Total		1530	MG/L	09/05/12	200.7	
Sodium, Total		24400	MG/L	09/05/12	200.7	
Potassium, Total		443	MG/L	09/05/12	200.7	
Silica (SiO2), Total		5550	UG/L	09/05/12	200.7	
Arsenic, Total		34.8	UG/L	09/12/12	200.7	
Barium, Total		35900	UG/L	09/05/12	200.7	
Beryllium, Total	<	2.00	UG/L	09/12/12	200.7	
Boron, Total		4030	UG/L	09/05/12	200.7	
Cadmium, Total	<	5.00	UG/L	09/05/12	200.7	
Chromium, Total	<	5.00	UG/L	09/05/12	200.7	
Cobalt, Total		11.5	UG/L	09/05/12	200.7	
Copper, Total		46.5	UG/L	09/05/12	200.7	
Iron, Total		18800	UG/L	09/05/12	200.7	
Lead, Total		14.7	UG/L	09/12/12	200.7	
Manganese, Total		2230	UG/L	09/05/12	200.7	
Thallium, Total		44.0	UG/L	09/05/12	200.7	
Molybdenum, Total		5.50	UG/L	09/05/12	200.7	
Nickel, Total	<	10.0	UG/L	09/05/12	200.7	
Silver, Total		14.3	UG/L	09/05/12	200.7	
Strontium, Total		360000	UG/L	09/12/12	200.7	
Zinc, Total		312	UG/L	09/12/12	200.7	
Antimony, Total	<	10.0	UG/L	09/05/12	200.7	
Tin, Total	<	10.0	UG/L	09/05/12	200.7	
Aluminum, Total	<	300	UG/L	09/05/12	200.7	
Selenium, Total		34.3	UG/L	09/05/12	200.7	
Titanium, Total		83.5	UG/L	09/12/12	200.7	
Vanadium, Total		982	UG/L	09/05/12	200.7	
Mercury, Total	<	0.50	UG/L	08/29/12	200.8	

Summary

Sample Number: 522437
Project Code: RR-BLP
Agency Number:
Date Collected: 8/15/2012
Time Collected: 1320
Date Received: 8/16/2012
Date Completed: 09/13/2012
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PWS Id:
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OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
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Report of Analysis by Metals
EPA Drinking Water Certification #OK00013

To: File Copy

CC: Ferrella March/LPD

Labs performing analysis on this Sample:

Metals GCMS

SOURCE: COLONIAL ENERGY

SAMPLERS COMMENTS:

GEL FORMATION;1-6; S ANPELAR LEASE TANK BATTERY

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE= 3.6

ANALYST`S COMMENTS:

*

* ANALYST

Greg Goode

Greg Goode
State Environmental Laboratory

Sample Number: 522438
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 8/15/2012
 Time Collected: 1350
 Date Received: 8/16/2012
 Date Completed: 08/22/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 8/22/2012

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Report of Analysis by GCMS
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To: File Copy

CC: Ferrella March/LPD

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Extractab:		1.00				
Acenaphthylene	<	10	UG/L	08/21/12	8270D	
Acenaphthene	<	10	UG/L	08/21/12	8270D	
Anthracene	<	10	UG/L	08/21/12	8270D	
Benzo(b)fluoranthene	<	10	UG/L	08/21/12	8270D	
Benzo(k)fluoranthene	<	10	UG/L	08/21/12	8270D	
Benzo(a)pyrene	<	10	UG/L	08/21/12	8270D	
Bis(2-chloroethyl)ether	<	10	UG/L	08/21/12	8270D	
Bis(2-chloroethoxy)methane	<	10	UG/L	08/21/12	8270D	
Bis(2-chloroisopropyl)ether	<	10	UG/L	08/21/12	8270D	
Butylbenzylphthalate	<	10	UG/L	08/21/12	8270D	
Chrysene	<	10	UG/L	08/21/12	8270D	
Diethylphthalate	<	10	UG/L	08/21/12	8270D	
Dimethylphthalate	<	10	UG/L	08/21/12	8270D	
Fluoranthene	<	10	UG/L	08/21/12	8270D	
Fluorene	<	10	UG/L	08/21/12	8270D	
Hexachlorocyclopentadiene	UJ <	10	UG/L	08/21/12	8270D	
Hexachloroethane in water	<	10	UG/L	08/21/12	8270D	
Indeno(123cd)pyrene	<	10	UG/L	08/21/12	8270D	
Isophorone	<	10	UG/L	08/21/12	8270D	
Nitrosodipropylamine	<	10	UG/L	08/21/12	8270D	
Nitrosodiphenylamine	<	10	UG/L	08/21/12	8270D	
Nitrobenzene	<	10	UG/L	08/21/12	8270D	
p-Chloro-m-cresol	<	10	UG/L	08/21/12	8270D	
Phenanthrene	<	10	UG/L	08/21/12	8270D	
Pyrene	<	10	UG/L	08/21/12	8270D	
Benzo(ghi)perylene	<	10	UG/L	08/21/12	8270D	
Benzo(a)anthracene	<	10	UG/L	08/21/12	8270D	
1,2,4-Trichlorobenzene	<	10	UG/L	08/21/12	8270D	
Dibenzo(ah)anthracene	<	10	UG/L	08/21/12	8270D	
1,4-Dichlorobenzene	<	10	UG/L	08/21/12	8270D	
2-Chloronaphthalene	<	10	UG/L	08/21/12	8270D	
2-Chlorophenol	<	10	UG/L	08/21/12	8270D	

Sample Number: 522438
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 8/15/2012
 Time Collected: 1350
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EPA Drinking Water Certification #OK00013

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
2-Nitrophenol	<	10	UG/L	08/21/12	8270D	
Di-n-octylphthalate	<	10	UG/L	08/21/12	8270D	
2,4-Dichlorophenol	<	10	UG/L	08/21/12	8270D	
2,4-Dimethylphenol	<	10	UG/L	08/21/12	8270D	
2,4-Dinitrotoluene	<	10	UG/L	08/21/12	8270D	
2,4-Dinitrophenol	UJ <	25	UG/L	08/21/12	8270D	
2,4,6-Trichlorophenol	<	10	UG/L	08/21/12	8270D	
2,6-Dinitrotoluene	<	10	UG/L	08/21/12	8270D	
3,3'-Dichlorobenzidine	<	10	UG/L	08/21/12	8270D	
4-Bromophenylphenyl ether	<	10	UG/L	08/21/12	8270D	
4-Chlorophenyl phenylether	<	10	UG/L	08/21/12	8270D	
4-Nitrophenol	<	25	UG/L	08/21/12	8270D	
4,6-Dinitro-o-cresol	<	25	UG/L	08/21/12	8270D	
Phenol	<	10	UG/L	08/21/12	8270D	
Naphthalene	<	10	UG/L	08/21/12	8270D	
Pentachlorophenol	UJ <	25	UG/L	08/21/12	8270D	
Bis(2-ethylhexyl)phthalate	<	10	UG/L	08/21/12	8270D	
Di-n-butylphthalate	<	10	UG/L	08/21/12	8270D	
Hexachlorobenzene	<	10	UG/L	08/21/12	8270D	
Hexachlorobutadiene	<	10	UG/L	08/21/12	8270D	
Dibenzofuran	<	10	UG/L	08/21/12	8270D	
2-Methylnaphthalene	<	10	UG/L	08/21/12	8270D	
2-Methylphenol	<	10	UG/L	08/21/12	8270D	
4-Methylphenol	<	10	UG/L	08/21/12	8270D	
2,4,5-Trichlorophenol	<	10	UG/L	08/21/12	8270D	
4-Chloroaniline	<	10	UG/L	08/21/12	8270D	
2-Nitroaniline	<	25	UG/L	08/21/12	8270D	
3-Nitroaniline	<	25	UG/L	08/21/12	8270D	
4-Nitroaniline	<	25	UG/L	08/21/12	8270D	

SURROGATE RECOVERIES

COMPOUND	RECOVERY %
2,4,6-TRIBROMOPHENOL	107
2-FLUOROBIPHENYL	80

Sample Number: 522438
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 8/15/2012
 Time Collected: 1350
 Date Received: 8/16/2012
 Date Completed: 08/22/2012
 Collected By: SC
 PWS Id:
 Location Code:
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 Report Date: 8/22/2012

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Report of Analysis by GCMS
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COMPOUND	SURROGATE RECOVERIES	RECOVERY %
P-TERPHENYL-D14		92
2-FLUOROPHENOL		38
NITROBENZENE-D5		96
PHENOL-D5		35

COMPOUND	TENTATIVELY IDENTIFIED BY NBS LIBRARY SEARCH	VALUE	UNITS
(2H)-Naphthalenone, 3,4-dihydro		18	µg/L
Octaethylene glycol		24	µg/L
Heptadecane		37	µg/L
Tetracosane		16	µg/L
Ethanol, 2-[2-(2-butoxyethoxy)]e		530	µg/L
Pentadecane		41	µg/L
3,6,9,12,15-Pentaoxanonadecan-1		110	µg/L
3,6,9,12-Tetrahexadecan-1-ol		220	µg/L
Hexadecae, 2,6,10,14-tetramethy		16	µg/L
Nonadecane		27	µg/L
unknown alcohol-substituted alk		110	µg/L
unknown alcohol-substituted alk		19	µg/L
Ethanol, 2-butoxy-		190	µg/L
Heneicosane		21	µg/L
Hexadecane		75	µg/L
Tetradecane		34	µg/L
Docosane		31	µg/L
Eicosane		25	µg/L
Pentadecane, 2,6,10-trimethyl-		19	µg/L
Pentaethylene glycol monododecy		130	µg/L

Summary

Labs performing analysis on this Sample:

Metals GCMS

Sample Number: 522438
Project Code: RR-BLP
Agency Number:
Date Collected: 8/15/2012
Time Collected: 1350
Date Received: 8/16/2012
Date Completed: 08/22/2012
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Report of Analysis by GCMS
EPA Drinking Water Certification #OK00013

To: File Copy

CC: Ferrella March/LPD

SOURCE: POLK FACILITY (RE)

SAMPLERS COMMENTS:
1-7; SE CORNER

SAMPLE RECEIVING COMMENTS:
ICE; SAMPLE= 3.6

ANALYST'S COMMENTS:

No gel formation.

Analyst: Cassandra Kontas

At minimum, quality control samples associated with this analysis include a negative control and a positive control.

(NJ) The analysis indicates the presence of one or more compounds that have been 'tentatively identified,' and the associated numerical values represent their approximate concentrations.

(UJ) The material was analyzed for but was not detected at or above the reporting limit for this analysis; the associated value is an estimate and may be inaccurate or imprecise.

Some compound names were truncated in the "Tentatively Identified by NBS Library Search" report table; their complete names are:

(2H)-Naphthalenone, 3,4-dihydro-5-methyl-

Ethanol, 2-[2-(2-butoxyethoxy)ethoxy]-

Hexadecae, 2,6,10,14-tetramethyl-

Pentaethylene glycol monododecyl ether

unknown alcohol-substituted alkane #1

unknown alcohol-substituted alkane #2

* ANALYST

Cassandra Kontas

Sample Number: 522438
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 8/15/2012
 Time Collected: 1350
 Date Received: 8/16/2012
 Date Completed: 09/13/2012
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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Calcium, Total		3000	MG/L	09/05/12	200.7	
Magnesium, Total		94.7	MG/L	09/05/12	200.7	
Sodium, Total		3230	MG/L	09/05/12	200.7	
Potassium, Total		128	MG/L	09/05/12	200.7	
Silica (SiO2), Total		43200	UG/L	09/05/12	200.7	
Arsenic, Total		34.1	UG/L	09/05/12	200.7	
Barium, Total		5610	UG/L	09/05/12	200.7	
Beryllium, Total	<	2.00	UG/L	09/12/12	200.7	
Boron, Total		763	UG/L	09/05/12	200.7	
Cadmium, Total	<	5.00	UG/L	09/05/12	200.7	
Chromium, Total		11.8	UG/L	09/05/12	200.7	
Cobalt, Total		21.6	UG/L	09/05/12	200.7	
Copper, Total		51.5	UG/L	09/05/12	200.7	
Iron, Total		14400	UG/L	09/05/12	200.7	
Lead, Total		40.5	UG/L	09/12/12	200.7	
Manganese, Total		6050	UG/L	09/05/12	200.7	
Thallium, Total		50.2	UG/L	09/12/12	200.7	
Molybdenum, Total		77.1	UG/L	09/05/12	200.7	
Nickel, Total		29.1	UG/L	09/05/12	200.7	
Silver, Total	<	5.00	UG/L	09/05/12	200.7	
Strontium, Total		109000	UG/L	09/12/12	200.7	
Zinc, Total		52.9	UG/L	09/05/12	200.7	
Antimony, Total	<	10.0	UG/L	09/05/12	200.7	
Tin, Total	<	10.0	UG/L	09/05/12	200.7	
Aluminum, Total		9360	UG/L	09/05/12	200.7	
Selenium, Total		22.1	UG/L	09/05/12	200.7	
Titanium, Total		96.8	UG/L	09/05/12	200.7	
Vanadium, Total		59.7	UG/L	09/05/12	200.7	
Mercury, Total	<	0.50	UG/L	08/29/12	200.8	

Summary

Sample Number: 522438
Project Code: RR-BLP
Agency Number:
Date Collected: 8/15/2012
Time Collected: 1350
Date Received: 8/16/2012
Date Completed: 09/13/2012
Collected By: SC
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Report of Analysis by Metals
EPA Drinking Water Certification #OK00013

To: File Copy

CC: Ferrella March/LPD

Labs performing analysis on this Sample:

Metals GCMS

SOURCE: POLK FACILITY (RE)

SAMPLERS COMMENTS:

1-7; SE CORNER

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE= 3.6

ANALYST'S COMMENTS:

*

* ANALYST

Greg Goode

Greg Goode
State Environmental Laboratory

Sample Number: 522439
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 8/15/2012
 Time Collected: 1410
 Date Received: 8/16/2012
 Date Completed: 08/22/2012
 Collected By: SC
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 8/22/2012

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Report of Analysis by GCMS
 EPA Drinking Water Certification #OK00013

To: File Copy

CC: Ferrella March/LPD

Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Dilution Factor, Extractab:		1.00				
Acenaphthylene	<	10	UG/L	08/21/12	8270D	
Acenaphthene	<	10	UG/L	08/21/12	8270D	
Anthracene	<	10	UG/L	08/21/12	8270D	
Benzo(b)fluoranthene	<	10	UG/L	08/21/12	8270D	
Benzo(k)fluoranthene	<	10	UG/L	08/21/12	8270D	
Benzo(a)pyrene	<	10	UG/L	08/21/12	8270D	
Bis(2-chloroethyl)ether	<	10	UG/L	08/21/12	8270D	
Bis(2-chloroethoxy)methane	<	10	UG/L	08/21/12	8270D	
Bis(2-chloroisopropyl)ether	<	10	UG/L	08/21/12	8270D	
Butylbenzylphthalate	<	10	UG/L	08/21/12	8270D	
Chrysene	<	10	UG/L	08/21/12	8270D	
Diethylphthalate	<	10	UG/L	08/21/12	8270D	
Dimethylphthalate	<	10	UG/L	08/21/12	8270D	
Fluoranthene	<	10	UG/L	08/21/12	8270D	
Fluorene	<	10	UG/L	08/21/12	8270D	
Hexachlorocyclopentadiene	UJ <	10	UG/L	08/21/12	8270D	
Hexachloroethane in water	<	10	UG/L	08/21/12	8270D	
Indeno(123cd)pyrene	<	10	UG/L	08/21/12	8270D	
Isophorone	<	10	UG/L	08/21/12	8270D	
Nitrosodipropylamine	<	10	UG/L	08/21/12	8270D	
Nitrosodiphenylamine	<	10	UG/L	08/21/12	8270D	
Nitrobenzene	<	10	UG/L	08/21/12	8270D	
p-Chloro-m-cresol	<	10	UG/L	08/21/12	8270D	
Phenanthrene	<	10	UG/L	08/21/12	8270D	
Pyrene	<	10	UG/L	08/21/12	8270D	
Benzo(ghi)perylene	<	10	UG/L	08/21/12	8270D	
Benzo(a)anthracene	<	10	UG/L	08/21/12	8270D	
1,2,4-Trichlorobenzene	<	10	UG/L	08/21/12	8270D	
Dibenzo(ah)anthracene	<	10	UG/L	08/21/12	8270D	
1,4-Dichlorobenzene	<	10	UG/L	08/21/12	8270D	
2-Chloronaphthalene	<	10	UG/L	08/21/12	8270D	
2-Chlorophenol	<	10	UG/L	08/21/12	8270D	

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Report of Analysis by GCMS
 EPA Drinking Water Certification #OK00013

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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
2-Nitrophenol	<	10	UG/L	08/21/12	8270D	
Di-n-octylphthalate	<	10	UG/L	08/21/12	8270D	
2,4-Dichlorophenol	<	10	UG/L	08/21/12	8270D	
2,4-Dimethylphenol	<	10	UG/L	08/21/12	8270D	
2,4-Dinitrotoluene	<	10	UG/L	08/21/12	8270D	
2,4-Dinitrophenol	UJ <	25	UG/L	08/21/12	8270D	
2,4,6-Trichlorophenol	<	10	UG/L	08/21/12	8270D	
2,6-Dinitrotoluene	<	10	UG/L	08/21/12	8270D	
3,3'-Dichlorobenzidine	<	10	UG/L	08/21/12	8270D	
4-Bromophenylphenyl ether	<	10	UG/L	08/21/12	8270D	
4-Chlorophenyl phenylether	<	10	UG/L	08/21/12	8270D	
4-Nitrophenol	<	25	UG/L	08/21/12	8270D	
4,6-Dinitro-o-cresol	<	25	UG/L	08/21/12	8270D	
Phenol	<	10	UG/L	08/21/12	8270D	
Naphthalene	<	10	UG/L	08/21/12	8270D	
Pentachlorophenol	UJ <	25	UG/L	08/21/12	8270D	
Bis(2-ethylhexyl)phthalate	<	10	UG/L	08/21/12	8270D	
Di-n-butylphthalate	<	10	UG/L	08/21/12	8270D	
Hexachlorobenzene	<	10	UG/L	08/21/12	8270D	
Hexachlorobutadiene	<	10	UG/L	08/21/12	8270D	
Dibenzofuran	<	10	UG/L	08/21/12	8270D	
2-Methylnaphthalene		17	UG/L	08/21/12	8270D	
2-Methylphenol	<	10	UG/L	08/21/12	8270D	
4-Methylphenol	<	10	UG/L	08/21/12	8270D	
2,4,5-Trichlorophenol	<	10	UG/L	08/21/12	8270D	
4-Chloroaniline	<	10	UG/L	08/21/12	8270D	
2-Nitroaniline	<	25	UG/L	08/21/12	8270D	
3-Nitroaniline	<	25	UG/L	08/21/12	8270D	
4-Nitroaniline	<	25	UG/L	08/21/12	8270D	

COMPOUND	SURROGATE RECOVERIES	RECOVERY %
NITROBENZENE-D5		58
PHENOL-D5		48

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COMPOUND	SURROGATE RECOVERIES	RECOVERY %
2-FLUOROPHENOL		57
2-FLUOROBIPHENYL		37
P-TERPHENYL-D14		39
2,4,6-TRIBROMOPHENOL		50

COMPOUND	TENTATIVELY IDENTIFIED BY NBS LIBRARY SEARCH	VALUE	UNITS
Ethanol, 2-butoxy-		290	µg/L
Hexadecane		330	µg/L
Pentadecane, 4-methyl-		105	µg/L
Dodecane, 2,6,10-trimethyl-		200	µg/L
unknown alcohol-substituted alk		90	µg/L
Undecane		150	µg/L
Decane		110	µg/L
Hexanoic acid		110	µg/L
Naphthalene, 1,2,3,4-tetrahydro		64	µg/L
Naphthalene, 1,2,3,4-tetrahydro		90	µg/L
Pentadecane, 2-methyl-		110	µg/L
Heptadecanoic acid, 16-methyl-,		74	µg/L
Naphthalene, 1,2,3,4-tetrahydro		78	µg/L
Pentadecane, 7-methyl-		96	µg/L
unknown compound		130	µg/L
Pentadecane, 3-methyl-		90	µg/L
Tetradecane		410	µg/L
Tetradecane, 2-methyl-		95	µg/L
3,6,9,12-Tetrahexadecan-1-ol		92	µg/L
Pentaethylene glycol monododecyl		190	µg/L

Summary

Labs performing analysis on this Sample:

Metals GCMS

Sample Number: 522439
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CC: Ferrella March/LPD

SOURCE: POLK FACILITY (RE)

SAMPLERS COMMENTS:

1-8; EAST FRAC TANKS

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE= 3.6

ANALYST'S COMMENTS:

No gel formation.

Analyst: Cassandra Kontas

At minimum, quality control samples associated with this analysis include a negative control and a positive control.

(NJ) The analysis indicates the presence of one or more compounds that have been 'tentatively identified,' and the associated numerical values represent their approximate concentrations.

(UJ) The material was analyzed for but was not detected at or above the reporting limit for this analysis; the associated value is an estimate and may be inaccurate or imprecise.

Some compound names were truncated in the "Tentatively Identified by NBS Library Search" report table; their complete names are:

Heptadecanoic acid, 16-methyl-, methyl ester

Naphthalene, 1,2,3,4-tetrahydro-1,4,6-trimethyl-

Naphthalene, 1,2,3,4-tetrahydro-2,5,8-trimethyl-

Naphthalene, 1,2,3,4-tetrahydro-5,7-dimethyl-

Pentaethylene glycol monododecyl ether

unknown alcohol-substituted alkane

* ANALYST

Cassandra Kontas

Sample Number: 522439
 Project Code: RR-BLP
 Agency Number:
 Date Collected: 8/15/2012
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 Date Completed: 09/14/2012
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Name	Qualifier	Value	Units	Analyzed	Method	Prep Type
Calcium, Total		7640	MG/L	09/12/12	200.7	
Magnesium, Total		94.0	MG/L	09/12/12	200.7	
Sodium, Total		5270	MG/L	09/12/12	200.7	
Potassium, Total		280	MG/L	09/12/12	200.7	
Silica (SiO2), Total		233000	UG/L	09/12/12	200.7	
Arsenic, Total		152	UG/L	09/12/12	200.7	
Barium, Total		1020	UG/L	09/12/12	200.7	
Beryllium, Total		10.9	UG/L	09/12/12	200.7	
Boron, Total		1180	UG/L	09/12/12	200.7	
Cadmium, Total		6.26	UG/L	09/12/12	200.7	
Chromium, Total		531	UG/L	09/12/12	200.7	
Cobalt, Total		93.3	UG/L	09/12/12	200.7	
Copper, Total		863	UG/L	09/12/12	200.7	
Iron, Total		241000	UG/L	09/12/12	200.7	
Lead, Total		491	UG/L	09/12/12	200.7	
Manganese, Total		4000	UG/L	09/12/12	200.7	
Thallium, Total	<	10.0	UG/L	09/12/12	200.7	
Molybdenum, Total		153	UG/L	09/12/12	200.7	
Nickel, Total		451	UG/L	09/12/12	200.7	
Silver, Total	<	5.00	UG/L	09/12/12	200.7	
Strontium, Total		157000	UG/L	09/12/12	200.7	
Zinc, Total		1120	UG/L	09/12/12	200.7	
Antimony, Total	<	10.0	UG/L	09/12/12	200.7	
Tin, Total	<	10.0	UG/L	09/12/12	200.7	
Aluminum, Total		190000	UG/L	09/12/12	200.7	
Selenium, Total		85.1	UG/L	09/12/12	200.7	
Titanium, Total		754	UG/L	09/12/12	200.7	
Vanadium, Total		578	UG/L	09/12/12	200.7	
Mercury, Total		3.70	UG/L	09/12/12	200.8	

Summary

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Metals GCMS

SOURCE: POLK FACILITY (RE)

SAMPLERS COMMENTS:

1-8; EAST FRAC TANKS

SAMPLE RECEIVING COMMENTS:

ICE; SAMPLE= 3.6

ANALYST'S COMMENTS:

*

* ANALYST

Greg Goode

Greg Goode
State Environmental Laboratory